



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 15.407
Operating Band : 5150 MHz – 5250 MHz
5725 MHz – 5850 MHz
Applicant : NETGEAR, Inc.
350 East Plumeria Drive, San Jose, California 95134, USA
Function : Outdoor; Indoor; Fixed P2P
 Client

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	Result
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.207	AC Power-line Conducted Emissions	Complied
3.2	15.407(a)	Emission Bandwidth	Complied
3.3	15.407(a)	Maximum Conducted Output Power	Complied
3.4	15.407(a)	Peak Power Spectral Density	Complied
3.5	15.407(b)	Unwanted Emissions	Complied
3.6	15.407(g)	Frequency Stability	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
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.2G	11a	20	1
5.8G	11a	20	1
5.2G	HT20	20	1
5.8G	HT20	20	1
5.2G	VHT20	20	1
5.8G	VHT20	20	1
5.2G	HT40	40	1
5.8G	HT40	40	1
5.2G	VHT40	40	1
5.8G	VHT40	40	1
5.2G	VHT80	80	1
5.8G	VHT80	80	1

Note:

- 5.2G/5.2G-I(IC) is the 5.2GHz Band (5.15-5.25GHz).
- 5.8G/5.8G-I(IC) is the 5.8GHz Band (5.725-5.850GHz).
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM 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
11a	0.986	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT20	0.986	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40	0.908	950u	3k
VHT80	0.975	957.5u	3k

1.1.4 EUT Operational Condition

EUT Power Type	Internal power supply		
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/> Without beamforming	
Weather Band	<input type="checkbox"/> With 5600~5650MHz	<input checked="" type="checkbox"/> Without 5600~5650MHz	

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 789033 D02 v01r03
- ◆ FCC KDB 644545 D03 v01
- ◆ FCC KDB 662911 D01 v02r01

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
5.2G	11a	20	1	1	5180	L	83
5.2G	11a	20	1	1	5200	M	97
5.2G	11a	20	1	1	5240	H	95
5.8G	11a	20	1	1	5745	L	100
5.8G	11a	20	1	1	5785	M	100
5.8G	11a	20	1	1	5825	H	100
5.2G	VHT20	20	1,(M0)	1	5180	L	83
5.2G	VHT20	20	1,(M0)	1	5200	M	97
5.2G	VHT20	20	1,(M0)	1	5240	H	94
5.8G	VHT20	20	1,(M0)	1	5745	L	100
5.8G	VHT20	20	1,(M0)	1	5785	M	100
5.8G	VHT20	20	1,(M0)	1	5825	H	100
5.2G	VHT40	40	1,(M0)	1	5190	L	70
5.2G	VHT40	40	1,(M0)	1	5230	H	91
5.8G	VHT40	40	1,(M0)	1	5755	L	91
5.8G	VHT40	40	1,(M0)	1	5795	H	100
5.2G	VHT80	80	1,(M0)	1	5210	S	68
5.8G	VHT80	80	1,(M0)	1	5775	S	81

Note:

- Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch.) and C (Straddle Band Ch.).
- VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

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	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	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density Frequency Stability
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
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	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.	
Operating Mode > 1GHz	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

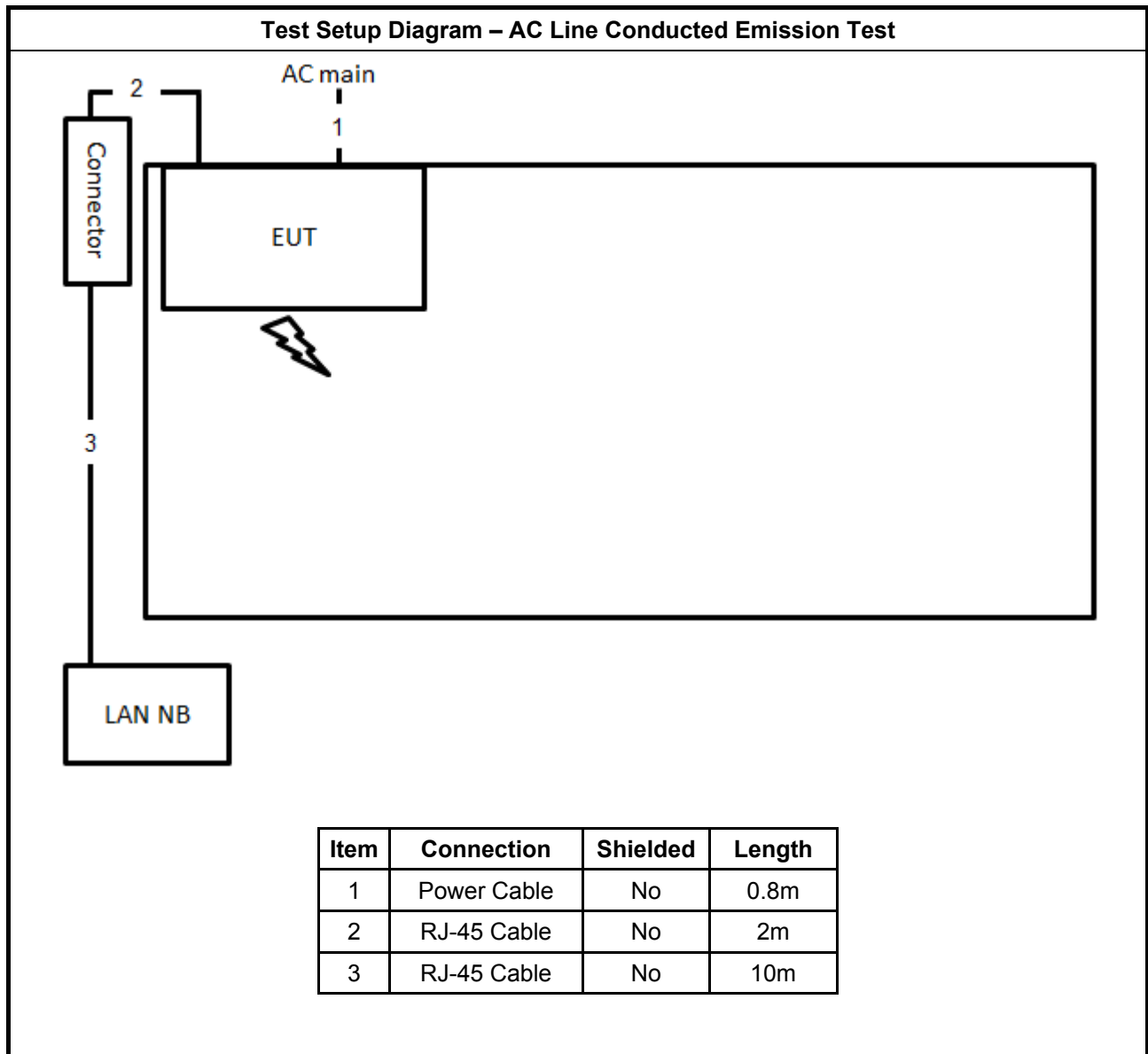
For Test Site No: 03CH01-CB

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

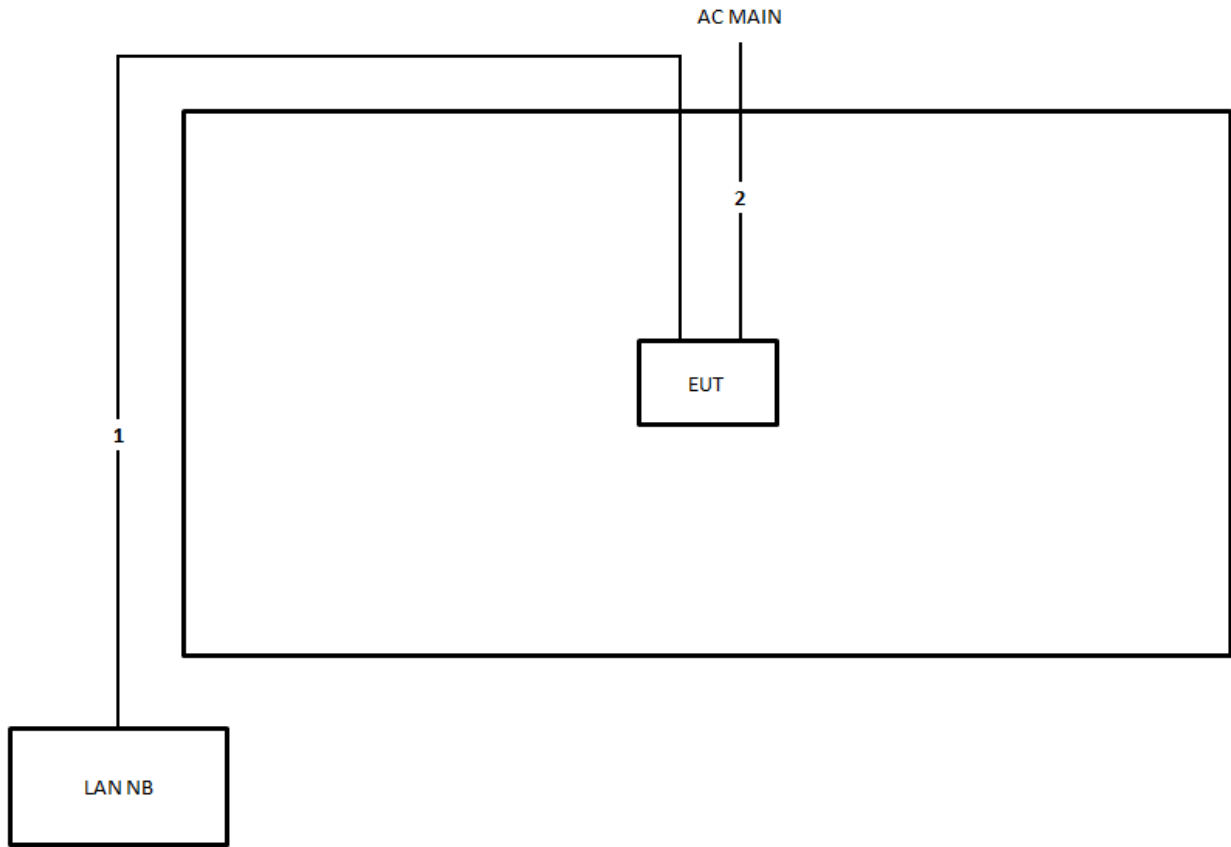
For Test Site No: TH01-CB

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

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	RJ-45 Cable	No	10m
2	Power Cable	No	1.5m

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.

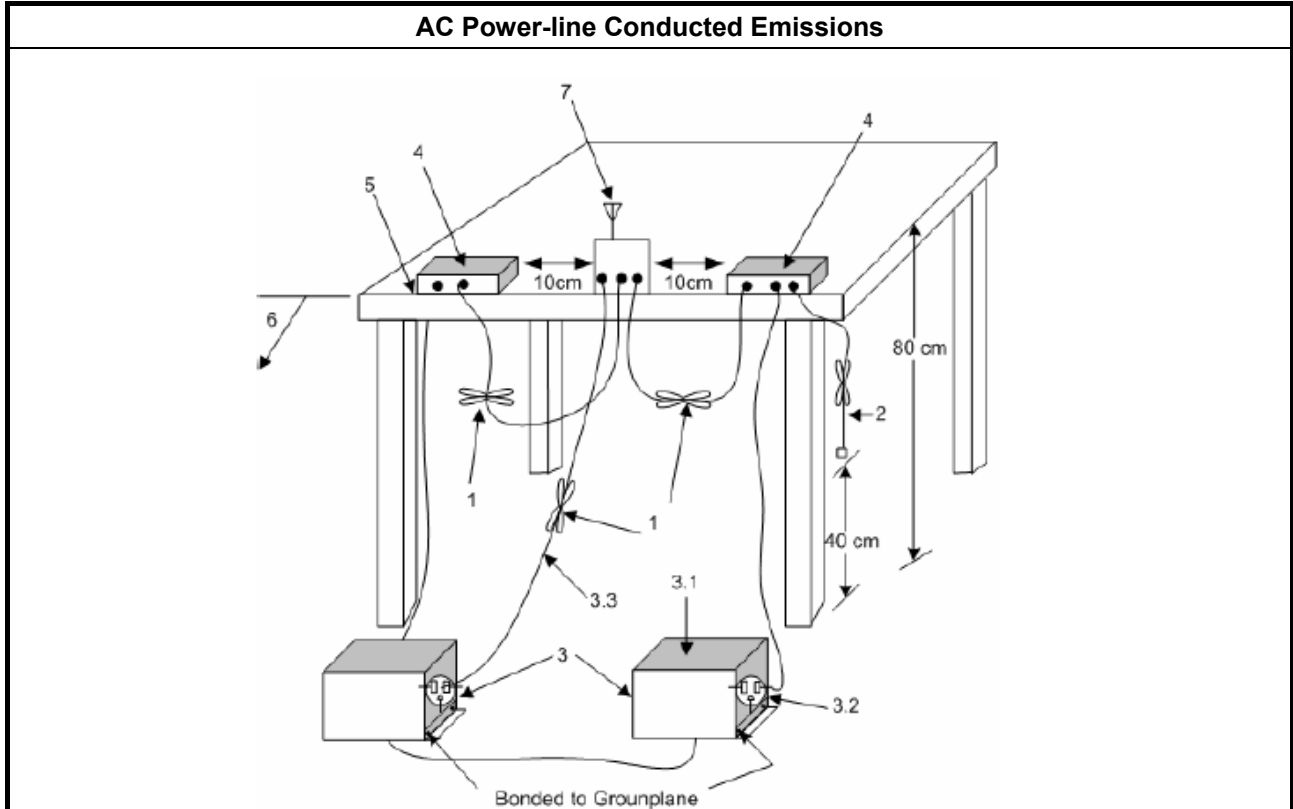
3.1.2 Measuring Instruments

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 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.

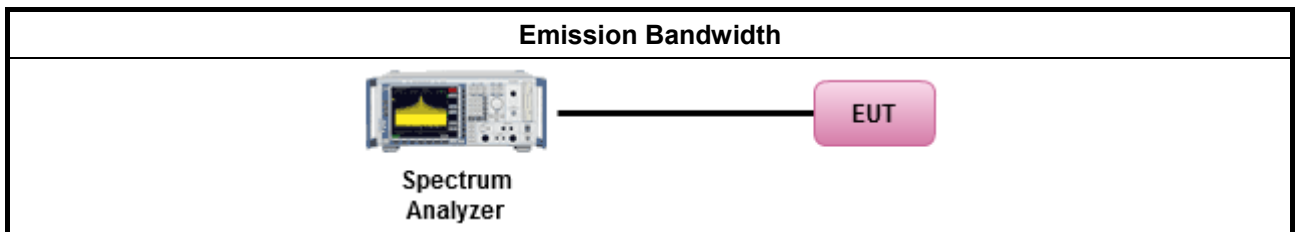
3.2.2 Measuring Instruments

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"> ▪ For the emission bandwidth shall be measured using one of the options below: 	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input checked="" type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for 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	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees $\leq 125mW$ [21dBm] ▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ ▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$. ▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. ▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. ▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

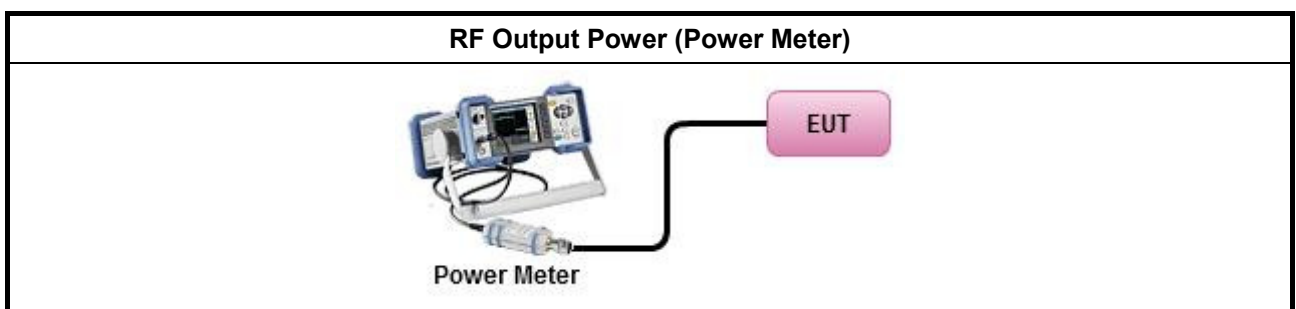
3.3.2 Measuring Instruments

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"> Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
Wideband RF power meter and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
<ul style="list-style-type: none"> For conducted measurement. 	
<ul style="list-style-type: none"> 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. 	
<ul style="list-style-type: none"> 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 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. ▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. ▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$. ▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. ▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
	<ul style="list-style-type: none"> ▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 ($\theta-8$) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 ($\theta-40$) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. ▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
<p>PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

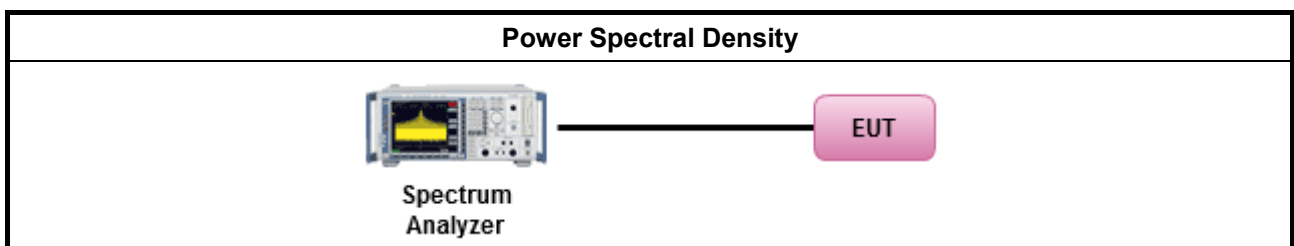
3.4.2 Measuring Instruments

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"> ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options: 	
	<input type="checkbox"/> Refer as FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
	<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: 	
	<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.
	<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,
	<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.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup





3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz 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.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note 1: 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).



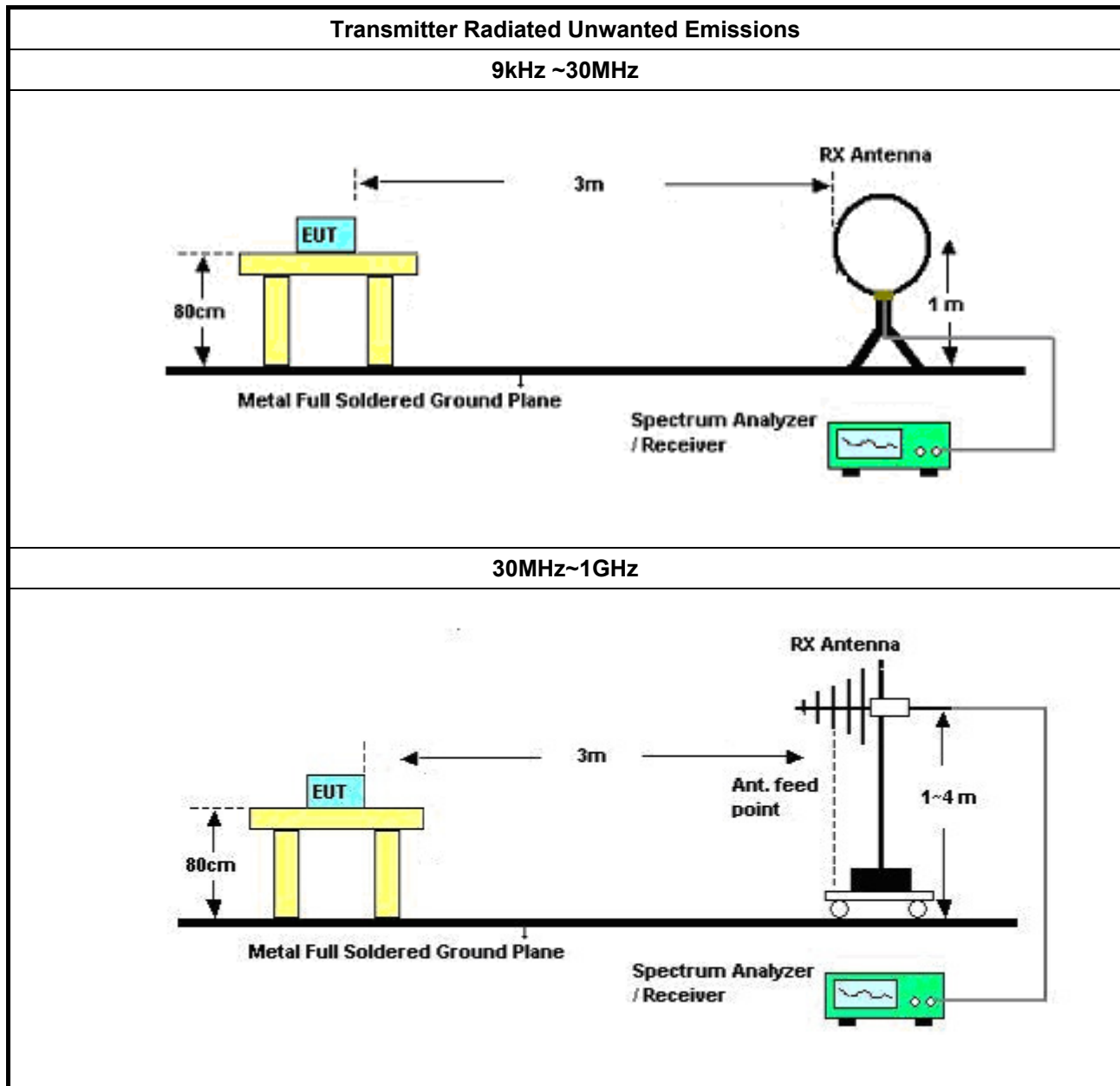
3.5.2 Measuring Instruments

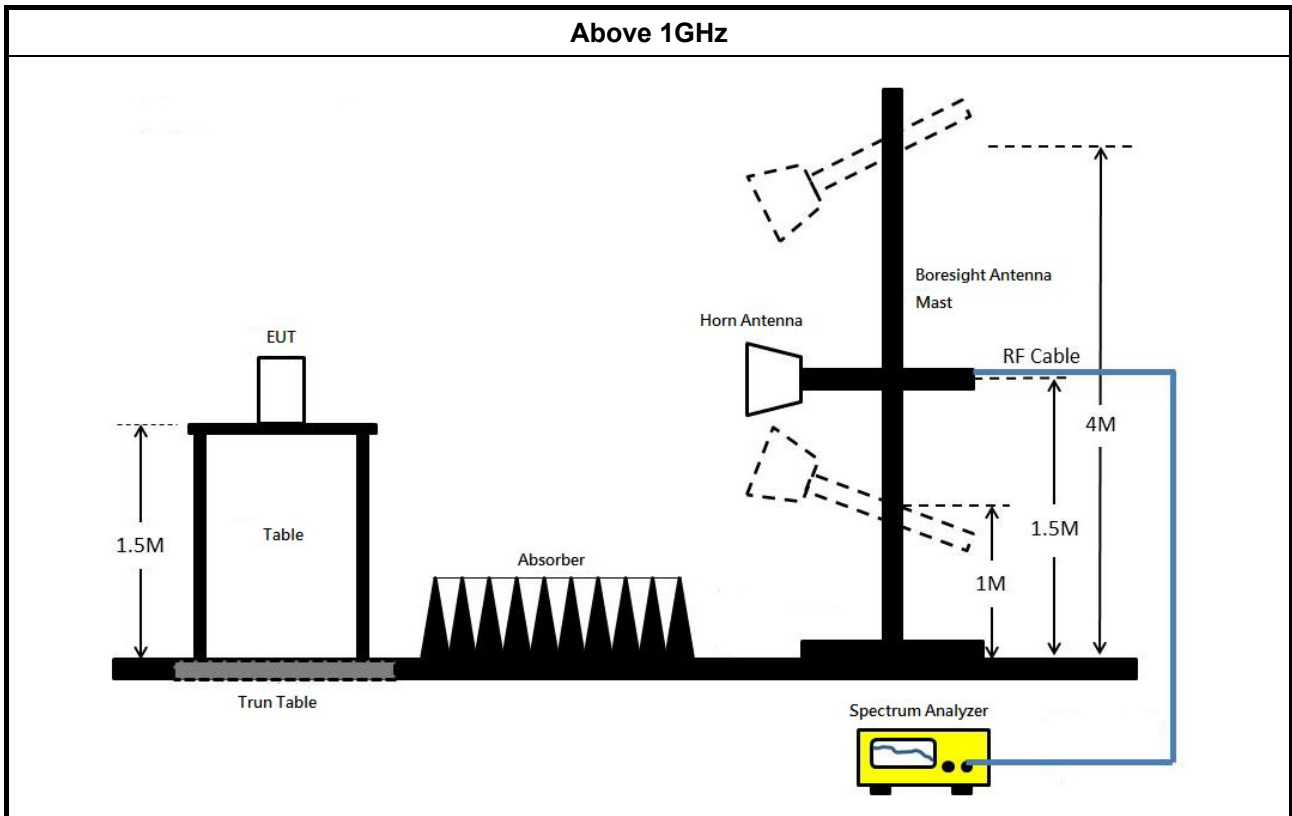
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ 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. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. 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).
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor].
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands. <ul style="list-style-type: none"> <input type="checkbox"/> Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging). <input checked="" type="checkbox"/> Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW). <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 789033, clause H)5) measurement procedure peak limit. <input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"> ▪ For radiated measurement. <ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level.
	<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.5.4 Test Setup







3.5.5 Transmitter 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.

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 Frequency Stability Limit

Frequency Stability Limit
UNII Devices
<ul style="list-style-type: none"> In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
LE-LAN Devices
<ul style="list-style-type: none"> N/A
IEEE Std. 802.11
<ul style="list-style-type: none"> The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

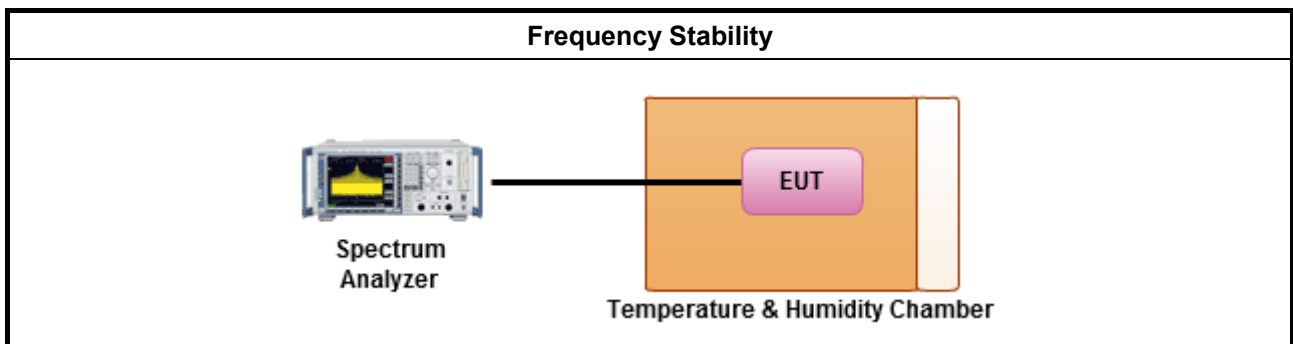
3.6.2 Measuring Instruments

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"> Refer as ANSI C63.10, clause 6.8 for frequency stability tests
<ul style="list-style-type: none"> Frequency stability with respect to ambient temperature
<ul style="list-style-type: none"> Frequency stability when varying supply voltage
<ul style="list-style-type: none"> Extreme temperature is 0°C~42°C.

3.6.4 Test Setup





3.6.5 Test Result of Frequency Stability

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)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Nov. 13, 2015	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)

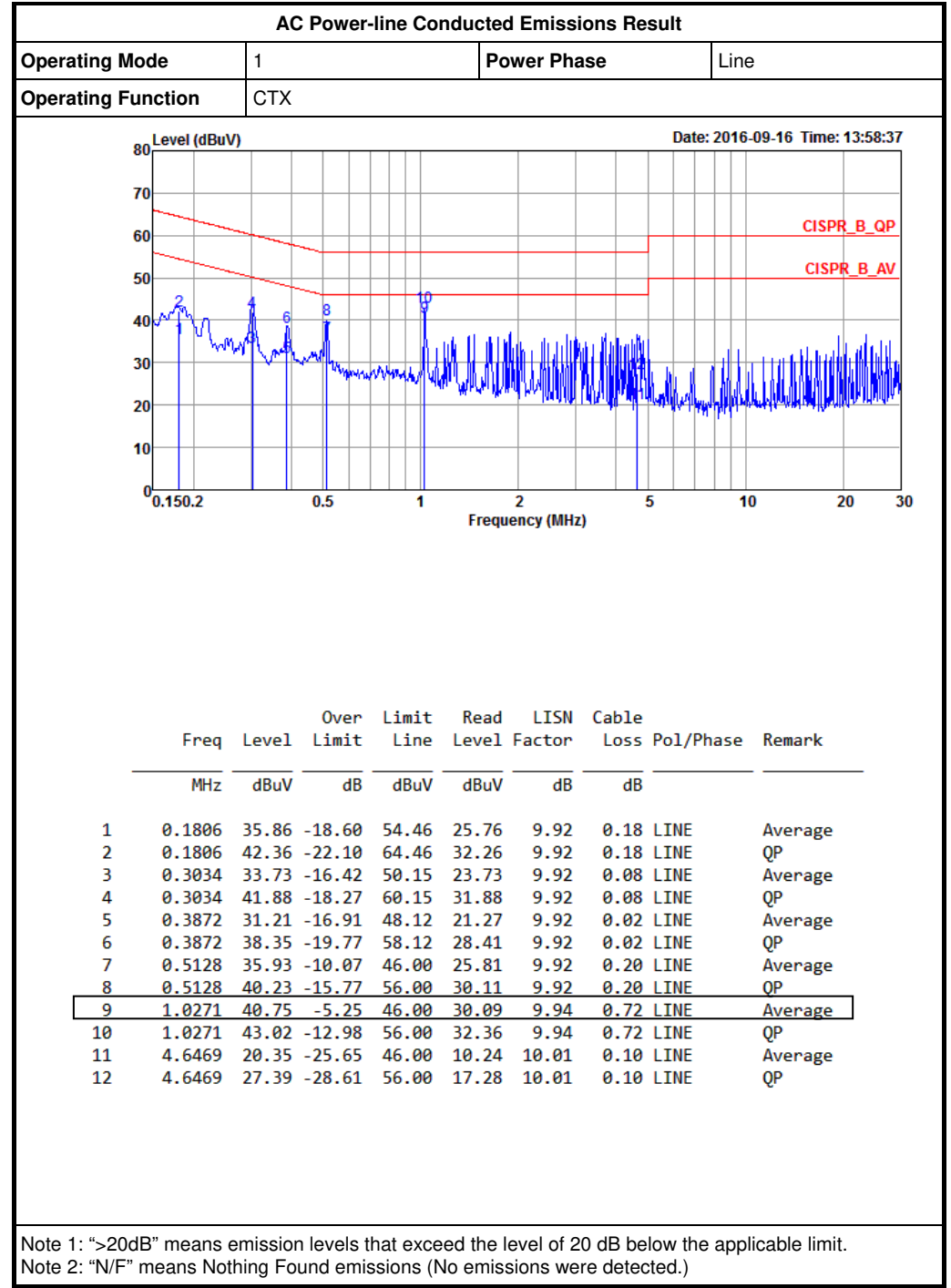
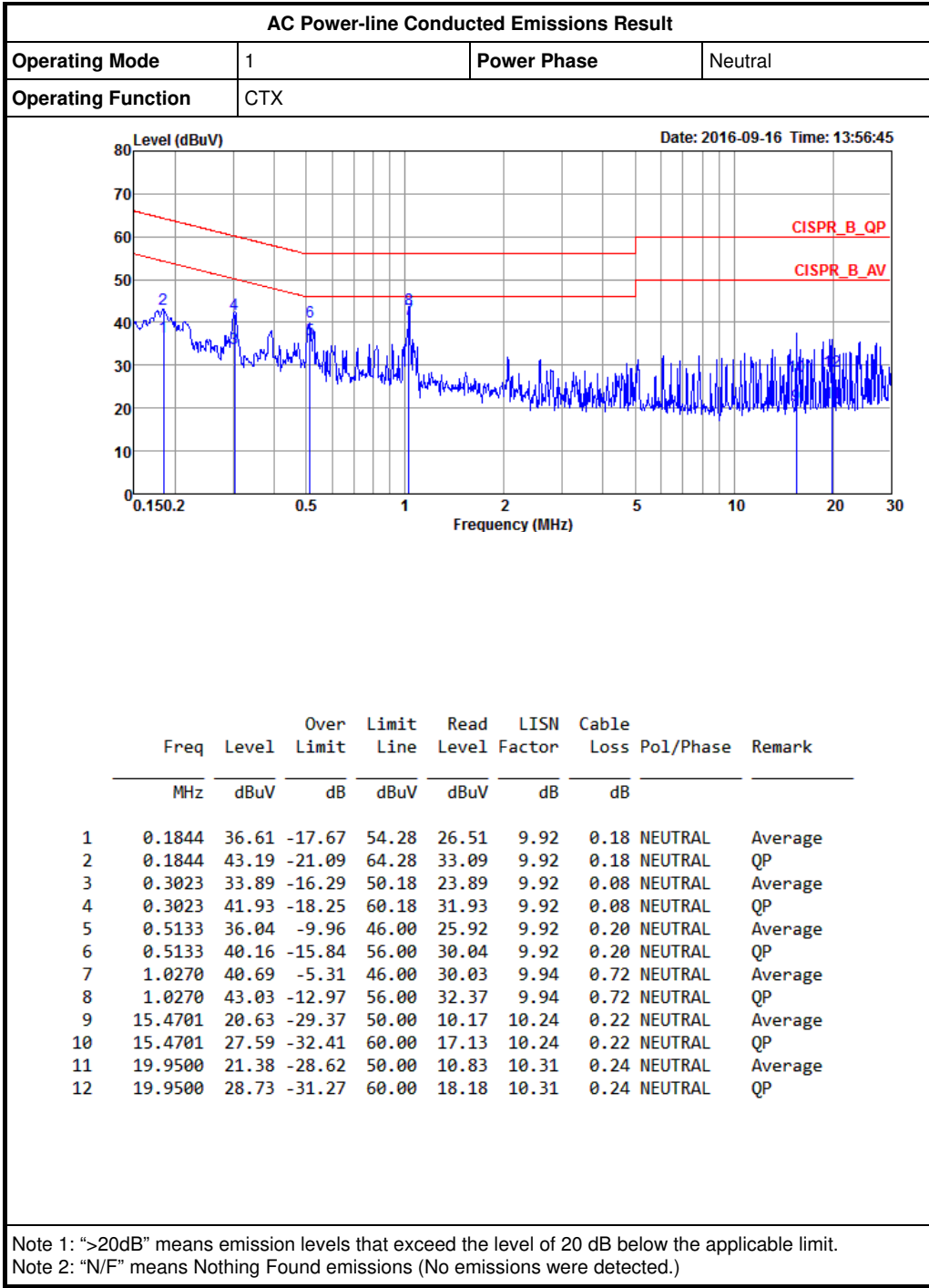


Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	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.

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

*Calibration Interval of instruments listed above is two year.



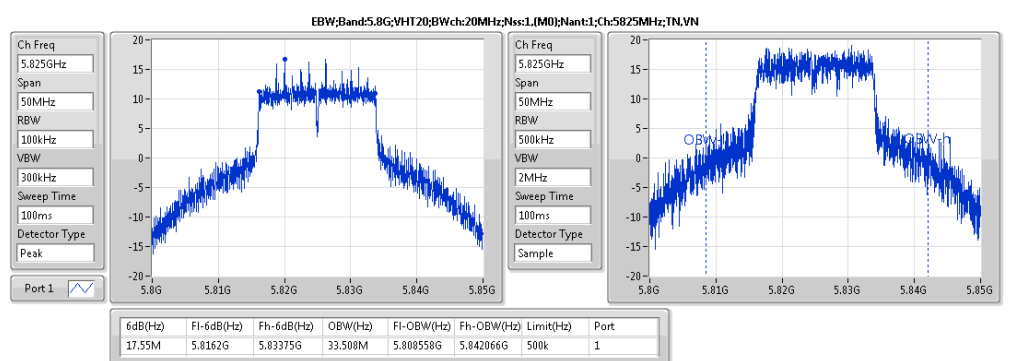
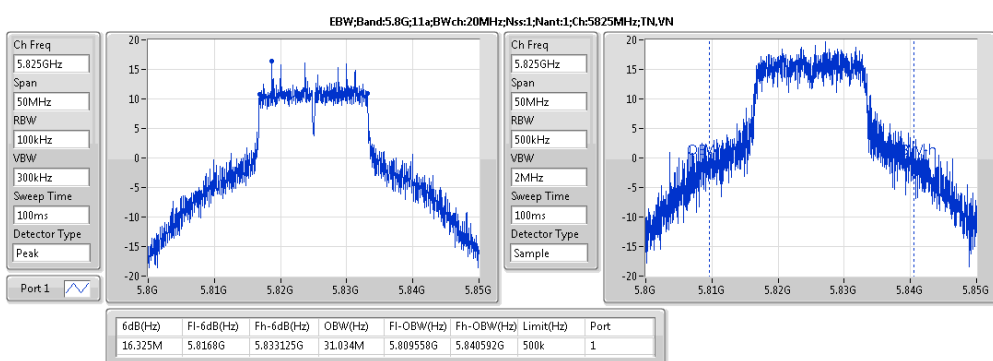
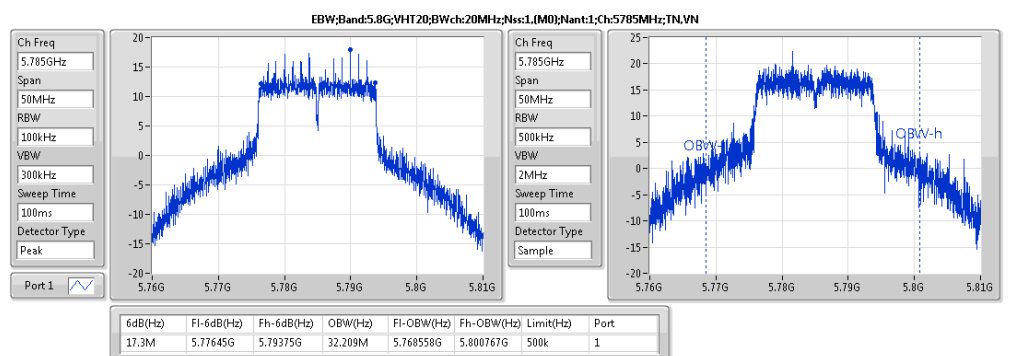
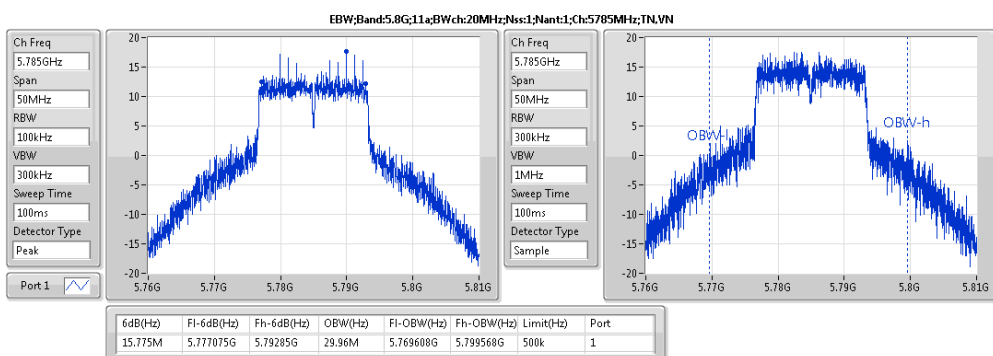
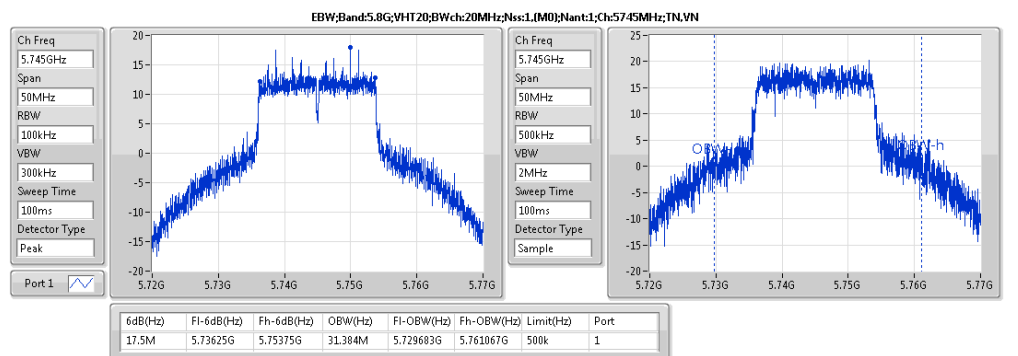
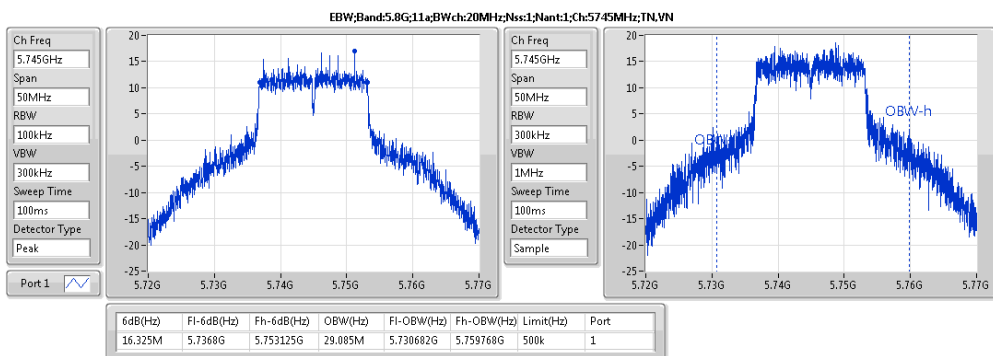
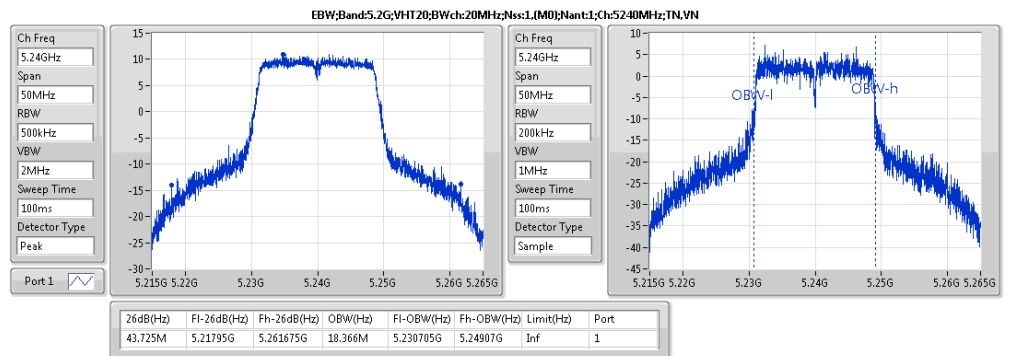
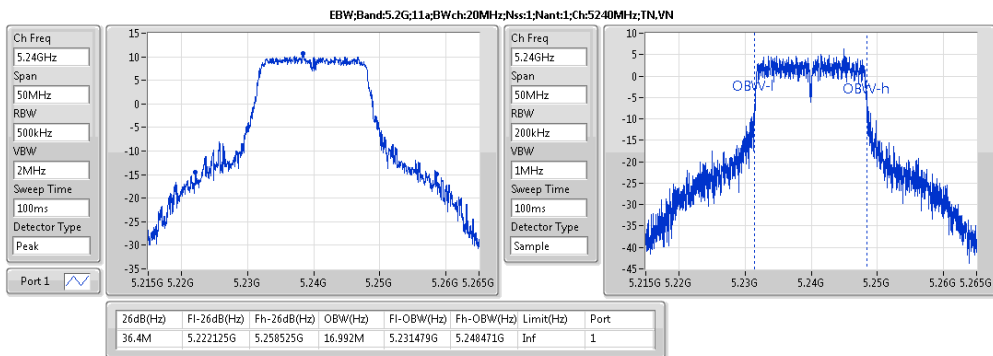
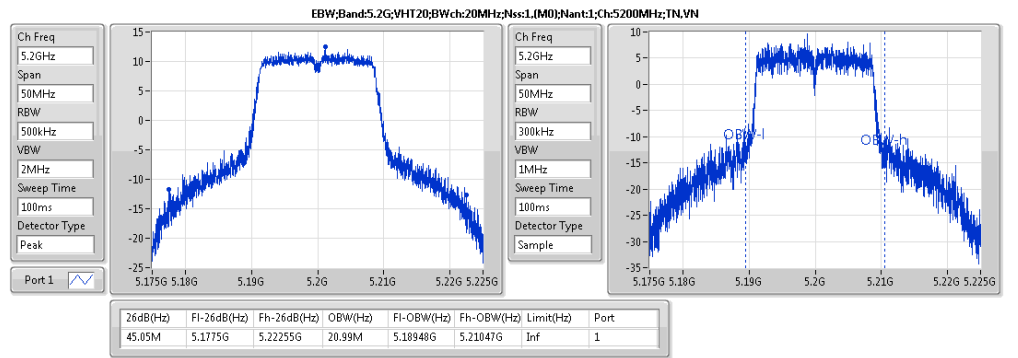
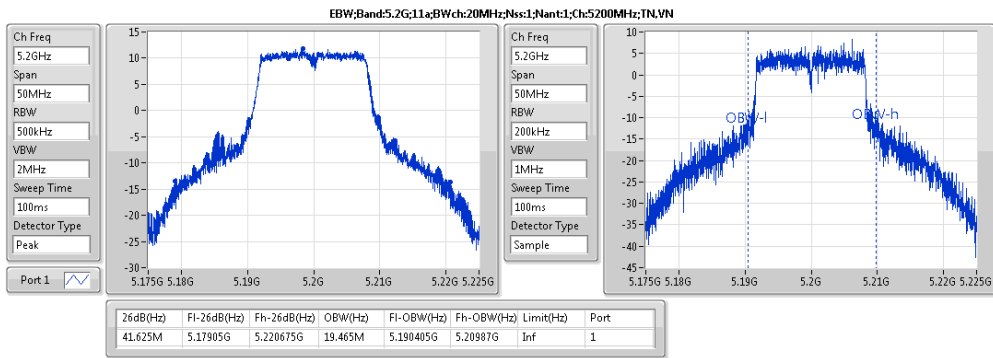
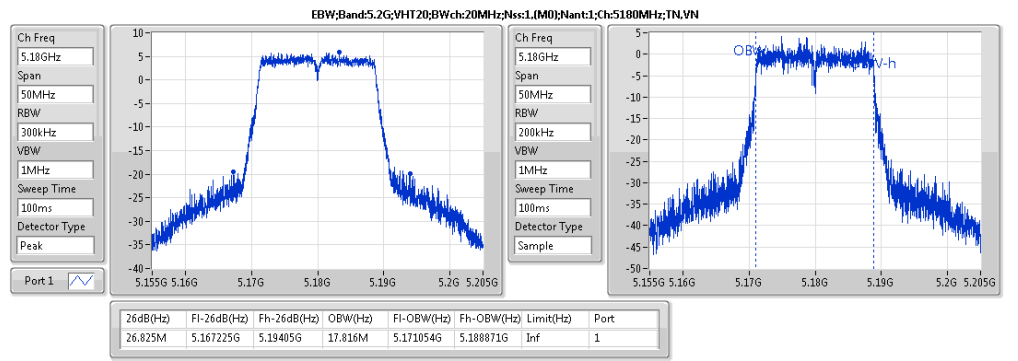
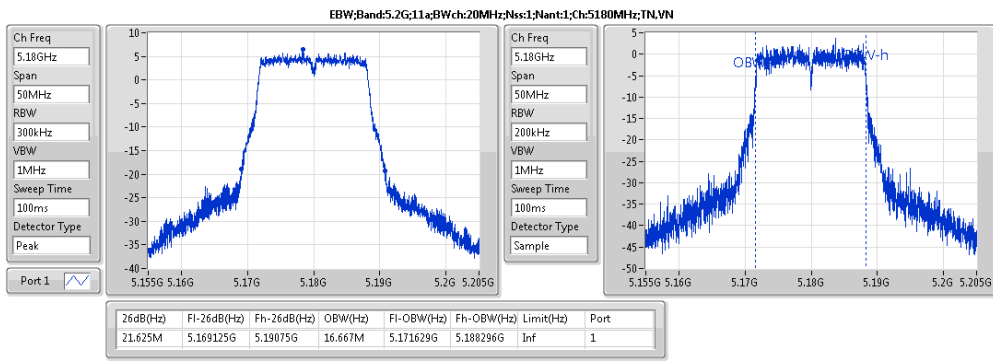


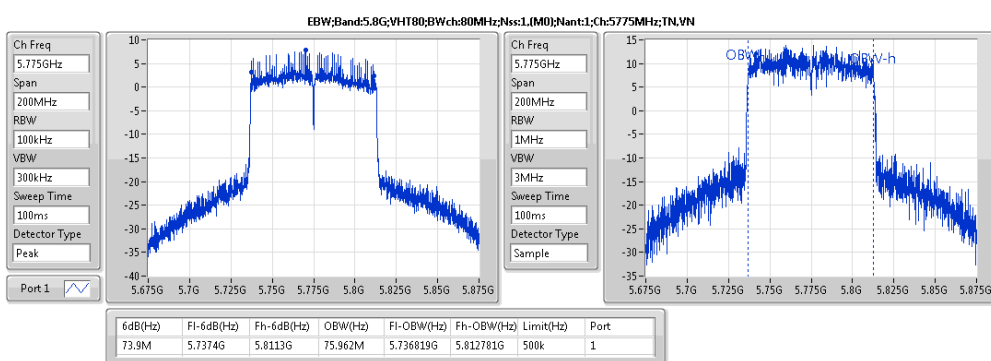
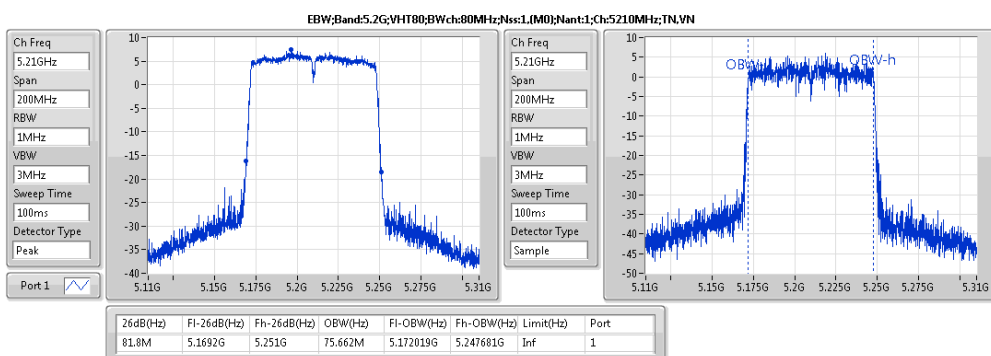
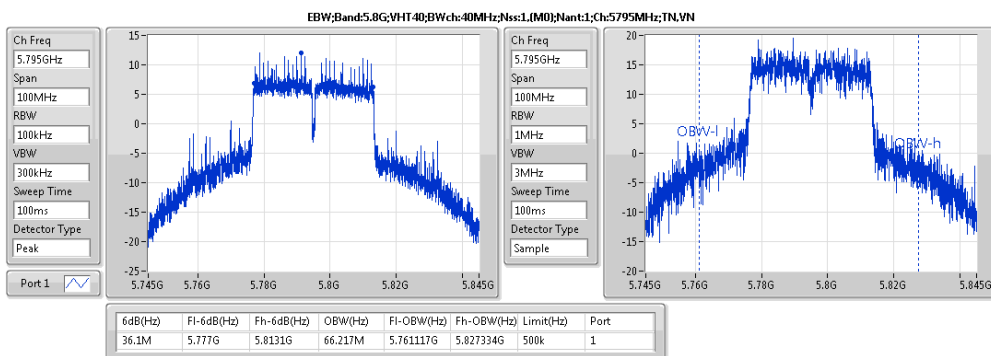
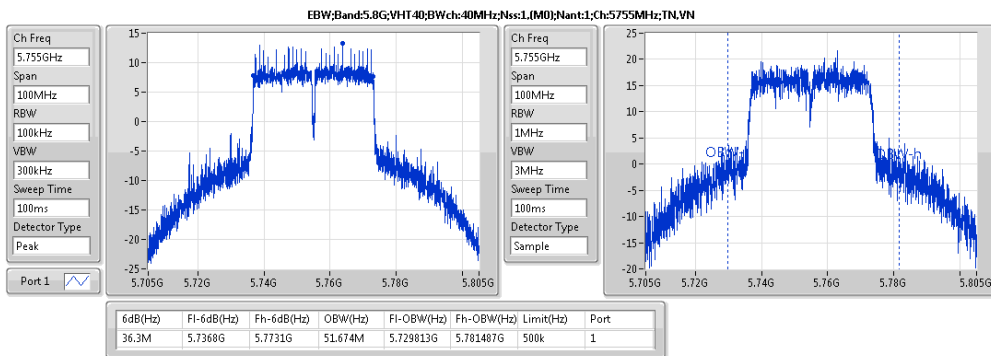
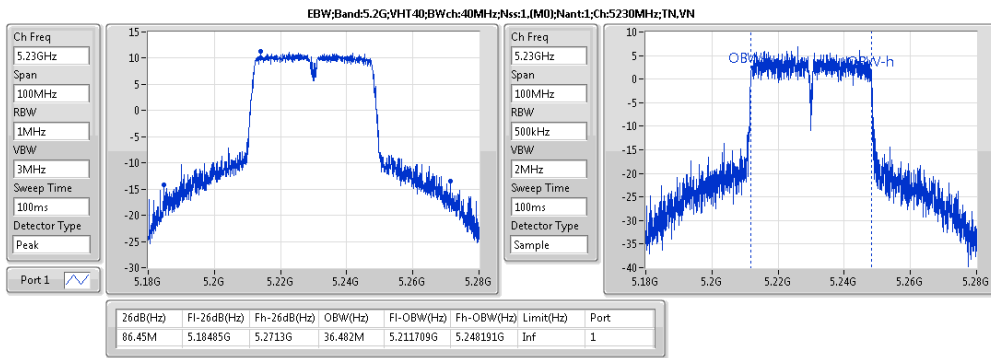
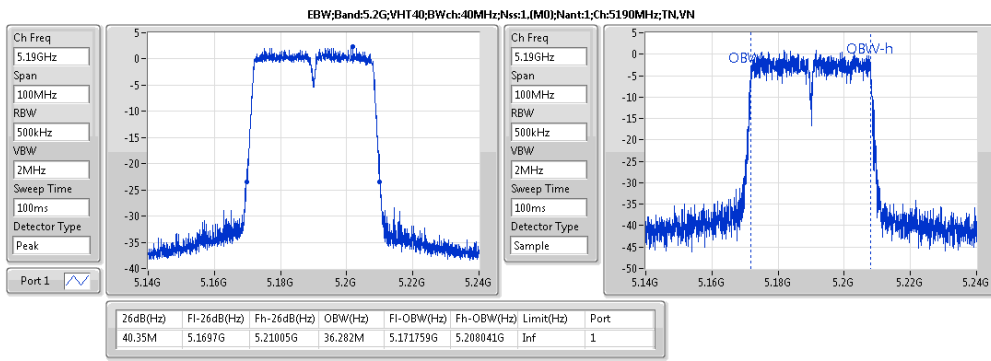
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.2G;11a;Nss1;Ntx1	41.625M	19.465M	19M5D1D	21.625M	16.667M
5.8G;11a;Nss1;Ntx1	16.325M	31.034M	31M0D1D	15.775M	29.085M
5.2G;VHT20;Nss1,(M0);Ntx1	45.05M	20.99M	21M0D1D	26.825M	17.816M
5.8G;VHT20;Nss1,(M0);Ntx1	17.55M	33.508M	33M5D1D	17.3M	31.384M
5.2G;VHT40;Nss1,(M0);Ntx1	86.45M	36.482M	36M5D1D	40.35M	36.282M
5.8G;VHT40;Nss1,(M0);Ntx1	36.3M	66.217M	66M2D1D	36.1M	51.674M
5.2G;VHT80;Nss1,(M0);Ntx1	81.8M	75.662M	75M7D1D	81.8M	75.662M
5.8G;VHT80;Nss1,(M0);Ntx1	73.9M	75.962M	76M0D1D	73.9M	75.962M

Result

Mode	Result	Limit	P1-N dB (Hz)	P1-OBW (Hz)
5.2G;11a;Nss1;Ntx1;5180	Pass	Inf	21.625M	16.667M
5.2G;11a;Nss1;Ntx1;5200	Pass	Inf	41.625M	19.465M
5.2G;11a;Nss1;Ntx1;5240	Pass	Inf	36.4M	16.992M
5.8G;11a;Nss1;Ntx1;5745	Pass	500k	16.325M	29.085M
5.8G;11a;Nss1;Ntx1;5785	Pass	500k	15.775M	29.96M
5.8G;11a;Nss1;Ntx1;5825	Pass	500k	16.325M	31.034M
5.2G;VHT20;Nss1,(M0);Ntx1;5180	Pass	Inf	26.825M	17.816M
5.2G;VHT20;Nss1,(M0);Ntx1;5200	Pass	Inf	45.05M	20.99M
5.2G;VHT20;Nss1,(M0);Ntx1;5240	Pass	Inf	43.725M	18.366M
5.8G;VHT20;Nss1,(M0);Ntx1;5745	Pass	500k	17.5M	31.384M
5.8G;VHT20;Nss1,(M0);Ntx1;5785	Pass	500k	17.3M	32.209M
5.8G;VHT20;Nss1,(M0);Ntx1;5825	Pass	500k	17.55M	33.508M
5.2G;VHT40;Nss1,(M0);Ntx1;5190	Pass	Inf	40.35M	36.282M
5.2G;VHT40;Nss1,(M0);Ntx1;5230	Pass	Inf	86.45M	36.482M
5.8G;VHT40;Nss1,(M0);Ntx1;5755	Pass	500k	36.3M	51.674M
5.8G;VHT40;Nss1,(M0);Ntx1;5795	Pass	500k	36.1M	66.217M
5.2G;VHT80;Nss1,(M0);Ntx1;5210	Pass	Inf	81.8M	75.662M
5.8G;VHT80;Nss1,(M0);Ntx1;5775	Pass	500k	73.9M	75.962M







Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
5.2G;11a;Nss1;Ntx1	24.80	0.302	26.80	0.47863
5.8G;11a;Nss1;Ntx1	25.85	0.38459	27.85	0.60954
5.2G;VHT20;Nss1,(M0);Ntx1	24.67	0.29309	26.67	0.46452
5.8G;VHT20;Nss1,(M0);Ntx1	25.88	0.38726	27.88	0.61376
5.2G;VHT40;Nss1,(M0);Ntx1	23.31	0.21429	25.31	0.33963
5.8G;VHT40;Nss1,(M0);Ntx1	25.60	0.36308	27.60	0.57544
5.2G;VHT80;Nss1,(M0);Ntx1	17.79	0.06012	19.79	0.09528
5.8G;VHT80;Nss1,(M0);Ntx1	21.29	0.13459	23.29	0.2133



Result

Mode	Result	DG (dBi)	EIRP (dBm)	EIRP Lim. (dBm)	Sum (dBm)	Sum Lim. (dBm)	P1 (dBm)
5.2G;11a;Nss1;Ntx1;5180	Pass	2.00	22.82	36.00	20.82	30.00	20.82
5.2G;11a;Nss1;Ntx1;5200	Pass	2.00	26.74	36.00	24.74	30.00	24.74
5.2G;11a;Nss1;Ntx1;5240	Pass	2.00	26.80	36.00	24.80	30.00	24.80
5.8G;11a;Nss1;Ntx1;5745	Pass	2.00	27.85	36.00	25.85	30.00	25.85
5.8G;11a;Nss1;Ntx1;5785	Pass	2.00	27.58	36.00	25.58	30.00	25.58
5.8G;11a;Nss1;Ntx1;5825	Pass	2.00	27.53	36.00	25.53	30.00	25.53
5.2G;VHT20;Nss1,(M0);Ntx1;5180	Pass	2.00	23.13	36.00	21.13	30.00	21.13
5.2G;VHT20;Nss1,(M0);Ntx1;5200	Pass	2.00	26.67	36.00	24.67	30.00	24.67
5.2G;VHT20;Nss1,(M0);Ntx1;5240	Pass	2.00	25.94	36.00	23.94	30.00	23.94
5.8G;VHT20;Nss1,(M0);Ntx1;5745	Pass	2.00	27.88	36.00	25.88	30.00	25.88
5.8G;VHT20;Nss1,(M0);Ntx1;5785	Pass	2.00	27.64	36.00	25.64	30.00	25.64
5.8G;VHT20;Nss1,(M0);Ntx1;5825	Pass	2.00	27.64	36.00	25.64	30.00	25.64
5.2G;VHT40;Nss1,(M0);Ntx1;5190	Pass	2.00	19.75	36.00	17.75	30.00	17.75
5.2G;VHT40;Nss1,(M0);Ntx1;5230	Pass	2.00	25.31	36.00	23.31	30.00	23.31
5.8G;VHT40;Nss1,(M0);Ntx1;5755	Pass	2.00	25.53	36.00	23.53	30.00	23.53
5.8G;VHT40;Nss1,(M0);Ntx1;5795	Pass	2.00	27.60	36.00	25.60	30.00	25.60
5.2G;VHT80;Nss1,(M0);Ntx1;5210	Pass	2.00	19.79	36.00	17.79	30.00	17.79
5.8G;VHT80;Nss1,(M0);Ntx1;5775	Pass	2.00	23.29	36.00	21.29	30.00	21.29

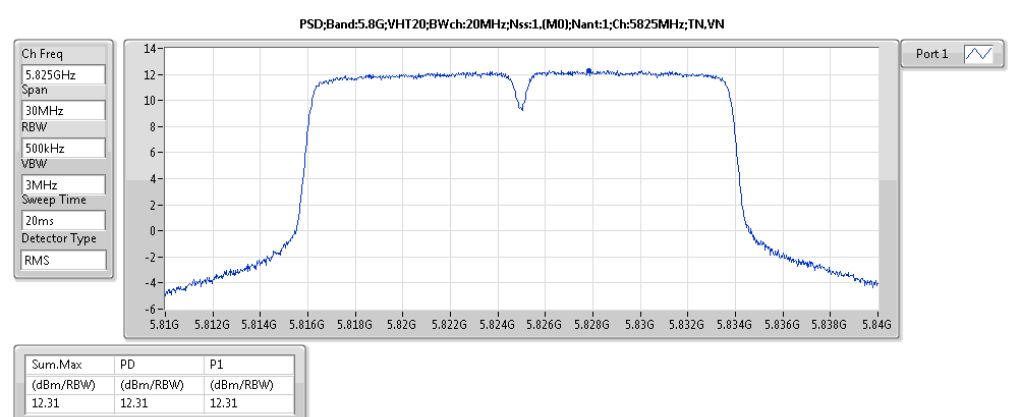
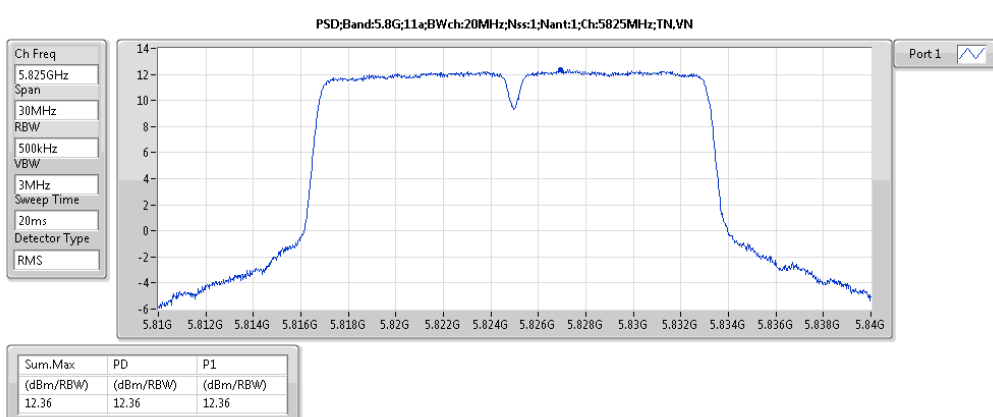
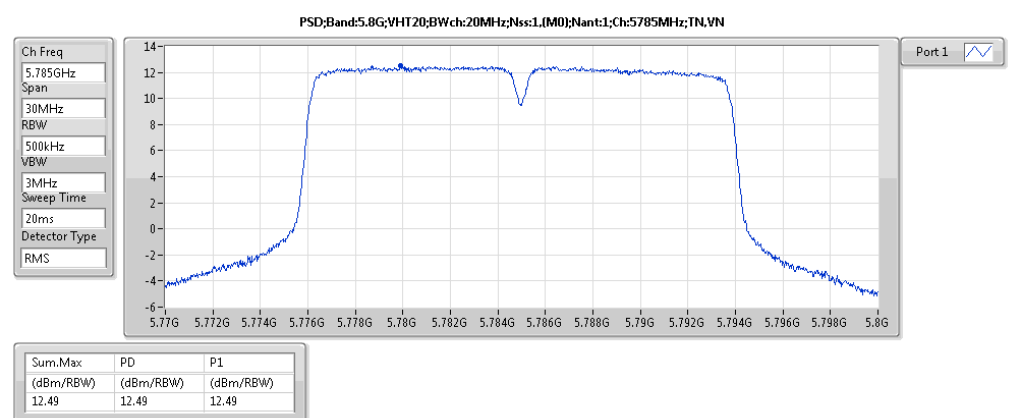
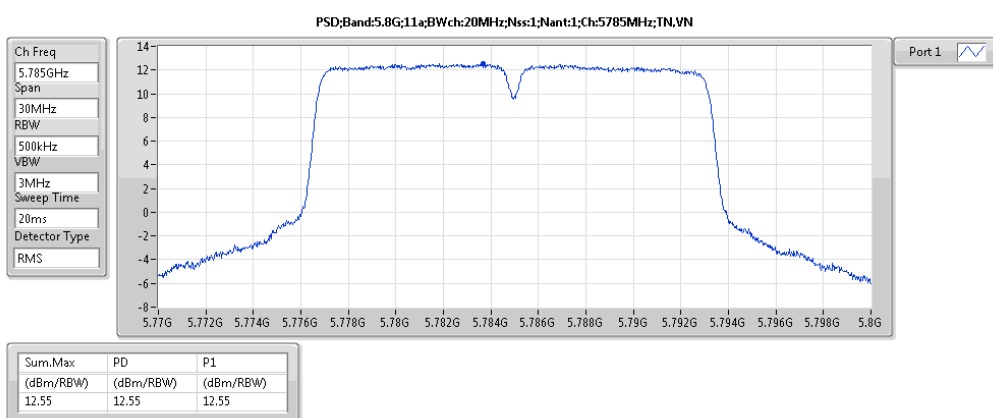
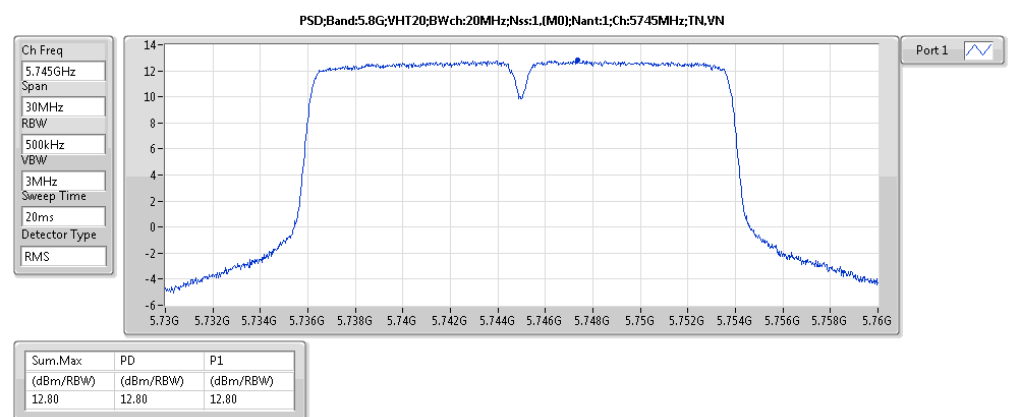
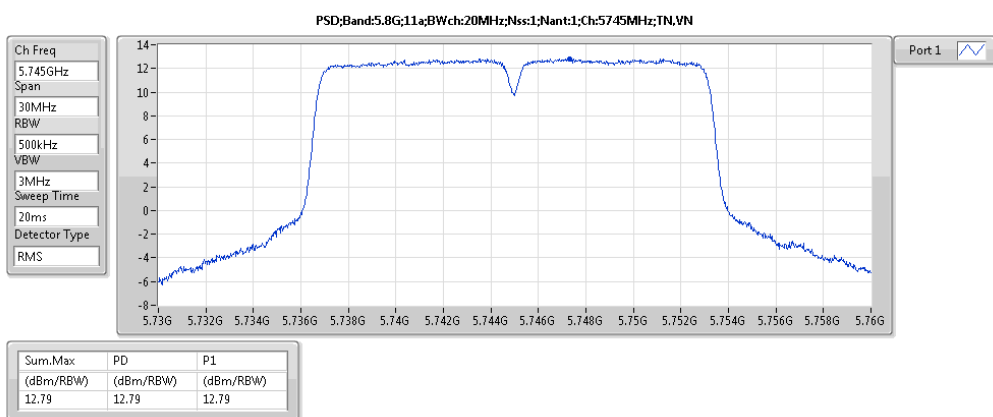
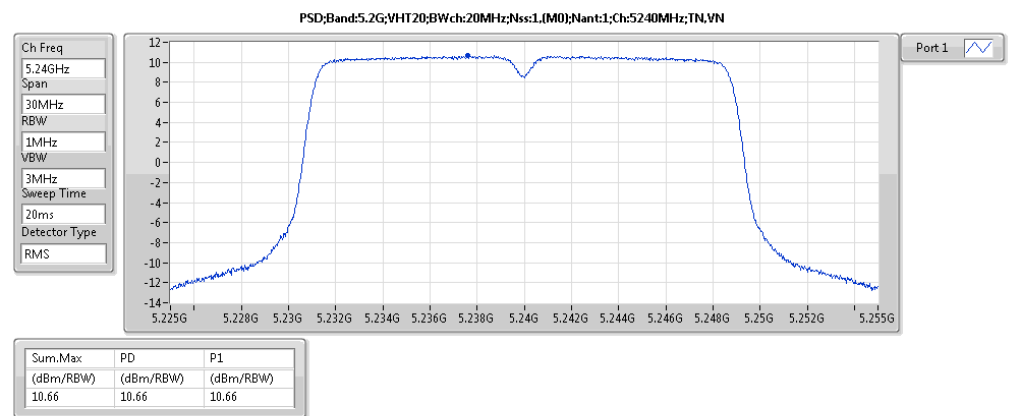
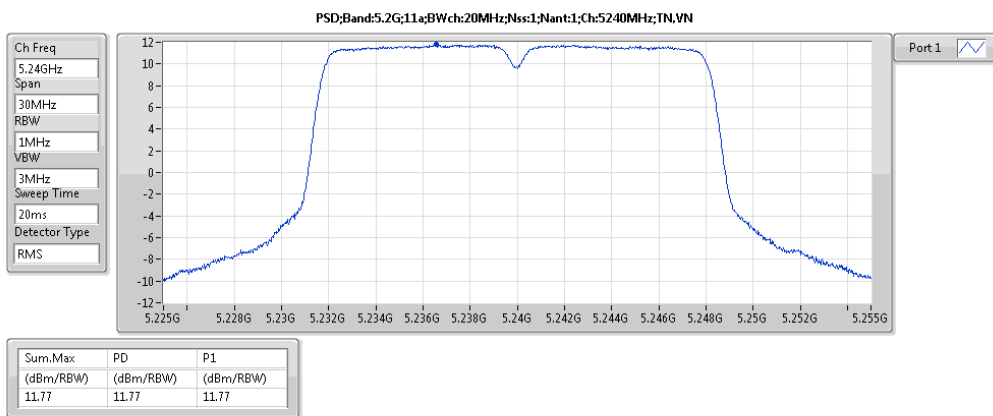
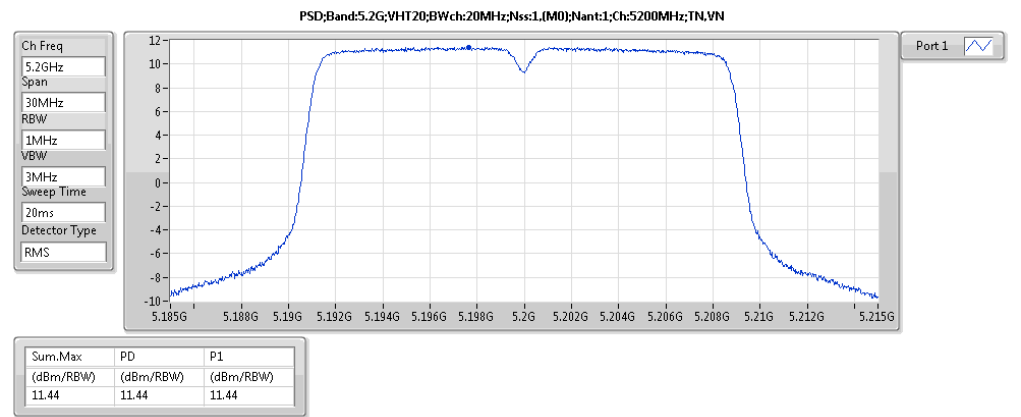
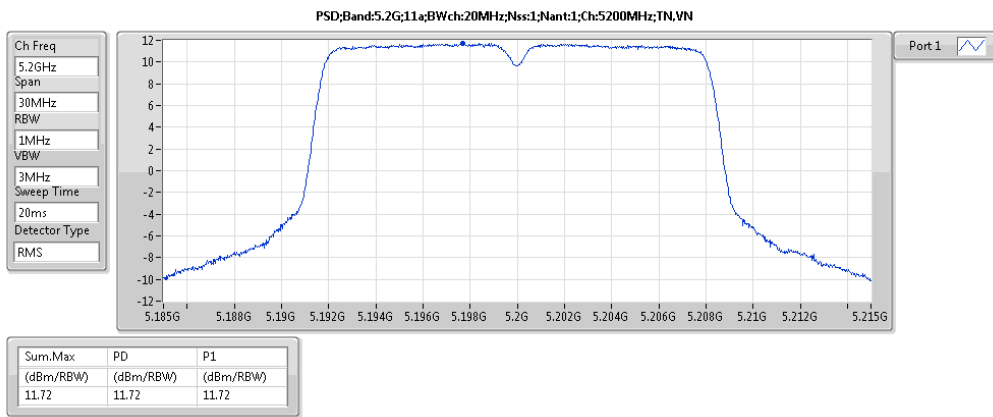
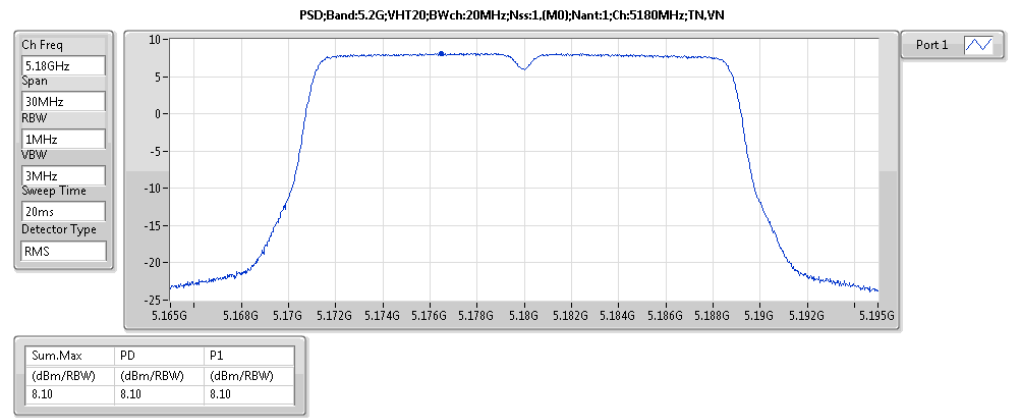
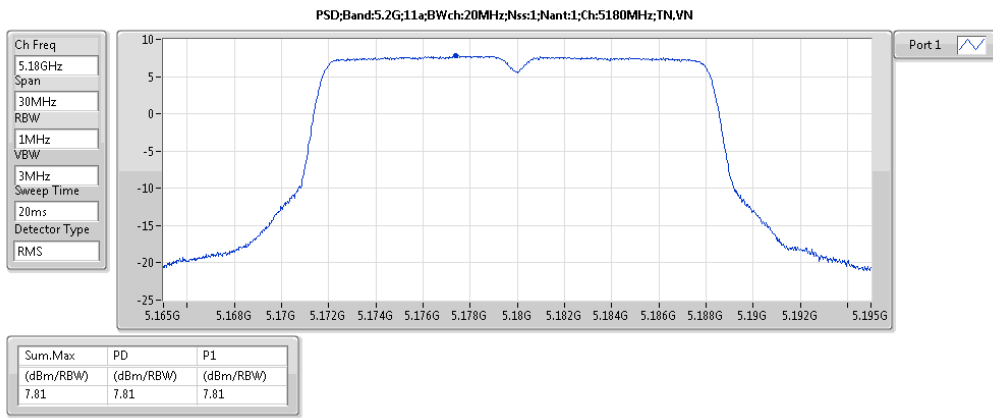


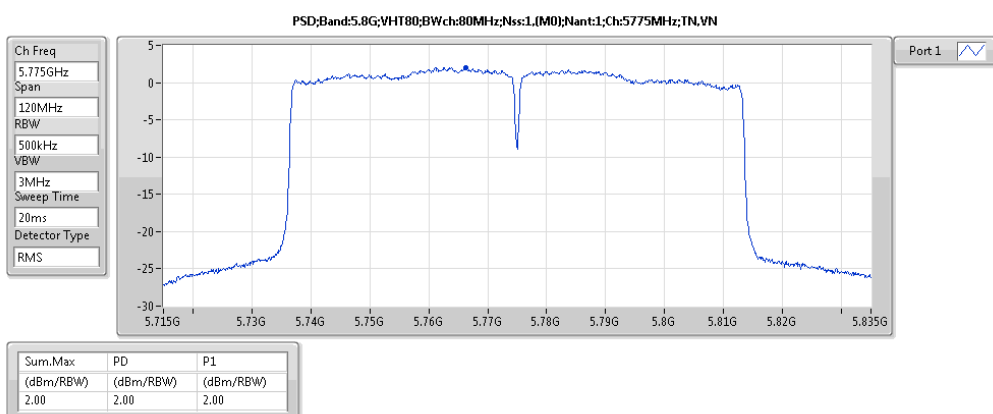
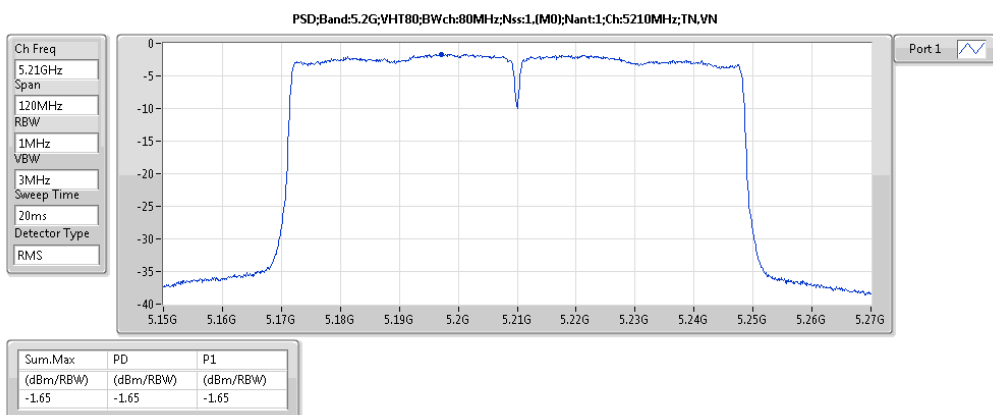
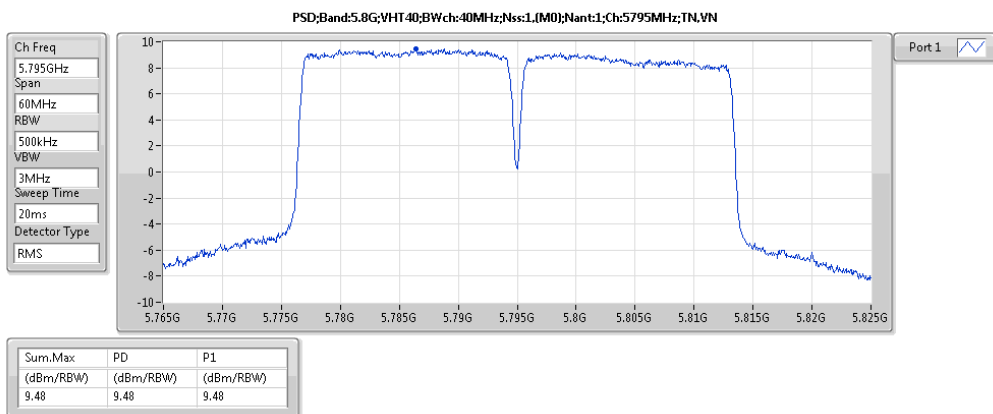
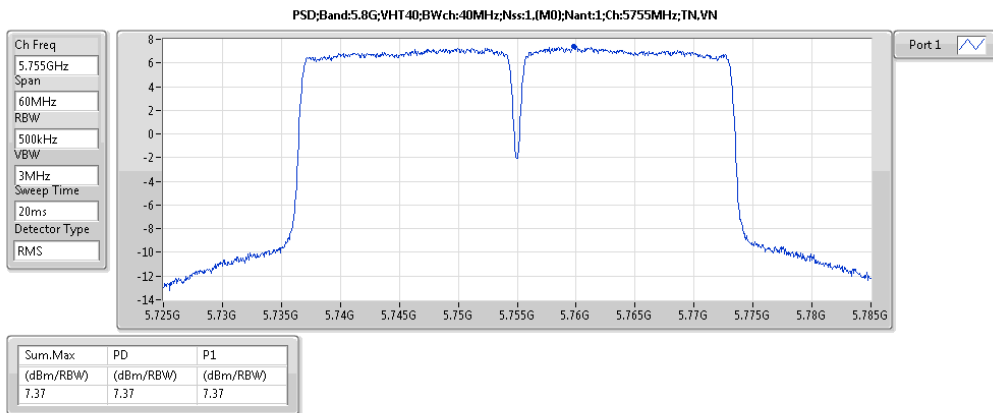
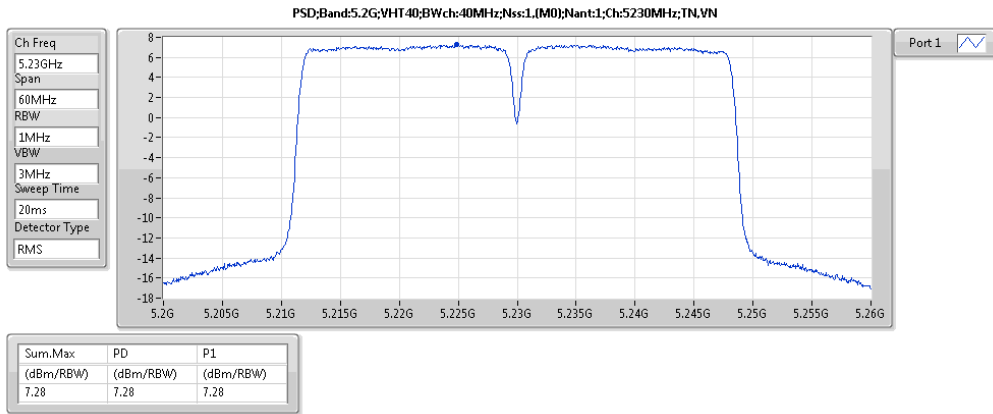
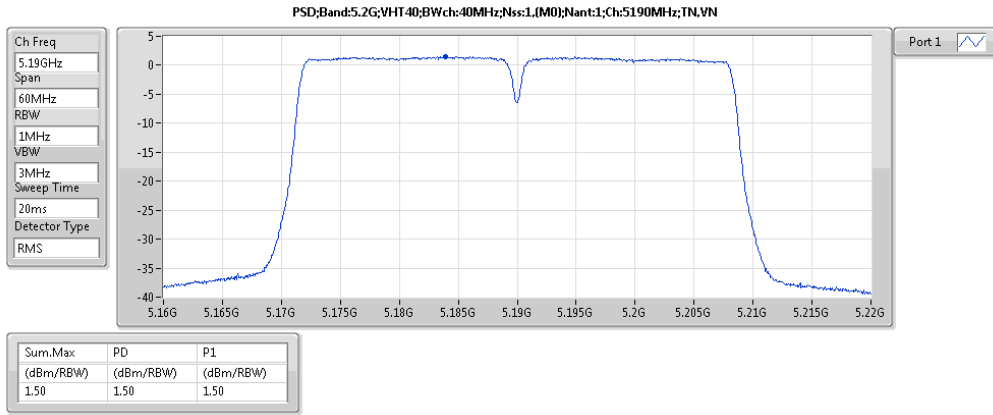
Summary

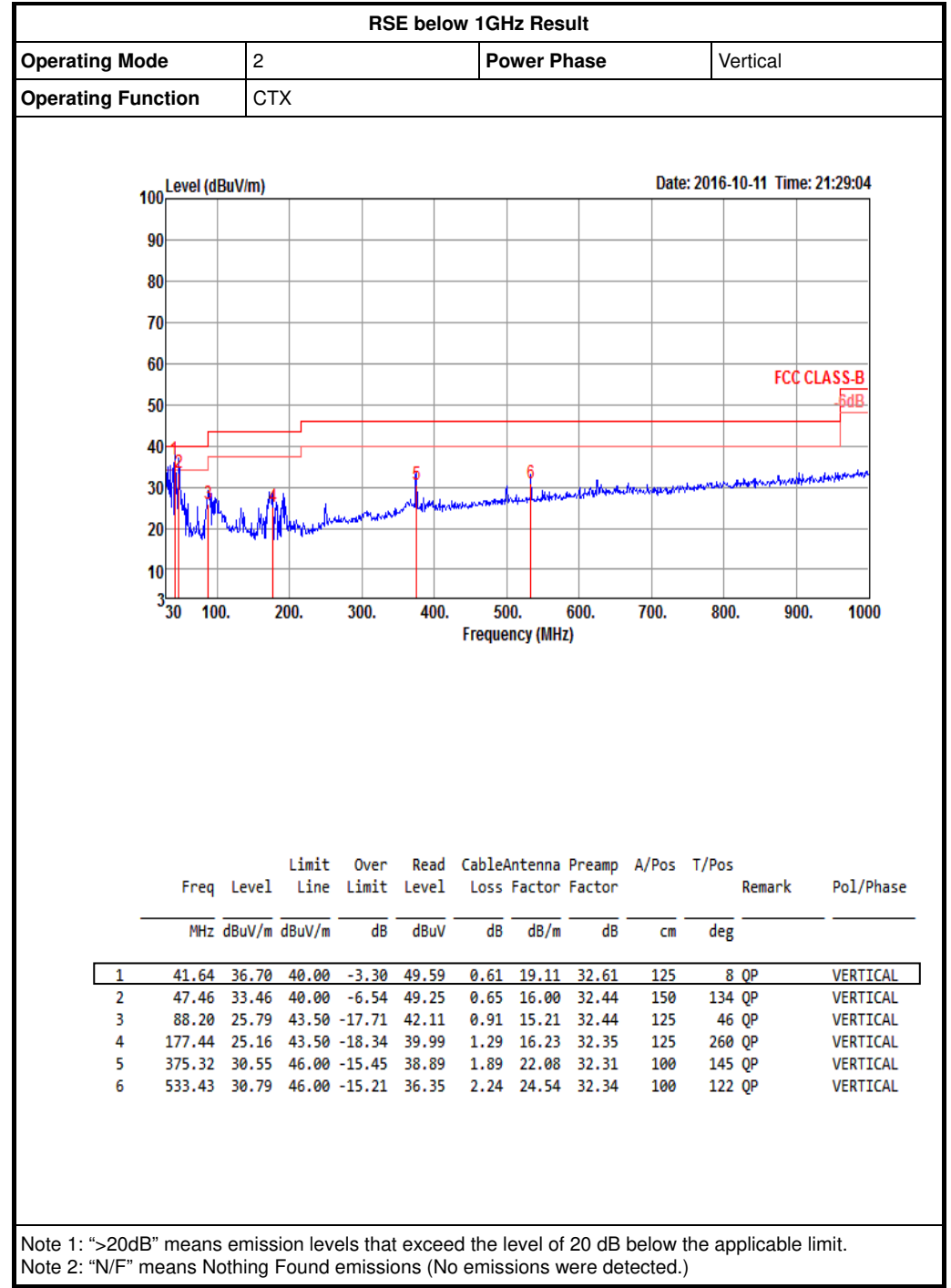
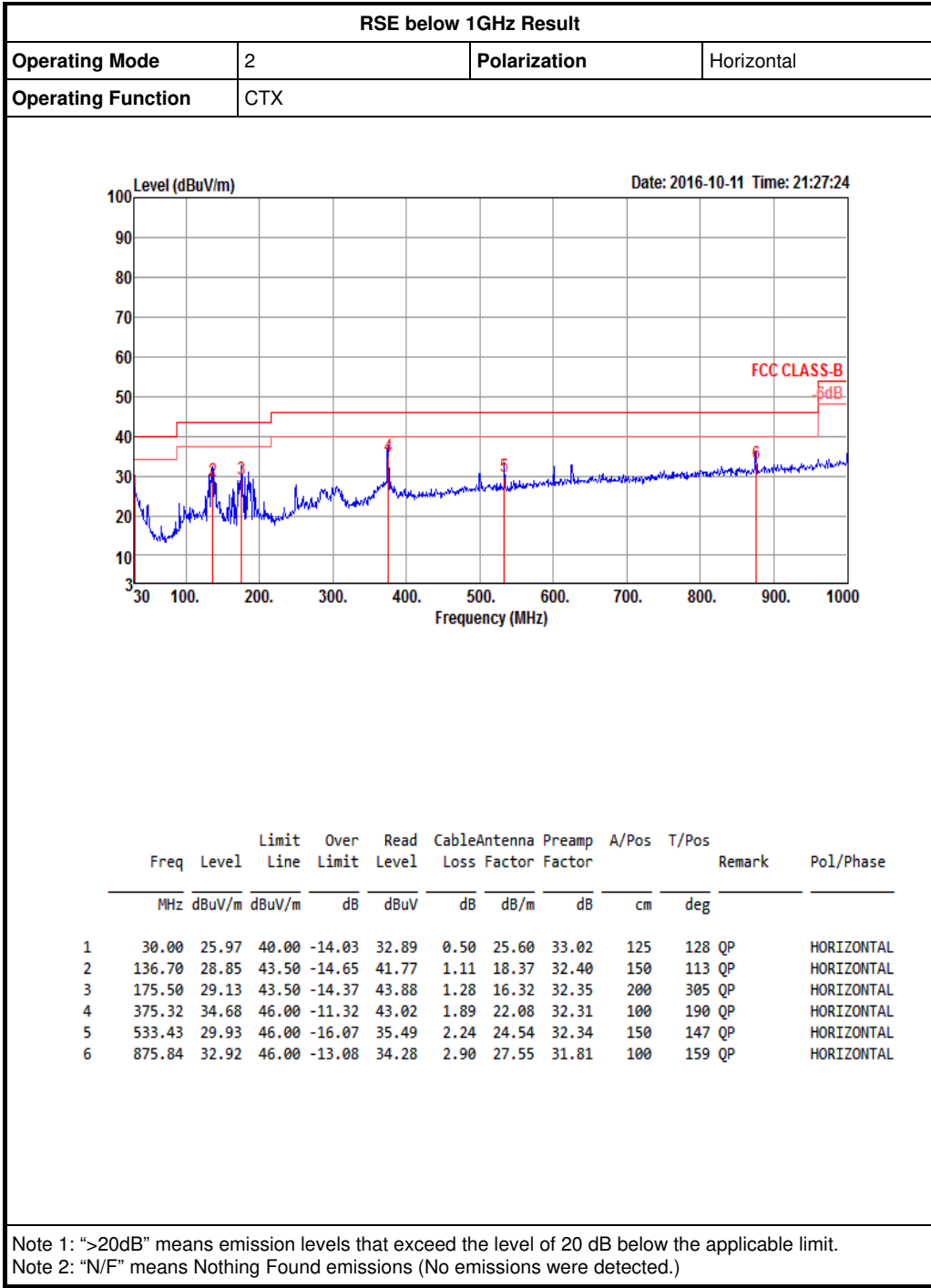
Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
5.2G;11a;Nss1;Ntx1	11.77	13.77
5.8G;11a;Nss1;Ntx1	12.79	14.79
5.2G;VHT20;Nss1,(M0);Ntx1	11.44	13.44
5.8G;VHT20;Nss1,(M0);Ntx1	12.80	14.80
5.2G;VHT40;Nss1,(M0);Ntx1	7.28	9.28
5.8G;VHT40;Nss1,(M0);Ntx1	9.48	11.48
5.2G;VHT80;Nss1,(M0);Ntx1	-1.65	0.35
5.8G;VHT80;Nss1,(M0);Ntx1	2.00	4.00

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)
5.2G;11a;Nss1;Ntx1;5180	Pass	1M	1M	0.00	2.00	7.81	7.81	17.00	9.81	Inf	7.81
5.2G;11a;Nss1;Ntx1;5200	Pass	1M	1M	0.00	2.00	11.72	11.72	17.00	13.72	Inf	11.72
5.2G;11a;Nss1;Ntx1;5240	Pass	1M	1M	0.00	2.00	11.77	11.77	17.00	13.77	Inf	11.77
5.8G;11a;Nss1;Ntx1;5745	Pass	500k	500k	0.00	2.00	12.79	12.79	30.00	14.79	36.00	12.79
5.8G;11a;Nss1;Ntx1;5785	Pass	500k	500k	0.00	2.00	12.55	12.55	30.00	14.55	36.00	12.55
5.8G;11a;Nss1;Ntx1;5825	Pass	500k	500k	0.00	2.00	12.36	12.36	30.00	14.36	36.00	12.36
5.2G;VHT20;Nss1,(M0);Ntx1;5180	Pass	1M	1M	0.00	2.00	8.10	8.10	17.00	10.10	Inf	8.10
5.2G;VHT20;Nss1,(M0);Ntx1;5200	Pass	1M	1M	0.00	2.00	11.44	11.44	17.00	13.44	Inf	11.44
5.2G;VHT20;Nss1,(M0);Ntx1;5240	Pass	1M	1M	0.00	2.00	10.66	10.66	17.00	12.66	Inf	10.66
5.8G;VHT20;Nss1,(M0);Ntx1;5745	Pass	500k	500k	0.00	2.00	12.80	12.80	30.00	14.80	36.00	12.80
5.8G;VHT20;Nss1,(M0);Ntx1;5785	Pass	500k	500k	0.00	2.00	12.49	12.49	30.00	14.49	36.00	12.49
5.8G;VHT20;Nss1,(M0);Ntx1;5825	Pass	500k	500k	0.00	2.00	12.31	12.31	30.00	14.31	36.00	12.31
5.2G;VHT40;Nss1,(M0);Ntx1;5190	Pass	1M	1M	0.00	2.00	1.50	1.50	17.00	3.50	Inf	1.50
5.2G;VHT40;Nss1,(M0);Ntx1;5230	Pass	1M	1M	0.00	2.00	7.28	7.28	17.00	9.28	Inf	7.28
5.8G;VHT40;Nss1,(M0);Ntx1;5755	Pass	500k	500k	0.00	2.00	7.37	7.37	30.00	9.37	36.00	7.37
5.8G;VHT40;Nss1,(M0);Ntx1;5795	Pass	500k	500k	0.00	2.00	9.48	9.48	30.00	11.48	36.00	9.48
5.2G;VHT80;Nss1,(M0);Ntx1;5210	Pass	1M	1M	0.00	2.00	-1.65	-1.65	17.00	0.35	Inf	-1.65
5.8G;VHT80;Nss1,(M0);Ntx1;5775	Pass	500k	500k	0.00	2.00	2.00	2.00	30.00	4.00	36.00	2.00



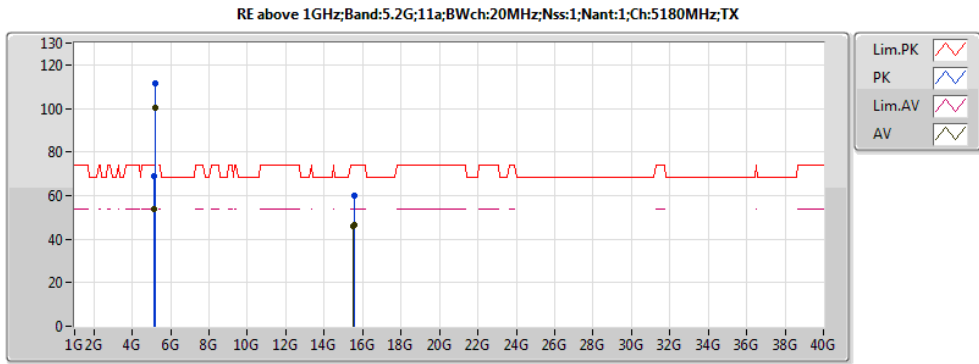






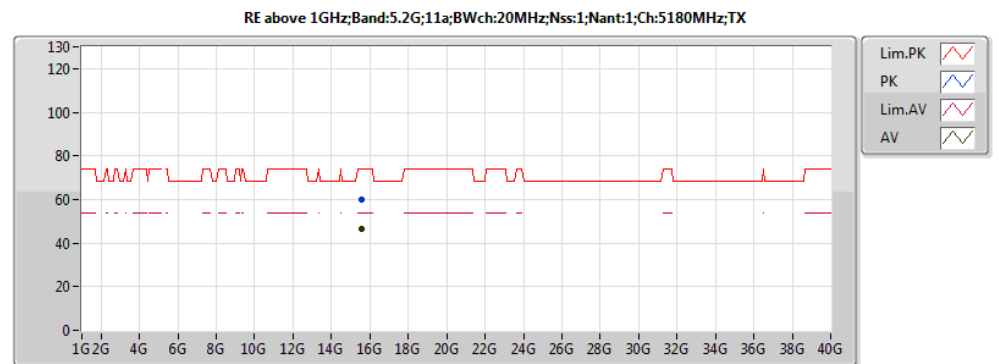
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)
5.2G;11a;20;1;1;5200;M;TX	Pass	AV	5.1496G	53.95	54.00	-0.05	7.71	3	V	48	2.93
5.8G;VHT40;40;1;(M0);1;5755;L;TX	Pass	PK	5.645G	67.98	68.20	-0.22	8.46	3	V	178	1.96



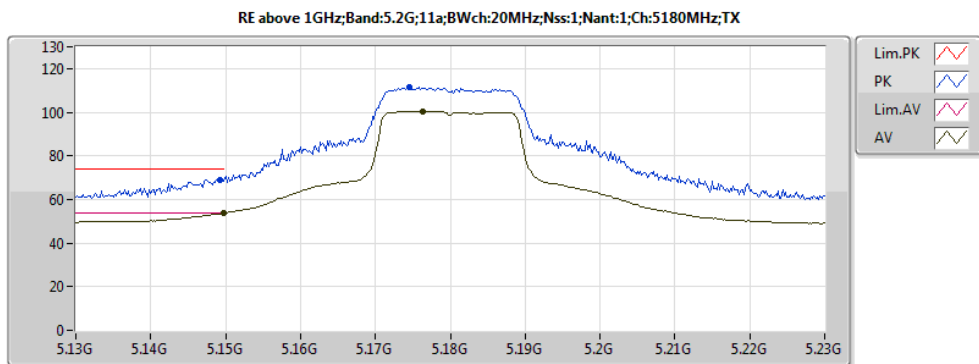
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.54448G	46.77	54.00	-7.23	17.32	3	H	177	1.32	-
PK	15.54206G	59.85	74.00	-14.15	17.33	3	H	177	1.32	-
AV	5.1498G	53.63	54.00	-0.37	7.71	3	V	322	2.98	-
AV	5.1764G	100.57	Inf	-Inf	7.77	3	V	322	2.98	-
AV	15.53688G	46.19	54.00	-7.81	17.34	3	V	360	1.54	-
PK	5.1492G	69.07	74.00	-4.93	7.71	3	V	322	2.98	-
PK	5.1746G	111.72	Inf	-Inf	7.76	3	V	322	2.98	-
PK	15.53778G	60.19	74.00	-13.81	17.34	3	V	360	1.54	-



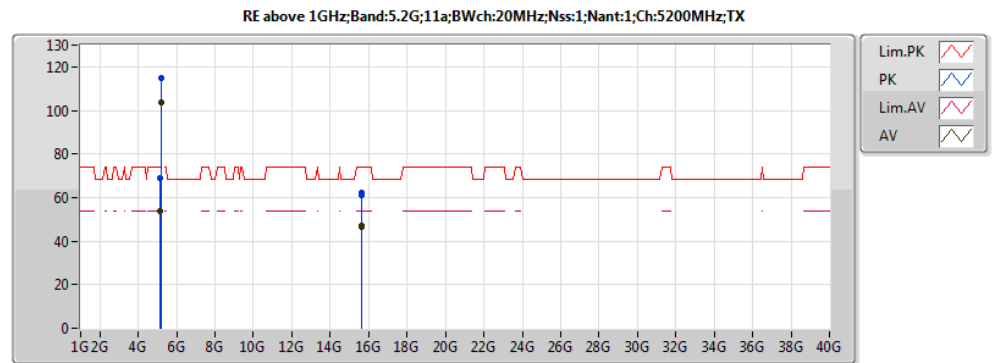
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.54448G	46.77	54.00	-7.23	17.32	3	H	177	1.32	-
PK	15.54206G	59.85	74.00	-14.15	17.33	3	H	177	1.32	-



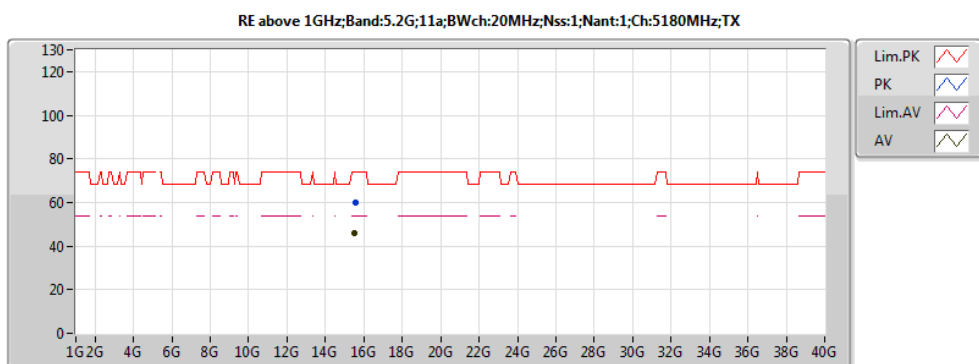
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EUT_Z_Dipole
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1498G	53.63	54.00	-0.37	7.71	3	V	322	2.98	-
AV	5.1764G	100.57	Inf	-Inf	7.77	3	V	322	2.98	-
PK	5.1492G	69.07	74.00	-4.93	7.71	3	V	322	2.98	-
PK	5.1746G	111.72	Inf	-Inf	7.76	3	V	322	2.98	-



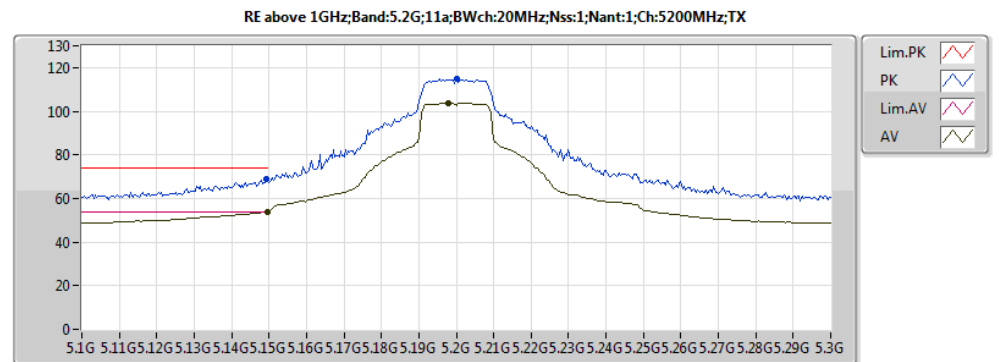
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60184G	46.71	54.00	-7.29	17.19	3	H	228	1.37	-
PK	15.60256G	62.31	74.00	-11.69	17.19	3	H	228	1.37	-
AV	5.1496G	53.95	54.00	-0.05	7.71	3	V	48	2.93	-
AV	5.198G	103.89	Inf	-Inf	7.82	3	V	48	2.93	-
AV	15.60164G	46.85	54.00	-7.15	17.19	3	V	357	1.51	-
PK	5.1492G	69.05	74.00	-4.95	7.71	3	V	48	2.93	-
PK	5.2G	114.91	Inf	-Inf	7.82	3	V	48	2.93	-
PK	15.60496G	61.03	74.00	-12.97	17.18	3	V	357	1.51	-



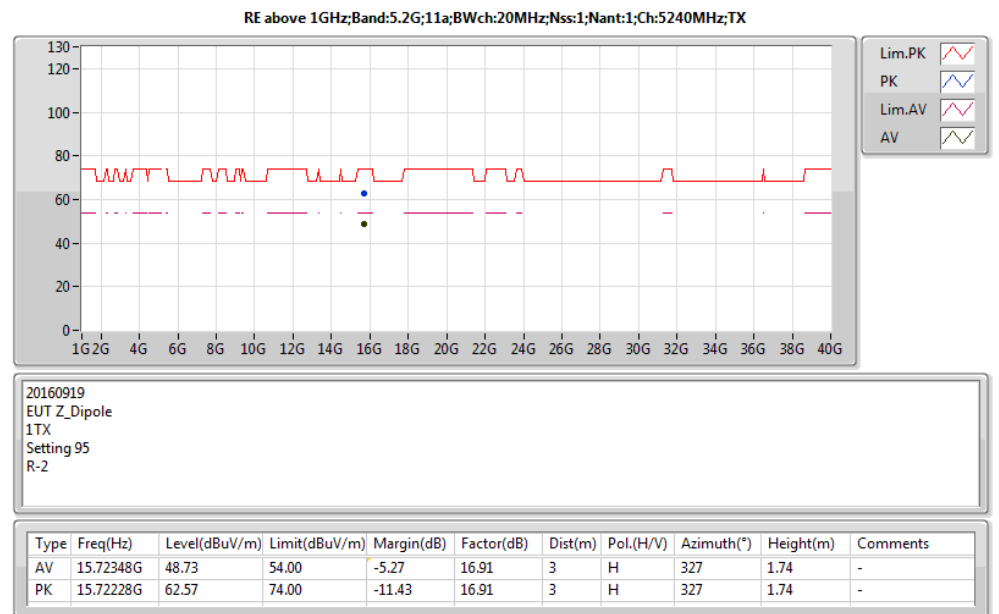
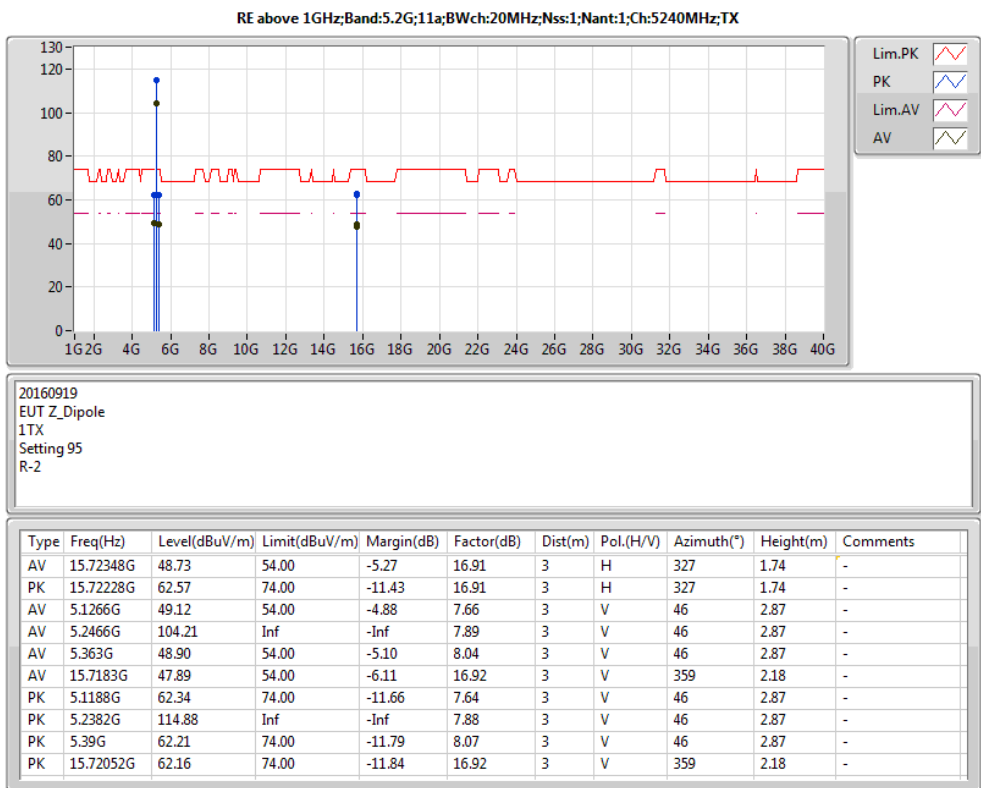
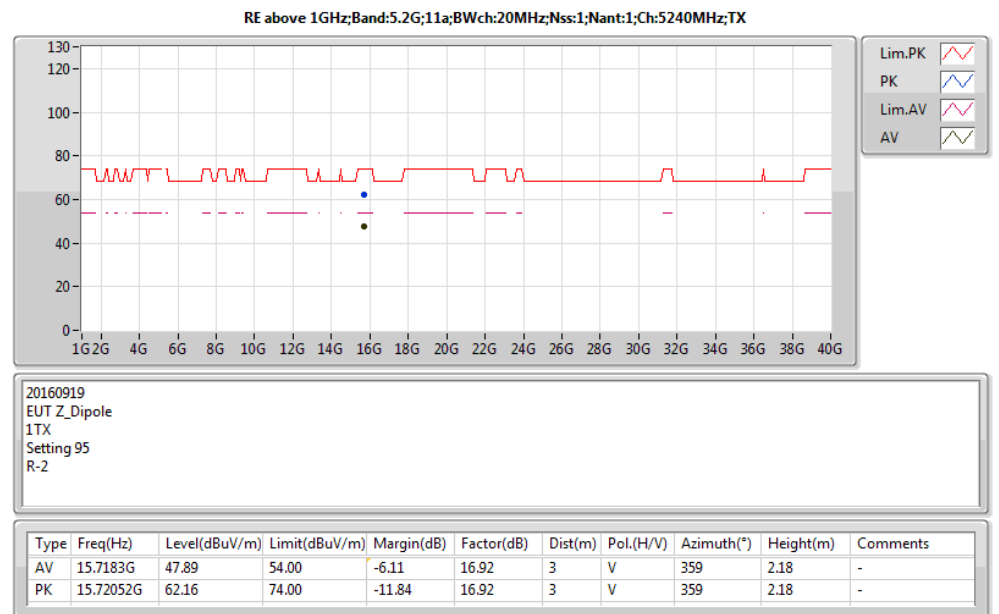
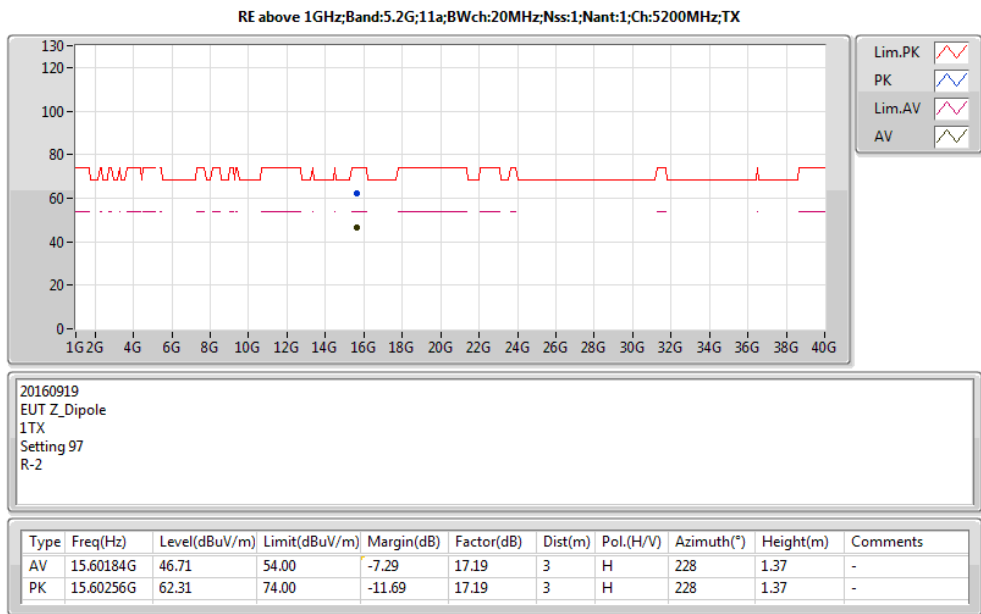
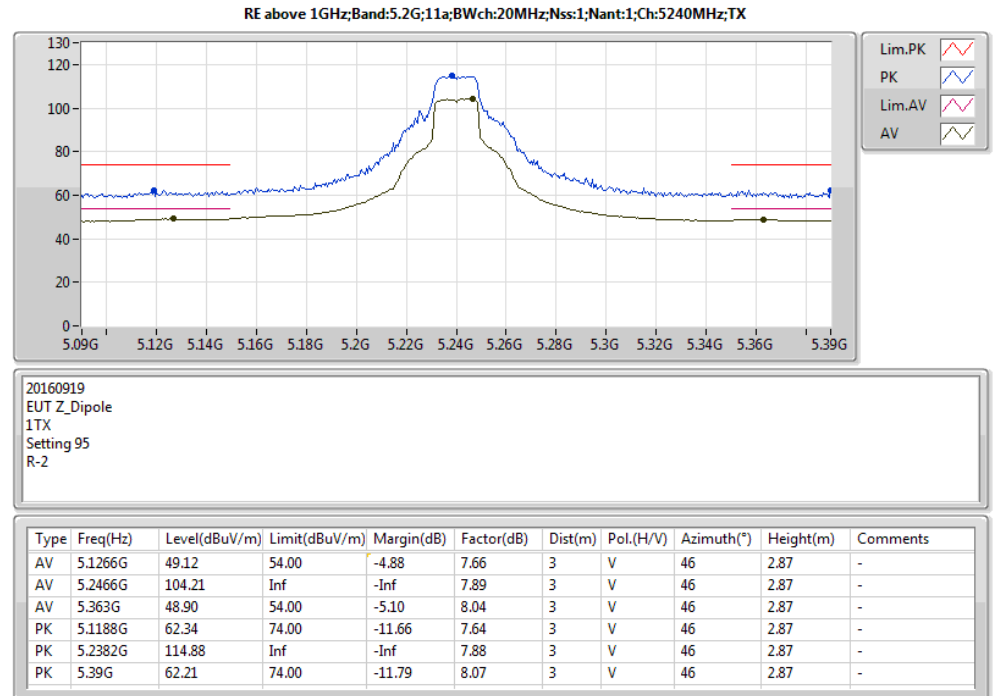
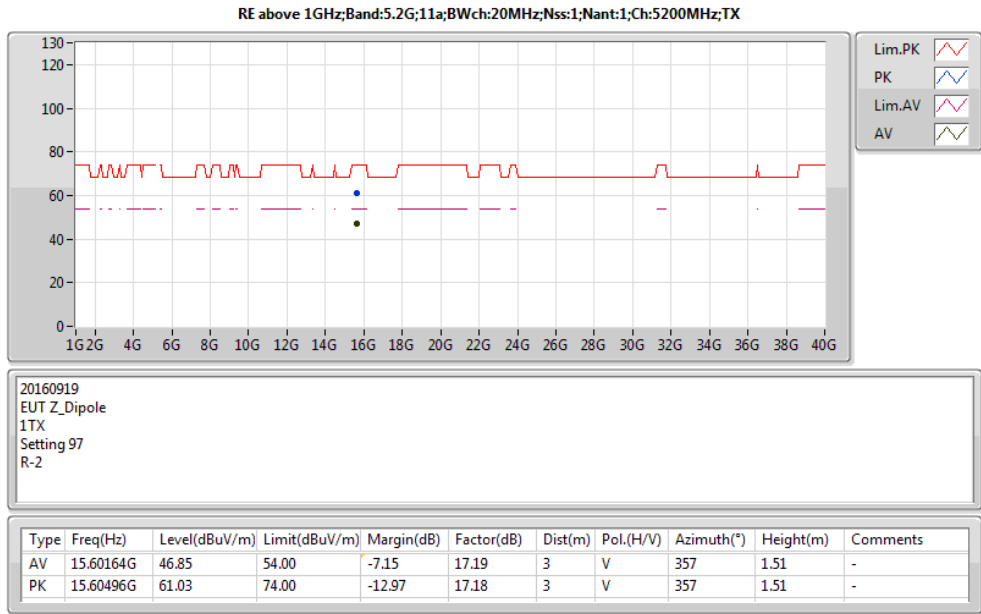
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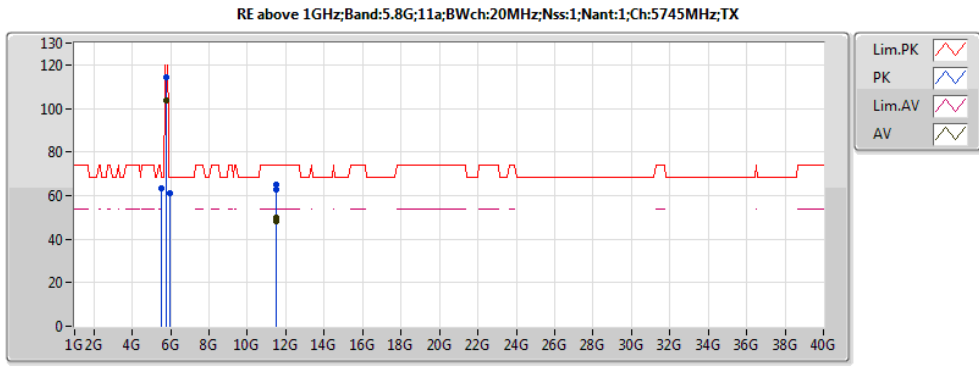
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53688G	46.19	54.00	-7.81	17.34	3	V	360	1.54	-
PK	15.53778G	60.19	74.00	-13.81	17.34	3	V	360	1.54	-



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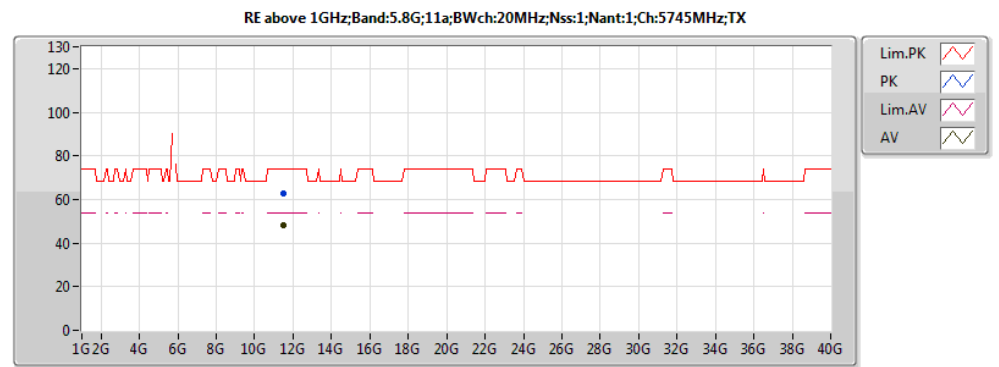
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	53.95	54.00	-0.05	7.71	3	V	48	2.93	-
AV	5.198G	103.89	Inf	-Inf	7.82	3	V	48	2.93	-
PK	5.1492G	69.05	74.00	-4.95	7.71	3	V	48	2.93	-
PK	5.2G	114.91	Inf	-Inf	7.82	3	V	48	2.93	-





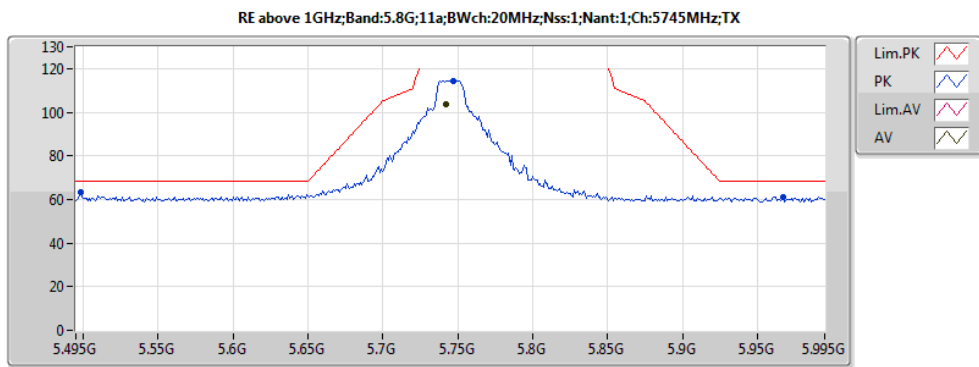
20160919
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4905G	48.22	54.00	-5.78	16.30	3	H	273	2.23	-
PK	11.49042G	62.78	74.00	-11.22	16.30	3	H	273	2.23	-
AV	5.742G	103.55	Inf	-Inf	8.48	3	V	355	1.50	-
AV	11.4899G	49.92	54.00	-4.08	16.30	3	V	290	1.53	-
PK	5.498G	63.13	68.20	-5.07	8.31	3	V	355	1.50	-
PK	5.747G	114.54	Inf	-Inf	8.48	3	V	355	1.50	-
PK	5.967G	61.03	68.20	-7.17	8.74	3	V	355	1.50	-
PK	11.49042G	65.11	74.00	-8.89	16.30	3	V	290	1.53	-



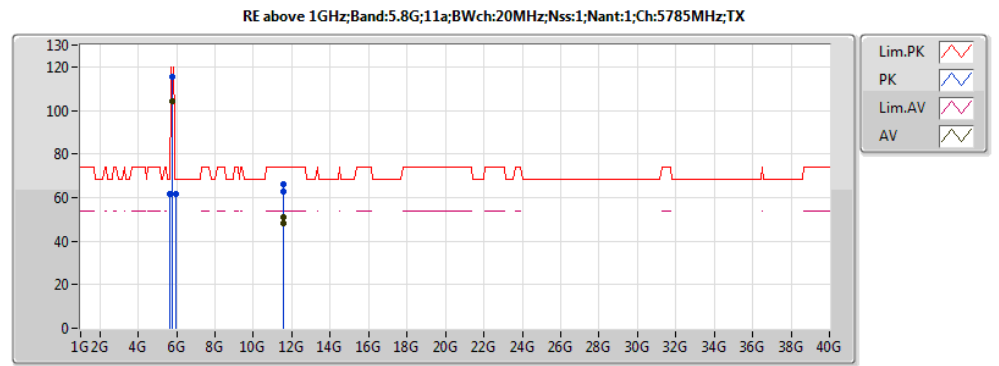
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EUT_Z_Dipole
1TX
Setting 100
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4905G	48.22	54.00	-5.78	16.30	3	H	273	2.23	-
PK	11.49042G	62.78	74.00	-11.22	16.30	3	H	273	2.23	-



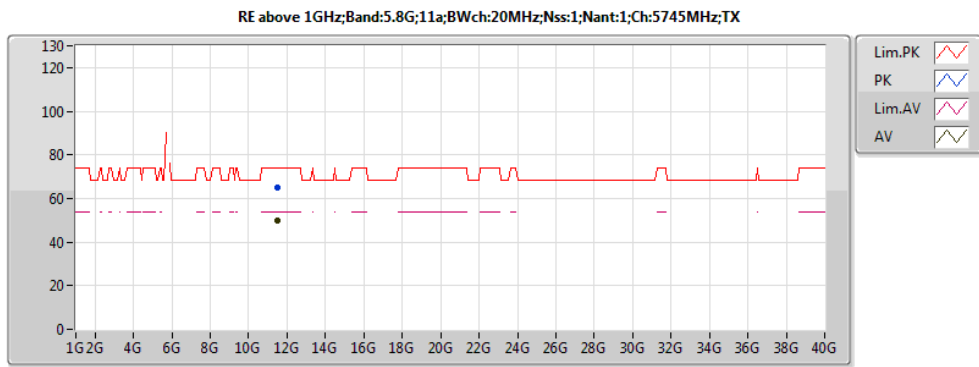
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EUT_Z_Dipole
1TX
Setting 100
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.742G	103.55	Inf	-Inf	8.48	3	V	355	1.50	-
PK	5.498G	63.13	68.20	-5.07	8.31	3	V	355	1.50	-
PK	5.747G	114.54	Inf	-Inf	8.48	3	V	355	1.50	-
PK	5.967G	61.03	68.20	-7.17	8.74	3	V	355	1.50	-



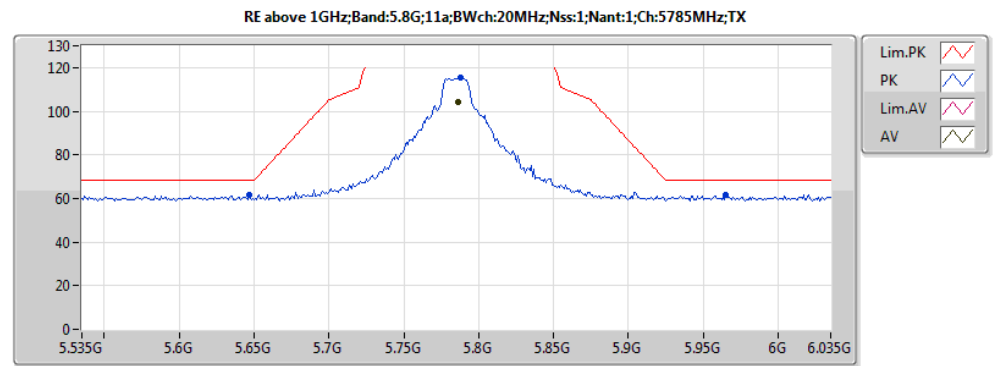
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1TX
Setting 100
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56993G	48.26	54.00	-5.74	16.33	3	H	273	2.16	-
PK	11.57054G	62.49	74.00	-11.51	16.33	3	H	273	2.16	-
AV	5.786G	103.99	Inf	-Inf	8.49	3	V	358	1.78	-
AV	11.56985G	51.25	54.00	-2.75	16.33	3	V	245	1.51	-
PK	5.647G	61.39	68.20	-6.81	8.46	3	V	358	1.78	-
PK	5.788G	115.26	Inf	-Inf	8.49	3	V	358	1.78	-
PK	5.965G	61.60	68.20	-6.60	8.73	3	V	358	1.78	-
PK	11.57033G	65.94	74.00	-8.06	16.33	3	V	245	1.51	-



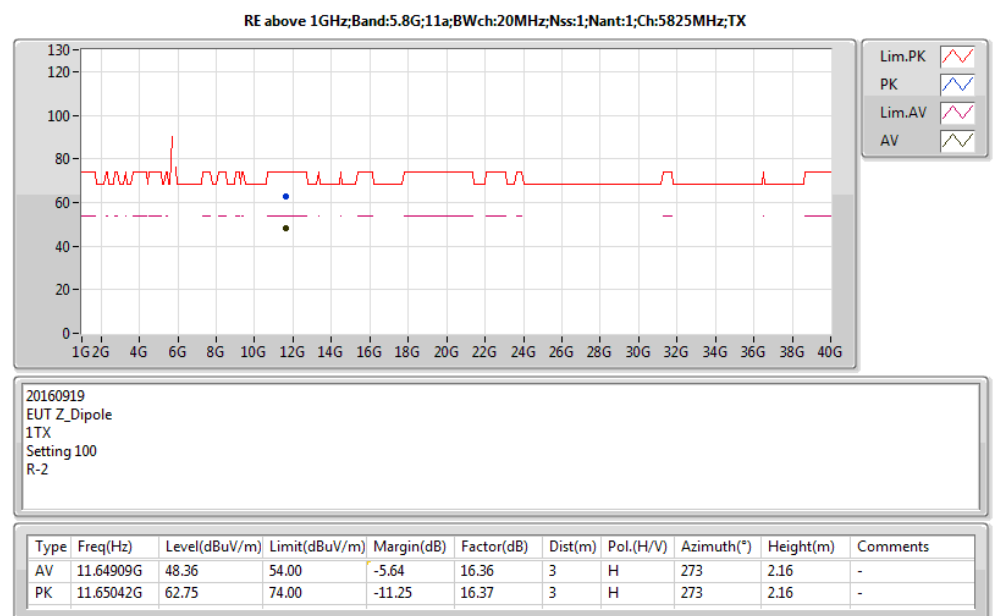
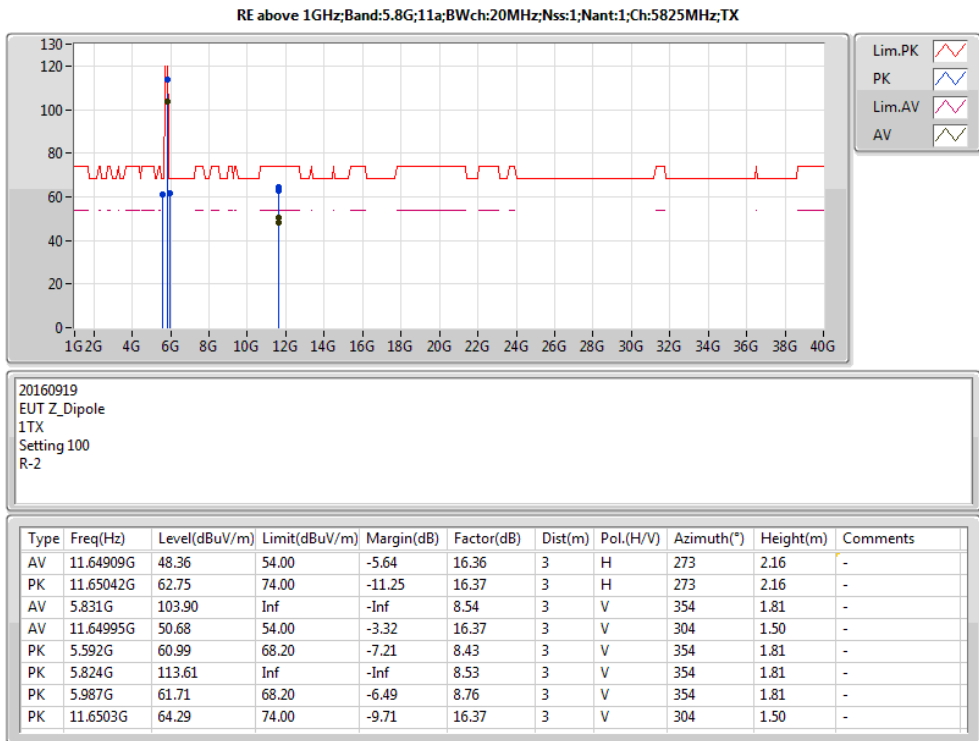
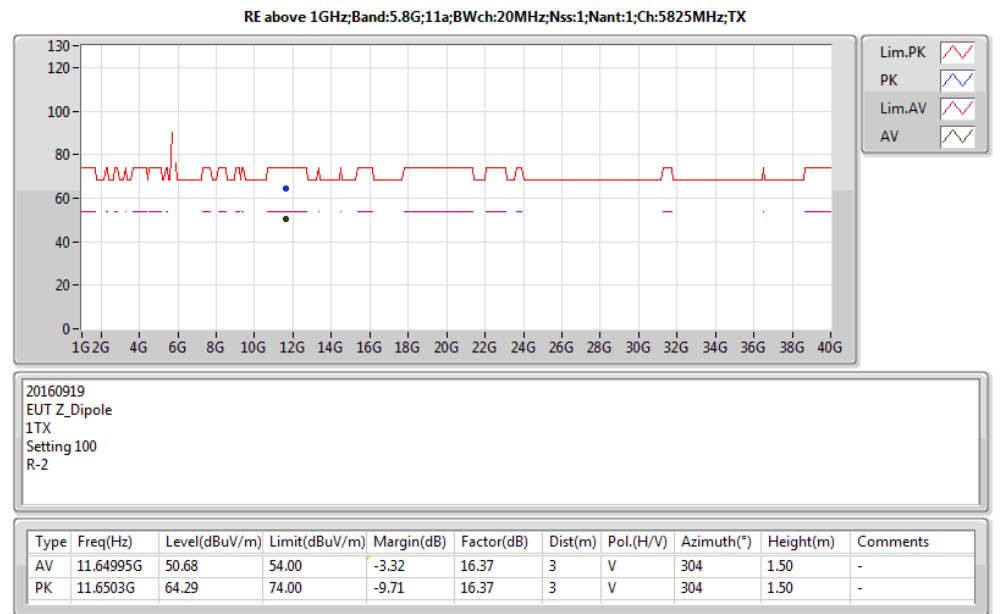
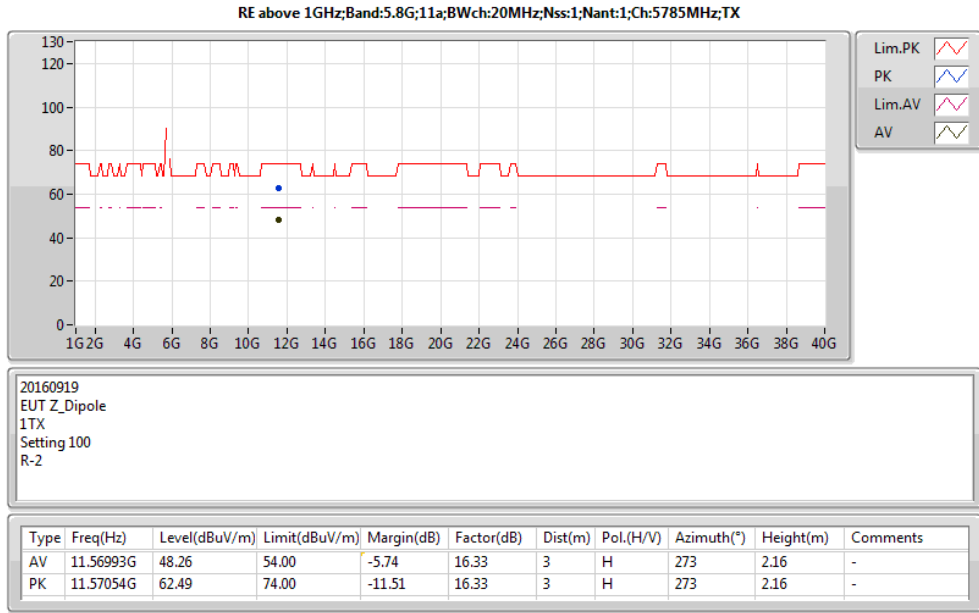
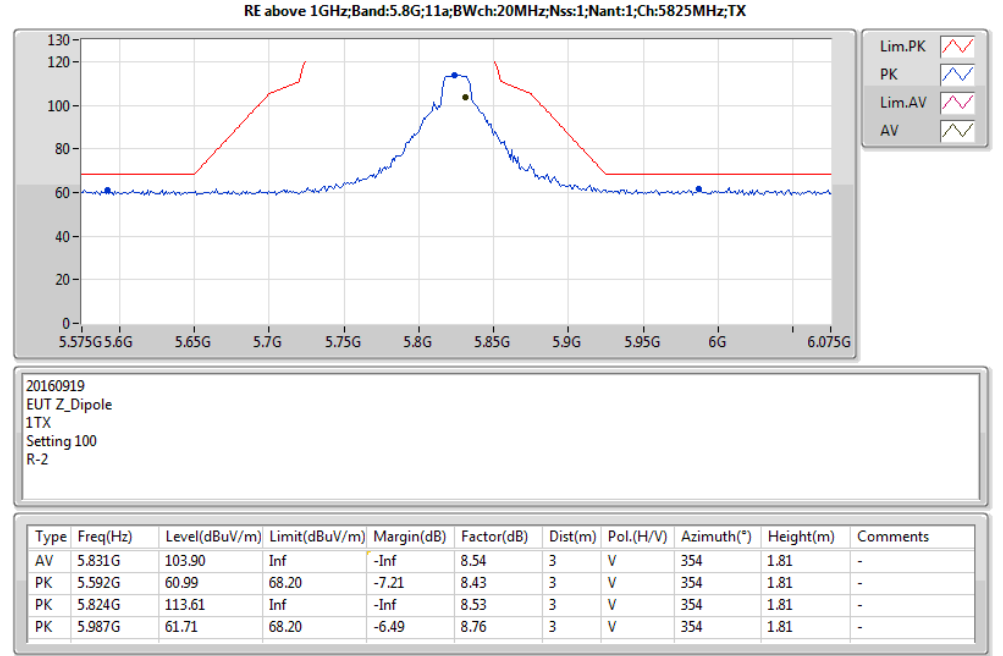
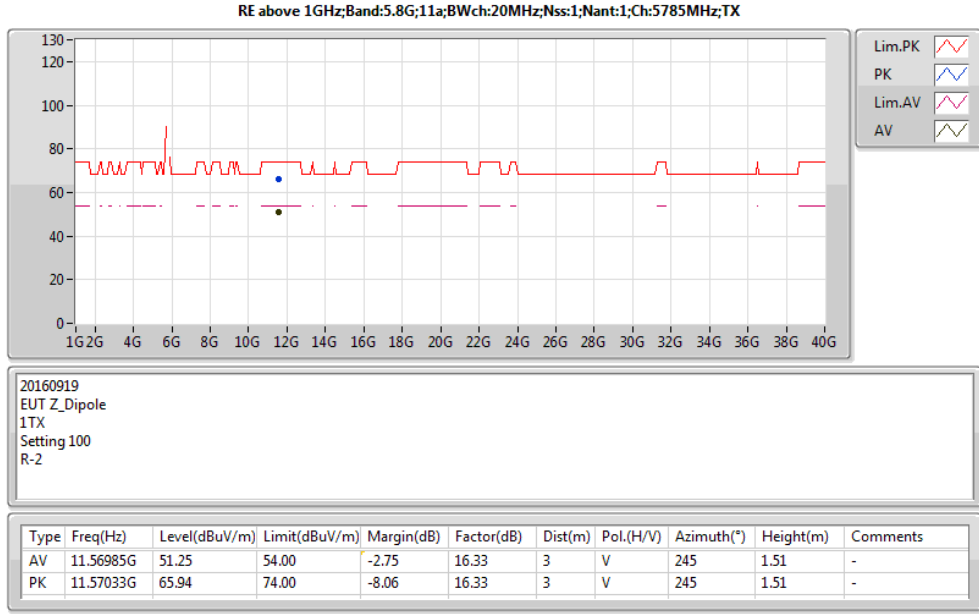
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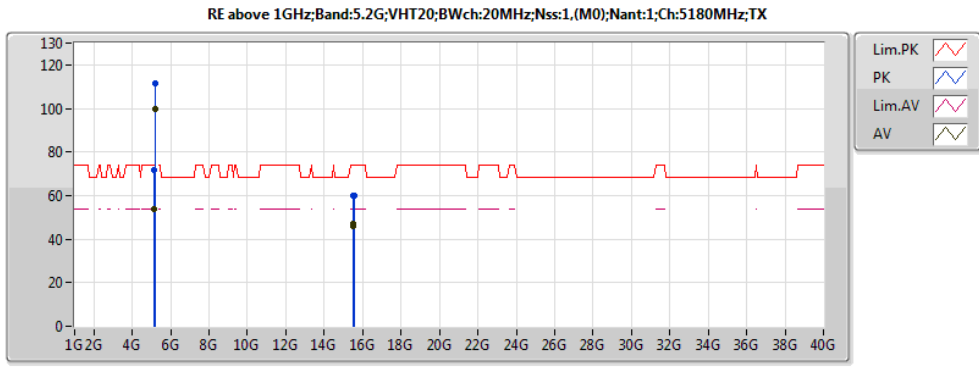
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4899G	49.92	54.00	-4.08	16.30	3	V	290	1.53	-
PK	11.49042G	65.11	74.00	-8.89	16.30	3	V	290	1.53	-



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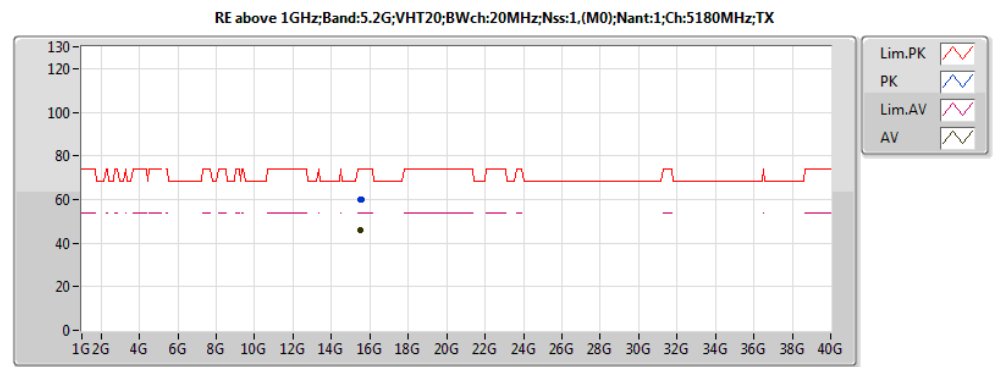
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	103.99	Inf	-Inf	8.49	3	V	358	1.78	-
PK	5.647G	61.39	68.20	-6.81	8.46	3	V	358	1.78	-
PK	5.788G	115.26	Inf	-Inf	8.49	3	V	358	1.78	-
PK	5.965G	61.60	68.20	-6.60	8.73	3	V	358	1.78	-





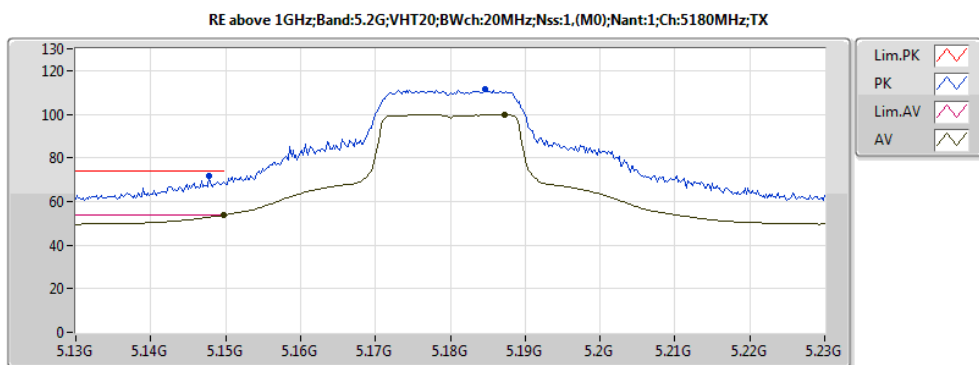
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.535G	45.84	54.00	-8.16	17.35	3	H	165	1.86	-
AV	15.53544G	45.83	54.00	-8.17	17.34	3	H	165	1.86	-
PK	15.53652G	59.83	74.00	-14.17	17.34	3	H	165	1.86	-
PK	15.54406G	60.00	74.00	-14.00	17.32	3	H	165	1.86	-
AV	5.1498G	53.86	54.00	-0.14	7.71	3	V	46	2.77	-
AV	5.1872G	99.66	Inf	-Inf	7.79	3	V	46	2.77	-
AV	5.53564G	46.80	54.00	-7.20	17.34	3	V	345	2.26	-
PK	5.1478G	71.93	74.00	-2.07	7.70	3	V	46	2.77	-
PK	5.1846G	111.35	Inf	-Inf	7.79	3	V	46	2.77	-
PK	15.5381G	60.01	74.00	-13.99	17.34	3	V	345	2.26	-



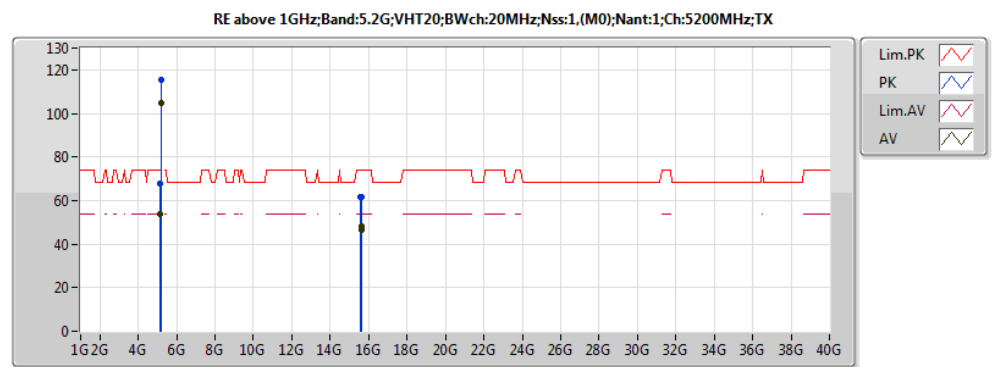
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.535G	45.84	54.00	-8.16	17.35	3	H	165	1.86	-
AV	15.53544G	45.83	54.00	-8.17	17.34	3	H	165	1.86	-
PK	15.53652G	59.83	74.00	-14.17	17.34	3	H	165	1.86	-
PK	15.54406G	60.00	74.00	-14.00	17.32	3	H	165	1.86	-



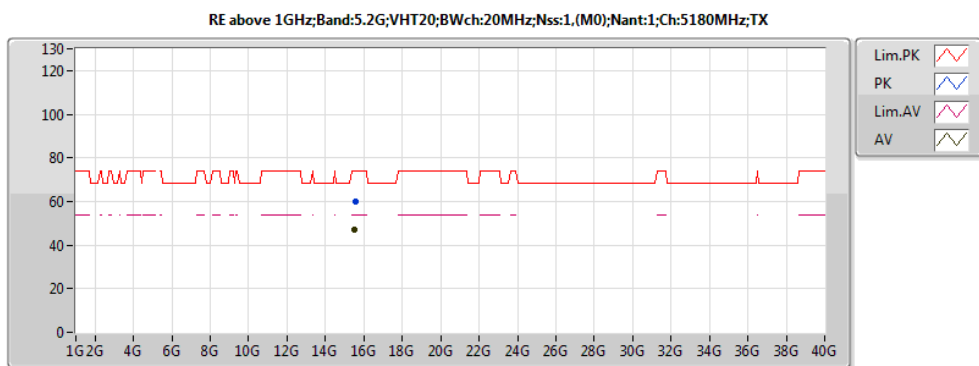
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1498G	53.86	54.00	-0.14	7.71	3	V	46	2.77	-
AV	5.1872G	99.66	Inf	-Inf	7.79	3	V	46	2.77	-
PK	5.1478G	71.93	74.00	-2.07	7.70	3	V	46	2.77	-
PK	5.1846G	111.35	Inf	-Inf	7.79	3	V	46	2.77	-



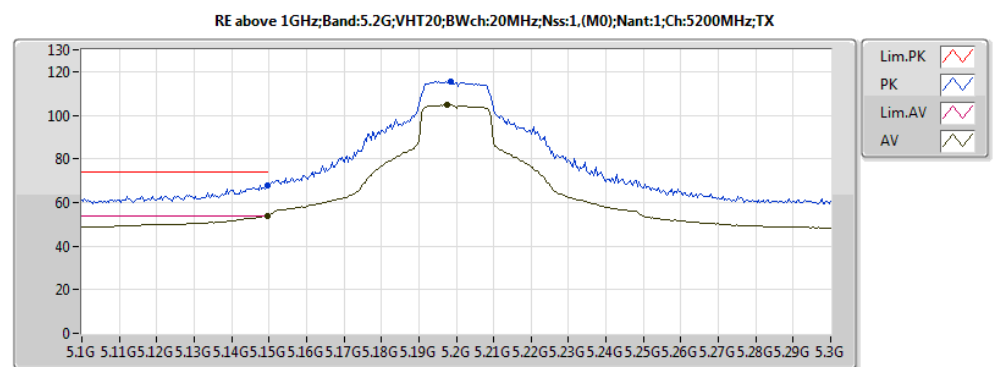
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60434G	48.36	54.00	-5.64	17.19	3	H	223	1.78	-
PK	15.59912G	61.89	74.00	-12.11	17.20	3	H	223	1.78	-
AV	5.1496G	53.95	54.00	-0.05	7.71	3	V	81	2.75	-
AV	5.1976G	104.64	Inf	-Inf	7.82	3	V	81	2.75	-
AV	15.60448G	46.57	54.00	-7.43	17.18	3	V	335	1.78	-
PK	5.1496G	67.79	74.00	-6.21	7.71	3	V	81	2.75	-
PK	5.1984G	115.40	Inf	-Inf	7.82	3	V	81	2.75	-
PK	15.604G	61.38	74.00	-12.62	17.19	3	V	335	1.78	-



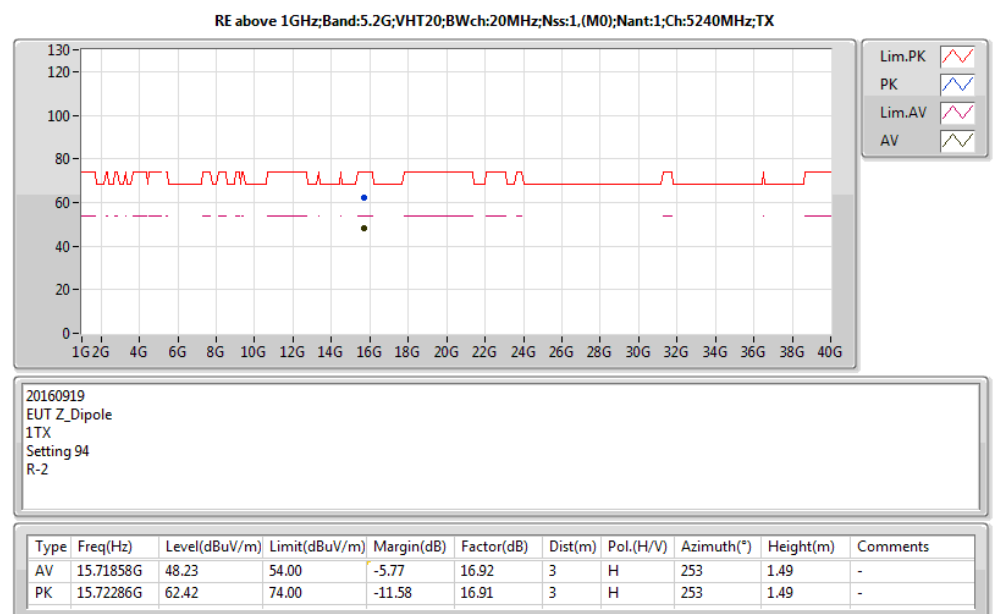
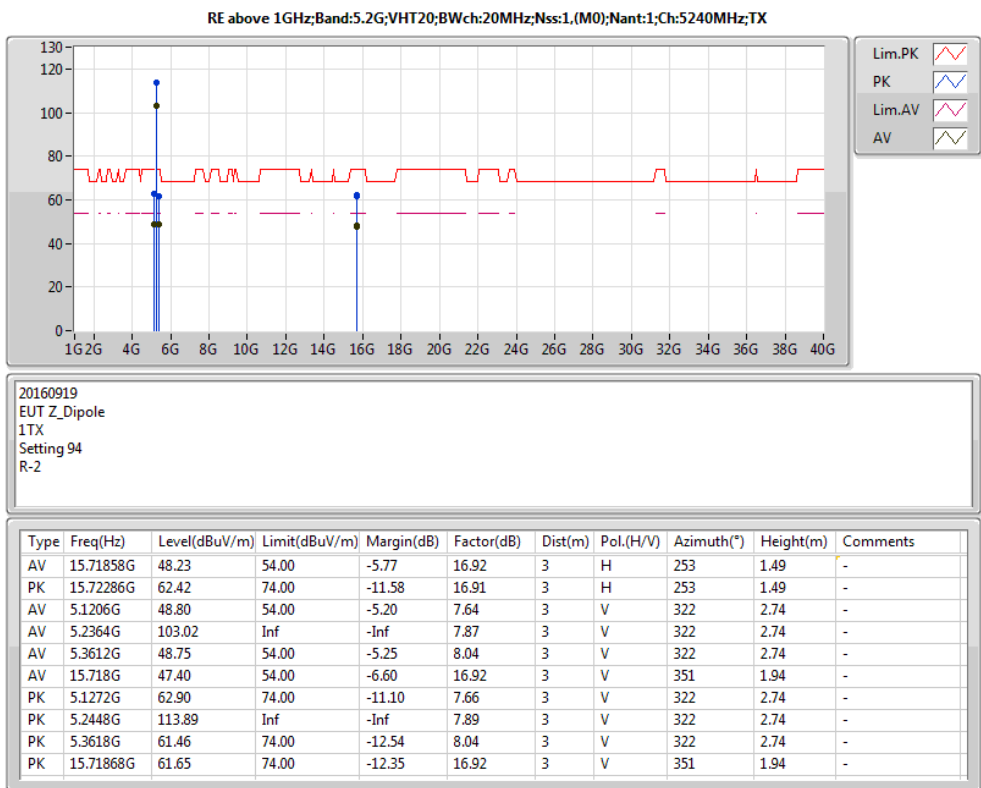
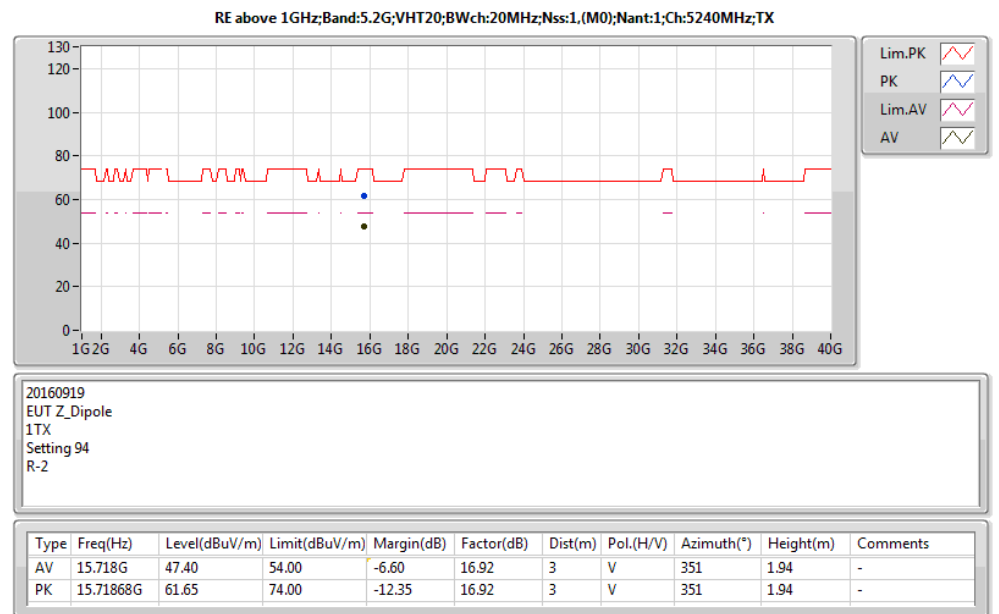
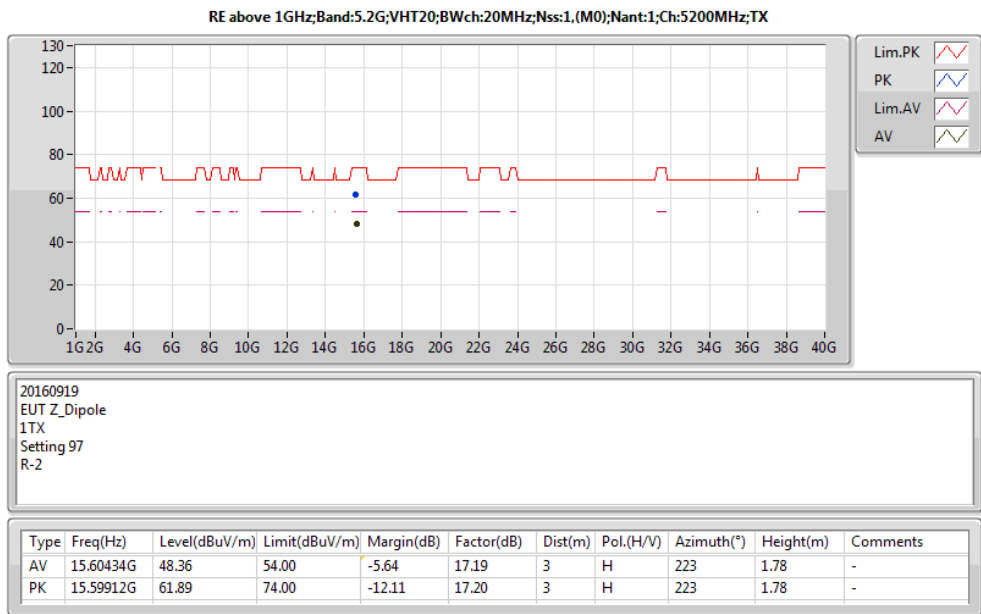
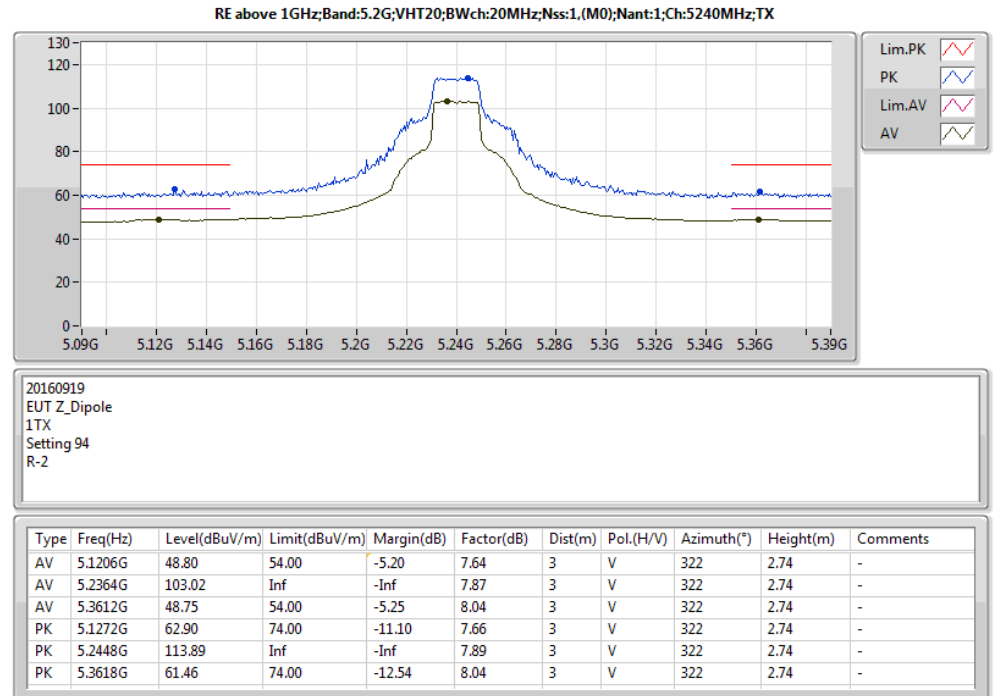
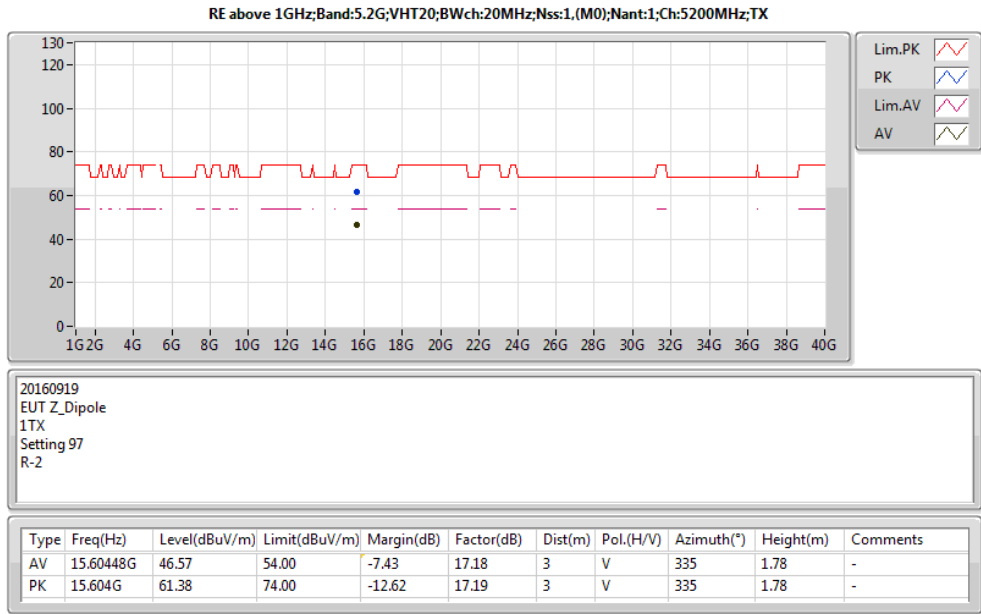
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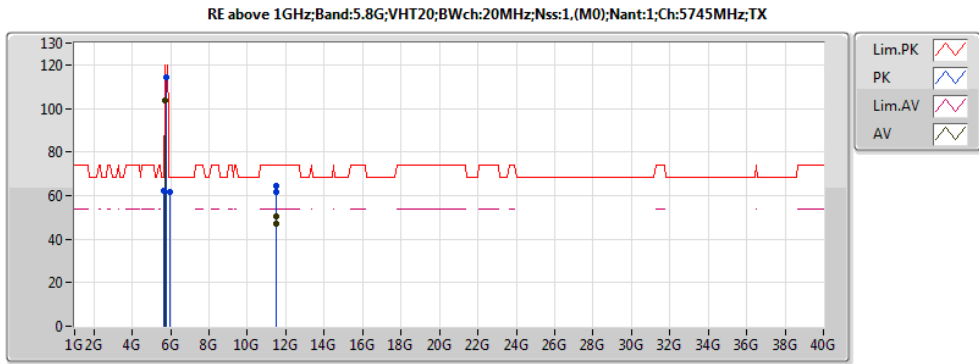
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53564G	46.80	54.00	-7.20	17.34	3	V	345	2.26	-
PK	15.5381G	60.01	74.00	-13.99	17.34	3	V	345	2.26	-



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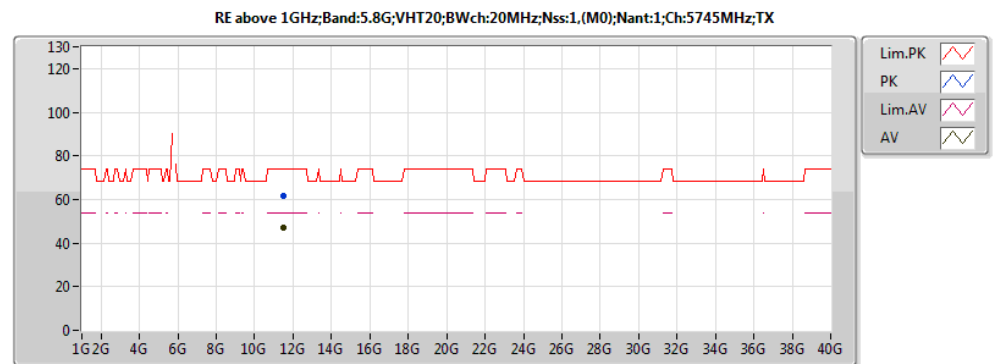
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	53.95	54.00	-0.05	7.71	3	V	81	2.75	-
AV	5.1976G	104.64	Inf	-Inf	7.82	3	V	81	2.75	-
PK	5.1496G	67.79	74.00	-6.21	7.71	3	V	81	2.75	-
PK	5.1984G	115.40	Inf	-Inf	7.82	3	V	81	2.75	-





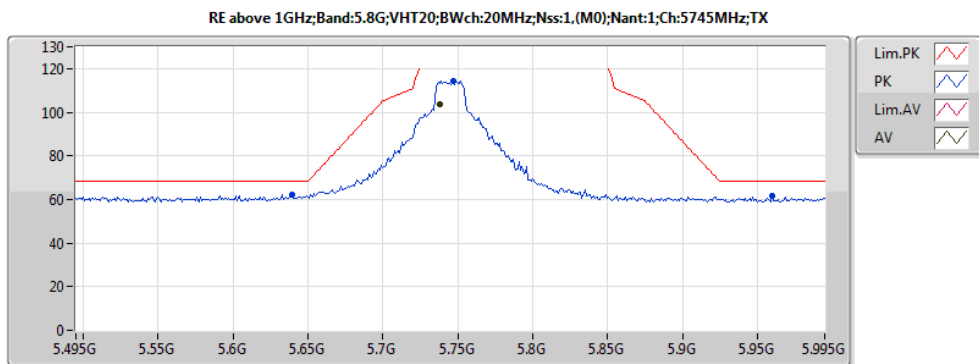
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49004G	47.34	54.00	-6.66	16.30	3	H	276	1.75	-
PK	11.48624G	61.48	74.00	-12.52	16.29	3	H	276	1.75	-
AV	5.738G	103.65	Inf	-Inf	8.48	3	V	360	1.80	-
AV	11.49056G	50.38	54.00	-3.62	16.30	3	V	246	1.50	-
PK	5.639G	62.37	68.20	-5.83	8.45	3	V	360	1.80	-
PK	5.747G	114.29	Inf	-Inf	8.48	3	V	360	1.80	-
PK	5.96G	61.78	68.20	-6.42	8.73	3	V	360	1.80	-
PK	11.48886G	64.45	74.00	-9.55	16.30	3	V	246	1.50	-



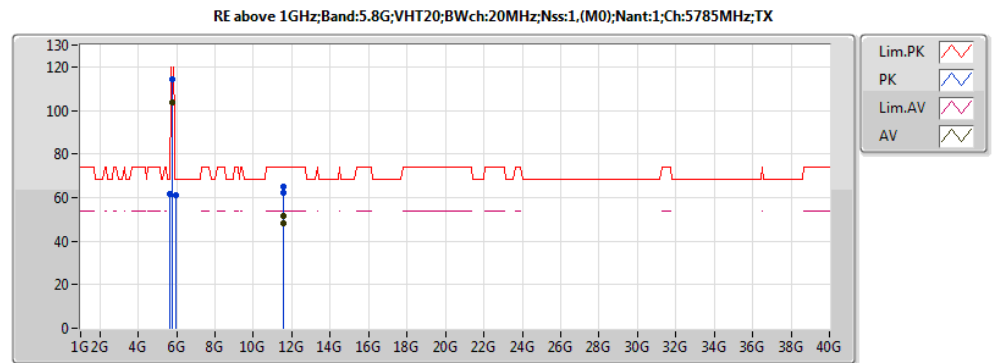
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49004G	47.34	54.00	-6.66	16.30	3	H	276	1.75	-
PK	11.48624G	61.48	74.00	-12.52	16.29	3	H	276	1.75	-



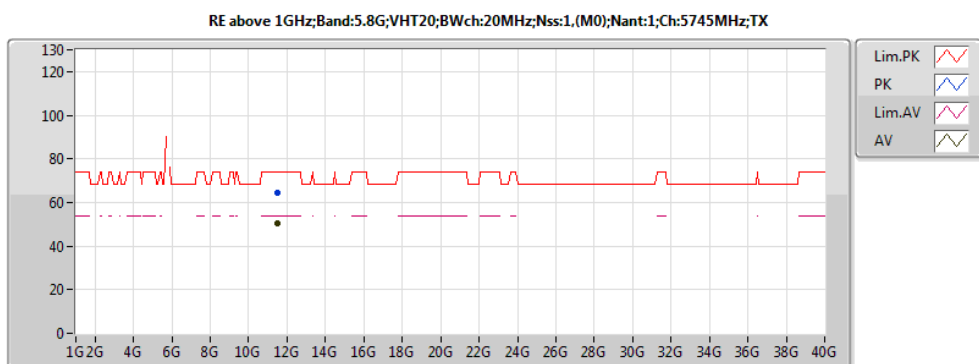
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.738G	103.65	Inf	-Inf	8.48	3	V	360	1.80	-
PK	5.639G	62.37	68.20	-5.83	8.45	3	V	360	1.80	-
PK	5.747G	114.29	Inf	-Inf	8.48	3	V	360	1.80	-
PK	5.96G	61.78	68.20	-6.42	8.73	3	V	360	1.80	-



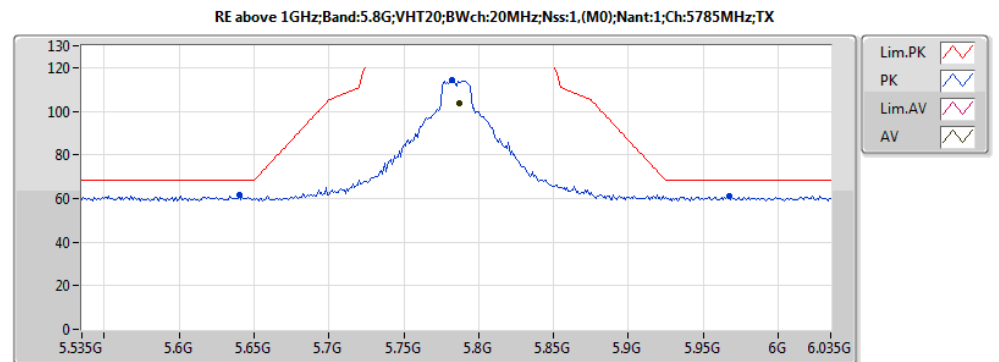
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57004G	48.42	54.00	-5.58	16.33	3	H	273	2.18	-
PK	11.56992G	62.23	74.00	-11.77	16.33	3	H	273	2.18	-
AV	5.787G	103.65	Inf	-Inf	8.49	3	V	360	1.80	-
AV	11.57018G	51.65	54.00	-2.35	16.33	3	V	246	1.50	-
PK	5.64G	61.48	68.20	-6.72	8.45	3	V	360	1.80	-
PK	5.782G	114.27	Inf	-Inf	8.49	3	V	360	1.80	-
PK	5.967G	61.33	68.20	-6.87	8.74	3	V	360	1.80	-
PK	11.57068G	64.78	74.00	-9.22	16.33	3	V	246	1.50	-



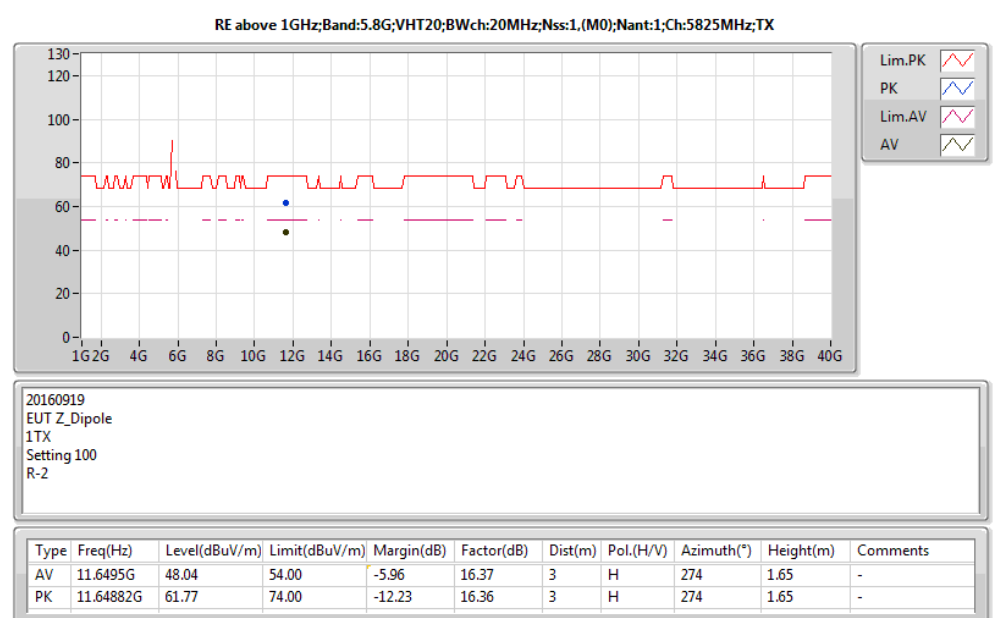
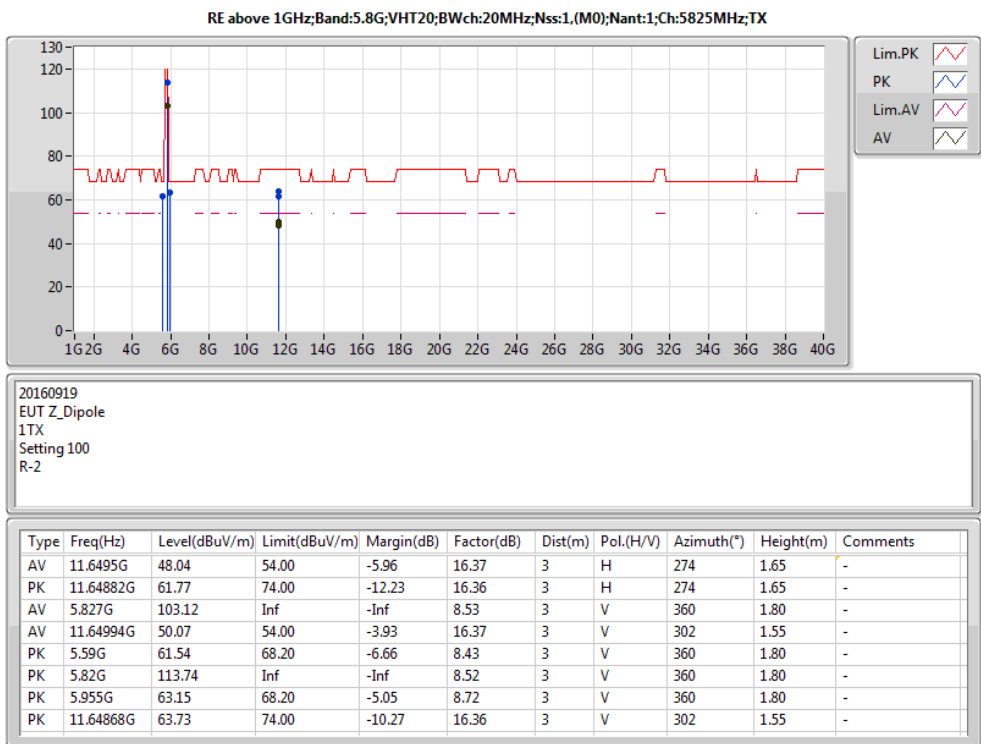
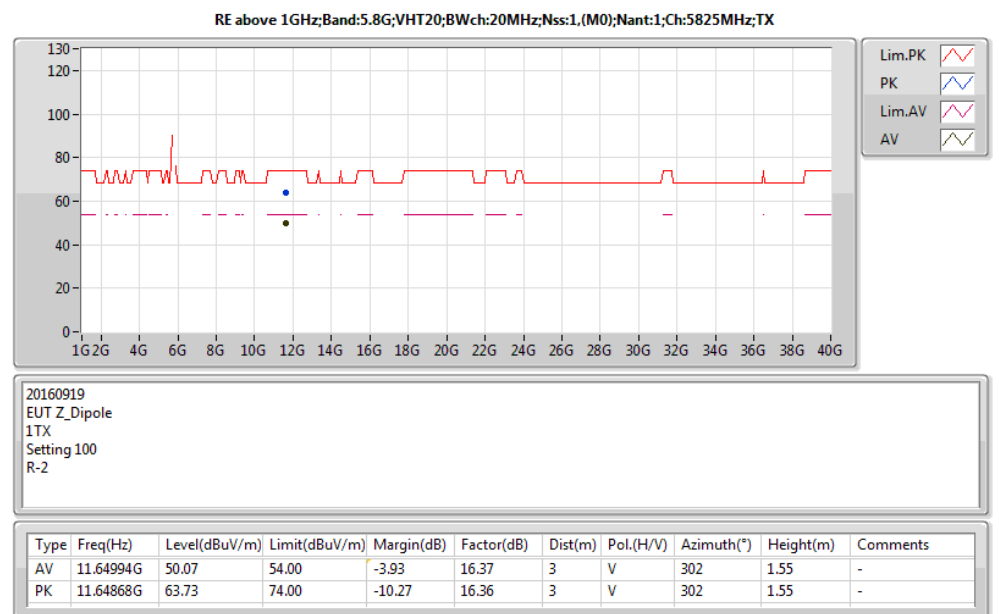
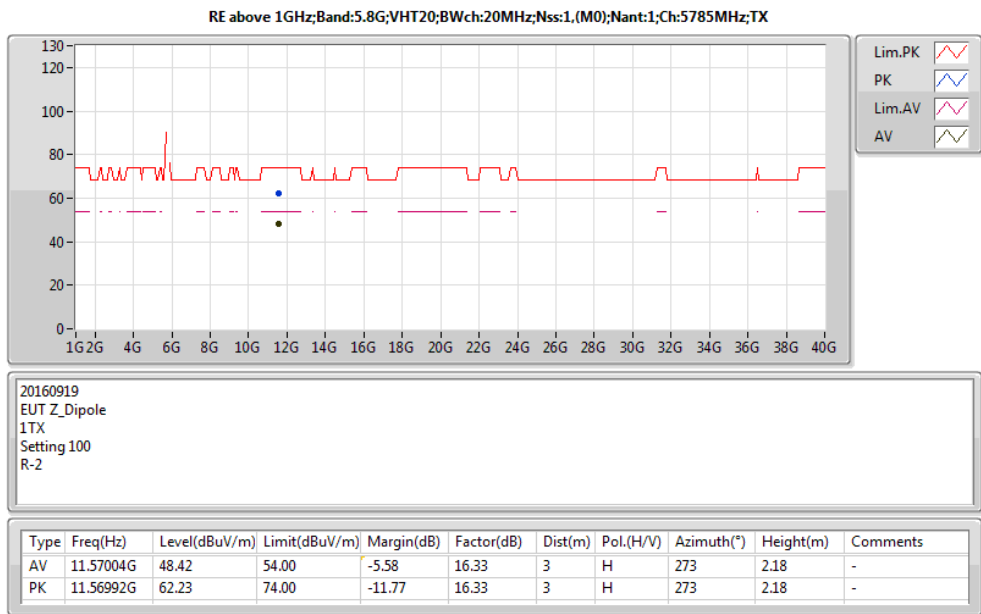
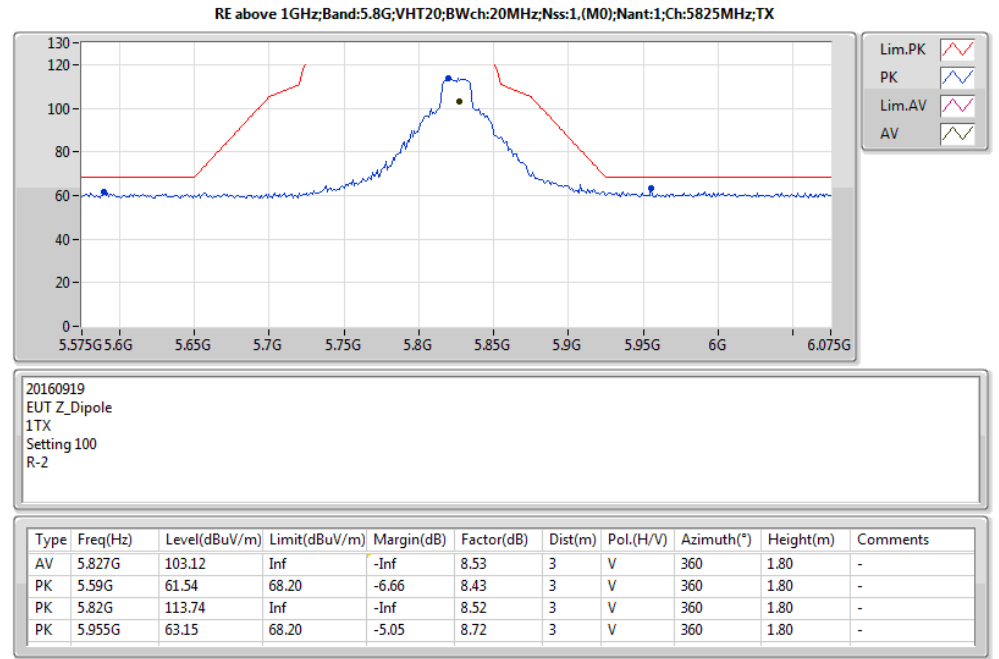
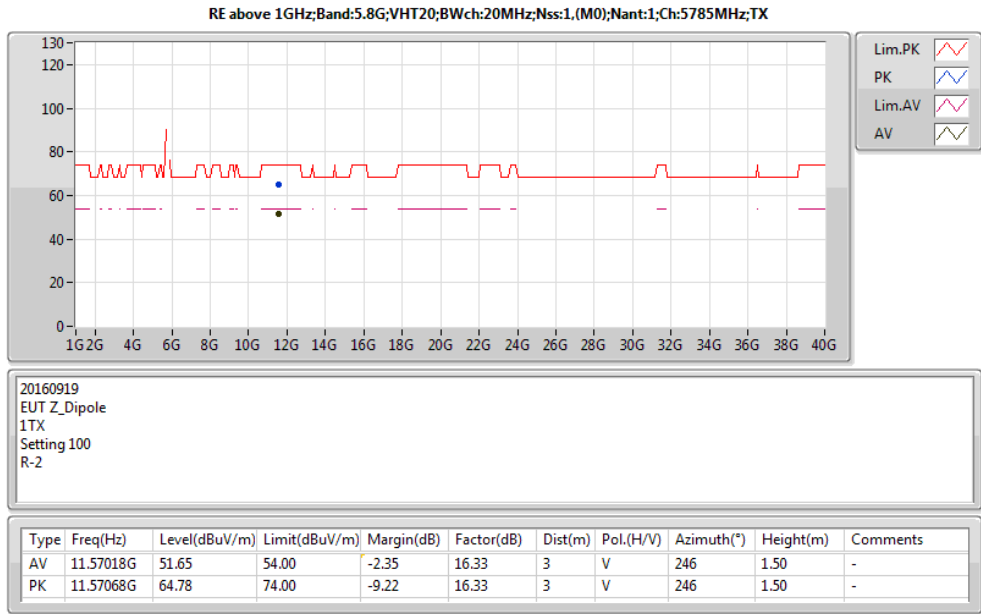
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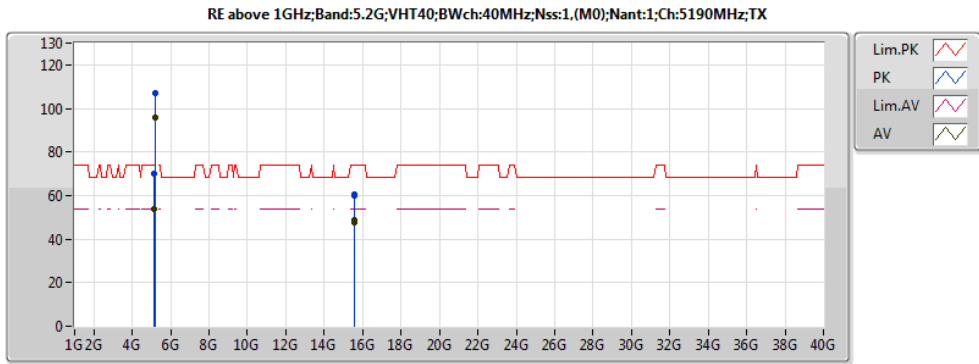
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.738G	103.65	Inf	-Inf	8.48	3	V	360	1.80	-
AV	11.49056G	50.38	54.00	-3.62	16.30	3	V	246	1.50	-
PK	11.48886G	64.45	74.00	-9.55	16.30	3	V	246	1.50	-



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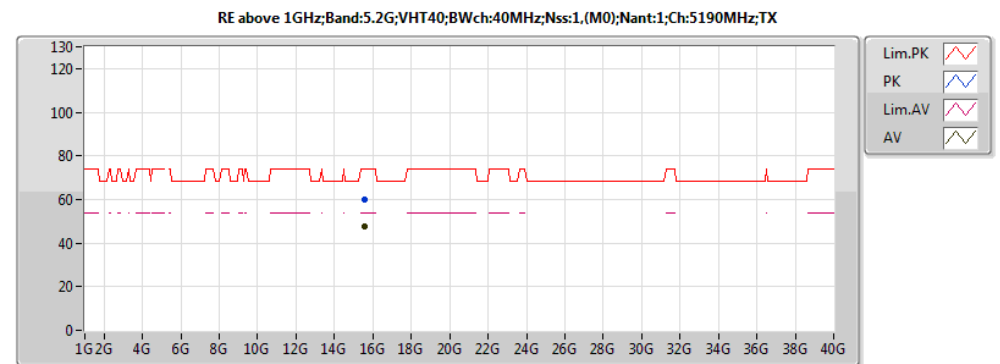
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.787G	103.65	Inf	-Inf	8.49	3	V	360	1.80	-
PK	5.64G	61.48	68.20	-6.72	8.45	3	V	360	1.80	-
PK	5.782G	114.27	Inf	-Inf	8.49	3	V	360	1.80	-
PK	5.967G	61.33	68.20	-6.87	8.74	3	V	360	1.80	-





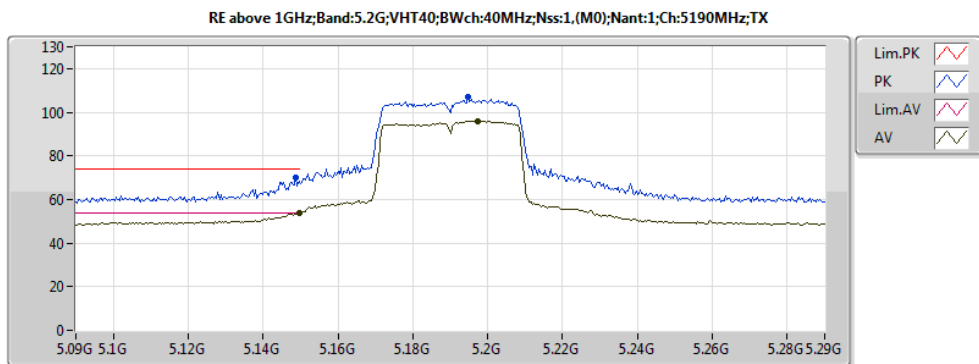
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.565028G	47.75	54.00	-6.25	19.26	3	H	201	1.75	-
PK	15.580208G	59.72	74.00	-14.28	19.21	3	H	201	1.75	-
AV	5.1496G	53.87	54.00	-0.13	7.71	3	V	83	2.77	-
AV	5.1972G	95.93	Inf	-Inf	7.82	3	V	83	2.77	-
AV	15.57015G	48.57	54.00	-5.43	17.26	3	V	342	1.77	-
PK	5.1488G	69.81	74.00	-4.19	7.71	3	V	83	2.77	-
PK	5.1948G	106.88	Inf	-Inf	7.81	3	V	83	2.77	-
PK	15.57232G	60.73	74.00	-13.27	17.26	3	V	342	1.77	-



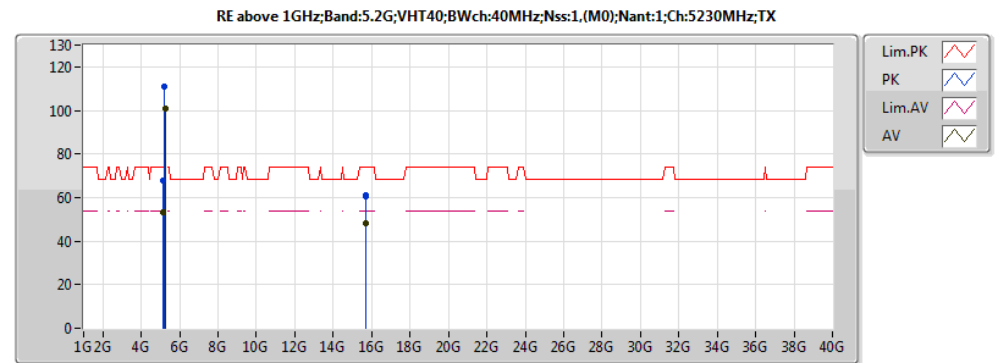
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.565028G	47.75	54.00	-6.25	19.26	3	H	201	1.75	-
PK	15.580208G	59.72	74.00	-14.28	19.21	3	H	201	1.75	-



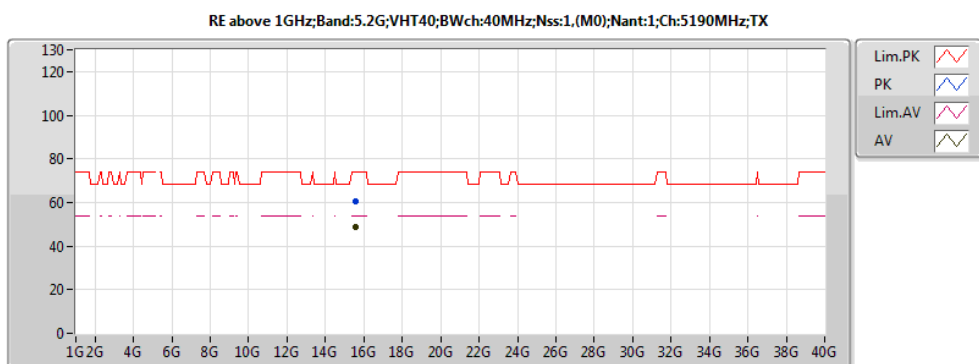
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	53.87	54.00	-0.13	7.71	3	V	83	2.77	-
AV	5.1972G	95.93	Inf	-Inf	7.82	3	V	83	2.77	-
PK	5.1488G	69.81	74.00	-4.19	7.71	3	V	83	2.77	-
PK	5.1948G	106.88	Inf	-Inf	7.81	3	V	83	2.77	-



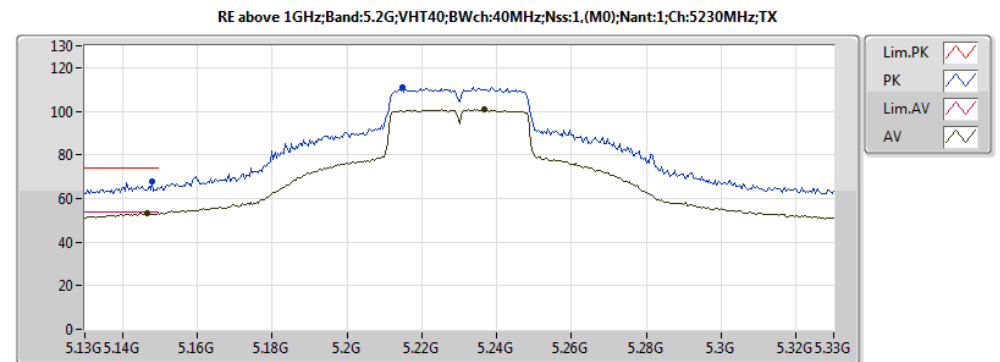
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Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.68767G	48.42	54.00	-5.58	16.99	3	H	308	1.85	-
PK	15.6915G	60.67	74.00	-13.33	16.98	3	H	308	1.85	-
AV	5.1468G	53.31	54.00	-0.69	7.70	3	V	322	2.76	-
AV	5.2368G	100.86	Inf	-Inf	7.87	3	V	322	2.76	-
AV	15.69052G	48.40	54.00	-5.60	16.99	3	V	279	2.51	-
PK	5.148G	67.83	74.00	-6.17	7.70	3	V	322	2.76	-
PK	5.2148G	111.15	Inf	-Inf	7.84	3	V	322	2.76	-
PK	15.68815G	61.32	74.00	-12.68	16.99	3	V	279	2.51	-



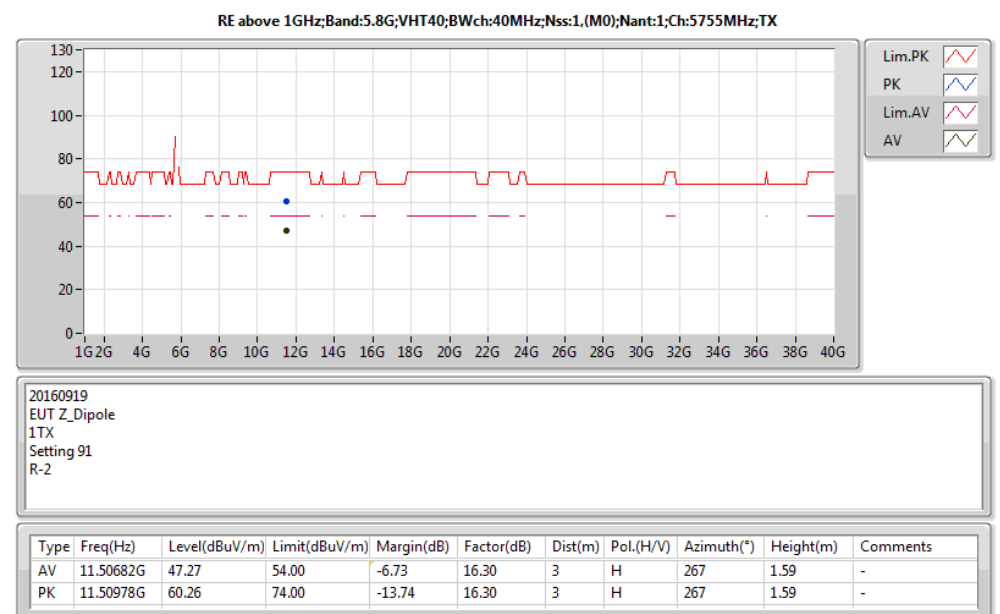
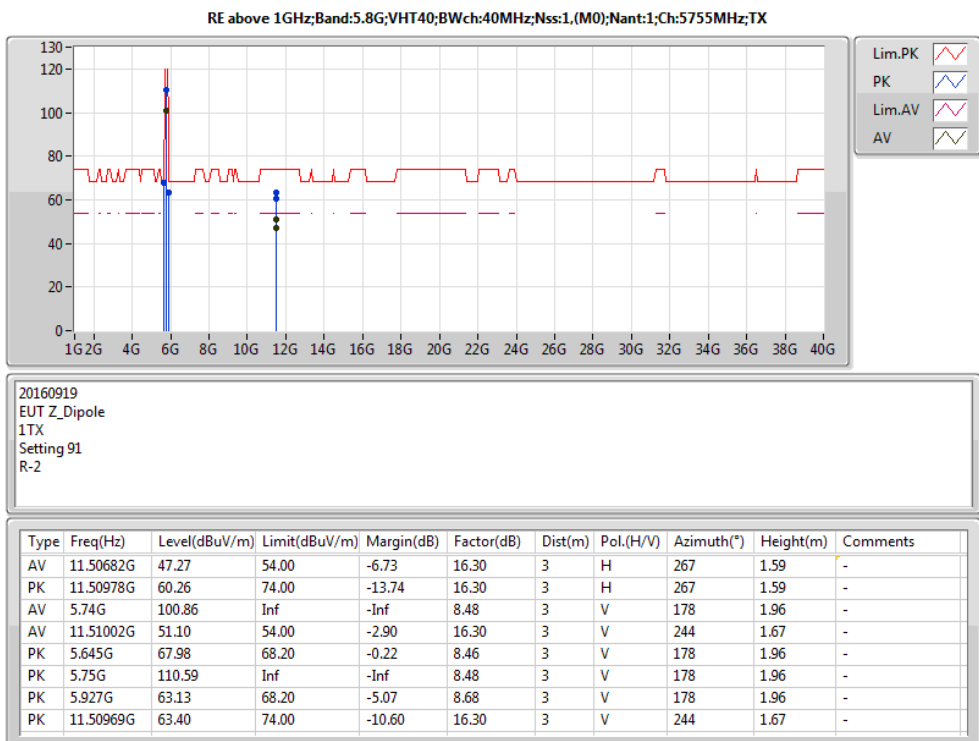
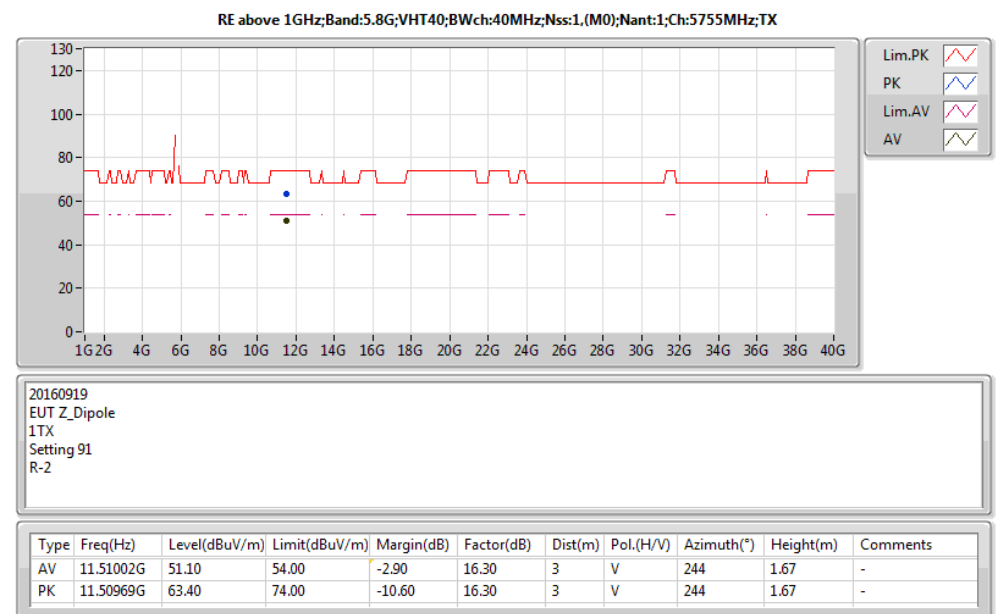
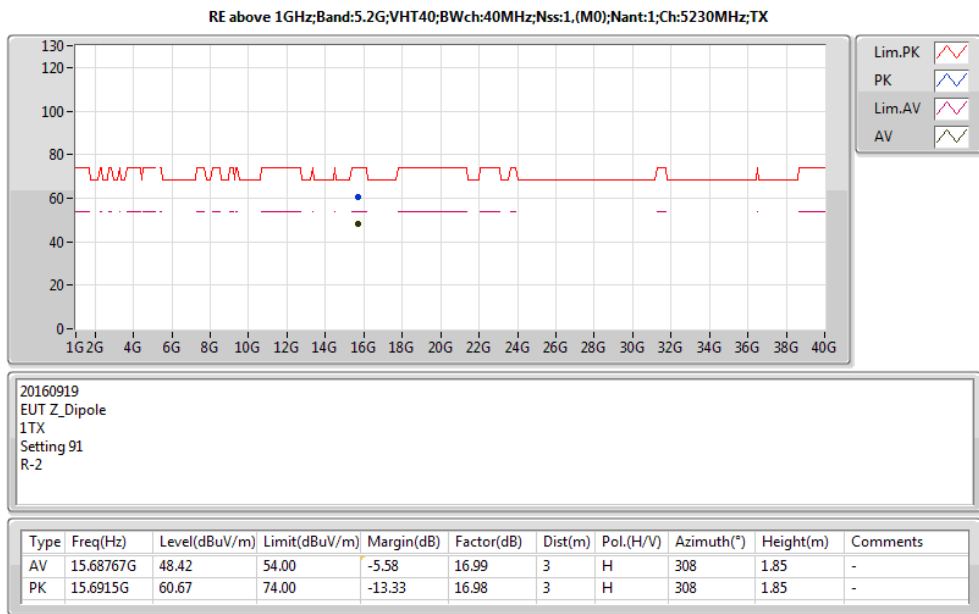
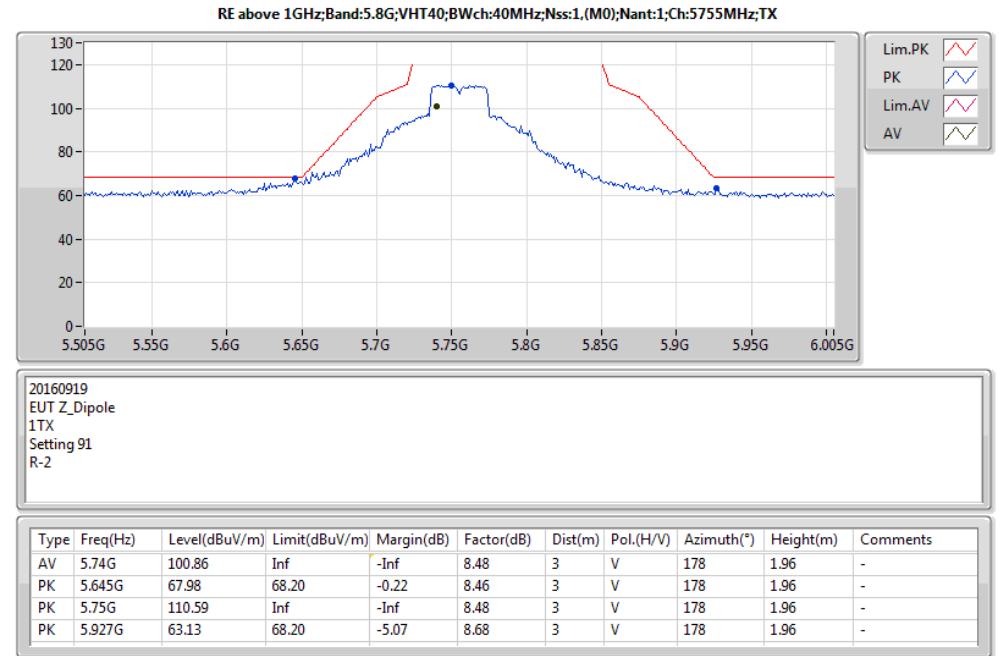
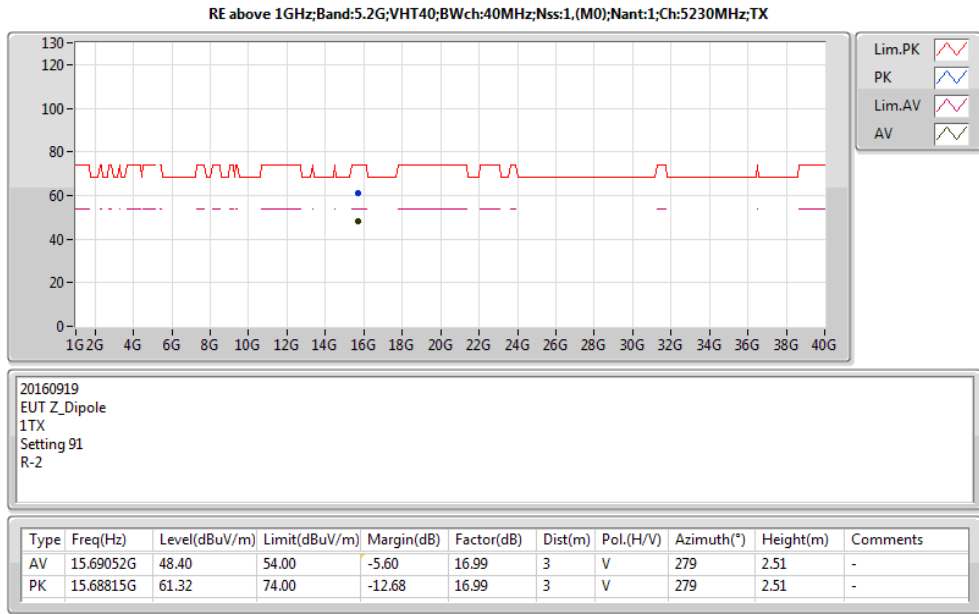
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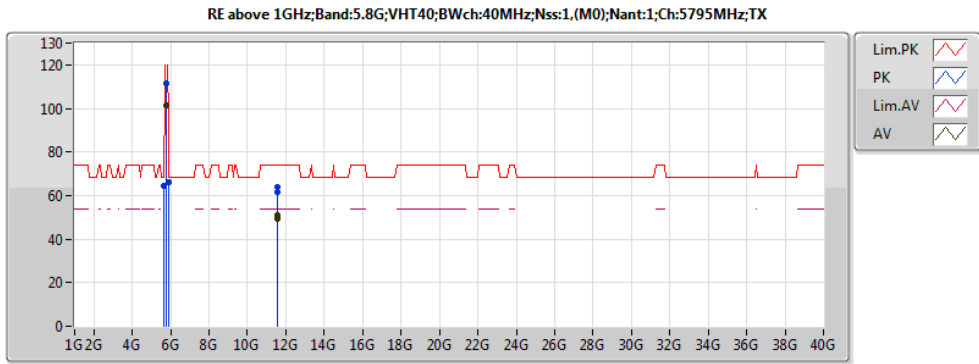
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.57015G	48.57	54.00	-5.43	17.26	3	V	342	1.77	-
PK	15.57232G	60.73	74.00	-13.27	17.26	3	V	342	1.77	-



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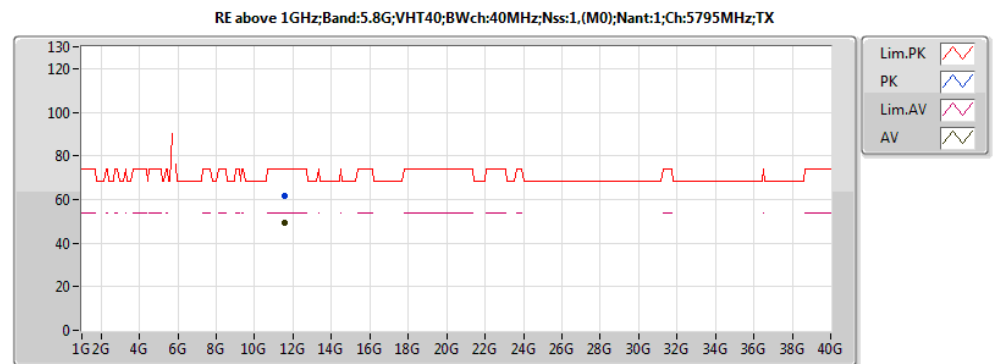
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1468G	53.31	54.00	-0.69	7.70	3	V	322	2.76	-
AV	5.2368G	100.86	Inf	-Inf	7.87	3	V	322	2.76	-
PK	5.148G	67.83	74.00	-6.17	7.70	3	V	322	2.76	-
PK	5.2148G	111.15	Inf	-Inf	7.84	3	V	322	2.76	-





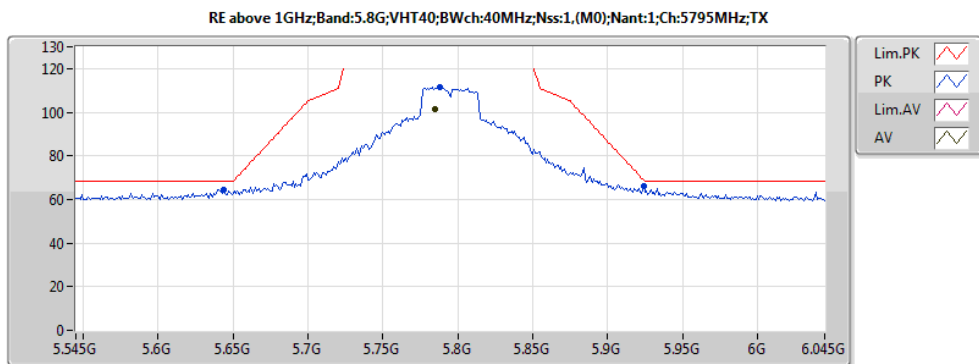
20160919
EUT_Z_Dipole
1TX
Setting 100
R-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.59G	49.08	54.00	-4.92	16.34	3	H	218	1.70	-
PK	11.58836G	61.43	74.00	-12.57	16.34	3	H	218	1.70	-
AV	5.785G	101.34	Inf	-Inf	8.49	3	V	176	1.93	-
AV	11.58992G	51.20	54.00	-2.80	16.34	3	V	240	1.50	-
PK	5.644G	64.46	68.20	-3.74	8.46	3	V	176	1.93	-
PK	5.788G	111.41	Inf	-Inf	8.49	3	V	176	1.93	-
PK	5.924G	65.87	68.94	-3.07	8.67	3	V	176	1.93	-
PK	11.59006G	63.64	74.00	-10.36	16.34	3	V	240	1.50	-



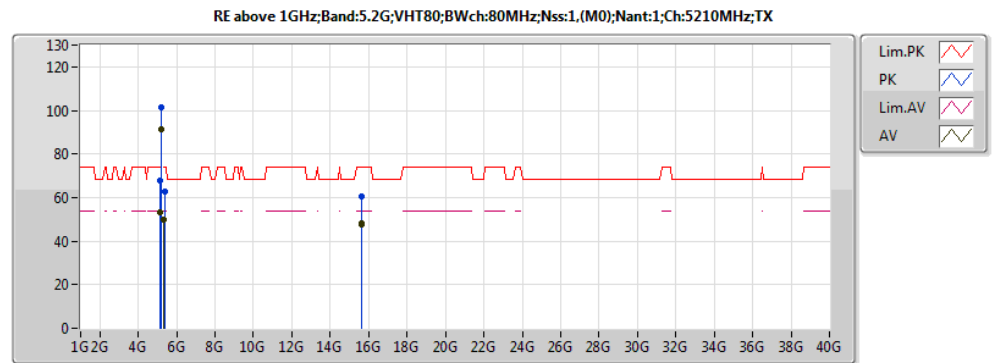
20160919
EUT_Z_Dipole
1TX
Setting 100
R-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.59G	49.08	54.00	-4.92	16.34	3	H	218	1.70	-
PK	11.58836G	61.43	74.00	-12.57	16.34	3	H	218	1.70	-



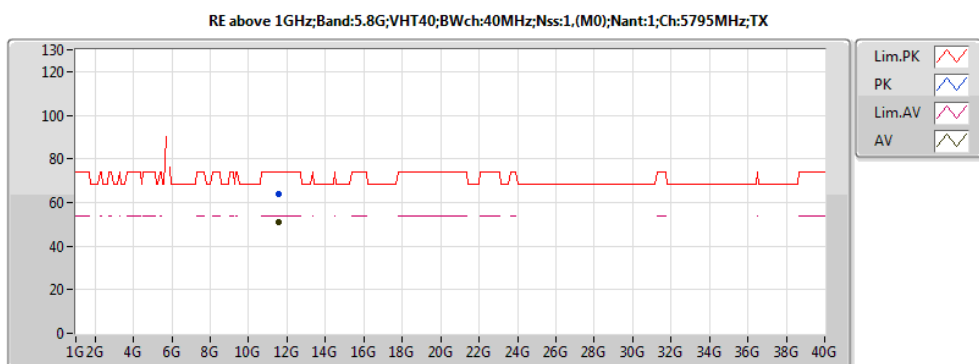
20160919
EUT_Z_Dipole
1TX
Setting 100
R-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.785G	101.34	Inf	-Inf	8.49	3	V	176	1.93	-
PK	5.644G	64.46	68.20	-3.74	8.46	3	V	176	1.93	-
PK	5.788G	111.41	Inf	-Inf	8.49	3	V	176	1.93	-
PK	5.924G	65.87	68.94	-3.07	8.67	3	V	176	1.93	-



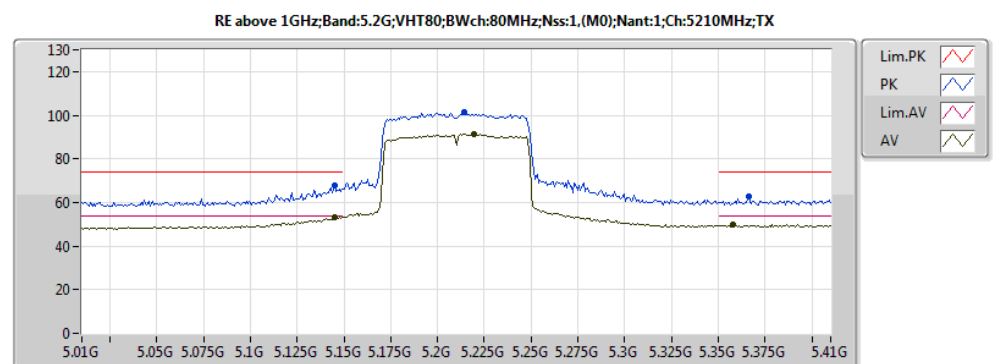
20160919
EUT_Z_Dipole
1TX
Setting 68
R-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6336G	47.99	54.00	-6.01	17.12	3	H	158	1.96	-
PK	15.6285G	60.24	74.00	-13.76	17.13	3	H	158	1.96	-
AV	5.1452G	53.23	54.00	-0.77	7.70	3	V	360	1.94	-
AV	5.2196G	91.36	Inf	-Inf	7.85	3	V	360	1.94	-
AV	5.358G	49.71	54.00	-4.29	8.04	3	V	360	1.94	-
AV	15.62972G	47.69	54.00	-6.31	17.13	3	V	233	2.65	-
PK	5.1452G	67.74	74.00	-6.26	7.70	3	V	360	1.94	-
PK	5.214G	101.17	Inf	-Inf	7.84	3	V	360	1.94	-
PK	5.366G	62.70	74.00	-11.30	8.05	3	V	360	1.94	-
PK	15.63364G	60.53	74.00	-13.47	17.12	3	V	233	2.65	-



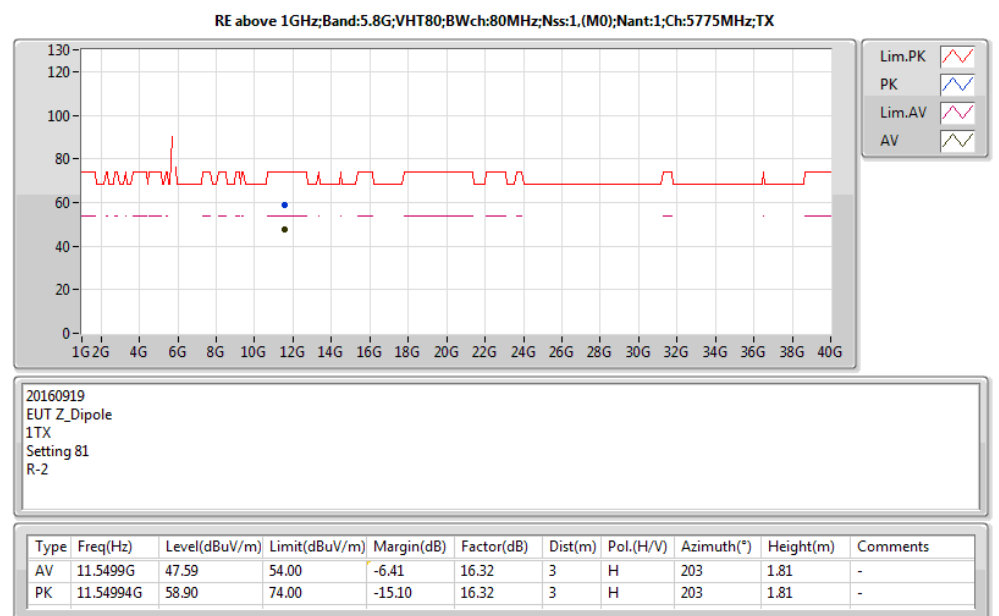
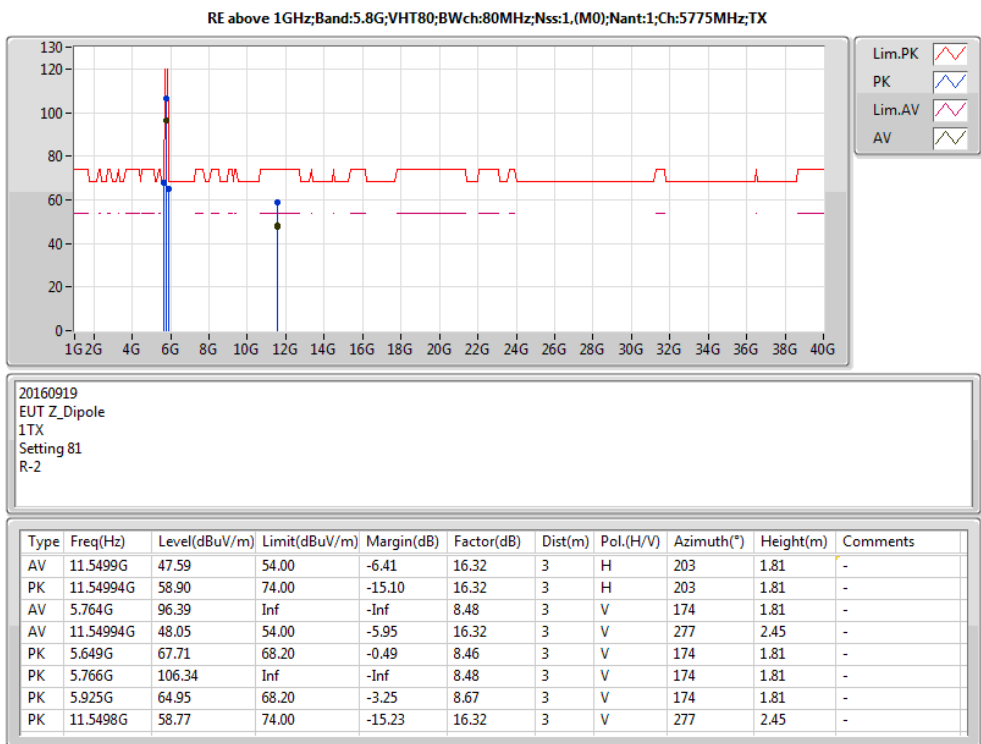
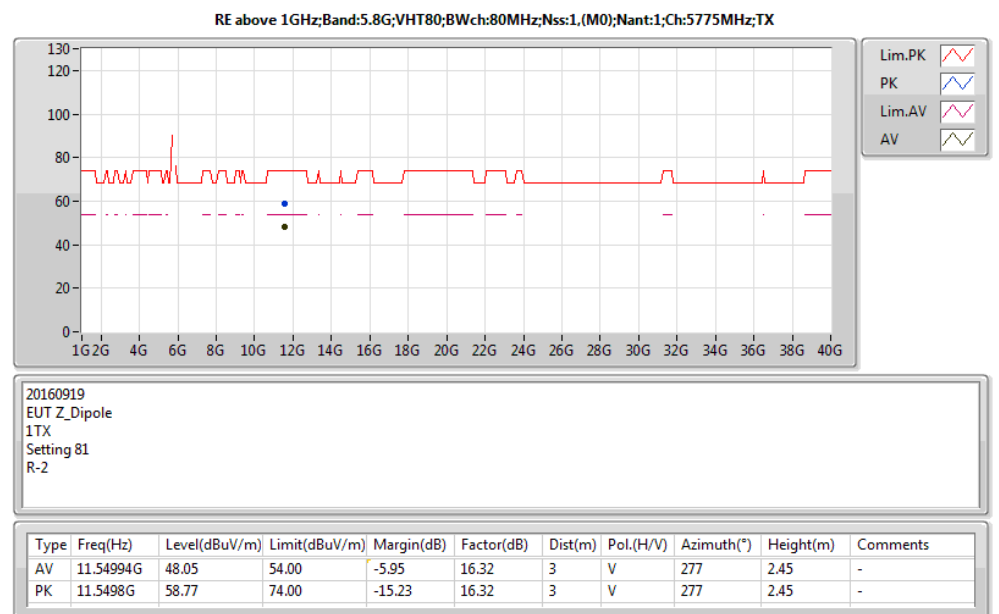
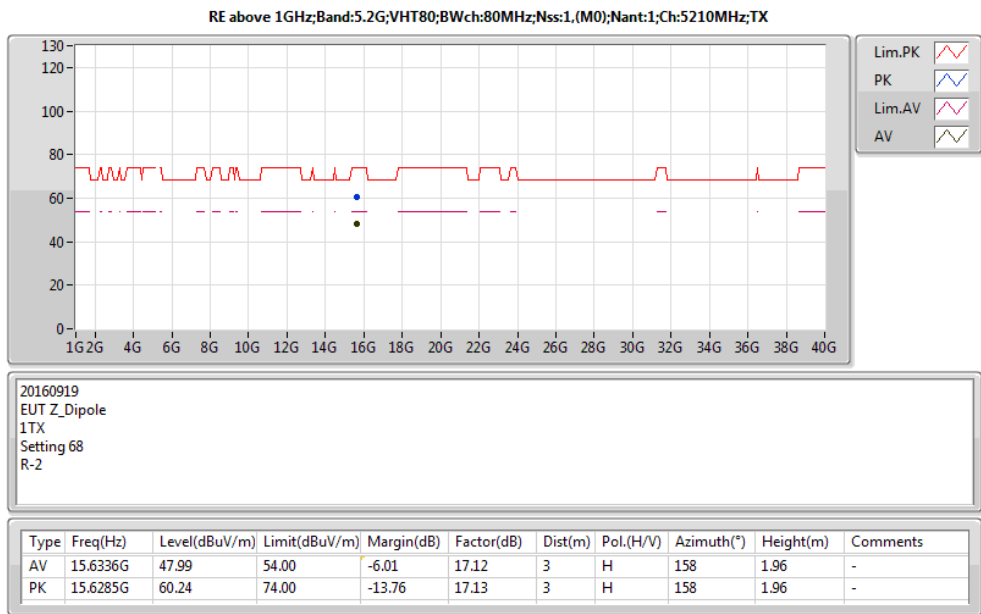
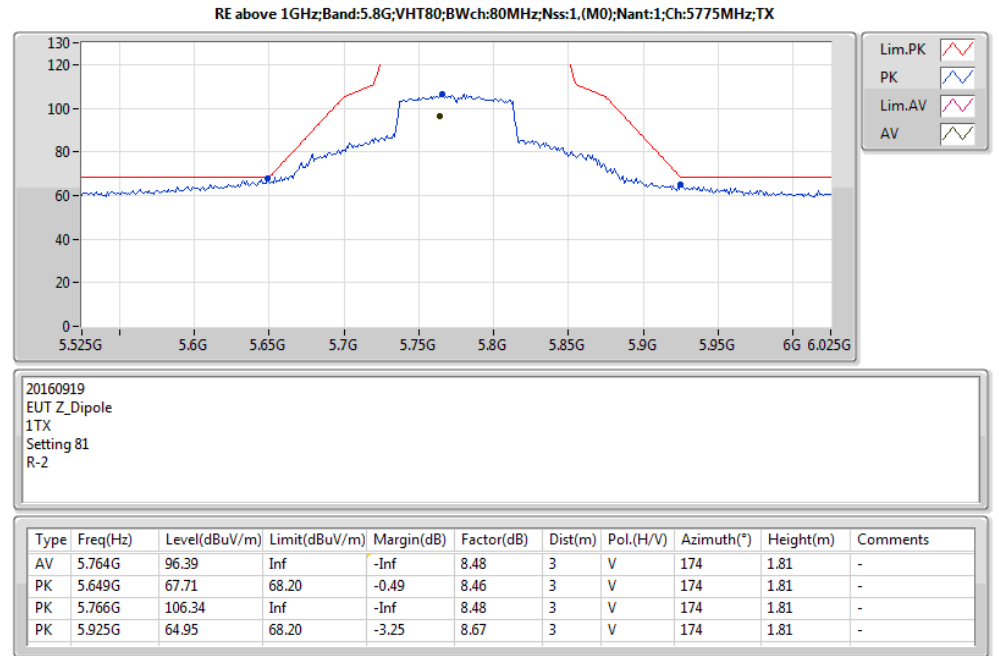
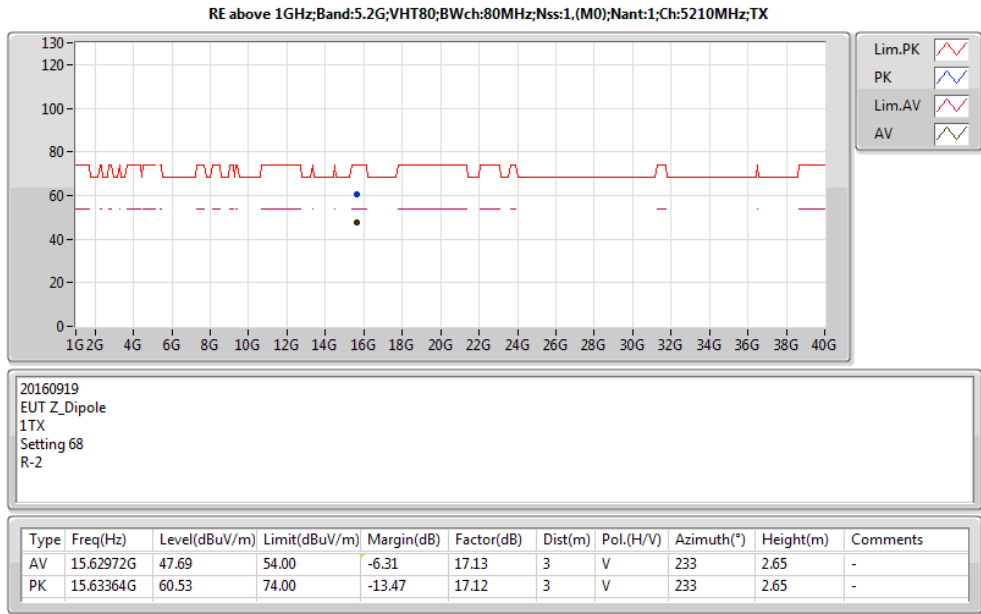
20160919
EUT_Z_Dipole
1TX
Setting 100
R-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.58992G	51.20	54.00	-2.80	16.34	3	V	240	1.50	-
PK	11.59006G	63.64	74.00	-10.36	16.34	3	V	240	1.50	-



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EUT_Z_Dipole
1TX
Setting 68
R-2

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1452G	53.23	54.00	-0.77	7.70	3	V	360	1.94	-
AV	5.2196G	91.36	Inf	-Inf	7.85	3	V	360	1.94	-
AV	5.358G	49.71	54.00	-4.29	8.04	3	V	360	1.94	-
PK	5.1452G	67.74	74.00	-6.26	7.70	3	V	360	1.94	-
PK	5.214G	101.17	Inf	-Inf	7.84	3	V	360	1.94	-
PK	5.366G	62.70	74.00	-11.30	8.05	3	V	360	1.94	-



Mode: 20 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5200.0213	5200.0208	5200.0204	5200.0200
110.00	5200.0248	5200.0243	5200.0239	5200.0234
93.50	5200.0231	5200.0226	5200.0221	5200.0217
Max. Deviation (MHz)	0.0247	0.0243	0.0239	0.0234
Max. Deviation (ppm)	4.76	4.67	4.59	4.51
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5200.0174	5200.0162	5200.0155	5200.0150
10	5200.0191	5200.0187	5200.0175	5200.0163
20	5200.0248	5200.0243	5200.0239	5200.0234
30	5200.0182	5200.0173	5200.0163	5200.0178
40	5200.0144	5200.0138	5200.0132	5200.0123
42	5200.0170	5200.0161	5200.0155	5200.0122
Max. Deviation (MHz)	0.0247	0.0243	0.0239	0.0234
Max. Deviation (ppm)	4.76	4.67	4.59	4.51
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5785.0107	5785.0163	5785.0106	5785.0100
110.00	5785.0152	5785.0138	5785.0130	5785.0126
93.50	5785.0122	5785.0117	5785.0113	5785.0109
Max. Deviation (MHz)	0.0152	0.0163	0.0130	0.0126
Max. Deviation (ppm)	2.63	2.82	2.25	2.18
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5785.0096	5785.0091	5785.0083	5785.0086
10	5785.0099	5785.0096	5785.0095	5785.0090
20	5785.0152	5785.0138	5785.0130	5785.0126
30	5785.0083	5785.0082	5785.0085	5785.0078
40	5785.0074	5785.0071	5785.0070	5785.0065
42	5785.0065	5785.0063	5785.0059	5785.0056
Max. Deviation (MHz)	0.0152	0.0138	0.0130	0.0126
Max. Deviation (ppm)	2.63	2.38	2.25	2.18
Result	Pass			

Mode: 40 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5190.0052	5190.0049	5190.0046	5190.0013
110.00	5190.0061	5190.0056	5190.0052	5190.0049
93.50	5190.0052	5190.0046	5190.0039	5190.0032
Max. Deviation (MHz)	0.0061	0.0056	0.0052	0.0049
Max. Deviation (ppm)	1.17	1.09	1.00	0.94
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5190.0036	5190.0024	5190.0020	5190.0016
10	5190.0047	5190.0036	5190.0021	5190.0019
20	5190.0061	5190.0056	5190.0052	5190.0049
30	5190.0043	5190.0039	5190.0043	5190.0030
40	5190.0046	5190.0033	5190.0027	5190.0017
42	5190.0039	5190.0033	5190.0027	5190.0012
Max. Deviation (MHz)	0.0061	0.0056	0.0052	0.0049
Max. Deviation (ppm)	1.17	1.09	1.00	0.94
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5755.0091	5755.0088	5755.0086	5755.0084
110.00	5755.0087	5755.0091	5755.0095	5755.0094
93.50	5755.0088	5755.0084	5755.0093	5755.0092
Max. Deviation (MHz)	0.0091	0.0091	0.0095	0.0094
Max. Deviation (ppm)	1.58	1.58	1.65	1.64
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5755.0070	5755.0068	5755.0067	5755.0064
10	5755.0091	5755.0084	5755.0082	5755.0079
20	5755.0087	5755.0091	5755.0095	5755.0094
30	5755.0065	5755.0064	5755.0063	5755.0055
40	5755.0064	5755.0054	5755.0050	5755.0046
42	5755.0061	5755.0053	5755.0044	5755.0039
Max. Deviation (MHz)	0.0091	0.0091	0.0095	0.0094
Max. Deviation (ppm)	1.58	1.58	1.65	1.64
Result	Pass			

Mode: 80 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5210.0017	5210.0014	5210.0009	5210.0003
110.00	5210.0031	5210.0026	5210.0022	5210.0019
93.50	5210.0022	5210.0022	5210.0016	5210.0014
Max. Deviation (MHz)	0.0031	0.0026	0.0022	0.0019
Max. Deviation (ppm)	0.60	0.50	0.42	0.36
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5210.0025	5210.0017	5210.0014	5210.0005
10	5210.0017	5210.0012	5210.0008	5210.0004
20	5210.0031	5210.0026	5210.0022	5210.0019
30	5210.0013	5210.0008	5210.0006	5210.0002
40	5210.0009	5209.9998	5209.9995	5209.9878
42	5210.0004	5209.9992	5209.9974	5209.9982
Max. Deviation (MHz)	0.0031	0.0026	0.0026	0.0122
Max. Deviation (ppm)	0.60	0.50	0.50	2.34
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9976	5774.9963	5774.9956	5774.9948
110.00	5775.0009	5774.9987	5774.9967	5774.9934
93.50	5774.9935	5774.9928	5774.9916	5774.9908
Max. Deviation (MHz)	0.0065	0.0072	0.0084	0.0092
Max. Deviation (ppm)	1.13	1.25	1.45	1.59
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9978	5774.9969	5774.9962	5774.9952
10	5774.9983	5774.9976	5774.9966	5774.9958
20	5775.0009	5774.9987	5774.9967	5774.9934
30	5774.9962	5774.9958	5774.9946	5774.9939
40	5774.9957	5774.9941	5774.9928	5774.9916
42	5774.9936	5774.9921	5774.9911	5774.9904
Max. Deviation (MHz)	0.0064	0.0079	0.0089	0.0096
Max. Deviation (ppm)	1.11	1.37	1.54	1.66
Result	Pass			