FCC Test Report

EQUIPMENT	:	**EDA (Enterprise Digital Assistant)**
BRAND NAME	:	**Symbol**
MODEL NAME	:	**MC5590**
FCC ID	:	**H9PMC5590**
STANDARD	:	**FCC Part 15 Subpart E**
CLASSIFICATION	:	**Unlicensed National Information Infrastructure (NII)**
APPLICANT	:	**Symbol Technologies Inc**
		One Symbol Plaza Holtsville, NY 11742-1300 USA

The product sample received on Aug. 01, 2008 and completely tested on Oct. 07, 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 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.

Testing Laboratory 1190

Reviewed by: Roy Wu / Manager

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	15.403(i)	A9.2	26dB Bandwidth	-	Pass	-
3.2	15.407(a)	A9.2	Maximum Conducted Output Power	≤ 17, 24, 30 dBm (depend on band)	Pass	-
3.3	15.407(a)	A9.2	Power Spectral Density	≤ 4, 11, 17 dBm (depend on band)	Pass	-
3.4	15.407(b)	A9.3	Frequency Band Edges	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	-
3.5	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 16.9 dB at 0.462 MHz
3.6	15.407(b)	A9.3	Transmitter Radiated Emission	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 3.00 dB at 71.85 MHz
3.7	15.407(b)	A9.3	Peak Excursion Ratio	≤ 13dB	Pass	-
3.8	15.407(c)	A9.5	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.9	15.407(g)	A9.5	Frequency Stability	Within Operation Band	Pass	-
3.10	15.203 & 15.407(a)	A9.2	Antenna Requirement	N/A	Pass	-

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR880108C	Rev. 01	Initial issue of report	Oct. 13, 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

Product Feature & Specification	
Equipment	EDA (Enterprise Digital Assistant)
Brand Name	Symbol
Model Name	MC5590
Tx/Rx Frequency Range	802.11a : 5150 MHz ~ 5250 MHz 5250 MHz ~ 5350 MHz 5470 MHz ~ 5725 MHz
Maximum Output Power to Antenna	**<5150 MHz ~ 5250 MHz> :** 802.11a : 13.72 dBm **<5250 MHz ~ 5350 MHz> :** 802.11a : 14.40 dBm **<5470 MHz ~ 5725 MHz> :** 802.11a : 16.23 dBm
Antenna Type	**<Main Antenna> :** PIFA Antenna with gain 2.94 dBi **<Aux. Antenna> :** PIFA Antenna with gain 3.70 dBi
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Identical Prototype

2nd component Source List

Component Model		
AC Adapter	**Brand Name**	MOTOROLA
	Model Name	EADP-16BBA
	Power Rating	I/P: 100-240Vac, 50-60Hz, 0.4A; O/P: 5.4Vdc, 2A
	DC Power Cord Type	1.94 meter shielded cable without ferrite core
Power Cable	**AC Power Cord Type**	1.57 meter without shielded cable without ferrite core
Battery 1	**Brand Name**	MOTOROLA
	Model Name	82-111094-01
	Power Rating	3.7Vdc, 3600mAh, 13.3wh
	Type	Li-ion
Battery 2	**Brand Name**	MOTOROLA
	Model Name	82-107172-01
	Power Rating	3.7Vdc, 2400mAh, 8.88wh
	Type	Li-ion
USB Cable	**Part Number**	25-108022-01R
	Signal Line Type	1.62 meter without shielded cable with ferrite core

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 U-NII.
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 E
- FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
- ANSI C63.4-2003
- 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) which recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DWL-7100AP	KA22003040018-1	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	D400	E2K24GBRL	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Bluetooth Earphone	Cellink	BTHS-6025-F	PQY-4710874200357	N/A	N/A
4.	RS-232 Mouse	State	MS-303	FCC DoC	Unshielded, 1.2 m	N/A
5.	i-pod	Apple	A1199	FCC DoC	Unshielded, 1.2 m	N/A

2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

Channel Spacing 20MHz							
Channel	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**
36	5180	40	5200	44	5220	48	5240
52	5260	56	5280	60	5300	64	5320
100	5500	104	5520	108	5540	112	5560
116	5580	120	5600	124	5620	128	5640
132	5660	136	5680	140	5700		

2.2 Pre-Scanned RF Power

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

<Main Ant. Port>

Channel	**Frequency (MHz)**	**RF Power (dBm)**							
		5GHz 802.11a Data Rate							
		6 Mbps	**9 Mbps**	**12 Mbps**	**18 Mbps**	**24 Mbps**	**36 Mbps**	**48 Mbps**	**54 Mbps**
CH 36	5180 MHz	12.22	12.37	12.38	12.44	12.66	12.56	11.47	11.26
CH 44	5220 MHz	13.38	13.62	13.65	**13.72**	13.25	13.20	11.06	10.86
CH 48	5240 MHz	12.04	12.26	12.16	12.30	12.44	12.33	11.28	11.02
CH 52	5260 MHz	14.01	14.16	14.18	14.28	13.81	13.77	11.65	11.46
CH 60	5300 MHz	**14.40**	14.26	14.33	14.36	13.84	13.76	11.59	11.39
CH 64	5320 MHz	11.11	11.34	11.40	11.45	11.60	11.53	11.52	11.21
CH 100	5500 MHz	13.96	14.08	14.26	14.23	14.36	14.37	12.98	12.77
CH 120	5600 MHz	**16.23**	15.84	15.80	16.02	14.70	14.69	12.59	12.36
CH 140	5700 MHz	10.25	10.42	10.37	10.55	10.69	10.60	10.85	10.61

<Aux. Ant. Port>

Channel	Frequency (MHz)	RF Power (dBm)							
		5GHz 802.11a Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 36	5180 MHz	10.74	-	-	10.82	-	-	-	-
CH 44	5220 MHz	12.02	-	-	12.11	-	-	-	-
CH 48	5240 MHz	10.75	-	-	10.86	-	-	-	-
CH 52	5260 MHz	13.35	-	-	-	-	-	-	-
CH 60	5300 MHz	13.53	-	-	-	-	-	-	-
CH 64	5320 MHz	10.66	-	-	-	-	-	-	-
CH 100	5500 MHz	13.53	-	-	-	-	-	-	-
CH 120	5600 MHz	15.57	-	-	-	-	-	-	-
CH 140	5700 MHz	10.19	-	-	-	-	-	-	-

Remark:

1. The 802.11a data rate was set in 18Mbps on 5150MHz to 5250MHz and 6Mbps on 5250MHz to 5350MHz and 5470 MHz to 5725 MHz due to the highest RF output power.
2. The EUT is programmed to transmit signal continuously for all testing.

2.3 Test Mode

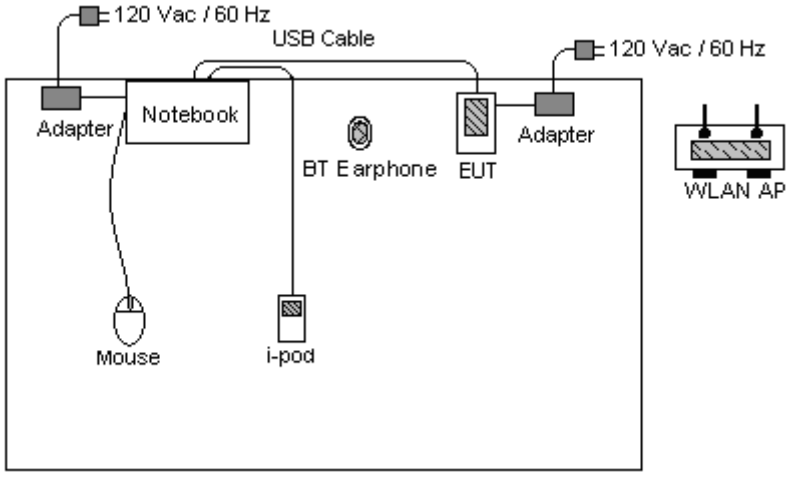
The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (9 kHz to the 10th harmonic of the highest 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	Modulation
	802.11a (OFDM)
Conducted TCs	■ Mode 1: CH36_5180 MHz ■ Mode 2: CH44_5220 MHz ■ Mode 3: CH48_5240 MHz ■ Mode 4: CH52_5260 MHz ■ Mode 5: CH60_5300 MHz ■ Mode 6: CH64_5320 MHz ■ Mode 7: CH100_5500 MHz ■ Mode 8: CH120_5600 MHz ■ Mode 9: CH140_5700 MHz
Radiated TCs	■ Mode 1: CH36_5180 MHz + 2D Scanner ■ Mode 2: CH44_5220 MHz + 2D Scanner ■ Mode 3: CH48_5240 MHz + 2D Scanner ■ Mode 4: CH52_5260 MHz + 2D Scanner ■ Mode 5: CH60_5300 MHz + 2D Scanner ■ Mode 6: CH64_5320 MHz + 2D Scanner ■ Mode 7: CH100_5500 MHz + 2D Scanner ■ Mode 8: CH120_5600 MHz + 2D Scanner ■ Mode 9: CH140_5700 MHz + 2D Scanner ■ Mode 10: CH48_5240 MHz + 1D Scanner ■ Mode 11: CH120_5600 MHz + 1D Scanner
AC Conducted Emission	Mode 1 : BT Link + WLAN (2.4G) Link + USB Charging Cable with AC Power + USB Link + Qwerty Keypad + Battery 1 (3600mA) + 2D Scanner Mode 2 : BT Link + WLAN (5G) Link + USB Charging Cable with AC Power + USB Link + Qwerty Keypad + Battery1 (3600mA) + 2D Scanner **Mode 3 : BT Link + WLAN (2.4G) Link + USB Charging Cable with AC Power + USB Link + Numeric Keypad + Battery 1 (3600mA) + 1D Scanner** Mode 4 : BT Link + WLAN (2.4G) Link + USB Charging Cable with AC Power + USB Link + Numeric Keypad + Battery 2 (2400mA) + 1D Scanner Remark: The worst case of conducted emission is mode 3; only the test data of this mode was reported.

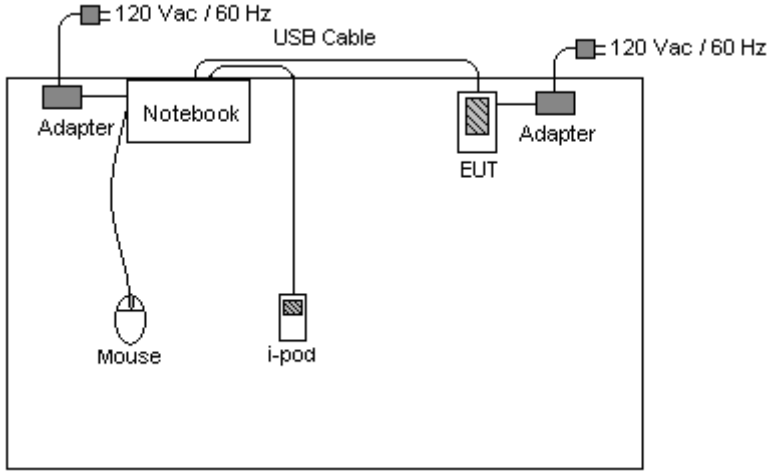
Remark: The output power of main antenna port was larger than aux. antenna port, so only main antenna used for all test items.

2.4 Connection Diagram of Test System

<Conducted Emission>



<Radiated Emission>



2.5 RF Utility

The programmed RF Utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3 Test Result

3.1 26dB Bandwidth Measurement

3.1.1 Limit of 26dB Bandwidth

There is no restriction limits for bandwidth. The maximum conducted output power can be limited by measured emission bandwidth (B). For the band 5.15~5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B. For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W (30dBm) or 17 dBm + 10log B.

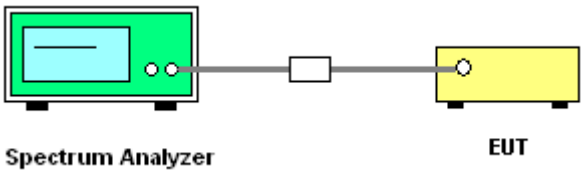
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

6. The testing follows FCC Public Notice DA 02-2138 (Measurement Guidelines of UNII).
7. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
8. Read RBW and repeat measurement as needed until the RBW/BW ratio is approximately 1%.
9. Use a RBW = approximately 1% of the emission bandwidth; Set the VBW > RBW; Use a peak detector.
10. Measure the maximum width of the emission that is 26 dB relative to the peak of the emission.

3.1.4 Test Setup



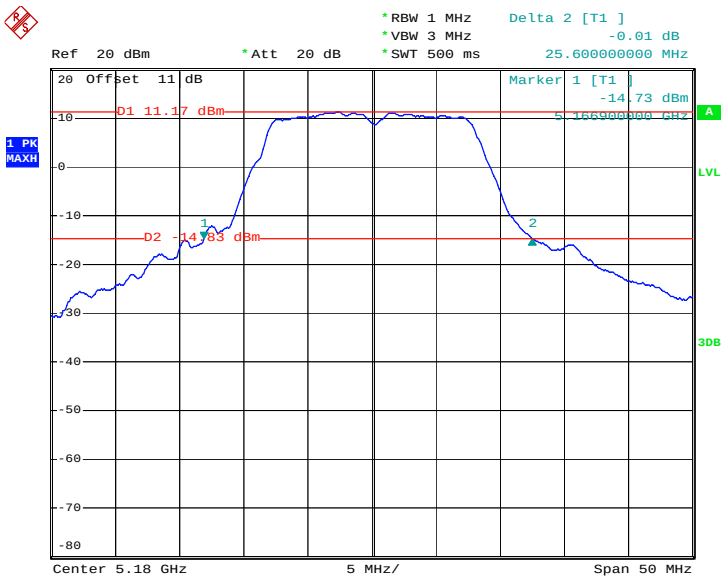
3.1.5 Test Result of 26dB Bandwidth

Test Mode :	Mode 1~9	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
36	5180	25.60	Pass
44	5220	24.50	Pass
48	5240	23.30	Pass
52	5260	25.00	Pass
60	5300	25.00	Pass
64	5320	23.10	Pass
100	5500	24.90	Pass
120	5600	33.50	Pass
140	5700	24.20	Pass

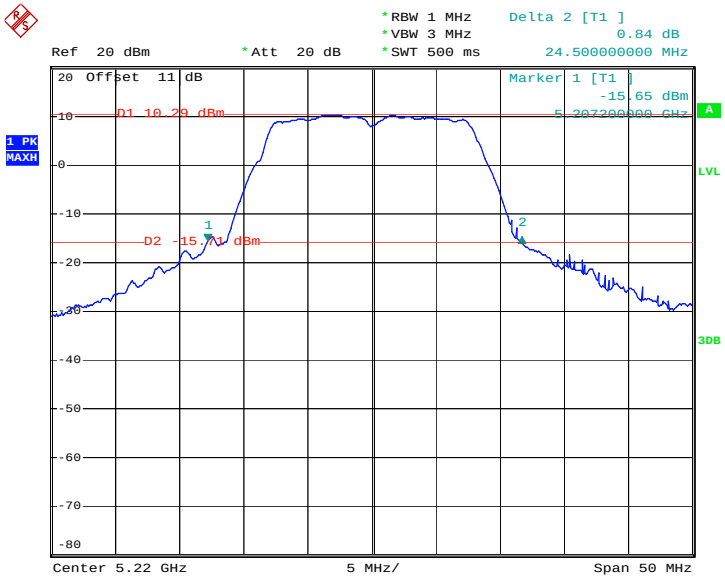
3.1.6 Test Result of 26dB Bandwidth Plots

Mode 1 : 26 dB Bandwidth Plot on 802.11a Channel 36



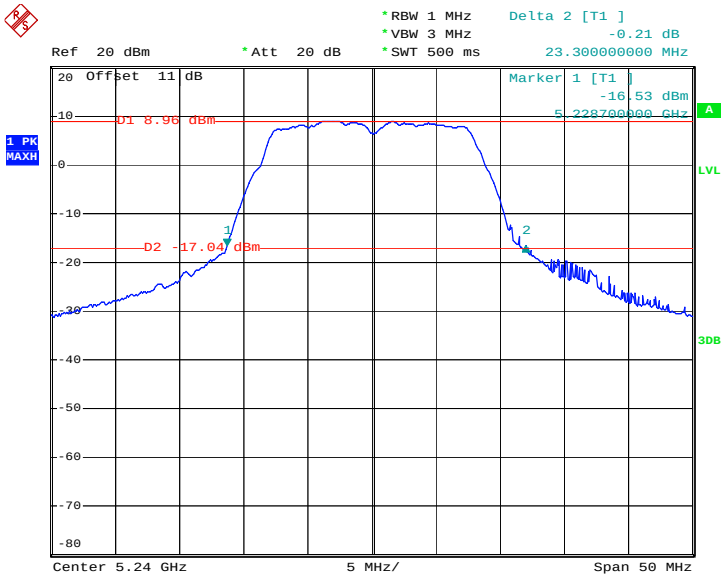
Date: 29.AUG.2008 09:20:19

Mode 2 : 26 dB Bandwidth Plot on 802.11a Channel 44



Date: 25.AUG.2008 22:45:57

Mode 3 : 26 dB Bandwidth Plot on 802.11a Channel 48



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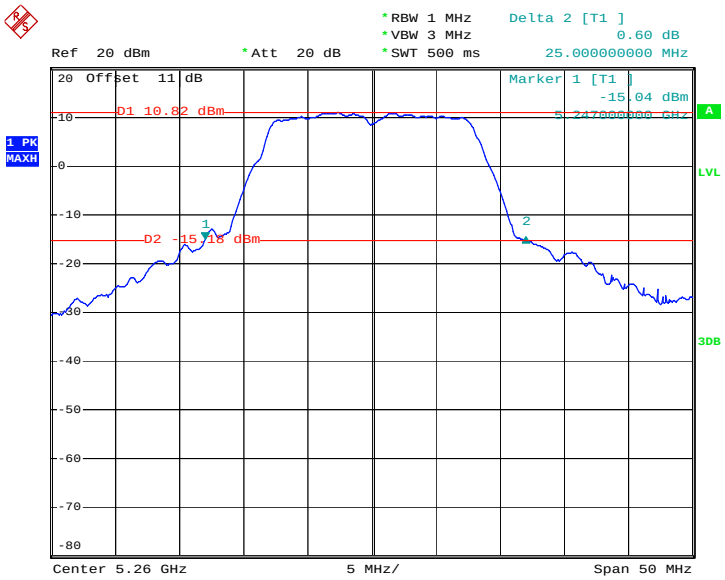
Mode 4 : 26 dB Bandwidth Plot on 802.11a Channel 52



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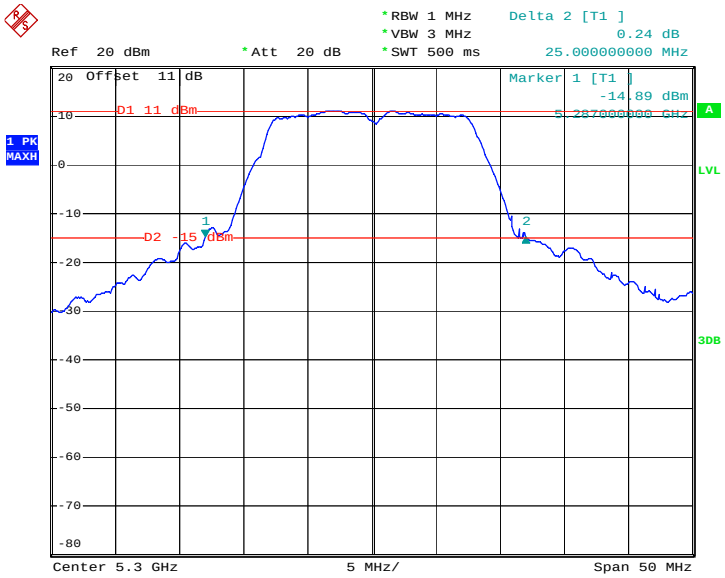
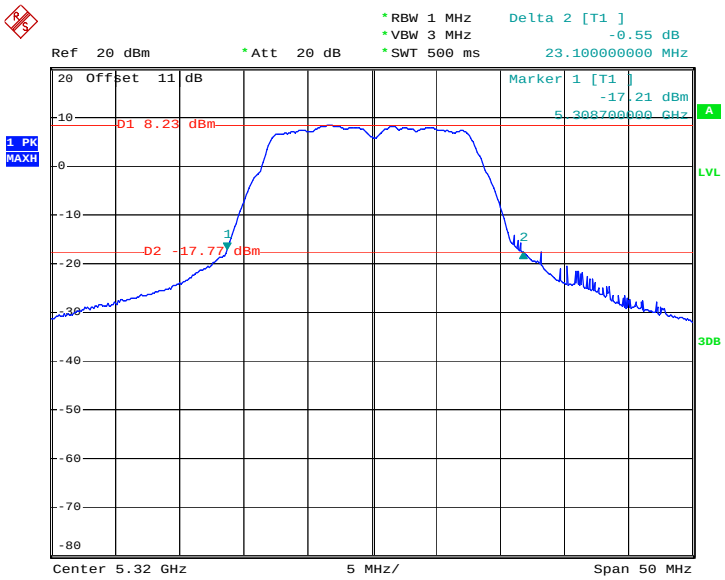
Mode 5 : 26 dB Bandwidth Plot on 802.11a Channel 60



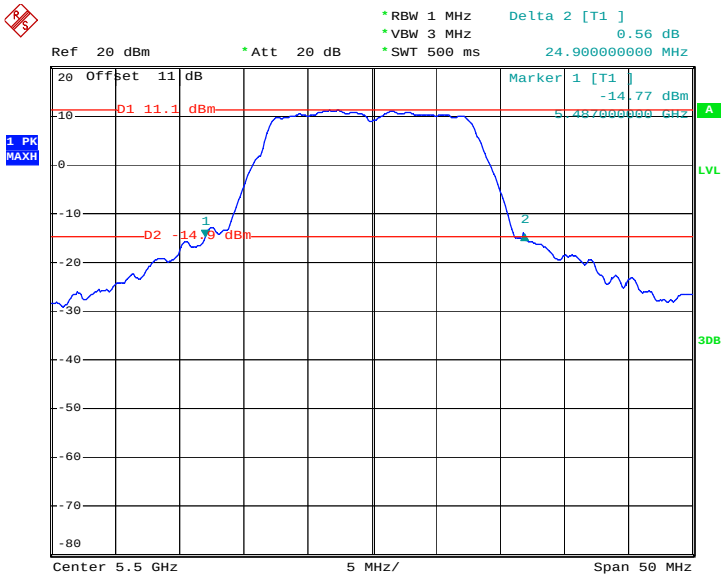
Date: 25.AUG.2008 22:58:55

Mode 6 : 26 dB Bandwidth Plot on 802.11a Channel 64



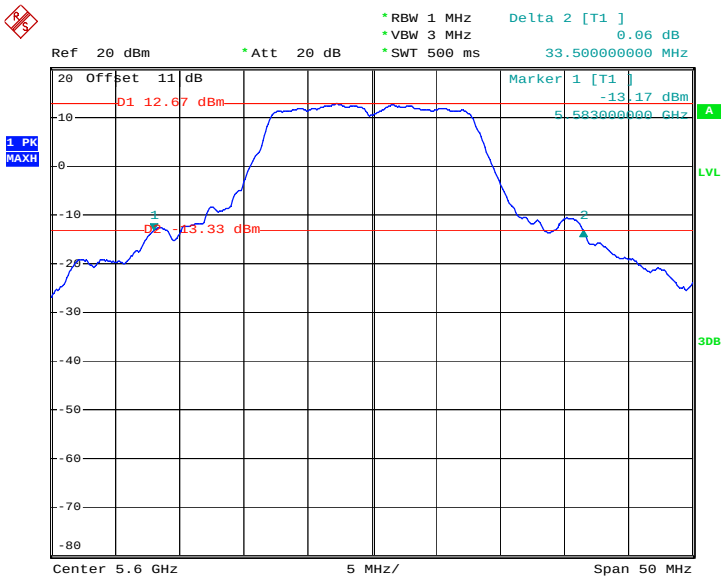
Date: 25.AUG.2008 23:00:37

Mode 7 : 26 dB Bandwidth Plot on 802.11a Channel 100



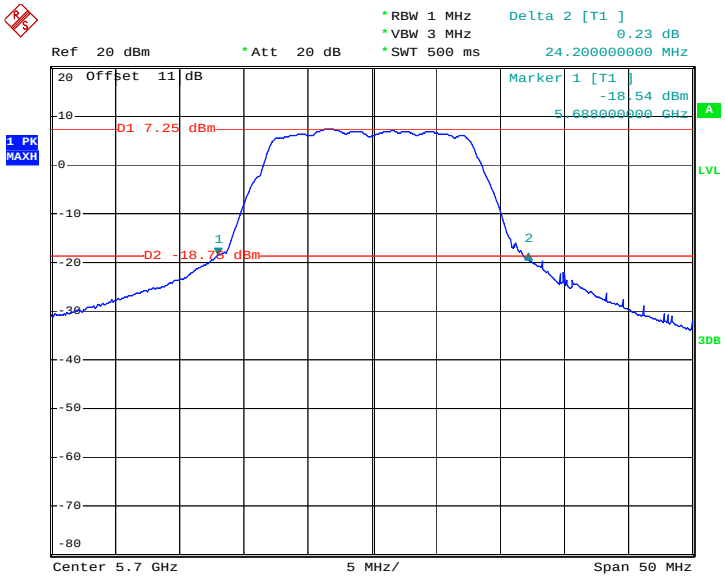
Date: 25.AUG.2008 23:05:01

Mode 8 : 26 dB Bandwidth Plot on 802.11a Channel 120



Date: 25.AUG.2008 23:06:16

Mode 9 : 26 dB Bandwidth Plot on 802.11a Channel 140



Date: 25.AUG.2008 23:21:53

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5.15~5.25 GHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B, where B is the 26 dB emissions bandwidth in MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power and power density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B. If transmitting antenna directional gain is greater than 6 dBi, the peak output power and power density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC Public Notice DA 02-2138 (Measurement Guidelines of UNII).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Measure the power and record it.

3.2.4 Test Setup

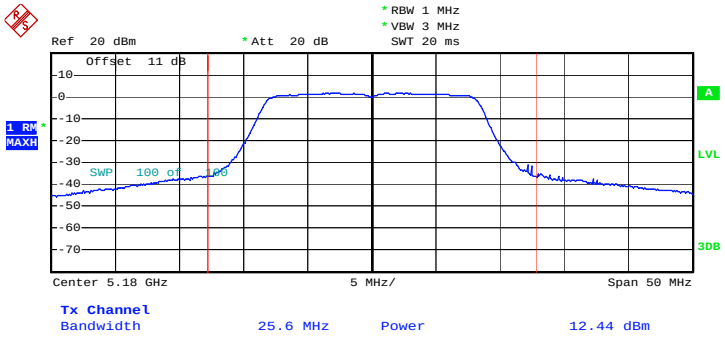
3.2.5 Test Result of Maximum Conducted Output Power

Test Mode :	Mode 1~9	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Channel	Frequency (MHz)	Measured Power Output (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	12.44	17	Pass
44	5220	13.72	17	Pass
48	5240	12.30	17	Pass
52	5260	14.01	24	Pass
60	5300	14.40	24	Pass
64	5320	11.11	24	Pass
100	5500	13.96	24	Pass
120	5600	16.23	24	Pass
140	5700	10.25	24	Pass

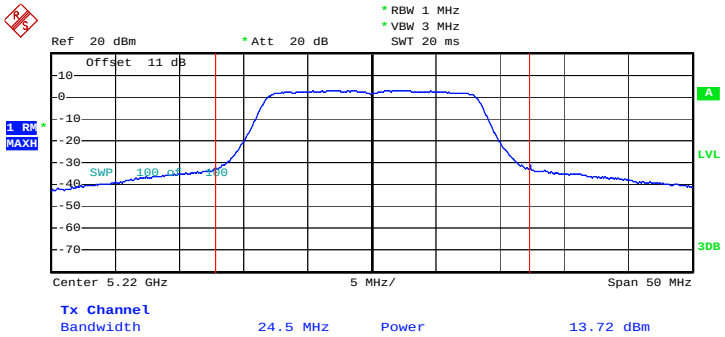
3.2.6 Test Result of Power Output Plots

Mode 1 : Output Power Plot on 802.11a Channel 36



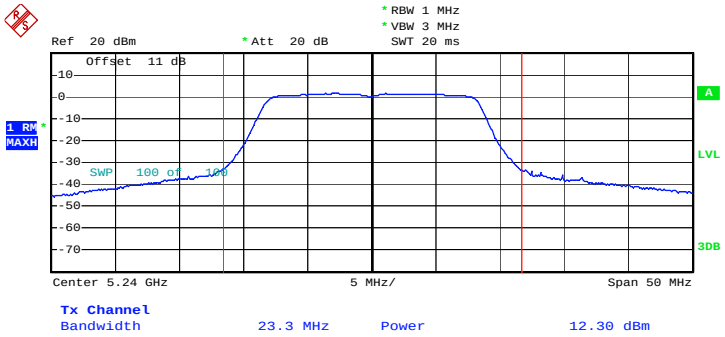
Date: 7.OCT.2008 10:36:10

Mode 2 : Output Power Plot on 802.11a Channel 44



Date: 7.OCT.2008 10:35:28

Mode 3 : Output Power Plot on 802.11a Channel 48



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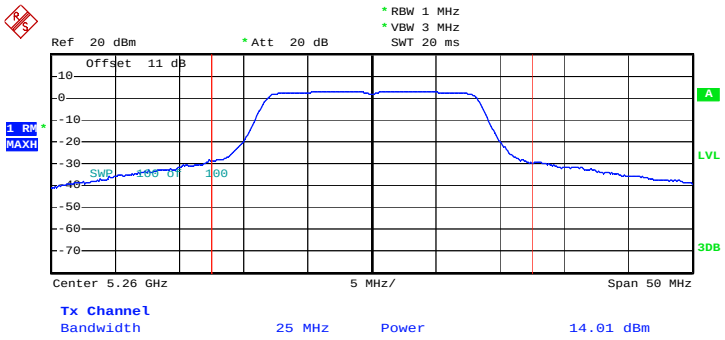
Mode 4 : Output Power Plot on 802.11a Channel 52



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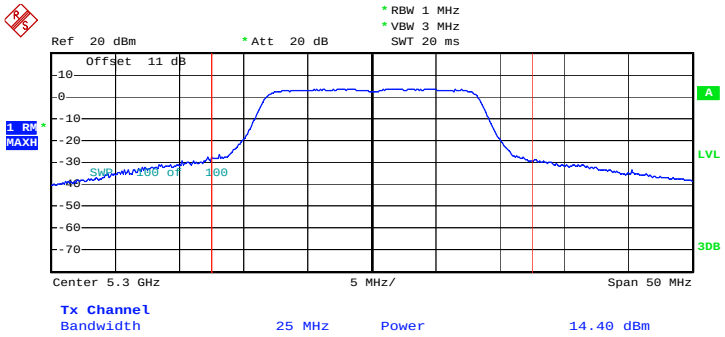
Mode 5 : Output Power Plot on 802.11a Channel 60



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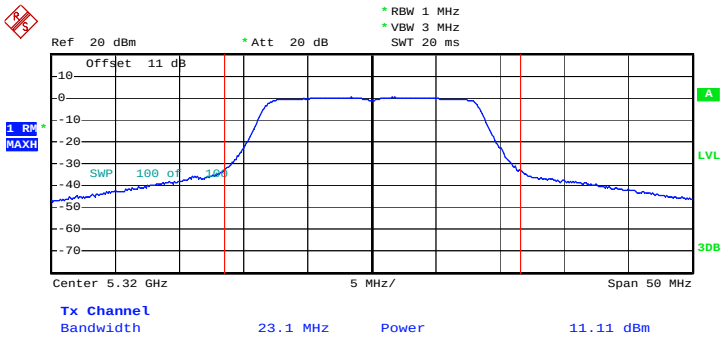
Mode 6 : Output Power Plot on 802.11a Channel 64



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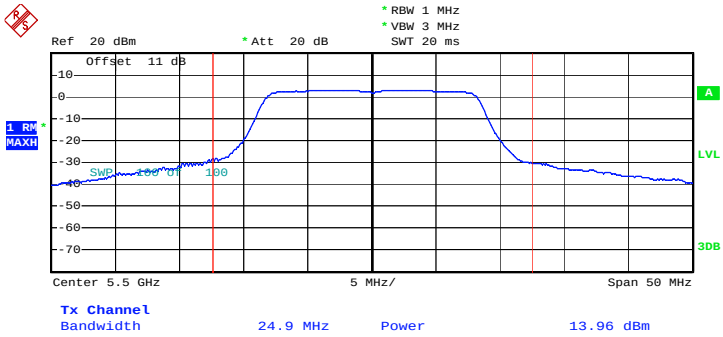
Mode 7 : Output Power Plot on 802.11a Channel 100



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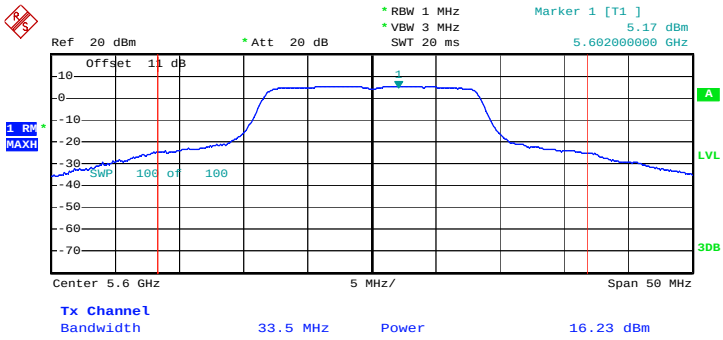
Mode 8 : Output Power Plot on 802.11a Channel 120



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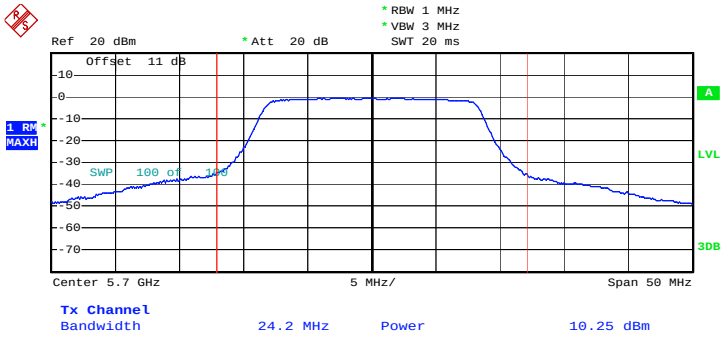
Mode 9 : Output Power Plot on 802.11a Channel 140



Date: 7.OCT.2008 11:18:33

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5.15–5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1MHz band. For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the peak power spectral density shall not exceed 11 dBm in any 1 1MHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

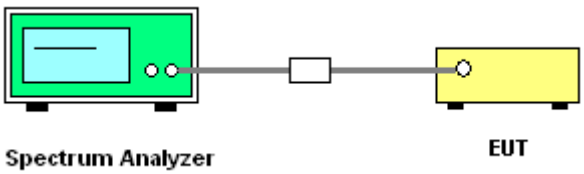
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

The transmitter output is connected to the spectrum analyzer. According to the method 3 of DA-02-2138, the resolution bandwidth is set to 1 MHz, video bandwidth is 3MHz, trace average 100 traces in power averaging mode, and sample detection is used, and the analyzer is set for video averaging.

3.3.4 Test Setup



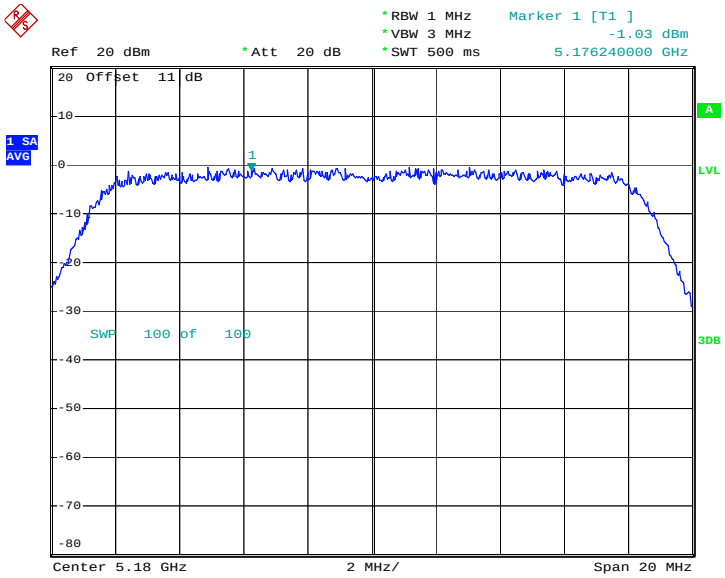
3.3.5 Test Result of Power Spectral Density

Test Mode :	Mode 1~9	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	-1.03	4	Pass
44	5220	0.26	4	Pass
48	5240	-0.45	4	Pass
52	5260	1.32	11	Pass
60	5300	1.09	11	Pass
64	5320	-1.19	11	Pass
100	5500	2.05	11	Pass
120	5600	2.66	11	Pass
140	5700	-2.13	11	Pass

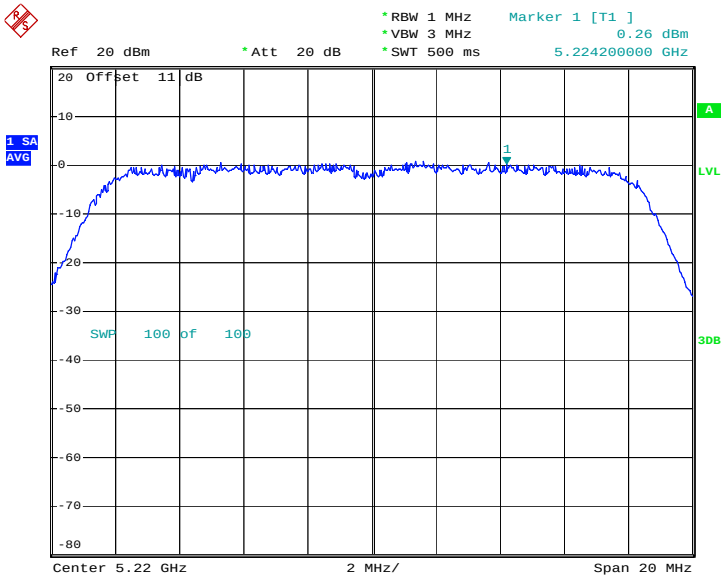
3.3.6 Test Result of Power Spectral Density Plots

Mode 1 : PSD Plot on 802.11a Channel 36



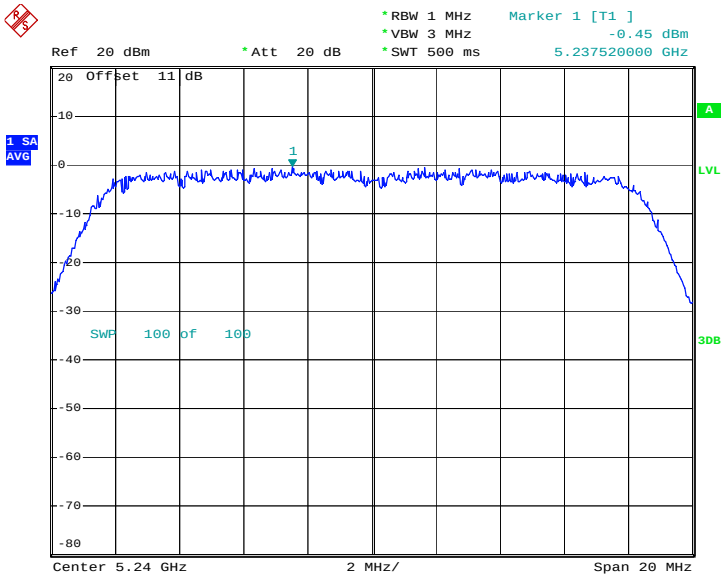
Date: 28.AUG.2008 05:26:02

Mode 2 : PSD Plot on 802.11a Channel 44



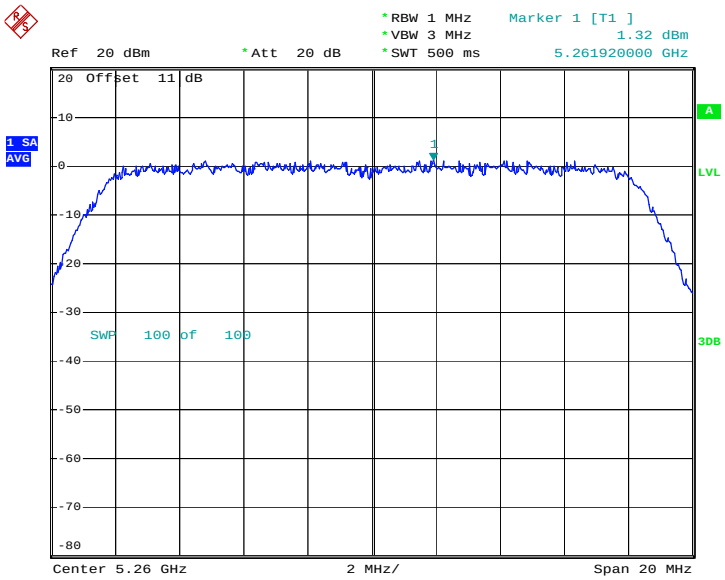
Date: 28.AUG.2008 05:28:52

Mode 3 : PSD Plot on 802.11a Channel 48



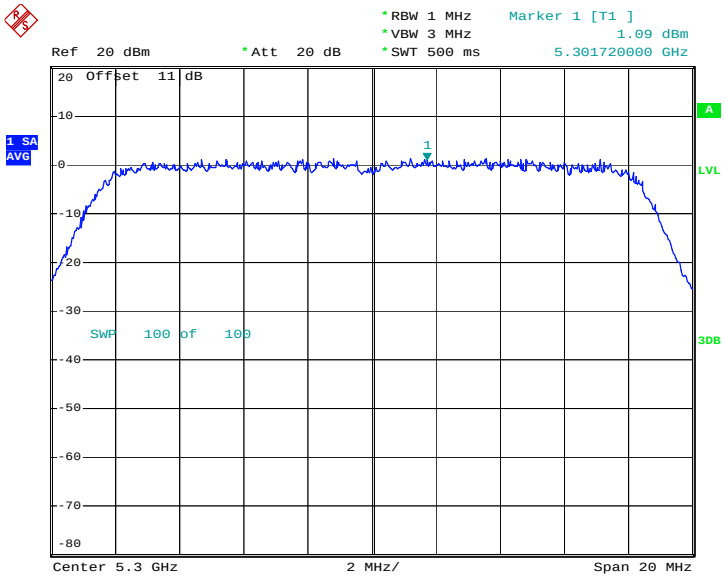
Date: 28.AUG.2008 05:31:04

Mode 4 : PSD Plot on 802.11a Channel 52



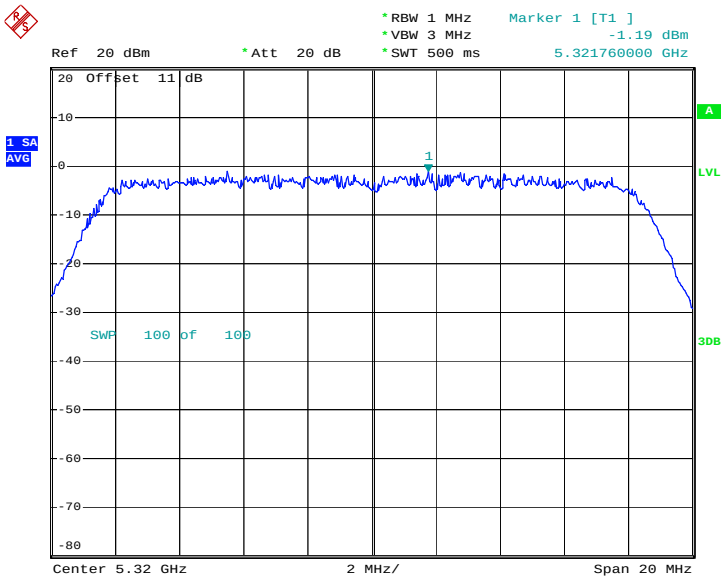
Date: 28.AUG.2008 05:32:44

Mode 5 : PSD Plot on 802.11a Channel 60



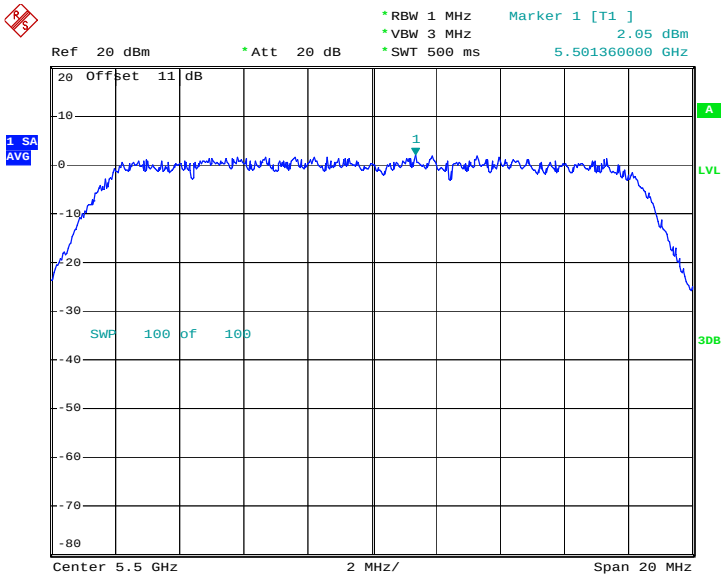
Date: 28.AUG.2008 05:34:44

Mode 6 : PSD Plot on 802.11a Channel 64



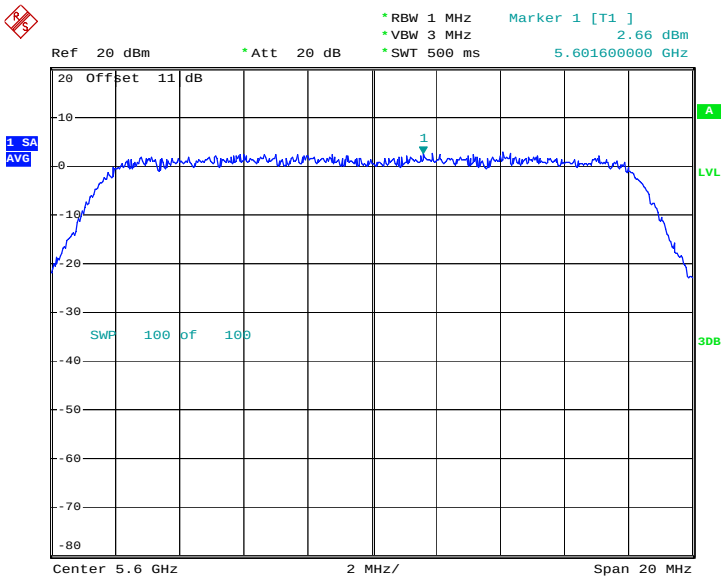
Date: 28.AUG.2008 05:36:17

Mode 7 : PSD Plot on 802.11a Channel 100



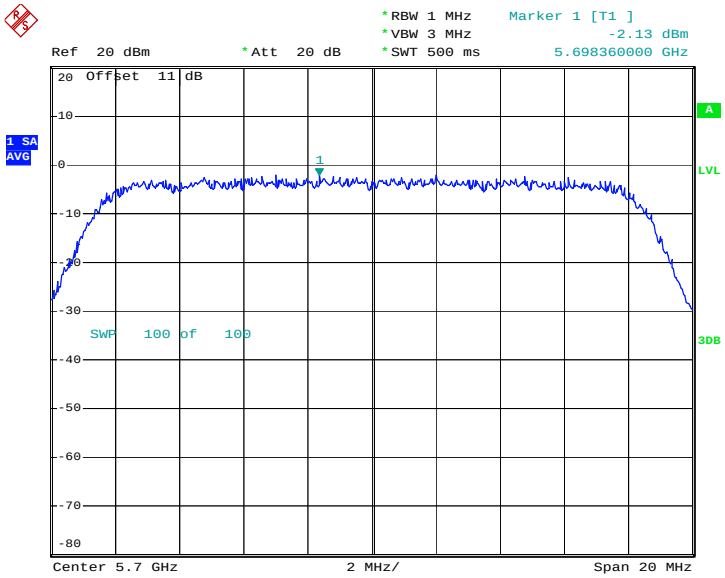
Date: 28.AUG.2008 05:37:52

Mode 8 : PSD Plot on 802.11a Channel 120



Date: 28.AUG.2008 05:48:18

Mode 9 : PSD Plot on 802.11a Channel 140



Date: 28.AUG.2008 05:43:35

3.4 Band Edges Measurement

3.4.1 Limit of Band Edges

For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all applicable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15–5.25 GHz band. For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

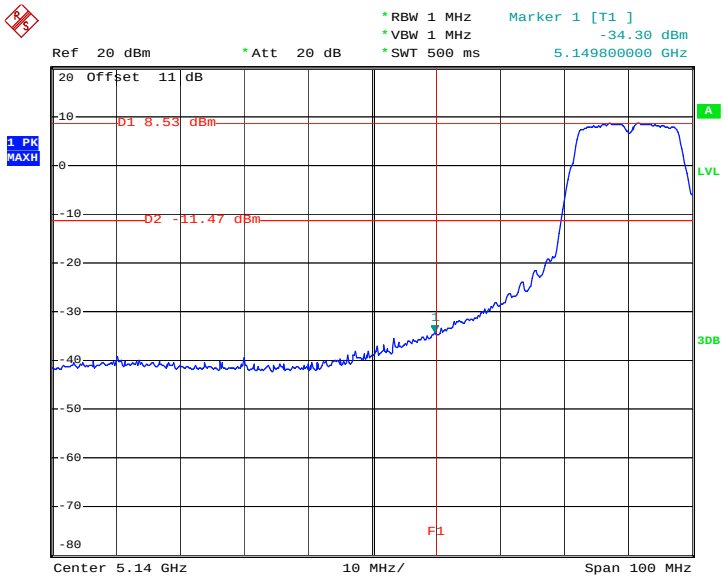
1. Set both RBW and VBW of spectrum analyzer to 1MHz with convenient frequency span including 1MHz bandwidth from band edge.
2. The band edges was measured and recorded.

3.4.4 Test Setup

3.4.5 Test Result of Conducted Band Edges

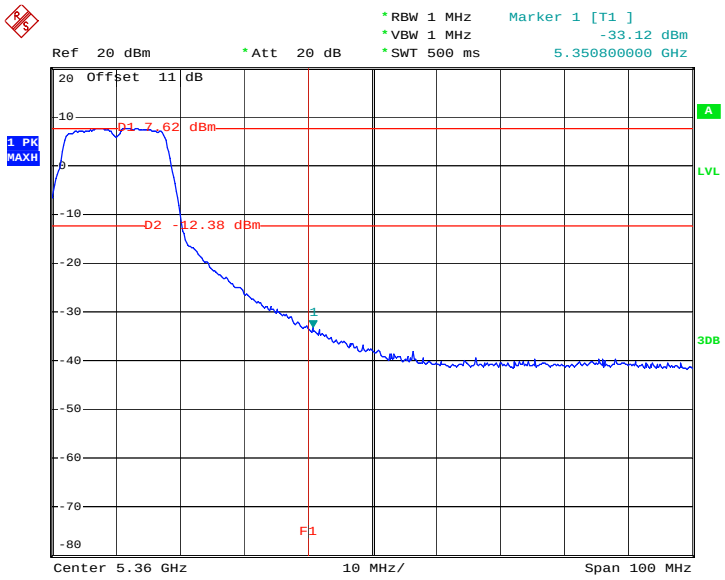
Test Mode :	Mode 1 and Mode 6	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Mode 1 : Low Band Edge Plot on Channel 36



Date: 28.AUG.2008 04:17:45

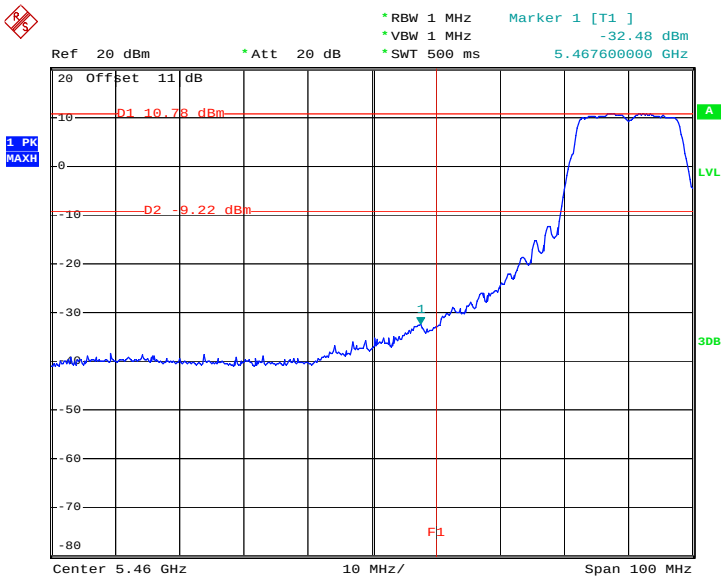
Mode 6 : High Band Edge Plot on Channel 64



Date: 28.AUG.2008 04:30:47

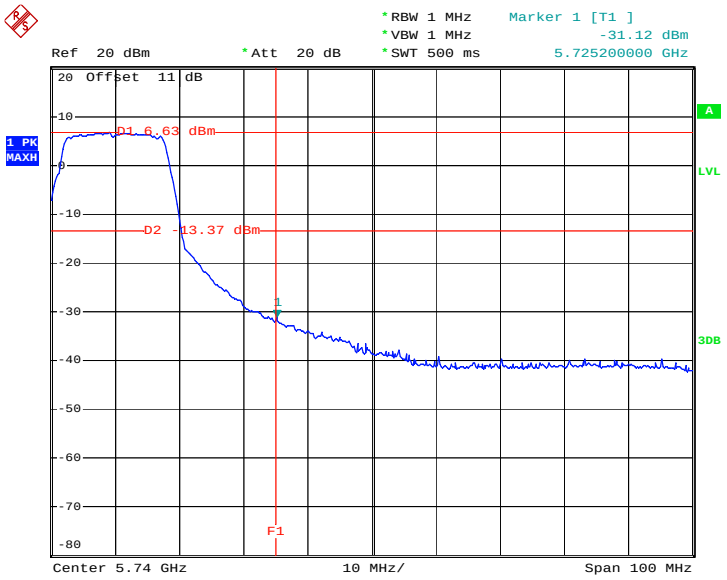
Test Mode :	Mode 7 and Mode 9	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Mode 7 : Low Band Edge Plot on Channel 100



Date: 28.AUG.2008 04:33:27

Mode 9 : High Band Edge Plot on Channel 140



Date: 28.AUG.2008 04:42:38

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.

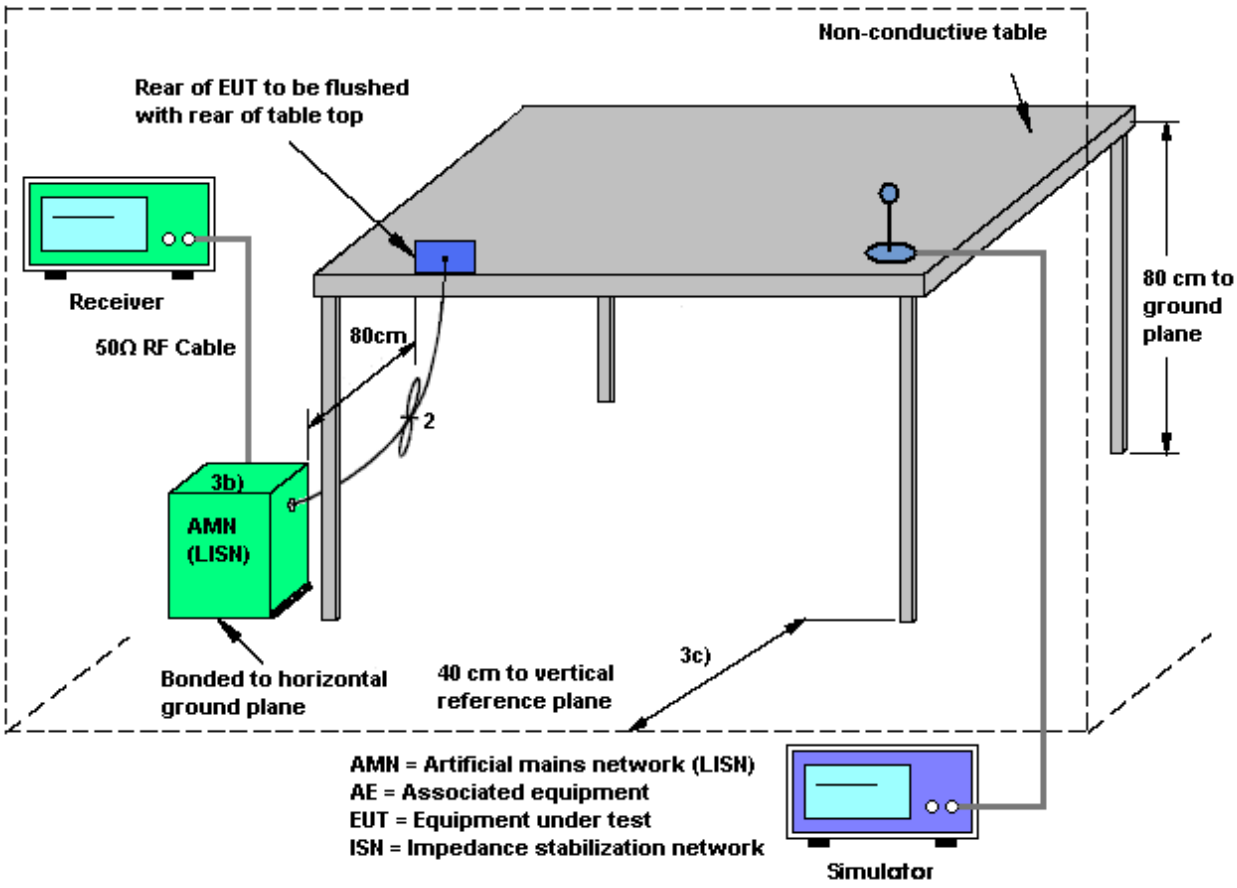
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

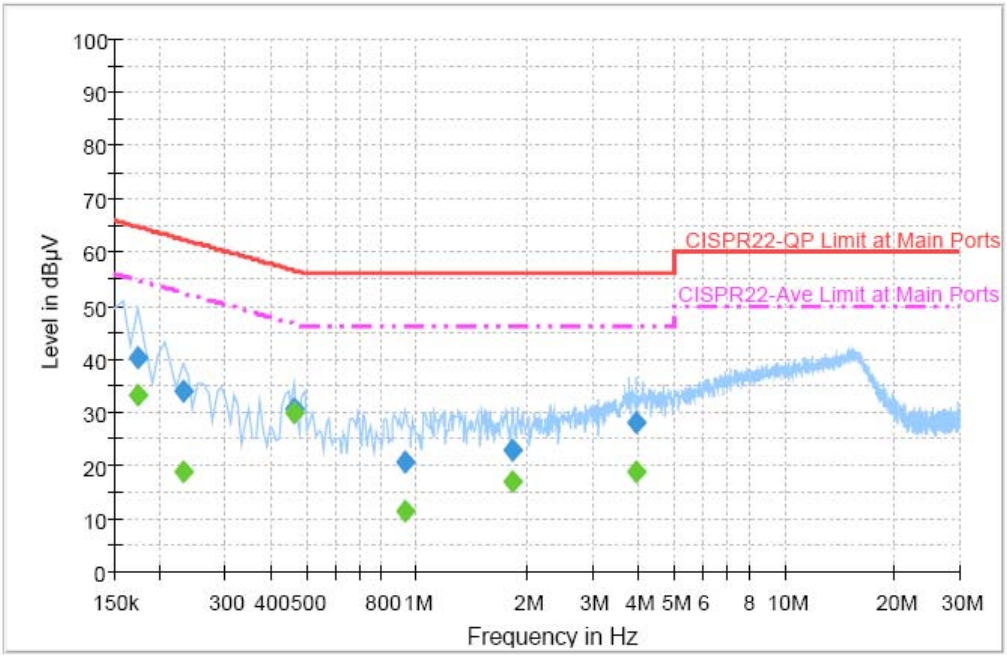
4. Please follow the guidelines in ANSI C63.4-2003.
5. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
6. Connect EUT to the power mains through a line impedance stabilization network (LISN).
7. All the support units are connecting to the other LISN.
8. The LISN provides 50 ohm coupling impedance for the measuring instrument.
9. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
10. Both sides of AC line were checked for maximum conducted interference.
11. The frequency range from 150 kHz to 30 MHz was searched.
12. 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 3	Temperature :	25~26℃
Test Engineer :	Cona Huang	Relative Humidity :	52~53%
		Phase :	Line
Function Type :	BT Link + WLAN (2.4G) Link + USB Charging Cable with AC Power + USB Link + Numeric Keypad + Battery 1 (3600mA) + 1D Scanner		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



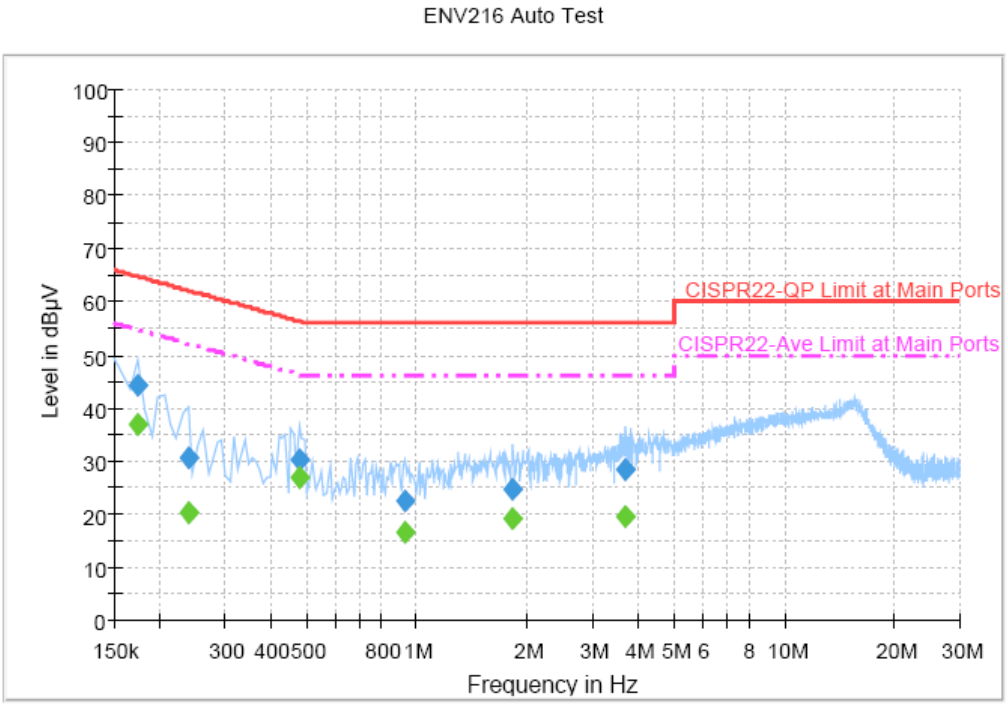
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	40.4	Off	L1	19.3	24.4	64.8
0.230000	33.9	Off	L1	19.4	28.5	62.4
0.462000	30.6	Off	L1	19.3	26.1	56.7
0.926000	20.8	Off	L1	19.4	35.2	56.0
1.822000	22.9	Off	L1	19.5	33.1	56.0
3.934000	28.0	Off	L1	19.5	28.0	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	33.3	Off	L1	19.3	21.5	54.8
0.230000	18.7	Off	L1	19.4	33.7	52.4
0.462000	29.8	Off	L1	19.3	16.9	46.7
0.926000	11.4	Off	L1	19.4	34.6	46.0
1.822000	17.1	Off	L1	19.5	28.9	46.0
3.934000	19.0	Off	L1	19.5	27.0	46.0

Test Mode :	Mode 3	Temperature :	25~26℃
Test Engineer :	Cona Huang	Relative Humidity :	52~53%
		Phase :	Neutral
Function Type :	BT Link + WLAN (2.4G) Link + USB Charging Cable with AC Power + USB Link + Numeric Keypad + Battery 1 (3600mA) + 1D Scanner		
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	44.2	Off	N	19.3	20.6	64.8
0.238000	30.5	Off	N	19.4	31.7	62.2
0.478000	30.2	Off	N	19.4	26.2	56.4
0.926000	22.5	Off	N	19.4	33.5	56.0
1.822000	24.6	Off	N	19.5	31.4	56.0
3.702000	28.4	Off	N	19.6	27.6	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	36.8	Off	N	19.3	18.0	54.8
0.238000	20.3	Off	N	19.4	31.9	52.2
0.478000	26.9	Off	N	19.4	19.5	46.4
0.926000	16.5	Off	N	19.4	29.5	46.0
1.822000	19.1	Off	N	19.5	26.9	46.0

3.6 Radiated Emission Measurement

3.6.1 Limit of Radiated Emission

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

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

(1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all applicable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15–5.25 GHz band. (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

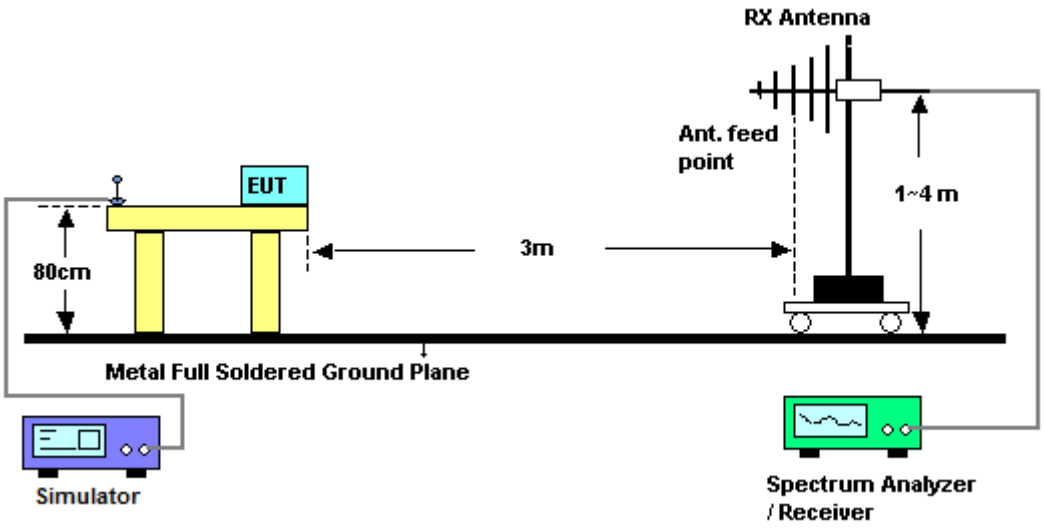
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

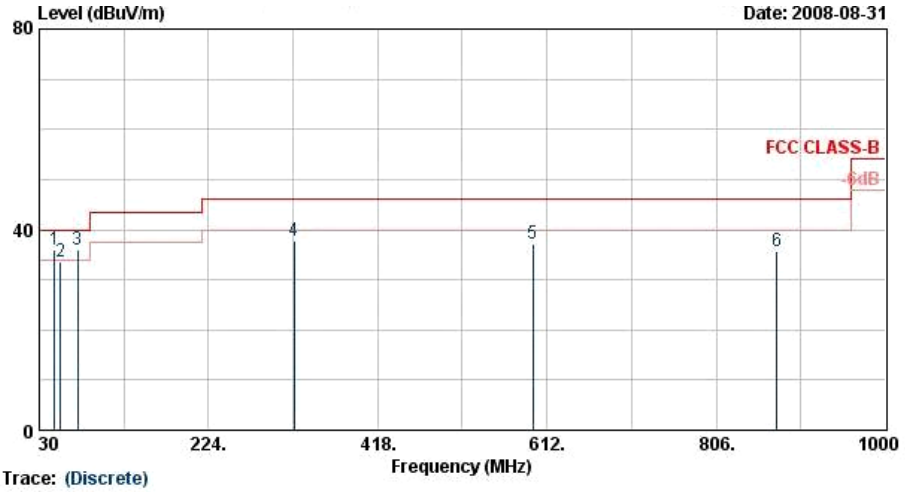
1. The testing follows the guidelines in FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest radiation.
5. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
6. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
7. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
8. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
9. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.6.4 Test Setup



3.6.5 Test Result of Radiated Emission < 1GHz

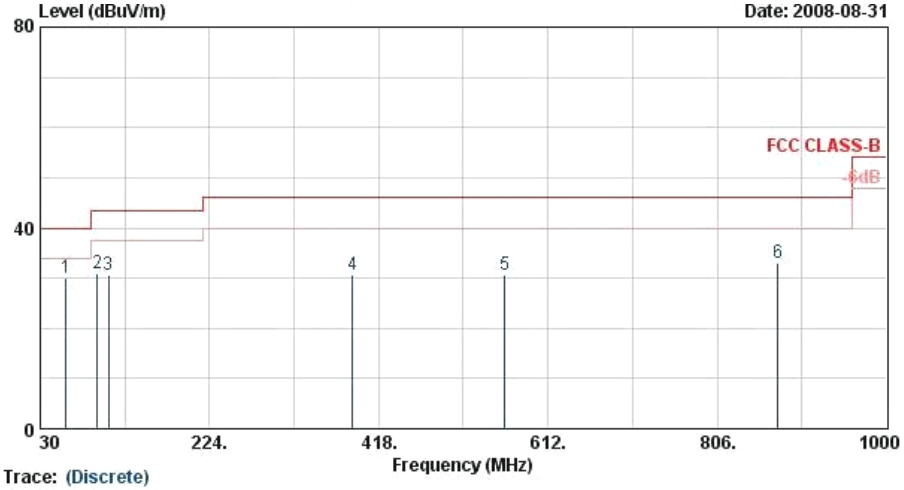
Test Mode :	Mode 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		



Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 1
Plane : E1

		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	!	47.82	36.09	-3.91	40.00	57.03	9.50	0.78	31.22	100	215	QP
2		54.57	33.70	-6.30	40.00	56.88	7.26	0.86	31.30	---	---	QP
3	!	73.74	35.92	-4.08	40.00	59.61	6.70	0.97	31.36	---	---	QP
4		321.70	37.77	-8.23	46.00	53.32	13.59	2.23	31.36	---	---	QP
5		596.10	37.12	-8.88	46.00	45.17	19.70	3.24	30.98	---	---	QP
6		875.40	35.70	-10.30	46.00	39.21	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

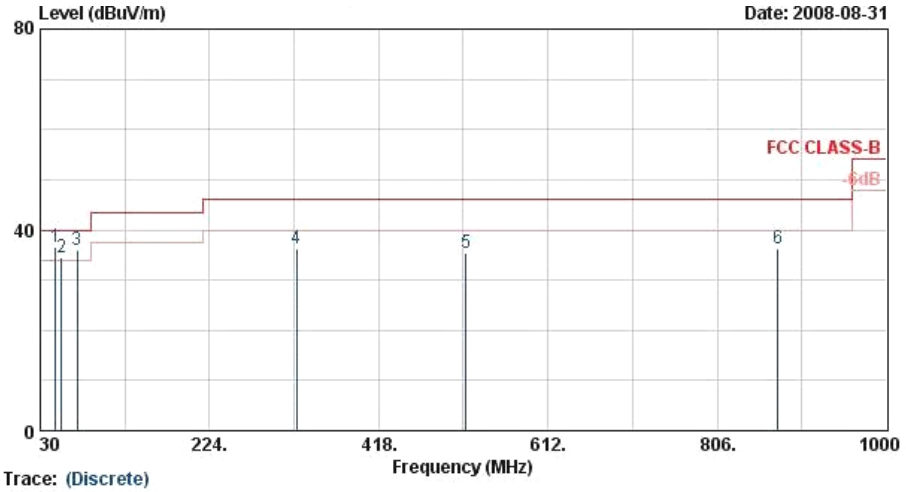


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 1
Plane : E1

	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	59.70	30.10	-9.90	40.00	54.73	5.87	0.91	31.41	100	126	QP
2	95.61	30.94	-12.56	43.50	51.91	9.30	1.14	31.41	---	---	QP
3	108.30	30.52	-12.98	43.50	50.15	10.56	1.21	31.40	---	---	QP
4	388.20	30.59	-15.41	46.00	43.92	15.43	2.51	31.28	---	---	QP
5	562.50	30.75	-15.25	46.00	39.57	19.07	3.13	31.02	---	---	QP
6	875.40	32.98	-13.02	46.00	36.49	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 2	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

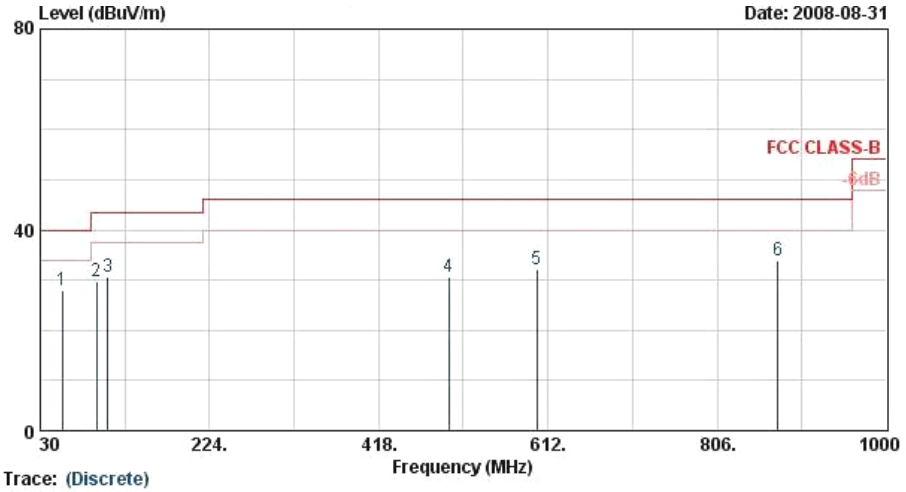


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 2
Plane : E1

	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 !	47.82	36.63	-3.37	40.00	57.57	9.50	0.78	31.22	100	92	QP
2 !	54.57	34.47	-5.53	40.00	57.65	7.26	0.86	31.30	---	---	QP
3 !	72.66	36.03	-3.97	40.00	59.77	6.65	0.97	31.36	---	---	QP
4	323.80	36.33	-9.67	46.00	51.81	13.64	2.24	31.35	---	---	QP
5	517.70	35.35	-10.65	46.00	45.18	18.25	2.99	31.08	---	---	QP
6	875.40	36.19	-9.81	46.00	39.70	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 2	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

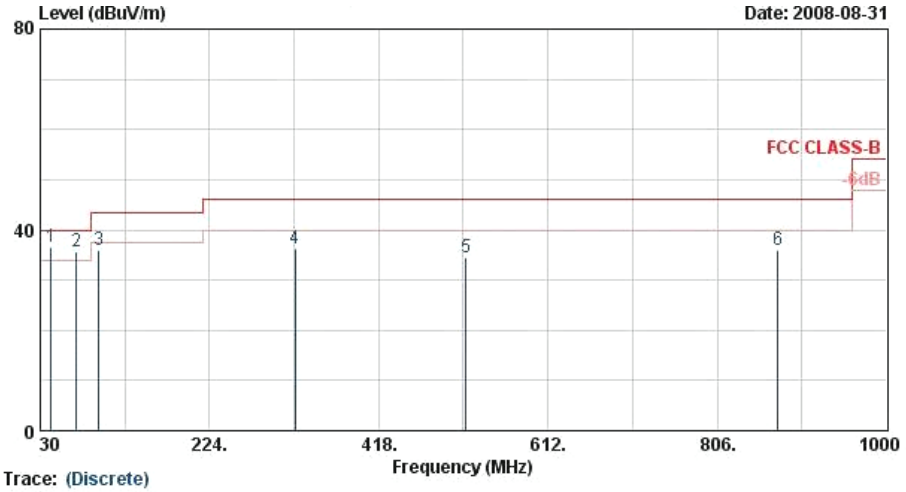


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 2
Plane : E1

	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	55.38	27.96	-12.04	40.00	51.38	7.03	0.87	31.32	100	121	QP
2	94.53	29.81	-13.69	43.50	50.95	9.14	1.14	31.41	---	---	QP
3	107.49	30.55	-12.95	43.50	50.25	10.49	1.21	31.40	---	---	QP
4	498.10	30.58	-15.42	46.00	40.86	17.89	2.93	31.11	---	---	QP
5	598.90	32.01	-13.99	46.00	40.01	19.73	3.24	30.98	---	---	QP
6	875.40	33.93	-12.07	46.00	37.44	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 3	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

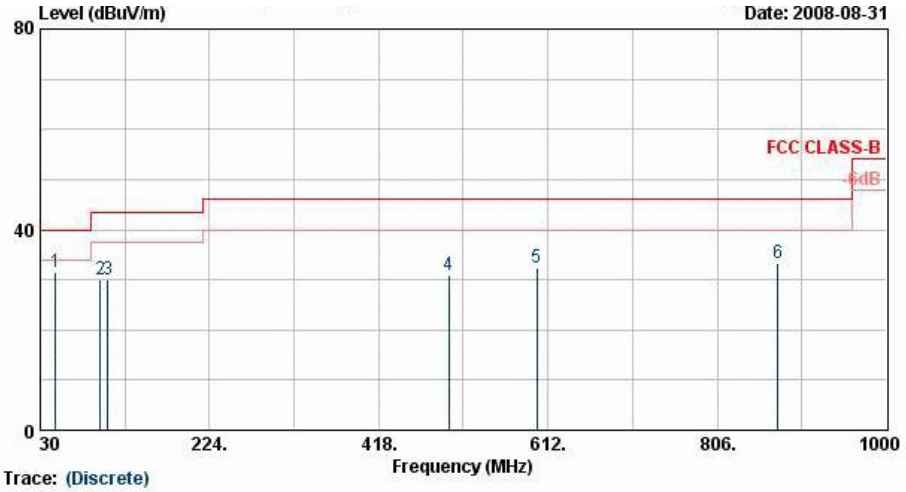


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 3
Plane : E1

	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 !	42.69	36.57	-3.43	40.00	55.11	11.92	0.72	31.18	100	305	QP
2 !	71.85	35.83	-4.17	40.00	59.63	6.60	0.97	31.37	---	---	QP
3	97.50	36.11	-7.39	43.50	56.74	9.62	1.15	31.40	---	---	QP
4	321.70	36.33	-9.67	46.00	51.87	13.59	2.23	31.36	---	---	QP
5	517.70	34.60	-11.40	46.00	44.43	18.25	2.99	31.08	---	---	QP
6	875.40	35.89	-10.11	46.00	39.40	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 3	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

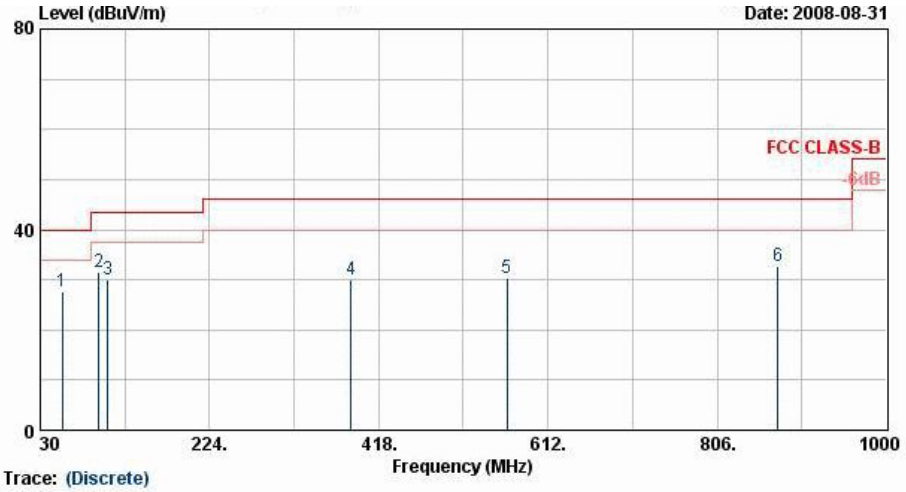


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 3
Plane : E1

	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	47.82	31.55	-8.45	40.00	52.49	9.50	0.78	31.22	100	246	QP
2	98.85	30.12	-13.38	43.50	50.58	9.78	1.16	31.39	---	---	QP
3	107.49	30.02	-13.48	43.50	49.72	10.49	1.21	31.40	---	---	QP
4	498.10	30.97	-15.03	46.00	41.25	17.89	2.93	31.11	---	---	QP
5	598.90	32.27	-13.73	46.00	40.28	19.73	3.24	30.98	---	---	QP
6	875.40	33.21	-12.79	46.00	36.72	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 4	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

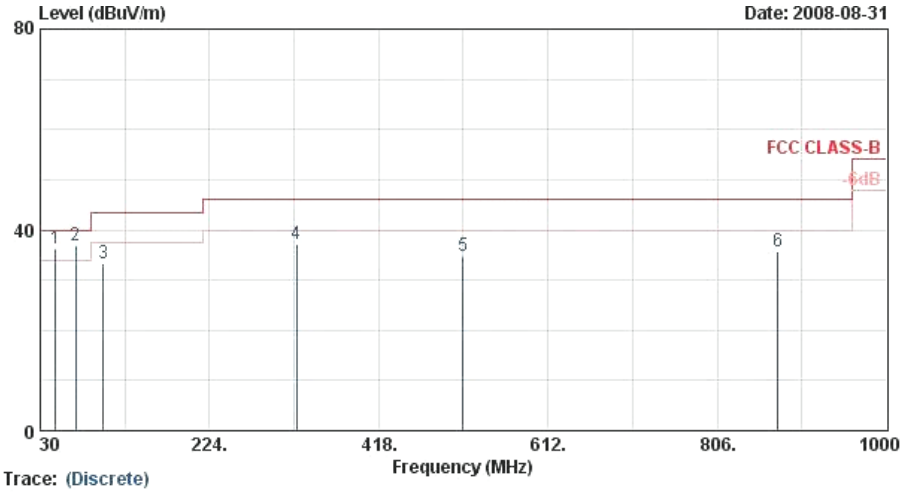


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 4
Plane : E1

	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	55.38	27.67	-12.33	40.00	51.09	7.03	0.87	31.32	---	---	QP
2	97.50	31.43	-12.07	43.50	52.06	9.62	1.15	31.40	100	126	QP
3	107.49	30.18	-13.32	43.50	49.88	10.49	1.21	31.40	---	---	QP
4	386.10	30.17	-15.83	46.00	43.58	15.38	2.50	31.29	---	---	QP
5	565.30	30.31	-15.69	46.00	39.06	19.13	3.14	31.01	---	---	QP
6	875.40	32.60	-13.40	46.00	36.11	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 4	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

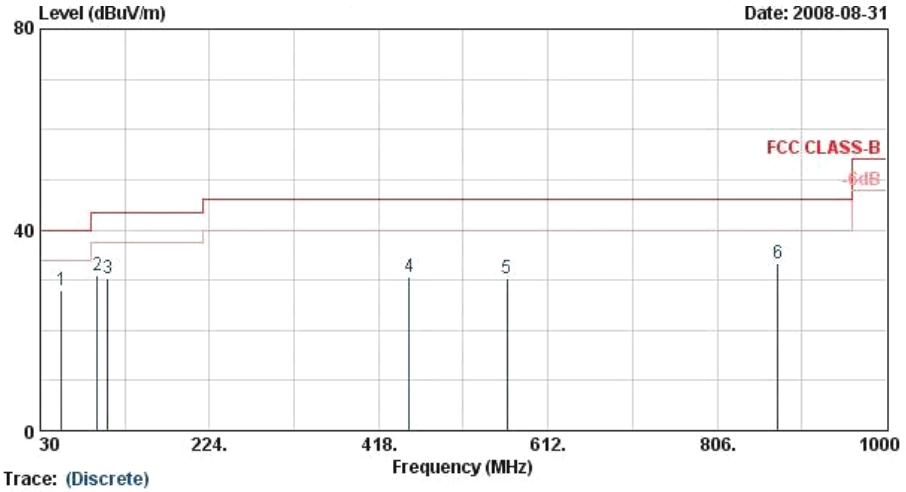


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 4
Plane : E1

	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 !	47.55	36.30	-3.70	40.00	57.24	9.50	0.78	31.22	---	---	QP
2 !	70.50	36.96	-3.04	40.00	60.82	6.54	0.96	31.37	100	105	QP
3	102.09	33.36	-10.14	43.50	53.50	10.08	1.17	31.39	---	---	QP
4	323.80	37.10	-8.90	46.00	52.58	13.64	2.24	31.35	---	---	QP
5	514.90	34.82	-11.18	46.00	44.71	18.20	2.98	31.08	---	---	QP
6	875.40	35.82	-10.18	46.00	39.33	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 5	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

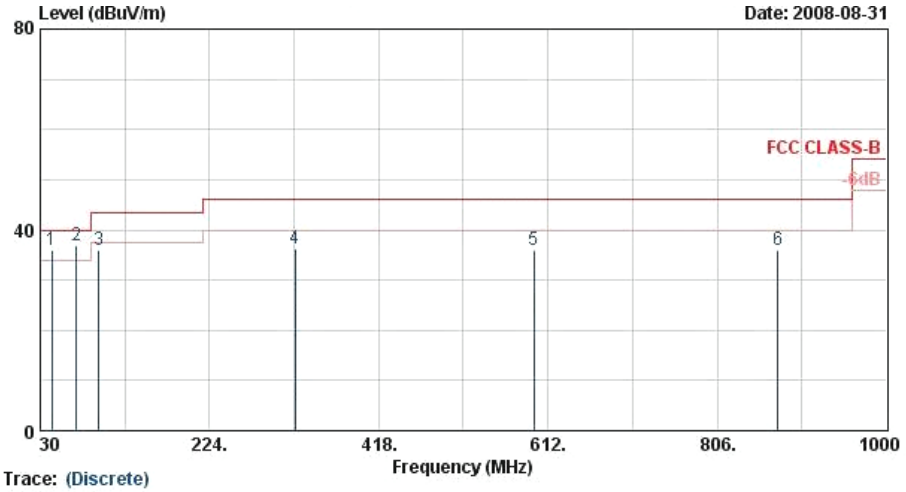


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 5
Plane : E1

	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	54.57	27.90	-12.10	40.00	51.08	7.26	0.86	31.30	100	172	QP
2	95.61	30.84	-12.66	43.50	51.81	9.30	1.14	31.41	---	---	QP
3	107.49	30.46	-13.04	43.50	50.16	10.49	1.21	31.40	---	---	QP
4	453.30	30.76	-15.24	46.00	42.26	16.91	2.81	31.22	---	---	QP
5	565.30	30.27	-15.73	46.00	39.02	19.13	3.14	31.01	---	---	QP
6	875.40	33.25	-12.75	46.00	36.76	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 5	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

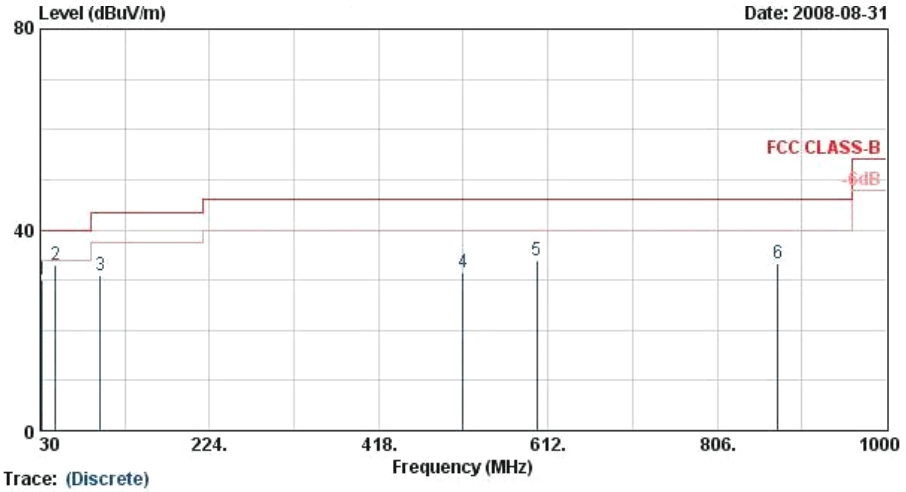


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 5
Plane : E1

	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 !	43.50	36.13	-3.87	40.00	55.23	11.37	0.72	31.20	---	---	QP
2 !	71.85	37.00	-3.00	40.00	60.81	6.60	0.97	31.37	100	145	QP
3	97.50	35.96	-7.54	43.50	56.59	9.62	1.15	31.40	---	---	QP
4	321.70	36.41	-9.59	46.00	51.96	13.59	2.23	31.36	---	---	QP
5	596.10	36.02	-9.98	46.00	44.06	19.70	3.24	30.98	---	---	QP
6	875.40	35.96	-10.04	46.00	39.47	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 6	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

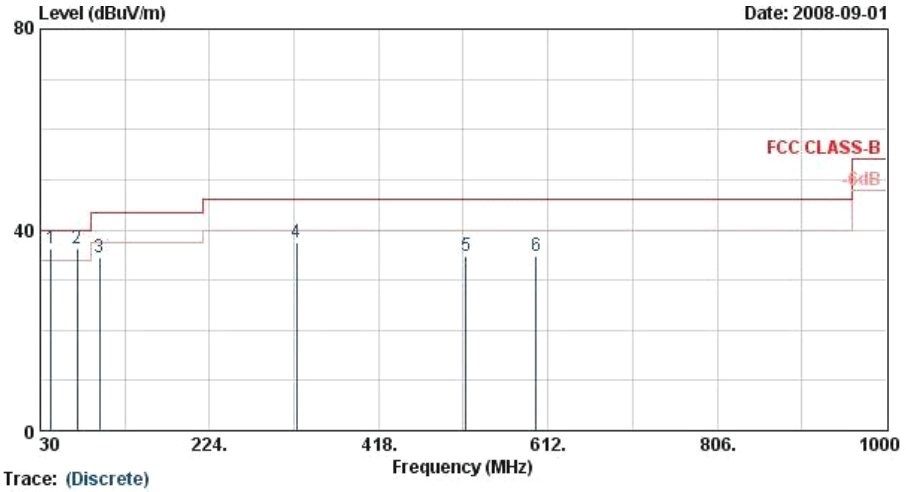


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 6
Plane : E1

	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	30.16	-9.84	40.00	43.39	17.38	0.66	31.26	---	---	QP
2 @	47.82	33.16	-6.84	40.00	54.10	9.50	0.78	31.22	100	296	QP
3	98.85	30.88	-12.62	43.50	51.34	9.78	1.16	31.39	---	---	QP
4	514.90	31.61	-14.39	46.00	41.51	18.20	2.98	31.08	---	---	QP
5	598.90	33.84	-12.16	46.00	41.84	19.73	3.24	30.98	---	---	QP
6	875.40	33.41	-12.59	46.00	36.92	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 6	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

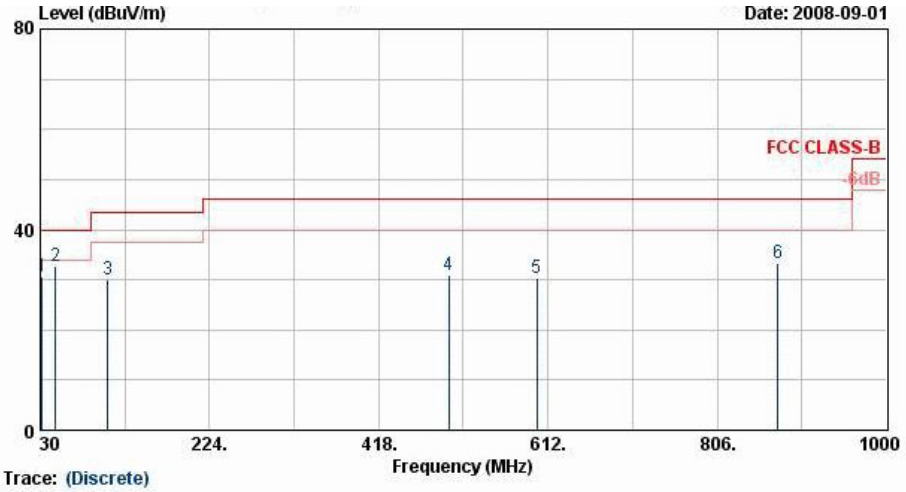


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 6
Plane : E1

	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 @	42.69	36.25	-3.75	40.00	54.79	11.92	0.72	31.18	---	---	QP
2 @	72.66	36.30	-3.70	40.00	60.05	6.65	0.97	31.36	100	237	QP
3	97.77	34.38	-9.12	43.50	55.01	9.62	1.15	31.40	---	---	QP
4	323.80	37.36	-8.64	46.00	52.84	13.64	2.24	31.35	---	---	QP
5	517.70	34.85	-11.15	46.00	44.68	18.25	2.99	31.08	---	---	QP
6	598.20	34.65	-11.35	46.00	42.65	19.73	3.24	30.98	---	---	QP

Test Mode :	Mode 7	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

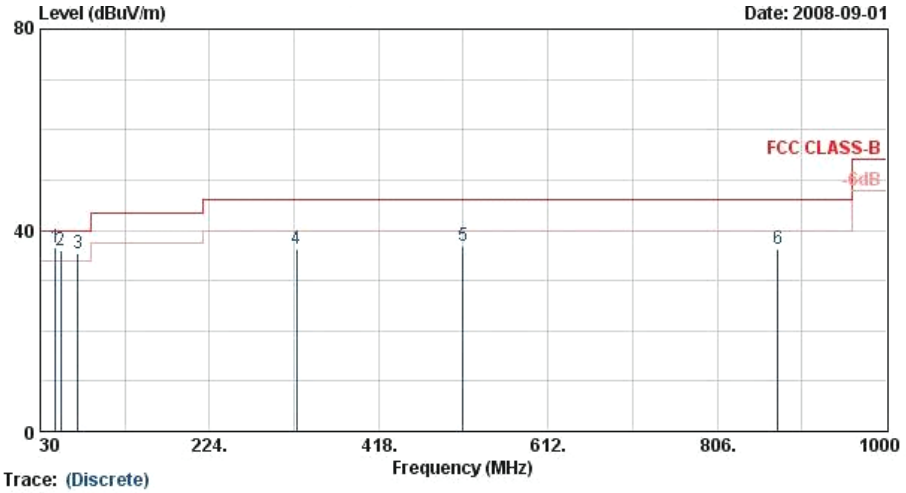


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 7
Plane : E1

	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	30.65	-9.35	40.00	43.88	17.38	0.66	31.26	---	---	QP
2	47.82	32.68	-7.32	40.00	53.62	9.50	0.78	31.22	100	142	QP
3	107.49	30.13	-13.37	43.50	49.83	10.49	1.21	31.40	---	---	QP
4	498.10	31.00	-15.00	46.00	41.28	17.89	2.93	31.11	---	---	QP
5	598.90	30.37	-15.63	46.00	38.37	19.73	3.24	30.98	---	---	QP
6	875.40	33.26	-12.74	46.00	36.77	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 7	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

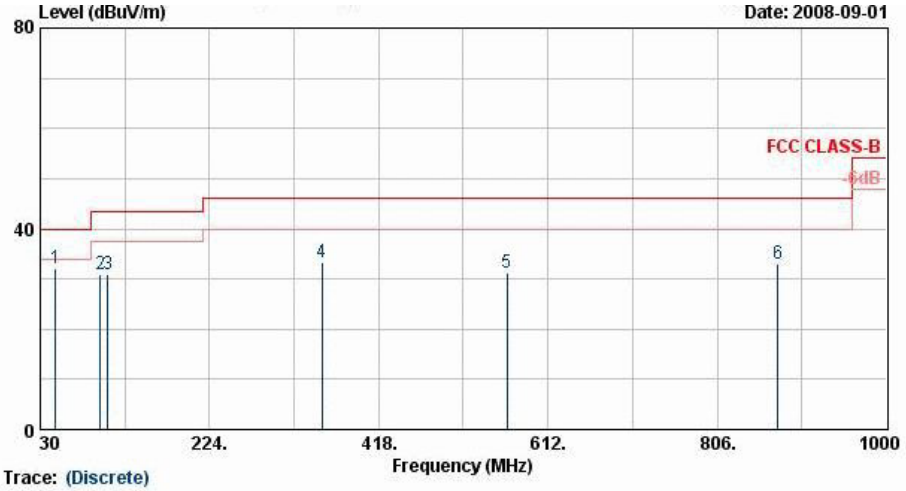


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 7
Plane : E1

	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 !	47.82	36.51	-3.49	40.00	57.45	9.50	0.78	31.22	100	291	QP
2 !	53.49	35.99	-4.01	40.00	58.93	7.49	0.85	31.28	---	---	QP
3 !	72.93	35.28	-4.72	40.00	59.02	6.65	0.97	31.36	---	---	QP
4	323.80	36.29	-9.71	46.00	51.76	13.64	2.24	31.35	---	---	QP
5	514.90	36.81	-9.19	46.00	46.71	18.20	2.98	31.08	---	---	QP
6	875.40	36.19	-9.81	46.00	39.71	23.00	4.06	30.57	---	---	QP

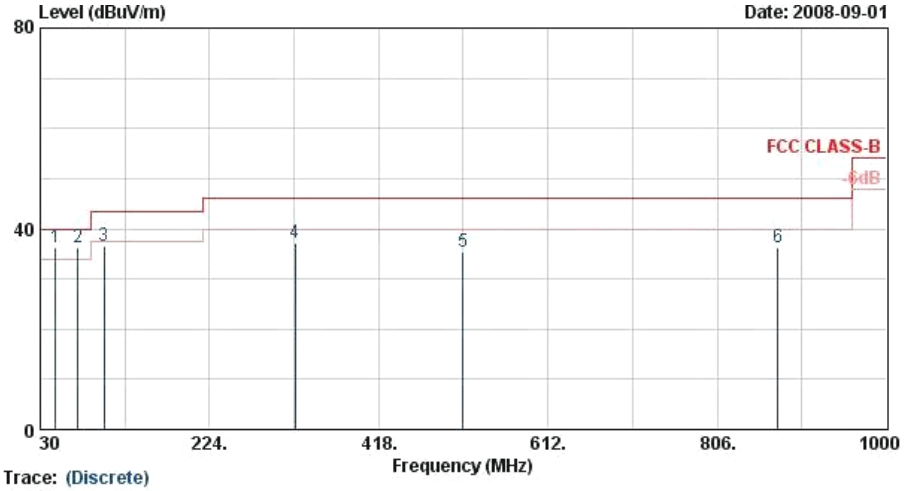
Test Mode :	Mode 8	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		



Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 8
Plane : E1

	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	47.82	32.21	-7.79	40.00	53.15	9.50	0.78	31.22	100	255	QP
2	98.85	30.99	-12.51	43.50	51.45	9.78	1.16	31.39	---	---	QP
3	107.49	30.85	-12.65	43.50	50.55	10.49	1.21	31.40	---	---	QP
4	352.50	33.36	-12.64	46.00	48.03	14.43	2.35	31.45	---	---	QP
5	565.30	31.19	-14.81	46.00	39.94	19.13	3.14	31.01	---	---	QP
6	875.40	33.06	-12.94	46.00	36.57	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 8	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

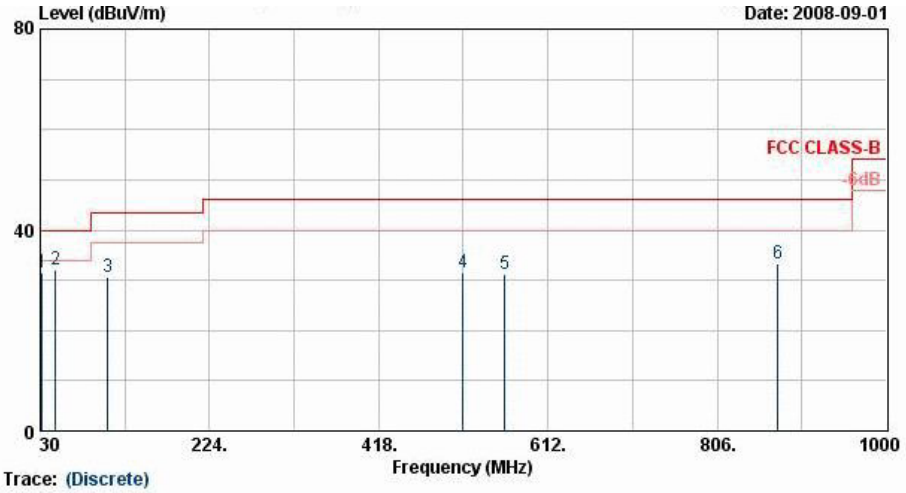


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 8
Plane : E1

		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	!	47.82	36.27	-3.73	40.00	57.21	9.50	0.78	31.22	100	247	QP
2	!	72.93	36.25	-3.75	40.00	59.99	6.65	0.97	31.36	---	---	QP
3		103.17	36.70	-6.80	43.50	56.77	10.15	1.18	31.39	---	---	QP
4		321.70	37.08	-8.92	46.00	52.62	13.59	2.23	31.36	---	---	QP
5		514.90	35.37	-10.63	46.00	45.26	18.20	2.98	31.08	---	---	QP
6		875.40	36.26	-9.74	46.00	39.77	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 9	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 2D Scanner		

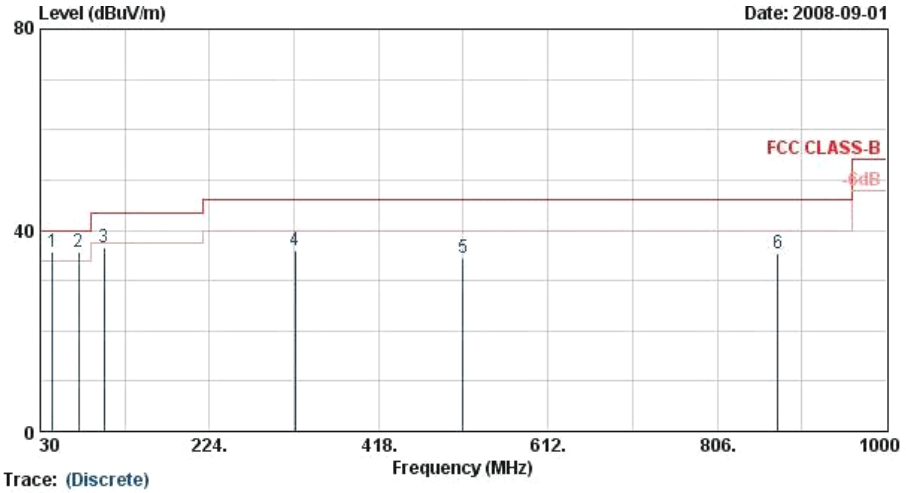


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 9
Plane : E1

	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	31.41	-8.59	40.00	44.63	17.38	0.66	31.26	---	---	QP
2	47.82	32.24	-7.76	40.00	53.18	9.50	0.78	31.22	100	136	QP
3	107.49	30.65	-12.85	43.50	50.35	10.49	1.21	31.40	---	---	QP
4	514.90	31.40	-14.60	46.00	41.29	18.20	2.98	31.08	---	---	QP
5	562.50	31.20	-14.80	46.00	40.02	19.07	3.13	31.02	---	---	QP
6	875.40	33.38	-12.62	46.00	36.89	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 9	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 2D Scanner		

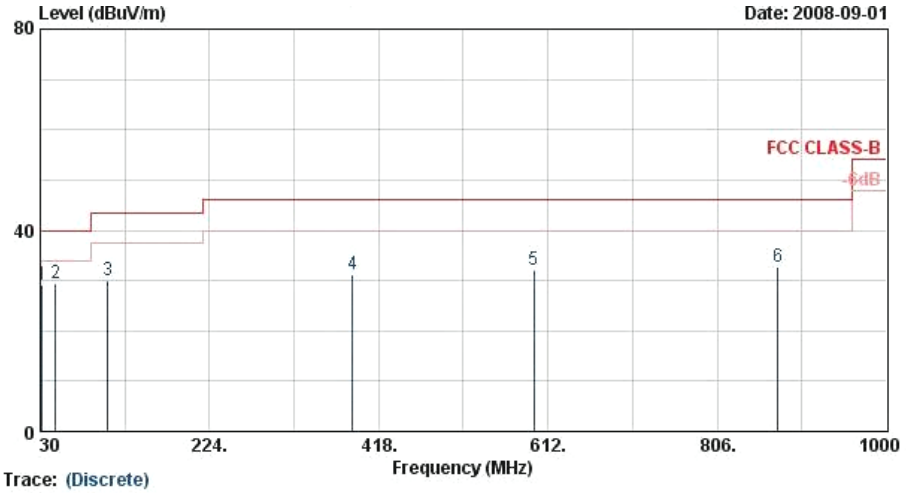


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 9
Plane : E1

	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 !	43.77	35.82	-4.18	40.00	54.93	11.37	0.72	31.20	100	103	QP
2 !	74.01	35.78	-4.22	40.00	59.47	6.70	0.97	31.36	---	---	QP
3	103.17	36.70	-6.80	43.50	56.77	10.15	1.18	31.39	---	---	QP
4	321.70	36.08	-9.92	46.00	51.62	13.59	2.23	31.36	---	---	QP
5	514.90	34.37	-11.63	46.00	44.26	18.20	2.98	31.08	---	---	QP
6	875.40	35.26	-10.74	46.00	38.77	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 10	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 1D Scanner		

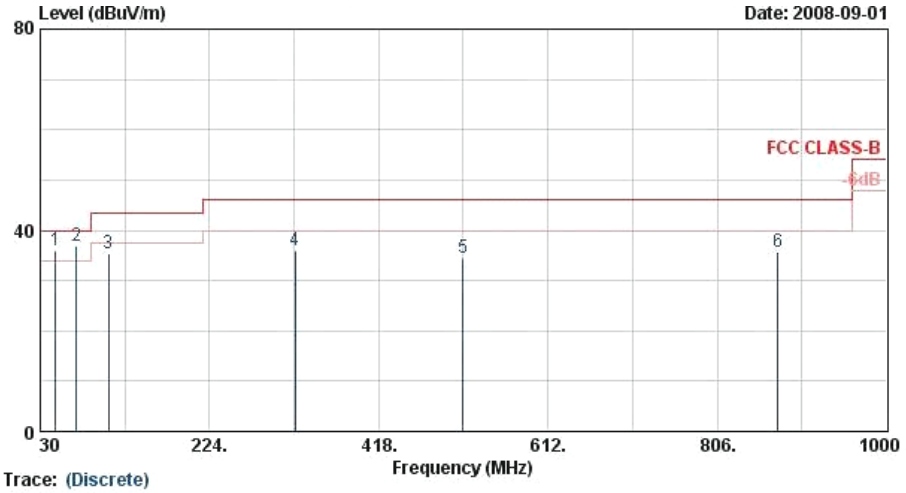


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 10
Plane : E1

	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	29.08	-10.92	40.00	42.30	17.38	0.66	31.26	---	---	QP
2 @	47.82	29.33	-10.67	40.00	50.27	9.50	0.78	31.22	100	252	QP
3	107.49	30.10	-13.40	43.50	49.81	10.49	1.21	31.40	---	---	QP
4	388.20	31.30	-14.70	46.00	44.64	15.43	2.51	31.28	---	---	QP
5	596.10	32.13	-13.87	46.00	40.18	19.70	3.24	30.98	---	---	QP
6	875.40	32.76	-13.24	46.00	36.27	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 10	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 1D Scanner		

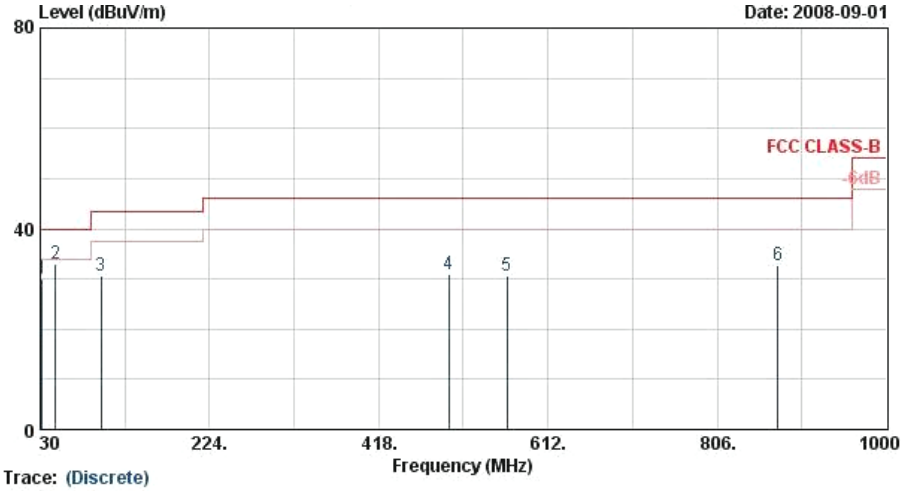


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 10
Plane : E1

	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 @	47.82	35.90	-4.10	40.00	56.84	9.50	0.78	31.22	---	---	QP
2 @	71.58	36.74	-3.26	40.00	60.54	6.60	0.97	31.37	100	124	QP
3 @	108.30	35.47	-8.03	43.50	55.10	10.56	1.21	31.40	---	---	QP
4 @	321.70	35.85	-10.15	46.00	51.40	13.59	2.23	31.36	---	---	QP
5 @	514.90	34.45	-11.55	46.00	44.35	18.20	2.98	31.08	---	---	QP
6 @	875.40	35.59	-10.41	46.00	39.10	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 11	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	EUT with 1D Scanner		

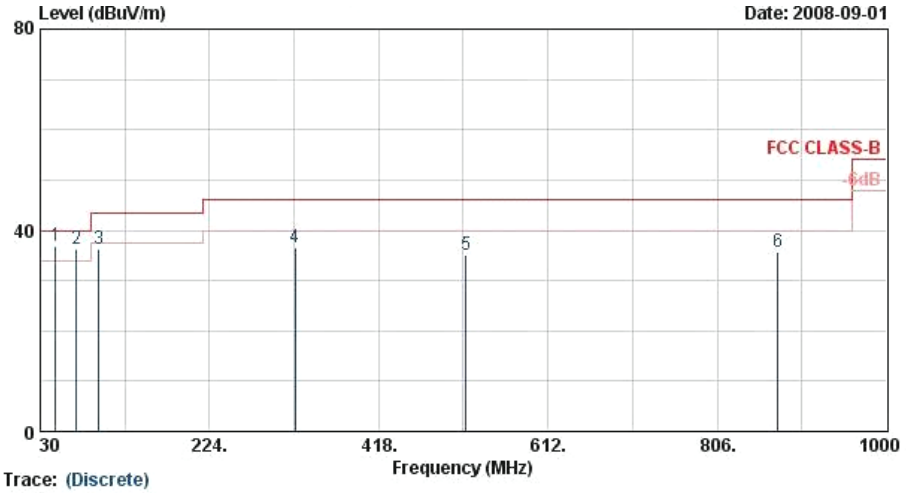


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) HORIZONTAL
Model : FR 880108
Mode : Mode 11
Plane : E1

	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	30.13	-9.87	40.00	43.35	17.38	0.66	31.26	---	---	QP
2	47.82	32.88	-7.12	40.00	53.82	9.50	0.78	31.22	100	271	QP
3	99.66	30.69	-12.81	43.50	50.98	9.94	1.16	31.39	---	---	QP
4	498.10	30.98	-15.02	46.00	41.26	17.89	2.93	31.11	---	---	QP
5	565.30	30.69	-15.31	46.00	39.43	19.13	3.14	31.01	---	---	QP
6	875.40	32.57	-13.43	46.00	36.08	23.00	4.06	30.57	---	---	QP

Test Mode :	Mode 11	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	EUT with 1D Scanner		



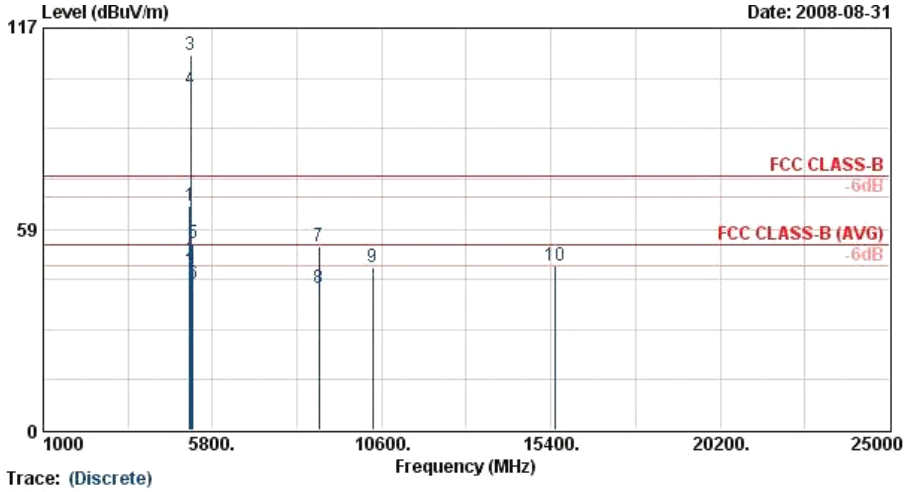
Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m LF-ANT(080228) VERTICAL
Model : FR 880108
Mode : Mode 11
Plane : E1

	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 !	47.82	36.93	-3.07	40.00	57.87	9.50	0.78	31.22	100	241	QP
2 !	71.58	36.17	-3.83	40.00	59.98	6.60	0.97	31.37	---	---	QP
3	97.50	36.16	-7.34	43.50	56.79	9.62	1.15	31.40	---	---	QP
4	321.70	36.44	-9.56	46.00	51.98	13.59	2.23	31.36	---	---	QP
5	517.70	35.03	-10.97	46.00	44.86	18.25	2.99	31.08	---	---	QP
6	875.40	35.83	-10.17	46.00	39.34	23.00	4.06	30.57	---	---	QP

3.6.6 Test Result of Radiated Emission ≥ 1GHz

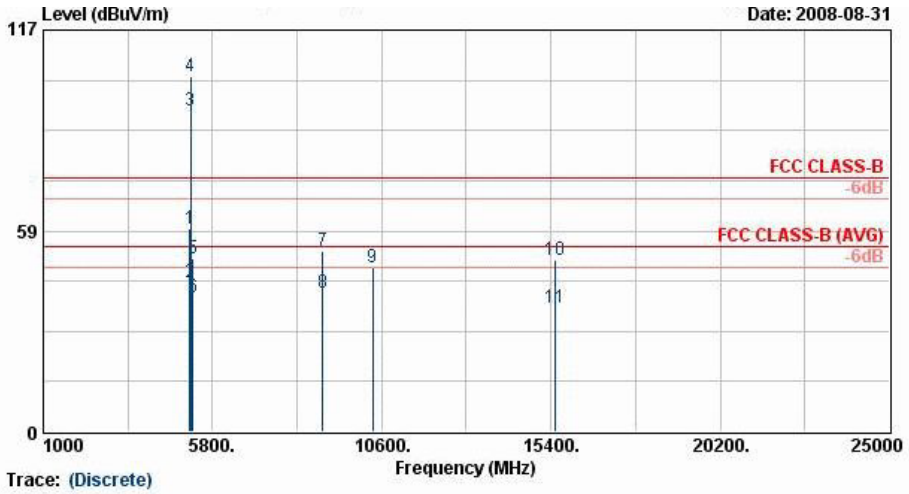
Test Mode :	Mode 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 1
Plane : E1

		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		5150.00	65.11	-8.89	74.00	56.69	35.98	8.07	35.63	100	0	Peak
2	!	5150.00	48.94	-5.06	54.00	40.52	35.98	8.07	35.63	100	311	Average
3	X	5180.00	109.07			100.59	36.02	8.10	35.64	100	0	Peak
4	@	5180.00	99.00			90.52	36.02	8.10	35.64	100	311	Average
5		5250.00	54.23	-19.77	74.00	45.64	36.10	8.15	35.65	100	0	Peak
6		5250.00	42.55	-11.45	54.00	33.95	36.10	8.15	35.65	100	311	Average
7		8820.00	53.53	-20.47	74.00	41.15	38.59	10.28	36.50	100	0	Peak
8		8820.00	41.12	-12.88	54.00	28.74	38.59	10.28	36.50	100	215	Average
9		10353.00	47.47	-26.53	74.00	81.67	-8.74	11.06	36.52	100	0	Peak
10		15534.00	47.95	-26.05	74.00	77.02	-7.19	14.34	36.22	100	0	Peak

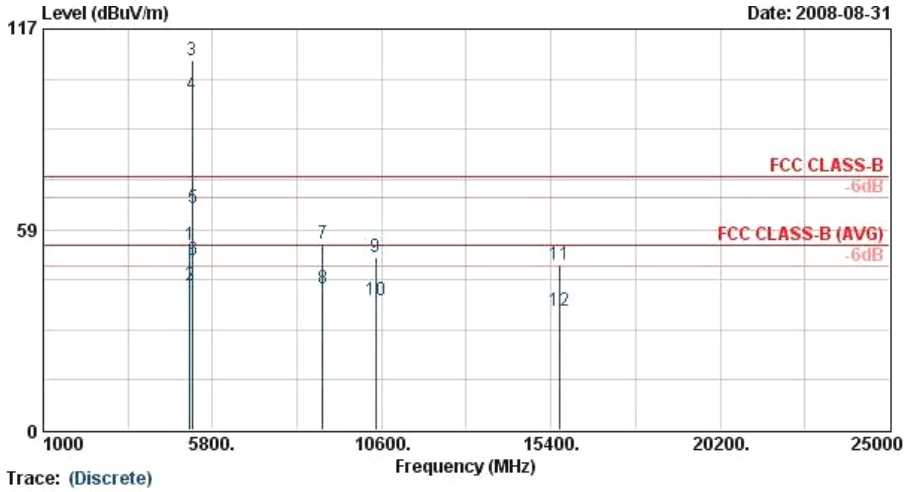
Test Mode :	Mode 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 1
Plane : E1

		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		5150.00	59.33	-14.67	74.00	51.77	35.12	8.07	35.63	100	0	Peak
2		5150.00	43.41	-10.59	54.00	35.85	35.12	8.07	35.63	147	243	Average
3	@	5180.00	93.36			85.75	35.15	8.10	35.64	147	243	Average
4	X	5180.00	103.54			95.96	35.13	8.08	35.64	100	0	Peak
5		5250.00	50.63	-23.37	74.00	42.94	35.20	8.15	35.65	100	0	Peak
6		5250.00	39.25	-14.75	54.00	31.55	35.20	8.15	35.65	147	243	Average
7		8926.00	52.83	-21.17	74.00	41.53	37.55	10.31	36.56	100	0	Peak
8		8926.00	40.45	-13.55	54.00	29.14	37.55	10.31	36.56	100	121	Average
9		10353.00	47.93	-26.07	74.00	82.13	-8.74	11.06	36.52	100	0	Peak
10		15534.00	50.00	-24.00	74.00	79.07	-7.19	14.34	36.22	100	0	Peak
11		15534.00	36.28	-17.72	54.00	65.35	-7.19	14.34	36.22	100	344	Average

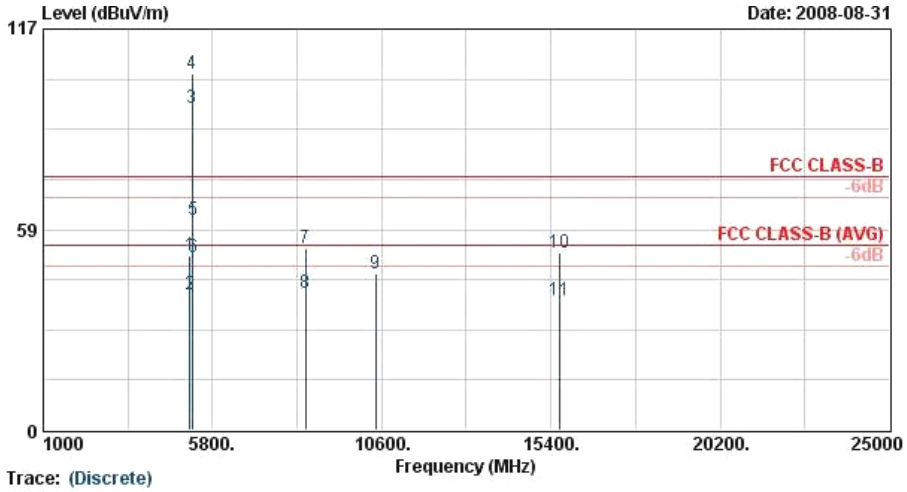
Test Mode :	Mode 2	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 2
Plane : E1

		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		5150.00	54.15	-19.85	74.00	45.73	35.98	8.07	35.63	100	0	Peak
2		5150.00	42.19	-11.81	54.00	33.77	35.98	8.07	35.63	100	306	Average
3	X	5220.00	107.92			99.38	36.06	8.12	35.64	100	0	Peak
4	@	5220.00	97.74			89.20	36.06	8.12	35.64	100	306	Average
5		5250.00	65.01	-8.99	74.00	56.41	36.10	8.15	35.65	100	0	Peak
6	!	5250.00	49.79	-4.21	54.00	41.19	36.10	8.15	35.65	100	306	Average
7		8916.00	54.28	-19.72	74.00	41.86	38.65	10.31	36.54	100	0	Peak
8		8916.00	41.13	-12.87	54.00	28.71	38.65	10.31	36.54	100	284	Average
9		10437.00	50.28	-23.72	74.00	84.25	-8.60	11.08	36.46	100	0	Peak
10		10437.00	37.73	-16.27	54.00	71.71	-8.60	11.08	36.46	100	6	Average
11		15657.00	48.25	-25.75	74.00	76.60	-6.28	14.25	36.33	100	0	Peak
12		15657.00	34.88	-19.12	54.00	63.23	-6.28	14.25	36.33	100	328	Average

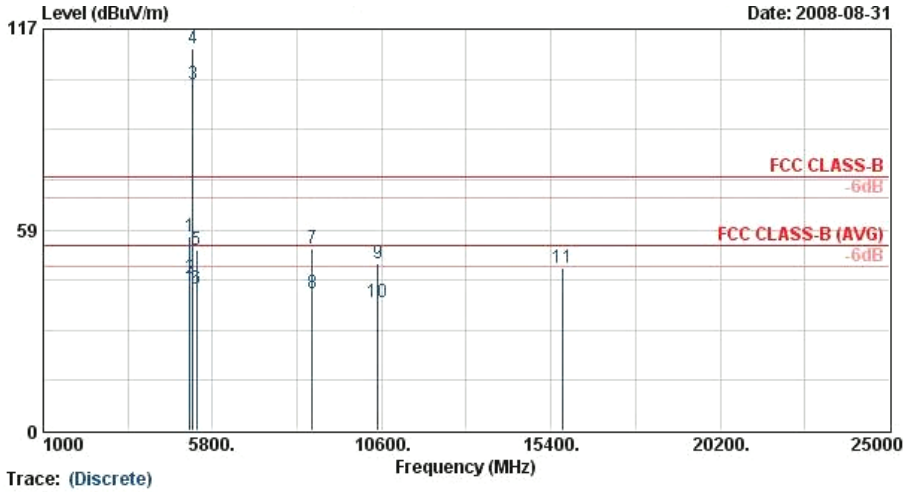
Test Mode :	Mode 2	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 2
Plane : E1

		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		5150.00	50.94	-23.06	74.00	43.38	35.12	8.07	35.63	100	0	Peak
2		5150.00	39.49	-14.51	54.00	31.93	35.12	8.07	35.63	184	239	Average
3	@	5220.00	93.92			86.27	35.17	8.12	35.64	184	239	Average
4	X	5220.00	103.88			96.23	35.17	8.12	35.64	100	0	Peak
5		5250.00	61.52	-12.48	74.00	53.82	35.20	8.15	35.65	100	0	Peak
6	!	5250.00	50.41	-3.59	54.00	42.71	35.20	8.15	35.65	184	239	Average
7		8438.00	52.88	-21.12	74.00	41.77	37.27	10.14	36.30	100	0	Peak
8		8438.00	39.89	-14.11	54.00	28.78	37.27	10.14	36.30	100	158	Average
9		10437.00	45.53	-28.47	74.00	79.50	-8.60	11.08	36.46	---	---	Peak
10		15654.00	51.92	-22.08	74.00	80.35	-6.35	14.25	36.33	100	0	Peak
11		15654.00	37.89	-16.11	54.00	66.31	-6.35	14.25	36.33	100	335	Average

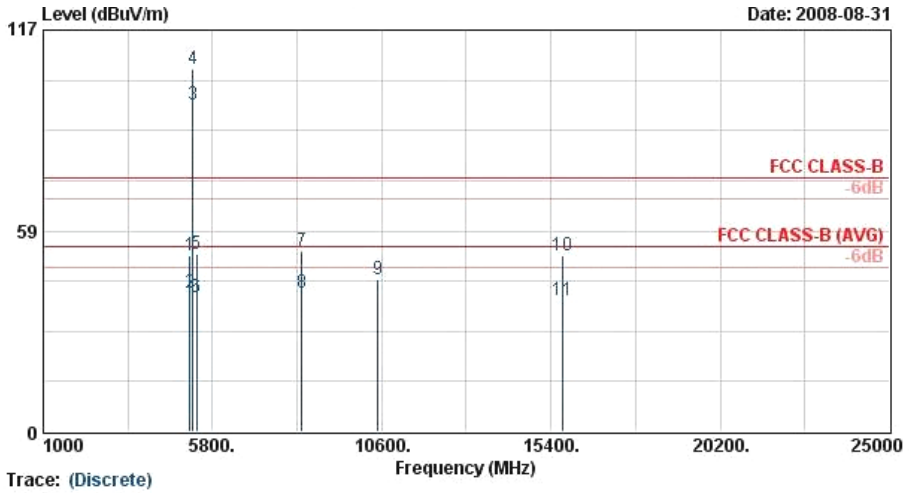
Test Mode :	Mode 3	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 3
Plane : E1

	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	5150.00	56.34	-17.66	74.00	47.92	35.98	8.07	35.63	100	0	Peak
2	5150.00	44.29	-9.71	54.00	35.87	35.98	8.07	35.63	100	306	Average
3 @	5240.00	100.94			92.37	36.08	8.14	35.65	100	306	Average
4 X	5240.00	111.46			102.89	36.08	8.14	35.65	100	0	Peak
5	5350.00	52.72	-21.28	74.00	43.94	36.22	8.23	35.67	100	0	Peak
6	5350.00	41.27	-12.73	54.00	32.49	36.22	8.23	35.67	100	306	Average
7	8628.00	53.26	-20.74	74.00	40.93	38.48	10.22	36.38	100	0	Peak
8	8628.00	40.13	-13.87	54.00	27.80	38.48	10.22	36.38	100	322	Average
9	10482.00	48.93	-25.07	74.00	82.79	-8.53	11.09	36.42	100	0	Peak
10	10482.00	37.33	-16.68	54.00	71.19	-8.53	11.09	36.42	100	7	Average
11	15717.00	47.40	-26.60	74.00	75.43	-5.86	14.20	36.37	100	0	Peak

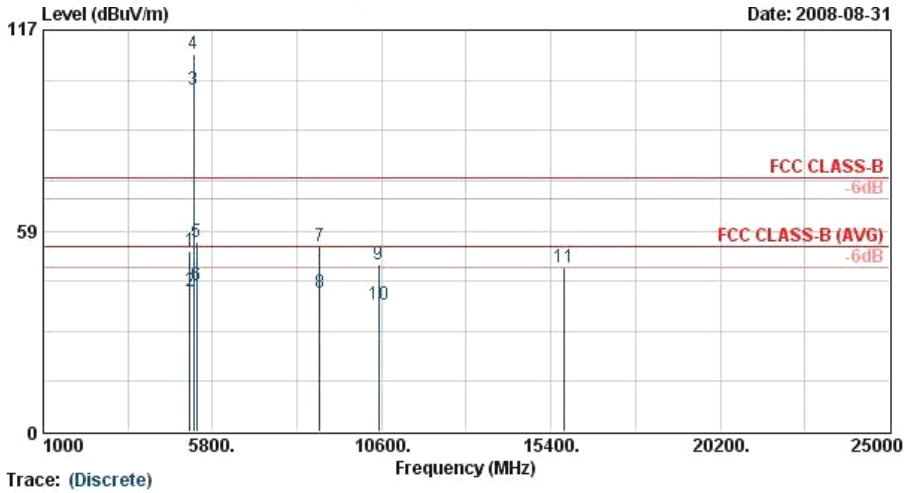
Test Mode :	Mode 3	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 3
Plane : E1

	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	5150.00	51.45	-22.55	74.00	43.89	35.12	8.07	35.63	100	0	Peak
2	5150.00	40.24	-13.76	54.00	32.68	35.12	8.07	35.63	148	241	Average
3 @	5240.00	95.10			87.42	35.19	8.14	35.65	148	241	Average
4 X	5240.00	105.48			97.81	35.19	8.14	35.65	100	0	Peak
5	5350.00	51.78	-22.22	74.00	43.94	35.28	8.23	35.67	100	0	Peak
6	5350.00	39.14	-14.86	54.00	31.30	35.28	8.23	35.67	148	241	Average
7	8332.00	52.66	-21.34	74.00	41.70	37.20	10.06	36.30	100	0	Peak
8	8332.00	40.32	-13.68	54.00	29.36	37.20	10.06	36.30	100	168	Average
9	10482.00	44.55	-29.45	74.00	78.41	-8.53	11.09	36.42	100	0	Peak
10	15714.00	51.15	-22.85	74.00	79.25	-5.93	14.20	36.37	100	0	Peak
11	15714.00	38.23	-15.77	54.00	66.33	-5.93	14.20	36.37	100	334	Average

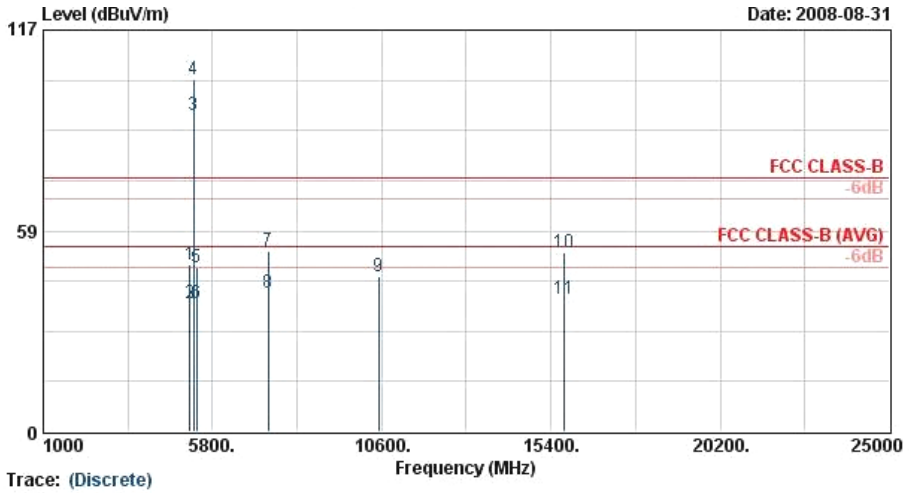
Test Mode :	Mode 4	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 4
Plane : E1

		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		5150.00	52.52	-21.48	74.00	44.10	35.98	8.07	35.63	100	0	Peak
2		5150.00	40.77	-13.23	54.00	32.35	35.98	8.07	35.63	110	309	Average
3	@	5260.00	99.69			91.06	36.12	8.16	35.65	110	309	Average
4	X	5260.00	109.99			101.39	36.10	8.15	35.65	100	0	Peak
5		5350.00	55.14	-18.86	74.00	46.36	36.22	8.23	35.67	100	0	Peak
6		5350.00	42.84	-11.16	54.00	34.06	36.22	8.23	35.67	110	309	Average
7		8844.00	53.74	-20.26	74.00	41.37	38.60	10.29	36.51	100	0	Peak
8		8844.00	40.47	-13.53	54.00	28.09	38.60	10.29	36.51	100	157	Average
9		10521.00	48.92	-25.08	74.00	82.69	-8.49	11.12	36.40	100	0	Peak
10		10521.00	36.90	-17.10	54.00	70.67	-8.49	11.12	36.40	100	2	Average
11		15774.00	47.96	-26.04	74.00	75.72	-5.51	14.16	36.41	100	0	Peak

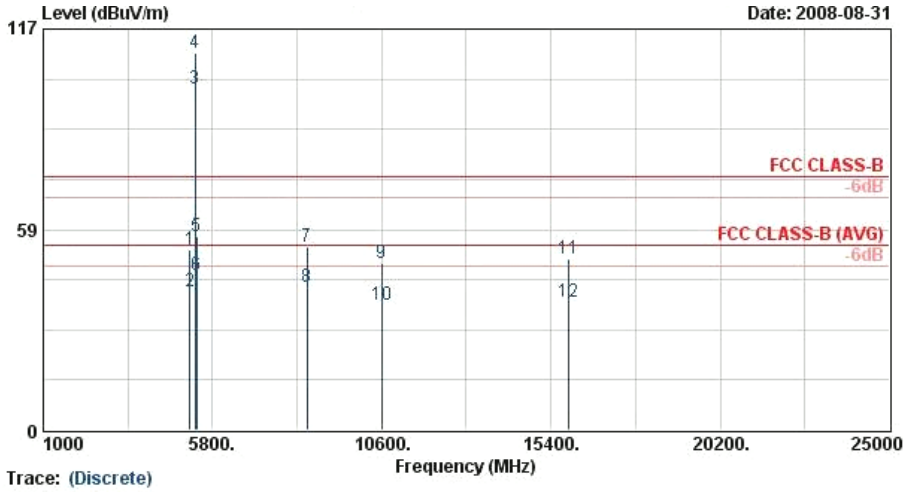
Test Mode :	Mode 4	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 4
Plane : E1

	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	5150.00	48.65	-25.35	74.00	41.09	35.12	8.07	35.63	100	0	Peak
2	5150.00	37.24	-16.76	54.00	29.68	35.12	8.07	35.63	100	327	Average
3 @	5260.00	92.34			84.62	35.21	8.16	35.65	100	327	Average
4 X	5260.00	102.50			94.77	35.21	8.16	35.65	100	0	Peak
5	5350.00	47.68	-26.32	74.00	39.84	35.28	8.23	35.67	100	0	Peak
6	5350.00	37.31	-16.69	54.00	29.47	35.28	8.23	35.67	100	327	Average
7	7388.00	52.64	-21.36	74.00	42.31	36.76	9.73	36.16	100	0	Peak
8	7388.00	40.36	-13.64	54.00	30.03	36.76	9.73	36.16	100	325	Average
9	10509.00	45.09	-28.91	74.00	78.89	-8.50	11.09	36.40	100	0	Peak
10	15774.00	52.18	-21.82	74.00	79.94	-5.51	14.16	36.41	100	0	Peak
11	15774.00	38.73	-15.27	54.00	66.49	-5.51	14.16	36.41	100	334	Average

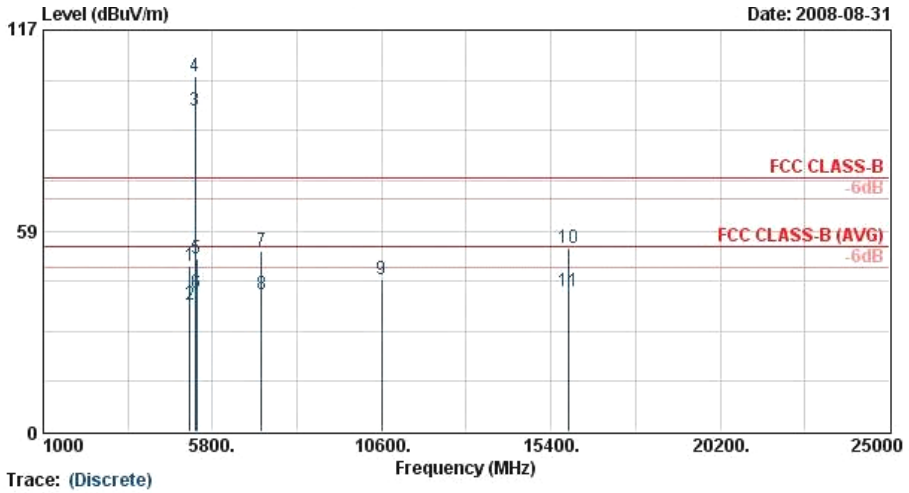
Test Mode :	Mode 5	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 5
Plane : E1

	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	5150.00	52.81	-21.19	74.00	44.40	35.98	8.07	35.63	100	0	Peak
2	5150.00	40.51	-13.49	54.00	32.09	35.98	8.07	35.63	110	309	Average
3 @	5300.00	99.72			91.03	36.16	8.19	35.66	110	309	Average
4 X	5300.00	110.10			101.41	36.16	8.19	35.66	100	0	Peak
5	5350.00	56.50	-17.50	74.00	47.72	36.22	8.23	35.67	100	0	Peak
6	5350.00	45.12	-8.88	54.00	36.34	36.22	8.23	35.67	110	309	Average
7	8486.00	53.67	-20.33	74.00	41.40	38.40	10.17	36.30	100	0	Peak
8	8486.00	41.76	-12.24	54.00	29.50	38.40	10.17	36.30	100	179	Average
9	10602.00	48.60	-25.40	74.00	82.12	-8.46	11.28	36.34	100	0	Peak
10	10602.00	36.53	-17.47	54.00	70.05	-8.46	11.28	36.34	100	1	Average
11	15894.00	49.86	-24.14	74.00	76.97	-4.67	14.07	36.52	100	0	Peak
12	15894.00	37.37	-16.63	54.00	64.49	-4.67	14.07	36.52	100	316	Average

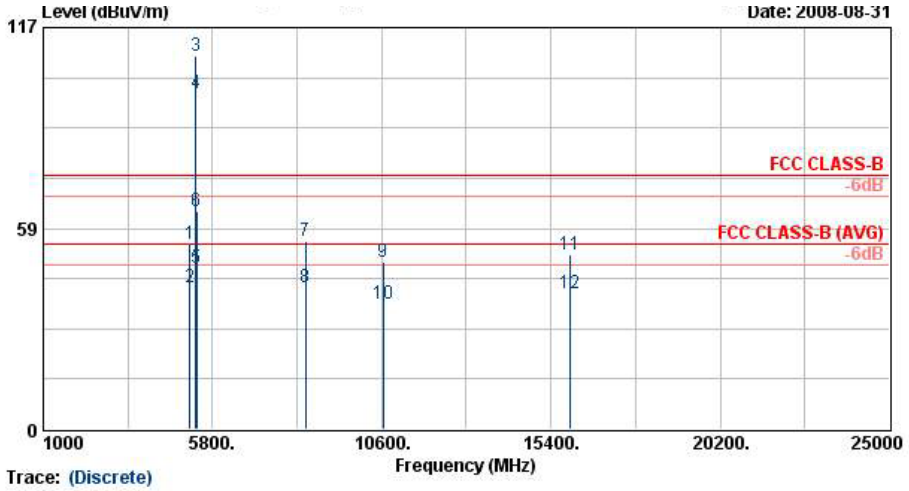
Test Mode :	Mode 5	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 5
Plane : E1

	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	5150.00	48.10	-25.90	74.00	40.54	35.12	8.07	35.63	100	0	Peak
2	5150.00	36.77	-17.23	54.00	29.21	35.12	8.07	35.63	101	319	Average
3 @	5300.00	93.51			85.74	35.24	8.19	35.66	101	319	Average
4 X	5300.00	103.59			95.82	35.24	8.19	35.66	100	0	Peak
5	5350.00	50.47	-23.53	74.00	42.63	35.28	8.23	35.67	100	0	Peak
6	5350.00	40.57	-13.43	54.00	32.73	35.28	8.23	35.67	101	319	Average
7	7182.00	52.80	-21.20	74.00	42.26	36.68	9.93	36.07	100	0	Peak
8	7182.00	40.18	-13.82	54.00	29.65	36.68	9.93	36.07	100	132	Average
9	10593.00	44.37	-29.63	74.00	77.94	-8.46	11.25	36.35	100	0	Peak
10	15897.00	53.31	-20.69	74.00	80.35	-4.60	14.07	36.52	100	0	Peak
11	15897.00	40.95	-13.05	54.00	68.00	-4.60	14.07	36.52	100	329	Average

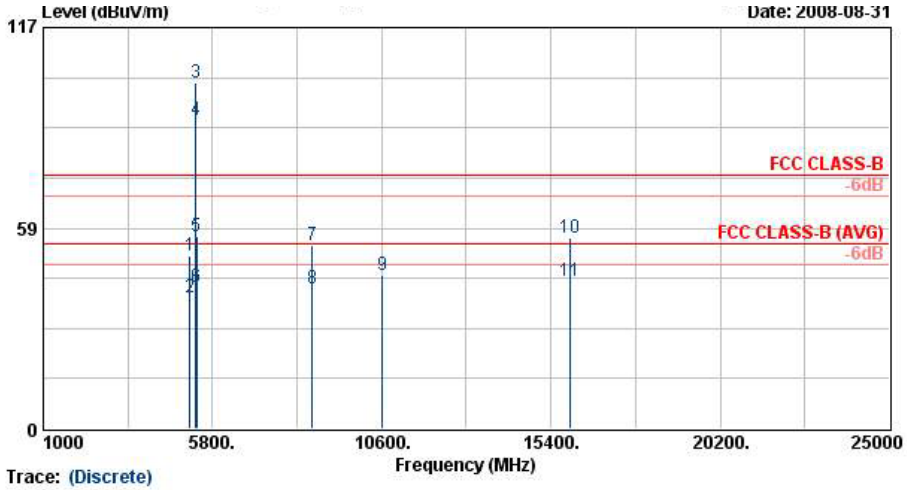
Test Mode :	Mode 6	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 6
Plane : E1

	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	5150.00	54.10	-19.90	74.00	45.68	35.98	8.07	35.63	100	0	Peak
2	5150.00	41.50	-12.50	54.00	33.08	35.98	8.07	35.63	110	308	Average
3 @	5320.00	108.67			99.95	36.18	8.20	35.66	100	0	Peak
4 @	5320.00	97.71			88.99	36.18	8.20	35.66	110	308	Average
5	5350.00	47.14	-6.86	54.00	38.36	36.22	8.23	35.67	110	308	Average
6	5350.00	63.48	-10.52	74.00	54.70	36.22	8.23	35.67	100	0	Peak
7	8436.00	54.83	-19.17	74.00	42.61	38.39	10.13	36.30	100	0	Peak
8	8436.00	41.28	-12.72	54.00	29.06	38.39	10.13	36.30	100	354	Average
9	10641.00	48.57	-25.43	74.00	81.99	-8.44	11.34	36.32	100	0	Peak
10	10641.00	36.55	-17.45	54.00	69.98	-8.44	11.34	36.32	100	2	Average
11	15957.00	51.04	-22.96	74.00	77.78	-4.18	14.02	36.58	100	0	Peak
12	15957.00	39.44	-14.56	54.00	66.18	-4.18	14.02	36.58	100	318	Average

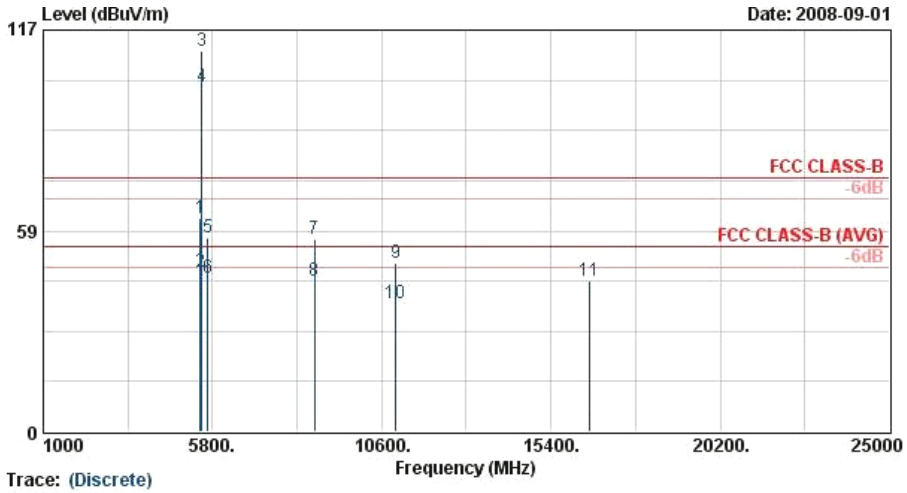
Test Mode :	Mode 6	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 6
Plane : E1

	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	5150.00	50.36	-23.64	74.00	42.80	35.12	8.07	35.63	100	0	Peak
2	5150.00	38.46	-15.54	54.00	30.90	35.12	8.07	35.63	187	322	Average
3 @	5320.00	100.81			93.02	35.25	8.20	35.66	100	0	Peak
4 @	5320.00	90.05			82.26	35.25	8.20	35.66	187	322	Average
5	5350.00	56.02	-17.98	74.00	48.18	35.28	8.23	35.67	100	0	Peak
6	5350.00	41.36	-12.64	54.00	33.52	35.28	8.23	35.67	187	322	Average
7	8622.00	53.39	-20.61	74.00	42.17	37.37	10.22	36.38	100	0	Peak
8	8622.00	40.83	-13.17	54.00	29.62	37.37	10.22	36.38	100	159	Average
9	10629.00	44.78	-29.22	74.00	78.24	-8.45	11.31	36.32	100	0	Peak
10	15957.00	55.85	-18.15	74.00	82.59	-4.18	14.02	36.58	100	0	Peak
11	15957.00	42.99	-11.01	54.00	69.73	-4.18	14.02	36.58	100	334	Average

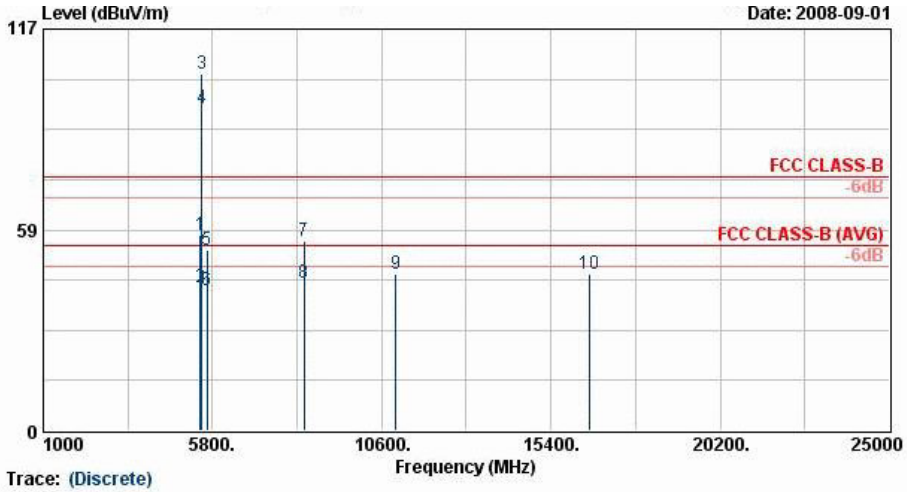
Test Mode :	Mode 7	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 7
Plane : E1

		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		5460.00	62.24	-11.76	74.00	53.28	36.34	8.31	35.69	100	0	Peak
2		5460.00	46.51	-7.49	54.00	37.55	36.34	8.31	35.69	100	354	Average
3	X	5500.00	110.74			101.69	36.40	8.35	35.70	100	0	Peak
4	@	5500.00	100.48			91.43	36.40	8.35	35.70	100	354	Average
5		5668.00	56.46	-17.54	74.00	47.26	36.54	8.39	35.74	100	0	Peak
6		5668.00	44.70	-9.30	54.00	35.51	36.54	8.39	35.74	100	354	Average
7		8700.00	55.95	-18.05	74.00	43.60	38.52	10.24	36.42	100	0	Peak
8		8700.00	43.86	-10.14	54.00	31.52	38.52	10.24	36.42	100	271	Average
9		11001.00	49.03	-24.97	74.00	81.44	-8.30	11.99	36.10	100	0	Peak
10		11001.00	37.43	-16.57	54.00	69.84	-8.30	11.99	36.10	100	249	Average
11		16494.00	44.02	-29.98	74.00	76.70	-9.98	13.69	36.40	100	0	Peak

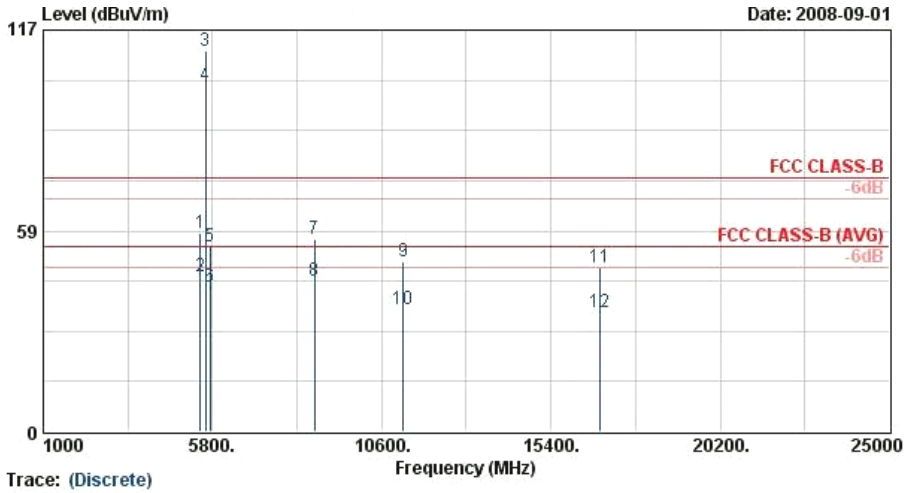
Test Mode :	Mode 7	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 7
Plane : E1

		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		5460.00	57.07	-16.93	74.00	49.09	35.36	8.31	35.69	100	0	Peak
2		5460.00	41.61	-12.39	54.00	33.63	35.36	8.31	35.69	186	244	Average
3	X	5500.00	104.09			96.04	35.40	8.35	35.70	100	0	Peak
4	@	5500.00	93.95			85.90	35.40	8.35	35.70	186	244	Average
5		5636.00	52.79	-21.21	74.00	44.68	35.46	8.38	35.73	100	0	Peak
6		5636.00	40.67	-13.33	54.00	32.56	35.46	8.38	35.73	186	244	Average
7		8398.00	55.23	-18.77	74.00	44.18	37.24	10.11	36.30	100	0	Peak
8		8398.00	43.19	-10.81	54.00	32.14	37.24	10.11	36.30	100	291	Average
9		11001.00	45.52	-28.48	74.00	77.93	-8.30	11.99	36.10	100	0	Peak
10		16494.00	45.69	-28.31	74.00	78.37	-9.98	13.69	36.40	100	0	Peak

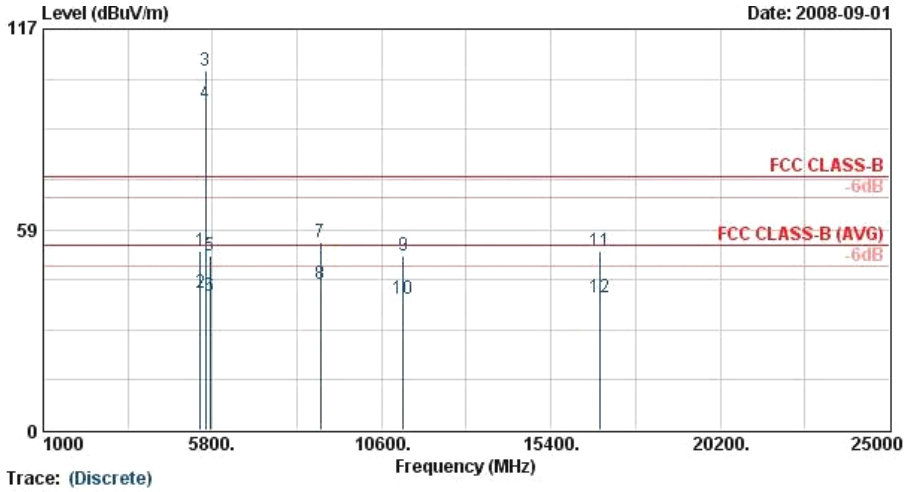
Test Mode :	Mode 8	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 8
Plane : E1

		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		5460.00	57.69	-16.31	74.00	48.73	36.34	8.31	35.69	100	0	Peak
2		5460.00	45.31	-8.69	54.00	36.35	36.34	8.31	35.69	100	357	Average
3	X	5600.00	111.00			101.87	36.48	8.37	35.73	100	0	Peak
4	@	5600.00	100.74			91.60	36.48	8.37	35.72	100	357	Average
5		5725.00	53.95	-20.05	74.00	44.71	36.58	8.40	35.75	100	0	Peak
6		5725.00	42.10	-11.90	54.00	32.86	36.58	8.40	35.75	100	357	Average
7		8694.00	56.22	-17.78	74.00	43.88	38.52	10.24	36.42	100	0	Peak
8		8694.00	44.06	-9.94	54.00	31.72	38.52	10.24	36.42	100	192	Average
9		11202.00	49.71	-24.29	74.00	83.74	-9.70	11.85	36.18	100	0	Peak
10		11202.00	35.88	-18.12	54.00	69.91	-9.70	11.85	36.18	100	343	Average
11		16797.00	47.85	-26.15	74.00	79.85	-10.10	14.15	36.05	100	0	Peak
12		16797.00	34.91	-19.09	54.00	66.91	-10.10	14.15	36.05	100	181	Average

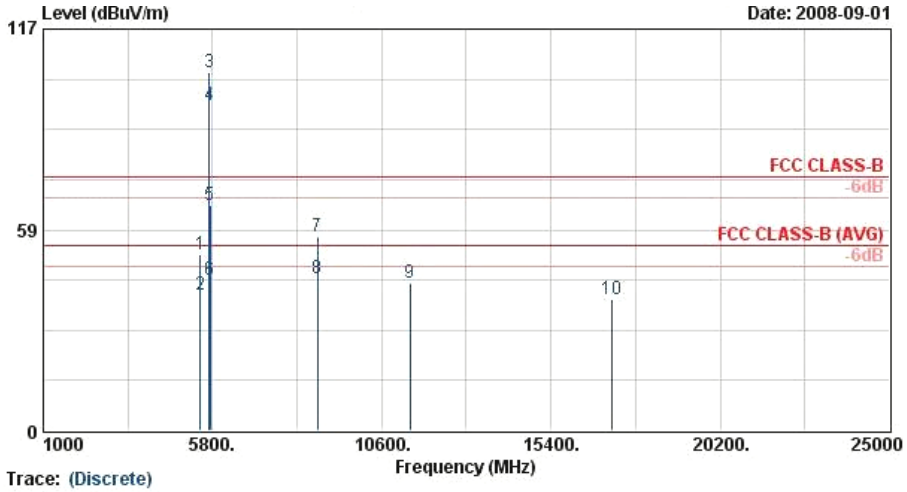
Test Mode :	Mode 8	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 8
Plane : E1

		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		5460.00	52.12	-21.88	74.00	44.14	35.36	8.31	35.69	100	0	Peak
2		5460.00	40.04	-13.96	54.00	32.06	35.36	8.31	35.69	111	304	Average
3	X	5600.00	105.00			96.91	35.43	8.37	35.72	100	0	Peak
4	@	5600.00	95.04			86.94	35.44	8.37	35.72	111	304	Average
5		5725.00	50.81	-23.19	74.00	42.66	35.49	8.40	35.75	100	0	Peak
6		5725.00	39.19	-14.81	54.00	31.04	35.49	8.40	35.75	111	304	Average
7		8868.00	54.87	-19.13	74.00	43.58	37.52	10.30	36.53	100	0	Peak
8		8868.00	42.55	-11.45	54.00	31.26	37.52	10.30	36.53	100	92	Average
9		11202.00	51.09	-22.91	74.00	85.12	-9.70	11.85	36.18	100	0	Peak
10		11202.00	38.06	-15.94	54.00	72.09	-9.70	11.85	36.18	100	317	Average
11		16794.00	52.11	-21.89	74.00	84.10	-10.10	14.15	36.05	100	0	Peak
12		16794.00	38.81	-15.19	54.00	70.81	-10.10	14.15	36.05	100	358	Average

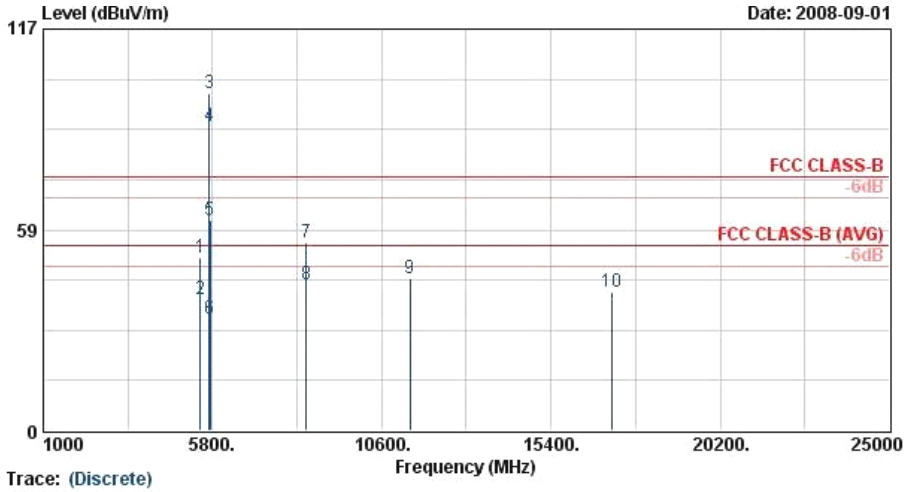
Test Mode :	Mode 9	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 9
Plane : E1

		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		5460.00	51.43	-22.57	74.00	42.47	36.34	8.31	35.69	100	0	Peak
2		5460.00	39.43	-14.57	54.00	30.47	36.34	8.31	35.69	100	308	Average
3	X	5700.00	104.56			95.35	36.55	8.40	35.74	100	0	Peak
4	@	5700.00	94.66			85.45	36.55	8.40	35.74	100	308	Average
5		5725.00	65.66	-8.34	74.00	56.42	36.58	8.40	35.75	100	0	Peak
6		5725.00	44.05	-9.95	54.00	34.81	36.58	8.40	35.75	100	308	Average
7		8788.00	56.41	-17.59	74.00	44.04	38.57	10.27	36.47	100	0	Peak
8		8788.00	44.53	-9.47	54.00	32.15	38.57	10.27	36.47	100	126	Average
9		11406.00	42.90	-31.10	74.00	78.62	-11.17	11.71	36.26	100	0	Peak
10		17106.00	38.43	-35.57	74.00	70.16	-10.56	14.64	35.80	100	0	Peak

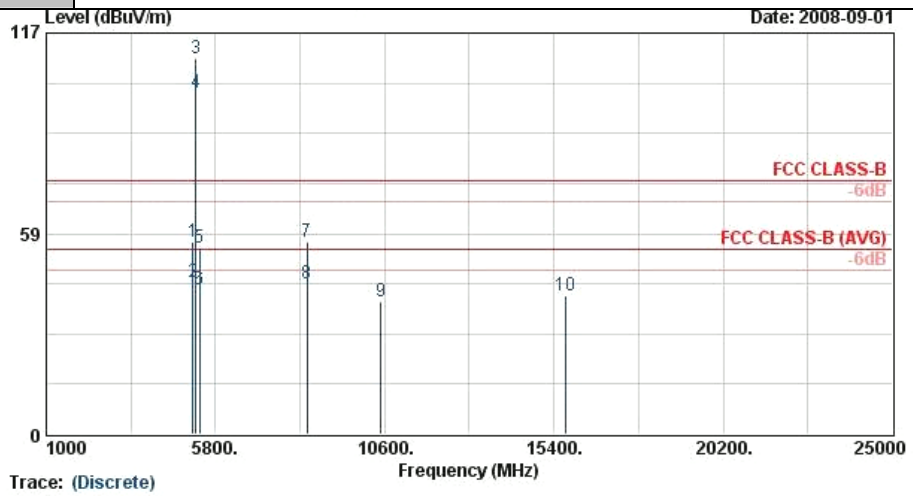
Test Mode :	Mode 9	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 2D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 9
Plane : E1

		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		5460.00	50.35	-23.65	74.00	42.37	35.36	8.31	35.69	100	0	Peak
2		5460.00	38.09	-15.91	54.00	30.11	35.36	8.31	35.69	162	240	Average
3	X	5700.00	98.14			90.01	35.48	8.40	35.74	100	0	Peak
4	@	5700.00	88.64			80.51	35.48	8.40	35.74	162	240	Average
5		5725.00	61.43	-12.57	74.00	53.28	35.49	8.40	35.75	100	0	Peak
6		5725.00	32.54	-21.46	54.00	24.39	35.49	8.40	35.75	162	240	Average
7		8452.00	54.93	-19.07	74.00	43.82	37.27	10.14	36.30	100	0	Peak
8		8452.00	42.73	-11.27	54.00	31.62	37.27	10.14	36.30	100	265	Average
9		11397.00	44.47	-29.53	74.00	80.12	-11.10	11.71	36.26	100	0	Peak
10		17106.00	40.40	-33.60	74.00	72.12	-10.56	14.64	35.80	100	0	Peak

Test Mode :	Mode 10	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 1D Scanner 2. #3 and #4 are Fundamental Signals		

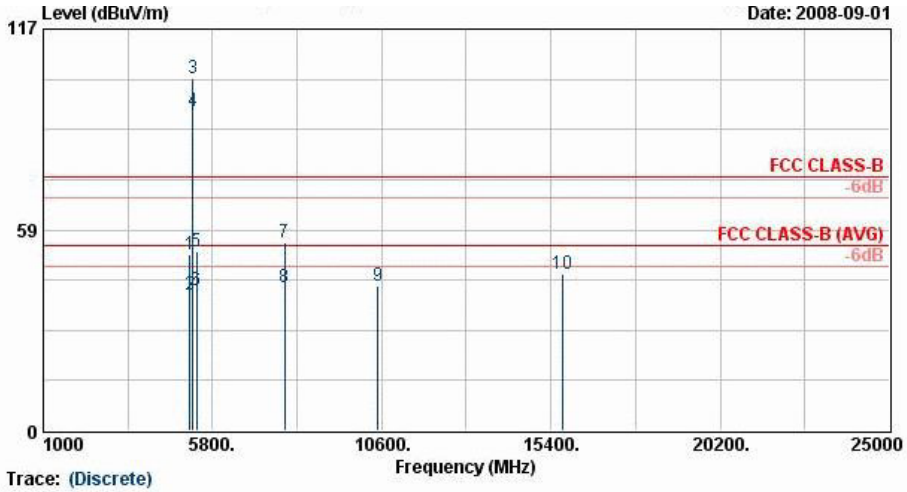


Trace: (Discrete)

Site : 03CH07-HY
Condition : 3m SHF-EHF HORN HORIZONTAL
Model : FR 880108
Mode : Mode 10
Plane : E1

		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		5150.00	56.09	-17.91	74.00	47.67	35.98	8.07	35.63	100	0	Peak
2	@	5150.00	44.45	-9.55	54.00	36.03	35.98	8.07	35.63	100	314	Average
3	@	5240.00	109.53			100.96	36.08	8.14	35.65	100	0	Peak
4	@	5240.00	99.69			91.12	36.08	8.14	35.65	100	314	Average
5		5350.00	54.24	-19.76	74.00	45.46	36.22	8.23	35.67	100	0	Peak
6	@	5350.00	42.33	-11.67	54.00	33.55	36.22	8.23	35.67	100	314	Average
7		8404.00	55.90	-18.10	74.00	43.69	38.38	10.12	36.30	100	0	Peak
8	@	8404.00	43.95	-10.05	54.00	31.75	38.38	10.12	36.30	100	171	Average
9		10482.00	38.81	-35.19	74.00	72.67	-8.53	11.09	36.42	100	0	Peak
10		15717.00	40.53	-33.47	74.00	68.56	-5.86	14.20	36.37	100	0	Peak

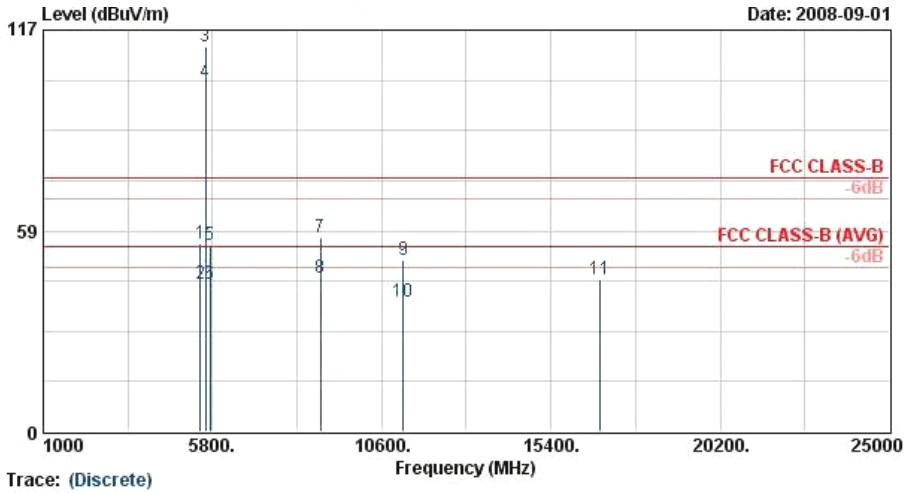
Test Mode :	Mode 10	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 1D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 10
Plane : E1

	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	5150.00	51.45	-22.55	74.00	43.89	35.12	8.07	35.63	100	0	Peak
2	5150.00	39.73	-14.27	54.00	32.17	35.12	8.07	35.63	145	305	Average
3 @	5240.00	102.83			95.16	35.19	8.14	35.65	100	0	Peak
4 @	5240.00	92.89			85.21	35.19	8.14	35.65	145	305	Average
5	5350.00	52.32	-21.68	74.00	44.48	35.28	8.23	35.67	100	0	Peak
6	5350.00	40.74	-13.26	54.00	32.90	35.28	8.23	35.67	145	305	Average
7	7838.00	54.78	-19.22	74.00	44.34	36.93	9.77	36.27	100	0	Peak
8	7838.00	41.70	-12.30	54.00	31.26	36.93	9.77	36.27	100	159	Average
9	10482.00	42.07	-31.93	74.00	75.94	-8.53	11.09	36.42	100	0	Peak
10	15714.00	45.70	-28.30	74.00	73.80	-5.93	14.20	36.37	100	0	Peak

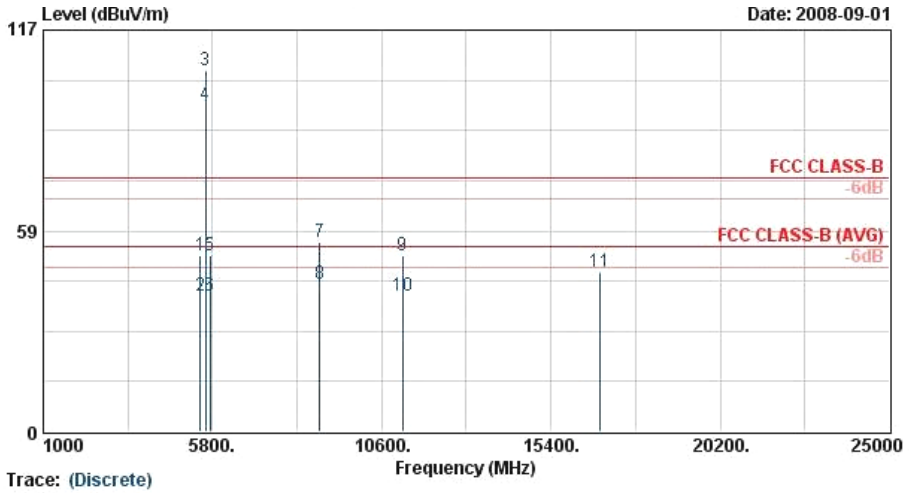
Test Mode :	Mode 11	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Horizontal
Remark :	1. EUT with 1D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORIZONTAL
Model : FR 880108
Mode : Mode 11
Plane : E1

		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		5460.00	54.79	-19.21	74.00	45.83	36.34	8.31	35.69	100	0	Peak
2		5460.00	42.86	-11.14	54.00	33.90	36.34	8.31	35.69	100	327	Average
3	X	5600.00	112.00			102.87	36.48	8.37	35.73	100	0	Peak
4	@	5600.00	101.89			92.75	36.48	8.37	35.72	100	327	Average
5		5725.00	54.47	-19.53	74.00	45.23	36.58	8.40	35.75	100	0	Peak
6		5725.00	42.93	-11.07	54.00	33.69	36.58	8.40	35.75	100	327	Average
7		8868.00	56.40	-17.60	74.00	44.01	38.62	10.30	36.53	100	0	Peak
8		8868.00	44.66	-9.34	54.00	32.27	38.62	10.30	36.53	100	192	Average
9		11202.00	50.00	-24.00	74.00	84.03	-9.70	11.85	36.18	100	0	Peak
10		11202.00	37.93	-16.07	54.00	71.96	-9.70	11.85	36.18	100	350	Average
11		16797.00	44.34	-29.66	74.00	76.34	-10.10	14.15	36.05	100	0	Peak

Test Mode :	Mode 11	Temperature :	22~24°C
Test Channel :	120	Relative Humidity :	50~52%
Test Engineer :	Elvis Chen	Polarization :	Vertical
Remark :	1. EUT with 1D Scanner 2. #3 and #4 are Fundamental Signals		



Site : 03CH07-HY
Condition : 3m SHF-EHF HORN VERTICAL
Model : FR 880108
Mode : Mode 11
Plane : E1

		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		5460.00	51.32	-22.68	74.00	43.34	35.36	8.31	35.69	100	0	Peak
2		5460.00	39.53	-14.47	54.00	31.55	35.36	8.31	35.69	124	305	Average
3	X	5600.00	105.25			97.16	35.44	8.37	35.73	100	0	Peak
4	@	5600.00	95.31			87.21	35.44	8.37	35.72	124	305	Average
5		5725.00	51.19	-22.81	74.00	43.04	35.49	8.40	35.75	100	0	Peak
6		5725.00	39.56	-14.44	54.00	31.41	35.49	8.40	35.75	124	305	Average
7		8836.00	55.07	-18.93	74.00	43.78	37.50	10.29	36.50	100	0	Peak
8		8836.00	42.94	-11.06	54.00	31.65	37.50	10.29	36.50	100	139	Average
9		11193.00	51.24	-22.76	74.00	85.20	-9.63	11.85	36.18	100	0	Peak
10		11193.00	39.54	-14.46	54.00	73.50	-9.63	11.85	36.18	100	197	Average
11		16794.00	46.61	-27.39	74.00	78.61	-10.10	14.15	36.05	100	0	Peak

3.7 Peak Excursion Ratio Measurement

3.7.1 Limit of Peak Excursion Ratio

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

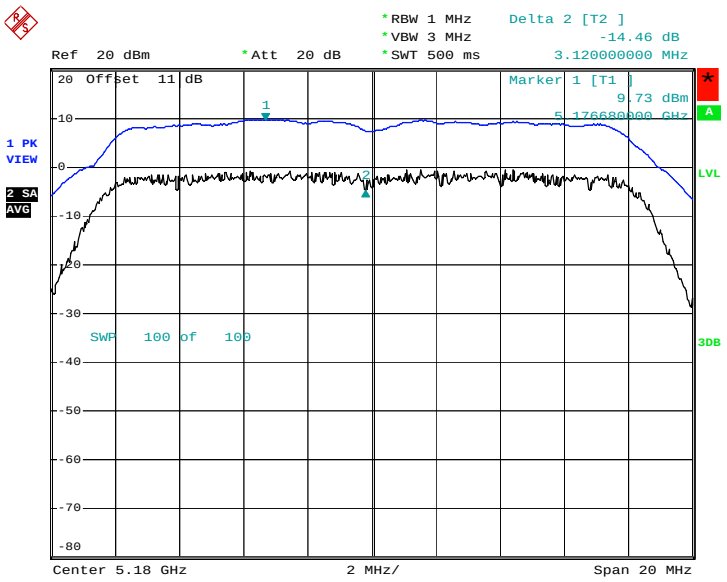
1. The transmitter output is connected to the spectrum analyzer.
2. The resolution bandwidth is set to and maintained at 1 MHz. The video bandwidth is set to 3 MHz.
3. Trace A is set peak detector and to Max Hold, then to View. Then the detector is readjusted to sample detector, max hold to run for 60 seconds, and the signal under this measurement condition is captured in Trace B in Accordance with the method 3 of DA-02-2138.
4. The difference between the traces is investigated. The marker is placed at the frequency, which shows the largest difference. The amplitude delta between the traces at this frequency is the peak excursion.

3.7.4 Test Setup

3.7.5 Test Result of Peak Excursion Ratio

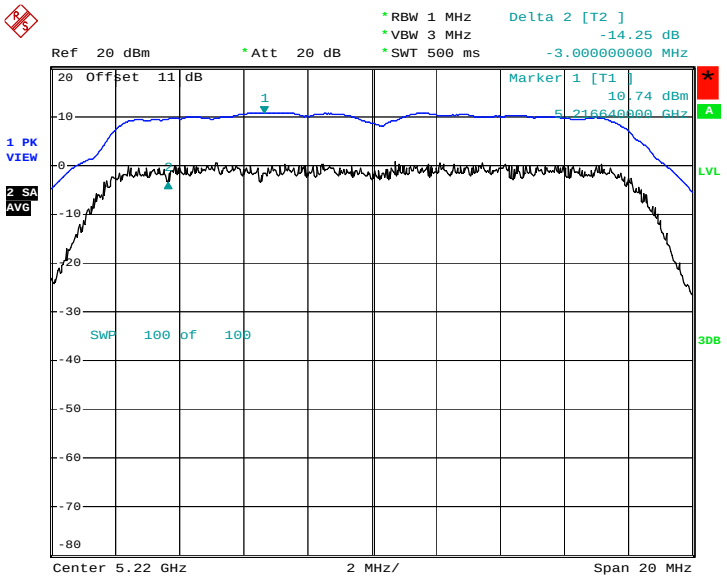
Test Mode :	Mode 1~9	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Mode 1 : Peak Excursion Ratio Plot on 802.11a Channel 36



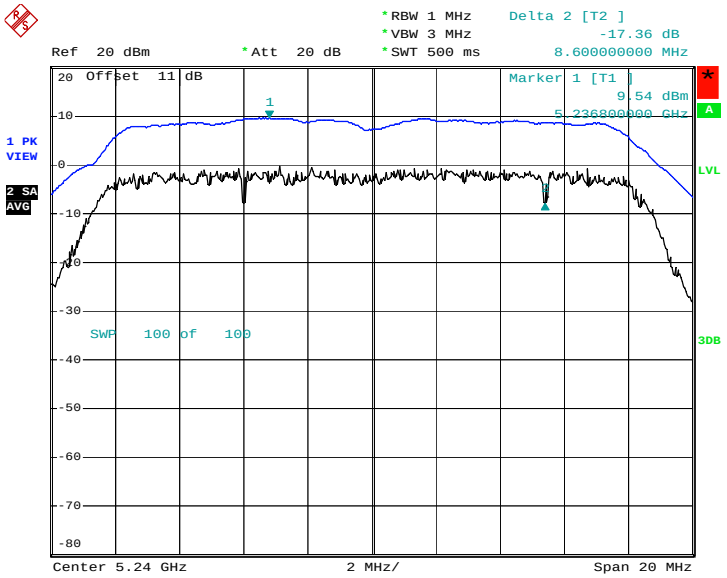
Date: 28.AUG.2008 05:23:06

Mode 2 : Peak Excursion Ratio Plot on 802.11a Channel 44



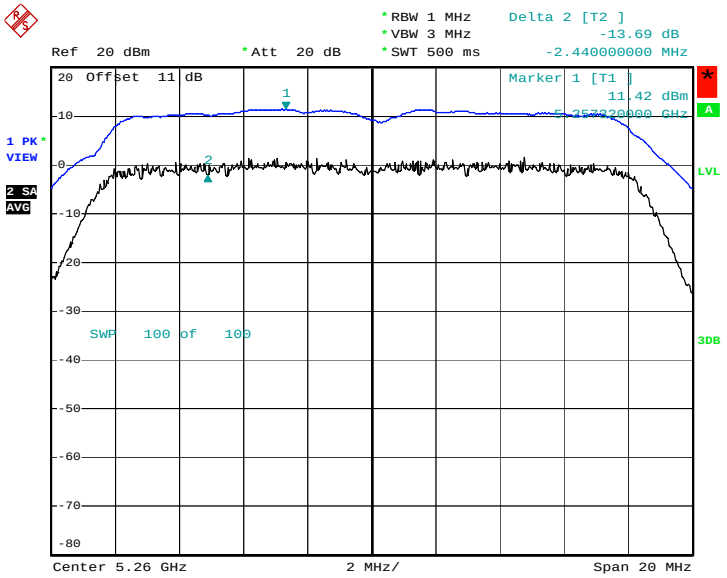
Date: 28.AUG.2008 05:18:24

Mode 3 : Peak Excursion Ratio Plot on 802.11a Channel 48



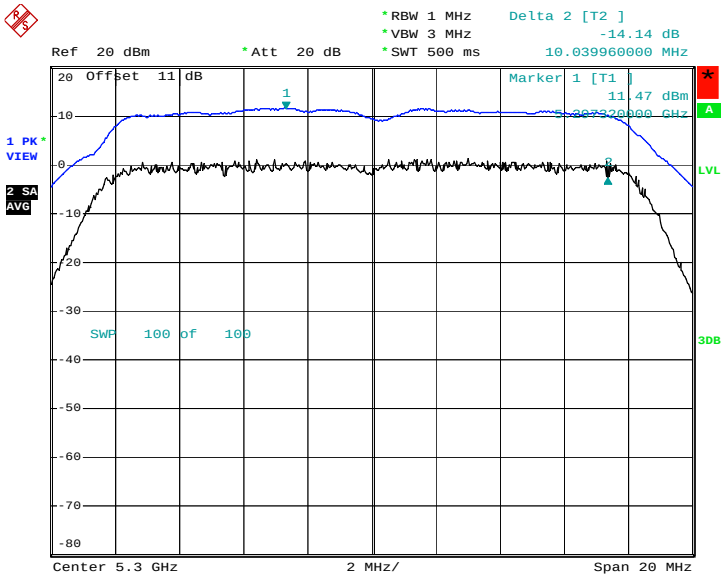
Date: 28.AUG.2008 05:17:00

Mode 4 : Peak Excursion Ratio Plot on 802.11a Channel 52



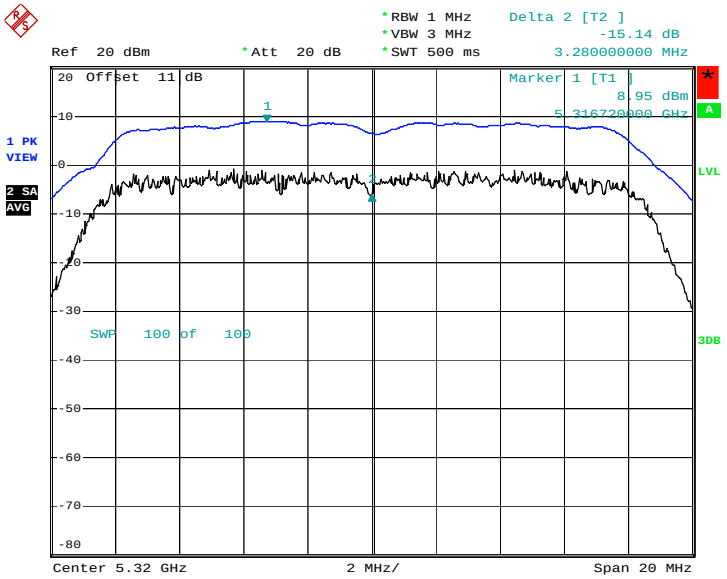
Date: 28.AUG.2008 05:15:36

Mode 5 : Peak Excursion Ratio Plot on 802.11a Channel 60



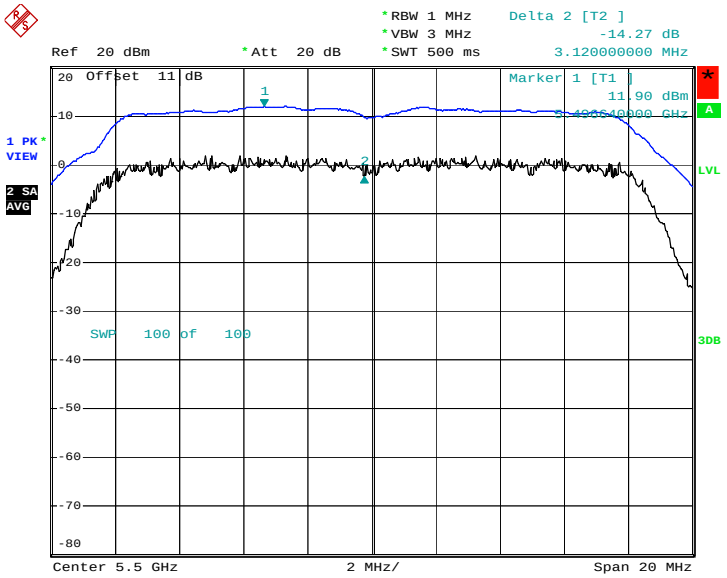
Date: 28.AUG.2008 05:13:34

Mode 6 : Peak Excursion Ratio Plot on 802.11a Channel 64



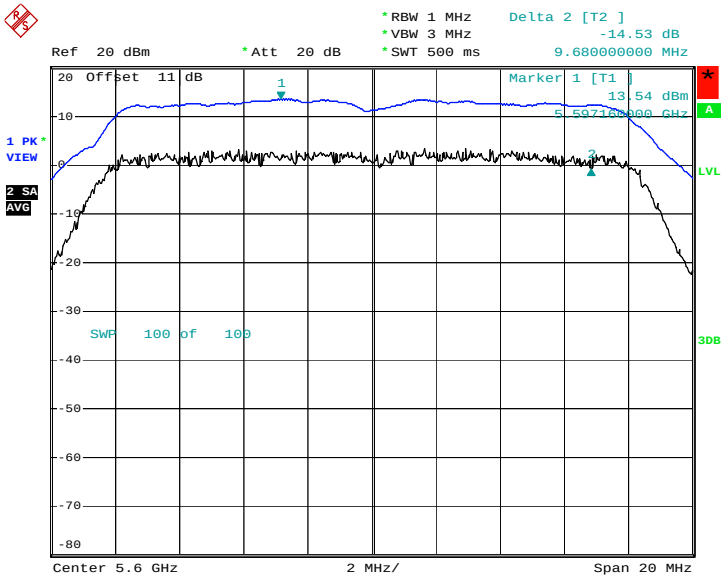
Date: 28.AUG.2008 05:09:02

Mode 7 : Peak Excursion Ratio Plot on 802.11a Channel 100



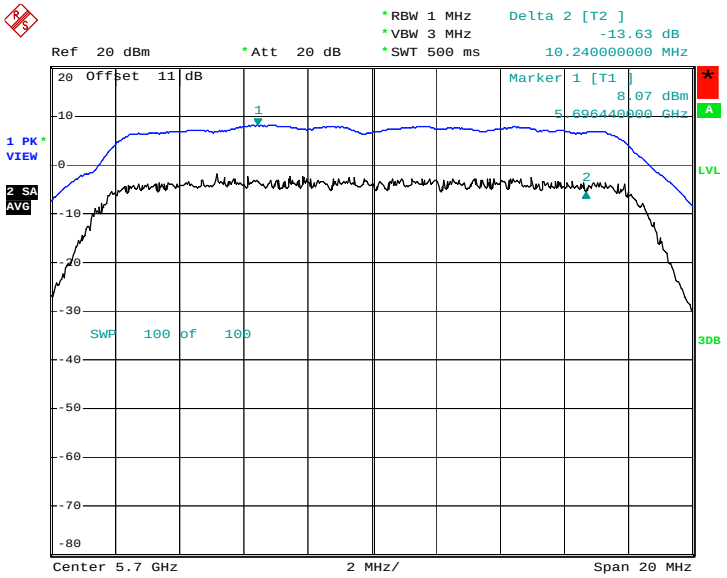
Date: 28.AUG.2008 05:06:56

Mode 8 : Peak Excursion Ratio Plot on 802.11a Channel 120



Date: 28.AUG.2008 05:05:11

Mode 9 : Peak Excursion Ratio Plot on 802.11a Channel 140



Date: 28.AUG.2008 05:03:21

3.8 Automatically Discontinue Transmission

3.8.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

3.8.3 Test Result of Automatically Discontinue Transmission

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.9 Frequency Stability Measurement

3.9.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

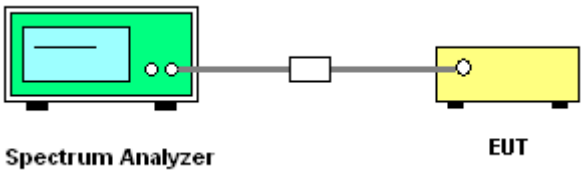
3.9.2 Measuring Instruments

See list of measuring instruments of this test report.

3.9.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.9.4 Test Setup



3.9.5 Test Result of Frequency Stability

Test Mode :	Mode 1~9	Temperature :	26~27℃
Test Engineer :	C.K.C. Cheng	Relative Humidity :	49~52%

Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Center Frequency (Fc)	Frequency Stability (ppm)
36	5180	5171.68	5188.32	5180	0.00
44	5220	5211.68	5228.32	5220	0.00
48	5240	5231.68	5248.32	5240	0.00
52	5260	5251.68	5268.32	5260	0.00
60	5300	5291.68	5308.32	5300	0.00
64	5320	5311.68	5328.32	5320	0.00
100	5500	5491.68	5508.32	5500	0.00
120	5600	5591.68	5608.28	5599.98	-3.57
140	5700	5691.68	5708.32	5700	0.00

3.10 Antenna Requirements

3.10.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.10.2 Antenna Connected Construction

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

3.10.3 Antenna Gain

The antenna gain 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	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	9kHz – 2.75GHz	Aug. 01, 2008	Jul. 31, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9kHz – 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)
DC- LISN	R&S	ESH3-26	1000485	0.1MHz-200MHz	Feb. 04, 2008	Feb. 03, 2009	Conduction (CO05-HY)
DC- LISN	R&S	ESH3-26	1000484	0.1MHz-200MHz	Feb. 04, 2008	Feb. 03, 2009	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2726	30MHz-1GHz	Dec. 01, 2007	Nov. 30, 2008	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~18G	Aug. 13, 2008	Aug. 12. 2009	Radiation (03CH07-HY)
PreAmplifier	Agilent	8449B	3008A02362	1~26.5GHz	Dec. 22, 2007	Dec. 21, 2008	Radiation (03CH07-HY)
PreAmplifier	COM-POWER	PA-103A	161241	10-1000MHz.32 dB.GAIN	Mar. 31, 2008	Mar. 30, 2009	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	66584	1G~18G	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

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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 EP880108 as below.