FCC TEST REPORT (15.407)

REPORT NO.:	RF120801C12-4
MODEL NO.:	PM23200
FCC ID:	NM8PM23200
RECEIVED:	Aug. 01, 2012
TESTED:	Aug. 17~Aug. 22, 2012
ISSUED:	Aug. 29, 2012

APPLICANT:	HTC Corporation
ADDRESS:	23, Xinghua Rd., Taoyuan 330, Taiwan, R.O.C.

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120801C12-4	Original release	Aug. 29, 2012

1. CERTIFICATION

PRODUCT:	Windows Phone
MODEL NO.:	PM23200
BRAND:	HTC
APPLICANT:	HTC Corporation
TESTED:	Aug. 17~Aug. 22, 2012
TEST SAMPLE:	Production Unit
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**
	ANSI C63.10-2009

The above equipment (model: PM23200) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY	: Pettie Chen / Senior Specialist	**, DATE :**	Aug. 29, 2012
APPROVED BY	: Gary Chang / Technical Manager	**, DATE :**	Aug. 29, 2012

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -2.86dB at 13.55859MHz.
15.407(b/1/2/3)(b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.57dB at 5350.00MHz.
15.407(a/1/2)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Windows Phone
MODEL NO.	PM23200
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.75Vdc (Li-ion battery)
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 135.0Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 11 for 802.11a, 802.11n (20MHz) 5 for 802.11n (40MHz)
OUTPUT POWER	21.827mW for 5180 ~ 5240MHz 24.547mW for 5260 ~ 5320MHz 22.803mW for 5500 ~ 5700MHz
ANTENNA TYPE	5180 ~ 5240MHz: PIFA antenna with -2.3dBi gain 5260 ~ 5320MHz: PIFA antenna with -1.8dBi gain 5500 ~ 5700MHz: PIFA antenna with -2.1dBi gain
ANTENNA CONNECTOR	NA
DATA CABLE	Refer to Note as below
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Refer to Note as below

NOTE:

1. The EUT's accessories list refers to Ext Pho.pdf.

   * Item 2, 3, 4, 6, 7, 8, 9, 10 were the worst for the final test.

2. The EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX

3. The above EUT information is declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

FOR 5500 ~ 5700MHz

11 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500MHz	124	5620MHz
104	5520MHz	128	5640MHz
108	5540MHz	132	5660MHz
112	5560MHz	136	5680MHz
116	5580MHz	140	5700MHz
120	5600MHz		

5 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510MHz	126	5630MHz
110	5550MHz	134	5670MHz
118	5590MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane.**

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (20MHz)	5180-5320 5500-5700	36 to 48 100 to 140	64	OFDM	BPSK	6.5

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (20MHz)	5180-5320 5500-5700	36 to 48 100 to 140	64	OFDM	BPSK	6.5

*Test condition: WIFI+Bluetooth+NFC

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 48	OFDM	BPSK	6.0
802.11n (20MHz)		36 to 48	36, 48	OFDM	BPSK	6.5
802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 64	OFDM	BPSK	6.5
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5700	100 to 140	100, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 140	OFDM	BPSK	6.5
802.11n (40MHz)		102 to 134	102, 134	OFDM	BPSK	13.5

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

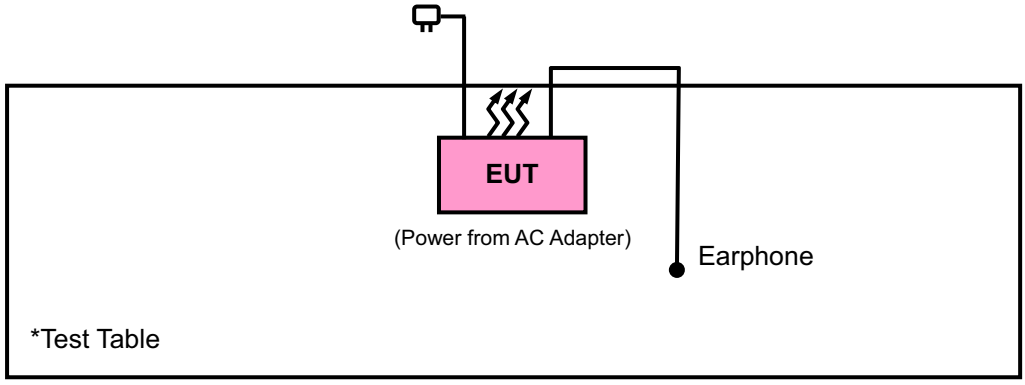
TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	David Huang
APCM	25deg. C, 65%RH	120Vac, 60Hz	Howard Kao

3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units.

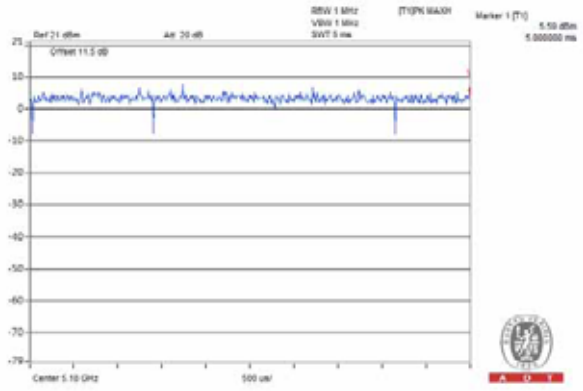
3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



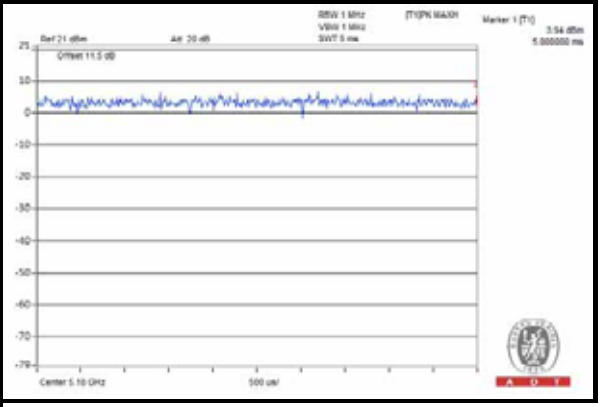
3.4 DUTY CYCLE OF TEST SIGNAL

Duty cycle of test signal is 100%, duty factor is not required.

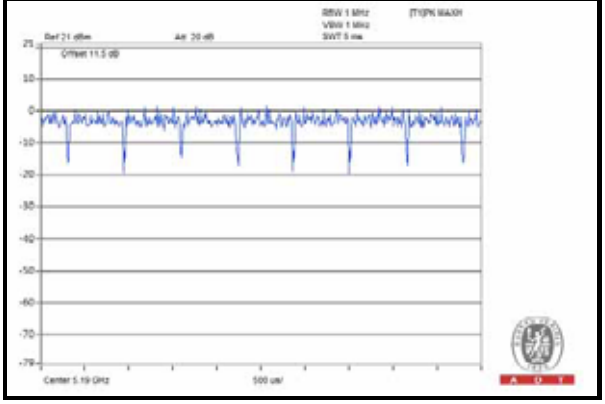
802.11a



802.11n (20MHz)



802.11n (40MHz)



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)
ANSI C63.10-2009
KDB 789033 D01 General UNII Test Procedures v01r01

All test items have been performed and recorded as per the above standards.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

FREQUENCIES (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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
PK	PK
-27	68.3

NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts).

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver Agilent	N9038A	MY51210203	Dec. 22, 2011	Dec. 21, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2011	Dec. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 20, 2011	Dec. 19, 2012
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 30, 2011	Dec. 29, 2012
Preamplifier EMCI	EMC 330H	980112	Dec. 30, 2011	Dec. 29, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4	Oct. 21, 2011	Oct. 20, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Jan. 02, 2012	Jan. 01, 2013
RF signal cable Worken	RG-213	NA	Jan. 02, 2012	Jan. 01, 2013
Software	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA
Mini-Circuits Power Splitter	ZN2PD-9G	NA	Mar. 23, 2012	Mar. 22, 2013
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 29, 2011	Oct. 28, 2012
High Speed Peak Power Meter	ML2495A	0842014	Apr. 28, 2012	Apr. 27, 2013
Power Sensor	MA2411B	0738404	Apr. 28, 2012	Apr. 27, 2013

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 9.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 460141.
6. The IC Site Registration No. is IC 7450F-4.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

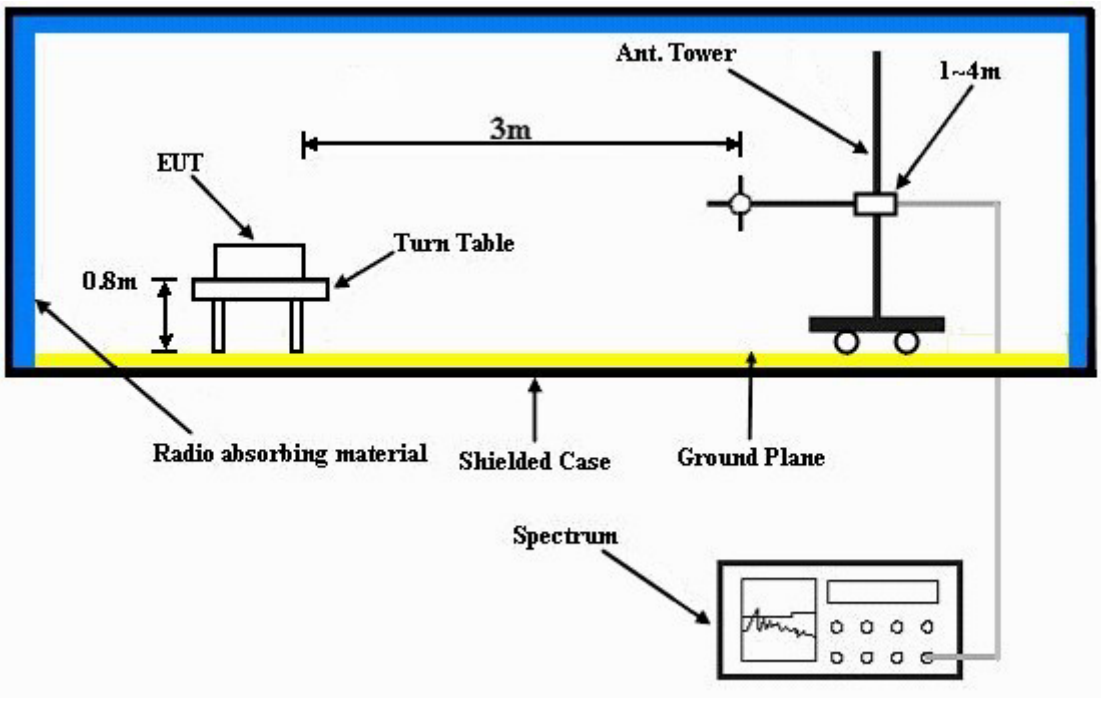
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

4.1.6 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.7 EUT OPERATING CONDITION

a. Placed the EUT on a testing table.

b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

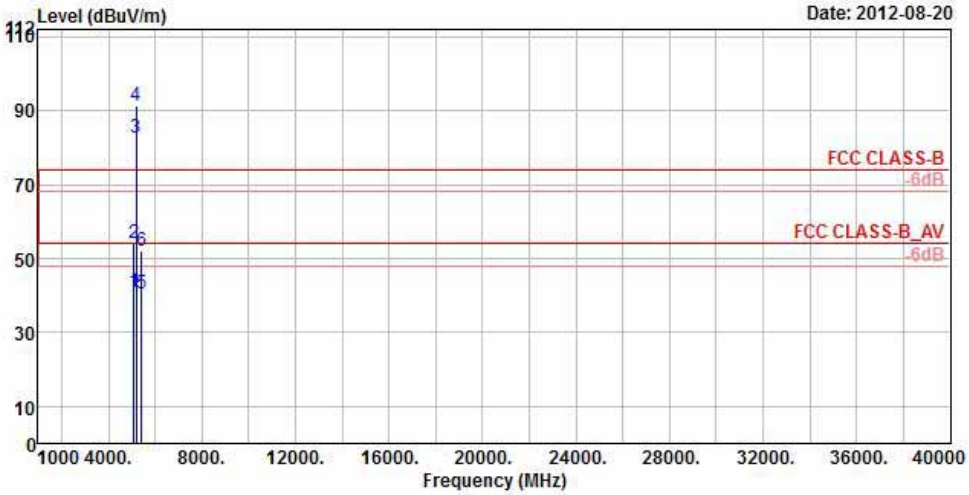
4.1.8 TEST RESULTS

ABOVE 1GHz DATA:

802.11a

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

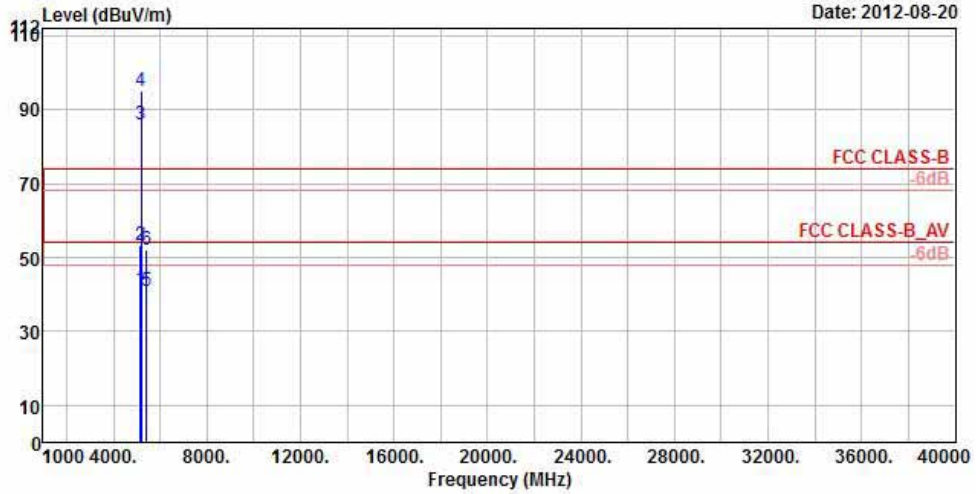
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH36
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5088.00	40.76	38.90	54.00	-13.24	31.83	7.30	37.27	103	319	Average
2	5088.00	54.04	52.18	74.00	-19.96	31.83	7.30	37.27	103	319	Peak
3 pp	5180.00	82.66	80.80			31.88	7.32	37.34	103	319	Average
4 pk	5180.00	91.48	89.62			31.88	7.32	37.34	103	319	Peak
5	5408.00	40.47	38.26	54.00	-13.53	31.99	7.40	37.18	103	319	Average
6	5408.00	51.97	49.76	74.00	-22.03	31.99	7.40	37.18	103	319	Peak

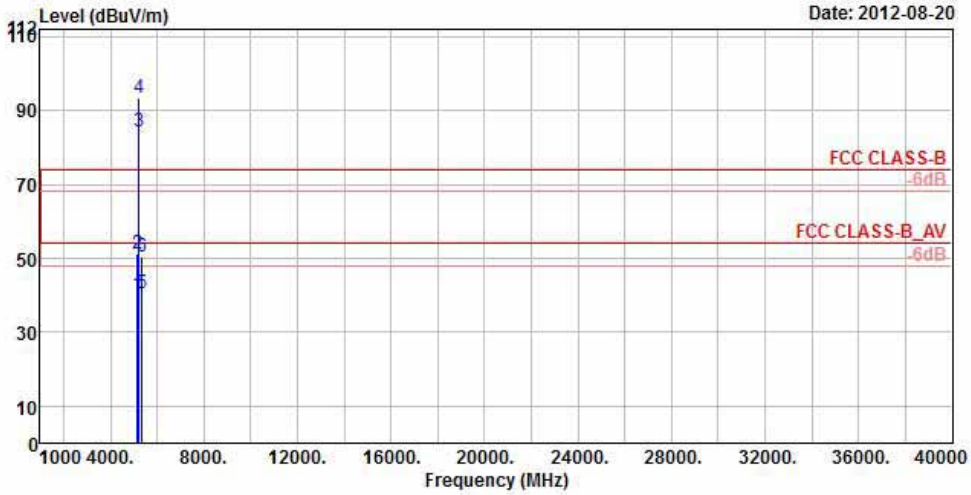
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH36
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

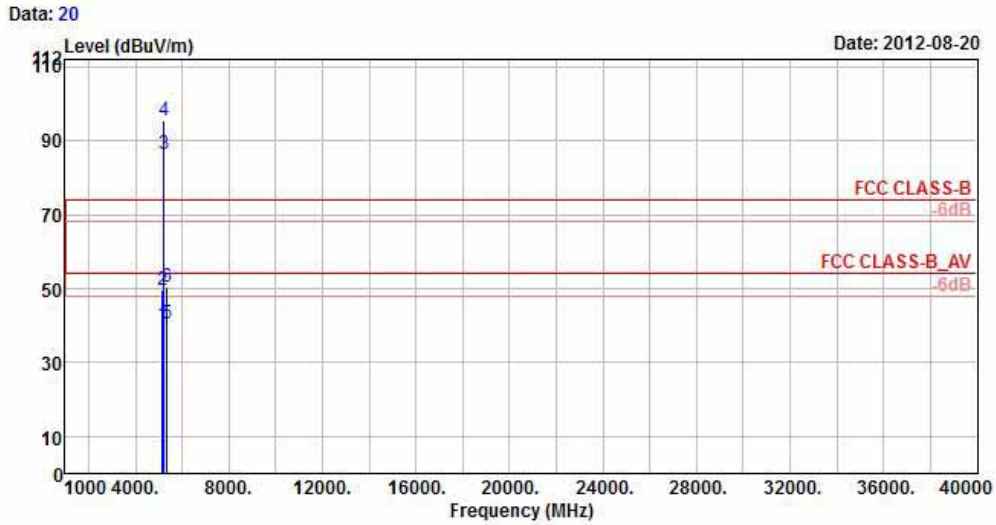
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.50	39.62	54.00	-12.50	31.87	7.33	37.32	100	13	Average
2	5150.00	53.22	51.34	74.00	-20.78	31.87	7.33	37.32	100	13	Peak
3 pp	5180.00	85.86	84.00			31.88	7.32	37.34	100	13	Average
4 pk	5180.00	94.87	93.01			31.88	7.32	37.34	100	13	Peak
5	5416.00	40.75	38.53	54.00	-13.25	32.00	7.40	37.18	100	13	Average
6	5416.00	52.17	49.95	74.00	-21.83	32.00	7.40	37.18	100	13	Peak

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH44
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

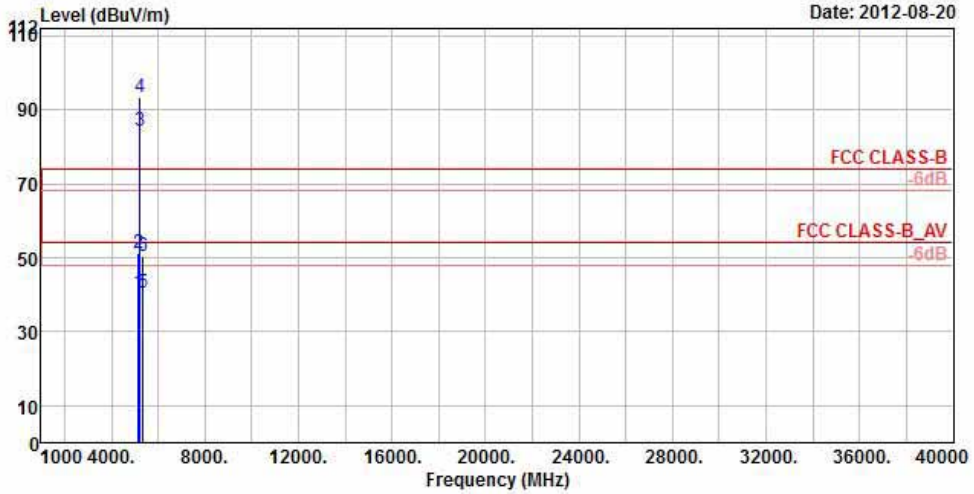
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.18	38.30	54.00	-13.82	31.87	7.33	37.32	114	320	Average
2	5150.00	51.20	49.32	74.00	-22.80	31.87	7.33	37.32	114	320	Peak
3 pp	5220.00	84.19	82.33			31.90	7.32	37.36	114	320	Average
4 pk	5220.00	93.43	91.57			31.90	7.32	37.36	114	320	Peak
5	5350.00	40.48	38.29	54.00	-13.52	31.97	7.40	37.18	114	320	Average
6	5350.00	50.23	48.04	74.00	-23.77	31.97	7.40	37.18	114	320	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH44
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

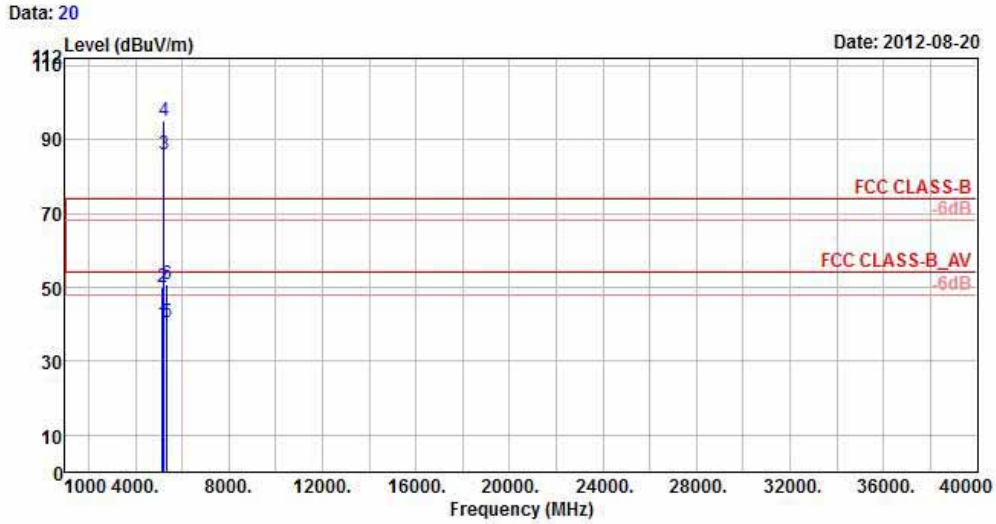
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.28	38.40	54.00	-13.72	31.87	7.33	37.32	100	15	Average
2	5150.00	49.48	47.60	74.00	-24.52	31.87	7.33	37.32	100	15	Peak
3 pp	5220.00	86.36	84.50			31.90	7.32	37.36	100	15	Average
4 pk	5220.00	95.42	93.56			31.90	7.32	37.36	100	15	Peak
5	5350.00	40.46	38.27	54.00	-13.54	31.97	7.40	37.18	100	15	Average
6	5350.00	50.31	48.12	74.00	-23.69	31.97	7.40	37.18	100	15	Peak

Data: 19



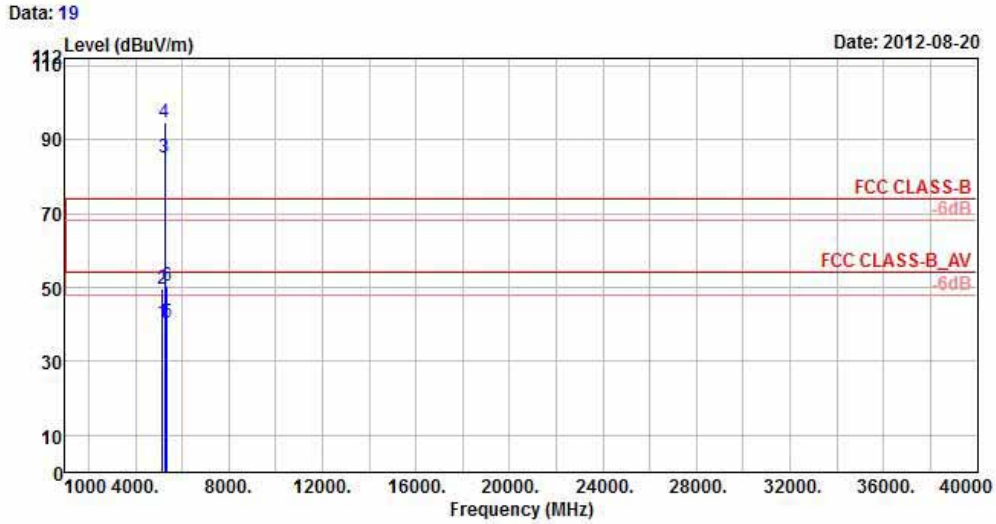
Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH48
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.37	38.49	54.00	-13.63	31.87	7.33	37.32	123	320	Average
2	5150.00	51.37	49.49	74.00	-22.63	31.87	7.33	37.32	123	320	Peak
3 pp	5240.00	84.15	82.22			31.91	7.34	37.32	123	320	Average
4 pk	5240.00	93.43	91.50			31.91	7.34	37.32	123	320	Peak
5	5350.00	40.55	38.36	54.00	-13.45	31.97	7.40	37.18	123	320	Average
6	5350.00	50.33	48.14	74.00	-23.67	31.97	7.40	37.18	123	320	Peak



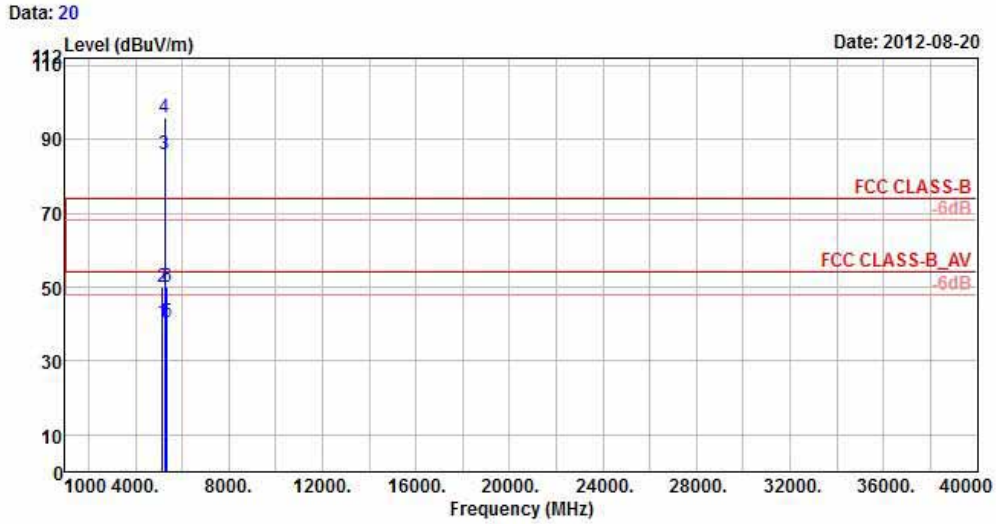
Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH48
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.28	38.40	54.00	-13.72	31.87	7.33	37.32	100	14	Average
2	5150.00	50.02	48.14	74.00	-23.98	31.87	7.33	37.32	100	14	Peak
3 pp	5240.00	85.97	84.04			31.91	7.34	37.32	100	14	Average
4 pk	5240.00	95.13	93.20			31.91	7.34	37.32	100	14	Peak
5	5350.00	40.55	38.36	54.00	-13.45	31.97	7.40	37.18	100	14	Average
6	5350.00	50.95	48.76	74.00	-23.05	31.97	7.40	37.18	100	14	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH52
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

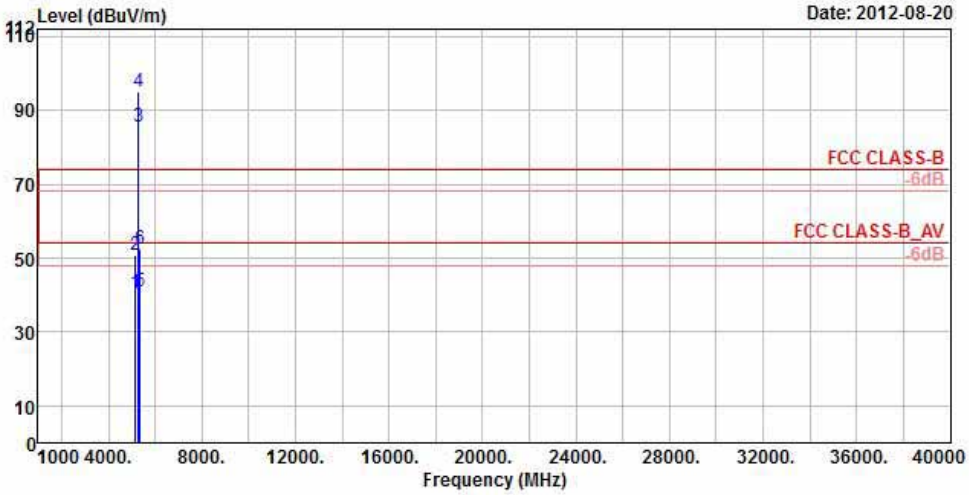
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.31	38.43	54.00	-13.69	31.87	7.33	37.32	111	320	Average
2	5150.00	49.60	47.72	74.00	-24.40	31.87	7.33	37.32	111	320	Peak
3 pp	5260.00	85.07	83.06			31.92	7.36	37.27	111	320	Average
4 pk	5260.00	94.53	92.52			31.92	7.36	37.27	111	320	Peak
5	5350.00	40.40	38.21	54.00	-13.60	31.97	7.40	37.18	111	320	Average
6	5350.00	50.58	48.39	74.00	-23.42	31.97	7.40	37.18	111	320	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH52
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.30	38.42	54.00	-13.70	31.87	7.33	37.32	100	12	Average
2	5150.00	49.97	48.09	74.00	-24.03	31.87	7.33	37.32	100	12	Peak
3 pp	5260.00	85.99	83.98			31.92	7.36	37.27	100	12	Average
4 pk	5260.00	95.80	93.79			31.92	7.36	37.27	100	12	Peak
5	5350.00	40.46	38.27	54.00	-13.54	31.97	7.40	37.18	100	12	Average
6	5350.00	50.21	48.02	74.00	-23.79	31.97	7.40	37.18	100	12	Peak

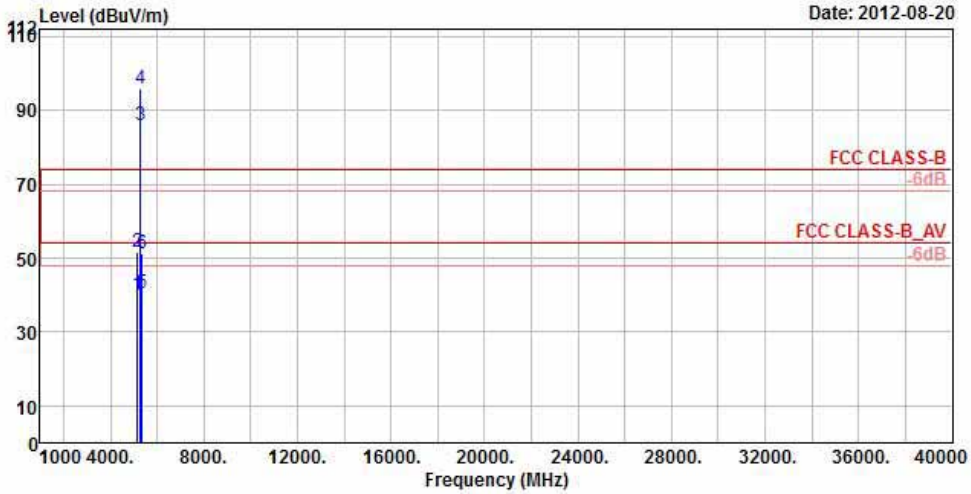
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH60
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.31	38.43	54.00	-13.69	31.87	7.33	37.32	113	321	Average
2	5150.00	50.71	48.83	74.00	-23.29	31.87	7.33	37.32	113	321	Peak
3 pp	5300.00	85.61	83.46			31.94	7.40	37.19	113	321	Average
4 pk	5300.00	95.01	92.86			31.94	7.40	37.19	113	321	Peak
5	5350.00	41.04	38.85	54.00	-12.96	31.97	7.40	37.18	113	321	Average
6	5350.00	52.55	50.36	74.00	-21.45	31.97	7.40	37.18	113	321	Peak

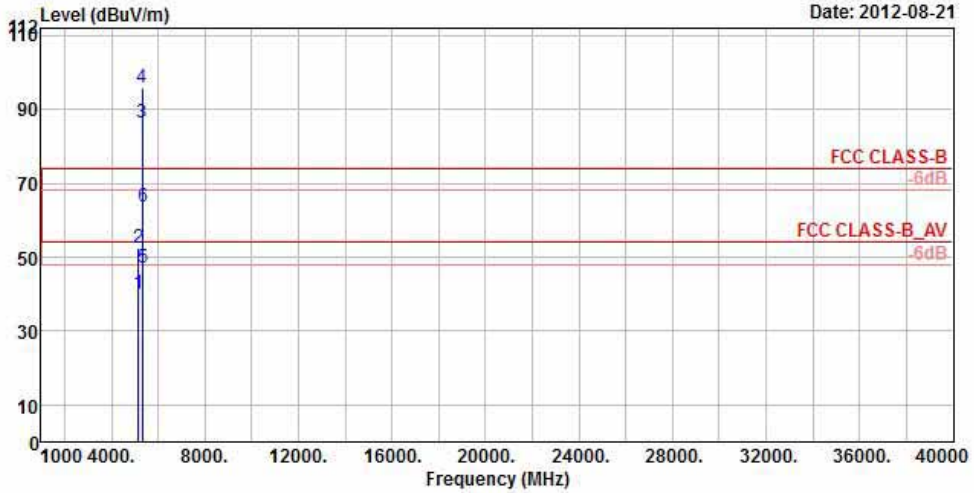
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH60
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

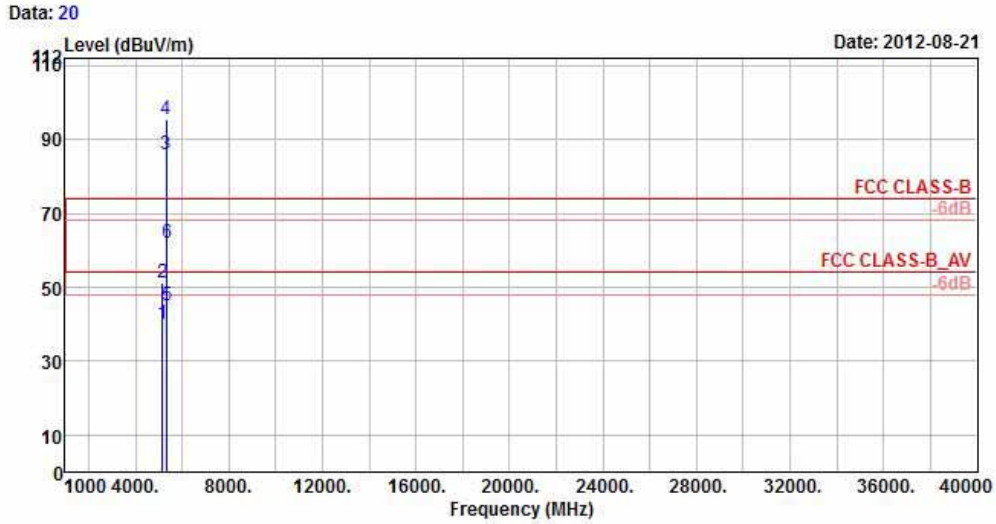
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.13	38.25	54.00	-13.87	31.87	7.33	37.32	100	14	Average
2	5150.00	51.53	49.65	74.00	-22.47	31.87	7.33	37.32	100	14	Peak
3 pp	5300.00	85.78	83.63			31.94	7.40	37.19	100	14	Average
4 pk	5300.00	95.69	93.54			31.94	7.40	37.19	100	14	Peak
5	5350.00	40.52	38.33	54.00	-13.48	31.97	7.40	37.18	100	14	Average
6	5350.00	51.22	49.03	74.00	-22.78	31.97	7.40	37.18	100	14	Peak

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH64
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

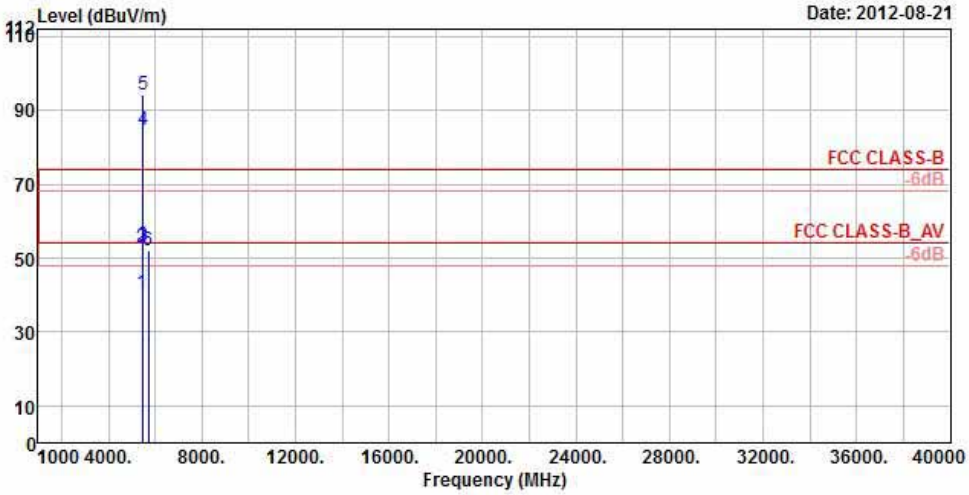
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.23	38.35	54.00	-13.77	31.87	7.33	37.32	123	318	Average
2	5150.00	52.45	50.57	74.00	-21.55	31.87	7.33	37.32	123	318	Peak
3 pp	5320.00	86.36	84.20			31.95	7.40	37.19	123	318	Average
4 pk	5320.00	95.93	93.77			31.95	7.40	37.19	123	318	Peak
5	5350.00	47.05	44.86	54.00	-6.95	31.97	7.40	37.18	123	318	Average
6	5350.00	63.70	61.51	74.00	-10.30	31.97	7.40	37.18	123	318	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH64
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.22	38.34	54.00	-13.78	31.87	7.33	37.32	100	13	Average
2	5150.00	51.33	49.45	74.00	-22.67	31.87	7.33	37.32	100	13	Peak
3 pp	5320.00	85.79	83.63			31.95	7.40	37.19	100	13	Average
4 pk	5320.00	95.39	93.23			31.95	7.40	37.19	100	13	Peak
5	5350.00	44.90	42.71	54.00	-9.10	31.97	7.40	37.18	100	13	Average
6	5350.00	62.09	59.90	74.00	-11.91	31.97	7.40	37.18	100	13	Peak

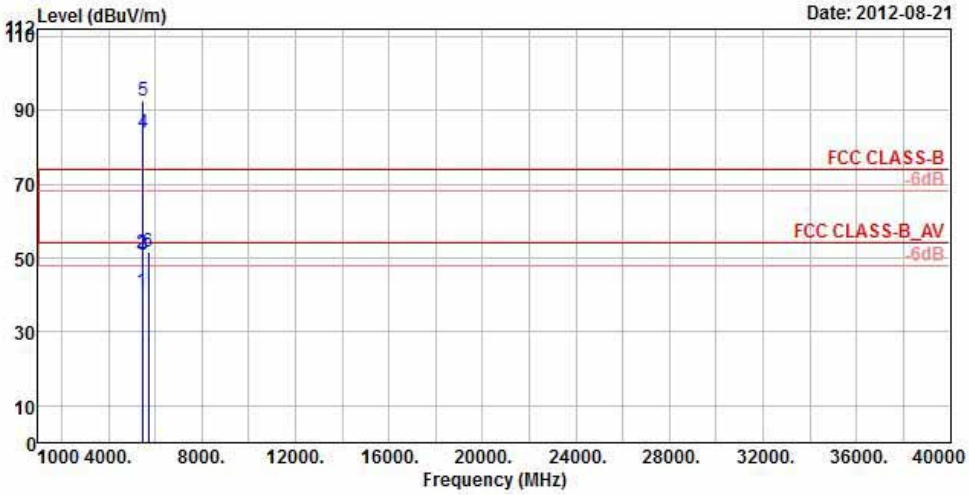
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH100
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 6

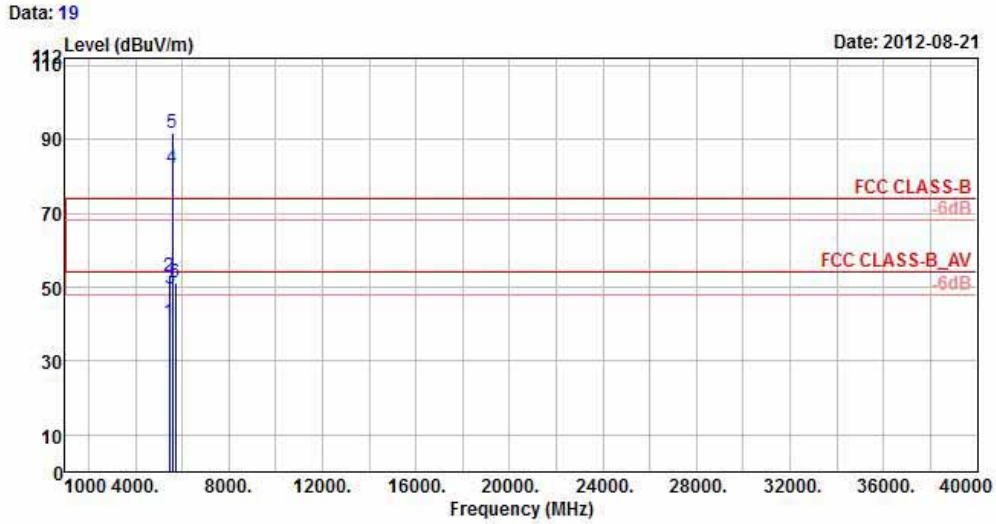
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	40.66	38.20	54.00	-13.34	32.01	7.53	37.08	108	321	Average
2	5460.00	52.99	50.53	74.00	-21.01	32.01	7.53	37.08	108	321	Peak
3	5470.00	53.11	50.64	68.30	-15.19	32.02	7.53	37.08	108	321	Peak
4 pp	5500.00	84.71	82.11			32.04	7.59	37.03	108	321	Average
5 pk	5500.00	94.08	91.48			32.04	7.59	37.03	108	321	Peak
6	5725.00	51.93	49.29	68.30	-16.37	32.36	7.71	37.43	108	321	Peak

Data: 20



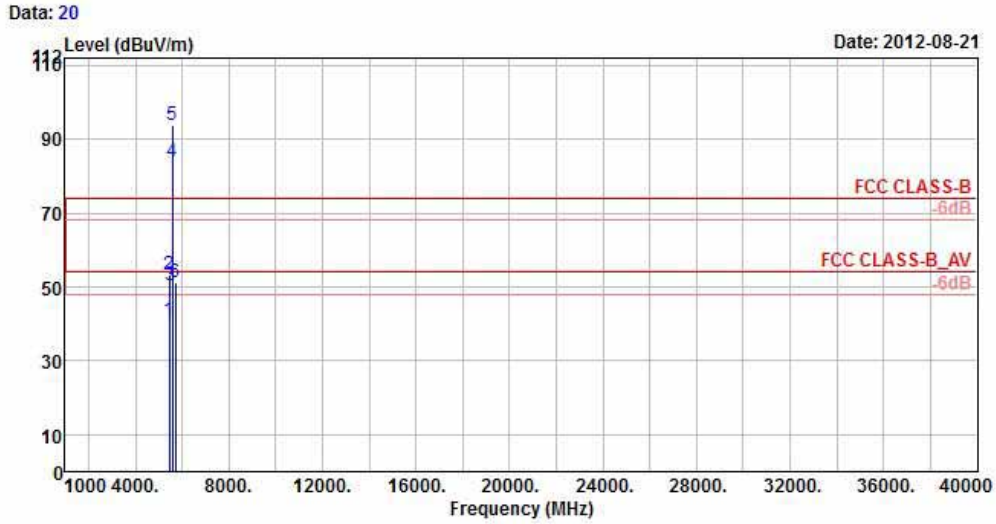
Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH100
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	40.73	38.27	54.00	-13.27	32.01	7.53	37.08	100	265	Average
2	5460.00	51.09	48.63	74.00	-22.91	32.01	7.53	37.08	100	265	Peak
3	5470.00	51.04	48.57	68.30	-17.26	32.02	7.53	37.08	100	265	Peak
4 pp	5500.00	83.82	81.22			32.04	7.59	37.03	100	265	Average
5 pk	5500.00	92.66	90.06			32.04	7.59	37.03	100	265	Peak
6	5725.00	51.55	48.91	68.30	-16.75	32.36	7.71	37.43	100	265	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH116
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 6

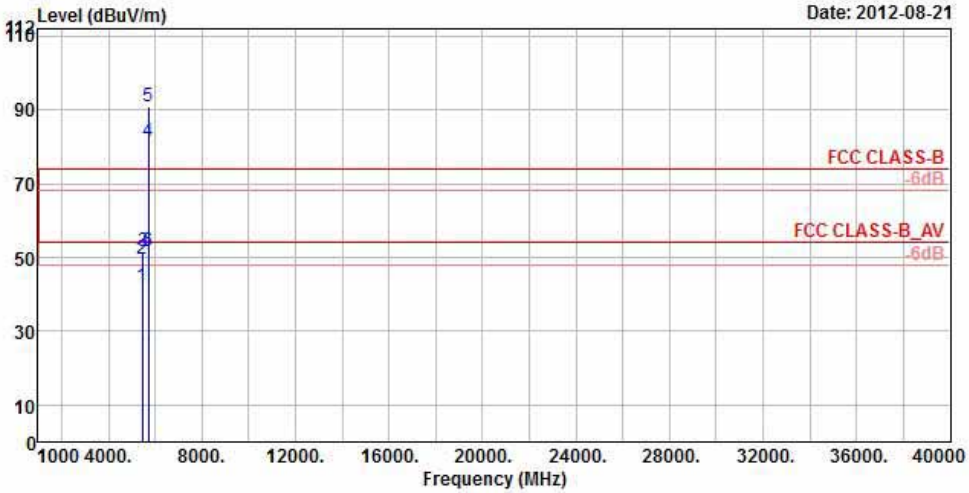
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5446.00	40.65	38.30	54.00	-13.35	32.01	7.47	37.13	108	319	Average
2	5446.00	53.02	50.67	74.00	-20.98	32.01	7.47	37.13	108	319	Peak
3	5470.00	49.64	47.17	68.30	-18.66	32.02	7.53	37.08	108	319	Peak
4 pp	5580.00	82.29	79.74			32.14	7.57	37.16	108	319	Average
5 pk	5580.00	91.86	89.31			32.14	7.57	37.16	108	319	Peak
6	5725.00	51.24	48.60	68.30	-17.06	32.36	7.71	37.43	108	319	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH116
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 6

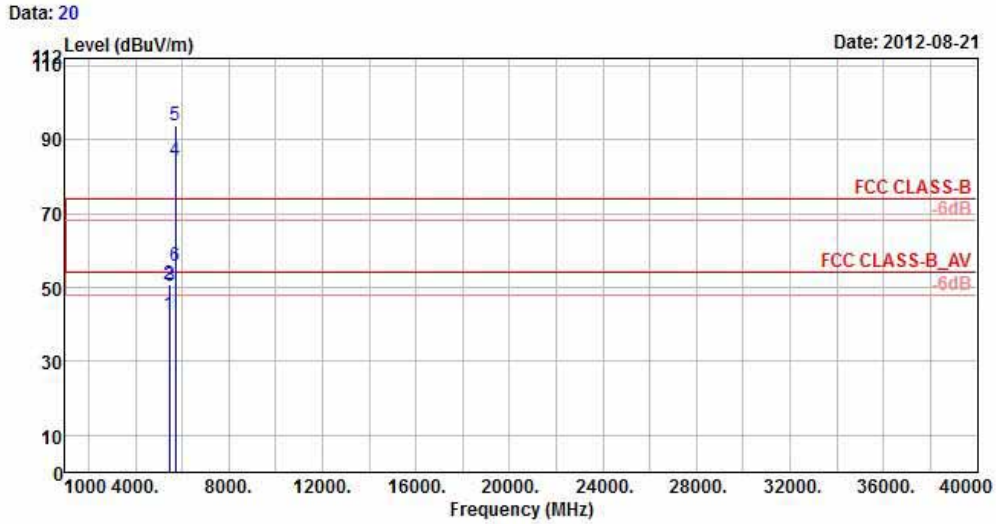
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5446.00	41.11	38.76	54.00	-12.89	32.01	7.47	37.13	111	124	Average
2	5446.00	53.12	50.77	74.00	-20.88	32.01	7.47	37.13	111	124	Peak
3	5470.00	50.62	48.15	68.30	-17.68	32.02	7.53	37.08	111	124	Peak
4 pp	5580.00	84.10	81.55			32.14	7.57	37.16	111	124	Average
5 pk	5580.00	93.66	91.11			32.14	7.57	37.16	111	124	Peak
6	5725.00	51.13	48.49	68.30	-17.17	32.36	7.71	37.43	111	124	Peak

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX CH140
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	42.24	39.78	54.00	-11.76	32.01	7.53	37.08	119	319	Average
2	5460.00	49.51	47.05	74.00	-24.49	32.01	7.53	37.08	119	319	Peak
3	5470.00	51.58	49.11	68.30	-16.72	32.02	7.53	37.08	119	319	Peak
4 pp	5700.00	81.23	78.63			32.31	7.69	37.40	119	319	Average
5 pk	5700.00	91.05	88.45			32.31	7.69	37.40	119	319	Peak
6	5725.00	51.67	49.03	68.30	-16.63	32.36	7.71	37.43	119	319	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11A TX CH140
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : 6M
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	42.51	40.05	54.00	-11.49	32.01	7.53	37.08	111	158	Average
2	5460.00	50.98	48.52	74.00	-23.02	32.01	7.53	37.08	111	158	Peak
3	5470.00	50.53	48.06	68.30	-17.77	32.02	7.53	37.08	111	158	Peak
4 pp	5700.00	84.14	81.54			32.31	7.69	37.40	111	158	Average
5 pk	5700.00	93.77	91.17			32.31	7.69	37.40	111	158	Peak
6	5725.00	55.96	53.32	68.30	-12.34	32.36	7.71	37.43	111	158	Peak

802.11n (20MHz)

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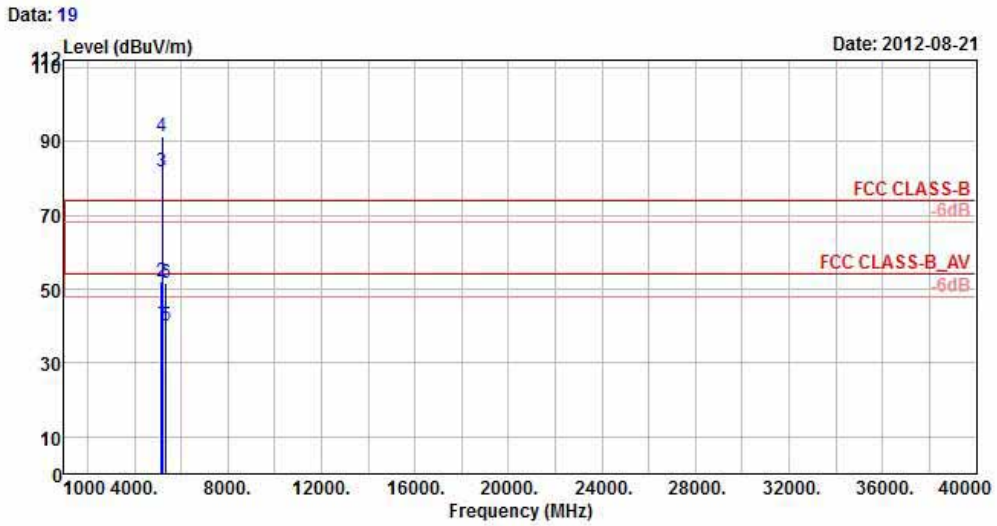
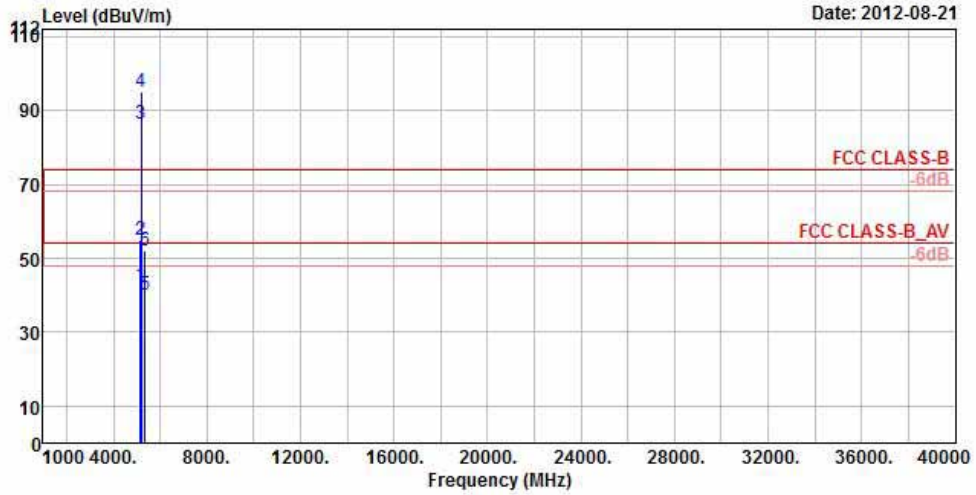


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH36
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.76	38.88	54.00	-13.24	31.87	7.33	37.32	124	319	Average
2	5150.00	52.23	50.35	74.00	-21.77	31.87	7.33	37.32	124	319	Peak
3 pp	5180.00	81.89	80.03			31.88	7.32	37.34	124	319	Average
4 pk	5180.00	91.26	89.40			31.88	7.32	37.34	124	319	Peak
5	5350.00	40.16	37.97	54.00	-13.84	31.97	7.40	37.18	124	319	Average
6	5350.00	51.86	49.67	74.00	-22.14	31.97	7.40	37.18	124	319	Peak

Data: 20

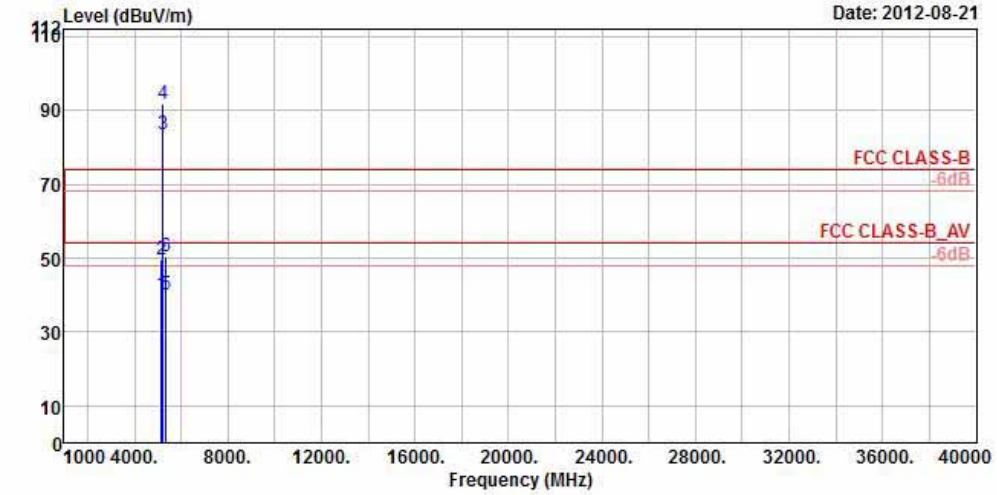


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH36
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	42.54	40.66	54.00	-11.46	31.87	7.33	37.32	100	15	Average
2	5150.00	54.85	52.97	74.00	-19.15	31.87	7.33	37.32	100	15	Peak
3 pp	5180.00	86.18	84.32			31.88	7.32	37.34	100	15	Average
4 pk	5180.00	95.11	93.25			31.88	7.32	37.34	100	15	Peak
5	5350.00	39.99	37.80	54.00	-14.01	31.97	7.40	37.18	100	15	Average
6	5350.00	52.06	49.87	74.00	-21.94	31.97	7.40	37.18	100	15	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 19

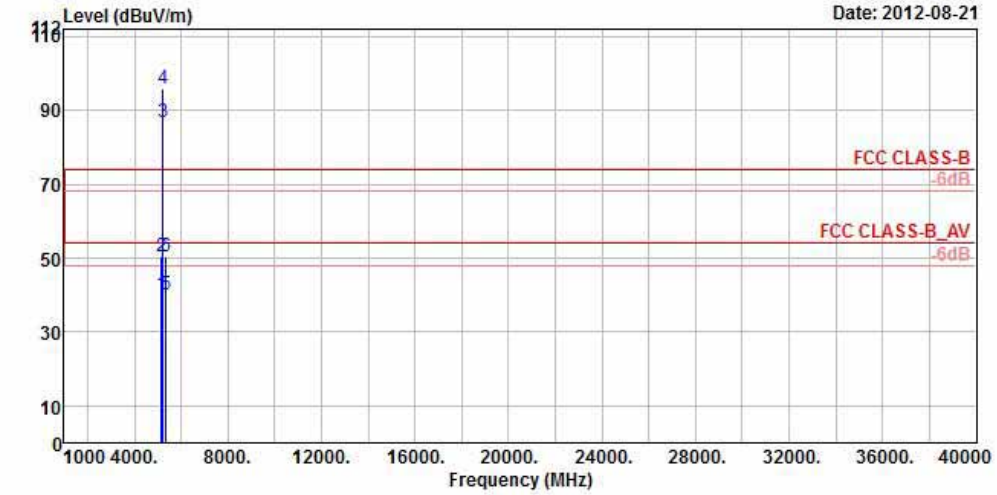


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH44
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	40.17	38.29	54.00	-13.83	31.87	7.33	37.32	123	319	Average
2	5150.00	49.78	47.90	74.00	-24.22	31.87	7.33	37.32	123	319	Peak
3 pp	5220.00	83.36	81.50			31.90	7.32	37.36	123	319	Average
4 pk	5220.00	91.74	89.88			31.90	7.32	37.36	123	319	Peak
5	5350.00	40.14	37.95	54.00	-13.86	31.97	7.40	37.18	123	319	Average
6	5350.00	50.30	48.11	74.00	-23.70	31.97	7.40	37.18	123	319	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

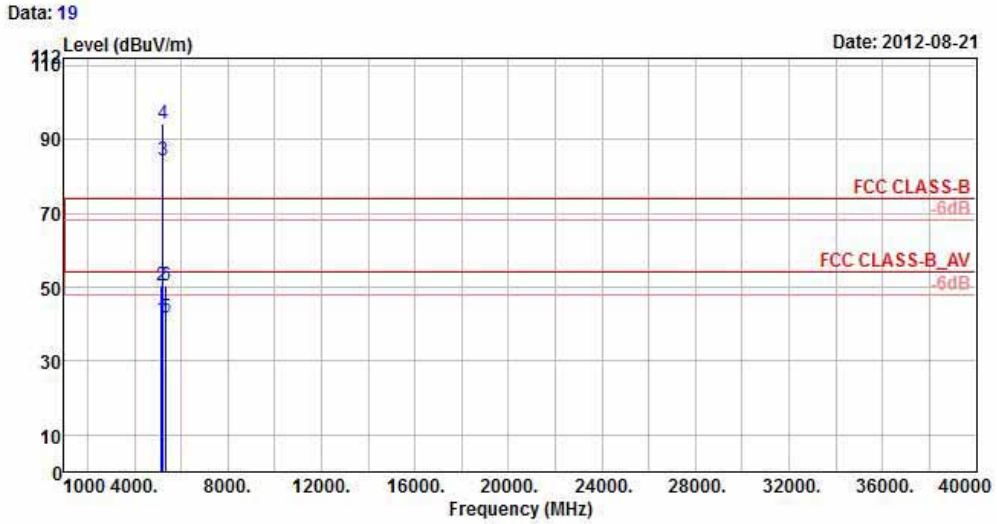
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH44
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	39.95	38.07	54.00	-14.05	31.87	7.33	37.32	100	0	Average
2	5150.00	50.59	48.71	74.00	-23.41	31.87	7.33	37.32	100	0	Peak
3 pp	5220.00	86.77	84.91			31.90	7.32	37.36	100	0	Average
4 pk	5220.00	95.71	93.85			31.90	7.32	37.36	100	0	Peak
5	5350.00	39.97	37.78	54.00	-14.03	31.97	7.40	37.18	100	0	Average
6	5350.00	50.54	48.35	74.00	-23.46	31.97	7.40	37.18	100	0	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

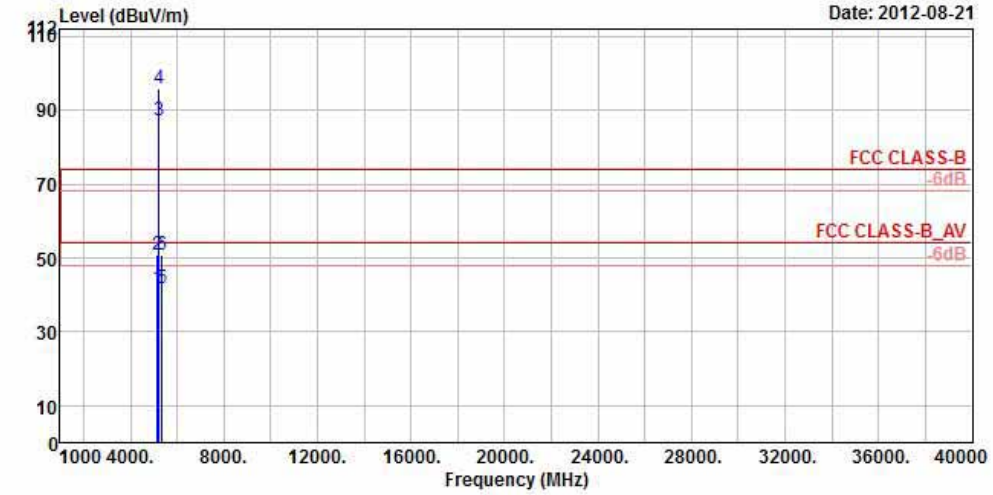


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH48
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.36	39.48	54.00	-12.64	31.87	7.33	37.32	104	7	Average
2	5150.00	50.60	48.72	74.00	-23.40	31.87	7.33	37.32	104	7	Peak
3 pp	5240.00	84.34	82.41			31.91	7.34	37.32	104	7	Average
4 pk	5240.00	94.42	92.49			31.91	7.34	37.32	104	7	Peak
5	5350.00	41.74	39.55	54.00	-12.26	31.97	7.40	37.18	104	7	Average
6	5350.00	50.33	48.14	74.00	-23.67	31.97	7.40	37.18	104	7	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

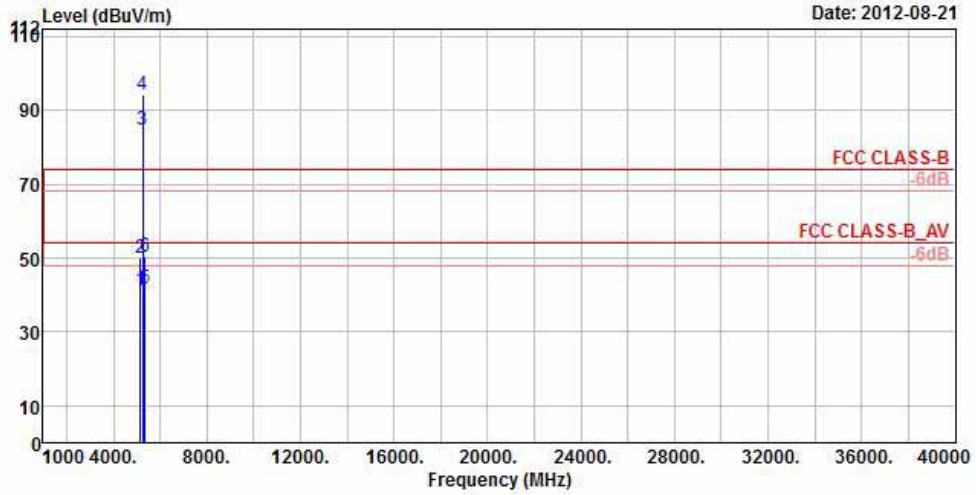
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH48
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.83	39.95	54.00	-12.17	31.87	7.33	37.32	100	3	Average
2	5150.00	50.79	48.91	74.00	-23.21	31.87	7.33	37.32	100	3	Peak
3 pp	5240.00	87.06	85.13			31.91	7.34	37.32	100	3	Average
4 pk	5240.00	95.87	93.94			31.91	7.34	37.32	100	3	Peak
5	5350.00	41.91	39.72	54.00	-12.09	31.97	7.40	37.18	100	3	Average
6	5350.00	51.01	48.82	74.00	-22.99	31.97	7.40	37.18	100	3	Peak

Data: 19

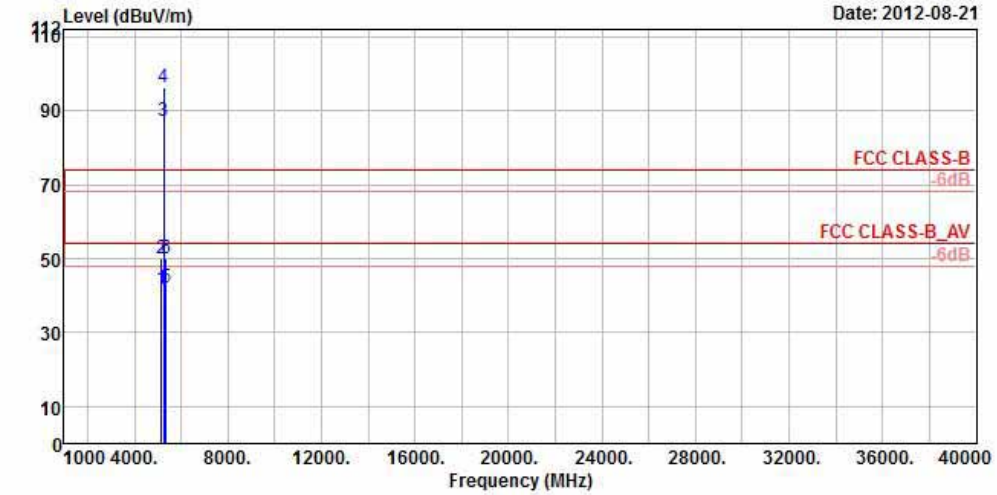


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH52
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.39	39.51	54.00	-12.61	31.87	7.33	37.32	126	322	Average
2	5150.00	50.01	48.13	74.00	-23.99	31.87	7.33	37.32	126	322	Peak
3 pp	5260.00	84.68	82.67			31.92	7.36	37.27	126	322	Average
4 pk	5260.00	94.31	92.30			31.92	7.36	37.27	126	322	Peak
5	5350.00	41.63	39.44	54.00	-12.37	31.97	7.40	37.18	126	322	Average
6	5350.00	50.26	48.07	74.00	-23.74	31.97	7.40	37.18	126	322	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 20

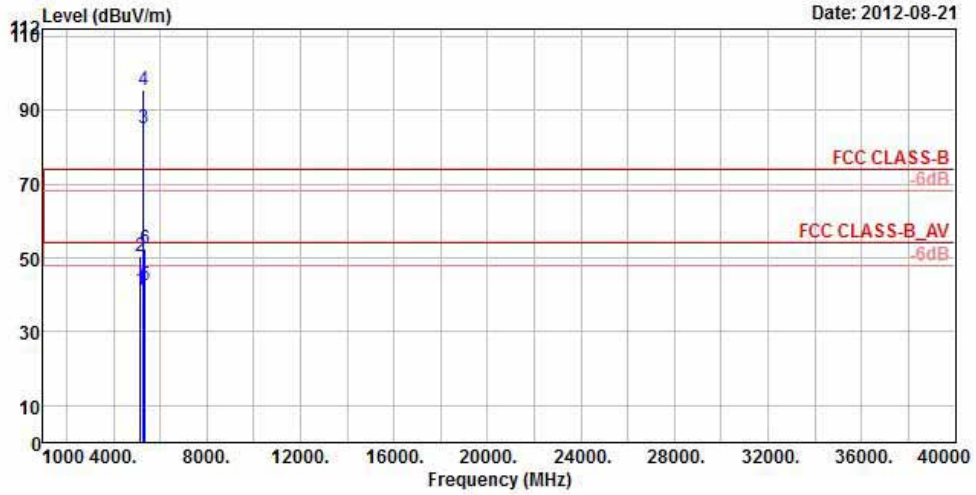


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH52
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.74	39.86	54.00	-12.26	31.87	7.33	37.32	100	4	Average
2	5150.00	49.92	48.04	74.00	-24.08	31.87	7.33	37.32	100	4	Peak
3 pp	5260.00	87.38	85.37			31.92	7.36	37.27	100	4	Average
4 pk	5260.00	96.32	94.31			31.92	7.36	37.27	100	4	Peak
5	5350.00	42.15	39.96	54.00	-11.85	31.97	7.40	37.18	100	4	Average
6	5350.00	49.88	47.69	74.00	-24.12	31.97	7.40	37.18	100	4	Peak

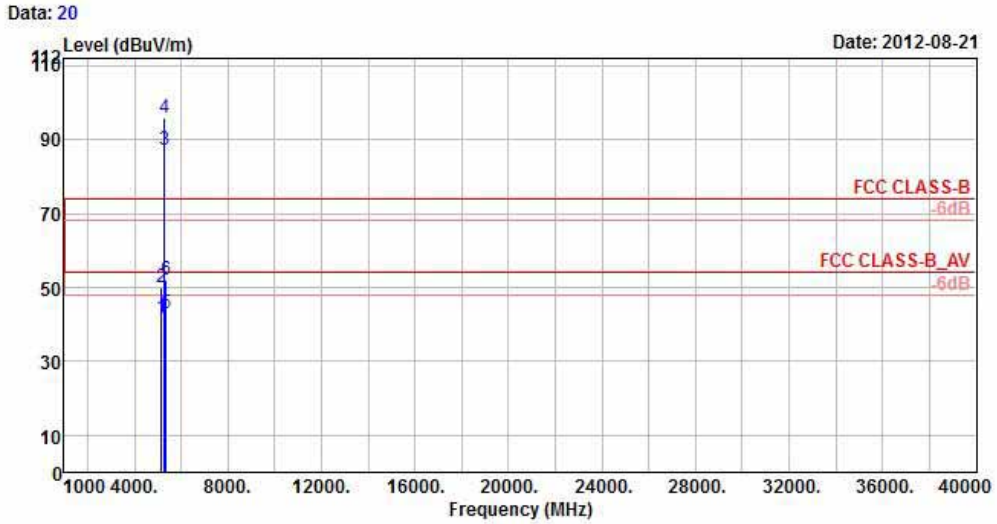
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH60
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

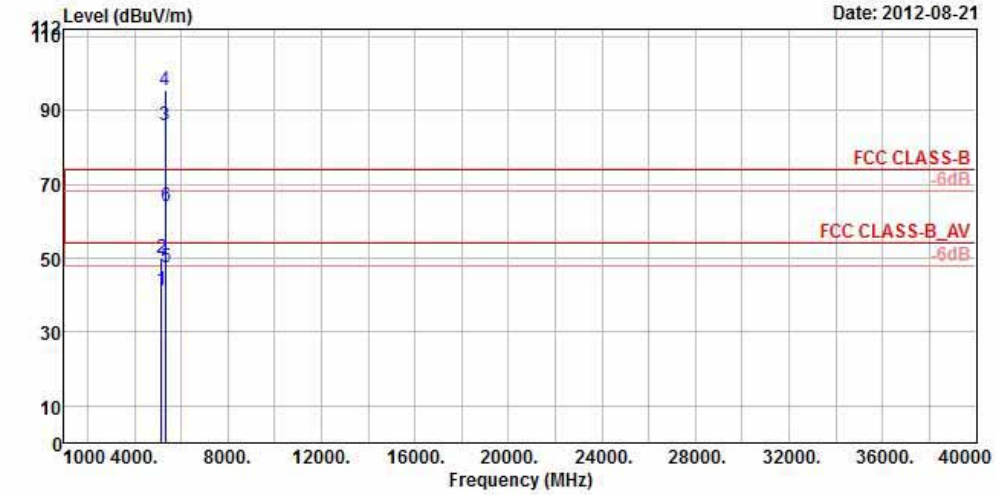
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.45	39.57	54.00	-12.55	31.87	7.33	37.32	126	320	Average
2	5150.00	50.22	48.34	74.00	-23.78	31.87	7.33	37.32	126	320	Peak
3 pp	5300.00	85.14	82.99			31.94	7.40	37.19	126	320	Average
4 pk	5300.00	95.65	93.50			31.94	7.40	37.19	126	320	Peak
5	5350.00	42.53	40.34	54.00	-11.47	31.97	7.40	37.18	126	320	Average
6	5350.00	52.38	50.19	74.00	-21.62	31.97	7.40	37.18	126	320	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH60
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.73	39.85	54.00	-12.27	31.87	7.33	37.32	100	4	Average
2	5150.00	50.02	48.14	74.00	-23.98	31.87	7.33	37.32	100	4	Peak
3 pp	5300.00	87.11	84.96			31.94	7.40	37.19	100	4	Average
4 pk	5300.00	95.95	93.80			31.94	7.40	37.19	100	4	Peak
5	5350.00	43.05	40.86	54.00	-10.95	31.97	7.40	37.18	100	4	Average
6	5350.00	52.06	49.87	74.00	-21.94	31.97	7.40	37.18	100	4	Peak

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH64
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.41	39.53	54.00	-12.59	31.87	7.33	37.32	122	319	Average
2	5150.00	50.10	48.22	74.00	-23.90	31.87	7.33	37.32	122	319	Peak
3 pp	5320.00	86.11	83.95			31.95	7.40	37.19	122	319	Average
4 pk	5320.00	95.55	93.39			31.95	7.40	37.19	122	319	Peak
5	5350.00	47.43	45.24	54.00	-6.57	31.97	7.40	37.18	122	319	Average
6	5350.00	64.24	62.05	74.00	-9.76	31.97	7.40	37.18	122	319	Peak

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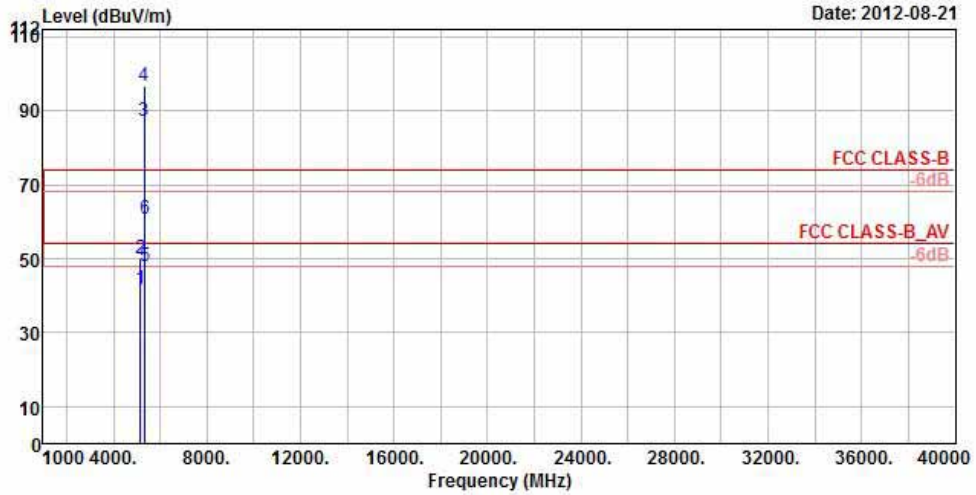
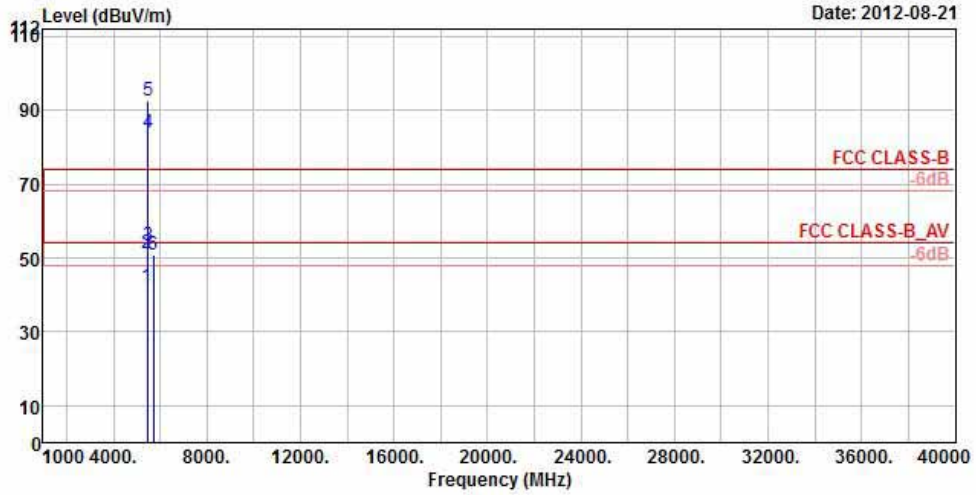
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH64
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

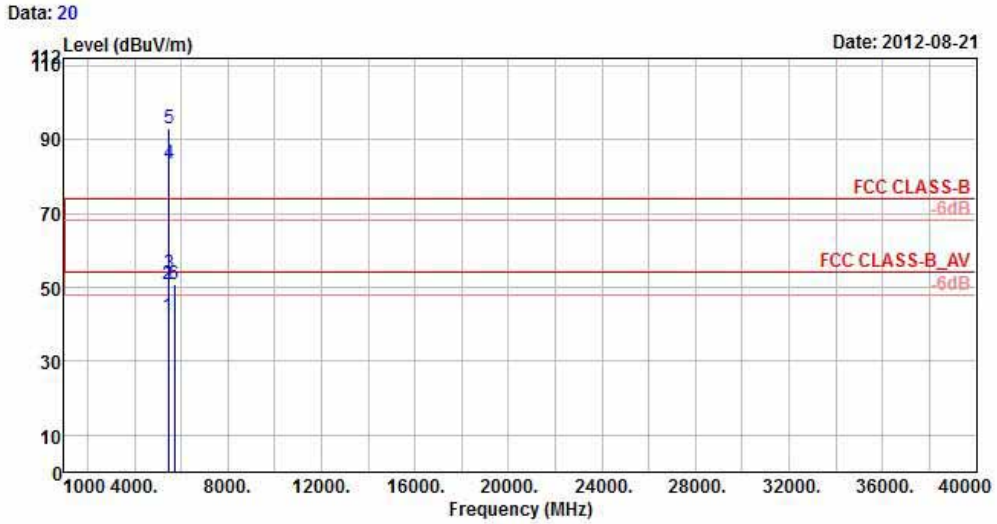
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	41.82	39.94	54.00	-12.18	31.87	7.33	37.32	110	14	Average
2	5150.00	49.82	47.94	74.00	-24.18	31.87	7.33	37.32	110	14	Peak
3 pp	5320.00	87.06	84.90			31.95	7.40	37.19	110	14	Average
4 pk	5320.00	96.66	94.50			31.95	7.40	37.19	110	14	Peak
5 !	5350.00	48.02	45.83	54.00	-5.98	31.97	7.40	37.18	110	14	Average
6	5350.00	60.85	58.66	74.00	-13.15	31.97	7.40	37.18	110	14	Peak

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH100
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

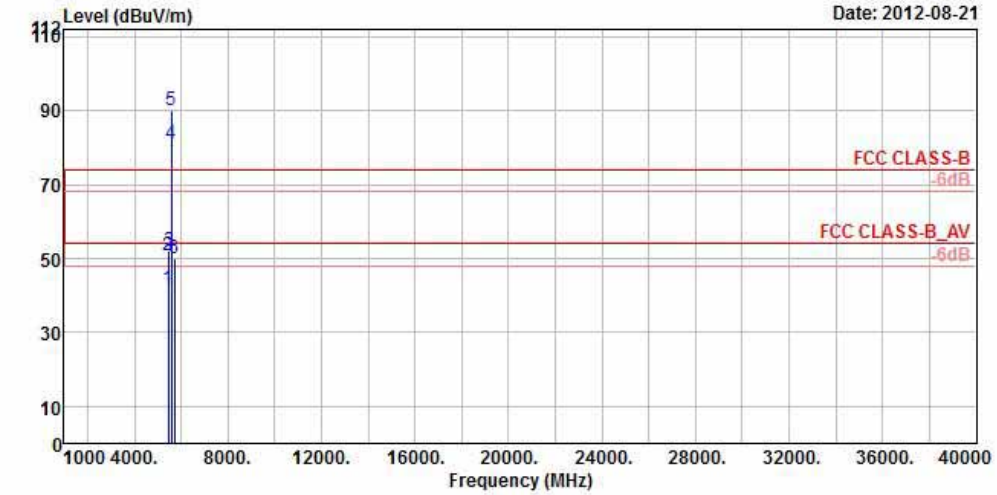
	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	42.18	39.72	54.00	-11.82	32.01	7.53	37.08	122	322	Average
2	5460.00	51.30	48.84	74.00	-22.70	32.01	7.53	37.08	122	322	Peak
3	5470.00	53.12	50.65	68.30	-15.18	32.02	7.53	37.08	122	322	Peak
4 pp	5500.00	83.93	81.33			32.04	7.59	37.03	122	322	Average
5 pk	5500.00	92.70	90.10			32.04	7.59	37.03	122	322	Peak
6	5725.00	50.87	48.23	68.30	-17.43	32.36	7.71	37.43	122	322	Peak



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH100
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	42.06	39.60	54.00	-11.94	32.01	7.53	37.08	112	308	Average
2	5460.00	51.02	48.56	74.00	-22.98	32.01	7.53	37.08	112	308	Peak
3	5470.00	53.81	51.34	68.30	-14.49	32.02	7.53	37.08	112	308	Peak
4 pp	5500.00	83.66	81.06			32.04	7.59	37.03	112	308	Average
5 pk	5500.00	93.12	90.52			32.04	7.59	37.03	112	308	Peak
6	5725.00	50.97	48.33	68.30	-17.33	32.36	7.71	37.43	112	308	Peak

Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH116
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	41.91	39.45	54.00	-12.09	32.01	7.53	37.08	123	323	Average
2	5460.00	50.92	48.46	74.00	-23.08	32.01	7.53	37.08	123	323	Peak
3	5470.00	51.91	49.44	68.30	-16.39	32.02	7.53	37.08	123	323	Peak
4 pp	5580.00	81.13	78.58			32.14	7.57	37.16	123	323	Average
5 pk	5580.00	90.07	87.52			32.14	7.57	37.16	123	323	Peak
6	5725.00	50.00	47.36	68.30	-18.30	32.36	7.71	37.43	123	323	Peak

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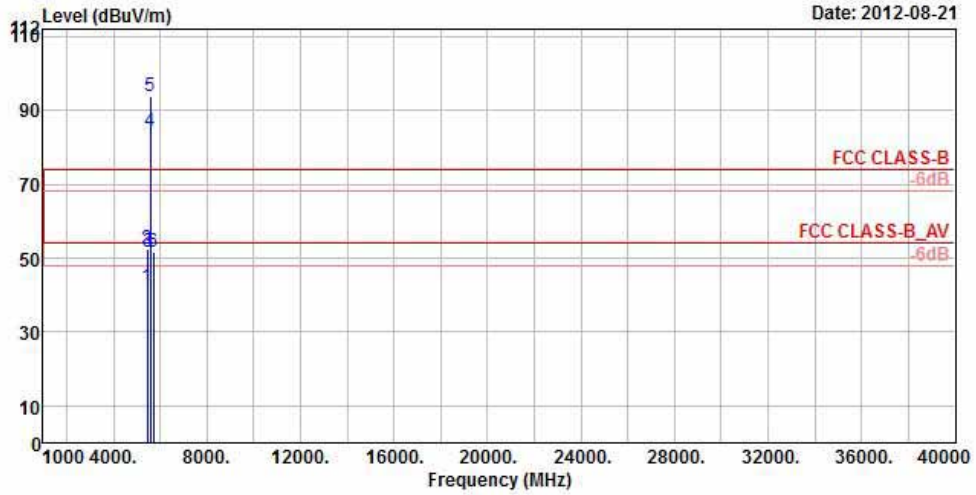
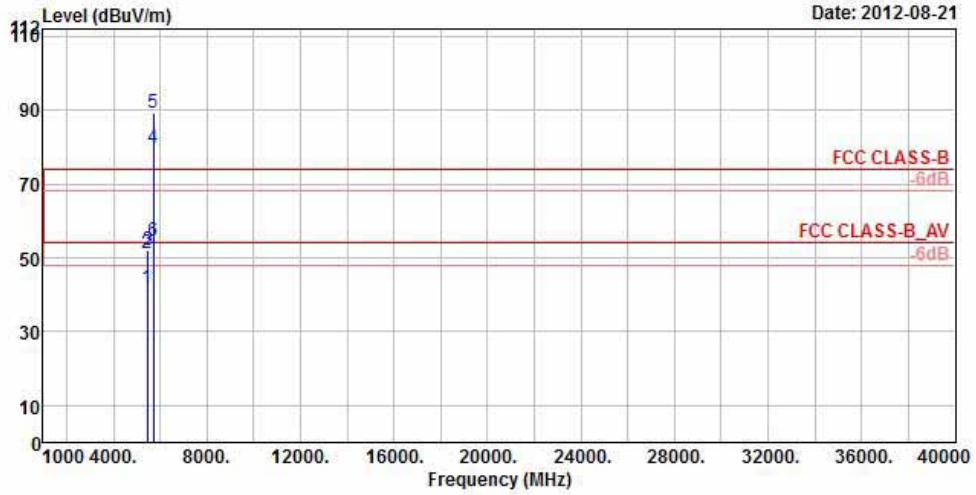
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH116
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	42.27	39.81	54.00	-11.73	32.01	7.53	37.08	111	127	Average
2	5460.00	52.52	50.06	74.00	-21.48	32.01	7.53	37.08	111	127	Peak
3	5470.00	51.66	49.19	68.30	-16.64	32.02	7.53	37.08	111	127	Peak
4 pp	5580.00	84.29	81.74			32.14	7.57	37.16	111	127	Average
5 pk	5580.00	93.71	91.16			32.14	7.57	37.16	111	127	Peak
6	5725.00	51.48	48.84	68.30	-16.82	32.36	7.71	37.43	111	127	Peak

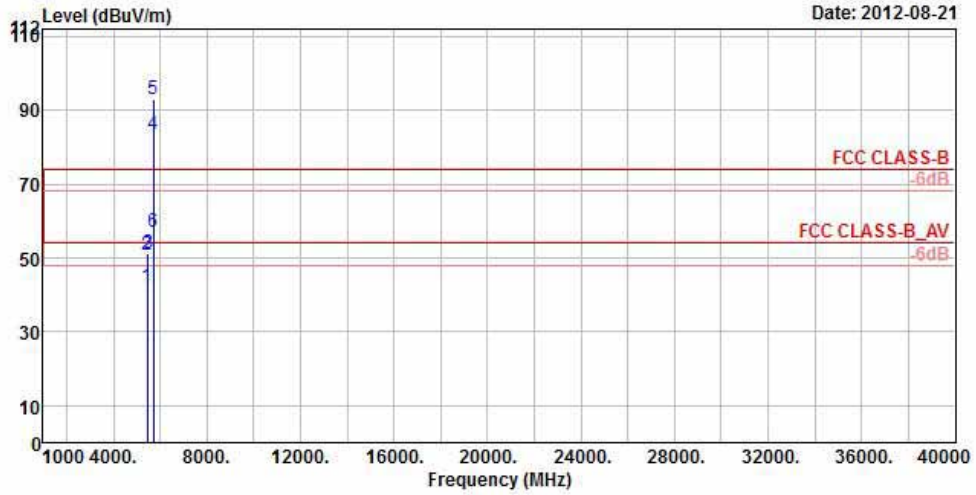
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH140
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	41.87	39.41	54.00	-12.13	32.01	7.53	37.08	114	320	Average
2	5460.00	51.42	48.96	74.00	-22.58	32.01	7.53	37.08	114	320	Peak
3	5470.00	51.96	49.49	68.30	-16.34	32.02	7.53	37.08	114	320	Peak
4 pp	5700.00	79.60	77.00			32.31	7.69	37.40	114	320	Average
5 pk	5700.00	89.19	86.59			32.31	7.69	37.40	114	320	Peak
6	5725.00	54.49	51.85	68.30	-13.81	32.36	7.71	37.43	114	320	Peak

Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT20 TX CH140
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	42.09	39.63	54.00	-11.91	32.01	7.53	37.08	100	160	Average
2	5460.00	50.73	48.27	74.00	-23.27	32.01	7.53	37.08	100	160	Peak
3	5470.00	51.09	48.62	68.30	-17.21	32.02	7.53	37.08	100	160	Peak
4 pp	5700.00	83.64	81.04			32.31	7.69	37.40	100	160	Average
5 pk	5700.00	93.10	90.50			32.31	7.69	37.40	100	160	Peak
6	5725.00	57.18	54.54	68.30	-11.12	32.36	7.71	37.43	100	160	Peak

802.11n (40MHz)

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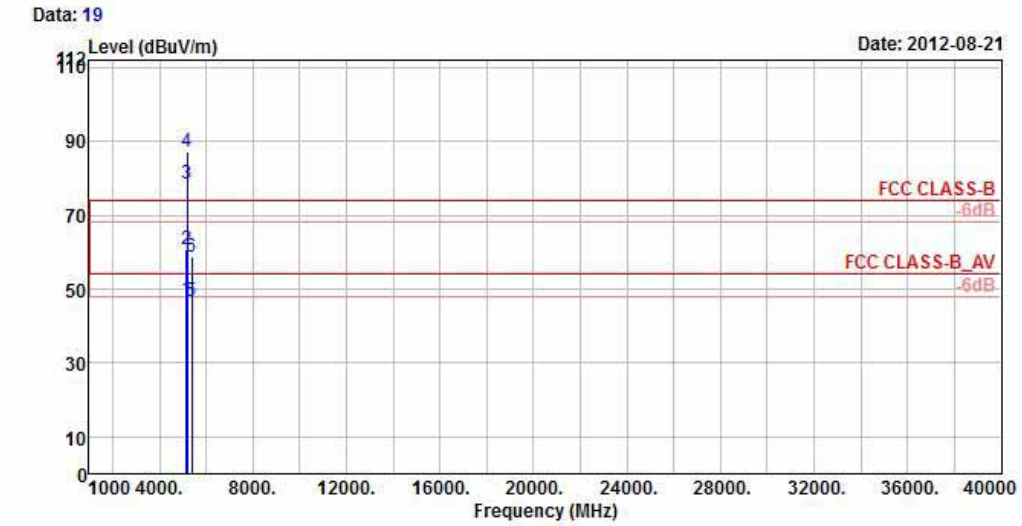

Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH38
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	47.15	45.27	54.00	-6.85	31.87	7.33	37.32	114	319	Average
2	5150.00	60.64	58.76	74.00	-13.36	31.87	7.33	37.32	114	319	Peak
3 pp	5190.00	78.32	76.46			31.88	7.32	37.34	114	319	Average
4 pk	5190.00	87.30	85.44			31.88	7.32	37.34	114	319	Peak
5	5382.00	46.69	44.49	54.00	-7.31	31.98	7.40	37.18	114	319	Average
6	5382.00	58.82	56.62	74.00	-15.18	31.98	7.40	37.18	114	319	Peak

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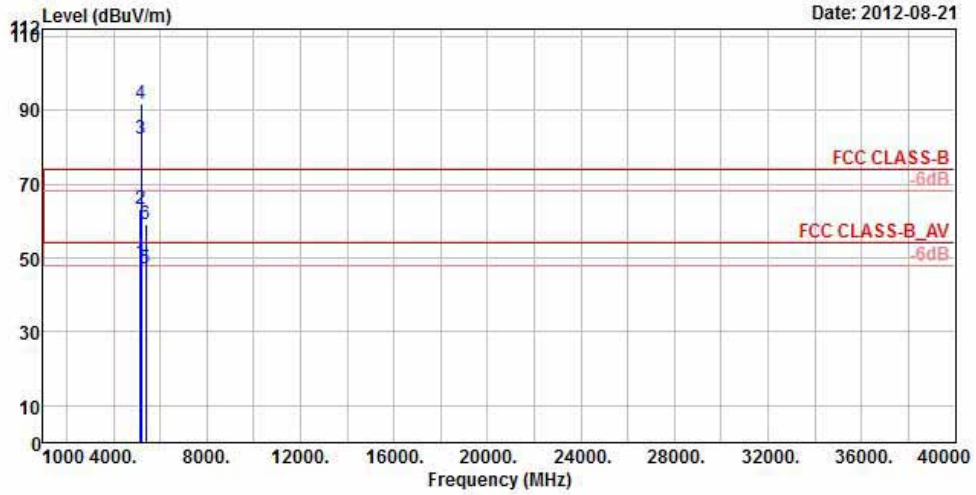
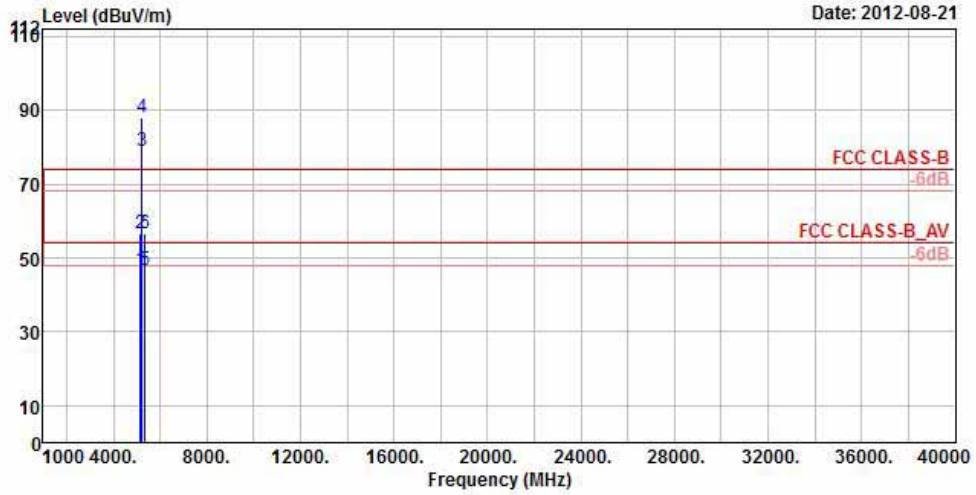
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH38
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1 !	5150.00	48.70	46.82	54.00	-5.30	31.87	7.33	37.32	100	16	Average
2	5150.00	63.03	61.15	74.00	-10.97	31.87	7.33	37.32	100	16	Peak
3 pp	5190.00	82.17	80.31			31.88	7.32	37.34	100	16	Average
4 pk	5190.00	91.59	89.73			31.88	7.32	37.34	100	16	Peak
5	5400.00	46.93	44.72	54.00	-7.07	31.99	7.40	37.18	100	16	Average
6	5400.00	58.93	56.72	74.00	-15.07	31.99	7.40	37.18	100	16	Peak

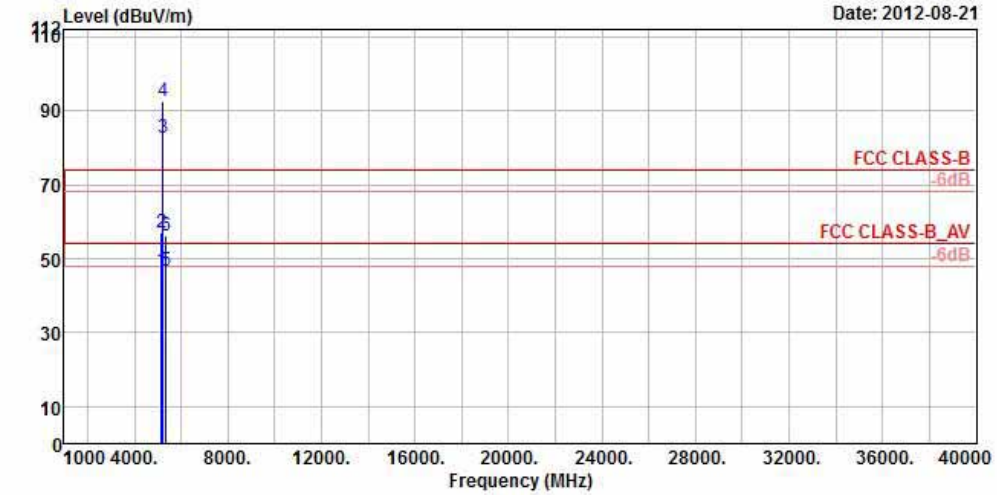
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH46
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	46.57	44.69	54.00	-7.43	31.87	7.33	37.32	122	318	Average
2	5150.00	56.47	54.59	74.00	-17.53	31.87	7.33	37.32	122	318	Peak
3 pp	5230.00	78.83	76.90			31.91	7.34	37.32	122	318	Average
4 pk	5230.00	87.88	85.95			31.91	7.34	37.32	122	318	Peak
5	5350.00	46.60	44.41	54.00	-7.40	31.97	7.40	37.18	122	318	Average
6	5350.00	56.52	54.33	74.00	-17.48	31.97	7.40	37.18	122	318	Peak

Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH46
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	46.65	44.77	54.00	-7.35	31.87	7.33	37.32	100	12	Average
2	5150.00	56.88	55.00	74.00	-17.12	31.87	7.33	37.32	100	12	Peak
3 pp	5230.00	82.74	80.81			31.91	7.34	37.32	100	12	Average
4 pk	5230.00	92.65	90.72			31.91	7.34	37.32	100	12	Peak
5	5350.00	46.70	44.51	54.00	-7.30	31.97	7.40	37.18	100	12	Average
6	5350.00	56.17	53.98	74.00	-17.83	31.97	7.40	37.18	100	12	Peak

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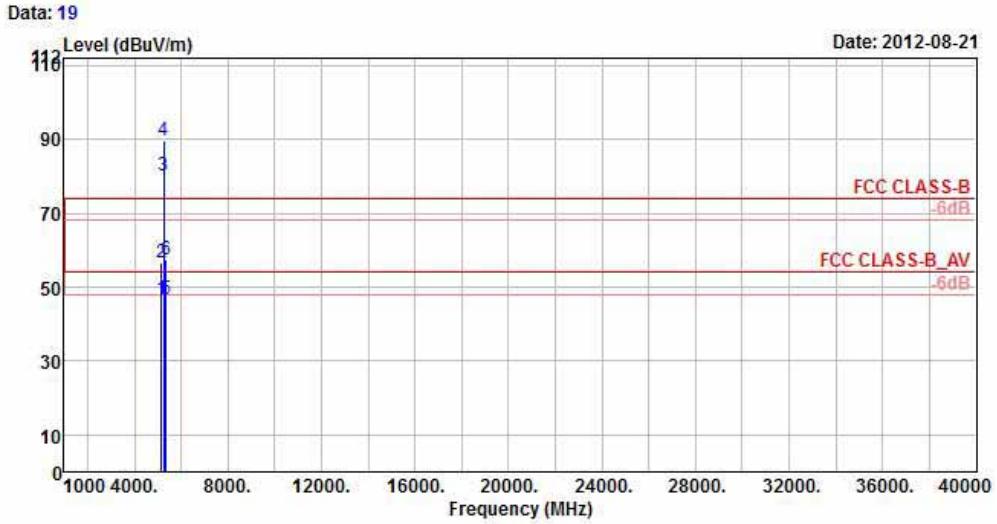
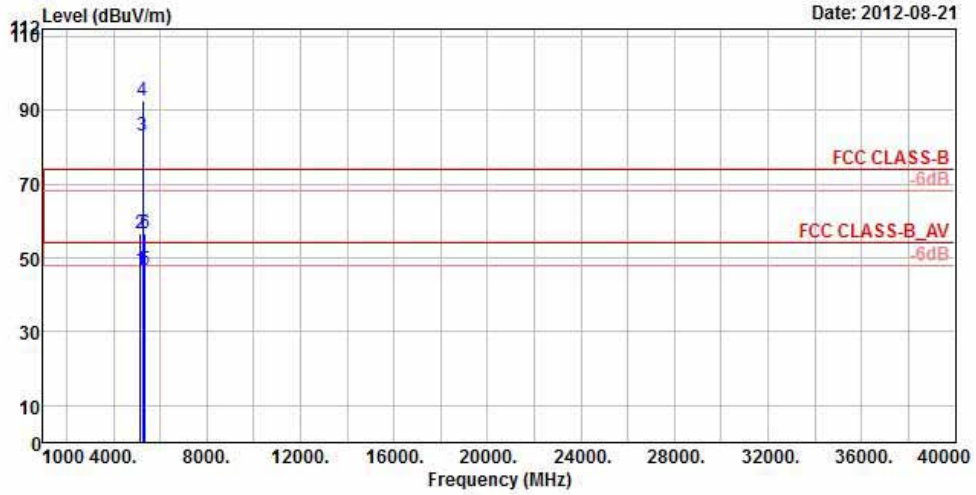


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH54
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	46.62	44.74	54.00	-7.38	31.87	7.33	37.32	123	318	Average
2	5150.00	56.71	54.83	74.00	-17.29	31.87	7.33	37.32	123	318	Peak
3 pp	5270.00	80.18	78.17			31.92	7.36	37.27	123	318	Average
4 pk	5270.00	89.50	87.49			31.92	7.36	37.27	123	318	Peak
5	5350.00	46.73	44.54	54.00	-7.27	31.97	7.40	37.18	123	318	Average
6	5350.00	57.46	55.27	74.00	-16.54	31.97	7.40	37.18	123	318	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 20

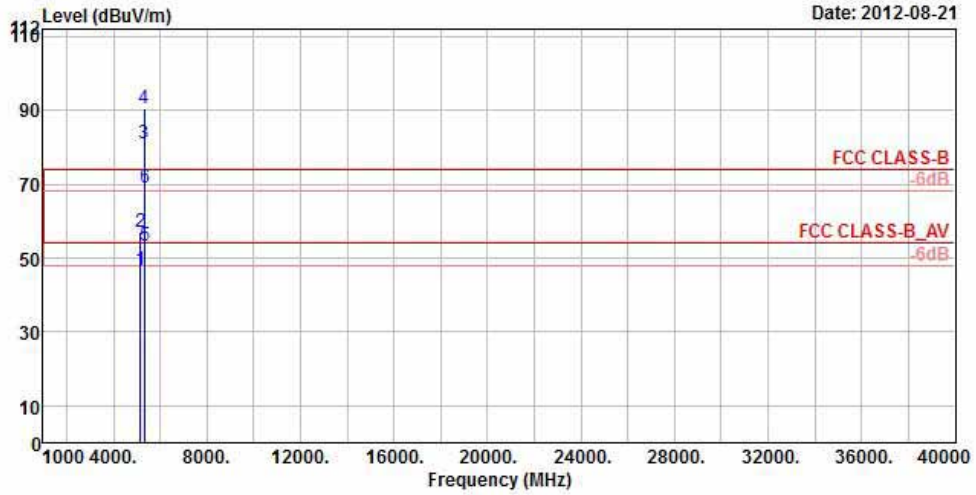


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH54
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	46.63	44.75	54.00	-7.37	31.87	7.33	37.32	100	3	Average
2	5150.00	56.57	54.69	74.00	-17.43	31.87	7.33	37.32	100	3	Peak
3 pp	5270.00	83.14	81.13			31.92	7.36	37.27	100	3	Average
4 pk	5270.00	92.37	90.36			31.92	7.36	37.27	100	3	Peak
5	5350.00	46.76	44.57	54.00	-7.24	31.97	7.40	37.18	100	3	Average
6	5350.00	56.61	54.42	74.00	-17.39	31.97	7.40	37.18	100	3	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 19

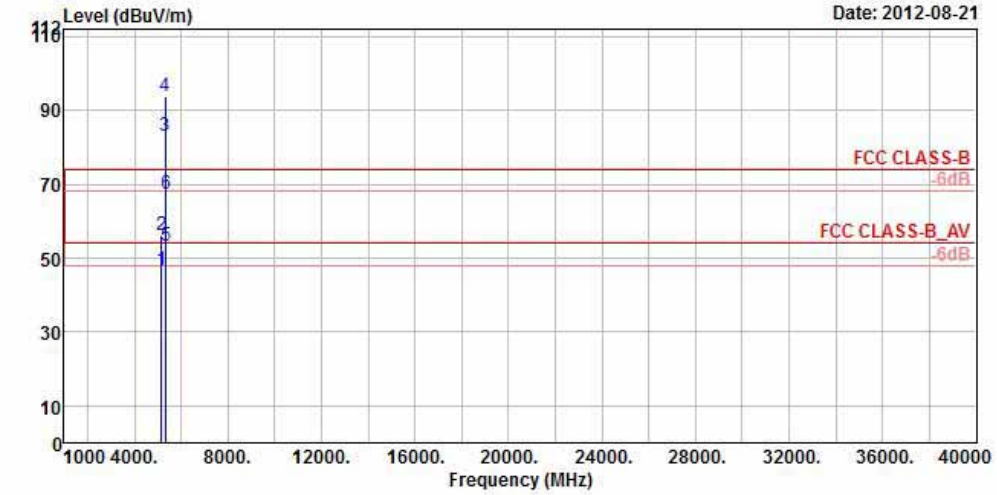


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH62
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

		Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
		MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1		5150.00	46.66	44.78	54.00	-7.34	31.87	7.33	37.32	113	319	Average
2		5150.00	56.91	55.03	74.00	-17.09	31.87	7.33	37.32	113	319	Peak
3	pp	5310.00	81.16	79.00			31.95	7.40	37.19	113	319	Average
4	pk	5310.00	90.53	88.37			31.95	7.40	37.19	113	319	Peak
5	!	5350.00	53.38	51.19	54.00	-0.62	31.97	7.40	37.18	113	319	Average
6	!	5350.00	68.91	66.72	74.00	-5.09	31.97	7.40	37.18	113	319	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 20

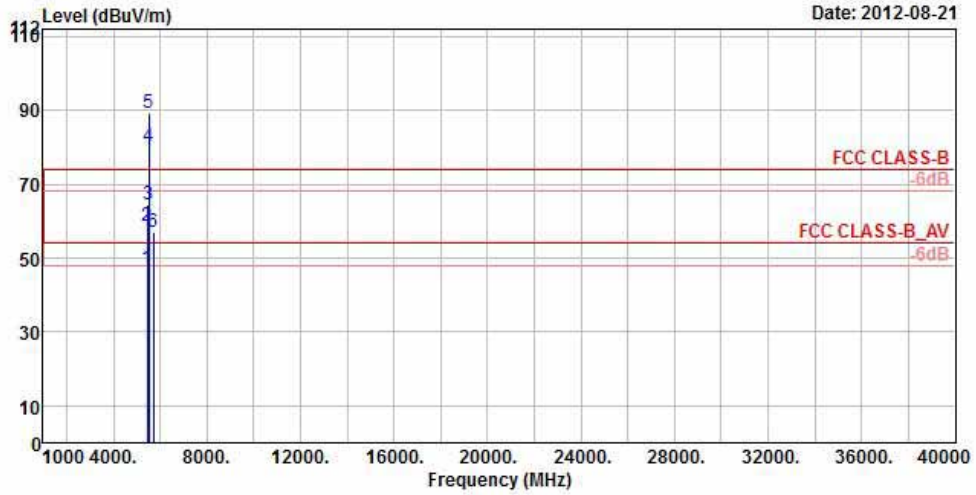


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH62
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 11

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5150.00	46.60	44.72	54.00	-7.40	31.87	7.33	37.32	100	4	Average
2	5150.00	56.37	54.49	74.00	-17.63	31.87	7.33	37.32	100	4	Peak
3 pp	5310.00	83.17	81.01			31.95	7.40	37.19	100	4	Average
4 pk	5310.00	93.71	91.55			31.95	7.40	37.19	100	4	Peak
5 !	5350.00	53.43	51.24	54.00	-0.57	31.97	7.40	37.18	100	4	Average
6	5350.00	67.33	65.14	74.00	-6.67	31.97	7.40	37.18	100	4	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

Data: 19

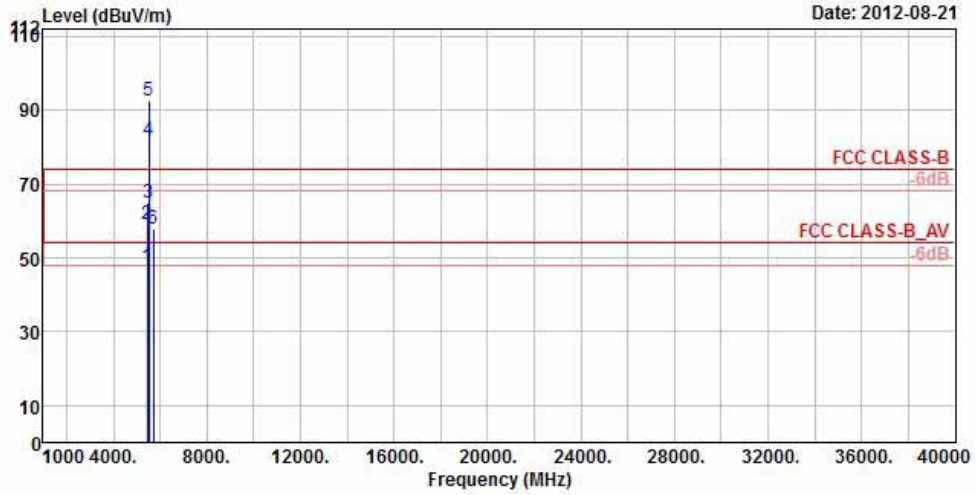


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH102
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	47.20	44.74	54.00	-6.80	32.01	7.53	37.08	110	325	Average
2	5460.00	58.70	56.24	74.00	-15.30	32.01	7.53	37.08	110	325	Peak
3	5470.00	64.65	62.18	68.30	-3.65	32.02	7.53	37.08	110	325	Peak
4 pp	5510.00	80.15	77.58			32.04	7.59	37.06	110	325	Average
5 pk	5510.00	89.39	86.82			32.04	7.59	37.06	110	325	Peak
6	5725.00	56.94	54.30	68.30	-11.36	32.36	7.71	37.43	110	325	Peak

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

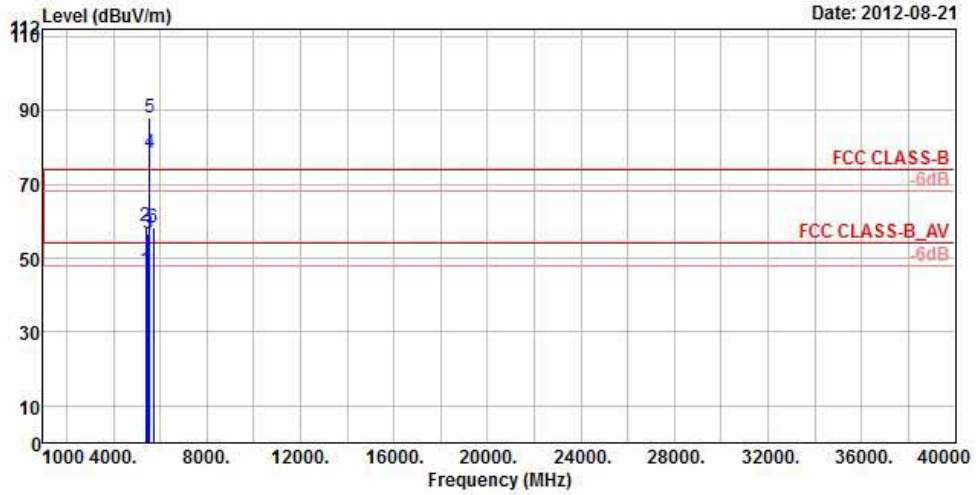
Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH102
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5460.00	47.47	45.01	54.00	-6.53	32.01	7.53	37.08	124	124	Average
2	5460.00	59.26	56.80	74.00	-14.74	32.01	7.53	37.08	124	124	Peak
3	5470.00	64.79	62.32	68.30	-3.51	32.02	7.53	37.08	124	124	Peak
4 pp	5510.00	81.93	79.36			32.04	7.59	37.06	124	124	Average
5 pk	5510.00	92.37	89.80			32.04	7.59	37.06	124	124	Peak
6	5725.00	57.67	55.03	68.30	-10.63	32.36	7.71	37.43	124	124	Peak

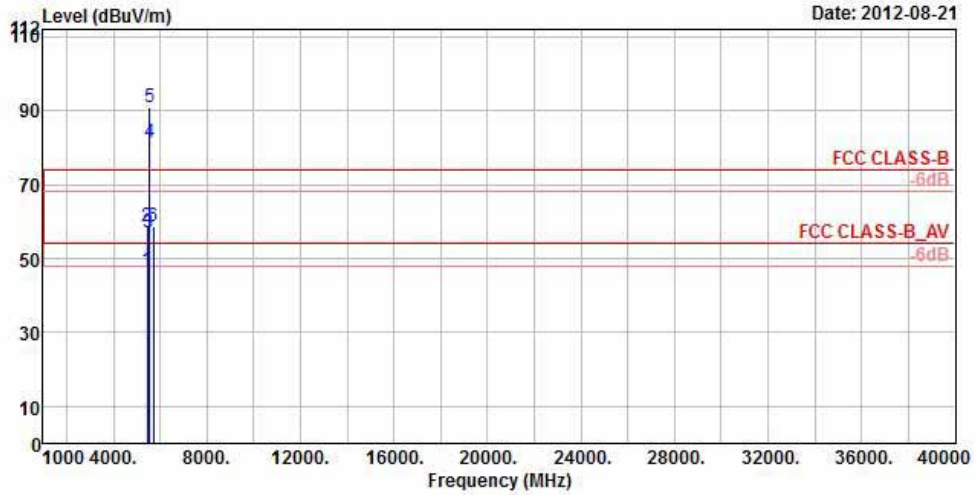
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH110
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5404.00	46.69	44.48	54.00	-7.31	31.99	7.40	37.18	110	328	Average
2	5404.00	58.69	56.48	74.00	-15.31	31.99	7.40	37.18	110	328	Peak
3	5470.00	56.76	54.29	68.30	-11.54	32.02	7.53	37.08	110	328	Peak
4 pp	5550.00	78.64	76.04			32.11	7.58	37.09	110	328	Average
5 pk	5550.00	87.82	85.22			32.11	7.58	37.09	110	328	Peak
6	5725.00	58.29	55.65	68.30	-10.01	32.36	7.71	37.43	110	328	Peak

Data: 20



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH110
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5446.00	46.88	44.53	54.00	-7.12	32.01	7.47	37.13	123	124	Average
2	5446.00	58.83	56.48	74.00	-15.17	32.01	7.47	37.13	123	124	Peak
3	5470.00	56.88	54.41	68.30	-11.42	32.02	7.53	37.08	123	124	Peak
4 pp	5550.00	81.23	78.63			32.11	7.58	37.09	123	124	Average
5 pk	5550.00	90.75	88.15			32.11	7.58	37.09	123	124	Peak
6	5725.00	58.72	56.08	68.30	-9.58	32.36	7.71	37.43	123	124	Peak

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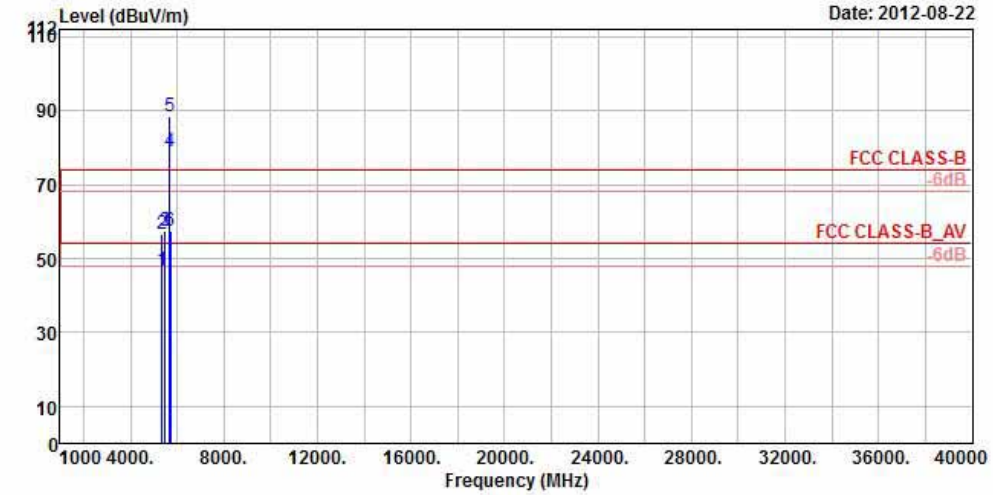
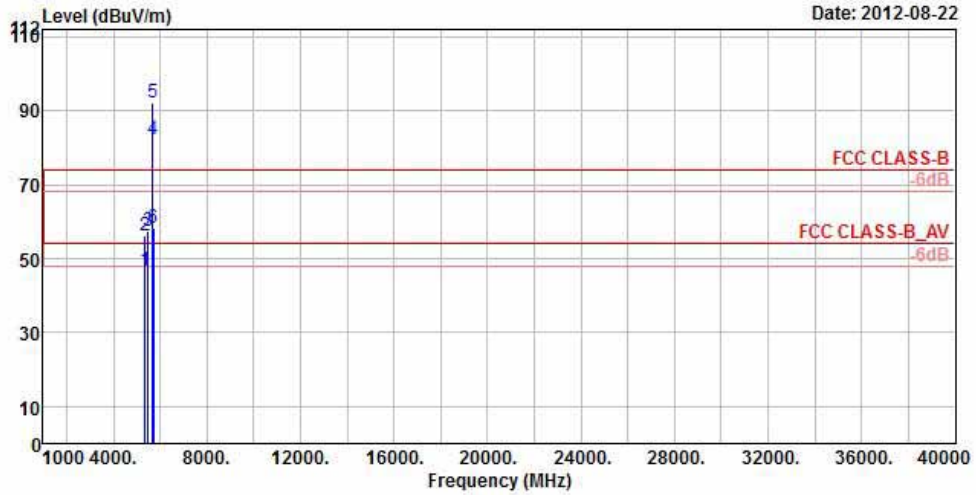
Data: 19



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF HORIZONTAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH134
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5350.00	46.76	44.57	54.00	-7.24	31.97	7.40	37.18	116	317	Average
2	5350.00	56.74	54.55	74.00	-17.26	31.97	7.40	37.18	116	317	Peak
3	5470.00	57.43	54.96	68.30	-10.87	32.02	7.53	37.08	116	317	Peak
4 pp	5670.00	79.04	76.44			32.28	7.66	37.34	116	317	Average
5 pk	5670.00	88.50	85.90			32.28	7.66	37.34	116	317	Peak
6	5725.00	57.25	54.61	68.30	-11.05	32.36	7.71	37.43	116	317	Peak

Data: 20

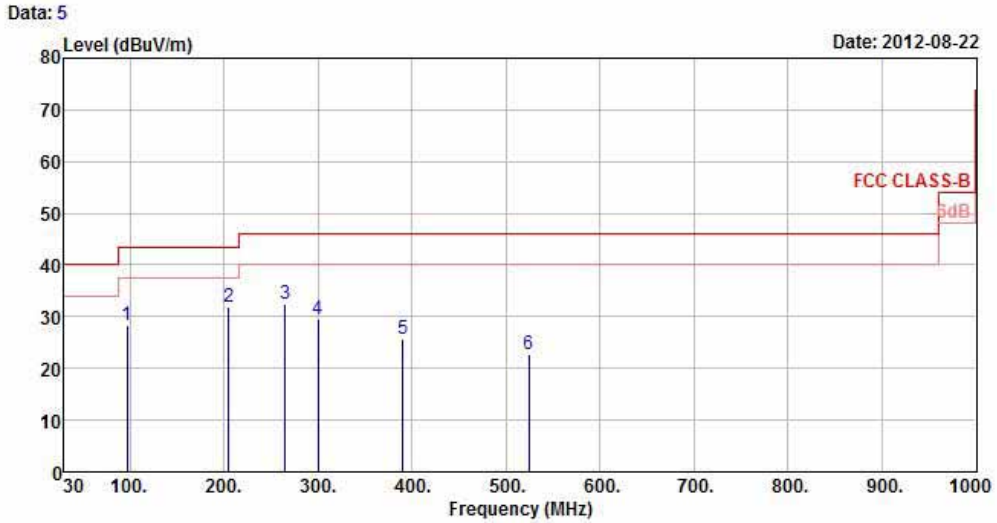


Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_18G~40G_HF VERTICAL
Brand/Model: PM23200
Remark : 11AN_HT40 TX CH134
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X
Rate : MCS0
Power : 6

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	5350.00	46.70	44.51	54.00	-7.30	31.97	7.40	37.18	100	159	Average
2	5350.00	56.31	54.12	74.00	-17.69	31.97	7.40	37.18	100	159	Peak
3	5470.00	57.36	54.89	68.30	-10.94	32.02	7.53	37.08	100	159	Peak
4 pp	5670.00	82.34	79.74			32.28	7.66	37.34	100	159	Average
5 pk	5670.00	92.04	89.44			32.28	7.66	37.34	100	159	Peak
6	5725.00	58.21	55.57	68.30	-10.09	32.36	7.71	37.43	100	159	Peak

BELOW 1GHz WORST-CASE DATA：802.11n (20MHz)

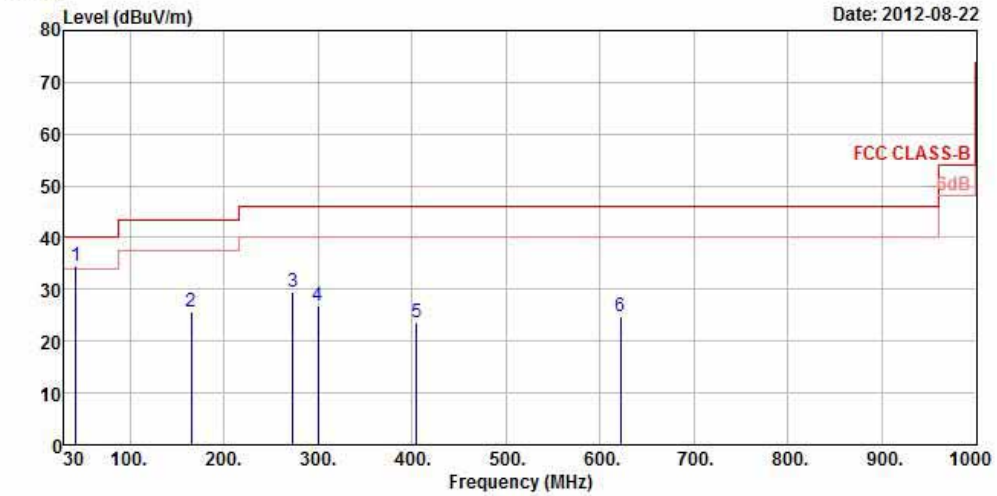
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_30M~1G_LF HORIZONTAL
Brand/Model: PM23200
Remark : 11A TX LF
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1	96.69	28.29	50.37	43.50	-15.21	8.83	1.05	31.96	100	187	Peak
2 pp	204.96	31.98	52.49	43.50	-11.52	9.56	1.62	31.69	136	214	Peak
3	265.44	32.57	50.70	46.00	-13.43	11.94	1.89	31.96	100	154	Peak
4	300.00	29.43	46.28	46.00	-16.57	12.94	2.05	31.84	100	168	Peak
5	390.30	25.56	40.12	46.00	-20.44	15.10	2.38	32.04	100	135	Peak
6	524.70	22.75	33.64	46.00	-23.25	17.88	2.86	31.63	100	112	Peak

Data: 6



Site : 966 Chamber 5
Condition : FCC CLASS-B 3m ANT_30M~1G_LF VERTICAL
Brand/Model: PM23200
Remark : 11A TX LF
Tested by : Kay Wu
Temprature : 25℃
Humidity : 65%
Plane : X

	Freq	Level	Read Level	Limit Line	Over Limit	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m	dB	dB	cm	deg	
1 pp	42.15	34.68	51.48	40.00	-5.32	13.58	0.70	31.08	110	158	Peak
2	165.27	25.83	43.97	43.50	-17.67	12.25	1.42	31.81	100	162	Peak
3	273.27	29.43	47.28	46.00	-16.57	12.17	1.93	31.95	110	155	Peak
4	300.00	26.74	43.59	46.00	-19.26	12.94	2.05	31.84	100	183	Peak
5	405.00	23.57	37.72	46.00	-22.43	15.45	2.45	32.05	100	152	Peak
6	622.00	24.79	33.93	46.00	-21.21	19.87	3.15	32.16	100	123	Peak

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 19, 2011	Nov. 18, 2012
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 29, 2011	Dec. 28, 2012
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2011	Dec. 29, 2012
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 06, 2012	Jul. 05, 2013
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

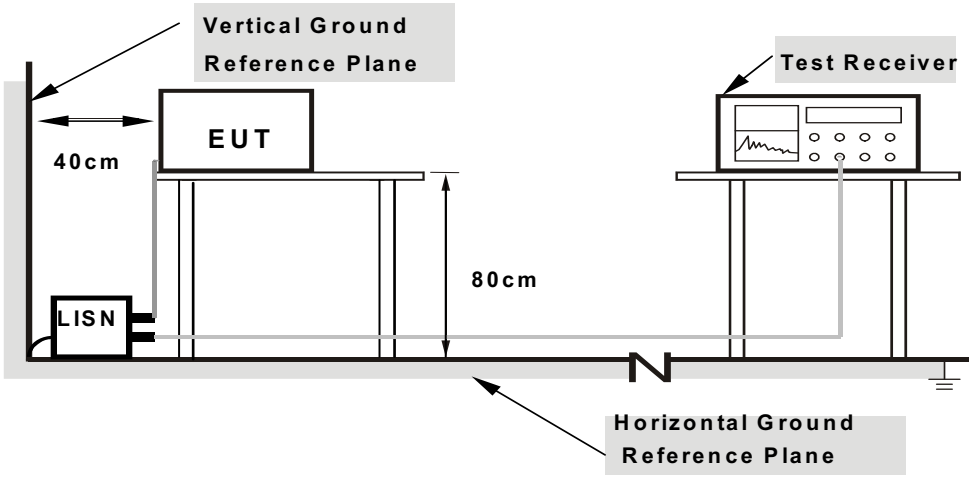
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

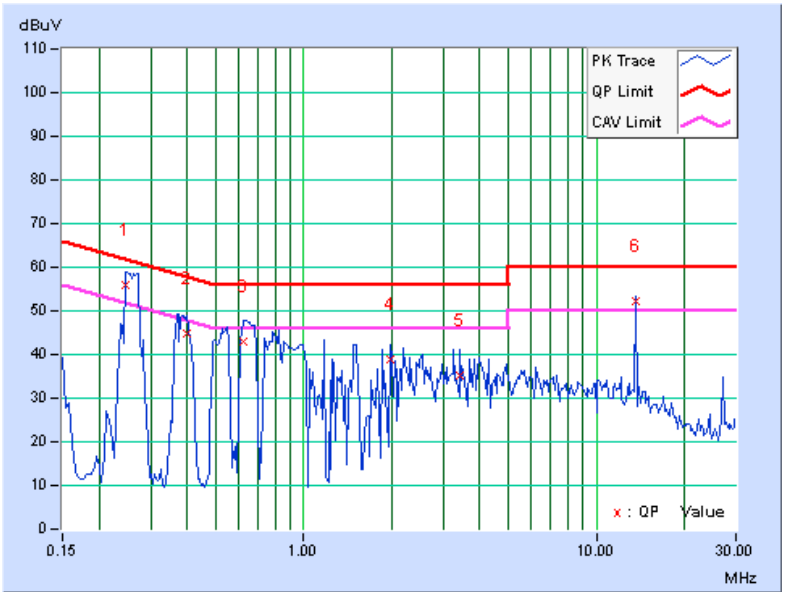
CONDUCTED WORST-CASE DATA :
802.11n (20MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.24766	0.15	55.77	37.89	55.92	38.04	61.84	51.84	-5.91	-13.79
2	0.40000	0.17	44.64	28.40	44.81	28.57	57.85	47.85	-13.04	-19.28
3	0.61875	0.18	42.90	27.21	43.08	27.39	56.00	46.00	-12.92	-18.61
4	1.96875	0.26	38.47	21.56	38.73	21.82	56.00	46.00	-17.27	-24.18
5	3.42969	0.32	34.81	21.45	35.13	21.77	56.00	46.00	-20.87	-24.23
6	13.56250	0.50	51.80	46.39	52.30	46.89	60.00	50.00	-7.70	-3.11

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

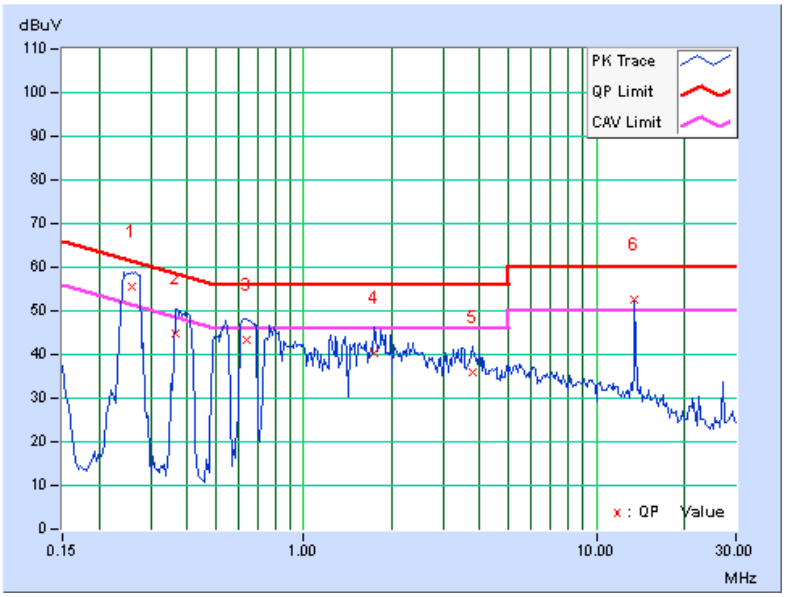


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.25938	0.15	55.57	38.09	55.72	38.24	61.45	51.45	-5.74	-13.22
2	0.36484	0.16	44.71	23.81	44.87	23.97	58.62	48.62	-13.75	-24.65
3	0.63828	0.17	43.16	26.96	43.33	27.13	56.00	46.00	-12.67	-18.87
4	1.74609	0.24	40.10	23.52	40.34	23.76	56.00	46.00	-15.66	-22.24
5	3.78125	0.34	35.54	20.64	35.88	20.98	56.00	46.00	-20.12	-25.02
6	**13.55859**	**0.57**	**51.96**	**46.57**	**52.53**	**47.14**	**60.00**	**50.00**	**-7.47**	**-2.86**

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



4.3 PEAK TRANSMIT POWER MEASUREMENT

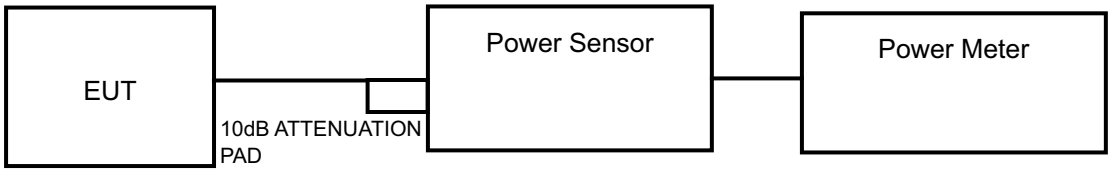
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB

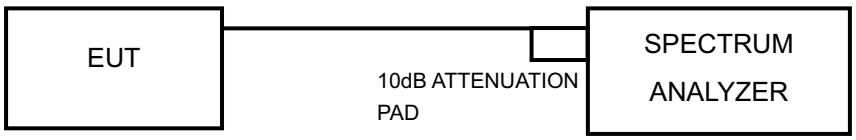
NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB BANDWIDTH



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.3.7 TEST RESULTS

POWER OUTPUT: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	19.409	13.16	17	PASS
44	5220	20.137	13.22	17	PASS
48	5240	20.941	13.34	17	PASS
52	5260	19.724	13.45	24	PASS
60	5300	21.086	13.72	24	PASS
64	5320	21.627	13.86	24	PASS
100	5500	19.187	13.06	24	PASS
116	5580	20.045	13.46	24	PASS
140	5700	18.408	13.53	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	20.606	13.14	17	PASS
44	5220	21.380	13.30	17	PASS
48	5240	21.827	13.39	17	PASS
52	5260	22.387	13.50	24	PASS
60	5300	23.714	13.75	24	PASS
64	5320	24.547	13.90	24	PASS
100	5500	20.464	13.11	24	PASS
116	5580	22.646	13.55	24	PASS
140	5700	22.803	13.58	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	20.512	13.12	17	PASS
46	5230	21.281	13.28	17	PASS
54	5270	22.233	13.47	24	PASS
62	5310	23.659	13.74	24	PASS
102	5510	20.324	13.08	24	PASS
110	5550	21.380	13.30	24	PASS
134	5670	22.594	13.54	24	PASS

26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	28.11	PASS
44	5220	27.13	PASS
48	5240	28.41	PASS
52	5260	27.51	PASS
60	5300	38.36	PASS
64	5320	38.90	PASS
100	5500	26.67	PASS
116	5580	38.60	PASS
140	5700	38.95	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	39.02	PASS
44	5220	29.56	PASS
48	5240	39.90	PASS
52	5260	38.60	PASS
60	5300	39.63	PASS
64	5320	39.88	PASS
100	5500	39.43	PASS
116	5580	39.81	PASS
140	5700	39.81	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	71.52	PASS
46	5230	73.20	PASS
54	5270	71.95	PASS
62	5310	76.90	PASS
102	5510	75.01	PASS
110	5550	74.63	PASS
134	5670	74.35	PASS

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	4dBm
5.250 ~ 5.350GHz	11dBm
5.470 ~ 5.725GHz	11dBm

4.4.2 TEST SETUP

4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

Using method SA-1 alternative
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Sweep time = 26 second.
4) Perform a single sweep.
5) Record the max value

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

4.4.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	0.78	4	PASS
44	5220	1.25	4	PASS
48	5240	1.28	4	PASS
52	5260	1.39	11	PASS
60	5300	1.39	11	PASS
64	5320	1.48	11	PASS
100	5500	0.47	11	PASS
116	5580	0.95	11	PASS
140	5700	1.08	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	1.68	4	PASS
44	5220	0.94	4	PASS
48	5240	1.10	4	PASS
52	5260	1.17	11	PASS
60	5300	1.18	11	PASS
64	5320	1.13	11	PASS
100	5500	0.39	11	PASS
116	5580	0.80	11	PASS
140	5700	0.84	11	PASS

802.11n (40MHz)

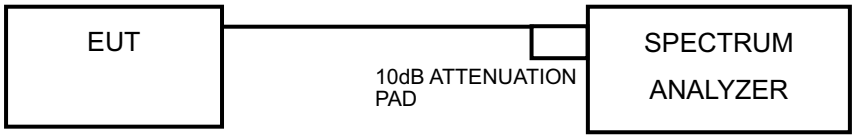
CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-2.26	4	PASS
46	5230	-2.06	4	PASS
54	5270	-1.95	11	PASS
62	5310	-1.88	11	PASS
102	5510	-2.67	11	PASS
110	5550	-2.45	11	PASS
134	5670	-2.22	11	PASS

4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

1) Set RBW = 1 MHz, VBW ≥ 3 MHz, Detector = peak.
2) Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
3) Use the peak search function to find the peak of the spectrum.
4) Measure the PPSD.
5) Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

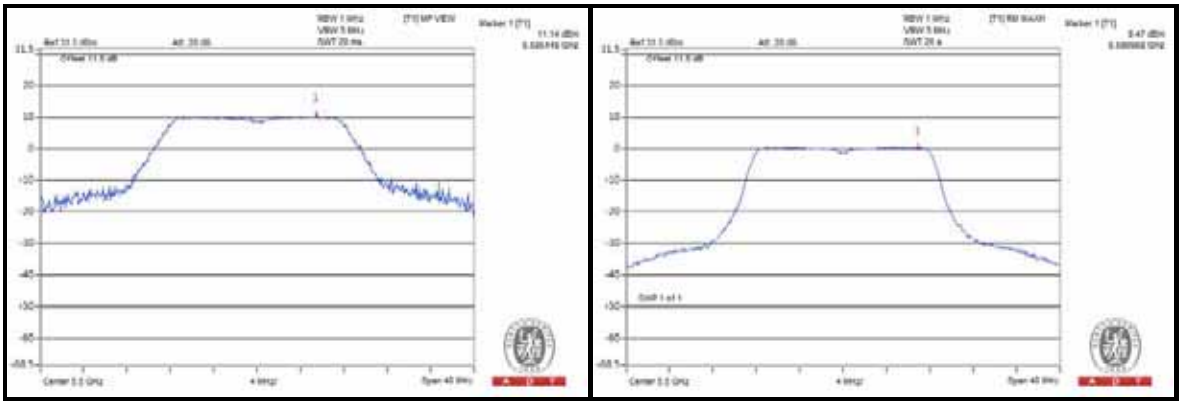
4.5.6 EUT OPERATING CONDITIONS

Same as 4.2.6

4.5.7 TEST RESULTS

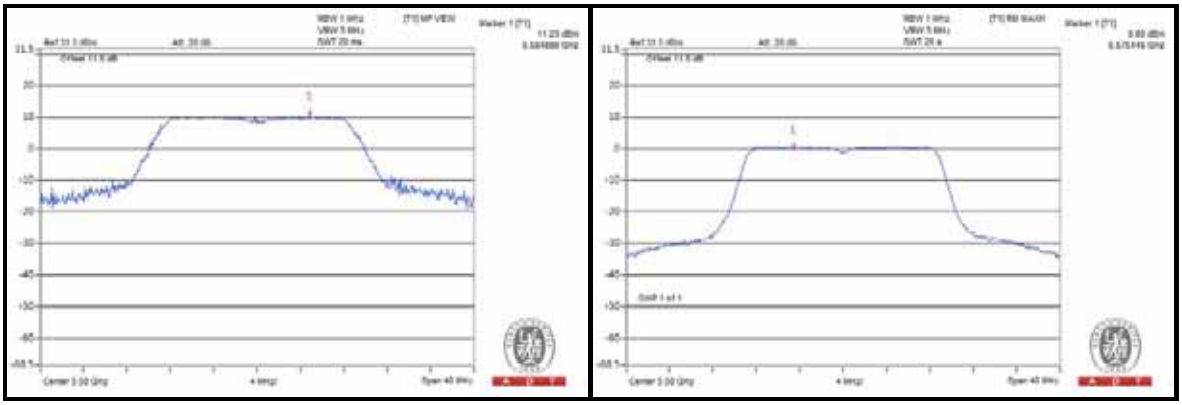
802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	10.04	0.78	9.26	13	PASS
44	5220	10.54	1.25	9.29	13	PASS
48	5240	10.66	1.28	9.38	13	PASS
52	5260	10.91	1.39	9.52	13	PASS
60	5300	11.26	1.39	9.87	13	PASS
64	5320	11.26	1.48	9.78	13	PASS
100	5500	11.14	0.47	10.67	13	PASS
116	5580	10.04	0.95	10.43	13	PASS
140	5700	10.54	1.08	9.39	13	PASS



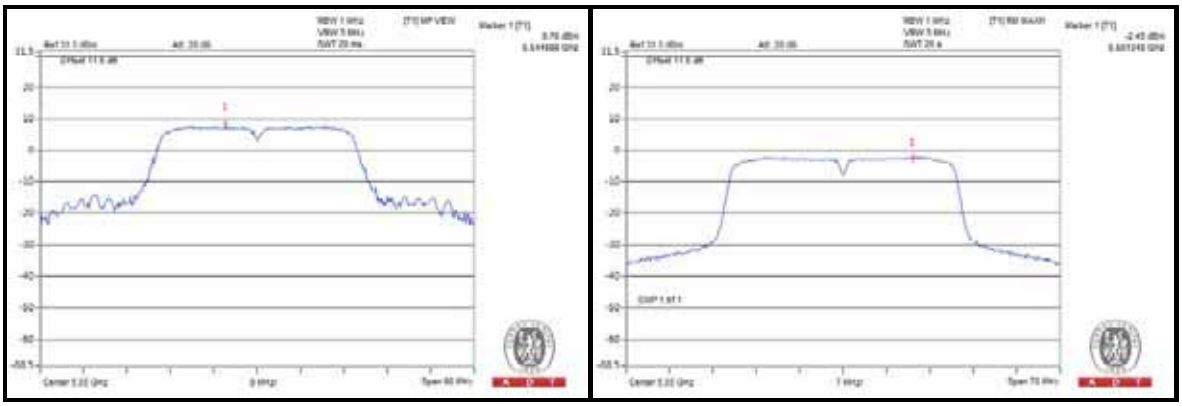
802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	10.20	1.68	8.52	13	PASS
44	5220	10.07	0.94	9.13	13	PASS
48	5240	10.63	1.10	9.53	13	PASS
52	5260	11.33	1.17	10.16	13	PASS
60	5300	11.16	1.18	9.98	13	PASS
64	5320	11.19	1.13	10.06	13	PASS
100	5500	10.42	0.39	10.03	13	PASS
116	5580	11.23	0.80	10.43	13	PASS
140	5700	10.54	0.84	9.70	13	PASS



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
38	5190	7.29	-2.26	9.55	13	PASS
46	5230	7.93	-2.06	9.99	13	PASS
54	5270	8.36	-1.95	10.31	13	PASS
62	5310	8.82	-1.88	10.70	13	PASS
102	5510	8.05	-2.67	10.72	13	PASS
110	5550	8.76	-2.45	11.21	13	PASS
134	5670	7.72	-2.22	9.94	13	PASS

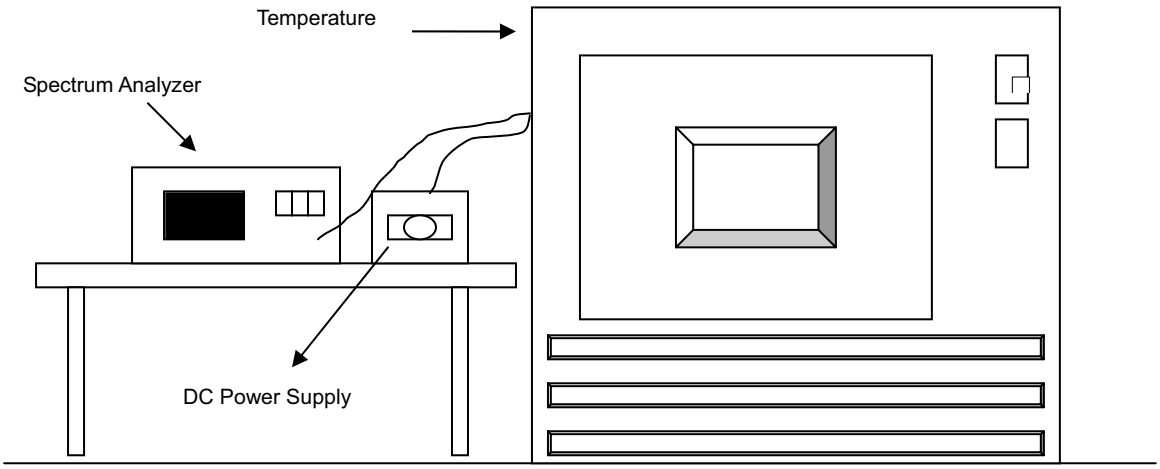


4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.6.4 TEST PROCEDURE

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	3.75	5320.011138	2.094	5320.011598	2.180	5320.011826	2.223	5320.010975	2.063
50	3.75	5320.011849	2.227	5320.011766	2.212	5320.011386	2.140	5320.011506	2.163
40	3.75	5320.011782	2.215	5320.011444	2.151	5320.012008	2.257	5320.012004	2.256
30	3.75	5320.013179	2.477	5320.013266	2.494	5320.013218	2.485	5320.013177	2.477
20	3.75	5320.014723	2.767	5320.014323	2.692	5320.014219	2.673	5320.014553	2.736
10	3.75	5320.016256	3.056	5320.015900	2.989	5320.015883	2.986	5320.016222	3.049
0	3.75	5320.014144	2.659	5320.014236	2.676	5320.014161	2.662	5320.014031	2.637
-10	3.75	5320.012730	2.393	5320.013354	2.510	5320.012998	2.443	5320.013072	2.457
-20	3.75	5320.012582	2.365	5320.012736	2.394	5320.012186	2.291	5320.012226	2.298
-30	3.75	5320.011153	2.096	5320.011262	2.117	5320.011350	2.133	5320.011467	2.155

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	3.60	5320.013614	2.559	5320.013335	2.507	5320.013499	2.537	5320.013687	2.573
	3.75	5320.014723	2.767	5320.014323	2.692	5320.014219	2.673	5320.014553	2.736
	4.30	5320.015998	3.007	5320.015989	3.005	5320.015948	2.998	5320.016124	3.031

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
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Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

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