FCC/IC Test Report

FOR:

Manufacturer: Embedded Wireless Labs Sdn Bhd

Model Number: ZMX8100

Product Description: Digital Transmission System

FCC ID: R42ZMX8100

47 CFR Part 15.247 for FHSS Systems

TEST REPORT #: EMC_EMBED_001_12001_FHSS
DATE: 2012-12-06

ilac-MRA A2LA ACCREDITED TESTING LABORATORY Certificate #2135.01

CTIA Authorized Test Lab LAB CODE 20020328-00

FCC : Accredited

IC recognized # 3462B

***CETECOM* Inc.**
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TABLE OF CONTENTS

1 Assessment

The following equipment (and as identified in Ch.3 of this test report) was evaluated against the applicable criteria specified in FCC CFR47 Part 15.247, 15.207, 15.209 and no deviations were ascertained during the course of the tests performed.

Company	Description	Model #
Embedded Wireless Labs Sdn Bhd	Digital Transmission System	ZMX8100

Responsible for Testing Laboratory:

Date	Section	Name	Signature
2012-12-06	Compliance	Sajay Jose (EMC Lab Manager)	

Responsible for the Report:

Date	Section	Name	Signature
2012-12-06	Compliance	Calvin Lee (EMC Project Engineer)	Calvin Lee Digitally signed by Calvin Lee DN: cn=Calvin Lee, c=US, o=CETECOM Inc, ou=Compliance, email=calvin.lee@cetecomusa.com Date: 2012.12.06 16:11:50 -08'00'

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Address:	411 Dixon Landing Road Milpitas, CA 95035 U.S.A.
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Test Lab Manager:	Sajay Jose
Test Engineer:	Calvin Lee

2.2 Identification of the Client

Client:	Embedded Wireless Labs Sdn Bhd
Street Address:	702, Level 7, Uptown 2, 2, Jalan SS21/37, Damansara Uptown,
City/Zip Code	Petaling Jaya, Selangor, Malaysia 47400
Country	MALAYSIA
Contact Person:	Jeyaraman
Phone No.	+60376609787
Fax:	+60376609786

2.3 Identification of the Manufacturer

Same as above.

3 Equipment under Test (EUT)

3.1 Specification of the Equipment under Test

Marketing Name:	Zilant Health Server
Model Number:	ZMX8100
FCC ID:	R42ZMX8100
HW Version:	V2R1
SW Version:	03.0103.02.05.05.2990
Product Description:	Digital Transmission System
Frequency Band of Operation:	ISM: 2400 – 2483.5 MHz
Frequency Range of Test:	2402-2480 MHz
No. of Channels:	79
Type(s) of Modulation:	Bluetooth: GFSK, π/4 DQPSK, 8DPSK
Antenna info:	Type: Ceramic (module mounted) Manufacturer stated Max. Antenna Gain: 0.5 dBi
Max Output Powers:	Conducted (Measured): GFSK: 11.23 dBm (0.0133 W) Radiated EIRP (Calculated): GFSK: 11.73 dBm (0.0149 W)
Other Radios in the device:	GSM/GPRS/EGPRS: 850/900/1800/1900 UMTS FDD Bands I/II/V 802.15.4 (ZigBee): 2405-2480 MHz WLAN: 2412-2462 MHz
Rated Operating Voltage:	12 VDC
Rated Operating Temperature Range:	0ºC to 50ºC
Test Sample Status:	Prototype

3.2 Identification of the Equipment under Test (EUT)

EUT #	Serial Number	HW Version	SW Version	Notes
1	EW03010000121	V2R1	03.0103.02.05.05.2990	Radiated Sample
2	EW03010000141	V2R1	03.0103.02.05.05.2990	Conducted Sample

3.3 Identification of Accessory equipment

AE #	Type	Manufacturer	Model	Serial Number
1	AC/DC Adapter	Universal Range AC Input	SYS1359-3612-T3	N/A

3.4 Environmental conditions during Test:

The following environmental conditions were maintained during the course of testing:
Ambient Temperature: 20-25^{o}C
Relative humidity: 40-60%

3.5 Dates of Testing:

Nov. 6, 2012.

3.6 Other Testing Notes:

The device was configured with a manufacturer provided test SW (bttest), capable of setting the unit in BT Test mode. In this mode, the unit can be connected to a Bluetooth Tester to control different modulation schemes, channels etc., as required for testing.
The EUT was tested on low, mid and high channels in GFSK, π/4DQPSK and 8DPSK modes.

4 Subject of Investigation

The objective of the measurements applied by CETECOM Inc. was to establish compliance of the EUT as described under Ch. 3 of this Test Report, with the applicable criteria specified in

- FCC CFR47 Parts 15.247, 15.207, 15.209

This test report is to support a request for new equipment authorization under the FCC ID: **R42ZMX8100.**

Model ZMX8100 integrates the precertified Bluetooth module: WT11i from Bluegiga.
Per guidelines from KDB 996369, conducted signal test data from module certification has been re-used for this certification as the output power has been verified to be lower than what was used during certification.
The module test data can be obtained under the FCC Filing ID: QOQWT11IA,
Test Report # 9F2925WUS1 issued by TRaC Telecoms and Radio, on Jul 3, 2012.

5 Summary of Measurement Results

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	Fail	NA	NP	Result
§15.247(e)	Power Spectral Density	Nominal	GFSK π/4DQPSK 8DPSK	☐	☐	■	☐	See Note 1
§15.247(a)(1)	Carrier Frequency Separation	Nominal	Hopping	☐	☐	☐	■	See Note 2
§15.247(a)(1)	Number of Hopping Channels	Nominal	Hopping	☐	☐	☐	■	See Note 2
§15.247(a)(1)(iii)	Time of occupancy	Nominal	Hopping	☐	☐	☐	■	See Note 2
§15.247(a)(1)	Spectrum Bandwidth	Nominal	GFSK π/4DQPSK 8DPSK	☐	☐	☐	■	See Note 2
§15.247(b)(1)	Maximum Peak Conducted Output Power	Nominal	GFSK π/4DQPSK 8DPSK	■	☐	☐	☐	Complies
§15.247(d)	Band edge compliance-Conducted	Nominal	GFSK π/4DQPSK 8DPSK	☐	☐	☐	■	See Note 3
§15.247(d)	Band edge compliance-Radiated	Nominal	GFSK π/4DQPSK 8DPSK	■	☐	☐	☐	Complies
§15.247(d)	TX Spurious emissions-Conducted	Nominal	GFSK π/4DQPSK 8DPSK	☐	☐	☐	■	See Note 2
§15.247(d)	TX Spurious emissions-Radiated	Nominal	GFSK	■	☐	☐	☐	Complies
§15.209(a)	TX Spurious Emissions Radiated<30MHz	Nominal	GFSK	■	☐	☐	☐	Complies
§15.207(a)	Conducted Emissions <30MHz	Nominal	GFSK	■	☐	☐	☐	Complies

Note: NA= Not Applicable; NP= Not Performed.

1. Power Spectral Density is NOT APPLICABLE for devices with hopping functionality.
2. Conducted measurements are re-used from the module's certification data.
    a. Module FCC ID: QOQWT11IA.
    b. Test report number 9F2925WUS1 issued by TraC Testing Regulatory Compliance dated Jul 3, 2012.
3. Band Edge compliance-conducted is NOT PERFORMED as the device passes radiated measurement.

6 Measurements

6.1 Measurement Method:

Ref: FCC Public Notice DA 00-705: Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems|

6.2 Radiated Measurement Procedure

ANSI C63.4 (2009) Section 8.3.1.1: Exploratory radiated emission measurements
Exploratory radiated measurements shall be performed at the measurement distance or at a closer distance than that specified for compliance to determine the emission characteristics of the EUT. At near distances, for EUTs of comparably small size, it is relatively easy to determine the spectrum signature of the EUT and, if applicable, the EUT configuration that produces the maximum level of emissions. A shielded room may be used for exploratory testing, but may have anomalies that can lead to significant errors in amplitude measurements.

Broadband antennas and a spectrum analyzer or a radio-noise meter with a panoramic display are often useful in this type of testing. It is recommended that either a headset or loudspeaker be connected as an aid in detecting ambient signals and finding frequencies of significant emission from the EUT when the exploratory and final testing is performed in an OATS with strong ambient signals. Caution should be taken if either antenna height between 1 and 4 meters or EUT azimuth is not fully explored. Not fully exploring these parameters during exploratory testing may require complete testing at the OATS or semi-anechoic chamber when the final full spectrum testing is conducted.

The EUT should be set up in its typical configuration and arrangement, and operated in its various modes. For tabletop systems, cables or wires should be manipulated within the range of likely arrangements. For floor-standing equipment, the cables or wires should be located in the same manner as the user would install them and no further manipulation is made. For combination EUTs, the tabletop and floor-standing portions of the EUT shall follow the procedures for their respective setups and cable manipulation. If the manner of cable installation is not known, or if it changes with each installation, cables or wires for floor-standing equipment shall be manipulated to the extent possible to produce the maximum level of emissions.

For each mode of operation required to be tested, the frequency spectrum shall be monitored. Variations in antenna height between 1 and 4 m, antenna polarization, EUT azimuth, and cable or wire placement (each variable within bounds specified elsewhere) shall be explored to produce the emission that has the highest amplitude relative to the limit. A step-by-step technique for determining this emission can be found in Annex C.

When measuring emissions above 1 GHz, the frequencies of maximum emission shall be determined by manually positioning the antenna close to the EUT and by moving the antenna over all sides of the EUT while observing a spectral display. It will be advantageous to have prior knowledge of the frequencies of emissions above 1 GHz. If the EUT is a device with dimensions approximately equal to that of the measurement antenna beamwidth, the measurement antenna shall be aligned with the EUT.

ANSI C63.4 (2009) Section 8.3.1.2: Final radiated emission measurements

Based on the measurement results in 8.3.1.1, the one EUT, cable and wire arrangement, and mode of operation that produces the emission that has the highest amplitude relative to the limit is selected for the final measurement. The final measurement is then performed on a site meeting the requirements of 5.3, 5.4, or 5.5 as appropriate without variation of the EUT arrangement or EUT mode of operation. If the EUT is relocated from an exploratory test site to a final test site, the highest emission shall be remaximized at the final test location before final radiated emissions measurements are performed. However, antenna height and polarity and EUT azimuth are to be varied. In addition, the full frequency spectrum (for the range to be checked for meeting compliance) shall be investigated.

This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. During the full frequency spectrum investigation, particular focus should be made on those frequencies found in exploratory testing that were used to find the final test configuration, mode of operation, and arrangement (associated with achieving the least margin with respect to the limit). This full spectrum test constitutes the compliance measurement.

For measurements above 1 GHz, use the cable, EUT arrangement, and mode of operation determined in the exploratory testing to produce the emission that has the highest amplitude relative to the limit. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the antenna in the "cone of radiation" from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response. The antenna may have to be higher or lower than the EUT, depending on the EUT's size and mounting height, but the antenna should be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. If the transmission line for the measurement antenna restricts its range of height and polarization, the steps needed to ensure the correct measurement of the maximum emissions, shall be described in detail in the report of measurements. Data collected shall satisfy the report requirements of Clause 10.

NOTES

1— Where limits are specified by agencies for both average and peak (or quasi-peak) detection, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.
2—Use of waveguide and flexible waveguide may be necessary at frequencies above 10 GHz to achieve usable signal-to noise ratios at required measurement distances. If so, it may be necessary to restrict the height search of the antenna, and special care should be taken to ensure that maximum emissions are correctly measured.
3—All presently known devices causing emissions above 10 GHz are physically small compared with the beam-widths of typical horn antennas used for EMC measurements. For such EUTs and frequencies, it may be preferable to vary the height and polarization of the EUT instead of the receiving antenna to maximize the measured emissions.
Measurement Uncertainty: ±3dB

6.3 Sample Calculations for Radiated Measurements

6.3.1.1 Field Strength Measurements:

Measurements from the Spectrum Analyzer/ Receiver is used to calculate the Field Strength, taking into account the following parameters:

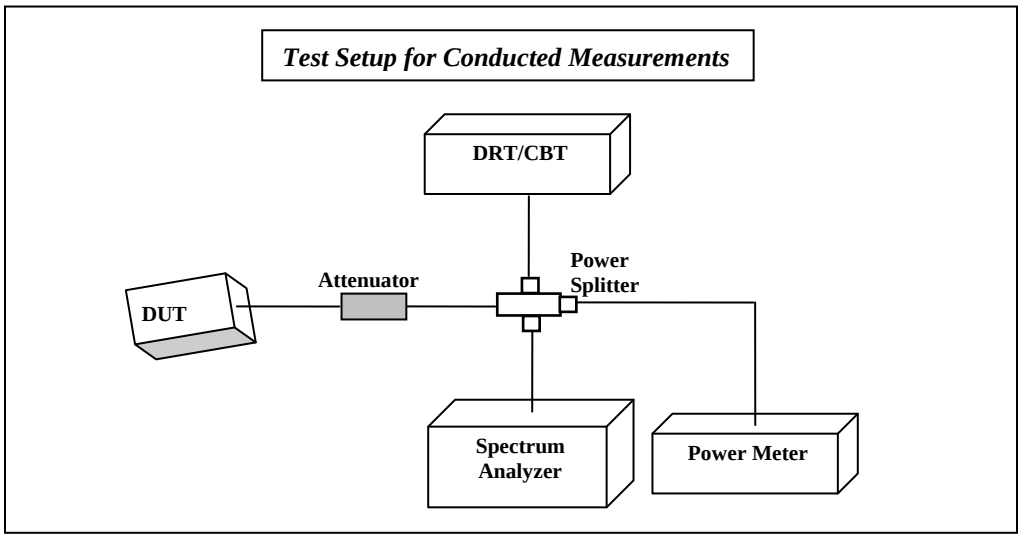
1. Measured reading in dBµV
2. Cable Loss between the receiving antenna and SA in dB and
3. Antenna Factor in dB/m

FS (dBµV/m)= Measured Value on SA (dBµV)+ Cable Loss (dB)+ Antenna Factor (dB/m)
Eg:

Frequency (MHz)	Measured SA (dBµV)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dBµV/m)
1000	80.5	3.5	14	98.0

All radiated measurement plots in this report are taken from a test SW that calculates the Field Strength based on the above equation.

6.4 Conducted Measurement Procedure



1. Connect the equipment as shown in the above diagram.
2. Adjust the settings of the CBT (Rohde-Schwarz Bluetooth Tester) to connect the EUT at the required channel.
3. Measurements are to be performed with the EUT set to the low, middle and high channels and for GFSK, π/4DQPSK and 8DPSK modulation schemes.
   Measurement Uncertainty: ±0.5dB

6.5 Peak Output Power

6.5.1 Limits:

6.5.1.1 §15.247 (b)(1)

The maximum peak conducted output power of the intentional radiator shall not exceed the following: For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

6.5.2 Test Conditions:

Tnom: 25°C; Vnom: 12 V
Hopping OFF

6.5.3 Test Procedure:

Measurement according to DA 00-705

Measurement Settings:

Conducted output power measured using a CBT (Bluetooth Tester).
Radiated EIRP calculated using the formula= Conducted Power+ Antenna Gain.
Max. Antenna Gain (dBi): 0.5 dBi

6.5.4 Test Result:

Measured Peak Output Power - Conducted (dBm)			
Modulation	**Frequency (MHz)**		
	2402	**2441**	**2480**
GFSK	11.23	10.63	9.68
π/4 DQPSK	10.93	10.28	9.32
8-DPSK	11.14	10.36	9.44

Calculated Peak Output Power- Radiated (dBm)			
Modulation	**Frequency (MHz)**		
	2402	**2441**	**2480**
GFSK	11.73	11.13	10.18
π/4 DQPSK	11.43	10.78	9.82
8-DPSK	11.64	10.86	9.94

6.5.4.1 Measurement Verdict:

Pass.

6.6 Band Edge Compliance of Radiated Emissions

6.6.1 Limits: §15.247/15.205

15.247 (d) 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).

15.205 (a) 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	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

15.209 (a) Emission Limits:

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (m)
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

6.6.2 Test Conditions:

Tnom: 25°C; Vnom: 12 V
Hopping OFF

6.6.3 Measurement Procedure:

Peak measurements are made using a peak detector and RBW=1MHz.
*PEAK LIMIT= 74dBµV/m

Average measurements performed using a peak detector and according to video averaging procedure with RBW=1MHz and VBW=10Hz.
*AVG. LIMIT= 54dBµV/m

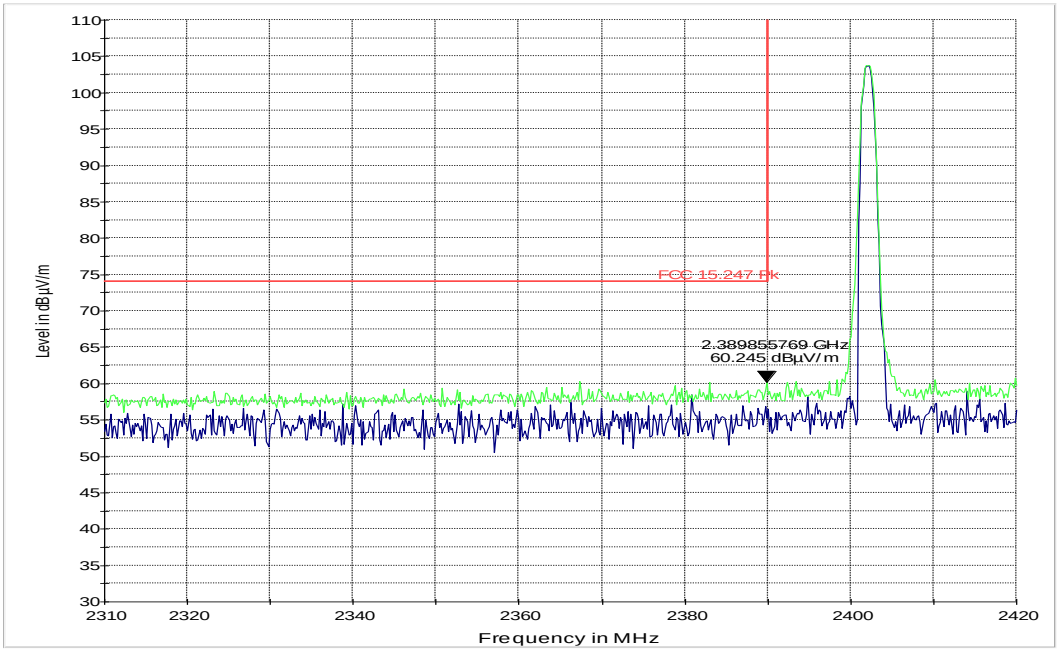
Measurement Uncertainty: ±3.0dB

6.6.3.1 Test Verdict

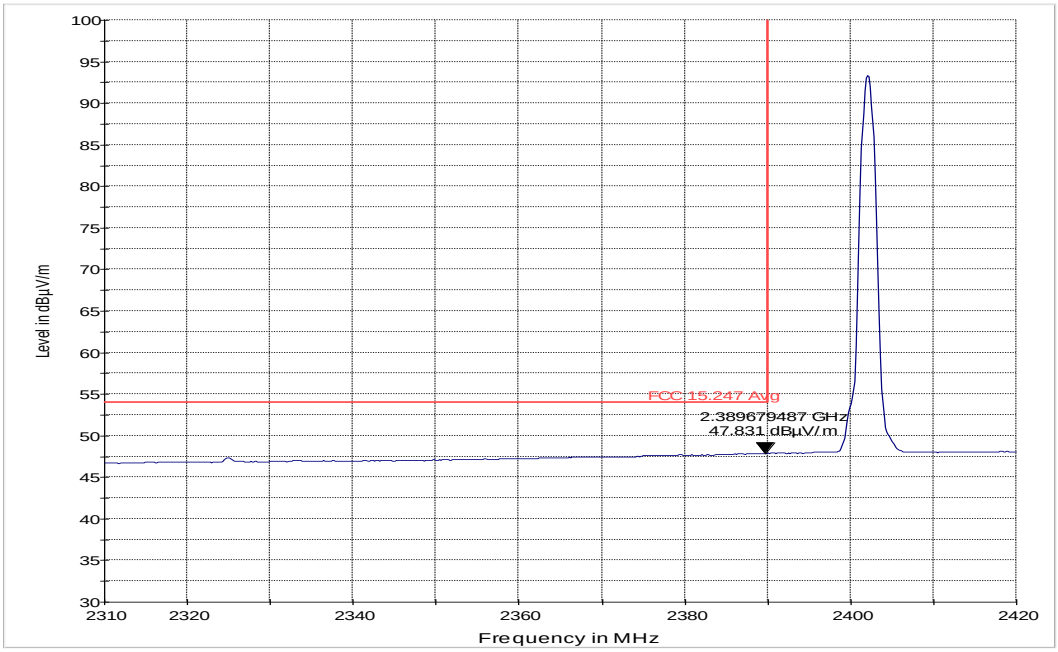
Pass.

6.6.4 Test Data/plots:

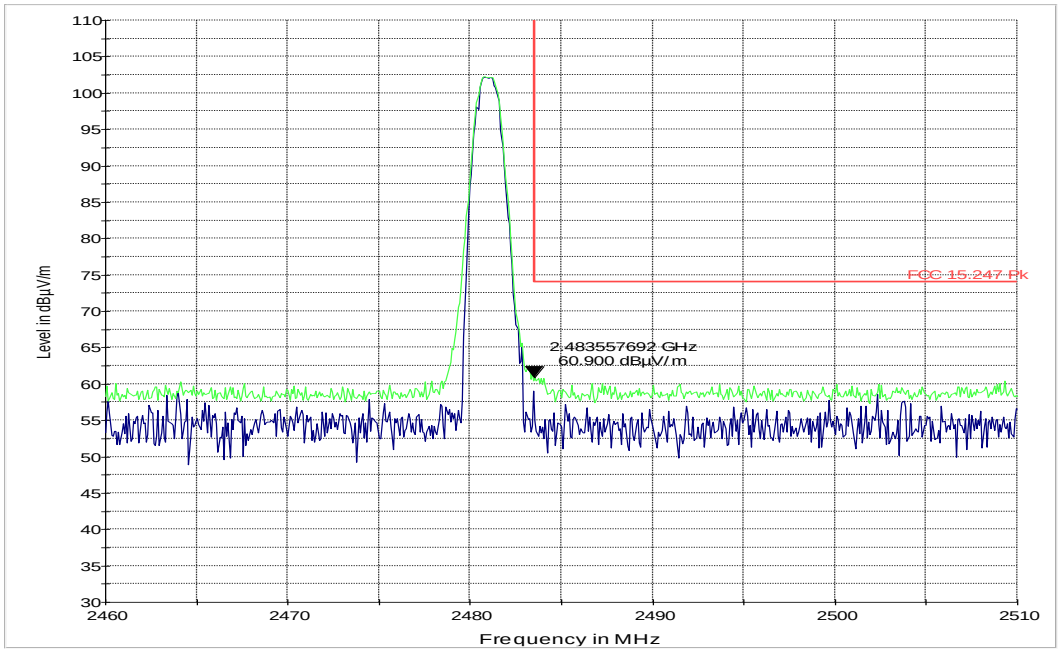
Lower band edge peak -GFSK modulation



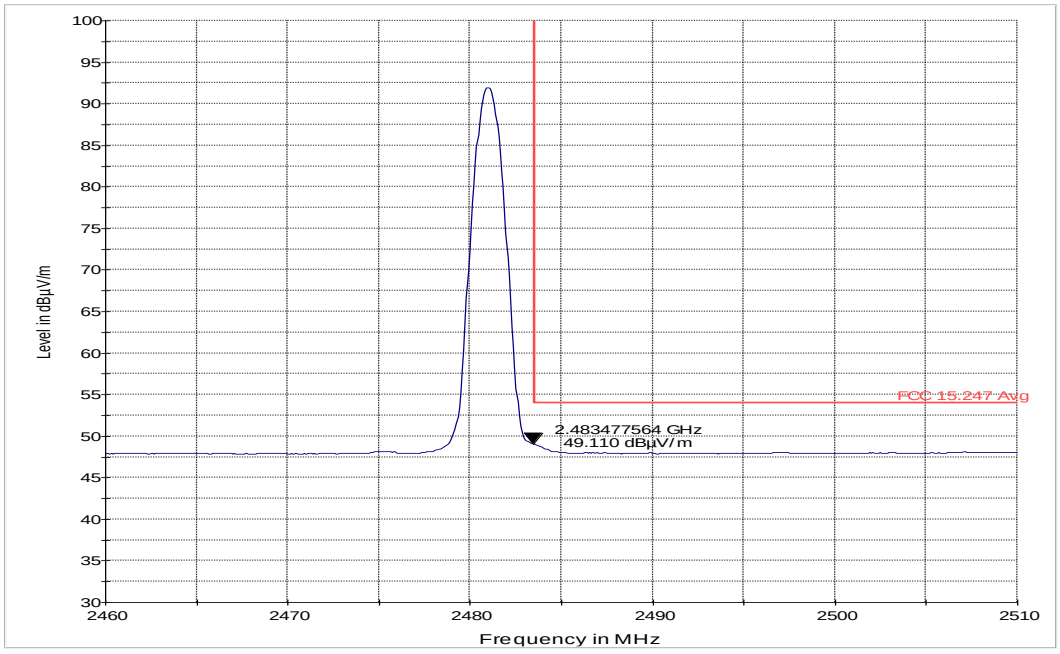
Lower band edge average -GFSK modulation



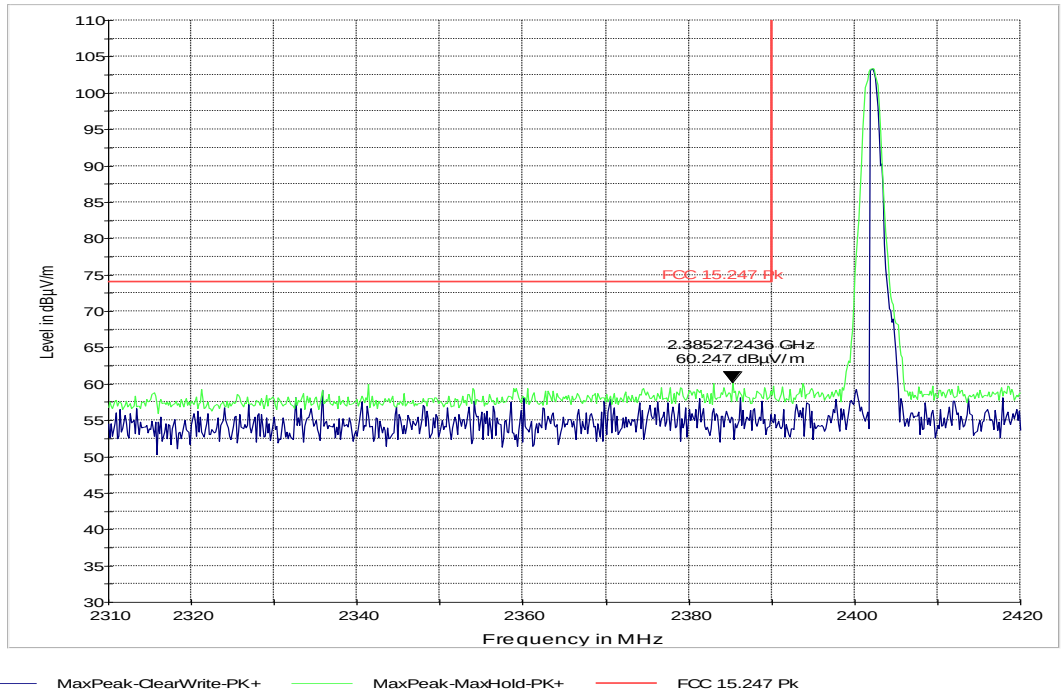
Higher band edge peak -GFSK modulation



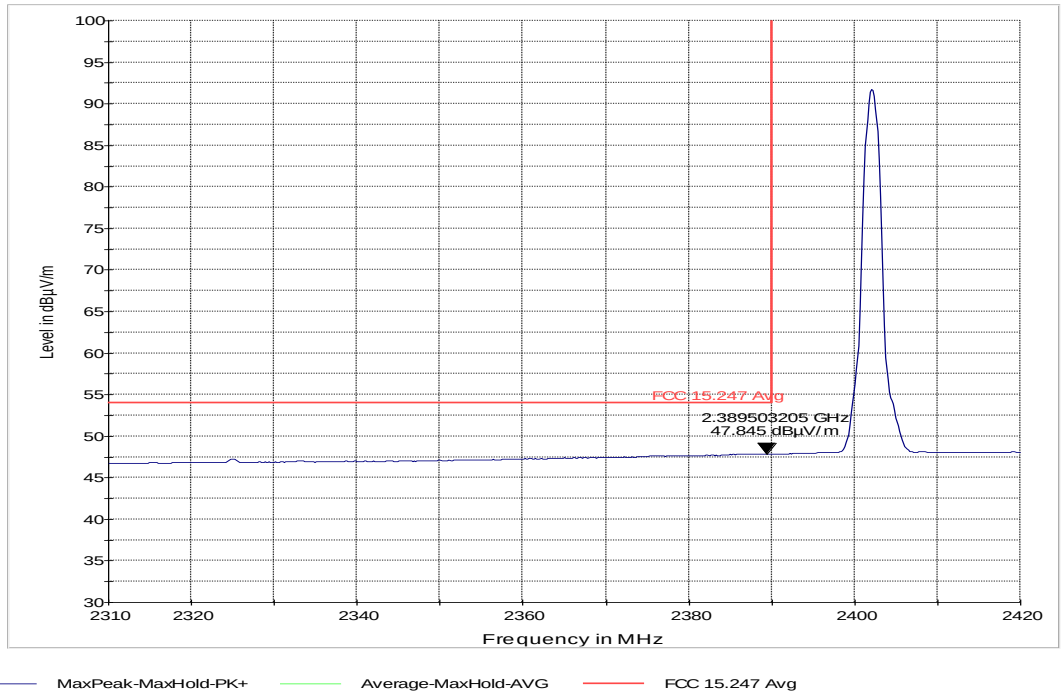
Higher band edge average-GFSK modulation



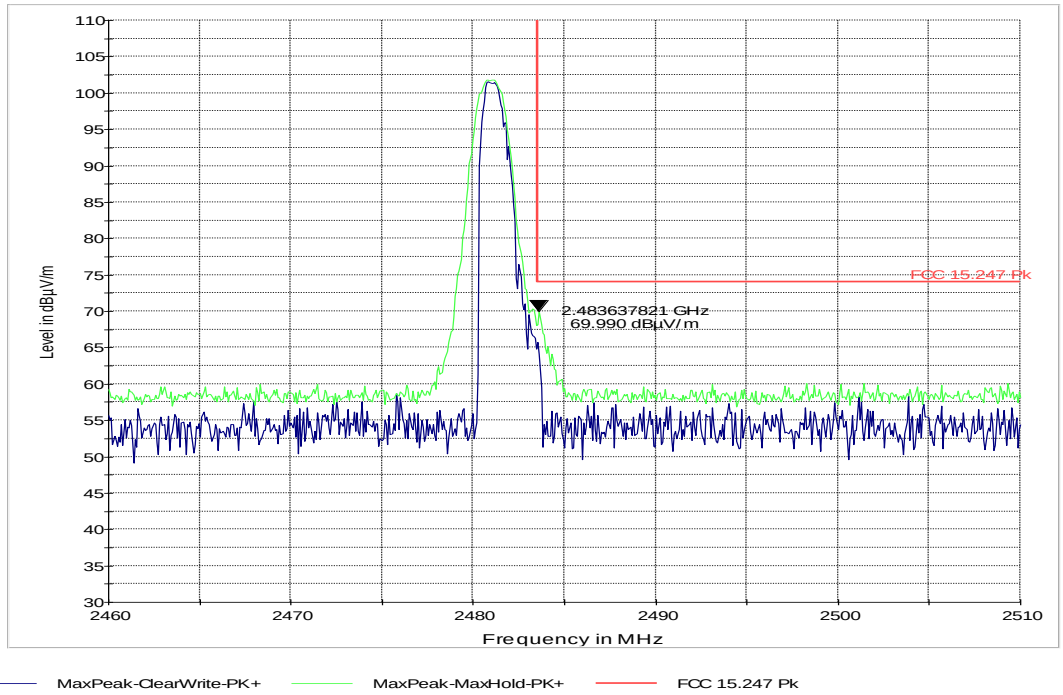
Lower band edge peak - π/4 DQPSK modulation



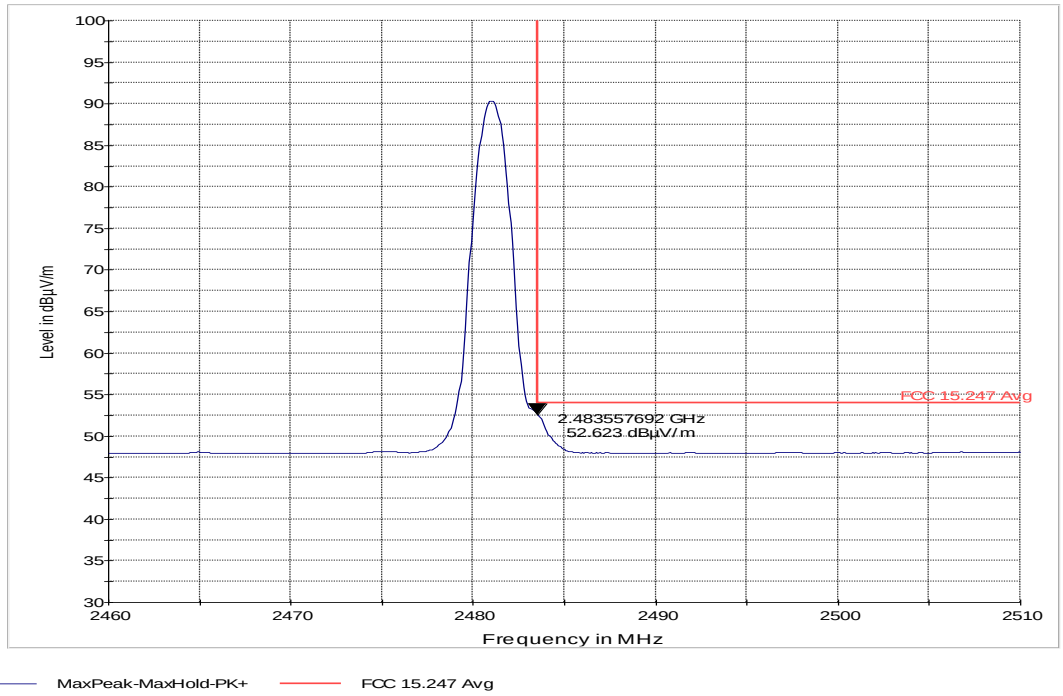
Lower band edge average -π/4 DQPSK modulation



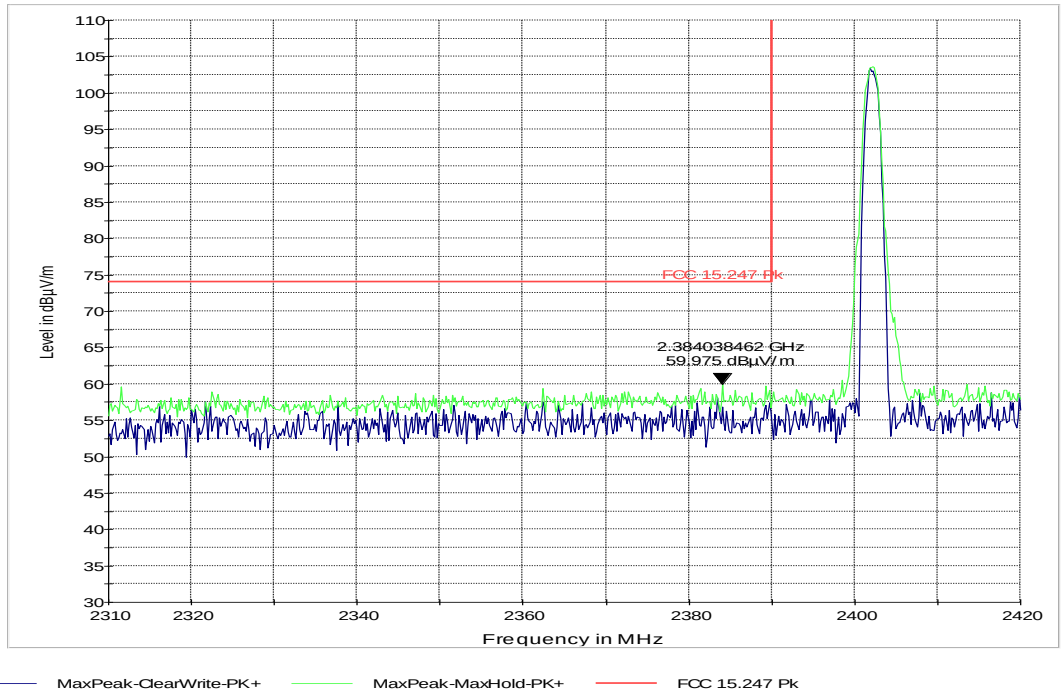
Higher band edge peak -π/4 DQPSK modulation



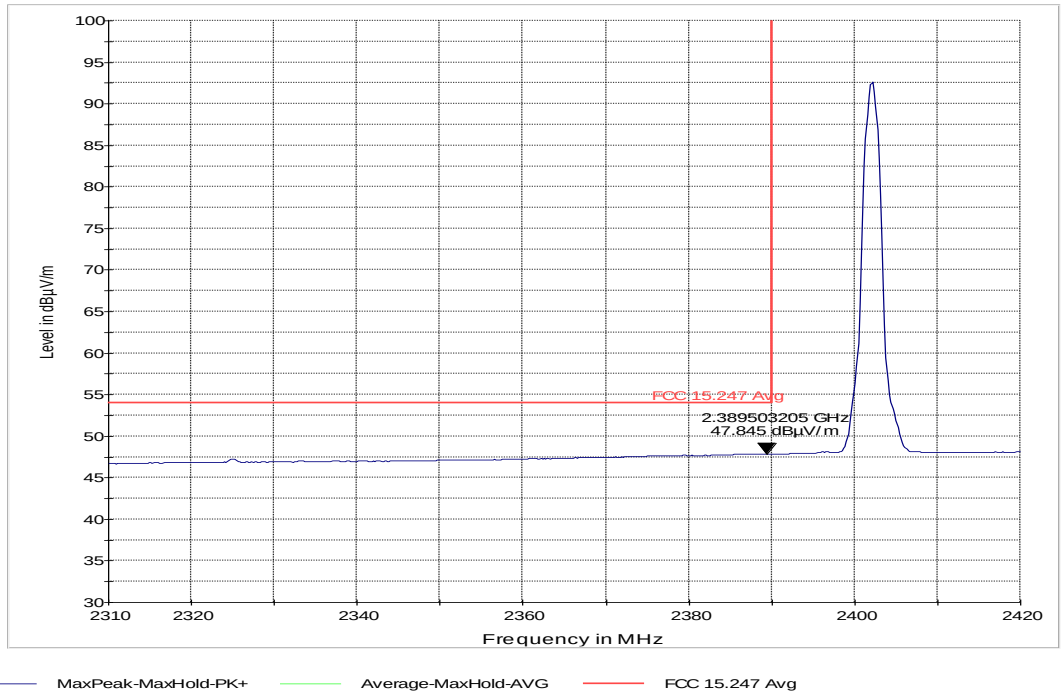
Higher band edge average- π/4 DQPSK modulation



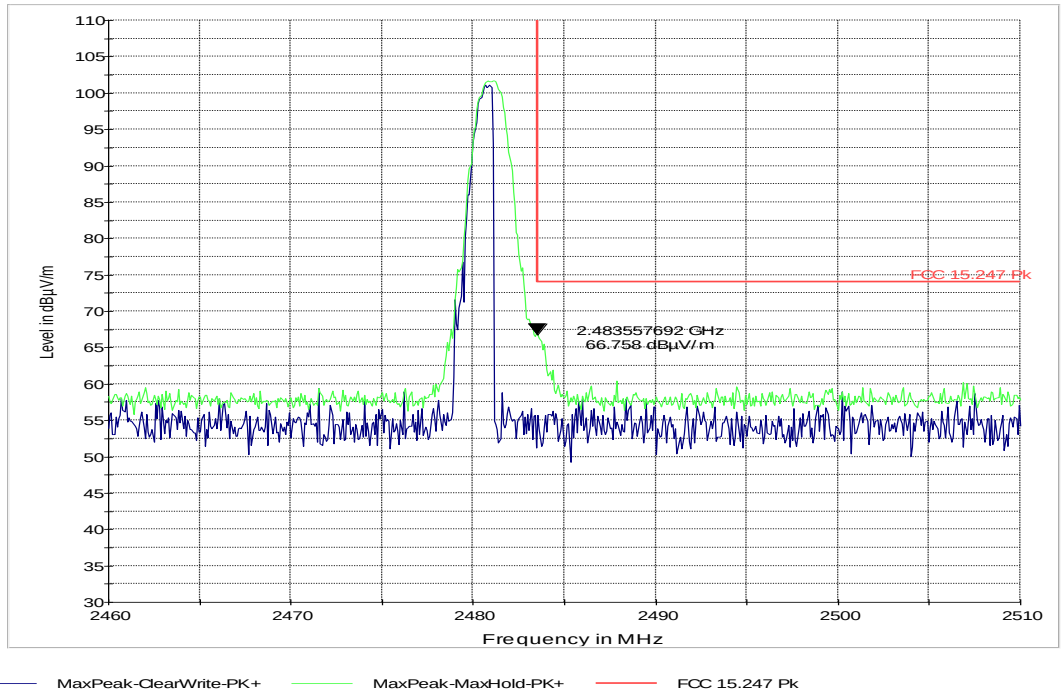
Lower band edge peak - 8DPSK modulation



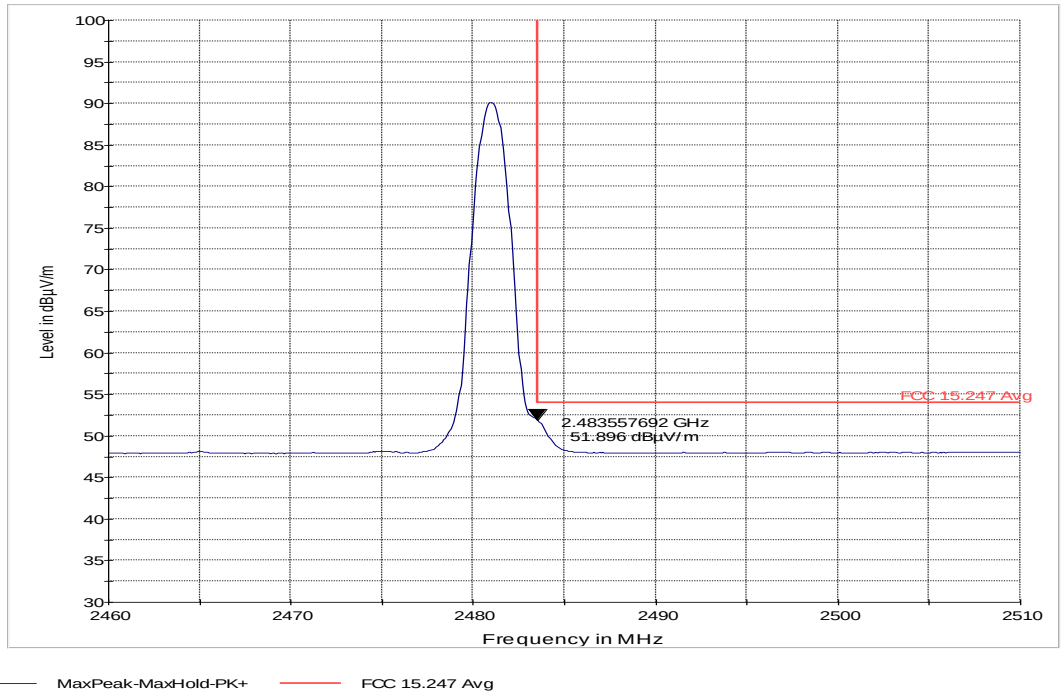
Lower band edge average -8DPSK modulation



Higher band edge peak - 8DPSK modulation



Higher band edge average-8DPSK modulation



6.7 Transmitter Spurious Emissions- Radiated

6.7.1 Limits:

§15.247/15.205

Frequency of emission (MHz)	Field strength (µV/m)	Measurement Distance (m)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30

Frequency of emission (MHz)	Field strength (µV/m)
30–88	100 (40dBµV/m)
88–216	150 (43.5 dBµV/m)
216–960	200 (46 dBµV/m)
Above 960	500 (54 dBµV/m)

6.7.2 Test Result:

The device was set to operate in GFSK test mode (highest conducted output power) and measurement results as reported here, represents the worst case radiated spurious emissions.
Unless mentioned otherwise, the emissions outside the limit lines in the plots are from the transmit signal.

For radiated measurements, all data in this report shows the worst case emissions data between H/V antenna polarizations and for all 3 orthogonal orientations of the EUT.

6.7.3 Test Conditions:

Tnom: 25°C; Vnom: 12 V
Hopping OFF

6.7.4 Measurement Procedure:

Peak measurements are made using a peak detector and RBW=120kHz (<1GHz) and RBW= 1MHz (>1GHz)
Measurement Uncertainty: ±3.0dB

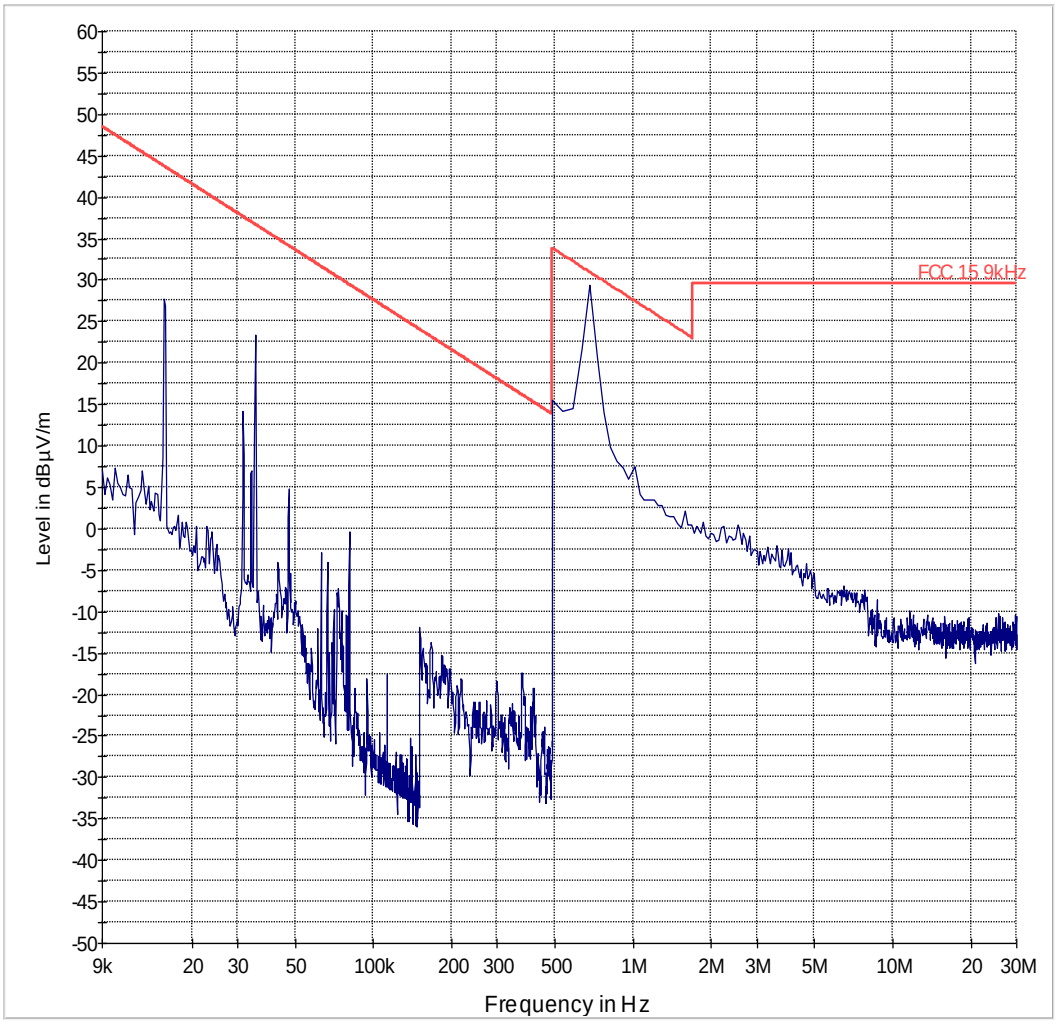
6.7.4.1 Test Verdict

Pass.

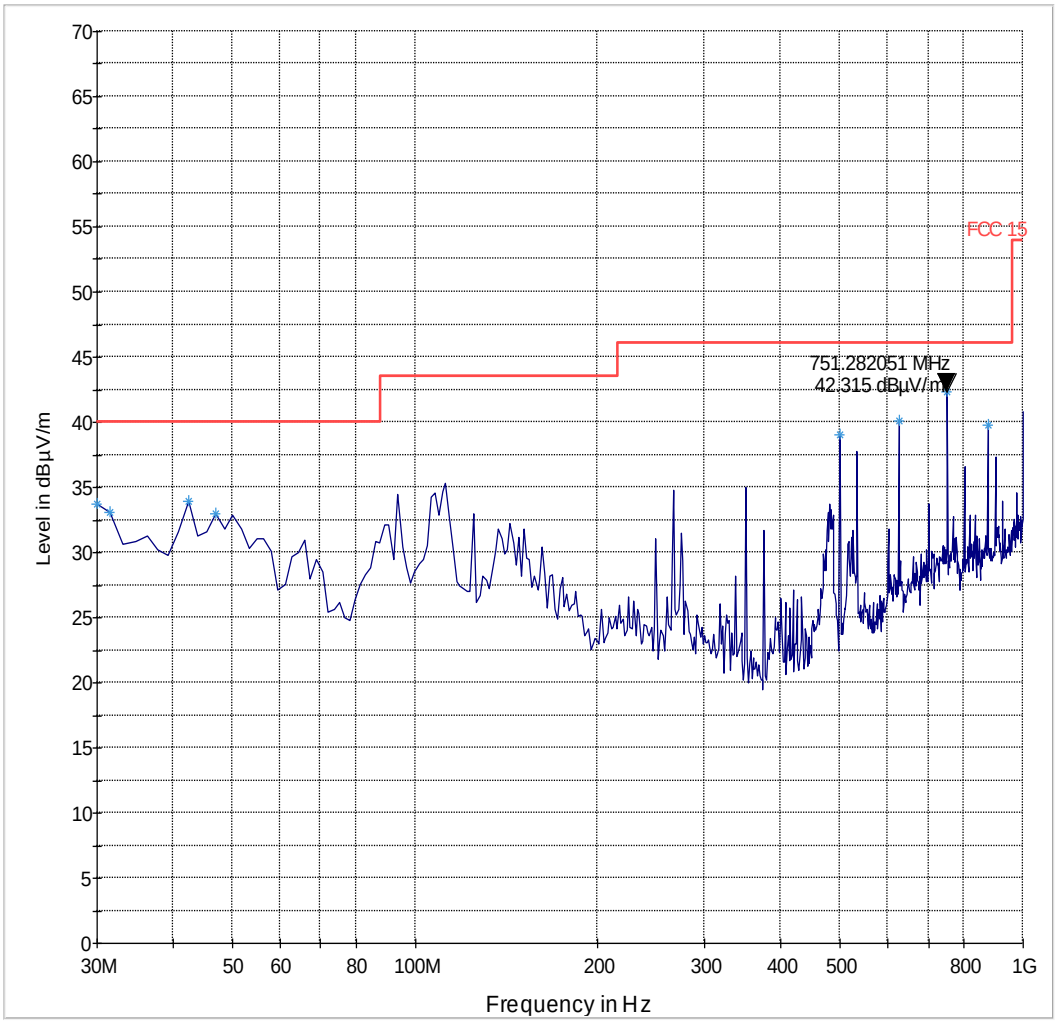
6.7.5 Test data/ plots:

Transmitter Radiated Spurious Emission: Ch39: <30MHz

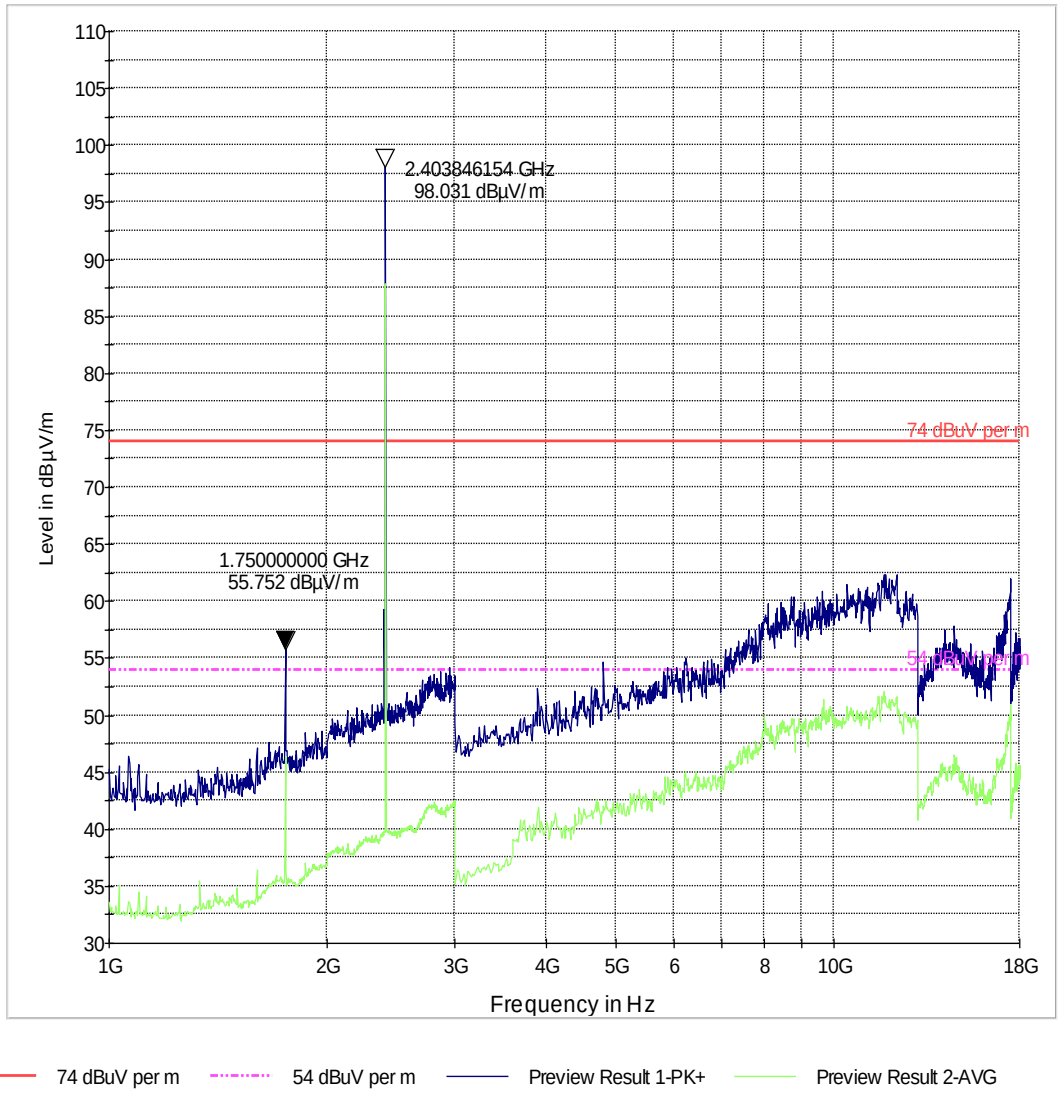
Note: Worst case representation for all channels and modes of operation in this frequency range- Limits adjusted for 3m measurement.



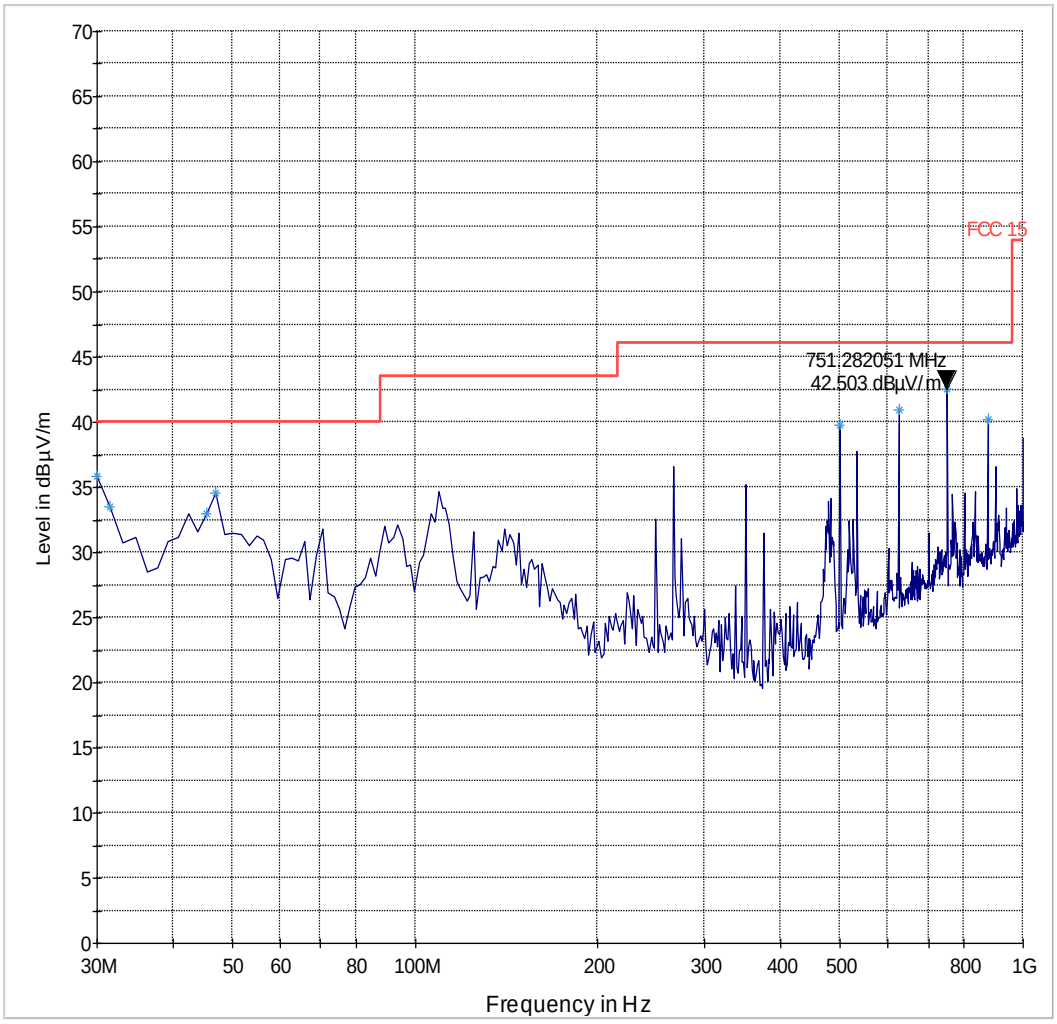
Transmitter Radiated Spurious Emission- Ch0- 30M-1GHz



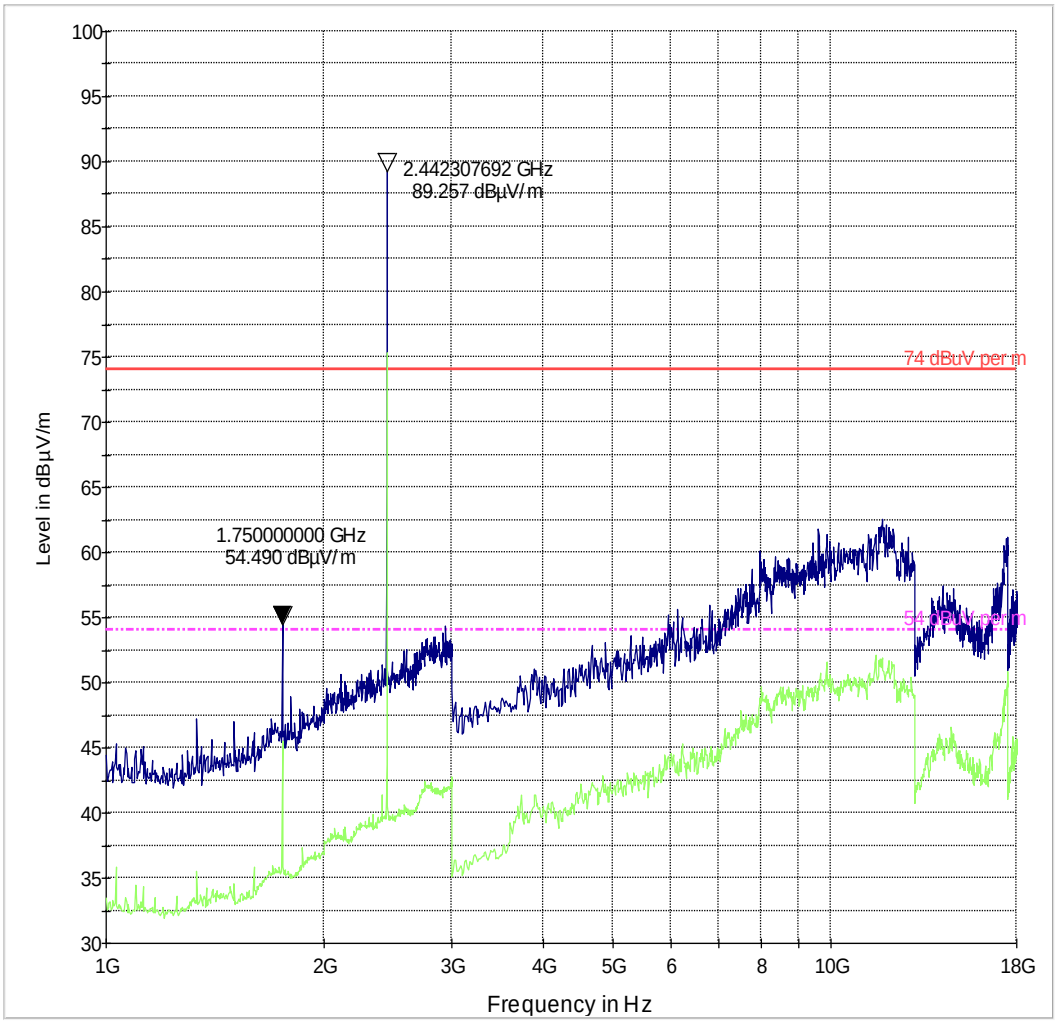
Transmitter Radiated Spurious Emission- Ch0- 1G-18GHz



Transmitter Radiated Spurious Emission- Ch39- 30M-1GHz

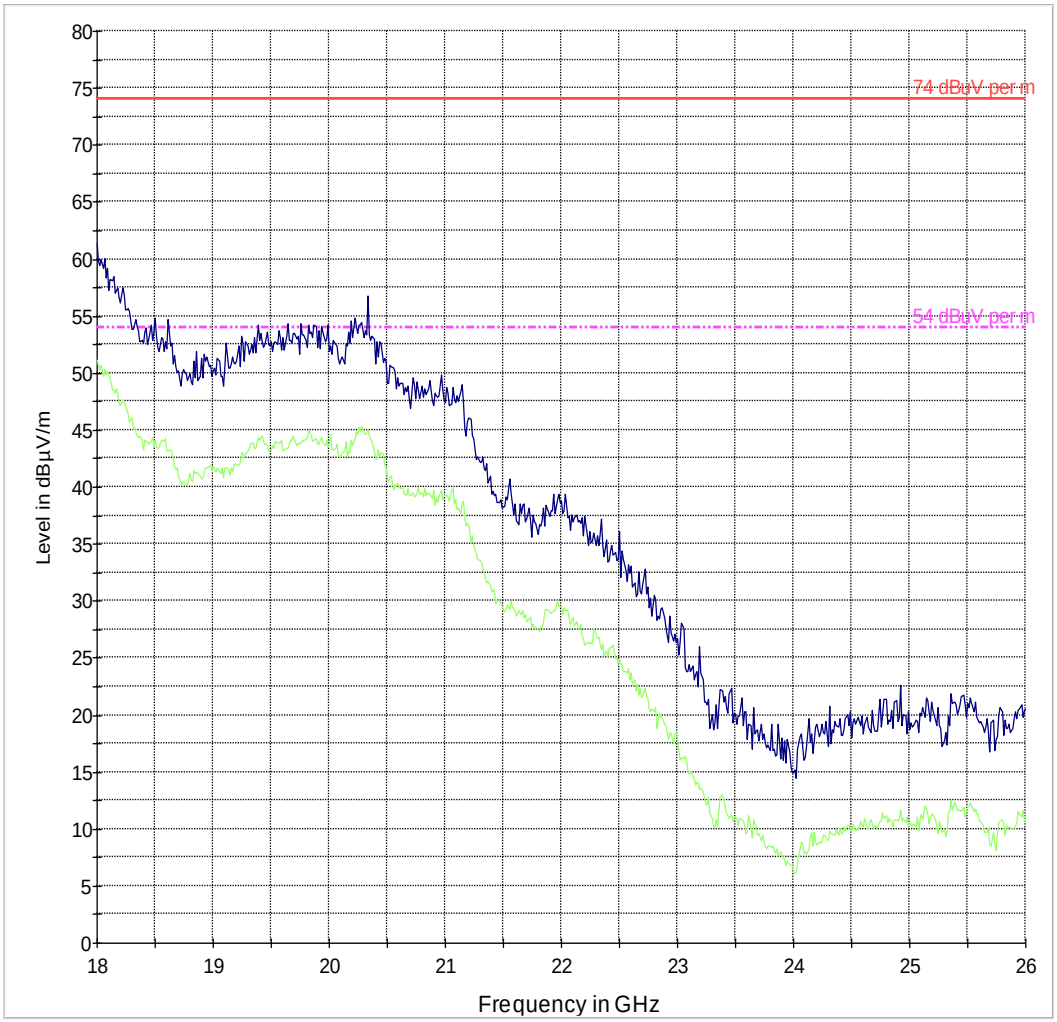


Transmitter Radiated Spurious Emission- Ch39- 1G-18GHz

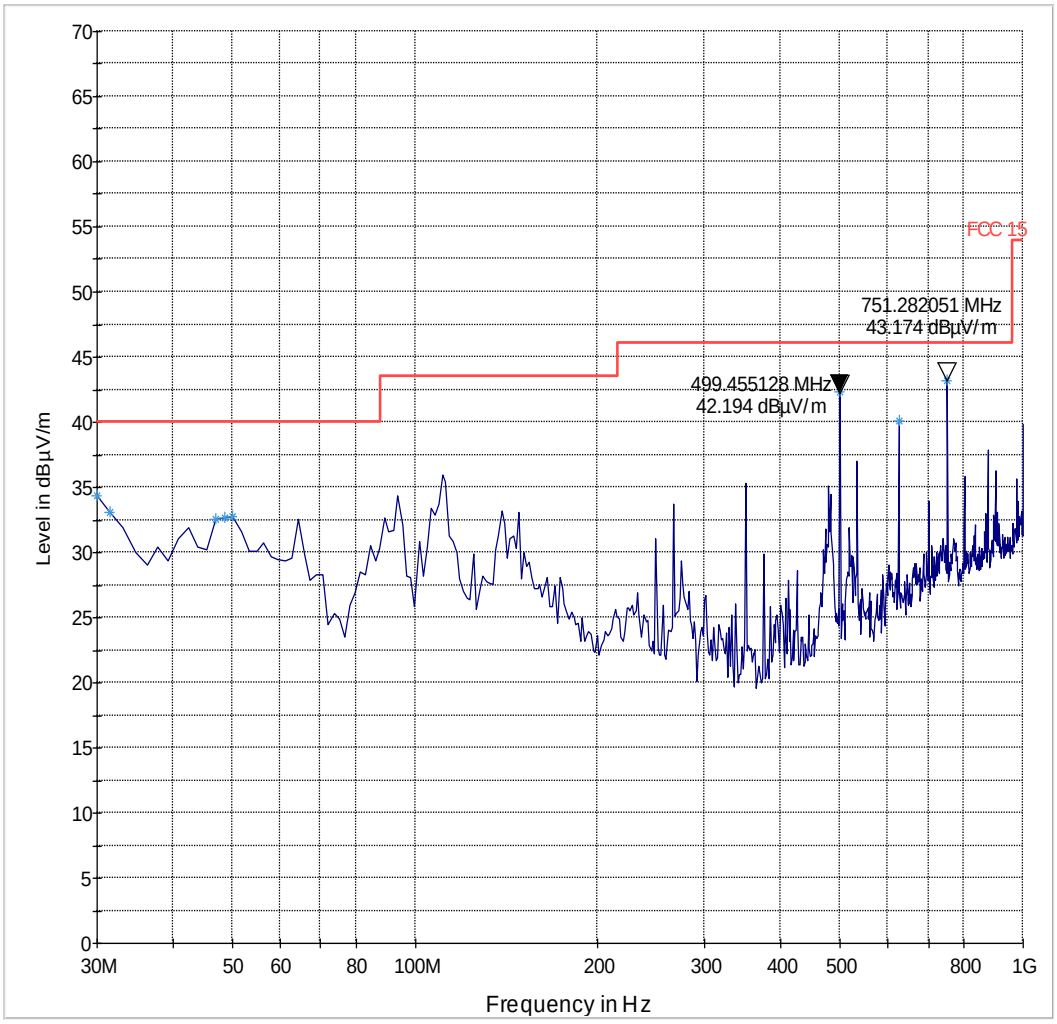


Transmitter Radiated Spurious Emission- Ch39- 18G-26GHz

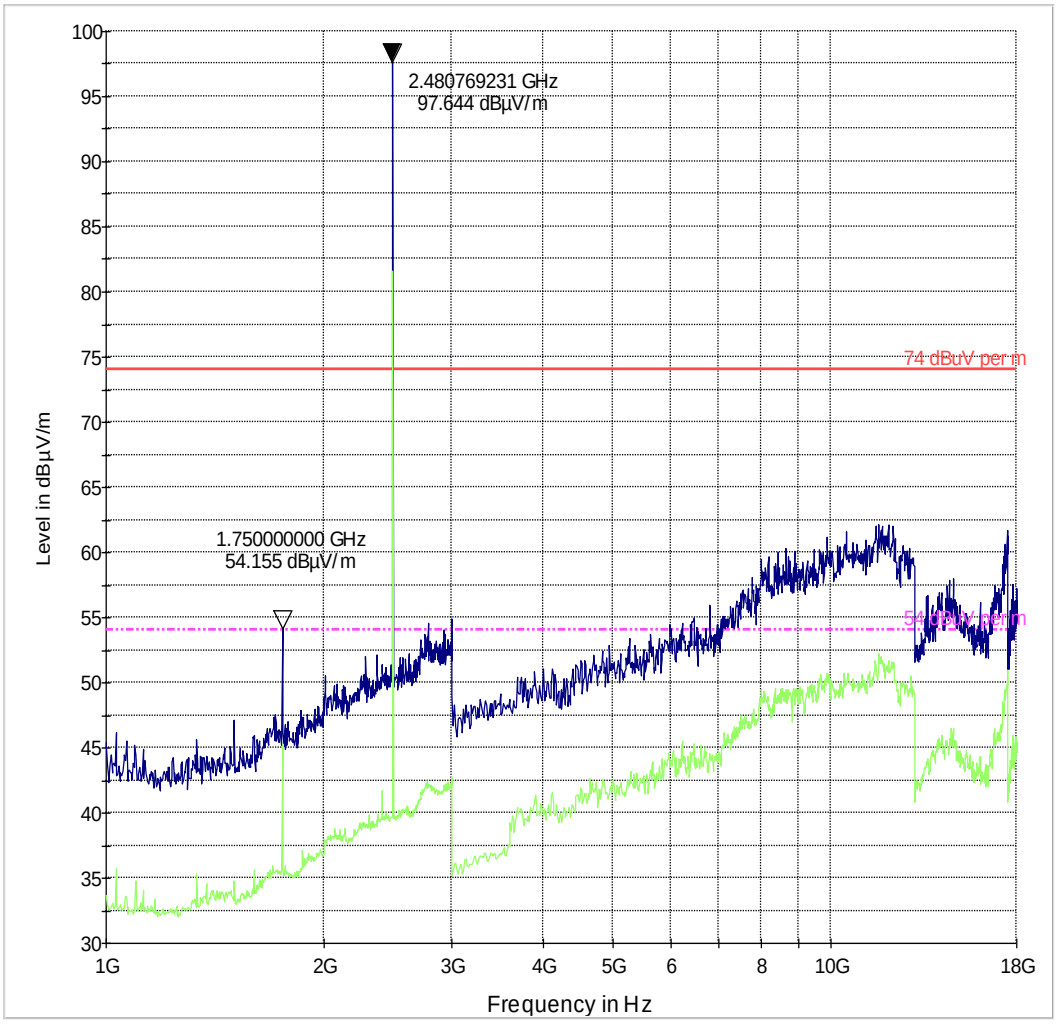
Note: Worst case representation for all channels and modes of operation in this frequency range-



Transmitter Radiated Spurious Emission- Ch78- 30M-1GHz



Transmitter Radiated Spurious Emission- Ch78- 1G-18GHz



6.8 AC Power Line Conducted Emissions

6.8.1 References:

FCC: CFR Part 15.207
The purpose of this test is to measure unwanted radio frequency currents induced in any AC conductor external to the equipment which could conduct interference to other equipment via the AC electrical network.

6.8.2 Limits:

6.8.2.1 §15.207 Conducted limits- Intentional Radiators:

(a) Except as shown in paragraphs (b) and (c) of this section of the CFR, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table (1), as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Table 1:

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

Analyzer Settings: CISPR Bandwidth- 9KHz.

6.8.3 Test Conditions:

Modulation: GFSK mode
Measurement Uncertainty: ±3.0dB

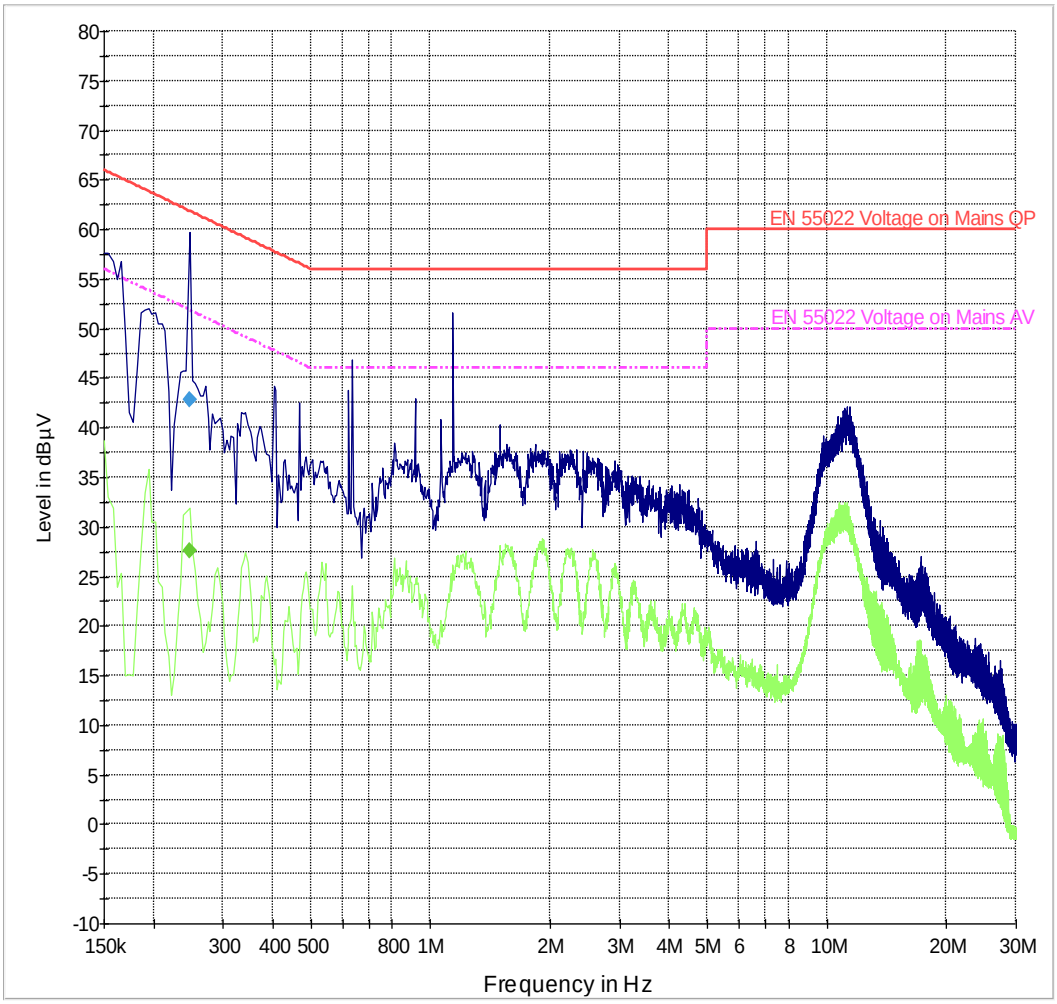
6.8.4 Results

Plots shown here represent the combined worse case emissions for power lines, phases and neutral line.

6.8.4.1 Measurement Verdict
Pass.

6.8.5 Test Results:

BT TX Mode:

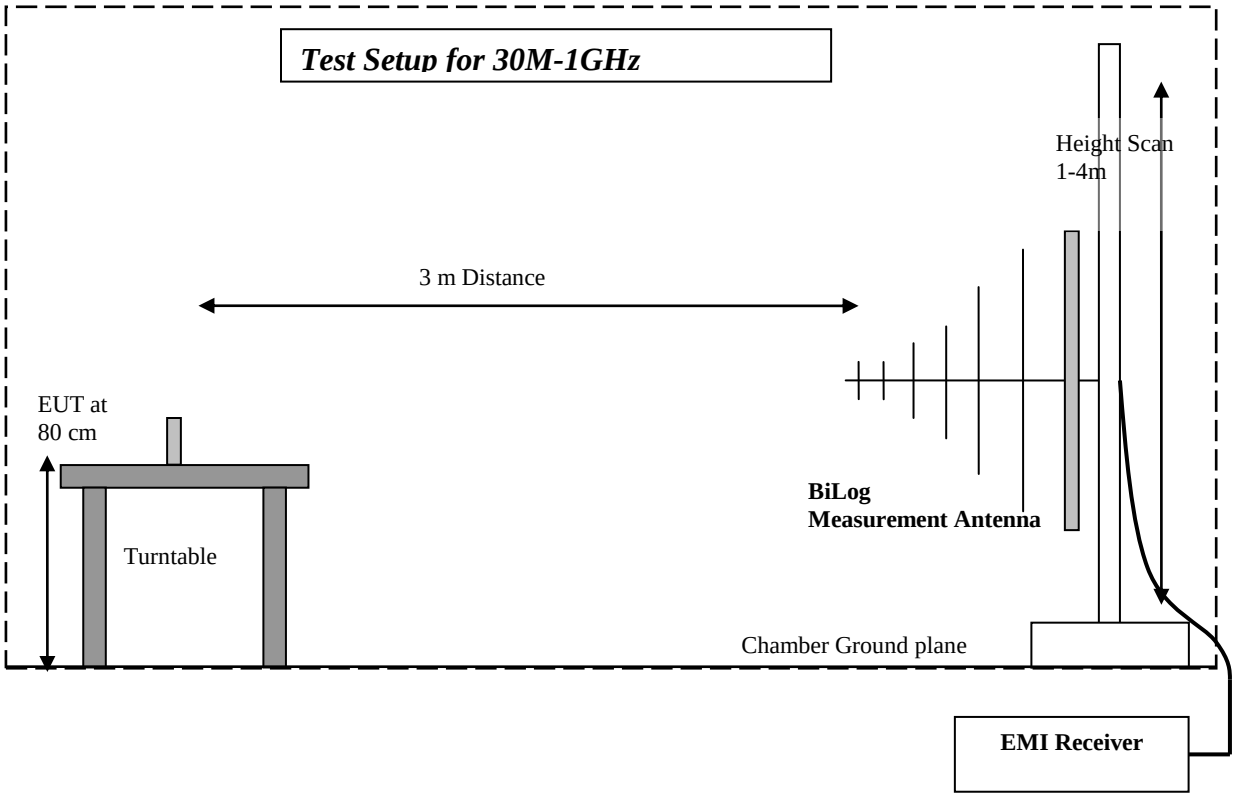


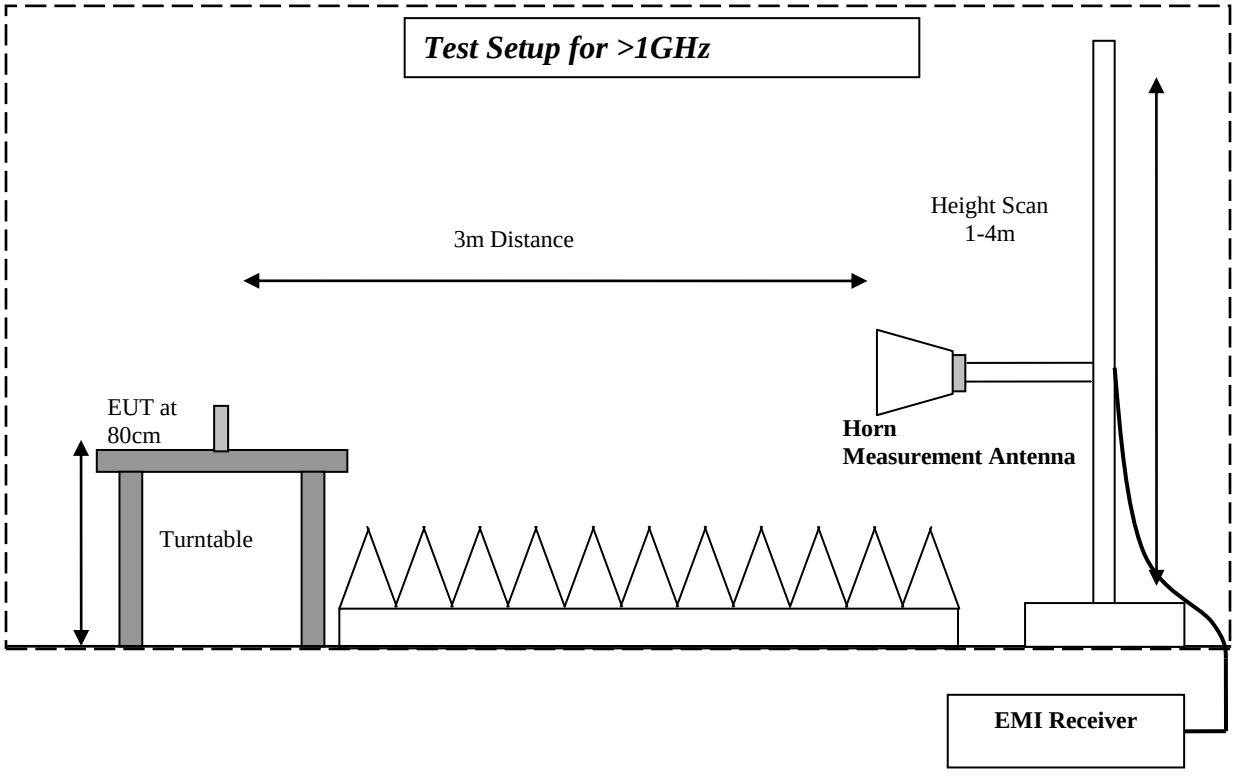
7 Test Equipment and Ancillaries used for tests

No.	Equipment Name	Manufacturer	Type/model	Serial No.	Cal Date	Cal Interval
3m Semi- Anechoic Chamber:						
	Turntable	EMCO	2075	N/A	N/A	N/A
	MAPS Position Controller	ETS Lindgren	2092	0004-1510	N/A	N/A
	Antenna Mast	EMCO	2075	N/A	N/A	N/A
	Relay Switch Unit	Rohde&Schwarz	RSU	338964/001	N/A	N/A
	EMI Receiver/Analyzer	Rohde&Schwarz	ESU 40	100251	Jul 2012	1 Year
	Spectrum Analyzer	Rohde&Schwarz	FSU	200302	May 2011	2 Years
	1500MHz HP Filter	Filtek	HP12/1700	14c48	N/A	N/A
	2800 MHZ HP Filter	Filtek	HP12/2800	14C47	N/A	N/A
	Pre-Amplifier	Miteq	JS40010260	340125	N/A	N/A
	Binconilog Antenna	EMCO	3141	0005-1186	Apr 2012	3 Years
	Binconilog Antenna	ETS	3149	J000123908	Feb 2012	3 years
	Horn Antenna	EMCO	3115	35114	Mar 2012	3 Years
Ancillary equipment						
	Multimeter	Klein Tools	MM200	001	Apr 2011	2 Years
	Humidity Temperature Logger	Dickson	TM320	03280063	Mar 2012	1 Year
	Digital Barometer	VWR	35519-055	91119547	Nov 2011	2 Years
	Climatic Chamber	Votsch	VT4004	G1115	N/A	N/A
	DC Power Supply	HP	E3610A	KR83023316	N/A	N/A
	DC Power Supply	Protek	3003B	H012771	N/A	N/A
	Communication Antenna	IBP5-900/1940	Kathrein	N/A	N/A	N/A

Equipment used meets the measurement uncertainty requirements as required per applicable standards for 95% confidence levels.
Calibration due dates, unless defined specifically, falls on the last day of the month.
Items indicated “N/A” for cal status either do not specifically require calibration or is internally characterized before use.

8 Test Setup Diagram:





9 Revision History

Date	Report Name	Changes to report	Report prepared by
2012-12-06	EMC_ EMBED_001_12001_FHSS	First Version	C. Lee