



# FCC Test Report

**Equipment** : Powerline WiFi 1000, Powerline WiFi Essentials Edition 1010  
**Brand Name** : NETGEAR  
**Model No.** : PLW1000v2, PLW1010v2  
**FCC ID** : PY326200346  
**Standard** : 47 CFR FCC Part 15.247  
**Operating Band** : 2400 MHz – 2483.5 MHz  
**Function** :  Point-to-multipoint;  Point-to-point  
**Applicant** : NETGEAR, Inc.  
350 East Plumeria Drive, San Jose, California 95134, USA

The product sample received on Sep. 06, 2016 and completely tested on Oct. 11, 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.

  
Sam Chen  
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



# 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	1
2.4G	11g	20	1
2.4G	HT20	20	1
2.4G	HT40	40	1

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	Model Name	Antenna Type	Connector	Gain (dBi)	
					2.4G	5G
1	M.gear	C6319-510129-A	Dipole Antenna	MHF	2	-
2	M.gear	C6319-510130-A	Dipole Antenna	MHF	-	2

Note: The EUT has two antennas.

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

Only Ant. 1 can be used as transmitting/receiving antenna.

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

Only Ant. 2 can be used as transmitting/receiving antenna.



1.1.3 Mode Test Duty Cycle

Mode	DC	T(s)	VBW(Hz) ≥ 1/T
11b	0.999	n/a (DC>=0.98)	n/a (DC>=0.98)
11g	0.987	n/a (DC>=0.98)	n/a (DC>=0.98)
HT20	0.987	n/a (DC>=0.98)	n/a (DC>=0.98)
HT40	0.973	947.5u	3k

1.1.4 EUT Operational Condition

<b>EUT Power Type</b>	Internal power supply		
<b>Beamforming Function</b>	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/> Without beamforming	

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Equipment Name	Model Name	Description
Powerline WiFi 1000	PLW1000v2	There are identical PCBA, only different skin of housing for different marketing
Powerline WiFi Essentials Edition 1010	PLW1010v2	

From the above models, model: PLW1000v2 was selected as representative model for the test and its data was recorded in this report.



### 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
- ◆ FCC KDB 412172 D01 v01

### 1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	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	Andy Tsai	24°C / 55%	Oct. 07, 2016
Radiated	03CH01-CB	Andy Tsai / Lucke Hsieh	24°C / 55%	Oct. 07, 2016 ~ Oct. 11, 2016
AC Conduction	CO02-CB	Edison Lin	24°C / 62%	Sep. 16, 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	1	2412	L	82
2.4G	11b	20	1	1	2437	M	88
2.4G	11b	20	1	1	2462	H	80
2.4G	11g	20	1	1	2412	L	71
2.4G	11g	20	1	1	2437	M	76
2.4G	11g	20	1	1	2462	H	64
2.4G	HT20	20	1,(M0)	1	2412	L	65
2.4G	HT20	20	1,(M0)	1	2437	M	75
2.4G	HT20	20	1,(M0)	1	2462	H	60
2.4G	HT40	40	1,(M0)	1	2422	L	67
2.4G	HT40	40	1,(M0)	1	2437	M	67
2.4G	HT40	40	1,(M0)	1	2452	H	69

**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	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral
<b>Operating Mode</b>	CTX
1	CTX - 2.4G
2	CTX - 5G
For operating mode 1 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density
<b>Test Condition</b>	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emissions in Non-restricted Frequency Bands Emissions in Restricted Frequency Bands
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	CTX
1	EUT in Y axis - 2.4G
2	EUT in Z axis - 2.4G
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
For operating mode 2 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX
1	EUT in Y axis
2	EUT in Z axis
Mode 2 has been evaluated to be the worst case after evaluating. Consequently, measurement will follow this same test mode.	



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	
1	WLAN 2.4GHz + 5GHz
Refer to Sporton Test Report No.: FA690707 for Co-location RF Exposure Evaluation.	

### 2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 2.4 Accessories

Others
RJ-45 cable*1, Non-Shielded, 2m

### 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

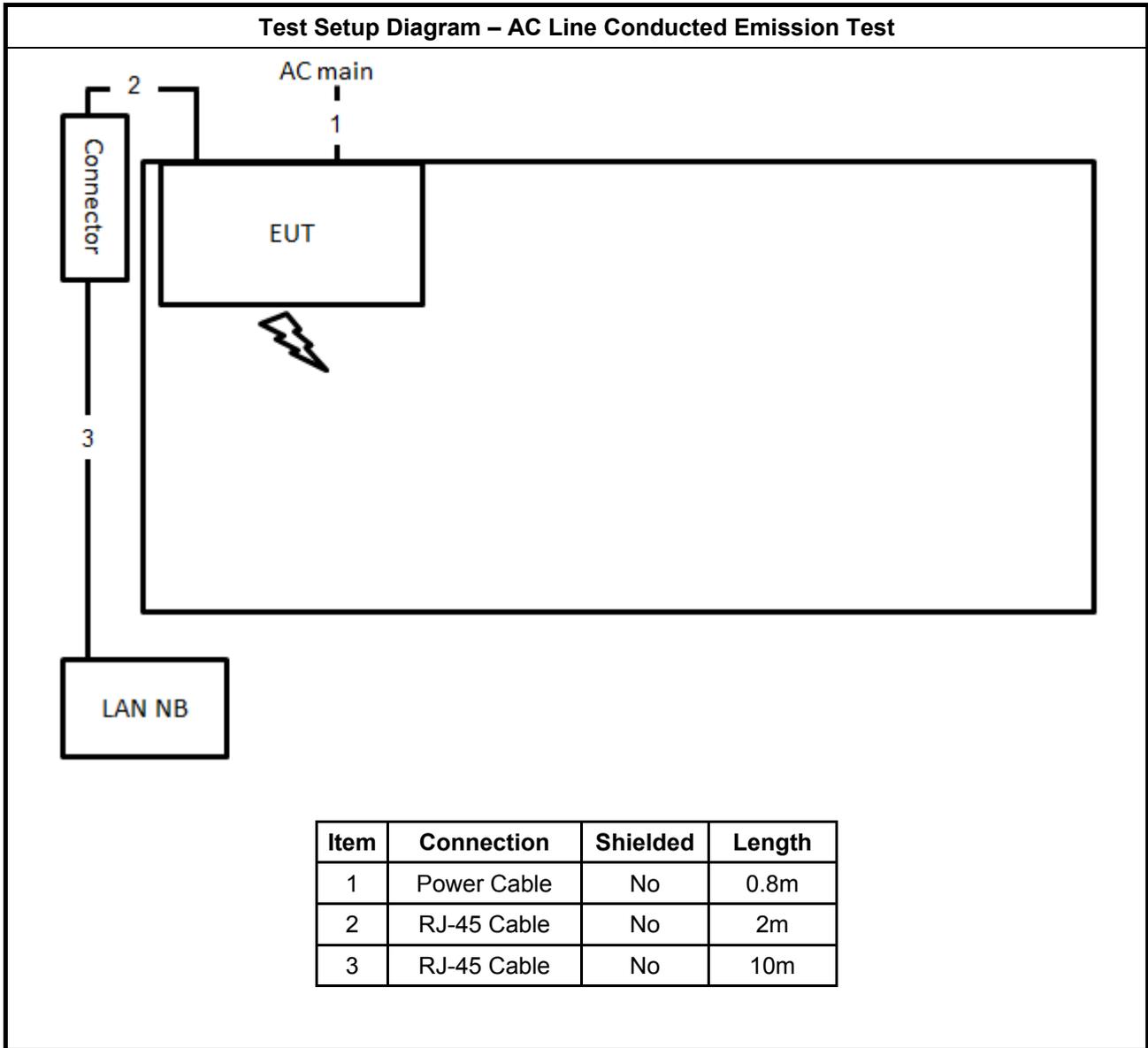
For Test Site No: 03CH01-CB

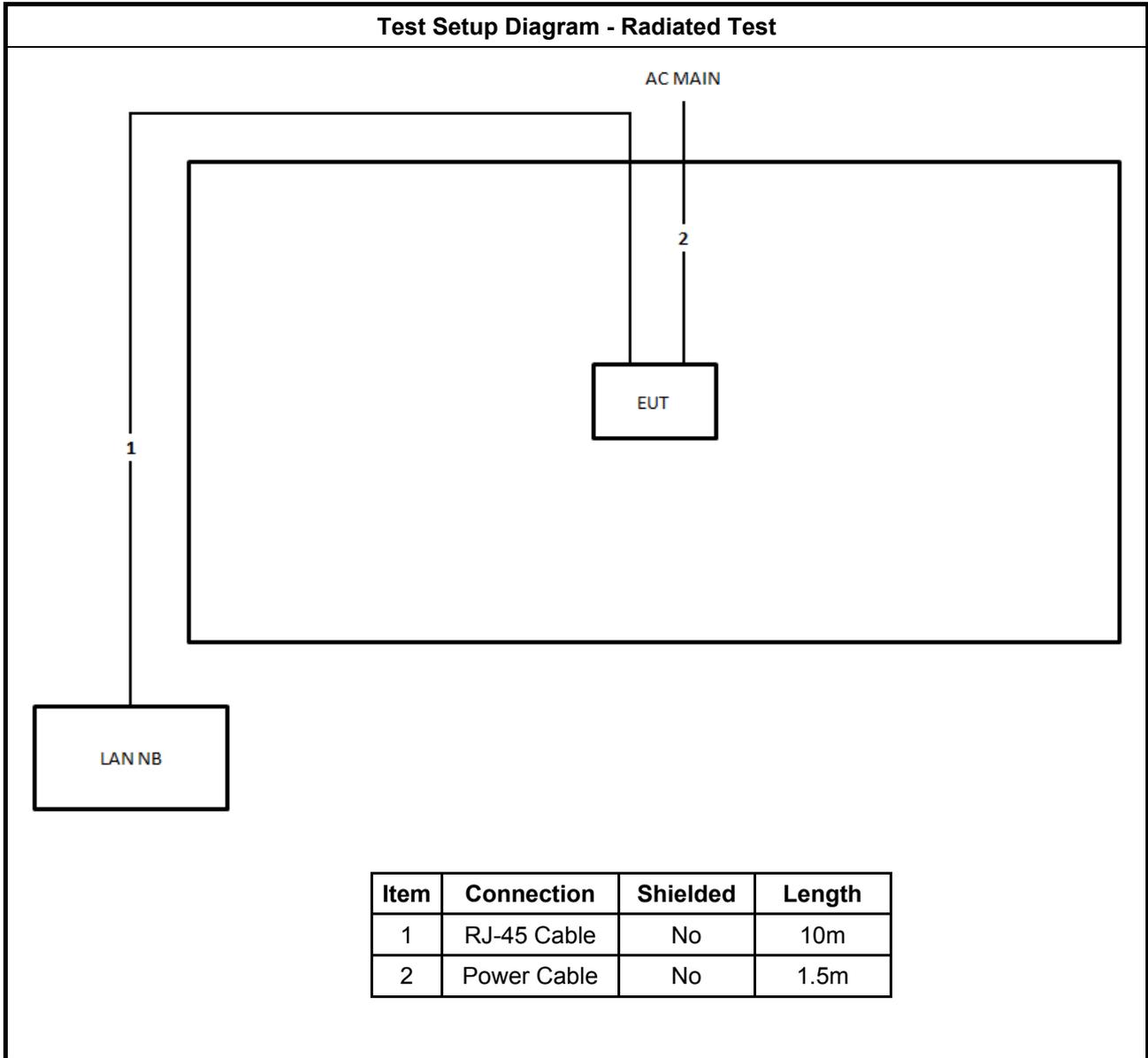
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

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





### 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.

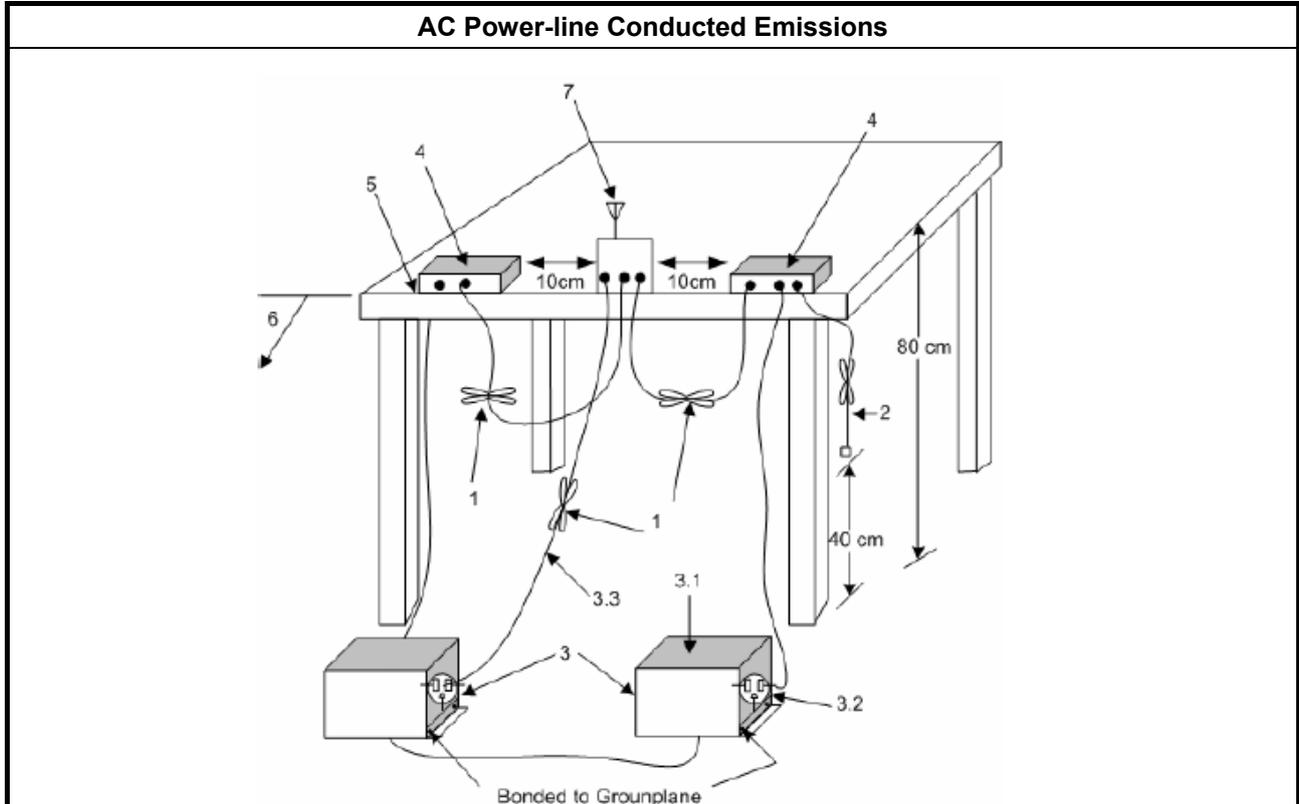
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> 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:	
<ul style="list-style-type: none"> <li>▪ 6 dB bandwidth <math>\geq</math> 500 kHz.</li> </ul>	

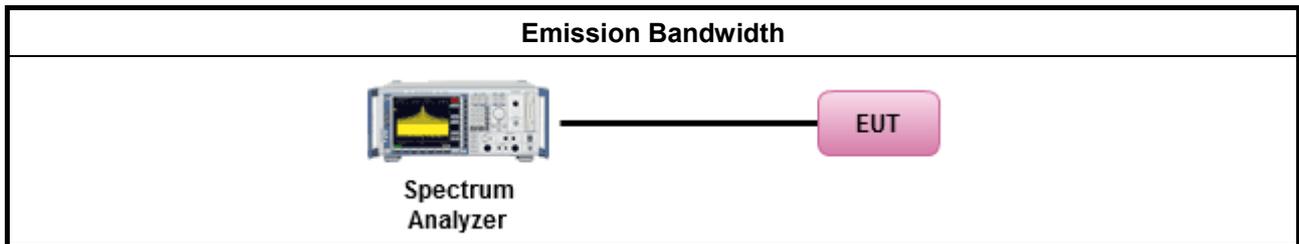
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>	
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/>	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 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.	

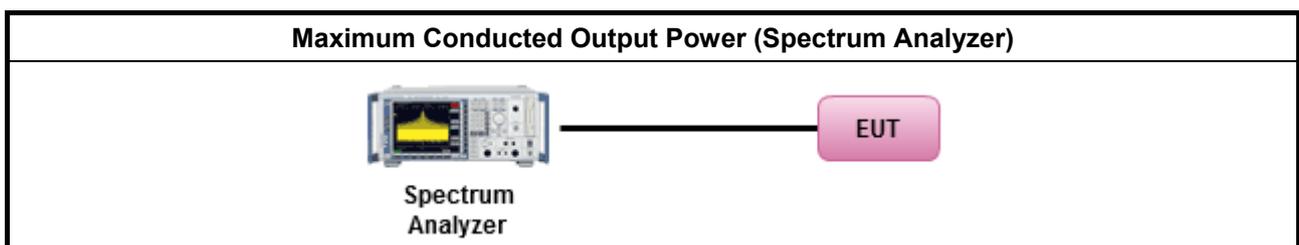
#### 3.3.2 Measuring Instruments

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

### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Maximum Peak Conducted Output Power</li> </ul>	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
<input type="checkbox"/>	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	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
<input type="checkbox"/>	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	
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>	

### 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
<ul style="list-style-type: none"> <li>▪ Power Spectral Density (PSD) <math>\leq</math> 8 dBm/3kHz</li> </ul>

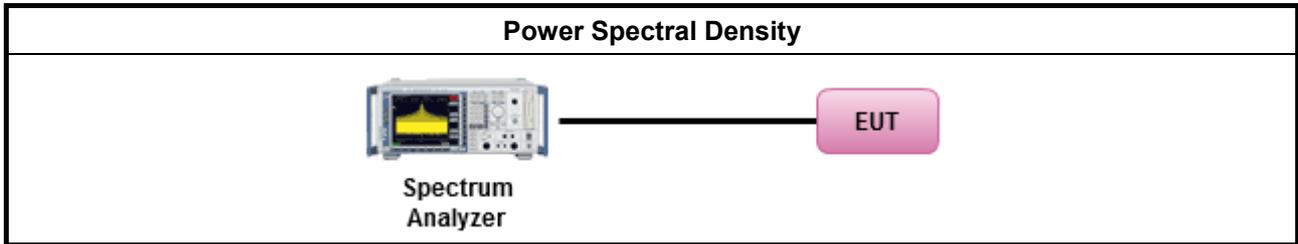
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ 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).</li> </ul>
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle $\geq$ 98% or external video / power trigger]
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).
<input type="checkbox"/> 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
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>
<ul style="list-style-type: none"> <li>▪ If The EUT supports multiple transmit chains using options given below:           <ul style="list-style-type: none"> <li> <input checked="" type="checkbox"/> 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.               </li> <li> <input type="checkbox"/> 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,               </li> <li> <input type="checkbox"/> 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.               </li> </ul> </li> </ul>

### 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.

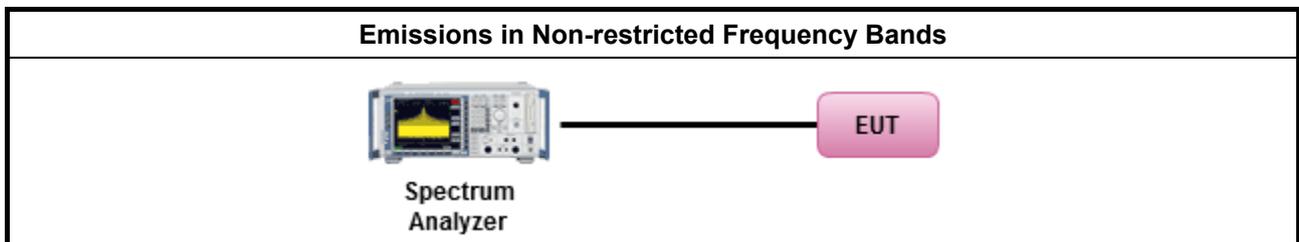
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.</li> </ul>

#### 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

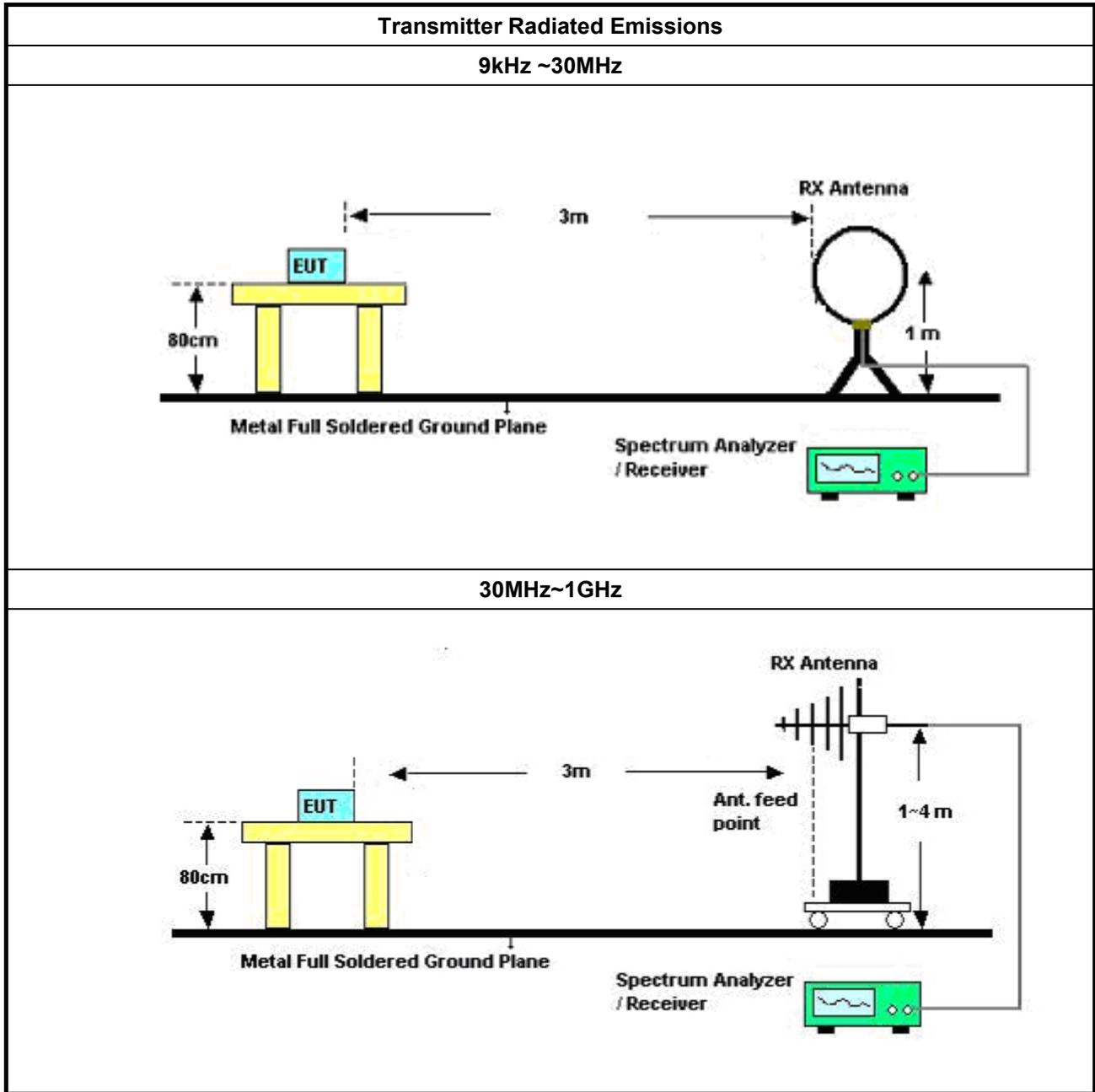
Refer a test equipment and calibration data table in this test report.

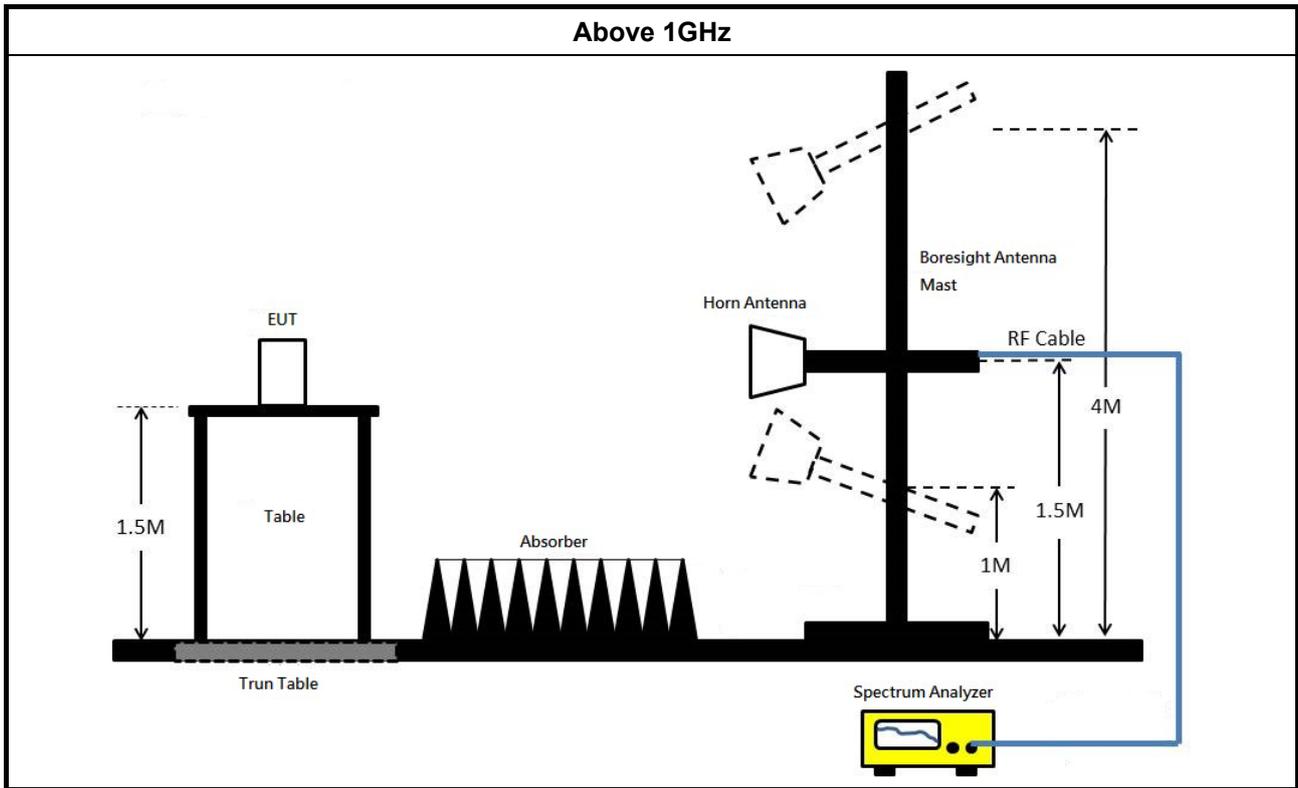


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li> </ul>	
<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle $\geq$ 98%)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW $\geq$ 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> <li>▪ For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ 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).</li> </ul>
<ul style="list-style-type: none"> <li>▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2.</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 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</li> </ul>
	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>

### 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
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 16, 2015	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 13, 2015	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 18, 2016	Conduction (CO02-CB)
COND Cable	Woken	Cable	01	0.15MHz ~ 30MHz	Dec. 01, 2015	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F	9561-F073	9kHz ~ 30MHz	Sep. 30, 2015	Conduction (CO02-CB)
BILOG ANTENNA	TESEQ	CBL6112D	37880	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 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. 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)
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	Nov. 02, 2015	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))
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)

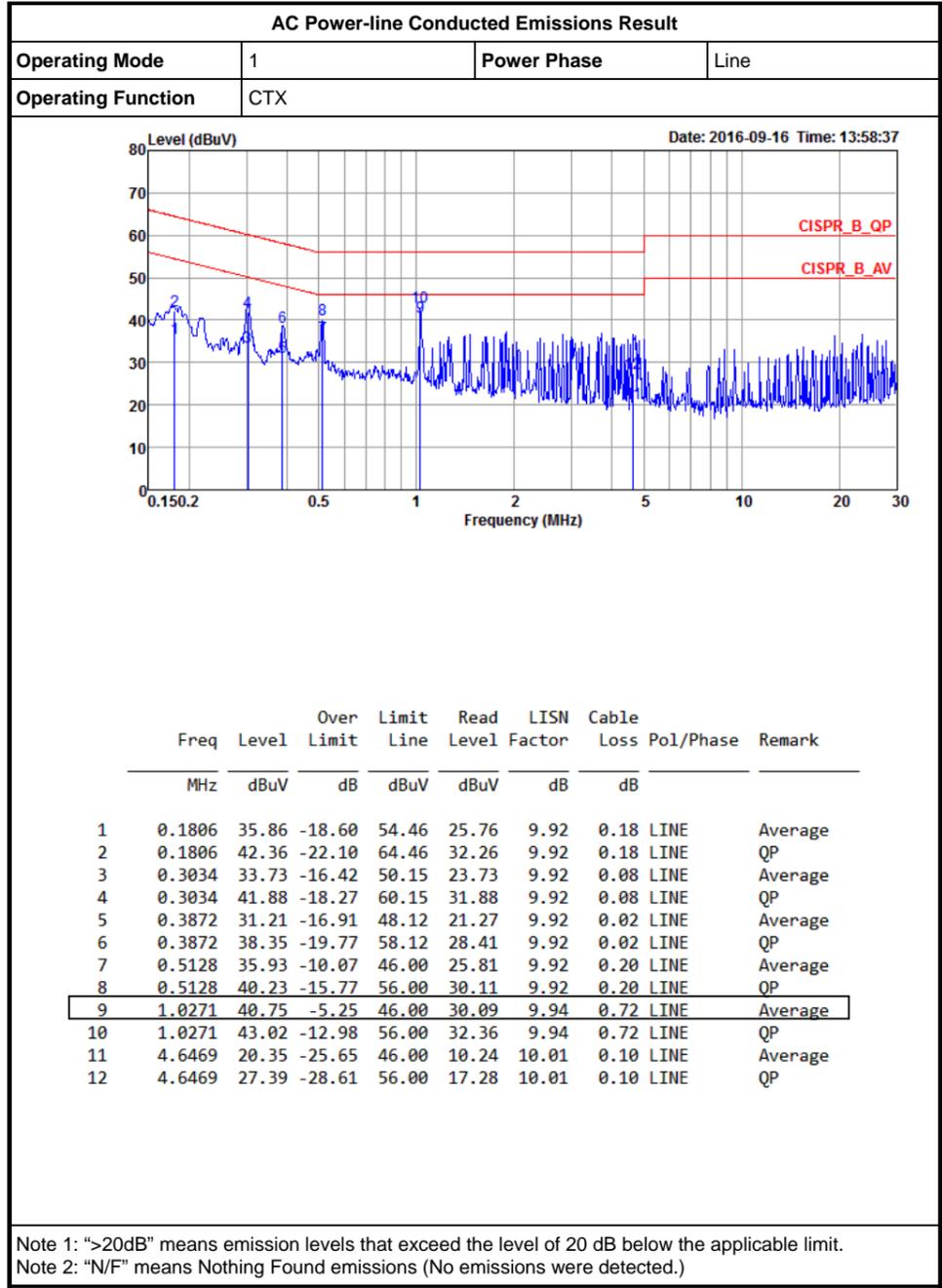
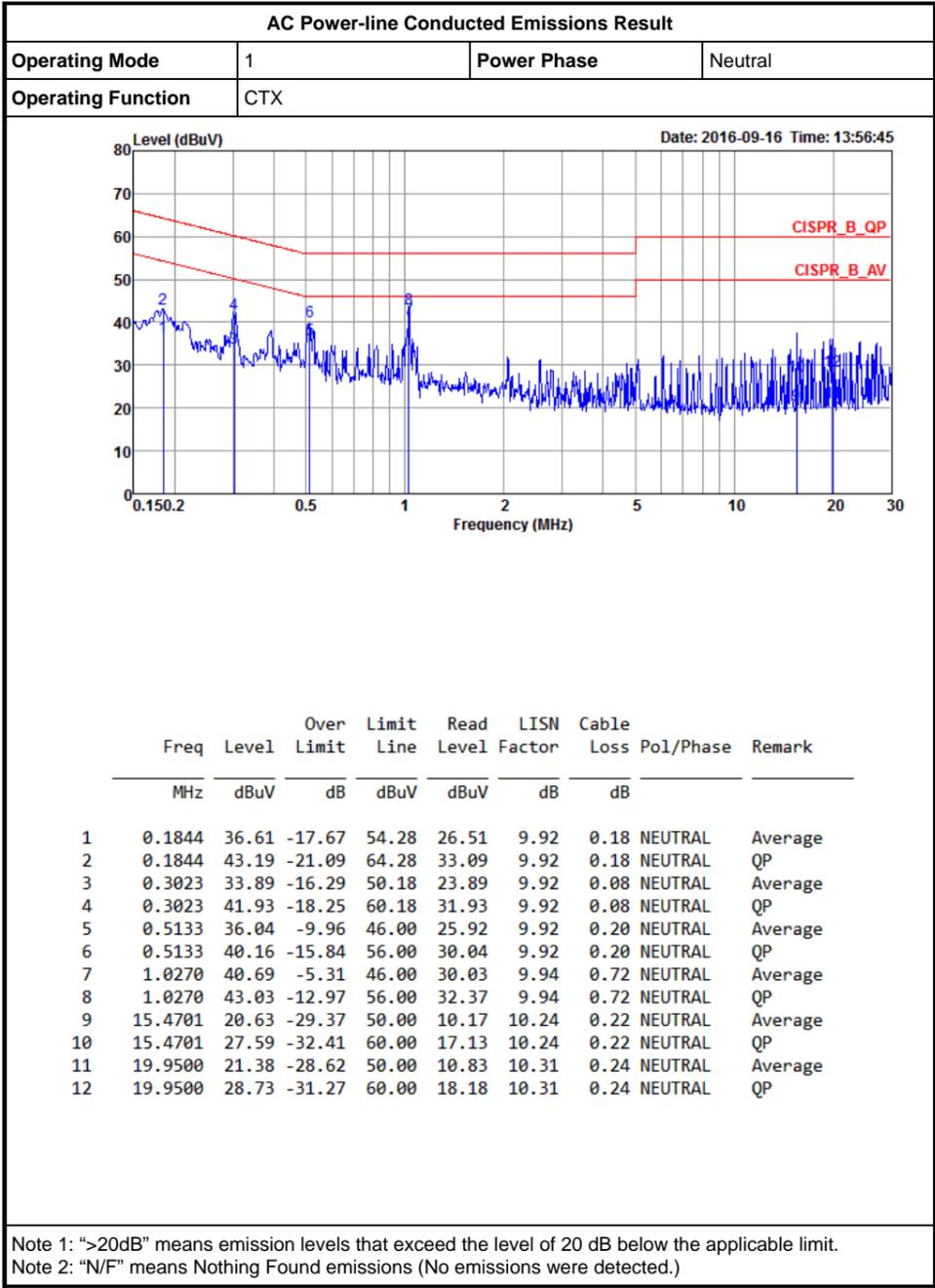


Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	RG402	High Cable-7	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	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.

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

\*Calibration Interval of instruments listed above is two year.





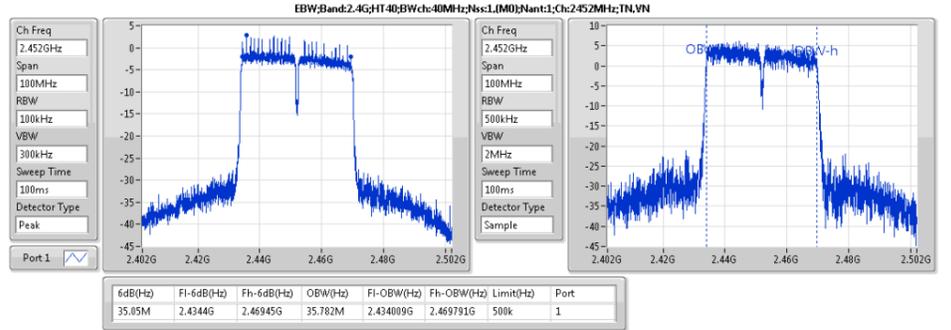
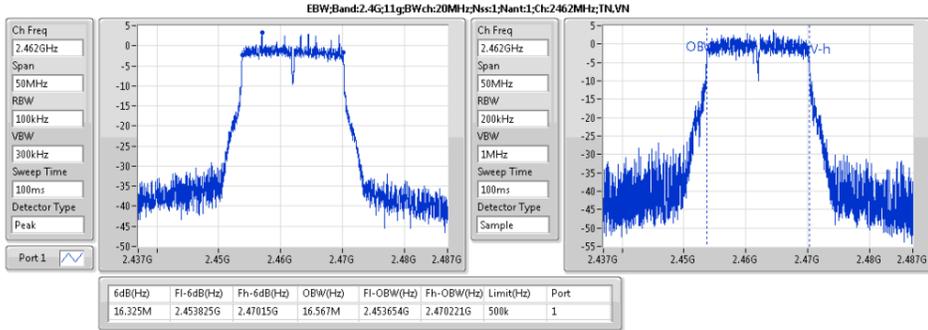
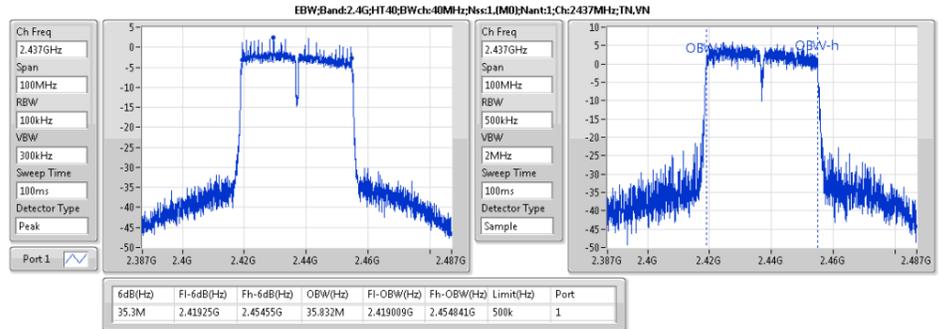
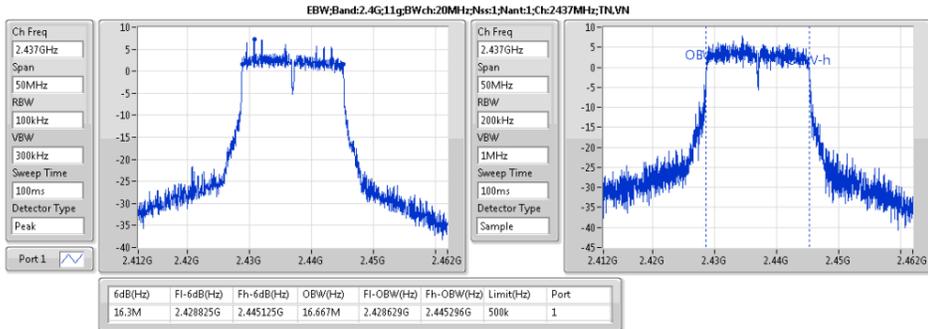
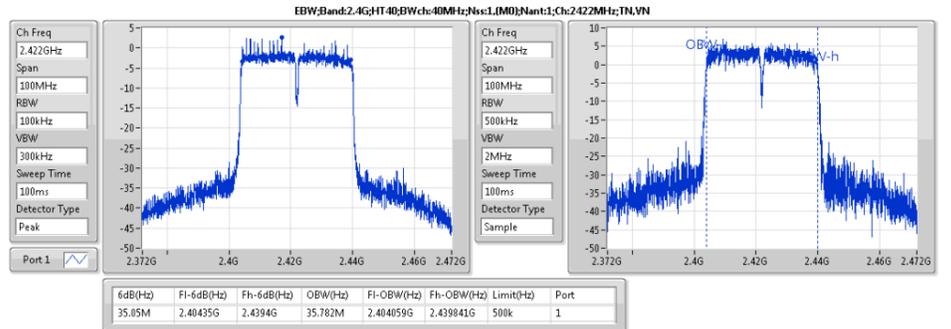
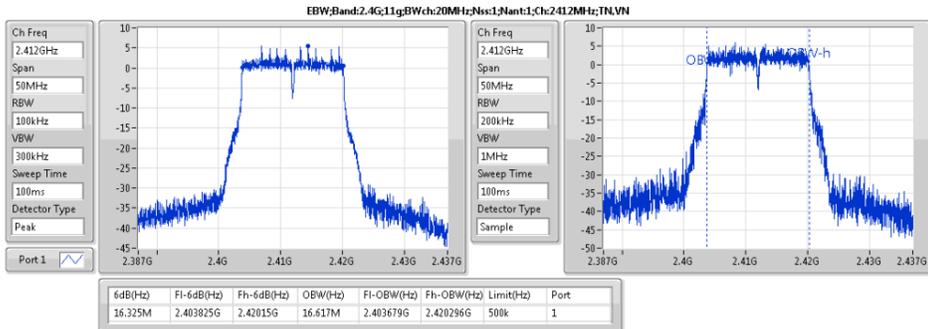
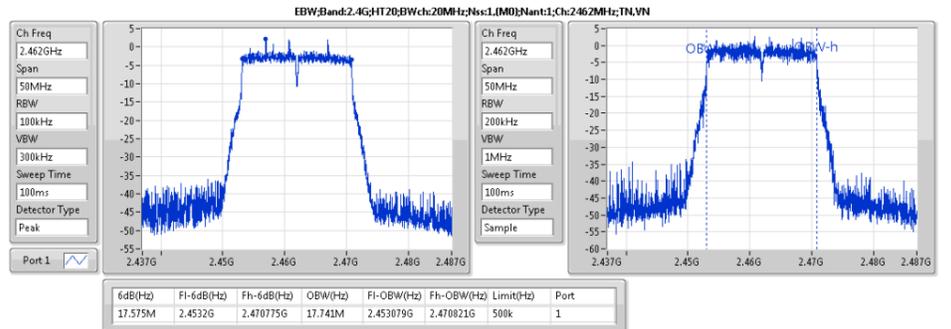
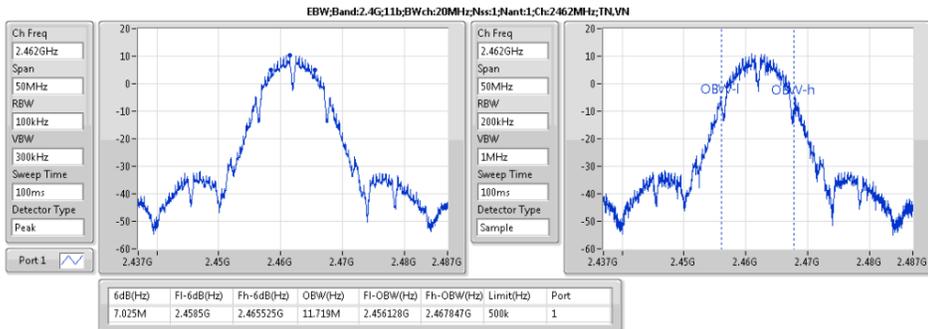
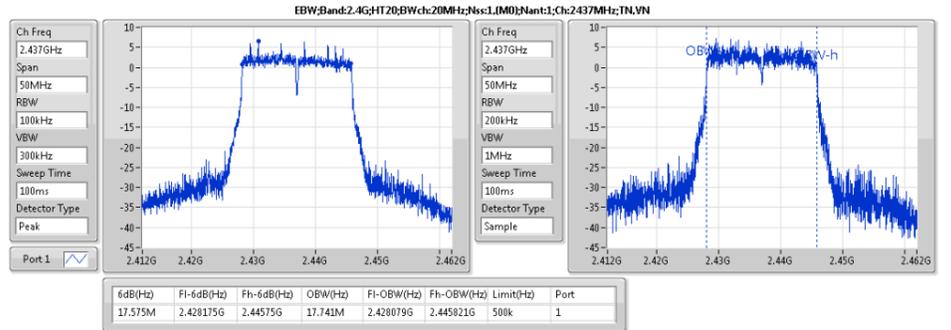
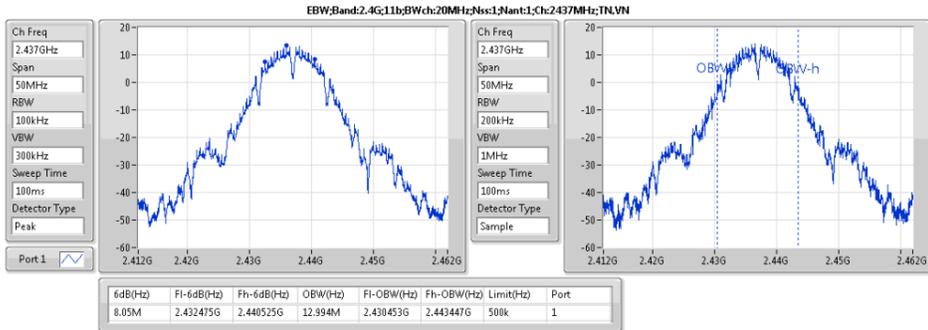
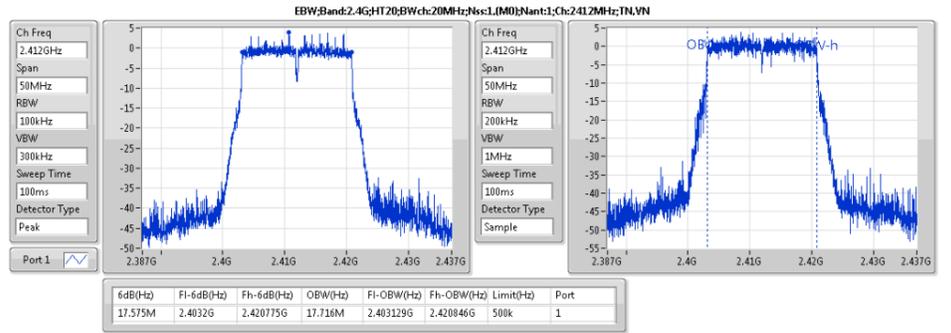
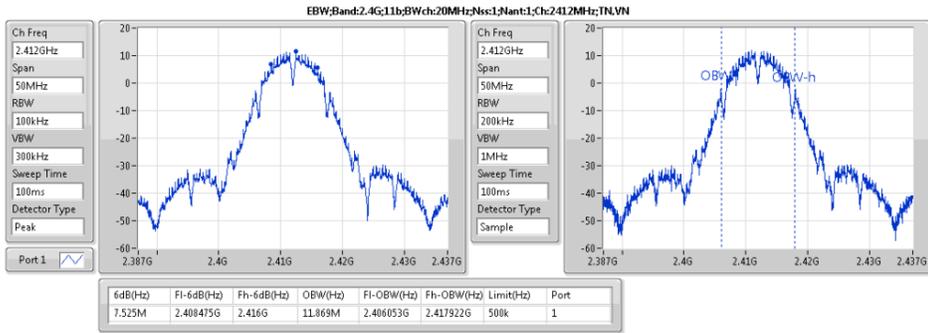
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4G;11b;Nss1;Ntx1	8.05M	12.994M	13M0G1D	7.025M	11.719M
2.4G;11g;Nss1;Ntx1	16.325M	16.667M	16M7D1D	16.3M	16.567M
2.4G;HT20;Nss1,(M0);Ntx1	17.575M	17.741M	17M7D1D	17.575M	17.716M
2.4G;HT40;Nss1,(M0);Ntx1	35.3M	35.832M	35M8D1D	35.05M	35.782M



Result

Mode	Result	Limit	P1-N dB (Hz)	P1-OBW (Hz)
2.4G:11b:Nss1:Ntx1;2412	Pass	500k	7.525M	11.869M
2.4G:11b:Nss1:Ntx1;2437	Pass	500k	8.05M	12.994M
2.4G:11b:Nss1:Ntx1;2462	Pass	500k	7.025M	11.719M
2.4G:11g:Nss1:Ntx1;2412	Pass	500k	16.325M	16.617M
2.4G:11g:Nss1:Ntx1;2437	Pass	500k	16.3M	16.667M
2.4G:11g:Nss1:Ntx1;2462	Pass	500k	16.325M	16.567M
2.4G:HT20:Nss1,(M0):Ntx1;2412	Pass	500k	17.575M	17.716M
2.4G:HT20:Nss1,(M0):Ntx1;2437	Pass	500k	17.575M	17.741M
2.4G:HT20:Nss1,(M0):Ntx1;2462	Pass	500k	17.575M	17.741M
2.4G:HT40:Nss1,(M0):Ntx1;2422	Pass	500k	35.05M	35.782M
2.4G:HT40:Nss1,(M0):Ntx1;2437	Pass	500k	35.3M	35.832M
2.4G:HT40:Nss1,(M0):Ntx1;2452	Pass	500k	35.05M	35.782M





Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
2.4G;11b:Nss1:Ntx1	22.85	0.19275	24.85	0.30549
2.4G;11g:Nss1:Ntx1	19.60	0.0912	21.60	0.14454
2.4G;HT20:Nss1,(M0):Ntx1	19.24	0.08395	21.24	0.13305
2.4G;HT40:Nss1,(M0):Ntx1	18.56	0.07178	20.56	0.11376



Result

Mode	Result	DG (dBi)	EIRP (dBm)	EIRP Lim. (dBm)	Sum (dBm)	Sum Lim. (dBm)	P1 (dBm)
2.4G:11b:Nss1:Ntx1:2412	Pass	2.00	22.94	36.00	20.94	30.00	20.94
2.4G:11b:Nss1:Ntx1:2437	Pass	2.00	24.85	36.00	22.85	30.00	22.85
2.4G:11b:Nss1:Ntx1:2462	Pass	2.00	22.47	36.00	20.47	30.00	20.47
2.4G:11g:Nss1:Ntx1:2412	Pass	2.00	20.11	36.00	18.11	30.00	18.11
2.4G:11g:Nss1:Ntx1:2437	Pass	2.00	21.60	36.00	19.60	30.00	19.60
2.4G:11g:Nss1:Ntx1:2462	Pass	2.00	18.57	36.00	16.57	30.00	16.57
2.4G:HT20:Nss1,(M0):Ntx1:2412	Pass	2.00	18.75	36.00	16.75	30.00	16.75
2.4G:HT20:Nss1,(M0):Ntx1:2437	Pass	2.00	21.24	36.00	19.24	30.00	19.24
2.4G:HT20:Nss1,(M0):Ntx1:2462	Pass	2.00	17.38	36.00	15.38	30.00	15.38
2.4G:HT40:Nss1,(M0):Ntx1:2422	Pass	2.00	19.55	36.00	17.55	30.00	17.55
2.4G:HT40:Nss1,(M0):Ntx1:2437	Pass	2.00	19.69	36.00	17.69	30.00	17.69
2.4G:HT40:Nss1,(M0):Ntx1:2452	Pass	2.00	20.56	36.00	18.56	30.00	18.56

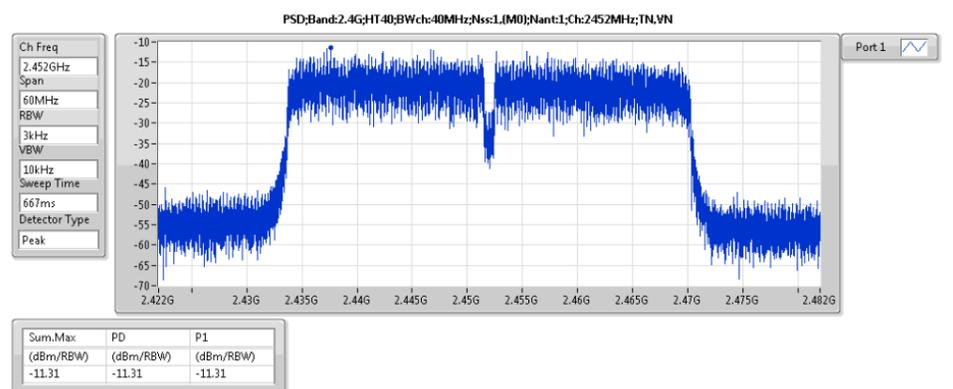
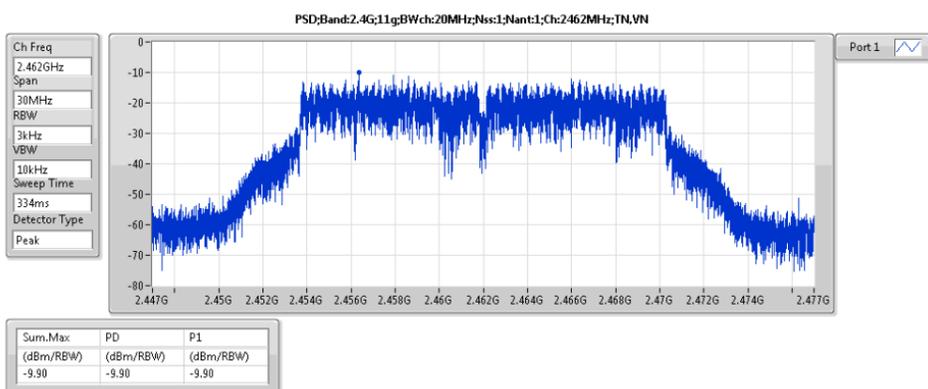
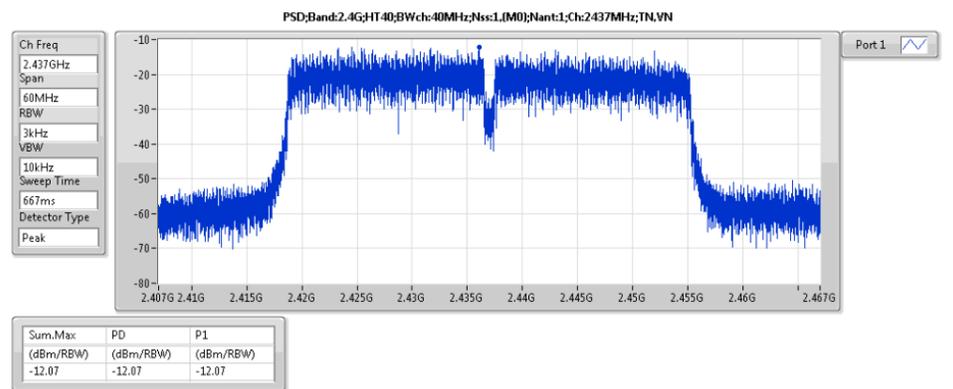
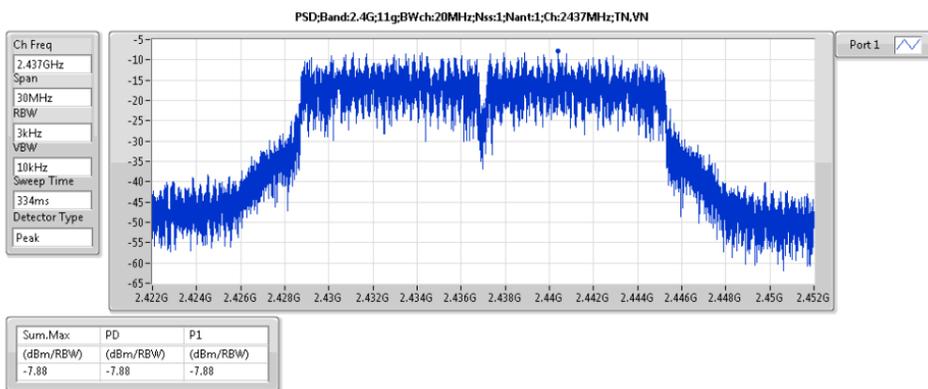
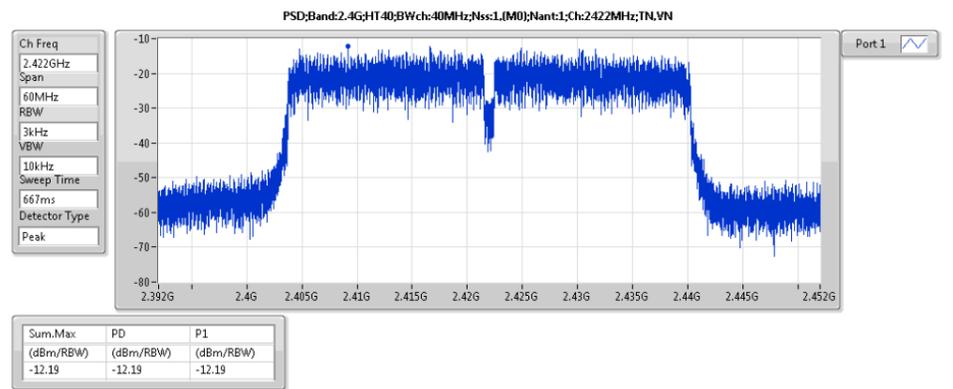
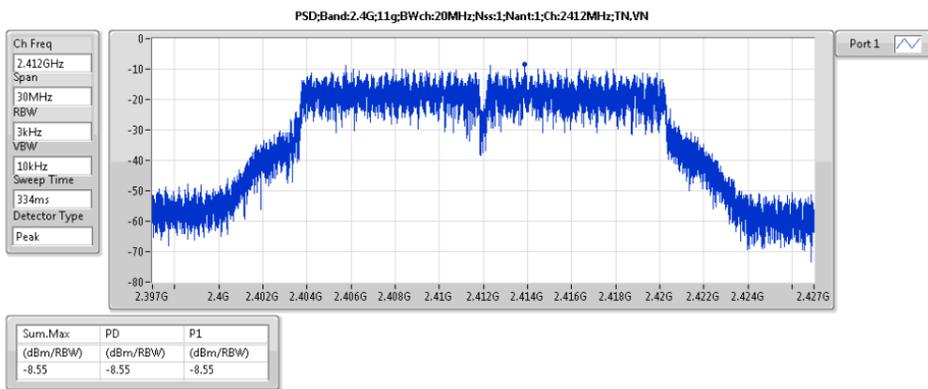
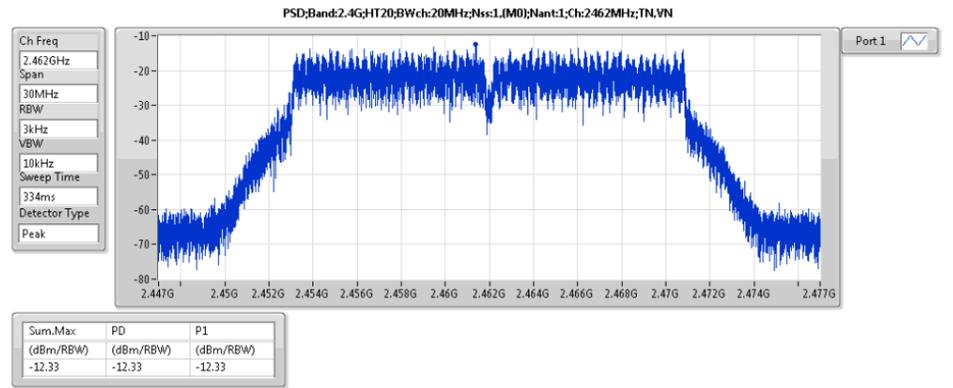
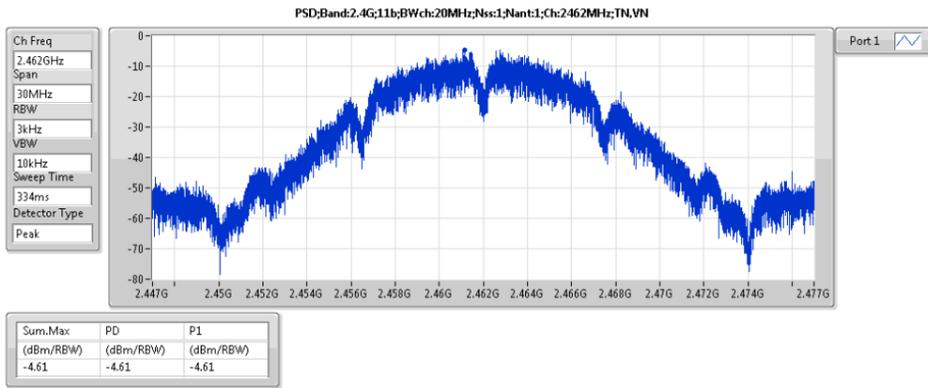
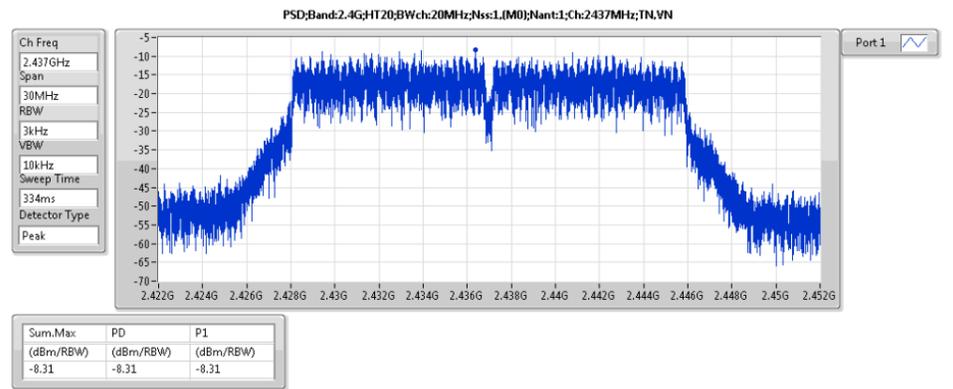
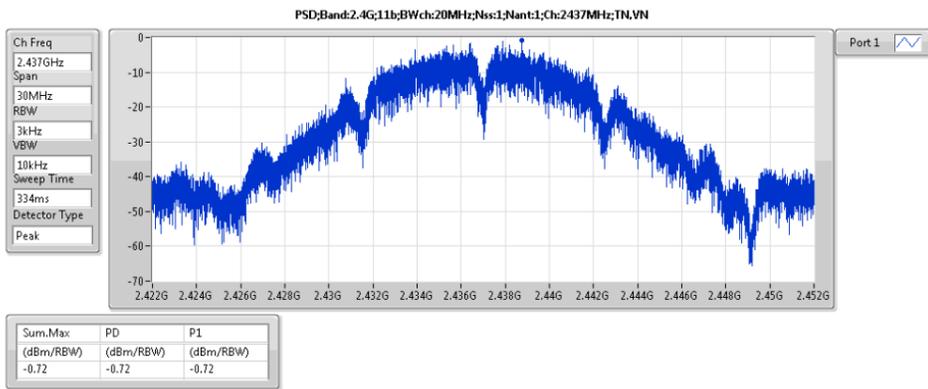
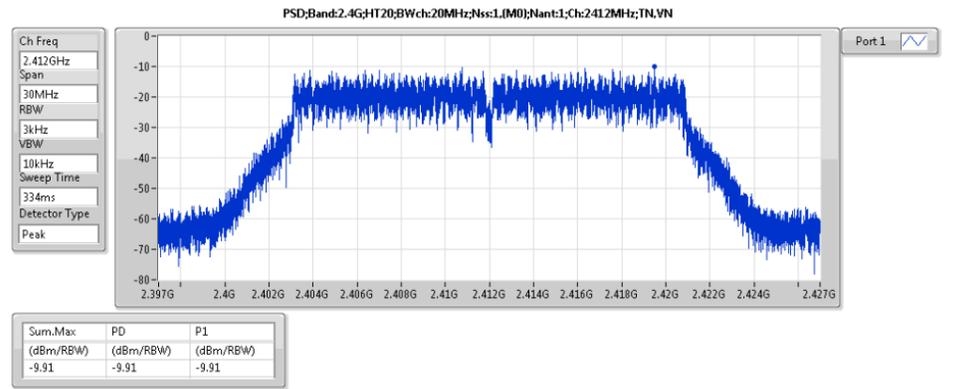
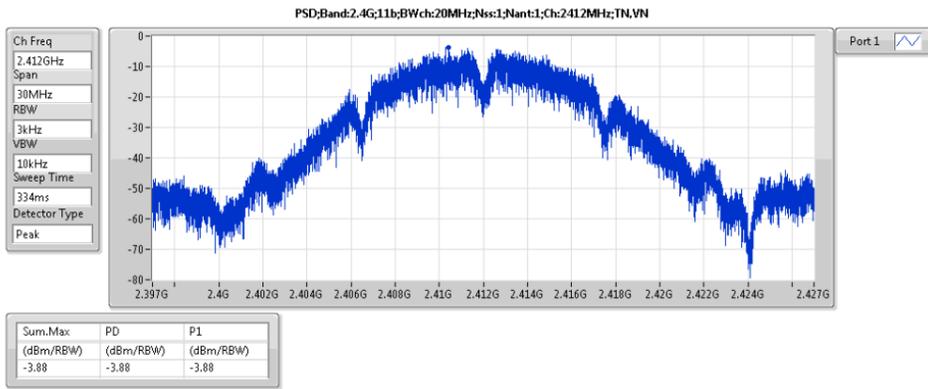


Summary

Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
2.4G;11b;Nss1;Ntx1	-0.72	1.28
2.4G;11g;Nss1;Ntx1	-7.88	-5.88
2.4G;HT20;Nss1,(M0);Ntx1	-8.31	-6.31
2.4G;HT40;Nss1,(M0);Ntx1	-11.31	-9.31

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;11b:Nss1:Ntx1:2412	Pass	3k	3k	0.00	2.00	-3.88	8.00	-1.88	Inf	-3.88
2.4G;11b:Nss1:Ntx1:2437	Pass	3k	3k	0.00	2.00	-0.72	8.00	1.28	Inf	-0.72
2.4G;11b:Nss1:Ntx1:2462	Pass	3k	3k	0.00	2.00	-4.61	8.00	-2.61	Inf	-4.61
2.4G;11g:Nss1:Ntx1:2412	Pass	3k	3k	0.00	2.00	-8.55	8.00	-6.55	Inf	-8.55
2.4G;11g:Nss1:Ntx1:2437	Pass	3k	3k	0.00	2.00	-7.88	8.00	-5.88	Inf	-7.88
2.4G;11g:Nss1:Ntx1:2462	Pass	3k	3k	0.00	2.00	-9.90	8.00	-7.90	Inf	-9.90
2.4G;HT20:Nss1,(M0):Ntx1:2412	Pass	3k	3k	0.00	2.00	-9.91	8.00	-7.91	Inf	-9.91
2.4G;HT20:Nss1,(M0):Ntx1:2437	Pass	3k	3k	0.00	2.00	-8.31	8.00	-6.31	Inf	-8.31
2.4G;HT20:Nss1,(M0):Ntx1:2462	Pass	3k	3k	0.00	2.00	-12.33	8.00	-10.33	Inf	-12.33
2.4G;HT40:Nss1,(M0):Ntx1:2422	Pass	3k	3k	0.00	2.00	-12.19	8.00	-10.19	Inf	-12.19
2.4G;HT40:Nss1,(M0):Ntx1:2437	Pass	3k	3k	0.00	2.00	-12.07	8.00	-10.07	Inf	-12.07
2.4G;HT40:Nss1,(M0):Ntx1:2452	Pass	3k	3k	0.00	2.00	-11.31	8.00	-9.31	Inf	-11.31





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:HT40:Nss1,(M0):Ntx1;2452	Pass	2.436907G	2.73	-27.36	2.30397G	-59.72	2.39808G	-37.31	2.48558G	-29.65	16.339511G	-52.39	1

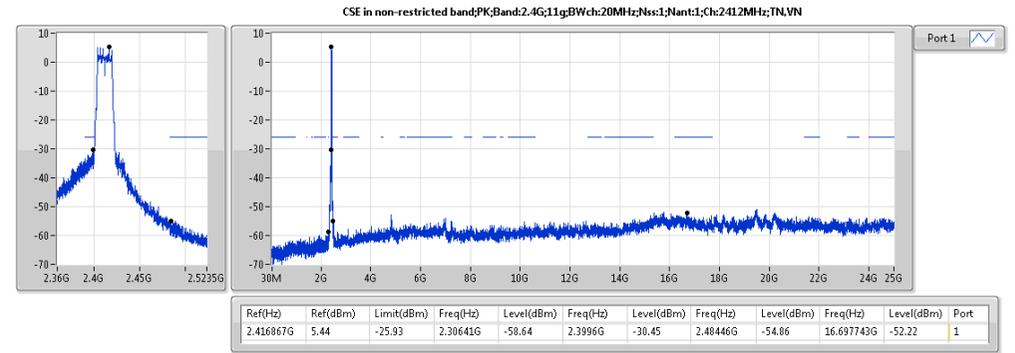
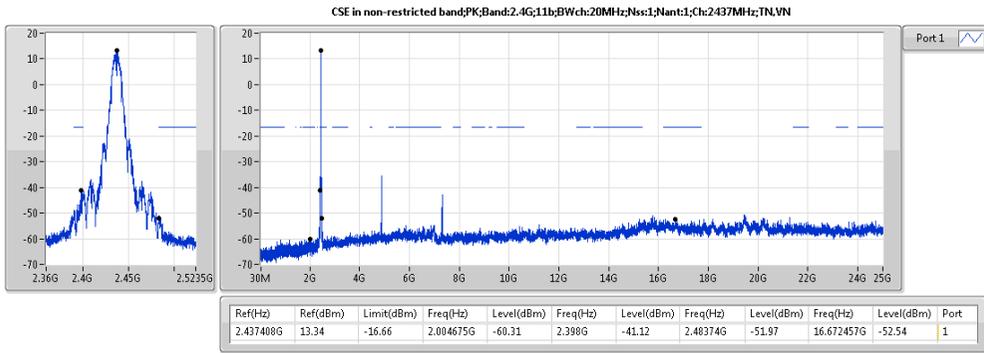
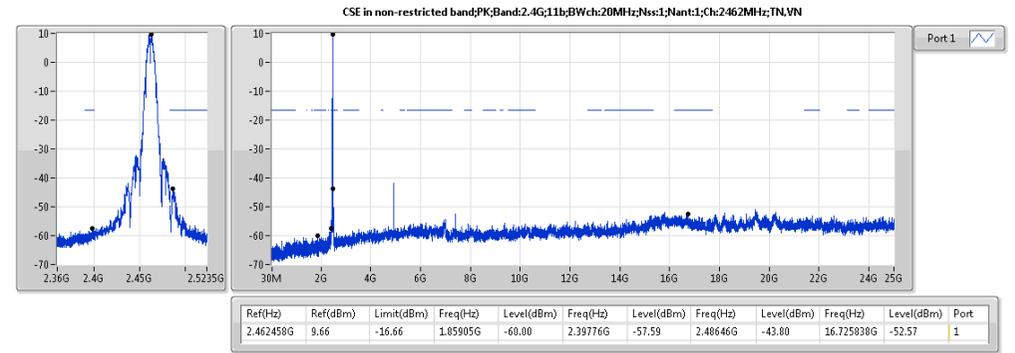
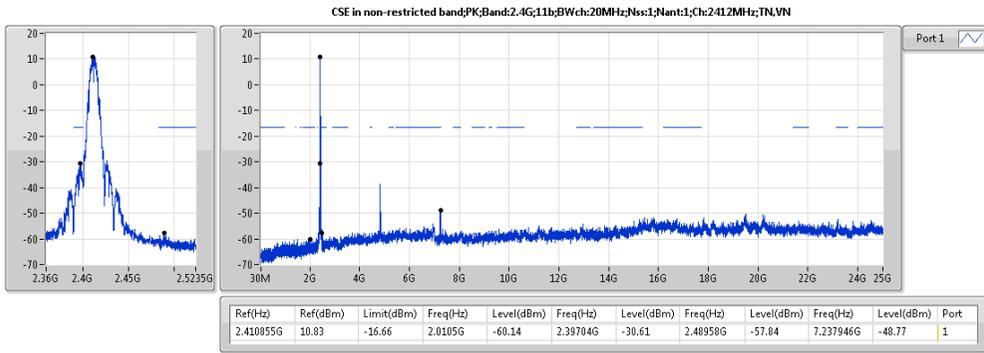


Result

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:11b:Nss1:Ntx1:2412	Pass	2.410855G	10.83	-16.66	2.0105G	-60.14	2.39704G	-30.61	2.48958G	-57.84	7.237946G	-48.77	1
2.4G:11b:Nss1:Ntx1:2437	Pass	2.437408G	13.34	-16.66	2.004675G	-60.31	2.398G	-41.12	2.48374G	-51.97	16.672457G	-52.54	1
2.4G:11b:Nss1:Ntx1:2462	Pass	2.462458G	9.66	-16.66	1.85905G	-60.00	2.39776G	-57.59	2.48646G	-43.80	16.725838G	-52.57	1
2.4G:11g:Nss1:Ntx1:2412	Pass	2.416867G	5.44	-25.93	2.30641G	-58.64	2.3996G	-30.45	2.48446G	-54.86	16.697743G	-52.22	1
2.4G:11g:Nss1:Ntx1:2437	Pass	2.43173G	4.07	-25.93	1.97788G	-59.90	2.39768G	-32.92	2.48502G	-40.82	16.661219G	-51.52	1
2.4G:11g:Nss1:Ntx1:2462	Pass	2.460788G	3.04	-25.93	1.96623G	-59.89	2.3988G	-49.20	2.48358G	-35.94	2.52631G	-52.04	1
2.4G:HT20:Nss1,(M0):Ntx1:2412	Pass	2.414529G	3.72	-25.41	1.990695G	-60.05	2.398G	-34.31	2.4847G	-58.57	16.363405G	-51.93	1
2.4G:HT20:Nss1,(M0):Ntx1:2437	Pass	2.433233G	4.59	-25.41	2.18525G	-59.75	2.39328G	-35.56	2.48446G	-44.84	16.700552G	-52.16	1
2.4G:HT20:Nss1,(M0):Ntx1:2462	Pass	2.459619G	-0.28	-25.41	2.07807G	-59.89	2.39624G	-51.56	2.48422G	-41.44	6.965418G	-51.66	1
2.4G:HT40:Nss1,(M0):Ntx1:2422	Pass	2.418203G	2.04	-27.36	2.305115G	-56.46	2.39616G	-30.29	2.48398G	-46.13	16.342316G	-51.85	1
2.4G:HT40:Nss1,(M0):Ntx1:2437	Pass	2.429392G	2.64	-27.36	1.9536G	-59.62	2.39872G	-38.00	2.4851G	-41.81	16.690081G	-51.70	1
2.4G:HT40:Nss1,(M0):Ntx1:2452	Pass	2.436907G	2.73	-27.36	2.30397G	-59.72	2.39808G	-37.31	2.48558G	-29.65	16.339511G	-52.39	1

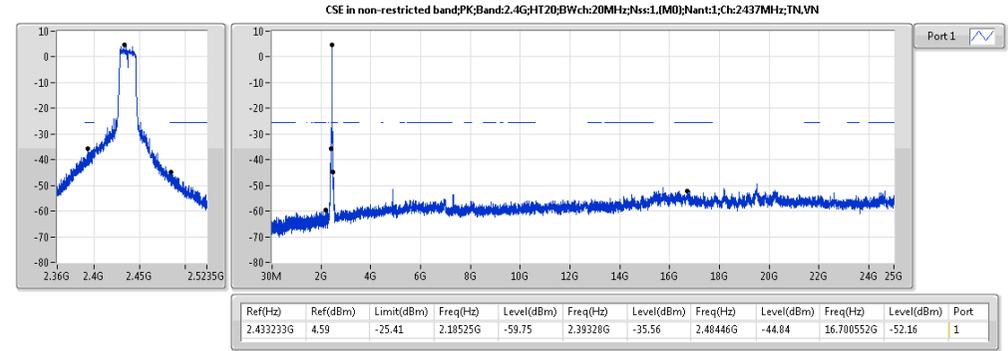
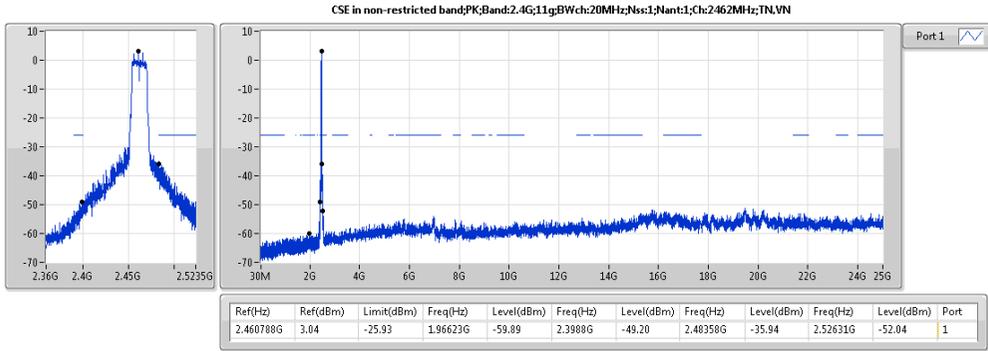
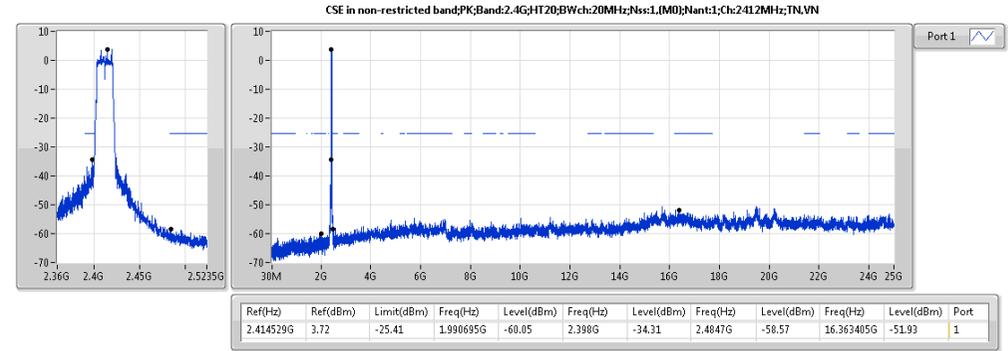
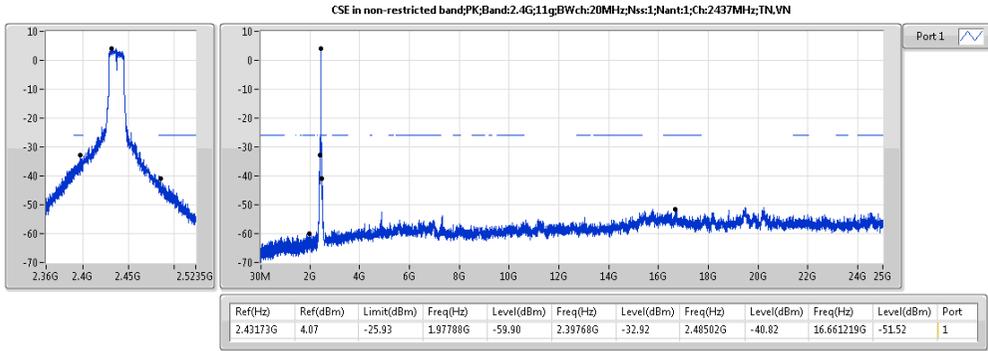


# CSEndB Result



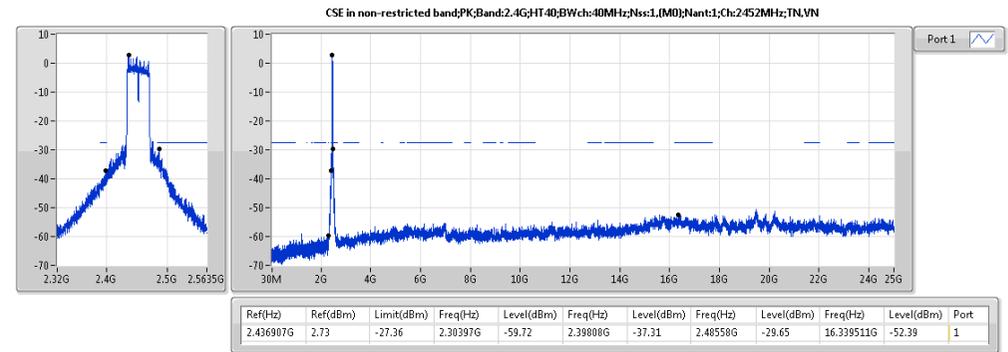
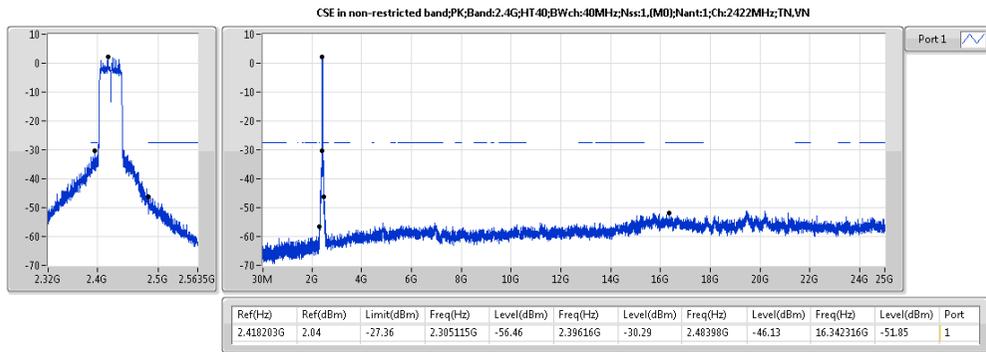
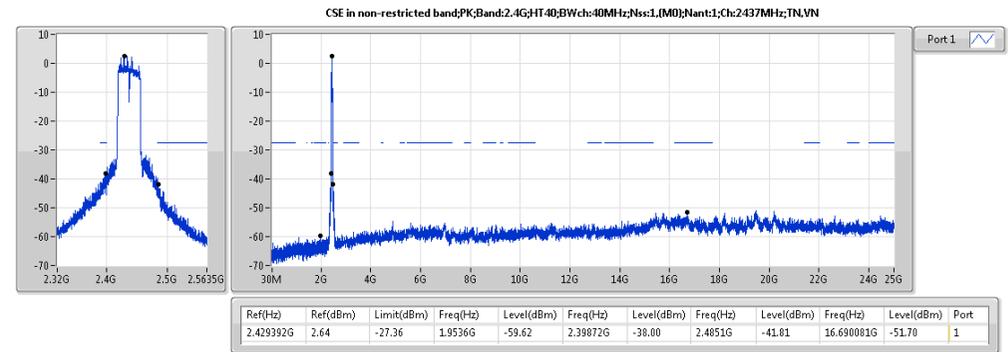
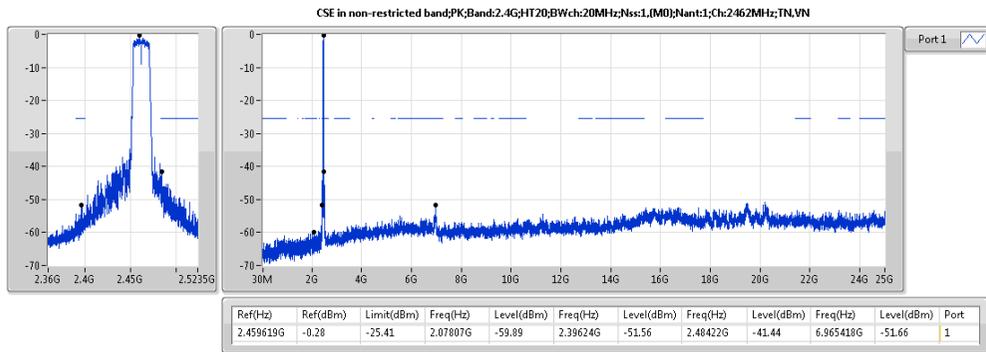


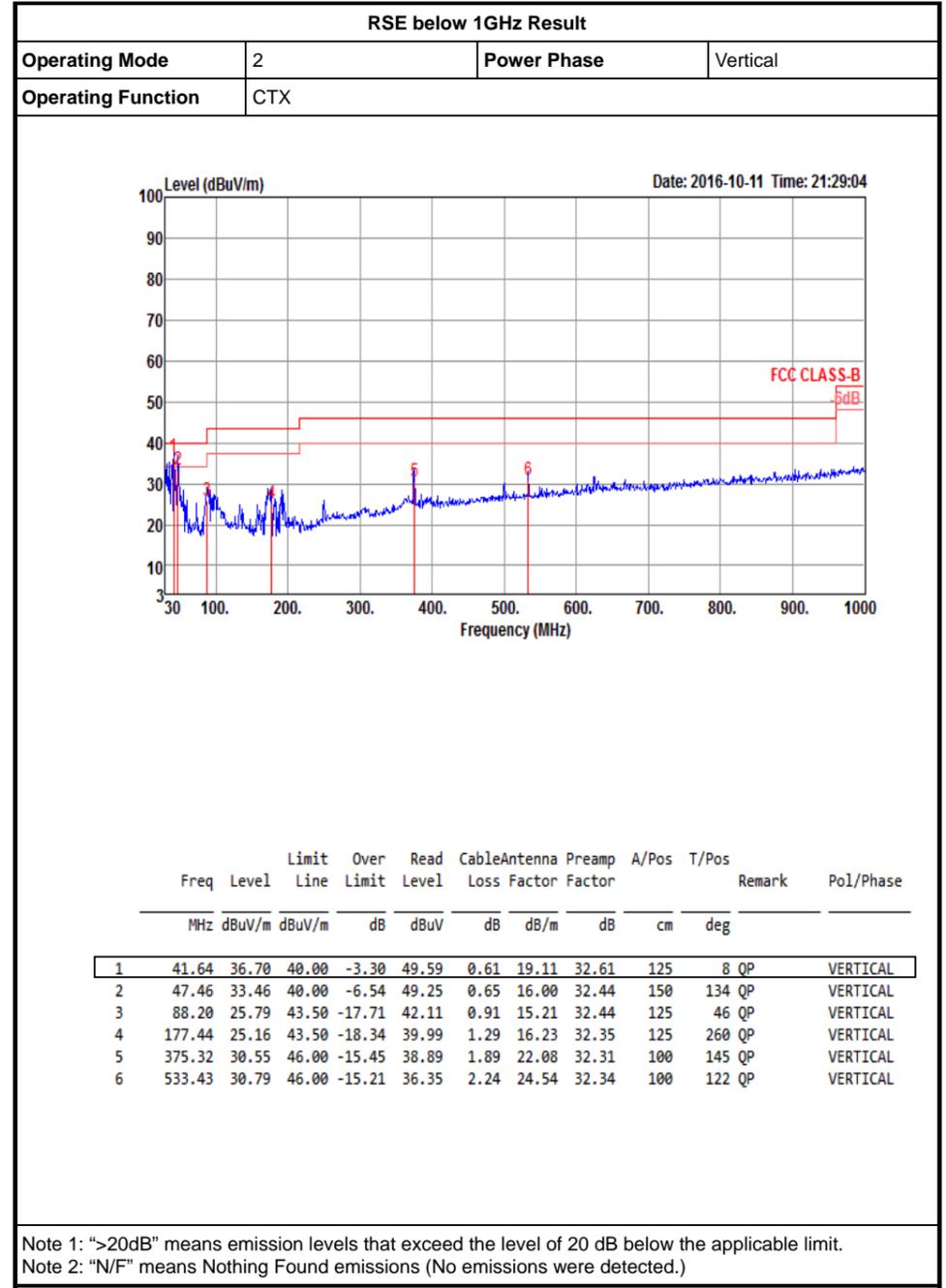
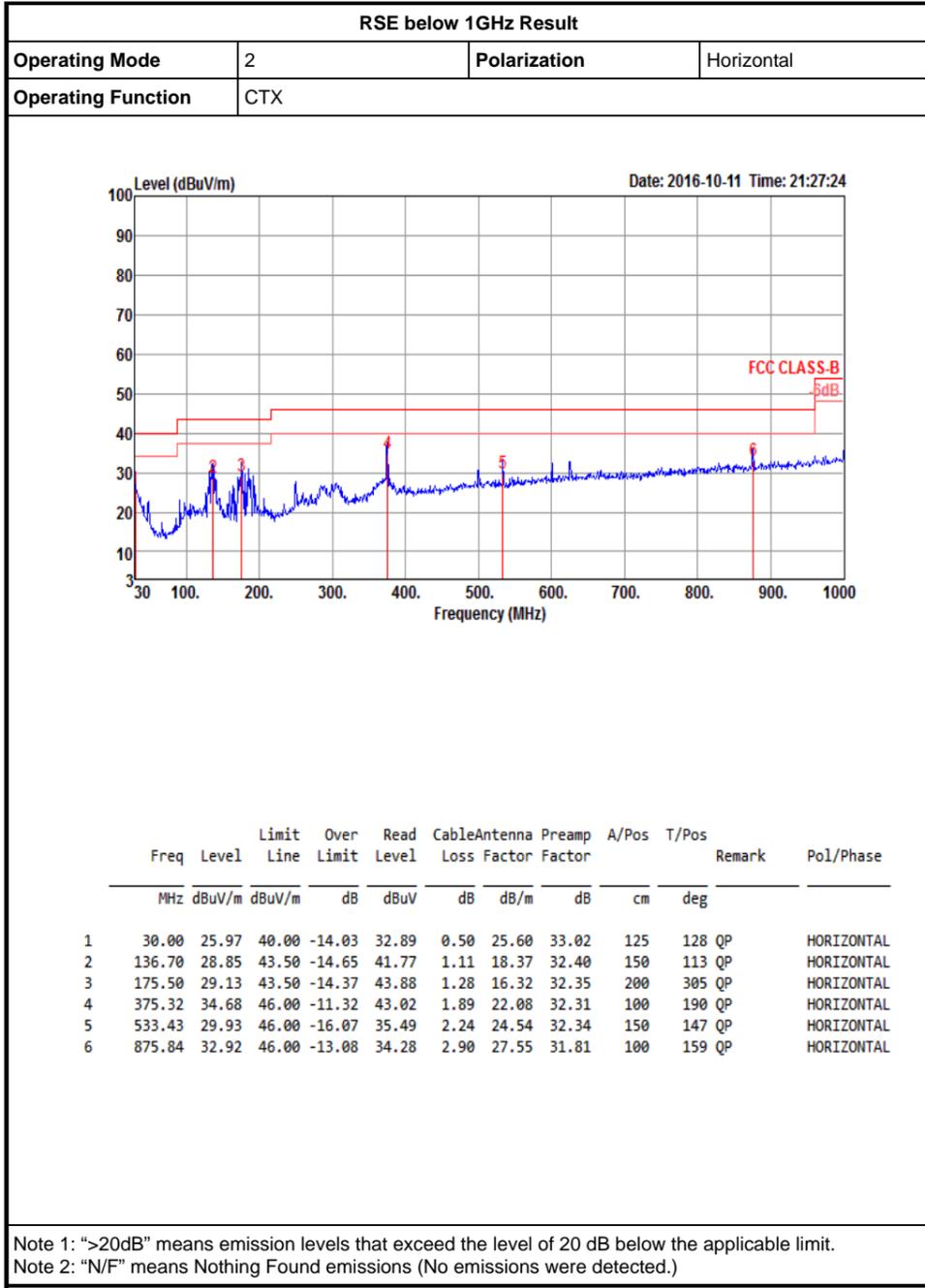
# CSEndB Result





# CSEndB Result

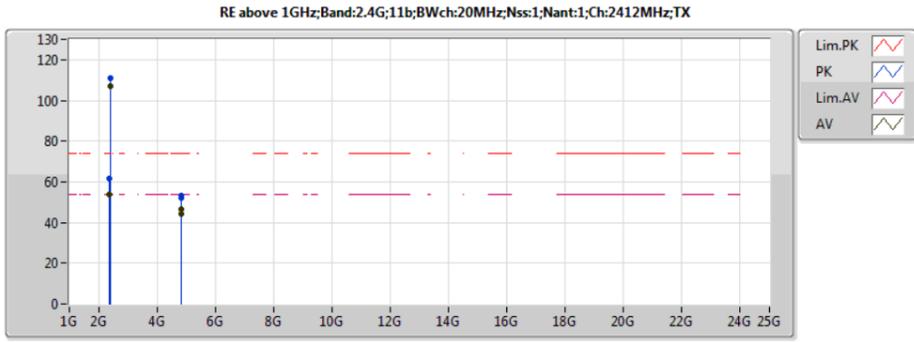






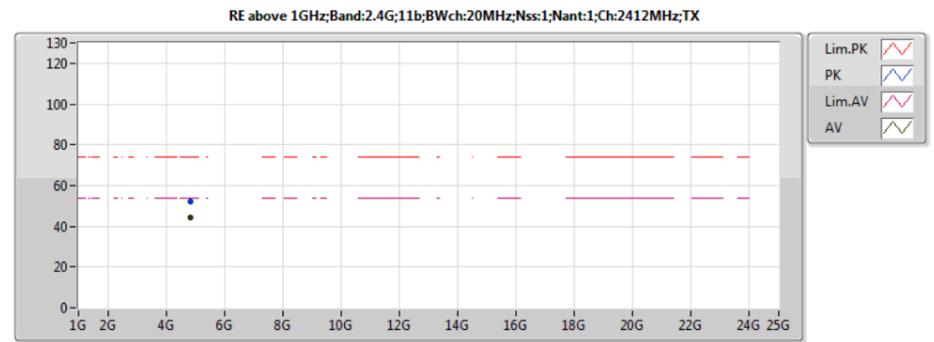
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)
2.4G;HT20:Nss1,(M0);Ntx1:2437;TX	Pass	AV	2.3898G	53.98	54.00	-0.02	33.28	3	V	40	2.10



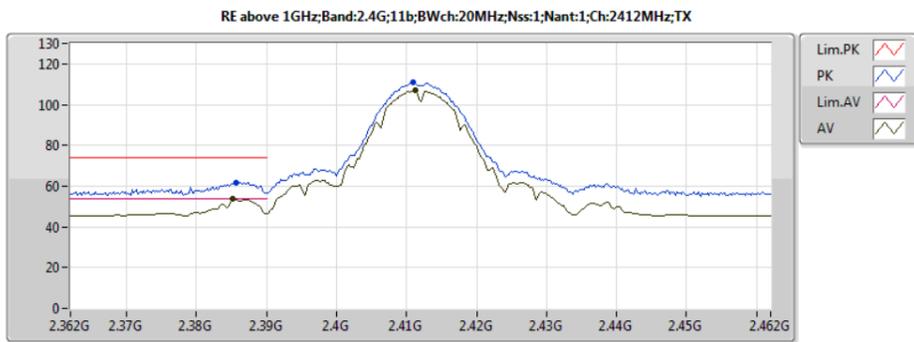
20160916 966-3  
PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 82  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82397G	44.44	54.00	-9.56	6.77	3	H	164	1.98	-
PK	4.82393G	51.95	74.00	-22.05	6.77	3	H	164	1.98	-
AV	2.3852G	53.52	54.00	-0.48	33.26	3	V	241	2.72	-
AV	2.4112G	106.87	Inf	-Inf	33.34	3	V	241	2.72	-
AV	4.82397G	46.37	54.00	-7.63	6.77	3	V	17	1.97	-
PK	2.3856G	61.80	74.00	-12.20	33.26	3	V	241	2.72	-
PK	2.411G	110.74	Inf	-Inf	33.34	3	V	241	2.72	-
PK	4.82393G	52.99	74.00	-21.01	6.77	3	V	17	1.97	-



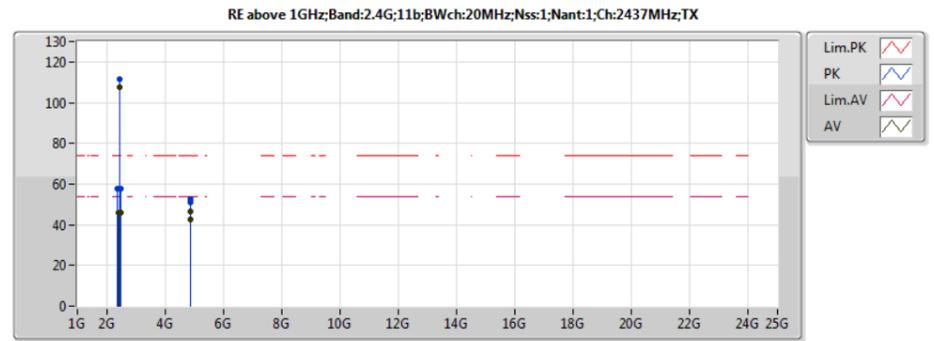
20160916 966-3  
PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 82  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82397G	44.44	54.00	-9.56	6.77	3	H	164	1.98	-
PK	4.82393G	51.95	74.00	-22.05	6.77	3	H	164	1.98	-



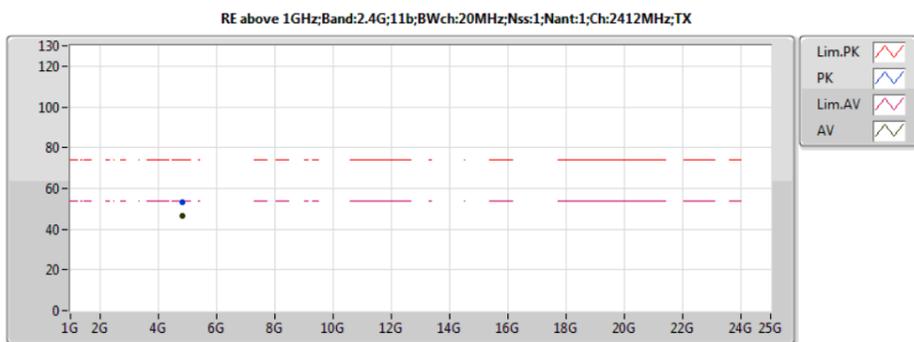
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PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 82  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3852G	53.52	54.00	-0.48	33.26	3	V	241	2.72	-
AV	2.4112G	106.87	Inf	-Inf	33.34	3	V	241	2.72	-
PK	2.3856G	61.80	74.00	-12.20	33.26	3	V	241	2.72	-
PK	2.411G	110.74	Inf	-Inf	33.34	3	V	241	2.72	-



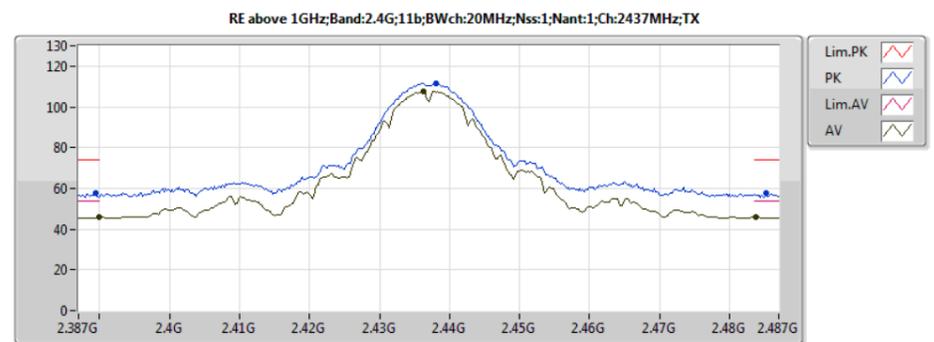
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PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 100  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87397G	42.47	54.00	-11.53	6.94	3	H	122	1.98	-
PK	4.87392G	51.22	74.00	-22.78	6.94	3	H	122	1.98	-
AV	2.39G	45.68	54.00	-8.32	33.28	3	V	147	1.99	-
AV	2.4362G	107.75	Inf	-Inf	33.41	3	V	147	1.99	-
AV	2.4838G	45.75	54.00	-8.25	33.54	3	V	147	1.99	-
AV	4.87396G	46.41	54.00	-7.59	6.94	3	V	348	2.36	-
PK	2.3894G	57.50	74.00	-16.50	33.27	3	V	147	1.99	-
PK	2.438G	111.67	Inf	-Inf	33.42	3	V	147	1.99	-
PK	2.4852G	57.59	74.00	-16.41	33.55	3	V	147	1.99	-
PK	4.87397G	52.76	74.00	-21.24	6.94	3	V	348	2.36	-



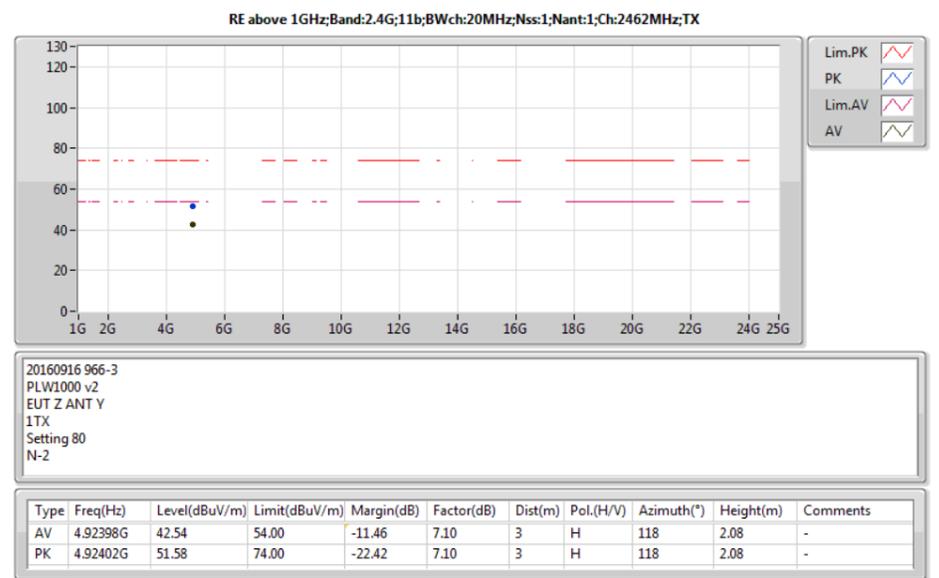
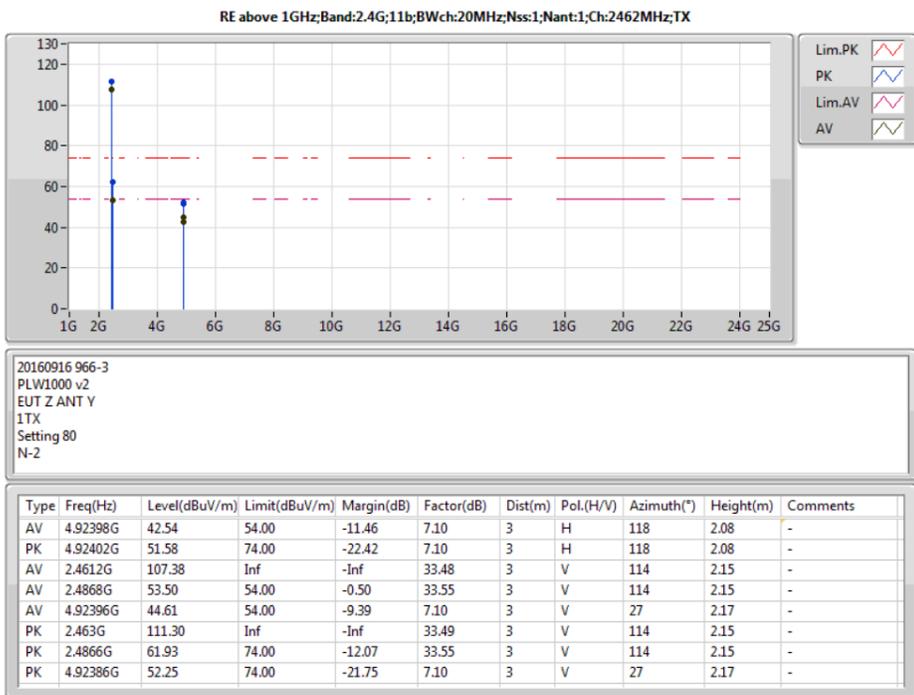
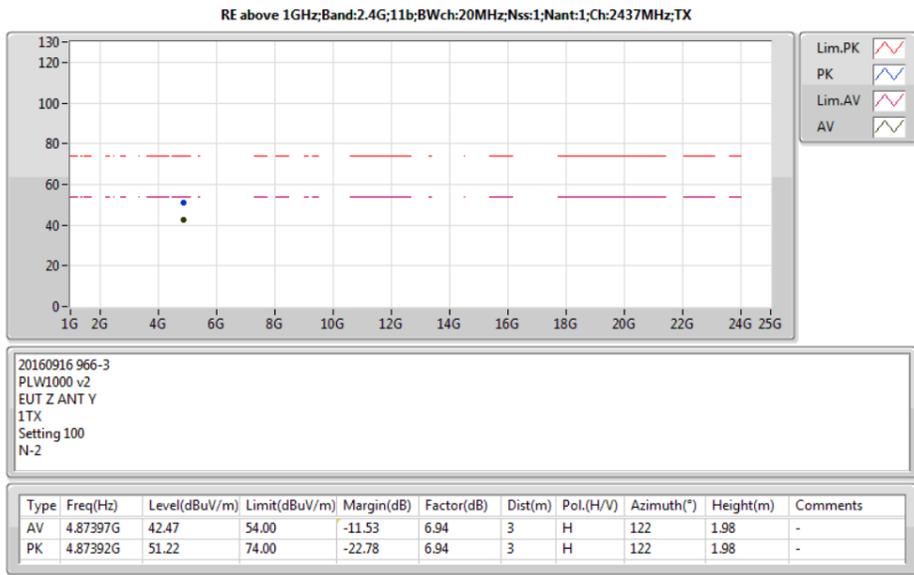
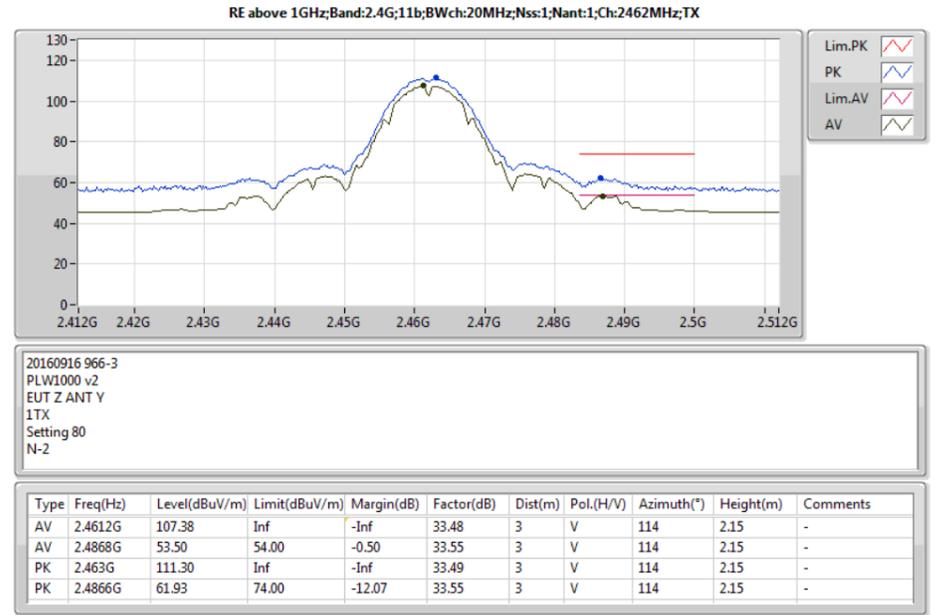
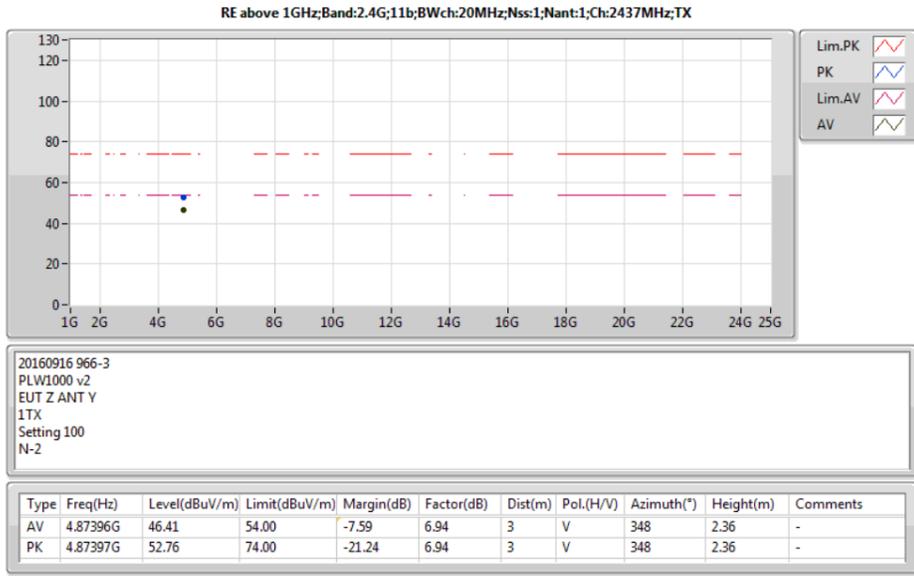
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PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 82  
N-2

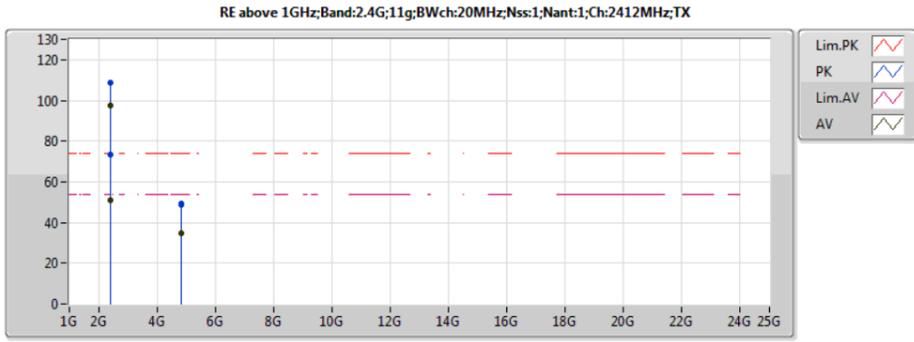
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82397G	46.37	54.00	-7.63	6.77	3	V	17	1.97	-
PK	4.82393G	52.99	74.00	-21.01	6.77	3	V	17	1.97	-



20160916 966-3  
PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 100  
N-2

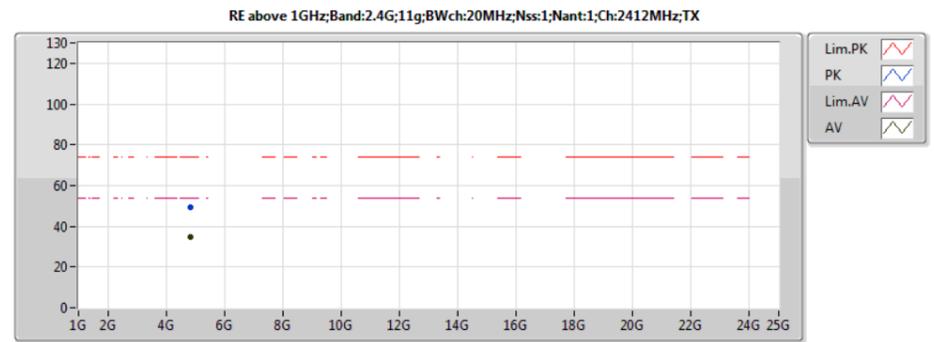
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	45.68	54.00	-8.32	33.28	3	V	147	1.99	-
AV	2.4362G	107.75	Inf	-Inf	33.41	3	V	147	1.99	-
AV	2.4838G	45.75	54.00	-8.25	33.54	3	V	147	1.99	-
PK	2.3894G	57.50	74.00	-16.50	33.27	3	V	147	1.99	-
PK	2.438G	111.67	Inf	-Inf	33.42	3	V	147	1.99	-
PK	2.4852G	57.59	74.00	-16.41	33.55	3	V	147	1.99	-





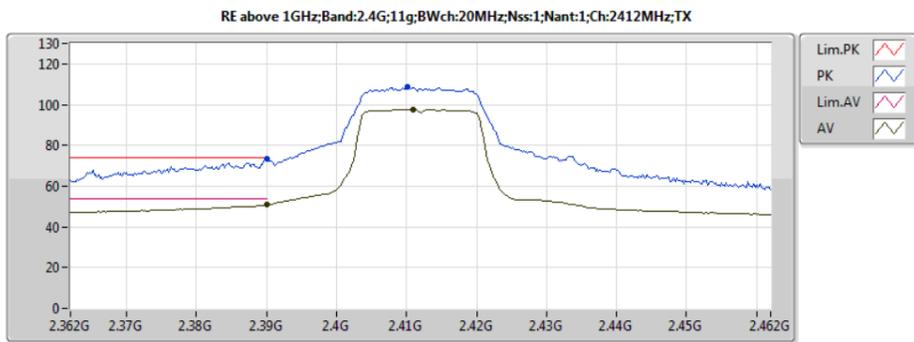
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PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 71  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.82537G	34.90	54.00	-19.10	6.78	3	H	262	1.50	-
PK	4.82465G	49.21	74.00	-24.79	6.77	3	H	262	1.50	-
AV	2.39G	50.85	54.00	-3.15	33.28	3	V	248	1.65	-
AV	2.411G	97.66	Inf	-Inf	33.34	3	V	248	1.65	-
AV	4.82488G	34.99	54.00	-19.01	6.77	3	V	360	2.99	-
PK	2.39G	73.36	74.00	-0.64	33.28	3	V	248	1.65	-
PK	2.4102G	108.47	Inf	-Inf	33.34	3	V	248	1.65	-
PK	4.82587G	48.90	74.00	-25.10	6.78	3	V	360	2.99	-



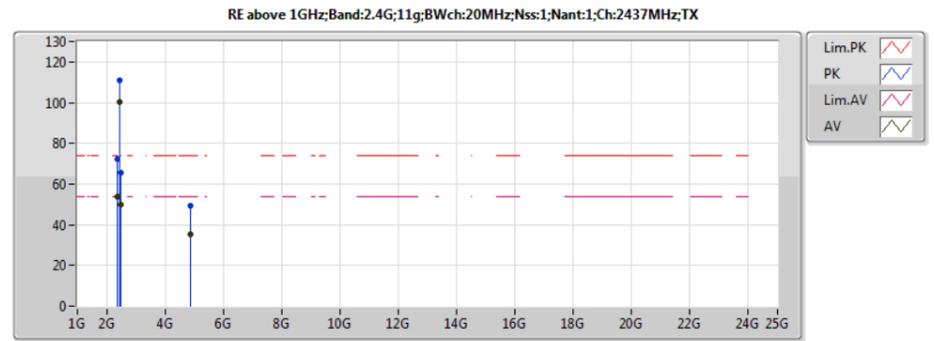
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EUT Z ANT Y  
1TX  
Setting 71  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.82537G	34.90	54.00	-19.10	6.78	3	H	262	1.50	-
PK	4.82465G	49.21	74.00	-24.79	6.77	3	H	262	1.50	-



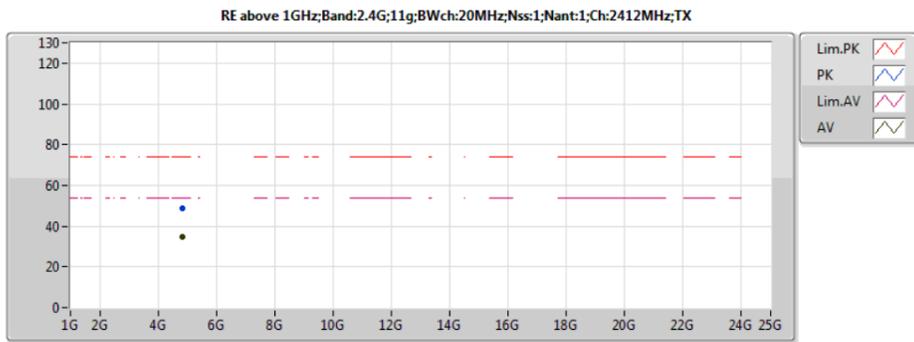
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EUT Z ANT Y  
1TX  
Setting 71  
N-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	2.39G	50.85	54.00	-3.15	33.28	3	V	248	1.65	-
AV	2.411G	97.66	Inf	-Inf	33.34	3	V	248	1.65	-
PK	2.39G	73.36	74.00	-0.64	33.28	3	V	248	1.65	-
PK	2.4102G	108.47	Inf	-Inf	33.34	3	V	248	1.65	-



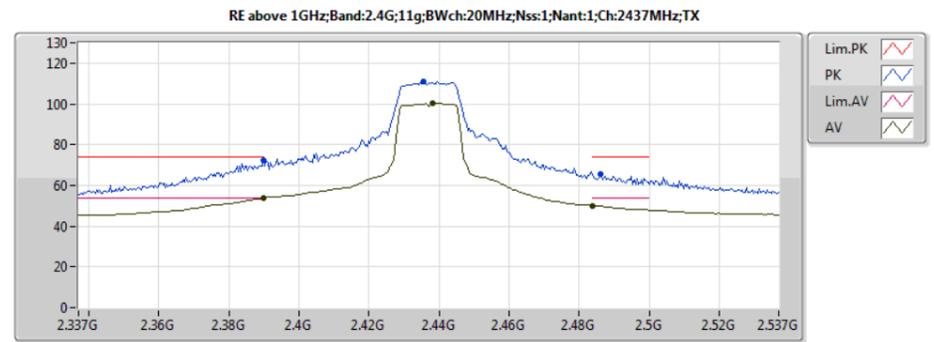
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EUT Z ANT Y  
1TX  
Setting 76  
J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.8733G	35.29	54.00	-18.71	6.93	3	H	219	1.03	-
PK	4.87552G	49.32	74.00	-24.68	6.94	3	H	219	1.03	-
AV	2.3898G	53.83	54.00	-0.17	33.28	3	V	40	2.08	-
AV	2.4382G	100.30	Inf	-Inf	33.42	3	V	40	2.08	-
AV	2.4838G	49.93	54.00	-4.07	33.54	3	V	40	2.08	-
AV	4.87214G	35.46	54.00	-18.54	6.93	3	V	168	1.19	-
PK	2.3898G	72.43	74.00	-1.57	33.28	3	V	40	2.08	-
PK	2.4354G	110.80	Inf	-Inf	33.41	3	V	40	2.08	-
PK	2.4862G	65.66	74.00	-8.34	33.55	3	V	40	2.08	-
PK	4.8761G	49.47	74.00	-24.53	6.94	3	V	168	1.19	-



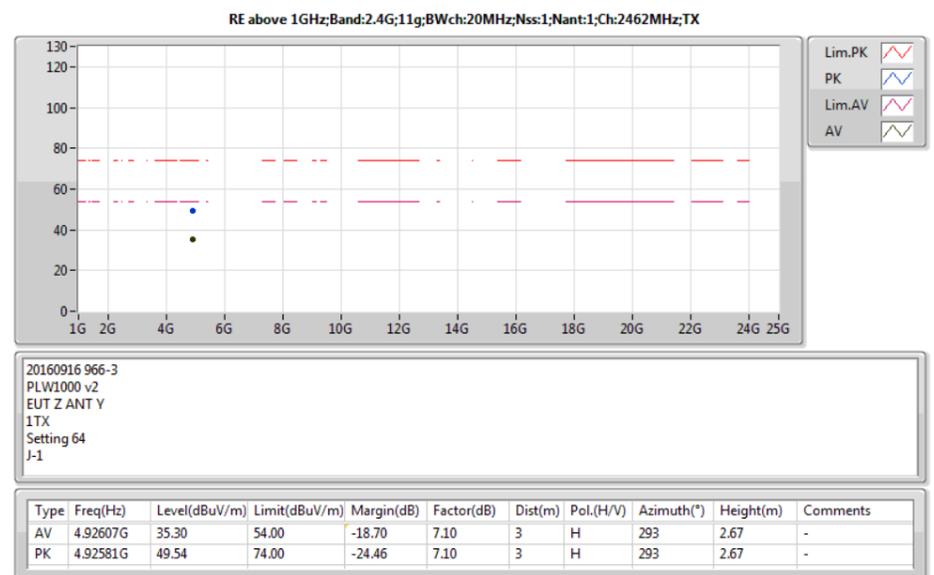
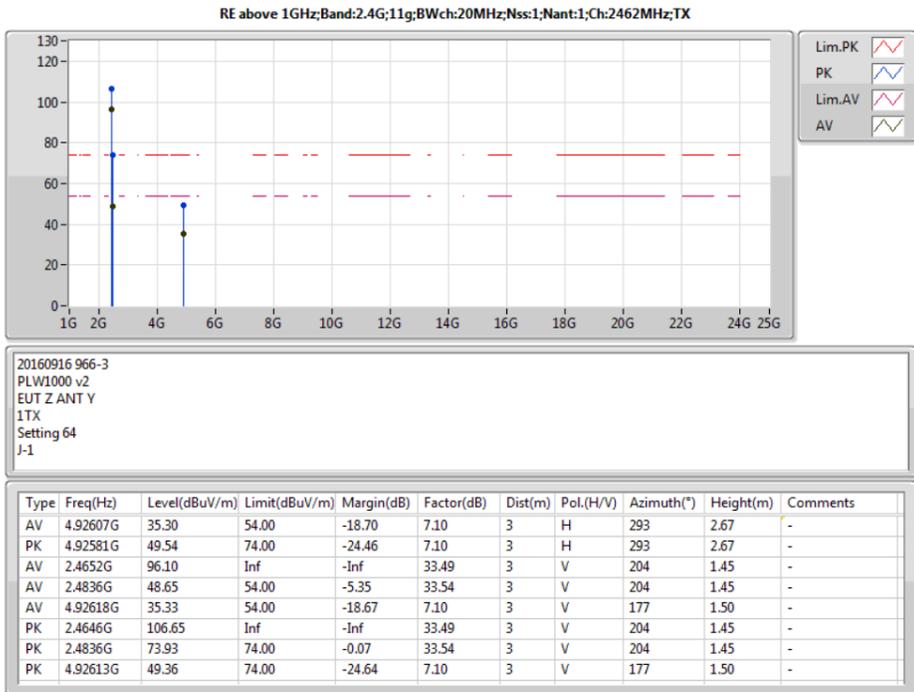
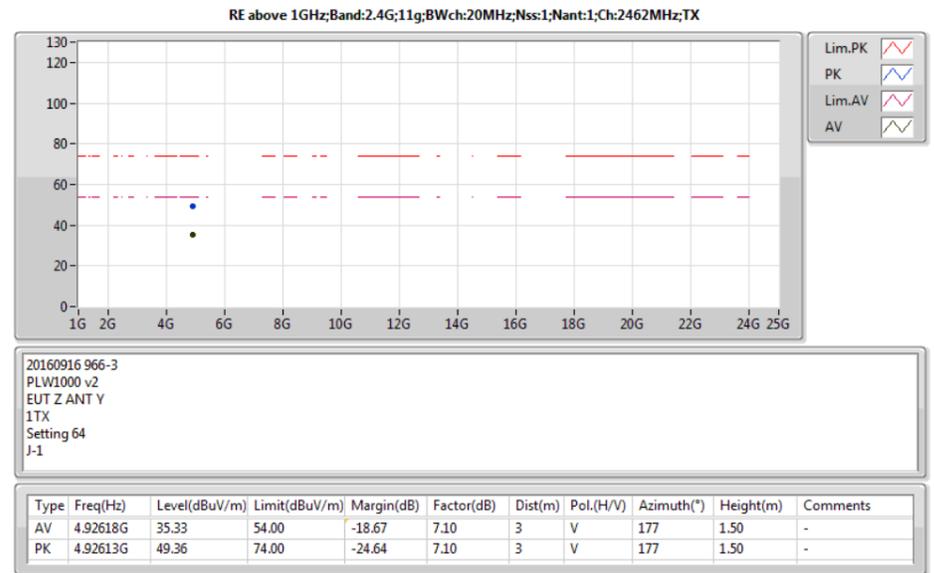
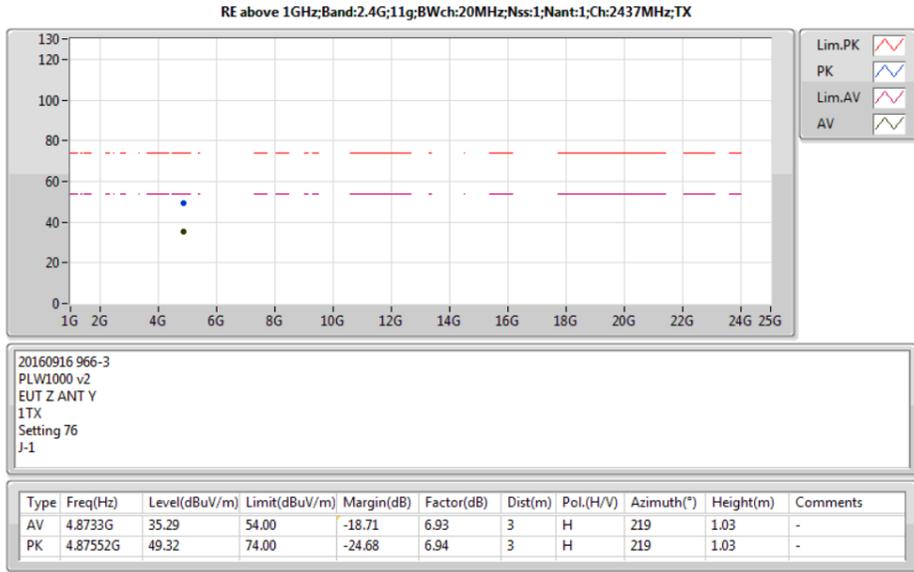
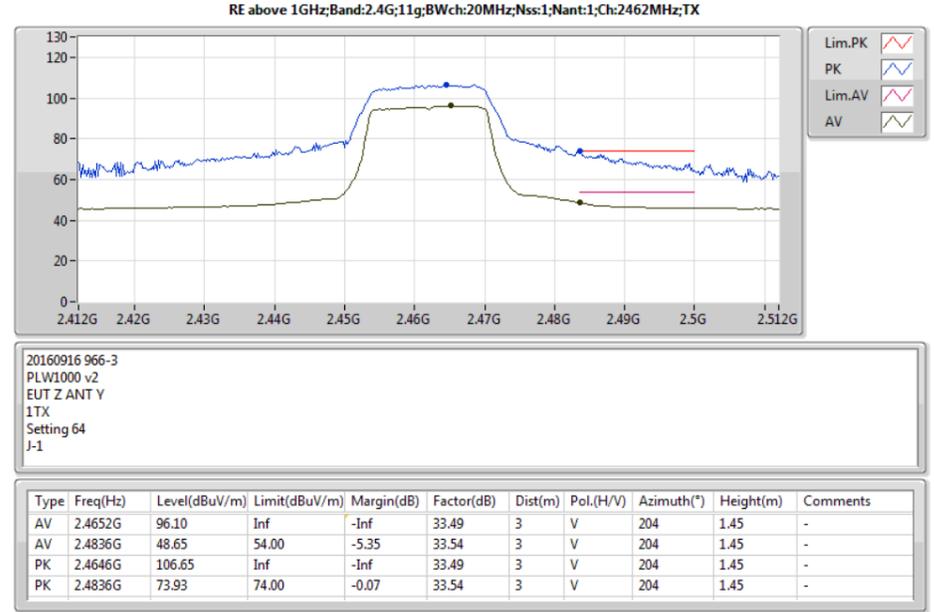
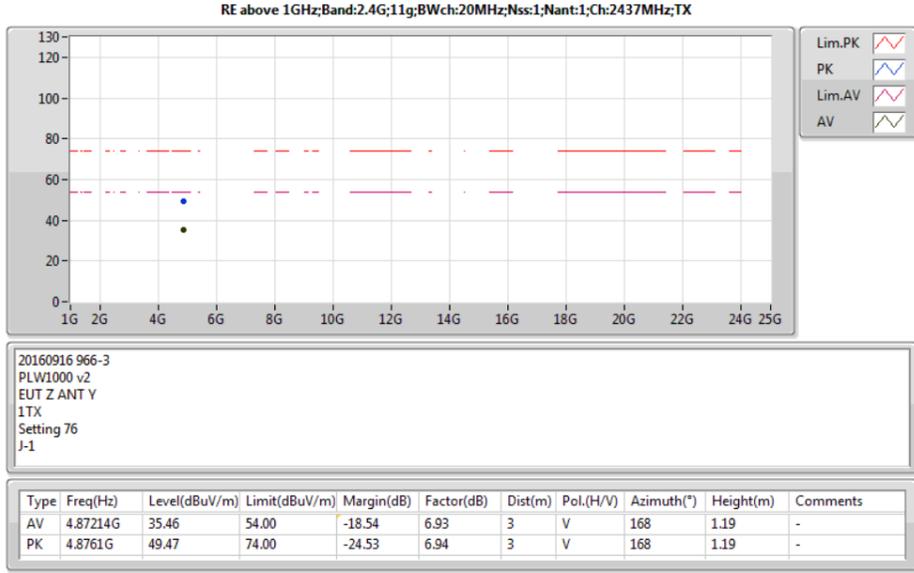
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PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 71  
N-2

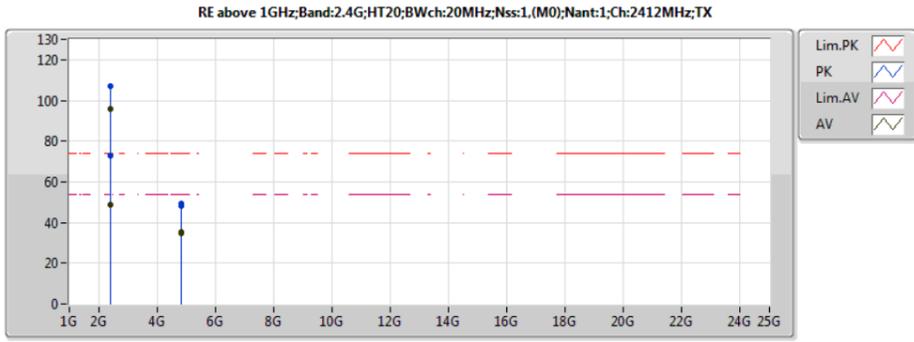
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.82488G	34.99	54.00	-19.01	6.77	3	V	360	2.99	-
PK	4.82587G	48.90	74.00	-25.10	6.78	3	V	360	2.99	-



20160916 966-3  
PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 76  
J-1

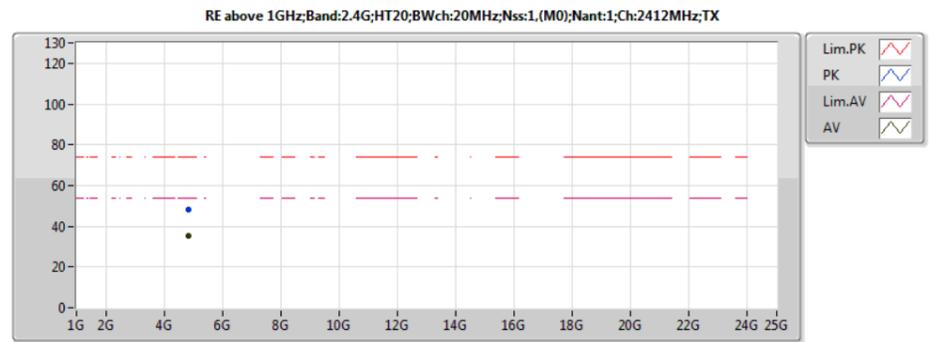
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	2.3898G	53.83	54.00	-0.17	33.28	3	V	40	2.08	-
AV	2.4382G	100.30	Inf	-Inf	33.42	3	V	40	2.08	-
AV	2.4838G	49.93	54.00	-4.07	33.54	3	V	40	2.08	-
PK	2.3898G	72.43	74.00	-1.57	33.28	3	V	40	2.08	-
PK	2.4354G	110.80	Inf	-Inf	33.41	3	V	40	2.08	-
PK	2.4862G	65.66	74.00	-8.34	33.55	3	V	40	2.08	-





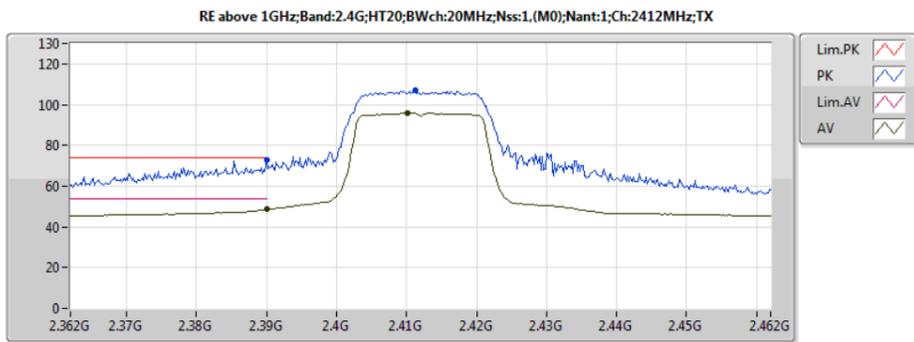
20160916 966-3  
PLW1000 v2  
EUT Z ANT Y  
1TX  
Setting 65  
J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82509G	35.03	54.00	-18.97	6.78	3	H	0	1.02	-
PK	4.82297G	48.46	74.00	-25.54	6.77	3	H	0	1.02	-
AV	2.39G	48.54	54.00	-5.46	33.28	3	V	234	1.68	-
AV	2.4102G	95.73	Inf	-Inf	33.34	3	V	234	1.68	-
AV	4.82333G	34.81	54.00	-19.19	6.77	3	V	123	2.47	-
PK	2.39G	73.12	74.00	-0.88	33.28	3	V	234	1.68	-
PK	2.4112G	107.16	Inf	-Inf	33.34	3	V	234	1.68	-
PK	4.82455G	49.05	74.00	-24.95	6.77	3	V	123	2.47	-



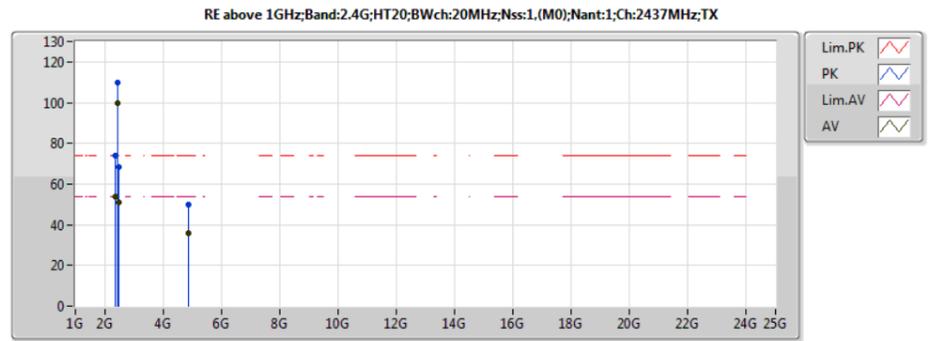
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1TX  
Setting 65  
J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82509G	35.03	54.00	-18.97	6.78	3	H	0	1.02	-
PK	4.82297G	48.46	74.00	-25.54	6.77	3	H	0	1.02	-



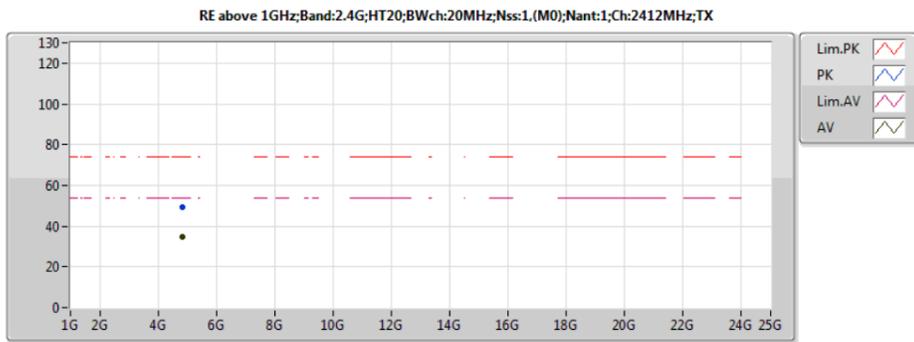
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1TX  
Setting 65  
J-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	48.54	54.00	-5.46	33.28	3	V	234	1.68	-
AV	2.4102G	95.73	Inf	-Inf	33.34	3	V	234	1.68	-
PK	2.39G	73.12	74.00	-0.88	33.28	3	V	234	1.68	-
PK	2.4112G	107.16	Inf	-Inf	33.34	3	V	234	1.68	-



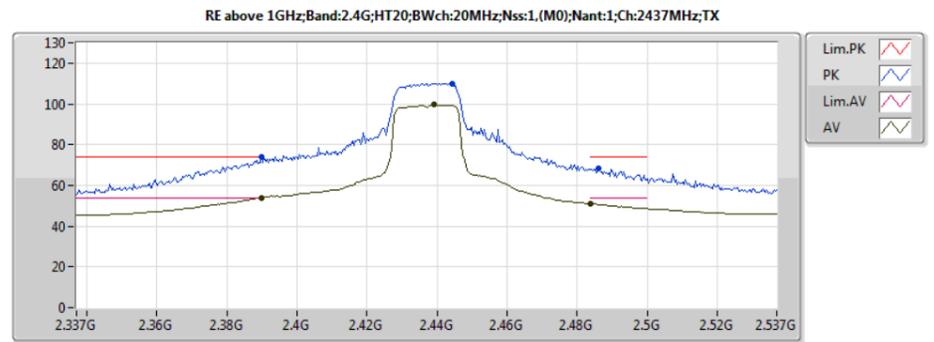
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87326G	35.97	54.00	-18.03	6.93	3	H	256	2.43	-
PK	4.87403G	49.71	74.00	-24.29	6.94	3	H	256	2.43	-
AV	2.3898G	53.98	54.00	-0.02	33.28	3	V	40	2.10	-
AV	2.439G	99.59	Inf	-Inf	33.42	3	V	40	2.10	-
AV	2.4838G	51.02	54.00	-2.98	33.54	3	V	40	2.10	-
AV	4.87305G	35.59	54.00	-18.41	6.93	3	V	340	2.55	-
PK	2.3898G	73.89	74.00	-0.11	33.28	3	V	40	2.10	-
PK	2.4442G	110.09	Inf	-Inf	33.43	3	V	40	2.10	-
PK	2.4862G	68.11	74.00	-5.89	33.55	3	V	40	2.10	-
PK	4.87291G	49.67	74.00	-24.33	6.93	3	V	340	2.55	-



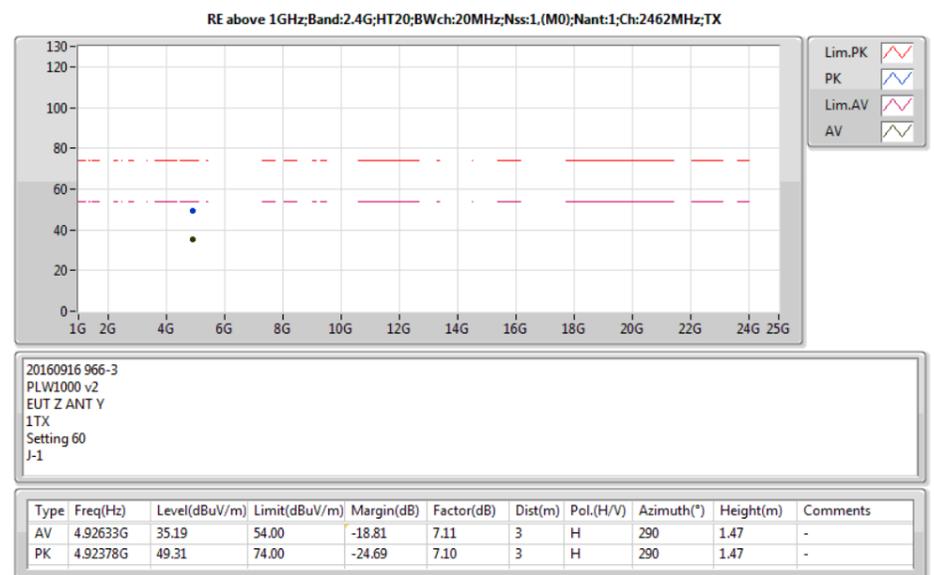
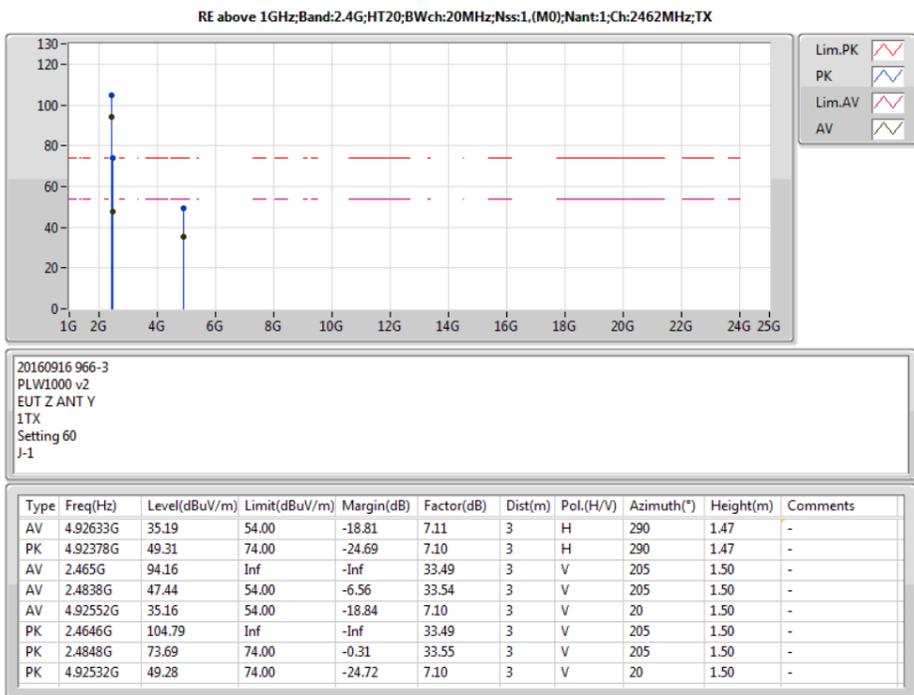
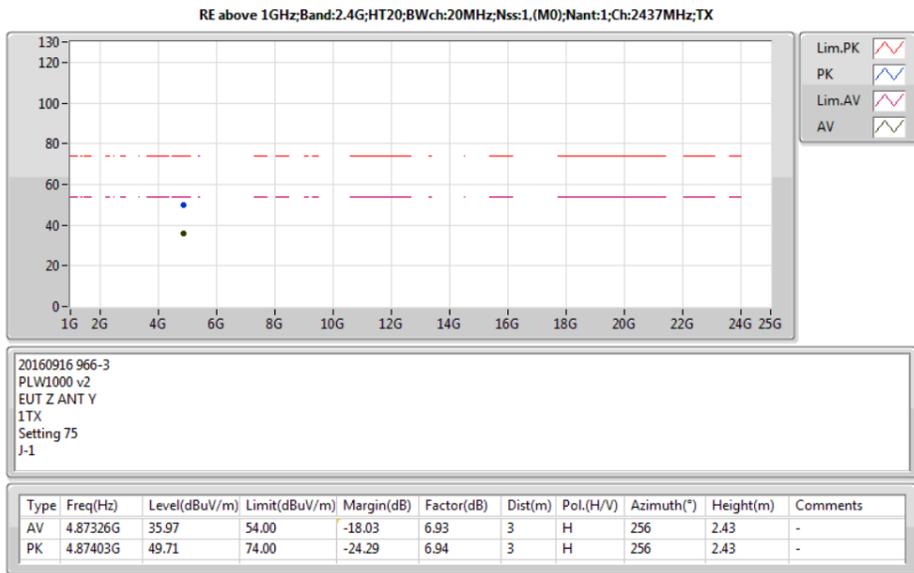
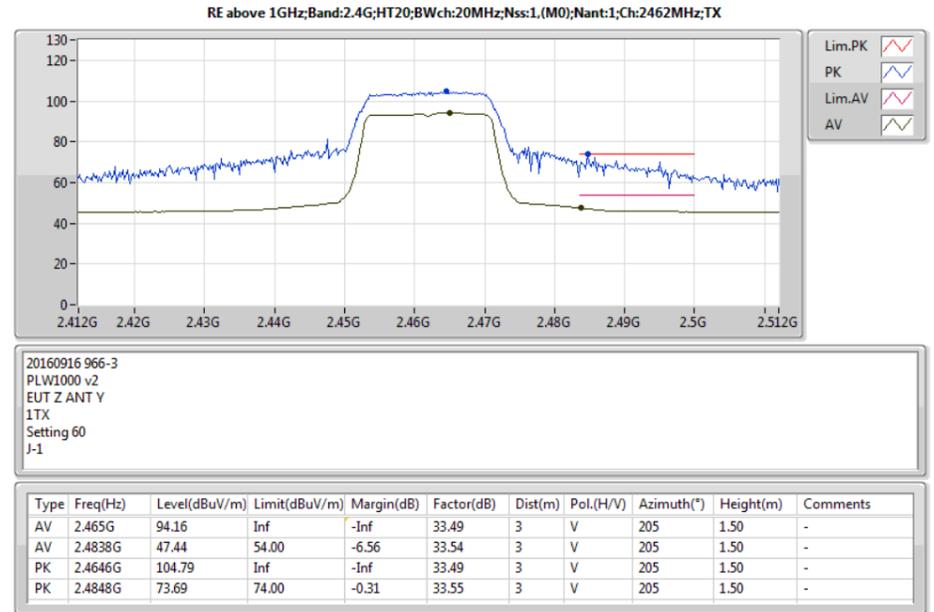
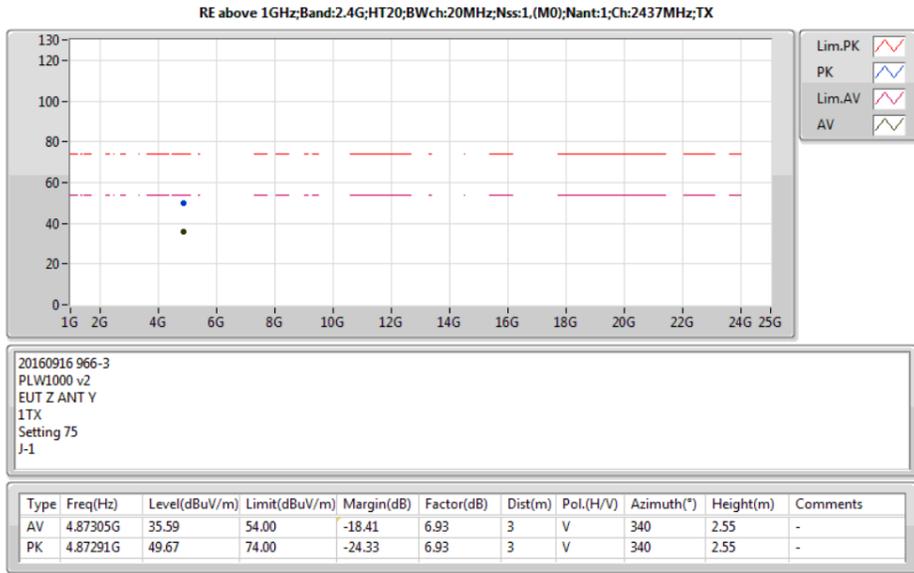
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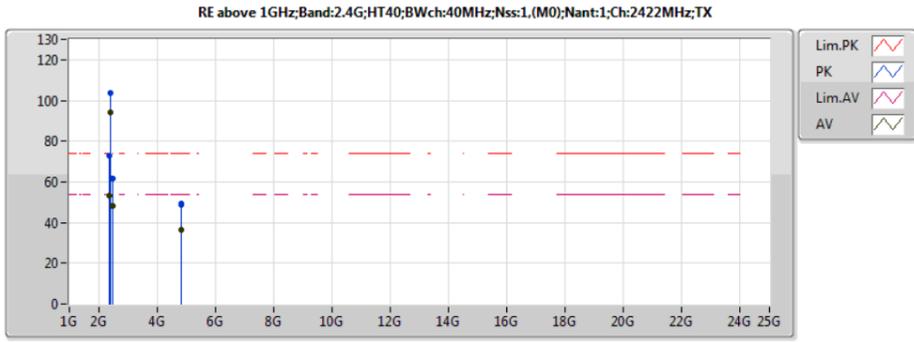
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82333G	34.81	54.00	-19.19	6.77	3	V	123	2.47	-
PK	4.82455G	49.05	74.00	-24.95	6.77	3	V	123	2.47	-



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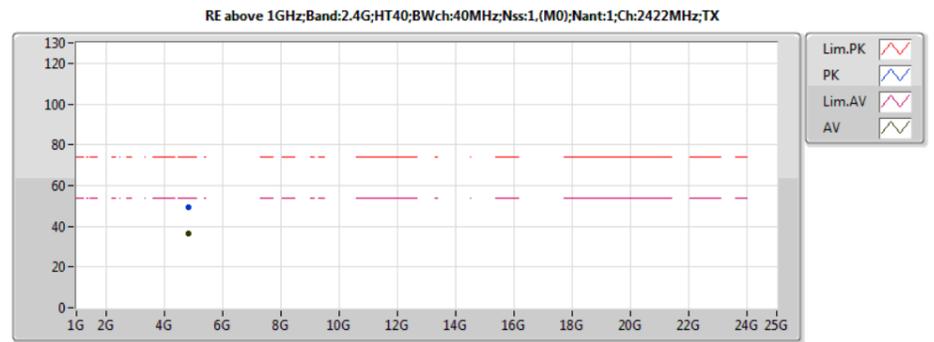
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	53.98	54.00	-0.02	33.28	3	V	40	2.10	-
AV	2.439G	99.59	Inf	-Inf	33.42	3	V	40	2.10	-
AV	2.4838G	51.02	54.00	-2.98	33.54	3	V	40	2.10	-
PK	2.3898G	73.89	74.00	-0.11	33.28	3	V	40	2.10	-
PK	2.4442G	110.09	Inf	-Inf	33.43	3	V	40	2.10	-
PK	2.4862G	68.11	74.00	-5.89	33.55	3	V	40	2.10	-





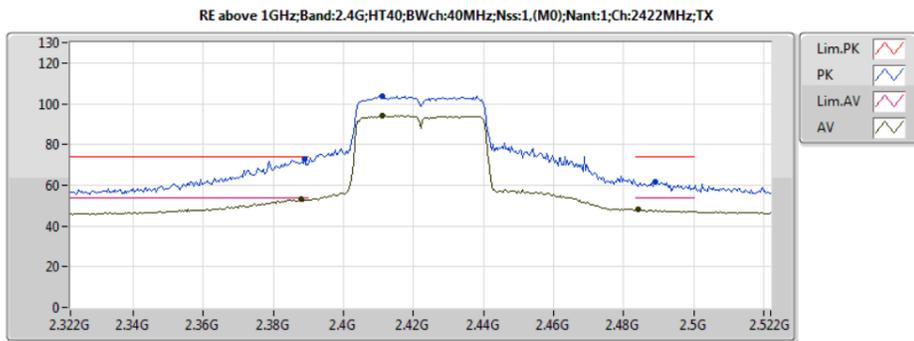
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.84361G	36.50	54.00	-17.50	6.84	3	H	359	1.50	-
PK	4.84584G	49.19	74.00	-24.81	6.84	3	H	359	1.50	-
AV	2.388G	53.29	54.00	-0.71	33.27	3	V	23	1.50	-
AV	2.4112G	93.96	Inf	-Inf	33.34	3	V	23	1.50	-
AV	2.484G	48.24	54.00	-5.76	33.55	3	V	23	1.50	-
AV	4.84236G	36.48	54.00	-17.52	6.83	3	V	0	2.07	-
PK	2.3888G	72.80	74.00	-1.20	33.27	3	V	23	1.50	-
PK	2.4112G	103.82	Inf	-Inf	33.34	3	V	23	1.50	-
PK	2.4892G	61.83	74.00	-12.17	33.56	3	V	23	1.50	-
PK	4.84386G	48.75	74.00	-25.25	6.84	3	V	0	2.07	-



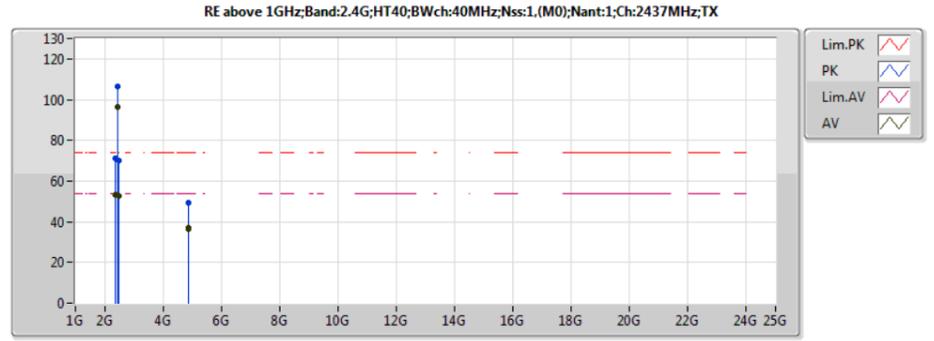
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.84361G	36.50	54.00	-17.50	6.84	3	H	359	1.50	-
PK	4.84584G	49.19	74.00	-24.81	6.84	3	H	359	1.50	-



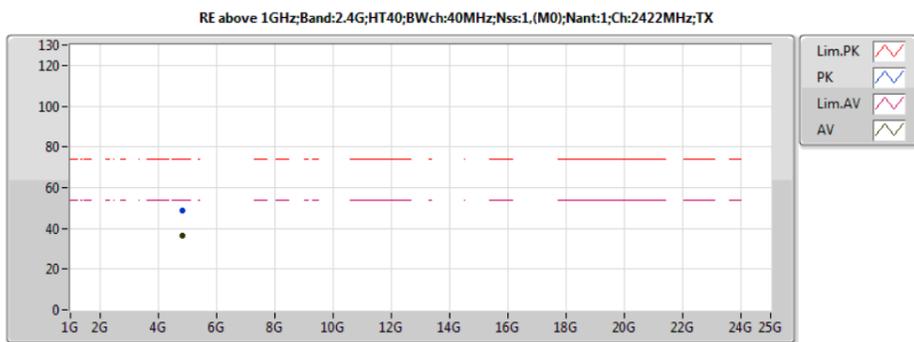
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	2.388G	53.29	54.00	-0.71	33.27	3	V	23	1.50	-
AV	2.4112G	93.96	Inf	-Inf	33.34	3	V	23	1.50	-
AV	2.484G	48.24	54.00	-5.76	33.55	3	V	23	1.50	-
PK	2.3888G	72.80	74.00	-1.20	33.27	3	V	23	1.50	-
PK	2.4112G	103.82	Inf	-Inf	33.34	3	V	23	1.50	-
PK	2.4892G	61.83	74.00	-12.17	33.56	3	V	23	1.50	-



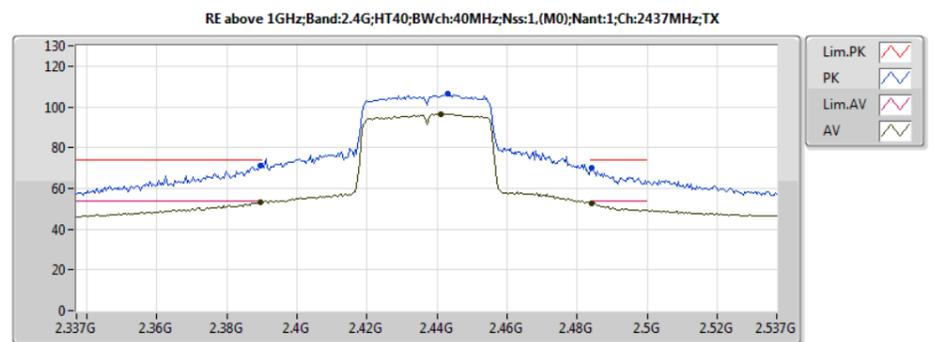
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.87448G	37.18	54.00	-16.82	6.94	3	H	258	2.10	-
PK	4.87239G	49.49	74.00	-24.51	6.93	3	H	258	2.10	-
AV	2.3894G	53.26	54.00	-0.74	33.27	3	V	39	2.11	-
AV	2.441G	96.62	Inf	-Inf	33.42	3	V	39	2.11	-
AV	2.4842G	52.55	54.00	-1.45	33.55	3	V	39	2.11	-
AV	4.87179G	36.55	54.00	-17.45	6.93	3	V	263	1.50	-
PK	2.3894G	71.30	74.00	-2.70	33.27	3	V	39	2.11	-
PK	2.443G	106.36	Inf	-Inf	33.43	3	V	39	2.11	-
PK	2.4842G	70.04	74.00	-3.96	33.55	3	V	39	2.11	-
PK	4.87382G	49.19	74.00	-24.81	6.94	3	V	263	1.50	-



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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	4.84236G	36.48	54.00	-17.52	6.83	3	V	0	2.07	-
PK	4.84386G	48.75	74.00	-25.25	6.84	3	V	0	2.07	-



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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	2.3894G	53.26	54.00	-0.74	33.27	3	V	39	2.11	-
AV	2.441G	96.62	Inf	-Inf	33.42	3	V	39	2.11	-
AV	2.4842G	52.55	54.00	-1.45	33.55	3	V	39	2.11	-
PK	2.3894G	71.30	74.00	-2.70	33.27	3	V	39	2.11	-
PK	2.443G	106.36	Inf	-Inf	33.43	3	V	39	2.11	-
PK	2.4842G	70.04	74.00	-3.96	33.55	3	V	39	2.11	-

