

FCC&IC Radio Test Report

FCC ID: QIS-IPP8950

IC: 6369A-IPP8950

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

Project No. : 1406C208
Equipment : IP Phone
Model Name : eSpace 8950
Applicant : Huawei Technologies Co.,Ltd.
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District Shenzhen China

Date of Receipt : Jun. 26, 2014
Date of Test : Jun. 26, 2014 ~ Sep. 30, 2014
Issued Date : Oct. 06, 2014
Tested by : BTL Inc.

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Declaration

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

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

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FICP-1-1406C208	Original Issue.	Oct. 06, 2014

1. CERTIFICATION

Equipment : IP Phone
Brand Name : HUAWEI
Model Name : eSpace 8950
Applicant : Huawei Technologies Co.,Ltd.
Manufacturer: Huawei Technologies Co.,Ltd.
Address : Administration Building, Huawei Base, Bantian, Longgang District ,Shenzhen
518129, P.R.China
Factory : SHENZHEN ACT INDUSTRIAL CO.,LTD
Address : No.5 building,Beishan Industrial Park, Beishan Road,Yantian District,Shenzhen
Date of Test : Jun. 26, 2014 ~ Sep. 30, 2014
Test Sample : ENGINEERING SAMPLE
Standard(s) : FCC Part15, Subpart C: 2013 (15.247) / ANSI C63.4-2009
Canada RSS-210: 2010
RSS-GEN Issue 3, Dec 2010

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-FICP-1-1406C208) 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).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15 (15.247) , Subpart C: 2013 Canada RSS-210:2010; RSS-GEN Issue 3, Dec 2010					
Standard(s)		Section	Test Item	Judgment	Remark
FCC	IC				
15.207		RSS-GEN 7.2.2	Conducted Emission	PASS	
15.247(d)		RSS-210 Annex 8 (A8.5)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)		RSS-210 Annex 8 (A8.2(a))	6dB Bandwidth	PASS	
15.247(b)(3)		RSS-210 Annex 8 (A8.4(4))	Peak Output Power	PASS	
15.247(e)		RSS-210 Annex 8 (A8.2(b))	Power Spectral Density	PASS	
15.203		-	Antenna Requirement	PASS	
15.209/15.205		RSS-210 Annex 8 (A8.5)	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)

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
 BTL's test firm number for IC: 4428B-1

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 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)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	3.40	

B. Radiated Measurement :

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	IP Phone	
Brand Name	HUAWEI	
Model Name	eSpace 8950	
Model Difference	N/A	
Product Description	Operation Frequency	2412~2462 MHz
	Modulation Technology	802.11b: DBPSK/DQPSK/CCK 802.11g: BPSK/QPSK/16QAM/64QAM 802.11n: BPSK/QPSK/16QAM/64QAM
	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: 17.42dBm 802.11g: 20.25dBm 802.11n(20MHz): 20.35dBm 802.11n(40MHz): 14.73dBm
Power Source	#1 DC voltage supplied from AC/DC adapter. Brand: HUAWEI Model:HW-120200U1W #2 Supplied from PoE.	
Power Rating	#1 I/P:100-240V~50/60Hz,0.8A O/P:12.0V/2.0A #2 DC -48V	

Note:

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

2. Channel List:

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

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Shenzhen Sunway Communication Co.,Ltd	111003WS322A	Integral	N/A	3.8

3.2 DESCRIPTION OF TEST MODES

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

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

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

For Conducted Test	
Final Test Mode	Description
Mode 5	TX MODE

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

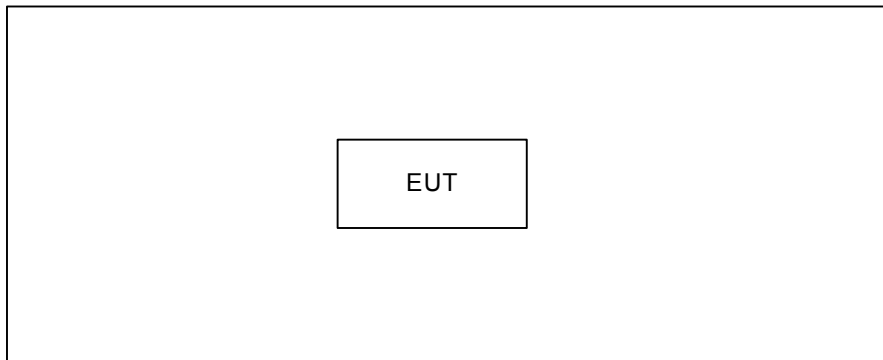
Note:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
 802.11g mode: OFDM (6Mbps)
 802.11n HT20 mode : BPSK (6.5Mbps)
 802.11n HT40 mode : BPSK (13.5Mbps)
 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.

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	XSHELL		
Frequency (MHz)	2412	2437	2462
802.11b	20	20	20
802.11g	17	20	18
802.11n (20MHz)	16	20	17
Frequency	2422	2437	2452
802.11n (40MHz)	19	20	19

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
-	-	-	-	

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	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

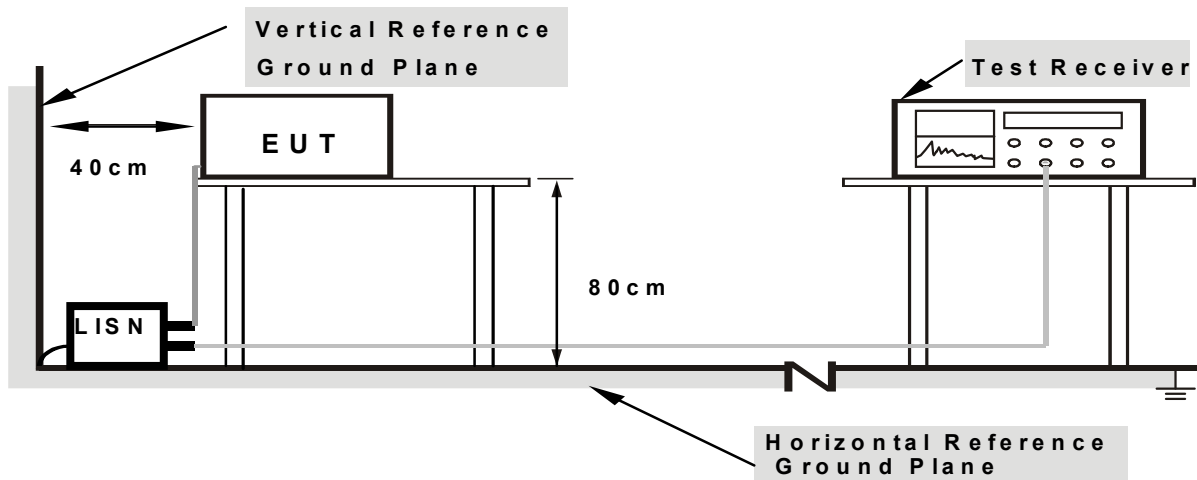
4.1.2 TEST PROCEDURE

- 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

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 cm 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.

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 (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

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

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

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

4.2.2 TEST PROCEDURE

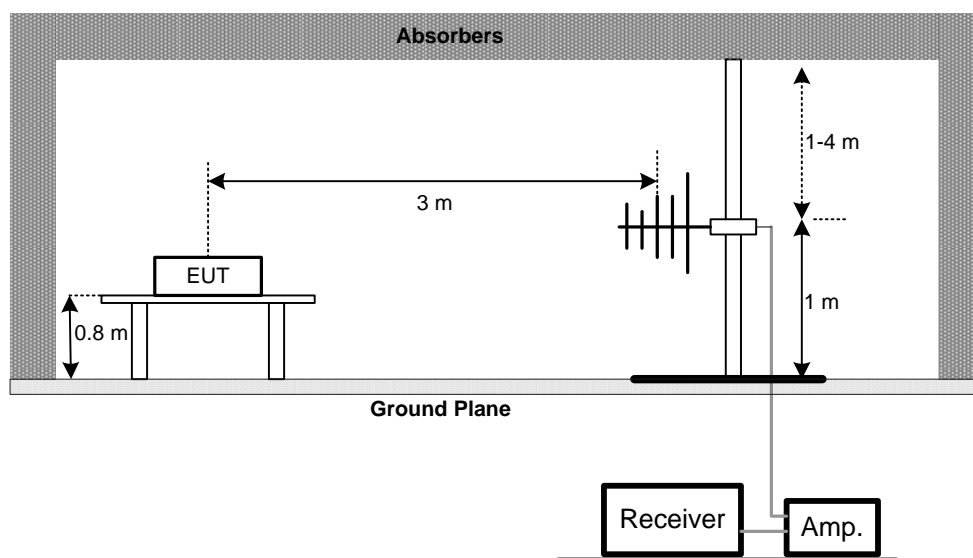
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at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

4.2.3 DEVIATION FROM TEST STANDARD

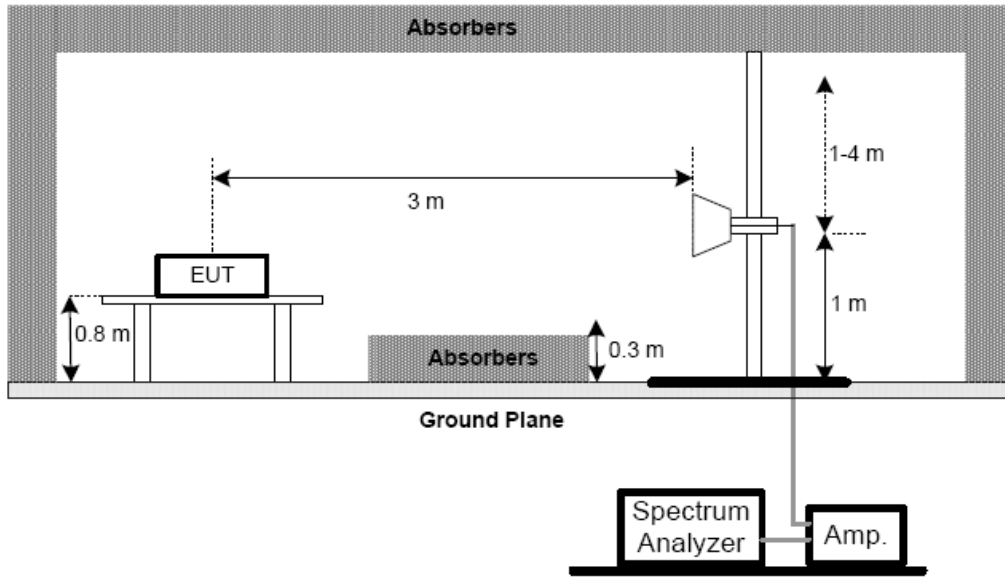
No deviation

4.2.4 TEST SETUP

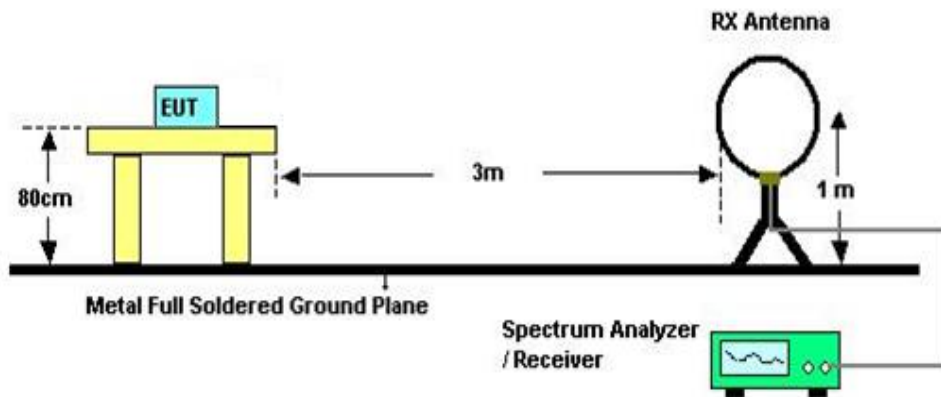
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(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

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 = $40 \log (\text{specific distance} / \text{test distance})$ (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.

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 RSS-210 Annex 8 (A8.2(a))	Bandwidth	2400-2483.5	PASS

5.1.1 TEST PROCEDURE

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

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



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.

6. MAXIMUM OUTPUT POWER TEST

6.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C/ RSS-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

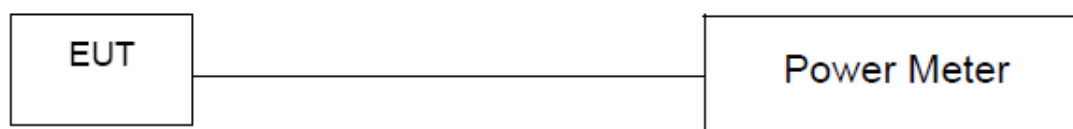
6.1.1 TEST PROCEDURE

- 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 9.1.3 of FCC KDB 558074 D01 DTS Meas Guidance v03r01.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



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.

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.

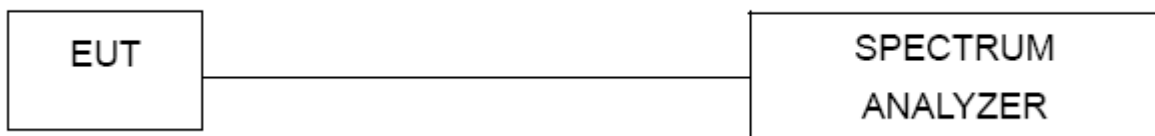
7.1.1 TEST PROCEDURE

- 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



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.

8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C / 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



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.

9. MEASUREMENT INSTRUMENTS LIST

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

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	EMCO	3142C	00066462	Mar. 29, 2015
2	Antenna	EMCO	3142C	00066464	Mar. 29, 2015
3	Amplifier	Agilent	8447D	2944A11203	Nov. 11, 2014
4	Amplifier	Agilent	8447D	2944A11204	Nov. 11, 2014
5	Spectrum Analyzer	Agilent	E4443A	MY48250370	Nov. 11, 2014
6	RF Pre-selector	Agilent	N9039A	MY46520201	Nov. 11, 2014
7	Test Cable	N/A	Cable_5m_8m_15m	N/A	Jan. 14, 2015
8	Test Cable	N/A	Cable_5m_11m_15m	N/A	Jan. 14, 2015
9	Spectrum Analyzer	Agilent	E4447A	MY48250208	Nov. 11, 2014
10	RF Pre-selector	Agilent	N9039A	MY46520214	Nov. 11, 2014
11	Multi-Device Controller	ETS-Lindgren	2090	N/A	N/A
12	Horn Antenna	EMCO	3115	9605-4803	Mar. 29, 2015
13	Amplifier	Agilent	8449B	3008A02584	Nov. 11, 2014
14	Spectrum Analyzer	Agilent	E4447A	MY48250208	Nov. 11, 2014
15	Test Cable	Huber+Suhner	SUCOFLEX_1_5m_4m	N/A	Jan. 14, 2015

6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

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 until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.
 All calibration period of equipment list is one year.

10. EUT TEST PHOTO

Conducted Measurement Photos



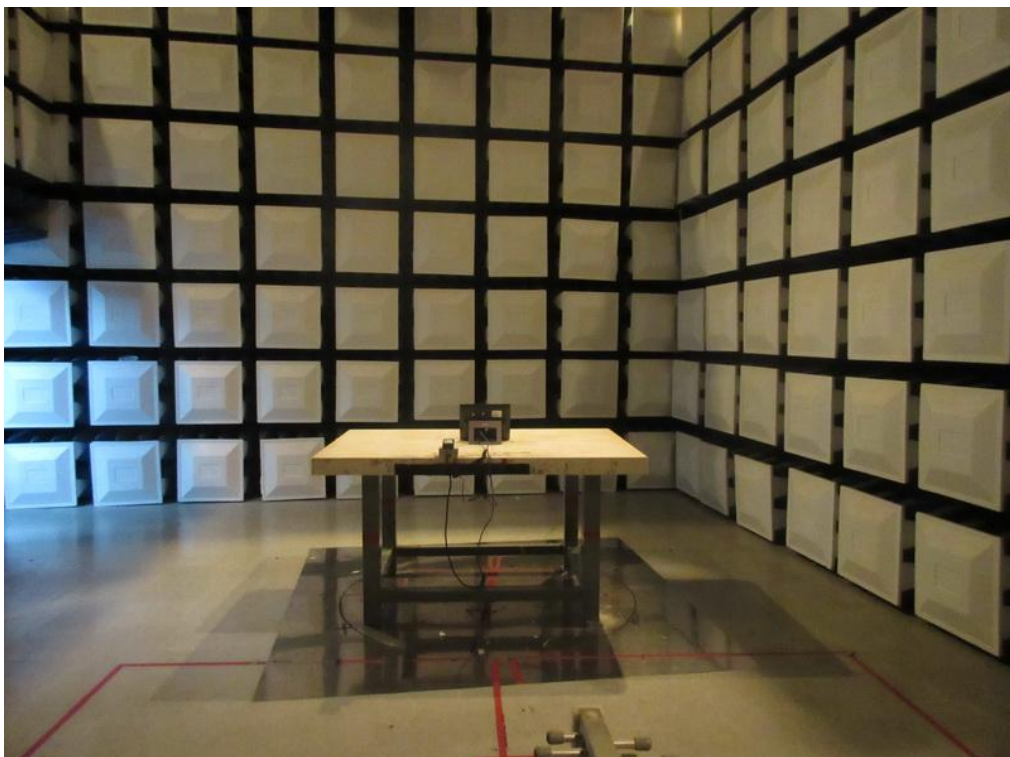
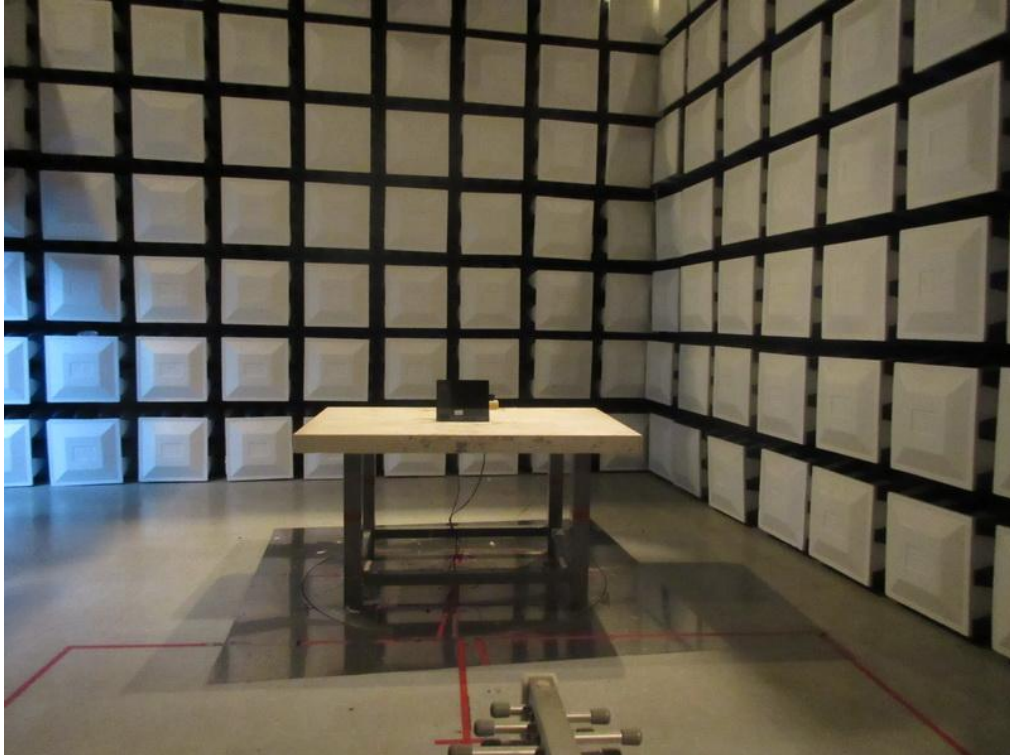
Radiated Measurement Photos

9KHz to 30MHz



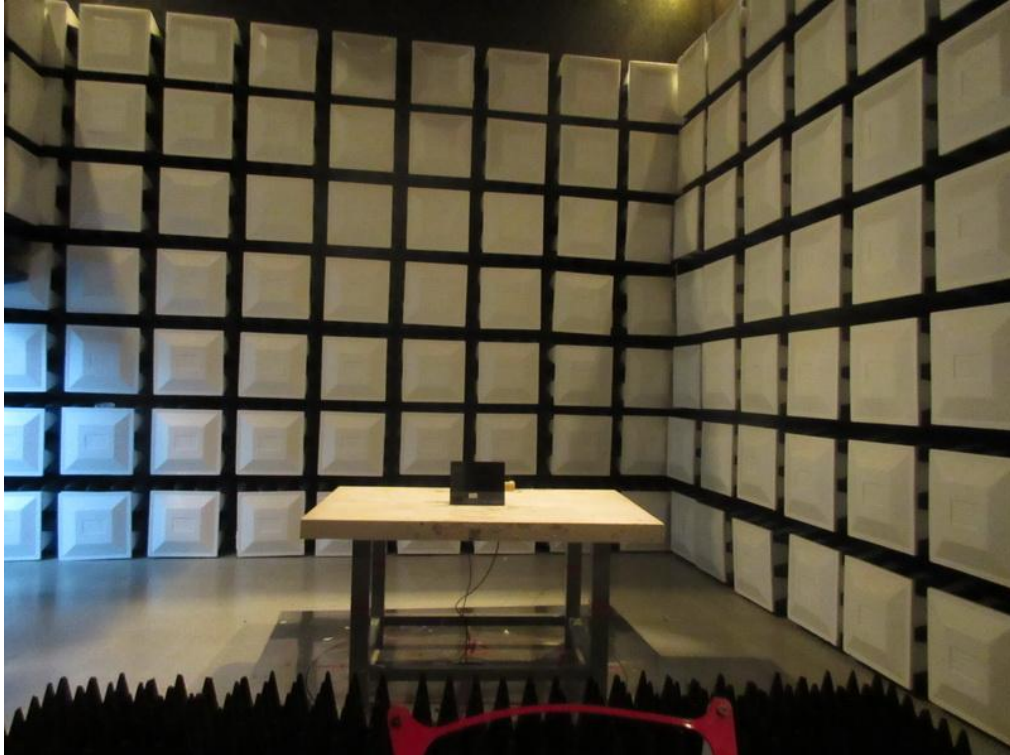
Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

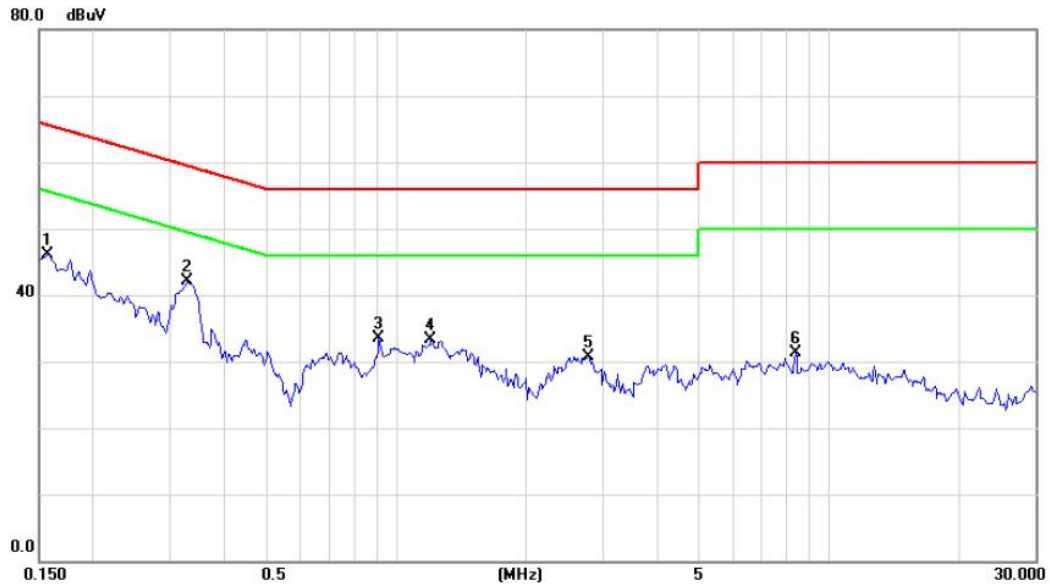
Above 1000MHz



ATTACHMENT A - CONDUCTED EMISSION

Test Mode: TX MODE

Line

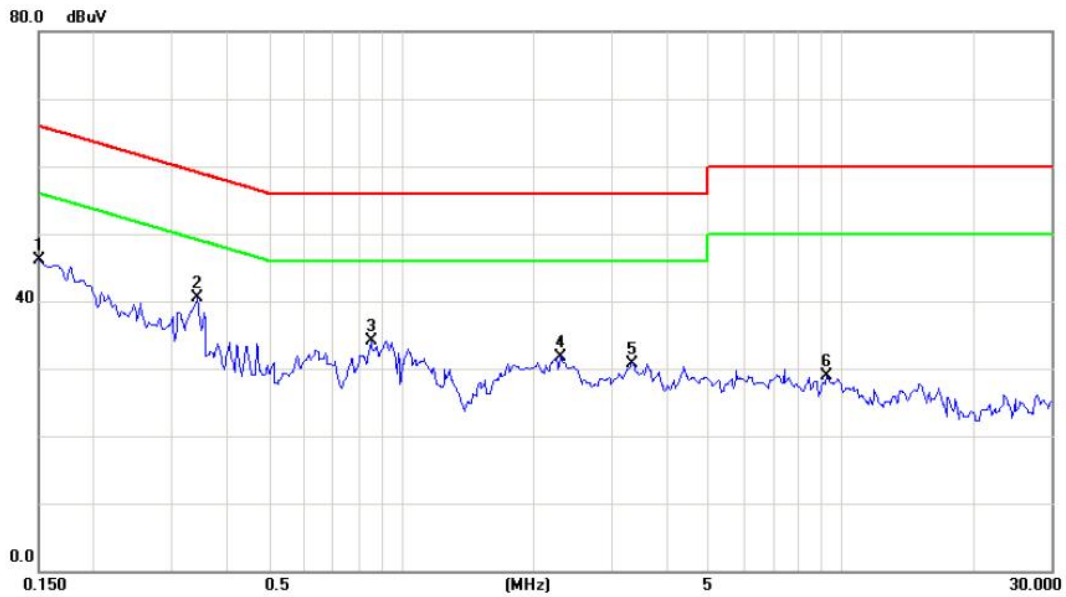


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1578	36.68	9.52	46.20	65.58	-19.38	peak	
2 *	0.3297	32.43	9.61	42.04	59.46	-17.42	peak	
3	0.9156	23.78	9.68	33.46	56.00	-22.54	peak	
4	1.2086	23.61	9.70	33.31	56.00	-22.69	peak	
5	2.7906	20.99	9.76	30.75	56.00	-25.25	peak	
6	8.3945	21.36	10.03	31.39	60.00	-28.61	peak	

Note : The test result has included the cable loss.

Test Mode: TX MODE

Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1500	36.56	9.63	46.19	66.00	-19.81	peak	
2	*	0.3453	30.93	9.62	40.55	59.07	-18.52	peak	
3		0.8531	24.45	9.67	34.12	56.00	-21.88	peak	
4		2.3062	21.91	9.75	31.66	56.00	-24.34	peak	
5		3.3555	21.00	9.80	30.80	56.00	-25.20	peak	
6		9.3008	18.75	10.06	28.81	60.00	-31.19	peak	

Note : The test result has included the cable loss.

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

Test Mode:	TX MODE
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Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0826	0°	-2.04	21.75	19.71	89.26	-69.56	AVG
0.0826	0°	2.69	21.75	24.44	109.26	-84.83	PEAK
0.1034	0°	-3.25	21.35	18.10	87.31	-69.22	AVG
0.1034	0°	1.87	21.35	23.22	107.31	-84.10	PEAK
0.1278	0°	-3.98	20.96	16.98	85.47	-68.50	AVG
0.1278	0°	1.61	20.96	22.57	105.47	-82.91	PEAK
0.1569	0°	-1.23	20.59	19.36	83.69	-64.34	AVG
0.1569	0°	3.25	20.59	23.84	103.69	-79.86	PEAK
2.5971	0°	8.39	19.14	27.53	69.54	-42.01	QP
18.3670	0°	10.23	17.63	27.86	69.54	-41.68	QP

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0523	90°	-3.26	22.35	19.09	113.23	-94.14	AVG
0.0523	90°	1.23	22.35	23.58	133.23	-109.65	PEAK
0.1125	90°	-1.39	21.20	19.81	106.58	-86.77	AVG
0.1125	90°	0.63	21.20	21.83	126.58	-104.75	PEAK
0.1354	90°	-2.47	20.83	18.36	104.97	-86.61	AVG
0.1354	90°	1.24	20.83	22.07	124.97	-102.90	PEAK
0.2172	90°	-4.21	20.47	16.26	100.87	-84.61	AVG
0.2172	90°	0.69	20.47	21.16	120.87	-99.71	PEAK
3.6870	90°	6.97	18.97	25.94	69.54	-43.60	QP
17.6530	90°	9.36	17.73	27.09	69.54	-42.45	QP

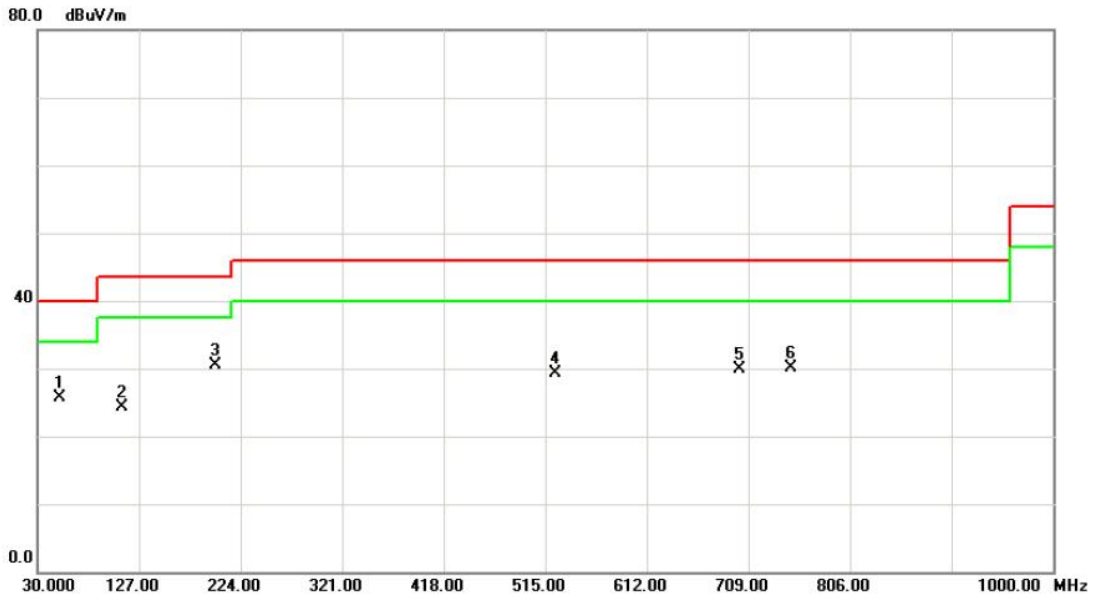
Remark:

- (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.

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

Test Mode: TX B MODE CHANNEL 01

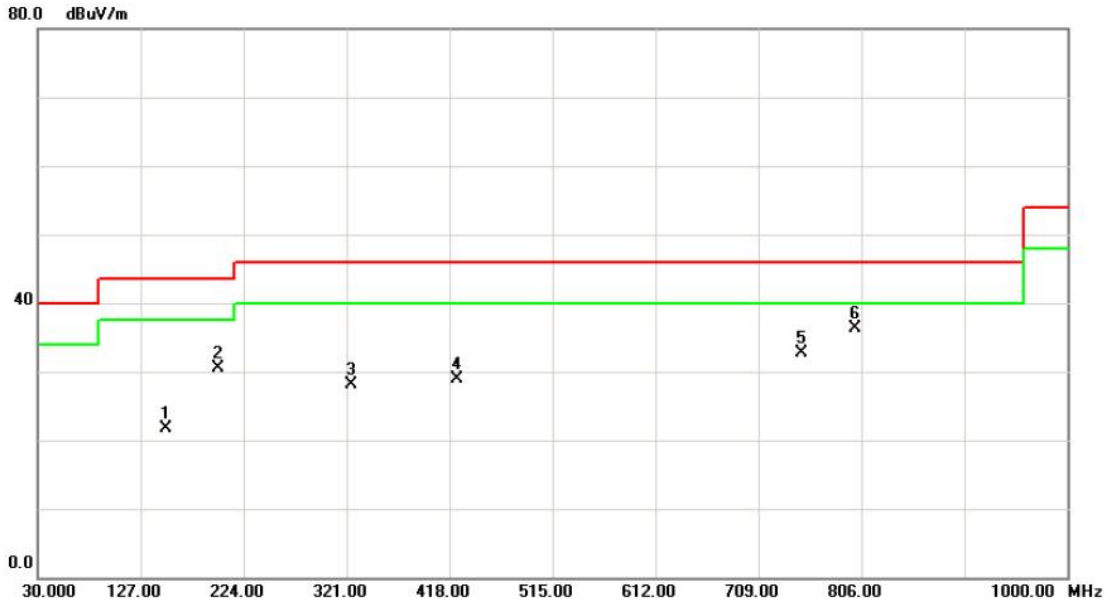
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		51.3400	39.80	-14.03	25.77	40.00	-14.23	peak	
2		110.5100	39.59	-15.22	24.37	43.50	-19.13	peak	
3	*	199.7500	45.49	-14.97	30.52	43.50	-12.98	peak	
4		524.7000	38.55	-9.24	29.31	46.00	-16.69	peak	
5		700.2700	34.91	-4.93	29.98	46.00	-16.02	peak	
6		749.7400	34.74	-4.63	30.11	46.00	-15.89	peak	

Test Mode: TX B MODE CHANNEL 01

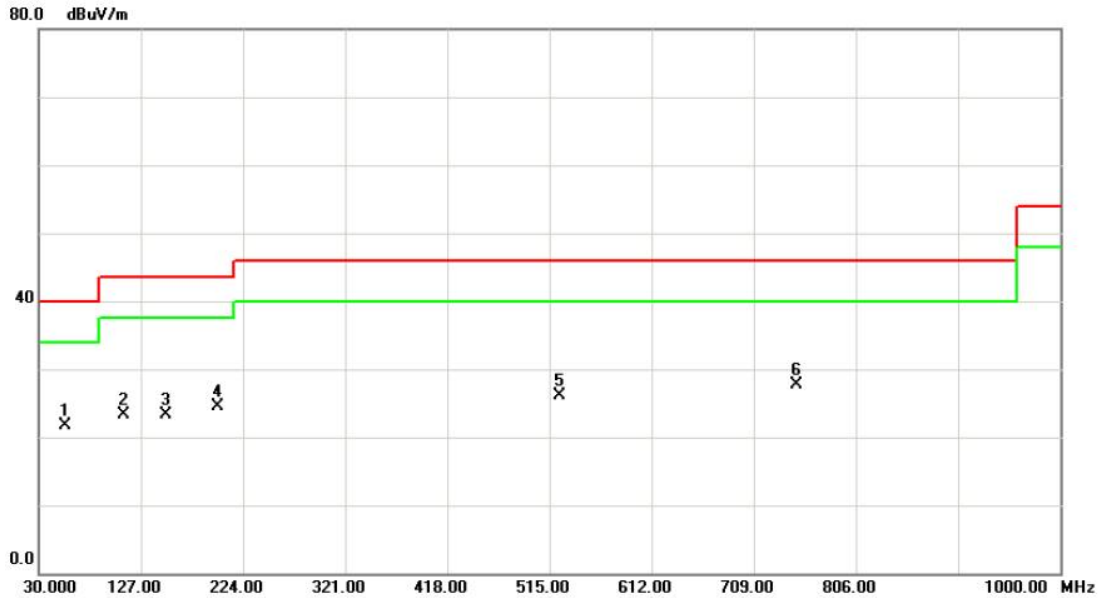
Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	150.2800	34.84	-13.20	21.64	43.50	-21.86	peak	
2	199.7500	45.57	-14.97	30.60	43.50	-12.90	peak	
3	324.8800	39.49	-11.39	28.10	46.00	-17.90	peak	
4	424.7900	37.97	-9.09	28.88	46.00	-17.12	peak	
5	749.7400	37.35	-4.63	32.72	46.00	-13.28	peak	
6 *	800.1800	39.14	-2.89	36.25	46.00	-9.75	peak	

Test Mode: TX B MODE CHANNEL 06

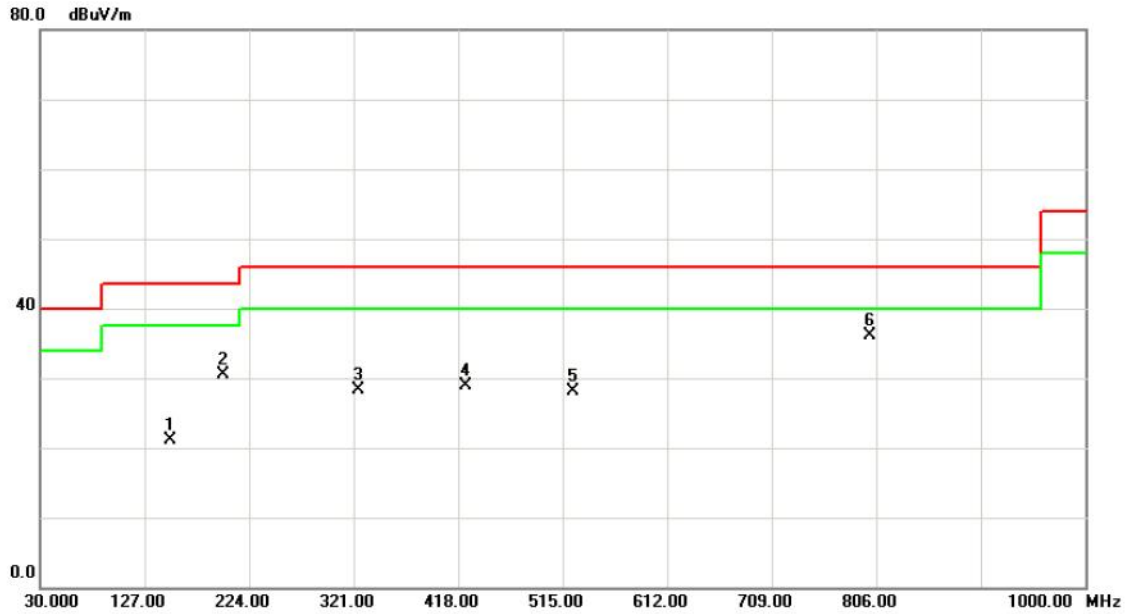
Vertical



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	55.2200	36.06	-14.40	21.66	40.00	-18.34	peak	
2	110.5100	38.56	-15.22	23.34	43.50	-20.16	peak	
3	150.2800	36.59	-13.20	23.39	43.50	-20.11	peak	
4	199.7500	39.51	-14.97	24.54	43.50	-18.96	peak	
5	524.7000	35.33	-9.24	26.09	46.00	-19.91	peak	
6 *	749.7400	32.31	-4.63	27.68	46.00	-18.32	peak	

Test Mode: TX B MODE CHANNEL 06

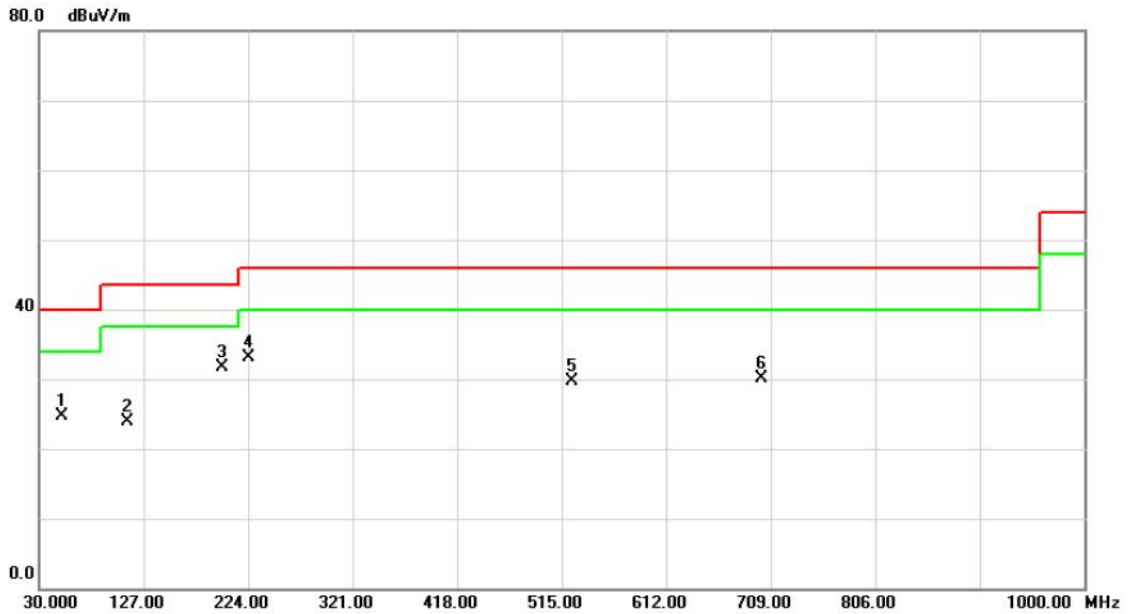
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		150.2800	34.27	-13.20	21.07	43.50	-22.43	peak	
2		199.7500	45.49	-14.97	30.52	43.50	-12.98	peak	
3		324.8800	39.73	-11.39	28.34	46.00	-17.66	peak	
4		424.7900	37.91	-9.09	28.82	46.00	-17.18	peak	
5		524.7000	37.28	-9.24	28.04	46.00	-17.96	peak	
6	*	800.1800	39.00	-2.89	36.11	46.00	-9.89	peak	

Test Mode: TX B MODE CHANNEL 11

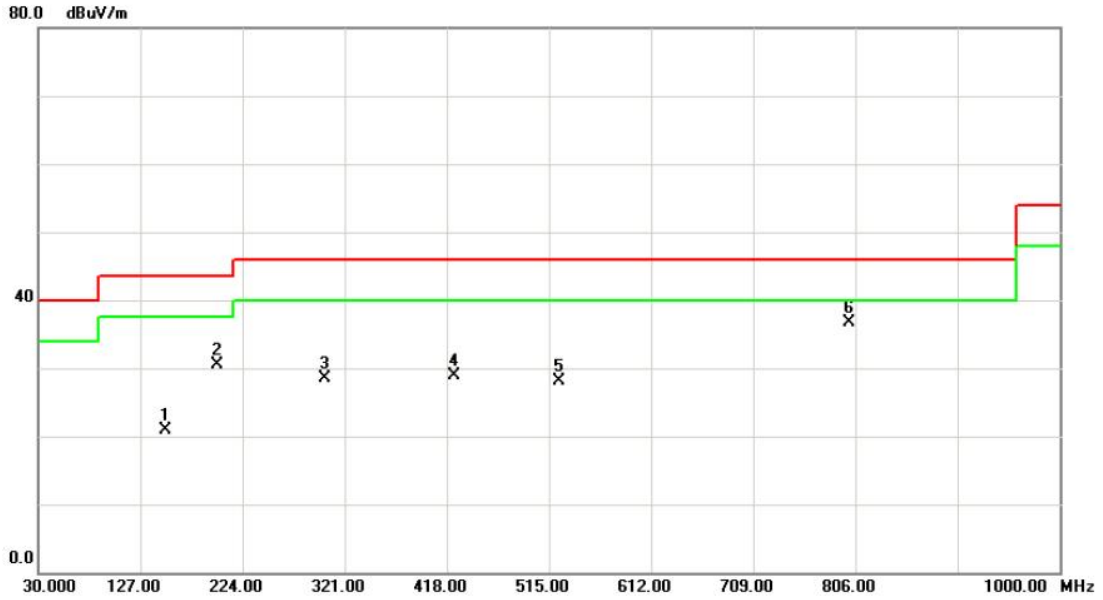
Vertical



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	51.3400	38.76	-14.03	24.73	40.00	-15.27	peak	
2	111.4800	39.00	-15.12	23.88	43.50	-19.62	peak	
3 *	199.7500	46.76	-14.97	31.79	43.50	-11.71	peak	
4	224.0000	47.68	-14.62	33.06	46.00	-12.94	peak	
5	524.7000	39.01	-9.24	29.77	46.00	-16.23	peak	
6	700.2700	35.00	-4.93	30.07	46.00	-15.93	peak	

Test Mode: TX B MODE CHANNEL 11

Horizontal

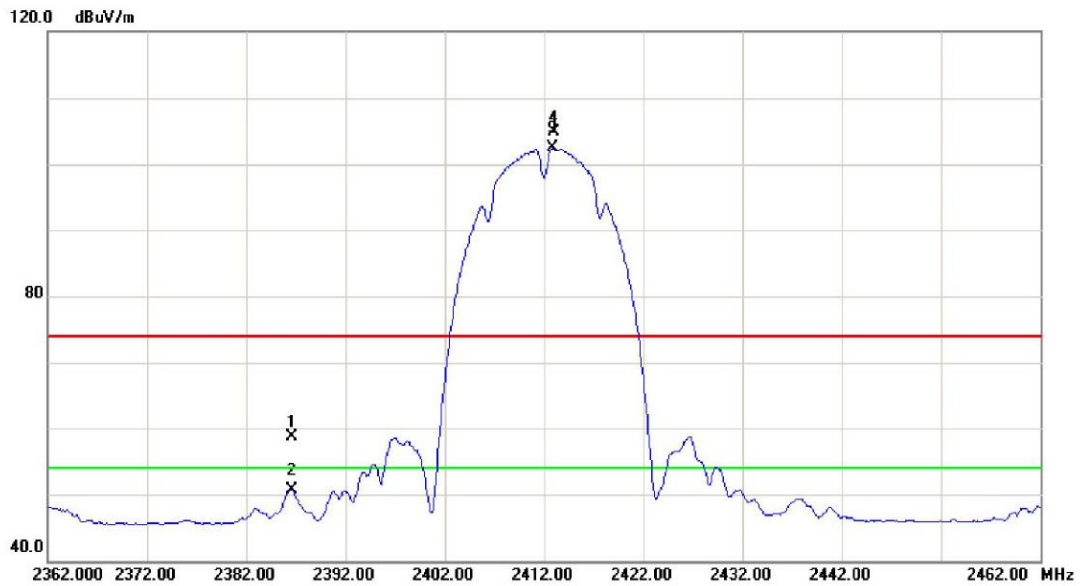


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	150.2800	34.19	-13.20	20.99	43.50	-22.51	peak	
2	199.7500	45.38	-14.97	30.41	43.50	-13.09	peak	
3	302.5700	39.57	-11.03	28.54	46.00	-17.46	peak	
4	424.7900	37.97	-9.09	28.88	46.00	-17.12	peak	
5	524.7000	37.33	-9.24	28.09	46.00	-17.91	peak	
6 *	800.1800	39.53	-2.89	36.64	46.00	-9.36	peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

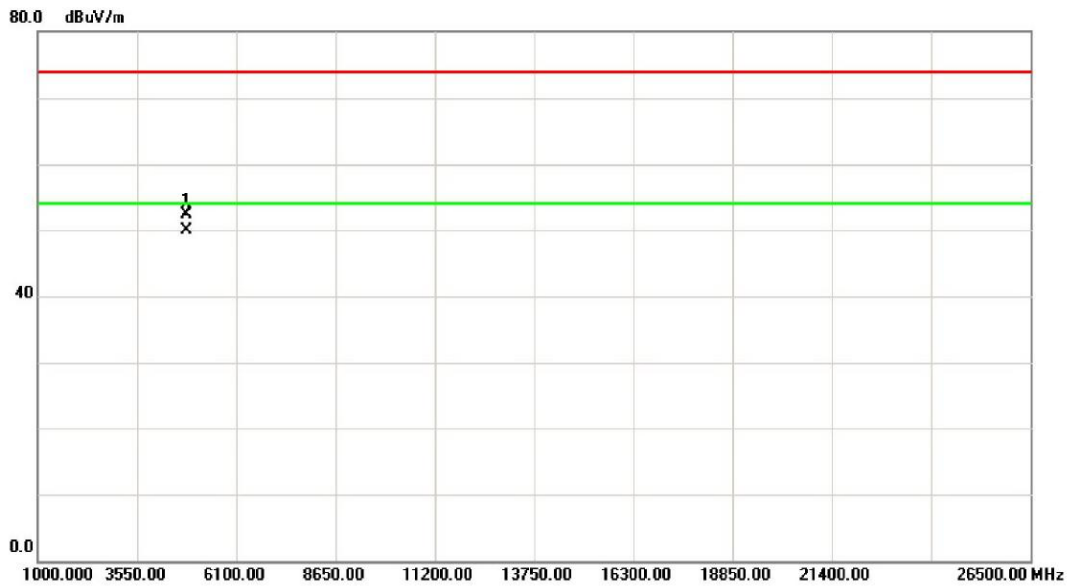
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2386.600	26.81	31.87	58.68	74.00	-15.32	peak	
2		2386.600	18.80	31.87	50.67	54.00	-3.33	AVG	
3	*	2412.800	70.50	31.91	102.41	54.00	48.41	AVG	no limit
4	X	2413.000	72.90	31.91	104.81	74.00	30.81	peak	no limit

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

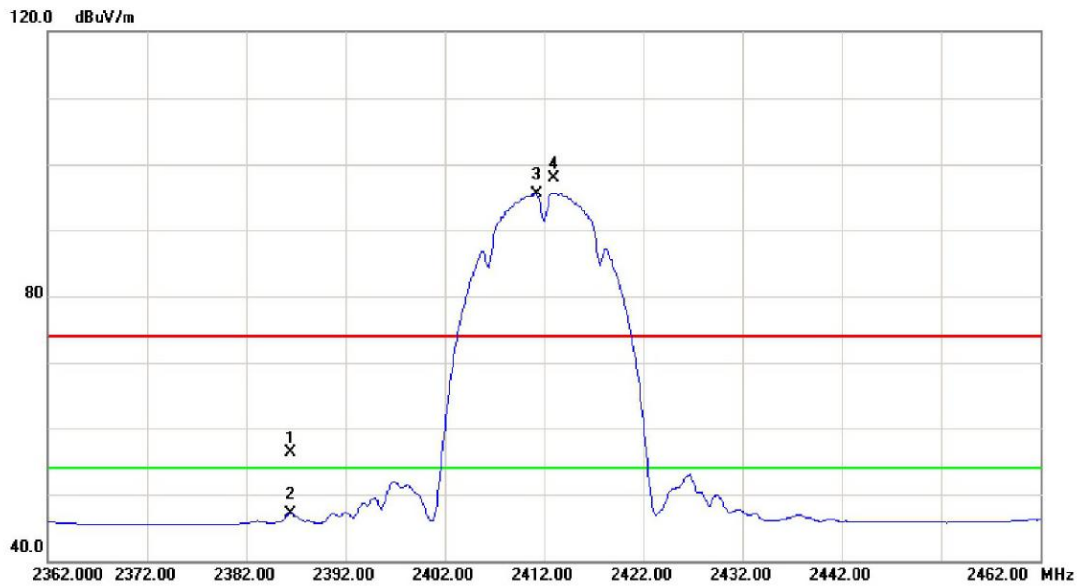
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4823.940	48.77	3.62	52.39	74.00	-21.61	peak	
2	*	4823.970	46.21	3.62	49.83	54.00	-4.17	AVG	

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

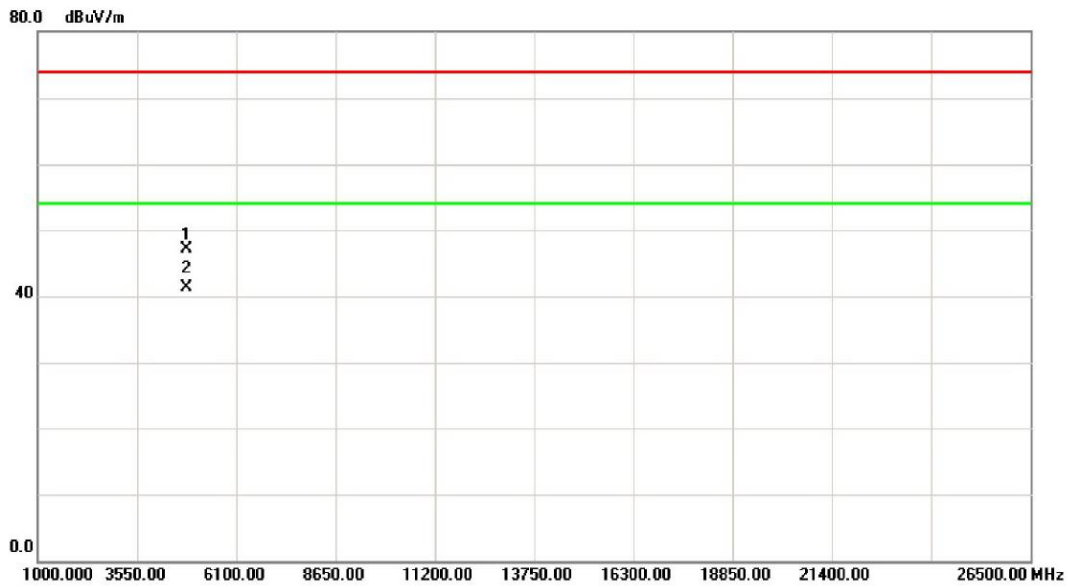
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2386.500	24.36	31.87	56.23	74.00	-17.77	peak	
2		2386.500	15.24	31.87	47.11	54.00	-6.89	AVG	
3	*	2411.200	63.68	31.91	95.59	54.00	41.59	AVG	no limit
4	X	2413.000	66.05	31.91	97.96	74.00	23.96	peak	no limit

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

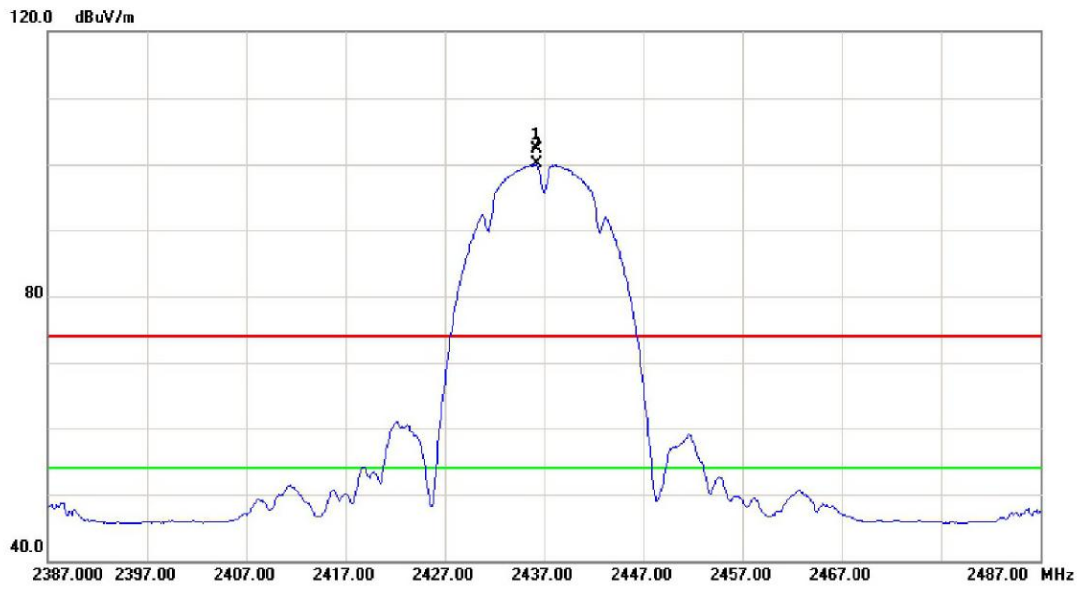
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4823.990	43.40	3.62	47.02	74.00	-26.98	peak	
2	*	4824.030	37.65	3.62	41.27	54.00	-12.73	AVG	

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

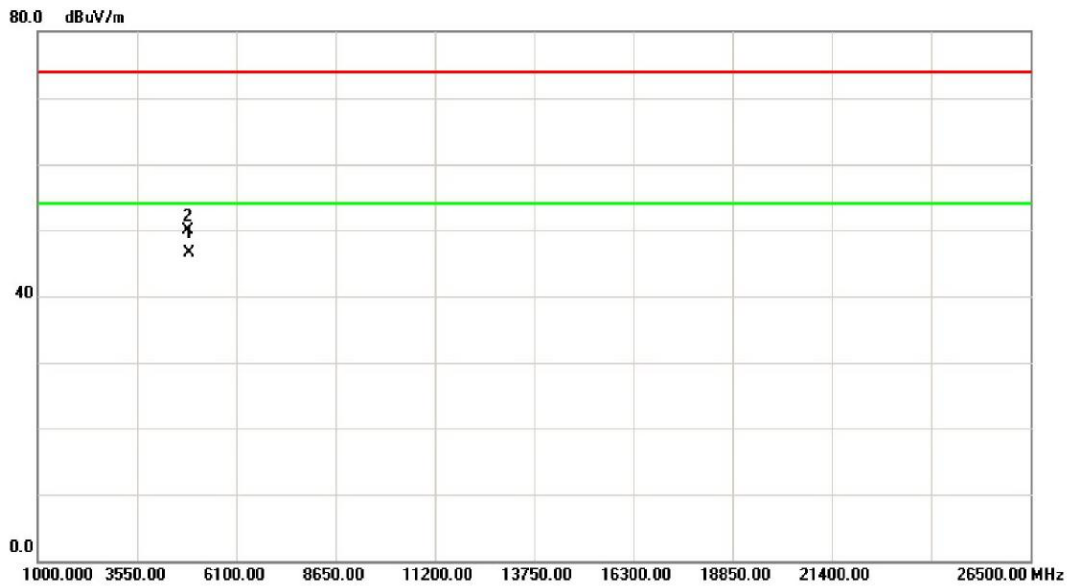
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2436.200	70.34	31.94	102.28	74.00	28.28	peak	no limit
2	*	2436.200	68.08	31.94	100.02	54.00	46.02	AVG	no limit

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

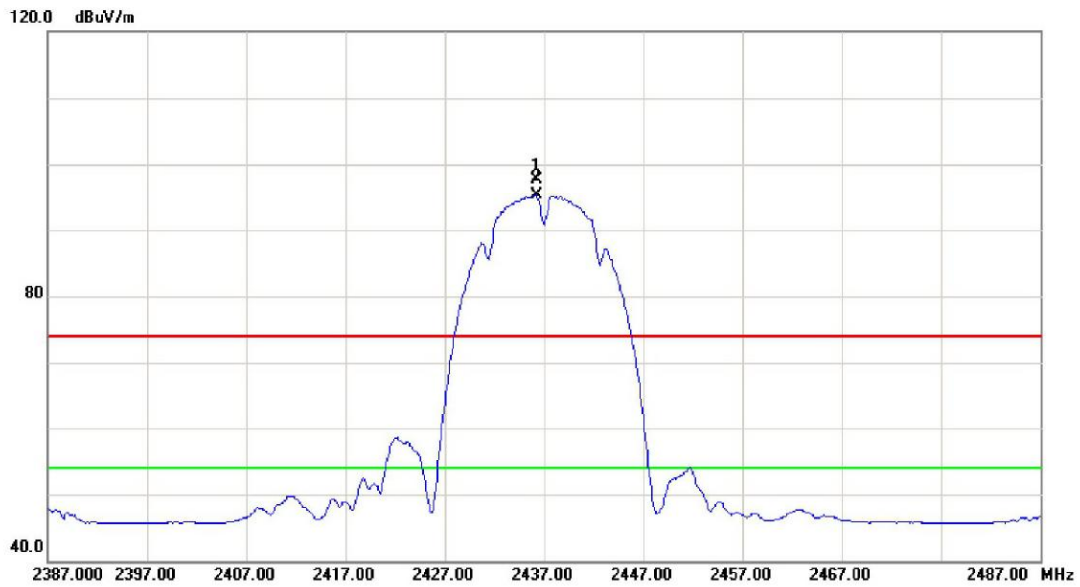
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4873.960	42.76	3.72	46.48	54.00	-7.52	AVG	
2		4874.040	46.19	3.72	49.91	74.00	-24.09	peak	

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

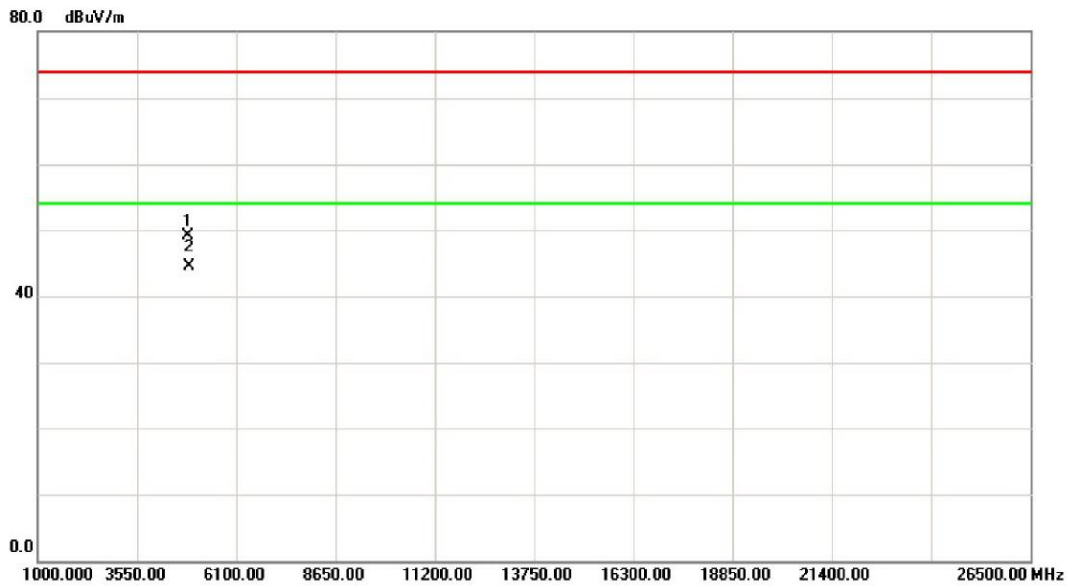
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2436.200	65.68	31.94	97.62	74.00	23.62	peak	no limit
2	*	2436.200	63.36	31.94	95.30	54.00	41.30	AVG	no limit

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

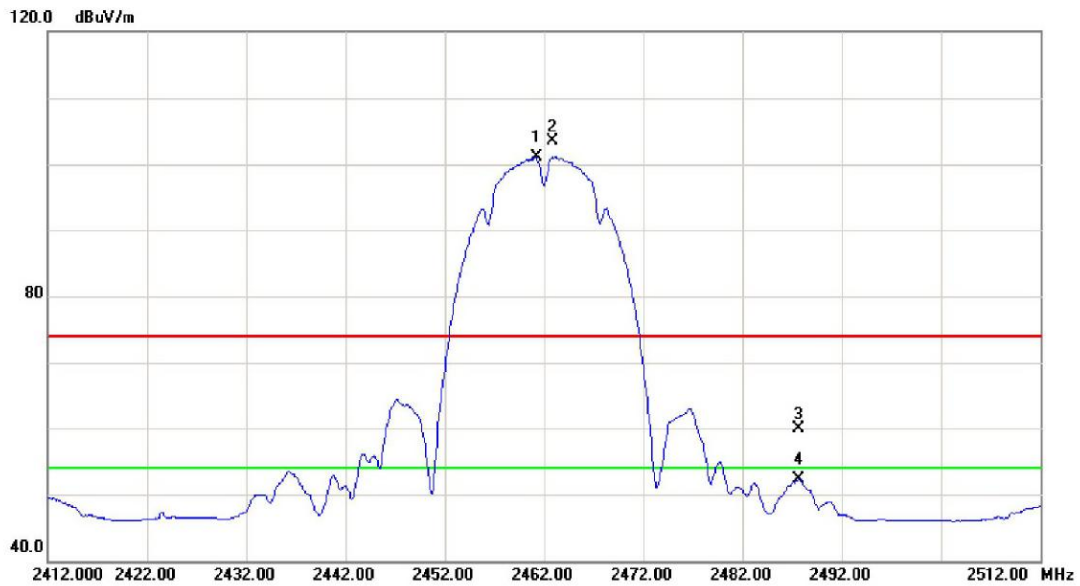
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	45.42	3.72	49.14	74.00	-24.86	peak	
2	*	4874.000	40.70	3.72	44.42	54.00	-9.58	AVG	

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

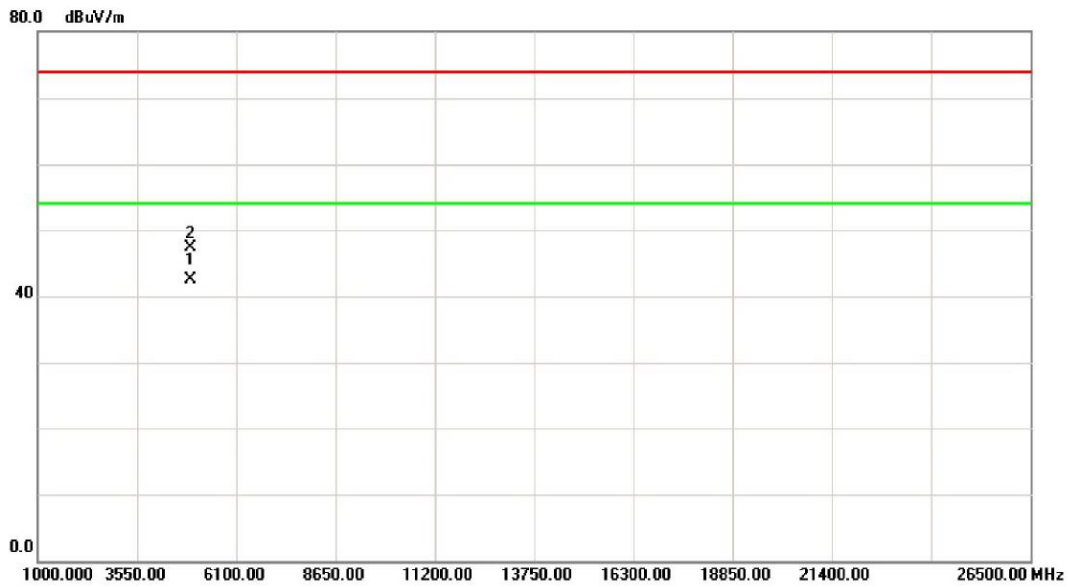
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2461.200	69.08	31.98	101.06	54.00	47.06	AVG	no limit
2	X	2462.900	71.50	31.98	103.48	74.00	29.48	peak	no limit
3		2487.700	27.86	32.01	59.87	74.00	-14.13	peak	
4		2487.700	20.27	32.01	52.28	54.00	-1.72	AVG	

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

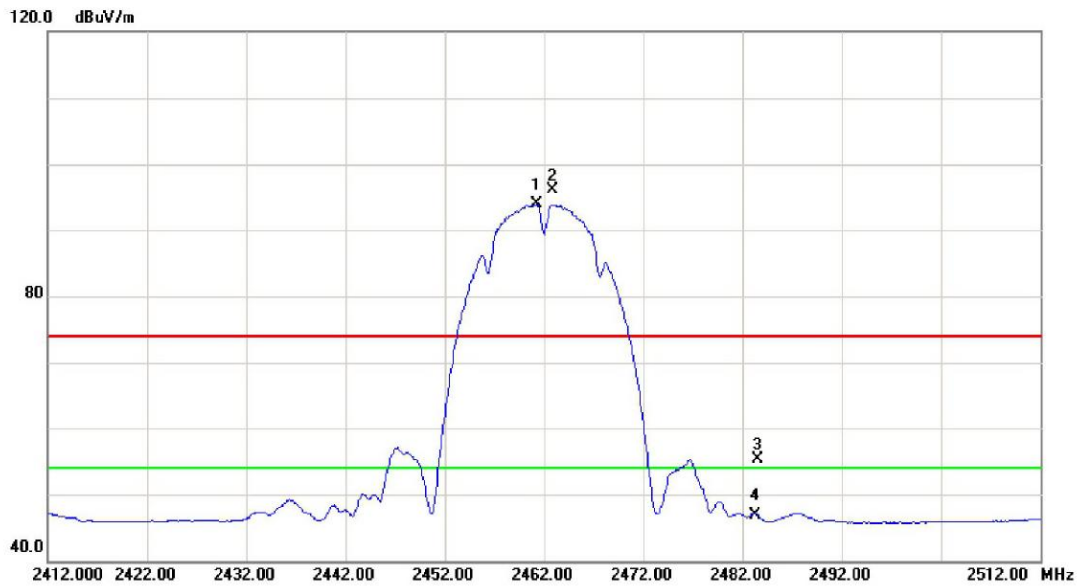
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4923.970	38.71	3.80	42.51	54.00	-11.49	AVG	
2		4924.140	43.43	3.80	47.23	74.00	-26.77	peak	

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

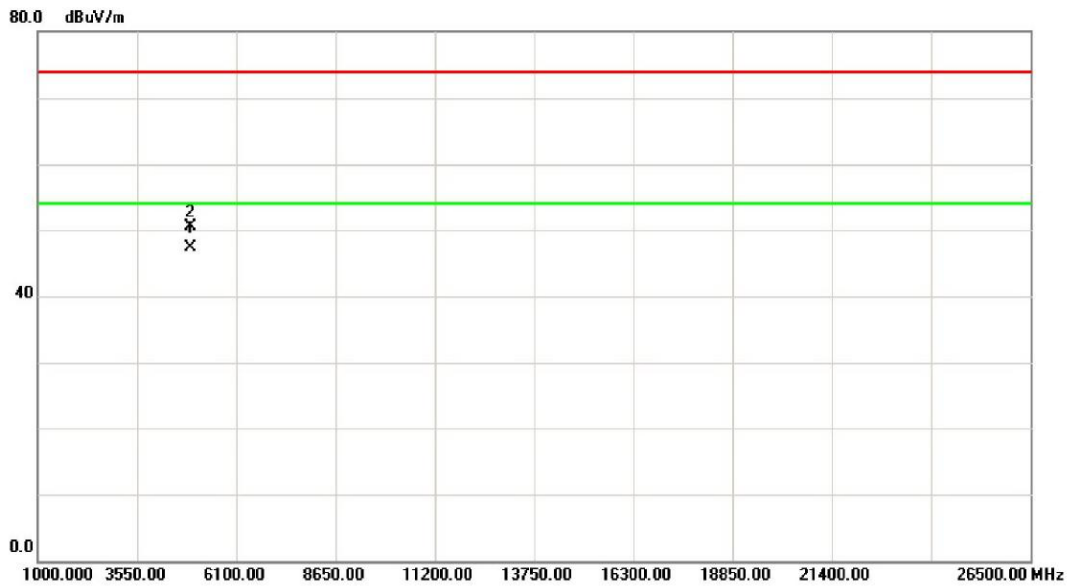
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2461.200	61.94	31.98	93.92	54.00	39.92	AVG	no limit
2	X	2462.900	64.22	31.98	96.20	74.00	22.20	peak	no limit
3		2483.500	23.33	32.01	55.34	74.00	-18.66	peak	
4		2483.500	14.94	32.01	46.95	54.00	-7.05	AVG	

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

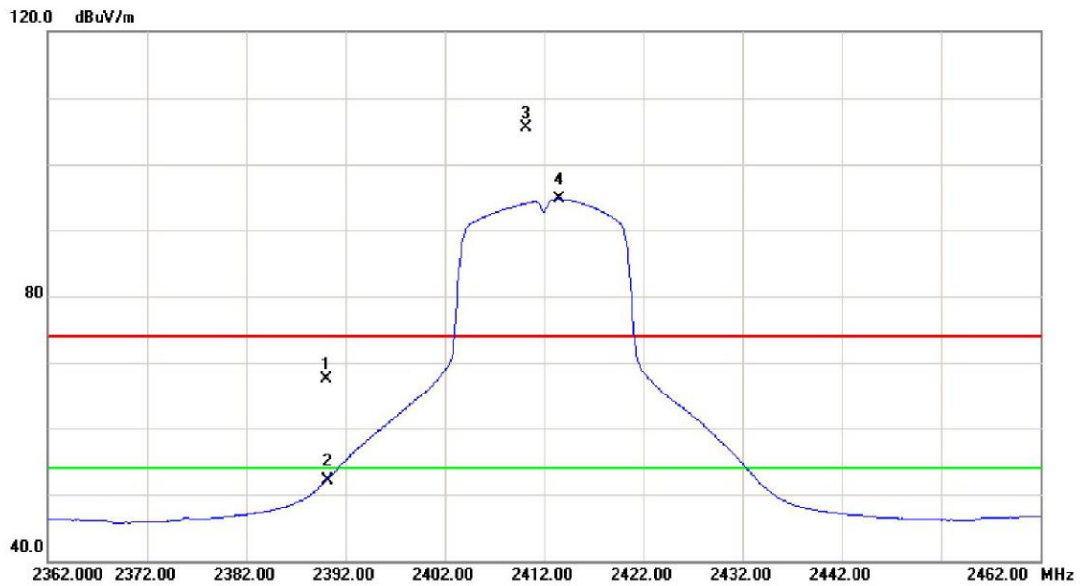
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4923.950	43.44	3.80	47.24	54.00	-6.76	AVG	
2		4924.000	46.80	3.80	50.60	74.00	-23.40	peak	

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

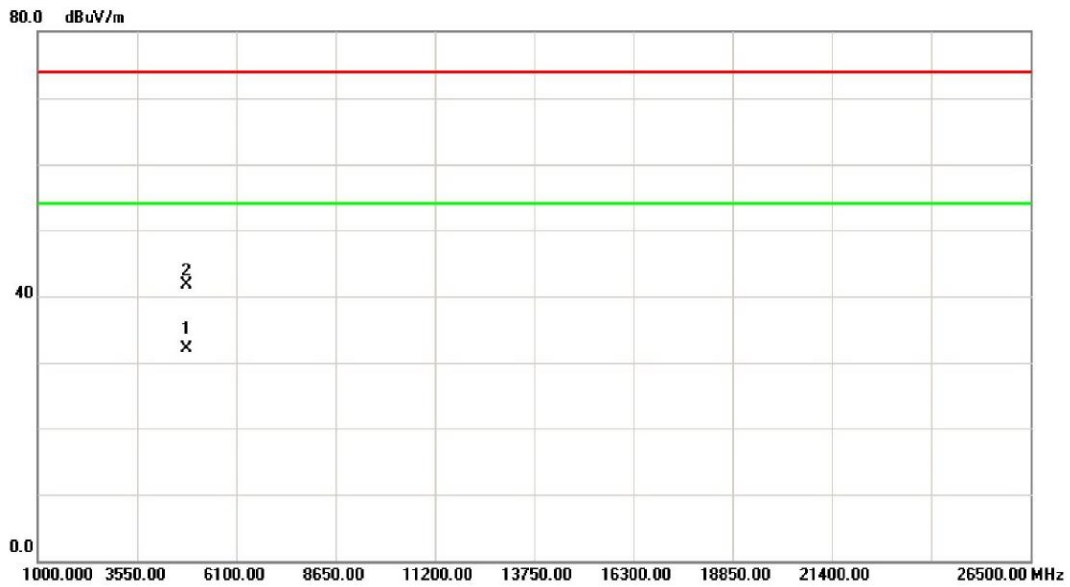
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	35.53	31.88	67.41	74.00	-6.59	peak	
2		2390.000	20.18	31.88	52.06	54.00	-1.94	AVG	
3	X	2410.200	73.52	31.91	105.43	74.00	31.43	peak	no limit
4	*	2413.500	62.70	31.91	94.61	54.00	40.61	AVG	no limit

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

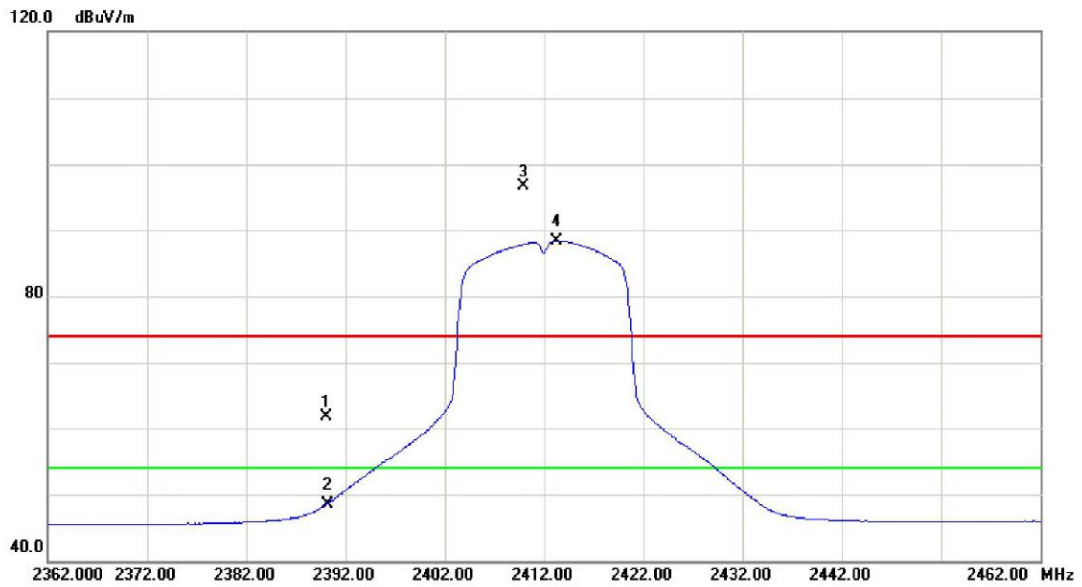
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4823.250	28.42	3.62	32.04	54.00	-21.96	AVG	
2		4823.950	37.99	3.62	41.61	74.00	-32.39	peak	

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

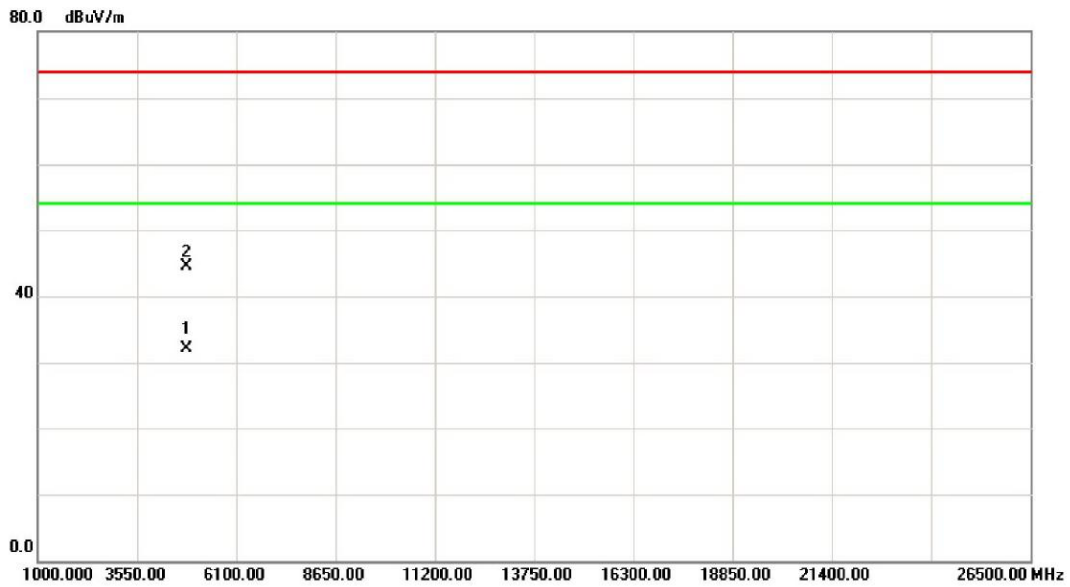
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	29.86	31.88	61.74	74.00	-12.26	peak	
2		2390.000	16.65	31.88	48.53	54.00	-5.47	AVG	
3	X	2409.900	64.84	31.91	96.75	74.00	22.75	peak	no limit
4	*	2413.200	56.46	31.91	88.37	54.00	34.37	AVG	no limit

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

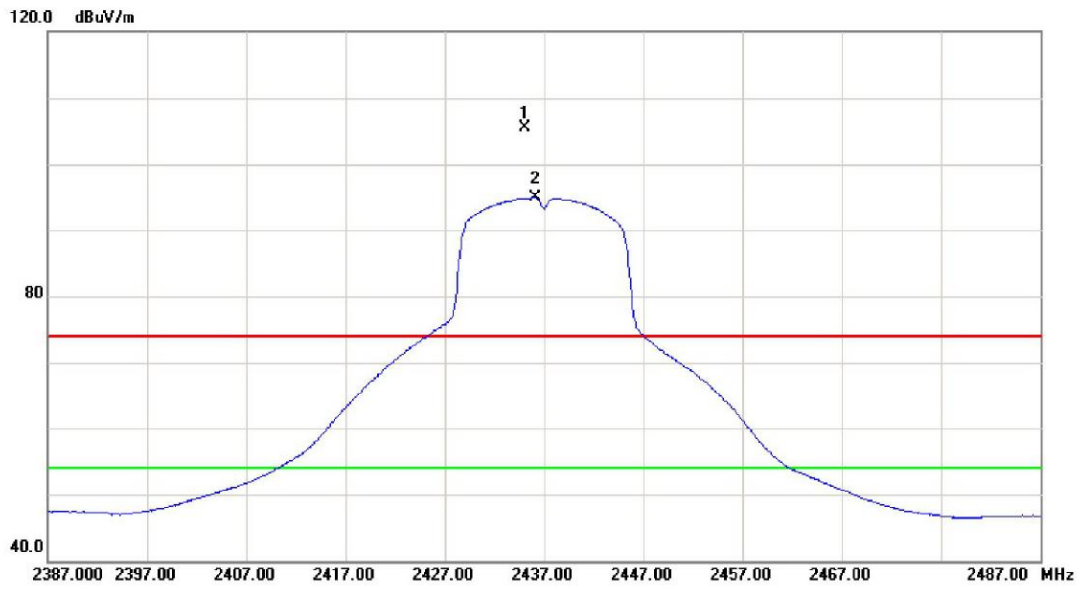
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4823.650	28.53	3.62	32.15	54.00	-21.85	AVG	
2		4824.900	40.82	3.62	44.44	74.00	-29.56	peak	

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

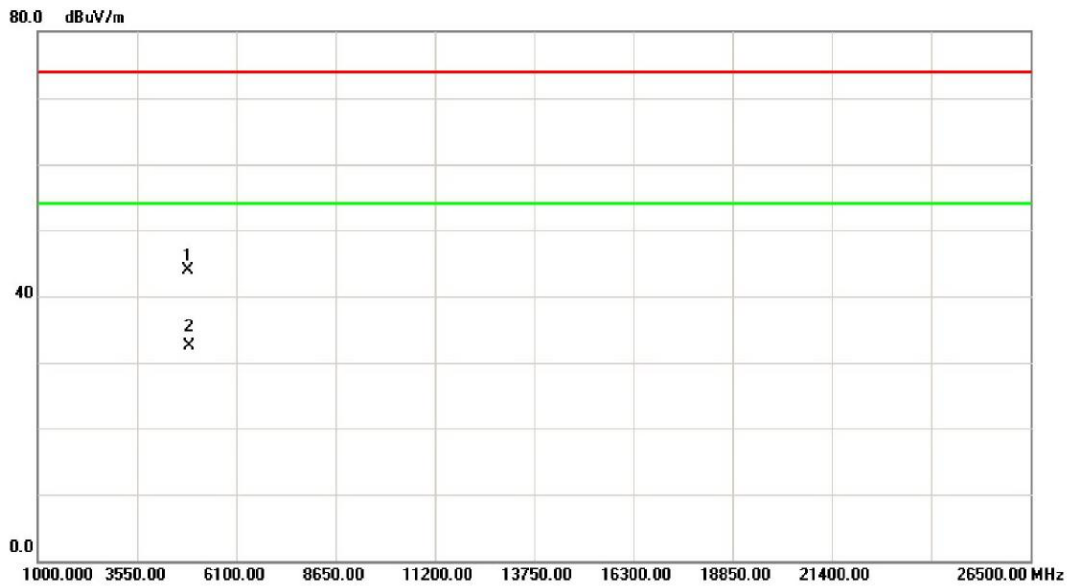
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2435.000	73.66	31.94	105.60	74.00	31.60	peak	no limit
2	*	2436.100	62.89	31.94	94.83	54.00	40.83	AVG	no limit

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

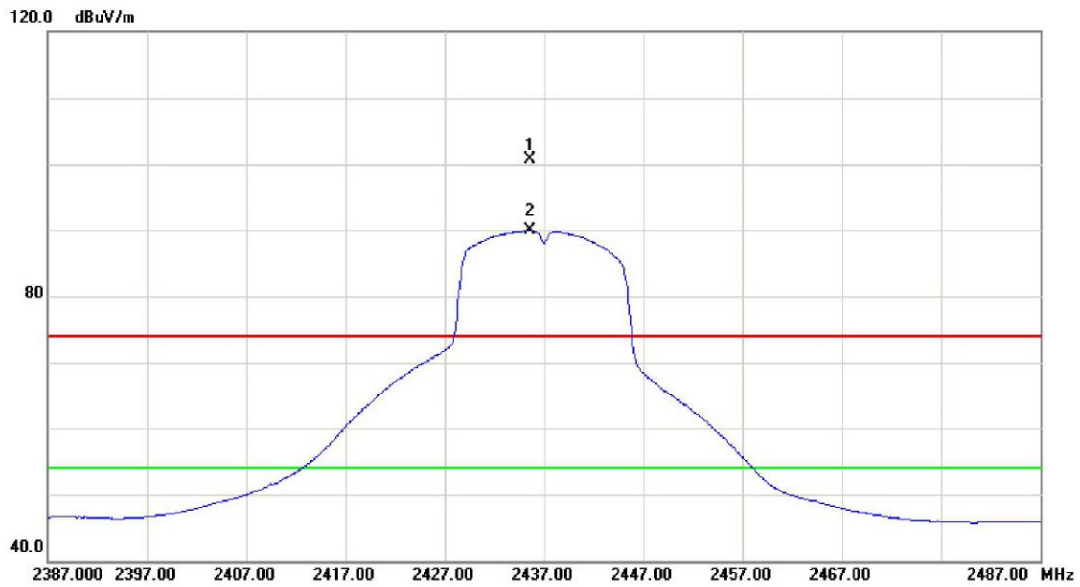
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4873.050	40.21	3.72	43.93	74.00	-30.07	peak	
2	*	4873.050	28.82	3.72	32.54	54.00	-21.46	AVG	

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

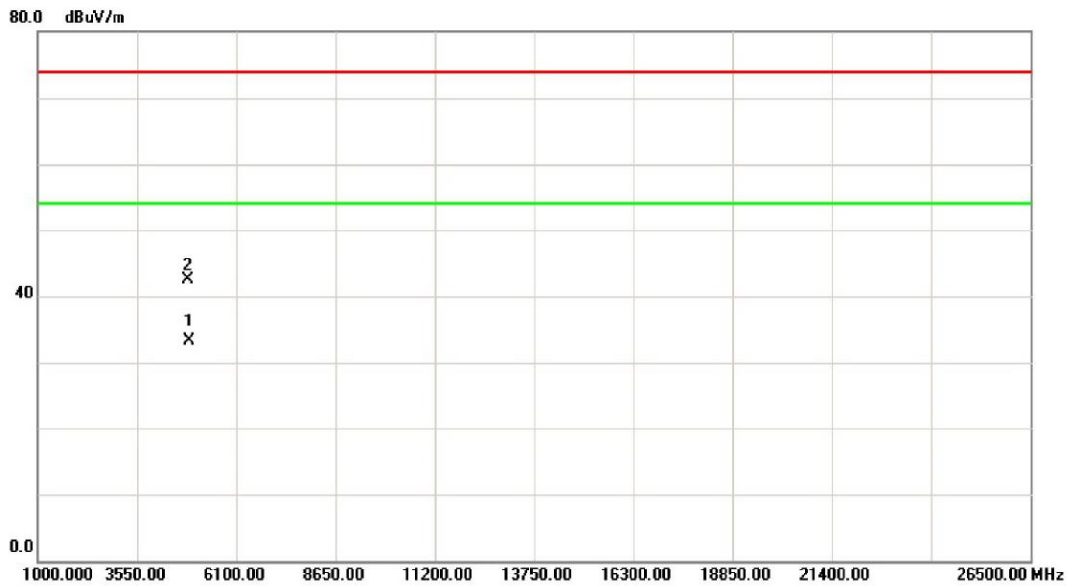
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2435.600	68.69	31.94	100.63	74.00	26.63	peak	no limit
2	*	2435.600	57.91	31.94	89.85	54.00	35.85	AVG	no limit

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

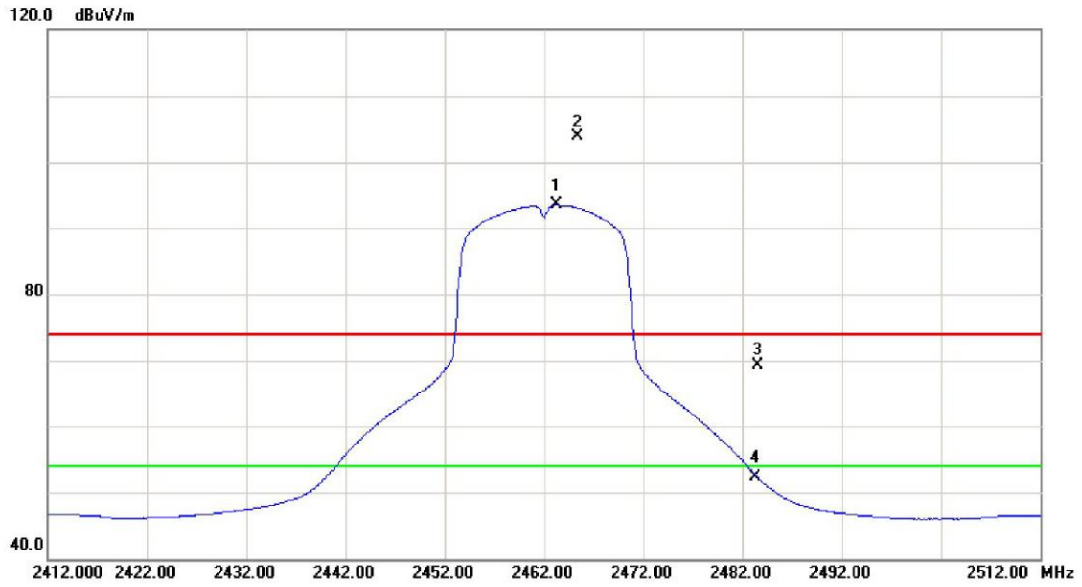
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4873.500	29.67	3.72	33.39	54.00	-20.61	AVG	
2		4874.700	38.72	3.72	42.44	74.00	-31.56	peak	

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

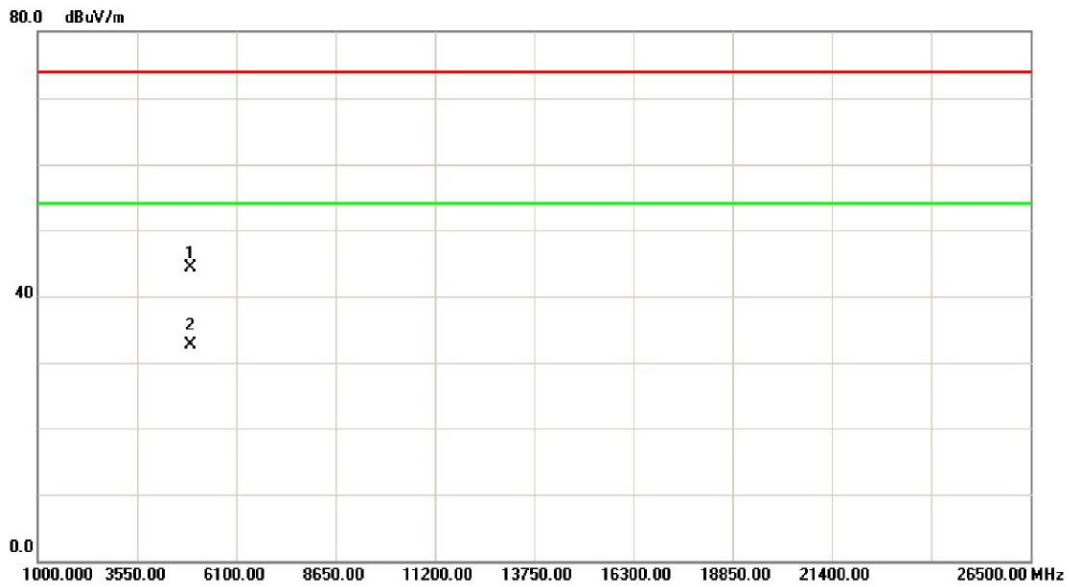
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2463.300	61.47	31.98	93.45	54.00	39.45	AVG	no limit
2	X	2465.400	71.97	31.98	103.95	74.00	29.95	peak	no limit
3		2483.500	37.39	32.01	69.40	74.00	-4.60	peak	
4		2483.500	20.34	32.01	52.35	54.00	-1.65	AVG	

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

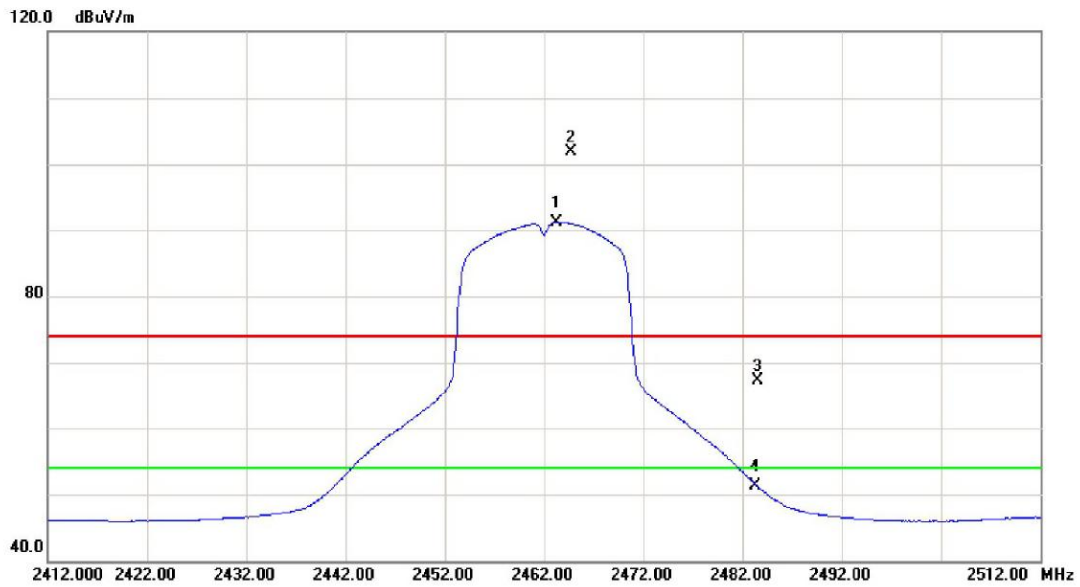
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4923.800	40.47	3.80	44.27	74.00	-29.73	peak	
2	*	4923.800	28.86	3.80	32.66	54.00	-21.34	AVG	

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

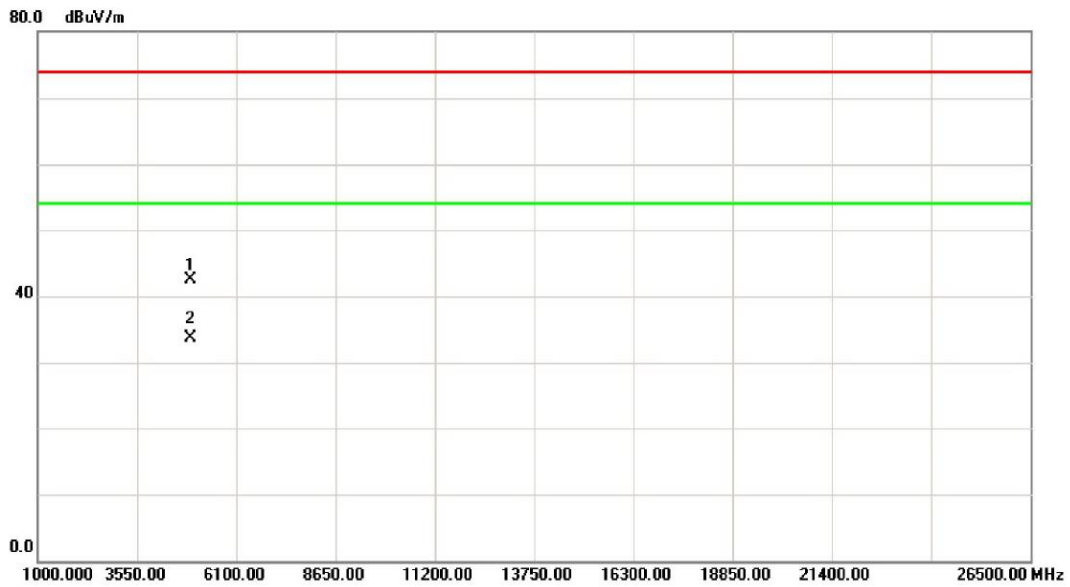
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2463.300	59.16	31.98	91.14	54.00	37.14	AVG	no limit
2	X	2464.700	69.85	31.98	101.83	74.00	27.83	peak	no limit
3		2483.500	35.24	32.01	67.25	74.00	-6.75	peak	
4		2483.500	19.25	32.01	51.26	54.00	-2.74	AVG	

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

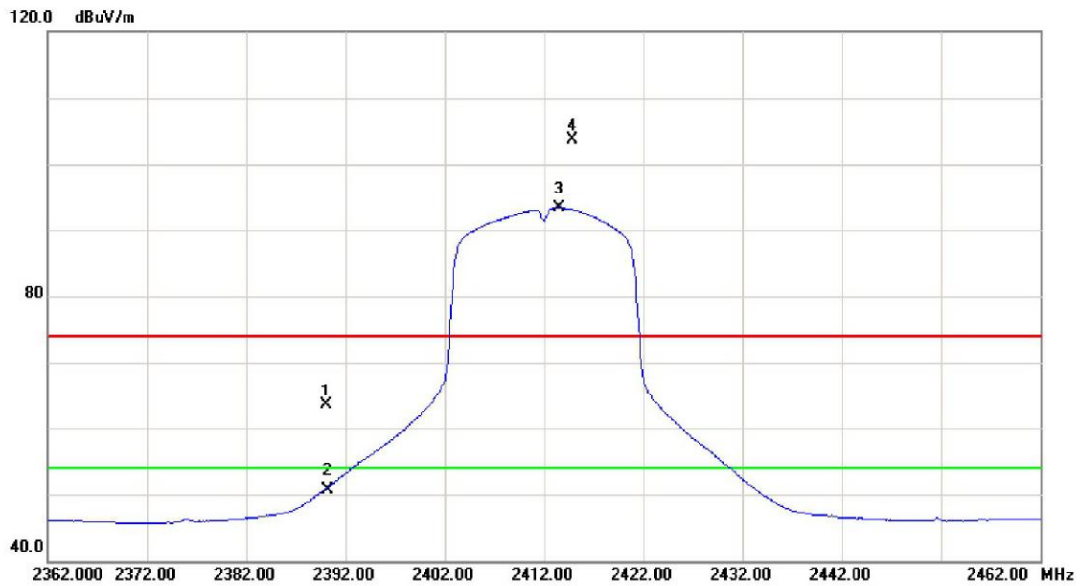
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.600	38.67	3.80	42.47	74.00	-31.53	peak	
2	*	4924.600	29.98	3.80	33.78	54.00	-20.22	AVG	

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

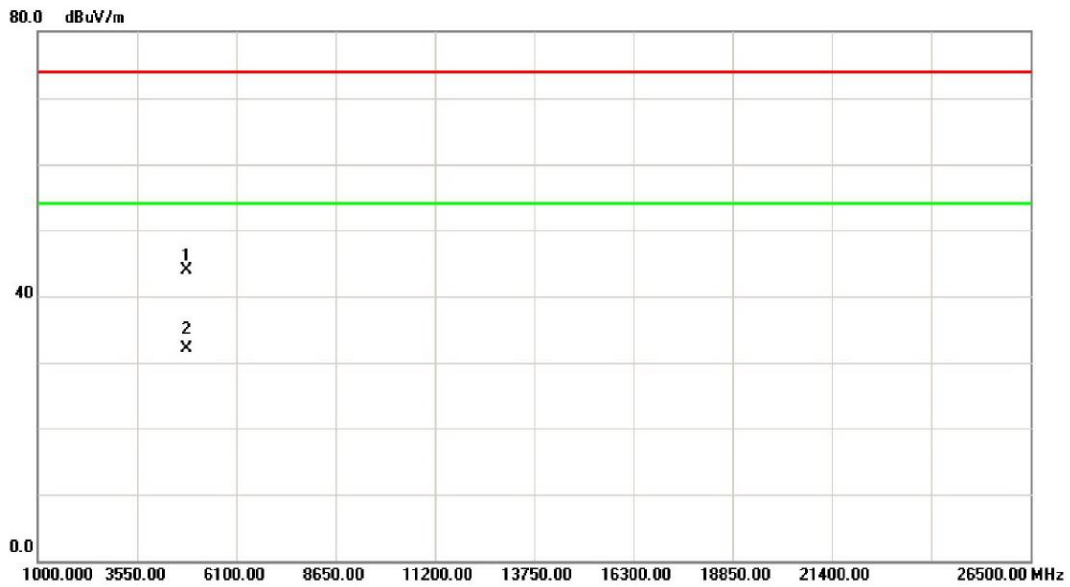
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	31.58	31.88	63.46	74.00	-10.54	peak	
2		2390.000	18.91	31.88	50.79	54.00	-3.21	AVG	
3	*	2413.500	61.38	31.91	93.29	54.00	39.29	AVG	no limit
4	X	2414.800	71.80	31.91	103.71	74.00	29.71	peak	no limit

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

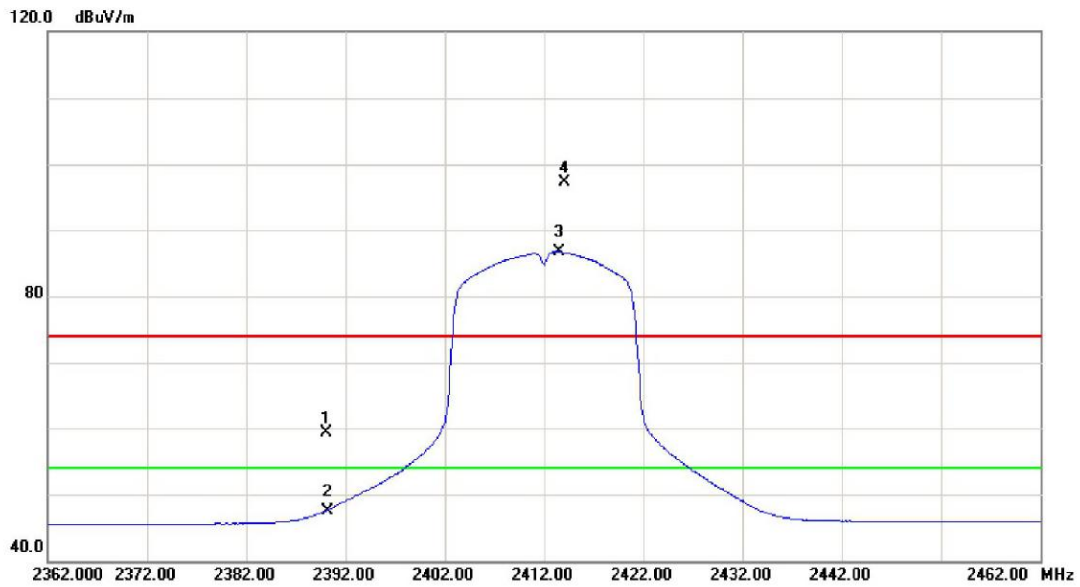
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4823.900	40.23	3.62	43.85	74.00	-30.15	peak	
2	*	4823.900	28.41	3.62	32.03	54.00	-21.97	AVG	

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

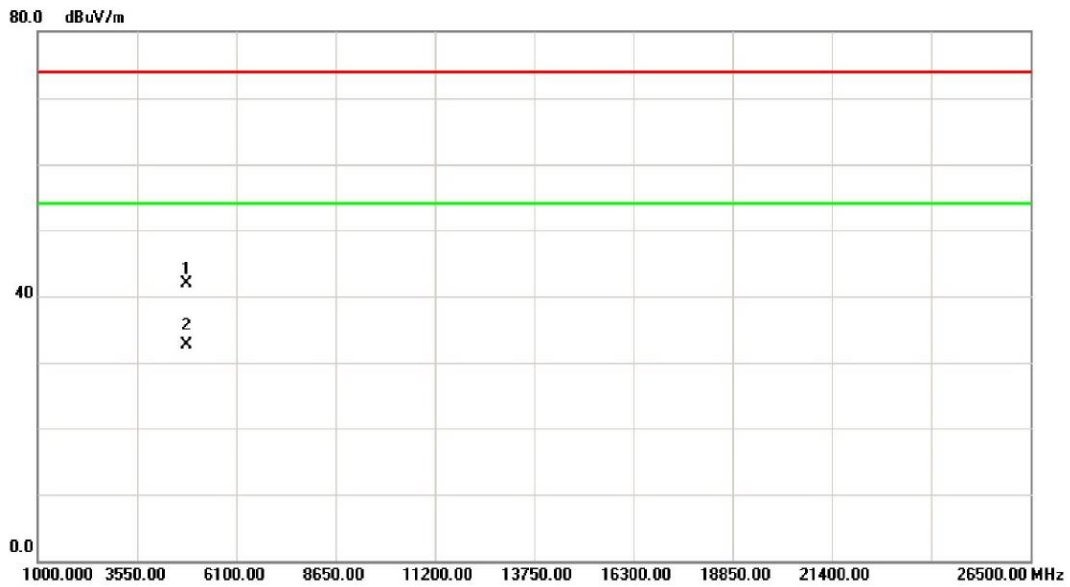
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	27.45	31.88	59.33	74.00	-14.67	peak	
2		2390.000	15.70	31.88	47.58	54.00	-6.42	AVG	
3	*	2413.500	54.76	31.91	86.67	54.00	32.67	AVG	no limit
4	X	2414.000	65.47	31.91	97.38	74.00	23.38	peak	no limit

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

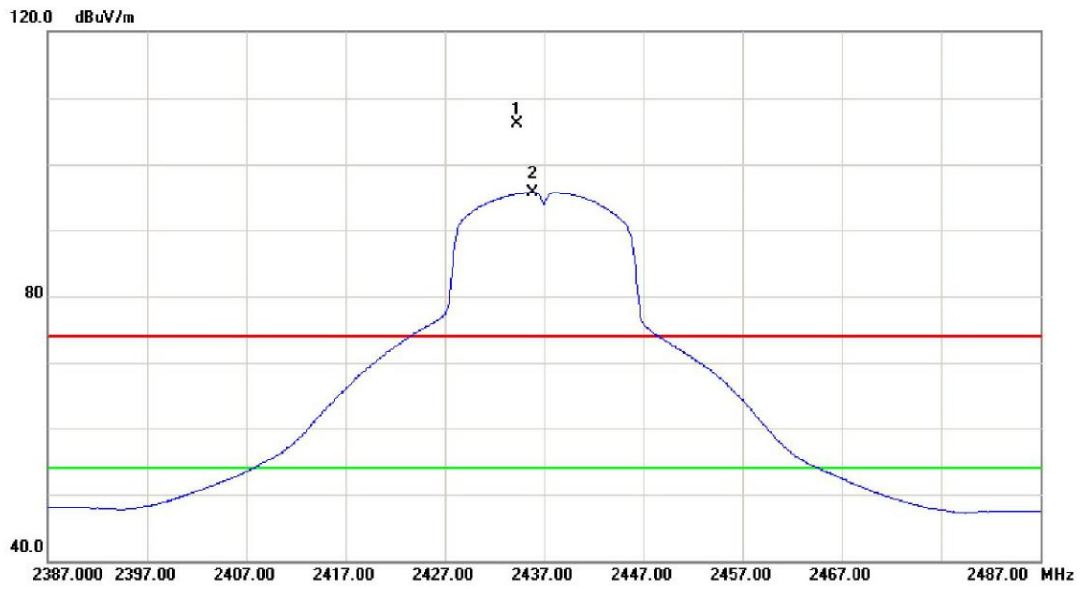
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	38.23	3.62	41.85	74.00	-32.15	peak	
2	*	4824.000	29.02	3.62	32.64	54.00	-21.36	AVG	

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

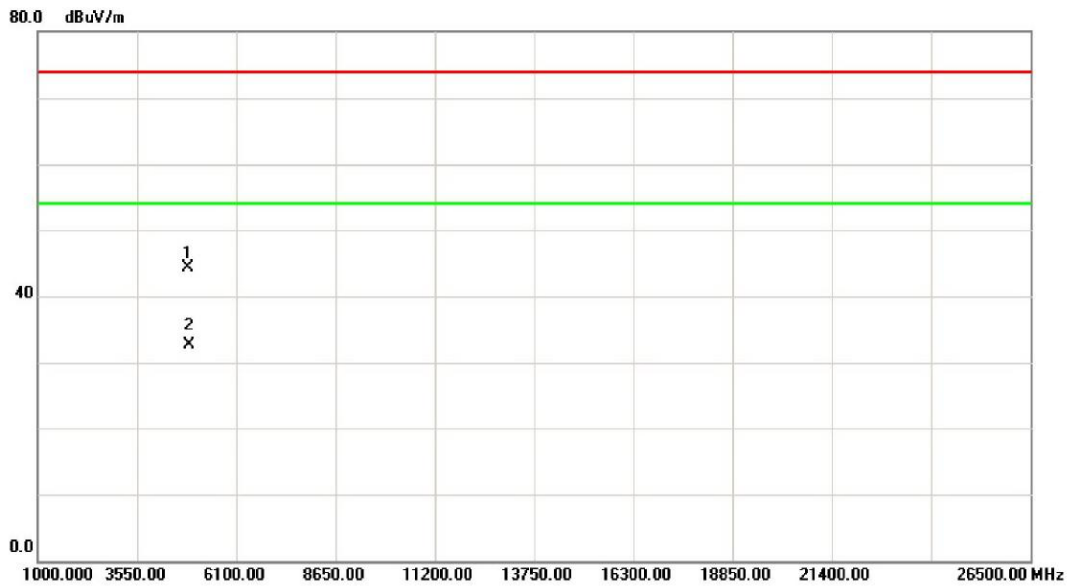
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2434.200	74.08	31.94	106.02	74.00	32.02	peak	no limit
2	*	2435.900	63.81	31.94	95.75	54.00	41.75	AVG	no limit

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

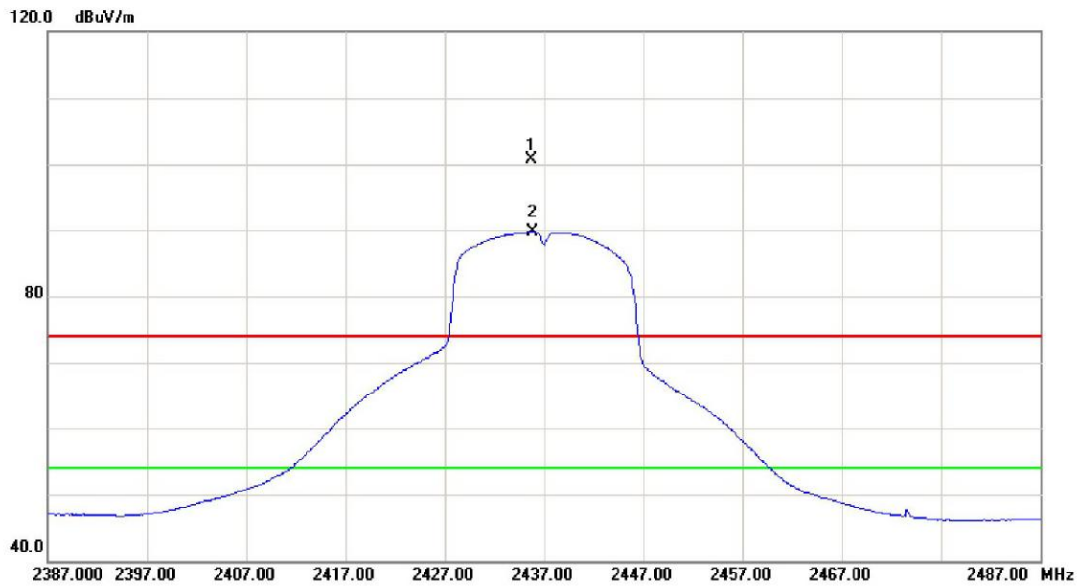
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.100	40.59	3.72	44.31	74.00	-29.69	peak	
2	*	4874.100	28.97	3.72	32.69	54.00	-21.31	AVG	

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

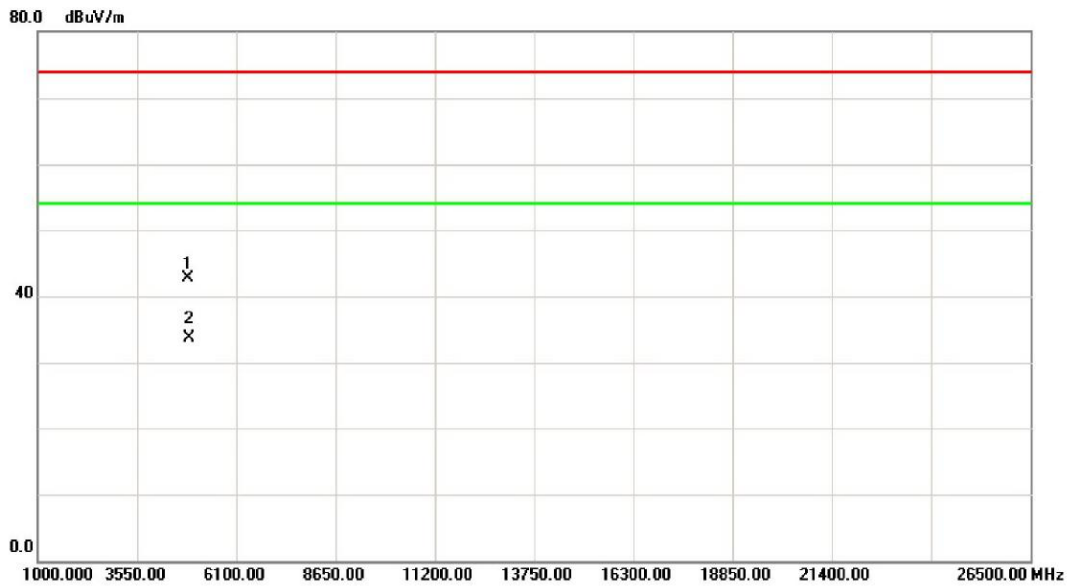
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2435.700	68.70	31.94	100.64	74.00	26.64	peak	no limit
2	*	2435.800	57.72	31.94	89.66	54.00	35.66	AVG	no limit

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

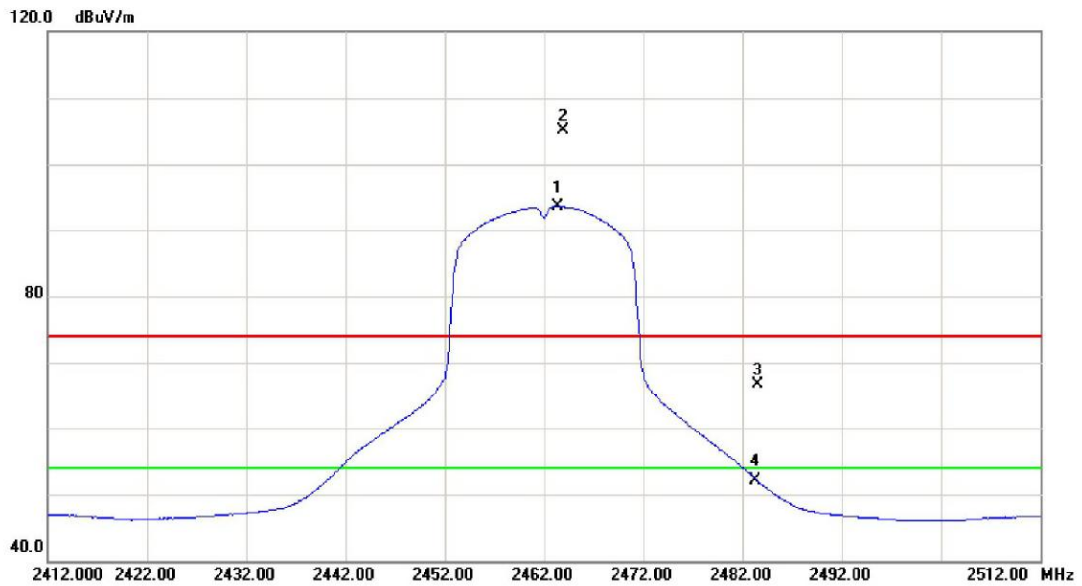
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.500	38.92	3.72	42.64	74.00	-31.36	peak	
2	*	4874.500	29.97	3.72	33.69	54.00	-20.31	AVG	

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

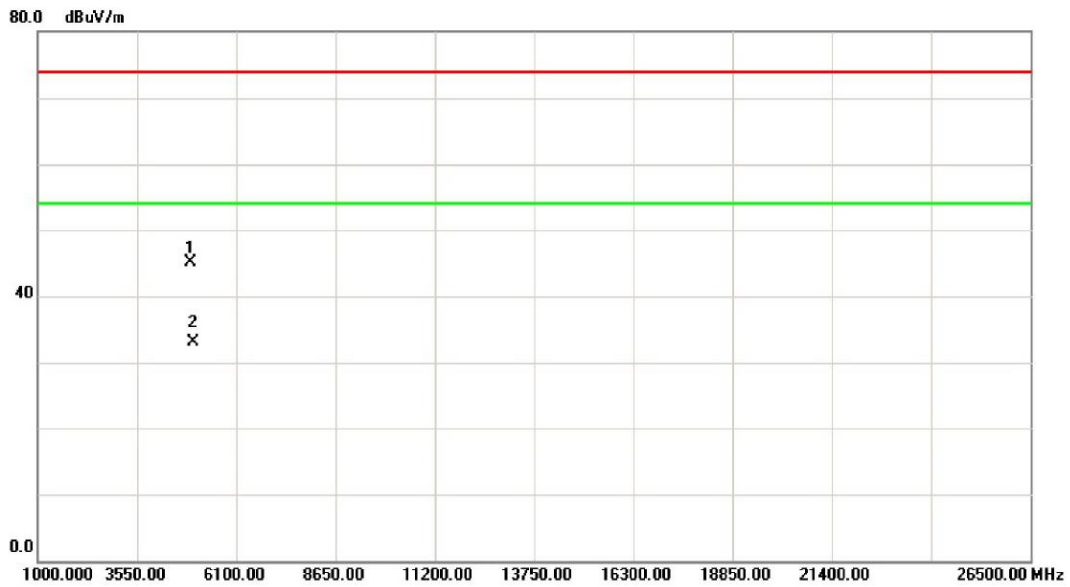
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2463.400	61.54	31.98	93.52	54.00	39.52	AVG	no limit
2	X	2463.900	73.06	31.98	105.04	74.00	31.04	peak	no limit
3		2483.500	34.64	32.01	66.65	74.00	-7.35	peak	
4		2483.500	20.07	32.01	52.08	54.00	-1.92	AVG	

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

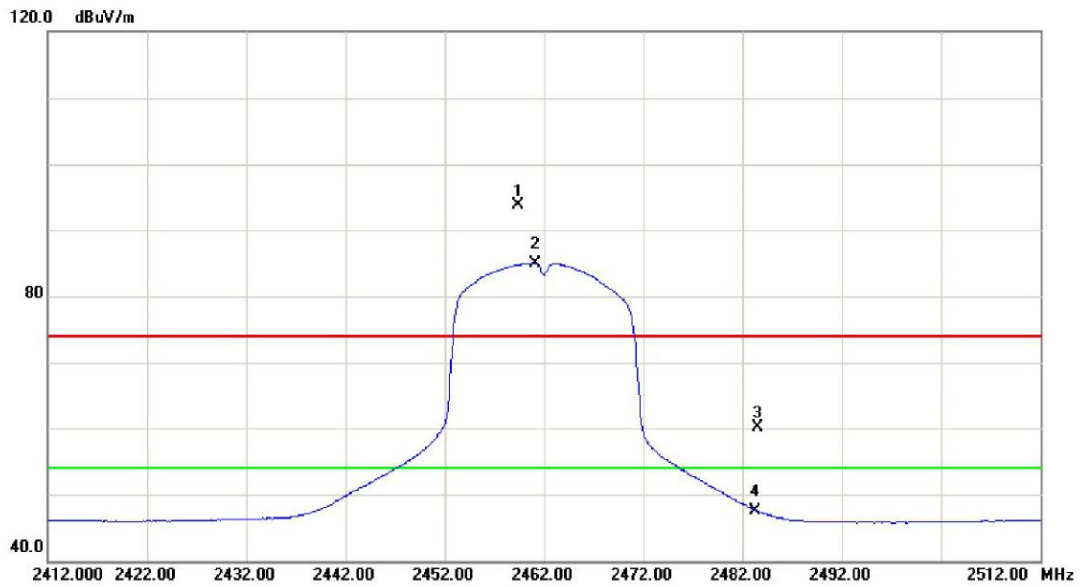
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4923.800	41.29	3.80	45.09	74.00	-28.91	peak	
2	*	4953.900	29.18	3.86	33.04	54.00	-20.96	AVG	

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

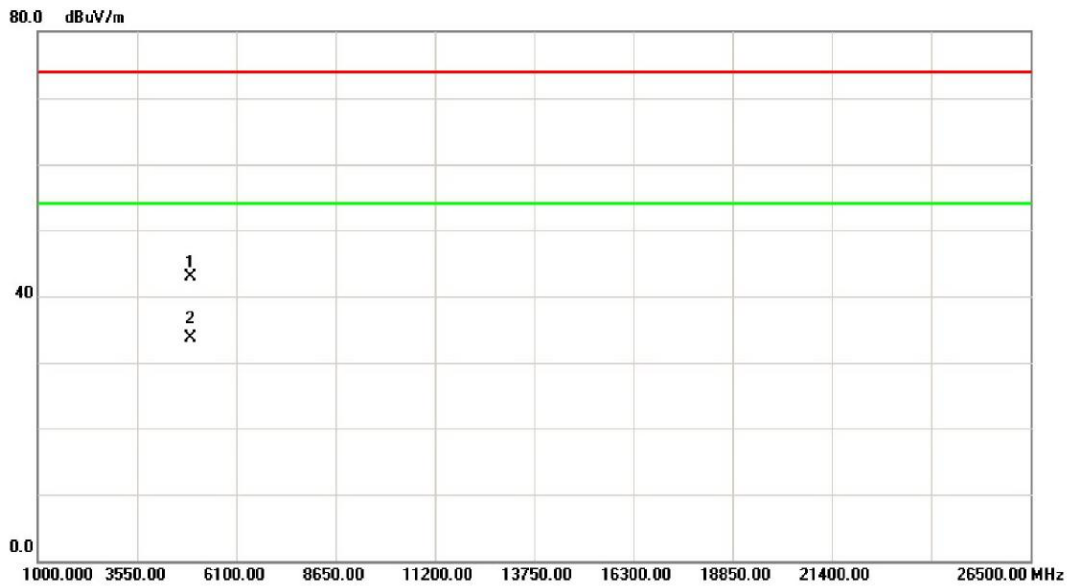
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2459.400	61.68	31.98	93.66	74.00	19.66	peak	no limit
2	*	2461.100	53.02	31.98	85.00	54.00	31.00	AVG	no limit
3		2483.500	28.13	32.01	60.14	74.00	-13.86	peak	
4		2483.500	15.50	32.01	47.51	54.00	-6.49	AVG	

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

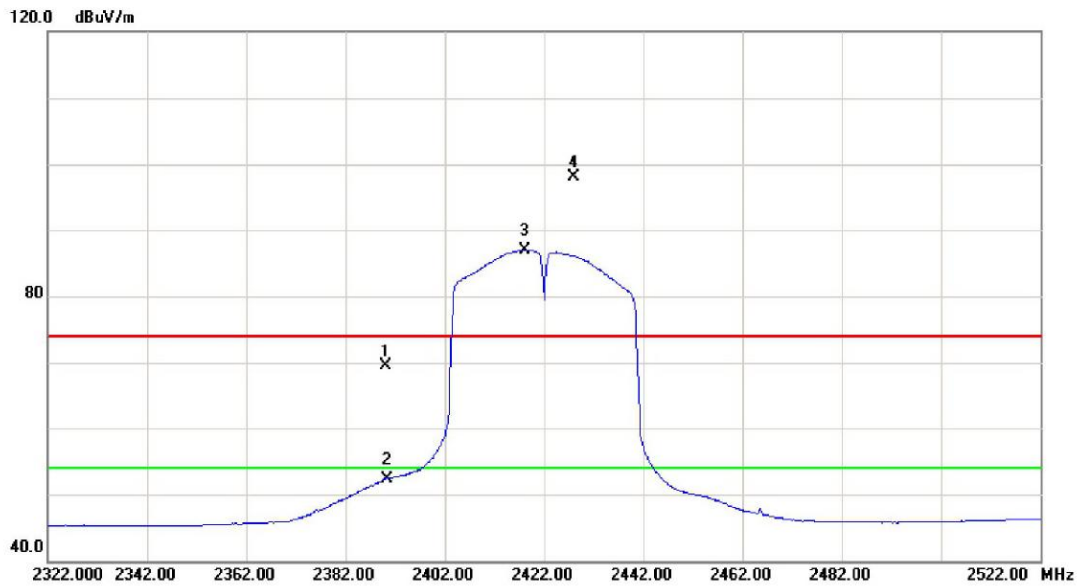
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.200	39.14	3.80	42.94	74.00	-31.06	peak	
2	*	4924.200	29.89	3.80	33.69	54.00	-20.31	AVG	

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

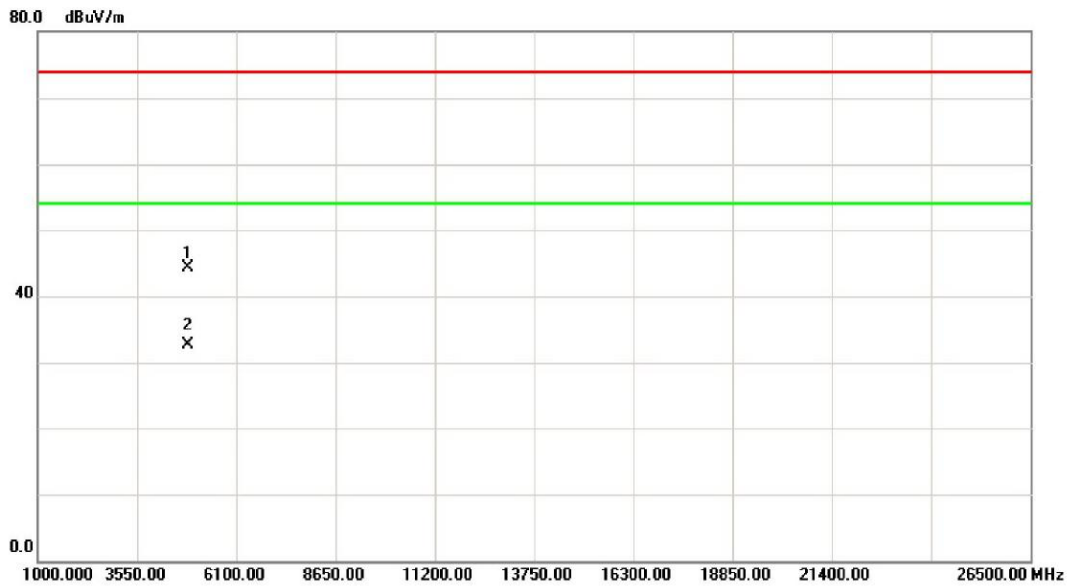
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	37.71	31.88	69.59	74.00	-4.41	peak	
2		2390.000	20.43	31.88	52.31	54.00	-1.69	AVG	
3	*	2418.200	54.96	31.91	86.87	54.00	32.87	AVG	no limit
4	X	2428.000	66.17	31.93	98.10	74.00	24.10	peak	no limit

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

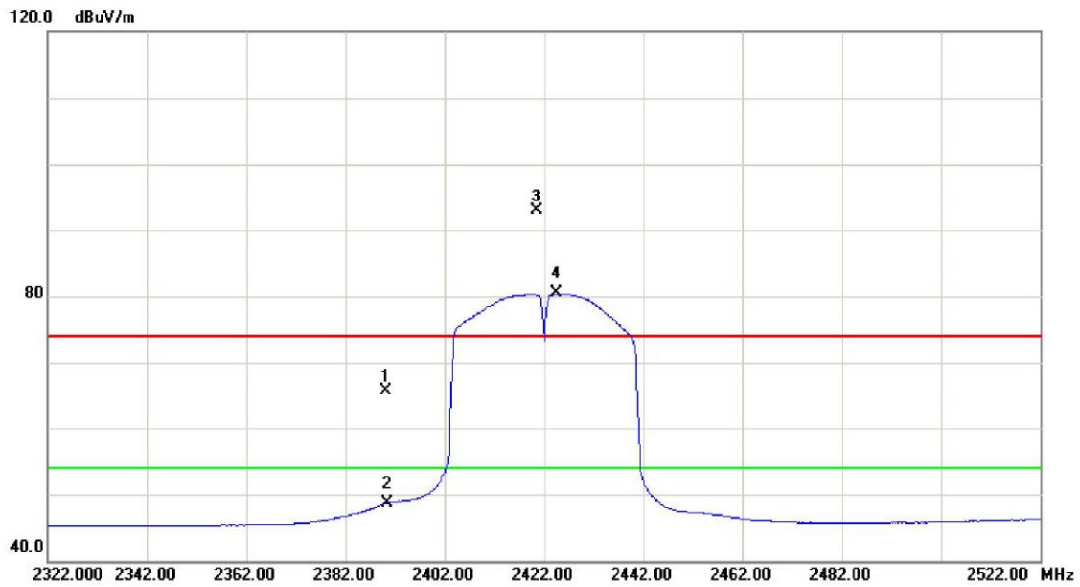
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4844.100	40.68	3.66	44.34	74.00	-29.66	peak	
2	*	4844.100	29.07	3.66	32.73	54.00	-21.27	AVG	

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

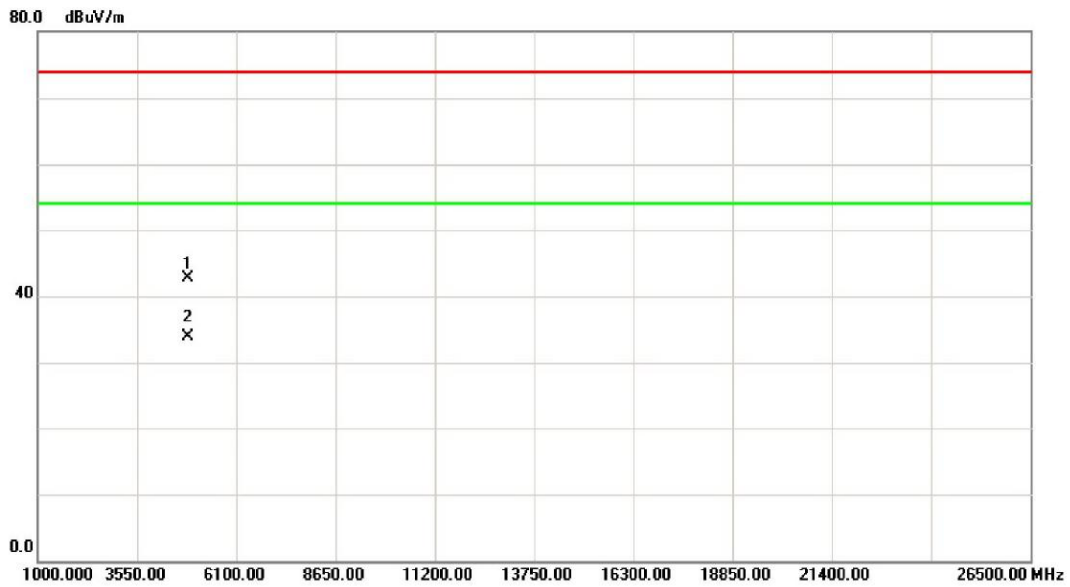
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	33.90	31.88	65.78	74.00	-8.22	peak	
2		2390.000	16.79	31.88	48.67	54.00	-5.33	AVG	
3	X	2420.400	61.02	31.92	92.94	74.00	18.94	peak	no limit
4	*	2424.400	48.47	31.93	80.40	54.00	26.40	AVG	no limit

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

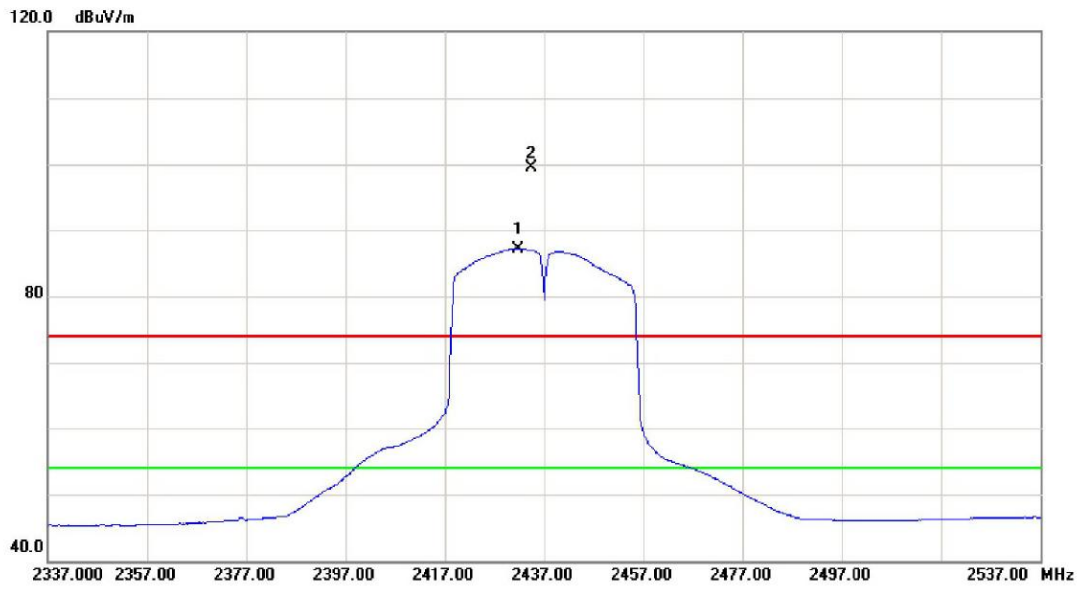
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4843.500	39.12	3.66	42.78	74.00	-31.22	peak	
2	*	4843.500	30.24	3.66	33.90	54.00	-20.10	AVG	

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

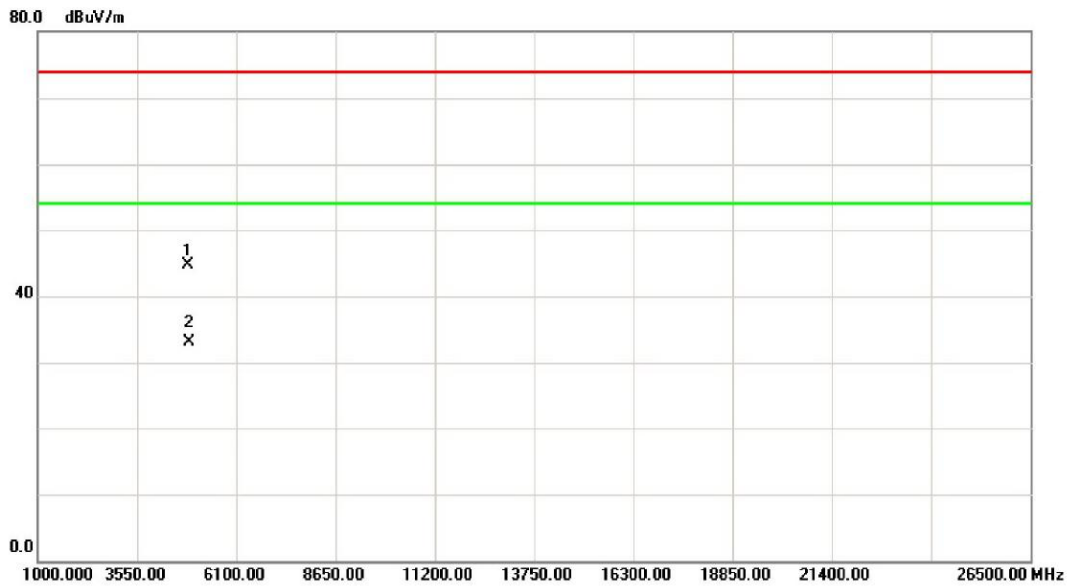
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2431.800	55.18	31.94	87.12	54.00	33.12	AVG	no limit
2	X	2434.400	67.53	31.94	99.47	74.00	25.47	peak	no limit

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

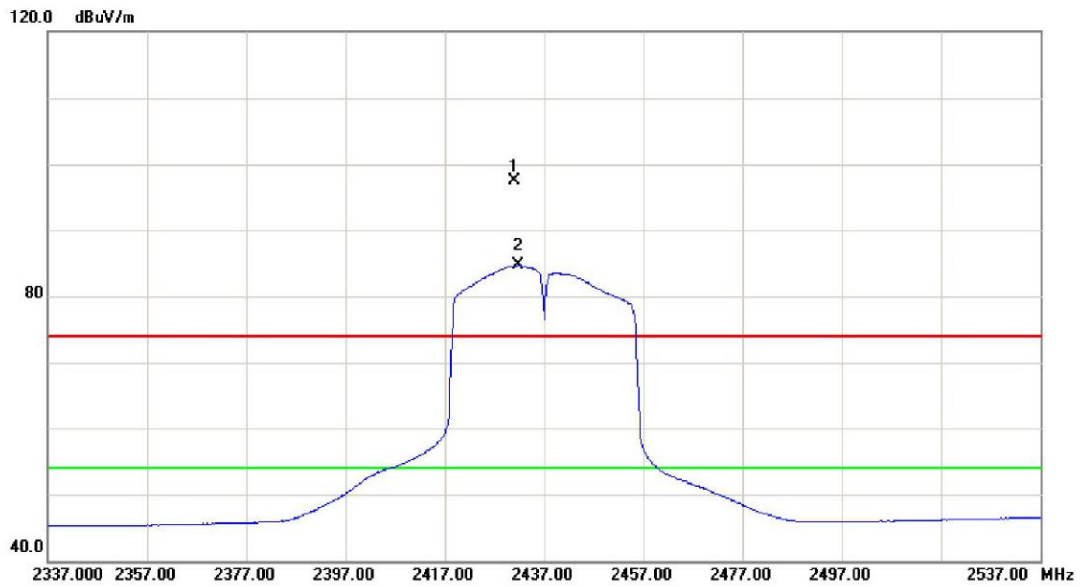
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4873.900	40.89	3.72	44.61	74.00	-29.39	peak	
2	*	4873.900	29.36	3.72	33.08	54.00	-20.92	AVG	

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

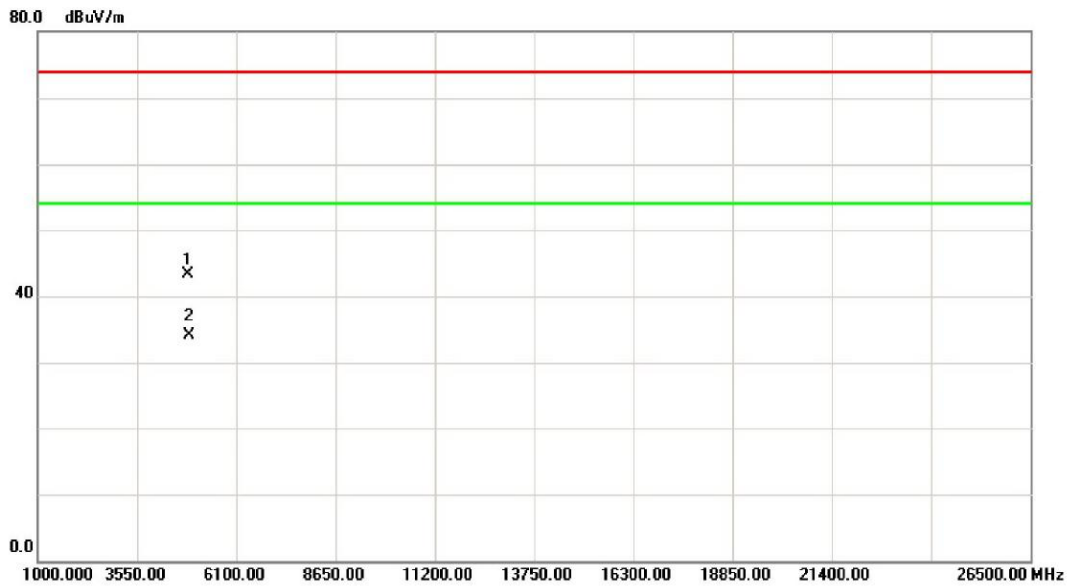
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2431.000	65.53	31.93	97.46	74.00	23.46	peak	no limit
2	*	2431.800	52.67	31.94	84.61	54.00	30.61	AVG	no limit

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

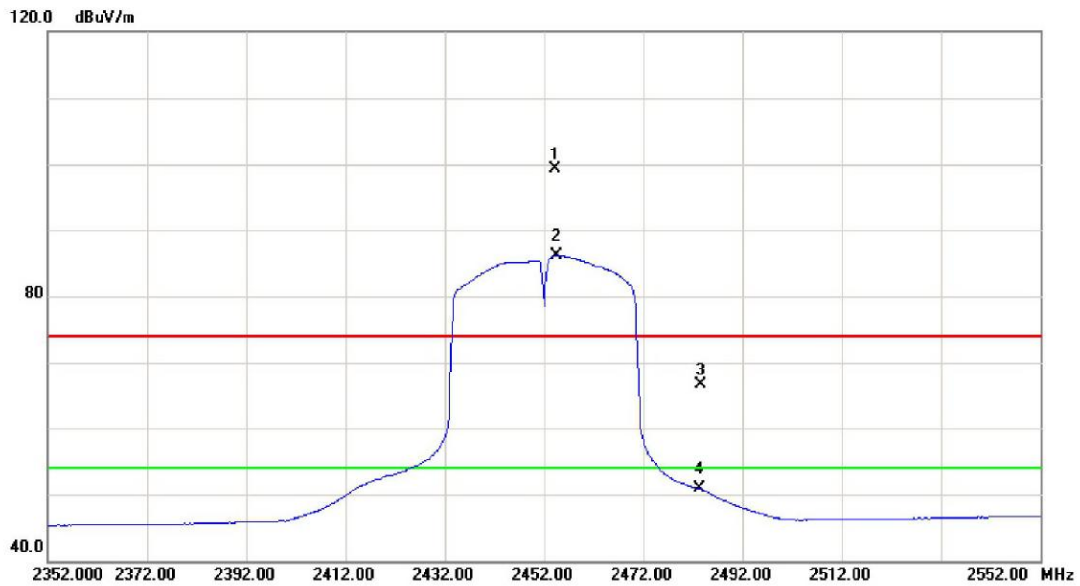
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.300	39.52	3.72	43.24	74.00	-30.76	peak	
2	*	4874.300	30.36	3.72	34.08	54.00	-19.92	AVG	

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

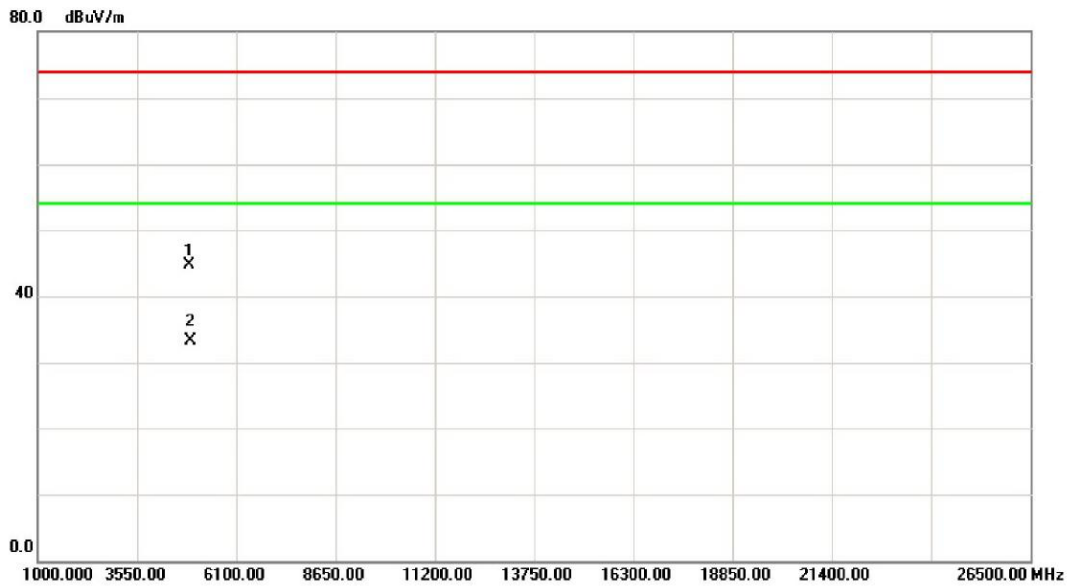
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2454.200	67.40	31.96	99.36	74.00	25.36	peak	no limit
2	*	2454.600	54.16	31.96	86.12	54.00	32.12	AVG	no limit
3		2483.500	34.78	32.01	66.79	74.00	-7.21	peak	
4		2483.500	18.84	32.01	50.85	54.00	-3.15	AVG	

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

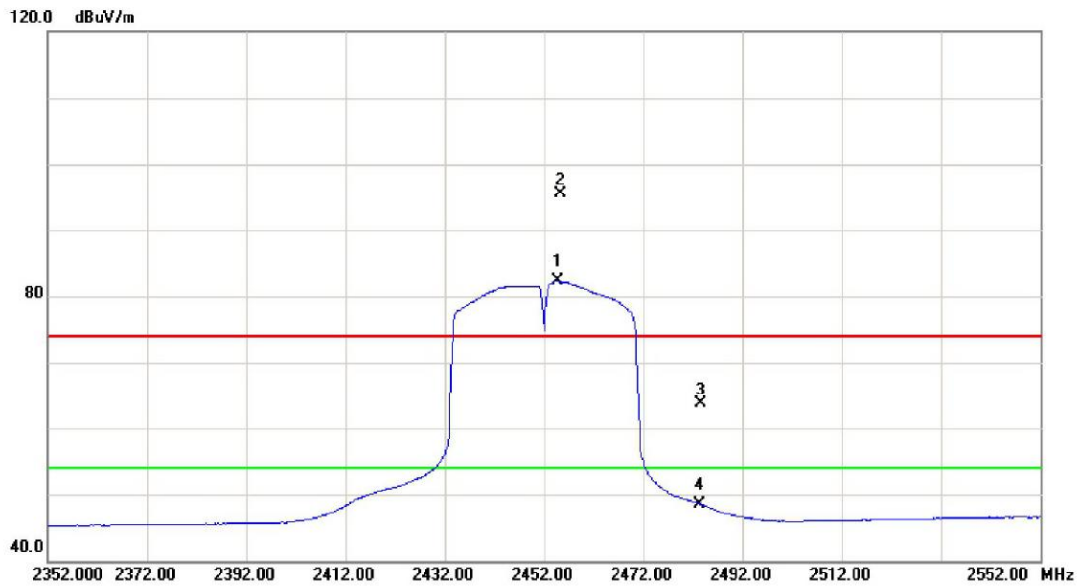
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4903.800	40.87	3.77	44.64	74.00	-29.36	peak	
2	*	4903.800	29.63	3.77	33.40	54.00	-20.60	AVG	

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

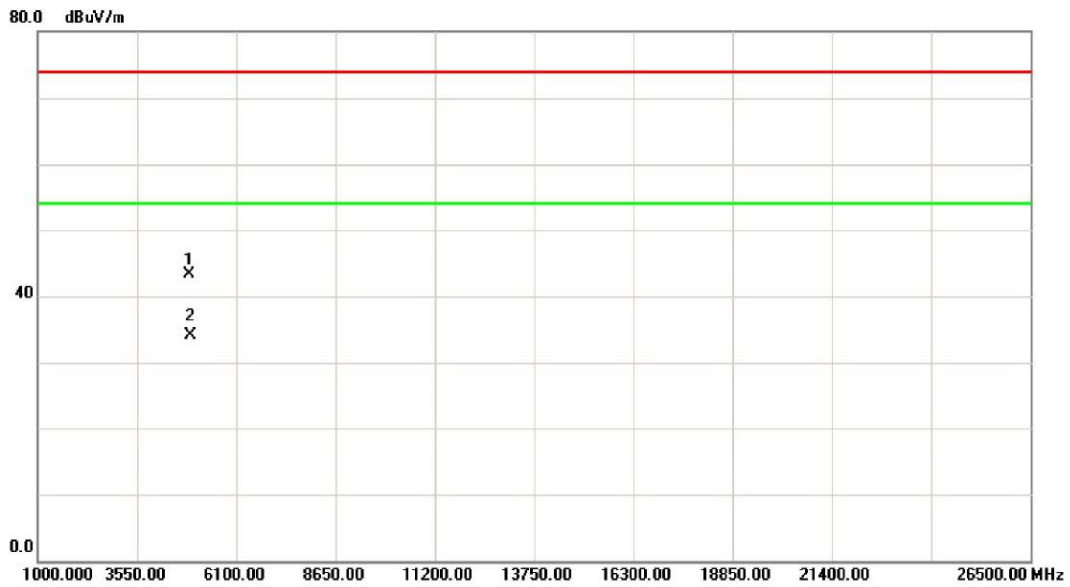
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2454.800	50.32	31.96	82.28	54.00	28.28	AVG	no limit
2	X	2455.200	63.56	31.96	95.52	74.00	21.52	peak	no limit
3		2483.500	31.60	32.01	63.61	74.00	-10.39	peak	
4		2483.500	16.47	32.01	48.48	54.00	-5.52	AVG	

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

Horizontal



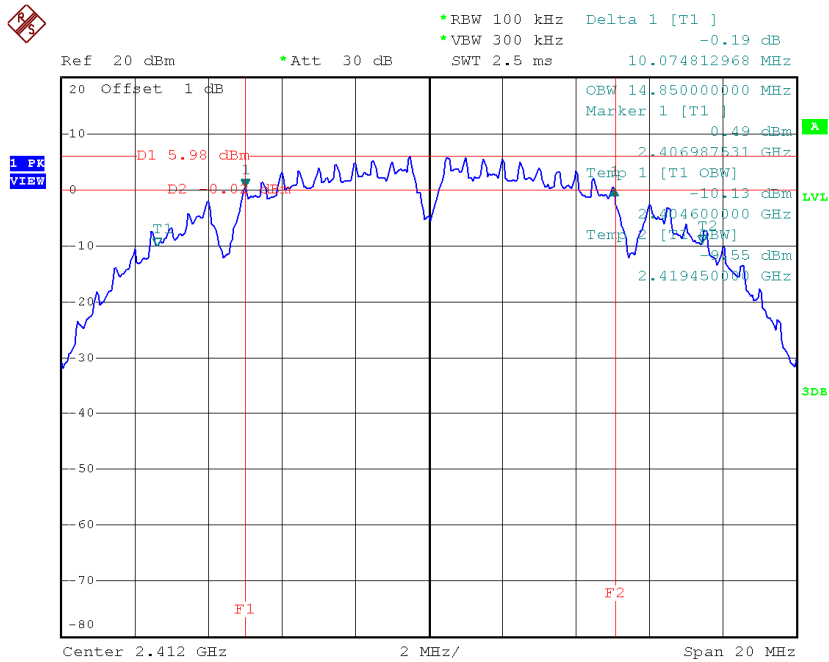
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4904.200	39.56	3.77	43.33	74.00	-30.67	peak	
2	*	4904.200	30.24	3.77	34.01	54.00	-19.99	AVG	

ATTACHMENT E - BANDWIDTH

Test Mode : TX B Mode_CH01/06/11

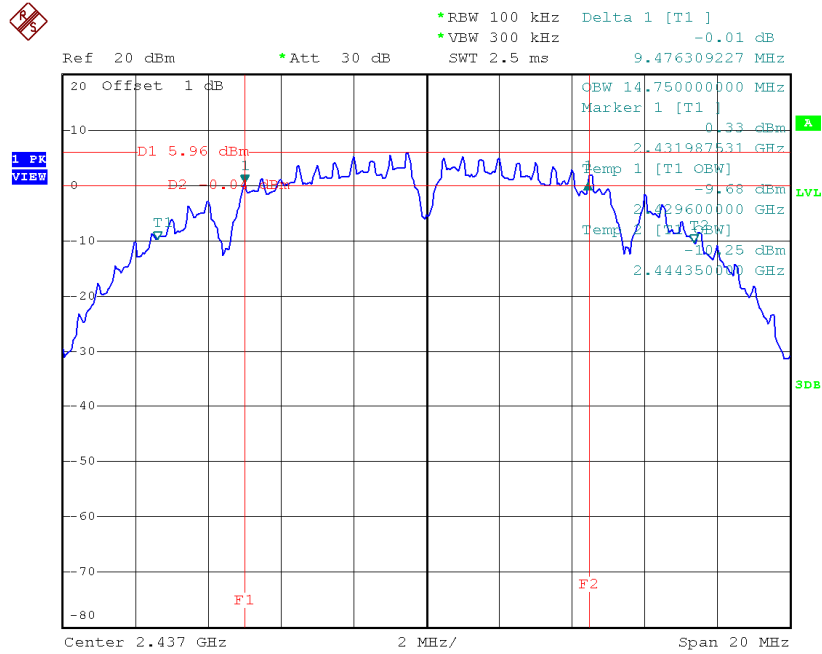
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.07	14.85	500	Complies
2437	9.48	14.75	500	Complies
2462	9.98	14.85	500	Complies

TX CH01



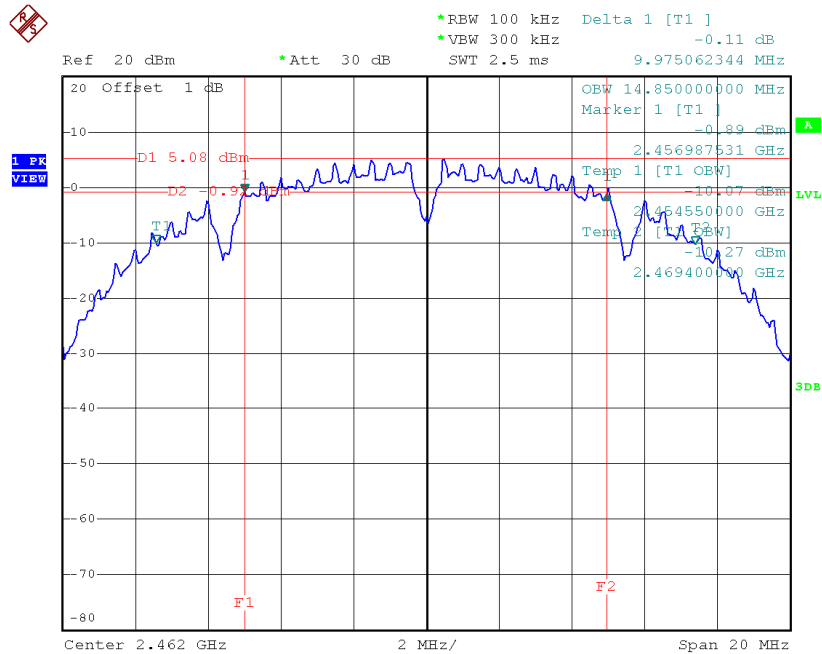
Date: 20.SEP.2014 16:32:48

TX CH06



Date: 20.SEP.2014 16:34:40

TX CH11

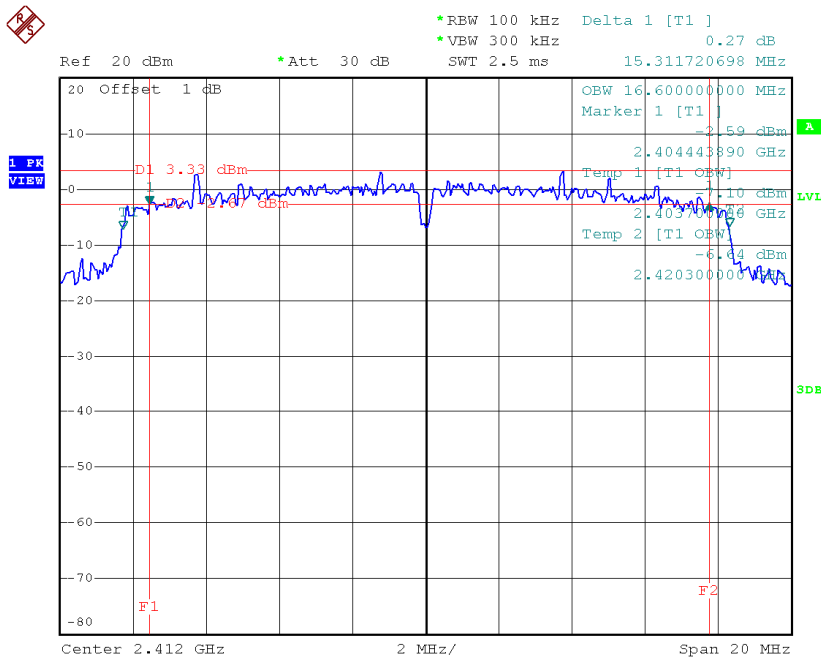


Date: 20.SEP.2014 16:35:56

Test Mode: TX G Mode_CH01/06/11

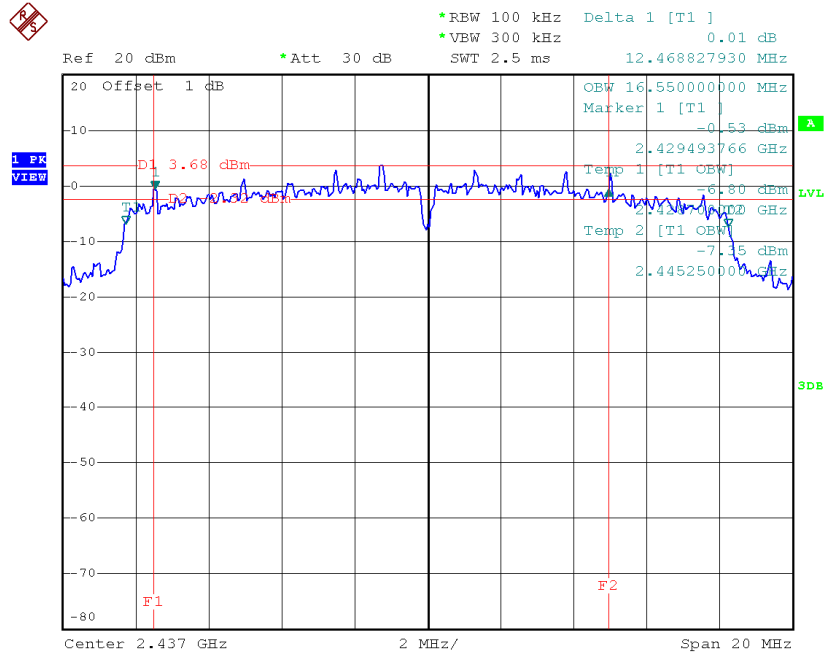
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	15.31	16.60	500	Complies
2437	12.47	16.55	500	Complies
2462	15.06	16.50	500	Complies

TX CH01



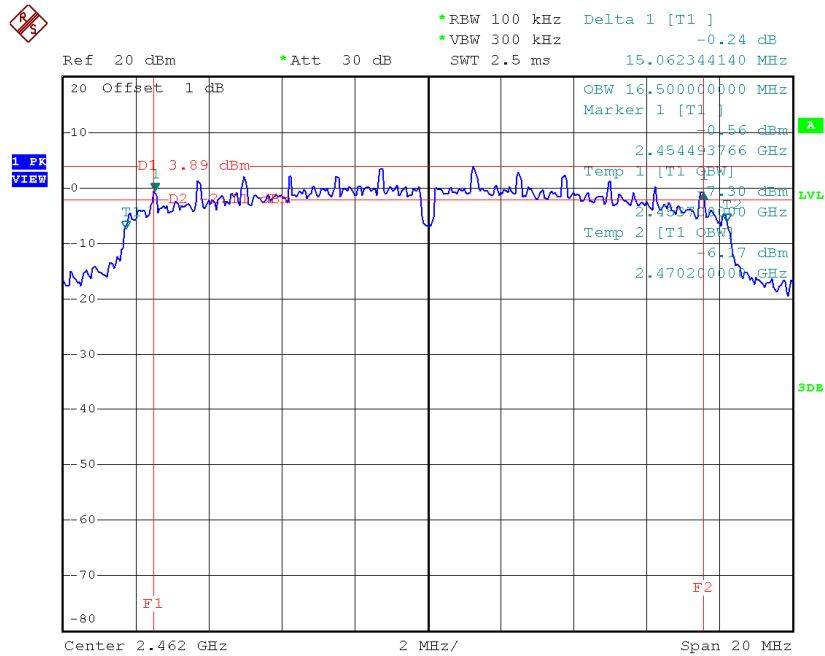
Date: 20.SEP.2014 16:38:08

TX CH06



Date: 20.SEP.2014 16:39:57

TX CH11

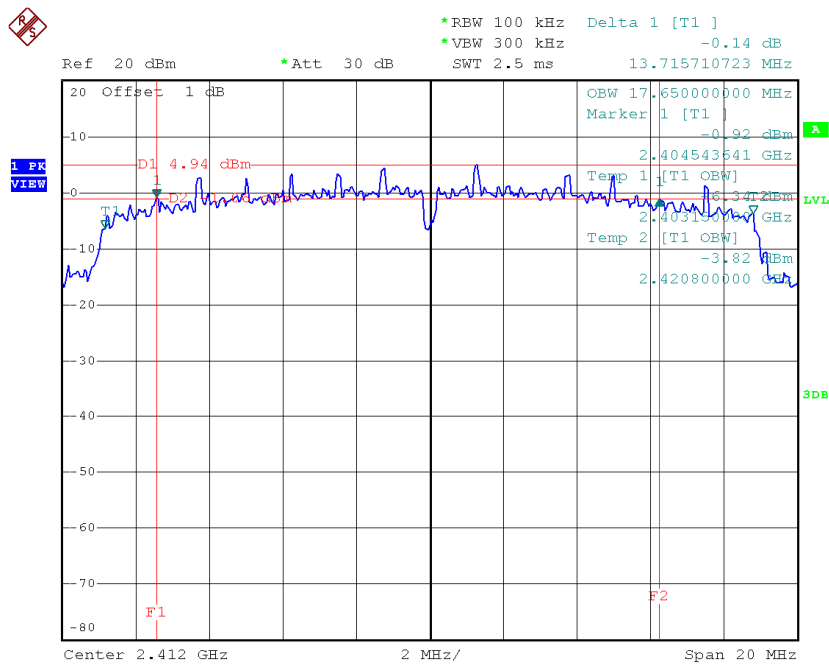


Date: 20.SEP.2014 16:41:07

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

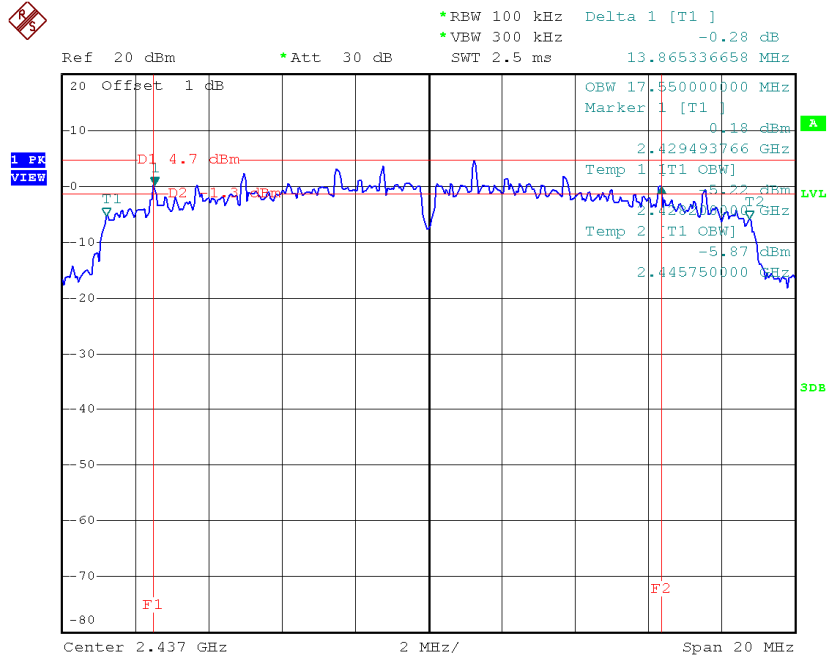
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	13.72	17.65	500	Complies
2437	13.87	17.55	500	Complies
2462	15.06	17.60	500	Complies

TX CH01



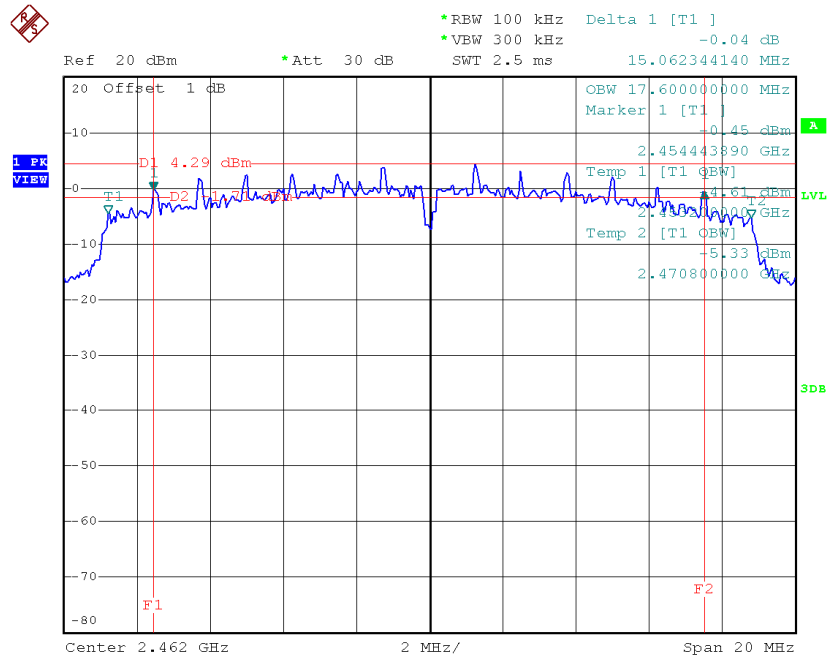
Date: 20.SEP.2014 16:42:43

TX CH06



Date: 20.SEP.2014 16:44:28

TX CH11

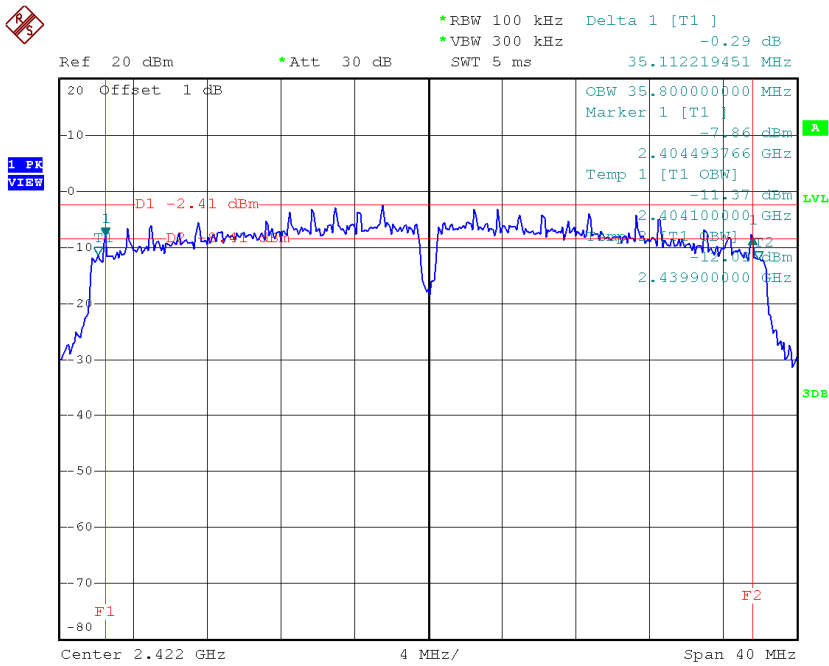


Date: 20.SEP.2014 16:46:09

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

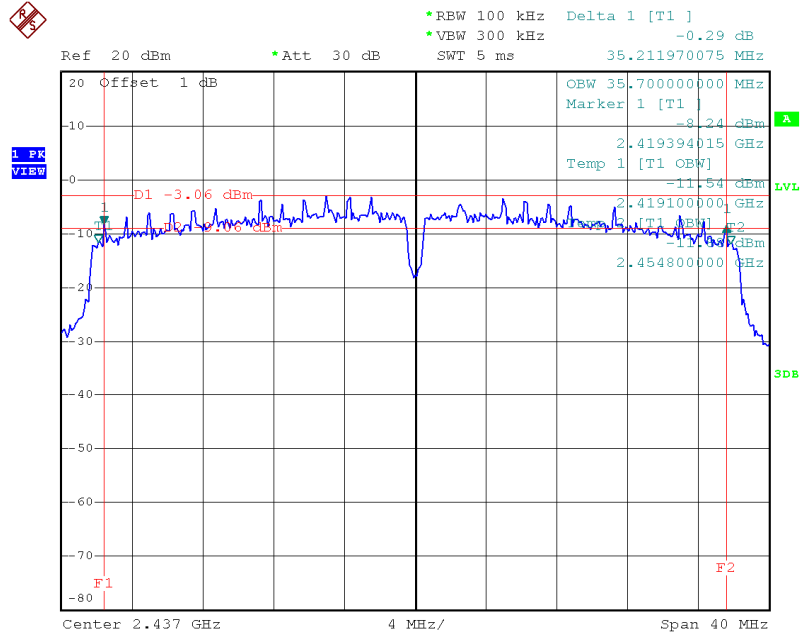
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.11	35.80	500	Complies
2437	35.21	35.70	500	Complies
2452	35.21	35.70	500	Complies

TX CH03



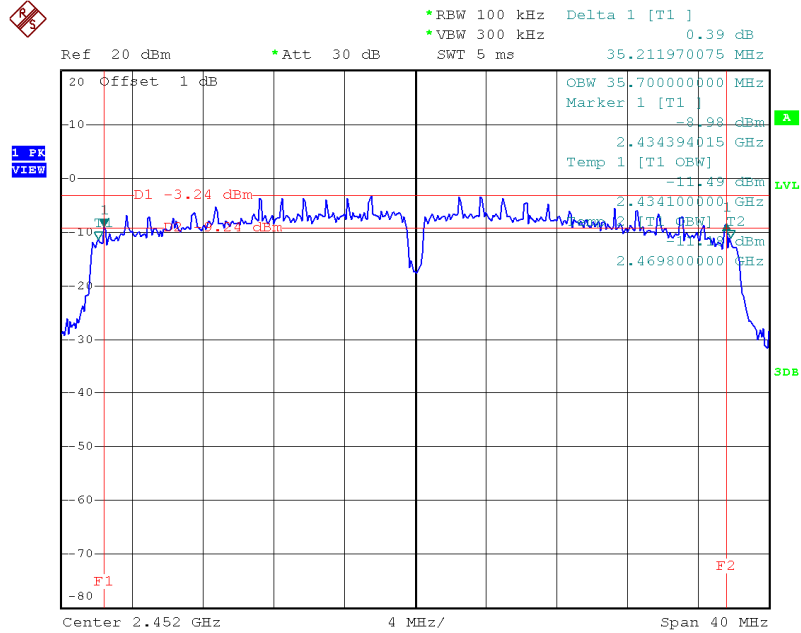
Date: 20.SEP.2014 16:47:51

TX CH06



Date: 20.SEP.2014 16:49:23

TX CH09



Date: 20.SEP.2014 16:50:44

ATTACHMENT F - MAXIMUM OUTPUT POWER

Test Mode :TX B Mode_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	17.42	0.06	30.00	1.00	Complies
2437	17.28	0.05	30.00	1.00	Complies
2462	17.18	0.05	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	17.67	0.06	30.00	1.00	Complies
2437	20.25	0.11	30.00	1.00	Complies
2462	17.82	0.06	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	16.92	0.05	30.00	1.00	Complies
2437	20.35	0.11	30.00	1.00	Complies
2462	16.94	0.05	30.00	1.00	Complies

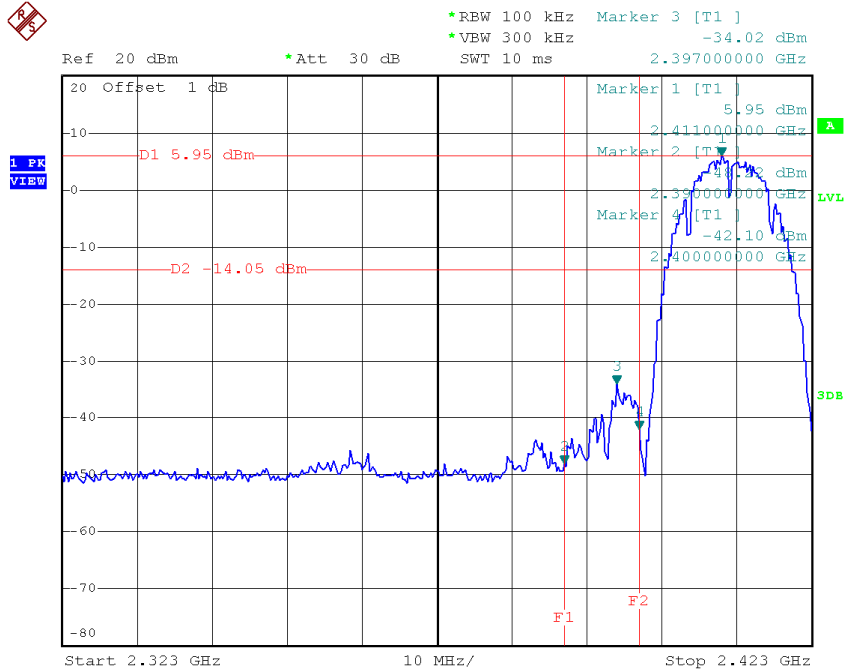
Test Mode :TX N40 Mode_CH03/06/09

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	14.73	0.03	30.00	1.00	Complies
2437	14.31	0.03	30.00	1.00	Complies
2452	14.12	0.03	30.00	1.00	Complies

**ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS
EMISSION**

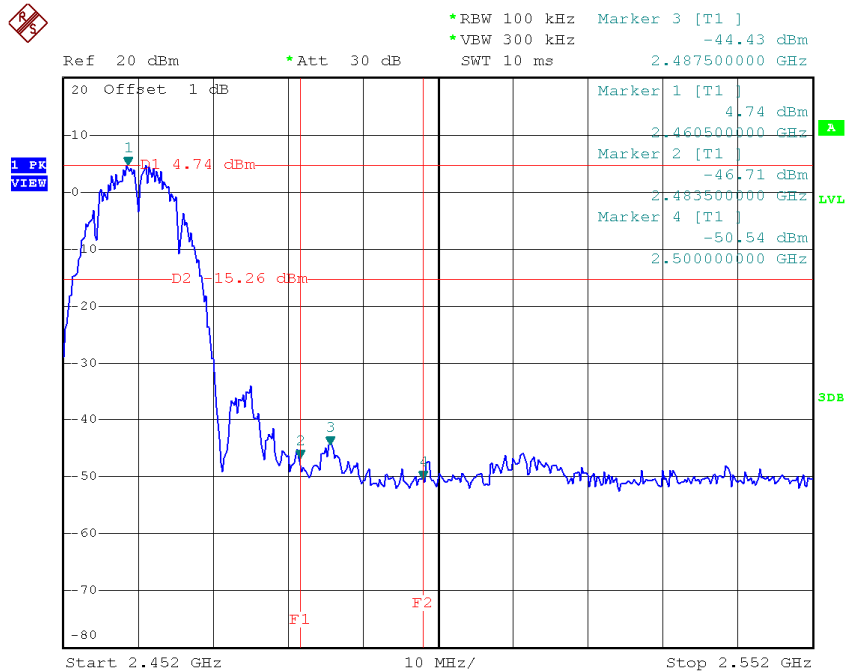
Test Mode :	TX B Mode
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TX B mode CH01



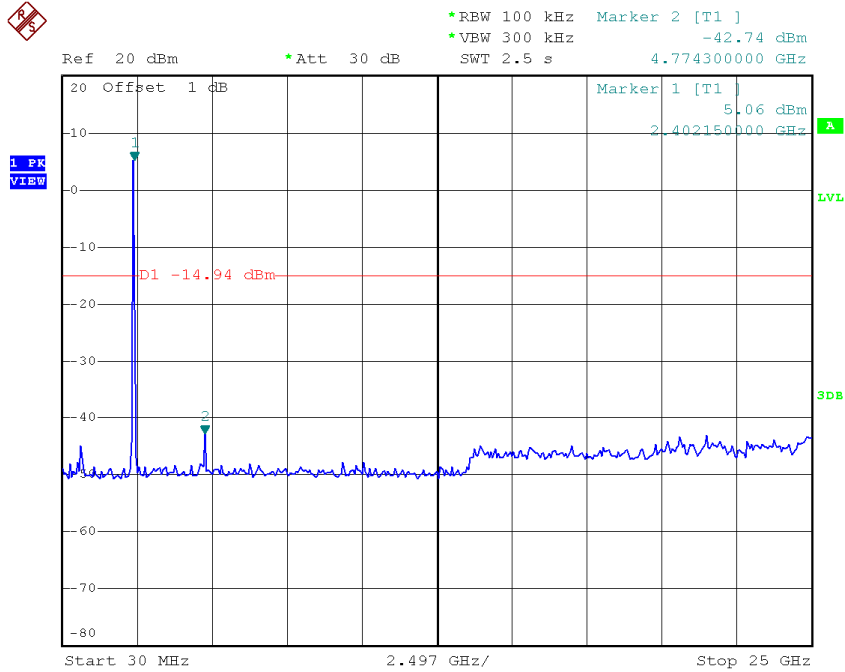
Date: 20.SEP.2014 16:33:08

TX B mode CH11



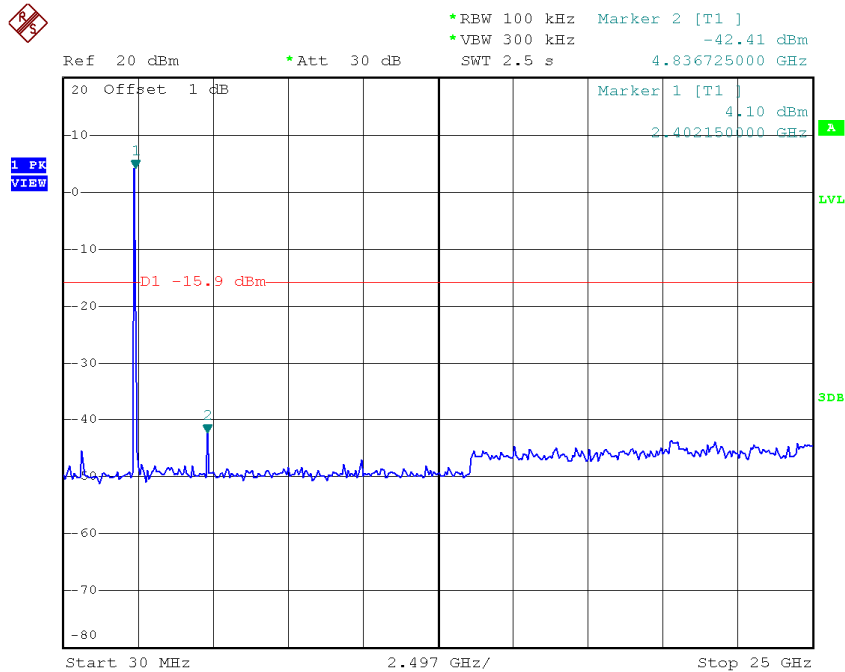
Date: 20.SEP.2014 16:36:08

TX B mode CH01 (10 Harmonic of the frequency)



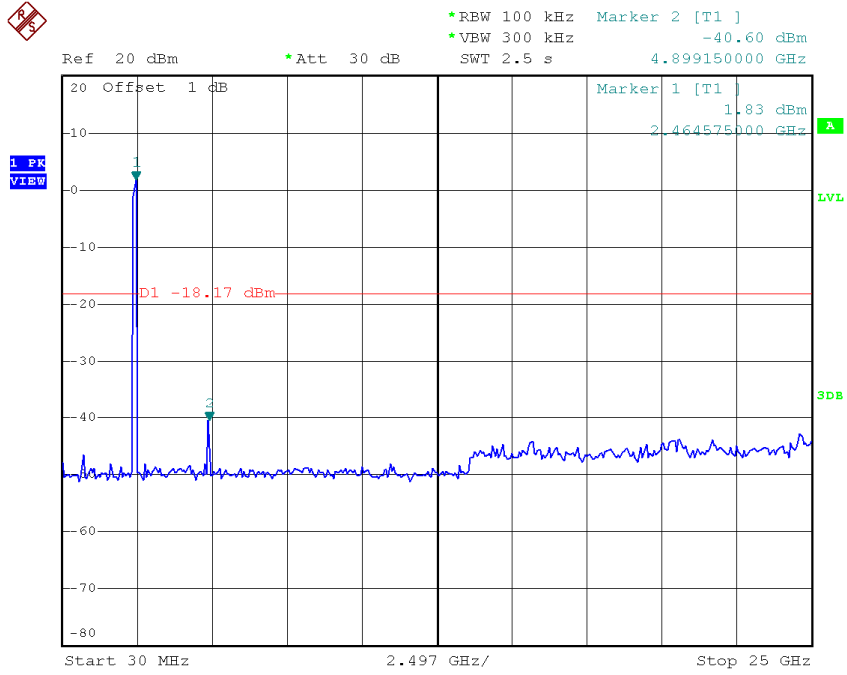
Date: 20.SEP.2014 16:32:29

TX B mode CH06 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:34:22

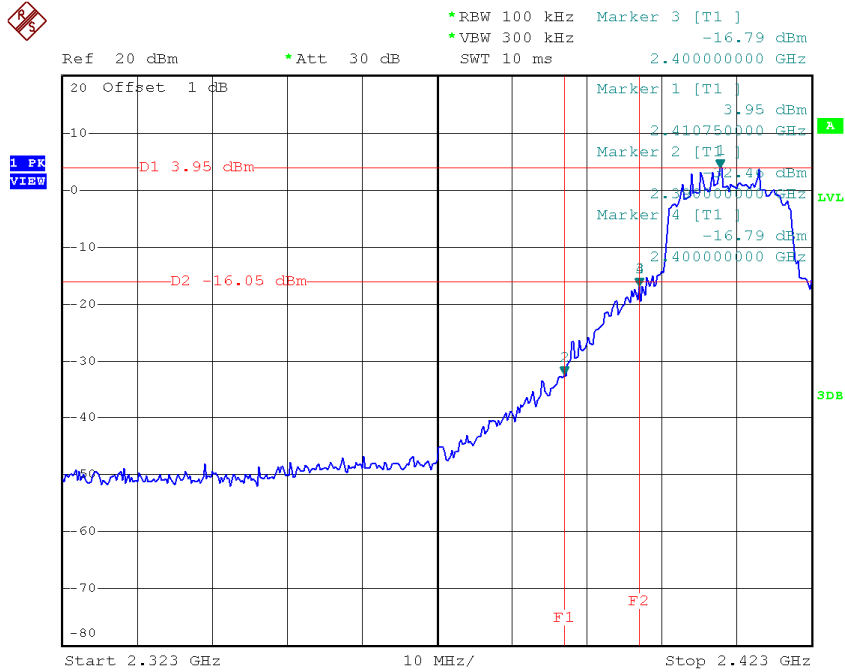
TX B mode CH11 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:35:37

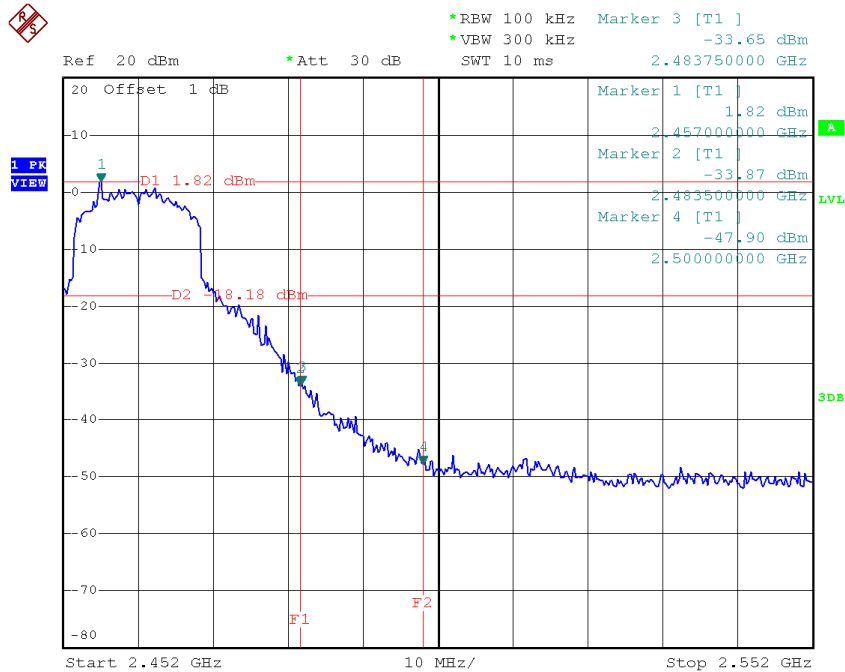
Test Mode :	TX G Mode
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TX G mode CH01



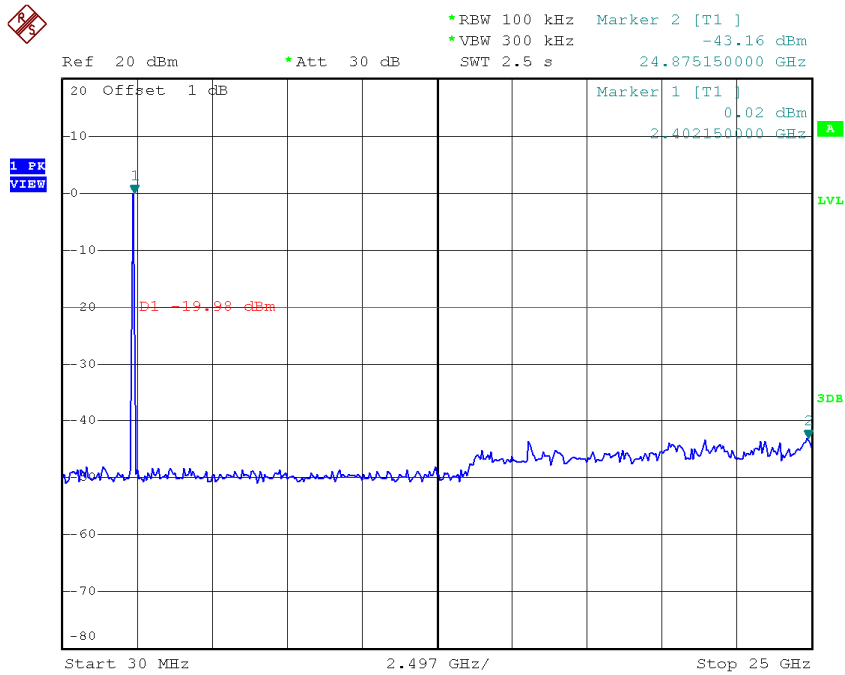
Date: 20.SEP.2014 16:38:23

TX G mode CH11



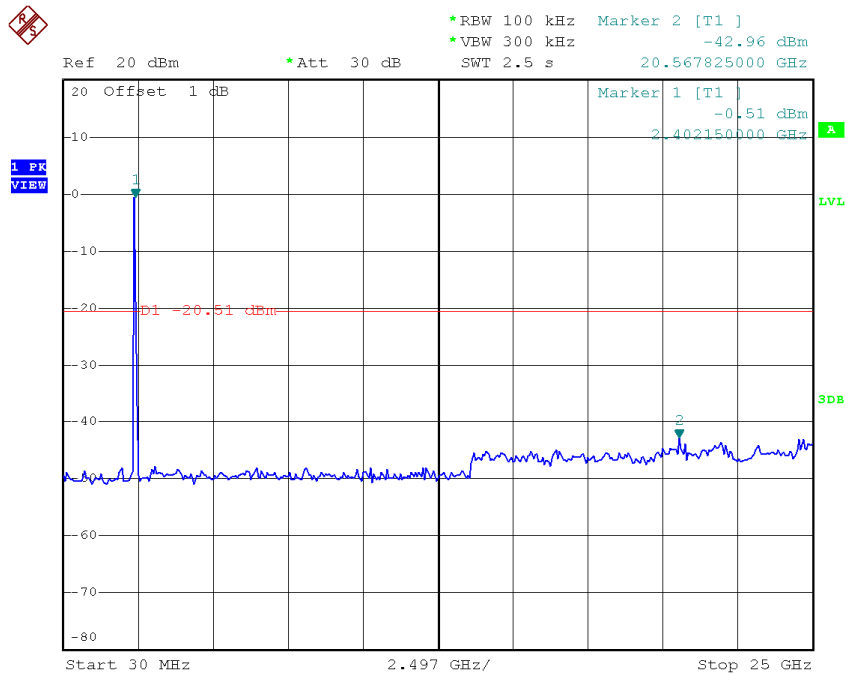
Date: 20.SEP.2014 16:41:20

TX G mode CH01 (10 Harmonic of the frequency)



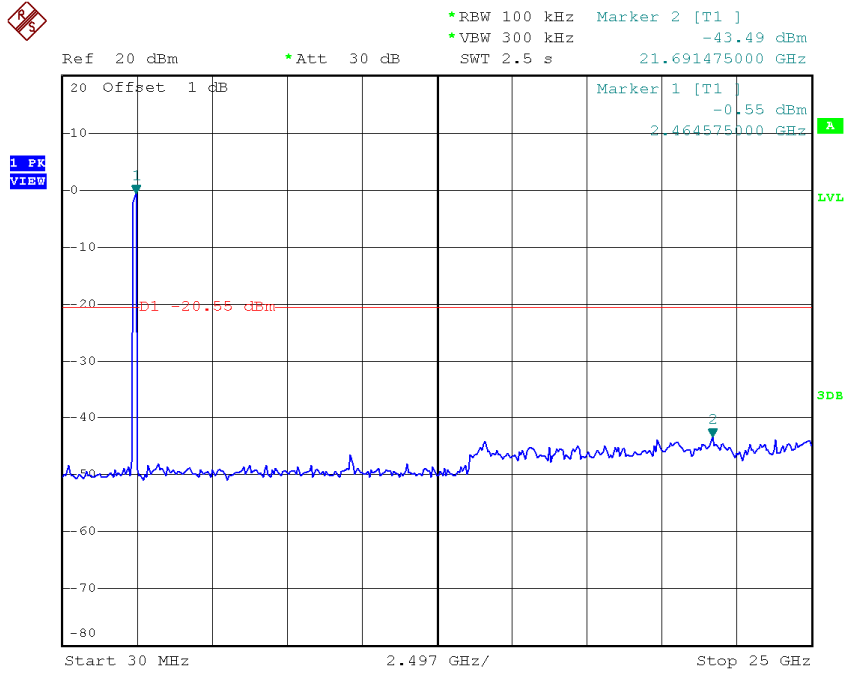
Date: 20.SEP.2014 16:37:44

TX G mode CH06 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:39:22

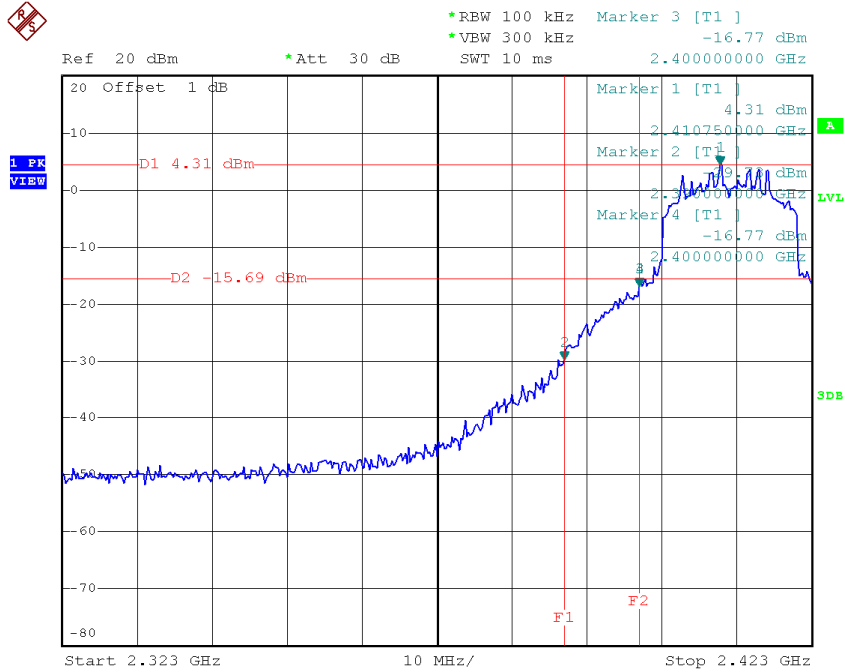
TX G mode CH11 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:40:44

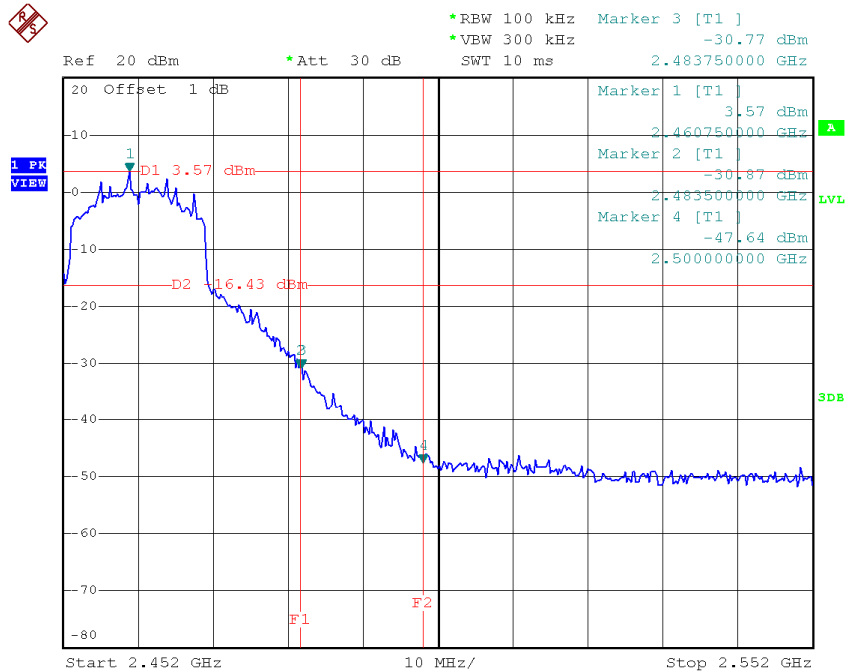
Test Mode :	TX N-20M Mode
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TX HT20 mode CH01



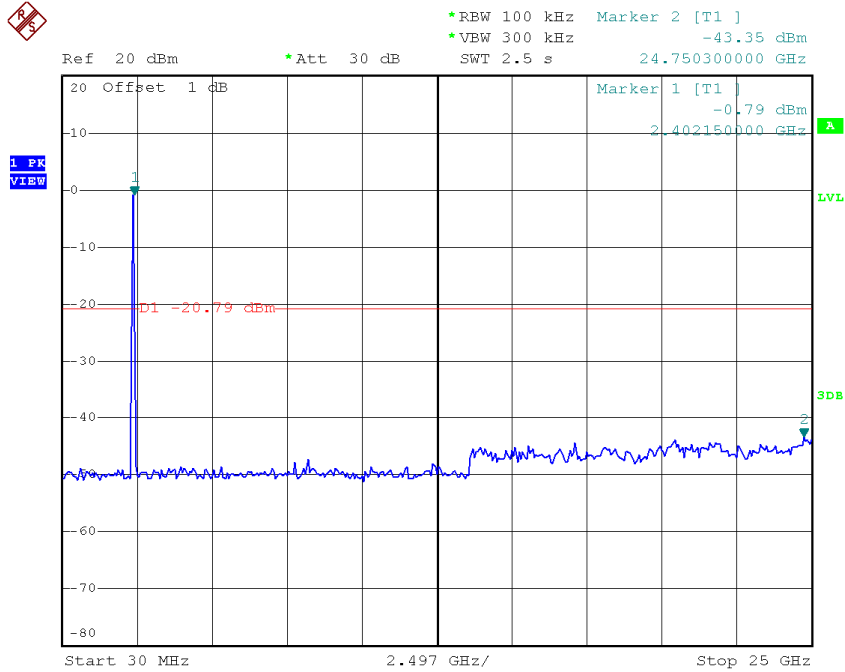
Date: 20.SEP.2014 16:43:01

TX HT20 mode CH11



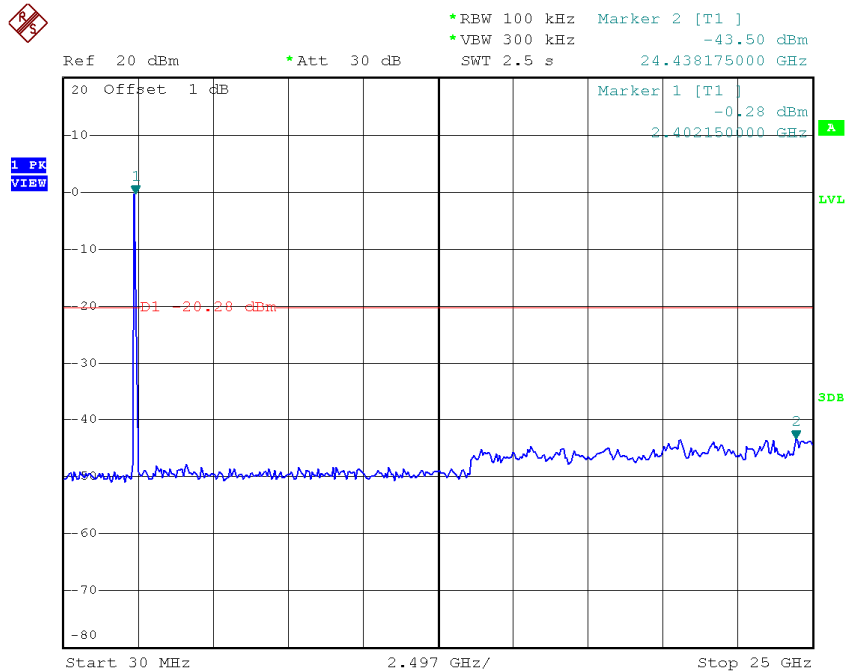
Date: 20.SEP.2014 16:46:24

TX HT20 mode CH01 (10 Harmonic of the frequency)



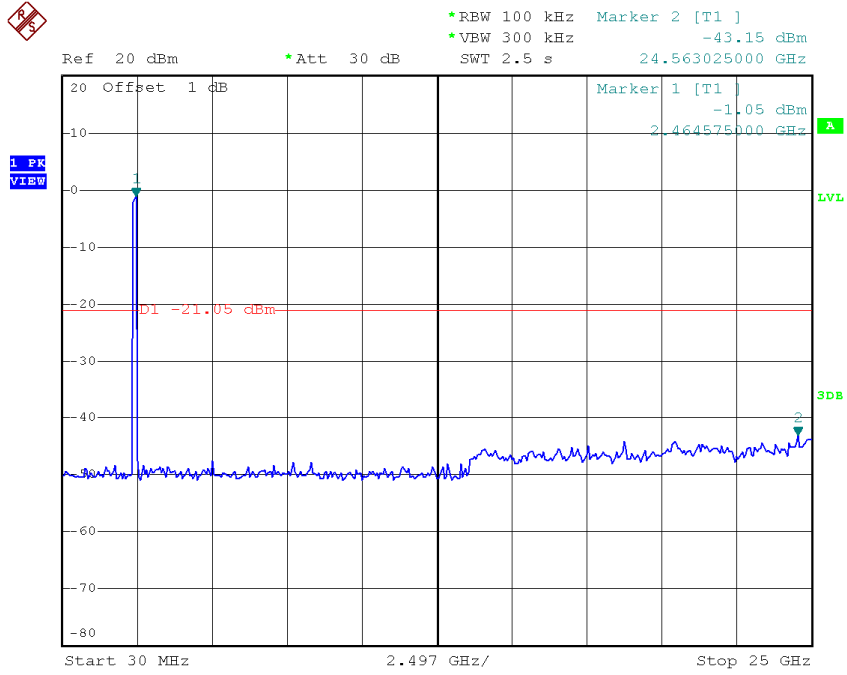
Date: 20.SEP.2014 16:42:23

TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:43:58

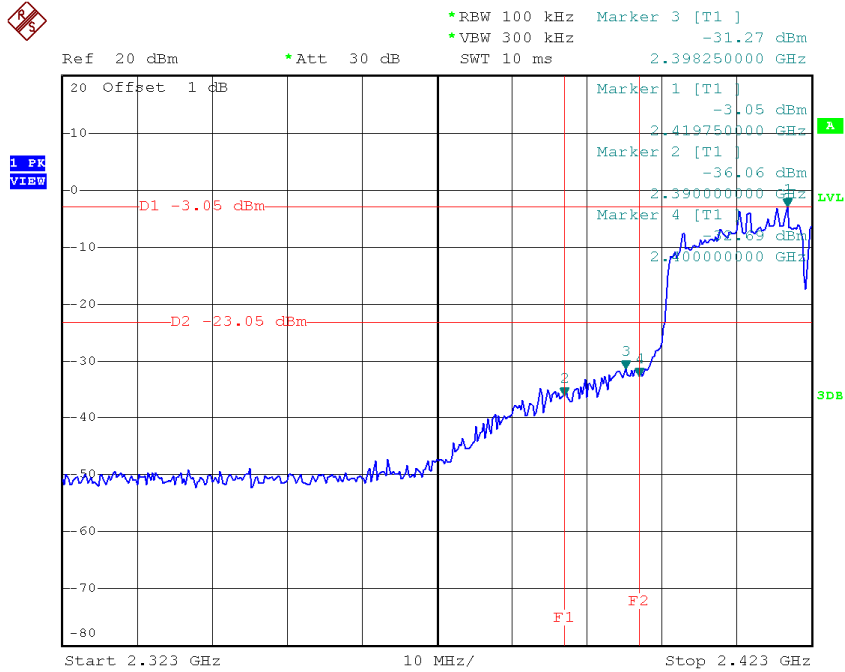
TX HT20 mode CH11 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:45:41

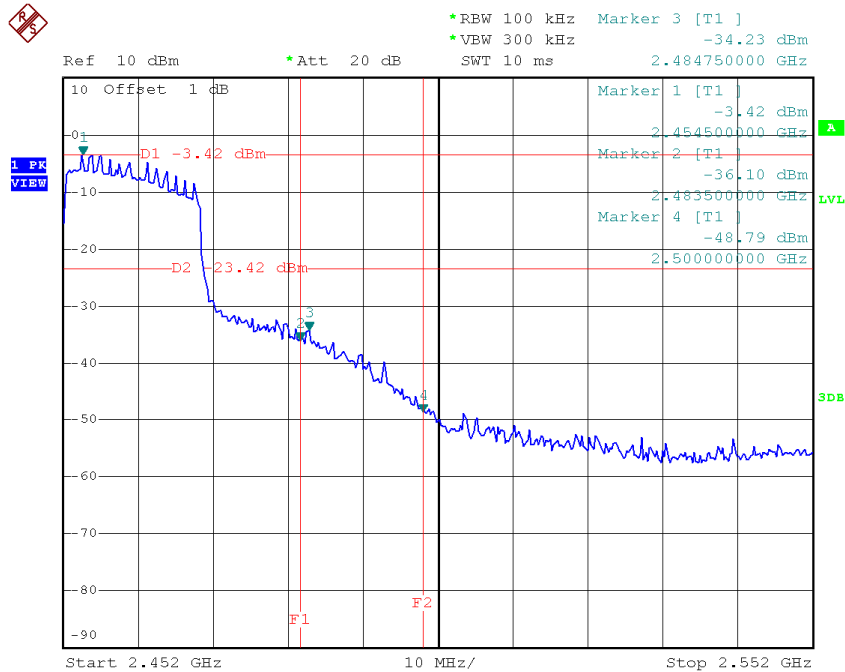
Test Mode :	TX N-40M Mode
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TX HT40 mode CH03



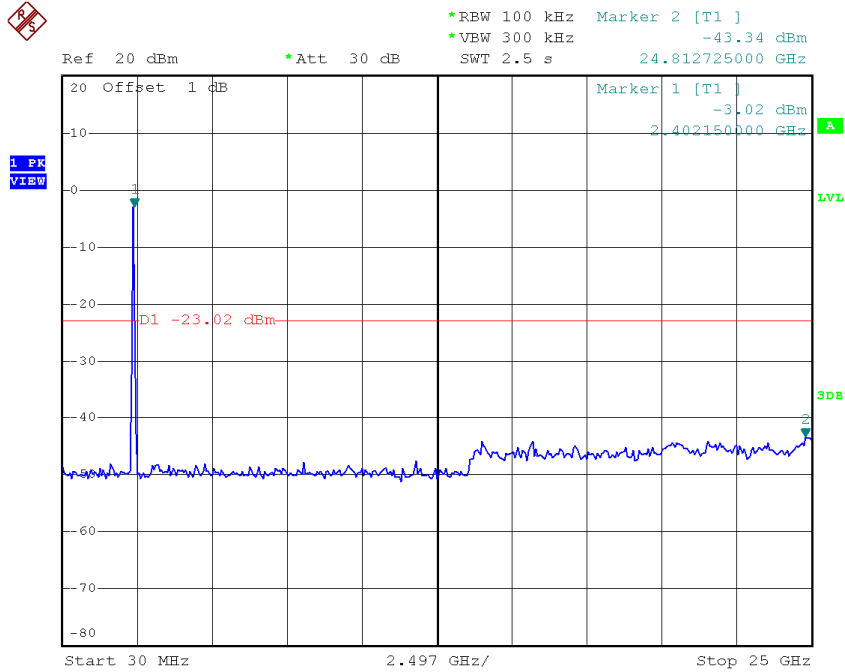
Date: 20.SEP.2014 16:48:03

TX HT40 mode CH09



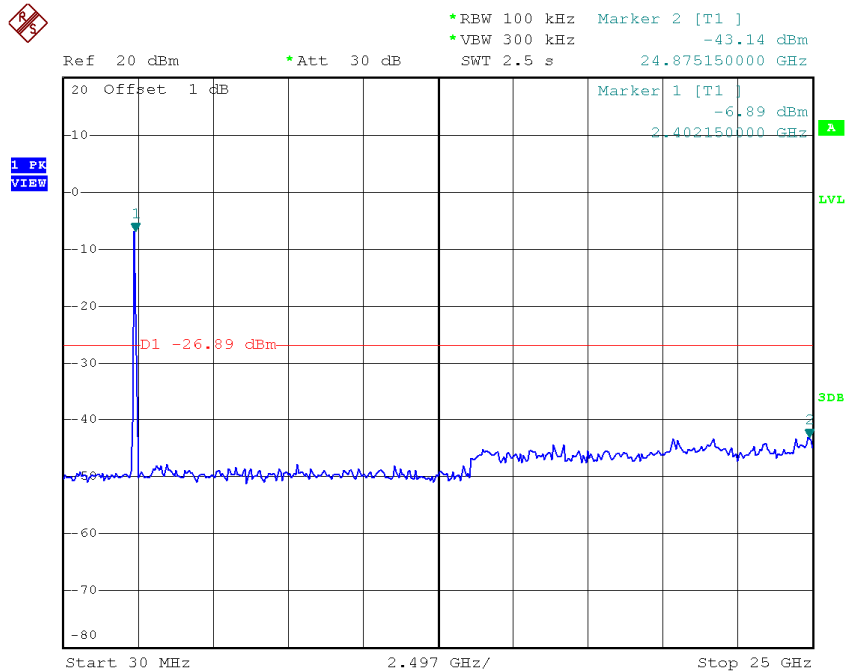
Date: 20.SEP.2014 16:52:50

TX HT40 mode CH03 (10 Harmonic of the frequency)



Date: 20.SEP.2014 16:47:33

TX HT40 mode CH06 (10 Harmonic of the frequency)

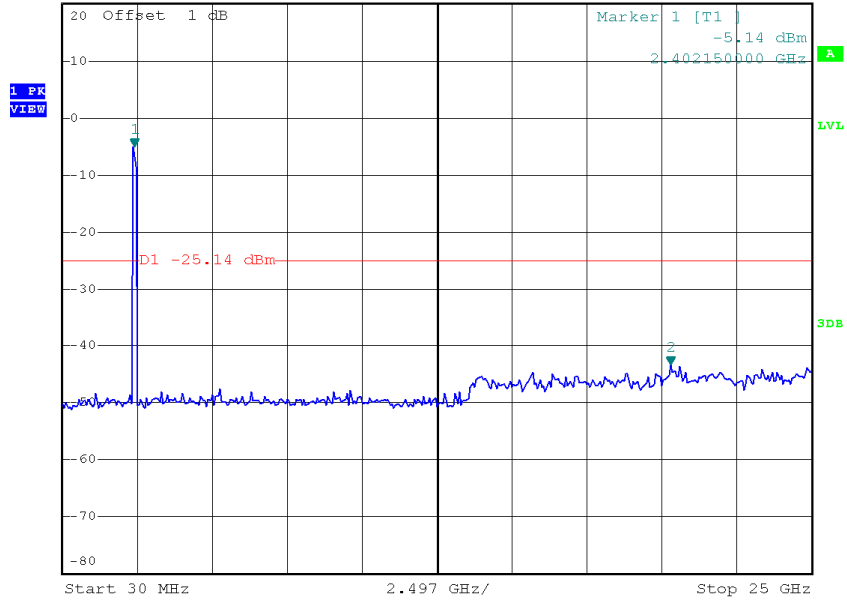


Date: 20.SEP.2014 16:49:04

TX HT40 mode CH09 (10 Harmonic of the frequency)



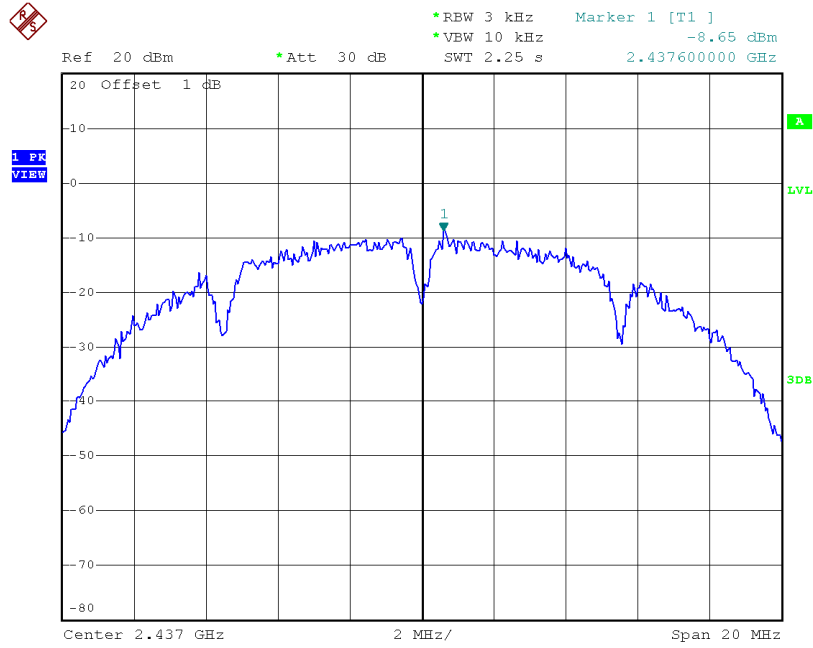
*REW 100 kHz Marker 2 [T1]
 *VBW 300 kHz -43.50 dBm
 Ref 20 dBm *Att 30 dB SWT 2.5 s 20.318125000 GHz



Date: 20.SEP.2014 16:50:22

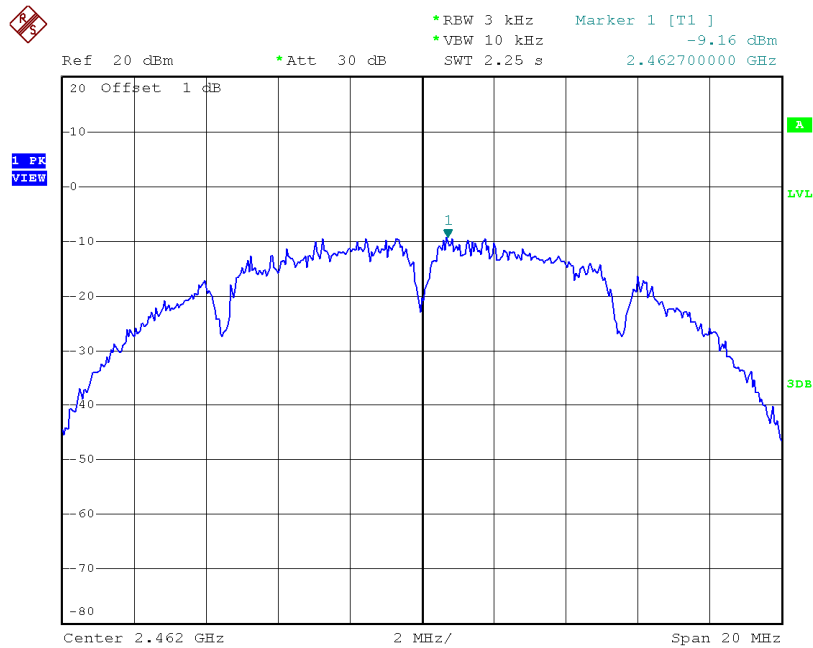
ATTACHMENT H - POWER SPECTRAL DENSITY

TX CH06



Date: 20.SEP.2014 16:34:56

TX CH11

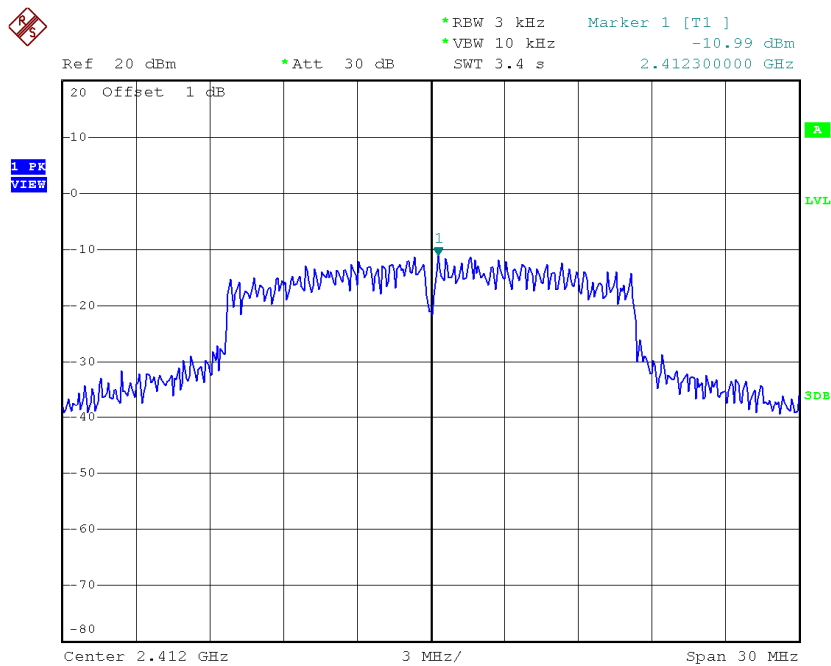


Date: 20.SEP.2014 16:36:35

Test Mode :TX G Mode_CH01/06/11

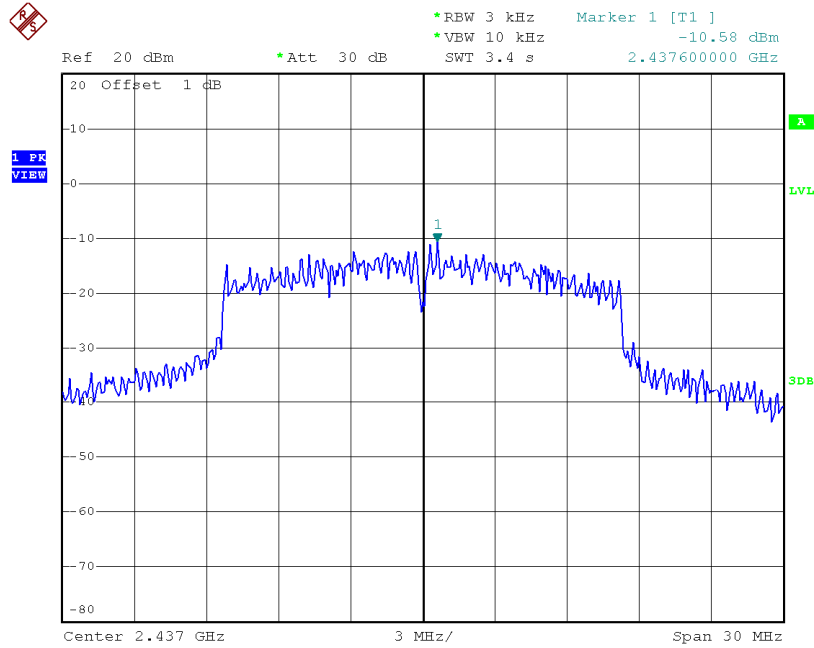
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.99	0.08	8.00	Complies
2437	-10.58	0.09	8.00	Complies
2462	-11.05	0.08	8.00	Complies

TX CH01



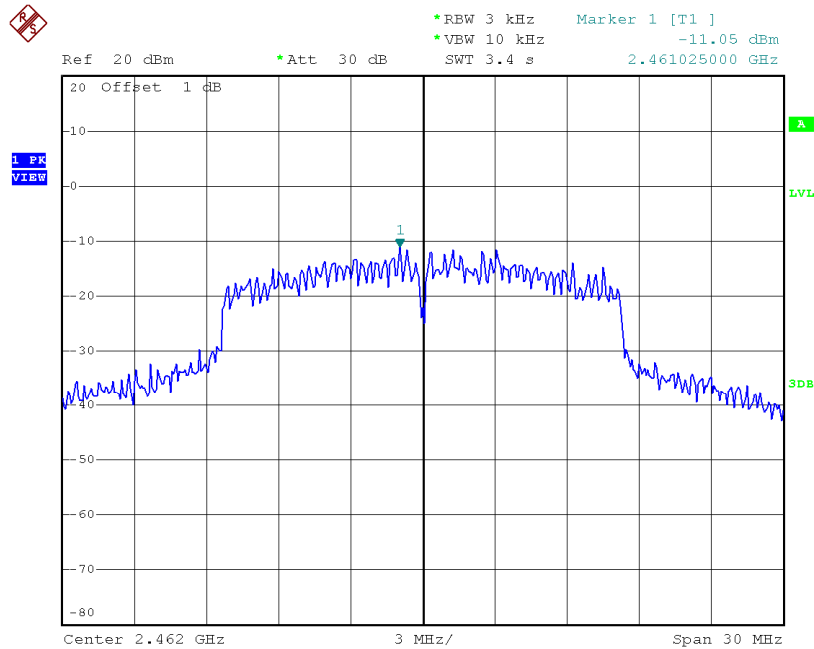
Date: 20.SEP.2014 16:38:43

TX CH06



Date: 20.SEP.2014 16:40:08

TX CH11

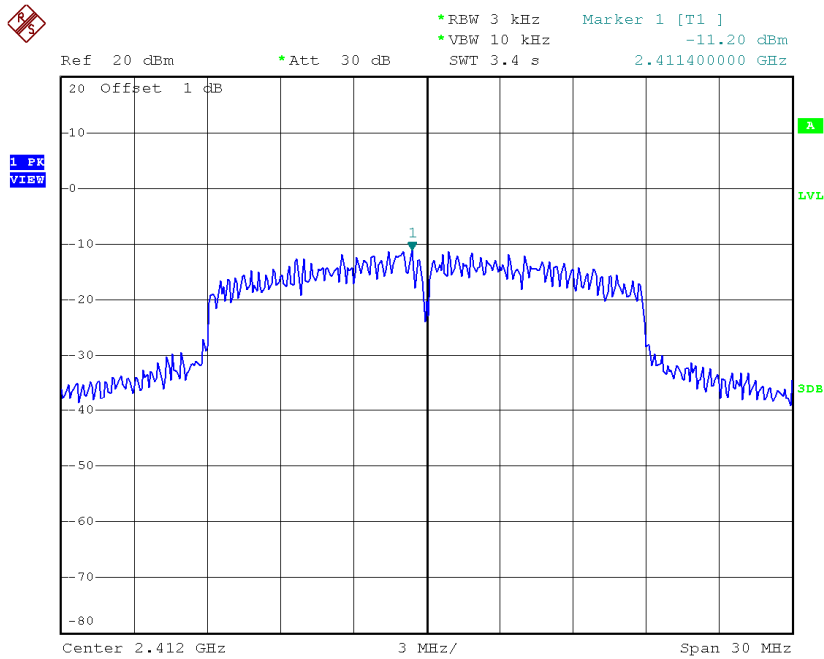


Date: 20.SEP.2014 16:41:36

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

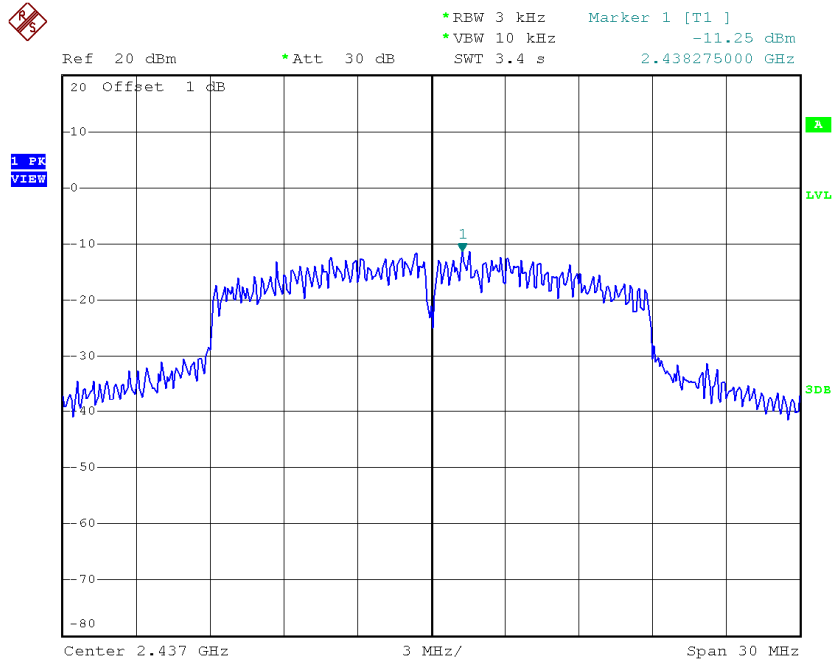
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-11.20	0.08	8.00	Complies
2437	-11.25	0.07	8.00	Complies
2462	-12.06	0.06	8.00	Complies

TX CH01



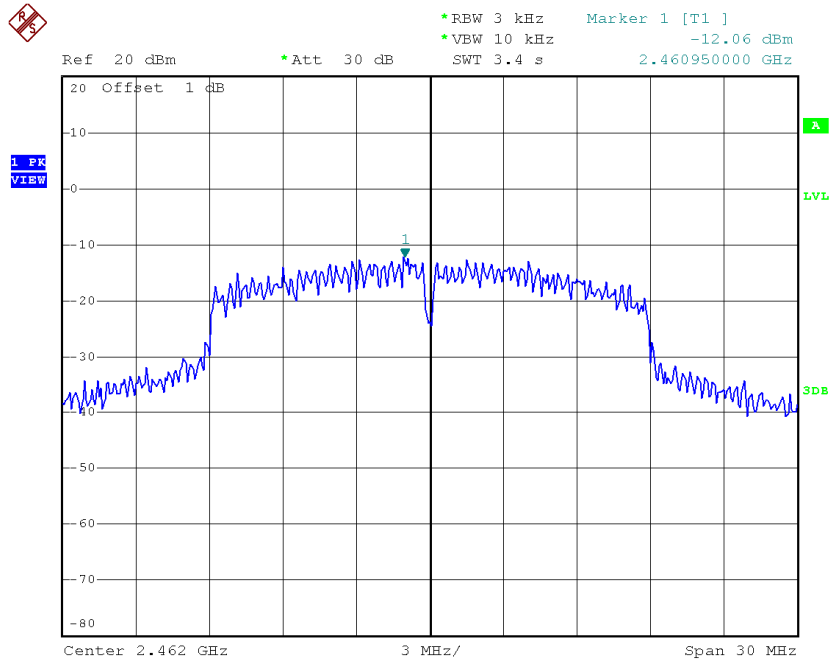
Date: 20.SEP.2014 16:43:22

TX CH06



Date: 20.SEP.2014 16:44:44

TX CH11

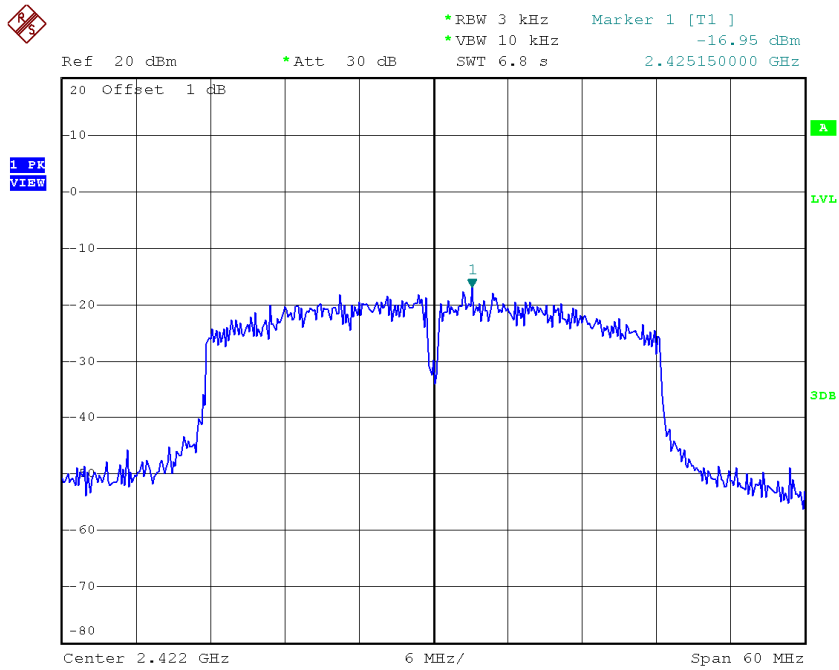


Date: 20.SEP.2014 16:46:42

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

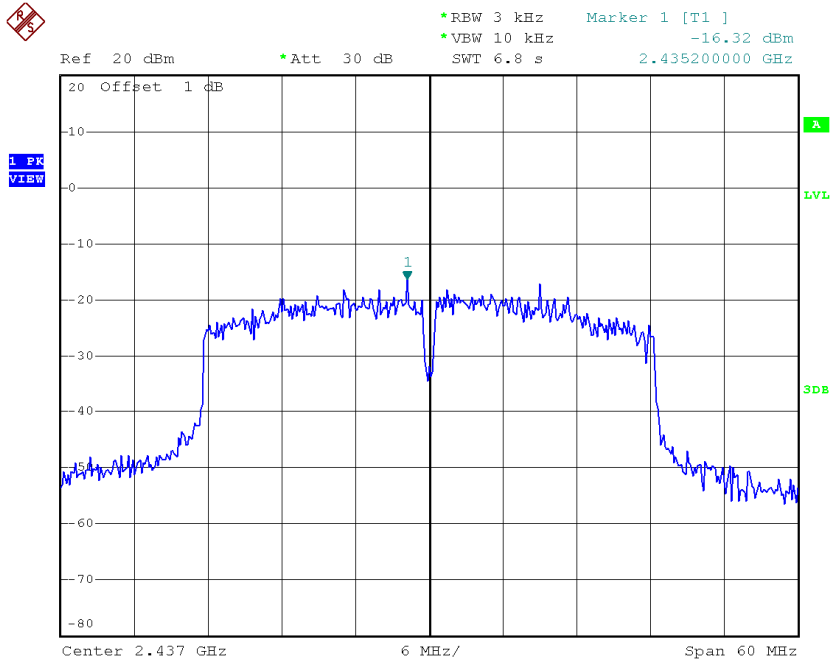
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-16.95	0.02	8.00	Complies
2437	-16.32	0.02	8.00	Complies
2452	-18.54	0.01	8.00	Complies

TX CH03



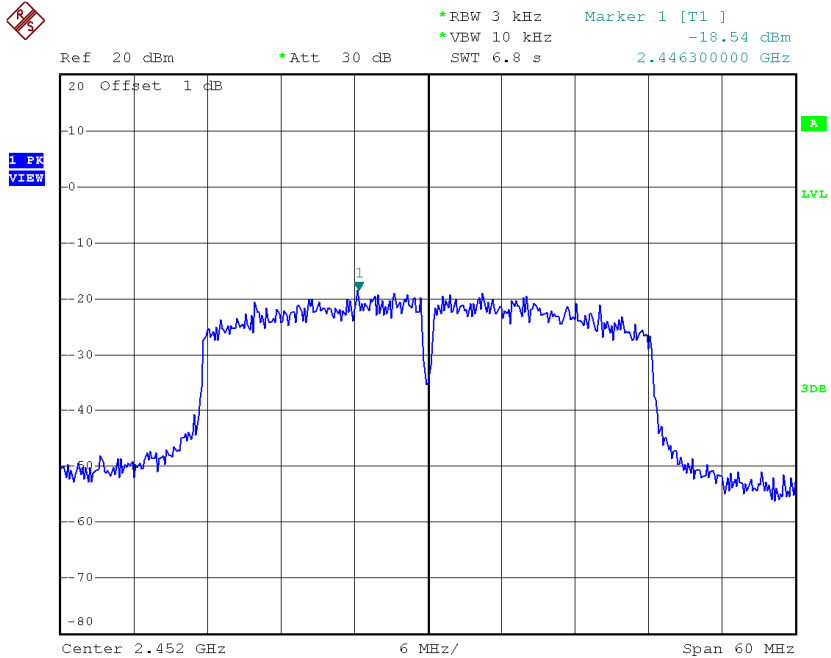
Date: 20.SEP.2014 16:48:23

TX CH06



Date: 20.SEP.2014 16:49:40

TX CH09



Date: 20.SEP.2014 16:53:11