

FCC Radio Test Report FCC ID:V7TAC9

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

Project No. : 1603C223

Equipment: AC1200 Smart Dual-Band Gigabit WiFi Router

Model Name : AC9

Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan

Road, Nanshan District, Shenzhen, China. 518052

Date of Receipt : Mar. 17, 2016

Date of Test : Mar. 17, 2016 ~ Jun. 08, 2016

Issued Date : Jun. 13, 2016
Tested by : BTL Inc.

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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-1-1603C223	Original Issue.	Jun. 13, 2016

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1. CERTIFICATION

Equipment : AC1200 Smart Dual-Band Gigabit WiFi Router

Brand Name: Tenda Model Name: AC9

Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD. Manufacturer : SHENZHEN TENDA TECHNOLOGY CO.,LTD.

Address: 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District,

Shenzhen, China. 518052

Date of Test : Mar. 17, 2016 ~ Jun. 08, 2016

Test Sample: Engineering Sample

Standard(s) : FCC Part15, Subpart C:(15.247) / ANSI C63.10-2013

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-1-1603C223) 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					
Standard(s) 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(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.

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2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

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 BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

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

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 KHz ~ 30MHz	2.32

B. Radiated Measurement:

Test Site	Method Measurement Frequency Range		Ant. H / V	U, (dB)			
		9KHz~30MHz	V	3.79			
		9KHz~30MHz	Н	3.57			
		30MHz ~ 200MHz	V	3.82			
DG-CB03	CISPR	30MHz ~ 200MHz	Н	3.78			
		200MHz ~ 1,000MHz	V	4.10			
DG-CB03		CISER	CISER	CIOI IX	200MHz ~ 1,000MHz	Н	4.06
		1GHz~18GHz	V	3.12			
		1GHz~18GHz	Н	3.68			
		18GHz~40GHz	V	4.15			
		18GHz~40GHz	Н	4.14			

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

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3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1200 Smart Dual-Band Gigabit WiFi Router				
Brand Name	Tenda				
Model Name	AC9				
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 300 Mbps			
	Output Power (Max.)	802.11b: 29.95dBm 802.11g: 29.85dBm 802.11n(20MHz): 29.28dBm 802.11n(40MHz): 29.40dBm			
Power Source	DC Voltage supplied from AC/DC adapter. Manufacturer: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO.,LTD Model: BN058-A24012U				
Power Rating	I/P: 100-240V ~, 50/60Hz, 0.7A O/P:12V 2.0A				

Note:

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

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		

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3. Table for Filed Antenna

Aı	nt.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
•	1	Tenda	N/A	Dipole	N/A	3
2	2	Tenda	N/A	Dipole	N/A	3

Note:

- (1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R).
- (2) ANT 1 for 1TX was found to be the worst case and recorded.

4.

Operating Mode TX Mode	1TX	2TX
802.11b	V (ANT 1)	-
802.11g	V (ANT 1)	-
802.11n(20MHz)	-	V (ANT 1 + ANT 2)
802.11n(40MHz)	-	V (ANT 1 + ANT 2)

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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	Normal Link

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	Normal Link		

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 (13Mbps) 802.11n HT40 mode : BPSK (27Mbps)

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

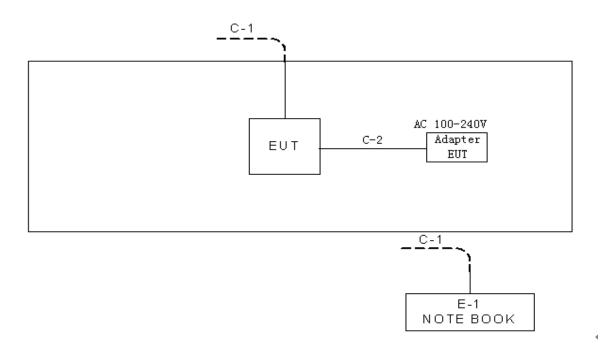
During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final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

Test software version		MTool_REL_2_0_1_7	7
Frequency (MHz)	2412	2437	2462
802.11b	91	91	86
802.11g	60	60	60
802.11n (20MHz)	50	50	50
Frequency	2422	2437	2452
802.11n (40MHz)	54	55	53

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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	Series No.
E-1	Notebook	DELL	DCSM	DOC	G7K832X

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	10M	RJ-45 Cable
C-2	NO	NO	1M	DC Cable

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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 Limit (dBµV)		
Frequency of Emission (MHz)	Quasi-peak	Average□	
0.15 -0.50	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.

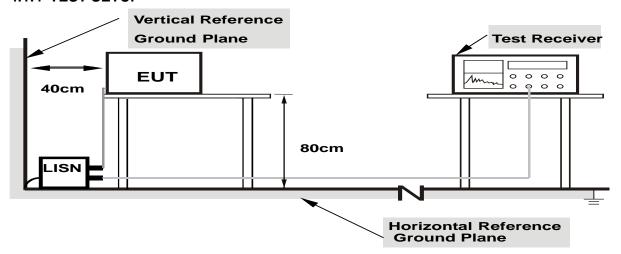
4.1.3 DEVIATION FROM TEST STANDARD

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 placed on the test table and programmed in normal function.

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

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)	
r requericy (Wir iz)	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	1MHz / 3MHz for Peak,
(Emission in restricted band)	1MHz / 1/T for Average

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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 measuring distance of at 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter 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 measuring distance of at 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-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 or 1.5 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 receiver 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

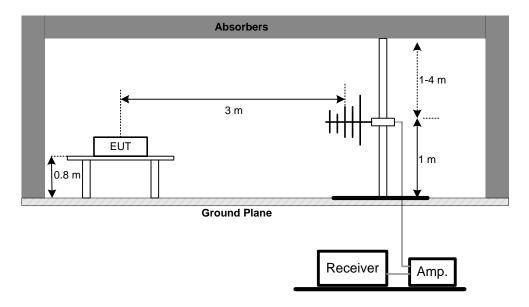
No deviation

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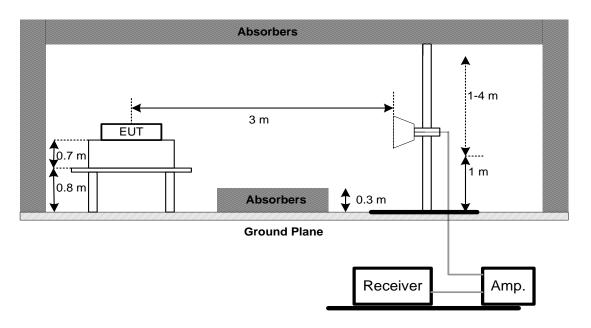


4.2.4 TEST SETUP

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



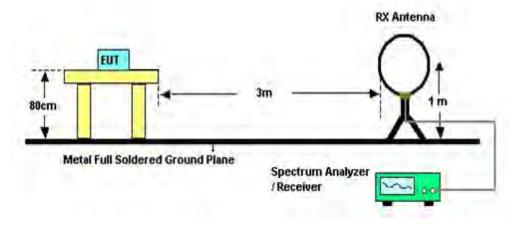
(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



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(C) For Radiated Emissions Below 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

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 (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	Test Item	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 was programmed to be in continuously transmitting mode.

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	Limit Frequency Range (MHz)				
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 v03r04.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP

EUT	Power Meter
	. Circi meter

6.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

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 device is operating, the RF power that is produced 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 or a radiated measurement, provided that 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.
- c. Offset=antenna gain+cable loss

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

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	Section Test Item		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 was programmed to be in continuously transmitting mode.

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	0052765	Mar. 27, 2017			
2	LISN	R&S	ENV216	101447	Mar. 27, 2017			
3	Test Cable	emci	RG223(9KHz -30MHz)	C_17	Mar. 10, 2017			
4	EMI Test Receiver	R&S	ESCI	100382	Mar. 27, 2017			
5	50Ω Terminator SHX		TF2-3G-A	08122901	Mar. 27, 2017			
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. 27, 2017		
2	Amplifier	HP	8447D	2944A09673	Nov. 09, 2016		
3	Receiver	AGILENT	N9038A	MY5213003 9	Oct. 11, 2016		
4	Test Cable	emci	LMR-400(30MH z-1GHz)	C-01	Jun. 28, 2016		
5	Control	CT	SC100	N/A	N/A		
6	Position Control	MF	MF-7802	MF78020841 6	N/A		
7	Antenna	ETS	3115	00075789	Mar. 27, 2017		
8	Amplifier	Agilent	8449B	3008A02274	Nov. 01, 2016		
9	Receiver	AGILENT	N9038A	MY5213003 9	Oct. 11, 2016		
10	Test Cable	emci	EMC104-SM-S M-10000(1GHz -26.5GHz)	C-68	Jun. 28, 2016		
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 23, 2017		
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 27, 2017		
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 07, 2016		
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	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016	

	Peak Output Power Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	power Meter ANRITSU		ML2495A	1128009	Apr. 26, 2017		
2	Pulse Power ANRITSU Sensor		MA 2411B	1027500	Apr. 26, 2017		

Antenna Conducted Spurious Emission Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016	

Power Spectral Density Measurement						
Item	tem Kind of Equipment Manufacturer Type No. Serial No. Calibrated u					
1	Spectrum Analyzer R&S		FSP 40	100185	Oct. 11, 2016	

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





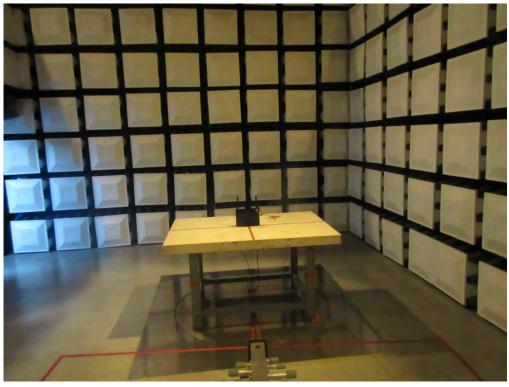


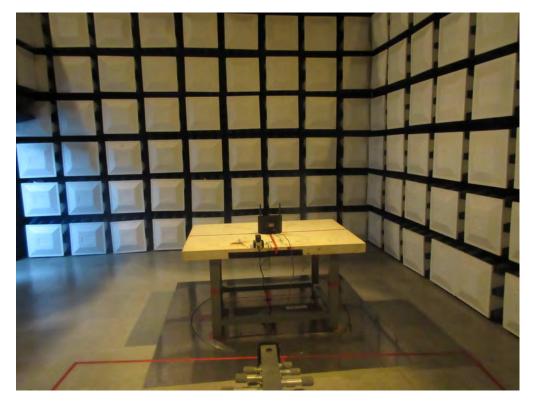
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Radiated Measurement Photos

30MHz to 1000MHz



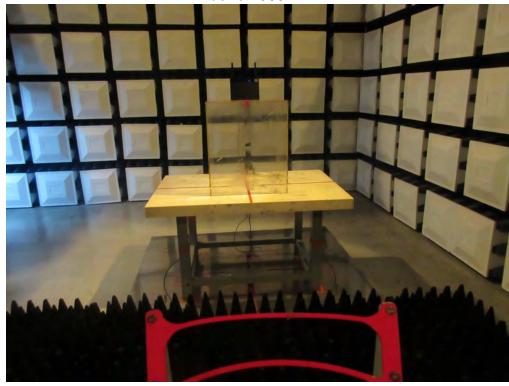


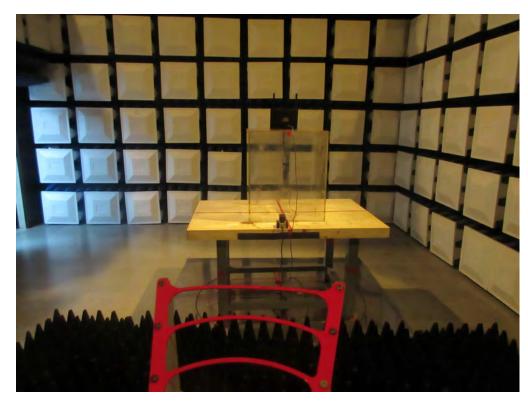
Report No.: BTL-FCCP-1-1603C223 Page 29 of 144



Radiated Measurement Photos







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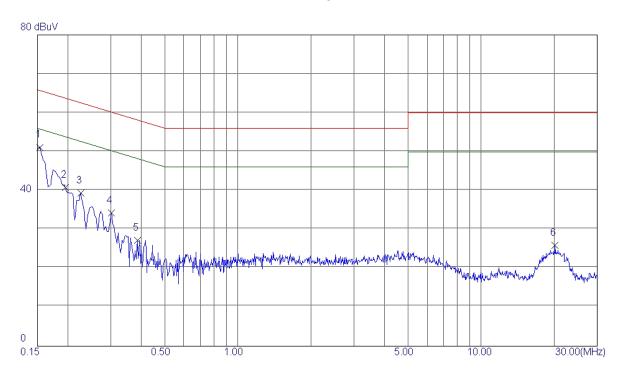
ATTACHMENT A - CONDUCTED EMISSION	

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Line



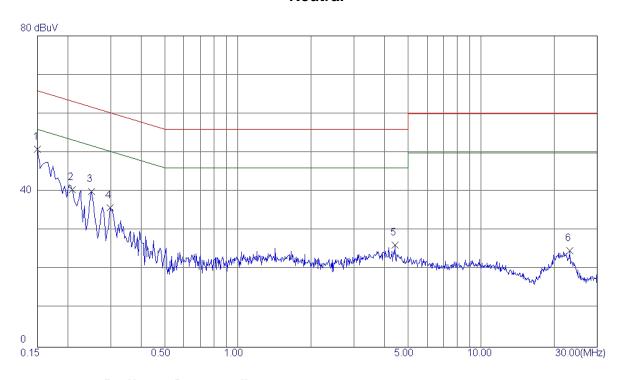
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0. 1539	41.60	9. 52	51.12	65.79	-14. 67	Peak	
2	0. 1955	31.19	9. 56	40.75	63.80	-23. 05	Peak	
3	0. 2260	29. 80	9. 58	39. 38	62.60	-23. 22	Peak	
4	0.3020	24. 68	9. 63	34. 31	60. 19	-25. 88	Peak	
5	0.3860	17.60	9. 66	27. 26	58. 15	-30. 89	Peak	
6	20. 0780	16. 01	9. 85	25. 86	60.00	-34. 14	Peak	

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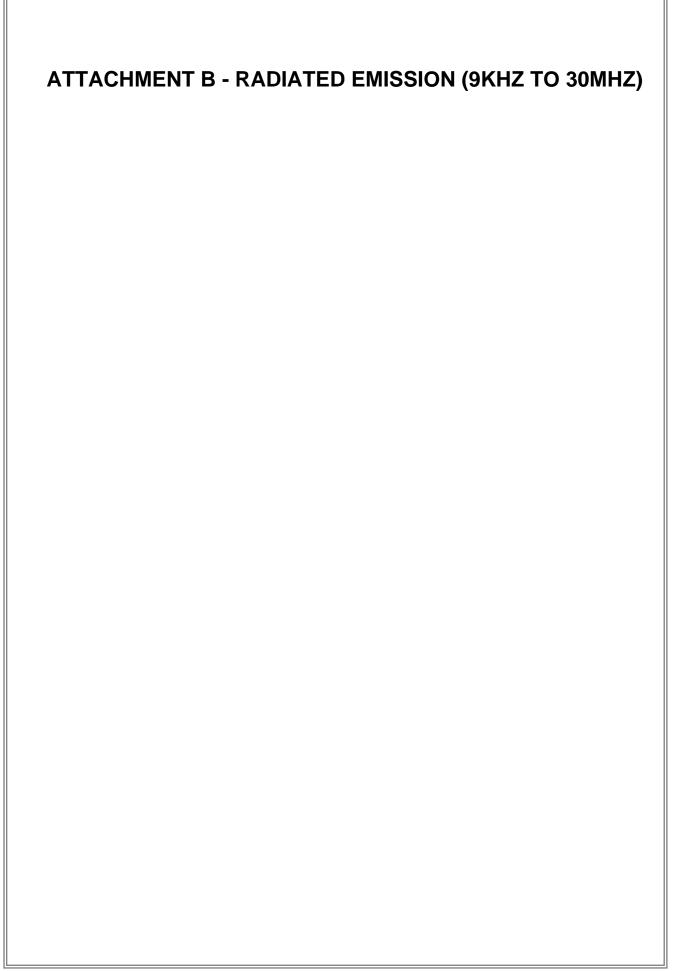
Neutral



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0. 1500	41.39	9. 47	50.86	66. 00	-15. 14	Peak	
2	0. 2083	30. 93	9. 49	40. 42	63. 27	-22.85	Peak	
3	0. 2500	30. 55	9. 50	40. 05	61.76	-21.71	Peak	
4	0. 2980	26. 28	9. 51	35. 79	60.30	-24. 51	Peak	
5	4. 4300	16. 42	9. 88	26. 30	56.00	-29. 70	Peak	
6	23. 1460	14.73	10.00	24. 73	60. 00	-35. 27	Peak	

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Test Mode: TX B MODE CHANNEL 01

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0114	0°	13.28	24.8447	38.1247	126.4661	-88.3415	AVG
0.0114	0°	14.53	24.8447	39.3747	146.4661	-107.0915	PEAK
0.0217	0°	6.51	24.1923	30.7023	120.8750	-90.1727	AVG
0.0217	0°	8.44	24.1923	32.6323	140.8750	-108.2427	PEAK
0.0366	0°	3.77	23.2487	27.0187	116.3346	-89.3159	AVG
0.0366	0°	5.91	23.2487	29.1587	136.3346	-107.1759	PEAK
0.0511	0°	1.52	22.3780	23.8980	113.4358	-89.5378	AVG
0.0511	0°	2.37	22.3780	24.7480	133.4358	-108.6878	PEAK
0.5073	0°	19.73	19.8234	39.5534	73.4989	-33.9456	QP
1.9532	0°	23.17	19.5047	42.6747	69.5400	-26.8653	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0129	90°	13.38	24.3000	37.6800	125.3924	-87.7124	AVG
0.0129	90°	14.53	24.3000	38.8300	145.3924	-106.5624	PEAK
0.0236	90°	7.56	24.0720	31.6320	120.1460	-88.5140	AVG
0.0236	90°	8.27	24.0720	32.3420	140.1460	-107.8040	PEAK
0.0432	90°	5.19	22.8307	28.0207	114.8945	-86.8739	AVG
0.0432	90°	6.23	22.8307	29.0607	134.8945	-105.8339	PEAK
0.0613	90°	1.46	22.1740	23.6340	111.8550	-88.2210	AVG
0.0613	90°	2.23	22.1740	24.4040	131.8550	-107.4510	PEAK
0.6204	90°	22.68	20.1853	42.8653	71.7508	-28.8855	QP
2.0535	90°	24.38	19.4679	43.8479	69.5400	-25.6921	QP

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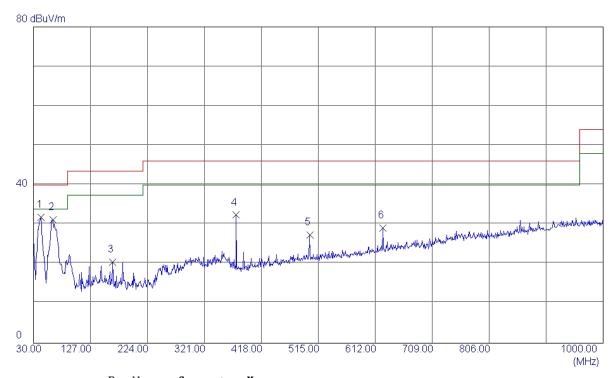
ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)

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Vertical



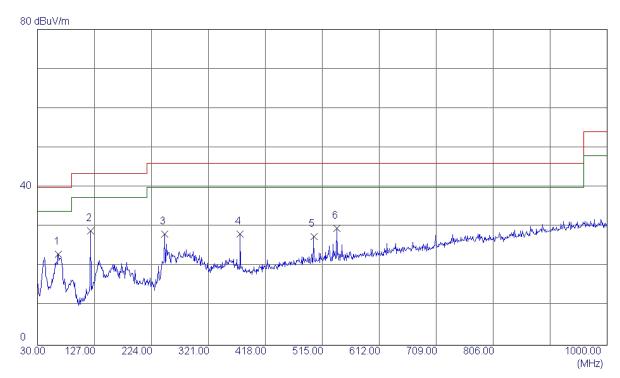
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	42.6100	45.44	-13.65	31.79	40.00	-8. 21	Peak	
2	62. 9800	45. 25	-14.08	31.17	40.00	-8. 83	Peak	
3	164.8300	33.39	-12.97	20. 42	43.50	-23.08	Peak	
4	375.3200	42.18	-9. 78	32. 40	46.00	-13.60	Peak	
5	500. 4500	34. 51	-7. 15	27. 36	46.00	-18. 64	Peak	
6	624. 6100	33. 91	-4. 77	29. 14	46.00	-16. 86	Peak	

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Horizontal



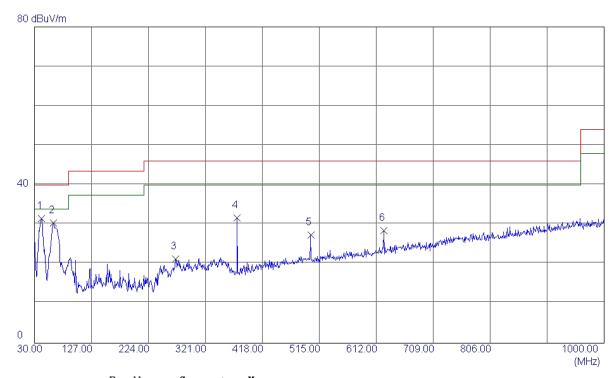
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	65.8900	37.54	-14.50	23.04	40.00	-16. 96	Peak	
2 *	120. 2100	44. 01	-15.03	28. 98	43.50	-14.52	Peak	
3	246.3100	41.76	-13.55	28. 21	46.00	-17.79	Peak	
4	375. 3200	38. 01	-9. 78	28. 23	46.00	-17.77	Peak	
5	500. 4500	34.74	-7. 15	27. 59	46.00	-18. 41	Peak	
6	540. 2199	36. 16	-6. 62	29. 54	46.00	-16. 46	Peak	

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Vertical



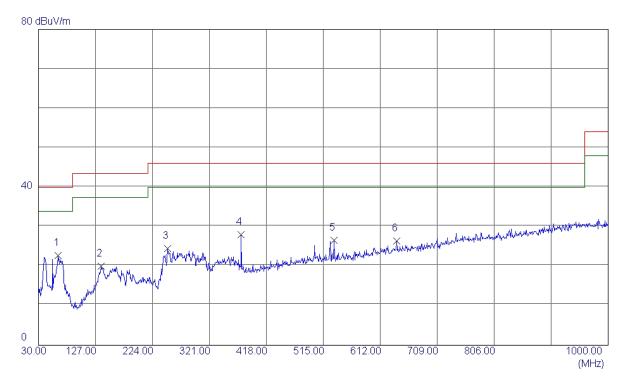
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	41.6400	45. 29	-13.76	31.53	40.00	-8. 47	Peak	
2	62.0100	44. 28	-13.93	30. 35	40.00	-9. 65	Peak	
3	270. 5600	33.67	-12.38	21. 29	46.00	-24.71	Peak	
4	375. 3200	41.43	-9. 78	31.65	46.00	-14.35	Peak	
5	500. 4500	34. 52	-7. 15	27. 37	46.00	-18.63	Peak	
6	624. 6100	33. 31	-4. 77	28. 54	46.00	-17. 46	Peak	

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Test Mode: TX B MODE CHANNEL 06

Horizontal



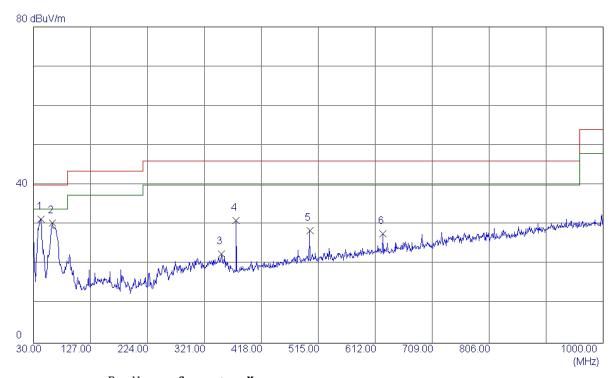
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	62. 9800	36. 75	-14. 08	22. 67	40.00	-17.33	Peak	
2	136.7000	33.57	-13.51	20.06	43.50	-23.44	Peak	
3	250. 1900	37.82	-13.37	24. 45	46.00	-21.55	Peak	
4	375. 3200	37.81	-9. 78	28. 03	46.00	-17. 97	Peak	
5	533. 4300	33. 22	-6.71	26. 51	46.00	-19. 49	Peak	
6	640. 1300	30. 90	-4. 49	26. 41	46. 00	-19. 59	Peak	

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Vertical



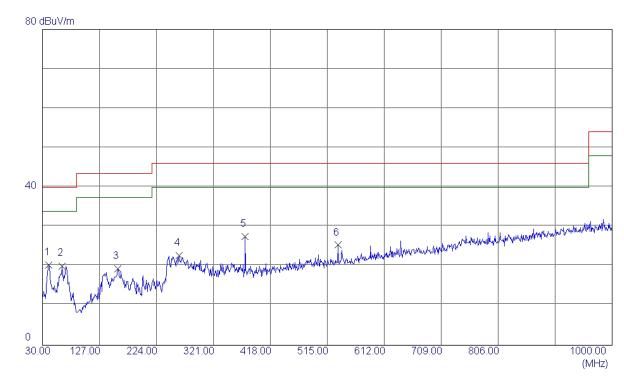
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	42.6100	45.02	-13.65	31.37	40.00	-8. 63	Peak	
2	62.0100	44. 35	-13.93	30. 42	40.00	-9. 58	Peak	
3	350. 1000	32. 91	-10.38	22. 53	46.00	-23. 47	Peak	
4	375. 3200	40.88	-9. 78	31.10	46.00	-14. 90	Peak	
5	500. 4500	35. 63	-7. 15	28. 48	46.00	-17.52	Peak	
6	624. 6100	32. 40	-4. 77	27. 63	46.00	-18.37	Peak	

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Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	40. 6699	34. 25	-13.86	20. 39	40.00	-19. 61	Peak	
2	62. 9800	34. 16	-14.08	20. 08	40.00	-19. 92	Peak	
3	158. 0399	32.02	-12.73	19. 29	43.50	-24. 21	Peak	
4	262.8000	35. 51	-12.83	22. 68	46.00	-23.32	Peak	
5 *	375. 3200	37. 24	-9. 78	27. 46	46.00	-18.54	Peak	
6	533. 4300	32. 07	-6. 71	25. 36	46.00	-20. 64	Peak	

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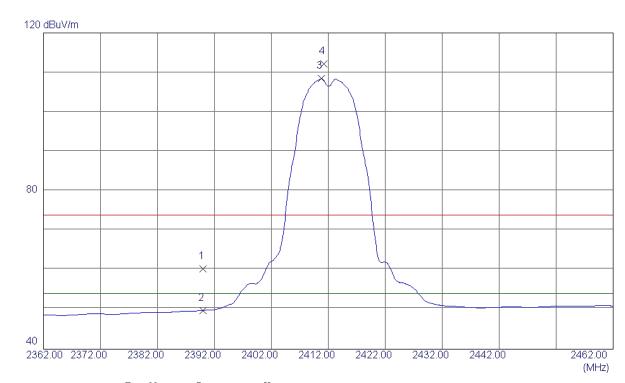
ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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Test Mode: TX B MODE 2412MHz

Vertical



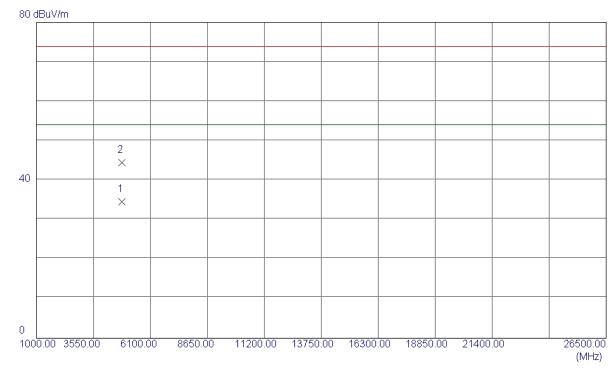
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	27. 69	32. 68	60. 37	74.00	-13.63	Peak	
2	2390. 0000	17. 11	32. 68	49. 79	54.00	-4. 21	AVG	
3 *	2410.8000	75. 70	32.71	108. 41	54.00	54. 41	AVG	No Limit
4	2411. 2000	79. 53	32.71	112. 24	74.00	38. 24	Peak	No Limit

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Orthogonal Axis: X
Test Mode: TX B MODE 2412MHz

Vertical



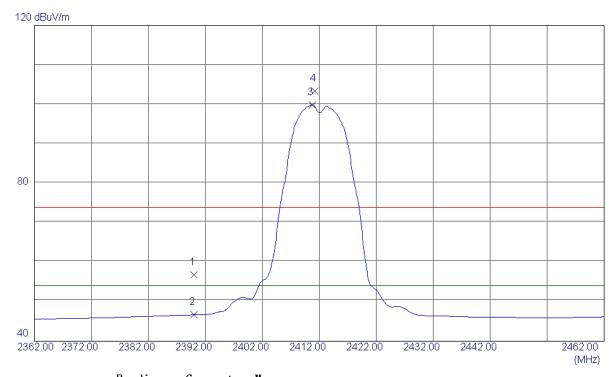
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4824. 3000	28. 75	5. 87	34. 62	54.00	-19.38	AVG	
2	4824. 5000	38. 68	5. 87	44. 55	74.00	-29. 45	Peak	

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Test Mode: TX B MODE 2412MHz

Horizontal



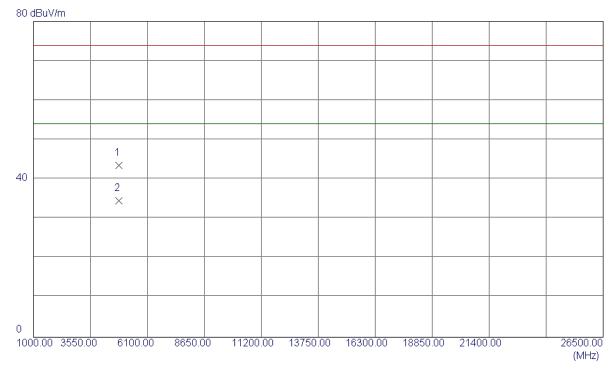
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	24. 15	32. 68	56. 83	74.00	-17. 17	Peak	
2	2390. 0000	14.02	32. 68	46.70	54.00	-7.30	AVG	
3 *	2410. 8000	67. 18	32.71	99. 89	54.00	45.89	AVG	No Limit
4	2411. 2000	70. 64	32.71	103.35	74.00	29. 35	Peak	No Limit

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Test Mode: TX B MODE 2412MHz

Horizontal



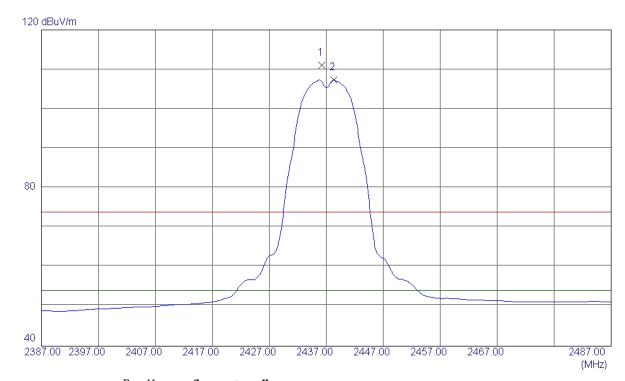
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824. 2000	37.60	5. 87	43. 47	74.00	-30. 53	Peak	
2 *	4824. 2500	28. 72	5. 87	34. 59	54.00	-19. 41	AVG	

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Test Mode: TX B MODE 2437MHz

Vertical



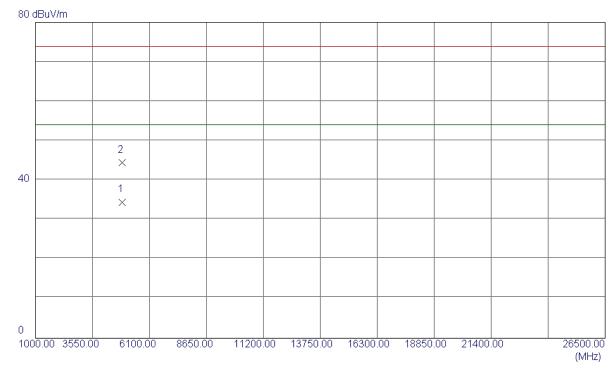
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436. 2000	78. 24	32.74	110. 98	74.00	36. 98	Peak	No Limit
2 *	2438. 3000	74. 58	32.74	107.32	54.00	53. 32	AVG	No Limit

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Test Mode: TX B MODE 2437MHz

Vertical



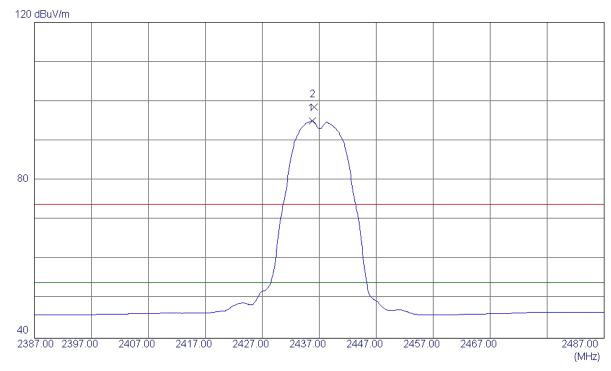
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.5000	28. 48	6.00	34. 48	54.00	-19. 52	AVG	
2	4874.6300	38. 52	6. 01	44. 53	74.00	−29. 47	Peak	

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Test Mode: TX B MODE 2437MHz

Horizontal



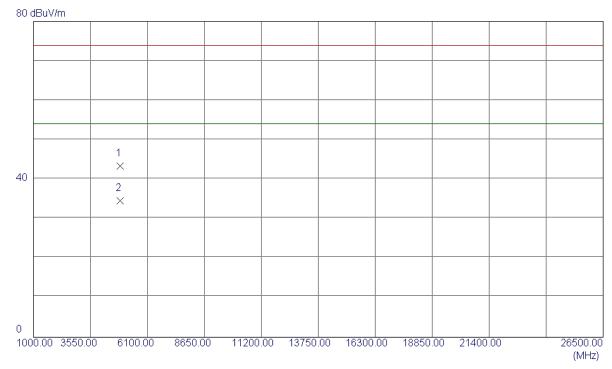
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2435.8000	62.33	32.74	95.07	54.00	41.07	AVG	No Limit
2	2436. 1000	65.86	32.74	98. 60	74.00	24. 60	Peak	No Limit

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Test Mode: TX B MODE 2437MHz

Horizontal



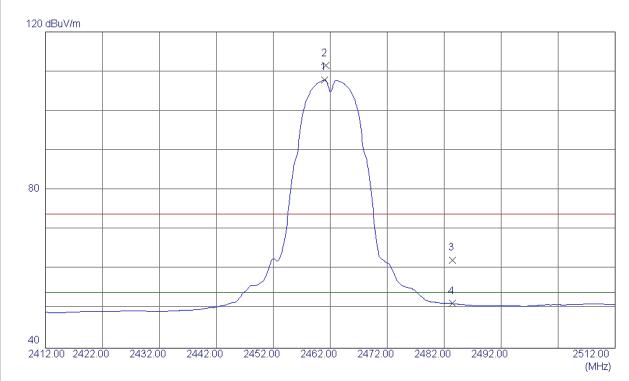
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874. 1500	37. 35	6.00	43.35	74.00	-30.65	Peak	
2 *	4874.8000	28. 58	6. 01	34. 59	54.00	-19. 41	AVG	

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Test Mode: TX B MODE 2462MHz

Vertical



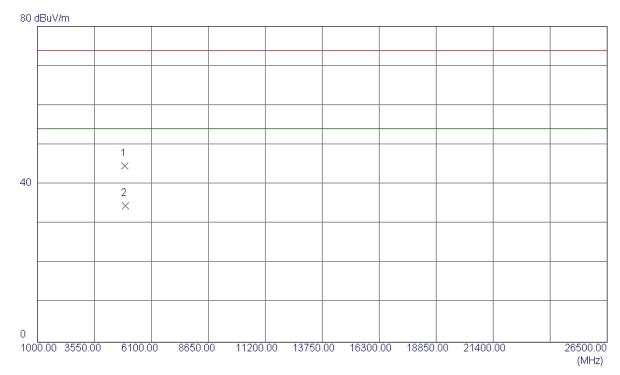
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461.0000	75. 03	32. 78	107.81	54.00	53.81	AVG	No Limit
2	2461.2000	78. 66	32.78	111. 44	74.00	37.44	Peak	No Limit
3	2483.5000	29. 49	32. 81	62.30	74.00	-11.70	Peak	
4	2483.5000	18. 47	32. 81	51. 28	54.00	-2.72	AVG	

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Orthogonal Axis: X
Test Mode: TX B MODE 2462MHz

Vertical



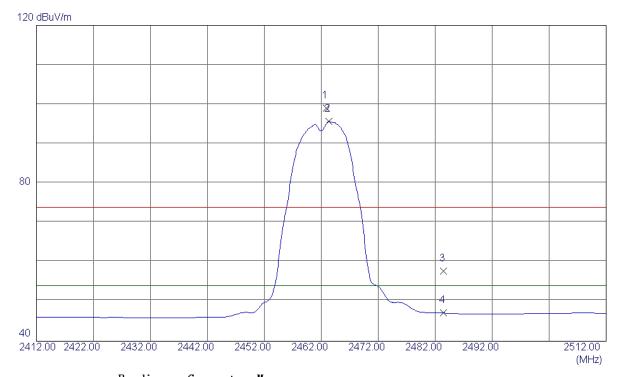
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924. 1000	38. 57	6.14	44.71	74.00	-29. 29	Peak	
2 *	4924. 3000	28. 45	6.14	34. 59	54.00	-19. 41	AVG	

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Test Mode: TX B MODE 2462MHz

Horizontal



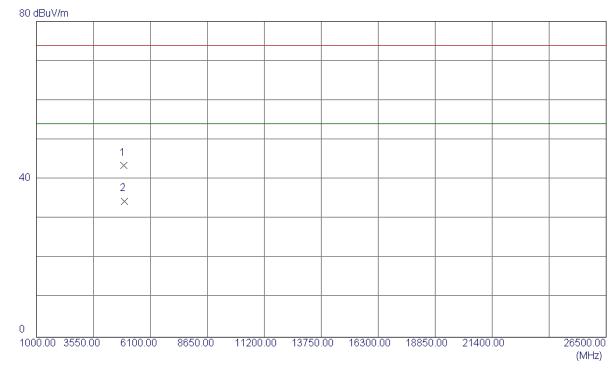
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.9000	66. 28	32.78	99. 06	74.00	25.06	Peak	No Limit
2 *	2463.3000	62.86	32.78	95.64	54.00	41.64	AVG	No Limit
3	2483.5000	24. 95	32. 81	57. 76	74.00	-16. 24	Peak	
4	2483.5000	14. 33	32. 81	47.14	54.00	-6. 86	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 54 of 144



Test Mode: TX B MODE 2462MHz

Horizontal



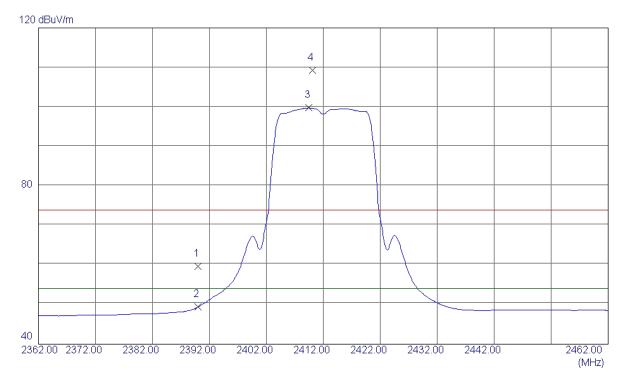
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0600	37. 33	6.14	43. 47	74.00	-30. 53	Peak	
2 *	4924. 3200	28. 34	6. 14	34. 48	54.00	-19. 52	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 55 of 144



Test Mode: TX G MODE 2412MHz

Vertical



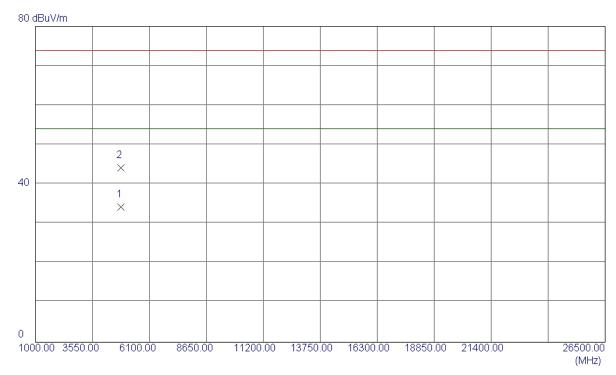
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	27. 03	32. 68	59.71	74.00	-14. 29	Peak	
2	2390. 0000	16.74	32. 68	49. 42	54.00	-4.58	AVG	
3 *	2409. 5000	67.06	32.71	99. 77	54.00	45.77	AVG	No Limit
4	2410. 1000	76. 54	32.71	109. 25	74.00	35. 25	Peak	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 56 of 144



Test Mode: TX G MODE 2412MHz

Vertical



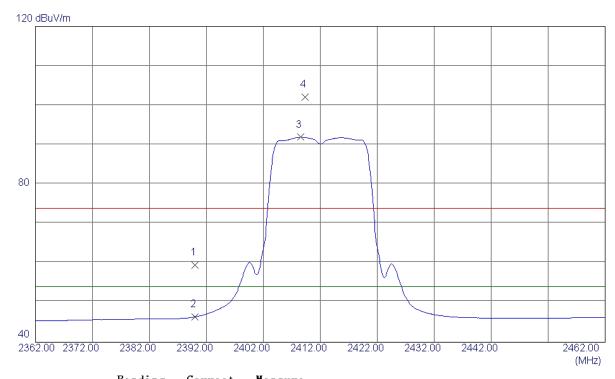
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.8000	28. 42	5. 87	34. 29	54.00	-19.71	AVG	
2	4824. 9000	38. 34	5. 87	44. 21	74.00	-29. 79	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 57 of 144



Test Mode: TX G MODE 2412MHz

Horizontal



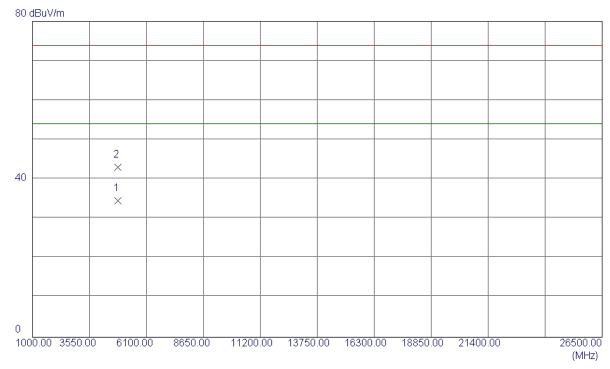
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	26. 82	32. 68	59. 50	74.00	-14.50	Peak	
2	2390. 0000	13.73	32. 68	46. 41	54.00	-7. 59	AVG	
3 *	2408. 6000	59. 22	32.70	91. 92	54.00	37. 92	AVG	No Limit
4	2409. 3000	69. 33	32.70	102. 03	74.00	28. 03	Peak	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 58 of 144



Test Mode: TX G MODE 2412MHz

Horizontal



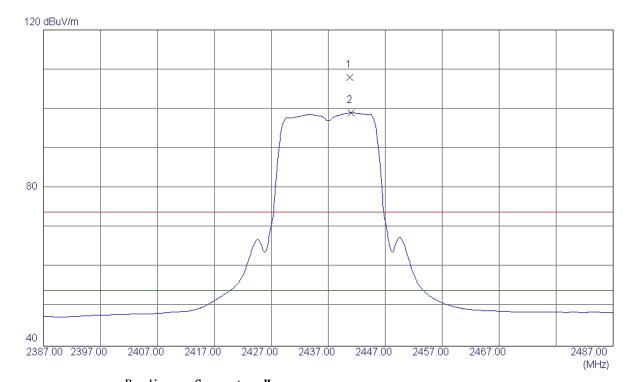
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.5600	28. 65	5. 87	34. 52	54.00	-19. 48	AVG	
2	4824.3400	37. 23	5. 87	43.10	74.00	-30. 90	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 59 of 144



Test Mode: TX G MODE 2437MHz

Vertical



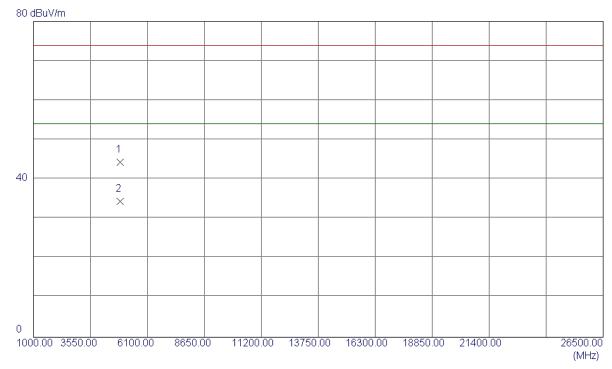
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440. 8000	75. 27	32. 75	108.02	74.00	34. 02	Peak	No Limit
2 *	2441.0000	66. 27	32. 75	99. 02	54.00	45. 02	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 60 of 144



Test Mode: TX G MODE 2437MHz

Vertical



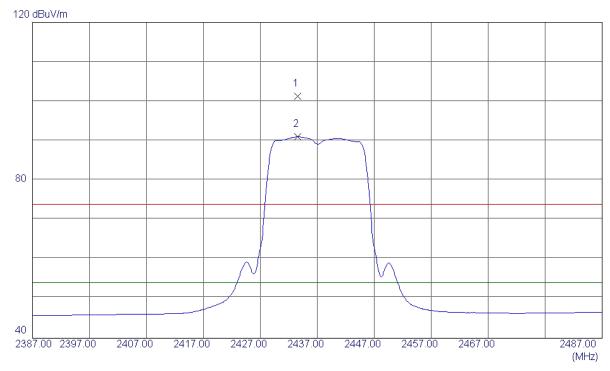
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.3500	38. 35	6.00	44. 35	74.00	-29. 65	Peak	
2 *	4874. 8000	28. 45	6. 01	34. 46	54.00	-19.54	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 61 of 144



Test Mode: TX G MODE 2437MHz

Horizontal



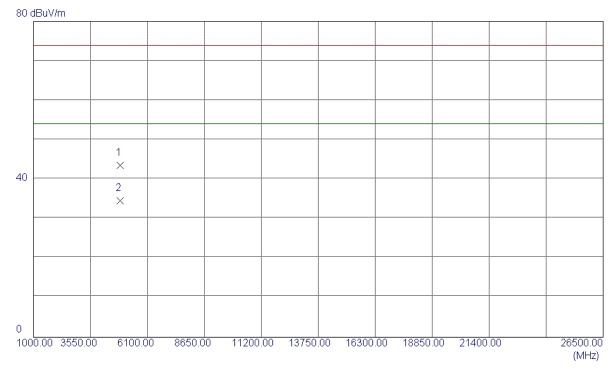
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2433.5000	68. 54	32.74	101.28	74.00	27. 28	Peak	No Limit
2 *	2433.6000	58. 26	32.74	91.00	54.00	37.00	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 62 of 144



Test Mode: TX G MODE 2437MHz

Horizontal



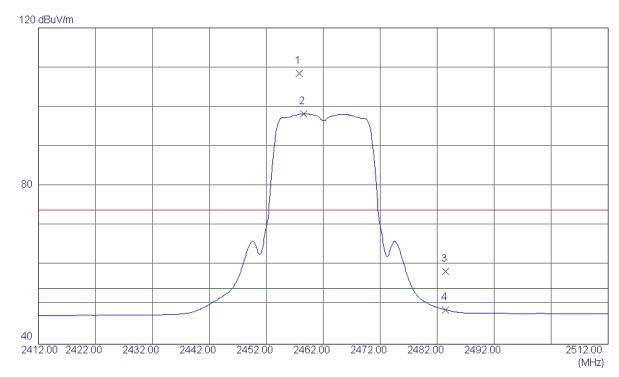
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874. 2500	37.54	6.00	43.54	74.00	-30. 46	Peak	
2 *	4874.7000	28. 62	6. 01	34. 63	54.00	-19. 37	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 63 of 144



Test Mode: TX G MODE 2462MHz

Vertical



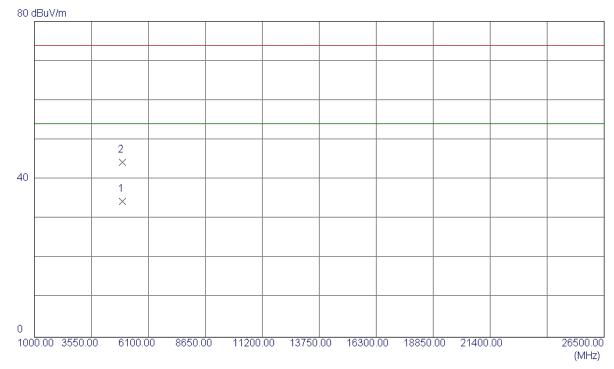
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2457.8000	75. 73	32.77	108.50	74.00	34. 50	Peak	No Limit
2 *	2458. 6000	65.54	32.77	98. 31	54.00	44. 31	AVG	No Limit
3	2483.5000	25.64	32.81	58. 45	74.00	-15.55	Peak	
4	2483.5000	15. 87	32. 81	48. 68	54.00	-5.32	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 64 of 144



Orthogonal Axis: X
Test Mode: TX G MODE 2462MHz

Vertical



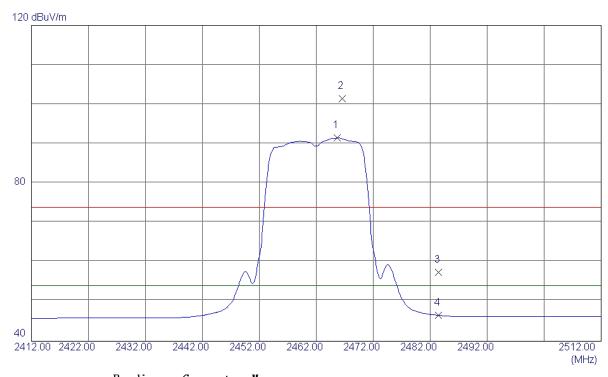
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924. 4000	28. 27	6.14	34. 41	54.00	-19.59	AVG	
2	4924. 5000	38. 19	6. 14	44. 33	74.00	-29. 67	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 65 of 144



Test Mode: TX G MODE 2462MHz

Horizontal



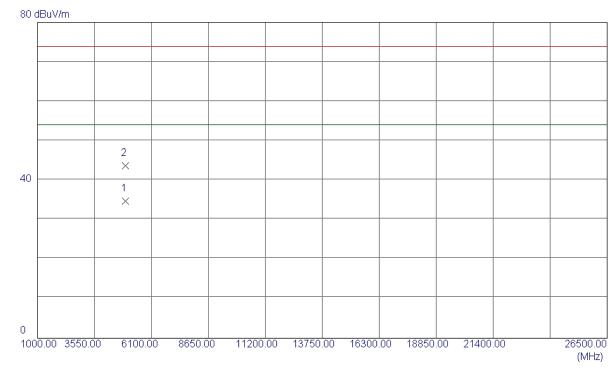
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2465.7000	58. 72	32. 78	91.50	54.00	37.50	AVG	No Limit
2	2466.6000	68. 71	32. 78	101.49	74.00	27. 49	Peak	No Limit
3	2483.5000	24. 59	32. 81	57. 40	74.00	-16. 60	Peak	
4	2483.5000	13.74	32. 81	46. 55	54.00	-7. 45	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 66 of 144



Orthogonal Axis: X
Test Mode: TX G MODE 2462MHz

Horizontal



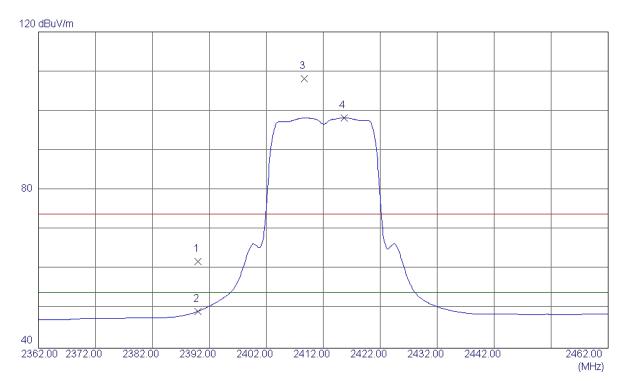
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924. 7000	28. 59	6.14	34. 73	54.00	-19. 27	AVG	
2	4924. 8500	37.51	6.14	43.65	74.00	-30. 35	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 67 of 144



Test Mode: TX N-20M MODE 2412MHz

Vertical



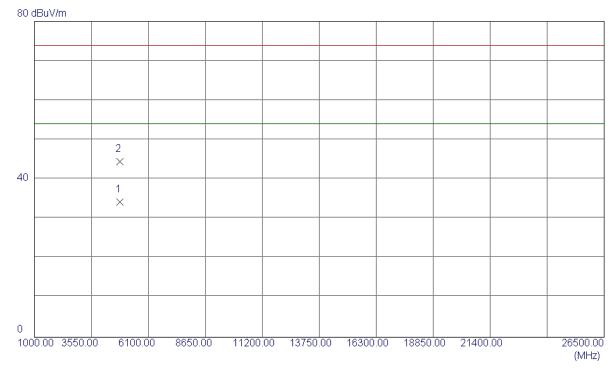
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	29. 30	32. 68	61.98	74.00	-12.02	Peak	
2	2390. 0000	16.63	32. 68	49.31	54.00	-4. 69	AVG	
3	2408.7000	75. 50	32.70	108. 20	74.00	34. 20	Peak	No Limit
4 *	2415.7000	65. 55	32.71	98. 26	54.00	44. 26	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 68 of 144



Orthogonal Axis: X
Test Mode: TX N-20M MODE 2412MHz

Vertical



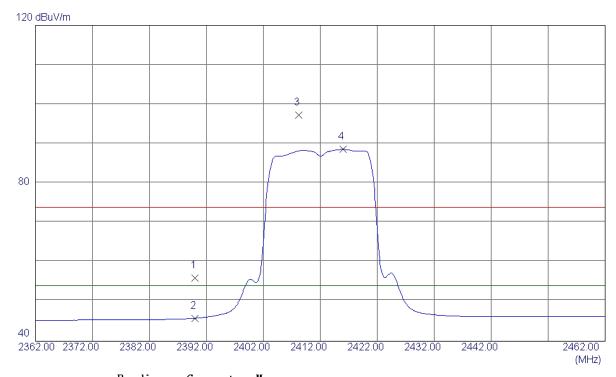
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.7000	28. 37	5. 87	34. 24	54.00	-19.76	AVG	
2	4824. 2000	38. 56	5.87	44. 43	74.00	-29. 57	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 69 of 144



Test Mode: TX N-20M MODE 2412MHz

Horizontal



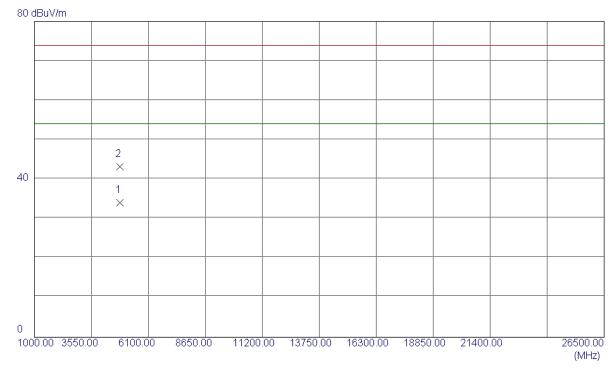
t
t

Report No.: BTL-FCCP-1-1603C223 Page 70 of 144



Test Mode: TX N-20M MODE 2412MHz

Horizontal



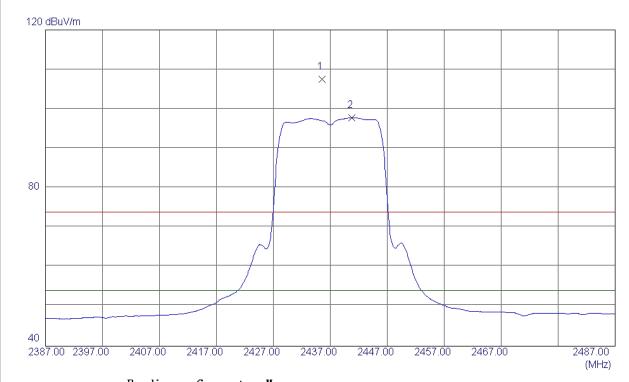
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.6200	28. 15	5. 87	34. 02	54.00	-19. 98	AVG	
2	4824. 5000	37.34	5. 87	43. 21	74.00	-30. 79	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 71 of 144



Test Mode: TX N-20M MODE 2437MHz

Vertical



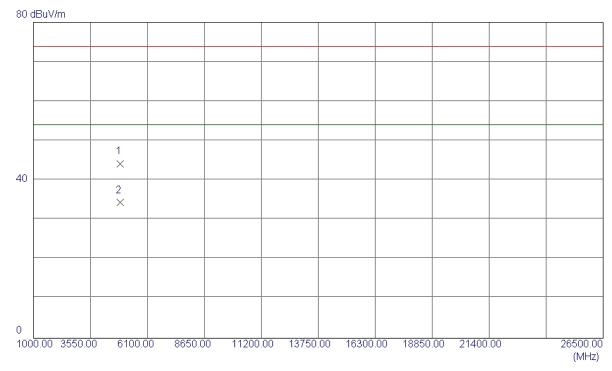
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2435.5000	74. 79	32.74	107.53	74.00	33. 53	Peak	No Limit
2 *	2440. 8000	65.06	32. 75	97. 81	54.00	43.81	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 72 of 144



Test Mode: TX N-20M MODE 2437MHz

Vertical



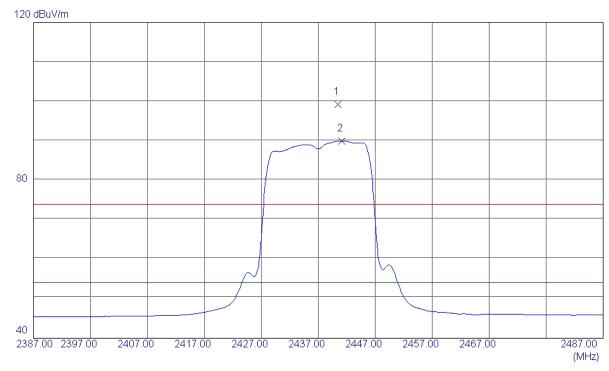
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.8500	38. 10	6. 01	44. 11	74.00	-29. 89	Peak	
2 *	4874. 9600	28. 31	6. 01	34. 32	54.00	-19. 68	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 73 of 144



Test Mode: TX N-20M MODE 2437MHz

Horizontal



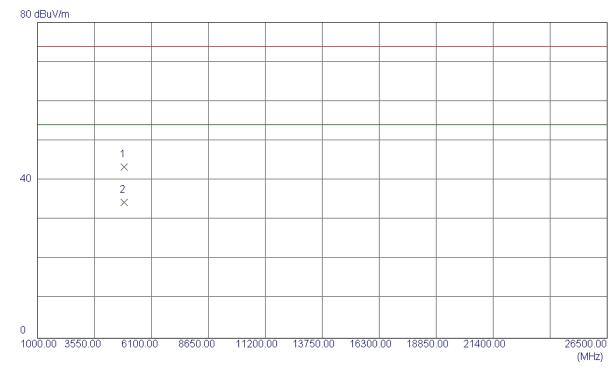
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440. 4000	66. 45	32.75	99. 20	74.00	25. 20	Peak	No Limit
2 *	2441.1000	57. 21	32. 75	89. 96	54.00	35. 96	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 74 of 144



Orthogonal Axis: X
Test Mode: TX N-20M MODE 2437MHz

Horizontal



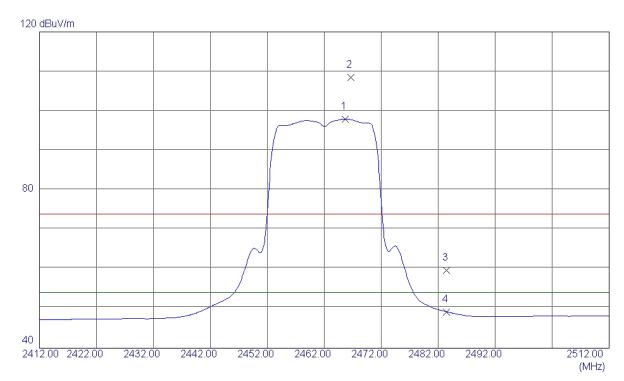
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874. 5000	37. 42	6.00	43.42	74.00	-30.58	Peak	
2 *	4874. 6400	28. 35	6. 01	34. 36	54.00	-19. 64	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 75 of 144



Test Mode: TX N-20M MODE 2462MHz

Vertical



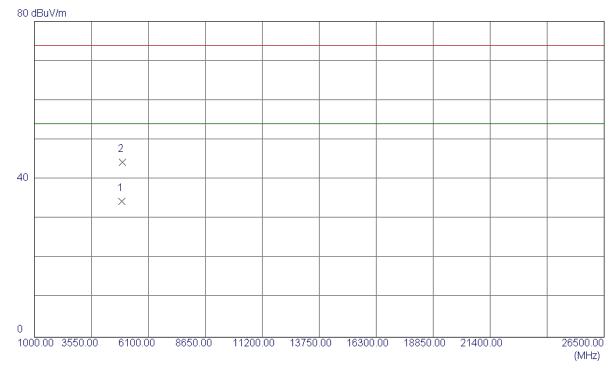
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2465.7000	65. 17	32. 78	97. 95	54.00	43.95	AVG	No Limit
2	2466. 7000	75.66	32.78	108. 44	74.00	34. 44	Peak	No Limit
3	2483.5000	26. 86	32.81	59. 67	74.00	-14.33	Peak	
4	2483.5000	16. 38	32. 81	49. 19	54.00	-4. 81	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 76 of 144



Test Mode: TX N-20M MODE 2462MHz

Vertical



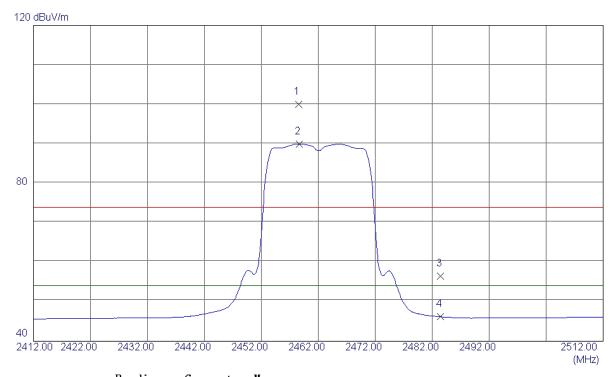
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924. 1200	28. 34	6.14	34. 48	54.00	-19. 52	AVG	
2	4924. 8000	38. 26	6. 14	44. 40	74.00	-29. 60	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 77 of 144



Test Mode: TX N-20M MODE 2462MHz

Horizontal



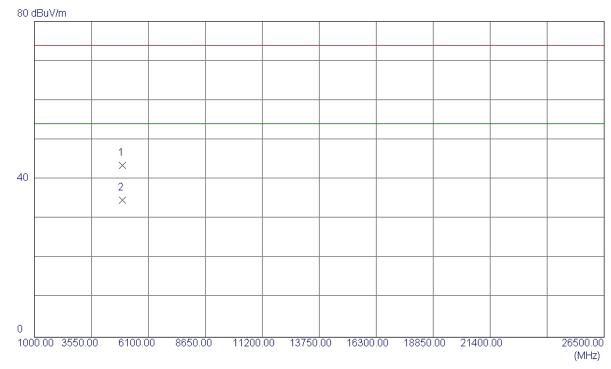
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458. 5000	67. 18	32.77	99. 95	74.00	25. 95	Peak	No Limit
2 *	2458.7000	57. 22	32.77	89. 99	54.00	35. 99	AVG	No Limit
3	2483.5000	23.70	32. 81	56. 51	74.00	-17. 49	Peak	
4	2483.5000	13. 37	32. 81	46. 18	54.00	-7. 82	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 78 of 144



Orthogonal Axis: X
Test Mode: TX N-20M MODE 2462MHz

Horizontal



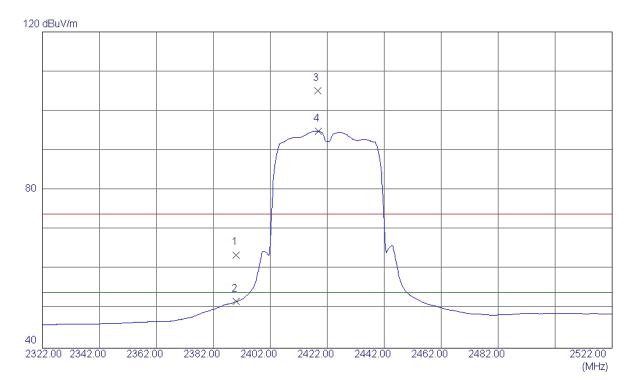
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924. 3500	37. 37	6.14	43.51	74.00	-30. 49	Peak	
2 *	4924. 4000	28. 56	6.14	34. 70	54.00	-19.30	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 79 of 144



Test Mode: TX N-40M MODE 2422MHz

Vertical



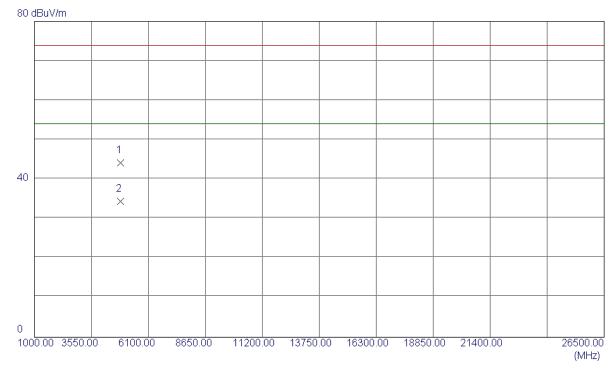
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	30. 92	32. 68	63.60	74.00	-10.40	Peak	
2	2390. 0000	19.09	32. 68	51.77	54.00	-2. 23	AVG	
3	2418.6000	72. 44	32.72	105. 16	74.00	31.16	Peak	No Limit
4 *	2418.8000	62. 23	32.72	94. 95	54.00	40. 95	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 80 of 144



Test Mode: TX N-40M MODE 2422MHz

Vertical



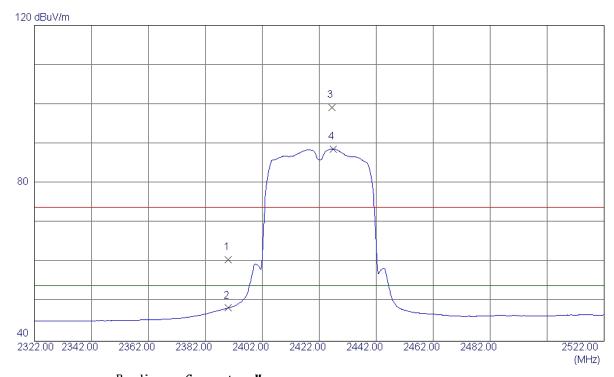
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844. 6000	38. 30	5. 93	44. 23	74.00	-29. 77	Peak	
2 *	4844. 7500	28. 45	5. 93	34. 38	54.00	-19. 62	AVG	

Report No.: BTL-FCCP-1-1603C223 Page 81 of 144



Test Mode: TX N-40M MODE 2422MHz

Horizontal



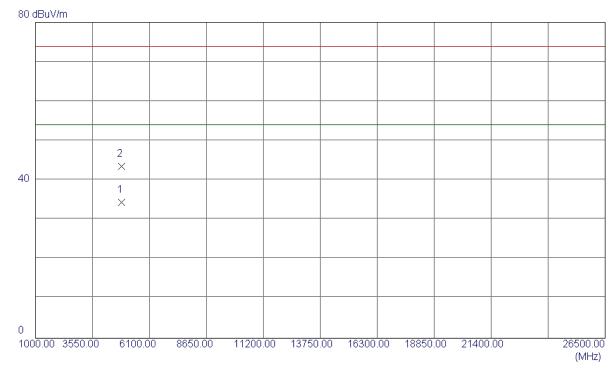
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	27. 96	32. 68	60.64	74.00	-13.36	Peak	
2	2390. 0000	15.72	32. 68	48. 40	54.00	-5. 60	AVG	
3	2426. 4000	66. 46	32. 73	99. 19	74.00	25. 19	Peak	No Limit
4 *	2426. 8000	55. 98	32. 73	88. 71	54.00	34. 71	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 82 of 144



Orthogonal Axis: X
Test Mode: TX N-40M MODE 2422MHz

Horizontal



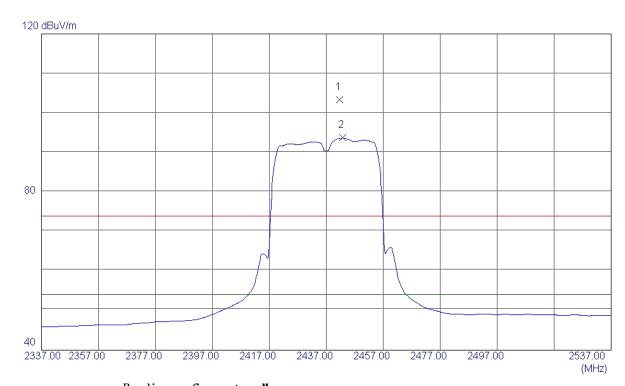
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4844. 1200	28. 44	5. 92	34. 36	54.00	-19.64	AVG	
2	4844. 8000	37.64	5. 93	43.57	74.00	-30. 43	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 83 of 144



Test Mode: TX N-40M MODE 2437MHz

Vertical



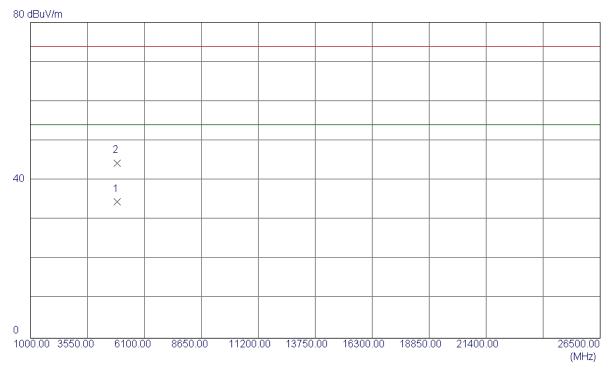
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2441.6000	70. 58	32. 75	103.33	74.00	29. 33	Peak	No Limit
2 *	2442. 8000	60. 93	32. 75	93. 68	54.00	39. 68	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 84 of 144



Test Mode: TX N-40M MODE 2437MHz

Vertical



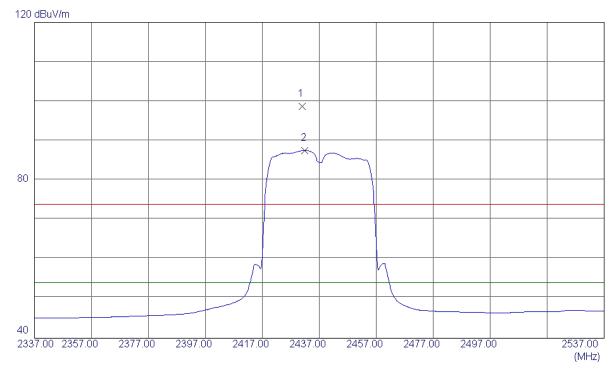
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874. 2000	28. 62	6.00	34. 62	54.00	-19.38	AVG	
2	4874. 6000	38. 39	6. 01	44. 40	74.00	-29. 60	Peak	

Report No.: BTL-FCCP-1-1603C223 Page 85 of 144



Test Mode: TX N-40M MODE 2437MHz

Horizontal



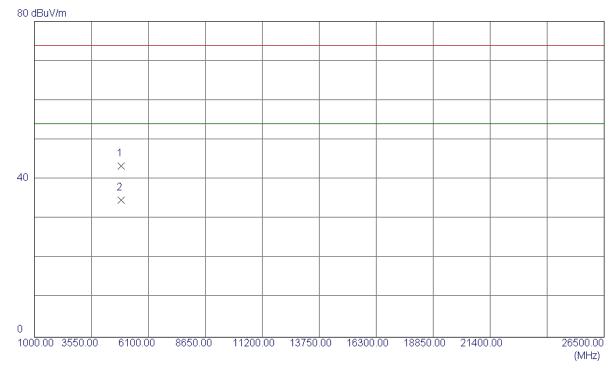
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2431.0000	65.99	32.73	98. 72	74.00	24.72	Peak	No Limit
2 *	2432.0000	54. 83	32.74	87. 57	54.00	33. 57	AVG	No Limit

Report No.: BTL-FCCP-1-1603C223 Page 86 of 144



Test Mode: TX N-40M MODE 2437MHz

Horizontal



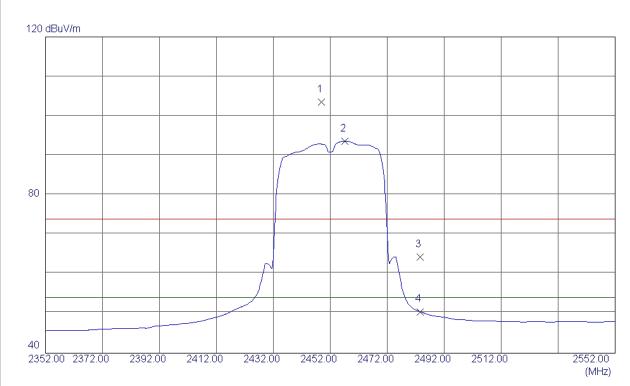
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874. 4500	37.31	6.00	43.31	74.00	-30. 69	Peak	
2 *	4874.5000	28. 71	6.00	34.71	54.00	-19. 29	AVG	

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Test Mode: TX N-40M MODE 2452MHz

Vertical



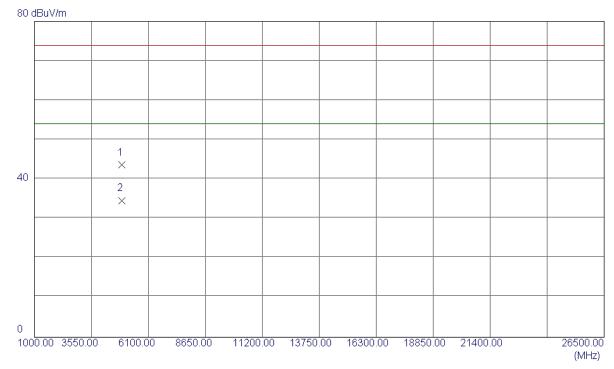
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2448. 8000	70. 77	32.76	103.53	74.00	29. 53	Peak	No Limit
2 *	2457. 2000	60.89	32.77	93.66	54.00	39. 66	AVG	No Limit
3	2483.5000	31.50	32. 81	64. 31	74.00	-9. 69	Peak	
4	2483.5000	17. 67	32. 81	50. 48	54.00	-3.52	AVG	

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Test Mode: TX N-40M MODE 2452MHz

Vertical



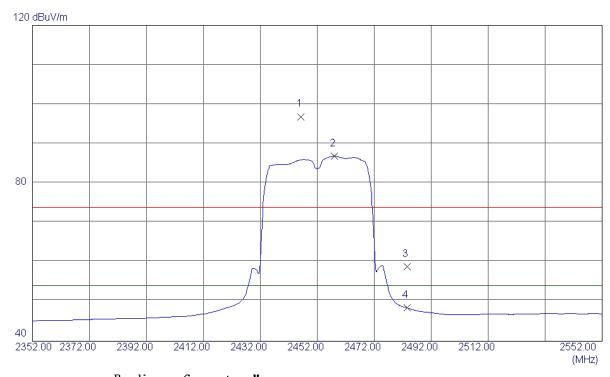
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4903.8600	37.52	6.08	43.60	74.00	-30. 40	Peak	
2 *	4903.9500	28. 42	6. 08	34. 50	54.00	-19. 50	AVG	

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Test Mode: TX N-40M MODE 2452MHz

Horizontal



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2446. 2000	64. 12	32.76	96. 88	74.00	22. 88	Peak	No Limit
2 *	2458. 0000	54. 09	32.77	86. 86	54.00	32.86	AVG	No Limit
3	2483.5000	26. 06	32. 81	58. 87	74.00	-15. 13	Peak	
4	2483.5000	15. 60	32. 81	48. 41	54.00	-5. 59	AVG	

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Orthogonal Axis: X
Test Mode: TX N-40M MODE 2452MHz

Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4903.7950	39. 16	6. 08	45. 24	74.00	-28.76	Peak	
2 *	4903.8000	28. 49	6. 08	34. 57	54.00	-19. 43	AVG	

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ATTACH	IMENT E - BANDWIDTH

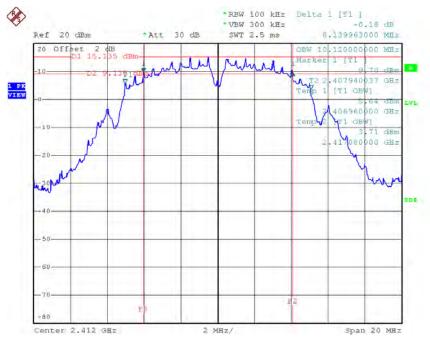
Report No.: BTL-FCCP-1-1603C223 Page 92 of 144



Test Mode: TX B Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	8.14	10.12	500	Complies
2437	8.11	10.12	500	Complies
2462	8.11	10.12	500	Complies

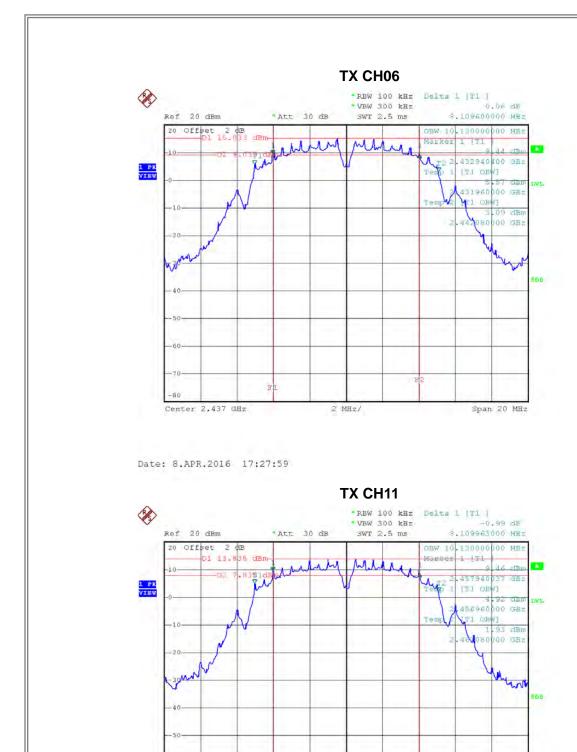
TX CH01



Date: 8.APR.2016 17:26:28

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Date: 8.APR.2016 17:29:47

Center 2.462 GHz

2 MHz/

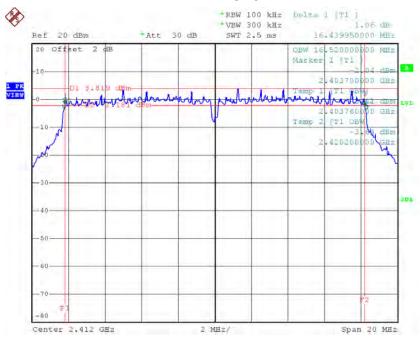
Span 20 MHz



Test Mode: TX G Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.44	16.52	500	Complies
2437	16.40	16.52	500	Complies
2462	16.44	16.52	500	Complies

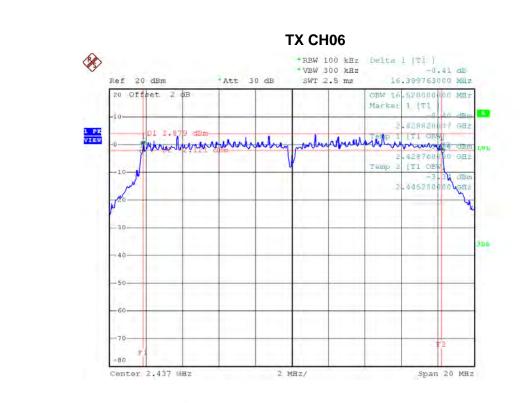
TX CH01



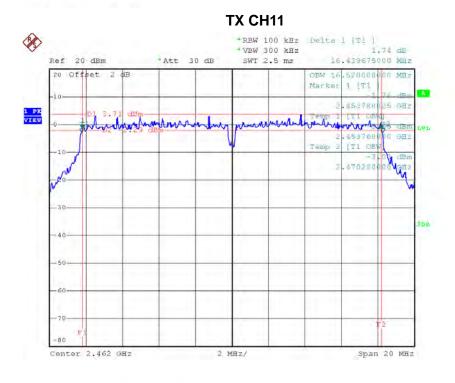
Date: 8.APR.2016 17:32:13

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Date: 8.APR.2016 17:33:27



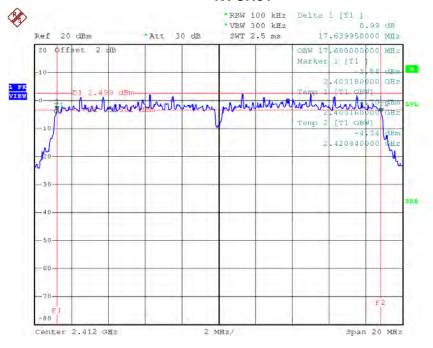
Date: 8.APR.2016 17:34:31



Test Mode: TX N-20MHz Mode_CH01/06/11

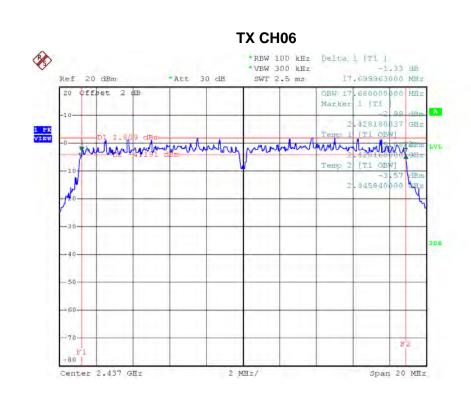
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.64	17.68	500	Complies
2437	17.70	17.68	500	Complies
2462	17.64	17.68	500	Complies

TX CH01

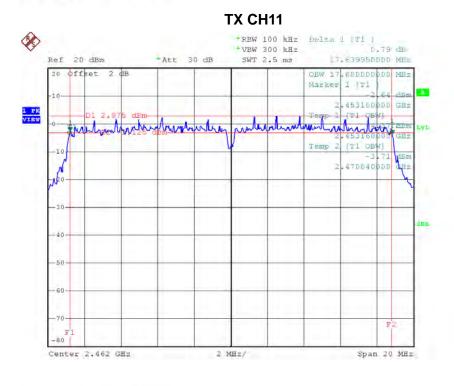


Date: 8.APR.2016 17:37:02









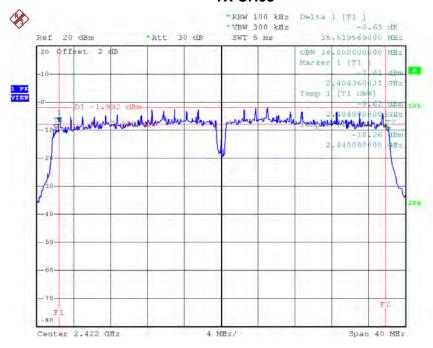
Date: 8.APR.2016 17:39:26



Test Mode: TX N-40MHz Mode_CH03/06/09

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.52	36.00	500	Complies
2437	35.92	36.00	500	Complies
2452	35.83	36.00	500	Complies

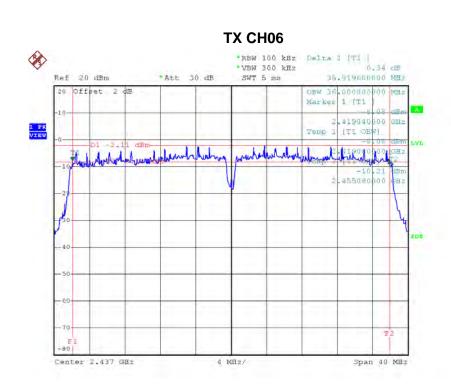
TX CH03



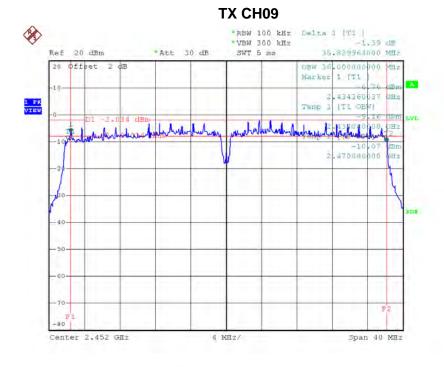
Date: 8.APR.2016 17:46:24

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Date: 8.APR.2016 17:48:37



Date: 8.APR.2016 17:49:51



ATTACHMENT F – MAXIMUM PEAK CONDUCTED OUTPUT POWER

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	Test Mode :TX B Mode_CH01/06/11					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Result	
2412	29.95	0.99	30.00	1.00	Complies	
2437	29.93	0.98	30.00	1.00	Complies	
2462	25.22	0.33	30.00	1.00	Complies	

	Test Mode :TX G Mode_CH01/06/11				
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Nesuit
2412	29.78	0.95	30.00	1.00	Complies
2437	29.85	0.97	30.00	1.00	Complies
2462	29.77	0.95	30.00	1.00	Complies

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	Test Mode :TX N20 Mode_CH01/06/11_ANT 1					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Result	
2412	26.52	0.45	30.00	1.00	Complies	
2437	26.73	0.47	30.00	1.00	Complies	
2462	26.66	0.46	30.00	1.00	Complies	

	Test Mode :TX N20 Mode_CH01/06/11_ANT 2					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Result	
2412	25.62	0.36	30.00	1.00	Complies	
2437	25.75	0.38	30.00	1.00	Complies	
2462	25.63	0.37	30.00	1.00	Complies	

	Test Mode :TX N20 Mode_CH01/06/11_Total					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Result	
2412	29.10	0.81	30.00	1.00	Complies	
2437	29.28	0.85	30.00	1.00	Complies	
2462	29.19	0.83	30.00	1.00	Complies	

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	Test Mode :TX N40 Mode_CH03/06/09_ANT 1					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Result	
2422	21.76	0.15	30.00	1.00	Complies	
2437	26.93	0.49	30.00	1.00	Complies	
2452	21.46	0.14	30.00	1.00	Complies	

	Test Mode :TX N40 Mode_CH03/06/09_ANT 2					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Kesuit	
2422	21.89	0.15	30.00	1.00	Complies	
2437	25.78	0.38	30.00	1.00	Complies	
2452	21.65	0.15	30.00	1.00	Complies	

	Test Mode :TX N40 Mode_CH03/06/09_Total					
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result	
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Result	
2422	24.84	0.30	30.00	1.00	Complies	
2437	29.40	0.87	30.00	1.00	Complies	
2452	24.57	0.29	30.00	1.00	Complies	

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ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

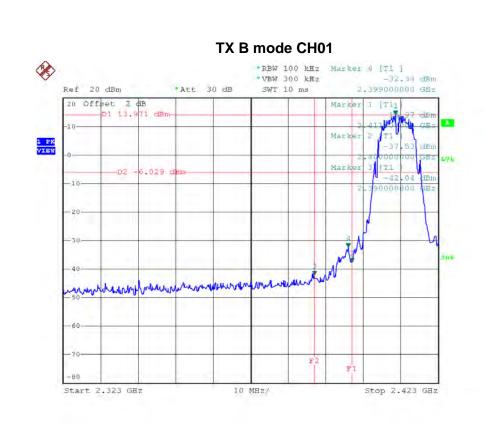
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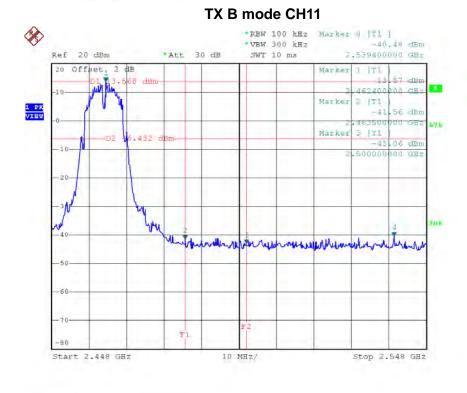
Test Mode :	TX B Mode

Report No.: BTL-FCCP-1-1603C223





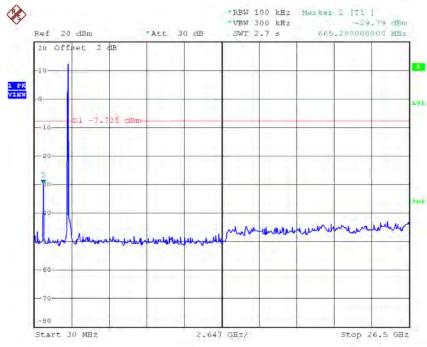




Date: 8.APR.2016 17:30:09

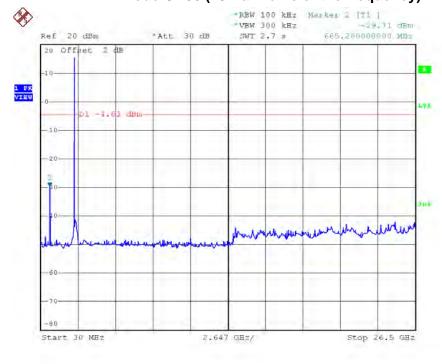






Date: 8.APR.2016 17:26:42

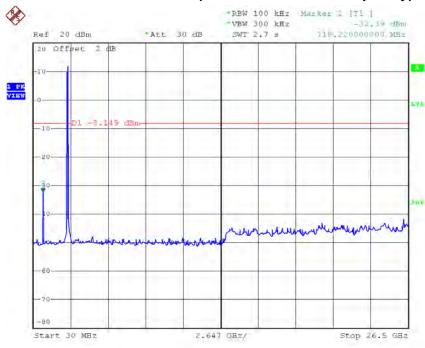
TX B mode CH06 (10 Harmonic of the frequency)



Date: 8.APR.2016 17:28:13







Date: 8.APR.2016 17:30:01

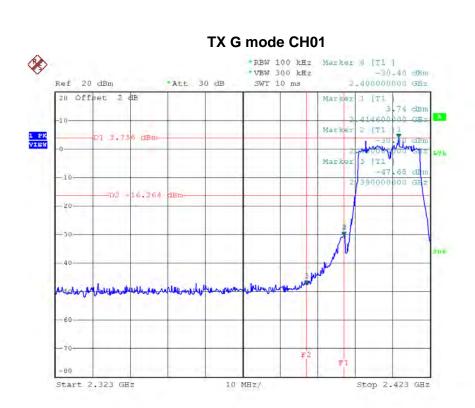
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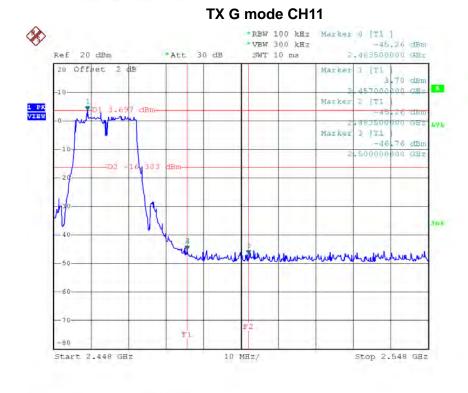
Test Mode :	TX G Mode

Report No.: BTL-FCCP-1-1603C223





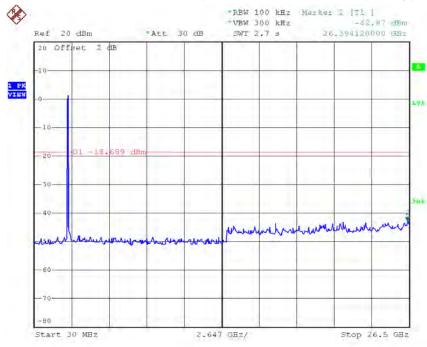




Date: 8.APR.2016 17:34:53

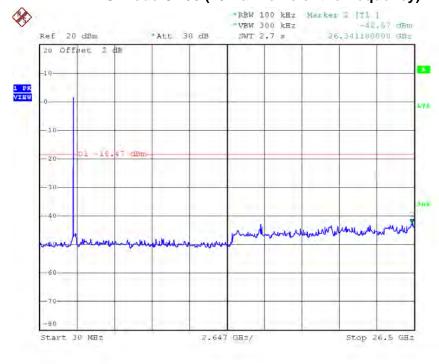






Date: 8.APR.2016 17:32:27

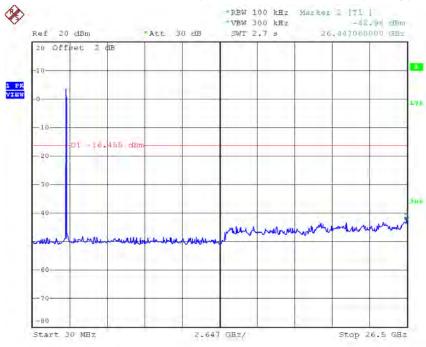
TX G mode CH06 (10 Harmonic of the frequency)



Date: 8.APR.2016 17:33:41







Date: 8.APR.2016 17:34:45

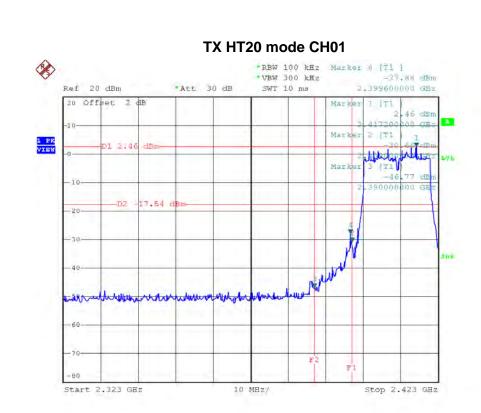
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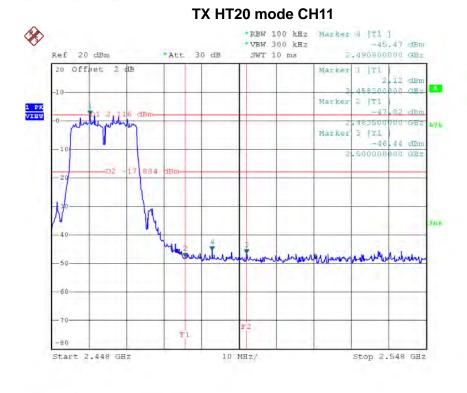
Test Mode:	TX N-20M Mode_ANT 1

Report No.: BTL-FCCP-1-1603C223





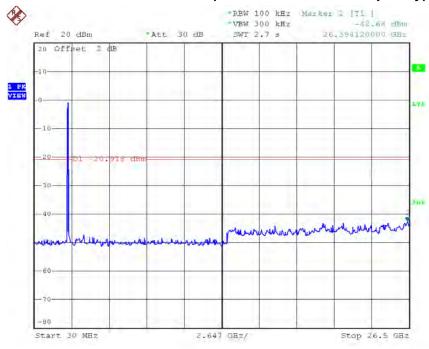




Date: 8.APR.2016 17:39:48

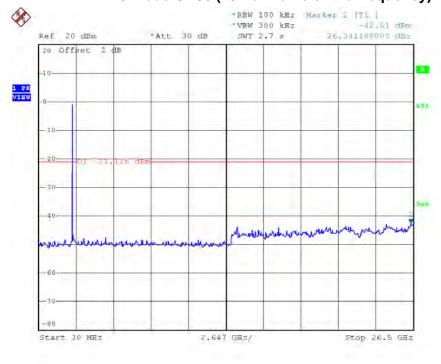






Date: 8.APR.2016 17:37:16

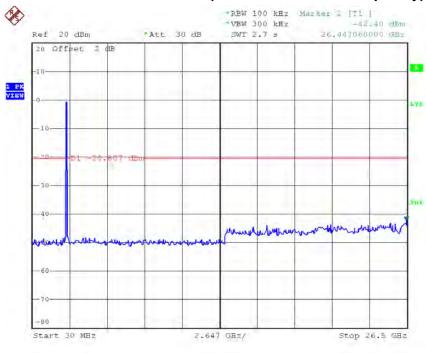
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 8.APR.2016 17:38:41







Date: 8.APR.2016 17:39:40

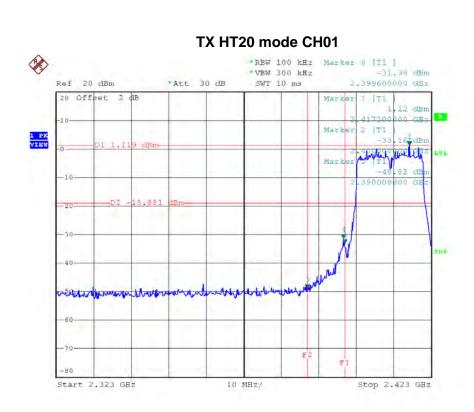
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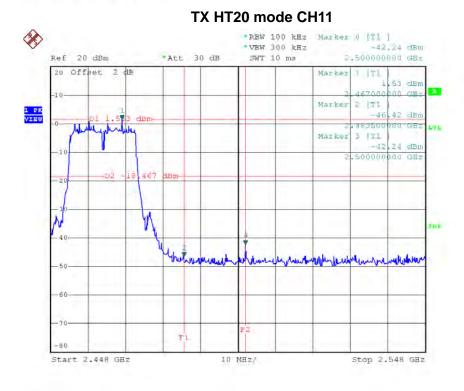
Test Mode :	TX N-20M Mode_ANT 2

Report No.: BTL-FCCP-1-1603C223





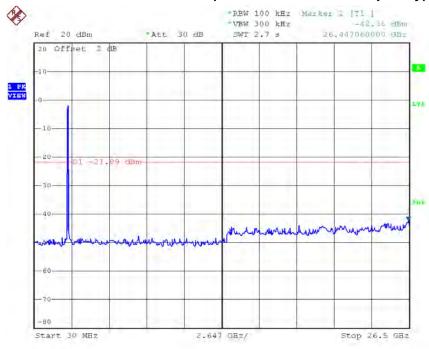




Date: 8.APR.2016 17:43:50

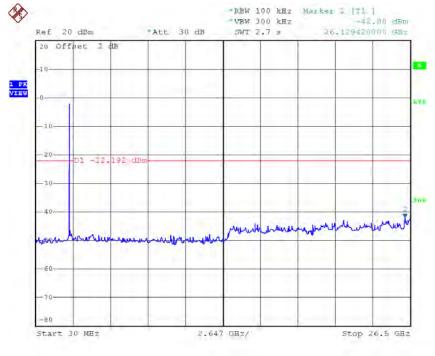






Date: 8.APR.2016 17:41:09

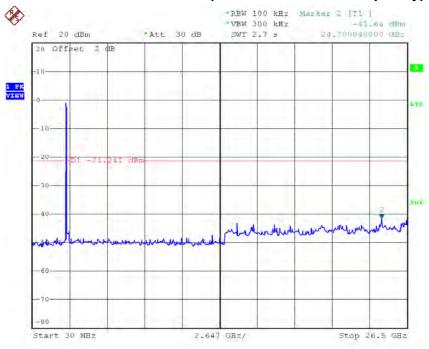
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 8.APR.2016 17:42:17







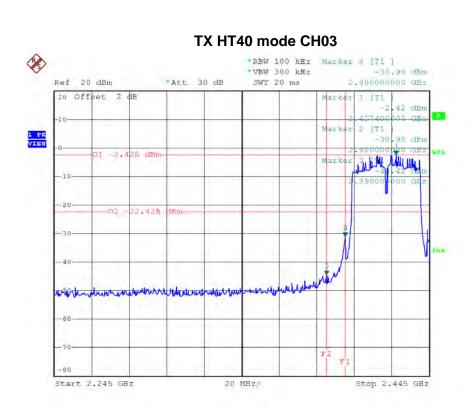
Date: 8.APR.2016 17:43:42

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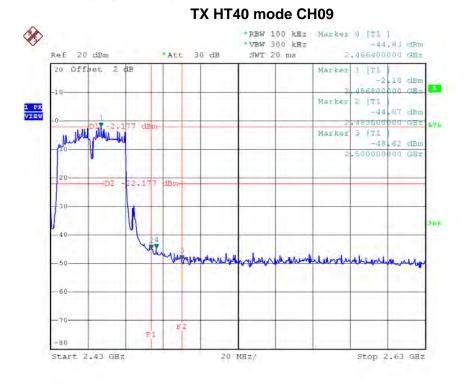


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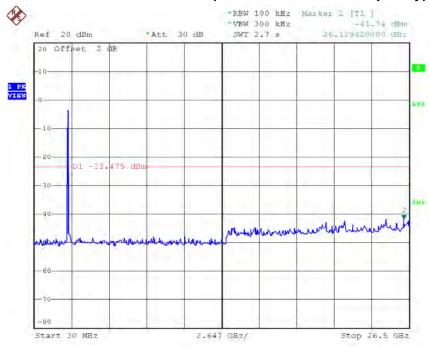
Date: 8.APR.2016 17:46:46



Date: 8.APR.2016 17:50:13

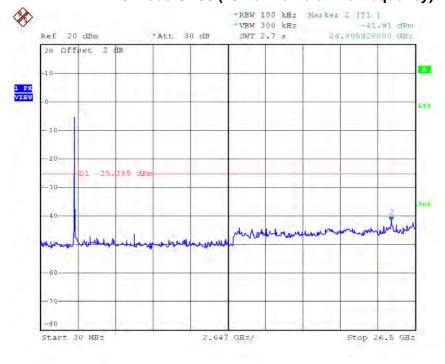






Date: 8.APR.2016 17:46:38

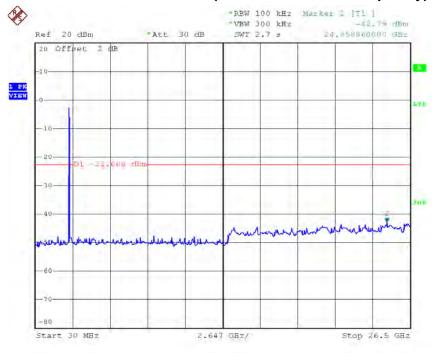
TX HT40 mode CH06 (10 Harmonic of the frequency)



Date: 8.APR.2016 17:48:51







Date: 8.APR.2016 17:50:05

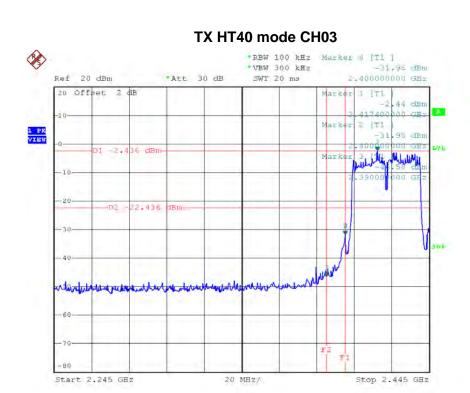
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Test Mode:	TX N-40M Mode_ANT 2

Report No.: BTL-FCCP-1-1603C223





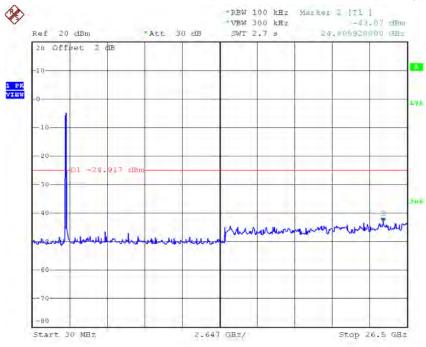
Date: 8.APR.2016 17:52:03

TX HT40 mode CH09 *RBW 100 kHz Market 0 [T1] *VBW 300 kHz -42.85 dBm 2.500000000 GHz Ref 20 dBm *Att 30 dB SWT 20 ms 20 Offset 2 dB 46 dBm 2 [T1 1 PK VIEW -43,84 dBn 103500 FDD SES 3 [11] Start 2.43 GHz 20 MHz/ Stop 2.63 GHz

Date: 8.APR.2016 17:56:33

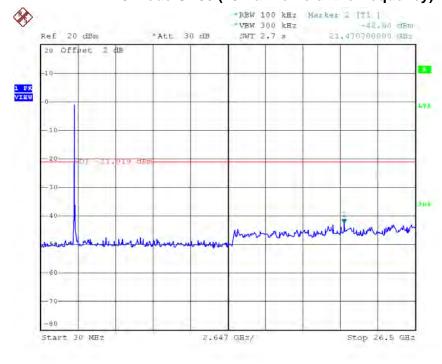






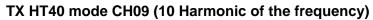
Date: 8.APR.2016 17:51:55

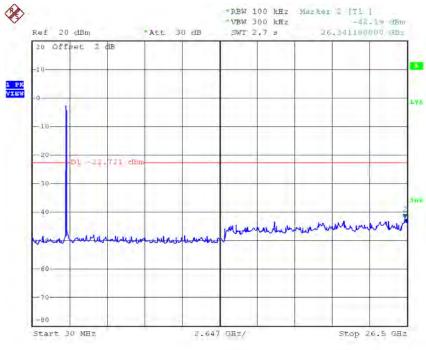
TX HT40 mode CH06 (10 Harmonic of the frequency)



Date: 8.APR.2016 17:55:23







Date: B.APR.2016 17:56:25

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ATTACHMENT H - POWER SPECTRAL DENSITY				

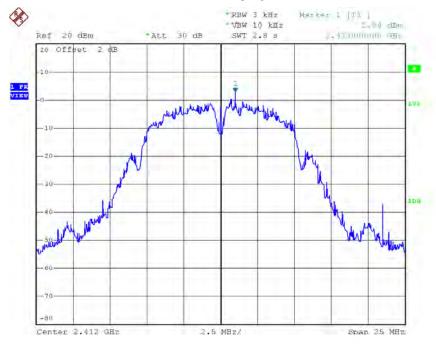
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Test Mode :TX B Mode_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	2.84	1.92	8.00	Complies
2437	0.67	1.17	8.00	Complies
2462	-0.78	0.84	8.00	Complies

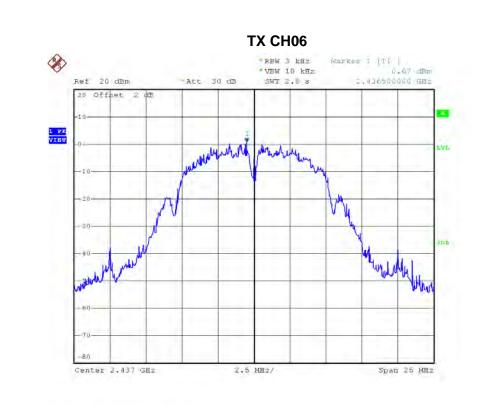
TX CH01



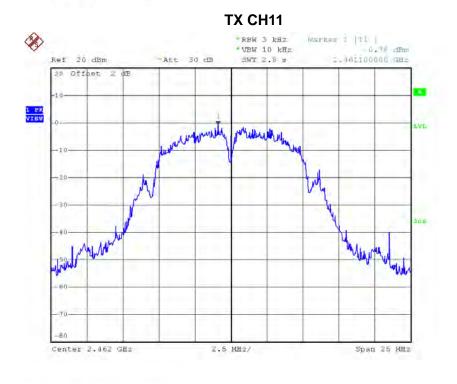
Date: 8.APR.2016 17:26:59

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Date: 8.APR.2016 17:28:22



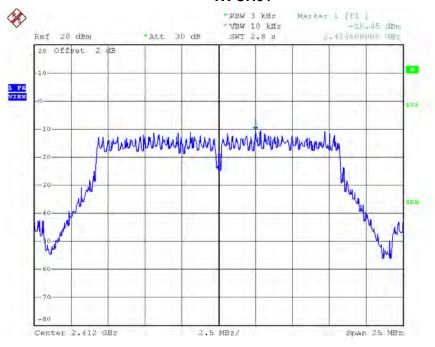
Date: 8.APR.2016 17:30:18



Test Mode :TX G Mode_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.45	0.09	8.00	Complies
2437	-10.67	0.09	8.00	Complies
2462	-10.28	0.09	8.00	Complies

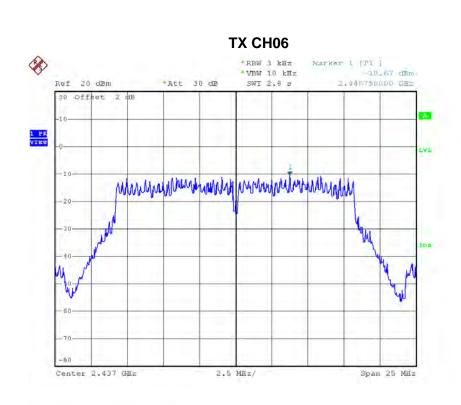
TX CH01



Date: 8.APR.2016 17:32:44

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Date: 8.APR.2016 17:33:50

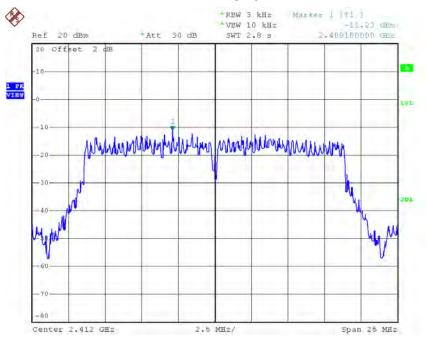
Date: 8.APR.2016 17:35:02



Test Mode: TX N-20M Mode_CH01/06/11_ANT 1

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-11.23	0.08	8.00	Complies
2437	-11.72	0.07	8.00	Complies
2462	-11.13	0.08	8.00	Complies

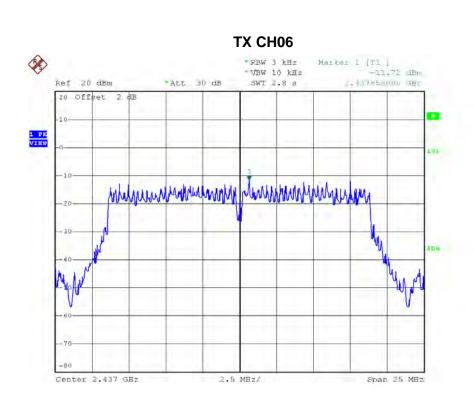
TX CH01



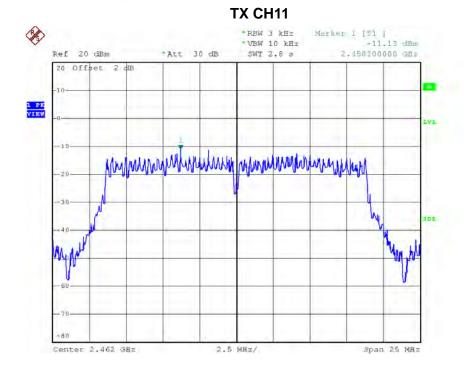
Date: 8.APR.2016 17:37:33

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Date: 8.APR.2016 17:38:50



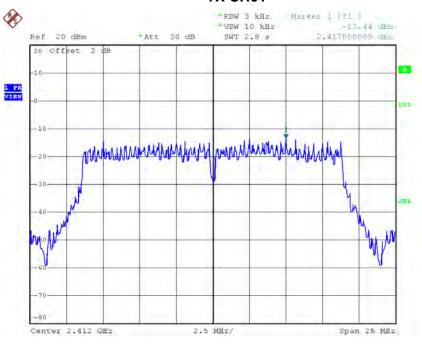
Date: 8.APR.2016 17:39:57



Test Mode: TX N-20M Mode_CH01/06/11_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-13.44	0.05	8.00	Complies
2437	-13.10	0.05	8.00	Complies
2462	-13.56	0.04	8.00	Complies

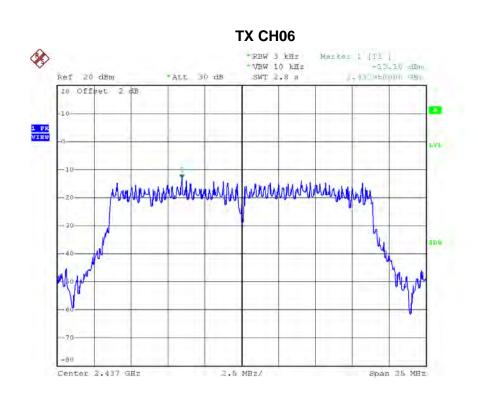
TX CH01



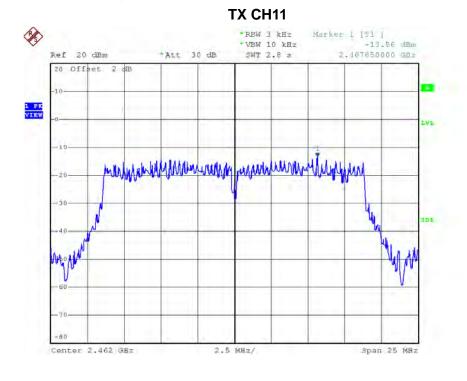
Date: 8.APR.2016 17:41:26

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Date: 8.APR.2016 17:42:26



Date: 8.APR.2016 17:43:59



Test Mode: TX N-20M Mode_CH01/06/11_Total

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-8.86	0.13	8.00	Complies
2437	-9.21	0.12	8.00	Complies
2462	-9.21	0.12	8.00	Complies

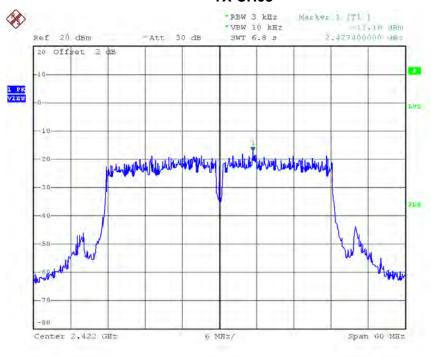
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Test Mode: TX N-40M Mode_CH03/06/09_ANT 1

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-17.16	0.02	8.00	Complies
2437	-17.28	0.02	8.00	Complies
2452	-17.39	0.02	8.00	Complies

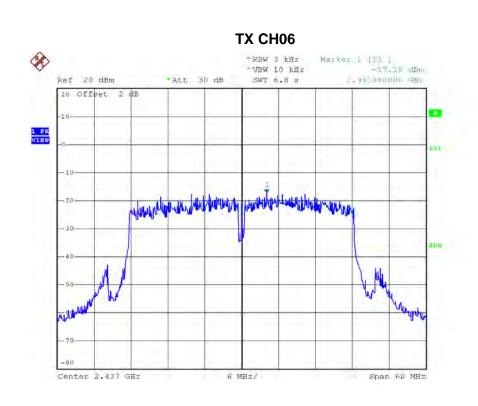
TX CH03



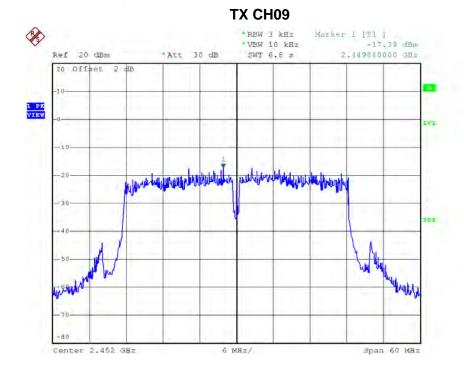
Date: 8.APR.2016 17:46:58

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Date: 8.APR.2016 17:49:03



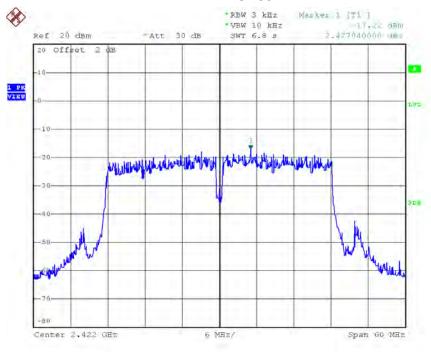
Date: 8.APR.2016 17:50:25



Test Mode: TX N-40M Mode_CH03/06/09_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-17.22	0.02	8.00	Complies
2437	-14.22	0.04	8.00	Complies
2452	-15.55	0.03	8.00	Complies

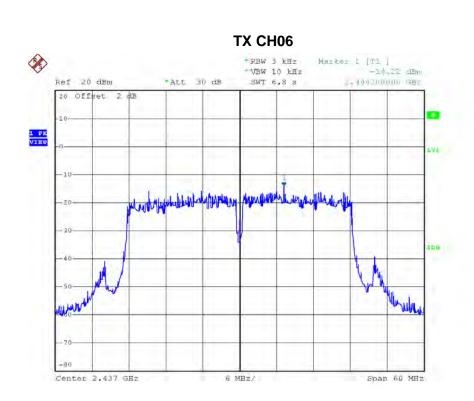
TX CH03



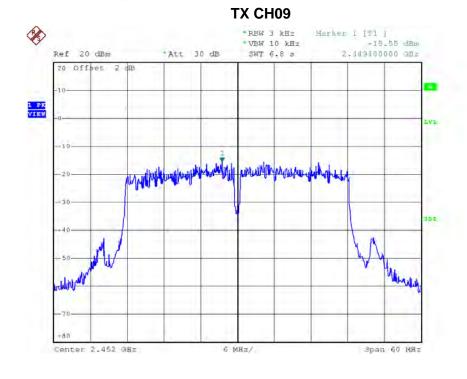
Date: 8.APR.2016 17:52:15

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Date: 8.APR.2016 17:55:35



Date: 8.APR.2016 17:56:45



Test Mode: TX N-40M Mode_CH03/06/09_Total

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-13.98	0.04	8.00	Complies
2437	-12.22	0.06	8.00	Complies
2452	-13.01	0.05	8.00	Complies

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