



FCC PART 15, SUBPART C
ISED C RSS-247, ISSUE 2, FEBRUARY 2017

TEST REPORT

For

The Morey Corporation

100 Morey Dr.
Woodridge IL, 60517
United States

FCC ID: AB3-0001
Model: MC3M

Report Type: Original Report	Product Type: MC3 / MT-15
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* This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk “*”

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R1707113-247	Original Report	2017-08-29

1 General Description

1.1 Product Description for Equipment Under Test (EUT)

This test and measurement report was prepared on behalf of *The Morey Corporation* and their product model: MC3M, FCC ID: *AB3-0001*. The device used Silicon Laboratories Finland Oy's Module BT121, FCC ID: QOQBT121, which support Bluetooth (2400-2483.5MHz). The EUT is a spencer and contains a cellular radio (WCDMA Band II, V and LTE Band II, IV, V, XII) and a Bluetooth radio (2400-2483.5MHz).

1.2 Mechanical Description of EUT

The EUT measures approximately 138 mm (L) x 68 mm (W) x 14 mm (H)

The test data gathered are from typical production sample, serial number: R1707113-1 assigned by BACL.

1.3 Objective

This report is prepared on behalf of *The Morey Corporation*, in accordance with Part 2, Subpart J, and Part 15, Subparts A and C of the Federal Communication Commission's rules and ISEDC RSS-247 Issue 2, FEBRUARY 2017.

The objective is to determine compliance with FCC Part 15.247 and ISEDC RSS-247 rules for Output Power, Antenna Requirements, 6 dB Bandwidth, Power Spectral Density, 100 kHz Bandwidth of Band Edges Measurement, Conducted and Radiated Spurious Emissions.

1.4 Related Submittal(s)/Grant(s)

R1707113-247

1.5 Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices and FCC KDB 558074 D01 DTS Meas Guidance v04: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.

1.6 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Parameter	Measurement uncertainty
Occupied Channel Bandwidth	$\pm 5 \%$
RF output power, conducted	$\pm 0.57 \text{ dB}$
Power Spectral Density, conducted	$\pm 1.48 \text{ dB}$
Unwanted Emissions, conducted	$\pm 1.57 \text{ dB}$
All emissions, radiated	$\pm 4.0 \text{ dB}$
AC power line Conducted Emission	$\pm 2.0 \text{ dB}$
Temperature	$\pm 2^\circ \text{ C}$
Humidity	$\pm 5 \%$
DC and low frequency voltages	$\pm 1.0 \%$
Time	$\pm 2 \%$
Duty Cycle	$\pm 3 \%$

1.7 Test Facility Registrations

BACL's test facilities that are used to perform Radiated and Conducted Emissions tests are currently recognized by the Federal Communications Commission as Accredited with NIST Designation Number US1129.

BACL's test facilities that are used to perform Radiated and Conducted Emissions tests are currently registered with Industry Canada under Registration Numbers: 3062A-1, 3062A-2, and 3062A-3.

BACL is a Chinese Taipei Bureau of Standards Metrology and Inspection (BSMI) validated Conformity Assessment Body (CAB), under Appendix B, Phase I Procedures of the APEC Mutual Recognition Arrangement (MRA). BACL's BSMI Lab Code Number is: SL2-IN-E-1002R

BACL's test facilities that are used to perform AC Line Conducted Emissions, Telecommunications Line Conducted Emissions, Radiated Emissions from 30 MHz to 1 GHz, and Radiated Emissions from 1 GHz to 6 GHz are currently recognized as Accredited in accordance with the Voluntary Control Council for Interference [VCCI] Article 15 procedures under Registration Number A-0027.

1.8 Test Facility Accreditations

Bay Area Compliance Laboratories Corp. (BACL) is:

A- An independent, 3rd-Party, Commercial Test Laboratory accredited to ISO/IEC 17025:2005 by A2LA (Test Laboratory Accreditation Certificate Number 3297.02), in the fields of: Electromagnetic Compatibility and Telecommunications. Unless noted by an Asterisk (*) in the Compliance Matrix (See Section 3 of this Test Report), BACL's ISO/IEC 17025:2005 Scope of Accreditation includes all of the Test Method Standards and/or the Product Family Standards detailed in this Test Report..

BACL's ISO/IEC 17025:2005 Scope of Accreditation includes a comprehensive suite of EMC Emissions, EMC Immunity, Radio, RF Exposure, Safety and wireline Telecommunications test methods applicable to a wide range of product categories. These product categories include Central Office Telecommunications Equipment [including NEBS - Network Equipment Building Systems], Unlicensed and Licensed Wireless and RF devices, Information Technology Equipment (ITE); Telecommunications Terminal Equipment (TTE); Medical Electrical Equipment; Industrial, Scientific and Medical Test Equipment; Professional Audio and Video Equipment; Industrial and Scientific Instruments and Laboratory Apparatus; Cable Distribution Systems, and Energy Efficient Lighting.

B- A Product Certification Body accredited to ISO/IEC 17065:2012 by A2LA (Product Certification Body Accreditation Certificate Number 3297.03) to certify

- For the USA (Federal Communications Commission):

- 1- All Unlicensed radio frequency devices within FCC Scopes A1, A2, A3, and A4;
- 2- All Licensed radio frequency devices within FCC Scopes B1, B2, B3, and B4;
- 3- All Telephone Terminal Equipment within FCC Scope C.

- For the Canada (Industry Canada):

- 1 All Scope 1-Licence-Exempt Radio Frequency Devices;
- 2 All Scope 2-Licensed Personal Mobile Radio Services;
- 3 All Scope 3-Licensed General Mobile & Fixed Radio Services;
- 4 All Scope 4-Licensed Maritime & Aviation Radio Services;
- 5 All Scope 5-Licensed Fixed Microwave Radio Services
- 6 All Broadcasting Technical Standards (BETS) in the Category I Equipment Standards List.

- For Singapore (Info-Communications Development Authority (IDA)):

- 1 All Line Terminal Equipment: All Technical Specifications for Line Terminal Equipment – Table 1 of IDA MRA Recognition Scheme: 2011, Annex 2
2. All Radio-Communication Equipment: All Technical Specifications for Radio-Communication Equipment – Table 2 of IDA MRA Recognition Scheme: 2011, Annex 2

- For the Hong Kong Special Administrative Region:

- 1 All Radio Equipment, per KHCA 10XX-series Specifications;
- 2 All GMDSS Marine Radio Equipment, per HKCA 12XX-series Specifications;
- 3 All Fixed Network Equipment, per HKCA 20XX-series Specifications.

- For Japan:

- 1 MIC Telecommunication Business Law (Terminal Equipment):
 - All Scope A1 - Terminal Equipment for the Purpose of Calls;
 - All Scope A2 - Other Terminal Equipment
- 2 Radio Law (Radio Equipment):
 - All Scope B1 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 1 of the Radio Law
 - All Scope B2 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 2 of the Radio Law
 - All Scope B3 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 3 of the Radio Law

C- A Product Certification Body accredited to ISO/IEC 17065:2012 by A2LA (Product Certification Body Accreditation Certificate Number 3297.01) to certify Products to USA's Environmental Protection Agency (EPA) ENERGY STAR Product Specifications for:

- 1 Electronics and Office Equipment:
 - for Telephony (ver. 3.0)
 - for Audio/Video (ver. 3.0)
 - for Battery Charging Systems (ver. 1.1)
 - for Set-top Boxes & Cable Boxes (ver. 4.1)
 - for Televisions (ver. 6.1)
 - for Computers (ver. 6.0)
 - for Displays (ver. 6.0)
 - for Imaging Equipment (ver. 2.0)
 - for Computer Servers (ver. 2.0)
- 2 Commercial Food Service Equipment
 - for Commercial Dishwashers (ver. 2.0)
 - for Commercial Ice Machines (ver. 2.0)
 - for Commercial Ovens (ver. 2.1)
 - for Commercial Refrigerators and Freezers
- 3 Lighting Products
 - For Decorative Light Strings (ver. 1.5)
 - For Luminaires (including sub-components) and Lamps (ver. 1.2)
 - For Compact Fluorescent Lamps (CFLs) (ver. 4.3)
 - For Integral LED Lamps (ver. 1.4)
- 4 Heating, Ventilation, and AC Products
 - for Residential Ceiling Fans (ver. 3.0)
 - for Residential Ventilating Fans (ver. 3.2)
- 5 Other
 - For Water Coolers (ver. 3.0)

D. A NIST Designated Phase-I and Phase-II Conformity Assessment Body (CAB) for the following economies and regulatory authorities under the terms of the stated MRAs/Treaties:

- Australia: ACMA (Australian Communication and Media Authority) – APEC Tel MRA -Phase I;
- Canada: (Industry Canada - IC) Foreign Certification Body – FCB – APEC Tel MRA -Phase I & Phase II;
- Chinese Taipei (Republic of China – Taiwan):
 - o BSMI (Bureau of Standards, Metrology and Inspection) APEC Tel MRA -Phase I;
 - o NCC (National Communications Commission) APEC Tel MRA -Phase I;
- European Union:
 - o Radio & Teleterminal Equipment (R&TTE) Directive 1995/5/EC
 - US -EU EMC & Telecom MRA CAB
- Hong Kong Special Administrative Region: (Office of the Telecommunications Authority – OFTA)
APEC Tel MRA -Phase I & Phase II
- Israel – US-Israel MRA Phase I
- Republic of Korea (Ministry of Communications - Radio Research Laboratory) APEC Tel MRA -Phase I
- Singapore: (Infocomm Development Authority - IDA) APEC Tel MRA -Phase I & Phase II;
- Japan: VCCI - Voluntary Control Council for Interference US-Japan Telecom Treaty VCCI Side Letter-
- USA:
 - o ENERGY STAR Recognized Test Laboratory – US EPA
 - o Telecommunications Certification Body (TCB) – US FCC;
- Vietnam: APEC Tel MRA -Phase I;

2 System Test Configuration

2.1 Justification

The EUT was configured for testing according to ANSI C63.10-2013 and FCC KDB 558074 D01 DTS Meas Guidance v04.

2.2 EUT Exercise Software

N/A

2.3 Equipment Modifications

N/A

2.4 Local Support Equipment

Manufacturer/Product Type	Description	Model No.	Serial No.
Dell	Windows Laptop	E6410	-

2.5 Support Equipment

There was no support equipment included, or intended for use with EUT during these tests.

2.6 Interface Ports and Cabling

Cable Description	Length (m)	To	From
USB Cable	< 1 m	Laptop	EUT

3 Summary of Test Results

Results reported relate only to the product tested.

FCC/ ISEDC Rules	Description of Test	Results
FCC §2.1053, §15.205, §15.209, §15.247 (d) ISEDC RSS-247 Clause 5.5 ISEDC RSS-Gen Clause 8.9 & Clause 8.10	Radiated Spurious Emissions	Compliant

4 FCC §15.205, §15.209, §15.247(d), ISERC RSS-247 Clause 5.5, & ISERC RSS-GEN Clause 8.9 & 8.10 - Spurious Radiated Emissions

4.1 Applicable Standards

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423		4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	960 – 1240	5.35 – 5.46
2.1735 – 2.1905	25.5 – 25.67	1300 – 1427	7.25 – 7.75
4.125 – 4.128	37.5 – 38.25	1435 – 1626.5	8.025 – 8.5
4.17725 – 4.17775	73 – 74.6	1645.5 – 1646.5	9.0 – 9.2
4.20725 – 4.20775	74.8 – 75.2	1660 – 1710	9.3 – 9.5
6.215 – 6.218	108 – 121.94	1718.8 – 1722.2	10.6 – 12.7
6.26775 – 6.26825	123 – 138	2200 – 2300	13.25 – 13.4
6.31175 – 6.31225	149.9 – 150.05	2310 – 2390	14.47 – 14.5
8.291 – 8.294	156.52475 – 156.52525	2483.5 – 2500	15.35 – 16.2
8.362 – 8.366	156.7 – 156.9	2690 – 2900	17.7 – 21.4
8.37625 – 8.38675	162.0125 – 167.17	3260 – 3267	22.01 – 23.12
8.41425 – 8.41475	167.72 – 173.2	3.332 – 3.339	23.6 – 24.0
12.29 – 12.293	240 – 285	3.3458 – 3.358	31.2 – 31.8
12.51975 – 12.52025	322 – 335.4	3.600 – 4.400	36.43 – 36.5
12.57675 – 12.57725	399.9 – 410		Above 38.6
13.36 – 13.41	608 – 614		

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table

Frequency (MHz)	Field Strength (micro volts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100**	3
88 - 216	150**	3
216 - 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz.

However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

As per FCC §15.247 (d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

As per ISED RSS-Gen 8.9,

Except when the requirements applicable to a given device state otherwise, emissions from licence-exempt transmitters shall comply with the field strength limits shown in Table 4 or Table 5 below. Additionally, the level of any transmitter emission shall not exceed the level of the transmitter's fundamental emission.

Table 4 – General Field Strength Limits for Licence-Exempt Transmitters at Frequencies Above 30 MHz

Frequency (MHz)	Field Strength (µV/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960*	500

exempt radio apparatus stated in applicable RSSs (including RSS-Gen) are based on measurements using a linear average detector function having a minimum resolution bandwidth of 1 MHz. If an average limit is specified for the EUT, then the peak emission shall also be measured with instrumentation properly adjusted for such factors as pulse desensitization to ensure the peak emission is less than 20 dB above the average limit.

Note: Transmitting devices are not permitted in restricted frequency bands unless stated otherwise in the specified RSS.

As per ISED RSS-247 §5.5, in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

4.2 Test Setup

The radiated emissions tests were performed in the 5-meter Chamber, using the setup in accordance with ANSI C63.10-2013. The specification used was the FCC 15 Subpart limits.

The spacing between the peripherals was 10 centimeters.

External I/O cables were draped along the edge of the test table and bundle when necessary.

4.3 Test Procedure

For the radiated emissions test, the EUT host, and all support equipment power cords were connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT was set 3 meter away from the testing antenna, which was varied from 1-4 meter, and the EUT was placed on a turntable, which was 0.8 meter and 1.5 meter above the ground plane for below and above 1000 MHz measurements, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna's polarity should be changed between horizontal and vertical.

4.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude (CA) is calculated by adding the Antenna Factor (AF), the Cable Loss (CL), the Attenuator Factor (Atten) and subtracting the Amplifier Gain (Ga) to indicated Amplitude (Ai) reading. The basic equation is as follows:

$$CA = Ai + AF + CL + Atten - Ga$$

For example, a corrected amplitude of 40.3 dBuV/m = Indicated Reading (32.5 dBuV) + Antenna Factor (+23.5dB) + Cable Loss (3.7 dB) + Attenuator (10 dB) - Amplifier Gain (29.4 dB)

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corrected Amplitude} - \text{Limit}$$

4.5 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Rohde & Schwarz	Receiver, EMI Test	ESCI 1166.5950K03	100338	2016-02-04	2 year
Agilent	Analyzer, Spectrum	E4440A	US 42221851	2017-04-20	1 year
Sunol Science Corp	System Controller	SC99V	011003-1	N/R	N/R
Sunol Sciences	Antenna, Biconi-Log	JB3	A020106-2	2015-07-11	26 Months
EMCO	Antenna, Horn	3115	9511-4627	2016-01-28	2 years
Agilent	Amplifier, Pre	8447D	2944A10187	2017-03-13	1 year
IW Microwave	High Frequency Cable	DC-1438	SPS-2303- 3840-SPS	2017-01-23	1 year
Suirong	30 ft conductive emission cable	LMR400	C0013	2017-03-21	1 Year
Suirong	30 ft conductive emission cable	LMR400	C0014	2017-03-21	1 Year
Wainwright Instruments	Band Reject Filter	WRCGV900/930- 880/950-40/8SS	-	Each time1	1 year
-	SMA cable	-	C0002	Each time1	N/A
HP	Pre-Amplifier	8449B OPT HO2	3008A0113	2016-10-06	1 year
Vasona	Test software	V6.0 build 11	10400213	N/R	N/R

Note¹: cable and attenuator included in the test set-up will be checked each time before testing.

Statement of Traceability: *BACL attests that all calibrations have been performed per the A2LA requirements, traceable to NIST.*

4.6 Test Environmental Conditions

Temperature:	20-22 °C
Relative Humidity:	41-46 %
ATM Pressure:	101.5 kPa

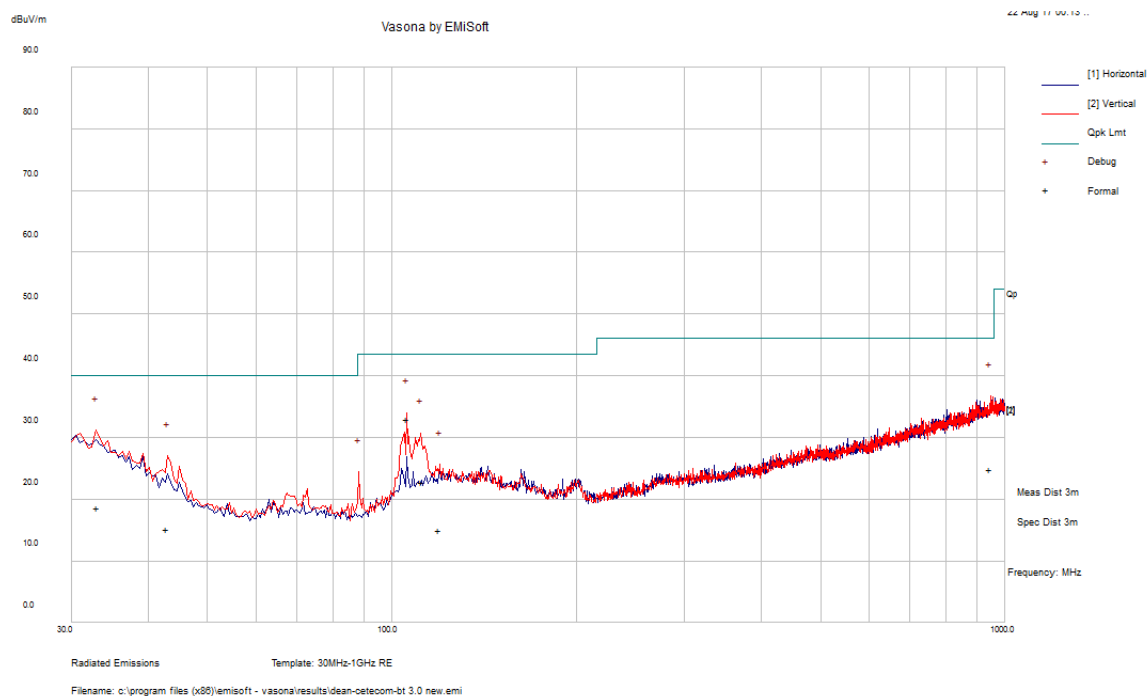
The testing was performed by Dean Liu from 2017-08-18 in 5m chamber 3.

4.7 Radiated Emissions Test Results

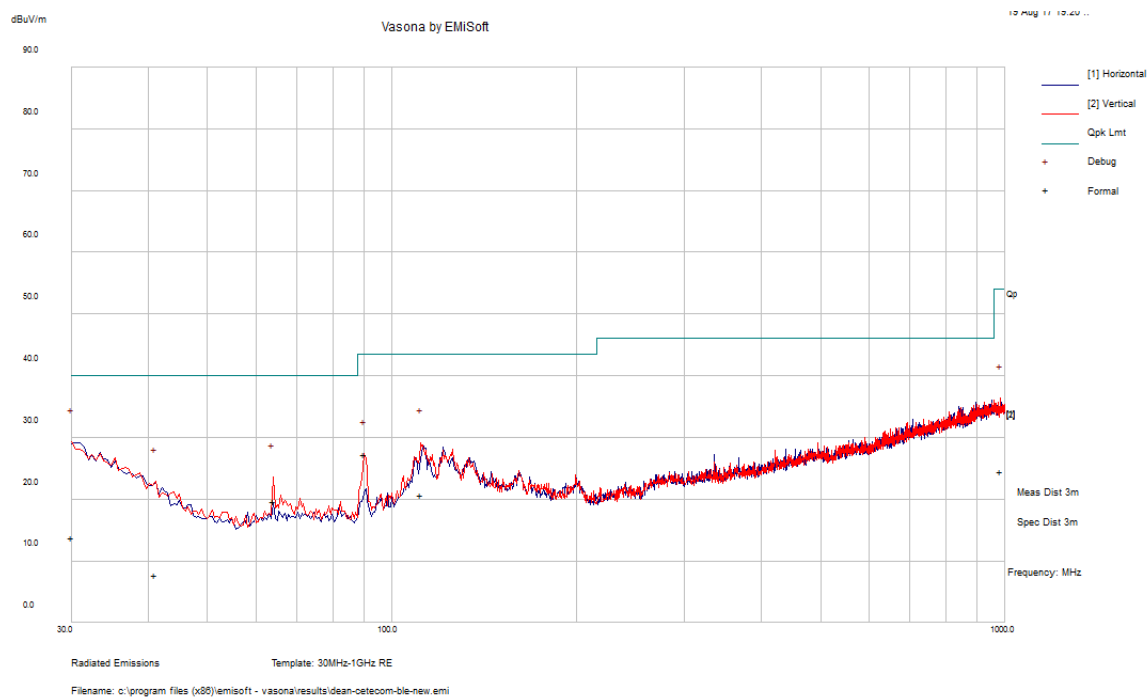
1) 30 MHz – 1 GHz Worst Case, Measured at 3 meters

Bluetooth classic

2400 – 2483.5 MHz



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBμV/m)	Margin (dB)	Comment
33.11725	18.69	249	V	304	40	-21.31	QP
947.1395	24.82	223	V	54	43.5	-21.18	QP
105.6478	32.96	115	V	31	40	-10.54	QP
111.7218	22.74	143	V	214	40	-20.76	QP
42.88725	15.14	228	V	224	40	-24.86	QP
119.5715	14.99	264	V	228	43.5	-28.51	QP

BLE**2400 – 2483.5 MHz**

Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBμV/m)	Margin (dB)	Comment
30.02583	13.71	270	V	328	40	-26.29	QP
111.7015	20.69	126	V	191	43.5	-22.81	QP
90.35075	25.35	156	V	42	40	-18.15	QP
63.99275	19.73	100	V	223	40	-20.27	QP
41.137	7.83	184	V	331	40	-32.17	QP
983.878	24.58	299	V	216	43.5	-29.42	QP

2) 1-10 GHz Measured at 3 meters

BDR (GFSK) mode

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre- Amp. (dB)	Cord. Reading (dBμV/m)	FCC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
Low Channel 2402 MHz											
2402	65.18	261	211	H	29.04	5.19	0	99.41	-	-	PK
2402	64.88	261	211	H	29.04	5.19	0	99.11	-	-	AV
2402	63.05	286	290	V	29.04	5.19	0	97.28	-	-	PK
2402	62.74	286	290	V	29.04	5.19	0	96.97	-	-	AV
2390	25.74	261	211	H	29.04	5.19	0	59.97	74.00	-14.03	PK
2390	12.26	261	211	H	29.04	5.19	0	46.49	54.00	-7.51	AV
2390	25.83	286	290	V	29.04	5.19	0	60.06	74.00	-13.94	PK
2390	12.33	286	290	V	29.04	5.19	0	46.56	54.00	-7.44	AV
4804	46.50	305	284	H	32.47	8.71	38.56	49.12	74.00	-24.88	PK
4804	36.35	305	284	H	32.47	8.71	38.56	38.97	54.00	-15.03	AV
7206	43.48	305	265	H	36.69	11.17	37.9	53.44	74.00	-20.56	PK
7206	30.21	305	265	H	36.39	11.17	37.9	39.87	54.00	-14.13	AV
Middle Channel 2441 MHz											
2441	63.06	264	206	H	29.04	5.19	0.00	97.29	-	-	PK
2441	62.82	264	206	H	29.04	5.19	0.00	97.05	-	-	AV
2441	60.25	286	290	V	29.04	5.19	0.00	94.48	-	-	PK
2441	59.91	286	290	V	29.04	5.19	0.00	94.14	-	-	AV
4882	46.31	305	284	H	32.64	8.71	38.54	49.12	74.00	-24.88	PK
4882	39.04	305	284	H	32.64	8.71	38.54	41.85	54.00	-12.15	AV
7323	43.71	305	265	H	37.15	11.17	37.90	54.13	74.00	-19.87	PK
7323	30.78	305	265	H	37.15	11.17	37.90	41.20	54.00	-12.80	AV
High Channel 2480 MHz											
2480	62.56	266	207	H	29.41	5.19	0.00	97.16	-	-	PK
2480	62.22	266	207	H	29.41	5.19	0.00	96.82	-	-	AV
2480	60.53	288	291	V	29.41	5.19	0.00	95.13	-	-	PK
2480	60.04	288	291	V	29.41	5.19	0.00	94.64	-	-	AV
2483.5	25.64	266	207	H	29.41	5.19	0.00	60.24	74.00	-13.76	PK
2483.5	12.95	266	207	H	29.41	5.19	0.00	47.55	54.00	-6.45	AV
2483.5	26.32	288	291	V	29.41	5.19	0.00	60.92	74.00	-13.08	PK
2483.5	12.95	288	291	V	29.41	5.19	0.00	47.55	54.00	-6.45	AV
4960	46.49	305	284	H	32.64	8.71	38.54	49.30	74.00	-24.70	PK
4960	39.08	305	284	H	32.64	8.71	38.54	41.89	54.00	-12.11	AV
7440	44.68	305	265	H	37.14	11.17	37.89	55.10	74.00	-18.90	PK
7440	32.71	305	265	H	37.14	11.17	37.89	43.13	54.00	-10.87	AV

EDR ($\pi/4$ -DQPSK) mode

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre- Amp. (dB)	Cord. Reading (dBμV/m)	FCC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
Low Channel 2402 MHz											
2402	65.79	265	205	H	29.04	5.19	0	100.02	-	-	PK
2402	61.34	265	205	H	29.04	5.19	0	95.57	-	-	AV
2402	64.40	287	285	V	29.04	5.19	0	98.63	-	-	PK
2402	59.67	287	285	V	29.04	5.19	0	93.90	-	-	AV
2390	25.79	265	205	H	29.04	5.19	0	60.02	74.00	-13.98	PK
2390	12.76	265	205	H	29.04	5.19	0	46.99	54.00	-7.01	AV
2390	25.24	287	285	V	29.04	5.19	0	59.47	74.00	-14.53	PK
2390	12.68	287	285	V	29.04	5.19	0	46.91	54.00	-7.09	AV
4804	45.11	305	284	H	32.47	8.71	38.56	47.73	74.00	-26.27	PK
4804	34.64	305	284	H	32.47	8.71	38.56	37.26	54.00	-16.74	AV
7206	43.88	305	265	H	36.69	11.17	37.9	53.84	74.00	-20.16	PK
7206	30.69	305	265	H	36.39	11.17	37.9	40.35	54.00	-13.65	AV
Middle Channel 2441 MHz											
2441	65.23	264	212	H	29.04	5.19	0.00	99.46	-	-	PK
2441	60.53	264	212	H	29.04	5.19	0.00	94.76	-	-	AV
2441	63.11	286	290	V	29.04	5.19	0.00	97.34	-	-	PK
2441	58.74	286	290	V	29.04	5.19	0.00	92.97	-	-	AV
4882	36.51	305	284	H	32.64	8.71	38.54	39.32	74.00	-34.68	PK
4882	45.22	305	284	H	32.64	8.71	38.54	48.03	54.00	-5.97	AV
7323	43.96	305	265	H	37.15	11.17	37.90	54.38	74.00	-19.62	PK
7323	31.55	305	265	H	37.15	11.17	37.90	41.97	54.00	-12.03	AV
High Channel 2480 MHz											
2480	63.49	266	207	H	29.41	5.19	0.00	98.09	-	-	PK
2480	59.81	266	207	H	29.41	5.19	0.00	94.41	-	-	AV
2480	61.02	288	291	V	29.41	5.19	0.00	95.62	-	-	PK
2480	56.54	288	291	V	29.41	5.19	0.00	91.14	-	-	AV
2483.5	27.63	266	207	H	29.41	5.19	0.00	62.23	74.00	-11.77	PK
2483.5	14.00	266	207	H	29.41	5.19	0.00	48.60	54.00	-5.40	AV
2483.5	27.22	288	291	V	29.41	5.19	0.00	61.82	74.00	-12.18	PK
2483.5	13.84	288	291	V	29.41	5.19	0.00	48.44	54.00	-5.56	AV
4960	45.97	305	284	H	32.64	8.71	38.54	48.78	74.00	-25.22	PK
4960	36.73	305	284	H	32.64	8.71	38.54	39.54	54.00	-14.46	AV
7440	44.73	305	265	H	37.14	11.17	37.89	55.15	74.00	-18.85	PK
7440	33.22	305	265	H	37.14	11.17	37.89	43.64	54.00	-10.36	AV

EDR (8DPSK) mode

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre- Amp. (dB)	Cord. Reading (dBμV/m)	FCC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
Low Channel 2402 MHz											
2402	66.70	265	205	H	29.04	5.19	0	100.93	-	-	PK
2402	61.70	265	205	H	29.04	5.19	0	95.93	-	-	AV
2402	63.98	286	290	V	29.04	5.19	0	98.21	-	-	PK
2402	58.73	286	290	V	29.04	5.19	0	92.96	-	-	AV
2390	25.16	265	205	H	29.04	5.19	0	59.39	74.00	-14.61	PK
2390	12.79	265	205	H	29.04	5.19	0	47.02	54.00	-6.98	AV
2390	25.44	286	290	V	29.04	5.19	0	59.67	74.00	-14.33	PK
2390	12.82	286	290	V	29.04	5.19	0	47.05	54.00	-6.95	AV
4804	45.08	306	284	H	32.47	8.71	38.56	47.70	74.00	-26.30	PK
4804	34.77	306	284	H	32.47	8.71	38.56	37.39	54.00	-16.61	AV
7206	43.85	305	265	H	36.69	11.17	37.9	53.81	74.00	-20.19	PK
7206	30.59	305	265	H	36.39	11.17	37.9	40.25	54.00	-13.75	AV
Middle Channel 2441 MHz											
2441	65.69	264	212	H	29.04	5.19	0.00	99.92	-	-	PK
2441	60.46	264	212	H	29.04	5.19	0.00	94.69	-	-	AV
2441	63.54	286	290	V	29.04	5.19	0.00	97.77	-	-	PK
2441	58.82	286	290	V	29.04	5.19	0.00	93.05	-	-	AV
4882	46.71	305	284	H	32.64	8.71	38.54	49.52	74.00	-24.48	PK
4882	36.51	305	284	H	32.64	8.71	38.54	39.32	54.00	-14.68	AV
7320	43.96	305	265	H	37.15	11.17	37.90	54.38	74.00	-19.62	PK
7320	31.27	305	265	H	37.15	11.17	37.90	41.69	54.00	-12.31	AV
High Channel 2480 MHz											
2480	63.88	266	207	H	29.41	5.19	0.00	98.48	-	-	PK
2480	59.76	266	207	H	29.41	5.19	0.00	94.36	-	-	AV
2480	61.02	288	291	V	29.41	5.19	0.00	95.62	-	-	PK
2480	56.08	288	291	V	29.41	5.19	0.00	90.68	-	-	AV
2483.5	28.20	266	207	H	29.41	5.19	0.00	62.80	74.00	-11.20	PK
2483.5	14.27	266	207	H	29.41	5.19	0.00	48.87	54.00	-5.13	AV
2483.5	27.85	288	291	V	29.41	5.19	0.00	62.45	74.00	-11.55	PK
2483.5	13.96	288	291	V	29.41	5.19	0.00	48.56	54.00	-5.44	AV
4960	46.44	305	284	H	32.64	8.71	38.54	49.25	74.00	-24.75	PK
4960	36.79	305	284	H	32.64	8.71	38.54	39.60	54.00	-14.40	AV
7440	45.11	305	265	H	37.14	11.17	37.89	55.53	74.00	-18.47	PK
7440	32.68	305	265	H	37.14	11.17	37.89	43.10	54.00	-10.90	AV

BLE mode

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre- Amp. (dB)	Cord. Reading (dBμV/m)	FCC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
Low Channel 2402 MHz											
2402	60.68	260	210	H	29.04	5.19	0	94.91	-	-	PK
2402	59.93	260	210	H	29.04	5.19	0	94.16	-	-	AV
2402	57.56	288	291	V	29.04	5.19	0	91.79	-	-	PK
2402	56.92	288	291	V	29.04	5.19	0	91.15	-	-	AV
2390	27.94	260	210	H	29.04	5.19	0	62.17	74.00	-11.83	PK
2390	14.02	260	210	H	29.04	5.19	0	48.25	54.00	-5.75	AV
2390	27.87	288	291	V	29.04	5.19	0	62.10	74.00	-11.90	PK
2390	13.78	288	291	V	29.04	5.19	0	48.01	54.00	-5.99	AV
4804	44.72	305	284	H	32.47	8.71	38.56	47.34	74.00	-26.66	PK
4804	31.43	305	284	H	32.47	8.71	38.56	34.05	54.00	-19.95	AV
7206	42.56	305	265	H	36.69	11.17	37.9	52.52	74.00	-21.48	PK
7206	30.22	305	265	H	36.39	11.17	37.9	39.88	54.00	-14.12	AV
Middle Channel 2440 MHz											
2440	60.51	260	210	H	29.04	5.19	0.00	94.74	-	-	PK
2440	59.89	260	210	H	29.04	5.19	0.00	94.12	-	-	AV
2440	55.63	288	291	V	29.04	5.19	0.00	89.86	-	-	PK
2440	54.94	288	291	V	29.04	5.19	0.00	89.17	-	-	AV
4880	43.75	305	284	H	32.64	8.71	38.54	46.56	74.00	-27.44	PK
4880	31.22	305	284	H	32.64	8.71	38.54	34.03	54.00	-19.97	AV
7320	43.83	305	265	H	37.15	11.17	37.90	54.25	74.00	-19.75	PK
7320	30.57	305	265	H	37.15	11.17	37.90	40.99	54.00	-13.01	AV
High Channel 2480 MHz											
2480	58.68	262	206	H	29.41	5.19	0.00	93.28	-	-	PK
2480	58.00	262	206	H	29.41	5.19	0.00	92.60	-	-	AV
2480	55.26	290	289	V	29.41	5.19	0.00	89.86	-	-	PK
2480	54.48	290	289	V	29.41	5.19	0.00	89.08	-	-	AV
2483.5	27.21	262	206	H	29.41	5.19	0.00	61.81	74.00	-12.19	PK
2483.5	14.30	262	206	H	29.41	5.19	0.00	48.90	54.00	-5.10	AV
2483.5	27.07	290	289	V	29.41	5.19	0.00	61.67	74.00	-12.33	PK
2483.5	13.96	290	289	V	29.41	5.19	0.00	48.56	54.00	-5.44	AV
4960	44.05	305	284	H	32.64	8.71	38.54	46.86	74.00	-27.14	PK
4960	31.33	305	284	H	32.64	8.71	38.54	34.14	54.00	-19.86	AV
7440	43.11	305	265	H	37.14	11.17	37.89	53.53	74.00	-20.47	PK
7440	30.56	305	265	H	37.14	11.17	37.89	40.98	54.00	-13.02	AV