Aesonic Electronics Co., Ltd

Application
For
Certification

FCC ID: 2AE5QBL-759

Headphone Bluetooth

Model: AS-BTHP-15

2.4GHz Transceiver

Report No.: 150618014SZN-002

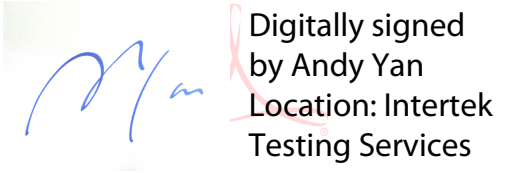
We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-13]

Prepared and Checked by:

Sign on file

Powell Bao
Engineer

Approved by:



Andy Yan
Senior Project Engineer
Date: August 21, 2015

TRF no.: FCC 15C_Tx_b

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MEASUREMENT/TECHNICAL REPORT

Aesonic Electronics Co.,Ltd

MODEL: AS-BTHP-15

FCC ID: 2AE5QBL-759

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 [10-01-13 Edition] provision.

Report prepared by:

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List of attached file

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

Aesonic Electronics Co.,Ltd

MODEL: AS-BTHP-15

FCC ID: 2AE5QBL-759

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 Headphone Bluetooth Model: AS-BTHP-15 with Bluetooth LE technology. The EUT was powered by DC 3.7V internal rechargeable battery and can be charged through USB interface. For more detailed features description, please refer to the user's manual.

Type of Modulation: GFSK.
Antenna Type: Integral Antenna.
Antenna Gain: 0 dBi
Bluetooth Version: V4.1 single mode

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 a transceiver for the Bluetooth Headphone which has Bluetooth function (BT 4.1 signal mode). Other digital function was report in the verification report: 150618014SZN-001.

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2009) and KDB 558074. 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 shield room used to collect the radiated data and conducted data are **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 242492).

EXHIBIT 3

SYSTEM TEST CONFIGURATION

3.0 System Test Configuration

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions.

The EUT was powered by DC 3.7V fully charged rechargeable battery which is charged by AC Adapter or Laptop (The AC adapter and Laptop was powered by AC 120V, 60Hz) during the test. Only the worst data was reported in this report.

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

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

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

N/A.

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 Aesonic Electronics Co.,Ltd will be incorporated in each production model sold / leased in the United States.

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

3.6 Support Equipment List and Description

This product was tested in the following configuration:

Refer List

Description	Manufacturer	Model No.
Adapter	TP-Link	T050100-2A3 Input: AC 100~240V 50/60Hz Output: DC 5.0V 1.0A
USB Cable	N/A	unshielded, 100cm
IPod	Apple	A1367
Laptop	Lenovo	T420
Audio Cable	N/A	unshielded, 150cm

EXHIBIT 4

MEASUREMENT RESULTS

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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).

Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2402	3.56	2.27
Middle Channel: 2440	4.35	2.72
High Channel: 2480	3.66	2.32

Cable loss: 1.5 dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

EUT dBm max. output level = 4.35 dBm

The test plots are attached as below.

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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

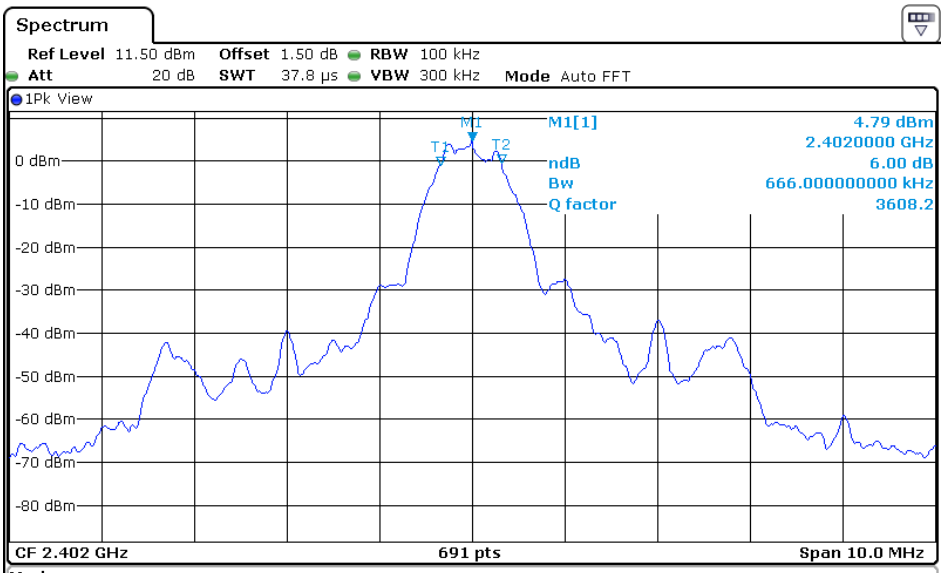
The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was set to 100 KHz according to FCC KDB 558074. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier.

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

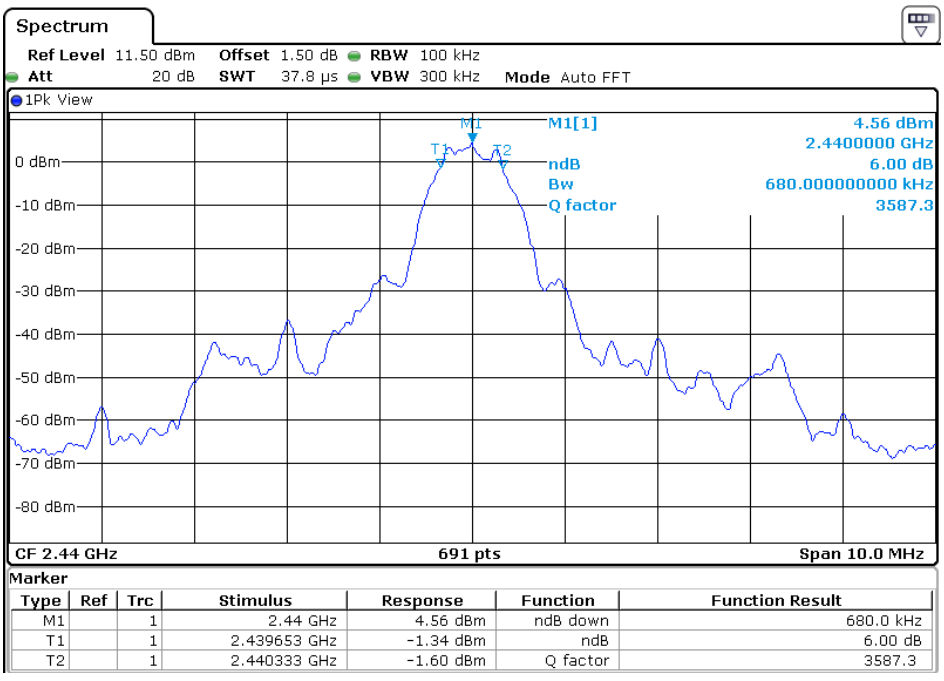
Frequency (MHz)	6 dB Bandwidth (KHz)
2402	666
2440	680
2480	695

The test plots are attached as below.

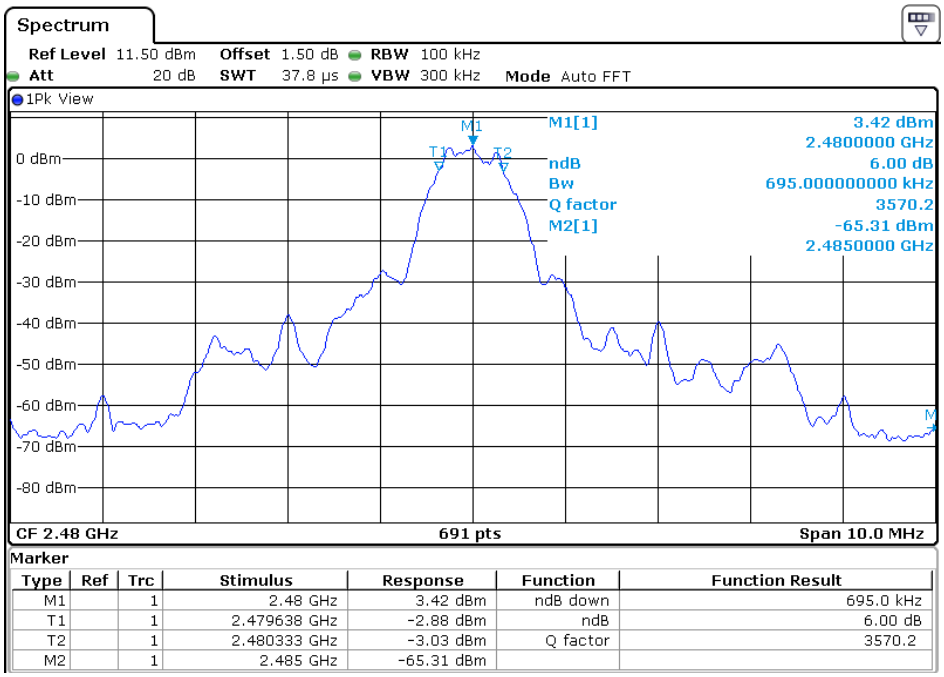
Low Channel



Middle Channel



High Channel



Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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

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

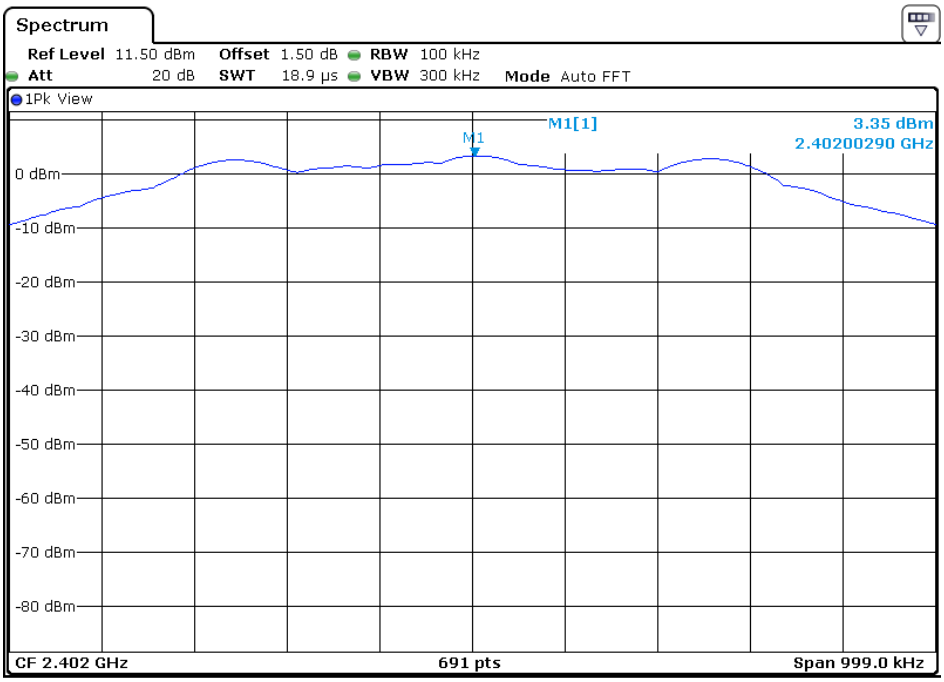
Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

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

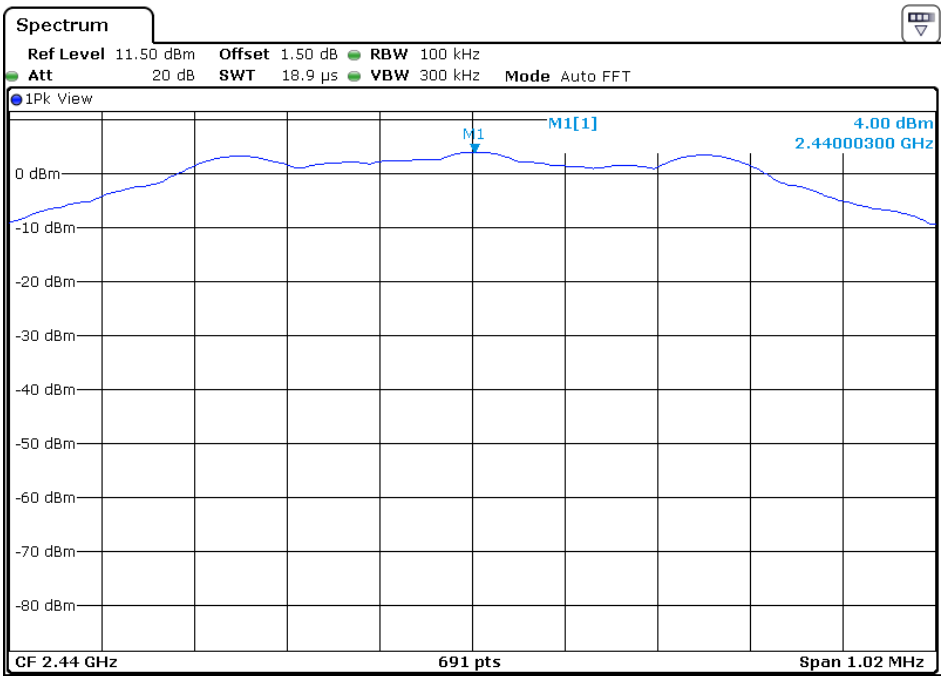
Frequency (MHz)	Power Density with RBW 100KHz
2402	3.35
2440	4.00
2480	3.11

The test plots are attached as below.

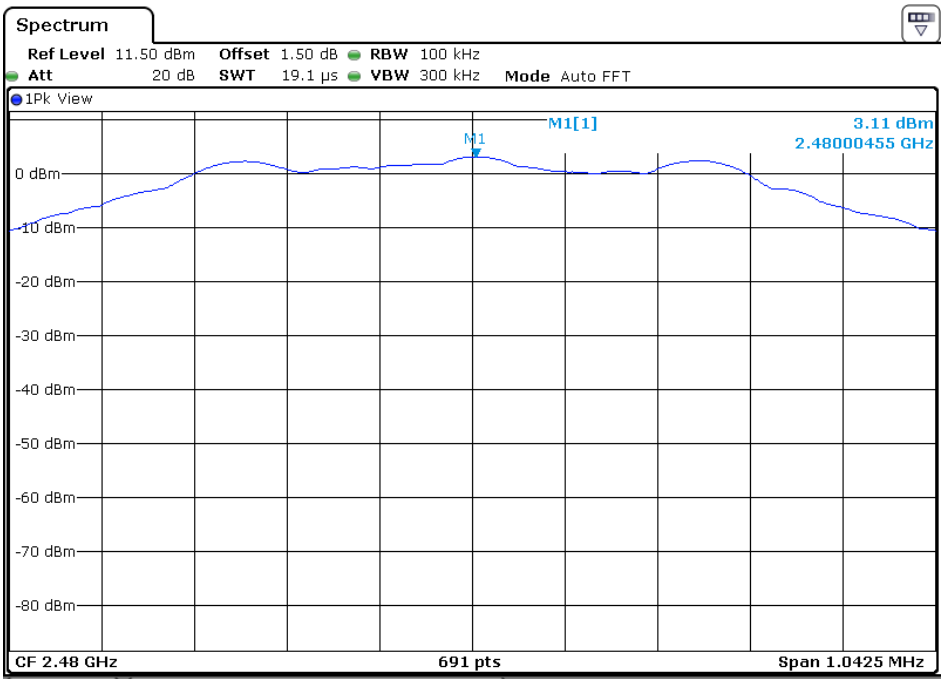
Low Channel



Middle Channel



High Channel



Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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.

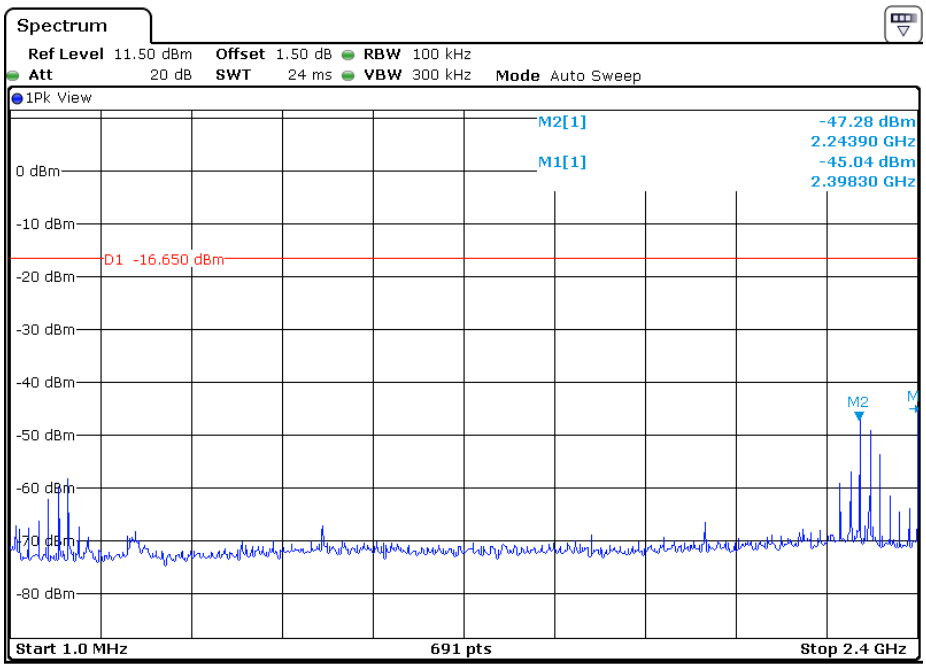
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

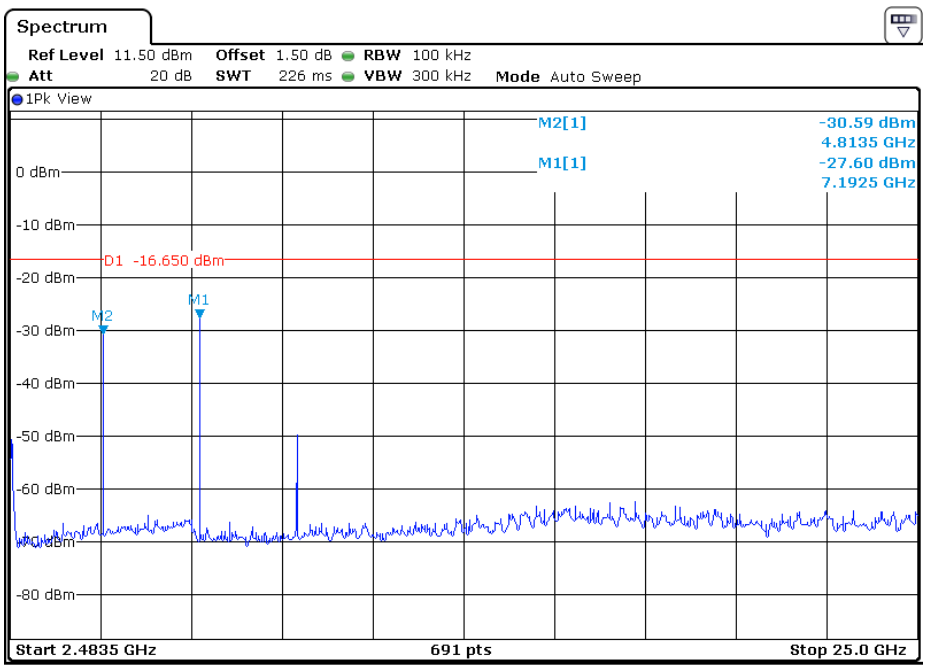
Refer to the attached test plot for out of band conducted emissions data with Packet: DH1

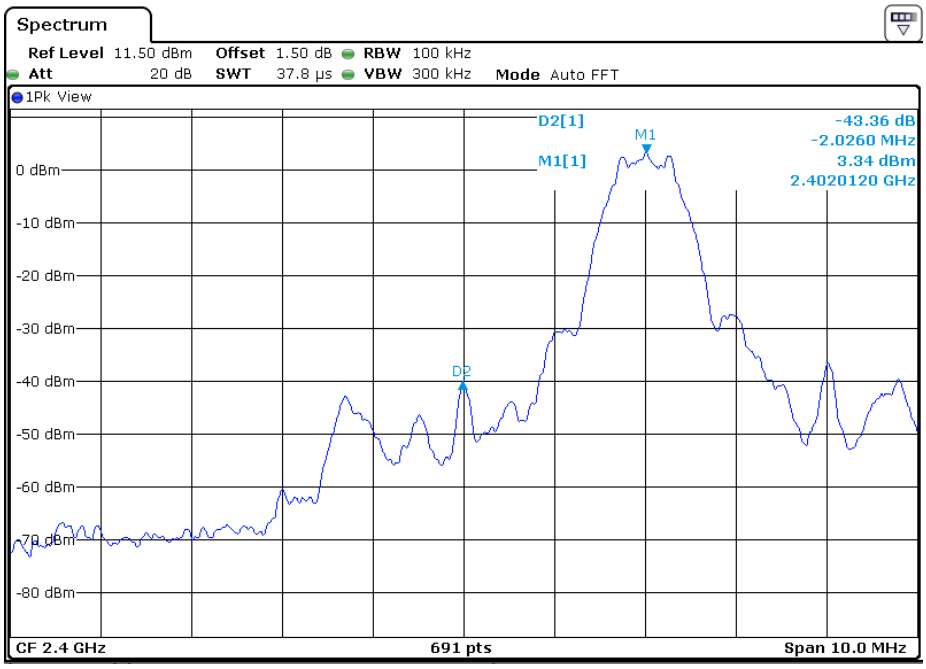
The test plots showed all spurious emission and up to the tenth harmonic were measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The test plots are attached as below.

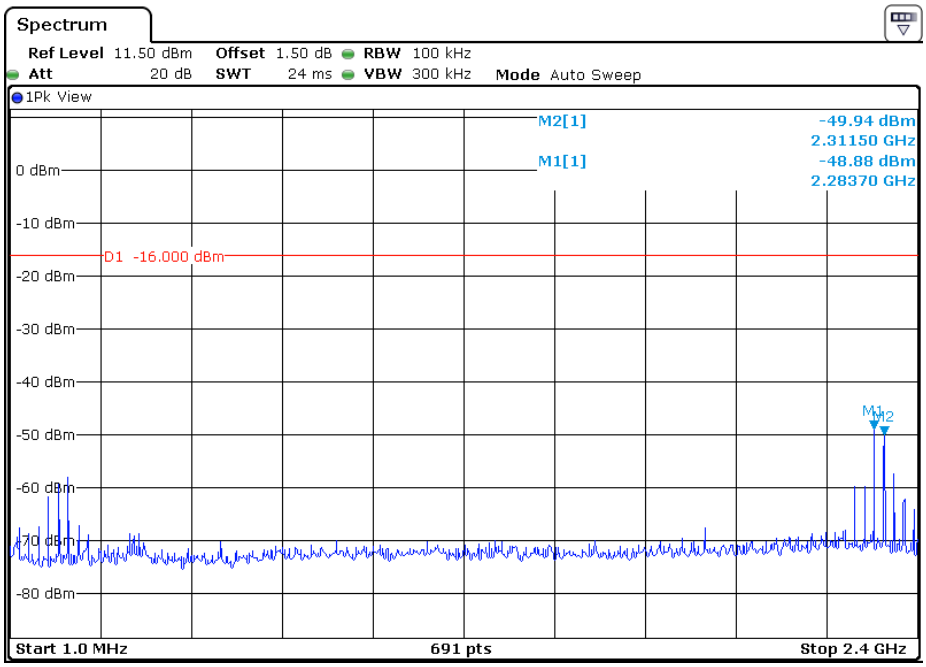
Low Channel Reference Level: 3.35dBm

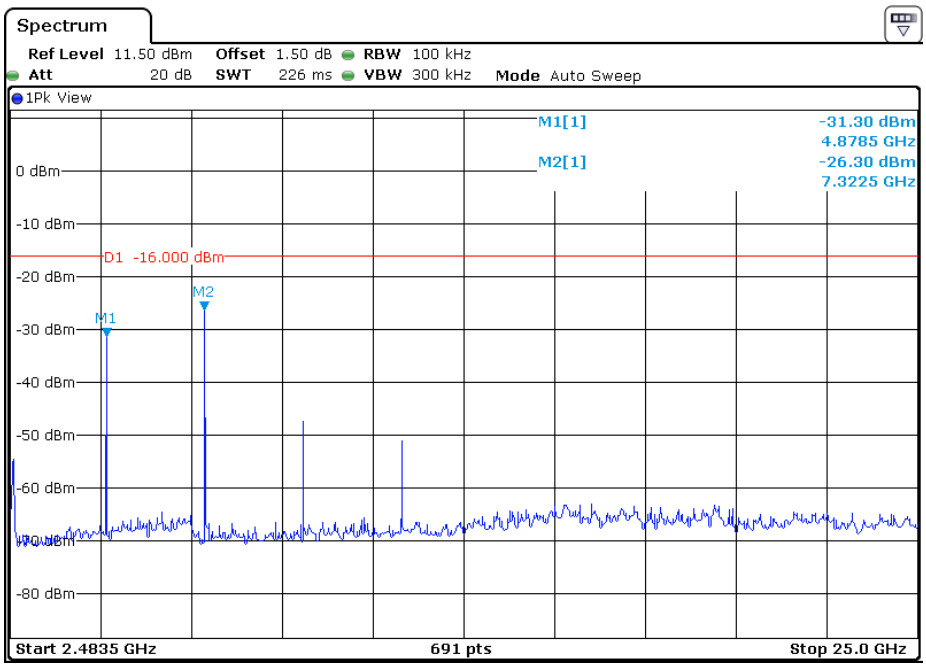




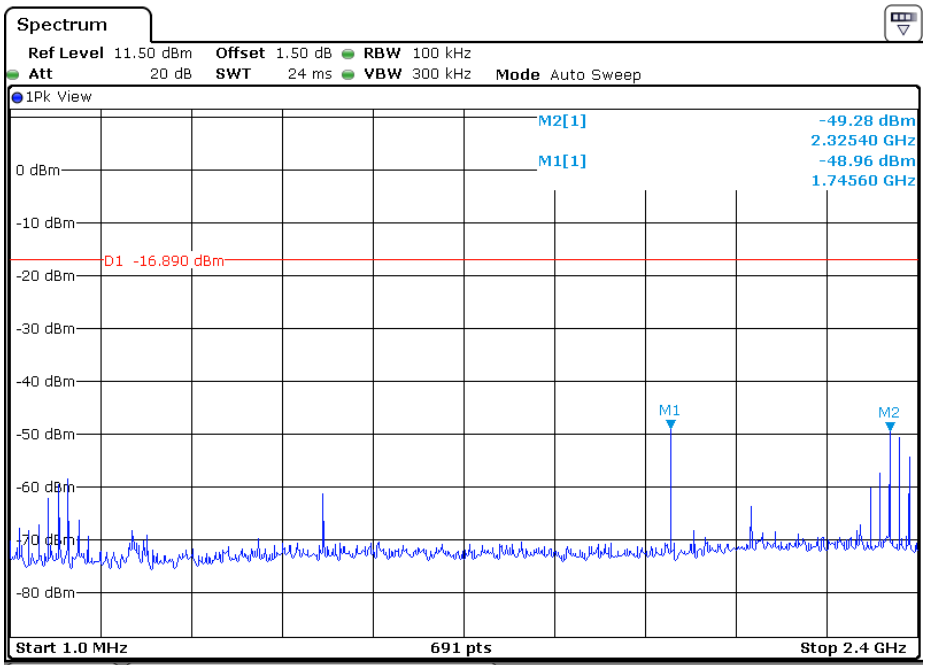

Spectrum
Ref Level 11.50 dBm Offset 1.50 dB RBW 100 kHz
Att 20 dB SWT 37.8 µs VBW 300 kHz Mode Auto FFT
1Pk View
D2[1] -43.36 dB
-2.0260 MHz
M1[1] 3.34 dBm
2.4020120 GHz
M1
D2
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
CF 2.4 GHz
691 pts
Span 10.0 MHz

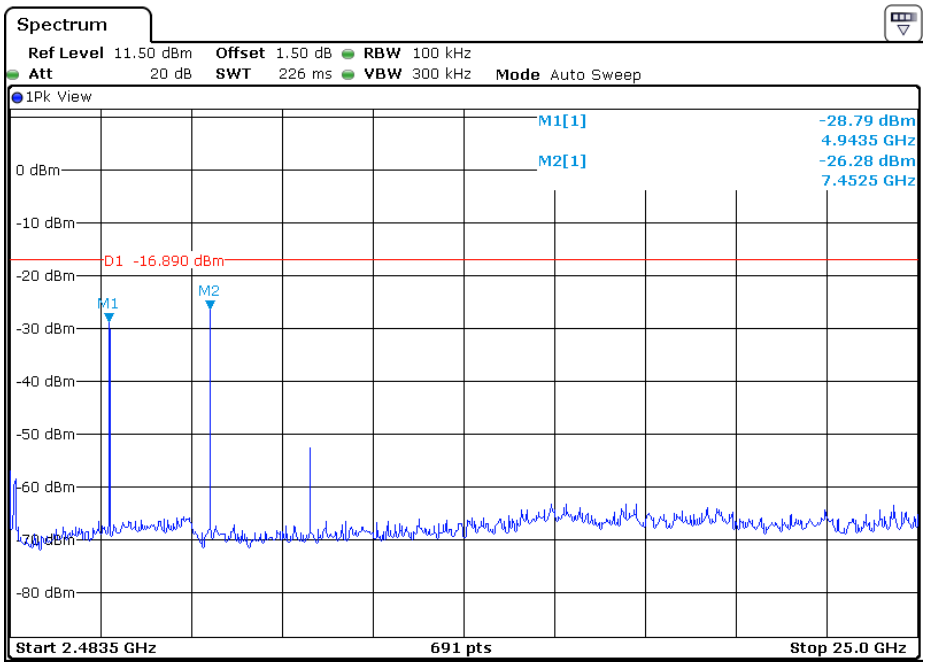
Middle Channel Reference Level: 4.0dBm

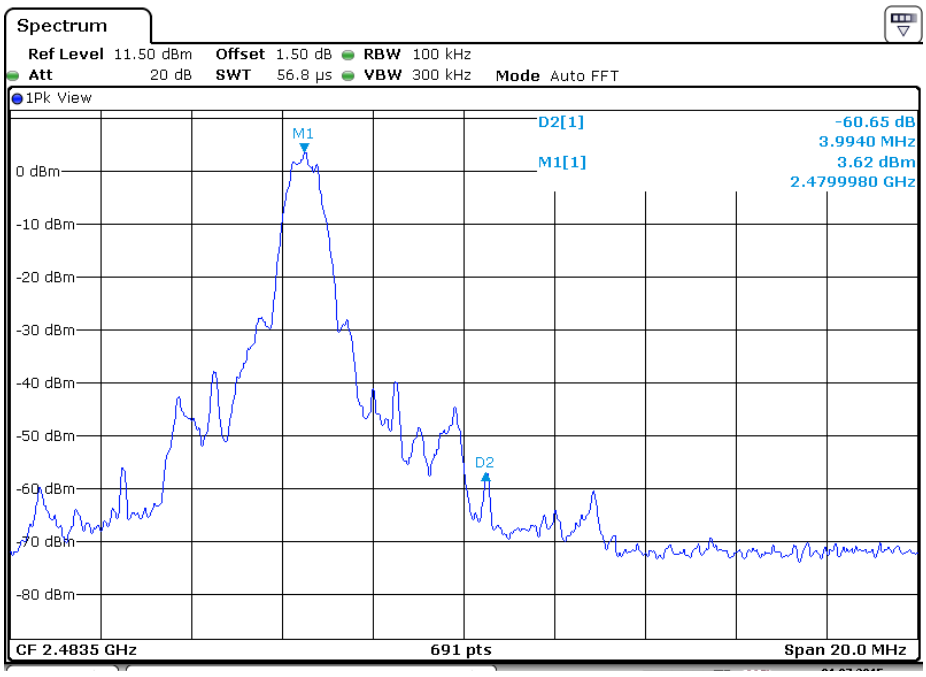




High Channel Reference Level: 3.11dBm






Spectrum
Ref Level 11.50 dBm Offset 1.50 dB RBW 100 kHz
Att 20 dB SWT 56.8 µs VBW 300 kHz Mode Auto FFT
1Pk View
M1
D2[1] -60.65 dB
3.9940 MHz
M1[1] 3.62 dBm
2.4799980 GHz
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
D2
CF 2.4835 GHz
691 pts
Span 20.0 MHz

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

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 32 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

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission at

9920.000MHz is passed by 8.4 dB margin.

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

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15
Worst Case Operating Mode: Transmit (CH 00) with Charged by AC Adapter

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	30.000	32.4	20.0	10.2	22.6	40.0	-17.4
Horizontal	58.620	27.6	20.0	10.7	18.3	40.0	-21.7
Horizontal	914.160	27.4	20.0	25.4	32.8	46.0	-13.2
Vertical	30.100	25.8	20.0	19.2	25.0	40.0	-15.0
Vertical	51.360	28.3	20.0	14.9	23.2	40.0	-16.8
Vertical	883.620	43.5	20.0	9.2	32.7	46.0	-13.3

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.

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15
Mode: 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)
Vertical	*4804.000	58.6	36.7	35.5	57.4	74.0	-16.6
Vertical	*2375.818	51.4	36.7	28.1	42.8	74.0	-31.2

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)
Vertical	*4804.000	43.8	36.7	35.5	42.6	54.0	-11.4
Vertical	*2375.818	37.4	36.7	28.1	28.8	54.0	-25.2

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: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15
Mode: Packet 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)
Vertical	*4880.000	58.9	36.7	35.5	57.7	74.0	-16.3
Vertical	*7320.000	55.2	36.1	37.2	56.3	74.0	-17.7

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)
Vertical	*4880.000	44.3	36.7	35.5	43.1	54.0	-10.9
Vertical	*7320.000	40.8	36.1	37.2	41.9	54.0	-12.1

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: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15
Mode: 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)
Vertical	*4960.000	57.9	36.7	35.5	56.7	74.0	-17.3
Vertical	*7440.000	56.7	36.1	37.2	57.8	74.0	-16.2
Vertical	*2483.992	46.8	36.7	28.1	38.2	74.0	-35.8

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)
Vertical	*4960.000	43.5	36.7	35.5	42.3	54.0	-11.7
Vertical	*7440.000	41.7	36.1	37.2	42.8	54.0	-11.2
Vertical	*2483.992	34.1	36.7	28.1	25.5	54.0	-28.5

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.

4.9 Conducted Emission

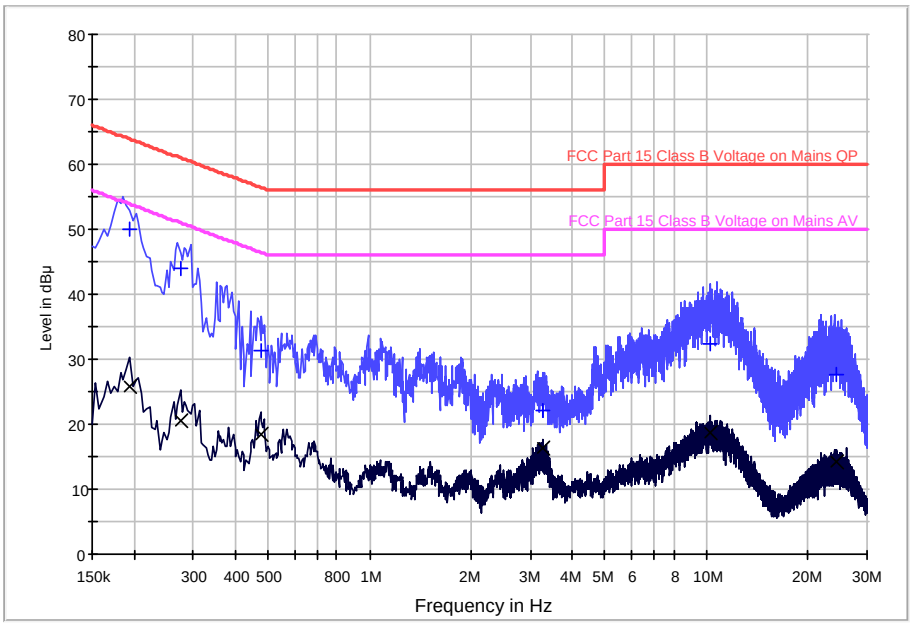
Worst Case Conducted emission at

0.194MHz is Passed by 13.8 dB margin

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

Company: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15
Worst Case Operating Mode: Transmit (CH 00) with Charged by AC Adapter

Conducted Emission Test - FCC



Result Table QP

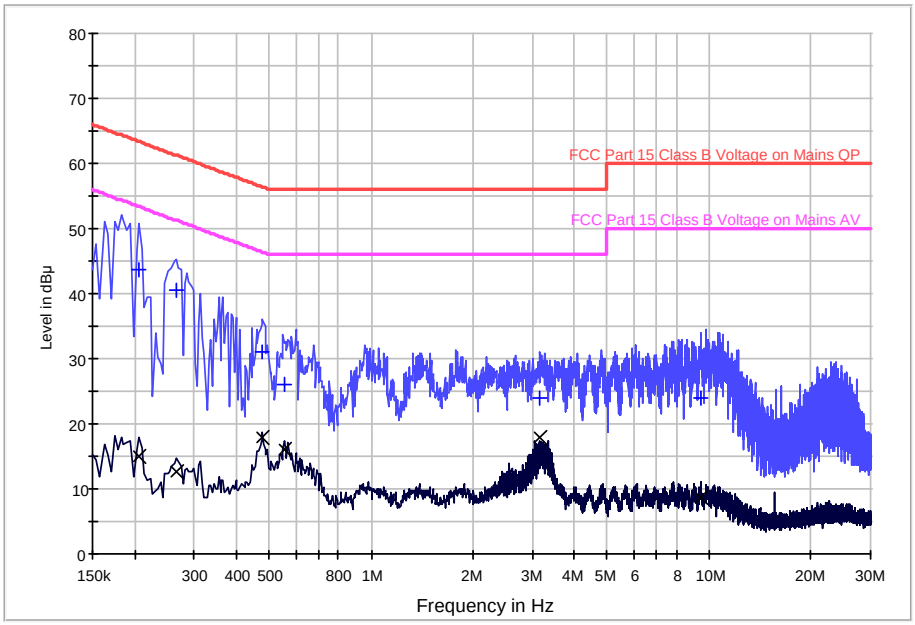
Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.194	50.1	L1	9.8	13.8	63.9
0.274	43.9	L1	9.9	17.1	61.0
0.474	31.3	L1	9.9	25.1	56.4
3.278	22.2	L1	10.0	33.8	56.0
10.242	32.3	L1	10.1	27.7	60.0
24.402	27.7	L1	10.3	32.3	60.0

Result Table AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.194	25.9	L1	9.8	28.0	53.9
0.274	20.4	L1	9.9	30.6	51.0
0.474	18.3	L1	9.9	28.1	46.4
3.278	16.4	L1	10.0	29.6	46.0
10.242	18.7	L1	10.1	31.3	50.0
24.402	14.1	L1	10.3	35.9	50.0

Company: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15
Worst Case Operating Mode: Transmit (CH 00) with Charged by AC Adapter

Conducted Emission Test - FCC



Result Table QP

Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.206	43.8	N	10.1	19.6	63.4
0.266	40.5	N	10.2	20.7	61.2
0.478	31.0	N	10.2	25.4	56.4
0.554	26.1	N	10.3	29.9	56.0
3.170	24.1	N	10.3	31.9	56.0
9.414	24.0	N	10.4	36.0	60.0

Result Table AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.206	19.6	N	10.1	38.4	53.4
0.266	20.4	N	10.2	38.6	51.2
0.478	25.2	N	10.2	28.5	46.4
0.554	25.4	N	10.3	29.8	46.0
3.170	14.4	N	10.3	28.1	46.0
9.414	23.6	N	10.4	41.2	50.0

Applicant: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

4.10 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: Aesonic Electronics Co.,Ltd
Date of Test: June 18, 2015
Model: AS-BTHP-15

4.11 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

MISCELLANEOUS INFORMATION

9.0 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 10

TEST EQUIPMENT LIST

10.0 **Test Equipment List**

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ182-02	RF Power Meter	Anritsu	ML2496A	1302005	20-May-2015	20-May-2016
SZ182-02-01	Power Sensor	Anritsu	MA2411B	1207429	20-May-2015	20-May-2016
SZ061-03	BiConiLog Antenna	ETS	3142C	00066460	14-Jun-2015	14-Jun-2016
SZ185-01	EMI Receiver	R&S	ESCI	100547	7-Feb-2015	7-Feb-2016
SZ061-09	Horn Antenna	ETS	3115	00092346	1-Nov-2014	1-Nov-2015
SZ061-07	Pyramidal Horn Antenna	ETS	3160-09	00083067	3-Sep-2014	3-Sep-2015
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	29-Apr-2015	29-Apr-2016
EM031-03	EXA Spectrum Analyzer	R&S	FSV40	101506	06-Jun-2015	06-Jun-2016
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	7-Feb-2015	7-Feb-2016
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	19-Apr-2014	19-Apr-2016
SZ062-02	RF Cable	RADIALL	RG 213U	--	03-Jan-2015	03-Aug-2015
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	07-Apr-2015	07-Oct-2015
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	07-Apr-2015	07-Oct-2015
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	1-Nov-2014	1-Nov-2015
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	1-Nov-2014	1-Nov-2015
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	24-Jun-2014	24-Jun-2015
SZ188-03	Shielding Room	ETS	RFD-100	4100	23-Aug-2014	22-Aug-2016