

iDEN 800MHz RRH User Guide

Written by	Reviewed by	Approved by
JINHEE LEE	KSHIN	MICHALE YOON



Index

Contents

1.	FCC Information	.3
2.	Test Environment	3
_2.	1. Preperation List	3
_2.	2. Testing Environement Configuration	.3
_2.	3. RRH Setup Procedure	.4
3.	Network Configuration	5
4.	Operate GUI Program	6



1. FCC Information

RF Exposure compliance must be addressed at the time of licensing

2. Test Environment

- 2.1. Preperation List
 - iDEN 800Mhz RRH (Remote Radio Head 800MHz)
 - PSU (Power Supply Unit)
 - BBU (Base Band Unit, Alacaltel Lucent)
 - Optic transceiver 2EA (Yellow- 1550nm, Blue- 1310nm)
 - Optic Cable
 - RJ45 Ehternet Cable
 - Laptop computer for RRH GUI

2.2. Testing Environement Configuration





PSU Setting Table

Voltage	Current Limit							
Low : -38V	12 A							
Normal : -48V	9.5 A							
High : -57V	8 A							

2.3. RRH Setup Procedure

- Checke PSU Power 48V off
- Connect PSU power to RRH Power connector
- Connect BBU and RRH with Optic transceiver and Optic cable

RRH side; Blue Transceiver (1310nm)

BBU side; Yellow Transceiver (1550nm)

- Turn on PSU to power up RRH
- Make sure computer to join RRH and BBU network.

If the computer joined the same network which BBU joined, it is able to access RRH network from the GUI.







3. Network Configuration

Setup computer network configuration

IP: assigned by ALU (ex; 10.10.10.55)

Subnet mask: 255.0.0.0

Default gateway: assigned by ALU (ex; 10.10.10.1)

DNS: assigned by ALU

heral bu can get IP settings assigned is capability. Otherwise, you nee e appropriate IP settings.	automatically if your network supports ed to ask your network administrator for
Obtain an IP address autom	atically
Use the following IP address	£
IP address:	10 . 10 . 10 . 55
S <u>u</u> bnet mask:	255.0.0.0
Default gateway:	10 . 10 . 10 . 1
Obtain DNS server address Obtain DNS server the following DNS server Preferred DNS server: Alternate DNS server:	automatically er addresses:
Alternate Divid Server.	

Test network configuration

Windows Start > Run > CMD [Enter]

C:\> ping RRH IP(10.14.0.196) [Enter]





4. Operate GUI Program

• Run GUI Program.

Input RRH's IP and click the Connect button

👬 Untitled - rrh220																		_	
File Edit View Help																			
D 🗃 🖬 👗 🖻 💼 🎒 🤗																			
	CARRIER & RF	INVENT	COUNTER	СР	RIDE	LAY	5W &	ACTION	STA	TC	PTIC	LOOP	Mis	c ME	MORY	RF	EVENT	ALD	SWE 🔺
10 . 14 . 0 . 196 1307																			_
CONNECT		4.5.8.	12 CARRIERCE	¢4.5.	8.12 CA	RRIER	FC4.5	.8.12 CAR	RIERC	F(4.5.	8.12 CA	RRIERC	<4.5.	8.12 CAP	RIERC	FG5 5.7.2	TRANSMI	r —	
RX CONNECC		GE	T SET	6	ET	SET		SET 9	ET	G	ET	SET	G	ET	ET	INDE	EX 🔲		
ALARM Close	INDEX		1 🗸		2	~		3	~		4	~		5	~	TXENABL	E 🗹 D	ISABLE	~
Undete	STATE		DISABLE 🗸		DISAB	LE 🗸		DISABL	E 🗸		DISAB	LE 🗸		DISABL	E 🗸	DE	L GET	SE	T I
Update	TXCONTAINER		1		4			2			5			3					
4 5 3 General Attributes	TX2CONTAINER		1		4			2			5			3		4.5.3.32	CARRIER	INFO	
€ 4.5.4 CPRI Port Attributes	RX1CONTAINER		1		2			3			4			5		IND	EX		
€ 4.5.5 Delay Attributes	RX2CONTAINER		5		7			8			9			10		RXnGA	IN		
⊕ 4.5.6 Non-Volatile Memory Attrib.	TXFREQ		362900		864150			865400			866650			867900			GET	-	
€ 4.5.7 RF Attributes	RXFREQ	I	817900		819150			820400			821650	L		822900					
4.5.8 Carrier Attributes	CARRTYPE		3G1X 🖌		3G1X	~		3G1X	~		3G1X	~		3G1X	~	4.5.7.8	Divmonitor	-	
4.5.8.2 General Action Request A																INDE	EX	,	
 4.5.9 Event Report Attributes 4.5.10 Aptenna Line Device (ALD) 	POWER		430		430			430	_		430			430		STAT	Е 🗌 🗌		~
+ 4.5.11 ALD Action Request Attrib	SIGTYPE		NONE V		NONE	~		NONE	~		NONE	~		NONE	~	FLOC	R		_
	GRPSIZEDOWN		1		1			1			1			1		THRES	ਸ 📃 🗌		_
	GRPSIZEUP		1		1			1			1			1	_	SMOOT	нЦ _		_
	TX3CONTAINER)		0			0			0					ALPH			_
	TX4CONTAINER				0			0			0					DELA			
	RX3CONTAINER				0.			0			0						GET	SE	r I
	RX4CONTAINER)		0			0			0					* Swee			
	TXFREQ1)		0			0			0					Silee	FIGHE		
	TXFREQ2		,		0			0	_		0				_	START	FREQ		_
	RX1FREQ)		0			0	_		0					STOP	FREQ		_
	RX2FREQ				0			0			0			0		STEP	FREQ		_
	ULNOISE		6442		-6442			-6442	_		-6442			-6442	_		STAR	TSTO	P
	CARRIERSCALE		100		100			100	_		100			100					
•																			•
Ready																		NUM	1

• Setup the carrier configuration on the index to turn on carrier power.

If you want to make LTE single carrier configuration, please follow below setting and click (A) SET button.

Ex) 1FA setup with LTE signam on Index 3 (Tx; 865.4MHz, Rx; 820.4MHz)

Index : 3

STATE : [v] Enable

TXCONTAINER : [v] 2

TX2CONTAINER : [v] 2

RX1CONTAINER : [v] 3

RX2CONTAINER : [v] 8

TXFREQ : [v] 865400

RXFREQ : [v] 820400

CARRTYPE : [v] LTE



Change TXENABLE[v] from DISABLE to ENABLE and click (B)SET button to turn on RF Power





• If you set up Signal Analyzer, you can monitor carrier power just like below image.

rum Analyzer - ACP 05:02:32 PM Oct 16, 2012 Radio Std: None ALIGN AUTO External Gain Center Freq: 866.400000 MHz Trig: Free Run #Atten: 20 dB Ext Gain Preamp Gain -41.74 dB Ext Gain: -41.74 dB Radio Device: BTS IFGain:Low Ext Preamp -41.74 dB Ref 36.10 dBm 10 dB/div 43.1 dBm Center 866.4 MHz #Res BW 10 kHz Span 20 MHz Sweep 16.45 s #VBW 300 Hz Total Carrier Power 43.125 dBm/ 3.00 MHz ACP-IBW Lower Upper Carrier Power Filter Offset Freq Integ BW dBr dBm dBm Filte 43.125 dBm / 3.000 MHz 1.515 MHz 30.00 kHz -77.55 -34.42 -77.01 -33.89 OFF 100.0 kHz -72.86 100.0 kHz -83.95 -29.74 -72.52 -29.39 -40.82 -83.79 -40.67 1.550 MHz 7.550 MHz STATUS