STAREX-BSS IS2000

BSM User's Manual

(STAREX-IS User's Manual)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.
These limits are designated to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION :
Do not attempt to modify this product in any way without written authorization from LG Electronics Inc.
Unauthorized modification could void the user's authority to operate this product.
The responsible party for this device compliance is :

Company Name : LGInfoComm U.S.A. Inc.
Address : 10225 Willow Creek RD San Diego, CA, 92131, U.S.A.
Telephone No. : 858-635-5332

Contents

Figures

Tables

1.Introduction to BSM

1.1. Overview

BSM refers to the maintenance system. Through BSM, the operation and maintenance is controlled and information needed for maintenance and the maintenance data are managed and kept. The information needed for the maintenance refers to the following: loading, state, faults, statistics, diagnosis, and configuration information. The above information can be controlled by the maintenance operator. The BSM S/W functions are as follows:

- Configuration Management of System
- Fault Management of System
- Performance Management of System
- Security Management of System
- Account Management of System

1.1.1. Configuration Management of System

Configuration management of the system can be divided into the following: (1) system initialization which installs the configuration target to the target system (system loading process), (2) figuring out system components, (3) system component status monitoring), (4) understanding of the relations among the components, and (5) addition and deletion of the components to be managed.

1.1.2. Fault Management of System

Fault management target includes the subsystem, board, and Memory. When problems occur in these, it should be reported to the operator promptly and accurately, so that he/she can operate the system stably. The fault management and handling function is divided into the following: (1) fault detection, (2) fault diagnosis, and (3) fault handling.

- Fault detection: the function to monitor the faults on a regular basis and write the error report.
- Fault diagnosis: the function to run a diagnosis on causes for the corresponding faults. It regenerates the causes for errors, analyzes the errors, and receives report on the causes for errors from the corresponding error factors. Therefore, in general, the system test function corresponds to the diagnostic function.
- Fault handling: Faults can be handled by other parts of the BSM system such as configuration management.

NE (Network Element) and intangible resources, which are mounted to the system, can be managed as the status information such as Sector, FA, etc. In addition, BSM informs to the operator the status information on the status management target accurately and can inquire the status of the status management target in real time. Furthermore, through the function to check memory, it can manage the appropriateness of the memory and its use state online.

In case of the call resource state management, if problems occur in the corresponding resources, BSM assists to provide the high-quality services by isolating them after tests. It notifies the operator of the reasons for the errors so he/she can isolate them and take proper measures to correct them.

When faults occur or when clearing faults, the corresponding information is reported to the operator immediately through the use of the operator terminal, GUI, audible device, Alarm panel, etc. The resources with faults are automatically excluded from services to prevent the system quality degradation using the corresponding resources when processing calls. Depending on the degree that faults affect the system, they are classified into minor, major, and critical and then the operator is notified.

1) Critical ALM: It has the fatal influence on the system function. Therefore, regardless of the time it occurs, it requires the urgency in action.
2) Major ALM: It affects the system profoundly. It indicates abnormal operation of the main circuits, or fault occurrence. This fault should be notified to the operator so that he/she can perform a test on the functions or restore them.

3) Minor ALM: It does not influence services or subscribers or call processing to much degree. It does not require urgency in action.

In order to minimize the influences of the faults, BSM reports the classified faults in details, and if necessary, the operator can isolate the corresponding fault blocks and restore them. In addition, when faults occur, it helps to isolate faults and recover them by figuring out the state accurately through the diagnosis function.

The diagnosis is divided into the following: 1) the Online diagnosis that is automatically run without the operator's request and the On-demand diagnosis that is run by the operator's command. The test function exists in the system separate from the diagnosis function and the diagnosis function uses the performance result of the test function. Online diagnosis can be changed using the operator's MMC and Online diagnosis starting point and end point can also be changed.

1.1.3. Performance Management of System

Performance and management functions of the system are classified into the following: (1) the performance measurement function, (2) the performance evaluation measurement adjusting function, and (3) the performance evaluation function (performance evaluation and performance evaluation report using the designated performance evaluation criteria). The criteria that can be used for the performance evaluation are in general as follows:

- Throughput: it measures communication circuit and network node throughput. In general, PDU (protocol data unit) measures the success rate of the sending/transmission.
- Workload: It takes various actions to prevent overload. By setting the standard for the workload, it prevents the overload.
- Others: it measures propagation delay, wait time, and response time, and quality of service.

Hourly statistics files that are generated every hour are stored in the BSM and using the hourly statistics files, the statistics files are generated by the date, week, period, and month. In addition, the corresponding raw data can be processed using other tools.

1.1.4. Security Management of System

Security management function is divided into the following: (1) notarization and (2) access control. The former secures the sources or origin of the received information, the time they are generated, and the accurateness of the information. The latter controls the access of the unauthorized users and provides the functions according to access permission. Each command has the performance level or grade so the operator can perform the command suitable for the level or grade. It allows the access to the corresponding modules by the operator. When accessing defined modules, it prohibits the input command to be performed. That is, it restricts the user rights by classifying them into the following: the operator's rights that are related to exchanging, the operator's rights that are related to the BTS, and the operator's rights that are related to the RF Device control.

1.1.5. Account Management of System

In line with the security management, the account management defines each user and provides the additional functions such as the user log, etc. Super User can register the new user or delete the existing user. Up to 64 new users can be registered and if necessary, the number of users can be increased.

1.2. Interoperability and Operation

BSM S/W functions interwork with OAM (Operation and Maintenance) S/W functions that are mounted to BSP and CCP. For the network management, it configures the ATM network separately. BSM manages BSC and BS through ATM S/W and provides NMC Agent function. Through the interface with EMS, the BSM supports Q3 interface with the CMIS/CMIP protocol and the object-oriented information model. For EMS network management for BS and BSC, it uses the Manager-Agent model. BSM TMN Agent plays Agent roles, and by interoperating with EMS that plays the Manager roles, it transmits

the BS, BSC, BSM configuration, faults, and performance data based on TMN. The GUI and WUI functions are provided for the operator to control the system easily.

1.2.1. Configuration Management of System

Upon initializing the system, updating the System, and upgrading the System, BSM displays the corresponding information to the operator's question by performing the following: by downloading the execution module and system data that are mounted to the each processor in BTS and BSC, receiving the loading history and information from each processor, and then backing them up.

It displays the changed BTS and BSC parameter information and configuration data on the PCS mobile communication network of the CDMA method on the screen. By managing the H/W insertion information and system parameter information, it plays the essential role in recovering the faults when faults occur. In addition, the state change report along with the fault occurrence detects problems in an early stage and solves them. It also changes the configuration of the subsystem in operation and parameter information.

1.2.2. Fault Management of System

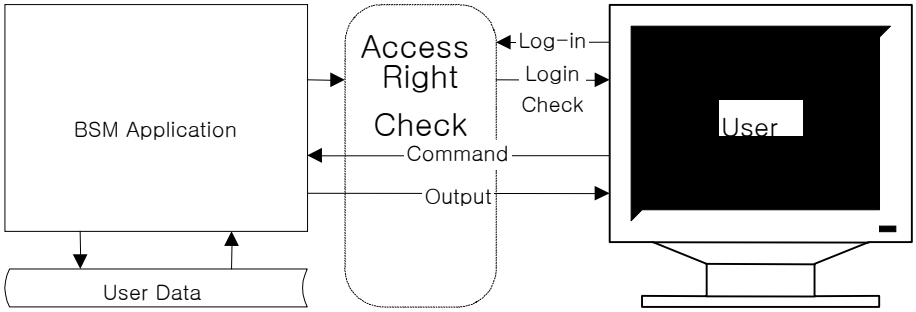
BSM collects, manages, and analyzes the faults that can occur in BTS and BSC of the CDMA method in real time and reports them to the operator audibly and visibly. It can display the current fault state at the operator's request and test and control the subsystem with faults. In addition, it operates in Active/Standby mode and each BSM is connected to ATM S/W. Active BSM provides classical BSM functions and Standby BSM checks the Active BSM status on a regular basis and then makes the data consistent. When Standby BSM detects faults in Active BSM, it executes the Active BSM function.

1.2.3. Performance Management of System

BSM collects and stores the data that are needed to evaluate behavior and trend that occur in BTS and BSC and to determine the extension or reduction of the system by interworking with BTS and BSC. Regarding the performance data collection, it is divided into the following: to collect data in a cycle (5min./1hr./1day/1 month) and to collect the data at the operator's request. At the operator's request, it displays the statistical data that are stored or controls the statistical functions that are currently executed. The collected data are as follows: call-related data, NE use rate, frequency of fault occurrence, etc.

1.2.4. Security Management of System

It authorizes the manager that operates and manages BSM, develops log for messages that are generated in the system and the command by the user and processes the information.



- All the BSM commands have the execution authority level.
- Operator ID should have passwords, and when logging in, the passwords should be input.
- The user with the upper level can have all the authorities that the user with the lower level has.
- Only the user with the upper most level can change the command class.
- When performing the work through the network, if there are too many users that perform the work at the same time, all the on-line messages that come to the system should be notified to the system and the message that comes through the command should be displayed on the corresponding window.

- All the On-line or On-demand commands and messages should be stored.
- Among the stored messages, only the messages that are desired can be displayed by the data, time, BTS and BSC section and object number combination.

1.2.5. Account Management of System

By allowing the user register, deletion, and information change by the manager that operates and manages BSM, it provides the authority by the level or the user that contains the system operation and maintenance layer to operate the stable system and maintain the system.

- User ID can be added.
- User ID can be deleted.
- Deletion and addition of the User ID can be made by the upper level user.
- User ID information can be changed.
- User ID has the following information: ID, Password, and class.
- The user with the higher authority can read the user with the equal or lower level user ID.

1.3. BSM Configuration

1.3.1. S/W System Boundary

1.3.1.1. S/W System Environment

As a unit that provides the function to operate and maintain BTS and BSC, BSM interfaces with the CAN(Central ATM Network) and can manage up to 12 BSC and 576 BTC. When the system requirements change later, the accommodated BTS and BSC

counts can be changed. At the carrier's request, it interworks with NMS to interwork with TMN.

1.3.1.2. External Interface of the S/W System

BSM inserts the ATM Card into Workstation and has interface using CAN (Central ATM Network) and Optic Cable/5 UTP Cable. It provides the following interface: CMIP Interface to interface with the NMS and TCP/UDP/IP Interface to interface with BSC and BS.

1.3.2. S/W Architecture

1.3.2.1. BSM S/W Configuration

As shown in Fig. 1-2 below, BSM S/W is configured with the following: 1) BUIS (BSS User Interface Subsystem), 2) BEMS (BSS Element Management Subsystem), 3) BAMS (BSS Agent Management Subsystem), and 4) BSIS (BSS System Interface Subsystem).

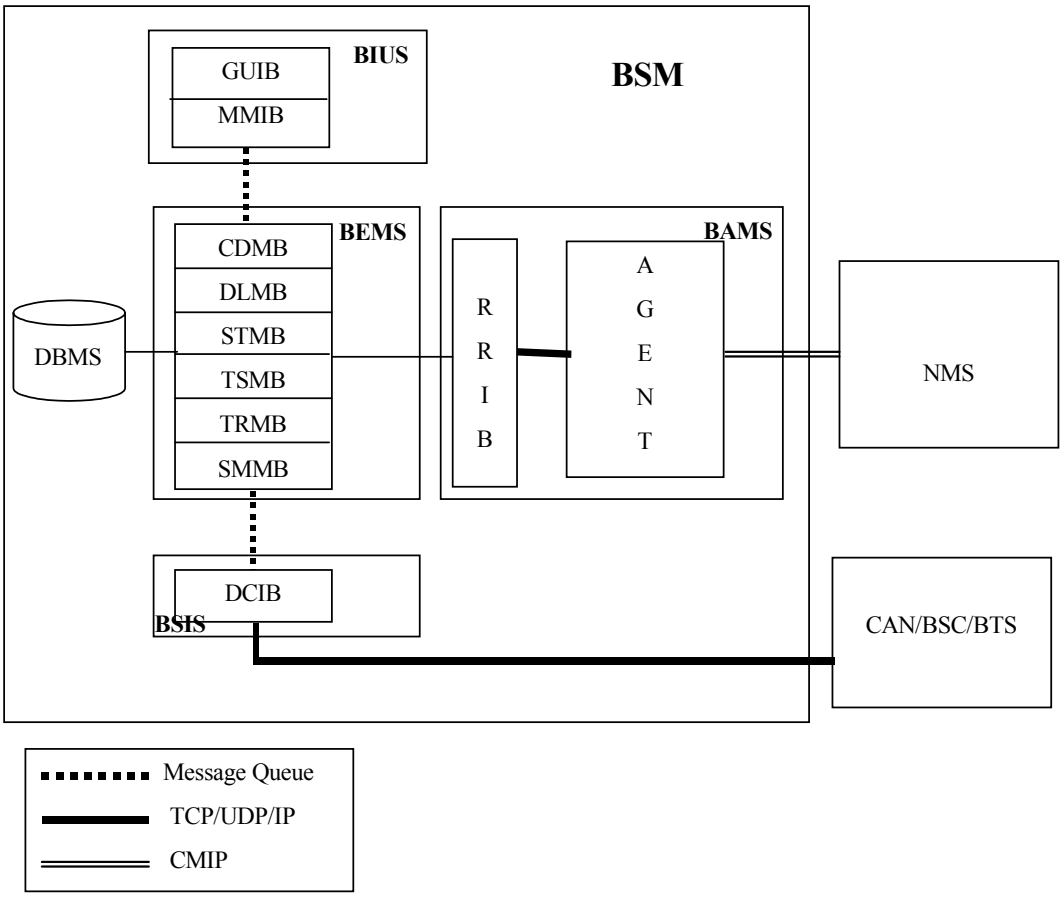


Fig. 1.3-1 BSM S/W Configuration

2.BSM Environment Setting

2.1. OS Installation

2.1.1. Solaris 2.7 Installation Procedures

1. Insert Solaris cdrom into Drive, input ID and Password in the Workstation and then press stop+ a in a login status.

Changed to a prompt state.

Input the followings:

boot cdrom

2. Check to see if OS is rebooted by the CDROM

Once booting is complete, the following will be displayed on the initial screen:

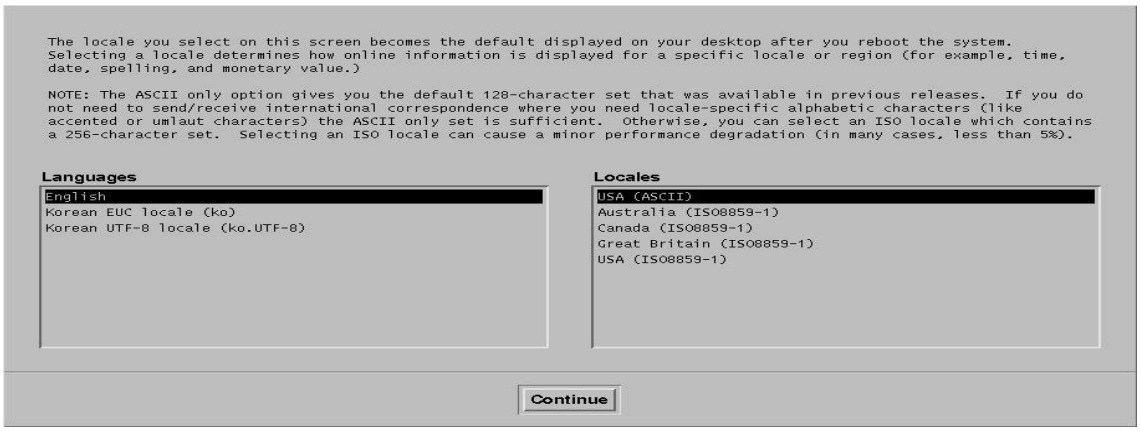


Fig. 2.1-1 OS Language Selection Screen

3. Select Korean EUC local (ko) from Language and Local items. Then, click Continue!

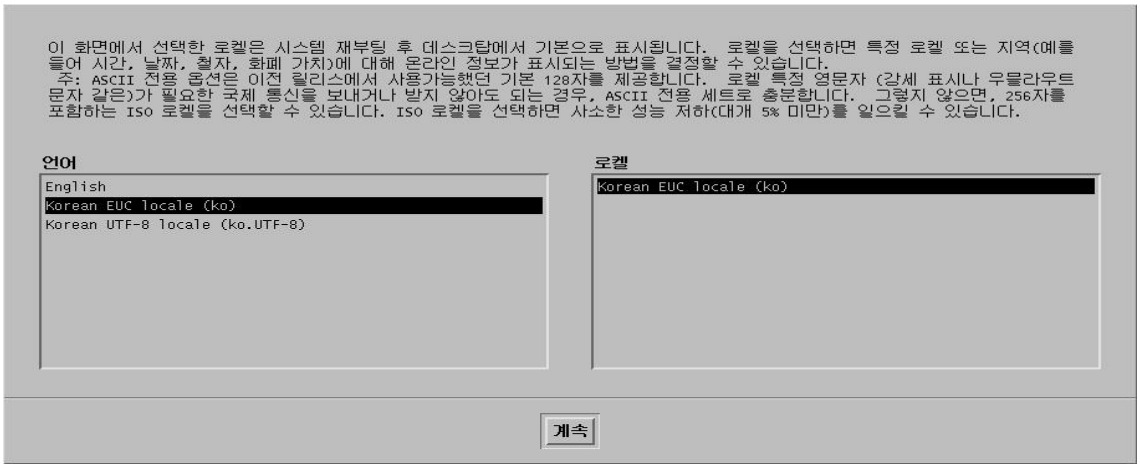
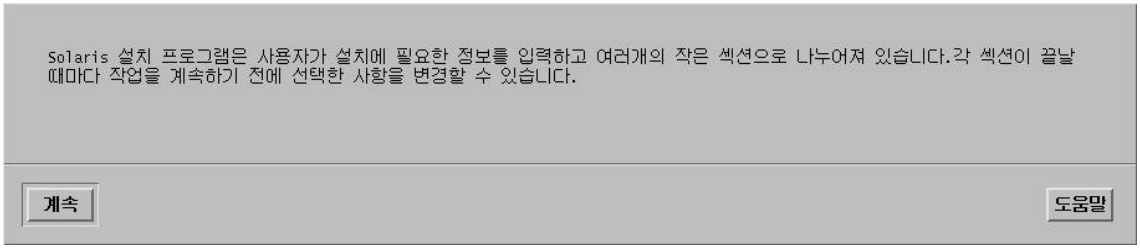


Fig. 2.1-2 OS Installation Language and Selection Screen 2

4. Click **Continue**!



5. The following is the initial screen related to the network setting. Click **Continue**!

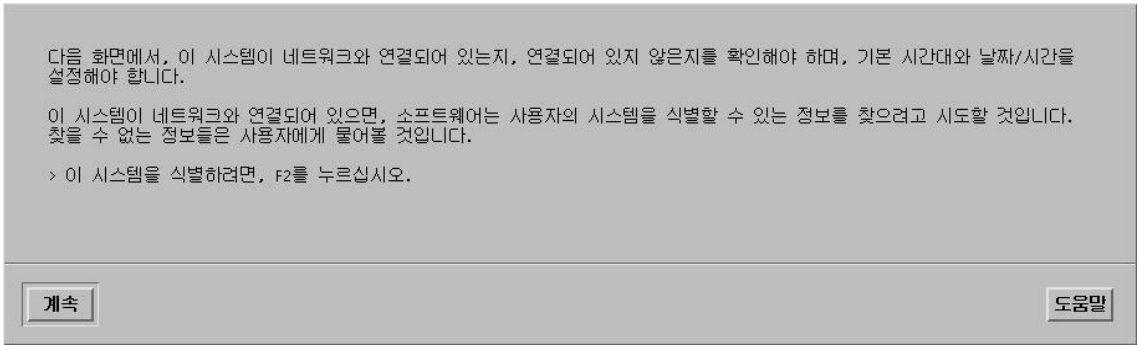


Fig. 2.1-3 OS Installation Time Setting

6. The screen that requires the host name is displayed.

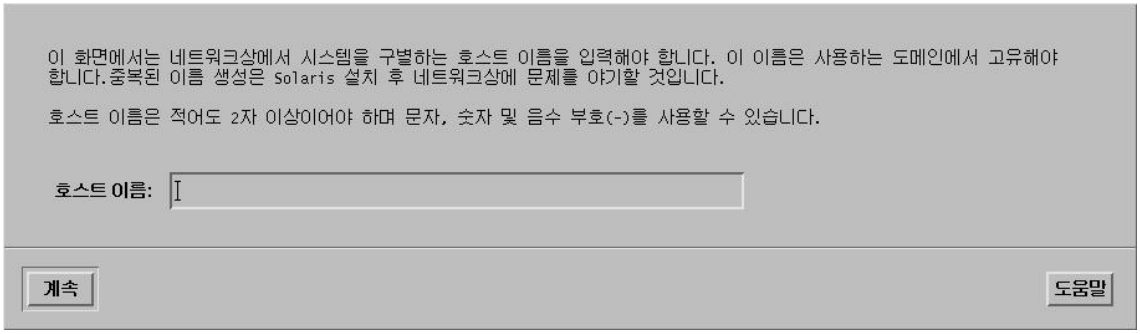


Fig. 2.1-4 Host Name Input Screen

7. Input the appropriate Host name as show below. Ex) feel.

Then, click Continue!

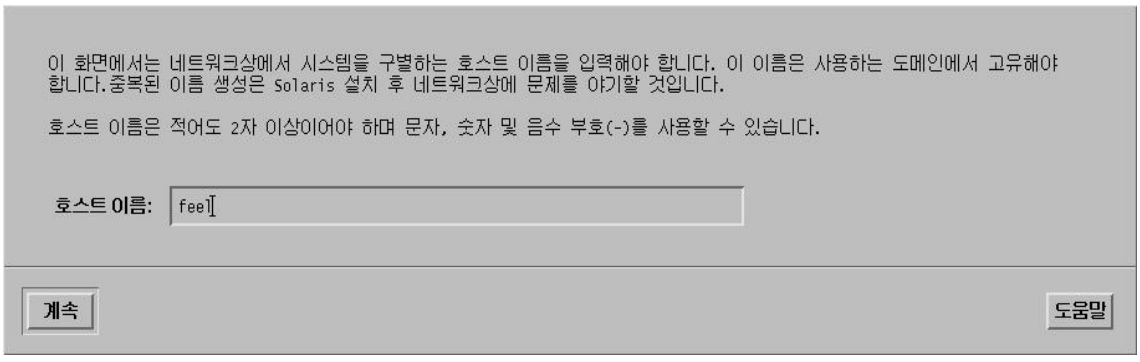


Fig. 2.1-5 Host Name Input 2

8. Ask whether to set up the network. If the network is possible, select Yes. Click Continue!

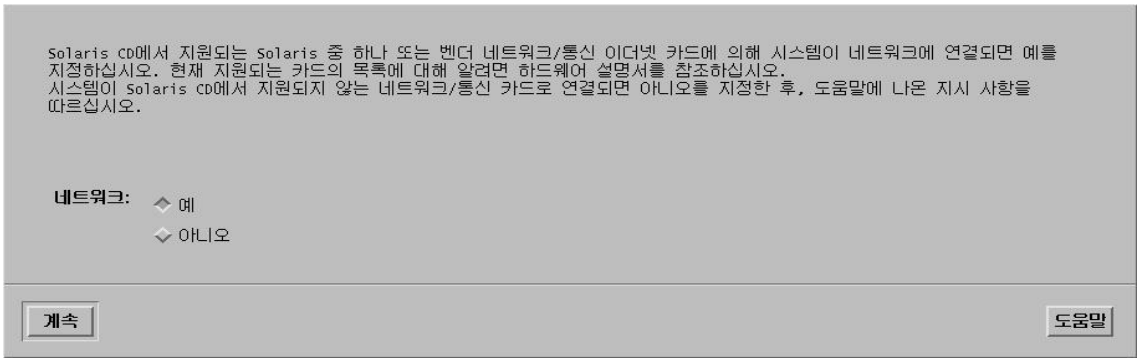


Fig. 2.1-6 Network Setting Screen

9. The screen asking for IP Address is displayed.

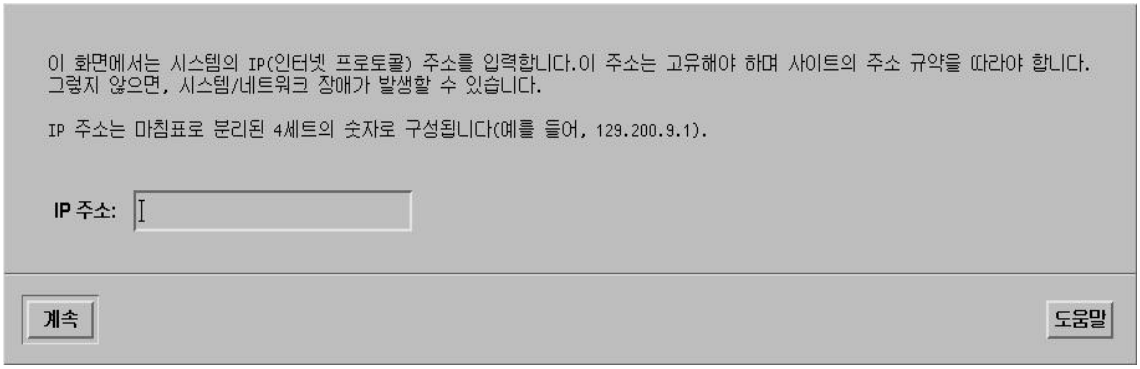


Fig. 2.1-7 IP Address Input Screen

10. Type IP address that is allocated to Workstation as shown below.

    Ex) 150.150.62.102 → Unique IP is given to each system.

    Then, click Continue!

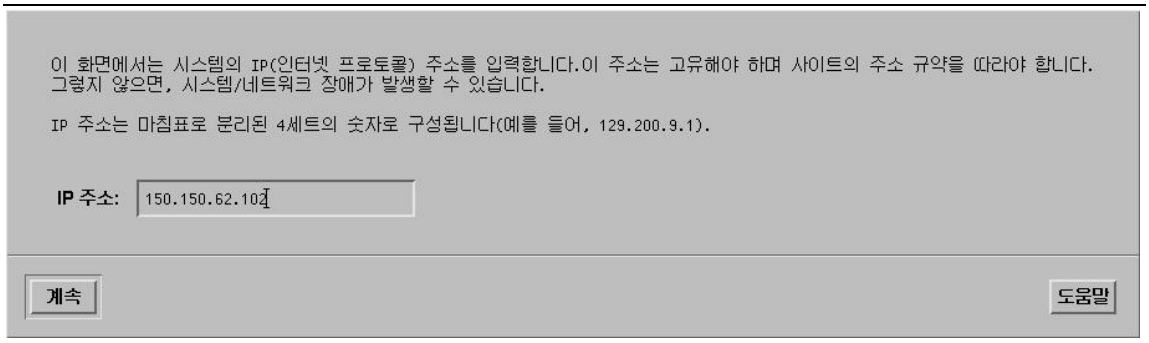


Fig. 2.1-8 IP Address Input Screen 2

11. The setting information is summarized on the screen as follows. Click Continue!

.

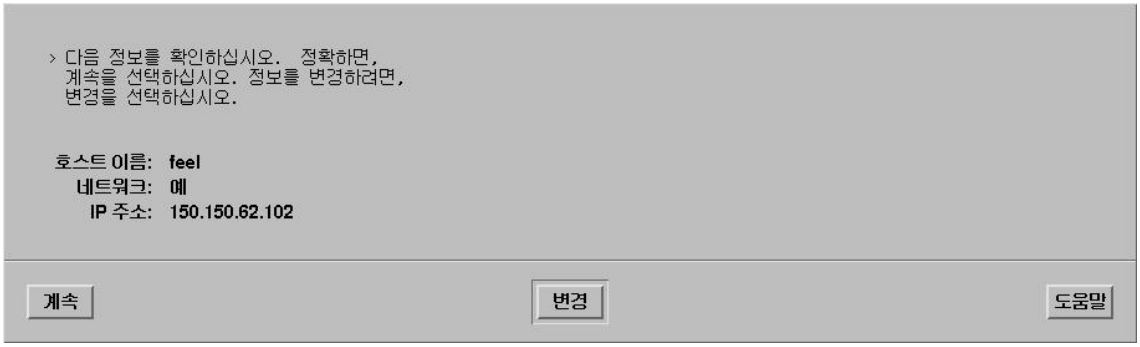


Fig. 2.1-9 Network Basic Setting Summary Screen

12. DNS(name service) select-menu is displayed

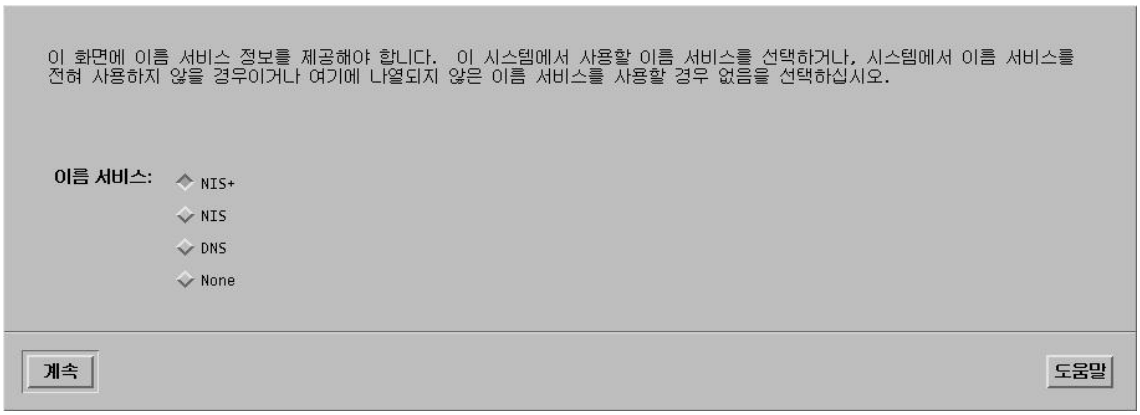


Fig. 2.1-10 DNS Setting Screen

13. Select None among 4 select items. (To be set) Click Continue!

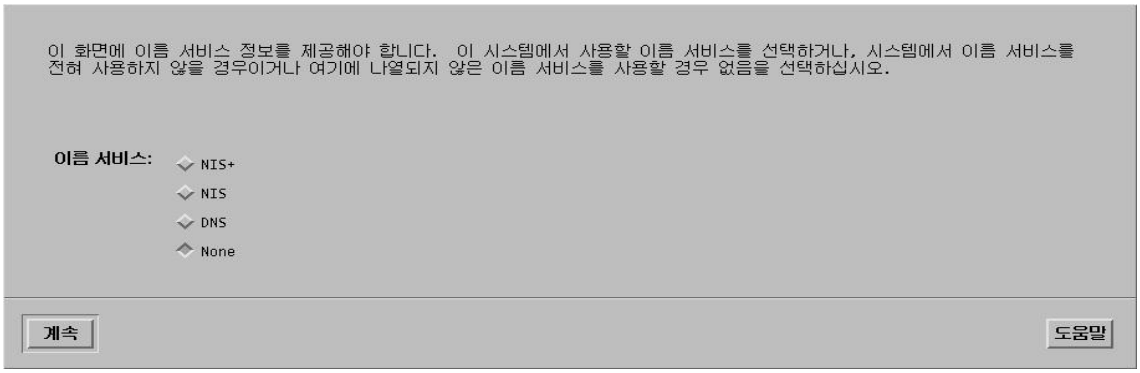


Fig. 2.1-11 DNS Setting Screen 2

14. OK menu is displayed. Click Continue!

Fig. 2.1-12 DNS Setting Summary Screen

15. Subnet setting screen is displayed. Select Yes. Then, click Continue!

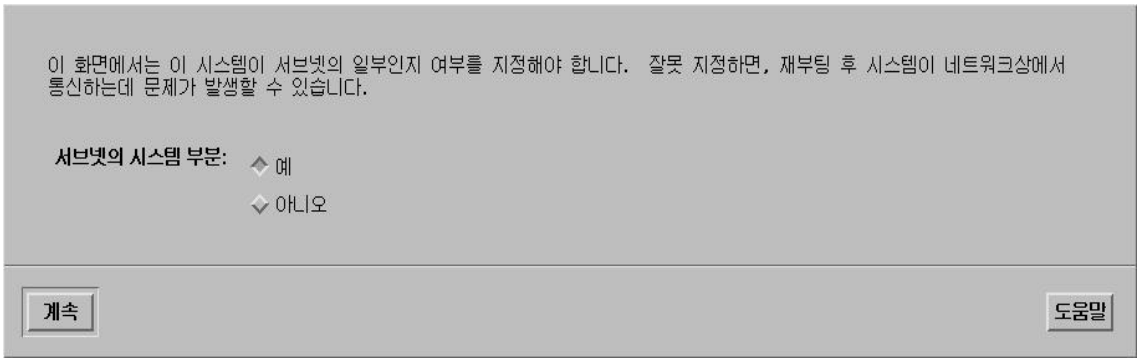


Fig. 2.1-13 Subnet Setting Screen

16. The subnet mask IP inputting part is shown.

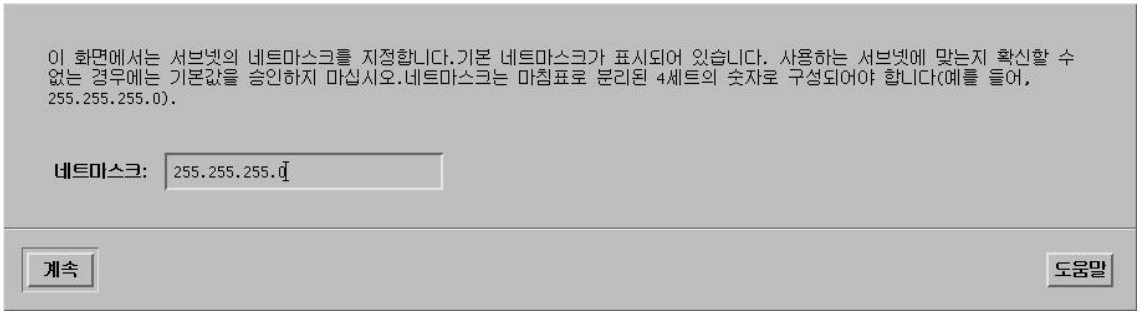


Fig. 2.1-14 Subnet Setting Screen 2

17. Type the subnet mask as shown below.

    Ex) 255.255.255.128 (before inputting them, check if the subnet mask is used)

    Then, click Continue!

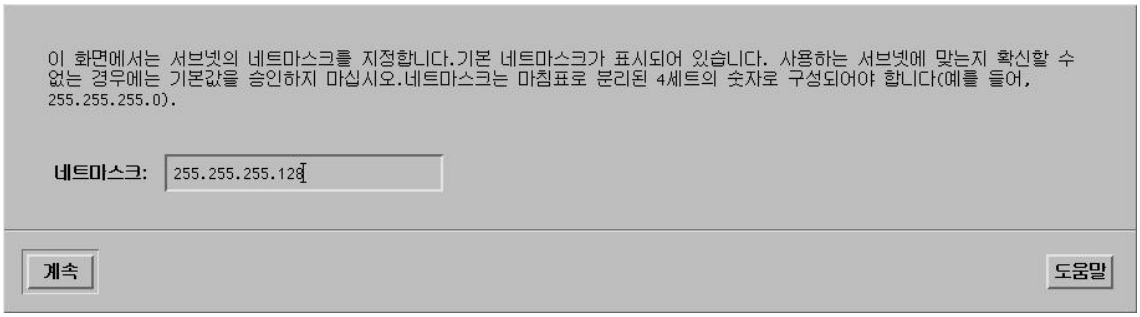


Fig. 2.1-15 Subnet Setting Screen 3

18. The menu designating the basic time zone is shown.

Select **the regional location**. Then, click Set!

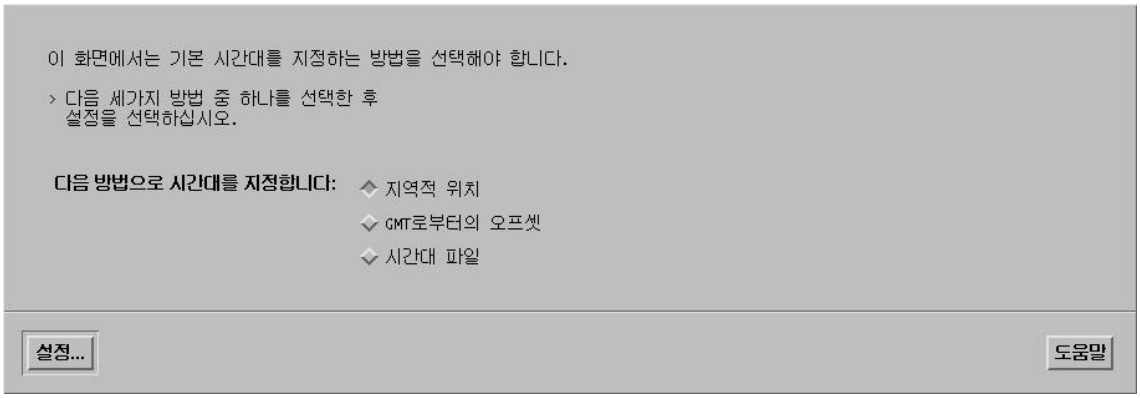


Fig. 2.1-16 OS Time Setting Method Screen

19. The menu containing the country and time zone is shown.

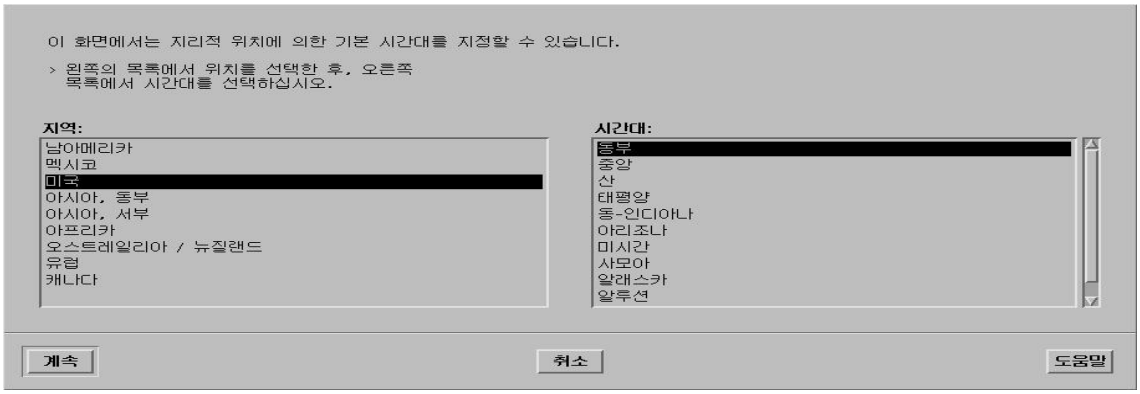


Fig. 2.1-17 OS Time Setting Region Selection Screen

20. Select Asia for the region and Korean for time zone. Then, click Select!

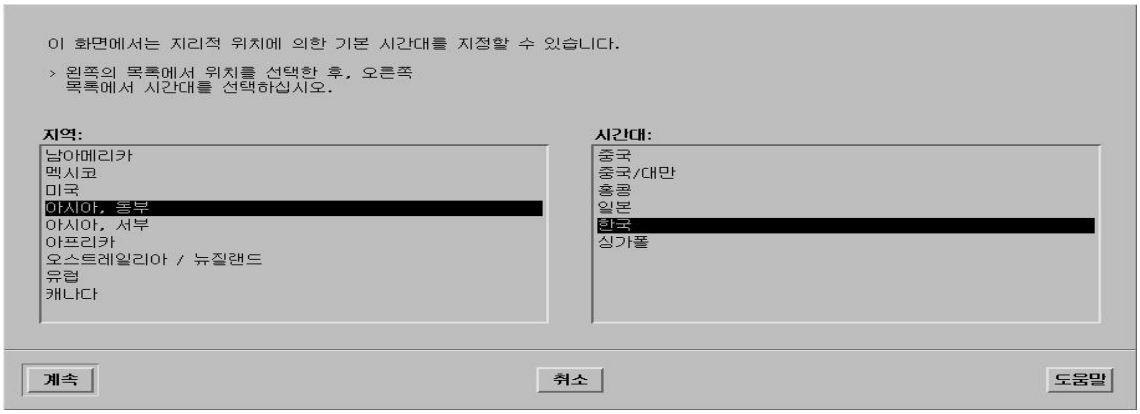


Fig. 2.1-18 OS Time Setting Region Selection Screen 2

21. Check to see if minute, time, data, month, and year are accurate. If they are not, click Continue!

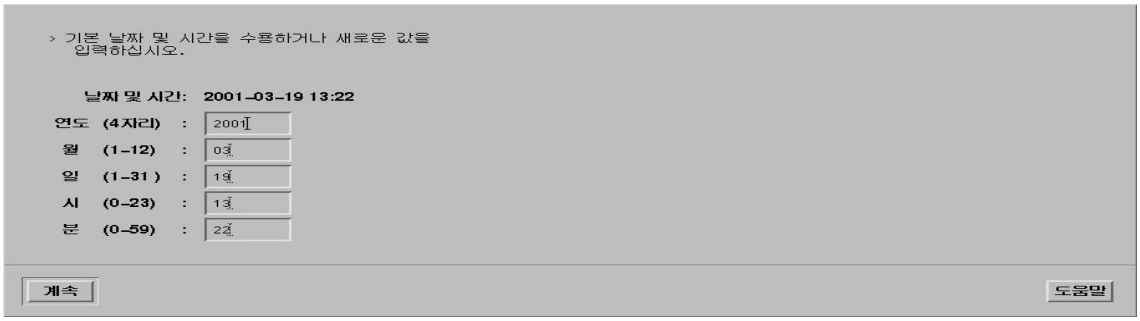


Fig. 2.1-19 Time Setting Screen

22. The items that are related to the subnet are summarized. Click Continue!

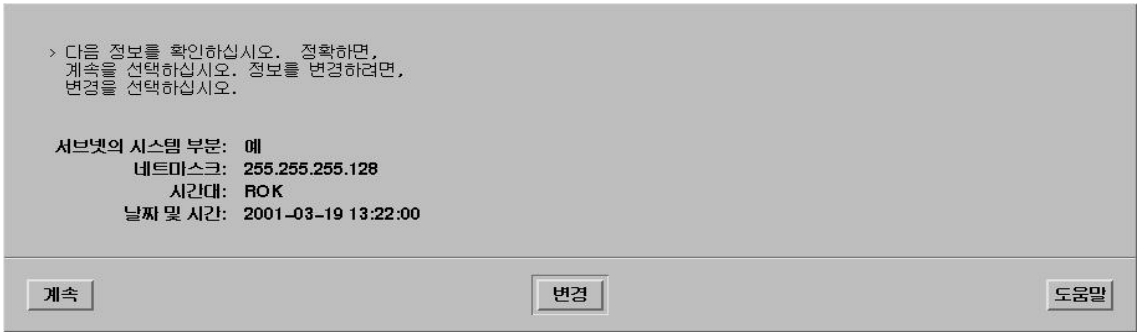


Fig. 2.1-20 Subnet and Time Setting Summary Screen

23. The screen selecting Solaris installation method is displayed on the screen. Click Initialize!

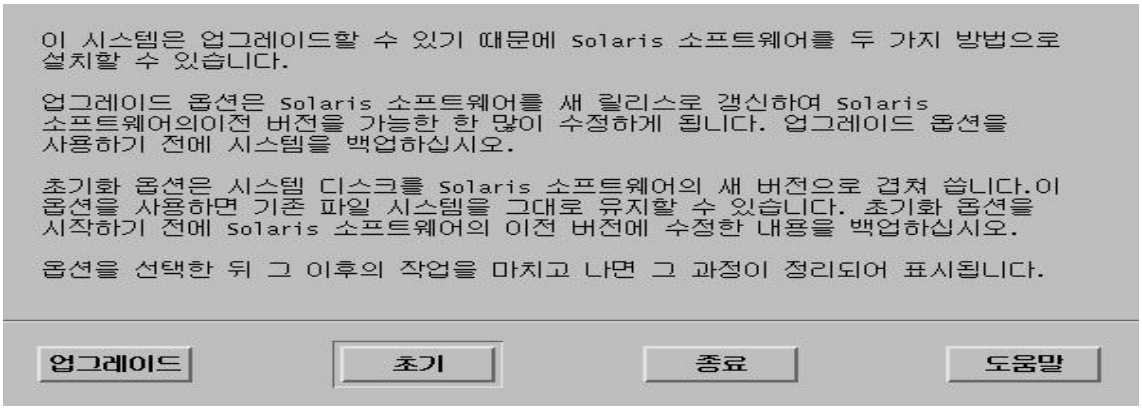


Fig. 2.1-21 OS Installation Method Selection Screen

24. Click Continue!

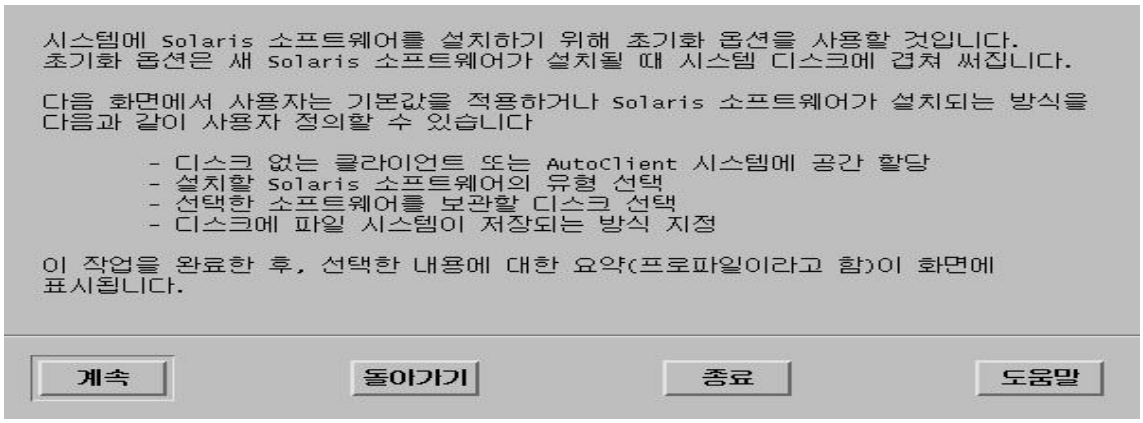


Fig. 2.1-22 Attention to the Installation of OS

25. Client-related questions are shown. Click Continue!

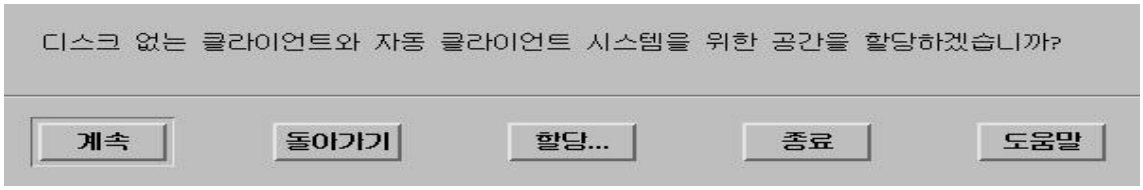


Fig. 2.1-23 X-Terminal Setting Screen

26. Language select screen is shown. Click Continue!

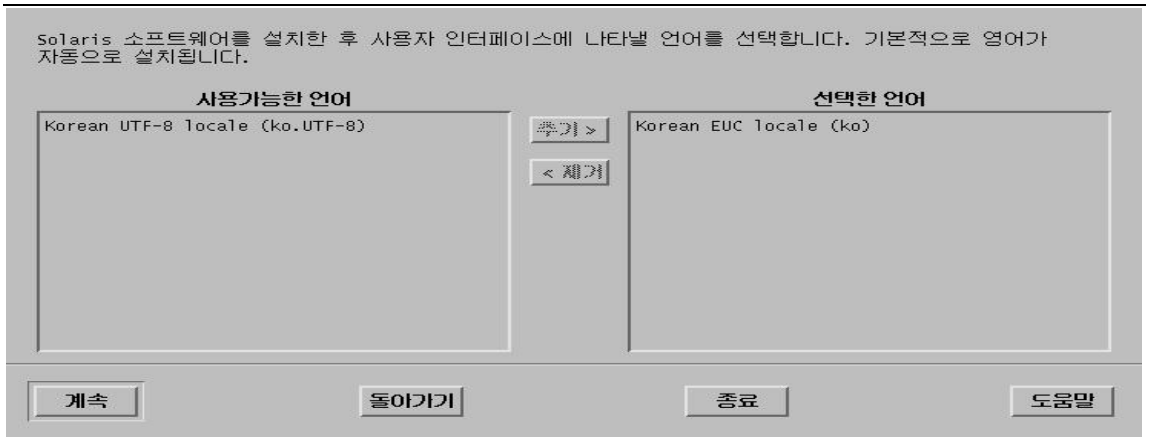


Fig. 2.1-24 User Language Selection Screen

27. S/W installation-related menu is displayed. Click Continue!

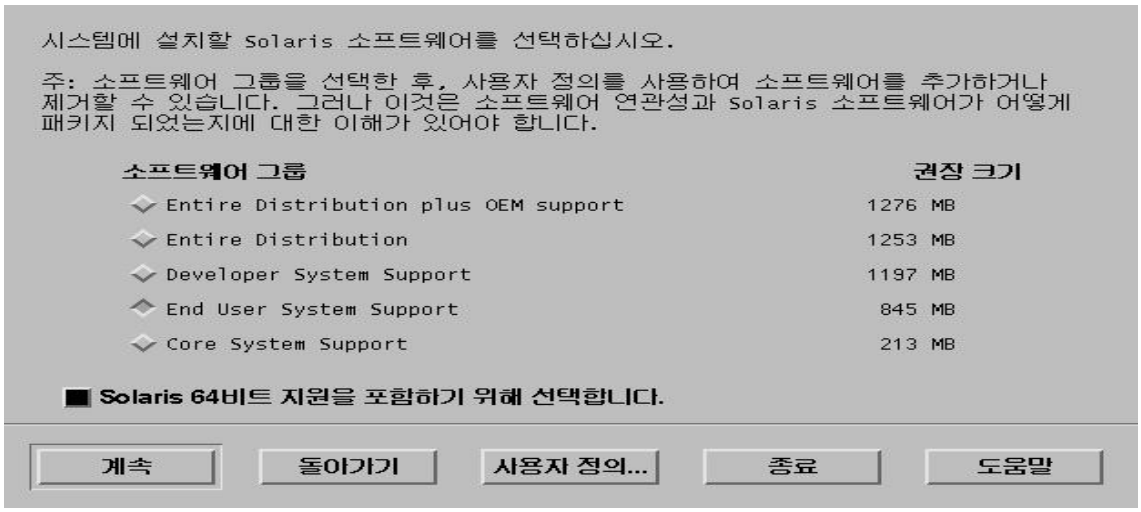


Fig. 2.1-25 OS Installation Category Selection Screen

28. Select Entire Distribution plus OEM support. Then, click Continue!

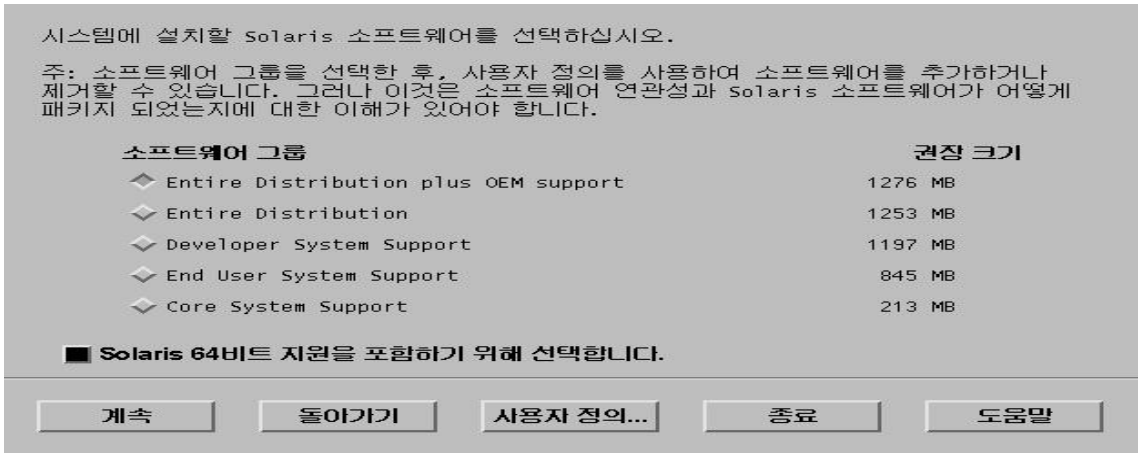


Fig. 2.1-26 OS Installation Category Selection Screen 2

29. Select the disk where OS is to be installed.

If two disks are displayed on the screen, it shows information.

t : Select the disk with t0 – a parameter that represents the disk – written.

Click Continue!

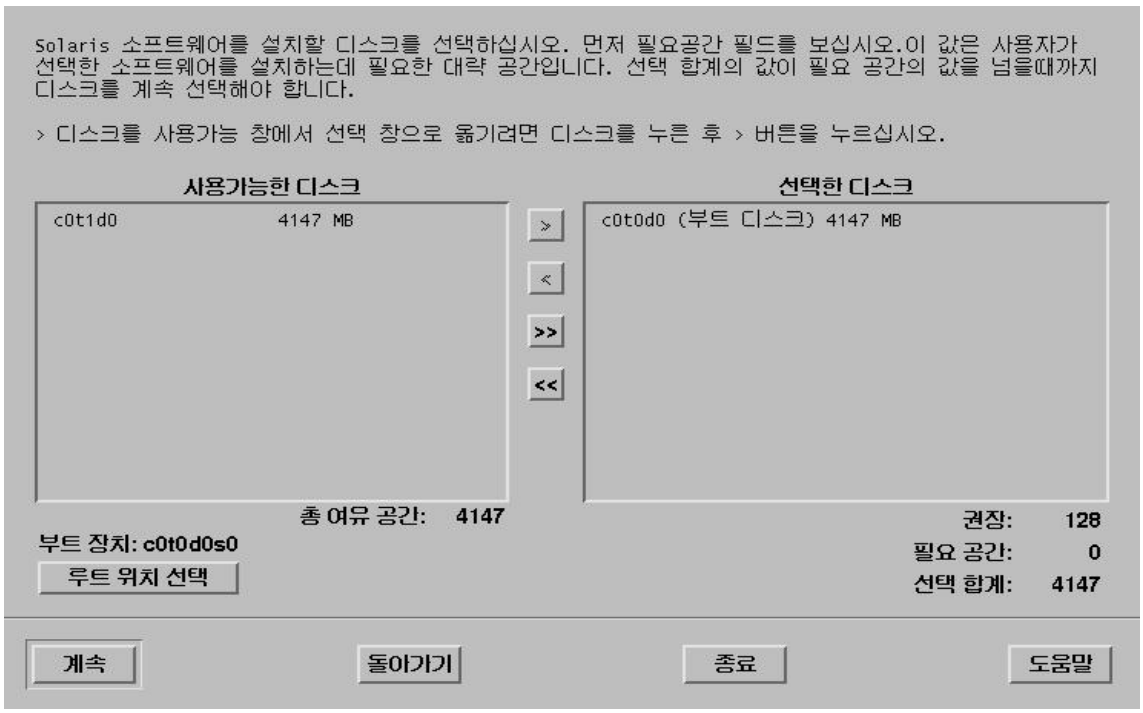


Fig. 2.1-27 OS Installation Disk Selection Screen

30. Determine whether to keep data. Then, click **Continue**!

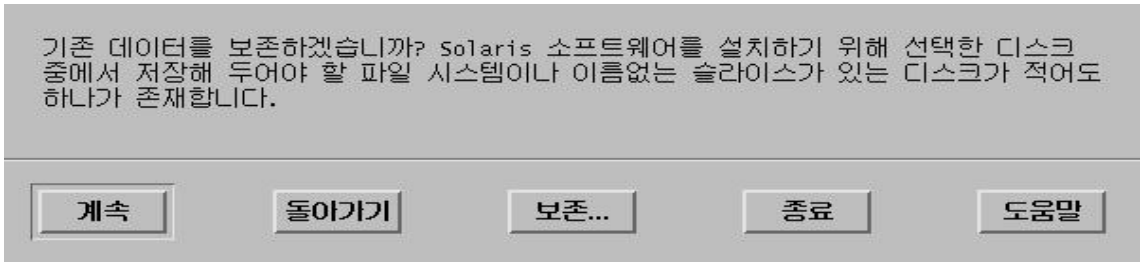


Fig. 2.1-28 Warning Sentence Screen Resulting from the Disk Setting

31. File system-related items are shown.

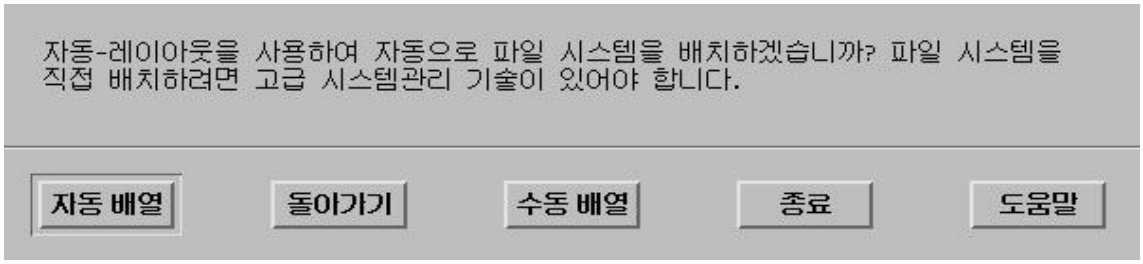


Fig. 2.1-29 Selection Screen for Disk Installation Method

32. Click **Manual Arrangement**!

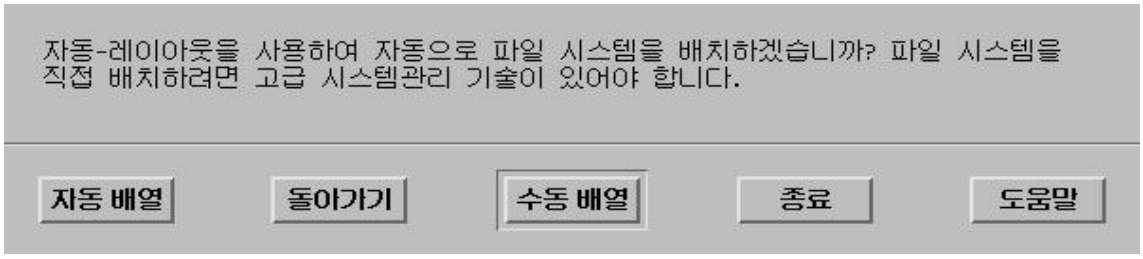


Fig. 2.1-30 Select Screen for Disk Installation Method

33. The current disk information is shown. Click Customize!

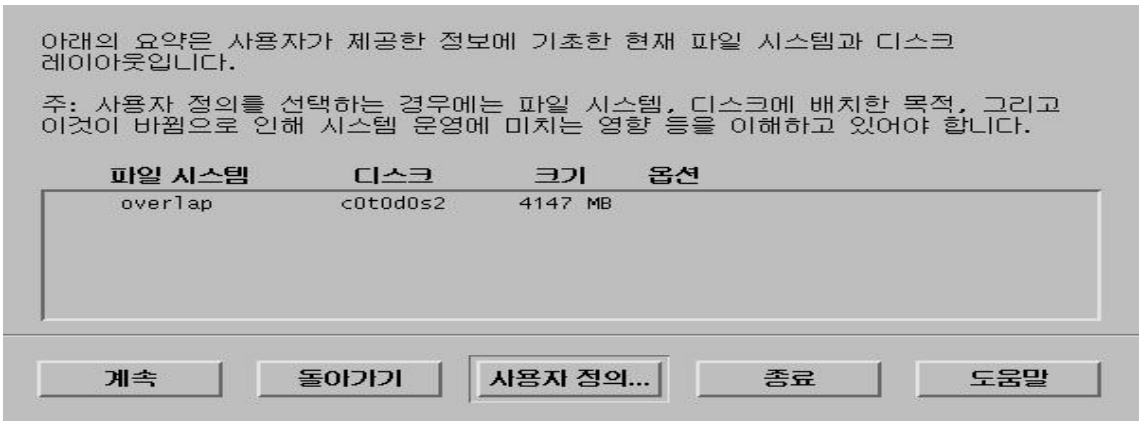


Fig. 2.1-31 Selected Disk Information Display Screen

34. Disk use information is shown. Overlap(disk size) can be checked.

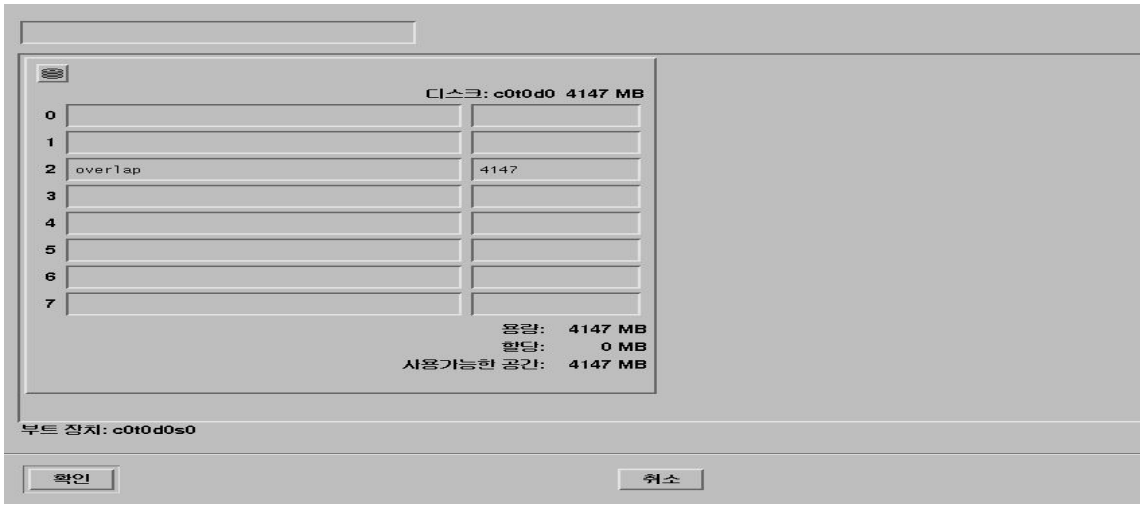
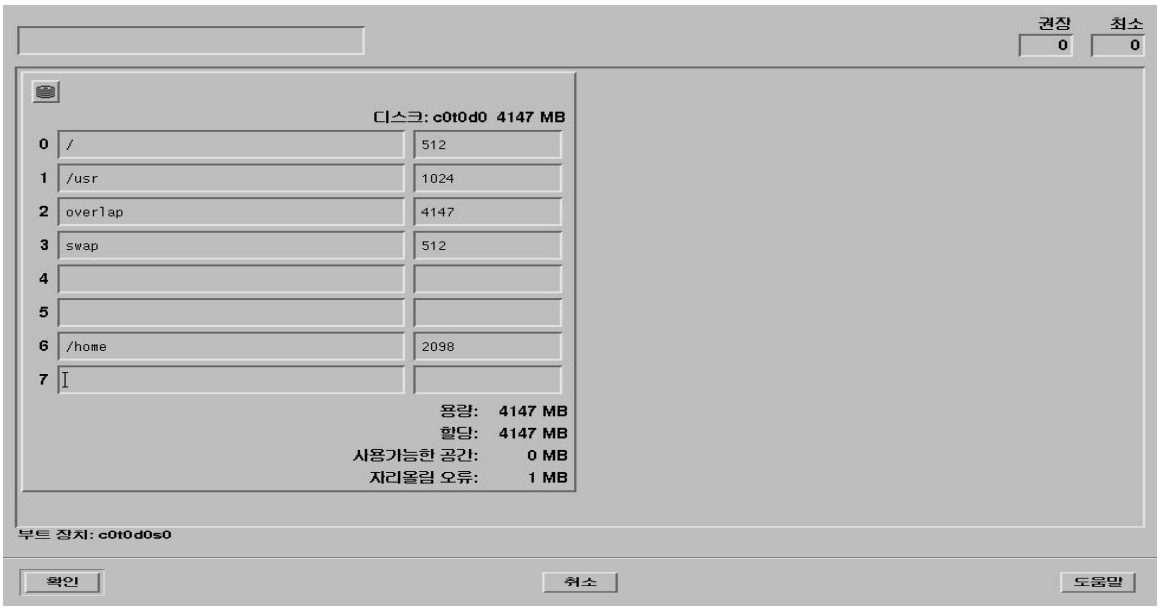


Fig. 2.1-32 Area Information Display Screen for the Disk Division

35. Disk Space Allocation

As shown below, type route(/), user(/usr), and swap and select the size to the total disk space. In general, much of disk space is allocated to Route /usr. (For the suitable Disk Size, refer to the attached file.)

Swap should be twice as large as the memory. (Current system memory : 256Mbyte)
Click OK!



36. The screen that reconfirms the disk space arrangement that is previously set. Click Continue!

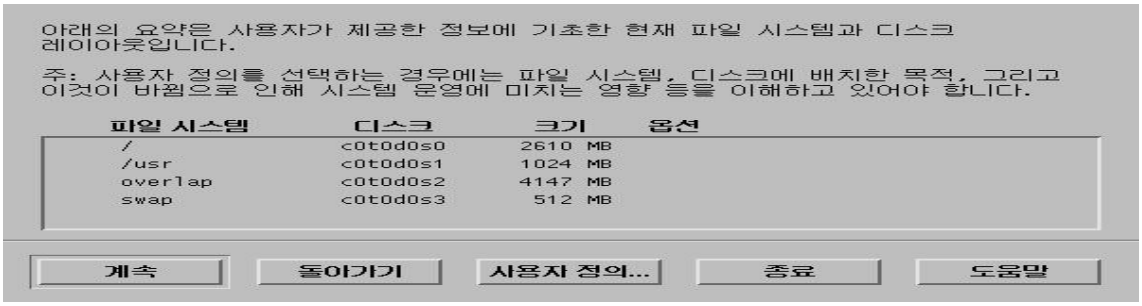


Fig. 2.1-33 Disk Allocation Result Display Screen

37. Items that are related to the remote file server are shown. Click Continue!

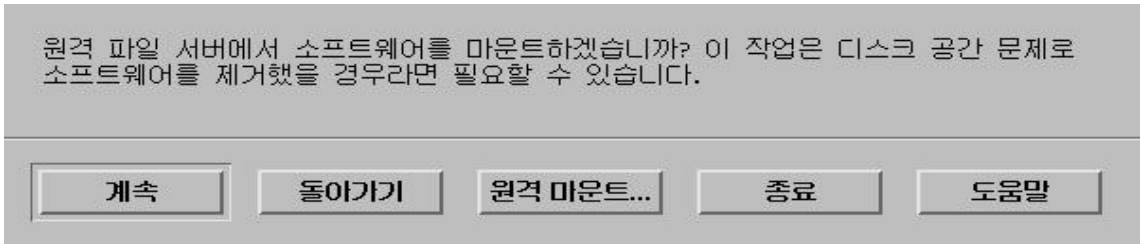


Fig. 2.1-34 Remote File Server Installation Screen

38. Click Start Installation for final installation.

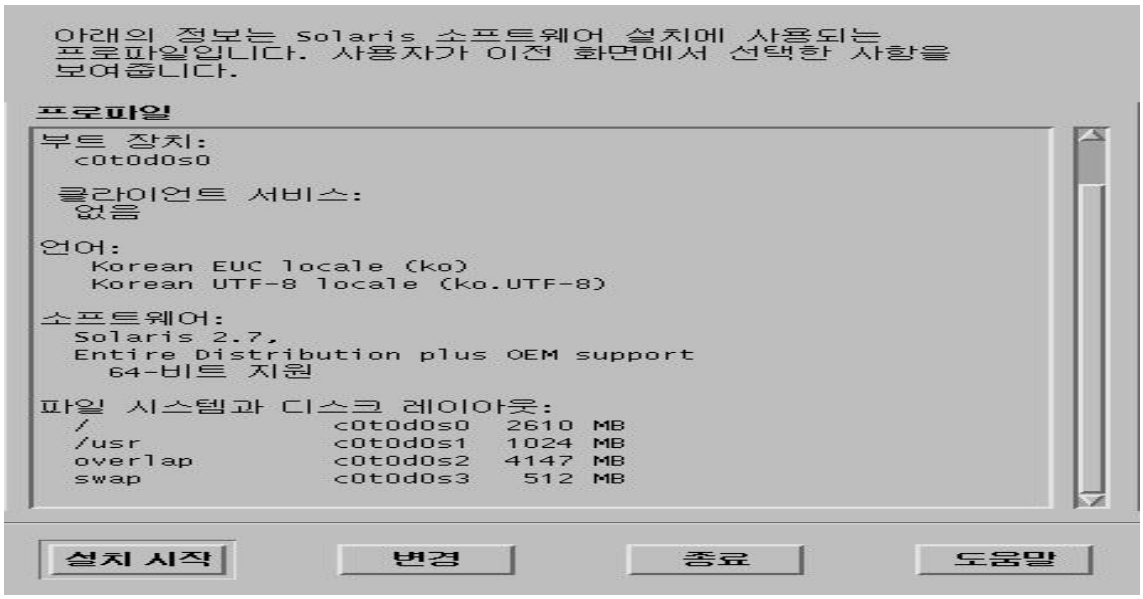


Fig. 2.1-35 Set up Information Display Screen for the Installation

2.1.2. Network Environment Setting Procedures

The following material is developed taking the BSM feel system as an example.

Attention : If the setting is not done inappropriately, C-compiler or Informix cannot be installed.

1. After booting is done, change shell of root to c-shell(default : bourne shell).

   Purpose : to use the C-Shell

   ```
   $cd   /etc
   $vi   passwd
   Correct root:x:0:1:Super-User:/:/sbin/sh in the first line/
   Modified Items : sbin/sh→bin/csh
   ```

2. Create .cshrc & .login file.

   Purpose : After booting, create .cshrc &.login file in the root.

   ```
   cp /etc/skel/local.cshrc   /.cshrc
   cp /etc/skel/local.login    /.login
   ```

3. Create resolv.conf.

   ```
   vi   /etc/resolv.conf
   ```

   Modified Contents

   ```
   domain        lgic.co.kr
   nameserver        165.243.140.230
   ```

4. Create the hosts file.

```
vi   /etc/hosts
```

Items to be added to the Internet host table on top.

```
127.0.0.1      localhost
150.150.62.102  feel.lgic.co.kr   feel   loghost
```

Attention : If inputting feel.lgic.co.kr loghost, BSM might not operate.

5. Create nsswitch.conf.

```
: vi   /etc/nsswitch.conf
```

Add dns to the line where the host exists.

```
hosts:        files      dns
```

6. Create defaultrouter.

```
vi   /etc/defaultrouter
```

Input Router IP.

```
150.150.62.126
```

7. Create defaultdomain.

```
vi   /etc/defaultdomain
```

Input domain name.

```
lgic.co.kr
```

8. Test the network.

Network Setting Test

```
ping 150.150.62.100
```

Ping result : 150.150.62.64 is alive → it means that the network is set up.

2.2. DBMS(Informix) Installation

2.2.1. Informix Install

2.2.1.1. Preparation for Installation

Note> The host name that is used in this document as an example is zen and Informix home directory path is /home/Informix.

2.2.1.1.1. Informix Account Creation

In order to install Informix, the informix user account of the informix group is required. Account can be made by the following methods: the method that uses admintool and the method that directly modifies the file.

2.2.1.1.1.1. First Method – execute admintool

1. Informix group generation: create a group under the name of informix on the Group Add menu.
2. Informix user generation: create a user under the name of informix on the Us Add menu.

2.2.1.1.1.2. Second Method – modify the file directly

Add informix group/ to the etc/group file
and add informix account as informix group in a /etc/passwd file.
Authorize the informix user by making an informix homedirectory.

2.2.1.1.2. Informix Installation File Copy

Log in to the informix account in order to install Informix. Move the Informix installation file to the home directory in the informix account. Then, release all the compression to create the Install Script in the Informix Directory. (Ex. installsql, installserver, installconn, etc)

```
$ cd /cdrom/informix/
$ ls –al  (check the path where the Informix product is located)
$ cd $INFORMIXDIR  (informix Home Directory)
$ tar xvf /cdrom/informix/ICONNECT/SUN/CONNECT.TAR  <= Informix Dynamic
  Server CD
$ tar xvf /cdrom/informix/SERVER/IDS.TAR <= Informix Dynamic Server CD
$ tar xvf /cdrom/informix/SQLRT.TAR <= Informix SQL CD
```

2.2.1.2. Environment File Modification

To install informix, modify the system file, services file, etc and then perform rebooting.

2.2.1.2.1. /etc/ System Modification

```
set msgsys:msginfo_msgmap=256
set msgsys:msginfo_msgmax=1024
set msgsys:msginfo_msgmnb=614400
set msgsys:msginfo_msgmni=50
set msgsys:msginfo_msgssz=128
set msgsys:msginfo_msgtql=1200
set msgsys:msginfo_msgseg=16384

set shmsys:shminfo_shmmax=104858000
#set shmsys:shminfo_shmmin=10
set shmsys:shminfo_shmmni=100
set shmsys:shminfo_shmseg=100
#set shmsys:shminfo_shmbrk=10485800

set semsys:seminfo_semmap=64
set semsys:seminfo_semmni=128
set semsys:seminfo_semmsl=64
set semsys:seminfo_semmns=8192
set semsys:seminfo_semmnu=4096
set semsys:seminfo_semume=64
```

```
set pt_cnt=120
```

2.2.1.2.2. /etc/services File Modification

```
sqlexec              5000/tcp
```

2.2.1.2.3. Addition to .cshrc file

Add the following to .cshrc file in the user account that uses the root, informix, and Informix and then execute the source .cshrc command.

```
#
#   Informix Environment
#

setenv INFORMIXDIR          /home/Informix
setenv INFORMIXSERVER     zen_tcp
                    => Use TCP connection. (when using semaphore: zen)
setenv PATH $INFORMIXDIR/bin:$PATH
setenv LD_LIBRARY_PATH $INFORMIXDIR/lib:$INFORMIXDIR/lib/esql:/usr/lib
setenv TERMCAP $INFORMIXDIR/etc/termcap
setenv DBTEMP $INFORMIXDIR/tmp       -> Create a tmp directory directly
setenv ONCONFIG onconfig
setenv INFORMIXC cc
setenv TERM vt100
```

2.2.1.2.4. Addition to .login file

```
# @(#)login 2.0   Apr 5   1995   TriGem

stty echoe
stty erase ^ H
stty cs8 -istrip defeucw
setenv   LANG C >& /dev/null
```

```
setenv DISPLAY unix:0

stty -istrip
# Aliasing ..............................
setenv EXINIT 'set aw terse|map @ dd|map # x'
echo -n " Terminal type is ($term): "
set X = $<
if $X != "" then
                                        set term = $X
endif
if $X == "sun" then
    stty erase ^ H
    stty werase ^ ?
endif
if $X == "fast" then
    stty erase ^ H
    stty werase '^ ?'
endif
tset -I -Q
```

2.2.1.2.5. Rebooting

```
#sync
#sync
#sync
..
# reboot
```

2.2.1.3. Informix Installation

Let's install informix.

Note> The host name that is used in this document as an example is zen and the informix home directory path is /home/informix.

2.2.1.3.1. Installing install file in order

Install the following in order: installsqlrt<root>, installserver<root>, installconn<Informix>. At this point, input serial numbers and key.

In the <root> account

installsqlrt

INFORMIX-SQL Run Time Facility Version 7.30.UC4
Copyright (C) 1984-2000 Informix Software, Inc.

Installation Script

This installation procedure must be run by root (super-user).
It will change the owner, group, and mode of all files of this
package in this directory. There must be a user "informix" and a
group "informix" known to the system.

Press RETURN to continue,
or the interrupt key (usually CTRL-C or DEL) to abort. RETURN

Enter your serial number (for example, INF#X999999) >
Serial number
Enter your serial number KEY (uppercase letters only) >
Key

WARNING!

This software, and its authorized use and number of users, are subject to the applicable license agreement with Informix Software, Inc. If the number of users exceeds the licensed number, the excess users may be prevented from using the software. UNAUTHORIZED USE OR COPYING MAY SUBJECT YOU AND YOUR COMPANY TO SEVERE CIVIL AND CRIMINAL LIABILITIES.

Press RETURN to continue,

```
or the interrupt key (usually CTRL-C or DEL) to abort.



Installing directory .

Installing directory bin

Installing directory etc

Installing directory msg

Installing directory msg/en_us

Installing directory msg/en_us/0333

Installing directory msg/ja_jp

:

:

:

Installing directory gls/lc11/th_th

Installing directory gls/lc11/zh_cn

Installing directory gls/lc11/zh_tw


Installation of INFORMIX-SQL, Runtime Facility complete.




:

:


#installserver          <= Perform identically


Informix Dynamic Server Version 7.31.UC7
```

Copyright (C) 1986-2000 Informix Software, Inc.

Installation and Configuration Script

This installation procedure must be run by a privileged user (Super User)

It will change the owner, group, mode, (and other file attributes on

Secure systems) of all files of this package in this directory.

There must be a user "informix" and a group "informix" known to the system.

Press RETURN to continue,

or the interrupt key (usually CTRL-C or DEL) to abort.

:

:

:

Installing directory gls/lc11/zh_tw

Installing directory bitmaps

Installing Shared Libraries in System Directories ...

Linking /usr/lib/ismdd07b.so from lib/ismdd07b.so

Linking /usr/lib/iosm07a.so from lib/iosm07a.so

Linking /usr/lib/ipldd07a.so from lib/ipldd07a.so

Installation of Informix Dynamic Server complete.

In the <Informix> account

#installconn

INFORMIX-Connect Version 2.40.UC1

Copyright (C) 1984-1999 Informix Software, Inc.

Installation Script

Installation Script Requirements:

- A user "informix" and a group "informix" must be known to the system.
- The product source files must have been loaded by user informix
- This installation procedure must be run by user informix.
- You must also set INFORMIXDIR to where you would like to install
  the product on and make INFORMIXDIR as your current working directory.

This script will change the owner, group, and mode of
many of the files of this package in this directory.

Extracting files from conncontent file... <= Wait until the compressed file is unzipped.

Installing I-Connect as user "informix"...

Press RETURN to continue,
or the interrupt key (usually CTRL-C or DEL) to abort.

Enter your serial number (for example, INF#X999999) >

Serial number

Enter your serial number KEY (uppercase letters only) >

KEY

WARNING!

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Press RETURN to continue,
or the interrupt key (usually CTRL-C or DEL) to abort.

Installing directory .
Installing directory etc
Installing directory msg
:
:
:
Installing directory gls/lc11/zh_cn
Installing directory gls/lc11/zh_tw

****
To complete the installation of INFORMIX-Connect,
run /home/informix/RUN_AS_ROOT.conn as root.
****

Informix user portion of installation of INFORMIX-Connect complete.

2.2.1.3.2. Shared Library Linking

Once the above work is complete, change the user ID of part of the execution files to root for the informix file and link shared libraries. This work can check if RUN_AS_ROOT.SERVER file is generated within the $INFORMIXDIR after performing the install script.

```
#RUN_AS_ROOT.conn     -> perform root.

Informix Product:          INFORMIX-Connect
Installation Directory: /home/informix

Performing root portion of installation of INFORMIX-Connect...



Installation of INFORMIX-Connect complete.
```

2.2.2. Environment Setting

2.2.2.1. onconfig file

Let's create the etc/onconfig in the informix account. Copy the existing onconfig.std file to the onconfig file and then modify and add the following paths and parameters. In the example below, the Informix path is /home/informix and the host name is zen. Modify them suitable to your system.

```
#
#                              INFORMIX SOFTWARE, INC.
#
#   Title:          onconfig.std
#   Description: Informix Dynamic Server Configuration Parameters
#
#*****************************************************************

# Root Dbspace Configuration
ROOTNAME          rootdbs             # Root dbspace name
ROOTPATH           /home/informix/DBS/root_chk # Path for device containing root
dbspace
ROOTOFFSET        0                   # Offset of root dbspace into device (Kbytes)
ROOTSIZE          100000              # Size of root dbspace (Kbytes)

# Disk Mirroring Configuration Parameters
MIRROR            1                   # Mirroring flag (Yes = 1, No = 0)
```

```
MIRRORPATH                      # Path for device containing mirrored root
MIRROROFFSET    0               # Offset into mirrored device (Kbytes)

# Physical Log Configuration
PHYSDBS         rootdbs         # Location (dbspace) of physical log
PHYSFILE        10000           # Physical log file size (Kbytes)

# Logical Log Configuration
LOGFILES        10              # Number of logical log files
LOGSIZE         3000            # Logical log size (Kbytes)

# Diagnostics
MSGPATH         /home/informix/online.log       # System message log file path
CONSOLE         /dev/console                    # System console message path
ALARMPROGRAM    /home/informix/etc/no_log.sh    # Alarm program path
SYSALARMPROGRAM /home/informix/etc/evidence.sh # System Alarm program path
TBLSPACE_STATS  1

# System Archive Tape Device
TAPEDEV         /dev/null       # Tape device path
#TAPEDEV                /dev/tapedev    # Tape device path
TAPEBLK         16              # Tape block size (Kbytes)
TAPESIZE        10240           # Maximum amount of data to put on tape (Kbytes)

# Log Archive Tape Device
LTAPEDEV        /dev/null       # Log tape device path
#LTAPEDEV       /dev/tapedev    # Log tape device path
LTAPEBLK        16              # Log tape block size (Kbytes)
LTAPESIZE       10240           # Max amount of data to put on log tape (Kbytes)

# Optical
STAGEBLOB                       # Informix Dynamic Server/Optical staging area

# System Configuration
SERVERNUM       0               # Unique id corresponding to a Dynamic Server
instance
DBSERVERNAME zen                # Name of default database server
```

```
DBSERVERALIASES zen_tcp          # List of alternate dbservernames
NETTYPE  ipcshm,1,10,CPU       # When using semaphore, it is good to increase the
                                 setting with 10 connection to 50.
NETTYPE tlitcp,1,10,NET          # Configure poll thread(s) for nettype
DEADLOCK_TIMEOUT 60              # Max time to wait of lock in distributed env.
RESIDENT          0            # Forced residency flag (Yes = 1, No = 0)

MULTIPROCESSOR   0               # 0 for single-processor, 1 for multi-processor
NUMCPUVPS         1              # Number of user (cpu) vps
SINGLE_CPU_VP     1              # If non-zero, limit number of cpu vps to one

NOAGE             0             # Process aging
AFF_SPROC         0             # Affinity start processor
AFF_NPROCS        0             # Affinity number of processors

# Shared Memory Parameters

LOCKS            100000         # Maximum number of locks
BUFFERS           12800         # Maximum number of shared buffers
NUMAIOVPS         1             # Number of IO vps
PHYSBUFF          32            # Physical log buffer size (Kbytes)
LOGBUFF           32            # Logical log buffer size (Kbytes)
LOGSMAX           20            # Maximum number of logical log files
CLEANERS          1             # Number of buffer cleaner processes
SHMBASE           0x0A000000L     # Shared memory base address
SHMVIRTSIZE       30000         # initial virtual shared memory segment size
SHMADD            16000         # Size of new shared memory segments (Kbytes)
SHMTOTAL          0             # Total shared memory (Kbytes). 0=>unlimited
CKPTINTVL         300           # Check point interval (in sec)
LRUS              8            # Number of LRU queues
LRU_MAX_DIRTY     60            # LRU percent dirty begin cleaning limit
LRU_MIN_DIRTY     50            # LRU percent dirty end cleaning limit
LTXHWM            50            # Long transaction high water mark percentage
LTXEHWM           60            # Long transaction high water mark (exclusive)
TXTIMEOUT         300           # Transaction timeout (in sec)
STACKSIZE         32            # Stack size (Kbytes)
```

```
# System Page Size
# BUFFSIZE - Dynamic Server no longer supports this configuration parameter.
#            To determine the page size used by Dynamic Server on your platform
#            see the last line of output from the command, 'onstat -b'.


# Recovery Variables
# OFF_RECVRY_THREADS:
# Number of parallel worker threads during fast recovery or an offline restore.
# ON_RECVRY_THREADS:
# Number of parallel worker threads during an online restore.

OFF_RECVRY_THREADS      10      # Default number of offline worker threads
ON_RECVRY_THREADS       1       # Default number of online worker threads

# Data Replication Variables
# DRAUTO: 0 manual, 1 retain type, 2 reverse type
DRAUTO          0               # DR automatic switchover
DRINTERVAL      30              # DR max time between DR buffer flushes (in sec)
DRTIMEOUT       30              # DR network timeout (in sec)
DRLOSTFOUND     /home/informix/etc/dr.lostfound     # DR lost+found file path

# CDR Variables
CDR_LOGBUFFERS  2048    # size of log reading buffer pool (Kbytes)
CDR_EVALTHREADS 1,2     # evaluator threads (per-cpu-vp,additional)
CDR_DSLOCKWAIT  5       # DS lockwait timeout (seconds)
CDR_QUEUEMEM    4096    # Maximum amount of memory for any CDR queue
(Kbytes)
CDR_LOGDELTA    30      # % of log space allowed in queue memory
CDR_NUMCONNECT  16      # Expected connections per server
CDR_NIFRETRY    300     # Connection retry (seconds)
CDR_NIFCOMPRESS 0       # Link level compression (-1 never, 0 none, 9 max)

# Backup/Restore variables
BAR_ACT_LOG             /tmp/bar_act.log
BAR_MAX_BACKUP          0
BAR_RETRY               1
```

```
BAR_NB_XPORT_COUNT      10
BAR_XFER_BUF_SIZE       31

# Informix Storage Manager variables
ISM_DATA_POOL   ISMData         # If the data pool name is changed, be sure to
                                # update $INFORMIXDIR/bin/onbar.  Change to
                                # ism_catalog -create_bootstrap -pool <new name>
ISM_LOG_POOL    ISMLogs

# Read Ahead Variables
RA_PAGES        32              # Number of pages to attempt to read ahead
RA_THRESHOLD    30              # Number of pages left before next group

# DBSPACETEMP:
# Dynamic Server equivalent of DBTEMP for SE. This is the list of dbspaces
# that the Dynamic Server SQL Engine will use to create temp tables etc.
# If specified it must be a colon separated list of dbspaces that exist
# when the Dynamic Server system is brought online.  If not specified, or if
# all dbspaces specified are invalid, various ad hoc queries will create
# temporary files in /tmp instead.

DBSPACETEMP                     # Default temp dbspaces

# DUMP*:
# The following parameters control the type of diagnostics information which
# is preserved when an unanticipated error condition (assertion failure) occurs
# during Dynamic Server operations.
# For DUMPSHMEM, DUMPGCORE and DUMPCORE 1 means Yes, 0 means No.

DUMPDIR         /tmp            # Preserve diagnostics in this directory
DUMPSHMEM       0               # Dump a copy of shared memory
DUMPGCORE       0               # Dump a core image using 'gcore'
DUMPCORE        0               # Dump a core image (Warning:this aborts Dynamic
Server)
DUMPCNT         1               # Number of shared memory or gcore dumps for
                                # a single user's session
```

```
FILLFACTOR        90                  # Fill factor for building indexes

# method for Dynamic Server to use when determining current time
USEOSTIME         0         # 0: use internal time(fast), 1: get time from OS(slow)

# Parallel Database Queries (pdq)
MAX_PDQPRIORITY 100       # Maximum allowed pdqpriority
DS_MAX_QUERIES            # Maximum number of decision support queries
DS_TOTAL_MEMORY             # Decision support memory (Kbytes)
DS_MAX_SCANS      1048576 # Maximum number of decision support scans
DATASKIP                  # List of dbspaces to skip

# OPTCOMPIND
# 0 => Nested loop joins will be preferred (where
#        possible) over sortmerge joins and hash joins.
# 1 => If the transaction isolation mode is not
#        "repeatable read", optimizer behaves as in (2)
#        below.   Otherwise it behaves as in (0) above.
# 2 => Use costs regardless of the transaction isolation
#        mode.   Nested loop joins are not necessarily
#        preferred.   Optimizer bases its decision purely
#        on costs.
OPTCOMPIND        0         # To hint the optimizer

ONDBSPACEDOWN     2          # Dbspace down option: 0 = CONTINUE, 1 = ABORT, 2
= WAIT
LBU_PRESERVE      1          # Preserve last log for log backup
OPCACHEMAX        0          # Maximum optical cache size (Kbytes)

# HETERO_COMMIT (Gateway participation in distributed transactions)
# 1 => Heterogeneous Commit is enabled
# 0 (or any other value) => Heterogeneous Commit is disabled
HETERO_COMMIT     0

# Optimization goal: -1 = ALL_ROWS(Default), 0 = FIRST_ROWS
OPT_GOAL          -1
```

```
# Optimizer DIRECTIVES ON (1/Default) or OFF (0)
DIRECTIVES          1

# Status of restartable restore


RESTARTABLE_RESTORE OFF
```

2.2.2.2. sqlhosts File

Copy the etc/sqlhosts.demo file in the Informix account to the sqlhosts file and then modify them suitable to the system.

```
zen         onipcshm            zen         sqlexecshm
zen_tcp     ontlitcp            zen         sqlexec
```

2.2.2.3. onconfig Parameter Setting

```
Input the onmonitor command on the prompt
# onmonitor
* If creating dbspace using the cooked file, create null file.
# cd $INFORMIXDIR
# mkdir DBS
# cd DBS
# touch root_chk
# chmod 660 root_chk
```

2.2.3. Execution

Now, the Informix installation and environment setting are complete. Let's execute the Informix.

```
# oninit -isy        <= DB Execution
# onmode -my         <= Convert DB into online mode
#onstat -            <= DB Status viewing
Informix Dynamic Server Version 7.31.UC7      -- On-Line -- Up 00:01:00 -- 62752
Kbytes
```

```
#
```

2.2.4. Others

2.2.4.1. Command Usage Viewing

```
command --          <= Give – option to the command to see the command usage.
```

2.2.4.2. DB Space Viewing and Expansion

One can see the entire size of the DB and Chunk in use. If the DB space in use is short, it can be expanded by adding chunk.

```
#onstat –d


Informix Dynamic Server Version 7.31.UC7      -- On-Line -- Up 10:22:12 -- 62752
Kbytes

Dbspaces
address  number    flags     fchunk    nchunks   flags     owner     name
c04a150  1         1         1         1         N         informix rootdbs
 1 active, 2047 maximum

Chunks
address  chk/dbs offset    size      free      bpages    flags pathname
c04a210    1       1       0              50000        28913                    PO-
/home2/informix/DBS/root_chk
 1 active, 2047 maximum

#onspaces --            <= Viewing the command to expand

Usage:
 onspaces   { -a spacename -p pathname -o offset -s size [-m path offset]   |
              -c { -d DBspace [-t] |   -b BLOBspace -g pagesize }
                   -p pathname -o offset -s size [-m path offset] |
```

```
                -d spacename [-p pathname -o offset] [-f] [-y] |
                -f[y] off [DBspace-list] | on [DBspace-list] |
                -m spacename {-p pathname -o offset -m path offset [-y] |
                        -f filename} |
                -r spacename [-y] |
                -s spacename -p pathname -o offset {-O | -D} [-y] }

    -a - Add a chunk to a DBspace or BLOBspace
    -c - Create a DBspace or BLOBspace
    -d - Drop a DBspace, BLOBspace or chunk
    -f - Change dataskip default for specified DBspaces
    -m - Add mirroring to an existing DBspace or BLOBspace
    -r - Turn mirroring off for a DBspace or BLOBspace
    -s - Change the status of a chunk
```

Now, expand the DB space.

```
#cd DBS
#touch root_chk2      <= chunk create
#chmod 660 root_chk2
#onspaces -a rootdbs -p /home2/informix/DBS/root_chk2 -o 0 -s 50000
Verifying physical disk space, please wait ...
Chunk successfully added.

# onstat -d

Informix Dynamic Server Version 7.31.UC7      -- On-Line -- Up 10:42:43 -- 62752
Kbytes

Dbspaces
address   number    flags     fchunk    nchunks   flags     owner     name
c04a150   1         1         1         2         N         informix rootdbs
 1 active, 2047 maximum

Chunks
address   chk/dbs offset    size      free      bpages    flags pathname
c04a210    1       1       0               50000        28913                PO-
/home2/informix/DBS/root_chk
```

```
c2d5a80  2  1  0  25000  24997  PO-
/home2/informix/DBS/root_chk2
 2 active, 2047 maximum
```

Now, remove the trunk that is added. At this time, if typing spacename(rootdbs), the DB space is dropped. For this reason, caution is required.

```
#onspaces -d rootdbs -p /home2/informix/DBS/root_chk2 -o 0
WARNING:  Dropping a chunk.
Do you really want to continue? (y/n)y
Chunk successfully dropped.
** WARNING **  A level 0 archive for DBspace rootdbs will need to be done
before '/home2/informix/DBS/root_chk2' can be reused (see Dynamic Server
Administrator's manual).
#onstat -d

Informix Dynamic Server Version 7.31.UC7  -- On-Line -- Up 10:47:20 -- 62752
Kbytes

Dbspaces
address  number  flags  fchunk  nchunks  flags  owner  name
c04a150  1  1  1  1  N  informix rootdbs
 1 active, 2047 maximum

Chunks
address  chk/dbs offset  size  free  bpages  flags pathname
c04a210  1  1  0  50000  28913  PO-
/home2/informix/DBS/root_chk
 1 active, 2047 maximum
```

2.3. ATM Adaptor Setup

2.3.1. SunATM Adopter Setup

Power the workstation off and use the show-devs command in the OK mode to check if the adopter card is normally set up after setting up SunATM adopter.(In case of Sbus adopter, use show-devs /sbus.)

```
Ok show-devs
...
/pci@1f,4000/SUNW,ma@1
...
```

```
Ok show-devs /sbus
...
/sbus@3,0/SUNW,ba@2,0
...
```

2.3.2. SunATM S/W Installation and Solaris Setup File Modification

Modify SunATM adopter device driver installation and a couple of Solaris 7 OS setup files to use the SunATM adopter in the BSM. A series of work can be performed through one command using the atm_setup tool, which is provided with the package.

1. Becomes Super user.
2. Unzip the downloaded atm_setup.tar file.

```
# tar xvf atm_setup.tar
x atm_setup, 0 bytes, 0 tape blocks
```

```
x atm_setup/sunatm_4_0_update_1, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Copyright, 2175 bytes, 5 tape blocks
x atm_setup/sunatm_4_0_update_1/FR_Copyright, 2316 bytes, 5 tape blocks
x atm_setup/sunatm_4_0_update_1/Product, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm/install, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm/install/copyright, 59 bytes, 1 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm/install/depend, 930 bytes, 2 tape blocks
... ellipsis ...
x atm_setup/atm_setup_system, 2621 bytes, 6 tape blocks
x atm_setup/atm_setup_gsm, 17824 bytes, 35 tape blocks
#
# cd atm_setup
# ls -l
total 82
-rwxr-xr-x   1 1009       1000         17824 Mar 14 12:04 atm_setup_gsm
-rwxr-xr-x   1 1009       1000         18764 Mar 14 12:04 atm_setup_is
-rw-r--r--   1 1009       1000          2621 Mar 14 12:04 atm_setup_system
drwxr-x---   3 1009       1000           512 Mar 13 17:37 sunatm_4_0_update_1
#
```

3. In case of the IS-2000 system, execute the atm_setup_is file. In case of t the ATM IMT-2000 system, execute the atm_setup_gsm file. For the question that demands the MSC number, input the MSC number(value ranging from 1 to 7) where the corresponding BSM is to be installed (because depending on the MSC number, IP address of each NE differs). If answering 'y' for the question asking with a couple of 'y' or 'n', the device driver and each setup file are generated.

※ Attention: atm_setup_is or atm_setup_gsm file should be executed by the Super User Authority only once. If they are executed more then twice by mistake, ATM adopter-related items of the /etc/hosts and /etc/netmasks file can be generated. If this happens, delete the ATM-related items using the vi editor directly, and then reexecute, atm_setup_is or atm_setup_gsm.

```
feel# ./atm_setup_is
```

```
#####################################################
###     SunATM Adaptor Auto Installation Program     ###
### Made by Mobile Comm. S/W Dept. 1 on 01/03/14 ###
#####################################################
Caution!! You must run this program as a superuser, and just "ONE" time.

Press Enter key. Then I'll start installation process...
Input MSC No.??? 2

Uninstalling previously installed device drivers .....
#############
sh: /etc/opt/SUNWconn/atm/bin/atmifconfig: not found
pkgrm: ERROR: no package associated with <SUNWatm>
pkgrm: ERROR: no package associated with <SUNWatma>
pkgrm: ERROR: no package associated with <SUNWatmu>

Installing SunATM adaptor device drivers .....
#############

Processing package instance <SUNWatm> from
</tmp/atm_setup/sunatm_4_0_update_1/Product>

SunATM Device Drivers
(sparc) 4.0.1,REV=1999.4.27.18
Copyright 1999 Sun Microsystems, Inc. All rights reserved.
Using </> as the package base directory.
## Processing package information.
## Processing system information.
    8 package pathnames are already properly installed.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
```

permission during the process of installing this package.

Do you want to continue with the installation of <SUNWatm> [y,n,?] **y**

Installing SunATM Device Drivers as <SUNWatm>

Installing part 1 of 1.
/etc/init.d/sunatm
/etc/opt/SUNWconn/atm/aarconfig.template
/etc/opt/SUNWconn/atm/atmconfig.template
/etc/opt/SUNWconn/atm/atmf.mib
/etc/opt/SUNWconn/atm/bin/aarsetup
/etc/opt/SUNWconn/atm/bin/aarstat
/etc/opt/SUNWconn/atm/bin/atmadmin
/etc/opt/SUNWconn/atm/bin/atmarp
/etc/opt/SUNWconn/atm/bin/atmgetmac
...Ellipsis...
/kernel/mod/sscop
/platform/SUNW,Ultra-4FT/kernel/drv/ba
[verifying class <base>]
/etc/rc2.d/S00sunatm <linked pathname>
Executing postinstall script.

You will need to edit the config files in /etc/opt/SUNWconn/atm
to specify your ATM configuration.

As an alternative to manually editing the files, you
may also run /etc/opt/SUNWconn/bin/atmadmin to set up
your configuration. Refer to the SunATM User's Guide
for more information on atmadmin and the ATM
configuration files.

Installation of <SUNWatm> was successful.

Processing package instance <SUNWatmu> from
</tmp/atm_setup/sunatm_4_0_update_1/Product>

SunATM Runtime Support Software
(sparc) 4.0.1,REV=1999.4.27.18
Copyright 1999 Sun Microsystems, Inc. All rights reserved.
Using </opt> as the package base directory.
Processing package information.
Processing system information.
Verifying package dependencies.
Verifying disk space requirements.
Checking for conflicts with packages already installed.
Checking for setuid/setgid programs.

Installing SunATM Runtime Support Software as <SUNWatmu>

Installing part 1 of 1.
/opt/SUNWconn/atm/examples/Makefile
/opt/SUNWconn/atm/examples/dltst.c
/opt/SUNWconn/atm/examples/raw.c
/opt/SUNWconn/atm/examples/tstqcc.c
/opt/SUNWconn/atm/examples/xdump.c
/opt/SUNWconn/atm/man/man1m/aarsetup.1m
/opt/SUNWconn/atm/man/man1m/aarstat.1m
/opt/SUNWconn/atm/man/man1m/atmadmin.1m
...Ellipsis...
/opt/SUNWconn/man/man9f/qcc_unpack_status.9f <symbolic link>
/opt/SUNWconn/man/man9f/qcc_unpack_status_enq.9f <symbolic link>
[verifying class <none>]

Installation of <SUNWatmu> was successful.

Processing package instance <SUNWatma> from </tmp/atm_setup/sunatm_4_0_update_1/Product>

SunATM Interim Api Support Software
(sparc) 4.0.1,REV=1999.4.27.18
Copyright 1999 Sun Microsystems, Inc. All rights reserved.
Using </opt> as the package base directory.

```
## Processing package information.
## Processing system information.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.

The following files are already installed on the system and are being
used by another package:
  /opt/SUNWconn <attribute change only>
  /opt/SUNWconn/atm <attribute change only>

Do you want to install these conflicting files [y,n,?,q] y
## Checking for setuid/setgid programs.

Installing SunATM Interim Api Support Software as <SUNWatma>

## Installing part 1 of 1.
/opt/SUNWconn/atm/include/atm/atm.h
/opt/SUNWconn/atm/include/atm/atmioctl.h
/opt/SUNWconn/atm/include/atm/limits.h
/opt/SUNWconn/atm/include/atm/qcc.h
/opt/SUNWconn/atm/include/atm/qccdefs.h
/opt/SUNWconn/atm/include/atm/qccioctl.h
/opt/SUNWconn/atm/include/atm/qcctypes.h
/opt/SUNWconn/atm/include/atm/types.h
/opt/SUNWconn/atm/lib/libatm.a
...Ellipsis...
/opt/SUNWconn/lib/sparcv9/libatm.a <symbolic link>
[ verifying class <base> ]

Installation of <SUNWatma> was successful.

Installed device drivers listing .....
#############
system      SUNWatm        SunATM Device Drivers
application SUNWatma       SunATM Interim Api Support Software
application SUNWatmu       SunATM Runtime Support Software
```

```
Making /etc/hosts .............

Making /etc/opt/SUNWconn/atm/aarconfig .............

Making /etc/opt/SUNWconn/atm/atmconfig .............

Making /etc/netmasks .............

Making /etc/system .............



Installation completed. You should REBOOT the workstation!!!
Installation completed. You should REBOOT the workstation!!!
Installation completed. You should REBOOT the workstation!!!



feel#
```

4. Reboot the system.

```
feel#
feel# sync
feel# sync
feel# sync
feel# reboot -- -r
```

2.3.3. SunATM IPoA Driver Load

Reboot the system and then execute the following with the superuser authority.

Input **# /etc/opt/SUNWconn/bin/atmifconfig ba0 plumb** and then IpoA driver is loaded. In addition, status can be check with netstat –i or ifconfig –a.

```
# netstat -I
```

```
Name   Mtu   Net/Dest       Address          Ipkts   Ierrs Opkts   Oerrs Collis
Queue
lo0    8232  loopback       localhost        3557318 0     3557318 0     0
0
hme0   1500  lgicbsm.lgic.co.kr lgicbsm.lgic.co.kr 3806466 2     275845  0
6605   0
ba0    9180  msc1_bsm       msc1_bsm         6874893 1557  7013685 0
0      0

# ifconfig -a
lo0: flags=849<UP,LOOPBACK,RUNNING,MULTICAST> mtu 8232
        inet 127.0.0.1 netmask ff000000
hme0:    flags=863<UP,BROADCAST,NOTRAILERS,RUNNING,MULTICAST>
mtu 1500
        inet 192.168.53.60 netmask ffffff00 broadcast 192.168.53.255
ba0: flags=863<UP,BROADCAST,NOTRAILERS,RUNNING,MULTICAST> mtu
9180
        inet 29.192.0.1 netmask f0000000 broadcast 31.255.255.255
        ether 8:0:20:be:7e:c7
```

2.3.4. System File Changed by atm_setup Tool

This section describes the system file information changed by the atm_setup tool. If the SunATM Adopter cannot be used for the reasons such as when the atm_setup tool generated the system files abnormally or when the operator edited these files by mistake, modify the system to the normal state and restart the ATM Adopter.

2.3.4.1. /etc/opt/SUNWconn/atm/atmconfig File

```
# Signalling versions for each interface:
ba0   3.0   -   -   -

# Classical IP values for each interface:
ba0   -   msc1_bsm   -   -
```

LAN Emulation values for each interface:

Framing interface values for each interface:
ba0 SONET - - -

2.3.4.2. /etc/opt/SUNWconn/atm/aarconfig File

Basic entries for each Classical IP instance:
ba0 - - - l

ILMI disabled entries:
ba0 - - - m

Manual entries (not touched by atmadmin):
ba0 msc1_cnp_a - 32 t
ba0 msc1_cnp_s - 645 t

ba0 msc1_rnc0_ncp_a - 33 t
ba0 msc1_rnc0_ncp_s - 646 t
ba0 msc1_rnc1_ncp_a - 34 t
ba0 msc1_rnc1_ncp_s - 647 t
ba0 msc1_rnc2_ncp_a - 35 t
ba0 msc1_rnc2_ncp_s - 648 t
ba0 msc1_rnc3_ncp_a - 36 t
ba0 msc1_rnc3_ncp_s - 649 t
ba0 msc1_rnc4_ncp_a - 37 t
ba0 msc1_rnc4_ncp_s - 650 t
ba0 msc1_rnc5_ncp_a - 38 t
ba0 msc1_rnc5_ncp_s - 651 t
ba0 msc1_rnc6_ncp_a - 39 t
ba0 msc1_rnc6_ncp_s - 652 t
ba0 msc1_rnc7_ncp_a - 40 t
ba0 msc1_rnc7_ncp_s - 653 t
ba0 msc1_rnc8_ncp_a - 41 t
ba0 msc1_rnc8_ncp_s - 654 t

```
ba0 msc1_rnc9_ncp_a - 42   t
ba0 msc1_rnc9_ncp_s - 655 t
ba0 msc1_rnc10_ncp_a   - 43   t
ba0 msc1_rnc10_ncp_s   - 656 t
ba0 msc1_rnc11_ncp_a   - 44   t
ba0 msc1_rnc11_ncp_s   - 657 t

ba0 msc1_rnc0_ccp_a - 45   t
ba0 msc1_rnc0_ccp_s - 658 t
ba0 msc1_rnc1_ccp_a - 46   t
ba0 msc1_rnc1_ccp_s - 659 t
ba0 msc1_rnc2_ccp_a - 47   t
ba0 msc1_rnc2_ccp_s - 660 t
ba0 msc1_rnc3_ccp_a - 48   t
ba0 msc1_rnc3_ccp_s - 661 t
ba0 msc1_rnc4_ccp_a - 49   t
ba0 msc1_rnc4_ccp_s - 662 t
ba0 msc1_rnc5_ccp_a - 50   t
ba0 msc1_rnc5_ccp_s - 663 t
ba0 msc1_rnc6_ccp_a - 51   t
ba0 msc1_rnc6_ccp_s - 664 t
ba0 msc1_rnc7_ccp_a - 52   t
ba0 msc1_rnc7_ccp_s - 665 t
ba0 msc1_rnc8_ccp_a - 53   t
ba0 msc1_rnc8_ccp_s - 666 t
ba0 msc1_rnc9_ccp_a - 54   t
ba0 msc1_rnc9_ccp_s - 667 t
ba0 msc1_rnc10_ccp_a   - 55   t
ba0 msc1_rnc10_ccp_s   - 668 t
ba0 msc1_rnc11_ccp_a   - 56   t
ba0 msc1_rnc11_ccp_s   - 669 t

ba0 msc1_rnc0_pcp_a - 57   t
ba0 msc1_rnc1_pcp_a - 58   t
ba0 msc1_rnc2_pcp_a - 59   t
ba0 msc1_rnc3_pcp_a - 60   t
ba0 msc1_rnc4_pcp_a - 61   t
```

```
ba0 msc1_rnc5_pcp_a - 62  t
ba0 msc1_rnc6_pcp_a - 63  t
ba0 msc1_rnc7_pcp_a - 64  t
ba0 msc1_rnc8_pcp_a - 65  t
ba0 msc1_rnc9_pcp_a - 66  t
ba0 msc1_rnc10_pcp_a  - 67  t
ba0 msc1_rnc11_pcp_a  - 68  t

ba0 msc1_rnc0_bs0_bsp_a - 69  t
ba0 msc1_rnc0_bs1_bsp_a - 70  t
ba0 msc1_rnc0_bs2_bsp_a - 71  t
ba0 msc1_rnc0_bs3_bsp_a - 72  t
ba0 msc1_rnc0_bs4_bsp_a - 73  t
ba0 msc1_rnc0_bs5_bsp_a - 74  t
ba0 msc1_rnc0_bs6_bsp_a - 75  t
ba0 msc1_rnc0_bs7_bsp_a - 76  t
ba0 msc1_rnc0_bs8_bsp_a - 77  t
ba0 msc1_rnc0_bs9_bsp_a - 78  t
ba0 msc1_rnc0_bs10_bsp_a  - 79  t
ba0 msc1_rnc0_bs11_bsp_a  - 80  t
ba0 msc1_rnc0_bs12_bsp_a  - 81  t
ba0 msc1_rnc0_bs13_bsp_a  - 82  t
ba0 msc1_rnc0_bs14_bsp_a  - 83  t
ba0 msc1_rnc0_bs15_bsp_a  - 84  t
ba0 msc1_rnc0_bs16_bsp_a  - 85  t
ba0 msc1_rnc0_bs17_bsp_a  - 86  t
ba0 msc1_rnc0_bs18_bsp_a  - 87  t
ba0 msc1_rnc0_bs19_bsp_a  - 88  t
ba0 msc1_rnc0_bs20_bsp_a  - 89  t
ba0 msc1_rnc0_bs21_bsp_a  - 90  t
ba0 msc1_rnc0_bs22_bsp_a  - 91  t
ba0 msc1_rnc0_bs23_bsp_a  - 92  t
ba0 msc1_rnc0_bs24_bsp_a  - 93  t
ba0 msc1_rnc0_bs25_bsp_a  - 94  t
ba0 msc1_rnc0_bs26_bsp_a  - 95  t
ba0 msc1_rnc0_bs27_bsp_a  - 96  t
ba0 msc1_rnc0_bs28_bsp_a  - 97  t
```

```
ba0 msc1_rnc0_bs29_bsp_a  - 98  t
ba0 msc1_rnc0_bs30_bsp_a  - 99  t
ba0  msc1_rnc0_bs31_bsp_a  - 100 t
ba0 msc1_rnc0_bs32_bsp_a  - 101 t
ba0 msc1_rnc0_bs33_bsp_a  - 102 t
ba0 msc1_rnc0_bs34_bsp_a  - 103 t
ba0 msc1_rnc0_bs35_bsp_a  - 104 t
ba0 msc1_rnc0_bs36_bsp_a  - 105 t
ba0 msc1_rnc0_bs37_bsp_a  - 106 t
ba0 msc1_rnc0_bs38_bsp_a  - 107 t
ba0 msc1_rnc0_bs39_bsp_a  - 108 t
ba0 msc1_rnc0_bs40_bsp_a  - 109 t
ba0 msc1_rnc0_bs41_bsp_a  - 110 t
ba0 msc1_rnc0_bs42_bsp_a  - 111 t
ba0 msc1_rnc0_bs43_bsp_a  - 112 t
ba0 msc1_rnc0_bs44_bsp_a  - 113 t
ba0 msc1_rnc0_bs45_bsp_a  - 114 t
ba0 msc1_rnc0_bs46_bsp_a  - 115 t
ba0 msc1_rnc0_bs47_bsp_a  - 116 t

ba0 msc1_rnc1_bs0_bsp_a - 117 t
ba0 msc1_rnc1_bs1_bsp_a - 118 t
ba0 msc1_rnc1_bs2_bsp_a - 119 t
ba0 msc1_rnc1_bs3_bsp_a - 120 t
ba0 msc1_rnc1_bs4_bsp_a - 121 t
ba0 msc1_rnc1_bs5_bsp_a - 122 t
ba0 msc1_rnc1_bs6_bsp_a - 123 t
ba0 msc1_rnc1_bs7_bsp_a - 124 t
ba0 msc1_rnc1_bs8_bsp_a - 125 t
ba0 msc1_rnc1_bs9_bsp_a - 126 t
ba0 msc1_rnc1_bs10_bsp_a  - 127 t
ba0 msc1_rnc1_bs11_bsp_a  - 128 t
ba0 msc1_rnc1_bs12_bsp_a  - 129 t
ba0 msc1_rnc1_bs13_bsp_a  - 130 t
ba0 msc1_rnc1_bs14_bsp_a  - 131 t
ba0 msc1_rnc1_bs15_bsp_a  - 132 t
ba0 msc1_rnc1_bs16_bsp_a  - 133 t
```

```
ba0 msc1_rnc1_bs17_bsp_a  - 134 t
ba0 msc1_rnc1_bs18_bsp_a  - 135 t
ba0 msc1_rnc1_bs19_bsp_a  - 136 t
ba0 msc1_rnc1_bs20_bsp_a  - 137 t
ba0 msc1_rnc1_bs21_bsp_a  - 138 t
ba0 msc1_rnc1_bs22_bsp_a  - 139 t
ba0 msc1_rnc1_bs23_bsp_a  - 140 t
ba0 msc1_rnc1_bs24_bsp_a  - 141 t
ba0 msc1_rnc1_bs25_bsp_a  - 142 t
ba0 msc1_rnc1_bs26_bsp_a  - 143 t
ba0 msc1_rnc1_bs27_bsp_a  - 144 t
ba0 msc1_rnc1_bs28_bsp_a  - 145 t
ba0 msc1_rnc1_bs29_bsp_a  - 146 t
ba0 msc1_rnc1_bs30_bsp_a  - 147 t
ba0 msc1_rnc1_bs31_bsp_a  - 148 t
ba0 msc1_rnc1_bs32_bsp_a  - 149 t
ba0 msc1_rnc1_bs33_bsp_a  - 150 t
ba0 msc1_rnc1_bs34_bsp_a  - 151 t
ba0 msc1_rnc1_bs35_bsp_a  - 152 t
ba0 msc1_rnc1_bs36_bsp_a  - 153 t
ba0 msc1_rnc1_bs37_bsp_a  - 154 t
ba0 msc1_rnc1_bs38_bsp_a  - 155 t
ba0 msc1_rnc1_bs39_bsp_a  - 156 t
ba0 msc1_rnc1_bs40_bsp_a  - 157 t
ba0 msc1_rnc1_bs41_bsp_a  - 158 t
ba0 msc1_rnc1_bs42_bsp_a  - 159 t
ba0 msc1_rnc1_bs43_bsp_a  - 160 t
ba0 msc1_rnc1_bs44_bsp_a  - 161 t
ba0 msc1_rnc1_bs45_bsp_a  - 162 t
ba0 msc1_rnc1_bs46_bsp_a  - 163 t
ba0 msc1_rnc1_bs47_bsp_a  - 164 t

ba0 msc1_rnc2_bs0_bsp_a - 165 t
ba0 msc1_rnc2_bs1_bsp_a - 166 t
ba0 msc1_rnc2_bs2_bsp_a - 167 t
ba0 msc1_rnc2_bs3_bsp_a - 168 t
ba0 msc1_rnc2_bs4_bsp_a - 169 t
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ba0 msc1_rnc2_bs5_bsp_a - 170 t
ba0 msc1_rnc2_bs6_bsp_a - 171 t
ba0 msc1_rnc2_bs7_bsp_a - 172 t
ba0 msc1_rnc2_bs8_bsp_a - 173 t
ba0 msc1_rnc2_bs9_bsp_a - 174 t
ba0 msc1_rnc2_bs10_bsp_a - 175 t
ba0 msc1_rnc2_bs11_bsp_a - 176 t
ba0 msc1_rnc2_bs12_bsp_a - 177 t
ba0 msc1_rnc2_bs13_bsp_a - 178 t
ba0 msc1_rnc2_bs14_bsp_a - 179 t
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ba0 msc1_rnc2_bs26_bsp_a - 191 t
ba0 msc1_rnc2_bs27_bsp_a - 192 t
ba0 msc1_rnc2_bs28_bsp_a - 193 t
ba0 msc1_rnc2_bs29_bsp_a - 194 t
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ba0 msc1_rnc2_bs41_bsp_a - 206 t

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ba0 msc1_rnc3_bs29_bsp_a - 242 t

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ba0 msc1_rnc7_bs18_bsp_a  - 423 t
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ba0 msc1_rnc9_bs26_bsp_a - 527 t
ba0 msc1_rnc9_bs27_bsp_a - 528 t
ba0 msc1_rnc9_bs28_bsp_a - 529 t
ba0 msc1_rnc9_bs29_bsp_a - 530 t
ba0 msc1_rnc9_bs30_bsp_a - 531 t
ba0 msc1_rnc9_bs31_bsp_a - 532 t

```
ba0 msc1_rnc9_bs32_bsp_a  - 533 t
ba0 msc1_rnc9_bs33_bsp_a  - 534 t
ba0 msc1_rnc9_bs34_bsp_a  - 535 t
ba0 msc1_rnc9_bs35_bsp_a  - 536 t
ba0 msc1_rnc9_bs36_bsp_a  - 537 t
ba0 msc1_rnc9_bs37_bsp_a  - 538 t
ba0 msc1_rnc9_bs38_bsp_a  - 539 t
ba0 msc1_rnc9_bs39_bsp_a  - 540 t
ba0 msc1_rnc9_bs40_bsp_a  - 541 t
ba0 msc1_rnc9_bs41_bsp_a  - 542 t
ba0 msc1_rnc9_bs42_bsp_a  - 543 t
ba0 msc1_rnc9_bs43_bsp_a  - 544 t
ba0 msc1_rnc9_bs44_bsp_a  - 545 t
ba0 msc1_rnc9_bs45_bsp_a  - 546 t
ba0 msc1_rnc9_bs46_bsp_a  - 547 t
ba0 msc1_rnc9_bs47_bsp_a  - 548 t

ba0 msc1_rnc10_bs0_bsp_a  - 549 t
ba0 msc1_rnc10_bs1_bsp_a  - 550 t
ba0 msc1_rnc10_bs2_bsp_a  - 551 t
ba0 msc1_rnc10_bs3_bsp_a  - 552 t
ba0 msc1_rnc10_bs4_bsp_a  - 553 t
ba0 msc1_rnc10_bs5_bsp_a  - 554 t
ba0 msc1_rnc10_bs6_bsp_a  - 555 t
ba0 msc1_rnc10_bs7_bsp_a  - 556 t
ba0 msc1_rnc10_bs8_bsp_a  - 557 t
ba0 msc1_rnc10_bs9_bsp_a  - 558 t
ba0 msc1_rnc10_bs10_bsp_a - 559 t
ba0 msc1_rnc10_bs11_bsp_a - 560 t
ba0 msc1_rnc10_bs12_bsp_a - 561 t
ba0 msc1_rnc10_bs13_bsp_a - 562 t
ba0 msc1_rnc10_bs14_bsp_a - 563 t
ba0 msc1_rnc10_bs15_bsp_a - 564 t
ba0 msc1_rnc10_bs16_bsp_a - 565 t
ba0 msc1_rnc10_bs17_bsp_a - 566 t
ba0 msc1_rnc10_bs18_bsp_a - 567 t
ba0 msc1_rnc10_bs19_bsp_a - 568 t
```

```
ba0 msc1_rnc10_bs20_bsp_a - 569 t
ba0 msc1_rnc10_bs21_bsp_a - 570 t
ba0 msc1_rnc10_bs22_bsp_a - 571 t
ba0 msc1_rnc10_bs23_bsp_a - 572 t
ba0 msc1_rnc10_bs24_bsp_a - 573 t
ba0 msc1_rnc10_bs25_bsp_a - 574 t
ba0 msc1_rnc10_bs26_bsp_a - 575 t
ba0 msc1_rnc10_bs27_bsp_a - 576 t
ba0 msc1_rnc10_bs28_bsp_a - 577 t
ba0 msc1_rnc10_bs29_bsp_a - 578 t
ba0 msc1_rnc10_bs30_bsp_a - 579 t
ba0 msc1_rnc10_bs31_bsp_a - 580 t
ba0 msc1_rnc10_bs32_bsp_a - 581 t
ba0 msc1_rnc10_bs33_bsp_a - 582 t
ba0 msc1_rnc10_bs34_bsp_a - 583 t
ba0 msc1_rnc10_bs35_bsp_a - 584 t
ba0 msc1_rnc10_bs36_bsp_a - 585 t
ba0 msc1_rnc10_bs37_bsp_a - 586 t
ba0 msc1_rnc10_bs38_bsp_a - 587 t
ba0 msc1_rnc10_bs39_bsp_a - 588 t
ba0 msc1_rnc10_bs40_bsp_a - 589 t
ba0 msc1_rnc10_bs41_bsp_a - 590 t
ba0 msc1_rnc10_bs42_bsp_a - 591 t
ba0 msc1_rnc10_bs43_bsp_a - 592 t
ba0 msc1_rnc10_bs44_bsp_a - 593 t
ba0 msc1_rnc10_bs45_bsp_a - 594 t
ba0 msc1_rnc10_bs46_bsp_a - 595 t
ba0 msc1_rnc10_bs47_bsp_a - 596 t

ba0 msc1_rnc11_bs0_bsp_a  - 597 t
ba0 msc1_rnc11_bs1_bsp_a  - 598 t
ba0 msc1_rnc11_bs2_bsp_a  - 599 t
ba0 msc1_rnc11_bs3_bsp_a  - 600 t
ba0 msc1_rnc11_bs4_bsp_a  - 601 t
ba0 msc1_rnc11_bs5_bsp_a  - 602 t
ba0 msc1_rnc11_bs6_bsp_a  - 603 t
ba0 msc1_rnc11_bs7_bsp_a  - 604 t
```

```
ba0 msc1_rnc11_bs8_bsp_a  - 605 t
ba0 msc1_rnc11_bs9_bsp_a  - 606 t
ba0 msc1_rnc11_bs10_bsp_a - 607 t
ba0 msc1_rnc11_bs11_bsp_a - 608 t
ba0 msc1_rnc11_bs12_bsp_a - 609 t
ba0 msc1_rnc11_bs13_bsp_a - 610 t
ba0 msc1_rnc11_bs14_bsp_a - 611 t
ba0 msc1_rnc11_bs15_bsp_a - 612 t
ba0 msc1_rnc11_bs16_bsp_a - 613 t
ba0 msc1_rnc11_bs17_bsp_a - 614 t
ba0 msc1_rnc11_bs18_bsp_a - 615 t
ba0 msc1_rnc11_bs19_bsp_a - 616 t
ba0 msc1_rnc11_bs20_bsp_a - 617 t
ba0 msc1_rnc11_bs21_bsp_a - 618 t
ba0 msc1_rnc11_bs22_bsp_a - 619 t
ba0 msc1_rnc11_bs23_bsp_a - 620 t
ba0 msc1_rnc11_bs24_bsp_a - 621 t
ba0 msc1_rnc11_bs25_bsp_a - 622 t
ba0 msc1_rnc11_bs26_bsp_a - 623 t
ba0 msc1_rnc11_bs27_bsp_a - 624 t
ba0 msc1_rnc11_bs28_bsp_a - 625 t
ba0 msc1_rnc11_bs29_bsp_a - 626 t
ba0 msc1_rnc11_bs30_bsp_a - 627 t
ba0 msc1_rnc11_bs31_bsp_a - 628 t
ba0 msc1_rnc11_bs32_bsp_a - 629 t
ba0 msc1_rnc11_bs33_bsp_a - 630 t
ba0 msc1_rnc11_bs34_bsp_a - 631 t
ba0 msc1_rnc11_bs35_bsp_a - 632 t
ba0 msc1_rnc11_bs36_bsp_a - 633 t
ba0 msc1_rnc11_bs37_bsp_a - 634 t
ba0 msc1_rnc11_bs38_bsp_a - 635 t
ba0 msc1_rnc11_bs39_bsp_a - 636 t
ba0 msc1_rnc11_bs40_bsp_a - 637 t
ba0 msc1_rnc11_bs41_bsp_a - 638 t
ba0 msc1_rnc11_bs42_bsp_a - 639 t
ba0 msc1_rnc11_bs43_bsp_a - 640 t
ba0 msc1_rnc11_bs44_bsp_a - 641 t
```

```
ba0 msc1_rnc11_bs45_bsp_a - 642 t
ba0 msc1_rnc11_bs46_bsp_a - 643 t
ba0 msc1_rnc11_bs47_bsp_a - 644 t
```

2.3.4.3. /etc/hosts File

```
#
# Classical IP over ATM
#
29.192.0.1        msc1_bsm                  # This host
29.64.2.1         msc1_cnp_a                # VCI=32
29.64.2.129       msc1_cnp_s                # VCI=645

17.64.2.1         msc1_rnc0_ncp_a           # VCI=33
17.64.2.129       msc1_rnc0_ncp_s           # VCI=646
18.64.2.1         msc1_rnc1_ncp_a           # VCI=34
18.64.2.129       msc1_rnc1_ncp_s           # VCI=647
19.64.2.1         msc1_rnc2_ncp_a           # VCI=35
19.64.2.129       msc1_rnc2_ncp_s           # VCI=648
20.64.2.1         msc1_rnc3_ncp_a           # VCI=36
20.64.2.129       msc1_rnc3_ncp_s           # VCI=649
21.64.2.1         msc1_rnc4_ncp_a           # VCI=37
21.64.2.129       msc1_rnc4_ncp_s           # VCI=650
22.64.2.1         msc1_rnc5_ncp_a           # VCI=38
22.64.2.129       msc1_rnc5_ncp_s           # VCI=651
23.64.2.1         msc1_rnc6_ncp_a           # VCI=39
23.64.2.129       msc1_rnc6_ncp_s           # VCI=652
24.64.2.1         msc1_rnc7_ncp_a           # VCI=40
24.64.2.129       msc1_rnc7_ncp_s           # VCI=653
25.64.2.1         msc1_rnc8_ncp_a           # VCI=41
25.64.2.129       msc1_rnc8_ncp_s           # VCI=654
26.64.2.1         msc1_rnc9_ncp_a           # VCI=42
26.64.2.129       msc1_rnc9_ncp_s           # VCI=655
27.64.2.1         msc1_rnc10_ncp_a          # VCI=43
27.64.2.129       msc1_rnc10_ncp_s          # VCI=656
28.64.2.1         msc1_rnc11_ncp_a          # VCI=44
```

```
28.64.2.129     msc1_rnc11_ncp_s          # VCI=657

17.64.1.1       msc1_rnc0_ccp_a           # VCI=45
17.64.1.129     msc1_rnc0_ccp_s           # VCI=658
18.64.1.1       msc1_rnc1_ccp_a           # VCI=46
18.64.1.129     msc1_rnc1_ccp_s           # VCI=659
19.64.1.1       msc1_rnc2_ccp_a           # VCI=47
19.64.1.129     msc1_rnc2_ccp_s           # VCI=660
20.64.1.1       msc1_rnc3_ccp_a           # VCI=48
20.64.1.129     msc1_rnc3_ccp_s           # VCI=661
21.64.1.1       msc1_rnc4_ccp_a           # VCI=49
21.64.1.129     msc1_rnc4_ccp_s           # VCI=662
22.64.1.1       msc1_rnc5_ccp_a           # VCI=50
22.64.1.129     msc1_rnc5_ccp_s           # VCI=663
23.64.1.1       msc1_rnc6_ccp_a           # VCI=51
23.64.1.129     msc1_rnc6_ccp_s           # VCI=664
24.64.1.1       msc1_rnc7_ccp_a           # VCI=52
24.64.1.129     msc1_rnc7_ccp_s           # VCI=665
25.64.1.1       msc1_rnc8_ccp_a           # VCI=53
25.64.1.129     msc1_rnc8_ccp_s           # VCI=666
26.64.1.1       msc1_rnc9_ccp_a           # VCI=54
26.64.1.129     msc1_rnc9_ccp_s           # VCI=667
27.64.1.1       msc1_rnc10_ccp_a          # VCI=55
27.64.1.129     msc1_rnc10_ccp_s          # VCI=668
28.64.1.1       msc1_rnc11_ccp_a          # VCI=56
28.64.1.129     msc1_rnc11_ccp_s          # VCI=669

17.64.5.1       msc1_rnc0_pcp_a           # VCI=57
18.64.5.1       msc1_rnc1_pcp_a           # VCI=58
19.64.5.1       msc1_rnc2_pcp_a           # VCI=59
20.64.5.1       msc1_rnc3_pcp_a           # VCI=60
21.64.5.1       msc1_rnc4_pcp_a           # VCI=61
22.64.5.1       msc1_rnc5_pcp_a           # VCI=62
23.64.5.1       msc1_rnc6_pcp_a           # VCI=63
24.64.5.1       msc1_rnc7_pcp_a           # VCI=64
25.64.5.1       msc1_rnc8_pcp_a           # VCI=65
26.64.5.1       msc1_rnc9_pcp_a           # VCI=66
```

```
27.64.5.1       msc1_rnc10_pcp_a                # VCI=67
28.64.5.1       msc1_rnc11_pcp_a                # VCI=68

17.128.1.1  msc1_rnc0_bs0_bsp_a   # VCI=69
17.129.1.1  msc1_rnc0_bs1_bsp_a   # VCI=70
17.130.1.1  msc1_rnc0_bs2_bsp_a   # VCI=71
17.131.1.1  msc1_rnc0_bs3_bsp_a   # VCI=72
17.132.1.1  msc1_rnc0_bs4_bsp_a   # VCI=73
17.133.1.1  msc1_rnc0_bs5_bsp_a   # VCI=74
17.134.1.1  msc1_rnc0_bs6_bsp_a   # VCI=75
17.135.1.1  msc1_rnc0_bs7_bsp_a   # VCI=76
17.136.1.1  msc1_rnc0_bs8_bsp_a   # VCI=77
17.137.1.1  msc1_rnc0_bs9_bsp_a   # VCI=78
17.138.1.1  msc1_rnc0_bs10_bsp_a    # VCI=79
17.139.1.1  msc1_rnc0_bs11_bsp_a    # VCI=80
17.140.1.1  msc1_rnc0_bs12_bsp_a    # VCI=81
17.141.1.1  msc1_rnc0_bs13_bsp_a    # VCI=82
17.142.1.1  msc1_rnc0_bs14_bsp_a    # VCI=83
17.143.1.1  msc1_rnc0_bs15_bsp_a    # VCI=84
17.144.1.1  msc1_rnc0_bs16_bsp_a    # VCI=85
17.145.1.1  msc1_rnc0_bs17_bsp_a    # VCI=86
17.146.1.1  msc1_rnc0_bs18_bsp_a    # VCI=87
17.147.1.1  msc1_rnc0_bs19_bsp_a    # VCI=88
17.148.1.1  msc1_rnc0_bs20_bsp_a    # VCI=89
17.149.1.1  msc1_rnc0_bs21_bsp_a    # VCI=90
17.150.1.1  msc1_rnc0_bs22_bsp_a    # VCI=91
17.151.1.1  msc1_rnc0_bs23_bsp_a    # VCI=92
17.152.1.1  msc1_rnc0_bs24_bsp_a    # VCI=93
17.153.1.1  msc1_rnc0_bs25_bsp_a    # VCI=94
17.154.1.1  msc1_rnc0_bs26_bsp_a    # VCI=95
17.155.1.1  msc1_rnc0_bs27_bsp_a    # VCI=96
17.156.1.1  msc1_rnc0_bs28_bsp_a    # VCI=97
17.157.1.1  msc1_rnc0_bs29_bsp_a    # VCI=98
17.158.1.1  msc1_rnc0_bs30_bsp_a    # VCI=99
17.159.1.1  msc1_rnc0_bs31_bsp_a    # VCI=100
17.160.1.1  msc1_rnc0_bs32_bsp_a    # VCI=101
17.161.1.1  msc1_rnc0_bs33_bsp_a    # VCI=102
```

```
17.162.1.1   msc1_rnc0_bs34_bsp_a     # VCI=103
17.163.1.1   msc1_rnc0_bs35_bsp_a     # VCI=104
17.164.1.1   msc1_rnc0_bs36_bsp_a     # VCI=105
17.165.1.1   msc1_rnc0_bs37_bsp_a     # VCI=106
17.166.1.1   msc1_rnc0_bs38_bsp_a     # VCI=107
17.167.1.1   msc1_rnc0_bs39_bsp_a     # VCI=108
17.168.1.1   msc1_rnc0_bs40_bsp_a     # VCI=109
17.169.1.1   msc1_rnc0_bs41_bsp_a     # VCI=110
17.170.1.1   msc1_rnc0_bs42_bsp_a     # VCI=111
17.171.1.1   msc1_rnc0_bs43_bsp_a     # VCI=112
17.172.1.1   msc1_rnc0_bs44_bsp_a     # VCI=113
17.173.1.1   msc1_rnc0_bs45_bsp_a     # VCI=114
17.174.1.1   msc1_rnc0_bs46_bsp_a     # VCI=115
17.175.1.1   msc1_rnc0_bs47_bsp_a     # VCI=116

18.128.1.1   msc1_rnc1_bs0_bsp_a    # VCI=117
18.129.1.1   msc1_rnc1_bs1_bsp_a    # VCI=118
18.130.1.1   msc1_rnc1_bs2_bsp_a    # VCI=119
18.131.1.1   msc1_rnc1_bs3_bsp_a    # VCI=120
18.132.1.1   msc1_rnc1_bs4_bsp_a    # VCI=121
18.133.1.1   msc1_rnc1_bs5_bsp_a    # VCI=122
18.134.1.1   msc1_rnc1_bs6_bsp_a    # VCI=123
18.135.1.1   msc1_rnc1_bs7_bsp_a    # VCI=124
18.136.1.1   msc1_rnc1_bs8_bsp_a    # VCI=125
18.137.1.1   msc1_rnc1_bs9_bsp_a    # VCI=126
18.138.1.1   msc1_rnc1_bs10_bsp_a     # VCI=127
18.139.1.1   msc1_rnc1_bs11_bsp_a     # VCI=128
18.140.1.1   msc1_rnc1_bs12_bsp_a     # VCI=129
18.141.1.1   msc1_rnc1_bs13_bsp_a     # VCI=130
18.142.1.1   msc1_rnc1_bs14_bsp_a     # VCI=131
18.143.1.1   msc1_rnc1_bs15_bsp_a     # VCI=132
18.144.1.1   msc1_rnc1_bs16_bsp_a     # VCI=133
18.145.1.1   msc1_rnc1_bs17_bsp_a     # VCI=134
18.146.1.1   msc1_rnc1_bs18_bsp_a     # VCI=135
18.147.1.1   msc1_rnc1_bs19_bsp_a     # VCI=136
18.148.1.1   msc1_rnc1_bs20_bsp_a     # VCI=137
18.149.1.1   msc1_rnc1_bs21_bsp_a     # VCI=138
```

```
18.150.1.1   msc1_rnc1_bs22_bsp_a     # VCI=139
18.151.1.1   msc1_rnc1_bs23_bsp_a     # VCI=140
18.152.1.1   msc1_rnc1_bs24_bsp_a     # VCI=141
18.153.1.1   msc1_rnc1_bs25_bsp_a     # VCI=142
18.154.1.1   msc1_rnc1_bs26_bsp_a     # VCI=143
18.155.1.1   msc1_rnc1_bs27_bsp_a     # VCI=144
18.156.1.1   msc1_rnc1_bs28_bsp_a     # VCI=145
18.157.1.1   msc1_rnc1_bs29_bsp_a     # VCI=146
18.158.1.1   msc1_rnc1_bs30_bsp_a     # VCI=147
18.159.1.1   msc1_rnc1_bs31_bsp_a     # VCI=148
18.160.1.1   msc1_rnc1_bs32_bsp_a     # VCI=149
18.161.1.1   msc1_rnc1_bs33_bsp_a     # VCI=150
18.162.1.1   msc1_rnc1_bs34_bsp_a     # VCI=151
18.163.1.1   msc1_rnc1_bs35_bsp_a     # VCI=152
18.164.1.1   msc1_rnc1_bs36_bsp_a     # VCI=153
18.165.1.1   msc1_rnc1_bs37_bsp_a     # VCI=154
18.166.1.1   msc1_rnc1_bs38_bsp_a     # VCI=155
18.167.1.1   msc1_rnc1_bs39_bsp_a     # VCI=156
18.168.1.1   msc1_rnc1_bs40_bsp_a     # VCI=157
18.169.1.1   msc1_rnc1_bs41_bsp_a     # VCI=158
18.170.1.1   msc1_rnc1_bs42_bsp_a     # VCI=159
18.171.1.1   msc1_rnc1_bs43_bsp_a     # VCI=160
18.172.1.1   msc1_rnc1_bs44_bsp_a     # VCI=161
18.173.1.1   msc1_rnc1_bs45_bsp_a     # VCI=162
18.174.1.1   msc1_rnc1_bs46_bsp_a     # VCI=163
18.175.1.1   msc1_rnc1_bs47_bsp_a     # VCI=164

19.128.1.1   msc1_rnc2_bs0_bsp_a    # VCI=165
19.129.1.1   msc1_rnc2_bs1_bsp_a    # VCI=166
19.130.1.1   msc1_rnc2_bs2_bsp_a    # VCI=167
19.131.1.1   msc1_rnc2_bs3_bsp_a    # VCI=168
19.132.1.1   msc1_rnc2_bs4_bsp_a    # VCI=169
19.133.1.1   msc1_rnc2_bs5_bsp_a    # VCI=170
19.134.1.1   msc1_rnc2_bs6_bsp_a    # VCI=171
19.135.1.1   msc1_rnc2_bs7_bsp_a    # VCI=172
19.136.1.1   msc1_rnc2_bs8_bsp_a    # VCI=173
19.137.1.1   msc1_rnc2_bs9_bsp_a    # VCI=174
```

```
19.138.1.1   msc1_rnc2_bs10_bsp_a     # VCI=175
19.139.1.1   msc1_rnc2_bs11_bsp_a     # VCI=176
19.140.1.1   msc1_rnc2_bs12_bsp_a     # VCI=177
19.141.1.1   msc1_rnc2_bs13_bsp_a     # VCI=178
19.142.1.1   msc1_rnc2_bs14_bsp_a     # VCI=179
19.143.1.1   msc1_rnc2_bs15_bsp_a     # VCI=180
19.144.1.1   msc1_rnc2_bs16_bsp_a     # VCI=181
19.145.1.1   msc1_rnc2_bs17_bsp_a     # VCI=182
19.146.1.1   msc1_rnc2_bs18_bsp_a     # VCI=183
19.147.1.1   msc1_rnc2_bs19_bsp_a     # VCI=184
19.148.1.1   msc1_rnc2_bs20_bsp_a     # VCI=185
19.149.1.1   msc1_rnc2_bs21_bsp_a     # VCI=186
19.150.1.1   msc1_rnc2_bs22_bsp_a     # VCI=187
19.151.1.1   msc1_rnc2_bs23_bsp_a     # VCI=188
19.152.1.1   msc1_rnc2_bs24_bsp_a     # VCI=189
19.153.1.1   msc1_rnc2_bs25_bsp_a     # VCI=190
19.154.1.1   msc1_rnc2_bs26_bsp_a     # VCI=191
19.155.1.1   msc1_rnc2_bs27_bsp_a     # VCI=192
19.156.1.1   msc1_rnc2_bs28_bsp_a     # VCI=193
19.157.1.1   msc1_rnc2_bs29_bsp_a     # VCI=194
19.158.1.1   msc1_rnc2_bs30_bsp_a     # VCI=195
19.159.1.1   msc1_rnc2_bs31_bsp_a     # VCI=196
19.160.1.1   msc1_rnc2_bs32_bsp_a     # VCI=197
19.161.1.1   msc1_rnc2_bs33_bsp_a     # VCI=198
19.162.1.1   msc1_rnc2_bs34_bsp_a     # VCI=199
19.163.1.1   msc1_rnc2_bs35_bsp_a     # VCI=200
19.164.1.1   msc1_rnc2_bs36_bsp_a     # VCI=201
19.165.1.1   msc1_rnc2_bs37_bsp_a     # VCI=202
19.166.1.1   msc1_rnc2_bs38_bsp_a     # VCI=203
19.167.1.1   msc1_rnc2_bs39_bsp_a     # VCI=204
19.168.1.1   msc1_rnc2_bs40_bsp_a     # VCI=205
19.169.1.1   msc1_rnc2_bs41_bsp_a     # VCI=206
19.170.1.1   msc1_rnc2_bs42_bsp_a     # VCI=207
19.171.1.1   msc1_rnc2_bs43_bsp_a     # VCI=208
19.172.1.1   msc1_rnc2_bs44_bsp_a     # VCI=209
19.173.1.1   msc1_rnc2_bs45_bsp_a     # VCI=210
19.174.1.1   msc1_rnc2_bs46_bsp_a     # VCI=211
```

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19.175.1.1   msc1_rnc2_bs47_bsp_a     # VCI=212

20.128.1.1   msc1_rnc3_bs0_bsp_a    # VCI=213
20.129.1.1   msc1_rnc3_bs1_bsp_a    # VCI=214
20.130.1.1   msc1_rnc3_bs2_bsp_a    # VCI=215
20.131.1.1   msc1_rnc3_bs3_bsp_a    # VCI=216
20.132.1.1   msc1_rnc3_bs4_bsp_a    # VCI=217
20.133.1.1   msc1_rnc3_bs5_bsp_a    # VCI=218
20.134.1.1   msc1_rnc3_bs6_bsp_a    # VCI=219
20.135.1.1   msc1_rnc3_bs7_bsp_a    # VCI=220
20.136.1.1   msc1_rnc3_bs8_bsp_a    # VCI=221
20.137.1.1   msc1_rnc3_bs9_bsp_a    # VCI=222
20.138.1.1   msc1_rnc3_bs10_bsp_a     # VCI=223
20.139.1.1   msc1_rnc3_bs11_bsp_a     # VCI=224
20.140.1.1   msc1_rnc3_bs12_bsp_a     # VCI=225
20.141.1.1   msc1_rnc3_bs13_bsp_a     # VCI=226
20.142.1.1   msc1_rnc3_bs14_bsp_a     # VCI=227
20.143.1.1   msc1_rnc3_bs15_bsp_a     # VCI=228
20.144.1.1   msc1_rnc3_bs16_bsp_a     # VCI=229
20.145.1.1   msc1_rnc3_bs17_bsp_a     # VCI=230
20.146.1.1   msc1_rnc3_bs18_bsp_a     # VCI=231
20.147.1.1   msc1_rnc3_bs19_bsp_a     # VCI=232
20.148.1.1   msc1_rnc3_bs20_bsp_a     # VCI=233
20.149.1.1   msc1_rnc3_bs21_bsp_a     # VCI=234
20.150.1.1   msc1_rnc3_bs22_bsp_a     # VCI=235
20.151.1.1   msc1_rnc3_bs23_bsp_a     # VCI=236
20.152.1.1   msc1_rnc3_bs24_bsp_a     # VCI=237
20.153.1.1   msc1_rnc3_bs25_bsp_a     # VCI=238
20.154.1.1   msc1_rnc3_bs26_bsp_a     # VCI=239
20.155.1.1   msc1_rnc3_bs27_bsp_a     # VCI=240
20.156.1.1   msc1_rnc3_bs28_bsp_a     # VCI=241
20.157.1.1   msc1_rnc3_bs29_bsp_a     # VCI=242
20.158.1.1   msc1_rnc3_bs30_bsp_a     # VCI=243
20.159.1.1   msc1_rnc3_bs31_bsp_a     # VCI=244
20.160.1.1   msc1_rnc3_bs32_bsp_a     # VCI=245
20.161.1.1   msc1_rnc3_bs33_bsp_a     # VCI=246
20.162.1.1   msc1_rnc3_bs34_bsp_a     # VCI=247
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20.163.1.1   msc1_rnc3_bs35_bsp_a     # VCI=248
20.164.1.1   msc1_rnc3_bs36_bsp_a     # VCI=249
20.165.1.1   msc1_rnc3_bs37_bsp_a     # VCI=250
20.166.1.1   msc1_rnc3_bs38_bsp_a     # VCI=251
20.167.1.1   msc1_rnc3_bs39_bsp_a     # VCI=252
20.168.1.1   msc1_rnc3_bs40_bsp_a     # VCI=253
20.169.1.1   msc1_rnc3_bs41_bsp_a     # VCI=254
20.170.1.1   msc1_rnc3_bs42_bsp_a     # VCI=255
20.171.1.1   msc1_rnc3_bs43_bsp_a     # VCI=256
20.172.1.1   msc1_rnc3_bs44_bsp_a     # VCI=257
20.173.1.1   msc1_rnc3_bs45_bsp_a     # VCI=258
20.174.1.1   msc1_rnc3_bs46_bsp_a     # VCI=259
20.175.1.1   msc1_rnc3_bs47_bsp_a     # VCI=260

21.128.1.1   msc1_rnc4_bs0_bsp_a    # VCI=261
21.129.1.1   msc1_rnc4_bs1_bsp_a    # VCI=262
21.130.1.1   msc1_rnc4_bs2_bsp_a    # VCI=263
21.131.1.1   msc1_rnc4_bs3_bsp_a    # VCI=264
21.132.1.1   msc1_rnc4_bs4_bsp_a    # VCI=265
21.133.1.1   msc1_rnc4_bs5_bsp_a    # VCI=266
21.134.1.1   msc1_rnc4_bs6_bsp_a    # VCI=267
21.135.1.1   msc1_rnc4_bs7_bsp_a    # VCI=268
21.136.1.1   msc1_rnc4_bs8_bsp_a    # VCI=269
21.137.1.1   msc1_rnc4_bs9_bsp_a    # VCI=270
21.138.1.1   msc1_rnc4_bs10_bsp_a     # VCI=271
21.139.1.1   msc1_rnc4_bs11_bsp_a     # VCI=272
21.140.1.1   msc1_rnc4_bs12_bsp_a     # VCI=273
21.141.1.1   msc1_rnc4_bs13_bsp_a     # VCI=274
21.142.1.1   msc1_rnc4_bs14_bsp_a     # VCI=275
21.143.1.1   msc1_rnc4_bs15_bsp_a     # VCI=276
21.144.1.1   msc1_rnc4_bs16_bsp_a     # VCI=277
21.145.1.1   msc1_rnc4_bs17_bsp_a     # VCI=278
21.146.1.1   msc1_rnc4_bs18_bsp_a     # VCI=279
21.147.1.1   msc1_rnc4_bs19_bsp_a     # VCI=280
21.148.1.1   msc1_rnc4_bs20_bsp_a     # VCI=281
21.149.1.1   msc1_rnc4_bs21_bsp_a     # VCI=282
21.150.1.1   msc1_rnc4_bs22_bsp_a     # VCI=283
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21.151.1.1   msc1_rnc4_bs23_bsp_a     # VCI=284
21.152.1.1   msc1_rnc4_bs24_bsp_a     # VCI=285
21.153.1.1   msc1_rnc4_bs25_bsp_a     # VCI=286
21.154.1.1   msc1_rnc4_bs26_bsp_a     # VCI=287
21.155.1.1   msc1_rnc4_bs27_bsp_a     # VCI=288
21.156.1.1   msc1_rnc4_bs28_bsp_a     # VCI=289
21.157.1.1   msc1_rnc4_bs29_bsp_a     # VCI=290
21.158.1.1   msc1_rnc4_bs30_bsp_a     # VCI=291
21.159.1.1   msc1_rnc4_bs31_bsp_a     # VCI=292
21.160.1.1   msc1_rnc4_bs32_bsp_a     # VCI=293
21.161.1.1   msc1_rnc4_bs33_bsp_a     # VCI=294
21.162.1.1   msc1_rnc4_bs34_bsp_a     # VCI=295
21.163.1.1   msc1_rnc4_bs35_bsp_a     # VCI=296
21.164.1.1   msc1_rnc4_bs36_bsp_a     # VCI=297
21.165.1.1   msc1_rnc4_bs37_bsp_a     # VCI=298
21.166.1.1   msc1_rnc4_bs38_bsp_a     # VCI=299
21.167.1.1   msc1_rnc4_bs39_bsp_a     # VCI=300
21.168.1.1   msc1_rnc4_bs40_bsp_a     # VCI=301
21.169.1.1   msc1_rnc4_bs41_bsp_a     # VCI=302
21.170.1.1   msc1_rnc4_bs42_bsp_a     # VCI=303
21.171.1.1   msc1_rnc4_bs43_bsp_a     # VCI=304
21.172.1.1   msc1_rnc4_bs44_bsp_a     # VCI=305
21.173.1.1   msc1_rnc4_bs45_bsp_a     # VCI=306
21.174.1.1   msc1_rnc4_bs46_bsp_a     # VCI=307
21.175.1.1   msc1_rnc4_bs47_bsp_a     # VCI=308

22.128.1.1   msc1_rnc5_bs0_bsp_a    # VCI=309
22.129.1.1   msc1_rnc5_bs1_bsp_a    # VCI=310
22.130.1.1   msc1_rnc5_bs2_bsp_a    # VCI=311
22.131.1.1   msc1_rnc5_bs3_bsp_a    # VCI=312
22.132.1.1   msc1_rnc5_bs4_bsp_a    # VCI=313
22.133.1.1   msc1_rnc5_bs5_bsp_a    # VCI=314
22.134.1.1   msc1_rnc5_bs6_bsp_a    # VCI=315
22.135.1.1   msc1_rnc5_bs7_bsp_a    # VCI=316
22.136.1.1   msc1_rnc5_bs8_bsp_a    # VCI=317
22.137.1.1   msc1_rnc5_bs9_bsp_a    # VCI=318
22.138.1.1   msc1_rnc5_bs10_bsp_a     # VCI=319
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```
22.139.1.1   msc1_rnc5_bs11_bsp_a     # VCI=320
22.140.1.1   msc1_rnc5_bs12_bsp_a     # VCI=321
22.141.1.1   msc1_rnc5_bs13_bsp_a     # VCI=322
22.142.1.1   msc1_rnc5_bs14_bsp_a     # VCI=323
22.143.1.1   msc1_rnc5_bs15_bsp_a     # VCI=324
22.144.1.1   msc1_rnc5_bs16_bsp_a     # VCI=325
22.145.1.1   msc1_rnc5_bs17_bsp_a     # VCI=326
22.146.1.1   msc1_rnc5_bs18_bsp_a     # VCI=327
22.147.1.1   msc1_rnc5_bs19_bsp_a     # VCI=328
22.148.1.1   msc1_rnc5_bs20_bsp_a     # VCI=329
22.149.1.1   msc1_rnc5_bs21_bsp_a     # VCI=330
22.150.1.1   msc1_rnc5_bs22_bsp_a     # VCI=331
22.151.1.1   msc1_rnc5_bs23_bsp_a     # VCI=332
22.152.1.1   msc1_rnc5_bs24_bsp_a     # VCI=333
22.153.1.1   msc1_rnc5_bs25_bsp_a     # VCI=334
22.154.1.1   msc1_rnc5_bs26_bsp_a     # VCI=335
22.155.1.1   msc1_rnc5_bs27_bsp_a     # VCI=336
22.156.1.1   msc1_rnc5_bs28_bsp_a     # VCI=337
22.157.1.1   msc1_rnc5_bs29_bsp_a     # VCI=338
22.158.1.1   msc1_rnc5_bs30_bsp_a     # VCI=339
22.159.1.1   msc1_rnc5_bs31_bsp_a     # VCI=340
22.160.1.1   msc1_rnc5_bs32_bsp_a     # VCI=341
22.161.1.1   msc1_rnc5_bs33_bsp_a     # VCI=342
22.162.1.1   msc1_rnc5_bs34_bsp_a     # VCI=343
22.163.1.1   msc1_rnc5_bs35_bsp_a     # VCI=344
22.164.1.1   msc1_rnc5_bs36_bsp_a     # VCI=345
22.165.1.1   msc1_rnc5_bs37_bsp_a     # VCI=346
22.166.1.1   msc1_rnc5_bs38_bsp_a     # VCI=347
22.167.1.1   msc1_rnc5_bs39_bsp_a     # VCI=348
22.168.1.1   msc1_rnc5_bs40_bsp_a     # VCI=349
22.169.1.1   msc1_rnc5_bs41_bsp_a     # VCI=350
22.170.1.1   msc1_rnc5_bs42_bsp_a     # VCI=351
22.171.1.1   msc1_rnc5_bs43_bsp_a     # VCI=352
22.172.1.1   msc1_rnc5_bs44_bsp_a     # VCI=353
22.173.1.1   msc1_rnc5_bs45_bsp_a     # VCI=354
22.174.1.1   msc1_rnc5_bs46_bsp_a     # VCI=355
22.175.1.1   msc1_rnc5_bs47_bsp_a     # VCI=356
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```
23.128.1.1   msc1_rnc6_bs0_bsp_a    # VCI=357
23.129.1.1   msc1_rnc6_bs1_bsp_a    # VCI=358
23.130.1.1   msc1_rnc6_bs2_bsp_a    # VCI=359
23.131.1.1   msc1_rnc6_bs3_bsp_a    # VCI=360
23.132.1.1   msc1_rnc6_bs4_bsp_a    # VCI=361
23.133.1.1   msc1_rnc6_bs5_bsp_a    # VCI=362
23.134.1.1   msc1_rnc6_bs6_bsp_a    # VCI=363
23.135.1.1   msc1_rnc6_bs7_bsp_a    # VCI=364
23.136.1.1   msc1_rnc6_bs8_bsp_a    # VCI=365
23.137.1.1   msc1_rnc6_bs9_bsp_a    # VCI=366
23.138.1.1   msc1_rnc6_bs10_bsp_a     # VCI=367
23.139.1.1   msc1_rnc6_bs11_bsp_a     # VCI=368
23.140.1.1   msc1_rnc6_bs12_bsp_a     # VCI=369
23.141.1.1   msc1_rnc6_bs13_bsp_a     # VCI=370
23.142.1.1   msc1_rnc6_bs14_bsp_a     # VCI=371
23.143.1.1   msc1_rnc6_bs15_bsp_a     # VCI=372
23.144.1.1   msc1_rnc6_bs16_bsp_a     # VCI=373
23.145.1.1   msc1_rnc6_bs17_bsp_a     # VCI=374
23.146.1.1   msc1_rnc6_bs18_bsp_a     # VCI=375
23.147.1.1   msc1_rnc6_bs19_bsp_a     # VCI=376
23.148.1.1   msc1_rnc6_bs20_bsp_a     # VCI=377
23.149.1.1   msc1_rnc6_bs21_bsp_a     # VCI=378
23.150.1.1   msc1_rnc6_bs22_bsp_a     # VCI=379
23.151.1.1   msc1_rnc6_bs23_bsp_a     # VCI=380
23.152.1.1   msc1_rnc6_bs24_bsp_a     # VCI=381
23.153.1.1   msc1_rnc6_bs25_bsp_a     # VCI=382
23.154.1.1   msc1_rnc6_bs26_bsp_a     # VCI=383
23.155.1.1   msc1_rnc6_bs27_bsp_a     # VCI=384
23.156.1.1   msc1_rnc6_bs28_bsp_a     # VCI=385
23.157.1.1   msc1_rnc6_bs29_bsp_a     # VCI=386
23.158.1.1   msc1_rnc6_bs30_bsp_a     # VCI=387
23.159.1.1   msc1_rnc6_bs31_bsp_a     # VCI=388
23.160.1.1   msc1_rnc6_bs32_bsp_a     # VCI=389
23.161.1.1   msc1_rnc6_bs33_bsp_a     # VCI=390
23.162.1.1   msc1_rnc6_bs34_bsp_a     # VCI=391
23.163.1.1   msc1_rnc6_bs35_bsp_a     # VCI=392
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```
23.164.1.1   msc1_rnc6_bs36_bsp_a     # VCI=393
23.165.1.1   msc1_rnc6_bs37_bsp_a     # VCI=394
23.166.1.1   msc1_rnc6_bs38_bsp_a     # VCI=395
23.167.1.1   msc1_rnc6_bs39_bsp_a     # VCI=396
23.168.1.1   msc1_rnc6_bs40_bsp_a     # VCI=397
23.169.1.1   msc1_rnc6_bs41_bsp_a     # VCI=398
23.170.1.1   msc1_rnc6_bs42_bsp_a     # VCI=399
23.171.1.1   msc1_rnc6_bs43_bsp_a     # VCI=400
23.172.1.1   msc1_rnc6_bs44_bsp_a     # VCI=401
23.173.1.1   msc1_rnc6_bs45_bsp_a     # VCI=402
23.174.1.1   msc1_rnc6_bs46_bsp_a     # VCI=403
23.175.1.1   msc1_rnc6_bs47_bsp_a     # VCI=404

24.128.1.1   msc1_rnc7_bs0_bsp_a    # VCI=405
24.129.1.1   msc1_rnc7_bs1_bsp_a    # VCI=406
24.130.1.1   msc1_rnc7_bs2_bsp_a    # VCI=407
24.131.1.1   msc1_rnc7_bs3_bsp_a    # VCI=408
24.132.1.1   msc1_rnc7_bs4_bsp_a    # VCI=409
24.133.1.1   msc1_rnc7_bs5_bsp_a    # VCI=410
24.134.1.1   msc1_rnc7_bs6_bsp_a    # VCI=411
24.135.1.1   msc1_rnc7_bs7_bsp_a    # VCI=412
24.136.1.1   msc1_rnc7_bs8_bsp_a    # VCI=413
24.137.1.1   msc1_rnc7_bs9_bsp_a    # VCI=414
24.138.1.1   msc1_rnc7_bs10_bsp_a     # VCI=415
24.139.1.1   msc1_rnc7_bs11_bsp_a     # VCI=416
24.140.1.1   msc1_rnc7_bs12_bsp_a     # VCI=417
24.141.1.1   msc1_rnc7_bs13_bsp_a     # VCI=418
24.142.1.1   msc1_rnc7_bs14_bsp_a     # VCI=419
24.143.1.1   msc1_rnc7_bs15_bsp_a     # VCI=420
24.144.1.1   msc1_rnc7_bs16_bsp_a     # VCI=421
24.145.1.1   msc1_rnc7_bs17_bsp_a     # VCI=422
24.146.1.1   msc1_rnc7_bs18_bsp_a     # VCI=423
24.147.1.1   msc1_rnc7_bs19_bsp_a     # VCI=424
24.148.1.1   msc1_rnc7_bs20_bsp_a     # VCI=425
24.149.1.1   msc1_rnc7_bs21_bsp_a     # VCI=426
24.150.1.1   msc1_rnc7_bs22_bsp_a     # VCI=427
24.151.1.1   msc1_rnc7_bs23_bsp_a     # VCI=428
```

```
24.152.1.1   msc1_rnc7_bs24_bsp_a     # VCI=429
24.153.1.1   msc1_rnc7_bs25_bsp_a     # VCI=430
24.154.1.1   msc1_rnc7_bs26_bsp_a     # VCI=431
24.155.1.1   msc1_rnc7_bs27_bsp_a     # VCI=432
24.156.1.1   msc1_rnc7_bs28_bsp_a     # VCI=433
24.157.1.1   msc1_rnc7_bs29_bsp_a     # VCI=434
24.158.1.1   msc1_rnc7_bs30_bsp_a     # VCI=435
24.159.1.1   msc1_rnc7_bs31_bsp_a     # VCI=436
24.160.1.1   msc1_rnc7_bs32_bsp_a     # VCI=437
24.161.1.1   msc1_rnc7_bs33_bsp_a     # VCI=438
24.162.1.1   msc1_rnc7_bs34_bsp_a     # VCI=439
24.163.1.1   msc1_rnc7_bs35_bsp_a     # VCI=440
24.164.1.1   msc1_rnc7_bs36_bsp_a     # VCI=441
24.165.1.1   msc1_rnc7_bs37_bsp_a     # VCI=442
24.166.1.1   msc1_rnc7_bs38_bsp_a     # VCI=443
24.167.1.1   msc1_rnc7_bs39_bsp_a     # VCI=444
24.168.1.1   msc1_rnc7_bs40_bsp_a     # VCI=445
24.169.1.1   msc1_rnc7_bs41_bsp_a     # VCI=446
24.170.1.1   msc1_rnc7_bs42_bsp_a     # VCI=447
24.171.1.1   msc1_rnc7_bs43_bsp_a     # VCI=448
24.172.1.1   msc1_rnc7_bs44_bsp_a     # VCI=449
24.173.1.1   msc1_rnc7_bs45_bsp_a     # VCI=450
24.174.1.1   msc1_rnc7_bs46_bsp_a     # VCI=451
24.175.1.1   msc1_rnc7_bs47_bsp_a     # VCI=452

25.128.1.1   msc1_rnc8_bs0_bsp_a    # VCI=453
25.129.1.1   msc1_rnc8_bs1_bsp_a    # VCI=454
25.130.1.1   msc1_rnc8_bs2_bsp_a    # VCI=455
25.131.1.1   msc1_rnc8_bs3_bsp_a    # VCI=456
25.132.1.1   msc1_rnc8_bs4_bsp_a    # VCI=457
25.133.1.1   msc1_rnc8_bs5_bsp_a    # VCI=458
25.134.1.1   msc1_rnc8_bs6_bsp_a    # VCI=459
25.135.1.1   msc1_rnc8_bs7_bsp_a    # VCI=460
25.136.1.1   msc1_rnc8_bs8_bsp_a    # VCI=461
25.137.1.1   msc1_rnc8_bs9_bsp_a    # VCI=462
25.138.1.1   msc1_rnc8_bs10_bsp_a     # VCI=463
25.139.1.1   msc1_rnc8_bs11_bsp_a     # VCI=464
```

```
25.140.1.1   msc1_rnc8_bs12_bsp_a     # VCI=465
25.141.1.1   msc1_rnc8_bs13_bsp_a     # VCI=466
25.142.1.1   msc1_rnc8_bs14_bsp_a     # VCI=467
25.143.1.1   msc1_rnc8_bs15_bsp_a     # VCI=468
25.144.1.1   msc1_rnc8_bs16_bsp_a     # VCI=469
25.145.1.1   msc1_rnc8_bs17_bsp_a     # VCI=470
25.146.1.1   msc1_rnc8_bs18_bsp_a     # VCI=471
25.147.1.1   msc1_rnc8_bs19_bsp_a     # VCI=472
25.148.1.1   msc1_rnc8_bs20_bsp_a     # VCI=473
25.149.1.1   msc1_rnc8_bs21_bsp_a     # VCI=474
25.150.1.1   msc1_rnc8_bs22_bsp_a     # VCI=475
25.151.1.1   msc1_rnc8_bs23_bsp_a     # VCI=476
25.152.1.1   msc1_rnc8_bs24_bsp_a     # VCI=477
25.153.1.1   msc1_rnc8_bs25_bsp_a     # VCI=478
25.154.1.1   msc1_rnc8_bs26_bsp_a     # VCI=479
25.155.1.1   msc1_rnc8_bs27_bsp_a     # VCI=480
25.156.1.1   msc1_rnc8_bs28_bsp_a     # VCI=481
25.157.1.1   msc1_rnc8_bs29_bsp_a     # VCI=482
25.158.1.1   msc1_rnc8_bs30_bsp_a     # VCI=483
25.159.1.1   msc1_rnc8_bs31_bsp_a     # VCI=484
25.160.1.1   msc1_rnc8_bs32_bsp_a     # VCI=485
25.161.1.1   msc1_rnc8_bs33_bsp_a     # VCI=486
25.162.1.1   msc1_rnc8_bs34_bsp_a     # VCI=487
25.163.1.1   msc1_rnc8_bs35_bsp_a     # VCI=488
25.164.1.1   msc1_rnc8_bs36_bsp_a     # VCI=489
25.165.1.1   msc1_rnc8_bs37_bsp_a     # VCI=490
25.166.1.1   msc1_rnc8_bs38_bsp_a     # VCI=491
25.167.1.1   msc1_rnc8_bs39_bsp_a     # VCI=492
25.168.1.1   msc1_rnc8_bs40_bsp_a     # VCI=493
25.169.1.1   msc1_rnc8_bs41_bsp_a     # VCI=494
25.170.1.1   msc1_rnc8_bs42_bsp_a     # VCI=495
25.171.1.1   msc1_rnc8_bs43_bsp_a     # VCI=496
25.172.1.1   msc1_rnc8_bs44_bsp_a     # VCI=497
25.173.1.1   msc1_rnc8_bs45_bsp_a     # VCI=498
25.174.1.1   msc1_rnc8_bs46_bsp_a     # VCI=499
25.175.1.1   msc1_rnc8_bs47_bsp_a     # VCI=500
```

```
26.128.1.1   msc1_rnc9_bs0_bsp_a    # VCI=501
26.129.1.1   msc1_rnc9_bs1_bsp_a    # VCI=502
26.130.1.1   msc1_rnc9_bs2_bsp_a    # VCI=503
26.131.1.1   msc1_rnc9_bs3_bsp_a    # VCI=504
26.132.1.1   msc1_rnc9_bs4_bsp_a    # VCI=505
26.133.1.1   msc1_rnc9_bs5_bsp_a    # VCI=506
26.134.1.1   msc1_rnc9_bs6_bsp_a    # VCI=507
26.135.1.1   msc1_rnc9_bs7_bsp_a    # VCI=508
26.136.1.1   msc1_rnc9_bs8_bsp_a    # VCI=509
26.137.1.1   msc1_rnc9_bs9_bsp_a    # VCI=510
26.138.1.1   msc1_rnc9_bs10_bsp_a     # VCI=511
26.139.1.1   msc1_rnc9_bs11_bsp_a     # VCI=512
26.140.1.1   msc1_rnc9_bs12_bsp_a     # VCI=513
26.141.1.1   msc1_rnc9_bs13_bsp_a     # VCI=514
26.142.1.1   msc1_rnc9_bs14_bsp_a     # VCI=515
26.143.1.1   msc1_rnc9_bs15_bsp_a     # VCI=516
26.144.1.1   msc1_rnc9_bs16_bsp_a     # VCI=517
26.145.1.1   msc1_rnc9_bs17_bsp_a     # VCI=518
26.146.1.1   msc1_rnc9_bs18_bsp_a     # VCI=519
26.147.1.1   msc1_rnc9_bs19_bsp_a     # VCI=520
26.148.1.1   msc1_rnc9_bs20_bsp_a     # VCI=521
26.149.1.1   msc1_rnc9_bs21_bsp_a     # VCI=522
26.150.1.1   msc1_rnc9_bs22_bsp_a     # VCI=523
26.151.1.1   msc1_rnc9_bs23_bsp_a     # VCI=524
26.152.1.1   msc1_rnc9_bs24_bsp_a     # VCI=525
26.153.1.1   msc1_rnc9_bs25_bsp_a     # VCI=526
26.154.1.1   msc1_rnc9_bs26_bsp_a     # VCI=527
26.155.1.1   msc1_rnc9_bs27_bsp_a     # VCI=528
26.156.1.1   msc1_rnc9_bs28_bsp_a     # VCI=529
26.157.1.1   msc1_rnc9_bs29_bsp_a     # VCI=530
26.158.1.1   msc1_rnc9_bs30_bsp_a     # VCI=531
26.159.1.1   msc1_rnc9_bs31_bsp_a     # VCI=532
26.160.1.1   msc1_rnc9_bs32_bsp_a     # VCI=533
26.161.1.1   msc1_rnc9_bs33_bsp_a     # VCI=534
26.162.1.1   msc1_rnc9_bs34_bsp_a     # VCI=535
26.163.1.1   msc1_rnc9_bs35_bsp_a     # VCI=536
26.164.1.1   msc1_rnc9_bs36_bsp_a     # VCI=537
```

```
26.165.1.1   msc1_rnc9_bs37_bsp_a     # VCI=538
26.166.1.1   msc1_rnc9_bs38_bsp_a     # VCI=539
26.167.1.1   msc1_rnc9_bs39_bsp_a     # VCI=540
26.168.1.1   msc1_rnc9_bs40_bsp_a     # VCI=541
26.169.1.1   msc1_rnc9_bs41_bsp_a     # VCI=542
26.170.1.1   msc1_rnc9_bs42_bsp_a     # VCI=543
26.171.1.1   msc1_rnc9_bs43_bsp_a     # VCI=544
26.172.1.1   msc1_rnc9_bs44_bsp_a     # VCI=545
26.173.1.1   msc1_rnc9_bs45_bsp_a     # VCI=546
26.174.1.1   msc1_rnc9_bs46_bsp_a     # VCI=547
26.175.1.1   msc1_rnc9_bs47_bsp_a     # VCI=548

27.128.1.1   msc1_rnc10_bs0_bsp_a     # VCI=549
27.129.1.1   msc1_rnc10_bs1_bsp_a     # VCI=550
27.130.1.1   msc1_rnc10_bs2_bsp_a     # VCI=551
27.131.1.1   msc1_rnc10_bs3_bsp_a     # VCI=552
27.132.1.1   msc1_rnc10_bs4_bsp_a     # VCI=553
27.133.1.1   msc1_rnc10_bs5_bsp_a     # VCI=554
27.134.1.1   msc1_rnc10_bs6_bsp_a     # VCI=555
27.135.1.1   msc1_rnc10_bs7_bsp_a     # VCI=556
27.136.1.1   msc1_rnc10_bs8_bsp_a     # VCI=557
27.137.1.1   msc1_rnc10_bs9_bsp_a     # VCI=558
27.138.1.1   msc1_rnc10_bs10_bsp_a    # VCI=559
27.139.1.1   msc1_rnc10_bs11_bsp_a    # VCI=560
27.140.1.1   msc1_rnc10_bs12_bsp_a    # VCI=561
27.141.1.1   msc1_rnc10_bs13_bsp_a    # VCI=562
27.142.1.1   msc1_rnc10_bs14_bsp_a    # VCI=563
27.143.1.1   msc1_rnc10_bs15_bsp_a    # VCI=564
27.144.1.1   msc1_rnc10_bs16_bsp_a    # VCI=565
27.145.1.1   msc1_rnc10_bs17_bsp_a    # VCI=566
27.146.1.1   msc1_rnc10_bs18_bsp_a    # VCI=567
27.147.1.1   msc1_rnc10_bs19_bsp_a    # VCI=568
27.148.1.1   msc1_rnc10_bs20_bsp_a    # VCI=569
27.149.1.1   msc1_rnc10_bs21_bsp_a    # VCI=570
27.150.1.1   msc1_rnc10_bs22_bsp_a    # VCI=571
27.151.1.1   msc1_rnc10_bs23_bsp_a    # VCI=572
27.152.1.1   msc1_rnc10_bs24_bsp_a    # VCI=573
```

```
27.153.1.1   msc1_rnc10_bs25_bsp_a    # VCI=574
27.154.1.1   msc1_rnc10_bs26_bsp_a    # VCI=575
27.155.1.1   msc1_rnc10_bs27_bsp_a    # VCI=576
27.156.1.1   msc1_rnc10_bs28_bsp_a    # VCI=577
27.157.1.1   msc1_rnc10_bs29_bsp_a    # VCI=578
27.158.1.1   msc1_rnc10_bs30_bsp_a    # VCI=579
27.159.1.1   msc1_rnc10_bs31_bsp_a    # VCI=580
27.160.1.1   msc1_rnc10_bs32_bsp_a    # VCI=581
27.161.1.1   msc1_rnc10_bs33_bsp_a    # VCI=582
27.162.1.1   msc1_rnc10_bs34_bsp_a    # VCI=583
27.163.1.1   msc1_rnc10_bs35_bsp_a    # VCI=584
27.164.1.1   msc1_rnc10_bs36_bsp_a    # VCI=585
27.165.1.1   msc1_rnc10_bs37_bsp_a    # VCI=586
27.166.1.1   msc1_rnc10_bs38_bsp_a    # VCI=587
27.167.1.1   msc1_rnc10_bs39_bsp_a    # VCI=588
27.168.1.1   msc1_rnc10_bs40_bsp_a    # VCI=589
27.169.1.1   msc1_rnc10_bs41_bsp_a    # VCI=590
27.170.1.1   msc1_rnc10_bs42_bsp_a    # VCI=591
27.171.1.1   msc1_rnc10_bs43_bsp_a    # VCI=592
27.172.1.1   msc1_rnc10_bs44_bsp_a    # VCI=593
27.173.1.1   msc1_rnc10_bs45_bsp_a    # VCI=594
27.174.1.1   msc1_rnc10_bs46_bsp_a    # VCI=595
27.175.1.1   msc1_rnc10_bs47_bsp_a    # VCI=596

28.128.1.1   msc1_rnc11_bs0_bsp_a     # VCI=597
28.129.1.1   msc1_rnc11_bs1_bsp_a     # VCI=598
28.130.1.1   msc1_rnc11_bs2_bsp_a     # VCI=599
28.131.1.1   msc1_rnc11_bs3_bsp_a     # VCI=600
28.132.1.1   msc1_rnc11_bs4_bsp_a     # VCI=601
28.133.1.1   msc1_rnc11_bs5_bsp_a     # VCI=602
28.134.1.1   msc1_rnc11_bs6_bsp_a     # VCI=603
28.135.1.1   msc1_rnc11_bs7_bsp_a     # VCI=604
28.136.1.1   msc1_rnc11_bs8_bsp_a     # VCI=605
28.137.1.1   msc1_rnc11_bs9_bsp_a     # VCI=606
28.138.1.1   msc1_rnc11_bs10_bsp_a    # VCI=607
28.139.1.1   msc1_rnc11_bs11_bsp_a    # VCI=608
28.140.1.1   msc1_rnc11_bs12_bsp_a    # VCI=609
```

```
28.141.1.1   msc1_rnc11_bs13_bsp_a   # VCI=610
28.142.1.1   msc1_rnc11_bs14_bsp_a   # VCI=611
28.143.1.1   msc1_rnc11_bs15_bsp_a   # VCI=612
28.144.1.1   msc1_rnc11_bs16_bsp_a   # VCI=613
28.145.1.1   msc1_rnc11_bs17_bsp_a   # VCI=614
28.146.1.1   msc1_rnc11_bs18_bsp_a   # VCI=615
28.147.1.1   msc1_rnc11_bs19_bsp_a   # VCI=616
28.148.1.1   msc1_rnc11_bs20_bsp_a   # VCI=617
28.149.1.1   msc1_rnc11_bs21_bsp_a   # VCI=618
28.150.1.1   msc1_rnc11_bs22_bsp_a   # VCI=619
28.151.1.1   msc1_rnc11_bs23_bsp_a   # VCI=620
28.152.1.1   msc1_rnc11_bs24_bsp_a   # VCI=621
28.153.1.1   msc1_rnc11_bs25_bsp_a   # VCI=622
28.154.1.1   msc1_rnc11_bs26_bsp_a   # VCI=623
28.155.1.1   msc1_rnc11_bs27_bsp_a   # VCI=624
28.156.1.1   msc1_rnc11_bs28_bsp_a   # VCI=625
28.157.1.1   msc1_rnc11_bs29_bsp_a   # VCI=626
28.158.1.1   msc1_rnc11_bs30_bsp_a   # VCI=627
28.159.1.1   msc1_rnc11_bs31_bsp_a   # VCI=628
28.160.1.1   msc1_rnc11_bs32_bsp_a   # VCI=629
28.161.1.1   msc1_rnc11_bs33_bsp_a   # VCI=630
28.162.1.1   msc1_rnc11_bs34_bsp_a   # VCI=631
28.163.1.1   msc1_rnc11_bs35_bsp_a   # VCI=632
28.164.1.1   msc1_rnc11_bs36_bsp_a   # VCI=633
28.165.1.1   msc1_rnc11_bs37_bsp_a   # VCI=634
28.166.1.1   msc1_rnc11_bs38_bsp_a   # VCI=635
28.167.1.1   msc1_rnc11_bs39_bsp_a   # VCI=636
28.168.1.1   msc1_rnc11_bs40_bsp_a   # VCI=637
28.169.1.1   msc1_rnc11_bs41_bsp_a   # VCI=638
28.170.1.1   msc1_rnc11_bs42_bsp_a   # VCI=639
28.171.1.1   msc1_rnc11_bs43_bsp_a   # VCI=640
28.172.1.1   msc1_rnc11_bs44_bsp_a   # VCI=641
28.173.1.1   msc1_rnc11_bs45_bsp_a   # VCI=642
28.174.1.1   msc1_rnc11_bs46_bsp_a   # VCI=643
28.175.1.1   msc1_rnc11_bs47_bsp_a   # VCI=644
```

2.4. User Environment

3.BSM Package Configuration

3.1. Application Configuration

The S/W Packages that are needed to operate BMS are configured with the following: ~/Package/DATA, ~/Package/DATA/PLD and ~/Package/exec. Files that are included in each directory are as follows:

Table 3.1-1 ~/Package/exec

File name	Description
bim	A BMS initial operation shell program that runs check_bim, sigkill, rmipc, and bsm in order.
bsm	Execution file that runs BMS application programs (DCI, dci_console, BDNL, mmi, stmx, smmx, tsmx, trmx, cdmx, and scmx)
check_bim	Execution file that prevents the operator from rerunning bim which is already run by mistake.
rmipc	Shell program that deletes unnecessary Message Queue, Semaphores and Shared Memory before BSM programs are run.
sigkill	Execution file that terminates application programs which are activated before BMS application programs are run
BDNL	Execution file that transmits the OS, execution code, PLD, etc when each processor is initially activated.
DCI, dci_console	Execution file that provides interface between BMS Workstation and lower level BTS and BSC.
cdmx	Execution file that manages parameter information and configuration information
scmx	Manages No.7 related information
smmx	Collects and manages the statistical data

stmx	Execution file that manages the processor and device state.
trmx	Execution file that informs the operator of problems in processor and device in a alarm/ fault format when detecting them
tsmx	Execution file that informs test results to the operator after conducting a test.
mmi	Provides interface between the operator and the application program.
cmdanal	Application program that checks the command input by the user. If problems are not found, it transmits the command to the corresponding process, receives the results, and then transmits them to the mmcmsg block.
mmcmsg	Application program that formats data from cmdanal or other application programs and transmits them to output-related process (outerm, prnman).
deadlock	Processor that detects the deadlock state for process that indefinitely seizes queue resources and solve the problem.
omdmmc	As an application program which is run by mmi, it processes the user management command.
garbage	Process that finds the message that lost its destination or does not have any destination among the messages that are stacked in the queue within the mmi.
prnman	Application program that outputs data received from mmcmsg to the printer
pcsnet	Processor that runs the BMS client programs.
manager	Processor that manages entire GUI processors.
manager.client	As a manager that operates on the client side, it is distinguished from the processor on the server side.
client	As a processor that is operated on the client side, it transmits the command using TPC to the server and receives output messages.
server	Operated on the server side, it receives the command and sends the output message to the client by interworking with the client.
interm	It is in charge of the command line user interface among GUI, and displays command execution results.
outerm	It displays console messages that are from BMS among GUI.
neighbor	Application program that simplifies the complicated neighbor list input on the window.

stmGUI	Application program that provides BTS and BSC configuration in graphics by the hierarchy so the user can understand the system configuration and the current state.
dbms	Informix procedure that initializes the DB used by stmGUI.
pld_read	It allows to read PLD by the one tuple unit.
trace_ipc	When the Message Queue is full, it reads all the data in the Queue.
DATAPATH	Text file that indicates BTS and BSC application programs, loading data, and data needed for the screen configuration.
PLD_PATH	Text file that indicates the PLD Directory which is referred in the BMS as a status path.

4. BSM Command

4.1. User Interface Command

4.1.1. User Management Command

4.1.1.1. System Log-in

In order to manage the system and perform the desired work, one has to log in to the BSM system. Login can be achieved through ID and passwords given to each individual user. In order to log in to BSM, INTERM should be performed. At this time, one has to input ID in LOGIN on the window that is shown and put passwords in “PASSWD”. Once the existing ID and the Passwords are input, it is changed to the state that can input the command.

If one does not log in for a while or time expires, INTERM should be performed again.

- Input the corresponding user ID in Command “LOGIN:”
- Input the corresponding password in “PASSWORD:”.

Fig. 4.1-1 BSM System Login Window

4.1.1.2. LOG-OUT

When terminating the work in the BSM and then wanting to log in again as other ID, the user has to log out of his/her ID first. Once he/she logs out of the system and does not relog in, he/she cannot use the command any more.

After logout, the window for the command input disappears and it is not shown until relog-in is done.

- Command : LOG-OUT

- Input : LOG-OUT;

- Output

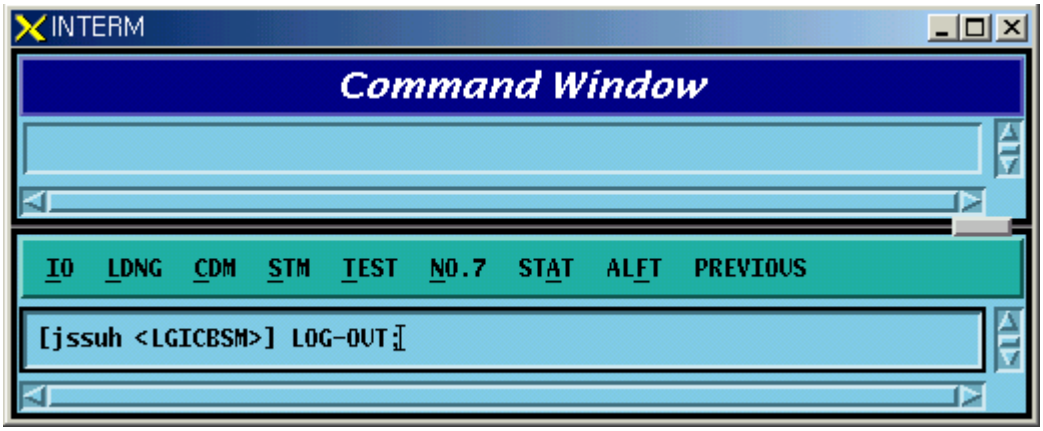

Fig. 4.1-2 Log-out

4.1.1.3. User Addition

To operate and maintain the system, the user should register ID. The right to register ID can be obtained from the manger in the first class. The newly registered ID is set identically with initial passwords and ID and for security reason, the password for the newly registered ID should be changed. The ID that is to be registered should be original. That is, it should not be overlapped with existing ones. It can be registered as the second or third class. ID should be within 15 letters.

- Command : ADD-USR:USR=a, CLS=b;
  a : User ID [String]
  b : Class [Number 2 or 3]

- Input : ADD-USER:USER=USER1,CLS=2;

- Output

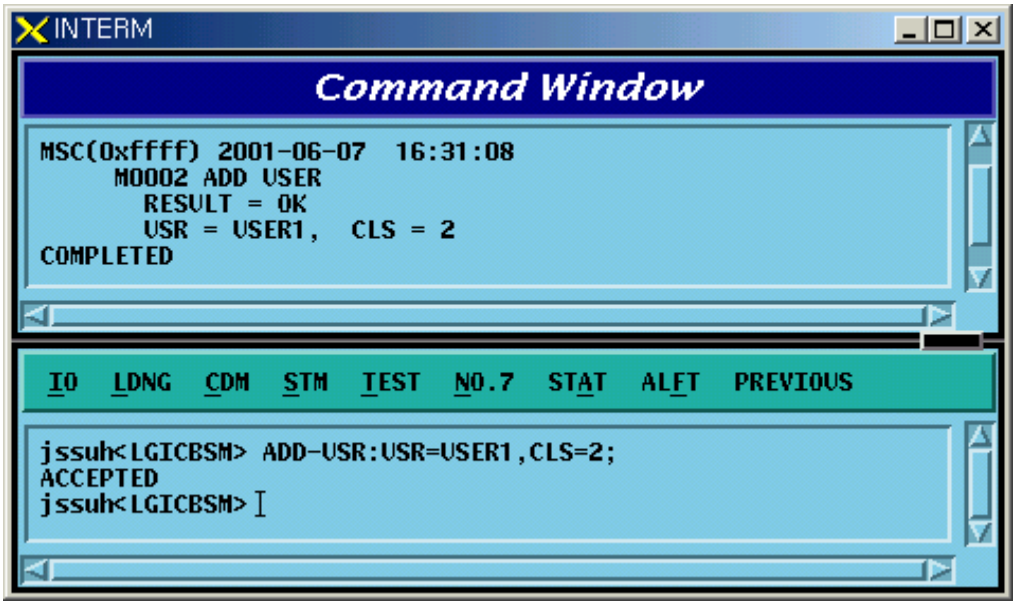

Fig. 4.1-3 User ID Register

- When the ID exists already

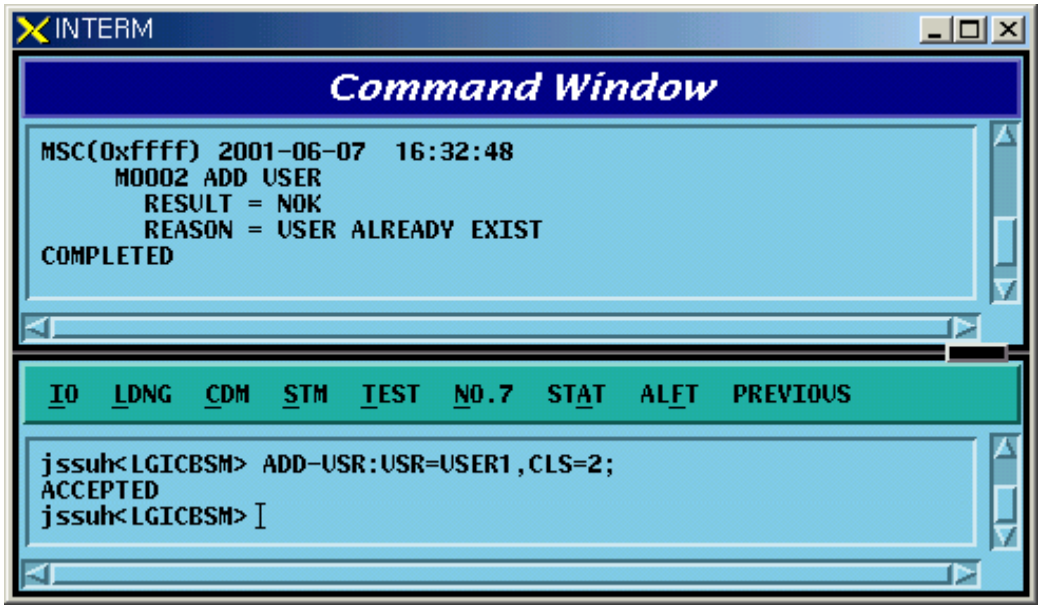

Fig. 4.1-4 Errors When Registering User ID

4.1.1.4. User Deletion

Delete one user ID among the IDs that are no longer used or unnecessary ID.

- Command : DEL-USR:USR=a;

a : User ID to be deleted [String]

- Input : DEL-USR:USR=USER1;

- Output

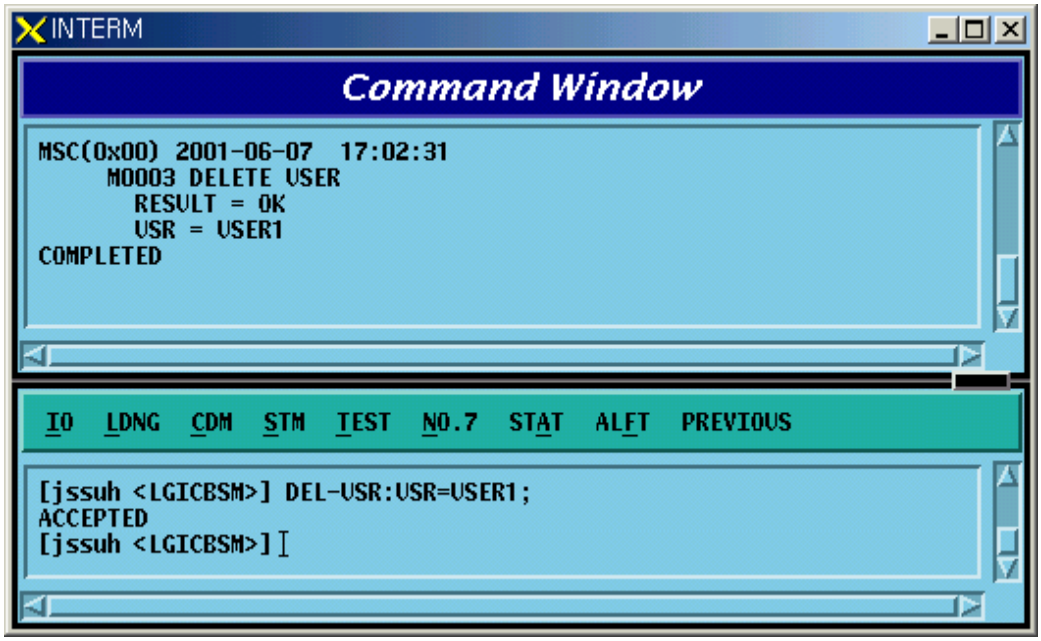

Fig. 4.1-5 User ID Deletion

- When deleting ID that does not exist

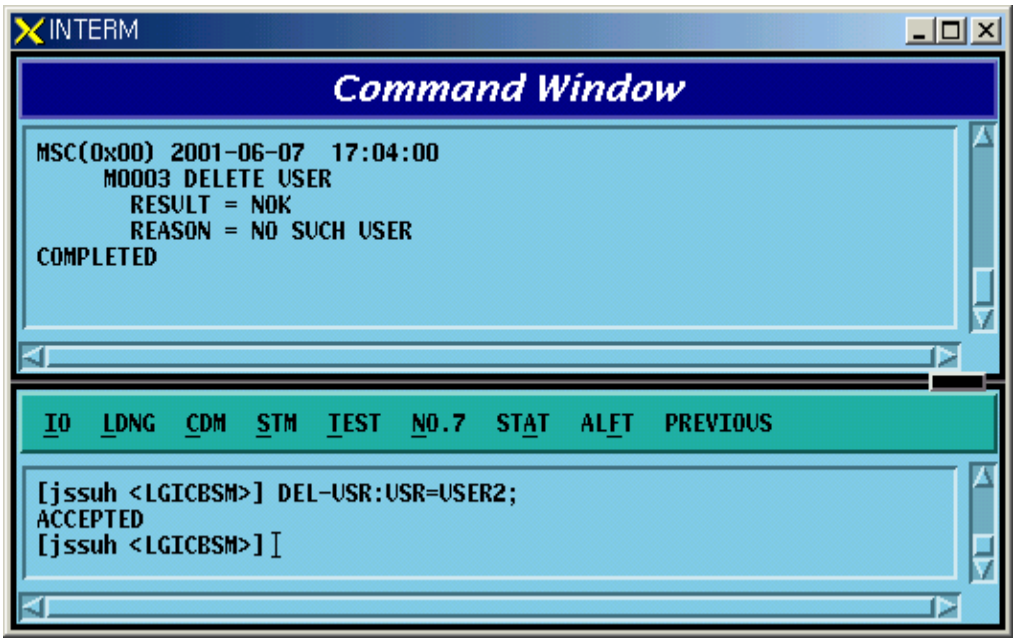

Fig. 4.1-6 Errors When Deleting User ID That Does Not Exist

- When deleting manager class ID

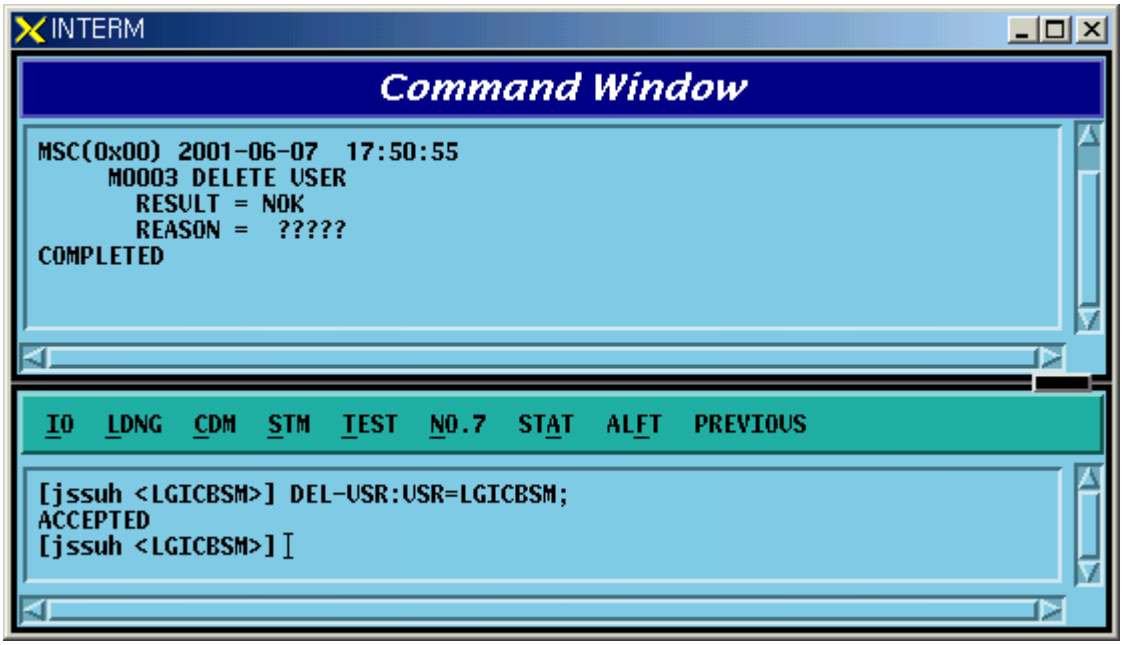

Fig. 4.1-7 Errors When Deleting the Manager Class ID

4.1.1.5. User Class Change

Broaden the range of the command or narrow it down by changing the use class of the corresponding user.

- Command CHG-USR-CLS:USR=a,CLS=b
  a: User ID[String]
  b: Class [2-3]
- Input CHG-USR-CLS:USR=USER1,CLS=3;

- Output

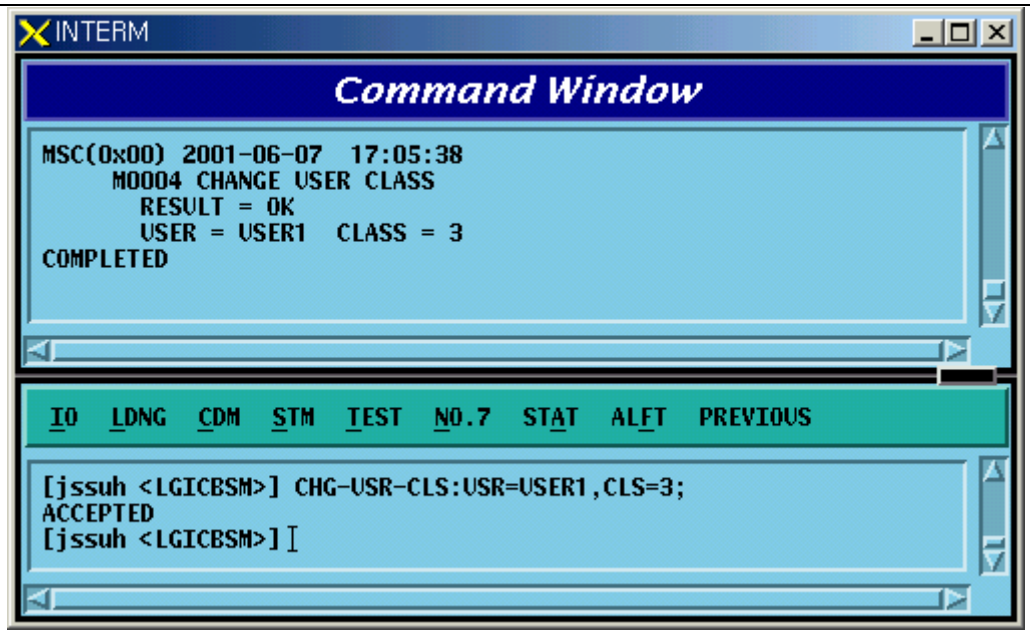

Fig. 4.1-8 User Class Change

- When changing the use class of the manager

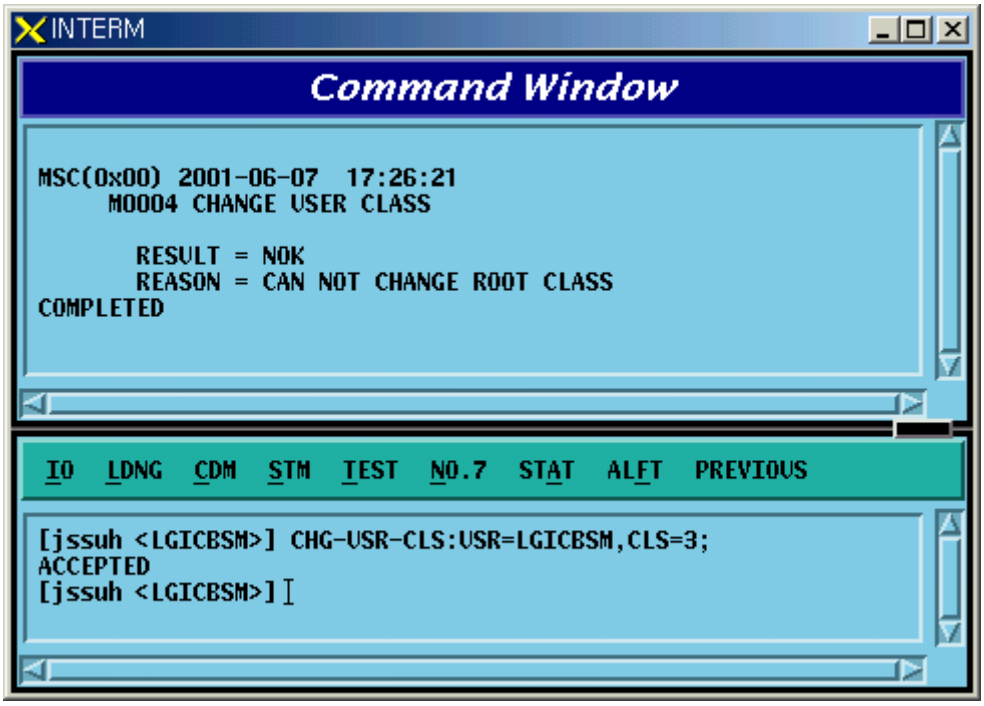

Fig. 4.1-9 Errors When Changing the Use Class of the Manager

4.1.1.6. User Information Display

Display registered User ID and class.

- Command DIS-USR-INFO[USR=a]
  a: User ID[String]
- Input CHG-USR-INFO:USR=USER1;

- Output

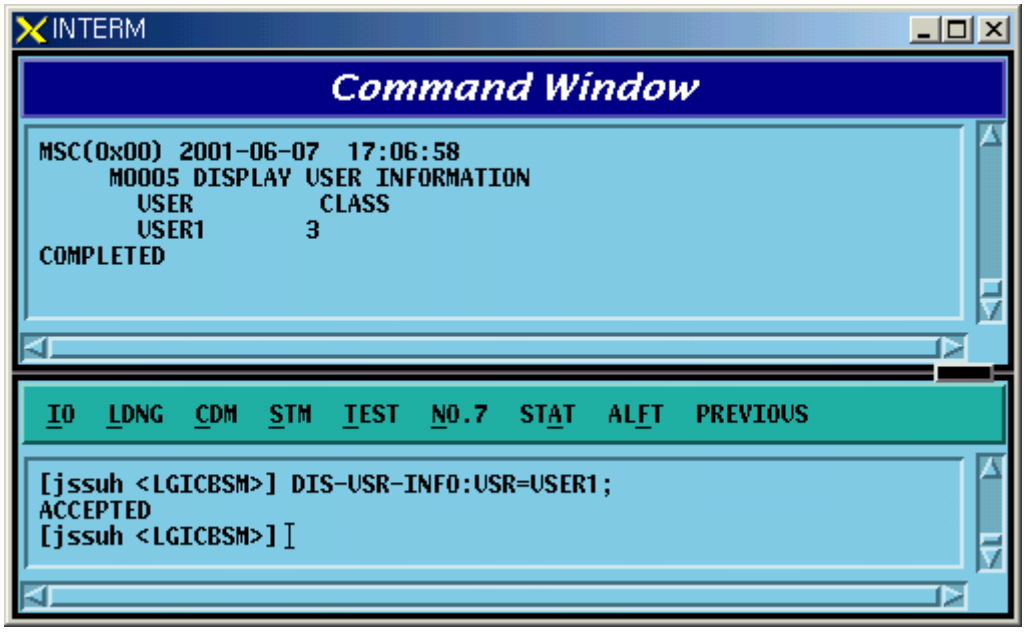

Fig. 4.1-10 User Information Display

4.1.1.7. User Password Change

Change ID and Password in use. In particular, since the ID of the first time registered user should be identical with the password, change the password as follows for security reasons.

- Command CHG-PWD

- Input CHG-PWD

- Output

Input the OLD PASSWORD and NEWPASSWORD one more time and check them.

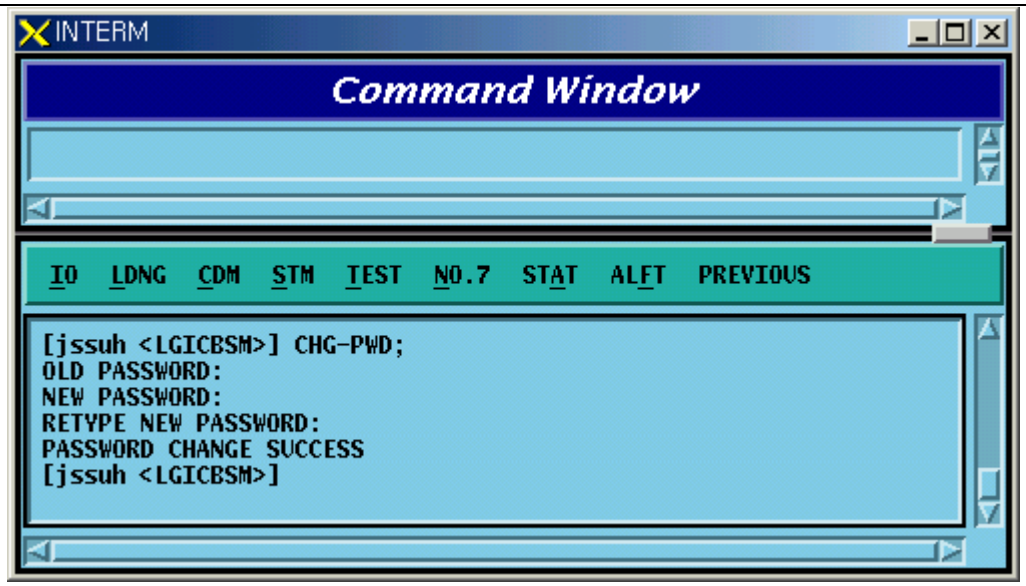

Fig. 4.1-11 User Password Change

4.1.2. Command Management Command

4.1.2.1. Command Class Modification

Modify the minimum class that can execute the registered command.

If the command class is n, one has to log in as ID that is more than n class to use this command.

- Command CHG-CMD-CLS:CRN=a,CLS=b
  a : Command Reference Number [0~9999]
  b : Class [1~3]
- Input CHG-CMD-CLS:CRN=0300,CLS=1
- Output

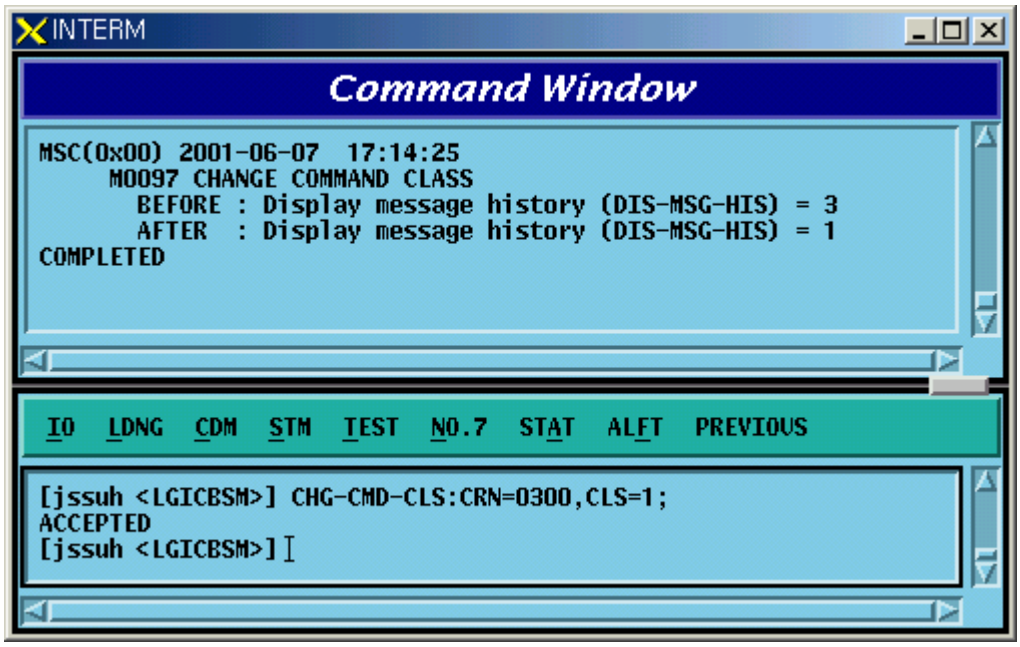

Fig. 4.1-12 Command Class Modification

4.1.2.2. Command Class Display

One can see the command of the corresponding class by designating the class that is desired to be displayed.

- Command DIS-CMD-CLS:CLS=a;
  a : Class [1~3]
- Input DIS-CMD-CLS:CLS=3;

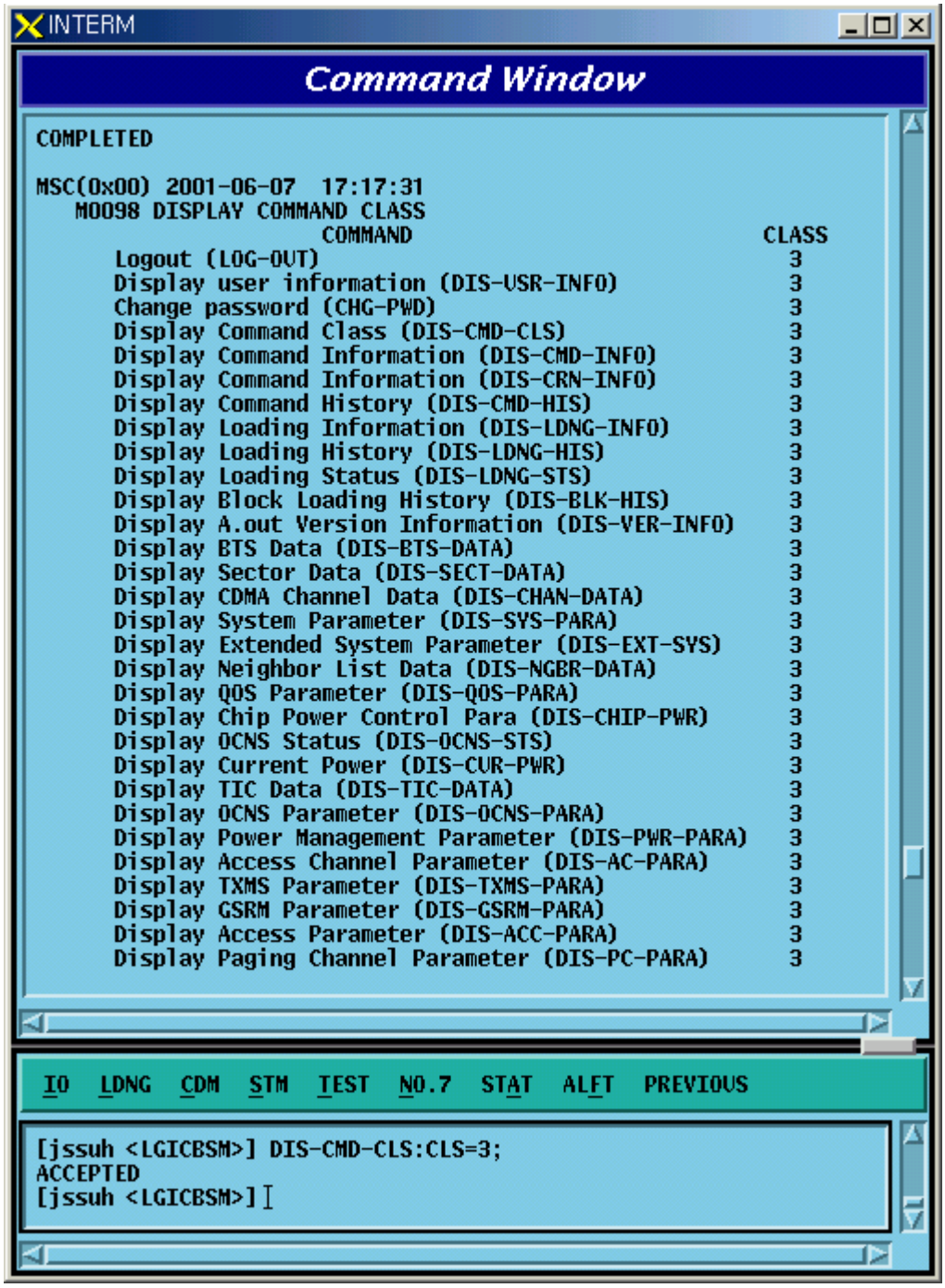

Fig. 4.1-13 Command Class Display

4.1.2.3. Command Information Display by Name

Display the syntax to use the information on the registered commands.

- Command DIS-CMD-INFO:VERB=a

  a : Command [Note : The command discriminator is determined to be &]

- Input DIS-CMD-INFO:DIS&CMD&INFO;

- Output

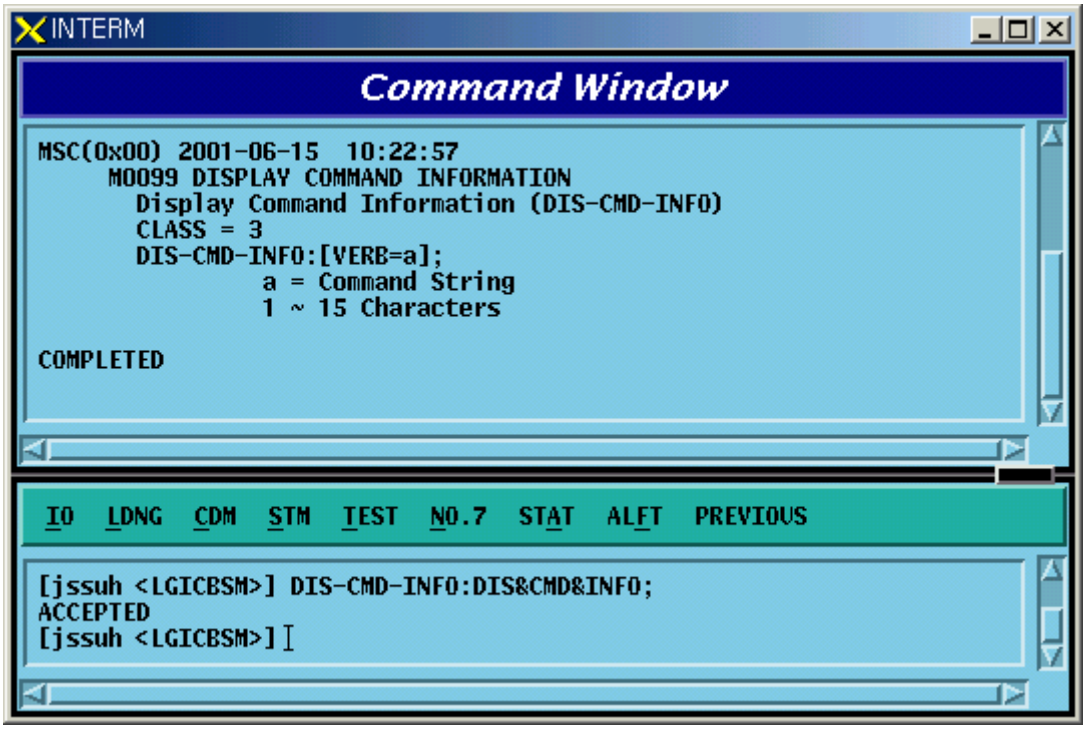

Fig. 4.1-14 Command Information Display by Name

4.1.2.4. Command Information by CRN

Display the command information by CRN which is designated for each command.

- Command DIS-CRN-INFO:CRN=a
  a : Command Reference Number [0~9999]
- Input DIS-CRN-INFO:CRN=0200;

- Output

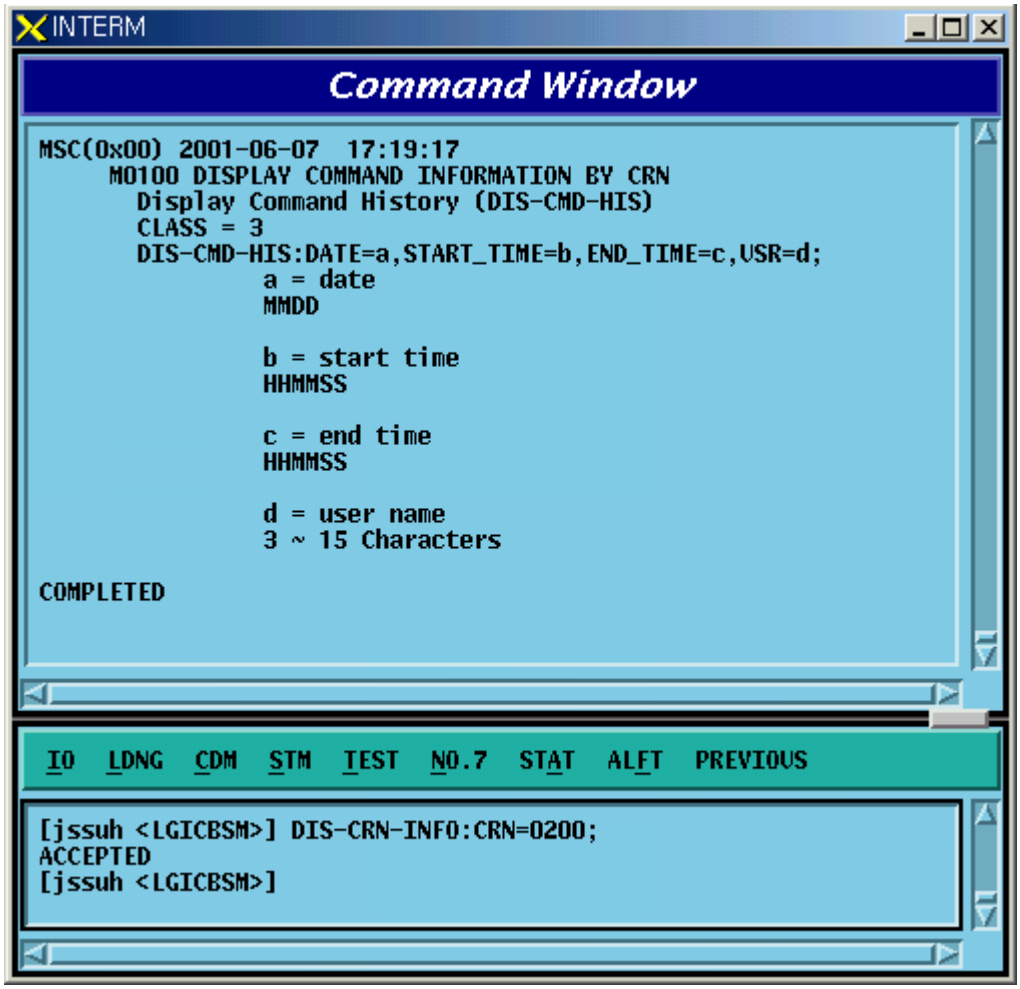

Fig. 4.1-15 Command Information Display by CRN

4.1.3. History Management Command

4.1.3.1. Command History Display

•Command DIS-CMD-HIS[:[DATE=a][,STM=b][,ETM=c][,USR=d]]

a : Date [MMDD]

MM : Month [1-12]

DD : Day [1-day last]

b : Start Time [HHMMSS]

HH : Hour [00-24]

MM : Min [00-60]

SS : Sec [00-60]

c : End Time [HHMMSS]

d : User ID [string]

- Input DIS-CMD-HIS:DATE=0625,STM=160000,ETM=180000

- Output

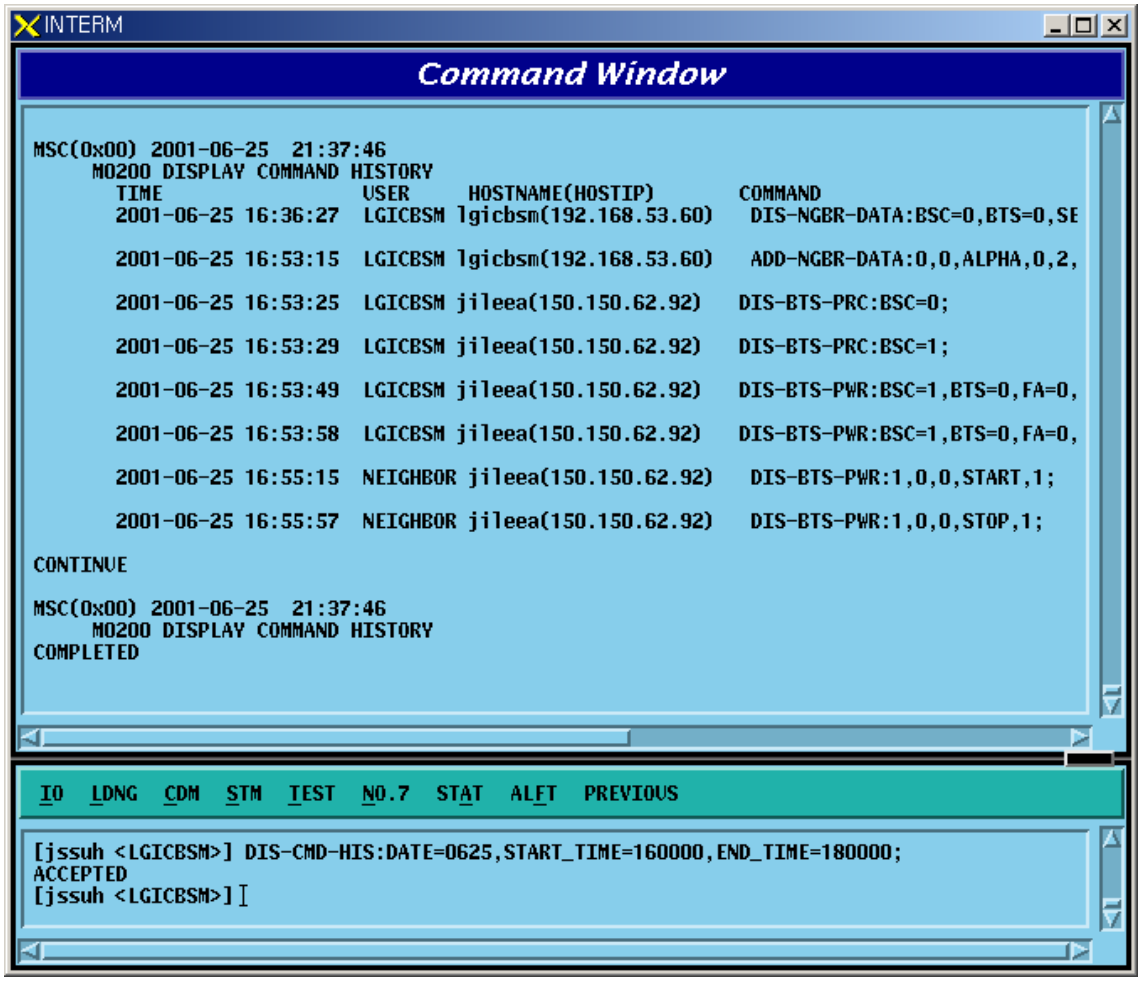

Fig. 4.1-16 Command History Display

4.1.3.2. Message History Display

- Command DIS-MSG-HIS:TYPE=a,[DATE=b],[START_TIME=c],[END_TIME=d] ,[START_BSC=e],[END_BSC=f],[START_BTSGRP=g], [END_BTSGRP=h] ,[START_BTSSUB=i],[END_BTSSUB=j],[PRN=k];

  a : Message Type [SYS, MMC, STS, FLT, ALM]

  SYS : system message

  MMC : MMC command

  STS : status message

FLT : fault message

ALM : alarm message

b : Date [MMDD]

MM : Month [1-12]

DD : Day [1-day last]

c : Start Time [HHMMSS]

HH : Hour [00-24]

MM : Min [00-60]

SS : Sec [00-60]

d : End Time [HHMMSS]

e : Start BSC number[0 ~ 127]

f : End BSC number[0 ~ 127]

g : Start BTS GRP number[0 ~ 47]

h : End BTS GRP number[0 ~ 47]

i : Start BTS SUB number[0 ~ 3]

j : End BTS SUB number[0 ~ 3]

k : Message number[0 ~ 9999]

- Input DIS-MSG-HIS:TYPE=MMC,DATE=0625,START_TIME=140000,
  END_TIME=150000, START_BSC=0, [START_BTSGRP=0;

- Output

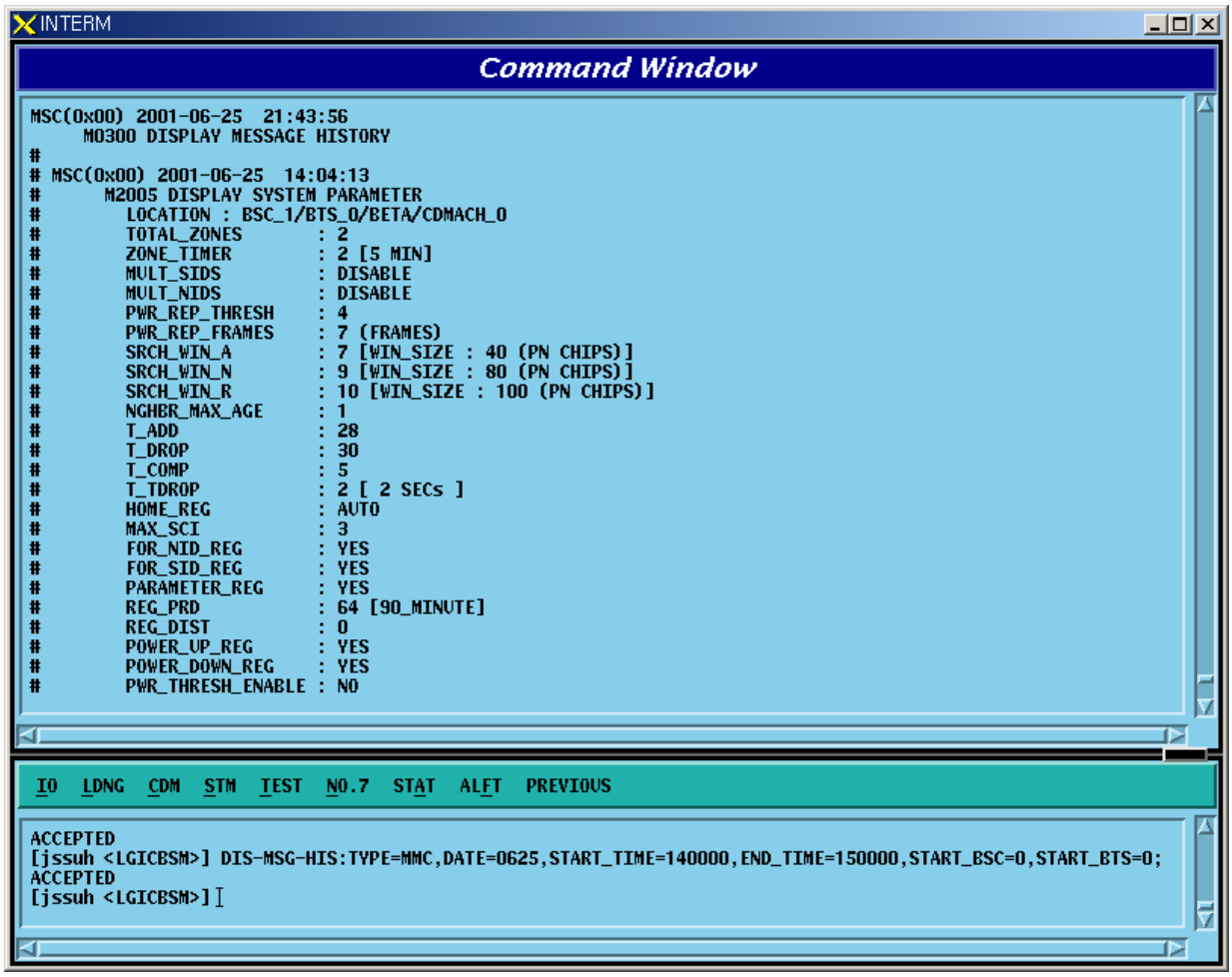

Fig. 4.1-17 Message History Display Start

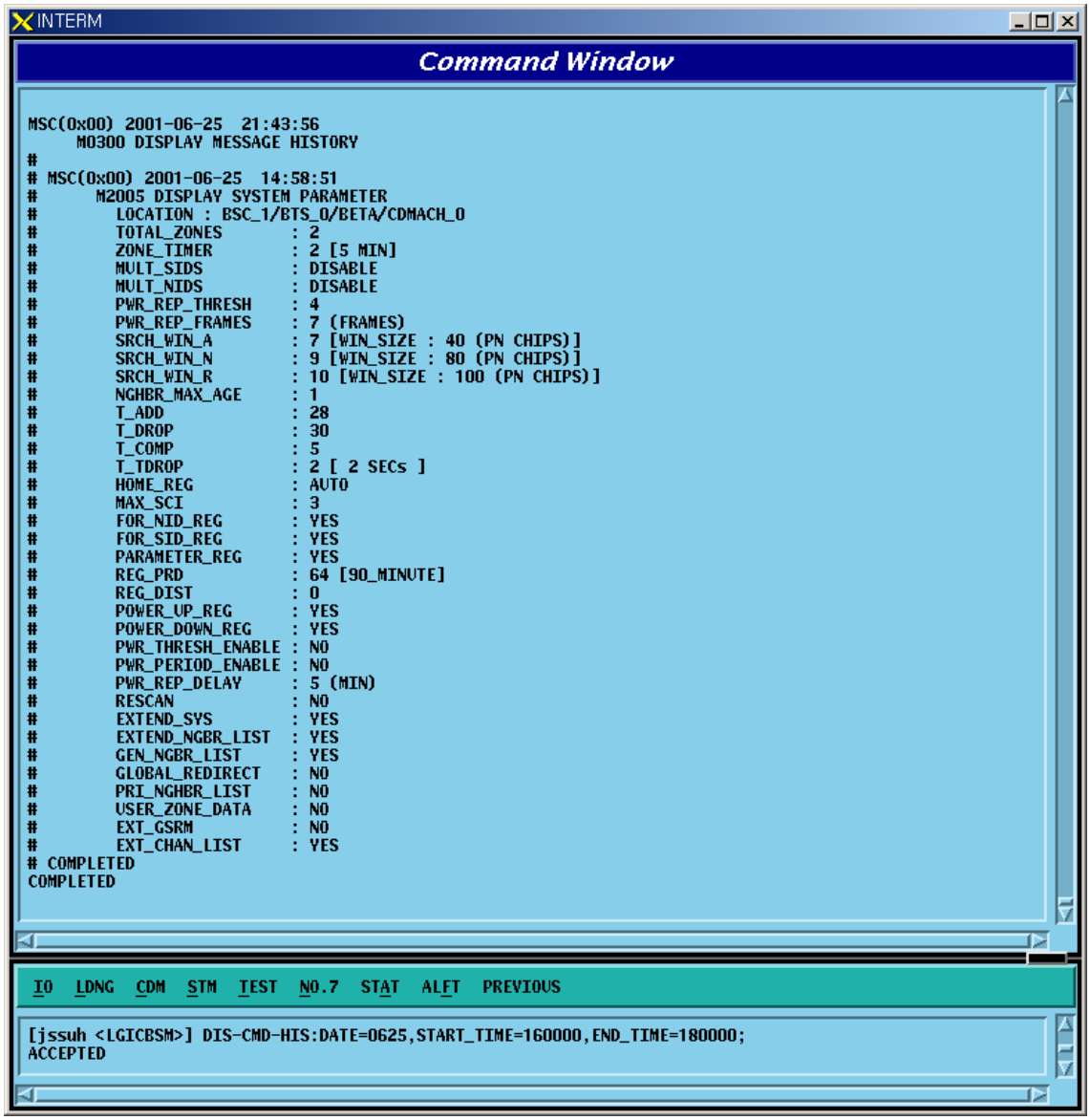

Fig. 4.1-18 Message History Display End

4.2. Loading Command

4.2.1. Loading Control Command

4.2.1.1. Block Loading (DOWN-BLK)

This command is used to download specific S/W blocks to target processors from BSM. The target processors that can designate the block loading are as follows: CNP, PNP, PCP, PMP, NCP, CCP, SCP, BSP, SMP, and VMP. This command is used to download blocks that need subloading to the lower level processors of the designated target processors.

- Command : DOWN-BLK:[BSC=a,][BTS=b,]PROC=c,FLASH=d,BLK=e;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7]
  d : Whether to update the flash memory [UPDATE or MAINTAIN]
  e : Block Name [String]
- Input : DOWN-BLK:BSC=1,PROC=CCP,FLASH=MAINTAIN,BLK=rcpuser;

- Output :

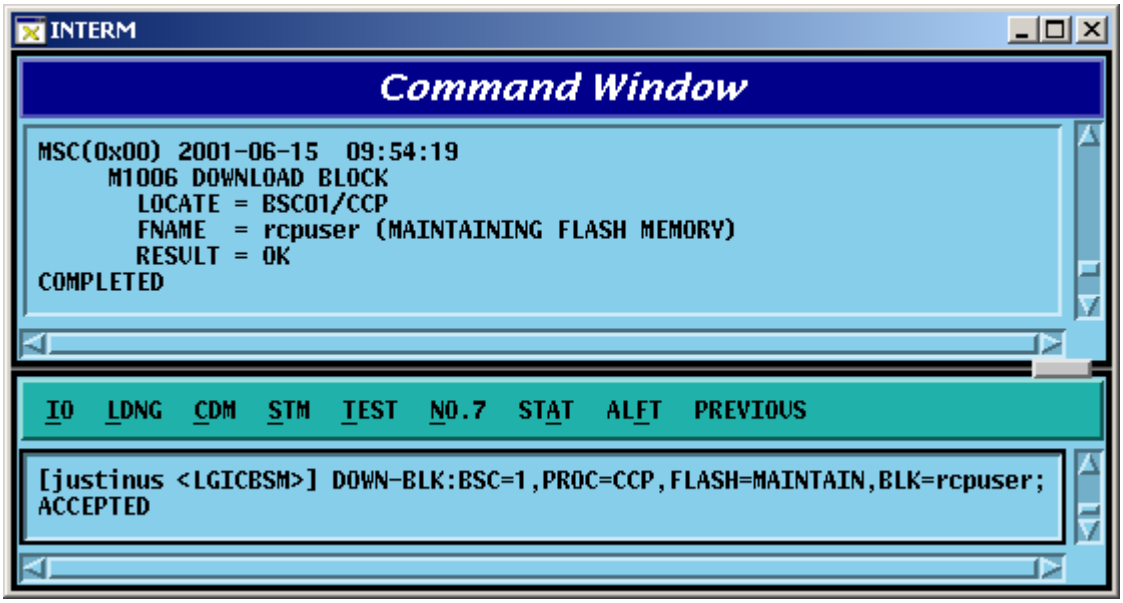

Fig. 4.2-1 Blocking Loading Performance Result

4.2.1.2. Activation Loading (ACT-BLK)

This command is used to download the specific S/W blocks from BSM to the target processor and then to activate them. The target processors that can designate the activation loading are CNP, PNP, PCP, PMP, NCP, CCP, SCP, BSP, ALP, SMP, and VMP. This command is used to download S/W blocks that are operated in the target processors and to replace blocks which are currently in operation by using the newly downloaded blocks.

- Command : ACT-BLK:[BSC=a,][BTS=b,]PROC=c,FLASH=d,
  BLK1=e[,BLK2=e][,BLK3=e];
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name[CNP, PNP, PCP0, PCP1, PCP2, PMP0,
  PMP1, PMP2, NCP, CCP, SCP, BSP,
  ALP, SMP0, SMP1, SMP2, SMP3, SMP4,
  VMP0, VMP1, VMP2, VMP3, VMP4,
  VMP5,
  VMP6, VMP7]
  d : Whether to Update Flash Memory [UPDATE or

MAINTAIN]

e : Block Name [String]

- Input : ACT-BLK:BSC=1,PROC=CCP,FLASH=UPDATE,BLK=ccp_cal;
- Output :

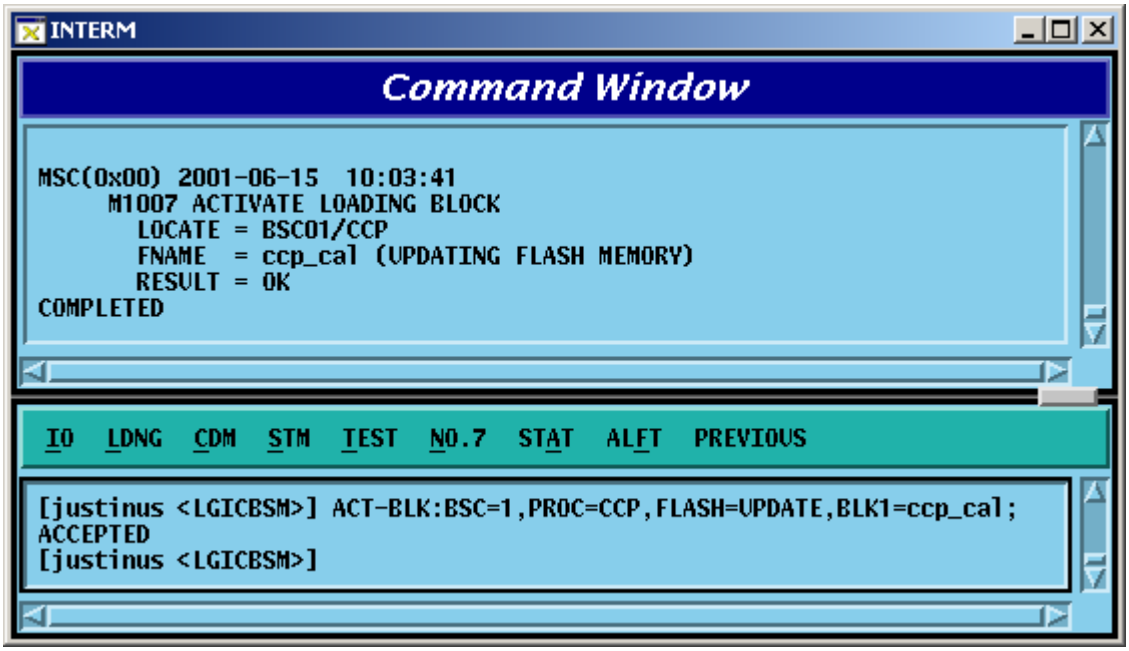

Fig. 4.2-2 Activation Loading Performance Result

4.2.1.3. Flash Memory Update (UPD-FLS)

The command to update Flash memory is used to designate memory update as MAINTAIN in the block loading and activation loading and then to record the following: 1) the blocks that are downloaded as a result of the block loading and 2) activation loading command results in the Flash Memory.

- Command : UPD-FLS:[BSC=a,][BTS=b,]PROC=c ;

  a : BSC ID [Number 0~11]

  b : BTS ID [Number 0~47]

  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, ALP]
- Input : UPD-FLS:BSC=1,PROC=CCP;
- Output :

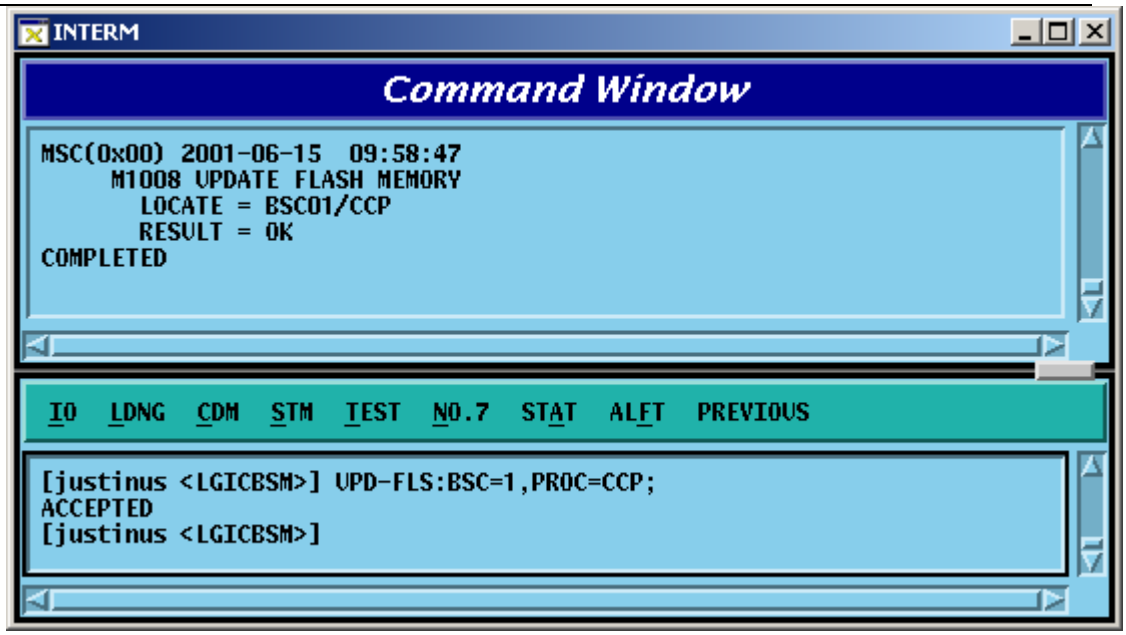

Fig. 4.2-3 Flash Memory Update Result

4.2.1.4. Processor Loading Request on the Standby Side (SBY-LDNG-PRC)

It is the function that requests the loading to standby side of the processors. The target processors that can perform the Standby loading should be duplicated and both A and B sides should be normally operated. (If they are not duplicated or abnormal, the Standby loading cannot be performed.)
The target processors that can request the processor loading on the standby side are as follows: CNP, PNP, PCP, PMP, NCP, CCP, SCP, and BSP.

- Command : SBY-LDNG-PRC:[BSC=a,][BTS=b,]PROC=c ;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP]

4.2.1.5. Processor Switching-over (ACT-PRC)

The command to switch over the processors is switch over the Active Side of the target processors which operate as NORM(OLD) and NORM(NEW) after performing standby loading.

- Command : ACT-PRC:[BSC=a,][BTS=b,]PROC=c ;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP]

4.2.1.6. Processor Copy (COPY-PRC)

The command to copy processors which performed the standby loading and then operate as NORM(OLD) and NORM(NEW) to the Block that received the Standby loading.

- Command : COPY-PRC:[BSC=a,][BTS=b,]PROC=c ;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP]

4.2.1.7. Firmware Loading (LOAD-FIRM)

The command to load the firmware is used to download the firmware data to fuse to the target processors or processors that serve as device servers.

- Command : LOAD-FIRM :[BSC=a,] [BTS=b,] PROC_L1=c [,PROC_L2=d], FILENAME=e;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Level 1 Processor [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP]
  d : Level 2 Processor [ASCA, ASIA0, ASIA1, ASIA2, ASIA3, ENP, CRP, PIP0, PIP1, PIP2, PIP3, PIP4, PIP5, PIP6, PIP7, PIP8, PIP9, PIP10, ALP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6,

VMP7,
LICA0, LICA1,LICA2]
e : Firmware Data File Name [String]

4.2.1.8. Firmware Update (UPD-FIRM)

After downloading the firmware data to fuse to target processor or processors that serve as the device servers using the firmware loading command, it downloads or fuse firmware data to target processors to devices using the firmware update command.

- Command : UPD-FIRM : [BSC=a] [,BTS=b] ,PROC_L1=c [,PROC_L2=d] [,PROC_L3=e] [,SIDE=f] ,FILENAME=g ,TYPE=h;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : :Level 1 Processor [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP]
  d : Level 2 Processor [ASCA, ASIA_ALL, ASIA0, ASIA1, ASIA2, ASIA3, ENP, CRP, PIP_ALL, PIP0, PIP1, PIP2, PIP3, PIP4, PIP5, PIP6, PIP7, PIP8, PIP9, PIP10, ALP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7, LICA_ALL, LICA0, LICA1, LICA2]
  e : Level 3 Processor [ALMA_ALL, ALMA0, ALMA1, ALPA_ALL, ALPA0_0, ALPA0_1, ALPA0_2, ALPA0_3, ALPA0_4, ALPA1_0, ALPA1_1, ALPA1_2, ALPA1_3, ALPA1_4, SLP_ALL, SLP0, SLP1, SLP2, SLP3, SLP4, SLP5, SLP6, SLP7, SLP8, SLP9, SLP10, SLP11, SLP12, SLP13, SLP14, SLP15, SLP16, SLP17, SLP18, SLP19, VCP_ALL, VCP0, VCP1, VCP2, VCP3,

VCP4,
VCP5, VCP6, VCP7, VCP8, VCP9, VCP10,
VCP11, VCP12, VCP13, VCP14, VCP15]

f : Side Information [A_SIDE, B_SIDE, BOTH]

g : Firmware Data File Name [String]

h : Firmware Type [BOOTER_FW, CPLD_FW]

4.2.2. Loading Information Display Command

4.2.2.1. Loading Information Display (DIS-LDNG-INFO)

It is the function that displays the loading information of specific processor.

- Command : DIS-LDNG-INFO:[BSC=a,][BTS=b,]PROC=c ;

  a : BSC ID [Number 0~11]

  b : BTS ID [Number 0~47]

  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0,
  PMP1, PMP2, NCP, CCP, SCP, BSP,
  ALP, SMP0, SMP1, SMP2, SMP3, SMP4,
  VMP0, VMP1, VMP2, VMP3, VMP4,
  VMP5,
  VMP6, VMP7, RCP0, RCP1, RCP2, RCP3,
  RCP4, RCP5, RCP6, RCP7, RCP8, RCP9]
- Input : DIS-LDNG-INFO:BSC=1,PROC=CCP;
- Output :

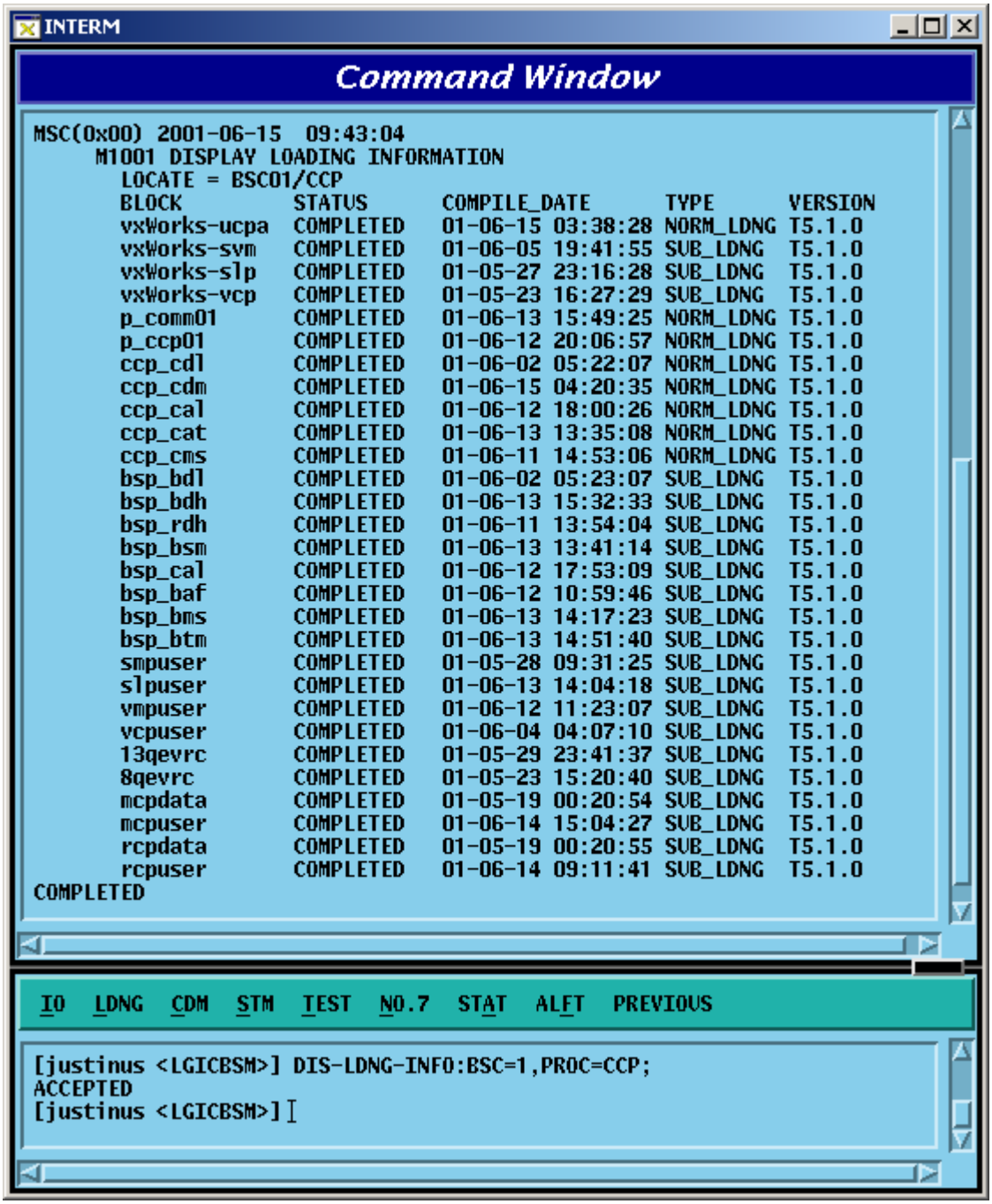

Fig. 4.2-4 Loading Information Display Command Execution Result

4.2.2.2. Loading History Display (DIS-LDNG-HIS)

It is the function that displayed up to 30 of the latest loading history of the specific processor.

- Command : DIS-LDNG-HIS:[BSC=a,][BTS=b,][PROC=c] ;

  a : BSC ID [Number 0~11]

  b : BTS ID [Number 0~47]

  c : Processor Name (When deleting processor names, the entire processors are displayed)

  [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, ALP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7, RCP0, RCP1, RCP2, RCP3, RCP4, RCP5, RCP6, RCP7, RCP8, RCP9]
- Input : DIS-LDNG-INFO:BSC=1,PROC=NCP;
- Output :

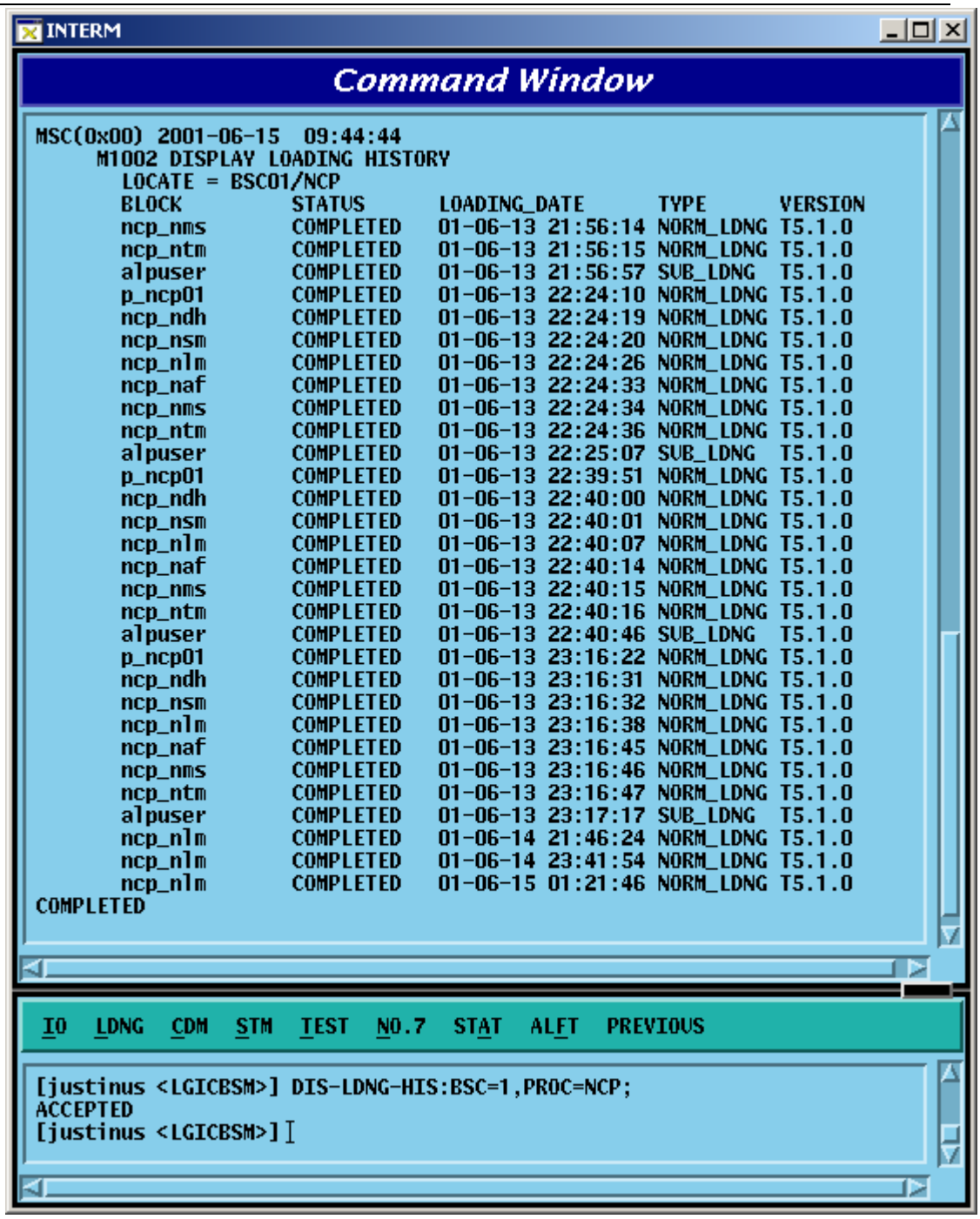

Fig. 4.2-5 Loading History Display Function Execution Result

4.2.2.3. Block Loading History Display (DIS-BLK-HIS)

It is the function that displays up to 30 of the latest block loading history of the specific processors.

- Command : DIS-BLK-HIS:[BSC=a,][BTS=b,]PROC=c ;
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name [CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2,VMP3,VMP4,VMP5,VMP6,VMP7]
- Input : DIS-LDNG-INFO:BSC=1,BTS=0,PROC=BSP;
- Output :

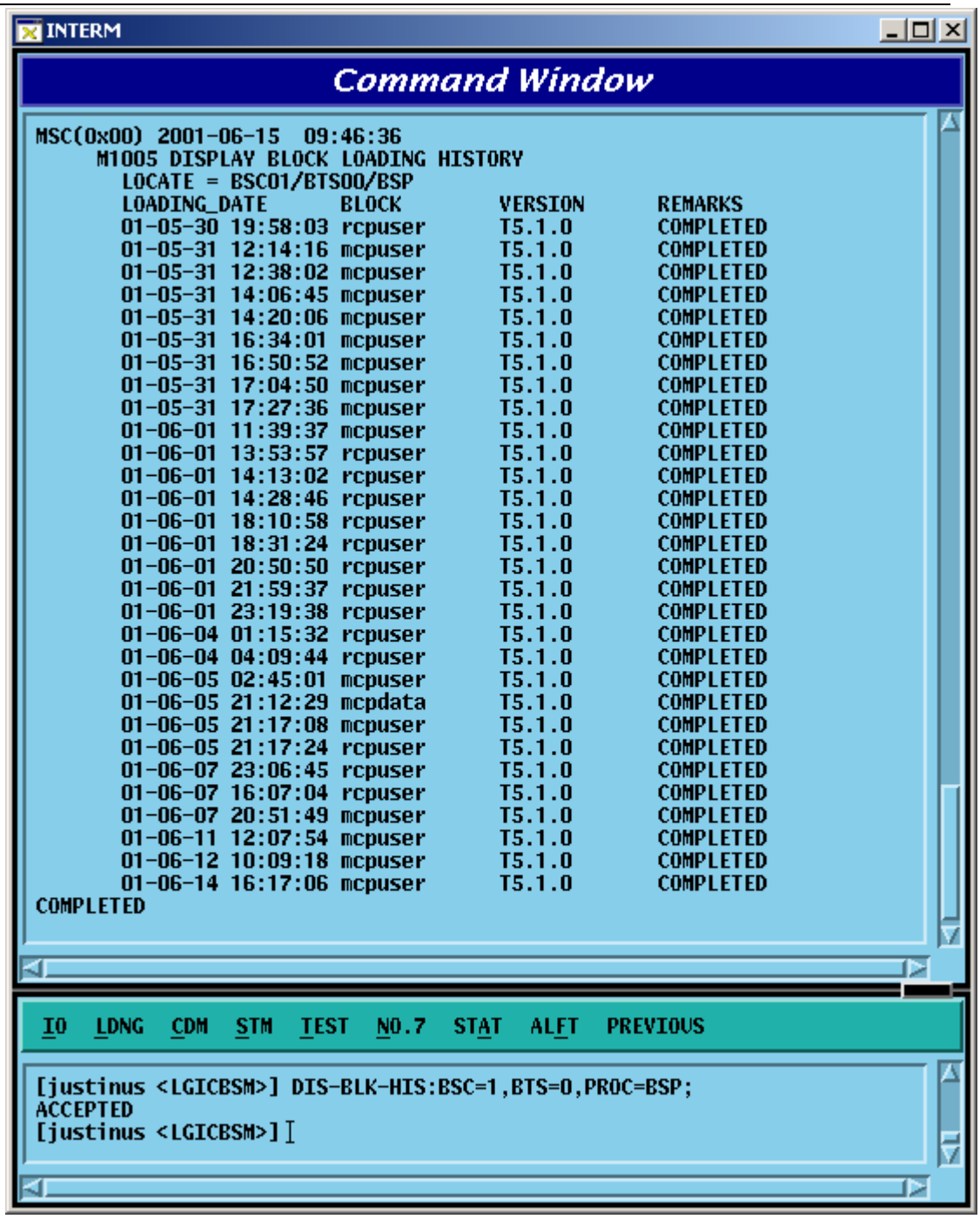

Fig. 4.2-6 Block Loading History Display Result

4.2.2.4. Loading State Display (DIS-LDNG-STS)

It is the function that displays the information on the processor that is performing downloading.

- Command : DIS-LDNG-STS;
- Input : DIS-LDNG-STS;
- Output :

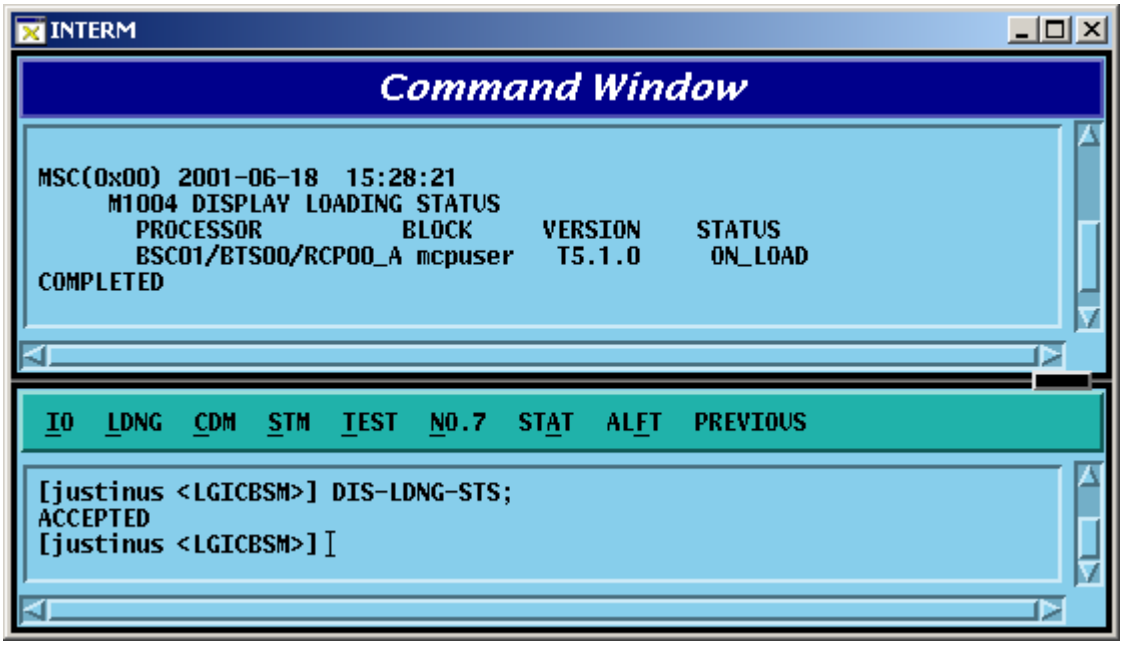

Fig. 4.2-7 Loading State Display Command Execution Result (When there is a processor that is performing loading)

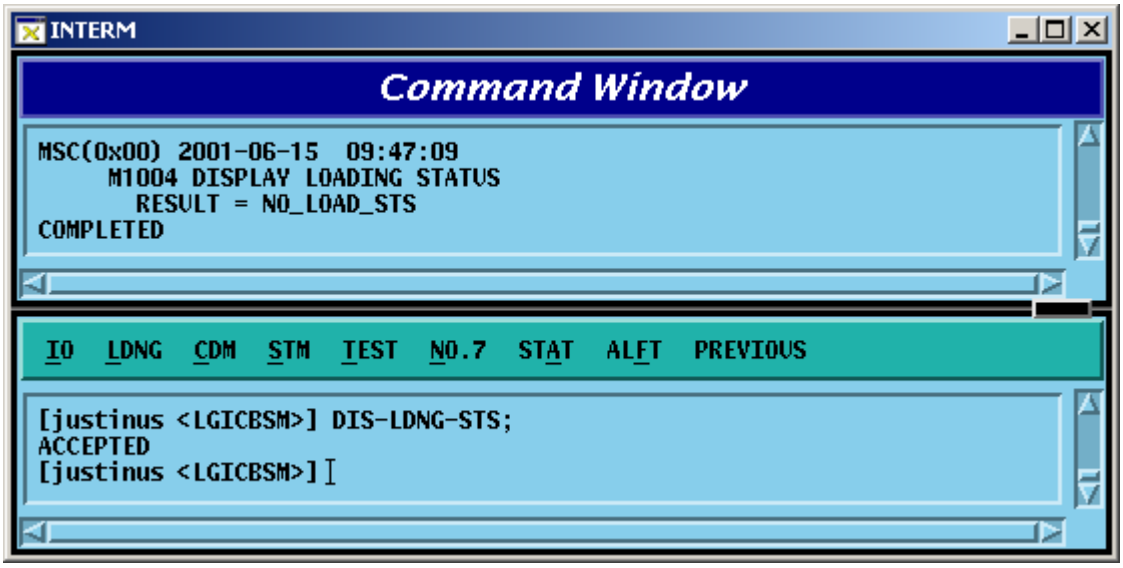

Fig. 4.2-8 Loading State Display Command Execution Result (When there is no processor that is performing loading)

4.2.2.5. a.out Version Information Display (DIS-VER-INFO)

The command to display a.out version information is used to check the S/W block version that is downloaded from the BSM loading directory or target processor.
The target processors that can designate are as follows: BSM, CNP, PNP, PCP, PMP, NCP, CCP, SCP, BSP, ALP, SMP, VMP, and RCP.

- Command : DIS-VER-INFO:[BSC=a,][BTS=b,]PROC=c[,FILENAME=d];
  a : BSC ID [Number 0~11]
  b : BTS ID [Number 0~47]
  c : Processor Name [BSM,CNP,PNP,PCP0,PCP1,PCP2,PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, ALP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7, RCP0, RCP1, RCP2, RCP3, RCP4, RCP5, RCP6, RCP7, RCP8, RCP9]
  d : File Name [String]

- Input : DIS-VER-INFO:PROC=BSM,FILENAME=ccp_cdl;
  DIS-VER-INFO:BSC=1,PROC=CCP,FILENAME=ccp_cdl;
- Output :

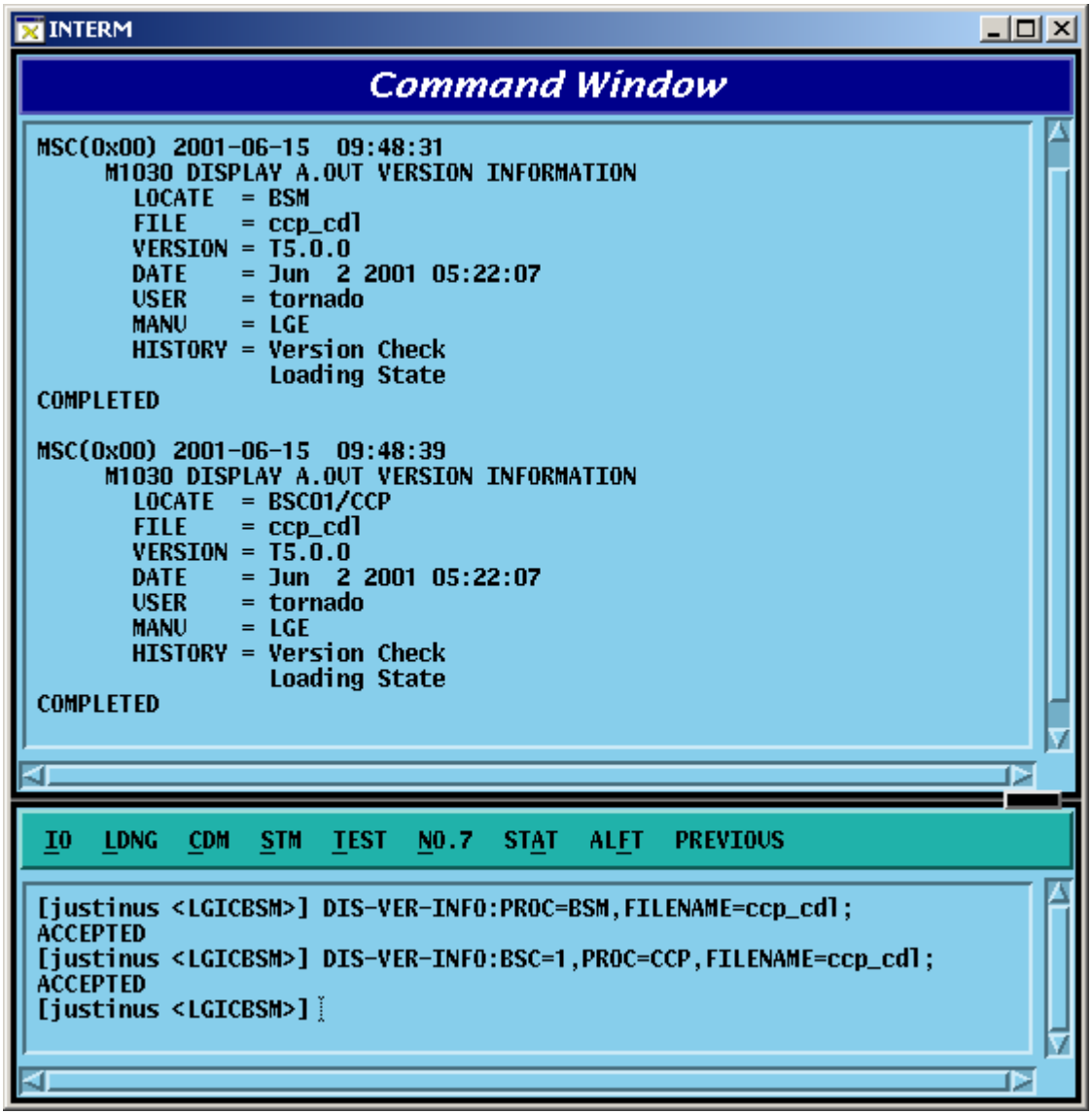

Fig. 4.2-9 Version Information Display Command Execution Result

4.3. Configuration Command

During the initialization, BTS and BSC download PDL (Programmable Loading Data) that contain the configuration and parameter information as well as the OS and Application.

This section describes the commands that help the user to manage the following efficiently and variably by displaying PLD and changing them online: BTS and BSC configuration, the parameter information, and the network configuration information. In particular, the system's flexibility is maximized by enabling BTS, Sector, FA, etc to be expanded by the parameter input by the user without any additional data.

4.3.1. Parameter Information Display Command (Display_Parameter_Information_1)

As a command that is used to inquire the parameter information that is currently stored in the PLD, its results are displayed on the OUTPUT WINDOW.

Table 1-1 Parameter Information Display Command I

DIS-BTS-DATA	BSC, BTS	BTS DATA verification
DIS-SECT-DATA	BSC, BTS, SECT	SECTOR DATA verification
DIS-CHAN-DATA	BSC, BTS, CDMACH	CDMA CHANNEL DATA verification
DIS-SYS-PARA	BSC, BTS, SECT, CDMACH	SYSTEM PARAMETER verification
DIS-EXT-SYS	BSC, BTS, SECT, CDMACH	EXTENDED SYSTEM PARAMETER verification
DIS-NGBR-DATA	BSC, BTS, SECT	Neighbor cell information verification
DIS-QOS-PARA	BSC, BTS	QOS verification
DIS-CHIP-PWR	BSC, BTS	CHIP power control parameter verification
DIS-TIC-DATA	BSC, BTS, SECT, CDMACH	TIC DATA verification
DIS-SECT-CHAN	BSC, BTS, SECT, CDMACH	SYSTEM SECTOR CDMA CHANNEL PARAMETER

		verification
DIS-PWR-PARA	BSC, BTS, SECT, CDMACH	Power control parameter information display
DIS-AC-PARA	BSC, BTS, SECT, CDMACH, PC, AC	ACCESS CHANNEL PARAMETER verification
DIS-TXMS-PARA	BSC, BTS, SECT, CDMACH	TXMS PARAMETERS verification
DIS-GSRM-PARA	BSC, BTS, SECT	GSRM message verification
DIS-ACC-PARA	BSC, BTS, SECT, CDMACH, PC	ACCESS PARAMETER MESSAGE verification
DIS-PC-PARA	BSC, BTS, SECT, CDMACH, PC	PAGING CHANNEL parameter information verification
DIS-PICH-PARA	BSC, BTS, SECT, CDMACH	PILOT CHANNEL parameter information verification
DIS-SC-PARA	BSC, BTS, SECT, CDMACH	SYNC CHANNEL PARAMETER verification
DIS-QPC-PARA	BSC, BTS, SECT, CDMACH, QPC	QUICK PAGING CHANNEL parameter information verification
DIS-BCON-PARA	BSC, BTS, SECT	HOPPING PILOT BEACON CHANNEL parameter information verification
DIS-BTS-DATA	BSC, BTS	BTS DATA verification

4.3.1.1. BTS Parameter Information Display

The BTS parameters are composed of data that are used to manage the BTS and both BTS and BSC refer to this information.

- Command DIS-BTS-DATA:BSC=a,BTS_GRP=b,BTS_SUB=c;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
- Input DIS-BTS-DATA:BSC=0,BTS_GRP=2,BTS_SUB=0;
- Output

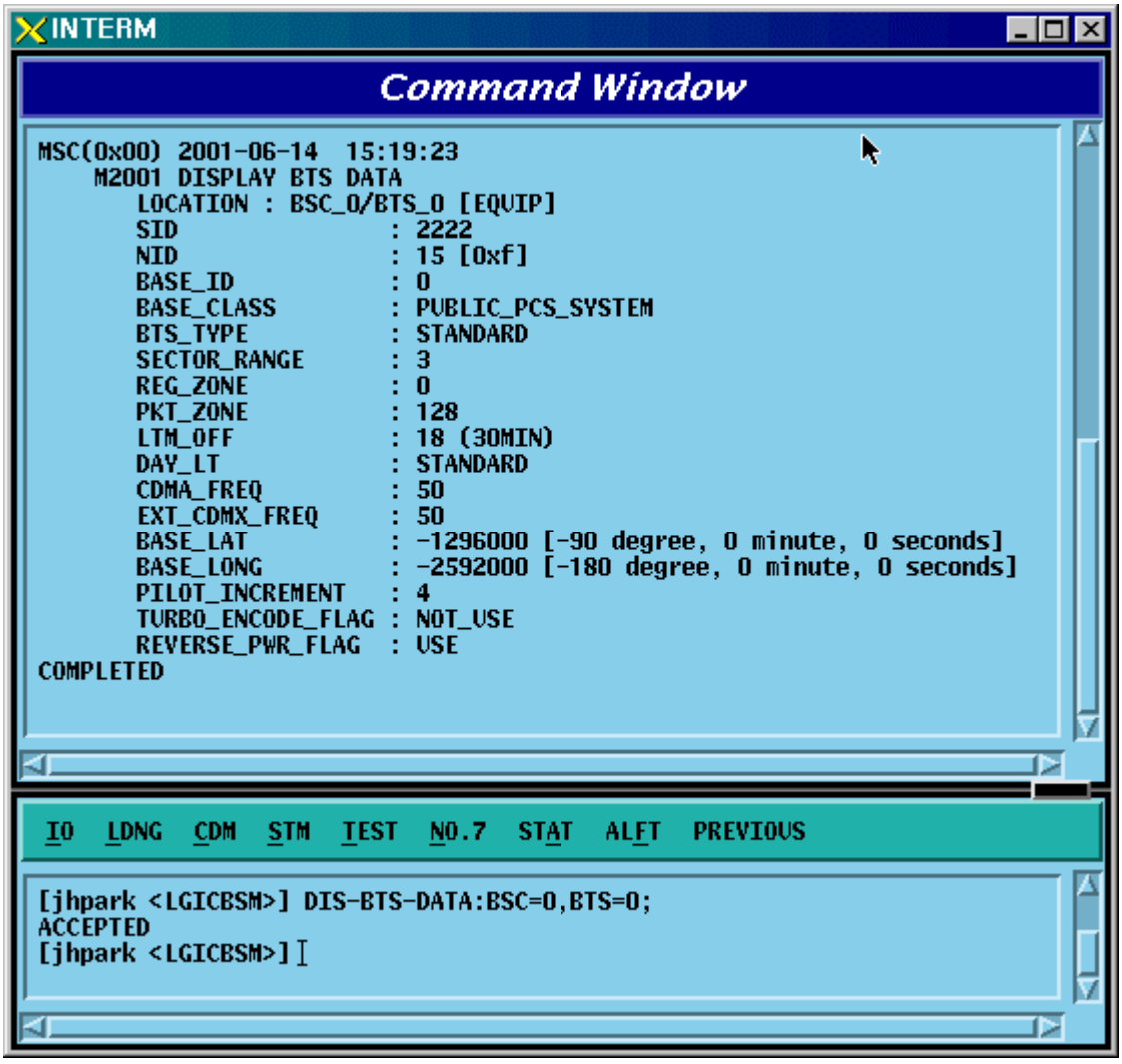

Fig. 4.3-1 BTS Parameter Display

4.3.1.2. Sector Parameter Information Display

The BTS can be divided into 1~3 sectors to accommodate more subscribers. The sector parameter information is composed of the information on each sector in BTS and both BTS and BSC refer to this information. The user can inquire the data by BTS Group, BTS Sub, and sector.

- Command DIS-SECT-DATA:BSC=a[,BTS_GRP=b][,BTS_SUB=c][,SECT=d];
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
  - d : Sector Number (ALPHA/BETA/GAMMA)
- Input DIS-SECT-DATA:BSC=0,BTS=0,SECT=ALPHA;

- Output

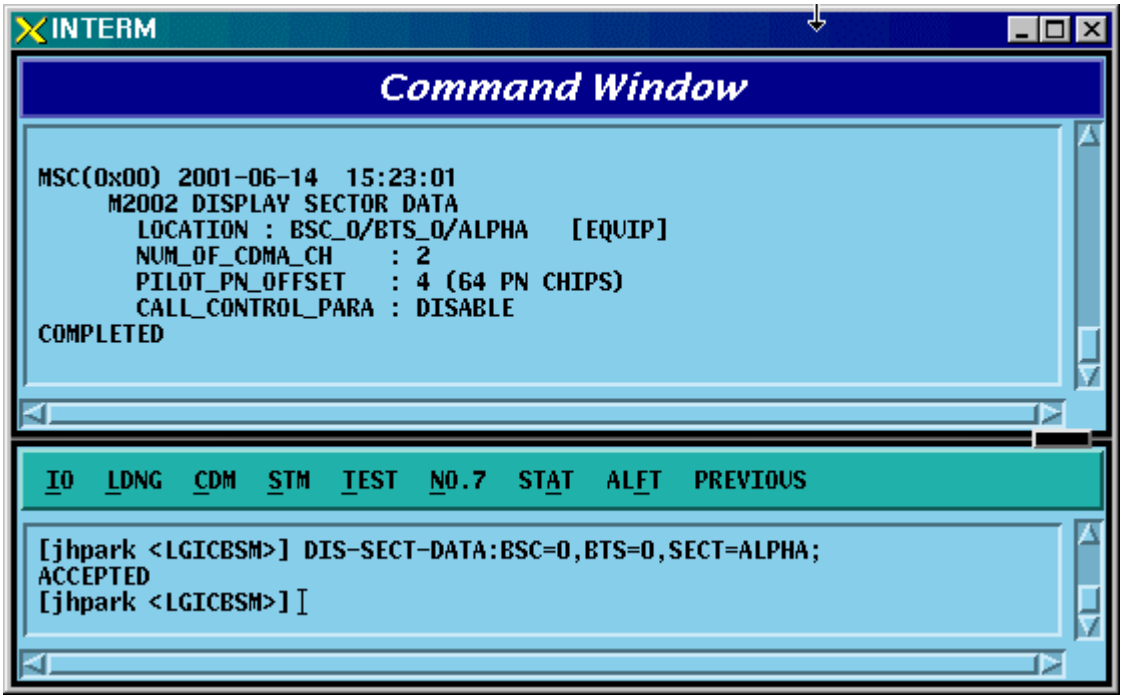

Fig. 4.3-2 Sector Parameter Information Display

4.3.1.3. CDMA Channel Parameter Information Display

The following command is used to display parameter information such as bandwidth of each CDMA channel, CDMA channel number, spare channel rate for Handoff(or Handover). This information is referred by both BTS and BSC.

- Command DIS-CHAN-DATA:BSC=a,BTS_GRP=b,BTS_SUB=c[,CDMACH=c];
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number(0 ~ 3)
  - d : CDMA Channel Number (0 ~ 7)
- Input DIS-CHAN-DATA:BSC=0,BTS_GRP=2,BTS_SUB=0;
- Output

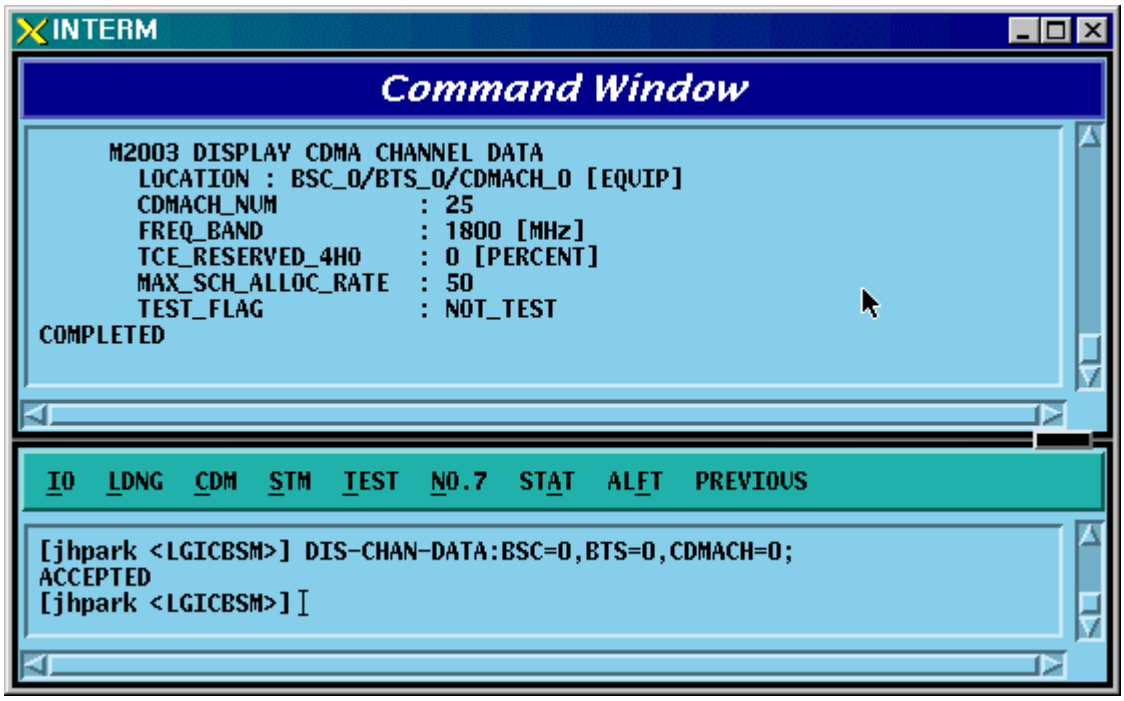

Fig. 4.3-3 CDMA Channel Parameter Information Display

4.3.1.4. System Parameter Message Display

As an Overhead message that is transmitted from BTS to MS through the paging channel, the System Parameter Message contains the information to be used for the call processing, handoff procedures, registration, etc. The information is checked by using the following command and referred by both BTS and BSC.

- Command DIS-SYS-PARA:BSC=a,BTS_GRP=b,BTS_SUB=c,SECT=d,CDMACH=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
  - d : Sector Number (ALPHA/BETA/GAMMA)
  - e : CDMA Channel Number (0 ~ 7)
- Input DIS-SYS-PARA:BSC=0,BTS_GRP=2,BTS_SUB=0,SECT=ALPHA,CDMACH=0;
- Output

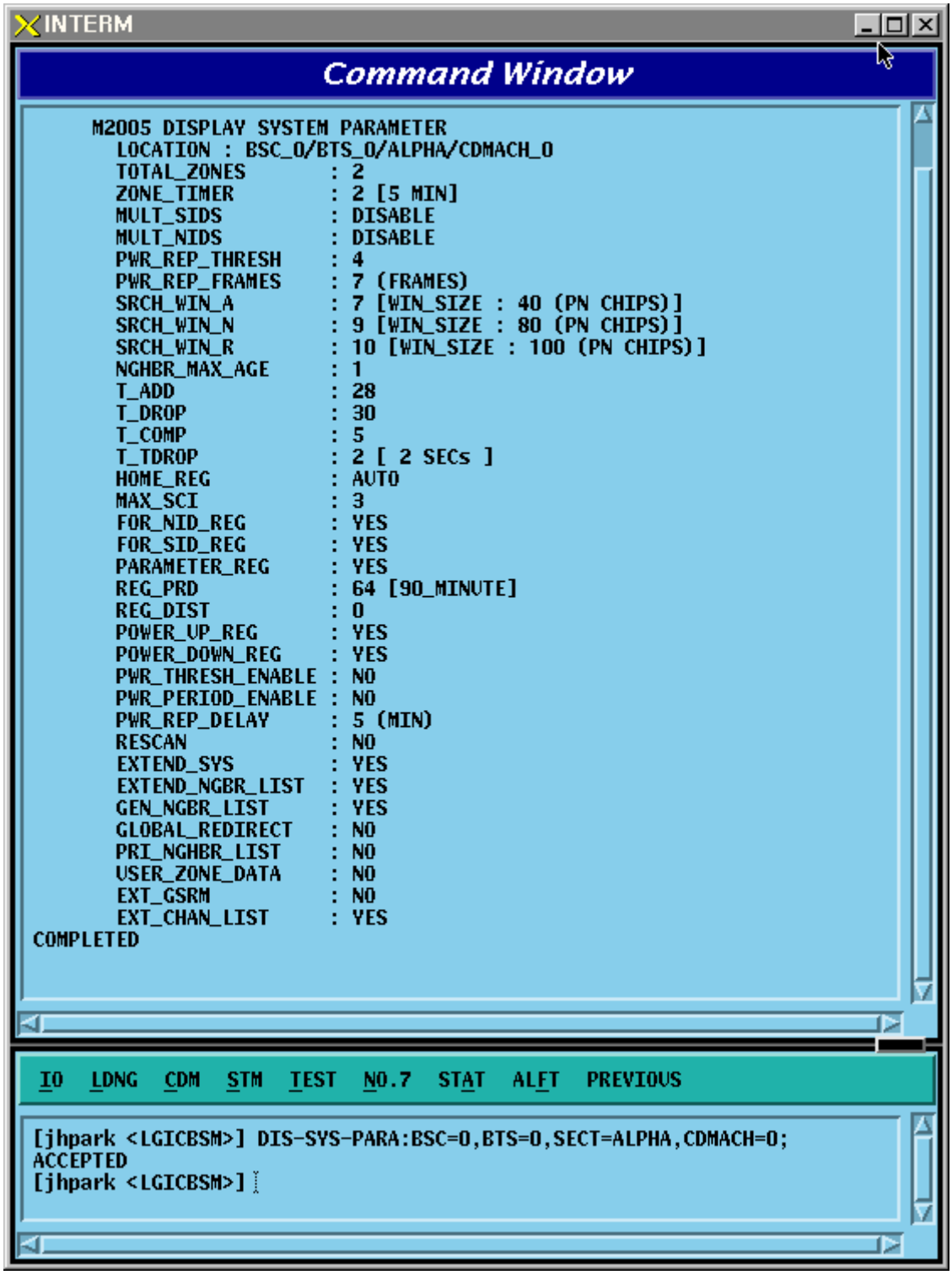

Fig. 4.3-4 System Parameter Message Display

4.3.1.5. Extended System Parameter Message Display

As an overhead message that is transmitted from the BTS to MA through the paging channel, the Extended System Parameter Message is referred by BTS and BSC.

- Command DIS-EXT-SYS:BSC=a,BTS_GRP=b,BTS_SUB=c;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
- Input DIS-EXT-SYS:BSC=0,BTS_GRP=2,BTS_SUB=0;
- Output

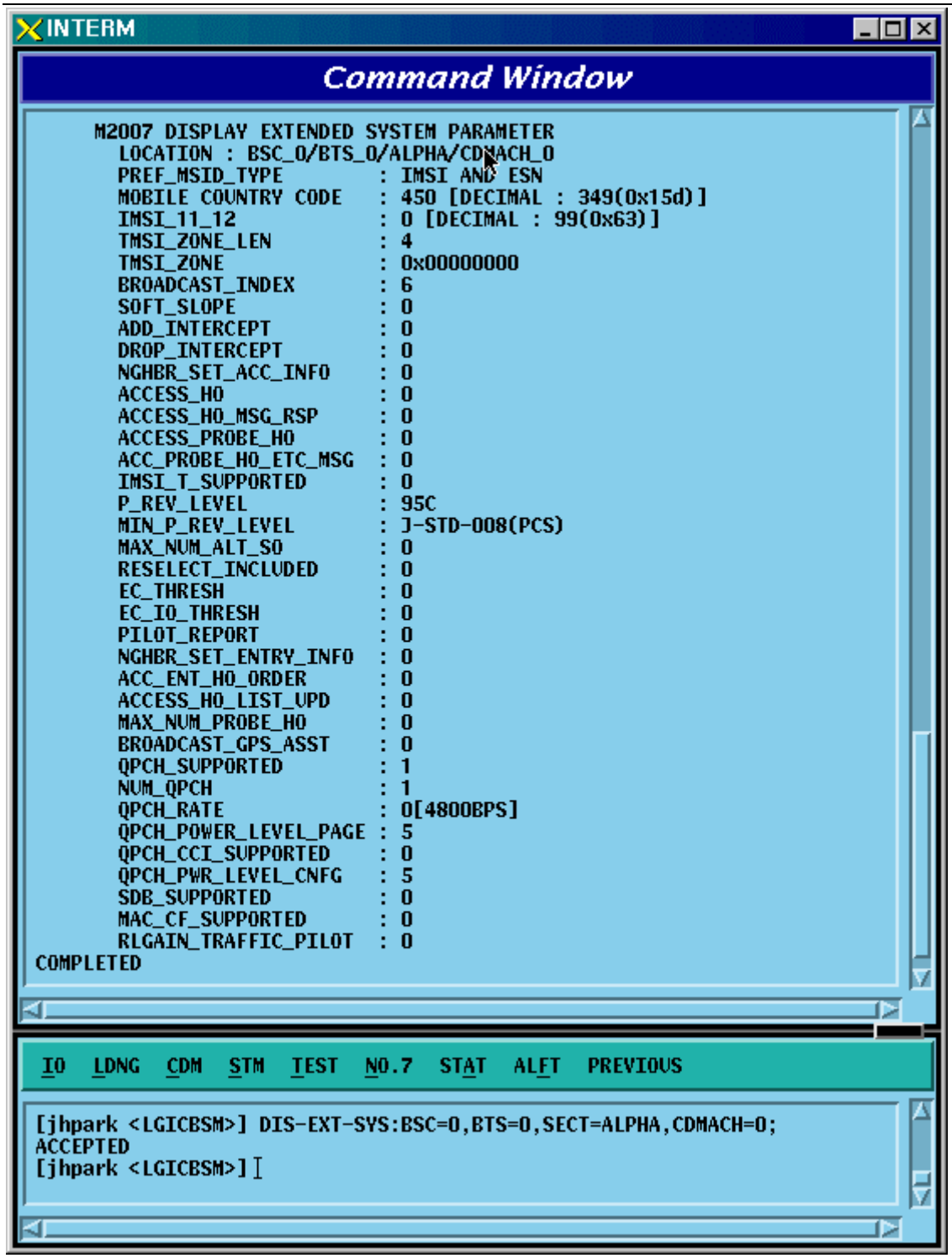

Fig. 4.3-5 Extended System Parameter Message Display

4.3.1.6. Neighbor List Parameter Information Display

Neighbor list refers to a set of the information on neighbor sectors. Each sector can have up to 20 neighbor lists. When the MS, which is busy or idle, moves to other sectors, it has to switch over a call (this is called Handoff or Handover). At this time, handoff is carried out in reference to the neighbor list. The neighbor list is referred by BTS and BSC and can be inquired by using the following command:

- Command DIS-NGBR-DATA:BSC=aa,BTS_GRP=b[,BTS_SUB=c][,SECT=c];
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
  - d : Sector Number (ALPHA/BETA/GAMMA)
- Input DIS-NGBR-DATA:BSC=0,BTS_GROUP=2,BTS_SUB=0;
- Output

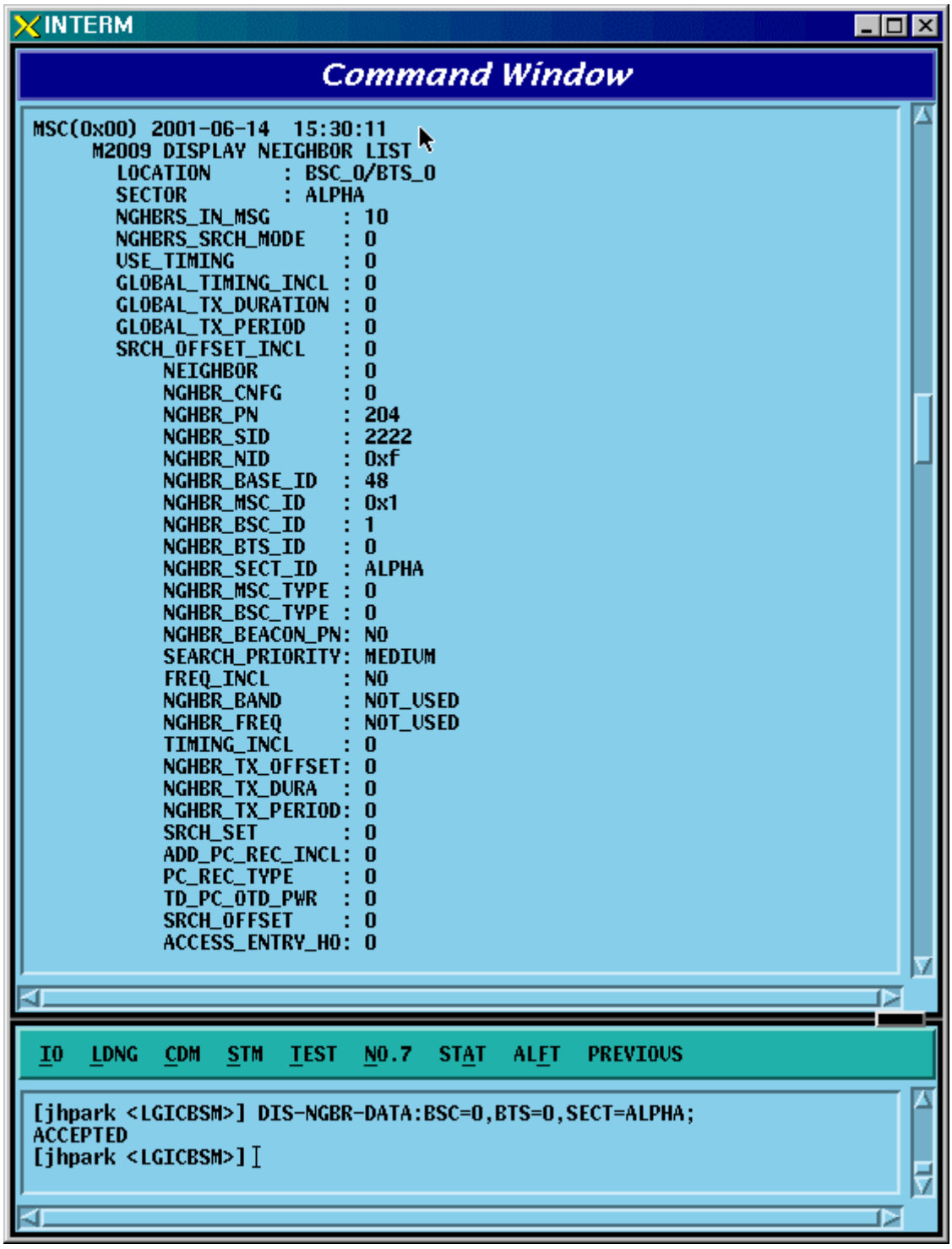

Fig. 4.3-6 Neighbor List Parameter Information Display

4.3.1.7. BTS QOS(Quality Of Service) Display

• Command DIS-QOS-PARA:BSC=a,BT=b;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

• Input DIS-QOS-PARA:BSC=0,BTS=0;

• Output

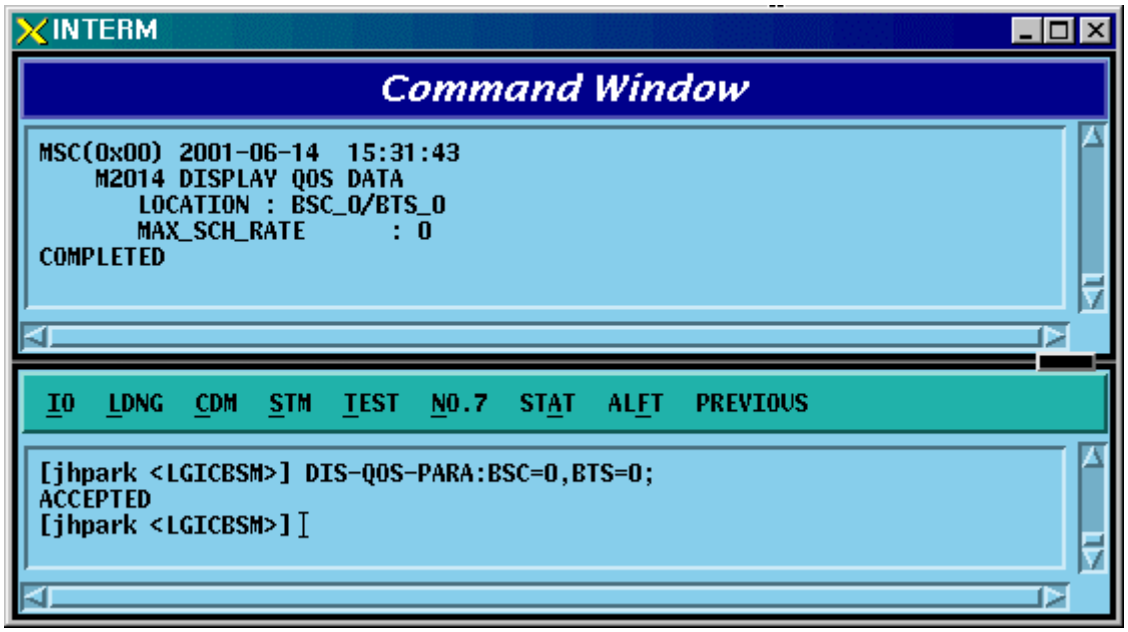

Fig. 4.3-7 BTS QOS(Quality Of Service) Display

4.3.1.8. CHIP Power Control Parameter Display

• Command DIS-CHIP-PWR:BSC=a,BTS=b;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

• Input DIS-CHIP-PWR:BSC=0,BTS=0;

• Output

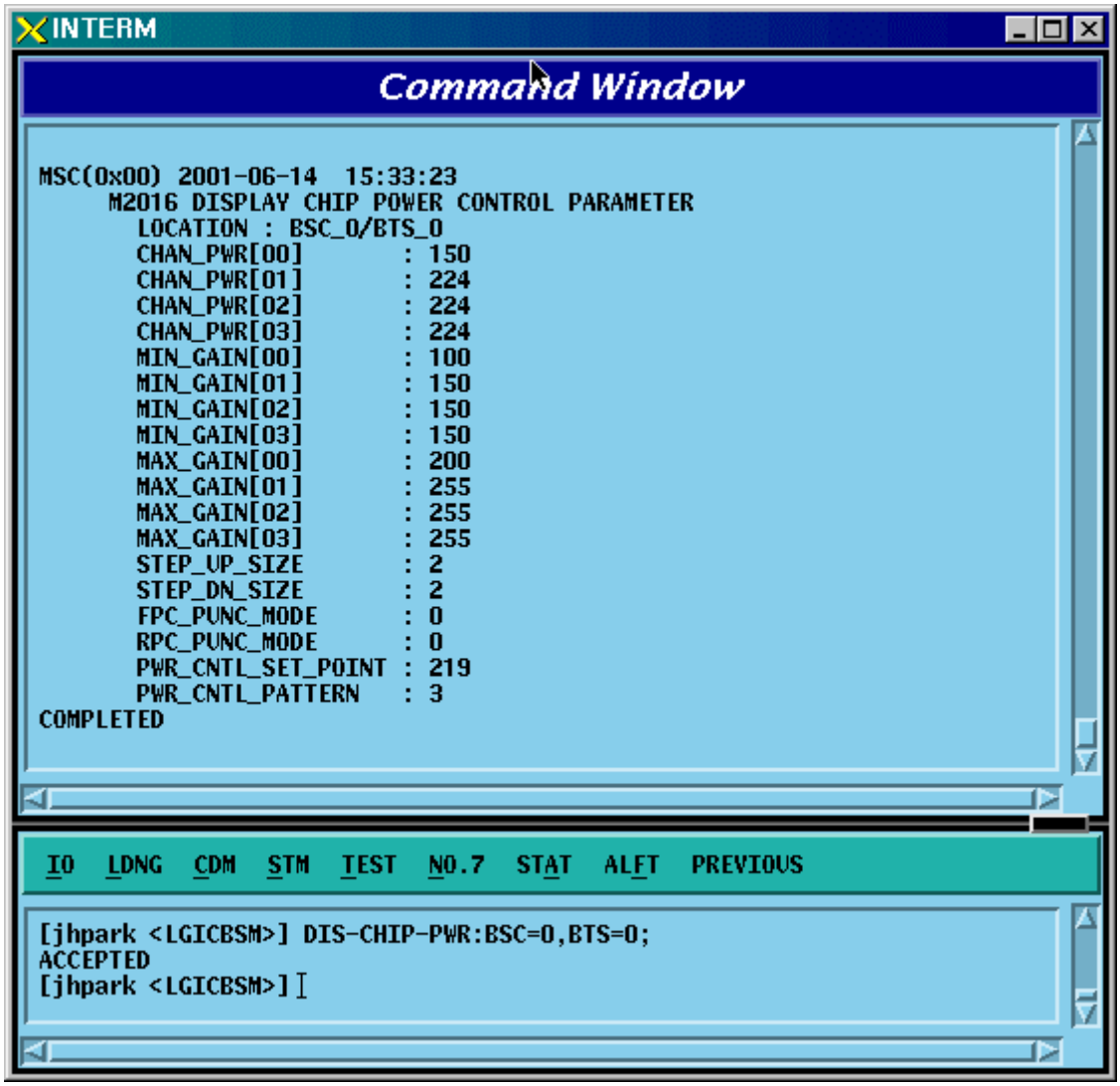

Fig. 4.3-8 Display of Parameter that Controls CHIP Power

4.3.1.9. OCNS State Display

Input the following commands to display transmit values, the parameter information used by BTS:

- Command DIS-OCNS-STS:BSC=a,BTS=b;

  a : BSC Number (0 ~ 11)

  b : BTS Number (0 ~ 47)

- Input DIS-OCNS-STS:BSC=0,BTS=0;
- Output

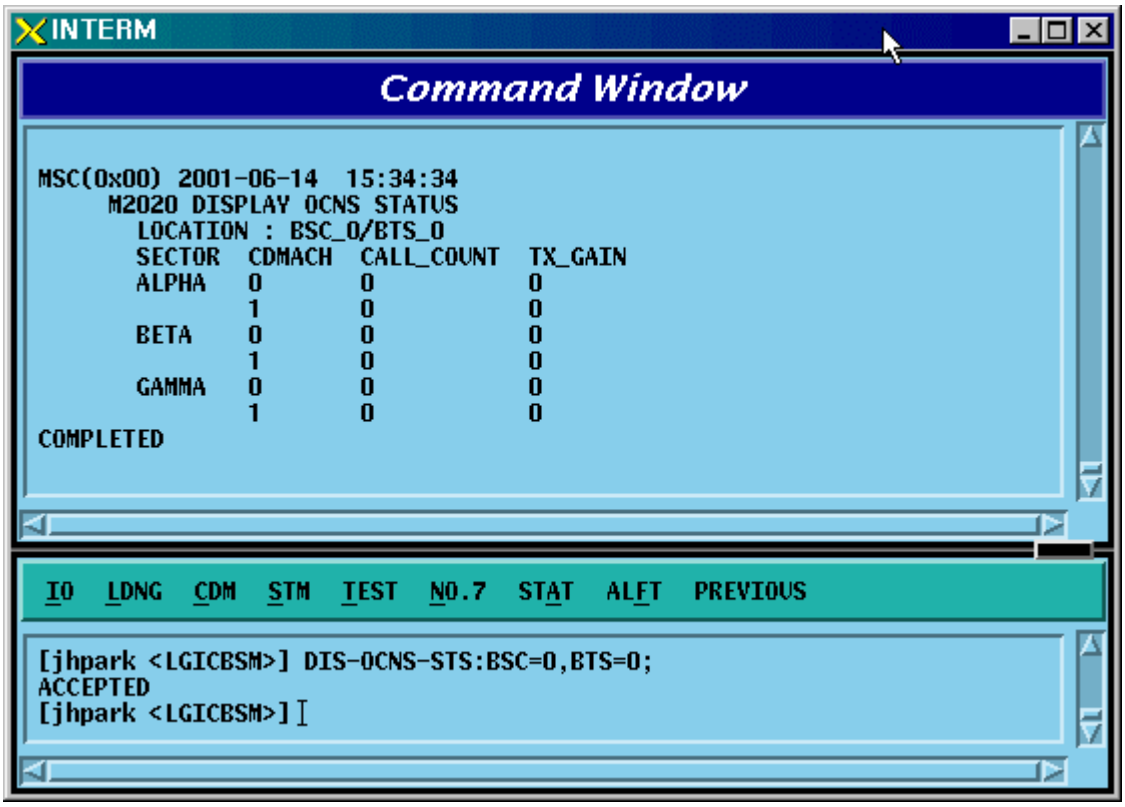

Fig. 4.3-9 OCNS State Display

4.3.1.10. Current Power Control Display

• Command DIS-CUR-PWR:BSC=a,BTS=b, SECT=c, CDMACH=d;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

c: SECT

d: CDMACH

• Input DIS-CUR-PWR:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;

• Output

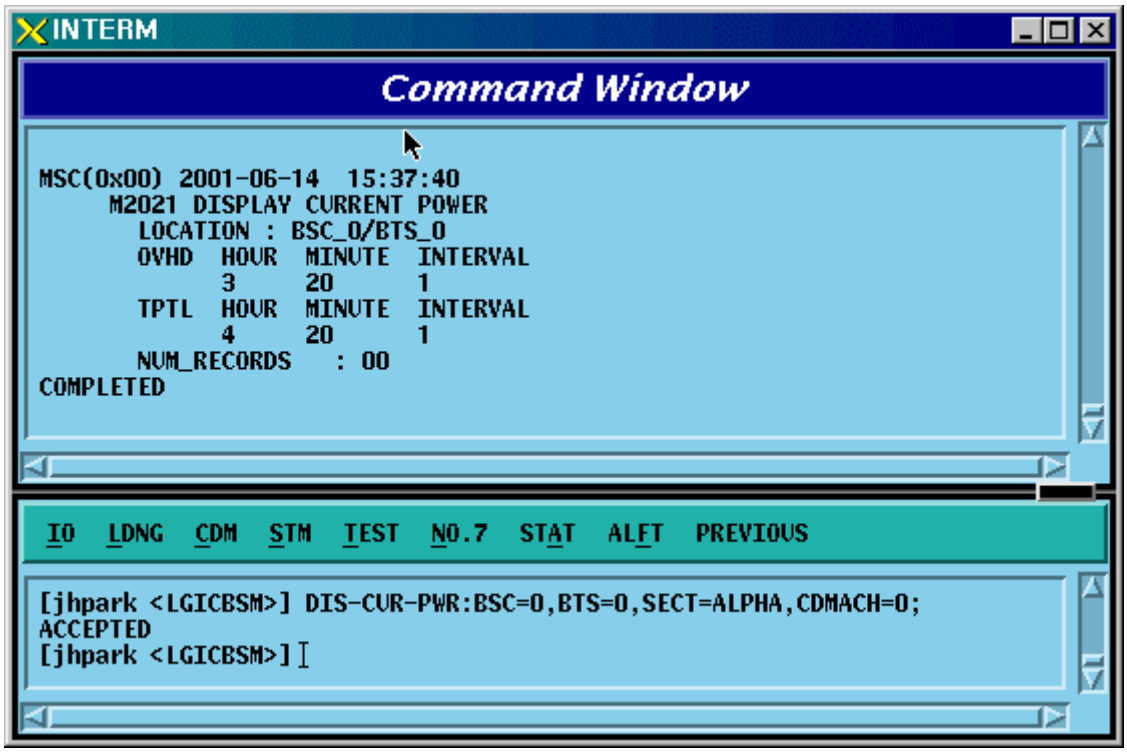

Fig. 4.3-10 Current Power Control Display

4.3.1.11. TIC(Transceiver Interface Card) Data Display

Input the following commands to display transmit gain values, the parameter information used by the BTS:

• Command DIS-TIC-DATA:BSC=a,BTS_GRP=b,BTS_SUB=c,SECT=d,CDMACH=e;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

c : BTS Sub Number (0 ~ 3)

d : Sector Number (ALPHA/BETA/GAMMA)

e : CDMA Channel Number (0 ~ 7)

• Input DIS-TIC-DATA:BSC=0,BTS_GRP=2,BTS_SUB=0,SECT=ALPHA,CDMACH=0;

• Output

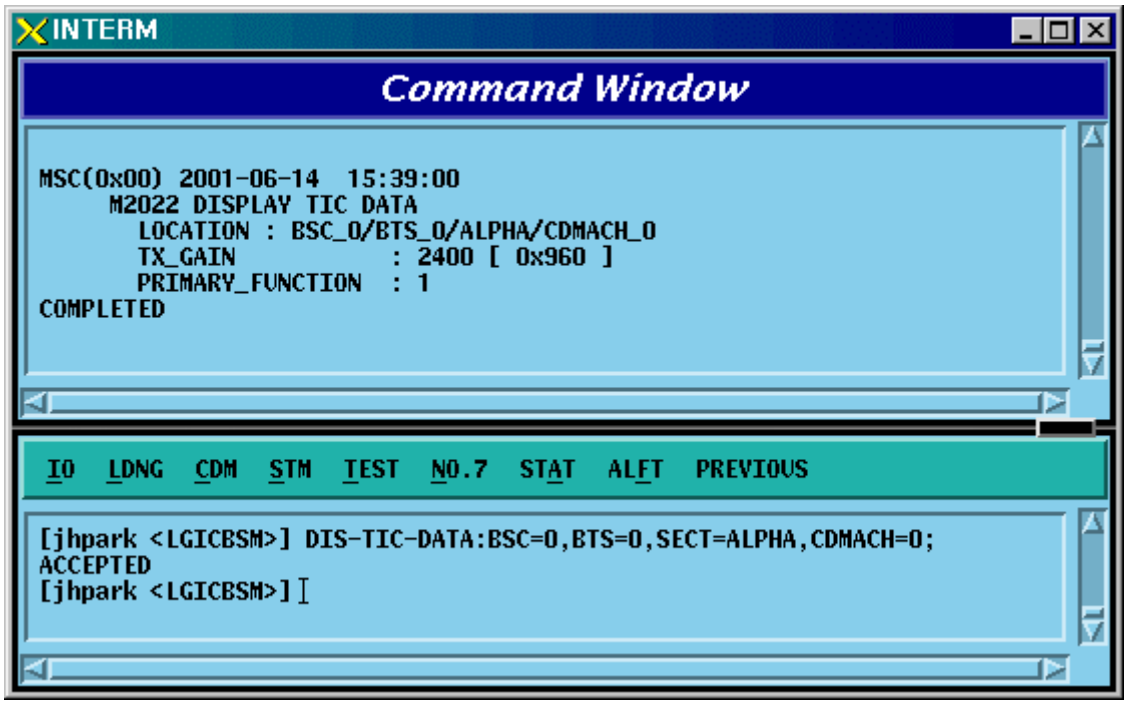

Fig. 4.3-11 TIC(Transceiver Interface Card) Data Display

4.3.1.12. OCNS Display

Input the following commands to display transmit gain values, the parameter information used by the BTS:

• Command DIS-OCNS-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)

d : CDMA Channel Number (0 ~ 11)

• Input DIS-OCNS-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;

• Output

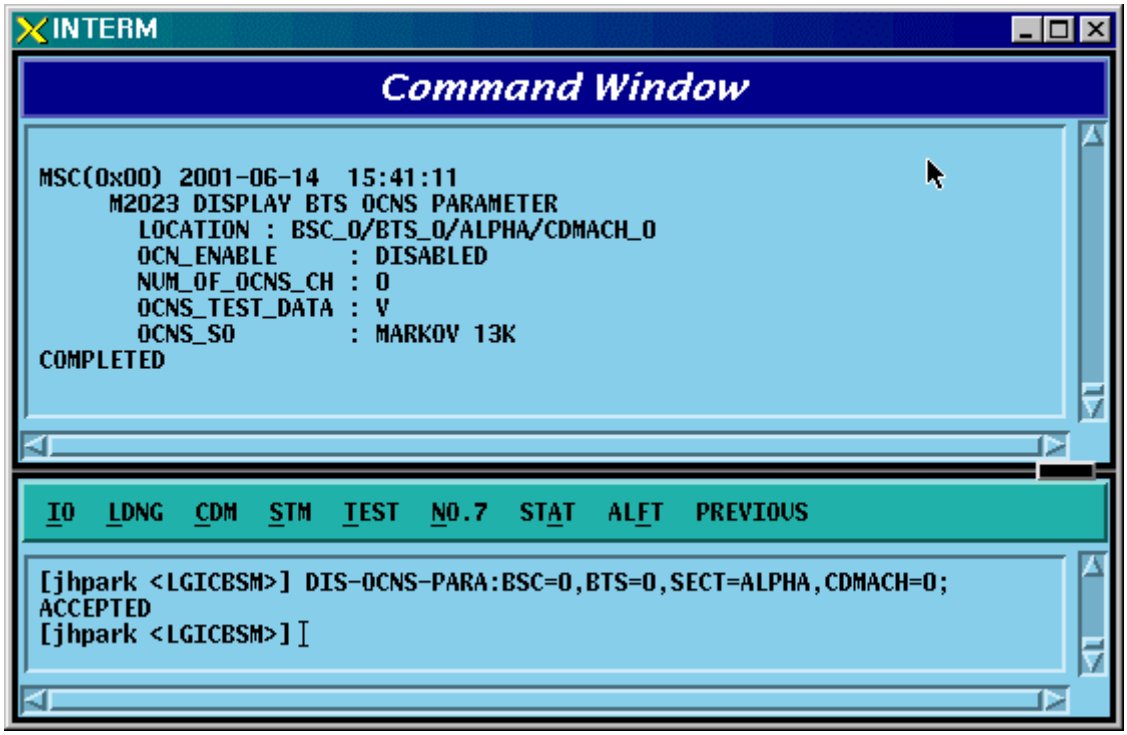

Fig. 4.3-12 OCNS Display

4.3.1.13. Power Management Parameter Information Display

- Command DIS-PWR-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d;

  a : BSC Number (0 ~ 11)

  b : BTS Number (0 ~ 47)

  c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)

  d : CDMA Channel Number (0 ~ 11)
- Input DIS-PWR-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

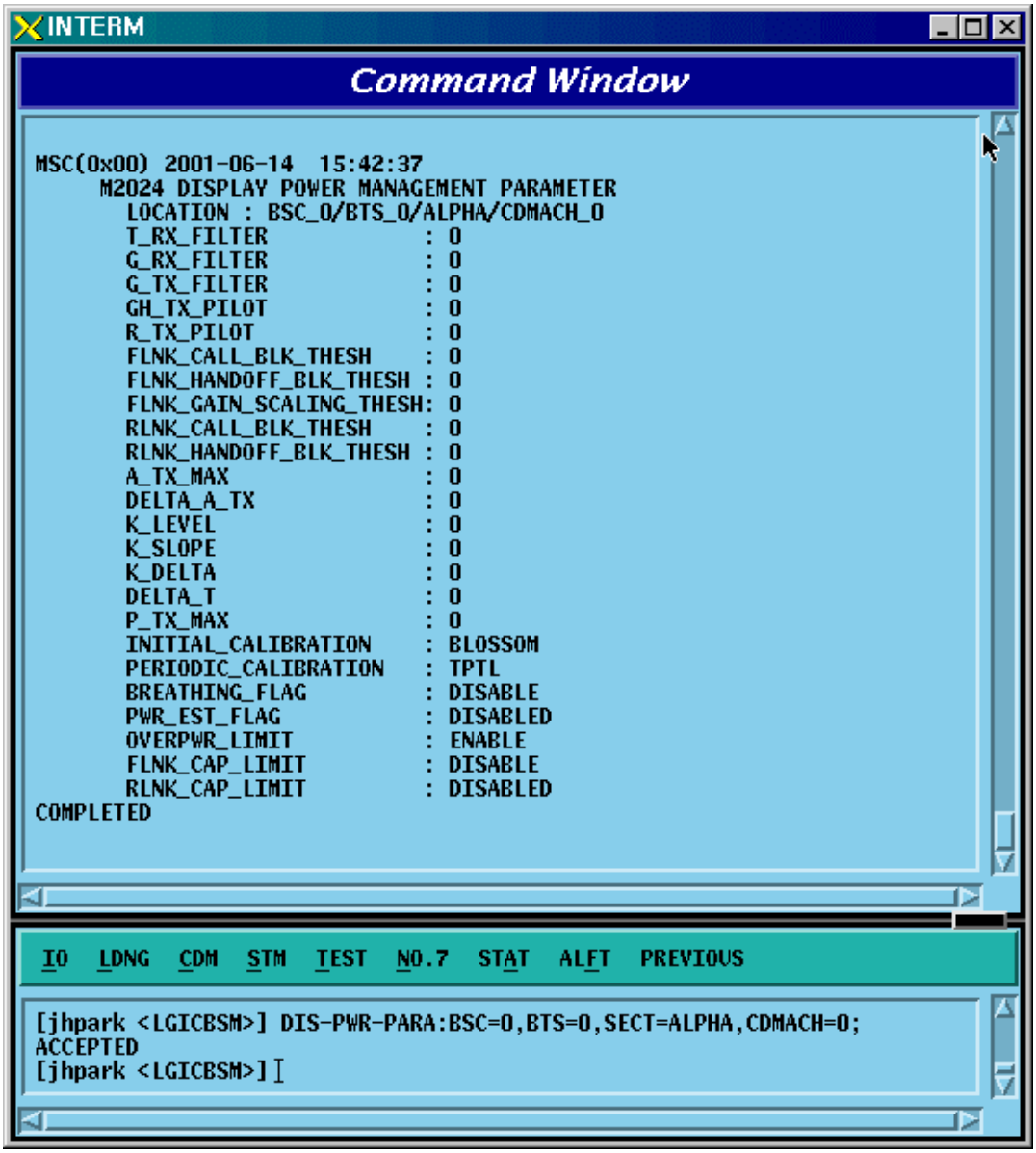

Fig. 4.3-13 Power Management Parameter Information Display

4.3.1.14. Access Channel Parameter Information Display

Display the access channel parameter information.

- Command DIS-AC-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d,PC=e,AC=f;;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Paging Channel ID (0 ~ 6)
  - f : Access Channel ID (0 ~ 6)
- Input DIS-OCNS-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0,PC=0,AC=0;
- Output

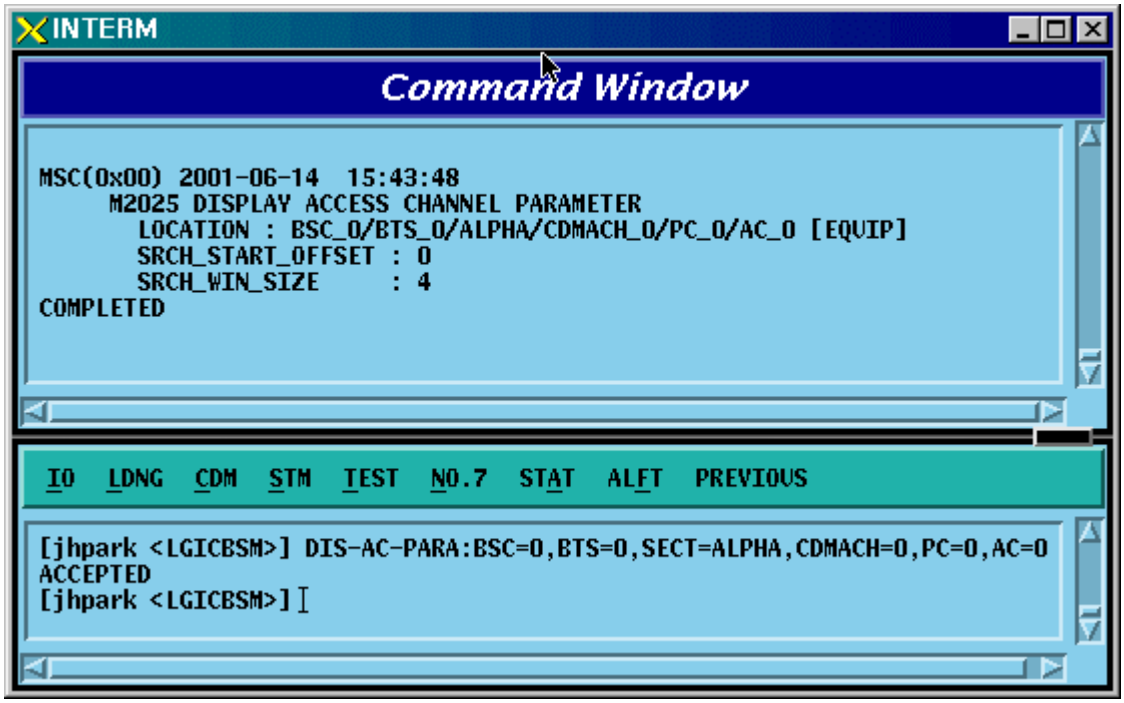

Fig. 4.3-14 Access Channel Parameter Information Display

4.3.1.15. TXMS Display

• Command DIS-TXMS-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)

d : CDMA Channel Number (0 ~ 11)

• Input DIS-TXMS-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;

• Output

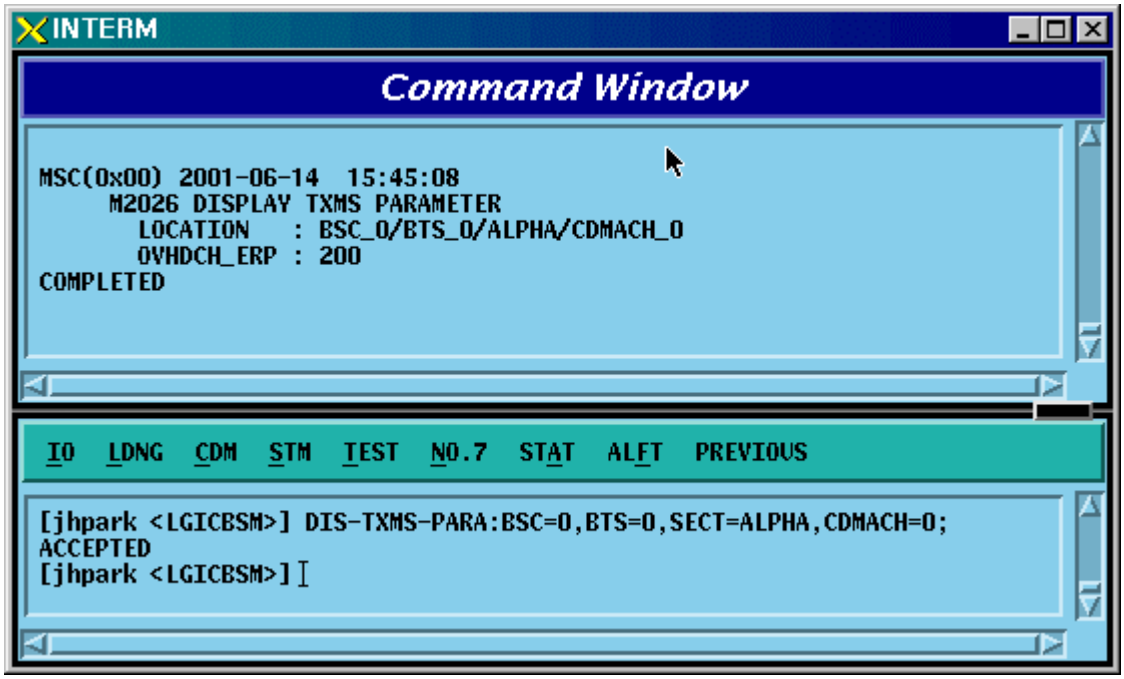

Fig. 4.3-15 TXMS Display

4.3.1.16. GSRM Parameter Information Display

GSRM(Global Service Redirect Message) is the parameter information that determines the system where a call is to be tried after MS power is on. It can be inquired using the following commands:

• Command DIS-GSRM-PARA:BSC=a,BTS=b,SECT=c;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)

• Input DIS-GSRM-PARA:BSC=0,BTS=0,SECT=ALPHA;

• Output

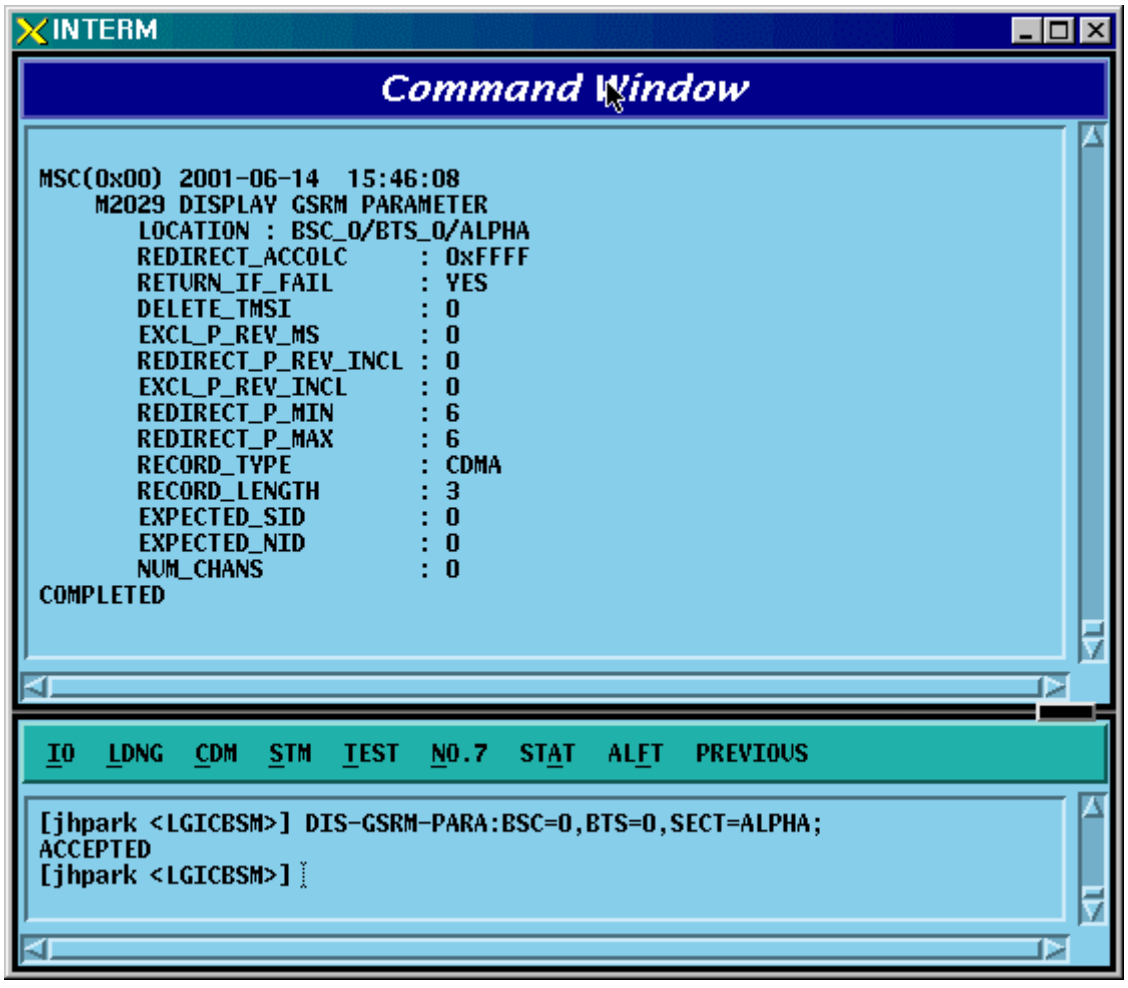

Fig. 4.3-16 GSRM Parameter Information Display

4.3.1.17. Access Parameter Message Display

As an Overhead message that is transmitted from BTS to MS through the paging channel, the Access Parameter Message indicates the way for MS to access BTS through Access channel contains the information to be used for the call processing, handoff procedures, registration, etc. Input the following command to display the Access Parameter Message.

- Command DIS-ACC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d, PC=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Paging Channel ID
- Input DIS-ACC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0,PC=0;
- Output

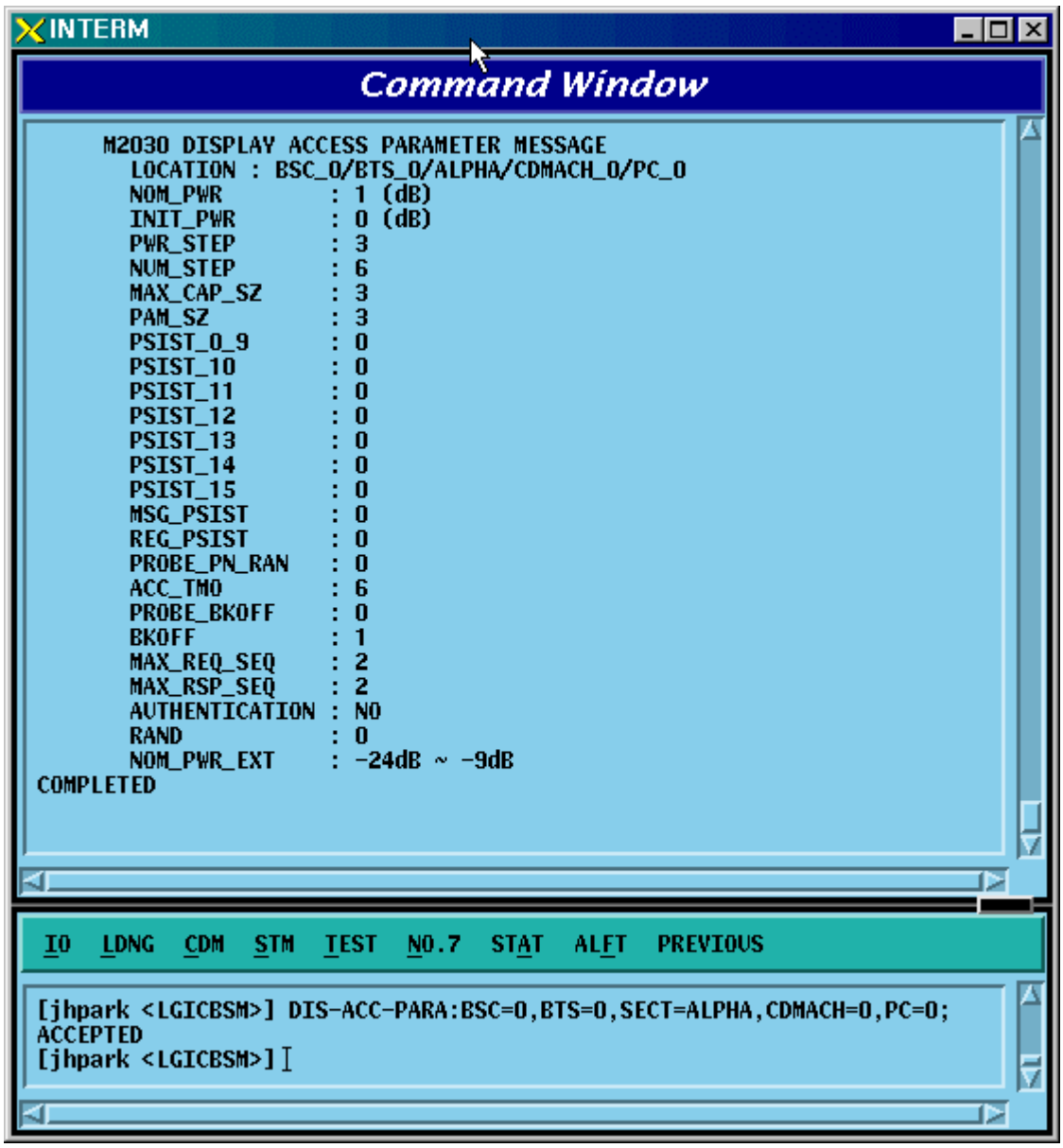

Fig. 4.3-17 Access Parameter Message Display

4.3.1.18. Paging Channel Parameter Information Display

Use the following command to display the transmit value of the paging channel:

- Command DIS-PC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d, PC=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Paging Channel ID
- Input DIS-PC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0,PC=0;
- Output

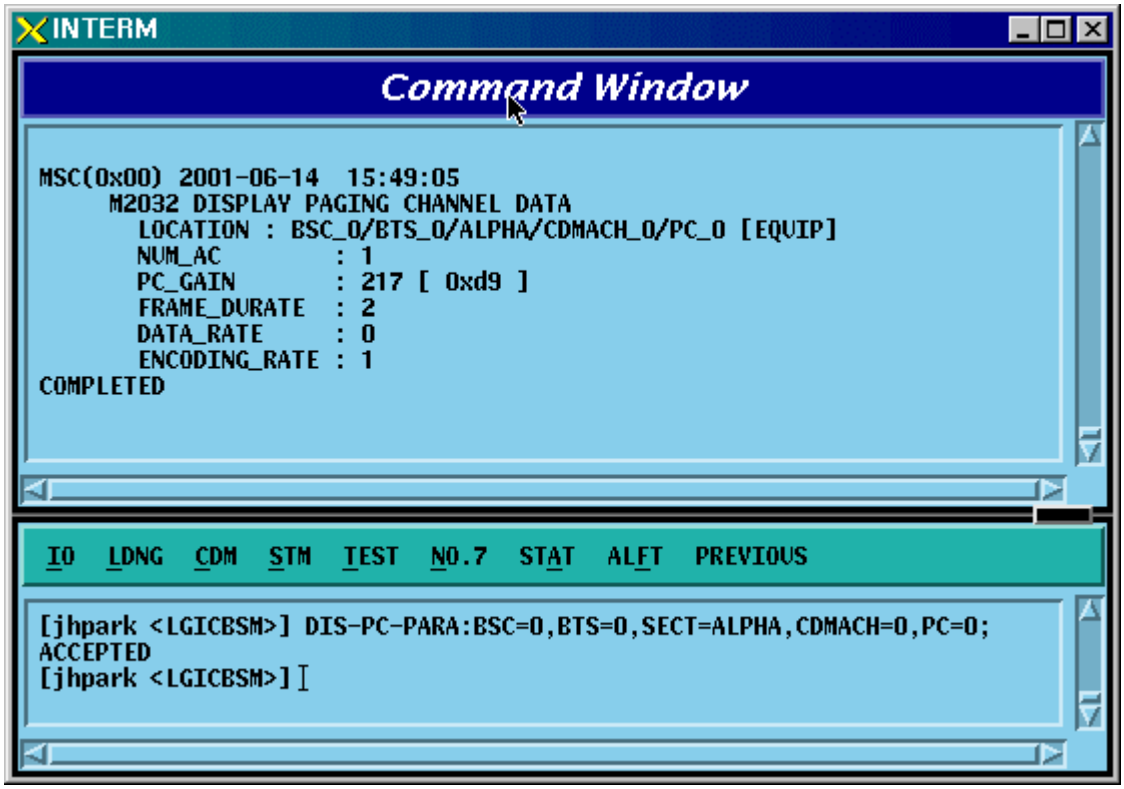

Fig. 4.3-18 Paging Channel Parameter Information Display

4.3.1.19. Pilot Channel Parameter Information Display

Use the following command to display the gain value of the pilot channel:

- Command DIS-PICH-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
- Input DIS-PICH-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

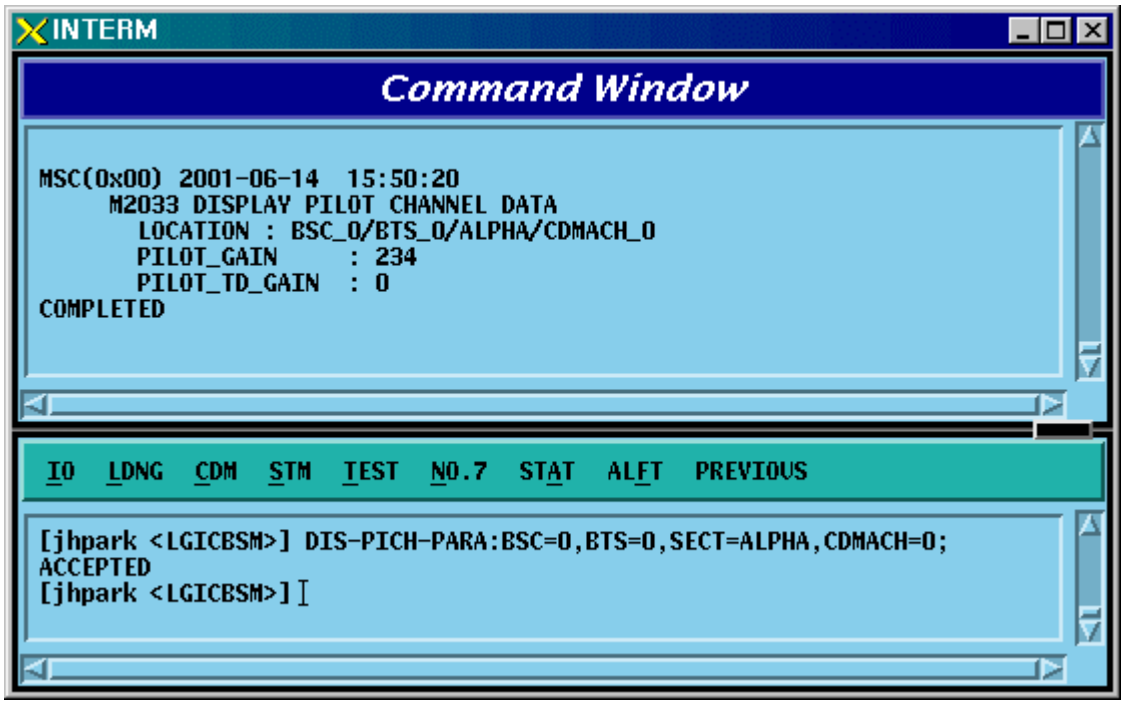

Fig. 4.3-19 Pilot Channel Parameter Information Display

4.3.1.20. Sync. Channel Parameter Information Display

Use the following command to display the gain value of the sync. channel:

- Command DIS-SC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
- Input DIS-SC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

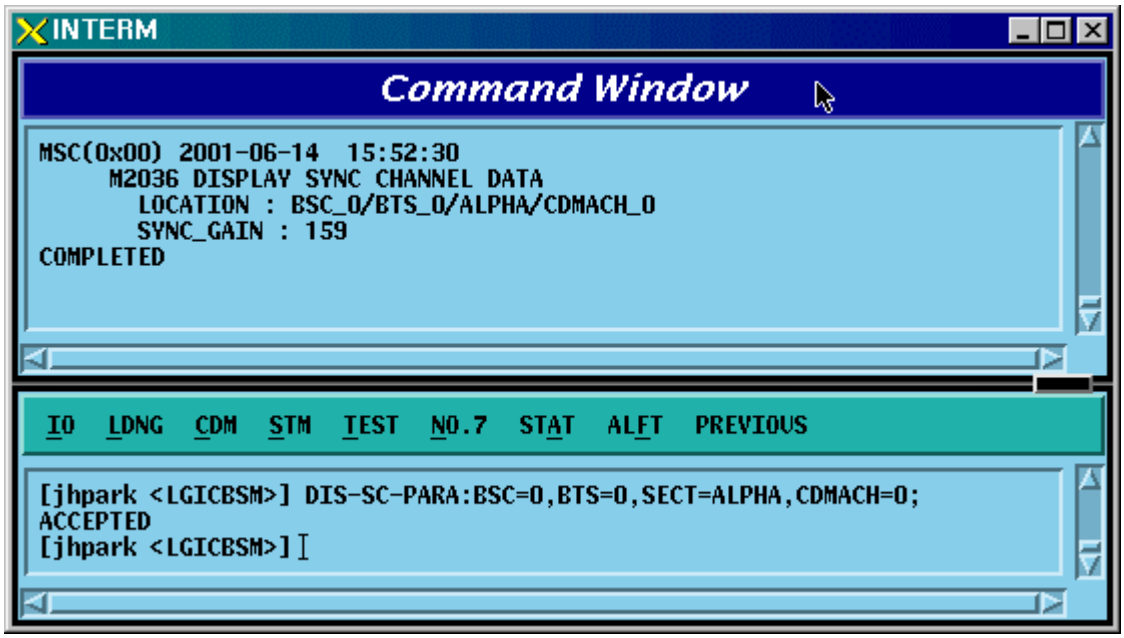

Fig. 4.3-20 Sync. Channel Parameter Information Display

4.3.1.21. Quick Paging Channel Parameter Information Display

Use the following command to display the gain value of the quick paging channel:

- Command DIS-QPC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d, QPC=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Quick Paging Channel ID
- Input DIS-QPC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0, QPC=0;
- Output

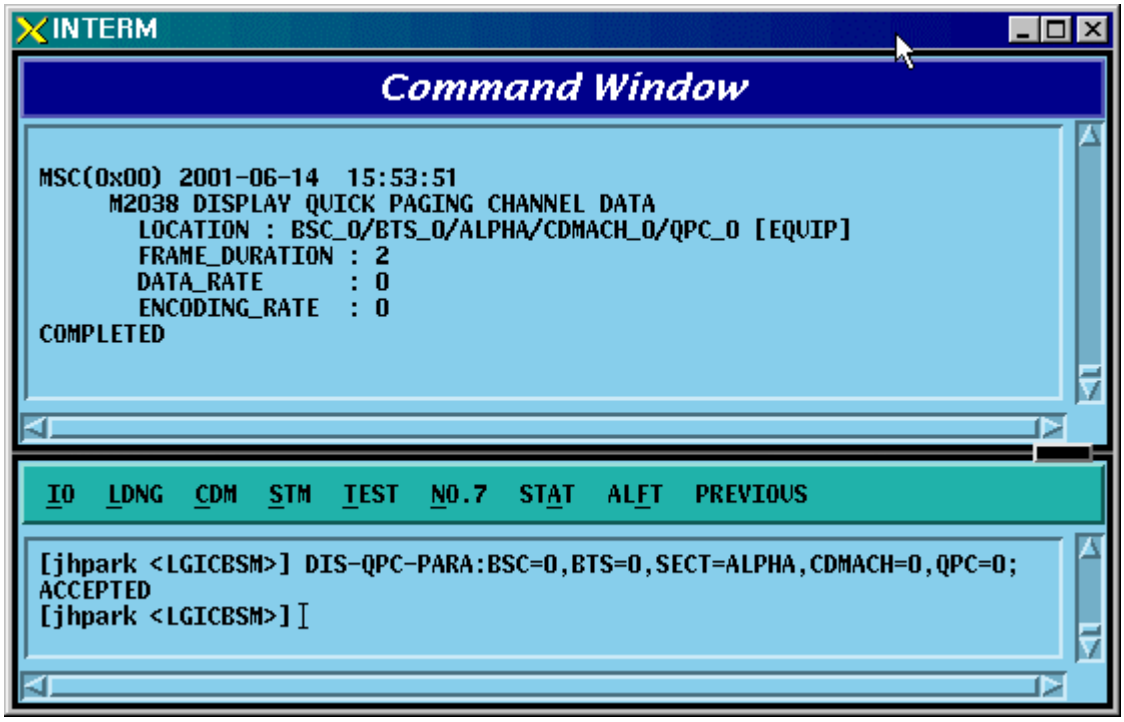

Fig. 4.3-21 Quick Paging Channel Parameter Information Display

4.3.1.22. Hopping Pilot Beacon Channel Parameter Information Display

• Command DIS-BCON-PARA:BSC=a,BTS=b,SECT=c;

a : BSC Number (0 ~ 11)

b : BTS Number (0 ~ 47)

c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)

• Input DIS-BCON-PARA:BSC=0,BTS=0,SECT=ALPHA;

• Output

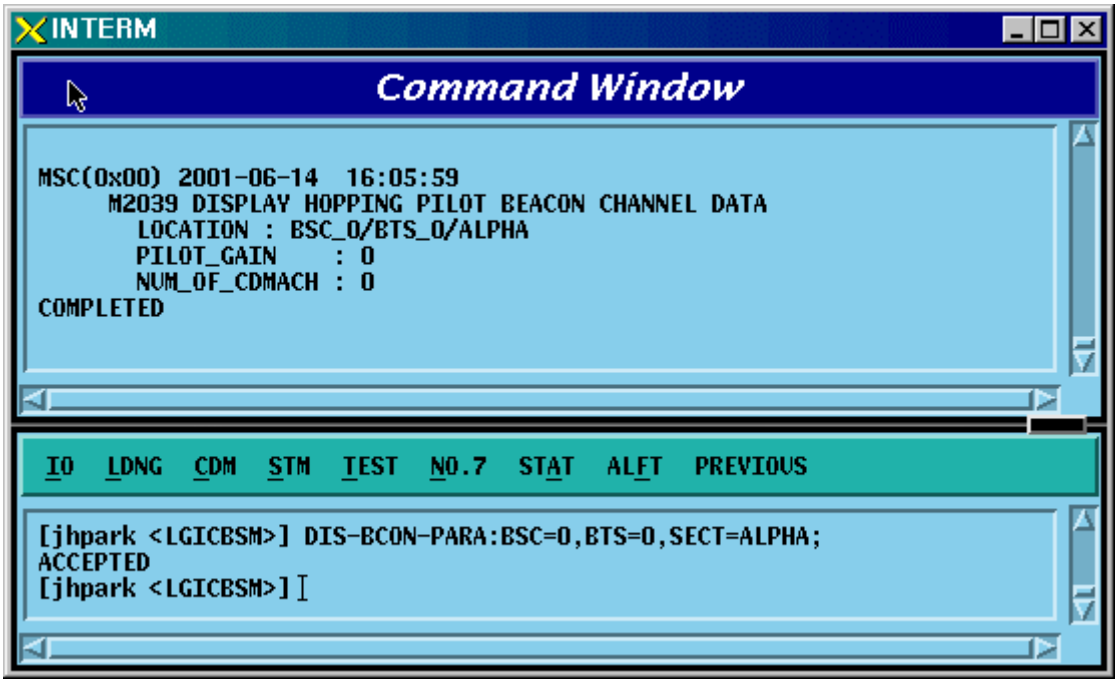

Fig. 4.3-22 Hopping Pilot Beacon Channel Parameter Information Display

4.3.2. Parameter Information Display (Display_Parameter_Information_2)

4.3.2.1. BSC Information Verification

- Command DIS-BSC-DATA: BSC=a;

  a : BSC Number(0~11)

- Input DIS-BSC-DATA: BSC=0;
- Output

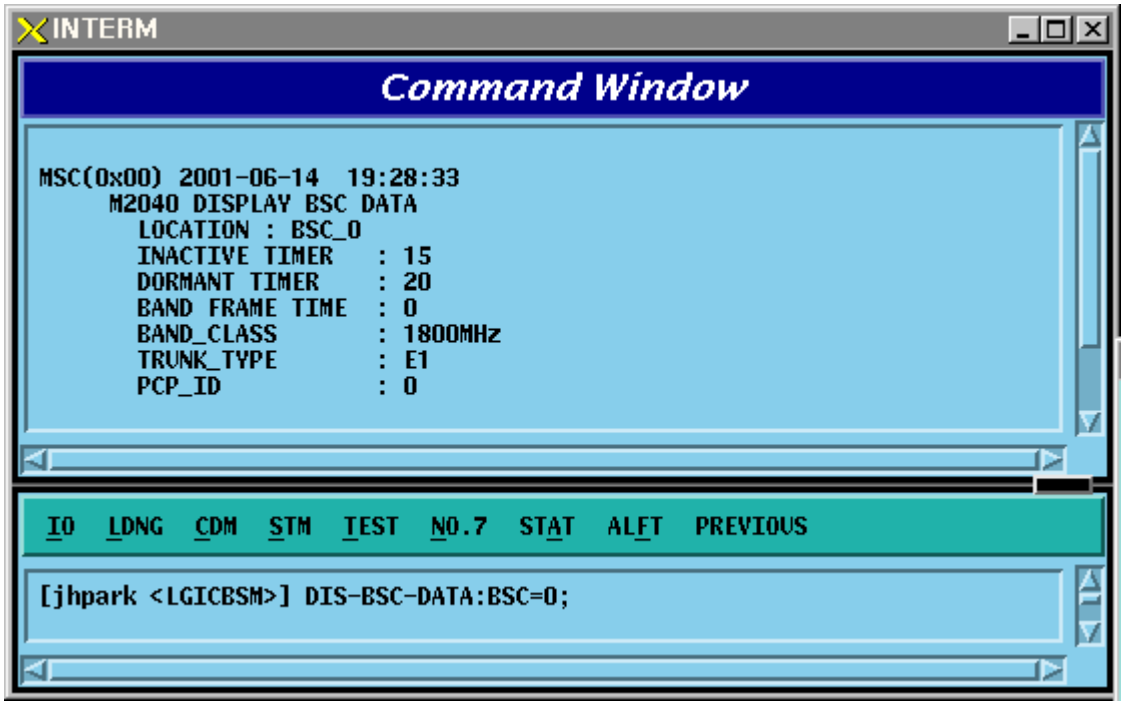

Fig. 4.3-23 BSC Information Verification

4.3.2.2. IOS Parameter Verification

- Command DIS-IOS-PARA: BSC=a;

  a : BSC Number(0~11)

- Input DIS-IOS-PARA: BSC=0;
- Output

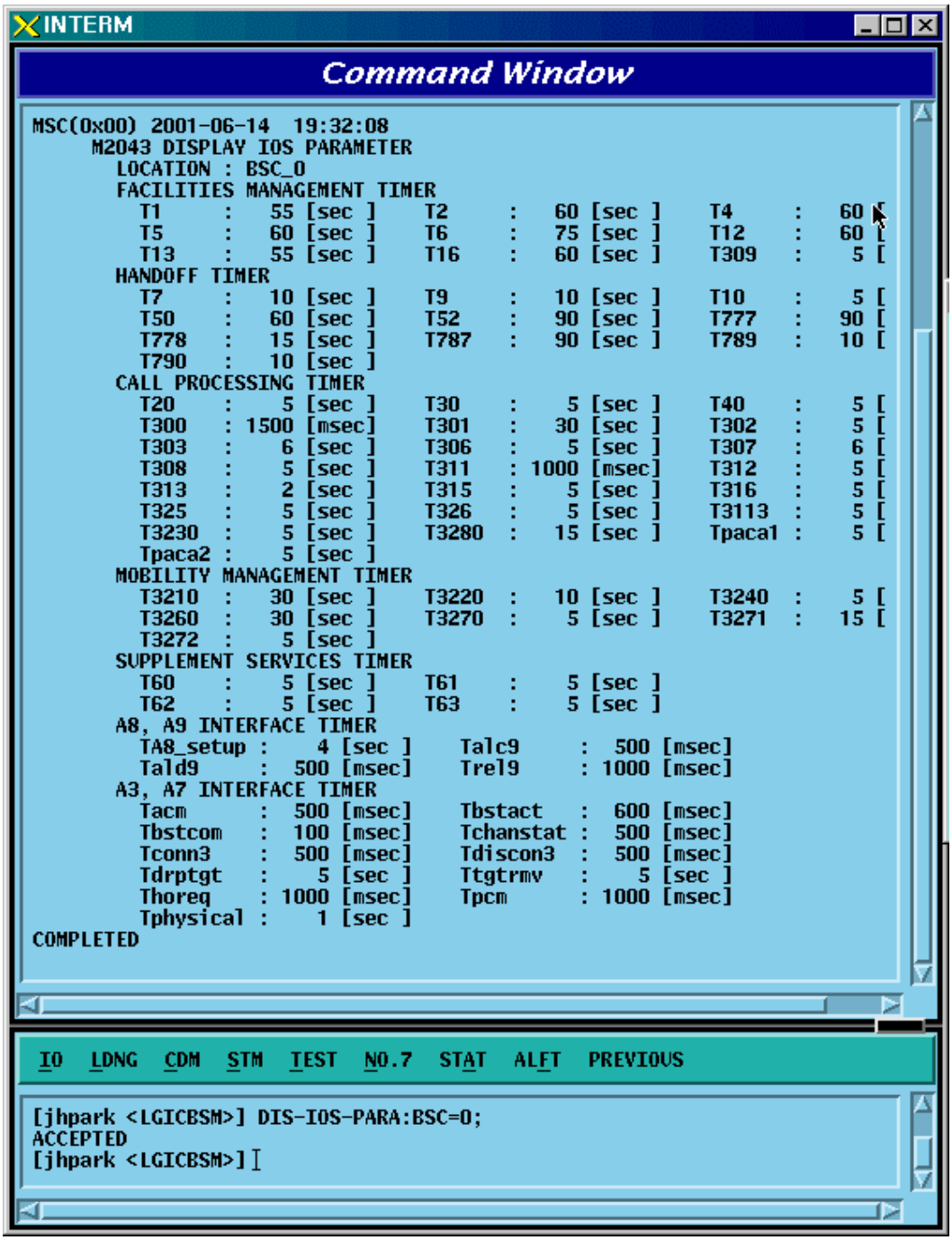

Fig. 4.3-24 IOS Parameter Verification

4.3.2.3. Forward Link Power Management Information (RS1) Verification

Rate Set 1 transmits data at the speed of 9600,4800,2400,1200 bps. Input the following command to check the parameter information for RS1 Forward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS1-FWDP: BSC=a, BTS=b, FER=c;
  a : BSC Number(0~11)
  b: BTS Number(0~47)
  c:FER
(POINT_5/PERCENT_1/PERCENT_2/PERCENT_3/PERCENT_4/PERCET_5)
- Input DIS-RS1-FWDP: BSC=0, BTS=0, FER=POINT_5;
- Output

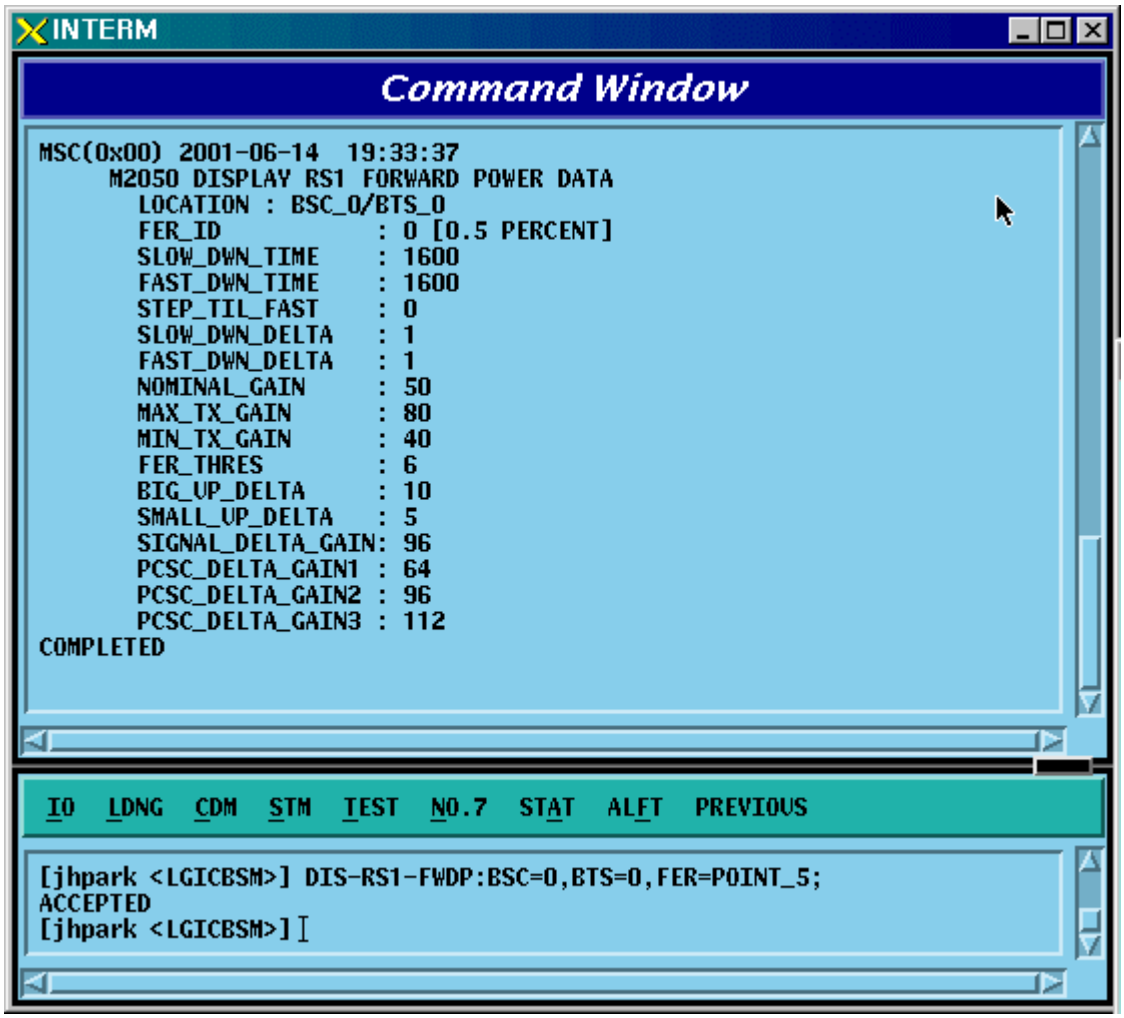

Fig. 4.3-25 Forward Link Power Management Information (RS1) Verification

4.3.2.4. Backward Link Power Management Information (RS1) Verification

Rate Set 1 transmits data at the speed of 9600,4800,2400,1200 bps. Input the following command to check the parameter information for RS1 backward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

• Command DIS-RS1-REVP: BSC=a, BTS=b, FER=c;

a : BSC Number(0~11)

b: BTS Number(0~47)

c:FER

(POINT_5/PERCENT_1/PERCENT_2/PERCENT_3/PERCENT_4/PERCET_5)

• Input DIS-RS1-REVP: BSC=0, BTS=0, FER=POINT_5;

• Output

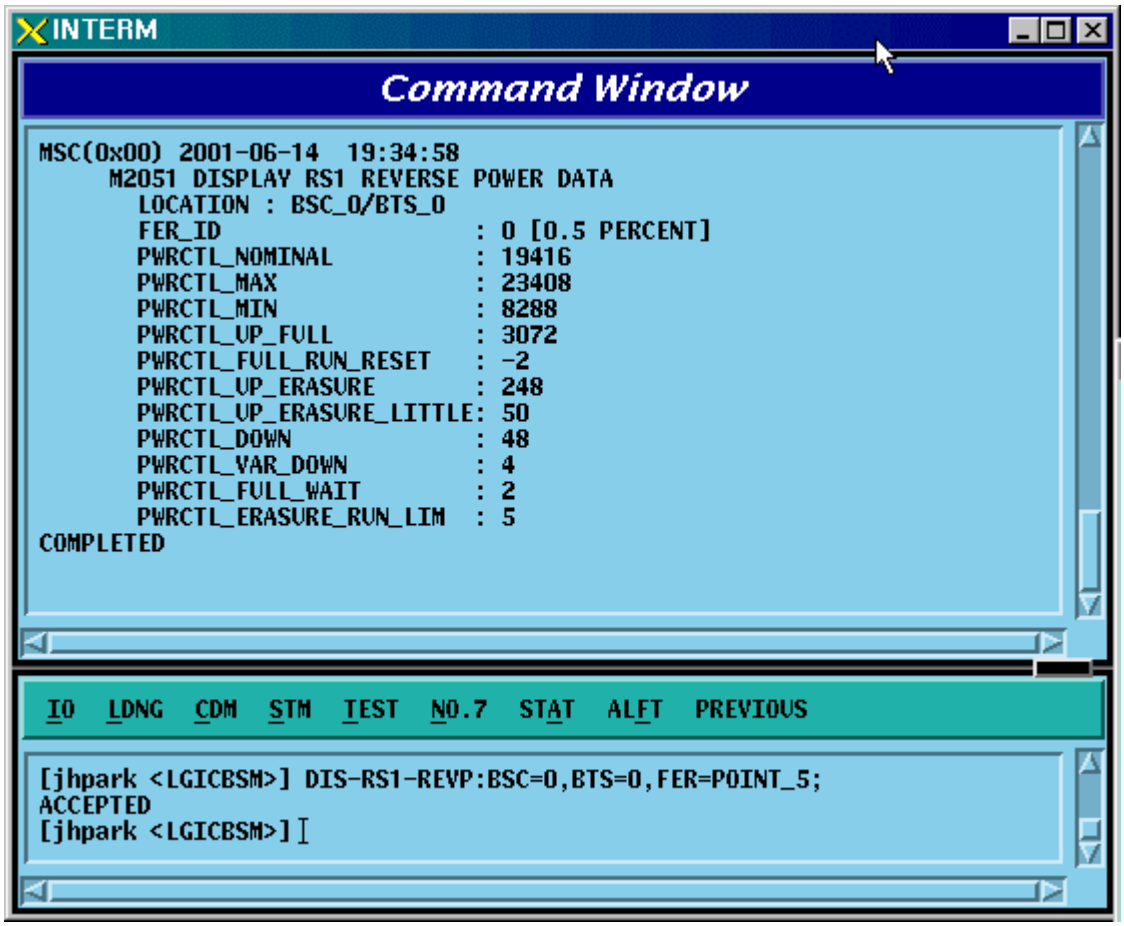

Fig. 4.3-26 Backward Link Power Management Information (RS1) Verification

4.3.2.5. Forward Link Power Management (RS2) Verification

Rate Set 2 transmits data at the speed of 14400,7200,3600,1800 bps. Input the following command to check the parameter information for RS2 Forward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS2-FWDP: BSC=a, BTS=b, FER=c;
  a : BSC Number(0~11)
  b: BTS Number(0~47)
  c:FER
(POINT_5/PERCENT_1/PERCENT_2/PERCENT_3/PERCENT_4/PERCET_5)
- Input DIS-RS2-FWDP: BSC=0, BTS=0, FER=POINT_5;
- Output

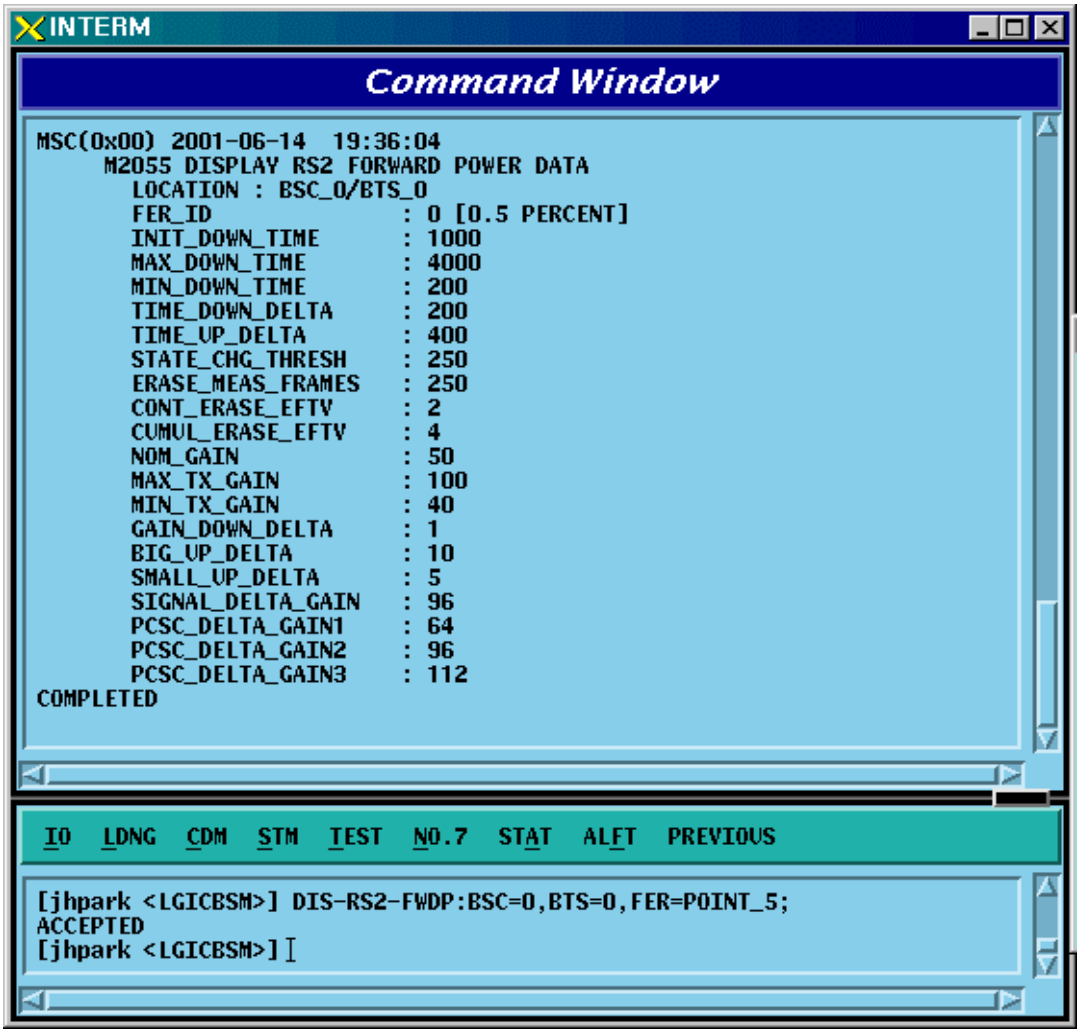

Fig. 4.3-27 Forward Link Power Management Information (RS2) Verification

4.3.2.6. Backward Link Power Management Information (RS2) Verification

Rate Set 2 transmits data at the speed of 14400,7200,3600,1800 bps. Input the following command to check the parameter information for RS2 Backward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS2-REVP: BSC=a, BTS=b, FER=c;
  a : BSC Number(0~11)
  b: BTS Number(0~47)
  c:FER
(POINT_5/PERCENT_1/PERCENT_2/PERCENT_3/PERCENT_4/PERCET_5)
- Input DIS-RS2-REVP: BSC=0, BTS=0, FER=POINT_5;
- Output

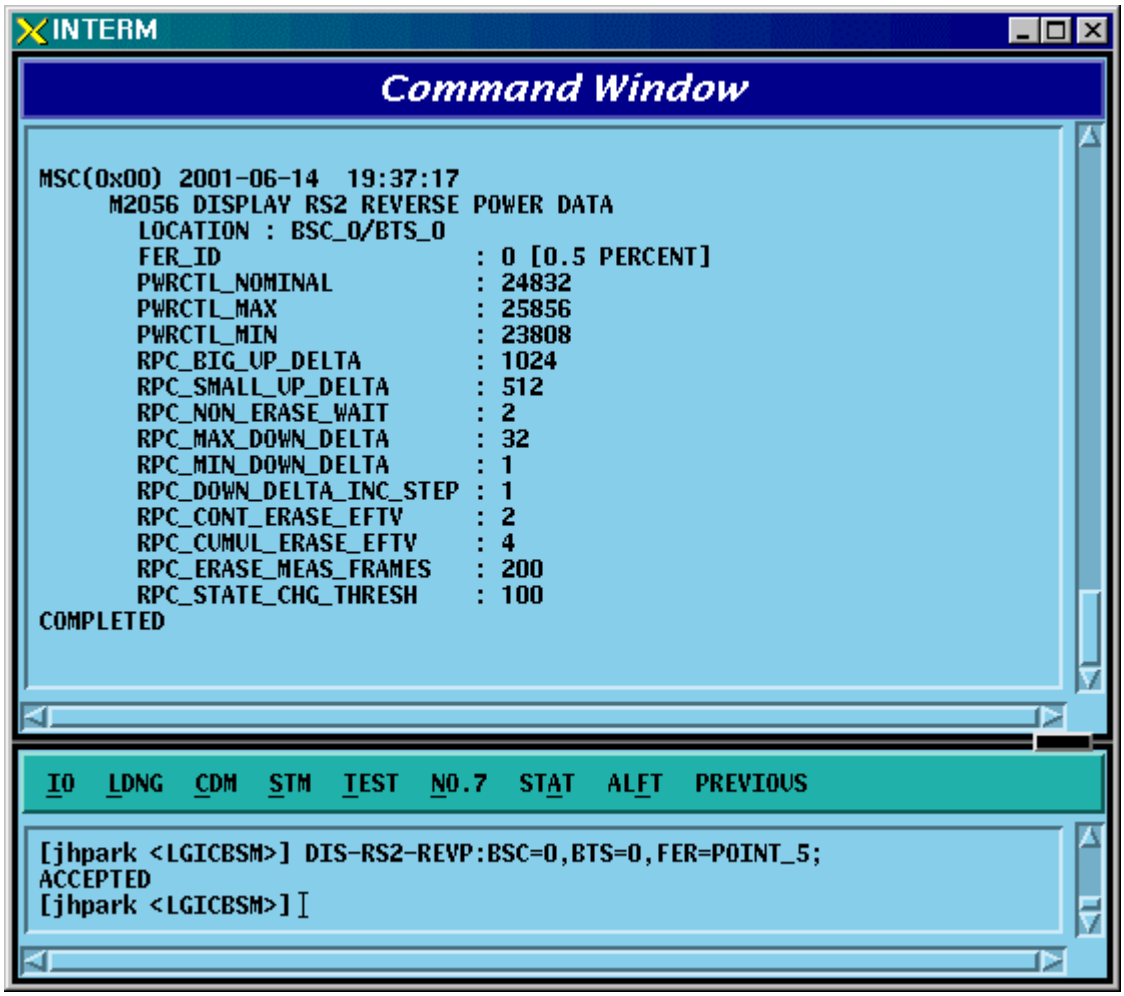

Fig. 4.3-28 Backward Link Power Management Information (RS2) Verification

4.3.2.7. Service Option FER Verification

Target FER can be designated by the Service Option. Input the following command to display this information. In the next display, 1% Target FER is applied for the "8K VOICE" Service Option and for this, the following power management information is used: RS1 forward link power management information, RS1 backward link power management information, RS2 forward link power management information, and RS2 backward (or reverse-direction) link power management information.

- Command DIS-FER-PARA: BSC=a;

  a : BSC Number(0~11)
- Input DIS-FER-PARA: BSC=0;
- Output

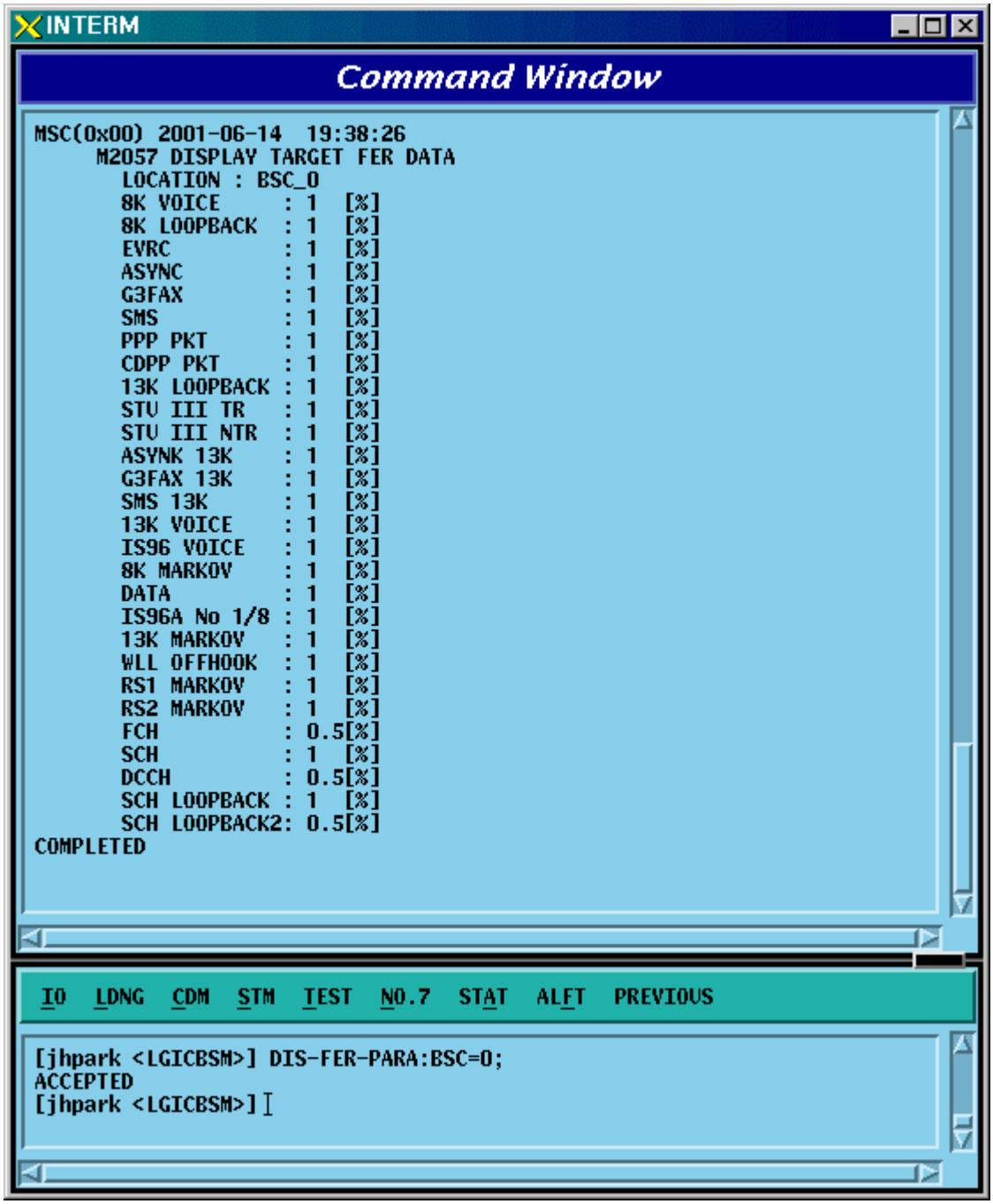

Fig. 4.3-29 Service Option FER Verification

4.3.2.8. MAHHO Verification

- Command DIS-MAHH-PARA: BSC=a, BTS=b, SECT=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: Sector Id .(ALPHA/BETA/GAMMA)
- Input DIS-MAHH-PARA: BSC=0,BTS=0,SECT=ALPHA;
- Output

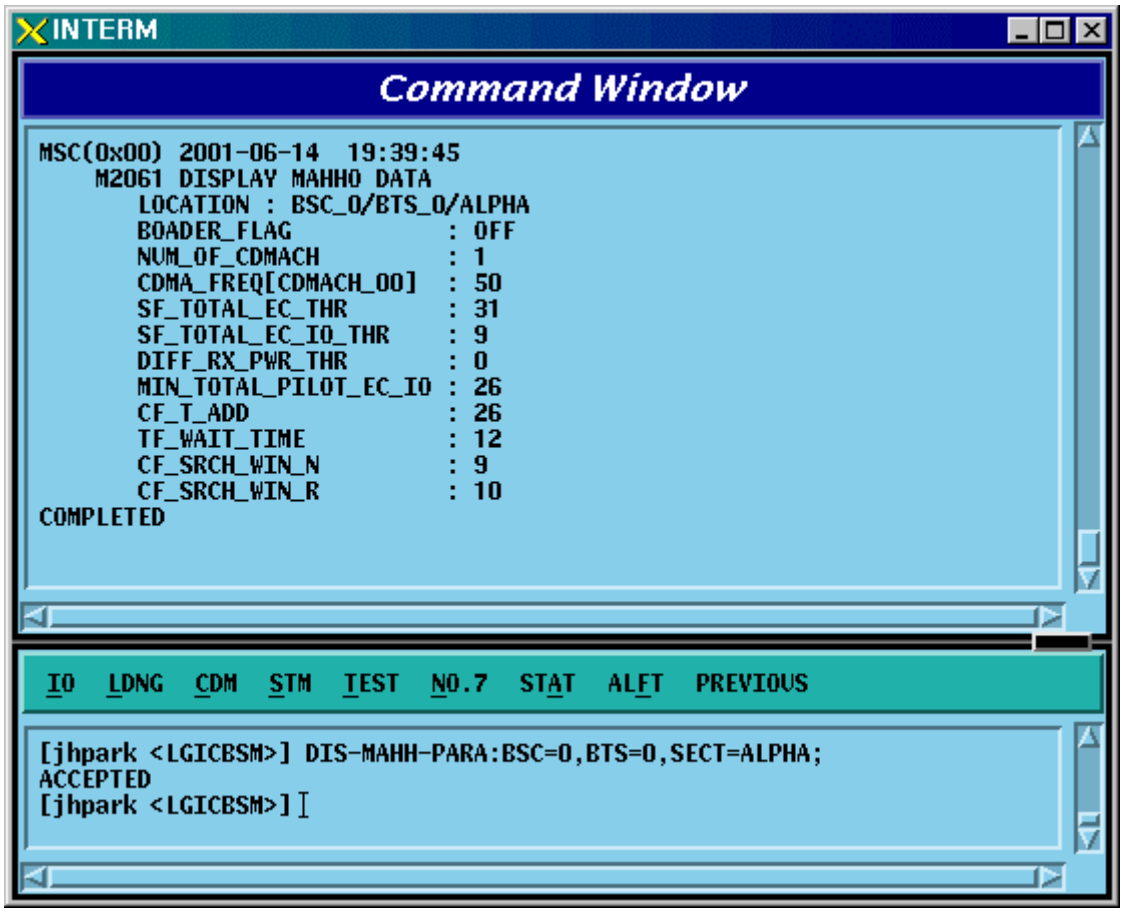

Fig. 4.3-30 MAHHO Verification

4.3.2.9. LOCATION Verification

- Command DIS-LOC-PARA: BSC=a, BTS=b, SECT=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: Sector Id .(ALPHA/BETA/GAMMA)
- Input DIS-LOC-PARA: BSC=0,BTS=0,SECT=ALPHA;
- Output

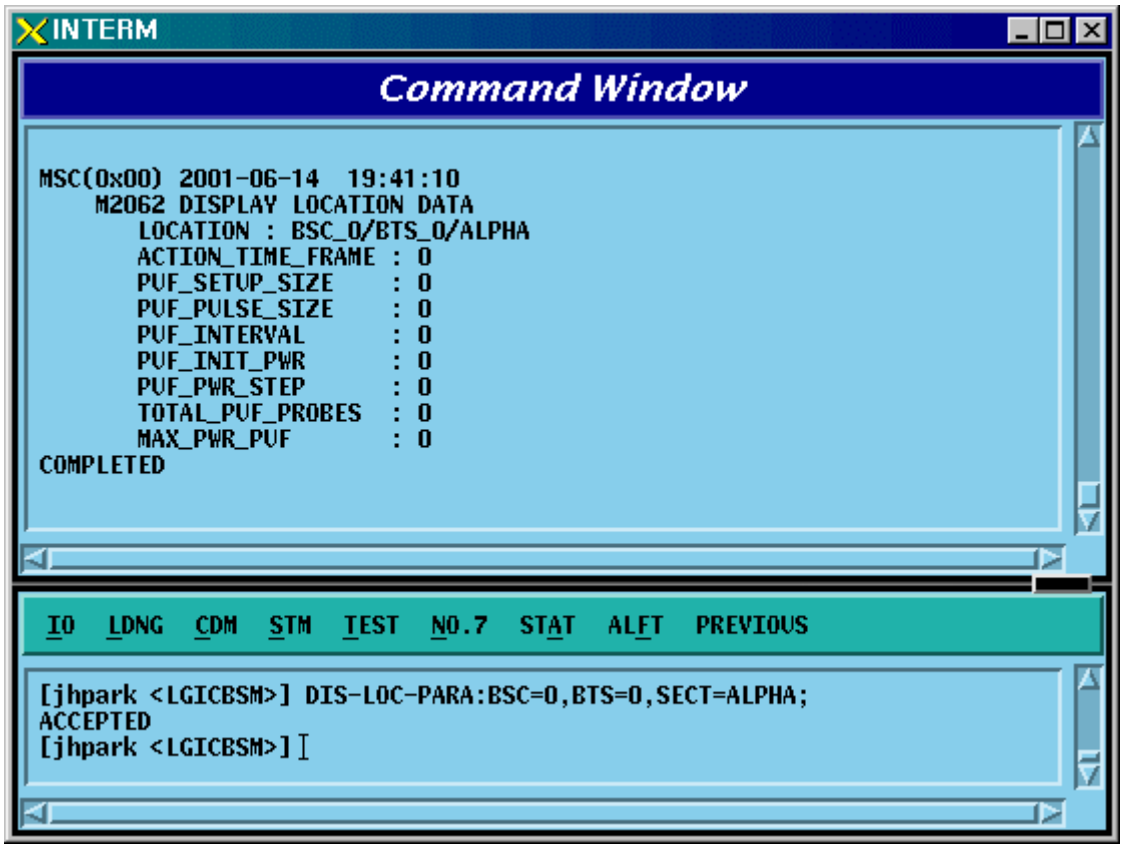

Fig. 4.3-31 LOCATION Verification

4.3.2.10. SCH Verification

- Command DIS-SCH-PARA: BSC=a, BTS=b, SECT=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: Sector Id .(ALPHA/BETA/GAMMA)
- Input DIS-SCH-PARA: BSC=0,BTS=0,SECT=ALPHA;
- Output

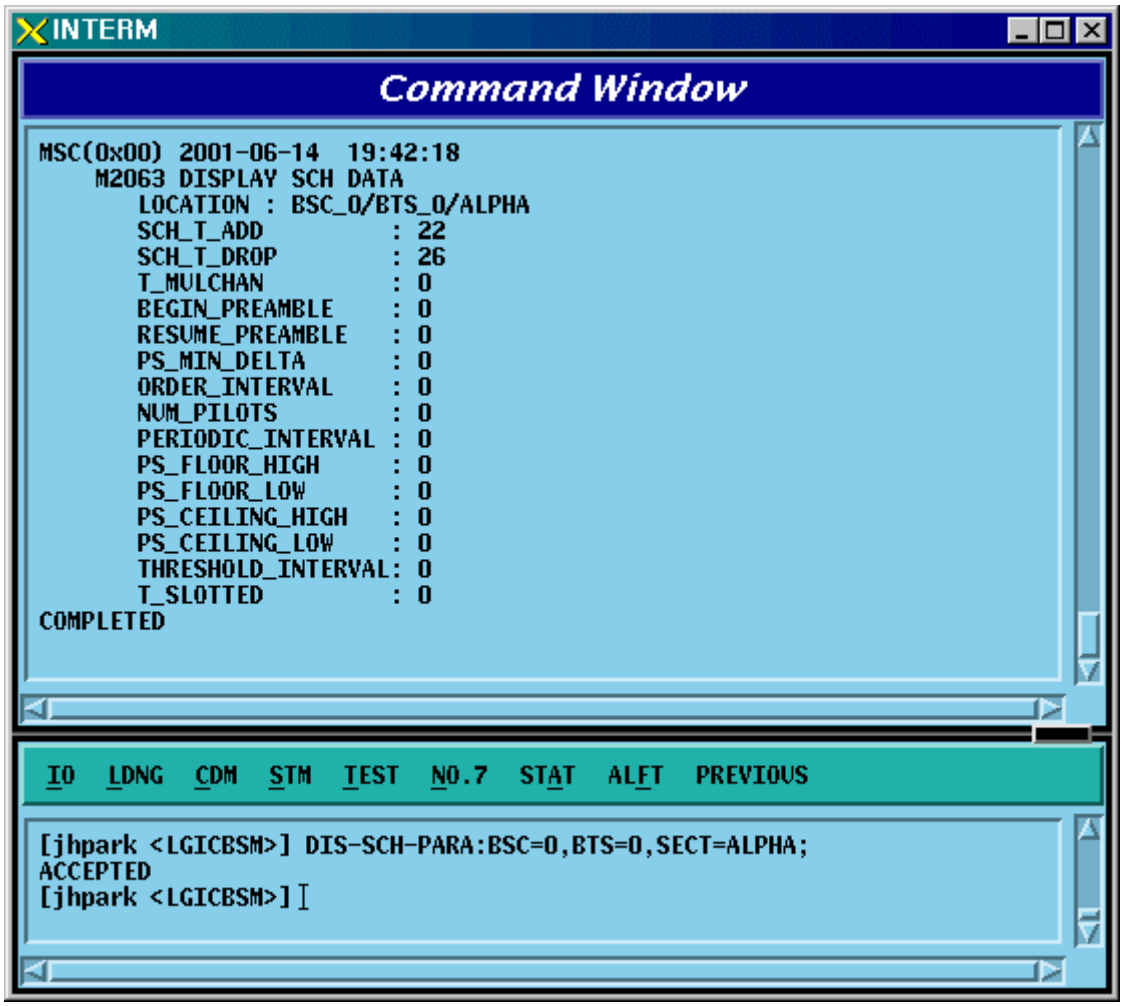

Fig. 4.3-32 SCH Verification

4.3.2.11. Power Control Data Verification

- Command DIS-PWR-CTRL: BSC=a, BTS=b, FER=c;

  a : BSC Number(0~11)

  b: BTS Number(0~47)

  c: FER (0~30)

- Input DIS-PWR-CTRL: BSC=0, BTS=0,FER=0;
- Output

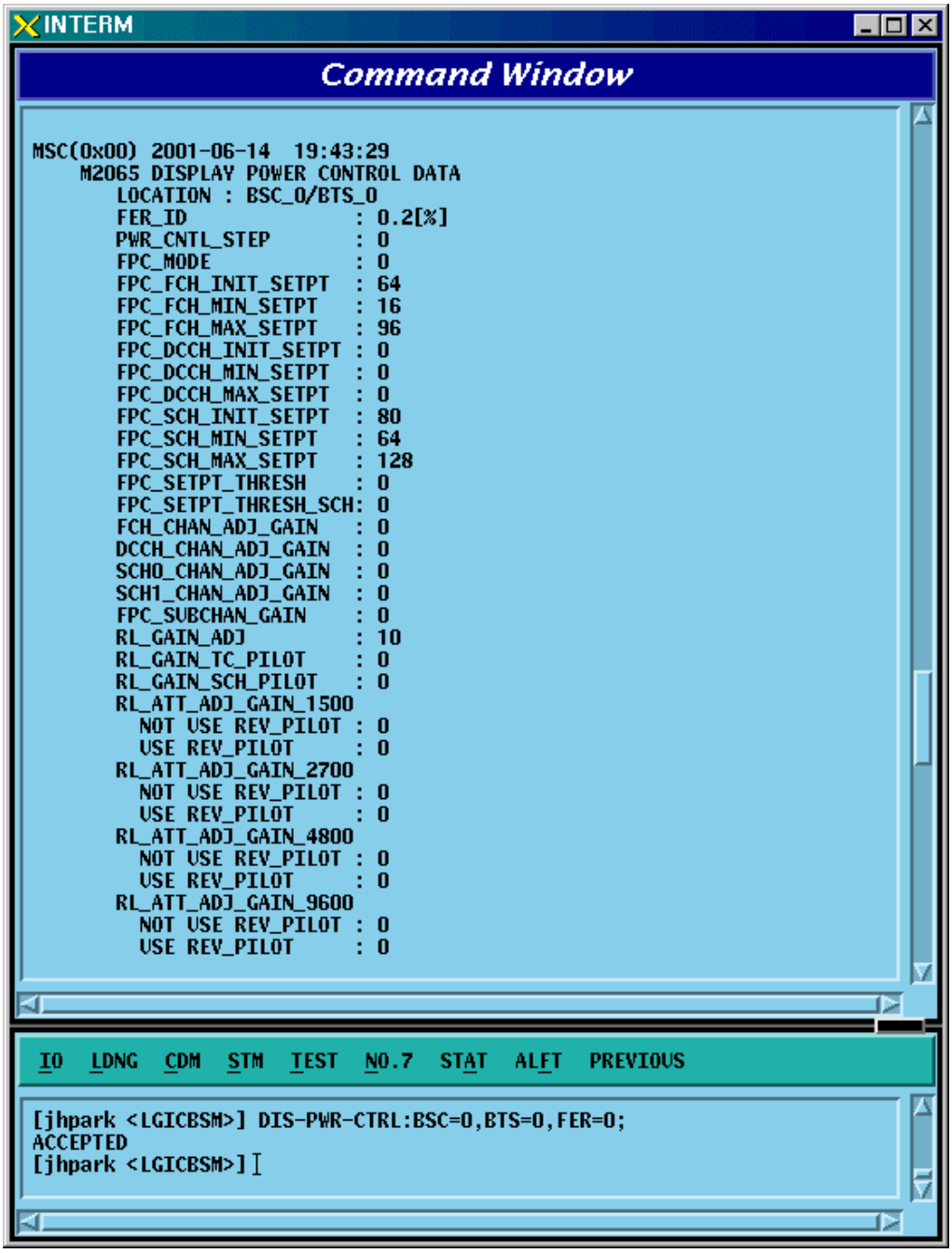

Fig. 4.3-33 Power Control Data Verification

4.3.2.12. BTS Name Display

Input the following command to display the BTS name:

- Command DIS-BTS-NAME: BSC=a, BTS=b;
  a : BSC Number(0~11)
  b: BTS Number(0~47)
- Input DIS-BTS-NAME: BSC=0, BTS=0;
- Output

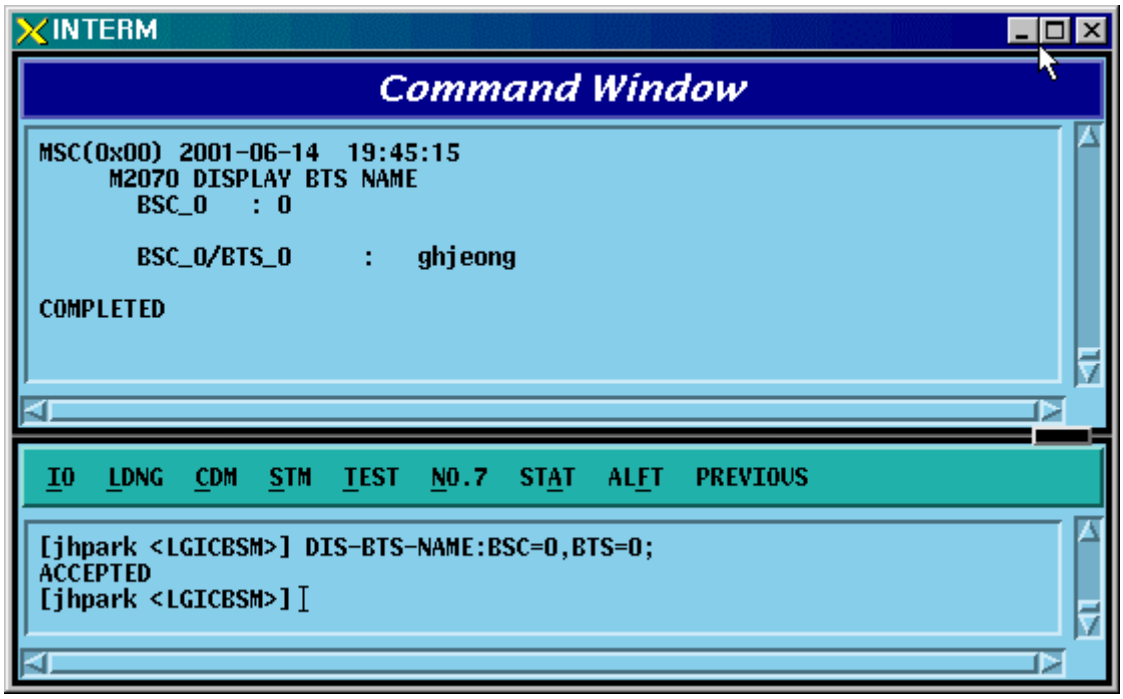

Fig. 4.3-34 BTS Name Display

4.3.2.13. PCP Timer Information Verification

- Command DIS-PCF-TIMER:PCP =a;

  a : PCP Number(0~2)

- Input DIS-PCF-TIMER: PCP=0;
- Output

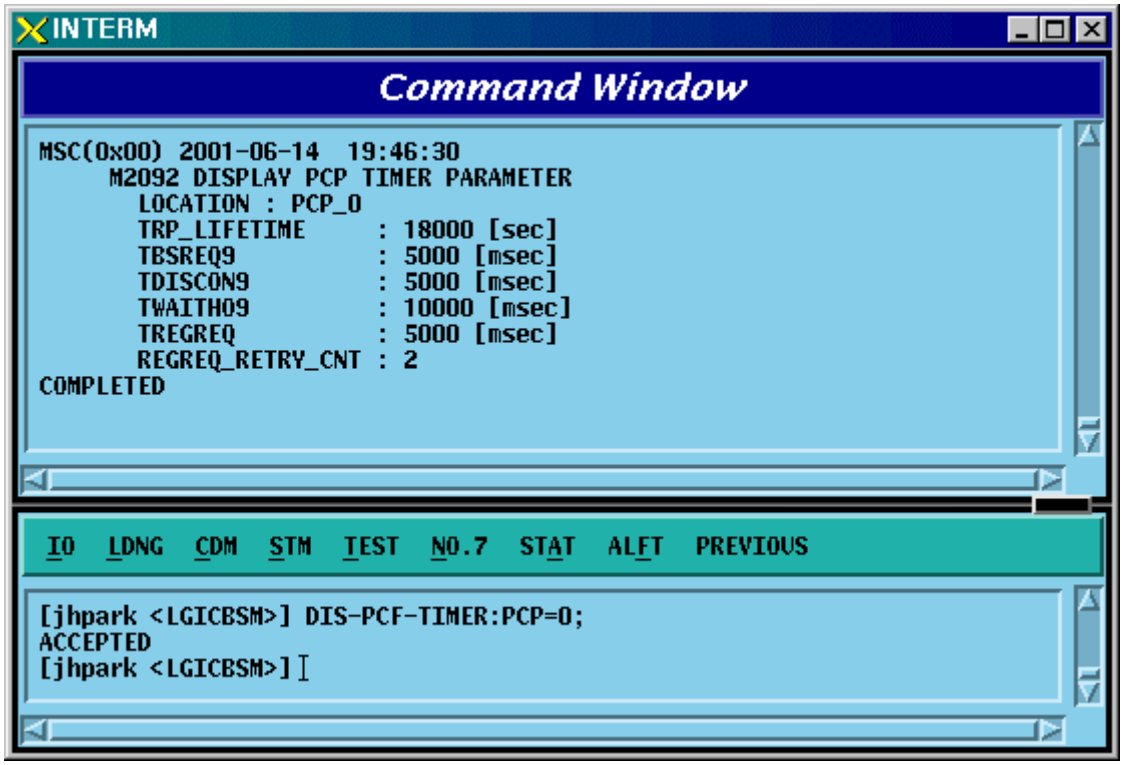

Fig. 4.3-35 PCP Timer Information Verification

4.3.2.14. PCF Parameter Information Verification

- Command DIS-PCF-PARA :PCP =a;

  a : PCP Number(0~2)

- Input DIS-PCF-PARA: PCP=0;
- Output

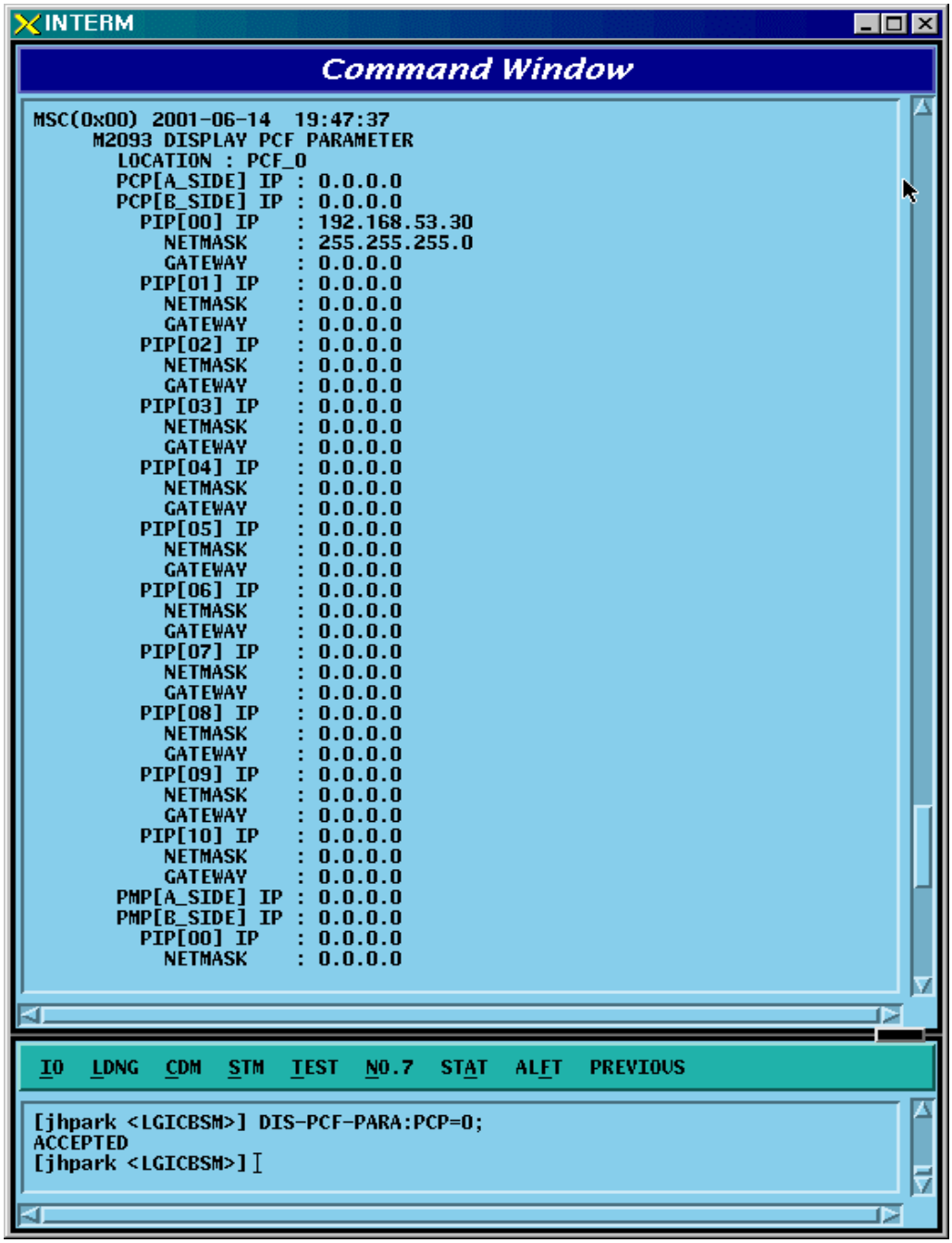

Fig. 4.3-36 PCF Parameter Information Verification

4.3.2.15. PCF MAC ADDRESS Information Verification

- Command DIS-PCF-MAC :PCP =a;

  a : PCP Number(0~2)

- Input DIS-PCF-MAC: PCP=0;
- Output

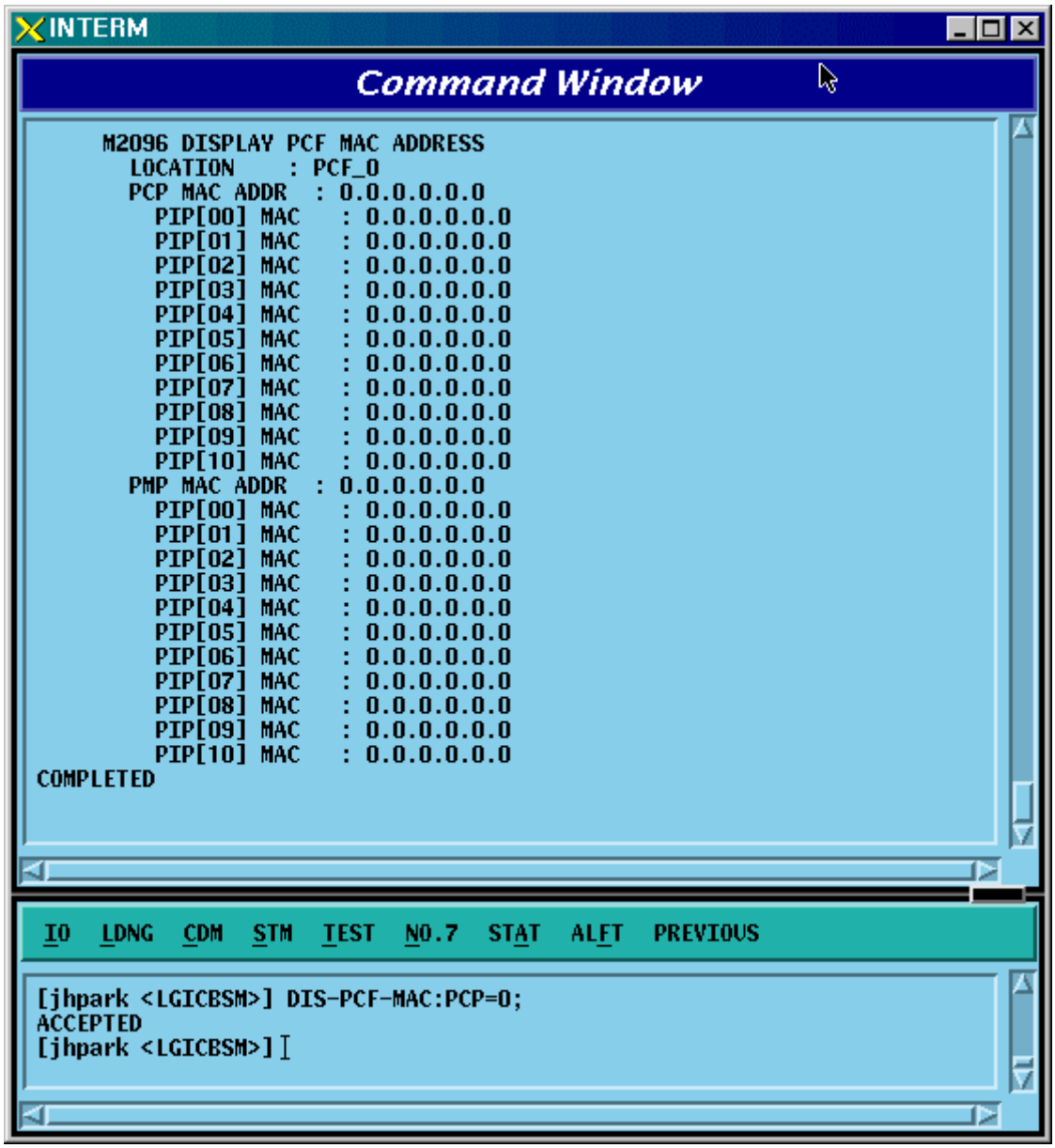

Fig. 4.3-37 PCF MAC ADDRESS Information Verification

4.3.3. NETWORK Information Display (Display_Parameter_Information_3)

4.3.3.1. CAN ATM NODE Information Display

- Command DIS-CAN-NODE;
- Output

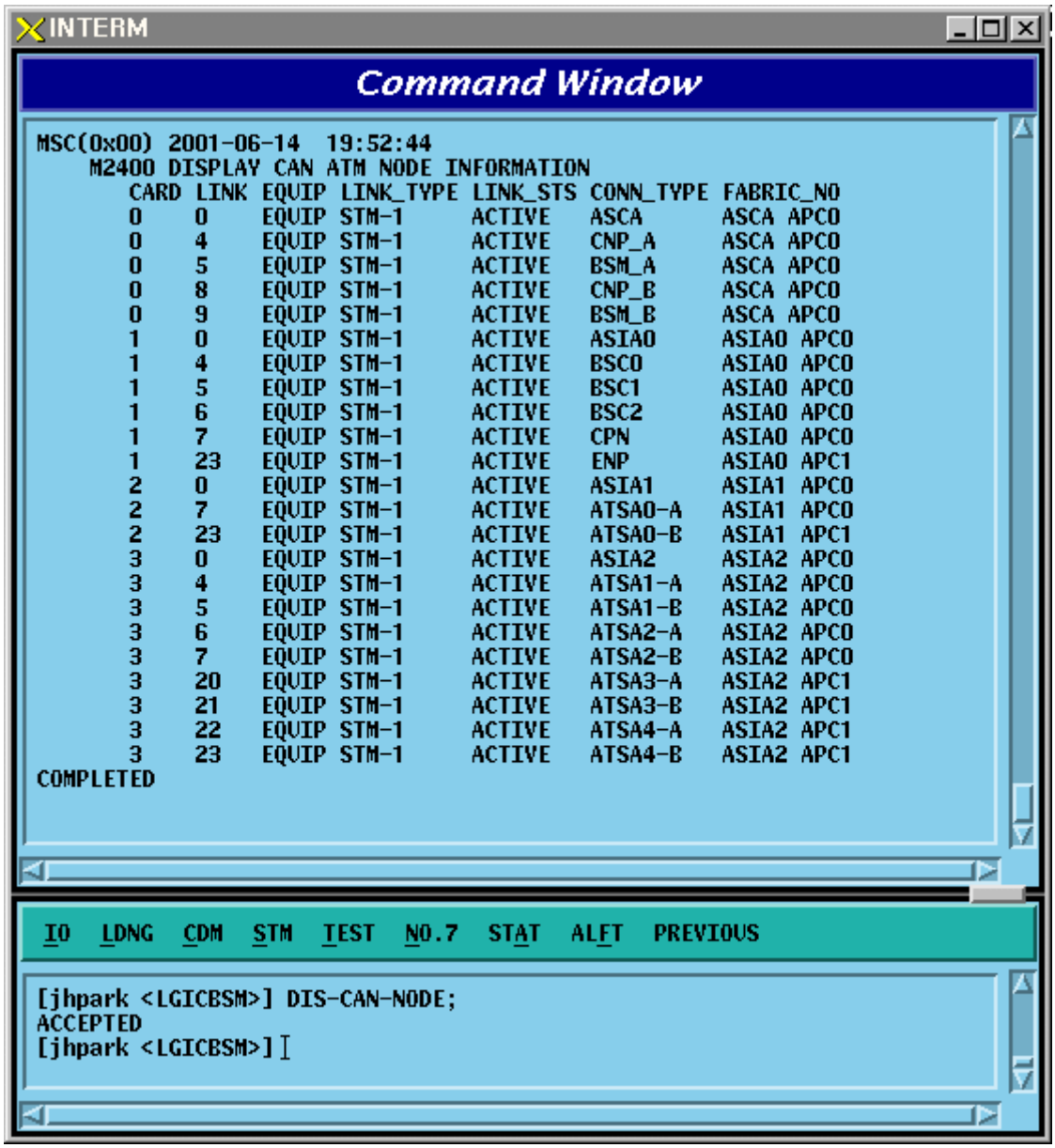

Fig. 4.3-38 CAN ATM NODE Information Display

4.3.3.2. CAN PVC SETTING Information Display

- Command DIS-CAN-PVC;NODE_A=a;
- Input DIS-CAN-PVC: NODE_A=BSM_A;

  a: BSM_A,BSM_B, BSC (0~11)
- Output

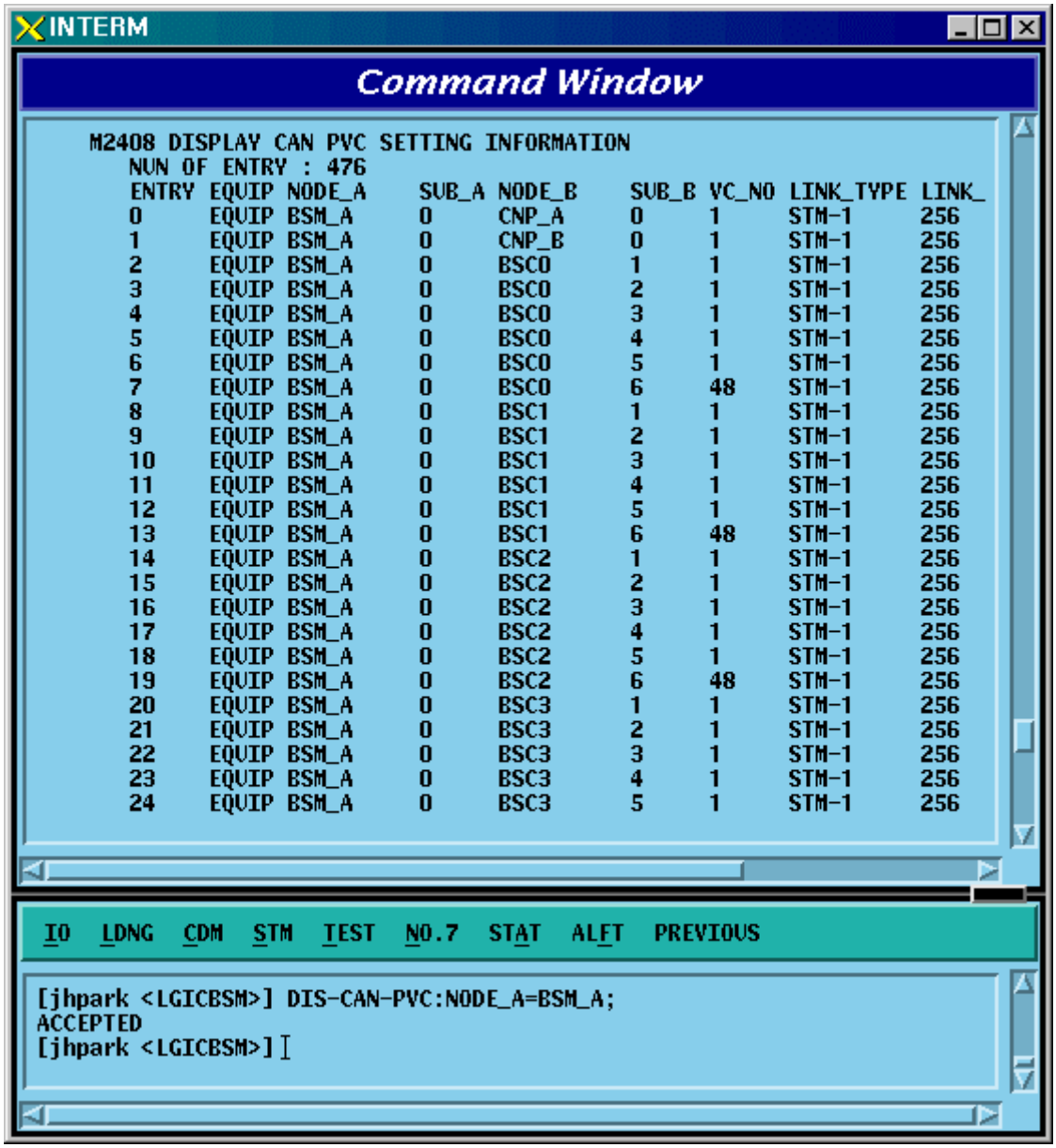

Fig. 4.3-39 CAN PVC SETTING Information Display

4.3.3.3. CAN NETWORK PARAMETER Information Display

- Command DIS-CAN-NETP;
- Input DIS-CAN-NETP;
- Output

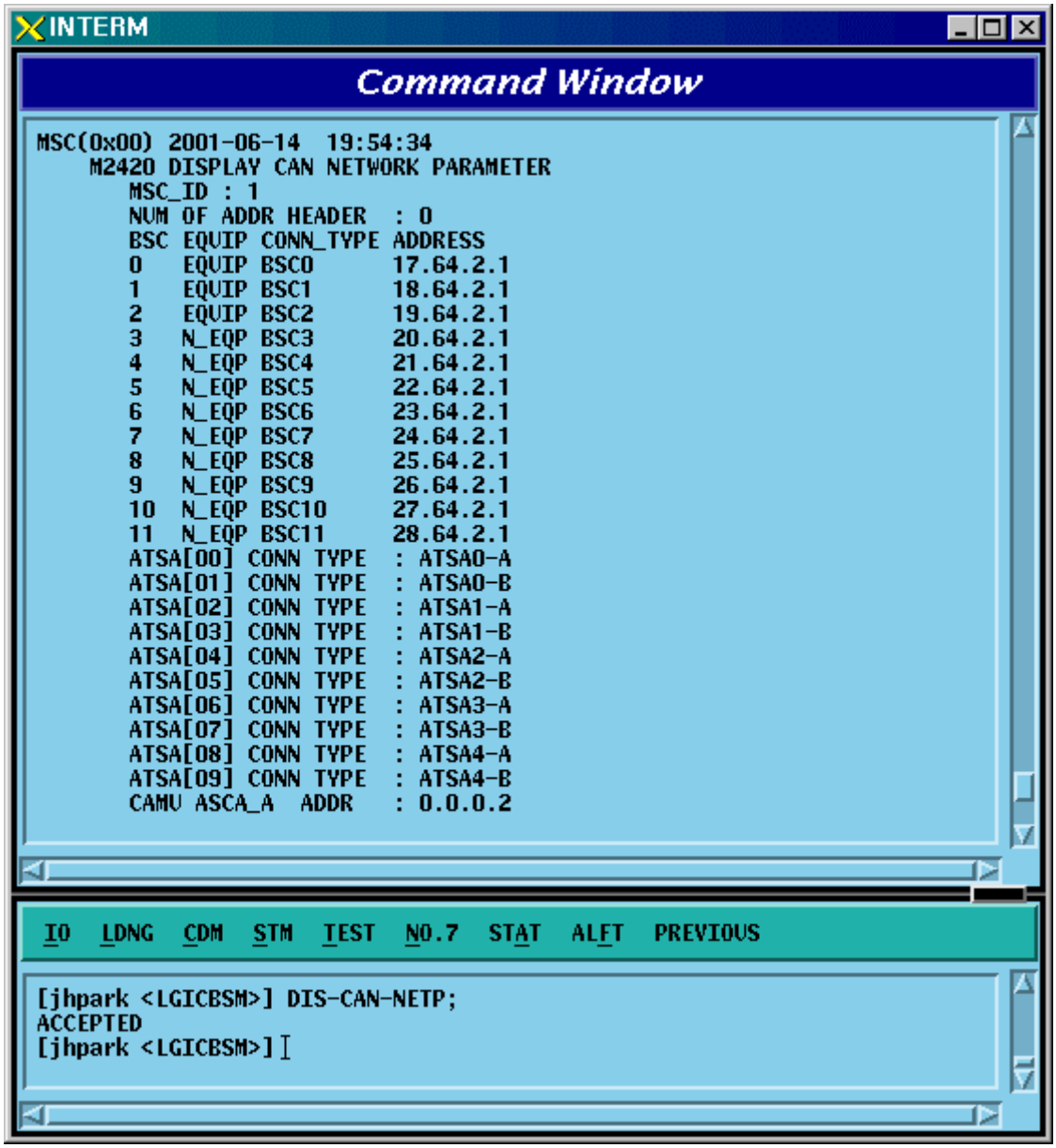

Fig. 4.3-40 CAN NETWORK PARAMETER Information Display

4.3.3.4. CAN INTER BSC AAL2 Setting Information Display

- Command DIS-CAN-IUR:BSC=a;
  a:BSC Number (0~11)
- Input DIS-CAN-IUR:BSC=0;
- Output

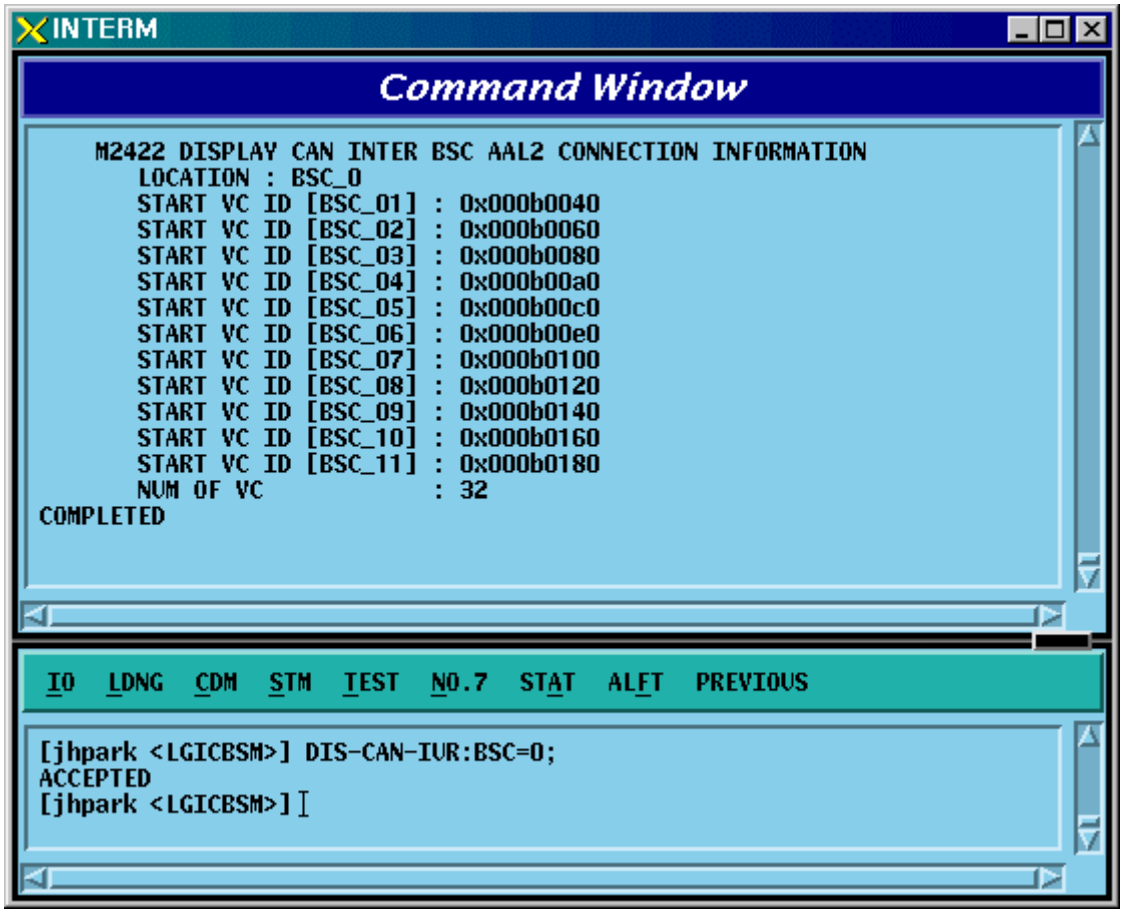

Fig. 4.3-41 CAN INTER BSC AAL2 Setting Information Display

4.3.3.5. CAN INTER BSC AAL5 Setting Information Display

- Command DIS-CAN-BSC;
- Output

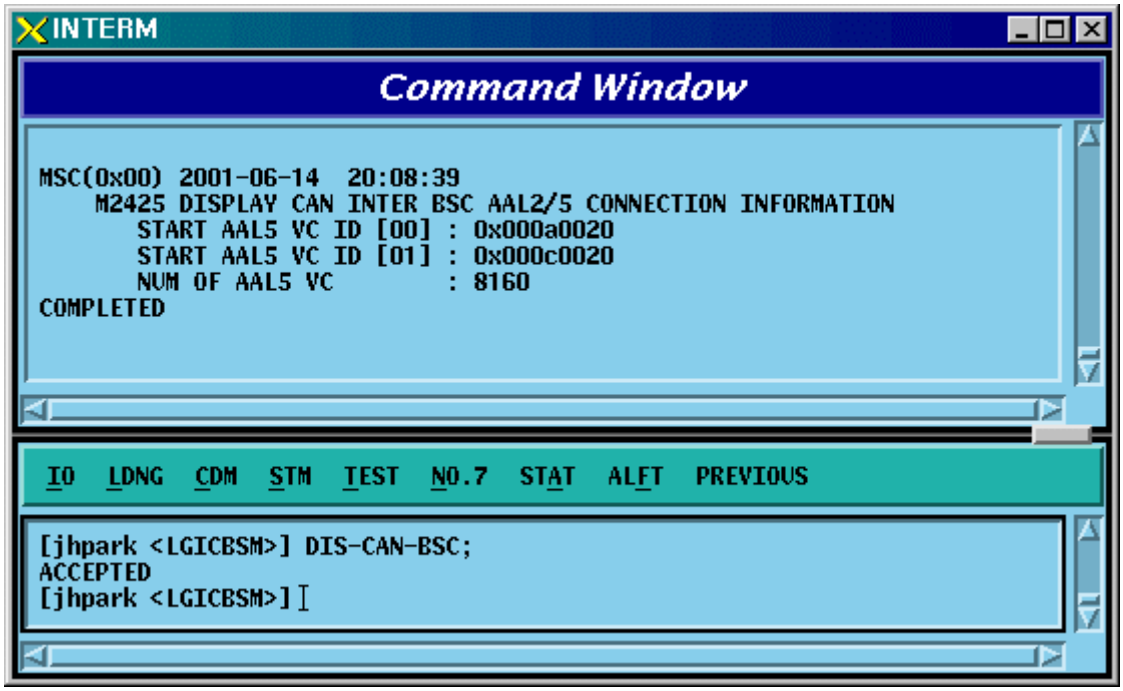

Fig. 4.3-42 CAN INTER BSC AAL5 Setting Information Display

4.3.3.6. CAN ATM NODE Information Display

- Command DIS-CPN-NODE;
- Output

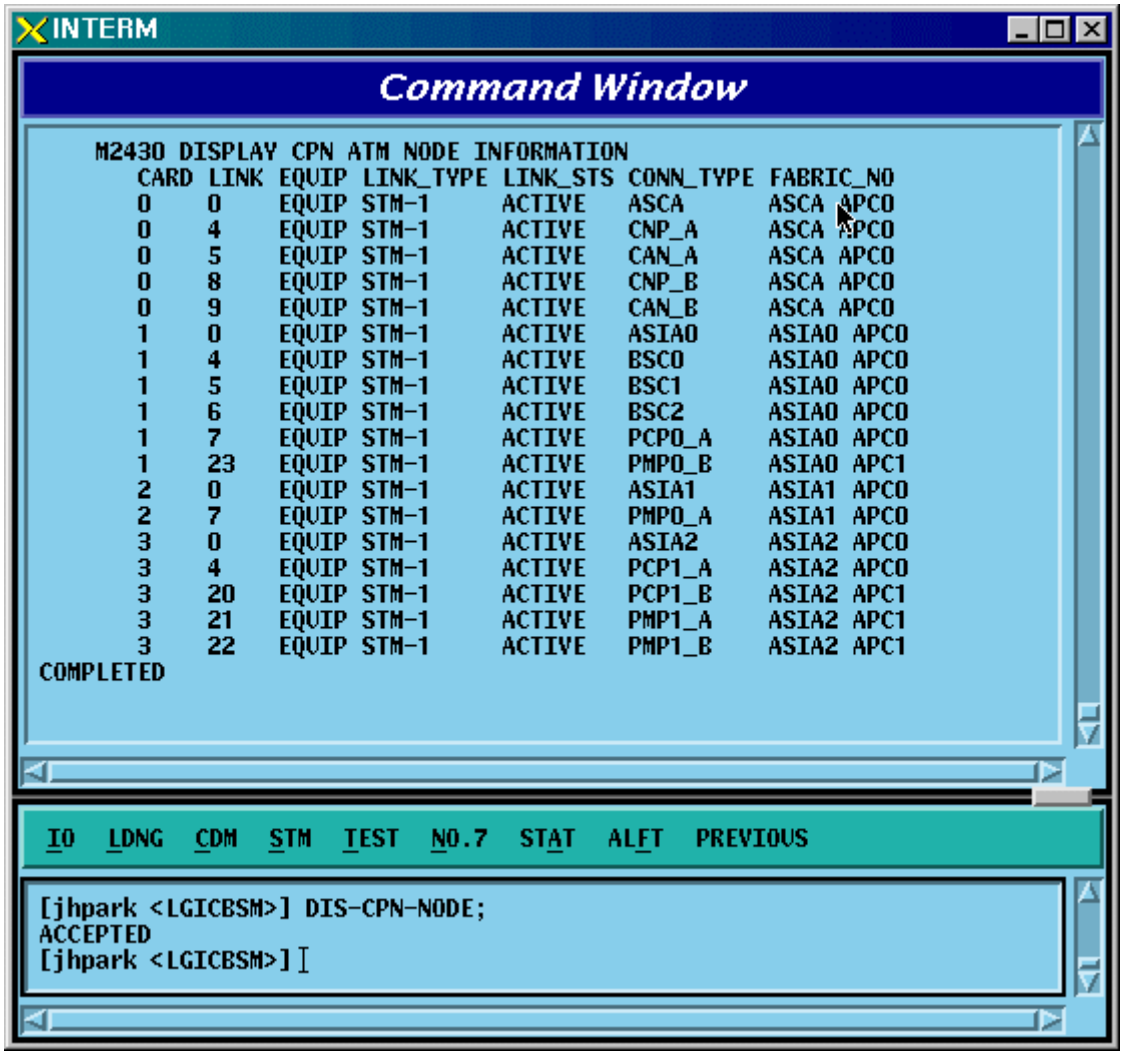

Fig. 4.3-43 CAN ATM NODE Information Display

4.3.3.7. PCF ATM NODE Information Display

- Command DIS-PCF-NODE
- Output

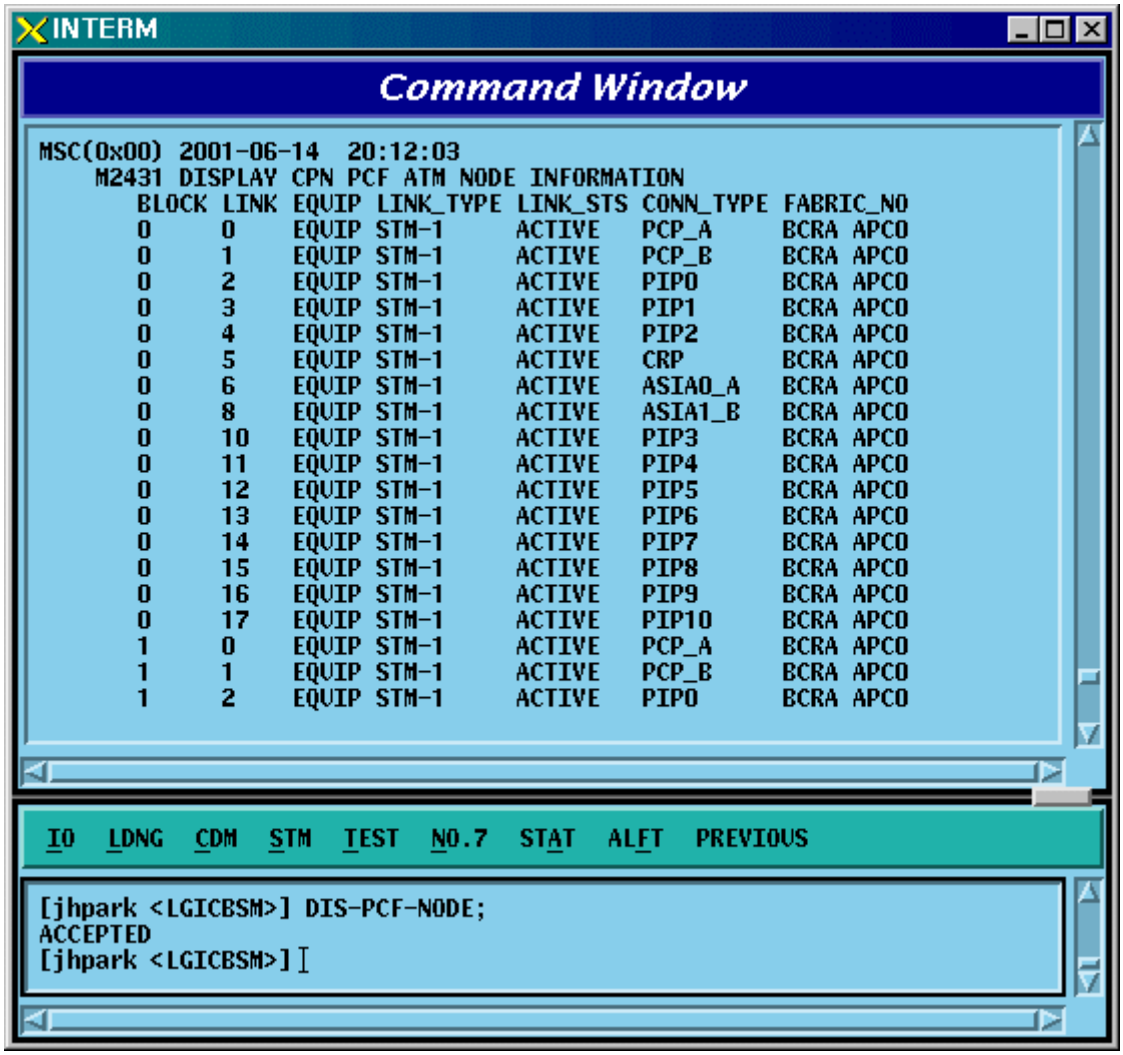

Fig. 4.3-44 PCF ATM NODE Information Display

4.3.3.8. CAN PVC SETTING Information Display

- Command DIS-CPN-PVC
- Output

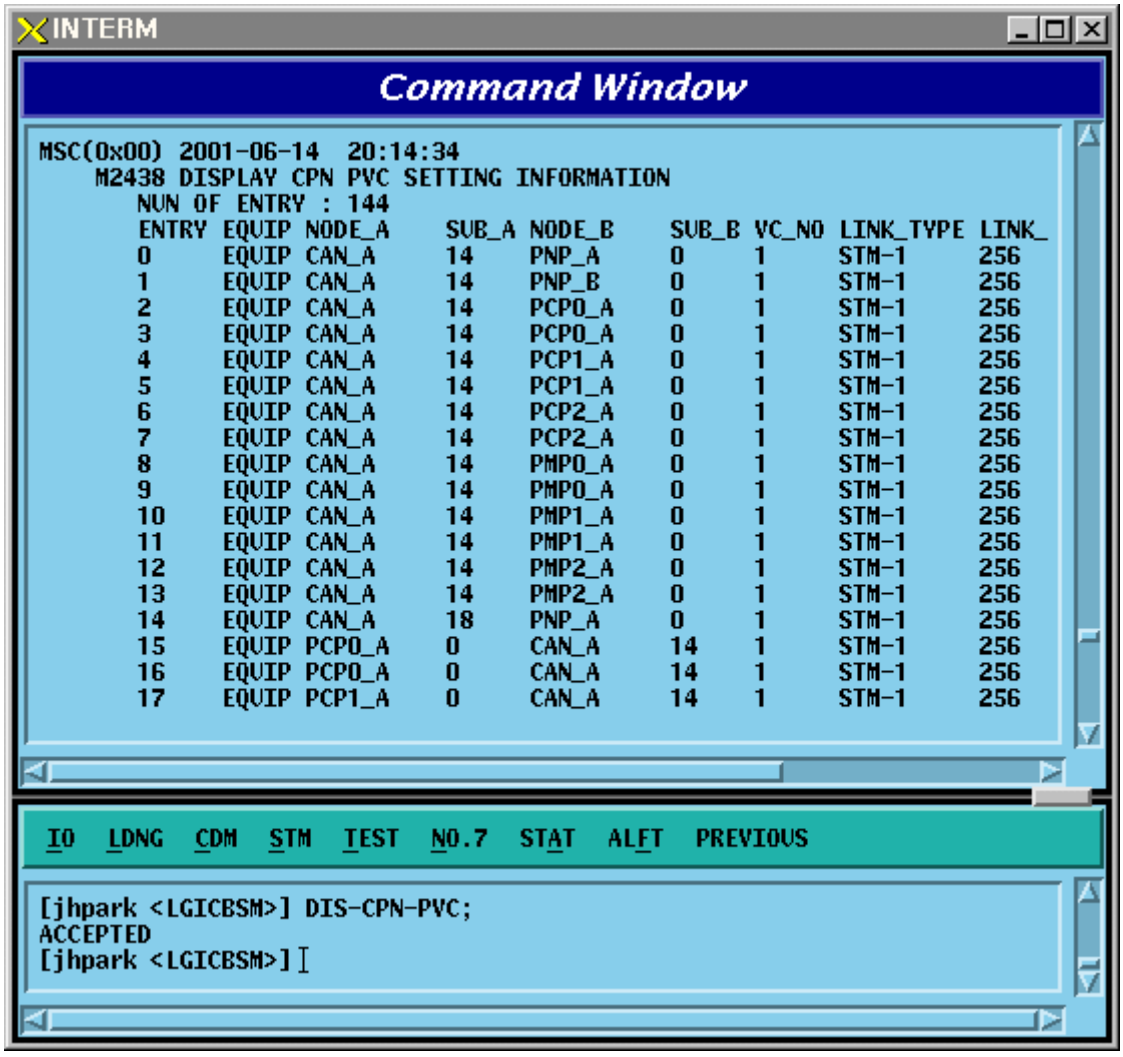

Fig. 4.3-45 CAN PVC SETTING Information Display

4.3.3.9. CAN PCF PVC SETTING Information Display

- Command DIS-PCF-PVC
- Output

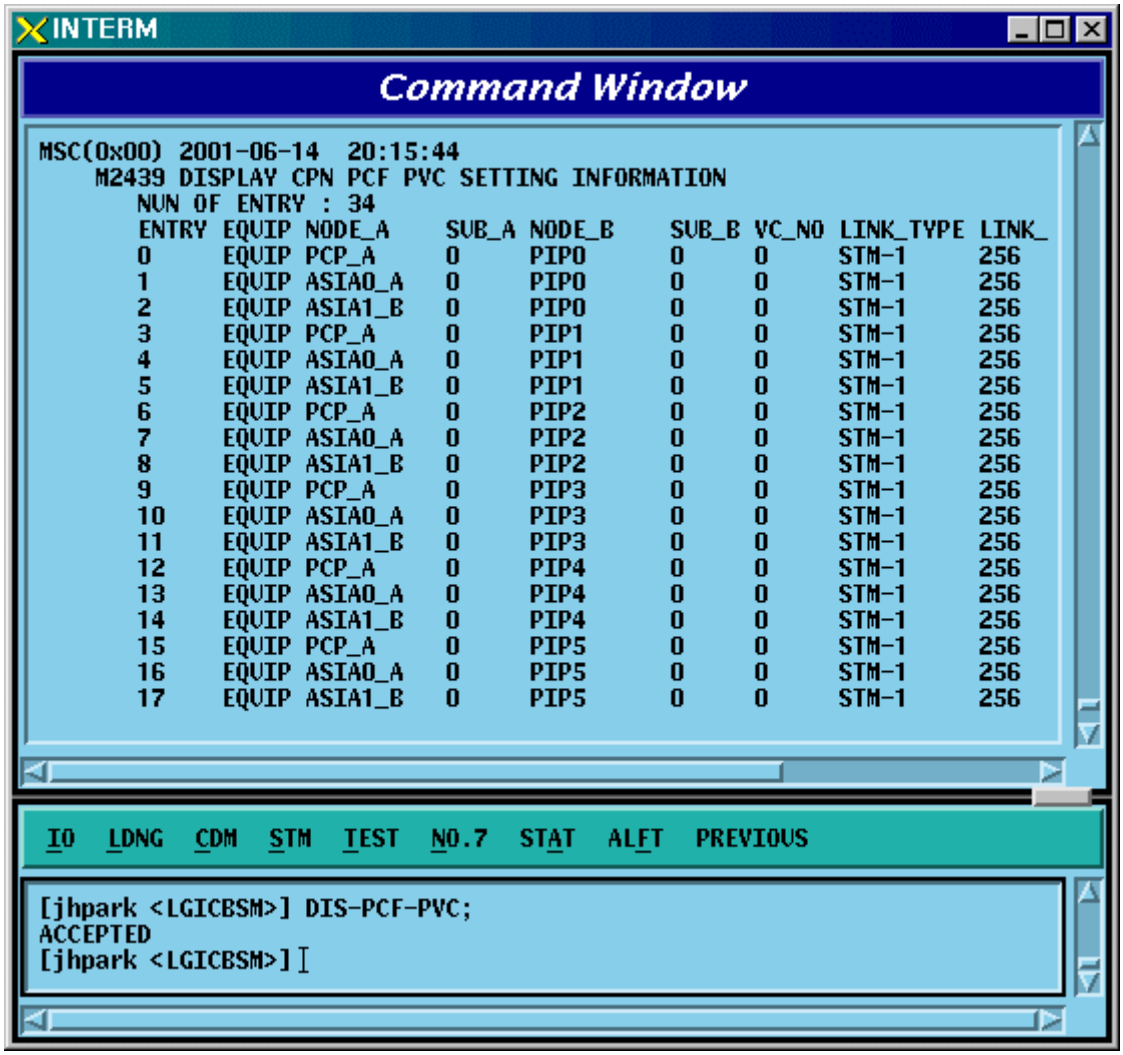

Fig. 4.3-46 CAN PCF PVC SETTING Information Display

4.3.3.10. CPN METWORK PARAMETER Information Display

- Command DIS-CPN-NETP
- Output

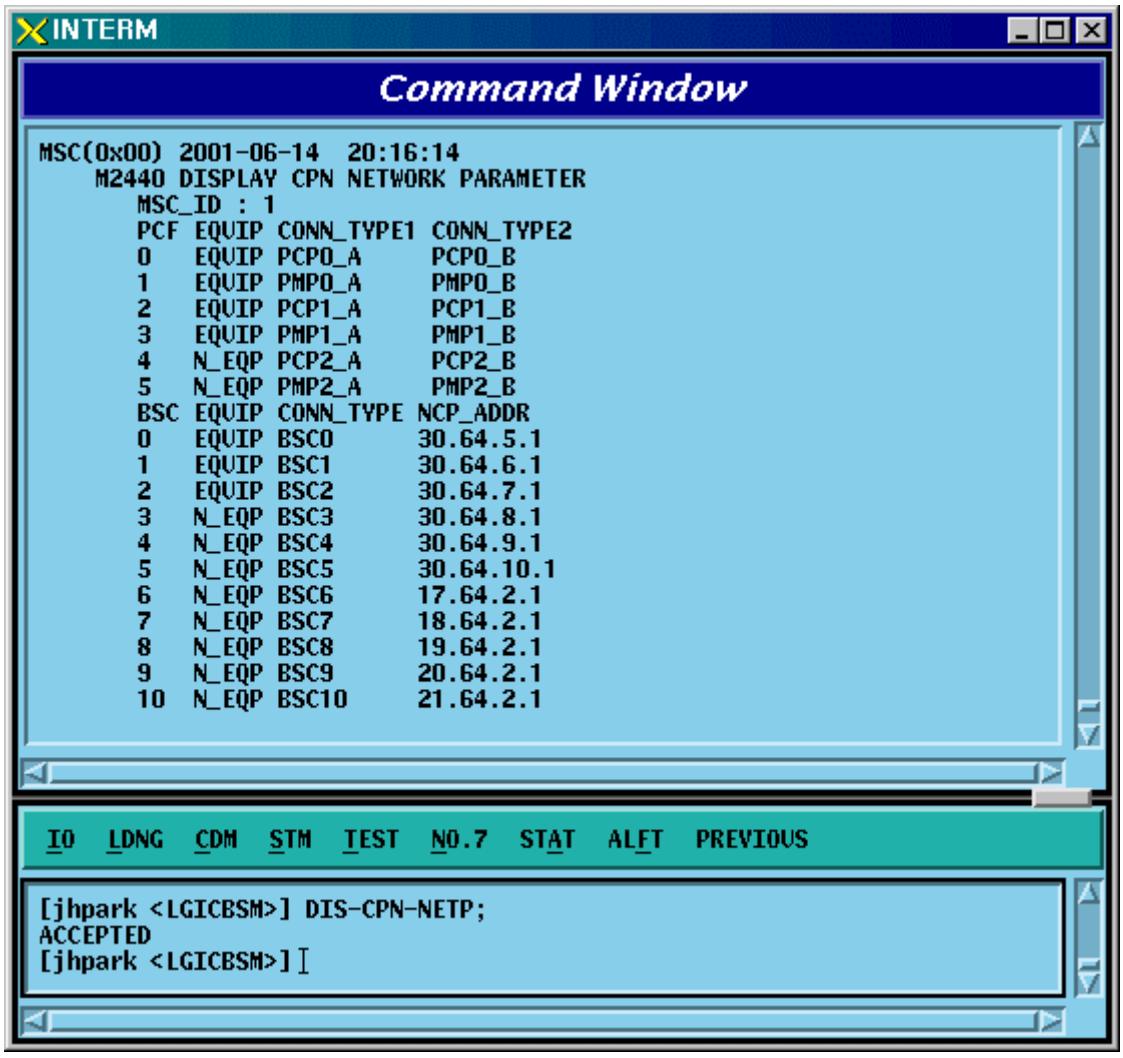

Fig. 4.3-47 CPN METWORK PARAMETER Information Display

4.3.3.11. CPN DATA AAL2/5 Connection Information Display

- Command DIS-CPN-DATA;
- Output

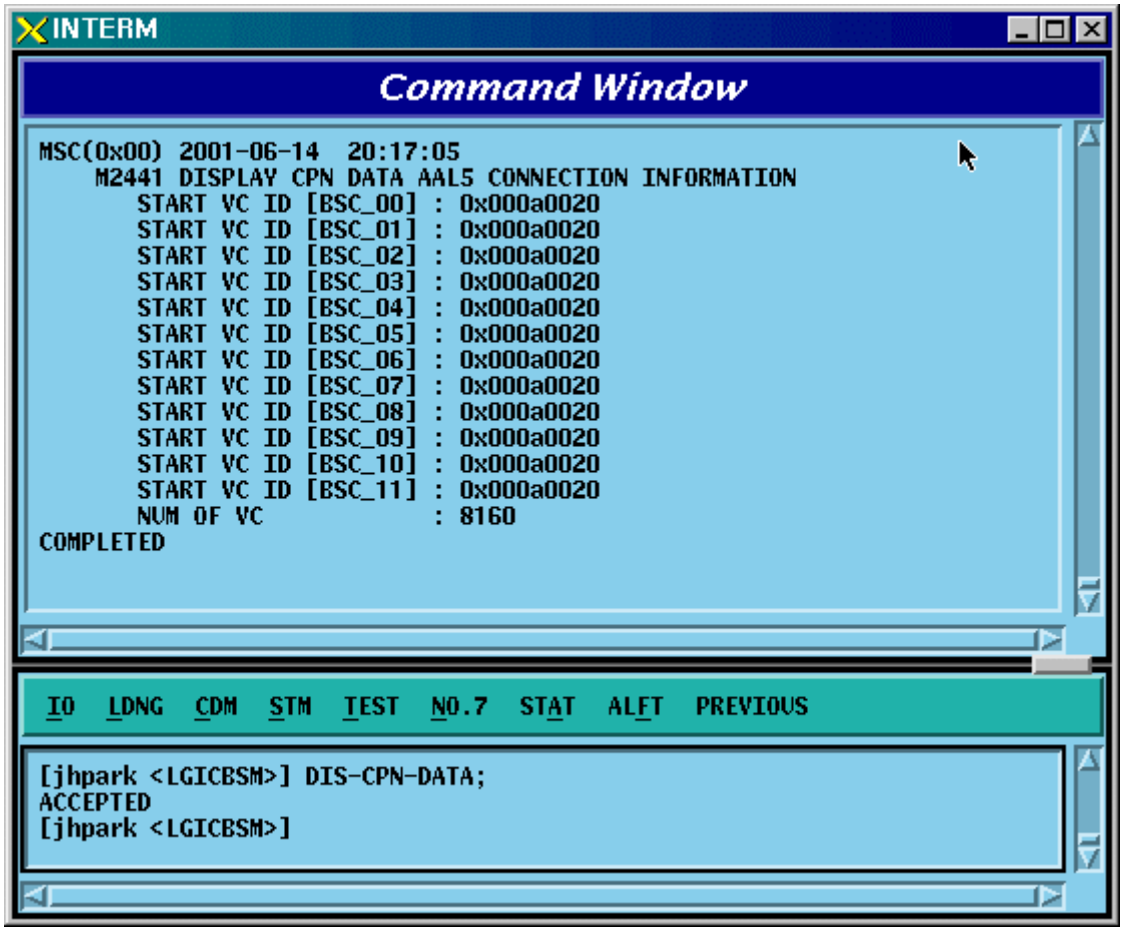

Fig. 4.3-48 CPN DATA AAL2/5 Connection Information Display

4.3.3.12. CPN PCF AAK2/5 Connection Information Display

- Command DIS-CPN-PCF;
- Output

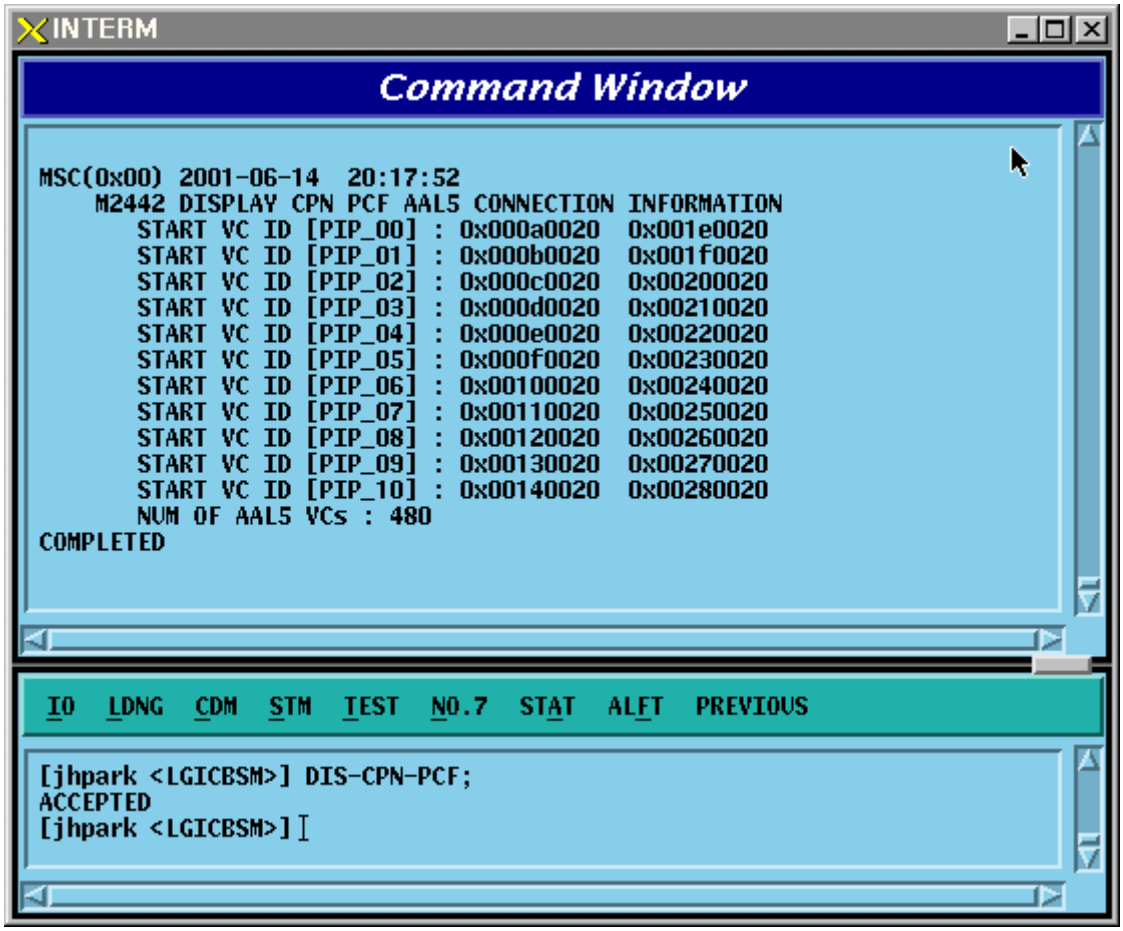

Fig. 4.3-49 CPN PCF AAK2/5 Connection Information Display

4.3.3.13. BSC ATM NODE Information Display

- Command DIS-BSC-NODE: BSC=a;

  a: BSC Number (0~11)
- Input DIS-BSC-NODE: BSC=0;
- Output

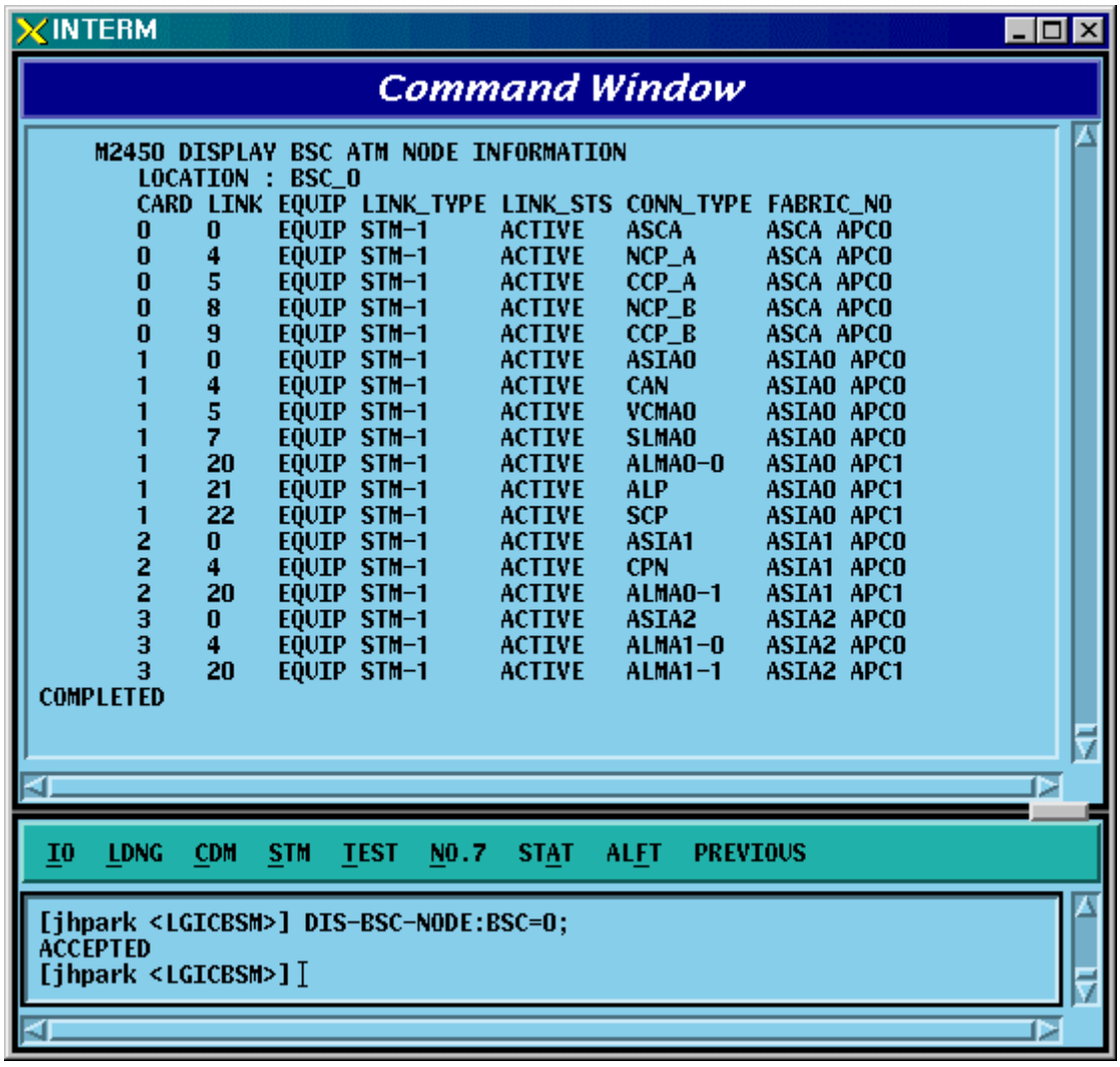

Fig. 4.3-50 BSC ATM NODE Information Display

4.3.3.14. SLB ATM NODE Information Display

- Command DIS-SLB-NODE: BSC=a;
  a: BSC Number (0~11)
- Input DIS-SLB-NODE: BSC=0;
- Output

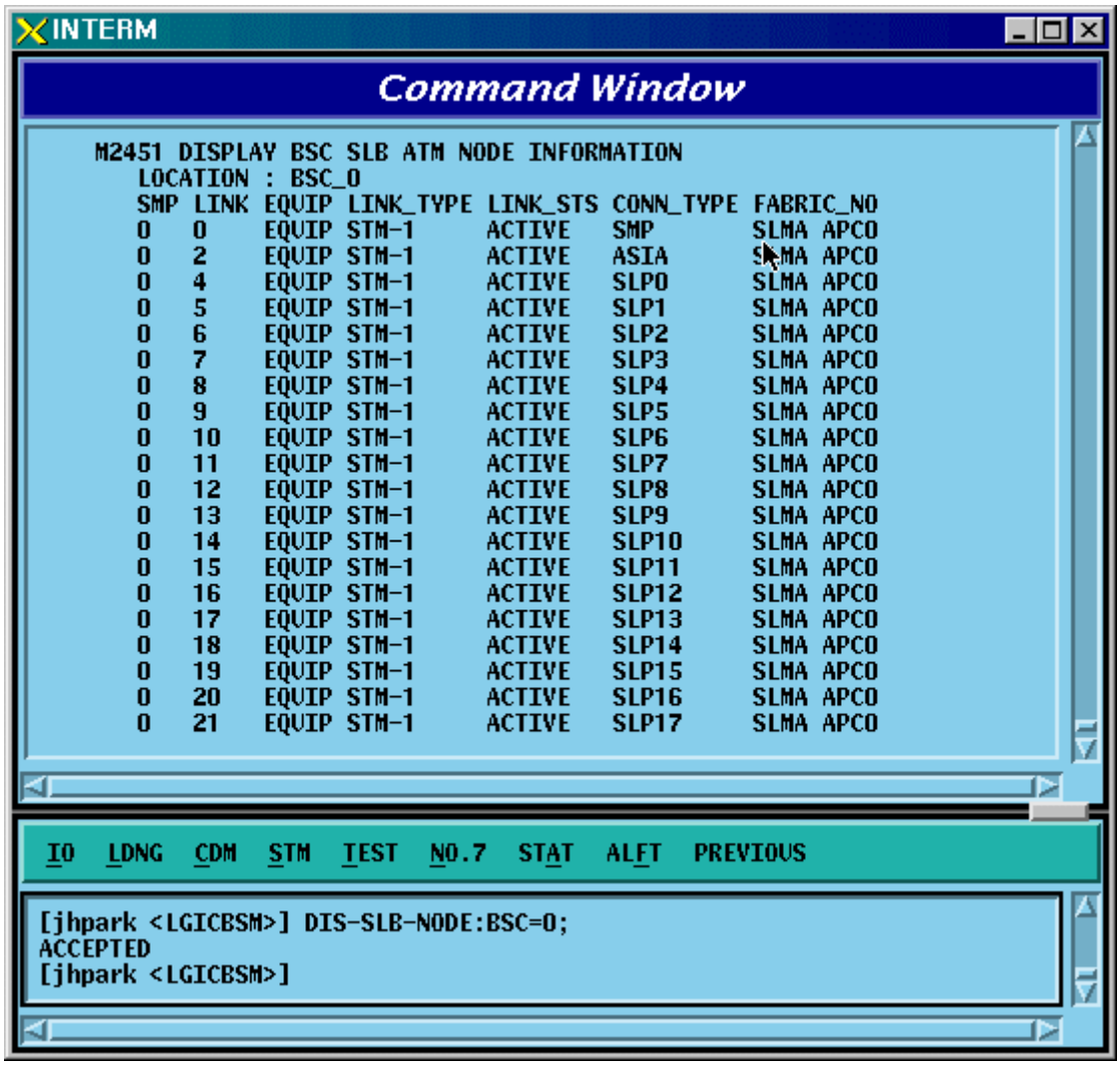

Fig. 4.3-51 SLB ATM NODE Information Display

4.3.3.15. VCB ATM NODE Information Display

- Command DIS-VCB-NODE: BSC=a;
  a: BSC Number (0~11)
- Input DIS-VCB-NODE: BSC=0;
- Output

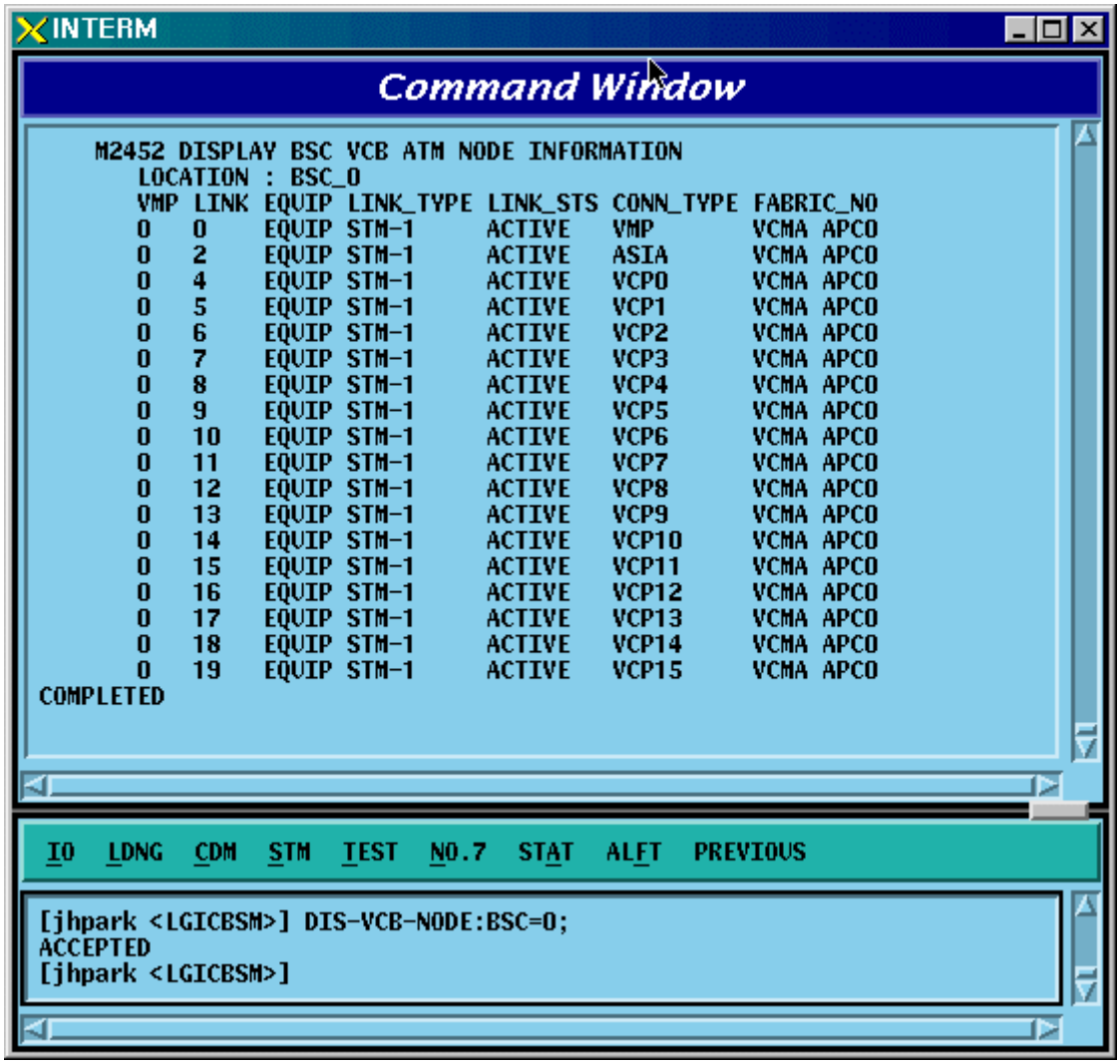

Fig. 4.3-52 VCB ATM NODE Information Display

4.3.3.16. ALB ATM NODE Information Display

‘

- Command DIS-ALB-NODE: BSC=a;

  a: BSC Number (0~11)

- Input DIS-ALB-NODE: BSC=0;
- Output

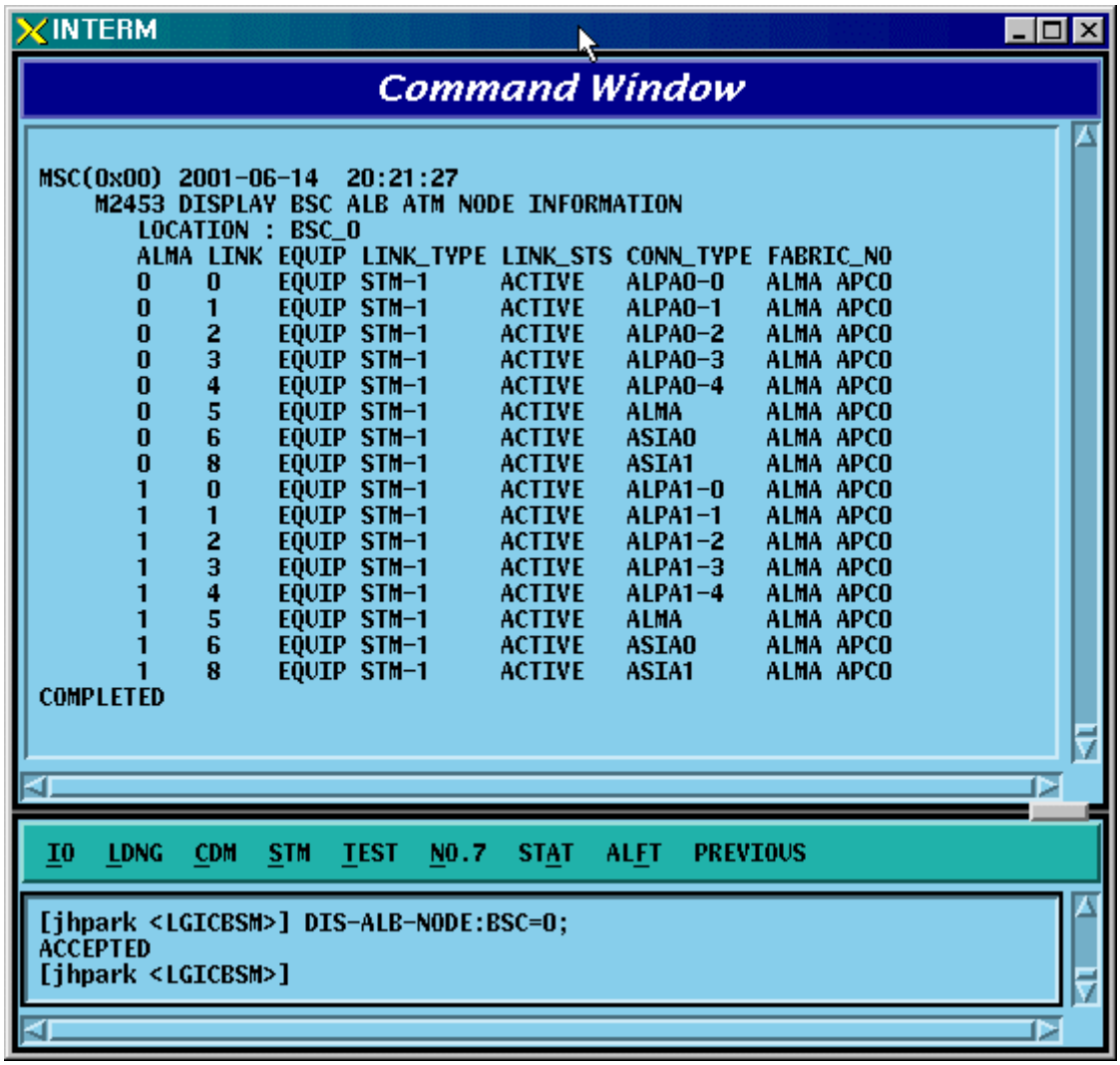

Fig. 4.3-53 ALB ATM NODE Information Display

4.3.3.17. BTS ATM NODE Information Display

- Command DIS-BTS-NODE: BSC=a ,BTS=b;
  a: BSC Number (0~11)
  b: BTS Number (0~47)
- Input DIS-BSC-NODE: BSC=0,BTS=0;
- Output

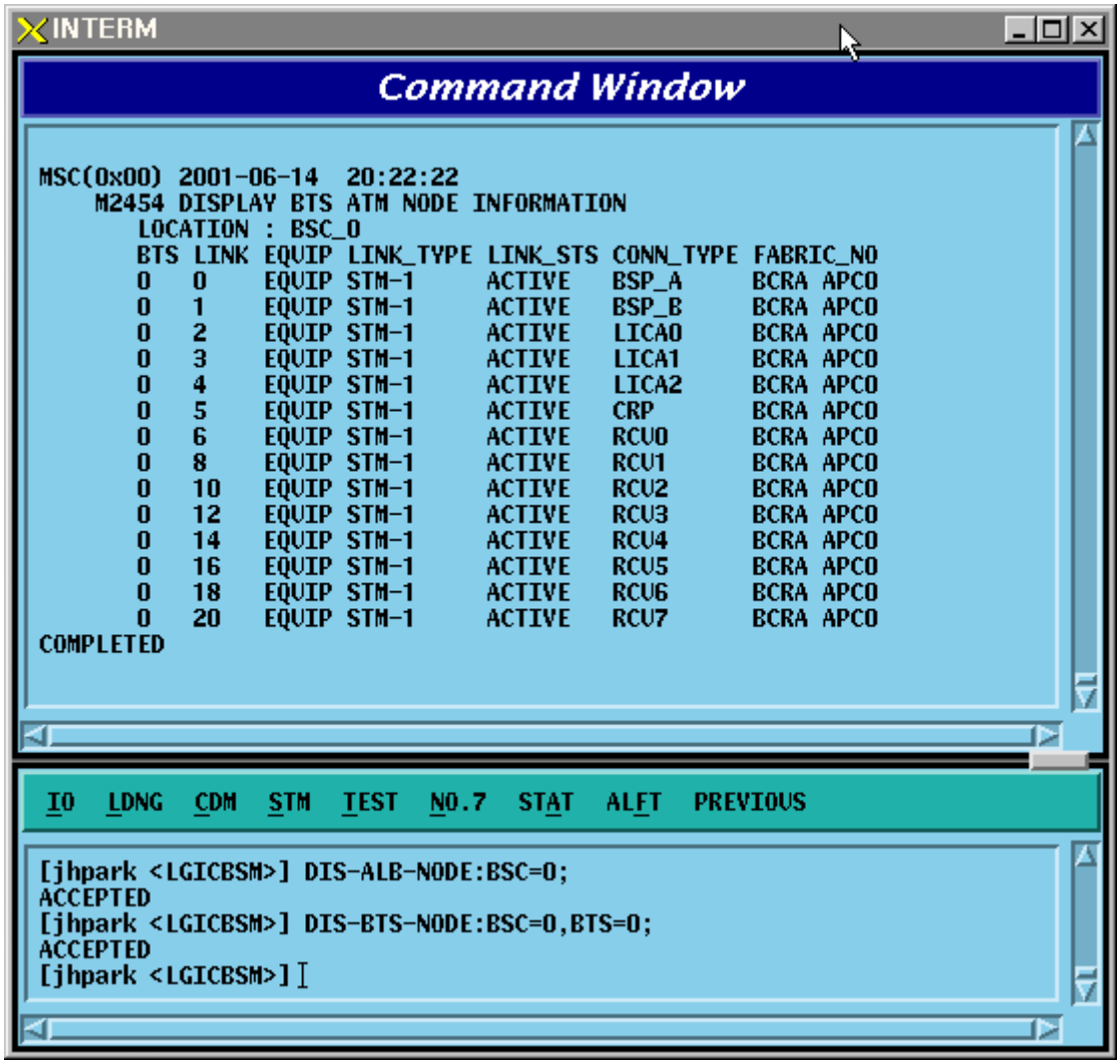

Fig. 4.3-54 BTS ATM NODE Information Display

4.3.3.18. BSC-BTS TRUNK Information Display

- Command DIS-TRNK-DATA: BSC=a;

  a: BSC Number (0~11)
- Input DIS-TRNK-DATA: BSC=0;
- Output

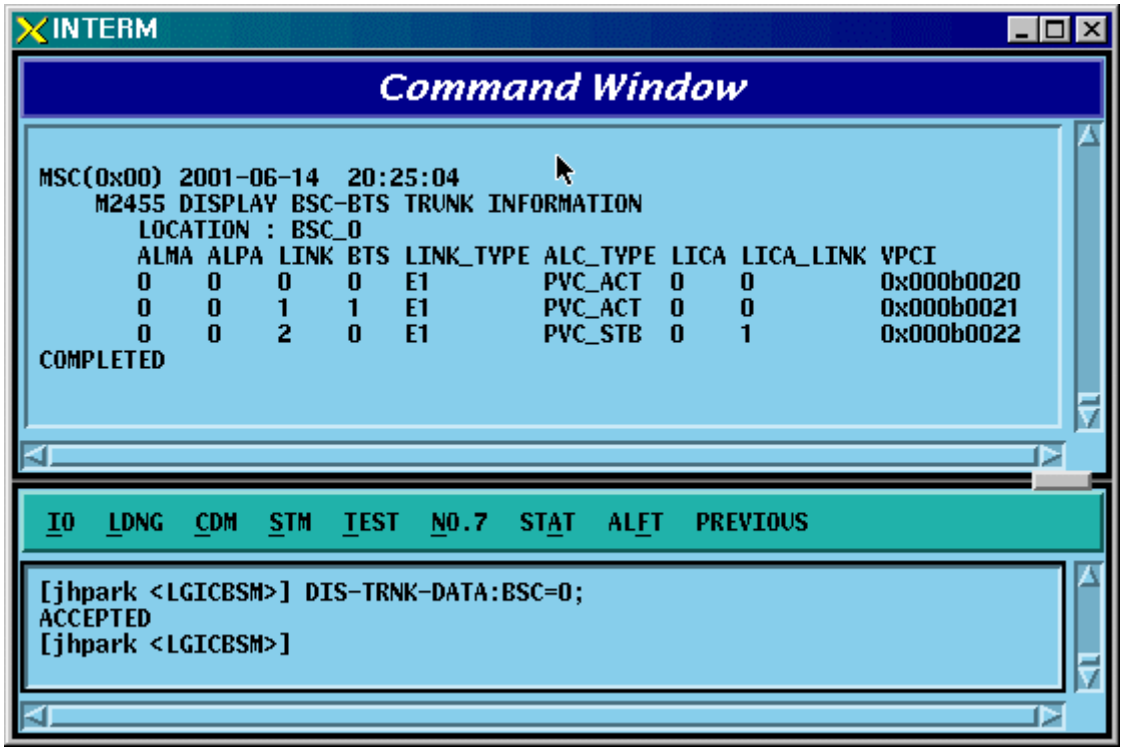

Fig. 4.3-55 BSC-BTS TRUNK Information Display

4.3.3.19. BSC PVC SETTING Information Display

• Command DIS-BSC-PVC: BSC=a,NODE_A=b;

a: BSC Number (0~11)

b: NCP_A, NCP_B, CCP_A, CCP_B, ALMA0_0 , ALMA0_1, ALMA1_0 , ALMA1_1,CAN,CPN,ALP

• Input DIS-BSC-PVC: BSC=0,NODE_A=NCP_A;

• Output

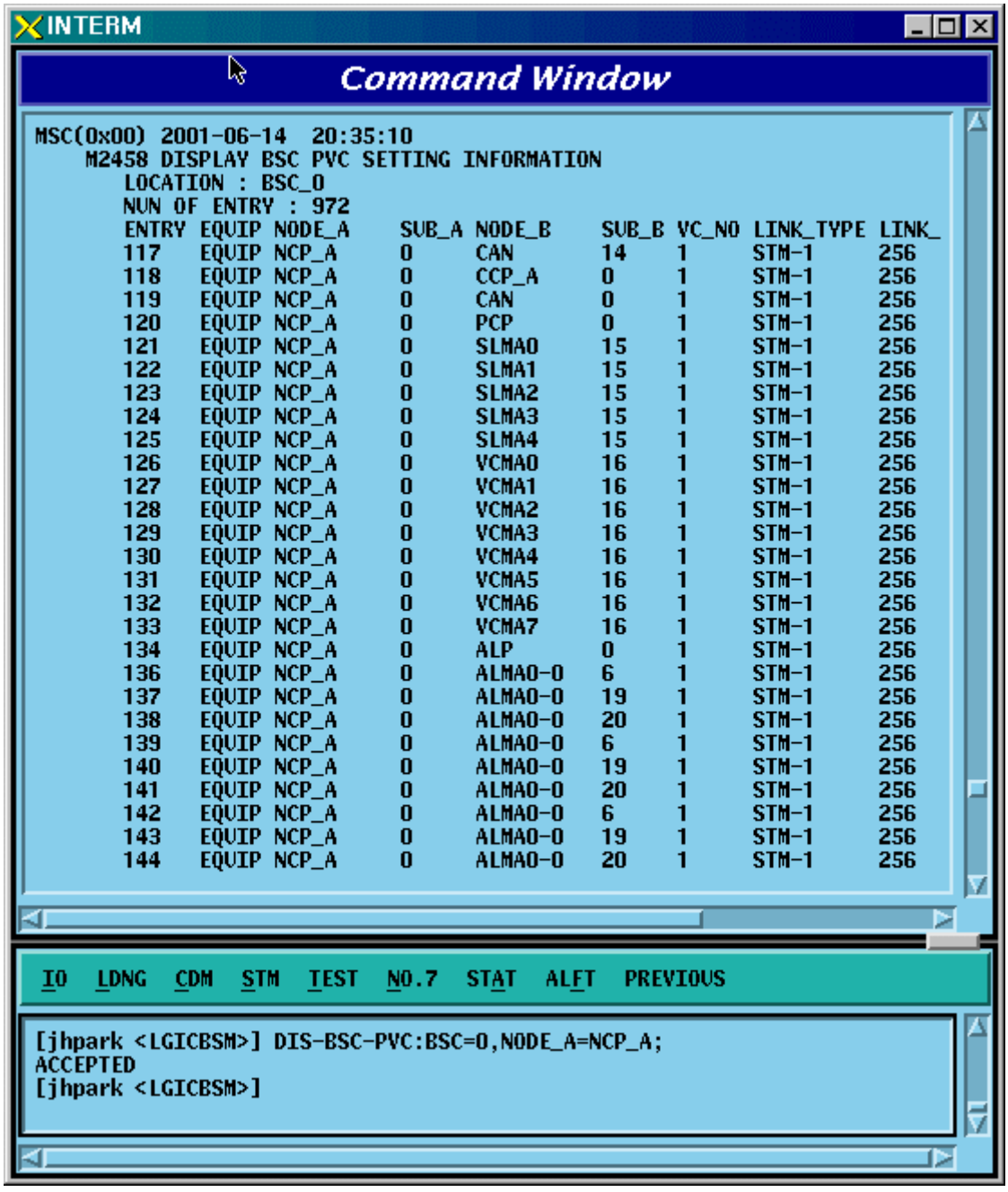

Fig. 4.3-56 BSC PVC SETTING Information Display

4.3.3.20. BSC SLB PVC SETTING Information Display

- Command DIS-SLB-PVC: BSC=a;
  a: BSC Number (0~11)
- Input DIS-SLB-PVC: BSC=0;
- Output

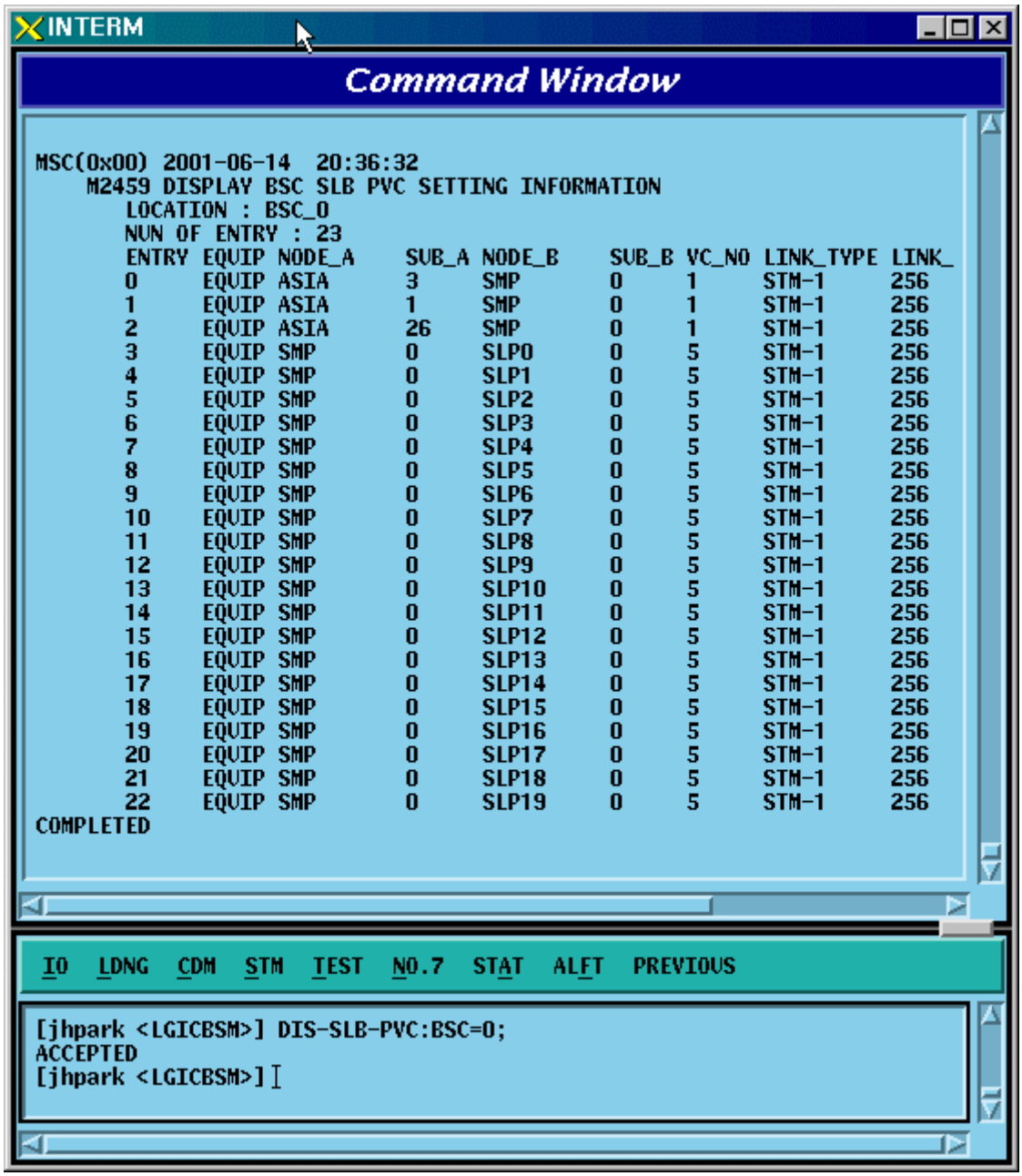

Fig. 4.3-57 BSC SLB PVC SETTING Information Display

4.3.3.21. BSC VCB PVC SETTING Information Display

- Command DIS-VCB-PVC: BSC=a;
  a: BSC Number (0~11)
- Input DIS-VCB-PVC: BSC=0;
- Output

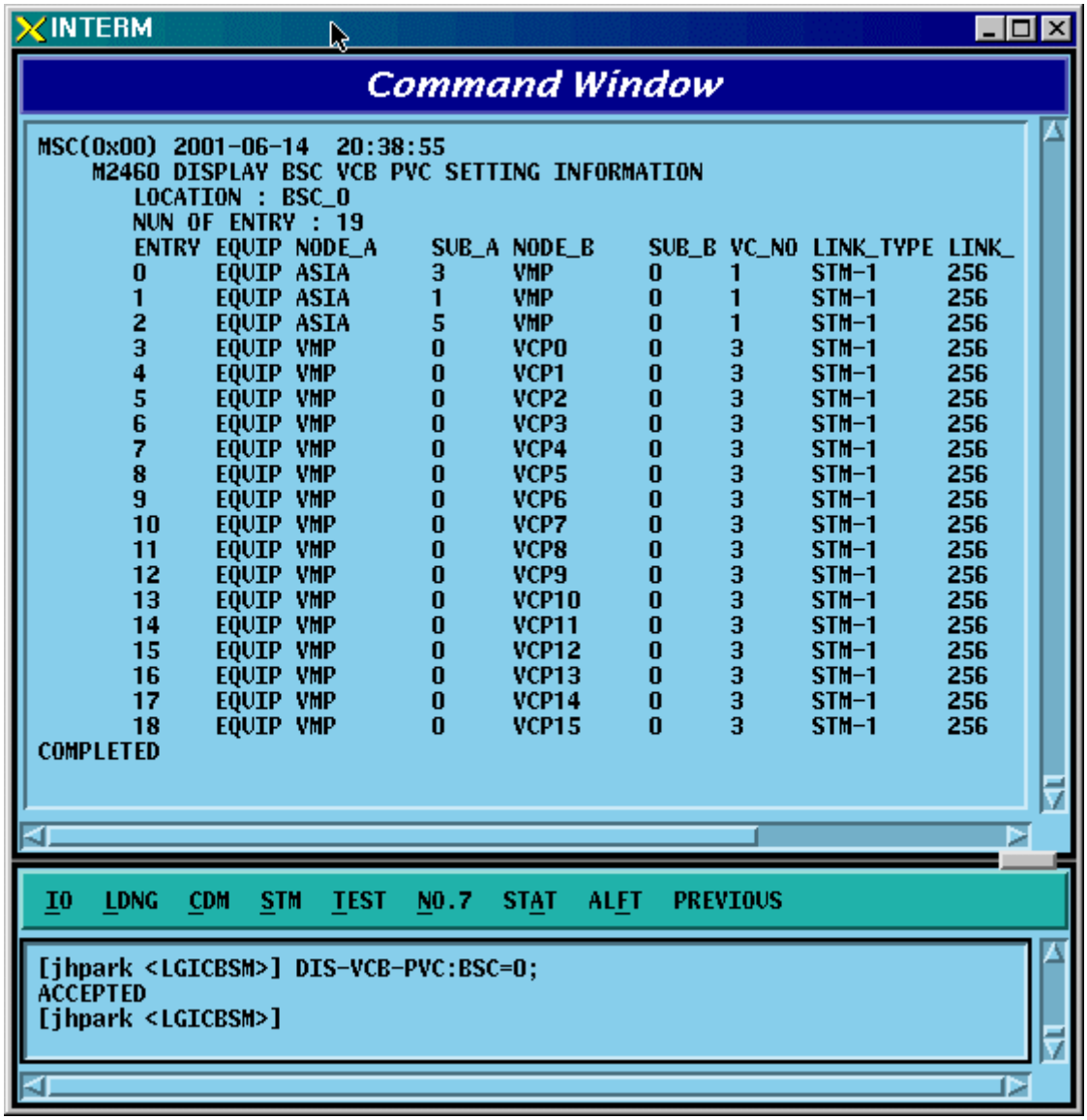

Fig. 4.3-58 BSC VCB PVC SETTING Information Display

4.3.3.22. BSC ALB PVC SETTING Information Display

- Command DIS-ALB-PVC: BSC=a;

  a: BSC Number (0~11)
- Input DIS-ALB-PVC: BSC=0;
- Output

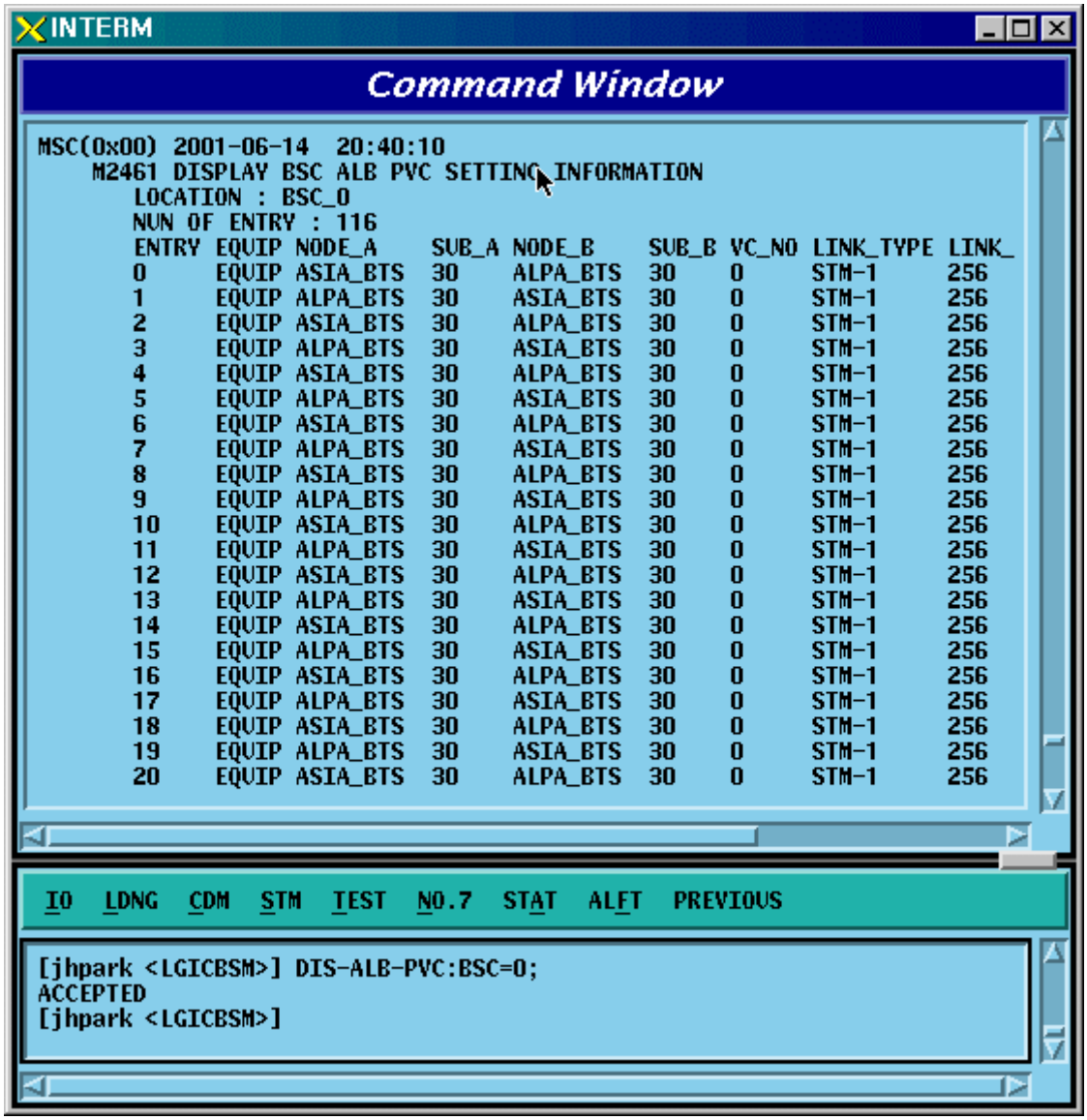

Fig. 4.3-59 BSC ALB PVC SETTING Information Display

4.3.3.23. BTS LOCAL PVC SETTING Information Display

- Command DIS-BTS-LPVC: BSC=a;
  a: BSC Number (0~11)
- Input DIS-BTS-LPVC: BSC=0;
- Output

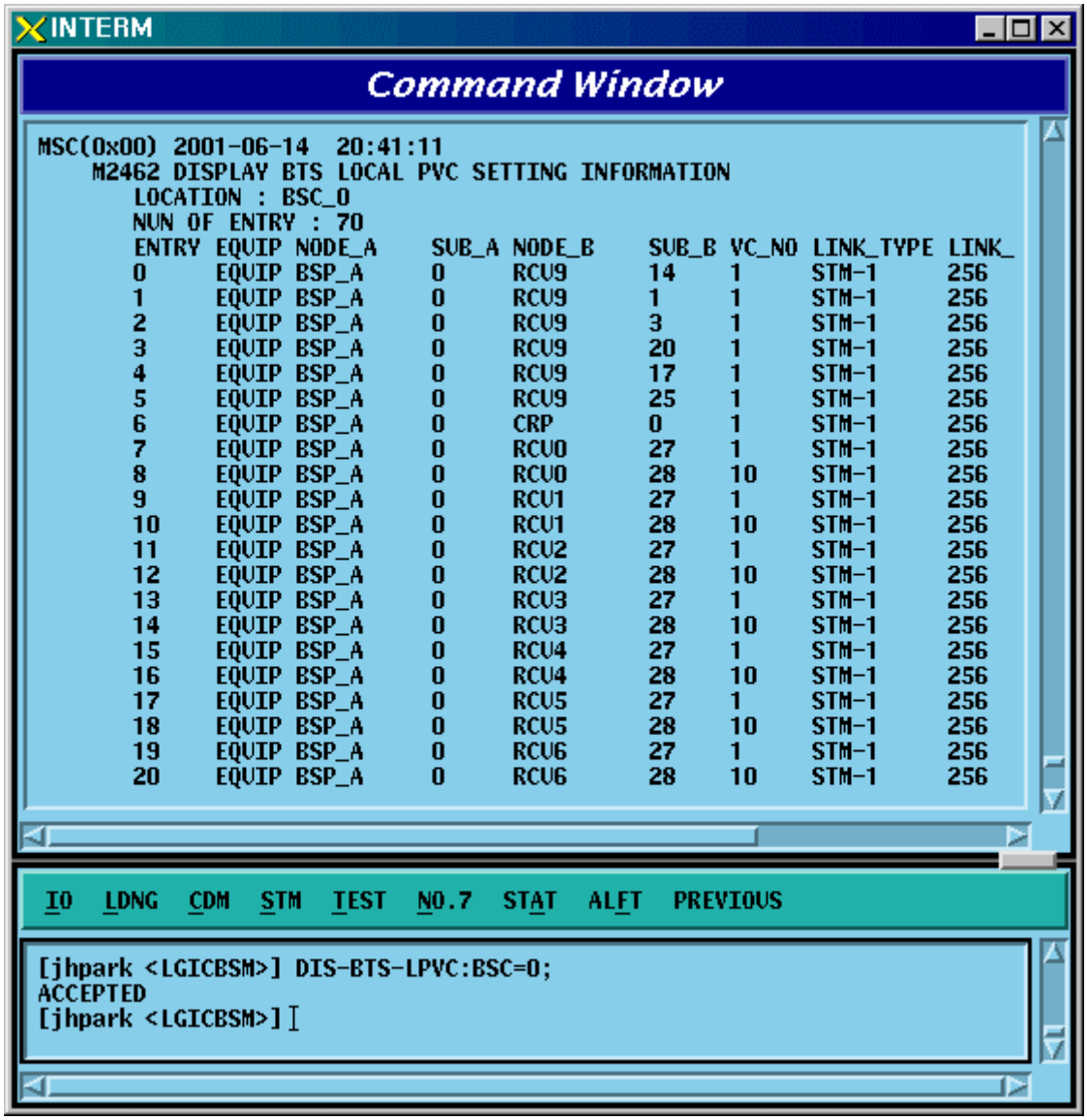

Fig. 4.3-60 BTS LOCAL PVC SETTING Information Display

4.3.3.24. BTS OUTER PVC SETTING Information Display

- Command DIS-BTS-OPVC: BSC=a, BTS=b;
  a: BSC Number (0~11)
  b: BTS Number(0~47)
- Input DIS-BTS-OPVC: BSC=0, BTS=0;
- Output

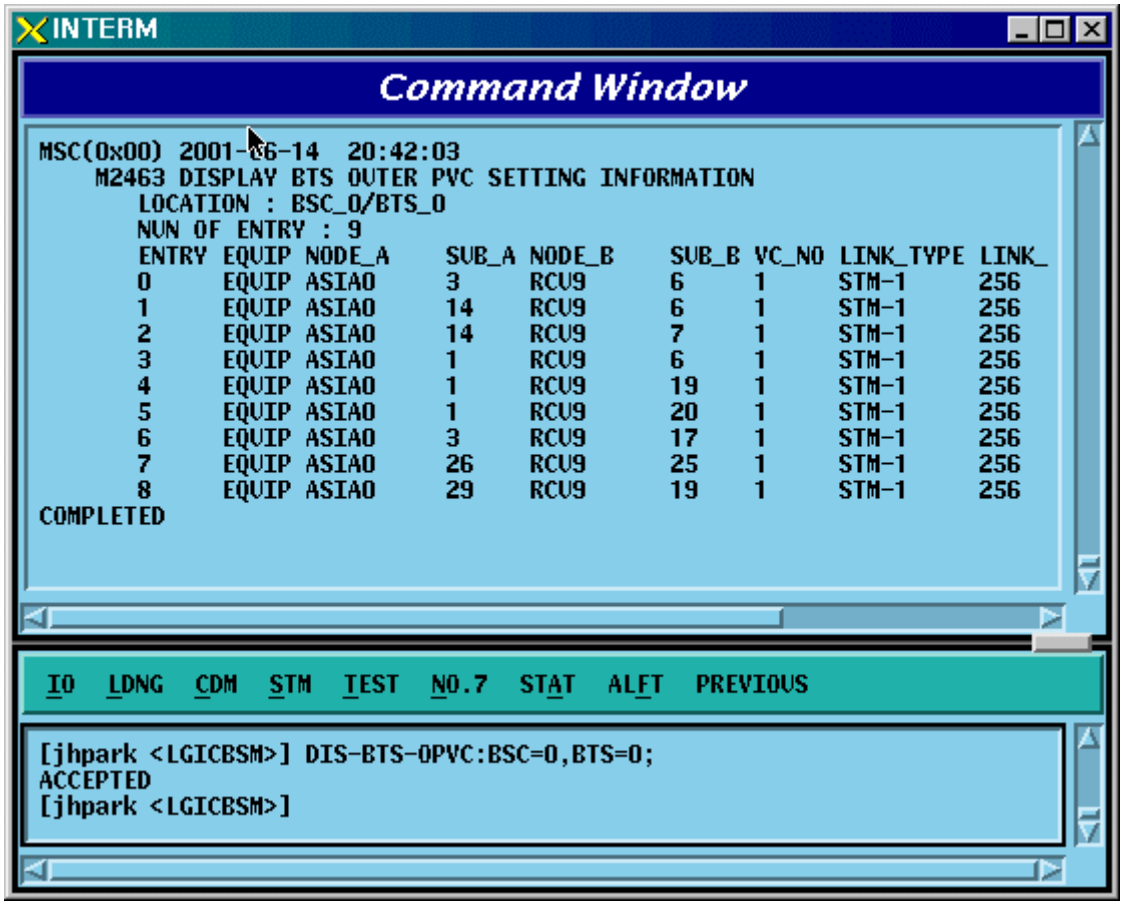

Fig. 4.3-61 BTS OUTER PVC SETTING Information Display

4.3.3.25. BSC NETWORK PARAMETER Information Display

- Command DIS-BSC-NETP: BSC=a;
  a: BSC Number (0~11)
- Input DIS-BSC-NETP: BSC=0;
- Output

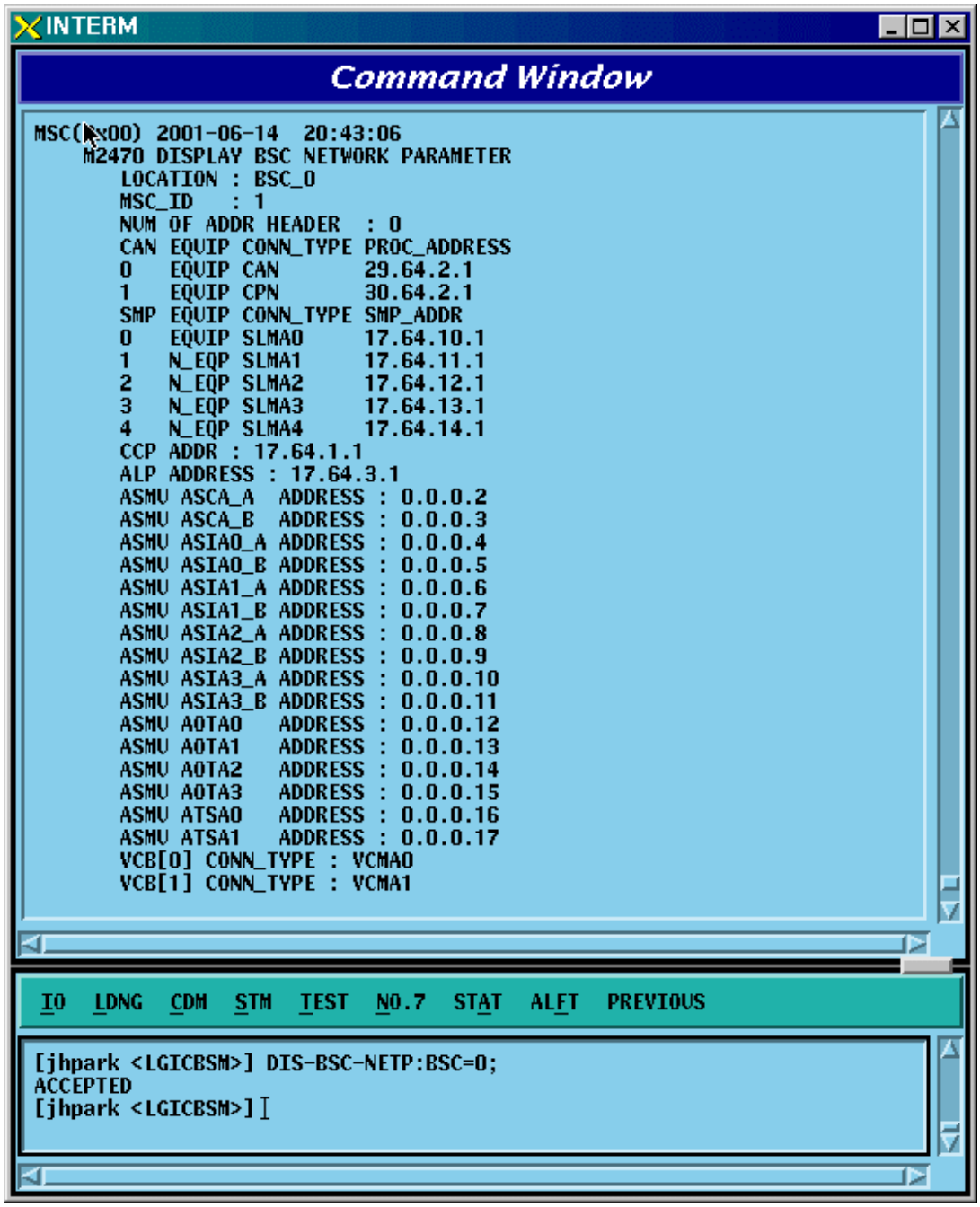

Fig. 4.3-62 BSC NETWORK PARAMETER Information Display

4.3.3.26. BSC ALP NETWORK PARAMETER Information Display

- Command DIS-ALS-NETP: BSC=a;
  a: BSC Number (0~11)
- Input DIS-ALS-NETP: BSC=0;
- Output

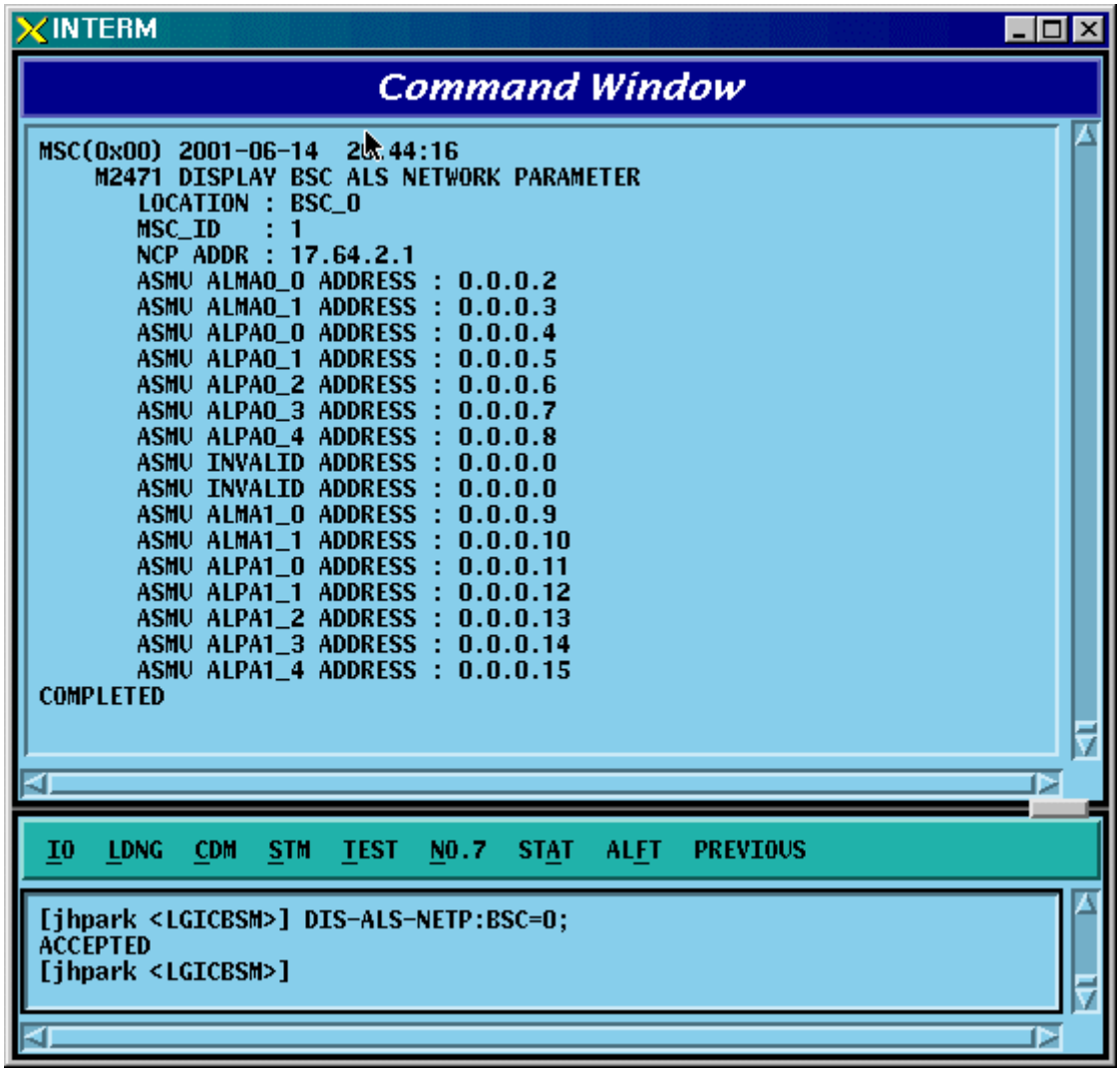

Fig. 4.3-63 BSC ALP NETWORK PARAMETER Information Display

4.3.3.27. BSC INTER BSC AAL2 Information Display

- Command DIS-BSC-IUR: BSC=a;

  a: BSC Number (0~11)
- Input DIS-BSC-IUR: BSC=0;
- Output

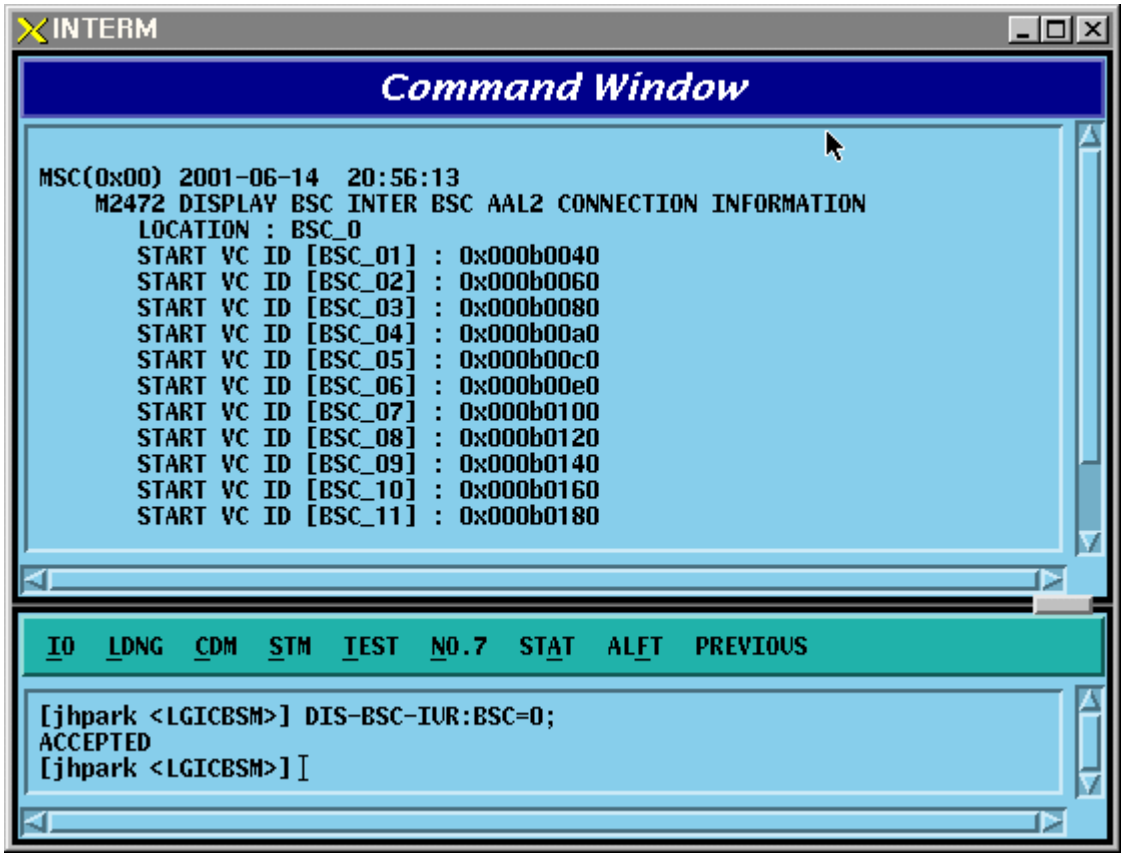

Fig. 4.3-64 BSC INTER BSC AAL2 Information Display

4.3.3.28. BSC INTER BTS AAL2 Information Display

- Command DIS-BSC-IUB: BSC=a, BTS=b;
  a: BSC Number (0~11)
  b: BTS Number(0~47)
- Input DIS-BSC-IUB: BSC=0, BTS=0;
- Output

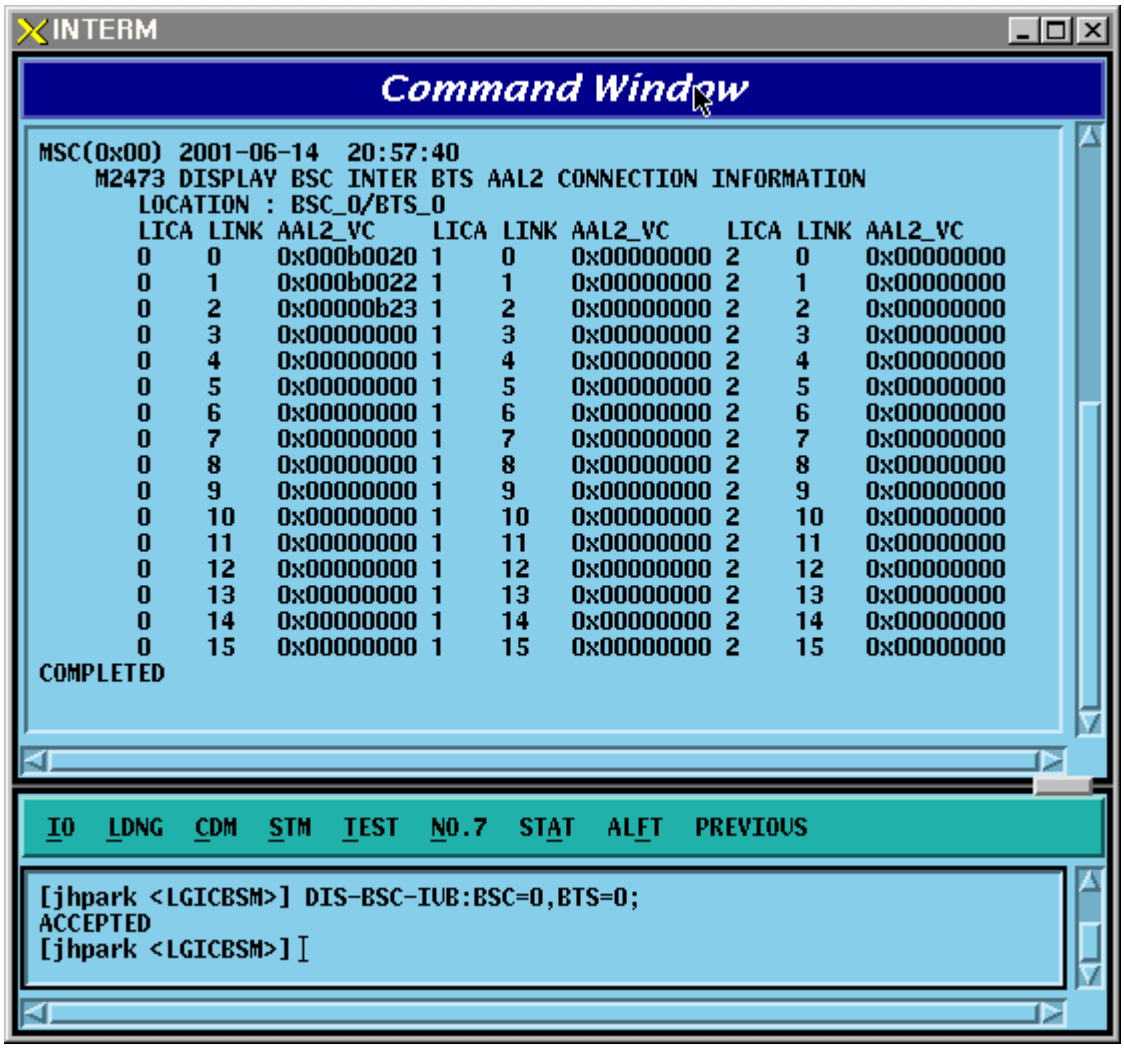

Fig. 4.3-65 BSC INTER BTS AAL2 Information Display

4.3.3.29. BSC INTER CAN AAL2/5 Information Display

- Command DIS-BSC-CAN: BSC=a;
  a: BSC Number (0~11)
- Input DIS-BSC-CAN: BSC=0;
- Output

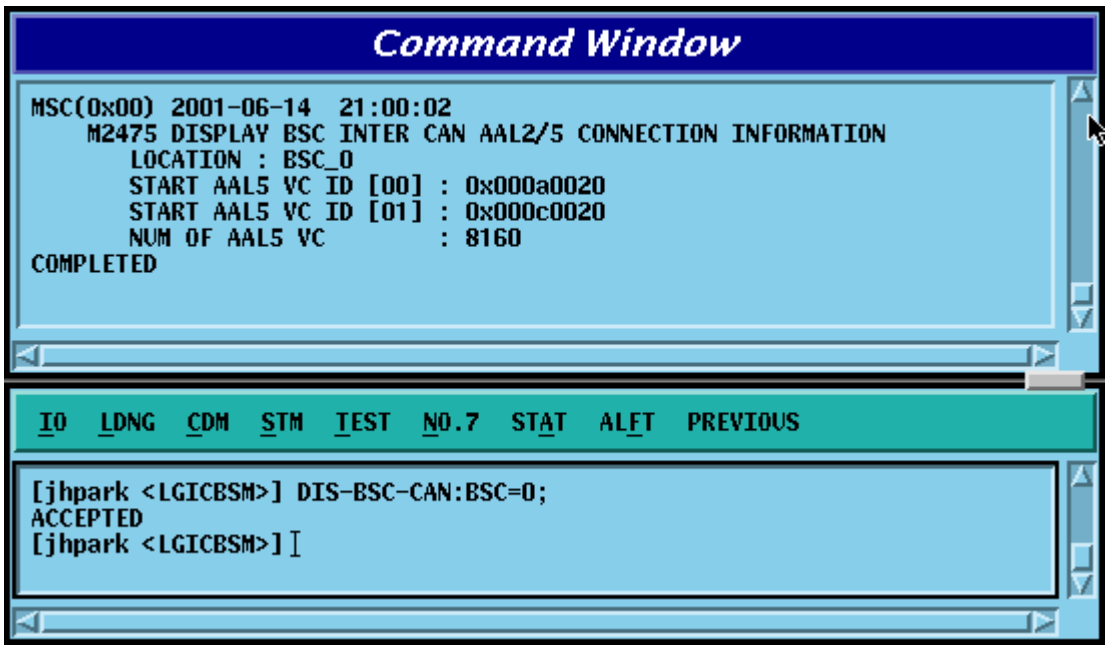

Fig. 4.3-66 BSC INTER CAN AAL2/5 Information Display

4.3.3.30. BSC INTER SLB AAL5 Information Display

- Command DIS-BSC-SLB: BSC=a;
  a: BSC Number (0~11)
- Input DIS-BSC-SLB: BSC=0;
- Output'

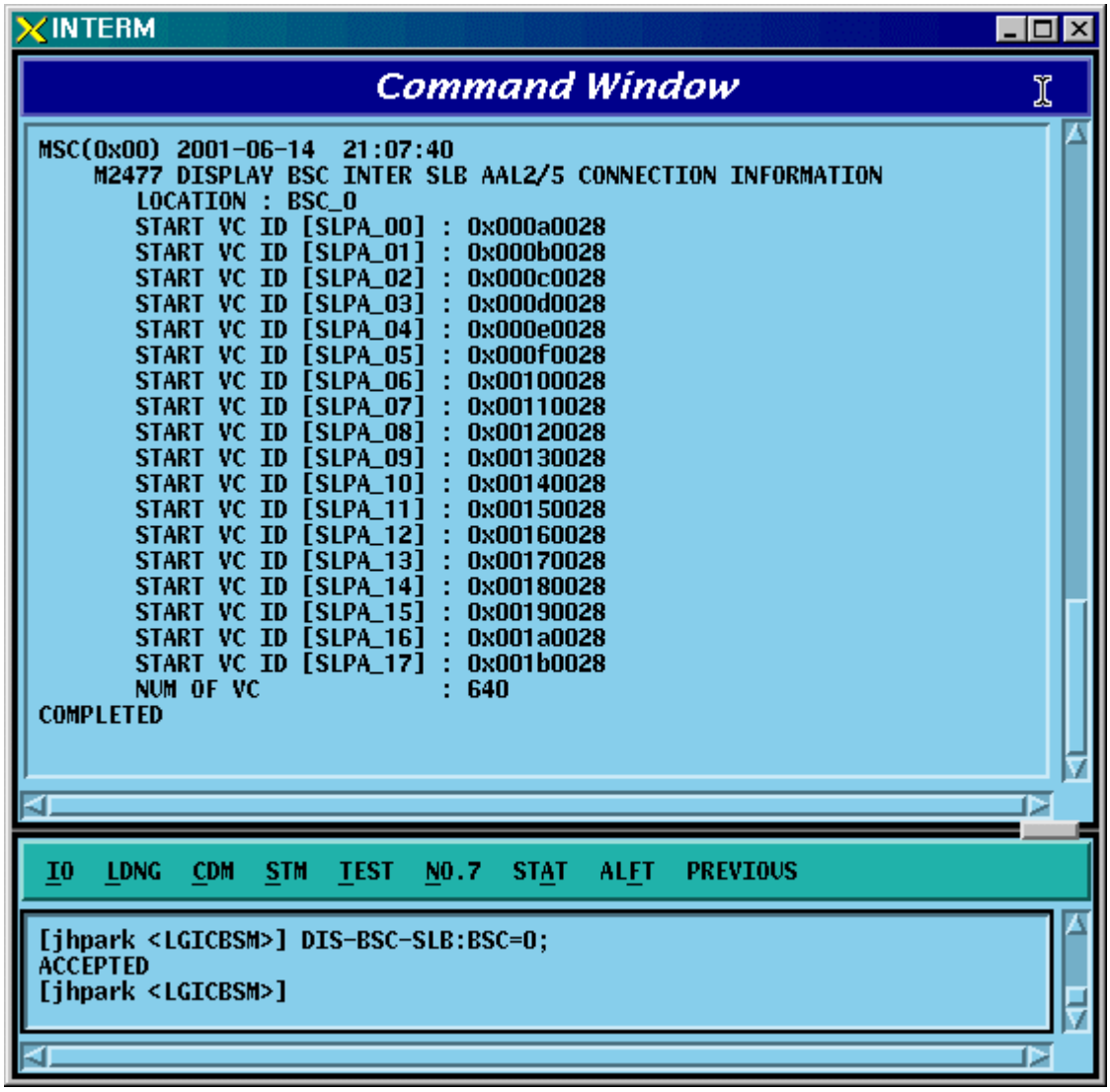

Fig. 4.3-67 BSC INTER SLB AAL5 Information Display

4.3.3.31. BSC INTER VCB AAL5 Information Display

- Command DIS-BSC-VCB: BSC=a;
  a: BSC Number (0~11)
- Input DIS-BSC-VCB: BSC=0;
- Output

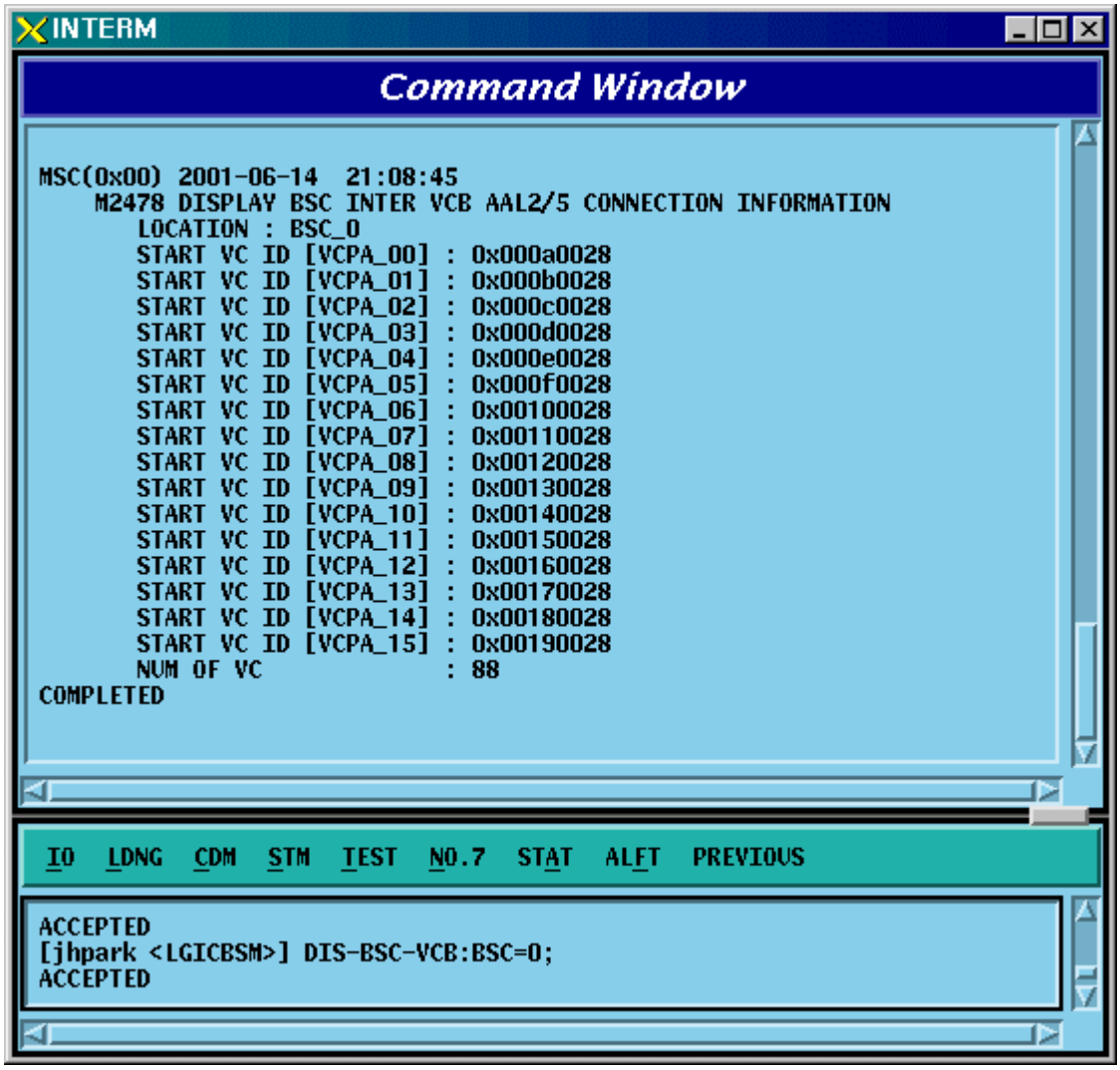

Fig. 4.3-68 BSC INTER VCB AAL5 Information Display

4.3.3.32. BSC INTER ALB AAL5 Information Display

- Command DIS-BSC-ALB: BSC=a;
  a: BSC Number (0~11)
- Input DIS-BSC-ALB: BSC=0;
- Output

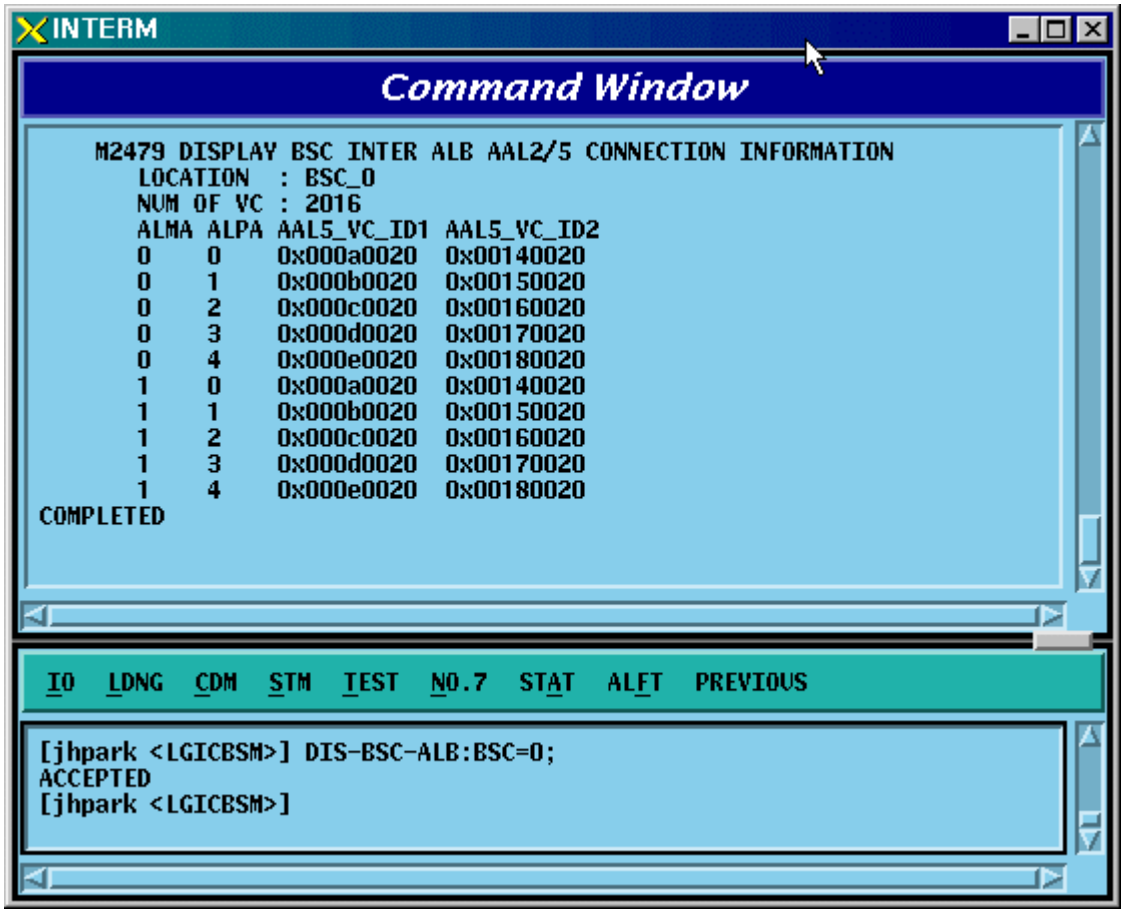

Fig. 4.3-69 BSC INTER ALB AAL5 Information Display

4.3.3.33. BTS NETWORK PARAMETER Information Display

- Command DIS-BTS-NETP: BSC=a ,BTS=b;
  - a: BSC Number (0~11)
  - b: BTS Number (0~47)
- Input DIS-BTS-NETP: BSC=0,BTS=0;
- Output

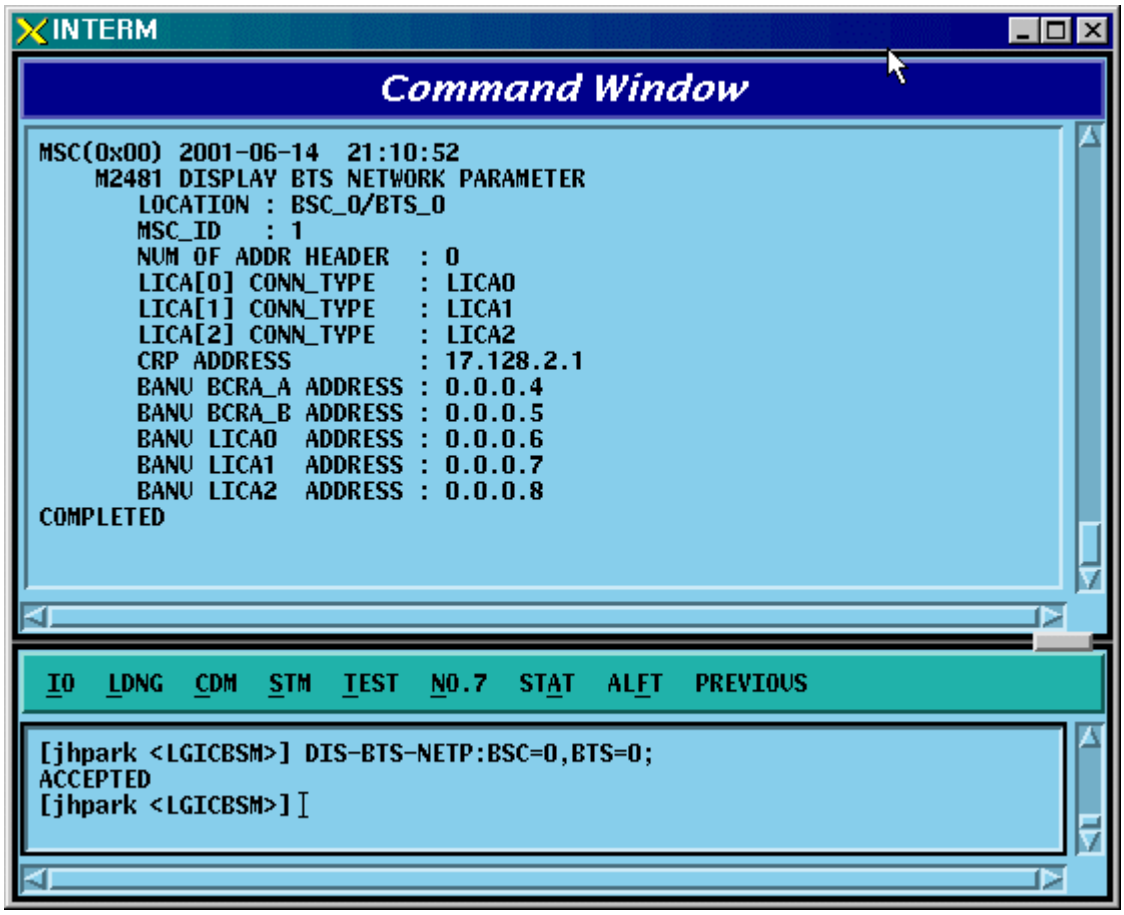

Fig. 4.3-70 BTS NETWORK PARAMETER Information Display

4.3.3.34. BTS INTER BTS AAL2 Information Display

- Command DIS-BTS-IUB: BSC=a ,BTS=b;

  a: BSC Number (0~11)

  b: BTS Number (0~47)
- Input DIS-BTS-IUB: BSC=0,BTS=0;
- Output

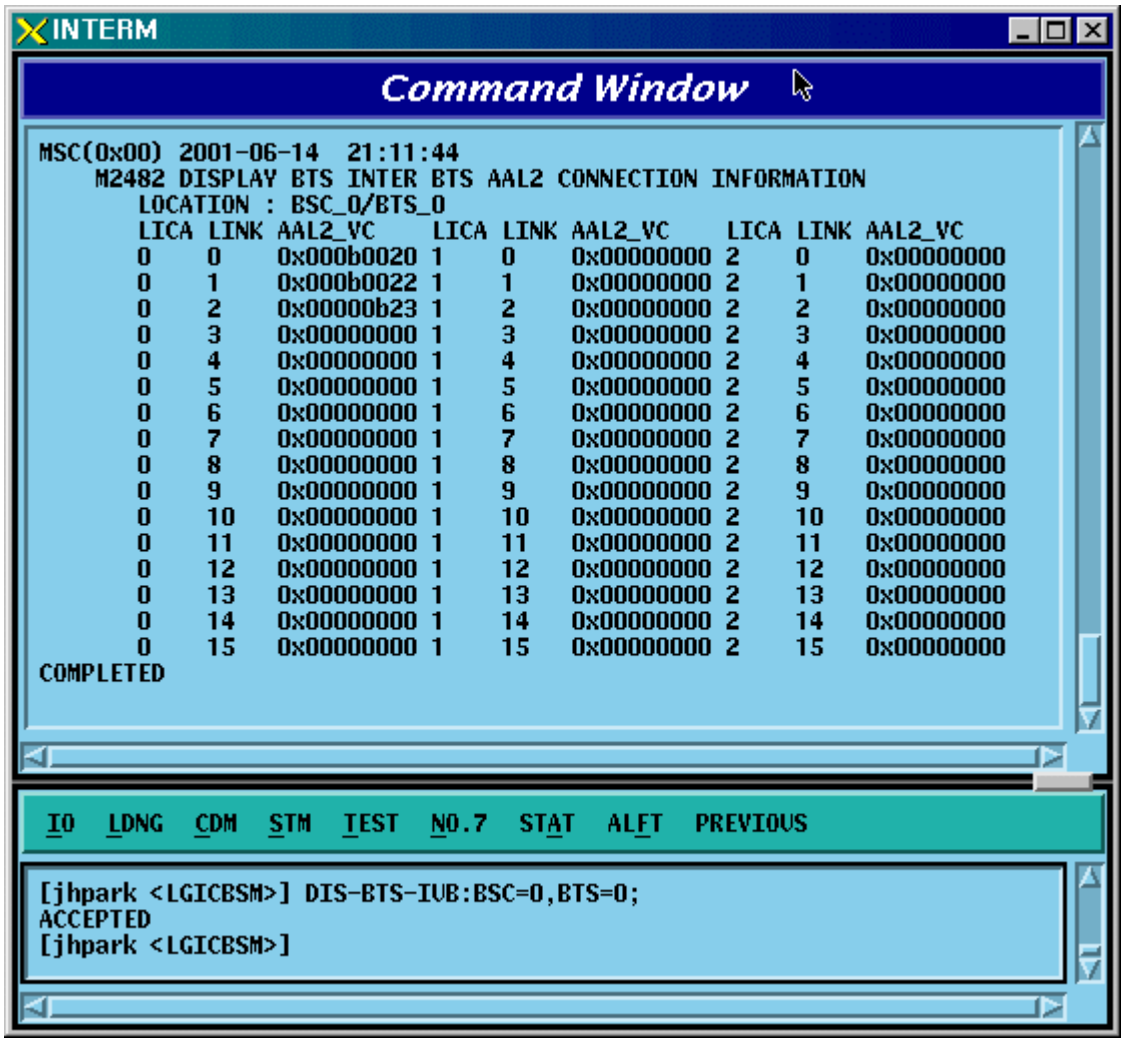

Fig. 4.3-71 BTS INTER BTS AAL2 Information Display

4.3.3.35. BTS INTER RCU AAL5 Information Display

- Command DIS-BTS-RCU: BSC=a ,BTS=b;

  a: BSC Number (0~11)

  b: BTS Number (0~47)
- Input DIS-BTS-RCU: BSC=0,BTS=0;
- Output

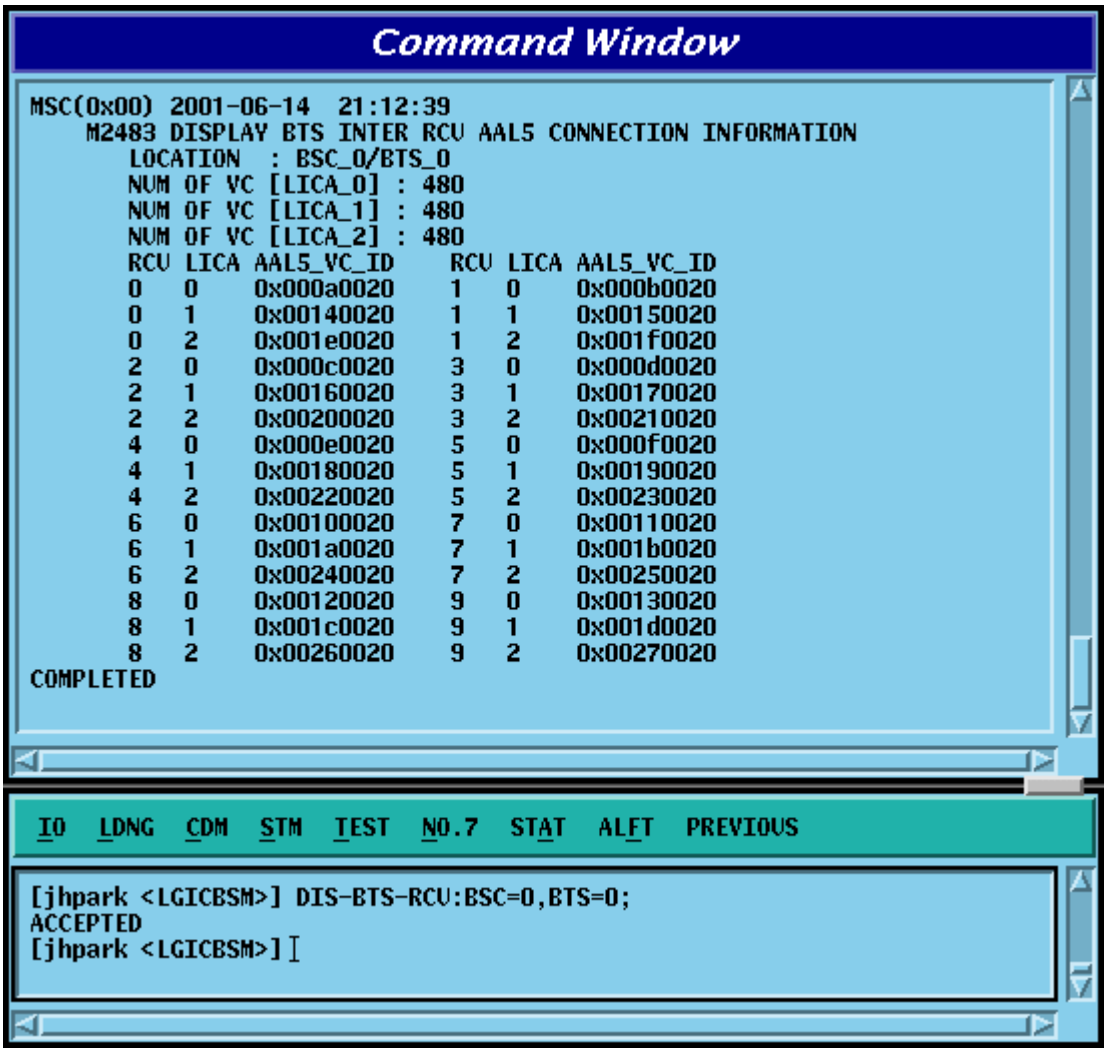

Fig. 4.3-72 BTS INTER RCU AAL5 Information Display

4.3.4. Parameter Information Change Command (Change_Parameter_Information_1)

This section describes commands that are used to change the parameter information that is inquired. The command to change parameter information cannot be easily input by the keyboard since input parameter counts are too many. For this reason, this section will skip the command input in Text and demonstrate window input by mouse. Upon inputting the command, the part in blue is the parameter that the user can change and the user can change part or entire fields among them. For details of each parameter that is input, refer to Appendix.

Table 4.3-1 Parameter Data Change Command (1) List

2201	CHG-BTS-DATA	BTS parameter data change
2202	CHG-SECT-DATA	SECTOR Parameter data change
2203	CHG-CHAN-DATA	CDMA CHANNEL parameter data Change
2205	CHG-SYS1-PARA	SYSTEM PARAMETER(1) change
2206	CHG-SYS2-PARA	SYSTEM PARAMETER(2) change
2207	CHG-EXT1-SYS	EXTENDED SYSTEM PARAMETER(1) change
2208	CHG-EXT2-SYS	EXTENDED SYSTEM PARAMETER(2) change
2209	ADD-NGBR-DATA	Addition of Neighbor cell data
2210	RMV-NGBR-DATA	Deletion of Neighbor cell data
2211	CHG-NGBR-DATA	Neighbor cell data change
2213	CHG-NGBR-BCON	HOPPING BEACON PARAMETER change
2214	CHG-QOS-PARA	QOS parameter data change
2216	CHG-CHIP-PWR	Chip Power Control data change
2222	CHG-TIC-DATA	TIC parameter data change
2223	CHG-SECT-CHAN	Sector CDMA Channel change
2224	CHG-PWR-PARA	Power control parameter data change
2225	CHG-AC-PARA	ACCESS CHANNEL parameter information change
2226	CHG-TXMS-PARA	TXMS parameter data change
2227	START-BTS-CALB	BTS CALIBRATION start
2229	CHG-GSRM-PARA	PC GLOBAL REDIRECT parameter change
2230	CHG-ACC-PARA	ACCESS PARAMETER change
2232	CHG-PC-PARA	PAGING CHANNEL parameter data change
2233	CHG-PICH-PARA	PILOT CHANNEL parameter data change
2236	CHG-SC-PARA	SYNC CHANNEL parameter data change
2238	CHG-QPC-PARA	QUICH PAGING CHANNEL parameter data change
2239	CHG-BCON-PARA	HOPPING PILOT BEACON CHANNEL parameter data change

4.3.4.1. BTS Parameter Information Change

To change the BTS parameter information, click CDM->Change_Parameter_Information->Change BTS Data on the Command Window in order and input the value that the command wants to change in each field.

• Command CHG-BTS-DATA :BSC=a ,BTS=b [,SID=c] [,NID=d] [,BASE_ID=e]
[,BASE_CLASS=f] [,REG_ZONE=g] [,LTM_OFF=h]
[,DAY_LT=i] [,BASE_LAT=j] [,BASE_LONG=k]
[,TUB_ENC=l] [,REV_PWR=m];

• Input CHG-BTS-DATA :BSC=0 ,BTS=0 ,SID=3333;

• Output

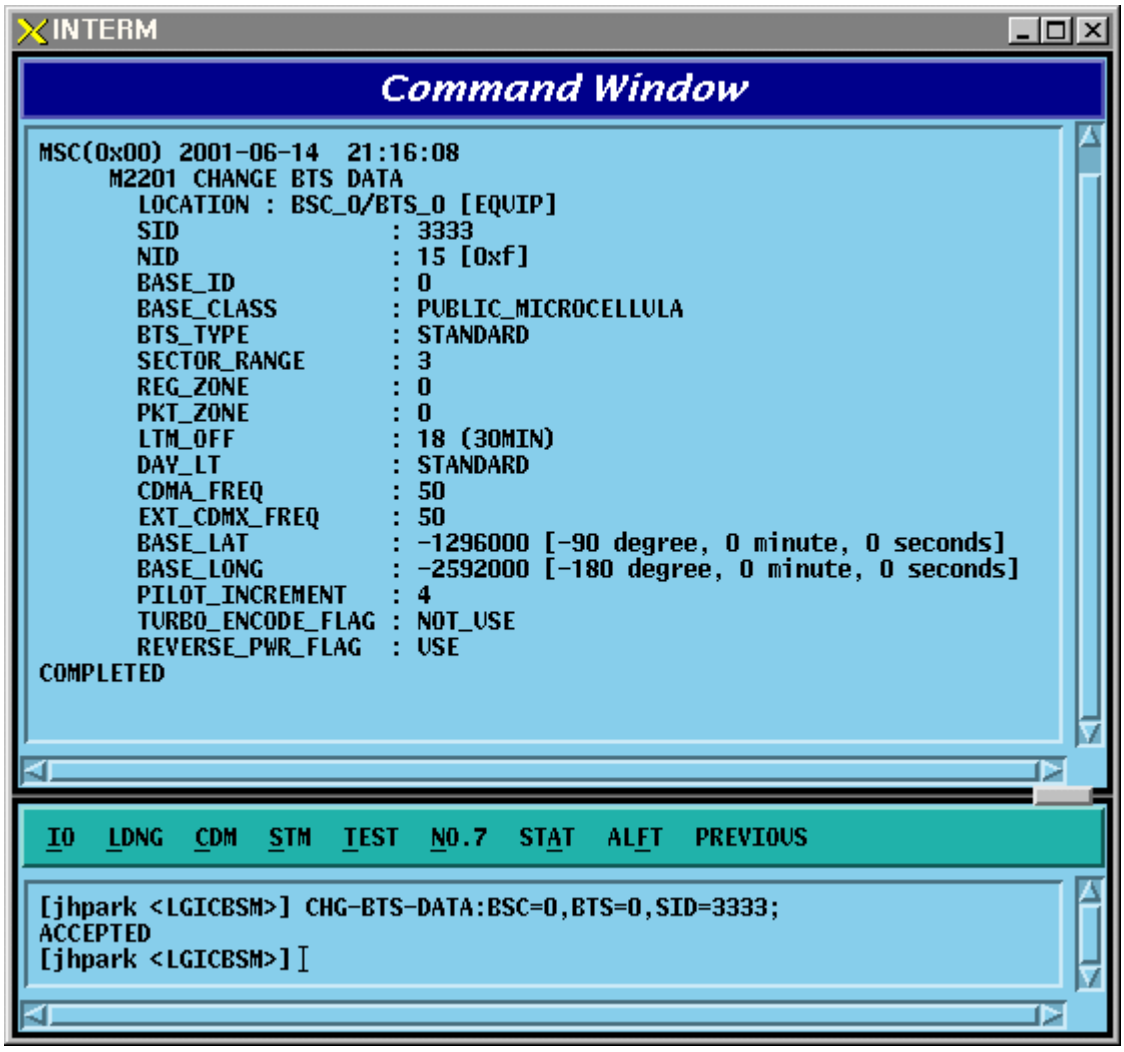

Fig. 4.3-73 BTS Parameter Information Display

4.3.4.2. Sector Parameter Information Change

To change the sector parameter information, click CDM->Change_Parameter_Information_1-> CHG-SECT-DATA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-SECT-DATA :BSC=a ,BTS=b ,SECT=c [,PN=d] [,CNTL_PARA=e] ;

• Input CHG-SECT-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,PN=40;

• Output

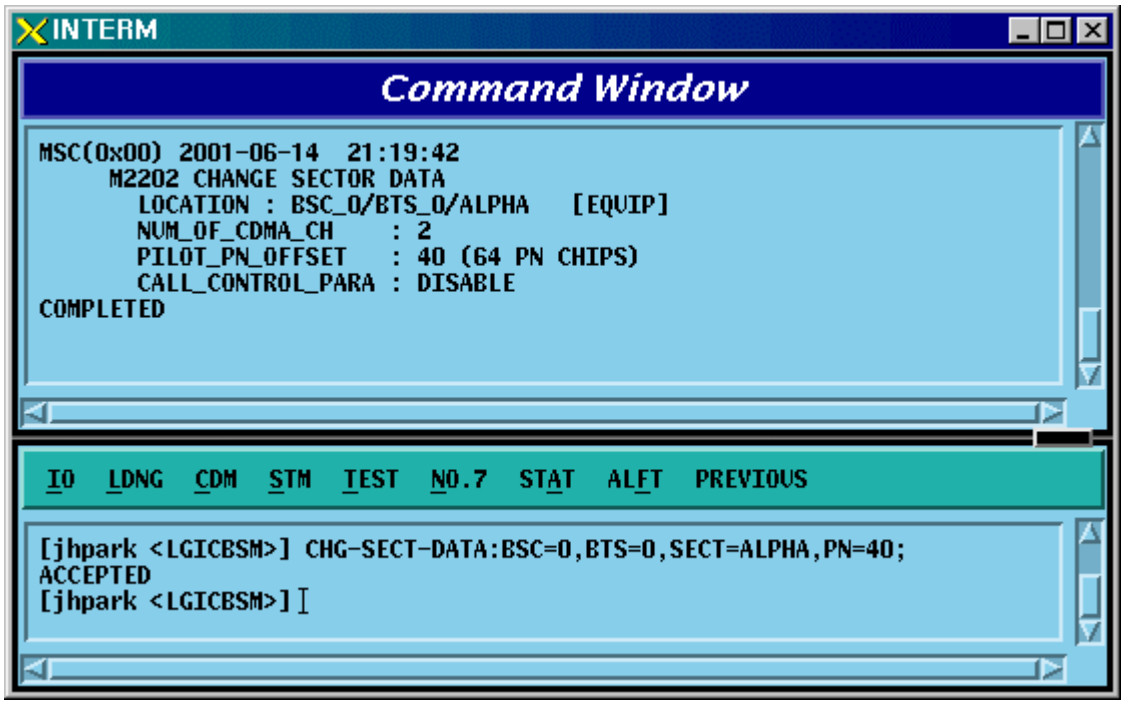

Fig. 4.3-74 Sector Parameter Information Change

4.3.4.3. CDMA Channel Parameter Information Change

To change the CDMA parameter information, click CDM->Change_Parameter_Information_1-> CHG-CHAN-DATA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-CHAN-DATA :BSC=a ,BTS=b ,CDMACH=c
[,FREQ_BAND=d] [,CH_NUM=e] [,TCE_4HO=f] [,MAX_SCH=g];

• Input CHG-CHAN-DATA :BSC=0,BTS=0 ,CDMACH=0 ,FREQ_BAND=2222;

• Output

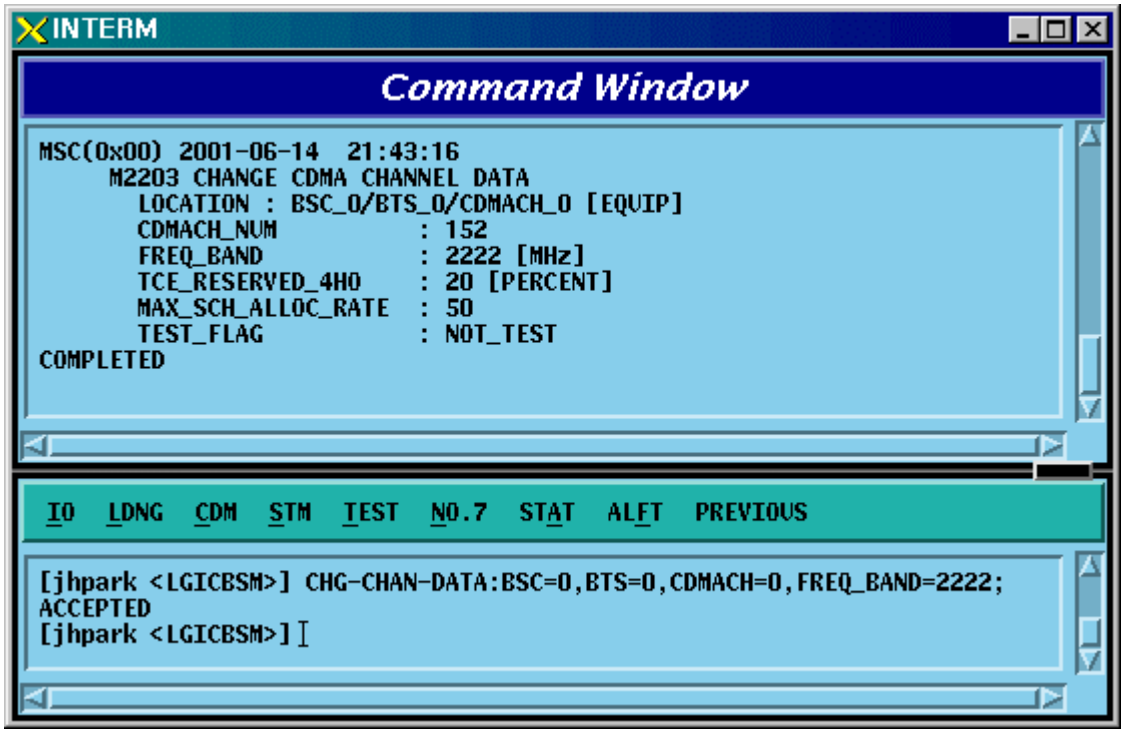

Fig. 4.3-75 CDMA Channel Parameter Information Display

4.3.4.4. SYSTEM PARAMETER(1) Change

To change the system parameter message, click CDM-> Change_Parameter_Information_1-> CHG-SYS1-PARA on the Command Window in order. As the System Parameter Message have many elements, they are divided into the three commands. The output format for each command is the same.

• Command CHG-SYS1-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,TOT_ZONE=e]
[,ZONE_TIME=f] [,MULT_SIDS=g] [,MULT_NIDS=h]
[,REP_THSH=i] [,REP_FRAM=j] [,SRCH_WINA=k]
[,SRCH_WINN=l] [,SRCH_WINR=m] [,NGHB_MAGE=n] [,T_ADD=o]
[,T_DROP=p] [,T_COMP=q] [,T_TDRP=r];

• Input CHG-SYS1-PARA :BSC=0,BTS=0 ,SECT=ALPHA,CDMACH=0,TOT_ZONE=5

• Output

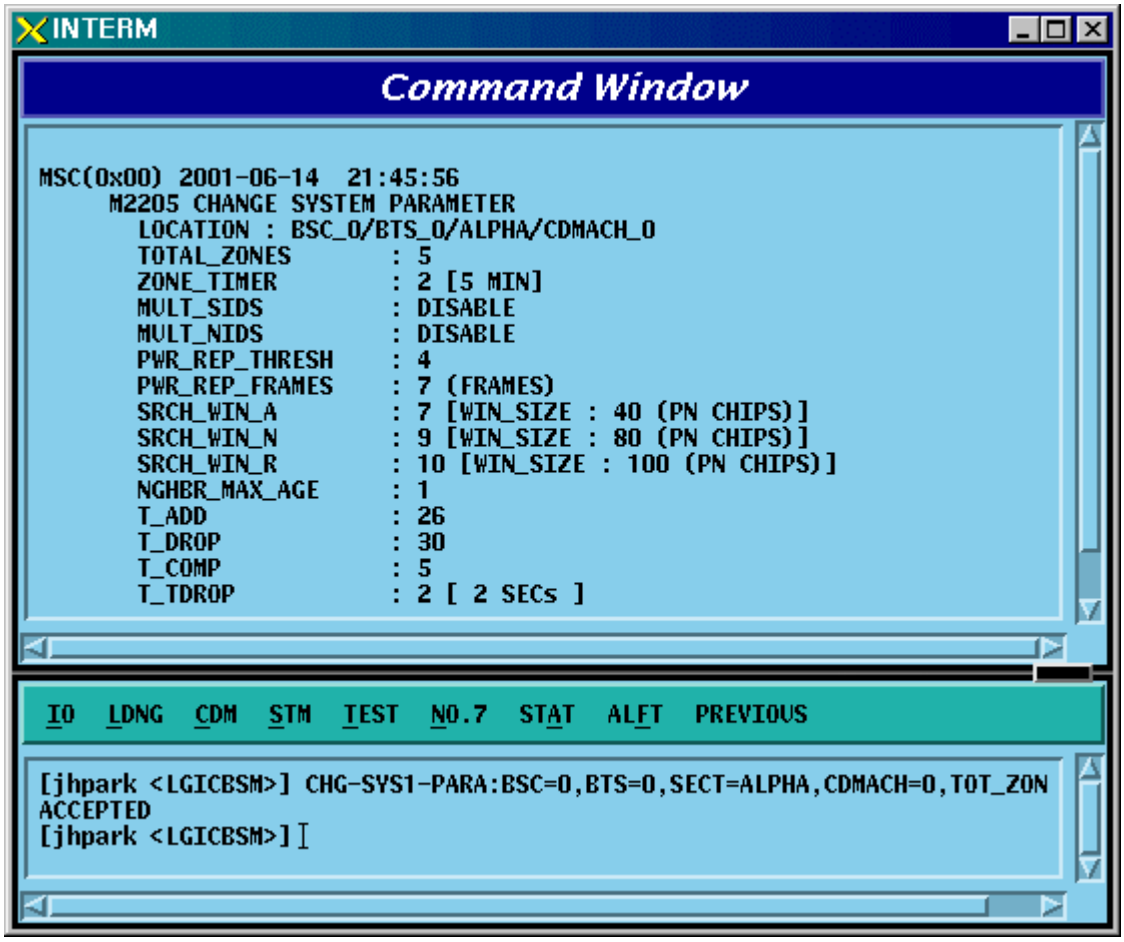

Fig. 4.3-76 System Parameter Change(1) Display

4.3.4.5. SYSTEM

4.3.4.6. PARAMETER(2) Change

To change the system parameter message, click CDM-> Change_Parameter_Information_1-> CHG-SYS2-PARA on the Command Window in order. Since the System Parameter Message have many elements, they are divided into three commands. The output format for each command is the same.

- Input CHG-SYS2-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,HOME_REG=e]
  [,MAX_SCI=f] [,NID_REG=g] [,SID_REG=h] [,PARM_REG=i] [,REG_PRD=j]
  [,REG_DIST=k] [,PWR_UP=l] [,PWR_DOWN=m]
  [,THSH_EABL=n] [,PRID_EABL=o] [,REP_DELY=p]
  [,RE_SCAN=q] [,EXT_SYS=r] [,EXT_NGHBR=s] [,GEN_NGHBR=t]
  [,REDIRECT=u] [,PRI_NGHBR=v] [,USER_ZONE=w]
  [,EXT_REDIRECT=x] [,EXT_CHAN=y] ;

- Output CHG-SYS2-PARA :BSC=0 ,BTS=0,SECT=ALPHA ,CDMACH=0,
  HOME_REG=MANUAL;

- Display

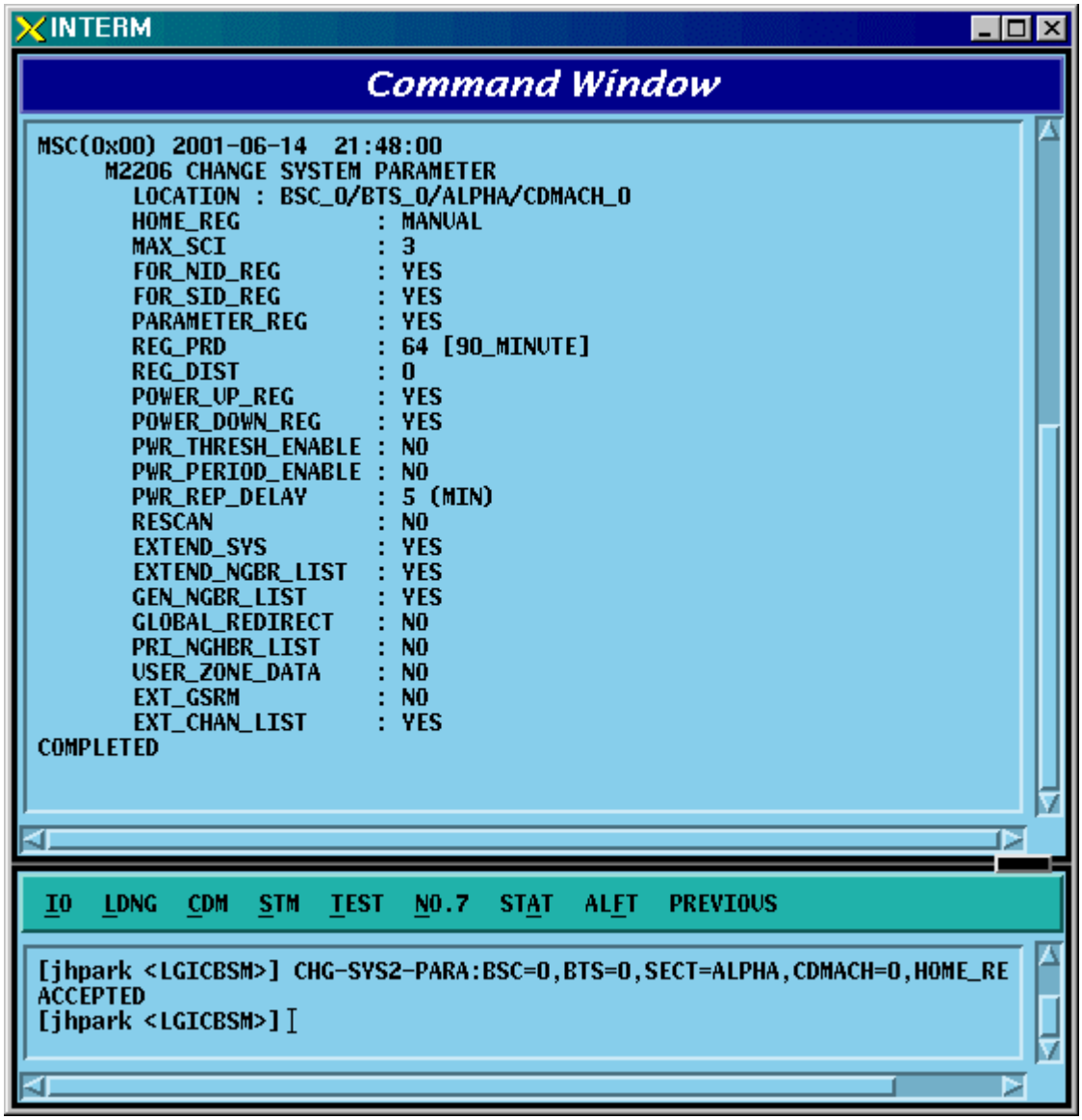

Fig. 4.3-77 System Parameter Change(2) Display

4.3.4.7. EXTENDED SYSTEM PARAMETER(1) Change

To change the Extended System Parameter Message, click CDM-> Change_Parameter_Information_1-> CHG-EXT1-SYS on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Change CHG-EXT1-SYS :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,PREF_MSID=e]
  [,MCC=f] [,IMSI_11_12=g] [,TMSI_LEN=h]
  [,TMSI_ZONE_1=i] [,TMSI_ZONE_2=j] [,TMSI_ZONE_3=k]
  [,TMSI_ZONE_4=l] [,TMSI_ZONE_5=m]
  [,TMSI_ZONE_6=n] [,TMSI_ZONE_7=o]
  [,TMSI_ZONE_8=p] [,BCAST_IDX=q] [,SOFT_SLOPE=r]
  [,ADD_INT=s] [,DROP_INT=t] [,NGBR_SET=u]
  [,ACCESS_HO=v] [,HO_MSG_RSP=w] [,ACC_PRB_HO=x] [,PRB_HO_OT=y] ;

- Input CHG-EXT1-SYS :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,
  PREF_MSID=IMSI;

- Output

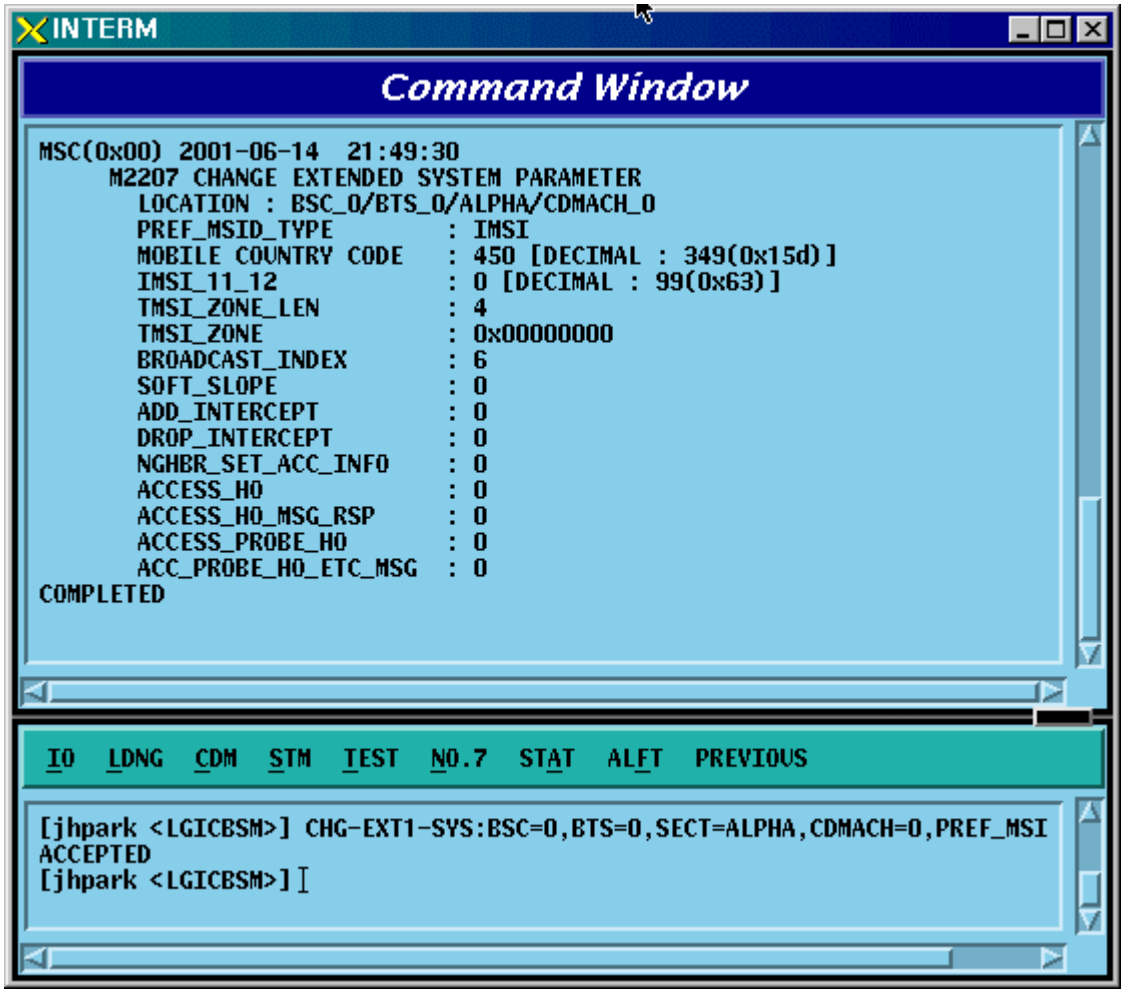

Fig. 4.3-78 Extended System Parameter Change(1) Display

4.3.4.8. EXTENDED SYSTEM PARAMETER(2) Change

To change the Extended System Parameter Message, click CDM-> Change_Parameter_Information_1-> CHG-EXT2-SYS on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-EXT2-SYS :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,IMSI_T_SUPRT=e]
  [,P_REV=f] [,MIN_P_REV=g] [,MAX_ALT_SO=h]
  [,RESEL_INCL=i] [,EC_THRESH=j]
  [,EC_IO_THRESH=k] [,PILOT_REPORT=l]
  [,NGBR_SET_INF=m] [,ACC_HO_ORD=n] [,HO_LIST_UPD=o]
  [,MAX_PRB_HO=p] [,BRD_GPS_ASS=q] [,QPC_SUPPORT=r] [,NUM_QPCH=s]
  [,QPCH_RATE=t] [,QPC_PWR_LEV=u] [,QPC_CCI=v] [,QPC_PWR_CFG=w]
  [,SDB_SUPPORT=x] [,MAC_CF_SPRT=y] [,RLGAIN_PICH=z];

- Input CHG-EXT2-SYS :BSC=0 ,BTS=0,SECT=ALPHA ,CDMACH=,IMSI_T_SUPRT=1;

- Output

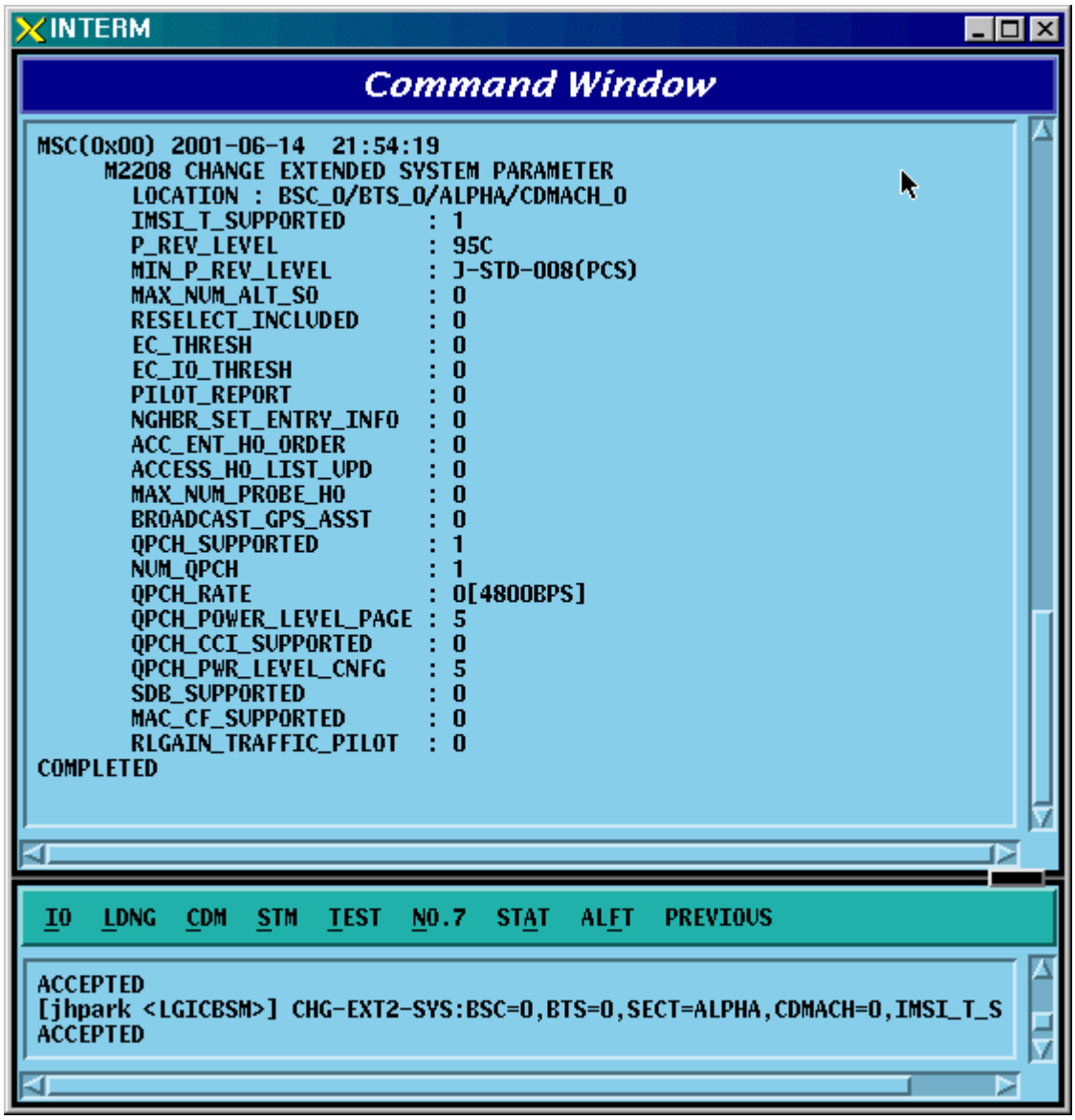

Fig. 4.3-79 Extended System Parameter Change(2) Display

4.3.4.9. Neighbor Cell Information Addition

To add the neighbor list, click the CDM->Change_Parameter_Information_1-> ADD-NGBR-DATA on the Command Window in order. If the next input window is displayed, then input the values to be changed.

• Command ADD-NGBR-DATA :BSC=a ,BTS=b ,SECT=c ,INDEX=d ,NGBR_CNFG=e
,NGBR_PN=f ,NGBR_SID=g ,NGBR_NID=h ,NGBR_BASE=i ,NGBR_MSC=j
,NGBR_BSC=k ,NGBR_BTS=l ,NGBR_SECT=m ,NGBR_MSC_T=n
,NGBR_BSC_T=o,NGBR_BCON=p ,SRCH_PRIO=q
,FREQ_INCL=r [,NGBR_BAND=s] [,NGBR_FREQ=t]
[,TIME_INCL=u] [,TX_OFFSET=v] [,TX_DURATION=w] [,TX_PERIOD=x]
[,SRCH_SET=y] [,ADD_PICH_REC=z] [,PICH_REC=] [,OTD_PWR=]
[,SRCH_OFFSET=] [,ACC_HO=] [,ACC_HO_ALW=];

• Input ADD-NGBR-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,INDEX=0 ,NGBR_CNFG=0
,NGBR_PN=0 ,NGBR_SID=0 ,NGBR_NID=0 ,NGBR_BASE=0 ,NGBR_MSC=0
,NGBR_BSC=0 ,NGBR_BTS=0 ,NGBR_SECT=ALPHA ,NGBR_MSC_T=LG_MSC
,NGBR_BSC_T=LG_BSC,NGBR_BCON=NO ,SRCH_PRIO=LOW
,FREQ_INCL=NO,NGBR_BAND=Mhz_800;

• Output

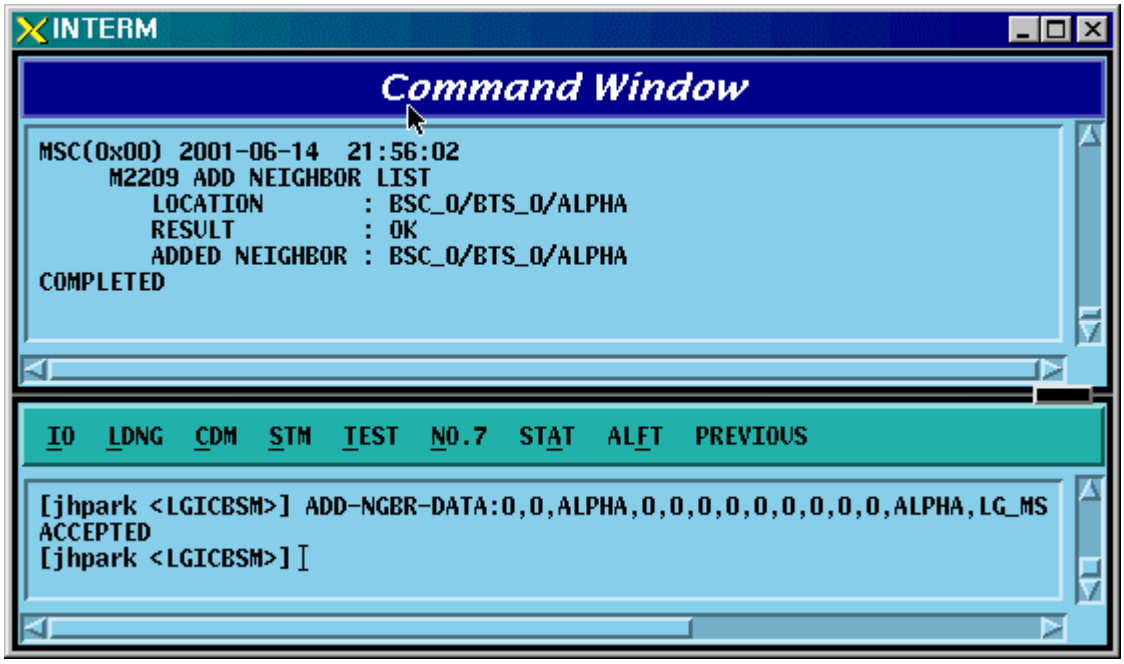

Fig. 4.3-80 Neighbor Cell Addition Display

4.3.4.10. Neighbor Cell Information Deletion

To delete the neighbor list, click CDM->Change_Parameter_Information_1-> RMV-NGBR-DATA on the Command Window in order. If the next window is displayed, then input the sector and PN value of the sector to be deleted.

• Command RMV-NGBR-DATA :BSC=a ,BTS=b ,SECT=c ,NGBR_PN=d;

• Input RMV-NGBR-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,NGBR_PN=0;

• Output

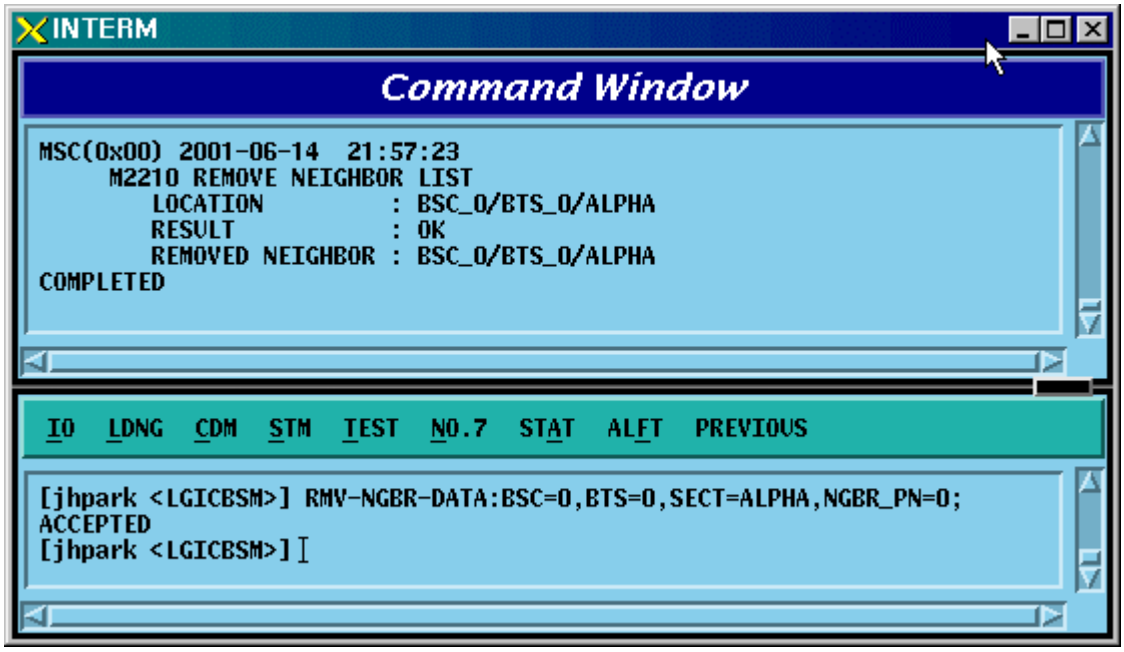

Fig. 4.3-81 Neighbor Cell Information Deletion Display

4.3.4.11. Neighbor Cell Information Change

To change the neighbor list, click CDM->Change_Parameter_Information_1-> CHG-NGBR-DATA on the Command Window in order. If the next input Window is displayed, input the sector and the PN value of the sector to be deleted.

- Command CHG-NGBR-DATA :BSC=a ,BTS=b ,SECT=c ,NGBR_PN=d ,NEW_INDEX=e

- Input

- Output

4.3.4.12. HOPPING BEACON PARAMETER Change

To change Hopping Beacon Parameter, click CDM->Change_Parameter_Information_1-> CHG-NGBR-BCON on the Command Window in order.

- Command CHG-NGBR-BCON :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,NGBR_SRCH=e] [,USE_TIMING=f] [,G_TIME_INCL=g] [,G_TX_DURATE=h] [,G_TX_PERIOD=i] [,SRCH_OFF_INC=j] ;

- Input CHG-NGBR-BCON :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 , NGBR_SRCH=255;

- Output

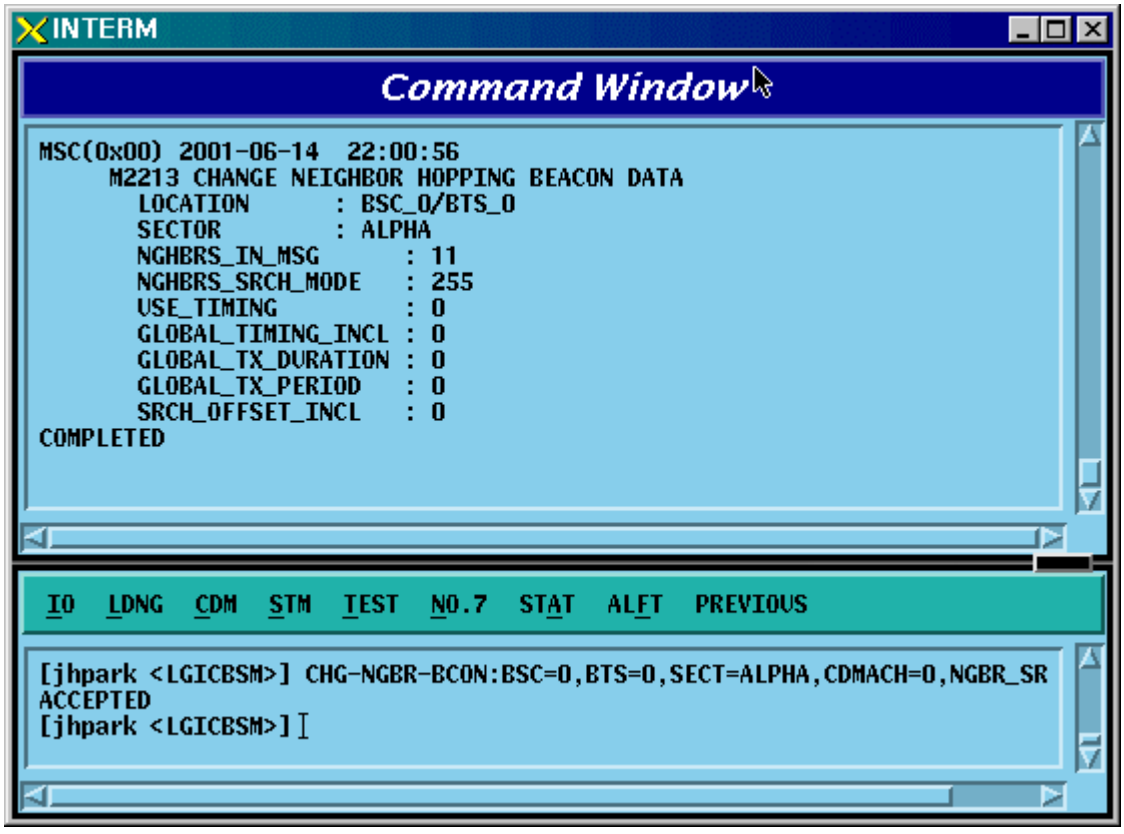

Fig. 4.3-82 Hopping Beacon Parameter Change Display

4.3.4.13. QOS Parameter Change

To change Quality Of Service parameter information, click CDM->Change_Parameter_Information_1-> CHG-QOS-PARA on the Command Window in order.

• Command CHG-QOS-PARA :BSC=a ,BTS=b [,MAX_SCH_RATE=c];

• Input CHG-QOS-PARA :BSC=0 ,BTS=0,MAX_SCH_RATE=255;

• Output

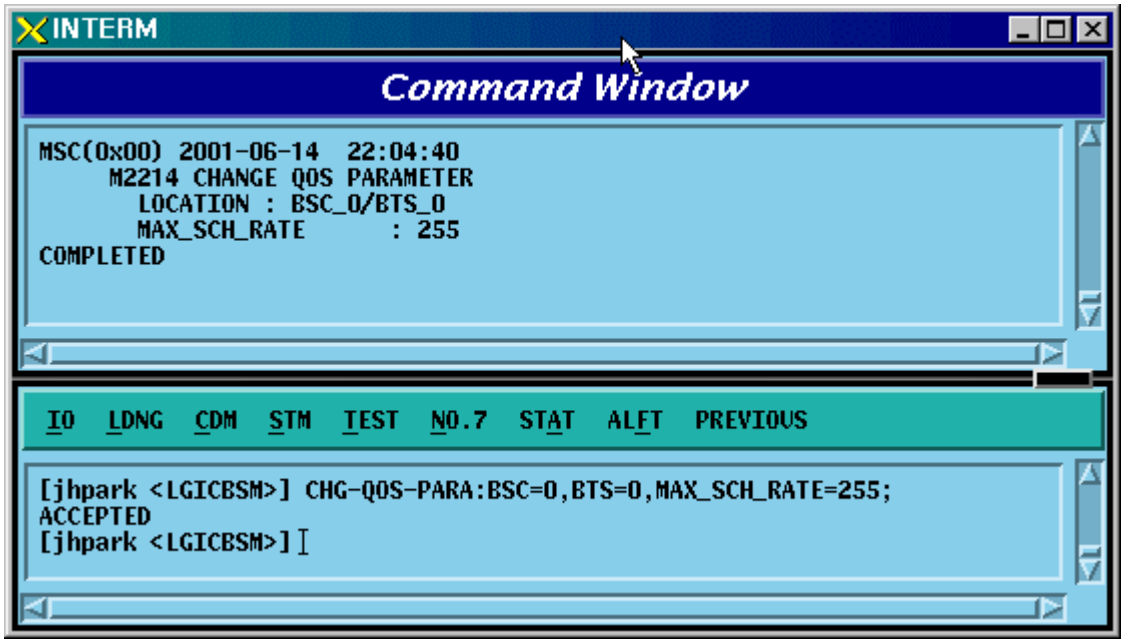

Fig. 4.3-83 QOS Parameter Information Change Display

4.3.4.14. Chip Power Control Information Change

To change Chip Power Control information, click CDM->Change_Parameter_Information_1-> CHG-CHIP-PWR on the Command Window in order.

- Command CHG-CHIP-PWR :BSC=a ,BTS=b [,CH_PWR0=c] [,CH_PWR1=d] [,CH_PWR2=e] [,CH_PWR3=f] [,MIN_GAIN0=g] [,MIN_GAIN1=h] [,MIN_GAIN2=i] [,MIN_GAIN3=j][,MAX_GAIN0=k] [,MAX_GAIN1=l] [,MAX_GAIN2=m] [,MAX_GAIN3=n] [,STEP_UP_SIZE=o] [,STEP_DN_SIZE=p] [,FPC_PUNC=q] [,RPC_PUNC=r] [,PWR_CNT_PNT=s] [,PWR_CNT_PTN=t] ;

- Input CHG-CHIP-PWR :BSC=0 ,BTS=0 ,CH_PWR0=255;

- Output

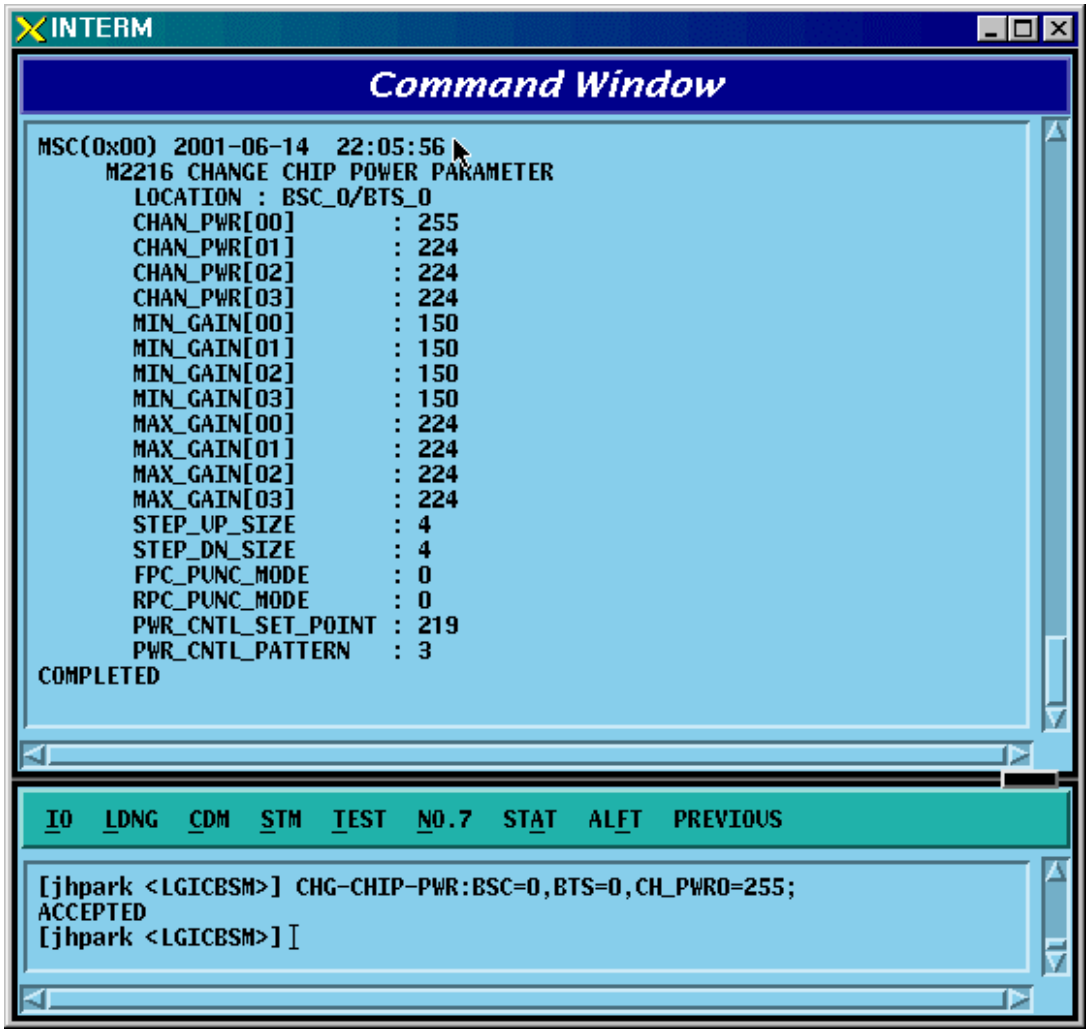

Fig. 4.3-84 Chip Power Control Information Change Display

4.3.4.15. TIC Parameter Change

To change Tx Gain value, click CDM->Change_ Parameter_Information_1-> CHG-TIC-DATA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-TIC-DATA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,TX_GAIN=e] ;

• Input CHG-TIC-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,TX_GAIN=255 ;

• Output

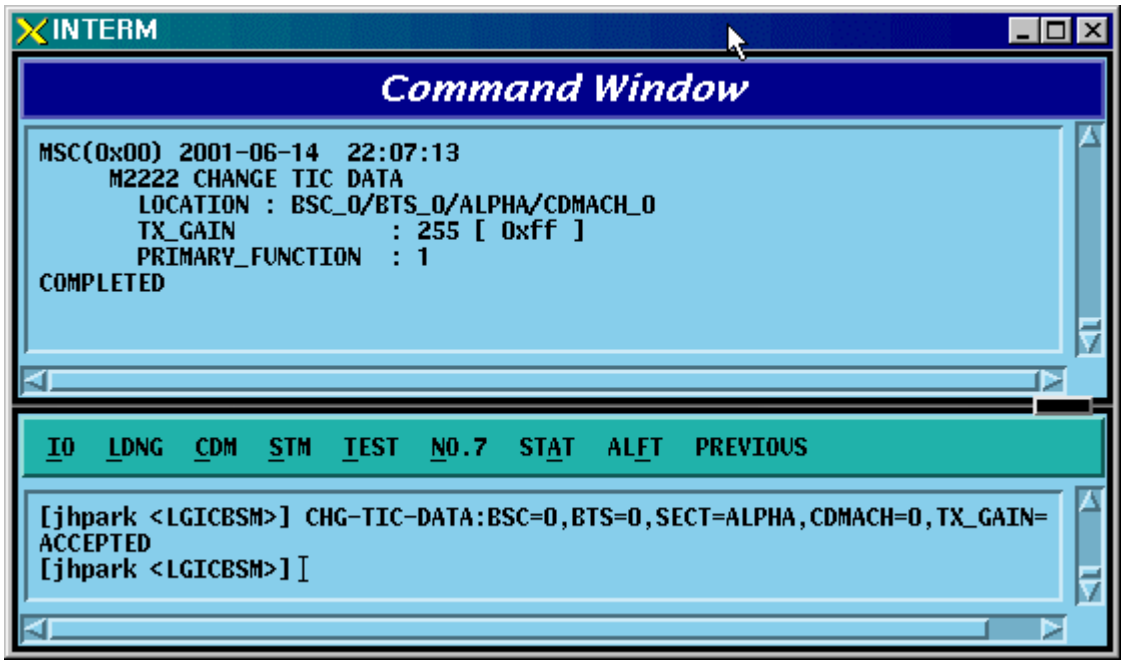

Fig. 4.3-85 TIC Parameter Information Change Display

4.3.4.16. OCNS Parameter Change

To change OCNS Parameter value, click CDM->Change_ Parameter_Information_1-> CHG-OCNS-PARA on the Command Window in order. If the next input Window is displayed, then input the value to be changed.

- Command CHG-OCNS-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,OCNS_ENABLE=e] [,NUM_OCNS_CH=f] [,OCNS_TEST=g] [,OCNS_SO=h];

- Input CHG-OCNS-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA , CDMACH=0 ,OCNS_ENABLE=DISABLE,NUM_OCNS_CH=2;

- Output

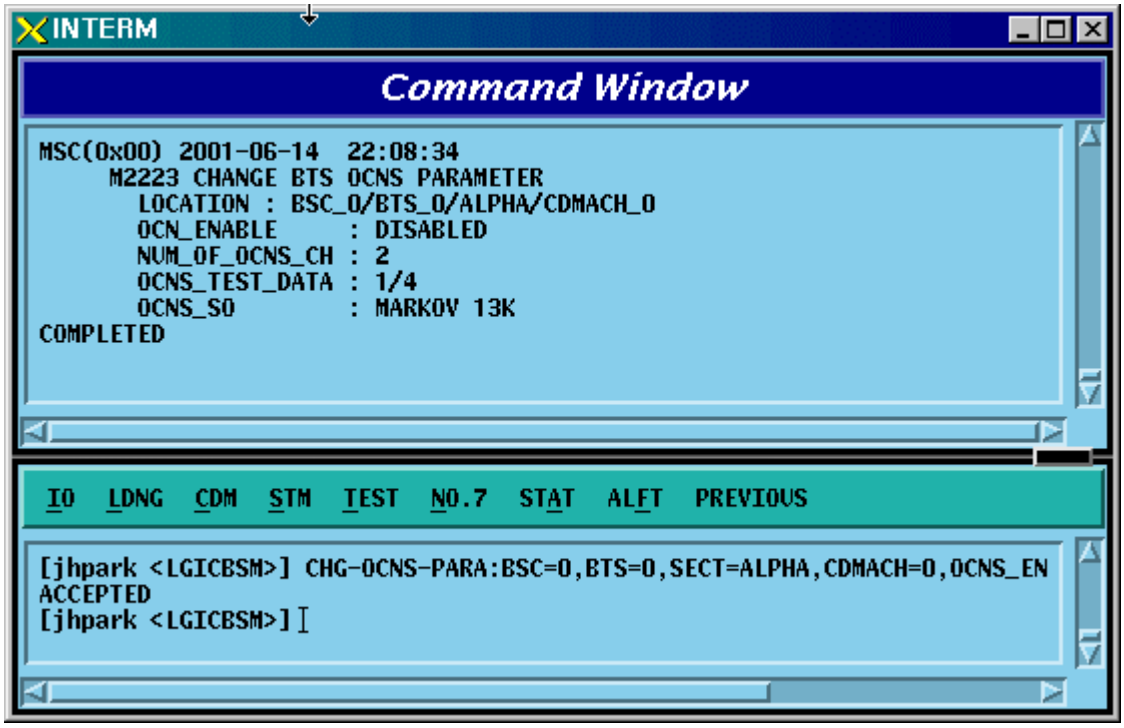

Fig. 4.3-86 OCNS Parameter Change Display

4.3.4.17. Power Control Information Change

To change OCNS Parameter value, click CDM->Change_ Parameter_Information_1-> CHG-PWR-PARA on the Command Window in order. If the next input Window is displayed, then input the value to be changed.

- Command CHG-PWR-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d
  [,T_RX_FILTER=e]
  [,G_RX_FILTER=f] [,G_TX_FILTER=g] [,GH_TX_FILTER=h]
  [,R_TX_PILOT=i] [,FLN_BLK_THSH=j] [,FLN_HO_THSH=k]
  [,FLN_GAIN_SCA=l] [,RLN_BLK_THSH=m] [,RLNK_HO_THSH=n]
  [,A_TX_MAX=o] [,DELTA_A_TX=p] [,K_LEVEL=q] [,K_SLOPE=r]
  [,K_DELTA=s] [,DELTA_T=t] [,P_TX_MAX=u] [,INIT_CALB=v]
  [,PRD_CALIB=w] [,BREATH_FLAG=x] [,PWR_EST_FLAG=y]
  [,OVPWR_LMT=z] [,FLN_CAP_LMT=] [,RLN_CAP_LMT=];

- Input CHG-PWR-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0,
  T_RX_FILTER=255;

- Output

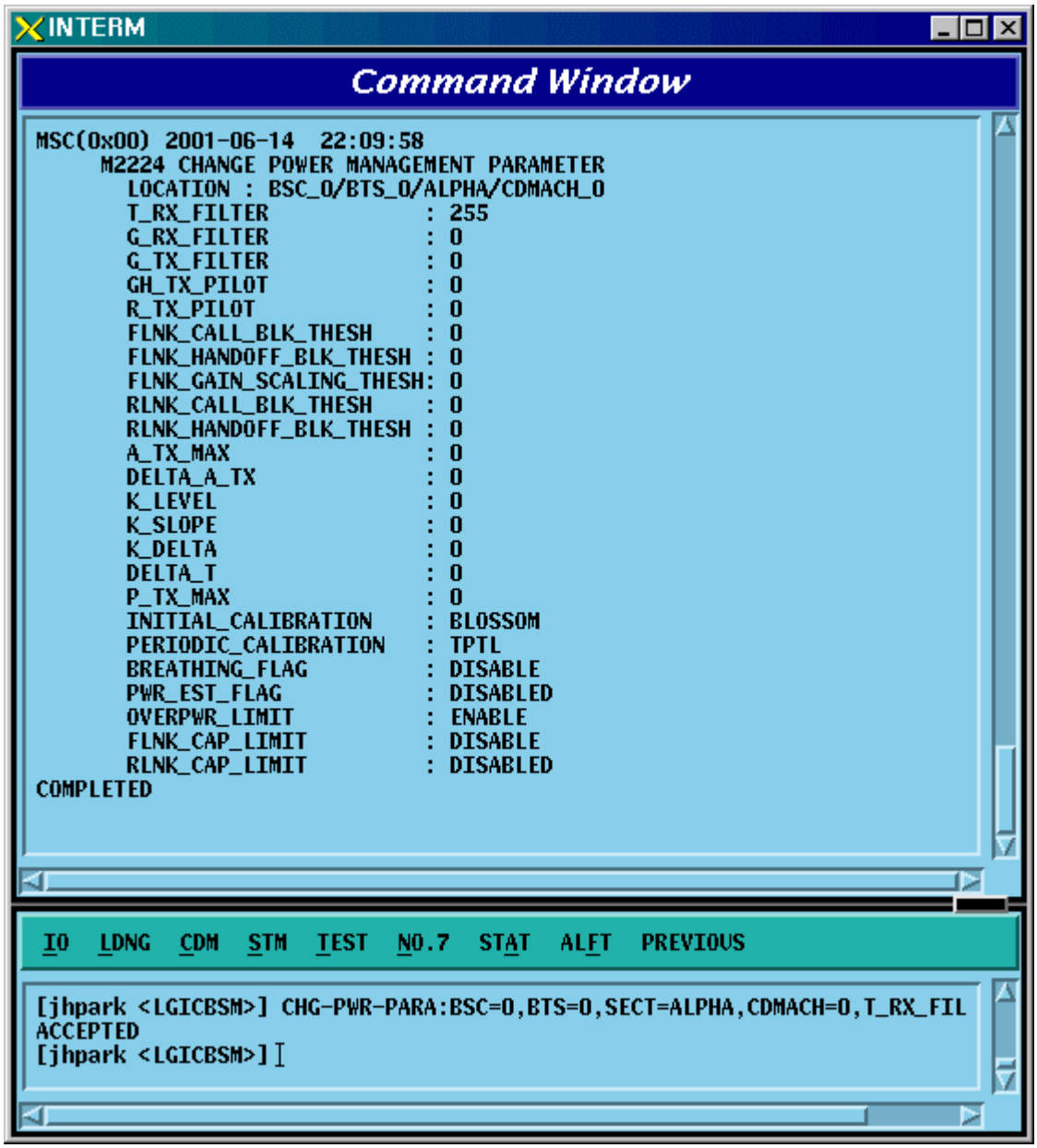

Fig. 4.3-87 Power Control Parameter Information Display

4.3.4.18. ACCESS CHANNEL Parameter Information Change

To change Access Channel Parameter information, click CDM-> Change_Parameter_Information->CHG-AC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-AC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,PC=e ,AC=f [,SRCH_OFFSET=g] [,SRCH_WIN_SZ=h];

• Input CHG-AC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA , CDMACH=0 , PC=0, SRCH_WIN_SZ=32;

• Output

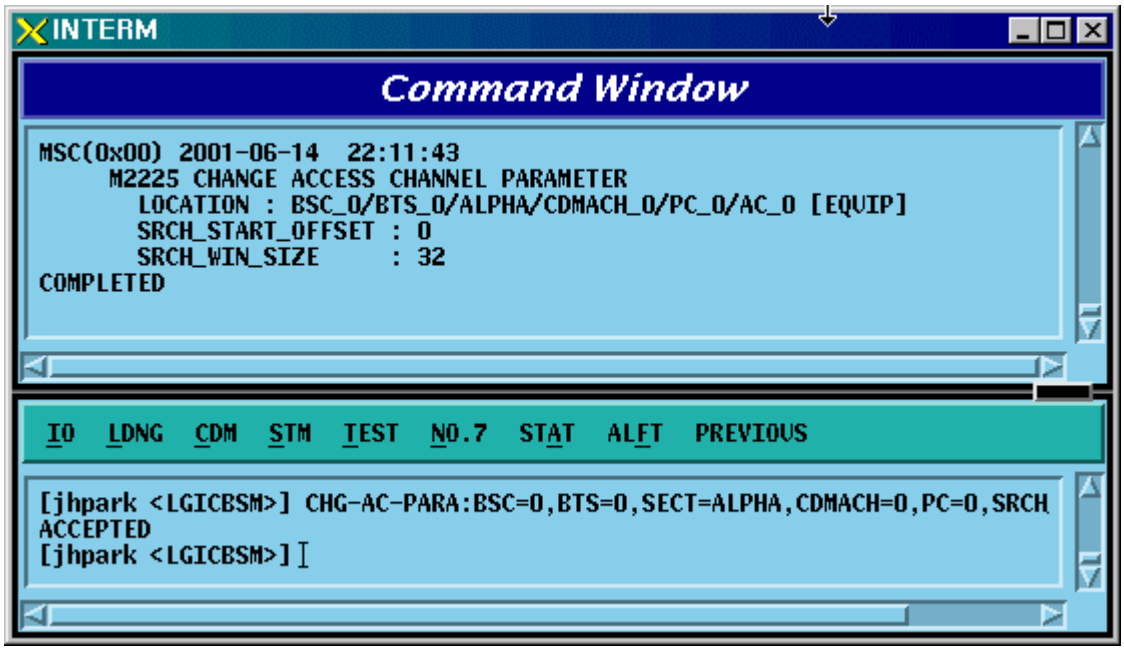

Fig. 4.3-88 Access Channel Parameter Information Change Display

4.3.4.19. TXMS Parameter Information Change

To change TXMS Parameter information, click CDM-> Change_Parameter_Information->CHG-TXMS-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

•Command CHG-TXMS-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,OH_CH_ERP=e ;

• Input CHG-TXMS-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 , OH_CH_ERP=25000 ;

• Output

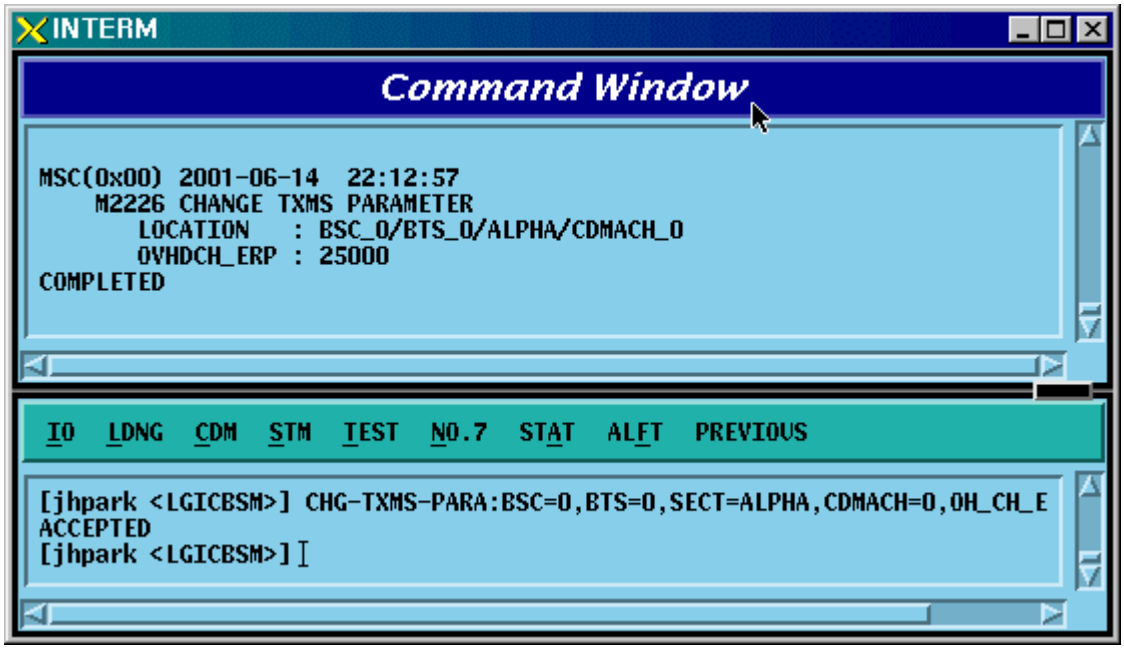

Fig. 4.3-89 TXMS Parameter Information Change Display

4.3.4.20. BTS CALIBRATION Start

To start BTS Calibration, click CDM-> Change_ Parameter_Information->START-BTS-CALB on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command START-BTS-CALB :BSC=a ,BTS=b [,SECT=c] [,CDMACH=d] ,METHOD=e ;

- Input START-BTS-CALB :BSC=0 ,BTS=0 ,SECT=ALPHA,METHOD=OVHD ;

- Output

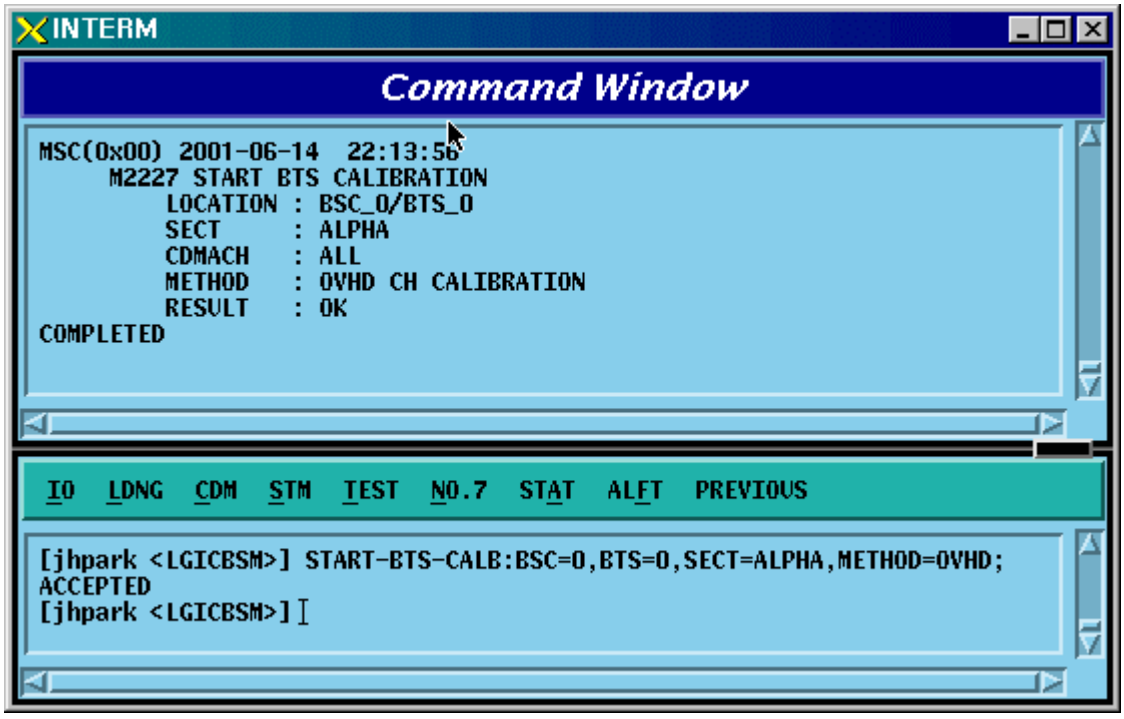

Fig. 4.3-90 BTS Calibration Start Display

4.3.4.21. BTS Calibration Time Change

To change BTS Calibration time, click CDM-> Change_ Parameter_Information->CHG-CALB-TIME on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-CALB-DATA :BSC=a ,BTS=b ,HOUR=c ,MINUTE=d ,INTERVAL=e ,METHOD=f;

- Input CHG-CALB-DATA :BSC=0 ,BTS=0 ,HOUR=1 ,MINUTE=1 ,INTERVAL=1 ,METHOD=OVHD;

- Output

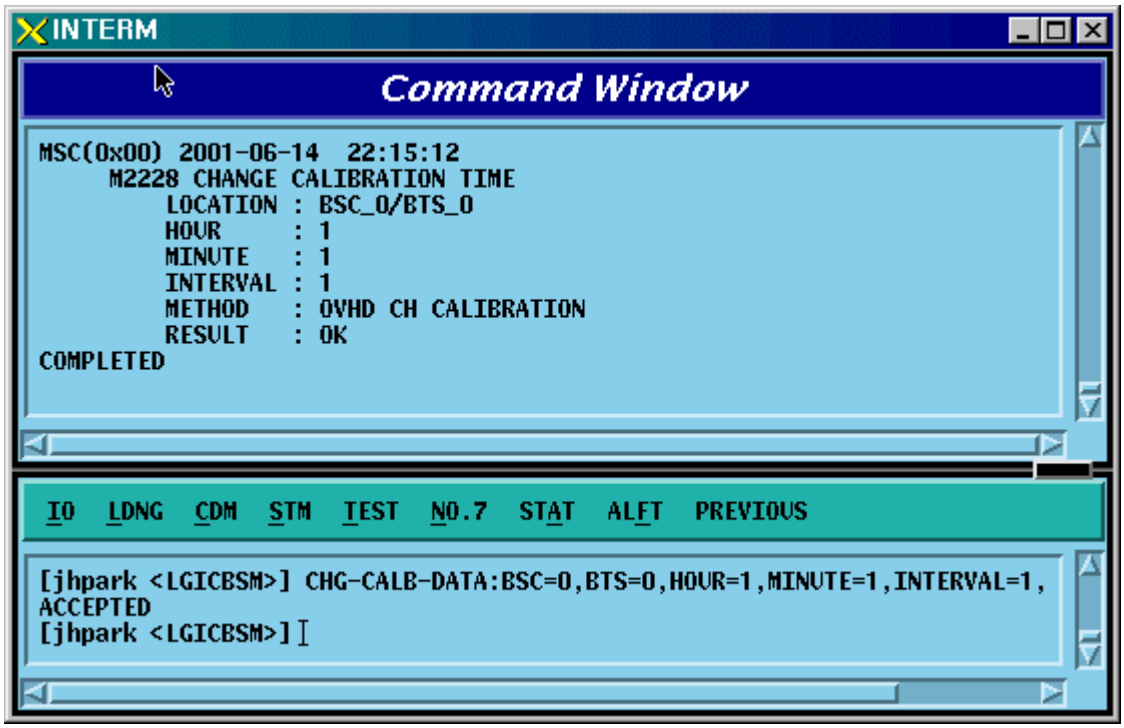

Fig. 4.3-91 BTS Calibration Time Change Display

4.3.4.22. PC GLOBAL REDIRECT Parameter Information Change

To change Paging Channel Global Redirect information, click CDM-> Change_Parameter_Information->CHG-GSRM-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-GSRM-PARA :BSC=a ,BTS=b ,SECT=c [,ACCOLC=d] [,RET_IF_FAIL=e] [,P_REV_MS=f] [,RDIR_P_REV=g] [,EXCL_P_REV=h] [,RDIR_P_MIN=i] [,RDIR_P_MAX=j] [,RECORD_TYPE=k] [,RECORD_LEN=l] [,EXPECT_A_SID=m] [,IGNORE_CDMA=n] [,SYS_ORDER=o] [,BAND_CLASS=p] [,EXPECT_SID=q] [,EXPECT_NID=r] [,NUM_CHAN=s] [,CDMA_CH_0=t] [,CDMA_CH_1=u] [,CDMA_CH_2=v] [,CDMA_CH_3=w] [,CDMA_CH_4=x] [,CDMA_CH_5=y] [,CDMA_CH_6=z] [,CDMA_CH_7=] [,CDMA_CH_8=] [,CDMA_CH_9=];

- Input CHG-GSRM-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA,ACCOLC=255;

- Output

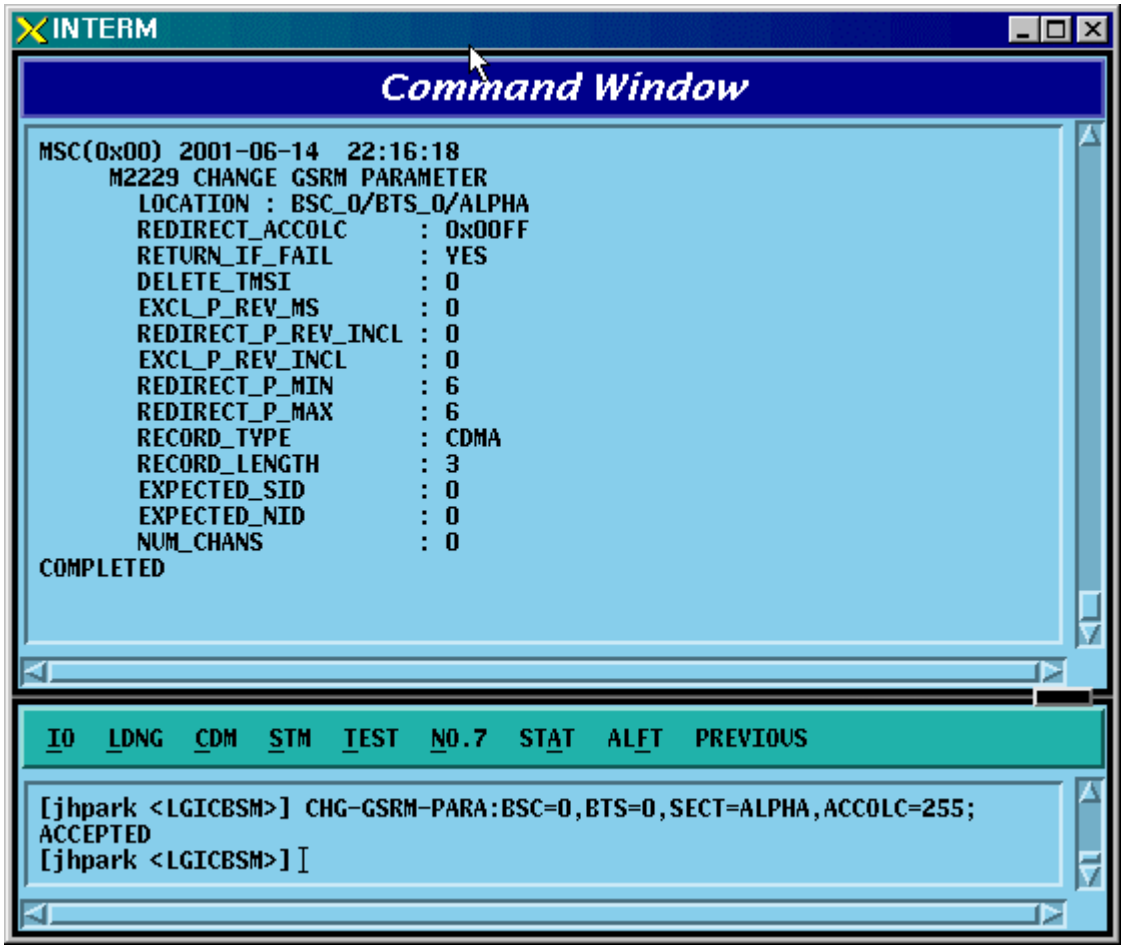

Fig. 4.3-92 PC Global Redirect Parameter Information Change Display

4.3.4.23. ACCESS PARAMETER Change

To change Access Parameter information, click CDM-> Change_ Parameter_Information->CHG-ACC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-ACC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,PC=e
  [,NOM_PWR=f] [,INIT_PWR=g] [,PWR_STEP=h] [,NUM_STEP=i]
  [,MAX_CAP_SZ=j] [,PAM_SZ=k] [,PSST_09=l] [,PSST_10=m]
  [,PSST_11=n] [,PSST_12=o] [,PSST_13=p] [,PSST_14=q]
  [,PSST_15=r] [,MSG_PSST=s] [,REG_PSST=t]
  [,PRBE_RAN=u] [,ACC_TMO=v] [,PRBE_BKOF=w] [,BKOF=x]
  [,MREQ_SEQ=y] [,MRSP_SEQ=z] [,AUTH=] [,RAND=]
  [,NOM_PWR_EXT=];

- Input CHG-ACC-PARA :BSC=0 ,BTS=0,SECT=ALPHA ,CDMACH=0 ,PC=0
  ,NOM_PWR=7;

- Output

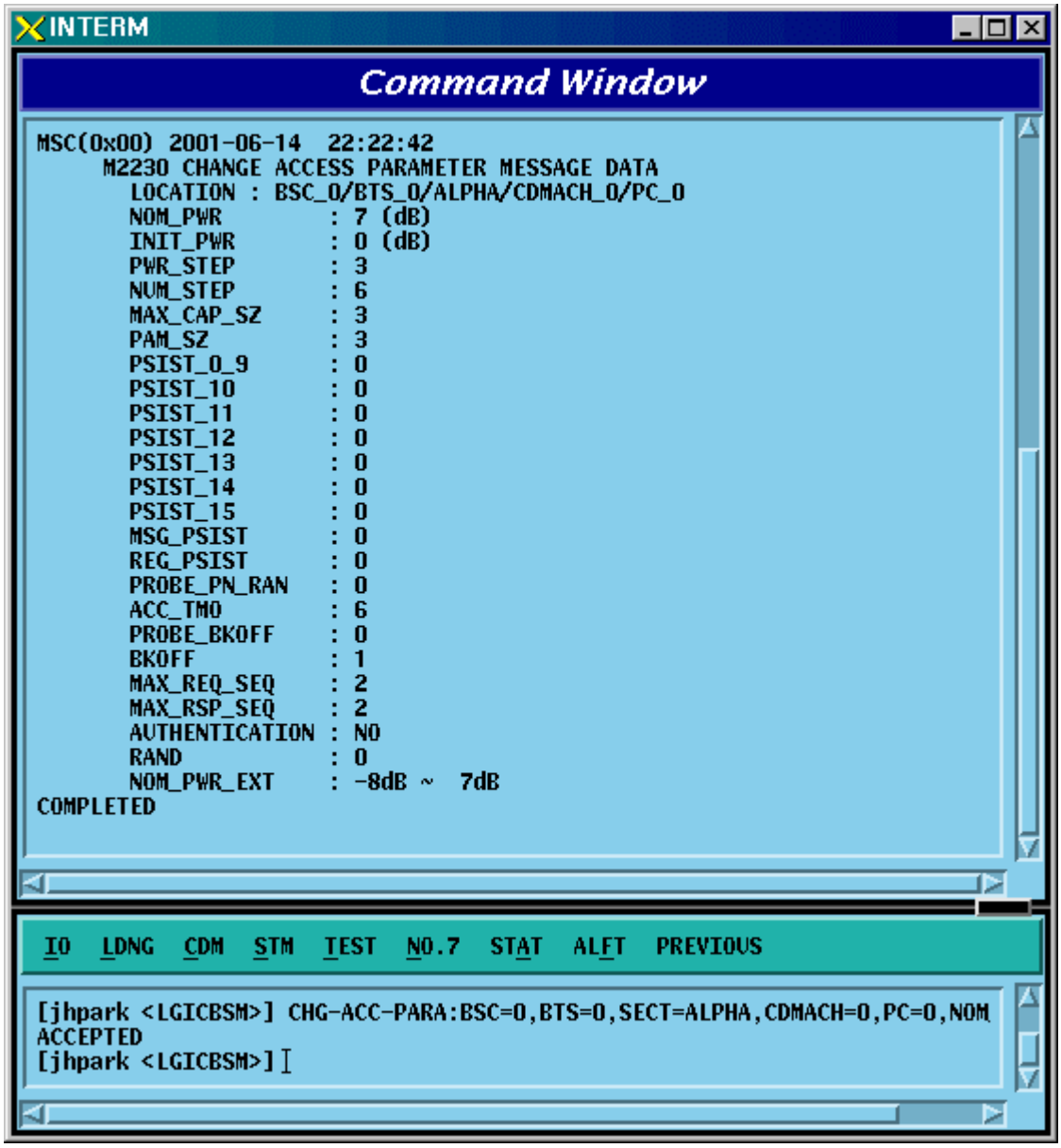

Fig. 4.3-93 Access Parameter Information Change Display

4.3.4.24. PAGING CHANNEL Parameter Information Change

To change Paging Channel Parameter information, click CDM-> Change_Parameter_Information->CHG-PC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-PC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,PC=e [,PC_GAIN=f] [,FRM_DUR=g] [,DATA_RATE=h];

• Input CHG-PC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,PC=0 ,PC_GAIN=255;

• Output

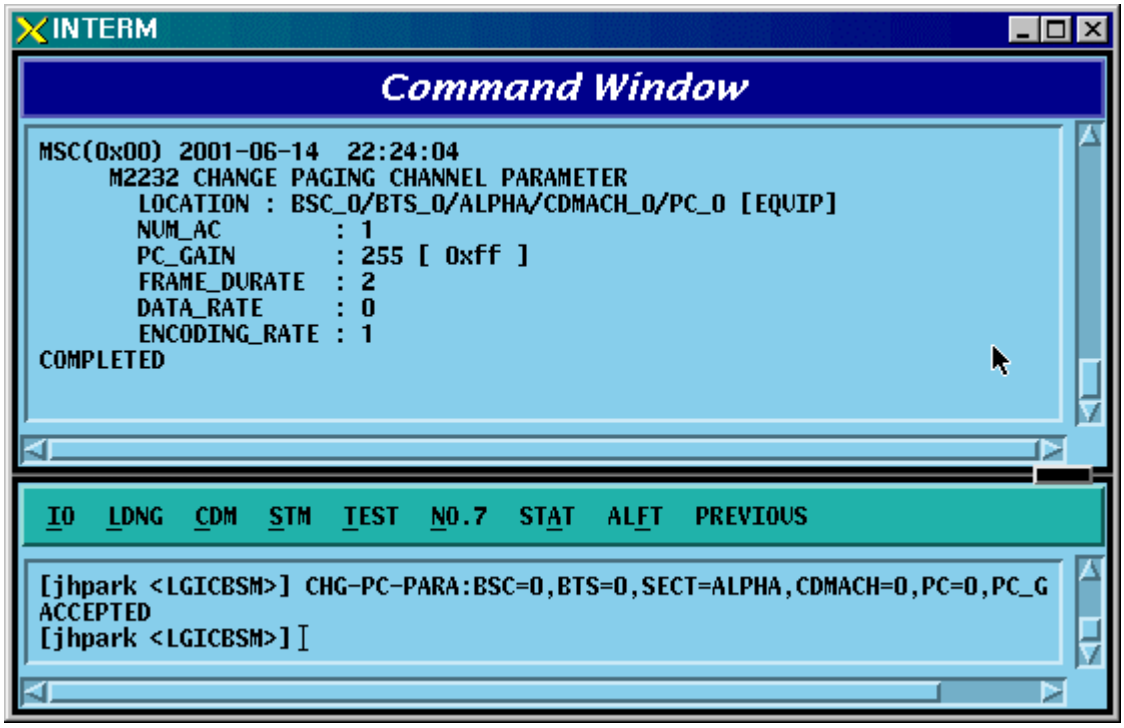

Fig. 4.3-94 Paging Channel Parameter Information Display

4.3.4.25. PILOT CHANNEL Parameter Information Change

To change Pilot Channel Parameter information, click CDM-> Change_ Parameter_Information->CHG-PICH-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-PICH-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,PLOT_GAIN=e] [,PLOT_TD_GAIN=f];

• Input CHG-PICH-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA , CDMACH=0,PLOT_GAIN=255;

• Output

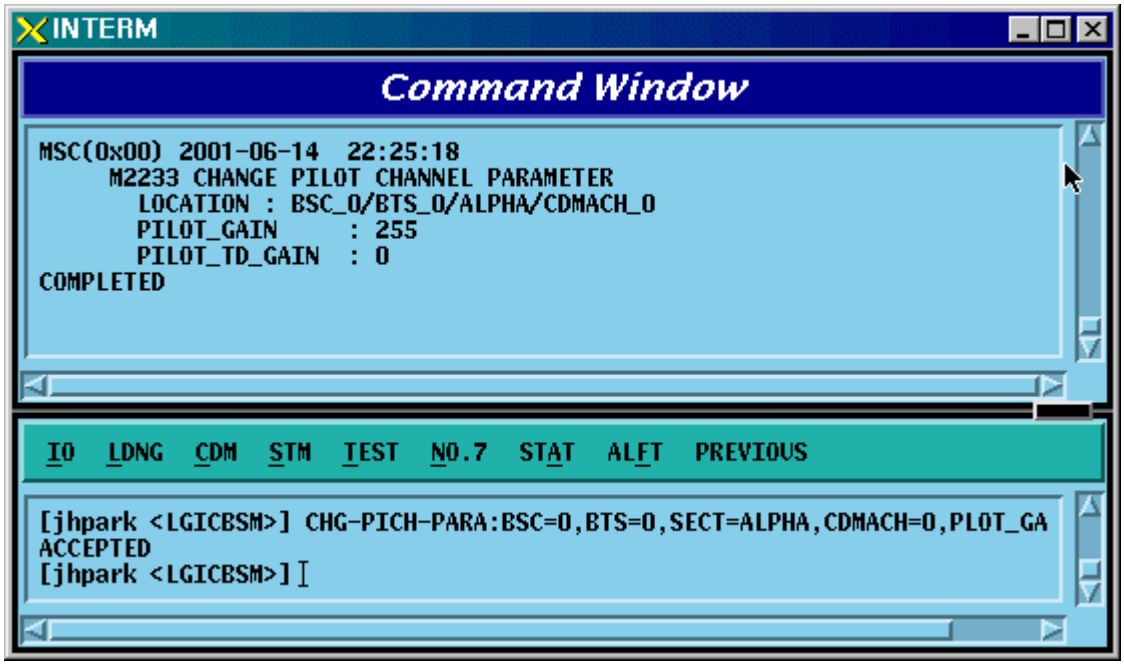

Fig. 4.3-95 Pilot Channel Parameter Information Change Display

4.3.4.26. SYNC CHANNEL Parameter Information Change

To change Sync. Channel Parameter information, click CDM-> Change_Parameter_Information->CHG-SC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-SC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,SC_GAIN=e];

• Input CHG-SC-PARA :BSC=0 ,BTS=b ,SECT=ALPHA ,CDMACH=0,SC_GAIN=255;

• Output

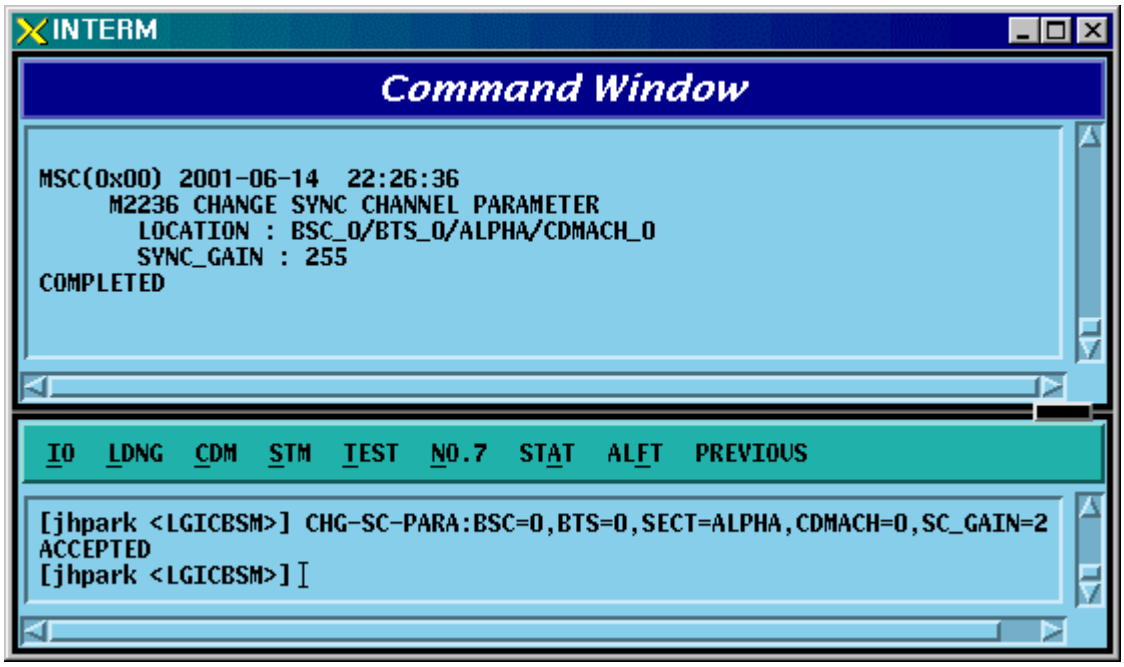

Fig. 4.3-96 Sync Channel Parameter Information Change Display

4.3.4.27. QUICH PAGING CHANNEL Parameter Information Change

To change Quick Paging Channel Parameter information, click CDM-> Change_ Parameter_Information->CHG-QPC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-QPC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,QPCH_ID=e [,FRAME_DUR=f] [,DATA_RATE=g];

- Input CHG-QPC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,QPCH_ID=0 ,FRAME_DUR=255;

- Output

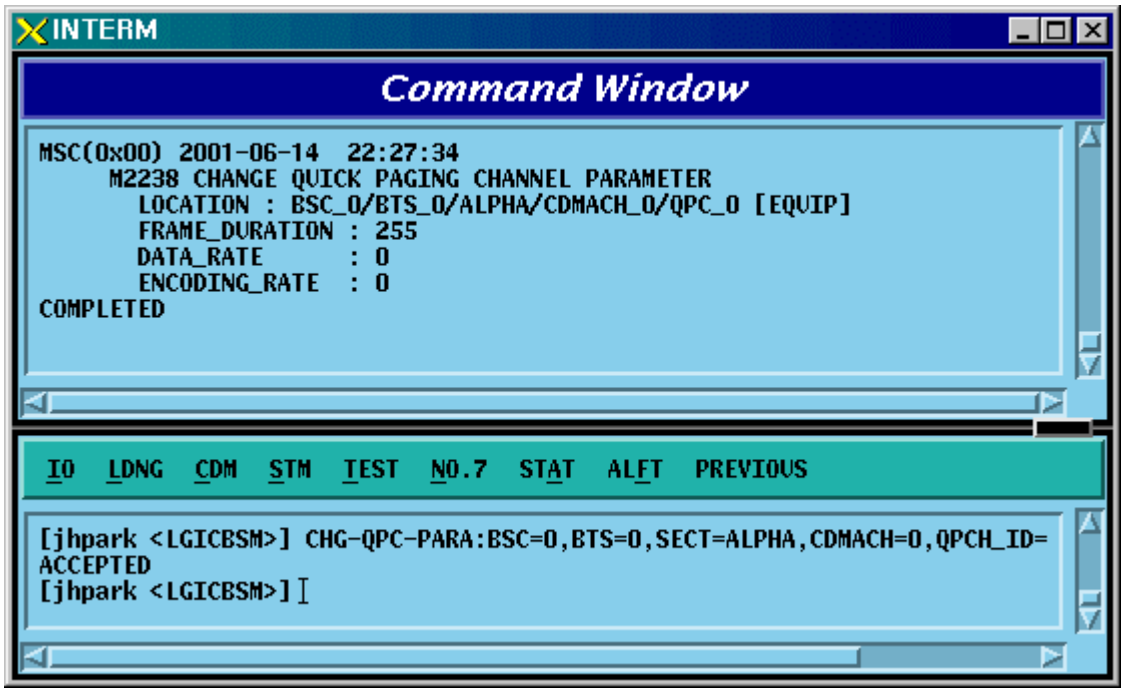

Fig. 4.3-97 Quick Paging Channel Parameter Information Change Display

4.3.4.28. HOPPING PILOT BEACON CHANNEL Parameter Information Change

To change Hopping Pilot Beacon Channel Parameter information, click CDM-> Change_ Parameter_Information->CHG-BCON-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command CHG-BCON-PARA :BSC=a ,BTS=b ,SECT=c [,PILOT_GAIN=d]
[,NUM_CDMA_CH=e] [,CDMA_FREQ1=f] [,CDMA_FREQ2=g]
[,CDMA_FREQ3=h] [,CDMA_FREQ4=i] [,CDMA_FREQ5=j]
[,CDMA_FREQ6=k] [,CDMA_FREQ7=l] [,CDMA_FREQ8=m]
[,CDMA_FREQ9=n] [,CDMA_FREQ10=o]
[,CDMA_FREQ11=p] [,CDMA_FREQ12=q];

• Input CHG-BCON-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,PILOT_GAIN=255;

• Output

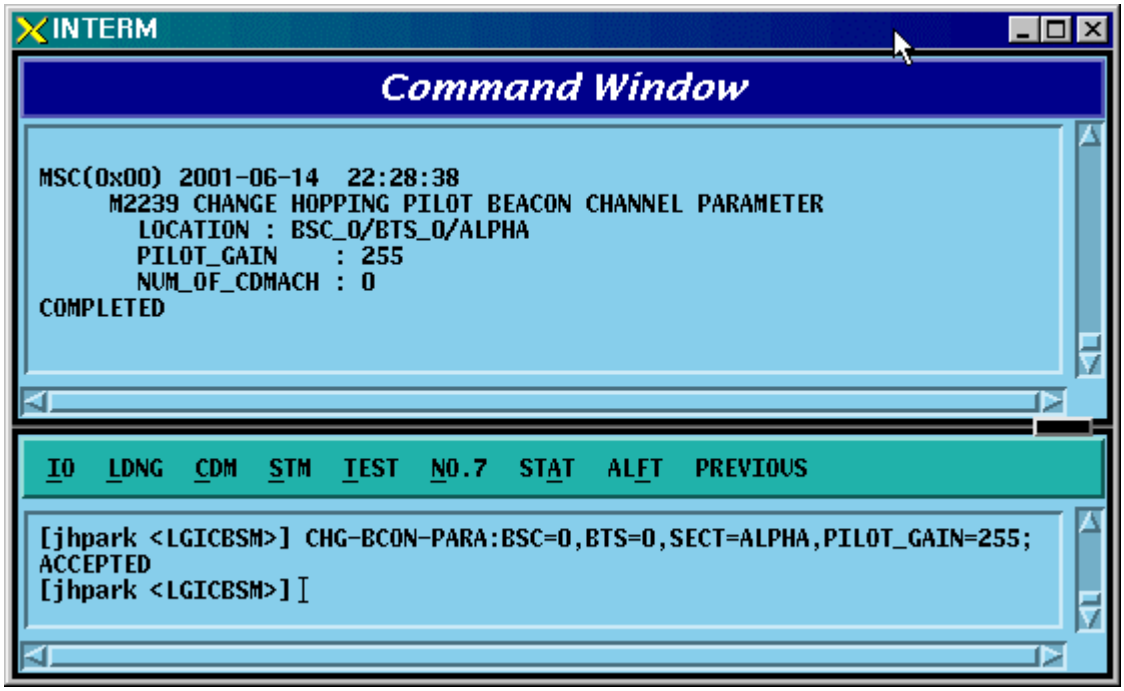

Fig. 4.3-98 Hopping Pilot Beacon Channel Parameter Information Change Display

4.3.4.29. CDMA Channel FA Test Start

To start the CDMA Channel FA test, click CDM-> Change_ Parameter_Information->STRT-FA-TEST on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command STRT-FA-TEST :BSC=a ,BTS=b ,FA=c;

• Input STRT-FA-TEST :BSC=0 ,BTS=0 ,FA=0;

• Output

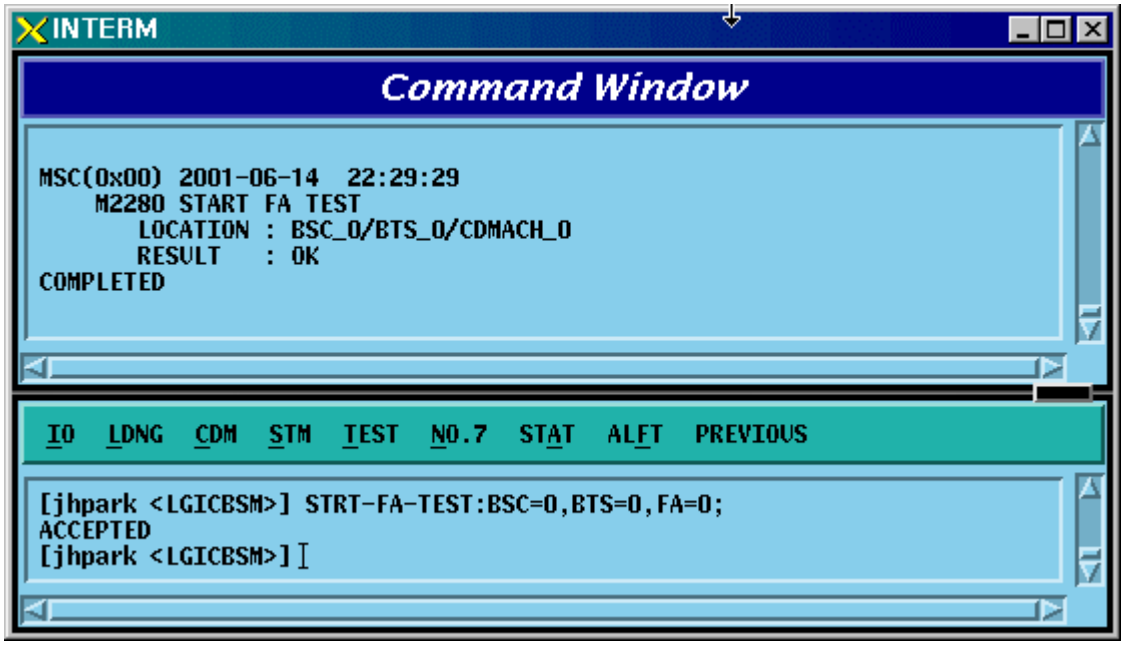

Fig. 4.3-99 CDMA Channel FA Test Start Display

4.3.4.30. Termination of CDMA Channel FA Test

To stop the CDMA Channel FA test, click CDM-> Change_ Parameter_Information->STOP-FA-TEST on the Command Window in order. If the next input window is displayed, then input the value to be changed.

• Command STOP-FA-TEST :BSC=a ,BTS=b ,FA=c;

• Input STOP-FA-TEST :BSC=0,BTS=0 ,FA=0;

• Output

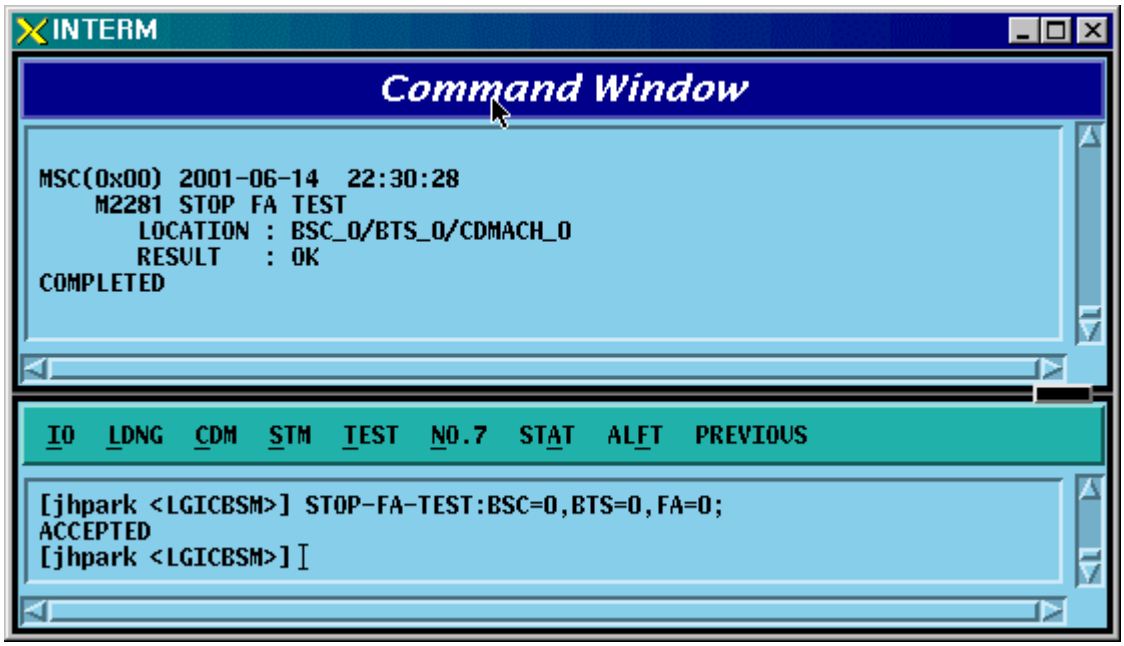

Fig. 4.3-100 CDMA Channel FA Test Termination Display

4.3.5. Parameter Information Change Command (Change_Parameter_Information_2)

This section describes commands that are used to change the parameter information that is inquired (required). The command to change parameter information cannot be easily input by the keyboard since input parameter counts are too many. For this reason, this section will skip the command input in text and demonstrate window input by mouse. Upon inputting the command, the part in blue is the parameter that the user can change and the user can change part or entire fields among them. For more information on parameters for each command, refer to the test procedures.

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Table 4.3-2 Parameter Information Change Command (2) List

CRN	MMC	Description
2240	CHG-DORM-DATA	Dormant Timer Change
2241	CHG-PKZN-DATA	PACKET ZONE DATA Change
2243	CHG-FAC-TIMER	FACILITIES MANAGEMENT TIMER Change
2244	CHG-HO-TIMER	HANDOFF TIMER Change
2245	CHG-SUP-TIMER	BSC SUPPLEMENT SERVICES TIMER Change
2246	CHG-CALL-TIMER	BSC CALL PROCESSING TIMER Change
2247	CHG-MOB-TIMER	BSC MOBILITY MANAGEMENT TIMER Change
2248	CHG-A89-TIMER	A8 A9 INTERFACE TIMER Change
2249	CHG-A37-TIMER	A3, A7 INTERFACE TIMER Change
2250	CHG-RS1-FWDP	Forward Link Power Management Information (RS1) change
2251	CHG-RS1-REVP	Backward (or Reverse) Link Power Management Information (RS1) change
2255	CHG-RS2-FWDP	Forward Link Power Management Information (RS2) change
2256	CHG-RS2-REVP	Backward (or Reverse) Link Power Management Information (RS2) change
2257	CHG-FER-PARA	Service Option FER Change
2261	CHG-MAHO-DATA	MAHHO DATA change
2262	CHG-LOC-PARA	LOCATION PARA information change
2263	CHG-SCH-PARA	SCH parameter information change
2265	CHG-PWR1-CTRL	POWER CONTROL parameter information (1) change

2266	CHG-PWR2-CTRL	POWER CONTROL parameter information (2) change
2267	CHG-PWR3-CTRL	POWER CONTROL parameter information (3) change
2271	CHG-BTS-NAME	BTS name change
2292	CHG-PCF-TIMER	PCF TIMER change
2294	CHG-PCP-ADDR	PCP/PMP ADDRESS change
2295	CHG-PIP-ADDR	PIP ADDRESS change
2296	CHG-PCF-PARA	PCF PARAMETER change

4.3.5.1. Dormant Timer Change

To change Dormant Timer, click CDM->Change_Parameter_ Information_2-> CHG-DORM-DATA on the Command Window in order. Input the value to be changed in each field.

- Command CHG-DORM-DATA :BSC=a [,DORMANT_T=b] [,INACTIVE_T=c] [,BAND_FRAME_T=d] [,BAND_CLASS=e] ;

- Input CHG-DORM-DATA :BSC=0,DORMANT_T=255;

- Command

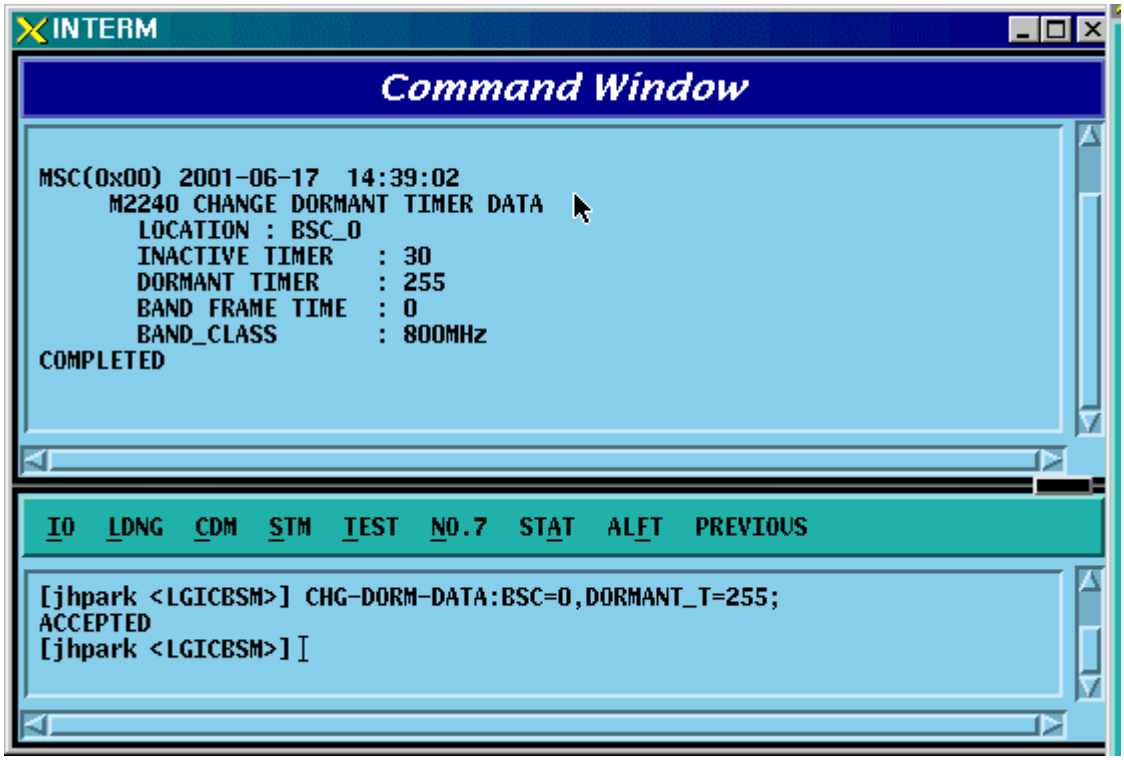

Fig. 4.3-101 Dormant Timer Change Display

4.3.5.2. PACKET ZONE DATA Change

To change PACKET ZONE DATA, click CDM->Change_Parameter_ Information_2-> CHG-PKZN-DATA on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-PKZN-DATA :BSC=a [,PKT_ZONE=b] [,PCP_ID=c];

• Input CHG-PKZN-DATA :BSC=0,PKT_ZONE=255;

• Output

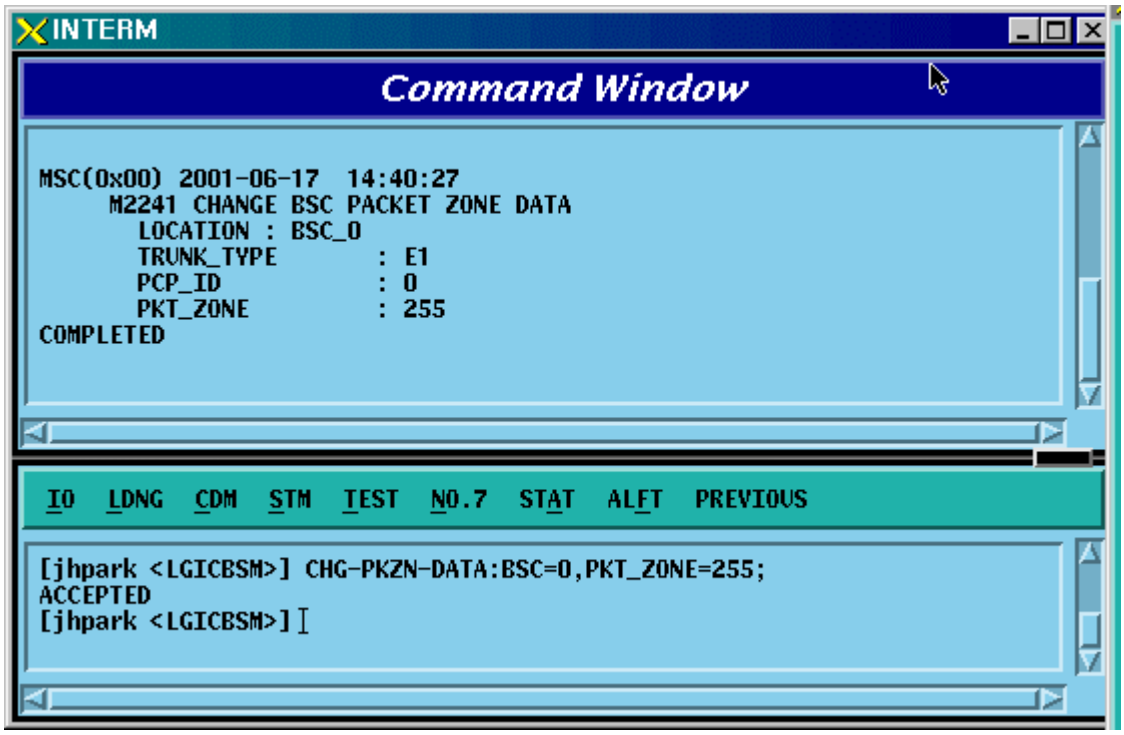

Fig. 4.3-102 Packet Zone Data Change Display

4.3.5.3. FACILITIES MANAGEMENT TIMER Change

To change FACILITIES MANAGEMENT TIMER, click CDM->Change_Parameter_Information_2-> CHG-FAC-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-FAC-TIMER :BSC=a [,T1=b] [,T2=c] [,T4=d] [,T5=e] [,T6=f] [,T12=g] [,T13=h] [,T16=i] [,T309=j];

• Input CHG-FAC-TIMER :BSC=0,T1=255;

• Output

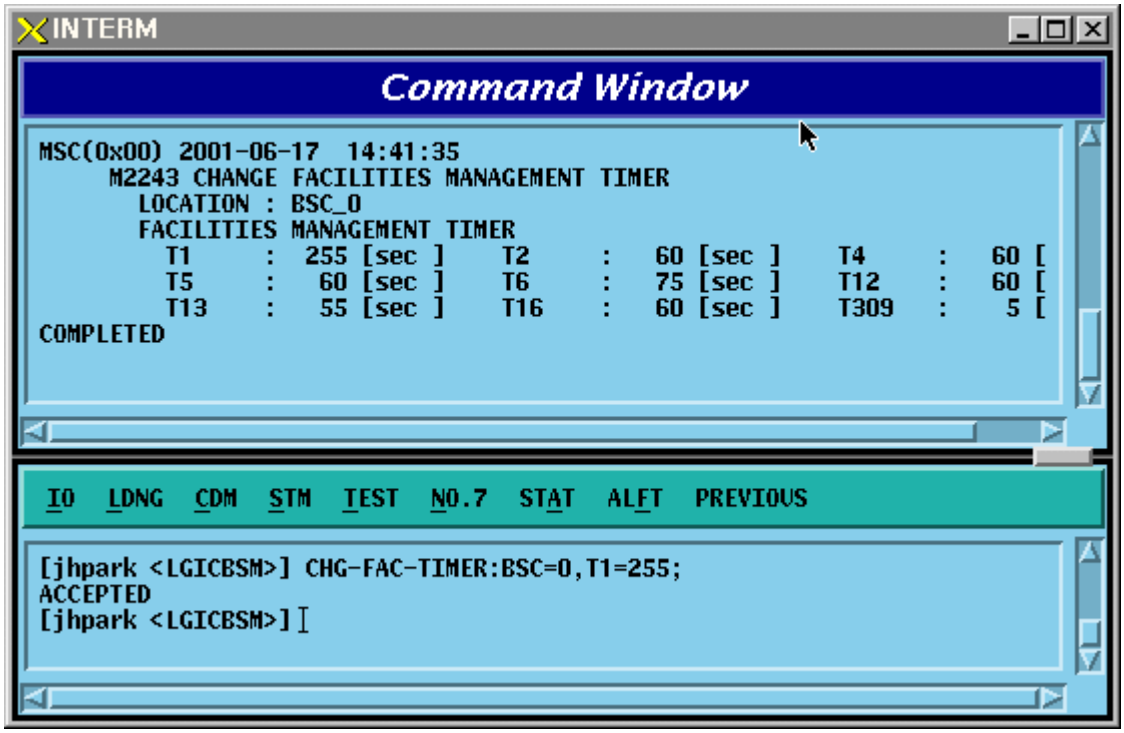

Fig. 4.3-103 Facilities Management Timer Change Display

4.3.5.4. HANDOFF TIMER Change

To change HANDOFF TIMER, click CDM->Change_Parameter_ Information_2-> CHG-HO-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-HO-TIMER :BSC=a [,T7=b] [,T9=c] [,T10=d] [,T50=e]
[,T52=f] [,T777=g] [,T778=h] [,T787=i] [,T789=j]
[,T790=k];

• Input CHG-HO-TIMER :BSC=0,T7=255;

• Output

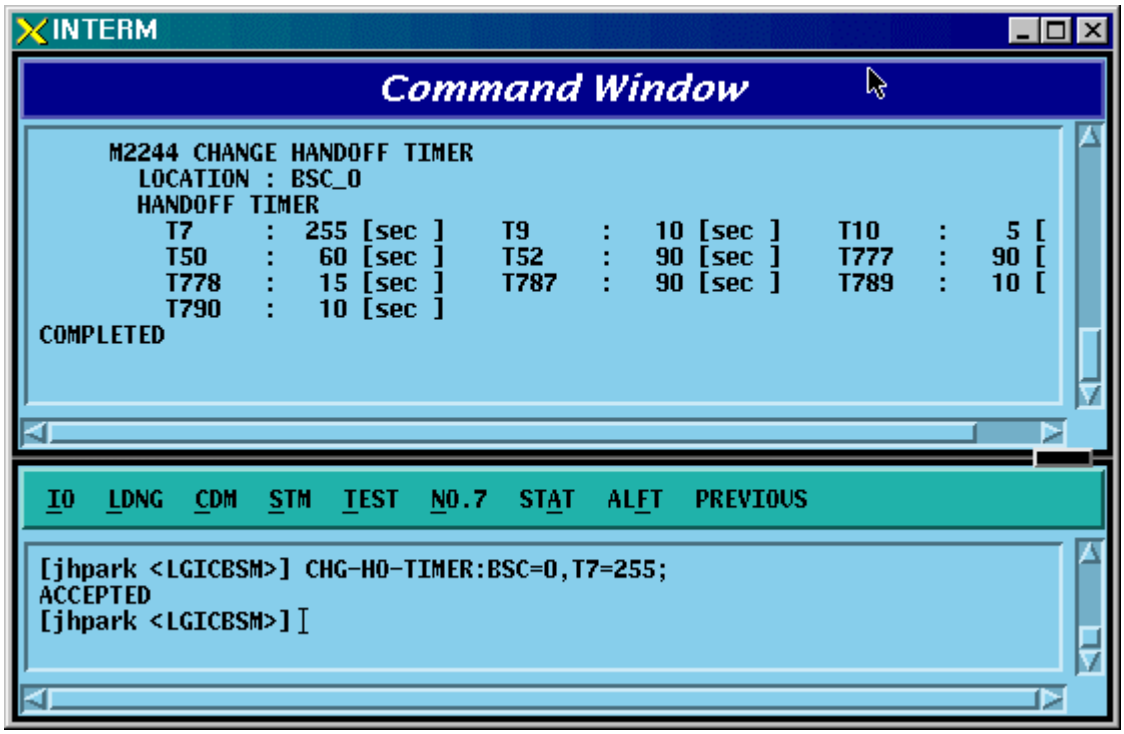

FIG 4.3-104 Handoff Timer Change Display

4.3.5.5. BSC SUPPLEMENT SERVICES TIMER Change

To change BSC SUPPLEMENT SERVICES TIMER, click CDM->Change_Parameter_Information_2-> CHG-SUP-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-SUP-TIMER :BSC=a [,T60=b] [,T61=c] [,T62=d] [,T63=e] ;

• Input CHG-SUP-TIMER :BSC=0,T60=99;

• Output

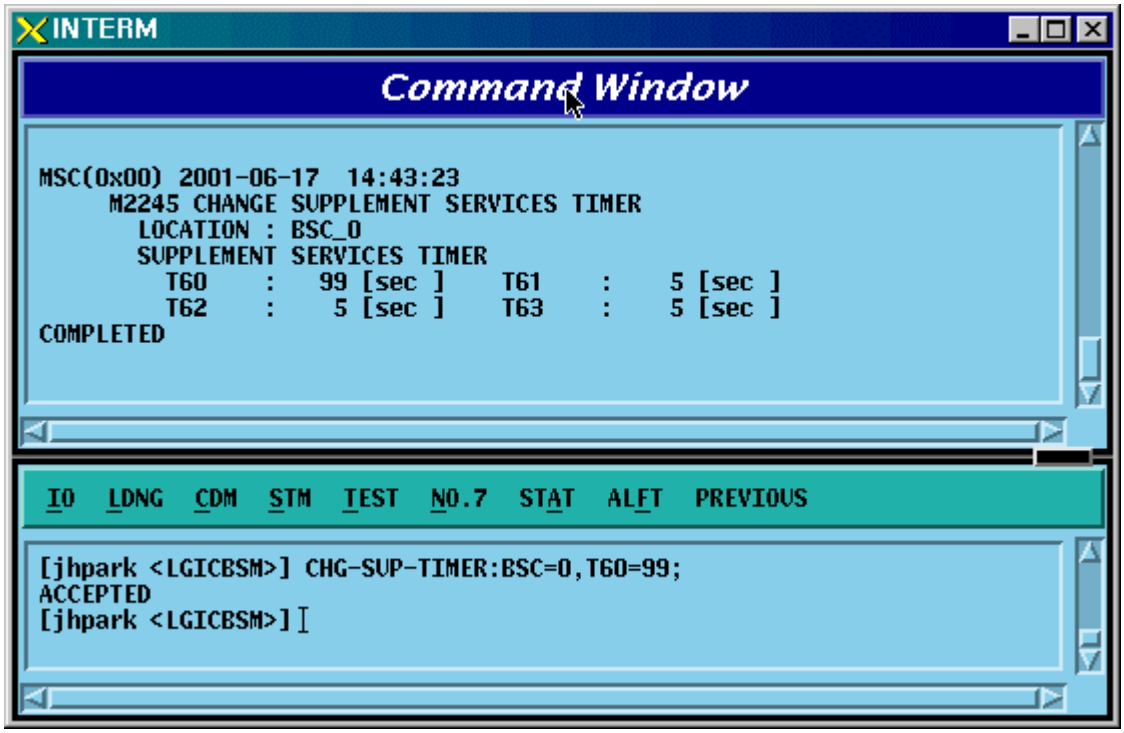

Fig. 4.3-105 BSC Supplement Services Timer Change Display

4.3.5.6. BSC CALL PROCESSING TIMER Change

To change BSC CALL PROCESSING TIMER, click CDM->Change_Parameter_Information_2-> CHG-CALL-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-CALL-TIMER :BSC=a [,T20=b] [,T30=c] [,T40=d] [,T300=e]
[,T301=f] [,T302=g] [,T303=h] [,T306=i] [,T307=j]
[,T308=k] [,T311=l] [,T312=m] [,T313=n] [,T315=o]
[,T316=p] [,T325=q] [,T326=r] [,T3113=s] [,T3230=t]
[,T3280=u] [,Tpaca1=v] [,Tpaca2=w];

• Input CHG-CALL-TIMER :BSC=0,T20=99;

• Output

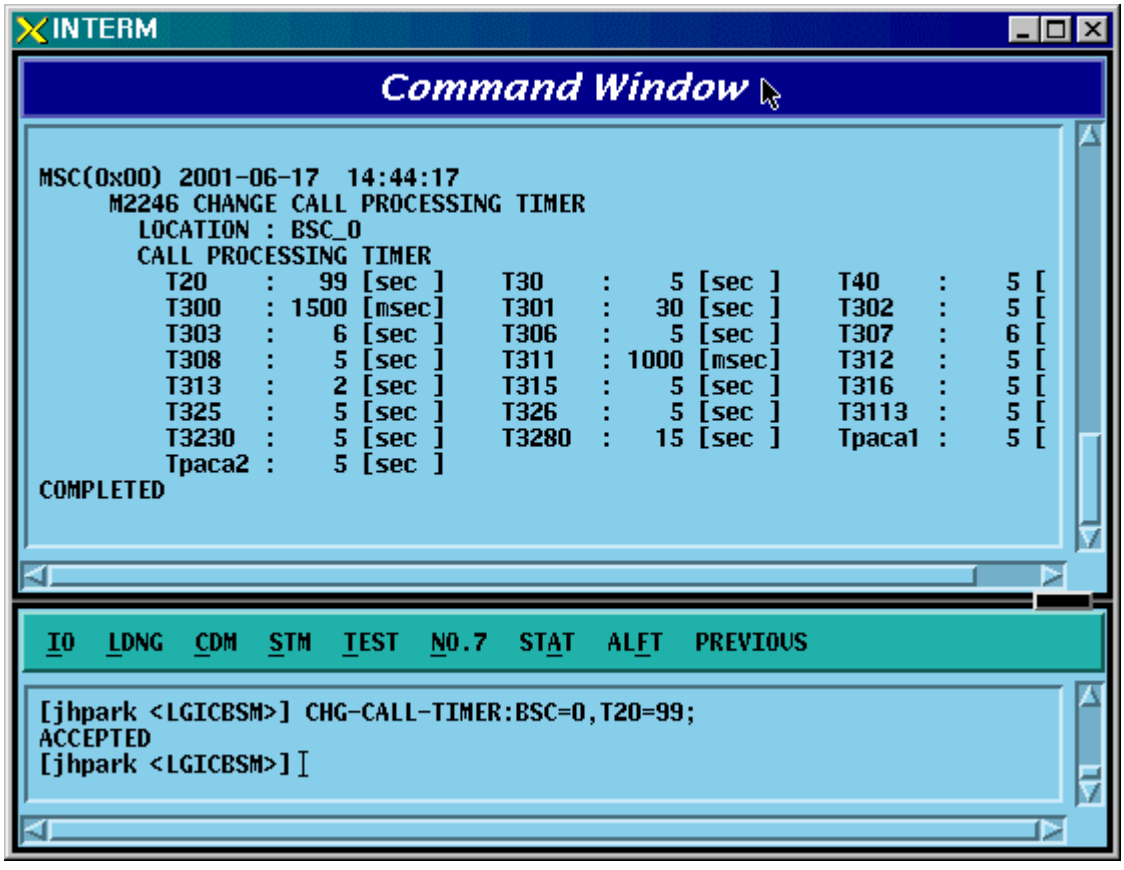

Fig. 4.3-106 BSC Call Processing Timer Change Display

4.3.5.7. BSC MOBILITY MANAGEMENT TIMER Change

To change BSC MOBILITY MANAGEMENT TIMER, click CDM->Change_Parameter_Information_2-> CHG-MOB-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-MOB-TIMER :BSC=a [,T3210=b] [,T3220=c] [,T3240=d] [,T3260=e] [,T3270=f] [,T3271=g] [,T3272=h];

- Input CHG-MOB-TIMER :BSC=0,T3210=99;

- Output

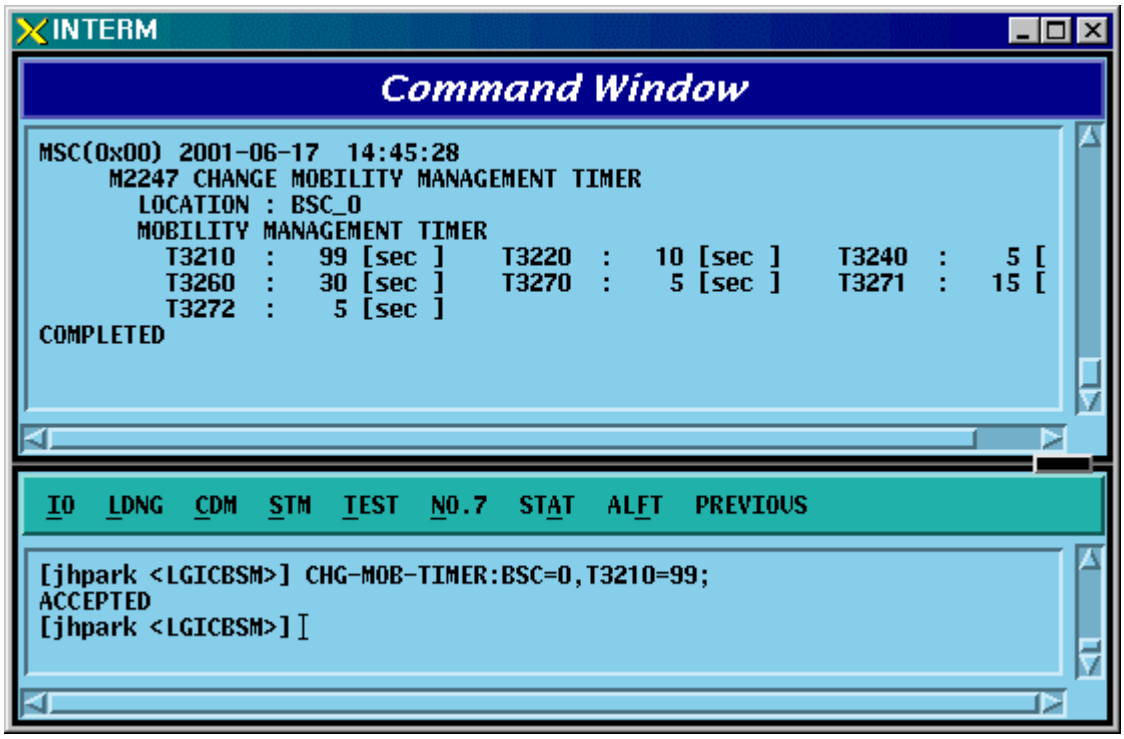

Fig. 4.3-107 BSC Mobility Management Timer Change Display

4.3.5.8. A8 A9 INTERFACE TIMER Change

To change A8 A9 INTERFACE TIMER, click CDM->Change_Parameter_Information_2_2-> CHG-A89-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-A89-TIMER :BSC=a [,TA8_SETUP=b] [,Talc9=c] [,Tald9=d] [,Trel9=e];

- Input CHG-A89-TIMER :BSC=0,TA8_SETUP=99;

- Output

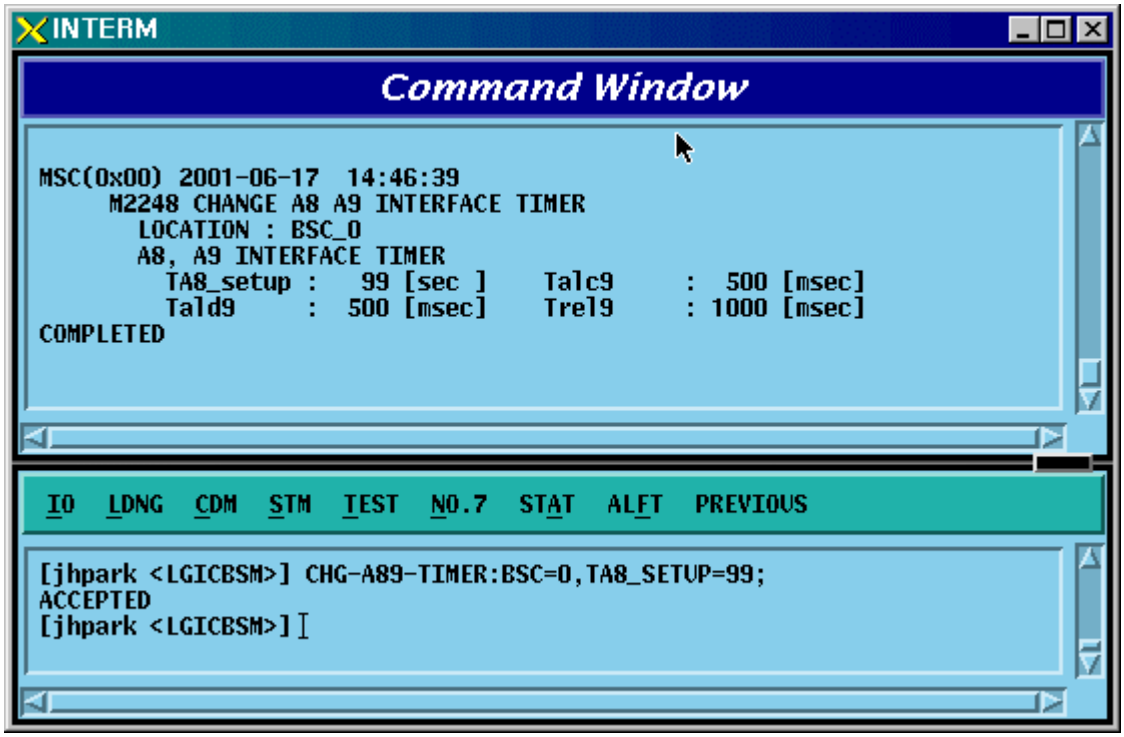

Fig. 4.3-108 A8 A9 INTERFACE TIMER Change

4.3.5.9. A3, A7 INTERFACE TIMER Change

To change A3 A7 INTERFACE TIMER, click CDM->Change_Parameter_Information_2_2-> CHG-A37-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-A37-TIMER :BSC=a [,Tacm=b] [,Tbstact=c] [,Tbsccom=d] [,Tchanstat=e] [,Tconn3=f] [,Tdiscon3=g] [,Tdrptgt=h] [,Ttgtrmv=i] [,Thoreq=j] [,Tpcm=k] [,Tphysical=l];

- Input CHG-A37-TIMER :BSC=0,Tacm=1000;

- Output

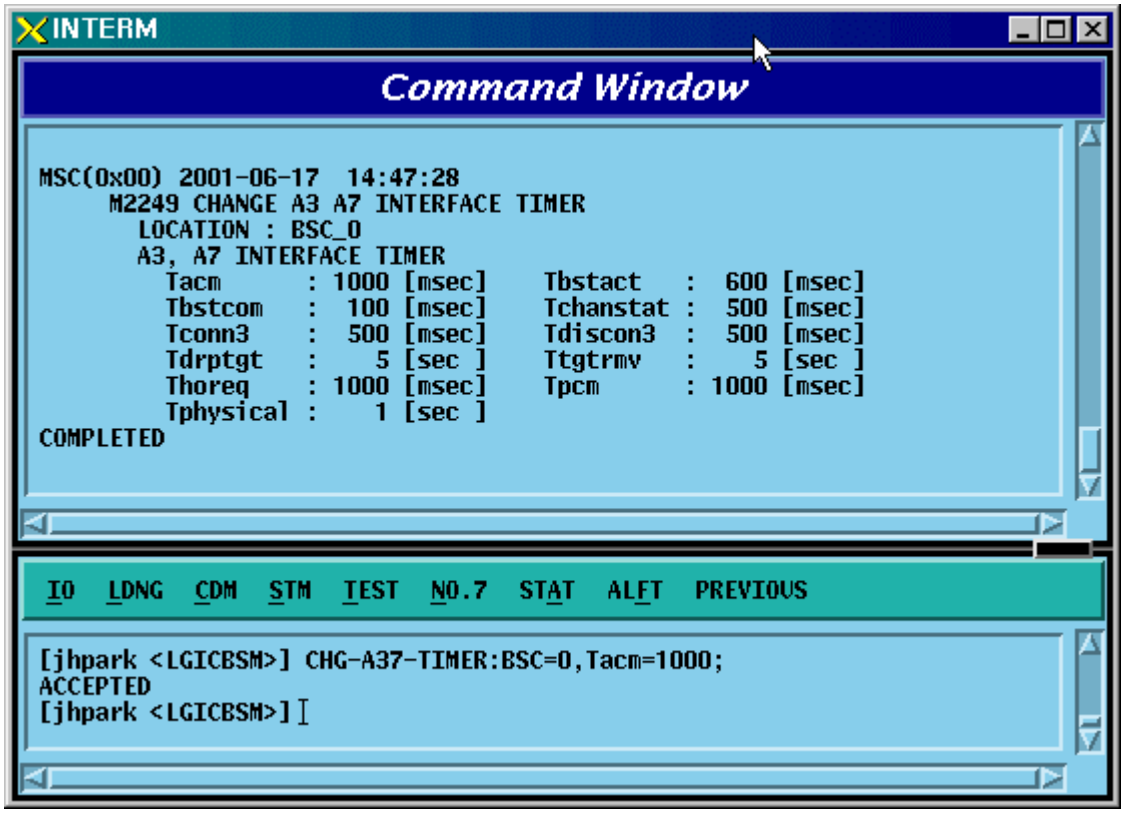

Fig. 4.3-109 A3, A7 INTERFACE TIMER Change

4.3.5.10. Forward Link Power Management Information (RS1) Change

To change forward link power management information (RS1), click CDM->Change_Parameter_ Information_2_2-> CHG-RS1-FWDP on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-RS1-FWDP :BSC=a ,BTS=b ,FER=c [,SLOW_TIME=d] [,FAST_TIME=e] [,STEP_FAST=f] [,SLOW_DLTA=g] [,FAST_DLTA=h] [,NOM_GAIN=i] [,MAX_TC_GAIN=j] [,MIN_TC_GAIN=k] [,FER_THRE=l] [,BGUP_DLTA=m] [,SMLL_DLTA=n] [,SIGL_DLTA=o] [,DLTA_GAN1=p] [,DLTA_GAN2=q] [,DLTA_GAN3=r];

- Input CHG-RS1-FWDP :BSC=0 ,BTS=0 ,FER=POINT_5,SLOW_TIME=20000;

- Output

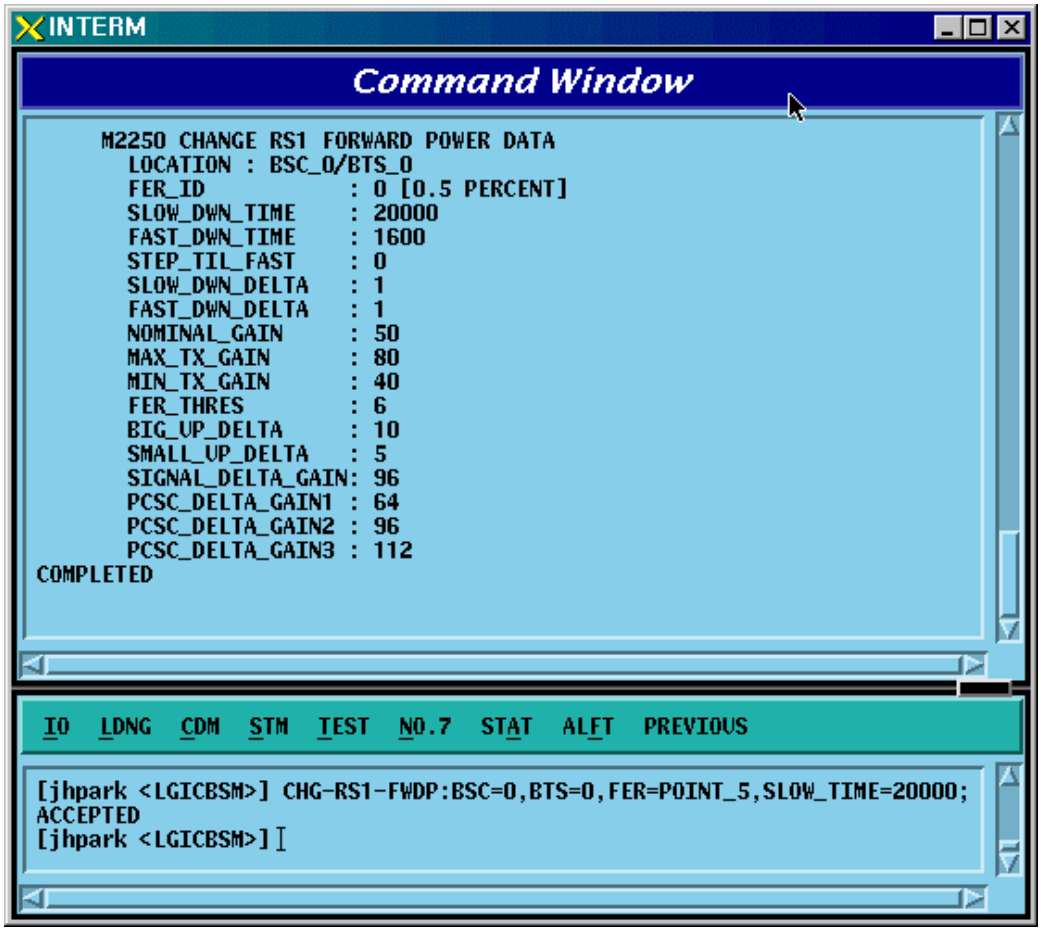

Fig. 4.3-110 Forward Link Power Management Information (RS1) Change

4.3.5.11. Backward Link Power Management Information (RS1) Change

To change Backward link power management information (RS1), click CDM->Change_Parameter_ Information_2_2-> CHG-RS1-REVP on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-RS1-REVP :BSC=a ,BTS=b ,FER=c [,PNOM=d] [,PMAX=e] [,PMIN=f] [,PUPF=g] [,PFRR=h] [,PUPE=i] [,PUPEL=j] [,PD=k] [,PVD=l] [,PFW=m] [,PERL=n];

• Input CHG-RS1-REVP :BSC=0 ,BTS=0 ,FER=POINT_5,PNOM= 255;

• Output

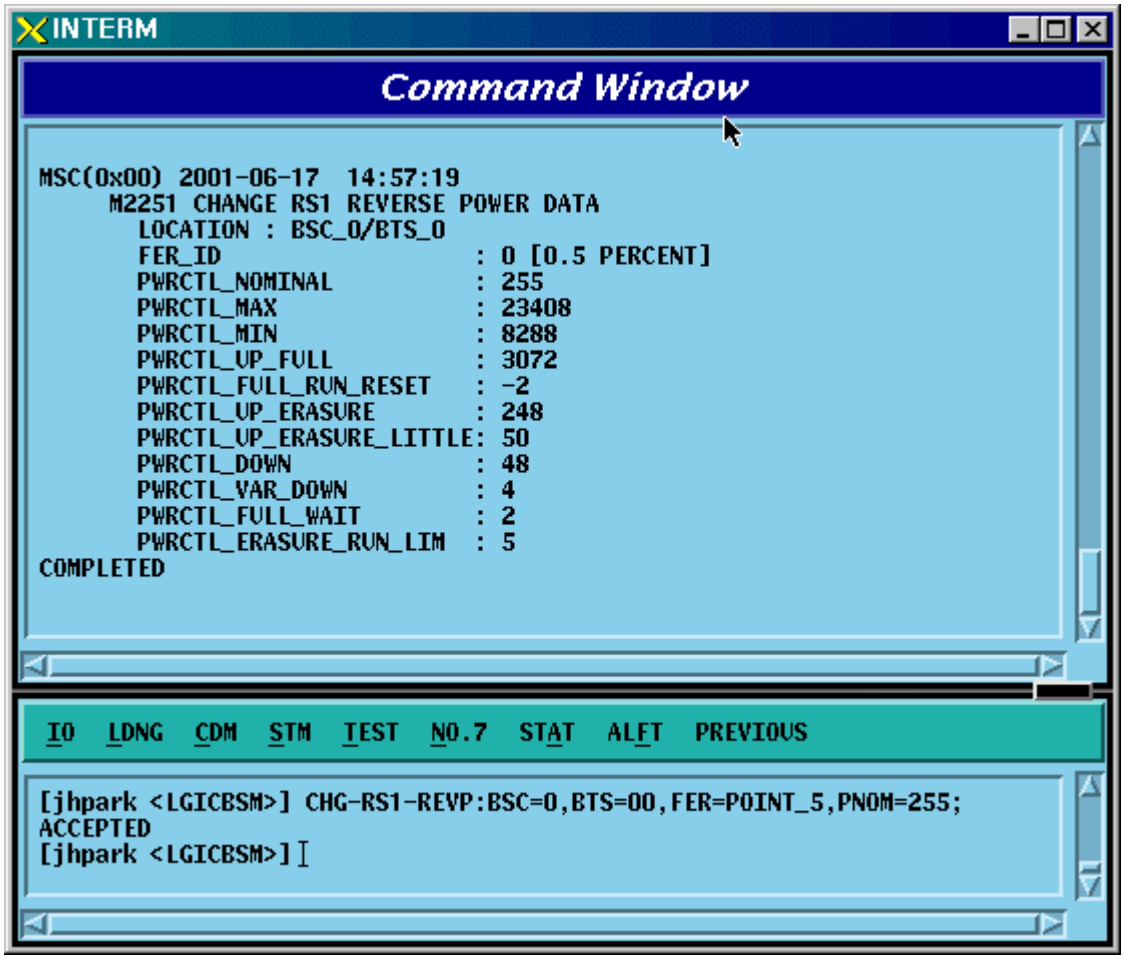

Fig. 4.3-111 Backward Link Power Management Information (RS1) Change

4.3.5.12. Forward Link Power Management Information (RS2) Change

To change Forward link power management information (RS2), click CDM->Change_Parameter_ Information_2_2-> CHG-RS2-FWDP on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-RS2-FWDP :BSC=a ,BTS=b ,FER=c [,IN_DWNT=d] [,MAX_DWNT=e]
  [,MIN_DWNT=f] [,TDWN_DLT=g] [,TUP_DLT=h] [,STT_THS=i]
  [,ERA_MSR=j] [,CONT_ERA=k] [,CUMU_ERA=l] [,NOM_GAIN=m]
  [,MAX_TX_GAIN=n] [,MIN_TX_GAIN=o] [,GAIN_DWN=p]
  [,BIG_UP=q] [,SMALL_UP=r] [,SIGL_DLT=s] [,DLT_GAN1=t]
  [,DLT_GAN2=u] [,DLT_GAN3=v];

- Input CHG-RS2-FWDP :BSC=0 ,BTS=0 ,FER=POINT_5,IN_DWNT=255;

- Output

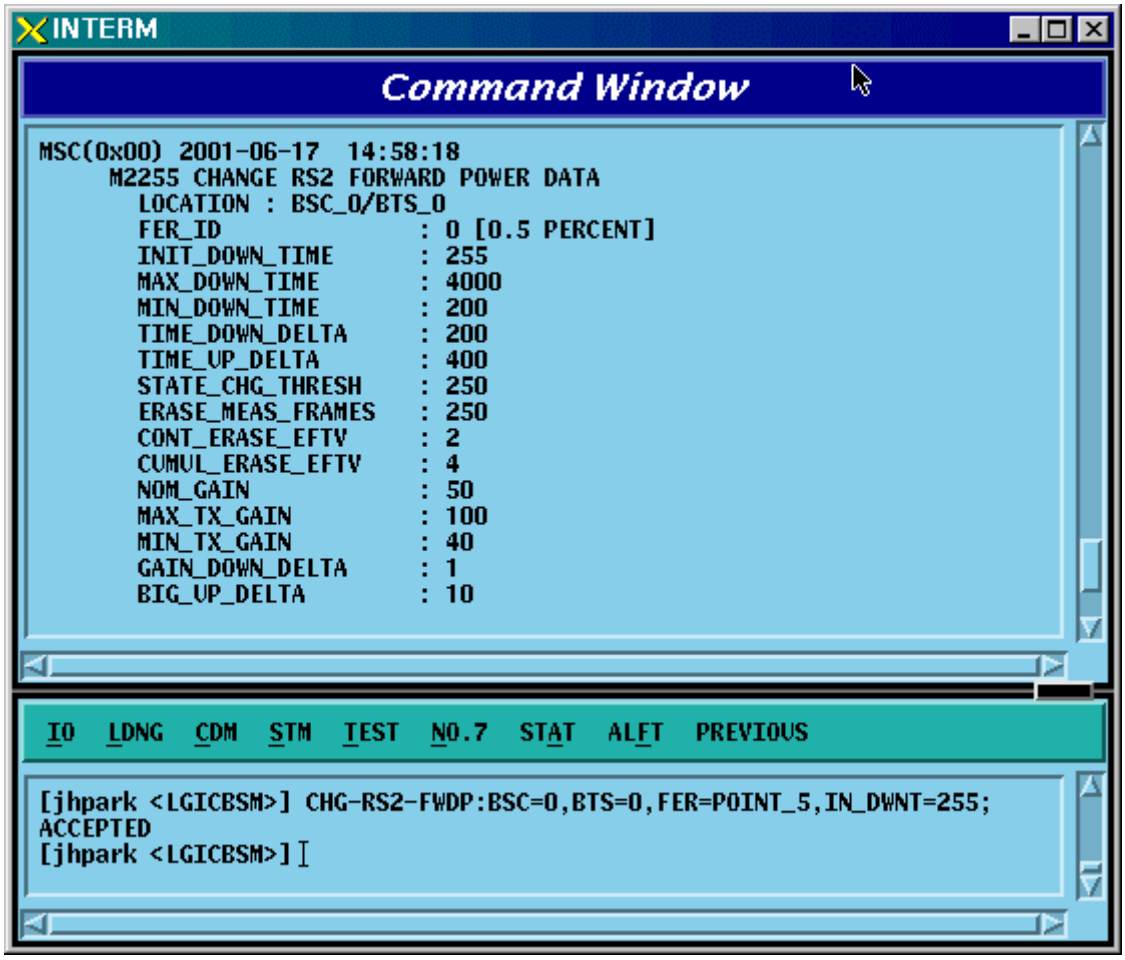

Fig. 4.3-112 Forward Link Power Management Information (RS2) Change

4.3.5.13. Backward Link Power Management Information (RS2) Change

To change Backward link power management information (RS2), click CDM->Change_Parameter_ Information_2_2-> CHG-RS2-REVP on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-RS2-REVP :BSC=a ,BTS=b ,FER=c [,PNOM=d] [,PMAX=e] [,PMIN=f] [,RBUD=g] [,RSUD=h] [,RNEW=i] [,RMAXDD=j] [,RMINDD=k] [,RDDIS=l] [,RCONTEE=m] [,RCUMULEE=n] [,REMF=o] [,RSCT=p];

• Input CHG-RS2-REVP :BSC=0 ,BTS=0 ,FER=POINT_5,PNOM=255;

• Output

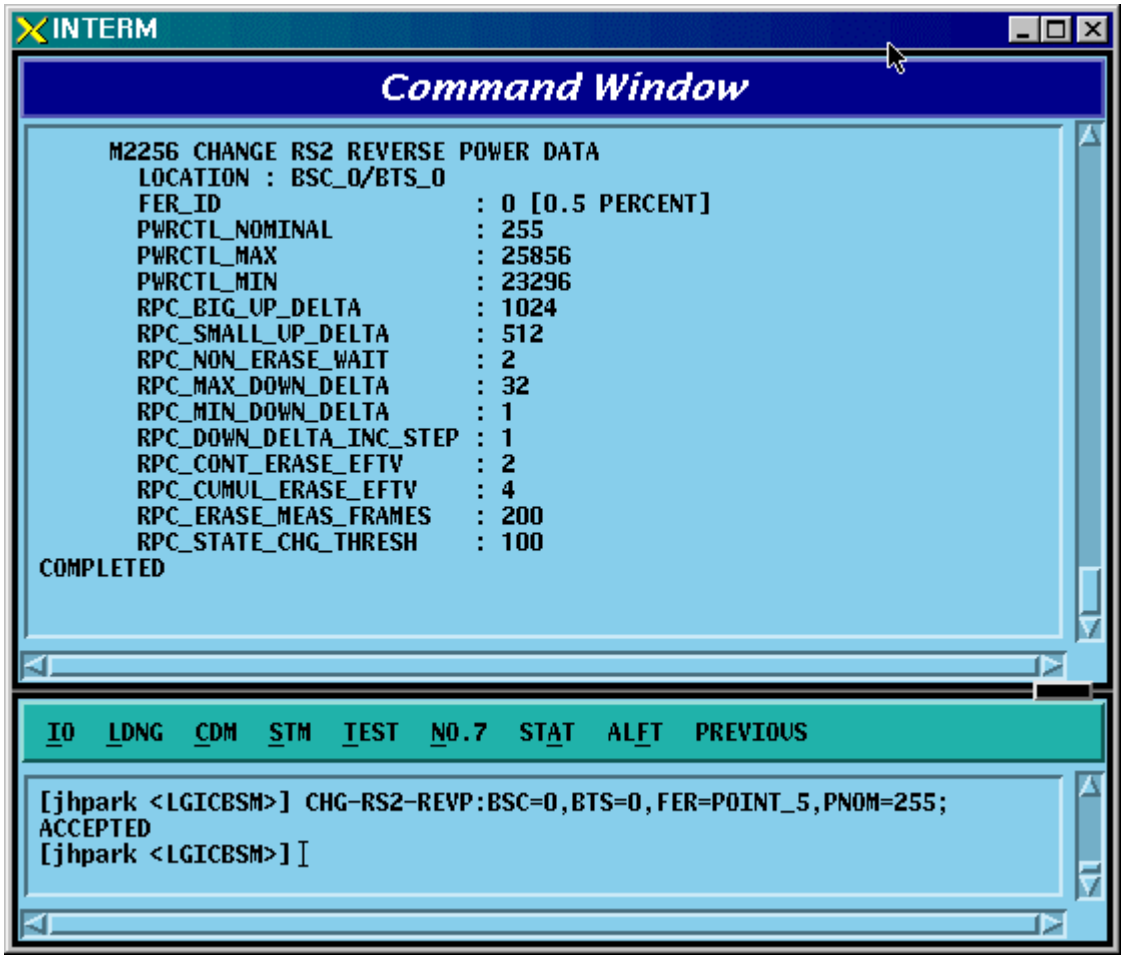

Fig. 4.3-113 Backward Link Power Management Information (RS2) Change

4.3.5.14. Service Option FER Change

To change Service Option FER, click CDM->Change_Parameter_ Information_2_2-> CHG-FER-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-FER-DATA :BSC=a [,VOICE_8K=b] [,LOOPBK_8K=c] [,EVRC=d] [,ASYNC=e] [,G3FAX=f] [,SMS=g] [,PPP_PKT=h] [,CDPP_PKT=i] [,LOOPBK_13K=j] [,STU_TR=k] [,STU_NTR=l] [,ASYNC_13K=m] [,G3FAX_13K=n] [,SMS_13K=o] [,VOICE_13K=p] [,IS96_VOICE=q] [,MARKOV_8K=r] [,DATA=s] [,IS96A_1BY8=t] [,MARKOV_13K=u] [,WLL_OFFHOOK=v] [,RS1_MARKOV=w] [,RS2_MARKOV=x] [,FCH=y] [,SCH=z] [,DCCH=] [,SCH_LB=] [,SCH_LB2=];

• Input CHG-FER-DATA :BSC=0,VOICE_8K=P_5;

• Output

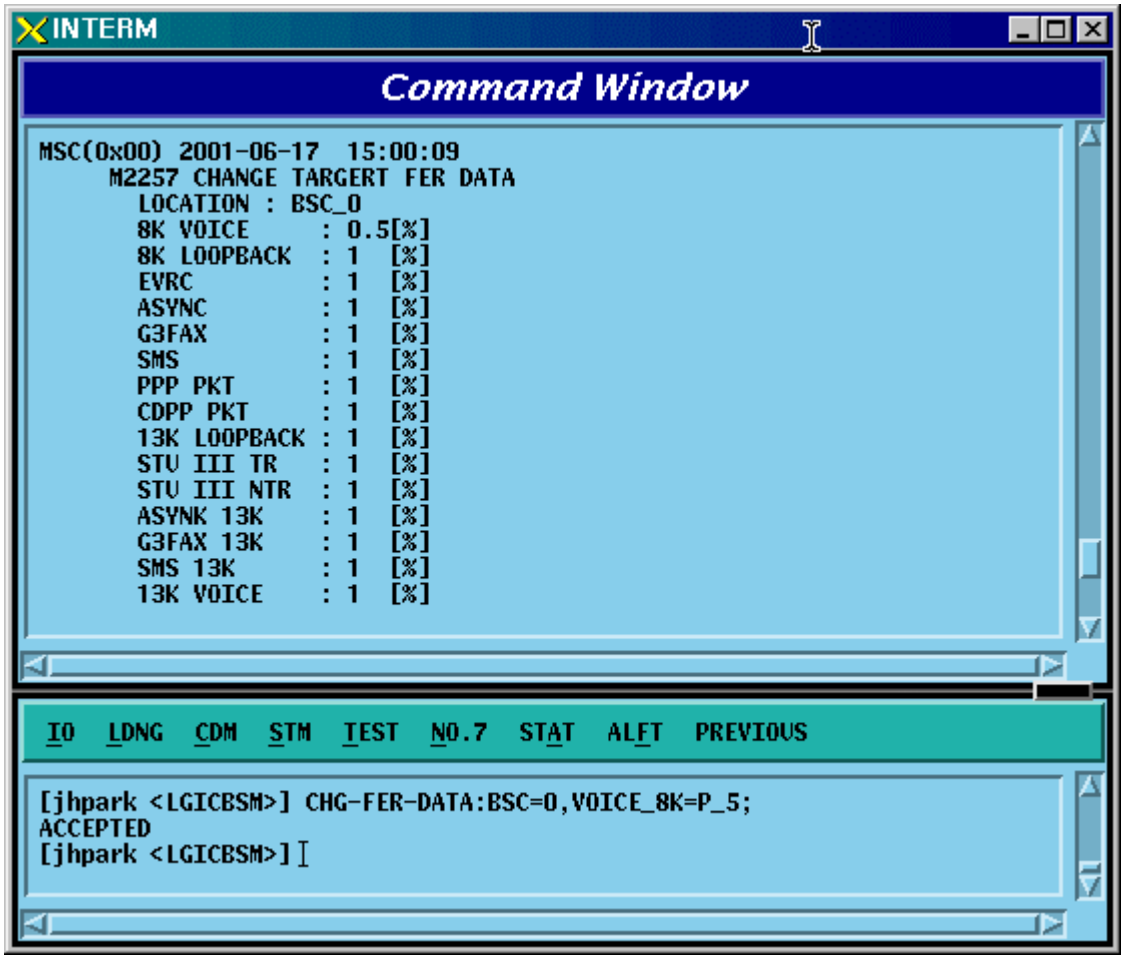

Fig. 4.3-114 Service Option FER Change

4.3.5.15. MAHHO DATA Change

To change MAHHO DATA, click the CDM->Change_Parameter_ Information_2-> CHG-MAHO-DATA on the Command Window in order. Input the value to be changed in each file as shown below.

- Command CHG-MAHO-DATA :BSC=a ,BTS=b ,SECT=c [,BORDER_FLAG=d] [,BD_CLS=e] [,NUM_CHAN=f] [,CDMA_FREQ0=g] [,CDMA_FREQ1=h] [,CDMA_FREQ2=i] [,CDMA_FREQ3=j] [,CDMA_FREQ4=k] [,CDMA_FREQ5=l] [,CDMA_FREQ6=m] [,CDMA_FREQ7=n] [,CDMA_FREQ8=o] [,CDMA_FREQ9=p] [,CDMA_FREQ10=q] [,CDMA_FREQ11=r] [,STET=s] [,STEIT=t] [,DRPT=u] [,MIN_TOT=v] [,CF_T_ADD=w] [,TF_WAIT_TIME=x] [,SRCH_N=y] [,SRCH_R=z];

- Input CHG-MAHO-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA,BORDER_FLAG=ON;

- Output

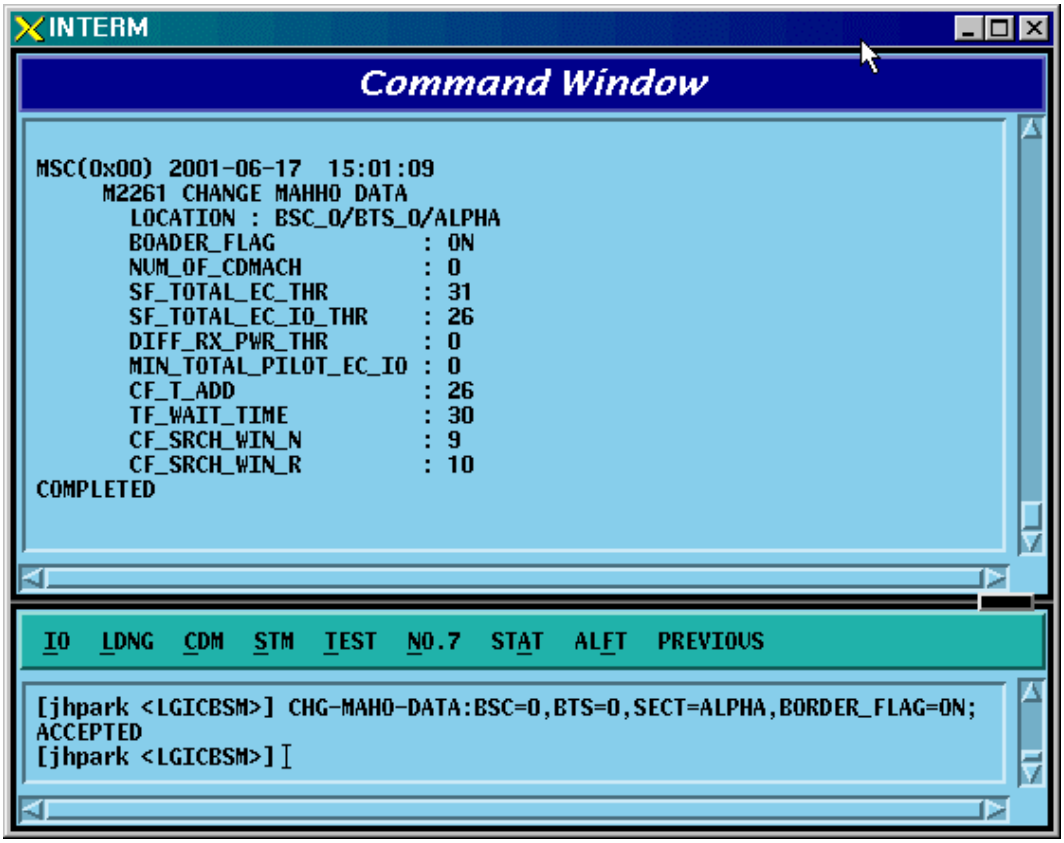

Fig. 4.3-115 MAHHO DATA Change

4.3.5.16. LOCATION PARA Information Change

To change LOCATION PARA information, click CDM->Change_Parameter_Information_2-> CHG-LOC-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-LOC-PARA :BSC=a ,BTS=b ,SECT=c [,ACT_T_FRM=d] [,PUF_ST_SZ=e][,PUF_P_SZ=f] [,PUF_INTERVAL=g] [,PUF_I_PWR=h] [,PUF_P_STEP=i] [,TOT_PUF_P=j] [,MAX_PWR_PUF=k];

• Input CHG-LOC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA,ACT_T_FRM=ON;

• Output

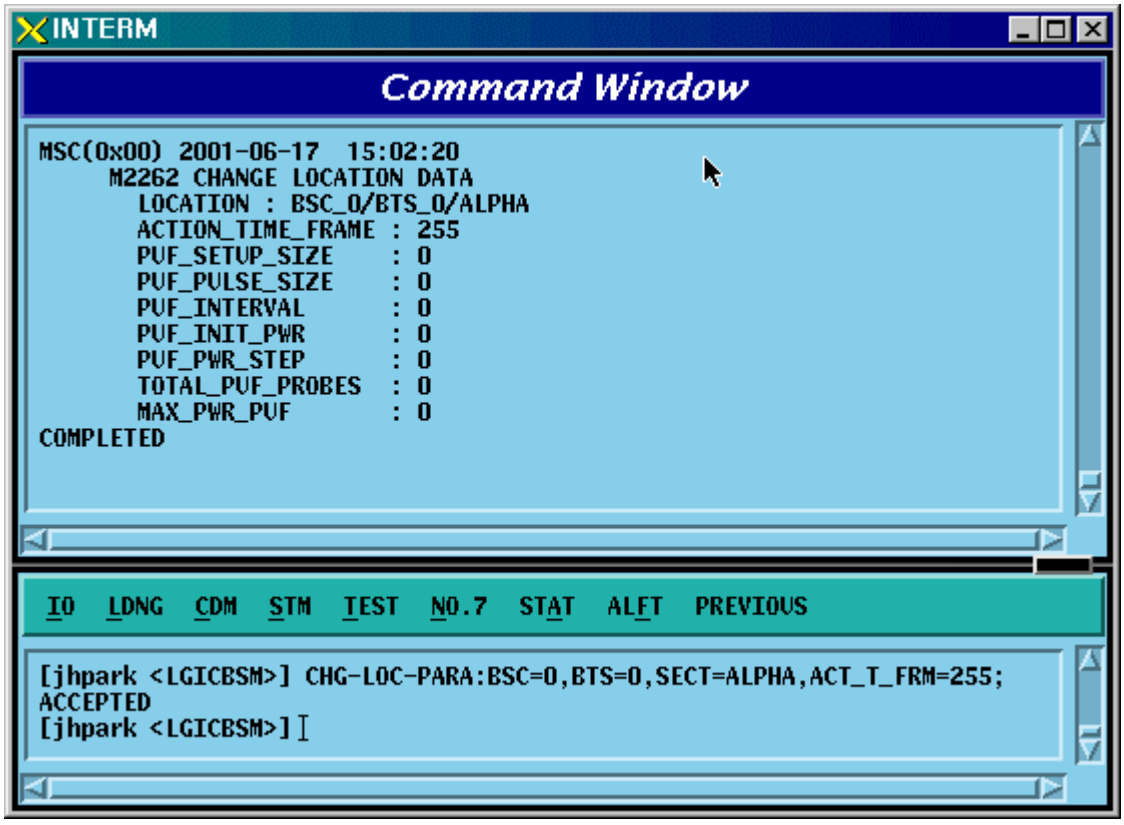

Fig. 4.3-116 LOCATION PARA Information Change

4.3.5.17. SCH Parameter Information Change

To change SCH PARA information, click CDM->Change_Parameter_ Information_2-> CHG-SCH-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-SCH-PARA :BSC=a ,BTS=b ,SECT=c [,SCH_T_ADD=d] [,SCH_T_DROP=e] [,T_MULCHAN=f] [,BEGIN_PRMBL=g] [,RES_PRMBL=h] [,PS_MIN_DELTA=i] [,ORD_INTERVAL=j] [,NUM_PILOTS=k] [,PRD_INTERVAL=l] [,FLOOR_HIGH=m] [,FLOOR_LOW=n] [,PS_CEIL_HIGH=o] [,PS_CEIL_LOW=p] [,THSH_INTERVAL=q] [,T_SLOTTED=r];

- Input CHG-SCH-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA,SCH_T_ADD=ON;

- Output

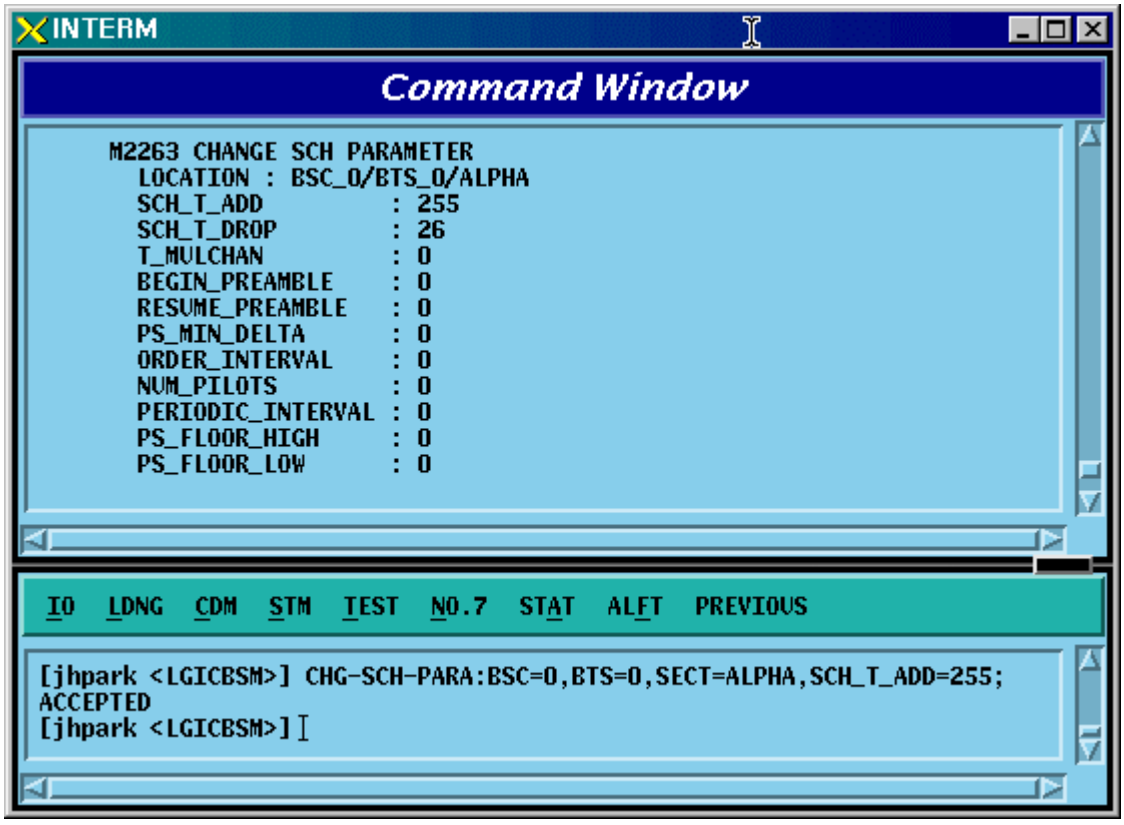

Fig. 4.3-117 SCH Parameter Information Change

4.3.5.18. POWER CONTROL Parameter Information (1) Change

To change POWER CONTROL Parameter information (1), click CDM->Change_Parameter_ Information_2-> CHG-PWR1-CTRL on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-PWR1-CTRL :BSC=a ,BTS=b ,FER=c [,PWR_CNT_STEP=d]
[,FPC_MODE=e] [,FPC_FC_INIT=f] [,FPC_FC_MIN=g]
[,FPC_FCH_MAX=h] [,FPC_DCC_INIT=i] [,FPC_DCC_MIN=j]
[,FPC_DCC_MAX=k] [,FPC_SC_INIT=l] [,FPC_SC_MIN=m]
[,FPC_SC_MAX=n]
[,FPC_THRESH=o] [,FCH_THSH_SC=p] [,FCH_ADJ_GAIN=q]
[,DCC_ADJ_GAIN=r] [,SC0_ADJ_GAIN=s] [,SC1_ADJ_GAIN=t]
[,FPC_SUBCH=u] [,RL_GAIN_ADJ=v] [,RL_TC_PICH=w]
[,RL_SC_PILOT=x];

• Input CHG-PWR1-CTRL :BSC=0 ,BTS=0 ,FER=30,PWR_CNT_STEP=255;

• Output

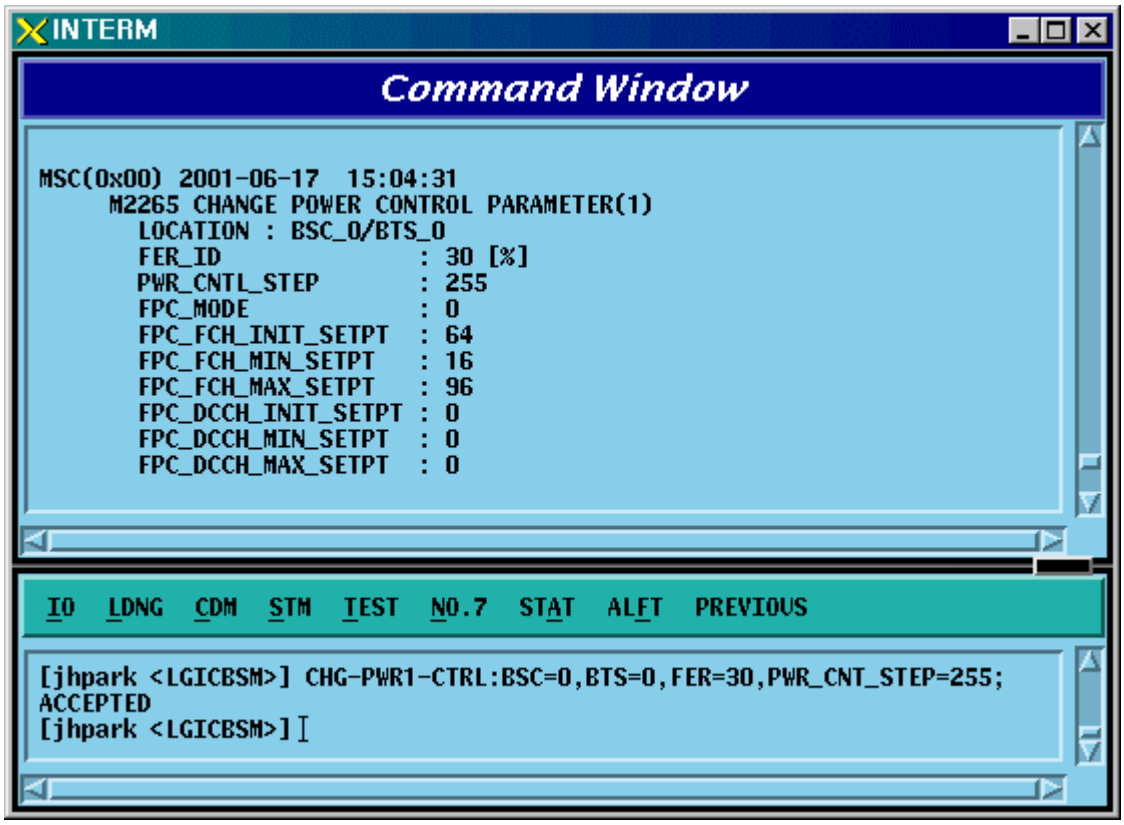

Fig. 4.3-118 POWER CONTROL Parameter Information (1) Change

4.3.5.19. POWER CONTROL Parameter Information (2) Change

To change POWER CONTROL Parameter information (2), click CDM->Change_Parameter_ Information_2-> CHG-PWR2-CTRL on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PWR2-CTRL :BSC=a ,BTS=b ,FER=c ,USE_REV_P=d [,GAIN_1500=e]
  [,GAIN_2700=f] [,GAIN_4800=g] [,GAIN_9600=h] [,GAIN_1800=i]
  [,GAIN_3600=j] [,GAIN_7200=k] [,GAIN_14400=l]
  [,NORM_9600_5MS=m];

- Input CHG-PWR2-CTRL :BSC=0 ,BTS=0 ,FER=c ,USE_REV_P=USE_REV_P, GAIN_1500=255;

- Output

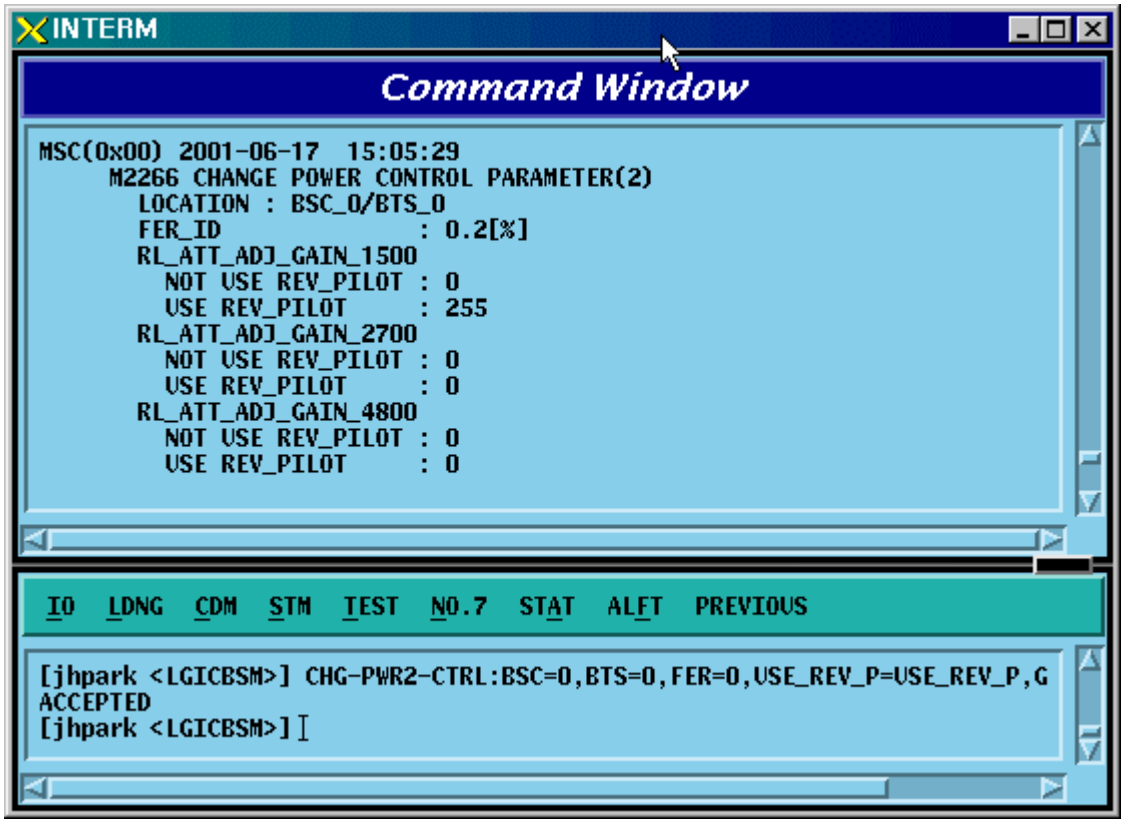

Fig. 4.3-119 POWER CONTROL Parameter Information (2) Change

4.3.5.20. POWER CONTROL Parameter Information (3) Change

To change POWER CONTROL Parameter information (3), click CDM->Change_Parameter_ Information_2-> CHG-PWR3-CTRL on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PWR3-CTRL :BSC=a ,BTS=b ,FER=c ,USE_REV_P=d ,USE_TUB_ENC=e [,GAIN_19200=f] [,GAIN_38400=g] [,GAIN_76800=h] [,GAIN_153600=i] [,GAIN_307200=j] [,GAIN_614400=k] [,GAIN_28800=l] [,GAIN_57600=m] [,GAIN_115200=n] [,GAIN_230400=o] [,GAIN_460800=p] [,GAIN_1036800=q];

- Input CHG-PWR3-CTRL :BSC=0 ,BTS=0 ,FER=0 ,USE_REV_P=NOUSE_REV_P , USE_TUB_ENC=NOUSE_TUB_ENC,GAIN_19200=255;

- Output

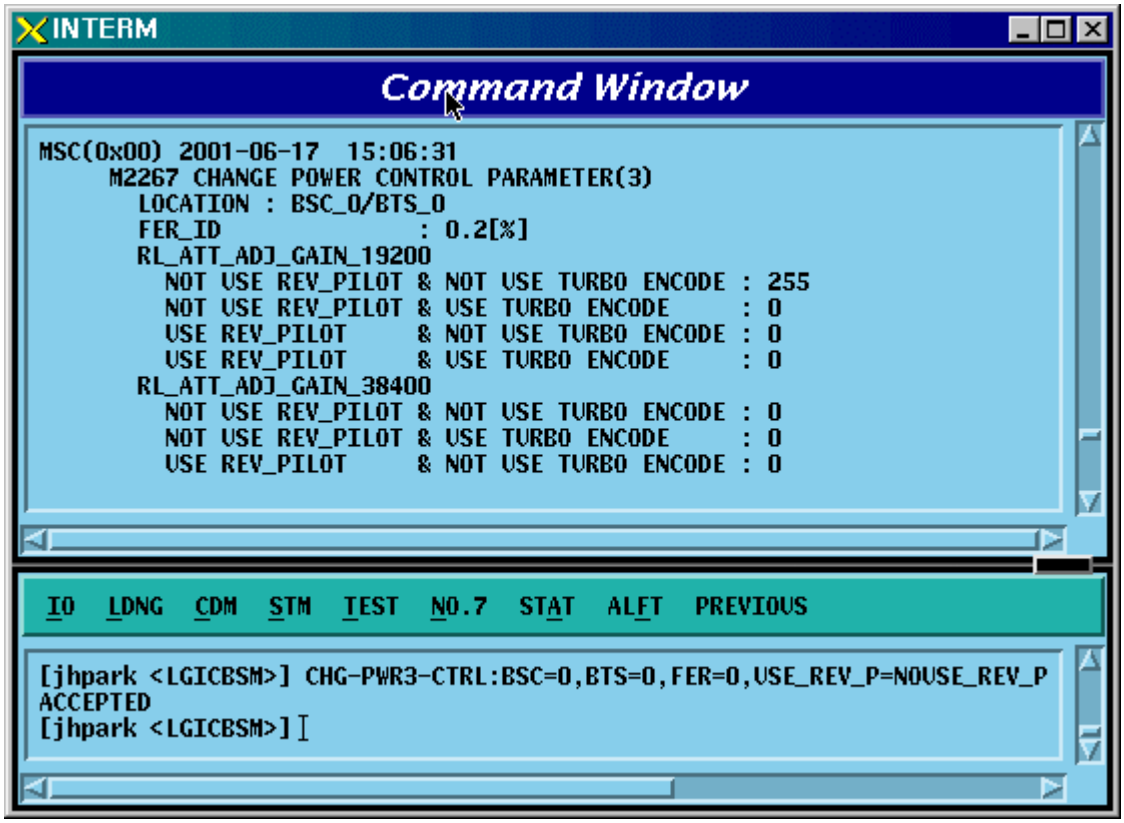

Fig. 4.3-120 POWER CONTROL Parameter Information (3) Change

4.3.5.21. BTS Name Change

To change BTS name, click CDM->Change_Parameter_ Information_2-> CHG-BTS-NAME on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-BTS-NAME :BSC=a ,BTS=b ,NAME=c;

• Input CHG-BTS-NAME :BSC=0 ,BTS=0 ,NAME=jhpark;

• Output

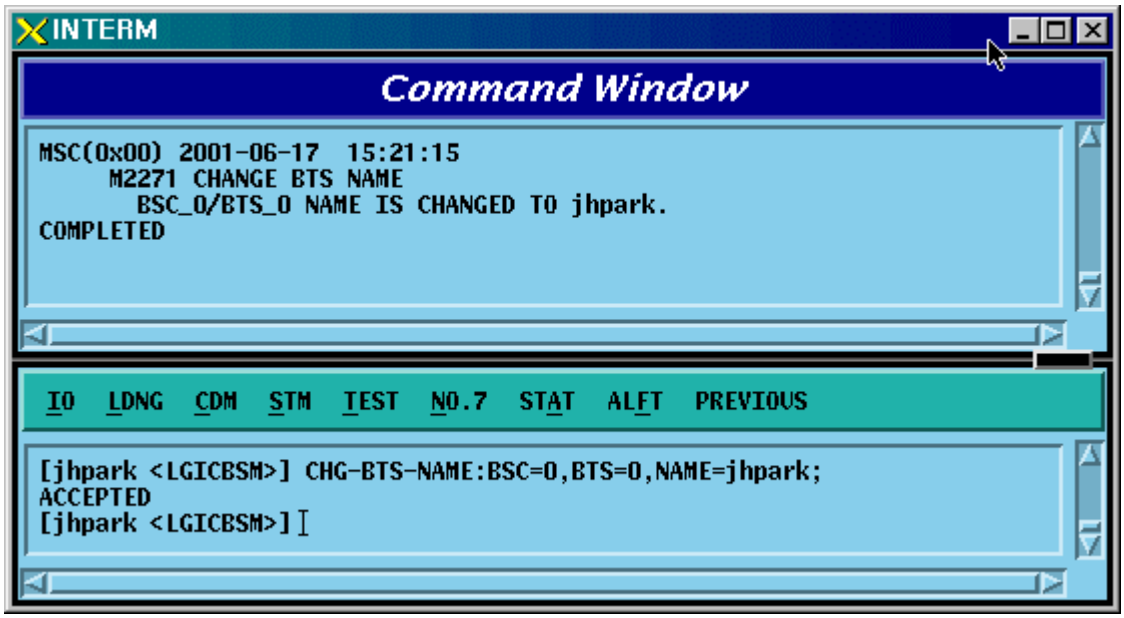

Fig. 4.3-121 BTS Name Change

4.3.5.22. PCF TIMER Change

To change PCF TIMER, click CDM->Change_Parameter_ Information_2-> CHG-PCF-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PCF-TIMER :PCP=a [,TRP_LIFETIME=b] [,TBSREQ9=c] [,TDISCON9=d] [,TWAITHO9=e] [,TREGREQ=f] [,RRQ_RETRY_CNT=g];

• Input CHG-PCF-TIMER :PCP=0,TRP_LIFETIME=255;

• Output

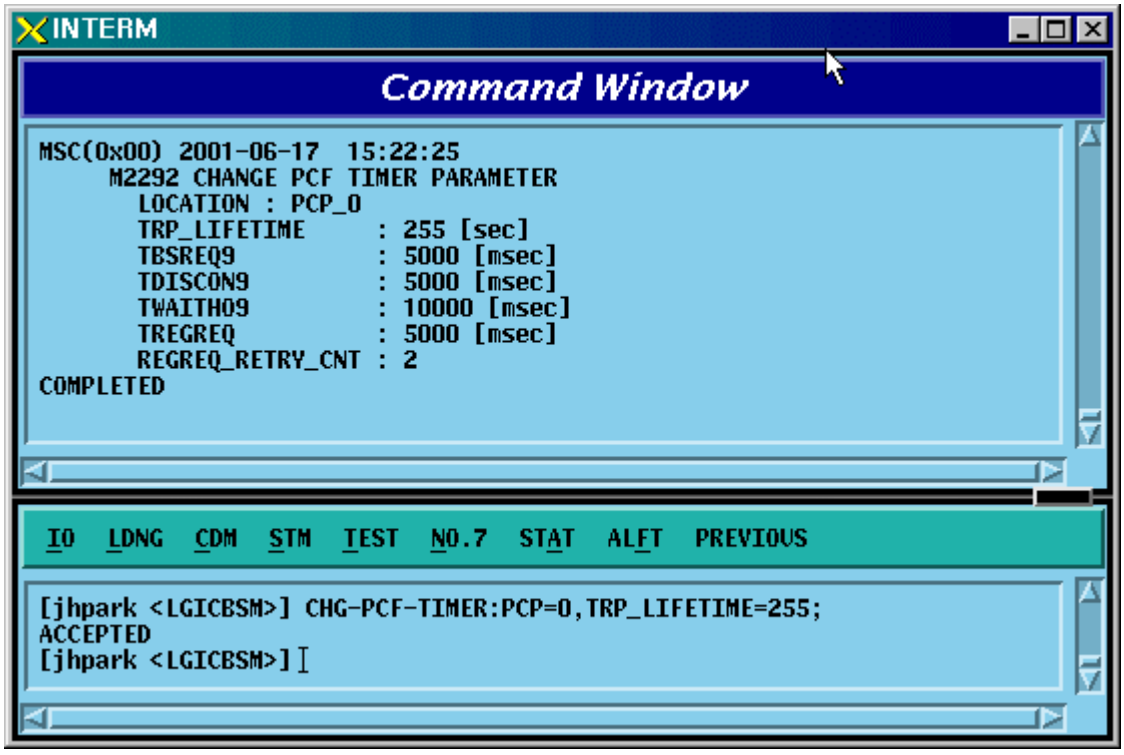

Fig. 4.3-122 PCF TIMER Change

4.3.5.23. PCP/PMP ADDRESS Change

To change PCP/PMP ADDRESS, click CDM->Change_Parameter_ Information_2-> CHG-PCP-ADDR on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-PCP-ADDR :PCF=a ,SHELF_ID=b ,SIDE=c ,IP_ADDR=d;

• Input CHG-PCP-ADDR :PCF=0 ,SHELF_ID=0 ,SIDE=A_SIDE ,
IP_ADDR=255.255.255.255;

• Output

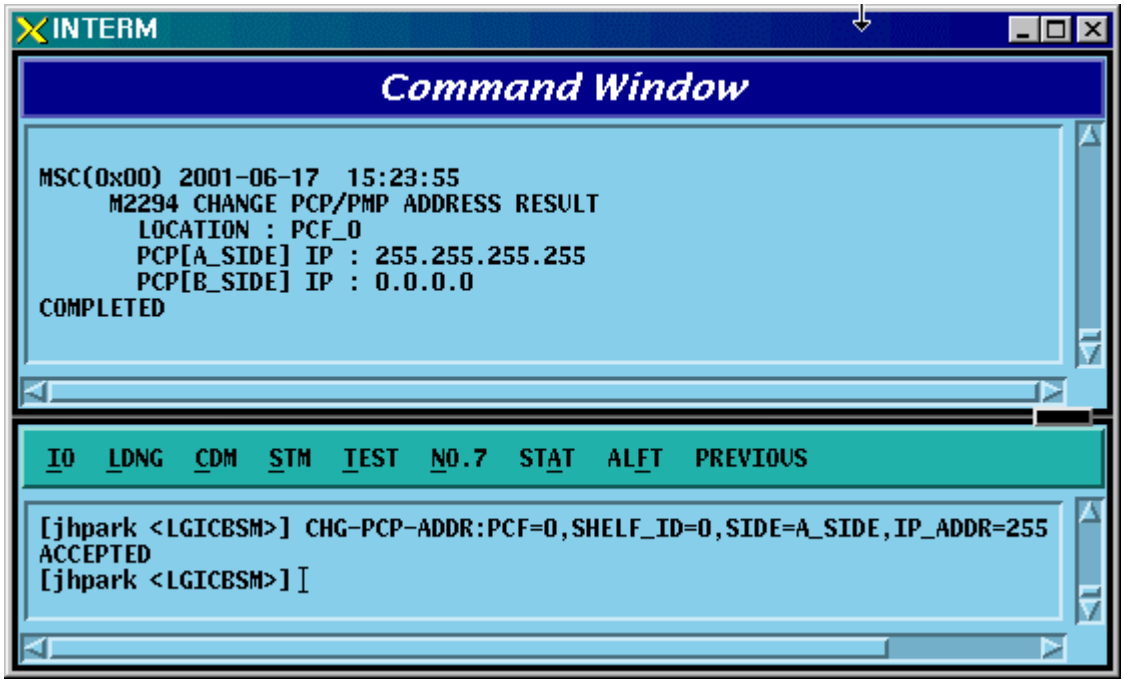

Fig. 4.3-123 PCP/PMP ADDRESS Change

4.3.5.24. PIP ADDRESS Change

To change PIP ADDRESS, click CDM->Change_Parameter_ Information_2-> CHG-PIP-ADDR on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PIP-ADDR :PCF=a ,SHELF_ID=b ,PIP_ID=c [,IP_ADDR=d] [,NETMASK=e]

• Input CHG-PIP-ADDR :PCF=0 ,SHELF_ID=0 ,PIP_ID=0, NETMASK=255.255.0.0;

• Output

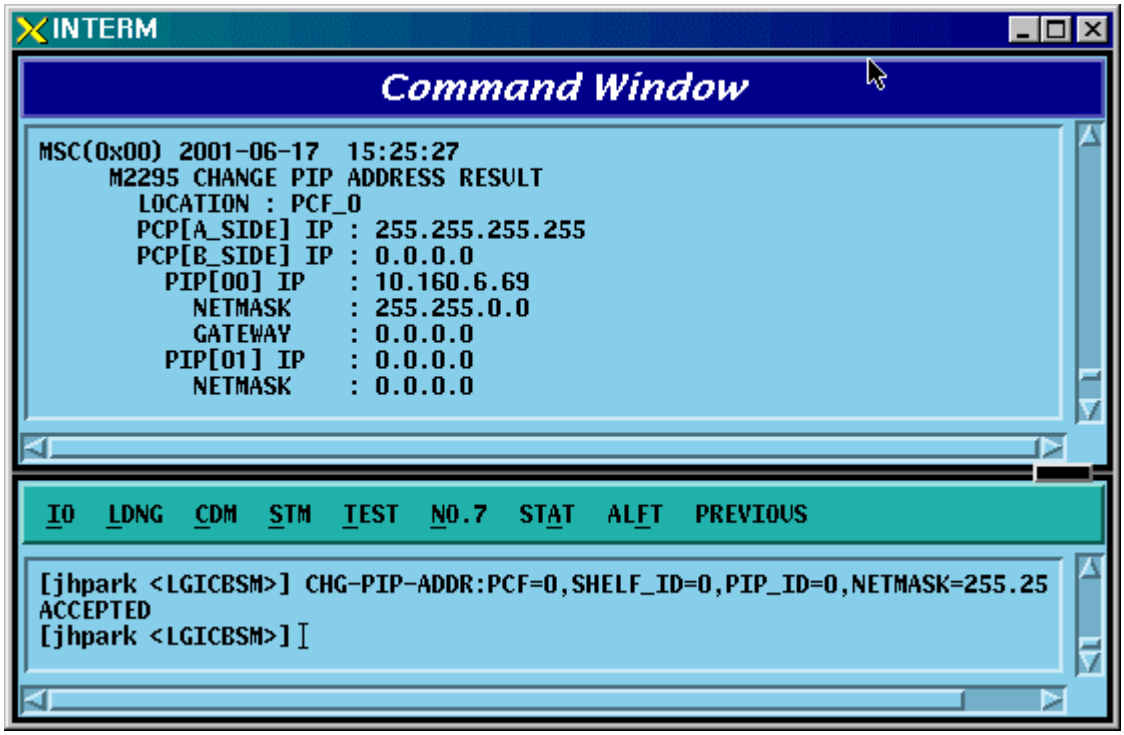

Fig. 4.3-124 PIP ADDRESS Change

4.3.5.25. PCF PARAMETER Change

To change PCF PARAMETER, click CDM->Change_Parameter_ Information_2-> CHG-PCF-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

• Command CHG-PCF-PARA :PCF=a [,AAA_TYPE=b] [,SID=c] [,NID=d]
[,LTM_OFF=e]
[,DAY_LT=f] [,PKZN_ID=g] [,ID_TYPE=h] [,GRE_SEQ=i] [,SEQ_TIMER=j]
[,MSID_TYPE=k];

• Input CHG-PCF-PARA :PCF=0,AAA_TYPE=255,SEQ_TIMER=255;

• Output

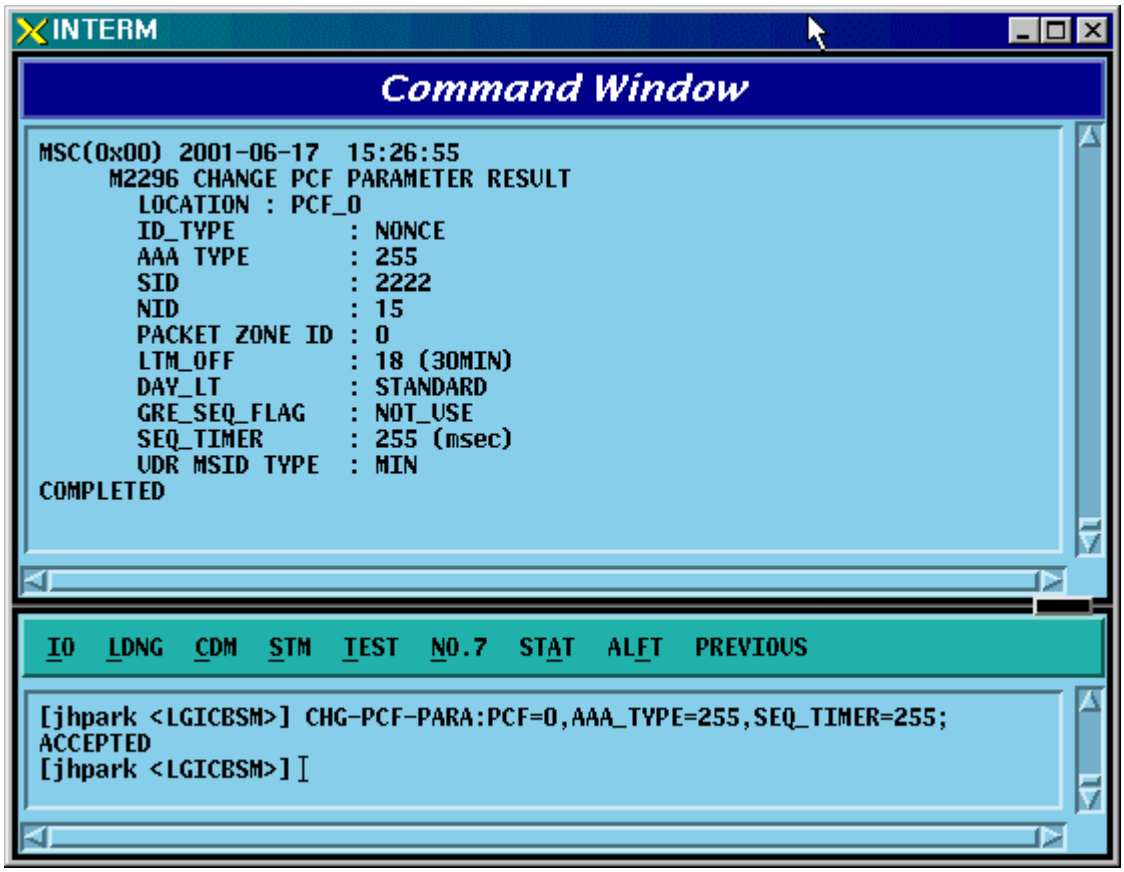

Fig. 4.3-125 PCF PARAMETER Change