



Change

# **FCC Radio Test Report**

FCC ID: QISBGO-L03

This report concerns (chec	k one): ⊠Original Grant □Class I Change □Class II
Project No. Equipment Model Name Applicant Address	<ul> <li>: 1608C212</li> <li>: HUAWEI MediaPad T2 7.0 (MediaPad T2 7.0 for short)</li> <li>: BGO-L03</li> <li>: Huawei Technologies Co.,Ltd.</li> <li>: Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C</li> </ul>
Date of Receipt Date of Test Issued Date Tested by	: Aug. 26, 2016 : Aug. 26, 2016 ~ Sep. 09, 2016 : Sep. 13, 2016 : BTL Inc.
Testing Engineer	: Shawn Xino (Shawn Xiao)
Technical Manage	er : David Mao (David Mao)
Authorized Signat	tory : See (Steven Lu)

## BTL INC.

No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

TEL: +86-769-8318-3000 FAX: +86-769-8319-6000

Report No.: BTL-FCCP-3-1608C212 Page 1 of 151





#### **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 standards traceable to international standard(s) and/or national standard(s).

**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

**BTL**'s report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **BTL-self**, extracts from the test report shall not be reproduced except in full with **BTL**'s authorized written approval.

**BTL**'s laboratory quality assurance procedures are in compliance with the **ISO Guide 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

#### Limitation

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.

Report No.: BTL-FCCP-3-1608C212 Page 2 of 151





Table of Contents	Page
4 CERTIFICATION	•
1. CERTIFICATION	6
2 . SUMMARY OF TEST RESULTS	7
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
3. GENERAL INFORMATION	9
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	11
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	13
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TES	STED 14
3.5 DESCRIPTION OF SUPPORT UNITS	14
4 . EMC EMISSION TEST	15
4.1 CONDUCTED EMISSION MEASUREMENT	15
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	15
4.1.2 TEST PROCEDURE	15
4.1.3 DEVIATION FROM TEST STANDARD	15
4.1.4 TEST SETUP 4.1.5 EUT OPERATING CONDITIONS	16 16
4.1.6 EUT TEST CONDITIONS	16
4.1.7 TEST RESULTS	16
4.2 RADIATED EMISSION MEASUREMENT	17
4.2.1 RADIATED EMISSION LIMITS	17
4.2.2 TEST PROCEDURE	18
4.2.3 DEVIATION FROM TEST STANDARD	18
4.2.4 TEST SETUP 4.2.5 EUT OPERATING CONDITIONS	19 21
4.2.6 EUT TEST CONDITIONS	21
4.2.7 TEST RESULTS (9KHZ TO 30MHZ)	22
4.2.8 TEST RESULTS (30MHZ TO 1000 MHZ)	22
4.2.9 TEST RESULTS (ABOVE 1000 MHZ)	22
5 . BANDWIDTH TEST	23
5.1 APPLIED PROCEDURES	23
5.1.1 TEST PROCEDURE	23
5.1.2 DEVIATION FROM STANDARD	23
5.1.3 TEST SETUP 5.1.4 EUT OPERATION CONDITIONS	23 23
5.1.5 EUT TEST CONDITIONS	23 23
5.1.6 TEST RESULTS	23
6 . MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST	24





Table of Contents	Page
6.1 APPLIED PROCEDURES / LIMIT 6.1.1 TEST PROCEDURE 6.1.2 DEVIATION FROM STANDARD 6.1.3 TEST SETUP 6.1.4 EUT OPERATION CONDITIONS 6.1.5 EUT TEST CONDITIONS 6.1.6 TEST RESULTS  7 . ANTENNA CONDUCTED SPURIOUS EMISSION 7.1 APPLIED PROCEDURES / LIMIT 7.1.1 TEST PROCEDURE	Page  24 24 24 24 24 24 25 25
7.1.2 DEVIATION FROM STANDARD	25
7.1.3 TEST SETUP 7.1.4 EUT OPERATION CONDITIONS	25 25
7.1.5 EUT TEST CONDITIONS	25
7.1.6 TEST RESULTS	25
8 . POWER SPECTRAL DENSITY TEST	26
8.1 APPLIED PROCEDURES / LIMIT 8.1.1 TEST PROCEDURE 8.1.2 DEVIATION FROM STANDARD 8.1.3 TEST SETUP 8.1.4 EUT OPERATION CONDITIONS 8.1.5 EUT TEST CONDITIONS 8.1.6 TEST RESULTS	26 26 26 26 26 26 26
9 . MEASUREMENT INSTRUMENTS LIST	27
10 . EUT TEST PHOTO	29
ATTACHMENT A - CONDUCTED EMISSION	35
ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ)	42
ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)	55
ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)	68
ATTACHMENT E - BANDWIDTH	117
ATTACHMENT F - MAXIMUM PEAK CONDUCTED OUTPUT POWER	124
ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION	126
ATTACHMENT H - POWER SPECTRAL DENSITY	145





## **REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
BTL-FCCP-3-1608C212	Original Issue.	Sep. 13, 2016

Report No.: BTL-FCCP-3-1608C212 Page 5 of 151





Page 6 of 151

#### 1. CERTIFICATION

Equipment : HUAWEI MediaPad T2 7.0 (MediaPad T2 7.0 for short)

Brand Name: HUAWEI Model Name: BGO-L03

Applicant : Huawei Technologies Co.,Ltd. Manufacturer : Huawei Technologies Co.,Ltd.

Address : Administration Building, Huawei Base, Bantian, Longgang District ,Shenzhen

518129, P.R.China

Factory: Huawei Technologies Co.,Ltd.

Address : Administration Building, Huawei Base, Bantian, Longgang District ,Shenzhen

518129, P.R.China

Date of Test : Aug. 26, 2016 ~ Sep. 09, 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-3-1608C212) 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).

Test results included in this report is only for the WLAN 2.4G part.





## 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.

Report No.: BTL-FCCP-3-1608C212 Page 7 of 151





#### 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:

meded on one					
Test Site	e Method	Measurement Frequency	Ant.	U, (dB)	
		Range	H/V	, ( )	
		9KHz~30MHz	V	3.79	
		9KHz~30MHz	Ι	3.57	
		30MHz ~ 200MHz	V	3.82	
DG-CB03		30MHz ~ 200MHz	Ι	3.78	
	CISPR	200MHz ~ 1,000MHz	H/V V H V	4.10	
	CISEIX	200MHz ~ 1,000MHz		4.06	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	Ι	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.





## 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT

Equipment	HUAWEI MediaPad T2 7.0 (MediaPad T2 7.0 for short)			
Brand Name	HUAWEI			
Model Name	BGO-L03			
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: 19.59dBm 802.11g: 24.08dBm 802.11n(20MHz): 23.81dBm		
Power Source	#1 DC voltage supplied from AC/DC adapter. Manufacturer: (1) HUIZHOU BYD ELECTRONIC CO., LTD. (2) Shenzhen Huntkey Electric Co., Ltd. (3) Dongguan Phitek Electronics Co., Ltd Model: HW-050100U01 (US), HW-050100A01 (AU) HW-050100E01 (EU), HW-050100B01 (UK) #2 Supplied from battery.			
Power Rating	#1 I/P: 100-240V~50/60F #2 DC 3.7V 4000mAh	#1 I/P: 100-240V~50/60Hz, 0.2A #2 DC 3.7V 4000mAh		
HW Version	SH1BAGO721LM			
SW Version	BGO-L03C331B002			

#### Note:

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

2.

Item	Mfr/Brand	Model.
Dotton/	Harbin Coslight Power Co., Ltd.	HB3G1
Battery	Sunwoda Electronic Co., LTD	ПВЗСТ
	HONGLIN TECHNOLOGY CO., LTD	130-26988
USB Cable	FOXCONN INTERCONNECT CO., LTD	CUBB01M-HC304-D
	Shenzhen Luxshare Precision Industry Co., Ltd	L99U2017-CS-H
	GoerTek Inc	HA1-3, HG-04A
Earphone	Jiangxi Lianchuang Hongsheng Electronic Co.,	MEMD1632B580C0
	BOLUO COUNTY QUANCHENG ELECTRONIC	1311-3291-3.5mm-2





## 3. Channel List:

	CH01 – CH11 for 802.11b, 802.11g, 802.11n(20MHz)						
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

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	PCB	N/A	-0.4	N/A

Report No.: BTL-FCCP-3-1608C212 Page 10 of 151





#### 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 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 01/11	
Mode 2	TX G MODE CHANNEL 01/11	
Mode 3	TX N-20MHZ MODE CHANNEL 01/11	

For Band Edge Test		
Final Test Mode	Description	
Mode 1	TX B MODE CHANNEL 01/11	
Mode 2	TX G MODE CHANNEL 01/11	
Mode 3	TX N-20MHZ MODE CHANNEL 01/11	

Report No.: BTL-FCCP-3-1608C212 Page 11 of 151





6dB Spectrum Bandwidth		
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	

Maximum Conducted Output Power		
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	

Power Spectral Density		
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	

#### 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)
  - 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%.

Report No.: BTL-FCCP-3-1608C212 Page 12 of 151





#### 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

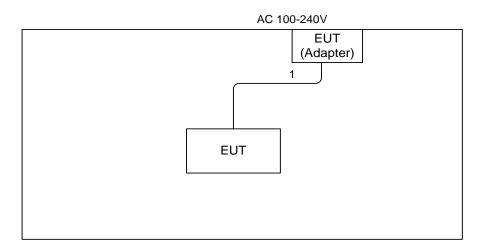
Test software version		N/A	
Frequency (MHz)	2412	2437	2462
802.11b	13	14	15
802.11g	13	13	13
802.11n (20MHz)	11	11	11

Report No.: BTL-FCCP-3-1608C212 Page 13 of 151





#### 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.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1m	AC Power Cable

Report No.: BTL-FCCP-3-1608C212 Page 14 of 151





Page 15 of 151

#### 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

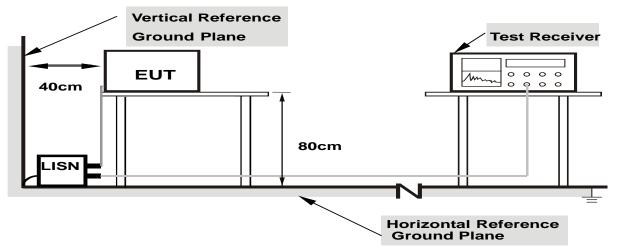
No deviation





Page 16 of 151

#### 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.





#### 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

Fraguency (MHz)	Band edge at 3m (dBµV/m)		Harmonic at 1.5m (dBµV/m)	
Frequency (MHz)	Peak	Average	Peak	Average
Above 1000	74	54	80 (Note 5)	60(Note 5)

#### Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C/RSS-247.
- (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

$$FS_{\text{limit}} = FS_{\text{max}} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

20log d limit/d measure=20log 3/1.5=6dB.

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	

Report No.: BTL-FCCP-3-1608C212 Page 17 of 151





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 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 3 m or 1.5m 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 0.8m or 1.5m; 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. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- f. The initial step in collecting radiated 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.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.2.3 DEVIATION FROM TEST STANDARD

No deviation

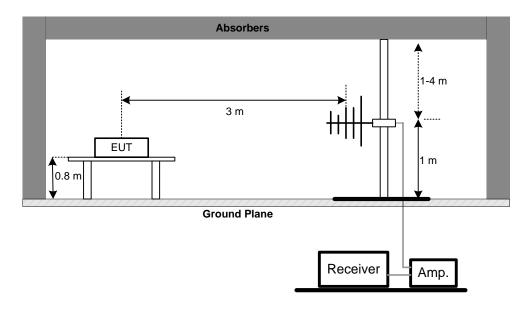
Report No.: BTL-FCCP-3-1608C212 Page 18 of 151





## 4.2.4 TEST SETUP

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

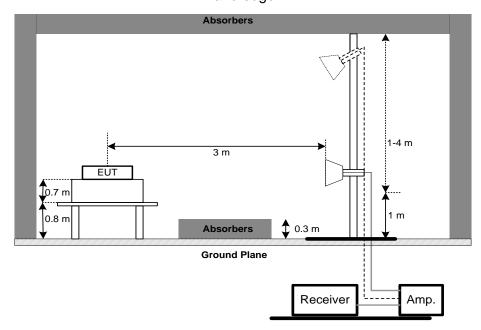


Report No.: BTL-FCCP-3-1608C212 Page 19 of 151

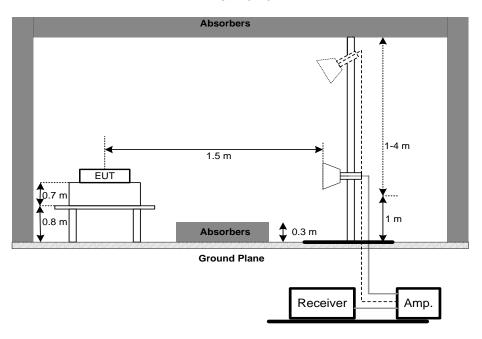




# (B) Radiated Emission Test Set-Up Frequency Above 1 GHz Band edge



## Harmonic

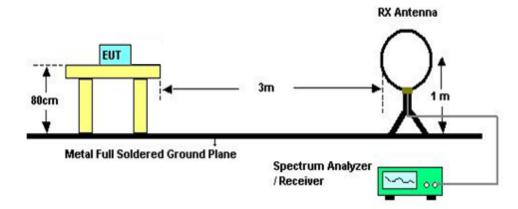


Report No.: BTL-FCCP-3-1608C212 Page 20 of 151





## (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

Report No.: BTL-FCCP-3-1608C212 Page 21 of 151





#### 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.

Report No.: BTL-FCCP-3-1608C212 Page 22 of 151





#### 5. BANDWIDTH TEST

#### **5.1 APPLIED PROCEDURES**

FCC Part15 (15.247) , Subpart C					
Section Test Item Frequency Range (MHz) Result					
15.247(a)(2)	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.

Report No.: BTL-FCCP-3-1608C212 Page 23 of 151





#### 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 v03r05.

#### 6.1.2 DEVIATION FROM STANDARD

No deviation.

#### 6.1.3 TEST SETUP

EUT	Power 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.

Report No.: BTL-FCCP-3-1608C212 Page 24 of 151





#### 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.

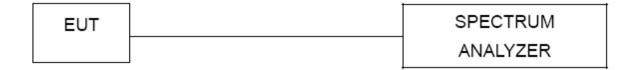
#### 7.1.1 TEST PROCEDURE

- 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.

Report No.: BTL-FCCP-3-1608C212 Page 25 of 151





#### 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 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.

Report No.: BTL-FCCP-3-1608C212 Page 26 of 151





## 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. 26, 2017		
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. 26, 2017		
11	Controller	СТ	SC100	N/A	N/A		
12	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 23, 2017		
13	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 27, 2017		
14	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 06, 2017		
15	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		

Report No.: BTL-FCCP-3-1608C212 Page 27 of 151





	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	P-series Power meter	Agilent	N1911A	MY45100473	Oct. 26, 2016			
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Oct. 26, 2016			

	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	Kind of Equipment Manufacturer		Type No.	Serial No.	Calibrated until			
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.

Report No.: BTL-FCCP-3-1608C212 Page 28 of 151





## **10. EUT TEST PHOTO**

## **Conducted Measurement Photos**





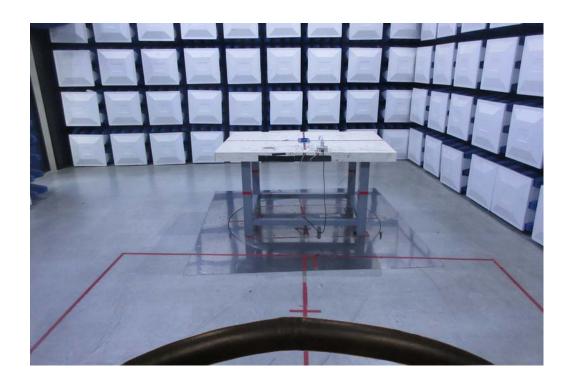
Report No.: BTL-FCCP-3-1608C212 Page 29 of 151





## 9KHz to 30MHz





Report No.: BTL-FCCP-3-1608C212 Page 30 of 151





## 30MHz to 1000MHz



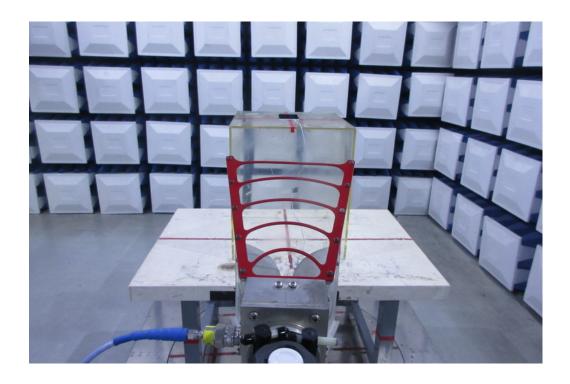


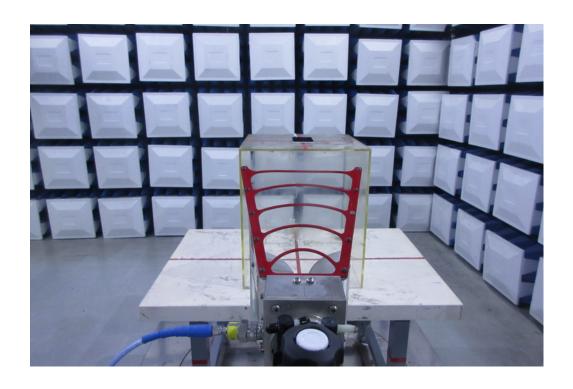
Report No.: BTL-FCCP-3-1608C212 Page 31 of 151





## 1GHz to 18GHz



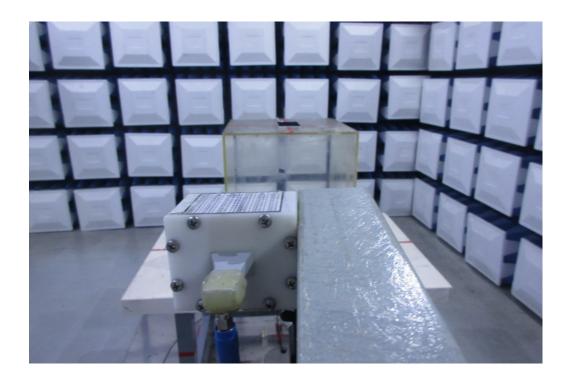


Report No.: BTL-FCCP-3-1608C212 Page 32 of 151





## 18GHz to 26.5GHz





Report No.: BTL-FCCP-3-1608C212 Page 33 of 151

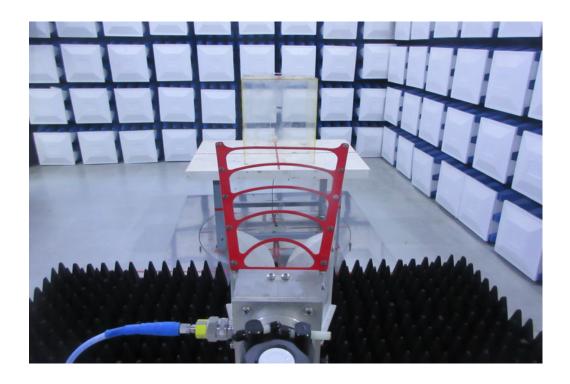


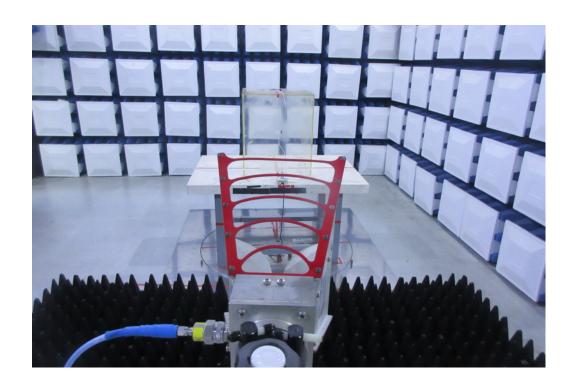


Page 34 of 151

## **Radiated Measurement Photos**

## Band Edge









ATTACHMENT A - CONDUCTED EMISSION						

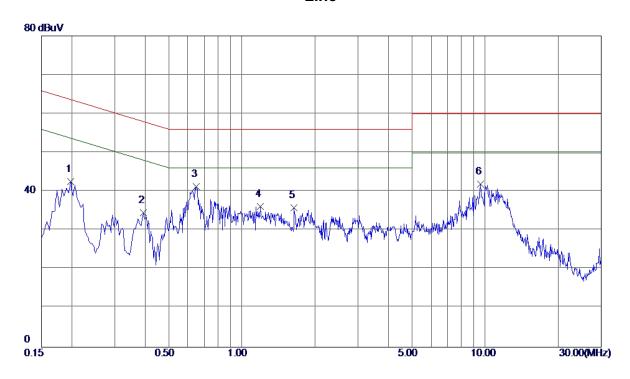
Report No.: BTL-FCCP-3-1608C212 Page 35 of 151





Test Mode: TX Mode (Adapter: Phitek)

## Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1980	33. 07	9. 53	42.60	63.69	-21.09	Peak	
2	0.3940	24.96	9. 54	34.50	57.98	-23.48	Peak	
3 *	0.6500	31.63	9. 64	41.27	56.00	-14.73	Peak	
4	1. 1940	26. 46	9. 77	36. 23	56.00	-19.77	Peak	
5	1.6420	25. 93	9. 88	35.81	56.00	-20. 19	Peak	
6	9. 5540	31.71	10. 20	41.91	60.00	-18. 09	Peak	

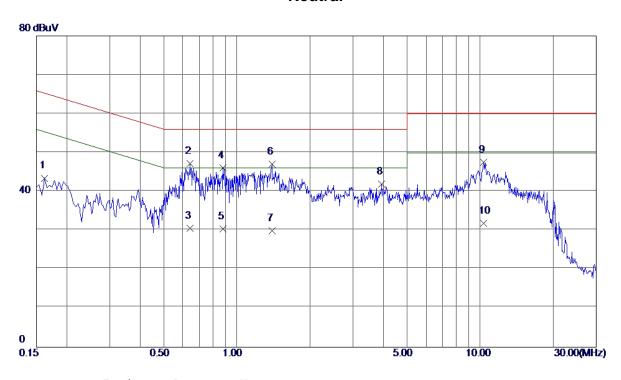
Report No.: BTL-FCCP-3-1608C212 Page 36 of 151





Test Mode: TX Mode (Adapter: Phitek)

## **Neutral**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1620	33. 98	9. 46	43. 44	65. 36	-21. 92	Peak	
2 *	0.6419	37. 78	9.44	47. 22	<b>56.00</b>	-8. 78	Peak	
3	0.6419	21. 10	9. 44	30. 54	46.00	-15. 46	AVG	
4	0.8780	36. 42	9. 63	46.05	56.00	-9. 95	Peak	
5	0.8780	20.80	9. 63	30. 43	46.00	-15. 57	AVG	
6	1.3940	37. 34	9. 67	47.01	<b>56.00</b>	-8. 99	Peak	
7	1.3940	20. 30	9. 67	29. 97	46.00	-16. 03	AVG	
8	3.9300	32. 01	9.88	41.89	<b>56.00</b>	-14. 11	Peak	
9	10. 3340	37. 21	10.31	47.52	60.00	-12.48	Peak	_
10	10. 3340	21. 60	10. 31	31.91	50.00	-18. 09	AVG	

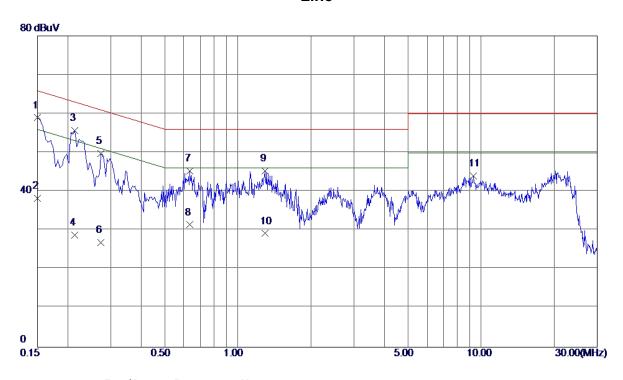
Report No.: BTL-FCCP-3-1608C212 Page 37 of 151





Test Mode : TX Mode (Adapter: Huntkey)

# Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1500	49.44	9. 52	58. 96	66.00	<b>-7.04</b>	Peak	
2	0.1500	28.70	9. 52	38. 22	56.00	-17.78	AVG	
3	0.2140	46. 14	9. 53	55. 67	63.05	-7. 38	Peak	
4	0.2140	19. 20	9. 53	28.73	<b>53.05</b>	-24.32	AVG	
5	0.2740	40. 25	9. 53	49.78	61.00	-11. 22	Peak	
6	0.2740	17. 30	9. 53	26. 83	51.00	-24. 17	AVG	
7	0.6340	35. 57	9. 64	45. 21	56.00	-10.79	Peak	
8	0.6340	21.80	9. 64	31.44	46.00	-14. 56	AVG	
9	1. 2940	35. 48	9. 80	45. 28	56.00	-10.72	Peak	
10	1. 2940	19. 40	9. 80	29. 20	46.00	-16. 80	AVG	
11	9. 2700	33. 84	10. 20	44.04	60.00	-15. 96	Peak	

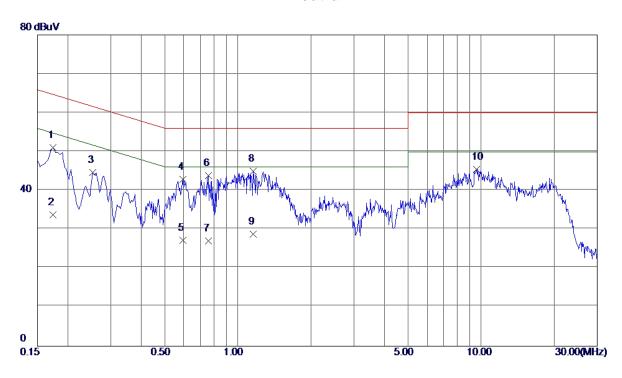
Report No.: BTL-FCCP-3-1608C212 Page 38 of 151





Test Mode : TX Mode (Adapter: Huntkey)

## **Neutral**



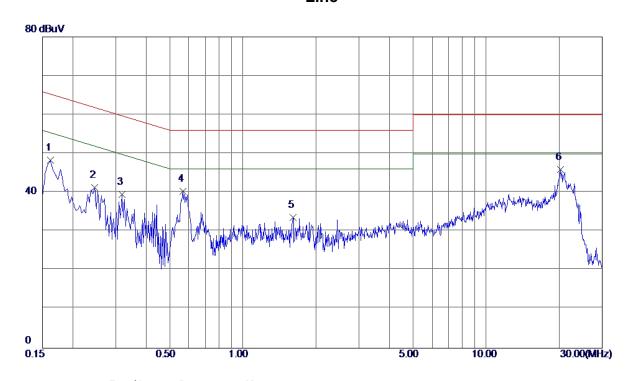
No.	Freq.	Level	Factor	measure	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1740	41.67	9. 44	51. 11	64.77	-13.66	Peak	
2	0.1740	24.39	9. 44	33. 83	54.77	-20.94	AVG	
3	0.2540	35. 07	9. 53	44.60	61.63	-17.03	Peak	
4	0. 5940	33. 47	9. 44	42.91	56.00	-13.09	Peak	
5	0. 5940	17.80	9. 44	27. 24	46.00	-18.76	AVG	
6	0.7580	34. 29	9. 51	43.80	56.00	<b>-12.20</b>	Peak	
7	0.7580	17.60	9. 51	27. 11	46.00	-18.89	AVG	
8 *	1. 1539	35. 25	9. 66	44. 91	56.00	-11.09	Peak	
9	1. 1539	19. 10	9. 66	28. 76	46.00	-17. 24	AVG	
10	9. 5860	35. 18	10. 26	45. 44	60.00	-14. 56	Peak	

Report No.: BTL-FCCP-3-1608C212 Page 39 of 151





## Line



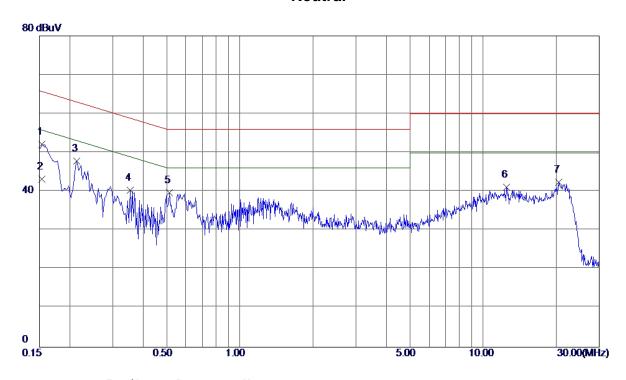
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1620	38. 73	9. 52	48. 25	65. 36	-17.11	Peak	
2	0.2460	31.68	9. 53	41.21	61.89	-20.68	Peak	
3	0.3180	30.06	9. 53	39. 59	59.76	-20. 17	Peak	
4	0.5660	30.72	9. 64	40. 36	<b>56.00</b>	-15.64	Peak	
5	1.6100	23. 67	9. 88	33. 55	56.00	-22.45	Peak	
6 *	20. 2580	35. 54	10.40	45. 94	60.00	-14.06	Peak	

Report No.: BTL-FCCP-3-1608C212 Page 40 of 151





## **Neutral**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1539	42.60	9. 50	52. 10	65. 79	-13. 69	Peak	
2 *	0.1539	33.70	9. 50	43. 20	55.79	-12.59	AVG	
3	0.2140	38. 32	9. 53	47.85	63.05	-15. 20	Peak	
4	0.3540	30.77	9. 53	40. 30	58.87	-18. 57	Peak	
5	0.5140	30. 18	9. 44	39. 62	56.00	-16. 38	Peak	
6	12.4780	30.75	10. 33	41.08	60.00	-18. 92	Peak	
7	20. 5060	31. 83	10. 50	42. 33	60.00	-17.67	Peak	

Report No.: BTL-FCCP-3-1608C212 Page 41 of 151





Page 42 of 151

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

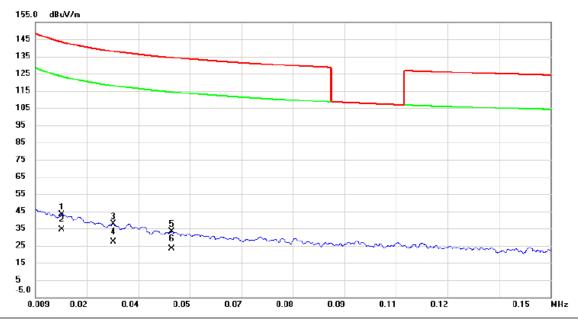
Report No.: BTL-FCCP-3-1608C212





Test Mode: TX Mode(Adapter: Phitek)

Ant 0°



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0163	19.45	23.74	43.19	143.36	-100.17	peak	
2 *	0.0163	10.58	23.74	34.32	123.36	-89.04	AVG	
3	0.0304	15.36	22.24	37.60	137.95	-100.35	peak	
4	0.0304	4.88	22.24	27.12	117.95	-90.83	AVG	
5	0.0464	12.80	20.26	33.06	134.27	-101.21	peak	
6	0.0464	2.76	20.26	23.02	114.27	-91.25	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 43 of 151





Test Mode: TX Mode(Adapter: Phitek) Ant 0° 150.0 dBuV/m 140 130 120 110 100 90 80 70 60 40 30 20 10 0 -10.0 0.150 3.14 6.12 9.10 12.09 15.08 18.06 21.04 24.03 30.00 MHz

No. Mk.	Freq.	Reading Level	Correct Factor	Measure ment	- Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.4186	16.41	18.46	34.87	115.17	-80.30	peak	
2	0.4186	6.30	18.46	24.76	95.17	-70.41	AVG	
3 *	2.1947	16.55	17.66	34.21	69.54	-35.33	QP	
4	3.4483	11.56	17.58	29.14	69.54	-40.40	QP	

Report No.: BTL-FCCP-3-1608C212 Page 44 of 151





Test Mode: TX Mode(Adapter: Phitek) Ant 90° 150.0 dBuV/m 140 130 120 110 100 90 80 70 60 50 40 30 20 10 -10.Q MHz 0.009 0.02 0.04 0.05 0.07 0.08 0.09 0.11 0.12 0.15 Reading Correct Measure-Limit Margin No. Mk. Freq. Level Factor ment MHz dBuV dΒ dBuV/m dBuV/m dB Detector Comment 0.0122 20.45 44.44 145.88 -101.44 23.99 peak 1 2 0.0122 12.13 23.99 36.12 125.88 -89.76 AVG 3 0.0255 17.28 22.84 40.12 139.47 -99.35 peak 0.0255 10.18 22.84 33.02 119.47 -86.45 AVG 4 peak 5 0.0602 11.88 19.71 31.59 132.01 -100.42 6 0.0602 4.63 19.71 24.34 112.01 -87.67 AVG

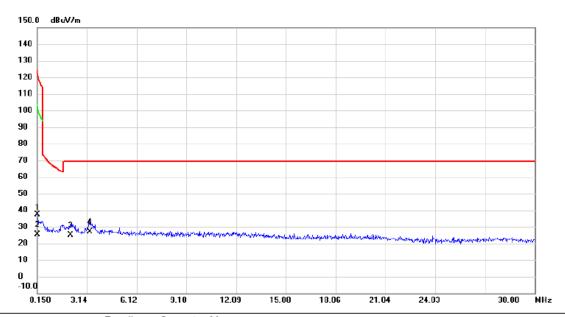
Report No.: BTL-FCCP-3-1608C212





Test Mode: TX Mode(Adapter: Phitek)

## Ant 90°



	No. Mk.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
-		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	0.1500	18.69	18.74	37.43	124.09	-86.66	peak	
-	2	0.1500	6.80	18.74	25.54	104.09	-78.55	AVG	
-	3	2.1650	7.11	17.70	24.81	69.54	-44.73	QP	
-	4 *	3.3290	9.81	17.33	27.14	69.54	-42.40	QP	
-									

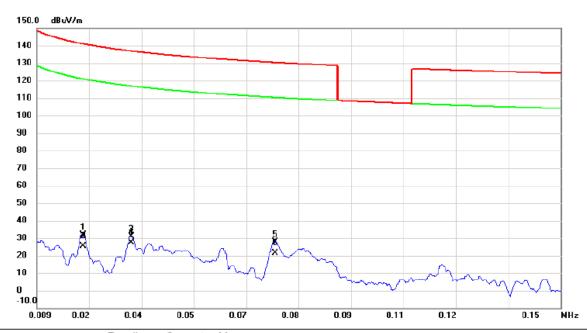
Report No.: BTL-FCCP-3-1608C212 Page 46 of 151





Test Mode: TX Mode (Adapter: Huntkey)

# Ant 0°



No. M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0215	8.30	23.34	31.64	140.96	-109.32	peak	
2	0.0215	2.09	23.34	25.43	120.96	-95.53	AVG	
3	0.0345	9.42	21.73	31.15	136.85	-105.70	peak	
4	0.0345	5.60	21.73	27.33	116.85	-89.52	AVG	
5	0.0732	8.45	19.55	28.00	130.31	-102.31	peak	
6 *	0.0732	1.95	19.55	21.50	110.31	-88.81	AVG	

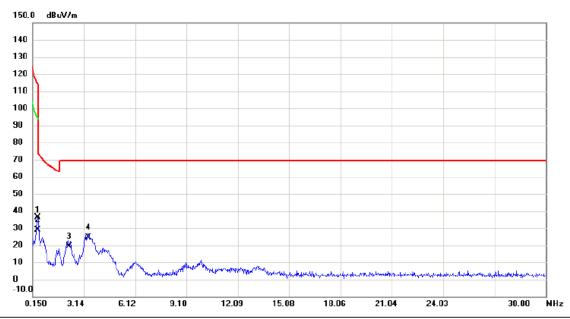
Report No.: BTL-FCCP-3-1608C212 Page 47 of 151





Test Mode: TX Mode (Adapter: Huntkey)

Ant 0°



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.4485	17.93	18.43	36.36	114.57	-78.21	peak	
2	0.4485	10.75	18.43	29.18	94.57	-65.39	AVG	
3	2.2694	1.93	17.56	19.49	69.54	-50.05	QP	
4 *	3.3887	7.04	17.46	24.50	69.54	-45.04	QP	

Report No.: BTL-FCCP-3-1608C212 Page 48 of 151





Test Mode: TX Mode (Adapter: Huntkey) Ant 90° 150.0 dBuV/m 140 130 120 110 100 90 80 70 60 50 40 30 20 10 -10.Q 0.009 0.02 0.04 0.05 0.07 0.08 0.09 0.11 0.12 0.15 MHz Reading Correct Measure-No. Mk. Limit Margin Freq. Level Factor ment MHz dBuV dB dBuV/m dBuV/m dB Detector Comment 140.96 0.0215 19.10 23.34 42.44 -98.52 1 peak 2 0.0215 14.36 23.34 37.70 120.96 -83.26 AVG 3 0.0345 17.88 21.73 39.61 136.85 -97.24 peak 0.0345 13.13 21.73 34.86 116.85 -81.99 AVG 4 0.1250 12.19 18.59 30.78 125.67 5 -94.89 peak 6 0.1250 7.26 18.59 25.85 105.67 -79.82 AVG

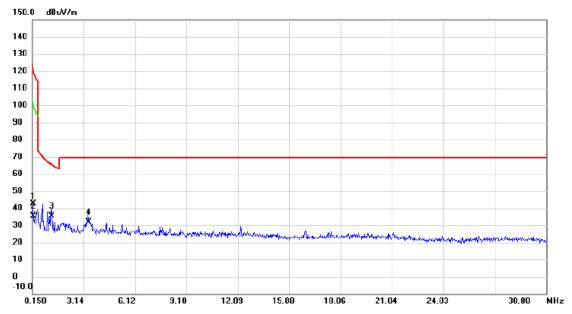
Report No.: BTL-FCCP-3-1608C212





Test Mode: TX Mode (Adapter: Huntkey)

## Ant 90°



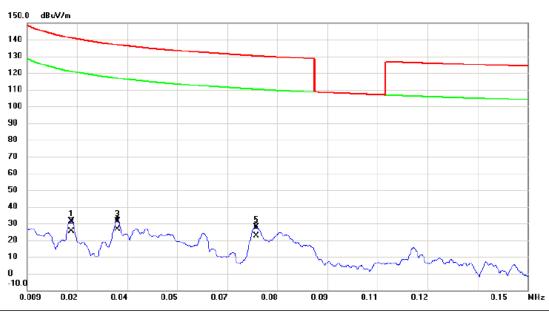
No. Mk.	Freq.	Reading Level		Measure ment	- Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.1948	23.92	18.70	42.62	121.81	-79.19	peak	
2	0.1948	16.61	18.70	35.31	101.81	-66.50	AVG	
3 *	1.2694	17.72	17.74	35.46	65.53	-30.07	QP	
4	3.4186	14.41	17.52	31.93	69.54	-37.61	QP	

Report No.: BTL-FCCP-3-1608C212 Page 50 of 151





Ant 0°



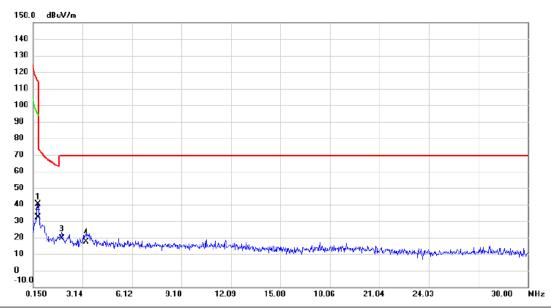
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0215	8.18	23.34	31.52	140.96	-109.44	peak	
2	0.0215	2.18	23.34	25.52	120.96	-95.44	AVG	
3	0.0345	9.61	21.73	31.34	136.85	-105.51	peak	
4	0.0345	5.03	21.73	26.76	116.85	-90.09	AVG	
5	0.0735	8.37	19.55	27.92	130.28	-102.36	peak	
6 *	0.0735	3.22	19.55	22.77	110.28	-87.51	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 51 of 151





Ant 0°

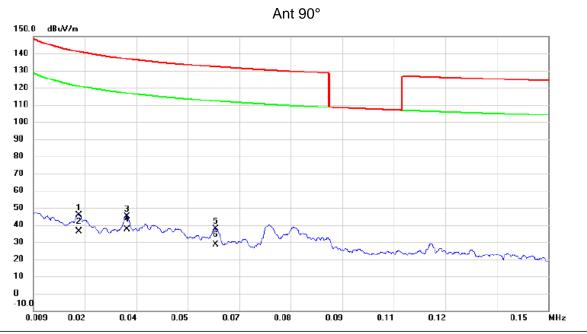


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.4634	21.74	18.41	40.15	114.28	-74.13	peak	
2	0.4634	13.84	18.41	32.25	94.28	-62.03	AVG	
3 *	1.8962	1.42	17.88	19.30	69.54	-50.24	QP	
4	3.3440	-0.14	17.36	17.22	69.54	-52.32	QP	

Report No.: BTL-FCCP-3-1608C212 Page 52 of 151





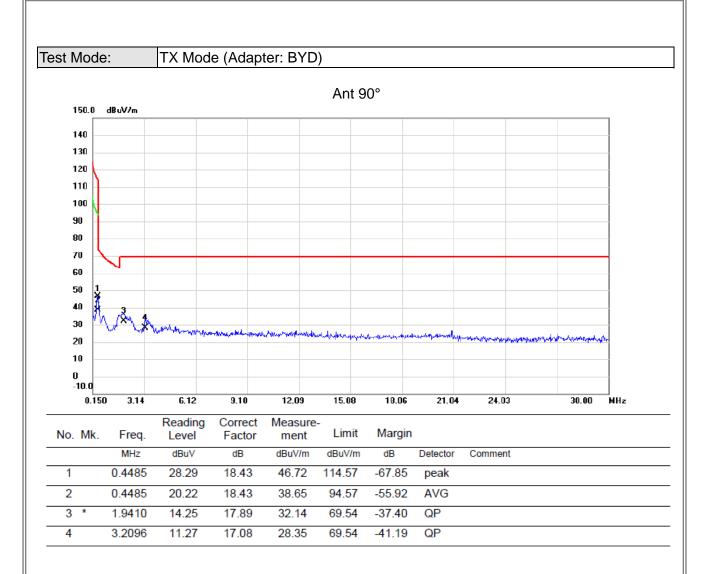


No	. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0215	22.62	23.34	45.96	140.96	-95.00	peak	
2	!	0.0215	13.05	23.34	36.39	120.96	-84.57	AVG	
3	1	0.0346	23.40	21.72	45.12	136.82	-91.70	peak	
4	*	0.0346	15.72	21.72	37.44	116.82	-79.38	AVG	
5		0.0590	17.95	19.72	37.67	132.19	-94.52	peak	
6	•	0.0590	8.98	19.72	28.70	112.19	-83.49	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 53 of 151







Report No.: BTL-FCCP-3-1608C212 Page 54 of 151





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

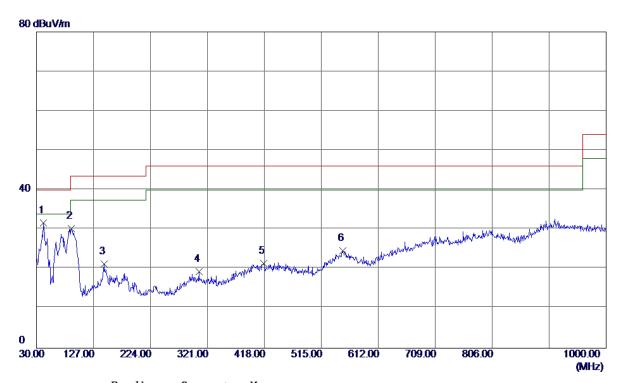
Report No.: BTL-FCCP-3-1608C212 Page 55 of 151





Test Mode: TX B MODE CHANNEL 01 (Adapter: Phitek)

### Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	42. 1250	<b>45.08</b>	-13.47	31.61	40.00	-8. 39	Peak	
2	89. 1700	47.75	-17.44	30. 31	43.50	-13. 19	Peak	
3	144.9450	34.63	-13. 36	21. 27	43.50	-22.23	Peak	
4	306. 9350	29.61	-10.31	19. 30	46.00	-26. 70	Peak	
5	416. 5450	29. 28	-7.85	21. 43	46.00	-24.57	Peak	
6	551. 3750	29. 26	-4. 61	24.65	46.00	-21. 35	Peak	

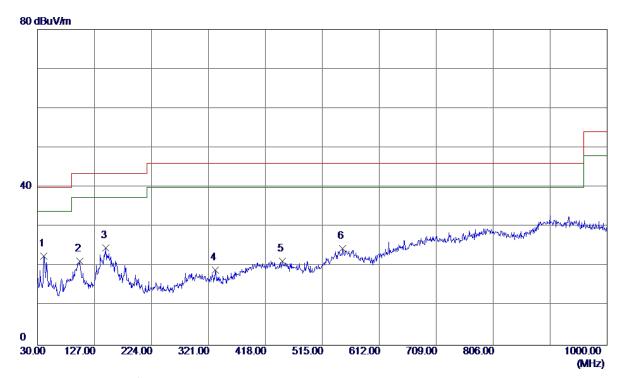
Report No.: BTL-FCCP-3-1608C212 Page 56 of 151





Test Mode: TX B MODE CHANNEL 01 (Adapter: Phitek)

## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	41. 1550	36. 19	-13.67	22. 52	40.00	-17.48	Peak	
2	101.7800	36. 57	-15. 32	21. 25	43.50	-22. 25	Peak	
3	146. 4000	37.86	-13. 24	24.62	43.50	-18.88	Peak	
4	333. 1250	29.96	-10.86	19. 10	46.00	-26.90	Peak	
5	447. 1000	29. 32	-7. 99	21. 33	46.00	-24.67	Peak	
6	549. 9200	29. 03	-4. 55	24. 48	46.00	-21. 52	Peak	

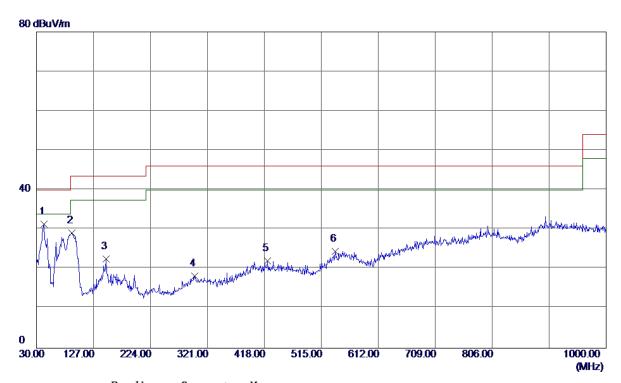
Report No.: BTL-FCCP-3-1608C212 Page 57 of 151





Test Mode: TX B MODE CHANNEL 11 (Adapter: Phitek)

### 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	44.75	-13. 36	31. 39	40.00	-8. 61	Peak	
2	90. 1400	46.61	-17.45	29. 16	43.50	-14. 34	Peak	
3	148. 3400	35. 63	-13.08	22. 55	43.50	-20.95	Peak	
4	299.6600	28. 47	-10. 20	18. 27	46.00	-27.73	Peak	
5	422.8500	29. 91	-7.88	22. 03	46.00	-23.97	Peak	
6	538. 2800	30. 29	-5. 75	24. 54	46.00	-21.46	Peak	

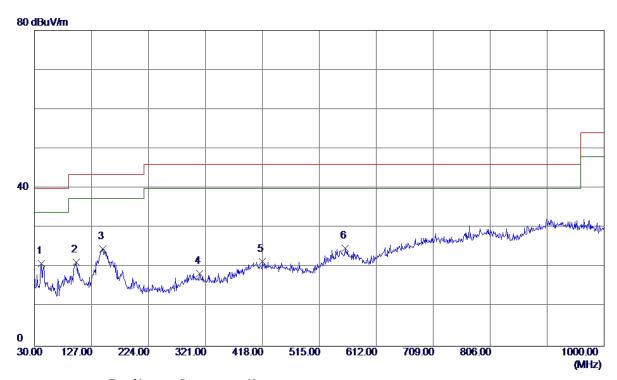
Report No.: BTL-FCCP-3-1608C212 Page 58 of 151





Test Mode: TX B MODE CHANNEL 11 (Adapter: Phitek)

## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	42. 1250	34. 50	-13. 47	21.03	40.00	-18.97	Peak	
2	100.8100	36. 67	<b>-15.40</b>	21. 27	43.50	-22. 23	Peak	
3 *	146.8850	37.86	-13. 20	24.66	43.50	-18.84	Peak	
4	311. 3000	28.83	-10.40	18. 43	46.00	-27.57	Peak	
5	418.0000	29. 24	-7.86	21. 38	46.00	-24.62	Peak	
6	559. 1350	29.87	-5.00	24.87	46.00	-21. 13	Peak	

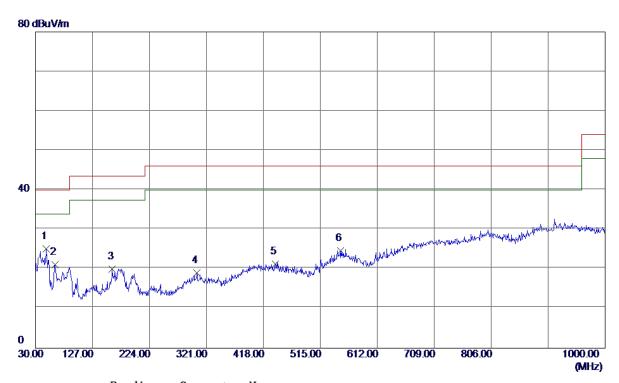
Report No.: BTL-FCCP-3-1608C212 Page 59 of 151





Test Mode: TX B MODE CHANNEL 01 (Adapter: Huntkey)

### Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	47.9450	38. 11	-13.01	25. 10	40.00	-14.90	Peak	
2	62.9800	35. 70	-14.58	21. 12	40.00	-18.88	Peak	
3	160.9500	32. 15	-12. 16	19. 99	43.50	-23. 51	Peak	
4	304.9950	29. 31	-10. 27	19.04	46.00	-26. 96	Peak	
5	438.8550	29. 16	-7. 95	21. 21	46.00	-24.79	Peak	
6	549. 4350	29. 23	-4. 60	24. 63	46.00	-21. 37	Peak	

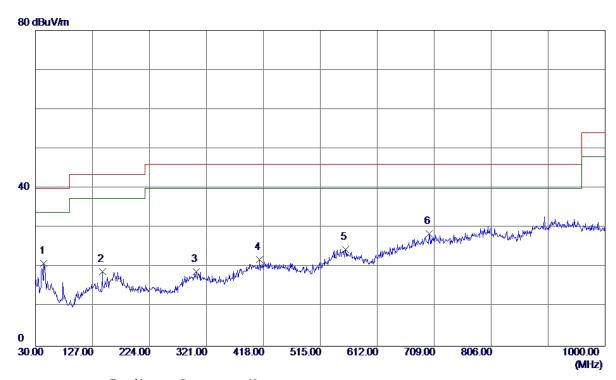
Report No.: BTL-FCCP-3-1608C212 Page 60 of 151





Test Mode: TX B MODE CHANNEL 01 (Adapter: Huntkey)

## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	44.5500	33.89	-12. 90	20. 99	40.00	-19.01	Peak	
2	143.9750	32. 35	-13.43	18. 92	43.50	-24.58	Peak	
3	304.0250	29. 18	-10. 25	18. 93	46.00	-27.07	Peak	
4	411. 2100	29.75	-7.83	21. 92	46.00	-24.08	Peak	
5	557. 6800	29.48	-4.93	24. 55	46.00	-21.45	Peak	
6 *	700. 7550	30. 51	-2. 10	28. 41	46.00	-17. 59	Peak	

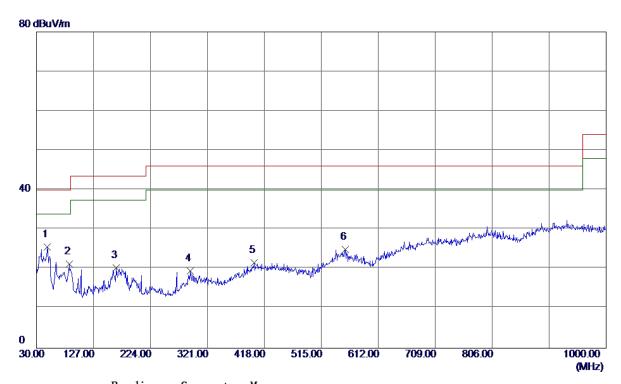
Report No.: BTL-FCCP-3-1608C212 Page 61 of 151





Test Mode: TX B MODE CHANNEL 11 (Adapter: Huntkey)

### Vertical



Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
48.4300	38. 75	-13. 11	25. 64	40.00	-14.36	Peak	
85.7750	38. 67	-17.41	21. 26	40.00	-18.74	Peak	
166. 2850	32.46	-12.21	20. 25	43.50	-23. 25	Peak	
291.9000	30. 55	-11.04	19. 51	46.00	-26.49	Peak	
400.5400	29. 39	-7.78	21.61	46.00	-24. 39	Peak	
555. 7400	29.75	-4.83	24. 92	46.00	-21.08	Peak	
	MHz 48. 4300 85. 7750 166. 2850 291. 9000 400. 5400	Hreq. Level MHz dBuV/m	Hreq. Level Factor  MHz dBuV/m dB  48.4300 38.75 -13.11  85.7750 38.67 -17.41  166.2850 32.46 -12.21  291.9000 30.55 -11.04  400.5400 29.39 -7.78	Hreq. Level Factor ment  MHz dBuV/m dB dBuV/m  48.4300 38.75 -13.11 25.64  85.7750 38.67 -17.41 21.26  166.2850 32.46 -12.21 20.25  291.9000 30.55 -11.04 19.51  400.5400 29.39 -7.78 21.61	Hreq. Level Factor ment Limit  MHz dBuV/m dB dBuV/m dBuV/m  48.4300 38.75 -13.11 25.64 40.00  85.7750 38.67 -17.41 21.26 40.00  166.2850 32.46 -12.21 20.25 43.50  291.9000 30.55 -11.04 19.51 46.00  400.5400 29.39 -7.78 21.61 46.00	MHz         dBuV/m         dB         dBuV/m         dB         dBuV/m         dB         dBuV/m         dB           48.4300         38.75         -13.11         25.64         40.00         -14.36           85.7750         38.67         -17.41         21.26         40.00         -18.74           166.2850         32.46         -12.21         20.25         43.50         -23.25           291.9000         30.55         -11.04         19.51         46.00         -26.49           400.5400         29.39         -7.78         21.61         46.00         -24.39	MHz         dBuV/m         dB         dBuV/m         dB uV/m         dB uV/m </td

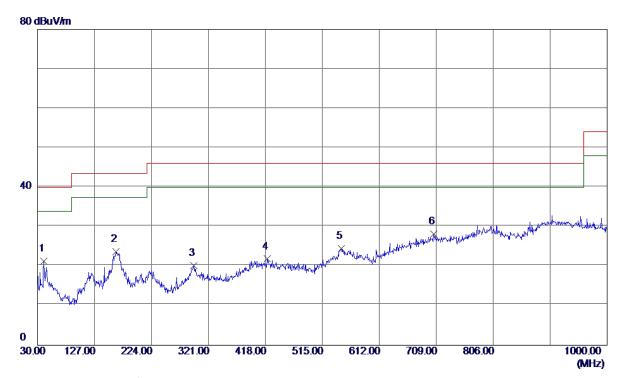
Report No.: BTL-FCCP-3-1608C212 Page 62 of 151





Test Mode: TX B MODE CHANNEL 11 (Adapter: Huntkey)

## 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	35. 08	-13. 77	21. 31	40.00	-18. 69	Peak	
2	163.8600	35. 92	-12. 18	23.74	43.50	-19.76	Peak	
3	295. 7800	30.84	-10.62	20. 22	46.00	-25. 78	Peak	
4	421. 3950	29.71	-7.87	21.84	46.00	-24. 16	Peak	
5	547. 4950	29. 23	-4.80	24. 43	46.00	-21. 57	Peak	
6 *	705. 1200	30. 19	-2. 09	28. 10	46.00	-17. 90	Peak	

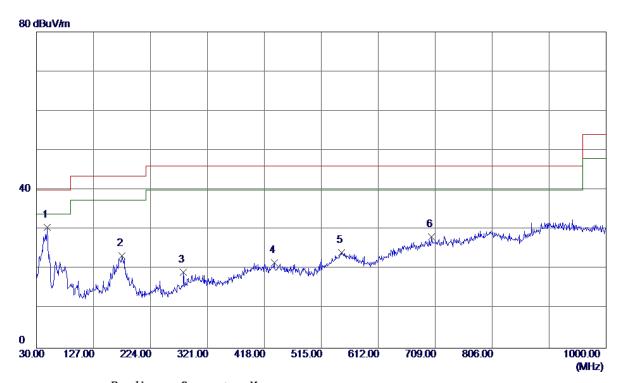
Report No.: BTL-FCCP-3-1608C212 Page 63 of 151





Test Mode: TX B MODE CHANNEL 01 (Adapter: BYD)

### Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	48. 4300	43.71	-13. 11	30. 60	40.00	-9.40	Peak	
2	175. 5000	35. 89	-12. 57	23. 32	43.50	-20. 18	Peak	
3	280. 2600	31. 27	-12.01	19. 26	46.00	-26.74	Peak	
4	434.9750	29. 55	-7. 93	21.62	46.00	-24.38	Peak	
5	549. 9200	28. 78	-4.55	24. 23	46.00	-21.77	Peak	
6	702. 2100	30. 20	-2. 09	28. 11	46.00	-17.89	Peak	

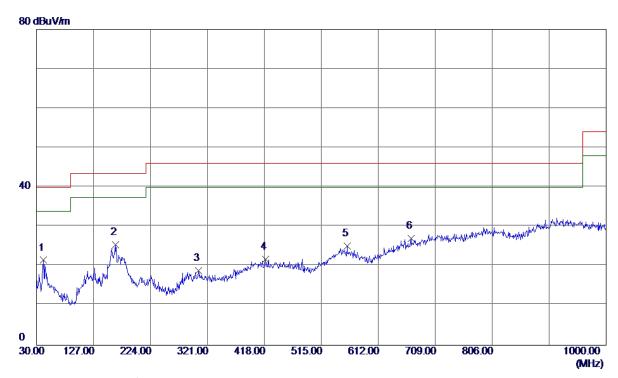
Report No.: BTL-FCCP-3-1608C212 Page 64 of 151





Test Mode: TX B MODE CHANNEL 01 (Adapter: BYD)

## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	41.6400	35. 09	-13. 57	21. 52	40.00	-18.48	Peak	
2 *	164. 3450	37. 56	-12. 19	25. 37	43.50	-18. 13	Peak	
3	305. 9650	29. 19	-10. 29	18. 90	46.00	-27. 10	Peak	
4	419.9400	29.62	-7.87	21.75	46.00	-24. 25	Peak	
5	559. 1350	30. 05	-5. 00	25. 05	46.00	-20.95	Peak	
6	667.7750	30. 51	-3.44	27.07	46.00	-18. 93	Peak	

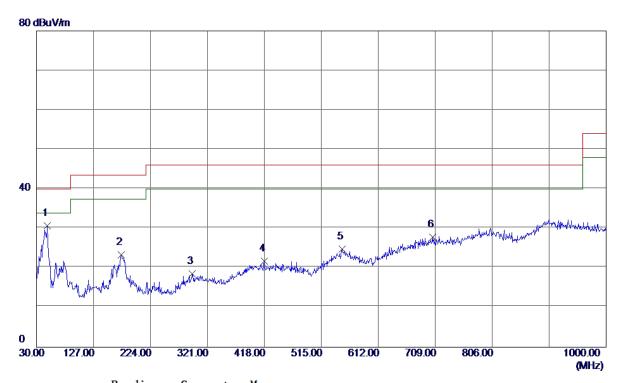
Report No.: BTL-FCCP-3-1608C212 Page 65 of 151





Test Mode: TX B MODE CHANNEL 11 (Adapter: BYD)

### Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	48. 4300	43.87	-13. 11	30. 76	40.00	-9. 24	Peak	
2	174. 5300	35. 94	-12. 51	23. 43	43.50	-20.07	Peak	
3	294.8100	29. 23	-10.72	18. 51	46.00	-27.49	Peak	
4	418.0000	29. 59	-7.86	21.73	46.00	-24. 27	Peak	
5	550. 4050	29. 42	-4.56	24.86	46.00	-21.14	Peak	
6	704. 6350	30.00	-2. 09	27. 91	46.00	-18.09	Peak	

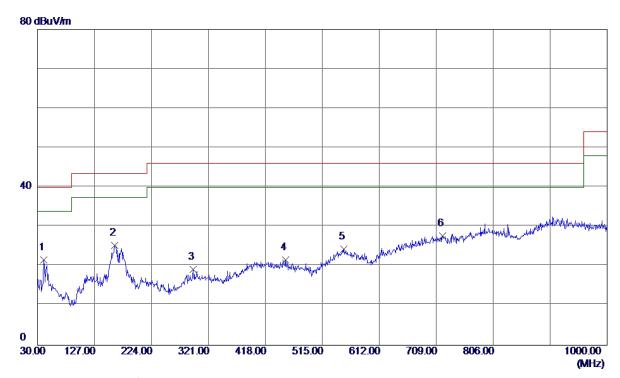
Report No.: BTL-FCCP-3-1608C212 Page 66 of 151





Test Mode: TX B MODE CHANNEL 11 (Adapter: BYD)

## 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	35. 31	-13.77	21. 54	40.00	-18.46	Peak	
2 *	161.9200	37.47	-12. 16	25. 31	43.50	-18. 19	Peak	
3	294.8100	29.85	-10.72	19. 13	46.00	-26.87	Peak	
4	452. 4350	29.70	-8. 08	21.62	46.00	-24.38	Peak	
5	551.8600	28. 96	-4.63	24. 33	46.00	-21.67	Peak	
6	720. 1550	29. 68	-2. <b>0</b> 5	27. 63	46.00	-18. 37	Peak	

Report No.: BTL-FCCP-3-1608C212 Page 67 of 151





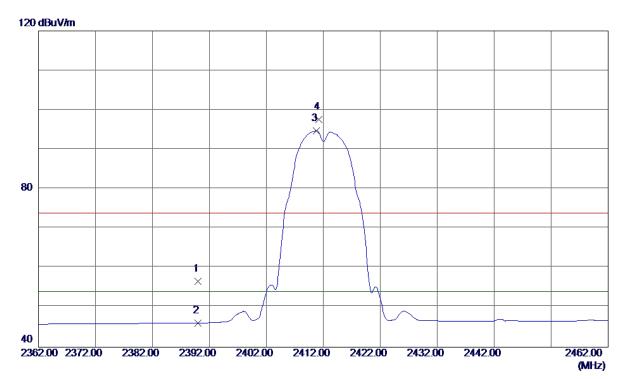
ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

Report No.: BTL-FCCP-3-1608C212 Page 68 of 151





## Vertical



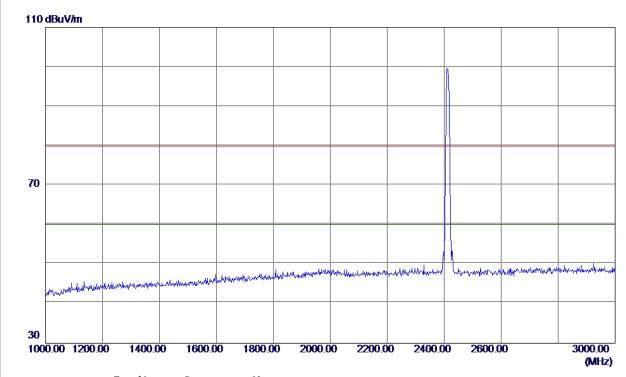
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	23.63	33. 01	56. 64	74.00	-17. 36	Peak	
2	2390.0000	13. 12	33. 01	46. 13	54.00	-7.87	AVG	
3 *	2410.7500	61.66	33. 10	94.76	54.00	40.76	AVG	No Limit
4	2411. 2000	64. 43	33. 10	97. 53	74.00	23. 53	Peak	No Limit

Report No.: BTL-FCCP-3-1608C212 Page 69 of 151





### **Vertical**



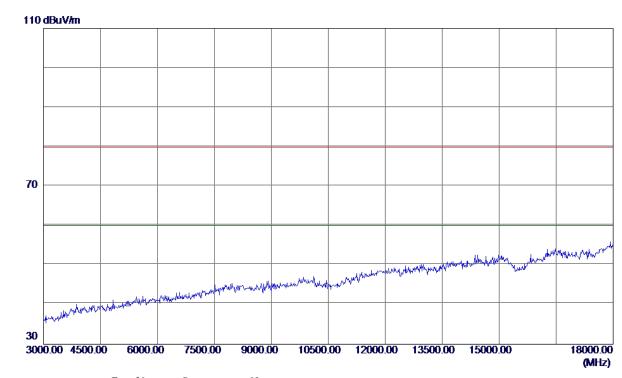
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 70 of 151





### **Vertical**



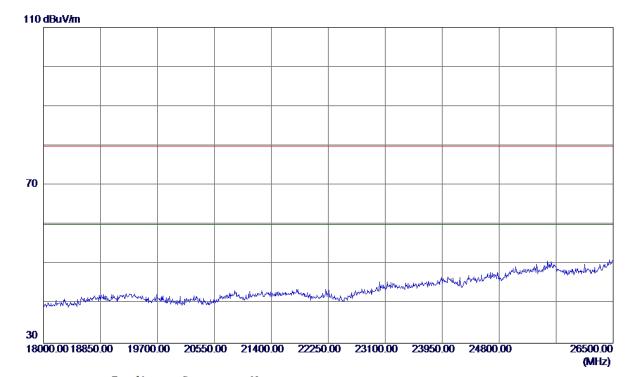
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 71 of 151





### **Vertical**



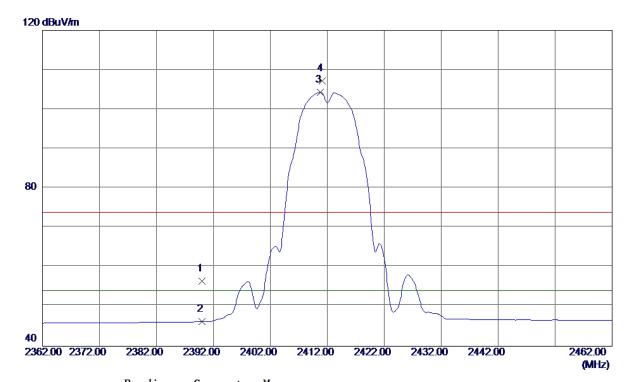
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 72 of 151





## Horizontal



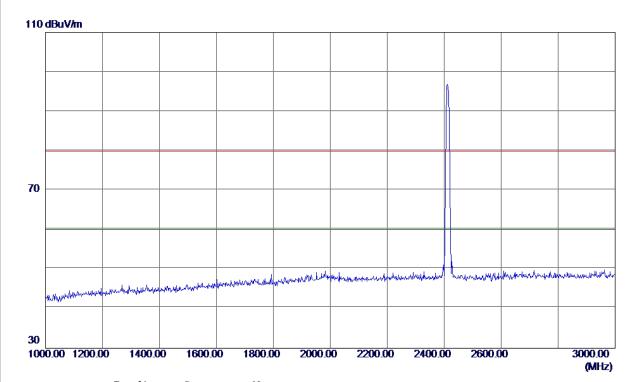
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	23. 43	33. 01	56. 44	74.00	-17. 56	Peak	
2	2390.0000	13. 24	33. 01	46. 25	54.00	-7. 75	AVG	
3 *	2410.7500	71. 23	33. 10	104. 33	54.00	50. 33	AVG	No Limit
4	2411. 1500	74. 03	33. 10	107. 13	74.00	33. 13	Peak	No Limit

Report No.: BTL-FCCP-3-1608C212 Page 73 of 151





## Horizontal



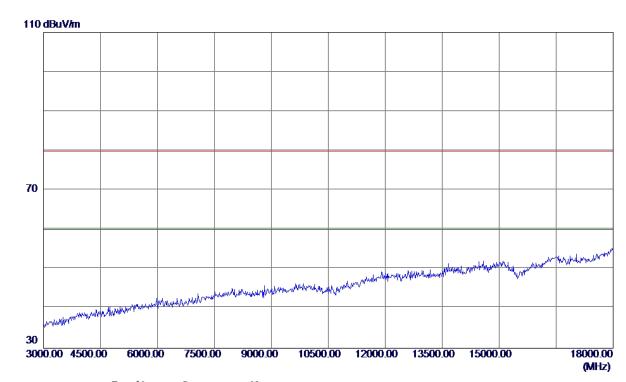
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 74 of 151





#### Horizontal



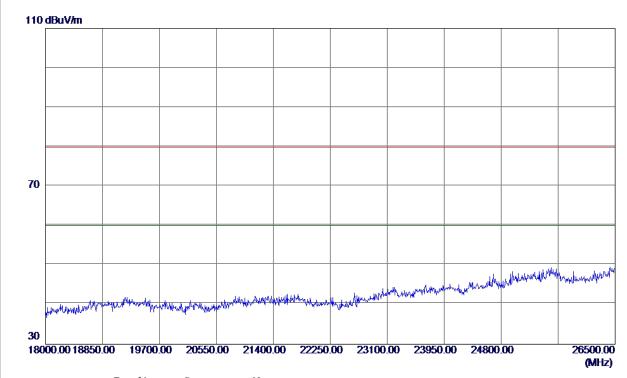
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 75 of 151





#### Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

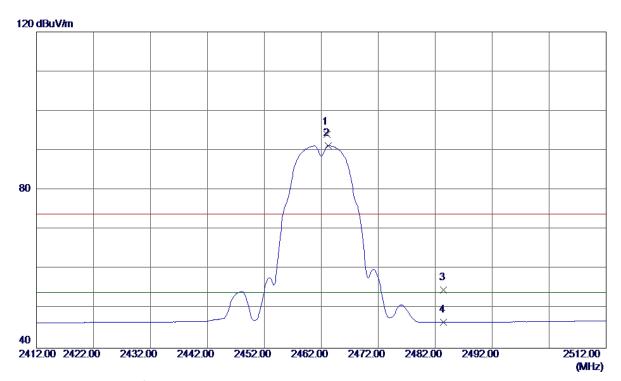
Report No.: BTL-FCCP-3-1608C212 Page 76 of 151





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

## Vertical



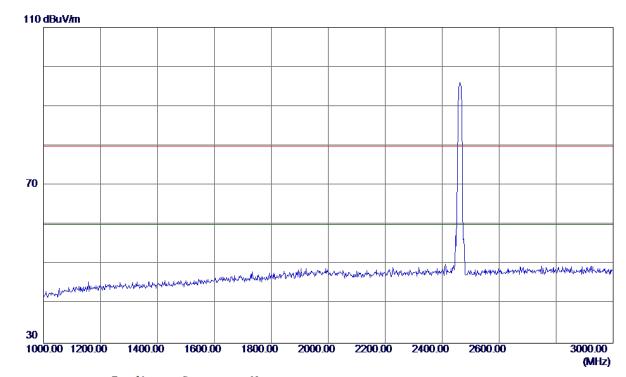
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.9500	60.77	33. 32	94.09	74.00	20.09	Peak	No Limit
2 *	2463. 2500	57. 95	33. 32	91. 27	54.00	37. 27	AVG	No Limit
3	2483. 5000	21. 38	33. 40	54.78	74.00	-19. 22	Peak	
4	2483. 5000	13. 11	33. 40	46. 51	54.00	-7.49	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 77 of 151





## **Vertical**



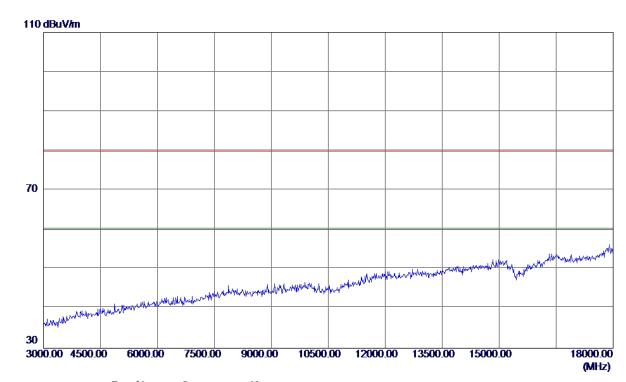
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 78 of 151





## **Vertical**



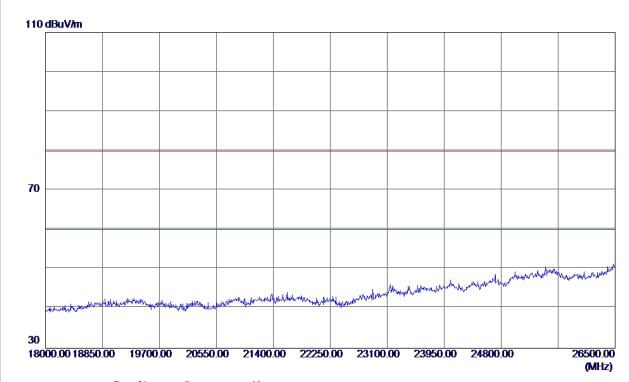
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 79 of 151





## **Vertical**



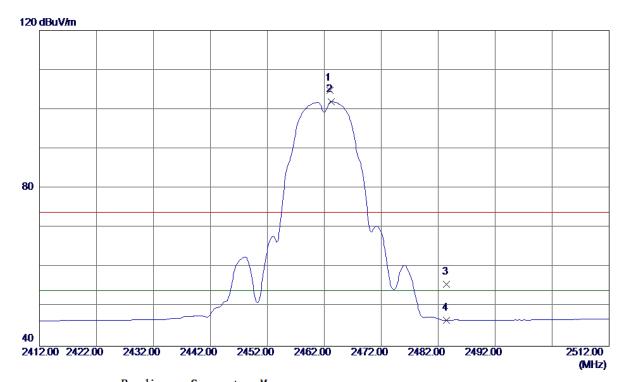
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 80 of 151





## Horizontal



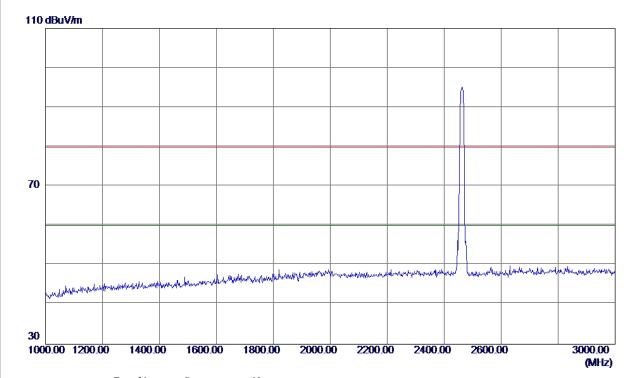
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.9500	71. 50	33. 32	104.82	74.00	30.82	Peak	No Limit
2 *	2463. 2500	68. 67	33. 32	101.99	54.00	47.99	AVG	No Limit
3	2483. 5000	22. 28	33. 40	55. 68	74.00	-18. 32	Peak	
4	2483. 5000	13. 19	33. 40	46. 59	54.00	-7.41	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 81 of 151





#### Horizontal



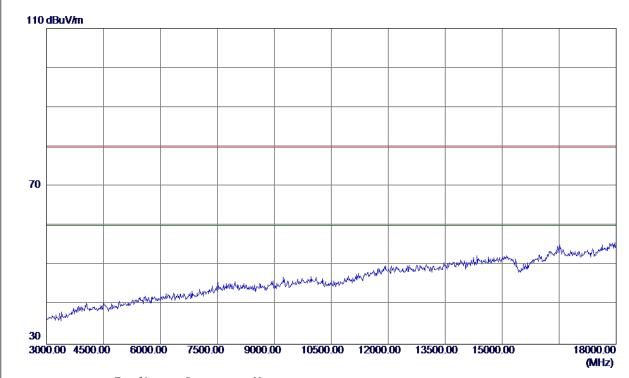
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 82 of 151





## Horizontal



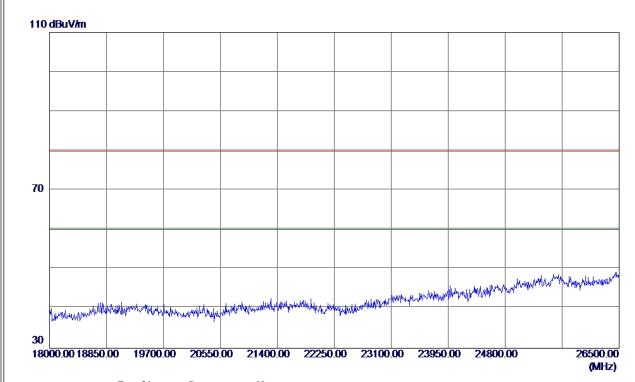
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 83 of 151





## Horizontal



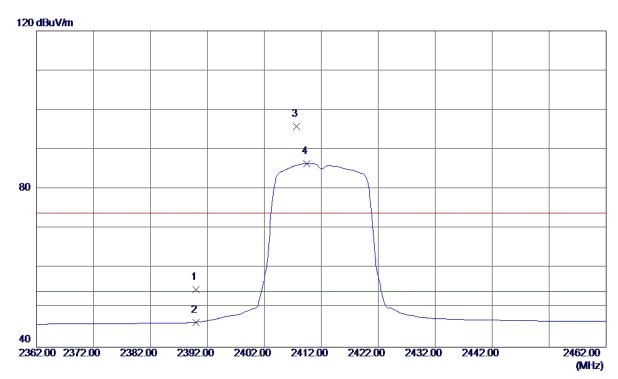
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 84 of 151





## Vertical



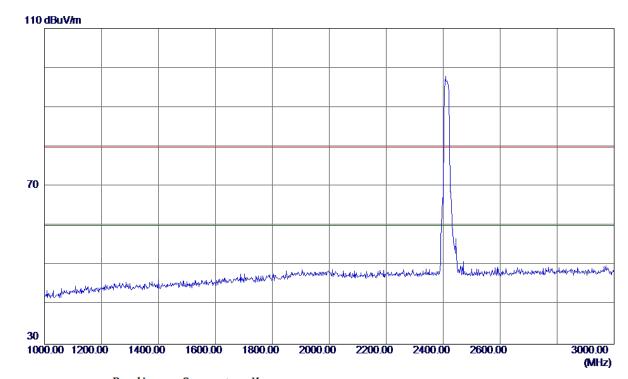
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	21.61	33. 01	54.62	74.00	-19.38	Peak	
2	2390.0000	13. 30	33. 01	46. 31	54.00	-7.69	AVG	
3	2407.6500	62. 78	33. 08	95. 86	74.00	21.86	Peak	No Limit
4 *	2409. 4500	53. 37	33. 09	86. 46	54.00	32.46	AVG	No Limit

Report No.: BTL-FCCP-3-1608C212 Page 85 of 151





## **Vertical**



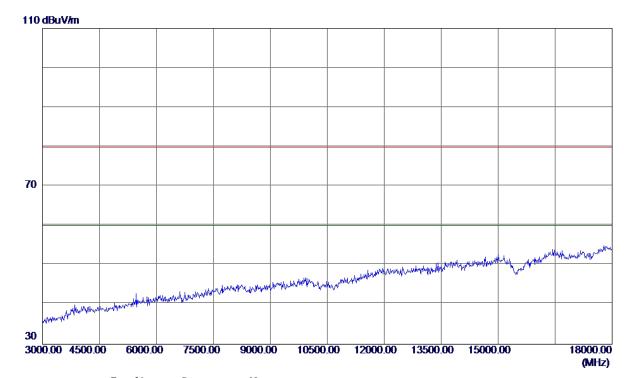
No.	Freq.	Level	Factor	ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment

Report No.: BTL-FCCP-3-1608C212 Page 86 of 151





## **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 87 of 151





## **Vertical**



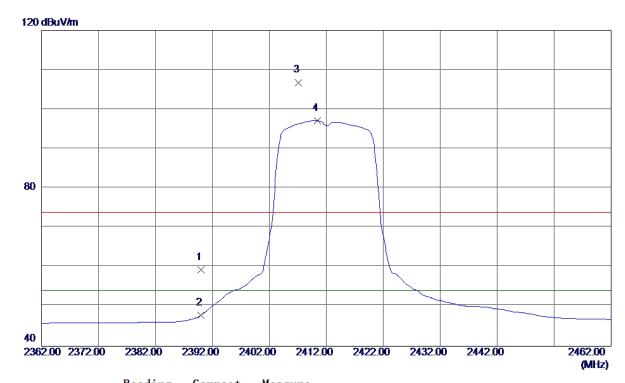
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 88 of 151





## Horizontal



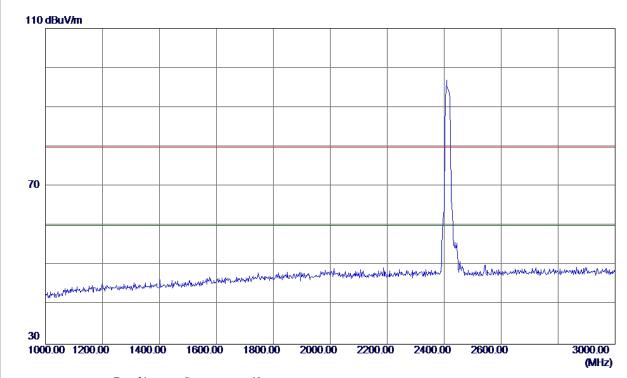
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	26. 29	33. 01	59. 30	74.00	-14.70	Peak	
2	2390.0000	14.89	33. 01	47. 90	54.00	-6. 10	AVG	
3	2407. 1500	73. 72	33. 08	106.80	74.00	32.80	Peak	No Limit
4 *	2410. 4000	63. 96	33. 10	97.06	54.00	43.06	AVG	No Limit

Report No.: BTL-FCCP-3-1608C212 Page 89 of 151





#### Horizontal



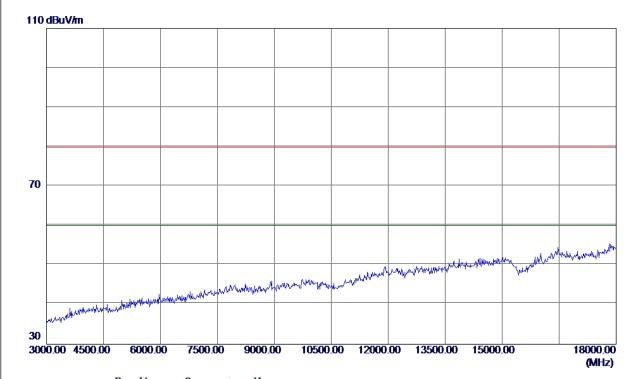
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 90 of 151





#### Horizontal



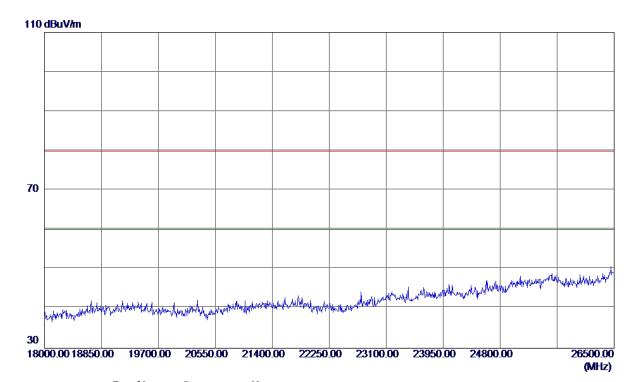
No.	Freq.	Level	Factor	ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment

Report No.: BTL-FCCP-3-1608C212 Page 91 of 151





#### Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

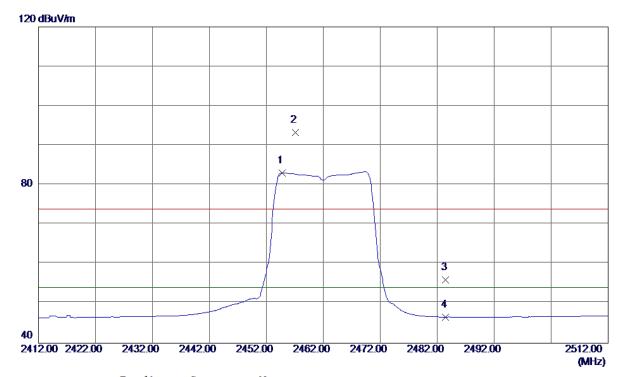
Report No.: BTL-FCCP-3-1608C212 Page 92 of 151





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

# Vertical



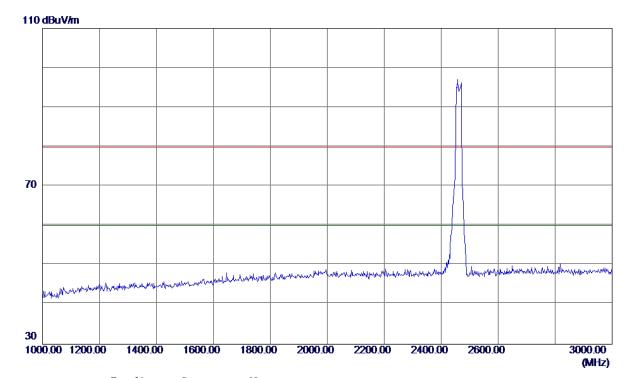
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2454.7500	49.78	33. 28	83.06	54.00	29.06	AVG	No Limit
2	2457. 1000	59. 92	33. 29	93. 21	74.00	19. 21	Peak	No Limit
3	2483. 5000	22. 57	33. 40	55. 97	74.00	-18. 03	Peak	
4	2483. 5000	13. 23	33. 40	46. 63	54.00	-7.37	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 93 of 151





## **Vertical**



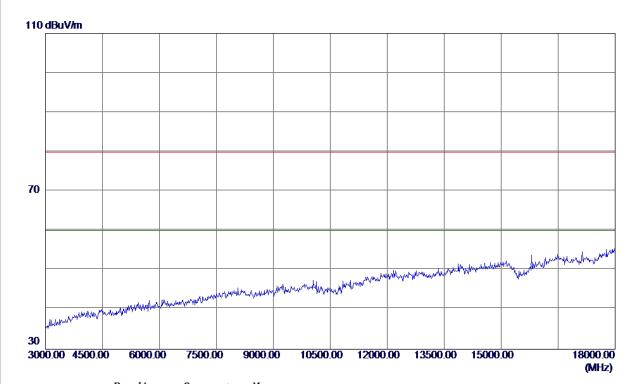
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 94 of 151





## **Vertical**



No.	Freq.	Level	Factor	ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment

Report No.: BTL-FCCP-3-1608C212 Page 95 of 151





## **Vertical**



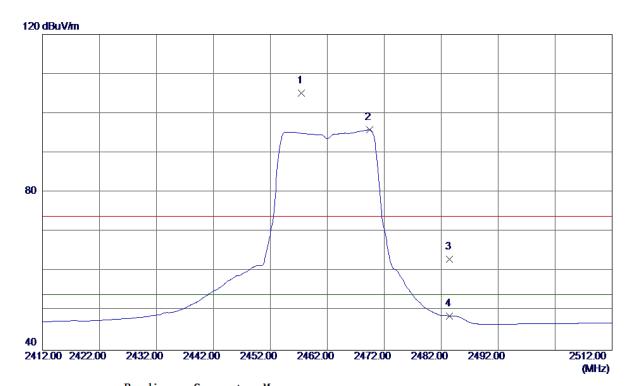
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 96 of 151





## Horizontal



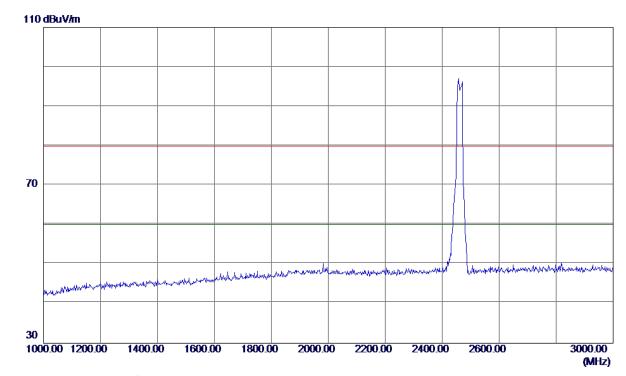
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2457.5000	71. 79	33. 29	105.08	74.00	31.08	Peak	No Limit
2 *	2469.4000	62. 52	33. 34	95. 86	54.00	41.86	AVG	No Limit
3	2483. 5000	29.69	33. 40	63. 09	74.00	-10.91	Peak	
4	2483. 5000	15. 31	33. 40	48.71	54.00	-5. 29	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 97 of 151





## Horizontal



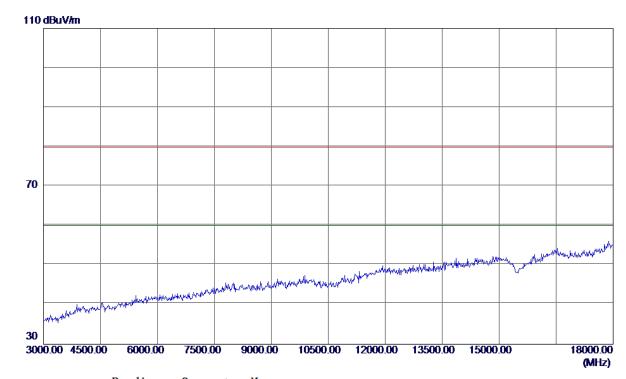
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 98 of 151





#### Horizontal



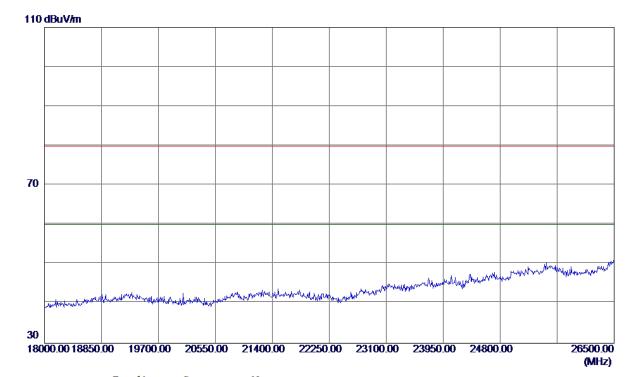
No.	Freq.	Level	Factor	ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment

Report No.: BTL-FCCP-3-1608C212 Page 99 of 151





## Horizontal



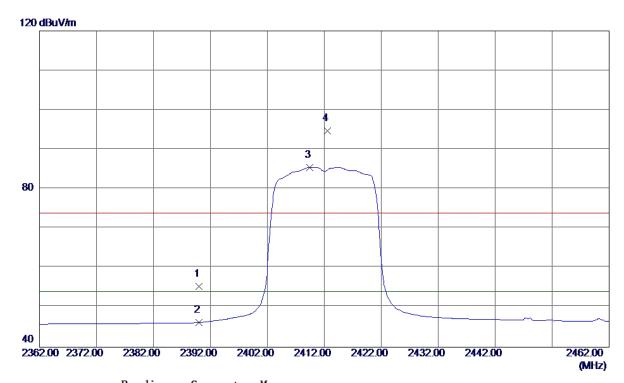
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 100 of 151





#### Vertical



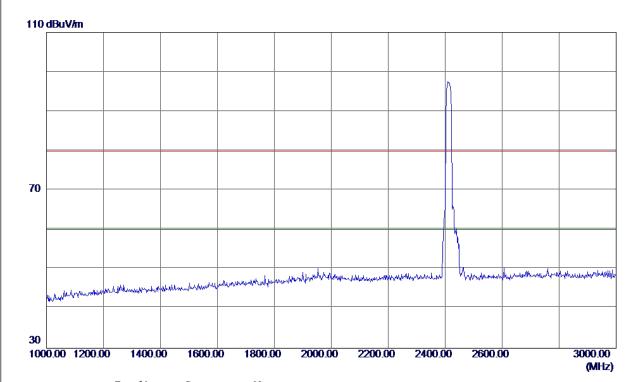
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	22. 38	33. 01	55. 39	74.00	-18.61	Peak	
2	2390.0000	13. 23	33. 01	46. 24	54.00	-7.76	AVG	
3 *	2409.4000	52.40	33. 09	85. 49	54.00	31.49	AVG	No Limit
4	2412.6000	61.68	33. 10	94. 78	74.00	20.78	Peak	No Limit

Report No.: BTL-FCCP-3-1608C212 Page 101 of 151





## Vertical



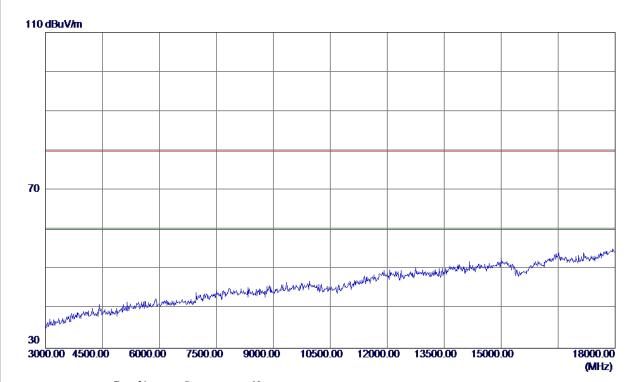
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 102 of 151





## **Vertical**



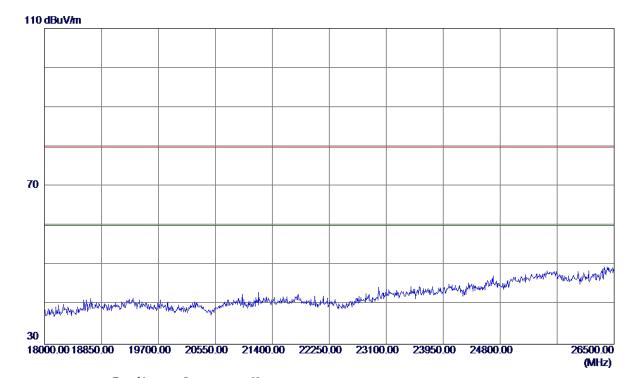
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 103 of 151





## **Vertical**



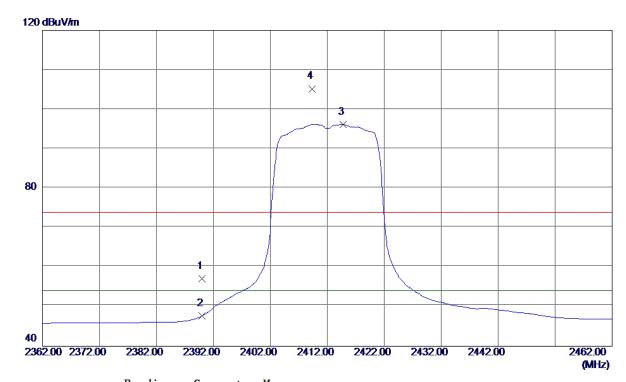
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 104 of 151





## Horizontal



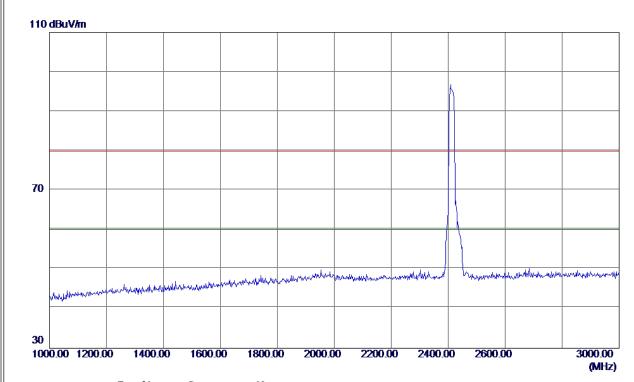
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	24. 18	33. 01	57. 19	74.00	-16.81	Peak	
2	2390.0000	14.71	33.01	47.72	54.00	-6. 28	AVG	
3 *	2414.7500	63. 03	33. 11	96. 14	54.00	42. 14	AVG	No Limit
4	2409. 3500	72. 11	33. 09	105. 20	74.00	31. 20	Peak	No Limit

Report No.: BTL-FCCP-3-1608C212 Page 105 of 151





## Horizontal



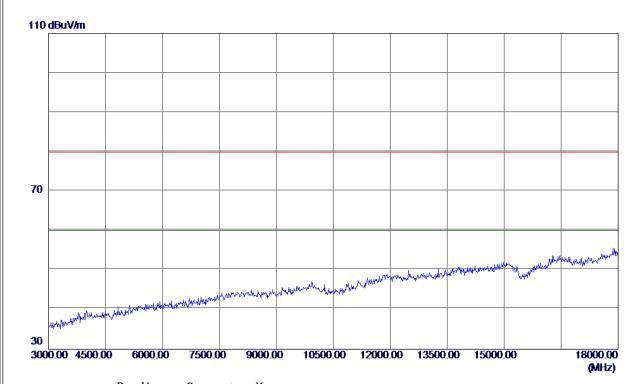
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 106 of 151





## Horizontal



No.	No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
			uzu.,		uzu.,	asa., m		200000	· · · · · · · · · · · · · · · · · · ·	_

Report No.: BTL-FCCP-3-1608C212 Page 107 of 151





## Horizontal



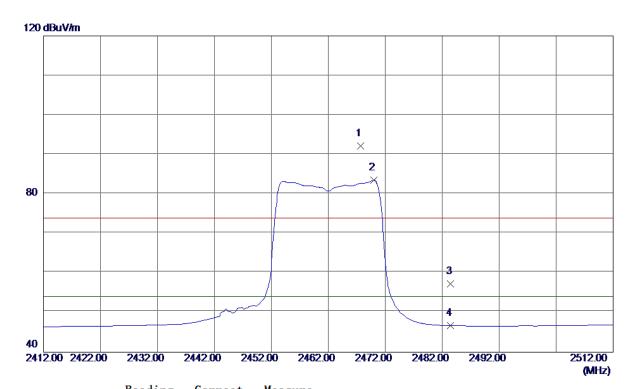
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 108 of 151





#### Vertical



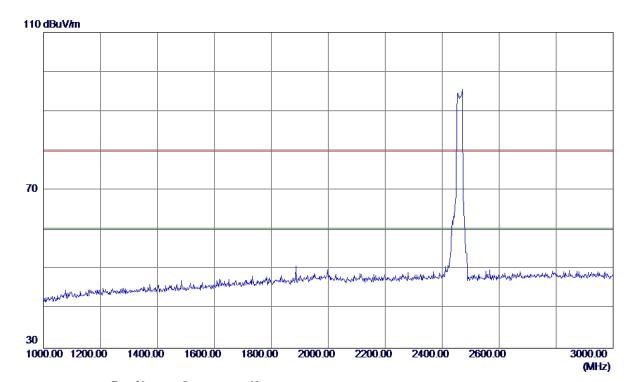
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2467.6500	58. 8 <b>0</b>	33. 33	92. 13	74.00	18. 13	Peak	No Limit
2 *	2470.0500	50. 15	33. 34	83.49	54.00	29.49	AVG	No Limit
3	2483. 5000	23. 91	33. 40	57. 31	74.00	-16.69	Peak	
4	2483. 5000	13. 34	33. 40	46.74	54.00	-7. 26	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 109 of 151





# **Vertical**



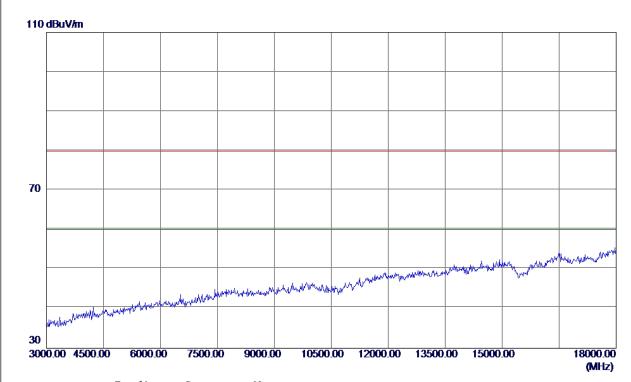
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 110 of 151





## Vertical



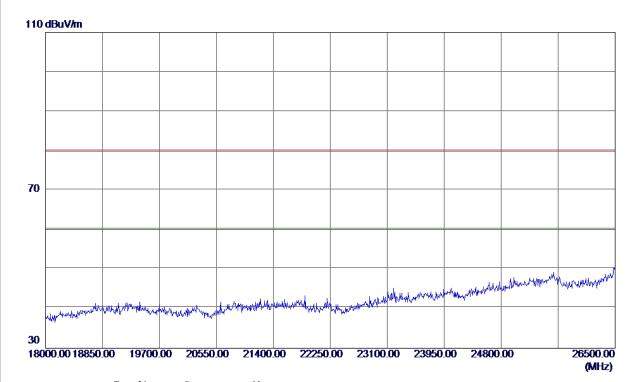
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 111 of 151





## **Vertical**



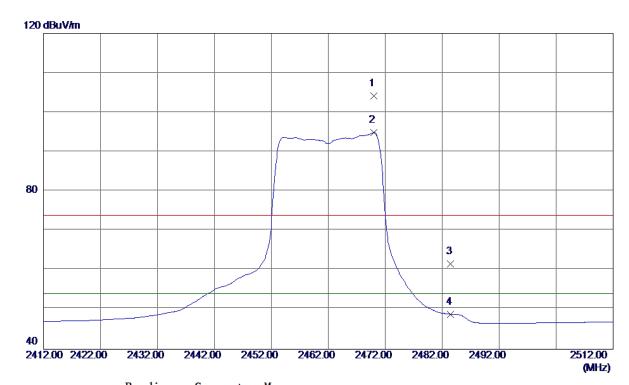
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 112 of 151





## Horizontal



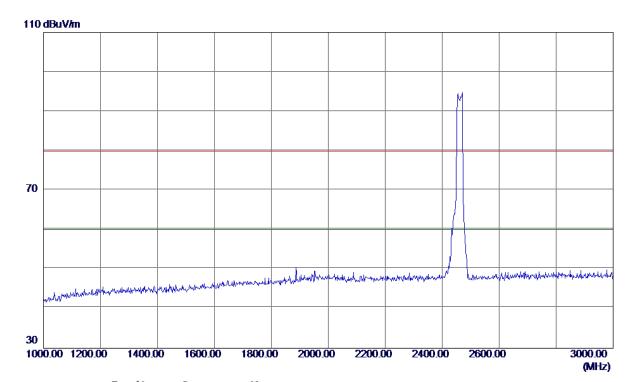
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2469. 9500	70.77	33. 34	104. 11	74.00	30. 11	Peak	No Limit
2 *	2470.0500	61. 52	33. 34	94.86	54.00	40.86	AVG	No Limit
3	2483. 5000	28. 16	33. 40	61.56	74.00	-12.44	Peak	
4	2483. 5000	15. 44	33. 40	48. 84	54.00	-5. 16	AVG	

Report No.: BTL-FCCP-3-1608C212 Page 113 of 151





## Horizontal



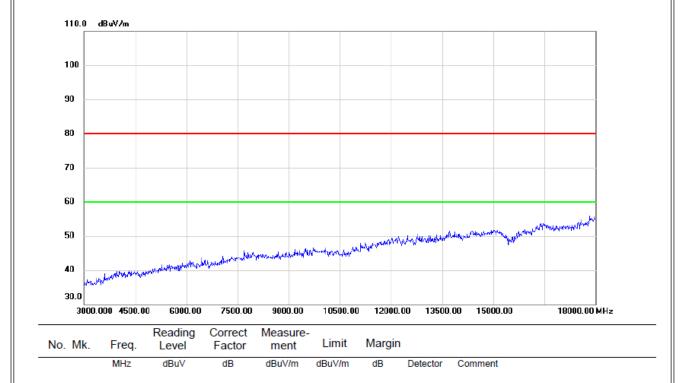
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	

Report No.: BTL-FCCP-3-1608C212 Page 114 of 151





## Horizontal



Report No.: BTL-FCCP-3-1608C212 Page 115 of 151





## Horizontal



	No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
_		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		

Report No.: BTL-FCCP-3-1608C212 Page 116 of 151





_	
	ATTACHMENT E - BANDWIDTH

Report No.: BTL-FCCP-3-1608C212 Page 117 of 151

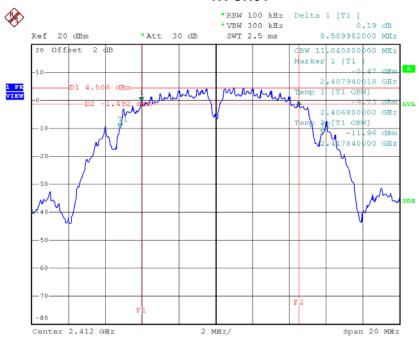




# Test Mode: TX B Mode\_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	8.59	11.04	500	Complies
2437	8.68	11.44	500	Complies
2462	9.58	11.40	500	Complies

#### **TX CH01**

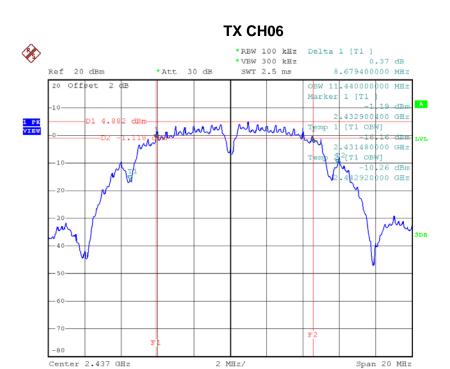


Date: 5.SEP.2016 16:09:10

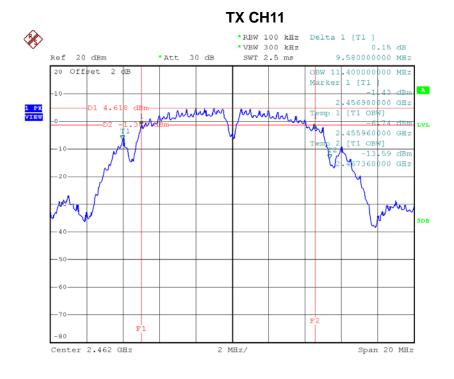
Report No.: BTL-FCCP-3-1608C212 Page 118 of 151







Date: 5.SEP.2016 16:15:09



Date: 5.SEP.2016 16:18:37

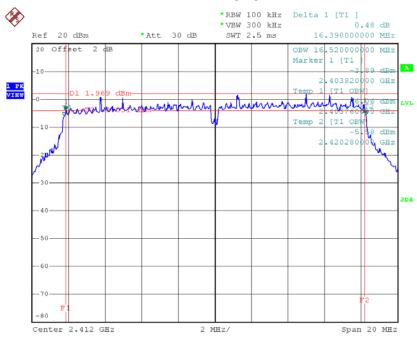




# Test Mode: TX G Mode\_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.39	16.52	500	Complies
2437	16.4	16.60	500	Complies
2462	16.6	16.72	500	Complies

#### TX CH01

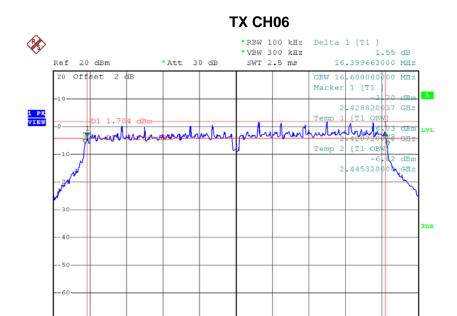


Date: 5.SEP.2016 16:36:48

Report No.: BTL-FCCP-3-1608C212 Page 120 of 151





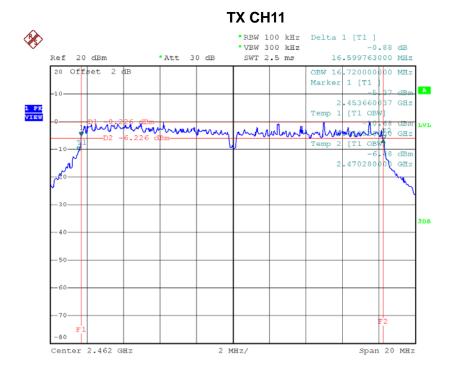


2 MHz/

Span 20 MHz

Date: 5.SEP.2016 16:38:01

Center 2.437 GHz



Date: 5.SEP.2016 16:39:05

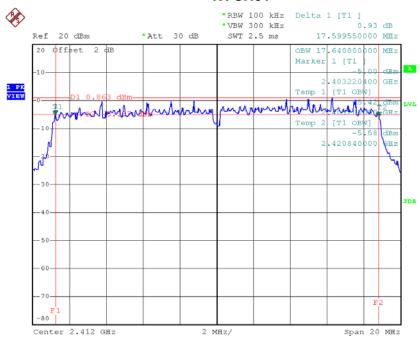




## Test Mode: TX N-20MHz Mode\_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.6	17.64	500	Complies
2437	17.67	17.72	500	Complies
2462	17.78	17.76	500	Complies

#### TX CH01



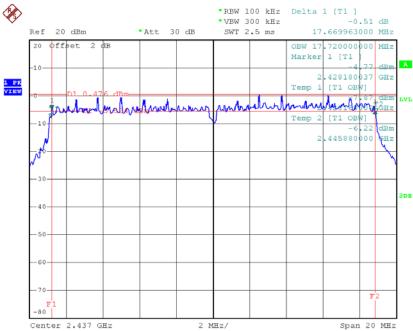
Date: 5.SEP.2016 16:32:39

Report No.: BTL-FCCP-3-1608C212



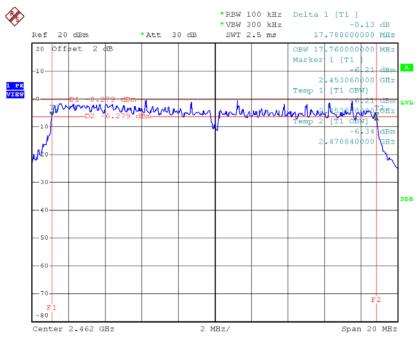






Date: 5.SEP.2016 16:33:51

#### **TX CH11**



Date: 5.SEP.2016 16:34:52





# ATTACHMENT F - MAXIMUM PEAK CONDUCTED OUTPUT POWER

Report No.: BTL-FCCP-3-1608C212 Page 124 of 151





	Test Mode :TX B Mode_CH01/06/11										
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result						
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	Resuit						
2412	18.89	0.08	30.00	1.00	Complies						
2437	19.09	0.08	30.00	1.00	Complies						
2462	19.59	0.09	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)			
2412	23.98	0.25	30.00	1.00	Complies		
2437	24.08	0.26	30.00	1.00	Complies		
2462	23.04	0.20	30.00	1.00	Complies		

Test Mode :TX N20 Mode_CH01/06/11							
Frequency	Conducted	Conducted	Max. Limit	Max. Limit	Result		
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)			
2412	23.81	0.24	30.00	1.00	Complies		
2437	23.45	0.22	30.00	1.00	Complies		
2462	22.87	0.19	30.00	1.00	Complies		

Report No.: BTL-FCCP-3-1608C212 Page 125 of 151





# ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

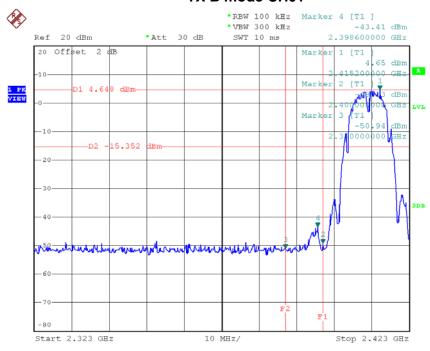
Report No.: BTL-FCCP-3-1608C212 Page 126 of 151





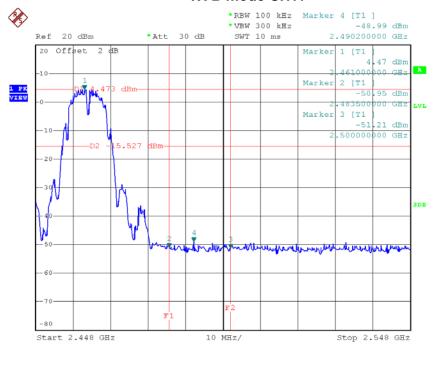


#### TX B mode CH01



Date: 5.SEP.2016 16:09:49

#### TX B mode CH11

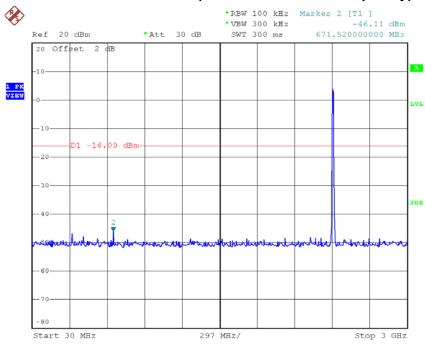


Date: 5.SEP.2016 16:19:16

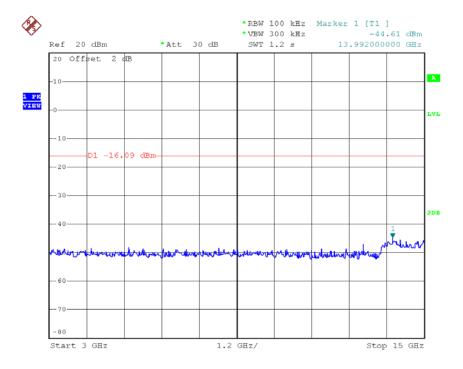




# TX B mode CH01 (10 Harmonic of the frequency)



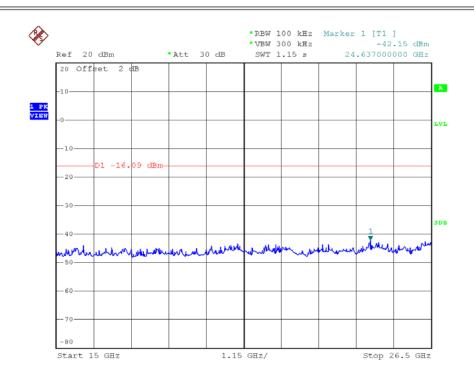
Date: 5.SEP.2016 16:09:25



Date: 5.SEP.2016 16:09:33

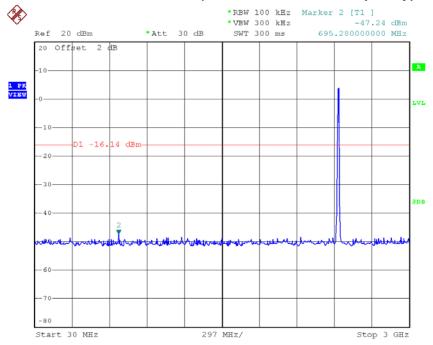






Date: 5.SEP.2016 16:09:42

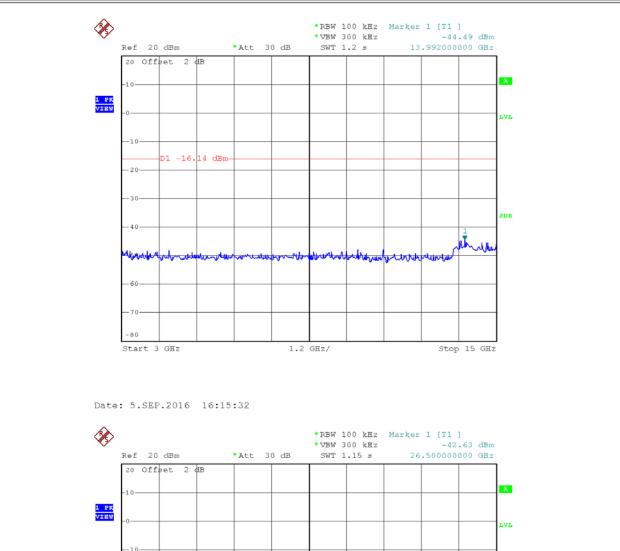
## TX B mode CH06 (10 Harmonic of the frequency)

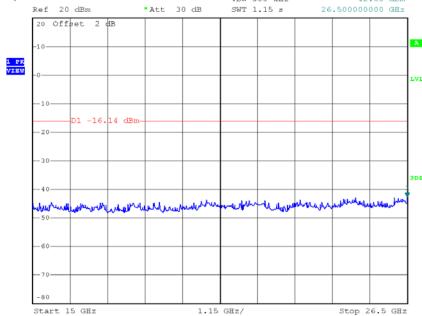


Date: 5.SEP.2016 16:15:23







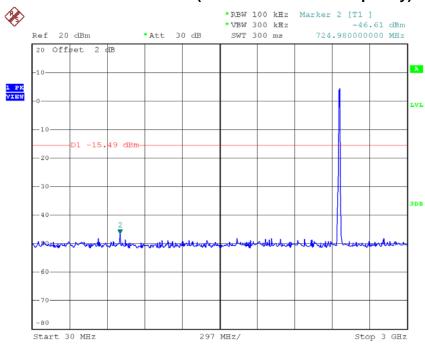


Date: 5.SEP.2016 16:15:40

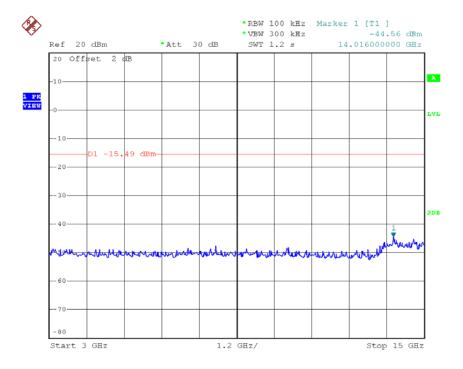




# TX B mode CH11 (10 Harmonic of the frequency)



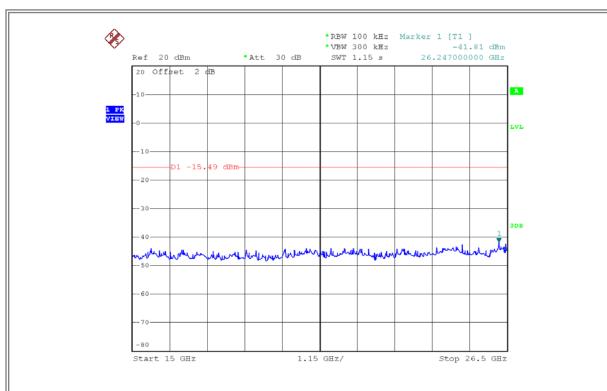
Date: 5.SEP.2016 16:18:51



Date: 5.SEP.2016 16:19:00







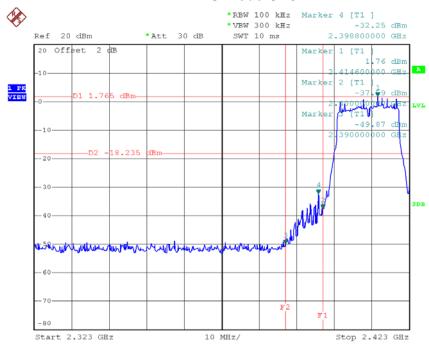
Date: 5.SEP.2016 16:19:08





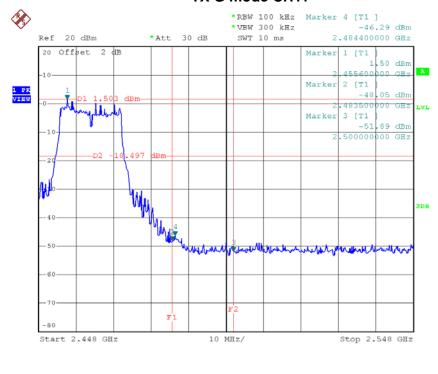






Date: 5.SEP.2016 16:37:27

#### TX G mode CH11



Date: 5.SEP.2016 16:39:44