FCC Radio Test Report FCC ID: XCNDVW2100

This report concerns (check one) : Original Grant Class II Change

Issued Date : Jul. 20, 2010 Project No. : 1006C283

Equipment : BCM3379 Wireless eMTA For Modular:802.11b/g/n

WLAN

Model Name : DVW2100

Applicant : Ubee Interactive Corp.

Address : 6F-9, No.38, Taiyuan St. Jhubei City Hsinchu

County 302, Taiwan

Manufacturer: Ubee Interactive Corp.

Address : 6F-9, No.38, Taiyuan St. Jhubei City Hsinchu

County 302, Taiwan

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Jul. 10, 2010

Date of Test:

Jul. 10, 2010 ~ Jul. 19, 2010

Testing Engineer

(Jeff Yang)

Technical Manager

(Vic Chiu)

Authorized Signatory :

(Steven Lu)

Neutron Engineering Inc.

No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China. TEL: (0769) 8318-3000 FAX: (0769) 8319-6000

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Declaration

Neutron represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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1. CERTIFICATION

Equipment: BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN

Brand Name: Ubee Model Name: DVW2100

Applicant: Ubee Interactive Corp.

F a c t o r y: (1) Hong Fu Jin Precision Industry (ShenZhen) Co., Ltd

(2) Ambit Microsystem (Shanghai) Ltd.

A d d r e s s: (1) No.2, 2nd Donghuan Rd.10th Yousong Industrial District, Longhua Town,

Baoan, Shenzhen, Guangdong, China

(2) 1925 Nan-le Rd., Songjiang Export Processing Zone, Shanghai 201613,

P.R.China

Date of Test: Jul. 10, 2010 ~ Jul. 19, 2010 Test Item: ENGINEERING SAMPLE

Standards: FCC Part15, Subpart C(15.247) / ANCI C63.4: 2003

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-1006C283) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

This test item for Modular Approval and follow Public Notice DA 00-1407

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2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	6dB Bandwidth	PASS	
15.247(b)(3)	Peak Output Power	PASS	
15.247(d)	Radiated Spurious Emission Limit:Table 15.209/15.205	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

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2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **CB03/DG-C03** at the location of No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792 Neutron's test firm number is 319330

2.2 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:

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 % \circ

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
DG-CO3	CISPR	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)	NOTE
		30MHz ~ 200MHz	V	3.82	
CB03	CISPR	30MHz ~ 200MHz	Н	3.60	
CBUS	CISER	200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	Н	3.94	

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3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN			
Brand Name	Ubee			
Model Name	DVW2100			
OEM Brand/Model Name	N/A			
Model Difference	N/A			
Product Description	in User's Manual, the EU ITE/Computing Device. specification, please refe	2412~2462 MHz 802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM 802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 150 Mbps 11 CH, Please see Note 2. (please see page 9) Please see Note 3. (please see page 9) 802.11b: 16.35 dBm 802.11g: 15.22 dBm 802.11g: 15.22 dBm 802.11n(20MHz): 14.63 dBm 802.11n(40MHz): 12.58 dBm		
Channel List	Please refer to the Note 2.			
Power Source	DC Voltage supplied from Host System.			
Power Rating	I/P AC 120V/60Hz			
Connecting I/O Port(s)	Please refer to the User	's Manual		
Products Covered	N/A			

Note

:

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^{1.} For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



CH 01 – CH 11 for 802.11b, 802.11g, 802.11n(20MHz) CH 03 – CH 09 for 802.11n(40MHz) 2

Channel List					
equency	Channel	Frequency	С		

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	80	2447	11	2462
03	2422	06	2437	09	2452		

. Table for Filed Antenna (2T3R)

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	HFOXCONN	FX01Z34-0G-EF	Dipole	R-SMA	2.0

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3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX B MODE CHANNEL 01//06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

For Conducted Test	
Final Test Mode	Description
	TX Mode

For Radiated Test		
Final Test Mode	Description	
Mode 1	TX B MODE CHANNEL 01//06/11	
Mode 2	TX G MODE CHANNEL 01/06/11	
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11	
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09	

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) In 802.11b/g/n mode, it's 1TX/1RX

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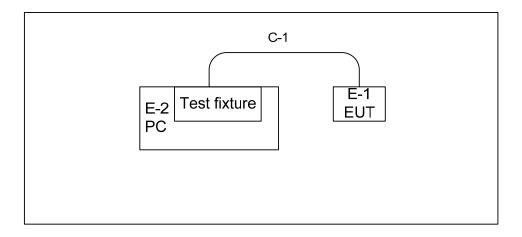
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. 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 power parameters of WLAN

Test software Version	Test Program: DOS command			
Frequency	2412 MHz	2437 MHz	2462 MHz	
IEEE 802.11b DSSS	56	56	56	
IEEE 802.11g OFDM	50	50	50	

Test software Version	Test Program: DOS command			
Frequency (MHz)	2412 MHz	2437 MHz	2462 MHz	
IEEE 802.11n (20MHz)	50	50	50	
Frequency (MHz)	2422 MHz	2437 MHz	2452 MHz	
IEEE 802.11n (40MHz)	50	50	50	

3.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



C-1: Data Link Cable

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3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Ubee	DVW2100	XCNDVW2100	N/A	EUT
E-2	PC	Dell 745	DCSM	DOC	G7K832X	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.3M	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in m in <code>[Length]</code> column.

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4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B	Standard	
TREQUENCT (MITZ)	Quasi-peak	Average	Quasi-peak	Average	Stariuaru
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	May.26.2011
2	LISN	Rolf Heine	NNB-2-16Z	99044	May.26.2011
3	50Ω Terminator	SHX	TF2-3G-A	08122901	May.26.2011
4	Transient Limiter	Agilent	11947A	3107A03668	May.26.2011
5	Test Cable	N/A	C-06_C03	N/A	Mar.31.2011
6	EMI TEST RECEIVER	R&S	ESCS30	8333641017	May.27.2011

Remark: "N/A" denotes No Model Name., Serial No. or No Calibration specified.

The following table is the setting of the receiver

Receiver Parameters	Setting		
Attenuation	10 dB		
Start Frequency	0.15 MHz		
Stop Frequency	30 MHz		
IF Bandwidth	9 kHz		

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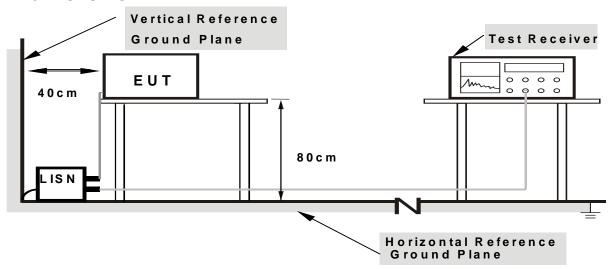
4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 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

4.1.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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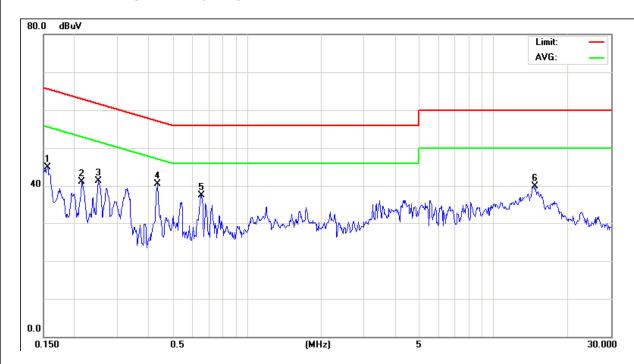
4.1.7 TEST RESULTS

FIJI	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	23 ℃	Relative Humidity:	51 %
Pressure:	1010hPa	Test Power :	AC 120V/60Hz
Test Mode :	TX Mode		

Freq.	Terminal	Measured(dBuV)		Limits(dBuV)		Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	Note
0.16	Line	44.91	*	65.70	55.70	-20.79	(QP)
0.22	Line	41.11	*	63.01	53.01	-21.90	(QP)
0.25	Line	41.40	*	61.76	51.76	-20.36	(QP)
0.44	Line	40.52	*	57.16	47.16	-16.64	(QP)
0.66	Line	37.57	*	56.00	46.00	-18.43	(QP)
14.75	Line	39.90	*	60.00	50.00	-20.10	(QP)

Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform on this case, a " * " marked in AVG Mode column of Interference Voltage Measured on the North Research AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measu
- (2) Measuring frequency range from 150KHz to 30MHz o

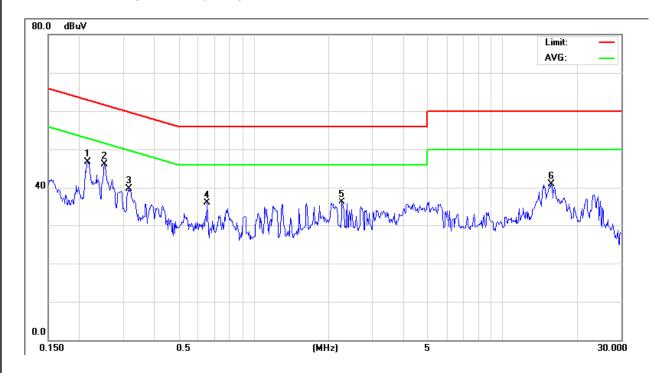


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FIII	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	23 ℃	Relative Humidity:	51 %
Pressure:	1010hPa	Test Power :	AC 120V/60Hz
Test Mode :	TX Mode		

Freq.	Terminal	Measured(dBuV)		Limits(dBuV)		Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.22	Neutral	46.71	*	62.93	52.93	-16.22	(QP)
0.25	Neutral	46.05	*	61.66	51.66	-15.61	(QP)
0.32	Neutral	39.79	*	59.80	49.80	-20.01	(QP)
0.65	Neutral	35.88	*	56.00	46.00	-20.12	(QP)
2.28	Neutral	36.03	*	56.00	46.00	-19.97	(QP)
15.72	Neutral	40.86	*	60.00	50.00	-19.14	(QP)

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform on this case, a " * " marked in AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on
- (2) Measuring frequency range from 150KHz to 30MHz o



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4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9KHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBu	V/m) (at 3m)	Class B (dBuV/m) (at 3m)		
	PEAK	AVERAGE	PEAK	AVERAGE	
Above 1000	80	60	74	54	

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

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4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	ntenna ETS		00075789	May.27.2011
2	Amplifier	Agilent	8449B	3008A02274	May.26.2011
3	Spectrum	Agilent	E4408B	US39240143	Nov.16.2010
4	Test Cable	Test Cable HUBER+SUHNER C		N/A	May.03.2011
5	Antenna Schwarbeck		VULB9160	9160-3232	Jun.30.2011
6	Amplifier HP		8447D	2944A09673	May.26.2011
7	Test Receiver R&S		ESCI	100895	May.26.2011
8	Test Cable	N/A	C-01_CB03	N/A	Jul.05.2011

Remark: " N/A" denotes No Model Name / Serial No. and No Calibration specified.

Spectrum Parameter	Setting		
Attenuation	Auto		
Start Frequency	1000 MHz		
Stop Frequency	10th carrier harmonic		
RB / VB	1MHz / 1MHz for Dook 1 MHz / 10Hz for Average		
(Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average		

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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4.2.3 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement

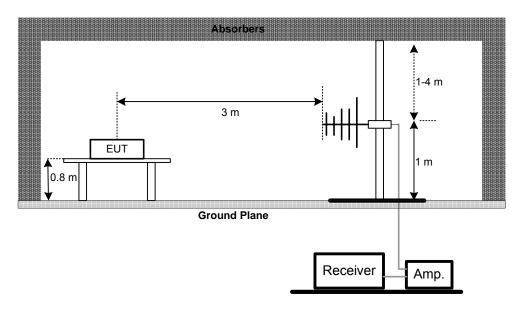
performed. f. For the actual test configuration, please refer to the related Item –EUT Test Photos. 4.2.4 DEVIATION FROM TEST STANDARD No deviation

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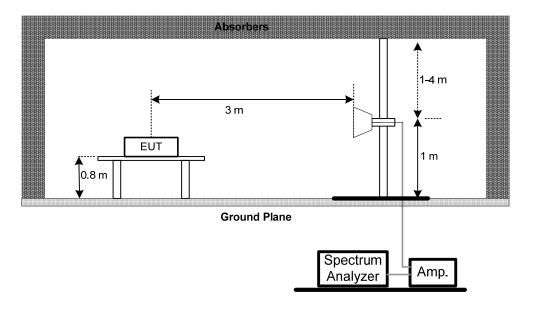


4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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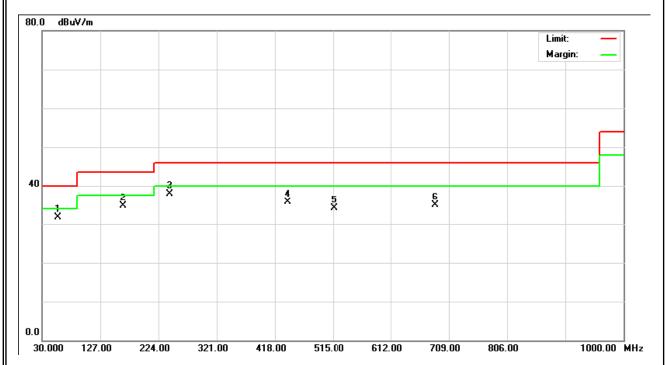
4.2.7 TEST RESULTS (BETWEEN30 - 1000 MHZ)

- () (BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	22 ℃	Relative Humidity:	56 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX 2412MHz 11B		

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	H/V	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	NOIC
55.62	V	49.22	-17.58	31.64	40.00	- 8.36	
164.35	V	52.11	-17.50	34.61	43.50	- 8.89	
241.69	V	53.02	-15.07	37.95	46.00	- 8.05	
438.97	V	44.02	-8.31	35.71	46.00	- 10.29	
516.32	V	40.83	-6.75	34.08	46.00	- 11.92	
685.34	V	38.22	-3.23	34.99	46.00	- 11.01	

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = $0.3 \text{ sec./MHz} \circ$
- (2) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz \circ
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table \circ

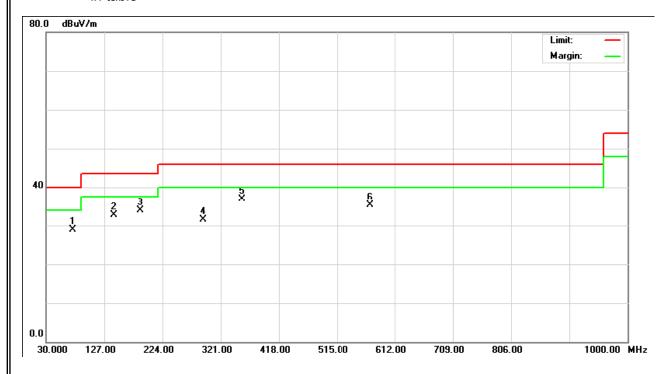


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	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	22 ℃	Relative Humidity:	56 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX 2412MHz 11B		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
74.32	Н	47.70	-18.74	28.96	40.00	- 11.04	
142.36	Н	50.31	-17.70	32.61	43.50	- 10.89	
186.57	Η	50.73	-16.78	33.95	43.50	- 9.55	
291.44	Н	43.54	-12.05	31.49	46.00	- 14.51	
356.42	Н	47.44	-10.60	36.84	46.00	- 9.16	
571.26	Н	40.21	-4.97	35.24	46.00	- 10.76	

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz $^{\circ}$
- (2) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz o
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table \circ



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4.2.8 TEST RESULTS (ABOVE 1000 MHZ)

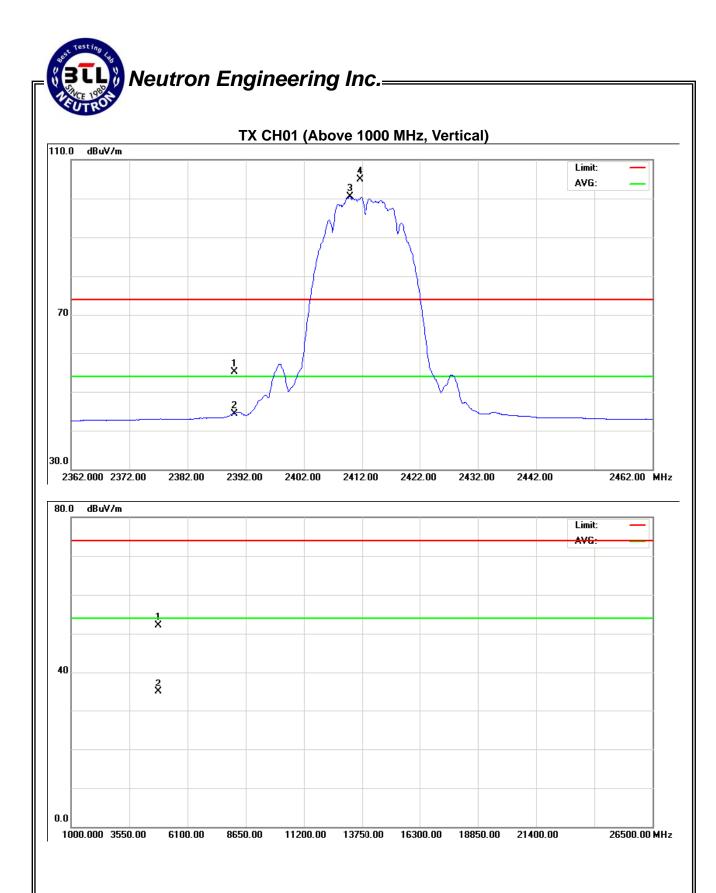
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2412MHz		

Freq.	Ant.Pol.	Rea	Reading Ant./CF		Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	23.31	12.57	31.83	55.14	44.40	74.00	54.00	X/E
2411.60	V	73.13	68.63	31.84	104.97	100.47			X/F
4824.52	V	45.87	28.56	6.25	52.12	34.81	74.00	54.00	X/H

Remark:

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency of F' denotes fundamental frequency; "H' denotes spurious frequency. "E' denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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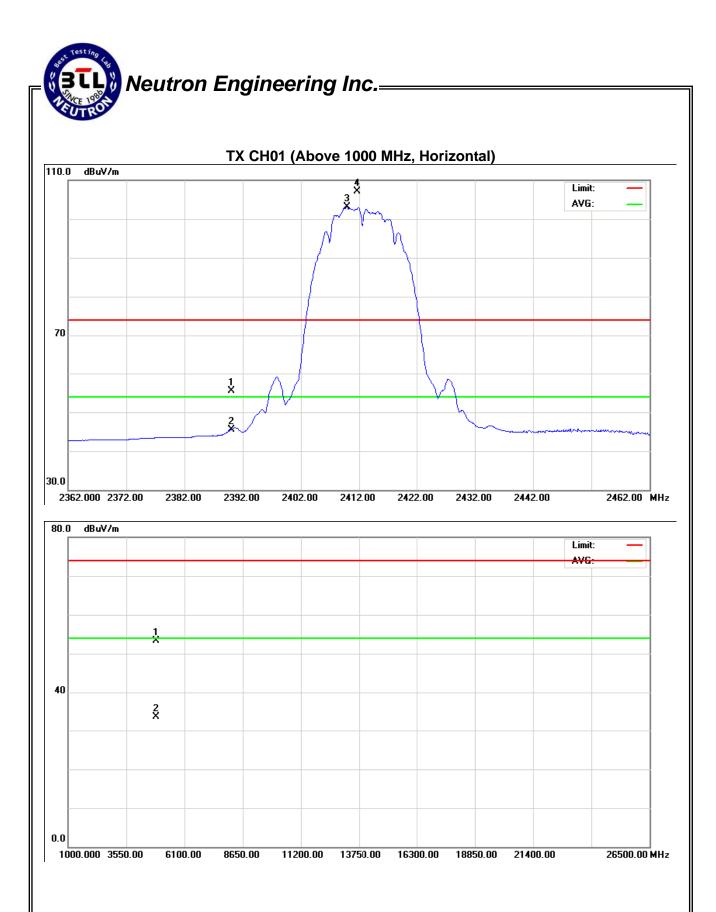


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Liı		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	23.75	13.71	31.83	55.58	45.54	74.00	54.00	X/E
2411.60	Н	75.35	71.32	31.84	107.19	103.16			X/F
4825.54	Н	46.98	27.17	6.25	53.23	33.42	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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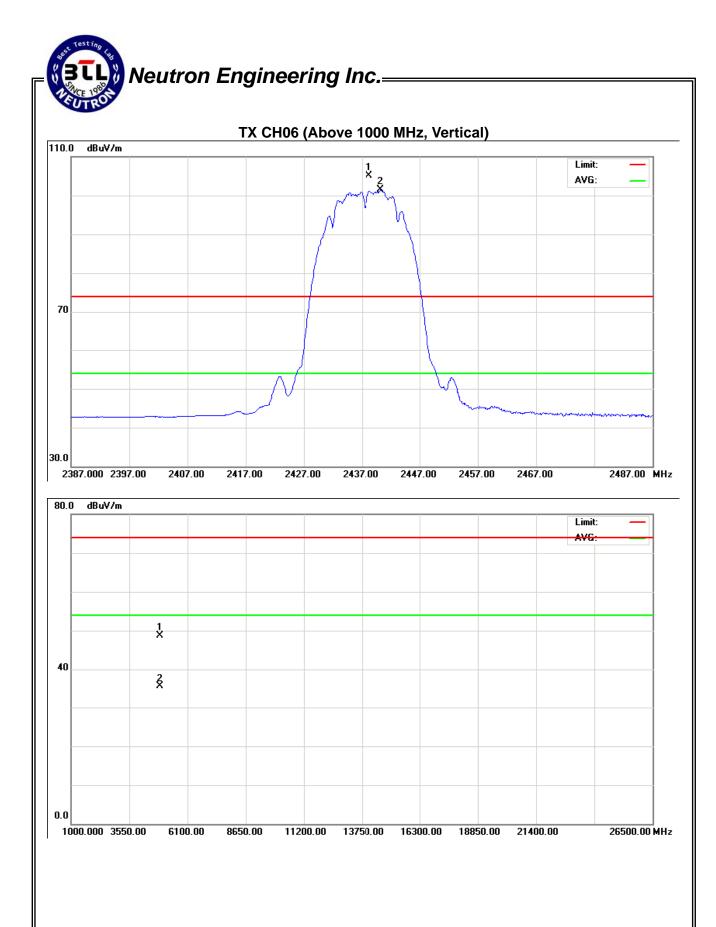


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2437MHz		

Freq. Ant.Pol.	Reading		Ant./CF	Act.		Lir			
i req.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2438.12	V	73.22	69.57	31.85	105.07	101.42			X/F
4874.96	V	42.33	28.95	6.46	48.79	35.41	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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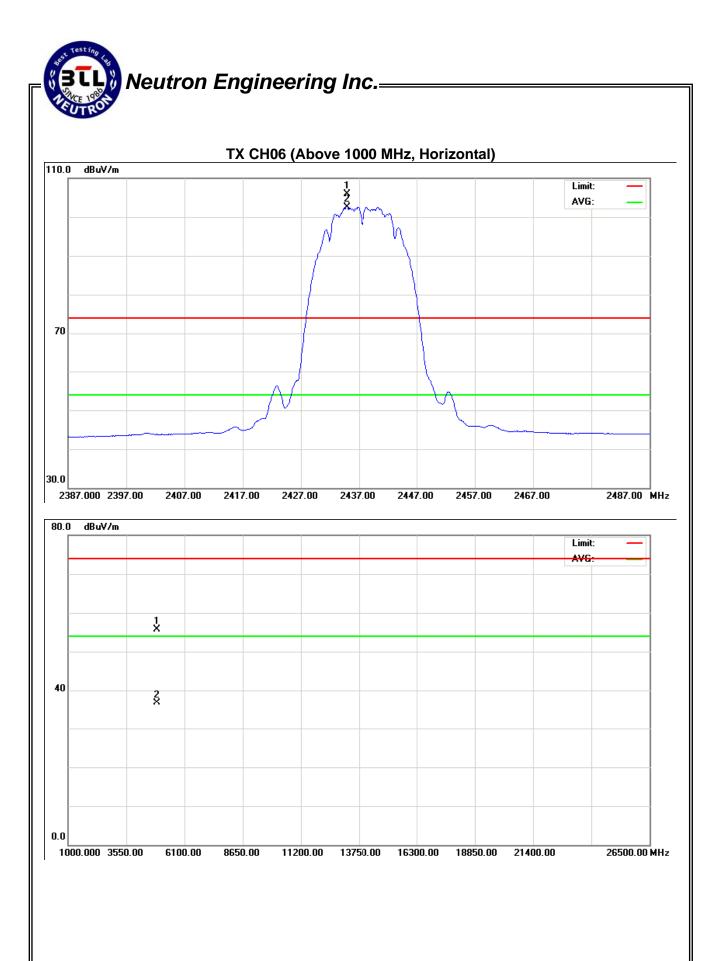


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2437MHz		

Freg. Ant.Pol.	Reading		Ant./CF	Act.		Lir			
rieq.	Ant.For.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2434.90	Н	74.00	70.71	31.85	105.85	102.56			X/F
4874.54	Н	49.25	30.25	6.46	55.71	36.71	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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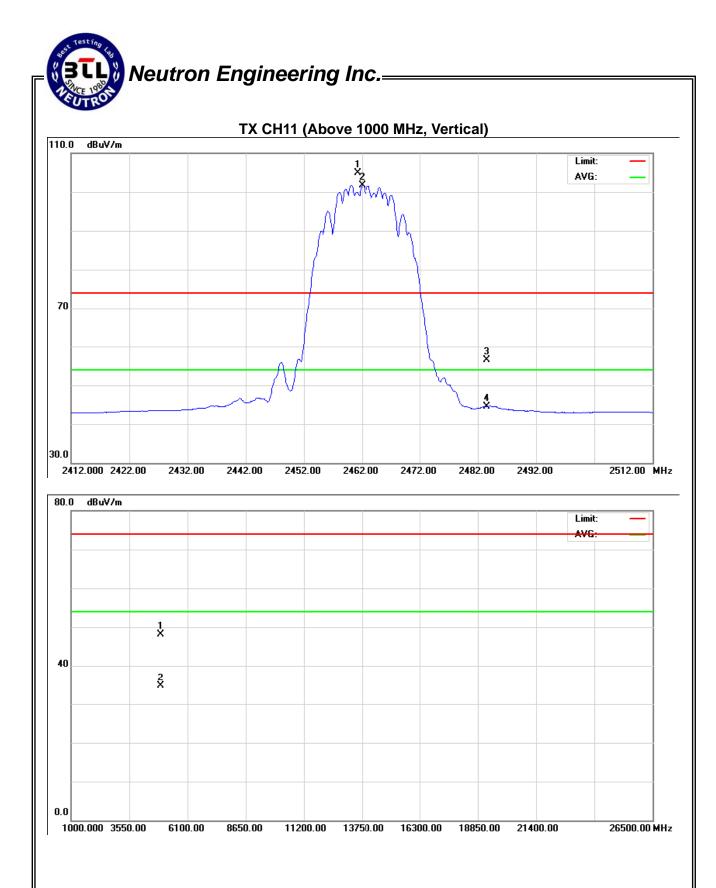


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.10	V	73.00	69.85	31.85	104.85	101.70			X/F
2483.50	V	24.56	12.61	31.87	56.43	44.48	74.00	54.00	X/E
4924.14	V	41.52	28.14	6.61	48.13	34.75	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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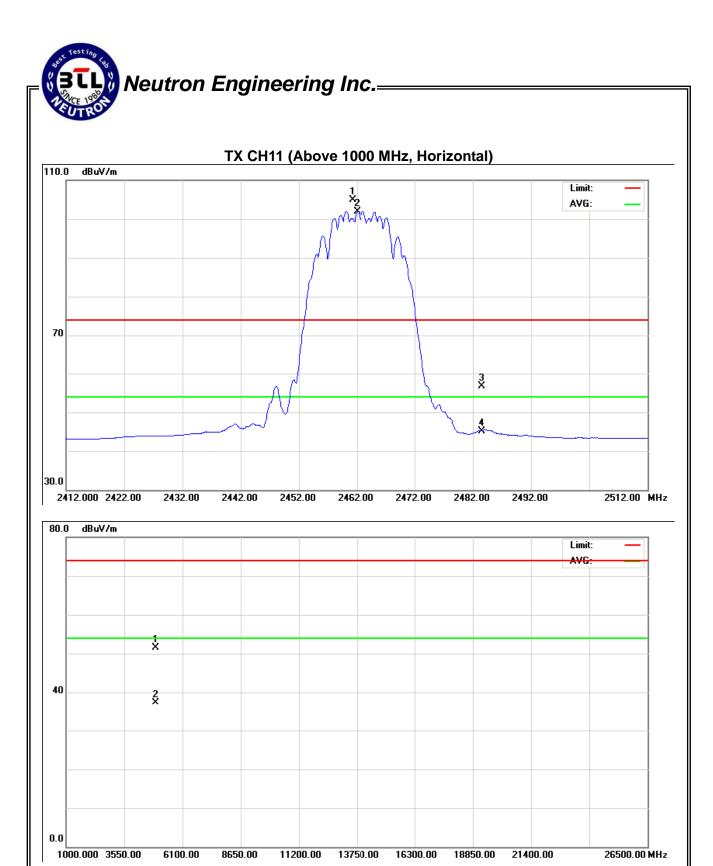


I - I I I	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.10	Н	73.00	70.00	31.85	104.85	101.85			X/F
2483.50	Н	24.86	13.31	31.87	56.73	45.18	74.00	54.00	X/E
4924.78	Н	44.85	30.65	6.61	51.46	37.26	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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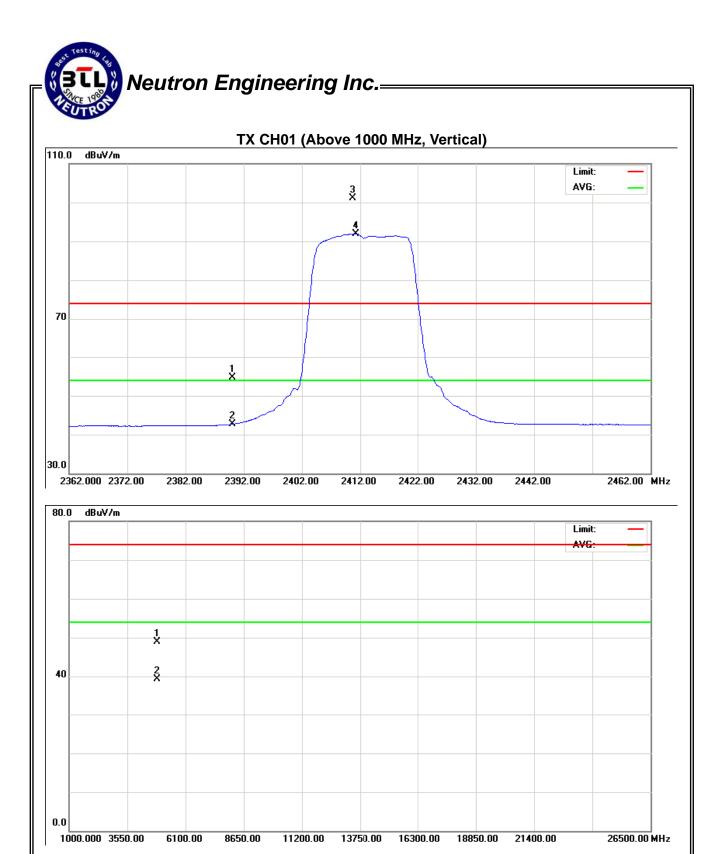


H () (BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	22.94	10.85	31.83	54.77	42.68	74.00	54.00	X/E
2411.20	V	69.25	60.12	31.84	101.09	91.96			X/F
4825.15	V	42.68	33.14	6.25	48.93	39.39	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission •
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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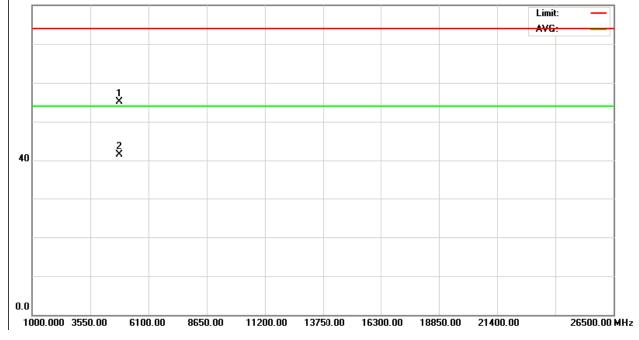
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Liı		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	23.25	11.73	31.83	55.08	43.56	74.00	54.00	X/E
2411.20	Н	72.66	63.55	31.84	104.50	95.39			X/F
4824.57	Н	48.87	35.21	6.25	55.12	41.46	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission $\,^{\circ}$
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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Neutron Engineering Inc.= TX CH01 (Above 1000 MHz, Horizontal) 110.0 dBuV/m Limit: 3 AVG: 70 30.0 2362.000 2372.00 2382.00 2412.00 2422.00 2432.00 2442.00 2462.00 MHz 2392.00 2402.00 80.0 dBuV/m Limit:



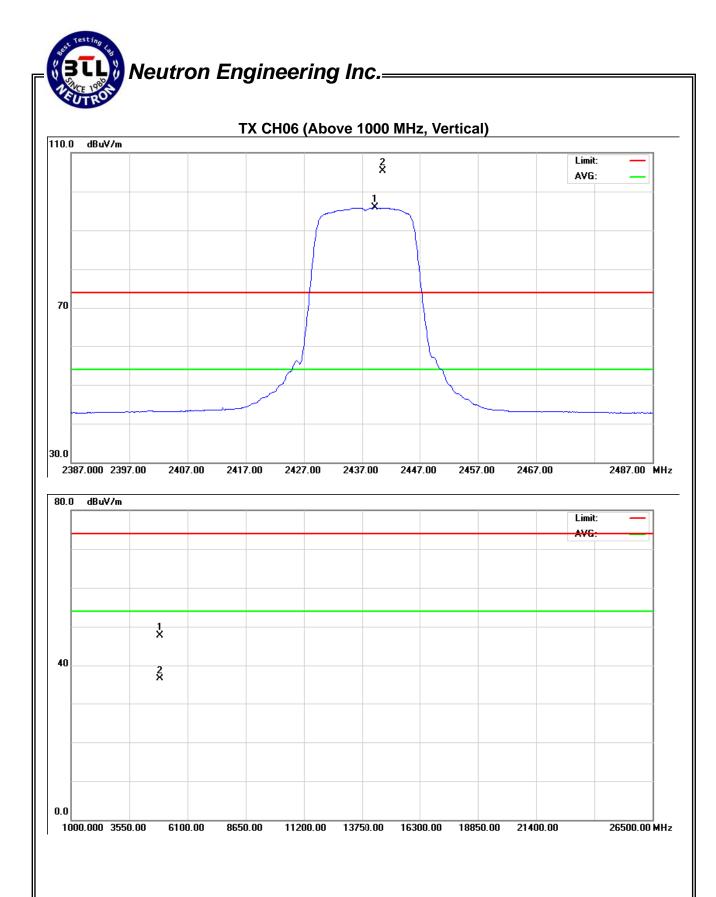
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	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2437MHz		

Freq. Ant.Pol.	Reading		Ant./CF	Act.		Lir			
i req.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2439.30	V	73.44	64.00	31.85	105.29	95.85			X/F
4874.98	V	41.23	29.99	6.46	47.69	36.45	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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H () (BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2437MHz		

Freq. Ant.Pol.	Reading		Ant./CF	Act.		Lir			
i req.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.60	Н	71.60	62.13	31.85	103.45	93.98			X/F
4874.05	Н	45.68	34.12	6.46	52.14	40.58	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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Neutron Engineering Inc.= TX CH06 (Above 1000 MHz, Horizontal) 110.0 dBuV/m Limit: X AVG: 70 30.0 2387.000 2397.00 2407.00 2417.00 2427.00 2437.00 2447.00 2467.00 2487.00 MHz 2457.00 80.0 dBuV/m Limit: 2 X 40

11200.00 13750.00

16300.00 18850.00

26500.00 MHz

1000.000 3550.00

6100.00

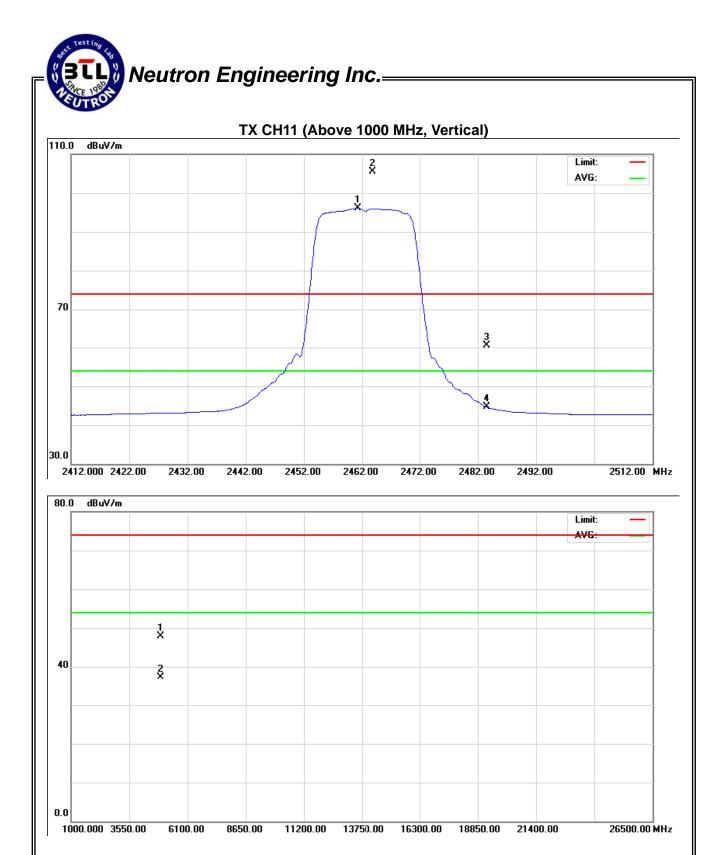
8650.00

H () (BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2461.30	V	73.69	64.22	31.85	105.54	96.07			X/F
2483.50	V	28.64	12.82	31.87	60.51	44.69	74.00	54.00	X/E
4824.65	V	41.39	30.65	6.61	48.00	37.26	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission o
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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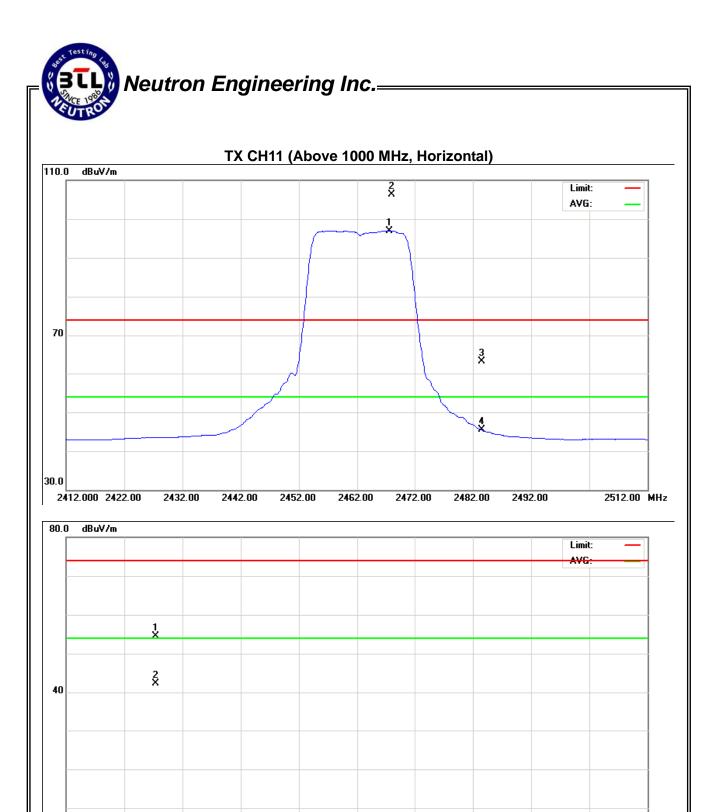


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2467.70	Н	74.48	65.14	31.86	106.34	97.00			X/F
2483.50	Н	31.30	13.55	31.87	63.17	45.42	74.00	54.00	X/E
4923.98	Н	47.85	35.69	6.61	54.46	42.30	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ∘
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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11200.00 13750.00

16300.00 18850.00

26500.00 MHz

1000.000 3550.00

6100.00

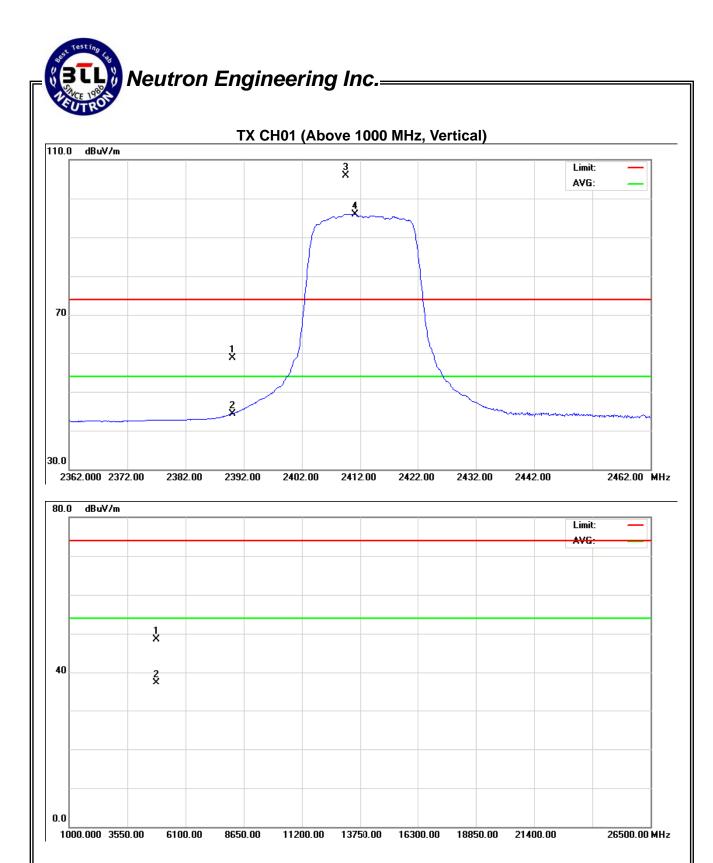
8650.00

FIII	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	26.87	12.48	31.83	58.70	44.31	74.00	54.00	X/E
2411.10	V	74.11	64.11	31.84	105.95	95.95			X/F
4823.59	V	42.35	31.06	6.25	48.60	37.31	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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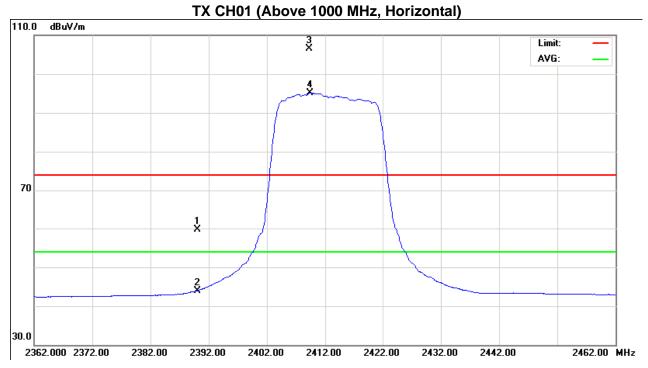
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2412MHz		

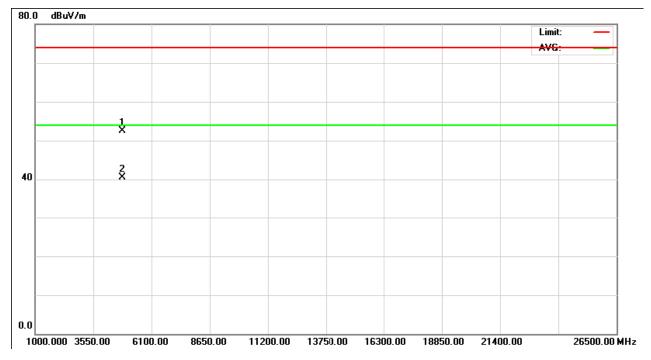
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	27.87	12.17	31.83	59.70	44.00	74.00	54.00	X/E
2409.20	Н	74.65	63.29	31.84	106.49	95.13			X/F
4823.57	Н	46.32	34.27	6.25	52.57	40.52	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ∘
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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Neutron Engineering Inc.= TX CH01 (Above 1000 M





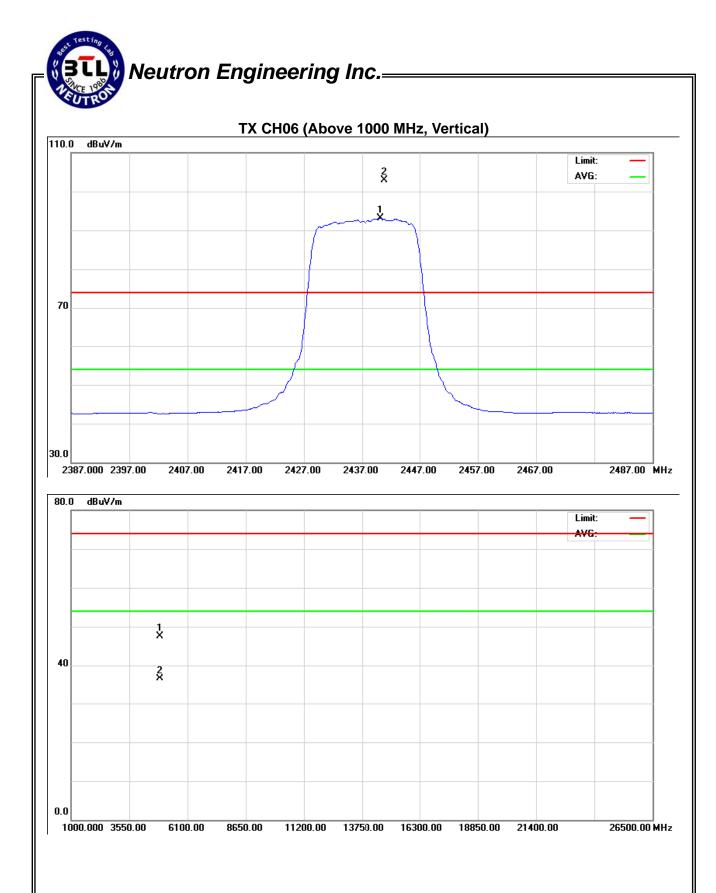
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	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2437MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
i req.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.30	V	71.00	61.19	31.85	102.85	93.04			X/F
4874.87	V	41.10	29.97	6.46	47.56	36.43	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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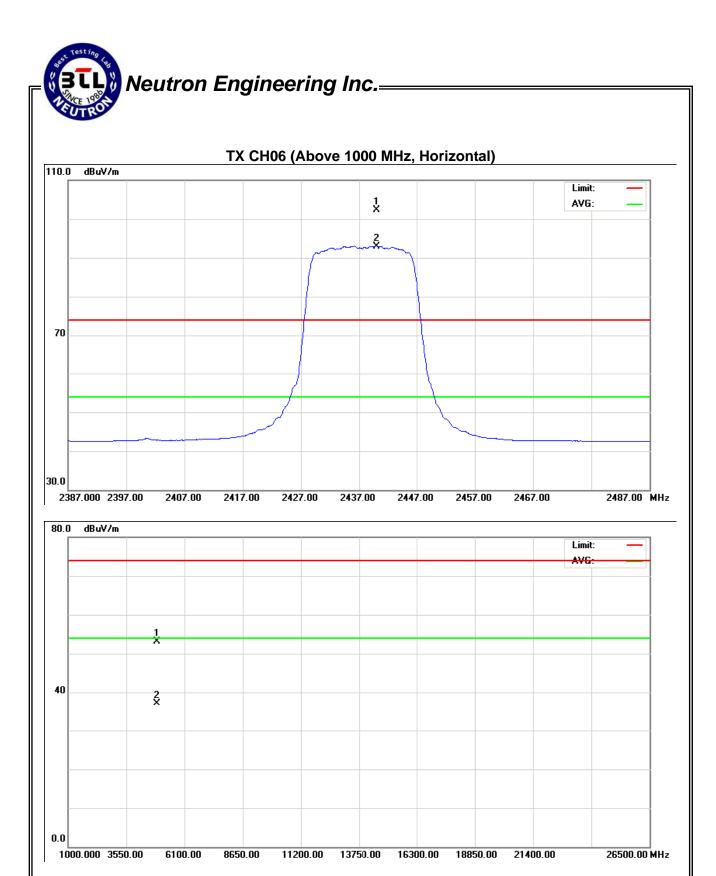


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2437MHz		

ĺ	Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
l	rieq.	Ant.For.	Peak	AV		Peak	AV	Peak	AV	Note
ĺ	(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
I	2440.10	Н	70.53	61.08	31.85	102.38	92.93			X/F
ı	4874.56	Н	46.57	30.64	6.46	53.03	37.10	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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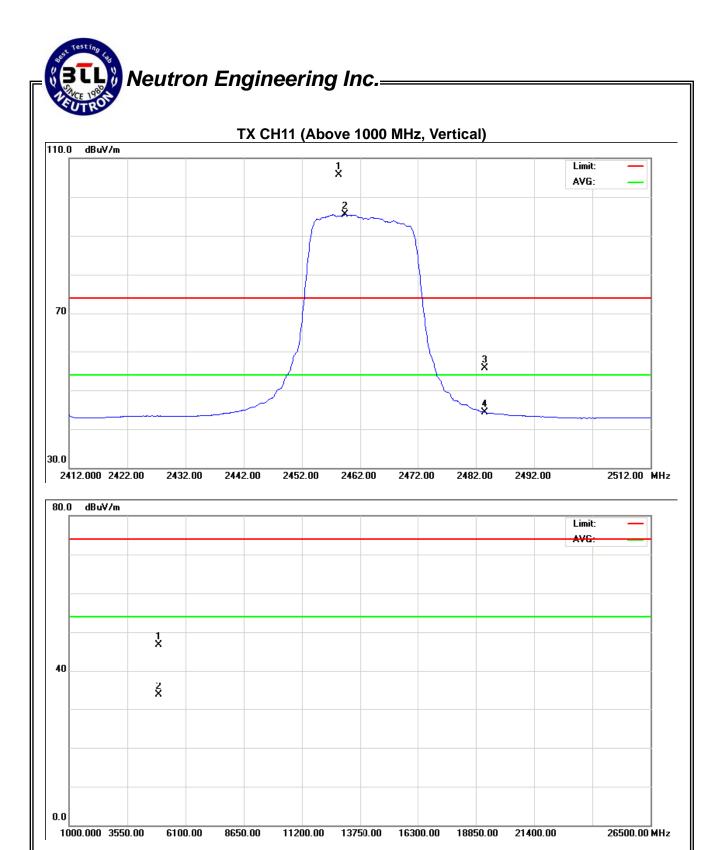


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	A	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2459.40	٧	73.85	63.58	31.85	105.70	95.43			X/F	
2483.50	V	23.74	12.47	31.87	55.61	44.34	74.00	54.00	X/E	
4924.52	V	40.14	27.14	6.61	46.75	33.75	74.00	54.00	X/H	

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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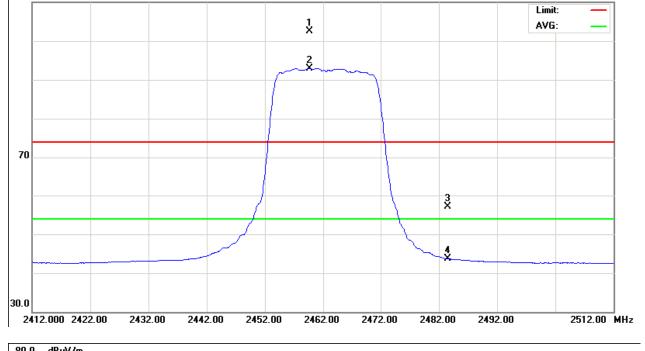
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	A	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2459.60	Н	70.69	61.10	31.85	102.54	92.95			X/F	
2483.50	Н	25.20	11.88	31.87	57.07	43.75	74.00	54.00	X/E	
4923.59	Н	44.64	32.01	6.61	51.25	38.62	74.00	54.00	X/H	

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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TX CH11 (Above 1000 MHz, Horizontal)





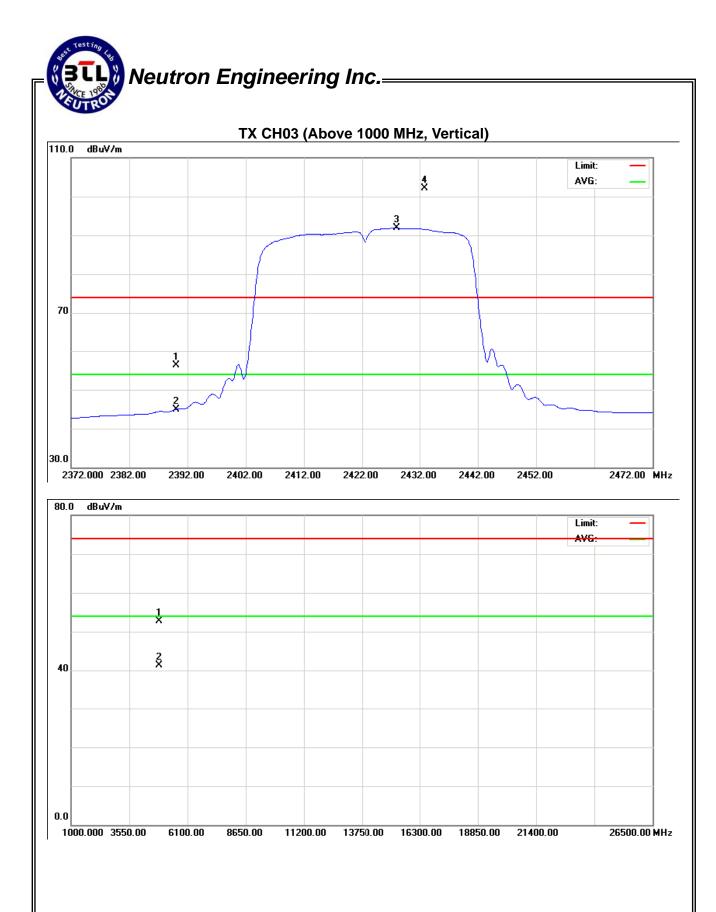
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I=111	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2422MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	24.55	13.13	31.83	56.38	44.96	74.00	54.00	X/E
2428.10	V	70.23	60.00	31.85	102.08	91.85			X/F
4843.87	V	46.35	35.01	6.32	52.67	41.33	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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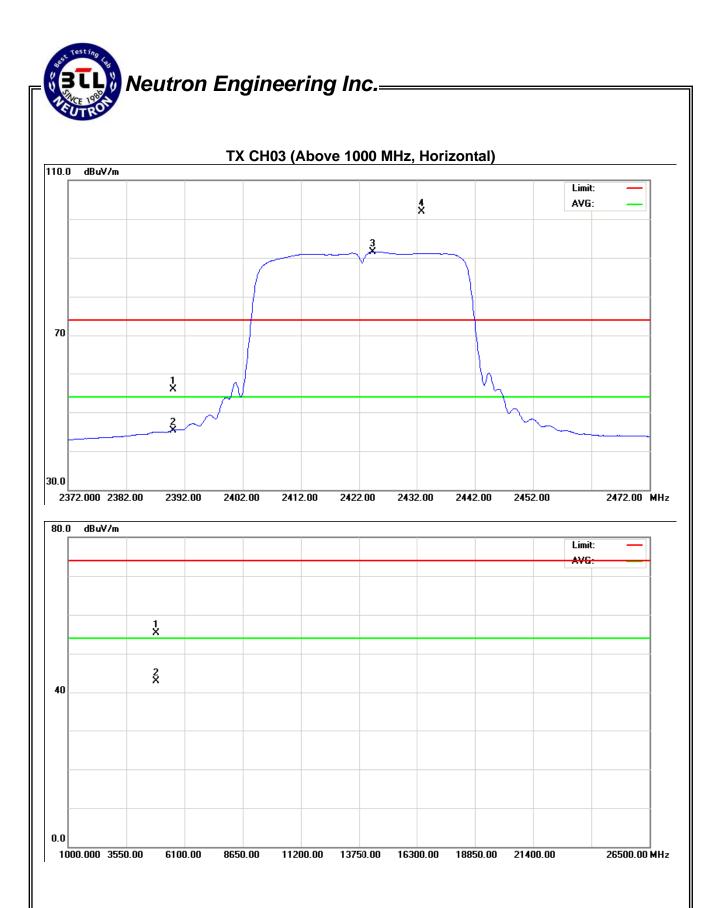


I=111	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2422MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Liı		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	24.10	13.56	31.83	55.93	45.39	74.00	54.00	X/E
2424.47	Н	70.12	59.74	31.85	101.97	91.58			X/F
4844.68	Н	48.96	36.55	6.32	55.28	42.87	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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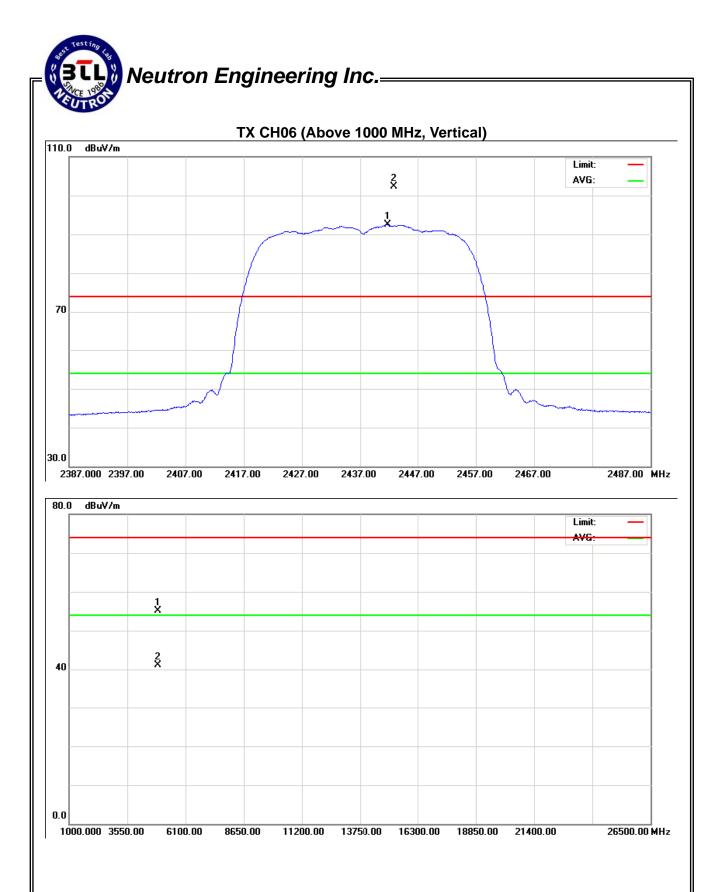


	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2437MHz		

Freq. Ant.Po		Ant.Pol. Reading /		Ant./CF	Act.		Limit		
rieq.	Ant.For.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2441.80	V	70.52	60.67	31.85	102.37	92.52			X/F
4873.57	V	48.74	34.65	6.43	55.17	41.08	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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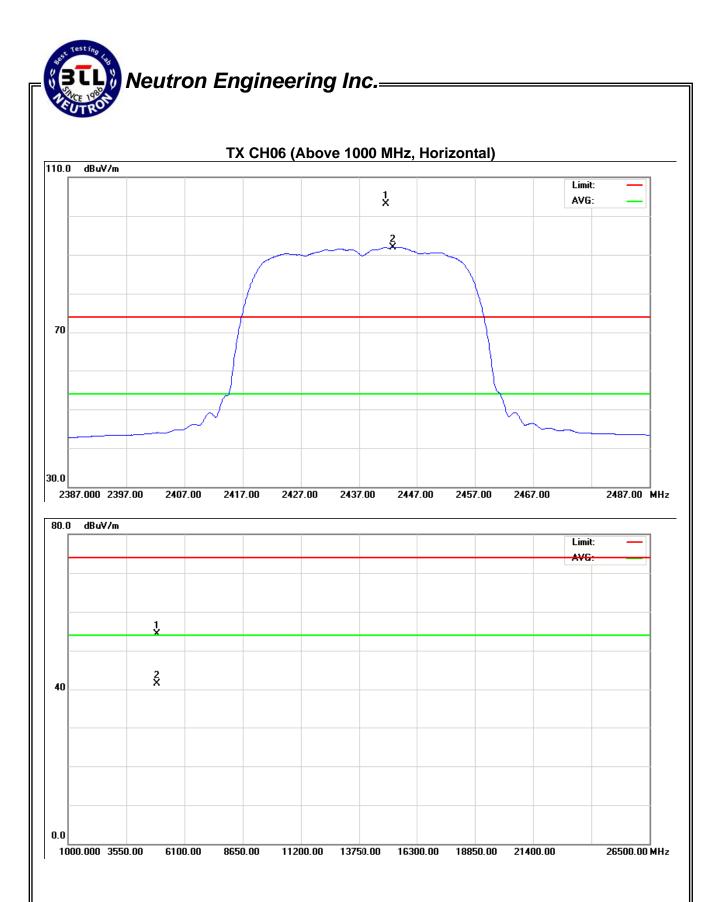


H () (BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2437MHz		

Freq. Ant.Pol		nt Pol Reading		Ant./CF	Act.		Limit		
TTEQ.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2441.70	Н	71.25	60.08	31.85	103.10	91.93			X/F
4875.65	Н	47.87	35.13	6.43	54.30	41.56	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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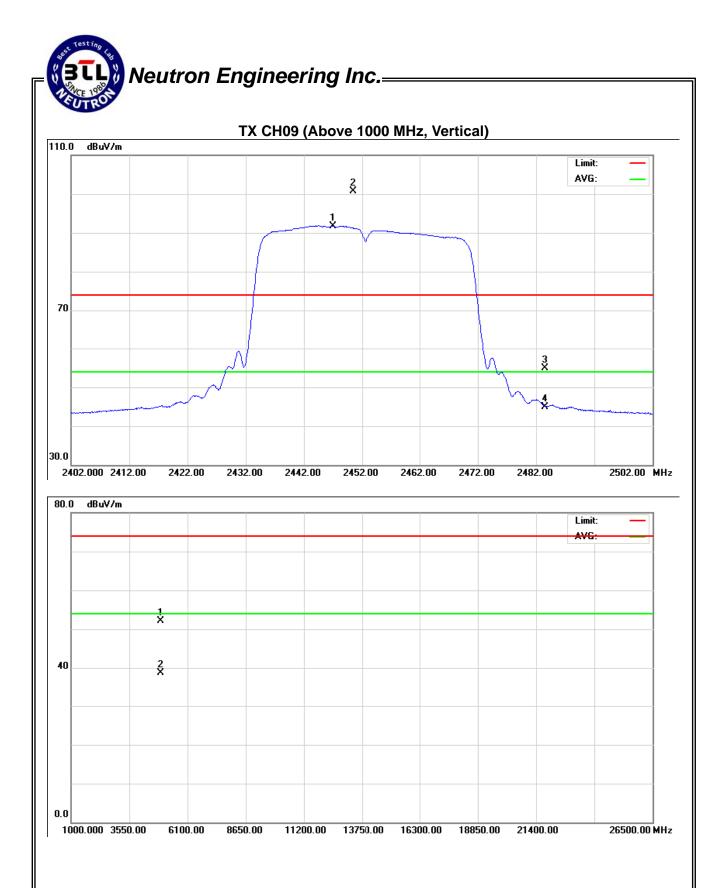


FU.	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2452MHz		

Freq.	Ant.Pol.	Rea	Reading Ant./CF Act.		ct.	Lir	mit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2450.50	V	68.85	59.83	31.85	100.70	91.68			X/F
2483.50	V	23.11	13.04	31.87	54.98	44.91	74.00	54.00	X/E
4905.66	V	45.62	32.12	6.54	52.16	38.66	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission o
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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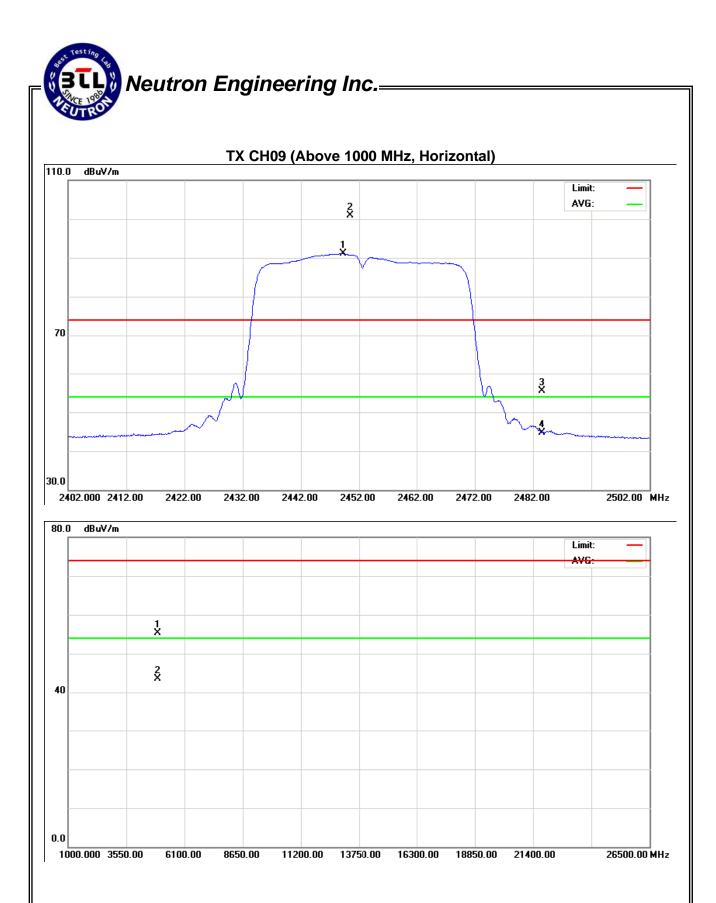


 -	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	20 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2452MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Lir	nit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2450.50	Н	69.02	59.21	31.85	100.87	91.06			X/F
2483.50	Н	23.68	12.92	31.87	55.55	44.79	74.00	54.00	X/E
4904.88	Н	48.78	36.99	6.54	55.32	43.53	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ∘
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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5. BANDWIDTH TEST

5.1 Applied procedures / limit

 71 Applied procedures / mine									
FCC Part15 (15.247) , Subpart C									
Section	Test Item	Frequency Range (MHz)	Result						
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS					

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 05, 2011

Remark: "N/A" denotes No Model Name., Serial No. or No Calibration specified.

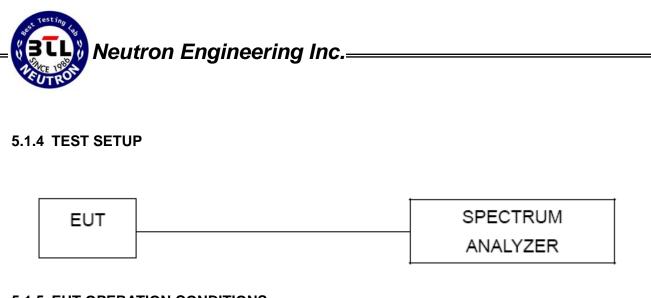
5.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = 20 ms.

5.1.3 DEVIATION FROM STANDARD

No deviation.

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5.1.5 EUT OPERATION CONDITIONS

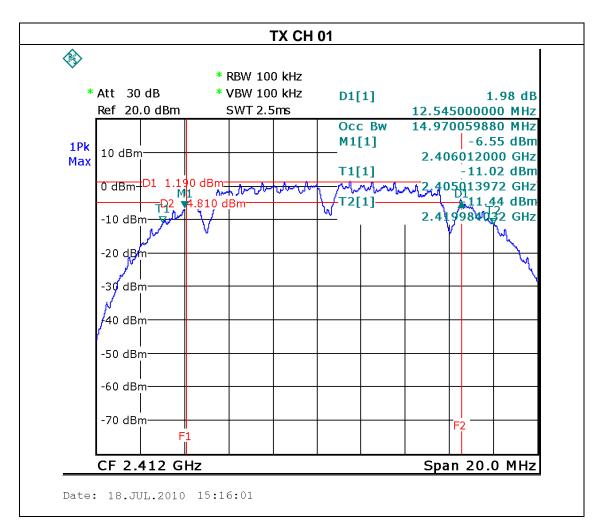
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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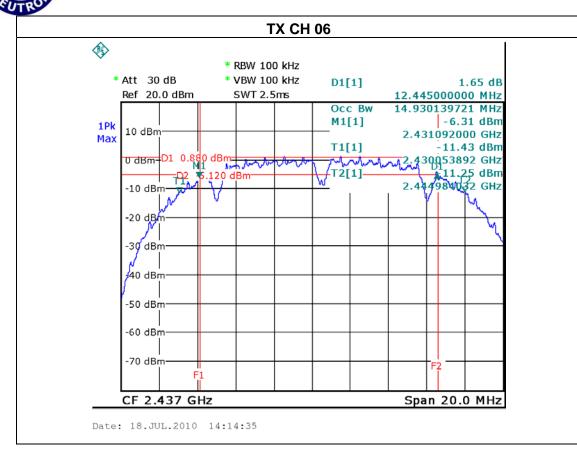
5.1.6 TEST RESULTS

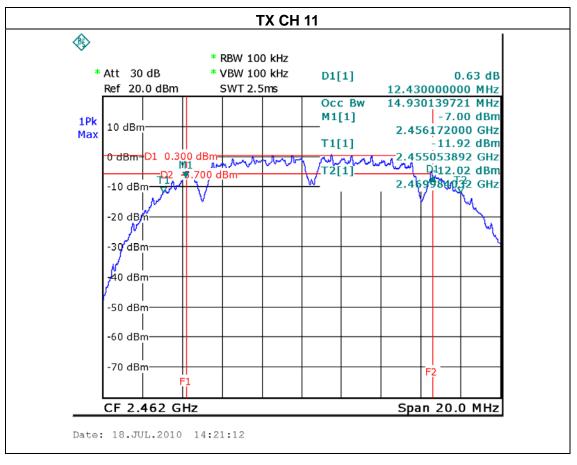
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX B MODE /CH01, CH06, CH11			

Test Channel	Frequency	Bandwidth	99% Occupied BW	LIMIT
Test oname	(MHz)	(MHz)	(MHz)	(MHz)
CH01	2412	12.55	14.97	>=500KHz
CH06	2437	12.46	14.93	>=500KHz
CH11	2462	12.43	14.93	>=500KHz



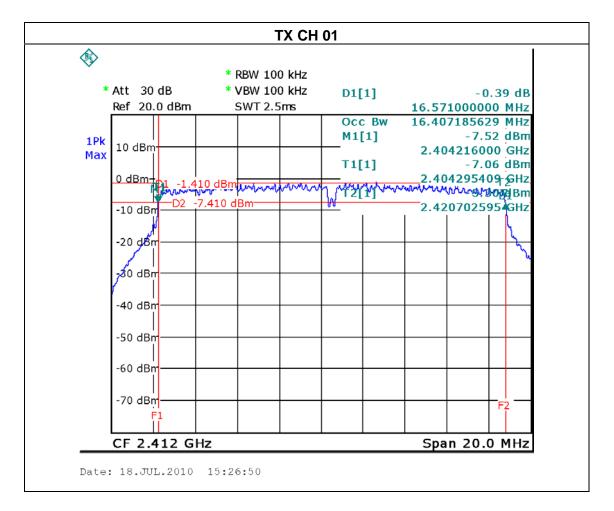
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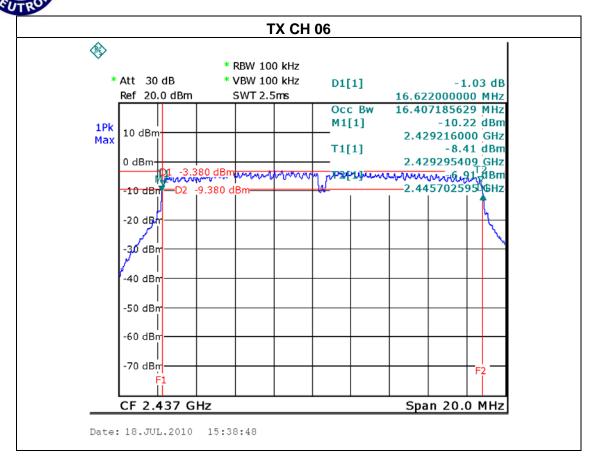


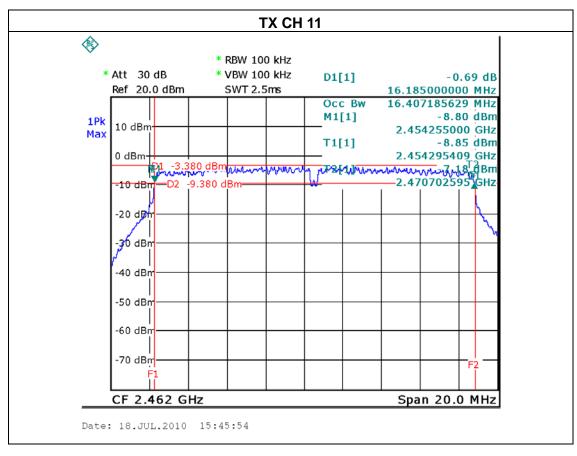
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	LIMIT (MHz)
CH01	2412	16.57	16.41	>=500KHz
CH06	2437	16.62	16.41	>=500KHz
CH11	2462	16.19	16.41	>=500KHz



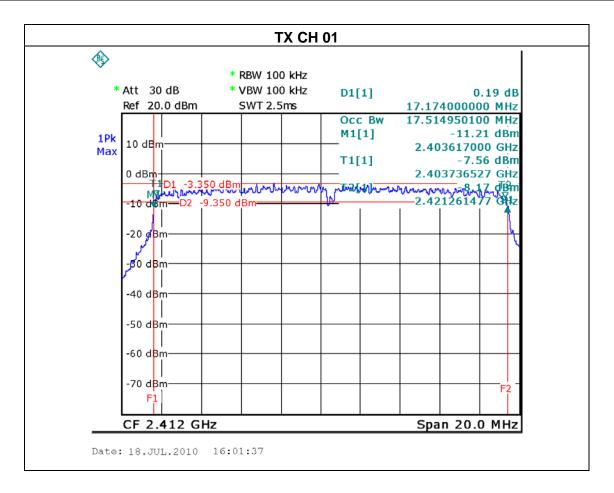
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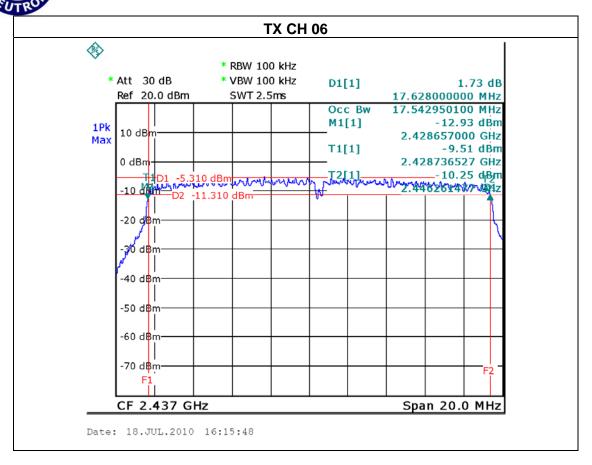


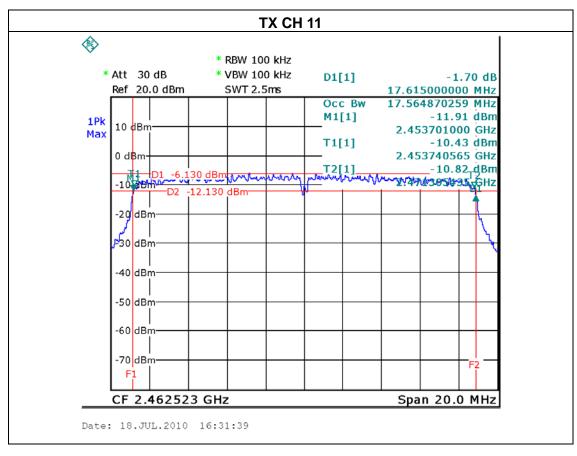
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode : TX N-20M MODE /CH01, CH06, CH11			

Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	LIMIT (MHz)
CH01	2412	17.17	17.52	>=500KHz
CH06	2437	17.63	17.54	>=500KHz
CH11	2462	17.62	17.56	>=500KHz



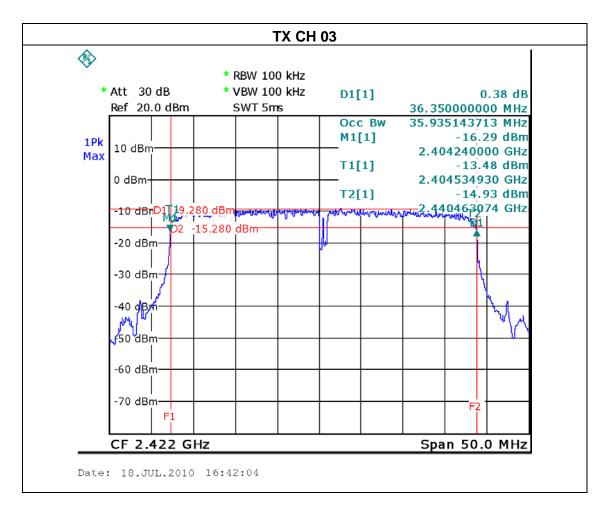
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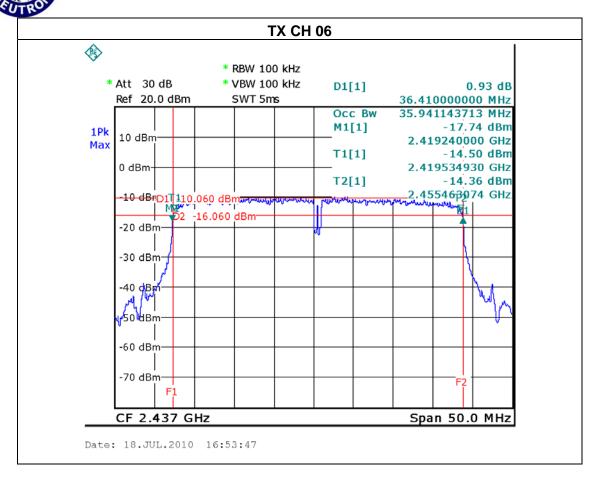


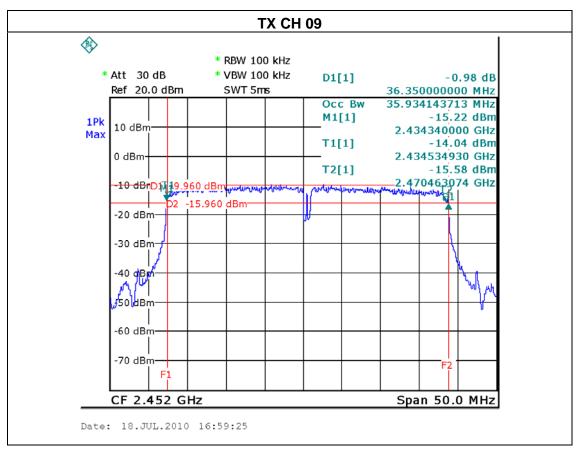
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode : TX N-40M MODE /CH03, CH06, CH09			

Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	LIMIT (MHz)
CH03	2422	36.35	35.94	>=500KHz
CH06	2437	36.41	35.94	>=500KHz
CH09	2452	36.35	35.93	>=500KHz



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6. PEAK OUTPUT POWER TEST

6.1 Applied procedures / limit

Fr - F					
FCC Part15 (15.247) , Subpart C					
Section	Test Item	Limit	Frequency Range (MHz)	Result	
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS	

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2487A	6K00004714	Feb. 10, 2011
2	Power Meter Sensor	Anritsu	MA2491A	34138	Feb. 10, 2011

Remark: "N/A" denotes No Model Name., Serial No. or No Calibration specified.

6.1.2 TEST PROCEDURE

a. The EUT was directly connected to the power metter and antenna output port as show in the block diagram below,

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP

POWER METER

6.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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6.1.6 TEST RESULTS

	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX B MODE /CH01, CH06, CH11			

Test Channel	Frequency	Peak Output Power	LIMIT	LIMIT
103t Onamici	(MHz)	(dBm)	(dBm)	(W)
CH01	2412 MHz	16.21	30	1
CH06	2437 MHz	16.18	30	1
CH11	2462 MHz	16.35	30	1

I=111	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Test Channel	Frequency	Peak Output Power	LIMIT	LIMIT
rest Chamilei	(MHz)	(dBm)	(dBm)	(W)
CH01	2412 MHz	15.03	30	1
CH06	2437 MHz	15.16	30	1
CH11	2462 MHz	15.22	30	1

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	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N-20M MODE /CH01, CH06, CH11			

Test Channel	Frequency	Peak Output Power	LIMIT	LIMIT
	(MHz)	(dBm)	(dBm)	(W)
CH01	2412 MHz	14.56	30	1
CH06	2437 MHz	14.41	30	1
CH11	2462 MHz	14.63	30	1

	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N-40M MODE /CH03, CH06, CH09			

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH03	2422	12.45	30	1
CH06	2437	12.36	30	1
CH09	2452	12.58	30	1

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7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 Applied procedures / limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

7.1.1 MEASUREMENT INSTRUMENTS LIST

Ite	m Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
,	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 05, 2011

Remark: "N/A" denotes No Model Name., Serial No. or No Calibration specified.

The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	100 KHz /100 KHz for Peak

7.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = 10 ms.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

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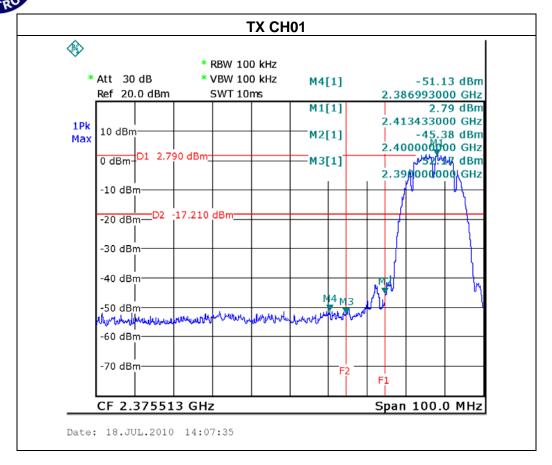
7.1.6 TEST RESULTS

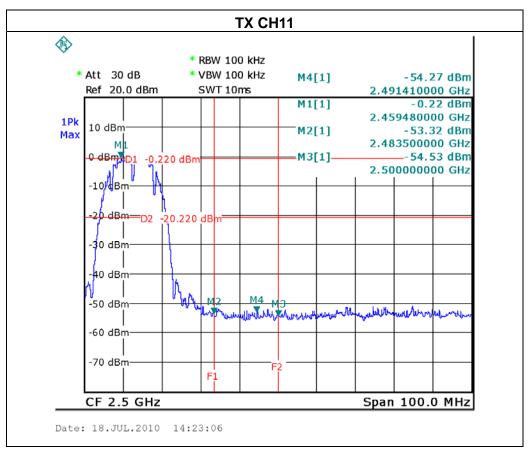
IEIII	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH11		

Channel of Worst Data: CH01				
	cy power in any 100kHz the frequency band	The max. radio frequence bandwidth within the		
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm		POWER(dBm)		
2386.99	-51.13	2483.50	-53.32	
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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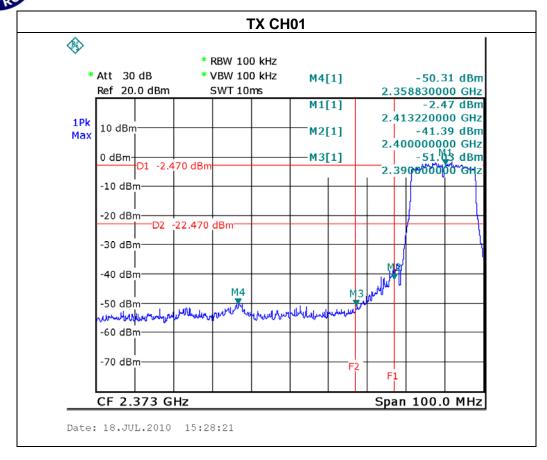


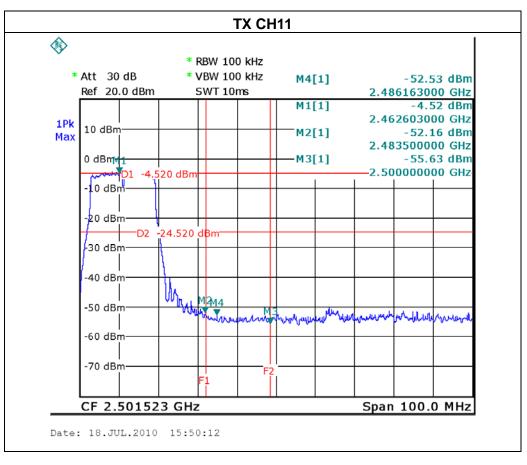
I E I I I	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH11		

Channel of Worst Data: CH01				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band The max. radio frequency power in any 100 kHz bandwidth within the frequency band.				
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm)				
2358.83 -50.31 2483.50 -52.16				
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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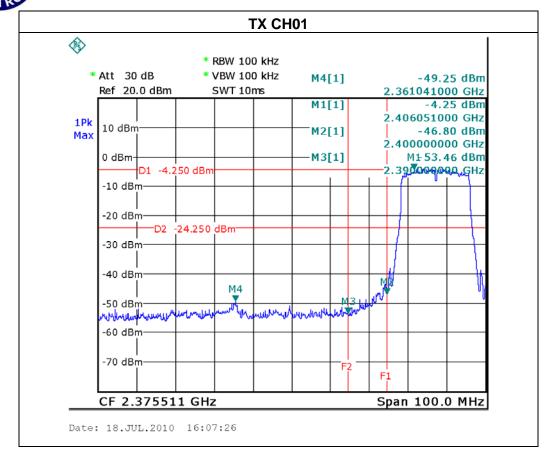
IF111	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	Mode : TX N-20M MODE /CH01, CH11			

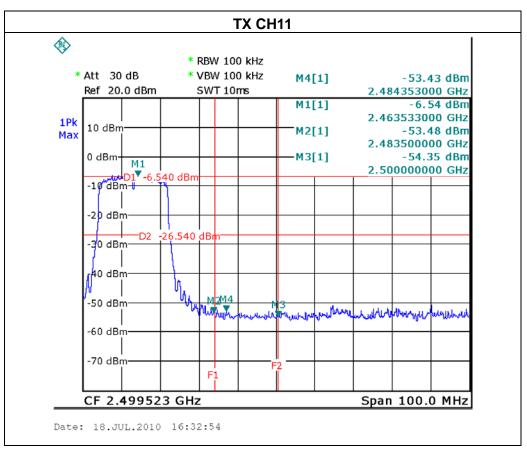
Channel of Worst Data: CH01				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm)				
2361.04 -49.25 2484.35 -53.43				
Result				

Result

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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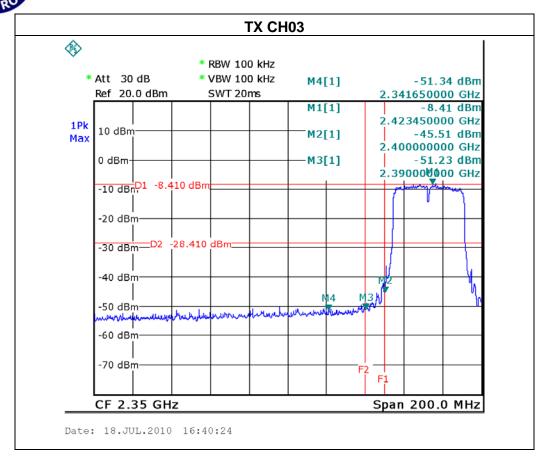


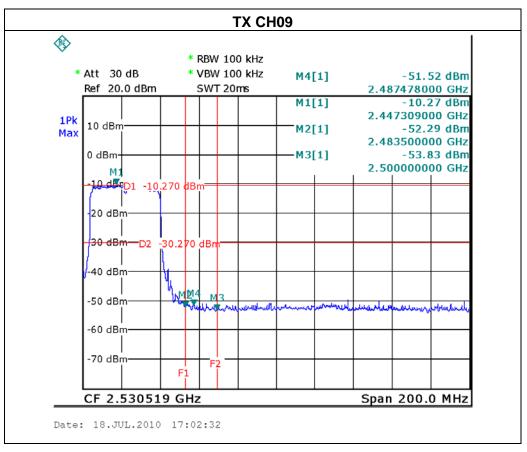
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N-40M MODE /CH03, CH09			

Channel of Worst Data: CH03				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2390.00 -51.23 2487.48 -51.52				
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

	FCC Part15 (15.247) , Subpart C					
Section Test Item Limit Frequency Range (MHz) Result				Result		
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS		

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 05, 2011

Remark: "N/A" denotes No Model Name., Serial No. or No Calibration specified.

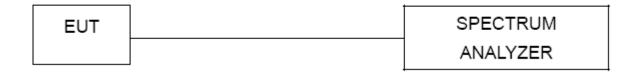
8.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW=3KHz, VBW=30 KHz, Sweep time = 500s.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



8.1.5 EUT OPERATION CONDITIONS

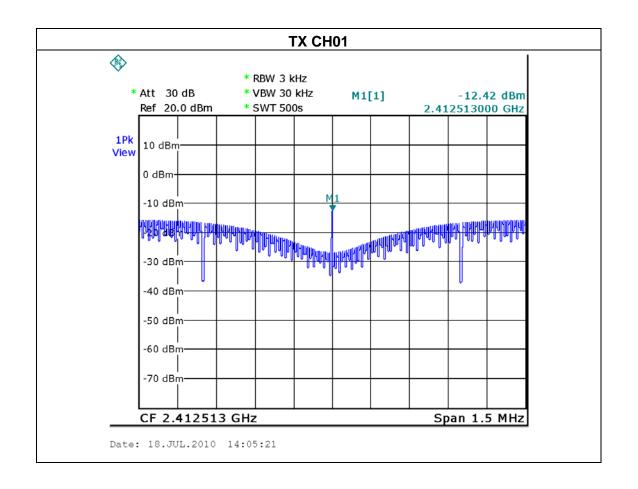
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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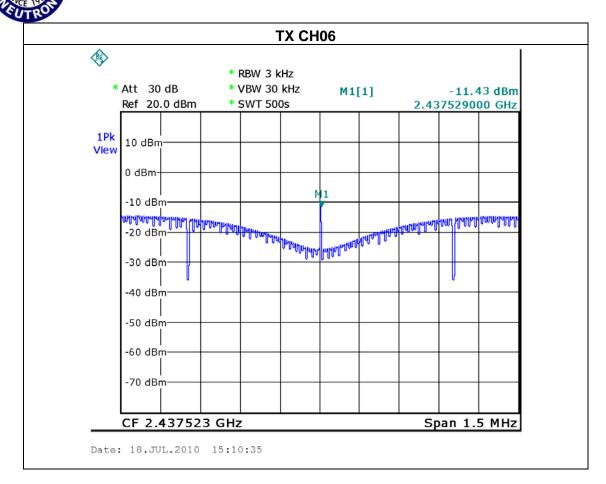
8.1.6 TEST RESULTS

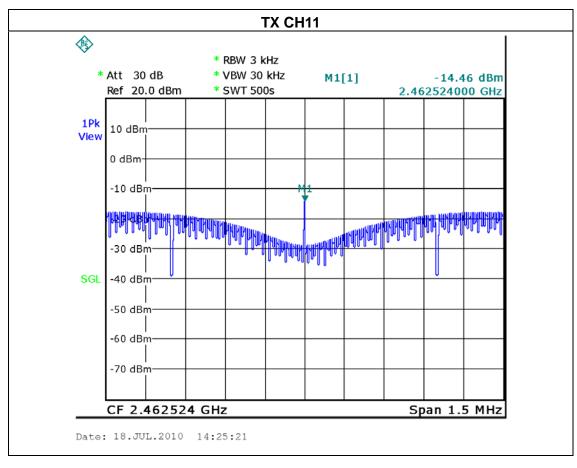
H	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-12.42	8
CH06	2437 MHz	-11.43	8
CH11	2462 MHz	-14.46	8



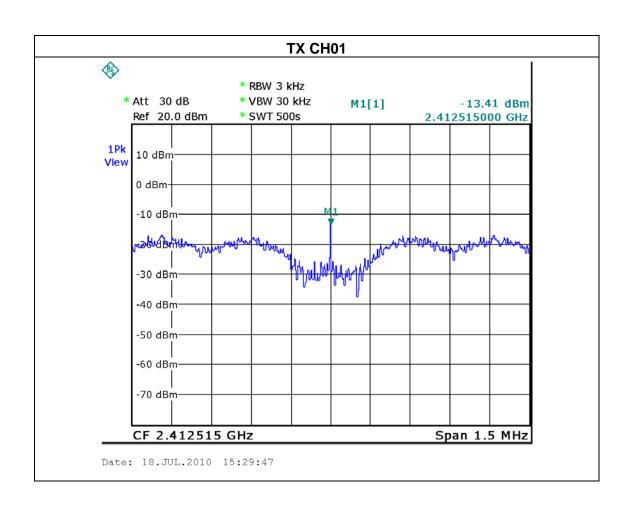
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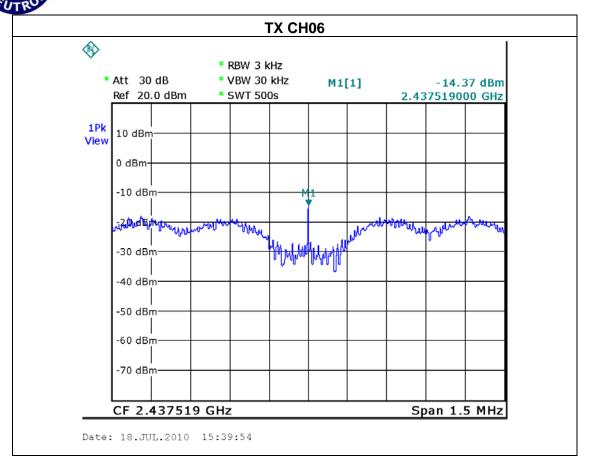


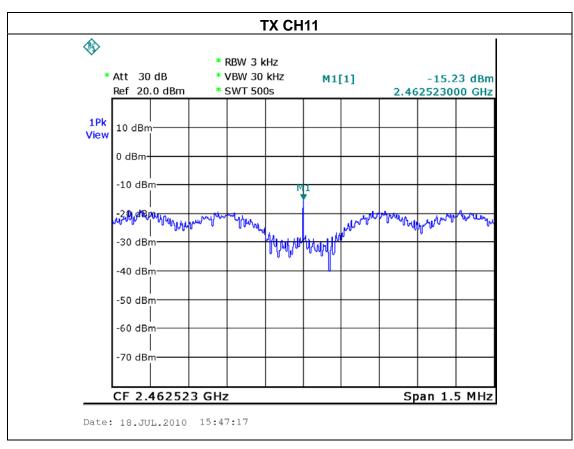
I - I I I	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-13.41	8
CH06	2437 MHz	-14.37	8
CH11	2462 MHz	-15.23	8



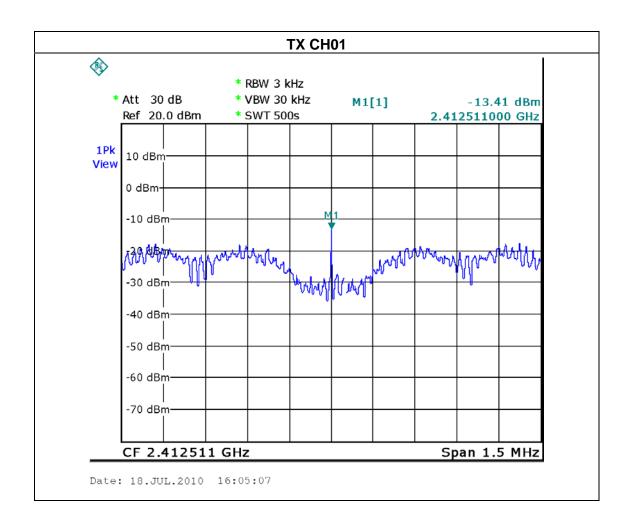
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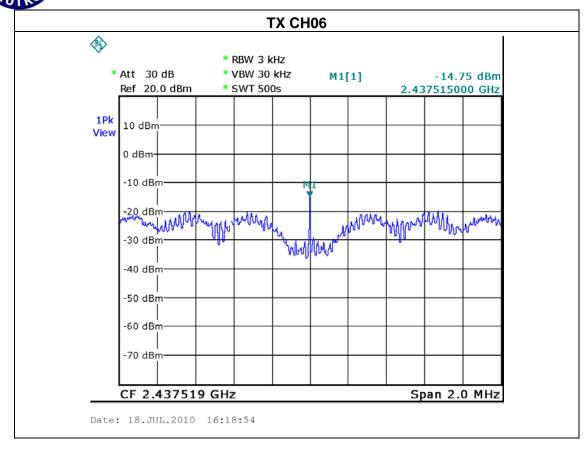


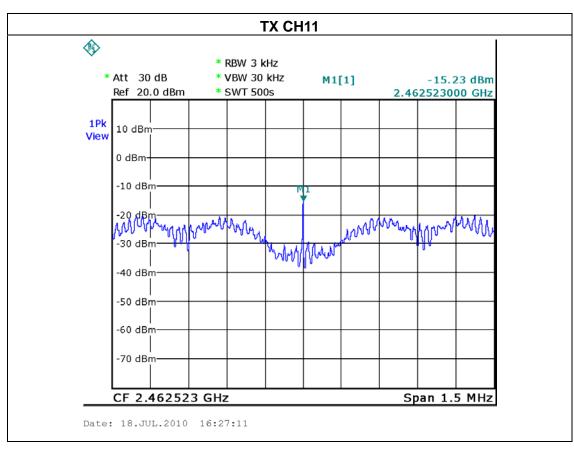
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100		
Temperature:	24 ℃	Relative Humidity:	60 %		
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE /CH01, CH06, CH11				

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-13.41	8
CH06	2437 MHz	-14.75	8
CH11	2462 MHz	-15.23	8



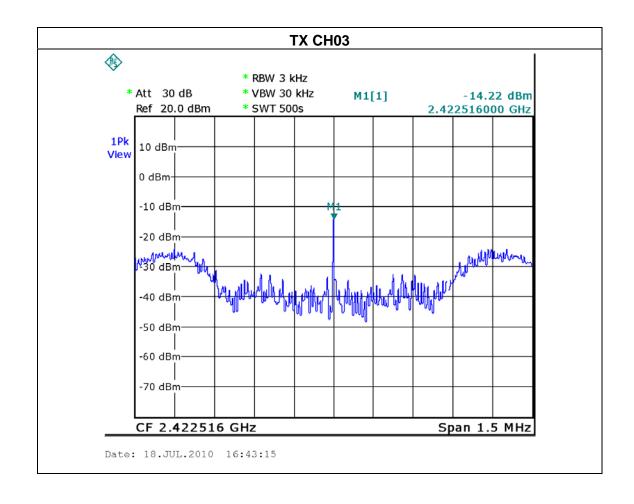
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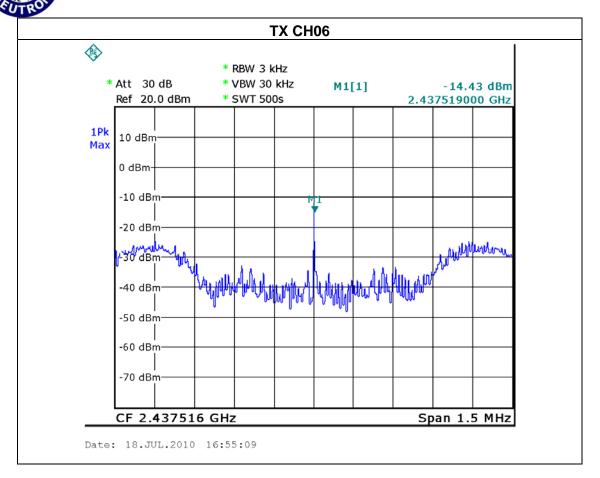


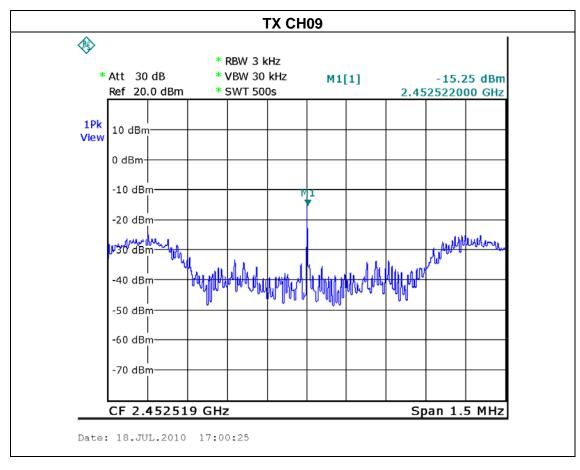
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100		
Temperature:	24 ℃	Relative Humidity:	60 %		
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE /CH03, CH06, CH09				

Test Channel	Frequency (MHz)		
CH03	2422 MHz	-14.22	8
CH06	2437 MHz	-14.43	8
CH09	2452 MHz	-15.25	8



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9. RF EXPOSURE TEST

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time E ², H ²or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000	_		5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Rang (MHz)	ge Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz; *Plane-wave equivalent power density

9.1.1 MPE CALCULATION METHOD

$$\mathsf{E} \, (\mathsf{V/m}) \, = \frac{\sqrt{30 \times P \times G}}{d} \qquad \qquad \mathsf{Power \, Density:} \quad \mathit{Pd} \, (\mathsf{W/m^2}) \, = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

9.1.2 DEVIATION FROM STANDARD

No deviation.

9.1.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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9.1.4 TEST RESULTS

H-111	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX B MODE CH01, CH06, CH11			

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
2.0	1.5849	16.21	41.7830	0.01318106	1	Complies
2.0	1.5849	16.18	41.4954	0.01309032	1	Complies
2.0	1.5849	16.35	43.1519	0.01361289	1	Complies

I=111	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX G MODE CH01, CH06, CH11			

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
2.0	1.5849	15.03	31.8420	0.01004501	1	Complies
2.0	1.5849	15.16	32.8095	0.01035024	1	Complies
2.0	1.5849	15.22	33.2660	0.01049422	1	Complies

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	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N-20M MODE CH01, CH06, CH11			

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
2.0	1.5849	14.56	28.5759	0.00901468	1	Complies
2.0	1.5849	14.41	27.6058	0.00870864	1	Complies
2.0	1.5849	14.63	29.0402	0.00916116	1	Complies

Test Mode :	TX N-40M MODE CH03, CH06, CH09					
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz			
Temperature:	24 ℃	Relative Humidity:	60 %			
	BCM3379 Wireless eMTA For Modular:802.11b/g/n WLAN	Model Name :	DVW2100			

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
2.0	1.5849	12.45	17.5792	0.00554562	1	Complies
2.0	1.5849	12.36	17.2187	0.00543188	1	Complies
2.0	1.5849	12.58	18.1134	0.00571413	1	Complies

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10. EUT TEST PHOTO

Conducted Measurement Photos



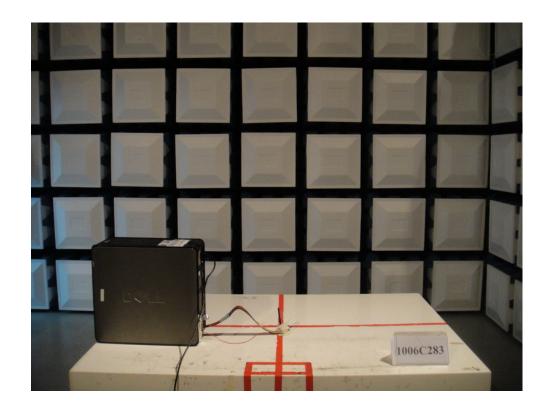


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Radiated Measurement Photos





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