

NORTHWEST EMC

Intel Corporation

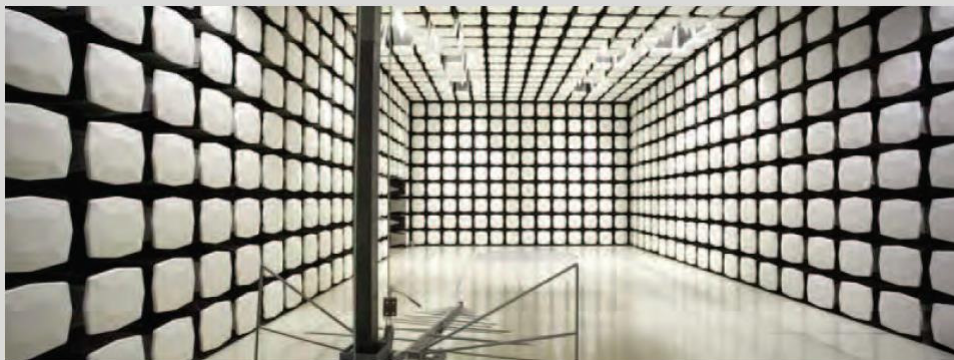
Sea Dunes B1RX Module

FCC 15.207:2016

FCC 15.247:2016

Bluetooth LE Radio

Report # INTE5684



NVLAP Lab Code: 200630-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America. This Report may only be duplicated in its entirety

CERTIFICATE OF TEST

Last Date of Test: April 08, 2016
Intel Corporation
Model: Sea Dunes B1RX Module

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2016	ANSI C63.10:2013
FCC 15.247:2016	

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6, 11.12.1, 11.13.2	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	Yes	Pass	
11.8.2	Occupied Bandwidth	Yes	Pass	
11.9.2.2.4	Output Power	Yes	Pass	
11.10.2	Power Spectral Density	Yes	Pass	
11.11	Band Edge Compliance	Yes	Pass	
11.11	Spurious Conducted Emissions	Yes	Pass	

Deviations From Test Standards

None

Approved By:



Kyle Holgate, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY

Revision Number		Description	Date	Page Number
00		None		

ACCREDITATIONS AND AUTHORIZATIONS

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIP / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>

<http://gsi.nist.gov/global/docs/cabs/designations.html>

MEASUREMENT UNCERTAINTY

Measurement Uncertainty

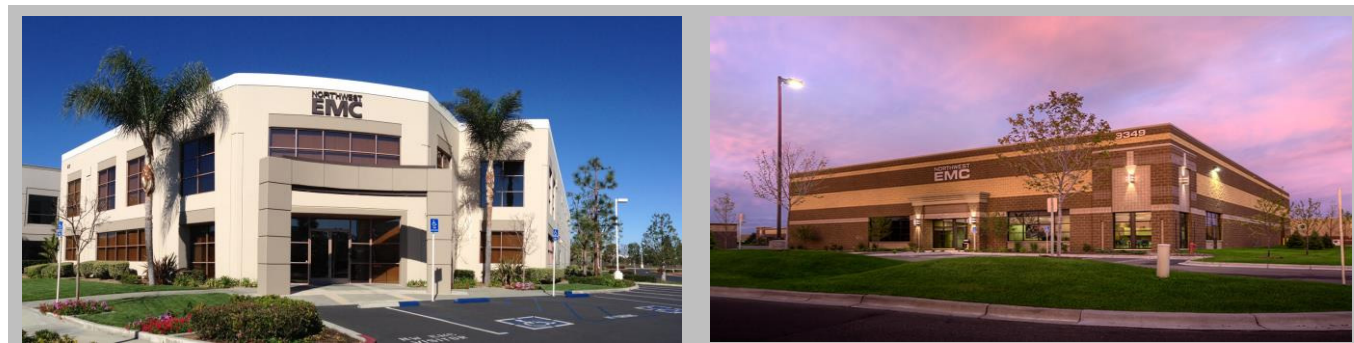
When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty ($K=2$) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

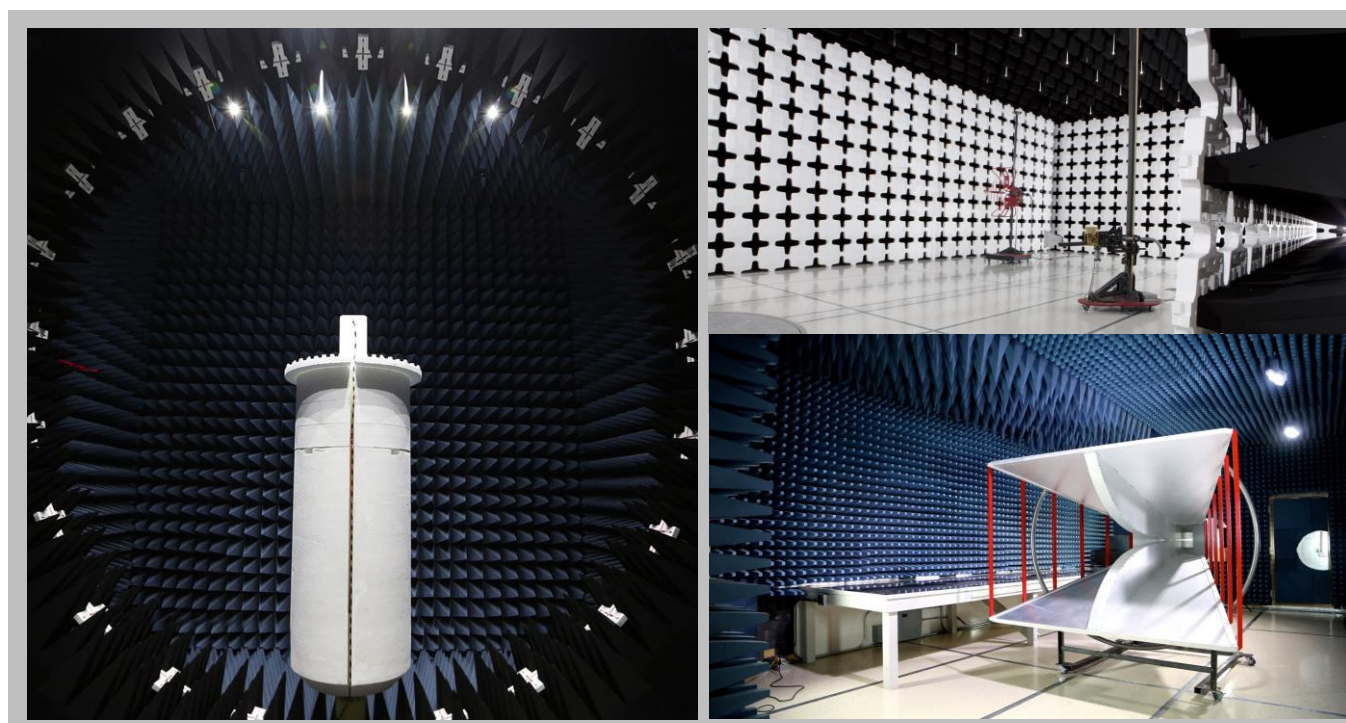
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

FACILITIES



California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRR, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Intel Corporation
Address:	5200 NE Elam Young Pkwy
City, State, Zip:	Hillsboro, OR 97124
Test Requested By:	Mark Briggs
Model:	Sea Dunes B1RX Module
First Date of Test:	April 07, 2016
Last Date of Test:	April 08, 2016
Receipt Date of Samples:	April 07, 2016
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Bluetooth LE module on a circuit board that also includes a wireless charging receiver (subject to Part 18 / CISPR 11 when installed in final host). Module supports LE only.
Testing Objective:
To demonstrate compliance of the Bluetooth radio to FCC 15.247 requirements.

CONFIGURATIONS

Configuration INTE5684- 1

EUT					
Description	Manufacturer	Model/Part Number	Serial Number		
BLE Module Low	Intel Corporation	Sea Dunes B1RX	161150311		
Peripherals in test setup boundary					
Description	Manufacturer	Model/Part Number	Serial Number		
AC/DC Adapter	Hon-kang	B116-200	None		
Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Power Cable	No	1.2m	No	AC/DC adapter	BLE Module

Configuration INTE5684- 2

EUT								
Description		Manufacturer		Model/Part Number		Serial Number		
BLE Module Mid		Intel Corporation		Sea Dunes B1RX		161150421		
Peripherals in test setup boundary								
Description		Manufacturer		Model/Part Number		Serial Number		
AC/DC Adapter		Hon-kang		B116-200		None		
Cables								
Cable Type		Shield	Length (m)	Ferrite	Connection 1		Connection 2	
DC Power Cable		No	1.2m	No	AC/DC adapter		BLE Module	

Configuration INTE5684- 3

EUT					
Description	Manufacturer	Model/Part Number	Serial Number		
BLE Module High	Intel Corporation	Sea Dunes B1RX	161150220		
Peripherals in test setup boundary					
Description	Manufacturer	Model/Part Number	Serial Number		
AC/DC Adapter	Hon-kang	B116-200	None		
Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Power Cable	No	1.2m	No	AC/DC adapter	BLE Module

CONFIGURATIONS

Configuration INTE5684- 4

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
BLE Module Low	Intel Corporation	Sea Dunes B1RX	161150311

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	Topward	TPS-2000	TPD

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power Cable	No	1.8m	No	AC Mains	DC Power Supply
DC Leads x2	No	1.3m	No	DC Power Supply	BLE Module

Configuration INTE5684- 5

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
BLE Module Mid	Intel Corporation	Sea Dunes B1RX	161150421

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	Topward	TPS-2000	TPD

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads x2	No	1.3m	No	DC Power Supply	BLE Module
AC Power Cable	No	1.8m	No	AC Mains	DC Power Supply

Configuration INTE5684- 6

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
BLE Module High	Intel Corporation	Sea Dunes B1RX	161150220

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	Topward	TPS-2000	TPD

CONFIGURATIONS

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power Cable	No	1.8m	No	AC Mains	DC Power Supply
DC Leads x2	No	1.3m	No	DC Power Supply	BLE Module

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	4/7/2016	Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	4/7/2016	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	4/7/2016	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	4/7/2016	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	4/7/2016	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	4/7/2016	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	4/8/2016	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

POWERLINE CONDUCTED EMISSIONS

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Per the standard, an insulating material was also added to ground plane between the EUT's power and remote I/O cables. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically, those measurements are made using a LISN (Line Impedance Stabilization Network), the 50ohm measuring port is terminated by a 50ohm EMI meter or a 50ohm resistive load. All 50ohm measuring ports of the LISN are terminated by 50ohm. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Receiver	Rohde & Schwarz	ESCI	ARH	3/21/2016	3/21/2017
LISN	Solar Electronics	9252-50-R-24-BNC	LIP	1/27/2015	1/27/2017
Cable - Conducted Cable Assembly	Northwest EMC	EVG, HHD, RKA	EVGA	5/12/2015	5/12/2016

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.4 dB	-2.4 dB

CONFIGURATIONS INVESTIGATED

INTE5684-4
INTE5684-5
INTE5684-6

MODES INVESTIGATED

On, Tx BTL continuous High Ch. 2480 MHz
On, Tx BTL continuous Low Ch. 2402 MHz
On, Tx BTL continuous Mid Ch. 2440 MHz

POWERLINE CONDUCTED EMISSIONS

EUT:	Sea Dunes B1RX Module	Work Order:	INTE5684
Serial Number:	See Configuration	Date:	04/07/2016
Customer:	Intel Corporation	Temperature:	22.5°C
Attendees:	Mark Briggs	Relative Humidity:	41.4%
Customer Project:	None	Bar. Pressure:	1015 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	14.1VDC via 110VAC/60Hz	Configuration:	INTE5684-4,5,6

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	3	Line:	High Line	Add. Ext. Attenuation (dB):	0
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COMMENTS

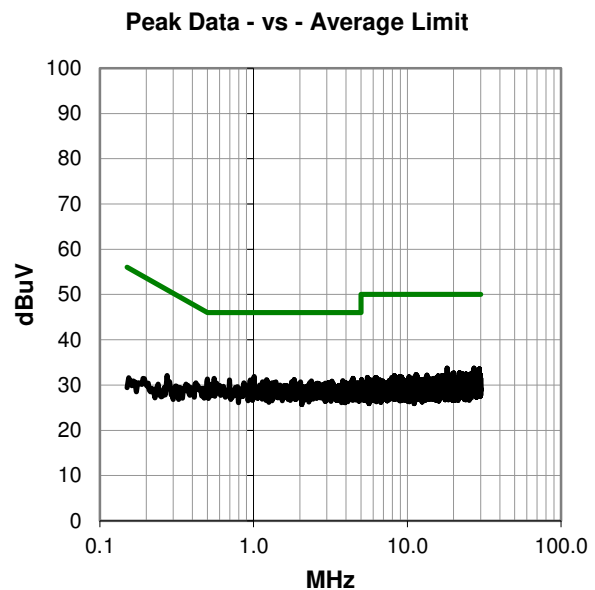
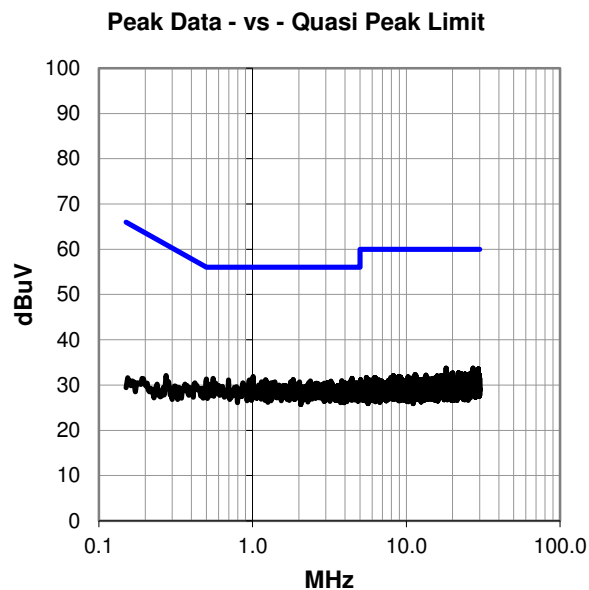
None

EUT OPERATING MODES

On, Tx BTL continuous Low Ch. 2402 MHz

DEVIATIONS FROM TEST STANDARD

None



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #3

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.008	11.8	20.1	31.9	56.0	-24.1
0.553	11.5	20.0	31.5	56.0	-24.5
4.429	11.3	20.2	31.5	56.0	-24.5
0.501	11.3	20.0	31.3	56.0	-24.7
1.217	11.1	20.1	31.2	56.0	-24.8
1.836	11.1	20.1	31.2	56.0	-24.8
0.698	11.1	20.0	31.1	56.0	-24.9
0.952	11.0	20.1	31.1	56.0	-24.9
4.362	10.9	20.2	31.1	56.0	-24.9
3.799	10.8	20.2	31.0	56.0	-25.0
2.381	10.7	20.2	30.9	56.0	-25.1
3.232	10.6	20.2	30.8	56.0	-25.2
1.142	10.6	20.1	30.7	56.0	-25.3
1.396	10.6	20.1	30.7	56.0	-25.3
1.765	10.6	20.1	30.7	56.0	-25.3
2.019	10.6	20.1	30.7	56.0	-25.3
4.776	10.3	20.2	30.5	56.0	-25.5
3.053	10.3	20.2	30.5	56.0	-25.5
3.829	10.3	20.2	30.5	56.0	-25.5
3.993	10.3	20.2	30.5	56.0	-25.5
4.243	10.3	20.2	30.5	56.0	-25.5
4.545	10.3	20.2	30.5	56.0	-25.5
1.318	10.4	20.1	30.5	56.0	-25.5
1.359	10.4	20.1	30.5	56.0	-25.5
0.866	10.4	20.1	30.5	56.0	-25.5
1.877	10.3	20.1	30.4	56.0	-25.6

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.008	11.8	20.1	31.9	46.0	-14.1
0.553	11.5	20.0	31.5	46.0	-14.5
4.429	11.3	20.2	31.5	46.0	-14.5
0.501	11.3	20.0	31.3	46.0	-14.7
1.217	11.1	20.1	31.2	46.0	-14.8
1.836	11.1	20.1	31.2	46.0	-14.8
0.698	11.1	20.0	31.1	46.0	-14.9
0.952	11.0	20.1	31.1	46.0	-14.9
4.362	10.9	20.2	31.1	46.0	-14.9
3.799	10.8	20.2	31.0	46.0	-15.0
2.381	10.7	20.2	30.9	46.0	-15.1
3.232	10.6	20.2	30.8	46.0	-15.2
1.142	10.6	20.1	30.7	46.0	-15.3
1.396	10.6	20.1	30.7	46.0	-15.3
1.765	10.6	20.1	30.7	46.0	-15.3
2.019	10.6	20.1	30.7	46.0	-15.3
4.776	10.3	20.2	30.5	46.0	-15.5
3.053	10.3	20.2	30.5	46.0	-15.5
3.829	10.3	20.2	30.5	46.0	-15.5
3.993	10.3	20.2	30.5	46.0	-15.5
4.243	10.3	20.2	30.5	46.0	-15.5
4.545	10.3	20.2	30.5	46.0	-15.5
1.318	10.4	20.1	30.5	46.0	-15.5
1.359	10.4	20.1	30.5	46.0	-15.5
0.866	10.4	20.1	30.5	46.0	-15.5
1.877	10.3	20.1	30.4	46.0	-15.6

CONCLUSION

Pass



Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Sea Dunes B1RX Module	Work Order:	INTE5684
Serial Number:	See Configuration	Date:	04/07/2016
Customer:	Intel Corporation	Temperature:	22.5°C
Attendees:	Mark Briggs	Relative Humidity:	41.4%
Customer Project:	None	Bar. Pressure:	1015 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	14.1VDC via 110VAC/60Hz	Configuration:	INTE5684-4,5,6

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	4	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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COMMENTS

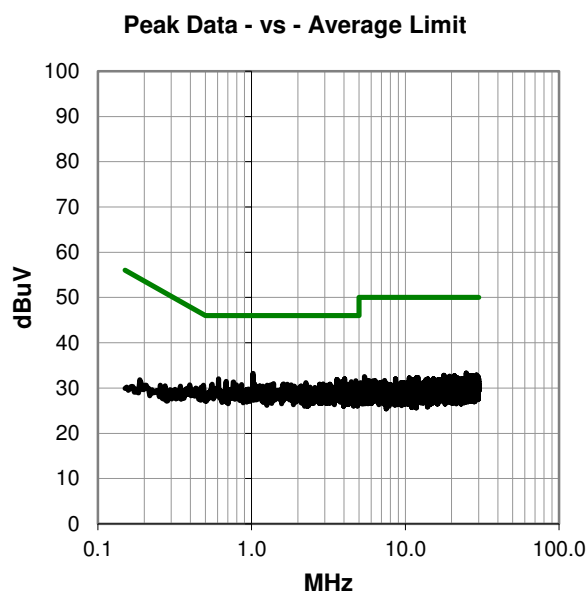
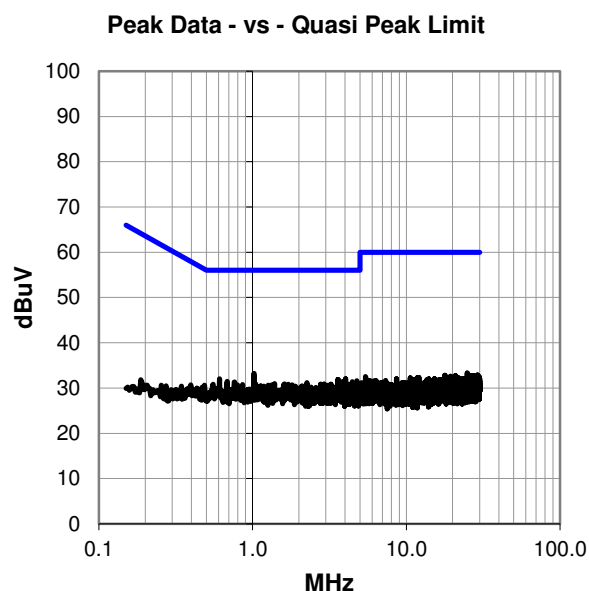
None

EUT OPERATING MODES

On, Tx BTL continuous Low Ch. 2402 MHz

DEVIATIONS FROM TEST STANDARD

None



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #4

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.023	13.1	20.1	33.2	56.0	-22.8
0.609	12.0	20.0	32.0	56.0	-24.0
4.026	11.8	20.2	32.0	56.0	-24.0
3.590	11.7	20.2	31.9	56.0	-24.1
4.776	11.4	20.2	31.6	56.0	-24.4
3.646	11.4	20.2	31.6	56.0	-24.4
0.684	11.5	20.0	31.5	56.0	-24.5
3.885	11.3	20.2	31.5	56.0	-24.5
4.467	11.2	20.2	31.4	56.0	-24.6
0.758	11.3	20.0	31.3	56.0	-24.7
3.672	11.1	20.2	31.3	56.0	-24.7
2.258	11.0	20.2	31.2	56.0	-24.8
1.389	10.9	20.1	31.0	56.0	-25.0
1.045	10.8	20.1	30.9	56.0	-25.1
1.612	10.8	20.1	30.9	56.0	-25.1
2.929	10.7	20.2	30.9	56.0	-25.1
0.553	10.8	20.0	30.8	56.0	-25.2
2.773	10.6	20.2	30.8	56.0	-25.2
3.235	10.6	20.2	30.8	56.0	-25.2
4.198	10.6	20.2	30.8	56.0	-25.2
1.709	10.7	20.1	30.8	56.0	-25.2
0.859	10.7	20.1	30.8	56.0	-25.2
0.795	10.7	20.0	30.7	56.0	-25.3
1.333	10.6	20.1	30.7	56.0	-25.3
1.586	10.6	20.1	30.7	56.0	-25.3
1.806	10.6	20.1	30.7	56.0	-25.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.023	13.1	20.1	33.2	46.0	-12.8
0.609	12.0	20.0	32.0	46.0	-14.0
4.026	11.8	20.2	32.0	46.0	-14.0
3.590	11.7	20.2	31.9	46.0	-14.1
4.776	11.4	20.2	31.6	46.0	-14.4
3.646	11.4	20.2	31.6	46.0	-14.4
0.684	11.5	20.0	31.5	46.0	-14.5
3.885	11.3	20.2	31.5	46.0	-14.5
4.467	11.2	20.2	31.4	46.0	-14.6
0.758	11.3	20.0	31.3	46.0	-14.7
3.672	11.1	20.2	31.3	46.0	-14.7
2.258	11.0	20.2	31.2	46.0	-14.8
1.389	10.9	20.1	31.0	46.0	-15.0
1.045	10.8	20.1	30.9	46.0	-15.1
1.612	10.8	20.1	30.9	46.0	-15.1
2.929	10.7	20.2	30.9	46.0	-15.1
0.553	10.8	20.0	30.8	46.0	-15.2
2.773	10.6	20.2	30.8	46.0	-15.2
3.235	10.6	20.2	30.8	46.0	-15.2
4.198	10.6	20.2	30.8	46.0	-15.2
1.709	10.7	20.1	30.8	46.0	-15.2
0.859	10.7	20.1	30.8	46.0	-15.2
0.795	10.7	20.0	30.7	46.0	-15.3
1.333	10.6	20.1	30.7	46.0	-15.3
1.586	10.6	20.1	30.7	46.0	-15.3
1.806	10.6	20.1	30.7	46.0	-15.3

CONCLUSION

Pass



Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Sea Dunes B1RX Module	Work Order:	INTE5684
Serial Number:	See Configuration	Date:	04/07/2016
Customer:	Intel Corporation	Temperature:	22.5°C
Attendees:	Mark Briggs	Relative Humidity:	41.4%
Customer Project:	None	Bar. Pressure:	1015 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	14.1VDC via 110VAC/60Hz	Configuration:	INTE5684-4,5,6

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	5	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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COMMENTS

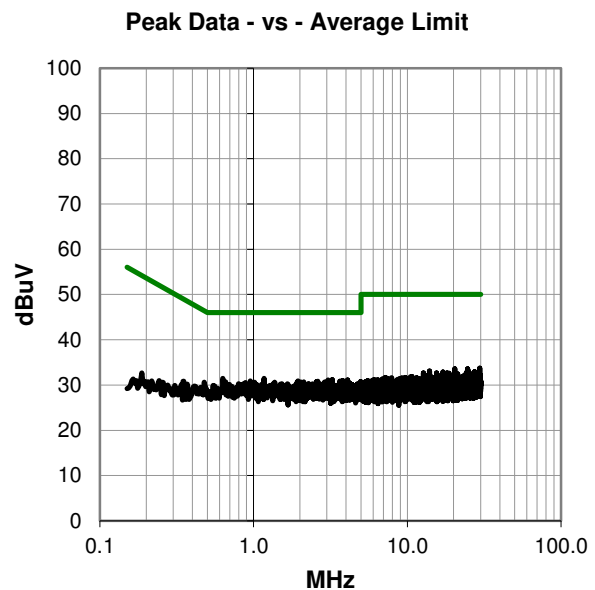
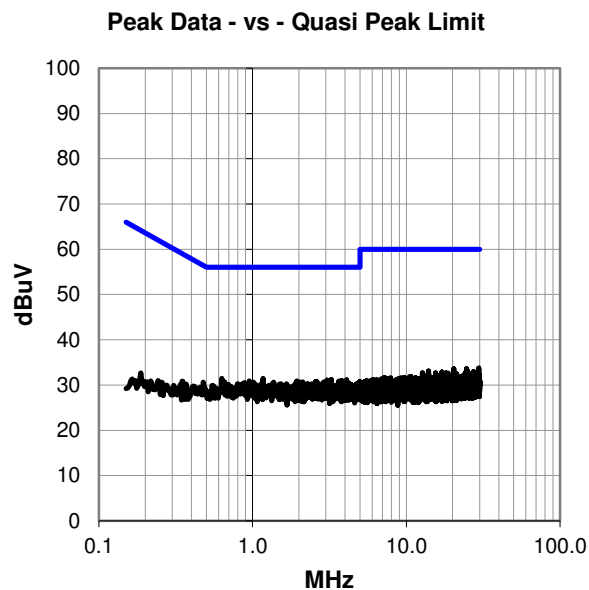
None

EUT OPERATING MODES

On, Tx BTL continuous Mid Ch. 2440 MHz

DEVIATIONS FROM TEST STANDARD

None



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #5

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.631	11.5	20.0	31.5	56.0	-24.5
1.169	11.4	20.1	31.5	56.0	-24.5
3.247	11.0	20.2	31.2	56.0	-24.8
3.056	10.9	20.2	31.1	56.0	-24.9
4.093	10.9	20.2	31.1	56.0	-24.9
3.791	10.8	20.2	31.0	56.0	-25.0
0.952	10.8	20.1	30.9	56.0	-25.1
1.948	10.8	20.1	30.9	56.0	-25.1
3.821	10.7	20.2	30.9	56.0	-25.1
2.612	10.6	20.2	30.8	56.0	-25.2
3.191	10.6	20.2	30.8	56.0	-25.2
3.642	10.6	20.2	30.8	56.0	-25.2
4.974	10.5	20.3	30.8	56.0	-25.2
2.116	10.6	20.1	30.7	56.0	-25.3
2.556	10.5	20.2	30.7	56.0	-25.3
2.915	10.5	20.2	30.7	56.0	-25.3
1.370	10.5	20.1	30.6	56.0	-25.4
1.915	10.5	20.1	30.6	56.0	-25.4
2.030	10.5	20.1	30.6	56.0	-25.4
0.885	10.5	20.1	30.6	56.0	-25.4
2.862	10.3	20.2	30.5	56.0	-25.5
3.918	10.3	20.2	30.5	56.0	-25.5
4.187	10.3	20.2	30.5	56.0	-25.5
2.273	10.2	20.2	30.4	56.0	-25.6
4.758	10.1	20.2	30.3	56.0	-25.7
4.254	10.1	20.2	30.3	56.0	-25.7

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.631	11.5	20.0	31.5	46.0	-14.5
1.169	11.4	20.1	31.5	46.0	-14.5
3.247	11.0	20.2	31.2	46.0	-14.8
3.056	10.9	20.2	31.1	46.0	-14.9
4.093	10.9	20.2	31.1	46.0	-14.9
3.791	10.8	20.2	31.0	46.0	-15.0
0.952	10.8	20.1	30.9	46.0	-15.1
1.948	10.8	20.1	30.9	46.0	-15.1
3.821	10.7	20.2	30.9	46.0	-15.1
2.612	10.6	20.2	30.8	46.0	-15.2
3.191	10.6	20.2	30.8	46.0	-15.2
3.642	10.6	20.2	30.8	46.0	-15.2
4.974	10.5	20.3	30.8	46.0	-15.2
2.116	10.6	20.1	30.7	46.0	-15.3
2.556	10.5	20.2	30.7	46.0	-15.3
2.915	10.5	20.2	30.7	46.0	-15.3
1.370	10.5	20.1	30.6	46.0	-15.4
1.915	10.5	20.1	30.6	46.0	-15.4
2.030	10.5	20.1	30.6	46.0	-15.4
0.885	10.5	20.1	30.6	46.0	-15.4
2.862	10.3	20.2	30.5	46.0	-15.5
3.918	10.3	20.2	30.5	46.0	-15.5
4.187	10.3	20.2	30.5	46.0	-15.5
2.273	10.2	20.2	30.4	46.0	-15.6
4.758	10.1	20.2	30.3	46.0	-15.7
4.254	10.1	20.2	30.3	46.0	-15.7

CONCLUSION

Pass



Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Sea Dunes B1RX Module	Work Order:	INTE5684
Serial Number:	See Configuration	Date:	04/07/2016
Customer:	Intel Corporation	Temperature:	22.5°C
Attendees:	Mark Briggs	Relative Humidity:	41.4%
Customer Project:	None	Bar. Pressure:	1015 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	14.1VDC via 110VAC/60Hz	Configuration:	INTE5684-4,5,6

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	6	Line:	High Line	Add. Ext. Attenuation (dB):	0
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COMMENTS

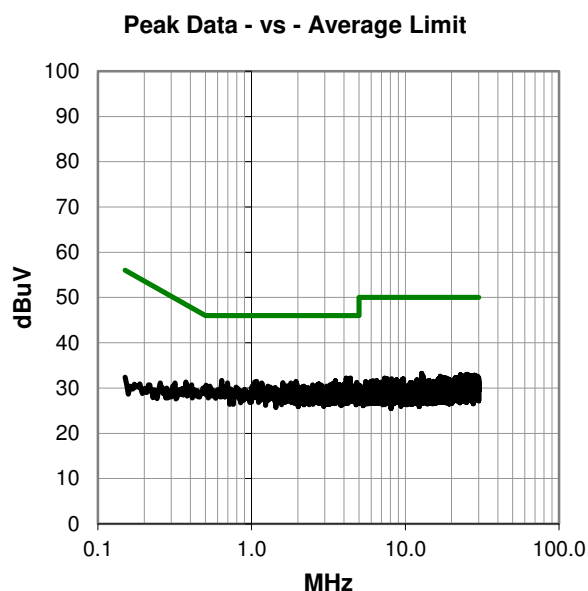
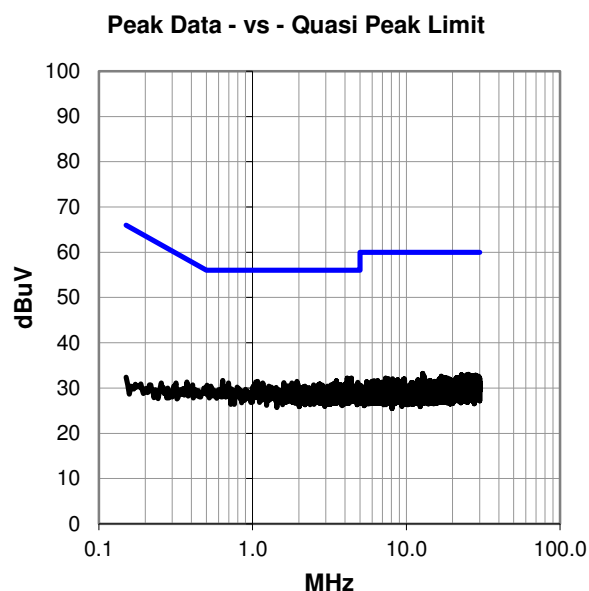
None

EUT OPERATING MODES

On, Tx BTL continuous mid Ch. 2440 MHz

DEVIATIONS FROM TEST STANDARD

None



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #6

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.127	12.0	20.2	32.2	56.0	-23.8
4.399	12.0	20.2	32.2	56.0	-23.8
0.639	11.7	20.0	31.7	56.0	-24.3
3.511	11.4	20.2	31.6	56.0	-24.4
1.079	11.4	20.1	31.5	56.0	-24.5
1.941	11.4	20.1	31.5	56.0	-24.5
1.045	11.2	20.1	31.3	56.0	-24.7
4.843	11.0	20.2	31.2	56.0	-24.8
1.601	11.1	20.1	31.2	56.0	-24.8
0.698	11.1	20.0	31.1	56.0	-24.9
1.165	11.0	20.1	31.1	56.0	-24.9
1.803	11.0	20.1	31.1	56.0	-24.9
4.067	10.9	20.2	31.1	56.0	-24.9
3.422	10.8	20.2	31.0	56.0	-25.0
4.187	10.8	20.2	31.0	56.0	-25.0
1.967	10.9	20.1	31.0	56.0	-25.0
2.732	10.7	20.2	30.9	56.0	-25.1
3.362	10.7	20.2	30.9	56.0	-25.1
3.597	10.7	20.2	30.9	56.0	-25.1
4.030	10.6	20.2	30.8	56.0	-25.2
2.489	10.5	20.2	30.7	56.0	-25.3
2.665	10.5	20.2	30.7	56.0	-25.3
3.228	10.5	20.2	30.7	56.0	-25.3
3.746	10.5	20.2	30.7	56.0	-25.3
3.937	10.5	20.2	30.7	56.0	-25.3
3.993	10.5	20.2	30.7	56.0	-25.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.127	12.0	20.2	32.2	46.0	-13.8
4.399	12.0	20.2	32.2	46.0	-13.8
0.639	11.7	20.0	31.7	46.0	-14.3
3.511	11.4	20.2	31.6	46.0	-14.4
1.079	11.4	20.1	31.5	46.0	-14.5
1.941	11.4	20.1	31.5	46.0	-14.5
1.045	11.2	20.1	31.3	46.0	-14.7
4.843	11.0	20.2	31.2	46.0	-14.8
1.601	11.1	20.1	31.2	46.0	-14.8
0.698	11.1	20.0	31.1	46.0	-14.9
1.165	11.0	20.1	31.1	46.0	-14.9
1.803	11.0	20.1	31.1	46.0	-14.9
4.067	10.9	20.2	31.1	46.0	-14.9
3.422	10.8	20.2	31.0	46.0	-15.0
4.187	10.8	20.2	31.0	46.0	-15.0
1.967	10.9	20.1	31.0	46.0	-15.0
2.732	10.7	20.2	30.9	46.0	-15.1
3.362	10.7	20.2	30.9	46.0	-15.1
3.597	10.7	20.2	30.9	46.0	-15.1
4.030	10.6	20.2	30.8	46.0	-15.2
2.489	10.5	20.2	30.7	46.0	-15.3
2.665	10.5	20.2	30.7	46.0	-15.3
3.228	10.5	20.2	30.7	46.0	-15.3
3.746	10.5	20.2	30.7	46.0	-15.3
3.937	10.5	20.2	30.7	46.0	-15.3
3.993	10.5	20.2	30.7	46.0	-15.3

CONCLUSION

Pass



Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Sea Dunes B1RX Module	Work Order:	INTE5684
Serial Number:	See Configuration	Date:	04/07/2016
Customer:	Intel Corporation	Temperature:	22.5°C
Attendees:	Mark Briggs	Relative Humidity:	41.4%
Customer Project:	None	Bar. Pressure:	1015 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	14.1VDC via 110VAC/60Hz	Configuration:	INTE5684-4,5,6

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	7	Line:	High Line	Add. Ext. Attenuation (dB):	0
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COMMENTS

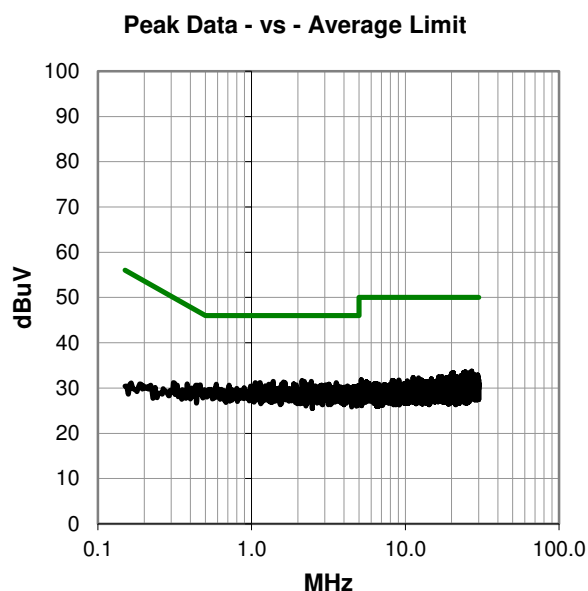
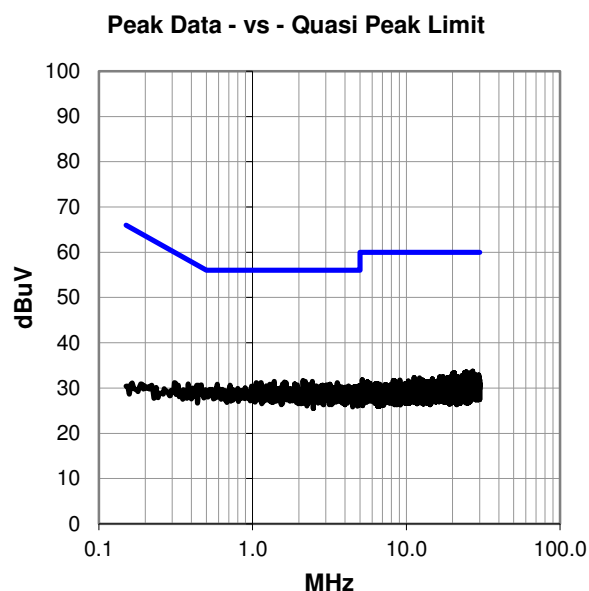
None

EUT OPERATING MODES

On, Tx BTL continuous High Ch. 2480 MHz

DEVIATIONS FROM TEST STANDARD

None



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #7

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
2.135	11.6	20.1	31.7	56.0	-24.3
2.452	11.3	20.2	31.5	56.0	-24.5
1.381	11.4	20.1	31.5	56.0	-24.5
2.206	11.3	20.1	31.4	56.0	-24.6
1.616	11.2	20.1	31.3	56.0	-24.7
1.057	11.1	20.1	31.2	56.0	-24.8
1.131	11.1	20.1	31.2	56.0	-24.8
1.654	11.1	20.1	31.2	56.0	-24.8
3.552	11.0	20.2	31.2	56.0	-24.8
1.568	10.8	20.1	30.9	56.0	-25.1
1.881	10.8	20.1	30.9	56.0	-25.1
0.590	10.8	20.0	30.8	56.0	-25.2
3.187	10.6	20.2	30.8	56.0	-25.2
1.295	10.7	20.1	30.8	56.0	-25.2
2.336	10.6	20.2	30.8	56.0	-25.2
1.351	10.6	20.1	30.7	56.0	-25.3
1.952	10.6	20.1	30.7	56.0	-25.3
3.019	10.5	20.2	30.7	56.0	-25.3
0.713	10.6	20.0	30.6	56.0	-25.4
1.601	10.5	20.1	30.6	56.0	-25.4
2.855	10.4	20.2	30.6	56.0	-25.4
3.109	10.4	20.2	30.6	56.0	-25.4
4.959	10.3	20.3	30.6	56.0	-25.4
2.590	10.3	20.2	30.5	56.0	-25.5
2.795	10.3	20.2	30.5	56.0	-25.5
1.228	10.4	20.1	30.5	56.0	-25.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
2.135	11.6	20.1	31.7	46.0	-14.3
2.452	11.3	20.2	31.5	46.0	-14.5
1.381	11.4	20.1	31.5	46.0	-14.5
2.206	11.3	20.1	31.4	46.0	-14.6
1.616	11.2	20.1	31.3	46.0	-14.7
1.057	11.1	20.1	31.2	46.0	-14.8
1.131	11.1	20.1	31.2	46.0	-14.8
1.654	11.1	20.1	31.2	46.0	-14.8
3.552	11.0	20.2	31.2	46.0	-14.8
1.568	10.8	20.1	30.9	46.0	-15.1
1.881	10.8	20.1	30.9	46.0	-15.1
0.590	10.8	20.0	30.8	46.0	-15.2
3.187	10.6	20.2	30.8	46.0	-15.2
1.295	10.7	20.1	30.8	46.0	-15.2
2.336	10.6	20.2	30.8	46.0	-15.2
1.351	10.6	20.1	30.7	46.0	-15.3
1.952	10.6	20.1	30.7	46.0	-15.3
3.019	10.5	20.2	30.7	46.0	-15.3
0.713	10.6	20.0	30.6	46.0	-15.4
1.601	10.5	20.1	30.6	46.0	-15.4
2.855	10.4	20.2	30.6	46.0	-15.4
3.109	10.4	20.2	30.6	46.0	-15.4
4.959	10.3	20.3	30.6	46.0	-15.4
2.590	10.3	20.2	30.5	46.0	-15.5
2.795	10.3	20.2	30.5	46.0	-15.5
1.228	10.4	20.1	30.5	46.0	-15.5

CONCLUSION

Pass



Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Sea Dunes B1RX Module	Work Order:	INTE5684
Serial Number:	See Configuration	Date:	04/07/2016
Customer:	Intel Corporation	Temperature:	22.5°C
Attendees:	Mark Briggs	Relative Humidity:	41.4%
Customer Project:	None	Bar. Pressure:	1015 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	14.1VDC via 110VAC/60Hz	Configuration:	INTE5684-4,5,6

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	8	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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COMMENTS

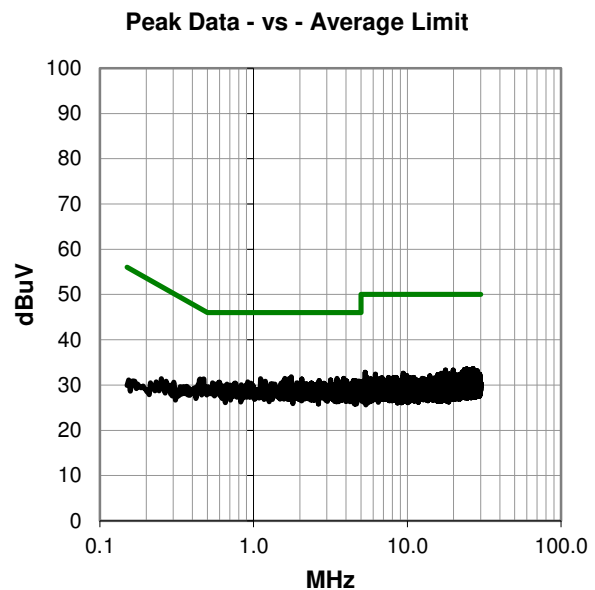
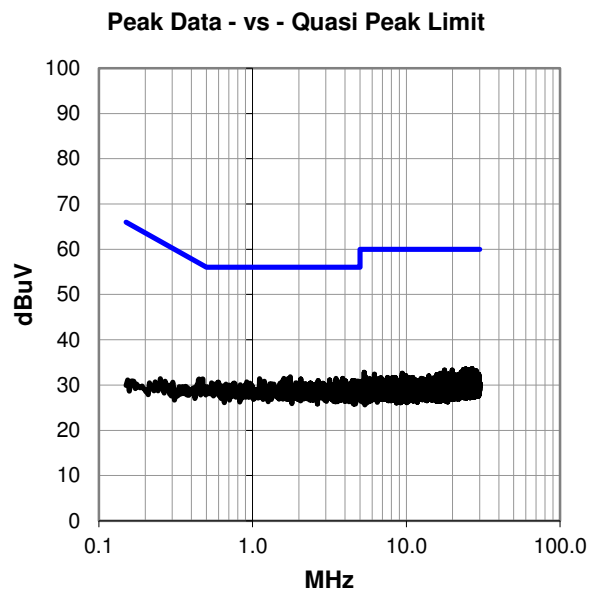
None

EUT OPERATING MODES

On, Tx BTL continuous High Ch. 2480 MHz

DEVIATIONS FROM TEST STANDARD

None



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #8

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.758	11.7	20.1	31.8	56.0	-24.2
3.497	11.3	20.2	31.5	56.0	-24.5
3.862	11.3	20.2	31.5	56.0	-24.5
1.594	11.4	20.1	31.5	56.0	-24.5
1.109	11.3	20.1	31.4	56.0	-24.6
1.702	11.3	20.1	31.4	56.0	-24.6
2.060	11.2	20.1	31.3	56.0	-24.7
3.172	10.9	20.2	31.1	56.0	-24.9
2.668	10.8	20.2	31.0	56.0	-25.0
3.899	10.8	20.2	31.0	56.0	-25.0
4.452	10.8	20.2	31.0	56.0	-25.0
4.612	10.7	20.2	30.9	56.0	-25.1
4.034	10.7	20.2	30.9	56.0	-25.1
4.858	10.6	20.2	30.8	56.0	-25.2
4.746	10.6	20.2	30.8	56.0	-25.2
4.578	10.6	20.2	30.8	56.0	-25.2
0.471	11.3	20.0	31.3	56.5	-25.2
3.788	10.6	20.2	30.8	56.0	-25.2
1.195	10.7	20.1	30.8	56.0	-25.2
1.560	10.7	20.1	30.8	56.0	-25.2
0.915	10.6	20.1	30.7	56.0	-25.3
3.955	10.4	20.2	30.6	56.0	-25.4
3.437	10.3	20.2	30.5	56.0	-25.5
3.728	10.3	20.2	30.5	56.0	-25.5
3.821	10.3	20.2	30.5	56.0	-25.5
4.496	10.3	20.2	30.5	56.0	-25.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.758	11.7	20.1	31.8	46.0	-14.2
3.497	11.3	20.2	31.5	46.0	-14.5
3.862	11.3	20.2	31.5	46.0	-14.5
1.594	11.4	20.1	31.5	46.0	-14.5
1.109	11.3	20.1	31.4	46.0	-14.6
1.702	11.3	20.1	31.4	46.0	-14.6
2.060	11.2	20.1	31.3	46.0	-14.7
3.172	10.9	20.2	31.1	46.0	-14.9
2.668	10.8	20.2	31.0	46.0	-15.0
3.899	10.8	20.2	31.0	46.0	-15.0
4.452	10.8	20.2	31.0	46.0	-15.0
4.612	10.7	20.2	30.9	46.0	-15.1
4.034	10.7	20.2	30.9	46.0	-15.1
4.858	10.6	20.2	30.8	46.0	-15.2
4.746	10.6	20.2	30.8	46.0	-15.2
4.578	10.6	20.2	30.8	46.0	-15.2
0.471	11.3	20.0	31.3	46.5	-15.2
3.788	10.6	20.2	30.8	46.0	-15.2
1.195	10.7	20.1	30.8	46.0	-15.2
1.560	10.7	20.1	30.8	46.0	-15.2
0.915	10.6	20.1	30.7	46.0	-15.3
3.955	10.4	20.2	30.6	46.0	-15.4
3.437	10.3	20.2	30.5	46.0	-15.5
3.728	10.3	20.2	30.5	46.0	-15.5
3.821	10.3	20.2	30.5	46.0	-15.5
4.496	10.3	20.2	30.5	46.0	-15.5

CONCLUSION

Pass



Tested By

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Transmitting BTLE Low Ch. 2402 MHz
Transmitting BTLE Mid Ch. 2440 MHz
Transmitting BTLE High Ch.2480 MHz

POWER SETTINGS INVESTIGATED

14.1VDC via 110VAC/60Hz

CONFIGURATIONS INVESTIGATED

INTE5684 - 4
INTE5684 - 5
INTE5684 - 6

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26500 MHz
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SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Cable	ESM Cable Corp.	KMKM-72	EVY	11/4/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	11/4/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AIV	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	3/11/2016	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AHV	NCR	0 mo
Cable	None	Standard Gain Horns Cable	EVF	3/11/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	3/11/2016	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHU	NCR	0 mo
Filter - High Pass	Micro-Tronics	HPM50111	HFO	3/22/2016	12 mo
Attenuator	Coaxicom	3910-20	AXZ	5/24/2015	12 mo
Cable	N/A	Double Ridge Horn Cables	EVB	3/11/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	3/11/2016	12 mo
Antenna - Double Ridge	EMCO	3115	AHC	6/13/2014	24 mo
Filter - Low Pass	Micro-Tronics	LPM50004	LFD	5/24/2015	12 mo
Cable	N/A	Bilog Cables	EVA	3/11/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AOL	3/11/2016	12 mo
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	3/10/2015	24 mo
Antenna - Biconilog	EMCO	3141	AXE	8/29/2014	24 mo

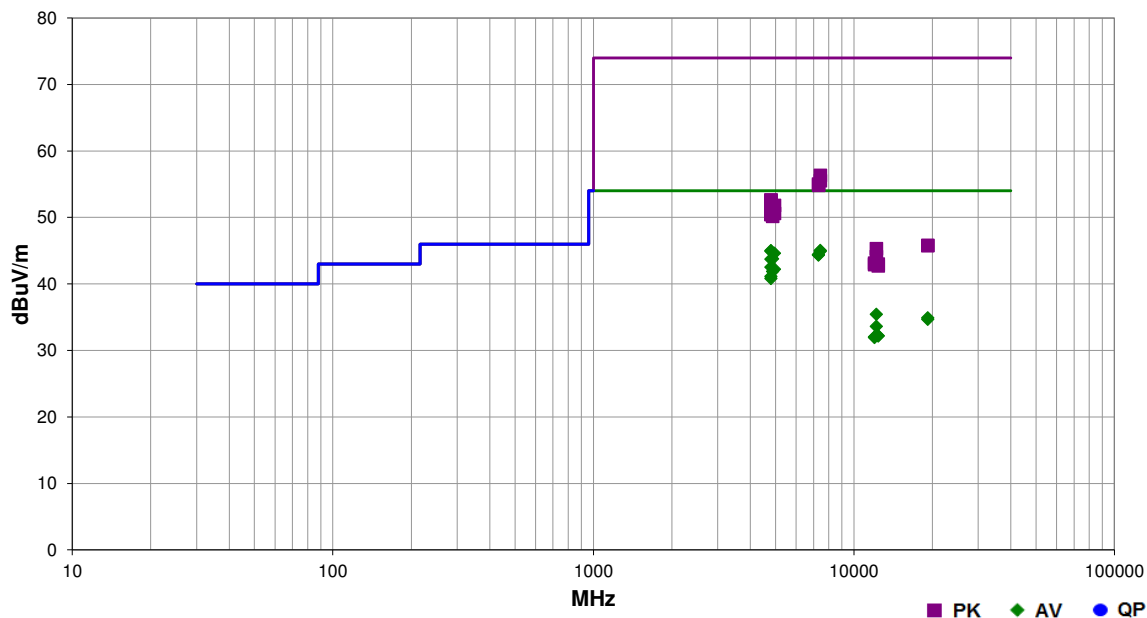
TEST DESCRIPTION

The EUT was tested with an external IFA antenna with a peak gain of 2.6dBi. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

Work Order:	INTE5684	Date:	04/08/16	
Project:	None	Temperature:	22.1 °C	
Job Site:	EV01	Humidity:	44.5% RH	
Serial Number:	See Configuration	Barometric Pres.:	1013 mbar	
EUT:	Sea Dunes B1RX Module			
Configuration:	4,5,6			
Customer:	Intel Corporation			
Attendees:	Mark Briggs			
EUT Power:	14.1VDC via 110VAC/60Hz			
Operating Mode:	Transmitting BTLE			
Deviations:	None			
Comments:	Please reference the data comments for EUT orientation, Frequency, and Channel			

Test Specifications	Test Method
FCC 15.247:2016	ANSI C63.10:2013

Run #	12	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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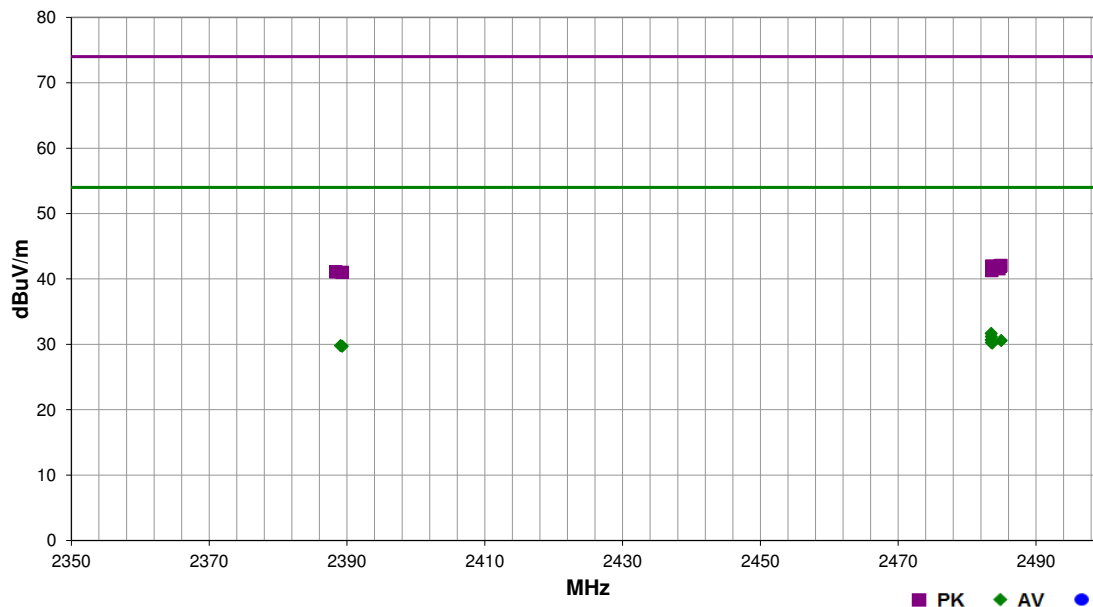
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7440.035	27.3	17.7	1.0	0.0	3.0	0.0	Vert	AV	0.0	45.0	54.0	-9.0	High Ch.2480MHz, EUT Vert
4804.235	35.8	9.2	2.2	166.0	3.0	0.0	Horz	AV	0.0	45.0	54.0	-9.0	Low Ch.2402MHz, EUT Horz
7438.930	27.2	17.7	1.0	232.0	3.0	0.0	Horz	AV	0.0	44.9	54.0	-9.1	High Ch.2480MHz, EUT Horz
4804.210	35.7	9.2	3.3	99.0	3.0	0.0	Horz	AV	0.0	44.9	54.0	-9.1	Low Ch.2402MHz, EUT On Side
4959.895	35.0	9.6	3.7	294.0	3.0	0.0	Horz	AV	0.0	44.6	54.0	-9.4	High Ch.2480MHz, EUT Horz
7318.675	27.5	16.9	1.0	258.0	3.0	0.0	Vert	AV	0.0	44.4	54.0	-9.6	Mid Ch.2440MHz, EUT Vert
7320.125	27.4	16.9	1.0	270.0	3.0	0.0	Horz	AV	0.0	44.3	54.0	-9.7	Mid Ch.2440MHz, EUT Horz
4880.095	34.3	9.5	2.9	290.0	3.0	0.0	Horz	AV	0.0	43.8	54.0	-10.2	Mid Ch.2440MHz, EUT Horz
4804.255	34.5	9.2	1.0	334.0	3.0	0.0	Vert	AV	0.0	43.7	54.0	-10.3	Low Ch.2402MHz, EUT Vert
4804.095	33.3	9.2	3.9	72.0	3.0	0.0	Vert	AV	0.0	42.5	54.0	-11.5	Low Ch.2402MHz, EUT Horz
4960.040	32.6	9.6	1.0	357.0	3.0	0.0	Vert	AV	0.0	42.2	54.0	-11.8	High Ch.2480MHz, EUT Vert
4880.160	32.4	9.5	2.5	328.0	3.0	0.0	Vert	AV	0.0	41.9	54.0	-12.1	Mid Ch.2440MHz, EUT Vert
4804.245	31.9	9.2	1.3	141.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	Low Ch.2402MHz, EUT Vert
4804.140	31.6	9.2	1.0	273.0	3.0	0.0	Vert	AV	0.0	40.8	54.0	-13.2	Low Ch.2402MHz, EUT On Side
7440.345	38.6	17.7	1.0	0.0	3.0	0.0	Vert	PK	0.0	56.3	74.0	-17.7	High Ch.2480MHz, EUT Vert
7438.800	37.8	17.7	1.0	232.0	3.0	0.0	Horz	PK	0.0	55.5	74.0	-18.5	High Ch.2480MHz, EUT Horz
12201.270	31.0	4.4	1.9	64.0	3.0	0.0	Horz	AV	0.0	35.4	54.0	-18.6	Mid Ch.2440MHz, EUT Horz
7318.883	38.1	16.9	1.0	258.0	3.0	0.0	Vert	PK	0.0	55.0	74.0	-19.0	Mid Ch.2440MHz, EUT Vert
19215.450	34.2	0.7	1.6	0.0	3.0	0.0	Vert	AV	0.0	34.9	54.0	-19.1	Low Ch.2402MHz, EUT Vert
7321.233	37.9	16.9	1.0	270.0	3.0	0.0	Horz	PK	0.0	54.8	74.0	-19.2	Mid Ch.2440MHz, EUT Horz
19215.760	34.0	0.7	1.6	146.0	3.0	0.0	Horz	AV	0.0	34.7	54.0	-19.3	Low Ch.2402MHz, EUT Horz
12198.960	29.2	4.4	2.7	187.0	3.0	0.0	Vert	AV	0.0	33.6	54.0	-20.4	Mid Ch.2440MHz, EUT Vert
4804.450	43.4	9.2	1.0	334.0	3.0	0.0	Vert	PK	0.0	52.6	74.0	-21.4	Low Ch.2402MHz, EUT Vert
4804.420	43.4	9.2	2.2	166.0	3.0	0.0	Horz	PK	0.0	52.6	74.0	-21.4	Low Ch.2402MHz, EUT Horz
4804.370	43.3	9.2	3.3	99.0	3.0	0.0	Horz	PK	0.0	52.5	74.0	-21.5	Low Ch.2402MHz, EUT On Side

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
12399.300	27.2	5.0	1.0	119.0	3.0	0.0	Horz	AV	0.0	32.2	54.0	-21.8	High Ch.2480MHz, EUT Vert
12399.060	27.2	5.0	1.0	294.0	3.0	0.0	Vert	AV	0.0	32.2	54.0	-21.8	High Ch.2480MHz, EUT Horz
12008.980	28.7	3.3	4.0	18.0	3.0	0.0	Vert	AV	0.0	32.0	54.0	-22.0	Low Ch.2402MHz, EUT Vert
12011.230	28.6	3.3	2.1	216.0	3.0	0.0	Horz	AV	0.0	31.9	54.0	-22.1	Low Ch.2402MHz, EUT Horz
4959.590	42.2	9.6	3.7	294.0	3.0	0.0	Horz	PK	0.0	51.8	74.0	-22.2	High Ch.2480MHz, EUT Horz
4879.960	42.2	9.5	2.9	290.0	3.0	0.0	Horz	PK	0.0	51.7	74.0	-22.3	Mid Ch.2440MHz, EUT Horz
4804.225	41.9	9.2	3.9	72.0	3.0	0.0	Vert	PK	0.0	51.1	74.0	-22.9	Low Ch.2402MHz, EUT Horz
4959.430	41.0	9.6	1.0	357.0	3.0	0.0	Vert	PK	0.0	50.6	74.0	-23.4	High Ch.2480MHz, EUT Vert
4804.090	41.3	9.2	1.0	273.0	3.0	0.0	Vert	PK	0.0	50.5	74.0	-23.5	Low Ch.2402MHz, EUT On Side
4804.100	41.2	9.2	1.3	141.0	3.0	0.0	Horz	PK	0.0	50.4	74.0	-23.6	Low Ch.2402MHz, EUT Vert
4880.275	40.7	9.5	2.5	328.0	3.0	0.0	Vert	PK	0.0	50.2	74.0	-23.8	Mid Ch.2440MHz, EUT Vert
19216.140	45.1	0.7	1.6	0.0	3.0	0.0	Vert	PK	0.0	45.8	74.0	-28.2	Low Ch.2402MHz, EUT Vert
19215.780	45.1	0.7	1.6	146.0	3.0	0.0	Horz	PK	0.0	45.8	74.0	-28.2	Low Ch.2402MHz, EUT Horz
12199.390	40.9	4.4	1.9	64.0	3.0	0.0	Horz	PK	0.0	45.3	74.0	-28.7	Mid Ch.2440MHz, EUT Horz
12201.420	39.7	4.4	2.7	187.0	3.0	0.0	Vert	PK	0.0	44.1	74.0	-29.9	Mid Ch.2440MHz, EUT Vert
12008.950	39.8	3.3	2.1	216.0	3.0	0.0	Horz	PK	0.0	43.1	74.0	-30.9	Low Ch.2402MHz, EUT Horz
12399.650	38.0	5.0	1.0	119.0	3.0	0.0	Horz	PK	0.0	43.0	74.0	-31.0	High Ch.2480MHz, EUT Vert
12008.640	39.6	3.3	4.0	18.0	3.0	0.0	Vert	PK	0.0	42.9	74.0	-31.1	Low Ch.2402MHz, EUT Vert
12399.970	37.7	5.0	1.0	294.0	3.0	0.0	Vert	PK	0.0	42.7	74.0	-31.3	High Ch.2480MHz, EUT Horz

Work Order:	INTE5684	Date:	04/08/16	
Project:	None	Temperature:	22.1 °C	
Job Site:	EV01	Humidity:	44.5% RH	
Serial Number:	See Configuration	Barometric Pres.:	1013 mbar	
EUT:	Sea Dunes B1RX Module			
Configuration:	4,5,6			
Customer:	Intel Corporation			
Attendees:	Mark Briggs			
EUT Power:	14.1VDC via 110VAC/60Hz			
Operating Mode:	Transmitting BTLE			
Deviations:	None			
Comments:	Please reference the data comments for EUT orientation, Frequency, and Channel			

Test Specifications	Test Method
FCC 15.247:2016	ANSI C63.10:2013

Run #	13	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2483.517	32.1	-0.4	1.0	103.0	3.0	0.0	Horz	AV	0.0	31.7	54.0	-22.3	High Ch.2480MHz, EUT Vert
2483.523	31.6	-0.4	1.0	259.0	3.0	0.0	Vert	AV	0.0	31.2	54.0	-22.8	High Ch.2480MHz, EUT On Side
2483.517	31.1	-0.4	1.0	180.0	3.0	0.0	Horz	AV	0.0	30.7	54.0	-23.3	High Ch.2480MHz, EUT Horz
2484.957	31.0	-0.4	1.3	285.0	3.0	0.0	Horz	AV	0.0	30.6	54.0	-23.4	High Ch.2480MHz, EUT On Side
2483.520	30.7	-0.4	1.0	89.0	3.0	0.0	Vert	AV	0.0	30.3	54.0	-23.7	High Ch.2480MHz, EUT Vert
2483.653	30.6	-0.4	2.9	321.0	3.0	0.0	Vert	AV	0.0	30.2	54.0	-23.8	High Ch.2480MHz, EUT Horz
2389.077	30.6	-0.8	1.0	94.0	3.0	0.0	Horz	AV	0.0	29.8	54.0	-24.2	Low Ch.2402MHz, EUT On Side
2389.317	30.5	-0.8	2.4	284.0	3.0	0.0	Vert	AV	0.0	29.7	54.0	-24.3	Low Ch.2402MHz, EUT Vert
2484.903	42.5	-0.4	1.0	259.0	3.0	0.0	Vert	PK	0.0	42.1	74.0	-31.9	High Ch.2480MHz, EUT On Side
2484.770	42.4	-0.4	1.0	103.0	3.0	0.0	Horz	PK	0.0	42.0	74.0	-32.0	High Ch.2480MHz, EUT Vert
2483.573	42.4	-0.4	1.0	180.0	3.0	0.0	Horz	PK	0.0	42.0	74.0	-32.0	High Ch.2480MHz, EUT Horz
2484.437	42.2	-0.4	1.3	285.0	3.0	0.0	Horz	PK	0.0	41.8	74.0	-32.2	High Ch.2480MHz, EUT On Side
2484.623	42.0	-0.4	2.9	321.0	3.0	0.0	Vert	PK	0.0	41.6	74.0	-32.4	High Ch.2480MHz, EUT Horz
2483.593	41.7	-0.4	1.0	89.0	3.0	0.0	Vert	PK	0.0	41.3	74.0	-32.7	High Ch.2480MHz, EUT Vert
2388.353	41.9	-0.8	2.4	284.0	3.0	0.0	Vert	PK	0.0	41.1	74.0	-32.9	Low Ch.2402MHz, EUT On Side
2389.287	41.8	-0.8	1.0	94.0	3.0	0.0	Horz	PK	0.0	41.0	74.0	-33.0	Low Ch.2402MHz, EUT Vert

DUTY CYCLE

TEST DESCRIPTION

The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

There is no compliance requirement to be met by this test, so therefore no Pass / Fail criteria.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used

The test software provided for operation in a fixed, single channel mode allows the EUT to operate continuously at 100% Duty Cycle.

OCCUPIED BANDWIDTH

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Power Supply - DC	Topward	TPS-2000	TPD	NCR	0
Generator - Signal	Keysight	N5182B	TFU	NCR	0
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2/13/2016	12
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Attenuator	S.M. Electronics	SA26B-20	AWU	NCR	0
Block - DC	Fairview Microwave	SD3379	AMQ	6/18/2015	12

TEST DESCRIPTION

The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.9% (approximate 26 dB) emission bandwidth (EBW) was also measured at the same time.

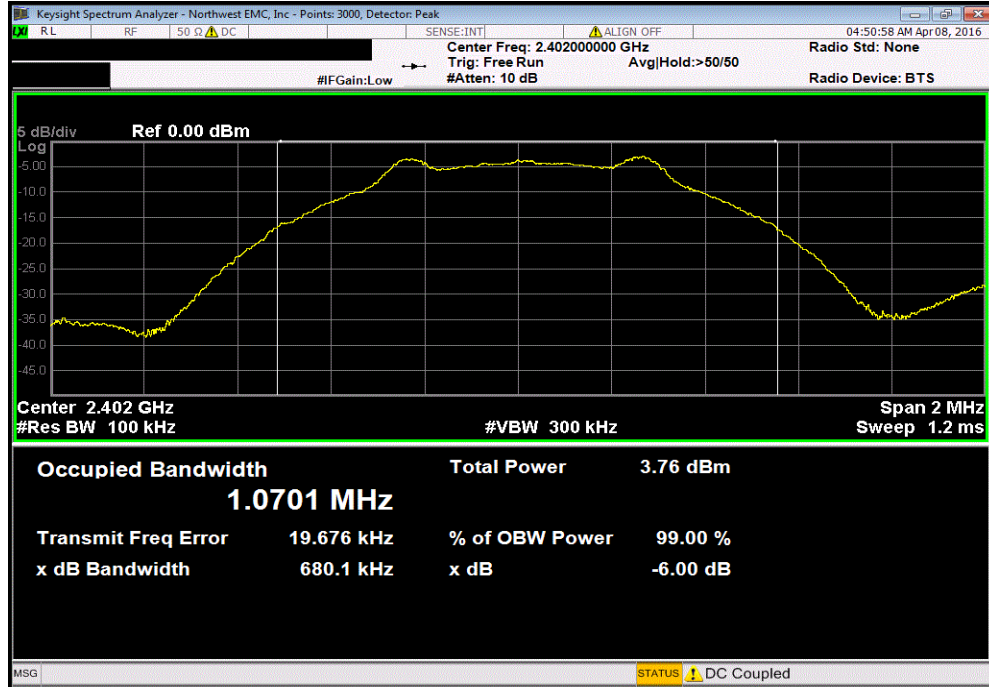
The EUT was set to the channels and modes listed in the datasheet. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer.

OCCUPIED BANDWIDTH

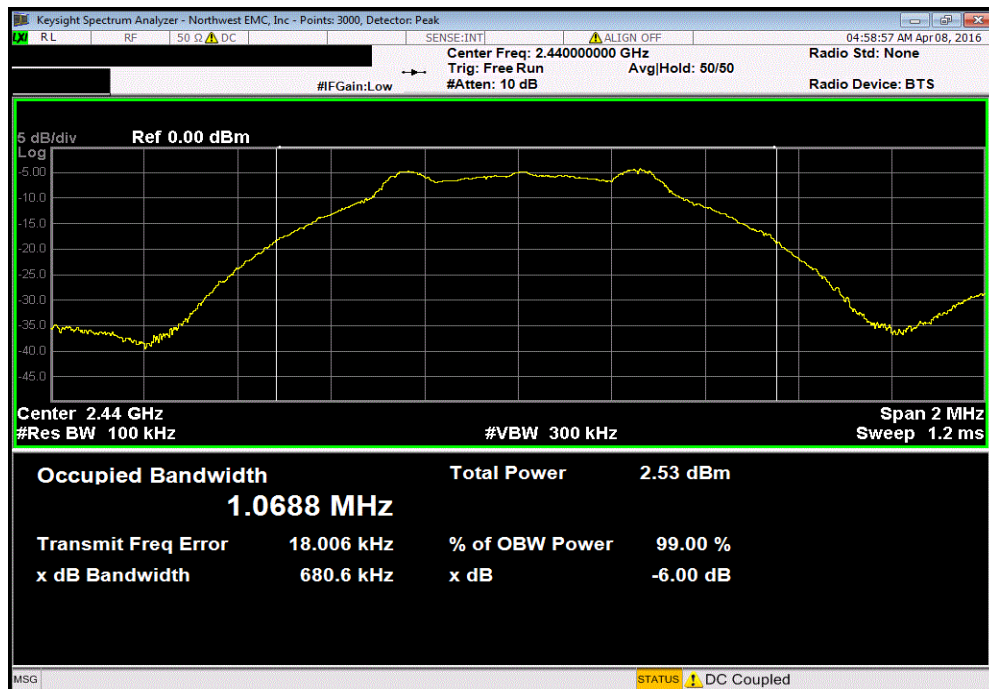
EUT: Sea Dunes B1RX Module		Work Order: INTE5684	
Serial Number: See Configurations		Date: 04/07/16	
Customer: Intel Corporation		Temperature: 22.4°C	
Attendees: Mark Briggs		Humidity: 42%	
Project: None		Barometric Pres.: 1012.7	
Tested by: Brandon Hobbs	Power: 14.1VDC via 110VAC/60Hz	Job Site: EV06	
TEST SPECIFICATIONS			
FCC 15.247:2016		Test Method	
		ANSI C63.10:2013	
COMMENTS			
The EUT is operating at 100% duty cycle.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1,2,3	Signature 	
		Value	Limit (±) Result
BLE/GFSK Low Channel, 2402 MHz		680.109 kHz	500 kHz Pass
BLE/GFSK Mid Channel, 2440 MHz		680.639 kHz	500 kHz Pass
BLE/GFSK High Channel, 2480 MHz		677.393 kHz	500 kHz Pass

OCCUPIED BANDWIDTH

BLE/GFSK Low Channel, 2402 MHz						
				Value	Limit (≥)	Result
				680.109 kHz	500 kHz	Pass

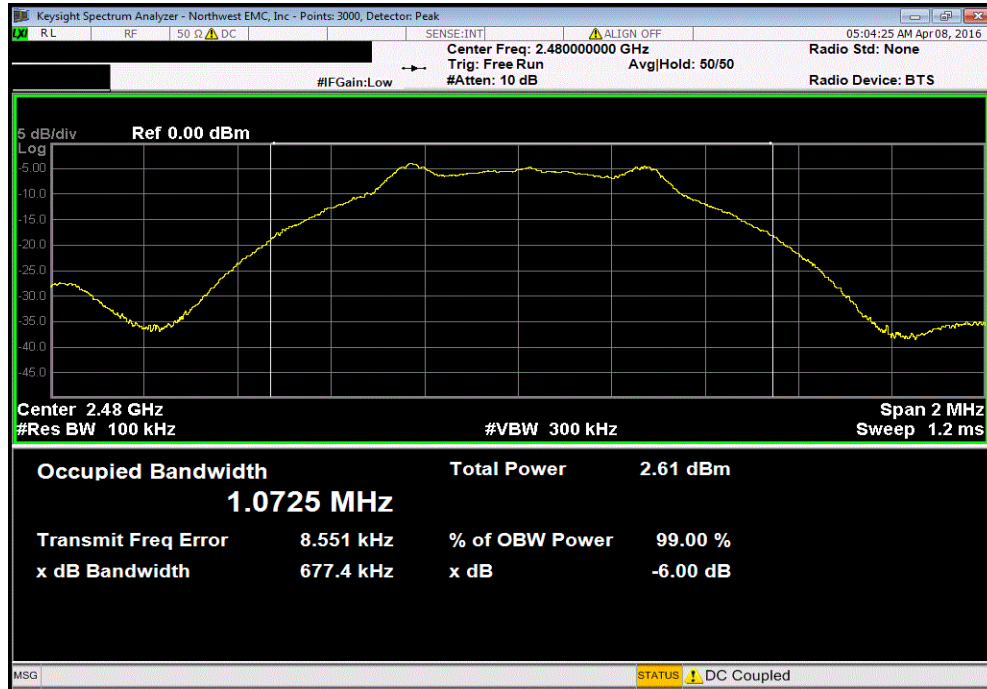


BLE/GFSK Mid Channel, 2440 MHz						
				Value	Limit (≥)	Result
				680.639 kHz	500 kHz	Pass



OCCUPIED BANDWIDTH

BLE/GFSK High Channel, 2480 MHz						
Value				Limit	Result	
677.393 kHz				500 kHz	Pass	



OUTPUT POWER

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Generator - Signal	Keysight	N5182B	TFU	NCR	0
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Attenuator	S.M. Electronics	SA26B-20	AWU	NCR	0
Block - DC	Fairview Microwave	SD3379	AMQ	6/18/2015	12
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2/13/2016	12

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak transmit power the DTS bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The method found in ANSI C63.10:2013 Section 11.10.2 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio..

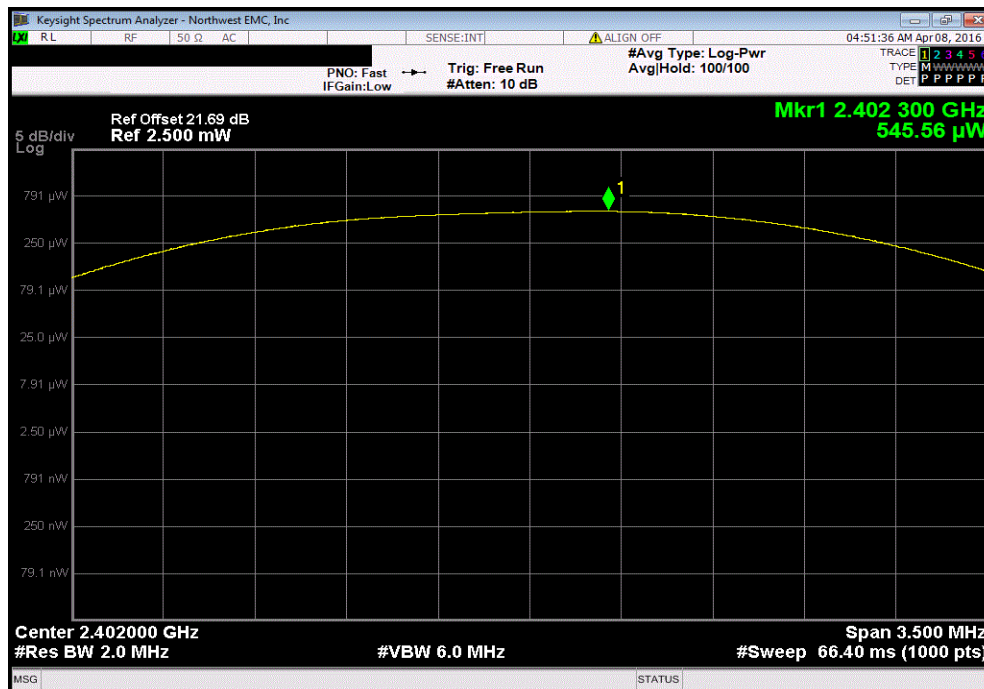
De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36 dBm.

OUTPUT POWER

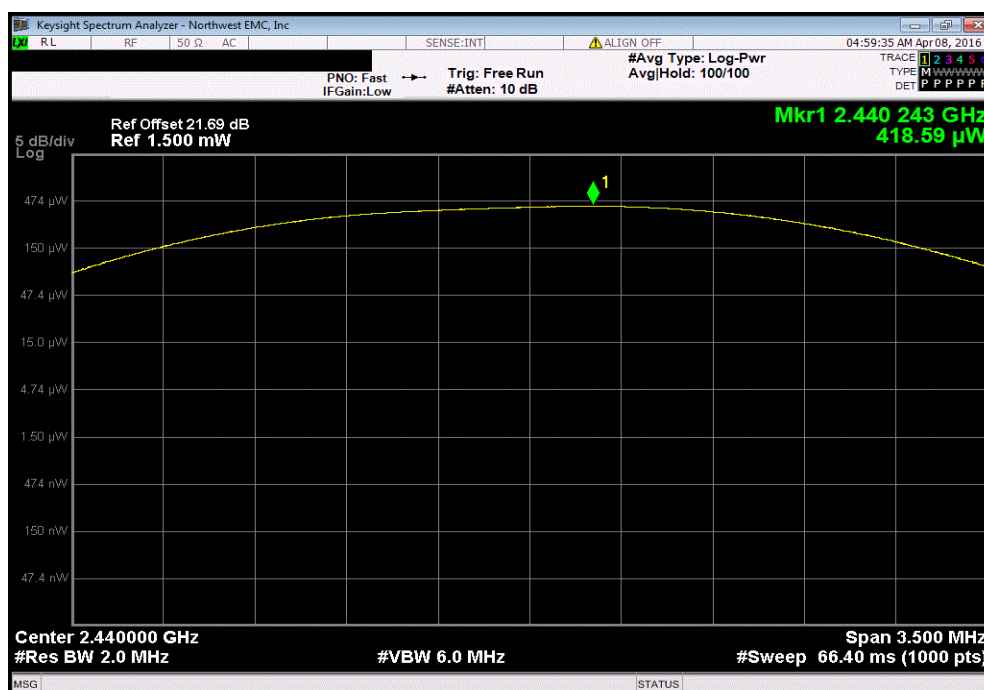
EUT: Sea Dunes B1RX Module		Work Order: INTE5684	
Serial Number: See Configurations		Date: 04/07/16	
Customer: Intel Corporation		Temperature: 22.4°C	
Attendees: Mark Briggs		Humidity: 42%	
Project: None		Barometric Pres.: 1012.7	
Tested by: Brandon Hobbs	Power: 14.1VDC via 110VAC/60Hz	Job Site: EV06	
TEST SPECIFICATIONS			
FCC 15.247:2016		Test Method	
		ANSI C63.10:2013	
COMMENTS			
The EUT is operating at 100% duty cycle.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1,2,3	Signature 	
		Value	Limit (<)
BLE/GFSK Low Channel, 2402 MHz		545.56 uW	1 W
BLE/GFSK Mid Channel, 2440 MHz		418.59 uW	1 W
BLE/GFSK High Channel, 2480 MHz		426.11 uW	1 W
			Result
			Pass
			Pass
			Pass

OUTPUT POWER

BLE/GFSK Low Channel, 2402 MHz						
				Value	Limit	Result
				545.56 uW	1 W	Pass

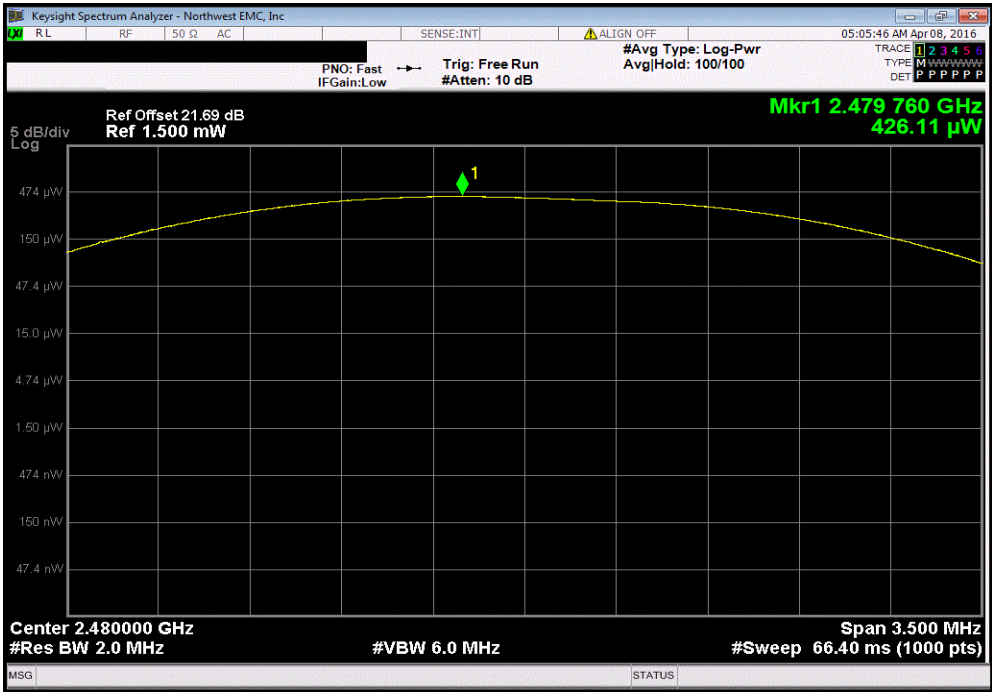


BLE/GFSK Mid Channel, 2440 MHz						
				Value	Limit	Result
				418.59 uW	1 W	Pass



OUTPUT POWER

BLE/GFSK High Channel, 2480 MHz						
Value				Limit	Result	
426.11 uW				1 W	Pass	



POWER SPECTRAL DENSITY

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Generator - Signal	Keysight	N5182B	TFU	NCR	0
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Attenuator	S.M. Electronics	SA26B-20	AWU	NCR	0
Block - DC	Fairview Microwave	SD3379	AMQ	6/18/2015	12
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2/13/2016	12

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

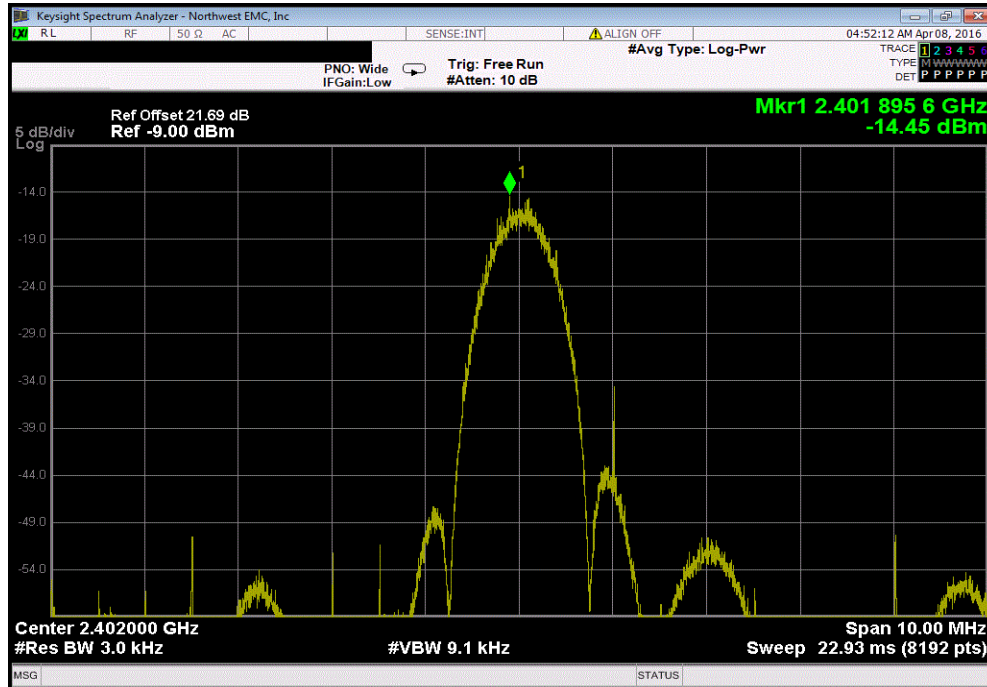
Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.

POWER SPECTRAL DENSITY

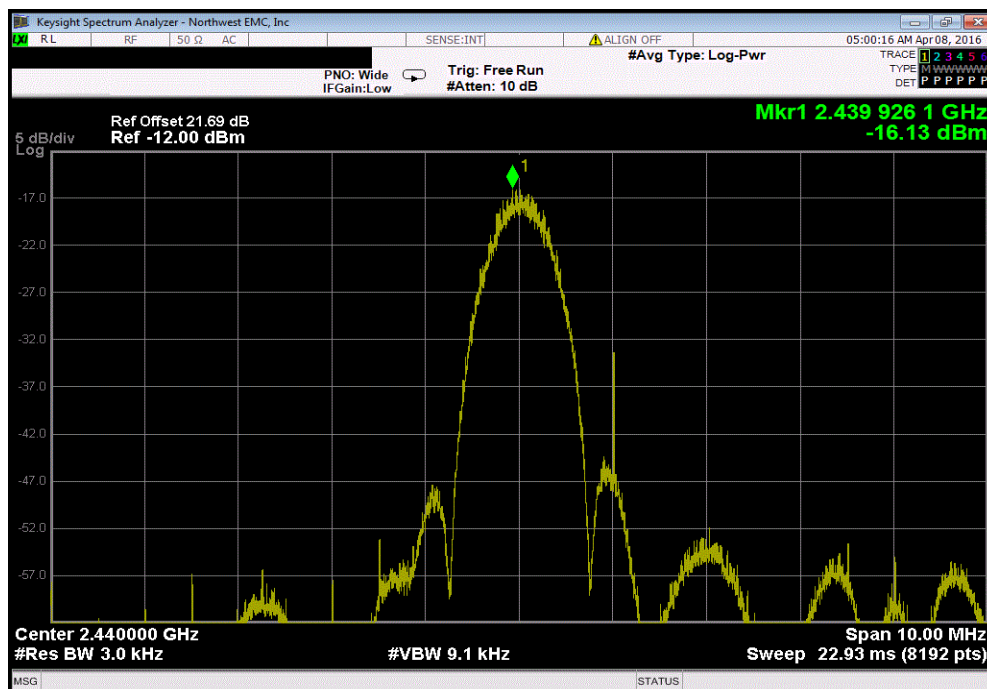
EUT: Sea Dunes B1RX Module		Work Order: INTE5684	
Serial Number: See Configurations		Date: 04/07/16	
Customer: Intel Corporation		Temperature: 22.4°C	
Attendees: Mark Briggs		Humidity: 42%	
Project: None		Barometric Pres.: 1012.7	
Tested by: Brandon Hobbs	Power: 14.1VDC via 110VAC/60Hz	Job Site: EV06	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2016		ANSI C63.10:2013	
COMMENTS			
The EUT is operating at 100% duty cycle.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1,2,3	Signature 	
		Value dBm/3kHz	Limit < dBm/3kHz
BLE/GFSK Low Channel, 2402 MHz		-14.452	8
BLE/GFSK Mid Channel, 2440 MHz		-16.127	8
BLE/GFSK High Channel, 2480 MHz		-16.224	8
			Results
			Pass
			Pass
			Pass

POWER SPECTRAL DENSITY

BLE/GFSK Low Channel, 2402 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-14.452	8	Pass

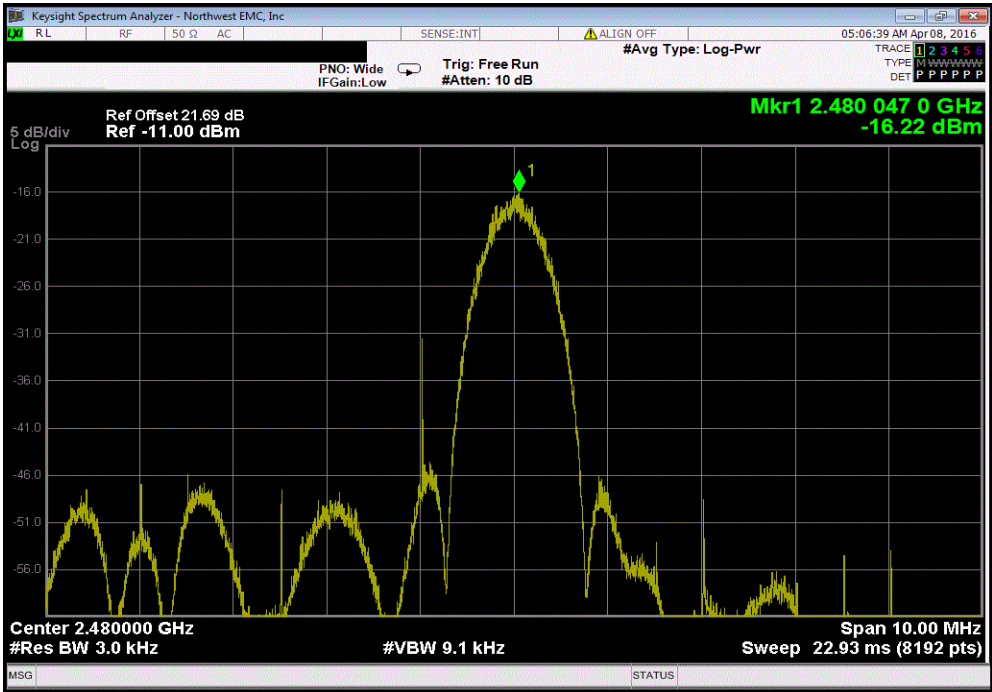


BLE/GFSK Mid Channel, 2440 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-16.127	8	Pass



POWER SPECTRAL DENSITY

BLE/GFSK High Channel, 2480 MHz						
				Value	Limit	Results
				dBm/3kHz	< dBm/3kHz	
				-16.224	8	Pass



BAND EDGE COMPLIANCE

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Generator - Signal	Keysight	N5182B	TFU	NCR	0
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Attenuator	S.M. Electronics	SA26B-20	AWU	NCR	0
Block - DC	Fairview Microwave	SD3379	AMQ	6/18/2015	12
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2/13/2016	12

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting in the mode listed in the datasheet.

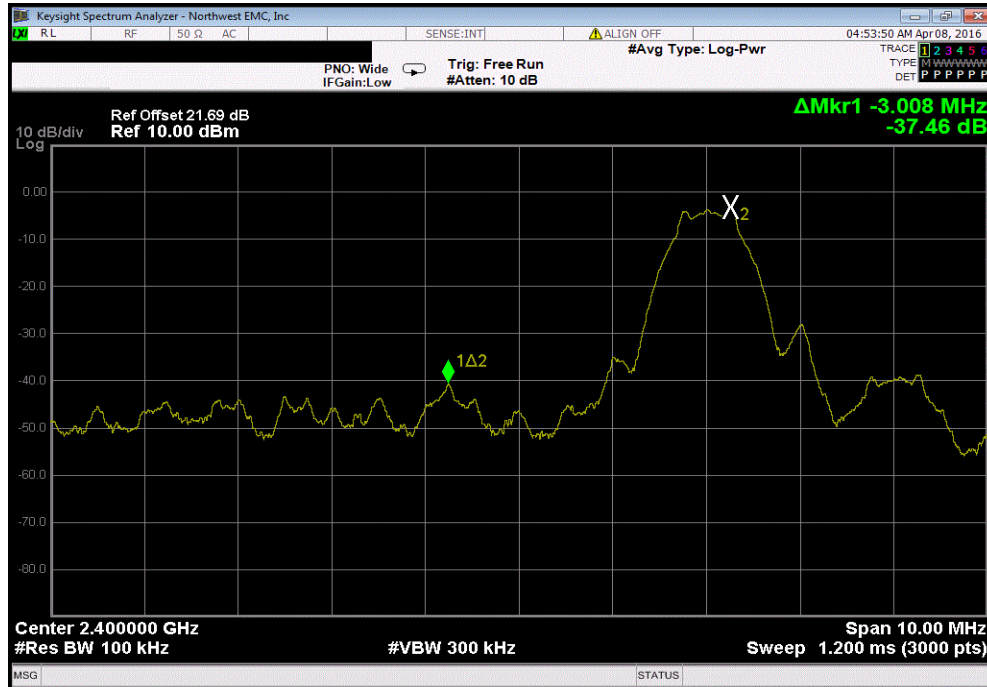
The spectrum was scanned below the lower band edge and above the higher band edge.

BAND EDGE COMPLIANCE

EUT: Sea Dunes B1RX Module		Work Order: INTE5684	
Serial Number: See Configurations		Date: 04/07/16	
Customer: Intel Corporation		Temperature: 22.4°C	
Attendees: Mark Briggs		Humidity: 42%	
Project: None		Barometric Pres.: 1012.7	
Tested by: Brandon Hobbs	Power: 14.1VDC via 110VAC/60Hz	Job Site: EV06	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2016		ANSI C63.10:2013	
COMMENTS			
The EUT is operating at 100% duty cycle.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1,2,3	Signature 	
		Value (dBc)	Limit ≤ (dBc) Result
BLE/GFSK Low Channel, 2402 MHz		-37.46	-20 Pass
BLE/GFSK High Channel, 2480 MHz		-39.79	-20 Pass

BAND EDGE COMPLIANCE

BLE/GFSK Low Channel, 2402 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-37.46	-20	Pass



BLE/GFSK High Channel, 2480 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-39.79	-20	Pass



SPURIOUS CONDUCTED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Generator - Signal	Keysight	N5182B	TFU	NCR	0
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Block - DC	Fairview Microwave	SD3379	AMQ	6/18/2015	12
Attenuator	S.M. Electronics	SA26B-20	AWU	NCR	0
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2/13/2016	12

TEST DESCRIPTION

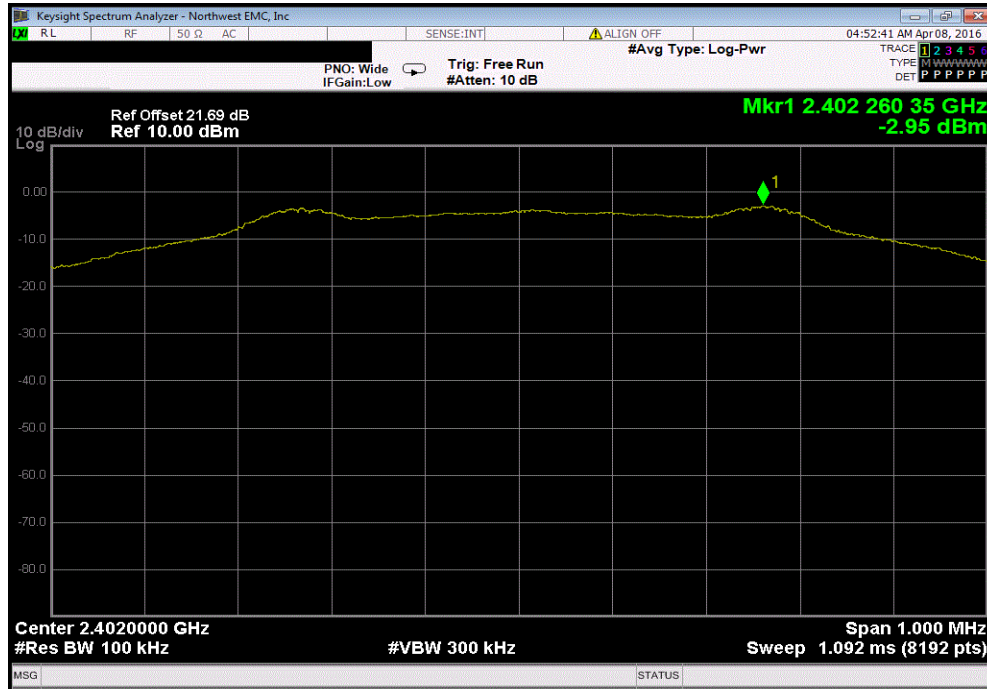
The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting in the mode listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

SPURIOUS CONDUCTED EMISSIONS

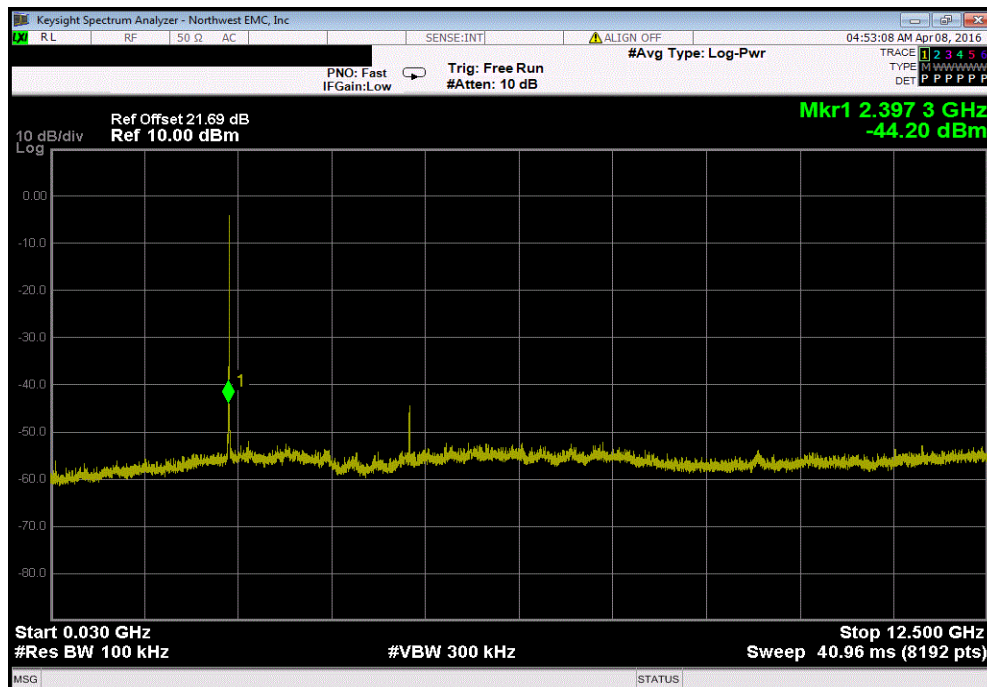
EUT: Sea Dunes B1RX Module		Work Order: INTE5684	
Serial Number: See Configurations		Date: 04/07/16	
Customer: Intel Corporation		Temperature: 22.4°C	
Attendees: Mark Briggs		Humidity: 42%	
Project: None		Barometric Pres.: 1012.7	
Tested by: Brandon Hobbs		Power: 14.1VDC via 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2016		ANSI C63.10:2013	
COMMENTS			
The EUT is operating at 100% duty cycle.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1,2,3	Signature 	
		Frequency Range	Max Value (dBc)
			Limit ≤ (dBc)
			Result
BLE/GFSK Low Channel, 2402 MHz		Fundamental	N/A
BLE/GFSK Low Channel, 2402 MHz		30 MHz - 12.5 GHz	-41.25
BLE/GFSK Low Channel, 2402 MHz		12.5 GHz - 25 GHz	-35.92
BLE/GFSK Mid Channel, 2440 MHz		Fundamental	N/A
BLE/GFSK Mid Channel, 2440 MHz		30 MHz - 12.5 GHz	-42.12
BLE/GFSK Mid Channel, 2440 MHz		12.5 GHz - 25 GHz	-34
BLE/GFSK High Channel, 2480 MHz		Fundamental	N/A
BLE/GFSK High Channel, 2480 MHz		30 MHz - 12.5 GHz	-39.84
BLE/GFSK High Channel, 2480 MHz		12.5 GHz - 25 GHz	-34.6

SPURIOUS CONDUCTED EMISSIONS

BLE/GFSK Low Channel, 2402 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
Fundamental		N/A		N/A	N/A	

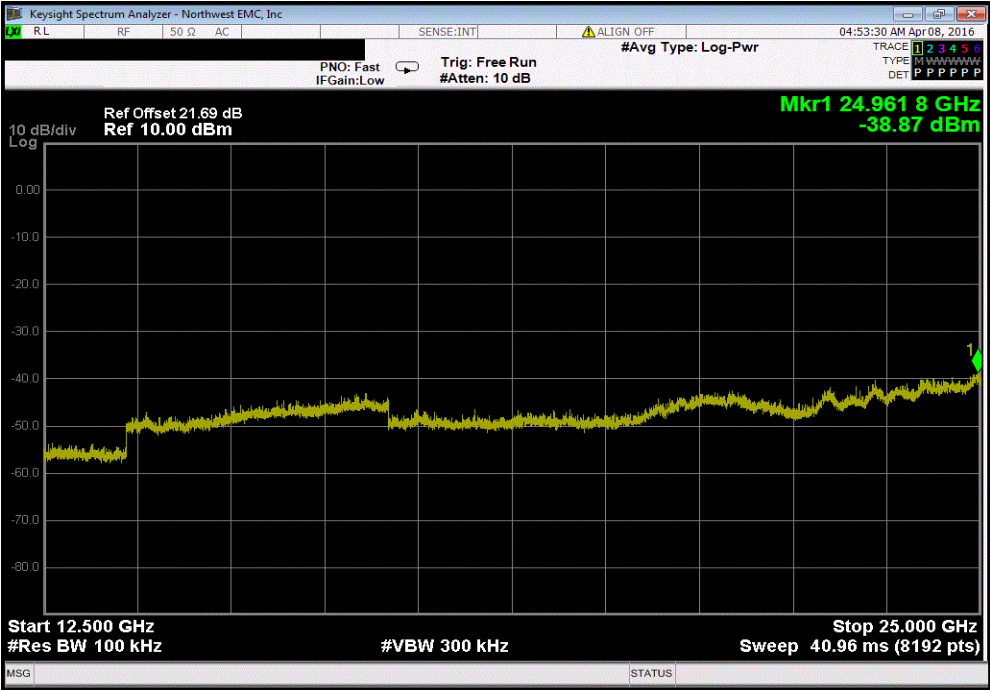


BLE/GFSK Low Channel, 2402 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-41.25		-20	Pass	

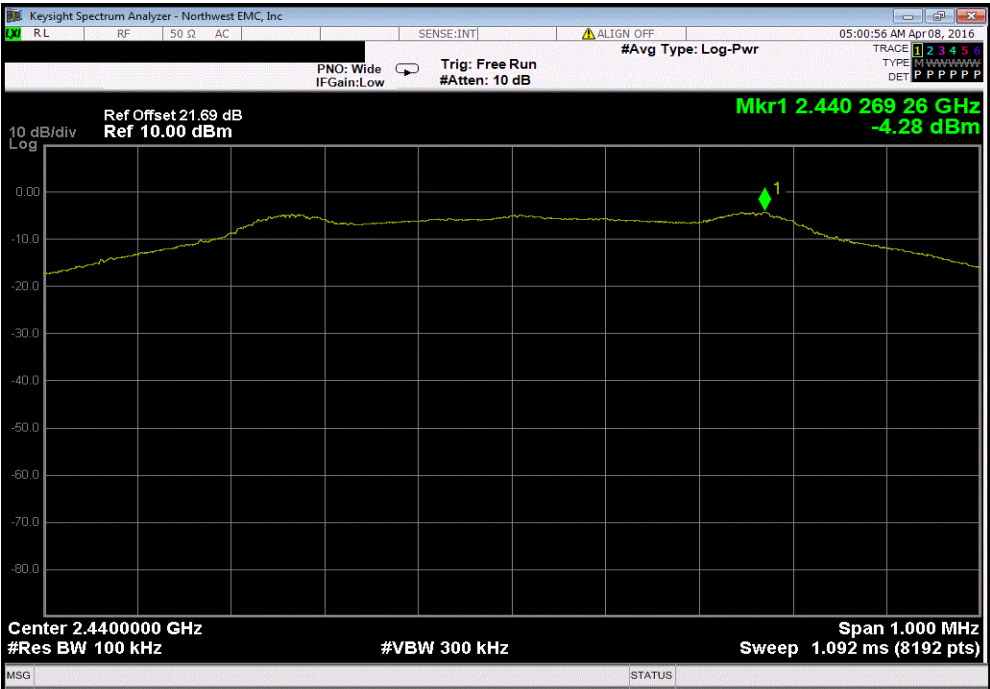


SPURIOUS CONDUCTED EMISSIONS

BLE/GFSK Low Channel, 2402 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-35.92	-20	Pass	

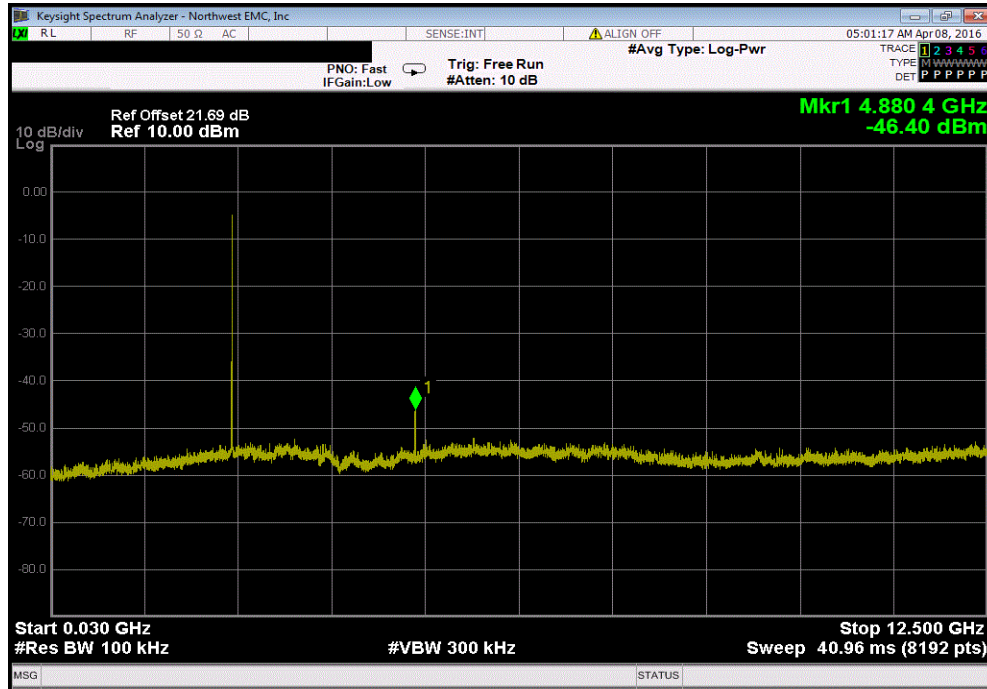


BLE/GFSK Mid Channel, 2440 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	

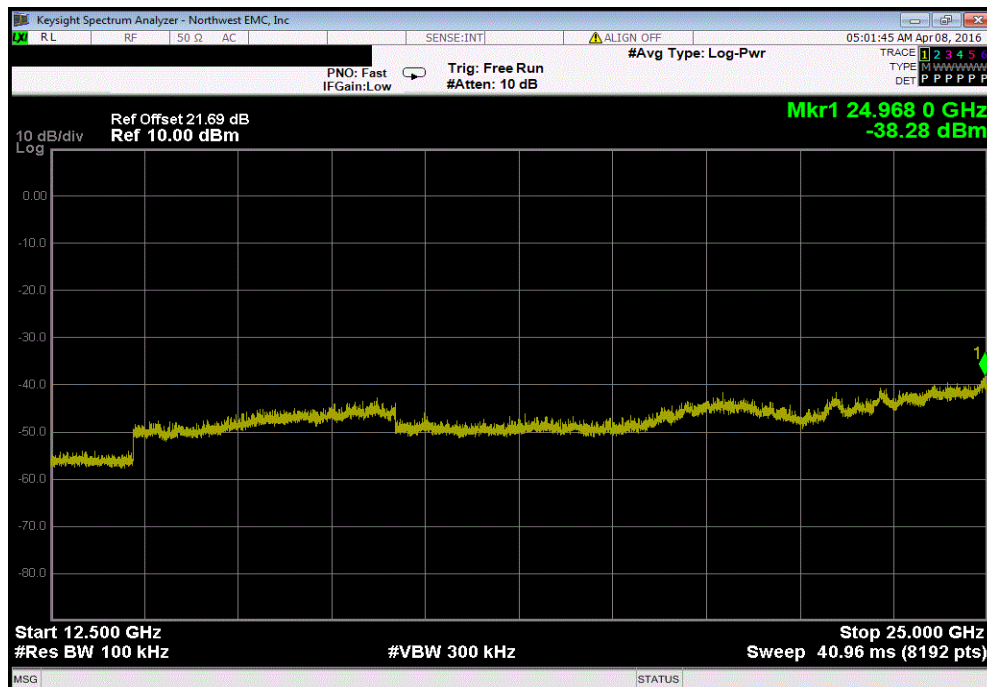


SPURIOUS CONDUCTED EMISSIONS

BLE/GFSK Mid Channel, 2440 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-42.12	-20	Pass	

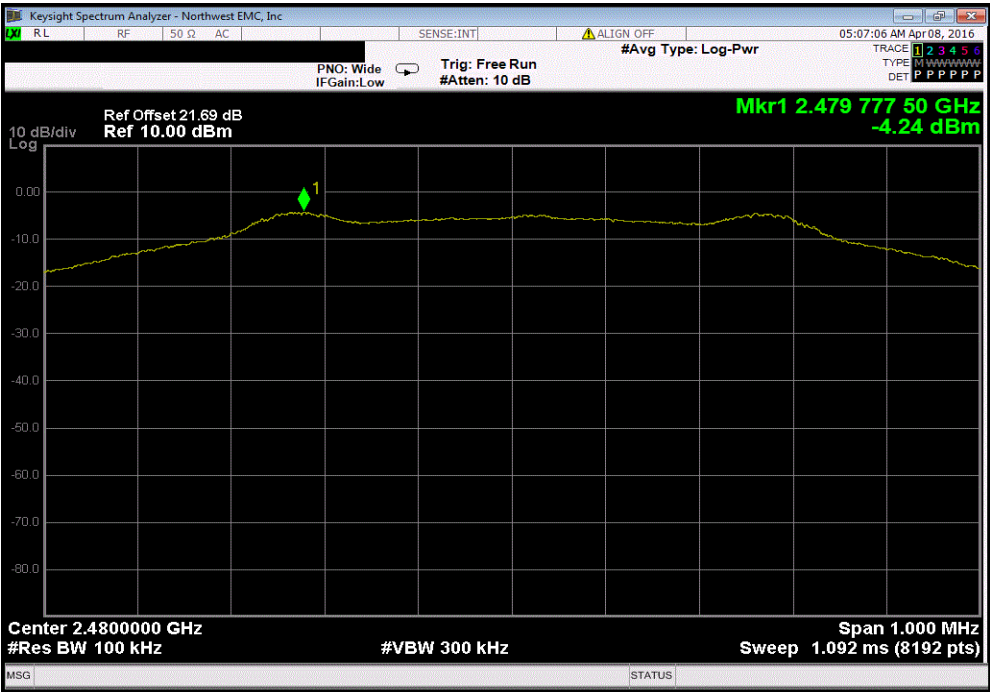


BLE/GFSK Mid Channel, 2440 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-34	-20	Pass	

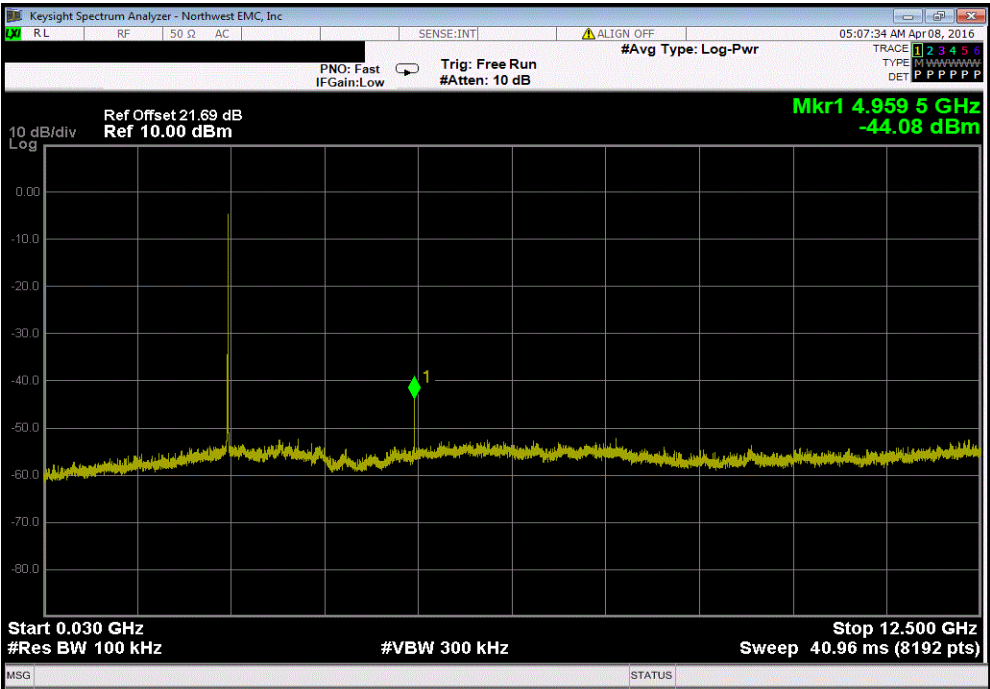


SPURIOUS CONDUCTED EMISSIONS

BLE/GFSK High Channel, 2480 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
Fundamental		N/A		N/A	N/A	



BLE/GFSK High Channel, 2480 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-39.84		-20	Pass	



SPURIOUS CONDUCTED EMISSIONS

BLE/GFSK High Channel, 2480 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-34.6	-20	Pass	

