Test Report

Curtis-Straus LLC, *a wholly owned subsidiary of BV CPS*

Report No	ER3195-3
Client	DIG Corporation John Luu
Address	1210 Activity Dr. Vista, CA 92081
Phone	760-727-0914
Items tested	BOHE-BT
FCC ID	UJV-DIGBT
IC	6694A-DIGBT
Equipment Type	Digital Transmission System
Equipment Code	DTS
FCC/IC Rule Parts	CFR Title 47 FCC Part 15.247, ISED Canada RSS-247 Issue 2
Test Dates	01-31-2018 to 02-02-2018
Results	As detailed within this report
Prepared by	Christopher Hamel – EMC Engineer
Authorized by	Yunus Faziloglu – Sr. EMC Engineer
Issue Date	2/6/2018
Conditions of Issue	This Test Report is issued subject to the conditions stated in the '*Conditions of Testing*' section on page 18 of this report.

Contents

Report REV Sep-08-2017 - YF

Summary

This test report supports an application for certification of a transmitter operating pursuant to: CFR Title 47 FCC Part 15.247, ISED Canada RSS-247 Issue 2

The product tested is “BOHE-BT”. It is a direct sequence spread spectrum transmitter that operates in the 2402 – 2480 MHz frequency range.

Antenna Type: PCB Trace
Gain: -0.5dBi

List of models:

Model	Tested	Remarks
BOHE-BT	Yes	N/A
410BT	No	Electrically identical model to BOHE-BT with a different plastic enclosure.

We found that the product met the above requirements without modification.

Test samples were received in good condition.

Issue No.	Reason for change	Date Issued
1	Original Release	March 6, 2018

Curtis-Straus LLC, a wholly owned subsidiary of BV CPS
One Distribution Center Circle, #1 ● Littleton, MA ● TEL (978) 486-8880 ● FAX (978) 486-8828

Test Methodology

All testing was performed according to the following rules/procedures/documents; CFR 47 Part 15.247, RSS-247 Issue 2, RSS-Gen Issue 4, FCC KDB 558074 D01 DTS Measurement Guidance v04 and ANSI C63.10-2013.

Radiated emissions were maximized by rotating the device around 3 orthogonal planes (X, Y and Z) as well as varying the test antenna's height and polarity.

EUT operating voltage is 3.3V DC from battery, therefore AC line conducted emissions testing was not applicable.

The following bandwidths were used during radiated spurious emissions testing.

Frequency	RBW	VBW
30-1000MHz	120kHz	1MHz
1-25GHz	1MHz	3MHz

Product Tested - Configuration Documentation

EUT Configuration			
Work Order:	R3195		
Company:	7Layers - a Bureau Veritas Group Company		
Company Address:	15 Musick Honor Farm Rd		
	Irvine, CA, 92618		
Contact:	David Trevayne-Smith		
	MN	**PN**	**SN**
EUT:	BOHE-BT	--	Sample 101
EUT Description:			
Software Operating Mode Description:			
Automation Explorer controlled EUT for testing. For emissions EUT was either constantly transmitting (TX) or receiving (RX) Bluetooth signal set by software.			
Performance Criteria:			
EUT stays connected and Communicating to supplied BT device app.			

Statement of Conformity

RSS-GEN	RSP-100	RSS 247	Part 15	Comments
6.3			15.15(b)	There are no controls accessible to the user that varies the output power to operate in violation of the regulatory requirements.
	3.1		15.19	The label is shown in the label exhibit.
	4		15.21	Information to the user is shown in the instruction manual exhibit.
			15.27	No special accessories are required for compliance.
3, 6.1			15.31	The EUT was tested in accordance with the measurement standards in this section.
6.13			15.33	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.
8.1			15.35	The EUT emissions were measured using the measurement detector and bandwidth specified in this section, unless noted in specific rule section under which the equipment operates.
8.3			15.203	EUT employs PCB Trace -0.5dBi gain antenna.
8.10			15.205 15.209	The fundamental is not in a Restricted band and the spurious and harmonic emissions in the Restricted bands comply with the general emission limits of 15.209 or RSS-Gen as applicable
8.8			15.207	N/A. Battery powered only.

Refer to Appendix A of this report for antenna port conducted measurements.

Test Results

Radiated Spurious Emissions

LIMITS

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
[15.247(d)]

Radiated emissions were maximized by rotating the device around 3 orthogonal planes (X, Y and Z) and worst case emissions observed in Z orientation. All the results below are for the worst case orientation only.

MEASUREMENTS / RESULTS

Curtis Straus - a Bureau Veritas Company	Work Order - R3195
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 3.3v DC
Top Peaks Horizontal 30-1000MHz	Test Site - CH1
Operator: CCH	Conditions - 22.9°C; 26%RH; 1008mBar
Notes:	0
BLE CH 19 TX Mode	EUT Maximum Frequency - 2480MHz

Data Taken at Thursday, February 01, 2018

Frequency (MHz)	Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim1: FCC_pt15_209 (dBµV/m)	Lim1 Margin (dB)	Lim1 Test Results (Pass/Fail)	Worst Margin Lim1 (dB)	Lim2: FCC_pt15_209 (dBµV/m)	Lim2 Margin (dB)	Lim2 Test Results (Pass/Fail)	Worst Margin Lim2 (dB)
30.558	32	-8.1	23.9	40	-16.1	PASS	-16.1	40	-16.1	PASS	-16.1
141.671	37.4	-15.2	22.1	43.5	-21.4	PASS		43.5	-21.4	PASS	
144.024	40.1	-15.5	24.6	43.5	-18.9	PASS		43.5	-18.9	PASS	
187.164	39.4	-17.2	22.2	43.5	-21.3	PASS		43.5	-21.3	PASS	
190.147	39.5	-17	22.6	43.5	-20.9	PASS		43.5	-20.9	PASS	
920.896	32.2	-2.3	29.9	46	-16.1	PASS		46	-16.1	PASS	

Curtis Straus - a Bureau Veritas Company	Work Order - R3195
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 3.3v DC
Top Peaks Vertical 30-1000MHz	Test Site - CH1
Operator: CCH	Conditions - 22.9°C; 26%RH; 1008mBar
Notes:	0
BLE CH 19 TX Mode	EUT Maximum Frequency - 2480MHz

Data Taken at Thursday, February 01, 2018

Frequency (MHz)	Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim1: FCC_pt15_209 (dBµV/m)	Lim1 Margin (dB)	Lim1 Test Results (Pass/Fail)	Worst Margin Lim1 (dB)	Lim2: FCC_pt15_209 (dBµV/m)	Lim2 Margin (dB)	Lim2 Test Results (Pass/Fail)	Worst Margin Lim2 (dB)
30.17	32.1	-7.7	24.4	40	-15.6	PASS		40	-15.6	PASS	
75.905	48	-20.4	27.6	40	-12.4	PASS		40	-12.4	PASS	
78.064	50.4	-20.8	29.6	40	-10.4	PASS	-10.4	40	-10.4	PASS	-10.4
79.349	46.8	-20.9	25.9	40	-14.1	PASS		40	-14.1	PASS	
80.658	44.6	-21.1	23.5	40	-16.5	PASS		40	-16.5	PASS	
890.754	32.1	-2.4	29.7	46	-16.3	PASS		46	-16.3	PASS	

30-1000MHz CH 19 (middle)

Note: Emissions recorded were not related to the transmitter and since all emissions on center channel passed by more than 10dB margin, low and high channels were not tested.

Curtis Straus - a Bureau Veritas Company	Work Order - R3195
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 3.3v DC
1-6GHz Horizontal Data	Test Site - CH1
Operator: CCH	Conditions - 22.9°C; 26%RH; 1008mBar
Notes:	0
BLE CH 0 TX Mode	EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Results (Pass/Fail)
5922.9	32.9	24.1	23	55.9	74	-18.1	PASS	-18.1	47	54	-7	PASS

Curtis Straus - a Bureau Veritas Company	Work Order - R3195
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 3.3v DC
1-6GHz Vertical Data	Test Site - CH1
Operator: CCH	Conditions - 22.9°C; 26%RH; 1008mBar
Notes:	0
BLE CH 0 TX Mode	EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Results (Pass/Fail)
5676.8	33.1	24.5	22.7	55.8	74	-18.2	PASS	-18.2	47.3	54	-6.7	PASS

1-6GHz CH0 (Low)

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 3m Distance
1-6GHz Horizontal Data
Operator: CCH
Notes:
BLE CH 19 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Results (Pass/Fail)	Worst Average Margin (dB)
3007.6	32.4	24.6	14.5	46.8	74	-27.2	PASS		39.1	54	-14.9	PASS	
5262.1	32.2	23.5	22.3	54.5	74	-19.5	PASS	-19.5	45.8	54	-8.2	PASS	-8.2

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 3m Distance
1-6GHz Vertical Data
Operator: CCH
Notes:
BLE CH 19 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Results (Pass/Fail)	Worst Avg Margin (dB)
3396.2	32.8	24.2	16.4	49.2	74	-24.8	PASS		40.5	54	-13.5	PASS	
5994	33.9	24.3	23	57	74	-17	PASS	-17	47.4	54	-6.6	PASS	-6.6

1-6GHz CH19

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 3m Distance
1-6GHz Horizontal Data
Operator: CCH
Notes:
BLE CH 39 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Results (Pass/Fail)	Worst Average Margin (dB)
2492.7	32.3	24.5	12.5	44.8	74	-29.2	PASS		36.9	54	-17.1	PASS	
5253.5	32.7	23.5	22.3	55	74	-19	PASS	-19	45.8	54	-8.2	PASS	-8.2

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 3m Distance
1-6GHz Vertical Data
Operator: CCH
Notes:
BLE CH 39 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Results (Pass/Fail)	Worst Avg Margin (dB)
2488.7	37.8	24.5	12.5	50.2	74	-23.8	PASS		37	54	-17	PASS	
2504.4	33.4	24.6	12.5	45.9	74	-28.1	PASS		37.1	54	-16.9	PASS	
5832	32.4	23.8	22.8	55.2	74	-18.8	PASS	-18.8	46.5	54	-7.5	PASS	-7.5

1-6GHz CH39

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 1m Distance
Top Peaks Horizontal 6-18GHz
Operator: CCH
Notes:
BLE CH 0 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Margin to Peak Limit (dB)	Peak Limit Test Results (Pass/Fail)	Peak Limit Worst Margin (dB)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Margin to Avg Limit (dB)	Avg Limit Test Results (Pass/Fail)	Avg Limit Worst Margin (dB)
8802.6	47.1	0.7	47.8	83.5	-35.7	PASS		63.5	-15.7	PASS	
10251.9	48.1	-0.3	47.7	83.5	-35.8	PASS		63.5	-15.8	PASS	
11482.5	45.6	2.5	48	83.5	-35.5	PASS		63.5	-15.5	PASS	
13985.4	46.9	6.1	53.1	83.5	-30.4	PASS		63.5	-10.4	PASS	
17676.3	44.4	10.9	55.3	83.5	-28.2	PASS	-28.2	63.5	-8.2	PASS	-8.2

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 1m Distance
Top Peaks Vertical 6-18GHz
Operator: CCH
Notes:
BLE CH 0 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Wednesday, January 31, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Margin to Peak Limit (dB)	Peak Limit Test Results (Pass/Fail)	Peak Limit Worst Margin (dB)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Margin to Avg Limit (dB)	Avg Limit Test Results (Pass/Fail)	Avg Limit Worst Margin (dB)
8588.1	47.1	0.6	47.7	83.5	-35.8	PASS		63.5	-15.8	PASS	
11613.9	46.6	2	48.6	83.5	-34.9	PASS		63.5	-14.9	PASS	
14007.9	46.2	6.1	52.3	83.5	-31.2	PASS		63.5	-11.2	PASS	
17943	44.3	11.1	55.4	83.5	-28.1	PASS	-28.1	63.5	-8.1	PASS	-8.1

6-18GHz CH 0

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 1m Distance
Top Peaks Horizontal 6-18GHz
Operator: CCH
Notes:
BLE CH 19 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Thursday, February 01, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Margin to Peak Limit (dB)	Peak Limit Test Results (Pass/Fail)	Peak Limit Worst Margin (dB)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Margin to Avg Limit (dB)	Avg Limit Test Results (Pass/Fail)	Avg Limit Worst Margin (dB)
8847	47.3	0.7	48	83.5	-35.5	PASS		63.5	-15.5	PASS	
9375	47.4	-0.1	47.3	83.5	-36.2	PASS		63.5	-16.2	PASS	
10789.2	46.8	1.1	47.9	83.5	-35.6	PASS		63.5	-15.6	PASS	
11563.8	45.3	2.5	47.7	83.5	-35.8	PASS		63.5	-15.8	PASS	
13992	45.5	6.2	51.7	83.5	-31.8	PASS		63.5	-11.8	PASS	
17952.9	44.1	11	55.1	83.5	-28.4	PASS	-28.4	63.5	-8.4	PASS	-8.4

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 1m Distance
Top Peaks Vertical 6-18GHz
Operator: CCH
Notes:
BLE CH 19 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Thursday, February 01, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Margin to Peak Limit (dB)	Peak Limit Test Results (Pass/Fail)	Peak Limit Worst Margin (dB)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Margin to Avg Limit (dB)	Avg Limit Test Results (Pass/Fail)	Avg Limit Worst Margin (dB)
8592	46.8	0.6	47.4	83.5	-36.1	PASS		63.5	-16.1	PASS	
9411.6	48.1	-0.3	47.8	83.5	-35.7	PASS		63.5	-15.7	PASS	
11549.4	45.6	2.5	48.1	83.5	-35.4	PASS		63.5	-15.4	PASS	
14016	46.3	6	52.3	83.5	-31.2	PASS		63.5	-11.2	PASS	
17678.4	43.8	10.9	54.8	83.5	-28.7	PASS	-28.7	63.5	-8.7	PASS	-8.7

6-18GHz CH 19

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 1m Distance
Top Peaks Horizontal 6-18GHz
Operator: CCH
Notes:
BLE CH 39 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Thursday, February 01, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Margin to Peak Limit (dB)	Peak Limit Test Results (Pass/Fail)	Peak Limit Worst Margin (dB)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Margin to Avg Limit (dB)	Avg Limit Test Results (Pass/Fail)	Avg Limit Worst Margin (dB)
8840.4	47.7	0.7	48.4	83.5	-35.1	PASS		63.5	-15.1	PASS	
9356.1	47.7	-0.1	47.6	83.5	-35.9	PASS		63.5	-15.9	PASS	
10750.2	46.9	1	47.9	83.5	-35.6	PASS		63.5	-15.6	PASS	
11610.9	45.5	2	47.5	83.5	-36	PASS		63.5	-16	PASS	
13935.9	45.4	5.6	51	83.5	-32.5	PASS		63.5	-12.5	PASS	
17970.6	45.1	11	56.1	83.5	-27.4	PASS	-27.4	63.5	-7.4	PASS	-7.4

Curtis Straus - a Bureau Veritas Company
Radiated Emissions Electric Field 1m Distance
Top Peaks Vertical 6-18GHz
Operator: CCH
Notes:
BLE CH 39 TX Mode

Work Order - R3195
EUT Power Input - 3.3v DC
Test Site - CH1
Conditions - 22.9°C; 26%RH; 1008mBar
0
EUT Maximum Frequency - 2480MHz

Data Taken at Thursday, February 01, 2018

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_209_Peak (dBµV/m)	Margin to Peak Limit (dB)	Peak Limit Test Results (Pass/Fail)	Peak Limit Worst Margin (dB)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Margin to Avg Limit (dB)	Avg Limit Test Results (Pass/Fail)	Avg Limit Worst Margin (dB)
10099.5	47	0.5	47.5	83.5	-36	PASS		63.5	-16	PASS	
10714.5	46.6	1	47.6	83.5	-35.9	PASS		63.5	-15.9	PASS	
13314	46.1	4.8	50.9	83.5	-32.6	PASS		63.5	-12.6	PASS	
13962.3	46.1	5.9	52	83.5	-31.5	PASS		63.5	-11.5	PASS	
17077.5	45.1	7.5	52.6	83.5	-30.9	PASS		63.5	-10.9	PASS	
17871.3	43.9	10.9	54.8	83.5	-28.7	PASS	-28.7	63.5	-8.7	PASS	-8.7

6-18GHz CH39

Radiated Emissions Table

Date: 02-Feb-18 **Company:** 7Layers **Work Order:** R3195
Engineer: Chris Hamel **EUT Desc:** BOHE-BT **EUT Operating Voltage/Frequency:** 3.3V DC
Temp: 23.2°C **Humidity:** 32% **Pressure:** 1001mBar
Frequency Range: 18-25GHz **Measurement Distance:** 0.1 m
Notes: No Emissions Found. BLE CH0 **EUT Max Freq:** 2480MHz

Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBµV)	Average Reading (dBµV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBµV/m)	Adjusted Avg Reading (dBµV/m)	FCC Class B High Frequency - Peak			FCC Class B High Frequency - Average		
									Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)
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Table Result: Pass by N/A dB ***Worst Freq:*** N/A MHz

Test Site: EMI Chamber 2 **Cable 1:** Asset #2323 **Cable 2:** --- **Cable 3:** ---
Analyzer: Rental SA#3 **Preamp:** 18-26.5GHz **Antenna:** 18-26.5GHz Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.197

Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

18-25GHz CH 0

Radiated Emissions Table

Date: 02-Feb-18 **Company:** 7Layers **Work Order:** R3195
Engineer: Chris Hamel **EUT Desc:** BOHE-BT **EUT Operating Voltage/Frequency:** 3.3V DC
Temp: 23.2°C **Humidity:** 32% **Pressure:** 1001mBar
Frequency Range: 18-25GHz **Measurement Distance:** 0.1 m
Notes: No Emissions Found. BLE CH19 **EUT Max Freq:** 2480MHz

Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBµV)	Average Reading (dBµV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBµV/m)	Adjusted Avg Reading (dBµV/m)	FCC Class B High Frequency - Peak			FCC Class B High Frequency - Average		
									Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)
				---	---	---	---	---	---	---	---	---	---	---

Table Result: Pass by N/A dB ***Worst Freq:*** N/A MHz

Test Site: EMI Chamber 2 **Cable 1:** Asset #2323 **Cable 2:** --- **Cable 3:** ---
Analyzer: Rental SA#3 **Preamp:** 18-26.5GHz **Antenna:** 18-26.5GHz Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.197

Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

18-25GHz CH 19

Radiated Emissions Table

Date: 02-Feb-18 **Company:** 7Layers **Work Order:** R3195
Engineer: Chris Hamel **EUT Desc:** BOHE-BT **EUT Operating Voltage/Frequency:** 3.3V DC
Temp: 23.2°C **Humidity:** 32% **Pressure:** 1001mBar
Frequency Range: 18-25GHz **Measurement Distance:** 0.1 m
Notes: No Emissions Found. BLE CH39 **EUT Max Freq:** 2480MHz

Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBµV)	Average Reading (dBµV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBµV/m)	Adjusted Avg Reading (dBµV/m)	FCC Class B High Frequency - Peak			FCC Class B High Frequency - Average		
									Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)
				---	---	---	---	---	---	---	---	---	---	---

Table Result: Pass by N/A dB ***Worst Freq:*** N/A MHz

Test Site: EMI Chamber 2 **Cable 1:** Asset #2323 **Cable 2:** --- **Cable 3:** ---
Analyzer: Rental SA#3 **Preamp:** 18-26.5GHz **Antenna:** 18-26.5GHz Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.197

Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

18-25GHz CH 39

Rev. 1/30/2018

Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
2093 MXE EMI Receiver	20Hz-26.5GHz	N9038A	Agilent	MY51210181	2093	I	11/16/2018	11/16/2017

Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range	Asset	Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz	1685	I	12/21/2018	12/21/2016
EMI Chamber 1	719150	2762A-6	A-0015	1-18GHz	1685	I	12/21/2018	12/21/2016
EMI Chamber 2	719150	2762A-7	A-0015	30-1000MHz	1686	I	12/21/2018	12/21/2016
EMI Chamber 2	719150	2762A-7	A-0015	1-18GHz	1686	I	12/21/2018	12/21/2016

Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
2311 PA	1-1000MHz	PAM-103	COM-POWER	441174	2311	II	10/29/2018	10/29/2017
Brown	1-10GHz	CS	CS	N/A	1523	II	10/18/2018	10/18/2017
2111 HF Preamp	0.5-18GHz	PAM-118A	COM-POWER	551063	2111	II	11/19/2018	11/19/2017
HF (Yellow)	18-26.5GHz	AFS4-18002650-60-8P-4	CS	467559	1266	II	10/16/2018	10/16/2017

Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-Brown Bilog	30-2000MHz	JB1	Sunol	A0032406	1218	I	1/13/2019	1/13/2017
Orange Horn	1-18GHz	3115	EMCO	0004-6123	390	I	10/13/2018	10/13/2016
HF (White) Horn	18-26.5GHz	801-WLM	Waveline	758	758	III	Verify before Use	date of test

Meteorological Meters/Chambers		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	4/28/2018	4/28/2016
TH A#2083		HTC-1	HDE		2083	II	3/23/2018	3/23/2017
TH A#2084		HTC-1	HDE		2084	II	3/23/2018	3/23/2017

Cables	Range	Mfr			Cat	Calibration Due	Calibrated on
Asset #2052	9kHz - 18GHz	Florida RF			II	3/5/2018	3/5/2017
Asset #2456	9KHz-18GHz	MegaPhase			II	10/29/2018	10/29/2017
Asset #2465	9KHz-18GHz	MegaPhase			II	10/29/2018	10/29/2017

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

Radiated Band Edge

Radiated Emissions Table

Date: 02-Feb-18 **Company:** 7Layers **Work Order:** R3195
Engineer: Chris Hamel **EUT Desc:** BOHE-BT **EUT Operating Voltage/Frequency:** 3.3V DC
Temp: 23.2°C **Humidity:** 32% **Pressure:** 1001mBar
Frequency Range: 2300-2500MHz Band **Measurement Distance:** 3 m
Notes: Band Edge Measurements. **EUT Max Freq:**

Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBµV)	Average Reading (dBµV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBµV/m)	Adjusted Avg Reading (dBµV/m)	FCC Class B High Frequency - Peak Limit (dBµV/m)	FCC Class B High Frequency - Peak Margin (dB)	FCC Class B High Frequency - Peak Result (Pass/Fail)	FCC Class B High Frequency - Average Limit (dBµV/m)	FCC Class B High Frequency - Average Margin (dB)	FCC Class B High Frequency - Average Result (Pass/Fail)
Low Edge				---	---	---	---	---	---	---	---	---	---	---
V Max	2401.772	58.126		0.0	28.0	3.2	---	---	74.0	---	---	54.0	---	---
H Max	2401.792	60.322		0.0	28.0	3.2	---	---	74.0	---	---	54.0	---	---
H	2390.0	24.522	10.2	0.0	28.0	3.2	55.7	41.4	74.0	-18.3	Pass	54.0	-12.6	Pass
H	2385.68	22.02	9.2	0.0	28.0	3.2	53.2	40.4	74.0	-20.8	Pass	54.0	-13.6	Pass
H	2375.28	21.128	8.3	0.0	28.0	3.2	52.3	39.5	74.0	-21.7	Pass	54.0	-14.5	Pass
H	2369.6	18.886	4.4	0.0	28.0	3.2	50.1	35.6	74.0	-23.9	Pass	54.0	-18.4	Pass
				---	---	---	---	---	---	---	---	---	---	---
				---	---	---	---	---	---	---	---	---	---	---
High Edge				---	---	---	---	---	---	---	---	---	---	---
V Max	2479.765	57.749		0.0	28.2	3.2	---	---	74.0	---	---	54.0	---	---
H Max	2480.257	59.459		0.0	28.2	3.2	---	---	74.0	---	---	54.0	---	---
H	2483.5	32.543	9.6	0.0	28.2	3.2	63.9	41.0	74.0	-10.1	Pass	54.0	-13.0	Pass
H	2485.01	29.286	6.0	0.0	28.2	3.2	60.7	37.4	74.0	-13.3	Pass	54.0	-16.6	Pass
H	2487.559	26.142	5.0	0.0	28.3	3.2	57.6	36.5	74.0	-16.4	Pass	54.0	-17.5	Pass
H	2491.205	24.108	4.5	0.0	28.3	3.2	55.6	36.0	74.0	-18.4	Pass	54.0	-18.0	Pass

Table Result: Pass by -10.1 dB ***Worst Freq:*** 2483.5 MHz

Test Site: EMI Chamber 2 **Cable 1:** Asset #2458 **Cable 2:** Asset #2459 **Cable 3:** ---
Analyzer: Rental SA#3 **Preamp:** None **Antenna:** Orange Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.197

Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

Band Edge Measurements

Rev. 2/20/2018							
Spectrum Analyzers / Receivers /Preselectors	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**
2093 MXE EMI Receiver	20Hz-26.5GHz	N9038A	Agilent	MY51210181	2093	I	11/16/2018
Radiated Emissions Sites	**FCC Code**	**IC Code**	**VCCI Code**	**Range**	**Asset**	**Cat**	**Calibration Due**
EMI Chamber 2	719150	2762A-7	A-0015	1-18GHz	1686	I	12/21/2018
Antennas	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**
Orange Horn	1-18GHz	3115	EMCO	0004-6123	390	I	10/13/2018
Meteorological Meters/Chambers		**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	4/28/2018
TH A#2083		HTC-1	HDE		2083	II	3/23/2018
Cables	**Range**		**Mfr**			**Cat**	**Calibration Due**
Asset #2458	9KHz-18GHz		MegaPhase			II	10/29/2018
Asset #2459	9KHz-18GHz		MegaPhase			II	10/29/2018
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.							

AC Line Conducted Emissions

LIMITS

Frequency of emission (MHz)	Quasi-peak limit (dBµV)	Average limit (dBµV)
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

[47 CFR 15.207(a)]

MEASUREMENTS / RESULTS

N/A. EUT is battery powered only.

Measurement Uncertainty

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radiated Emissions (30-1000MHz) NIST CISPR	 5.6dB 4.6dB	 N/A 5.2dB (Ucispr)
Radiated Emissions (1-26.5GHz)	4.6dB	N/A
Radiated Emissions (above 26.5GHz)	4.9dB	N/A
Magnetic Radiated Emissions	5.6dB	N/A
Conducted Emissions NIST CISPR	 3.9dB 3.6dB	 N/A 3.6dB (Ucispr)
Telco Conducted Emissions (Current)	2.9dB	N/A
Telco Conducted Emissions (Voltage)	4.4dB	N/A
Electrostatic Discharge	11.5%	N/A
Radiated RF Immunity (Uniform Field)	1.6dB	N/A
Electrical Fast Transients	23.1%	N/A
Surge	23.1%	N/A
Conducted RF Immunity	3dB	N/A
Magnetic Immunity	12.8%	N/A
Dips and Interrupts	2.3V	N/A
Harmonics	3.5%	N/A
Flicker	3.5%	N/A
Radio frequency (@ 2.4GHz)	3.23×10^{-8}	1×10^{-7}
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation: • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	 3.4% 0.3dB	 5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB
Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
Temperature	0.7°C	1.0°C
Time	4.1%	10%
RF Power Density, Conducted	0.4dB	3dB
DC and low frequency voltages	1.3%	3%
Voltage (AC, <10kHz)	1.3%	2%
Voltage (DC)	0.62%	1%
The above reflects a 95% confidence level		

Conditions Of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("Test Report") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.
2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.
3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.
4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.
5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "**BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES," "BVCPS", "MTL", "ACTS", "MTL-ACTS" and CURTIS-STRAUS** (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.
6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate of it to Client or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon.
7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.
10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.
11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only were such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.
12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods.
13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.
14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.

15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B)NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

The complete list of the Approved Subcontractors Curtis-Straus may use to delegate the performance of work can be provided upon request.
Rev.160009121(2)_#684340 v14CS

Appendix A

ER3195-3 Appendix A
CFR Title 47 FCC Part §15.247 and ISED Canada RSS-247 Issue 2

DUT Information

DUT Name:	BOHE-BT
Manufacturer:	DigCorp
Serial Number:	01

Frequencies

BT CH 0 (2402 MHz)	BT CH 1 (2404 MHz)	BT CH 2 (2406 MHz)
BT CH 3 (2408 MHz)	BT CH 4 (2410 MHz)	BT CH 5 (2412 MHz)
BT CH 6 (2414 MHz)	BT CH 7 (2416 MHz)	BT CH 8 (2418 MHz)
BT CH 9 (2420 MHz)	BT CH 10 (2422 MHz)	BT CH 11 (2424 MHz)
BT CH 12 (2426 MHz)	BT CH 13 (2428 MHz)	BT CH 14 (2430 MHz)
BT CH 15 (2432 MHz)	BT CH 16 (2434 MHz)	BT CH 17 (2436 MHz)
BT CH 18 (2438 MHz)	BT CH 19 (2440 MHz)	BT CH 20 (2442 MHz)
BT CH 21 (2444 MHz)	BT CH 22 (2446 MHz)	BT CH 23 (2448 MHz)
BT CH 24 (2450 MHz)	BT CH 25 (2452 MHz)	BT CH 26 (2454 MHz)
BT CH 27 (2456 MHz)	BT CH 28 (2458 MHz)	BT CH 29 (2460 MHz)
BT CH 30 (2462 MHz)	BT CH 31 (2464 MHz)	BT CH 32 (2466 MHz)
BT CH 33 (2468 MHz)	BT CH 34 (2470 MHz)	BT CH 35 (2472 MHz)
BT CH 36 (2474 MHz)	BT CH 37 (2476 MHz)	BT CH 38 (2478 MHz)
BT CH 39 (2480 MHz)		

DUT Settings

No. of transmission chains	1
Equipment Type	Digital Transmission System

Antenna Gain -0.5dBi

Test Equipment Used:

Rev. 11/9/2017								
Spectrum Analyzers / Receivers /Preselectors	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
FSV40 Signal/Spectrum Analyzer	10Hz-40GHz	FSV40	ROHDE & SCHWARZ	101551	2200	I	6/30/2018	6/30/2017
Signal Generators/Comparaison Noise Emitter	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
SMBV100A Vector Signal Generator	9KHz-6GHz	SMBV100A	ROHDE & SCHWARZ	261919	2201	I	6/26/2018	6/26/2017
SMB100A Signal Generator	100kHz-40GHz	SMB100A	ROHDE & SCHWARZ	179846	2435	I	10/13/2018	10/13/2017
Power/Noise Meters		**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
OSP - open switch and control platform	30MHz-18GHz	OSP120	ROHDE & SCHWARZ	101674		I	6/1/2018	6/1/2017
Cables	**Range**		**Mfr**			**Cat**	**Calibration Due**	**Calibrated on**
DUT1	30MHz-26GHz		Micro-Coax			II	6/21/2018	6/21/2017
DUT2	30MHz-26GHz		Micro-Coax			II	6/22/2018	6/22/2017
DUT3	30MHz-26GHz		Micro-Coax			II	6/23/2018	6/23/2017
DUT4	30MHz-26GHz		Micro-Coax			II	6/24/2018	6/24/2017
Attenuators / Couplers	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
10dB Attenuator-01 Brown	30MHz-26GHz		Mini Curcuits			II	7/13/2018	7/14/2017
10dB Attenuator-02 Yellow	30MHz-26GHz		Mini Curcuits			II	7/13/2018	7/14/2017
10dB Attenuator-03 Red	30MHz-26GHz		Mini Curcuits			II	7/13/2018	7/14/2017
10dB Attenuator-04 orange	30MHz-26GHz		Mini Curcuits			II	7/13/2018	7/14/2017
API - 30dB 20W Attenuator	9KHz-40GHz	89-30-11	API Weinschel	703	2121	I	3/22/2018	3/22/2217
Directional Coupler	0.5GHz-18GHz	UDC	AA MCS	001040	2434	II	8/11/2018	8/11/2017
Communication Tester	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
CMW500 Wideband Radio Communication Tester	DC to 6GHz	CMW500	ROHDE & SCHWARZ	155905		I	6/2/2018	6/2/2017
Meteorological Meters/Chambers		**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Temp/Humidity Chamber #18		EPX-2H	Espec	137664	1645	I	1/5/2019	1/5/2018
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.								

Summary

Test	Frequency (MHz)	Result
RF Average Output Power	2402/2440/2480	PASS
Peak Power Spectral Density	2402/2440/2480	PASS
DTS Bandwidth (6dB)	2402/2440/2480	PASS
Band Edge Low	2402	PASS
Band Edge High	2480	PASS
Conducted Spurious Emissions	2402/2440/2480	PASS

RF Average Output Power

Test procedure in accordance with ANSI C63.10-2013 Section 11.9.2.3.2 Method AVGPM-G.
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Combined Uncertainty of absolute Level Measurement (K=2) < 1 dB

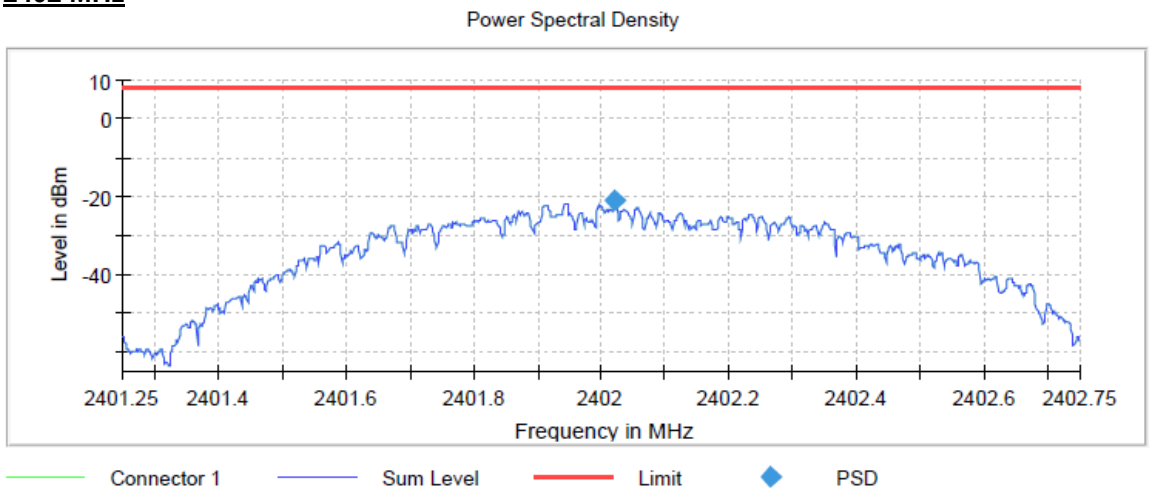
	2402 MHz	2440 MHz	2480 MHz	Limit Max (dBm)	Result
RF Average Output Power (dBm)	-6.036	-6.566	-6.856	30.0	PASS

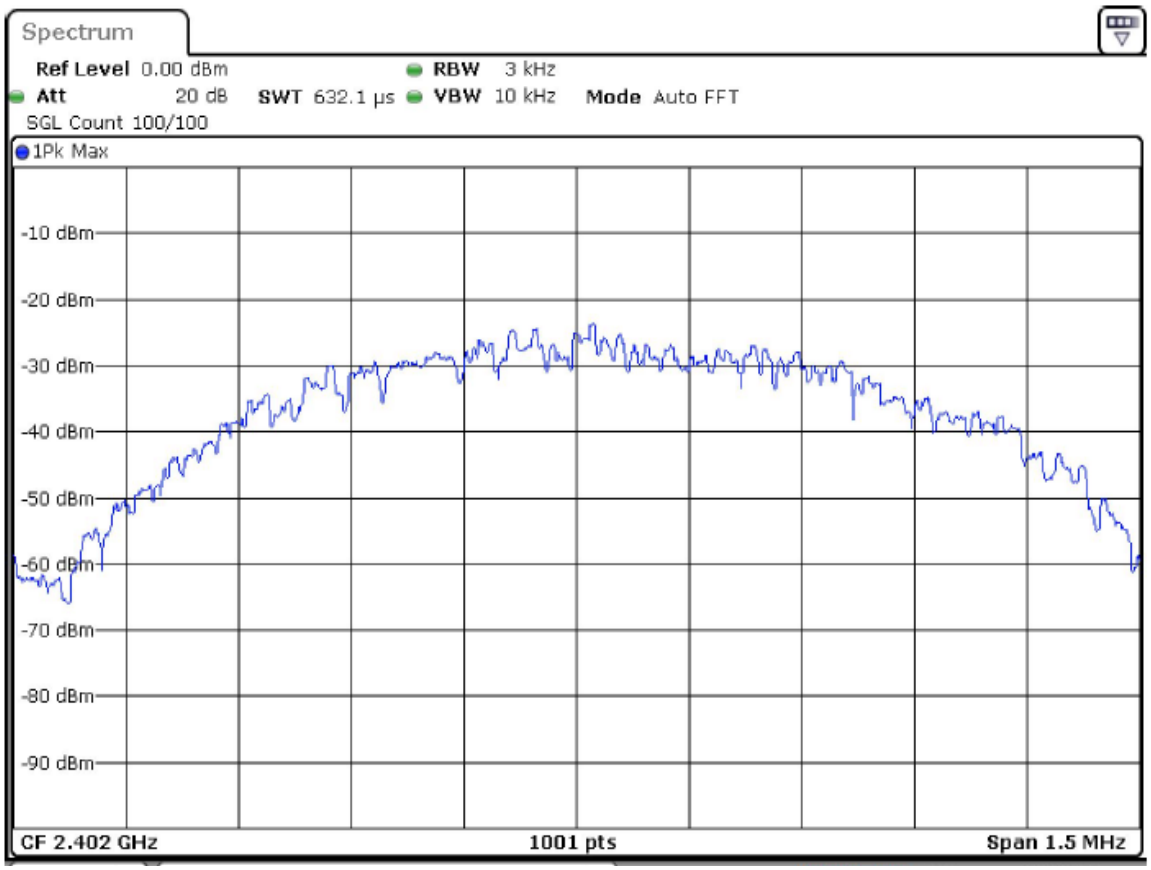
Peak Power Spectral Density

Test procedure in accordance with ANSI C63.10-2013 Section 11.10.2 Method PKPSD.
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 1.3 dB

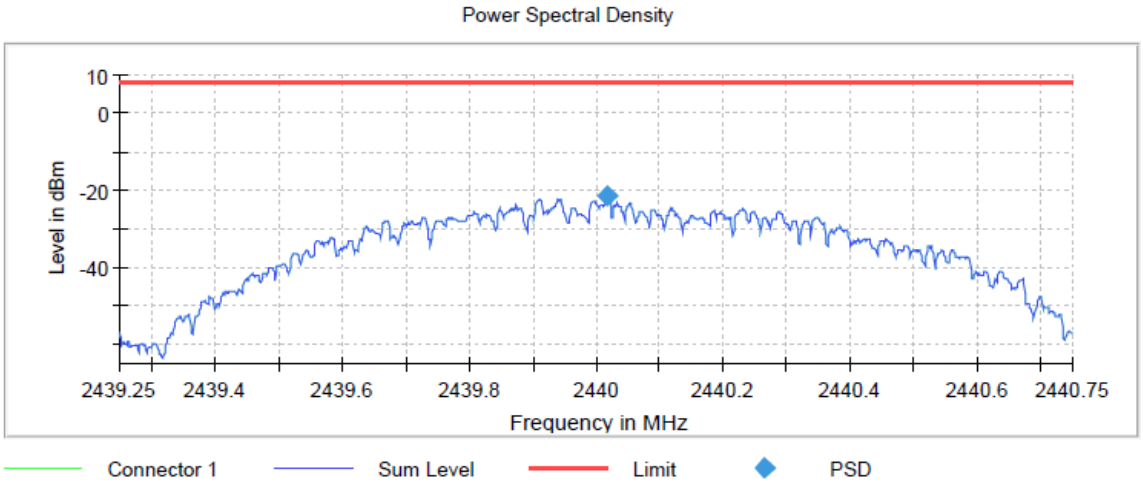
	2402 MHz	2440 MHz	2480 MHz	Limit Max (dBm)	Result
PSD (dBm)	-21.082	-21.350	-21.890	8.0	PASS

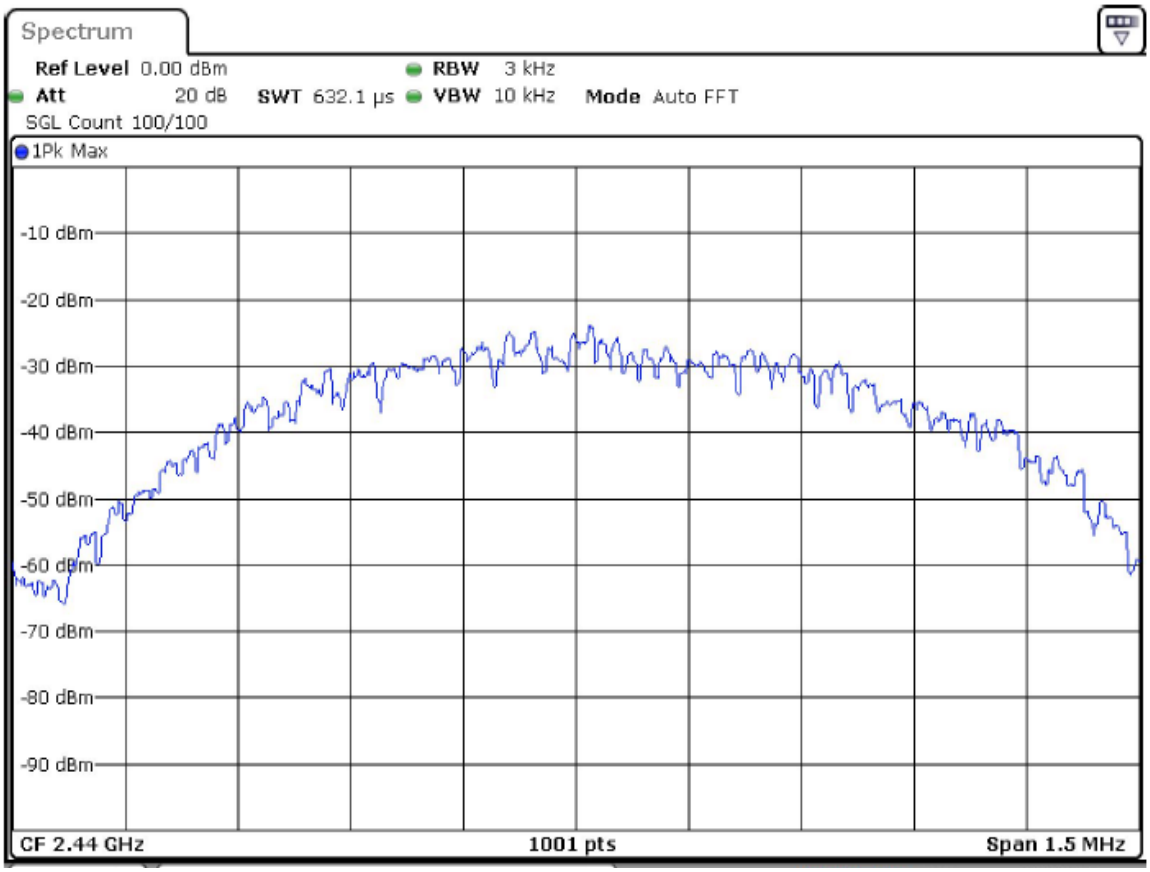
2402 MHz



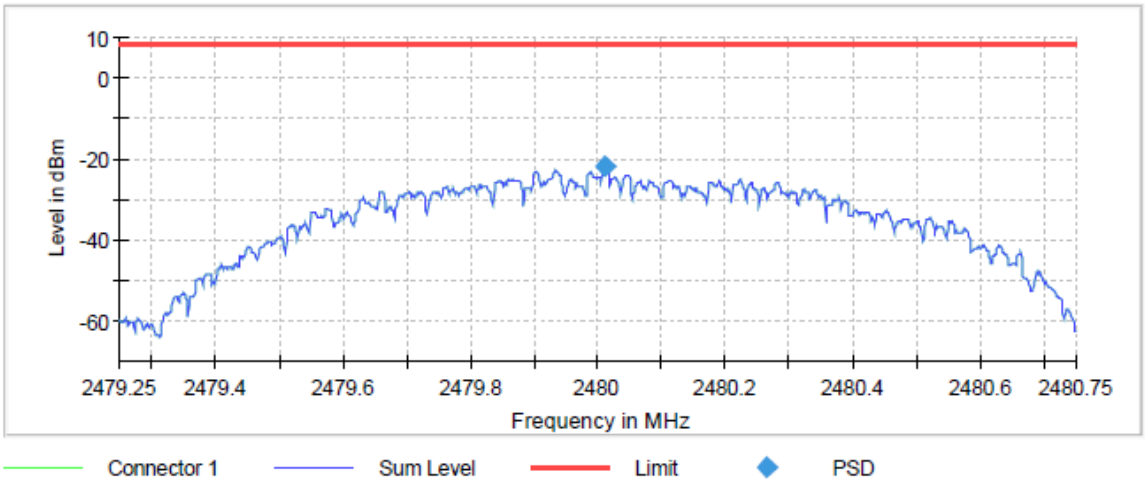

Spectrum
Ref Level 0.00 dBm
RBW 3 kHz
Att 20 dB
SWT 632.1 µs
VBW 10 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.402 GHz
1001 pts
Span 1.5 MHz

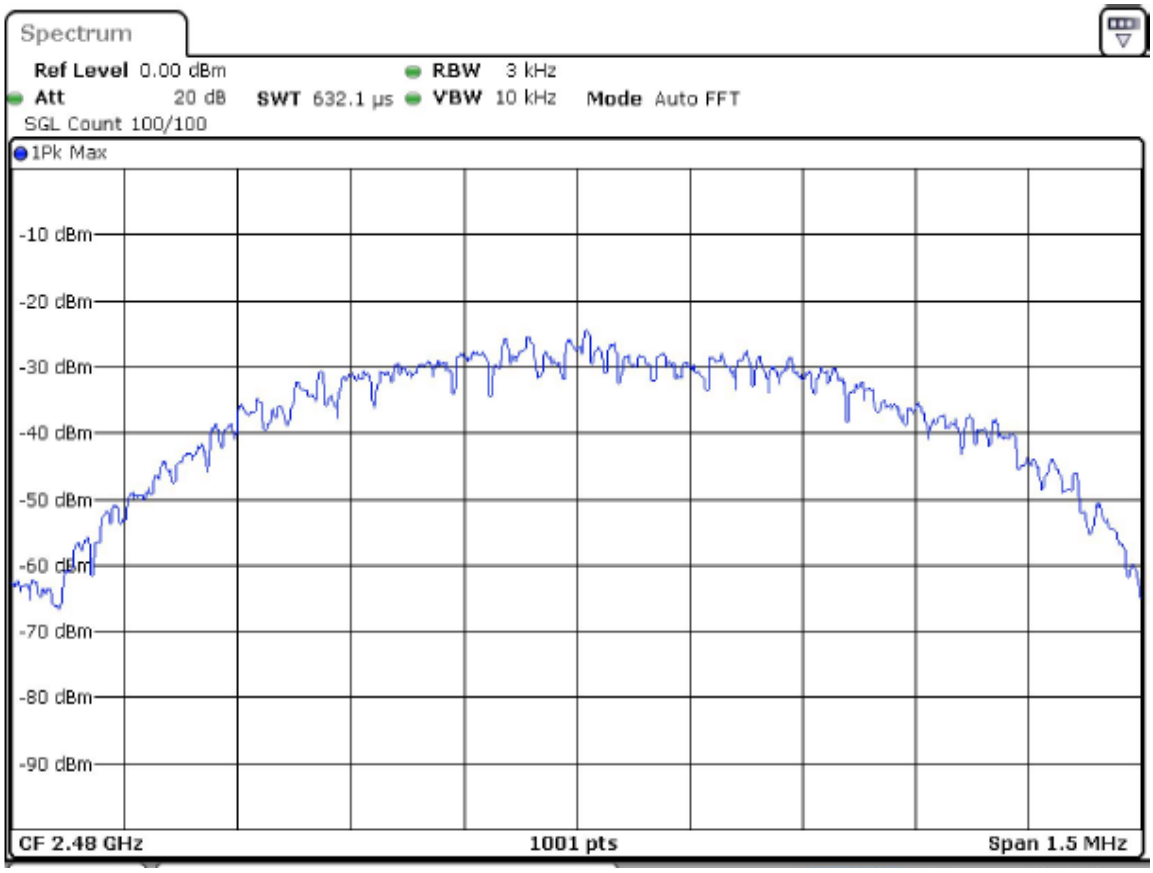
2440 MHz


Power Spectral Density
10
0
-20
-40
Level in dBm
2439.25
2439.4
2439.6
2439.8
2440
2440.2
2440.4
2440.6
2440.75
Frequency in MHz
Connector 1
Sum Level
Limit
PSD


Spectrum
Ref Level 0.00 dBm
RBW 3 kHz
Att 20 dB
SWT 632.1 µs
VBW 10 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.44 GHz
1001 pts
Span 1.5 MHz

2480 MHz


10
0
-20
-40
-60
Level in dBm
2479.25
2479.4
2479.6
2479.8
2480
2480.2
2480.4
2480.6
2480.75
Frequency in MHz
Connector 1
Sum Level
Limit
PSD

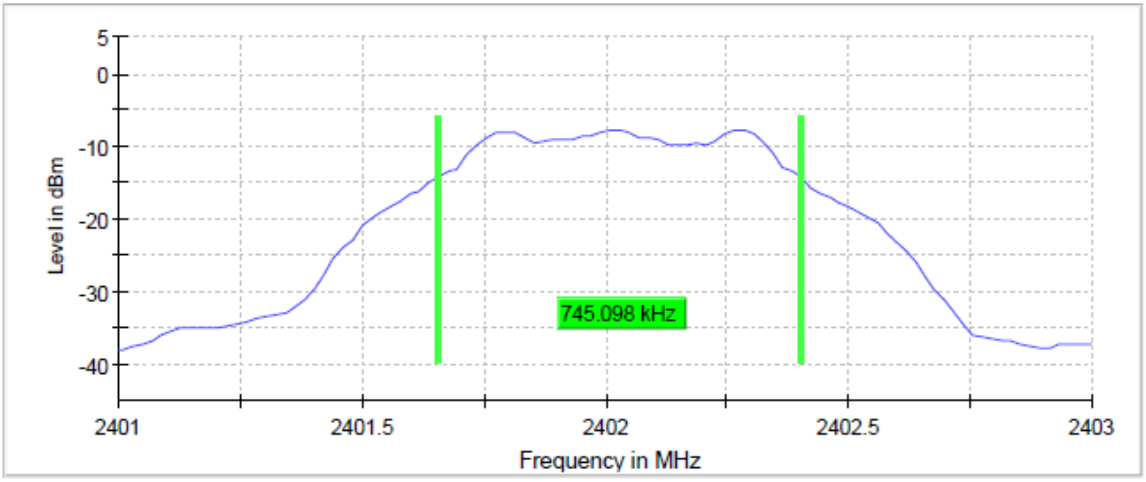

Spectrum
Ref Level 0.00 dBm
RBW 3 kHz
Att 20 dB
SWT 632.1 µs
VBW 10 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.48 GHz
1001 pts
Span 1.5 MHz

DTS Bandwidth (6dB)

Test procedure in accordance with ANSI C63.10-2013 Section 11.8.1 Option 1.
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 2%

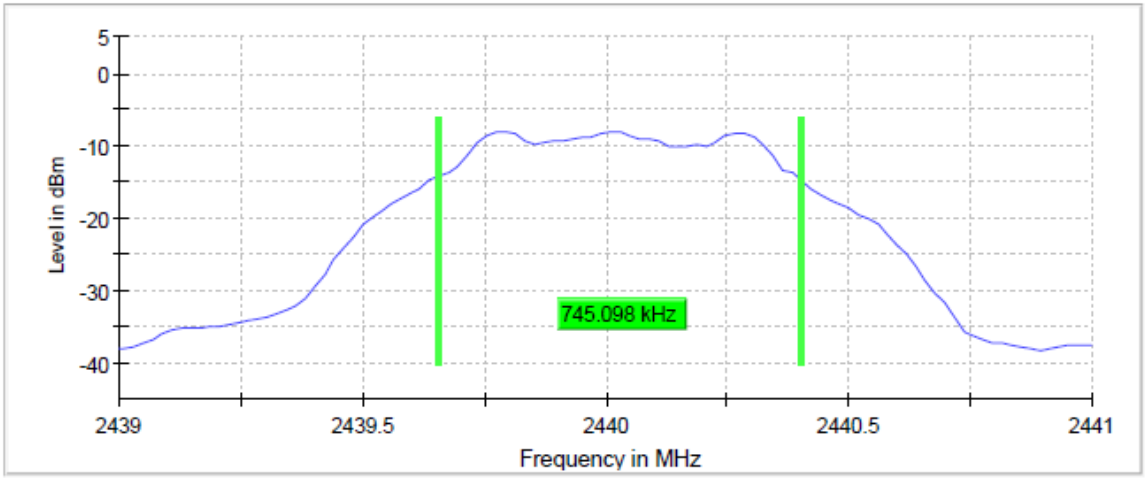
Frequency (MHz)	6dB Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402	0.745098	2401.656863	2402.401961	PASS
2440	0.745098	2439.656863	2440.401961	PASS
2480	0.725490	2479.656863	2480.382353	PASS

2402 MHz



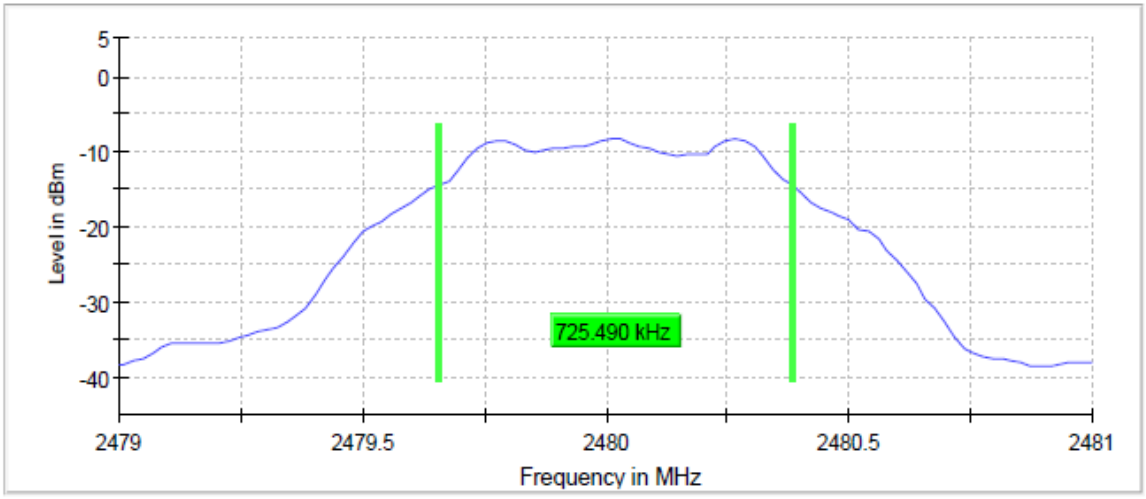

Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 18.9 µs
VBW 300 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.402 GHz
101 pts
Span 2.0 MHz

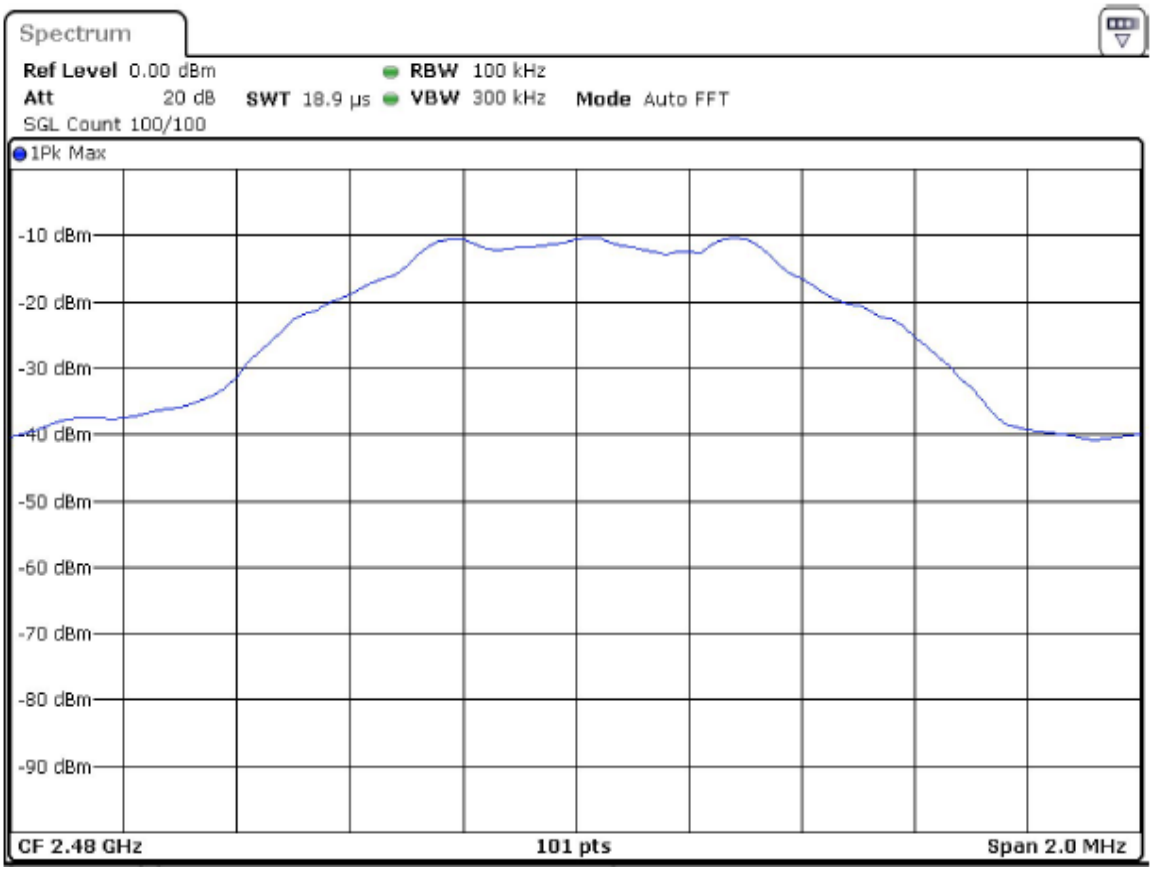
2440 MHz


5
0
-10
-20
-30
-40
Level in dBm
745.098 kHz
2439
2439.5
2440
2440.5
2441
Frequency in MHz


Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 18.9 µs
VBW 300 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.44 GHz
101 pts
Span 2.0 MHz

2480 MHz


5
0
-10
-20
-30
-40
Level in dBm
725.490 kHz
2479
2479.5
2480
2480.5
2481
Frequency in MHz


Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 18.9 µs
VBW 300 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.48 GHz
101 pts
Span 2.0 MHz

Band Edge Low

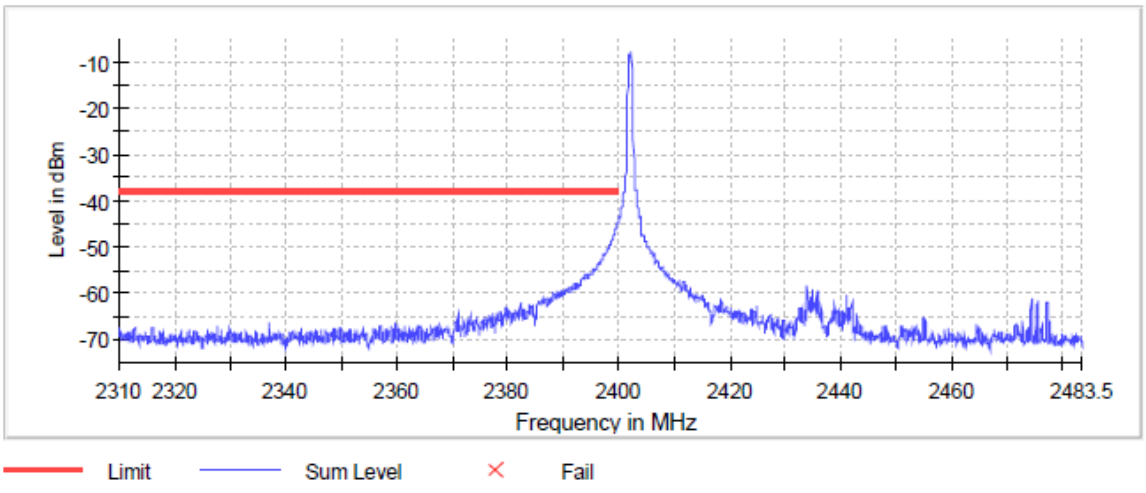
Test procedure in accordance with ANSI C63.10-2013 Section 11.13.
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 0.8 dB

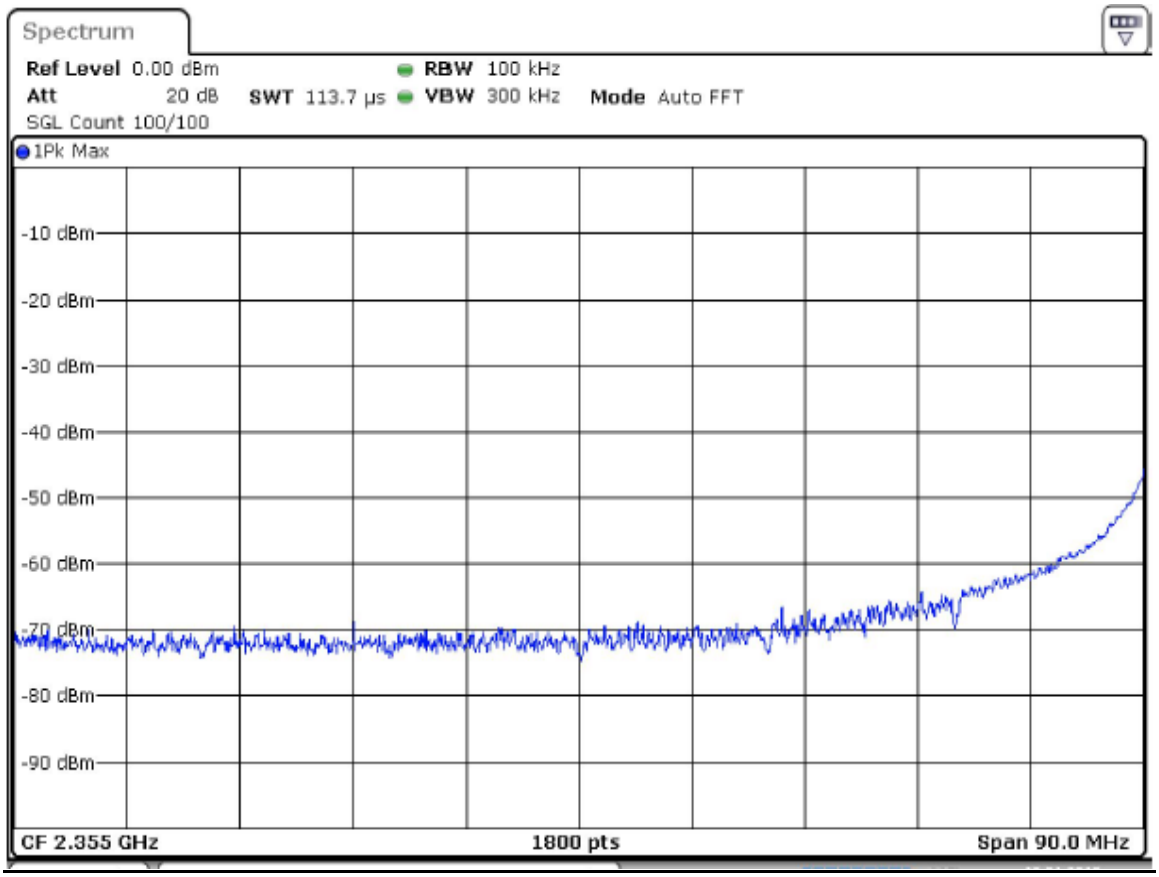
In-band Peak

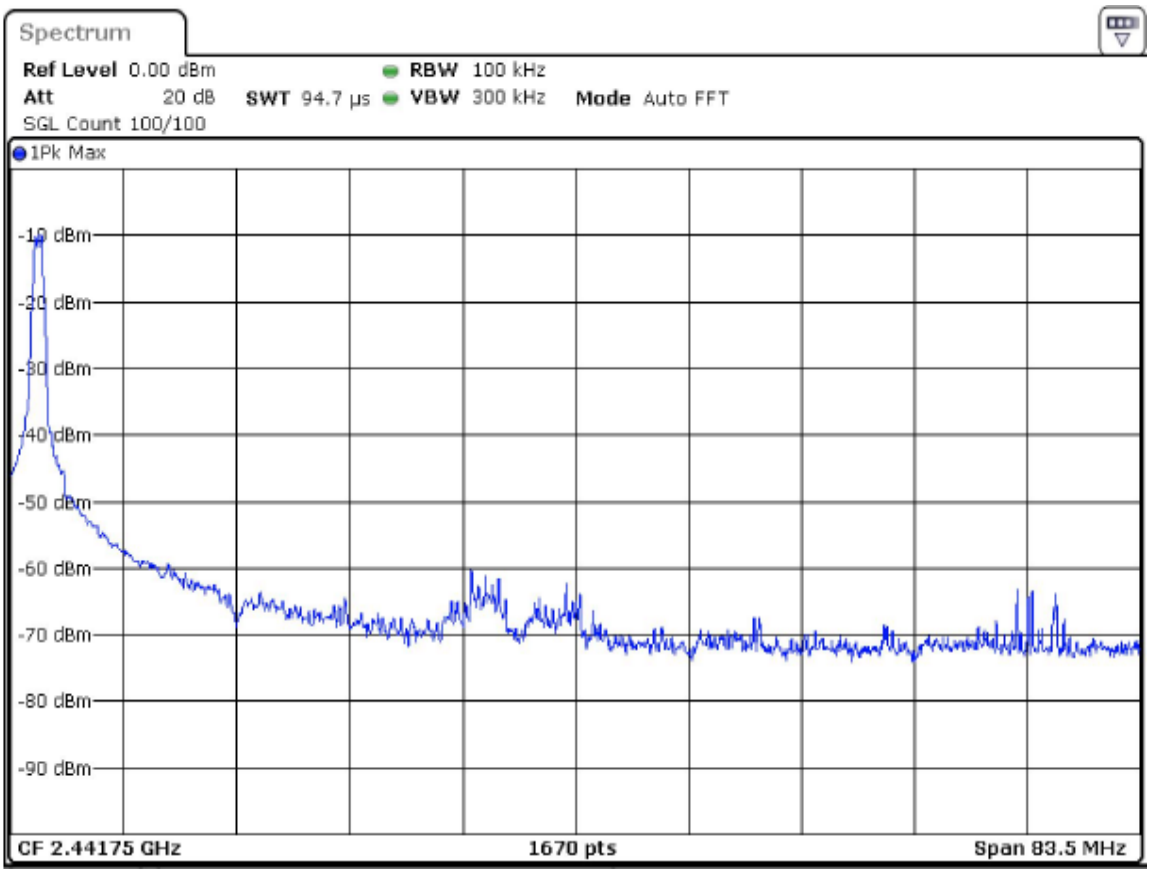
Transmit Frequency (MHz)	Measured Frequency (MHz)	Level (dBm)
2402	2402.023788	-7.9

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.925042	-43.3	5.5	-37.9	PASS
2399.875069	-43.9	6.0	-37.9	PASS
2399.825097	-44.7	6.8	-37.9	PASS
2399.775125	-44.9	7.0	-37.9	PASS
2399.725153	-45.0	7.2	-37.9	PASS
2399.675180	-45.2	7.3	-37.9	PASS
2399.625208	-45.4	7.5	-37.9	PASS
2399.575236	-45.7	7.8	-37.9	PASS
2399.525264	-45.9	8.0	-37.9	PASS
2399.475292	-46.0	8.2	-37.9	PASS
2399.425319	-46.2	8.3	-37.9	PASS
2399.375347	-46.4	8.5	-37.9	PASS
2399.325375	-46.6	8.8	-37.9	PASS
2399.275403	-46.8	9.0	-37.9	PASS
2399.225430	-46.9	9.0	-37.9	PASS




Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 113.7 µs
VBW 300 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.355 GHz
1800 pts
Span 90.0 MHz


Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 94.7 µs
VBW 300 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.44175 GHz
1670 pts
Span 83.5 MHz

Band Edge High

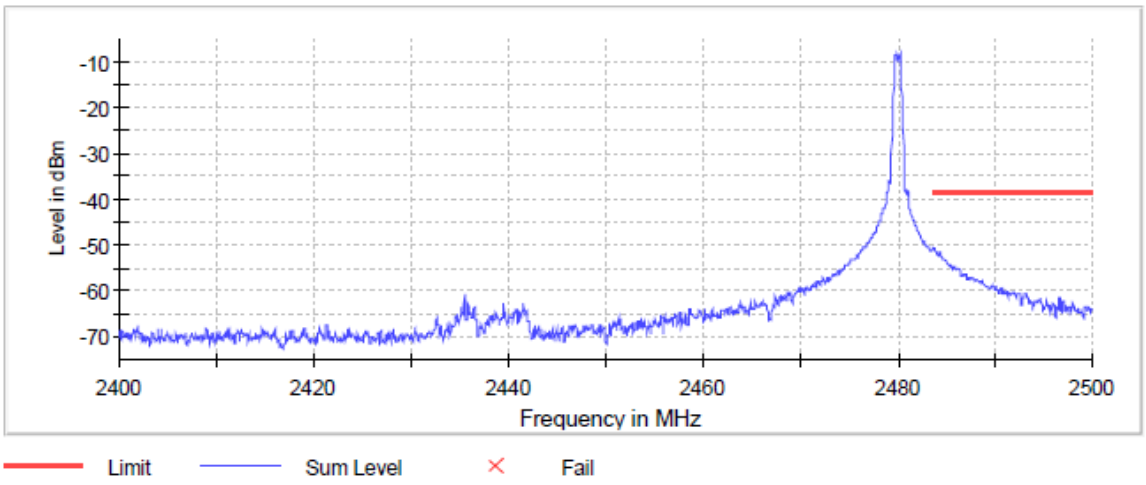
Test procedure in accordance with ANSI C63.10-2013 Section 11.13.
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 0.8 dB

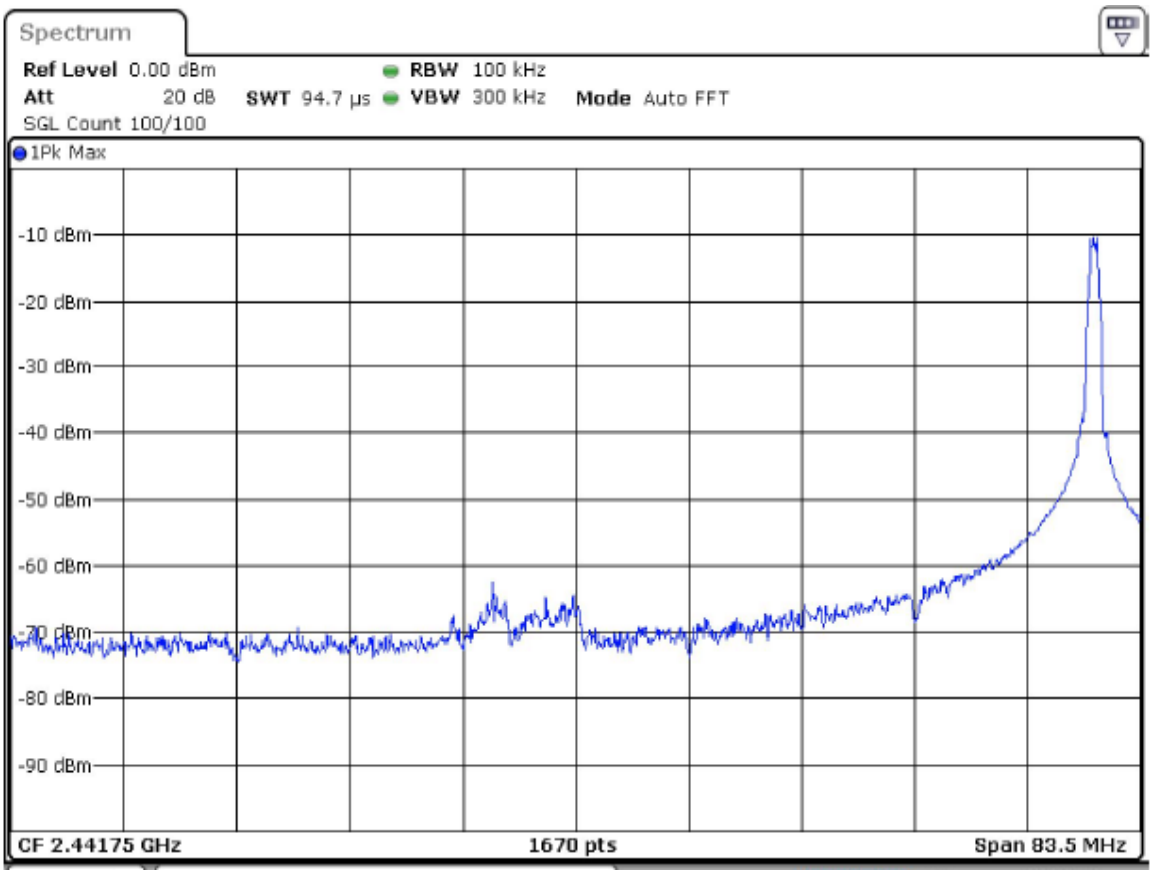
In-band Peak

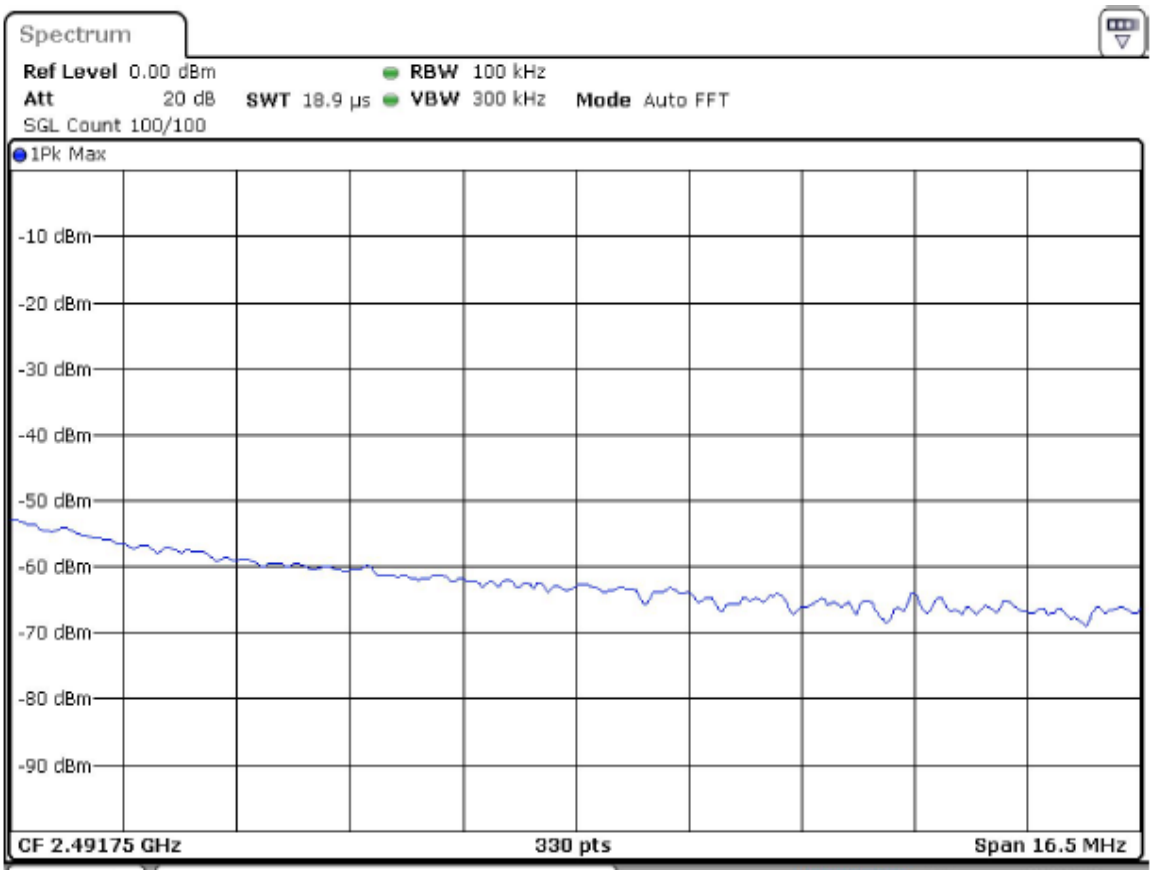
Transmit Frequency (MHz)	Measured Frequency (MHz)	Level (dBm)
2480	2479.977110	-8.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.624622	-50.5	12.2	-38.3	PASS
2483.574773	-50.5	12.2	-38.3	PASS
2483.524924	-50.5	12.2	-38.3	PASS
2483.674471	-50.6	12.3	-38.3	PASS
2483.724320	-50.9	12.6	-38.3	PASS
2483.824018	-51.1	12.8	-38.3	PASS
2483.774169	-51.1	12.8	-38.3	PASS
2483.873867	-51.2	12.9	-38.3	PASS
2483.923716	-51.6	13.3	-38.3	PASS
2484.272659	-51.7	13.4	-38.3	PASS
2484.322508	-51.7	13.4	-38.3	PASS
2484.222810	-51.8	13.5	-38.3	PASS
2484.372356	-51.9	13.6	-38.3	PASS
2484.023414	-52.0	13.7	-38.3	PASS
2483.973565	-52.0	13.7	-38.3	PASS




Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 94.7 µs
VBW 300 kHz
Mode Auto FFT
SGL Count 100/100
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
CF 2.44175 GHz
1670 pts
Span 83.5 MHz



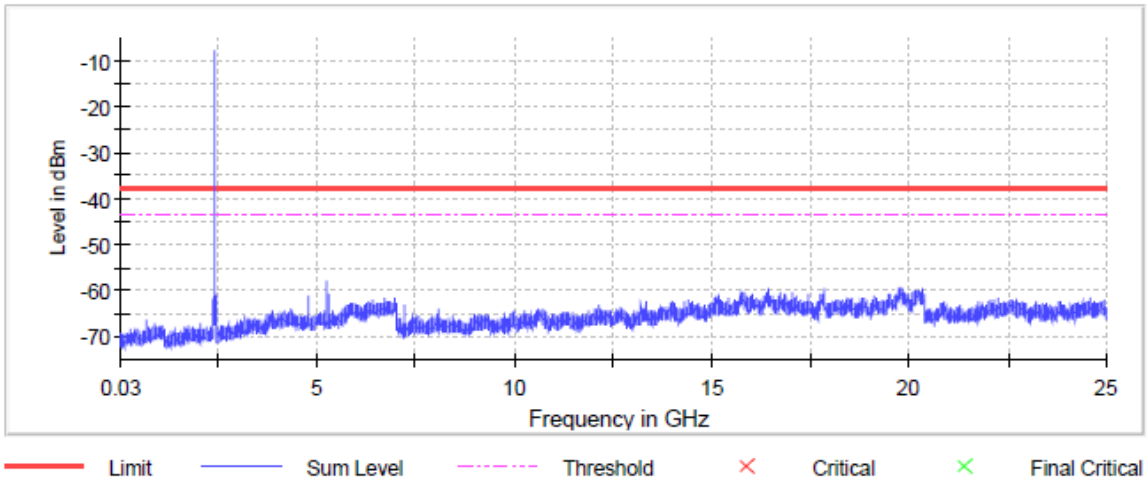
Conducted Spurious Emissions

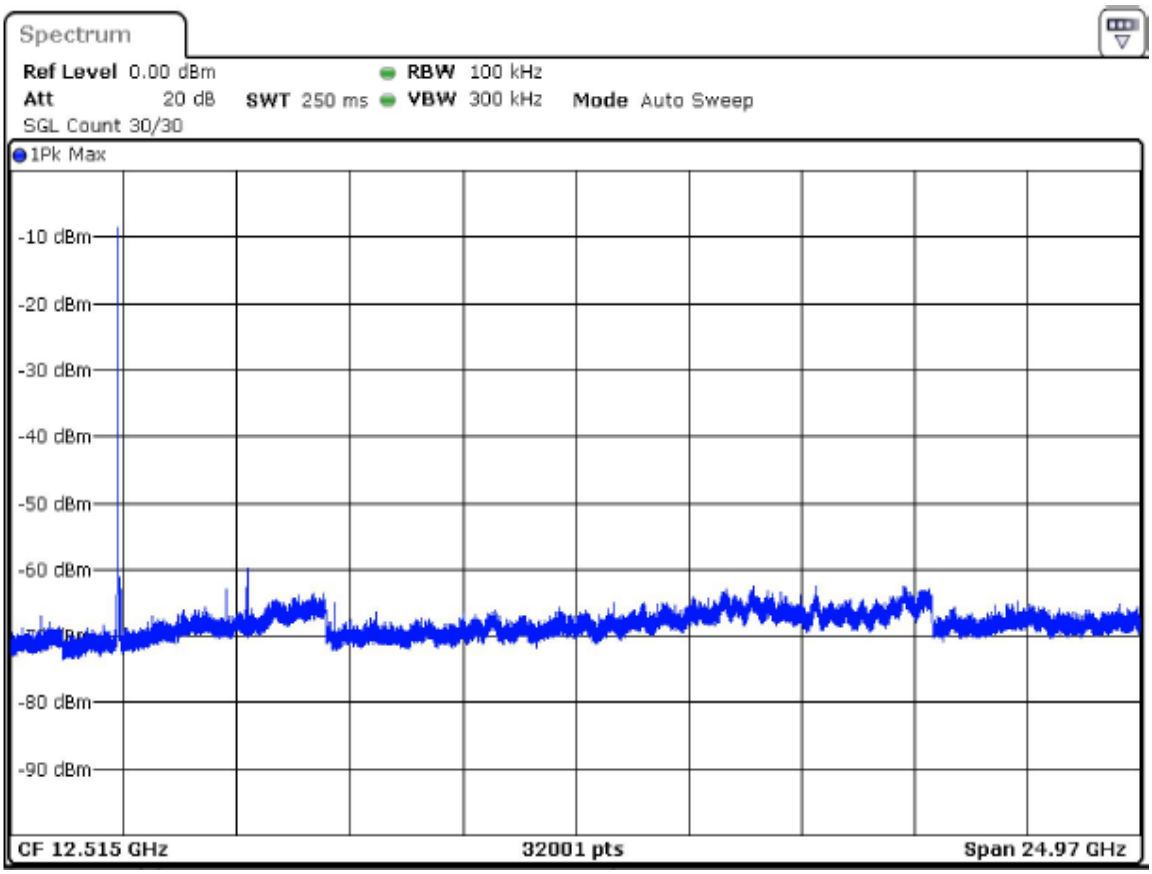
Test procedure in accordance with ANSI C63.10-2013 Section 11.11.
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 0.8 dB

2402 MHz

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2399.270827	-45.2	7.5	-37.7
2398.490563	-47.8	10.1	-37.7
2397.710299	-49.2	11.5	-37.7
2396.930036	-50.9	13.3	-37.7
2396.149772	-52.6	14.9	-37.7
2395.369508	-54.5	16.9	-37.7
2393.808981	-56.1	18.4	-37.7
2394.589244	-56.5	18.9	-37.7
2393.028717	-56.7	19.0	-37.7
2392.248453	-57.3	19.6	-37.7
5262.058465	-58.0	20.3	-37.7
2391.468189	-58.3	20.6	-37.7
2389.907662	-59.0	21.3	-37.7
2390.687926	-59.2	21.6	-37.7
2389.127398	-59.2	21.6	-37.7

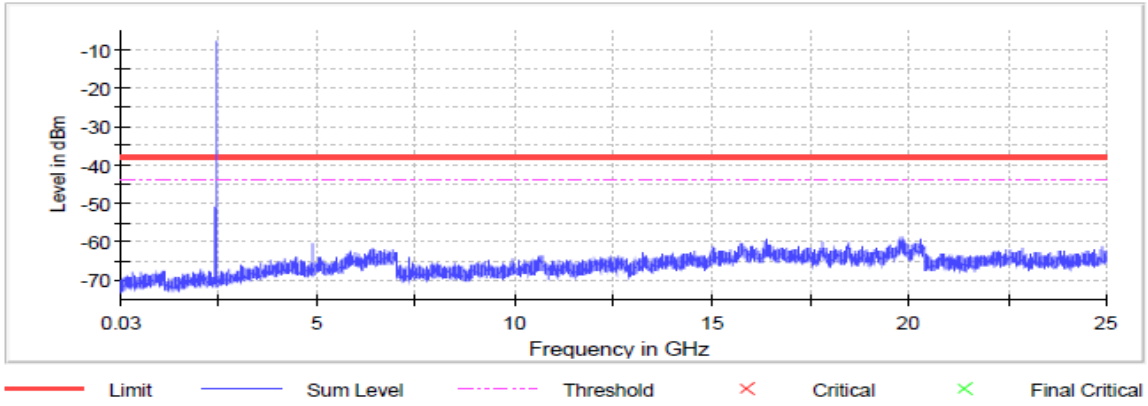


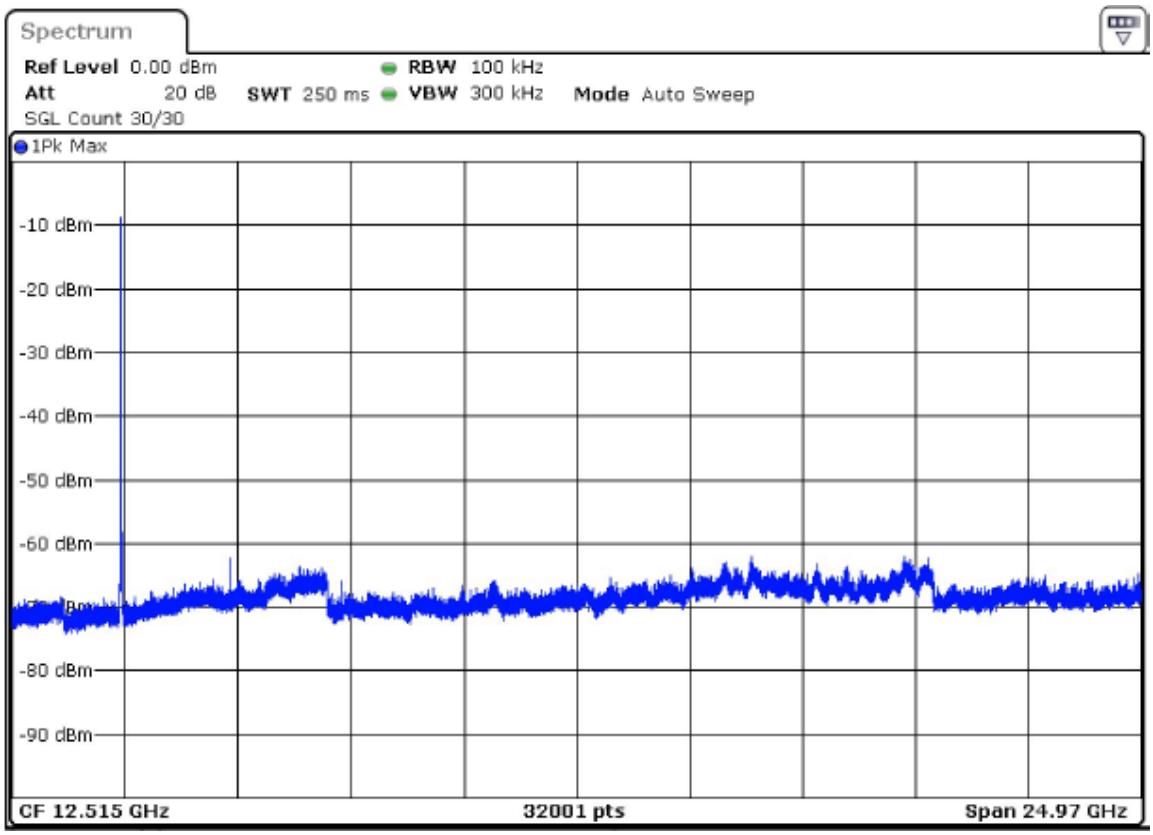

Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 250 ms
VBW 300 kHz
Mode Auto Sweep
SGL Count 30/30
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-80 dBm
-90 dBm
CF 12.515 GHz
32001 pts
Span 24.97 GHz

2440 MHz

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
19763.259953	-58.7	20.8	-37.9
20275.893225	-59.1	21.1	-37.9
16378.475877	-59.2	21.2	-37.9
19864.694238	-59.3	21.4	-37.9
16366.771921	-59.4	21.5	-37.9
19757.017843	-59.5	21.6	-37.9
19733.609931	-59.6	21.6	-37.9
19793.690238	-59.7	21.7	-37.9
19789.788919	-59.7	21.7	-37.9
19800.712612	-59.8	21.8	-37.9
19808.515249	-59.8	21.8	-37.9
19821.779733	-59.8	21.9	-37.9
19746.094150	-59.9	21.9	-37.9
19796.811293	-59.9	21.9	-37.9
19760.138898	-59.9	22.0	-37.9

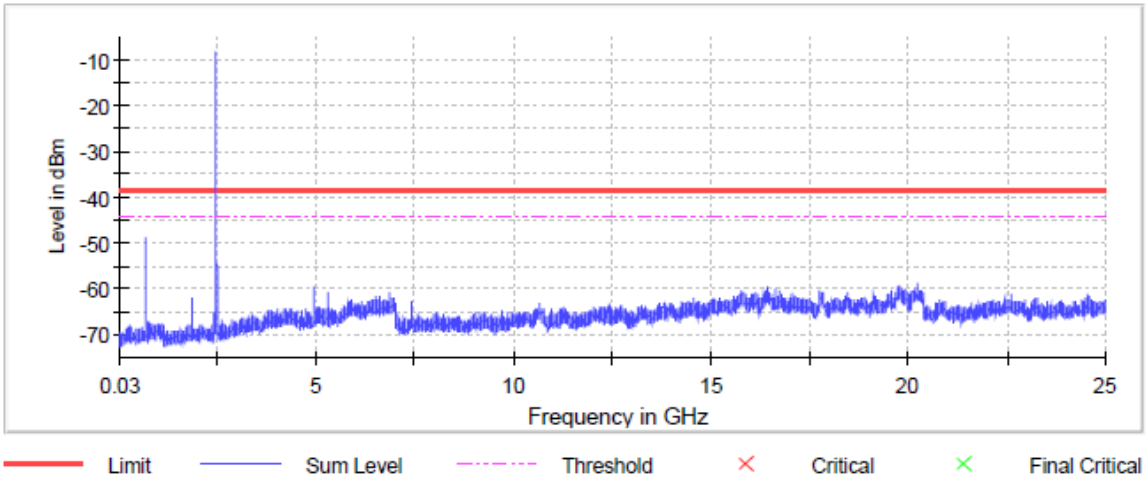


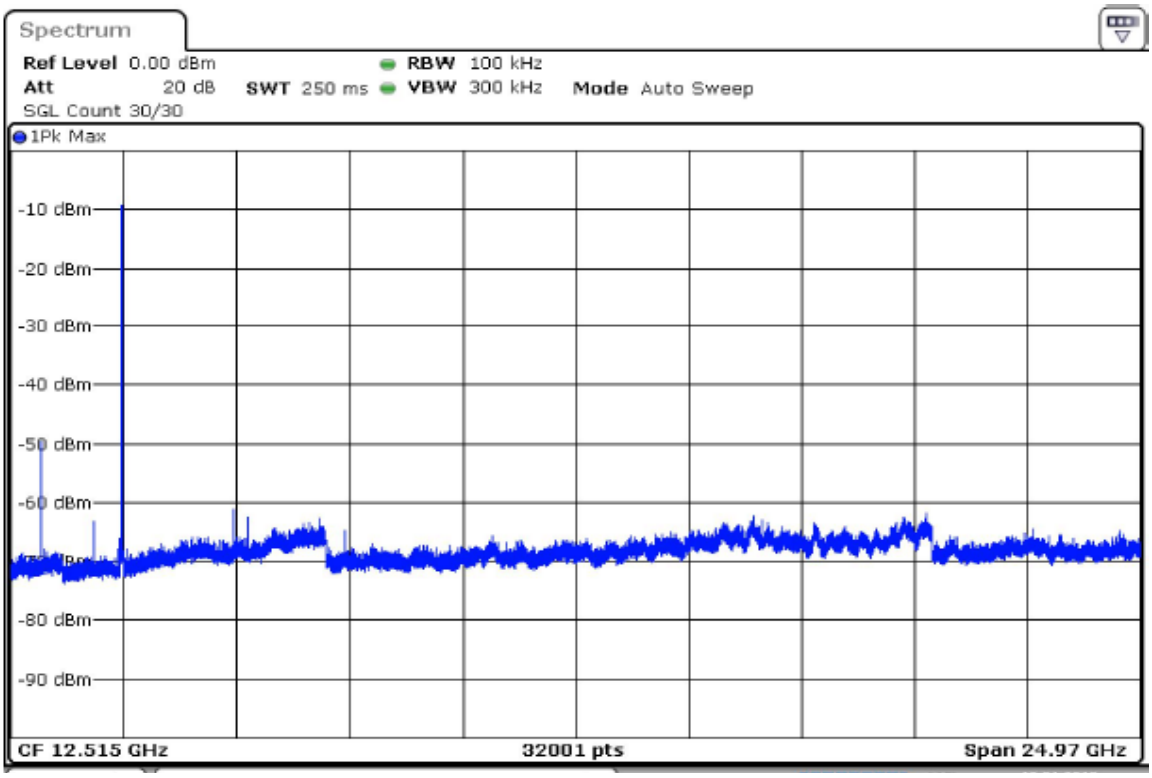


2480 MHz

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
699.856415	-48.8	10.5	-38.3
2483.539310	-49.2	10.9	-38.3
2484.319574	-51.5	13.2	-38.3
700.636679	-52.9	14.6	-38.3
2485.099838	-53.4	15.1	-38.3
2485.880101	-54.5	16.2	-38.3
2486.660365	-55.1	16.8	-38.3
2487.440629	-56.4	18.1	-38.3
2488.220892	-57.3	19.0	-38.3
2489.001156	-58.1	19.8	-38.3
20252.485313	-58.5	20.2	-38.3
2489.781420	-58.8	20.5	-38.3
19767.941535	-59.2	20.9	-38.3
2490.561684	-59.3	21.0	-38.3
4960.096400	-59.3	21.0	-38.3


-10
-20
-30
-40
-50
-60
-70
Level in dBm
0.03
5
10
15
20
25
Frequency in GHz
Limit
Sum Level
Threshold
Critical
Final Critical


Spectrum
Ref Level 0.00 dBm
RBW 100 kHz
Att 20 dB
SWT 250 ms
VBW 300 kHz
Mode Auto Sweep
SGL Count 30/30
1Pk Max
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-80 dBm
-90 dBm
CF 12.515 GHz
32001 pts
Span 24.97 GHz