FCC Test Report

EQUIPMENT	:	**EDA (Enterprise Digital Assistant)**
BRAND NAME	:	**Symbol**
MODEL NAME	:	**MC5574**
FCC ID	:	**H9PMC5574A**
STANDARD	:	**FCC Part 15 Subpart C §15.247**
CLASSIFICATION	:	**Digital Transmission System (DTS)**
APPLICANT	:	**Symbol Technologies Inc**
		One Symbol Plaza Holtsville, NY 11742-1300 USA

The product sample received on Oct. 28, 2008 and completely tested on Nov. 20, 2008. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Roy Wu / Manager

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	A8.2(a)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.2	15.247(b)	A8.4	Power Output	≤ 30dBm	Pass	-
3.3	15.247(d)	A8.5	Frequency Band Edges	≤ 20dBc	Pass	-
3.4	15.247(e)	A8.2(b)	Power Spectral Density	≤ 8dBm	Pass	-
3.5	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 15.3 dB at 0.150 MHz
3.6	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	Under limit 6.03 dB at 164.73 MHz
3.7	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR8O2811A	Rev. 01	Initial issue of report	Dec. 01, 2008

1 General Description

1.1 Applicant

Symbol Technologies Inc
One Symbol Plaza Holtsville, NY 11742-1300 USA

1.2 Manufacturer

Symbol Technologies Inc
One Symbol Plaza Holtsville, NY 11742-1300 USA

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	EDA (Enterprise Digital Assistant)
Brand Name	Symbol
Model Name	MC5574
Sample 1	1D scanner + Battery 1 + Numeric Keypad
Sample 2	2D scanner + Battery 2 + Qwerty Keypad
Tx/Rx Frequency Range	2400 MHz ~ 2483.5 MHz
Number of Channels	11
Carrier Frequency of Each Channel	2412+(n-1)*5 MHz; n=1~11
Channel Spacing	5 MHz
Maximum Output Power to Antenna	802.11b : 15.80 dBm 802.11g : 17.30 dBm
Antenna Type	PIFA Antenna with gain 0.88 dBi
HW Version	DV
SW Version	BSP25
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) ; 802.11g : OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Identical Prototype

Accessories List:

Accessories Specification		
AC Adapter	**Brand Name**	Motorola
	Model Name	EADP-16BB A
	Power Rating	I/P: 100-240Vac, 50-60Hz, 0.4A; O/P: 5.4Vdc, 3A
	DC Power Cord Type	1.94 meter with shielded cable without ferrite core
Power Cable	**AC Power Cord Type**	1.82 meter without shielded cable without ferrite core
Battery 1	**Brand Name**	Motorola
	Model Name	82-107172-01
	Power Rating	3.7Vdc, 2400mAh
	Type	Li-ion
Battery 2	**Brand Name**	Motorola
	Model Name	82-111094-01
	Power Rating	3.7Vdc, 3600mAh
	Type	Li-ion
USB Cable	**Brand Name**	Motorola
	Part Number	25-108022-01R
	Signal Line Type	1.62 meter shielded cable with ferrite core
Holster 1	**Brand Name**	Symbol
	Part Number	11-57530-02
Holster 2	**Brand Name**	Symbol
	Part Number	21-67292-01R
Holster 3	**Brand Name**	Symbol
	Part Number	SG-MC5521110-01R

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. This test report recorded only product characteristics and test results of Digital Transmission System (DTS).
3. For accessories equipped with this EUT, please refer to the appendix of the external photo.
4. For other wireless features of this EUT, test report will be issued separately.

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	CO05-HY	03CH07-HY	TW1022/4086B-1

1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 (Measurement Guidelines of DTS)
- ANSI C63.4-2003
- IC RSS-210 Issue 7

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC), recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	GSM Base Station	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	T&E	GS-50	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-Link	DWL-7100AP	KA22003040018-1	N/A	Unshielded, 1.8m
4.	BT Base Station	Anritus	8852B	N/A	N/A	N/A
5.	PC	DELL	T3400	Fcc DoC	N/A	Unshielded, 1.8m
6.	Bluetooth Earphone	Cellink	BTHS-6025-F	PQY-4710874200357	N/A	N/A
7.	(PS2)Mouse	detrois	CM-201	Fcc DoC	Shielded, 1.4 m	N/A
8.	i-pod	Apple	A1199	Fcc DoC	Shielded, 1.0 m	N/A
9.	LCD Monitor	lenovo	6135-AB1	Fcc DoC	Shielded, 1.6 m	Unshielded, 1.8 m
10.	Keyboard(PS2)	acer	KB-2971	Fcc DoC	Shielded, 1.3 m	N/A
11.	Modem	ACEEX	DM1414	IFAXDM1414	Shielded, 1.15m	N/A
12.	Notebook	DELL	VOSTRO1510	Fcc DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2 Test Configuration of Equipment Under Test

2.1 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and recorded the RF power output in the following table:

802.11b

Channel	Frequency (MHz)	RF Power (dBm)			
		2.4GHz 802.11b Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	14.23	14.32	15.49	15.72
CH 06	2437 MHz	14.23	14.29	15.41	**15.80**
CH 11	2462 MHz	13.90	13.96	15.07	15.48

802.11g

Channel	Frequency (MHz)	RF Power (dBm)							
		2.4GHz 802.11g Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	13.07	13.05	13.31	13.12	13.74	13.50	14.04	13.70
CH 06	2437 MHz	**17.30**	17.29	17.13	17.17	17.00	16.78	16.14	15.85
CH 11	2462 MHz	12.81	12.97	13.07	12.92	13.47	13.20	13.74	13.32

Remark:

1. The 802.11b data rates were set in 11 Mbps and 802.11g data rates were set in 6 Mbps for all the test cases, due to the highest RF output power.
2. The EUT is programmed to transmit signal continuously for all testing.

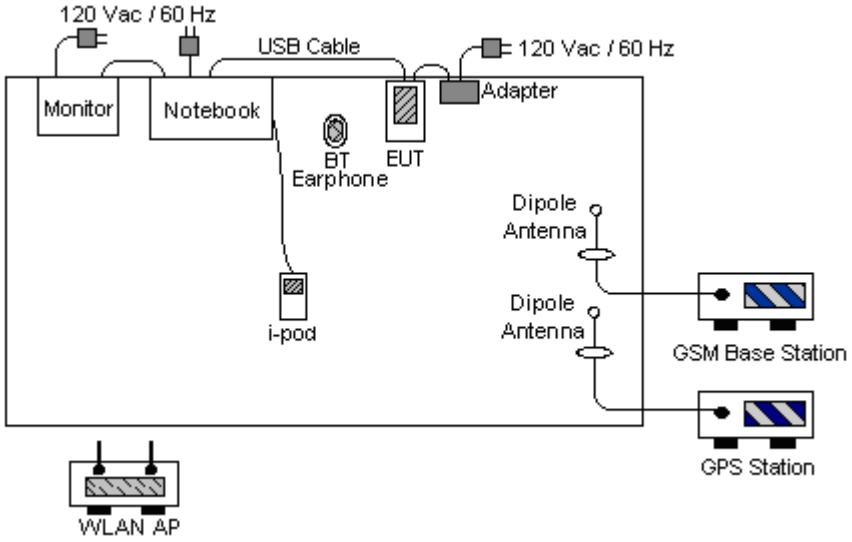
2.2 Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). Pre-scanned tests were conducted to determine the final configuration from all possible combinations. The following tables are showing the test modes as the worst cases and recorded in this report.

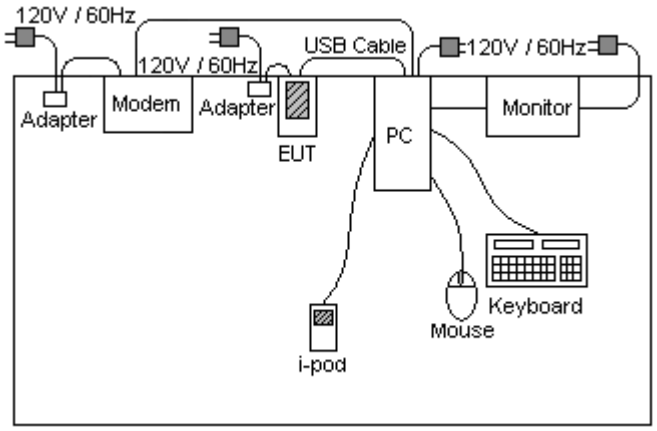
Test Cases		
Test Item	**Modulation**	
	802.11b DSSS	**802.11g OFDM**
Conducted TCs	■ Mode 1: CH01_2412 MHz ■ Mode 2: CH06_2437 MHz ■ Mode 3: CH11_2462 MHz	■ Mode 4: CH01_2412 MHz ■ Mode 5: CH06_2437 MHz ■ Mode 6: CH11_2462 MHz
Radiated TCs	■ Mode 1: CH01_2412 MHz (2D Scanner + Qwerty Keypad + Battery 2 <3600mAh>) ■ Mode 2: CH06_2437 MHz (2D Scanner + Qwerty Keypad + Battery 2 <3600mAh>) ■ Mode 3: CH11_2462 MHz (2D Scanner + Qwerty Keypad + Battery 2 <3600mAh>) ■ Mode 4: CH01_2412 MHz (1D Scanner + Numeric Keypad + Battery 2 <3600mAh>) ■ Mode 5: CH11_2462 MHz (1D Scanner + Numeric Keypad + Battery 2 <3600mAh>)	■ Mode 6: CH01_2412 MHz (2D Scanner + Qwerty Keypad + Battery 2 <3600mAh>) ■ Mode 7: CH06_2437 MHz (2D Scanner + Qwerty Keypad + Battery 2 <3600mAh>) ■ Mode 8: CH11_2462 MHz (2D Scanner + Qwerty Keypad + Battery 2 <3600mAh>) ■ Mode 9: CH01_2412 MHz (1D Scanner + Numeric Keypad + Battery 2 <3600mAh>) ■ Mode 10: CH11_2462 MHz (1D Scanner + Numeric Keypad + Battery 2 <3600mAh>)
AC Conducted Emission	Mode 1 : GSM 850 Idle + GPS Rx + BT Link + WLAN link + USB Charging Cable with AC Power + USB Link + Camera + 1D Scanner + Numeric Keypad + Battery 2 (3600mAh) Mode 2 : GSM 850 Idle + GPS Rx + BT Link + WLAN link + USB Charging Cable with AC Power + USB Link + MPEG4 + 2D Scanner + Qwerty Keypad + Battery 1 (2400mAh)	
Remark: For radiation emission modes 4, 5, 9 and 10, only band edge was verified.		

2.3 Connection Diagram of Test System

<Conducted Emission>



<Radiated Emission>



2.4 RF Utility

The program “CEcTxRx” can keep the EUT transmitting signal continuously.

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

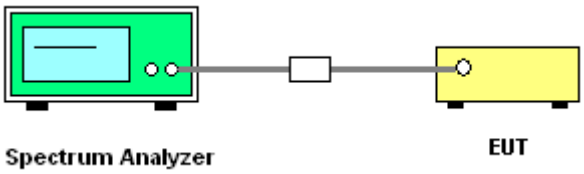
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.
4. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Test Mode :	Mode 1, 2, 3	Temperature :	26~27℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~53%

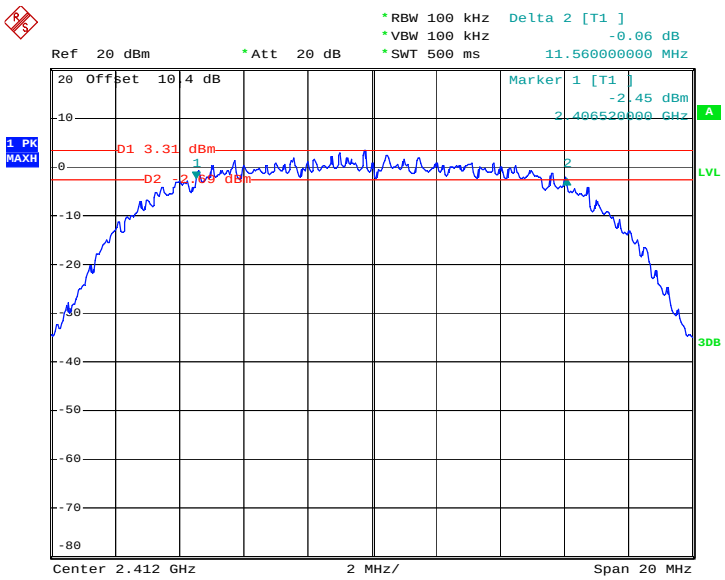
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	11.56	0.5	Pass
06	2437	11.56	0.5	Pass
11	2462	11.56	0.5	Pass

Test Mode :	Mode 4, 5, 6	Temperature :	26~27℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~53%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	16.36	0.5	Pass
06	2437	16.32	0.5	Pass
11	2462	16.36	0.5	Pass

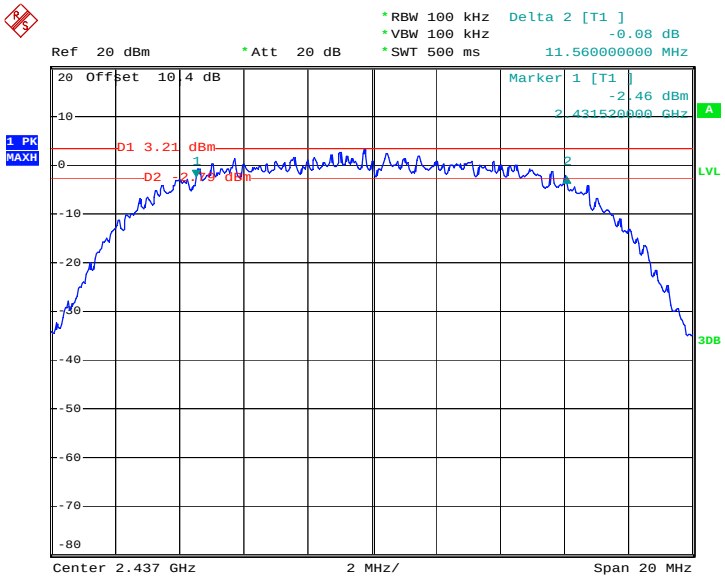
3.1.6 Test Result of 6dB Bandwidth Plots

Mode 1 : 6 dB Bandwidth Plot on 802.11b Channel 01



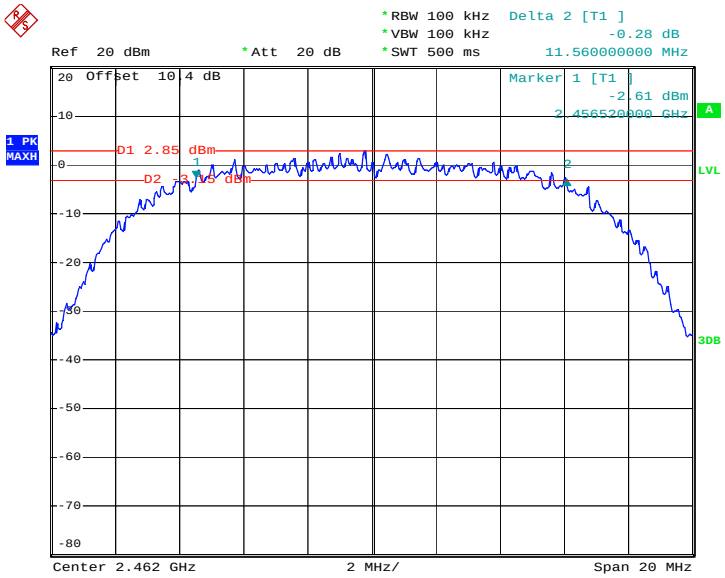
Date: 14.NOV.2008 08:01:39

Mode 2 : 6 dB Bandwidth Plot on 802.11b Channel 06



Date: 14.NOV.2008 08:04:26

Mode 3 : 6 dB Bandwidth Plot on 802.11b Channel 11



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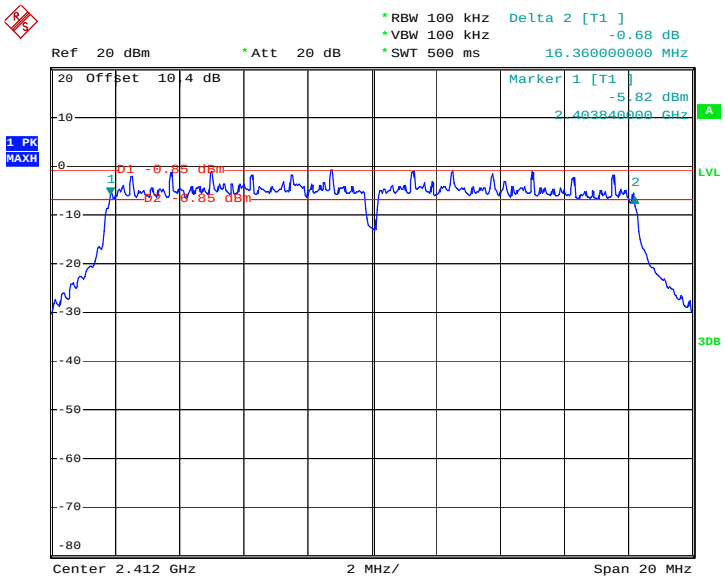
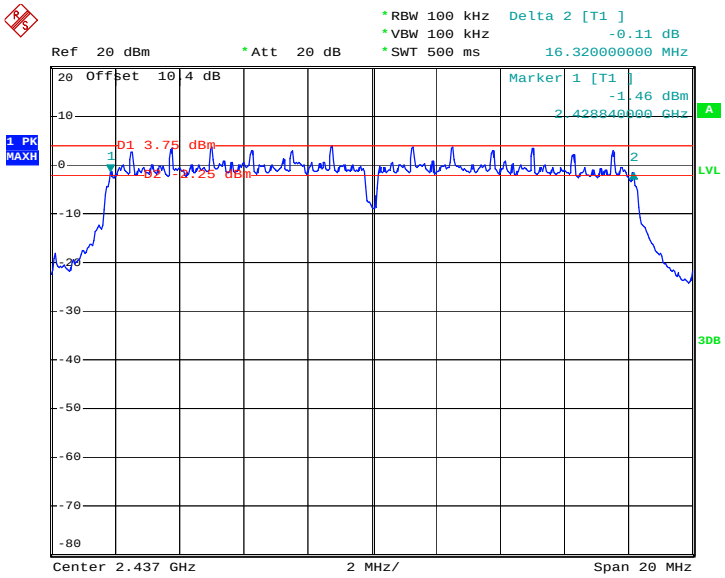
Mode 4 : 6 dB Bandwidth Plot on 802.11g Channel 01



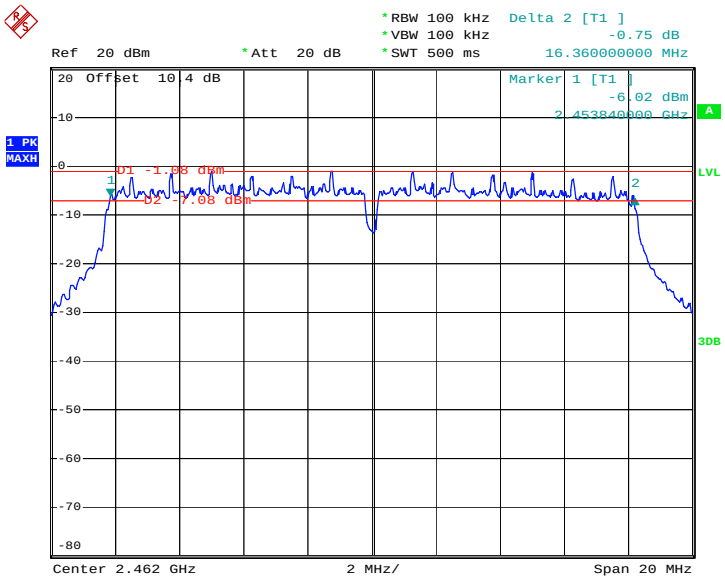
Date: 14.NOV.2008 08:02:24

Mode 5 : 6 dB Bandwidth Plot on 802.11g Channel 06



Date: 14.NOV.2008 08:03:15

Mode 6 : 6 dB Bandwidth Plot on 802.11g Channel 11



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3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Measure the power either by power meter or spectrum analyzer.

3.2.4 Test Setup

3.2.5 Test Result of Output Power

Test Mode :	Mode 1, 2, 3	Temperature :	26~27℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~53%

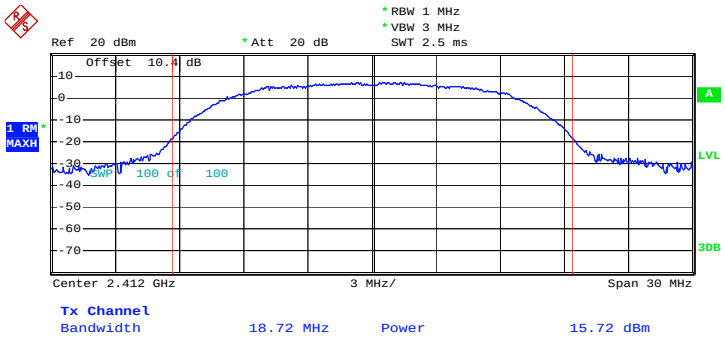
Channel	Frequency (MHz)	Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	15.72	30	Pass
06	2437	15.80	30	Pass
11	2462	15.48	30	Pass

Test Mode :	Mode 4, 5, 6	Temperature :	26~27℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~53%

Channel	Frequency (MHz)	Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	13.07	30	Pass
06	2437	17.30	30	Pass
11	2462	12.81	30	Pass

3.2.6 Test Result of Output Power Plots

Peak Output Power Plot on Channel 01_Mode 1



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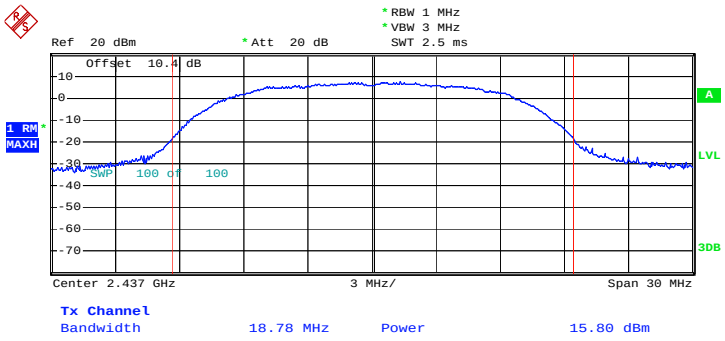
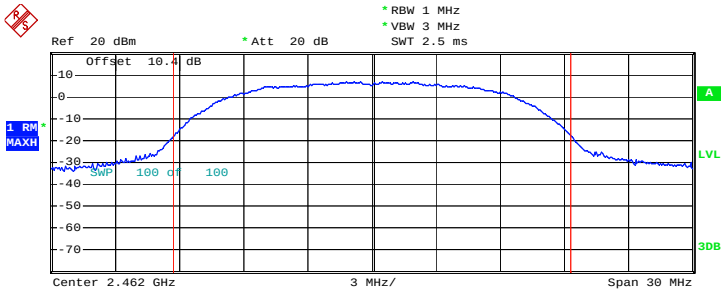
Peak Output Power Plot on Channel 06_Mode 2



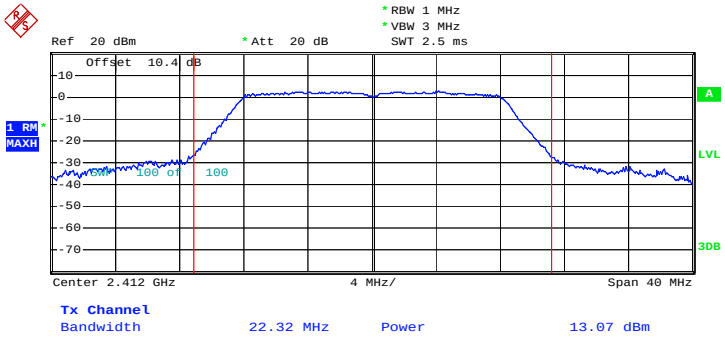
Date: 4.NOV.2008 14:50:59

Peak Output Power Plot on Channel 11_Mode 3



Date: 4.NOV.2008 14:53:47

Peak Output Power Plot on Channel 01_Mode 4



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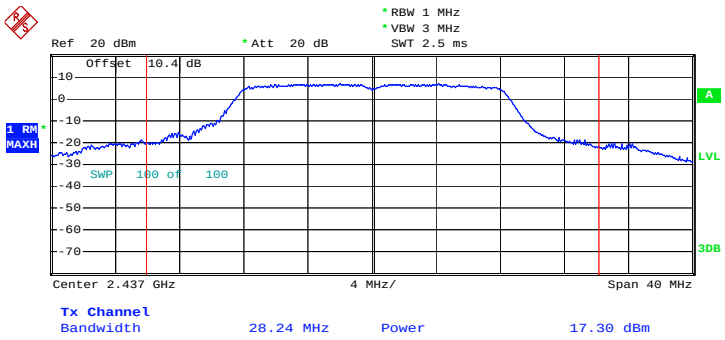
Peak Output Power Plot on Channel 06_Mode 5



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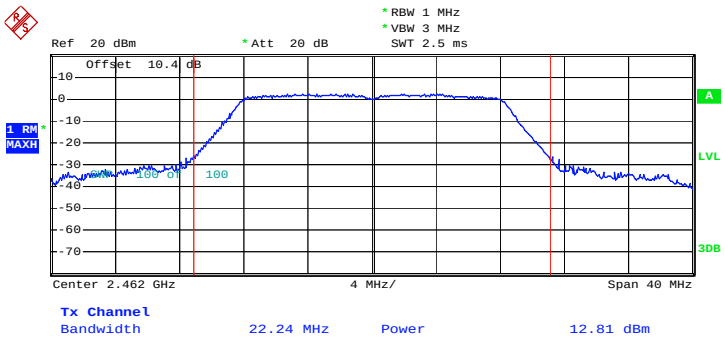
Peak Output Power Plot on Channel 11_Mode 6



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3.3 Band Edges Measurement

3.3.1 Limit of Band Edges

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB.

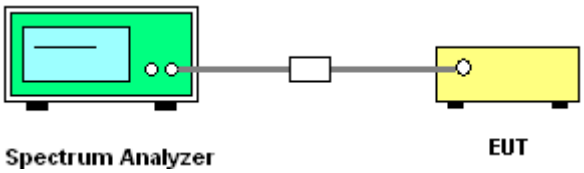
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.4-2003 and FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Conducted emission test: Set RBW = 100 kHz, Video bandwidth (VBW) > RBW, scan up through 10th harmonic. Band edge emissions must be at least 20 dB below the highest emission level within the authorized band as measured with a 100 kHz RBW. Note: If the output power of this device was measured by power meter, the attenuation under this paragraph shall be 30 dB instead of 20 dB.
3. Radiated emission test: Apply to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep=Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation as in FCC Section 15.35(b) and (c).

3.3.4 Test Setup



3.3.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	66.10	-7.90	74.00	64.00	32.32	5.46	35.68	100	0	Peak
2389.99	41.23	-12.77	54.00	39.13	32.32	5.46	35.68	124	20	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.42	61.73	-12.27	74.00	59.65	32.30	5.46	35.68	100	0	Peak
2389.42	37.71	-16.29	54.00	35.63	32.30	5.46	35.68	158	341	Average

Test Mode :	Mode 3	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	65.55	-8.45	74.00	63.56	32.30	5.38	35.70	100	0	Peak
2483.50	39.55	-14.45	54.00	37.56	32.30	5.38	35.70	148	22	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	63.62	-10.38	74.00	61.63	32.30	5.38	35.70	100	0	Peak
2483.50	38.03	-15.97	54.00	36.04	32.30	5.38	35.70	125	352	Average

Test Mode :	Mode 4	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2388.09	63.78	-10.22	74.00	61.68	32.32	5.46	35.68	100	0	Peak
2388.09	39.17	-14.83	54.00	37.07	32.32	5.46	35.68	100	33	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	60.85	-13.15	74.00	58.77	32.30	5.46	35.68	100	0	Peak
2389.99	37.25	-16.75	54.00	35.17	32.30	5.46	35.68	104	339	Average

Test Mode :	Mode 5	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.66	62.92	-11.08	74.00	60.93	32.30	5.38	35.70	100	0	Peak
2483.66	37.73	-16.27	54.00	35.74	32.30	5.38	35.70	149	28	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	62.62	-11.38	74.00	60.63	32.30	5.38	35.70	100	0	Peak
2483.50	37.91	-16.09	54.00	35.92	32.30	5.38	35.70	103	346	Average

Test Mode :	Mode 6	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.42	64.45	-9.55	74.00	62.35	32.32	5.46	35.68	100	0	Peak
2389.42	43.90	-10.10	54.00	41.80	32.32	5.46	35.68	123	21	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2388.85	60.88	-13.12	74.00	58.80	32.30	5.46	35.68	100	0	Peak
2388.85	40.13	-13.87	54.00	38.05	32.30	5.46	35.68	157	341	Average

Test Mode :	Mode 8	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	61.84	-12.16	74.00	59.85	32.30	5.38	35.70	100	0	Peak
2483.50	43.42	-10.58	54.00	41.43	32.30	5.38	35.70	149	23	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	60.03	-13.97	74.00	58.04	32.30	5.38	35.70	100	0	Peak
2483.50	41.69	-12.31	54.00	39.70	32.30	5.38	35.70	125	352	Average

Test Mode :	Mode 9	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2488.85	62.32	-11.68	74.00	60.22	32.32	5.46	35.68	100	0	Peak
2388.85	42.89	-11.11	54.00	40.79	32.32	5.46	35.68	100	33	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2388.66	60.37	-13.63	74.00	58.29	32.30	5.46	35.68	100	0	Peak
2388.66	40.03	-13.97	54.00	37.95	32.30	5.46	35.68	104	338	Average

Test Mode :	Mode 10	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang		

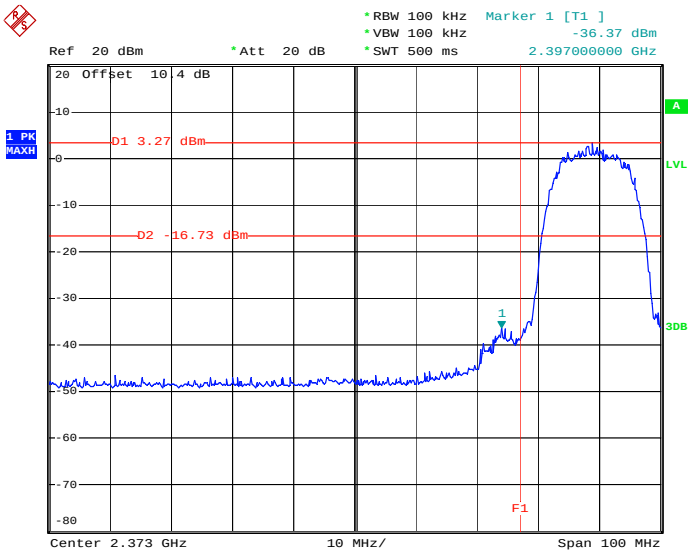
ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.42	62.10	-11.90	74.00	60.10	32.30	5.38	35.70	100	0	Peak
2484.42	42.45	-11.55	54.00	40.46	32.30	5.38	35.70	122	35	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	60.38	-13.62	74.00	58.39	32.30	5.38	35.70	100	0	Peak
2483.85	41.14	-12.86	54.00	39.15	32.30	5.38	35.70	102	347	Average

3.3.6 Test Result of Conducted Band Edges

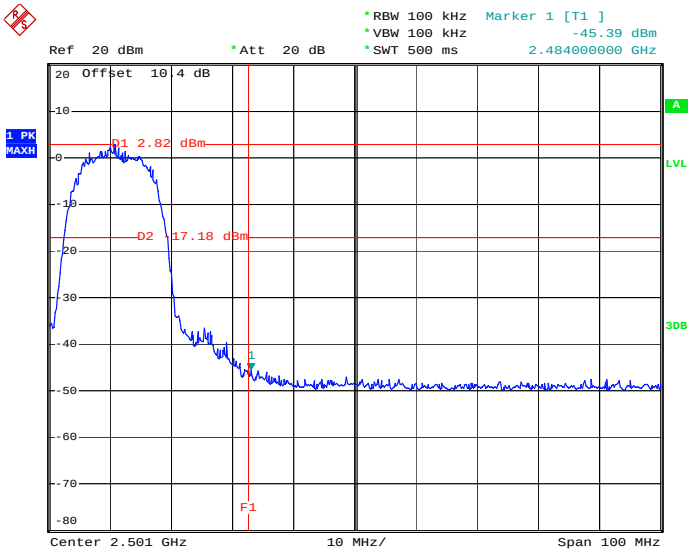
Test Mode :	Mode 1 and 3	**Temperature :**	26~27℃
Test Channel :	01	**Relative Humidity :**	52~53%
Test Engineer :	Ken Hsu		

Low Band Edge Plot on 802.11b Channel 01



Date: 14.NOV.2008 08:10:07

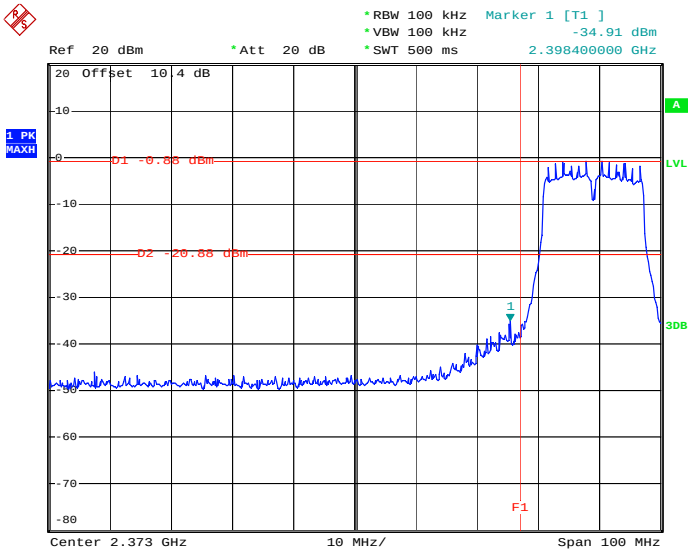
High Band Edge Plot on 802.11b Channel 11



Date: 14.NOV.2008 08:13:50

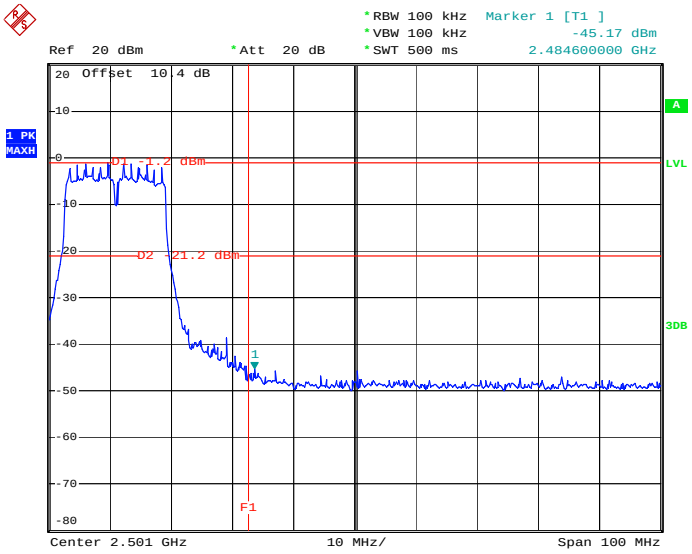
Test Mode :	Mode 4 and 6	**Temperature :**	26~27℃
Test Channel :	01	**Relative Humidity :**	52~53%
Test Engineer :	Ken Hsu		

Low Band Edge Plot on 802.11g Channel 01



Date: 14.NOV.2008 08:11:09

High Band Edge Plot on 802.11g Channel 11



Date: 14.NOV.2008 08:12:32

3.4 Power Spectral Density Measurement

3.4.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

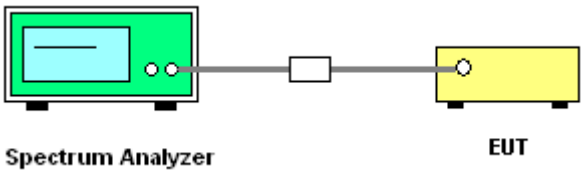
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The test follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Take the measured data from spectrum analyzer.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Test Mode :	Mode 1, 2, 3	Temperature :	26~27℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~53%

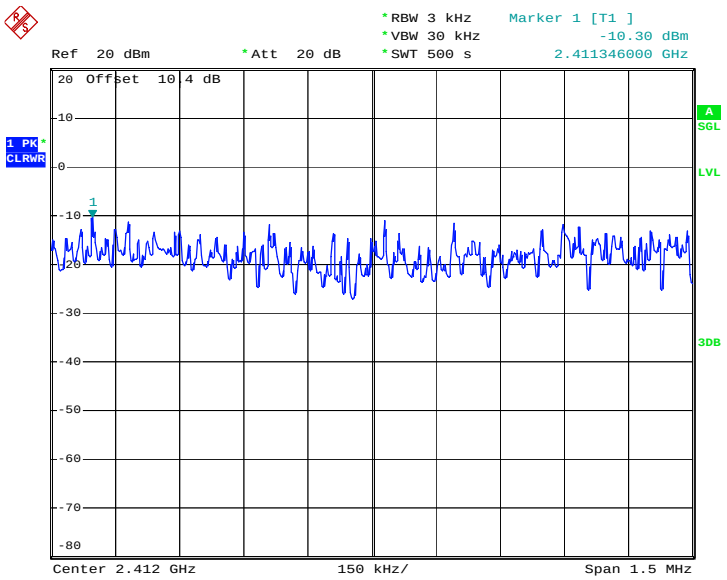
Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-10.30	8	Pass
06	2437	-10.58	8	Pass
11	2462	-10.95	8	Pass

Test Mode :	Mode 4, 5, 6	Temperature :	26~27℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~53%

Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-17.53	8	Pass
06	2437	-13.46	8	Pass
11	2462	-18.01	8	Pass

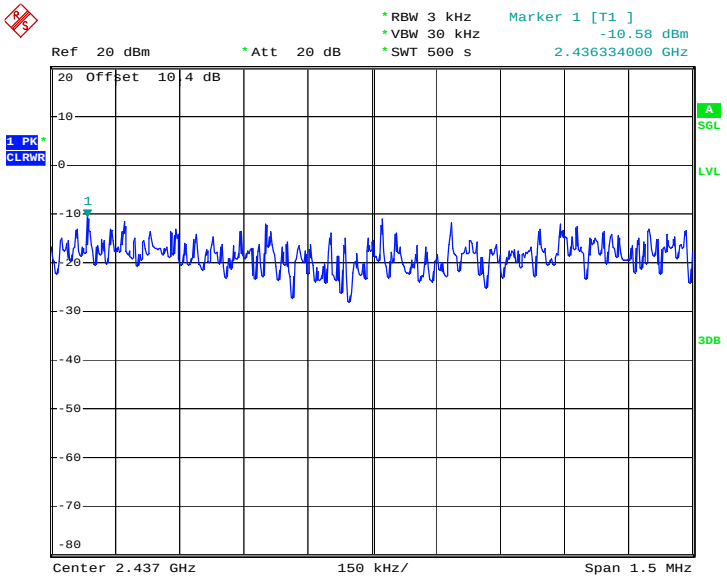
3.4.6 Test Result of Power Spectral Density Plots

Mode 1 : PSD Plot on 802.11b Channel 01



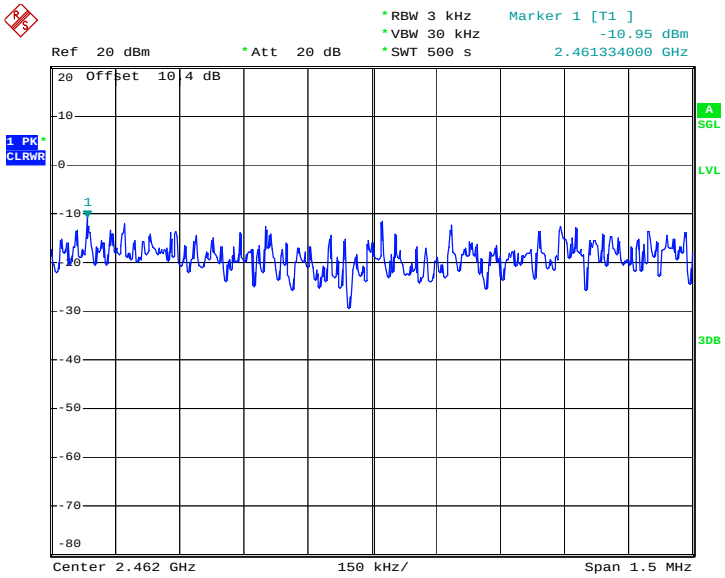
Date: 14.NOV.2008 07:27:52

Mode 2 : PSD Plot on 802.11b Channel 06



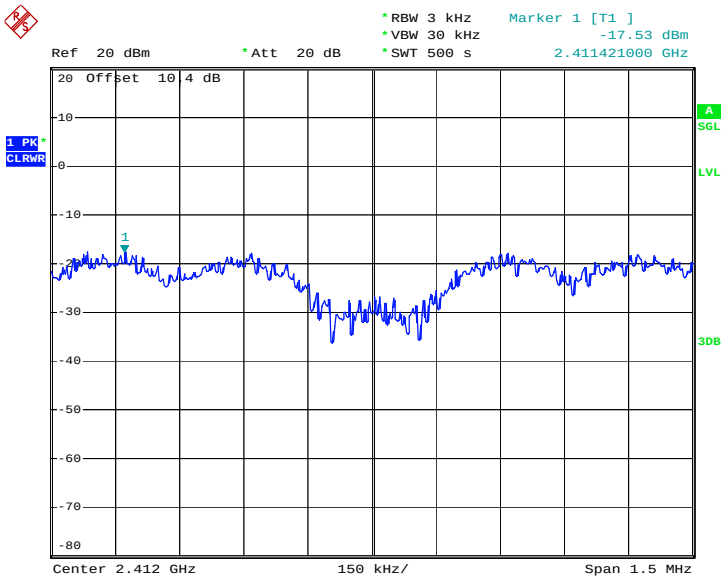
Date: 14.NOV.2008 07:57:20

Mode 3 : PSD Plot on 802.11b Channel 11



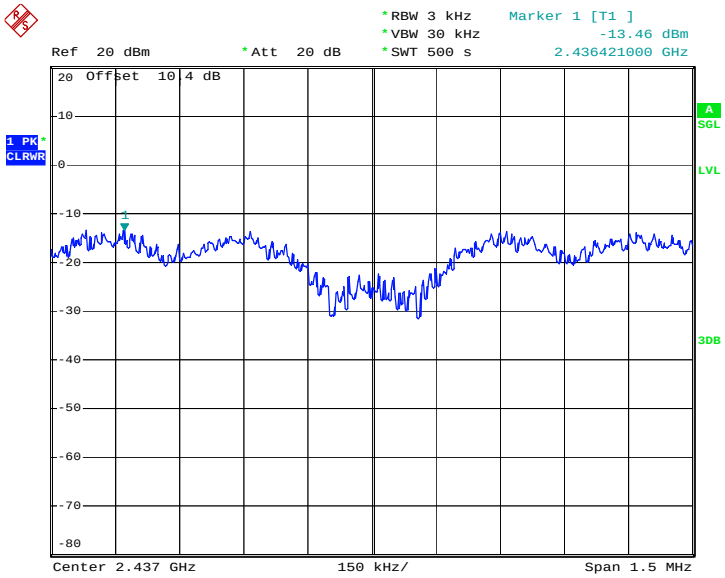
Date: 14.NOV.2008 08:29:42

Mode 4 : PSD Plot on 802.11g Channel 01



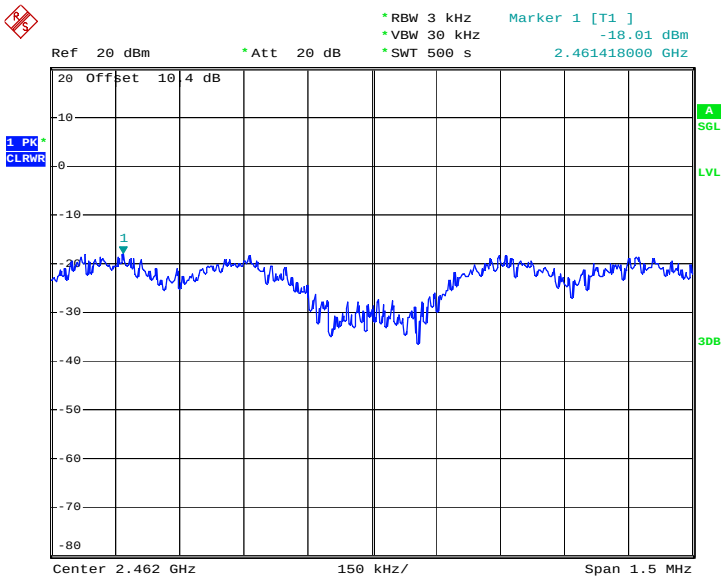
Date: 14.NOV.2008 07:36:53

Mode 5 : PSD Plot on 802.11g Channel 06



Date: 14.NOV.2008 07:47:54

Mode 6 : PSD Plot on 802.11g Channel 11



Date: 14.NOV.2008 08:40:14

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

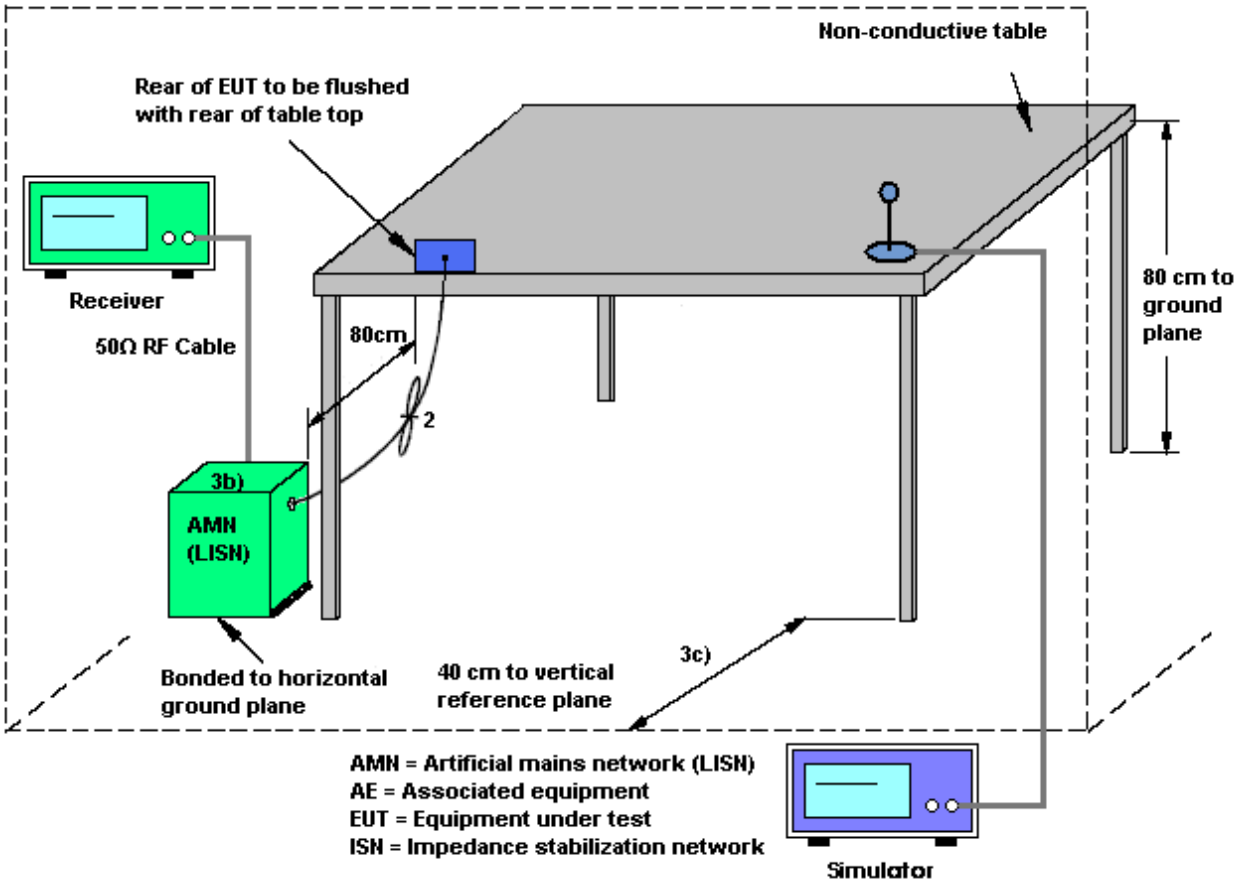
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

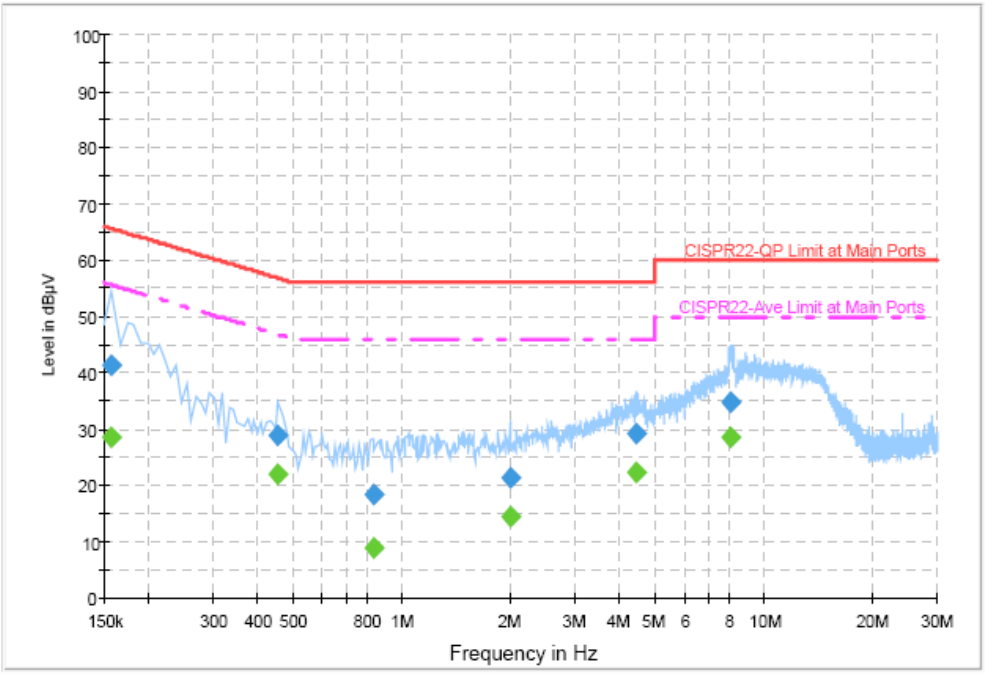
1. The testing follows the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	**Temperature :**	26~27℃
Test Engineer :	Cona Huang	**Relative Humidity :**	52~53%
		Phase :	Line
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN link + USB Charging Cable with AC Power + USB Link + Camera + 1D Scanner + Numeric Keypad + Battery 2 (3600mAh)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



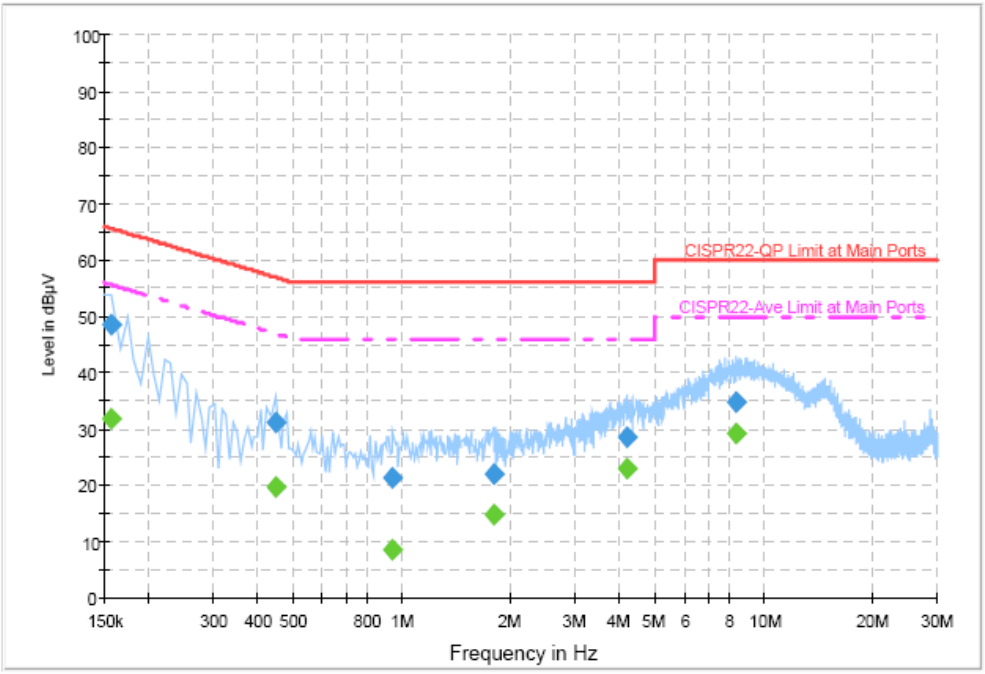
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	41.4	Off	L1	19.3	24.2	65.6
0.454000	29.0	Off	L1	19.3	27.8	56.8
0.830000	18.2	Off	L1	19.4	37.8	56.0
1.982000	21.3	Off	L1	19.4	34.7	56.0
4.446000	29.1	Off	L1	19.5	26.9	56.0
8.030000	34.8	Off	L1	19.5	25.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	28.6	Off	L1	19.3	27.0	55.6
0.454000	21.8	Off	L1	19.3	25.0	46.8
0.830000	8.8	Off	L1	19.4	37.2	46.0
1.982000	14.3	Off	L1	19.4	31.7	46.0
4.446000	22.1	Off	L1	19.5	23.9	46.0
8.030000	28.5	Off	L1	19.5	21.5	50.0

Test Mode :	Mode 1	Temperature :	26~27℃
Test Engineer :	Cona Huang	Relative Humidity :	52~53%
		Phase :	Neutral
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN link + USB Charging Cable with AC Power + USB Link + Camera + 1D Scanner + Numeric Keypad + Battery 2 (3600mAh)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



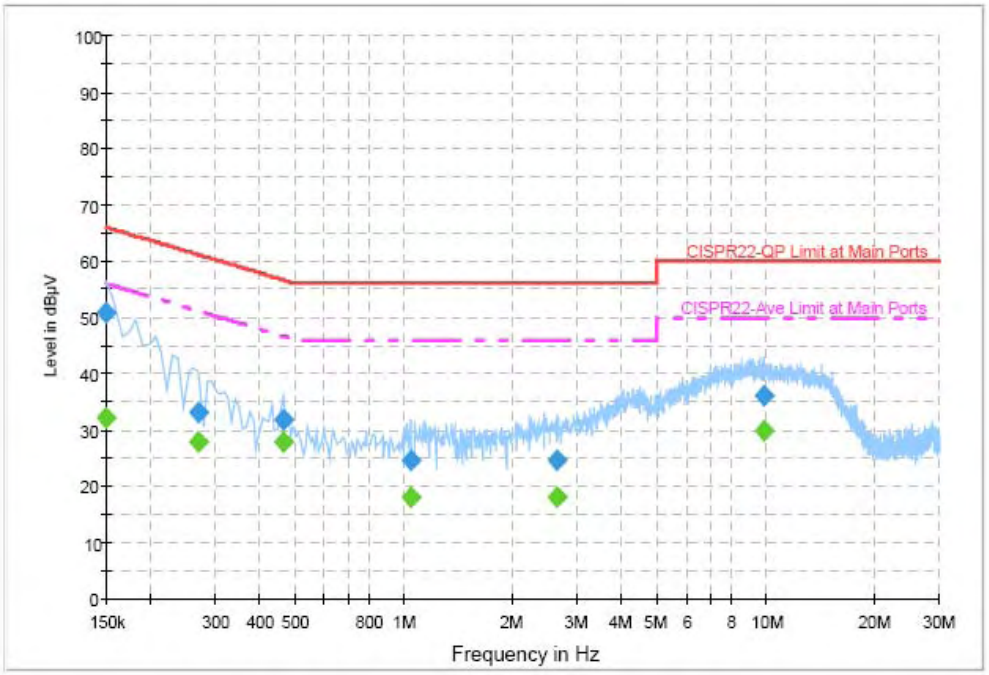
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	48.5	Off	N	19.4	17.1	65.6
0.446000	31.0	Off	N	19.3	25.9	56.9
0.942000	21.4	Off	N	19.4	34.6	56.0
1.798000	22.1	Off	N	19.5	33.9	56.0
4.182000	28.6	Off	N	19.5	27.4	56.0
8.366000	34.6	Off	N	19.6	25.4	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	31.9	Off	N	19.4	23.7	55.6
0.446000	19.8	Off	N	19.3	27.1	46.9
0.942000	8.6	Off	N	19.4	37.4	46.0
1.798000	14.9	Off	N	19.5	31.1	46.0
4.182000	22.9	Off	N	19.5	23.1	46.0
8.366000	29.3	Off	N	19.6	20.7	50.0

Test Mode :	Mode 2	**Temperature :**	25~26℃
Test Engineer :	Cona Huang	**Relative Humidity :**	52~53%
		Phase :	Line
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN link + USB Charging Cable with AC Power + USB Link + MPEG4 + 2D Scanner + Qwerty Keypad + Battery 1 (2400mAh)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



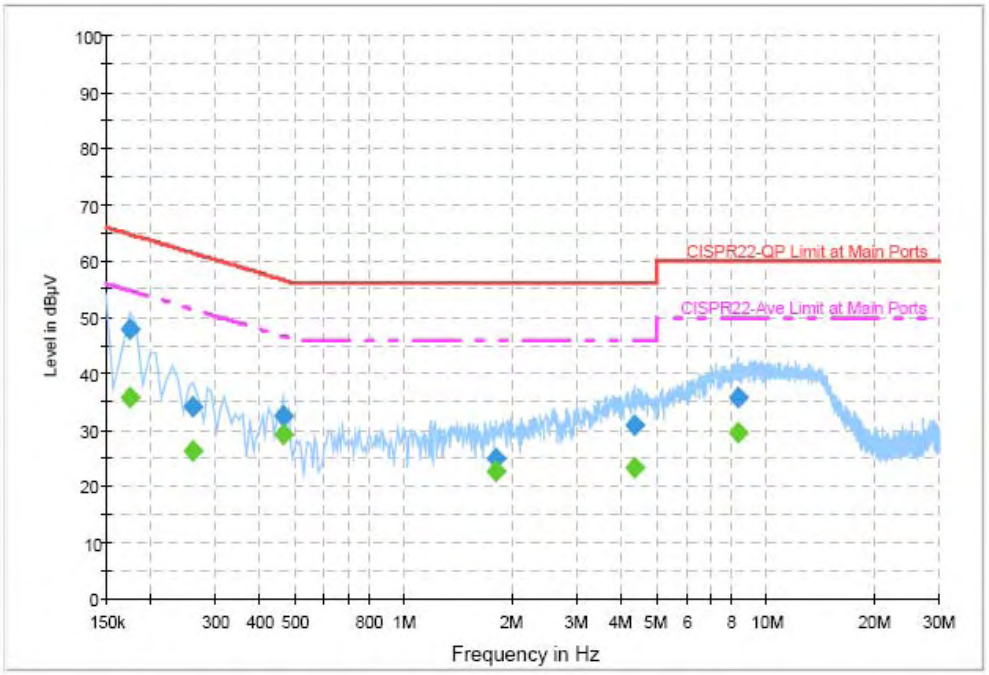
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	50.7	Off	L1	19.4	15.3	66.0
0.270000	33.1	Off	L1	19.3	28.0	61.1
0.462000	31.7	Off	L1	19.3	25.0	56.7
1.038000	24.6	Off	L1	19.4	31.4	56.0
2.646000	24.7	Off	L1	19.4	31.3	56.0
9.774000	36.2	Off	L1	19.6	23.8	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	32.0	Off	L1	19.4	24.0	56.0
0.270000	27.8	Off	L1	19.3	23.3	51.1
0.462000	27.8	Off	L1	19.3	18.9	46.7
1.038000	18.2	Off	L1	19.4	27.8	46.0
2.646000	18.2	Off	L1	19.4	27.8	46.0
9.774000	29.9	Off	L1	19.6	20.1	50.0

Test Mode :	Mode 2	**Temperature :**	26~27℃
Test Engineer :	Cona Huang	**Relative Humidity :**	52~53%
		Phase :	Neutral
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN link + USB Charging Cable with AC Power + USB Link + MPEG4 + 2D Scanner + Qwerty Keypad + Battery 1 (2400mAh)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	47.9	Off	N	19.3	16.9	64.8
0.262000	34.2	Off	N	19.4	27.2	61.4
0.462000	32.4	Off	N	19.3	24.3	56.7
1.790000	25.1	Off	N	19.5	30.9	56.0
4.302000	30.8	Off	N	19.5	25.2	56.0
8.294000	35.6	Off	N	19.6	24.4	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	35.8	Off	N	19.3	19.0	54.8
0.262000	26.3	Off	N	19.4	25.1	51.4
0.462000	29.2	Off	N	19.3	17.5	46.7
1.790000	22.5	Off	N	19.5	23.5	46.0
4.302000	23.2	Off	N	19.5	22.8	46.0
8.294000	29.5	Off	N	19.6	20.5	50.0

3.6 Radiated Emission Measurement

3.6.1 Limit of Radiated Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

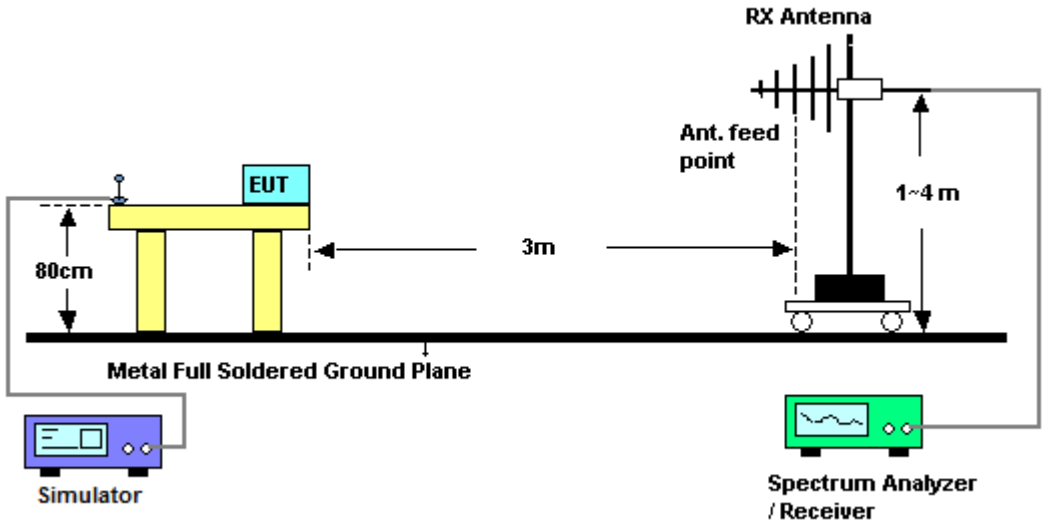
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

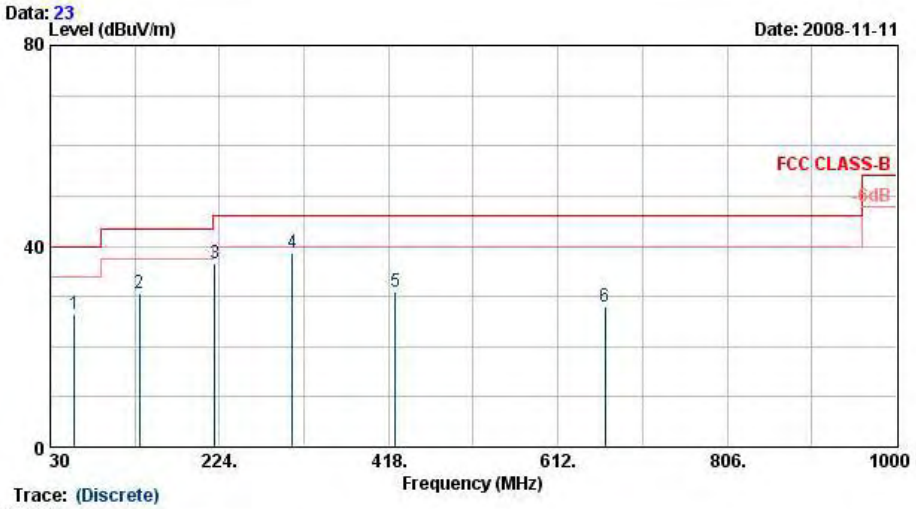
1. The testing follows the guidelines in FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Use the following spectrum analyzer settings:
   Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
3. Follow the guidelines in ANSI C63.4-2003 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.

3.6.4 Test Setup



3.6.5 Test Result of Radiated Emission < 1GHz

Test Mode :	Mode 1	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		

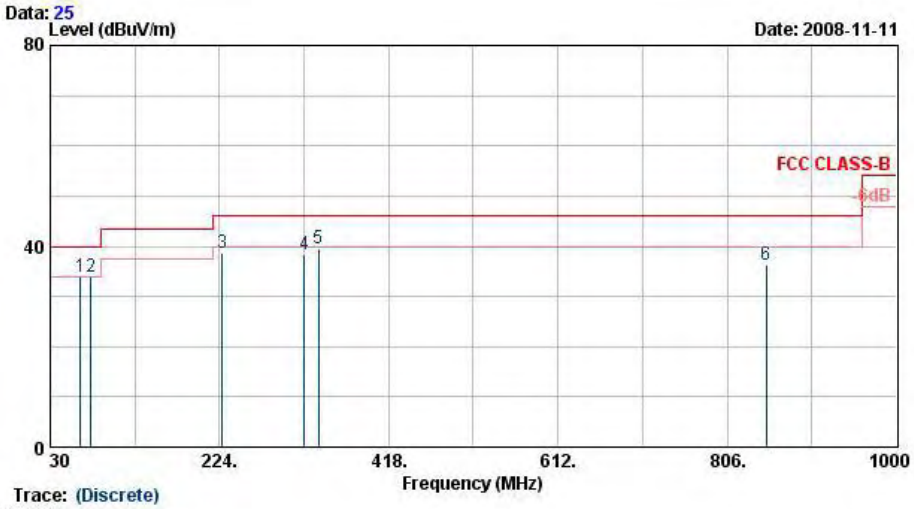


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	57.81	26.34	-13.66	40.00	50.48	6.33	0.89	31.37	---	---	QP
2	132.33	30.54	-12.96	43.50	49.26	11.26	1.37	31.34	---	---	QP
3	218.73	36.58	-9.42	46.00	56.31	9.94	1.79	31.46	---	---	QP
4	307.70	38.55	-7.45	46.00	54.60	13.18	2.16	31.39	100	0	QP
5	425.30	31.05	-14.95	46.00	43.33	16.32	2.70	31.32	---	---	QP
6	666.10	28.01	-17.99	46.00	35.32	20.15	3.46	30.91	---	---	QP

Test Mode :	Mode 1	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		

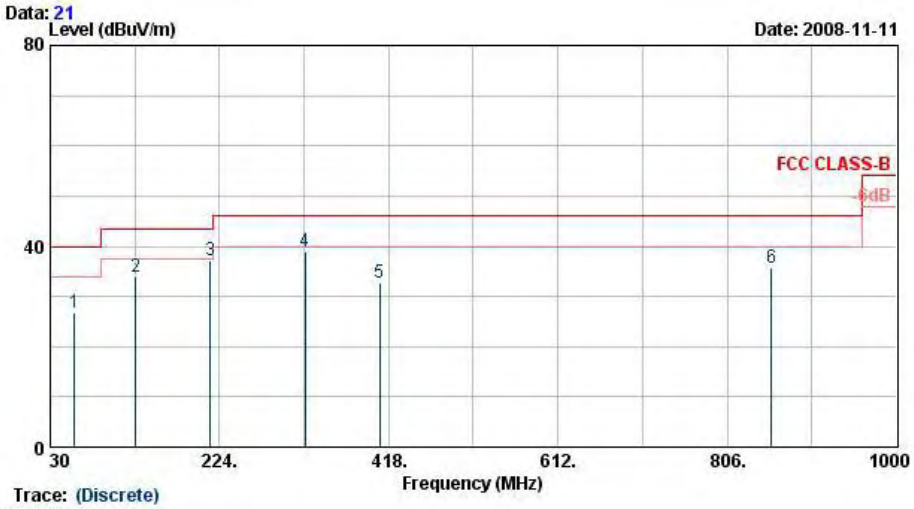


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	64.56	33.81	-6.19	40.00	58.09	6.18	0.94	31.39	---	---	QP
2	76.44	33.97	-6.03	40.00	57.48	6.86	0.99	31.36	100	0	QP
3	227.37	38.67	-7.33	46.00	57.92	10.43	1.83	31.51	---	---	QP
4	321.00	38.44	-7.56	46.00	54.02	13.56	2.22	31.36	---	---	QP
5	337.80	39.69	-6.31	46.00	54.78	14.02	2.29	31.41	---	---	QP
6	850.90	36.17	-9.83	46.00	40.13	22.71	3.96	30.63	---	---	QP

Test Mode :	Mode 2	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		

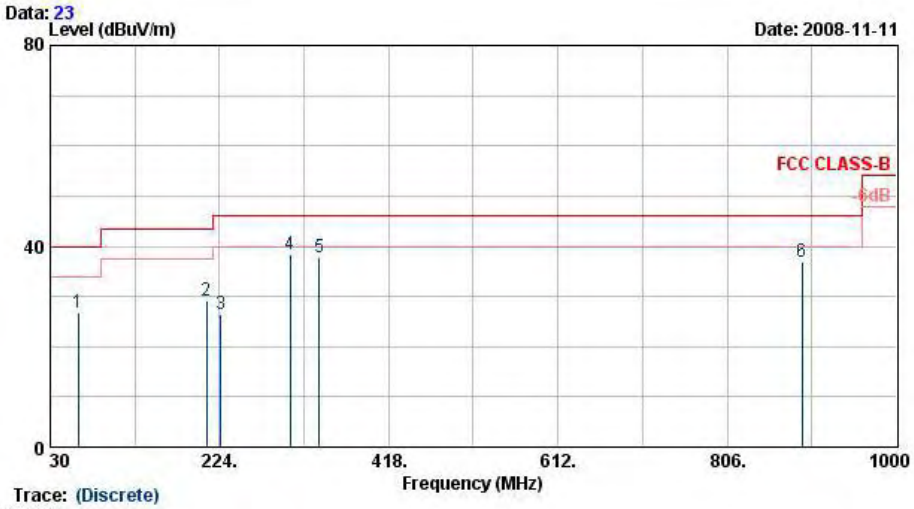


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	57.54	26.82	-13.18	40.00	50.72	6.56	0.89	31.35	---	---	QP
2	127.74	34.02	-9.48	43.50	52.97	11.06	1.36	31.36	---	---	QP
3	213.87	37.18	-6.32	43.50	57.20	9.63	1.77	31.42	100	0	QP
4	321.70	39.09	-6.91	46.00	54.63	13.59	2.23	31.36	---	---	QP
5	407.80	32.69	-13.31	46.00	45.43	15.93	2.59	31.26	---	---	QP
6	856.50	35.66	-10.34	46.00	39.52	22.77	3.99	30.62	---	---	QP

Test Mode :	Mode 2	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		

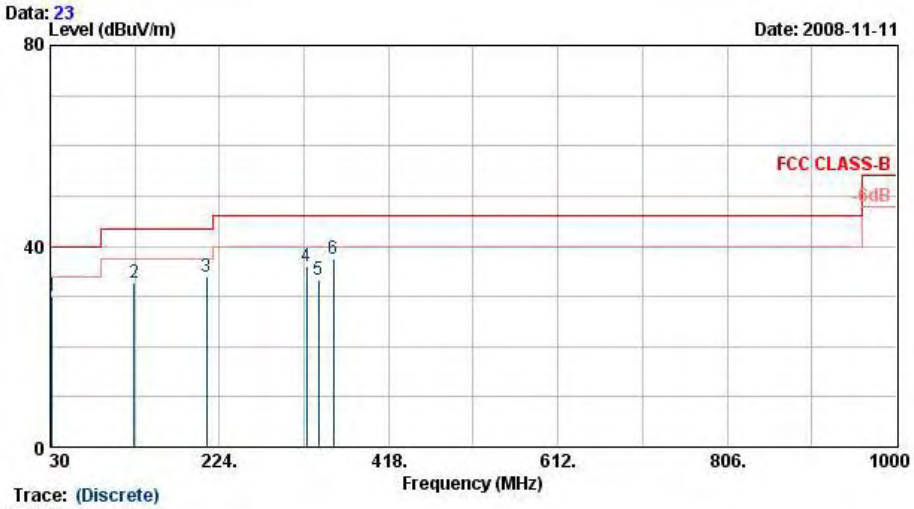


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	62.13	26.65	-13.35	40.00	51.14	5.99	0.92	31.40	188	251	QP
2	209.10	29.19	-14.31	43.50	49.50	9.32	1.75	31.37	100	153	QP
3	225.21	26.40	-19.60	46.00	45.78	10.31	1.82	31.51	100	0	QP
4	304.90	38.36	-7.64	46.00	54.51	13.10	2.15	31.40	---	---	QP
5	338.50	37.83	-8.17	46.00	52.90	14.05	2.29	31.41	---	---	QP
6	892.20	36.92	-9.08	46.00	40.13	23.19	4.13	30.54	---	---	QP

Test Mode :	Mode 3	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		

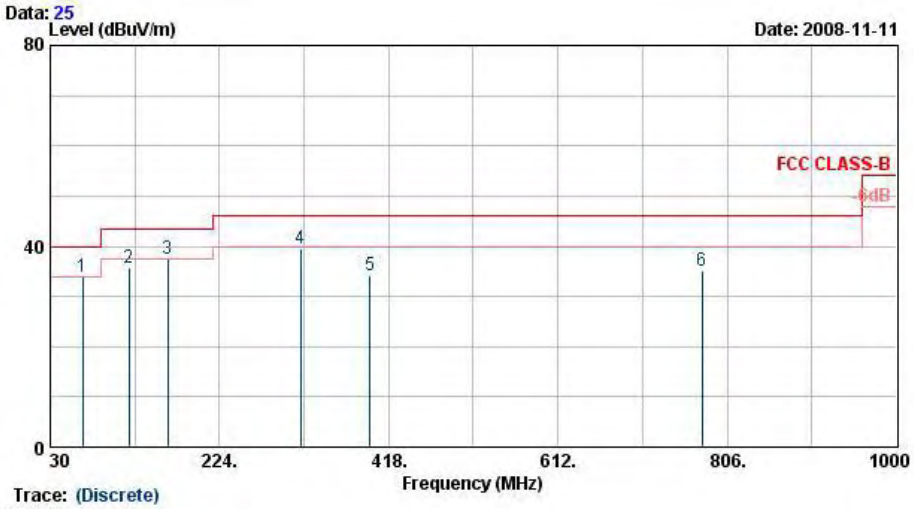


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	30.04	-9.96	40.00	43.26	17.38	0.66	31.26	---	---	QP
2	125.85	32.59	-10.91	43.50	51.66	10.96	1.35	31.37	---	---	QP
3	209.01	33.91	-9.59	43.50	54.22	9.32	1.75	31.37	---	---	QP
4	323.80	35.88	-10.12	46.00	51.36	13.64	2.24	31.35	104	234	QP
5	337.80	33.42	-12.58	46.00	48.51	14.02	2.29	31.41	104	234	QP
6	354.60	37.48	-8.52	46.00	52.04	14.51	2.37	31.44	---	---	QP

Test Mode :	Mode 3	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		

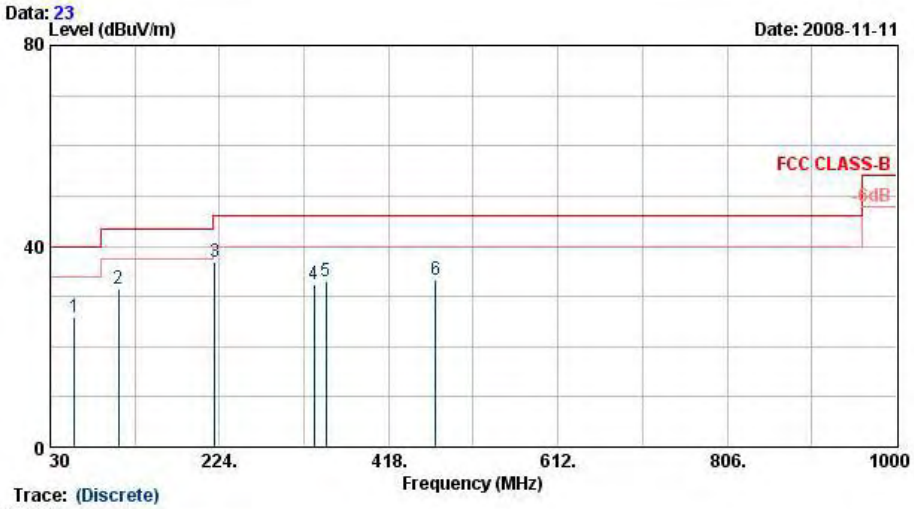


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	67.26	33.76	-6.24	40.00	57.89	6.30	0.95	31.38	---	---	QP
2	120.18	35.70	-7.80	43.50	54.45	11.38	1.28	31.41	---	---	QP
3 @	164.73	37.47	-6.03	43.50	57.45	9.81	1.53	31.32	100	0	QP
4	316.80	39.62	-6.38	46.00	55.33	13.45	2.21	31.37	---	---	QP
5	396.60	34.09	-11.91	46.00	47.12	15.68	2.53	31.24	---	---	QP
6	777.40	35.21	-10.79	46.00	40.47	21.72	3.78	30.76	---	---	QP

Test Mode :	Mode 6	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		

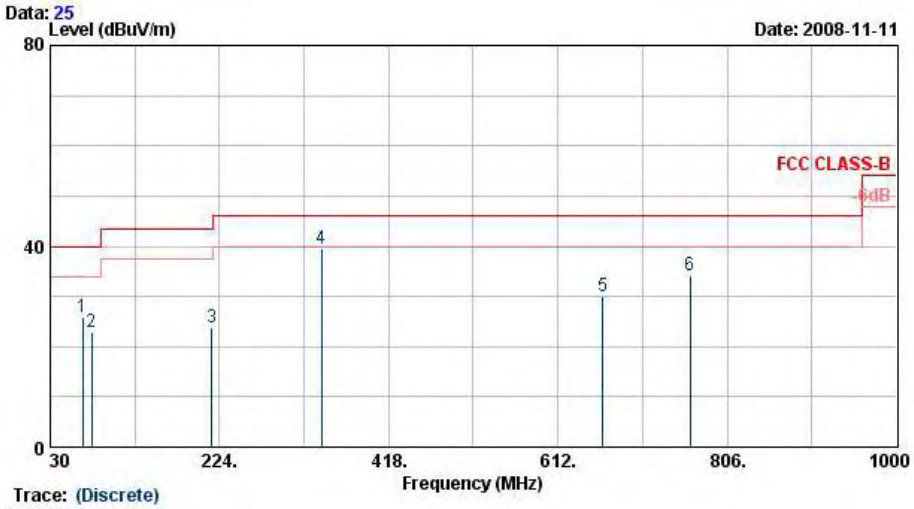


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	57.81	25.92	-14.08	40.00	50.07	6.33	0.89	31.37	---	---	QP
2	108.30	31.61	-11.89	43.50	51.24	10.56	1.21	31.40	---	---	QP
3	218.73	36.82	-9.18	46.00	56.55	9.94	1.79	31.46	---	---	QP
4	332.20	32.43	-13.57	46.00	47.66	13.88	2.27	31.38	105	240	QP
5	346.20	33.02	-12.98	46.00	47.87	14.26	2.32	31.44	105	240	QP
6	472.20	33.42	-12.58	46.00	44.43	17.32	2.85	31.18	---	---	QP

Test Mode :	Mode 6	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		

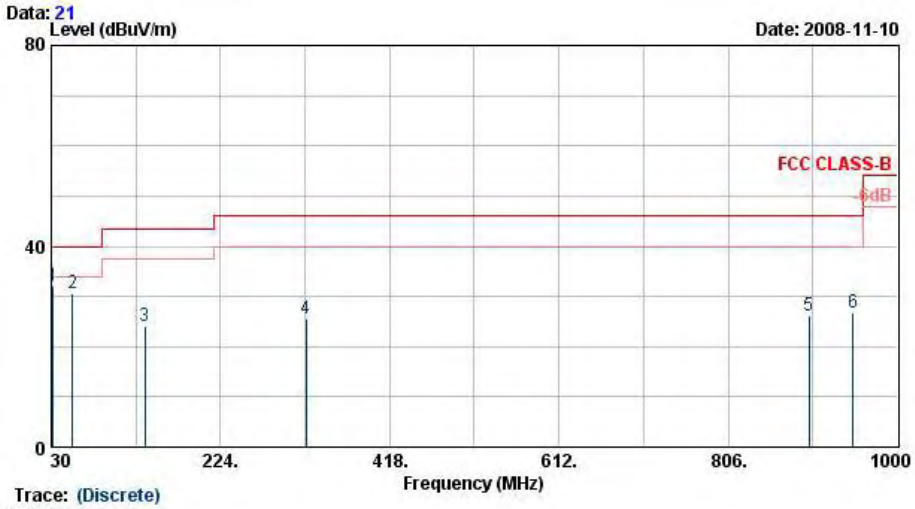


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	67.53	25.74	-14.26	40.00	49.80	6.37	0.95	31.38	100	245	QP
2	77.25	23.05	-16.95	40.00	46.50	6.91	0.99	31.36	100	80	QP
3	215.49	23.94	-19.56	43.50	43.90	9.69	1.77	31.43	100	185	QP
4 @	341.30	39.42	-6.58	46.00	54.40	14.13	2.31	31.42	---	---	QP
5	663.30	29.96	-16.04	46.00	37.29	20.13	3.45	30.91	---	---	QP
6	763.40	34.08	-11.92	46.00	39.64	21.46	3.74	30.77	---	---	QP

Test Mode :	Mode 7	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		

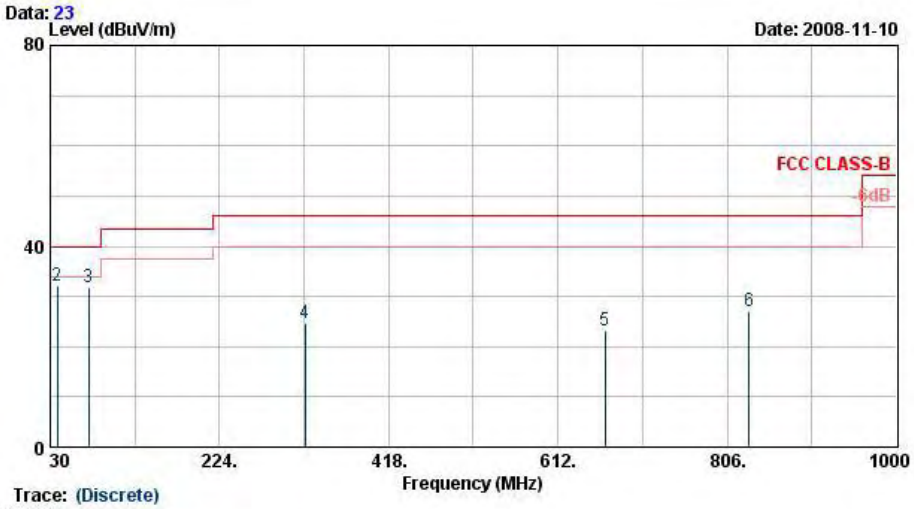


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	31.89	31.97	-8.03	40.00	45.20	17.38	0.66	31.26	100	0	QP
2 @	54.30	30.57	-9.43	40.00	53.75	7.26	0.86	31.30	---	---	QP
3	137.46	23.94	-19.56	43.50	42.31	11.55	1.39	31.31	---	---	QP
4	321.70	25.56	-20.44	46.00	41.11	13.59	2.23	31.36	---	---	QP
5	898.50	26.24	-19.76	46.00	29.35	23.26	4.15	30.52	---	---	QP
6	948.90	26.88	-19.12	46.00	29.38	23.99	4.26	30.75	---	---	QP

Test Mode :	Mode 7	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		

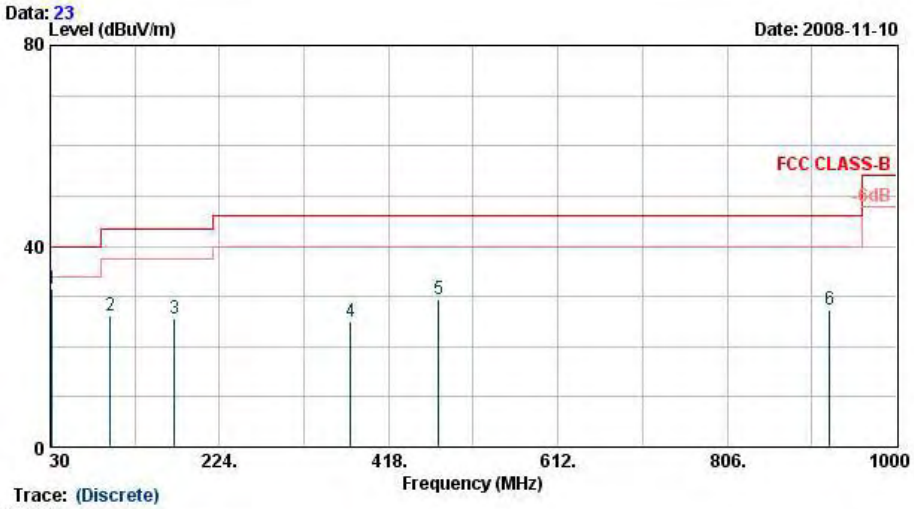


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	30.00	32.83	-7.17	40.00	44.89	18.61	0.64	31.31	100	0	QP
2 @	38.37	32.07	-7.93	40.00	48.54	13.95	0.72	31.15	---	---	QP
3 @	73.74	31.81	-8.19	40.00	55.50	6.70	0.97	31.36	---	---	QP
4	321.70	24.71	-21.29	46.00	40.25	13.59	2.23	31.36	---	---	QP
5	666.10	23.05	-22.95	46.00	30.36	20.15	3.46	30.91	---	---	QP
6	831.30	26.95	-19.05	46.00	31.23	22.48	3.92	30.68	---	---	QP

Test Mode :	Mode 8	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		

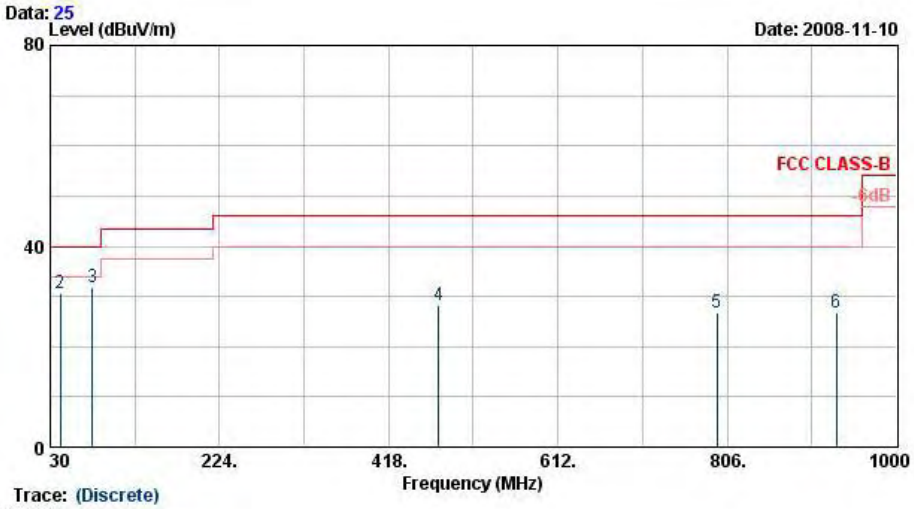


Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	31.48	-8.52	40.00	44.70	17.38	0.66	31.26	100	0	QP
2	98.58	26.09	-17.41	43.50	46.55	9.78	1.16	31.39	---	---	QP
3	172.02	25.44	-18.06	43.50	45.85	9.36	1.56	31.33	---	---	QP
4	374.20	24.88	-21.12	46.00	38.70	15.05	2.47	31.34	---	---	QP
5	475.00	29.45	-16.55	46.00	40.38	17.39	2.85	31.17	---	---	QP
6	923.70	27.31	-18.69	46.00	30.11	23.62	4.21	30.63	---	---	QP

Test Mode :	Mode 8	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



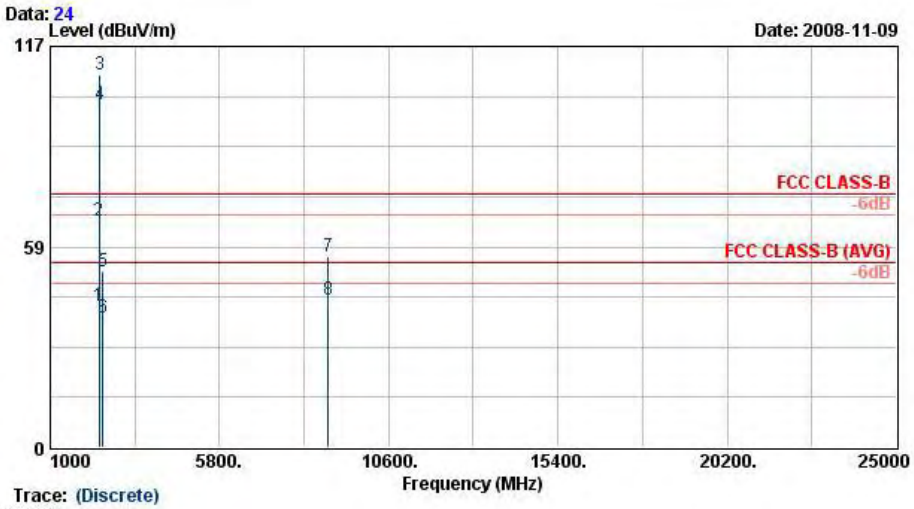
Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	31.11	-8.89	40.00	43.17	18.61	0.64	31.31	---	---	QP
2	41.61	30.65	-9.35	40.00	48.63	12.46	0.73	31.17	---	---	QP
3	78.06	31.82	-8.18	40.00	55.22	6.96	0.99	31.35	100	0	QP
4	475.00	28.22	-17.78	46.00	39.16	17.39	2.85	31.17	---	---	QP
5	794.20	26.71	-19.29	46.00	31.62	22.02	3.83	30.76	---	---	QP
6	931.40	26.88	-19.12	46.00	29.59	23.73	4.22	30.66	---	---	QP

3.6.6 Test Result of Radiated Emission ≥ 1GHz

Test Mode :	Mode 1	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

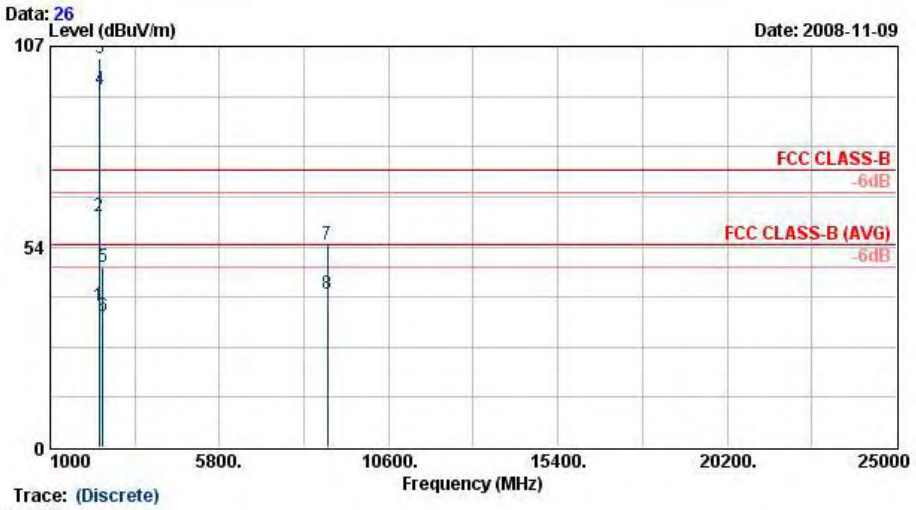


Site : 03CH07-HY
Condition : 3m SHF-EHF HORIZONTAL
Model : FR8O2811

Plane : H

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2389.99	41.23	-12.77	54.00	39.13	32.32	5.46	35.68	124	20	Average
2		2389.99	66.10	-7.90	74.00	64.00	32.32	5.46	35.68	100	0	Peak
3	X	2412.00	108.59			106.51	32.32	5.44	35.68	100	0	Peak
4	@	2412.00	99.94			97.86	32.32	5.44	35.68	124	20	Average
5		2492.00	51.38	-22.62	74.00	49.41	32.30	5.37	35.70	100	0	Peak
6		2492.00	37.96	-16.04	54.00	35.99	32.30	5.37	35.70	124	20	Average
7		8877.00	55.53	-18.47	74.00	43.13	38.62	10.30	36.53	100	0	Peak
8		8877.00	42.94	-11.06	54.00	30.55	38.62	10.30	36.53	100	142	Average

Test Mode :	Mode 1	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

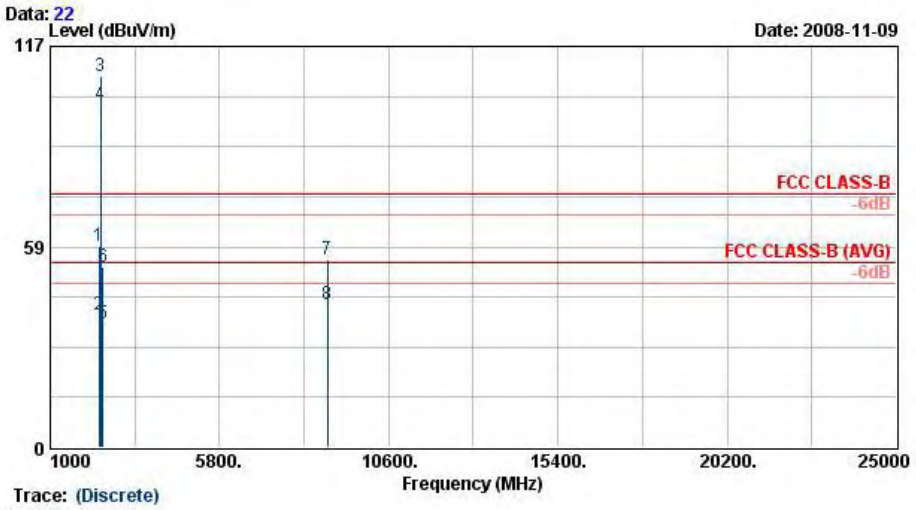


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 8O2811

Plane : H

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2389.42	37.71	-16.29	54.00	35.63	32.30	5.46	35.68	158	341	Average
2		2389.42	61.73	-12.27	74.00	59.65	32.30	5.46	35.68	100	0	Peak
3	X	2412.00	103.96			101.90	32.30	5.44	35.68	100	0	Peak
4	@	2412.00	95.57			93.51	32.30	5.44	35.68	158	341	Average
5		2494.00	48.03	-25.97	74.00	46.06	32.30	5.37	35.70	100	0	Peak
6		2494.00	35.19	-18.81	54.00	33.22	32.30	5.37	35.70	158	341	Average
7		8865.00	54.26	-19.74	74.00	42.96	37.52	10.30	36.51	100	0	Peak
8		8865.00	40.82	-13.18	54.00	29.51	37.52	10.30	36.51	100	296	Average

Test Mode :	Mode 2	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

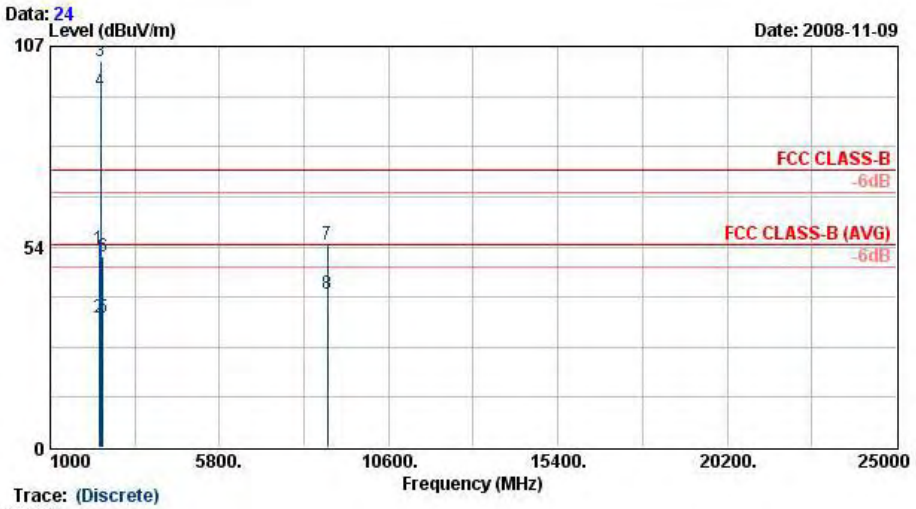


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 8O2811

Plane : H

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2390.00	58.78	-15.22	74.00	56.69	32.32	5.46	35.68	100	0	Peak
2		2390.00	38.73	-15.27	54.00	36.63	32.32	5.46	35.68	100	20	Average
3	X	2437.00	108.50			106.46	32.31	5.41	35.69	100	0	Peak
4	@	2437.00	99.92			97.88	32.31	5.41	35.69	100	20	Average
5		2484.00	36.15	-17.85	54.00	34.16	32.30	5.38	35.70	100	20	Average
6		2484.00	52.67	-21.33	74.00	50.68	32.30	5.38	35.70	100	0	Peak
7		8865.00	54.94	-19.06	74.00	42.53	38.62	10.30	36.51	100	0	Peak
8		8865.00	41.74	-12.26	54.00	29.33	38.62	10.30	36.51	100	312	Average

Test Mode :	Mode 2	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

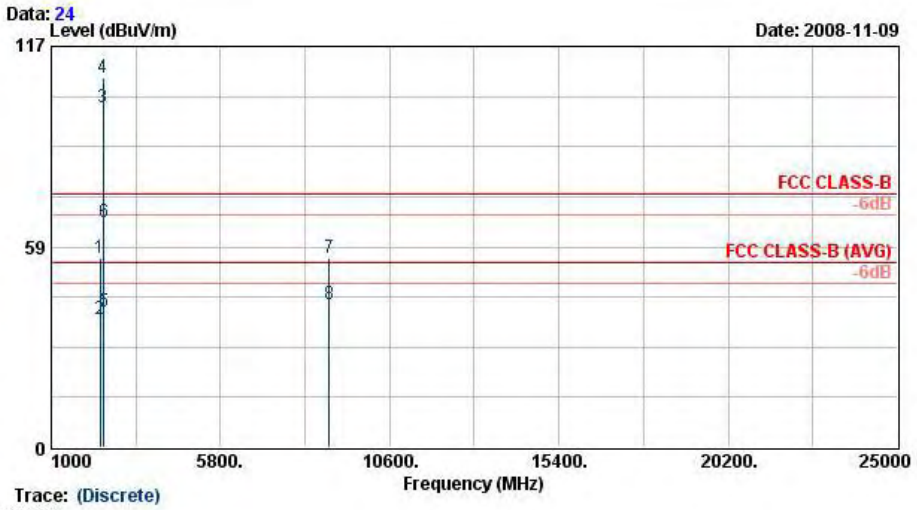


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 8O2811

Plane : H

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2390.00	52.85	-21.15	74.00	50.77	32.30	5.46	35.68	100	0	Peak
2		2390.00	34.52	-19.48	54.00	32.44	32.30	5.46	35.68	126	349	Average
3	X	2437.00	103.22			101.19	32.30	5.41	35.69	100	0	Peak
4	@	2437.00	95.01			92.98	32.30	5.41	35.69	126	349	Average
5		2484.00	34.46	-19.54	54.00	32.47	32.30	5.38	35.70	126	349	Average
6		2484.00	50.72	-23.28	74.00	48.73	32.30	5.38	35.70	100	0	Peak
7		8865.00	54.15	-19.85	74.00	42.85	37.52	10.30	36.51	100	0	Peak
8		8865.00	40.88	-13.12	54.00	29.57	37.52	10.30	36.51	100	196	Average

Test Mode :	Mode 3	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

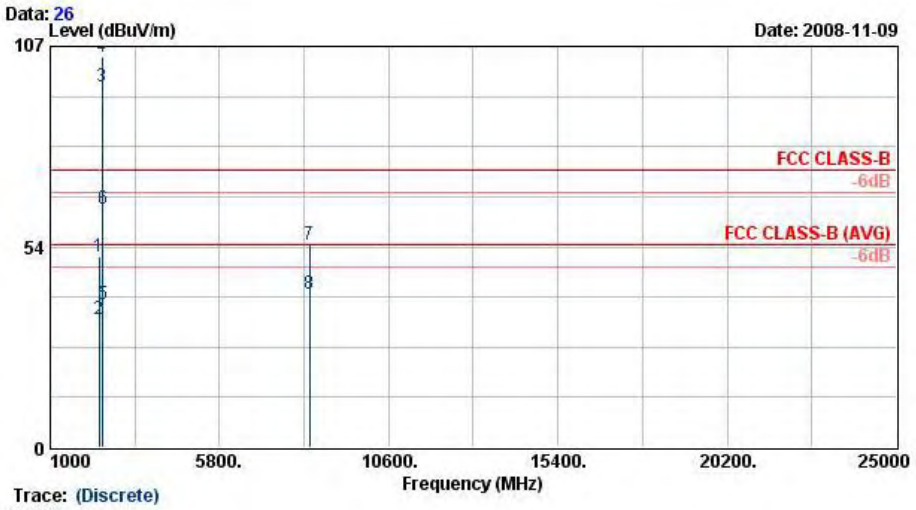


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	55.31	-18.69	74.00	53.21	32.32	5.46	35.68	100	0	Peak
2	2390.00	37.27	-16.73	54.00	35.17	32.32	5.46	35.68	148	22	Average
3 @	2462.00	99.20			97.18	32.31	5.40	35.69	148	22	Average
4 @	2462.00	107.73			105.71	32.31	5.40	35.69	100	0	Peak
5	2483.50	39.55	-14.45	54.00	37.56	32.30	5.38	35.70	148	22	Average
6	2483.50	65.55	-8.45	74.00	63.56	32.30	5.38	35.70	100	0	Peak
7	8886.00	55.38	-18.62	74.00	42.97	38.63	10.30	36.53	100	0	Peak
8	8886.00	41.65	-12.35	54.00	29.24	38.63	10.30	36.53	100	142	Average

Test Mode :	Mode 3	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

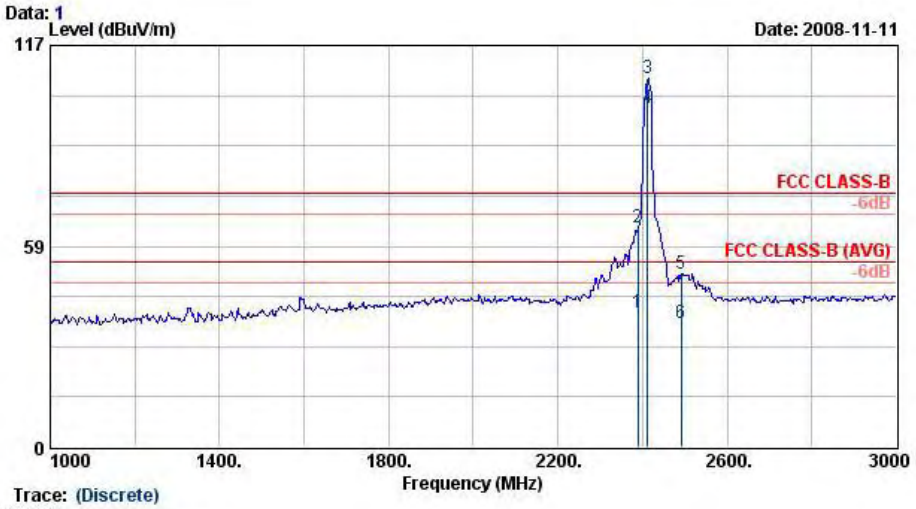


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	50.99	-23.01	74.00	48.91	32.30	5.46	35.68	100	0	Peak
2	2390.00	34.33	-19.67	54.00	32.25	32.30	5.46	35.68	125	352	Average
3 @	2462.00	96.08			94.07	32.30	5.40	35.69	125	352	Average
4 @	2462.00	104.35			102.34	32.30	5.40	35.69	100	0	Peak
5	2483.50	38.03	-15.97	54.00	36.04	32.30	5.38	35.70	125	352	Average
6	2483.50	63.62	-10.38	74.00	61.63	32.30	5.38	35.70	100	0	Peak
7	8361.00	54.15	-19.85	74.00	43.15	37.22	10.09	36.30	100	0	Peak
8	8361.00	41.10	-12.90	54.00	30.10	37.22	10.09	36.30	100	214	Average

Test Mode :	Mode 4	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

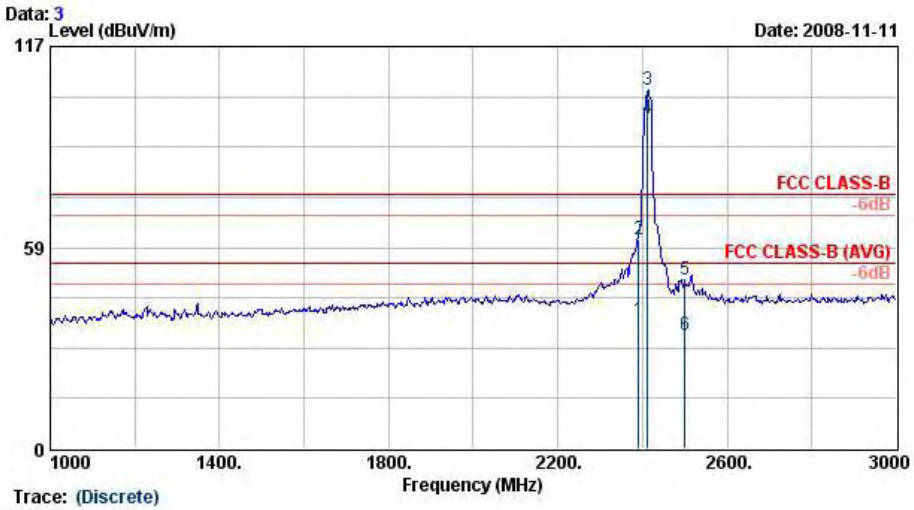


Site : 03CH07-HY
Condition : 3m HF-ANT(080305) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.09	39.17	-14.83	54.00	37.07	32.32	5.46	35.68	100	33	Average
2	2388.09	63.78	-10.22	74.00	61.68	32.32	5.46	35.68	100	0	Peak
3 @	2412.00	107.53			105.45	32.32	5.44	35.68	100	0	Peak
4 @	2412.00	98.84			96.76	32.32	5.44	35.68	100	33	Average
5	2492.00	50.60	-23.40	74.00	48.63	32.30	5.37	35.70	100	0	Peak
6	2492.00	36.08	-17.92	54.00	34.11	32.30	5.37	35.70	100	33	Average

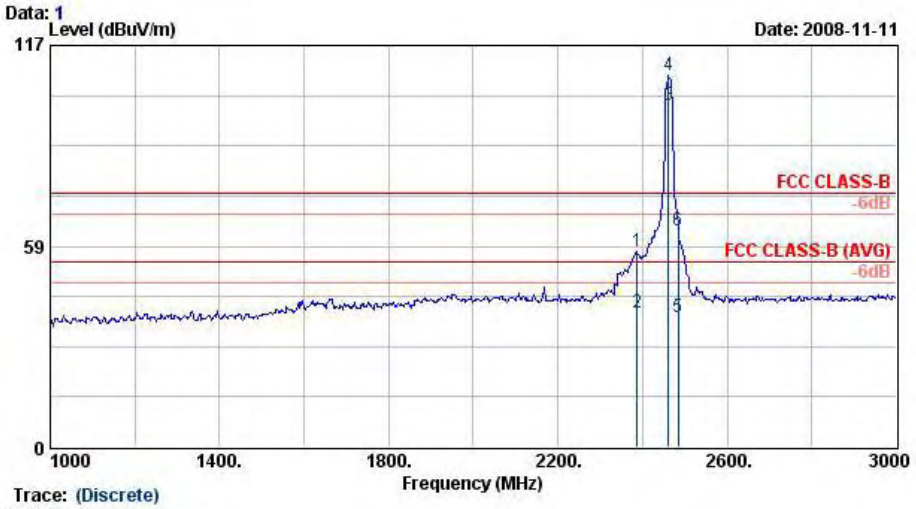
Test Mode :	Mode 4	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH07-HY
VERTICAL
Model : FR8O2811
Mode : Mode 10
Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.99	37.25	-16.75	54.00	35.17	32.30	5.46	35.68	104	339	Average
2	2389.99	60.85	-13.15	74.00	58.77	32.30	5.46	35.68	100	0	Peak
3 @	2412.00	104.50			102.43	32.30	5.44	35.68	100	0	Peak
4 @	2412.00	96.00			93.94	32.30	5.44	35.68	104	339	Average
5	2500.00	48.98	-25.02	74.00	47.01	32.30	5.37	35.70	100	0	Peak
6	2500.00	33.05	-20.95	54.00	31.08	32.30	5.37	35.70	104	339	Average

Test Mode :	Mode 5	**Temperature :**	21~26°C
Test Channel :	11	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

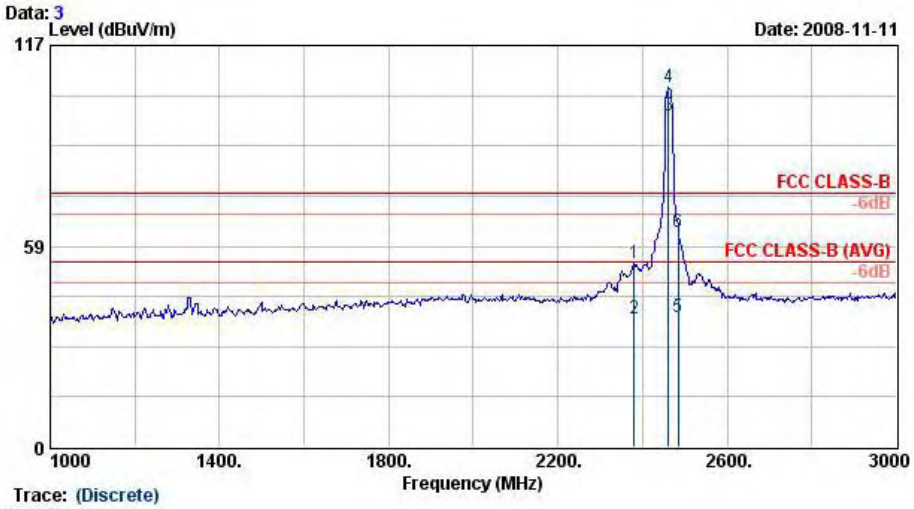


Site : 03CH07-HY
Condition : 3m HF-ANT(080305) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.00	56.81	-17.19	74.00	54.70	32.32	5.46	35.68	100	0	Peak
2	2388.00	39.00	-15.00	54.00	36.90	32.32	5.46	35.68	149	28	Average
3 @	2462.00	99.54			97.52	32.31	5.40	35.69	149	28	Average
4 X	2462.00	108.19			106.17	32.31	5.40	35.69	100	0	Peak
5	2483.66	37.73	-16.27	54.00	35.74	32.30	5.38	35.70	149	28	Average
6	2483.66	62.92	-11.08	74.00	60.93	32.30	5.38	35.70	100	0	Peak

Test Mode :	Mode 5	**Temperature :**	21~26°C
Test Channel :	11	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Vertical
Remark :	#3 and #4 are Fundamental Signals		

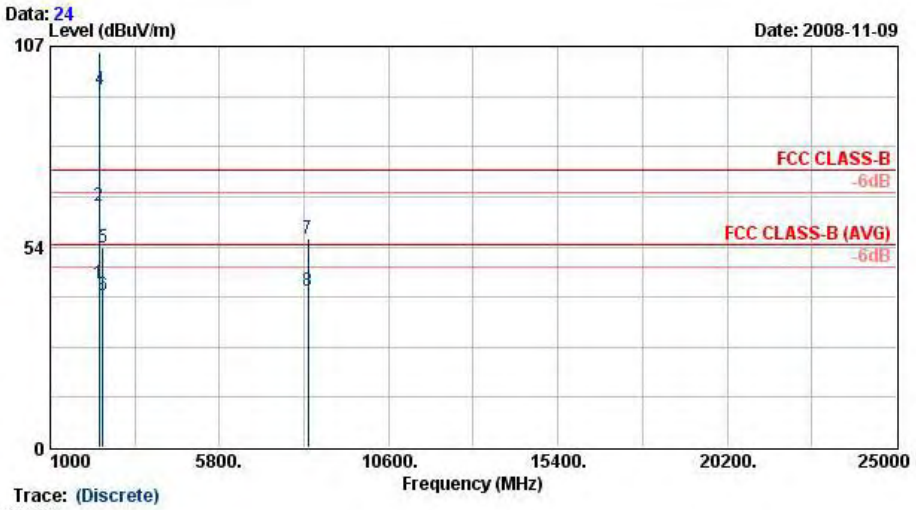


Site : 03CH07-HY
Condition : 3m HF-ANT(080305) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2380.00	53.34	-20.66	74.00	51.25	32.30	5.47	35.68	100	0	Peak
2	2380.00	37.31	-16.69	54.00	35.21	32.30	5.47	35.68	103	346	Average
3 X	2462.00	96.39			94.38	32.30	5.40	35.69	103	346	Average
4 X	2462.00	104.83			102.83	32.30	5.40	35.69	100	0	Peak
5	2483.50	37.91	-16.09	54.00	35.92	32.30	5.38	35.70	103	346	Average
6	2483.50	62.62	-11.38	74.00	60.63	32.30	5.38	35.70	100	0	Peak

Test Mode :	Mode 6	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

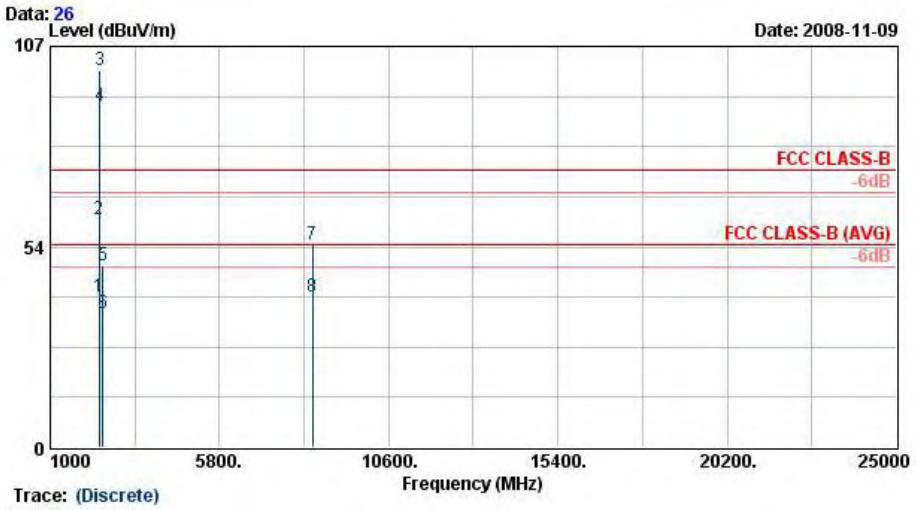


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.42	43.90	-10.10	54.00	41.80	32.32	5.46	35.68	123	21	Average
2	2389.42	64.45	-9.55	74.00	62.35	32.32	5.46	35.68	100	0	Peak
3 @	2412.00	105.36			103.28	32.32	5.44	35.68	100	0	Peak
4 @	2412.00	95.52			93.44	32.32	5.44	35.68	123	21	Average
5	2492.00	53.15	-20.85	74.00	51.18	32.30	5.37	35.70	100	0	Peak
6	2492.00	40.41	-13.59	54.00	38.44	32.30	5.37	35.70	123	21	Average
7	8313.00	55.55	-18.45	74.00	43.43	38.36	10.05	36.30	100	0	Peak
8	8313.00	41.79	-12.21	54.00	29.68	38.36	10.05	36.30	100	142	Average

Test Mode :	Mode 6	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

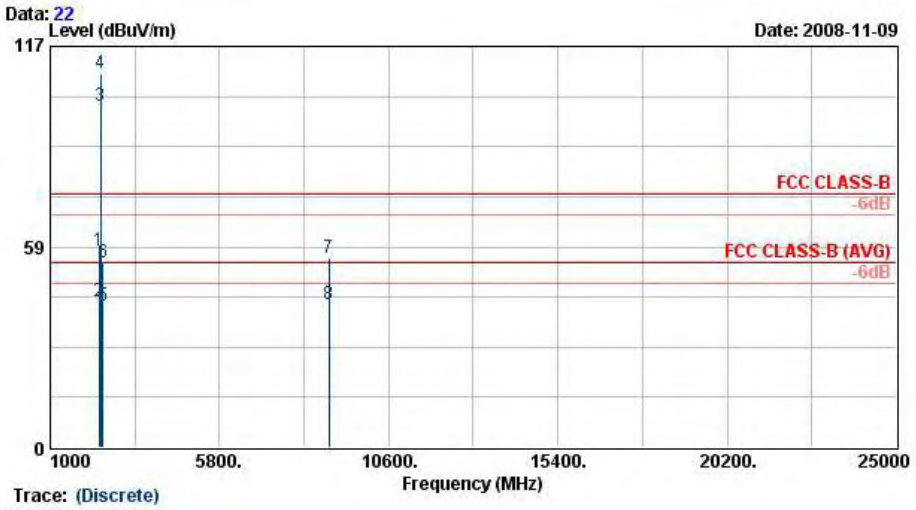


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.85	40.13	-13.87	54.00	38.05	32.30	5.46	35.68	157	341	Average
2	2388.85	60.88	-13.12	74.00	58.80	32.30	5.46	35.68	100	0	Peak
3 @	2412.00	100.77			98.70	32.30	5.44	35.68	100	0	Peak
4 @	2412.00	91.00			88.94	32.30	5.44	35.68	157	341	Average
5	2500.00	48.66	-25.34	74.00	46.69	32.30	5.37	35.70	100	0	Peak
6	2500.00	35.76	-18.24	54.00	33.79	32.30	5.37	35.70	157	341	Average
7	8433.00	53.94	-20.06	74.00	42.85	37.26	10.13	36.30	100	0	Peak
8	8433.00	40.05	-13.95	54.00	28.96	37.26	10.13	36.30	100	107	Average

Test Mode :	Mode 7	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

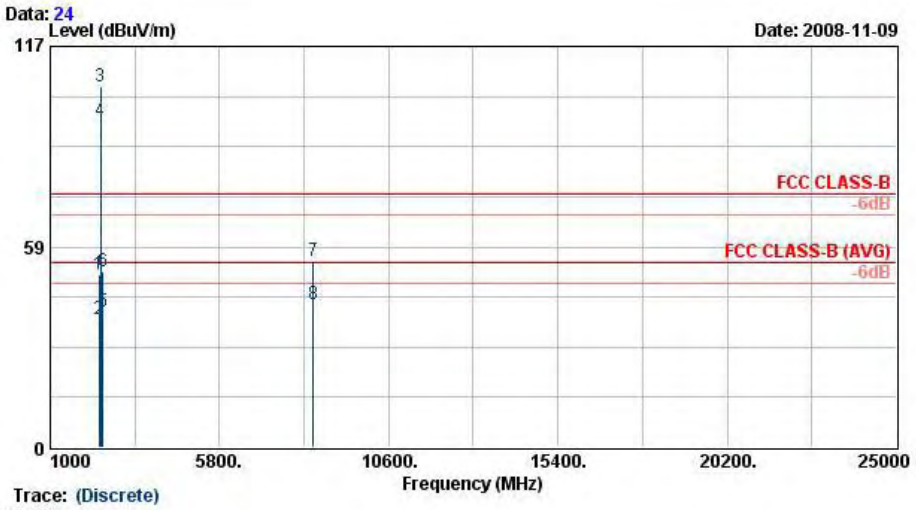


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2382.00	57.22	-16.78	74.00	55.10	32.32	5.47	35.68	100	0	Peak
2 @	2382.00	42.51	-11.49	54.00	40.39	32.32	5.47	35.68	100	21	Average
3 @	2437.00	99.43			97.39	32.31	5.41	35.69	100	21	Average
4 @	2437.00	109.30			107.26	32.31	5.41	35.69	100	0	Peak
5	2484.00	41.27	-12.73	54.00	39.28	32.30	5.38	35.70	100	21	Average
6	2484.00	53.93	-20.07	74.00	51.94	32.30	5.38	35.70	100	0	Peak
7	8901.00	55.11	-18.89	74.00	42.70	38.64	10.31	36.54	100	0	Peak
8 @	8901.00	41.55	-12.45	54.00	29.14	38.64	10.31	36.54	100	197	Average

Test Mode :	Mode 7	Temperature :	21~26°C
Test Channel :	06	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

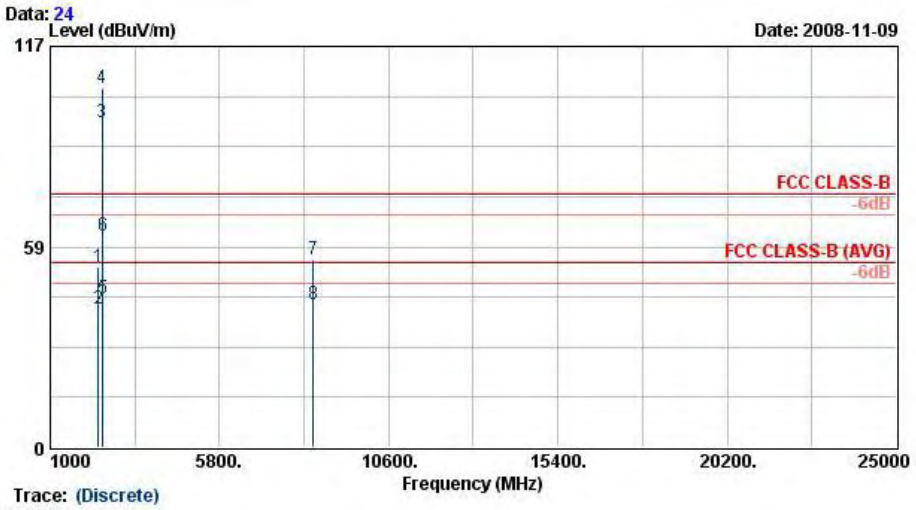


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2380.00	50.37	-23.63	74.00	48.27	32.30	5.47	35.68	100	0	Peak
2	2380.00	37.30	-16.70	54.00	35.20	32.30	5.47	35.68	182	340	Average
3 @	2437.00	105.25			103.22	32.30	5.41	35.69	100	0	Peak
4 @	2437.00	95.38			93.35	32.30	5.41	35.69	182	340	Average
5	2484.00	39.37	-14.63	54.00	37.38	32.30	5.38	35.70	182	340	Average
6	2484.00	51.41	-22.59	74.00	49.42	32.30	5.38	35.70	100	0	Peak
7	8454.00	54.50	-19.50	74.00	43.38	37.27	10.14	36.30	100	0	Peak
8 @	8454.00	41.94	-12.06	54.00	30.83	37.27	10.14	36.30	100	285	Average

Test Mode :	Mode 8	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

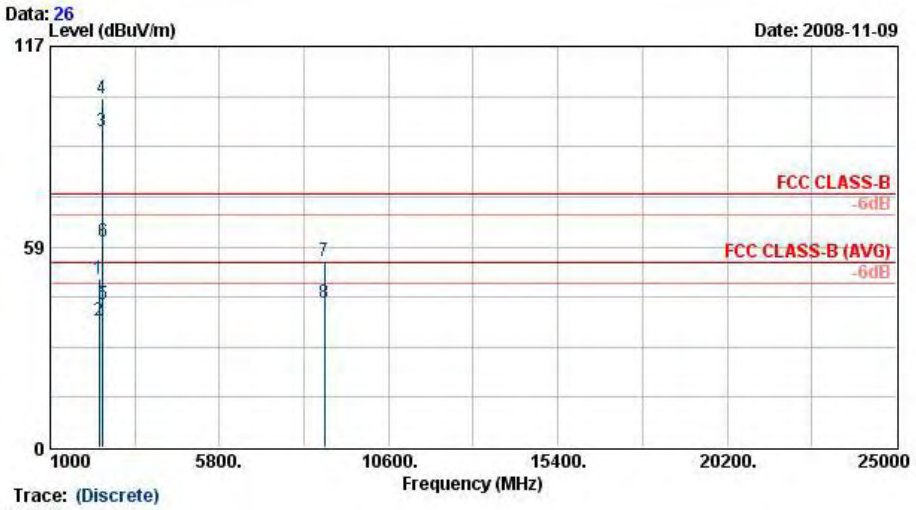


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2372.00	52.71	-21.29	74.00	50.59	32.32	5.47	35.68	100	0	Peak
2	2372.00	40.41	-13.59	54.00	38.29	32.32	5.47	35.68	149	23	Average
3 @	2462.00	94.84			92.82	32.31	5.40	35.69	149	23	Average
4 X	2462.00	104.70			102.69	32.31	5.40	35.69	100	0	Peak
5	2483.50	43.42	-10.58	54.00	41.43	32.30	5.38	35.70	149	23	Average
6	2483.50	61.84	-12.16	74.00	59.85	32.30	5.38	35.70	100	0	Peak
7	8469.00	55.02	-18.98	74.00	42.77	38.39	10.16	36.30	100	0	Peak
8	8469.00	41.93	-12.07	54.00	29.68	38.39	10.16	36.30	100	189	Average

Test Mode :	Mode 8	Temperature :	21~26°C
Test Channel :	11	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

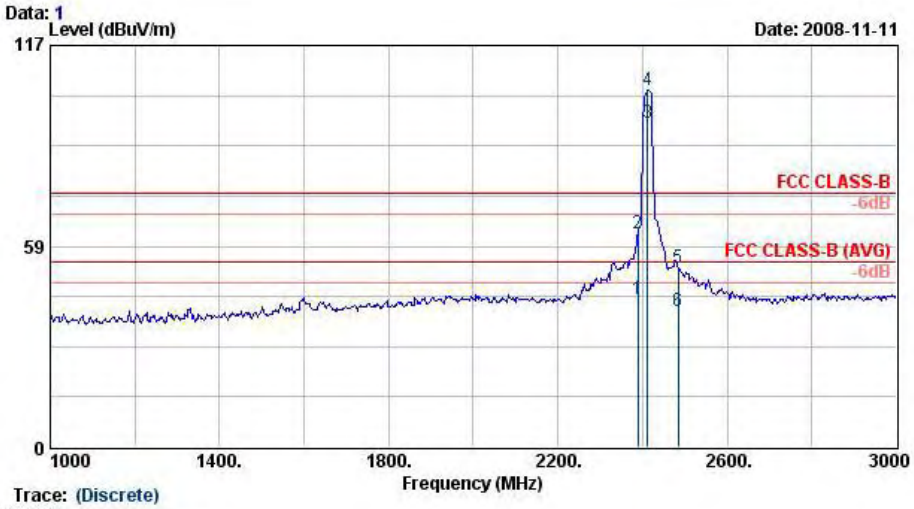


Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2382.00	49.12	-24.88	74.00	47.02	32.30	5.47	35.68	100	0	Peak
2	2382.00	36.85	-17.15	54.00	34.75	32.30	5.47	35.68	125	352	Average
3 @	2462.00	92.13			90.12	32.30	5.40	35.69	125	352	Average
4 X	2462.00	101.87			99.86	32.30	5.40	35.69	100	0	Peak
5	2483.50	41.69	-12.31	54.00	39.70	32.30	5.38	35.70	125	352	Average
6	2483.50	60.03	-13.97	74.00	58.04	32.30	5.38	35.70	100	0	Peak
7	8781.00	54.33	-19.67	74.00	43.06	37.47	10.27	36.47	100	0	Peak
8	8781.00	42.03	-11.97	54.00	30.75	37.47	10.27	36.47	100	196	Average

Test Mode :	Mode 9	Temperature :	21~26°C
Test Channel :	01	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

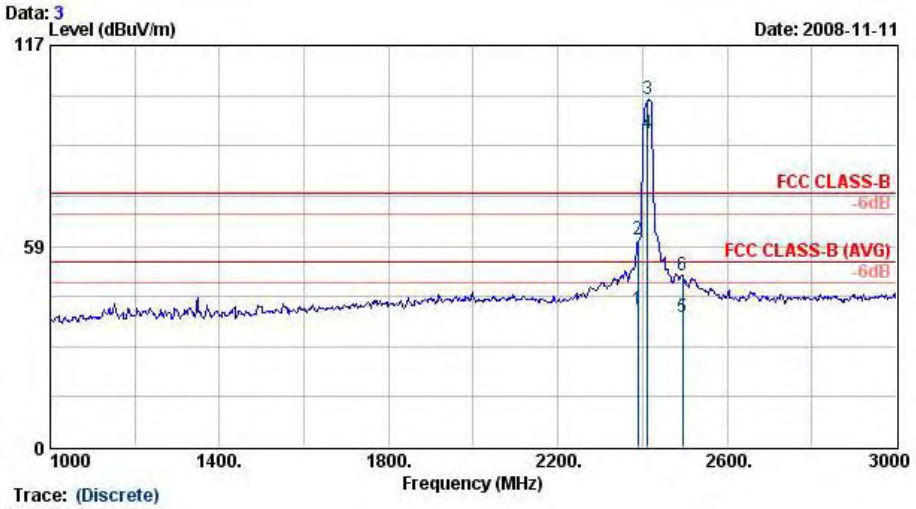


Site : 03CH07-HY
Condition : 3m HF-ANT(080305) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2388.85	42.89	-11.11	54.00	40.79	32.32	5.46	35.68	100	33	Average
2 @	2388.85	62.32	-11.68	74.00	60.22	32.32	5.46	35.68	100	0	Peak
3 @	2412.00	94.31			92.23	32.32	5.44	35.68	100	33	Average
4 @	2412.00	104.15			102.07	32.32	5.44	35.68	100	0	Peak
5	2484.00	52.39	-21.61	74.00	50.40	32.30	5.38	35.70	100	0	Peak
6	2484.00	39.64	-14.36	54.00	37.65	32.30	5.38	35.70	100	33	Average

Test Mode :	Mode 9	**Temperature :**	21~26°C
Test Channel :	01	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Vertical
Remark :	#3 and #4 are Fundamental Signals		

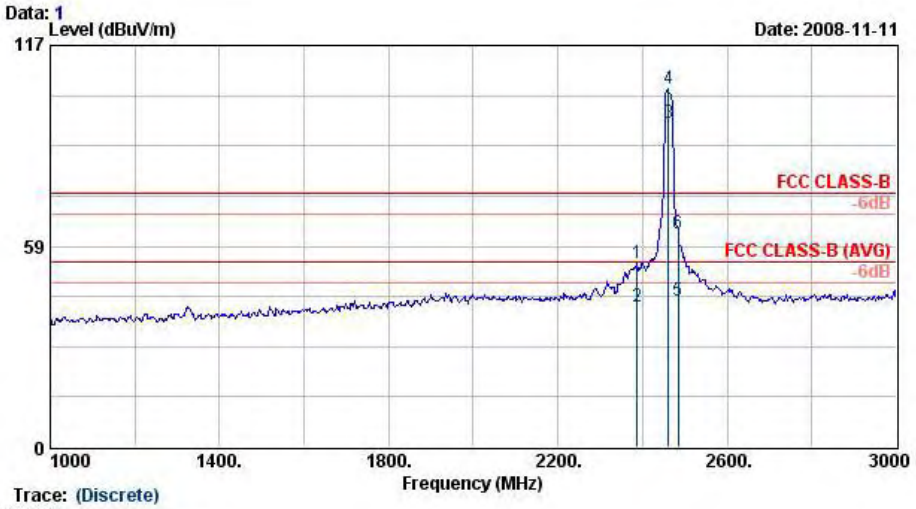


Site : 03CH07-HY
Condition : 3m HF-ANT(080305) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.66	40.03	-13.97	54.00	37.95	32.30	5.46	35.68	104	338	Average
2 @	2388.66	60.37	-13.63	74.00	58.29	32.30	5.46	35.68	100	0	Peak
3 @	2412.00	101.13			99.06	32.30	5.44	35.68	100	0	Peak
4 @	2412.00	91.39			89.33	32.30	5.44	35.68	104	338	Average
5	2494.00	37.78	-16.22	54.00	35.81	32.30	5.37	35.70	104	338	Average
6	2494.00	50.01	-23.99	74.00	48.04	32.30	5.37	35.70	100	0	Peak

Test Mode :	Mode 10	**Temperature :**	21~26°C
Test Channel :	11	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Horizontal
Remark :	#3 and #4 are Fundamental Signals		

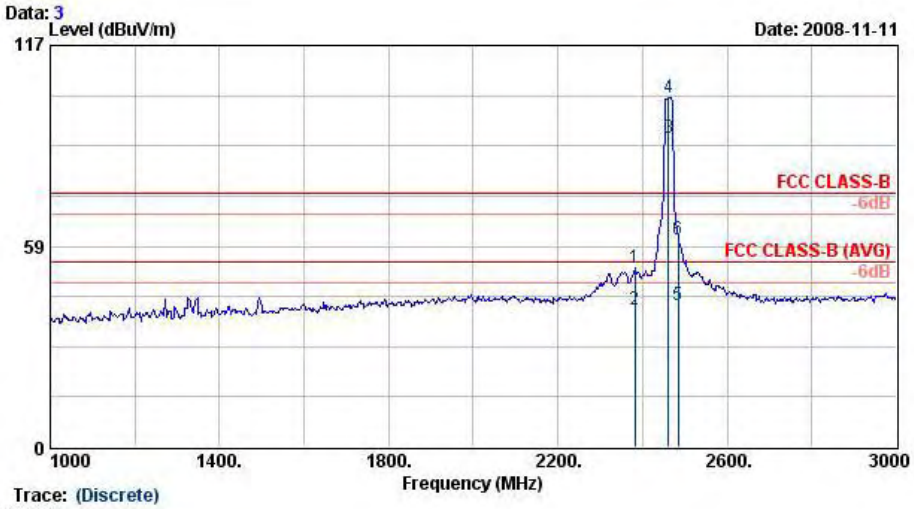


Site : 03CH07-HY
Condition : 3m HF-ANT(080305) HORIZONTAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.00	53.50	-20.50	74.00	51.40	32.32	5.46	35.68	100	0	Peak
2	2388.00	40.67	-13.33	54.00	38.57	32.32	5.46	35.68	122	35	Average
3 @	2462.00	94.28			92.26	32.31	5.40	35.69	122	35	Average
4 @	2462.00	104.23			102.21	32.31	5.40	35.69	100	0	Peak
5 @	2484.42	42.45	-11.55	54.00	40.46	32.30	5.38	35.70	122	35	Average
6 @	2484.42	62.10	-11.90	74.00	60.11	32.30	5.38	35.70	100	0	Peak

Test Mode :	Mode 10	**Temperature :**	21~26°C
Test Channel :	11	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Vertical
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m HF-ANT(080305) VERTICAL
Model : FR 8O2811

Plane : H

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2382.00	52.08	-21.92	74.00	49.99	32.30	5.47	35.68	100	0	Peak
2	2382.00	40.02	-13.98	54.00	37.92	32.30	5.47	35.68	102	347	Average
3 @	2462.00	90.08			88.07	32.30	5.40	35.69	102	347	Average
4 @	2462.00	101.72			99.72	32.30	5.40	35.70	100	0	Peak
5 @	2483.85	41.14	-12.86	54.00	39.15	32.30	5.38	35.70	102	347	Average
6	2483.85	60.38	-13.62	74.00	58.39	32.30	5.38	35.70	100	0	Peak

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.7.2 Antenna Connected Construction

The antennas type used in this product is PIFA Antenna without connector and it is considered to meet antenna requirement.

3.7.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100055	9KHz~40GHz	Jun. 26, 2008	Jun. 25, 2009	Conducted (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 21, 2008	Feb. 20, 2009	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 21, 2008	Feb. 20, 2009	Conducted (TH02-HY)
EMI Receiver	R&S	ESCS 30	100356	9kH~2.75GHz	Aug. 01, 2008	Jul. 31, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9kH~30MHz	Dec. 06, 2007	Dec. 05, 2008	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9kHz~30MHz	Dec. 06, 2007	Dec. 05, 2008	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
Base Station	R&S	CMU200	106656	N/A	May 06, 2008	May 05, 2009	Conduction (CO05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2726	30MHz~1GHz	Nov. 20, 2008	Nov. 19, 2009	Radiation (03CH07-HY)
Spectrum Analyzer	R&S	FSP	101067	9kHz~30GHz	Dec. 05, 2007	Dec. 04, 2008	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1G~18GHz	Aug. 13, 2008	Aug. 12. 2009	Radiation (03CH07-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G~26.5GHz	Nov. 11, 2008	Nov. 10, 2009	Radiation (03CH07-HY)
Pre Amplifier	COM-POWER	PA-103A	161241	10~1000MHz. 32dB.GAIN	Mar. 31, 2008	Mar. 30, 2009	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	66584	1G~18GHz	Aug. 06, 2008	Aug. 05. 2009	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
Combined standard uncertainty Uc(y)	**1.13**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.26**		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
Combined standard uncertainty Uc(y)	**1.27**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.54**		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**4.72**				

6 Certification of TAF Accreditation

Certificate No. : L1190-070110

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	:	ISO/IEC 17025:2005
Accreditation Number	:	1190
Originally Accredited	:	December 15, 2003
Effective Period	:	January 10, 2007 to January 09, 2010
Accredited Scope	:	Testing Field, see described in the Appendix
Specific Accreditation Program	:	Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory

Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 10, 2007

P1, total 9 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.

Appendix A. Photographs of EUT

Please refer to Sporton report number EP8O2811 as below.