Bureau Veritas Consumer Product Services Inc.

Report No	EV0141-3
Client	Harman International Industries Inc. Mark Bowman
Address	30001 Cabot Dr. Novi, MI 48377
Phone	1-248-254-7751
Items tested FCC ID IC	Automotive Bluetooth Transmitter BTT55 2AHPN-BE2852 6434C-BE2852
Equipment Type	Part 15 Spread Spectrum Transmitter
FCC/IC Rule Parts	47 CFR FCC Part 15, Subpart C (Section 15.247), ISED Canada RSS-247 Issue 2
Test Dates	Jan 25,2021 – Jan 29,2021
Results	As detailed within this report
Prepared by	Anna Vancheva – Test Engineer
Authorized by	Arik Zwirner – Sr. Engineer
Issue Date	02/23/2020
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

Between Jan 25th, 2020 and Jan 29th, 2020, we tested the BTT55 BT Transmitter. 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

It is a frequency hopping spread spectrum transmitter that operates in the 2402 – 2480 MHz frequency range. Transfer Rate: BDR/EDR: up to 3 MB/s.

Antenna Type: Non-detachable PCB trace
Gain: 1.75 dBi

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	February 23, 2021

Bureau Veritas Consumer Product Services Inc.
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Test Methodology

All testing was performed according to the following rules/procedures/documents;
CFR Title 47 FCC Part 15.247, ISED Canada RSS-247 Issue 2, ISED Canada RSS-Gen Issue 5 and ANSI C63.10-2013, and KDB 558074 D01 15.247 Meas Guidance v05r02.

Radiated emissions were maximized by rotating the EUT 3 orthogonal planes (X, Y and Z) and worst case emissions observed in Z orientation for the EUT. All the results below are for the worst case orientation only. The antenna is printed on PCB, therefore it cannot be rotated.

EUT operating voltage is 13.8V DC from a vehicle battery only, therefore AC line conducted emissions requirements are 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:	V0141		
Company:	Harman International Industries, Incorporated		
Company Address:	30001 Cabot Drive		
	Novi, MI, 48377		
Contact:	Mark Bowman		
	MN	**PN**	**SN**
EUT:	BTT55		#28 (Conducted) ,38 (EMI)
EUT Description:	Automotive Bluetooth Transmitter		
EUT Max Frequency:	2480 MHz		
EUT Min Frequency:	2402 MHz		

Support Equipment	**MN**	**SN**
CSR/USB-SPI Dongle		

Port Label	Port Type	# ports	# populated	cable type	shielded	ferrites	length (m)	in/out	under test	comment
SPI	other	1	1	USB	No	No	1.3	in	no	
SMA Antenna Port	other	1	1	Coaxial	Yes	No	0.1	in	yes	
DC Mains	Power DC	1	1	Power DC	No	No	3	in	yes	
Audio Jack	other	1	1	other	No	No	2.3	in	yes	

Software Operating Mode Description:

Transmitter mode and receiver mode. EUT placed in required Bluetooth test modes via R&S CMW communication tester.

Performance Criteria:

During immunity testing the EUT constantly transmitted BT signals.
During emissions tests the EUT connected to the R&S CMW Bluetooth tests, and continue to communicate.

Statement of Conformity

RSS-GEN	RSP-100	RSS 247	Part 15	Comments
6.4			15.15(b)	There are no controls accessible to the user that varies the output power to operate in violation of the regulatory requirements.
	5		15.19	The label is shown in the label exhibit.
	7		15.21	Information to the user is shown in the instruction manual exhibit.
			15.27	No special accessories are required for compliance.
3.2			15.31	The EUT was tested in accordance with the measurement standards in this section.
6.13.2			15.33	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.
6.13.1			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.
6.8			15.203	EUT employs PCB Inverted “F” type antenna with 1.75 dBi gain.
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. EUT is vehicle battery powered only.
6.7				Occupied Bandwidth measurements were made

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

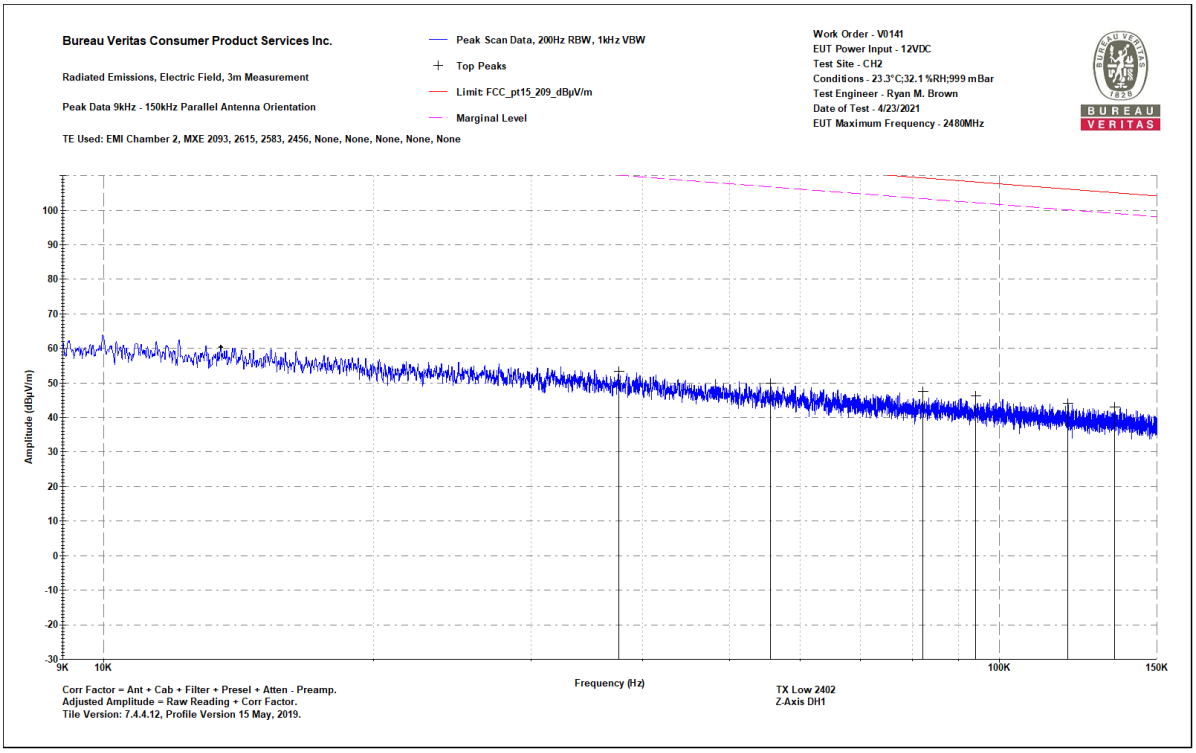
Worst case packet type was found to be DH1

3 Channels were tested: Low (0), Mid (39) and High (78)

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions, Electric Field, 3m Measurement	EUT Power Input - 12VDC
Top Peaks Parallel 9-150kHz	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim: FCC_pt15_209_dBµV/m (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.037588	40.8	12.6	53.4	116.1	-62.7	PASS		180
0.055565	39	10.9	49.9	112.7	-62.8	PASS		0
0.082123	37.1	10.4	47.5	109.3	-61.8	PASS	-61.8	315
0.094058	35.8	10.4	46.2	108.1	-62	PASS		345
0.119382	34	10.1	44.1	106.1	-61.9	PASS		330
0.134518	33	10.1	43.1	105	-61.9	PASS		105

TX Low Parallel 9-150 KHz

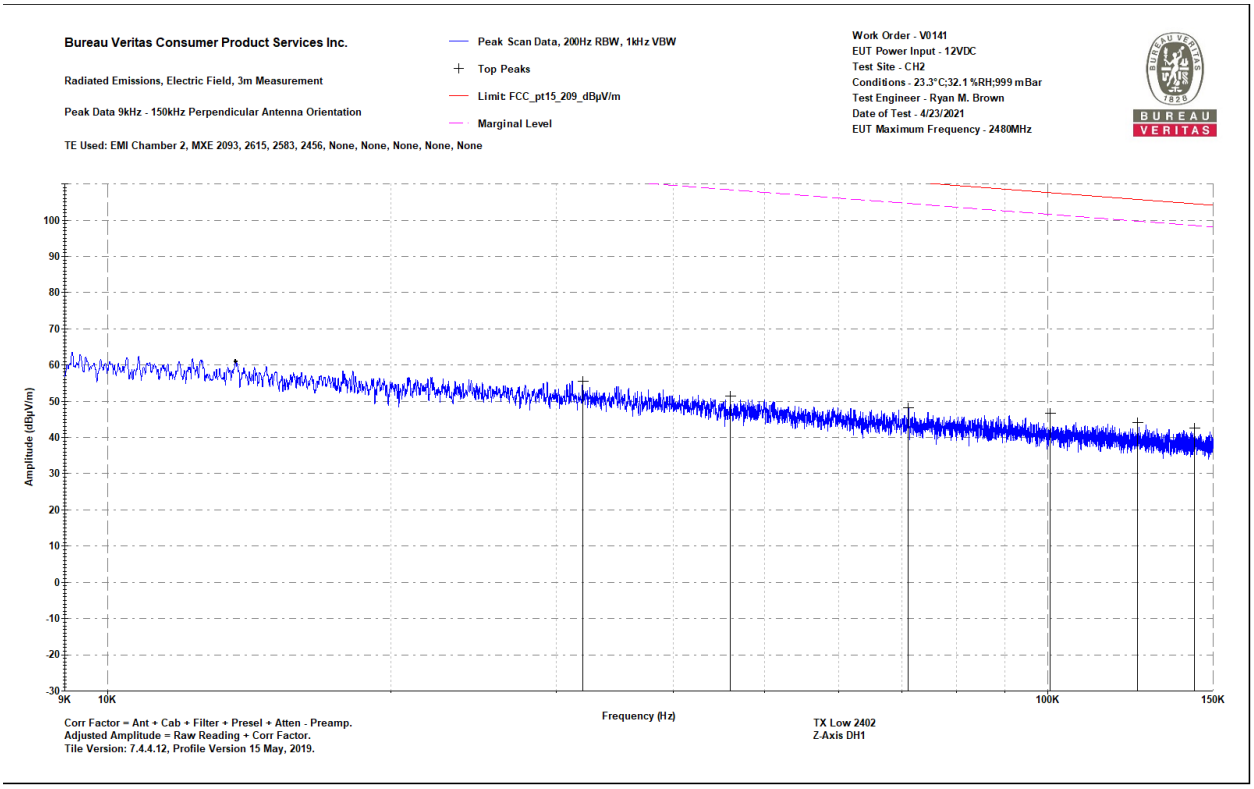


TX Low Parallel 9-150 KHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions, Electric Field, 3m Measurement	EUT Power Input - 12VDC
Top Peaks Perpendicular 9-150kHz	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim: FCC_pt15_209_dBµV/m (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.032018	42.3	13.3	55.6	117.5	-61.9	PASS		45
0.045953	39.8	11.6	51.4	114.4	-63	PASS		240
0.071118	37.7	10.5	48.2	110.6	-62.4	PASS		90
0.100604	36.6	10.1	46.7	107.6	-60.8	PASS	-60.8	105
0.124609	33.9	10.1	44	105.7	-61.7	PASS		285
0.143211	32.6	10.1	42.6	104.5	-61.8	PASS		330

TX Low Perpendicular 9 – 150 KHz

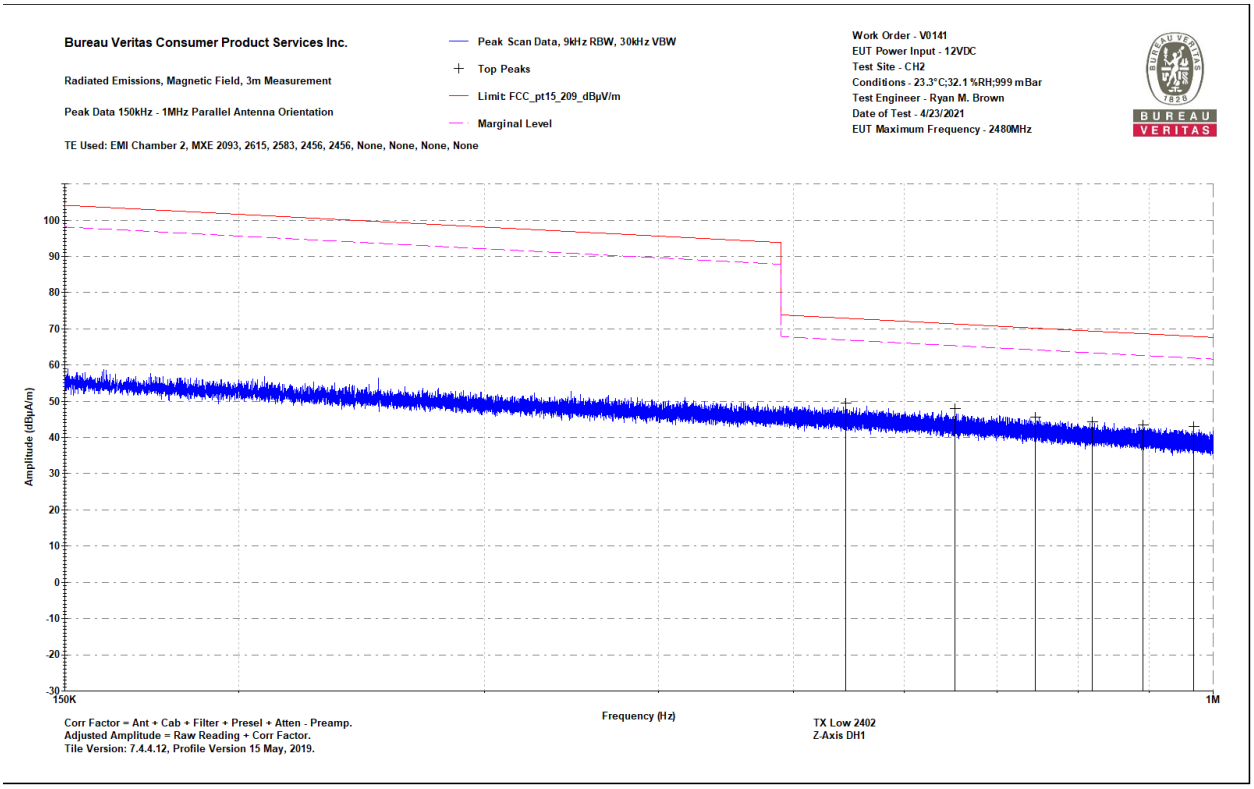


TX Low Perpendicular 9 – 150 KHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Magnetic Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Parallel 150-1000kHz	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.545	39.2	10.3	49.5	72.9	-23.4	PASS	-23.4	0
0.653	37.5	10.4	47.9	71.3	-23.5	PASS		270
0.745	35.2	10.4	45.7	70.2	-24.5	PASS		30
0.819	33.9	10.5	44.4	69.4	-25	PASS		180
0.891	32.9	10.5	43.4	68.6	-25.2	PASS		90
0.968	32.3	10.7	43	67.9	-24.9	PASS		315

TX Low Parallel 150 KHz – 1MHz



TX Low Parallel 150 KHz – 1MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Magnetic Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Perpendicular 150-1000kHz	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.539	38.6	10.3	48.9	73	-24.1	PASS		15
0.616	37.6	10.4	47.9	71.8	-23.9	PASS		30
0.688	36.5	10.4	47	70.9	-23.9	PASS	-23.9	45
0.743	35.5	10.4	45.9	70.2	-24.3	PASS		0
0.844	34.2	10.5	44.7	69.1	-24.4	PASS		255
0.919	32.2	10.6	42.7	68.3	-25.6	PASS		15

TX Low Perpendicular 150 KHz – 1 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Perpendicular 150-1000kHz
Notes:
TX Low 2402
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.539	38.6	10.3	48.9	73	-24.1	PASS		15
0.616	37.6	10.4	47.9	71.8	-23.9	PASS		30
0.688	36.5	10.4	47	70.9	-23.9	PASS	-23.9	45
0.743	35.5	10.4	45.9	70.2	-24.3	PASS		0
0.844	34.2	10.5	44.7	69.1	-24.4	PASS		255
0.919	32.2	10.6	42.7	68.3	-25.6	PASS		15

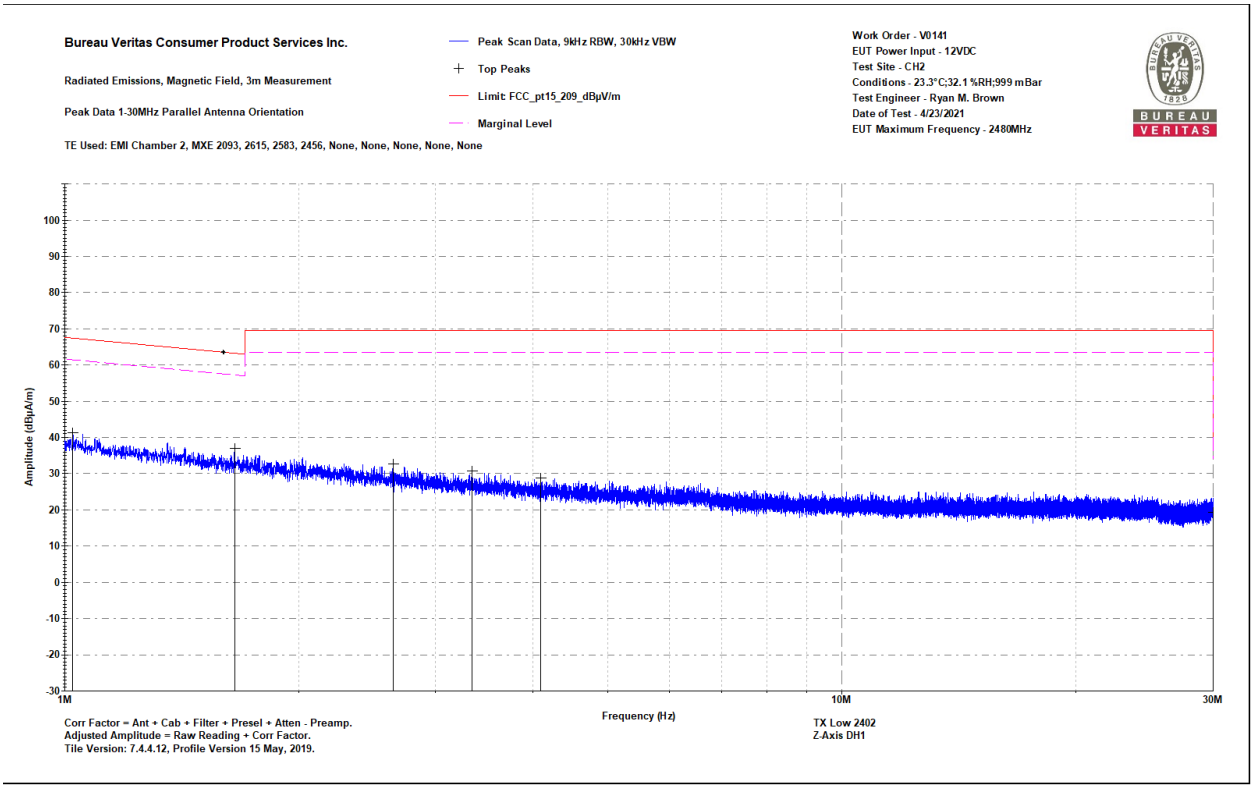
TX Low Perpendicular 150 KHz – 1 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Parallel 1-30MHz
Notes:
TX Low 2402
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
1.025	30.6	10.7	41.4	67.4	-26	PASS		240
1.654	26.3	10.6	36.9	63.2	-26.3	PASS		105
2.646	22.2	10.6	32.7	69.5	-36.8	PASS		75
3.34	20.1	10.6	30.7	69.5	-38.9	PASS		285
4.095	18.2	10.7	28.9	69.5	-40.7	PASS		90
30	11.4	8	19.4	40	-20.6	PASS	-20.6	285

TX Low Parallel 1 – 30 MHz

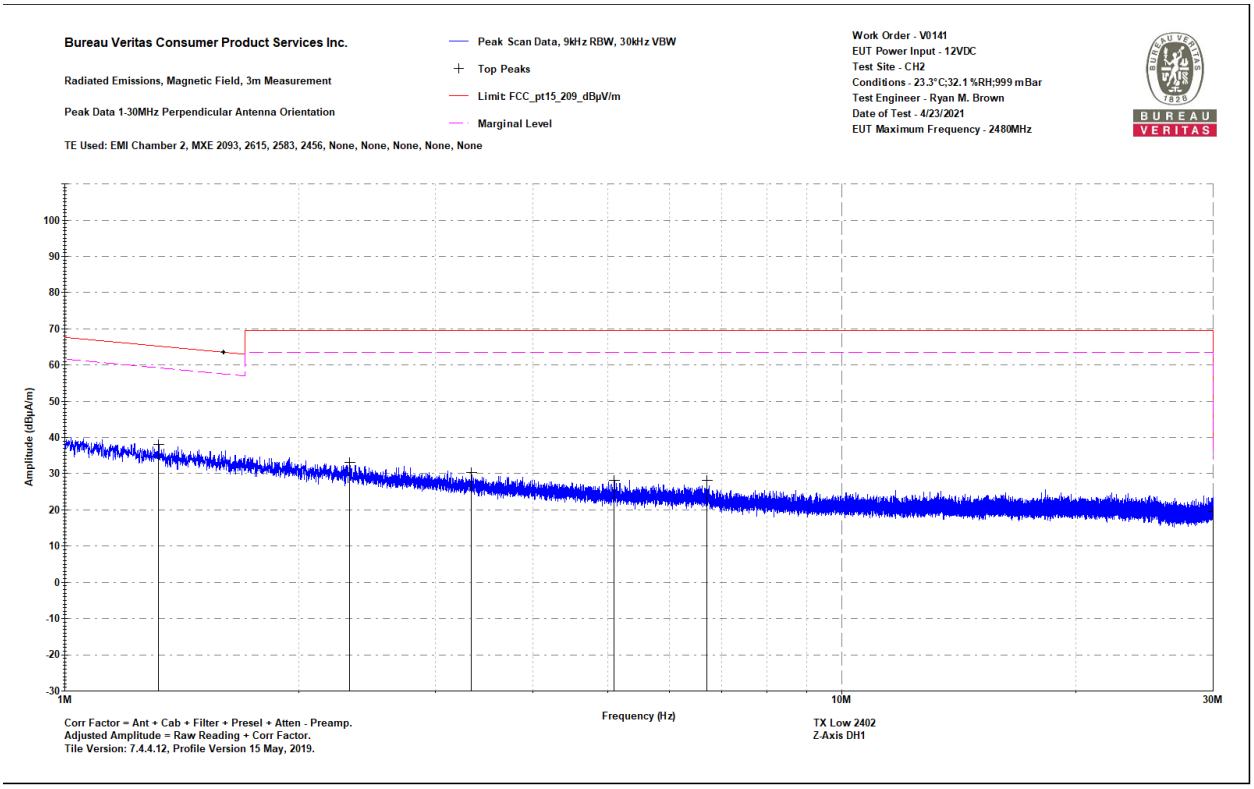


TX Low Parallel 1 – 30 MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Magnetic Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Perpendicular 1-30MHz	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
1.321	27.4	10.7	38.1	65.2	-27.1	PASS		120
2.325	22.6	10.5	33.1	69.5	-36.4	PASS		210
3.331	19.7	10.6	30.3	69.5	-39.2	PASS		195
5.094	17.5	10.7	28.2	69.5	-41.4	PASS		165
6.699	17.3	10.9	28.2	69.5	-41.3	PASS		150
30	11.5	8	19.5	40	-20.5	PASS	-20.5	60

TX Low Perpendicular 1 – 30 MHz



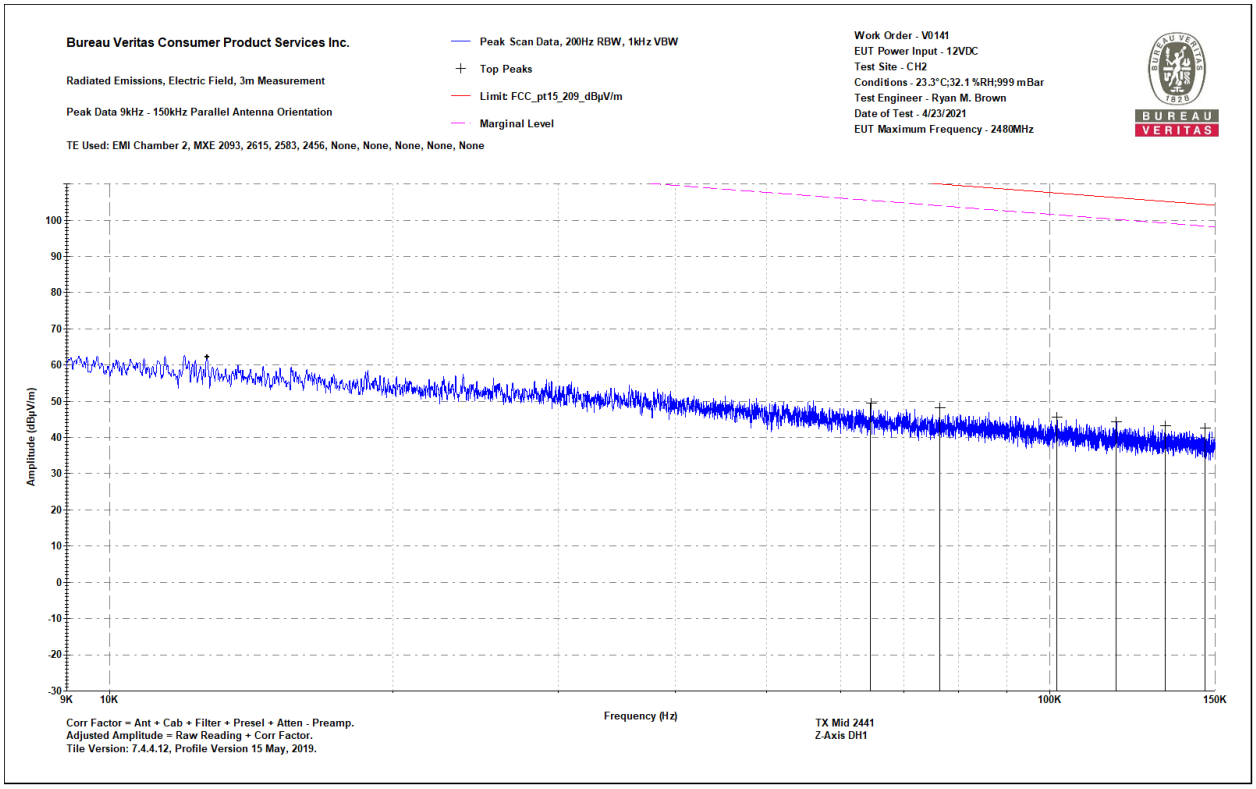
TX Low Perpendicular 1 – 30 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions, Electric Field, 3m Measurement
Top Peaks Parallel 9-150kHz
Notes:
TX Mid 2441
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim: FCC_pt15_209_dBµV/m (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.064519	38.9	10.6	49.5	111.4	-61.9	PASS		45
0.076402	37.7	10.5	48.2	110	-61.8	PASS	-61.8	270
0.101764	35.4	10.1	45.5	107.5	-61.9	PASS		90
0.117799	34.2	10.1	44.3	106.2	-61.9	PASS		300
0.132717	33.1	10.1	43.1	105.2	-62	PASS		15
0.146239	32.4	10.1	42.5	104.3	-61.8	PASS		240

TX Mid Parallel 9 – 150 KHz



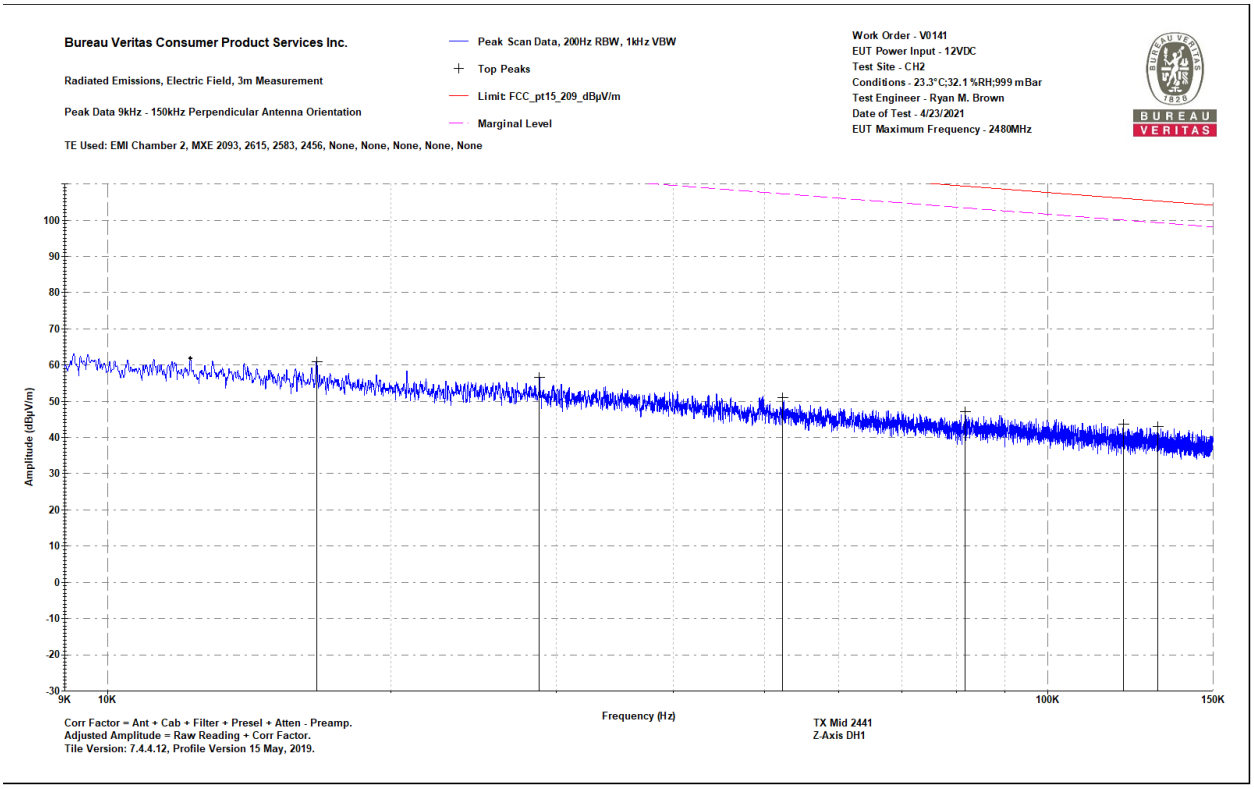
TX Mid Parallel 9 – 150 KHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions, Electric Field, 3m Measurement
Top Peaks Perpendicular 9-150kHz
Notes:
TX Mid 2441
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim: FCC_pt15_209_dBµV/m (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.016681	45.4	15.6	60.9	123.2	-62.2	PASS		30
0.028796	42.9	13.6	56.5	118.4	-61.9	PASS	-61.9	225
0.052241	40	11	51	113.3	-62.2	PASS		135
0.081756	36.6	10.4	47	109.4	-62.4	PASS		90
0.120323	33.6	10.1	43.7	106	-62.3	PASS		345
0.130983	33	10.1	43.1	105.3	-62.2	PASS		45

TX Mid Perpendicular 9 – 150 KHz



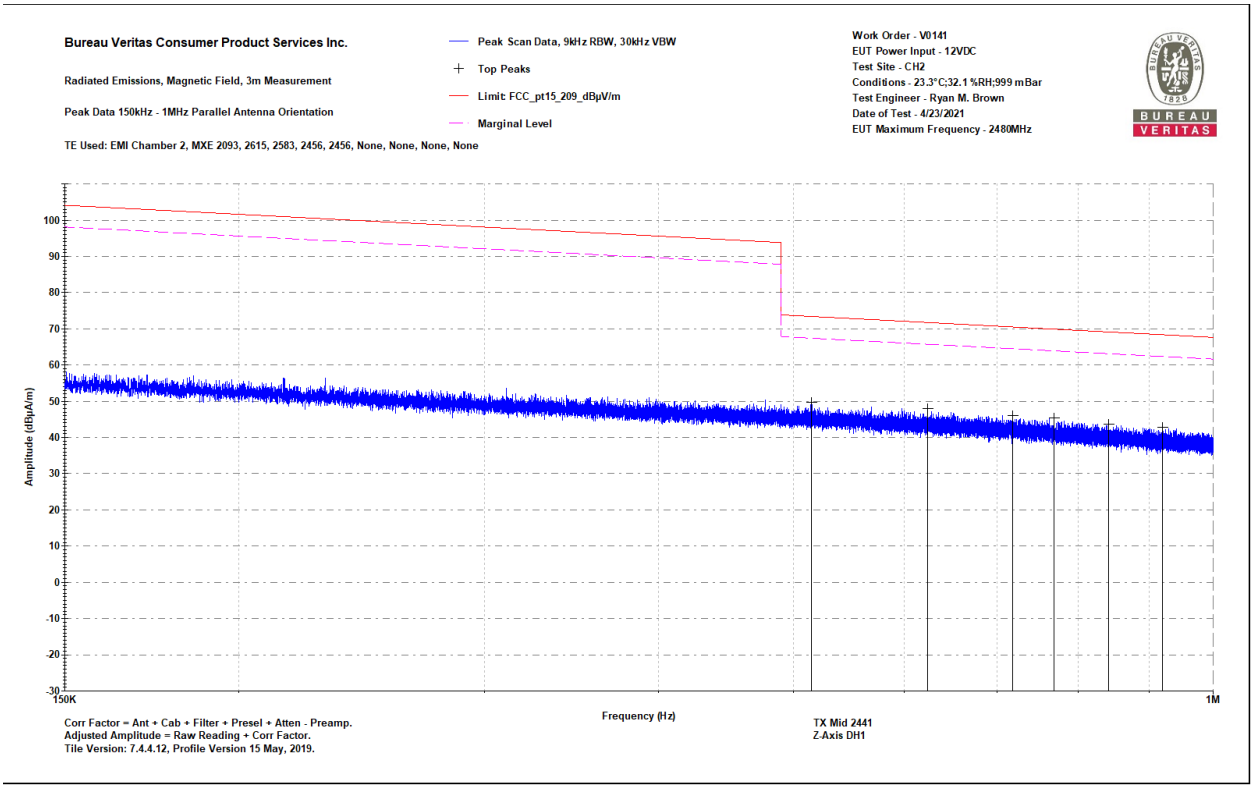
TX Mid Perpendicular 9 – 150 KHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Parallel 150-1000kHz
Notes:
TX Mid 2441
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.515	39.4	10.3	49.7	73.4	-23.7	PASS		225
0.624	37.7	10.4	48	71.7	-23.7	PASS	-23.7	240
0.718	35.5	10.5	45.9	70.5	-24.6	PASS		345
0.769	34.9	10.4	45.3	69.9	-24.6	PASS		75
0.841	33.1	10.5	43.6	69.1	-25.5	PASS		285
0.92	32.2	10.6	42.8	68.3	-25.5	PASS		90

TX Mid Parallel 150 KHz – 1 MHz



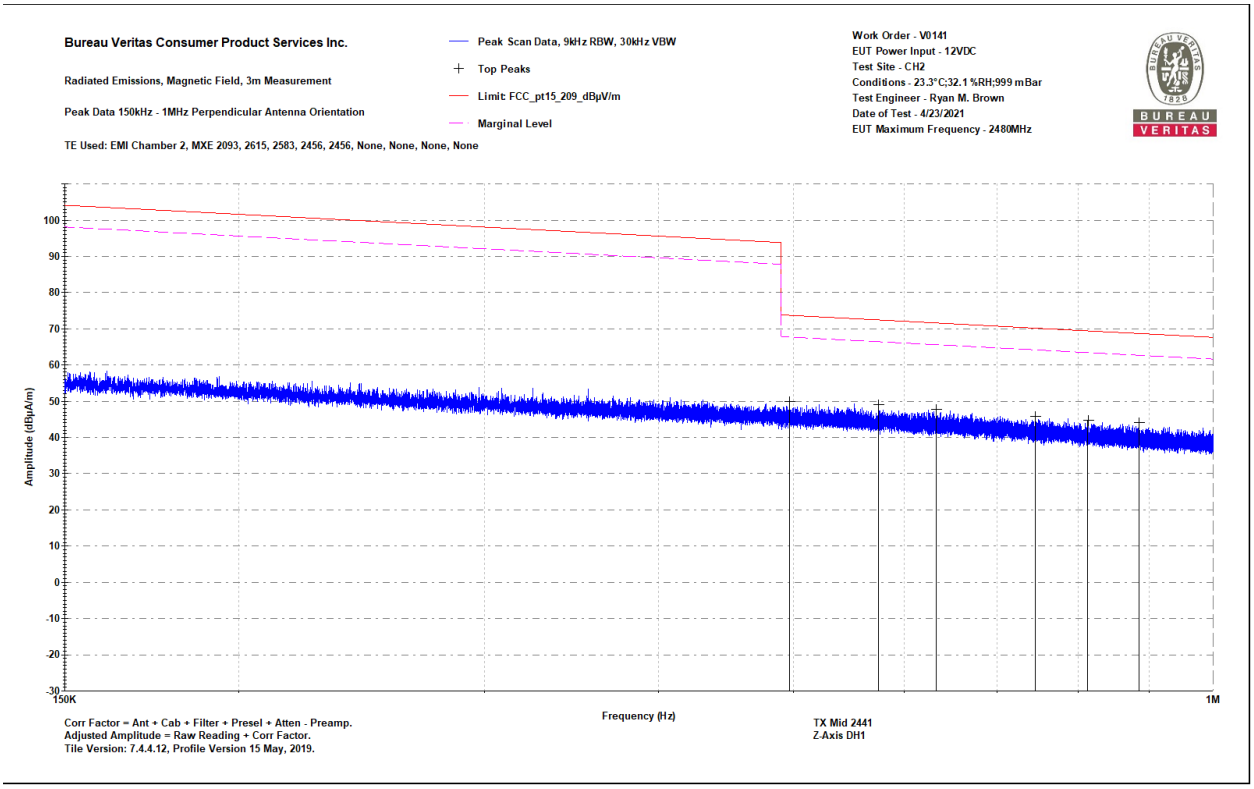
TX Mid Parallel 150 KHz – 1 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Perpendicular 150-1000kHz
Notes:
TX Mid 2441
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.497	39.6	10.2	49.8	73.7	-23.9	PASS		150
0.575	38.7	10.3	49	72.4	-23.4	PASS	-23.4	255
0.633	37.5	10.4	47.8	71.6	-23.8	PASS		135
0.745	35.3	10.4	45.7	70.2	-24.5	PASS		45
0.813	34.3	10.5	44.7	69.4	-24.7	PASS		240
0.885	33.4	10.5	44	68.7	-24.7	PASS		90

TX Mid Perpendicular 150 KHz – 1 MHz



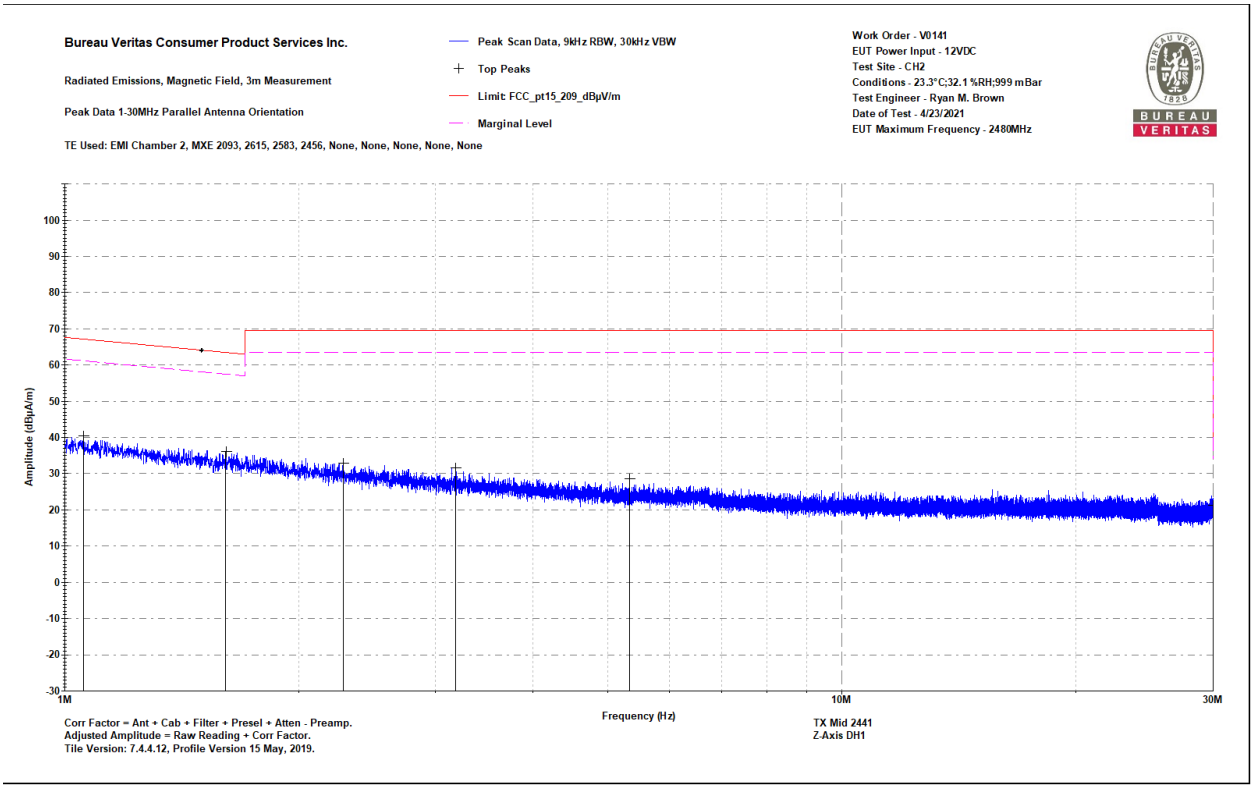
TX Mid Perpendicular 150 KHz – 1 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Parallel 1-30MHz
Notes:
TX Mid 2441
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
1.058	29.7	10.7	40.4	67.1	-26.7	PASS		165
1.612	25.5	10.6	36.1	63.5	-27.3	PASS		240
2.28	22.3	10.5	32.8	69.5	-36.7	PASS		270
3.186	20.9	10.6	31.5	69.5	-38.1	PASS		165
5.325	17.9	10.7	28.6	69.5	-40.9	PASS		300
30	13.3	8	21.3	40	-18.7	PASS	-18.7	195

TX Mid 1 – 30 MHz Parallel



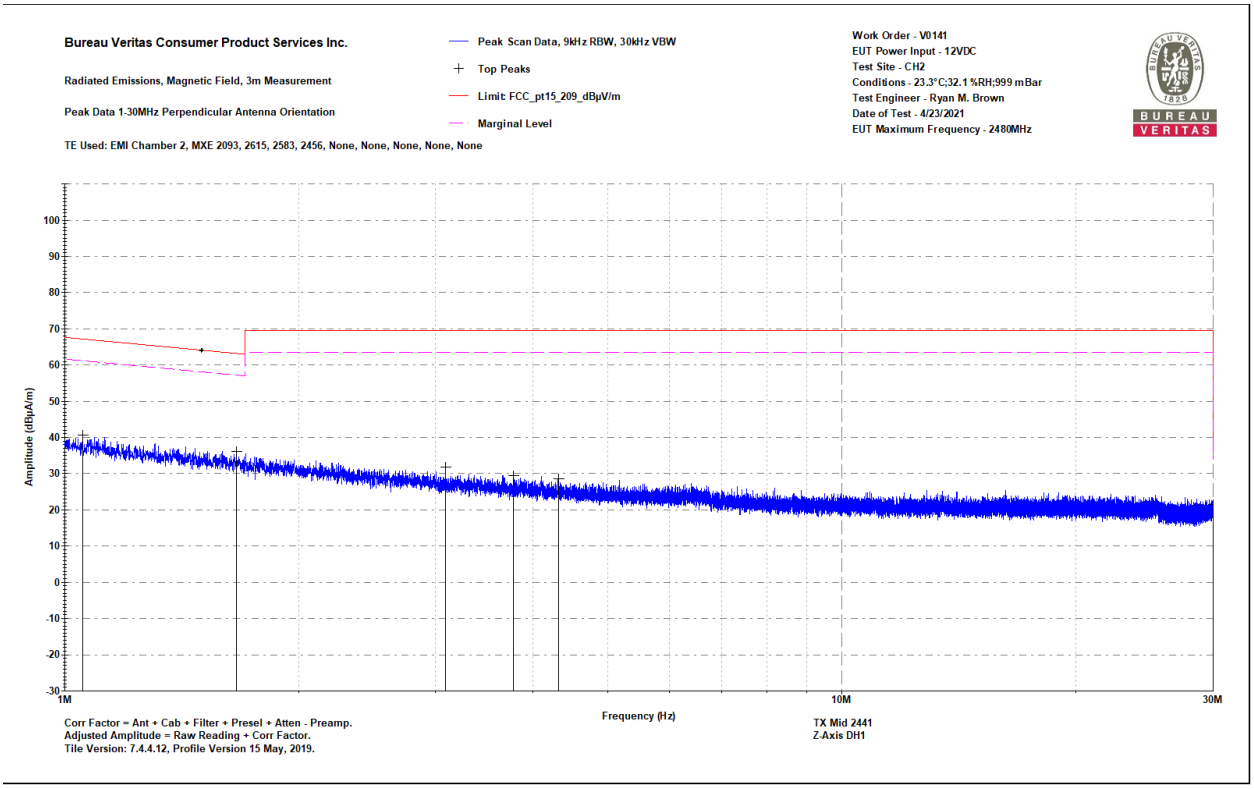
TX Mid 1 – 30 MHz Parallel

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Perpendicular 1-30MHz
Notes:
TX Mid 2441
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.1 %RH;999 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/23/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
1.055	30	10.7	40.7	67.1	-26.5	PASS		300
1.663	25.4	10.6	36	63.2	-27.2	PASS		0
3.088	21.2	10.6	31.8	69.5	-37.8	PASS		210
3.775	18.9	10.6	29.5	69.5	-40	PASS		300
4.314	17.9	10.7	28.6	69.5	-41	PASS		15
30	13.4	8	21.4	40	-18.6	PASS	-18.6	45

TX Mid Perpendicular 1 – 30 MHz



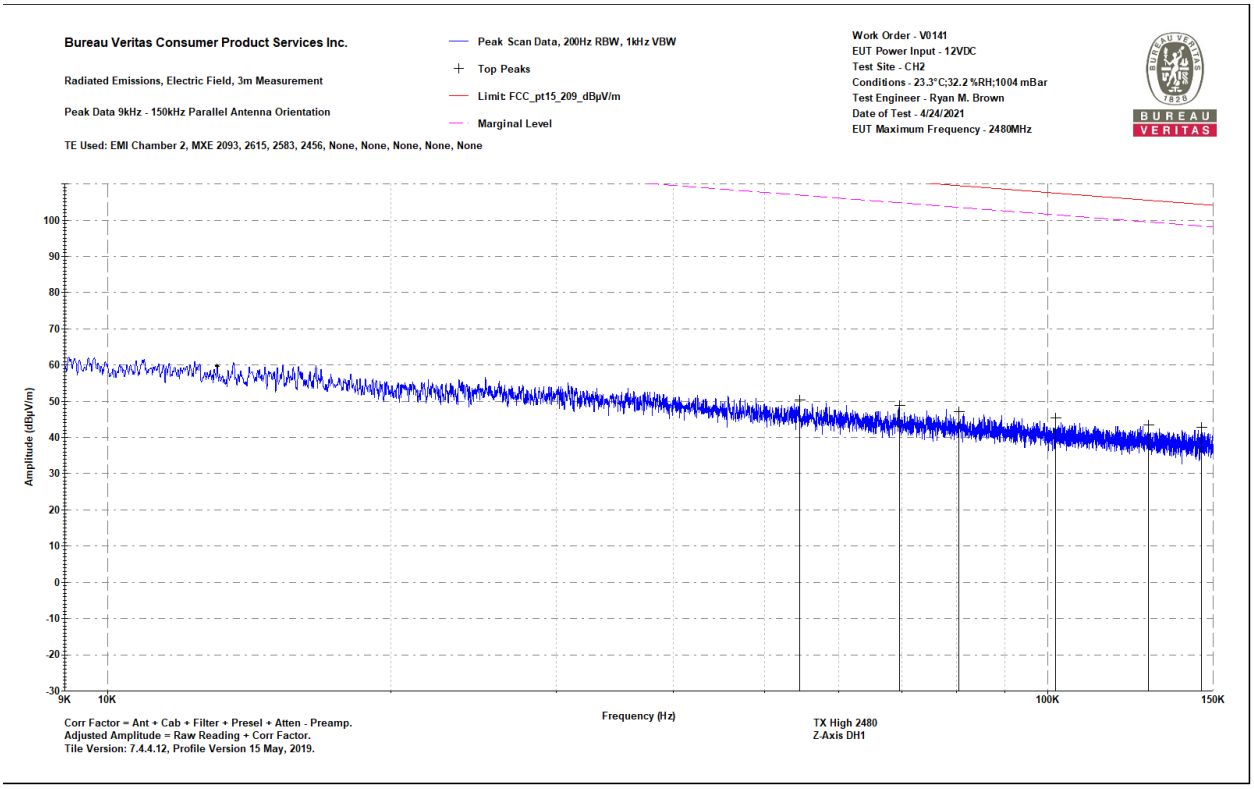
TX Mid Perpendicular 1 – 30 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions, Electric Field, 3m Measurement
Top Peaks Parallel 9-150kHz
Notes:
TX High 2480
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.2 %RH;1004 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/24/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim: FCC_pt15_209_dBµV/m (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.054448	39.4	10.9	50.3	112.9	-62.6	PASS		60
0.069521	38.3	10.5	48.8	110.8	-62	PASS		330
0.080483	36.6	10.4	47	109.5	-62.5	PASS		135
0.10194	35.2	10.1	45.3	107.4	-62.2	PASS		60
0.128025	33.2	10.1	43.3	105.5	-62.1	PASS		180
0.145728	32.7	10.1	42.8	104.3	-61.5	PASS	-61.5	180

TX High Parallel 9 – 150 KHz



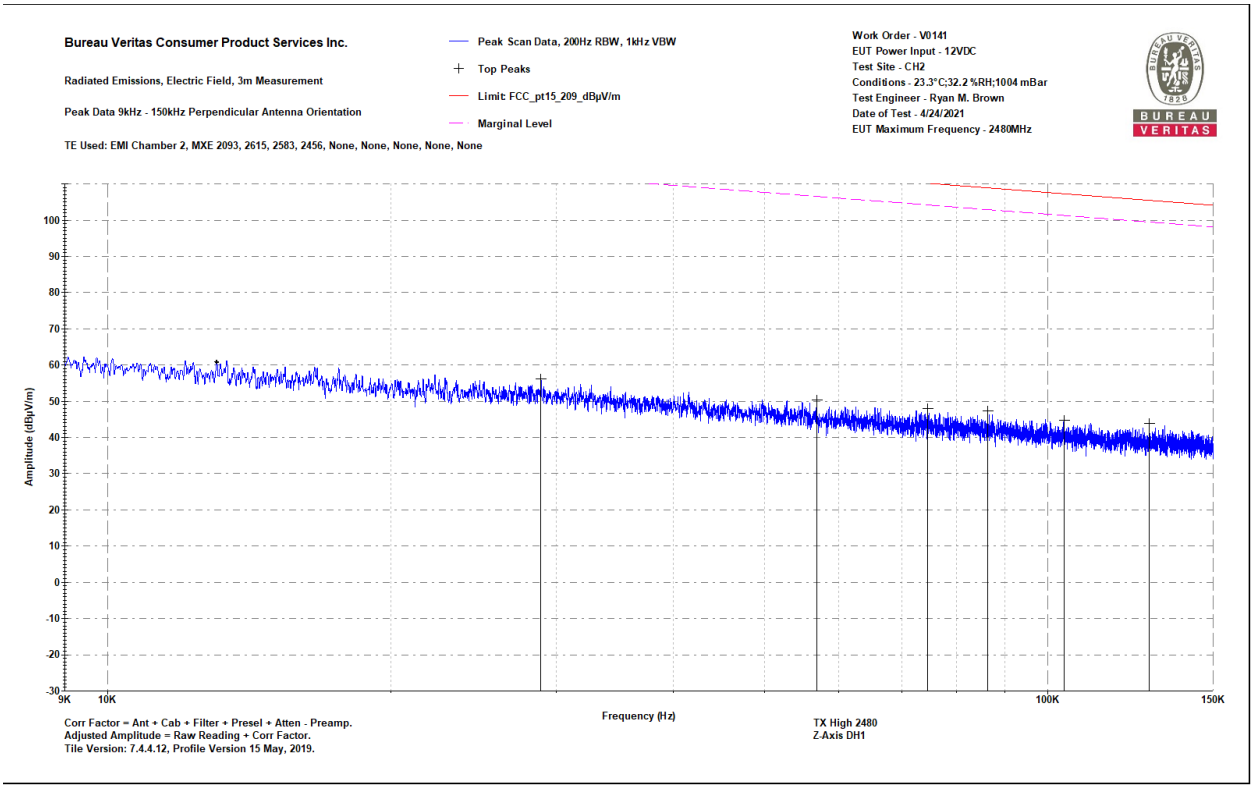
TX High Parallel 9 – 150 KHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions, Electric Field, 3m Measurement
Top Peaks Perpendicular 9-150kHz
Notes:
TX High 2480
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.2 %RH;1004 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/24/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Lim: FCC_pt15_209_dBµV/m (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.028902	42.6	13.6	56.2	118.4	-62.2	PASS		270
0.056785	39.4	10.9	50.2	112.5	-62.3	PASS		30
0.074502	37.5	10.5	48	110.2	-62.2	PASS		240
0.086413	36.7	10.5	47.2	108.9	-61.7	PASS		330
0.104055	34.6	10.1	44.7	107.3	-62.5	PASS		30
0.128339	33.8	10.1	43.9	105.4	-61.5	PASS	-61.5	225

TX High Perpendicular 9 – 150 KHz



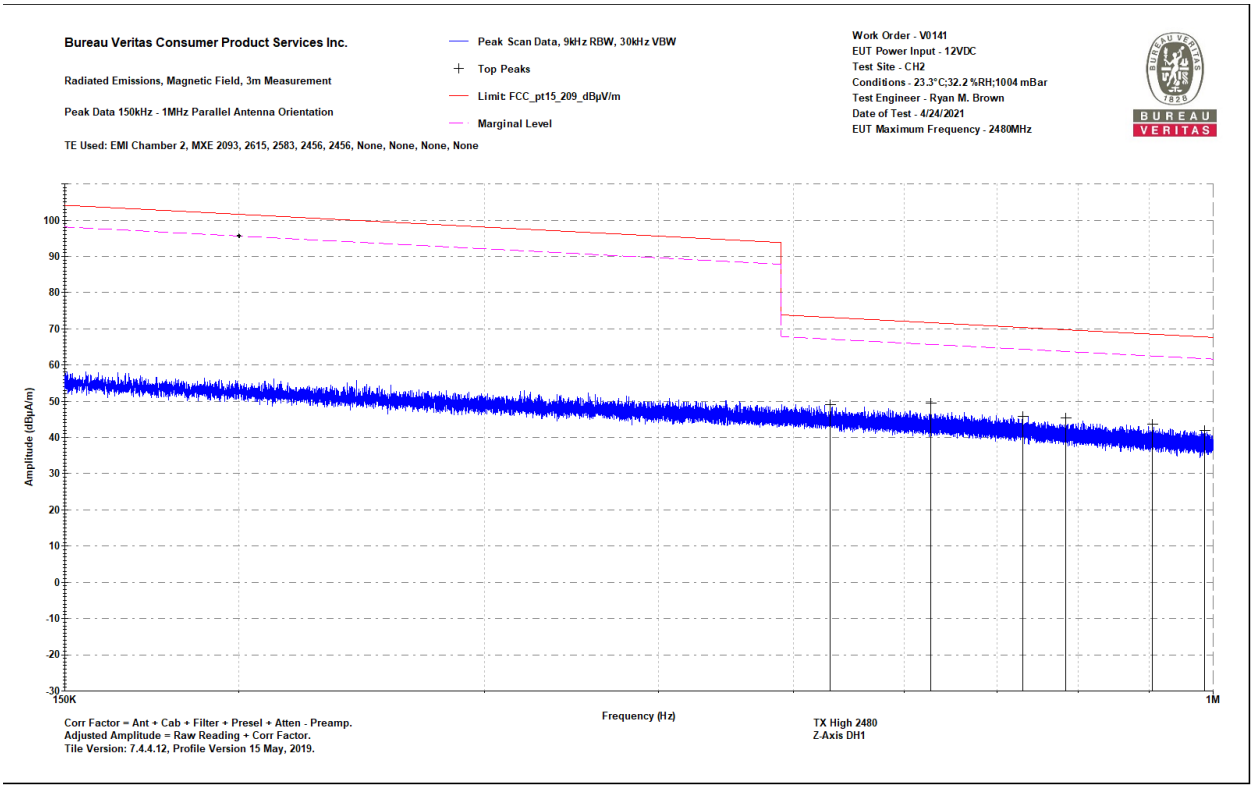
TX High Perpendicular 9 – 150 KHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Parallel 150-1000kHz
Notes:
TX High 2480
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.2 %RH;1004 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/24/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.531	38.7	10.3	48.9	73.1	-24.2	PASS		315
0.627	39.1	10.4	49.5	71.7	-22.2	PASS	-22.2	345
0.731	35.4	10.4	45.9	70.3	-24.5	PASS		210
0.784	35	10.4	45.5	69.7	-24.3	PASS		30
0.905	33	10.6	43.6	68.5	-24.9	PASS		195
0.986	31.3	10.7	42	67.7	-25.7	PASS		60

TX High Parallel 150 KHz – 1 MHz



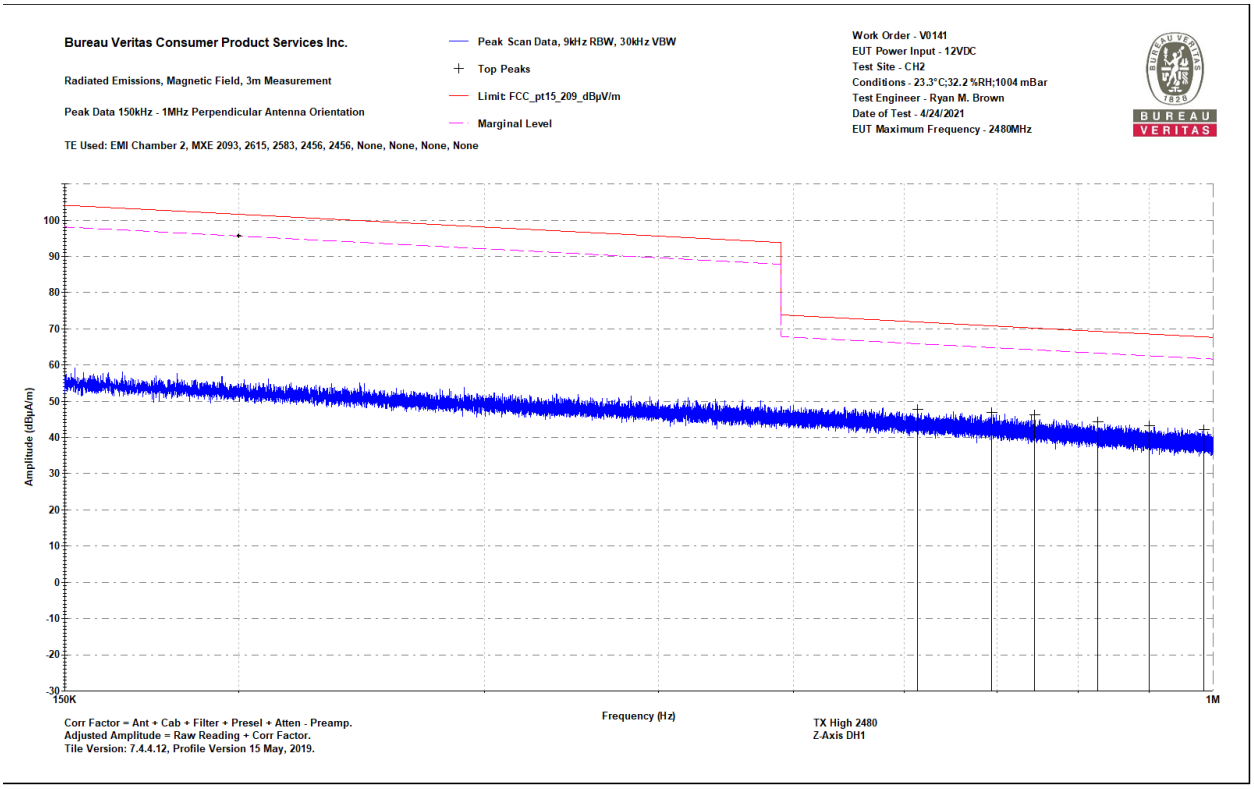
TX High Parallel 150 KHz – 1 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Perpendicular 150-1000kHz
Notes:
TX High 2480
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.2 %RH;1004 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/24/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
0.614	37.5	10.4	47.8	71.9	-24	PASS		75
0.694	36.5	10.4	47	70.8	-23.8	PASS	-23.8	240
0.744	35.7	10.4	46.2	70.2	-24	PASS		135
0.826	33.9	10.5	44.4	69.3	-24.9	PASS		135
0.9	32.7	10.5	43.3	68.5	-25.2	PASS		15
0.985	31.4	10.7	42.2	67.7	-25.6	PASS		180

TX High Perpendicular 150 KHz – 1 MHz



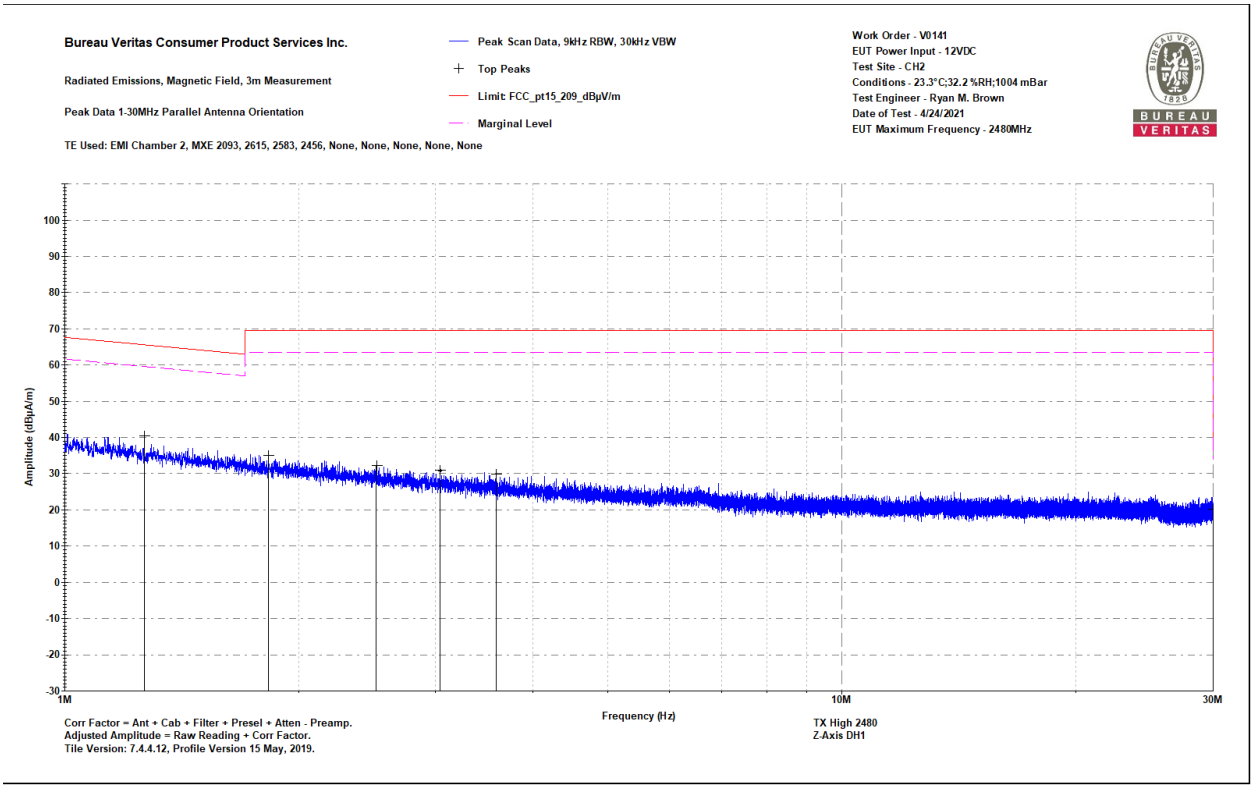
TX High Perpendicular 150 KHz – 1 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Parallel 1-30MHz
Notes:
TX High 2480
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.2 %RH;1004 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/24/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
1.267	29.8	10.7	40.5	65.6	-25.1	PASS		240
1.827	24.5	10.5	35.1	69.5	-34.5	PASS		285
2.517	21.6	10.6	32.2	69.5	-37.4	PASS		165
3.039	20.3	10.6	30.8	69.5	-38.7	PASS		165
3.588	19.2	10.6	29.8	69.5	-39.7	PASS		120
30	12.2	8	20.2	40	-19.8	PASS	-19.8	210

TX High Parallel 1 – 30 MHz



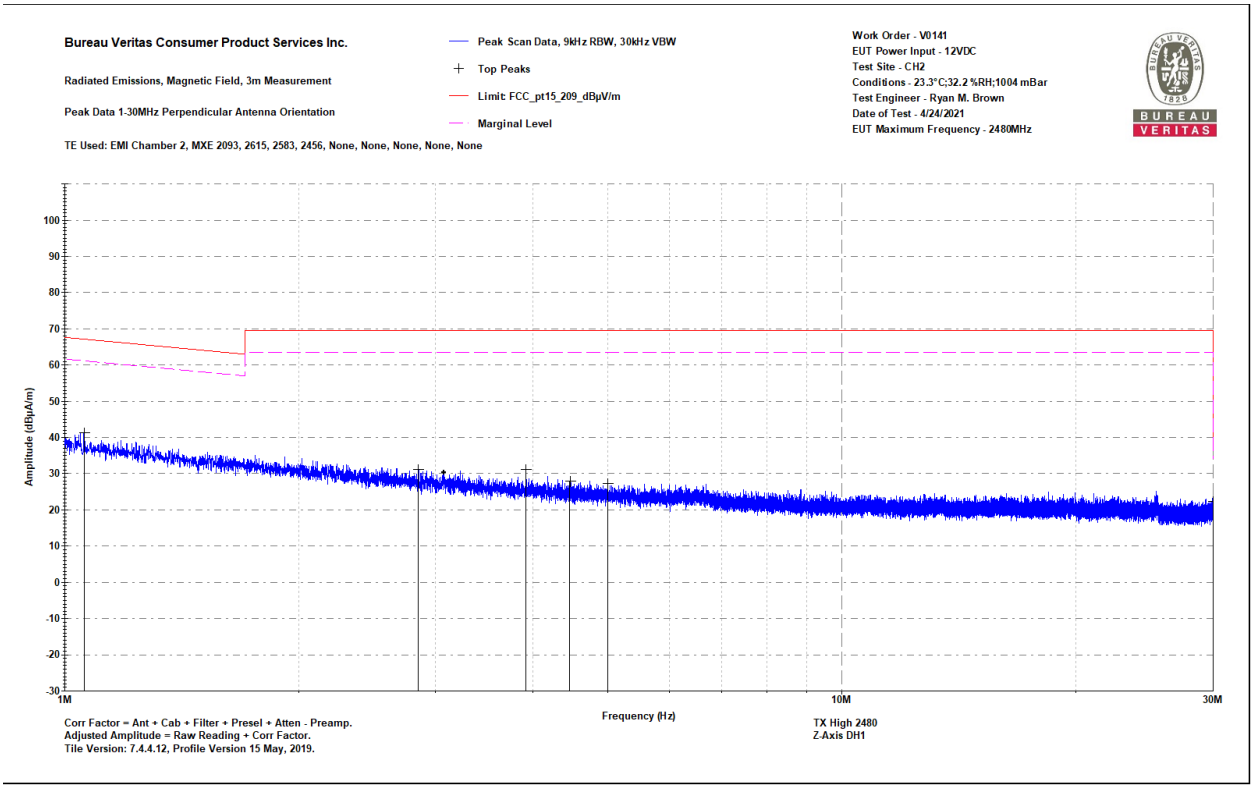
TX High Parallel 1 – 30 MHz

Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Magnetic Field 3m Distance
Top Peaks Perpendicular 1-30MHz
Notes:
TX High 2480
Z-Axis DH1

Work Order - V0141
EUT Power Input - 12VDC
Test Site - CH2
Conditions - 23.3°C;32.2 %RH;1004 mBar
Test Engineer - Ryan M. Brown
Date of Test - 4/24/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Correction Factor (dB/s)	Adjusted Peak Amplitude (dBµA/m)	Lim: FCC_pt15_209_dBµV/m (dBµA/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Margin (dB)	EUT Azimuth (degrees)
1.059	30.6	10.7	41.3	67.1	-25.8	PASS		180
2.852	20.7	10.6	31.2	69.5	-38.3	PASS		75
3.917	20.5	10.7	31.1	69.5	-38.4	PASS		180
4.465	17.3	10.7	28	69.5	-41.6	PASS		90
4.999	16.6	10.7	27.3	69.5	-42.2	PASS		240
30	14.4	8	22.4	40	-17.6	PASS	-17.6	45

TX High Perpendicular 1 – 30 MHz

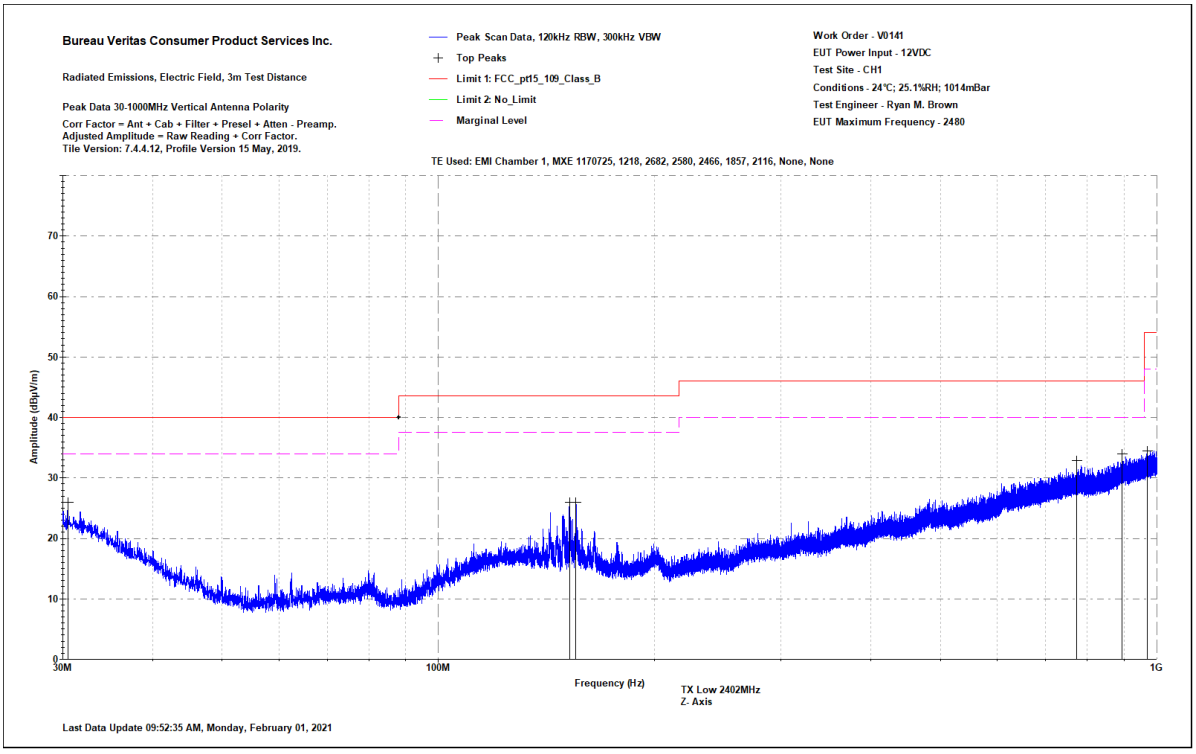


TX High Perpendicular 1 – 30 MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Vertical 30-1000MHz	Test Site - CH1
Notes:	Conditions - 24°C; 25.1%RH; 1014mBar
TX Low 2402MHz	Test Engineer - Ryan M. Brown
Z- Axis DH1	EUT Maximum Frequency - 2480

Frequency	Peak Reading	Correction Factor	Adjusted Peak Amplitude	Lim1: FCC_pt15_109_Class_B	Lim1 Margin	Lim1 Test Results	Worst Margin Lim1	Antenna Height	Turntable Azimuth
(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(cm)	(degrees)
30.485	29.5	-3.6	25.9	40	-14.1	PASS		200	90
152.244	37.3	-11.3	26	43.5	-17.6	PASS		150	90
155.324	37.3	-11.3	26	43.5	-17.5	PASS		150	90
772.971	31.4	1.5	32.9	46	-13.1	PASS		100	315
894.9	30.3	3.7	34	46	-12	PASS	-12	150	0
969.081	29.4	5.1	34.5	54	-19.5	PASS		100	90

TX Low Vertical 30-1000 MHz

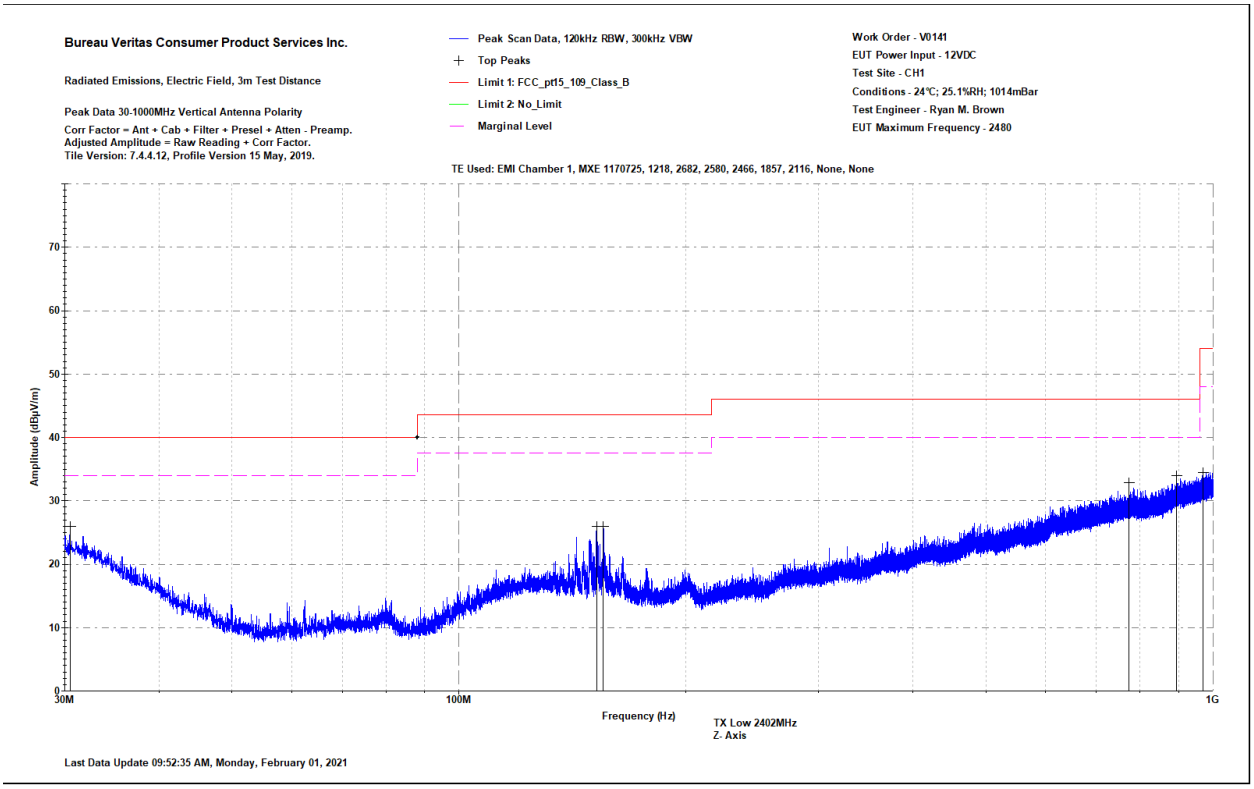


TX Low Vertical 30-1000MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Horizontal 30-1000MHz	Test Site - CH1
Notes:	Conditions - 24°C; 25.1%RH; 1014mBar
TX Low 2402MHz	Test Engineer - Ryan M. Brown
Z- Axis DH1	EUT Maximum Frequency - 2480

Frequency	Peak Reading	Correction Factor	Adjusted Peak Amplitude	Lim1: FCC_pt15_109_Class_B	Lim1 Margin	Lim1 Test Results	Worst Margin Lim1	Antenna Height	EUT Azimuth
(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(cm)	(degrees)
30.8	29	-3.8	25.2	40	-14.8	PASS		150	315
64.556	30.4	-16.5	13.8	40	-26.2	PASS		250	225
149.14	32.3	-11.2	21	43.5	-22.5	PASS		200	90
201.933	29.6	-10.5	19	43.5	-24.5	PASS		150	45
954.071	29.9	4.9	34.8	46	-11.2	PASS	-11.2	150	315

TX Low Horizontal 30-1000MHz

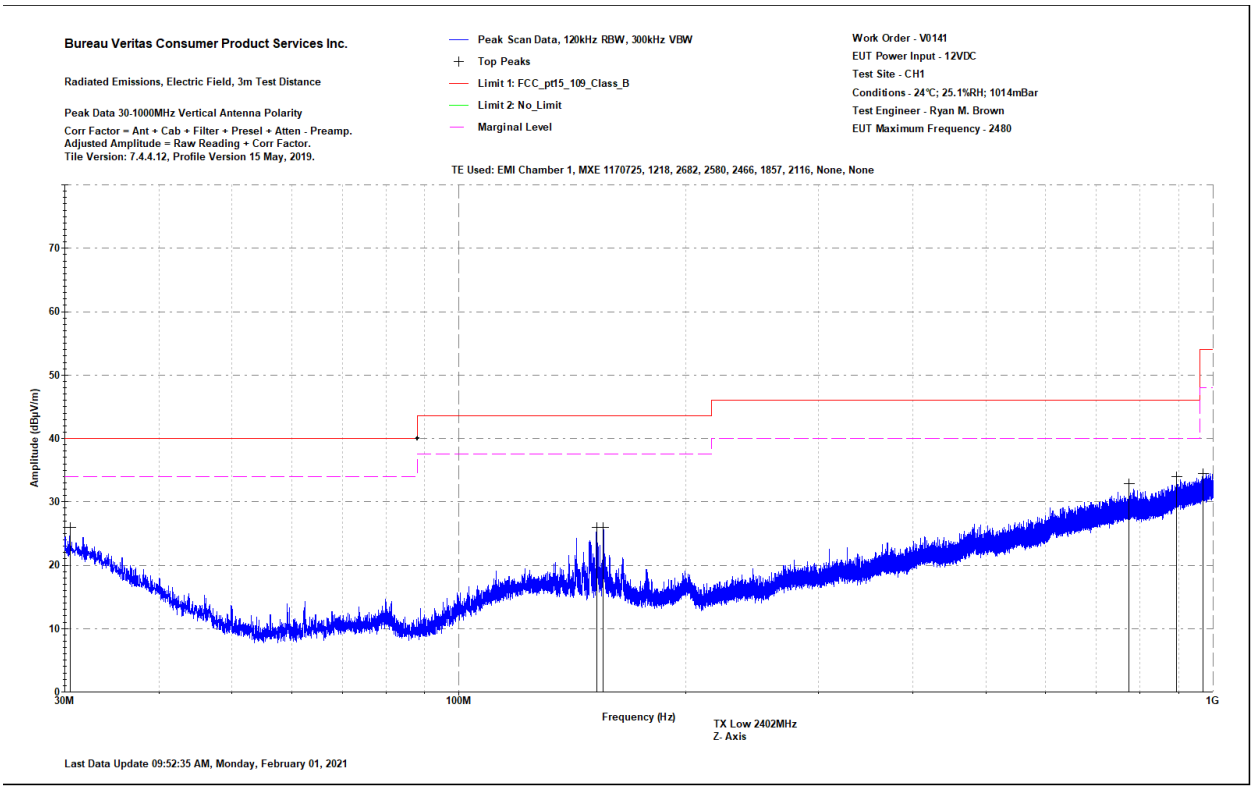


TX Low Horizontal 30-1000MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Vertical 30-1000MHz	Test Site - CH1
Notes:	Conditions - 24°C; 25.1%RH; 1014mBar
TX Mid 2441MHz	Test Engineer - Ryan M. Brown
Z- Axis DH1	EUT Maximum Frequency - 2480

Frequency	Peak Reading	Correction Factor	Adjusted Peak Amplitude	Lim1: FCC_pt15_109_Class_B	Lim1 Margin	Lim1 Test Results	Worst Margin Lim1	Antenna Height	Turntable Azimuth
(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(cm)	(degrees)
30	28.6	-3.3	25.3	40	-14.7	PASS		150	45
146.667	37	-11.1	25.9	43.5	-17.7	PASS		100	90
149.383	37	-11.2	25.7	43.5	-17.8	PASS		150	90
153.166	37.2	-11.3	25.9	43.5	-17.6	PASS		100	90
155.203	34.4	-11.3	23.2	43.5	-20.3	PASS		200	90
924.752	30.6	4.2	34.8	46	-11.2	PASS	-11.2	150	225

TX Mid Vertical 30-1000MHz

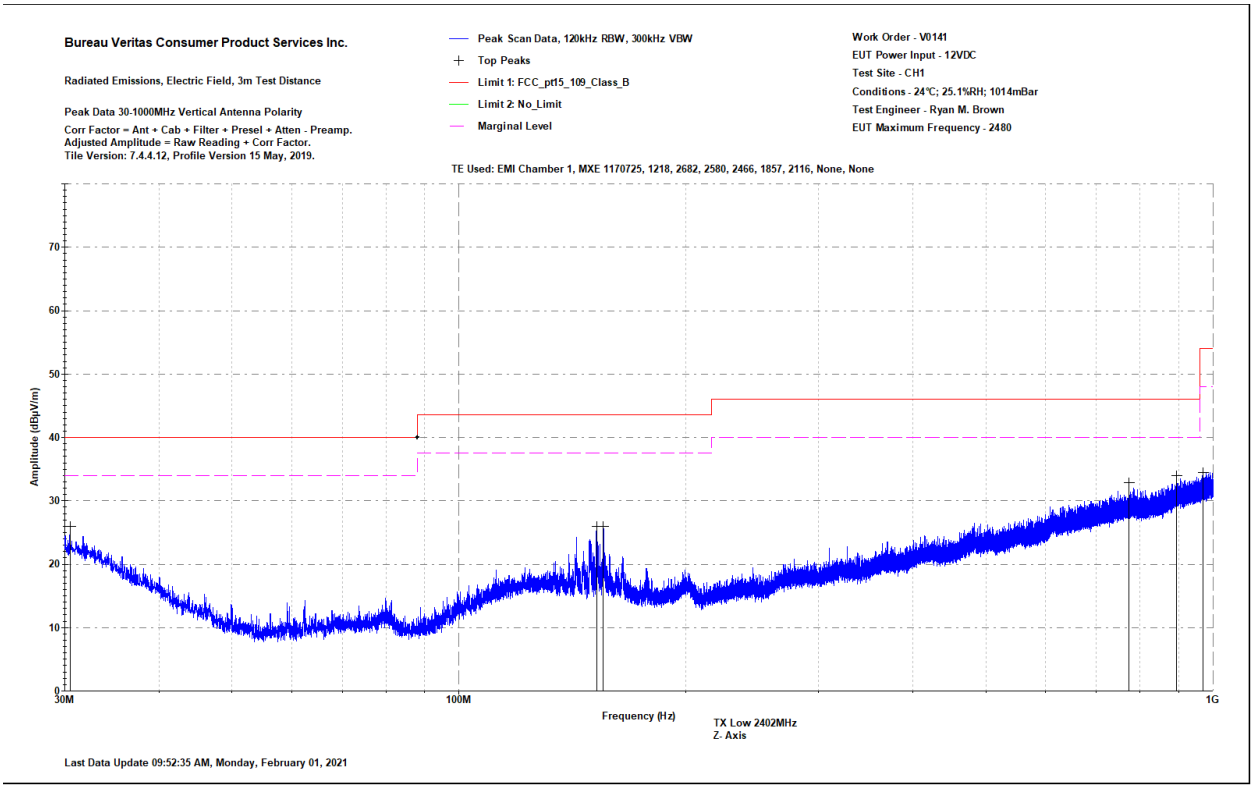


TX Mid Vertical 30-1000MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Horizontal 30-1000MHz	Test Site - CH1
Notes:	Conditions - 24°C; 25.1%RH; 1014mBar
TX Mid 2441MHz	Test Engineer - Ryan M. Brown
Z- Axis DH1	EUT Maximum Frequency - 2480

Frequency	Peak Reading	Correction Factor	Adjusted Peak Amplitude	Lim1: FCC_pt15_109_Class_B	Lim1 Margin	Lim1 Test Results	Worst Margin Lim1	Antenna Height	EUT Azimuth
(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(cm)	(degrees)
30.34	28.2	-3.5	24.7	40	-15.3	PASS		100	315
70.061	29.5	-16.1	13.4	40	-26.6	PASS		150	225
157.24	30.9	-11.4	19.5	43.5	-24	PASS		250	135
883.042	30.9	3.2	34.1	46	-11.9	PASS	-11.9	250	90
993.574	29	5.7	34.8	54	-19.2	PASS		150	180

TX Mid Horizontal 30-1000MHz

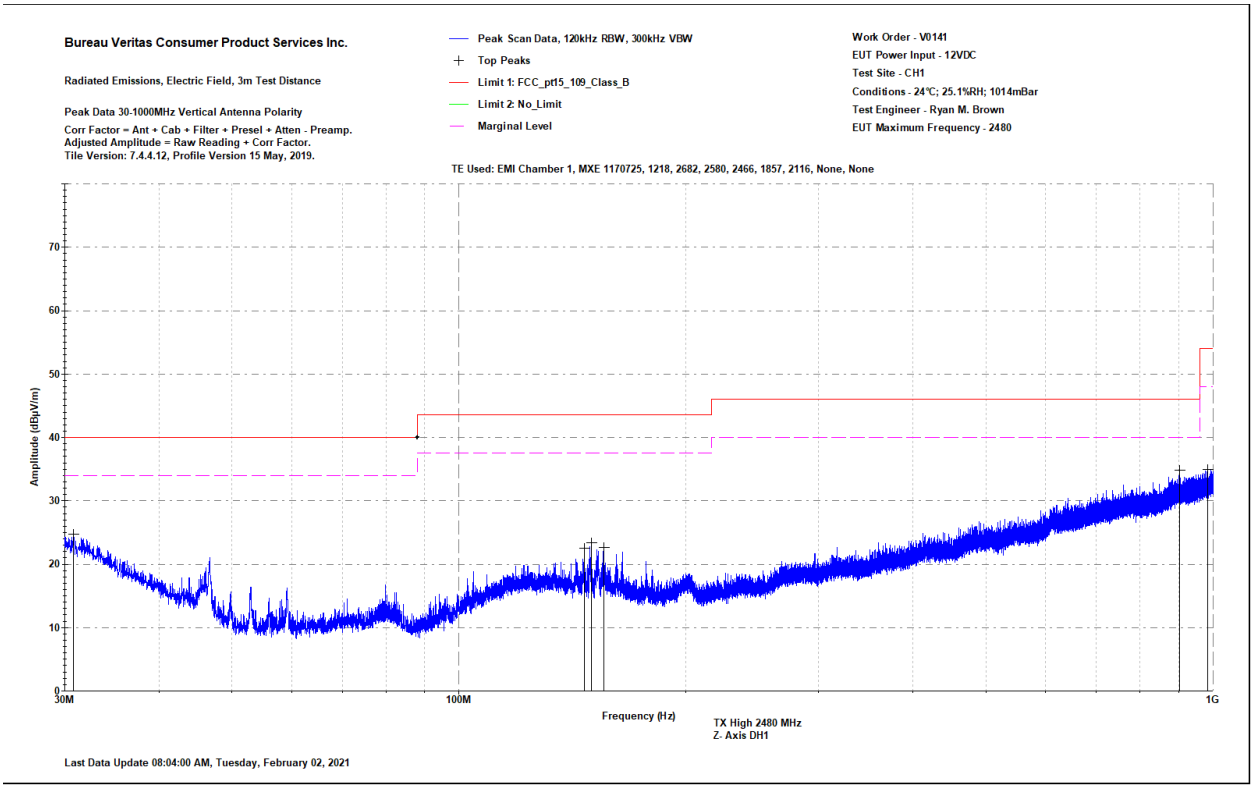


TX Mid Horizontal 30-1000MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Vertical 30-1000MHz	Test Site - CH1
Notes:	Conditions - 24°C; 25.1%RH; 1014mBar
TX High 2480 MHz	Test Engineer - Ryan M. Brown
Z- Axis DH1	EUT Maximum Frequency - 2480

Frequency	Peak Reading	Correction Factor	Adjusted Peak Amplitude	Lim1: FCC_pt15_109_Class_B	Lim1 Margin	Lim1 Test Results	Worst Margin Lim1	Worst Margin Lim2	Antenna Height	Turntable Azimuth
(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(dB)	(cm)	(degrees)
30.8	28.5	-3.8	24.7	40	-15.3	PASS			150	180
146.594	33.7	-11.1	22.6	43.5	-21	PASS			100	90
149.722	34.7	-11.2	23.4	43.5	-20.1	PASS			100	90
155.445	34	-11.3	22.7	43.5	-20.8	PASS			150	180
903.558	30.9	3.9	34.8	46	-11.2	PASS	-11.2		100	90
984.31	29.5	5.5	35	54	-19	PASS		-165	200	225

TX High Vertical 30-1000MHz

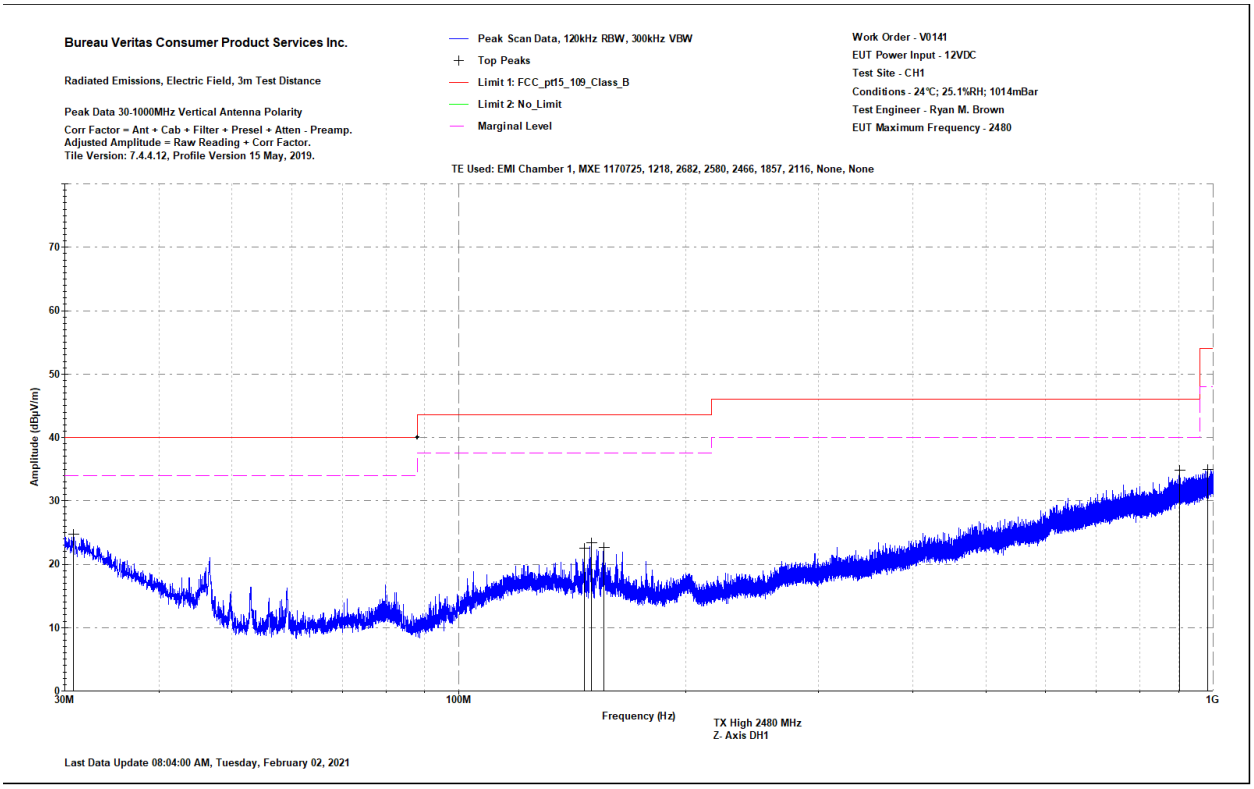


TX High Vertical 30-1000MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
Top Peaks Horizontal 30-1000MHz	Test Site - CH1
Notes:	Conditions - 24°C; 25.1%RH; 1014mBar
TX High 2480 MHz	Test Engineer - Ryan M. Brown
Z- Axis DH1	EUT Maximum Frequency - 2480

Frequency	Peak Reading	Correction Factor	Adjusted Peak Amplitude	Lim1: FCC_pt15_109_Class_B	Lim1 Margin	Lim1 Test Results	Worst Margin Lim1	Antenna Height	EUT Azimuth
(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(cm)	(degrees)
31.285	28.6	-4.1	24.5	40	-15.5	PASS		250	0
122.999	29.2	-9.8	19.5	43.5	-24	PASS		200	270
197.713	30.2	-11	19.2	43.5	-24.3	PASS		250	315
938.914	29.9	4.4	34.3	46	-11.8	PASS	-11.8	150	180
992.604	29.5	5.7	35.2	54	-18.8	PASS		100	180

TX High Horizontal 30-1000MHz

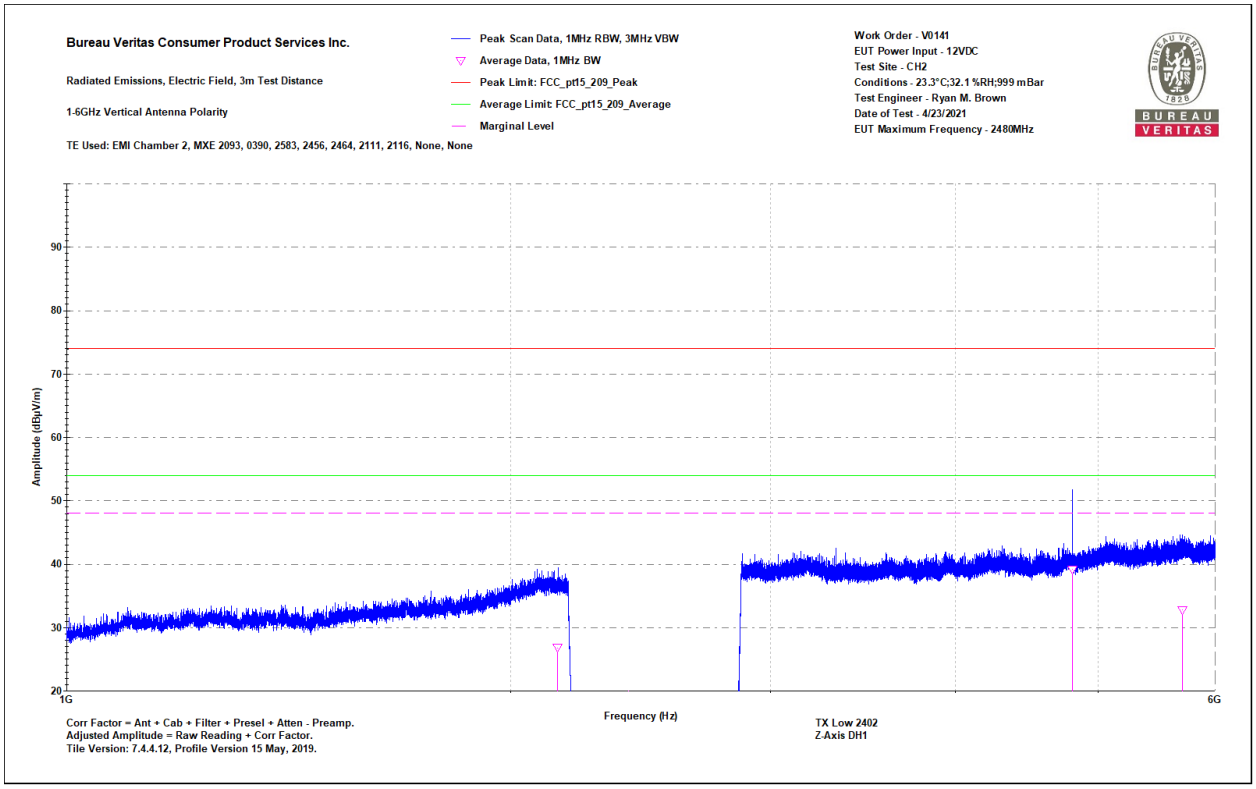


TX Horizontal 30-1000MHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
1-6GHz Vertical Data	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
2149.9	45.1	36	-9.2	36	74	-38	PASS		26.8	54	-27.2	PASS		195	43
4804.6	55	44.5	-5.4	49.6	74	-24.4	PASS	-24.4	39.2	54	-14.8	PASS	-14.8	212	152
5701.8	45.3	36.4	-3.6	41.7	74	-32.3	PASS		32.8	54	-21.2	PASS		108	6

TX Low Vertical 1-6GHz

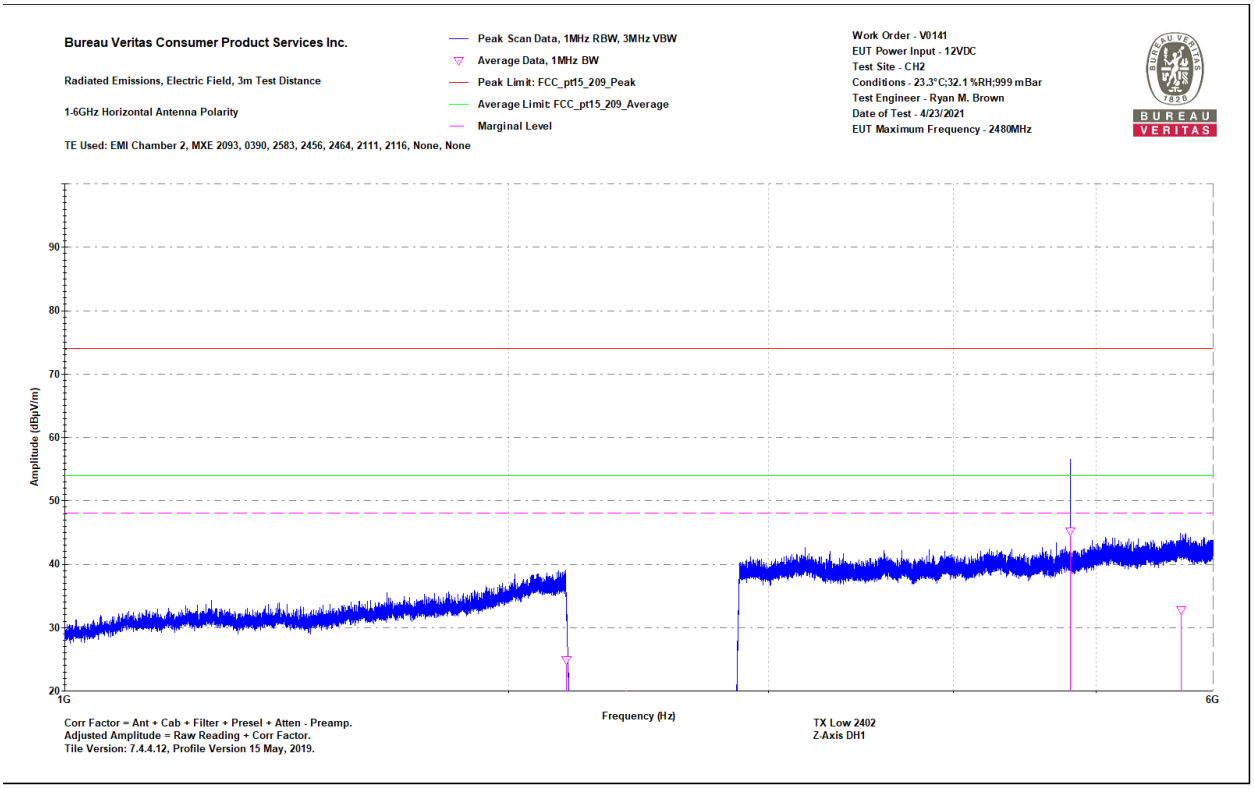


TX low Vertical 1-6GHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
1-6GHz Horizontal Data	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
2186.7	44	36.2	-11.3	32.7	74	-41.3	PASS		24.9	54	-29.1	PASS		225	22
4804.9	45.4	50.6	-5.4	40	74	-34	PASS		45.2	54	-8.8	PASS	-8.8	175	153
5705.6	46.1	36.4	-3.6	42.5	74	-31.5	PASS	-31.5	32.8	54	-21.2	PASS		125	62

TX Low Horizontal 1-6GHz

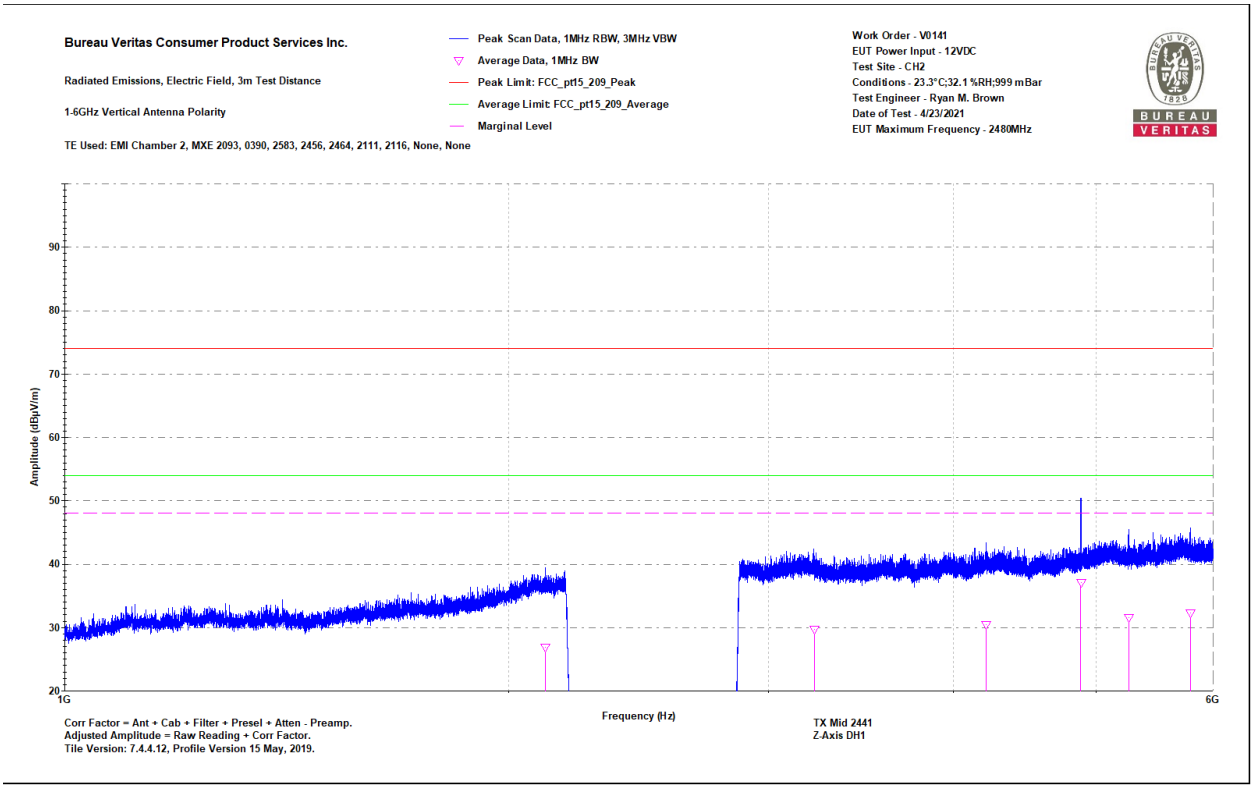


TX Low Horizontal 1-6GHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
1-6GHz Vertical Data	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Mid 2441	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
2116.4	46.1	36.1	-9.3	36.8	74	-37.2	PASS		26.8	54	-27.2	PASS		100	65
3220	45.9	37.2	-7.4	38.4	74	-35.6	PASS		29.7	54	-24.3	PASS		300	112
4212.7	44.9	36.8	-6.4	38.5	74	-35.5	PASS		30.4	54	-23.6	PASS		175	63
4881.7	45	42.1	-5	40	74	-34	PASS		37.1	54	-16.9	PASS	-16.9	212	202
5259.7	44.9	35.9	-4.3	40.6	74	-33.4	PASS		31.6	54	-22.4	PASS		225	39
5791.4	45	36	-3.7	41.2	74	-32.8	PASS	-32.8	32.3	54	-21.7	PASS		192	340

TX MID Vertical 1-6GHz

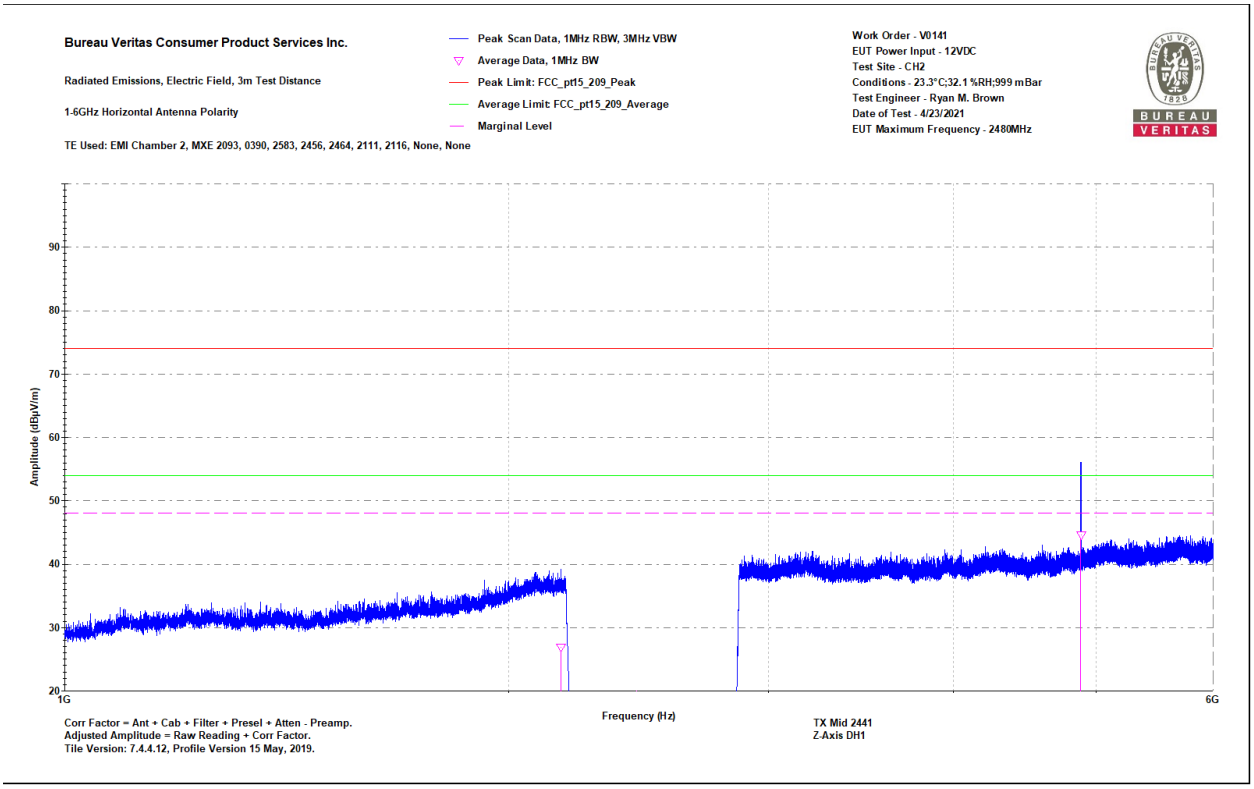


TX Mid Vertical 1-6GHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
1-6GHz Horizontal Data	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX Mid 2441	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
2168.1	44.6	35.9	-9.1	35.5	74	-38.5	PASS		26.8	54	-27.2	PASS		183	177
4881.6	59.9	49.6	-5	54.9	74	-19.1	PASS	-19.1	44.6	54	-9.4	PASS	-9.4	107	136

TX MID Horizontal 1-6GHz

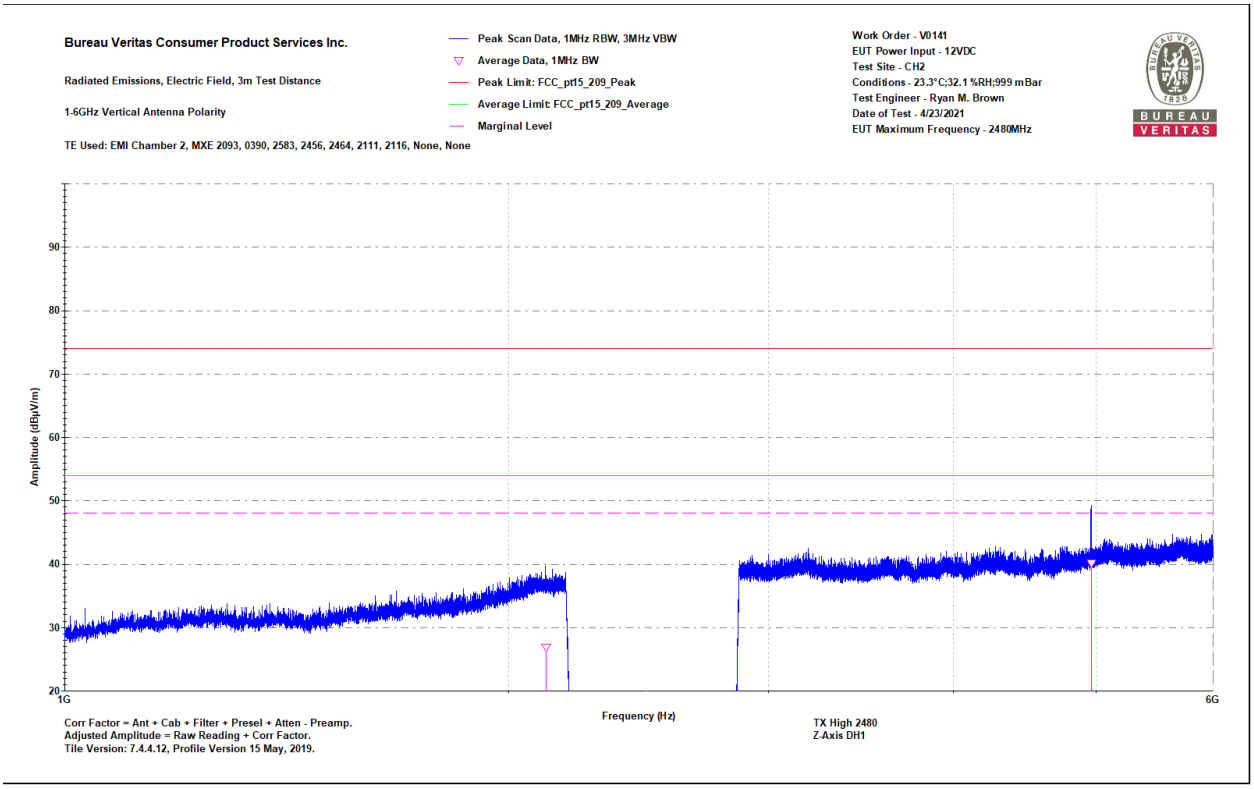


TX Mid Horizontal 1-6GHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
1-6GHz Vertical Data	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX High 2480	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
2118.2	46.9	36.1	-9.3	37.6	74	-36.4	PASS		26.8	54	-27.2	PASS		125	232
4960.7	45	45.2	-5	40	74	-34	PASS	-34	40.2	54	-13.8	PASS	-13.8	182	127

TX High Vertical 1-6GHz

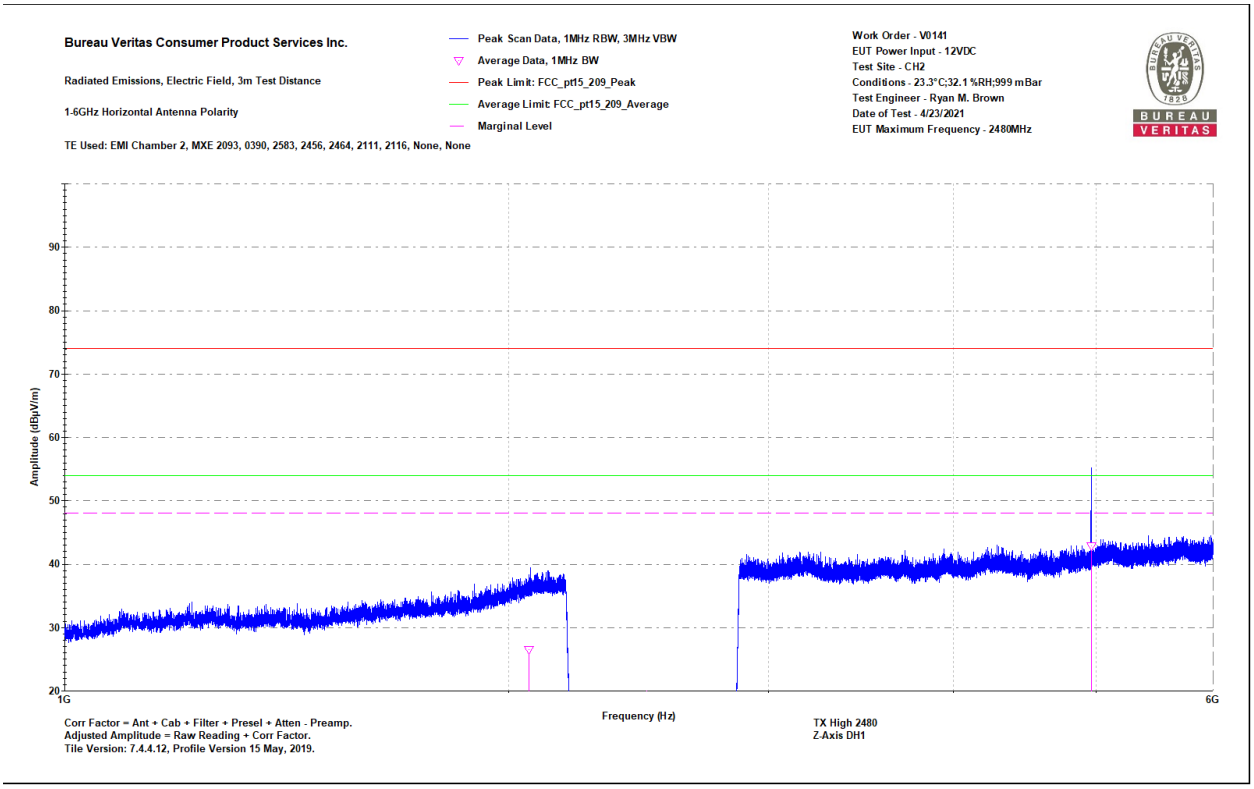


TX High Vertical 1-6GHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 3m Distance	EUT Power Input - 12VDC
1-6GHz Horizontal Data	Test Site - CH2
Notes:	Conditions - 23.3°C;32.1 %RH;999 mBar
TX High 2480	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/23/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
2064.5	45.1	36.1	-9.6	35.5	74	-38.5	PASS		26.5	54	-27.5	PASS		205	81
4960.1	46.4	48	-5	41.4	74	-32.6	PASS	-32.6	42.9	54	-11.1	PASS	-11.1	125	149

TX High Horizontal 1-6GHz

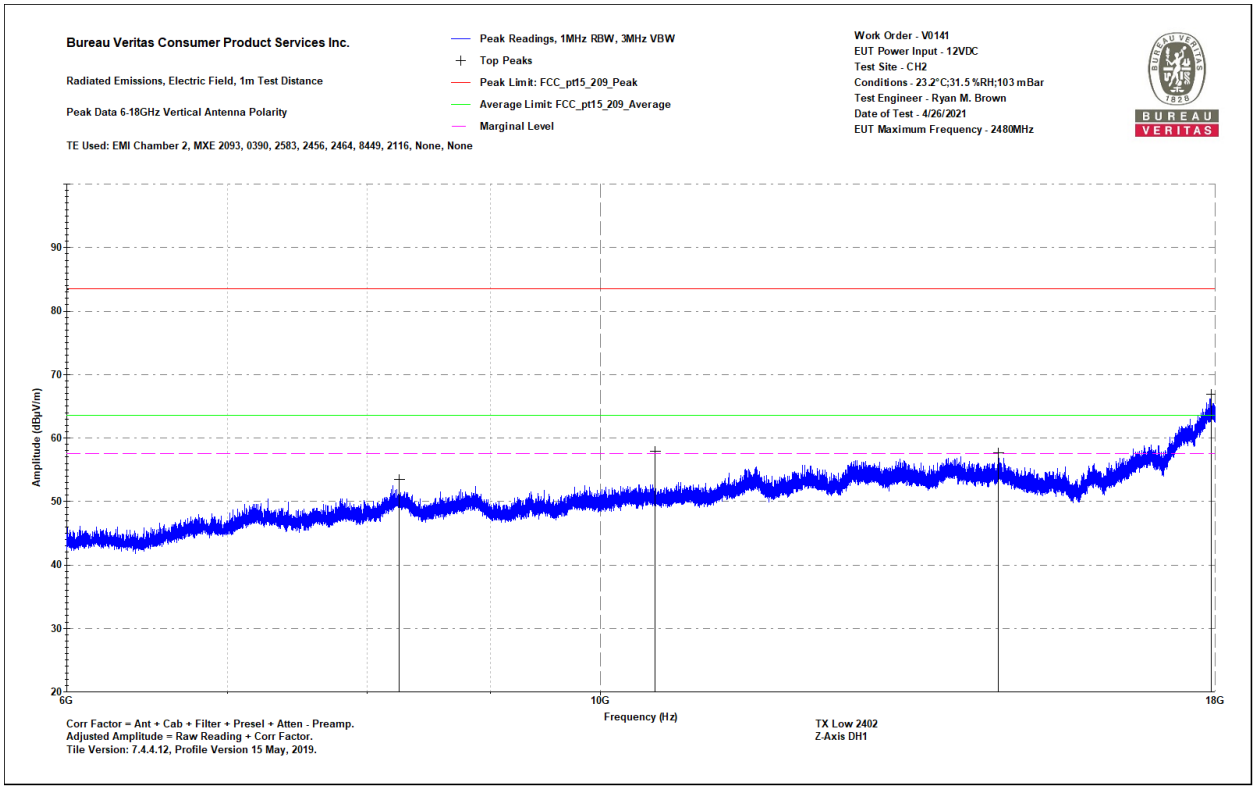


TX High Horizontal 1-6GHz

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 1m Distance	EUT Power Input - 12VDC
6-18GHz Vertical Data	Test Site - CH2
Notes:	Conditions - 23.2°C;31.5 %RH;103 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/26/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
8243.9	41.9	33.4	5.6	47.4	83.5	-36.1	PASS		38.9	63.5	-24.6	PASS		100	0
10534.9	48.6	33.2	7.1	55.5	83.5	-28	PASS		40.1	63.5	-23.4	PASS		200	278
14629.4	42.4	33	10.8	52.7	83.5	-30.8	PASS		43.4	63.5	-20.1	PASS		131	119
17936.6	44.3	33.9	19.4	63.2	83.5	-20.3	PASS	-20.3	52.9	63.5	-10.6	PASS	-10.6	200	267

TX Low Vertical 6-18GHz



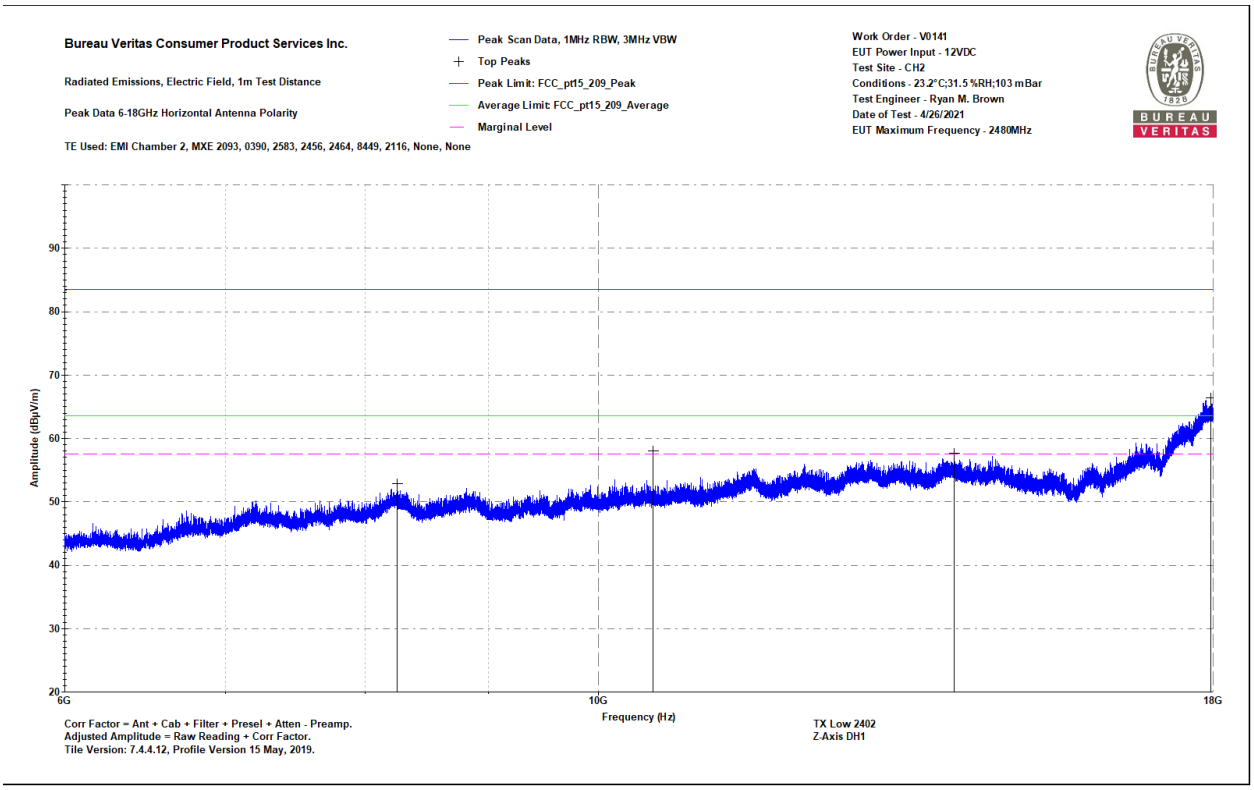
Note: In the Graph it shows the noise floor over the average limit 16-18GHz, a manual measurement from 16-18GHz was performed while taking an average reading while rotating the table and raising and lowering the antenna. No emissions were found in this range.

TX Low Vertical 6-18GHz Peak

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 1m Distance	EUT Power Input - 12VDC
6-18GHz Horizontal Data	Test Site - CH2
Notes:	Conditions - 23.2°C;31.5 %RH;103 mBar
TX Low 2402	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/26/2021

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 Test Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Test Results (Pass/Fail)	Worst Avg Margin (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
8245	42.3	33.1	5.6	47.9	83.5	-35.6	PASS		38.6	63.5	-24.9	PASS		152	196
10535.1	48.5	33.2	7.1	55.4	83.5	-28.1	PASS		40.1	63.5	-23.4	PASS		106	0
14056.2	41.8	32.3	12.1	53.4	83.5	-30.1	PASS		43.9	63.5	-19.6	PASS		181	31
17959.6	43.4	34.2	19.4	62.2	83.5	-21.3	PASS	-21.3	53.1	63.5	-10.4	PASS	-10.4	197	18

TX Low Horizontal 6-18 GHZ



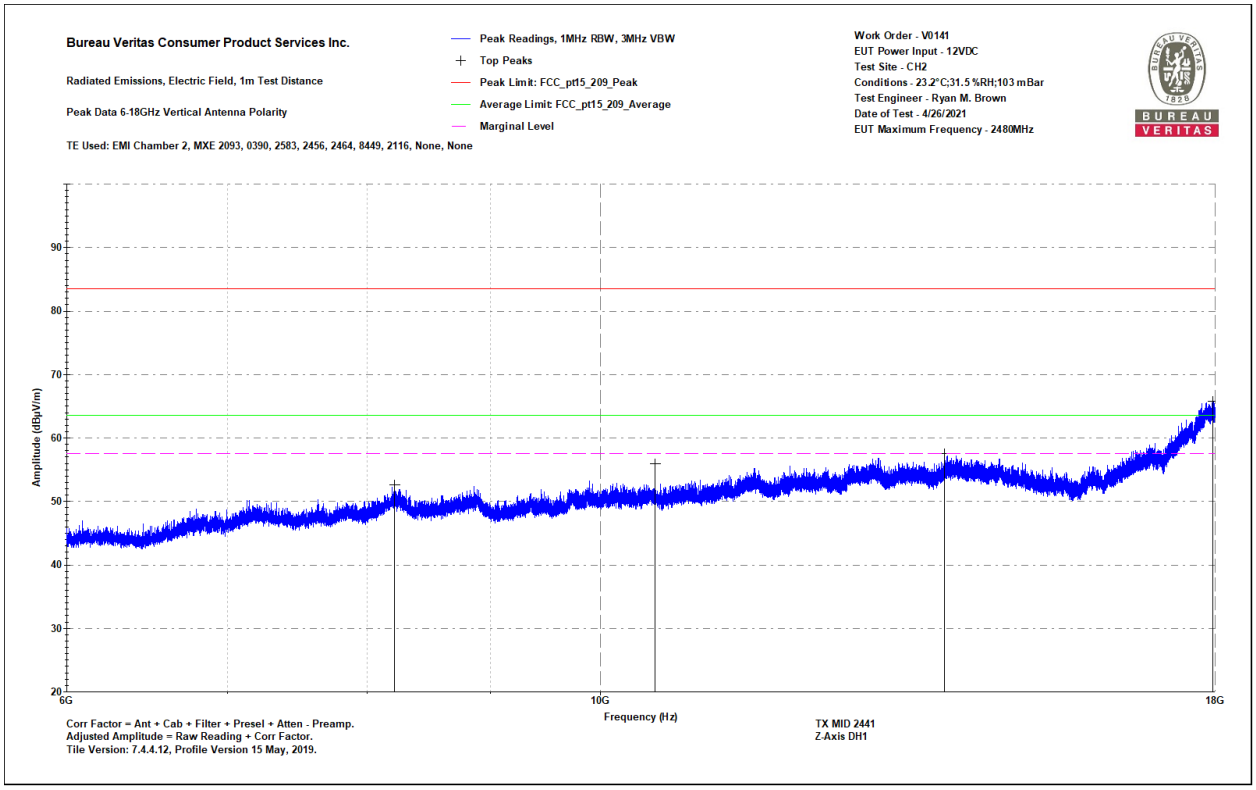
Note: In the Graph it shows the noise floor over the average limit 16-18GHz, a manual measurement from 16-18GHz was performed while taking an average reading while rotating the table and raising and lowering the antenna. No emissions were found in this range

TX low Horizontal 6-18GHz Peak

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 1m Distance	EUT Power Input - 12VDC
6-18GHz Vertical Data	Test Site - CH2
Notes:	Conditions - 23.2°C;31.5 %RH;103 mBar
TX MID 2441	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/26/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
8206	44.4	33.7	5.4	49.8	83.5	-33.7	PASS		39.1	63.5	-24.4	PASS		121	71
10531.3	41.3	33	7.1	48.4	83.5	-35.1	PASS		40	63.5	-23.5	PASS		100	4
13896.7	40.4	32.2	11.4	51.8	83.5	-31.7	PASS		43.6	63.5	-19.9	PASS		134	114
17953.2	43.5	34	19.4	62.9	83.5	-20.6	PASS	-20.6	53.4	63.5	-10.1	PASS	-10.1	193	232

TX MID Vertical 6-18 GHz



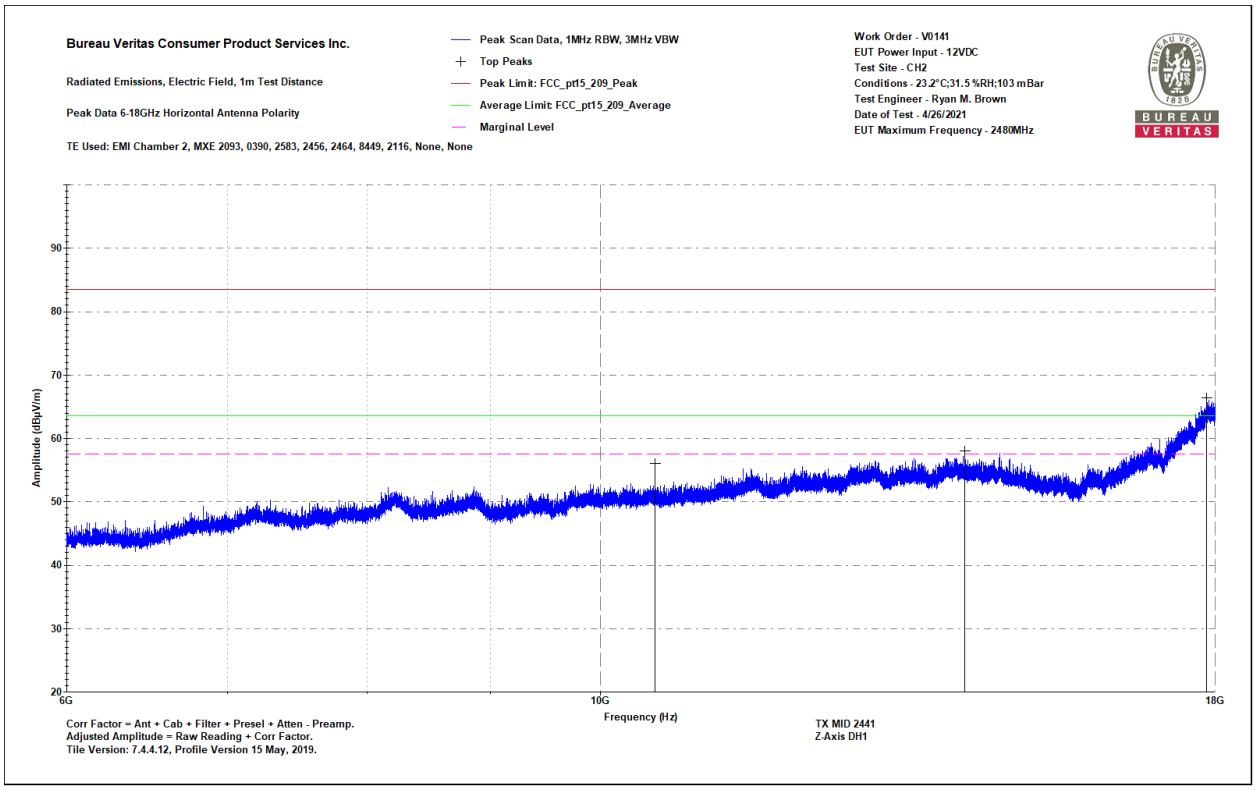
Note: In the Graph it shows the noise floor over the average limit 16-18GHz, a manual measurement from 16-18GHz was performed while taking an average reading while rotating the table and raising and lowering the antenna. No emissions were found in this range

TX Mid Vertical 6-18GHZ Peak

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 1m Distance	EUT Power Input - 12VDC
6-18GHz Horizontal Data	Test Site - CH2
Notes:	Conditions - 23.2°C;31.5 %RH;103 mBar
TX MID 2441	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/26/2021

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 Test Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Test Results (Pass/Fail)	Worst Avg Margin (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
10530.9	41.4	33	7.1	48.5	83.5	-35	PASS		40.1	63.5	-23.4	PASS		125	219
14165.6	41.5	32.3	11.8	53.4	83.5	-30.1	PASS		44.2	63.5	-19.3	PASS		133	66
17853.3	44.5	34.4	19.1	63.6	83.5	-19.9	PASS	-19.9	53.5	63.5	-10	PASS	-10	136	173

TX MID Horizontal 6-18 GHz



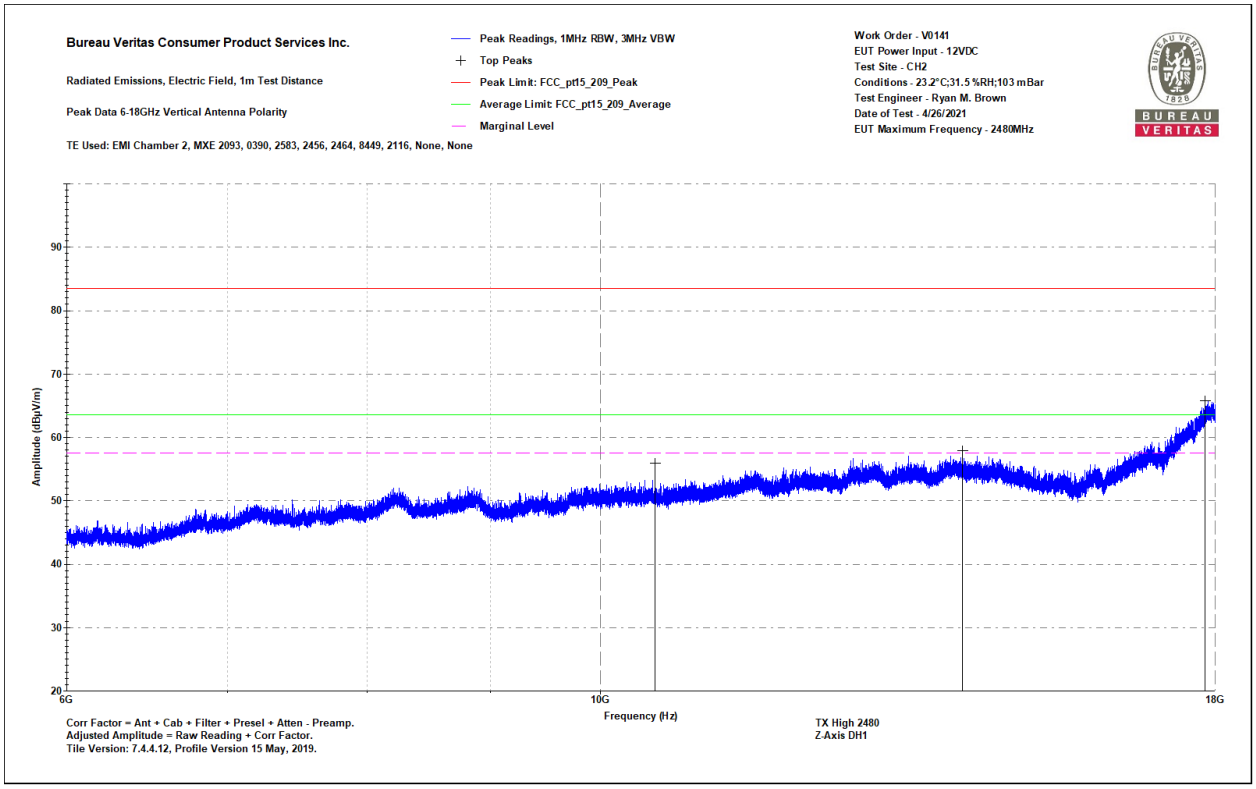
Note: In the Graph it shows the noise floor over the average limit 16-18GHz, a manual measurement from 16-18GHz was performed while taking an average reading while rotating the table and raising and lowering the antenna. No emissions were found in this range

TX MID Horizontal 6-18GHz Peak

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 1m Distance	EUT Power Input - 12VDC
6-18GHz Vertical Data	Test Site - CH2
Notes:	Conditions - 23.2°C;31.5 %RH;103 mBar
TX High 2480	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/26/2021

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)	Antenna Height (cm)	EUT Azimuth (degrees)
10531.8	42.6	33	7.1	49.6	83.5	-33.9	PASS		40.1	63.5	-23.4	PASS		200	340
14129.8	41.7	32.2	12	53.7	83.5	-29.8	PASS		44.2	63.5	-19.3	PASS		181	219
17835.7	43.1	34.2	19	62.1	83.5	-21.4	PASS	-21.4	53.1	63.5	-10.4	PASS	-10.4	145	95

TX High Vertical 6-18 GHz



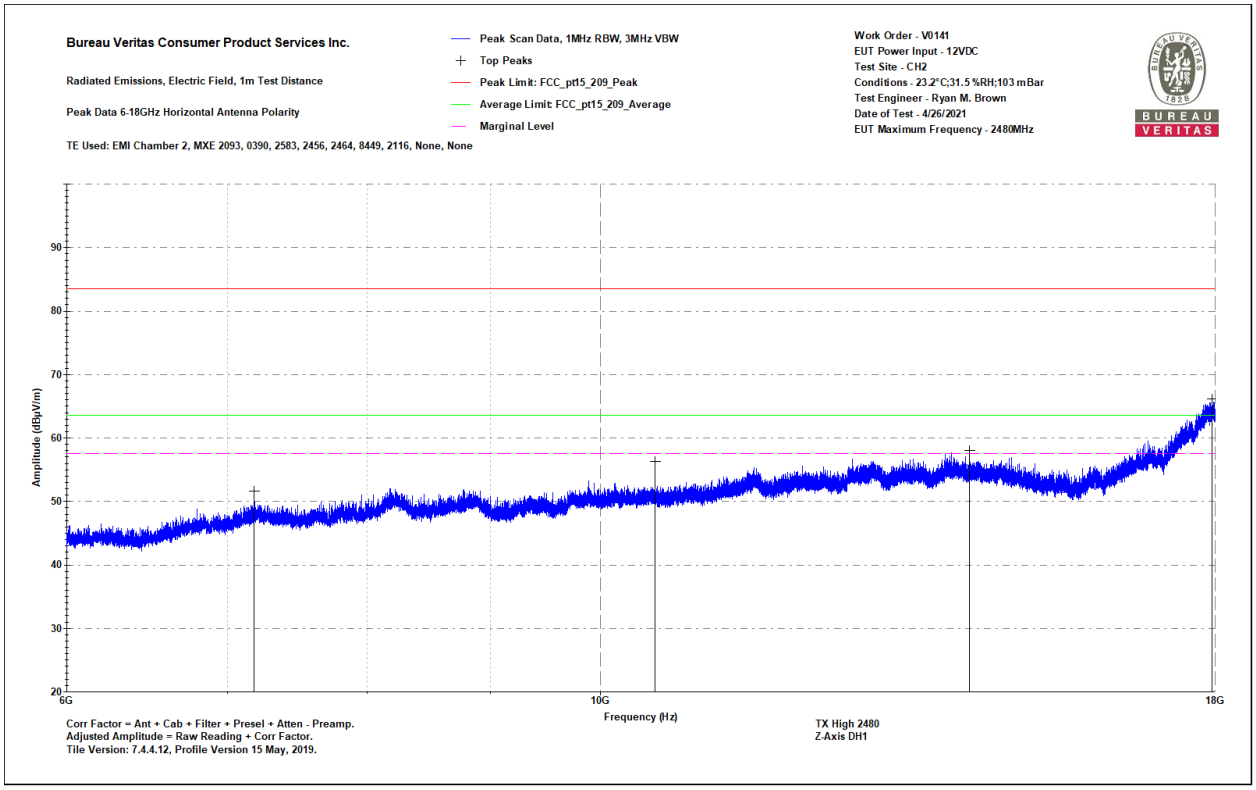
Note: In the Graph it shows the noise floor over the average limit 16-18GHz, a manual measurement from 16-18GHz was performed while taking an average reading while rotating the table and raising and lowering the antenna. No emissions were found in this range

TX High Vertical 6-18GHz Peak

Bureau Veritas Consumer Product Services Inc.	Work Order - V0141
Radiated Emissions Electric Field 1m Distance	EUT Power Input - 12VDC
6-18GHz Horizontal Data	Test Site - CH2
Notes:	Conditions - 23.2°C;31.5 %RH;103 mBar
TX High 2480	Test Engineer - Ryan M. Brown
Z-Axis DH1	Date of Test - 4/26/2021

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 Test Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_209_Average (dBµV/m)	Avg Margin (dB)	Avg Test Results (Pass/Fail)	Worst Avg Margin (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
7181	42	32.3	4.6	46.7	83.5	-36.8	PASS		36.9	63.5	-26.6	PASS		118	135
10531.4	49.1	32.8	7.1	56.2	83.5	-27.3	PASS		39.9	63.5	-23.6	PASS		100	25
14230.8	41.4	32.6	11.7	53.1	83.5	-30.4	PASS		44.3	63.5	-19.2	PASS		115	293
17952.2	42.8	34	19.4	62.2	83.5	-21.3	PASS	-21.3	53.4	63.5	-10.1	PASS	-10.1	180	96

TX High Horizontal 6-18GHz



Note: In the Graph it shows the noise floor over the average limit 16-18GHz, a manual measurement from 16-18GHz was performed while taking an average reading while rotating the table and raising and lowering the antenna. No emissions were found in this range

TX High Horizontal 6-18GHz Peak

Radiated Emissions Table

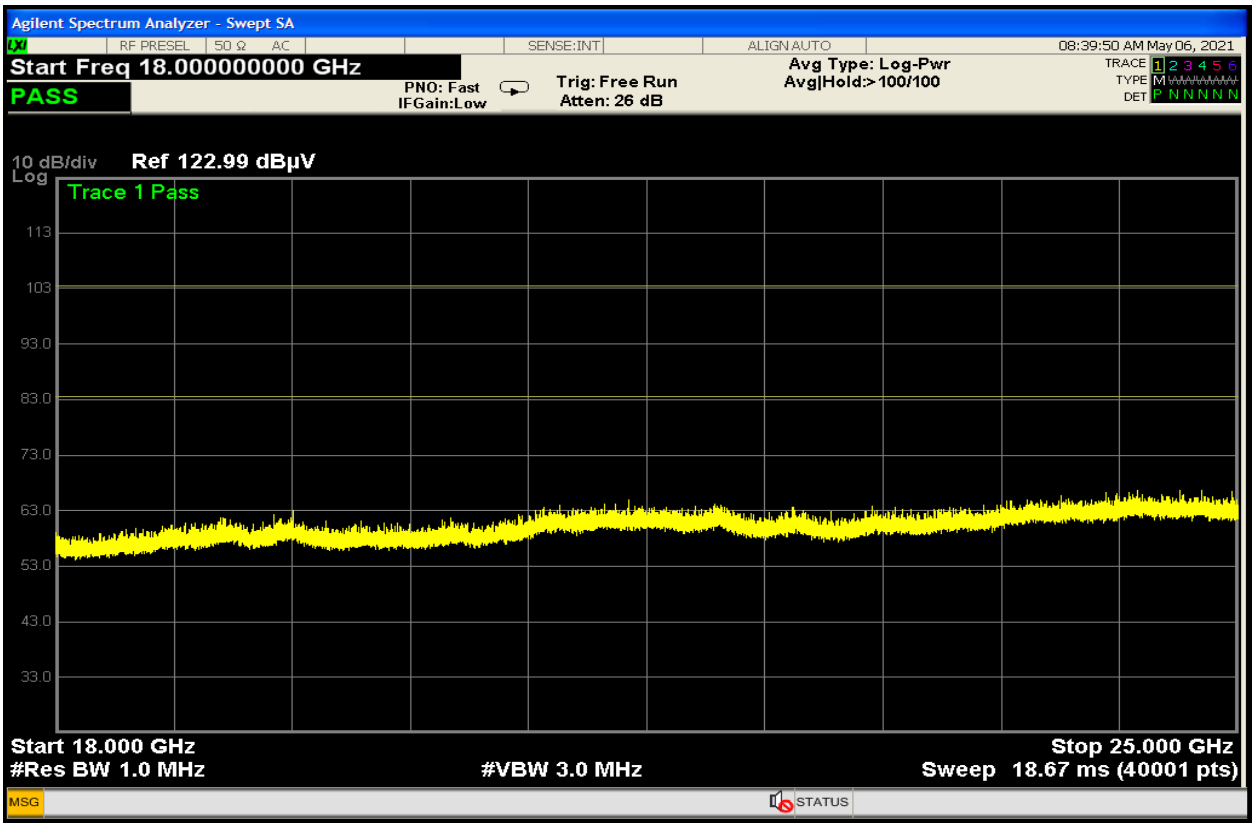
Date: 03-Feb-21 **Company:** Harman **Work Order:** V0141
Engineer: Ryan M. Brown **EUT Desc:** BT Classic **EUT Operating Voltage/Frequency:**
Temp: 24.8 **Humidity:** 30% **Pressure:** 986
Frequency Range: 18-25 GHz **Measurement Distance:** 0.1 m
Notes: TX Low 2402 DH1 Z-Axis **EUT Max Freq:** 2480

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)
No Emissions Found in this Range				---	---	---	---	---	---	---	---	---	---	---

Test Site: EMI Chamber 1 **Cable 1:** Asset #2323 **Cable 2:** --- **Cable 3:** ---
Analyzer: Gold **Preamp:** 18-26.5GHz **Antenna:** 18-26.5GHz Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.217

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

TX Low 18-25GHz



TX Low 18-26.5GHz

Radiated Emissions Table

Date: 03-Feb-21 **Company:** Harman **Work Order:** V0141
Engineer: Ryan M. Brown **EUT Desc:** BT Classic **EUT Operating Voltage/Frequency:**
Temp: 24.8 **Humidity:** 30% **Pressure:** 986
Frequency Range: 18-25 **Measurement Distance:** 0.1 m
Notes: TX Mid 2441 DH1 Z-Axis **EUT Max Freq:** 2480

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)
No Emissions Found in this Range				---	---	---	---	---	---	---	---	---	---	---

Table Result: --- by --- dB ***Worst Freq:*** --- MHz

Test Site: EMI Chamber 1 **Cable 1:** Asset #2323 **Cable 2:** --- **Cable 3:** ---
Analyzer: Gold **Preamp:** 18-26.5GHz **Antenna:** 18-26.5GHz Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.217

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

TX Mid 18-25GHz

Radiated Emissions Table

Date: 03-Feb-21 **Company:** Harman **Work Order:** V0141
Engineer: Ryan M. Brown **EUT Desc:** BT Classic **EUT Operating Voltage/Frequency:**
Temp: 24.8 **Humidity:** 30% **Pressure:** 986
Frequency Range: 18-25 **Measurement Distance:** 0.1 m
Notes: TX High 2441 DH1 Z-Axis **EUT Max Freq:** 2480

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)
No Emissions Found in this Range				---	---	---	---	---	---	---	---	---	---	---

Table Result: --- by --- dB ***Worst Freq:*** --- MHz

Test Site: EMI Chamber 1 **Cable 1:** Asset #2323 **Cable 2:** --- **Cable 3:** ---
Analyzer: Gold **Preamp:** 18-26.5GHz **Antenna:** 18-26.5GHz Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.217

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

TX High 18-26.5GHz

Rev. 3/21/2021

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	1/14/2022	1/14/2021
Rental MXE EMI Receiver(1170725)	20Hz-26.5GHz	N9038A	Agilent	MY51210151	1170725	I	12/7/2021	12/7/2020
Gold	100Hz-26.5 GHz	E4407B	Agilent	MY45113816	1284	I	12/2/2021	12/2/2020
Radiated Emissions Sites	**FCC Code**	**IC Code**	**VCCI Code**	**Range**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
EMI Chamber 2	719150	2762A-7	A-0015	30-1000MHz	1686	I	12/5/2022	12/5/2020
EMI Chamber 2	719150	2762A-7	A-0015	1-18GHz	1686	I	12/8/2022	12/8/2020
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz	1685	I	12/6/2022	12/6/2020
EMI Chamber 1	719150	2762A-6	A-0015	1-18GHz	1685	I	12/8/2022	12/8/2020
Preamps /Couplers Attenuators / Filters	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
8449B HF Preamp	1-18GHz	8449B	Agilent	1149055		II	11/8/2021	11/8/2020
2116 BRF	0.009-18000MHz	BRM50702	Micro-Tronics	G226	2116	II	11/7/2021	11/7/2020
2111 HF Preamp	0.5-18GHz	PAM-118A	COM-POWER	551063	2111	II	10/11/2021	10/11/2020
185710 Rental PA	9KHz-1GHz	310	SONOMA INSTRUMENT	185710		II	2/21/2022	2/21/2021
HF (Yellow)	18-26.5GHz	AFS4-18002650-60-8P-4	CS	467559	1266	II	10/18/2021	10/18/2020
Antennas	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Orange Horn	1-18GHz	3115	EMCO	0004-6123	390	I	11/17/2022	11/17/2020
2615 Active Loop Antenna	9KHz-30MHz	6502	EMCO	2049	2615	I	11/23/2022	11/23/2020
Red-Brown Bilog	30-2000MHz	JB1	Sunol	A0032406	1218	I	3/11/2021	3/11/2019
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	3/9/2021	3/9/2019
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	11/23/2022	11/23/2020
Asset #2654		1235C97	Control Company	200477432	2654	I	8/3/2022	8/3/2020
Asset #2653		1235C97	Control Company	200435382	2653	I	8/3/2022	8/3/2020
Cables	**Range**		**Mfr**			**Cat**	**Calibration Due**	**Calibrated on**
Asset #2456	9KHz-18GHz		MegaPhase			II	11/7/2021	11/7/2020
Asset #2464	9KHz-18GHz		MegaPhase			II	11/7/2021	11/7/2020
Asset #2466	9KHz-18GHz		MegaPhase			II	11/7/2021	11/7/2020
Asset #2580	9KHz-18GHz		Pasternack			II	1/17/2022	1/17/2021
Asset #2583	9KHz-18GHz		Pasternack			II	2/21/2022	2/21/2021
Asset #2323	1-26.5GHz	TM26-S1S1-120	MEGAPHASE	17139101 002		II	8/26/2021	8/26/2020
Asset #2324	1-26.5GHz	TM26-S1S1-120	MEGAPHASE	17139101 001		II	8/26/2021	8/26/2020
Asset #2682	9KHz-18GHz		Pasternack			II	1/23/2022	1/23/2021
Mixers/Diplexers	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Mixer / Horn	26.5-40 GHz	11970A	Agilent	3003A10230	2154	I	5/23/2021	5/23/2019

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

TEU

Radiated Band Edges

Radiated Band Edges

Date: 25-Jan-21 **Company:** Harman International **Work Order:** V0141
Engineer: AV, RB **EUT Desc:** BTT55 **EUT Operating Voltage/Frequency:** 13.8V DC
Temp: 24.6°C **Humidity:** 30% **Pressure:** 1007mBar
Frequency Range: 2.3-2.5GHz **Measurement Distance:** 1 m
Notes: BT Band edges. Worst case antenna polarization is vertical.
DH1 - Worst case packet type

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)
Low				---	---	---	---	---	---	---	---	---	---	---
V	2390.0	23.46	10.4	0.0	32.4	10.9	66.8	53.7	83.5	-16.7	Pass	63.5	-9.8	Pass
H	2390.0	22.84	10.5	0.0	32.4	10.9	66.1	53.8	83.5	-17.4	Pass	63.5	-9.7	Pass
High				---	---	---	---	---	---	---	---	---	---	---
V	2483.5	23.12	10.4	0.0	32.4	10.9	66.4	51.7	83.5	-17.1	Pass	63.5	-11.8	Pass
H	2483.5	21.81	10.4	0.0	32.4	10.9	65.1	51.7	83.5	-18.4	Pass	63.5	-11.8	Pass

Table Result: Pass by -9.7 dB ***Worst Freq:*** 2390.0 MHz

Test Site: EMI Chamber 1 **Cable 1:** Asset #2682 **Cable 2:** Asset #2580 **Cable 3:** ---
Analyzer: 1170725 **Preamp:** None **Antenna:** Blue Horn **Preselector:** ---
CSsoft Radiated Emissions Calculator v 1.017.208

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

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Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	3/9/2021	3/9/2019

Meteorological Meters/Chambers		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	11/23/2022	11/23/2020
Asset #2655		1235C97	Control Company	181683829	2655	I	11/5/2021	8/3/2020

Cables	Range	Mfr			Cat	Calibration Due	Calibrated on
Asset #2580	9KHz-18GHz	Pasternack			II	1/17/2022	1/17/2021
Asset #2682	9KHz-18GHz	Pasternack			II	1/23/2022	1/23/2021

Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Rental MXE EMI Receiver(1170725)	20Hz-26.5GHz	N9038A	Agilent	MY51210151	1170725	I	12/7/2021	12/7/2020

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

Not Applicable. EUT is vehicle 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

EV0141-3 Appendix A
CFR Title 47 FCC Part §15.247 and ISED Canada RSS-247 Issue 2

Test Engineer: AV

DUT Information

DUT Name:	BTT55
Manufacturer:	Harman International Industries, Inc.
Serial Number:	#28

79 channels are provided for BT mode:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	**2402**	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	**78**	**2480**
19	2421	**39**	**2441**	59	2461		

Notes: The channels which were indicated in bold type of the above channel list were selected as representative test channels.

Antenna gain	1.75 dBi
Number of transmit chains	1
Equipment type	Frequency Hopping Spread Spectrum
Transfer Rate	BDR/EDR: up to 3 MB/s

Test Equipment Used

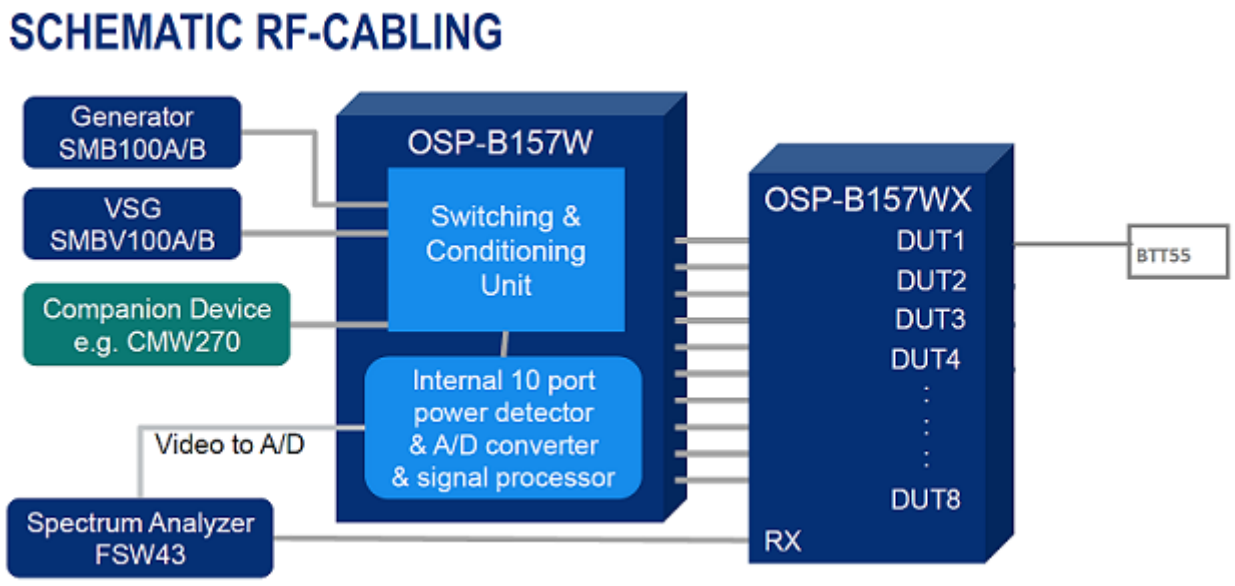
Rev. 02/01/2021								
Spectrum Analyzers / Receivers /Preselectors	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
FSV40 Signal/Spectrum Analyzer	10Hz-40GHz	FSV40	ROHDE & SCHWARZ	101551	2200	I	10/23/2021	10/23/2020
Signal Generators/Comparaison Noise Emitter	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
SMBV100A Vector Signal Generator	9KHz-6GHz	SMBV100A	ROHDE & SCHWARZ	261919	2201	I	10/23/2021	10/23/2020
SMB100A Signal Generator	100kHz-40GHz	SMB100A	ROHDE & SCHWARZ	179884	2557	I	10/26/2021	10/26/2020
Power/Noise Meters		**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
OSP - open switch and control platform	30MHz-18GHz	OSP-B157W8	ROHDE & SCHWARZ	1527.1144.02-100955-Ck	2558	I	4/16/2021	4/16/2020
Cables	**Range**		**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
DUT1	30MHz-40GHz		Micro-Coax	UFB142A-1-0787-200200	2593	I	3/7/2021	3/7/2020
DUT2	30MHz-40GHz		Micro-Coax	UFB142A-1-0787-200200	2594	I	3/7/2021	3/7/2020
Attenuators / Couplers	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
10dB Attenuator-01 Brown	30MHz-18GHz		Mini Curcuits	BW-S10W2+		I	3/7/2021	3/7/2020
Communication Tester	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
CMW270 Wideband Radio Communication Tester	DC to 6GHz	CMW270	ROHDE & SCHWARZ	1201.0002K75-101066-MV	2559	I	4/6/2021	4/6/2020
Meteorological Meters/Chambers		**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Temp/Humidity Chamber #18		EPX-2H	Espec	137664	1645	I	1/5/2021	1/5/2020
Weather Clock (Pressure only)		BA928	Oregon Scientific	C3166-1	831	I	5/15/2022	5/15/2020
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.								

Rohde&Schwarz Test System TS8997					
Test Equipment	**Manufacturer**	**Model Number**	**Serial Number**	**Firmware Version**	**Software Version**
Spectrum Analyzer	Rohde&Schwarz	FSV40	101551	3.40	N/A
Signal Generator	Rohde&Schwarz	SMB100A	179884	3.20.390.24 / Drv:Rev 2.21.0, 07/2016, CVI 2015	N/A
Vector Signal Generator	Rohde&Schwarz	SMBV100 A	261919	3.1.19.15 - 3.50.082.47	N/A
Switching Platform	Rohde&Schwarz	OSP-B157W	1527.1144	1.23.0.2	N/A
Wireless Connectivity Tester	Rohde&Schwarz	CMW270	101066	3.7	N/A
Test Software	Rohde&Schwarz	WMS32	N/A	N/A	V11.10.00

Summary

Test	Frequency (MHz)	GFSK			π/4-DQPSK			8DPSK		
		DH1 Result	DH3 Result	DH5 Result	2-DH1 Result	2-DH3 Result	2-DH5 Result	3-DH1 Result	3-DH3 Result	3-DH5 Result
Hopping Frequencies	--- (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Band Edge (during hopping)	--- (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Carrier Frequency Separation	2402.000 (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Carrier Frequency Separation	2480.000 (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Time of Channel Occupancy	2402.000 (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Time of Channel Occupancy	2441.000 (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Time of Channel Occupancy	2480.000 (hopping)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Emission Bandwidth 20 dB	2402.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Occupied Channel Bandwidth 99%	2402.000 (single	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Band Edge low	2402.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Peak output power	2402.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Conducted Spurious Emissions	2402.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Emission Bandwidth 20 dB	2441.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Occupied Channel Bandwidth 99%	2441.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Peak output power	2441.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Conducted Spurious Emissions	2441.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Emission Bandwidth 20 dB	2480.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Occupied Channel Bandwidth 99%	2480.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Band Edge high	2480.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Peak output power	2480.000 (single)	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Conducted Spurious Emissions	2480.000 (single)	------	PASS	------	------	------	------	------	------	------

Test Setup Diagram:



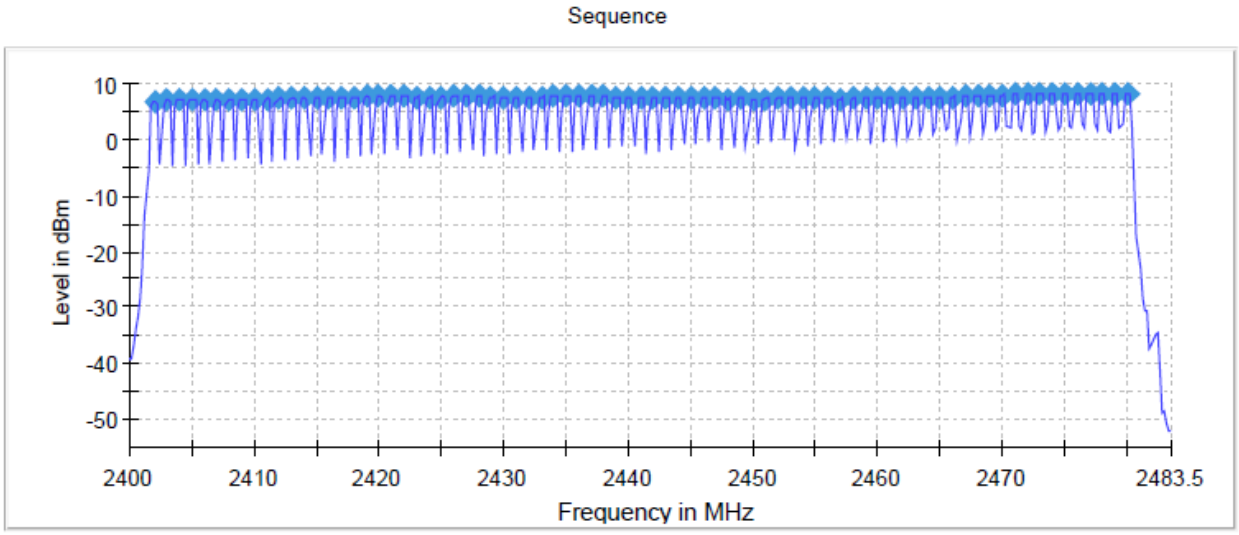
Number of Hopping Frequencies

Test procedure in accordance with ANSI C63.10-2013

Channels

Channels	Limit Min	Result
79	15	PASS

Plot for packet type DH1 shown below.



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	200.000 kHz	>= 200.000 kHz
SweepPoints	418	~ 418
Sweeptime	200.000 ms	200.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	FFT
Preamp	off	off

Band Edge (during hopping)

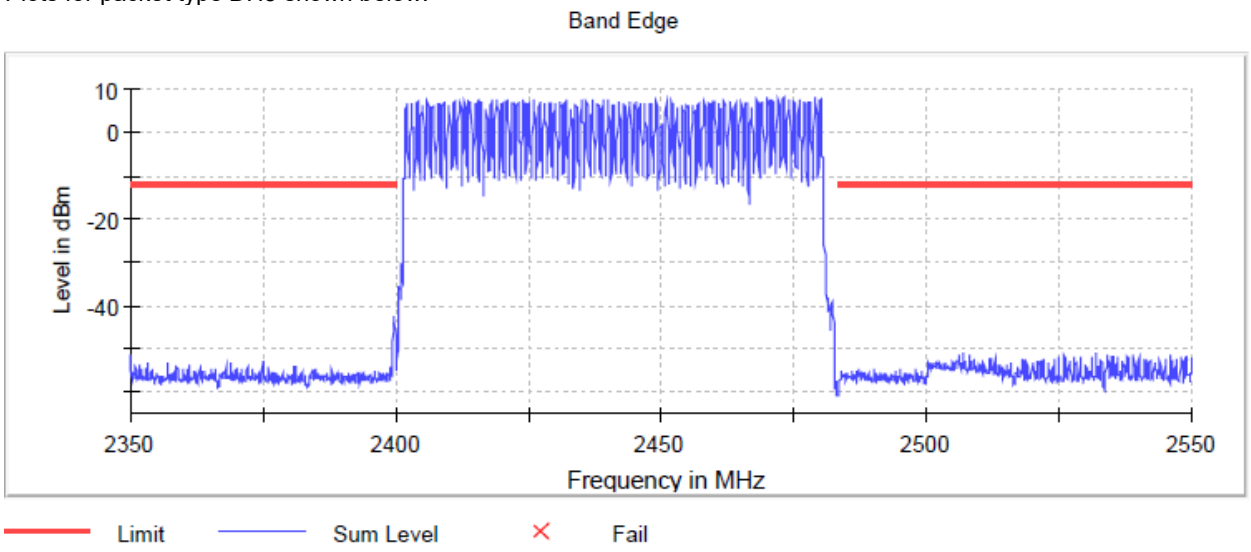
Test procedure in accordance with ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 0.8 dB

Inband Peak

Data Rate	Frequency (MHz)	Level (dBm)
DH1	2479.025000	8.0
DH3	2476.025000	8.1
DH5	2477.025000	8.0
2-DH1	2480.025000	9.3
2-DH3	2474.025000	9.1
2-DH5	2480.025000	9.3
3-DH1	2479.825000	9.3
3-DH3	2477.025000	9.1
3-DH5	2477.025000	9.2

Plots for packet type DH3 shown below.



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	2.35000 GHz	2.35000 GHz
Stop Frequency	2.55000 GHz	2.55000 GHz
Span	200.000 MHz	200.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	4000	~ 4000
Sweeptime	227.344 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	50 / max. 50	max. 50
Stable	2 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

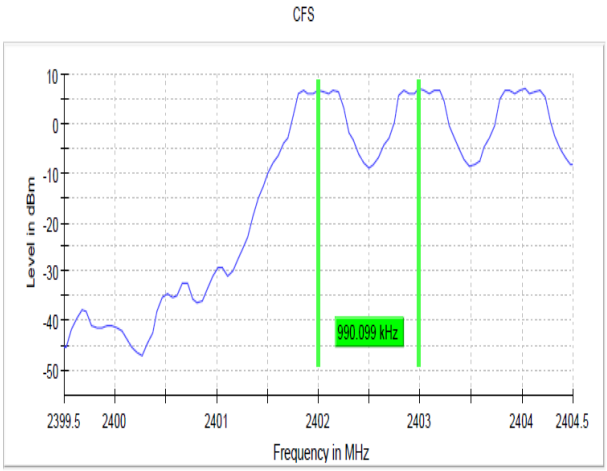
Carrier Frequency Separation

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

Hopping Mode				
Packet Type	2402MHz		2480MHz	
	Frequency Separation (MHz)	Minimum Limit (MHz)	Frequency Separation (MHz)	Minimum Limit (MHz)
DH1	0.990099	0.633664	0.990099	0.633664
DH3	0.990099	0.653465	0.990099	0.653465
DH5	0.990099	0.653465	0.990099	0.653465
2-DH1	0.990099	0.871287	0.990099	0.891089
2-DH3	0.990099	0.891089	0.990099	0.891089
2-DH5	0.990099	0.871287	0.990099	0.891089
3-DH1	0.990099	0.851485	0.990099	0.851485
3-DH3	0.990099	0.871287	0.990099	0.891089
3-DH5	0.940594	0.871287	0.990099	0.891089

*Limit is 2/3 of the widest 20dB bandwidth of the corresponding packet type.

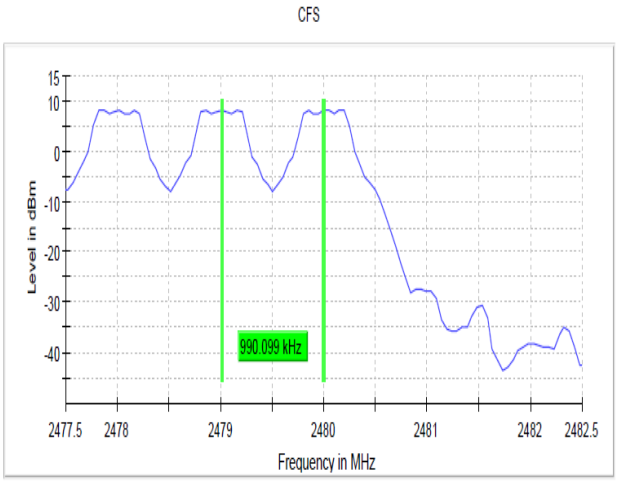
2402MHz DH1



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39950 GHz	2.39950 GHz
Stop Frequency	2.40450 GHz	2.40450 GHz
Span	5.000 MHz	5.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	100.000 kHz	>= 100.000 kHz
SweepPoints	101	~ 50
Sweeptime	100.000 ms	100.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	FFT
Preamp	off	off

2480MHz DH1



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47750 GHz	2.47750 GHz
Stop Frequency	2.48250 GHz	2.48250 GHz
Span	5.000 MHz	5.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	100.000 kHz	>= 100.000 kHz
SweepPoints	101	~ 50
Sweeptime	100.000 ms	100.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	FFT
Preamp	off	off

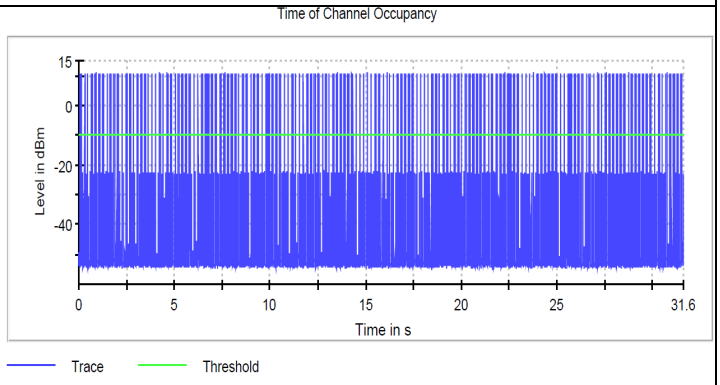
Time of Channel Occupancy (Dwell Time)

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

2402MHz

Data Rate	Time (ms)	Limit Max (ms)	Result
DH1	131.910	400.000	PASS
DH3	253.570	400.000	PASS
DH5	291.630	400.000	PASS
2-DH1	135.170	400.000	PASS
2-DH3	281.340	400.000	PASS
2-DH5	295.120	400.000	PASS
3-DH1	135.450	400.000	PASS
3-DH3	262.680	400.000	PASS
3-DH5	292.400	400.000	PASS

2402MHz DH1



2402MHz DH1

Measurement

Setting	Instrument Value	Target Value
Center Frequency	2.40200 GHz	2.40200 GHz
Span	ZeroSpan	ZeroSpan
RBW	500.000 kHz	~ 500.000 kHz
VBW	1.000 MHz	~ 1.500 MHz
SweepPoints	30001	~ 30001
Sweeptime	31.600 s	31.600 s
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	Channel	Channel
Trace Mode	Clear Write	Clear Write
Sweeptype	Sweep	AUTO
Preamp	off	off
Trigger	External	External
Trigger Offset	0.000 s	0.000 s

OSP

Setting	Instrument Value	Target Value
Measurement Time	31.600 s	31.600 s
Tracepoints	31600000	31600000
Time resolution	1.000 µs	1.000 µs
Detector	RMS	RMS

Result

DUT Frequency (MHz)	Result	Number of Hops	Average time of occupancy (ms)	Threshold (dBm)
2402.000000	PASS	319	131.910	-10.0

Periode

Min (ms)	Max (ms)	Mean (ms)
6.250	196.250	98.661

Transmit Time per Hop

Min (ms)	Max (ms)	Limit Max for Max (ms)	Limit Min for Max (ms)	Mean (ms)
0.410	0.420	400.000	0.000	0.412

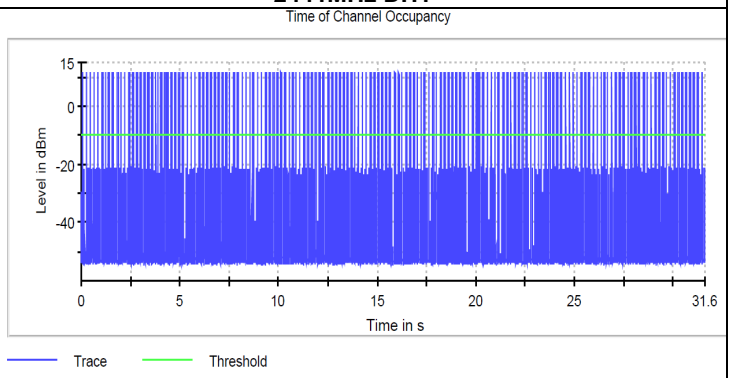
DwellTime

Min (ms)	Max (ms)	Mean (ms)
0.410	0.420	0.412

2441MHz

Data Rate	Time (ms)	Limit Max (ms)	Result
DH1	131.970	400.000	PASS
DH3	265.200	400.000	PASS
DH5	352.840	400.000	PASS
2-DH1	135.490	400.000	PASS
2-DH3	258.090	400.000	PASS
2-DH5	321.530	400.000	PASS
3-DH1	136.030	400.000	PASS
3-DH3	267.860	400.000	PASS
3-DH5	321.770	400.000	PASS

2441MHz DH1



2441MHz DH1

Measurement

Setting	Instrument Value	Target Value
Center Frequency	2.44100 GHz	2.44100 GHz
Span	ZeroSpan	ZeroSpan
RBW	500.000 kHz	~ 500.000 kHz
VBW	1.000 MHz	~ 1.500 MHz
SweepPoints	30001	~ 30001
Sweeptime	31.600 s	31.600 s
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	Channel	Channel
Trace Mode	Clear Write	Clear Write
Sweeptype	Sweep	AUTO
Preamp	off	off
Trigger	External	External
Trigger Offset	0.000 s	0.000 s

OSP

Setting	Instrument Value	Target Value
Measurement Time	31.600 s	31.600 s
Tracepoints	31600000	31600000
Time resolution	1.000 µs	1.000 µs
Detector	RMS	RMS

Result

DUT Frequency (MHz)	Result	Number of Hops	Average time of occupancy (ms)	Threshold (dBm)
2441.000000	PASS	319	131.970	-10.0

Periode

Min (ms)	Max (ms)	Mean (ms)
6.250	193.750	98.697

Transmit Time per Hop

Min (ms)	Max (ms)	Limit Max for Max (ms)	Limit Min for Max (ms)	Mean (ms)
0.410	0.420	400.000	0.000	0.412

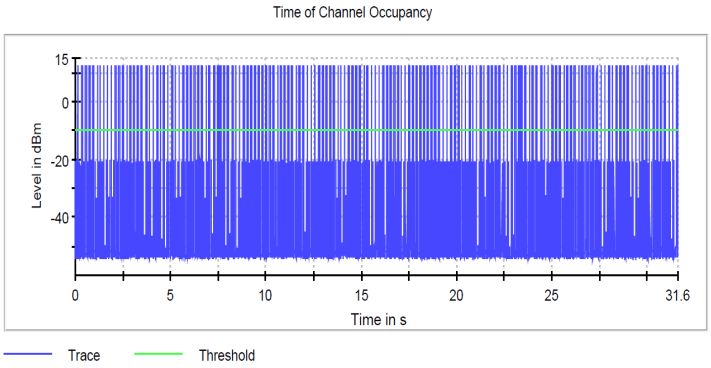
DwellTime

Min (ms)	Max (ms)	Mean (ms)
0.410	0.420	0.412

2480MHz

Data Rate	Time (ms)	Limit Max (ms)	Result
DH1	131.640	400.000	PASS
DH3	285.350	400.000	PASS
DH5	315.030	400.000	PASS
2-DH1	135.280	400.000	PASS
2-DH3	276.520	400.000	PASS
2-DH5	330.410	400.000	PASS
3-DH1	135.700	400.000	PASS
3-DH3	262.820	400.000	PASS
3-DH5	301.330	400.000	PASS

2480MHz DH1



2480MHz DH1

Measurement

Setting	Instrument Value	Target Value
Center Frequency	2.48000 GHz	2.48000 GHz
Span	ZeroSpan	ZeroSpan
RBW	500.000 kHz	~ 500.000 kHz
VBW	1.000 MHz	~ 1.500 MHz
SweepPoints	30001	~ 30001
Sweeptime	31.600 s	31.600 s
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	Channel	Channel
Trace Mode	Clear Write	Clear Write
Sweeptype	Sweep	AUTO
Preamp	off	off
Trigger	External	External
Trigger Offset	0.000 s	0.000 s

OSP

Setting	Instrument Value	Target Value
Measurement Time	31.600 s	31.600 s
Tracepoints	31600000	31600000
Time resolution	1.000 µs	1.000 µs
Detector	RMS	RMS

Result

DUT Frequency (MHz)	Result	Number of Hops	Average time of occupancy (ms)	Threshold (dBm)
2480.000000	PASS	318	131.640	-10.0

Periode

Min (ms)	Max (ms)	Mean (ms)
8.750	198.750	99.166

Transmit Time per Hop

Min (ms)	Max (ms)	Limit Max for Max (ms)	Limit Min for Max (ms)	Mean (ms)
0.410	0.420	400.000	0.000	0.413

DwellTime

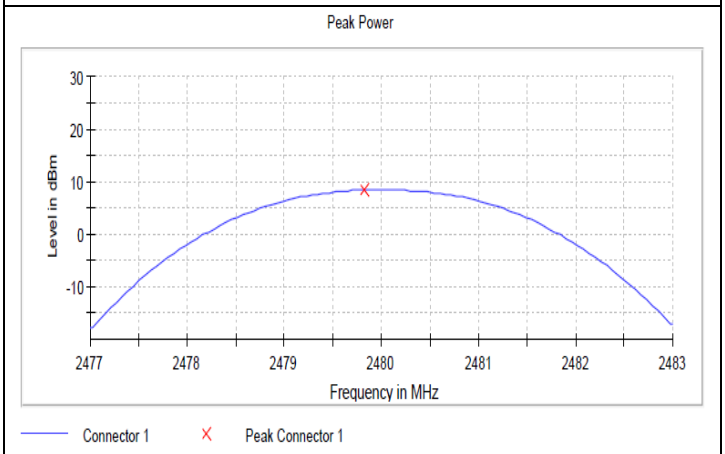
Min (ms)	Max (ms)	Mean (ms)
0.410	0.420	0.413

Peak Output Power

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.5
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Combined Uncertainty of absolute Level Measurement (K=2) < 1 dB

Data Rate	2402MHz	2441MHz	2480MHz	Limit dBm
DH1	6.902	7.518	8.311	20.96
DH3	6.883	7.497	8.294	20.96
DH5	6.861	7.507	8.265	20.96
2-DH1	5.401	6.578	7.532	20.96
2-DH3	5.745	6.736	7.637	20.96
2-DH5	5.592	6.703	7.646	20.96
3-DH1	5.704	6.353	7.576	20.96
3-DH3	5.754	6.778	7.675	20.96
3-DH5	5.824	6.663	7.712	20.96

2480MHz DH1



2480MHz DH1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47700 GHz	2.47700 GHz
Stop Frequency	2.48300 GHz	2.48300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.000 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	953.450 ns	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.03 dB	0.50 dB

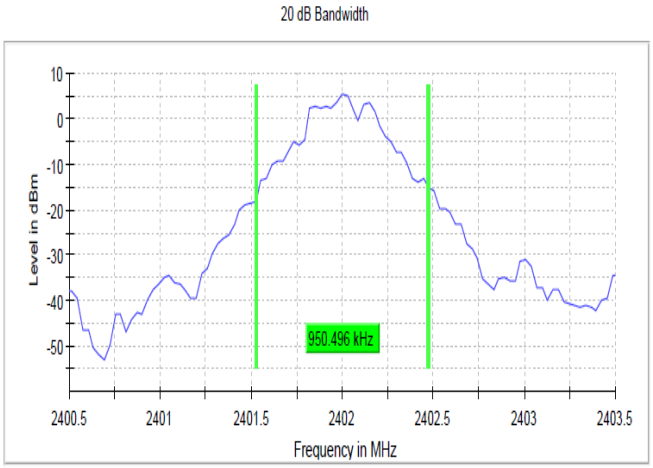
Emission Bandwidth 20 dB

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

2402MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.950496	2401.524752	2402.475248	PASS
DH3	0.980198	2401.524752	2402.504950	PASS
DH5	0.980198	2401.524752	2402.504950	PASS
2-DH1	1.306930	2401.346535	2402.653465	PASS
2-DH3	1.336633	2401.346535	2402.683168	PASS
2-DH5	1.306930	2401.346535	2402.653465	PASS
3-DH1	1.277227	2401.376238	2402.653465	PASS
3-DH3	1.306930	2401.346535	2402.653465	PASS
3-DH5	1.306930	2401.346535	2402.653465	PASS

2402MHz DH1



2402MHz DH1

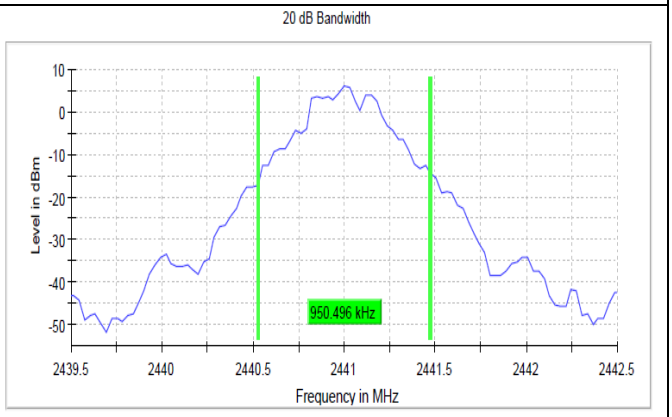
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40050 GHz	2.40050 GHz
Stop Frequency	2.40350 GHz	2.40350 GHz
Span	3.000 MHz	3.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	101	~ 101
Sweeptime	63.207 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.11 dB	0.50 dB

2441MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.950496	2440.524752	2441.475248	PASS
DH3	0.980198	2440.524752	2441.504950	PASS
DH5	0.980198	2440.524752	2441.504950	PASS
2-DH1	1.306930	2401.346535	2402.653465	PASS
2-DH3	1.336633	2440.346535	2441.683168	PASS
2-DH5	1.306930	2440.346535	2441.653465	PASS
3-DH1	1.277227	2440.376238	2441.653465	PASS
3-DH3	1.306930	2440.346535	2441.653465	PASS
3-DH5	1.306930	2440.346535	2441.653465	PASS

2441MHz DH1



2441MHz DH1

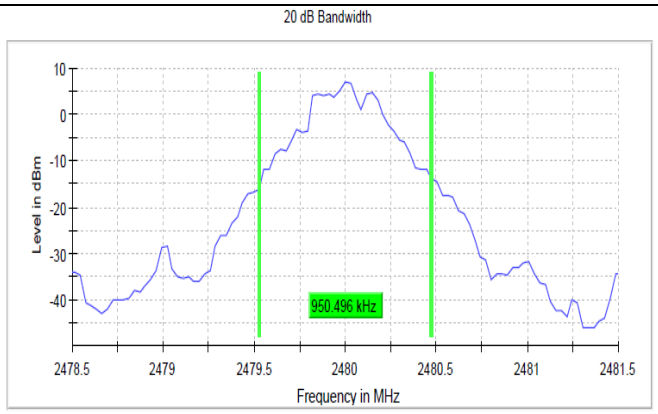
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43950 GHz	2.43950 GHz
Stop Frequency	2.44250 GHz	2.44250 GHz
Span	3.000 MHz	3.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	101	~ 101
Sweeptime	63.207 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5

2480MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.950496	2479.524752	2480.475248	PASS
DH3	0.980198	2479.524752	2480.504950	PASS
DH5	0.980198	2479.524752	2480.504950	PASS
2-DH1	1.277227	2440.346535	2441.623762	PASS
2-DH3	1.336633	2479.346535	2480.683168	PASS
2-DH5	1.336633	2479.346535	2480.683168	PASS
3-DH1	1.277227	2479.376238	2480.653465	PASS
3-DH3	1.336633	2479.346535	2480.683168	PASS
3-DH5	1.306930	2440.346535	2441.653465	PASS

2480MHz DH1



2480MHz DH1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47850 GHz	2.47850 GHz
Stop Frequency	2.48150 GHz	2.48150 GHz
Span	3.000 MHz	3.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	101	~ 101
Sweeptime	63.207 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

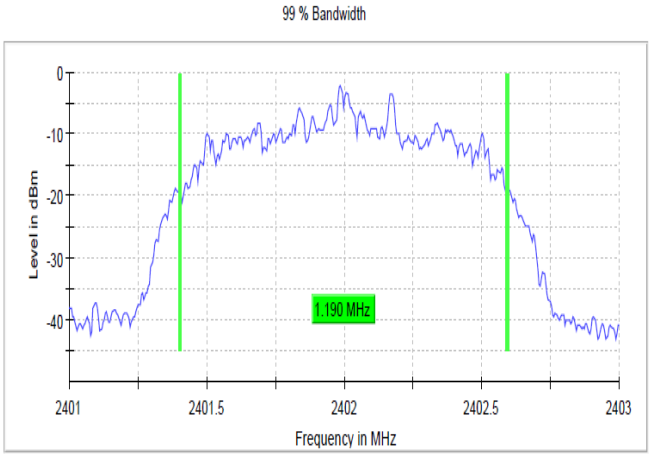
Occupied Channel Bandwidth 99%

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

2402MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.850000	2401.587500	2402.437500	PASS
DH3	0.865000	2401.572500	2402.437500	PASS
DH5	0.870000	2401.567500	2402.437500	PASS
2-DH1	1.150000	2401.422500	2402.572500	PASS
2-DH3	1.175000	2401.417500	2402.592500	PASS
2-DH5	1.170000	2401.417500	2402.587500	PASS
3-DH1	1.145000	2401.437500	2402.582500	PASS
3-DH3	1.180000	2401.407500	2402.587500	PASS
3-DH5	1.190000	2401.402500	2402.592500	PASS

2402MHz 3-DH5



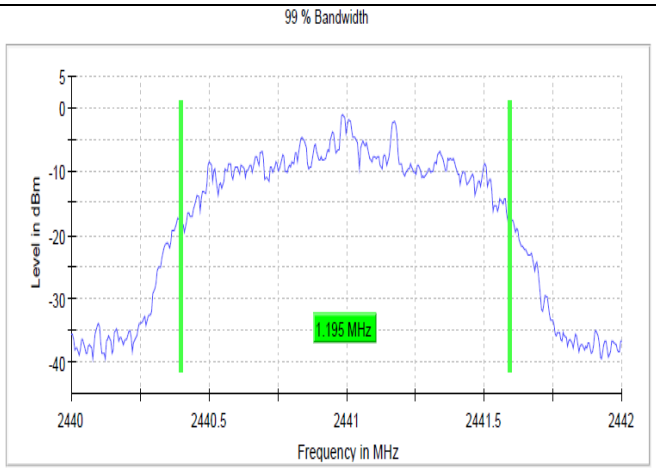
2402MHz 3-DH5

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	12 / max. 150	max. 150
Stable	6 / 6	6
Max Stable Difference	0.18 dB	0.30 dB

2441MHz	2441MHz 3-DH5

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.845000	2440.5875	2441.4325	PASS
DH3	0.860000	2440.5725	2441.4325	PASS
DH5	0.870000	2440.5675	2441.4375	PASS
2-DH1	1.155000	2440.4175	2441.5725	PASS
2-DH3	1.185000	2440.4125	2441.5975	PASS
2-DH5	1.175000	2440.4175	2441.5925	PASS
3-DH1	1.160000	2440.4325	2441.5925	PASS
3-DH3	1.195000	2440.3975	2441.5925	PASS
3-DH5	1.195000	2440.3975	2441.5925	PASS



2441MHz 3-DH5

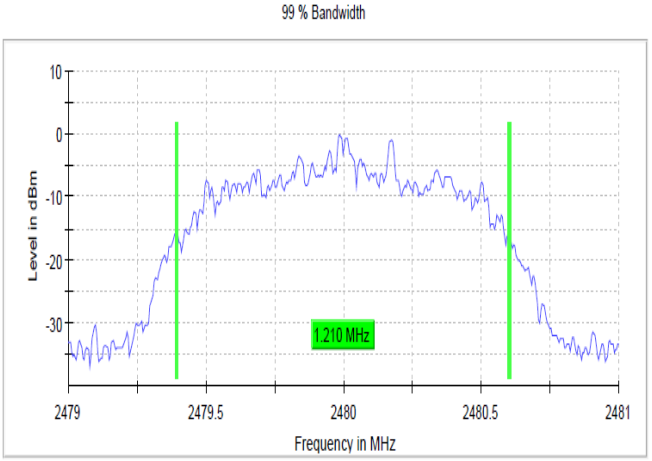
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

2480MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.850000	2479.587500	2480.437500	PASS
DH3	0.865000	2479.572500	2480.437500	PASS
DH5	0.875000	2479.567500	2480.442500	PASS
2-DH1	1.170000	2479.412500	2480.582500	PASS
2-DH3	1.195000	2479.407500	2480.602500	PASS
2-DH5	1.190000	2479.412500	2480.602500	PASS
3-DH1	1.165000	2479.432500	2480.597500	PASS
3-DH3	1.205000	2479.392500	2480.597500	PASS
3-DH5	1.210000	2479.392500	2480.602500	PASS

2480MHz 3-DH5



2480MHz 3-DH5

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	11 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.07 dB	0.30 dB

Band Edge Low (2402 MHz)

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

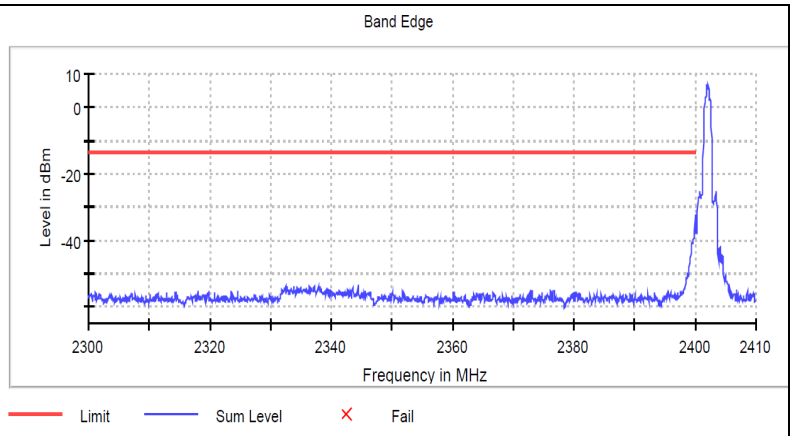
Inband Peak

Data Rate	Frequency (MHz)	Level (dBm)
DH1	2402.025000	6.7
DH3	2402.025000	6.7
DH5	2402.175000	8.8
2-DH1	2402.025000	6.8
2-DH3	2402.025000	6.8
2-DH5	2402.025000	6.8
3-DH1	2402.025000	6.8
3-DH3	2402.025000	6.8
3-DH5	2402.025000	6.8

2402 MHz 3-DH5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.975000	-32.5	19.3	-13.2	PASS
2399.925000	-36.8	23.6	-13.2	PASS
2399.775000	-38.5	25.3	-13.2	PASS
2399.875000	-38.6	25.3	-13.2	PASS
2399.825000	-38.7	25.5	-13.2	PASS
2399.725000	-39.1	25.9	-13.2	PASS
2399.675000	-39.7	26.5	-13.2	PASS
2399.625000	-40.3	27.1	-13.2	PASS
2399.525000	-40.4	27.2	-13.2	PASS
2399.475000	-40.7	27.4	-13.2	PASS
2399.425000	-40.9	27.7	-13.2	PASS
2399.575000	-40.9	27.7	-13.2	PASS
2399.375000	-41.8	28.6	-13.2	PASS
2399.325000	-42.0	28.8	-13.2	PASS
2399.275000	-43.9	30.7	-13.2	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	2.30000 GHz	2.30000 GHz
Stop Frequency	2.41000 GHz	2.41000 GHz
Span	110.000 MHz	110.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2200	~ 2200
Sweeptime	132.617 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 30	max. 30
Stable	3 / 3	3
Max Stable Difference	0.20 dB	0.50 dB

Band Edge High (2480 MHz)

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

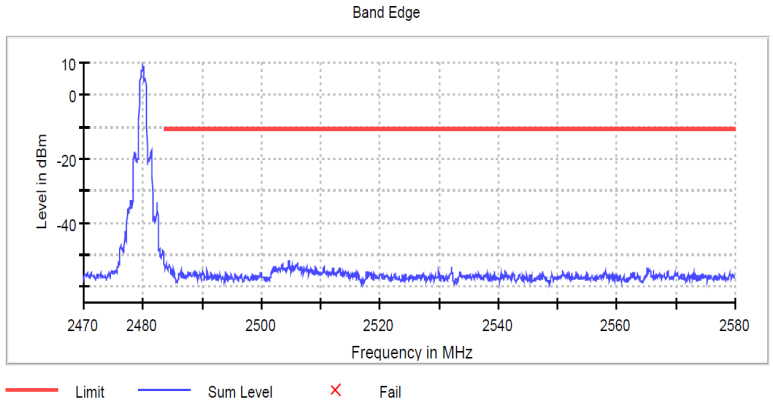
Inband Peak

Data Rate	Frequency (MHz)	Level (dBm)
DH1	2480.025000	8.3
DH3	2480.025000	8.3
DH5	2480.025000	10.4
2-DH1	2480.025000	9.3
2-DH3	2480.025000	9.3
2-DH5	2480.025000	9.3
3-DH1	2479.825000	9.4
3-DH3	2480.025000	9.3
3-DH5	2480.025000	9.3

2480 MHz DH5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.525000	-49.1	38.4	-10.7	PASS
2483.575000	-49.4	38.7	-10.7	PASS
2504.675000	-51.8	41.0	-10.7	PASS
2504.625000	-51.8	41.1	-10.7	PASS
2506.125000	-52.4	41.7	-10.7	PASS
2483.625000	-52.6	41.9	-10.7	PASS
2505.875000	-52.6	41.9	-10.7	PASS
2506.075000	-52.8	42.1	-10.7	PASS
2503.575000	-52.8	42.1	-10.7	PASS
2505.925000	-52.9	42.1	-10.7	PASS
2483.925000	-52.9	42.2	-10.7	PASS
2484.425000	-53.0	42.3	-10.7	PASS
2484.475000	-53.0	42.3	-10.7	PASS
2483.975000	-53.1	42.4	-10.7	PASS
2484.525000	-53.1	42.4	-10.7	PASS



Measurement 1

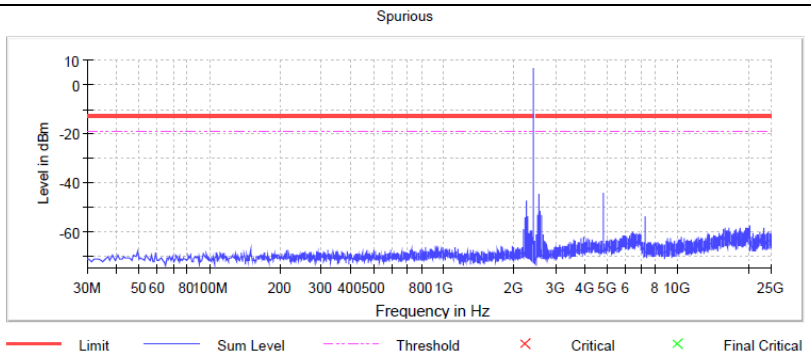
Setting	Instrument Value	Target Value
Start Frequency	2.47000 GHz	2.47000 GHz
Stop Frequency	2.58000 GHz	2.58000 GHz
Span	110.000 MHz	110.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2200	~ 2200
Sweeptime	132.617 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	17 / max. 30	max. 30
Stable	3 / 3	3
Max Stable Difference	0.08 dB	0.50 dB

Conducted Spurious Emissions

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

2402 MHz DH1

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4804.192838	-43.9	30.9	-13.0
2557.743352	-44.6	31.6	-13.0
2246.408393	-47.4	34.4	-13.0
2245.628105	-49.9	36.9	-13.0
2531.993844	-51.4	38.4	-13.0
2584.273148	-51.8	38.8	-13.0
2506.244336	-53.2	40.2	-13.0
2610.022656	-53.3	40.4	-13.0
7205.919659	-53.8	40.9	-13.0
2272.157901	-53.9	41.0	-13.0
2219.878598	-54.2	41.3	-13.0
2297.907409	-55.0	42.0	-13.0
20228.928315	-57.4	44.4	-13.0
2562.425080	-58.1	45.2	-13.0
20244.534077	-58.2	45.2	-13.0



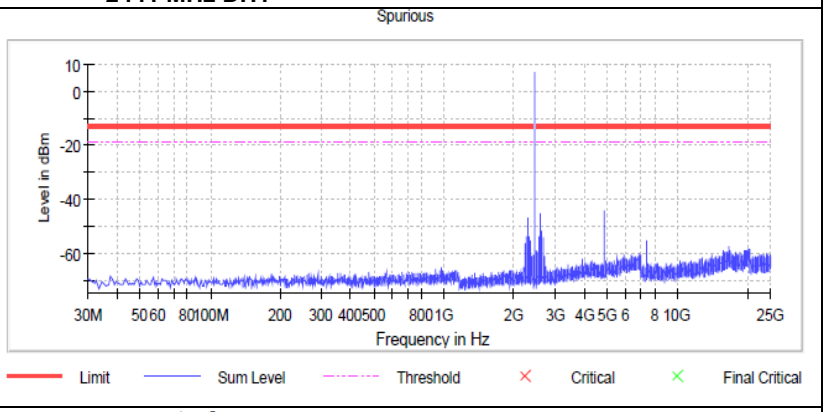
Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	32001	~ 32001
Sweeptime	250.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 10	max. 10
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

2441 MHz DH1

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4882.221649	-44.2	31.4	-12.8
2596.757758	-45.0	32.2	-12.8
2285.422799	-46.9	34.1	-12.8
2284.642511	-47.2	34.4	-12.8
2623.287554	-51.7	38.9	-12.8
2571.008250	-52.1	39.3	-12.8
2545.258742	-53.6	40.8	-12.8
2258.893003	-53.8	41.0	-12.8
2311.172307	-53.9	41.1	-12.8
2649.037061	-54.1	41.3	-12.8
7322.962876	-55.3	42.5	-12.8
2336.921815	-55.5	42.7	-12.8
2233.143496	-56.5	43.7	-12.8
16447.652105	-57.5	44.7	-12.8
2600.659198	-58.0	45.1	-12.8



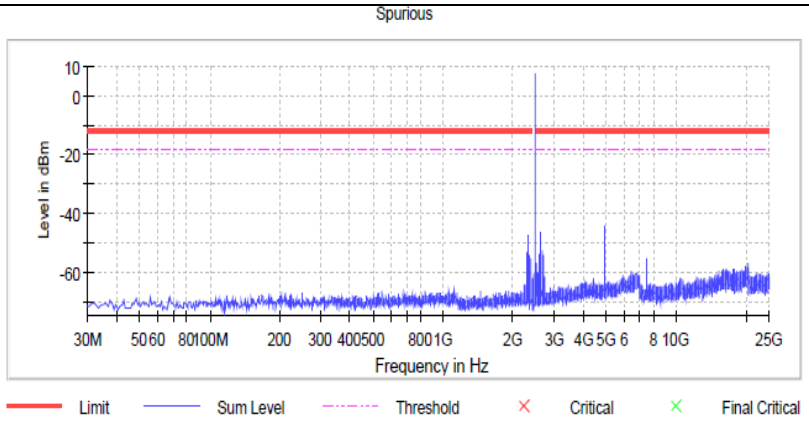
Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	32001	~ 32001
Sweeptime	250.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 10	max. 10
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.50 dB

2480 MHz DH1

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4960.250461	-44.1	32.2	-12.0
2635.772163	-46.4	34.4	-12.0
2323.656917	-47.6	35.7	-12.0
2324.437205	-49.7	37.7	-12.0
2610.022656	-51.8	39.9	-12.0
2662.301959	-52.4	40.5	-12.0
2297.907409	-53.3	41.4	-12.0
2584.273148	-53.6	41.6	-12.0
2688.051467	-54.1	42.1	-12.0
2350.186713	-54.3	42.3	-12.0
2272.157901	-55.0	43.0	-12.0
7440.006094	-55.2	43.2	-12.0
2375.936221	-55.6	43.6	-12.0
20241.412925	-56.7	44.7	-12.0
2506.244336	-56.7	44.7	-12.0



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	32001	~ 32001
Sweeptime	250.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 10	max. 10
Stable	3 / 3	3
Max Stable Difference	0.01 dB	0.50 dB