FCC Radio Test Report

FCC ID: Z7RBRAVA

This report concerns (check one): ☒**Original Grant** ☐**Class I Change** ☐**Class II Change**

Project No.	:	1607C088
Equipment	:	BRAVA
Model Name	:	BRAVA
Applicant	:	BRAVEN LC
Address	:	6001 Oak Canyon, Irvine, California, United States, 92618

Date of Receipt	:	Jul. 11, 2016
Date of Test	:	Jul. 11, 2016 ~ Aug. 08, 2016
Issued Date	:	Aug. 09, 2016
Tested by	:	BTL Inc.

Testing Engineer : Shawn Xiao
(Shawn Xiao)

Technical Manager : David Mao
(David Mao)

Authorized Signatory : Steven Lu
(Steven Lu)

BTL INC.

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Declaration

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Limitation

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

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1607C088	Original Issue.	Aug. 09, 2016

1. CERTIFICATION

Equipment	:	BRAVA
Brand Name	:	N/A
Model Name	:	BRAVA
Applicant	:	BRAVEN LC
Manufacturer	:	Plastoform Electronics (Shenzhen) Company Limited
Address	:	Building No. 16,21,B District, The 1st Industrial Zone, Gonghe Community, Shajing Street, Baoan District;Shenzhen City;Gongdong Province,PRC
Factory Address	:	Plastoform Electronics (Shenzhen) Company Limited Building No. 16,21,B District, The 1st Industrial Zone, Gonghe Community, Shajing Street, Baoan District;Shenzhen City;Gongdong Province,PRC
Date of Test	:	Jul. 11, 2016 ~ Aug. 08, 2016
Test Sample	:	Engineering Sample
Standard(s)	:	FCC Part15, Subpart C (15.247)/ ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1607C088) 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): 47 CFR Part 15, Subpart C;			
Standard(s) Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247 (a)(1)	Hopping Channel Separation	PASS	
15.247(a)(1)	Bandwidth	PASS	
15.247 (b)(1)	Peak Output Power	PASS	
15.247(d) 15.209	Radiated Spurious Emission	PASS	
15.247 (a)(1)(iii)	Number of Hopping Frequency	PASS	
15.247 (a)(1)(iii)	Dwell Time	PASS	
15.205	Restricted Bands	PASS	
15.203	Antenna Requirement	PASS	

Note:

(1)" N/A" denotes test is not applicable in this test report

2.1 TEST FACILITY

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

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted Measurement :

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

B. Radiated Measurement :

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	BRAVA	
Brand Name	N/A	
Model Name	BRAVA	
Model Difference	N/A	
Output Power (Max.)	Operation Frequency	2402~2480 MHz
	Modulation Technology	GFSK(1Mbps) π/4-DQPSK(2Mbps) 8-DPSK(3Mbps)
	Bit Rate of Transmitter	
	Output Power Max.	0.27 dBm(1Mbps) 0.00 dBm(3Mbps)
Power Source	#1 Supplied from USB port. #2 Supplied from Lithium battery.	
Power Rating	#1 DC 5V 1A #2 DC 3.7V 2100mAh 7.77Wh	

Note:

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

2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	BRAVA	BRAVA	PIFA	N/A	0.69

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 Mode **Note (1)**

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

For Conducted Emission	
Final Test Mode	Description
Mode 1	TX Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	TX Mode **Note (1)**

Note:

(1) The measurements are performed at the high, middle, low available channels.

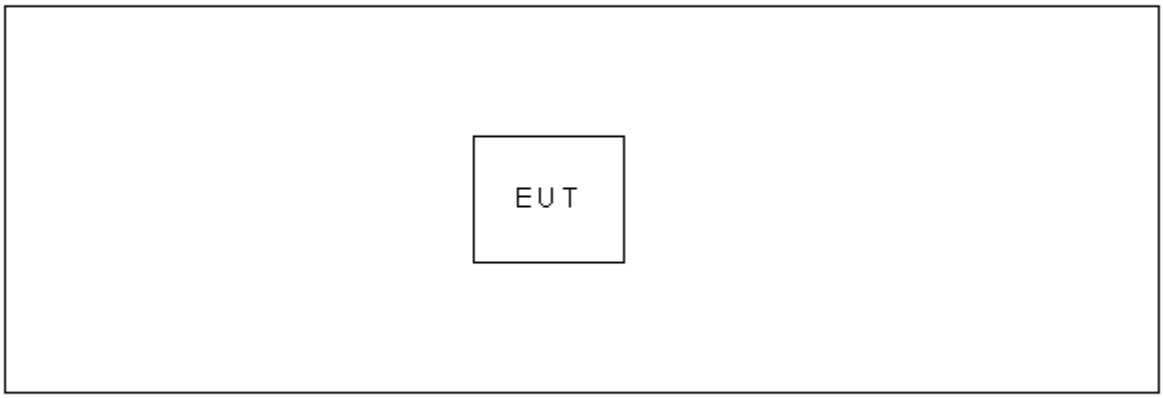
(2) The measurements for Hopping Channel Separation, Bandwidth and Peak Output Power were tested during 1Mbps, 2Mbps and 3Mbps, the worst case are 1Mbps and 3Mbps, only worst case was documented.

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 FHSS

Test Software Version	Bluetest 3		
Frequency	2402 MHz	2441 MHz	2480 MHz
Parameters(1Mbps)	20	0	0
Parameters(3Mbps)	30	15	15

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 DESCRIPTION OF SUPPORT UNITS

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

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

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	-

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 (dBμV)	
	Quasi-peak	Average
0.15 -0.50	66 to 56*	56 to 46*
0.50 -5.0	56	46
5.0 -30.0	60	50

Note:

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

(2) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

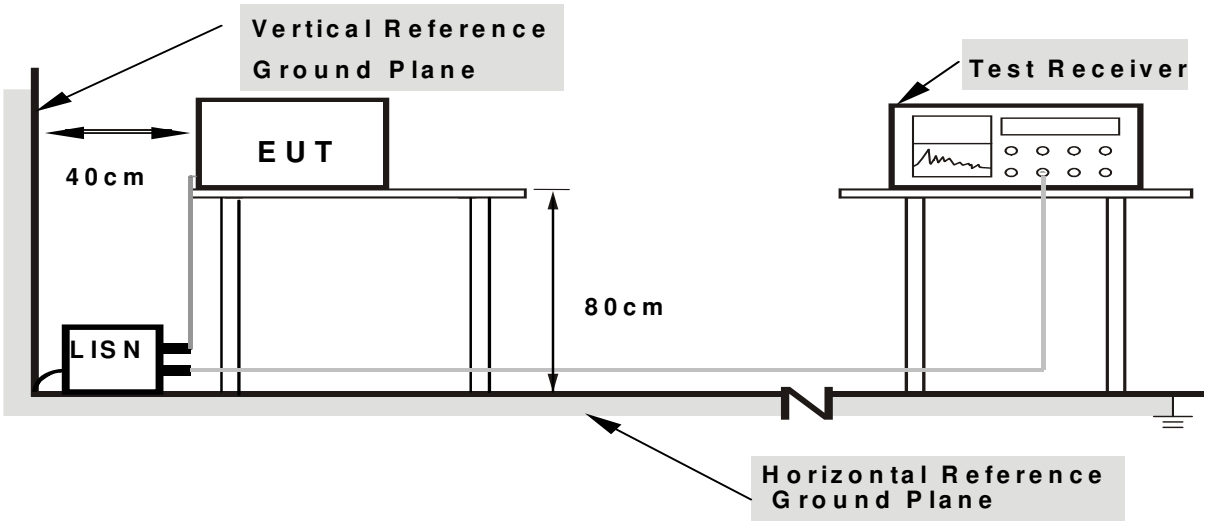
4.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment 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 from other units and other metal planes

4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical function (as a customer would normally use it), EUT was programmed to be in continuously transmitting/receiving data or hopping on mode.

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.

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform in this case, a "*" marked in AVG Mode column of Interference Voltage Measured.

(2) Measuring frequency range from 150KHz to 30MHz.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9KHz -1000MHz)

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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)	dB(uV/m) (at 3 meters)	
	Peak	Average
Above 1000	74	54

Notes:

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

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m) =20log Emission level (uV/m).

(4) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

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

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

4.2.2 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)

b. The measuring distance of at 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)

c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).

e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.

f. The initial step in collecting conducted emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform. (below 1GHz)

h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn‘t perform. (above 1GHz)

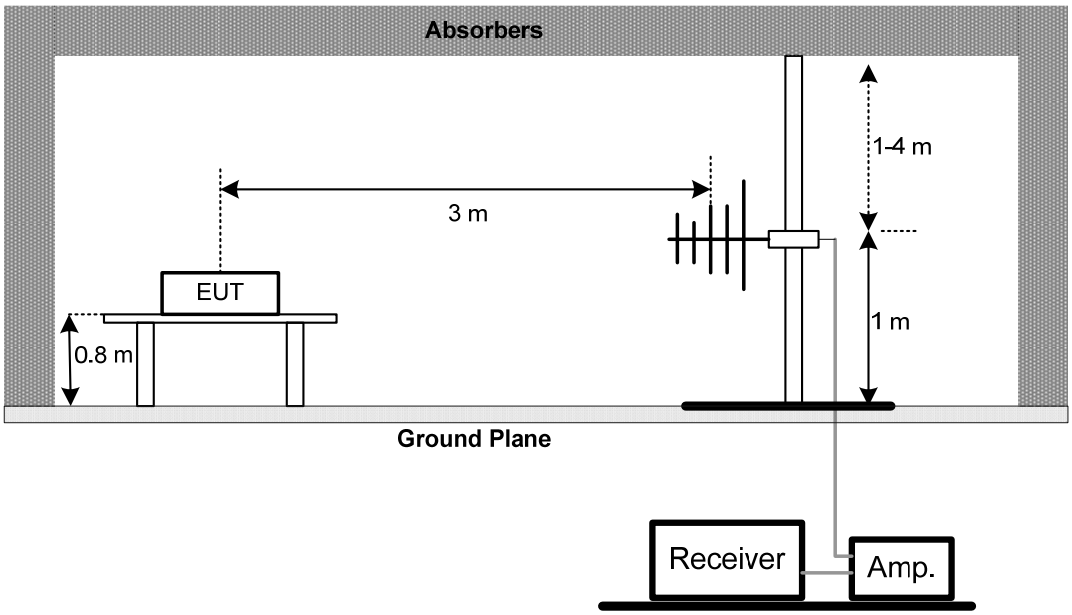
i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

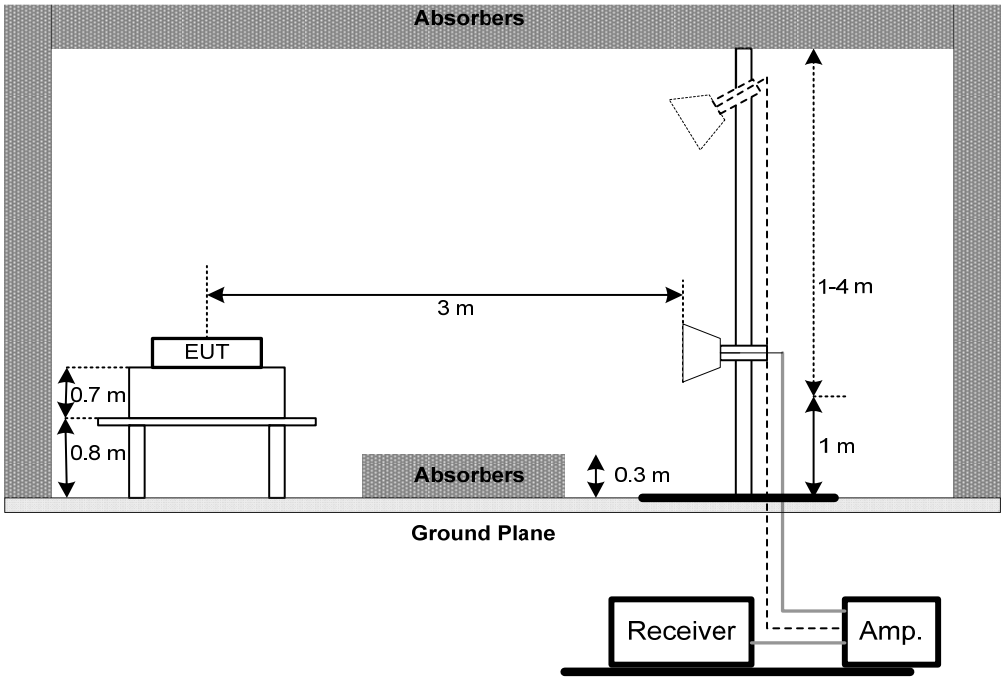
No deviation

4.2.4 TEST SETUP

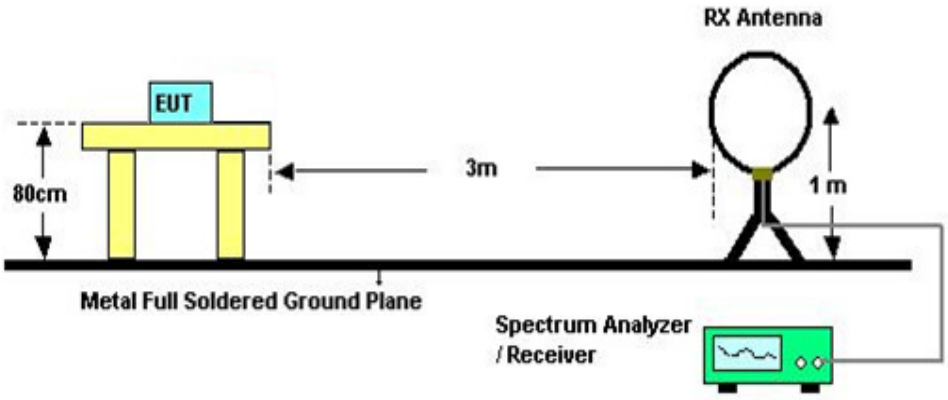
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(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: DC 3.7V

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment B

Remark:

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

4.2.8 TEST RESULTS (30MHZ TO 1000 MHZ)

Please refer to the Attachment C.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment D.

Remark:

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

5. NUMBER OF HOPPING CHANNEL

5.1 APPLIED PROCEDURES

FCC Part15 (15.247) , Subpart C			
Section	Test Item	Frequency Range (MHz)	Result
15.247(a)(1)(iii)	Number of Hopping Channel	2400-2483.5	PASS

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RBW	100 KHz
VBW	100 KHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

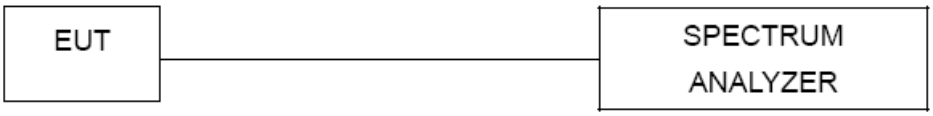
5.1.1 TEST PROCEDURE

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=100KHz, Sweep time = Auto.

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: DC 3.7V

5.1.6 TEST RESULTS

Please refer to the Attachment E

6. AVERAGE TIME OF OCCUPANCY

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(1)(iii)	Average Time of Occupancy	0.4sec	2400-2483.5	PASS

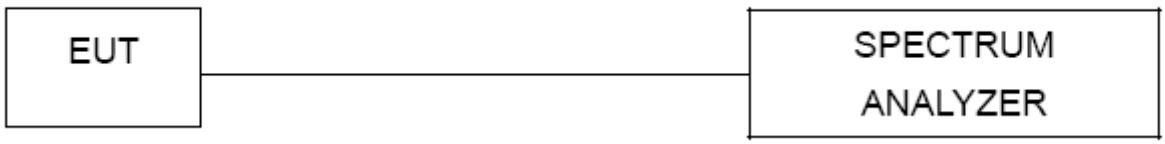
6.1.1 TEST PROCEDURE

a. The transmitter output (antenna port) was connected to the spectrum analyzer
b. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
c. Use a video trigger with the trigger level set to enable triggering only on full pulses.
d. Sweep Time is more than once pulse time.
e. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
f. Measure the maximum time duration of one single pulse.
g. Set the EUT for DH5, DH3 and DH1 packet transmitting.
h. Measure the maximum time duration of one single pulse.
i. DH5 Packet permit maximum 1600/ 79 / 6 = 3.37 hops per second in each channel (5 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 3.37 x 31.6 = 106.6 within 31.6 seconds.
j. DH3 Packet permit maximum 1600 / 79 / 4 = 5.06 hops per second in each channel (3 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 5.06 x 31.6 = 160 within 31.6 seconds.
k. DH1 Packet permit maximum 1600 / 79 /2 = 10.12 hops per second in each channel (1 time slot TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 10.12 x 31.6 = 320 within 31.6 seconds.

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.

6.1.5 EUT TEST CONDITIONS

Temperature: 25°C
Relative Humidity: 55%
Test Voltage: DC 3.7V

6.1.6 TEST RESULTS

Please refer to the Attachment F

7. HOPPING CHANNEL SEPARATION MEASUREMENT

7.1 APPLIED PROCEDURES / LIMIT

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 KHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RBW	30 KHz
VBW	100 KHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.1.1 TEST PROCEDURE

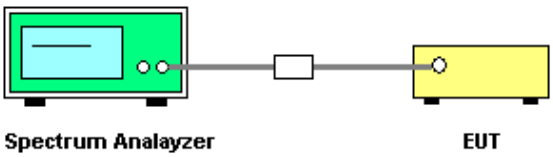
a. The EUT must have its hopping function enabled

b. Span = wide enough to capture the peaks of two adjacent channels
Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span
Video (or Average) Bandwidth (VBW) ≥ RBW
Sweep = Auto
Detector function = Peak
Trace = Max Hold

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT TEST CONDITIONS

Temperature: 25°C
Relative Humidity: 55%
Test Voltage: DC 3.7V

7.1.5 TEST RESULTS

Please refer to the Attachment G

8. BANDWIDTH TEST

8.1 APPLIED PROCEDURES

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RBW	30 KHz (20dB Bandwidth) / 30 KHz (Channel Separation)
VBW	100 KHz (20dB Bandwidth) / 100 KHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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= 30KHz, VBW=100KHz, 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: DC 3.7V

8.1.6 TEST RESULTS

Please refer to the Attachment H

9. PEAK OUTPUT POWER TEST

9.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(1)	Peak Output Power	1 Watt or 30dBm (hopping channel >75) 0.125Watt or 21dBm (hopping channel <75	2400-2483.5	PASS

9.1.1 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= 1MHz/3MHz, VBW= 1MHz/3MHz, Sweep time = Auto.

9.1.2 DEVIATION FROM STANDARD

No deviation.

9.1.3 TEST SETUP

9.1.4 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.

9.1.5 EUT TEST CONDITIONS

Temperature: 25°C
Relative Humidity: 55%
Test Voltage: DC 3.7V

9.1.6 TEST RESULTS

Please refer to the Attachment I

10. ANTENNA CONDUCTED SPURIOUS EMISSION

10.1 APPLIED PROCEDURES / LIMIT

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

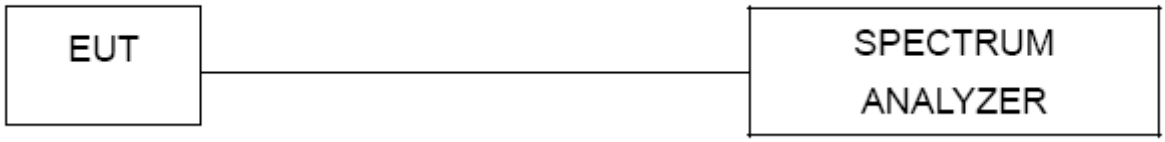
10.1.1 TEST PROCEDURE

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=100KHz, Sweep time = Auto.
c. Offset=antenna gain+cable loss

10.1.2 DEVIATION FROM STANDARD

No deviation.

10.1.3 TEST SETUP



10.1.4 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.

10.1.5 EUT TEST CONDITIONS

Temperature: 25°C
Relative Humidity: 55%
Test Voltage: DC 3.7V

10.1.6 TEST RESULTS

Please refer to the Attachment J

11. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	0052765	Mar. 27, 2017
2	LISN	R&S	ENV216	101447	Mar. 27, 2017
3	Test Cable	emci	RG223(9KHz-30 MHz)	C_17	Mar. 10, 2017
4	EMI Test Receiver	R&S	ESCI	100382	Mar. 27, 2017
5	50Ω Terminator	SHX	TF2-3G-A	08122901	Mar. 27, 2017
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 27, 2017
2	Amplifier	HP	8447D	2944A09673	Nov. 09, 2016
3	Receiver	AGILENT	N9038A	MY52130039	Oct. 11, 2016
4	Test Cable	emci	LMR-400(30MHz-1GHz)	C-01	Jun. 27, 2017
5	Antenna	ETS	3115	00075789	Mar. 27, 2017
6	Amplifier	Agilent	8449B	3008A02274	Nov. 01, 2016
7	Receiver	AGILENT	N9038A	MY52130039	Oct. 11, 2016
8	Test Cable	emci	EMC104-SM-SM-10000(1GHz－26.5GHz)	C-68	Jun. 27, 2017
9	Controller	CT	SC100	N/A	N/A
10	Position Control	MF	MF-7802	MF780208416	N/A
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 23, 2017
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 27, 2017
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 07, 2016
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Number of Hopping Channel					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

Average Time of Occupancy					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

Hopping Channel Separation Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

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

Peak Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

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

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

12. EUT TEST PHOTO

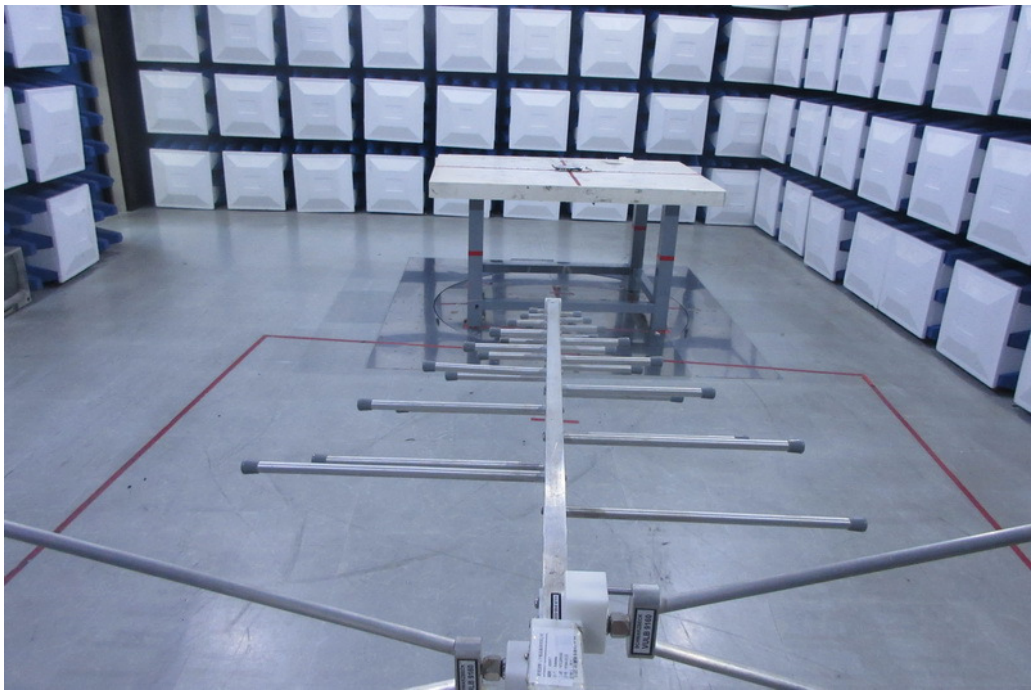
Conducted Measurement Photos

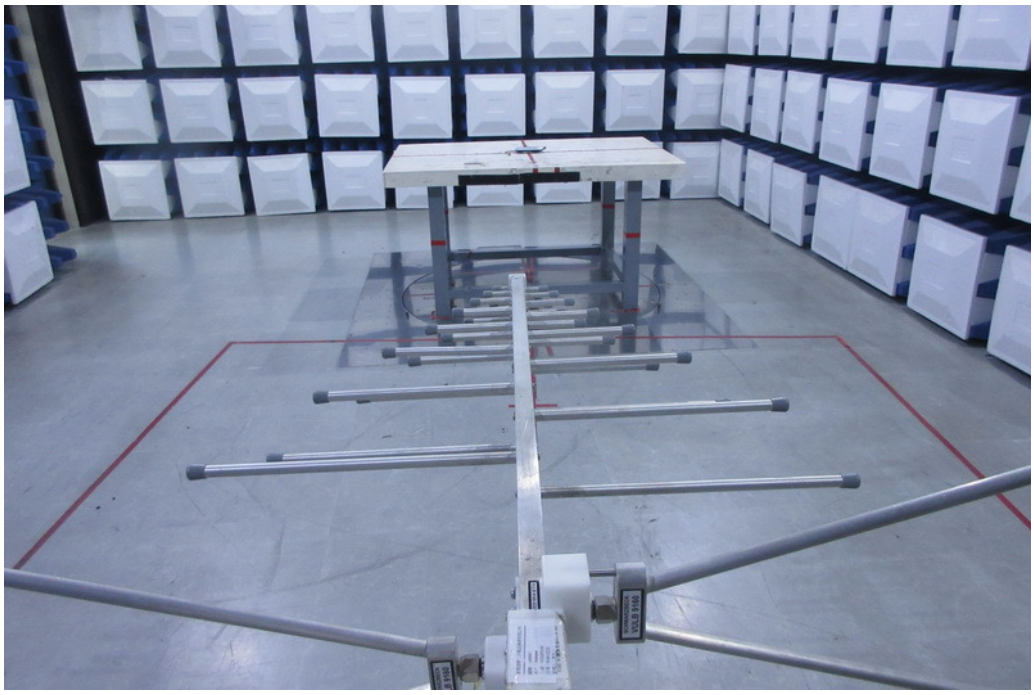
Radiated Measurement Photos

9KHz to 30MHz

Radiated Measurement Photos

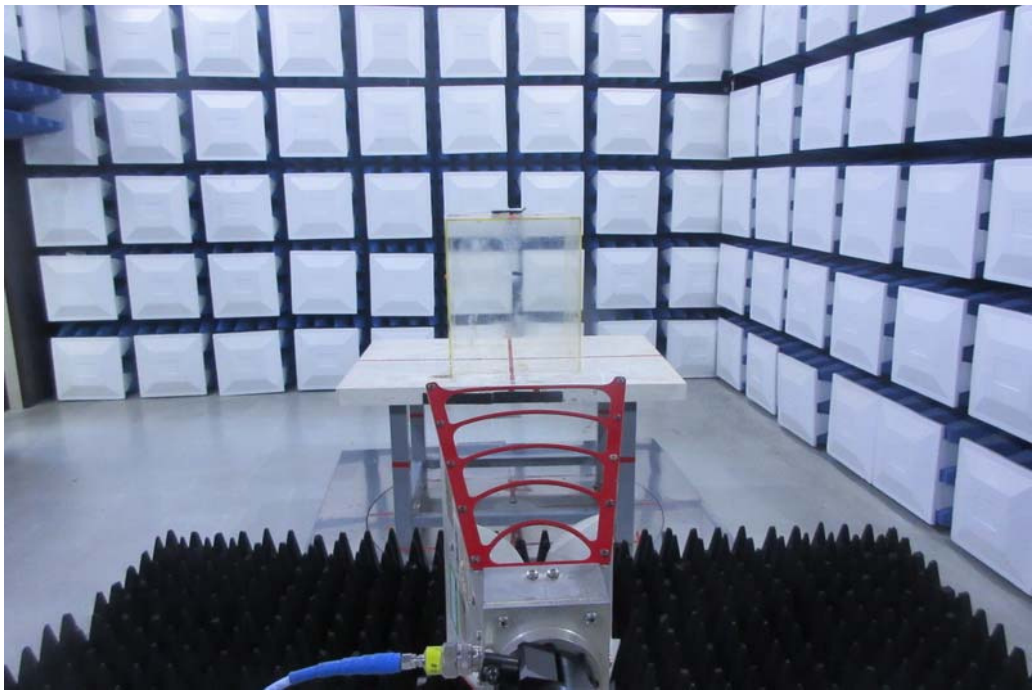
30MHz to 1000MHz

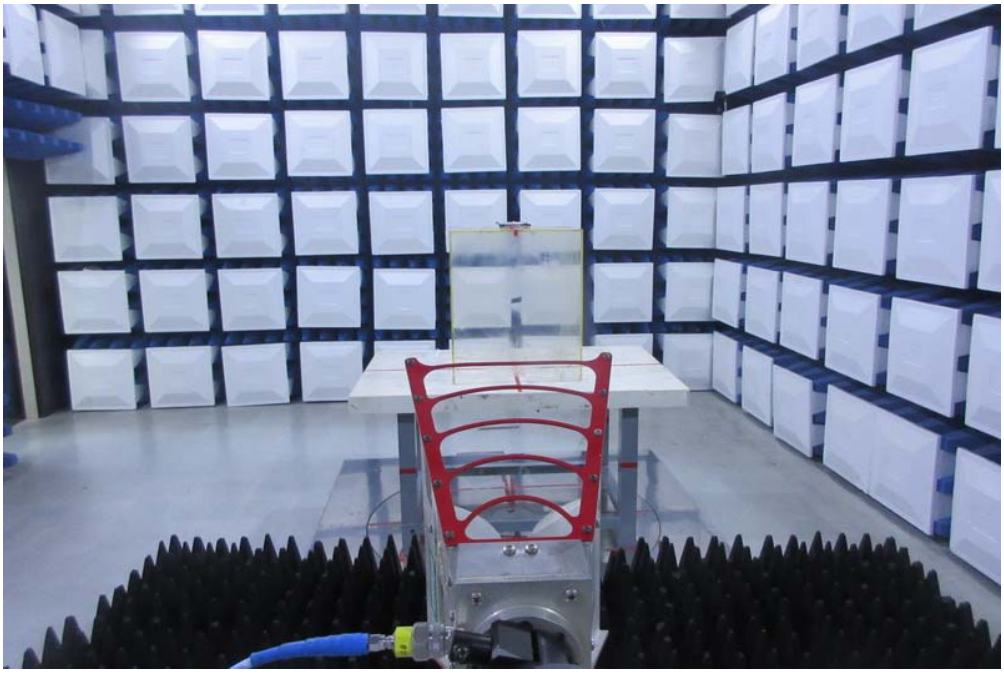




Radiated Measurement Photos

Above 1000MHz

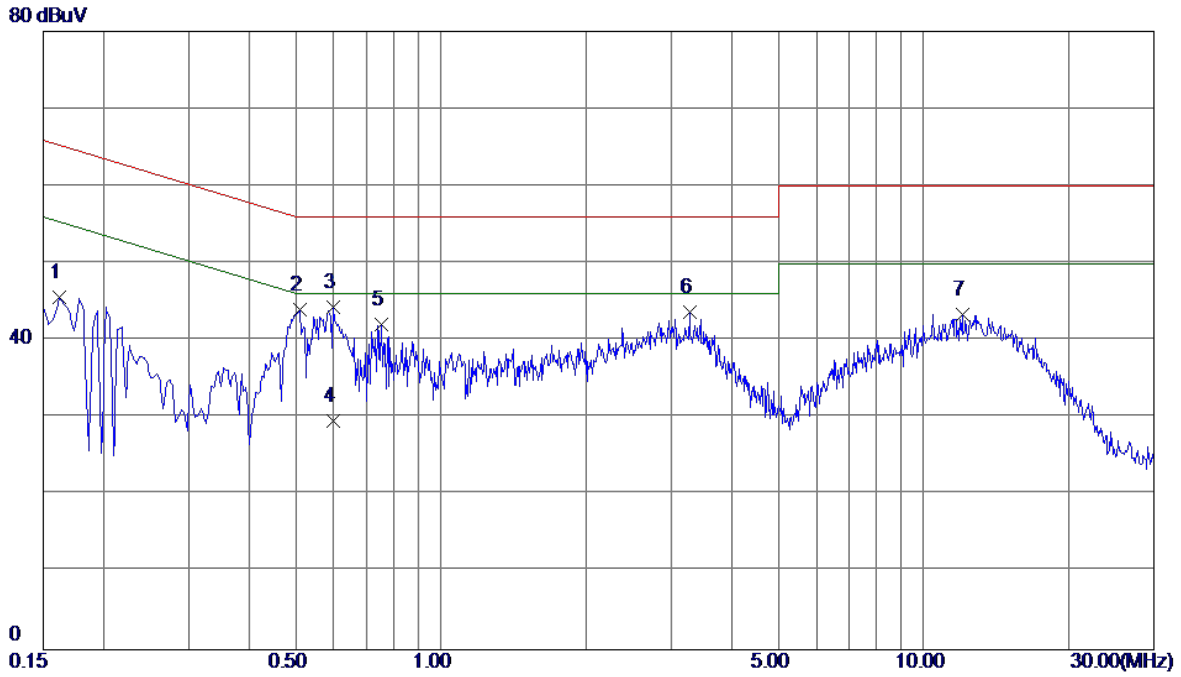




ATTACHMENT A - CONDUCTED EMISSION

Test Mode:	TX Mode

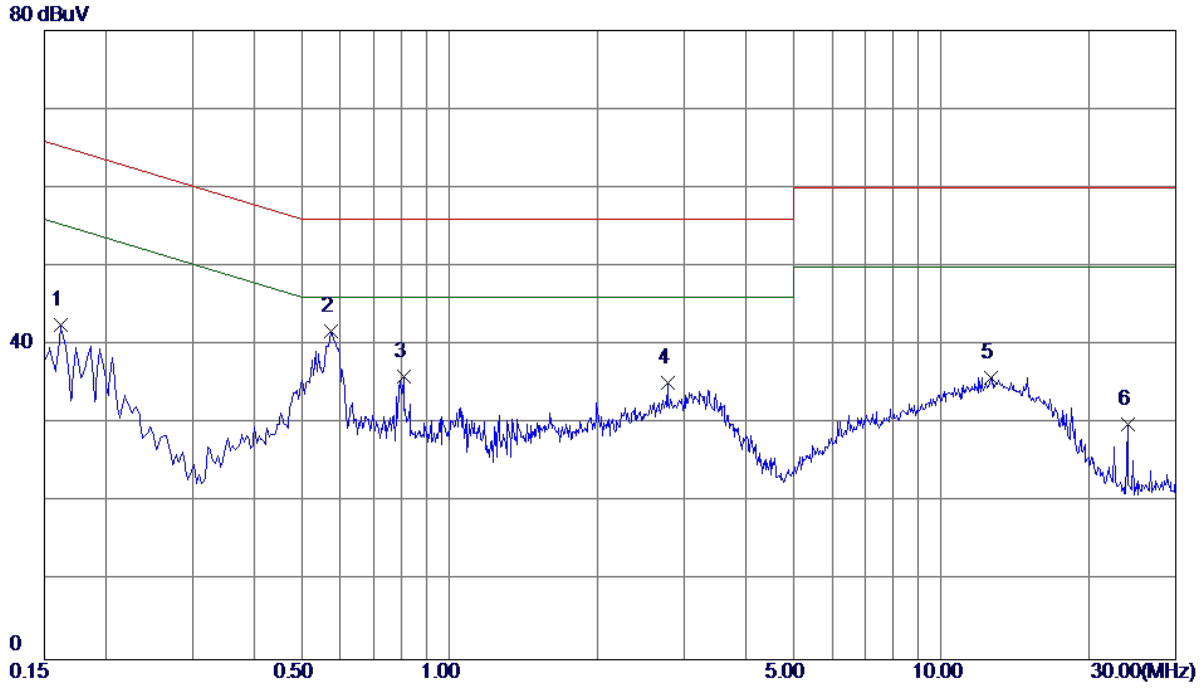
Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1620	36.09	9.52	45.61	65.36	-19.75	Peak	
2	0.5100	34.30	9.64	43.94	56.00	-12.06	Peak	
3 *	0.5980	34.63	9.64	44.27	56.00	-11.73	Peak	
4	0.5980	19.90	9.64	29.54	46.00	-16.46	AVG	
5	0.7539	32.38	9.70	42.08	56.00	-13.92	Peak	
6	3.2700	33.55	10.12	43.67	56.00	-12.33	Peak	
7	12.0580	33.08	10.27	43.35	60.00	-16.65	Peak	

Test Mode:	TX Mode

Neutral



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1620	33.07	9.46	42.53	65.36	-22.83	Peak	
2 *	0.5740	32.25	9.44	41.69	56.00	-14.31	Peak	
3	0.8059	26.45	9.56	36.01	56.00	-19.99	Peak	
4	2.7780	25.47	9.79	35.26	56.00	-20.74	Peak	
5	12.6420	25.56	10.34	35.90	60.00	-24.10	Peak	
6	24.0020	19.39	10.53	29.92	60.00	-30.08	Peak	

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

Test Mode:	TX Mode

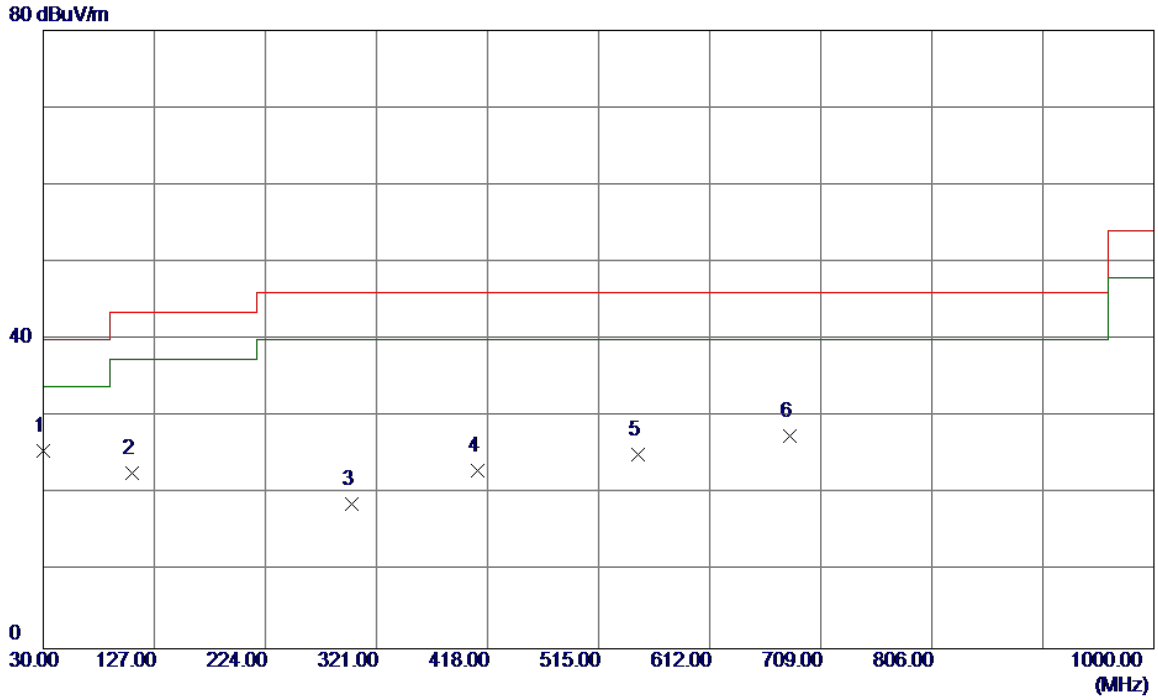
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0097	0°	13.41	24.9523	38.3623	127.8688	-89.5065	AVG
0.0097	0°	14.28	24.9523	39.2323	147.8688	-108.6365	PEAK
0.0279	0°	6.73	23.7997	30.5297	118.6921	-88.1625	AVG
0.0279	0°	8.12	23.7997	31.9197	138.6921	-106.7725	PEAK
0.0367	0°	3.17	23.2423	26.4123	116.3109	-89.8986	AVG
0.0367	0°	5.58	23.2423	28.8223	136.3109	-107.4886	PEAK
0.0585	0°	1.16	22.2300	23.3900	112.2611	-88.8711	AVG
0.0584	0°	2.53	22.2300	24.7600	132.2611	-107.5011	PEAK
0.5097	0°	18.76	19.8310	38.5910	73.4579	-34.8669	QP
1.9524	0°	22.55	19.5048	42.0548	69.5400	-27.4852	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0124	90°	13.16	24.3000	37.4600	125.7358	-88.2758	AVG
0.0124	90°	14.89	24.3000	39.1900	145.7358	-106.5458	PEAK
0.0312	90°	7.28	23.5907	30.8707	117.7211	-86.8505	AVG
0.0312	90°	8.94	23.5907	32.5307	137.7211	-105.1905	PEAK
0.0436	90°	5.23	22.8053	28.0353	114.8145	-86.7792	AVG
0.0436	90°	6.19	22.8053	28.9953	134.8145	-105.8192	PEAK
0.0623	90°	1.54	22.1540	23.6940	111.7145	-88.0205	AVG
0.0623	90°	2.86	22.1540	25.0140	131.7145	-106.7005	PEAK
0.6217	90°	22.17	20.1894	42.3594	71.7326	-29.3732	QP
2.0548	90°	24.56	19.4671	44.0271	69.5400	-25.5129	QP

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

Test Mode:	TX 2402MHz _CH00_1Mbps

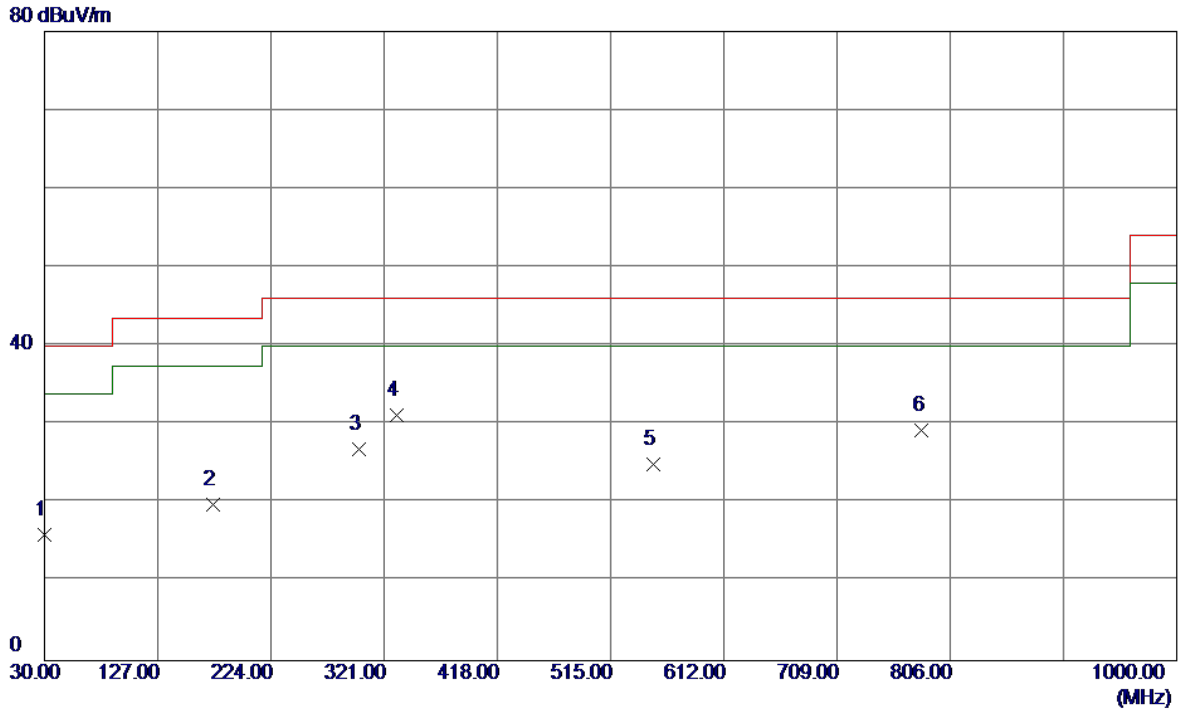
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	30.0000	39.57	-14.03	25.54	40.00	-14.46	Peak	
2	107.6000	37.58	-14.85	22.73	43.50	-20.77	Peak	
3	299.6600	28.89	-10.20	18.69	46.00	-27.31	Peak	
4	409.2700	30.87	-7.82	23.05	46.00	-22.95	Peak	
5	549.9200	29.64	-4.55	25.09	46.00	-20.91	Peak	
6	681.8400	30.39	-2.86	27.53	46.00	-18.47	Peak	

Test Mode:	TX 2402MHz _CH00_1Mbps

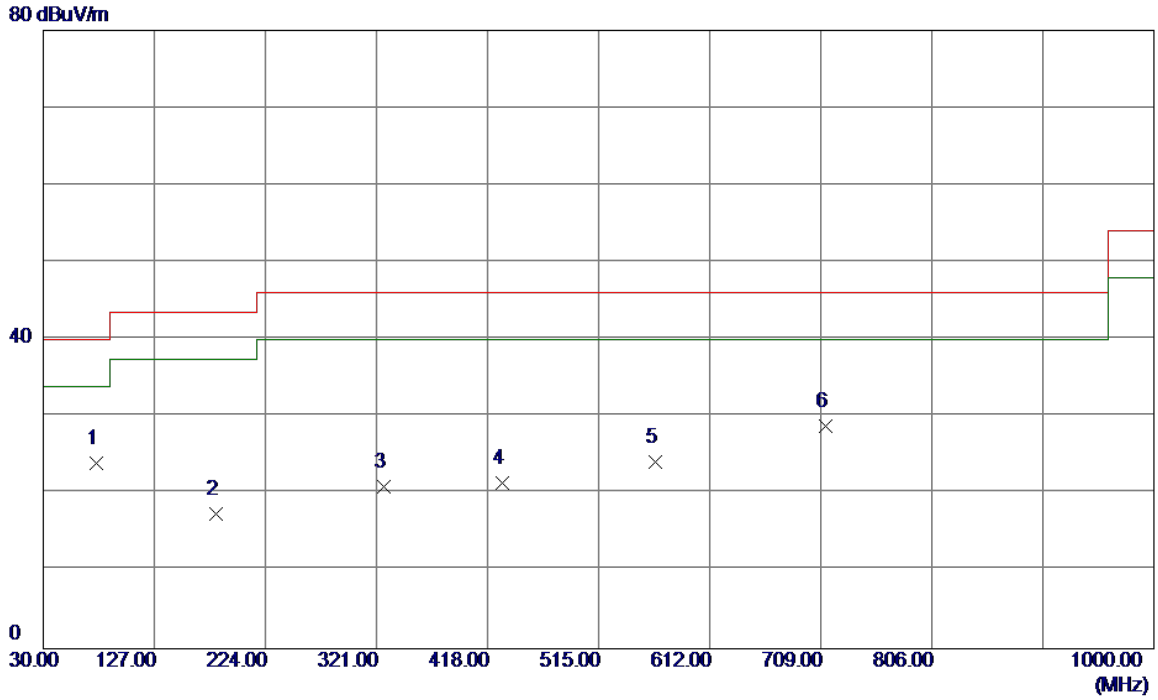
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	30.0000	29.98	-14.03	15.95	40.00	-24.05	Peak	
2	174.5300	32.31	-12.51	19.80	43.50	-23.70	Peak	
3	299.6600	37.11	-10.20	26.91	46.00	-19.09	Peak	
4 *	331.6700	41.97	-10.83	31.14	46.00	-14.86	Peak	
5	551.8600	29.59	-4.63	24.96	46.00	-21.04	Peak	
6	781.7500	29.90	-0.55	29.35	46.00	-16.65	Peak	

Test Mode:	TX 2441MHz _CH39_1Mbps

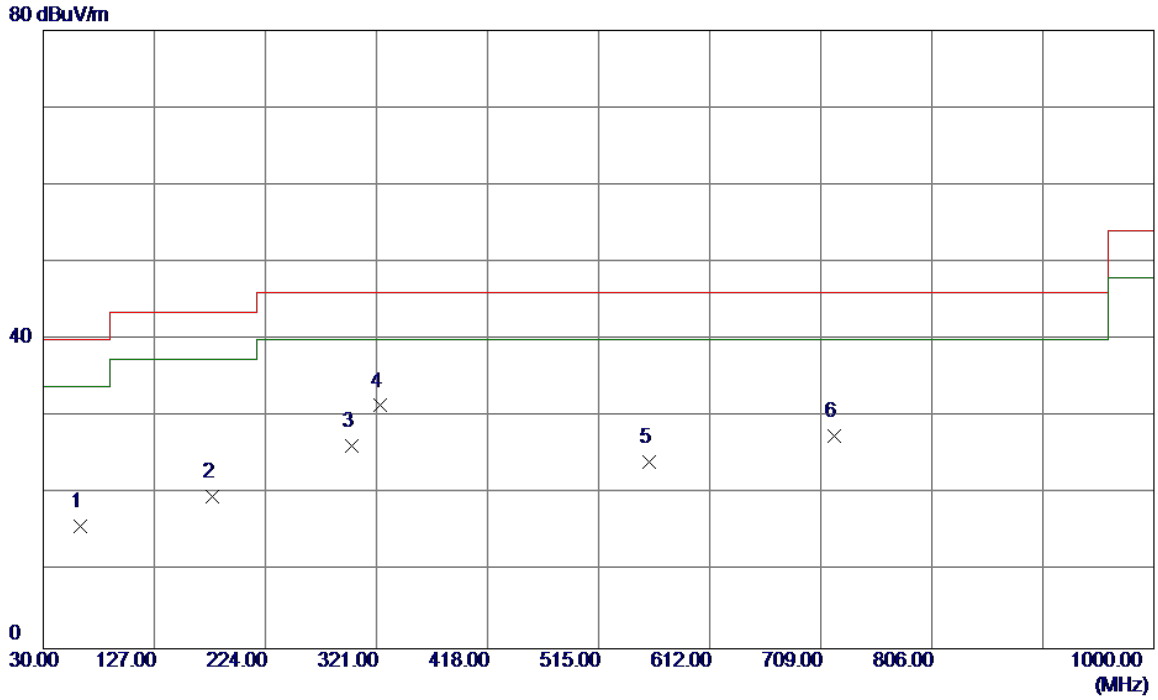
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	76.5600	40.42	-16.42	24.00	40.00	-16.00	Peak	
2	181.3200	30.36	-12.98	17.38	43.50	-26.12	Peak	
3	327.7900	31.65	-10.75	20.90	46.00	-25.10	Peak	
4	430.6100	29.33	-7.91	21.42	46.00	-24.58	Peak	
5	564.4699	29.44	-5.27	24.17	46.00	-21.83	Peak	
6	712.8800	30.83	-2.07	28.76	46.00	-17.24	Peak	

Test Mode:	TX 2441MHz _CH39_1Mbps

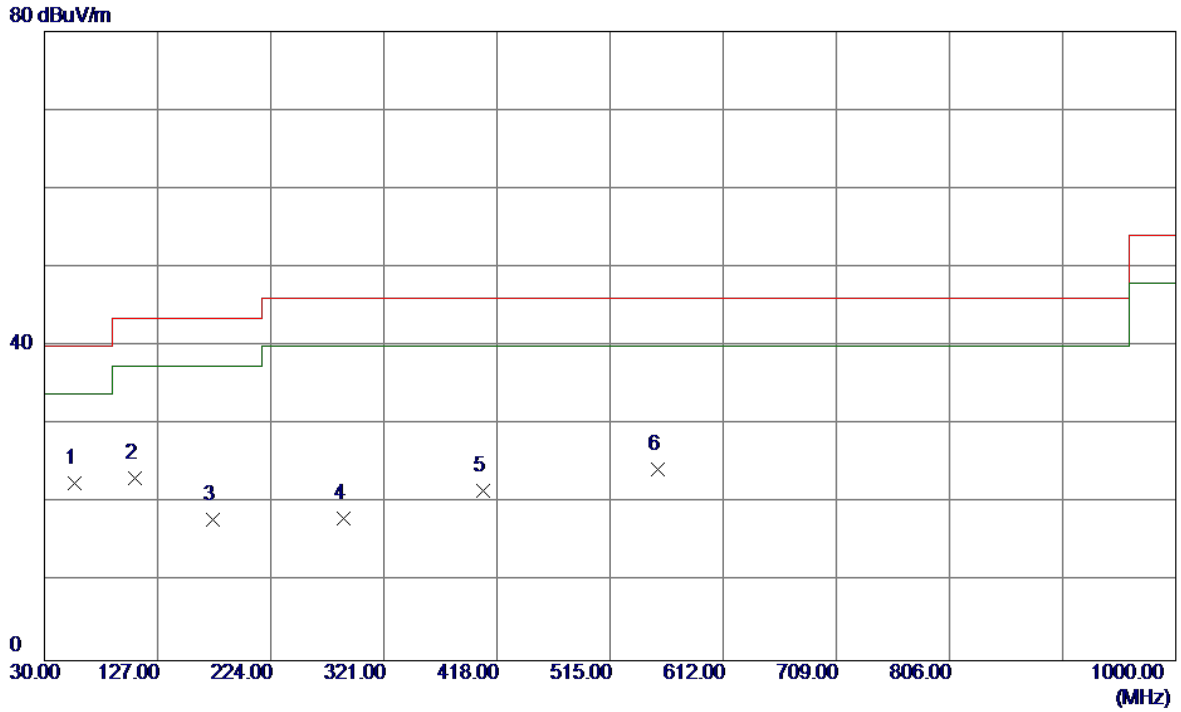
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	62.0100	30.13	-14.30	15.83	40.00	-24.17	Peak	
2	177.4400	32.39	-12.69	19.70	43.50	-23.80	Peak	
3	299.6600	36.46	-10.20	26.26	46.00	-19.74	Peak	
4 *	323.9100	42.11	-10.67	31.44	46.00	-14.56	Peak	
5	559.6200	29.17	-5.02	24.15	46.00	-21.85	Peak	
6	720.6400	29.57	-2.05	27.52	46.00	-18.48	Peak	

Test Mode:	TX 2480MHz _CH78_1Mbps

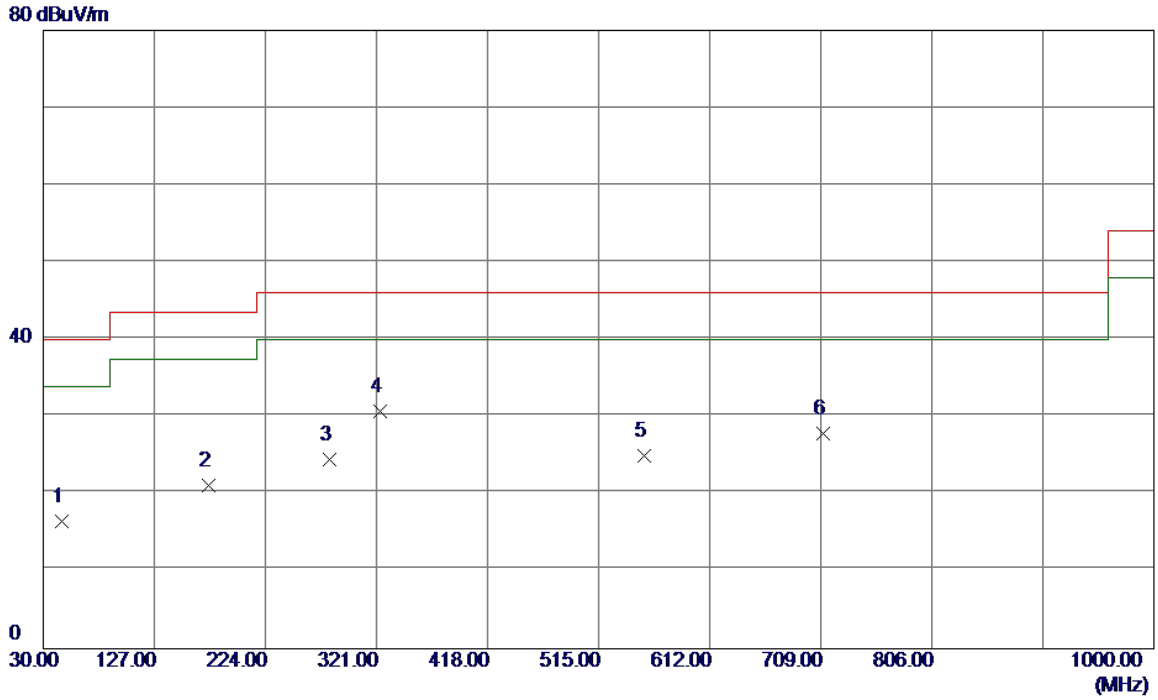
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	56.1900	35.94	-13.31	22.63	40.00	-17.37	Peak	
2	107.6000	38.00	-14.85	23.15	43.50	-20.35	Peak	
3	174.5300	30.48	-12.51	17.97	43.50	-25.53	Peak	
4	286.0799	29.59	-11.56	18.03	46.00	-27.97	Peak	
5	406.3599	29.37	-7.81	21.56	46.00	-24.44	Peak	
6	555.7400	29.18	-4.83	24.35	46.00	-21.65	Peak	

Test Mode:	TX 2480MHz _CH78_1Mbps

Horizontal

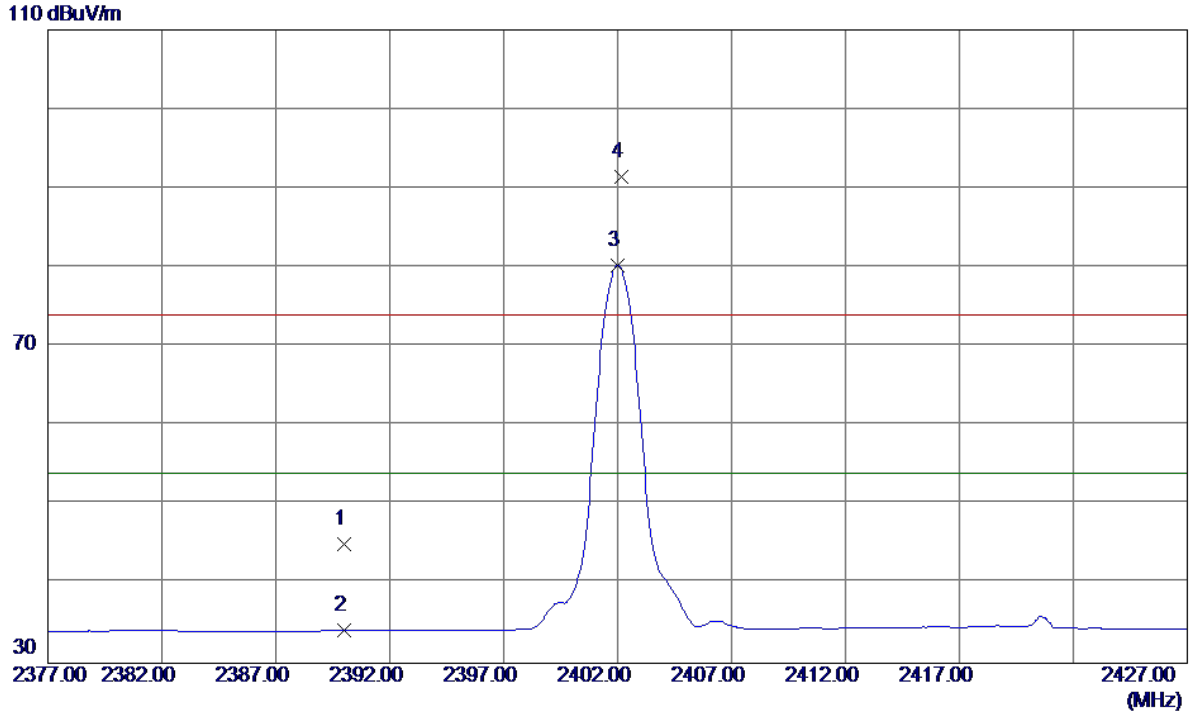


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	46.4900	29.13	-12.59	16.54	40.00	-23.46	Peak	
2	174.5300	33.67	-12.51	21.16	43.50	-22.34	Peak	
3	280.2600	36.51	-12.01	24.50	46.00	-21.50	Peak	
4 *	323.9100	41.34	-10.67	30.67	46.00	-15.33	Peak	
5	554.7700	29.80	-4.78	25.02	46.00	-20.98	Peak	
6	710.9400	29.93	-2.07	27.86	46.00	-18.14	Peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

Test Mode :	TX 2402MHz _CH00_1Mbps

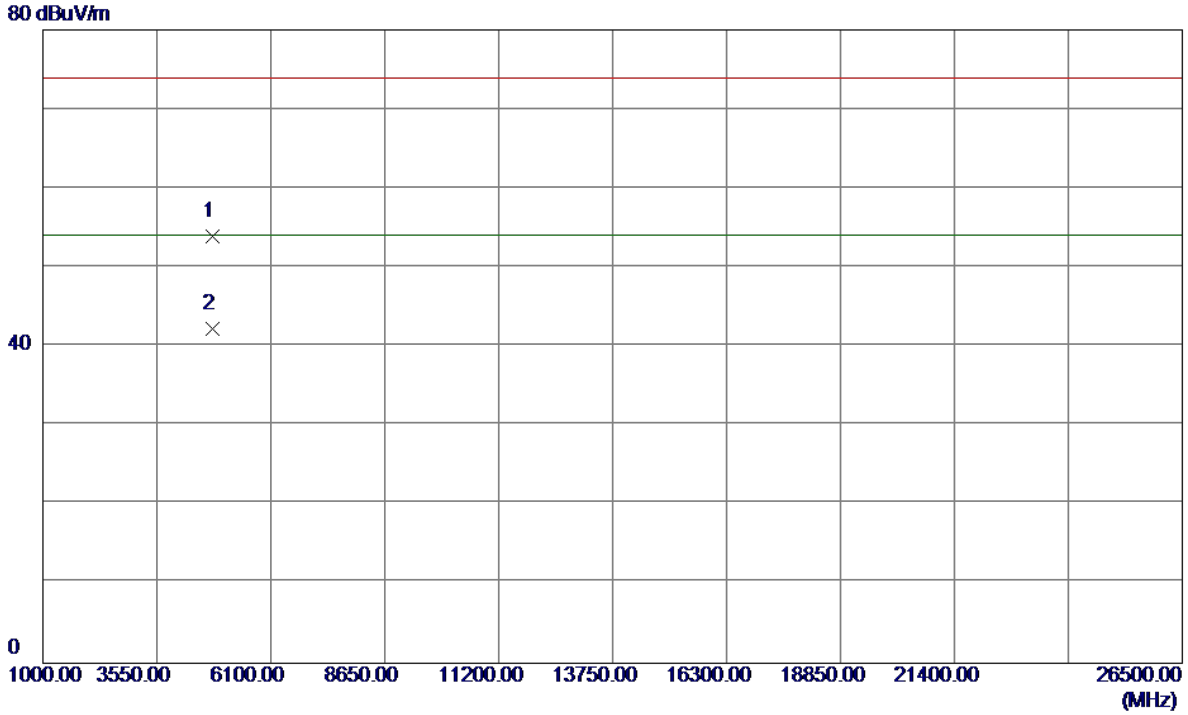
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	11.84	33.13	44.97	74.00	-29.03	Peak	
2	2390.0000	1.00	33.13	34.13	54.00	-19.87	AVG	
3 *	2402.0000	47.07	33.18	80.25	54.00	26.25	AVG	No Limit
4	2402.1500	58.24	33.18	91.42	74.00	17.42	Peak	No Limit

Test Mode :	TX 2402MHz _CH00_1Mbps

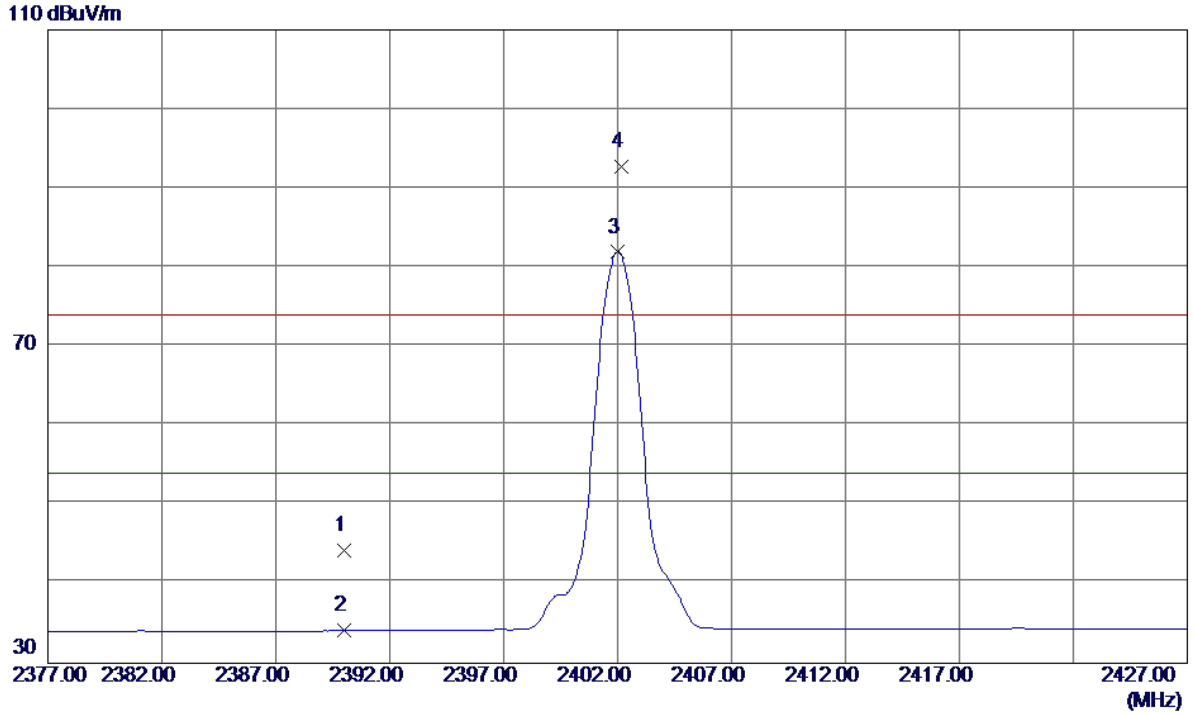
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4803.7500	48.48	5.36	53.84	74.00	-20.16	Peak	
2 *	4804.0000	36.95	5.36	42.31	54.00	-11.69	AVG	

Test Mode :	TX 2402MHz _CH00_1Mbps

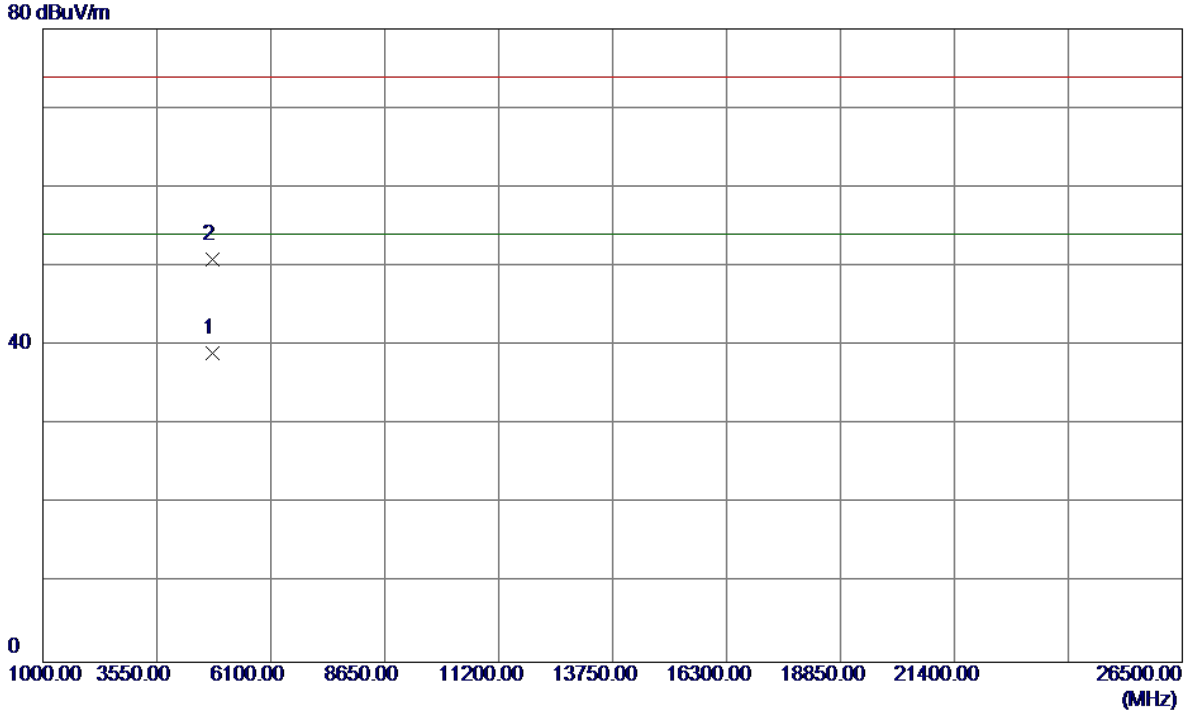
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	11.15	33.13	44.28	74.00	-29.72	Peak	
2	2390.0000	0.98	33.13	34.11	54.00	-19.89	AVG	
3 *	2402.0000	48.74	33.18	81.92	54.00	27.92	AVG	No Limit
4	2402.1500	59.52	33.18	92.70	74.00	18.70	Peak	No Limit

Test Mode :	TX 2402MHz _CH00_1Mbps

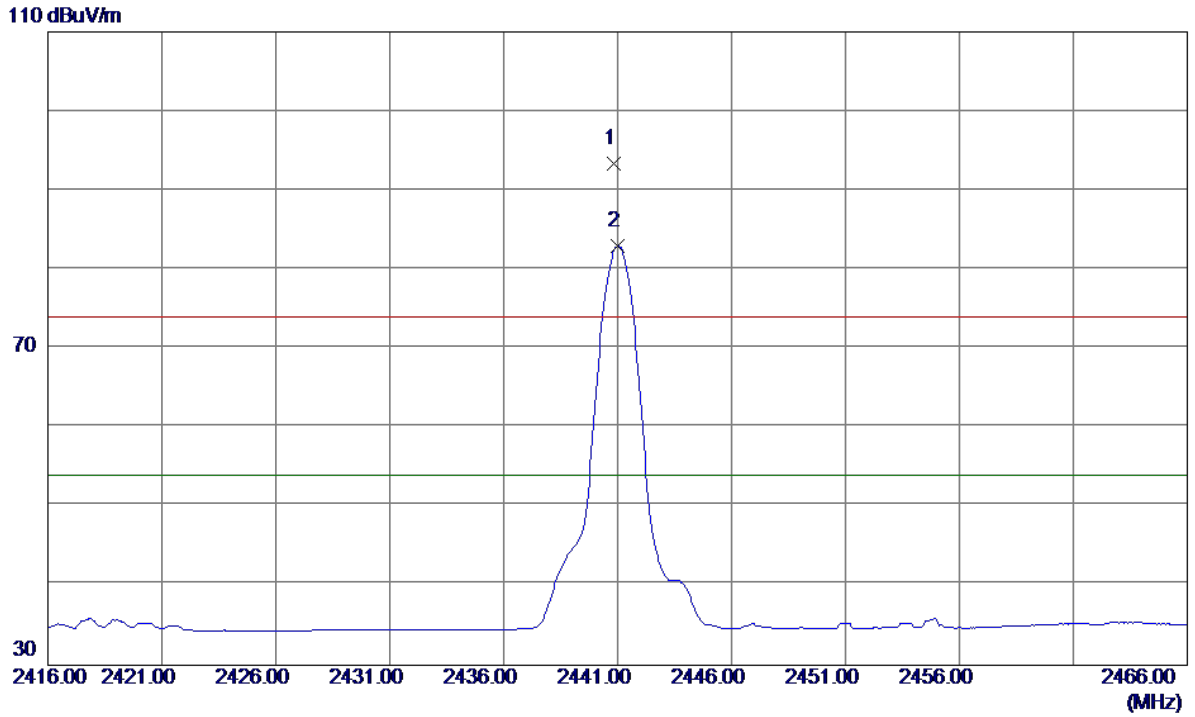
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4804.0000	33.67	5.36	39.03	54.00	-14.97	AVG	
2	4803.6000	45.48	5.36	50.84	74.00	-23.16	Peak	

Test Mode :	TX 2441MHz _CH39_1Mbps

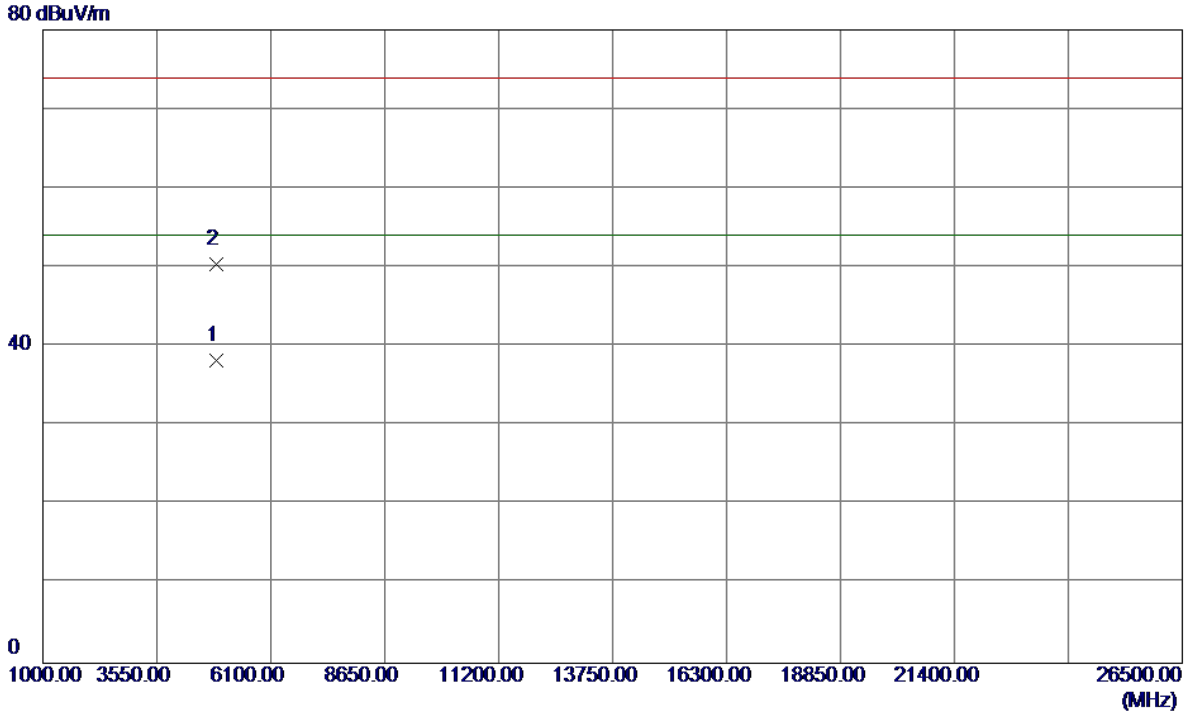
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440.8500	59.94	33.35	93.29	74.00	19.29	Peak	No Limit
2 *	2441.0000	49.60	33.35	82.95	54.00	28.95	AVG	No Limit

Test Mode :	TX 2441MHz _CH39_1Mbps

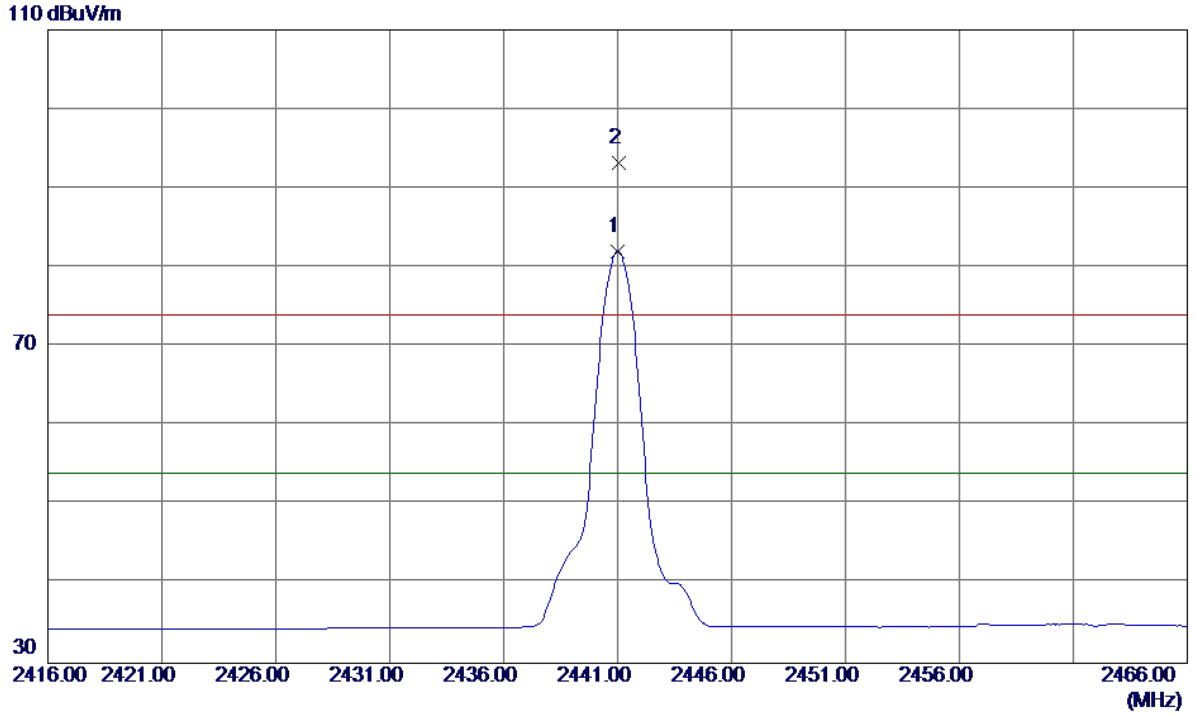
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4882.0000	32.56	5.74	38.30	54.00	-15.70	AVG	
2	4881.8000	44.74	5.74	50.48	74.00	-23.52	Peak	

Test Mode :	TX 2441MHz _CH39_1Mbps

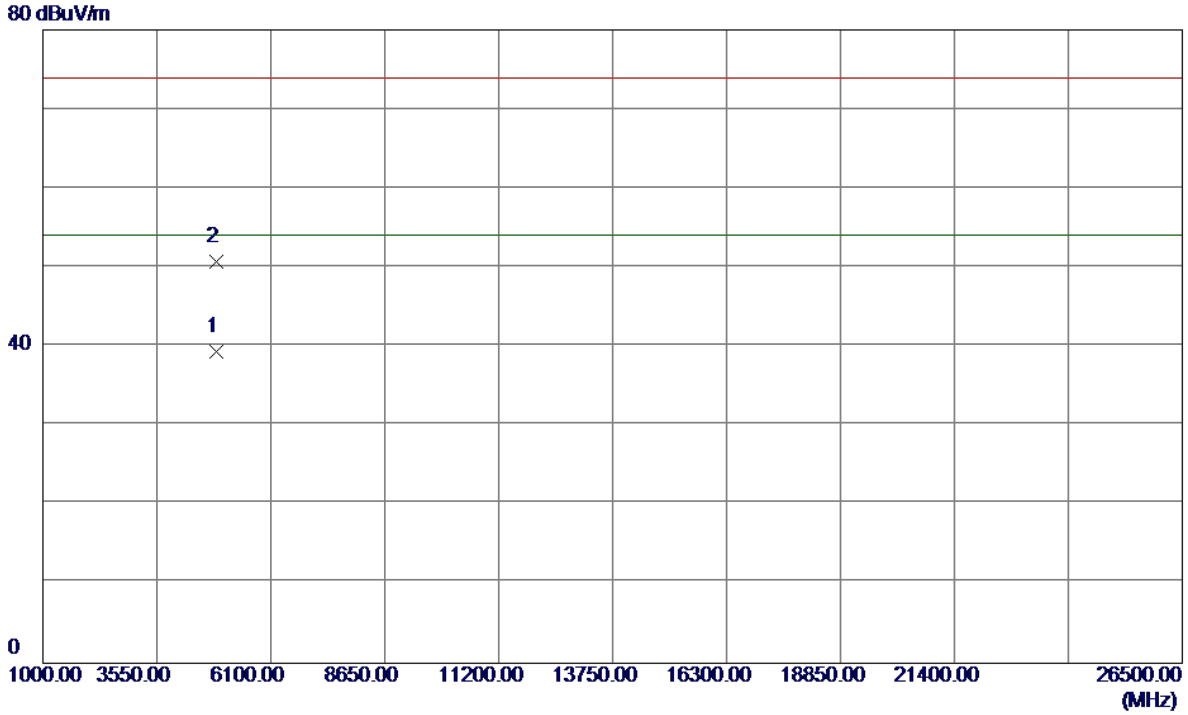
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2441.0000	48.62	33.35	81.97	54.00	27.97	AVG	No Limit
2	2441.0500	59.92	33.35	93.27	74.00	19.27	Peak	No Limit

Test Mode :	TX 2441MHz _CH39_1Mbps

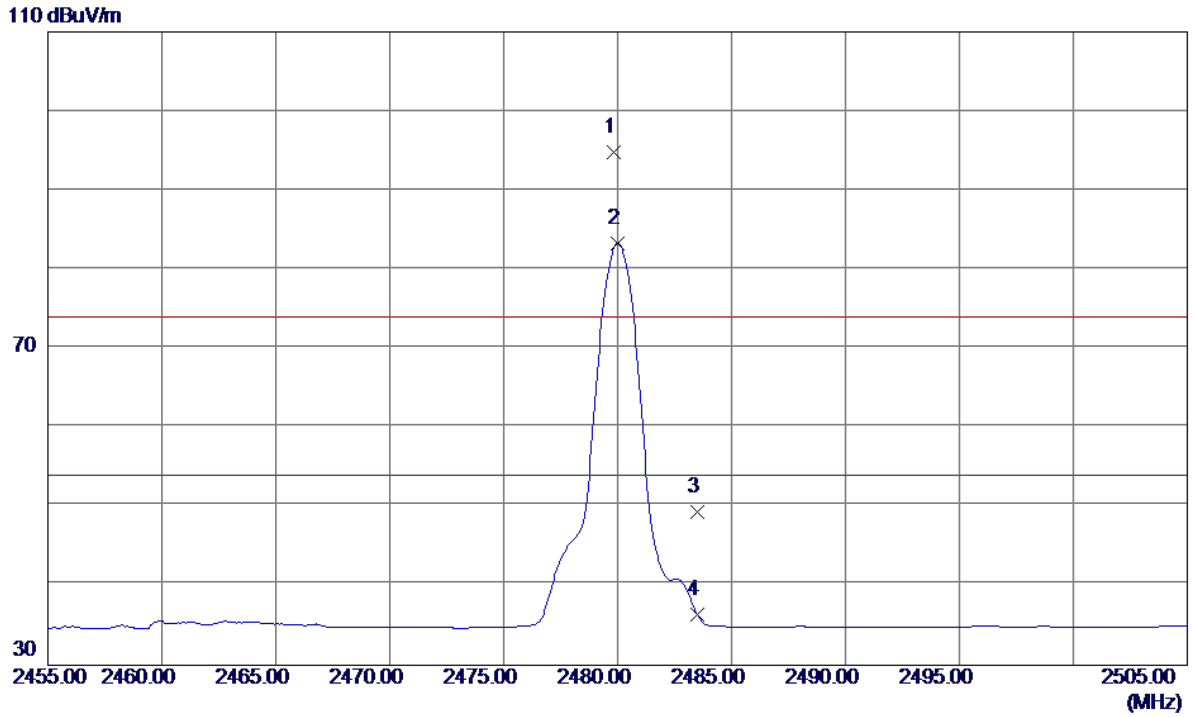
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4882.0000	33.61	5.74	39.35	54.00	-14.65	AVG	
2	4881.9500	44.95	5.74	50.69	74.00	-23.31	Peak	

Test Mode :	TX 2480MHz _CH78_1Mbps

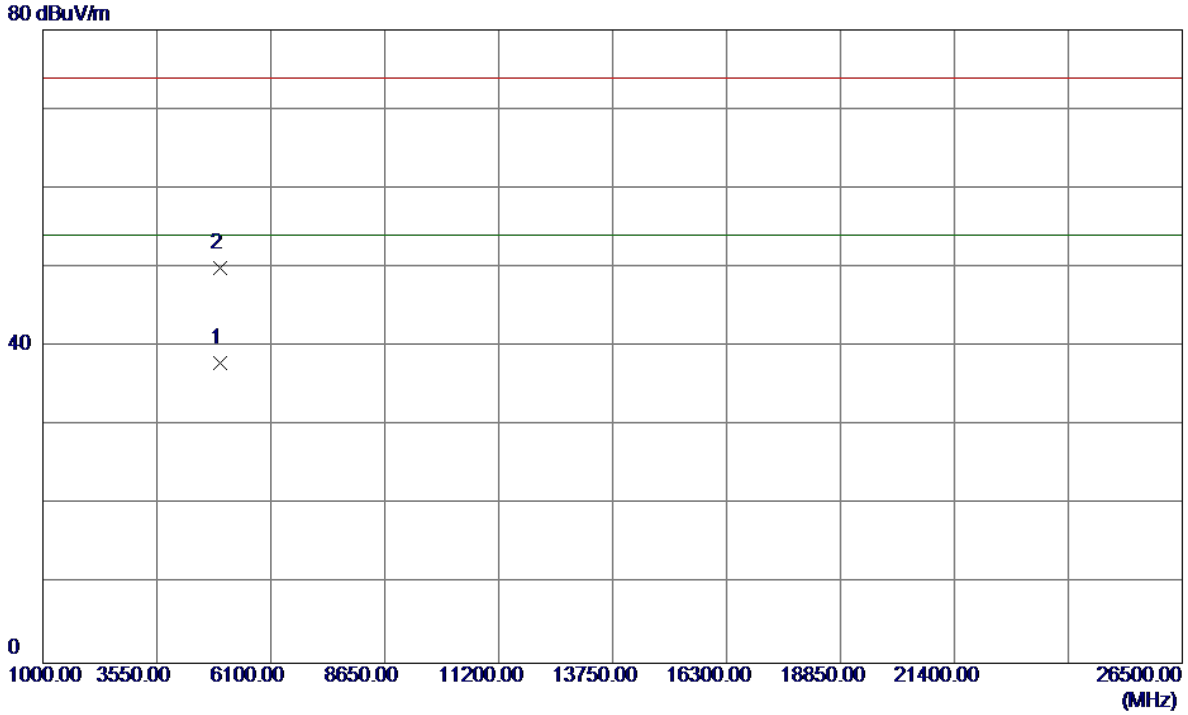
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.8500	61.25	33.52	94.77	74.00	20.77	Peak	No Limit
2 *	2480.0000	49.73	33.52	83.25	54.00	29.25	AVG	No Limit
3	2483.5000	15.78	33.54	49.32	74.00	-24.68	Peak	
4	2483.5000	2.85	33.54	36.39	54.00	-17.61	AVG	

Test Mode :	TX 2480MHz _CH78_1Mbps

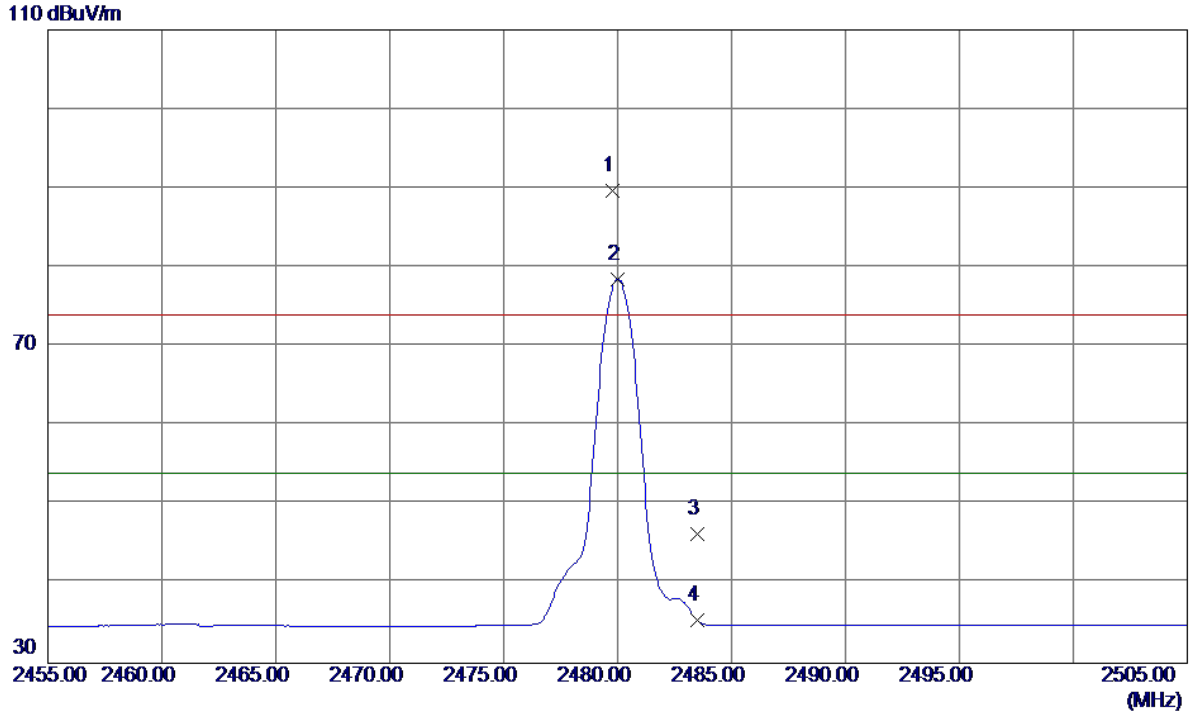
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4960.0000	31.78	6.12	37.90	54.00	-16.10	AVG	
2	4960.1000	43.81	6.12	49.93	74.00	-24.07	Peak	

Test Mode :	TX 2480MHz _CH78_1Mbps

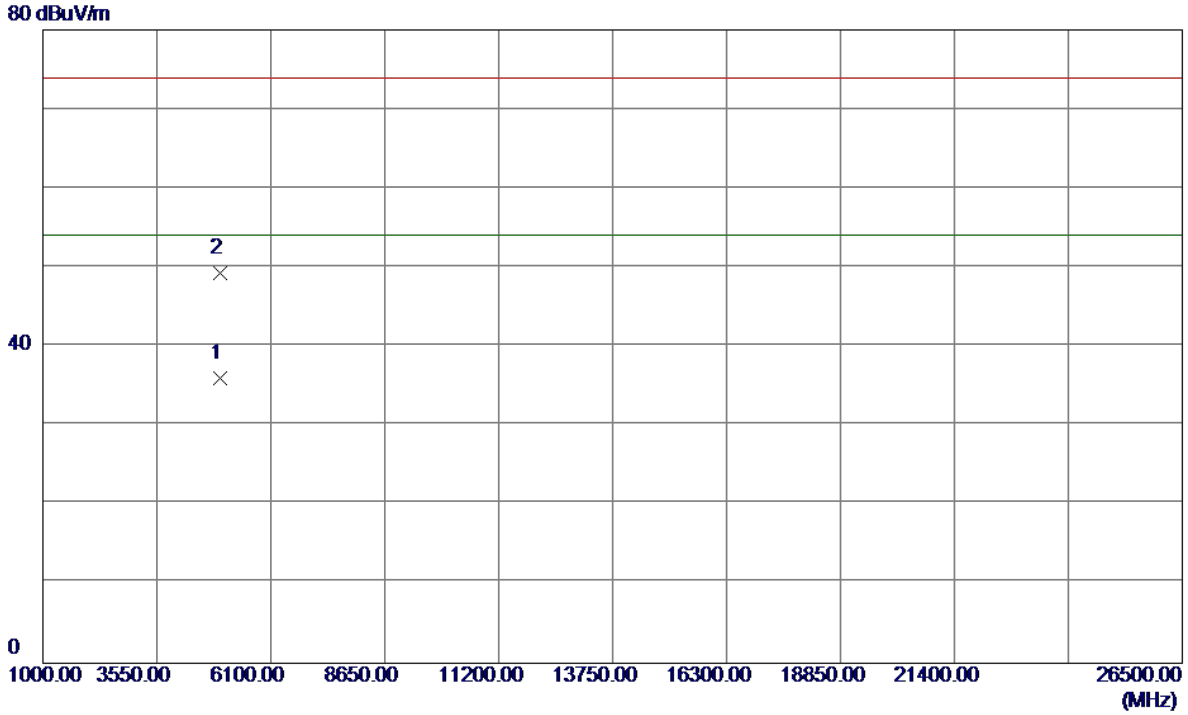
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.8000	56.14	33.52	89.66	74.00	15.66	Peak	No Limit
2 *	2480.0000	44.97	33.52	78.49	54.00	24.49	AVG	No Limit
3	2483.5000	12.77	33.54	46.31	74.00	-27.69	Peak	
4	2483.5000	1.90	33.54	35.44	54.00	-18.56	AVG	

Test Mode :	TX 2480MHz _CH78_1Mbps

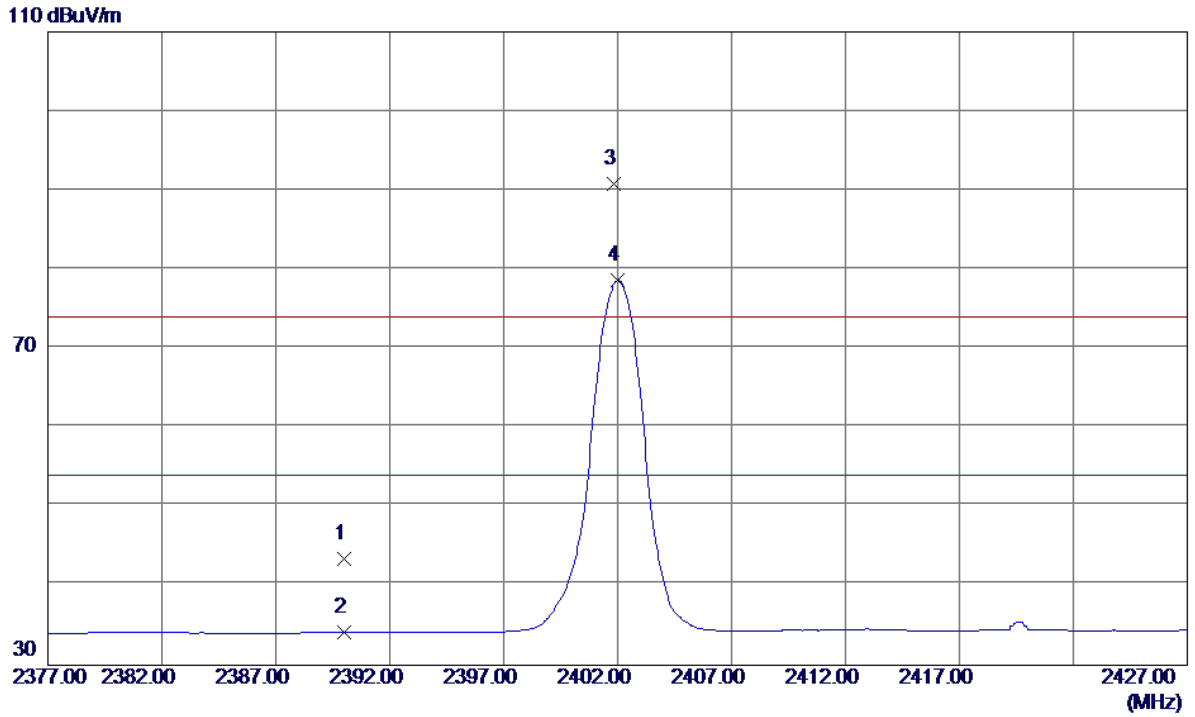
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4960.0000	29.95	6.12	36.07	54.00	-17.93	AVG	
2	4960.2000	43.09	6.12	49.21	74.00	-24.79	Peak	

Test Mode :	TX 2402MHz _CH00_3Mbps

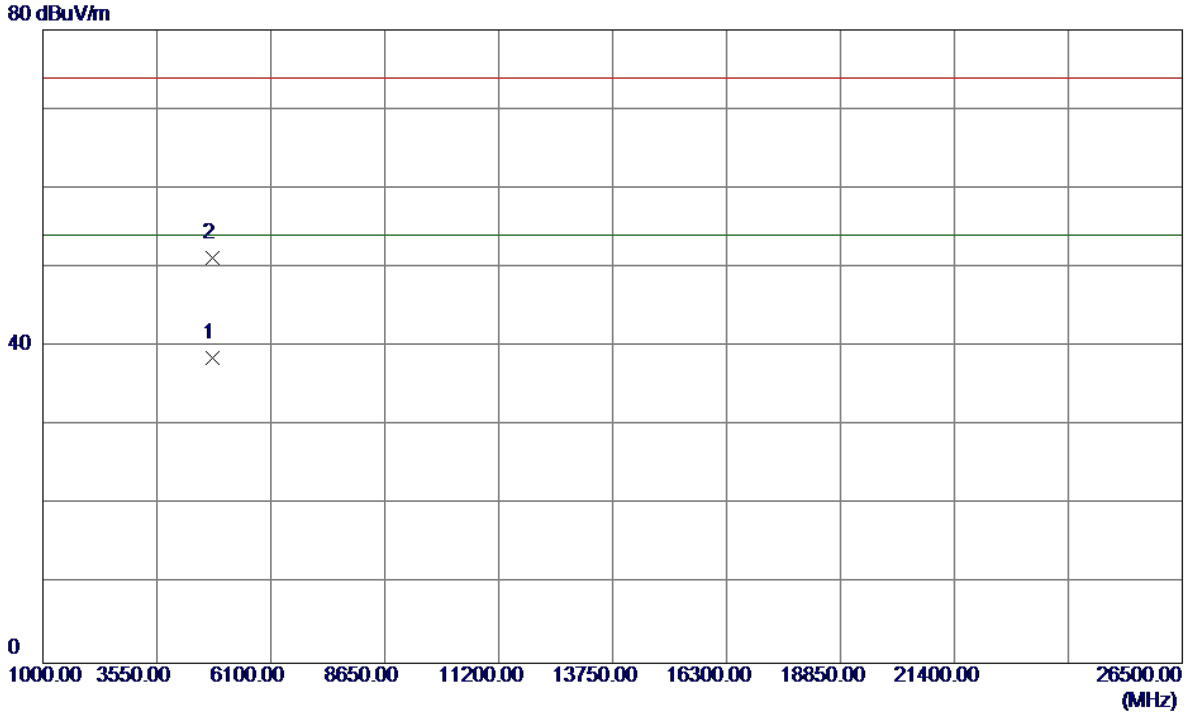
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	10.38	33.13	43.51	74.00	-30.49	Peak	
2	2390.0000	1.03	33.13	34.16	54.00	-19.84	AVG	
3	2401.8500	57.57	33.18	90.75	74.00	16.75	Peak	No Limit
4 *	2402.0000	45.41	33.18	78.59	54.00	24.59	AVG	No Limit

Test Mode :	TX 2402MHz _CH00_3Mbps

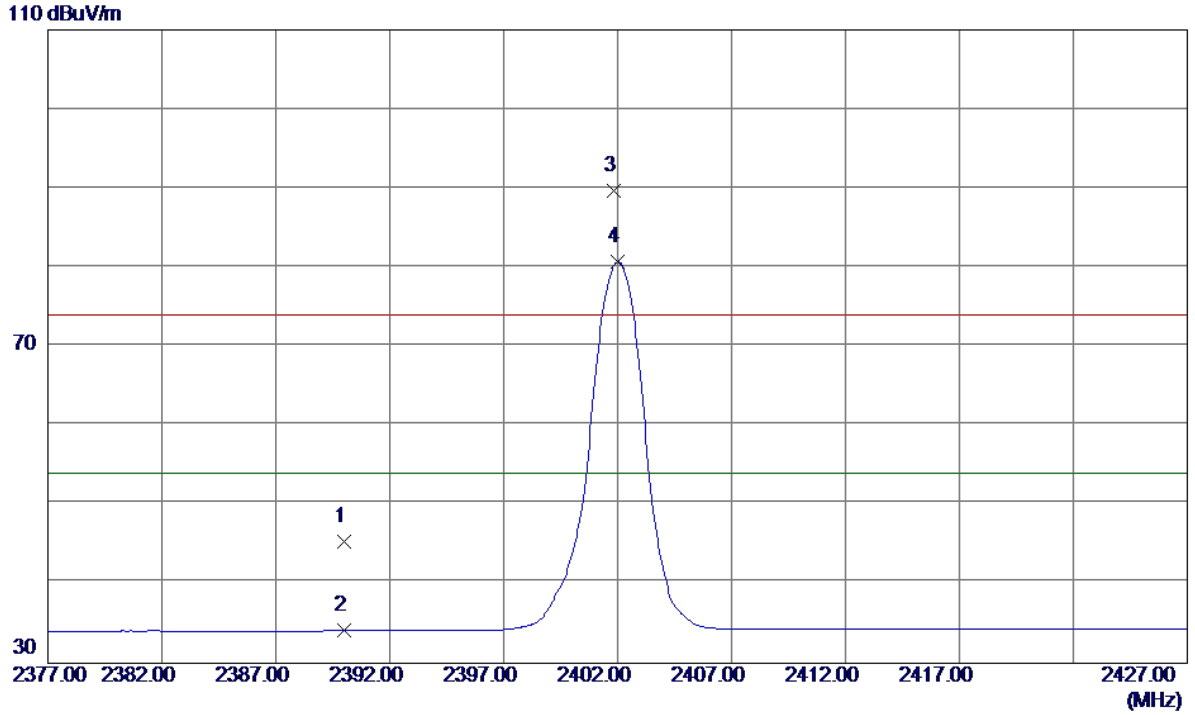
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4804.0000	33.15	5.36	38.51	54.00	-15.49	AVG	
2	4803.6500	45.80	5.36	51.16	74.00	-22.84	Peak	

Test Mode :	TX 2402MHz _CH00_3Mbps

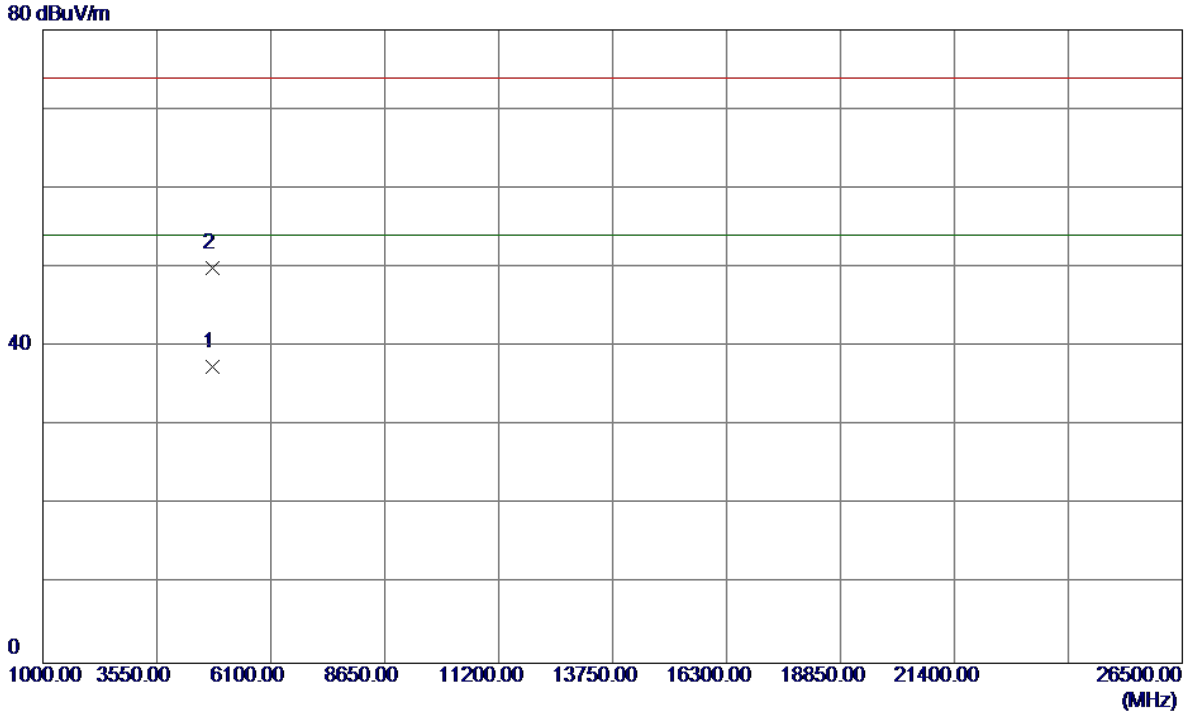
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	12.29	33.13	45.42	74.00	-28.58	Peak	
2	2390.0000	0.98	33.13	34.11	54.00	-19.89	AVG	
3	2401.8500	56.44	33.18	89.62	74.00	15.62	Peak	No Limit
4 *	2402.0000	47.49	33.18	80.67	54.00	26.67	AVG	No Limit

Test Mode :	TX 2402MHz _CH00_3Mbps

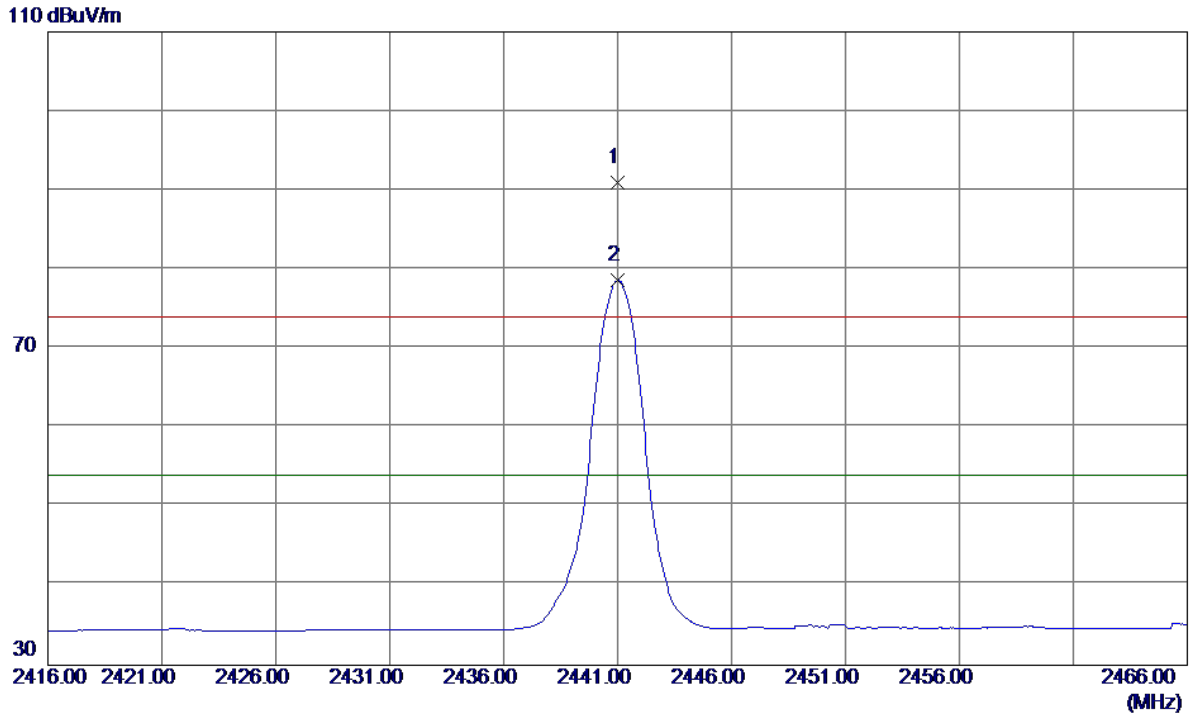
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4804.0000	32.09	5.36	37.45	54.00	-16.55	AVG	
2	4804.1000	44.62	5.36	49.98	74.00	-24.02	Peak	

Test Mode :	TX 2441MHz _CH39_3Mbps

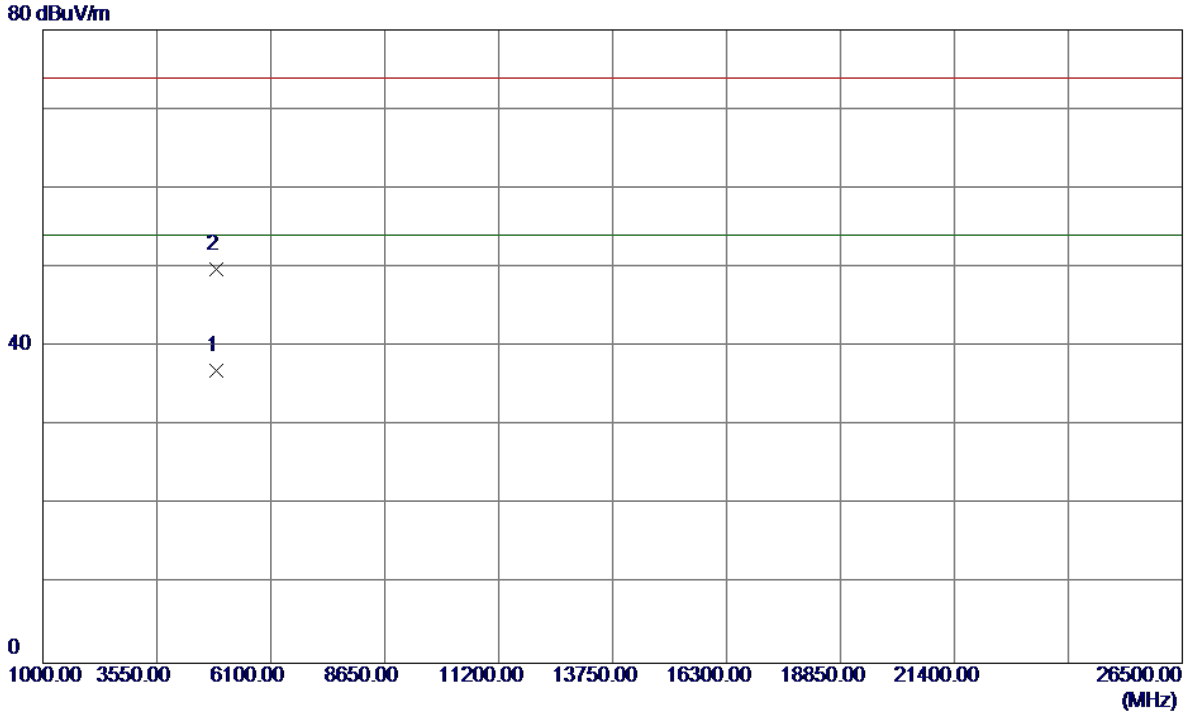
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2441.0000	57.66	33.35	91.01	74.00	17.01	Peak	No Limit
2 *	2441.0000	45.25	33.35	78.60	54.00	24.60	AVG	No Limit

Test Mode :	TX 2441MHz _CH39_3Mbps

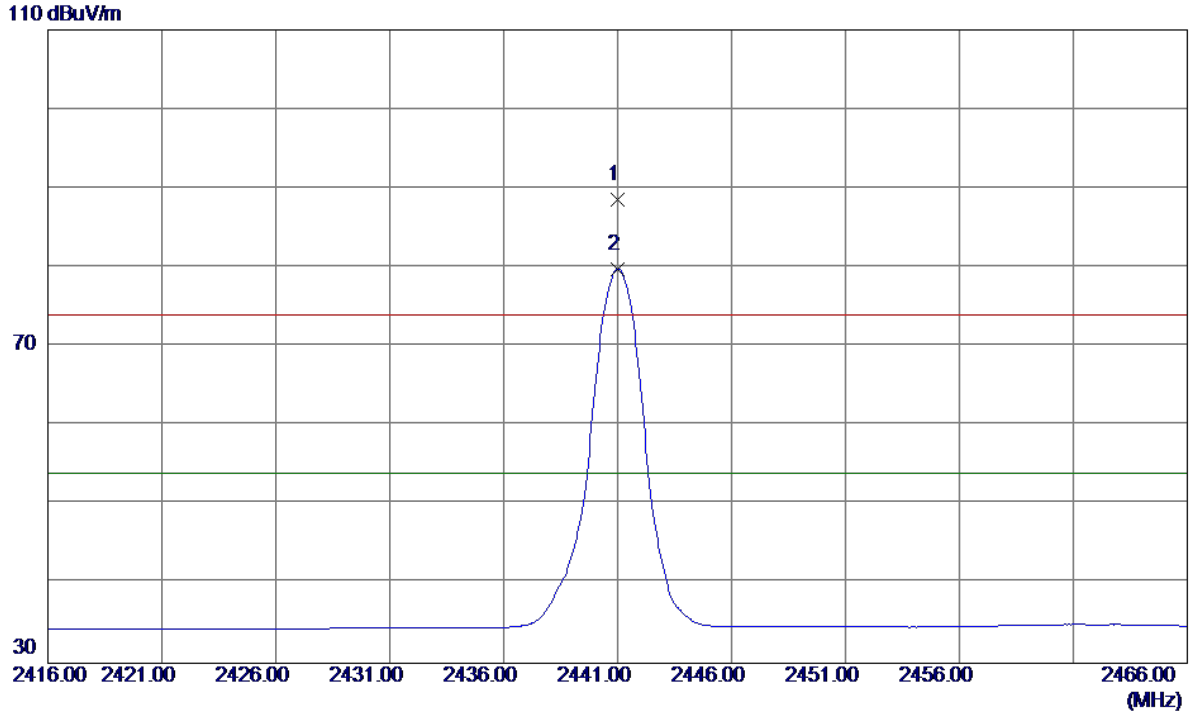
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4882.0000	31.19	5.74	36.93	54.00	-17.07	AVG	
2	4882.2000	43.96	5.74	49.70	74.00	-24.30	Peak	

Test Mode :	TX 2441MHz _CH39_3Mbps

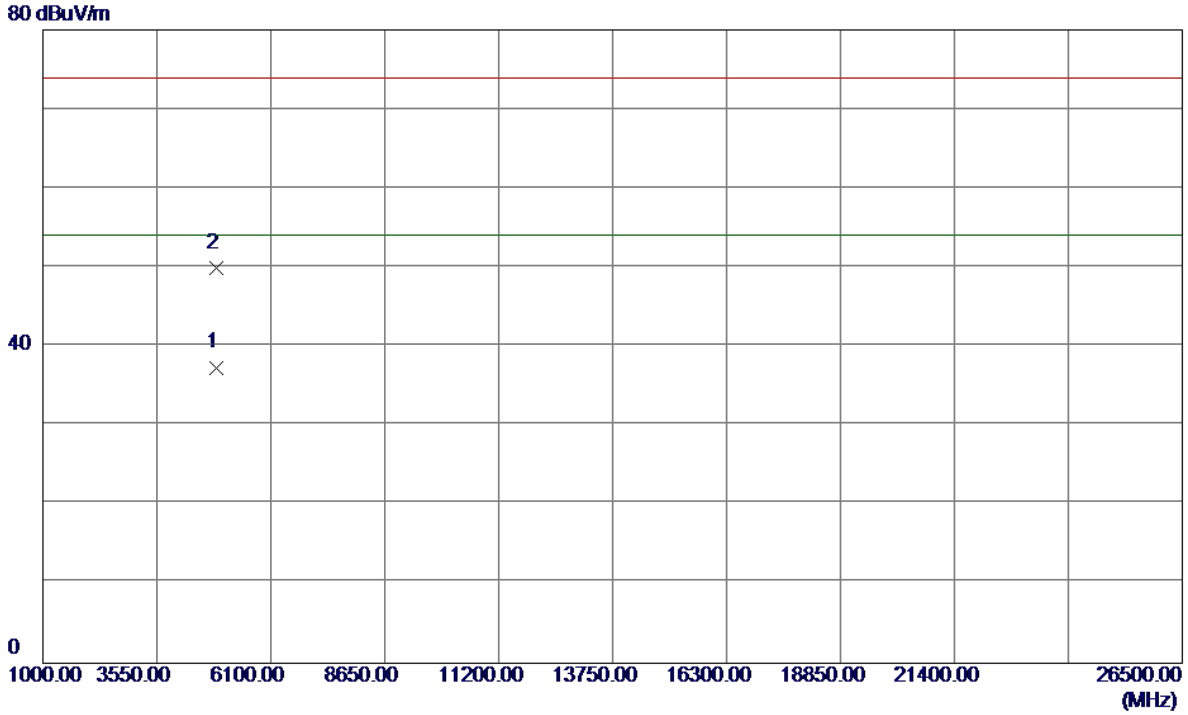
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2441.0000	55.17	33.35	88.52	74.00	14.52	Peak	No Limit
2 *	2441.0000	46.42	33.35	79.77	54.00	25.77	AVG	No Limit

Test Mode :	TX 2441MHz _CH39_3Mbps

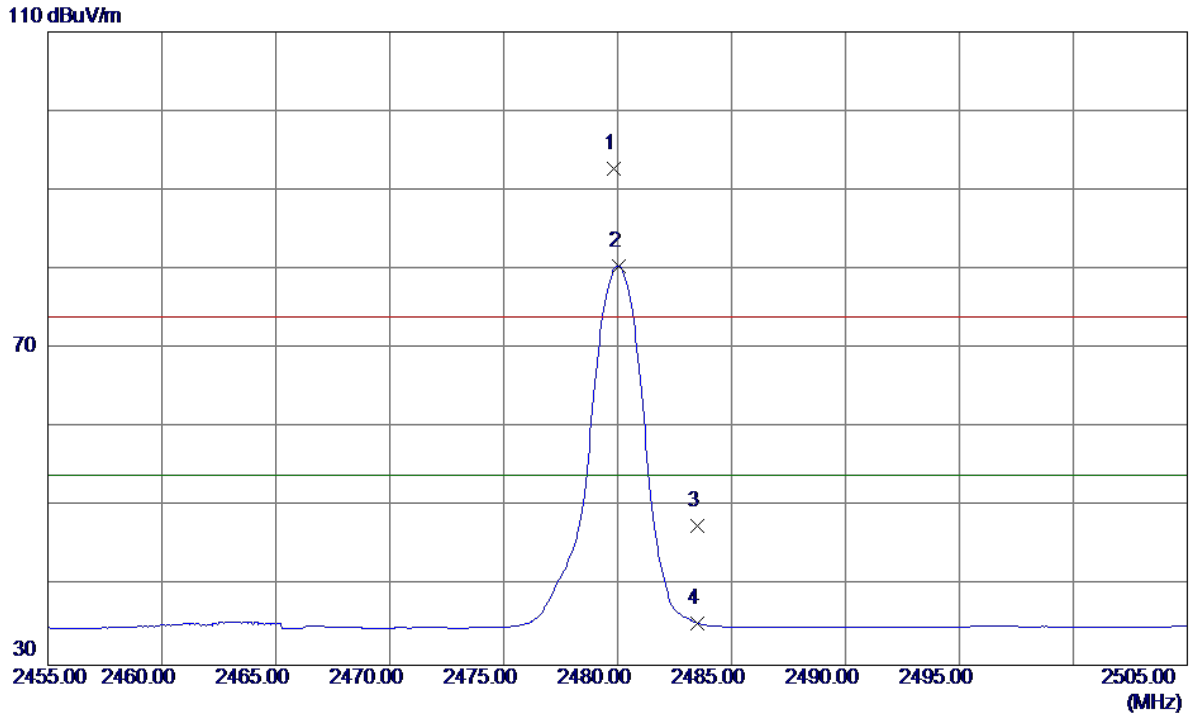
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4882.0000	31.62	5.74	37.36	54.00	-16.64	AVG	
2	4882.2000	44.25	5.74	49.99	74.00	-24.01	Peak	

Test Mode :	TX 2480MHz _CH78_3Mbps

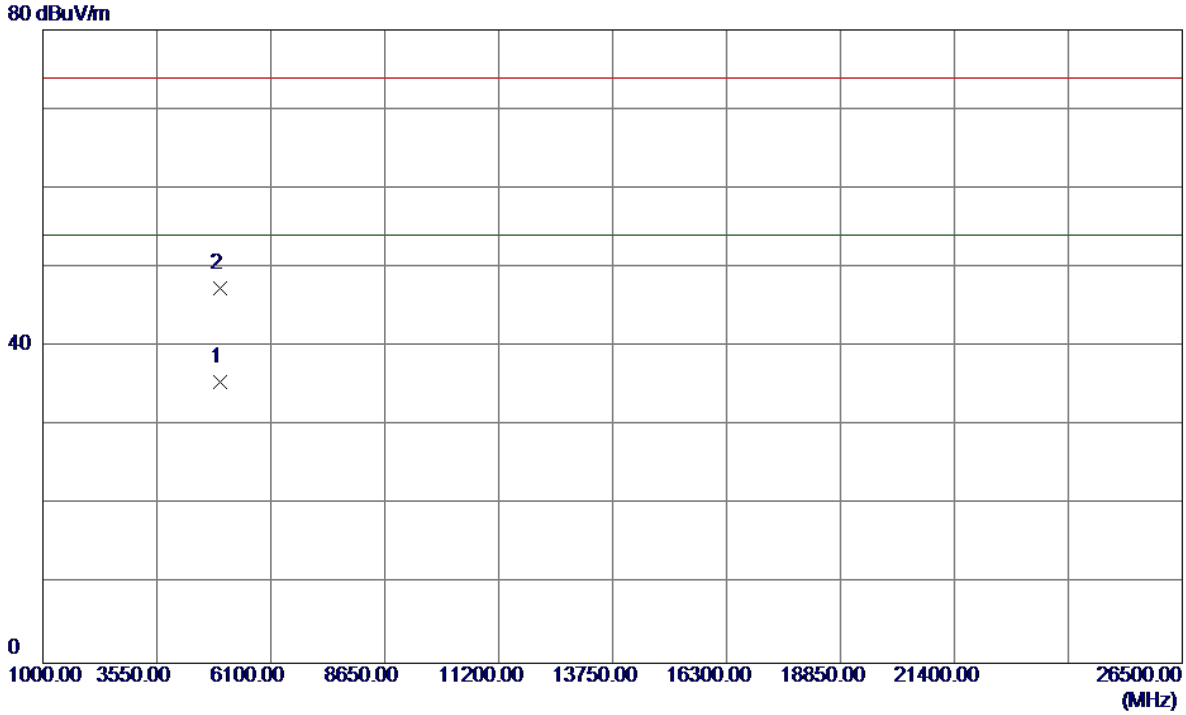
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.8500	59.15	33.52	92.67	74.00	18.67	Peak	No Limit
2 *	2480.0500	46.89	33.52	80.41	54.00	26.41	AVG	No Limit
3	2483.5000	14.09	33.54	47.63	74.00	-26.37	Peak	
4	2483.5000	1.78	33.54	35.32	54.00	-18.68	AVG	

Test Mode :	TX 2480MHz _CH78_3Mbps

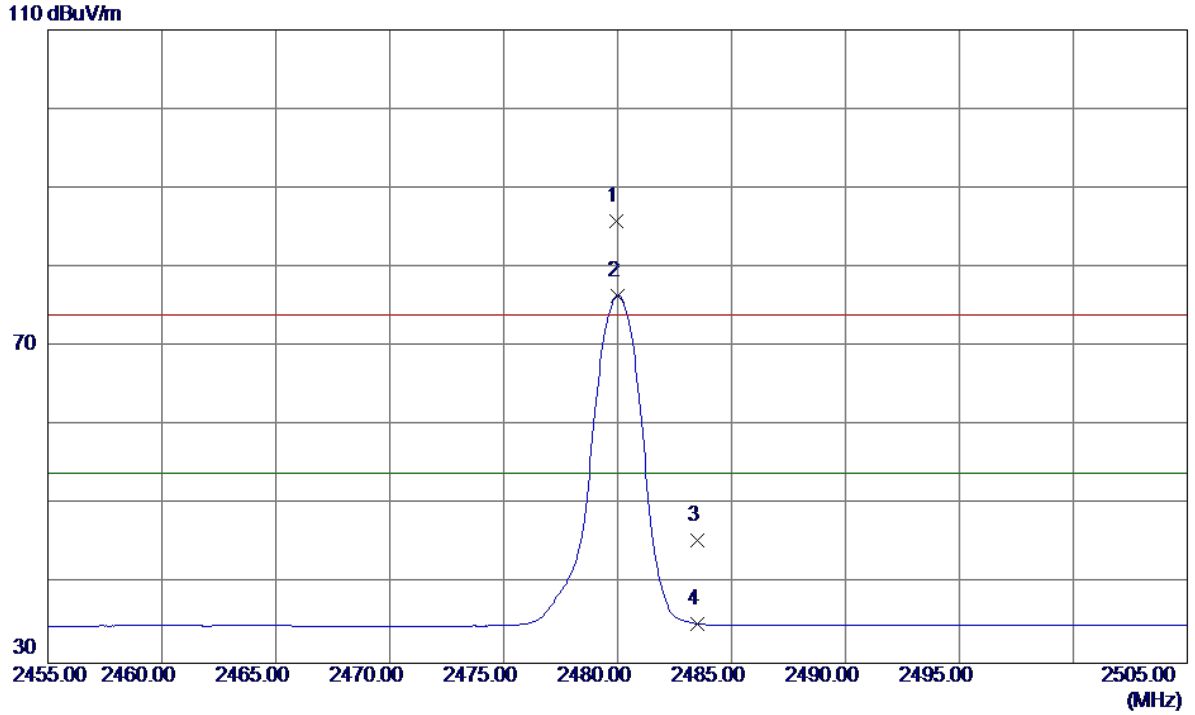
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4960.0000	29.40	6.12	35.52	54.00	-18.48	AVG	
2	4959.5500	41.19	6.11	47.30	74.00	-26.70	Peak	

Test Mode :	TX 2480MHz _CH78_3Mbps

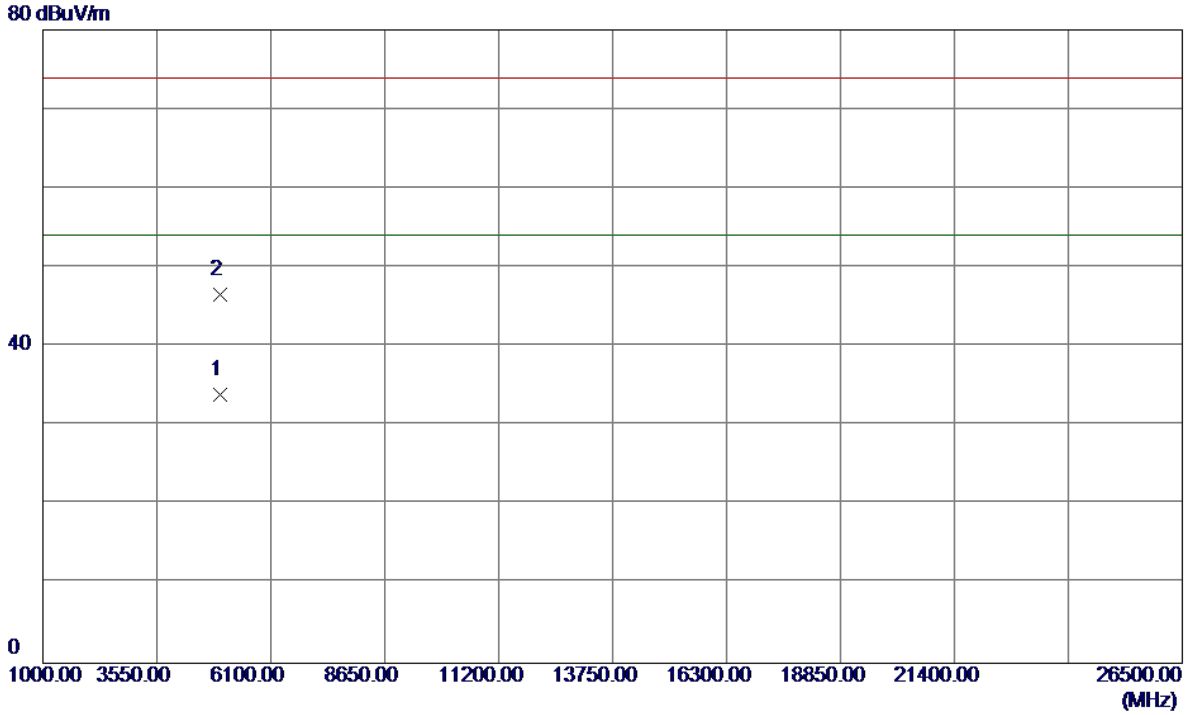
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.9500	52.29	33.52	85.81	74.00	11.81	Peak	No Limit
2 *	2480.0000	42.91	33.52	76.43	54.00	22.43	AVG	No Limit
3	2483.5000	12.04	33.54	45.58	74.00	-28.42	Peak	
4	2483.5000	1.44	33.54	34.98	54.00	-19.02	AVG	

Test Mode :	TX 2480MHz _CH78_3Mbps

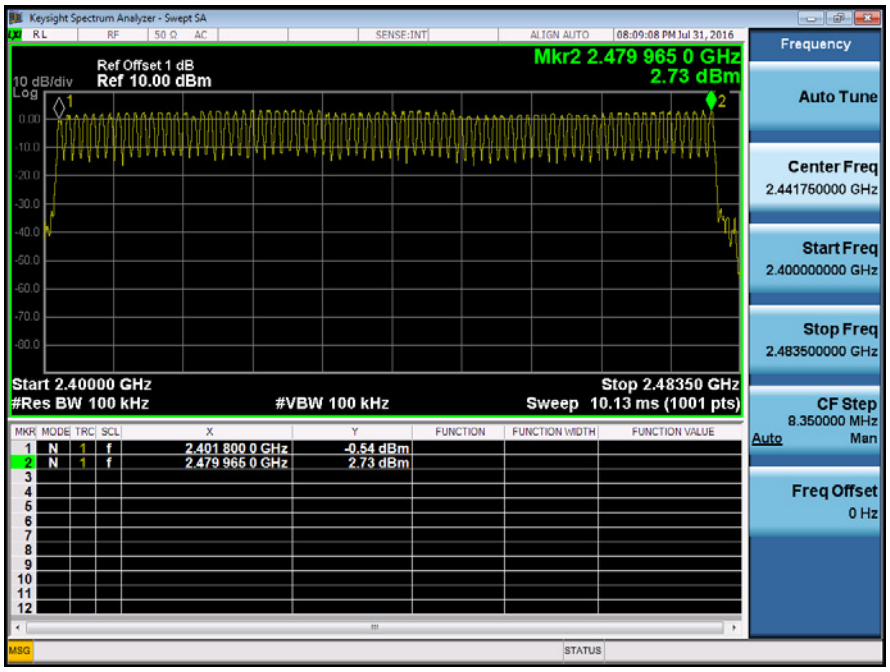
Horizontal



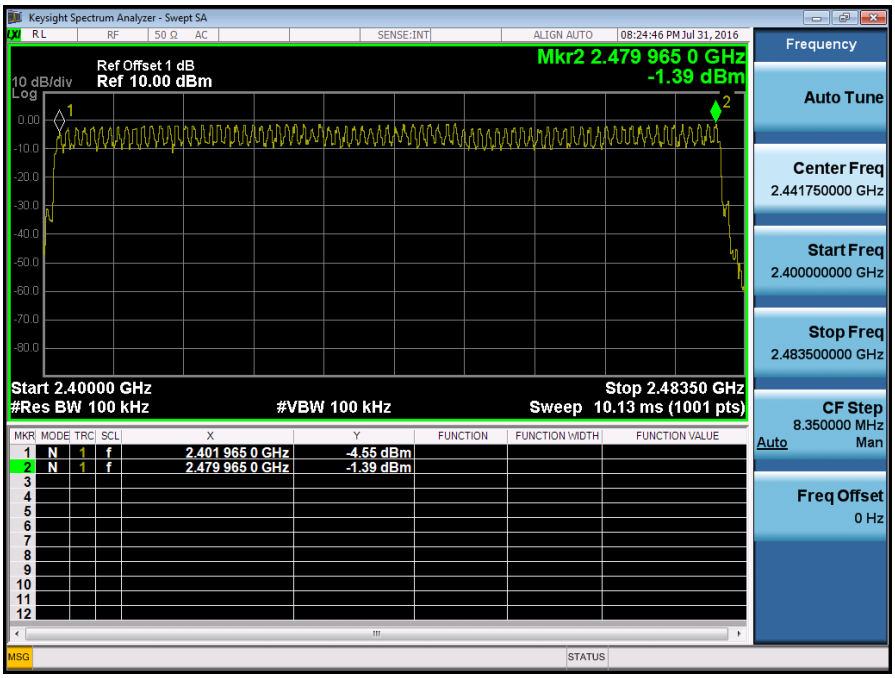
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4960.2000	27.79	6.12	33.91	54.00	-20.09	AVG	
2	4960.0000	40.50	6.12	46.62	74.00	-27.38	Peak	

ATTACHMENT E - NUMBER OF HOPPING CHANNEL

Test Mode	Hopping Mode_1Mbps
Number of Hopping Channel	79



Test Mode	Hopping Mode_3Mbps
Number of Hopping Channel	79

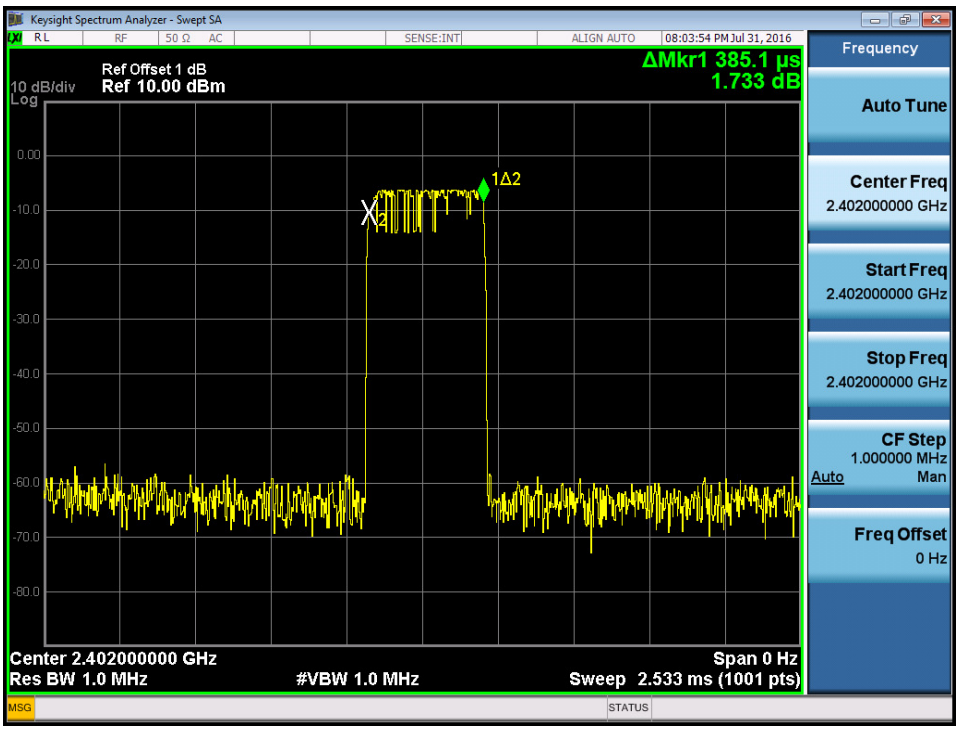


ATTACHMENT F - AVERAGE TIME OF OCCUPANCY

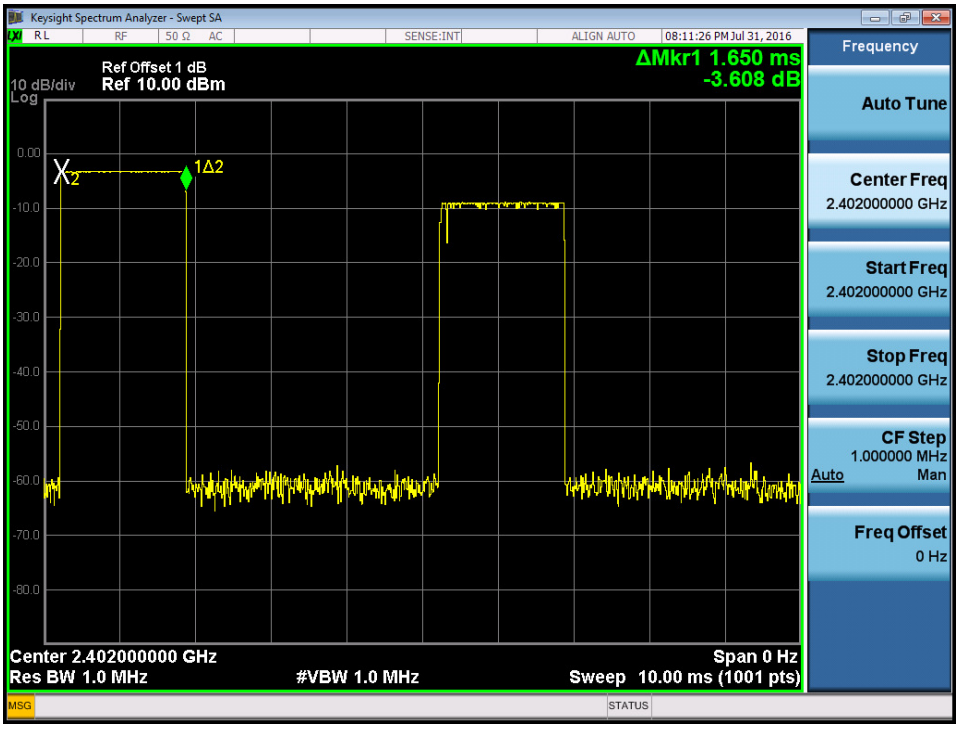
Test Mode :	TX Mode_1Mbps

Data Packet	Frequency (MHz)	Pulse Duration (ms)	Dwell Time (s)	Limits (s)	Test Result
DH5	2402	2.9000	0.3093	0.4000	Pass
DH3	2402	1.6500	0.1760	0.4000	Pass
DH1	2402	0.3851	0.0411	0.4000	Pass
DH5	2441	2.9000	0.3093	0.4000	Pass
DH3	2441	1.6400	0.1749	0.4000	Pass
DH1	2441	0.3901	0.0416	0.4000	Pass
DH5	2480	2.8800	0.3072	0.4000	Pass
DH3	2480	1.6400	0.1749	0.4000	Pass
DH1	2480	0.3901	0.0416	0.4000	Pass

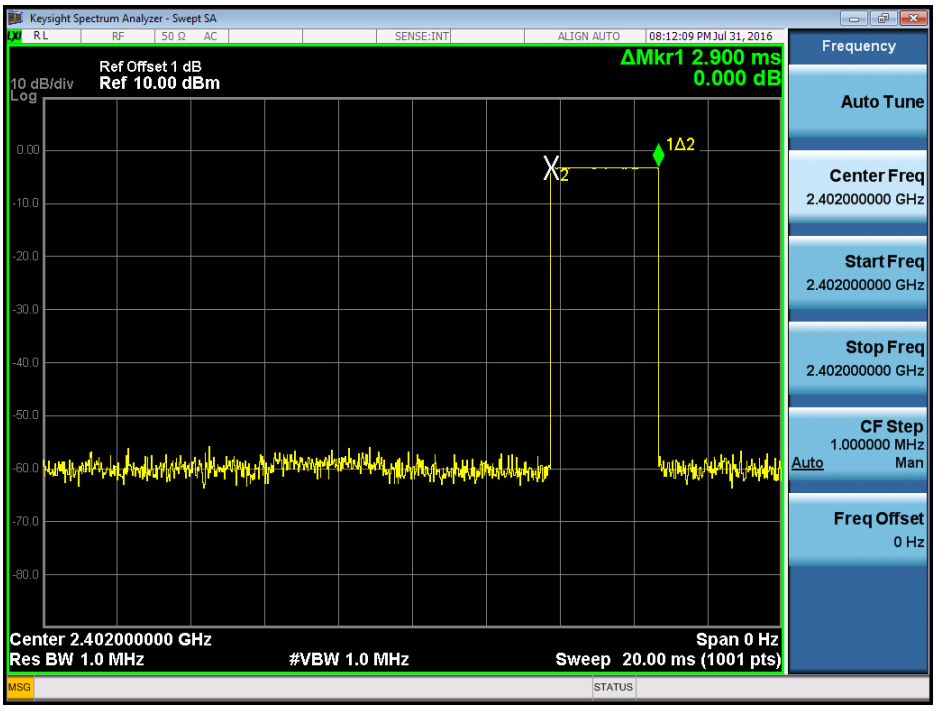
CH00-DH1



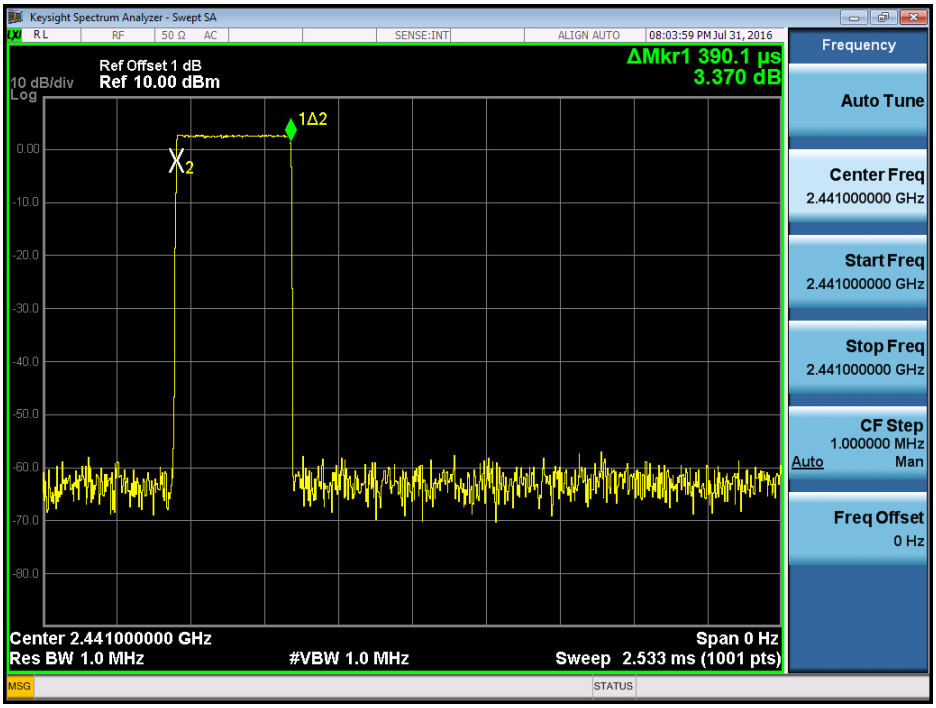
CH00-DH3



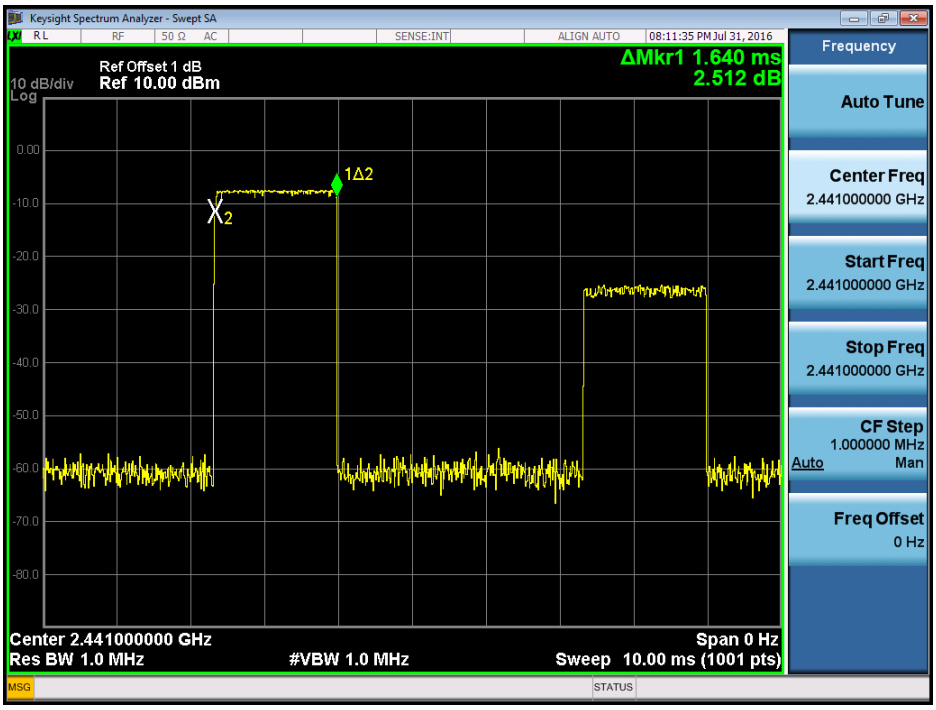
CH00-DH5



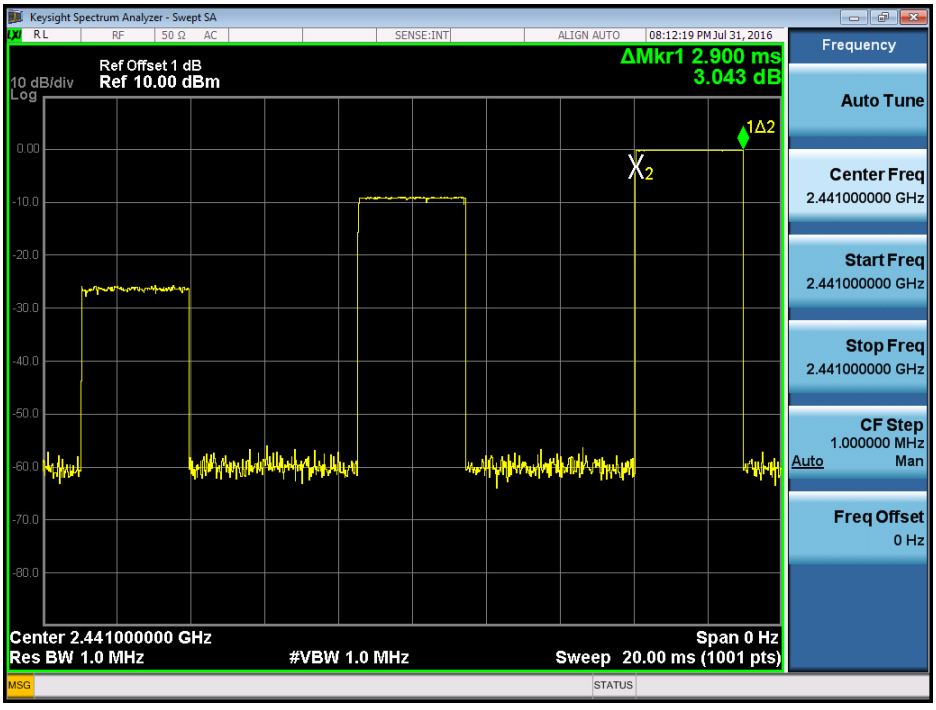
CH39-DH1



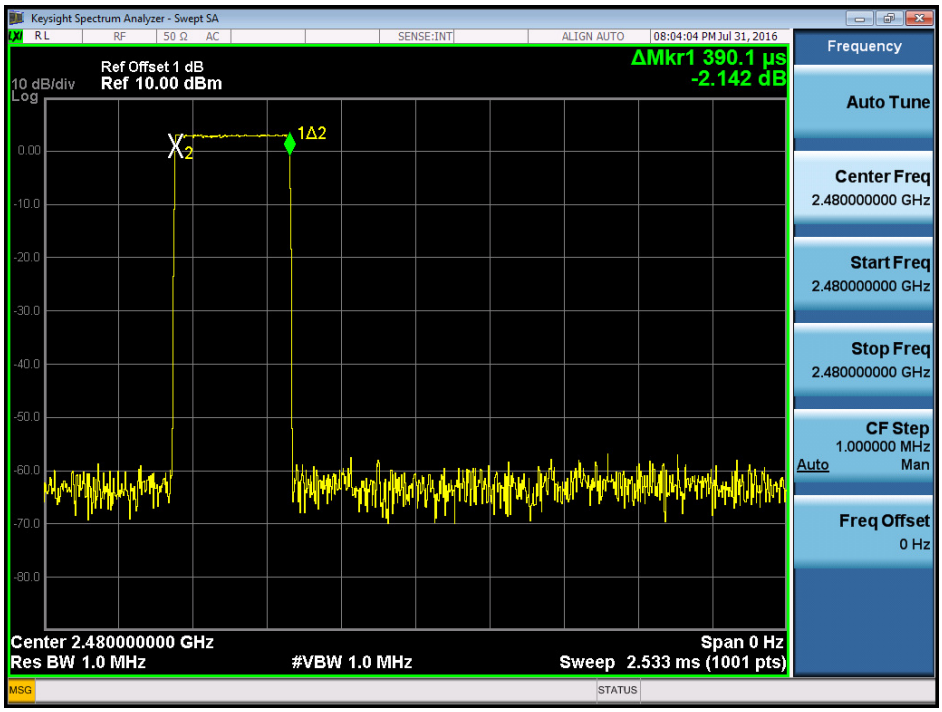
CH39-DH3



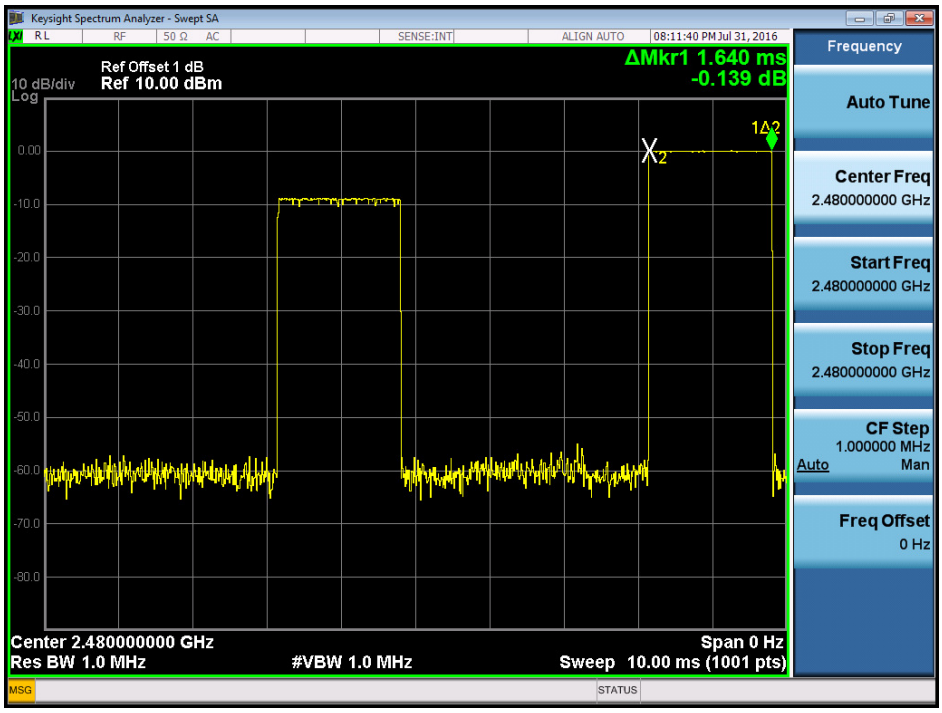
CH39-DH5



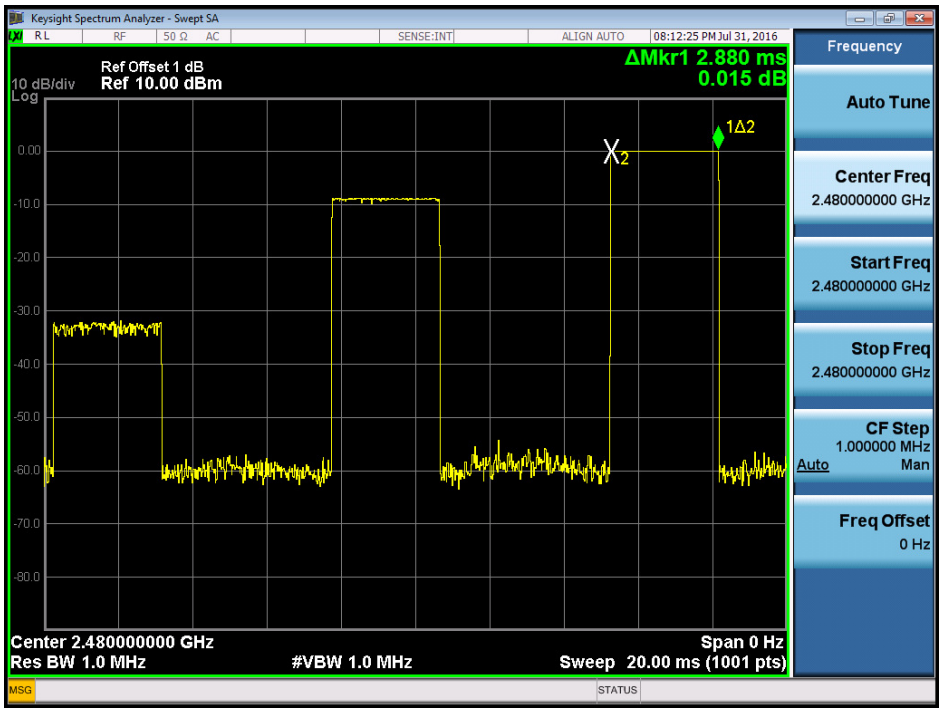
CH78-DH1



CH78-DH3



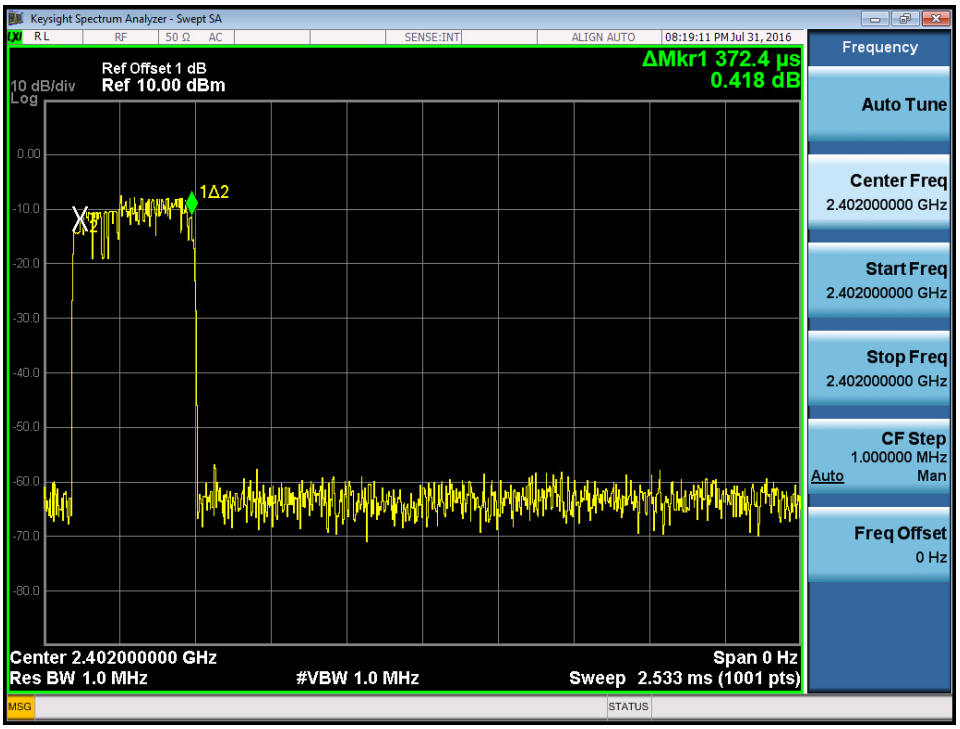
CH78-DH5


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:12:25 PM Jul 31, 2016
Ref Offset 1 dB
10 dB/div Ref 10.00 dBm
Log
ΔMkr1 2.880 ms
0.015 dB
1Δ2
X2
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.480000000 GHz
Res BW 1.0 MHz
#VBW 1.0 MHz
Span 0 Hz
Sweep 20.00 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.480000000 GHz
Stop Freq
2.480000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

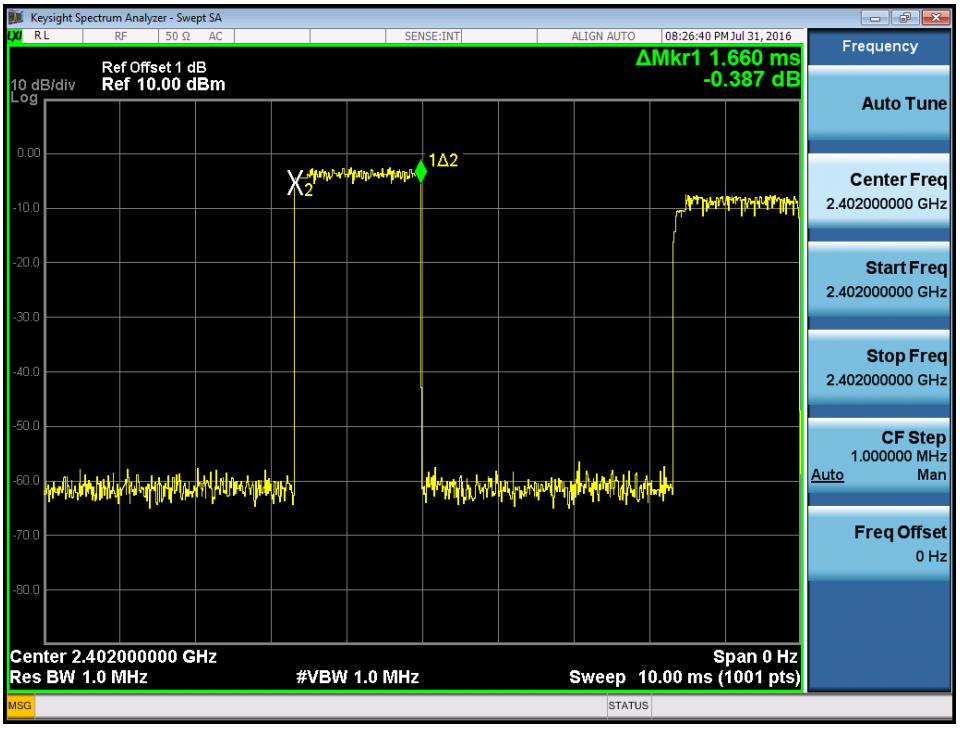
Test Mode :	TX Mode_3Mbps

Data Packet	Frequency	Pulse Duration(ms)	Dwell Time(s)	Limits(s)	Test Result
DH5	2402	2.9200	0.3115	0.4000	Pass
DH3	2402	1.6600	0.1771	0.4000	Pass
DH1	2402	0.3724	0.0397	0.4000	Pass
DH5	2441	2.9200	0.3115	0.4000	Pass
DH3	2441	1.6500	0.1760	0.4000	Pass
DH1	2441	0.3724	0.0397	0.4000	Pass
DH5	2480	2.9000	0.3093	0.4000	Pass
DH3	2480	1.6500	0.1760	0.4000	Pass
DH1	2480	0.3724	0.0397	0.4000	Pass

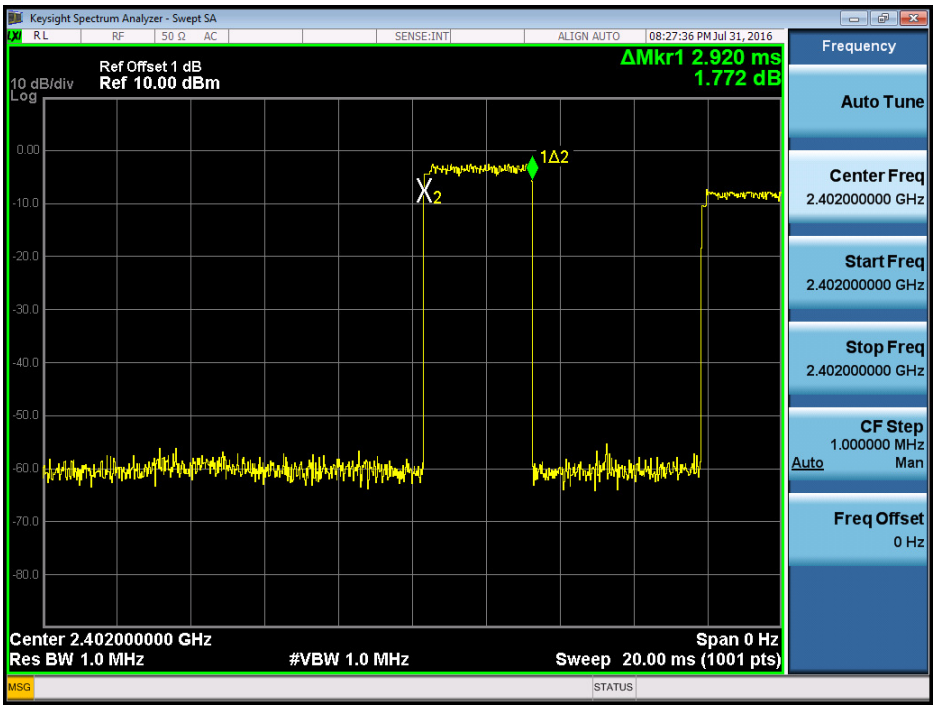
CH00-DH1



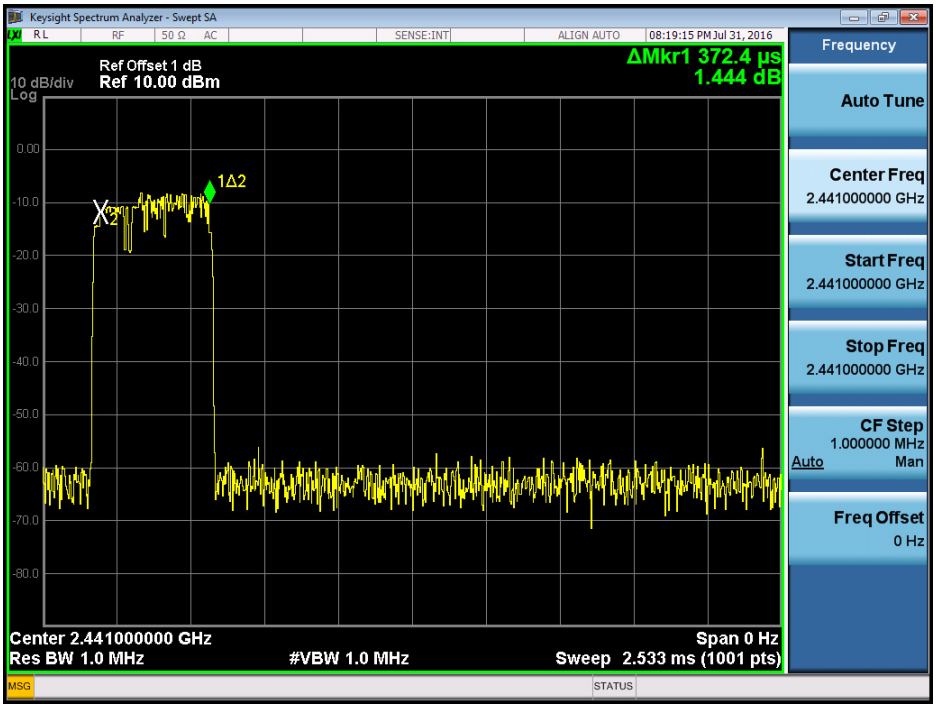
CH00-DH3



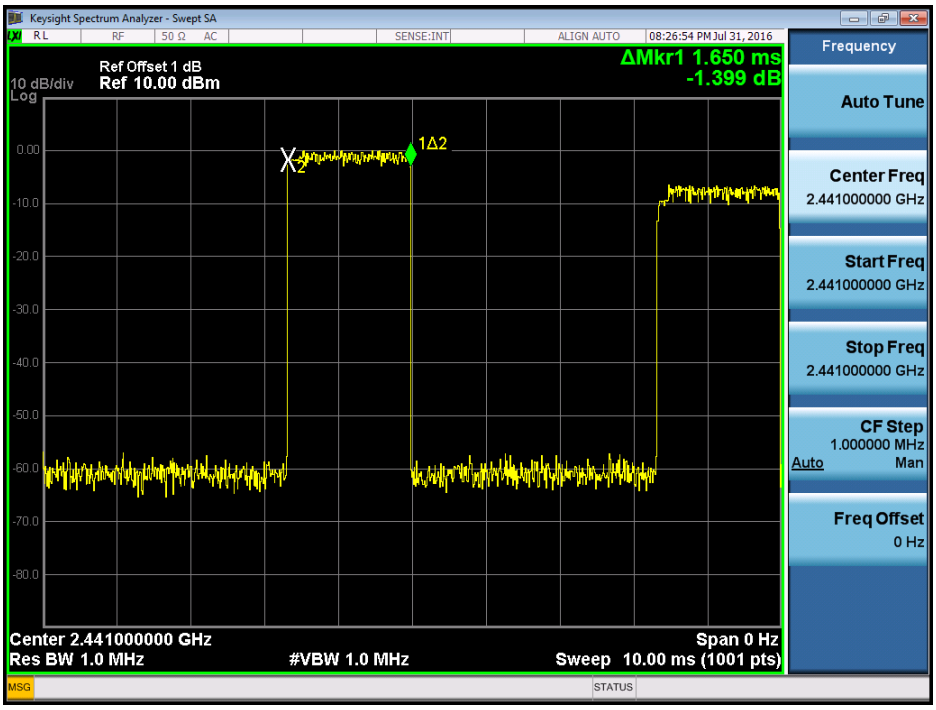
CH00-DH5



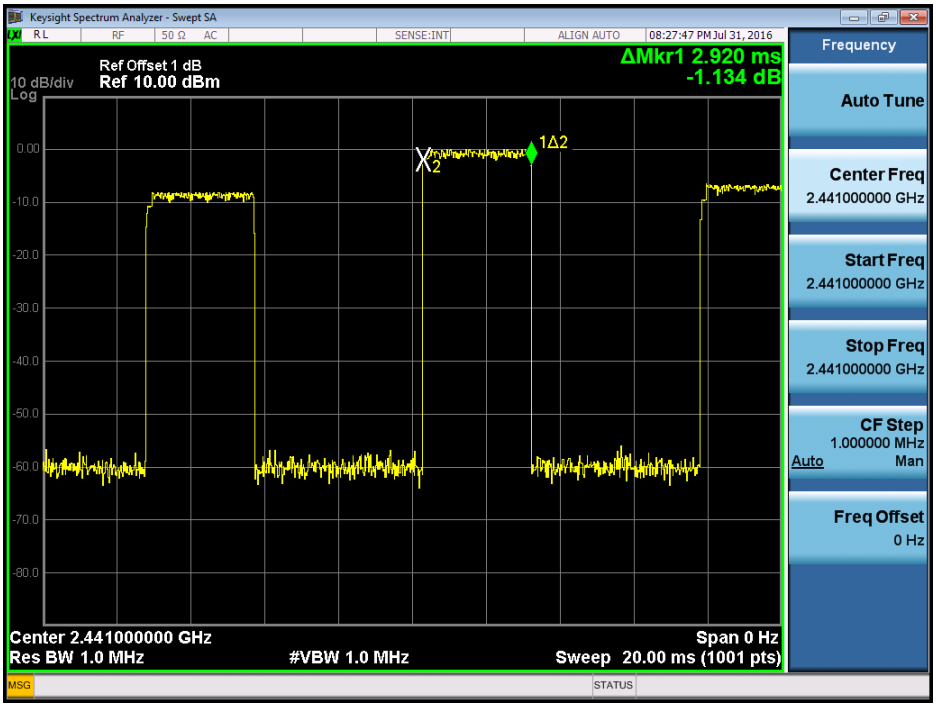
CH39-DH1



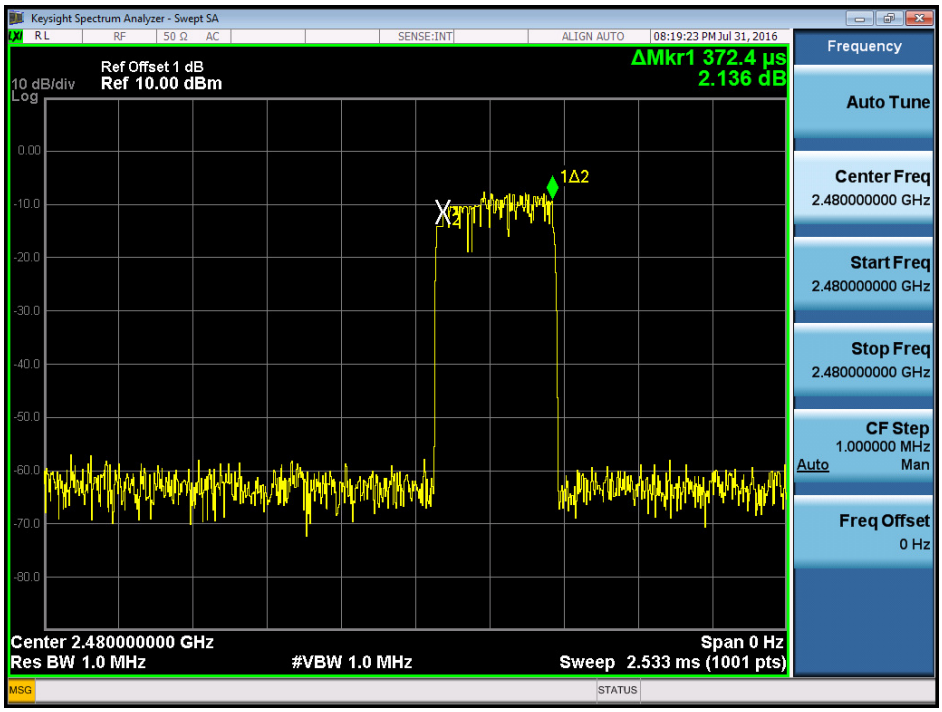
CH39-DH3



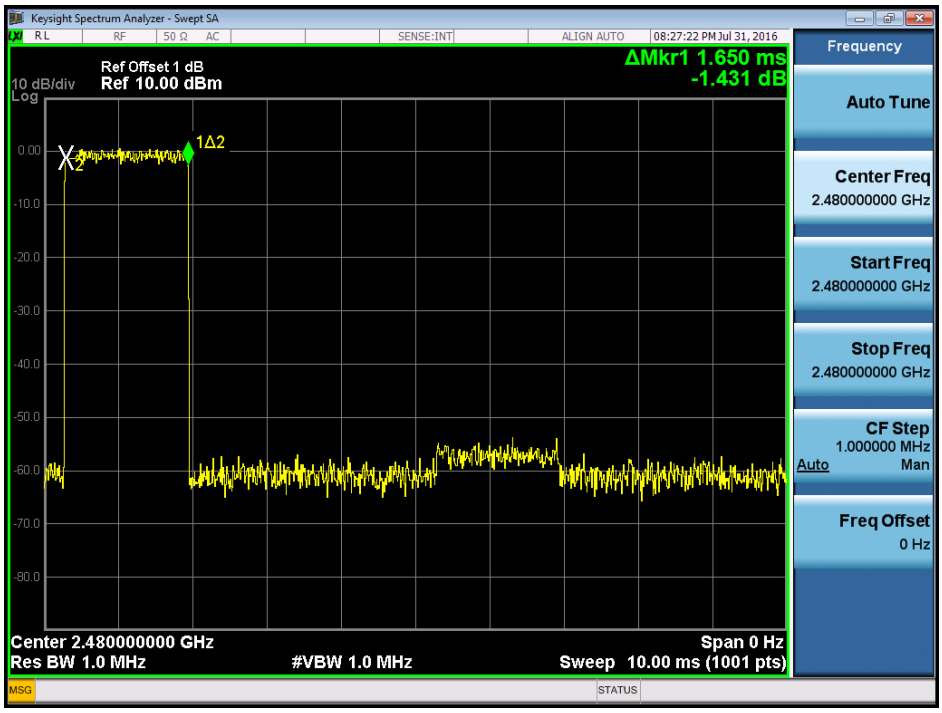
CH39-DH5



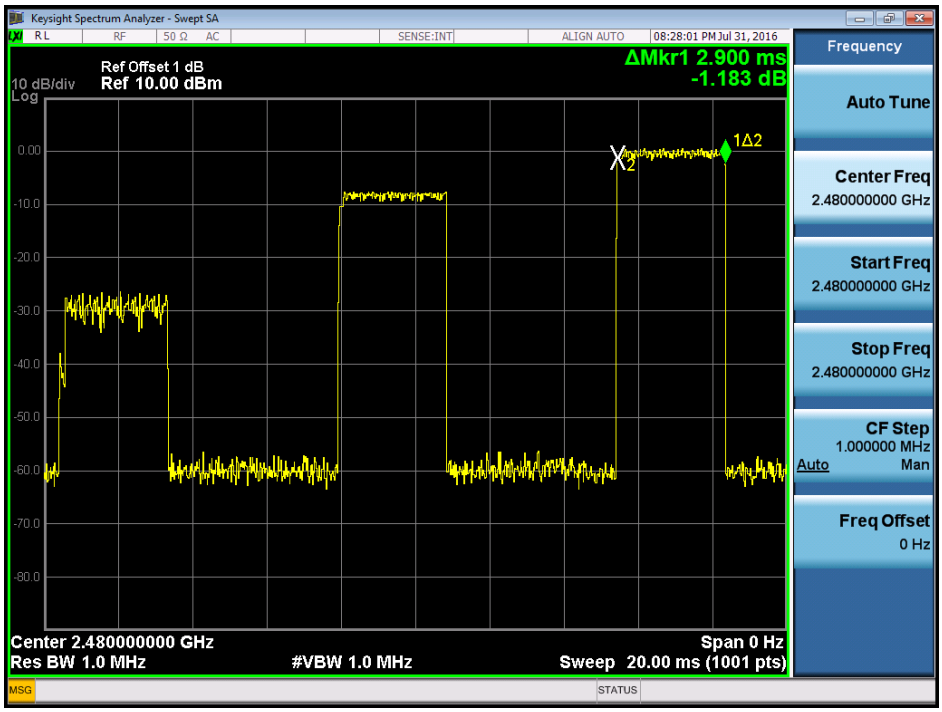
CH78-DH1



CH78-DH3



CH78-DH5

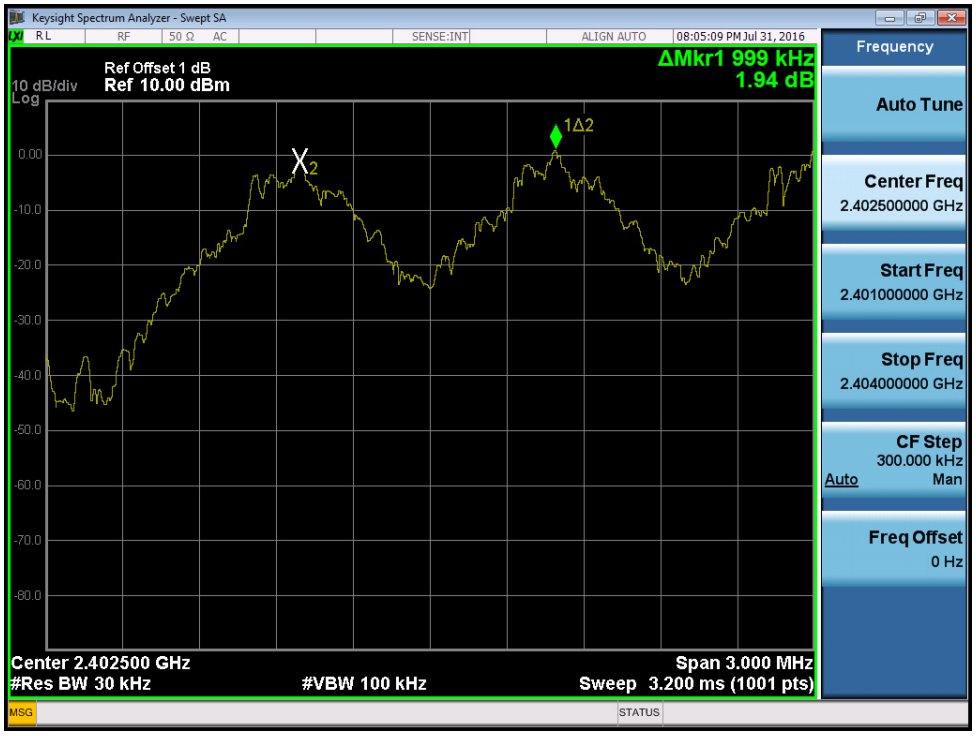

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:28:01 PM Jul 31, 2016
Ref Offset 1 dB
10 dB/div Ref 10.00 dBm
Log
ΔMkr1 2.900 ms
-1.183 dB
1Δ2
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.480000000 GHz
Res BW 1.0 MHz
#VBW 1.0 MHz
Span 0 Hz
Sweep 20.00 ms (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.480000000 GHz
Stop Freq
2.480000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

ATTACHMENT G - HOPPING CHANNEL SEPARATION MEASUREMENT

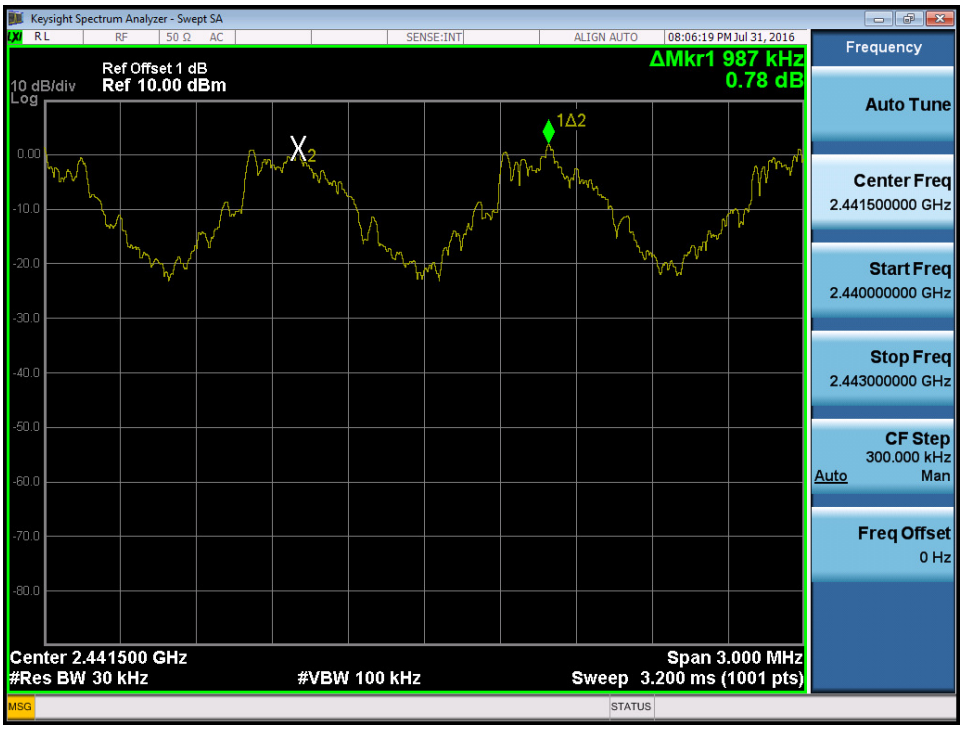
Test Mode :	Hopping on _1Mbps

Frequency (MHz)	Channel Separation (MHz)	2/3 of 20dB Bandwidth (MHz)	Test Result
2402	0.999	0.581	Pass
2441	0.987	0.582	Pass
2480	0.996	0.575	Pass

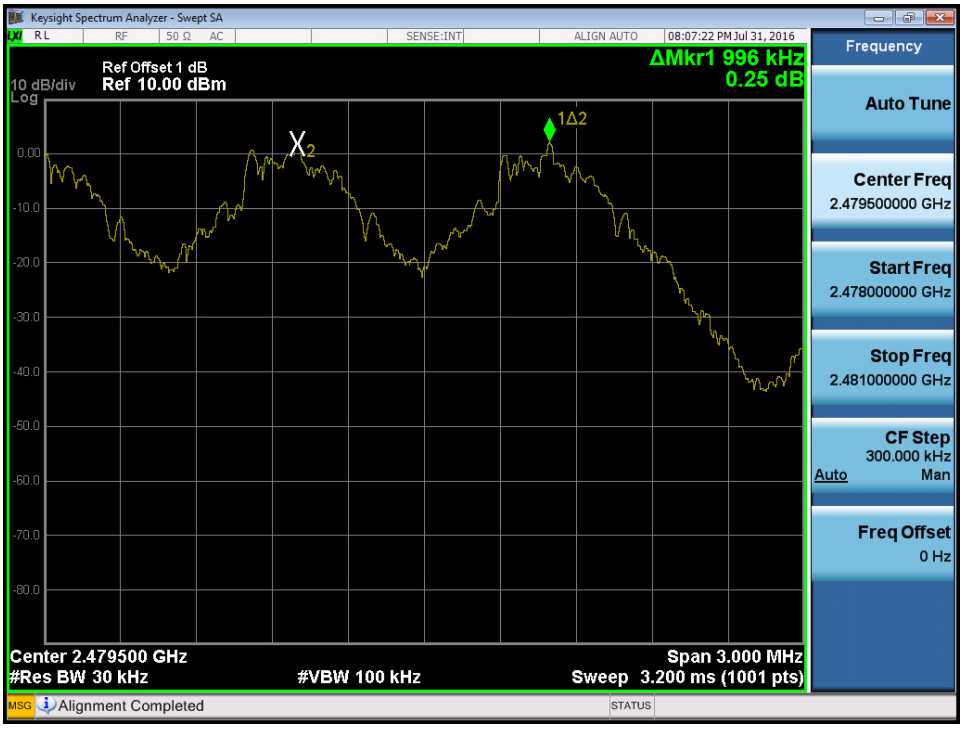
CH00



CH39


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:06:19 PM Jul 31, 2016
Ref Offset 1 dB
10 dB/div
Log
Ref 10.00 dBm
ΔMkr1 987 kHz
0.78 dB
1Δ2
X2
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.441500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.441500000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.443000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

CH78

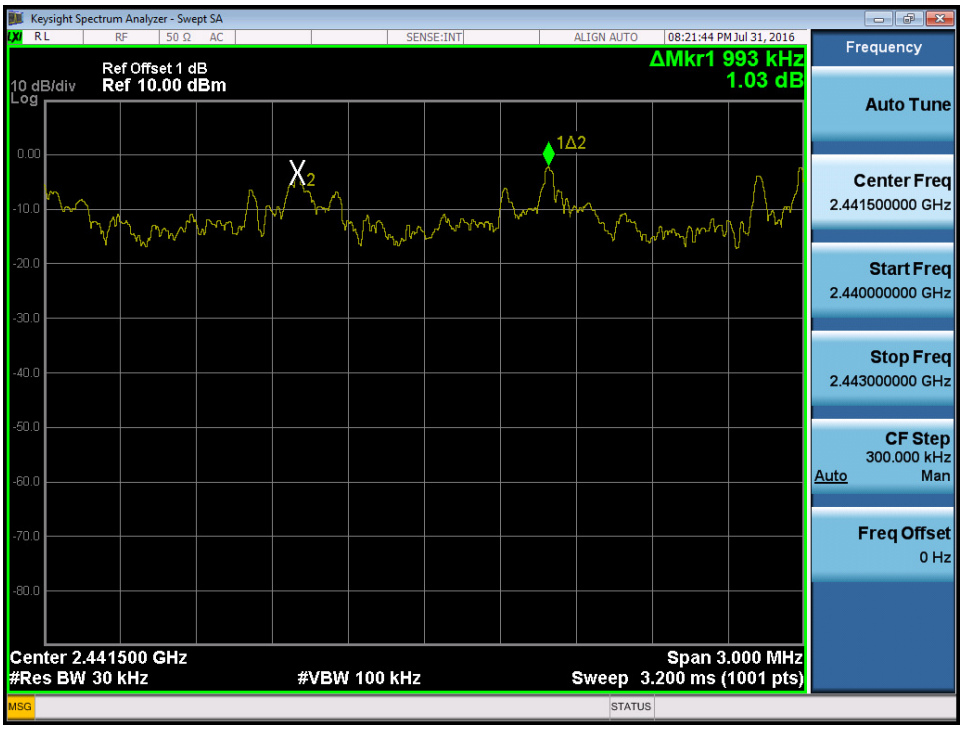

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:07:22 PM Jul 31, 2016
Ref Offset 1 dB
10 dB/div
Log
Ref 10.00 dBm
ΔMkr1 996 kHz
0.25 dB
1Δ2
X2
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.479500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.479500000 GHz
Start Freq
2.478000000 GHz
Stop Freq
2.481000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
Alignment Completed
STATUS

Test Mode :	Hopping on _3Mbps

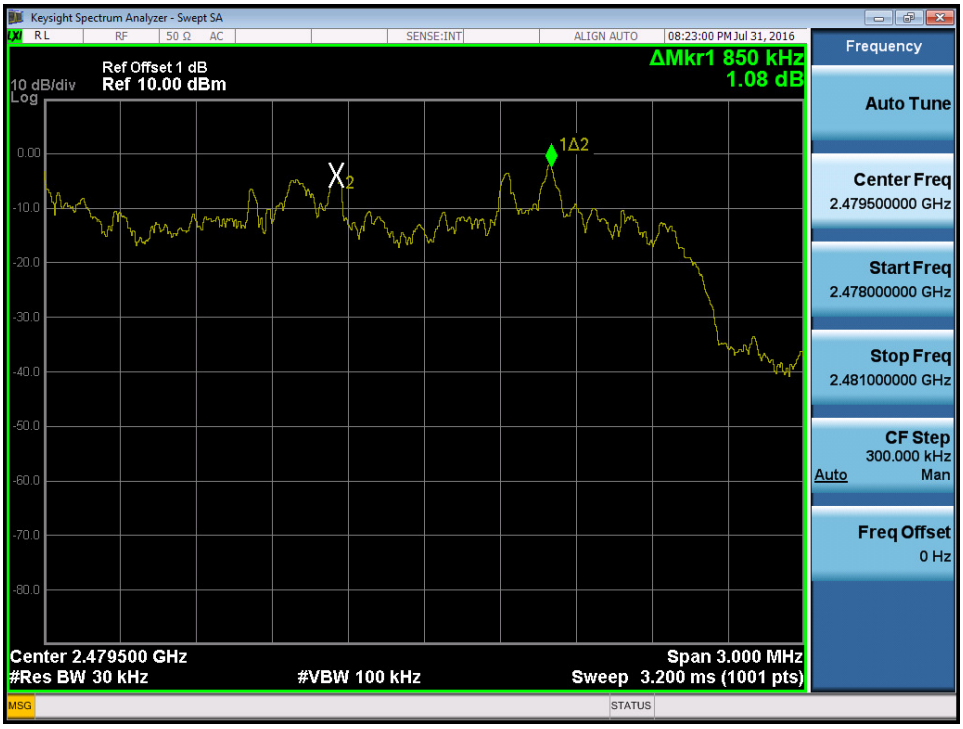
Frequency (MHz)	Channel Separation (MHz)	2/3 of 20dB Bandwidth (MHz)	Test Result
2402	0.990	0.804	Pass
2441	0.993	0.803	Pass
2480	0.850	0.803	Pass

CH00

CH39


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:21:44 PM Jul 31, 2016
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
ΔMkr1 993 kHz
1.03 dB
1Δ2
X2
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.441500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441500000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.443000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

CH78

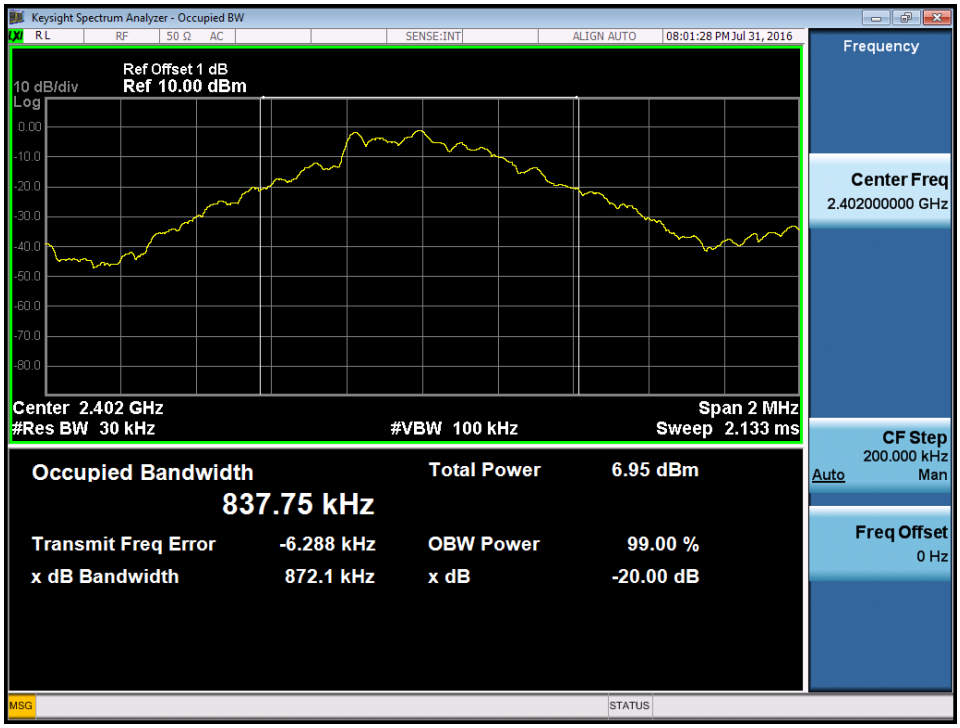

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:23:00 PM Jul 31, 2016
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
ΔMkr1 850 kHz
1.08 dB
1Δ2
X2
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.479500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.479500000 GHz
Start Freq
2.478000000 GHz
Stop Freq
2.481000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

ATTACHMENT H - BANDWIDTH

Test Mode :	TX Mode _1Mbps

Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied BW (MHz)	Test Result
2402	0.872	0.838	Pass
2441	0.872	0.842	Pass
2480	0.863	0.840	Pass

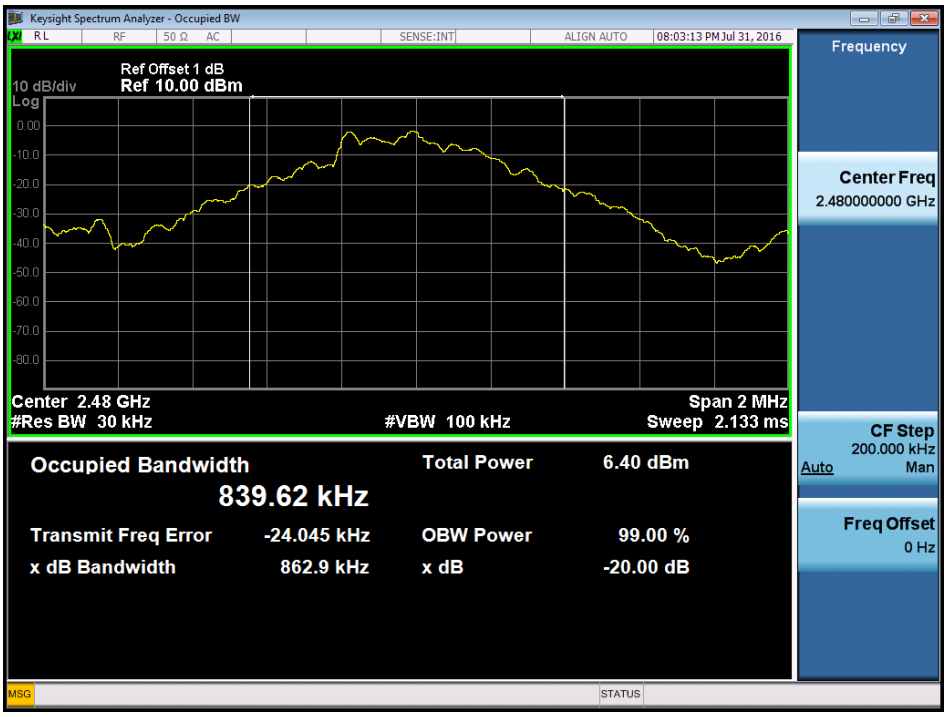
CH00



CH39


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:02:40 PM Jul 31, 2016
Frequency
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.441 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.133 ms
Occupied Bandwidth
841.55 kHz
Total Power
6.27 dBm
Transmit Freq Error
-26.537 kHz
OBW Power
99.00 %
x dB Bandwidth
872.4 kHz
x dB
-20.00 dB
Center Freq
2.441000000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

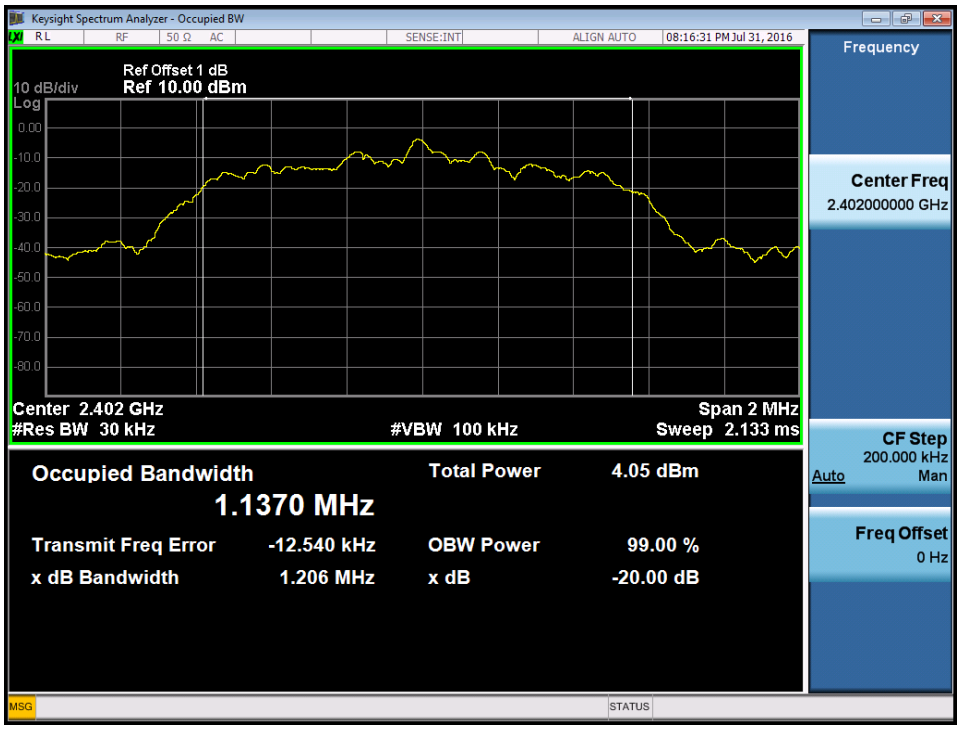
CH78


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:03:13 PM Jul 31, 2016
Frequency
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.133 ms
Occupied Bandwidth
839.62 kHz
Total Power
6.40 dBm
Transmit Freq Error
-24.045 kHz
OBW Power
99.00 %
x dB Bandwidth
862.9 kHz
x dB
-20.00 dB
Center Freq
2.480000000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

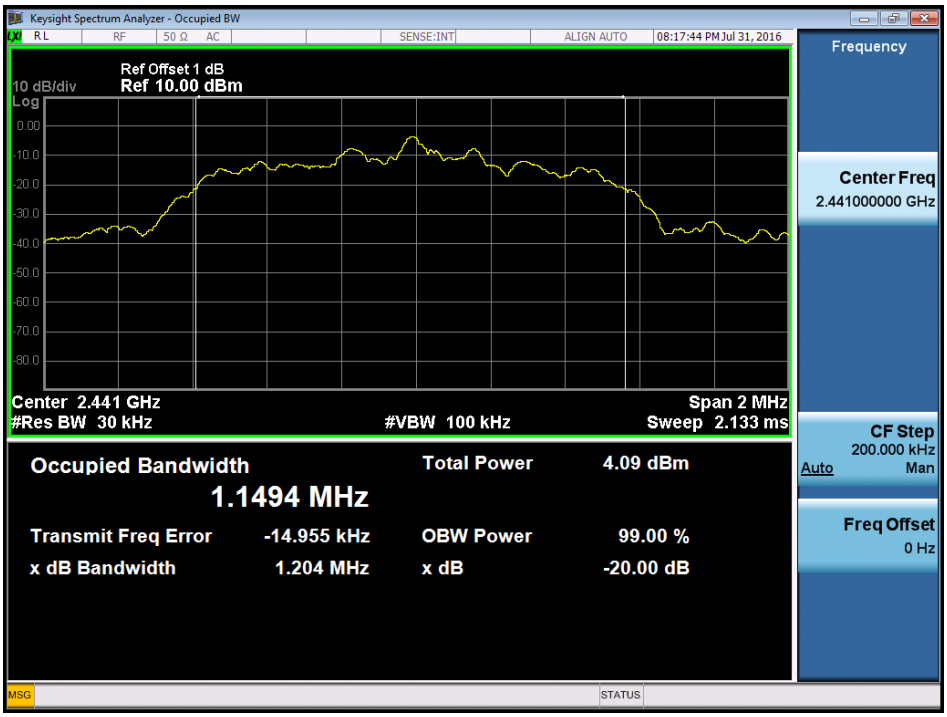
Test Mode :	TX Mode _3Mbps

Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied BW (MHz)	Test Result
2402	1.206	1.137	Pass
2441	1.204	1.149	Pass
2480	1.205	1.149	Pass

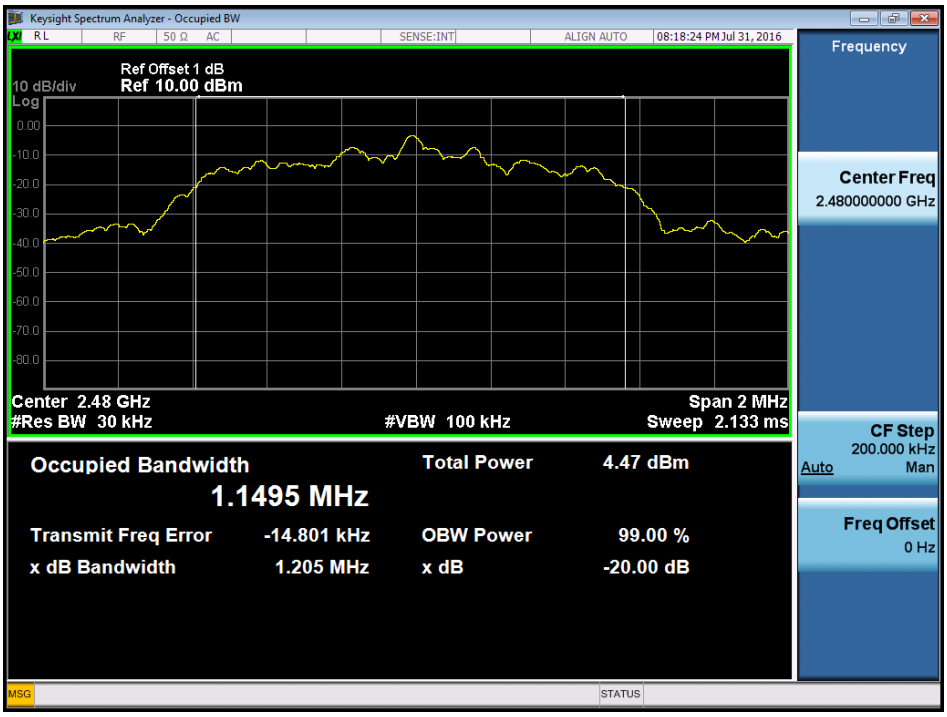
CH00



CH39


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:17:44 PM Jul 31, 2016
Frequency
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.441 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.133 ms
Occupied Bandwidth
1.1494 MHz
Total Power
4.09 dBm
Transmit Freq Error
-14.955 kHz
OBW Power
99.00 %
x dB Bandwidth
1.204 MHz
x dB
-20.00 dB
Center Freq
2.441000000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

CH78

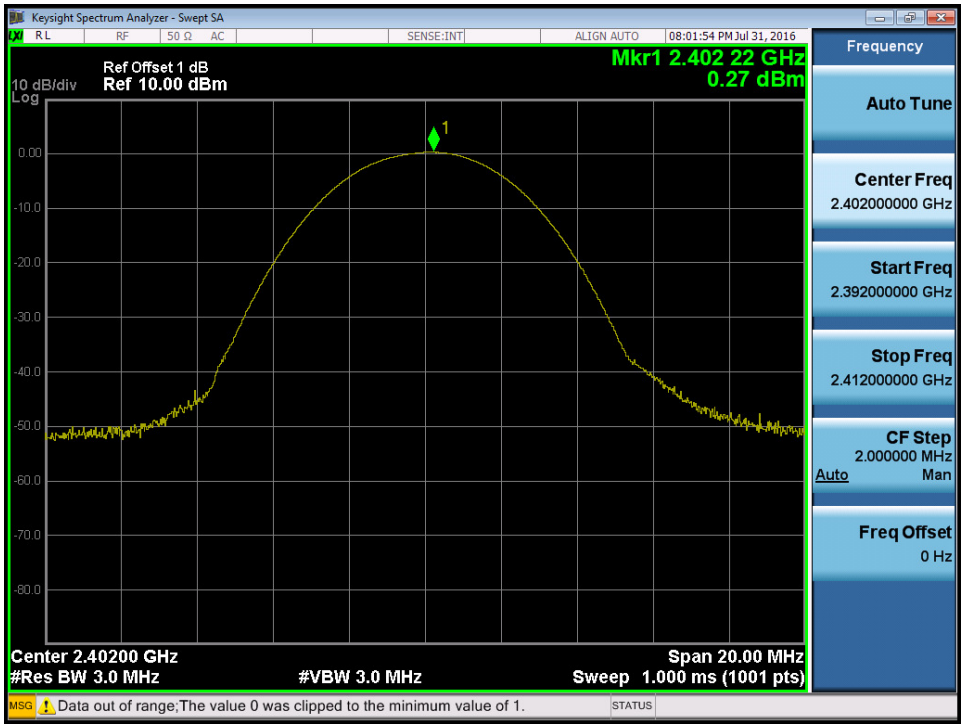

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:18:24 PM Jul 31, 2016
Frequency
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.133 ms
Occupied Bandwidth
1.1495 MHz
Total Power
4.47 dBm
Transmit Freq Error
-14.801 kHz
OBW Power
99.00 %
x dB Bandwidth
1.205 MHz
x dB
-20.00 dB
Center Freq
2.480000000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

ATTACHMENT I - PEAK OUTPUT POWER

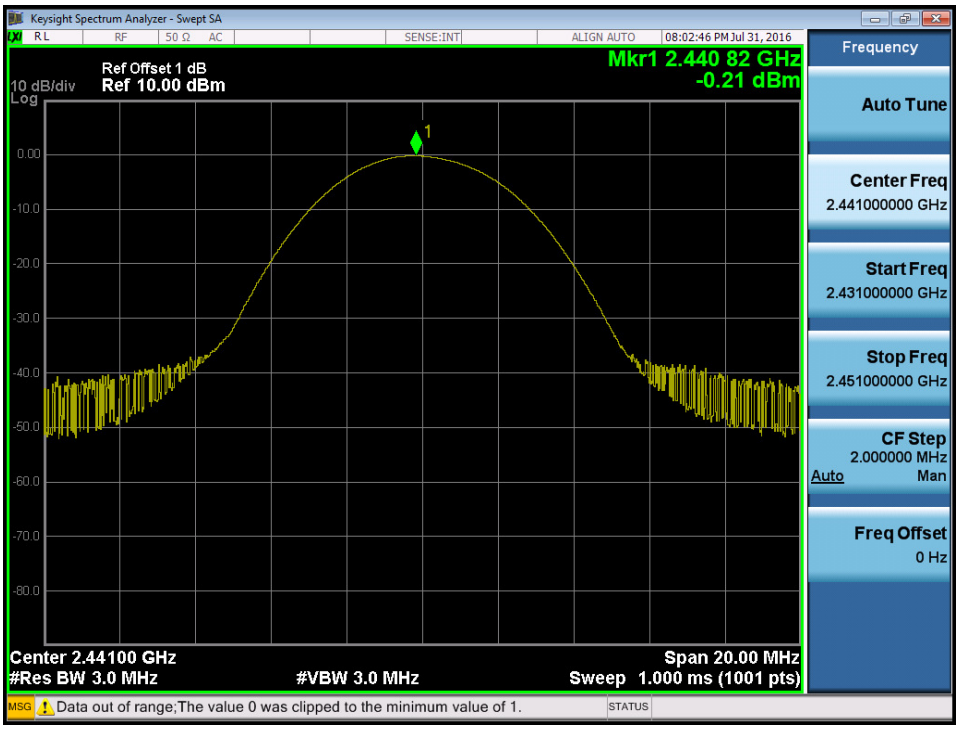
Test Mode :	TX Mode _1Mbps

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	0.27	0.0011	30.00	1.00	Pass
2441	-0.21	0.0010	30.00	1.00	Pass
2480	-0.01	0.0010	30.00	1.00	Pass

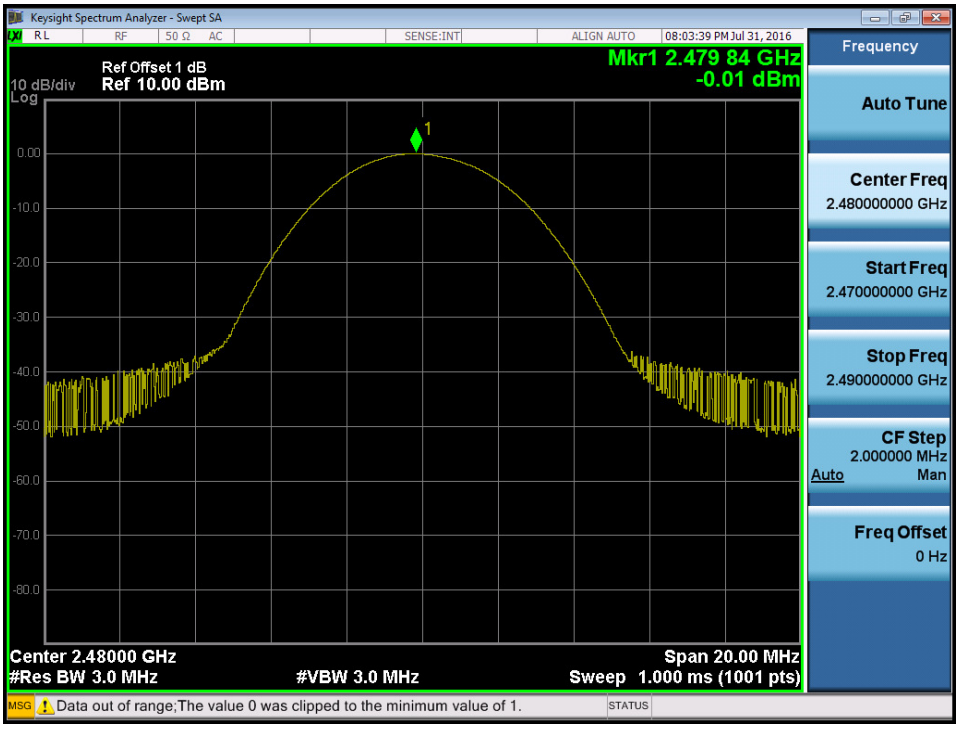
CH00



CH39


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:02:46 PM Jul 31, 2016
Mkr1 2.440 82 GHz
-0.21 dBm
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.44100 GHz
#Res BW 3.0 MHz
#VBW 3.0 MHz
Span 20.00 MHz
Sweep 1.000 ms (1001 pts)
Data out of range;The value 0 was clipped to the minimum value of 1.
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.431000000 GHz
Stop Freq
2.451000000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz

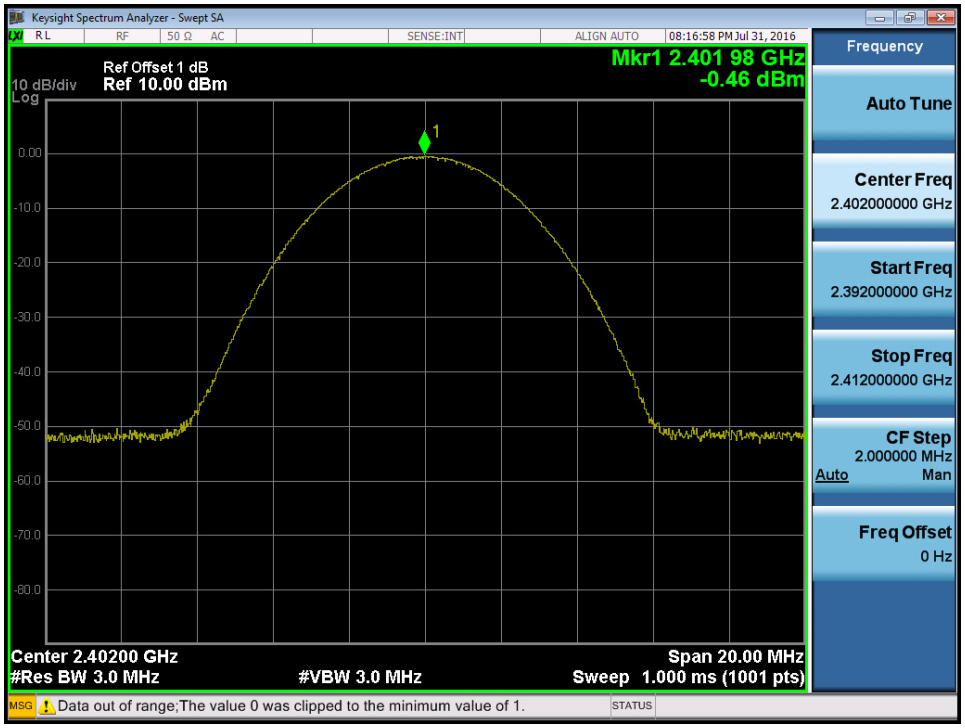
CH78


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:03:39 PM Jul 31, 2016
Mkr1 2.479 84 GHz
-0.01 dBm
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.48000 GHz
#Res BW 3.0 MHz
#VBW 3.0 MHz
Span 20.00 MHz
Sweep 1.000 ms (1001 pts)
Data out of range;The value 0 was clipped to the minimum value of 1.
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.490000000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz

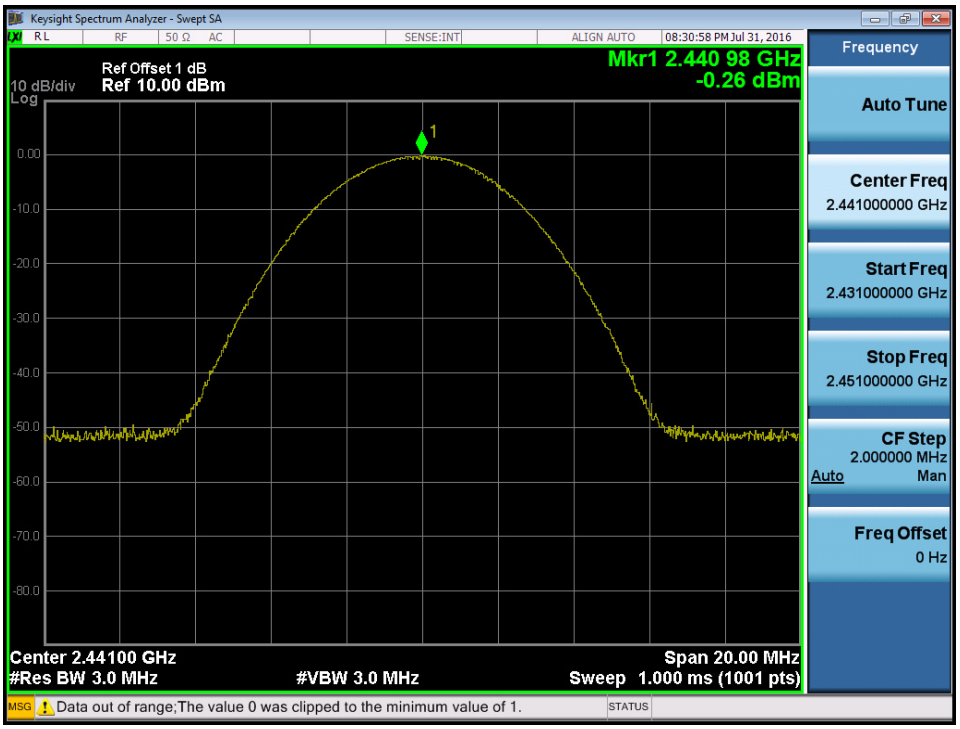
Test Mode :	TX Mode _3Mbps

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	-0.46	0.0009	30.00	1.00	Pass
2441	-0.26	0.0009	30.00	1.00	Pass
2480	0.00	0.0010	30.00	1.00	Pass

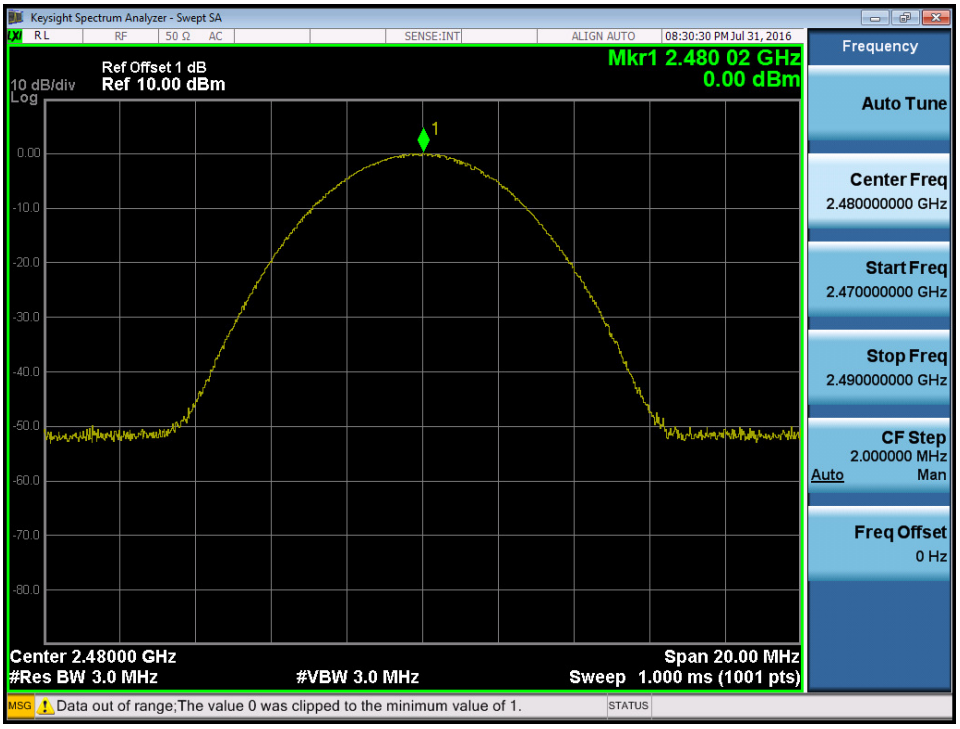
CH00



CH39

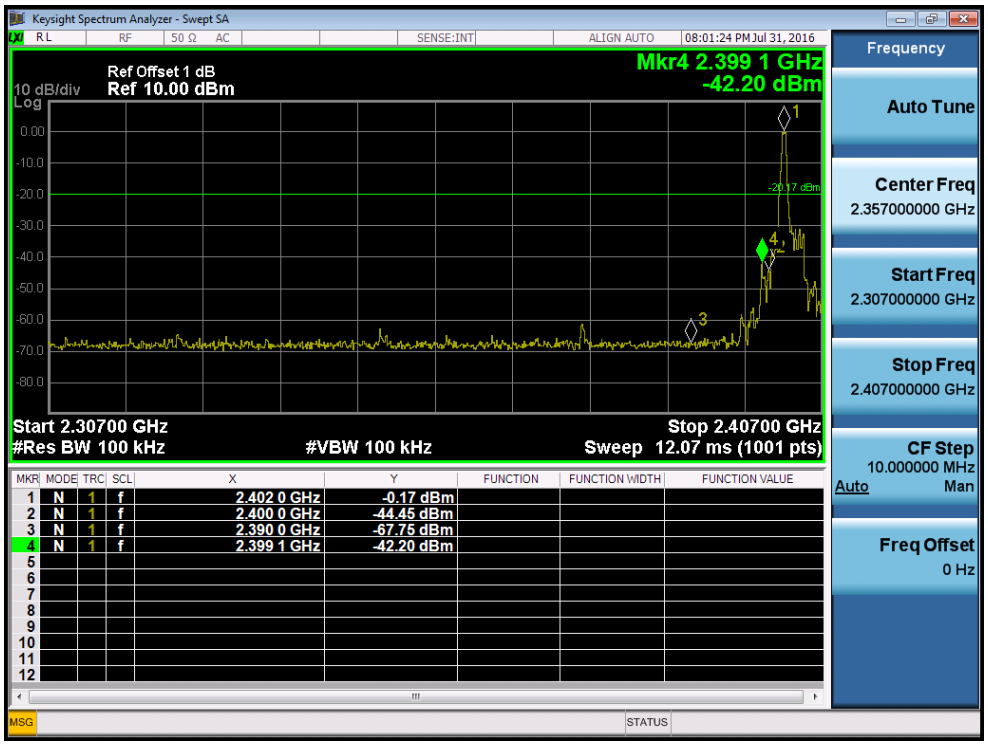

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:30:58 PM Jul 31, 2016
Mkr1 2.440 98 GHz
-0.26 dBm
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.44100 GHz
#Res BW 3.0 MHz
#VBW 3.0 MHz
Span 20.00 MHz
Sweep 1.000 ms (1001 pts)
Data out of range;The value 0 was clipped to the minimum value of 1.
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.431000000 GHz
Stop Freq
2.451000000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz

CH78

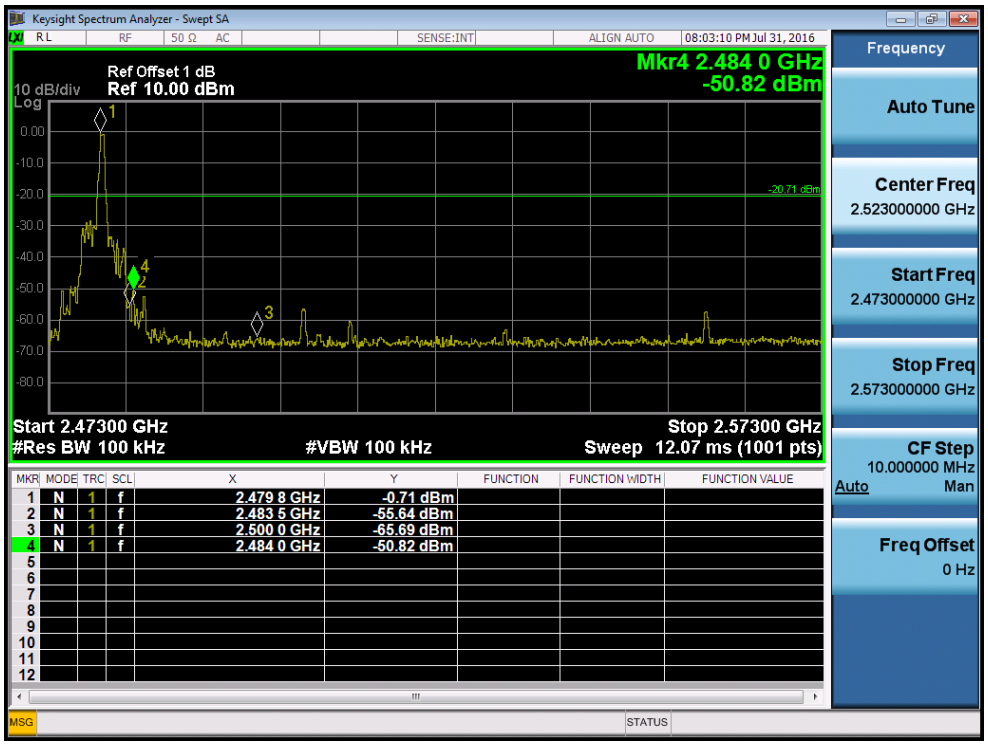

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
08:30:30 PM Jul 31, 2016
Mkr1 2.480 02 GHz
0.00 dBm
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.48000 GHz
#Res BW 3.0 MHz
#VBW 3.0 MHz
Span 20.00 MHz
Sweep 1.000 ms (1001 pts)
Data out of range;The value 0 was clipped to the minimum value of 1.
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.490000000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz

ATTACHMENT J - ANTENNA CONDUCTED SPURIOUS EMISSION

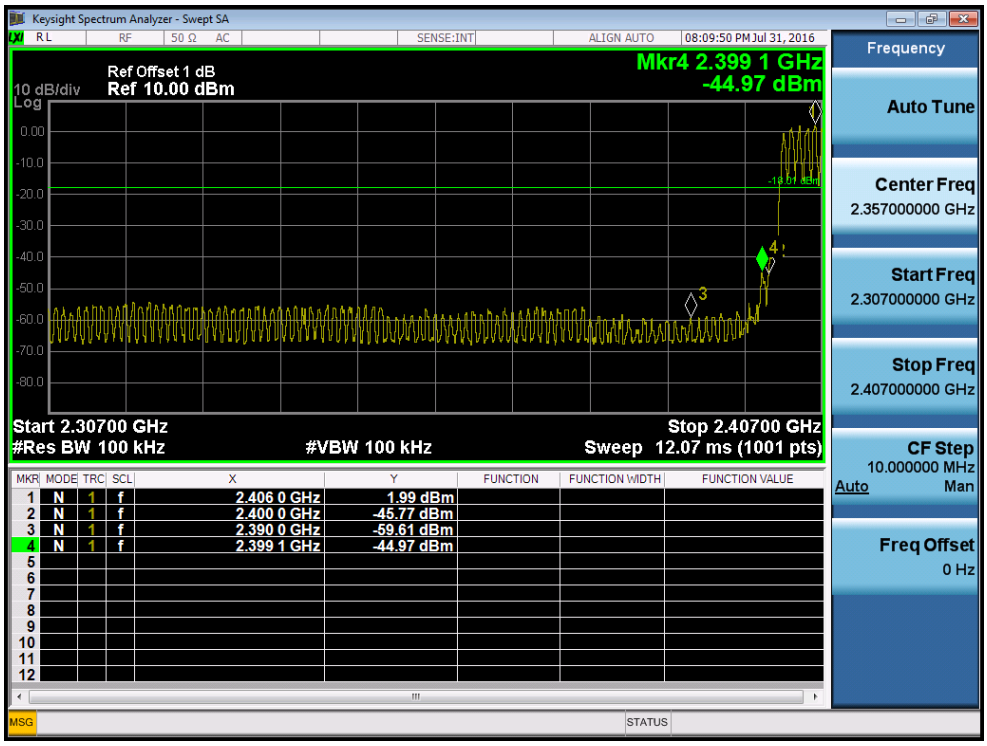
CH00 (Lower)_1Mbps



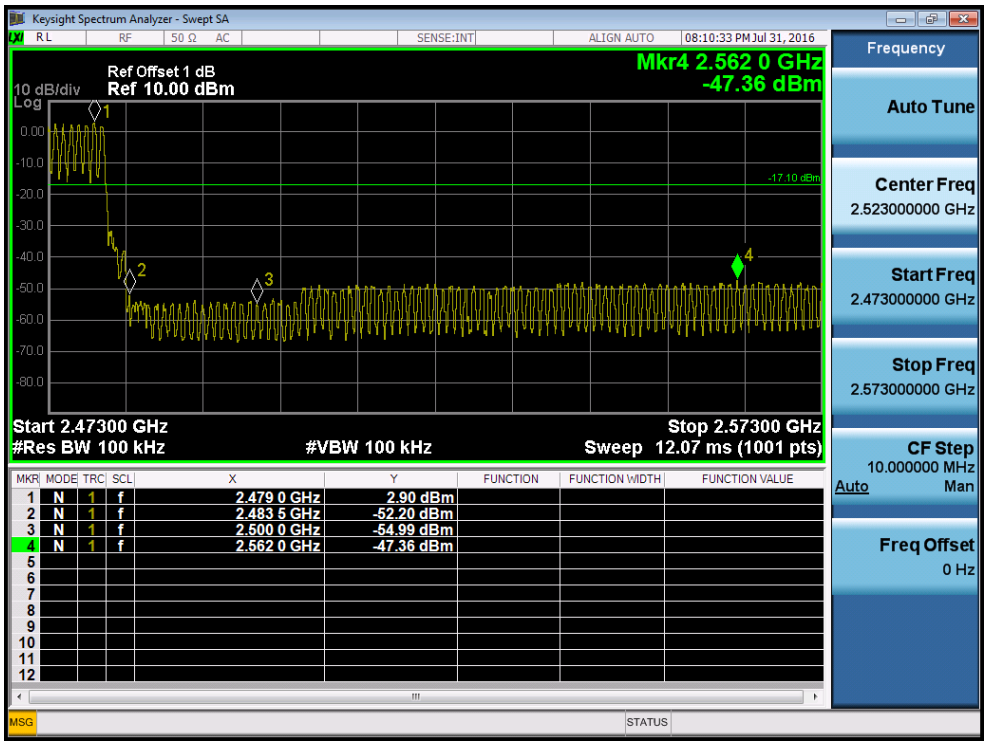
CH78 (Upper) _1Mbps



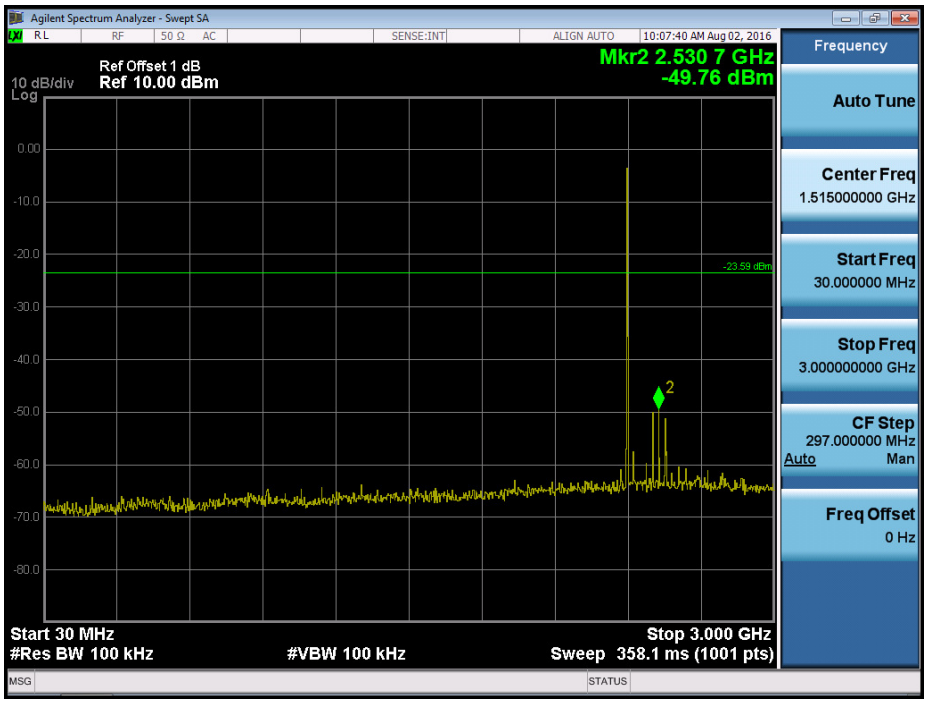
CH00 Hopping on mode (Lower)_1Mbps

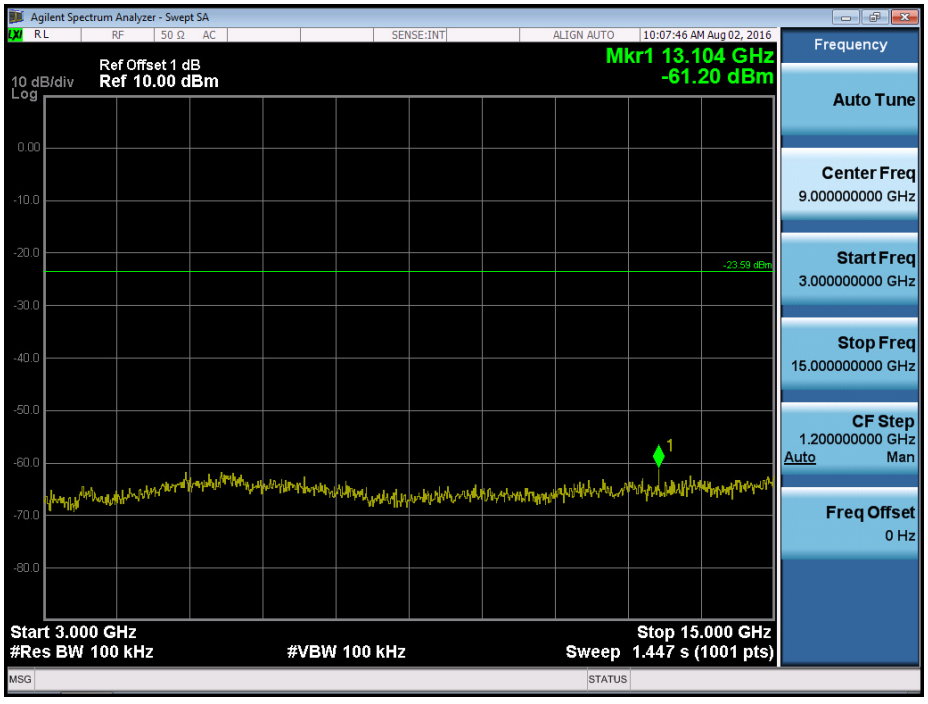


CH78 Hopping on mode (Upper) _1Mbps

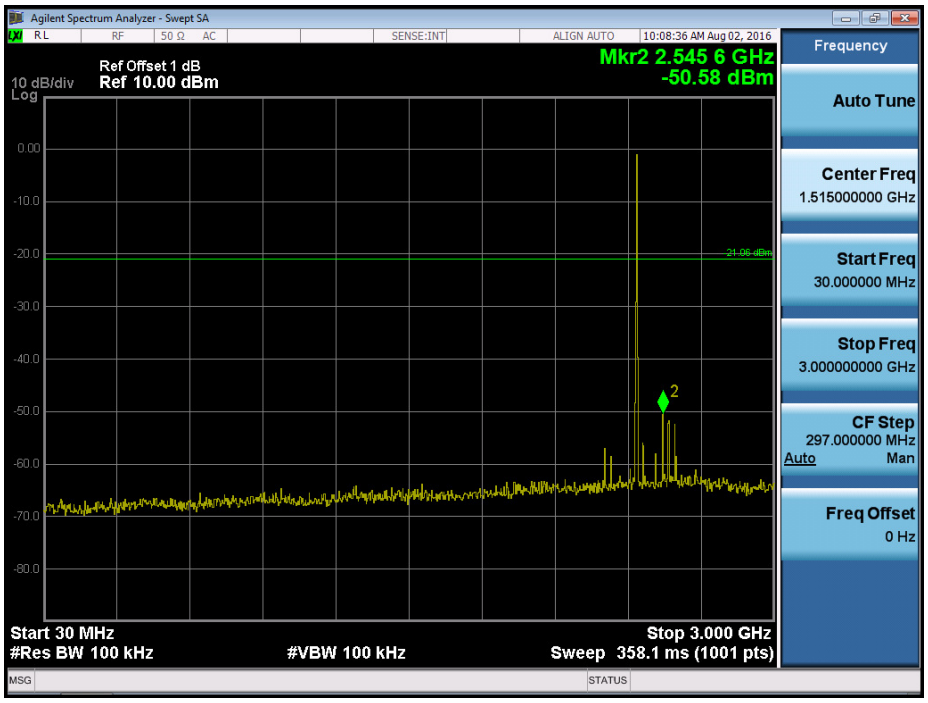


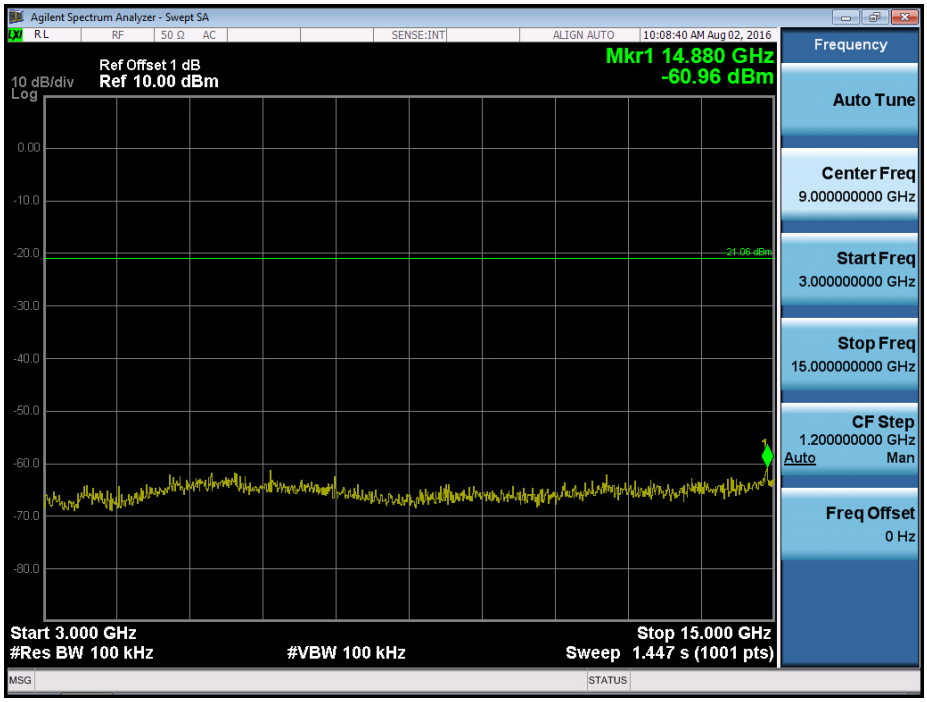
CH00 (10 Harmonic of the frequency) _1Mbps





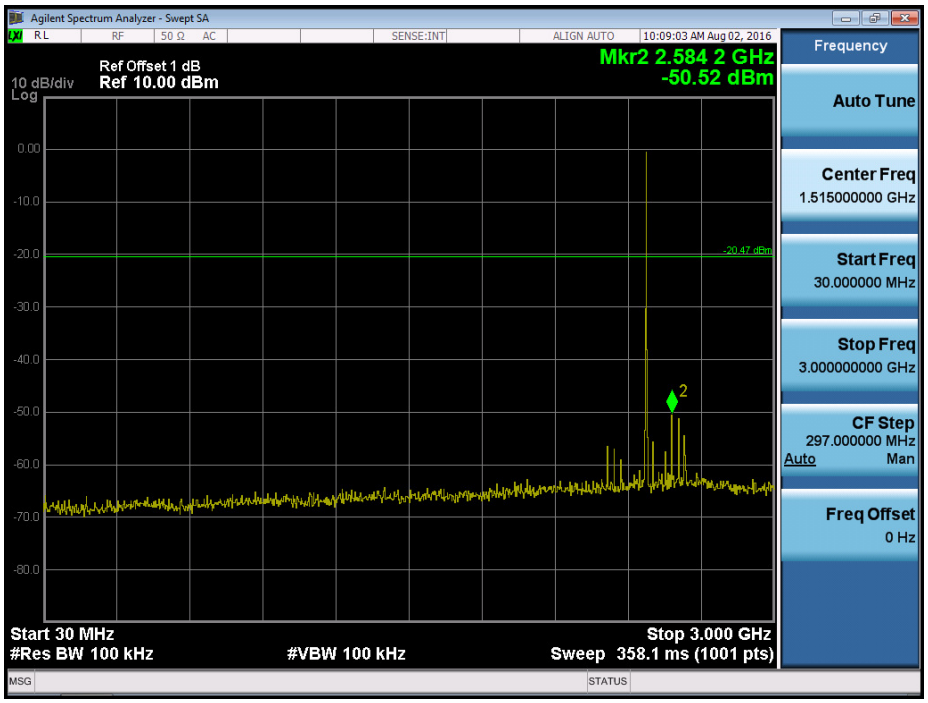
CH39 (10 Harmonic of the frequency) _1Mbps

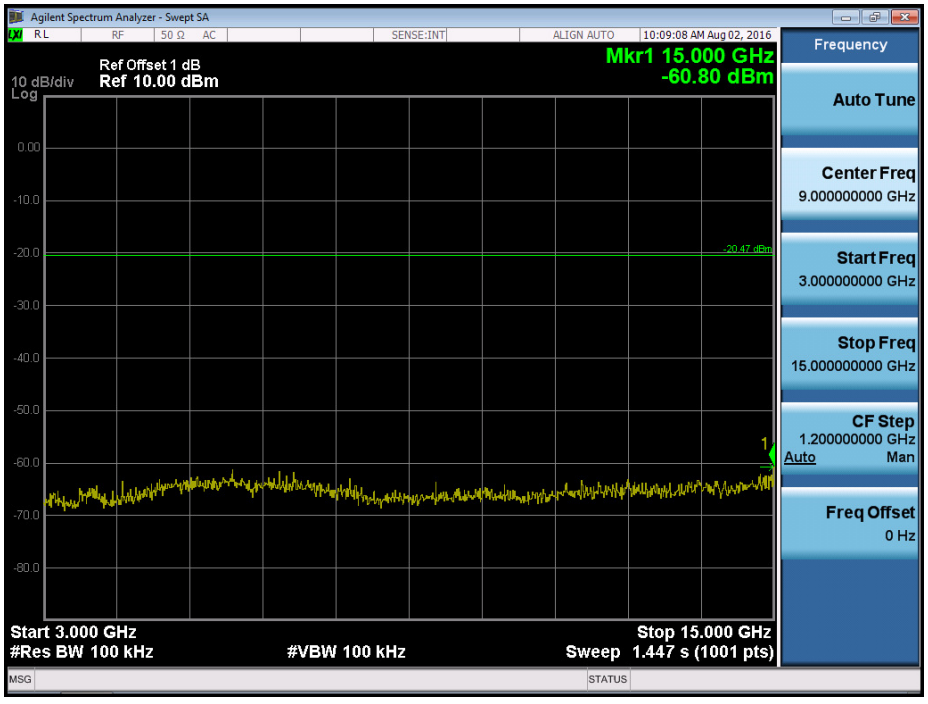



Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:08:40 AM Aug 02, 2016
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 14.880 GHz
-60.96 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
21.06 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 15.000 GHz
Sweep 1.447 s (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:08:45 AM Aug 02, 2016
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 25.281 GHz
-50.77 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
21.06 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 26.500 GHz
Sweep 1.387 s (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz

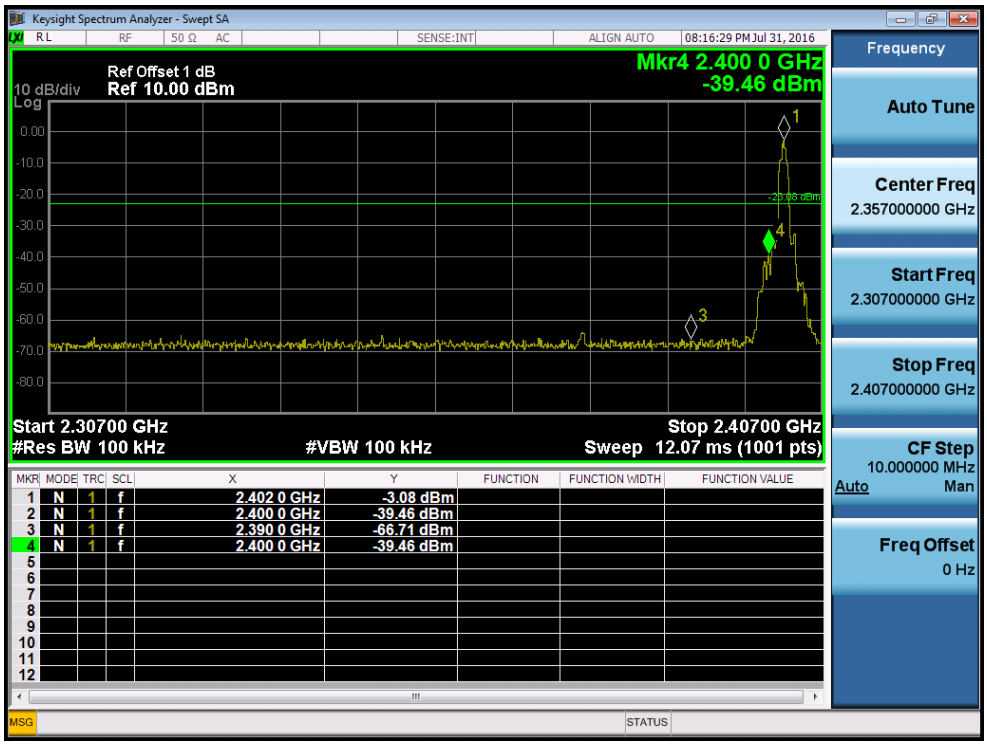
CH78 (10 Harmonic of the frequency) _1Mbps



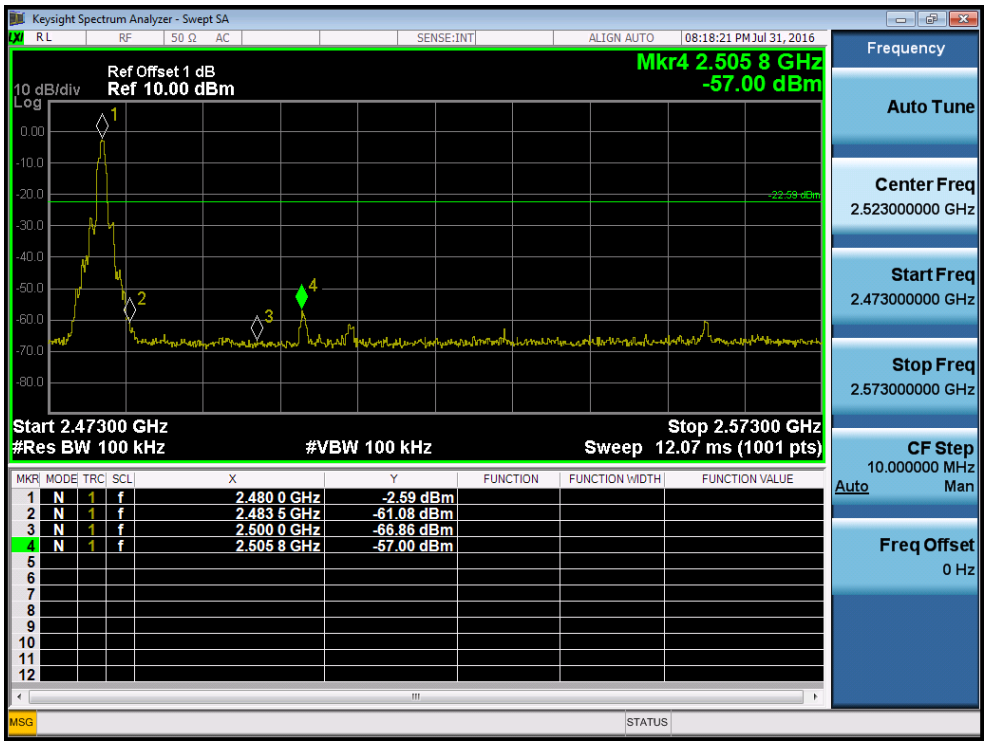



Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
10:09:13 AM Aug 02, 2016
Ref Offset 1 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 25.327 GHz
-50.35 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-20.47 dBm
1
Start 15.000 GHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 26.500 GHz
Sweep 1.387 s (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz

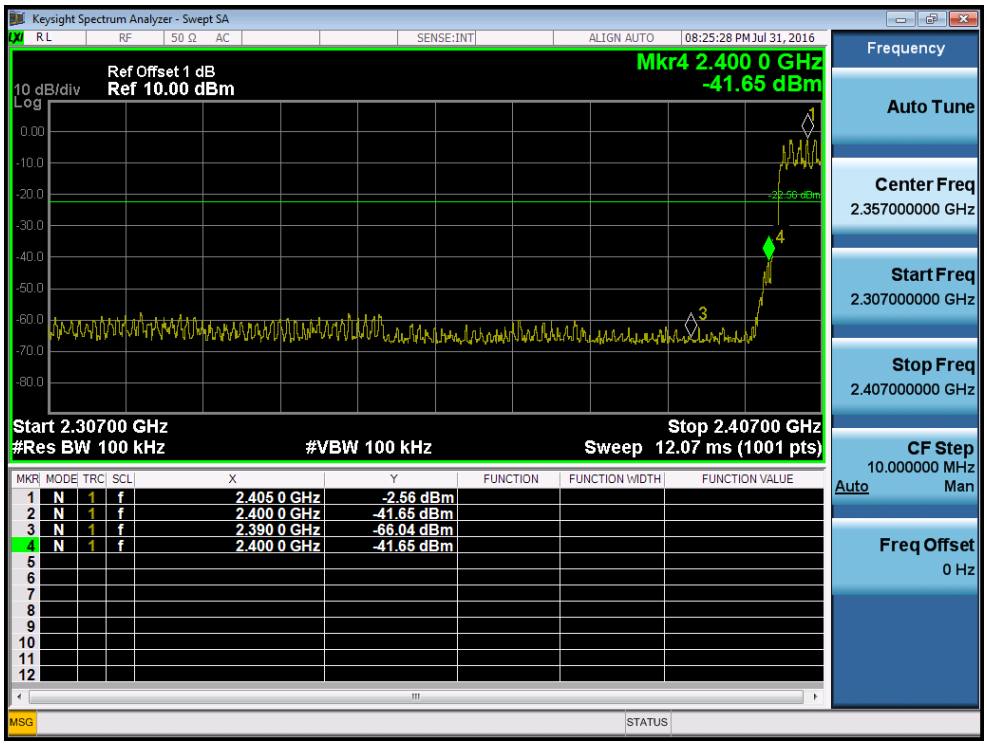
CH00 (Lower) _3Mbps



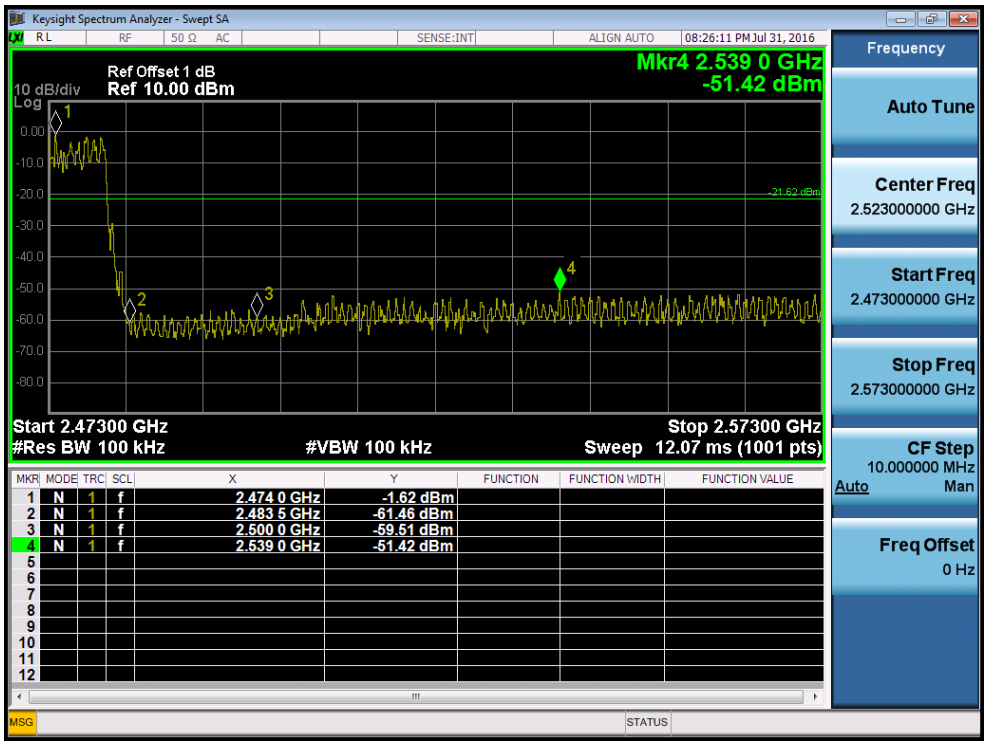
CH78 (Upper) _3Mbps



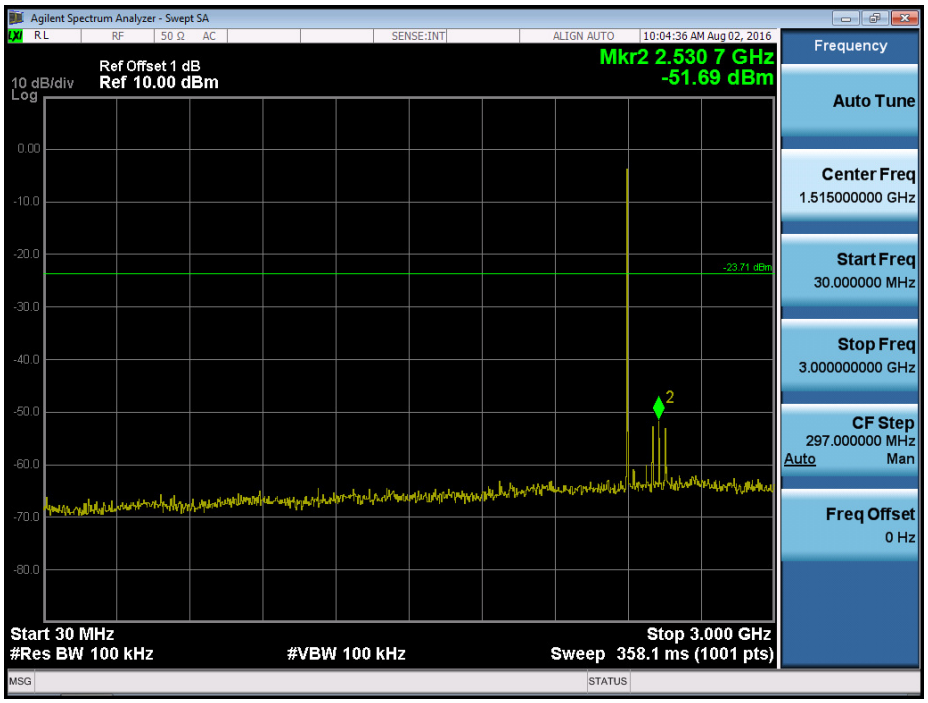
CH00 Hopping on mode (Lower)_3Mbps

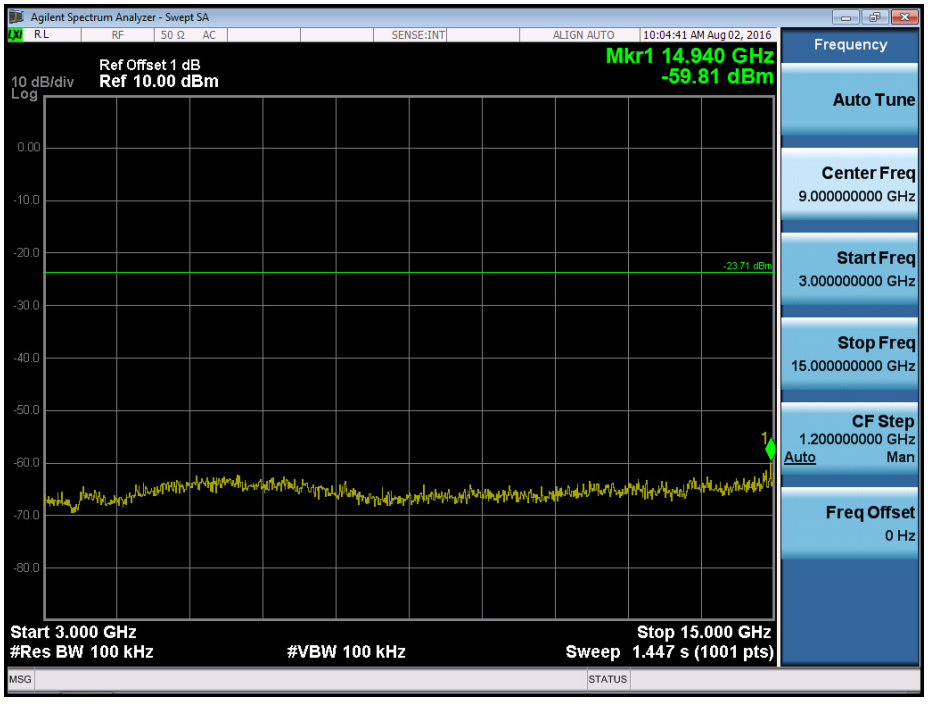


CH78 Hopping on mode (Upper) _3Mbps

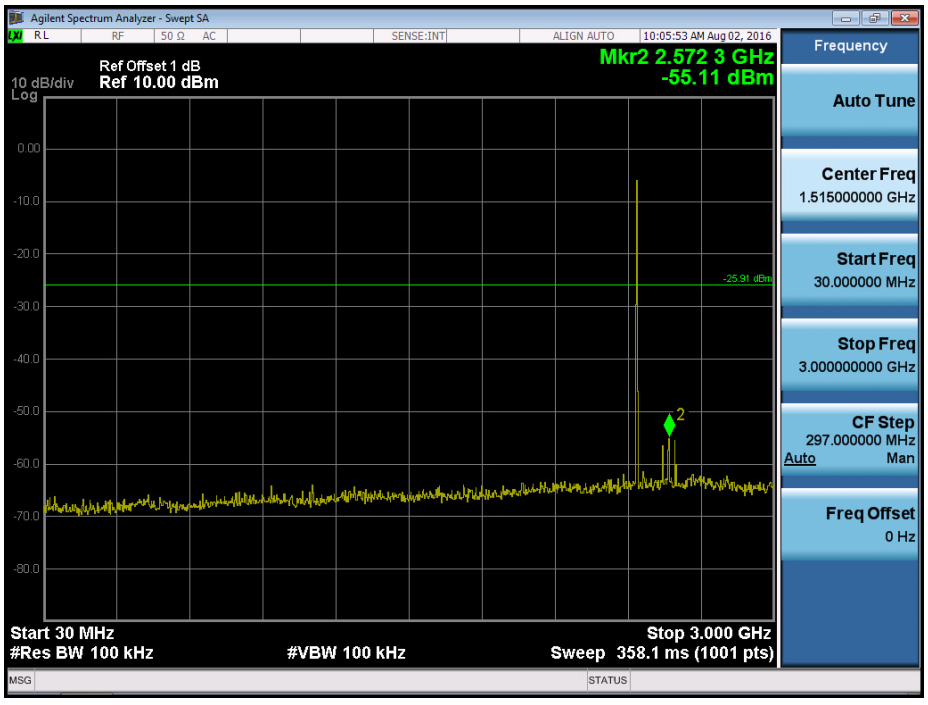


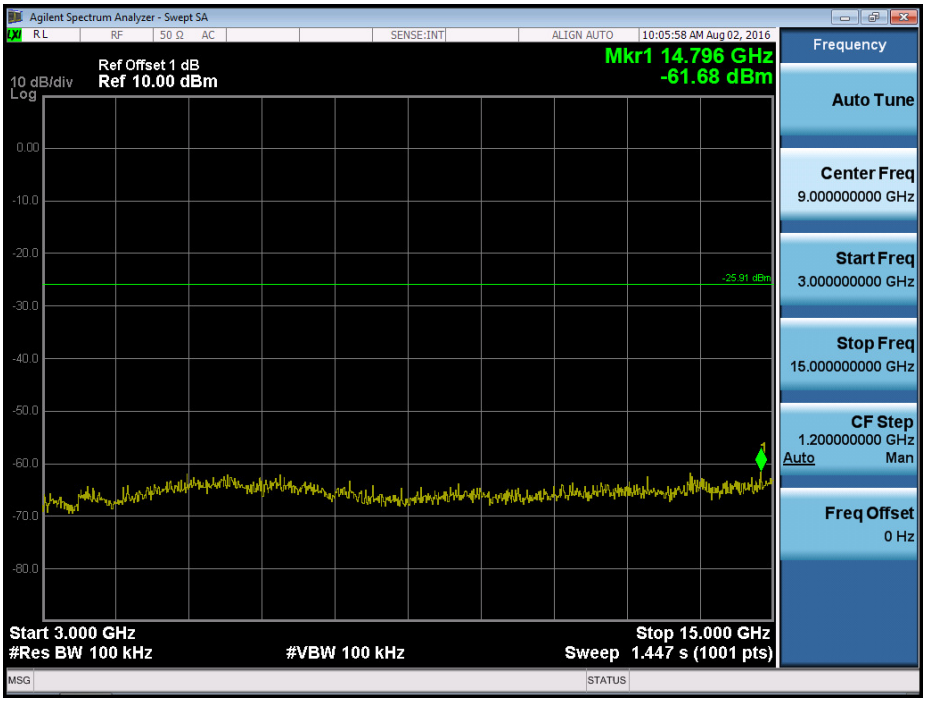
CH00 (10 Harmonic of the frequency) _3Mbps

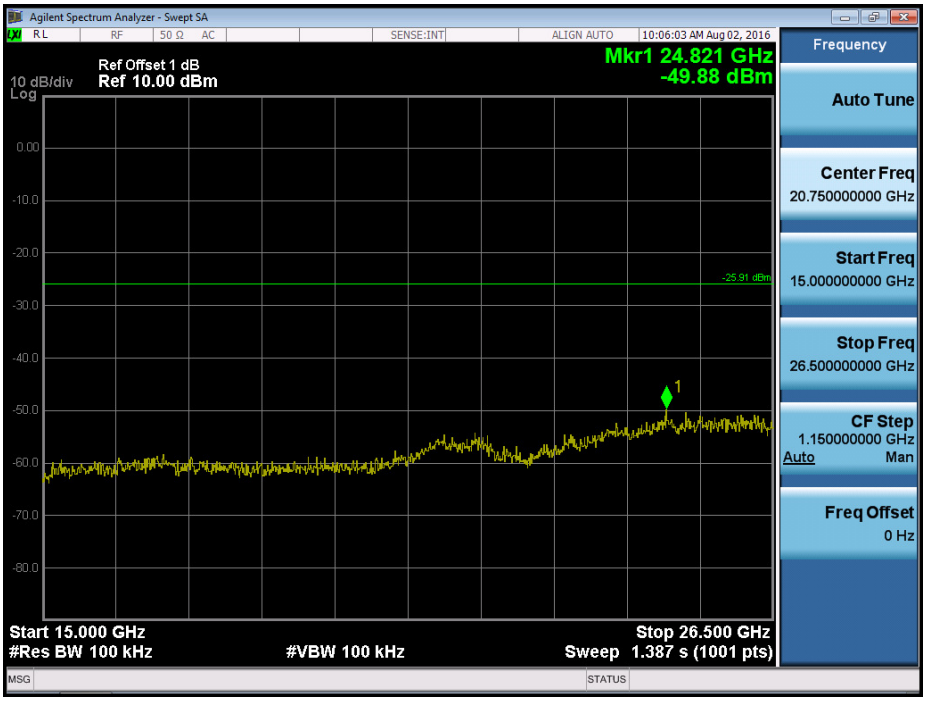




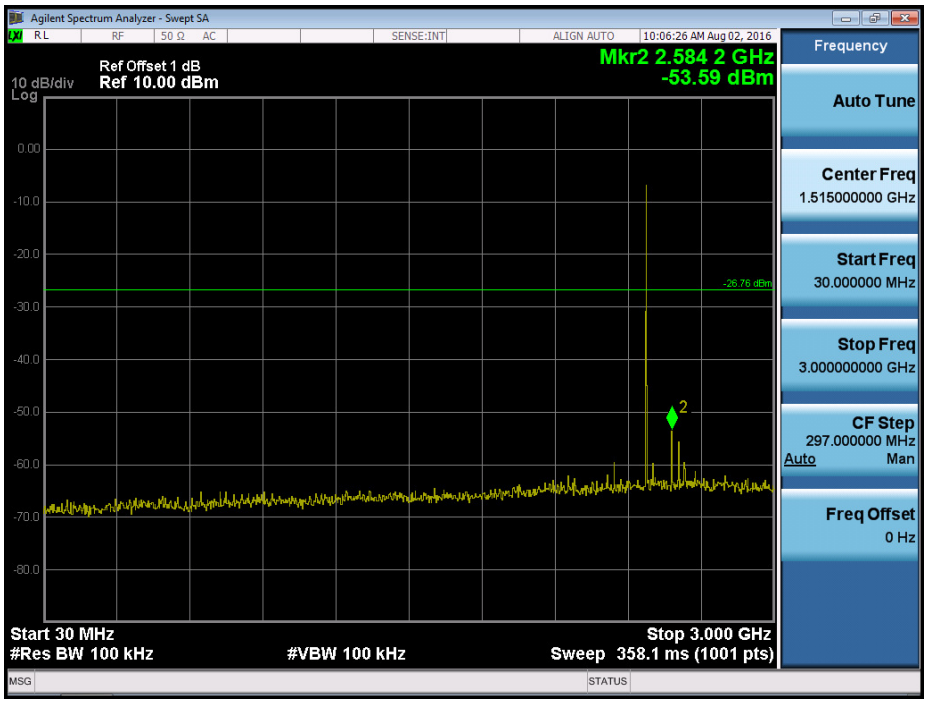
CH39 (10 Harmonic of the frequency) _3Mbps

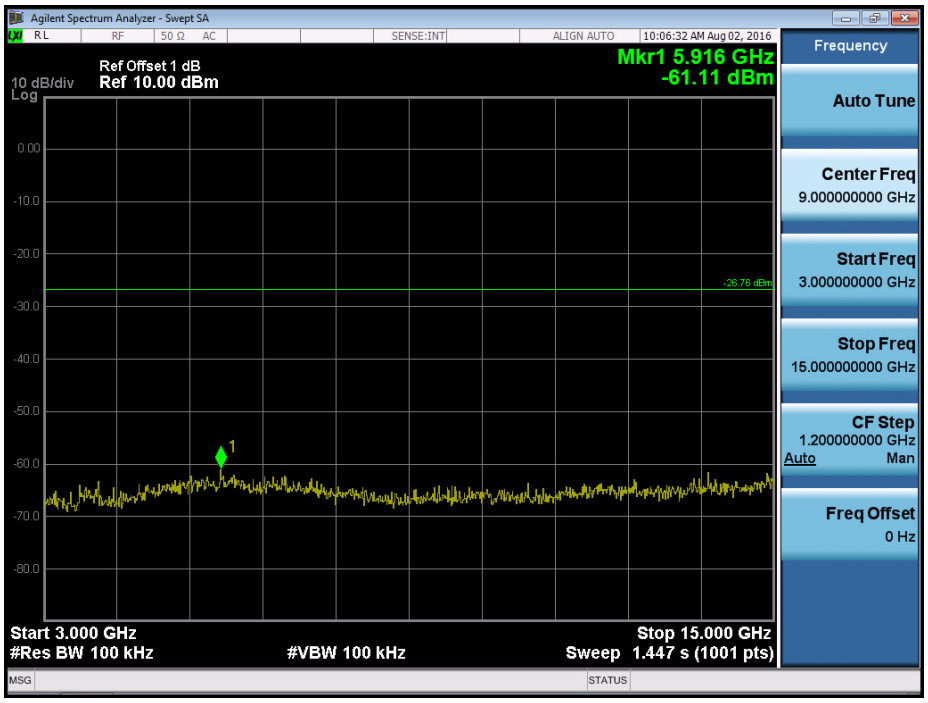


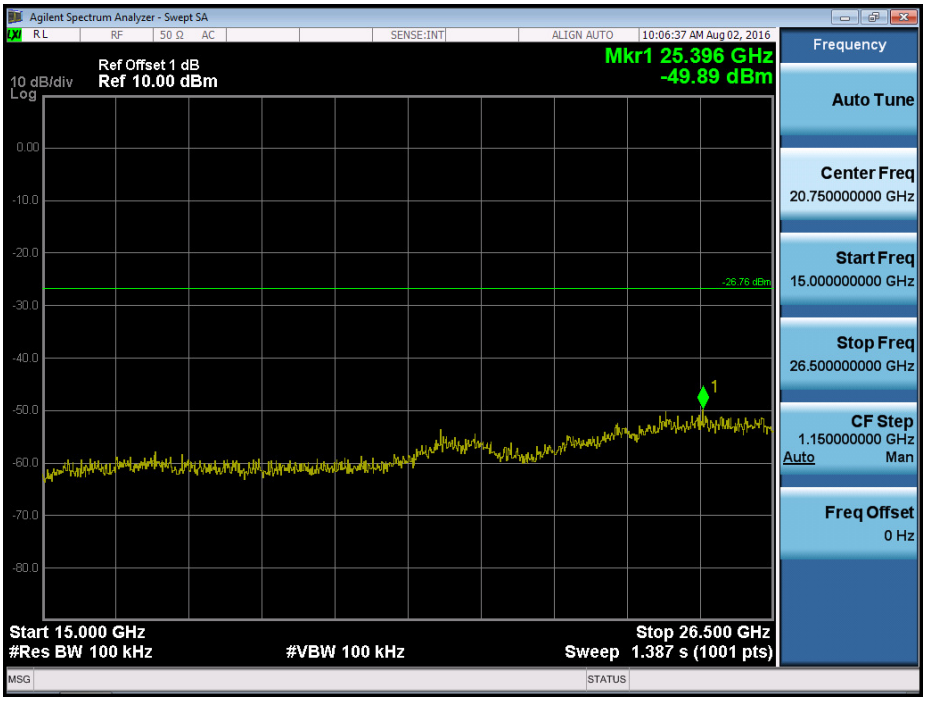

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:05:58 AM Aug 02, 2016
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 14.796 GHz
-61.68 dBm
0.00
-10.0
-20.0
-25.91 dBm
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Start 3.000 GHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 15.000 GHz
Sweep 1.447 s (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:06:03 AM Aug 02, 2016
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 24.821 GHz
-49.88 dBm
0.00
-10.0
-20.0
-25.91 dBm
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Start 15.000 GHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 26.500 GHz
Sweep 1.387 s (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz

CH78 (10 Harmonic of the frequency) _3Mbps






Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
10:06:37 AM Aug 02, 2016
Ref Offset 1 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 25.396 GHz
-49.89 dBm
0.00
-10.0
-20.0
-26.76 dBm
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Start 15.000 GHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 26.500 GHz
Sweep 1.387 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS