

FCC Test Report

Equipment : AC1750 Wi-Fi Range Extender
Brand Name : D-Link
Model No. : DAP-1720
FCC ID : KA2AP1720A1
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☒ Point-to-multipoint; ☐ Point-to-point
Applicant : D-Link Corporation
No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114,
Taiwan, R.O.C.

The product sample received on Jun. 01, 2016 and completely tested on Dec. 13, 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 INTERNATIONAL INC., 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)	Fundamental Emission 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

[illegible]

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4G	11b	20	3
2.4G	11g	20	3
2.4G	HT20	20	3
2.4G	HT40	40	3

Note:

- ♦ 2.4G is the 2.4GHz Band (2.4-2.4835GHz).
- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ 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	P/N	Antenna Type	Connector	Gain (dBi)	
					2.4GHz	5GHz
1	HONGXIN INTERNATIONAL LIMITED	290-20290	Dipole	I-PEX	2.67	3.94
2	HONGXIN INTERNATIONAL LIMITED	290-20291	Dipole	I-PEX	2.42	4.06
3	HONGXIN INTERNATIONAL LIMITED	290-20292	Dipole	I-PEX	2.94	3.66

Note: The EUT has three antennas.

<For 2.4GHz Band>

For IEEE 802.11b/g/n mode (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 can be used as transmitting/receiving antenna.

Ant. 1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

<For 5GHz Band>

For IEEE 802.11a/n/ac mode (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 can be used as transmitting/receiving antenna.

Ant. 1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	T(s)	VBW(Hz) $\geq 1/T$
11b	1	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
11g	0.9769	0.00203	500
HT20	0.9691	0.00188	1000
HT40	0.9688	0.00093	3000

1.1.4 EUT Operational Condition

EUT Power Type	From Internal Power Supply		
Beamforming Function	☐ With beamforming	☒ Without beamforming	

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 v03r05
- ♦ FCC KDB 662911 D01 v02r01

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	Eddie Weng	25°C / 42%	Sep. 14, 2016
Radiated	03CH01-CB	Peter Wu/Steven Liang	22°C / 54%	Jun. 01, 2016~Sep. 19, 2016
AC Conduction	CO01-CB	Edison Lin	23°C / 60%	Sep. 02, 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%

2 Test Configuration of EUT

2.1 Test Channel Mode

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
2.4G	11b	20	1	3	2412	L	21
2.4G	11b	20	1	3	2437	M	16
2.4G	11b	20	1	3	2462	H	15
2.4G	11g	20	1	3	2412	L	16.5
2.4G	11g	20	1	3	2437	M	17.5
2.4G	11g	20	1	3	2462	H	15.5
2.4G	HT20	20	1,(M0)	3	2412	L	15
2.4G	HT20	20	1,(M0)	3	2437	M	16
2.4G	HT20	20	1,(M0)	3	2462	H	14
2.4G	HT40	40	1,(M0)	3	2422	L	13
2.4G	HT40	40	1,(M0)	3	2437	M	16.5
2.4G	HT40	40	1,(M0)	3	2452	H	10.5

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	EUT at Y-axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Fundamental Emission Output Power Power Spectral Density
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Non-restricted Frequency Bands 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 at Y-axis
Operating Mode > 1GHz	CTX
1	EUT at Y-axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA680111 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

Note: The EUT can be used at Y-axis only.

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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	NB	DELL	E6430	DoC
2	NB	DELL	E6430	DoC
3	NB	DELL	E6430	DoC

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	NB	Apple	Mac Book	DoC
3	NB	Apple	Mac Book	DoC

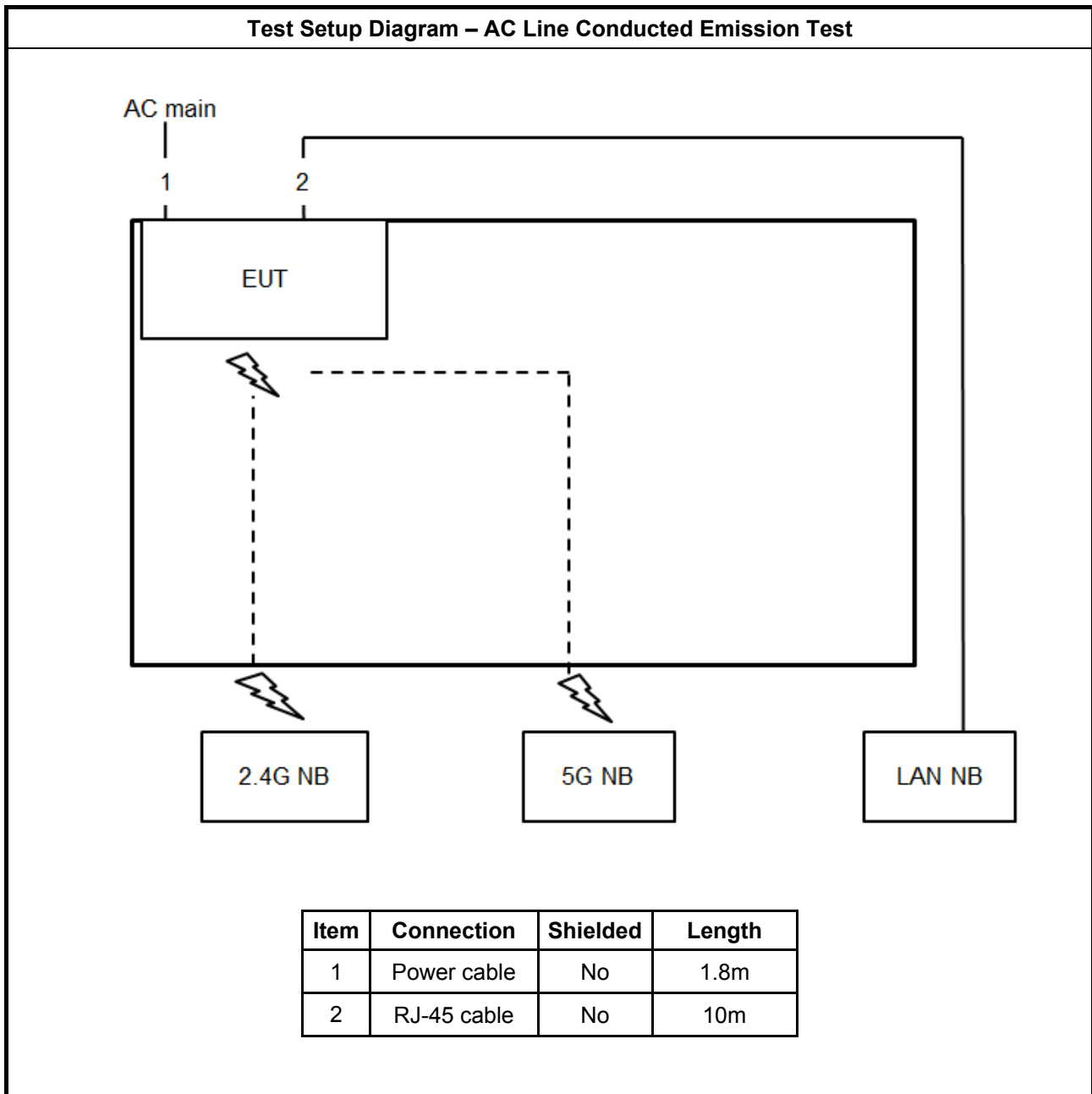
For Test Site No: 03CH01-CB (above 1GHz)

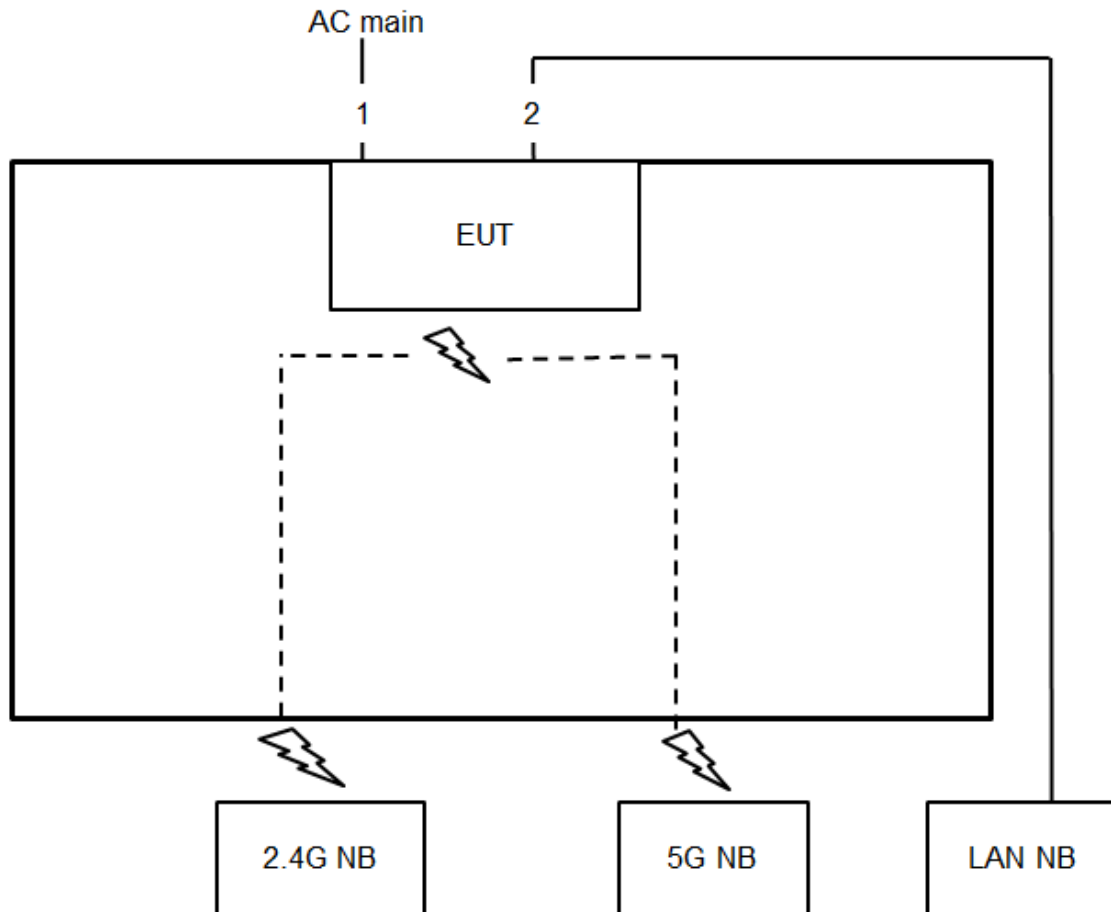
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

For Test Site No: TH01-CB

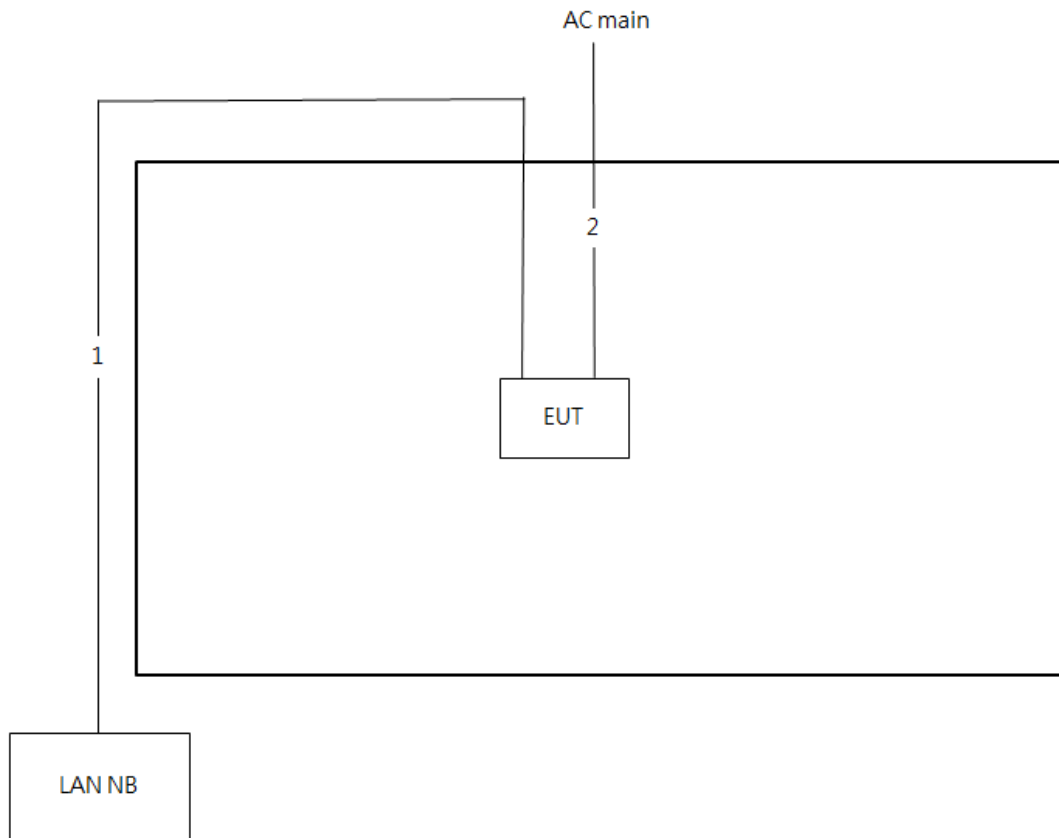
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz


Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.8m

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.

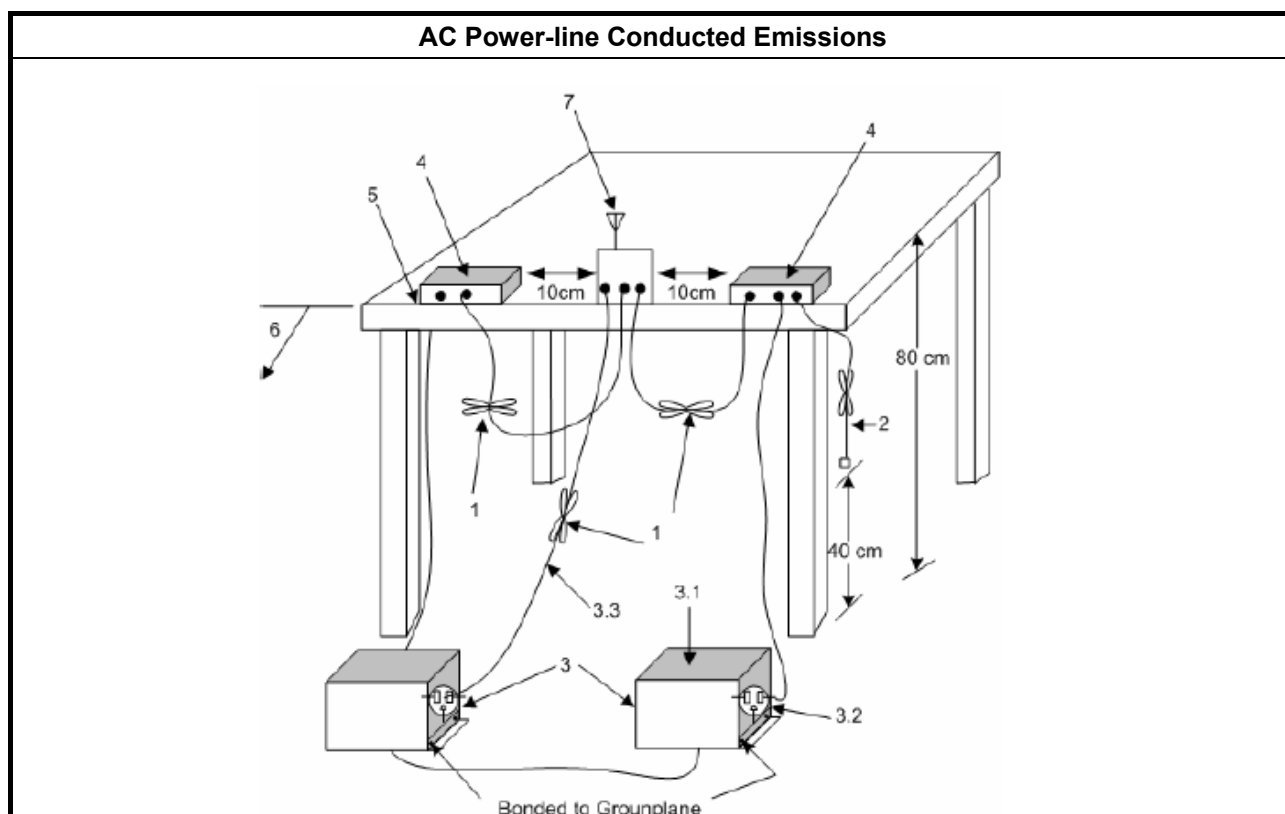
3.1.2 Measuring Instruments

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 for AC power-line conducted emissions.

3.1.4 Test Setup





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 $\geq$ 500 kHz.

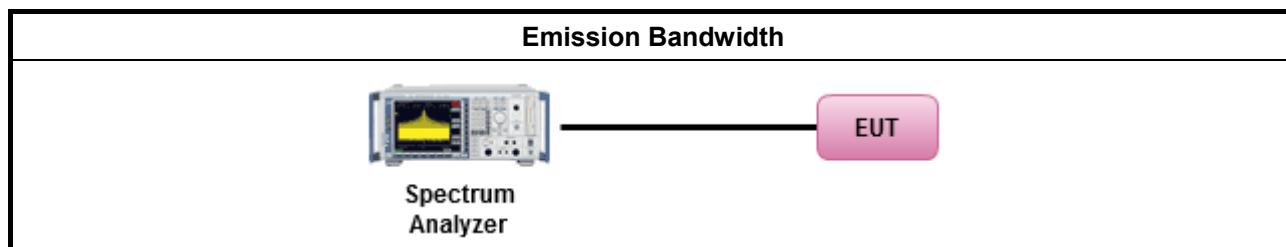
3.2.2 Measuring Instruments

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 for 6 dB bandwidth measurement.
☐	Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Fundamental Emission Output Power

3.3.1 Fundamental Emission 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.	

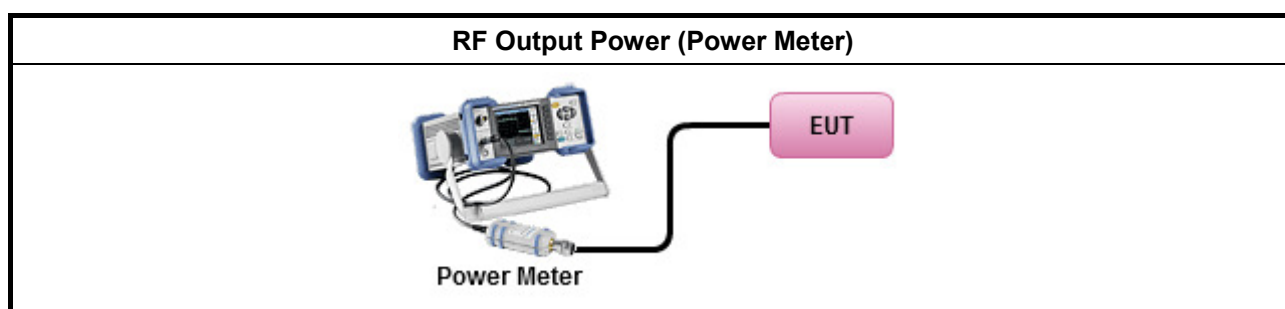
3.3.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



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) $\leq$ 8 dBm/3kHz

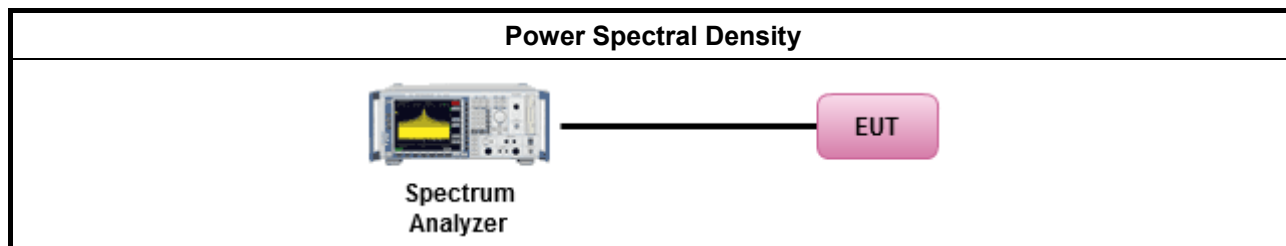
3.4.2 Measuring Instruments

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 $\geq$ 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



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.	

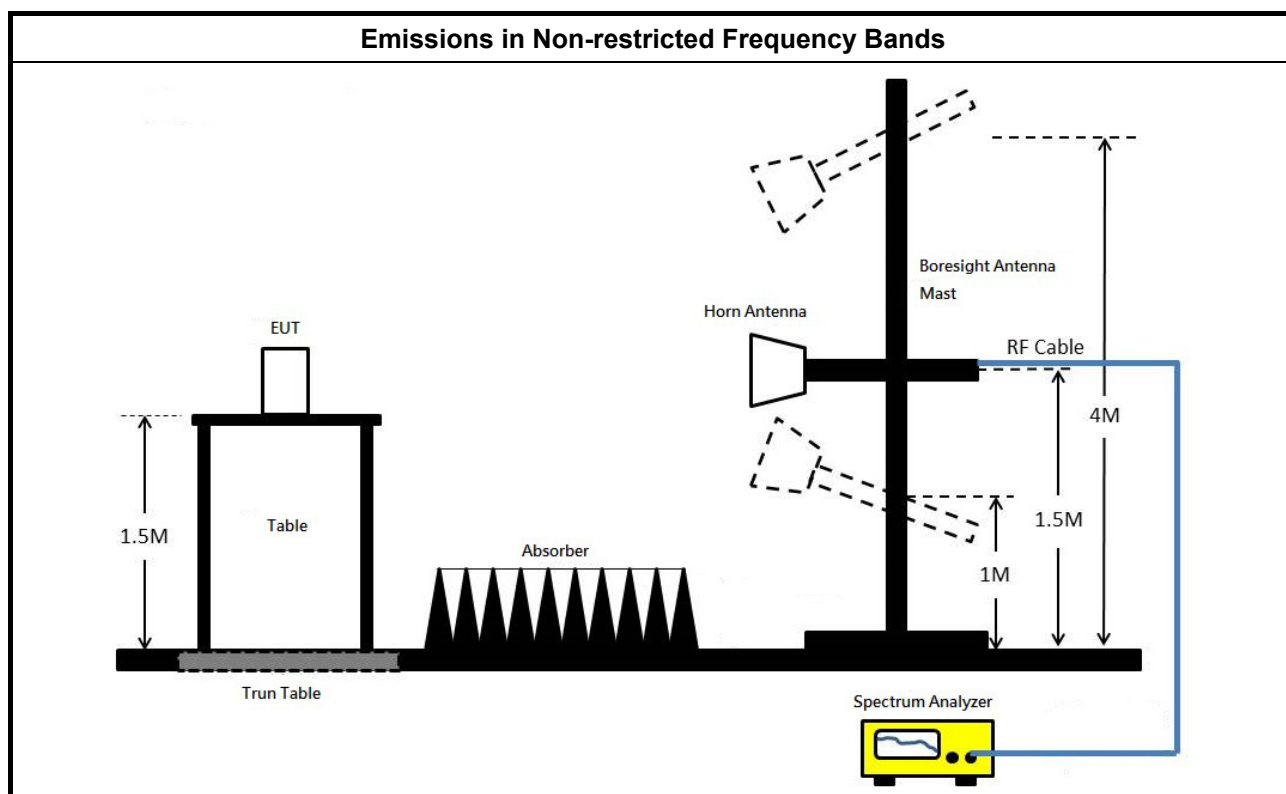
3.5.2 Measuring Instruments

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





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 below 30 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.

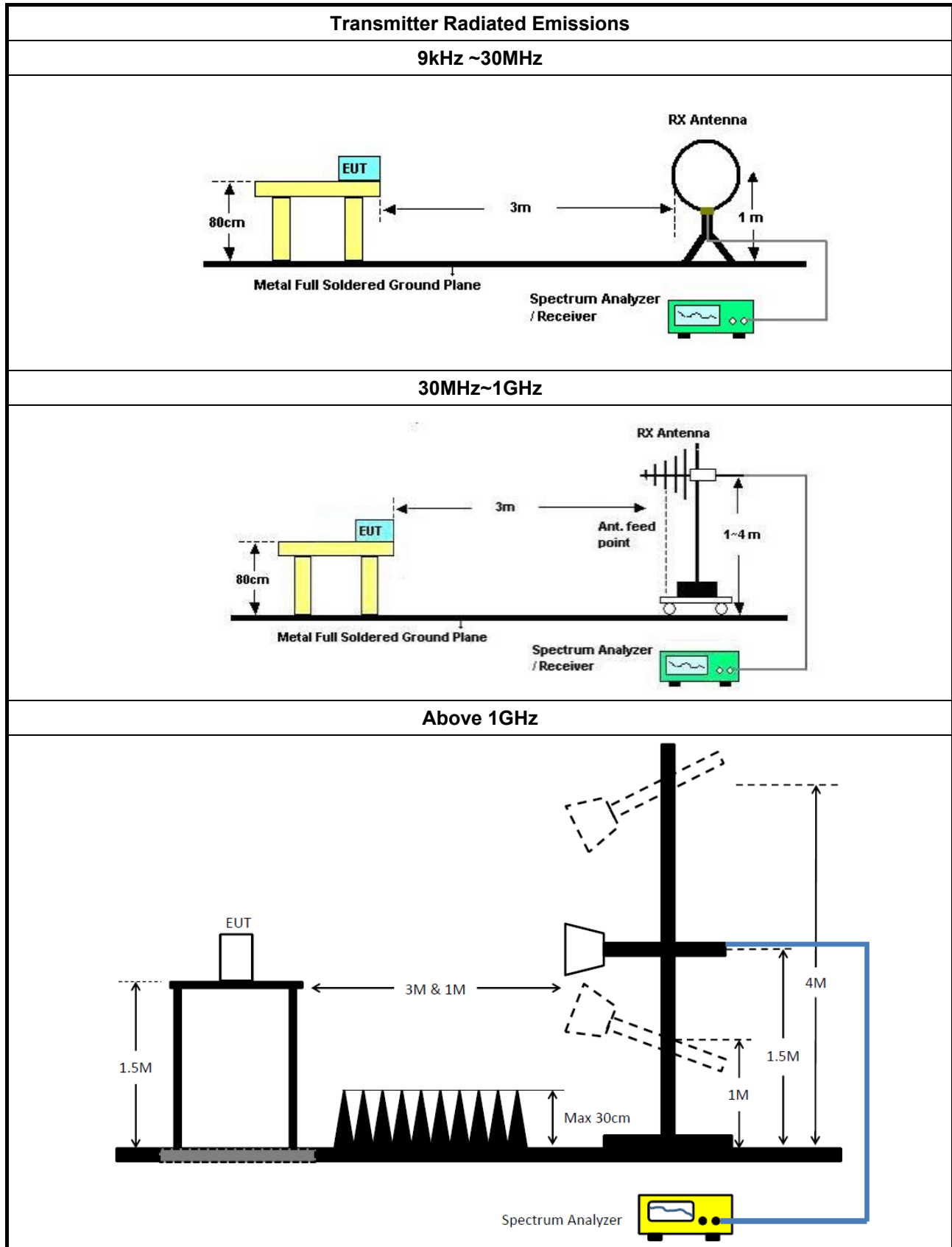
3.6.2 Measuring Instruments

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 $\geq 98\%$)
	☐ 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 $\geq 1/T$).
	☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq 1/T$, 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





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 Test Result of 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, 0216	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	EMCO	3115	00075790	750MHz ~ 18GHz	Oct. 22, 2015	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2015	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)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Oct. 27, 2015	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 21, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	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	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-17	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)



FCC Test Report

Report No. : FR680111AA

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	High Cable-40G-1	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	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	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 02, 2015	Conducted (TH01-CB)

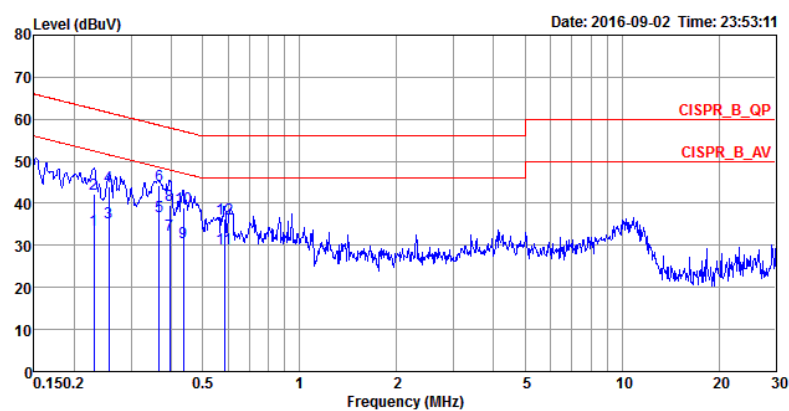
Note: Calibration Interval of instruments listed above is one year.

“*” 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		

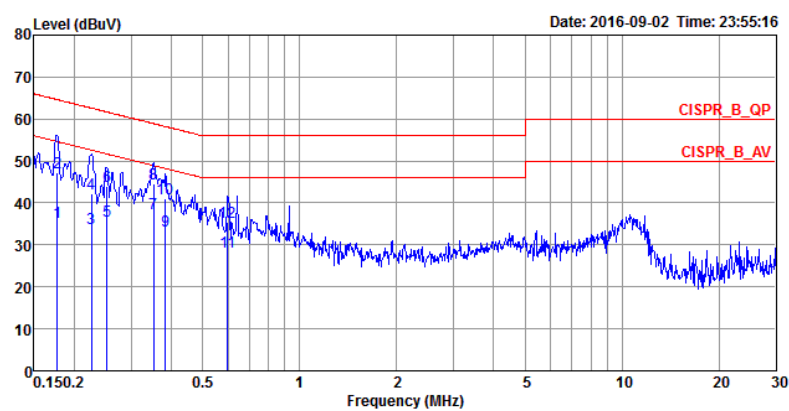


	Freq	Level	Over	Limit	Read	LISN	Cable	Pol/Phase	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.2304	33.57	-18.87	52.44	23.50	9.92	0.15	NEUTRAL	Average
2	0.2304	42.18	-20.26	62.44	32.11	9.92	0.15	NEUTRAL	QP
3	0.2562	35.37	-16.19	51.56	25.32	9.92	0.13	NEUTRAL	Average
4	0.2562	43.96	-17.60	61.56	33.91	9.92	0.13	NEUTRAL	QP
5	0.3673	37.04	-11.52	48.56	27.09	9.92	0.03	NEUTRAL	Average
6	0.3673	44.21	-14.35	58.56	34.26	9.92	0.03	NEUTRAL	QP
7	0.3955	32.59	-15.36	47.95	22.66	9.92	0.01	NEUTRAL	Average
8	0.3955	39.63	-18.32	57.95	29.70	9.92	0.01	NEUTRAL	QP
9	0.4351	30.58	-16.57	47.15	20.59	9.92	0.07	NEUTRAL	Average
10	0.4351	39.01	-18.14	57.15	29.02	9.92	0.07	NEUTRAL	QP
11	0.5854	29.33	-16.67	46.00	19.09	9.93	0.31	NEUTRAL	Average
12	0.5854	36.27	-19.73	56.00	26.03	9.93	0.31	NEUTRAL	QP

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	Read	LISN	Cable	Pol/Phase	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.1768	35.55	-19.09	54.64	25.45	9.92	0.18	LINE	Average
2	0.1768	47.13	-17.51	64.64	37.03	9.92	0.18	LINE	QP
3	0.2256	33.81	-18.80	52.61	23.73	9.92	0.16	LINE	Average
4	0.2256	42.16	-20.45	62.61	32.08	9.92	0.16	LINE	QP
5	0.2521	35.86	-15.83	51.69	25.81	9.92	0.13	LINE	Average
6	0.2521	43.97	-17.72	61.69	33.92	9.92	0.13	LINE	QP
7	0.3520	37.57	-11.34	48.91	27.61	9.92	0.04	LINE	Average
8	0.3520	44.55	-14.36	58.91	34.59	9.92	0.04	LINE	QP
9	0.3832	33.36	-14.85	48.21	23.42	9.92	0.02	LINE	Average
10	0.3832	41.03	-17.18	58.21	31.09	9.92	0.02	LINE	QP
11	0.5979	28.47	-17.53	46.00	18.21	9.93	0.33	LINE	Average
12	0.5979	35.48	-20.52	56.00	25.22	9.93	0.33	LINE	QP

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;11b;Nss1;Ntx3	7.05M	13.093M	13M1G1D	6.525M	11.319M
2.4G;11g;Nss1;Ntx3	15.1M	16.367M	16M4D1D	12.575M	16.192M
2.4G;HT20;Nss1,(M0);Ntx3	15.625M	17.441M	17M4D1D	12.625M	17.341M
2.4G;HT40;Nss1,(M0);Ntx3	32.5M	35.882M	35M9D1D	26.2M	35.632M



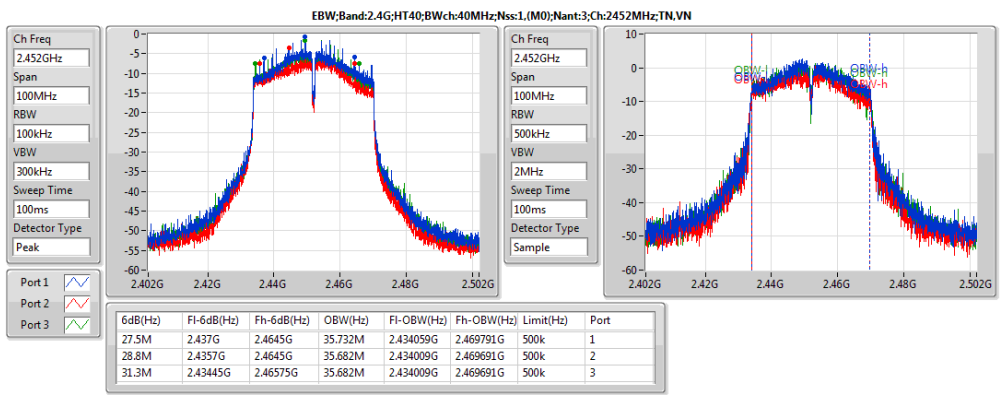
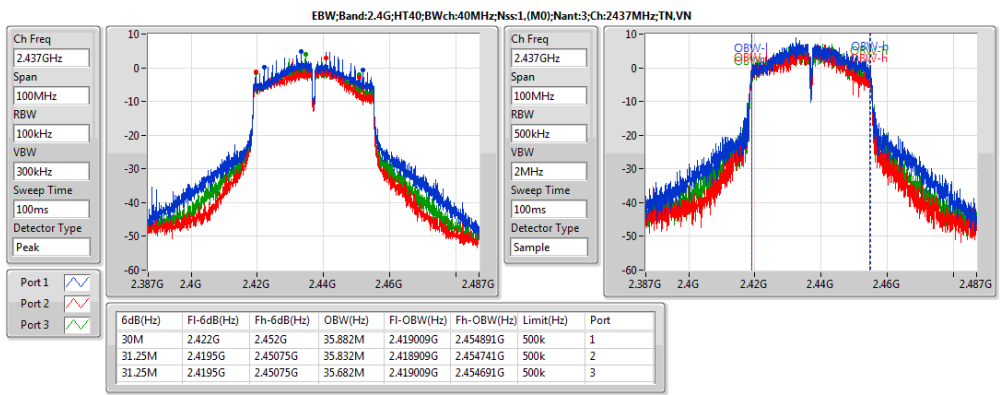
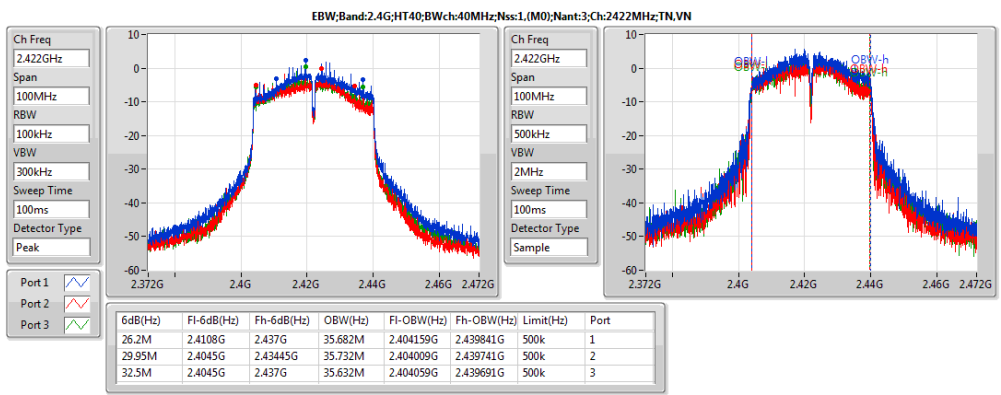
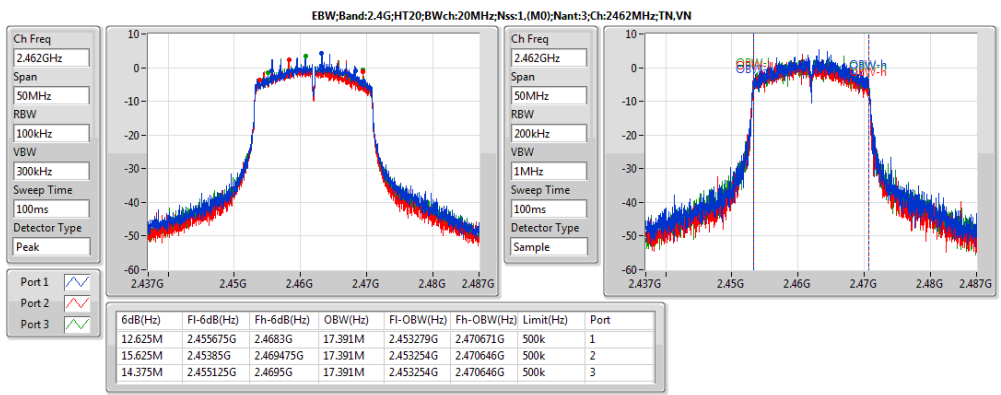
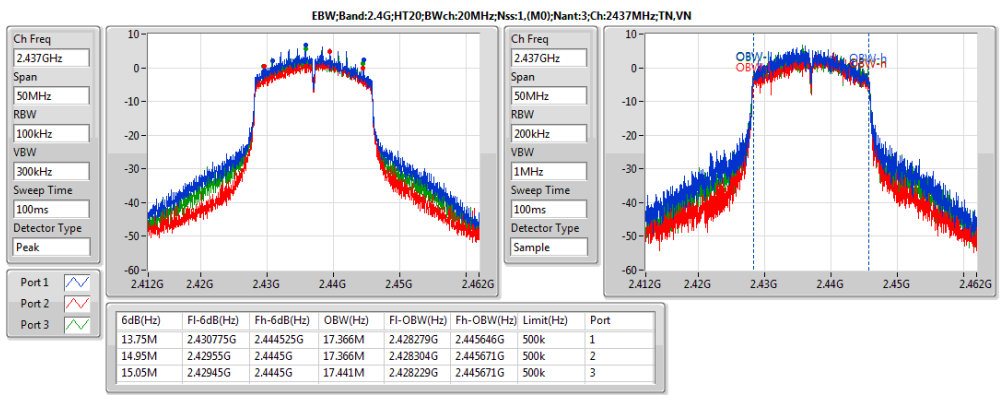
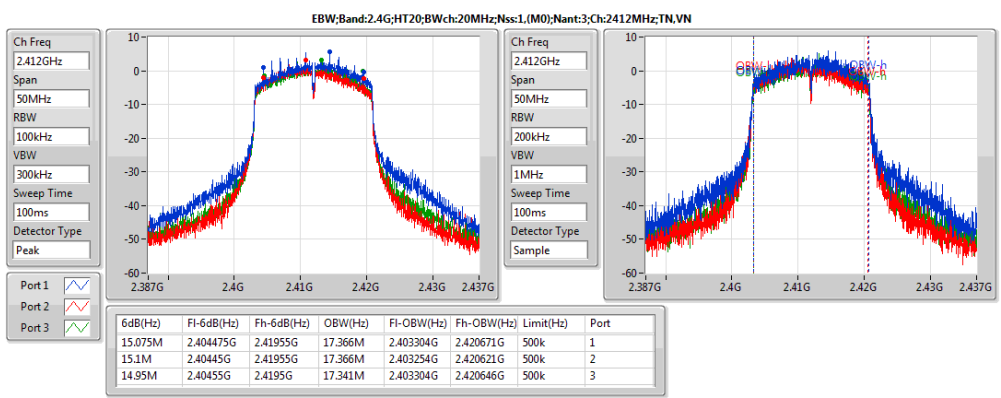
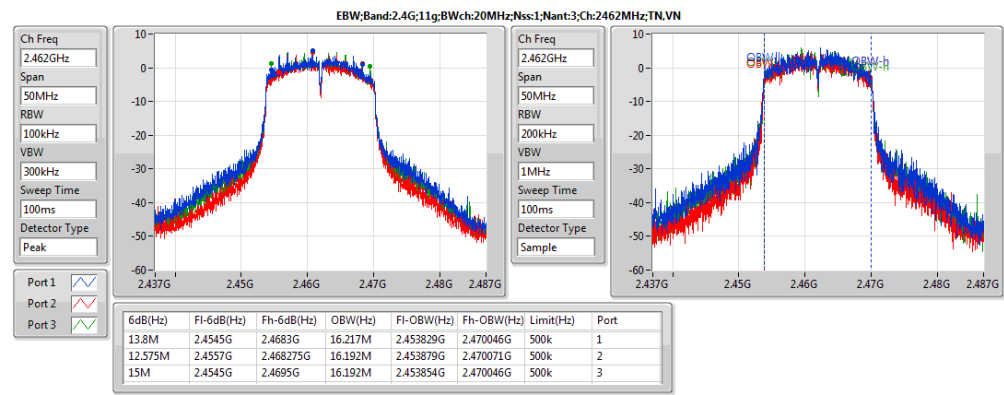
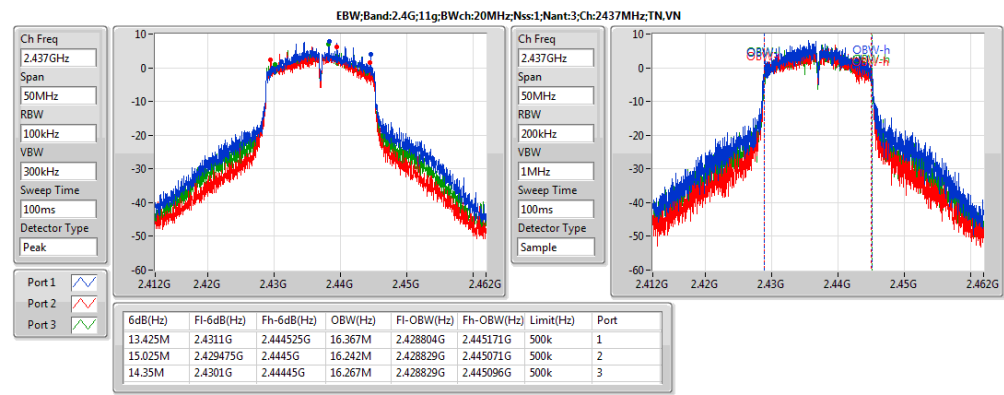
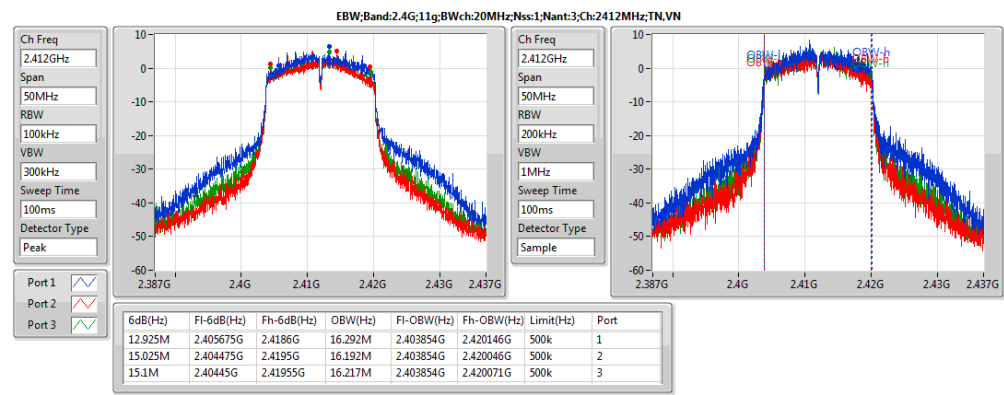
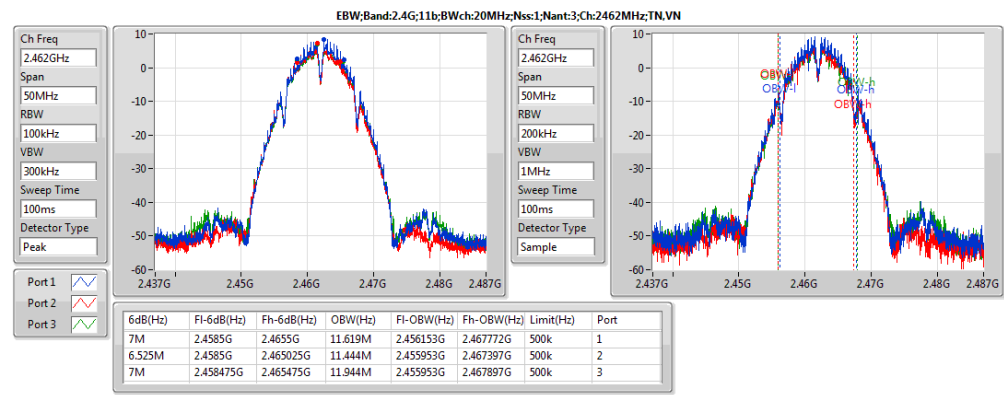
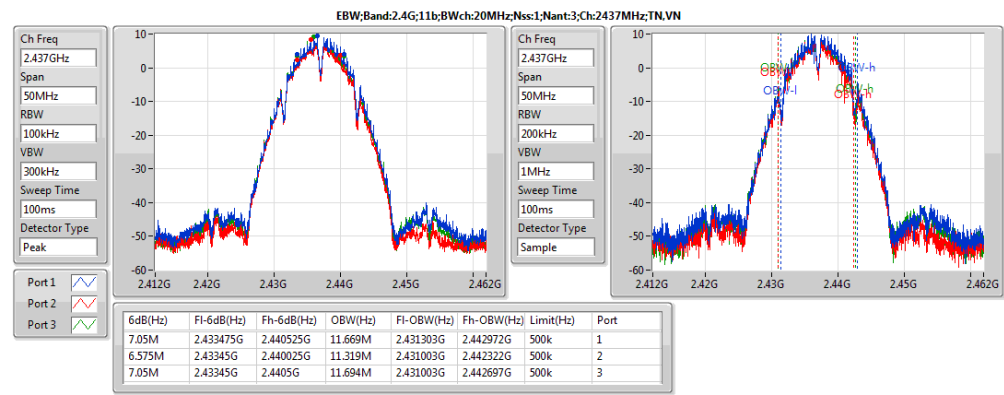
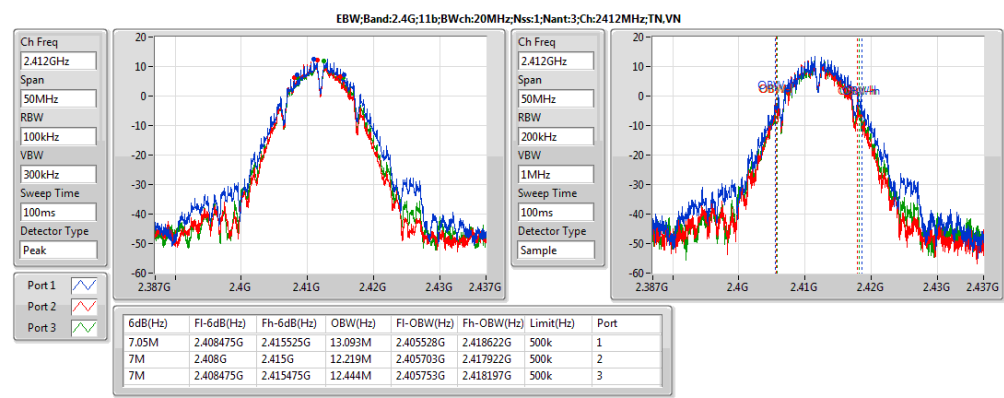
Result

Mode	Result	Limit	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)	P3-N dB (Hz)	P3-OBW (Hz)
2.4G;11b;Nss1;Ntx3;2412	Pass	500k	7.05M	13.093M	7M	12.219M	7M	12.444M
2.4G;11b;Nss1;Ntx3;2437	Pass	500k	7.05M	11.669M	6.575M	11.319M	7.05M	11.694M
2.4G;11b;Nss1;Ntx3;2462	Pass	500k	7M	11.619M	6.525M	11.444M	7M	11.944M
2.4G;11g;Nss1;Ntx3;2412	Pass	500k	12.925M	16.292M	15.025M	16.192M	15.1M	16.217M
2.4G;11g;Nss1;Ntx3;2437	Pass	500k	13.425M	16.367M	15.025M	16.242M	14.35M	16.267M
2.4G;11g;Nss1;Ntx3;2462	Pass	500k	13.8M	16.217M	12.575M	16.192M	15M	16.192M
2.4G;HT20;Nss1,(M0);Ntx3;2412	Pass	500k	15.075M	17.366M	15.1M	17.366M	14.95M	17.341M
2.4G;HT20;Nss1,(M0);Ntx3;2437	Pass	500k	13.75M	17.366M	14.95M	17.366M	15.05M	17.441M
2.4G;HT20;Nss1,(M0);Ntx3;2462	Pass	500k	12.625M	17.391M	15.625M	17.391M	14.375M	17.391M
2.4G;HT40;Nss1,(M0);Ntx3;2422	Pass	500k	26.2M	35.682M	29.95M	35.732M	32.5M	35.632M
2.4G;HT40;Nss1,(M0);Ntx3;2437	Pass	500k	30M	35.882M	31.25M	35.832M	31.25M	35.682M
2.4G;HT40;Nss1,(M0);Ntx3;2452	Pass	500k	27.5M	35.732M	28.8M	35.682M	31.3M	35.682M



EBW Result

Appendix B





Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
2.4G;11b;Nss1;Ntx3	25.94	0.39264	28.88	0.77268
2.4G;11g;Nss1;Ntx3	24.63	0.2904	27.57	0.57148
2.4G;HT20;Nss1,(M0);Ntx3	22.01	0.15885	24.95	0.31261
2.4G;HT40;Nss1,(M0);Ntx3	23.57	0.22751	26.51	0.44771



Result

Mode	Result	DG (dBi)	EIRP (dBm)	EIRP Lim. (dBm)	Sum (dBm)	Sum Lim. (dBm)	P1 (dBm)	P2 (dBm)	P3 (dBm)
2.4G;11b;Nss1;Ntx3;2412	Pass	2.94	28.88	36.00	25.94	30.00	21.39	20.98	21.13
2.4G;11b;Nss1;Ntx3;2437	Pass	2.94	25.55	36.00	22.61	30.00	18.31	16.96	18.14
2.4G;11b;Nss1;Ntx3;2462	Pass	2.94	24.09	36.00	21.15	30.00	16.5	16.28	16.34
2.4G;11g;Nss1;Ntx3;2412	Pass	2.94	25.29	36.00	22.35	30.00	18.49	16.89	17.2
2.4G;11g;Nss1;Ntx3;2437	Pass	2.94	27.57	36.00	24.63	30.00	20.5	19.25	19.74
2.4G;11g;Nss1;Ntx3;2462	Pass	2.94	24.68	36.00	21.74	30.00	17.15	16.46	17.25
2.4G;HT20;Nss1,(M0);Ntx3;2412	Pass	2.94	23.80	36.00	20.86	30.00	16.95	15.49	15.67
2.4G;HT20;Nss1,(M0);Ntx3;2437	Pass	2.94	24.95	36.00	22.01	30.00	17.69	16.39	17.52
2.4G;HT20;Nss1,(M0);Ntx3;2462	Pass	2.94	23.21	36.00	20.27	30.00	15.83	15.01	15.62
2.4G;HT40;Nss1,(M0);Ntx3;2422	Pass	2.94	22.18	36.00	19.24	30.00	15.52	13.56	14.07
2.4G;HT40;Nss1,(M0);Ntx3;2437	Pass	2.94	26.51	36.00	23.57	30.00	19.61	18.01	18.62
2.4G;HT40;Nss1,(M0);Ntx3;2452	Pass	2.94	19.93	36.00	16.99	30.00	12.97	10.99	12.47



Summary

Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
2.4G;11b;Nss1;Ntx3	1.27	8.72
2.4G;11g;Nss1;Ntx3	-5.13	2.32
2.4G;HT20;Nss1,(M0);Ntx3	-6.25	1.20
2.4G;HT40;Nss1,(M0);Ntx3	-7.67	-0.22



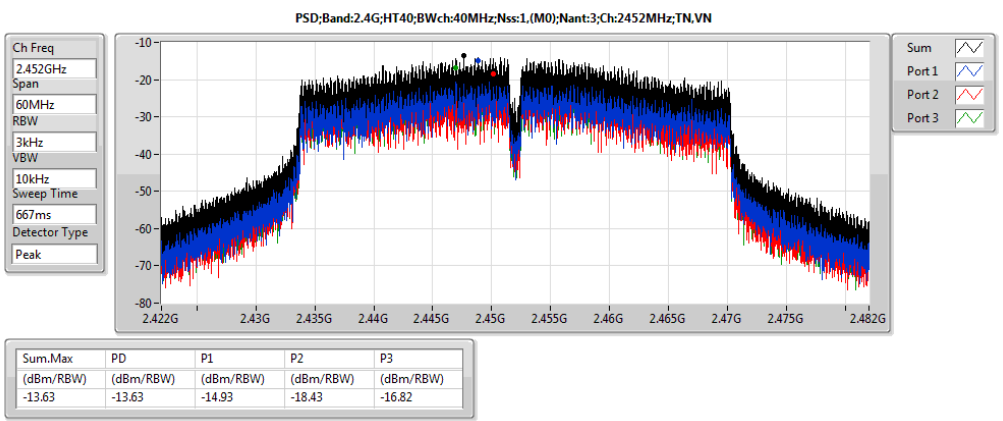
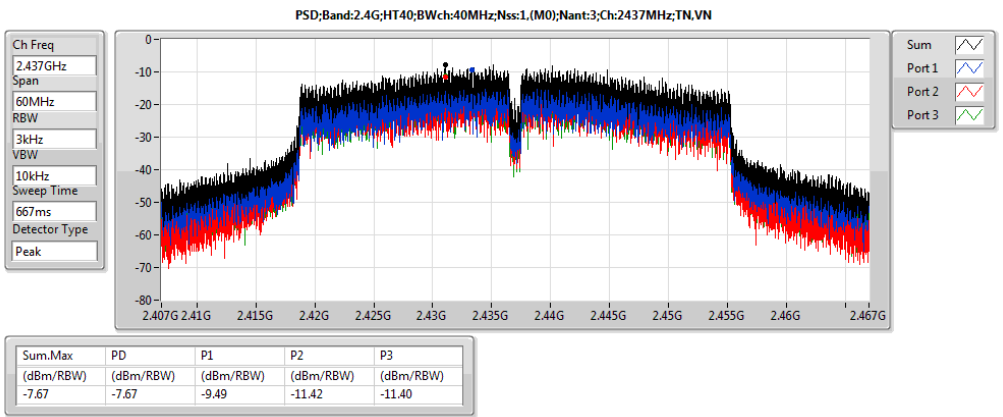
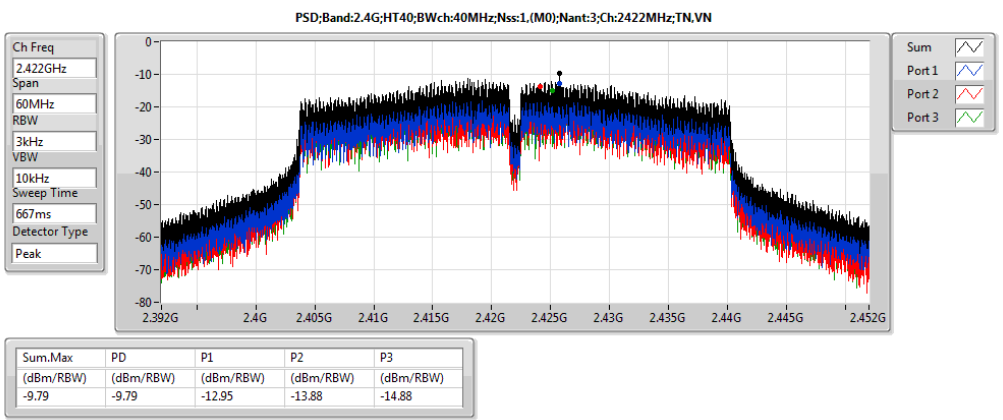
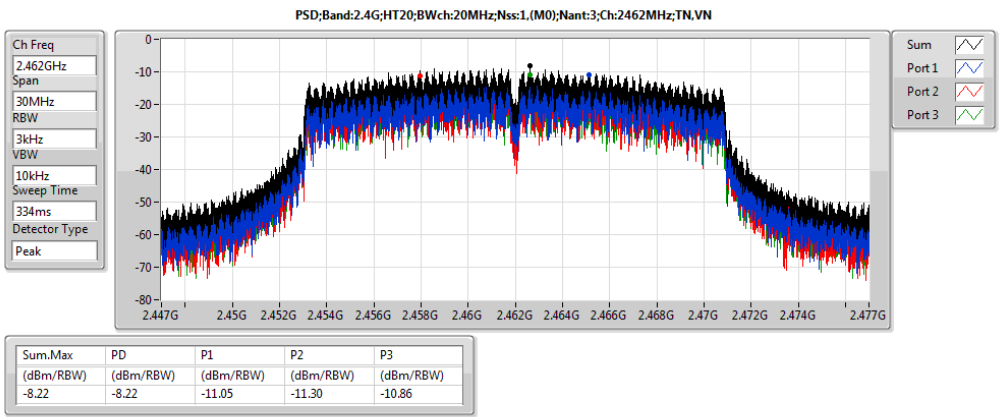
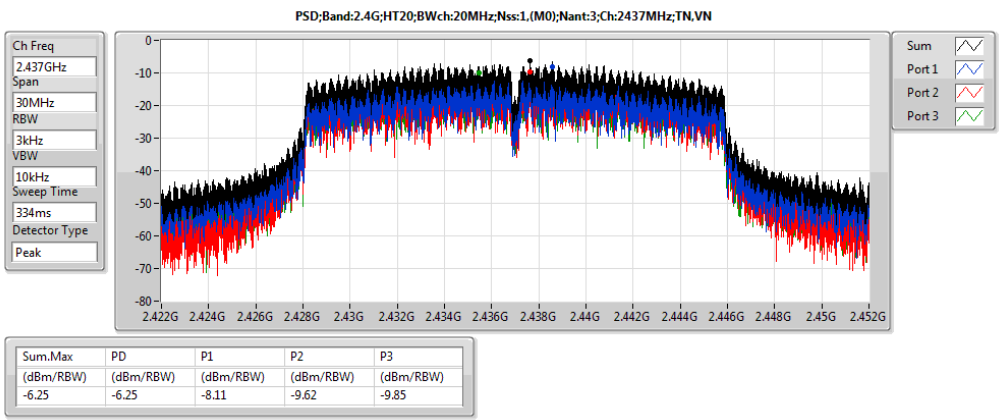
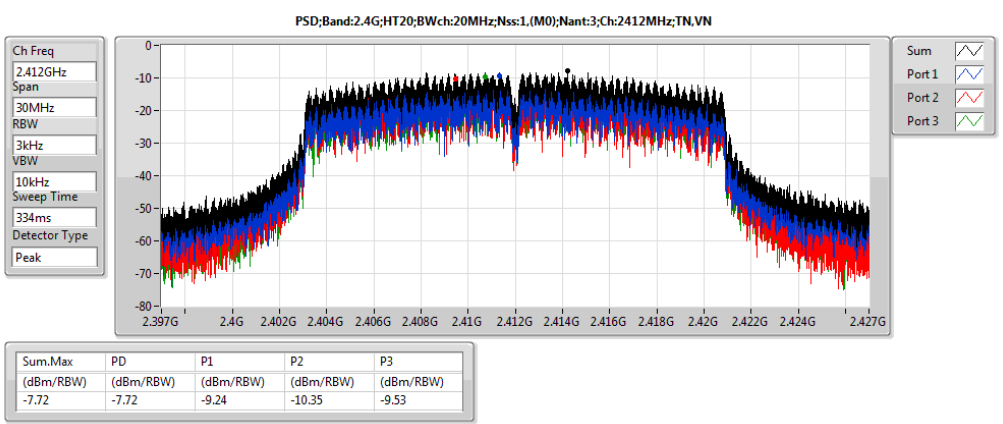
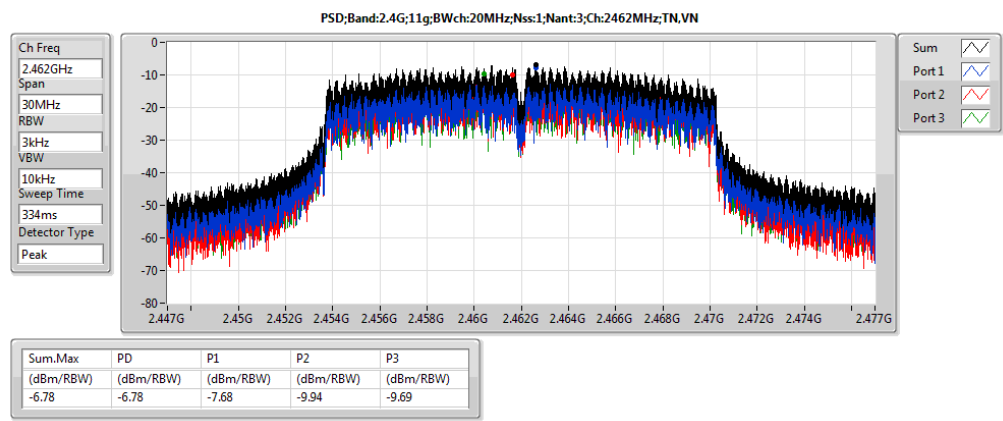
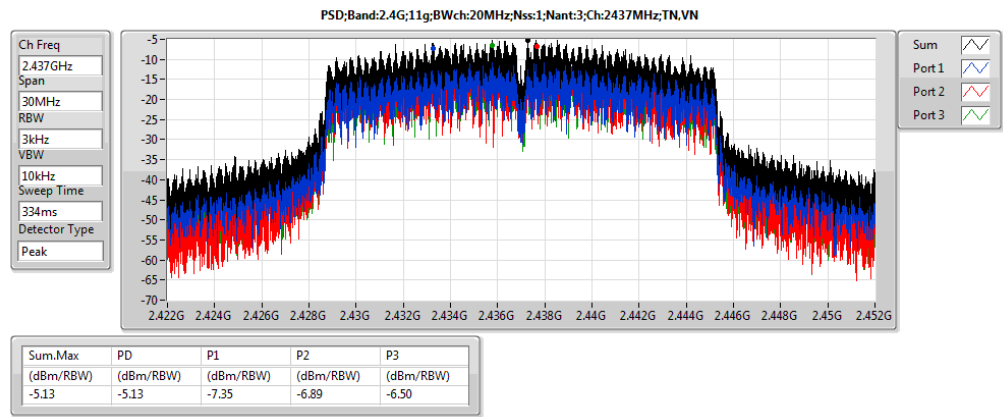
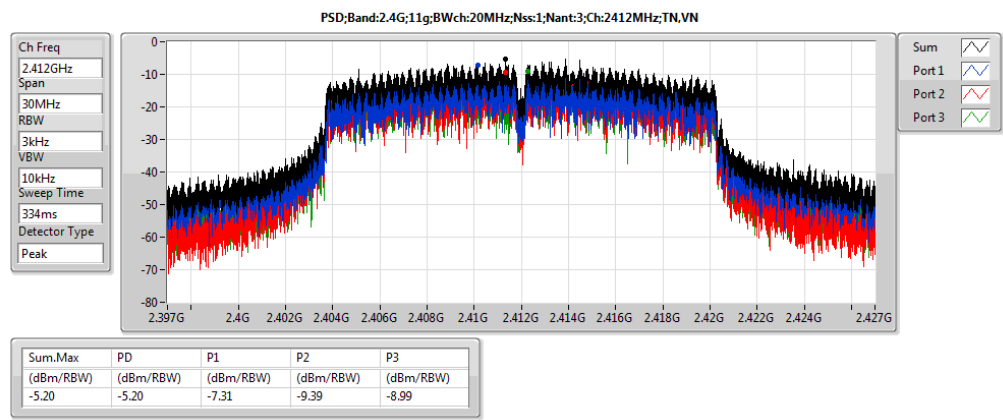
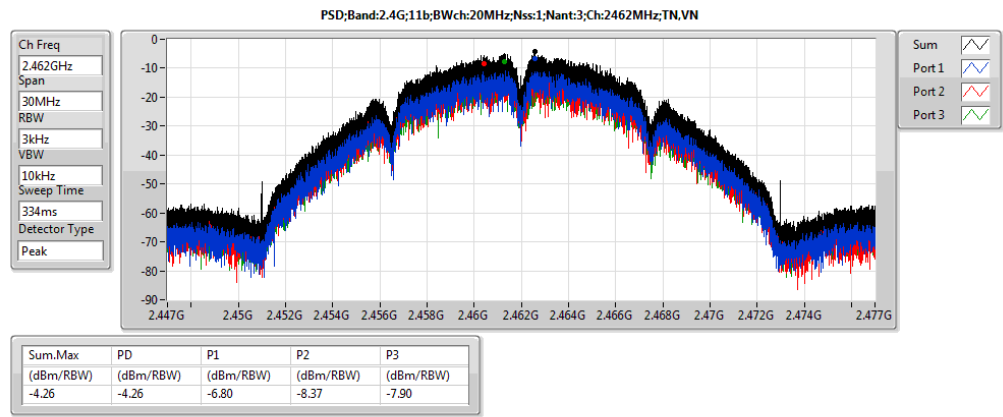
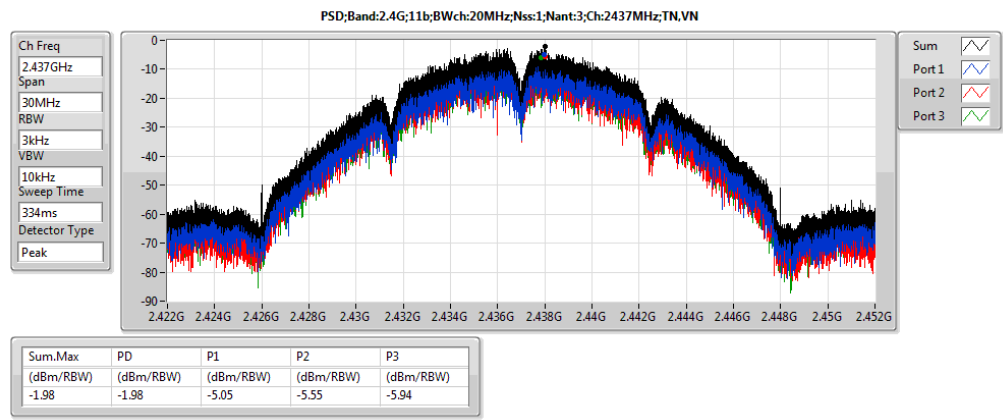
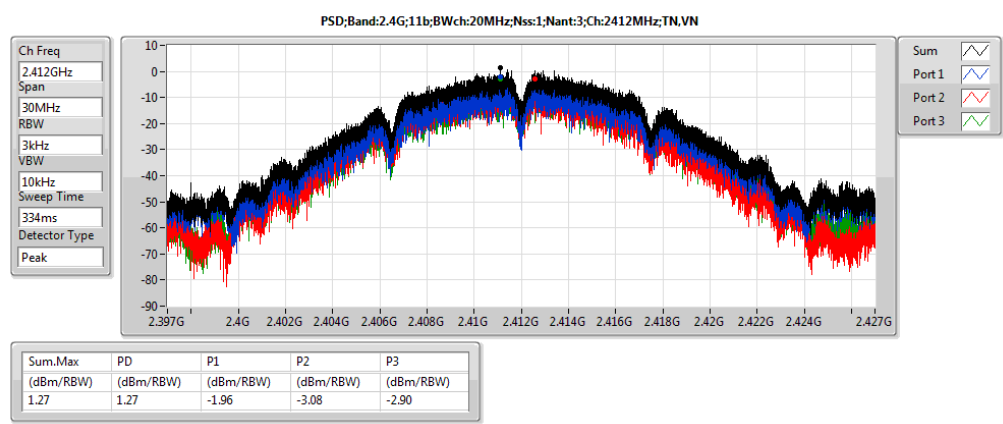
Result

Mode	Result	Meas.RBW (Hz)	Lim.RBW (Hz)	BWCF (dB)	DG (dBi)	Sum.Max (dBm/RBW)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	EIRP.PD (dBm/RBW)	EIRP.PD.Li m (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)	P3 (dBm/RBW)
2.4G;11b;Nss1;Ntx3;2412	Pass	3k	3k	0.00	7.45	1.27	1.27	6.55	8.72	Inf	-1.96	-3.08	-2.90
2.4G;11b;Nss1;Ntx3;2437	Pass	3k	3k	0.00	7.45	-1.98	-1.98	6.55	5.47	Inf	-5.05	-5.55	-5.94
2.4G;11b;Nss1;Ntx3;2462	Pass	3k	3k	0.00	7.45	-4.26	-4.26	6.55	3.20	Inf	-6.80	-8.37	-7.90
2.4G;11g;Nss1;Ntx3;2412	Pass	3k	3k	0.00	7.45	-5.20	-5.20	6.55	2.25	Inf	-7.31	-9.39	-8.99
2.4G;11g;Nss1;Ntx3;2437	Pass	3k	3k	0.00	7.45	-5.13	-5.13	6.55	2.32	Inf	-7.35	-6.89	-6.50
2.4G;11g;Nss1;Ntx3;2462	Pass	3k	3k	0.00	7.45	-6.78	-6.78	6.55	0.67	Inf	-7.68	-9.94	-9.69
2.4G;HT20;Nss1,(M0);Ntx3;2412	Pass	3k	3k	0.00	7.45	-7.72	-7.72	6.55	-0.27	Inf	-9.24	-10.35	-9.53
2.4G;HT20;Nss1,(M0);Ntx3;2437	Pass	3k	3k	0.00	7.45	-6.25	-6.25	6.55	1.20	Inf	-8.11	-9.62	-9.85
2.4G;HT20;Nss1,(M0);Ntx3;2462	Pass	3k	3k	0.00	7.45	-8.22	-8.22	6.55	-0.77	Inf	-11.05	-11.30	-10.86
2.4G;HT40;Nss1,(M0);Ntx3;2422	Pass	3k	3k	0.00	7.45	-9.79	-9.79	6.55	-2.34	Inf	-12.95	-13.88	-14.88
2.4G;HT40;Nss1,(M0);Ntx3;2437	Pass	3k	3k	0.00	7.45	-7.67	-7.67	6.55	-0.22	Inf	-9.49	-11.42	-11.40
2.4G;HT40;Nss1,(M0);Ntx3;2452	Pass	3k	3k	0.00	7.45	-13.63	-13.63	6.55	-6.18	Inf	-14.93	-18.43	-16.82

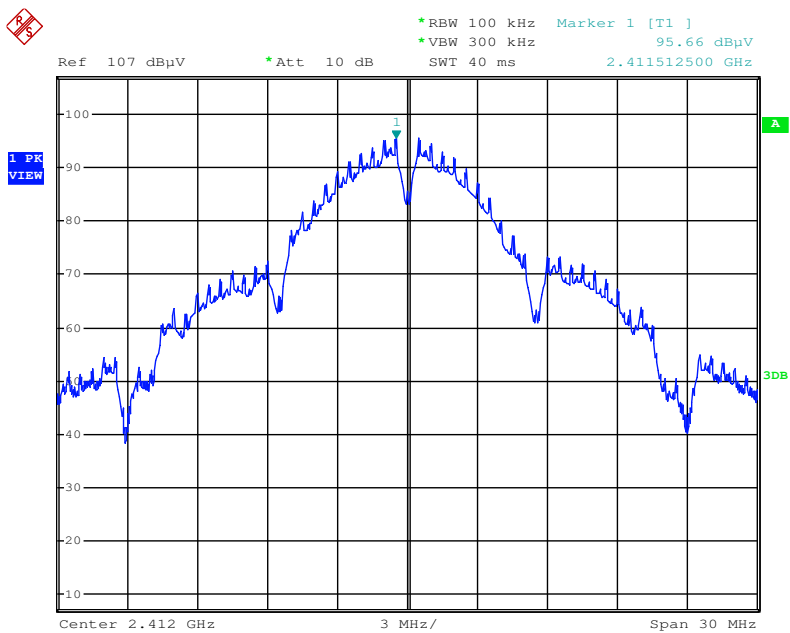


PSD Result

Appendix D

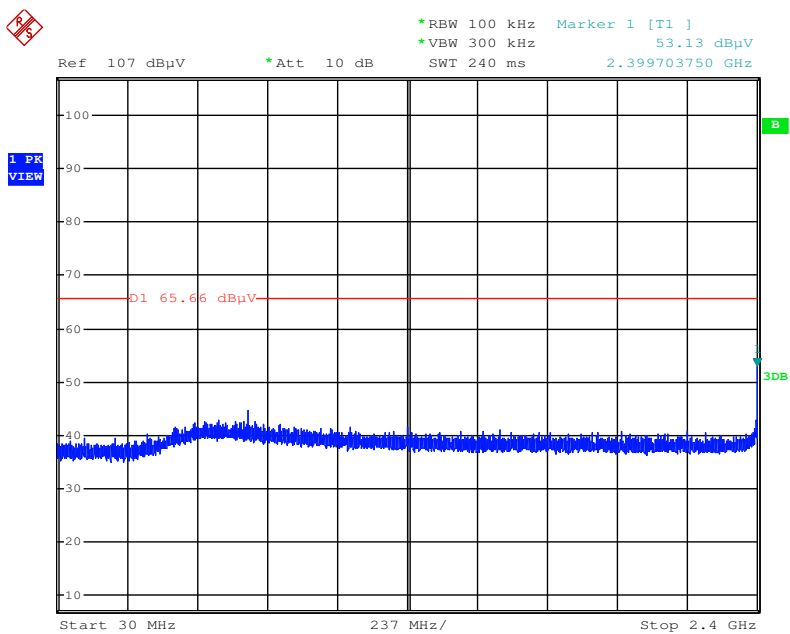


Plot on Configuration IEEE 802.11b / Reference Level



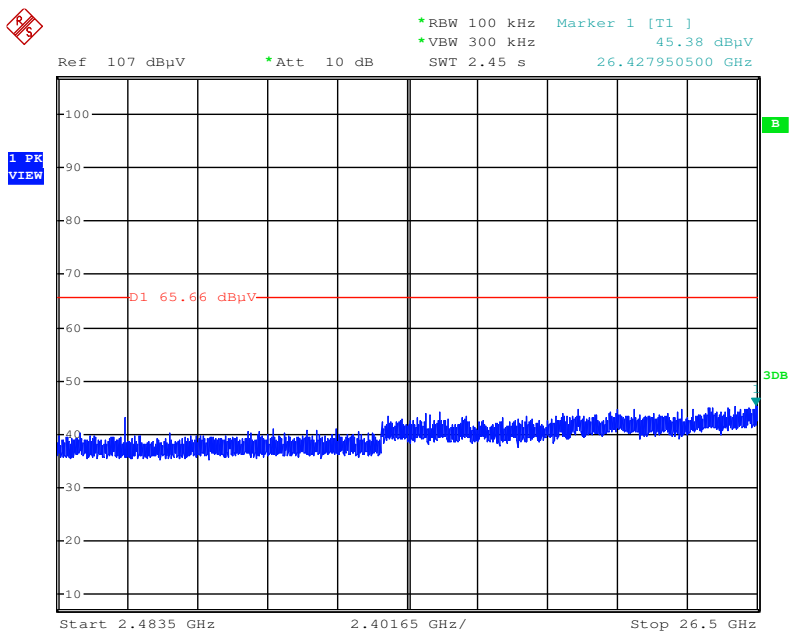
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Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc)



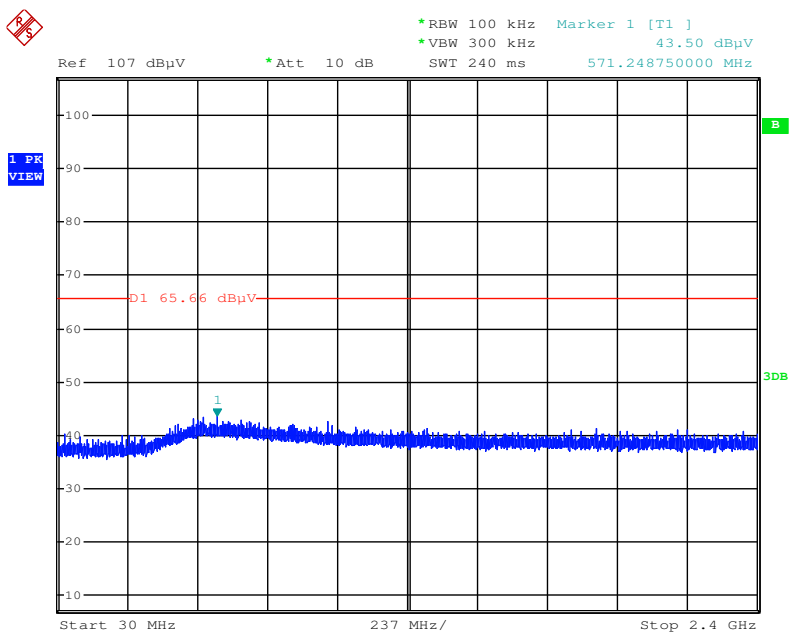
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Plot on Configuration IEEE 802.11b / CH 1 / 2483.5MHz~26500MHz (down 30dBc)



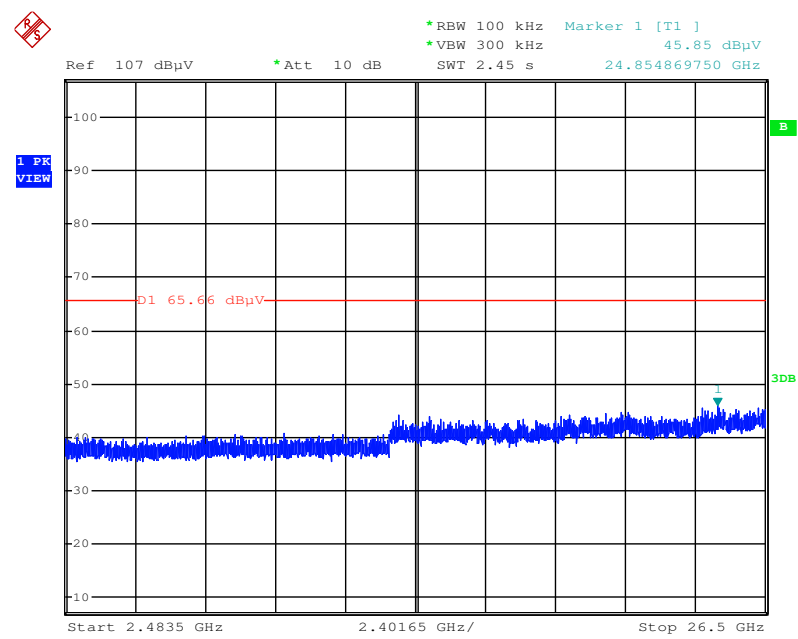
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Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc)



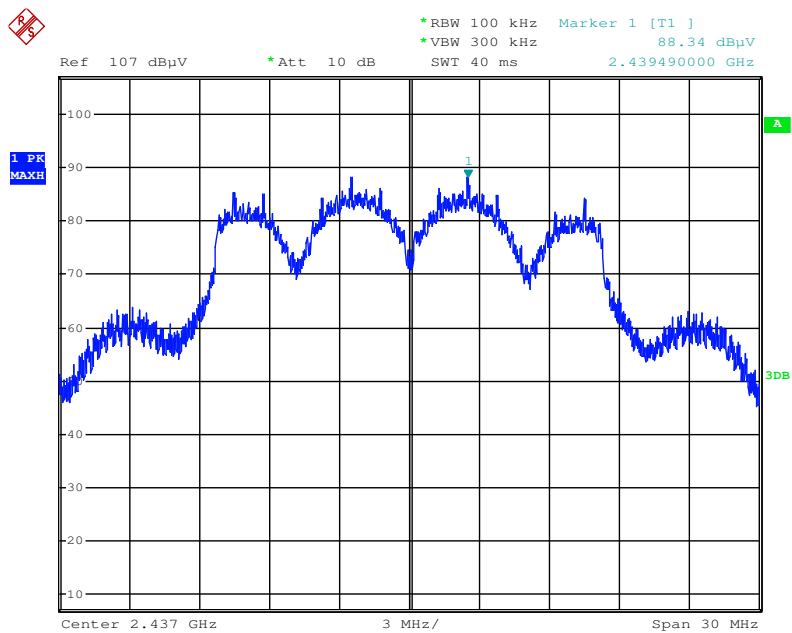
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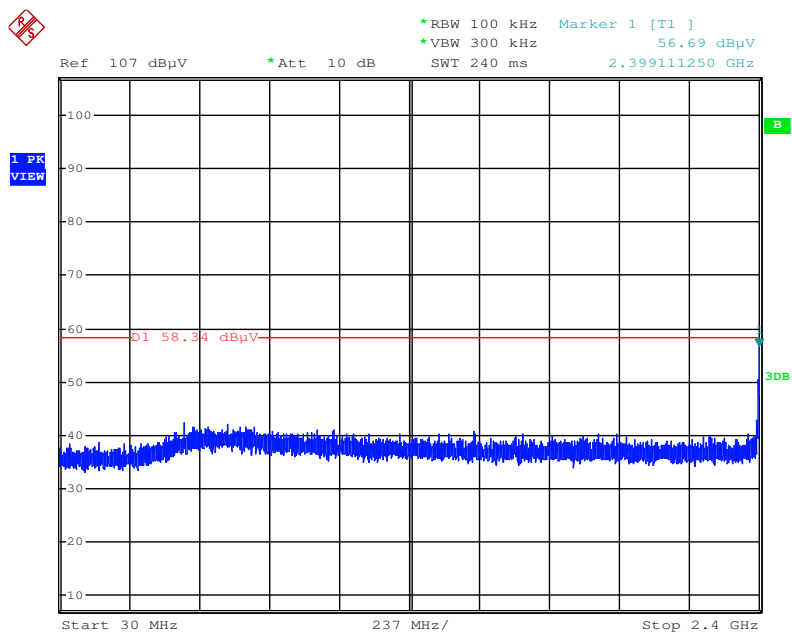
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Plot on Configuration IEEE 802.11g / Reference Level



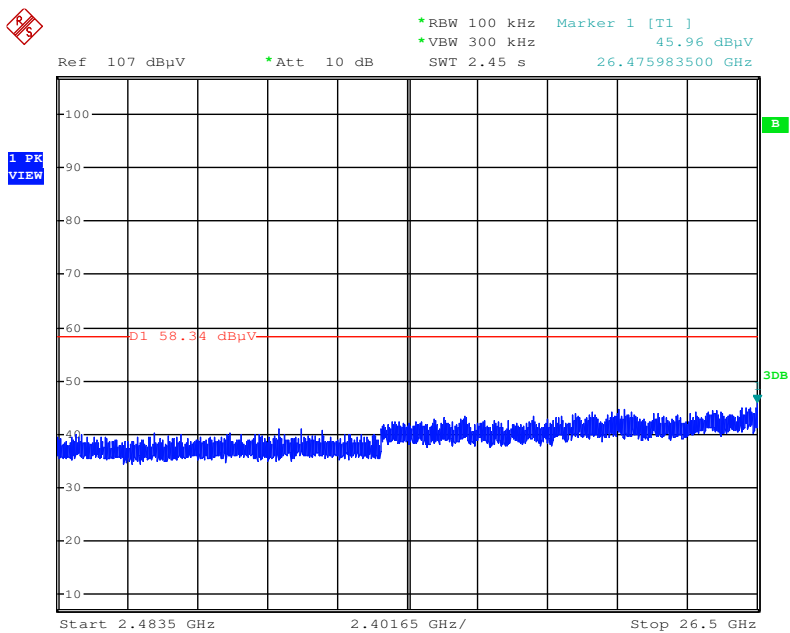
Date: 2.SEP.2016 21:57:46

Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc)



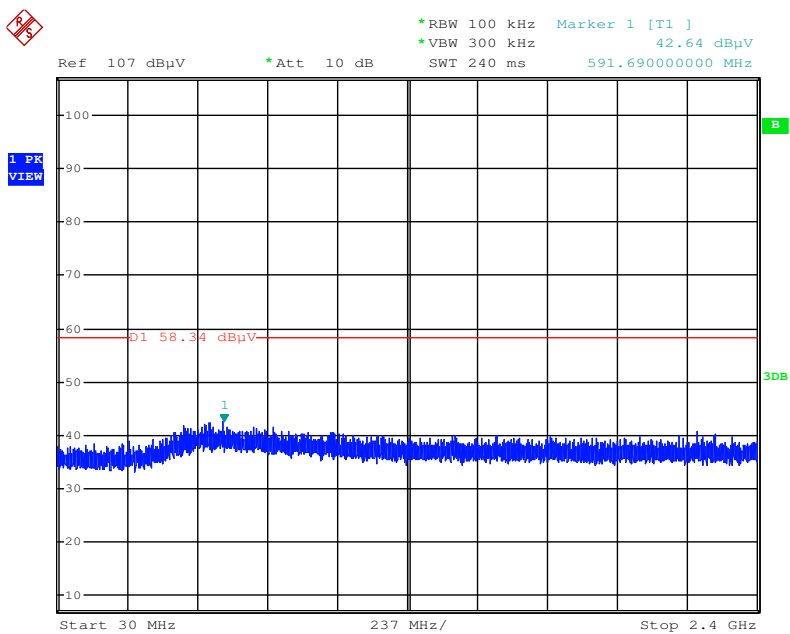
Date: 2.SEP.2016 21:58:59

Plot on Configuration IEEE 802.11g / CH 1 / 2483.5MHz~26500MHz (down 30dBc)



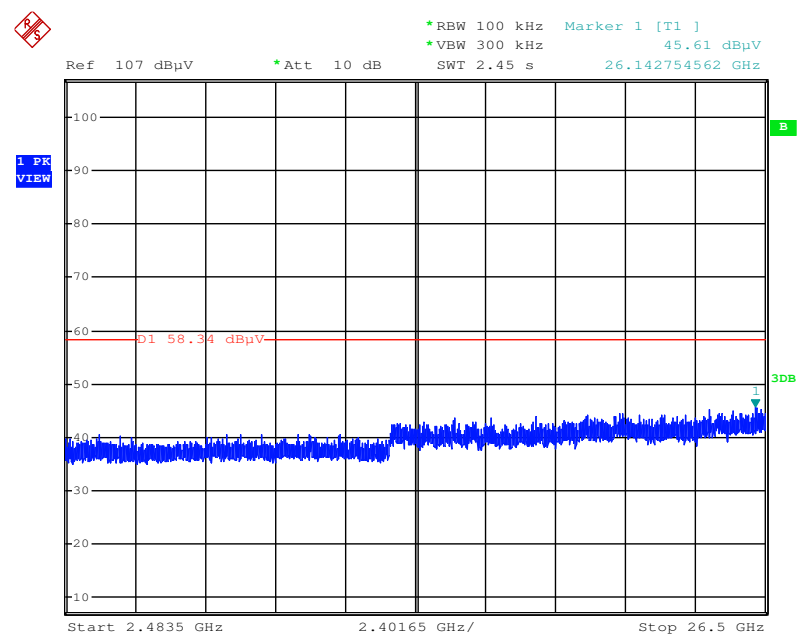
Date: 2.SEP.2016 21:59:46

Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc)



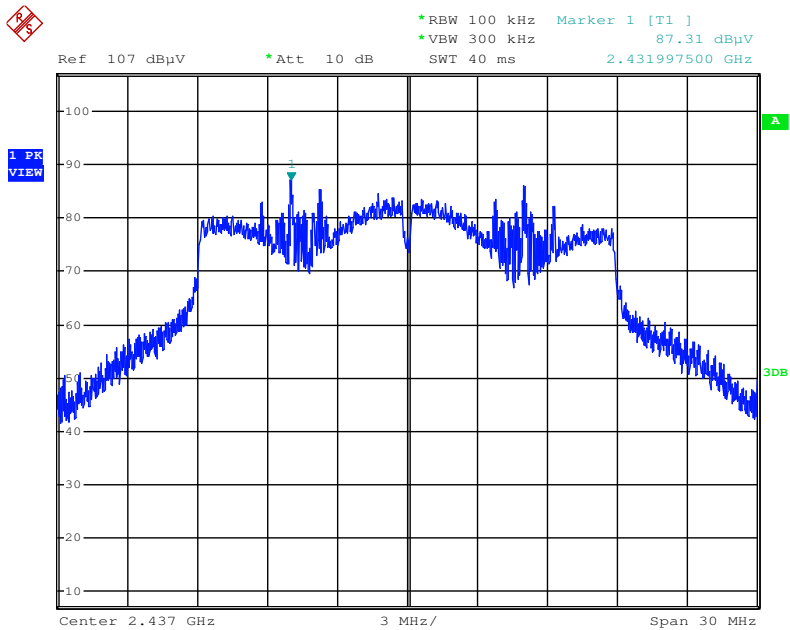
Date: 2.SEP.2016 22:01:15

Plot on Configuration IEEE 802.11g / CH 11 / 2483.5MHz~26500MHz (down 30dBc)



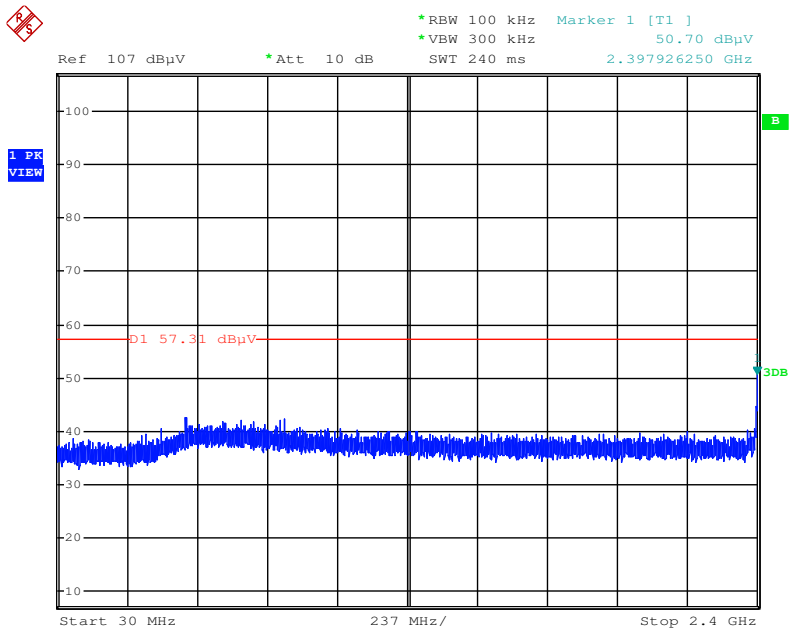
Date: 2.SEP.2016 22:00:40

Plot on Configuration IEEE 802.11n MCS0 HT20 / Reference Level



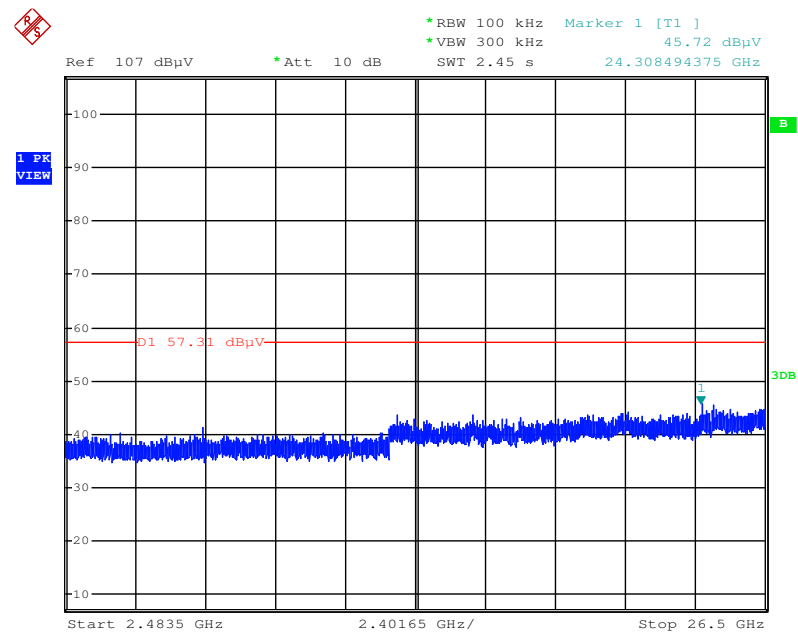
Date: 2.SEP.2016 22:02:18

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 30MHz~2400MHz (down 30dBc)



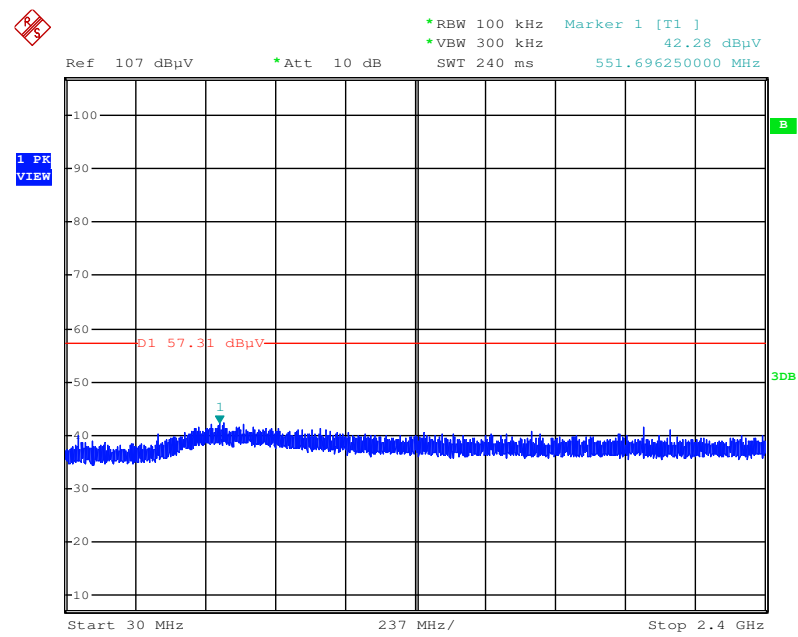
Date: 2.SEP.2016 22:03:48

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 2483.5MHz~26500MHz (down 30dBc)



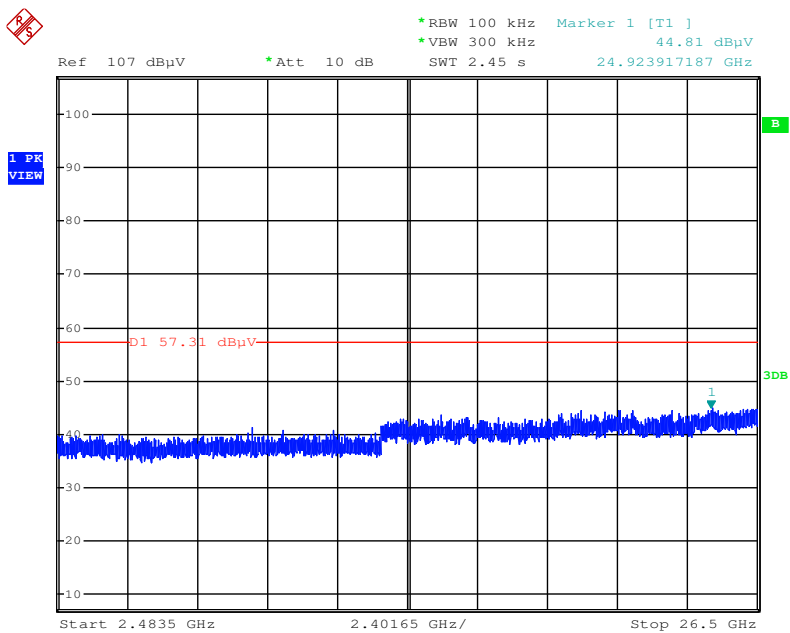
Date: 2.SEP.2016 22:04:30

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 30MHz~2400MHz (down 30dBc)



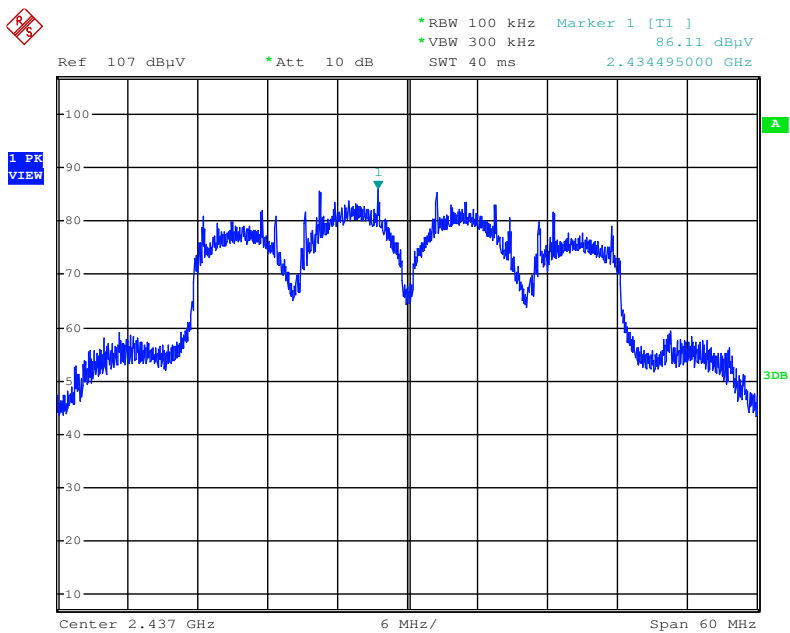
Date: 2.SEP.2016 22:06:42

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 2483.5MHz~26500MHz (down 30dBc)



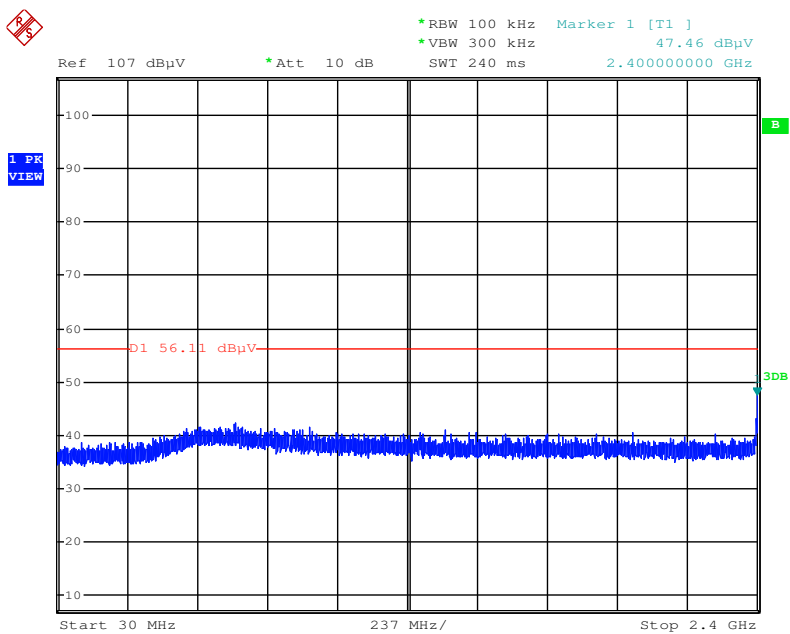
Date: 2.SEP.2016 22:05:32

Plot on Configuration IEEE 802.11n MCS0 HT40 / Reference Level



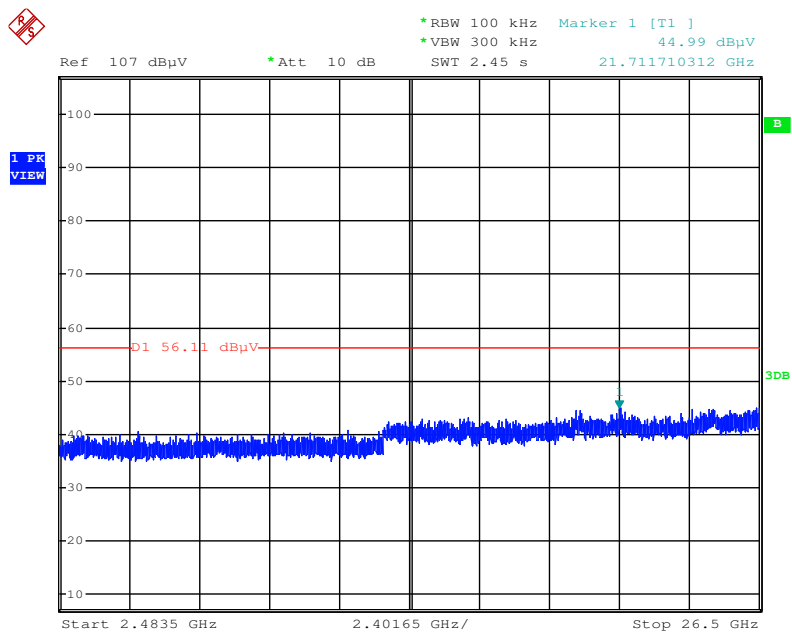
Date: 2.SEP.2016 22:09:08

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 30MHz~2400MHz (down 30dBc)



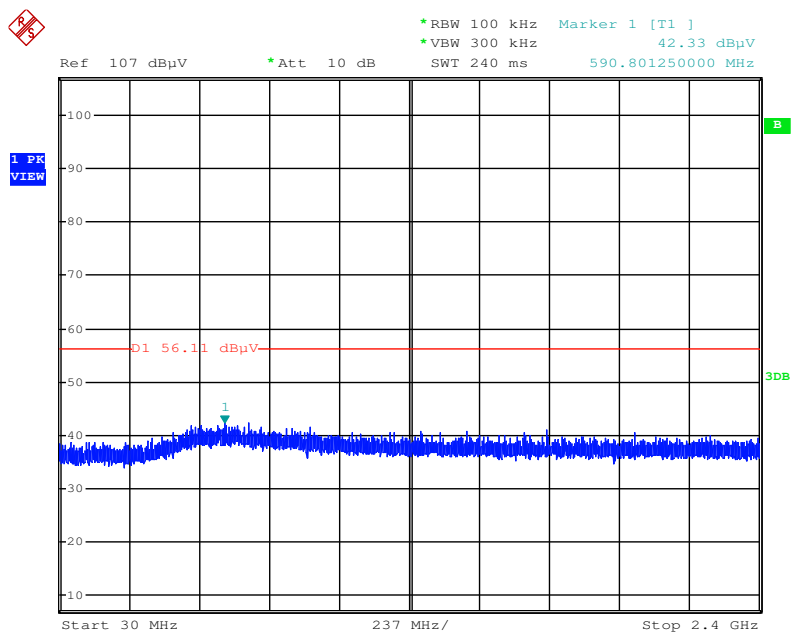
Date: 2.SEP.2016 22:10:36

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 2483.5MHz~26500MHz (down 30dBc)



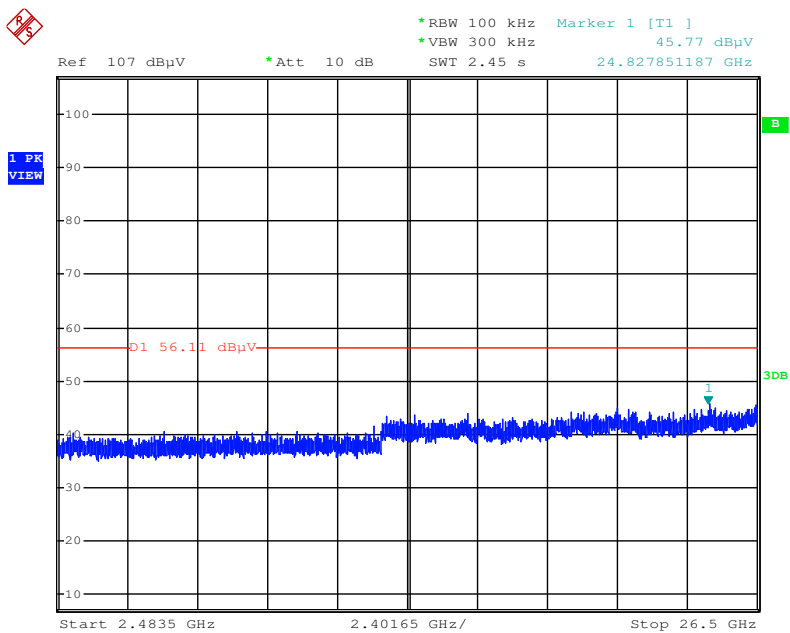
Date: 2.SEP.2016 22:11:18

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 30MHz~2400MHz (down 30dBc)



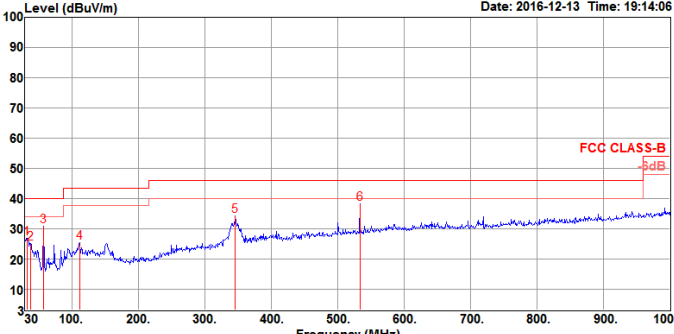
Date: 2.SEP.2016 22:13:12

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 2483.5MHz~26500MHz (down 30dBc)



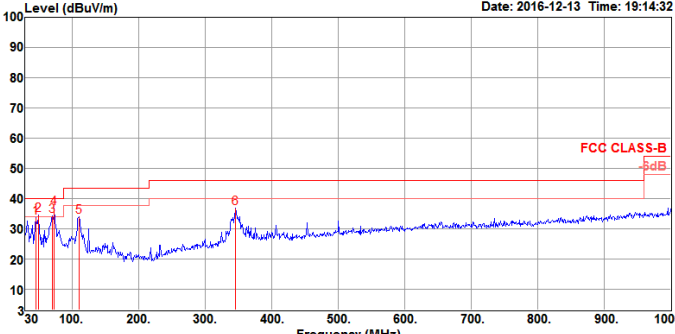
Date: 2.SEP.2016 22:12:17



RSE below 1GHz Result												
Operating Mode	1					Polarization			Horizontal			
Operating Function	Normal Link											
Level (dBuV/m) Date: 2016-12-13 Time: 19:14:06 												
	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	dB	cm	deg	
1	32.91	26.90	40.00	-13.10	34.93	0.64	24.24	32.91	200	192	Peak	HORIZONTAL
2	37.76	25.16	40.00	-14.84	35.70	0.68	21.51	32.73	200	20	Peak	HORIZONTAL
3	57.16	30.69	40.00	-9.31	48.22	0.84	14.02	32.39	125	171	Peak	HORIZONTAL
4	111.48	25.30	43.50	-18.20	37.70	1.19	18.84	32.43	150	290	Peak	HORIZONTAL
5	346.22	34.13	46.00	-11.87	43.02	2.13	21.30	32.32	100	48	Peak	HORIZONTAL
6	533.43	38.30	46.00	-7.70	43.45	2.65	24.54	32.34	300	1	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	1					Power Phase				Vertical		
Operating Function	Normal Link											
Level (dBuV/m) Date: 2016-12-13 Time: 19:14:32 												
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	45.52	33.77	40.00	-6.23	48.64	0.75	16.88	32.50	100	121 Peak	VERTICAL	
2	50.37	34.51	40.00	-5.49	51.24	0.80	14.85	32.38	200	183 Peak	VERTICAL	
3	70.74	34.30	40.00	-5.70	52.83	0.93	12.96	32.42	150	0 Peak	VERTICAL	
4	73.65	36.88	40.00	-3.12	55.19	0.95	13.16	32.42	150	310 Peak	VERTICAL	
5	110.51	34.03	43.50	-9.47	46.47	1.18	18.81	32.43	100	154 Peak	VERTICAL	
6	346.22	36.71	46.00	-9.29	45.60	2.13	21.30	32.32	150	183 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	IEEE 802.11b CH 1 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4823.94	55.10	74.00	-18.90	49.51	7.50	31.12	33.03	186	252	Peak	HORIZONTAL
2	4824.02	52.02	54.00	-1.98	46.43	7.50	31.12	33.03	186	252	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4823.93	52.22	74.00	-21.78	46.63	7.50	31.12	33.03	174	31	Peak	VERTICAL
2	4823.99	48.07	54.00	-5.93	42.48	7.50	31.12	33.03	174	31	Average	VERTICAL

Configurations	IEEE 802.11b CH 6 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	4873.94	50.51	74.00	-23.49	44.72	7.59	31.21	33.01	298	31	Peak	HORIZONTAL
2	4874.03	45.58	54.00	-8.42	39.79	7.59	31.21	33.01	298	31	Average	HORIZONTAL
3	7311.72	53.75	54.00	-0.25	42.27	9.67	35.99	34.18	212	310	Average	HORIZONTAL
4	7312.07	59.33	74.00	-14.67	47.85	9.67	35.99	34.18	212	310	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	4873.95	36.59	54.00	-17.41	30.80	7.59	31.21	33.01	299	335	Average	VERTICAL
2	4874.06	45.41	74.00	-28.59	39.62	7.59	31.21	33.01	299	335	Peak	VERTICAL
3	7311.74	44.48	54.00	-9.52	33.00	9.67	35.99	34.18	290	26	Average	VERTICAL
4	7312.90	53.09	74.00	-20.91	41.61	9.67	35.99	34.18	290	26	Peak	VERTICAL

Configurations	IEEE 802.11b CH 11 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	4923.74	46.26	74.00	-27.74	40.29	7.67	31.29	32.99	279	33	Peak	HORIZONTAL
2	4924.00	39.24	54.00	-14.76	33.27	7.67	31.29	32.99	279	33	Average	HORIZONTAL
3	7384.30	53.59	54.00	-0.41	41.96	9.71	36.17	34.25	320	351	Average	HORIZONTAL
4	7384.94	59.12	74.00	-14.88	47.49	9.71	36.17	34.25	320	351	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	4924.03	44.56	74.00	-29.44	38.59	7.67	31.29	32.99	277	175	Peak	VERTICAL
2	4924.05	32.49	54.00	-21.51	26.52	7.67	31.29	32.99	277	175	Average	VERTICAL
3	7383.94	53.79	74.00	-20.21	42.16	9.71	36.17	34.25	315	32	Peak	VERTICAL
4	7384.40	44.38	54.00	-9.62	32.75	9.71	36.17	34.25	315	32	Average	VERTICAL

Configurations	IEEE 802.11g CH 1 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4825.32	52.58	74.00	-21.42	45.74	7.47	31.11	31.74	208	24	Peak	HORIZONTAL
2	4825.40	42.55	54.00	-11.45	35.71	7.47	31.11	31.74	208	24	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4819.49	38.85	54.00	-15.15	32.05	7.45	31.09	31.74	100	171	Average	VERTICAL
2	4828.15	50.97	74.00	-23.03	44.13	7.47	31.11	31.74	100	171	Peak	VERTICAL

Configurations	IEEE 802.11g CH 6 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4874.88	51.72	74.00	-22.28	45.93	7.59	31.21	33.01	224	19	Peak	HORIZONTAL
2	4876.08	38.01	54.00	-15.99	32.22	7.59	31.21	33.01	224	19	Average	HORIZONTAL
3	7307.84	63.45	74.00	-10.55	51.97	9.67	35.99	34.18	232	313	Peak	HORIZONTAL
4	7307.96	49.94	54.00	-4.06	38.46	9.67	35.99	34.18	232	313	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4866.56	44.19	74.00	-29.81	38.45	7.57	31.18	33.01	200	6	Peak	VERTICAL
2	4877.80	31.64	54.00	-22.36	25.84	7.59	31.21	33.00	200	6	Average	VERTICAL
3	7307.00	53.85	74.00	-20.15	42.37	9.67	35.99	34.18	209	291	Peak	VERTICAL
4	7308.60	41.23	54.00	-12.77	29.75	9.67	35.99	34.18	209	291	Average	VERTICAL

Configurations	IEEE 802.11g CH 11 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4925.12	53.06	74.00	-20.94	45.91	7.62	31.22	31.69	214	23	Peak	HORIZONTAL
2	4926.08	40.85	54.00	-13.15	33.70	7.62	31.22	31.69	214	23	Average	HORIZONTAL
3	7389.03	64.42	74.00	-9.58	52.08	9.11	36.33	33.10	232	310	Peak	HORIZONTAL
4	7389.27	51.44	54.00	-2.56	39.10	9.11	36.33	33.10	232	310	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4919.45	48.98	74.00	-25.02	41.88	7.60	31.20	31.70	166	248	Peak	VERTICAL
2	4928.95	36.59	54.00	-17.41	29.44	7.62	31.22	31.69	166	248	Average	VERTICAL
3	7380.09	57.05	74.00	-16.95	44.71	9.11	36.33	33.10	231	140	Peak	VERTICAL
4	7388.95	45.87	54.00	-8.13	33.53	9.11	36.33	33.10	231	140	Average	VERTICAL

Configurations	IEEE 802.11n MCS0 HT20 CH 1 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4826.28	51.58	74.00	-22.42	44.74	7.47	31.11	31.74	224	23	Peak	HORIZONTAL
2	4826.44	39.32	54.00	-14.68	32.48	7.47	31.11	31.74	224	23	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4829.55	37.02	54.00	-16.98	30.18	7.47	31.11	31.74	217	182	Average	VERTICAL
2	4831.71	48.38	74.00	-25.62	41.54	7.47	31.11	31.74	217	182	Peak	VERTICAL

Configurations	IEEE 802.11n MCS0 HT20 CH 6 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4875.96	43.35	54.00	-10.65	36.38	7.54	31.15	31.72	206	15	Average	HORIZONTAL
2	4875.96	54.60	74.00	-19.40	47.63	7.54	31.15	31.72	206	15	Peak	HORIZONTAL
3	7305.73	53.67	54.00	-0.33	41.62	8.97	36.11	33.03	236	312	Average	HORIZONTAL
4	7306.81	67.63	74.00	-6.37	55.58	8.97	36.11	33.03	236	312	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4876.68	49.05	74.00	-24.95	42.08	7.54	31.15	31.72	176	282	Peak	VERTICAL
2	4877.91	37.57	54.00	-16.43	30.59	7.54	31.15	31.71	176	282	Average	VERTICAL
3	7305.89	46.15	54.00	-7.85	34.10	8.97	36.11	33.03	230	145	Average	VERTICAL
4	7306.13	57.30	74.00	-16.70	45.25	8.97	36.11	33.03	230	145	Peak	VERTICAL

Configurations	IEEE 802.11n MCS0 HT20 CH 11 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	cm	deg		
1	4924.72	51.41	74.00	-22.59	44.27	7.62	31.22	31.70	244	31 Peak	HORIZONTAL
2	4928.27	39.67	54.00	-14.33	32.52	7.62	31.22	31.69	244	31 Average	HORIZONTAL
3	7382.13	62.90	74.00	-11.10	50.56	9.11	36.33	33.10	234	314 Peak	HORIZONTAL
4	7382.17	49.95	54.00	-4.05	37.61	9.11	36.33	33.10	234	314 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	cm	deg		
1	4924.23	37.04	54.00	-16.96	29.90	7.62	31.22	31.70	219	357 Average	VERTICAL
2	4924.75	49.26	74.00	-24.74	42.12	7.62	31.22	31.70	219	357 Peak	VERTICAL
3	7380.69	55.14	74.00	-18.86	42.80	9.11	36.33	33.10	230	145 Peak	VERTICAL
4	7382.21	44.37	54.00	-9.63	32.03	9.11	36.33	33.10	230	145 Average	VERTICAL

Configurations	IEEE 802.11n MCS0 HT40 CH 3 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4831.63	50.08	74.00	-23.92	43.24	7.47	31.11	31.74	178	22 Peak	HORIZONTAL
2	4849.03	38.69	54.00	-15.31	31.81	7.49	31.12	31.73	178	22 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4842.40	48.80	74.00	-25.20	41.93	7.49	31.12	31.74	165	351 Peak	VERTICAL
2	4863.40	37.05	54.00	-16.95	30.11	7.52	31.14	31.72	165	351 Average	VERTICAL

Configurations	IEEE 802.11n MCS0 HT40 CH 6 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4875.52	51.67	74.00	-22.33	44.70	7.54	31.15	31.72	197	24	Peak	HORIZONTAL
2	4876.72	40.76	54.00	-13.24	33.79	7.54	31.15	31.72	197	24	Average	HORIZONTAL
3	7313.48	50.80	54.00	-3.20	38.75	8.97	36.11	33.03	191	120	Average	HORIZONTAL
4	7315.07	62.17	74.00	-11.83	50.12	8.97	36.11	33.03	191	120	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4882.46	38.01	54.00	-15.99	30.99	7.56	31.17	31.71	226	160	Average	VERTICAL
2	4893.56	49.24	74.00	-24.76	42.21	7.56	31.17	31.70	226	160	Peak	VERTICAL
3	7293.44	55.51	74.00	-18.49	43.51	8.94	36.06	33.00	198	289	Peak	VERTICAL
4	7312.60	44.99	54.00	-9.01	32.94	8.97	36.11	33.03	198	289	Average	VERTICAL

Configurations	IEEE 802.11n MCS0 HT40 CH 9 / Ant. 1 + Ant. 2 + Ant. 3
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4884.20	48.78	74.00	-25.22	41.76	7.56	31.17	31.71	172	171	Peak	HORIZONTAL
2	4891.23	37.27	54.00	-16.73	30.25	7.56	31.17	31.71	172	171	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4897.77	37.66	54.00	-16.34	30.59	7.58	31.19	31.70	280	288	Average	VERTICAL
2	4901.45	48.55	74.00	-25.45	41.48	7.58	31.19	31.70	280	288	Peak	VERTICAL

Note:

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

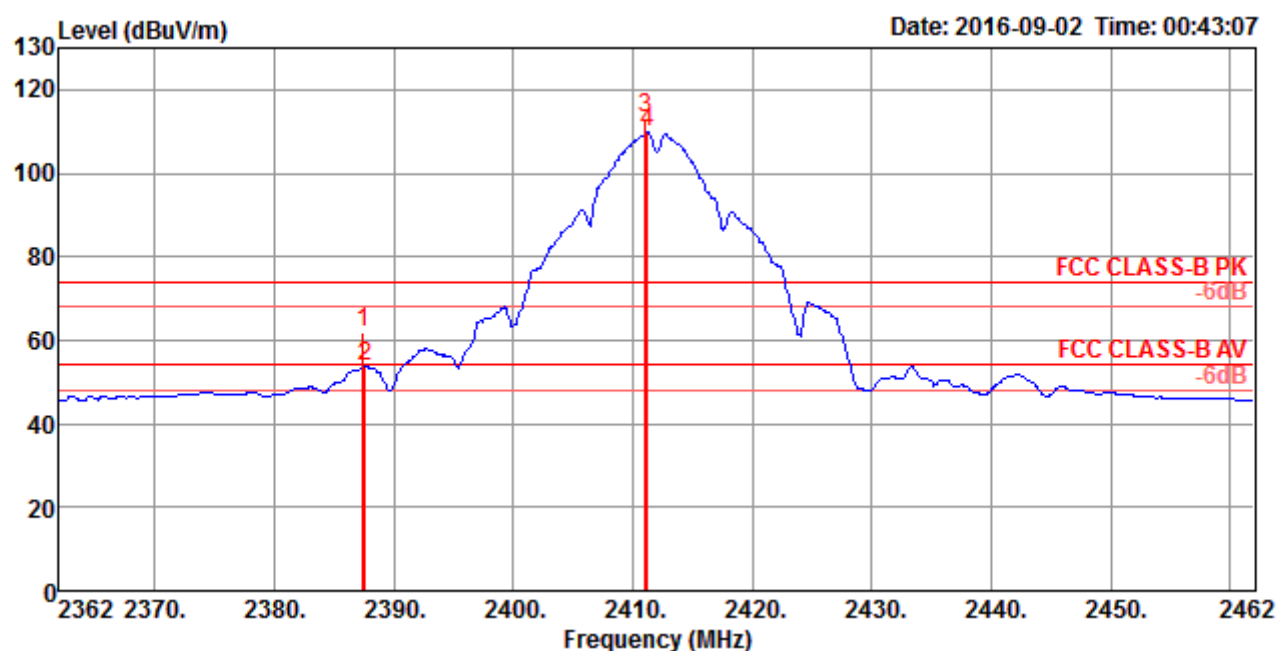
Emission level (dBuV/m) = 20 log Emission level (uV/m).

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

Band Edge Emissions

Configurations	IEEE 802.11b CH 1, 6, 11 / Ant. 1 + Ant. 2 + Ant. 3
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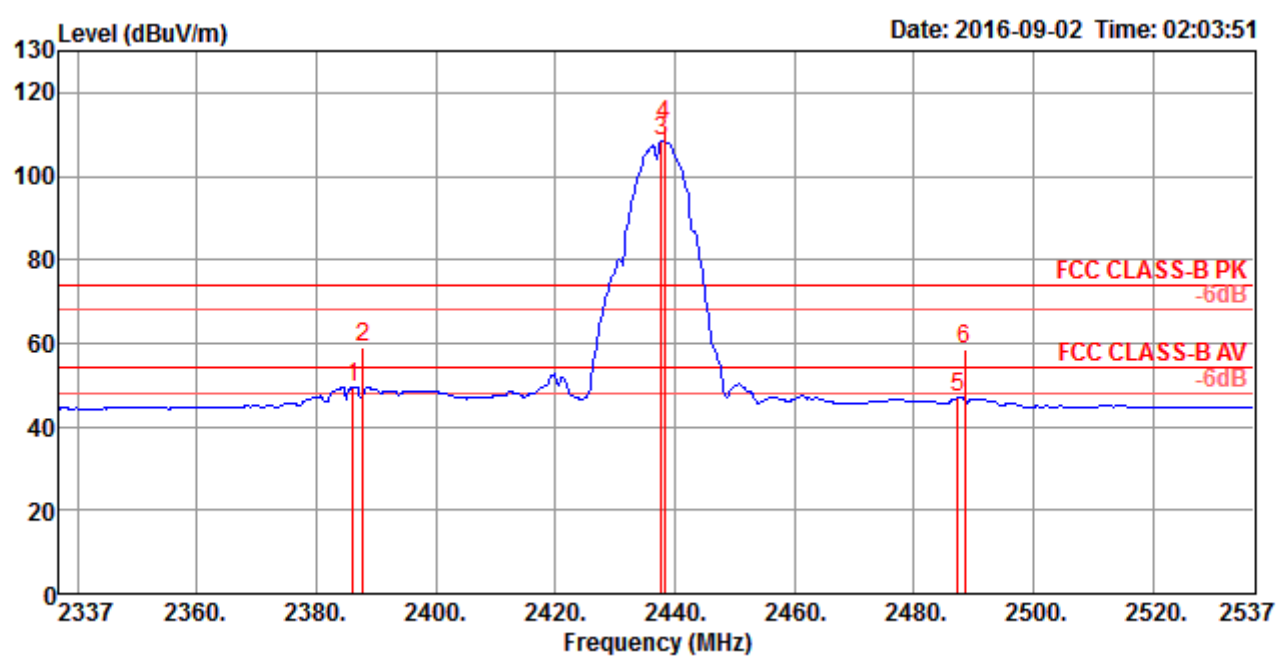
Channel 1



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2387.40	61.83	74.00	-12.17	30.45	4.33	27.05	0.00	214	180 Peak	HORIZONTAL
2	2387.60	53.73	54.00	-0.27	22.35	4.33	27.05	0.00	214	180 Average	HORIZONTAL
3 @	2411.00	113.30			81.85	4.35	27.10	0.00	214	180 Peak	HORIZONTAL
4 @	2411.20	109.70			78.24	4.35	27.11	0.00	214	180 Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

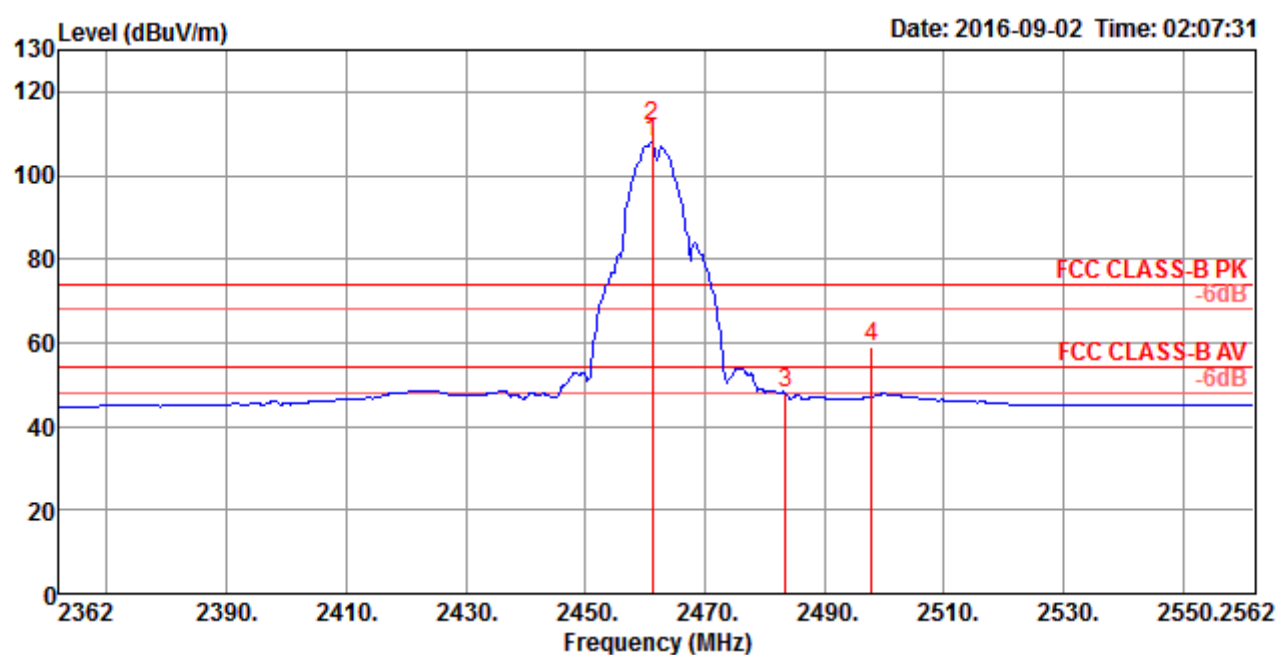
Channel 6



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2386.20	49.51	54.00	-4.49	17.23	5.23	27.05	0.00	273	189 Average	VERTICAL
2	2387.80	59.06	74.00	-14.94	26.78	5.23	27.05	0.00	273	189 Peak	VERTICAL
3 @	2437.80	108.47			76.03	5.28	27.16	0.00	273	189 Average	VERTICAL
4 @	2438.20	112.47			80.03	5.28	27.16	0.00	273	189 Peak	VERTICAL
5	2487.40	46.80	54.00	-7.20	14.20	5.33	27.27	0.00	273	189 Average	VERTICAL
6	2488.60	58.35	74.00	-15.65	25.75	5.33	27.27	0.00	273	189 Peak	VERTICAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11



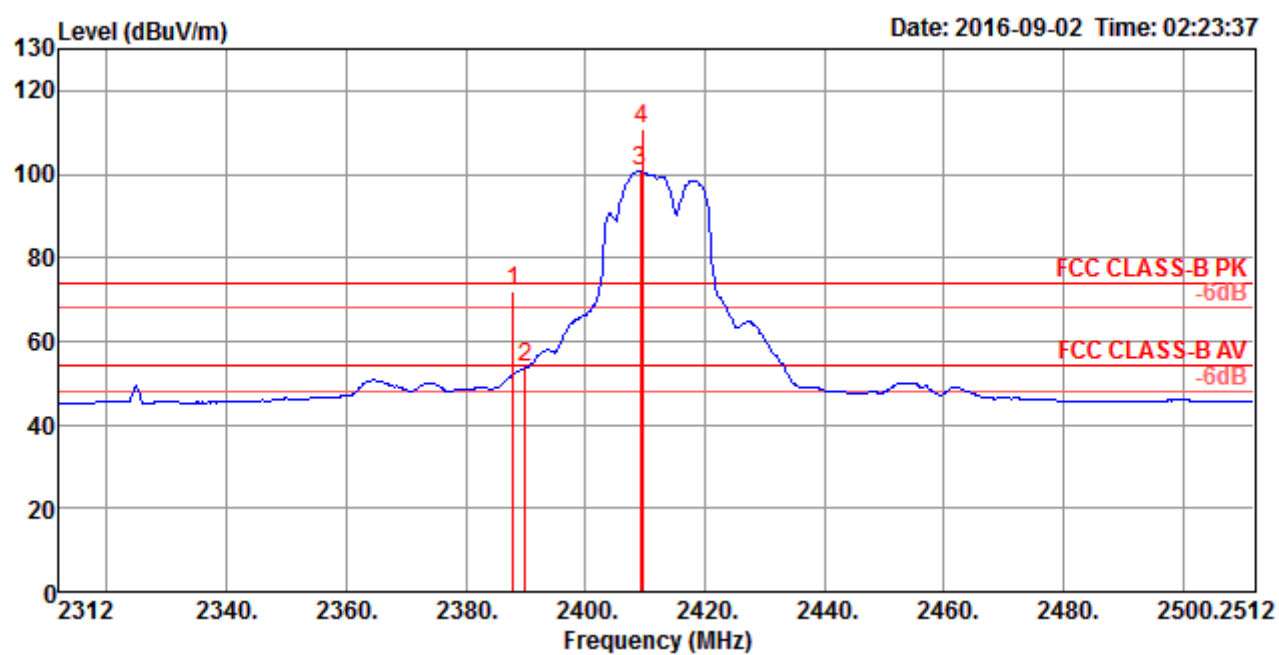
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1 @	2461.20	108.02			75.49	5.31	27.22	0.00	250	175	Average
2 @	2461.20	111.72			79.19	5.31	27.22	0.00	250	175	Peak
3	2483.50	47.89	54.00	-6.11	15.29	5.33	27.27	0.00	250	175	Average
4	2498.00	59.05	74.00	-14.95	26.40	5.35	27.30	0.00	250	175	Peak

Item 1, 2 are the fundamental frequency at 2462 MHz.

Configurations

IEEE 802.11g CH 1, 6, 11 / Ant. 1 + Ant. 2 + Ant. 3

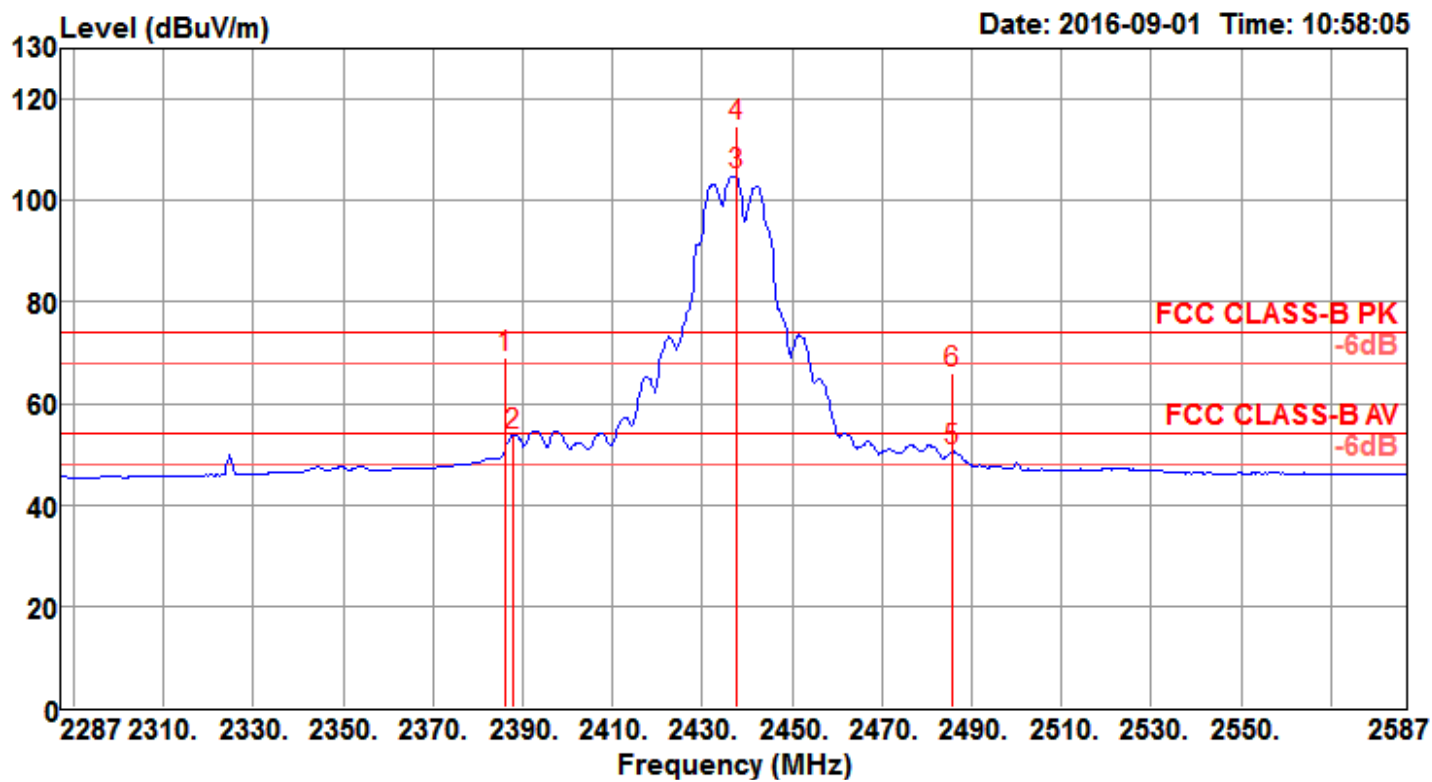
Channel 1



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2388.00	71.95	74.00	-2.05	39.67	5.23	27.05	0.00	240	266	Peak
2	2390.00	53.72	54.00	-0.28	21.44	5.23	27.05	0.00	240	266	Average
3 @	2409.20	100.59			68.23	5.26	27.10	0.00	240	266	Average
4 @	2409.60	110.87			78.51	5.26	27.10	0.00	240	266	Peak

Item 3, 4 are the fundamental frequency at 2412 MHz.

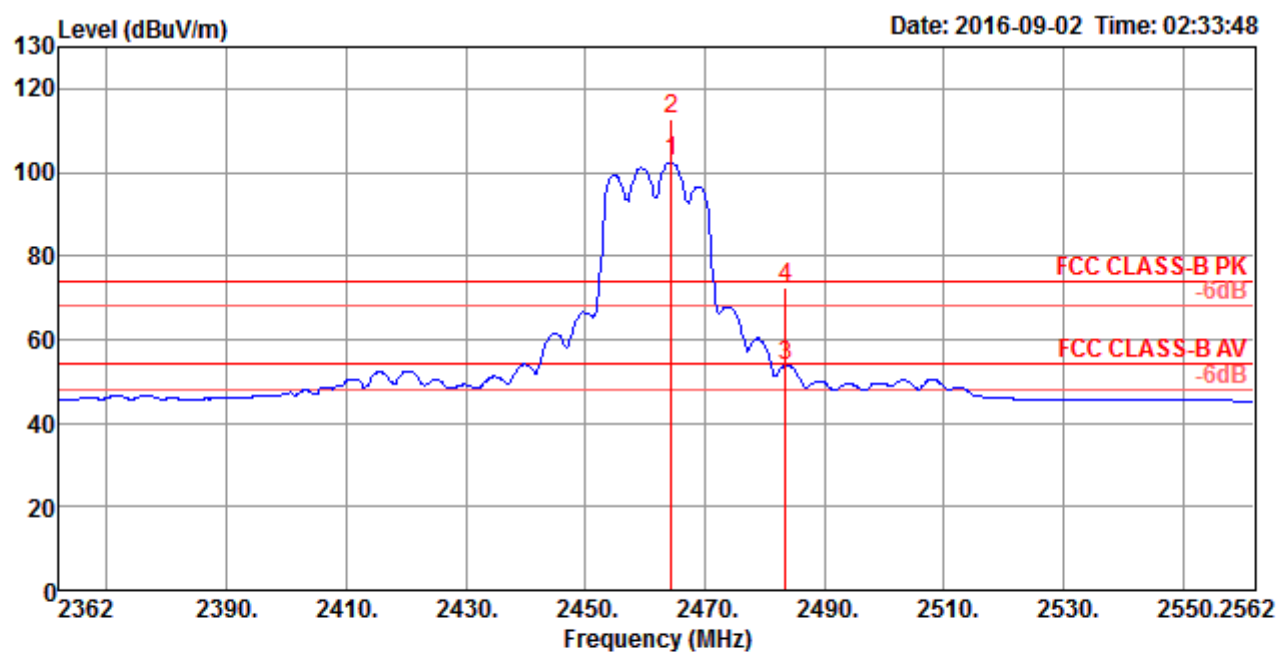
Channel 6



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2386.00	68.88	74.00	-5.12	35.77	4.54	28.57	0.00	107	159	Peak
2	2387.80	53.84	54.00	-0.16	20.73	4.54	28.57	0.00	107	159	Average
3 @	2437.60	104.92			71.66	4.59	28.67	0.00	107	159	Average
4 @	2437.60	114.81			81.55	4.59	28.67	0.00	107	159	Peak
5	2485.60	50.59	54.00	-3.41	17.19	4.63	28.77	0.00	107	159	Average
6	2485.60	66.12	74.00	-7.88	32.72	4.63	28.77	0.00	107	159	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

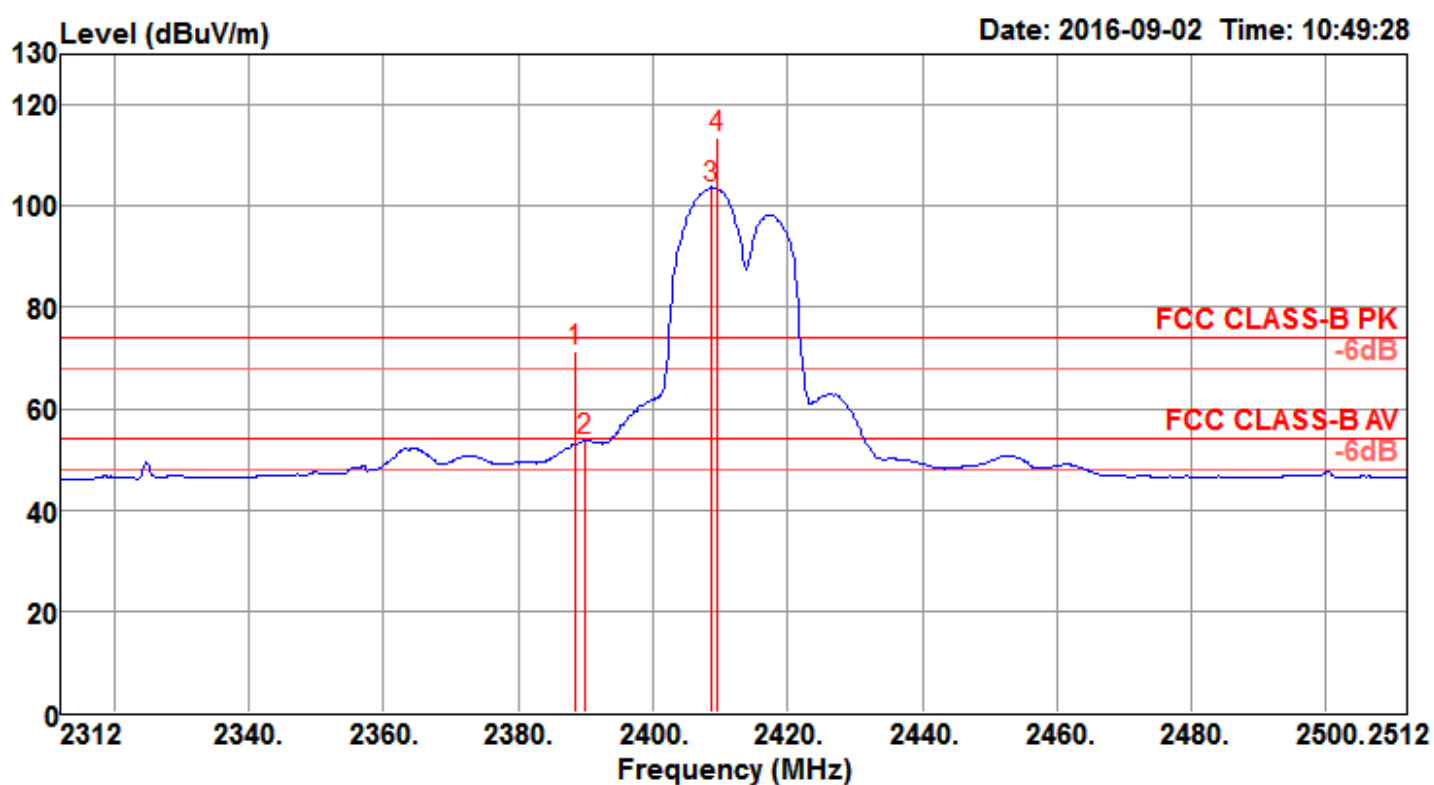


	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1 @	2464.40	102.47			69.94	5.31	27.22	0.00	280	182 Average	HORIZONTAL
2 @	2464.40	112.55			80.02	5.31	27.22	0.00	280	182 Peak	HORIZONTAL
3	2483.50	53.87	54.00	-0.13	21.27	5.33	27.27	0.00	280	182 Average	HORIZONTAL
4	2483.50	72.65	74.00	-1.35	40.05	5.33	27.27	0.00	280	182 Peak	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Configurations	IEEE 802.11n MCS0 HT20 CH 1, 6, 11 / Ant. 1 + Ant. 2 + Ant. 3
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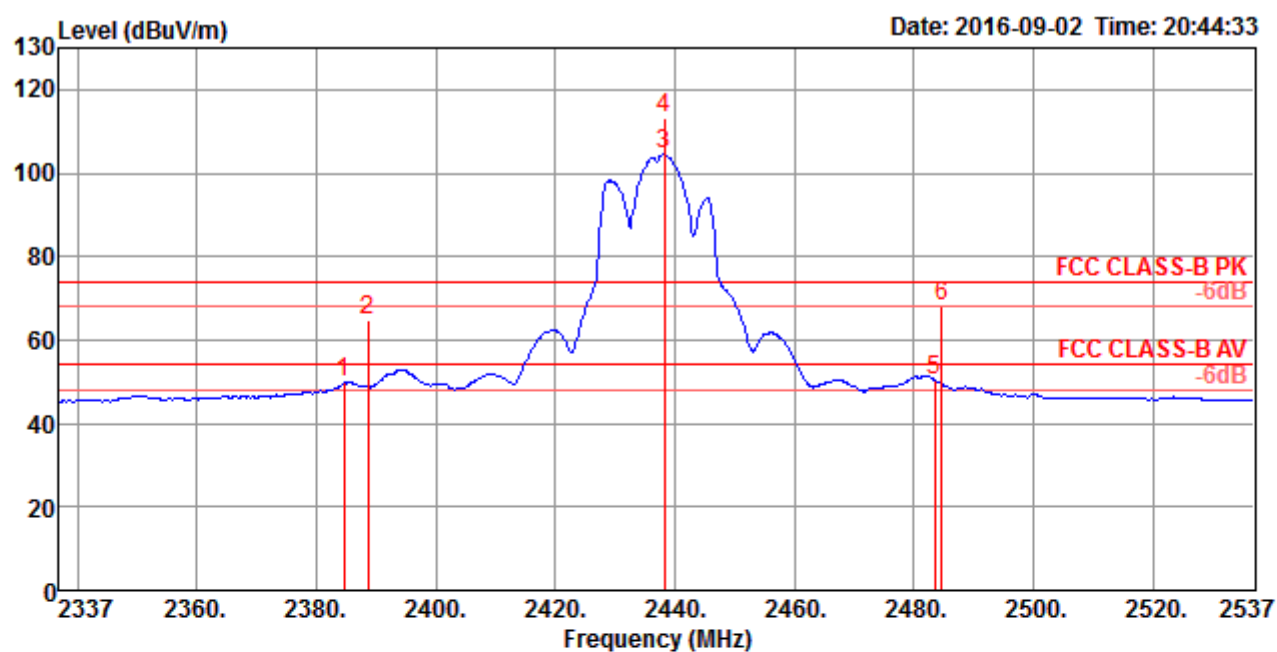
Channel 1



	Freq	Level	Limit	Over	Read	CableAntenna	Preampl	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2388.40	71.19	74.00	-2.81	38.08	4.54	28.57	0.00	190	144	Peak
2	2390.00	53.70	54.00	-0.30	20.59	4.54	28.57	0.00	190	144	Average
3 @	2408.80	103.74			70.56	4.57	28.61	0.00	190	144	Average
4 @	2409.60	113.58			80.40	4.57	28.61	0.00	190	144	Peak

Item 3, 4 are the fundamental frequency at 2412 MHz.

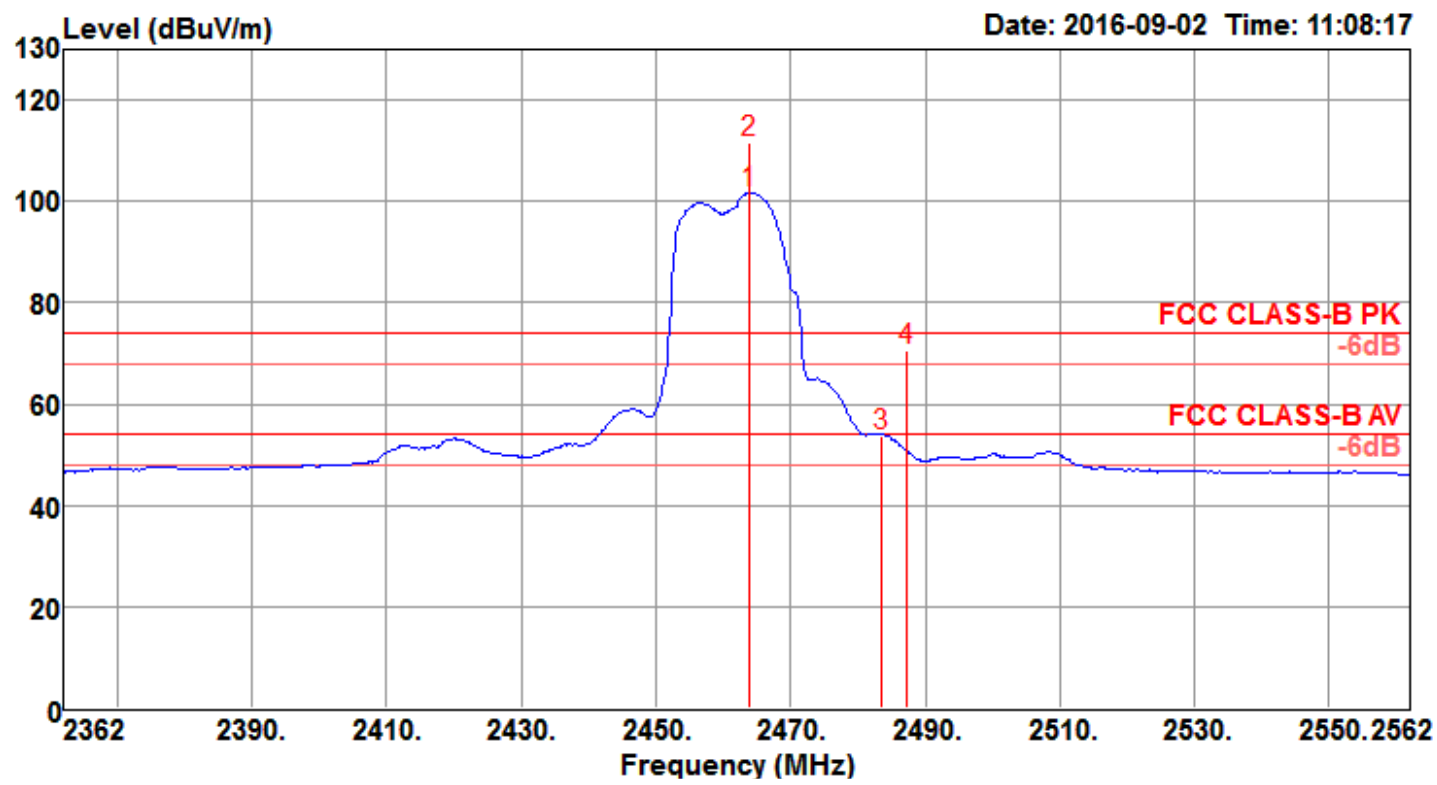
Channel 6



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2384.60	50.03	54.00	-3.97	18.03	4.77	27.23	0.00	102	155	Average
2	2388.60	64.81	74.00	-9.19	32.81	4.77	27.23	0.00	102	155	Peak
3	2438.20	104.39			72.21	4.83	27.35	0.00	102	155	Average
4	2438.20	113.44			81.26	4.83	27.35	0.00	102	155	Peak
5	2483.50	50.46	54.00	-3.54	18.10	4.89	27.47	0.00	102	155	Average
6	2484.60	68.19	74.00	-5.81	35.83	4.89	27.47	0.00	102	155	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

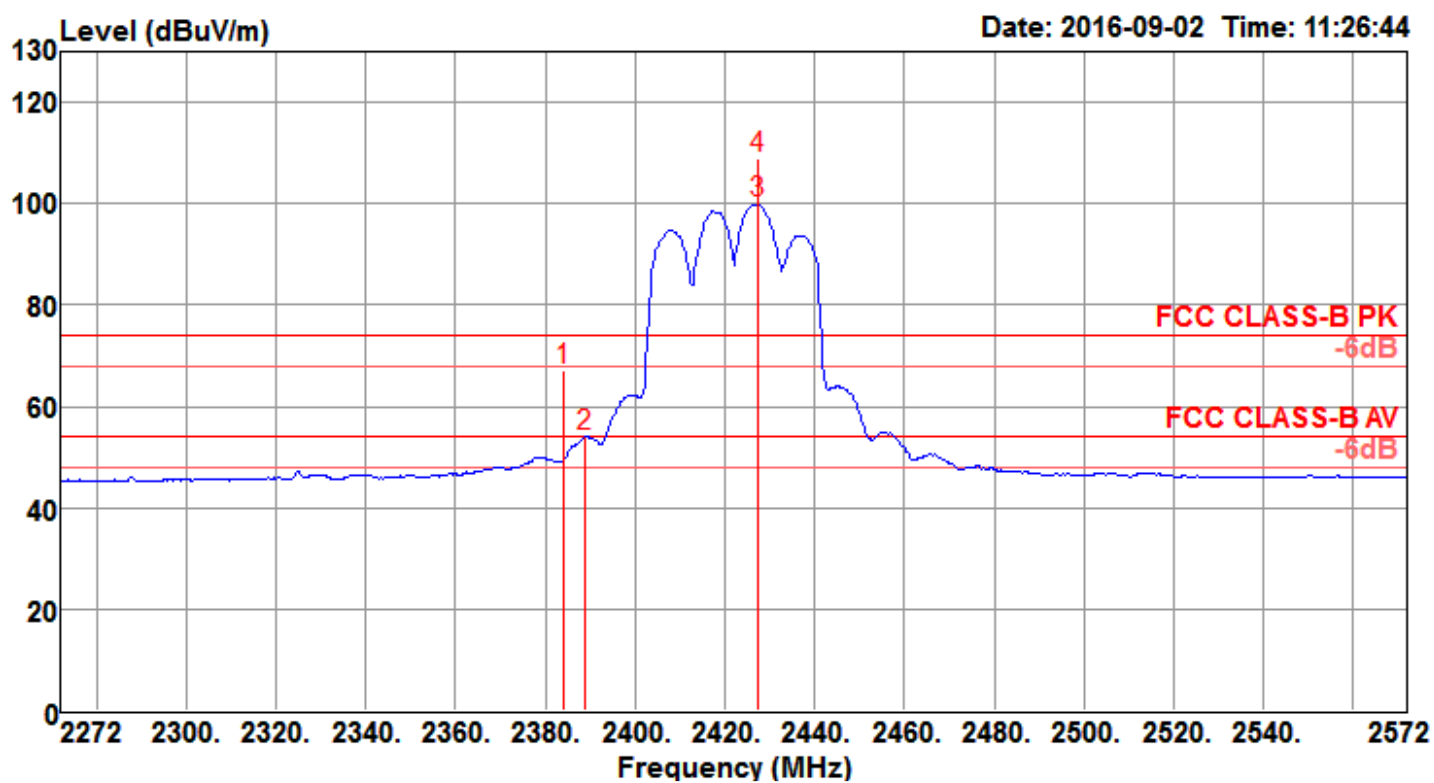


	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1 @	2464.00	101.64			68.30	4.61	28.73	0.00	263	187	Average
2 @	2464.00	111.72			78.38	4.61	28.73	0.00	263	187	Peak
3	2483.50	53.79	54.00	-0.21	20.39	4.63	28.77	0.00	263	187	Average
4	2487.20	70.59	74.00	-3.41	37.19	4.63	28.77	0.00	263	187	Peak

Item 1, 2 are the fundamental frequency at 2462 MHz.

Configurations	IEEE 802.11n MCS0 HT40 CH 3, 6, 9 / Ant. 1 + Ant. 2 + Ant. 3
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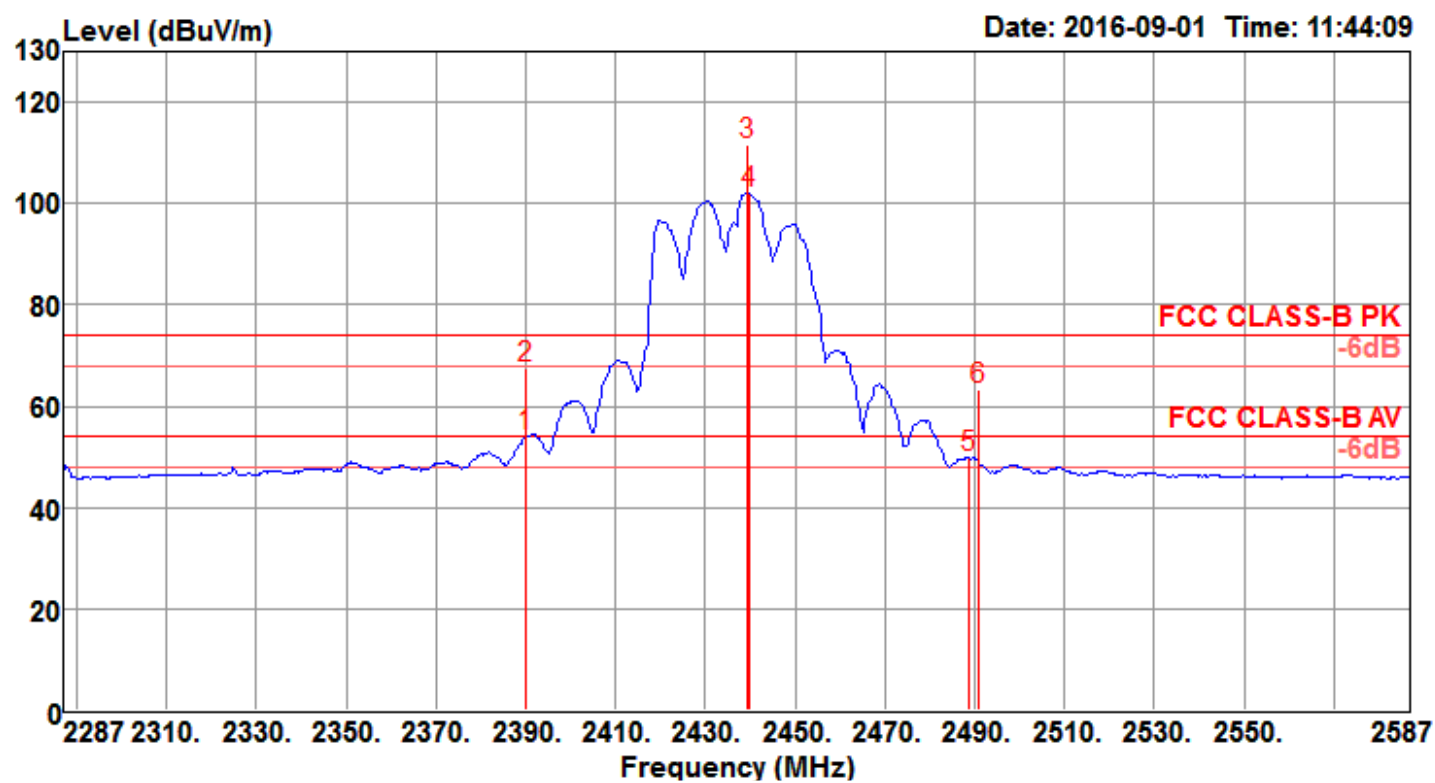
Channel 3



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	cm	deg	
1	2384.20	66.94	74.00	-7.06	33.83	4.54	28.57	0.00	105	160	Peak
2	2389.00	53.98	54.00	-0.02	20.87	4.54	28.57	0.00	105	160	Average
3 @	2427.40	99.92			66.68	4.58	28.66	0.00	105	160	Average
4 @	2427.40	108.79			75.55	4.58	28.66	0.00	105	160	Peak

Item 3, 4 are the fundamental frequency at 2422 MHz.

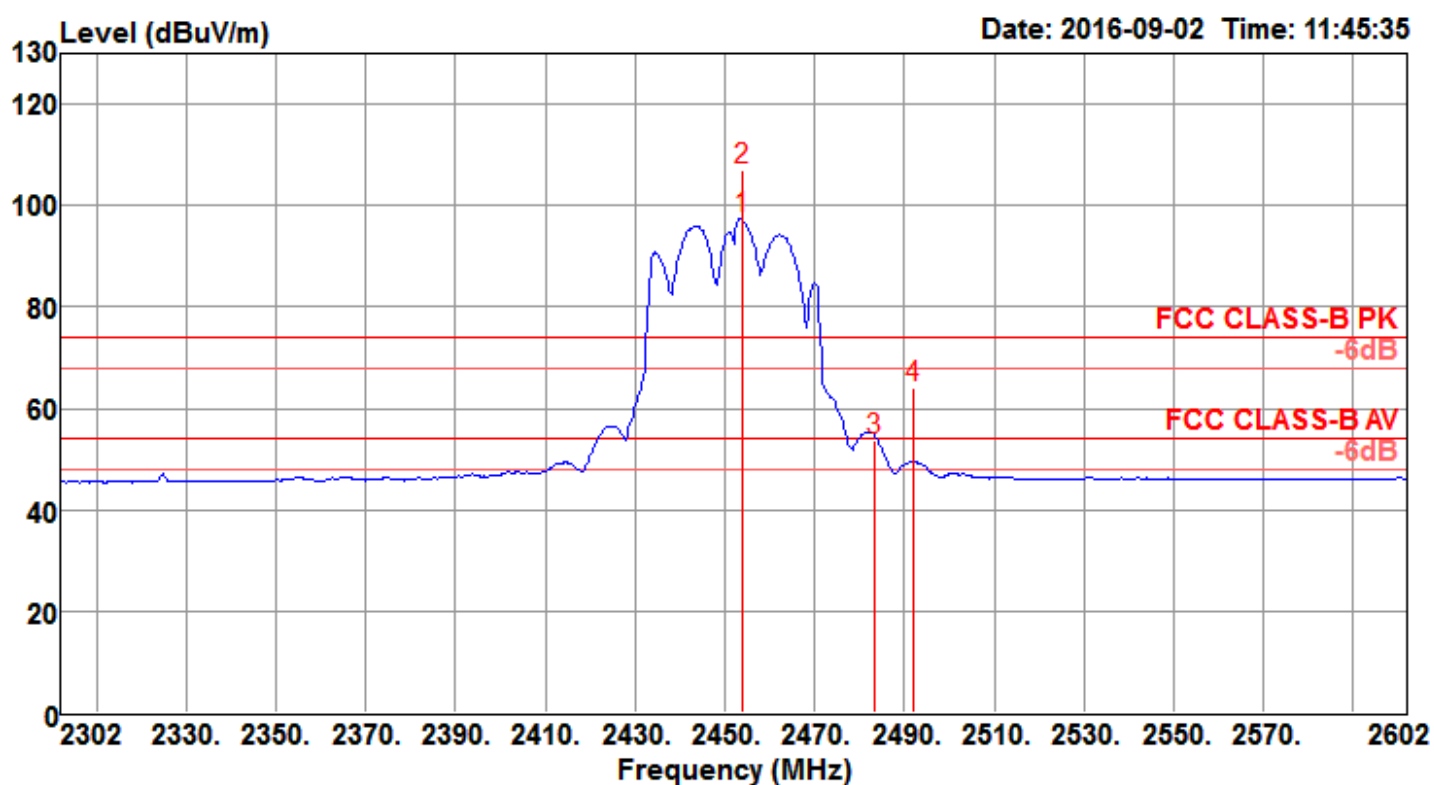
Channel 6



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2390.00	53.97	54.00	-0.03	20.86	4.54	28.57	0.00	196	42	Average
2	2390.00	67.55	74.00	-6.45	34.44	4.54	28.57	0.00	196	42	Peak
3 @	2439.40	111.78			78.49	4.60	28.69	0.00	196	42	Peak
4 @	2440.00	102.14			68.85	4.60	28.69	0.00	196	42	Average
5	2488.60	49.93	54.00	-4.07	16.53	4.63	28.77	0.00	196	42	Average
6	2491.00	63.48	74.00	-10.52	30.05	4.64	28.79	0.00	196	42	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 9



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1 @	2453.80	97.41			64.09	4.61	28.71	0.00	157	143	Average
2 @	2453.80	106.84			73.52	4.61	28.71	0.00	157	143	Peak
3	2483.50	53.87	54.00	-0.13	20.47	4.63	28.77	0.00	157	143	Average
4	2492.20	64.24	74.00	-9.76	30.81	4.64	28.79	0.00	157	143	Peak

Item 1, 2 are the fundamental frequency at 2452 MHz.

Note:

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

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