

FCC Radio Test Report FCC ID: T58WF2409ER

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

Project No. : 1410C254

: 300Mbps Wireless N Router Equipment

Model Name : WF2409E
Applicant : NETIS SYSTEMS CO., LTD Applicant

: 4F&5F R&D Building, Oriental Cyberport, High-Tech Address

Industrial Park, Nanshan, Shenzhen, China.

Date of Receipt : Oct. 31, 2014

Date of Test : Oct. 31, 2014 ~ Dec. 02, 2014

Issued Date : Dec. 04, 2014
Tested by : BTL Inc.

Testing Engineer

Technical Manager

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Report No.: BTL-FCCP-1-1410C254 Page 1 of 143



Declaration

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

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

Report No.: BTL-FCCP-1-1410C254 Page 2 of 143



Table of Contents	Page
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	12
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM	TESTED 13
3.5 DESCRIPTION OF SUPPORT UNITS	13
4 . EMC EMISSION TEST	14
4.1 CONDUCTED EMISSION MEASUREMENT	14
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS 4.1.2 TEST PROCEDURE	14 14
4.1.3 DEVIATION FROM TEST STANDARD	14
4.1.4 TEST SETUP	15
4.1.5 EUT OPERATING CONDITIONS	15
4.1.6 EUT TEST CONDITIONS 4.1.7 TEST RESULTS	15 15
4.2 RADIATED EMISSION MEASUREMENT	16
4.2.1 RADIATED EMISSION MEASUREMENT	16
4.2.2 TEST PROCEDURE	17
4.2.3 DEVIATION FROM TEST STANDARD	17
4.2.4 TEST SETUP 4.2.5 EUT OPERATING CONDITIONS	17 18
4.2.6 EUT TEST CONDITIONS	18
4.2.7 TEST RESULTS (9KHZ TO 30MHZ)	19
4.2.8 TEST RESULTS (BETWEEN 30MHZ TO 1000 MHZ)	19
4.2.9 TEST RESULTS (ABOVE 1000 MHZ)	19
5 . BANDWIDTH TEST	20
5.1 APPLIED PROCEDURES	20
5.1.1 TEST PROCEDURE 5.1.2 DEVIATION FROM STANDARD	20 20
5.1.3 TEST SETUP	20
5.1.4 EUT OPERATION CONDITIONS	20
5.1.5 EUT TEST CONDITIONS	20
5.1.6 TEST RESULTS	20

Report No.: BTL-FCCP-1-1410C254



Table of Contents	Page
6 . MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST 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	21 21 21 21 21 21
6.1.5 EUT TEST CONDITIONS 6.1.6 TEST RESULTS	21 21
7 . ANTENNA CONDUCTED SPURIOUS EMISSION 7.1 APPLIED PROCEDURES / LIMIT 7.1.1 TEST PROCEDURE 7.1.2 DEVIATION FROM STANDARD 7.1.3 TEST SETUP 7.1.4 EUT OPERATION CONDITIONS 7.1.5 EUT TEST CONDITIONS 7.1.6 TEST RESULTS	22 22 22 22 22 22 22 22 22
8 . POWER SPECTRAL DENSITY TEST 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	23 23 23 23 23 23 23 23 23
9. MEASUREMENT INSTRUMENTS LIST	24
10 . EUT TEST PHOTO ATTACHMENT A - CONDUCTED EMISSION	26 30
ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ) ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)	33 35
ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ) ATTACHMENT E - BANDWIDTH	42 91
ATTACHMENT F – MAXIMUM PEAK CONDUCTED OUTPUT POWER	100
ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION ATTACHMENT H - POWER SPECTRAL DENSITY	104 129

Report No.: BTL-FCCP-1-1410C254 Page 4 of 143



REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1410C254	Original Issue.	Dec. 04, 2014

Report No.: BTL-FCCP-1-1410C254 Page 5 of 143



1. CERTIFICATION

Equipment : 300Mbps Wireless N Router

Brand Name: netis Model Name: WF2409E

Applicant : NETIS SYSTEMS CO., LTD Manufacturer: Shenzhen Netcore Industrial Ltd.

Address : 4F&5F R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan,

Shenzhen, China,

: Dongguan City Netcore Network Technology Co.,Ltd. Factory

 Dongguan City Netcore Network Technology Co., Ltd.
 No.10-1, Sankeng Road, Qinghutou, Tangxia Town, Dongguan City Address

Date of Test : Oct. 31, 2014 ~ Dec. 02, 2014 Test Sample: ENGINEERING SAMPLE

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

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1410C254) 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).

Report No.: BTL-FCCP-1-1410C254 Page 6 of 143



2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15 (15.247), Subpart C: 2013				
Standard(s) Section FCC	Test Item	Judgment	Remark	
15.207	Conducted Emission	PASS		
15.247(d)	Antenna conducted Spurious Emission	PASS		
15.247(a)(2)	6dB Bandwidth	PASS		
15.247(b)(3)	Peak Output Power	PASS		
15.247(e)	Power Spectral Density	PASS		
15.203	Antenna Requirement	PASS		
15.209/15.205	Transmitter Radiated Emissions	PASS		

NOTE:

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

Report No.: BTL-FCCP-1-1410C254 Page 7 of 143



2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.523792 BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted Measurement:

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

B. Radiated Measurement:

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

Report No.: BTL-FCCP-1-1410C254 Page 8 of 143



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	300Mbps Wireless N Router				
Brand Name	netis				
Model Name	WF2409E	WF2409E			
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: 18.75 dBm 802.11g: 22.40 dBm 802.11n(20MHz): 24.83 dBm 802.11n(40MHz): 23.26 dBm			
Power Source	DC voltage supplied from AC Adapter. Brand/ Model: tenpao / NTPI2UL				
Power Rating	I/P: 100-240V~ 0.2A 50/60Hz O/P: DC 9V 500mA				

Note:

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

Report No.: BTL-FCCP-1-1410C254 Page 9 of 143



2. Channel List:

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

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gairi (dD:)	Note
1	RF link	RF21C00283A	Dipole	N/A	5.00	TX/RX
2	RF link	RF21C00283A	Dipole	N/A	5.00	TX/RX
3	RF link	RF21C00283A	Dipole	N/A	5.00	RX

Note:

(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and three receivers (2T3R), all transmit signals are completely uncorrelated, then, **Direction gain = G**_{ANT}, that is Directional gain=5.

4.

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

Report No.: BTL-FCCP-1-1410C254 Page 10 of 143



3.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09
Mode 5	TX MODE

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

	For Conducted Test
Final Test Mode	Description
Mode 5	TX MODE

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

Note:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
 - 802.11g mode: OFDM (6Mbps)
 - 802.11n HT20 mode : BPSK (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%.
- (5) The antenna of EUT could be rotated, but the Antenna Polarity vertical is max.

Report No.: BTL-FCCP-1-1410C254 Page 11 of 143



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		Wisoc manual Test	
Frequency (MHz)	2412	2437	2462
802.11b	39	39	38
802.11g	47	47	48
802.11n (20MHz)	44	45	46
Frequency	2422	2437	2452
802.11n (40MHz)	46	46	46

Report No.: BTL-FCCP-1-1410C254 Page 12 of 143



3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

3.5 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID/IC	Series No.	Note
-	-	-	-	-	-	

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	

Report No.: BTL-FCCP-1-1410C254 Page 13 of 143



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 -0.5	66 to 56*	56 to 46*	
0.50 -5.0	56	46	
5.0 -30.0	60	50	

Note

(1) The limit of " * " decreases with the logarithm of the frequency

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.

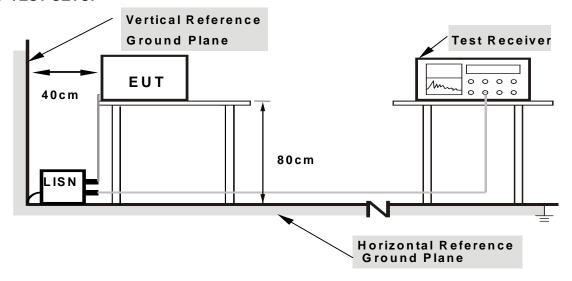
4.1.3 DEVIATION FROM TEST STANDARD

No deviation

Report No.: BTL-FCCP-1-1410C254 Page 14 of 143



4.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

4.1.5 EUT OPERATING CONDITIONS

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

4.1.6 EUT TEST CONDITIONS

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

4.1.7 TEST RESULTS

Please refer to the Attachment A.

Report No.: BTL-FCCP-1-1410C254 Page 15 of 143



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

20dB in any 100 KHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a) & RSS-210 section 2.2& Annex 8 (A8.5), then the 15.209(a)& RSS-Gen 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)	
Frequency (Miriz)	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).

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

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

Report No.: BTL-FCCP-1-1410C254 Page 16 of 143



4.2.2 TEST PROCEDURE

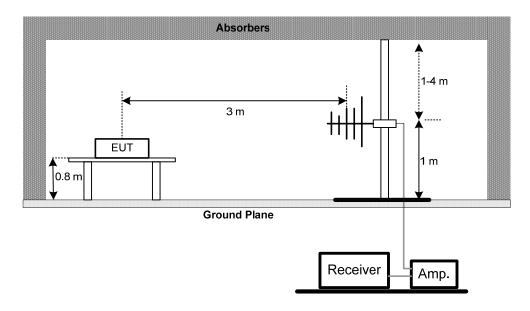
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at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

4.2.3 DEVIATION FROM TEST STANDARD

No deviation

4.2.4 TEST SETUP

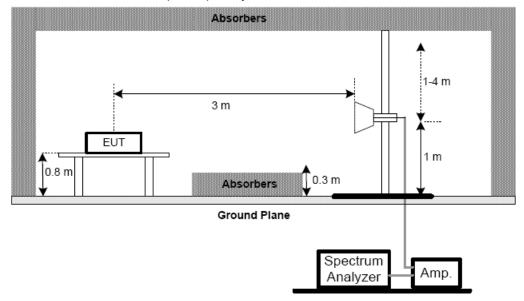
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



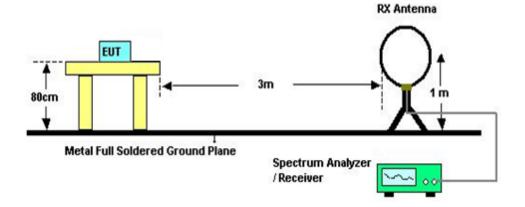
Report No.: BTL-FCCP-1-1410C254 Page 17 of 143



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



(C) For radiated emissions below 30MHz



4.2.5 EUT OPERATING CONDITIONS

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

4.2.6 EUT TEST CONDITIONS

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

Report No.: BTL-FCCP-1-1410C254 Page 18 of 143



4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment B

Remark:

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

4.2.8 TEST RESULTS (BETWEEN 30MHZ TO 1000 MHZ)

Please refer to the Attachment C.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment D.

Remark:

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

Report No.: BTL-FCCP-1-1410C254 Page 19 of 143



5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES

FCC Part15 (15.247) , Subpart C/ RSS-GEN and RSS-210			
Section	Test Item	Frequency Range (MHz)	Result
15.247(a)(2)			
RSS-GEN section 4.6.1	Bandwidth	2400-2483.5	PASS
RSS-210 Annex 8 (A8.2(a))			

5.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

5.1.4 EUT OPERATION CONDITIONS

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

5.1.5 EUT TEST CONDITIONS

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

5.1.6 TEST RESULTS

Please refer to the Attachment E.

Report No.: BTL-FCCP-1-1410C254 Page 20 of 143



6. MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.2	247) , Subpart C/ RS	S-210	
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3) RSS-210 Annex 8.4(4)	Maximum Output Power	1 Watt or 30dBm	2400-2483.5	PASS

6.1.1 TEST PROCEDURE

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

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP

EUT	Power Meter
	1 Owel Meter

6.1.4 EUT OPERATION CONDITIONS

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

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

6.1.5 EUT TEST CONDITIONS

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

6.1.6 TEST RESULTS

Please refer to the Attachment F.

Report No.: BTL-FCCP-1-1410C254 Page 21 of 143



7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

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

7.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = Auto.

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

7.1.4 EUT OPERATION CONDITIONS

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

7.1.5 EUT TEST CONDITIONS

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

7.1.6 TEST RESULTS

Please refer to the Attachment G.

Report No.: BTL-FCCP-1-1410C254 Page 22 of 143



8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15	5.247) , Subpart C / F	RSS-210	
Section Test Item Limit Frequency Range (MHz)				Result
15.247(e) RSS-210 Annex 8(A8.2(b))	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

8.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW=3KHz, VBW=10KHz, Sweep time = Auto.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

8.1.4 EUT OPERATION CONDITIONS

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

8.1.5 EUT TEST CONDITIONS

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

8.1.6 TEST RESULTS

Please refer to the Attachment H.

Report No.: BTL-FCCP-1-1410C254 Page 23 of 143



9. MEASUREMENT INSTRUMENTS LIST

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

		Radiated Emis	ssion Measurem	ent	
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 29, 2015
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015
3	Receiver	AGILENT	N9038A	MY5213003 9	Sep. 30, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015
5	Controller	СТ	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	Mar. 29, 2015
7	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015
8	Receiver	AGILENT	N9038A	MY5213003 9	Sep. 30, 2015
9	Test Cable	HUBER+SUHNER	C-48	N/A	Apr. 30, 2015
10	Controller	СТ	SC100	N/A	N/A
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Feb. 22, 2015
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 22, 2015
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Report No.: BTL-FCCP-1-1410C254 Page 24 of 143



		6dB Bandwidt	th Measureme	ent	
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

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

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

		Power Spectral De	ensity Measur	ement	
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

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

All calibration period of equipment list is one year.

Report No.: BTL-FCCP-1-1410C254 Page 25 of 143



10. EUT TEST PHOTO

Conducted Measurement Photos





Report No.: BTL-FCCP-1-1410C254 Page 26 of 143



Radiated Measurement Photos

9KHz to 30MHz





Report No.: BTL-FCCP-1-1410C254 Page 27 of 143



Radiated Measurement Photos

30MHz to 1000MHz





Report No.: BTL-FCCP-1-1410C254 Page 28 of 143



Radiated Measurement Photos

Above 1000MHz





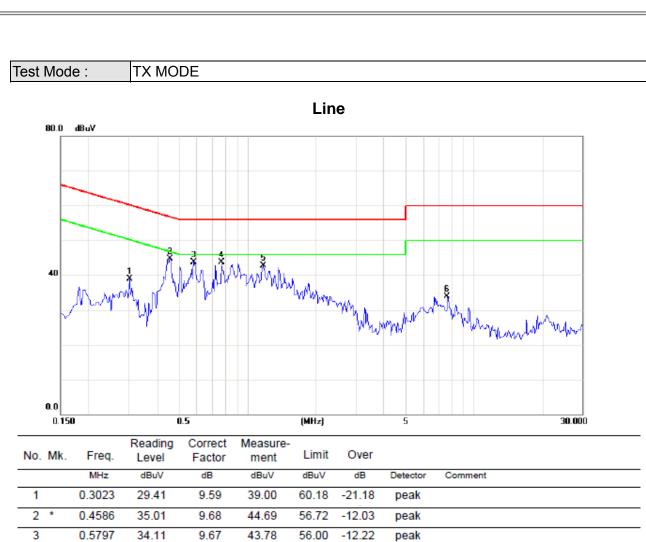
Report No.: BTL-FCCP-1-1410C254 Page 29 of 143



ATTACHMENT A - CONDUCTED EMISSION

Report No.: BTL-FCCP-1-1410C254 Page 30 of 143





56.00

56.00

60.00

-12.27

-13.33

-26.16

peak

peak

peak

Danaut Na . DTI	FCCP-1-1410C254
RANNIT NIN BILL	FL.L.P=1=14111L.254

4

5

6

0.7711

1.1734

7.6445

34.08

32.97

23.83

9.65

9.70

10.01

43.73

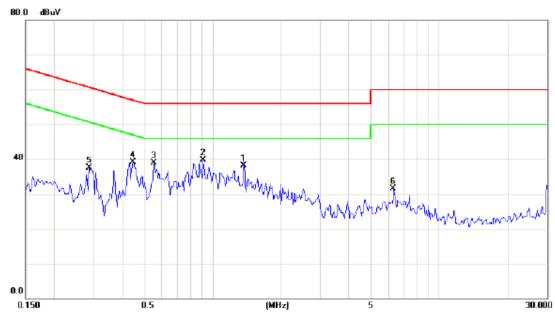
42.67

33.84





Neutral



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	1.3810	28.36	9.70	38.06	56.00	-17.94	peak	
2 *	0.9117	30.12	9.67	39.79	56.00	-16.21	peak	
3	0.5523	29.23	9.65	38.88	56.00	-17.12	peak	
4	0.4470	29.56	9.63	39.19	56.93	-17.74	peak	
5	0.2867	27.81	9.62	37.43	60.62	-23.19	peak	
6	6.2970	21.67	9.93	31.60	60.00	-28.40	peak	

Report No.: BTL-FCCP-1-1410C254 Page 32 of 143



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

Report No.: BTL-FCCP-1-1410C254 Page 33 of 143



Test Mode: TX Mode 2412MHz

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit(QP) (dBuV/m)	Margin (dB)	Note
0.0094	0°	5.65	24.97	30.62	108.18	-77.55	AVG
0.0094	0°	6.93	24.97	31.90	128.18	-96.27	PK
0.0237	0°	6.98	24.07	31.05	100.11	-69.06	AVG
0.0237	0°	8.69	24.07	32.76	120.11	-87.35	PK
0.0318	0°	5.54	23.55	29.09	97.56	-68.46	AVG
0.0318	0°	7.25	23.55	30.80	117.56	-86.75	PK
0.0429	0°	5.35	22.85	28.20	94.96	-66.76	AVG
0.0429	0°	8.26	22.85	31.11	114.96	-83.85	PK
0.4912	0°	3.45	19.82	23.27	73.78	-50.51	QP
1.7156	0°	2.89	19.53	22.42	69.54	-47.12	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit(QP) (dBuV/m)	Margin (dB)	Note
0.0094	90°	6.35	24.30	30.65	128.18	-97.53	AVG
0.0094	90°	8.26	24.30	32.56	148.18	-115.62	PK
0.0237	90°	6.02	24.07	30.09	120.11	-90.02	AVG
0.0237	90°	7.35	24.07	31.42	140.11	-108.69	PK
0.0318	90°	6.97	23.55	30.52	117.56	-87.03	AVG
0.0318	90°	7.48	23.55	31.03	137.56	-106.52	PK
0.0429	90°	5.51	22.85	28.36	114.96	-86.60	AVG
0.0429	90°	6.82	22.85	29.67	134.96	-105.29	PK
0.4912	90°	4.89	19.82	24.71	73.78	-49.07	QP
1.7156	90°	3.65	19.53	23.18	69.54	-46.36	QP

Report No.: BTL-FCCP-1-1410C254 Page 34 of 143



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

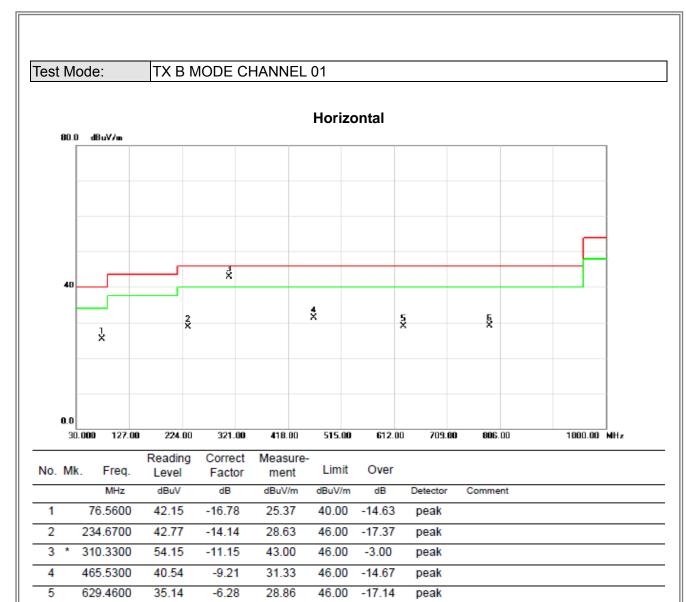
Report No.: BTL-FCCP-1-1410C254 Page 35 of 143





Report No.: BTL-FCCP-1-1410C254 Page 36 of 143





Report No.: BTL-FCCP-1-1410C254

32.52

-3.36

29.16

46.00

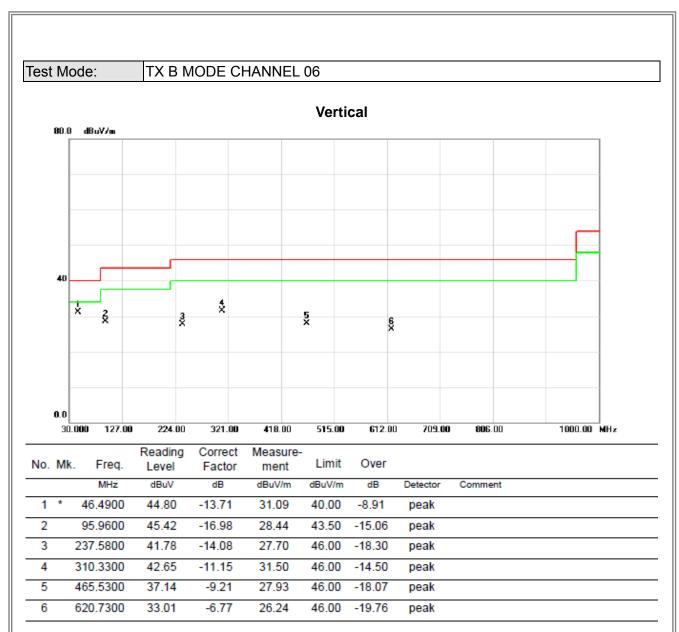
-16.84

peak

6

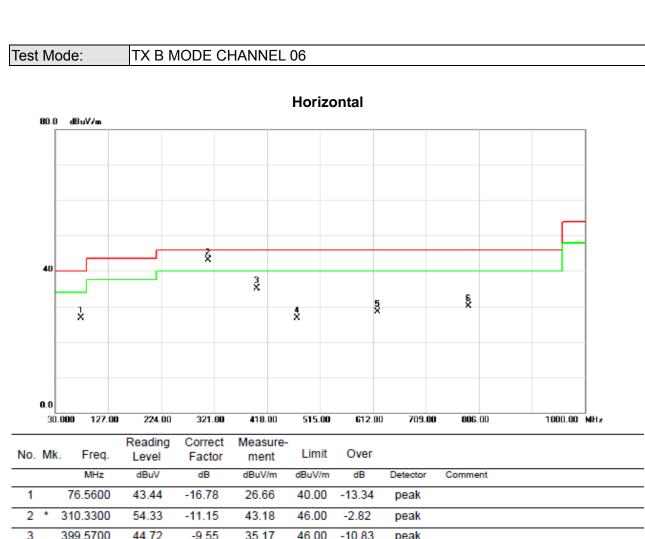
786.6000





Report No.: BTL-FCCP-1-1410C254 Page 38 of 143

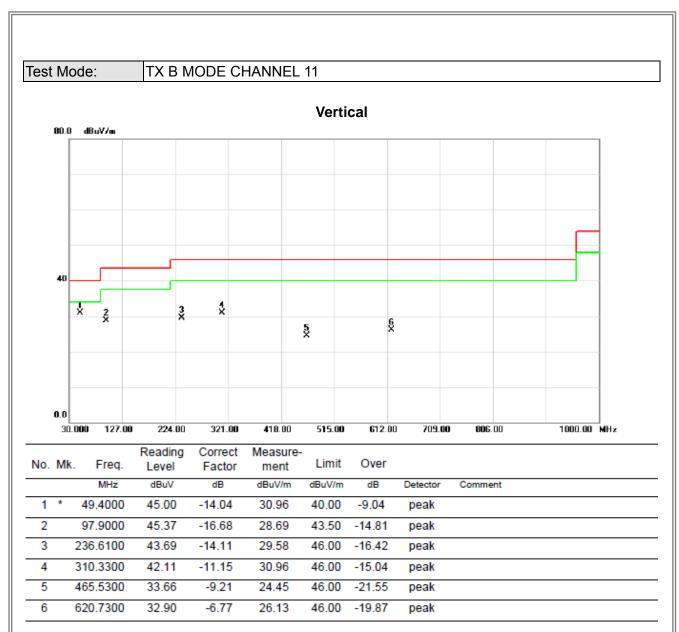




No.	Mk	. Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		76.5600	43.44	-16.78	26.66	40.00	-13.34	peak	
2	*	310.3300	54.33	-11.15	43.18	46.00	-2.82	peak	
3		399.5700	44.72	-9.55	35.17	46.00	-10.83	peak	
4		472.3200	36.22	-9.47	26.75	46.00	-19.25	peak	
5		620.7300	35.36	-6.77	28.59	46.00	-17.41	peak	
6		786.6000	33.39	-3.36	30.03	46.00	-15.97	peak	

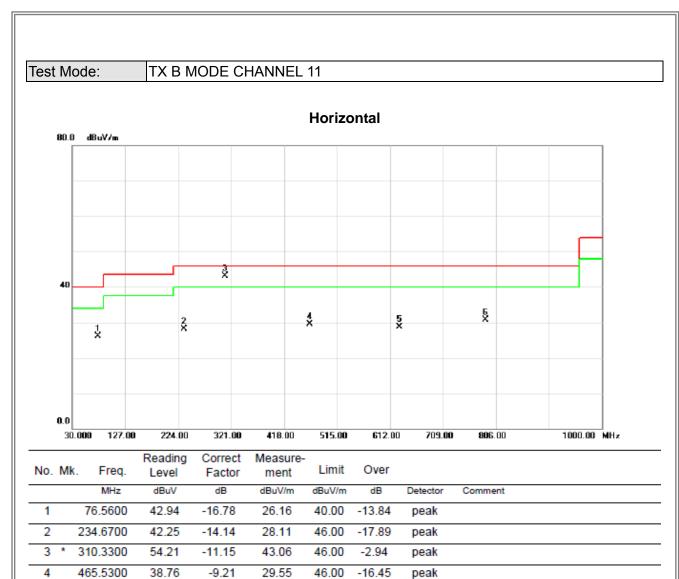
Report No.: BTL-FCCP-1-1410C254 Page 39 of 143





Report No.: BTL-FCCP-1-1410C254 Page 40 of 143





Report No.: BTL-FCCP-1-1410C254

5

6

629.4600

786.6000

35.04

34.04

-6.28

-3.36

28.76

30.68

46.00

46.00

-17.24

-15.32

peak

peak

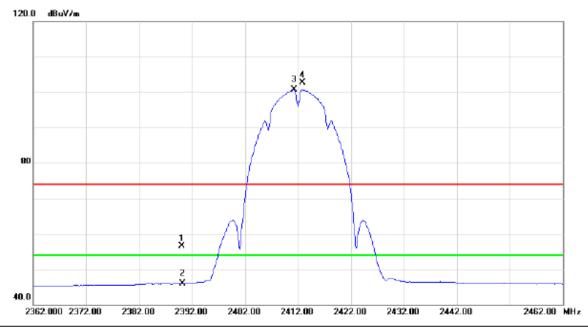


ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

Report No.: BTL-FCCP-1-1410C254 Page 42 of 143



Vertical

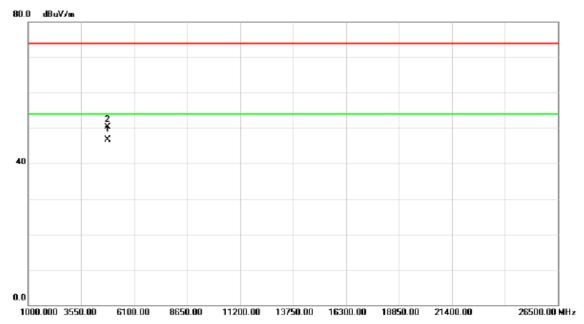


ı	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	24.64	31.88	56.52	74.00	-17.48	peak	
_	2		2390.000	13.97	31.88	45.85	54.00	-8.15	AVG	
	3	*	2411.200	68.77	31.91	100.68	54.00	46.68	AVG	no limit
	4	Х	2412.900	70.71	31.91	102.62	74.00	28.62	peak	no limit

Report No.: BTL-FCCP-1-1410C254 Page 43 of 143



Vertical



No	. N	Λk.	Freq.	Reading Level		Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4	823.980	43.01	3.62	46.63	54.00	-7.37	AVG	
2		4	824.000	46.59	3.62	50.21	74.00	-23.79	peak	
			,			,	,			·

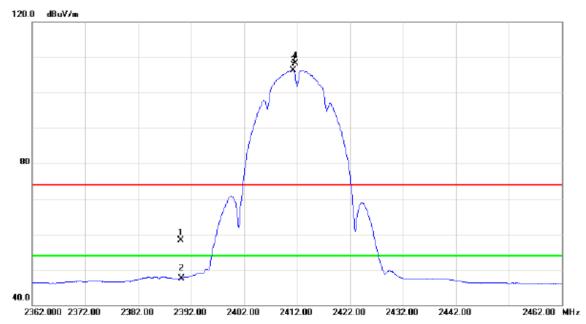
Report No.: BTL-FCCP-1-1410C254 Page 44 of 143



Orthogonal Axis: X

Test Mode: TX B MODE 2412MHz

Horizontal



	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over				
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
ľ	1		2390.000	26.48	31.88	58.36	74.00	-15.64	peak			
	2		2390.000	15.61	31.88	47.49	54.00	-6.51	AVG			
	3	*	2411.200	74.48	31.91	106.39	54.00	52.39	AVG	no limit		
ľ	4	Х	2411.600	76.48	31.91	108.39	74.00	34.39	peak	no limit		

Report No.: BTL-FCCP-1-1410C254 Page 45 of 143



Horizontal



No	_	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4823.960	46.47	3.62	50.09	74.00	-23.91	peak	
2		*	4824.000	42.99	3.62	46.61	54.00	-7.39	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 46 of 143



Vertical 120.0 dBuV/m 80

No.	М	k.	Freq.	Reading Level		Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	Х	24	36.200	62.10	31.94	94.04	74.00	20.04	peak	no limit
2	*	24	36.200	60.15	31.94	92.09	54.00	38.09	AVG	no limit

2437.00

2447.00

2457.00

2467.00

2487.00 MHz

2387.000 2397.00

2407.00

2417.00

2427.00

Report No.: BTL-FCCP-1-1410C254 Page 47 of 143



Vertical



No	0.	Mk	. Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	4873.960	45.01	3.72	48.73	54.00	-5.27	AVG	
	2		4873.980	47.69	3.72	51.41	74.00	-22.59	peak	

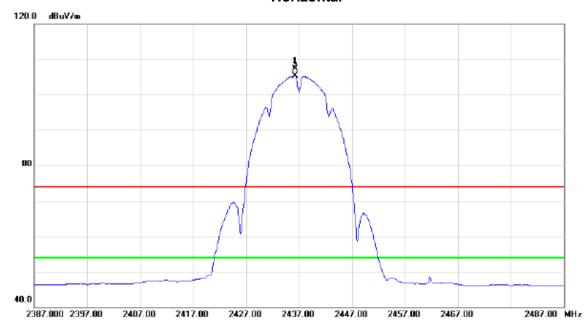
Report No.: BTL-FCCP-1-1410C254 Page 48 of 143



Orthogonal Axis: X

Test Mode: TX B MODE 2437MHz

Horizontal

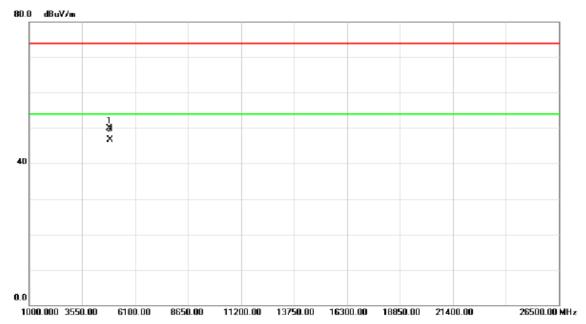


_	No.	М	k.	Freq.		Correct Factor	Measure- ment	Limit	Over		
-				MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
Ī	1	Х	24	36.200	75.40	31.94	107.34	74.00	33.34	peak	no limit
Ī	2	*	24	36.200	73.40	31.94	105.34	54.00	51.34	AVG	no limit

Report No.: BTL-FCCP-1-1410C254 Page 49 of 143



Horizontal

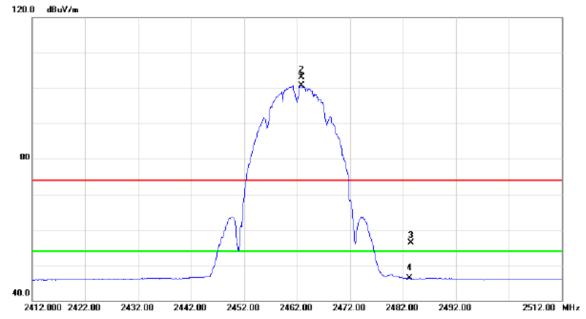


No	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4873.900	46.27	3.72	49.99	74.00	-24.01	peak	
2	*	4874.000	43.02	3.72	46.74	54.00	-7.26	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 50 of 143



Vertical



	No.	М	k. Freq	Reading Level	Correct Factor	Measure- ment	Limit	Over			
·			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1	*	2462.80	68.70	31.98	100.68	54.00	46.68	AVG	no limit	
	2	X	2462.90	71.06	31.98	103.04	74.00	29.04	peak	no limit	
	3		2483.50	24.20	32.01	56.21	74.00	-17.79	peak		
ĺ	4		2483.50	14.20	32.01	46.21	54.00	-7.79	AVG		

Report No.: BTL-FCCP-1-1410C254 Page 51 of 143



Vertical



No)_	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4924.020	46.64	3.80	50.44	74.00	-23.56	peak	
2)	*	4924.020	43.33	3.80	47.13	54.00	-6.87	AVG	

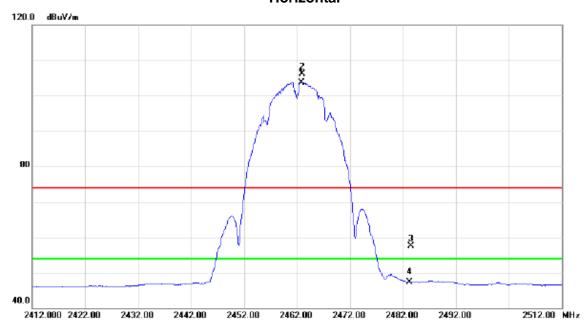
Report No.: BTL-FCCP-1-1410C254 Page 52 of 143



Orthogonal Axis: X

Test Mode: TX B MODE 2462MHz

Horizontal



No.	N	۸k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	1	2462.800	71.81	31.98	103.79	54.00	49.79	AVG	no limit
2	X	Κ :	2463.000	74.09	31.98	106.07	74.00	32.07	peak	no limit
3		-	2483.500	25.44	32.01	57.45	74.00	-16.55	peak	
4			2483.500	15.29	32.01	47.30	54.00	-6.70	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 53 of 143



Horizontal

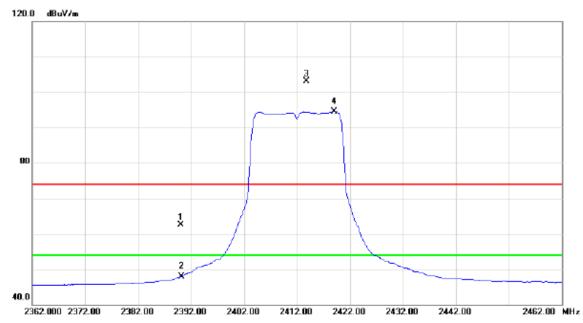


No	_	Mk.	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4923.920	46.12	3.80	49.92	74.00	-24.08	peak	
2		*	4923.980	42.91	3.80	46.71	54.00	-7.29	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 54 of 143



Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	30.67	31.88	62.55	74.00	-11.45	peak	
2		2390.000	15.97	31.88	47.85	54.00	-6.15	AVG	
3	X	2413.800	71.24	31.91	103.15	74.00	29.15	peak	no limit
4	*	2419.000	62.66	31.92	94.58	54.00	40.58	AVG	no limit

Report No.: BTL-FCCP-1-1410C254 Page 55 of 143



Vertical

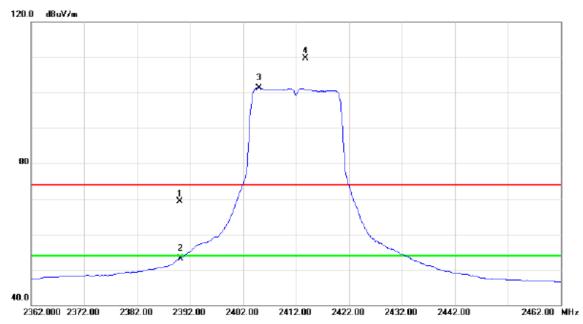


No)_	Mk	. Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		*	4823.900	31.16	3.62	34.78	54.00	-19.22	AVG	
2)		4824.200	45.01	3.62	48.63	74.00	-25.37	peak	

Report No.: BTL-FCCP-1-1410C254 Page 56 of 143



Horizontal

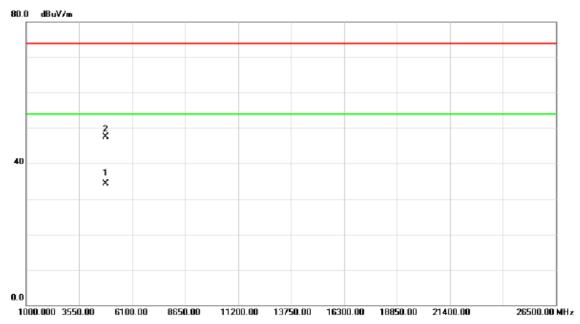


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	37.47	31.88	69.35	74.00	-4.65	peak		
2		2390.000	21.16	31.88	53.04	54.00	-0.96	AVG		
3	*	2405.000	69.47	31.89	101.36	54.00	47.36	AVG	no limit	
4	Х	2413.800	77.84	31.91	109.75	74.00	35.75	peak	no limit	

Report No.: BTL-FCCP-1-1410C254 Page 57 of 143



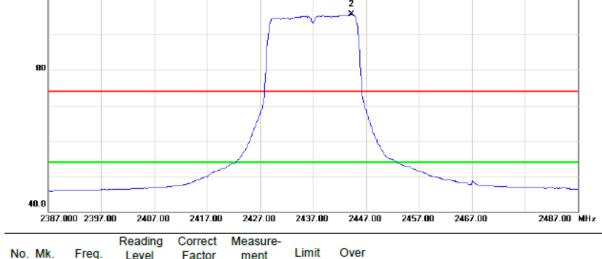
Horizontal



MHz dBuV dB dBuV/m dB Detector Comment 1 * 4824.000 30.70 3.62 34.32 54.00 -19.68 AVG 2 4824.050 43.91 3.62 47.53 74.00 -26.47 peak				Over		Measure- ment			Freq.	Mk.	No.
		r Comment	Detector	dB	dBuV/m	dBuV/m	dB	dBuV	MHz		
2 4824.050 43.91 3.62 47.53 74.00 -26.47 peak			AVG	-19.68	54.00	34.32	3.62	30.70	824.000	*	1
			peak	-26.47	74.00	47.53	3.62	43.91	824.050	-	2

Report No.: BTL-FCCP-1-1410C254 Page 58 of 143





	No.	Mk	. Freq.		Correct Factor	Measure- ment		Over		
•			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	Х	2438.800	72.01	31.94	103.95	74.00	29.95	peak	no limit
•	2	*	2444.300	63.75	31.96	95.71	54.00	41.71	AVG	no limit

Report No.: BTL-FCCP-1-1410C254 Page 59 of 143



Vertical



	No.	М	k.	Freq.			Measure- ment		Over		
_				MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		48	74.000	42.54	3.72	46.26	74.00	-27.74	peak	
_	2	*	48	74.000	31.25	3.72	34.97	54.00	-19.03	AVG	

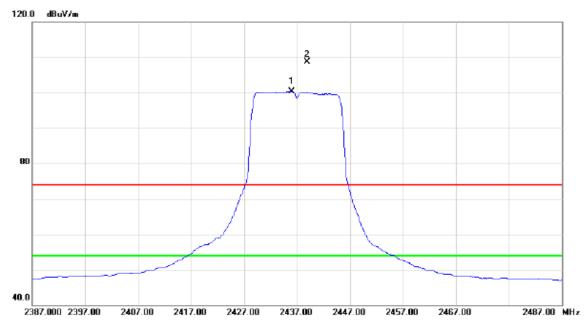
Report No.: BTL-FCCP-1-1410C254 Page 60 of 143



Orthogonal Axis: X

Test Mode: TX G MODE 2437MHz

Horizontal



MHz dBuV dB dBuV/ 1 * 2436.000 68.38 31.94 100.3	m dBuV/m di	dB Detector Comment
1 * 2436.000 68.38 31.94 100.33	iii dbuv/iii di	db Detector Comment
	2 54.00 46.3	46.32 AVG no limit
2 X 2438.900 76.83 31.94 108.7	7 74 00 34	34.77 peak no limit

Report No.: BTL-FCCP-1-1410C254 Page 61 of 143



Horizontal



No).	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
,	1		4873.750	42.94	3.72	46.66	74.00	-27.34	peak	
	2	*	4874.000	30.41	3.72	34.13	54.00	-19.87	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 62 of 143



Vertical 120.0 dBuV/m 80 40.0

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2463.600	63.68	31.98	95.66	54.00	41.66	AVG	no limit
2	X	2463.800	72.77	31.98	104.75	74.00	30.75	peak	no limit
3		2483.500	33.93	32.01	65.94	74.00	-8.06	peak	
4		2483.500	18.52	32.01	50.53	54.00	-3.47	AVG	

2462.00

2472.00

2482.00

2492.00

2512.00 MHz

2412.000 2422.00

2432.00

2442.00

2452.00

Report No.: BTL-FCCP-1-1410C254 Page 63 of 143



Vertical



No)_	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4923.550	46.04	3.80	49.84	74.00	-24.16	peak	
2	2	*	4923.550	32.99	3.80	36.79	54.00	-17.21	AVG	

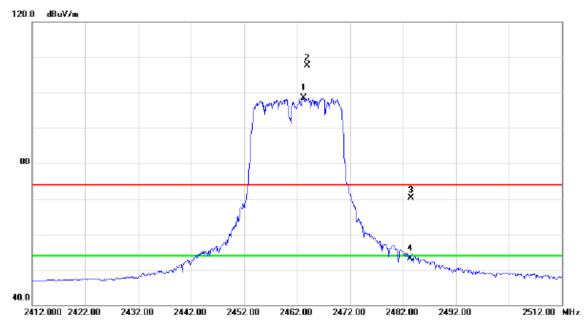
Report No.: BTL-FCCP-1-1410C254 Page 64 of 143



Orthogonal Axis: X

Test Mode: TX G MODE 2462MHz

Horizontal

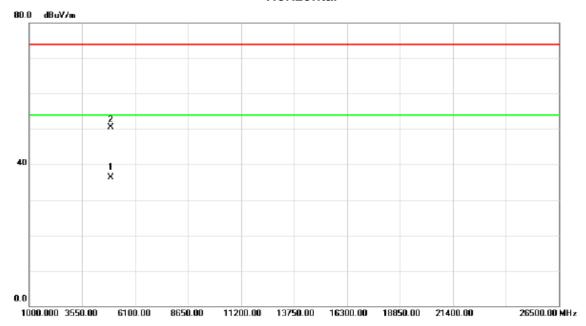


No.	N	Лk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	1	2463.300	66.62	31.98	98.60	54.00	44.60	AVG	no limit
2	X	Κ :	2463.900	75.72	31.98	107.70	74.00	33.70	peak	no limit
3			2483.500	38.38	32.01	70.39	74.00	-3.61	peak	
4			2483.500	21.17	32.01	53.18	54.00	-0.82	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 65 of 143



Horizontal

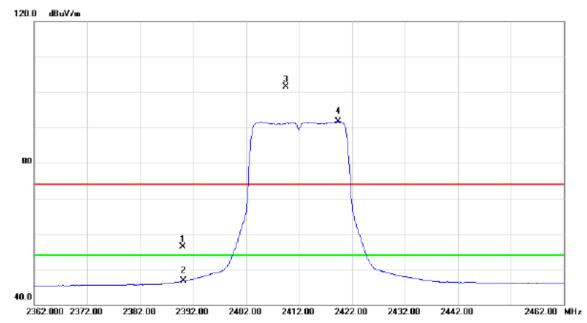


	No.	Mk	. Freq.			Measure- ment		Over		
•			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
•	1	*	4924.000	32.54	3.80	36.34	54.00	-17.66	AVG	
	2		4924.200	46.78	3.80	50.58	74.00	-23.42	peak	
										•

Report No.: BTL-FCCP-1-1410C254 Page 66 of 143



Vertical



No.	M	c. Free	Readin Level	_	t Measure ment	Limit	Over				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1		2390.00	0 24.48	31.88	56.36	74.00	-17.64	peak			
2		2390.00	0 14.72	31.88	46.60	54.00	-7.40	AVG			
3	Х	2409.50	0 69.52	31.91	101.43	74.00	27.43	peak	no limit		
4	*	2419.40	0 59.87	31.92	91.79	54.00	37.79	AVG	no limit		

Report No.: BTL-FCCP-1-1410C254 Page 67 of 143



Vertical

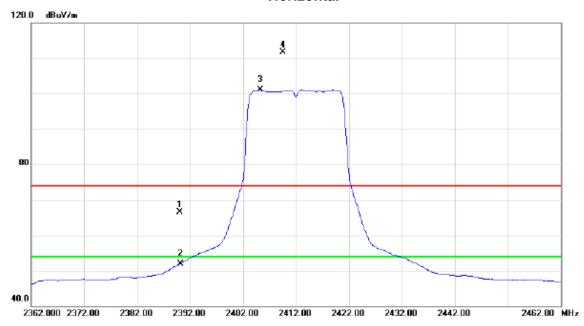


No	.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4823.850	45.07	3.62	48.69	74.00	-25.31	peak	
2		*	4823.950	31.49	3.62	35.11	54.00	-18.89	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 68 of 143



Horizontal

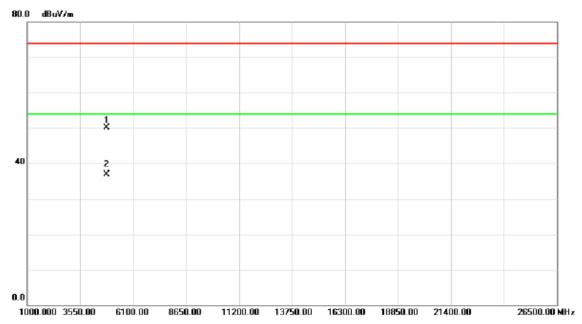


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	34.70	31.88	66.58	74.00	-7.42	peak		
2		2390.000	20.02	31.88	51.90	54.00	-2.10	AVG		
3	*	2405.200	69.14	31.90	101.04	54.00	47.04	AVG	no limit	
4	Х	2409.500	79.79	31.91	111.70	74.00	37.70	peak	no limit	

Report No.: BTL-FCCP-1-1410C254 Page 69 of 143



Horizontal

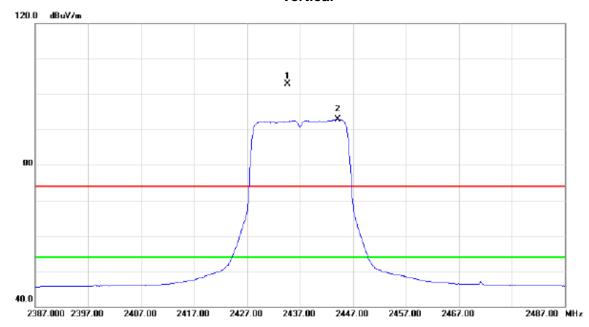


No	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4823.850	46.58	3.62	50.20	74.00	-23.80	peak	
2	*	4823.850	33.32	3.62	36.94	54.00	-17.06	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 70 of 143



Vertical

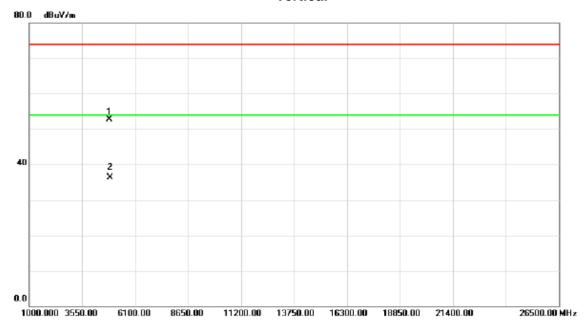


	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	Х	2434.700	70.92	31.94	102.86	74.00	28.86	peak	no limit
	2	*	2444.100	60.96	31.96	92.92	54.00	38.92	AVG	no limit

Report No.: BTL-FCCP-1-1410C254 Page 71 of 143



Vertical



No	o.	Mk	. Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		4874.300	48.92	3.72	52.64	74.00	-21.36	peak	
	2	*	4874.500	32.64	3.72	36.36	54.00	-17.64	AVG	

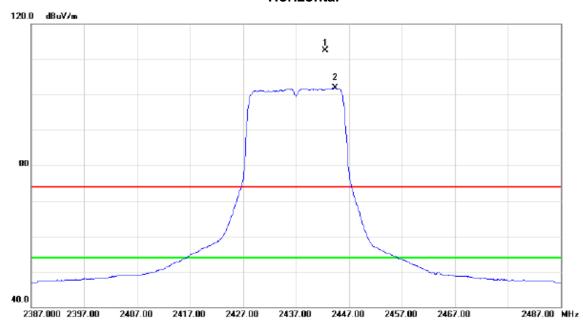
Report No.: BTL-FCCP-1-1410C254 Page 72 of 143



Orthogonal Axis: X

Test Mode: TX N-20M MODE 2437MHz

Horizontal



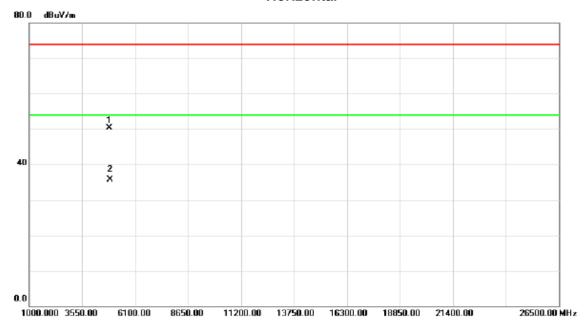
•	No.	М	k.	Freq.	Reading Level		Measure- ment	Limit	Over		
				MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	Х	24	42.500	80.49	31.95	112.44	74.00	38.44	peak	no limit
	2	*	24	44.400	70.02	31.96	101.98	54.00	47.98	AVG	no limit

Report No.: BTL-FCCP-1-1410C254 Page 73 of 143



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

Horizontal



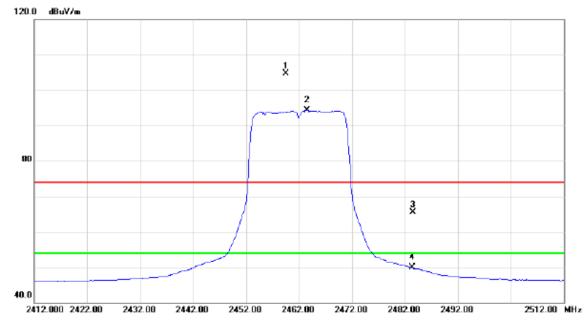
No.	М	k.	Freq.	Reading Level		Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		487	4.250	46.57	3.72	50.29	74.00	-23.71	peak	
2	*	487	4.400	32.08	3.72	35.80	54.00	-18.20	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 74 of 143



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

Vertical



	No.	MI	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
·			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1	Х	2459.500	72.81	31.98	104.79	74.00	30.79	peak	no limit	
	2	*	2463.500	62.31	31.98	94.29	54.00	40.29	AVG	no limit	
	3		2483.500	33.42	32.01	65.43	74.00	-8.57	peak		
·	4		2483.500	17.86	32.01	49.87	54.00	-4.13	AVG		

Report No.: BTL-FCCP-1-1410C254 Page 75 of 143



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

Vertical



No	_	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4922.750	56.54	3.80	60.34	74.00	-13.66	peak	
2		*	4923.900	38.62	3.80	42.42	54.00	-11.58	AVG	

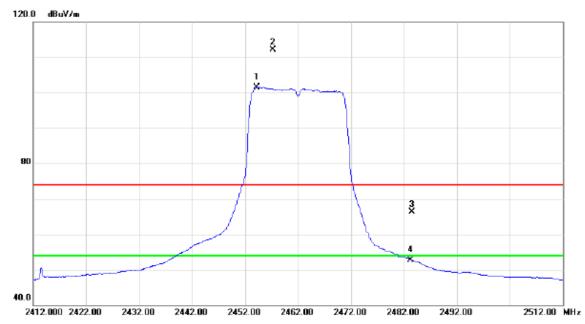
Report No.: BTL-FCCP-1-1410C254 Page 76 of 143



Orthogonal Axis: X

Test Mode: TX N-20M MODE 2462MHz

Horizontal



No.	М	lk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	24	454.200	69.57	31.96	101.53	54.00	47.53	AVG	no limit
2	Х	24	457.300	80.07	31.98	112.05	74.00	38.05	peak	no limit
3		24	483.500	34.24	32.01	66.25	74.00	-7.75	peak	
4		24	483.500	20.70	32.01	52.71	54.00	-1.29	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 77 of 143



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

Horizontal



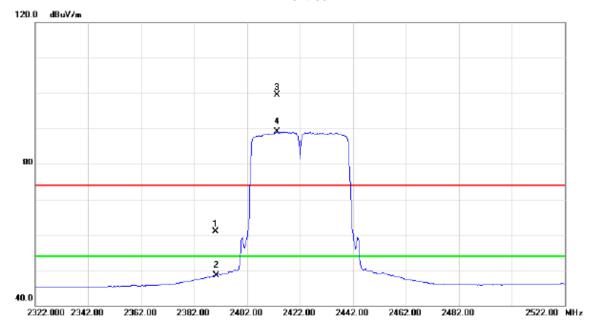
No	_	Mk	Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4924.200	50.26	3.80	54.06	74.00	-19.94	peak	
2		*	4924.200	34.39	3.80	38.19	54.00	-15.81	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 78 of 143



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

Vertical



ı	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	29.00	31.88	60.88	74.00	-13.12	peak	
	2		2390.000	16.64	31.88	48.52	54.00	-5.48	AVG	
	3	Х	2413.400	67.62	31.91	99.53	74.00	25.53	peak	no limit
	4	*	2413.400	57.22	31.91	89.13	54.00	35.13	AVG	no limit

Report No.: BTL-FCCP-1-1410C254 Page 79 of 143



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

Vertical



N	0.	М	k.	Freq.		Correct Factor	Measure- ment	Limit	Over		
				MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		48	43.850	44.64	3.66	48.30	74.00	-25.70	peak	
	2	*	48	44.100	29.75	3.66	33.41	54.00	-20.59	AVG	

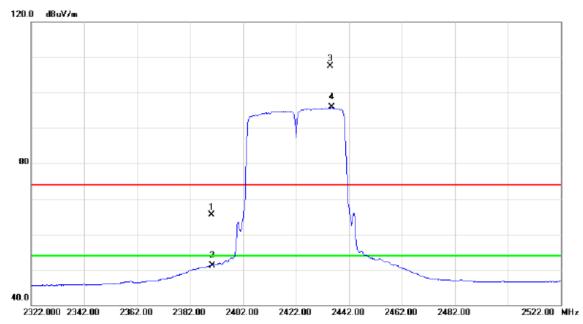
Report No.: BTL-FCCP-1-1410C254 Page 80 of 143



Orthogonal Axis: X

Test Mode: TX N-40M MODE 2422MHz

Horizontal



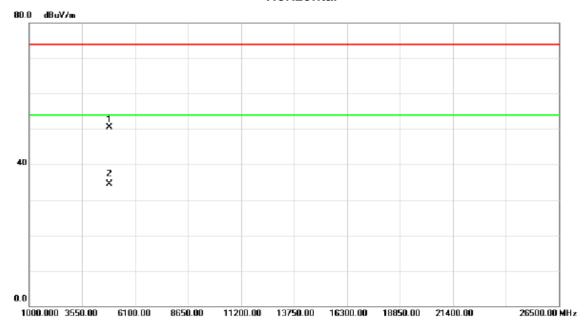
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	33.56	31.88	65.44	74.00	-8.56	peak		
2		2390.000	19.24	31.88	51.12	54.00	-2.88	AVG		
3	Х	2434.800	75.49	31.94	107.43	74.00	33.43	peak	no limit	
4	*	2435.400	64.01	31.94	95.95	54.00	41.95	AVG	no limit	

Report No.: BTL-FCCP-1-1410C254 Page 81 of 143



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

Horizontal



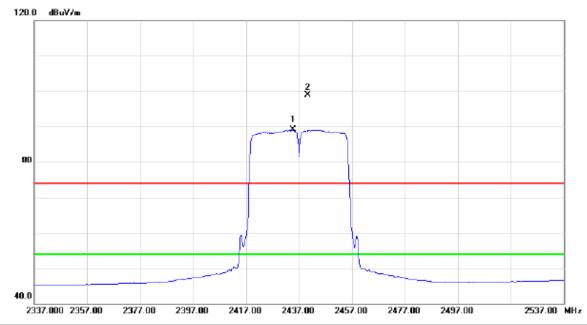
No	_	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1			4843.900	46.86	3.66	50.52	74.00	-23.48	peak	
2		*	4843.950	30.79	3.66	34.45	54.00	-19.55	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 82 of 143



Orthogonal Axis: X
Test Mode: TX N-40M MODE 2437MHz

Vertical



ı	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	2434.800	57.11	31.94	89.05	54.00	35.05	AVG	no limit
	2	Χ	2440.400	66.93	31.95	98.88	74.00	24.88	peak	no limit

Report No.: BTL-FCCP-1-1410C254 Page 83 of 143



Orthogonal Axis: X
Test Mode: TX N-40M MODE 2437MHz

Vertical



No	L	Mk	. Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		*	4873.850	31.08	3.72	34.80	54.00	-19.20	AVG	
2			4874.000	46.56	3.72	50.28	74.00	-23.72	peak	

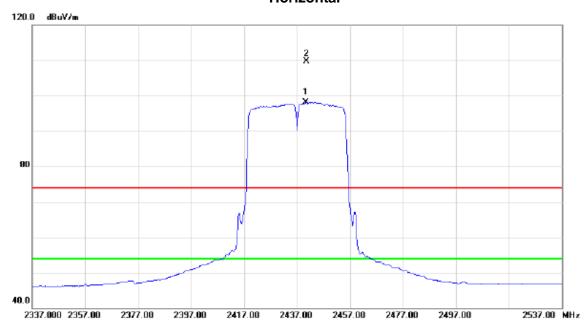
Report No.: BTL-FCCP-1-1410C254 Page 84 of 143



Orthogonal Axis: X

Test Mode: TX N-40M MODE 2437MHz

Horizontal



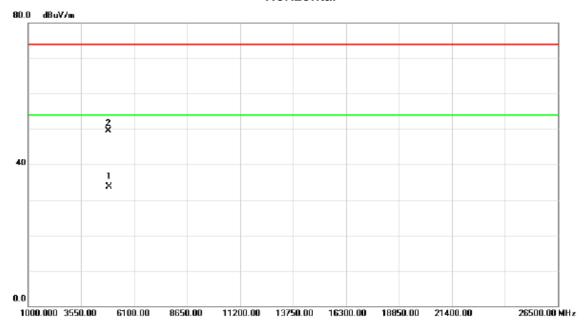
N	0.	Mk	. Freq.		Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	2440.400	66.17	31.95	98.12	54.00	44.12	AVG	no limit
	2	Х	2440.600	77.84	31.95	109.79	74.00	35.79	peak	no limit

Report No.: BTL-FCCP-1-1410C254 Page 85 of 143



Orthogonal Axis: X
Test Mode: TX N-40M MODE 2437MHz

Horizontal



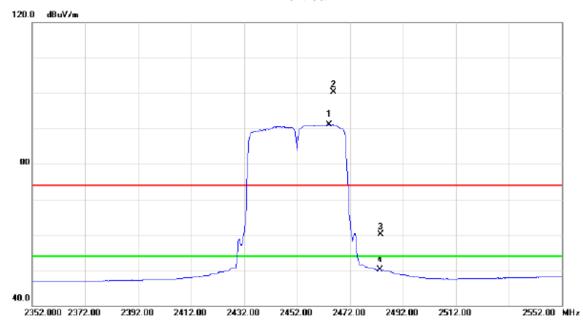
No.	MI	k. Freq.			Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4873.950	29.98	3.72	33.70	54.00	-20.30	AVG	
2		4874.000	45.80	3.72	49.52	74.00	-24.48	peak	
			,	,		,	,		•

Report No.: BTL-FCCP-1-1410C254 Page 86 of 143



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

Vertical



No.	М	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	*	2464.200	59.12	31.98	91.10	54.00	37.10	AVG	no limit		
2	X	2465.600	68.33	31.98	100.31	74.00	26.31	peak	no limit		
3		2483.500	28.17	32.01	60.18	74.00	-13.82	peak			
4		2483.500	18.15	32.01	50.16	54.00	-3.84	AVG			

Report No.: BTL-FCCP-1-1410C254 Page 87 of 143



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

Vertical



N	٥.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		4903.900	46.82	3.77	50.59	74.00	-23.41	peak	
	2	*	4903.900	31.95	3.77	35.72	54.00	-18.28	AVG	

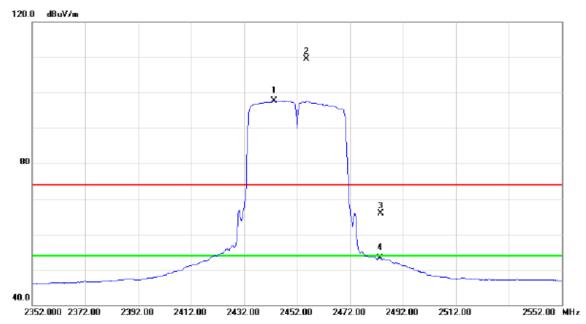
Report No.: BTL-FCCP-1-1410C254 Page 88 of 143



Orthogonal Axis: X

Test Mode: TX N-40M MODE 2452MHz

Horizontal



No.	М	lk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	24	443.400	65.81	31.95	97.76	54.00	43.76	AVG	no limit
2	Х	24	455.600	77.55	31.96	109.51	74.00	35.51	peak	no limit
3		24	483.500	33.92	32.01	65.93	74.00	-8.07	peak	
4		24	483.500	21.26	32.01	53.27	54.00	-0.73	AVG	

Report No.: BTL-FCCP-1-1410C254 Page 89 of 143



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

Horizontal



1	No.	М	۲.	Freq.			Measure- ment		Over		
_				MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	49	03.650	29.95	3.77	33.72	54.00	-20.28	AVG	
	2		49	03.900	44.31	3.77	48.08	74.00	-25.92	peak	

Report No.: BTL-FCCP-1-1410C254 Page 90 of 143



ATTACHMENT E - BANDWIDTH

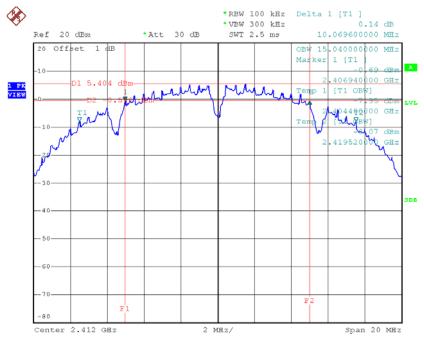
Report No.: BTL-FCCP-1-1410C254 Page 91 of 143



Test Mode: TX B Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.07	15.04	500	Complies
2437	10.03	15.04	500	Complies
2462	10.11	15.04	500	Complies

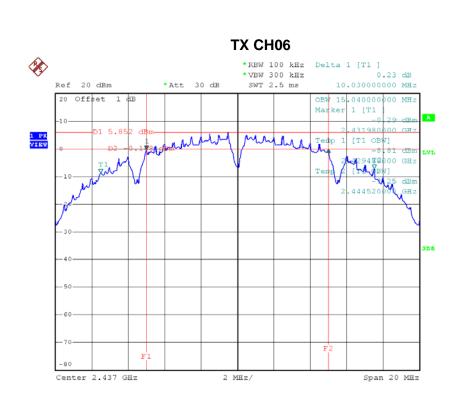
TX CH01



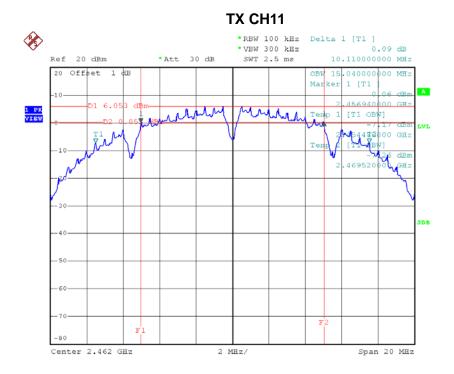
Date: 7.NOV.2014 02:56:40

Report No.: BTL-FCCP-1-1410C254 Page 92 of 143





Date: 7.Nov.2014 03:00:28



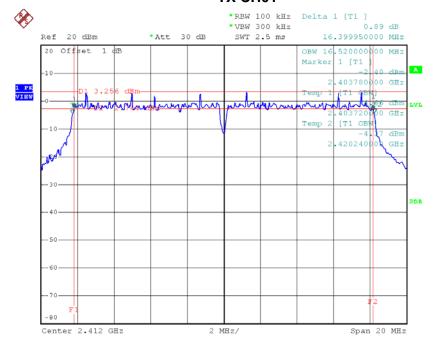
Date: 7.NOV.2014 03:01:51



Test Mode: TX G Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.40	16.52	500	Complies
2437	16.41	16.52	500	Complies
2462	16.43	16.52	500	Complies

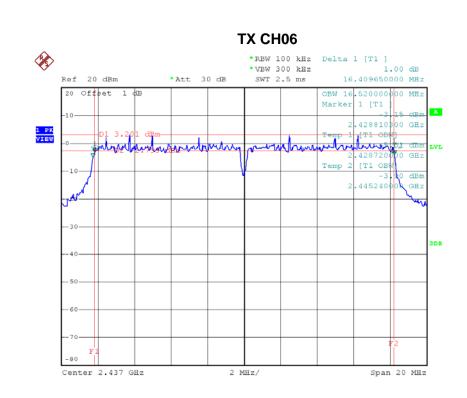
TX CH01



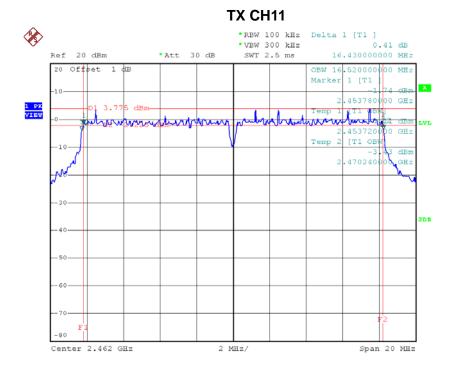
Date: 7.NOV.2014 03:03:30

Report No.: BTL-FCCP-1-1410C254 Page 94 of 143





Date: 7.NOV.2014 03:04:42



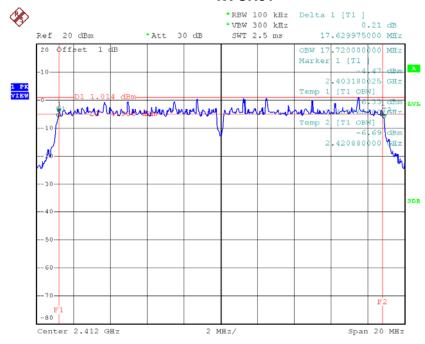
Date: 7.NoV.2014 03:05:46



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

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.63	17.72	500	Complies
2437	17.63	17.68	500	Complies
2462	17.68	17.68	500	Complies

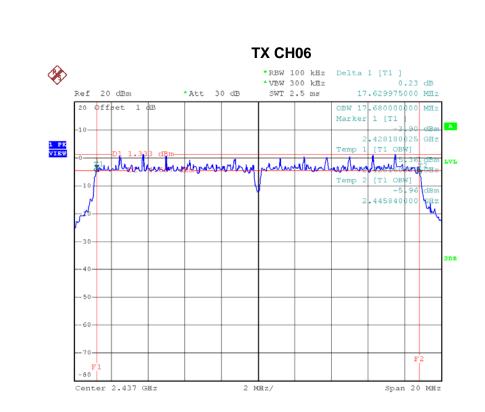
TX CH01



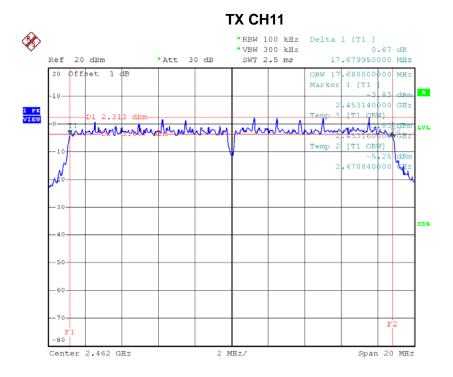
Date: 7.NOV.2014 03:09:40

Report No.: BTL-FCCP-1-1410C254 Page 96 of 143





Date: 7.NOV.2014 03:17:34



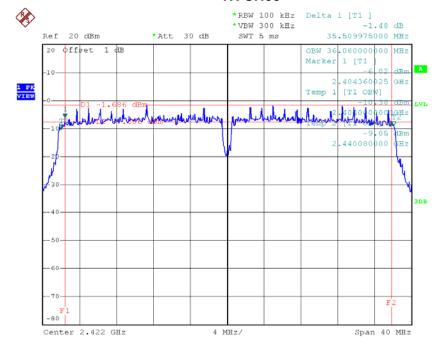
Date: 7.NOV.2014 03:19:19



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

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.51	36.08	500	Complies
2437	35.83	36.08	500	Complies
2452	35.52	36.08	500	Complies

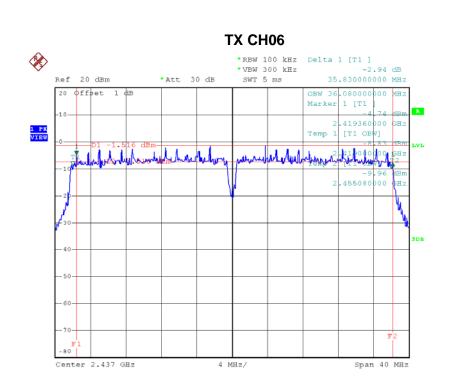
TX CH03



Date: 7.Nov.2014 03:25:34

Report No.: BTL-FCCP-1-1410C254 Page 98 of 143





Date: 7.NOV.2014 03:26:41

Date: 7.NOV.2014 03:27:59



ATTACHMENT F – MAXIMUM PEAK CONDUCTED OUTPUT POWER

Report No.: BTL-FCCP-1-1410C254 Page 100 of 143



Test Mode :TX B Mode_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	18.60	0.07	30.00	1.00	Complies
2437	18.80	0.08	30.00	1.00	Complies
2462	18.75	0.07	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	22.25	0.17	30.00	1.00	Complies
2437	22.40	0.17	30.00	1.00	Complies
2462	22.06	0.16	30.00	1.00	Complies

Report No.: BTL-FCCP-1-1410C254 Page 101 of 143



Test Mode :TX N20 Mode_CH01/06/11_ANT 1

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	20.88	0.12	30.00	1.00	Complies
2437	20.89	0.12	30.00	1.00	Complies
2462	21.97	0.16	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 2

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	21.64	0.15	30.00	1.00	Complies
2437	21.55	0.14	30.00	1.00	Complies
2462	21.67	0.15	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_Total

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	24.29	0.27	30.00	1.00	Complies
2437	24.24	0.27	30.00	1.00	Complies
2462	24.83	0.30	30.00	1.00	Complies

Report No.: BTL-FCCP-1-1410C254 Page 102 of 143



Test Mode :TX N40 Mode_CH03/06/09_ANT 1

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	19.70	0.09	30.00	1.00	Complies
2437	19.97	0.10	30.00	1.00	Complies
2452	19.55	0.09	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_ANT 2

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	20.61	0.12	30.00	1.00	Complies
2437	20.52	0.11	30.00	1.00	Complies
2452	20.61	0.12	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_Total

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	23.19	0.21	30.00	1.00	Complies
2437	23.26	0.21	30.00	1.00	Complies
2452	23.12	0.21	30.00	1.00	Complies

Report No.: BTL-FCCP-1-1410C254 Page 103 of 143



ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

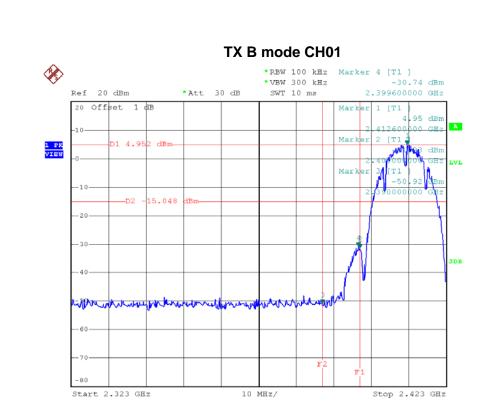
Report No.: BTL-FCCP-1-1410C254 Page 104 of 143

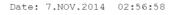


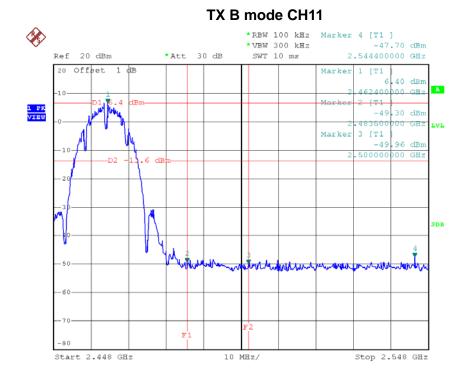
Test Mode :	TX B Mode

Report No.: BTL-FCCP-1-1410C254





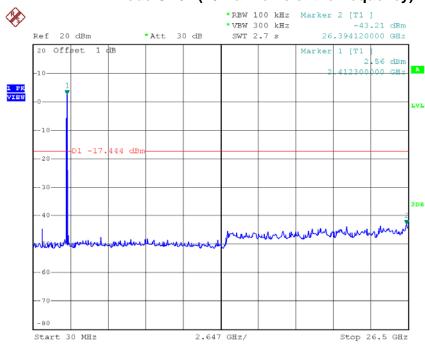




Date: 7.NOV.2014 03:02:08

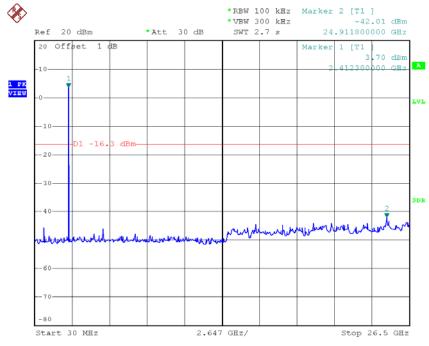






Date: 7.NOV.2014 02:56:51

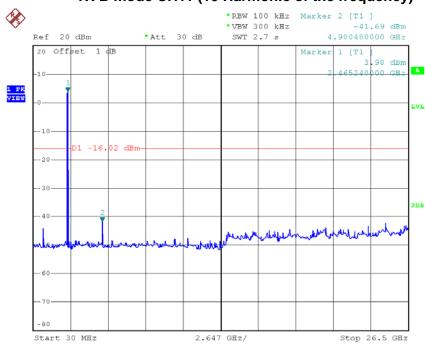
TX B mode CH06 (10 Harmonic of the frequency)



Date: 7.NOV.2014 03:00:38







Date: 7.NOV.2014 03:02:01

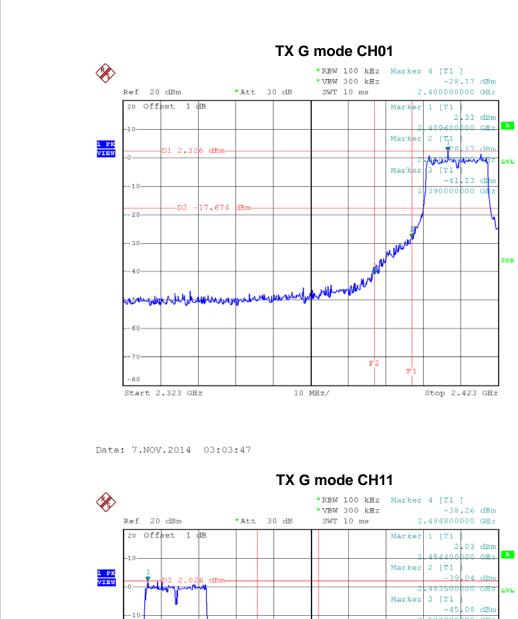
Report No.: BTL-FCCP-1-1410C254 Page 108 of 143

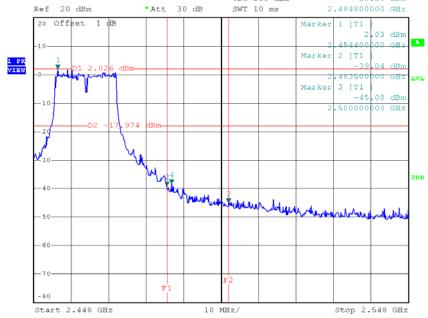


Test Mode :	TX G Mode

Report No.: BTL-FCCP-1-1410C254



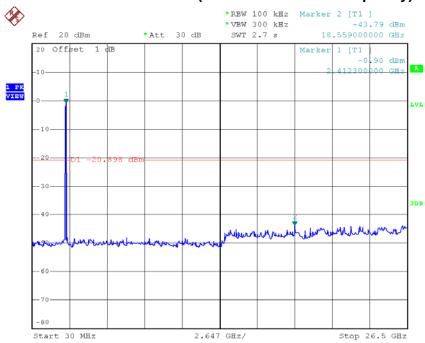




Date: 7.NOV.2014 03:06:04

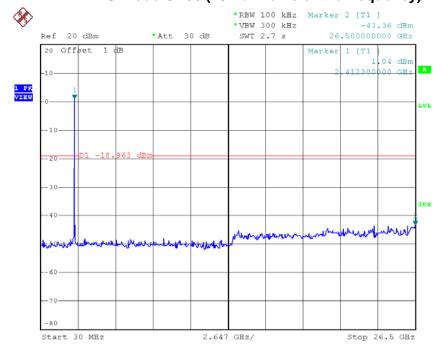






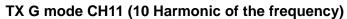
Date: 7.NOV.2014 03:03:40

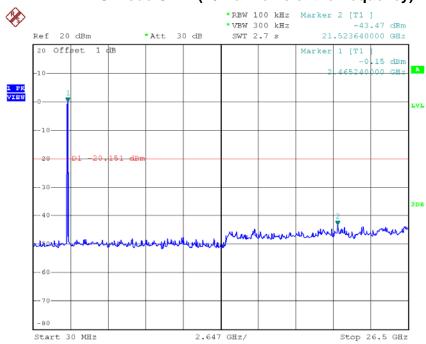
TX G mode CH06 (10 Harmonic of the frequency)



Date: 7.NOV.2014 03:04:52







Date: 7.NOV.2014 03:05:56

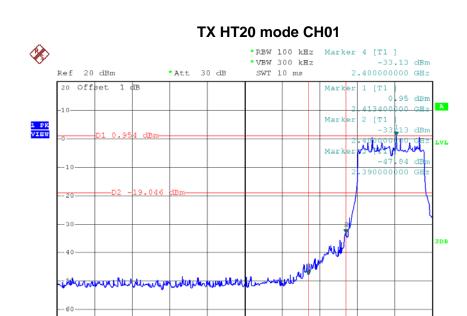
Report No.: BTL-FCCP-1-1410C254 Page 112 of 143



Test Mode :	TX N-20M Mode_ANT 1

Report No.: BTL-FCCP-1-1410C254





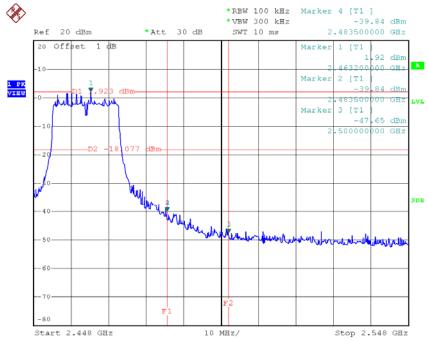
Date: 7.NOV.2014 03:09:58

Start 2.323 GHz

TX HT20 mode CH11

10 MHz/

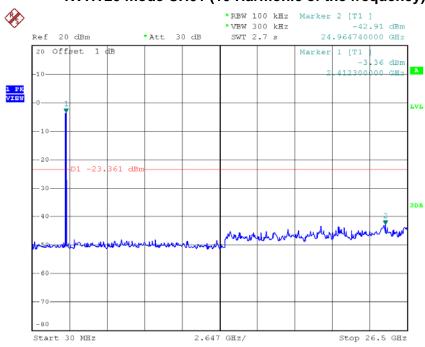
Stop 2.423 GHz



Date: 7.NOV.2014 03:19:37

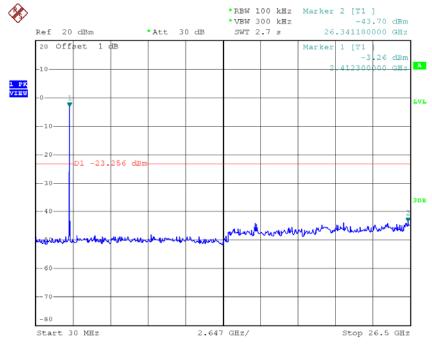






Date: 7.NOV.2014 03:09:51

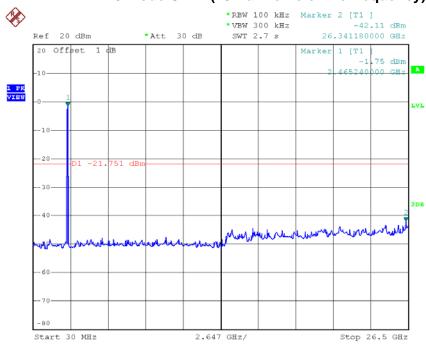
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 7.NOV.2014 03:17:45







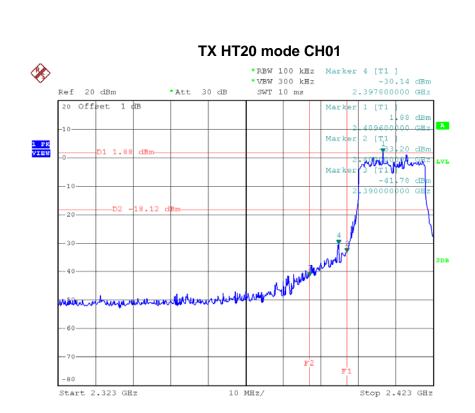
Date: 7.NOV.2014 03:19:30



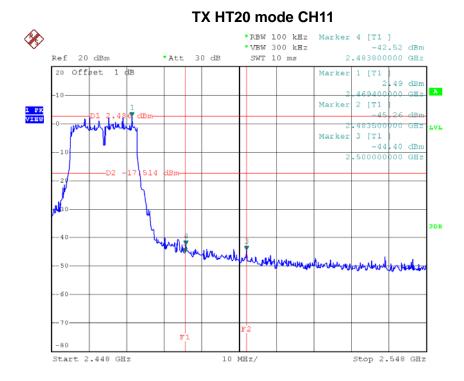
Test Mode :	TX N-20M Mode_ANT 2

Report No.: BTL-FCCP-1-1410C254





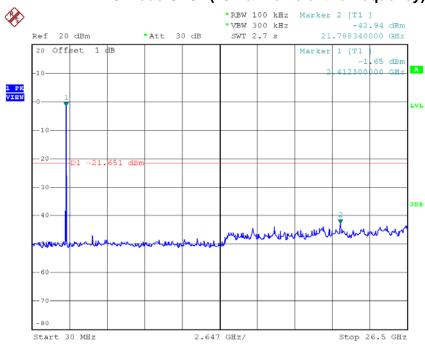




Date: 7.NOV.2014 03:23:56

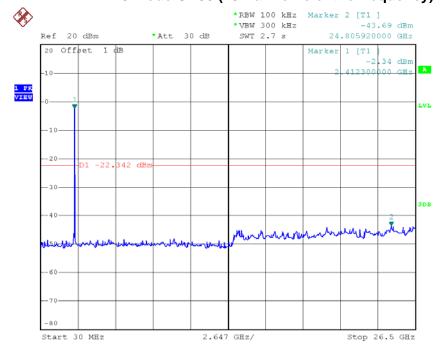






Date: 7.NOV.2014 03:20:56

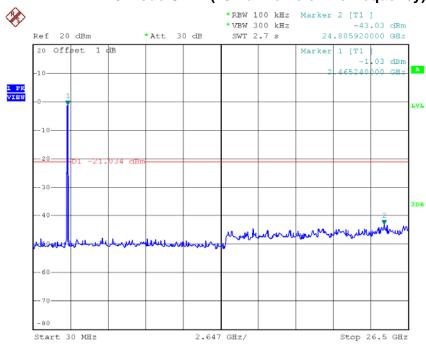
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 7.NOV.2014 03:22:48







Date: 7.NOV.2014 03:23:48

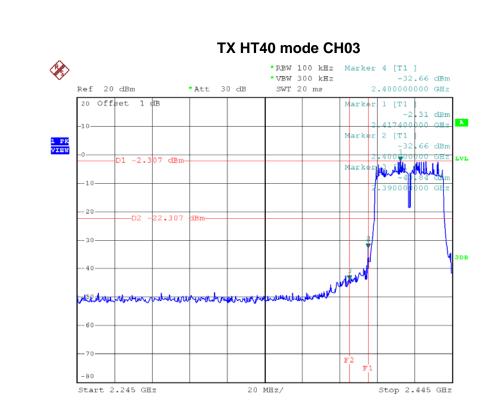
Report No.: BTL-FCCP-1-1410C254 Page 120 of 143



Test Mode :	TX N-40M Mode_ANT 1

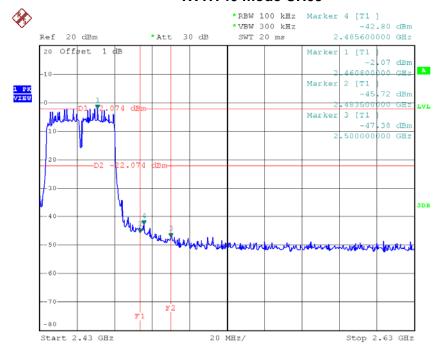
Report No.: BTL-FCCP-1-1410C254





Date: 7.NOV.2014 03:25:52

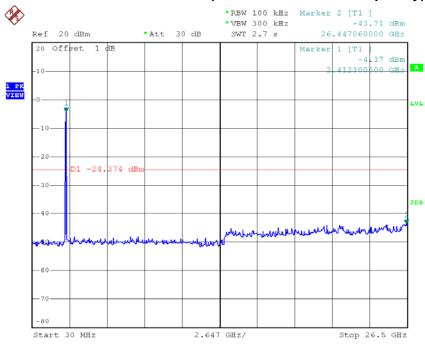
TX HT40 mode CH09



Date: 7.NOV.2014 03:28:16

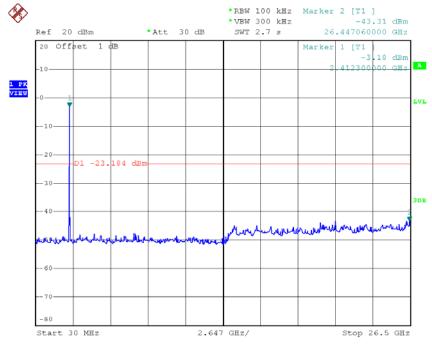






Date: 7.NOV.2014 03:25:44

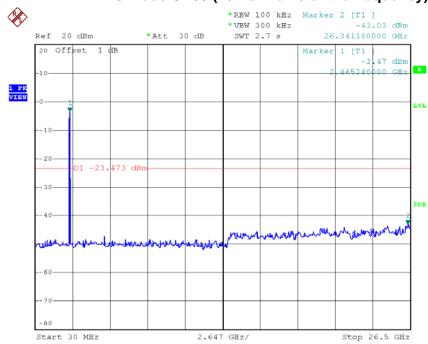
TX HT40 mode CH06 (10 Harmonic of the frequency)



Date: 7.NOV.2014 03:26:51







Date: 7.NOV.2014 03:28:09

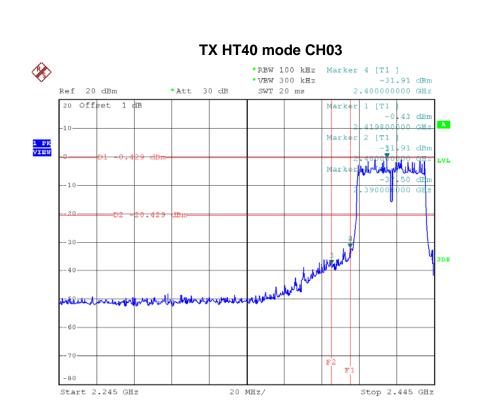
Report No.: BTL-FCCP-1-1410C254 Page 124 of 143



Test Mode :	TX N-40M Mode_ANT 2

Report No.: BTL-FCCP-1-1410C254





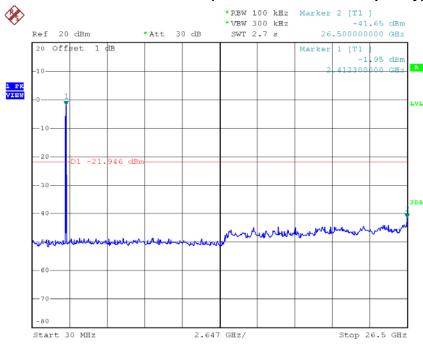


TX HT40 mode CH09 *RBW 100 kHz Marker 4 [T1] -41.27 dBm 2.487200000 GHz *VBW 300 kHz Ref 20 dBm *Att 30 dB SWT 20 ms 20 Offset 1 dB Marker 1 [T1 | -1.42 dBm Marker 2 [T1] 1 PK VIEW -45,51 dBm 483500000 GHZ Heldell policie Marker 3 [T1] -45.06 dBm .500000000 GHz was the many was allowed a second of the contraction of the contractio -80 Start 2.43 GHz 20 MHz/ Stop 2.63 GHz

Date: 7.NOV.2014 03:32:24

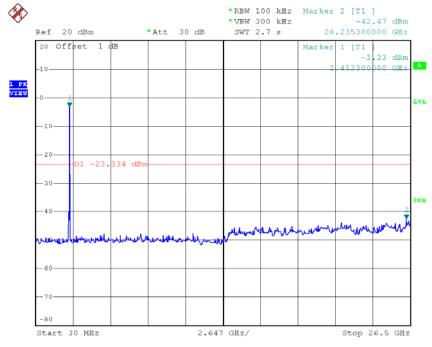






Date: 7.NOV.2014 03:29:54

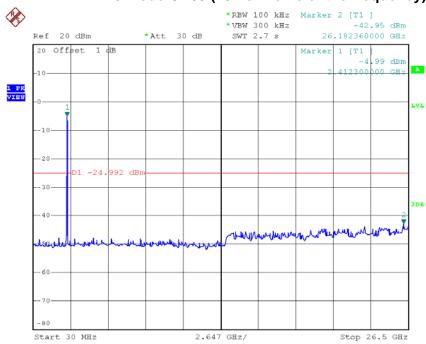
TX HT40 mode CH06 (10 Harmonic of the frequency)



Date: 7.NOV.2014 03:31:13







Date: 7.NOV.2014 03:32:17

Report No.: BTL-FCCP-1-1410C254 Page 128 of 143



ATTACHMENT H - POWER SPECTRAL DENSITY				

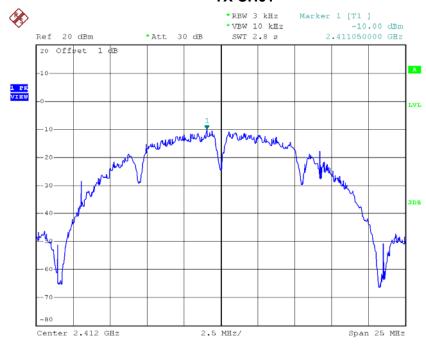
Report No.: BTL-FCCP-1-1410C254 Page 129 of 143



Test Mode:TX B Mode_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.00	0.10	8.00	Complies
2437	-10.01	0.10	8.00	Complies
2462	-7.86	0.16	8.00	Complies

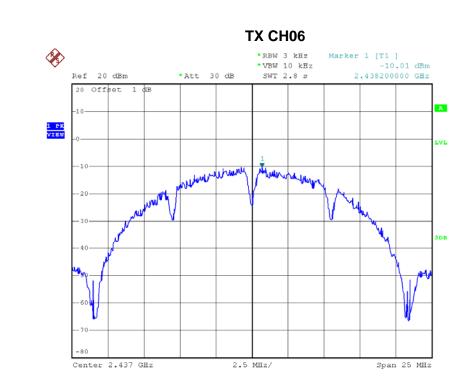
TX CH01



Date: 7.Nov.2014 02:57:07

Report No.: BTL-FCCP-1-1410C254 Page 130 of 143





Date: 7.NOV.2014 03:00:47

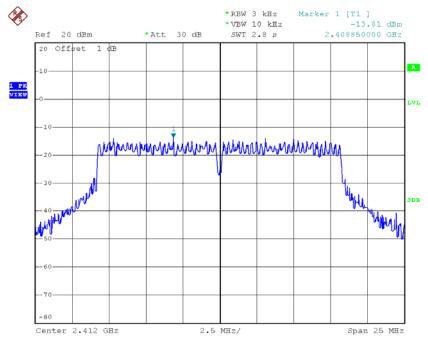
Date: 7.NOV.2014 03:02:17



Test Mode :TX G Mode_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-13.81	0.04	8.00	Complies
2437	-13.86	0.04	8.00	Complies
2462	-13.44	0.05	8.00	Complies

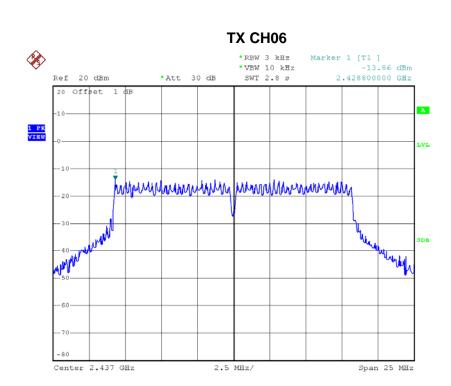
TX CH01



Date: 7.Nov.2014 03:03:56

Report No.: BTL-FCCP-1-1410C254 Page 132 of 143





Date: 7.NOV.2014 03:05:01

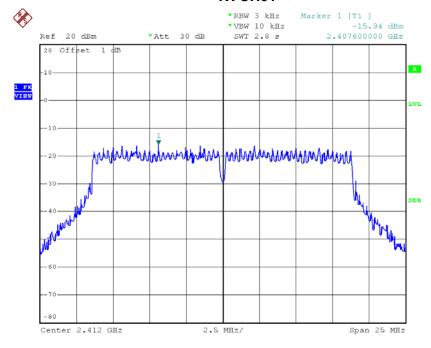
Date: 7.NOV.2014 03:06:12



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	-15.94	0.03	8.00	Complies
2437	-15.41	0.03	8.00	Complies
2462	-14.23	0.04	8.00	Complies

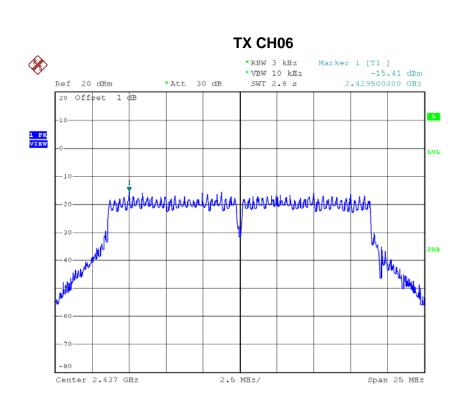
TX CH01



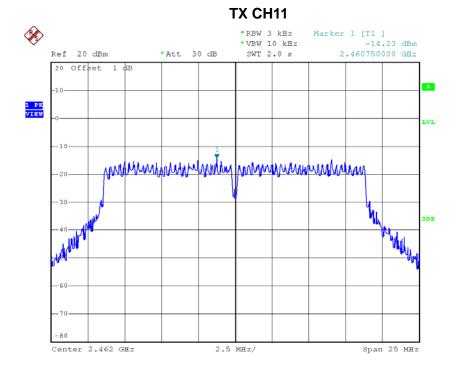
Date: 7.NOV.2014 03:10:07

Report No.: BTL-FCCP-1-1410C254 Page 134 of 143





Date: 7.Nov.2014 03:17:54



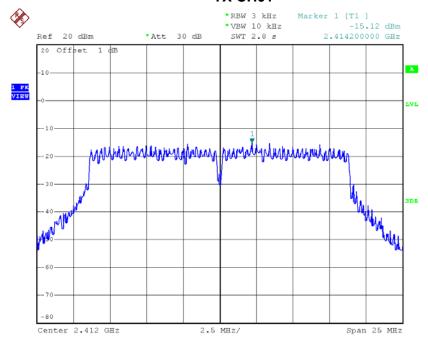
Date: 7.NOV.2014 03:19:46



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	-15.12	0.03	8.00	Complies
2437	-14.53	0.04	8.00	Complies
2462	-13.67	0.04	8.00	Complies

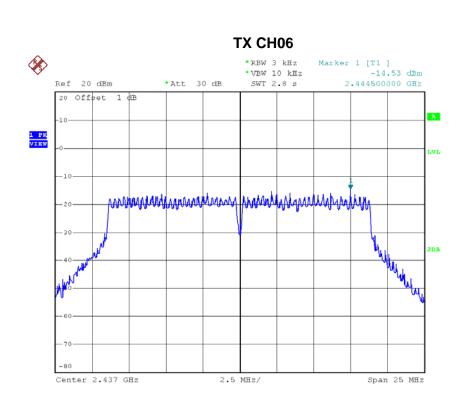
TX CH01



Date: 7.NOV.2014 03:22:04

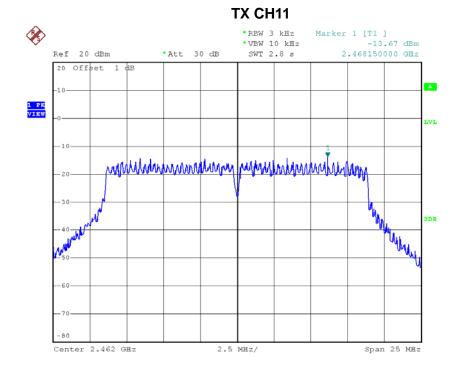
Report No.: BTL-FCCP-1-1410C254 Page 136 of 143





Date: 7.Nov.2014 03:22:56

Date: 7.NOV.2014 03:24:04



Report No.: BTL-FCCP-1-1410C254



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	-12.50	0.06	8.00	Complies
2437	-11.94	0.06	8.00	Complies
2462	-10.93	0.08	8.00	Complies

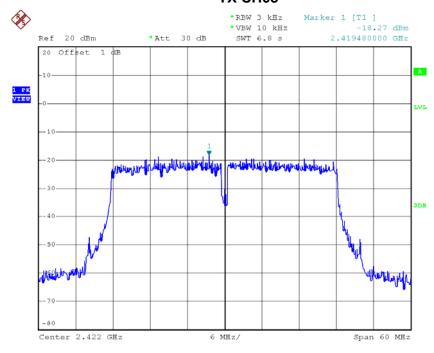
Report No.: BTL-FCCP-1-1410C254 Page 138 of 143



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	-18.27	0.01	8.00	Complies
2437	-17.97	0.02	8.00	Complies
2452	-18.75	0.01	8.00	Complies

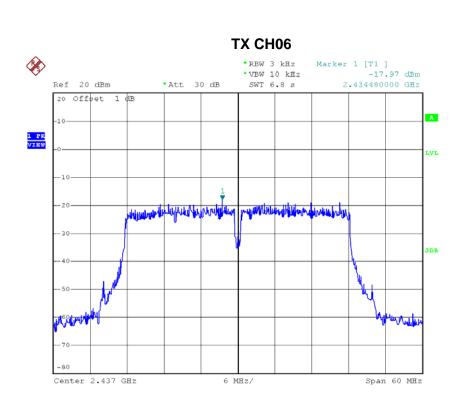
TX CH03



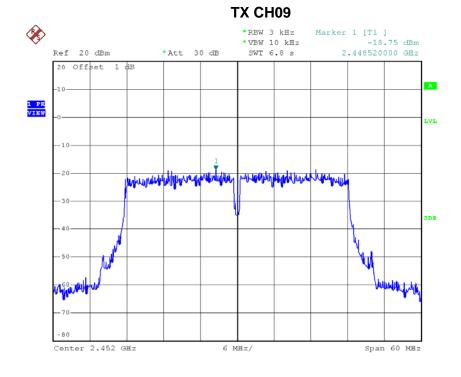
Date: 7.Nov.2014 03:26:03

Report No.: BTL-FCCP-1-1410C254 Page 139 of 143





Date: 7.Nov.2014 03:27:02



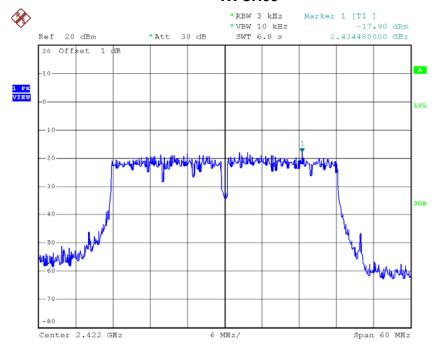
Date: 7.NOV.2014 03:28:28



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	-17.90	0.02	8.00	Complies
2437	-16.93	0.02	8.00	Complies
2452	-18.72	0.01	8.00	Complies

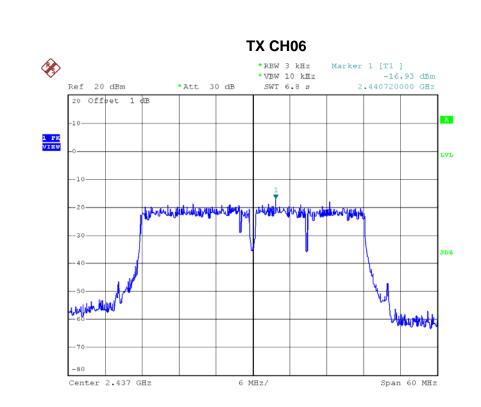
TX CH03



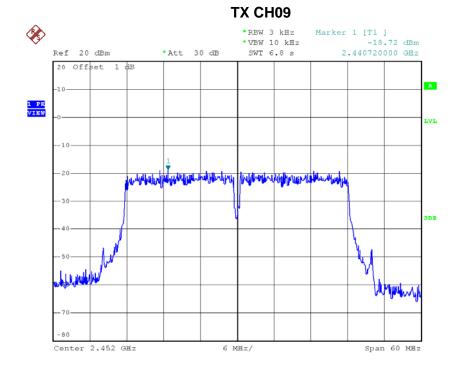
Date: 7.Nov.2014 03:30:13

Report No.: BTL-FCCP-1-1410C254 Page 141 of 143





Date: 7.Nov.2014 03:31:24



Date: 7.NOV.2014 03:32:36



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	-15.07	0.03	8.00	Complies
2437	-14.41	0.04	8.00	Complies
2452	-15.72	0.03	8.00	Complies

Report No.: BTL-FCCP-1-1410C254 Page 143 of 143