Monster, LLC.

Application
For
Certification

FCC ID: RJE191323

Monster Bluetooth Speaker

Model: 191323

Brand name: MONSTER

2.4GHz Transceiver

Report No.: 170816029SZN-003

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-16]

Prepared and Checked by:	Approved by:
Sign on file	Digitally signed by Kidd Yang Location: Intertek Testing Services
Damon Wang Engineer	Kidd Yang Senior Project Engineer Date: September 13, 2017

TRF no.: FCC 15C_Tx_c

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LIST OF EXHIBITS

MEASUREMENT/TECHNICAL REPORT

Monster, LLC. - MODEL: 191323

Monster Bluetooth Speaker

FCC ID: RJE191323

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

Equipment Type: DTS - Part 15 Digital Transmission Systems (Bluetooth LE portion)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes _____ No ___X___

If yes, defer until : _____ date

Company Name agrees to notify the Commission by: _____ date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes _____ No ___X___

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-16 Edition] provision.

Report prepared by:

Damon Wang
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Exhibit Type	File Description	Filename
Cover Letter	Letter of Agency	agency.pdf
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
Operation Description	Technical Description	descri.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Confidentiality Letter	request.pdf

EXHIBIT 1

SUMMARY OF TEST RESULTS

1.0 Summary of Test

Monster, LLC. - MODEL: 191323

FCC ID: RJE191323

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

EXHIBIT 2

GENERAL DESCRIPTION

2.0 **General Description**

2.1 Product Description

The equipment under test (EUT) is a Monster Bluetooth speaker with Bluetooth FHSS technology operating in 2402-2480MHz. The EUT is powered by DC 3.7V lithium battery which can be charged by USB port. The USB port is only use for charging purpose. For more detail information pls. refer to the user manual.

Bluetooth Version: 4.2 (dual-mode)
Antenna Type: Integral antenna
Antenna Gain: 0 dBi
Modulation Type: GFSK, π/4-DQPSK and 8-DPSK

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

2.2 Related Submittal(s) Grants

This is an application for certification of transceiver for the Monster Bluetooth Speaker which has Bluetooth function(Bluetooth low energy mode), and for the classic Bluetooth mode was tested and demonstrated in report 170816029SZN-002.

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013) and KDB 558074 D01 v04. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The Semi-anechoic chamber and shielding room used to collect the radiated data and conducted data are **Intertek Testing Services Shenzhen Ltd. Longhua Branch** and located at 1F/2F, Building B, QiaoAn Scientific Technology Park, Shangkeng Community, Guanhu Subdistrict, Longhua District, Shenzhen, P.R. China. This test facility and site measurement data have been fully placed on file with File Number: CN1188.

EXHIBIT 3

SYSTEM TEST CONFIGURATION

3.0 System Test Configuration

3.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in ANSI C63.10 (2013).

The EUT was powered by Rechargeable battery (DC 3.7V, 600mAh) which was charged by adapter or PC with 120V/60Hz input during the test.

All packets DH1, DH3 & DH5 mode in modulation type GFSK was tested and only the worst data was reported in this report.

For maximizing emissions, the EUT was rotated through 360°, the antenna height was varied from 1 meter to 4 meters above the ground plane, and the antenna polarization was changed. This step by step procedure for maximizing emissions led to the data reported in Exhibit 3.0.

The rear of unit shall be flushed with the rear of the table.

The equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). The EUT was placed on a turn table, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

3.2 EUT Exercising Software

The EUT exercise program (provided by client) used during testing was designed to exercise the various system components in a manner similar to a typical use.

3.3 Special Accessories

No special accessory attached.

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance – Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by Monster, LLC. will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Longhua Branch.

3.6 Support Equipment List and Description

This product was tested in the following configuration:

Description	Manufacturer	Model No.
iPod	Apple	A1367
Aux In Cable	N/A	Unshielded, Length 100cm
USB cable	Monster, LLC.	N/A
PC	HP	430
AC Adapter	G-TiDE	HJ-050100

EXHIBIT 4

MEASUREMENT RESULTS

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.0 **Measurement Results**

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

[×] The antenna power of the EUT was connected to the input of a broadband peak RF power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

Packet: DH1

Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2402	1.77	1.50
Middle Channel: 2440	2.57	1.81
High Channel: 2480	3.00	2.00

Cable loss: 1.0 dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

EUT dBm max. output level = 3.00dBm

For RF Exposure, the information is saved with filename: analysis report.pdf.

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

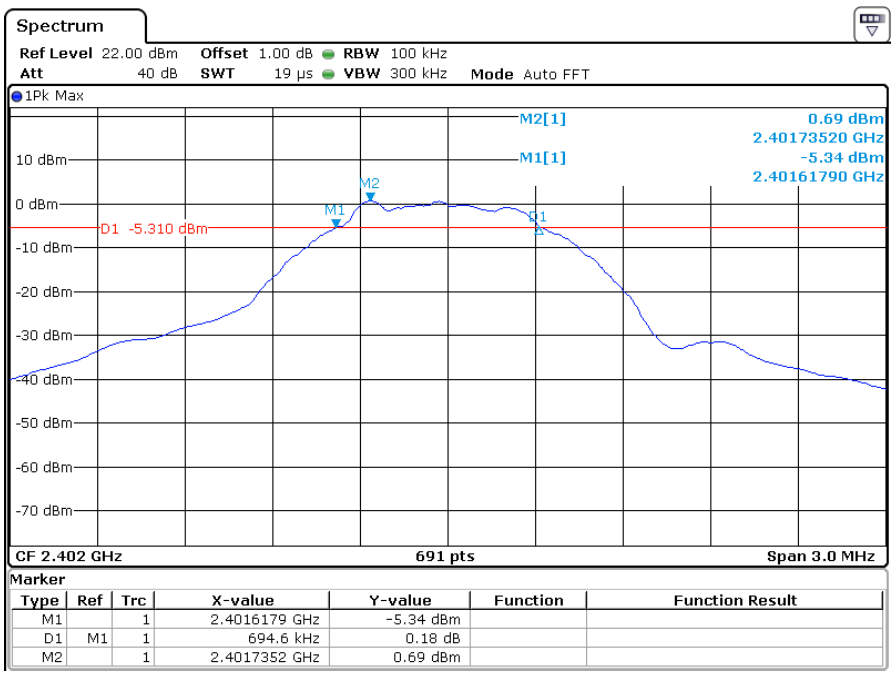
The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was set to 100 KHz according to FCC KDB 558074 D01 v04. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

Limit: The 6 dB Bandwidth is at least 500 kHz.
Packet: DH1

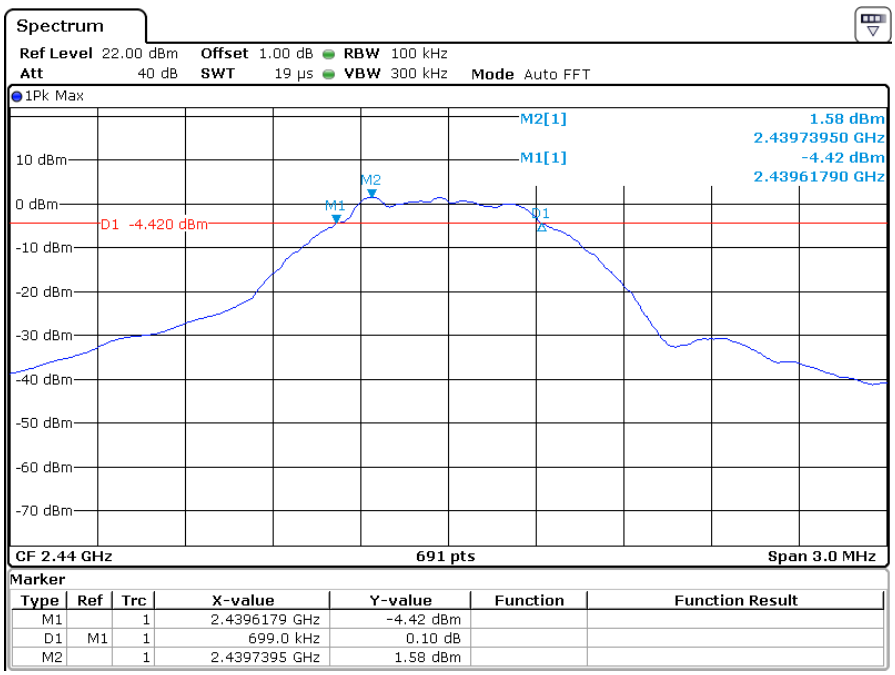
Frequency (MHz)	6 dB Bandwidth (KHz)
2402	694.6
2440	699.0
2480	694.6

The test plots are attached as below.

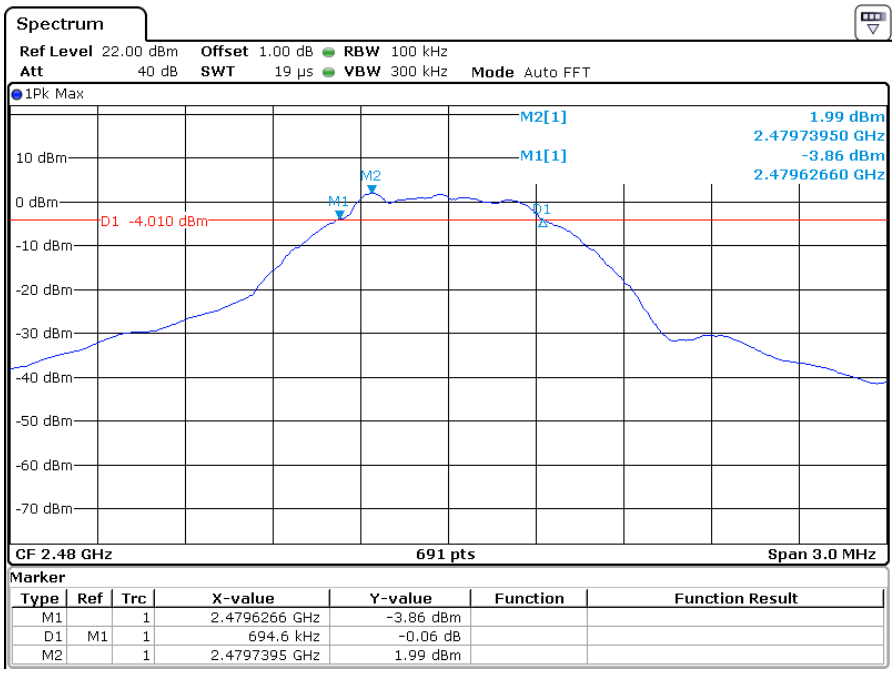
Low Channel



Middle Channel



High Channel



Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.3 Maximum Power Density Reading, FCC Rule 15.247(e):

The Measurement Procedure PKPSD was set according to the FCC KDB 558074 D01 v04.

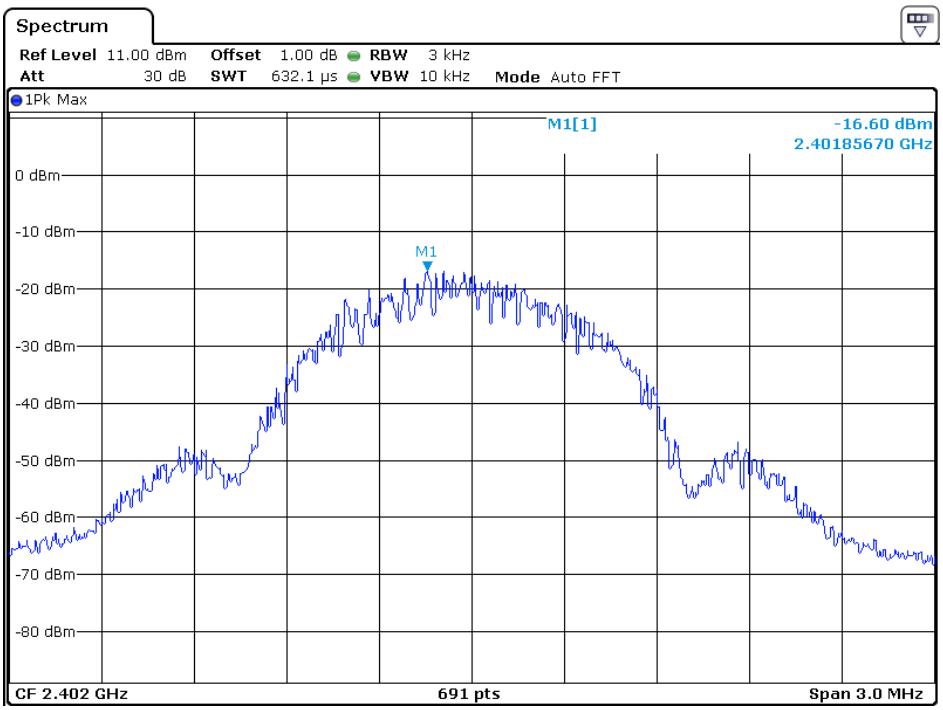
Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

Limit: The Power Density does not exceed 8dBm/ 3 kHz.
Packet: DH1

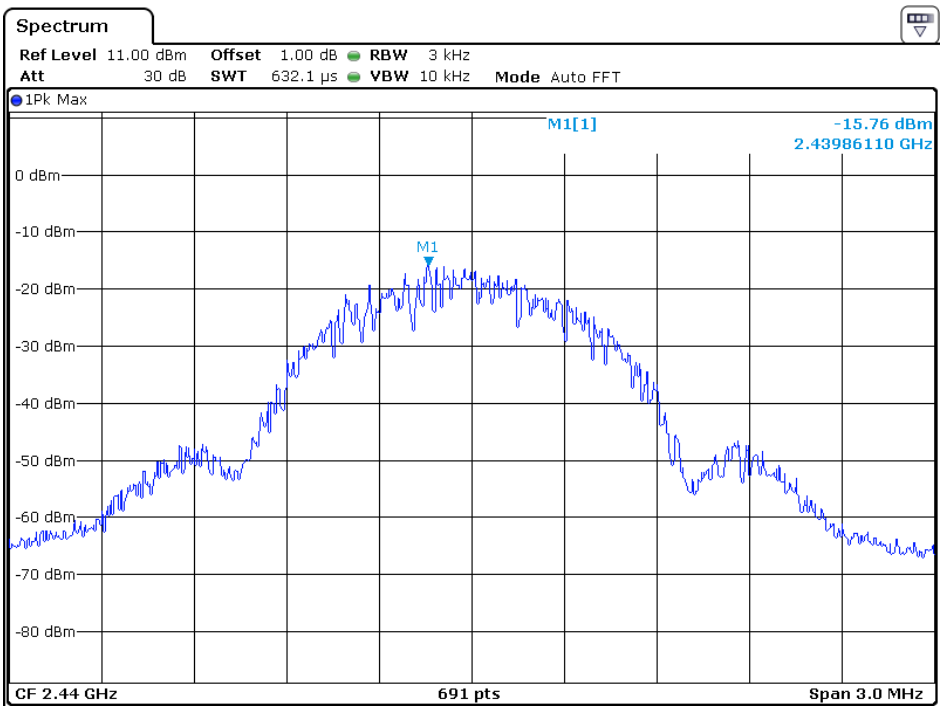
Frequency (MHz)	Power Density with RBW 3KHz
2402	-16.6
2440	-15.76
2480	-14.57

The test plots are attached as below.

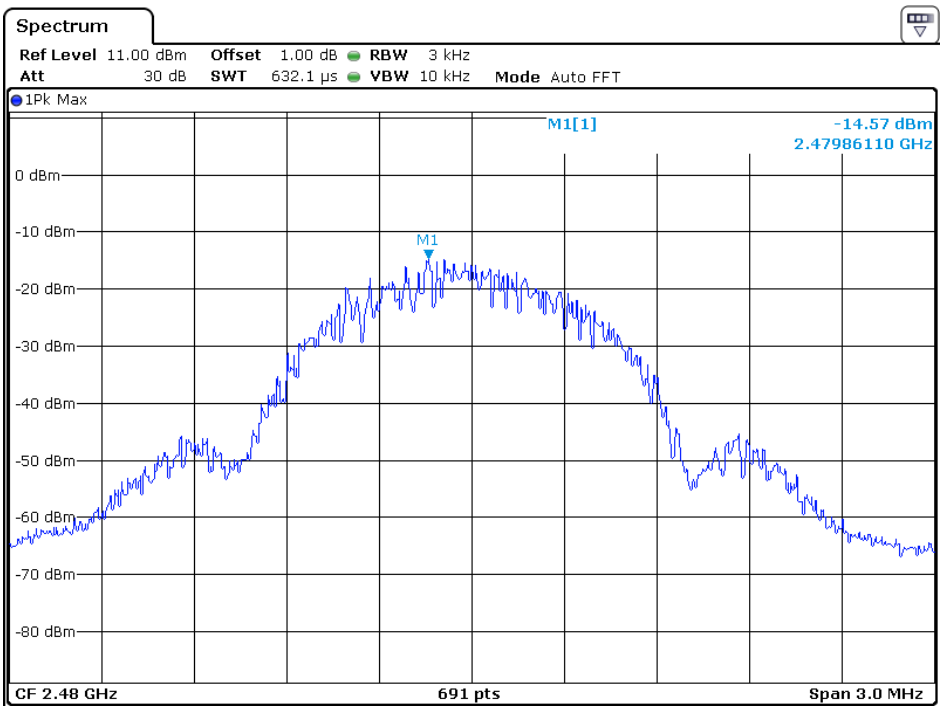
Low Channel



Middle Channel



High Channel



Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation. The Measurement Procedure was set according to the FCC KDB 558074 D01 v04.

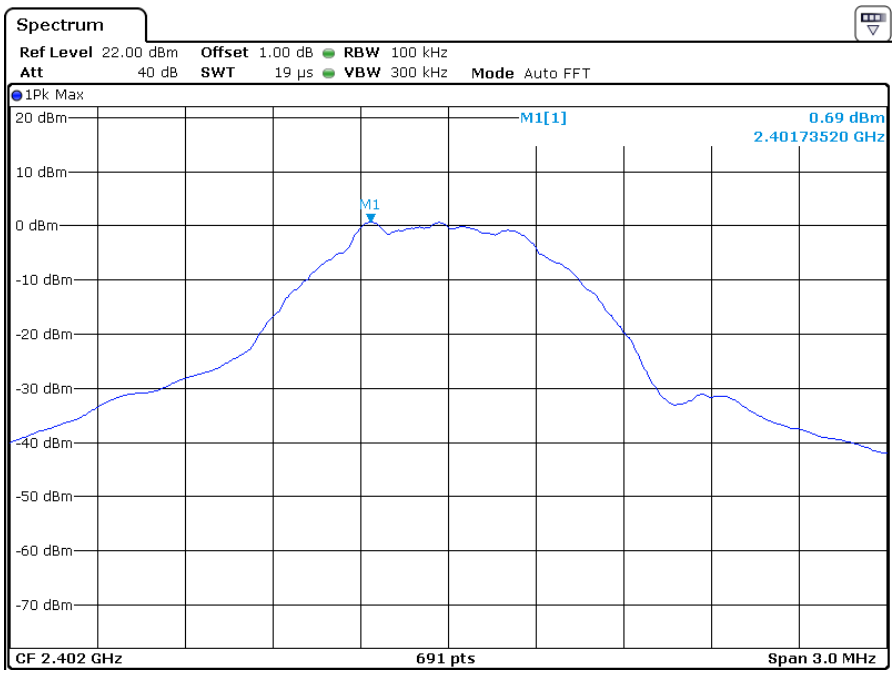
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

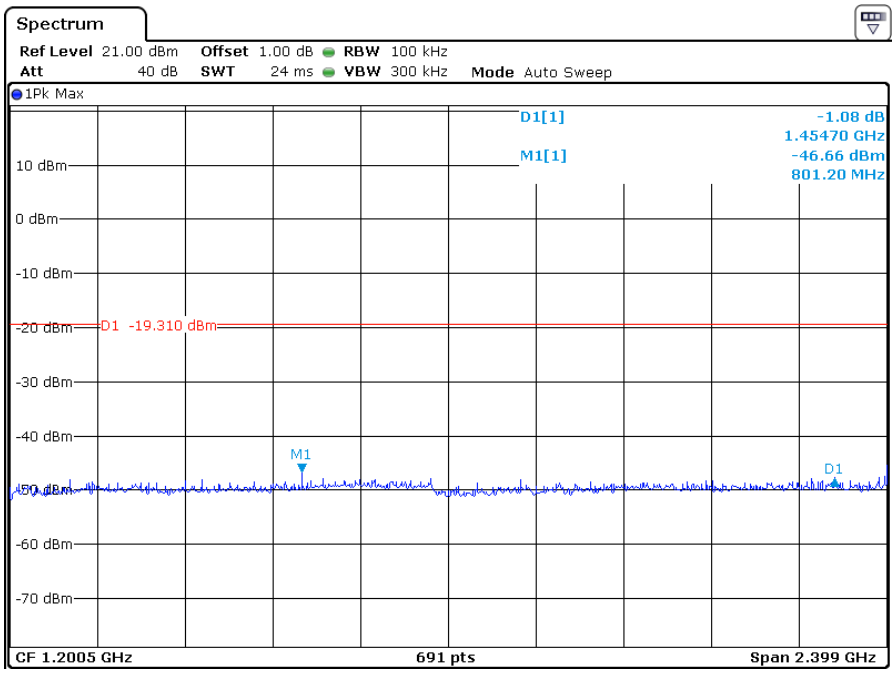
Refer to the attached test plot for out of band conducted emissions data with Packet: DH1

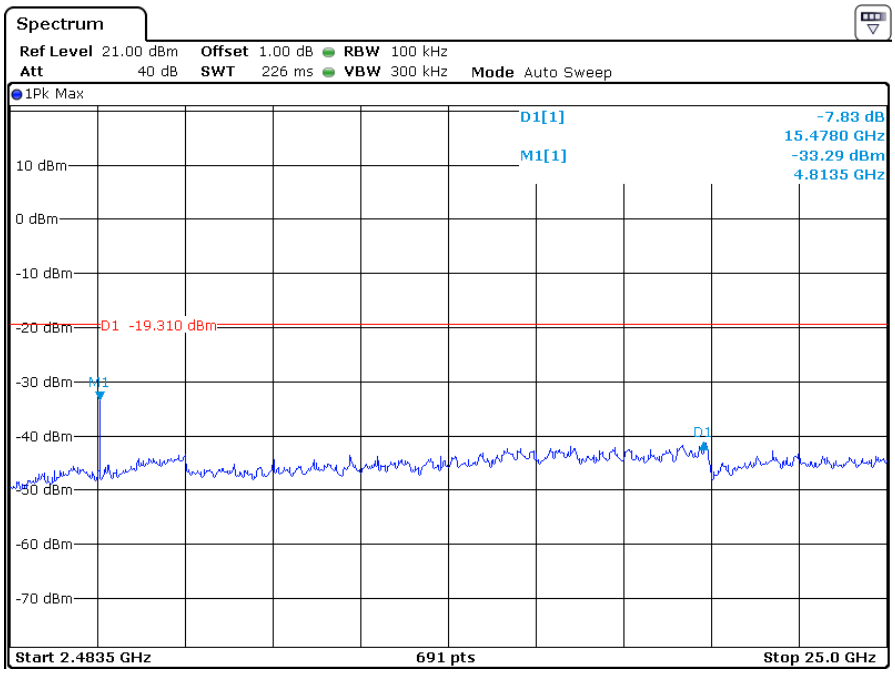
The test plots showed all spurious emission and up to the tenth harmonic were measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

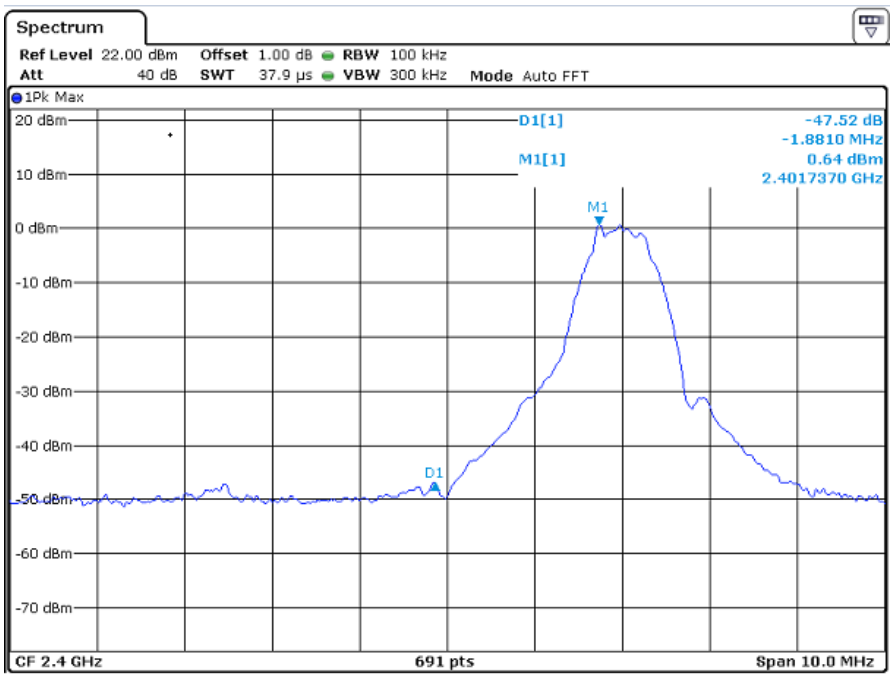
The test plots are attached as below.

Low Channel Reference Level: 0.69dBm

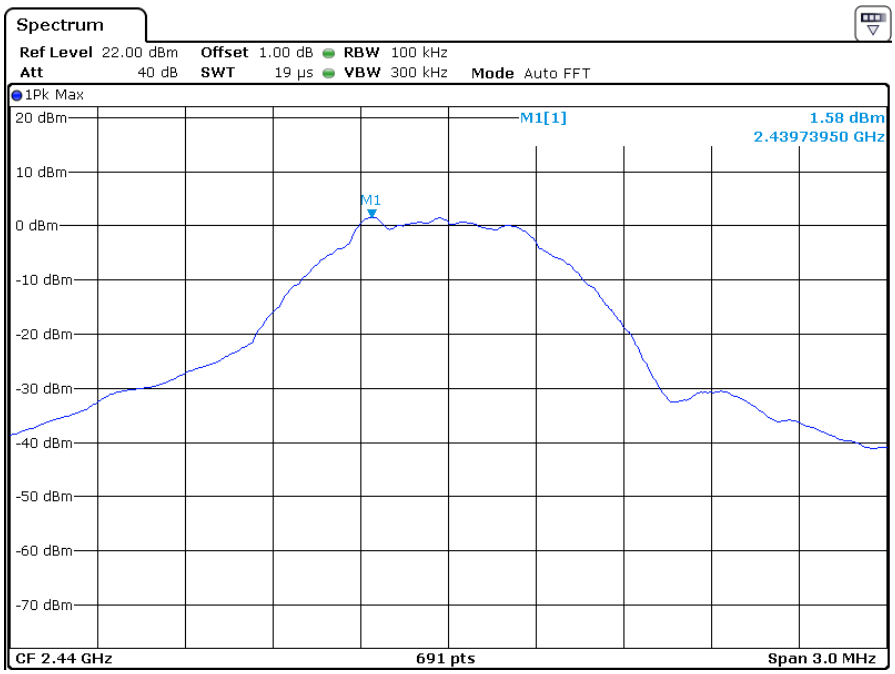


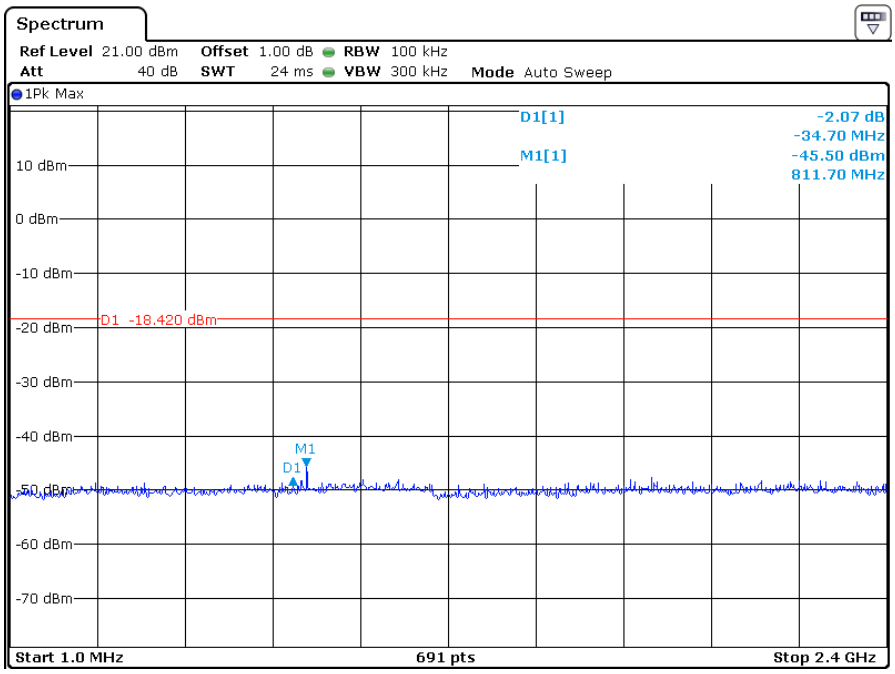


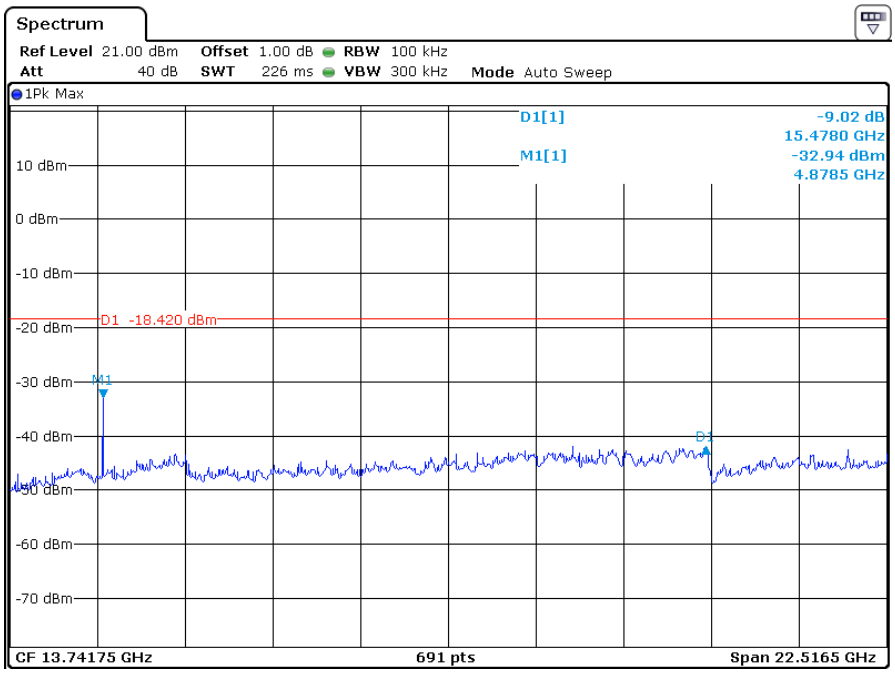

Spectrum
Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz
Att 40 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
D1[1] -7.83 dB
15.4780 GHz
M1[1] -33.29 dBm
4.8135 GHz
10 dBm
0 dBm
-10 dBm
-20 dBm
D1 -19.310 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
D1
Start 2.4835 GHz
691 pts
Stop 25.0 GHz


Spectrum
Ref Level 22.00 dBm Offset 1.00 dB RBW 100 kHz
Att 40 dB SWT 37.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] -47.52 dB
-1.8810 MHz
M1[1] 0.64 dBm
2.4017370 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
D1
CF 2.4 GHz
691 pts
Span 10.0 MHz

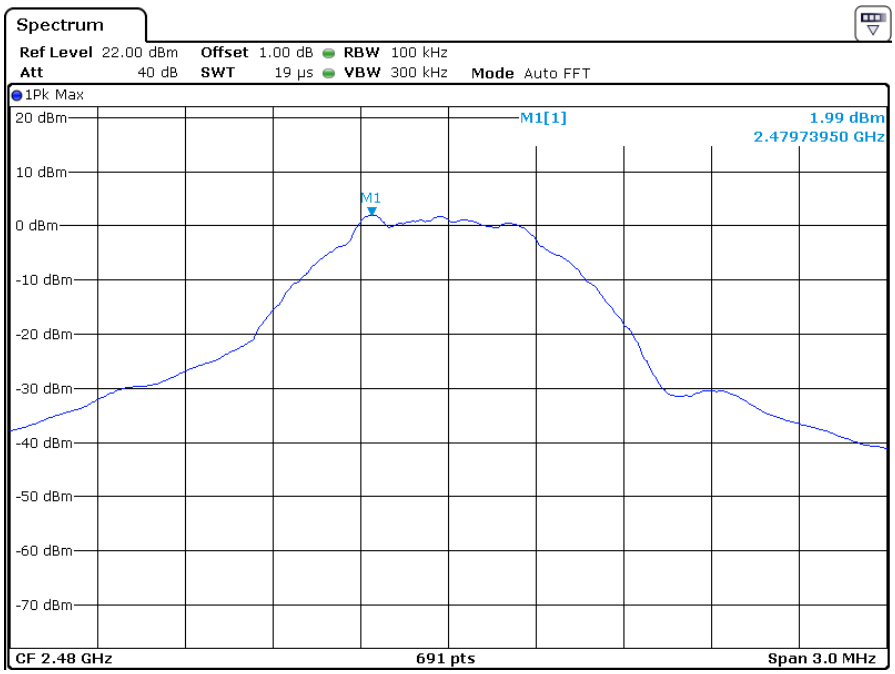
Middle Channel Reference Level: 1.58dBm

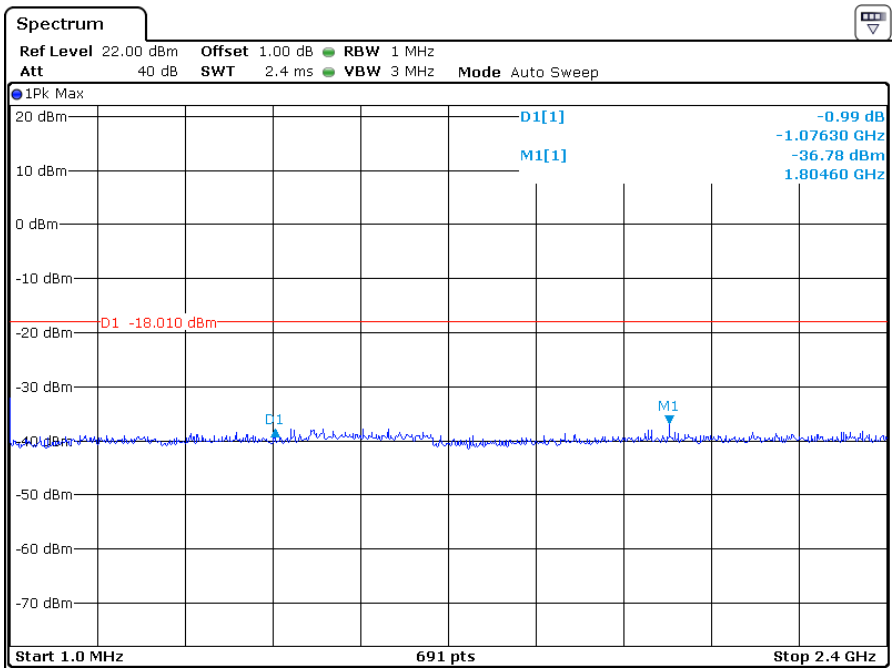


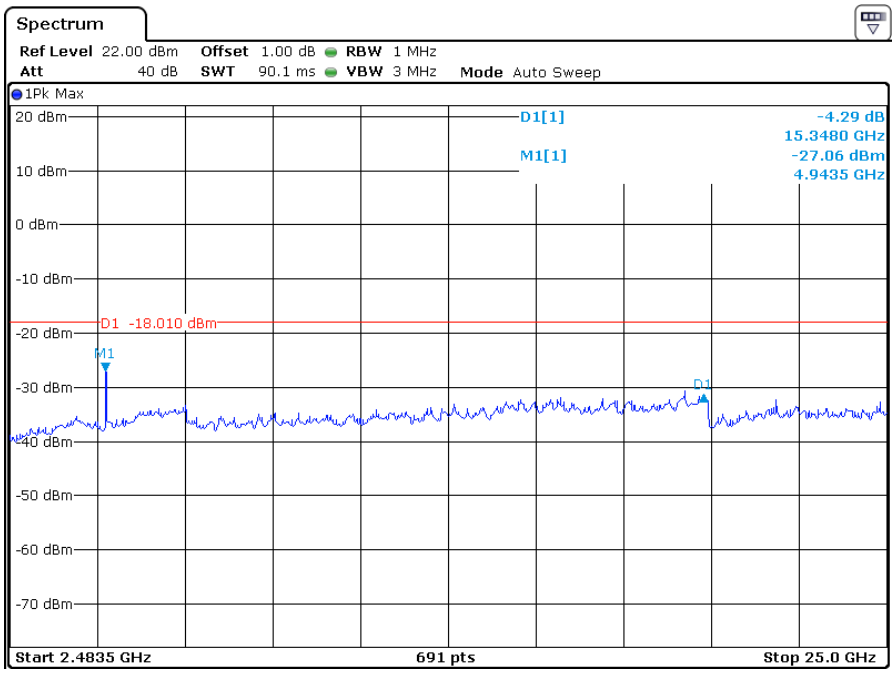


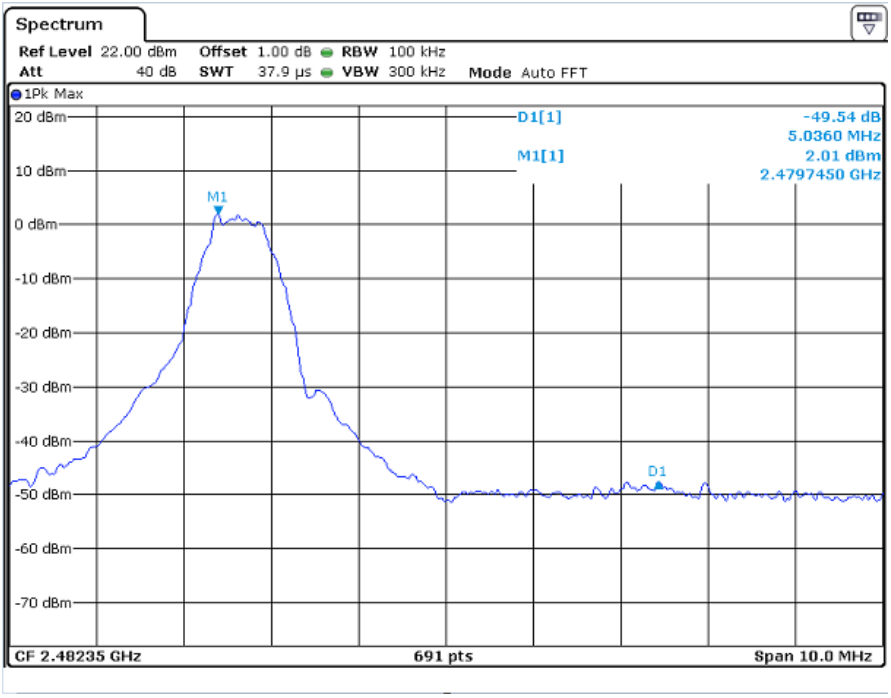

Spectrum
Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz
Att 40 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
D1[1] -9.02 dB
15.4780 GHz
M1[1] -32.94 dBm
4.8785 GHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
D1 -18.420 dBm
M1
CF 13.74175 GHz
691 pts
Span 22.5165 GHz

High Channel Reference Level: 1.99dBm






Spectrum
Ref Level 22.00 dBm Offset 1.00 dB RBW 1 MHz
Att 40 dB SWT 90.1 ms VBW 3 MHz Mode Auto Sweep
1Pk Max
D1[1] -4.29 dB
15.3480 GHz
M1[1] -27.06 dBm
4.9435 GHz
D1 -18.010 dBm
Start 2.4835 GHz
691 pts
Stop 25.0 GHz


Spectrum
Ref Level 22.00 dBm Offset 1.00 dB RBW 100 kHz
Att 40 dB SWT 37.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] -49.54 dB
5.0360 MHz
M1[1] 2.01 dBm
2.4797450 GHz
CF 2.48235 GHz
691 pts
Span 10.0 MHz

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

[×] Not required, since all emissions are more than 20dB below fundamental
[ ] See attached data sheet

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD

Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD

Example
Assume a receiver reading of 62.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB. The net field strength for comparison to the appropriate emission limit is 42 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 dBμV/m

Level in mV/m = Common Antilogarithm [(42 dBμV/m)/20] = 125.9 μV/m

4.7.1 Radiated Emission Configuration Photograph

For electronic filing, the worst case radiated emission configuration photograph is saved with filename: radiated photos. pdf.

4.7.2 Radiated Emissions- FCC section 15.209

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Worst Case Radiated Emission

at 144.000 MHz

Judgement: Passed by 15.3 dB

TEST PERSONNEL:

Sign on file

Damon wang, Engineer
Typed/Printed Name

August 18, 2017
Date

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323
Worst Case Operating Mode: BT Link
Modulation type: GFSK

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	144.000	37.5	20.0	10.7	28.2	43.5	-15.3
Horizontal	192.000	29.7	20.0	15.0	24.7	43.5	-18.8
Horizontal	288.000	28.6	20.0	18.5	27.1	46.0	-18.9
Vertical	38.245	31.8	20.0	11.1	22.9	40.0	-17.1
Vertical	66.375	32.5	20.0	11.3	23.8	40.0	-16.2
Vertical	140.580	18.6	20.0	25.3	23.9	43.5	-19.6

NOTES:
1. Quasi-Peak detector is used except for others stated.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. All emissions are below the QP limit.

4.7.3 Transmitter Spurious Emissions (Radiated) - FCC section 15.209

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Worst Case Radiated Emission

at 7320.000 MHz

Judgement: Passed by 16.8 dB

TEST PERSONNEL:

Sign on file

Damon wang, Engineer
Typed/Printed Name

August 18, 2017
Date

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323
Mode: Packet DH1 (TX-Channel 2402MHz)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4804.000	53.0	36.1	34.2	51.1	74.0	-22.9
Horizontal	*2388.300	65.3	36.7	28.4	57.0	74.0	-17.0

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4804.000	30.5	36.1	34.2	28.6	54.0	-25.4
Horizontal	*2388.300	42.8	36.7	28.4	34.5	54.0	-19.5

NOTES: 1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data; RBW=1MHz, VBW=10Hz for Average data).

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323
Mode: Packet DH1 (TX-Channel 2440MHz)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4880.000	52.6	36.1	34.6	51.1	74.0	-22.9
Horizontal	*7320.000	55.4	35.6	37.1	56.9	74.0	-17.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4880.000	31.2	36.1	34.6	29.7	54.0	-24.3
Horizontal	*7320.000	31.7	35.6	37.1	33.2	54.0	-20.8

NOTES: 1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data; RBW=1MHz, VBW=10Hz for Average data).

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323
Mode: Packet DH1 (TX-Channel 2480MHz)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4960.000	53.1	36.1	34.6	51.6	74.0	-22.4
Horizontal	*7440.000	55.6	35.6	37.2	57.2	74.0	-16.8

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4604.000	29.8	36.1	34.6	28.3	54.0	-25.7
Horizontal	*7440.000	31.6	35.6	37.2	33.2	54.0	-20.8

NOTES:1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data; RBW=1MHz, VBW=10Hz for Average data).

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

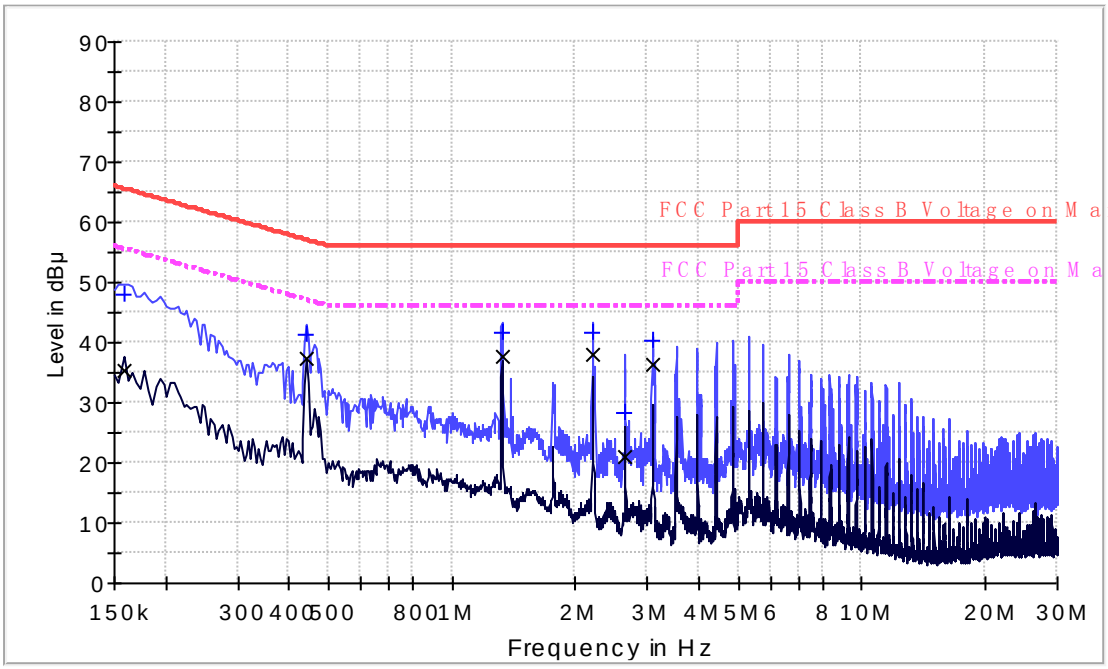
4.8 Conducted Emission

Worst Case Conducted emission at 2.206 MHz is Passed by 8.0 dB margin

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323
Worst Case Operating Mode: BT Link
Modulation type: GFSK
Phase: Live

Conducted Emission Test - FCC



Result Table QP

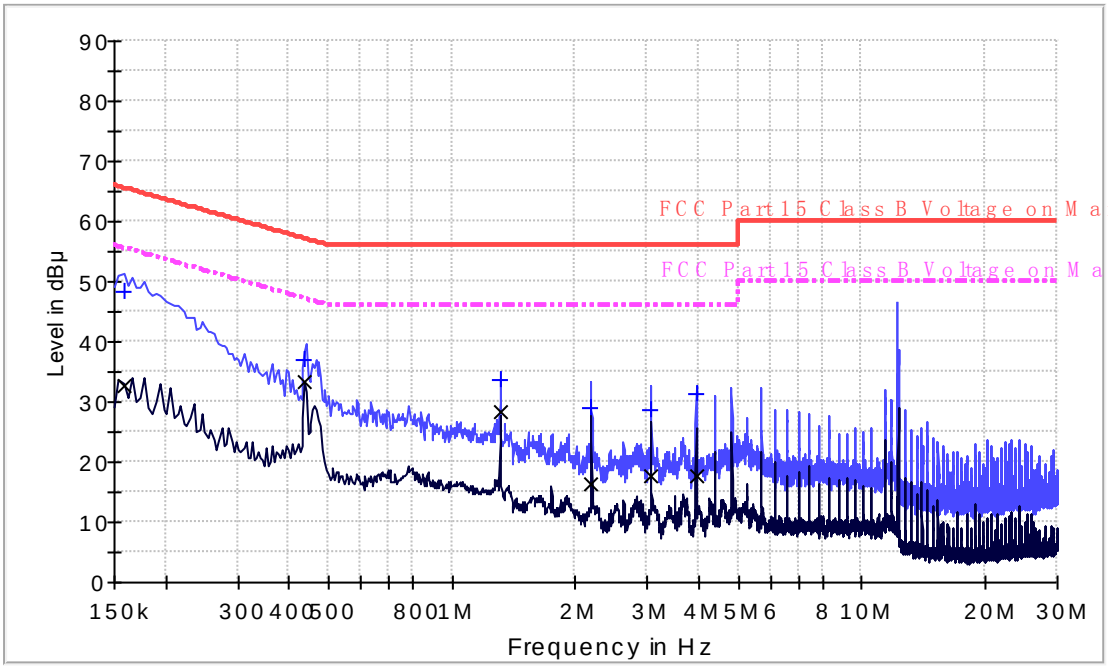
Frequency (MHz)	QuasiPeak (dB¦ÌV)	Line	Corr. (dB)	Margin (dB)	Limit (dB¦ÌV)
0.158000	47.9	L1	9.6	17.7	65.6
0.442000	41.4	L1	9.7	15.6	57.0
1.326000	41.7	L1	9.7	14.3	56.0
2.206000	41.8	L1	9.7	14.2	56.0
2.646000	28.3	L1	9.7	27.7	56.0
3.090000	40.4	L1	9.8	15.6	56.0

Result Table AV

Frequency (MHz)	Average (dB¦ÌV)	Line	Corr. (dB)	Margin (dB)	Limit (dB¦ÌV)
0.158000	35.2	L1	9.6	20.4	55.6
0.442000	37.3	L1	9.7	9.7	47.0
1.326000	37.7	L1	9.7	8.3	46.0
2.206000	38.0	L1	9.7	8.0	46.0
2.646000	21.0	L1	9.7	25.0	46.0
3.090000	36.3	L1	9.8	9.7	46.0

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323
Worst Case Operating Mode: BT Link
Modulation type: GFSK
Phase: Neutral

Conducted Emission Test - FCC



Result Table QP

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	48.4	N	9.6	17.2	65.6
0.438000	36.9	N	9.7	20.2	57.1
1.314000	33.7	N	9.7	22.3	56.0
2.190000	29.0	N	9.7	27.0	56.0
3.074000	28.7	N	9.8	27.4	56.0
3.942000	31.2	N	9.8	24.8	56.0

Result Table AV

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	32.5	N	9.6	23.1	55.6
0.438000	33.3	N	9.7	13.8	47.1
1.314000	28.3	N	9.7	17.7	46.0
2.190000	16.4	N	9.7	29.6	46.0
3.074000	17.8	N	9.8	28.2	46.0
3.942000	17.8	N	9.8	28.2	46.0

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.9 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.109

[ ] Not required - No digital part

[ ] Test results are attached

[x] Included in the separated report.

Applicant: Monster, LLC.
Date of Test: August 18, 2017
Model: 191323

4.10 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

	See attached spectrum analyzer chart (s) for Transmitter timing
	See Transmitter timing diagram provided by manufacturer
x	Not applicable, duty cycle was not used.

EXHIBIT 5

EQUIPMENT PHOTOGRAPHS

5.0 **Equipment Photographs**

For electronic filing, the photographs are saved with filename: external photos.doc & internal photos.pdf.

EXHIBIT 6

PRODUCT LABELLING

6.0 **Product Labelling**

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

EXHIBIT 7

TECHNICAL SPECIFICATIONS

7.0 Technical Specifications

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

EXHIBIT 8

INSTRUCTION MANUAL

8.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

EXHIBIT 9

CONFIDENTIALITY REQUEST

9.0 **Confidentiality Request**

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

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EXHIBIT 10

MISCELLANEOUS INFORMATION

10.0 Discussion of Pulse Desensitization

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF.*

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

EXHIBIT 11

TEST EQUIPMENT LIST

11.0 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ182-02	RF Power Meter	Anritsu	ML2496A	1302005	01-Jun-2017	01-Jun-2018
SZ182-02-01	Power Sensor	Anritsu	MA2411B	1207429	01-Jun-2017	01-Jun-2018
SZ061-12	BiConiLog Antenna	ETS	3142E	00166158	9-Sep-2016	09-Sep-2017
SZ185-01	EMI Receiver	R&S	ESCI	100547	09-Feb-2017	09-Feb-2018
SZ061-08	Horn Antenna	ETS	3115	00092346	12-Oct-2016	12-Oct-2017
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	26-May-2017	26-May-2018
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	01-Jun-2017	01-Jun-2018
SZ056-06	Signal Analyzer	R&S	FSV 40	101101	07-Jul-2017	07-Jul-2018
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	09-Feb-2017	09-Feb-2018
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	16-Jan-2017	16-Jan-2019
SZ062-02	RF Cable	RADIALL	RG 213U	--	16-Jun-2017	16-Jun-2018
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	16-Jun-2017	16-Jun-2018
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	16-Jun-2017	16-Jun-2018
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	14-Jun-2017	14-Jun-2018
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	01-Nov-2016	01-Nov-2017
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	01-Nov-2016	01-Nov-2017
SZ188-03	Shielding Room	ETS	RFD-100	4100	16-Jan-2017	16-Jan-2019