

# **FCC Radio Test Report** FCC ID: QT72015CAM0001

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

Project No. : 1501C276

Equipment : WiFi USB Storage Model Name : CAM-WIFI-USB

Applicant : Power7 Technology (Dong Guan) Co., Ltd

: No.28 Binjiang St.shishuikou Village, Qiaotou Town,

Dongguan City, GuangDong Province P.R.China

Date of Receipt : Jan. 30, 2015

Date of Test : Jan. 30, 2015~Feb. 15, 2015
Issued Date : Feb. 16, 2015
Tested by : BTL Inc.

**Testing Engineer** 

**Technical Manager** 

(Leo Hung)

**Authorized Signatory** 

(Steven Lu)

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#### **Declaration**

**BTL** 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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For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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## **REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
BTL-FCCP-1-1501C276	Original Issue.	Feb. 16, 2015

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#### 1. CERTIFICATION

Equipment : WiFi USB Storage

Brand Name: POWER7
Model Name: CAM-WIFI-USB

Applicant : Power7 Technology (Dong Guan) Co., Ltd Manufacturer : Power7 Technology (Dong Guan) Co., Ltd

Address : No.28 Binjiang St.shishuikou Village, Qiaotou Town, Dongguan City,

GuangDong Province P.R.China

Factory : Power7 Technology (Dong Guan) Co., Ltd

Address : No.28 Binjiang St.shishuikou Village, Qiaotou Town, Dongguan City,

GuangDong Province P.R.China

Date of Test : Jan. 30, 2015~Feb. 15, 2015 Test Sample : ENGINEERING SAMPLE

Standard(s): FCC Part15, Subpart C: 2013 (15.247) / ANSI C63.4-2009

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1501C276) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15 (15.247) , Subpart C: 2013					
Standard(s) Section FCC	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(e)	Power Spectral Density	PASS			
15.203	Antenna Requirement	PASS			
15.209/15.205	Transmitter Radiated Emissions	PASS			

## NOTE:

- (1)" N/A" denotes test is not applicable in this test report.
- (2) The test follows FCC KDB Publication No. 558074 D01 DTS Meas Guidance v03r02 (Measurement Guidelines of DTS)

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#### 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.523792 BTL's test firm number for FCC: 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 y  $\pm$  U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %  $^{\circ}$ 

#### A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

#### B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)	NOTE
		9KHz~30MHz	V	3.79	
		9KHz~30MHz	Н	3.57	
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
DG-CB03	CISPR	200MHz ~ 1,000MHz	V	3.86	
DG-CD03	G-CBUS   CISEK	200MHz ~ 1,000MHz	Н	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	Н	3.68	
	18GHz~40GHz	V	4.15		
		18GHz~40GHz	Н	4.14	

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## 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT

Equipment	WiFi USB Storage		
Brand Name	POWER7		
Model Name	CAM-WIFI-USB		
Model Difference	N/A		
	Operation Frequency	2412~2462 MHz	
Product Description	Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM	
	Bit Rate of Transmitter	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	
	Output Power (Max.)	802.11b: 19.00dBm 802.11g: 23.03dBm 802.11n(20MHz): 22.65dBm 802.11n(40MHz): 22.52dBm	
#1 Supplied from USB Port		t	
Power Source	#2 DC Voltage supplied from AC/DC adapter. (Support unit)		
Power Rating	#1 DC 5V/1A #2 I/P: AC 100-240V 50/60Hz		

## Note:

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

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## 2. Channel List:

	CH01 – CH11 for 802.11b, 802.11g, 802.11n(20MHz) CH03 – CH09 for 802.11n(40MHz)						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

## 3. Table for Filed Antenna

Ar	nt	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1		N/A	2450AT18A100	Chip	N/A	1.00	

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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
Mode 5	TX MODE

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test		
Final Test Mode	Description	
Mode 5	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 high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps) 802.11g mode: OFDM (6Mbps)

802.11n HT20 mode : BPSK (6.5Mbps) 802.11n HT40 mode : BPSK (13Mbps)

For radiated emission tests, the highest output powers were set for final test.

- (3) For radiated below 1G test, the 802.11b is found to be the worst case and recorded.
- (4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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#### 3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

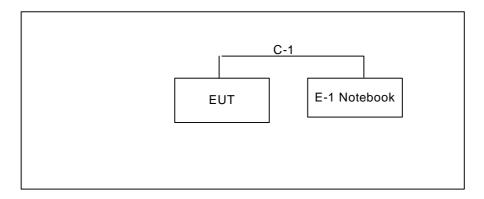
During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN

Test software version			
Frequency (MHz)	2412	2437	2462
802.11b	14	14	16
802.11g	18	17	18
802.11n (20MHz)	18	17	18
Frequency	2422	2437	2452
802.11n (40MHz)	18	17	18

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#### 3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



## 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/IC	Series No.	Note
E-1	Notebook	DELL	E46L	DOC	EB22953770	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.3m	USB Cable

### Note:

(1) 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)

Fraguency of Emission (MHz)	Conducted Li	mit (dBµV)
Frequency of Emission (MHz)	Quasi-peak	Average
0.15 -0.5	66 to 56*	56 to 46*
0.50 -5.0	56	46
5.0 -30.0	60	50

#### Note

- (1) The limit of " \* " decreases with the logarithm of the frequency
- (2) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use) Margin Level = Measurement Value - Limit Value

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	

#### 4.1.2 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.

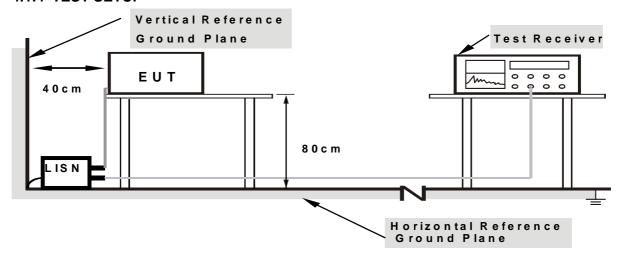
#### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation

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#### 4.1.4 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

#### 4.1.5 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.

## **4.1.6 EUT TEST CONDITIONS**

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

#### 4.1.7 TEST RESULTS

Please refer to the Attachment A.

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#### 4.2 RADIATED EMISSION MEASUREMENT

#### 4.2.1 RADIATED EMISSION LIMITS

20dB 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.

LIMITS OF RADIATED EMISSION MEASUREMENT (9KHz-1000MHz)

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/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
960~1000	500	3

#### LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	(dBuV/m) (at 3 meters)		
	PEAK	AVERAGE	
Above 1000	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).
- (4) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use) Margin Level = Measurement Value - Limit Value

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	RBW 1MHz VBW 3MHz peak detector for Pk value
(Emission in restricted band)	RMS detector for AV value

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Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

#### 4.2.2 TEST PROCEDURE

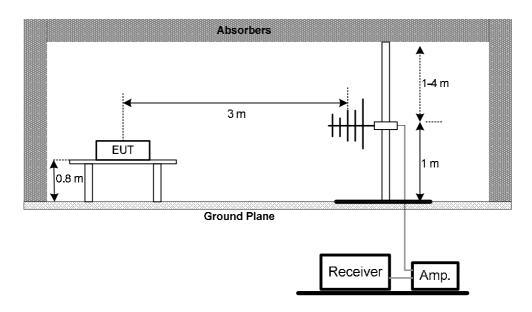
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- 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.

## 4.2.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.2.4 TEST SETUP

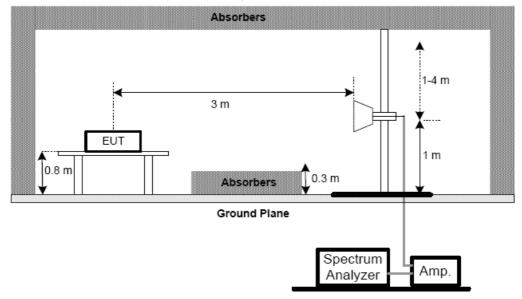
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



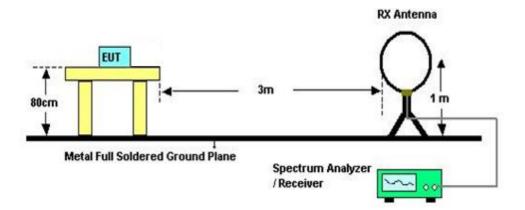
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## (B) Radiated Emission Test Set-Up Frequency Above 1 GHz



## (C) For radiated emissions below 30MHz



#### 4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.5 Unless** otherwise a special operating condition is specified in the follows during the testing.

#### **4.2.6 EUT TEST CONDITIONS**

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

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## 4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment B

#### Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

## 4.2.8 TEST RESULTS (BETWEEN 30MHZ TO 1000 MHZ)

Please refer to the Attachment C.

## 4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment D.

#### Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.

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#### **5. BANDWIDTH TEST**

#### **5.1 APPLIED PROCEDURES**

FCC Part15 (15.247), Subpart C				
Section	Frequency Range (MHz)	Result		
15.247(a)(2)	Bandwidth	2400-2483.5	PASS	

#### **5.1.1 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=300KHz, Sweep time = 2.5 ms.

#### **5.1.2 DEVIATION FROM STANDARD**

No deviation.

#### 5.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

## **5.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

#### **5.1.5 EUT TEST CONDITIONS**

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

#### **5.1.6 TEST RESULTS**

Please refer to the Attachment E.

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#### 6. MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST

#### **6.1 APPLIED PROCEDURES / LIMIT**

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

#### **6.1.1 TEST PROCEDURE**

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- b. The maximum peak conducted output power was performed in accordance with method 9.1.2 of FCC KDB 558074 D01 DTS Meas Guidance v03r02.

#### **6.1.2 DEVIATION FROM STANDARD**

No deviation.

#### 6.1.3 TEST SETUP

EUT	Power Meter

#### **6.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

Transmit output power was measured while the host equipment supply voltage was varied from 85 % to 115 % of the nominal rated supply voltage. No change in transmit output power was observed.

#### 6.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

#### 6.1.6 TEST RESULTS

Please refer to the Attachment F.

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#### 7. ANTENNA CONDUCTED SPURIOUS EMISSION

#### 7.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

#### 7.1.1 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=300KHz, Sweep time = Auto.

#### 7.1.2 DEVIATION FROM STANDARD

No deviation.

#### 7.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

#### 7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

#### 7.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

#### 7.1.6 TEST RESULTS

Please refer to the Attachment G.

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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		
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS		

#### **8.1.1 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=10KHz, Sweep time = Auto.

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

#### 8.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

#### **8.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

#### **8.1.5 EUT TEST CONDITIONS**

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

#### 8.1.6 TEST RESULTS

Please refer to the Attachment H.

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## 9. MEASUREMENT INSTRUMENTS LIST

	Conducted Emission Measurement								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	LISN	EMCO	3816/2	00052765	Mar. 29, 2015				
2	LISN	R&S	ENV216	101447	Mar. 29, 2015				
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015				
4	EMI TEST RECEIVER	R&S	ESCS30	833364/017	Mar. 29, 2015				
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 29, 2015				
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1 -01	N/A	N/A				

	Radiated Emission Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 29, 2015			
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015			
3	Receiver	AGILENT	N9038A	MY5213003 9	Sep. 30, 2015			
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015			
5	Controller	СТ	SC100	N/A	N/A			
6	Antenna	ETS	3115	00075789	Mar. 29, 2015			
7	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015			
8	Receiver	AGILENT	N9038A	MY5213003 9	Sep. 30, 2015			
9	Test Cable	HUBER+SUHNER	C-48	N/A	Apr. 30, 2015			
10	Controller	СТ	SC100	N/A	N/A			
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Feb. 21, 2016			
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 21, 2016			
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015			
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A			

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	6dB Bandwidth Measurement						
Item	Kind of Equipment	Serial No.	Calibrated until				
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015		

	Peak Output Power Measurement								
Item	em Kind of Equipment Manufacturer Type No. Serial No. Calibrated								
1	P-series Power meter	Agilent	N1911A	MY45100473	Mar. 29, 2015				
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Mar. 29, 2015				

	Antenna Conducted Spurious Emission Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015			

	Power Spectral Density Measurement							
Item	m Kind of Equipment Manufacturer Type No. Serial No. Calibrated u							
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015			

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

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## **10. EUT TEST PHOTO**







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## **Radiated Measurement Photos**

## 9KHz to 30MHz





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## **Radiated Measurement Photos**

## 30MHz to 1000MHz



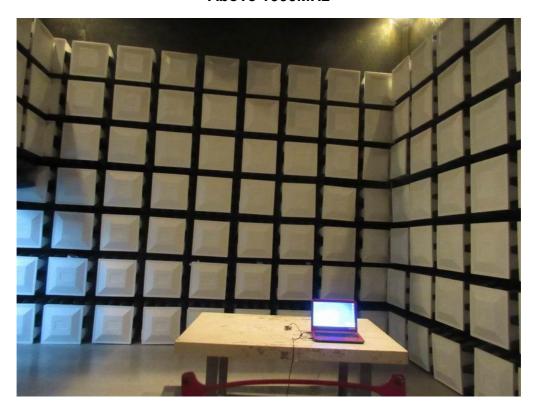


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## **Radiated Measurement Photos**

## Above 1000MHz





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ATTACHMENT A - CONDUCTED EMISSION

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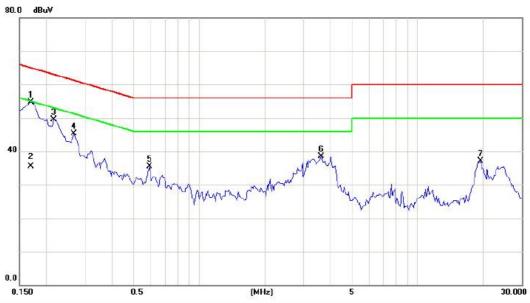
Mk. Freq.		Reading Freq. Level		Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
*	0.1734	45.38	9.49	54.87	64.80	-9.93	peak	
	0.1734	26.31	9.49	35.80	54.80	-19.00	AVG	
	0.2203	39.92	9.51	49.43	62.81	-13.38	peak	
	0.2711	35.90	9.53	45.43	61.08	-15.65	peak	
	0.3141	32.18	9.55	41.73	59.86	-18.13	peak	
	3.6250	31.33	9.64	40.97	56.00	-15.03	peak	
ß	19.3594	30.06	10.02	40.08	60.00	-19.92	peak	
	Mk.	MHz  * 0.1734  0.1734  0.2203  0.2711  0.3141  3.6250	Mk. Freq. Level  MHz dBuV  * 0.1734 45.38  0.1734 26.31  0.2203 39.92  0.2711 35.90  0.3141 32.18  3.6250 31.33	Mk.         Freq.         Level         Factor           MHz         dBuV         dB           *         0.1734         45.38         9.49           0.1734         26.31         9.49           0.2203         39.92         9.51           0.2711         35.90         9.53           0.3141         32.18         9.55           3.6250         31.33         9.64	Mk.         Freq.         Level dBuV         Factor dBuV         ment dBuV           *         0.1734         45.38         9.49         54.87           0.1734         26.31         9.49         35.80           0.2203         39.92         9.51         49.43           0.2711         35.90         9.53         45.43           0.3141         32.18         9.55         41.73           3.6250         31.33         9.64         40.97	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV         dBuV           *         0.1734         45.38         9.49         54.87         64.80           0.1734         26.31         9.49         35.80         54.80           0.2203         39.92         9.51         49.43         62.81           0.2711         35.90         9.53         45.43         61.08           0.3141         32.18         9.55         41.73         59.86           3.6250         31.33         9.64         40.97         56.00	Mk.         Freq.         Level         Factor         ment         Limit         Margin           MHz         dBuV         dBuV         dBuV         dBuV         dB           *         0.1734         45.38         9.49         54.87         64.80         -9.93           0.1734         26.31         9.49         35.80         54.80         -19.00           0.2203         39.92         9.51         49.43         62.81         -13.38           0.2711         35.90         9.53         45.43         61.08         -15.65           0.3141         32.18         9.55         41.73         59.86         -18.13           3.6250         31.33         9.64         40.97         56.00         -15.03	Mk.         Freq.         Level         Factor         ment         Limit         Margin           MHz         dBuV         dB         dBuV         dBuV         dB         Detector           *         0.1734         45.38         9.49         54.87         64.80         -9.93         peak           0.1734         26.31         9.49         35.80         54.80         -19.00         AVG           0.2203         39.92         9.51         49.43         62.81         -13.38         peak           0.2711         35.90         9.53         45.43         61.08         -15.65         peak           0.3141         32.18         9.55         41.73         59.86         -18.13         peak           3.6250         31.33         9.64         40.97         56.00         -15.03         peak

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## Neutral



Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
*	0.1695	45.18	9.58	54.76	64.98	-10.22	peak	
	0.1695	25.84	9.58	35.42	54.98	-19.56	AVG	
1	0.2164	39.94	9.57	49.51	62.96	-13.45	peak	
	0.2672	35.82	9.57	45.39	61.20	-15.81	peak	
	0.5914	25.87	9.58	35.45	56.00	-20.55	peak	
	3.6172	28.92	9.66	38.58	56.00	-17.42	peak	
	19.4922	27.10	10.02	37.12	60.00	-22.88	peak	
		MHz  * 0.1695  0.1695  0.2164  0.2672  0.5914  3.6172	Mk. Freq. Level  MHz dBuV  * 0.1695 45.18  0.1695 25.84  0.2164 39.94  0.2672 35.82  0.5914 25.87  3.6172 28.92	Mk.         Freq.         Level         Factor           MHz         dBuV         dB           *         0.1695         45.18         9.58           0.1695         25.84         9.58           0.2164         39.94         9.57           0.2672         35.82         9.57           0.5914         25.87         9.58           3.6172         28.92         9.66	Mk.         Freq.         Level         Factor         ment           MHz         dBuV         dB         dBuV           *         0.1695         45.18         9.58         54.76           0.1695         25.84         9.58         35.42           0.2164         39.94         9.57         49.51           0.2672         35.82         9.57         45.39           0.5914         25.87         9.58         35.45           3.6172         28.92         9.66         38.58	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV         dBuV           *         0.1695         45.18         9.58         54.76         64.98           0.1695         25.84         9.58         35.42         54.98           0.2164         39.94         9.57         49.51         62.96           0.2672         35.82         9.57         45.39         61.20           0.5914         25.87         9.58         35.45         56.00           3.6172         28.92         9.66         38.58         56.00	Mk.         Freq.         Level         Factor         ment         Limit         Margin           MHz         dBuV         dB         dBuV         dBuV         dB           *         0.1695         45.18         9.58         54.76         64.98         -10.22           0.1695         25.84         9.58         35.42         54.98         -19.56           0.2164         39.94         9.57         49.51         62.96         -13.45           0.2672         35.82         9.57         45.39         61.20         -15.81           0.5914         25.87         9.58         35.45         56.00         -20.55           3.6172         28.92         9.66         38.58         56.00         -17.42	Mk.         Freq.         Level         Factor         ment         Limit         Margin           MHz         dBuV         dB         dBuV         dBuV         dB         Detector           *         0.1695         45.18         9.58         54.76         64.98         -10.22         peak           0.1695         25.84         9.58         35.42         54.98         -19.56         AVG           0.2164         39.94         9.57         49.51         62.96         -13.45         peak           0.2672         35.82         9.57         45.39         61.20         -15.81         peak           0.5914         25.87         9.58         35.45         56.00         -20.55         peak           3.6172         28.92         9.66         38.58         56.00         -17.42         peak

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ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ)

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Test Mode: TX Mode 2412MHz

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0102	0°	13.53	24.30	37.83	127.43	-89.60	AVG
0.0102	0°	14.41	24.30	38.71	147.43	-108.72	PEAK
0.0136	0°	6.82	24.30	31.12	124.93	-93.81	AVG
0.0136	0°	7.45	24.30	31.75	144.93	-113.18	PEAK
0.0256	0°	3.68	23.95	27.63	119.44	-91.81	AVG
0.0256	0°	5.28	23.95	29.23	139.44	-110.21	PEAK
0.3470	0°	0.98	20.17	21.15	96.80	-75.65	AVG
0.3470	0°	2.97	20.17	23.14	116.80	-93.66	PEAK
2.0903	0°	30.71	19.45	50.16	69.54	-19.38	QP
3.4634	0°	21.58	18.95	40.53	69.54	-29.01	QP

Frequency	Ant	Read level		Measured(FS)	Limit	Margin	Note
(MHz)	0°/90°	dBuV/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	14010
0.0142	90°	13.43	24.30	37.73	124.56	-86.83	AVG
0.0142	90°	14.37	24.30	38.67	144.56	-105.89	PEAK
0.0346	90°	6.42	23.38	29.80	116.82	-87.03	AVG
0.0346	90°	8.63	23.38	32.01	136.82	-104.82	PEAK
0.0362	90°	3.51	23.27	26.78	116.43	-89.65	AVG
0.0362	90°	5.28	23.27	28.55	136.43	-107.88	PEAK
0.0486	90°	0.53	22.49	23.02	113.87	<b>-</b> 90.85	AVG
0.0486	90°	2.86	22.49	25.35	133.87	-108.52	PEAK
2.0551	90°	30.73	19.47	50.20	69.54	-19.34	QP
3.2482	90°	21.53	18.92	40.45	69.54	-29.09	QP

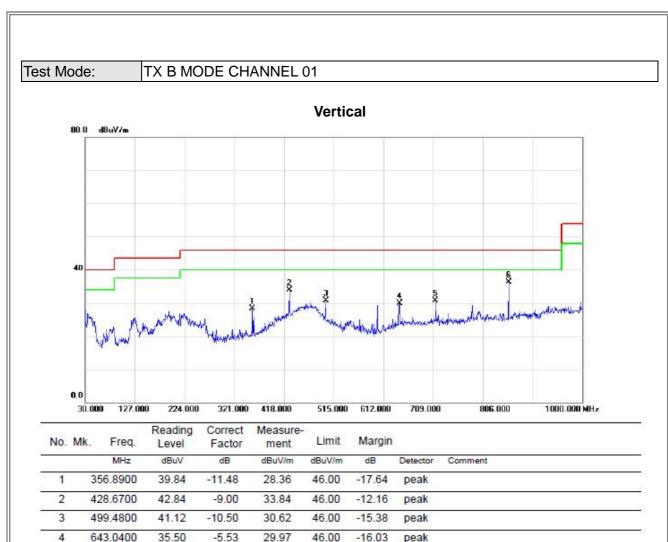
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ATTACHME	T C - RADIATED EMISSION (30MHZ TO 1000MH	IZ)

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5

6 \*

713.8500

856.4400

35.46

39.29

-4.84

-2.94

30.62

36.35

46.00

46.00

-15.38

-9.65

peak

peak

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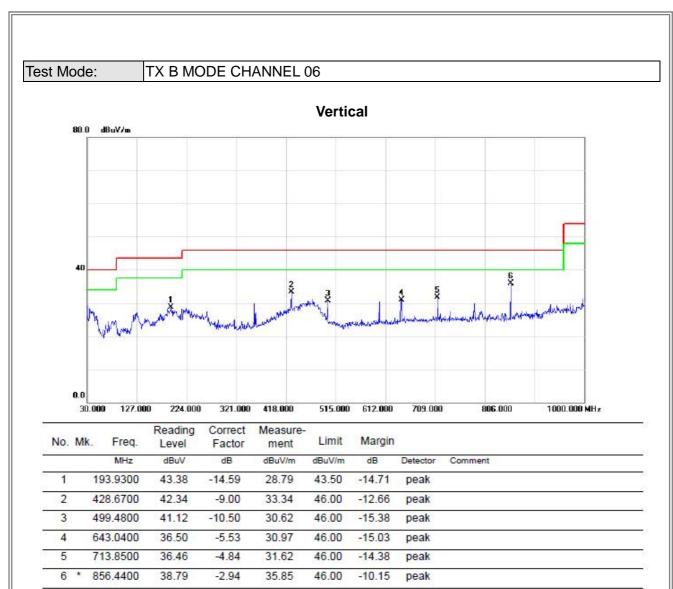


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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	ŝ	120.2100	47.71	-14.19	33.52	43.50	-9.98	peak	
2	9	239.5200	49.10	-14.05	35.05	46.00	-10.95	peak	
3	3	359.8000	45.80	-11.35	34.45	46.00	-11.55	peak	
4	9	480.0800	39.06	-9.76	29.30	46.00	-16.70	peak	
5		713.8500	39.32	-4.84	34.48	46.00	-11.52	peak	
6	*	827.3400	42.84	-3.04	39.80	46.00	-6.20	peak	

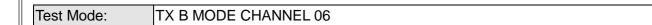
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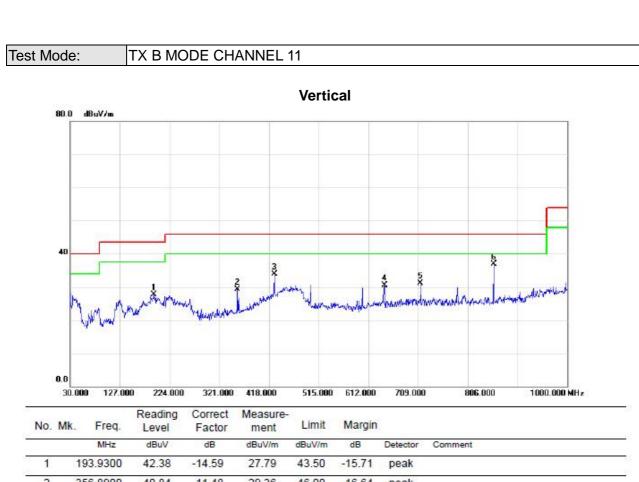


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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	ŝ	120.2100	47.71	-14.19	33.52	43.50	-9.98	peak	
2	-	239.5200	49.10	-14.05	35.05	46.00	-10.95	peak	
3	1	359.8000	46.30	-11.35	34.95	46.00	-11.05	peak	
4	9	480.0800	41.06	-9.76	31.30	46.00	-14.70	peak	
5		713.8500	37.82	-4.84	32.98	46.00	-13.02	peak	
6	*	827.3400	41.34	-3.04	38.30	46.00	-7.70	peak	

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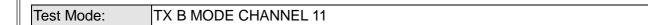




No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9	193.9300	42.38	-14.59	27.79	43.50	-15.71	peak	
2	0	356.8900	40.84	-11.48	29.36	46.00	-16.64	peak	
3	-	428.6700	42.84	-9.00	33.84	46.00	-12.16	peak	
4		643.0400	36.00	-5.53	30.47	46.00	-15.53	peak	
5		713.8500	35.96	-4.84	31.12	46.00	-14.88	peak	
6	*	856.4400	39.79	-2.94	36.85	46.00	-9.15	peak	

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# Horizontal 80.0 dBuy/m 40 40 1000 127.000 224.000 321.000 418.000 515.000 612.000 709.000 806.000 1000.000 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3	120.2100	47.21	-14.19	33.02	43.50	-10.48	peak	
2	į.	239.5200	48.10	-14.05	34.05	46.00	-11.95	peak	
3	3	359.8000	44.80	-11.35	33.45	46.00	-12.55	peak	
4	9	480.0800	39.06	-9.76	29.30	46.00	-16.70	peak	
5		713.8500	38.32	-4.84	33.48	46.00	-12.52	peak	
6	*	827.3400	41.84	-3.04	38.80	46.00	-7.20	peak	

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ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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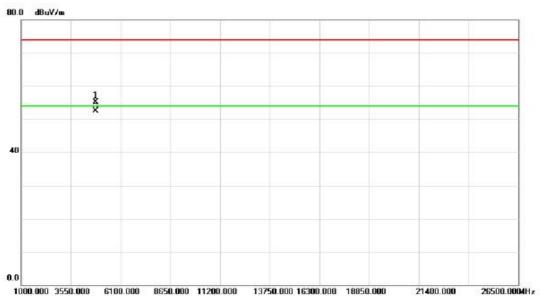
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No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Ě		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	23.81	31.88	55.69	74.00	-18.31	peak		
2		2390.000	13.81	31.88	45.69	54.00	-8.31	AVG		
3	*	2413.700	61.52	31.91	93.43	54.00	39.43	AVG	No Limit	
4	X	2414.800	63.69	31.91	95.60	74.00	21.60	peak	No Limit	

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#### Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4823.960	51.57	3.62	55.19	74.00	-18.81	peak		
2	*	4824.000	48.94	3.62	52.56	54.00	-1.44	AVG		

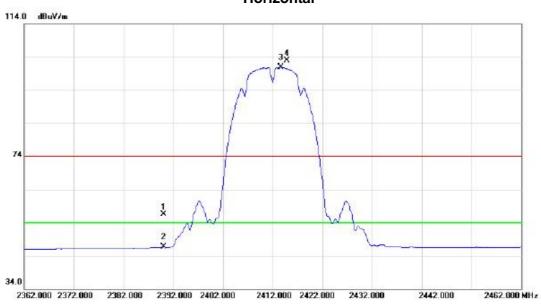
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Orthogonal Axis: X

Test Mode: TX B MODE 2412MHz

#### Horizontal



No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	24.69	31.88	56.57	74.00	-17.43	peak		
2		2390.000	14.72	31.88	46.60	54.00	-7.40	AVG		
3	*	2413.700	68.92	31.91	100.83	54.00	46.83	AVG	No Limit	
4	X	2414.800	71.04	31.91	102.95	74.00	28.95	peak	No Limit	

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#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4823.980	43.42	3.62	47.04	54.00	-6.96	AVG		
2		4824.000	45.51	3.62	49.13	74.00	-24.87	peak		

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Orthogonal Axis: X
Test Mode: TX B MODE 2437MHz

# Vertical 114.0 dBuV/m 74 2387.000 2397.000 2407.000 2417.000 2427.000 2437.000 2447.000 2457.000 2467.000 2487.000 MHz

No.	Mk	. Freq.	Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2435.200	61.95	31.94	93.89	54.00	39.89	AVG	No Limit	
2	Х	2439.700	64.07	31.95	96.02	74.00	22.02	peak	No Limit	

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Orthogonal Axis: X
Test Mode: TX B MODE 2437MHz

# Vertical 80.0 dBuV/m \$\frac{\chi}{\chi}\$ \text{A0} 0.0

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4874.000	47.91	3.72	51.63	54.00	-2.37	AVG		
2		4874.050	52.41	3.72	56.13	74.00	-17.87	peak		

13750.000 16300.000 18850.000

21400.000

26500.000MHz

1000.000 3550.000

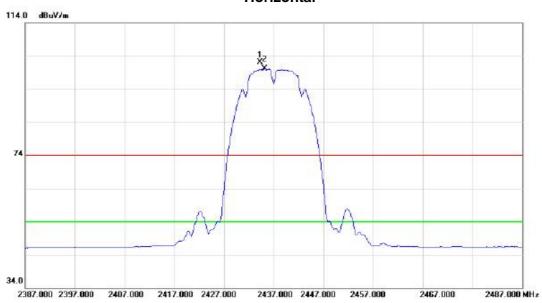
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Orthogonal Axis: X

Test Mode: TX B MODE 2437MHz

#### Horizontal



No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2434.300	70.20	31.94	102.14	74.00	28.14	peak	No Limit	
2	*	2435.200	68.14	31.94	100.08	54.00	46.08	AVG	No Limit	

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Orthogonal Axis: X
Test Mode: TX B MODE 2437MHz

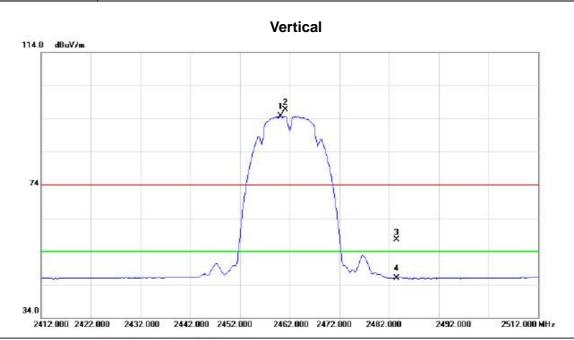
#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4873.990	44.32	3.72	48.04	54.00	-5.96	AVG		
2		4874.020	47.41	3.72	51.13	74.00	-22.87	peak		

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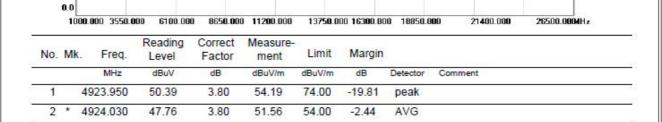
No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2460.200	62.71	31.98	94.69	54.00	40.69	AVG	No Limit	
2	Х	2461.200	64.81	31.98	96.79	74.00	22.79	peak	No Limit	
3		2483.500	25.41	32.01	57.42	74.00	-16.58	peak		
4		2483.500	13.98	32.01	45.99	54.00	-8.01	AVG		

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## Vertical

80.0 dBuV/m



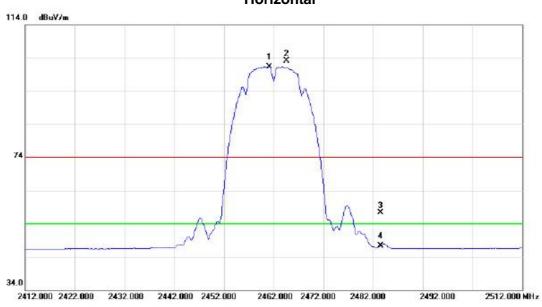
Report No.: BTL-FCCP-1-1501C276 Page 52 of 127



Orthogonal Axis: X

Test Mode: TX B MODE 2462MHz

#### Horizontal



No.	Mk	(_ F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		4	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2461	.200	69.35	31.98	101.33	54.00	47.33	AVG	No Limit	
2	Х	2464	1.600	71.19	31.98	103.17	74.00	29.17	peak	No Limit	
3		2483	3.500	25.36	32.01	57.37	74.00	-16.63	peak		
4		2483	3.500	15.38	32.01	47.39	54.00	-6.61	AVG		

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#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4924.020	44.36	3.80	48.16	54.00	-5.84	AVG		
2		4924.030	47.47	3.80	51.27	74.00	-22.73	peak		

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# Vertical 114.0 dBuV/m 3 3 4 4 2 2 34.0 2362.000 2372.000 2382.000 2392.000 2402.000 2412.000 2422.000 2432.000 2442.000 2462.000 MHz

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	23.04	31.88	54.92	74.00	-19.08	peak		
2		2390.000	14.02	31.88	45.90	54.00	-8.10	AVG		
3	X	2407.200	65.76	31.91	97.67	74.00	23.67	peak	No Limit	
4	*	2413.500	56.25	31.91	88.16	54.00	34.16	AVG	No Limit	

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## 

No.	M	k. Free	Reading Level	Correct Factor	Measure- ment		Margin	ř.		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4823.98	0 52.31	3.62	55.93	74.00	-18.07	peak		
2	*	4824.02	0 48.57	3.62	52.19	54.00	-1.81	AVG		

13750.000 16300.000 18850.000

21400.000

26500.0004Hz

0.0

1000.000 3550.000 6100.000 8650.000 11200.000

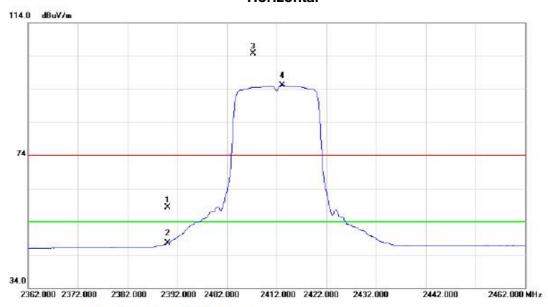
Report No.: BTL-FCCP-1-1501C276 Page 56 of 127



Orthogonal Axis: X

Test Mode: TX G MODE 2412MHz

#### Horizontal



No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	0		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	26.50	31.88	58.38	74.00	-15.62	peak		
2		2390.000	15.59	31.88	47.47	54.00	-6.53	AVG		
3	Χ	2407.300	72.81	31.91	104.72	74.00	30.72	peak	No Limit	
4	*	2413.200	63.17	31.91	95.08	54.00	41.08	AVG	No Limit	

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#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4824.015	42.34	3.62	45.96	54.00	-8.04	AVG		
2		4824.020	44.51	3.62	48.13	74.00	-25.87	peak		

Report No.: BTL-FCCP-1-1501C276 Page 58 of 127



Orthogonal Axis: X
Test Mode: TX G MODE 2437MHz

# Vertical 114.0 dBuV/m 1 2 34.0

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2432.200	66.40	31.94	98.34	74.00	24.34	peak	No Limit	
2	*	2435.700	56.42	31.94	88.36	54.00	34.36	AVG	No Limit	

2437.000 2447.000 2457.000

2467.000

2487.000 MHz

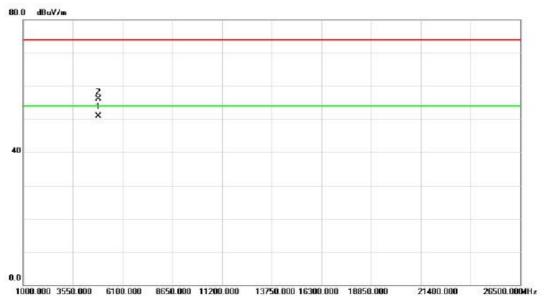
2387.000 2397.000 2407.000 2417.000 2427.000

Report No.: BTL-FCCP-1-1501C276 Page 59 of 127



Orthogonal Axis: X
Test Mode: TX G MODE 2437MHz

#### Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4874.030	47.17	3.72	50.89	54.00	-3.11	AVG		
2		4874.090	52.47	3.72	56.19	74.00	-17.81	peak		

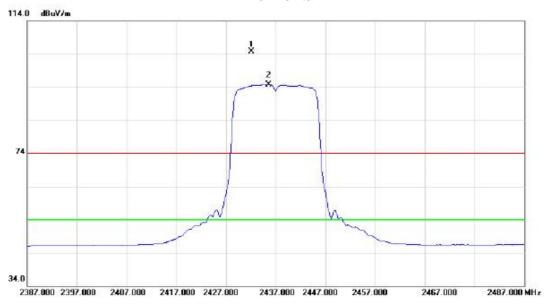
Report No.: BTL-FCCP-1-1501C276 Page 60 of 127



Orthogonal Axis: X

Test Mode: TX G MODE 2437MHz

#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2432.200	72.76	31.94	104.70	74.00	30.70	peak	No Limit	
2	*	2435.600	62.73	31.94	94.67	54.00	40.67	AVG	No Limit	

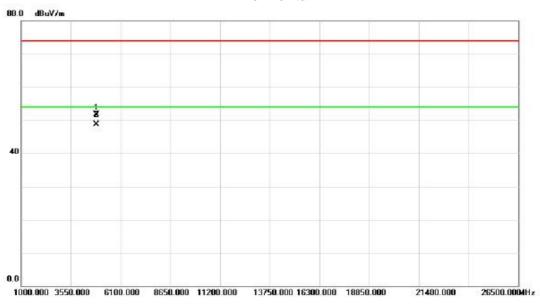
Report No.: BTL-FCCP-1-1501C276 Page 61 of 127



Orthogonal Axis: X

Test Mode: TX G MODE 2437MHz

#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4874.000	48.05	3.72	51.77	74.00	-22.23	peak		
2	*	4874.010	44.98	3.72	48.70	54.00	-5.30	AVG		

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No.	Mk	TACTORY PROPERTY	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2457.300	67.16	31.98	99.14	74.00	25.14	peak	No Limit	
2	*	2460.900	57.06	31.98	89.04	54.00	35.04	AVG	No Limit	
3		2483.500	23.95	32.01	55.96	74.00	-18.04	peak		
4		2483.500	14.21	32.01	46.22	54.00	-7.78	AVG		

2462.000 2472.000 2482.000

2492.000

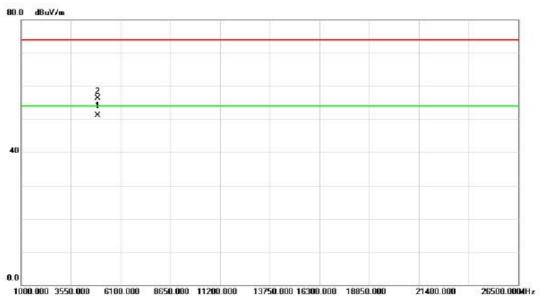
2512.000 MHz

2412.000 2422.000 2432.000 2442.000 2452.000

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#### Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4924.040	47.35	3.80	51.15	54.00	-2.85	AVG		
2		4924.060	52.42	3.80	56.22	74.00	-17.78	peak		

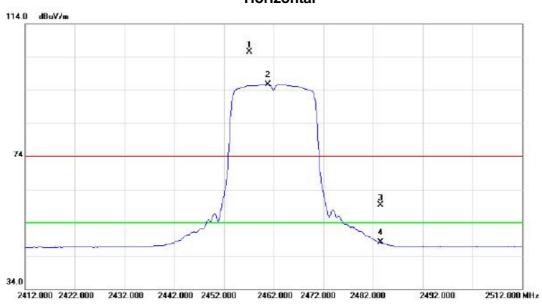
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Orthogonal Axis: X

Test Mode: TX G MODE 2462MHz

#### Horizontal

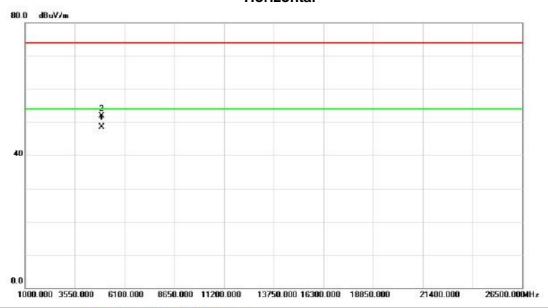


No.	Mk	. Fre		eading .evel	Correct Factor	Measure- ment	Limit	Margin			
		MH:	ž	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2457.20	00 7	73.61	31.98	105.59	74.00	31.59	peak	No Limit	
2	*	2460.80	00 6	3.63	31.98	95.61	54.00	41.61	AVG	No Limit	
3		2483.50	00 2	27.27	32.01	59.28	74.00	-14.72	peak		
4		2483.50	00 1	6.01	32.01	48.02	54.00	-5.98	AVG		

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#### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit dBuV/m	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4923.950	44.72	3.80	48.52	54.00	-5.48	AVG		
2		4924.030	48.07	3.80	51.87	74.00	-22.13	peak		

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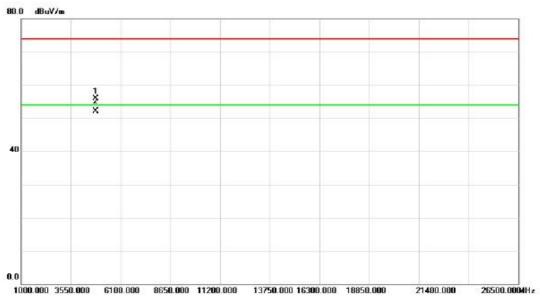
### 

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	23.74	31.88	55.62	74.00	-18.38	peak		
2		2390.000	14.26	31.88	46.14	54.00	-7.86	AVG		
3	*	2413.400	55.68	31.91	87.59	54.00	33.59	AVG	No Limit	
4	Х	2417.500	64.88	31.91	96.79	74.00	22.79	peak	No Limit	

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#### Vertical

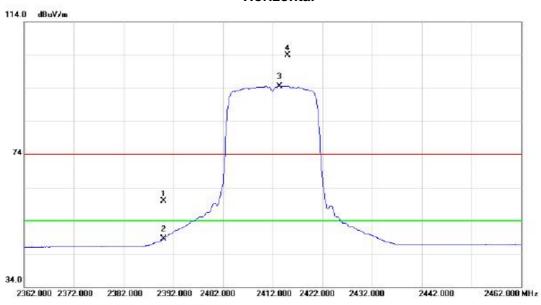


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4823.995	52.37	3.62	55.99	74.00	-18.01	peak		
2	*	4824.010	48.49	3.62	52.11	54.00	-1.89	AVG		

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#### Horizontal

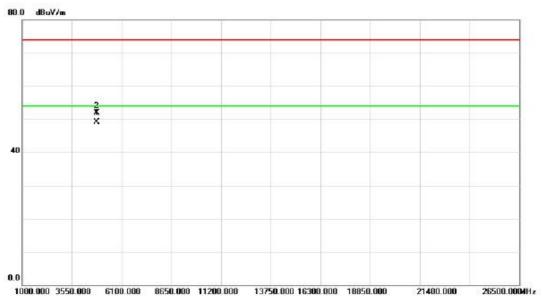


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	ę i		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	27.95	31.88	59.83	74.00	-14.17	peak		
2		2390.000	16.53	31.88	48.41	54.00	-5.59	AVG		
3	*	2413.400	62.69	31.91	94.60	54.00	40.60	AVG	No Limit	
4	Х	2415.000	71.92	31.91	103.83	74.00	29.83	peak	No Limit	

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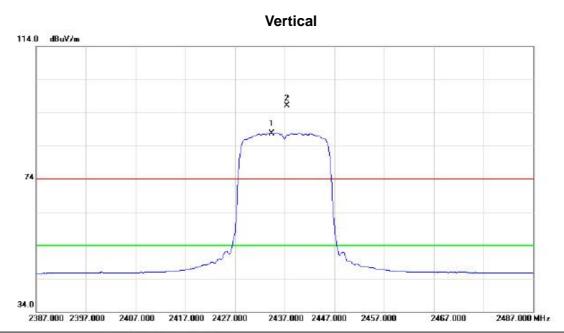
#### Horizontal



No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit dBuV/m	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4824.010	45.39	3.62	49.01	54.00	-4.99	AVG		
2		4824.030	48.21	3.62	51.83	74.00	-22.17	peak		

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No.	Mk. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2434.400	55.82	31.94	87.76	54.00	33.76	AVG	No Limit	
2	Х	2437.400	64.23	31.94	96.17	74.00	22.17	peak	No Limit	

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#### Vertical



No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4874.020	50.47	3.72	54.19	74.00	-19.81	peak		
2	*	4874.050	47.32	3.72	51.04	54.00	-2.96	AVG		

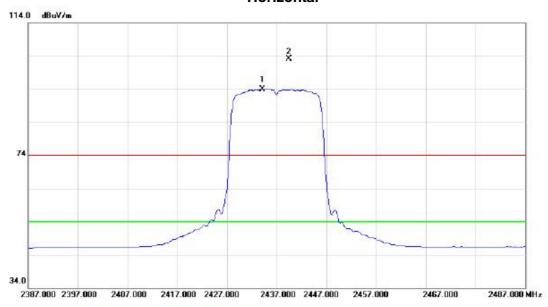
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Orthogonal Axis: X

Test Mode: TX N-20M MODE 2437MHz

## Horizontal



No.	MI	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2434.200	62.05	31.94	93.99	54.00	39.99	AVG	No Limit	
2	Х	2439.400	71.21	31.94	103.15	74.00	29.15	peak	No Limit	

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## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4873.990	44.32	3.72	48.04	54.00	-5.96	AVG		
2		4874.010	49.41	3.72	53.13	74.00	-20.87	peak		

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## 

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2457.700	65.02	31.98	97.00	74.00	23.00	peak	No Limit	
2	*	2460.600	55.83	31.98	87.81	54.00	33.81	AVG	No Limit	
3		2483.500	25.49	32.01	57.50	74.00	-16.50	peak		
4		2483.500	14.16	32.01	46.17	54.00	-7.83	AVG		

2462.000 2472.000 2482.000

2492.000

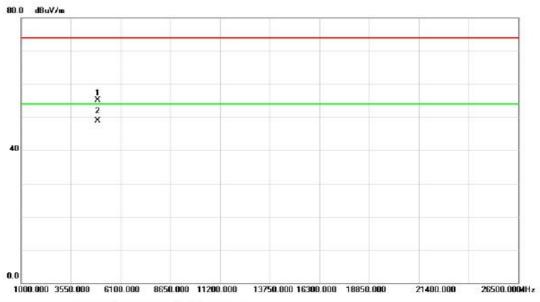
2512.000 MHz

2412.000 2422.000 2432.000 2442.000 2452.000

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## Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4923.970	51.39	3.80	55.19	74.00	-18.81	peak		
2	*	4924.030	45.04	3.80	48.84	54.00	-5.16	AVG		

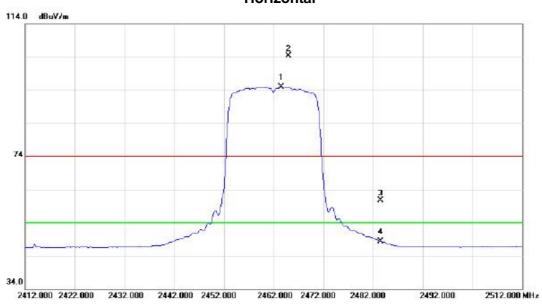
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Orthogonal Axis: X

Test Mode: TX N-20M MODE 2462MHz

## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2463.500	62.88	31.98	94.86	54.00	40.86	AVG	No Limit	
2	Х	2465.000	72.35	31.98	104.33	74.00	30.33	peak	No Limit	
3		2483.500	28.77	32.01	60.78	74.00	-13.22	peak		
4		2483.500	16.38	32.01	48.39	54.00	-5.61	AVG		

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## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4924.010	44.24	3.80	48.04	54.00	-5.96	AVG		
2		4924.060	50.33	3.80	54.13	74.00	-19.87	peak		

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## 

No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	30.01	31.88	61.89	74.00	-12.11	peak		
2		2390.000	15.82	31.88	47.70	54.00	-6.30	AVG		
3	X	2416.400	62.24	31.91	94.15	74.00	20.15	peak	No Limit	
4	*	2433.200	52.50	31.94	84.44	54.00	30.44	AVG	No Limit	

2422.000 2442.000 2462.000

2482.000

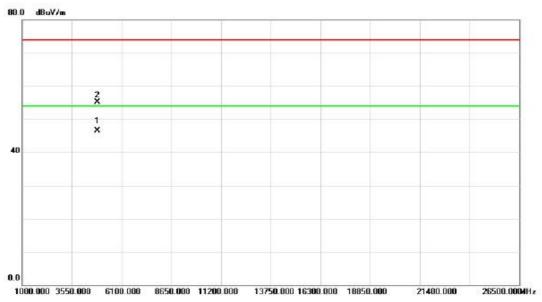
2522.000 MHz

2322.000 2342.000 2362.000 2382.000 2402.000

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## Vertical

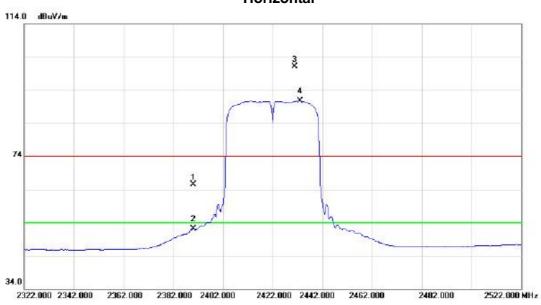


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4844.010	42.83	3.66	46.49	54.00	-7.51	AVG		
2		4844.020	51.41	3.66	55.07	74.00	-18.93	peak		

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## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	33.53	31.88	65.41	74.00	-8.59	peak		
2		2390.000	20.21	31.88	52.09	54.00	-1.91	AVG		
3	Χ	2430.800	69.10	31.93	101.03	74.00	27.03	peak	No Limit	
4	*	2433.200	58.83	31.94	90.77	54.00	36.77	AVG	No Limit	

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## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4844.000	48.47	3.66	52.13	74.00	-21.87	peak		
2	*	4844.010	40.38	3.66	44.04	54.00	-9.96	AVG		

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## Vertical 114.0 dBuV/m 2 2 34.0 2337.000 2357.000 2377.000 2397.000 2417.000 2437.000 2457.000 2477.000 2497.000 2537.000 MHz

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2442.000	52.25	31.95	84.20	54.00	30.20	AVG	No Limit	
2	Х	2446.200	61.99	31.96	93.95	74.00	19.95	peak	No Limit	

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## Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4874.000	42.84	3.72	46.56	54.00	-7.44	AVG		
2		4874.045	50.93	3.72	54.65	74.00	-19.35	peak		

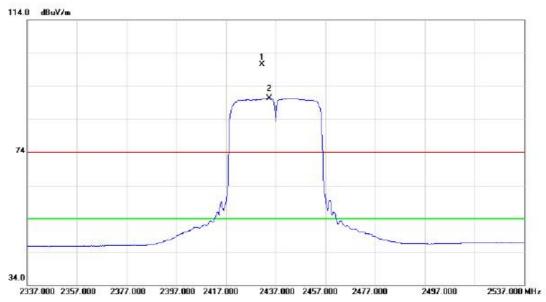
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Orthogonal Axis: X

Test Mode: TX N-40M MODE 2437MHz

## Horizontal

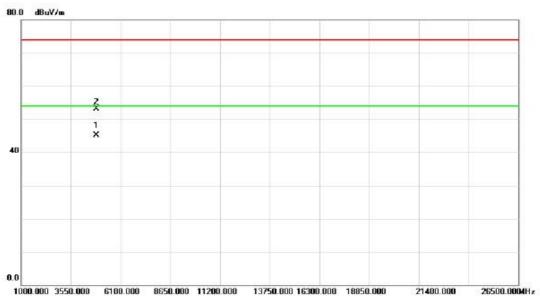


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2431.400	68.58	31.94	100.52	74.00	26.52	peak	No Limit	
2	*	2434.400	58.37	31.94	90.31	54.00	36.31	AVG	No Limit	

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## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4874.010	41.32	3.72	45.04	54.00	-8.96	AVG		
2		4874.030	49.43	3.72	53.15	74.00	-20.85	peak		

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## Vertical 114.0 dBuV/m 2 34.0 2352.000 2372.000 2392.000 2412.000 2432.000 2452.000 2472.000 2492.000 2512.000 2552.000 MHz

No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2455.200	62.85	31.96	94.81	74.00	20.81	peak	No Limit	
2	*	2457.000	52.85	31.98	84.83	54.00	30.83	AVG	No Limit	
3		2483.500	28.55	32.01	60.56	74.00	-13.44	peak		
4		2483.500	15.76	32.01	47.77	54.00	-6.23	AVG		

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## Vertical

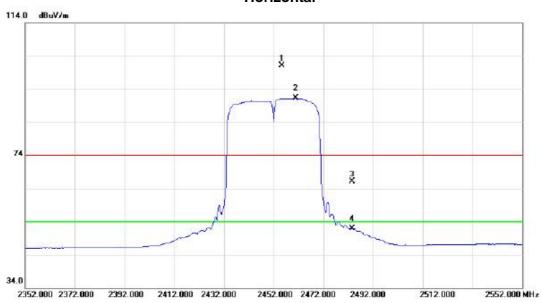


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4904.020	50.49	3.77	54.26	74.00	-19.74	peak		
2	*	4904.030	41.79	3.77	45.56	54.00	-8.44	AVG		

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## Horizontal

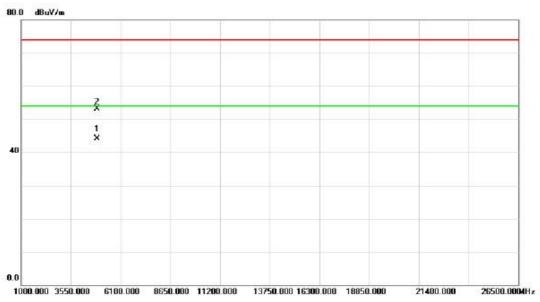


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	2455.400	69.12	31.96	101.08	74.00	27.08	peak	No Limit	
2	*	2460.800	59.25	31.98	91.23	54.00	37.23	AVG	No Limit	
3		2483.500	34.19	32.01	66.20	74.00	-7.80	peak		
4		2483.500	19.95	32.01	51.96	54.00	-2.04	AVG		

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## Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4903.980	40.27	3.77	44.04	54.00	-9.96	AVG		
2		4904.000	49.36	3.77	53.13	74.00	-20.87	peak		

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ATTACHMENT E - BANDWIDTH	

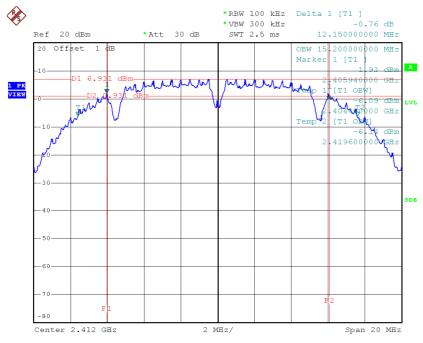
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## Test Mode: TX B Mode\_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	12.15	15.20	500	Complies
2437	12.06	15.16	500	Complies
2462	12.32	15.16	500	Complies

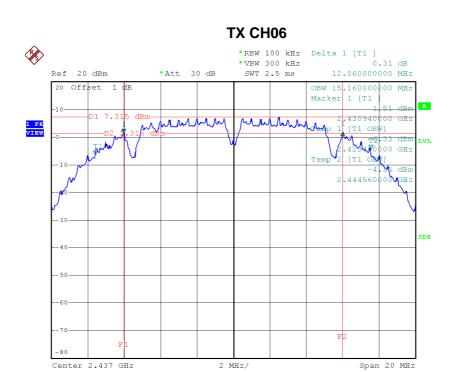
## TX CH01



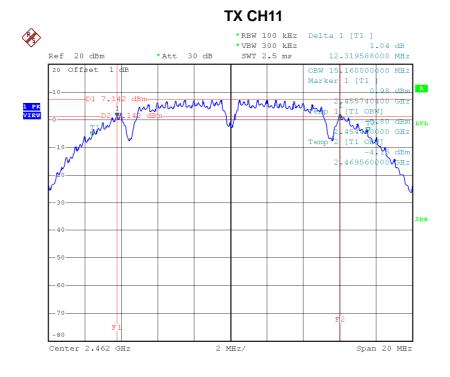
Date: 12.FEB.2015 08:53:39

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Date: 12.FEB.2015 08:54:42



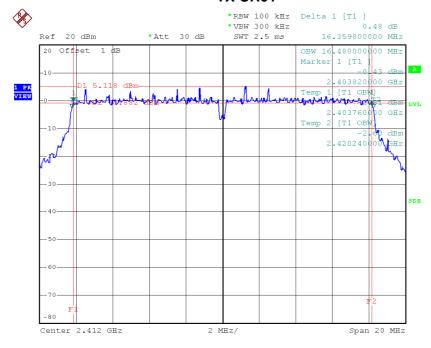
Date: 12.FEB.2015 08:56:00



## Test Mode: TX G Mode\_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.36	16.48	500	Complies
2437	16.32	16.48	500	Complies
2462	16.39	16.48	500	Complies

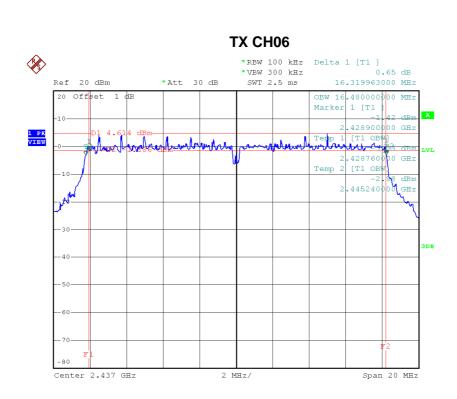
## TX CH01



Date: 12.FEB.2015 08:56:56

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## Date: 12.FEB.2015 08:57:53

# \*REW 100 kHz Delta 1 [T1] \*VEW 300 kHz 0.47 dB \*VEW 300 kHz 0.47

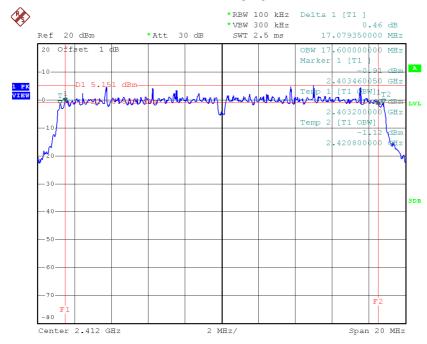
Date: 12.FEB.2015 08:58:37



Test Mode: TX N-20MHz Mode\_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.08	17.60	500	Complies
2437	17.34	17.60	500	Complies
2462	17.32	17.60	500	Complies

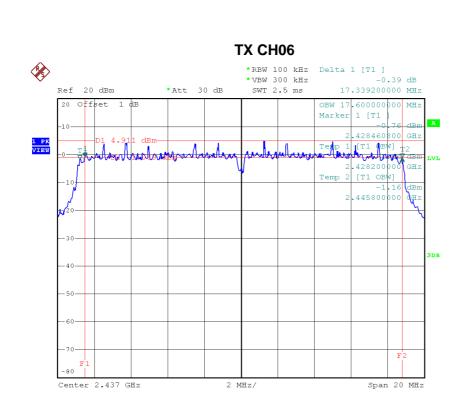
## **TX CH01**



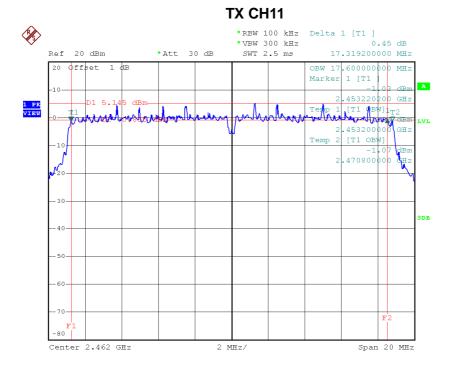
Date: 12.FEB.2015 08:59:38

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Date: 12.FEB.2015 09:00:35



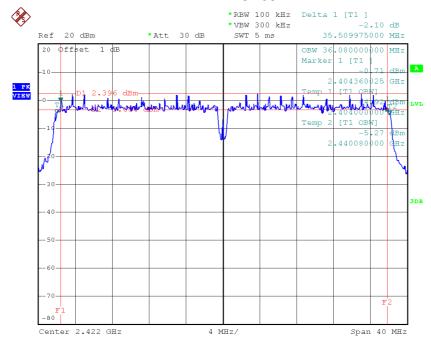
Date: 12.FEB.2015 09:01:23



## Test Mode: TX N-40MHz Mode\_CH03/06/09

	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
ľ	2422	35.51	36.08	500	Complies
	2437	35.76	36.00	500	Complies
	2452	36.15	36.08	500	Complies

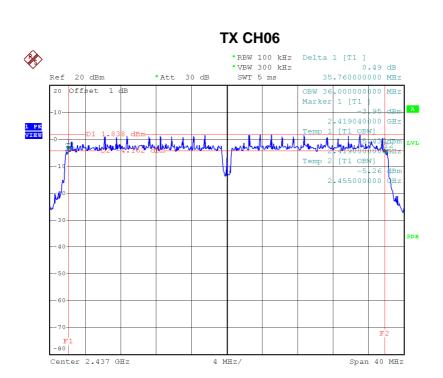
## **TX CH03**



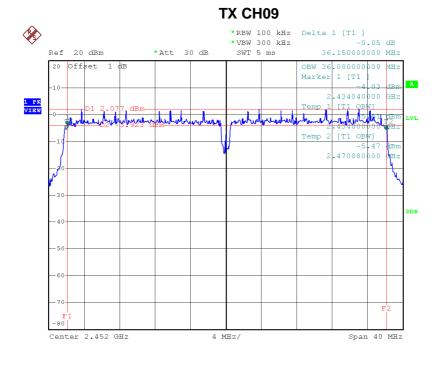
Date: 12.FEB.2015 09:03:20

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## Date: 12.FEB.2015 09:04:18



Date: 12.FEB.2015 09:05:07



ATTACHMENT F – MAXIMUM PEAK CONDUCTED OUTPUT POWER

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## Test Mode :TX B Mode\_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	19.00	0.08	30.00	1.00	Complies
2437	18.77	0.08	30.00	1.00	Complies
2462	18.98	0.08	30.00	1.00	Complies

## Test Mode :TX G Mode\_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	22.85	0.19	30.00	1.00	Complies
2437	22.80	0.19	30.00	1.00	Complies
2462	23.03	0.20	30.00	1.00	Complies

## Test Mode :TX N20 Mode\_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	22.36	0.17	30.00	1.00	Complies
2437	22.33	0.17	30.00	1.00	Complies
2462	22.65	0.18	30.00	1.00	Complies

## Test Mode: TX N40 Mode\_CH03/06/09

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	22.48	0.18	30.00	1.00	Complies
2437	22.35	0.17	30.00	1.00	Complies
2452	22.52	0.18	30.00	1.00	Complies

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ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

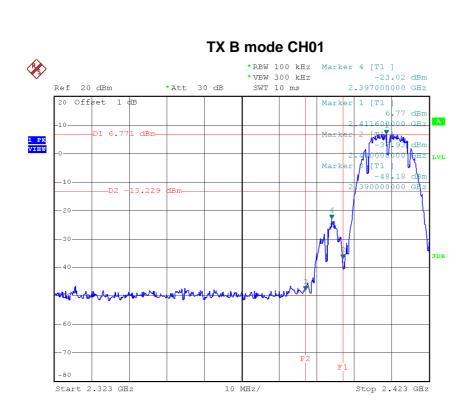
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Test Mode:	TX B Mode

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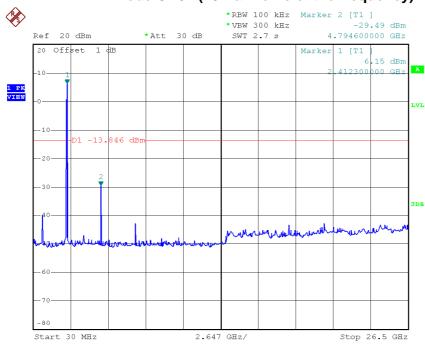
## 

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Date: 12.FEB.2015 08:56:20

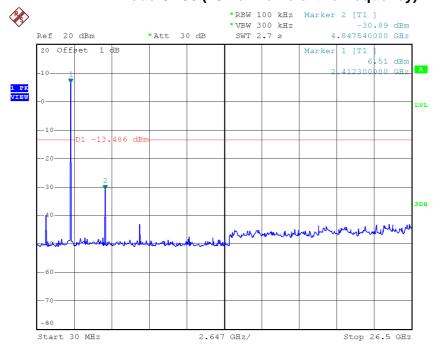






Date: 12.FEB.2015 08:53:53

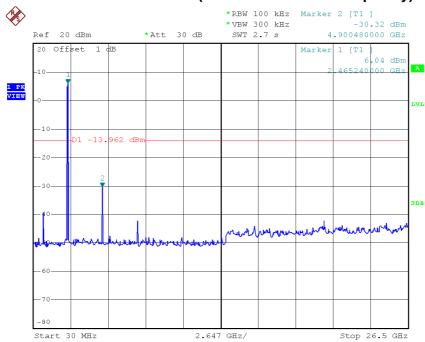
## TX B mode CH06 (10 Harmonic of the frequency)



Date: 12.FEB.2015 08:54:56







Date: 12.FEB.2015 08:56:13

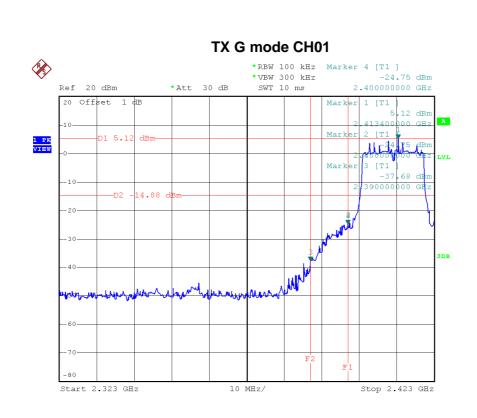
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Test Mode :	TX G Mode

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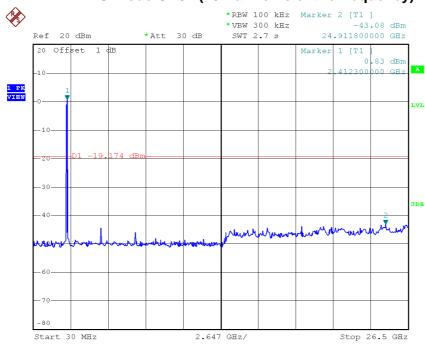


## TX G mode CH11 \*RBW 100 kHz Marker 4 [T1 ] -38.47 dBm \*VBW 300 kHz SWT 10 ms Ref 20 dBm \*Att 30 dB 2.483500000 GHz 20 Offset 1 dB Marker 1 [T1 ] 4.44 dBm 467000000 СН2 Marker 2 [T1 | -38 47 dBm 1 PK VIEW 483500000 GHZ 3 [T1 -49.50 dBm .500000000 GH2 3DB Stop 2.548 GHz

Date: 12.FEB.2015 08:58:57

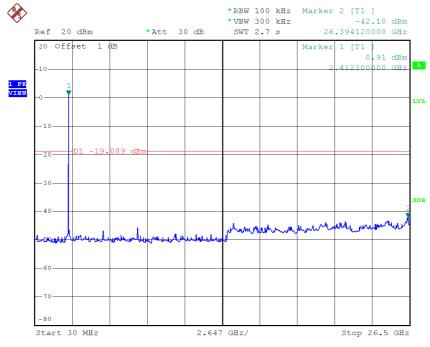






Date: 12.FEB.2015 08:57:10

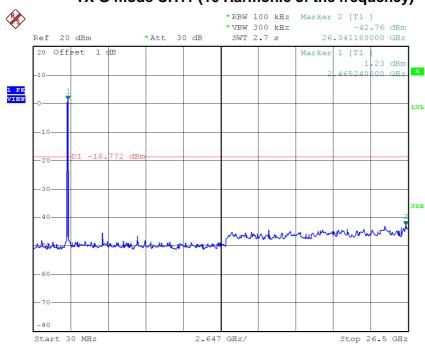
## TX G mode CH06 (10 Harmonic of the frequency)



Date: 12.FEB.2015 08:58:06



# TX G mode CH11 (10 Harmonic of the frequency)



Date: 12.FEB.2015 08:58:50

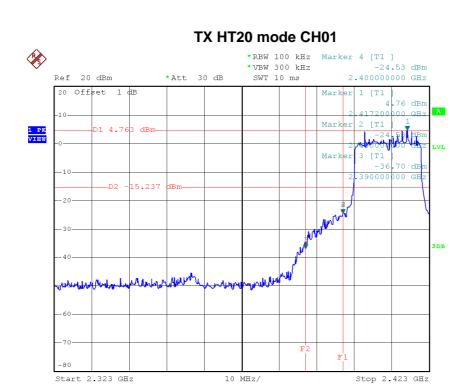
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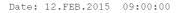


Test Mode :	TX N-20M Mode

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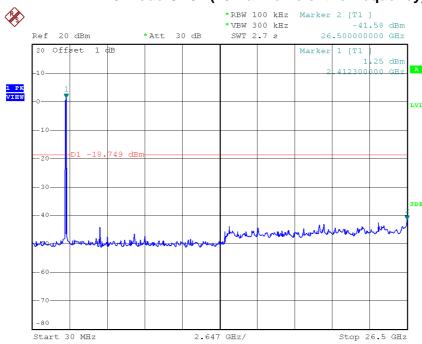
# TX HT20 mode CH11 \*RBW 100 kHz Marker 4 [T1 ] -34.44 dBm 2.483500000 GHz \*VBW 300 kHz SWT 10 ms Ref 20 dBm \*Att 30 dB 20 Offset 1 dB Marker 1 [T1 ] 5.17 dBm Marker 2 [T1 | -34.44 dBm 1 PK VIEW 483500000 GHZ Marker 3 [T1 -49.73 dBm 833 3DB Stop 2.548 GHz

Date: 12.FEB.2015 09:01:43



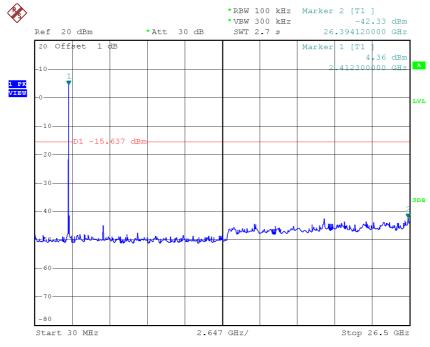
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Date: 12.FEB.2015 08:59:52

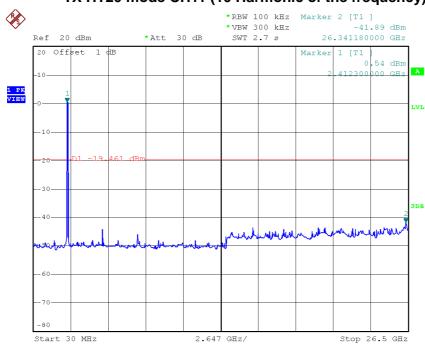
## TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 12.FEB.2015 09:00:49







Date: 12.FEB.2015 09:01:36

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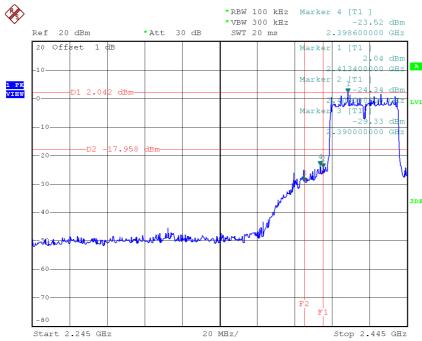


Test Mode :	TX N-40M Mode
	<u> </u>

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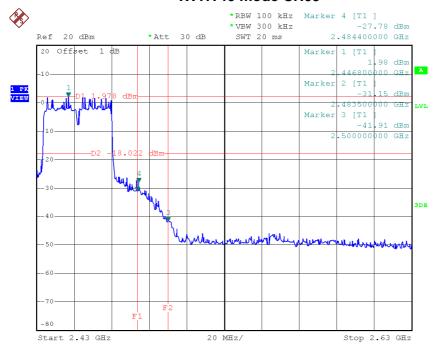






Date: 12.FEB.2015 09:03:41

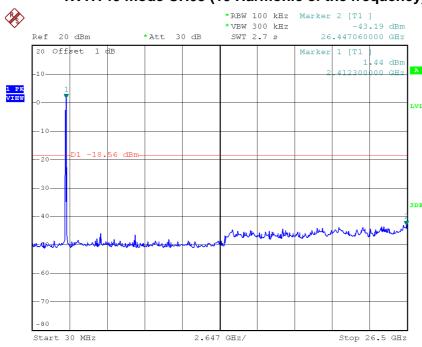
#### TX HT40 mode CH09



Date: 12.FEB.2015 09:05:28

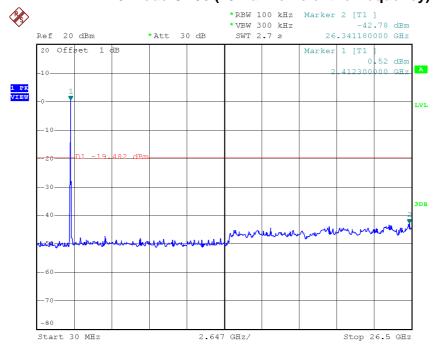






Date: 12.FEB.2015 09:03:33

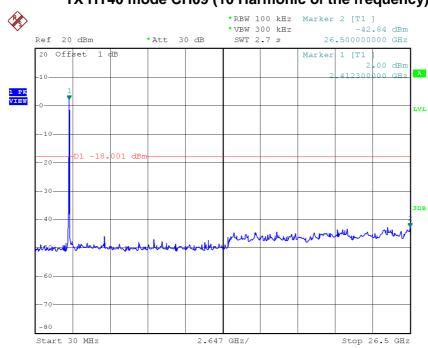
## TX HT40 mode CH06 (10 Harmonic of the frequency)



Date: 12.FEB.2015 09:04:32







Date: 12.FEB.2015 09:05:21

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ATTACHMENT H - POWER SPECTRAL DENSITY				

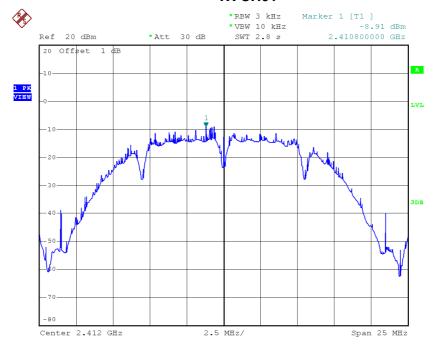
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# Test Mode: TX B Mode\_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-8.91	0.13	8.00	Complies
2437	-9.27	0.12	8.00	Complies
2462	-8.72	0.13	8.00	Complies

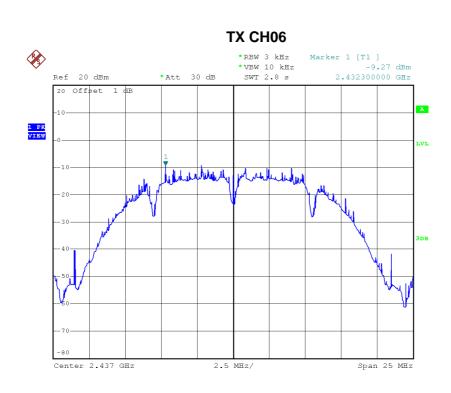
### TX CH01



Date: 12.FEB.2015 08:54:09

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Date: 12.FEB.2015 08:55:32

# 

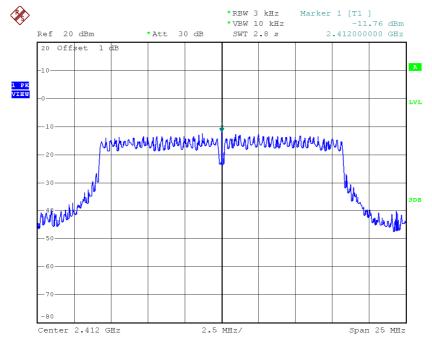
Date: 12.FEB.2015 08:56:29



### Test Mode :TX G Mode\_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-11.76	0.07	8.00	Complies
2437	-12.28	0.06	8.00	Complies
2462	-11.23	0.08	8.00	Complies

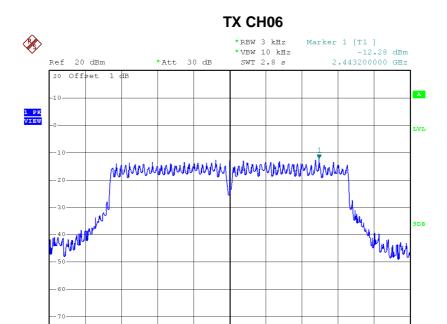
### TX CH01



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2.5 MHz/

Span 25 MHz

Date: 12.FEB.2015 08:58:15

Center 2.437 GHz

# 

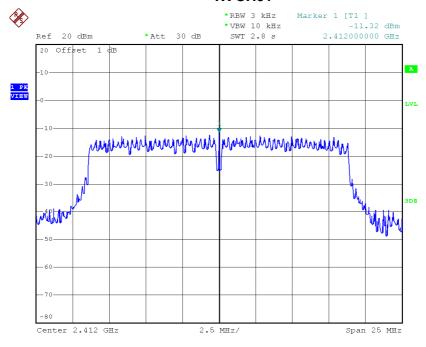
Date: 12.FEB.2015 08:59:06



# Test Mode: TX N-20M Mode\_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-11.32	0.07	8.00	Complies
2437	-12.02	0.06	8.00	Complies
2462	-10.69	0.09	8.00	Complies

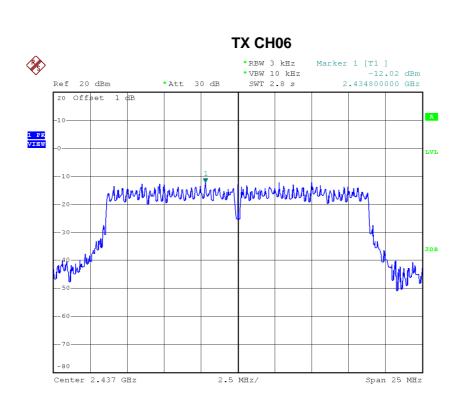
### **TX CH01**



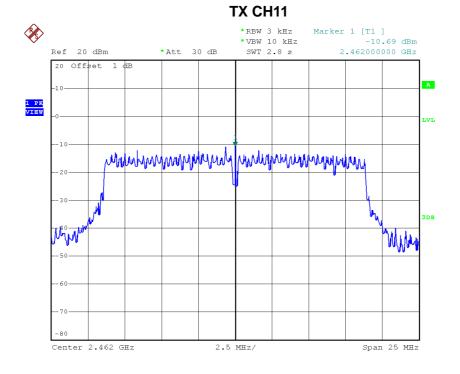
Date: 12.FEB.2015 09:00:08

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Date: 12.FEB.2015 09:00:58



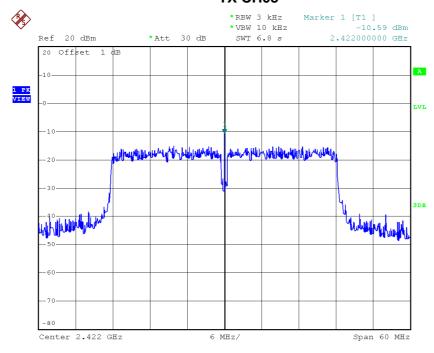
Date: 12.FEB.2015 09:01:52



### Test Mode: TX N-40M Mode\_CH03/06/09

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-10.59	0.09	8.00	Complies
2437	-15.05	0.03	8.00	Complies
2452	-14.07	0.04	8.00	Complies

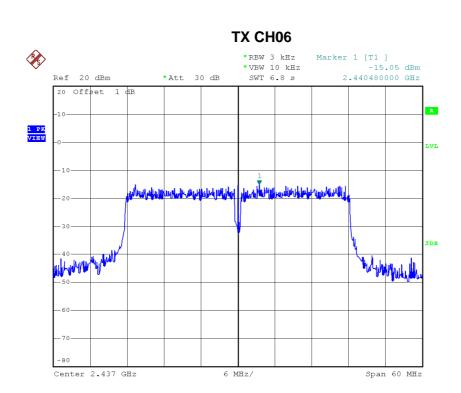
### TX CH03



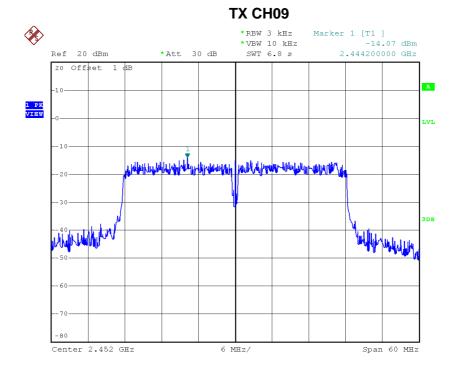
Date: 12.FEB.2015 09:03:53

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Date: 12.FEB.2015 09:04:43



Date: 12.FEB.2015 09:05:40