FCC Test Report

Equipment	:	IEEE 802.11 1X1 ac/a/b/g/n Wireless LAN +Bluetooth NGFF Module
Brand Name	:	AzureWave
Model No.	:	AW-CM286NF
FCC ID	:	TLZ-CM286NF
Standard	:	47 CFR FCC Part 15.247
Frequency	:	2400 MHz – 2483.5 MHz
Function	:	☒Point-to-multipoint; ☐Point-to-point
Applicant	:	AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Manufacturer	:	AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231

The product sample received on Nov. 03, 2016 and completely tested on Nov. 22, 2016. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONALINC., the test report shall not be reproduced except in full.

Cliff Chang
SPORTON INTERNATIONAL INC.

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Summary of Test Result

Conformance Test Specifications				
Report Clause	**Ref. Std. Clause**	**Description**	**Limit**	**Result**
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: >30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied

Revision History

Report No.	Version	Description	Issued Date
FR6O2108AD	Rev. 01	Initial issue of report	Jun. 13, 2017
FR6O2108AD	Rev. 02	Changing the Photographs of EUT	Jun. 15, 2017

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4G	BT-LE	1	1

Note:
- 2.4G is the 2.4GHz Band (2.4-2.4835GHz).
- Bluetooth LE uses a GFSK (1Mbps) modulation for DSSS.
- BWch is the channel separation
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2, 3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Ant.	Brand Holder	Brand Holder P/N	Antenna Type	Connector
1	Smart Approach Co.,Ltd.	SE-ECX10-001	PIFA Antenna	I-PEX
2	Smart Approach Co.,Ltd.	SE-ECX10-002	PIFA Antenna	I-PEX
3	Smart Approach Co.,Ltd.	SE-ECX10-003	PIFA Antenna	I-PEX
4	Smart Approach Co.,Ltd.	SE-ECX10-004	PIFA Antenna	I-PEX
5	Smart Approach Co.,Ltd.	SE-ECX10-005	PIFA Antenna	I-PEX
6	Smart Approach Co.,Ltd.	SE-ECX10-006	PIFA Antenna	I-PEX

Ant.	True Gain = antenna gain + cable loss (dBi)				
	2.4G	5G B1	5G B2	5G B3	5G B4
1	-0.94	1.42	1.42	0.58	2.16
2	-1.67	-0.29	-0.33	1.37	1.37
3	1.04	0.92	0.92	2.59	2.59
4	0.31	0.93	0.28	-1.11	-1.37
5	1.01	0.07	0.07	0.34	-0.68
6	0.64	0.38	-0.52	-0.49	-0.68

Note1: There are 6 antennas in the antenna table list. Ant.1~Ant.6 are the same type antennas, so only the higher gain antenna was tested. 2.4G and 5G Band 3 / Band 4 use Ant.3 for test, and 5G Band 1 / Band 2 use Ant.1 for test.

Note2: Chain 1 is designated for 2.4GHz / 5GHz WLAN function, Chain 2 is designated for bluetooth functions.

For 2.4GHz WLAN function:

For IEEE 802.11b/g/n mode (1TX/1RX):

Only Chain 1 can be used as transmitting/receiving functions.

Chain 1 connect to Ant. 1~Ant. 6 for 2.4G.

For 5GHz WLAN function:

For IEEE 802.11a/n/ac mode (1TX/1RX):

Only Chain 1 can be used as transmitting/receiving functions.

Chain 1 connect to Ant. 1~Ant. 6 for 5G.

For bluetooth function (1TX, 1RX):

Only Chain 2 can be used as transmitting/receiving functions.

Chain 2 connect to Ant. 1~Ant. 6 for bluetooth.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
BT-LE	0.614	2.12

1.1.4 EUT Operational Condition

EUT Power Type	From Host System

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 558074 D01 v04
- FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

Testing Location			
☐	HWA YA	ADD :	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
		TEL :	886-3-327-3456 FAX : 886-3-318-0055
☒	JHUBEI	ADD :	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
		TEL :	886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Gino Huang	22°C / 55%	Nov. 10, 2016
Radiated	03CH01-CB	Stim Song / Nyle Chang Zero Chen / Justin Lin	22°C / 54%	Nov. 08, 2016~Nov. 22, 2016
AC Conduction	CO01-CB	Edison Lin	24°C / 58%	Nov. 04, 2016

Test site Designation No. TW0006 with FCC.
Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
2.4G	BT-LE	1	1	1	2402	L	15
2.4G	BT-LE	1	1	1	2442	S	15
2.4G	BT-LE	1	1	1	2480	H	15

Note:
- Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch.) and C (Straddle Band Ch.).

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	Normal Link - 2.4G + Bluetooth
2	Normal Link - 5G + Bluetooth
For operating mode 1 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT in Y axis - 2.4G + Bluetooth
2	EUT in Z axis - 2.4G + Bluetooth
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT in Z axis - 5G + Bluetooth

For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position. The worst case was found at X axis, so it was selected to perform test and its test result was written in the report.	
1	EUT in X axis - BT

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA6O2108 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:
The EUT was programmed to be in continuously transmitting mode.

For Normal Link:
During the test, the EUT operation to normal function

2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	AP Router	Planex	GW-AP54SGX	KA220030603014-1
2	NB	DELL	E6430	DoC
3	CBT Bluetooth tester	Anritsu	MT8852B	DoC
4	NB	DELL	E6430	DoC
5	Test fixture	AzureWave	NA	DoC
6	Earphone	SHYARO CHI	MIC-04	DoC
7	Mouse	HP	FM100	DoC
8	USB Hub	iCooby	iH-19	DoC

For Test Site No: 03CH01-CB (below 1GHz)

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	AP Router	Planex	GW-AP54SGX	KA220030603014-1
2	NB	DELL	E6430	DoC
3	CBT Bluetooth tester	Anritsu	MT8852B	DoC
4	NB	DELL	E6430	DoC
5	Test fixture	AzureWave	NA	DoC
6	Earphone	SHYARO CHI	MIC-04	DoC
7	Mouse	HP	FM100	DoC

For Test Site No: 03CH01-CB (above 1GHz)

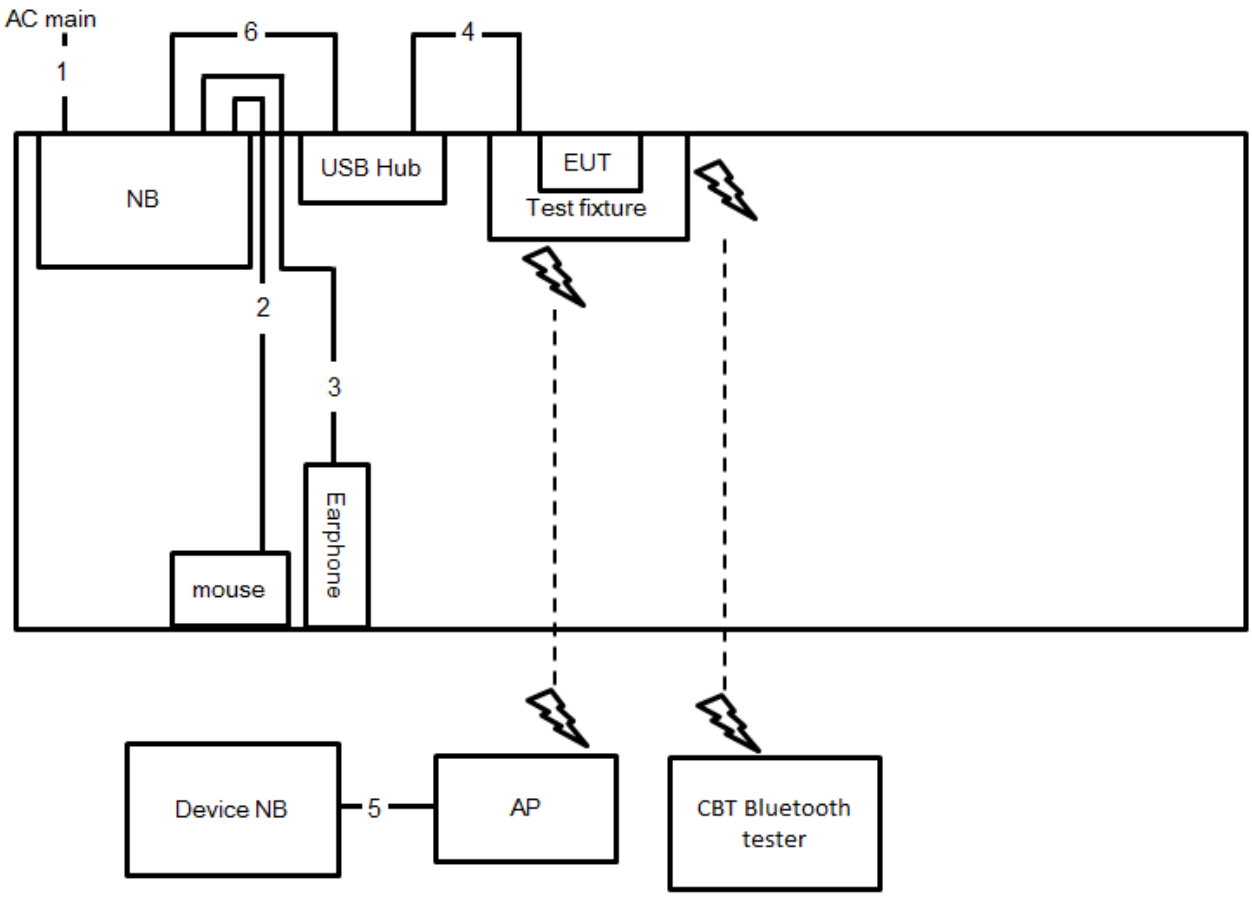
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*2	DELL	E4300	DoC
2	Test fixture	AzureWave	N/A	DoC

For Test Site No: TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*2	DELL	E4300	DoC
2	Test fixture	AzureWave	N/A	DoC

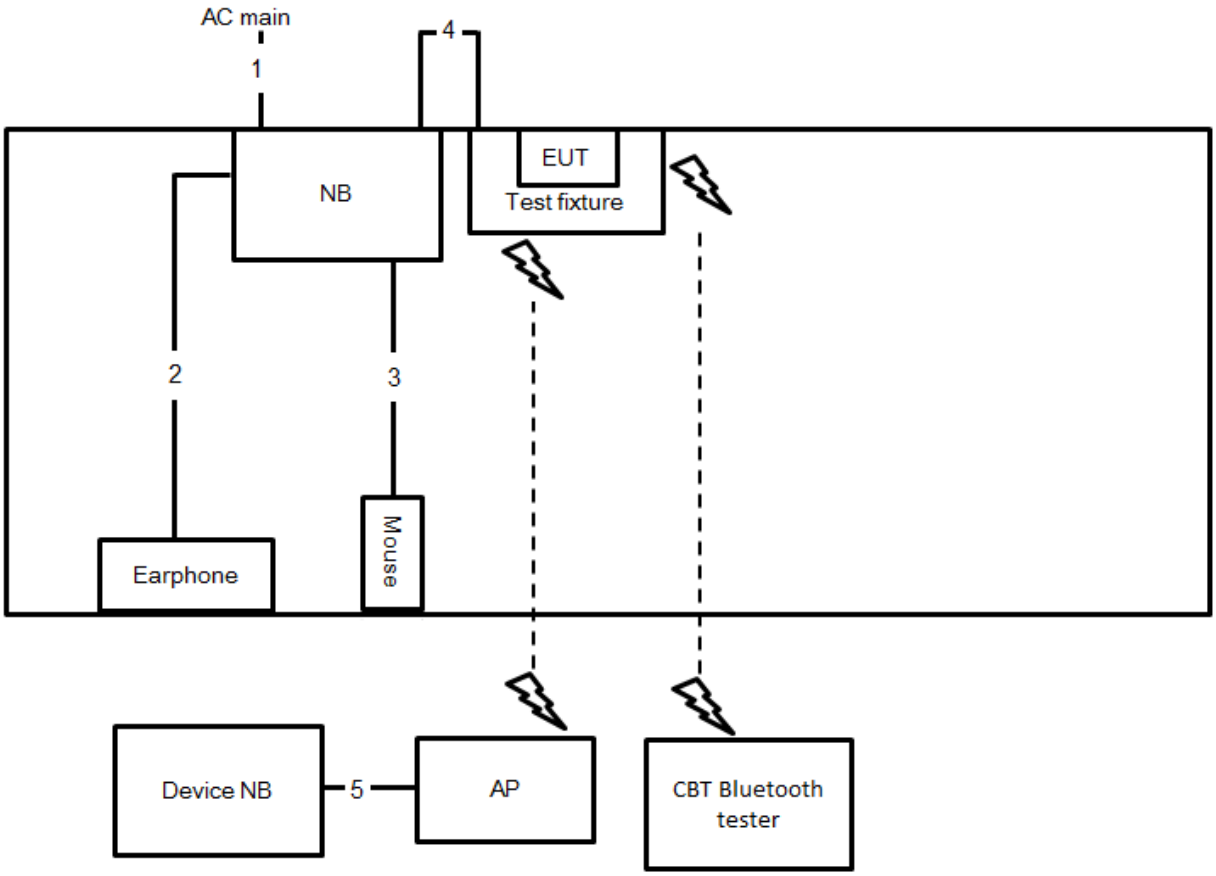
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



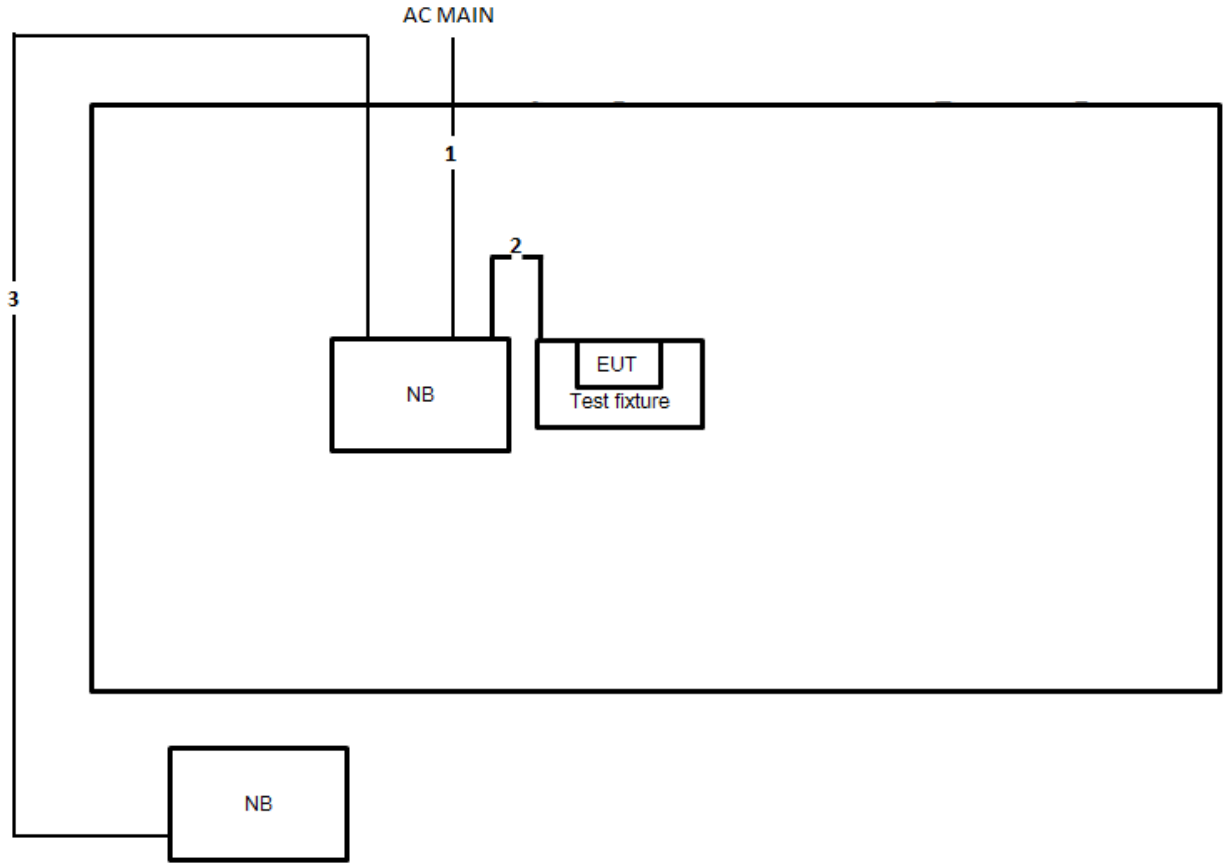
Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB cable	Yes	1.8m
3	Audio cable	No	1.8m
4	USB cable*2	Yes	1.8m
5	RJ-45 cable	No	1.5m
6	USB cable	Yes	0.1m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	Audio cable	No	1.8m
3	USB cable	Yes	1.8m
4	USB cable*2	Yes	1.8m
5	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

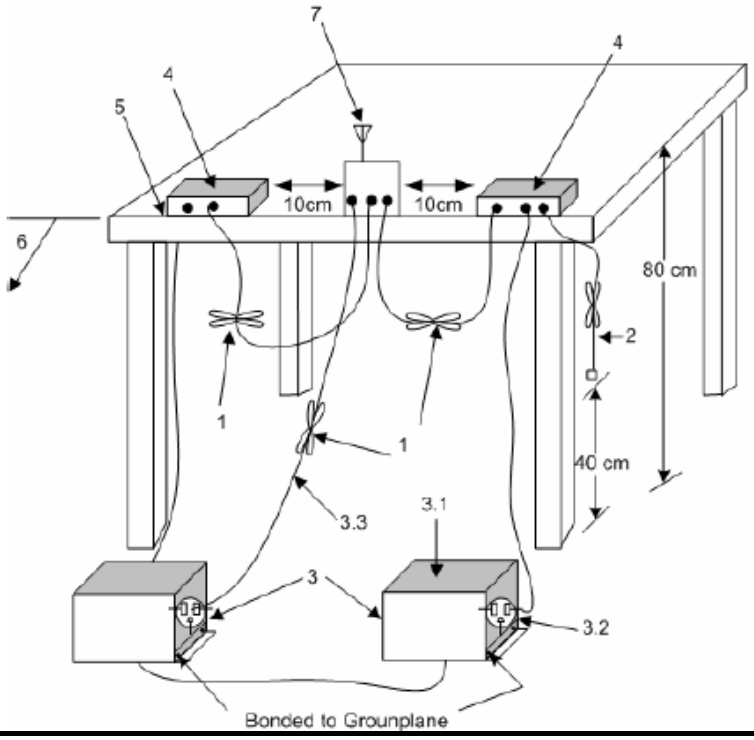
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

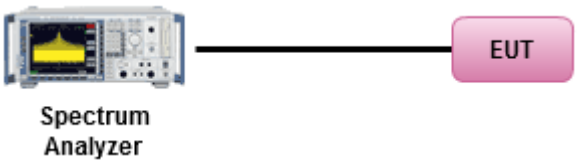
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as FCC KDB 558074, clause 8.1 Option 1 for6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 Option 2 for6 dB bandwidth measurement.
	☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
▪	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
▪	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
▪	Smart antenna system (SAS):
-	Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
-	Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
-	Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

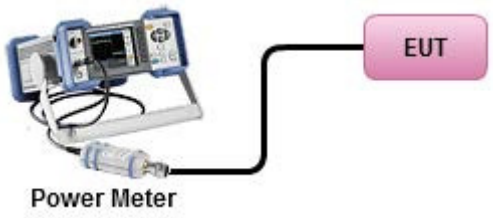
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
▪	Maximum Peak Conducted Output Power
☐	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
▪	Maximum Conducted Output Power
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
☒	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
▪	For conducted measurement.
▪	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
▪	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD)≤8 dBm/3kHz

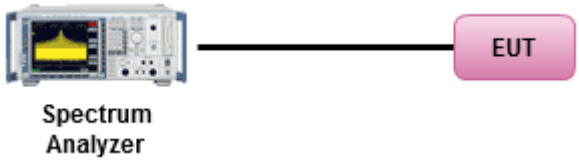
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak).	
	[duty cycle ≥ 98% or external video / power trigger]	
	☐ Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).	
	☐ Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed)	
	duty cycle < 98% and average over on/off periods with duty factor	
	☐ Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).	
	☐ Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
		☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup

Power Spectral Density
 Spectrum Analyzer

3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dB)**
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.
Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

3.5.2 Measuring Instruments

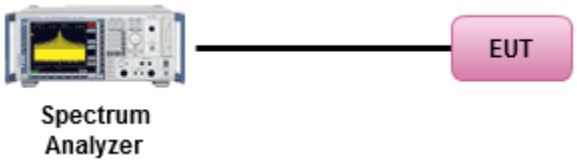
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
▪ Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

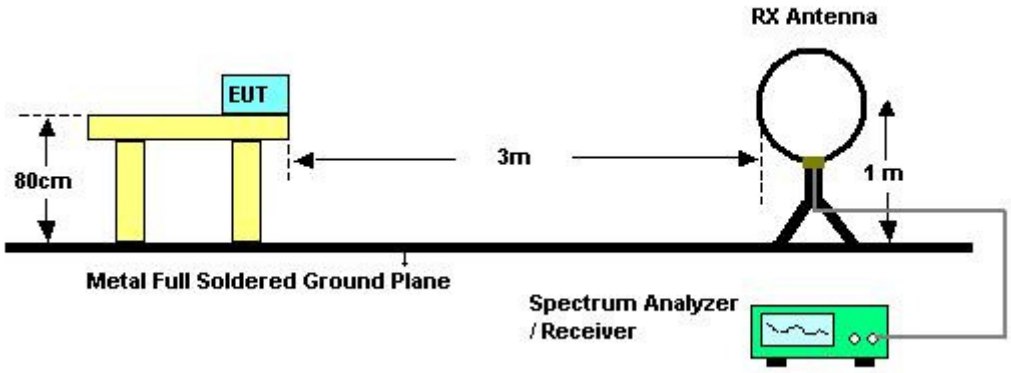
3.6.3 Test Procedures

Test Method		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ Refer as ANSI C63.10, clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.		
▪ For the transmitter unwanted emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%)
		☐ Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
		☒ Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW≥1/T).
		☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 558074, clause 12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.	
	▪ Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.	
	▪ Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).	
▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2.		
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB	
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.	

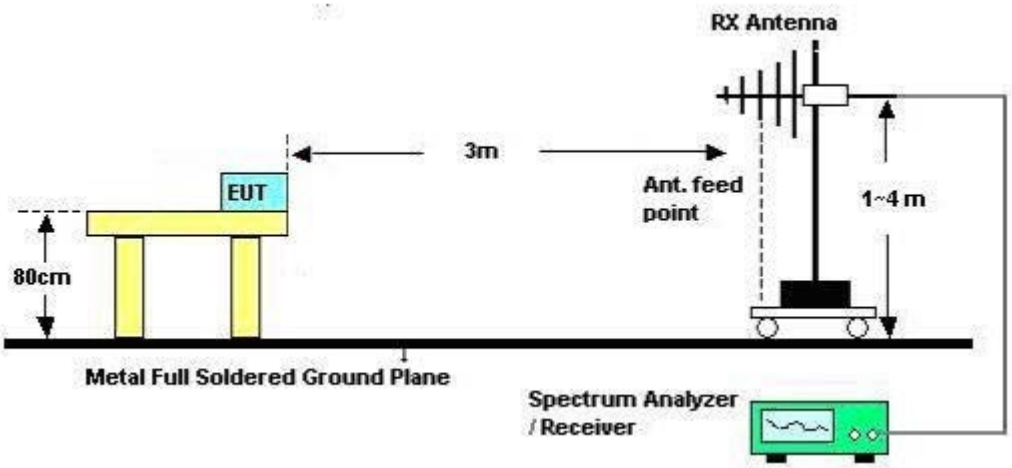
3.6.4 Test Setup

Transmitter Radiated Emissions

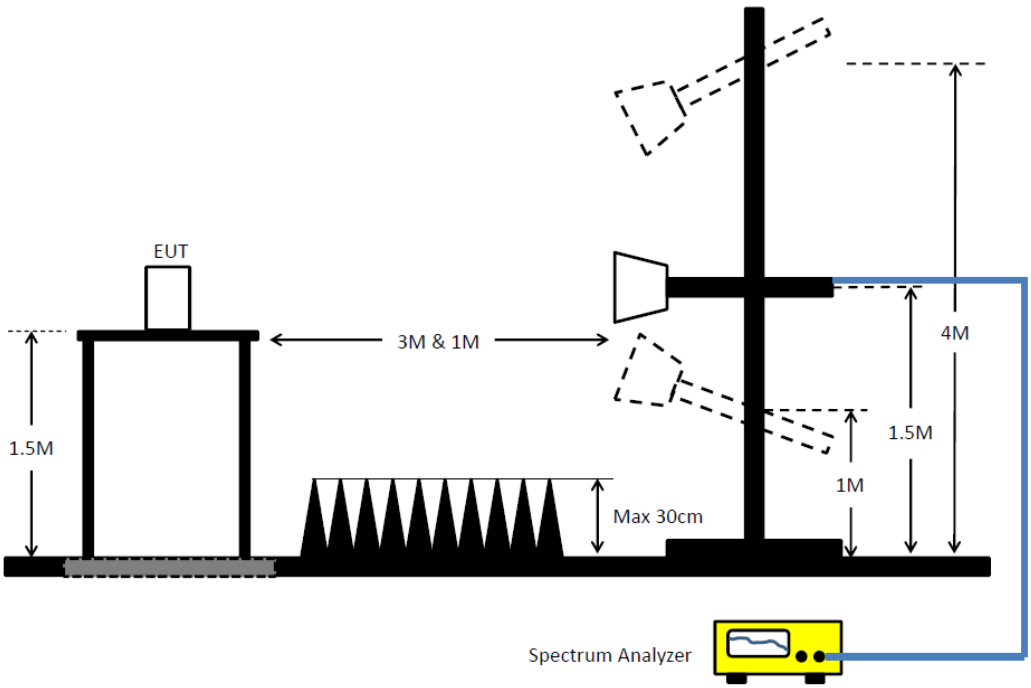
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.6.6 Transmitter Radiated Unwanted Emissions

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 27, 2016	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 08, 2015	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 23, 2015	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 24, 2016	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
BILOG ANTENNA	TESEQ	CBL6112D	37880	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jul. 07, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Mar. 15, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 18, 2016	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 09, 2015	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 09, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)

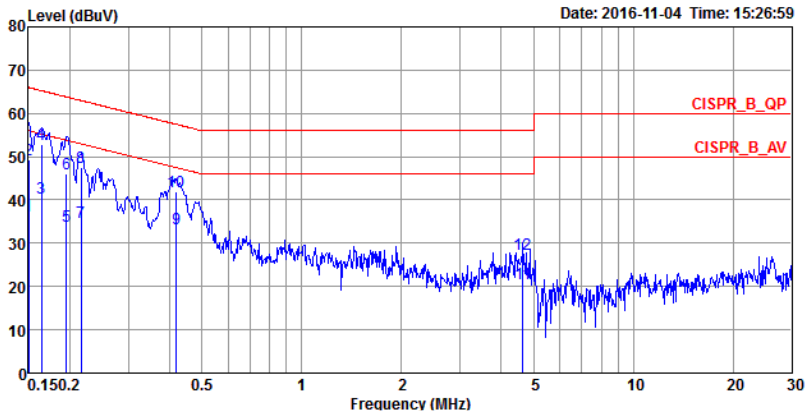
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY54320015	50MHz~18GHz	Apr. 20, 2016	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

"*" Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

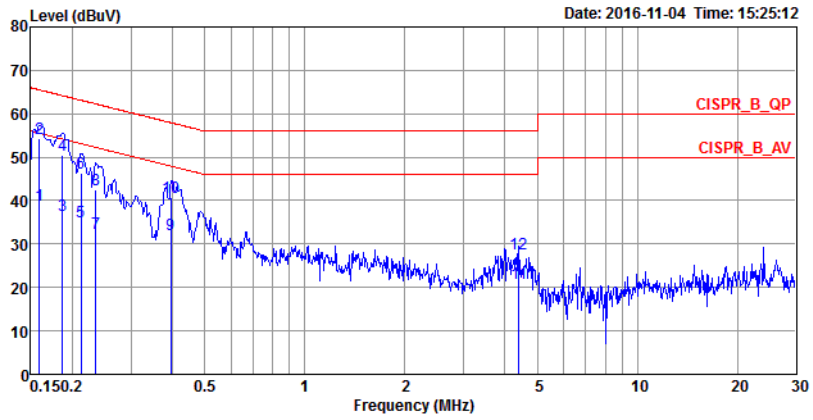
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1500	36.31	-19.69	56.00	26.19	9.96	Average	NEUTRAL
2	0.1500	49.21	-16.79	66.00	39.09	9.96	QP	NEUTRAL
3	0.1641	40.35	-14.90	55.25	30.23	9.96	Average	NEUTRAL
4	0.1641	52.79	-12.46	65.25	42.67	9.96	QP	NEUTRAL
5	0.1955	34.08	-19.72	53.80	23.94	9.96	Average	NEUTRAL
6	0.1955	46.19	-17.61	63.80	36.05	9.96	QP	NEUTRAL
7	0.2162	34.89	-18.07	52.96	24.75	9.96	Average	NEUTRAL
8	0.2162	47.64	-15.32	62.96	37.50	9.96	QP	NEUTRAL
9	0.4193	33.43	-14.03	47.46	23.26	9.97	Average	NEUTRAL
10	0.4193	41.83	-15.63	57.46	31.66	9.97	QP	NEUTRAL
11	4.6469	20.72	-25.28	46.00	10.34	10.04	Average	NEUTRAL
12	4.6469	27.55	-28.45	56.00	17.17	10.04	QP	NEUTRAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1590	39.01	-16.51	55.52	28.89	9.96	Average	LINE
2	0.1590	54.29	-11.23	65.52	44.17	9.96	QP	LINE
3	0.1864	36.67	-17.53	54.20	26.54	9.95	Average	LINE
4	0.1864	50.35	-13.85	64.20	40.22	9.95	QP	LINE
5	0.2128	35.01	-18.09	53.10	24.87	9.96	Average	LINE
6	0.2128	46.46	-16.64	63.10	36.32	9.96	QP	LINE
7	0.2353	32.54	-19.72	52.26	22.39	9.96	Average	LINE
8	0.2353	42.62	-19.64	62.26	32.47	9.96	QP	LINE
9	0.3955	32.08	-15.87	47.95	21.87	10.01	Average	LINE
10	0.3955	40.71	-17.24	57.95	30.50	10.01	QP	LINE
11	4.4071	20.85	-25.15	46.00	10.41	10.11	Average	LINE
12	4.4071	27.82	-28.18	56.00	17.38	10.11	QP	LINE

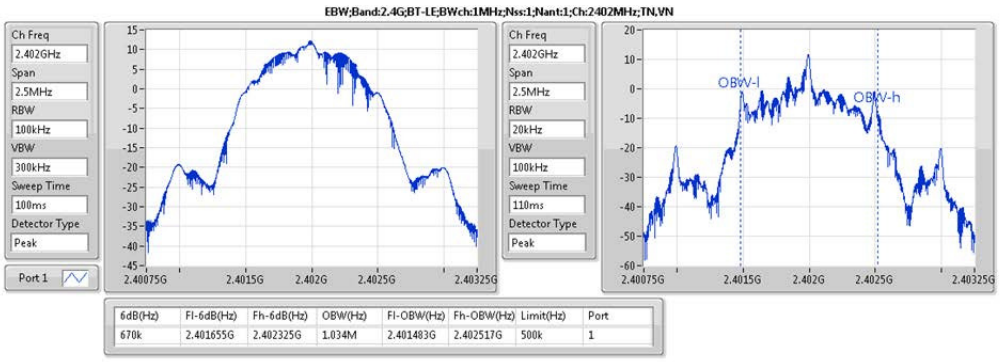
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

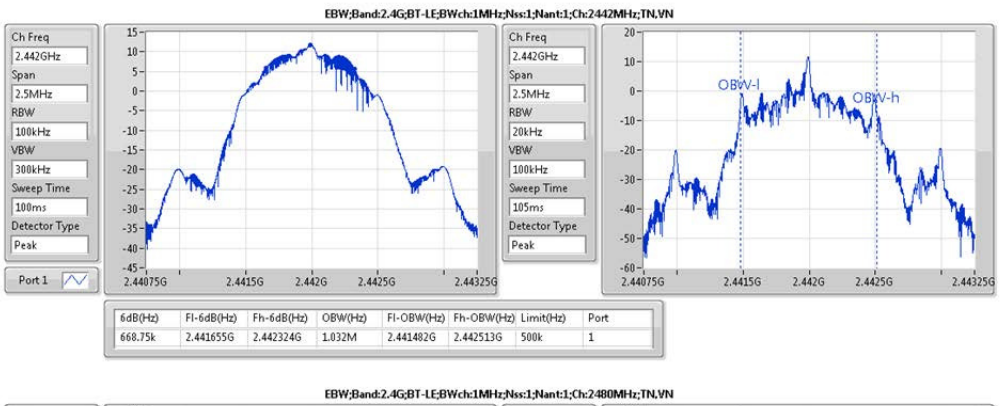
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4G;BT-LE;Nss1;Ntx1	670k	1.037M	1M04F1D	668.75k	1.032M

Result

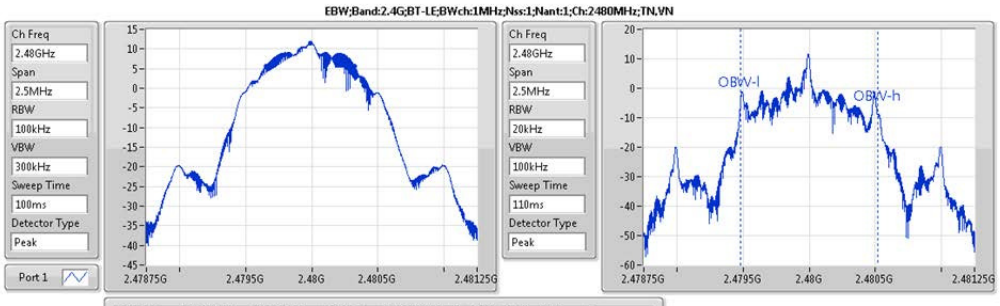
Mode	Result	Limit (Hz)	P1-N dB (Hz)	P1-OBW (Hz)
2.4G;BT-LE;Nss1;Ntx1;2402	Pass	500k	670k	1.034M
2.4G;BT-LE;Nss1;Ntx1;2442	Pass	500k	668.75k	1.032M
2.4G;BT-LE;Nss1;Ntx1;2480	Pass	500k	670k	1.037M



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
670k	2.401655G	2.402325G	1.034M	2.401483G	2.402517G	500k	1



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
668.75k	2.441655G	2.442324G	1.032M	2.441482G	2.442513G	500k	1



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
670k	2.479656G	2.480326G	1.037M	2.479483G	2.48052G	500k	1

Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
2.4G;BT-LE;Nss1;Ntx1	14.23	0.02649	15.27	0.03365

Result

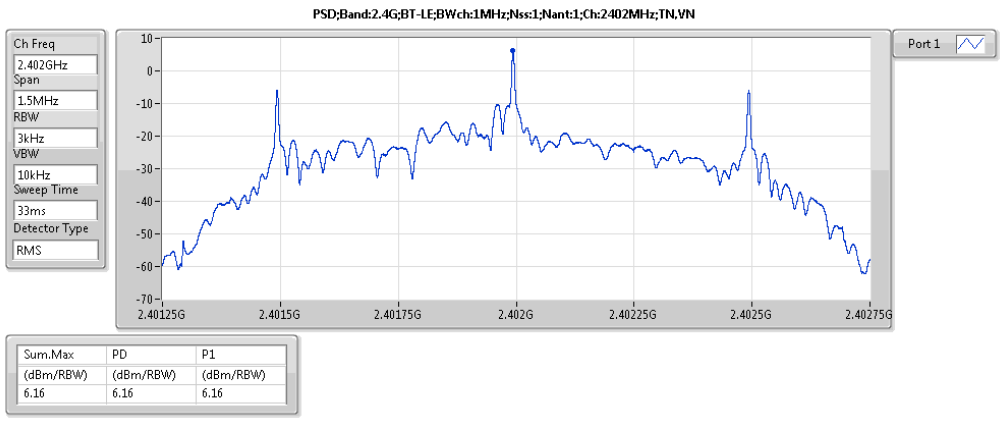
Mode	Result	DG (dBi)	Sum (dBm)	Sum Lim. (dBm)	EIRP (dBm)	EIRP Lim. (dBm)	P1 (dBm)
2.4G;BT-LE;Nss1;Ntx1;2402	Pass	1.04	14.23	30.00	15.27	36.00	14.23
2.4G;BT-LE;Nss1;Ntx1;2442	Pass	1.04	14.19	30.00	15.23	36.00	14.19
2.4G;BT-LE;Nss1;Ntx1;2480	Pass	1.04	14.05	30.00	15.09	36.00	14.05

Summary

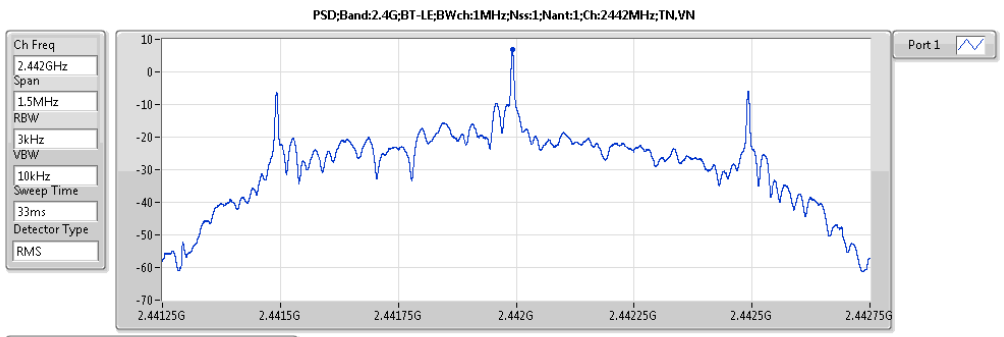
Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
2.4G;BT-LE;Nss1;Ntx1	7.12	8.16

Result

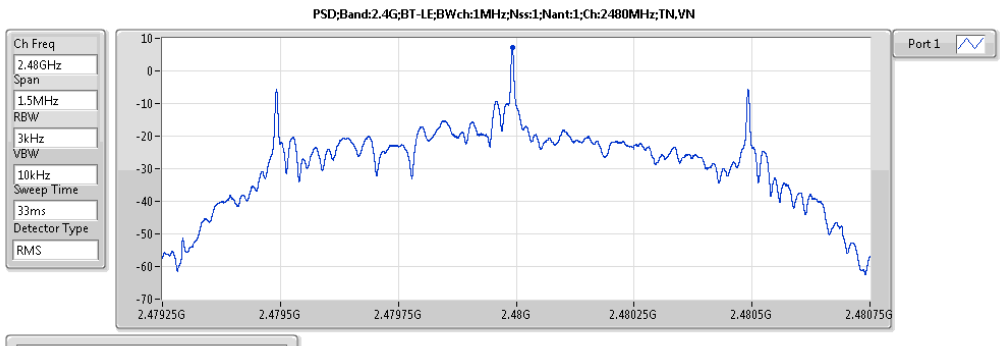
Mode	Result	Meas.RBW (Hz)	Lim.RBW (Hz)	BWCF (dB)	DG (dBi)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	EIRP.PD (dBm/RBW)	EIRP.PD.Lim (dBm/RBW)	P1 (dBm/RBW)
2.4G;BT-LE;Nss1;Ntx1;2402	Pass	3k	3k	0.00	1.04	6.16	8.00	7.20	Inf	6.16
2.4G;BT-LE;Nss1;Ntx1;2442	Pass	3k	3k	0.00	1.04	6.92	8.00	7.96	Inf	6.92
2.4G;BT-LE;Nss1;Ntx1;2480	Pass	3k	3k	0.00	1.04	7.12	8.00	8.16	Inf	7.12



Sum.Max	PD	P1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.16	6.16	6.16



Sum.Max	PD	P1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.92	6.92	6.92



Sum.Max	PD	P1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.12	7.12	7.12

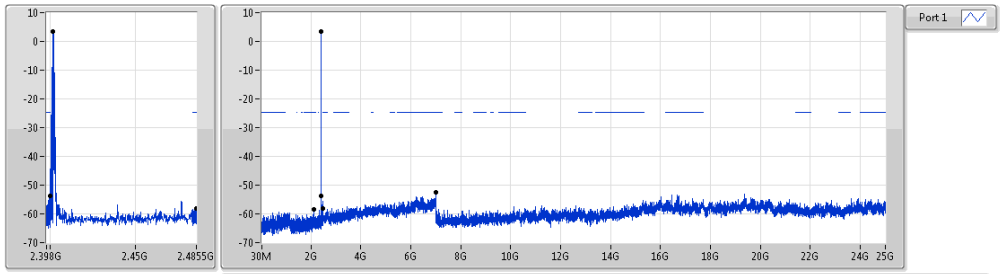
Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4G;BT-LE;Nss1;Ntx1;2402	Pass	2.401837G	3.43	-24.82	2.100816G	-58.39	2.39998G	-53.81	2.485456G	-57.99	6.985586G	-52.63	1

Result

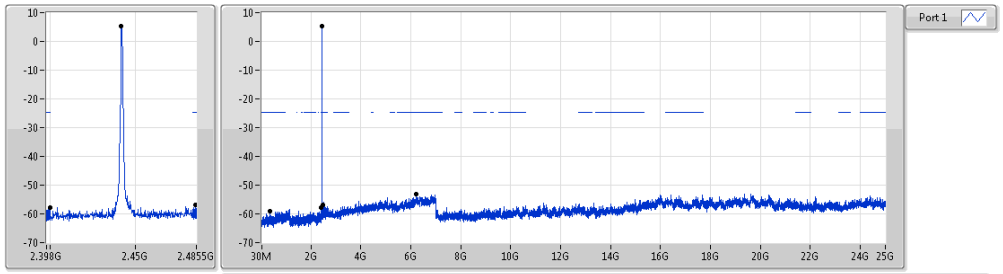
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4G;BT-LE;Nss1;Ntx1;2402	Pass	2.401837G	3.43	-24.82	2.100816G	-58.39	2.39998G	-53.81	2.485456G	-57.99	6.985586G	-52.63	1
2.4G;BT-LE;Nss1;Ntx1;2442	Pass	2.44175G	5.18	-24.82	357.968M	-59.17	2.399888G	-57.92	2.484856G	-56.85	6.222907G	-53.18	1
2.4G;BT-LE;Nss1;Ntx1;2480	Pass	2.479993G	2.25	-24.82	645.68M	-59.13	2.399548G	-57.57	2.483624G	-54.62	24.012176G	-54.32	1

CSE in non-restricted band;PK;Band:2.4G;BT-LE;BWch:1MHz;Nss:1;Nant:1;Ch:2402MHz;TN,VN



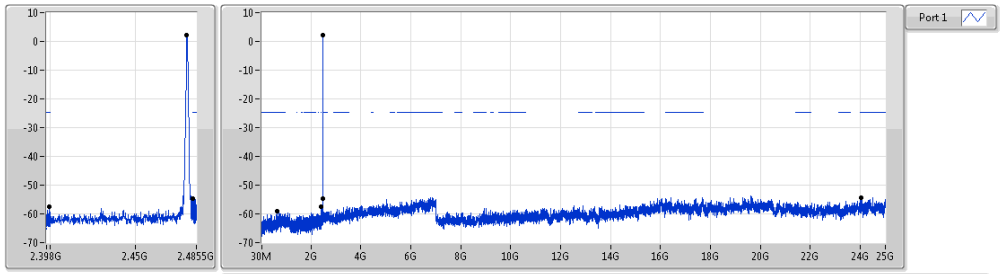
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.401837G	3.43	-24.82	2.100816G	-58.39	2.39998G	-53.81	2.485456G	-57.99	6.985586G	-52.63	1

CSE in non-restricted band;PK;Band:2.4G;BT-LE;BWch:1MHz;Nss:1;Nant:1;Ch:2442MHz;TN,VN



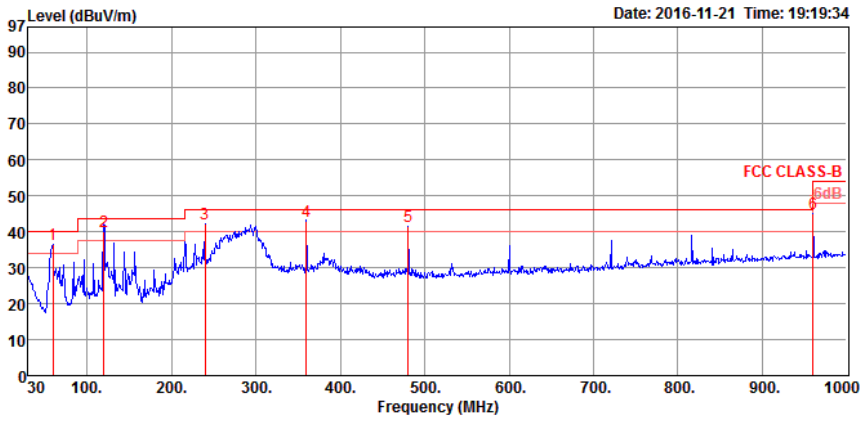
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44175G	5.18	-24.82	357.968M	-59.17	2.399888G	-57.92	2.484856G	-56.85	6.222907G	-53.18	1

CSE in non-restricted band;PK;Band:2.4G;BT-LE;BWch:1MHz;Nss:1;Nant:1;Ch:2480MHz;TN,VN



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.479993G	2.25	-24.82	645.68M	-59.13	2.399548G	-57.57	2.483624G	-54.62	24.012176G	-54.32	1

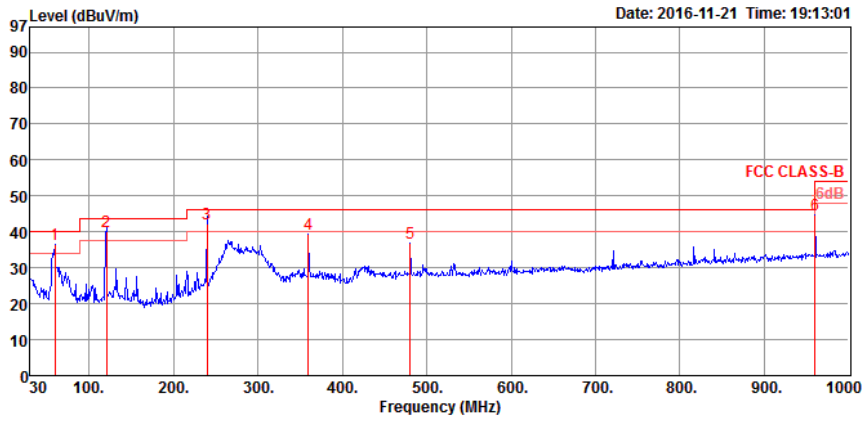
RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	59.10	36.64	40.00	-3.36	52.87	0.76	12.51	29.50	300	0	Peak	HORIZONTAL
2	119.24	40.17	43.50	-3.33	50.07	1.07	18.29	29.26	100	224	QP	HORIZONTAL
3	239.52	42.17	46.00	-3.83	51.92	1.50	17.82	29.07	300	0	Peak	HORIZONTAL
4	359.80	42.90	46.00	-3.10	49.07	1.83	21.26	29.26	125	147	QP	HORIZONTAL
5	480.08	41.54	46.00	-4.46	45.20	2.13	23.61	29.40	300	0	Peak	HORIZONTAL
6	960.23	45.10	54.00	-8.90	41.74	3.05	27.84	27.53	300	0	Peak	HORIZONTAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

RSE below 1GHz Result			
Operating Mode	2	**Power Phase**	Vertical
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	59.10	36.63	40.00	-3.37	52.86	0.76	12.51	29.50	300	0	Peak	VERTICAL
2	120.21	40.11	43.50	-3.39	50.00	1.07	18.30	29.26	100	187	QP	VERTICAL
3	239.52	42.38	46.00	-3.62	52.13	1.50	17.82	29.07	125	154	QP	VERTICAL
4	359.80	39.44	46.00	-6.56	45.61	1.83	21.26	29.26	300	0	Peak	VERTICAL
5	480.08	36.92	46.00	-9.08	40.58	2.13	23.61	29.40	300	0	Peak	VERTICAL
6	960.23	44.71	54.00	-9.29	41.35	3.05	27.84	27.53	300	0	Peak	VERTICAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Radiated Emissions (1GHz~10th Harmonic)

Configurations	GFSK CH 0 / Chain 1

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4803.75	51.12	74.00	-22.88	47.49	7.72	32.56	36.65	274	26	Peak	HORIZONTAL
2	4803.97	44.63	54.00	-9.37	41.00	7.72	32.56	36.65	274	26	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4803.99	40.15	54.00	-13.85	36.52	7.72	32.56	36.65	253	258	Average	VERTICAL
2	4804.31	50.21	74.00	-23.79	46.58	7.72	32.56	36.65	253	258	Peak	VERTICAL

Configurations	GFSK CH 19 / Chain 1

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4883.03	51.87	74.00	-22.13	48.00	7.81	32.71	36.65	281	2	Peak	HORIZONTAL
2	4883.93	41.87	54.00	-12.13	38.00	7.81	32.71	36.65	281	2	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4883.56	49.62	74.00	-24.38	45.75	7.81	32.71	36.65	296	266	Peak	VERTICAL
2	4884.00	37.55	54.00	-16.45	33.68	7.81	32.71	36.65	296	266	Average	VERTICAL

Configurations	GFSK CH 39 / Chain 1

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4959.93	40.36	54.00	-13.64	36.28	7.89	32.83	36.64	256	27	Average	HORIZONTAL
2	4960.19	50.45	74.00	-23.55	46.37	7.89	32.83	36.64	256	27	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4959.92	35.01	54.00	-18.99	30.93	7.89	32.83	36.64	267	296	Average	VERTICAL
2	4960.10	46.87	74.00	-27.13	42.79	7.89	32.83	36.64	267	296	Peak	VERTICAL

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

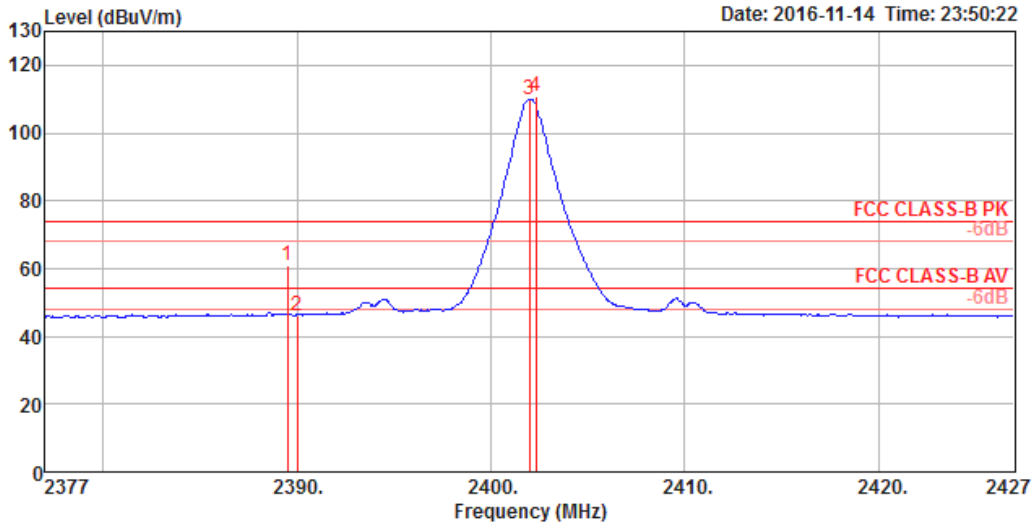
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Band Edge Emissions

Configurations	GFSK CH 0, 19, 39 / Chain 1

Channel 0

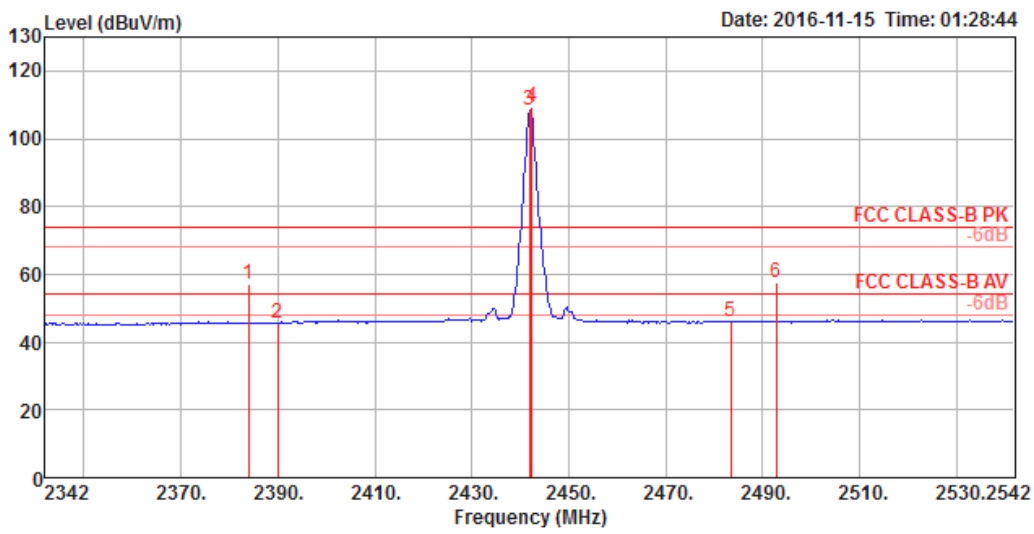
Item 3, 4 are the fundamental frequency at **2402 MHz**.



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	2389.50	61.00	74.00	-13.00	27.85	5.25	27.90	0.00	161	0	Peak	VERTICAL
2	2390.00	46.26	54.00	-7.74	13.11	5.25	27.90	0.00	161	0	Average	VERTICAL
3 @	2402.00	110.05			76.89	5.27	27.89	0.00	161	0	Average	VERTICAL
4 @	2402.30	110.93			77.77	5.27	27.89	0.00	161	0	Peak	VERTICAL

Channel 19

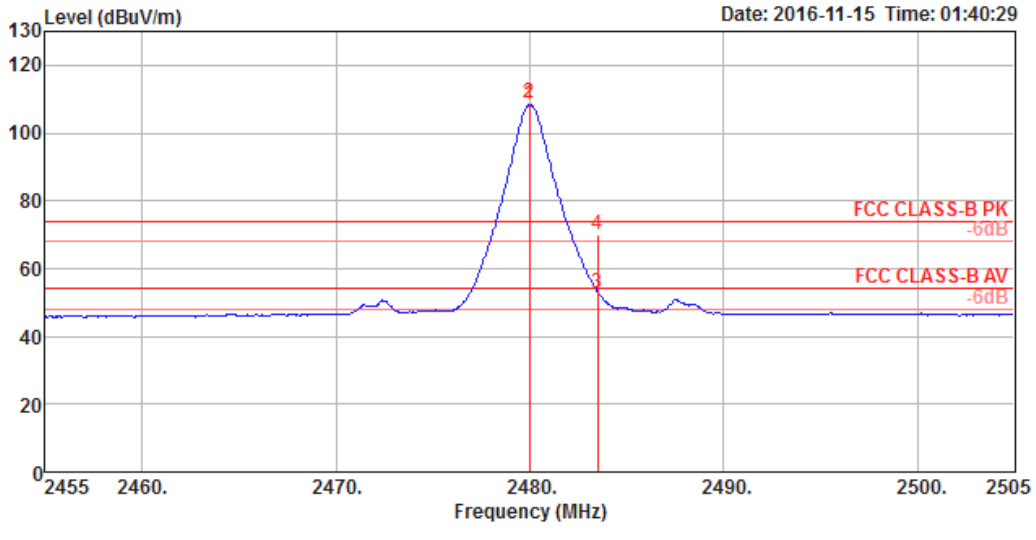
Item 3, 4 are the fundamental frequency at **2440 MHz**.



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	2384.00	56.96	74.00	-17.04	23.81	5.25	27.90	0.00	133	11	Peak	VERTICAL
2	2390.00	45.51	54.00	-8.49	12.36	5.25	27.90	0.00	133	11	Average	VERTICAL
3 @	2442.00	108.56			75.34	5.37	27.85	0.00	133	11	Average	VERTICAL
4 @	2442.40	109.38			76.16	5.37	27.85	0.00	133	11	Peak	VERTICAL
5	2483.50	45.97	54.00	-8.03	12.69	5.47	27.81	0.00	133	11	Average	VERTICAL
6	2492.80	57.59	74.00	-16.41	24.29	5.49	27.81	0.00	133	11	Peak	VERTICAL

Channel 39

Item 1, 2 are the fundamental frequency at 2480 MHz.



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1 @	2480.00	108.22			74.95	5.45	27.82	0.00	176	360	Average	VERTICAL
2 @	2480.00	109.06			75.79	5.45	27.82	0.00	176	360	Peak	VERTICAL
3	2483.50	52.89	54.00	-1.11	19.61	5.47	27.81	0.00	176	360	Average	VERTICAL
4	2483.50	70.07	74.00	-3.93	36.79	5.47	27.81	0.00	176	360	Peak	VERTICAL

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.