(BTU-3586)INSTRUCTION MANUAL

TABLE of CONTENTS

1. OUTLINE of BTU-3586

1-1. USAGE

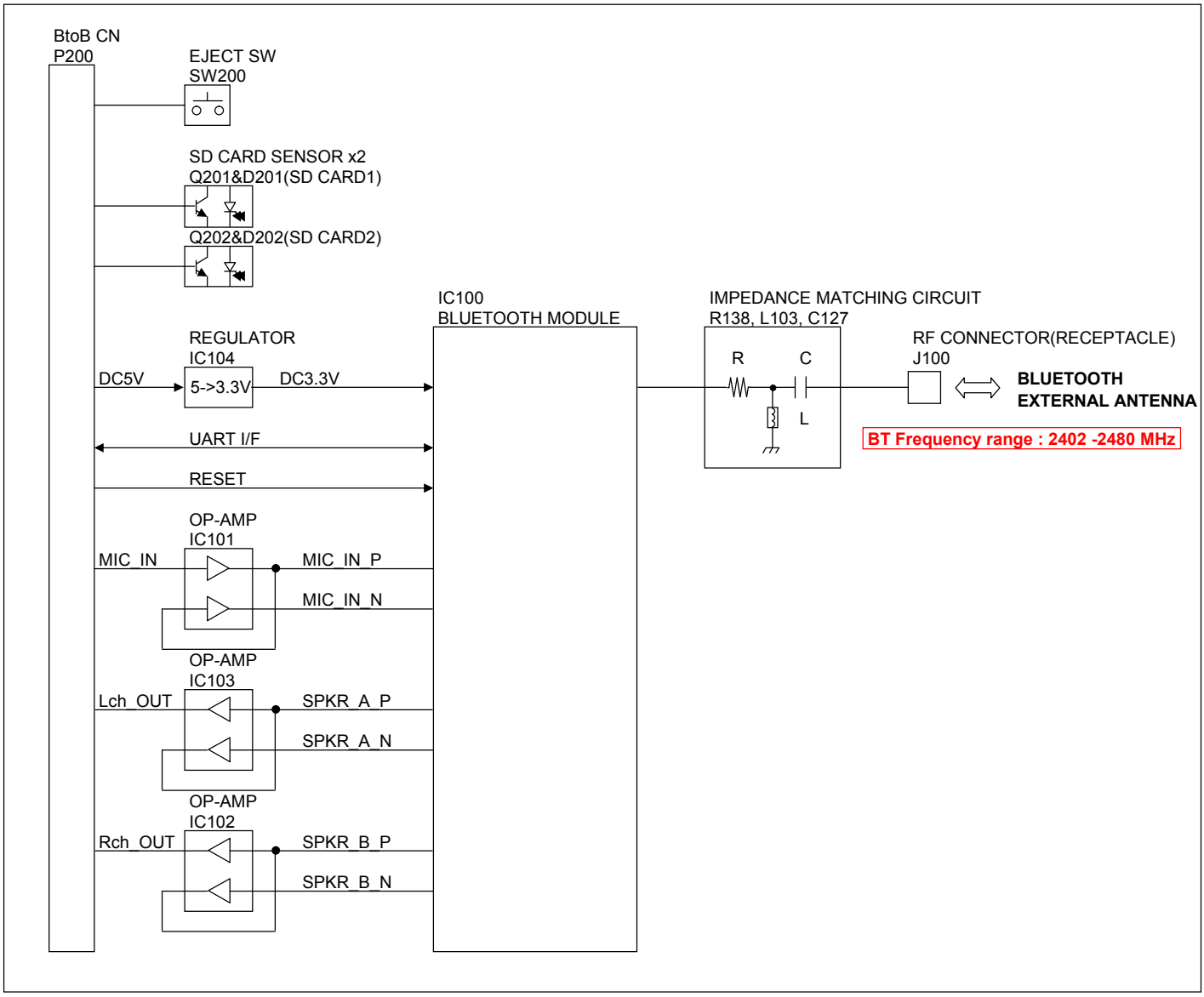
FRONT PCB with BLUETOOTH MODULE
(FRONT PCB is installed to a navigation unit)

1-2. FEATURE

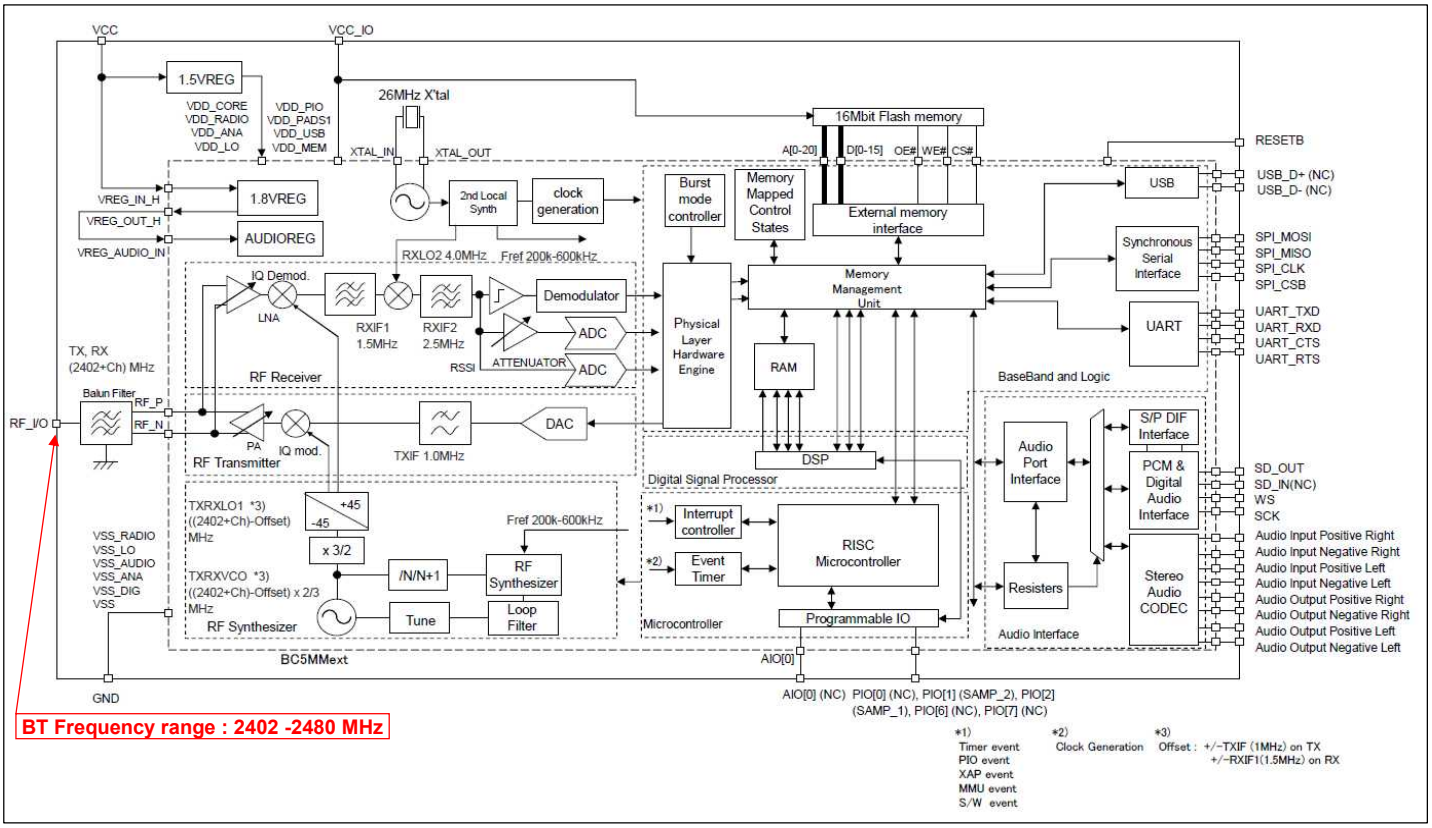
MOUNTED BLUETOOTH MODULE(UGZZ8-732)
SD CARD SENSOR
DISC EJECT

2. BLOCK DIAGRAM

2-1. BTU-3586(FRONT PCB)



2-2. BLUETOOTH MODULE(UGZZ8-732)



3. BLUETOOTH MODULE SPECIFICATION

3-1. PRODUCT NAME

UGZZ8-732

3-2. MANUFACTURE

ALPS ELECTRIC

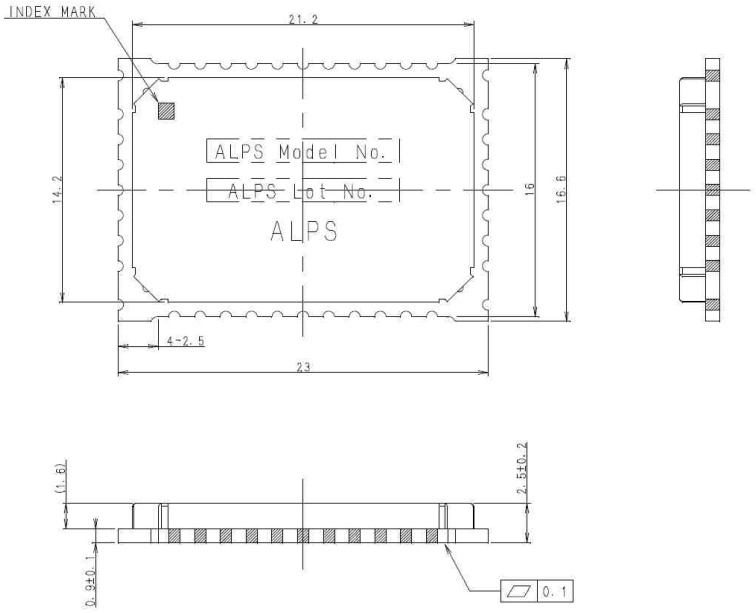
3-3. FEATURES

Bluetooth™ Specification V2.0+EDR support
Complete type of Bluetooth module, built in various profile
(Contains CSR BC5-Multimedia, which has complete radio, 16bit RISC processor, RAM and DSP.)
Output power class 2 compliant

3-4. SPECIFICATION

3-4-1. MECHANICAL SPECIFICATION

3-4-1-1. EXTERNAL DIMENSION



3-4-1-2. MASS

TYP.1.82 [g]

3-4-2. ELECTRICAL SPECIFICATION

3-4-2-1. POWER SUPPLY VOLTAGE

DC +3.1 to 3.6 [V]

3-4-2-2. OPERATING RANGE

-40 to +85 [degree C]

3-4-3. RF SPECIFICATION

3-4-3-1. MODULATION METHOD

GFSK Bbt =0.5
π/4-DQPSK
8DPSK

3-4-3-2. NORMAL TRANSMIT POWER (AVERAGED POWER)

-6 to +4 [dBm] @BDR(BASIC DATA RATE)
-4 to +1 [dBm] @EDR(ENHANCED DATA RATE)

3-4-3-3. REFERENCE SENSITIVITY LEVEL (BER = 0.001%)

MAX. -70 [dBm] @BDR
MAX. -70 [dBm] @EDR

3-4-3-4. DATA RATE

BDR : 1 [Mbps]
EDR : 2 [Mbps] @ π/4-DQPSK
EDR : 3 [Mbps] @ 8DPSK

3-4-3-5. ENCODING METHOD

FHSS (Frequency Hopping Spread Spectrum)

3-4-3-6. OPERATING FREQUENCY RANGE

2402 - 2480 [MHz] (79CH)

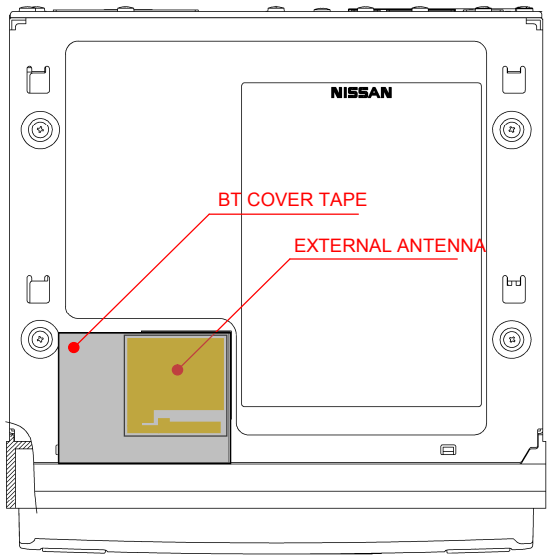
3-4-3-7. TRANSMIT POWER LEVEL

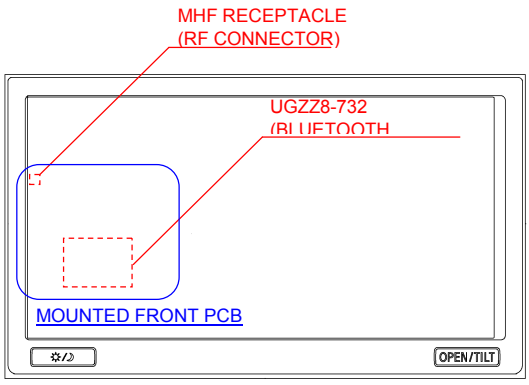
POWER CLASS B (max 2.5[mW])

3-4-3-8. ANTENNA TYPE

EXTERNAL ANTENNA(CONNECT MHF RECEPTACLE@I-PEX)

3-4-3-9. BLUETOOTH MODULE & EXTERNAL ANTENNA POSITION





3-4-4. EXTERNAL ANTENNA SPECIFICATION

3-4-4-1. PRODUCT NAME

CROW-002

3-4-4-2. MANUFACTURE

FUJIKURA

3-4-4-3. FEATURES

INVERTED F TYPE
FILM TYPE(t=0.12[mm]) ANTENNA
FULL CUSTOM PRODUCT of CLARION

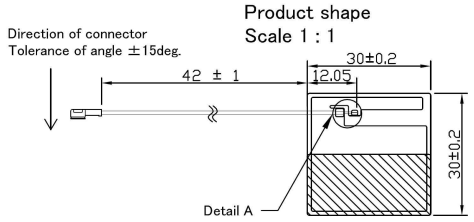
3-4-4-4. PEAK GAIN

XY PLANE : 0.5 [dBi]
ZX PLANE : -0.6 [dBi]

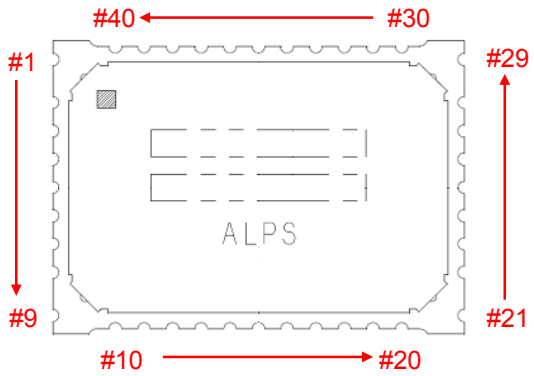
3-4-4-5. AVERAGE GAIN

-5.56 [dBi]

3-4-4-6. EXTERNAL DIMENSION



3-4-5. PIN ASSIGNMENT

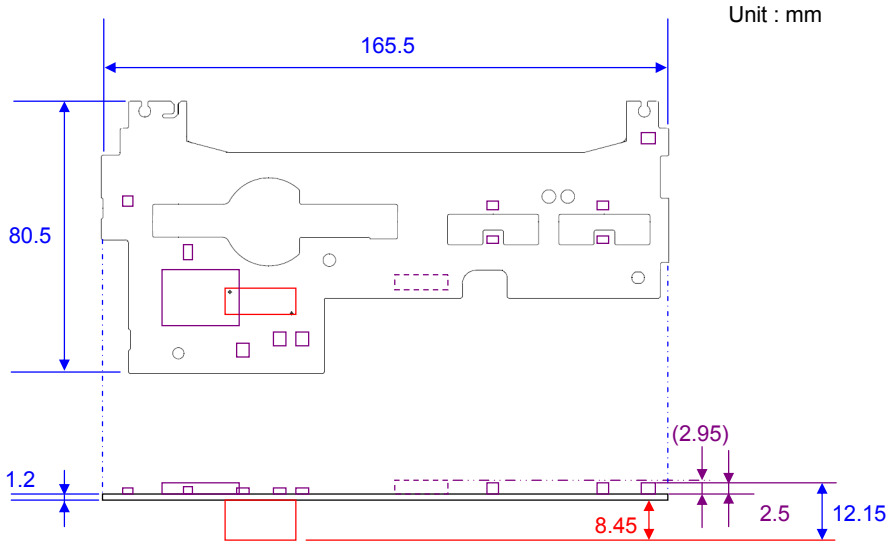


NO.	PIN NAME	I/O	DESCRIPTION	NO.	PIN NAME	I/O	DESCRIPTION
1	NC	-	OPEN	21	NC	-	OPEN
2	VCC_IO	I	IO POWER SUPPLY	22	UART_RTS	O	UART RTS
3	VCC	I	MAIN POWER SUPPLY	23	UART_CTS	I	UART CTS
4	GND	-	GND	24	UART_TX	O	UART TX
5	RF I/O	I/O	RF I/O	25	UART_RX	I	UART RX
6	GND	-	GND	26	SD_IN/PCM_IN	I	I^2S INPUT
7	PIO[0]	I/O	PROGRAMMABLE I/O	27	SCK_PCM_CLK	O	I^2S SERIAL CLK
8	GND	-	GND	28	SD_OUT/PCM_OUT	O	I^2S OUTPUT
9	NC	-	OPEN	29	NC	-	OPEN
10	SPKR_B_P	O	SPEAKER OUT	30	WS/PCM_SYNC	O	I^2S WORD SELECT
11	SPKR_B_N	O	SPEAKER OUT	31	RST#	I	RESET(LOW ACTIVE)
12	SPKR_A_P	O	SPEAKER OUT	32	SPI_CLK	O	SPI CLK
13	SPKR_A_N	O	SPEAKER OUT	33	SPI_MISO	I	SPI INPUT
14	MIC_B_P	I	MIC IN	34	SPI_MOSI	O	SPI OUTPUT
15	MIC_B_N	I	MIC IN	35	SPI_CS#	O	SPI CHIP SELECT
16	MIC_A_P	I	MIC IN	36	NC	-	OPEN
17	MIC_A_N	I	MIC IN	37	PIO[7]	I/O	PROGRAMMABLE I/O
18	GND	-	GND	38	PIO[6]	I/O	PROGRAMMABLE I/O
19	USB_DP	-	USB DATA	39	PIO[2]	I/O	PROGRAMMABLE I/O
20	USB_DN	-	USB DATA	40	PIO[1]	I/O	PROGRAMMABLE I/O

4. BTU-3586(FRONT PCB) SPECIFICATION

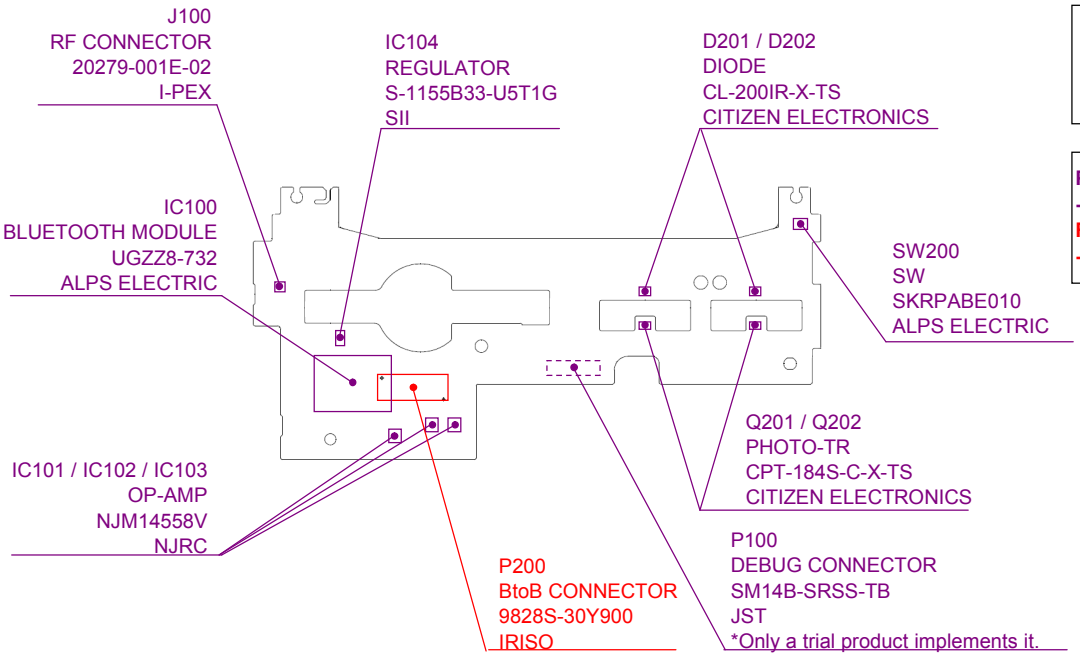
4-1. EXTERNAL DIMENSION

Unit : mm



(FRONT PWB SIZE : 165 * 80.5 * 1.2 [mm])

4-2. MAJOR PARTS LAYOUT



REF.
DESCRIPTION
MODEL NAME
MANUFACTURE

PURPLE CHARACTER
->> SIDE-A MOUNTED PARTS
RED CHARACTER
->> SIDE-B MOUNTED PARTS

4-3. CONNECTOR PIN ASSIGNMENT

4-3-1. BtoB CONNECTOR(9828S-30Y900) / P200

NO.	PIN NAME	I/O	DESCRIPTION	NO.	PIN NAME	I/O	DESCRIPTION
1	D_5V	I	POWER SUPPLY	16	MIC_IN	I	MIC IN
2	GND	-	GND	17	ILL_9V	I	ILL_9V IN
3	D_5V	I	POWER SUPPLY	18	A-GND	-	GND
4	GND	-	GND	19	CARD1_SENS	I	SD CARD SENSOR
5	D_3.3V_SENS	I	VCC DETECTION	20	B/T_R	O	SP OUT
6	N.C.	-	-	21	CARD0_SENS	I	SD CARD SENSOR
7	N.C.	-	-	22	A-GND	-	GND
8	RESET	I	RESET	23	DVD_IND	-	NOT CONNECTED
9	BT_CPU_CTS	O	UART CTS	24	B/T_L	O	SP OUT
10	CPU_BT_RTS	I	UART RTS	25	B_CAS_SENS	I	NOT USED
11	BT_NAVI	I	UART TX	26	N.C.	-	-
12	NAVI_BT	O	UART RX	27	EJECT_SW	I	EJECT SW SIGNAL
13	A_5V	I	POWER SUPPLY	28	N.C.	-	-
14	A-GND	-	GND	29	GND	-	GND
15	A_5V	I	POWER SUPPLY	30	GND	-	GND

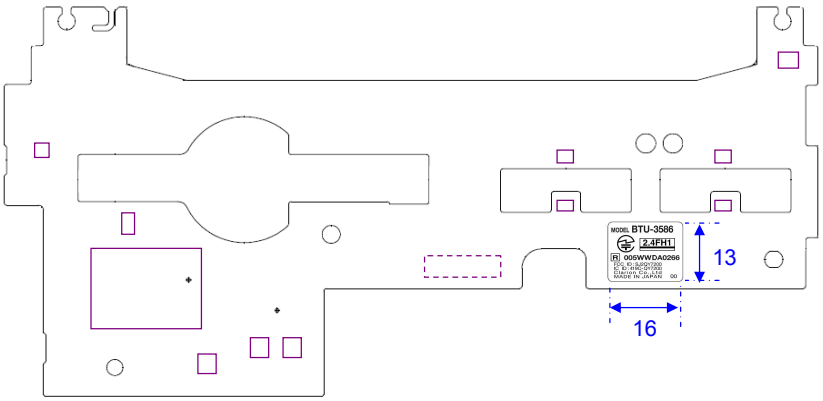
4-3-2. DEBUG CONNECTOR(SM14B-SRSS-TB) / P100

NO.	PIN NAME	I/O	DESCRIPTION	NO.	PIN NAME	I/O	DESCRIPTION
1	N.C.	-	-	8	VCC-5V(UART)	I	POWER SUPPLY
2	SPI_MISO	I	SPI INPUT	9	BT_NAVI	O	UART TX
3	SPI_MOSI	O	SPI OUTPUT	10	NAVI_BT	I	UART RX
4	SPI_CS	O	SPI CHIP SELECT	11	BT_CTS	I	UART CTS
5	SPI_CLK	O	SPI CLK	12	BT_RTS	O	UART RTS
6	GND(SPI)	-	GND	13	BT_RST	I	RESET
7	VCC-5V(SPI)	I	POWER SUPPLY	14	GND(UART)	-	GND

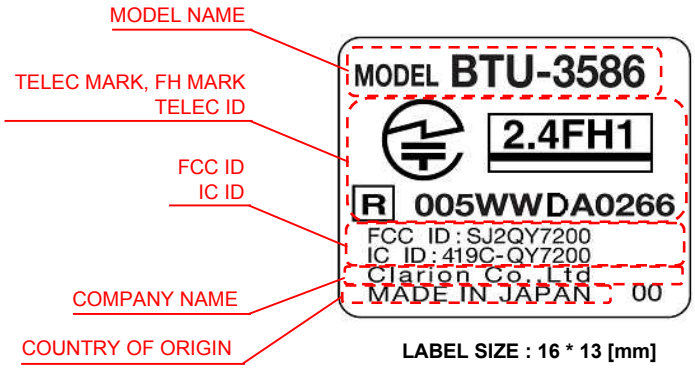
4-4. LABEL INFORMATION

4-4-1. LABEL LAYOUT

(FRONT PCB SIDE-B : BLUETOOTH MODULE MOUNTED SIDE)



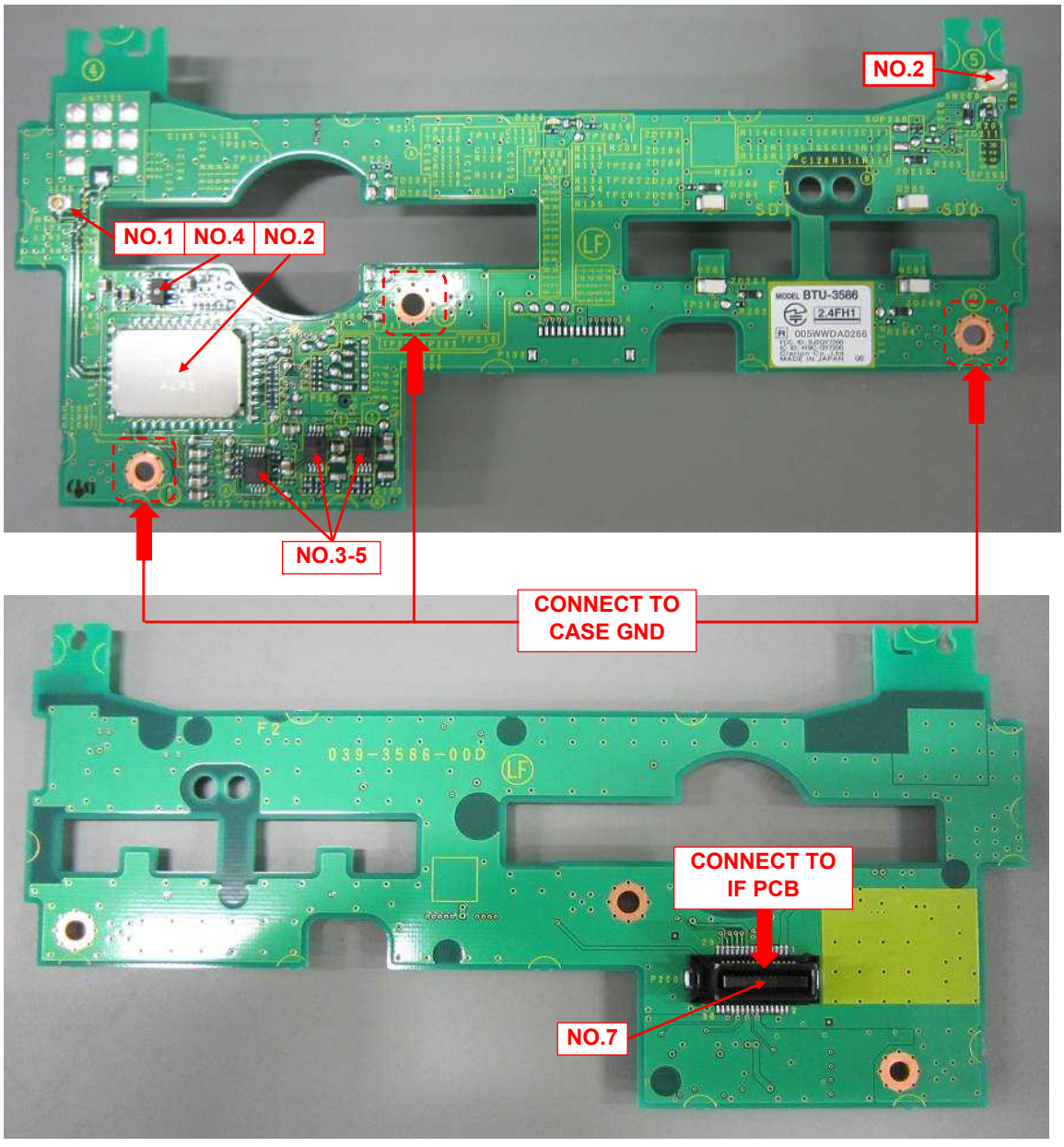
4-4-2. CONTENTS OF LABEL



LABEL SIZE : 16 * 13 [mm]

4-5. GND INFORMATION

NO.	REF.	PARTS NAME	DESCRIPTION	GND PIN NO.	CONNECT TO
1	J100	20279-001E-02	RF CONNECTOR	2	IF PCB
2	IC100	UGZZ8-732	BLUETOOTH MODULE IC	4,6,8,18	IF PCB
3	IC101	NJM14558V	OP-AMP	4	IF PCB
4	IC102	NJM14558V	OP-AMP	4	IF PCB
5	IC103	NJM14558V	OP-AMP	4	IF PCB
6	IC104	S-11SSB33-UST1G	REGULATOR	2	IF PCB
7	P200	9828S-30Y916	BtoB CONNECTOR	2,414,22,29,30	IF PCB
8	SW200	SKRPABE010	SW	1	IF PCB



5. NOTICE

This device complies with part 15 of the FCC Rules.
-Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

-Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

-Please note that this users manual should not be provided to end-users.

-The following sentence has to be displayed on the outside of the device in which the module is installed: "Contains Transmitter Module FCC ID: SJ2QY7200", or "Contains FCC ID: SJ2QY7200"

-This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

-The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.