



FCC Test Report

Equipment : C110 Access Point
Brand Name : Ruckus
Model No. : C110
FCC ID : S9GC110
Standard : 47 CFR FCC Part 15.407
Operating Band : 5250 MHz – 5350 MHz
5470 MHz – 5725 MHz
Applicant : Ruckus Wireless, Inc.
350 West Java Drive, Sunnyvale, California 94089 USA
Manufacturer : MAINTEK COMPUTER (SUZHOU) CO., LTD
Bldg. 6 NB, 233 Jin Feng Rd, Suzhou District Jiangsu
China
Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client
TPC Function : TPC

The product sample received on Sep. 26, 2016 and completely tested on Oct. 19, 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	15.407(a)	Emission Bandwidth	Complied
3.2	15.407(a)	Maximum Conducted Output Power	Complied
3.3	15.407(a)	Peak Power Spectral Density	Complied
3.4	15.407(b)	Unwanted Emissions	Complied
3.5	15.407(g)	Frequency Stability	Complied

Revision History

[illegible]

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20)	5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [5]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5610	106-122 [2]

Band	Mode	BWch (MHz)	Nant
5.3G	11a	20	2
5.3G	HT20	20	2
5.3G	VHT20	20	2
5.3G	HT40	40	2
5.3G	VHT40	40	2
5.3G	VHT80	80	2
5.6G	11a	20	2
5.6G	HT20	20	2
5.6G	VHT20	20	2
5.6G	HT40	40	2
5.6G	VHT40	40	2
5.6G	VHT80	80	2

Note:

- ♦ 5.3G/5.3G-I(IC) is the 5.3GHz Band (5.25-5.35GHz).
- ♦ 5.6G is the 5.6GHz Band (5.47-5.725GHz) or w/o TDWR (5.47-5.6GHz and 5.65-5.725GHz).
- ♦ 5.6G-I(IC) is the 5.6GHz IC Band w/o TDWR (5.47-5.6GHz and 5.65-5.725GHz).
- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, 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)	
					2.4GHz	5GHz
1	-	J23001	Printed Antenna	N/A	0	1
2	-	J23004	Printed Antenna	N/A	0	1

Note: The EUT has two antennas. (2TX/2RX)

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

1.1.3 Mode Test Duty Cycle

Mode	DC	T(s)	VBW(Hz) $\geq 1/T$
11a	0.986	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
VHT20	0.99	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
VHT40	0.979	2.468m	1k
VHT80	0.954	1.186m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz

1.1.5 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR690805AB

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Adding Band 2 and Band 3 (5250~5350 MHz, 5470~5725 MHz) for this device.	1. Emission Bandwidth 2. Maximum Conducted Output Power 3. Peak Power Spectral Density 4. Unwanted Emissions 5. Frequency Stability

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Gary Chu	25°C / 57%	Oct. 15, 2016
Radiated	03CH01-CB	Welson Chen	22°C / 54%	Sep. 26, 2016~Oct. 19, 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
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
5.3G	11a	20	1	2	5260	L	21
5.3G	11a	20	1	2	5300	M	21
5.3G	11a	20	1	2	5320	H	21
5.3G	VHT20	20	1,(M0)	2	5260	L	21
5.3G	VHT20	20	1,(M0)	2	5300	M	21
5.3G	VHT20	20	1,(M0)	2	5320	H	21
5.3G	VHT40	40	1,(M0)	2	5270	L	20.5
5.3G	VHT40	40	1,(M0)	2	5310	H	17
5.3G	VHT80	80	1,(M0)	2	5290	S	16.5
5.6G	11a	20	1	2	5500	L	20.5
5.6G	11a	20	1	2	5580	M	21
5.6G	11a	20	1	2	5700	H	20
5.6G	VHT20	20	1,(M0)	2	5500	L	21
5.6G	VHT20	20	1,(M0)	2	5580	M	21
5.6G	VHT20	20	1,(M0)	2	5700	H	18.5
5.6G	VHT40	40	1,(M0)	2	5510	L	17
5.6G	VHT40	40	1,(M0)	2	5550	M	20.5
5.6G	VHT40	40	1,(M0)	2	5670	H	20
5.6G	VHT80	80	1,(M0)	2	5530	L	16.5
5.6G	VHT80	80	1,(M0)	2	5610	H	21

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	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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA690805-01 for Co-location RF Exposure Evaluation.	

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

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

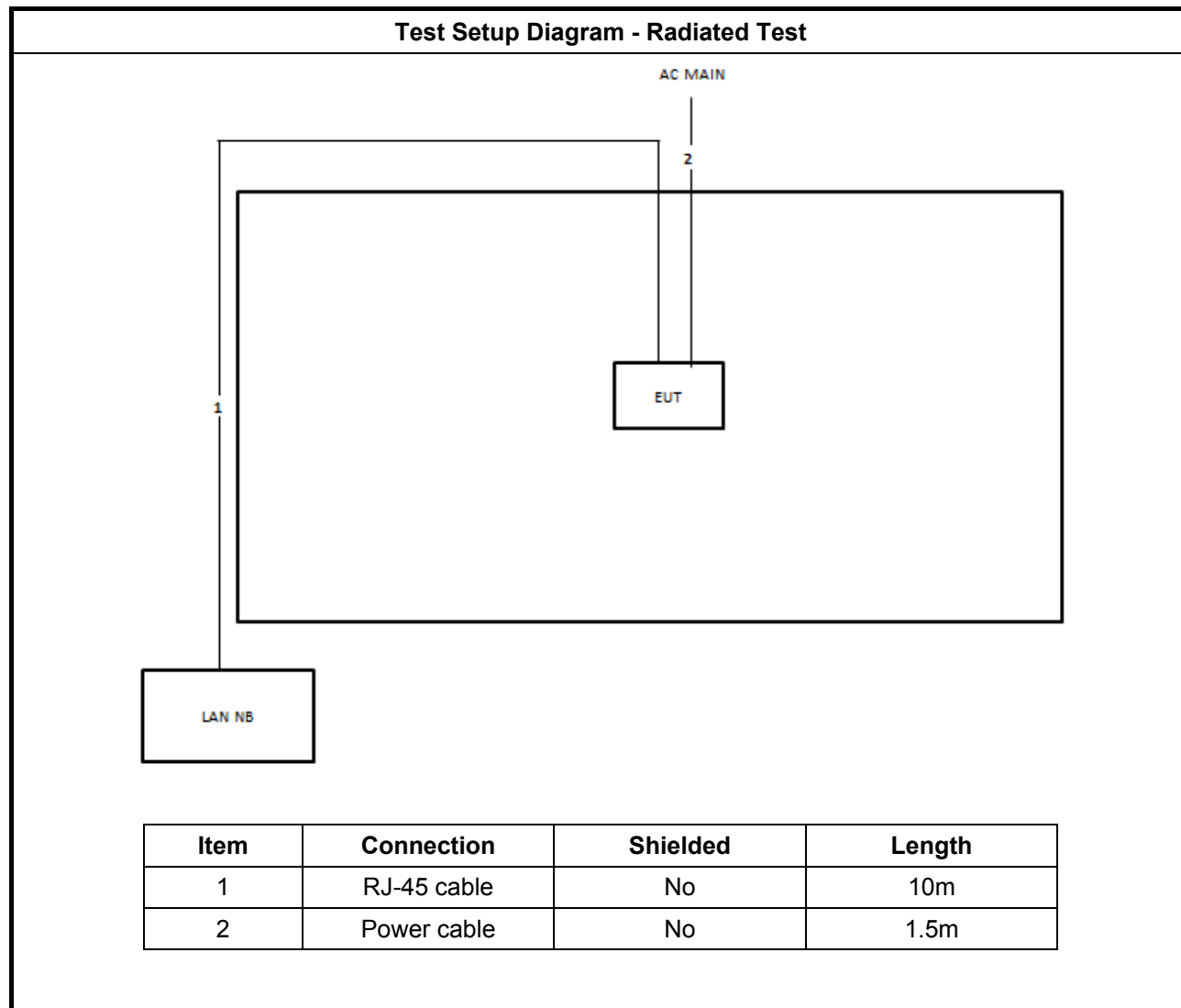
Accessories				
No.	Equipment Name	Brand Holder	Model No.	Rating
1	Adapter	Mass Power Electronic Limited	NBS24J120200D5	INPUT: 100-240Vac, 50/60Hz, 0.6A OUTPUT: 12Vdc, 2.0A
No.	Description			
2	Wall-mounted rack*1			
3	Plug*1			

2.5 Support Equipment

For Test Site No: 03CH01-CB and 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 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☐	For the 5.15-5.25 GHz band, N/A
☒	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.
☒	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.
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.
LE-LAN Devices	
☐	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.
☐	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
☐	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
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

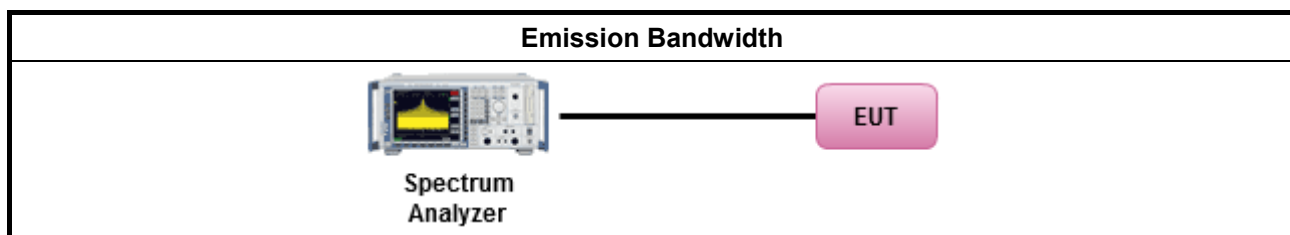
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☒	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☐ For the 5.15-5.25 GHz band:	
	- 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 ≤ 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 $P_{Out} = 24 - (G_{TX} - 6)$.
☒ 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 $P_{Out} = 24 - (G_{TX} - 6)$.	
☒ 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 $P_{Out} = 24 - (G_{TX} - 6)$.	
☐ For the 5.725-5.85 GHz band:	
	- 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	
☐ 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.	
☐ 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	
☐ 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	
☐ For the 5.725-5.85 GHz band:	
	- 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.	

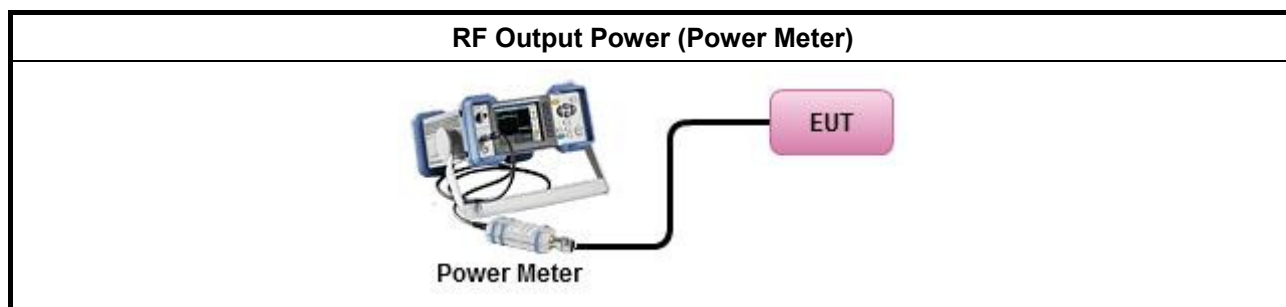
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	[duty cycle $\geq$ 98% or external video / power trigger]
☐	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
☐	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
☐	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	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
☒	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
For conducted measurement.	
	- If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. - If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☐ For the 5.15-5.25 GHz band:	
	- 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 $PPSD = 11 - (G_{TX} - 6)$.
☒ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☐ For the 5.725-5.85 GHz band:	
	- 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	
☐ 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.	
☐ 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.	
	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 $\theta > 45^\circ$
☐ 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.	
☐ For the 5.725-5.85 GHz band:	
	- 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.
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.	

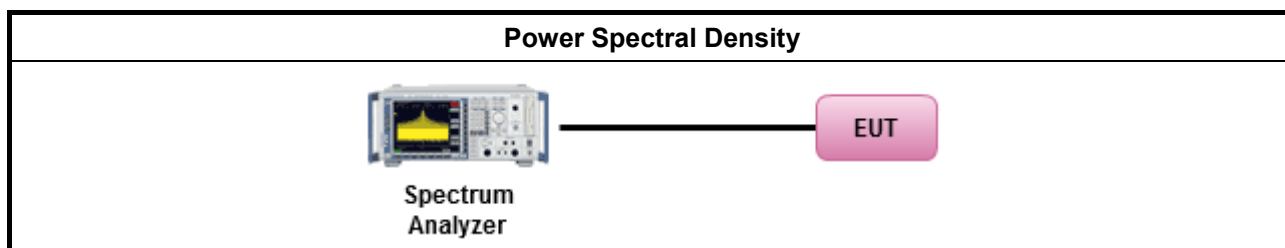
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
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:	
☐ Refer as FCC KDB 789033, F)5) 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]	
☒ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
☐ 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	
☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below:	
☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.	
☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,	
☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.	
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]) $EIRP_{total} = PPSD_{total} + DG$	

3.3.4 Test Setup





3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C

3.4 Unwanted Emissions

3.4.1 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).

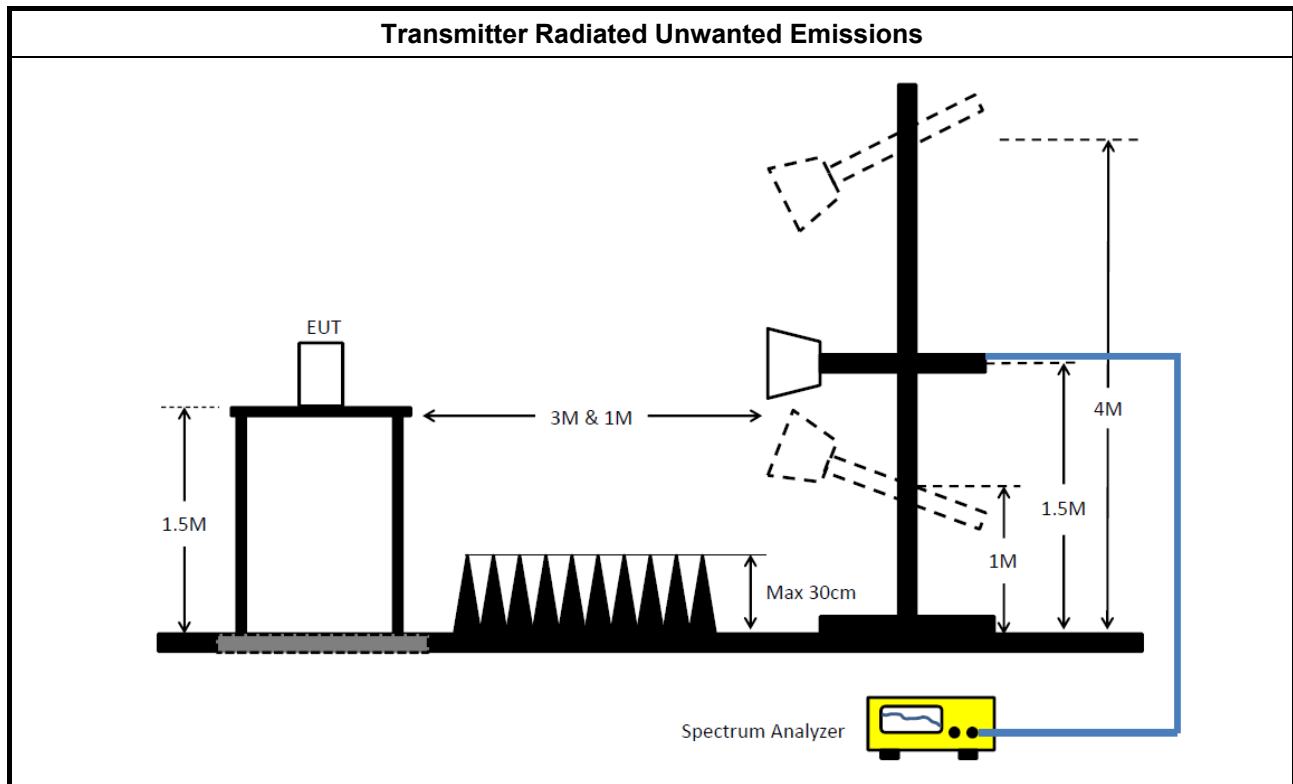
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
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).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	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.
	☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
	For radiated measurement.
	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.
	The any unwanted emissions level shall not exceed the fundamental emission level.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.4.4 Test Setup



3.4.5 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

3.5 Frequency Stability

3.5.1 Frequency Stability Limit

Frequency Stability Limit	
UNII Devices	
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	
N/A	
IEEE Std. 802.11	
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.	

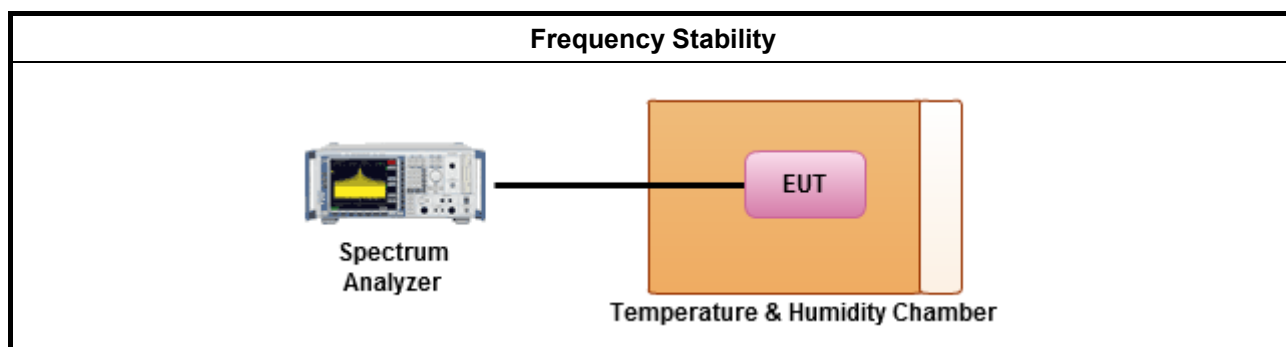
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
Refer as ANSI C63.10, clause 6.8 for frequency stability tests	
	Frequency stability with respect to ambient temperature
	Frequency stability when varying supply voltage
	Extreme temperature is 0°C~50°C.

3.5.4 Test Setup





3.5.5 Test Result of Frequency Stability

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 25, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 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	FSP-40	100019	9kHz ~ 40GHz	Apr. 21, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-17	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
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)
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	MY54320014	50MHz~18GHz	Apr. 20, 2016	Conducted (TH01-CB)

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



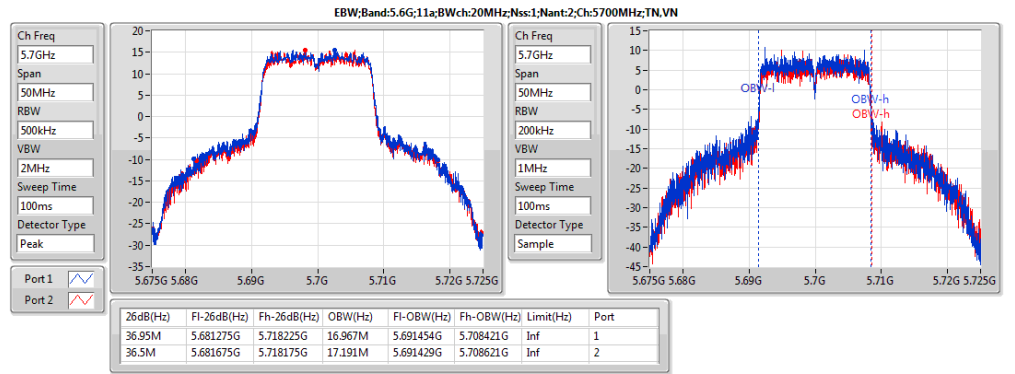
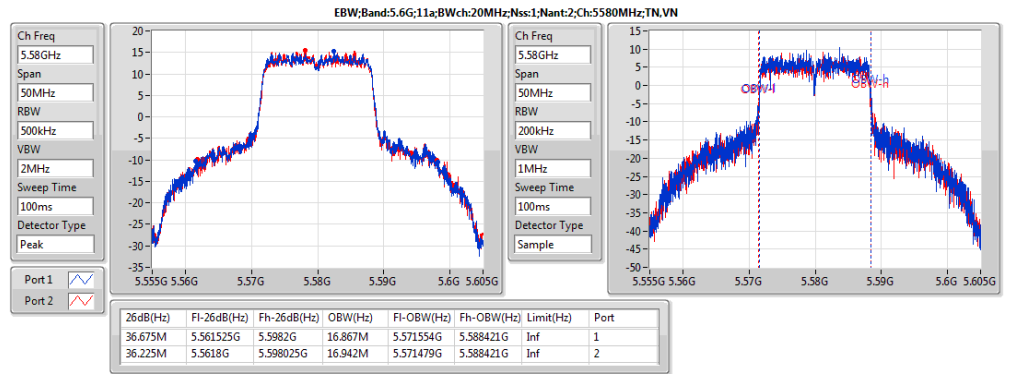
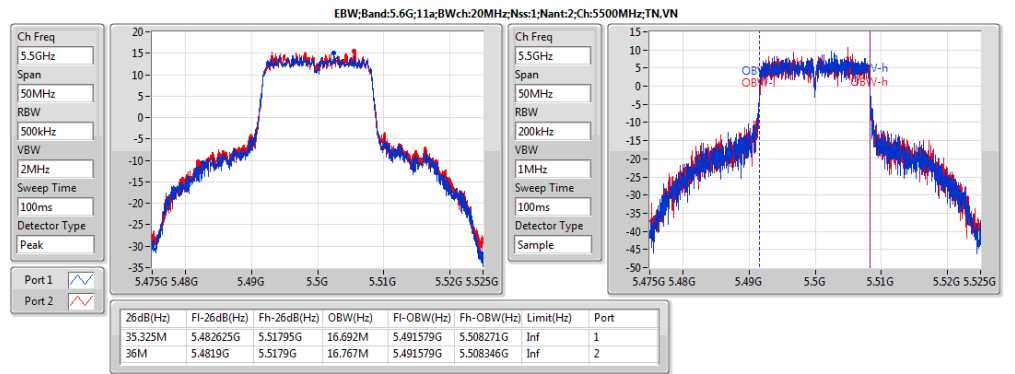
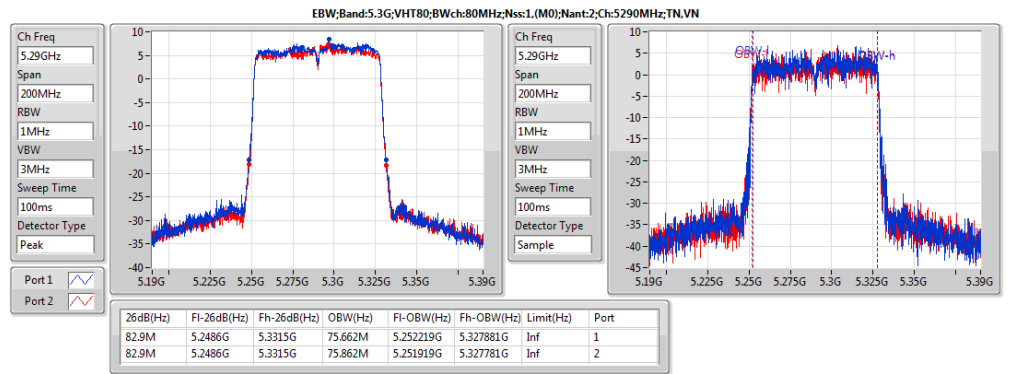
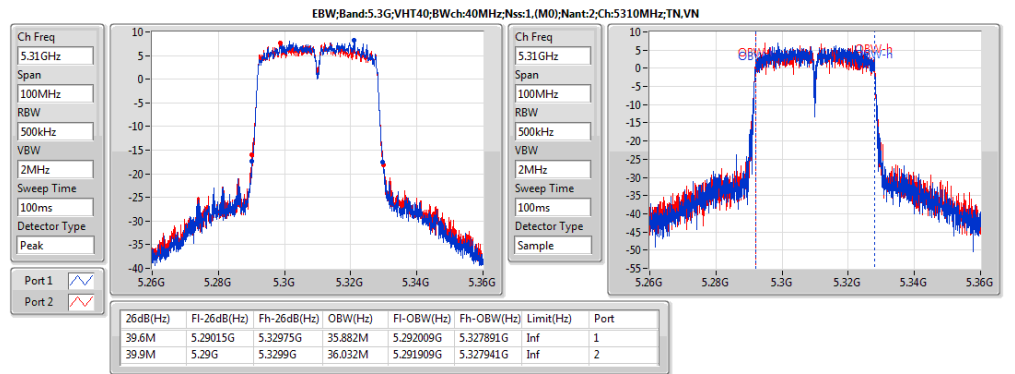
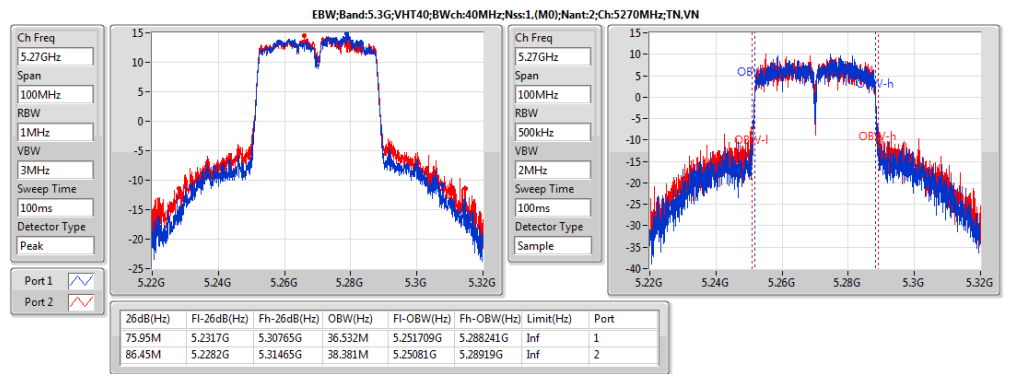
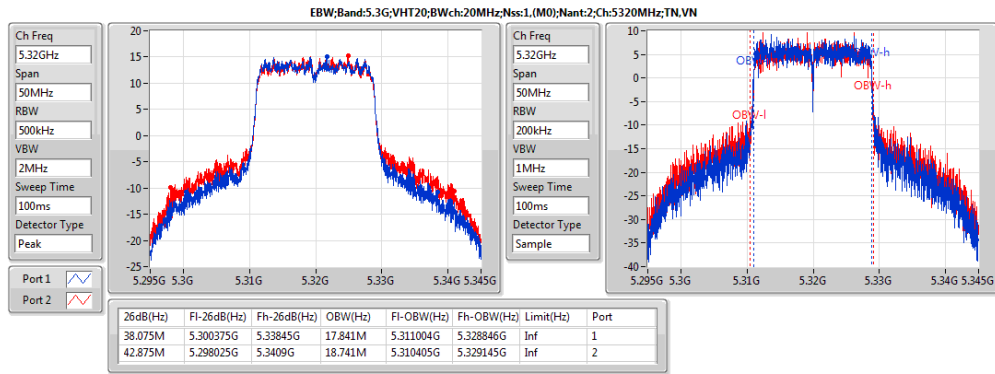
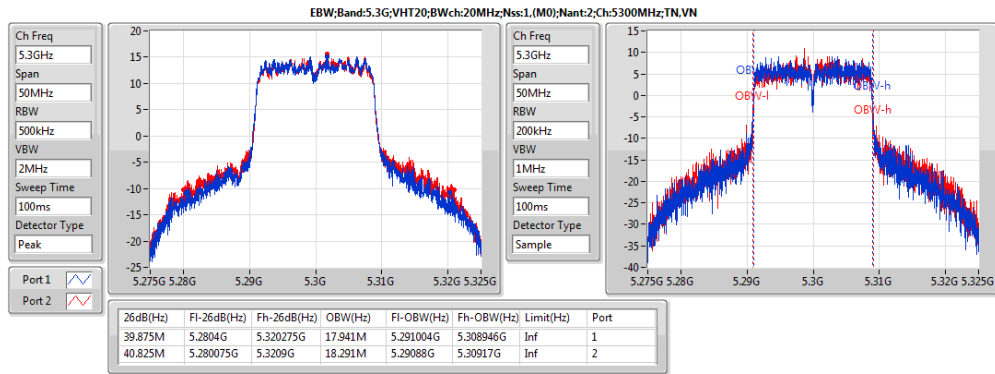
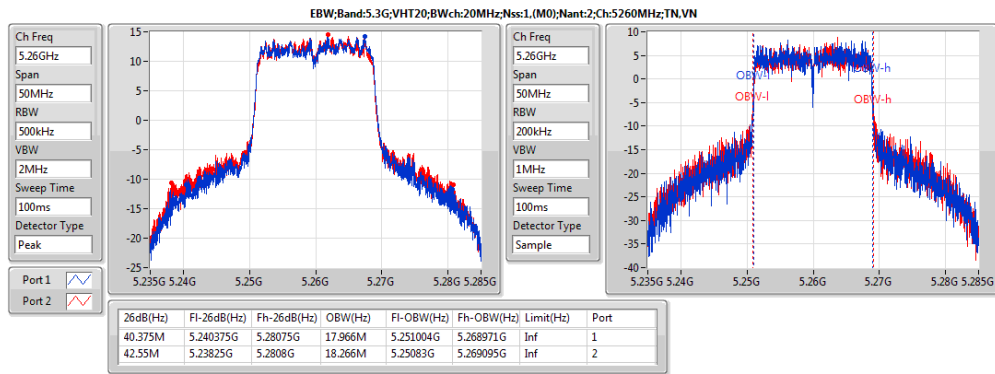
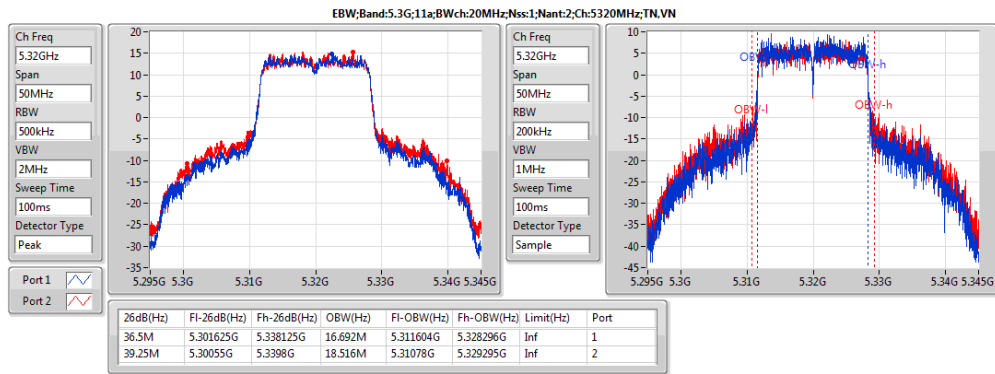
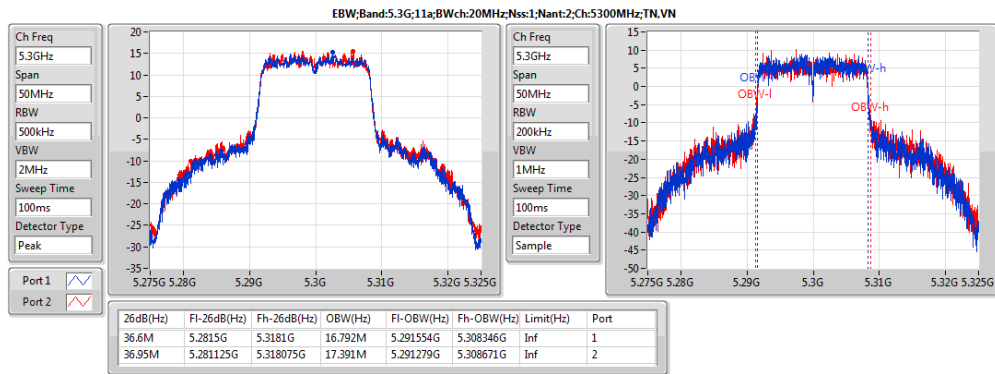
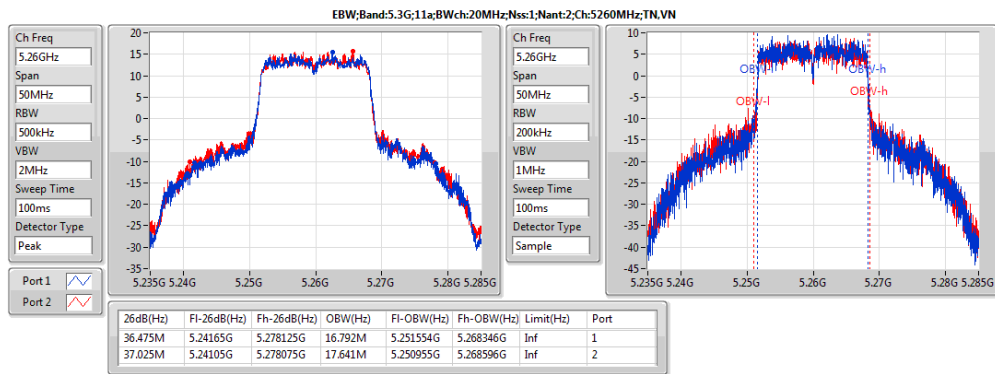
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.3G;11a;Nss1;Ntx2	39.25M	18.516M	18M5D1D	36.475M	16.692M
5.3G;VHT20;Nss1,(M0);Ntx2	42.875M	18.741M	18M7D1D	38.075M	17.841M
5.3G;VHT40;Nss1,(M0);Ntx2	86.45M	38.381M	38M4D1D	39.6M	35.882M
5.3G;VHT80;Nss1,(M0);Ntx2	82.9M	75.862M	75M9D1D	82.9M	75.662M
5.6G;11a;Nss1;Ntx2	36.95M	17.191M	17M2D1D	35.325M	16.692M
5.6G;VHT20;Nss1,(M0);Ntx2	43.05M	18.391M	18M4D1D	22.15M	17.641M
5.6G;VHT40;Nss1,(M0);Ntx2	81.15M	36.982M	37M0D1D	39.7M	35.932M
5.6G;VHT80;Nss1,(M0);Ntx2	184.4M	77.061M	77M1D1D	83.4M	75.662M



Result

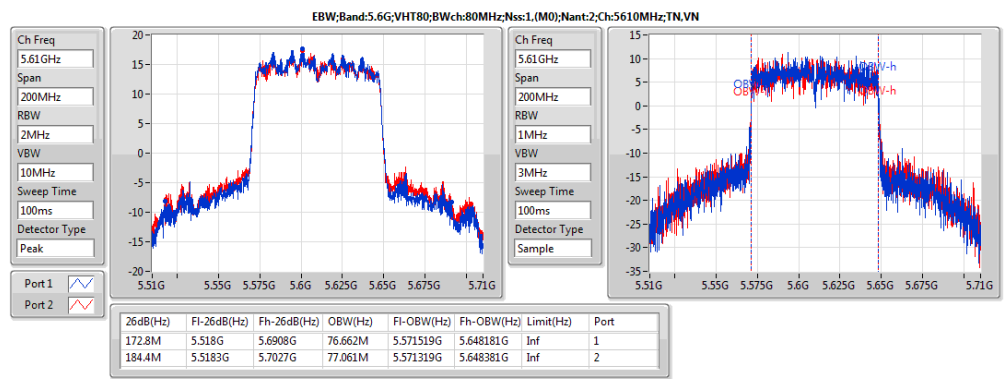
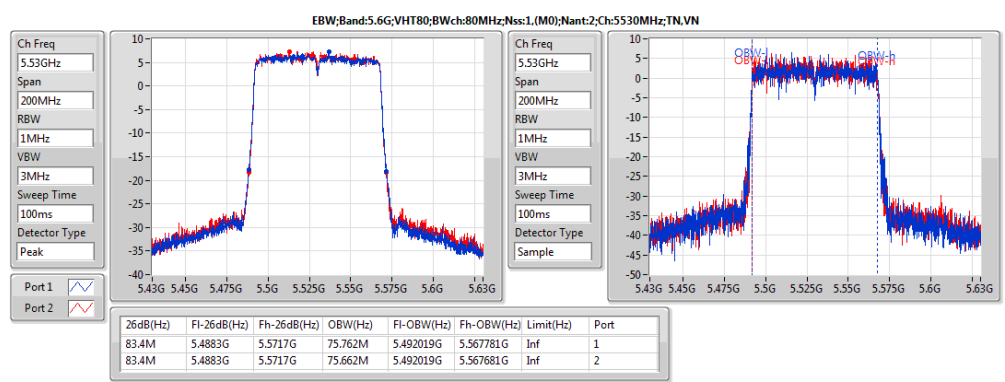
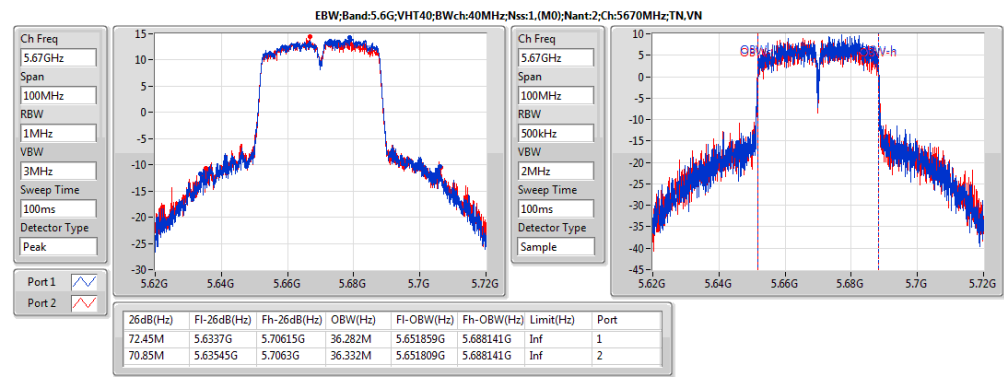
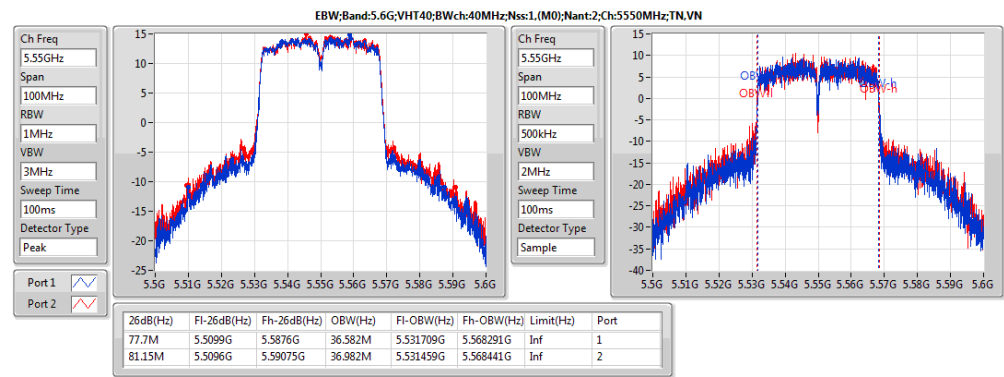
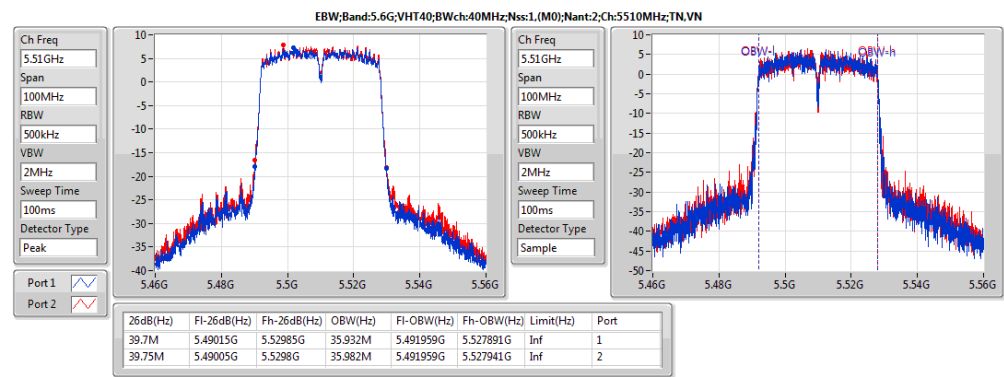
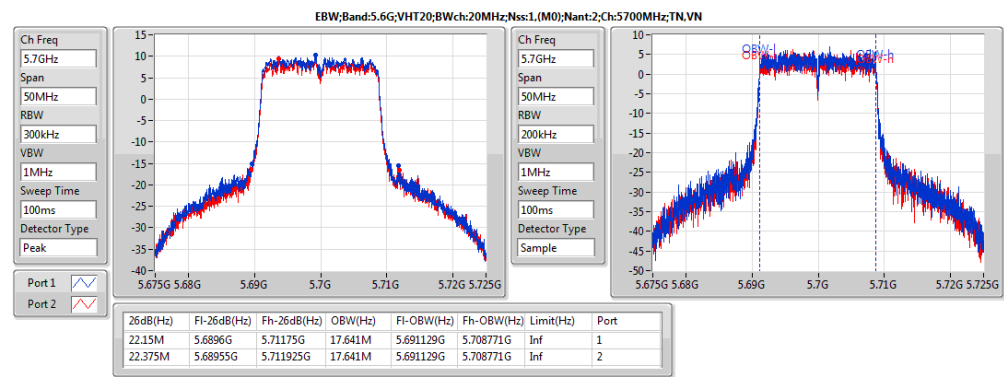
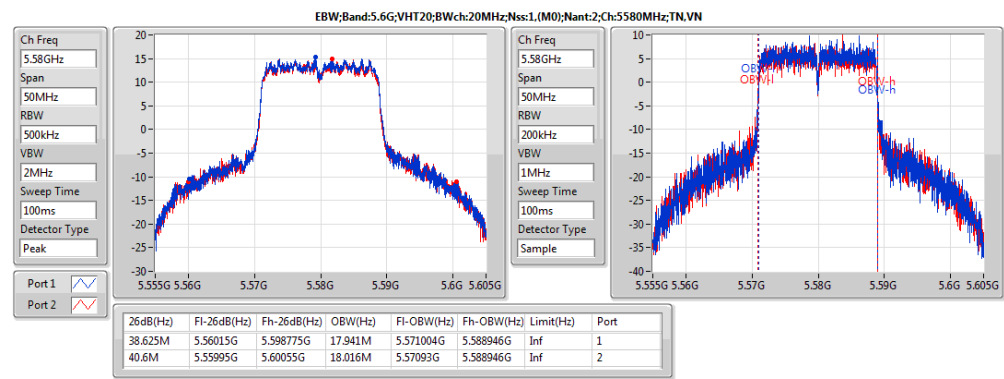
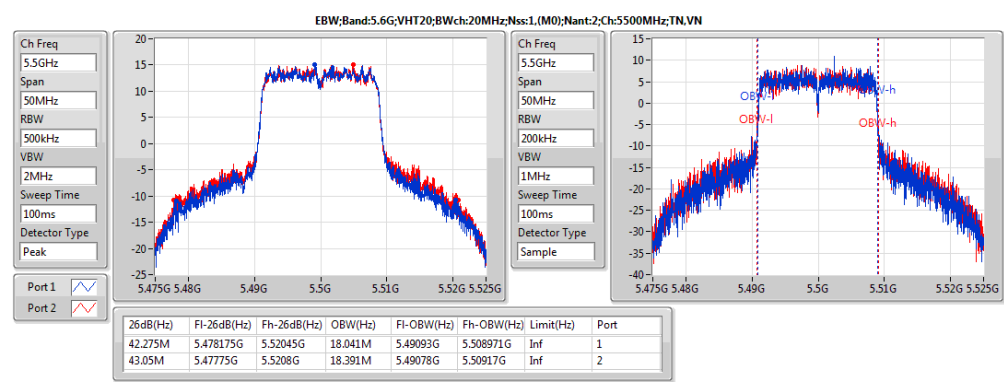
Mode	Result	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)
5.3G;11a;Nss1;Ntx2;5260	Pass	36.475M	16.792M	37.025M	17.641M
5.3G;11a;Nss1;Ntx2;5300	Pass	36.6M	16.792M	36.95M	17.391M
5.3G;11a;Nss1;Ntx2;5320	Pass	36.5M	16.692M	39.25M	18.516M
5.3G;VHT20;Nss1,(M0);Ntx2;5260	Pass	40.375M	17.966M	42.55M	18.266M
5.3G;VHT20;Nss1,(M0);Ntx2;5300	Pass	39.875M	17.941M	40.825M	18.291M
5.3G;VHT20;Nss1,(M0);Ntx2;5320	Pass	38.075M	17.841M	42.875M	18.741M
5.3G;VHT40;Nss1,(M0);Ntx2;5270	Pass	75.95M	36.532M	86.45M	38.381M
5.3G;VHT40;Nss1,(M0);Ntx2;5310	Pass	39.6M	35.882M	39.9M	36.032M
5.3G;VHT80;Nss1,(M0);Ntx2;5290	Pass	82.9M	75.662M	82.9M	75.862M
5.6G;11a;Nss1;Ntx2;5500	Pass	35.325M	16.692M	36M	16.767M
5.6G;11a;Nss1;Ntx2;5580	Pass	36.675M	16.867M	36.225M	16.942M
5.6G;11a;Nss1;Ntx2;5700	Pass	36.95M	16.967M	36.5M	17.191M
5.6G;VHT20;Nss1,(M0);Ntx2;5500	Pass	42.275M	18.041M	43.05M	18.391M
5.6G;VHT20;Nss1,(M0);Ntx2;5580	Pass	38.625M	17.941M	40.6M	18.016M
5.6G;VHT20;Nss1,(M0);Ntx2;5700	Pass	22.15M	17.641M	22.375M	17.641M
5.6G;VHT40;Nss1,(M0);Ntx2;5510	Pass	39.7M	35.932M	39.75M	35.982M
5.6G;VHT40;Nss1,(M0);Ntx2;5550	Pass	77.7M	36.582M	81.15M	36.982M
5.6G;VHT40;Nss1,(M0);Ntx2;5670	Pass	72.45M	36.282M	70.85M	36.332M
5.6G;VHT80;Nss1,(M0);Ntx2;5530	Pass	83.4M	75.762M	83.4M	75.662M
5.6G;VHT80;Nss1,(M0);Ntx2;5610	Pass	172.8M	76.662M	184.4M	77.061M





EBW Result

Appendix A





Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
5.3G;11a;Nss1;Ntx2	23.78	0.23878	24.78	0.30061
5.3G;VHT20;Nss1,(M0);Ntx2	23.84	0.2421	24.84	0.30479
5.3G;VHT40;Nss1,(M0);Ntx2	23.86	0.24322	24.86	0.3062
5.3G;VHT80;Nss1,(M0);Ntx2	19.39	0.0869	20.39	0.1094
5.6G;11a;Nss1;Ntx2	23.72	0.2355	24.72	0.29648
5.6G;VHT20;Nss1,(M0);Ntx2	23.78	0.23878	24.78	0.30061
5.6G;VHT40;Nss1,(M0);Ntx2	23.82	0.24099	24.82	0.30339
5.6G;VHT80;Nss1,(M0);Ntx2	23.82	0.24099	24.82	0.30339



Result

Mode	Result	DG (dBi)	Sum (dBm)	Sum Lim. (dBm)	EIRP (dBm)	EIRP Lim. (dBm)	P1 (dBm)	P2 (dBm)
5.3G;11a;Nss1;Ntx2;5260	Pass	1.00	23.77	23.98	24.77	30.00	20.81	20.71
5.3G;11a;Nss1;Ntx2;5300	Pass	1.00	23.78	23.98	24.78	30.00	20.84	20.69
5.3G;11a;Nss1;Ntx2;5320	Pass	1.00	23.77	23.98	24.77	30.00	20.89	20.62
5.3G;VHT20;Nss1,(M0);Ntx2;5260	Pass	1.00	23.76	23.98	24.76	30.00	20.81	20.68
5.3G;VHT20;Nss1,(M0);Ntx2;5300	Pass	1.00	23.76	23.98	24.76	30.00	20.76	20.74
5.3G;VHT20;Nss1,(M0);Ntx2;5320	Pass	1.00	23.84	23.98	24.84	30.00	20.86	20.79
5.3G;VHT40;Nss1,(M0);Ntx2;5270	Pass	1.00	23.86	23.98	24.86	30.00	20.88	20.82
5.3G;VHT40;Nss1,(M0);Ntx2;5310	Pass	1.00	20.01	23.98	21.01	30.00	17.08	16.92
5.3G;VHT80;Nss1,(M0);Ntx2;5290	Pass	1.00	19.39	23.98	20.39	30.00	16.44	16.31
5.6G;11a;Nss1;Ntx2;5500	Pass	1.00	23.28	23.98	24.28	30.00	20.26	20.27
5.6G;11a;Nss1;Ntx2;5580	Pass	1.00	23.72	23.98	24.72	30.00	20.78	20.63
5.6G;11a;Nss1;Ntx2;5700	Pass	1.00	22.76	23.98	23.76	30.00	19.88	19.62
5.6G;VHT20;Nss1,(M0);Ntx2;5500	Pass	1.00	23.78	23.98	24.78	30.00	20.81	20.72
5.6G;VHT20;Nss1,(M0);Ntx2;5580	Pass	1.00	23.70	23.98	24.70	30.00	20.74	20.64
5.6G;VHT20;Nss1,(M0);Ntx2;5700	Pass	1.00	21.46	23.98	22.46	30.00	18.77	18.11
5.6G;VHT40;Nss1,(M0);Ntx2;5510	Pass	1.00	19.86	23.98	20.86	30.00	16.78	16.92
5.6G;VHT40;Nss1,(M0);Ntx2;5550	Pass	1.00	23.82	23.98	24.82	30.00	20.90	20.72
5.6G;VHT40;Nss1,(M0);Ntx2;5670	Pass	1.00	23.25	23.98	24.25	30.00	20.45	20.02
5.6G;VHT80;Nss1,(M0);Ntx2;5530	Pass	1.00	19.24	23.98	20.24	30.00	16.27	16.19
5.6G;VHT80;Nss1,(M0);Ntx2;5610	Pass	1.00	23.82	23.98	24.82	30.00	20.91	20.70



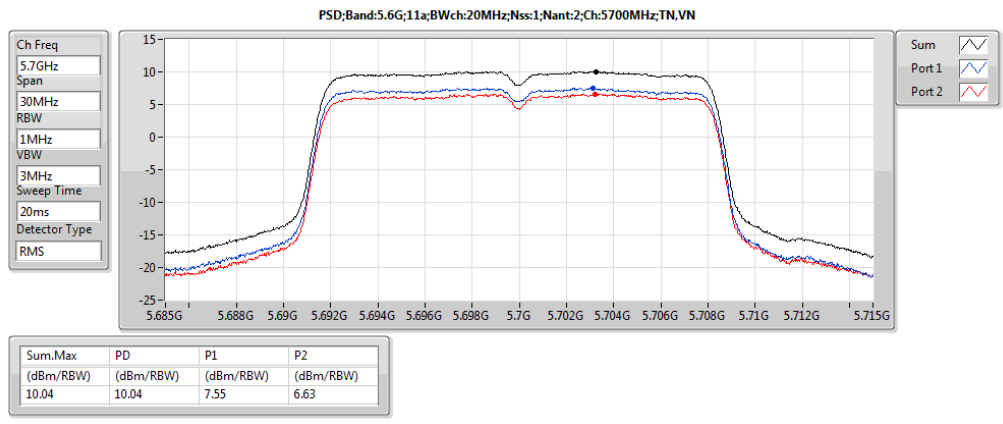
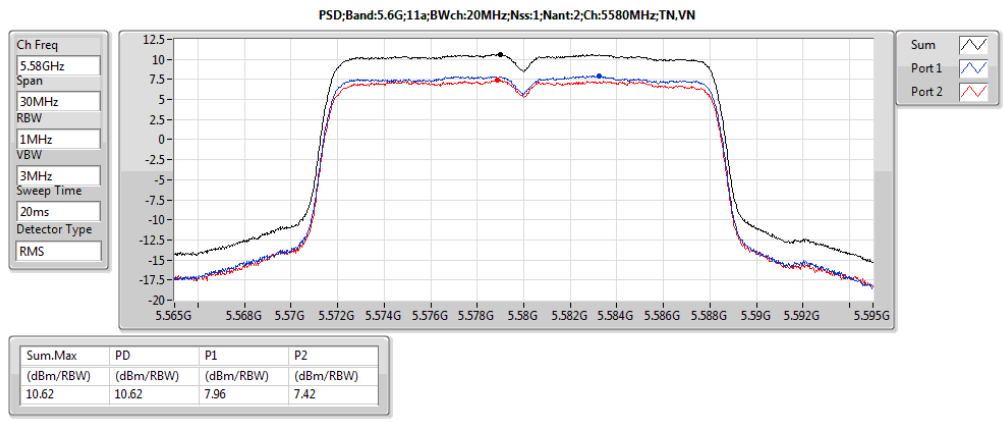
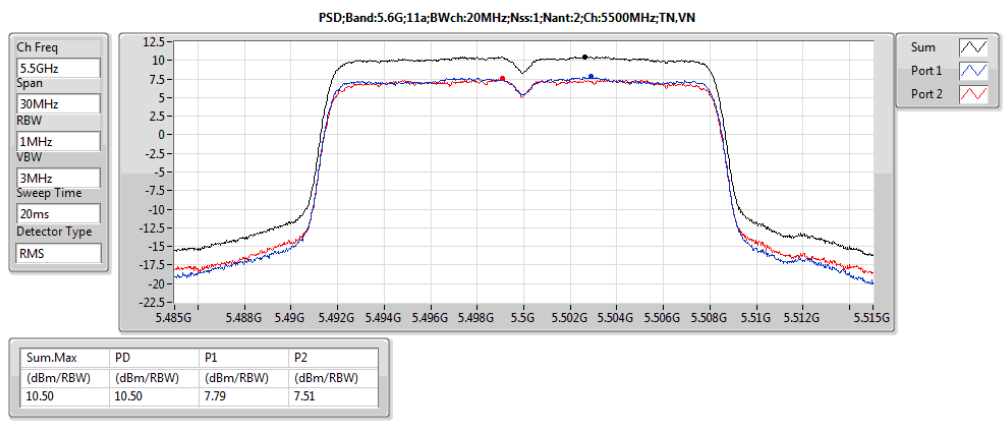
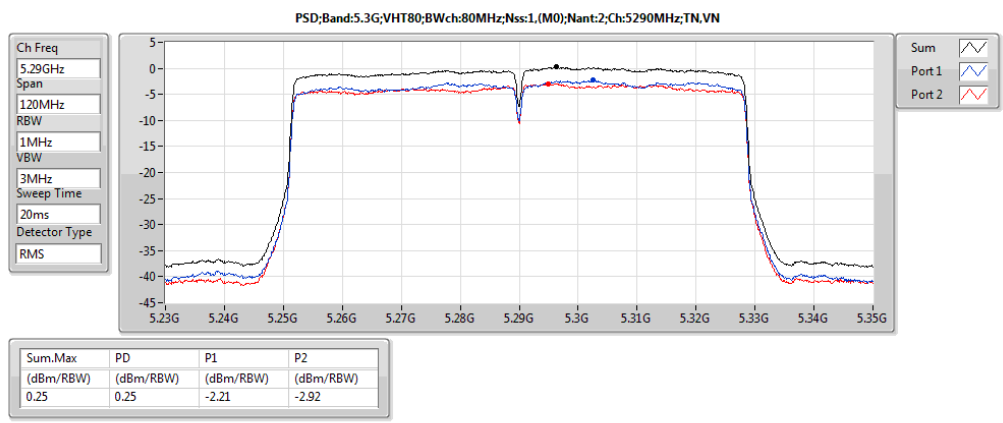
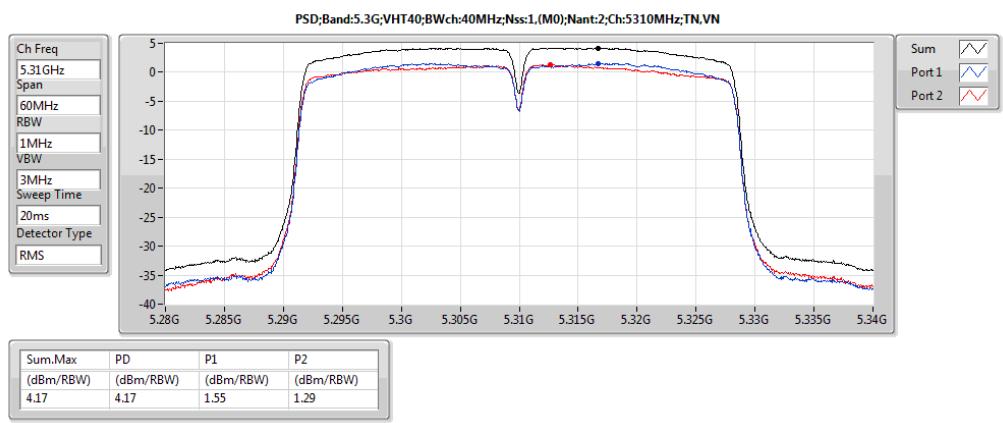
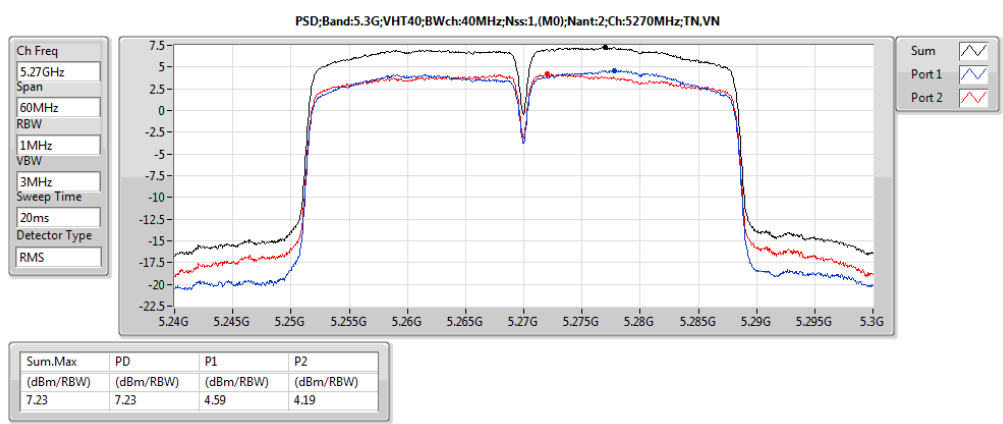
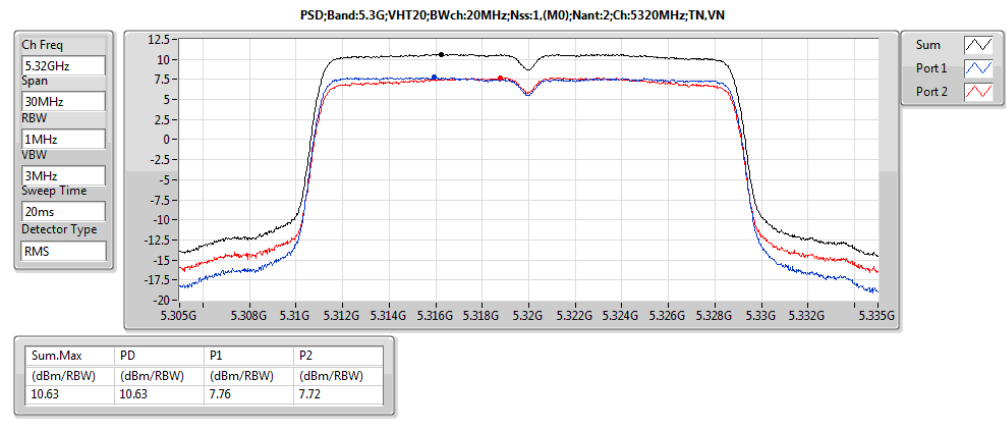
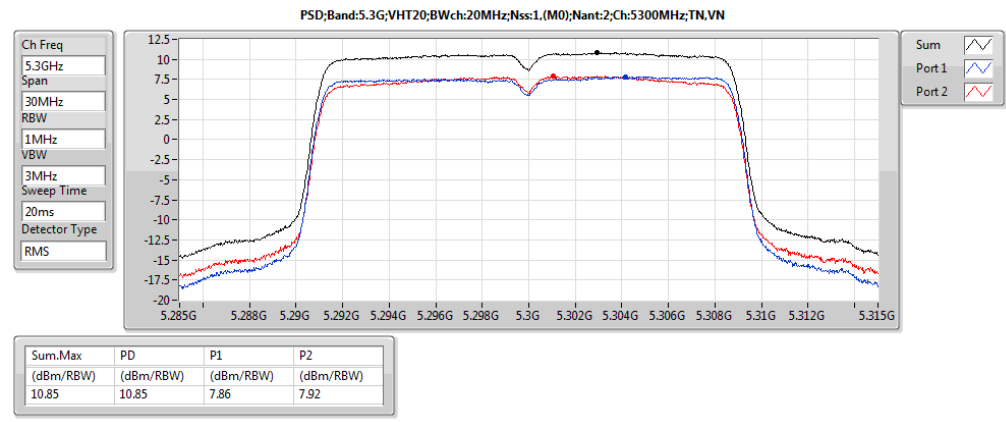
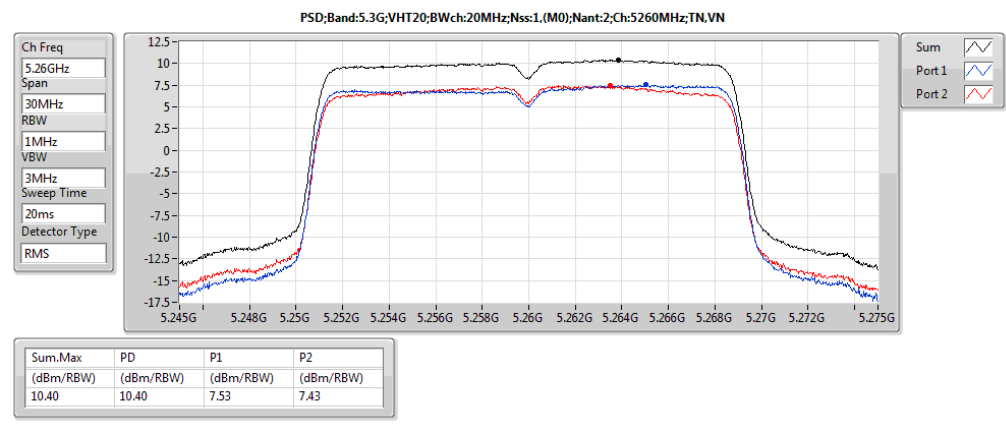
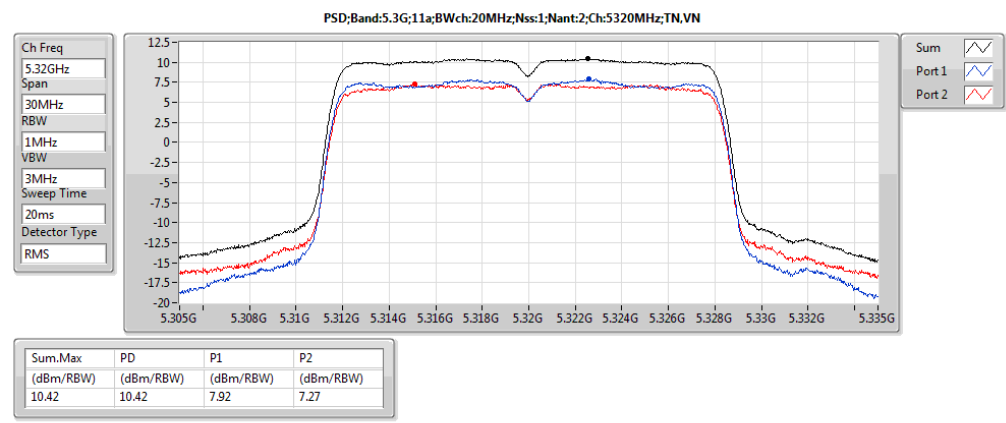
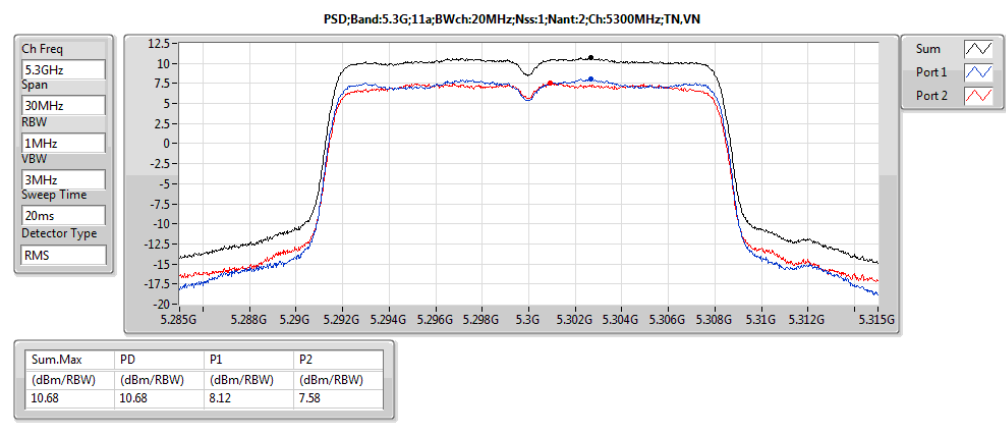
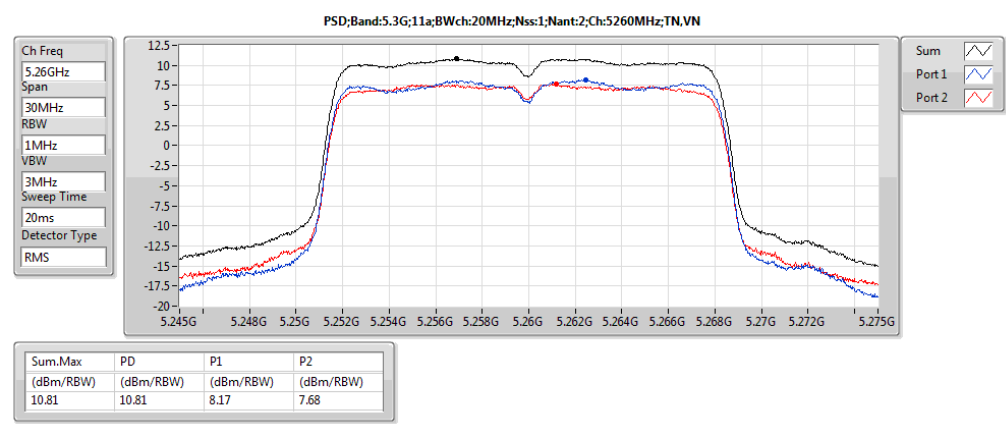
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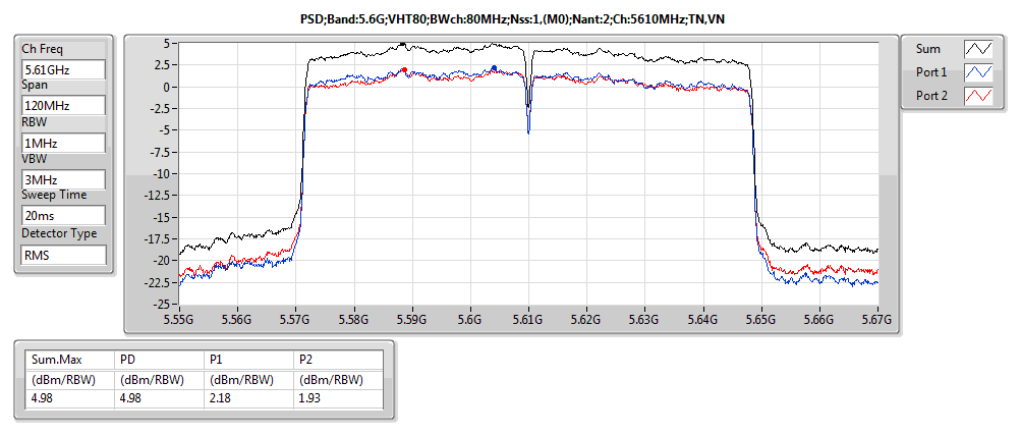
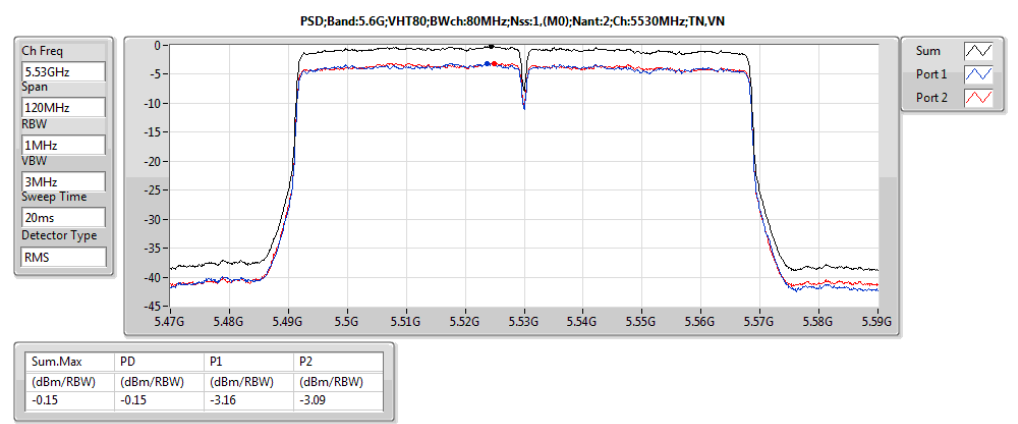
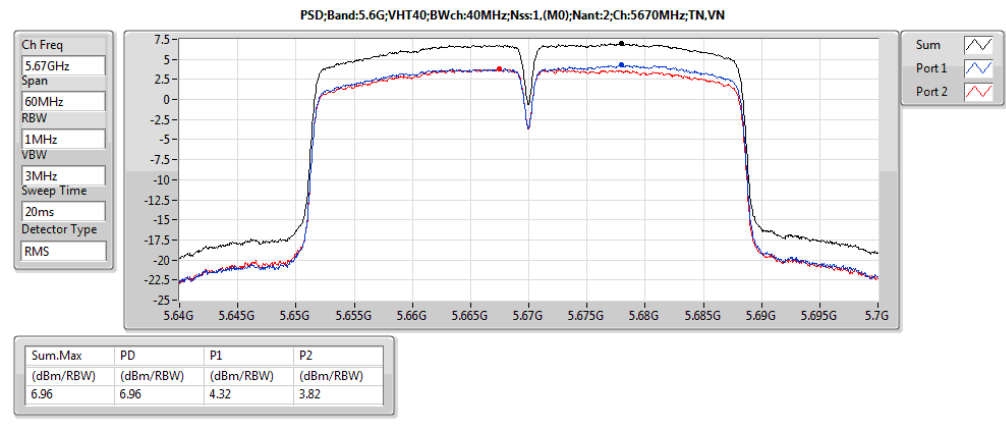
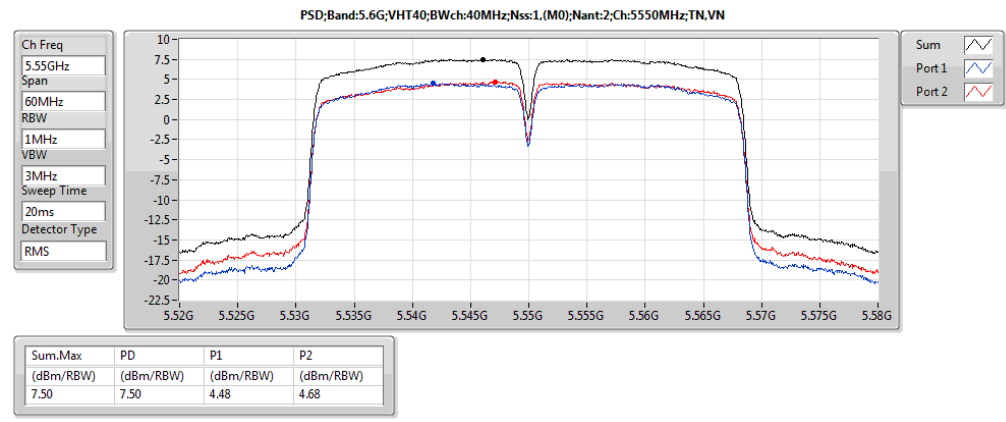
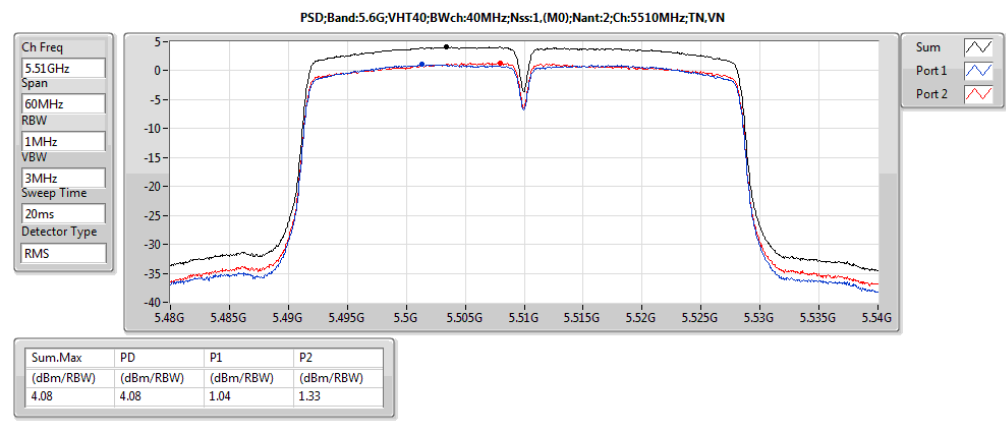
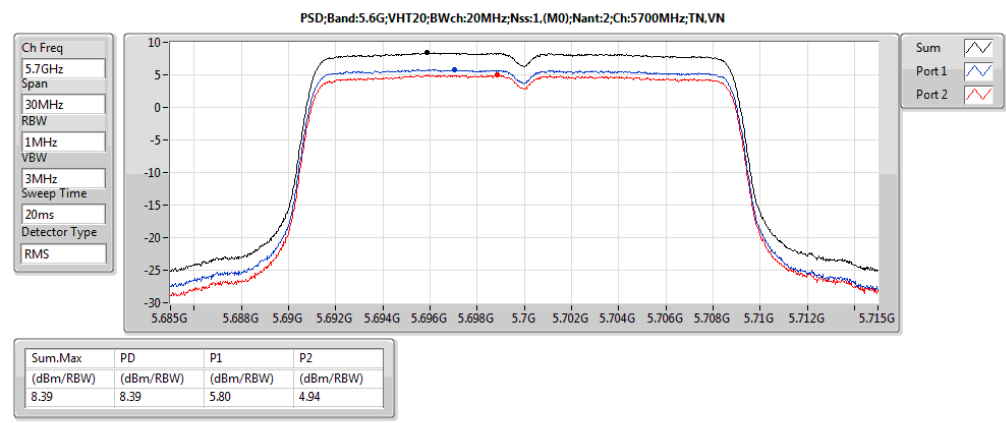
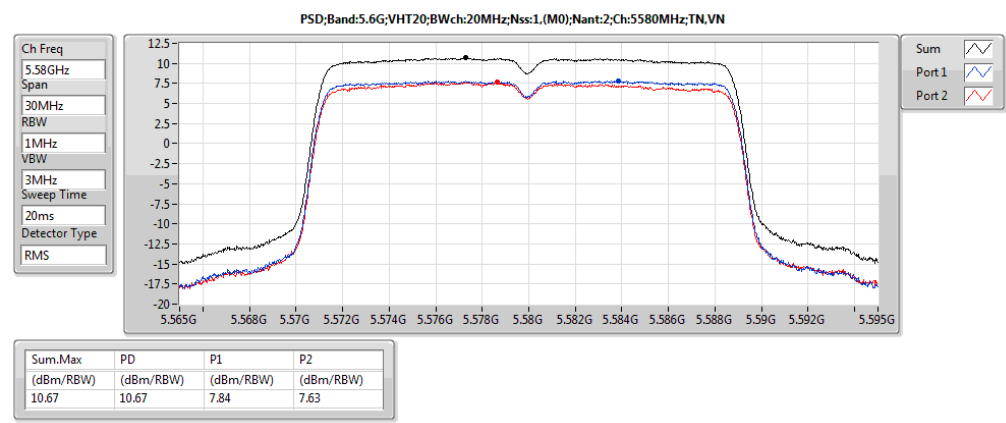
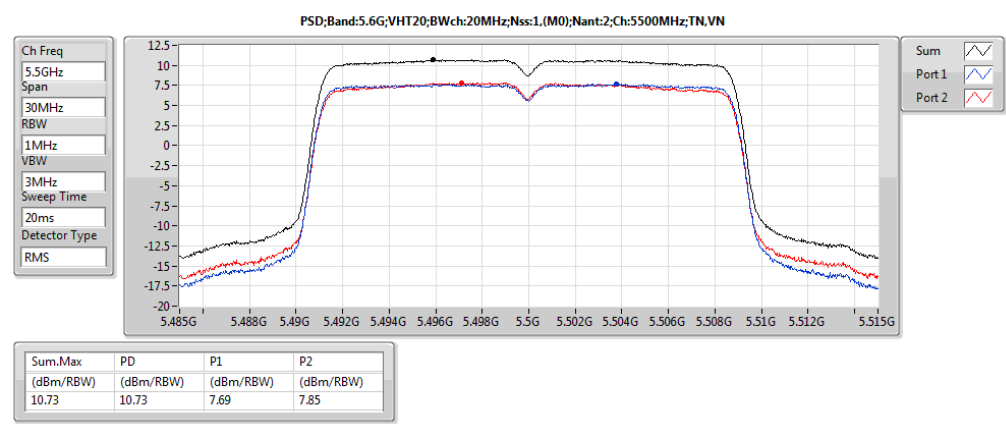
Mode	PD (dBm/RBW)
5.3G;11a;Nss1;Ntx2	10.81
5.3G;VHT20;Nss1,(M0);Ntx2	10.85
5.3G;VHT40;Nss1,(M0);Ntx2	7.23
5.3G;VHT80;Nss1,(M0);Ntx2	0.25
5.6G;11a;Nss1;Ntx2	10.62
5.6G;VHT20;Nss1,(M0);Ntx2	10.73
5.6G;VHT40;Nss1,(M0);Ntx2	7.50
5.6G;VHT80;Nss1,(M0);Ntx2	4.98



Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)
5.3G;11a;Nss1;Ntx2;5260	Pass	1.00	10.81	11.00	8.17	7.68
5.3G;11a;Nss1;Ntx2;5300	Pass	1.00	10.68	11.00	8.12	7.58
5.3G;11a;Nss1;Ntx2;5320	Pass	1.00	10.42	11.00	7.92	7.27
5.3G;VHT20;Nss1,(M0);Ntx2;5260	Pass	1.00	10.40	11.00	7.53	7.43
5.3G;VHT20;Nss1,(M0);Ntx2;5300	Pass	1.00	10.85	11.00	7.86	7.92
5.3G;VHT20;Nss1,(M0);Ntx2;5320	Pass	1.00	10.63	11.00	7.76	7.72
5.3G;VHT40;Nss1,(M0);Ntx2;5270	Pass	1.00	7.23	11.00	4.59	4.19
5.3G;VHT40;Nss1,(M0);Ntx2;5310	Pass	1.00	4.17	11.00	1.55	1.29
5.3G;VHT80;Nss1,(M0);Ntx2;5290	Pass	1.00	0.25	11.00	-2.21	-2.92
5.6G;11a;Nss1;Ntx2;5500	Pass	1.00	10.50	11.00	7.79	7.51
5.6G;11a;Nss1;Ntx2;5580	Pass	1.00	10.62	11.00	7.96	7.42
5.6G;11a;Nss1;Ntx2;5700	Pass	1.00	10.04	11.00	7.55	6.63
5.6G;VHT20;Nss1,(M0);Ntx2;5500	Pass	1.00	10.73	11.00	7.69	7.85
5.6G;VHT20;Nss1,(M0);Ntx2;5580	Pass	1.00	10.67	11.00	7.84	7.63
5.6G;VHT20;Nss1,(M0);Ntx2;5700	Pass	1.00	8.39	11.00	5.80	4.94
5.6G;VHT40;Nss1,(M0);Ntx2;5510	Pass	1.00	4.08	11.00	1.04	1.33
5.6G;VHT40;Nss1,(M0);Ntx2;5550	Pass	1.00	7.50	11.00	4.48	4.68
5.6G;VHT40;Nss1,(M0);Ntx2;5670	Pass	1.00	6.96	11.00	4.32	3.82
5.6G;VHT80;Nss1,(M0);Ntx2;5530	Pass	1.00	-0.15	11.00	-3.16	-3.09
5.6G;VHT80;Nss1,(M0);Ntx2;5610	Pass	1.00	4.98	11.00	2.18	1.93

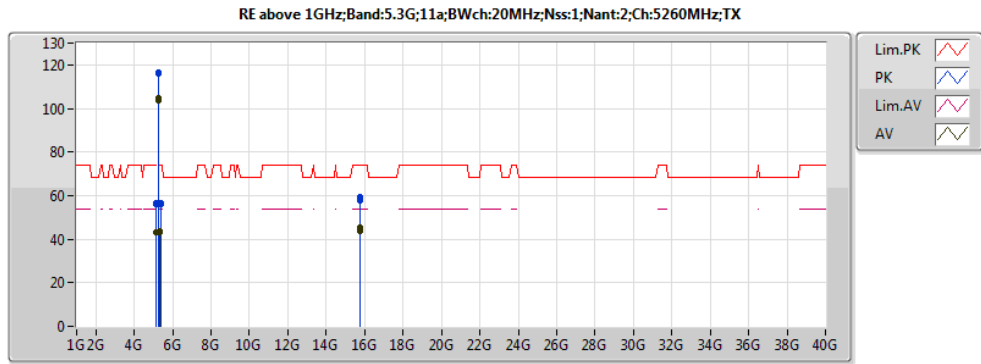






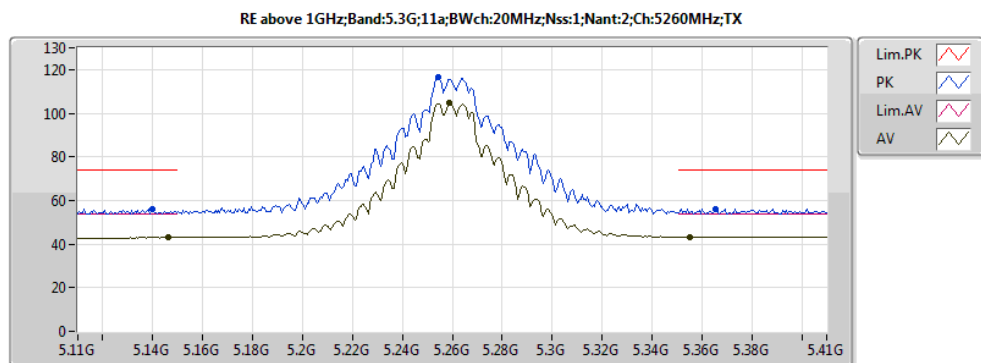
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
5.3G;11a;Nss1;Ntx2;5320;TX	Pass	AV	5.3504G	53.67	54.00	-0.33	4.31	3	H	1	2.99	-
5.6G;11a;Nss1;Ntx2;5700;TX	Pass	AV	5.7252G	53.99	54.00	-0.01	5.31	3	V	271	2.19	-



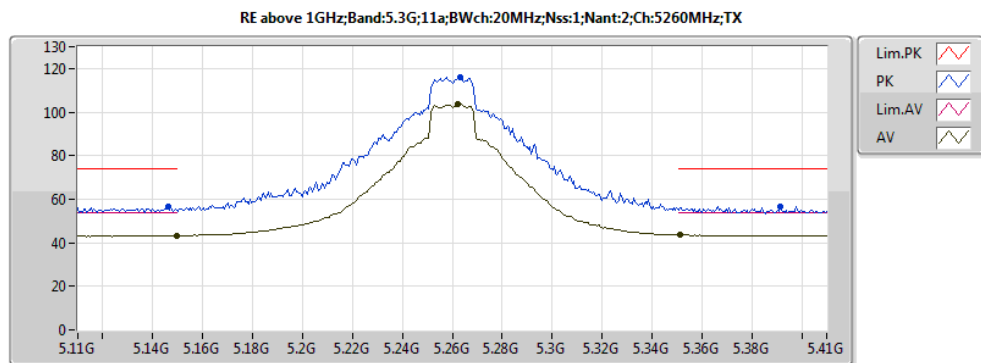
20160926
EUT Y
Setting:24.5
2TX
Non-TxBF
N-2-10

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	43.19	54.00	-10.81	3.90	3	H	6	2.40	-
AV	5.2624G	103.55	Inf	-Inf	4.13	3	H	6	2.40	-
AV	5.3512G	43.64	54.00	-10.36	4.31	3	H	6	2.40	-
AV	15.7785G	45.36	54.00	-8.64	13.31	3	H	298	1.87	-
PK	5.146G	56.75	74.00	-17.25	3.89	3	H	6	2.40	-
PK	5.263G	115.94	Inf	-Inf	4.13	3	H	6	2.40	-
PK	5.3914G	56.85	74.00	-17.15	4.38	3	H	6	2.40	-
PK	15.77742G	59.15	74.00	-14.85	13.31	3	H	298	1.87	-
AV	5.146G	43.05	54.00	-10.95	3.89	3	V	93	2.86	-
AV	5.2588G	104.82	Inf	-Inf	4.12	3	V	93	2.86	-
AV	5.3554G	43.35	54.00	-10.65	4.32	3	V	93	2.86	-
AV	15.78162G	43.91	54.00	-10.09	13.30	3	V	47	1.62	-
PK	5.14G	56.28	74.00	-17.72	3.88	3	V	93	2.86	-
PK	5.2546G	116.75	Inf	-Inf	4.11	3	V	93	2.86	-
PK	5.3656G	56.25	74.00	-17.75	4.33	3	V	93	2.86	-
PK	15.79164G	57.88	74.00	-16.12	13.29	3	V	47	1.62	-



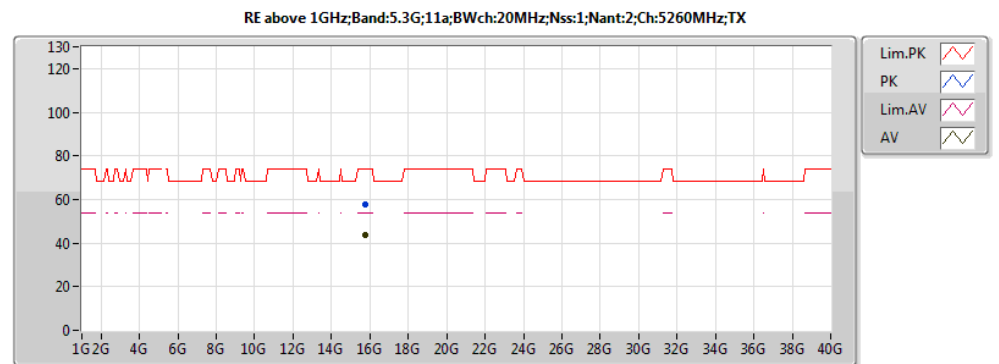
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Setting:24.5
2TX
Non-TxBF
N-2-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.146G	43.05	54.00	-10.95	3.89	3	V	93	2.86	-
AV	5.2588G	104.82	Inf	-Inf	4.12	3	V	93	2.86	-
AV	5.3554G	43.35	54.00	-10.65	4.32	3	V	93	2.86	-
PK	5.14G	56.28	74.00	-17.72	3.88	3	V	93	2.86	-
PK	5.2546G	116.75	Inf	-Inf	4.11	3	V	93	2.86	-
PK	5.3656G	56.25	74.00	-17.75	4.33	3	V	93	2.86	-



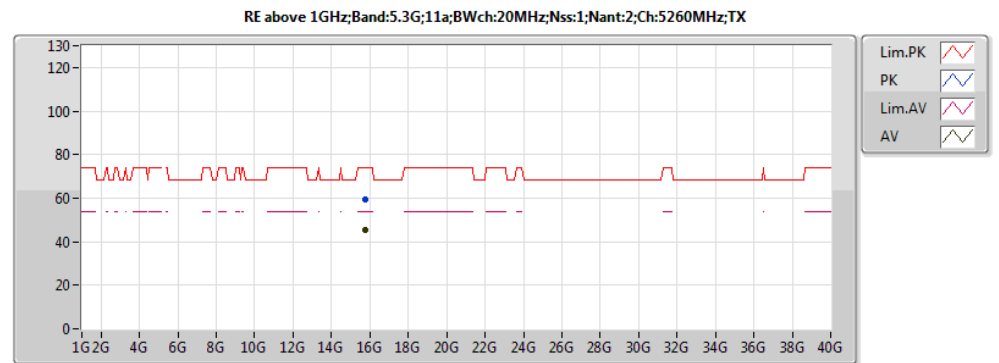
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Setting:24.5
2TX
Non-TxBF
N-2-10

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	43.19	54.00	-10.81	3.90	3	H	6	2.40	-
AV	5.2624G	103.55	Inf	-Inf	4.13	3	H	6	2.40	-
AV	5.3512G	43.64	54.00	-10.36	4.31	3	H	6	2.40	-
PK	5.146G	56.75	74.00	-17.25	3.89	3	H	6	2.40	-
PK	5.263G	115.94	Inf	-Inf	4.13	3	H	6	2.40	-
PK	5.3914G	56.85	74.00	-17.15	4.38	3	H	6	2.40	-



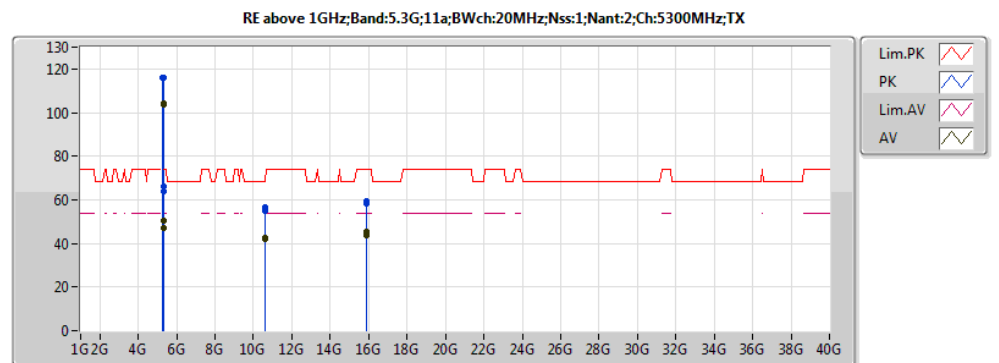
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Non-TxBF
N-2-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.78162G	43.91	54.00	-10.09	13.30	3	V	47	1.62	-
PK	15.79164G	57.88	74.00	-16.12	13.29	3	V	47	1.62	-



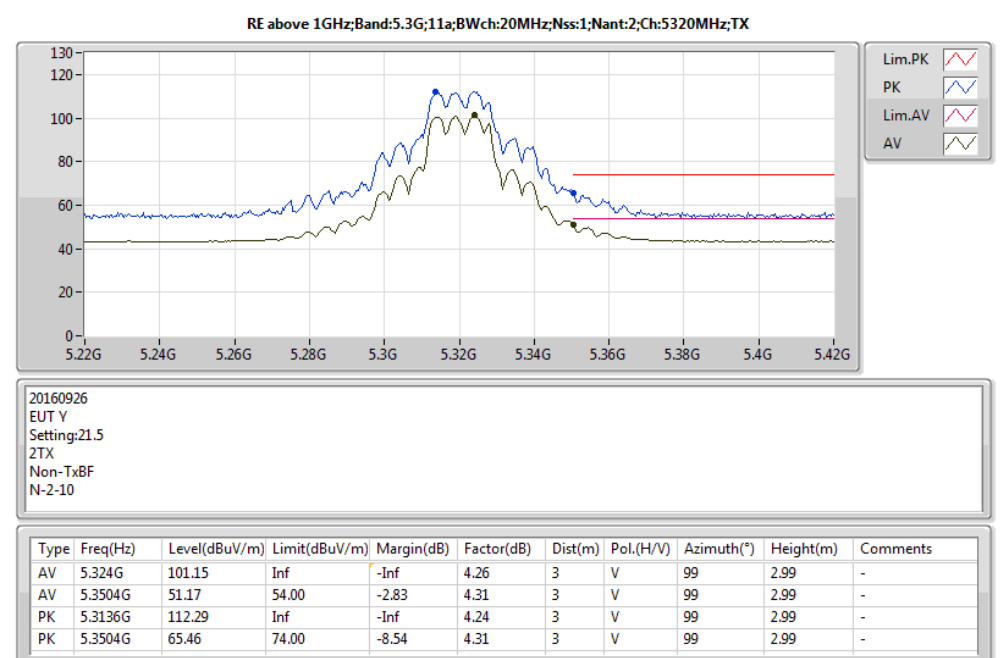
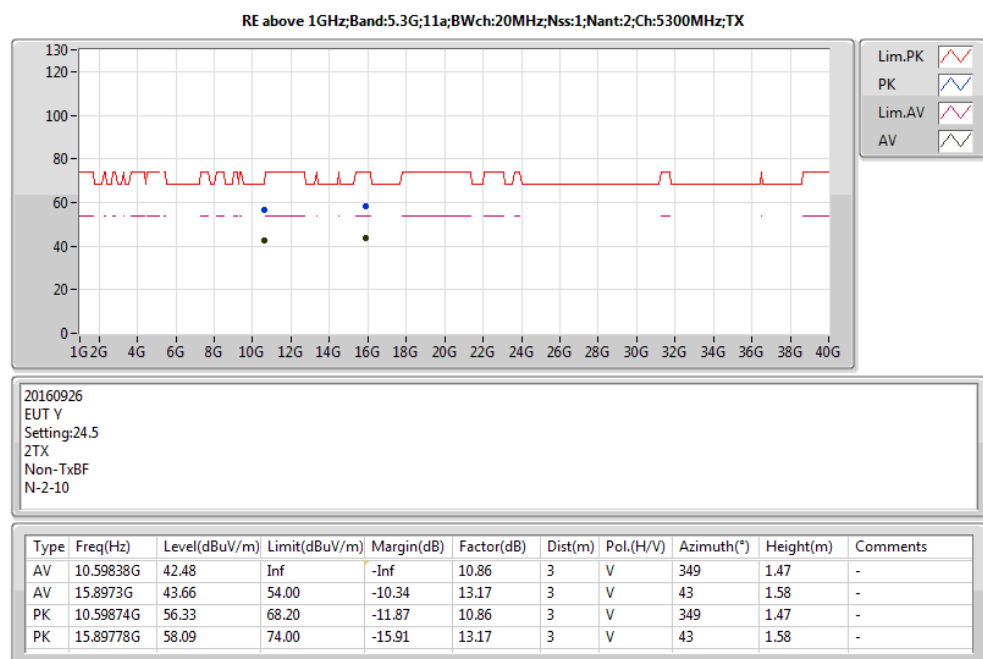
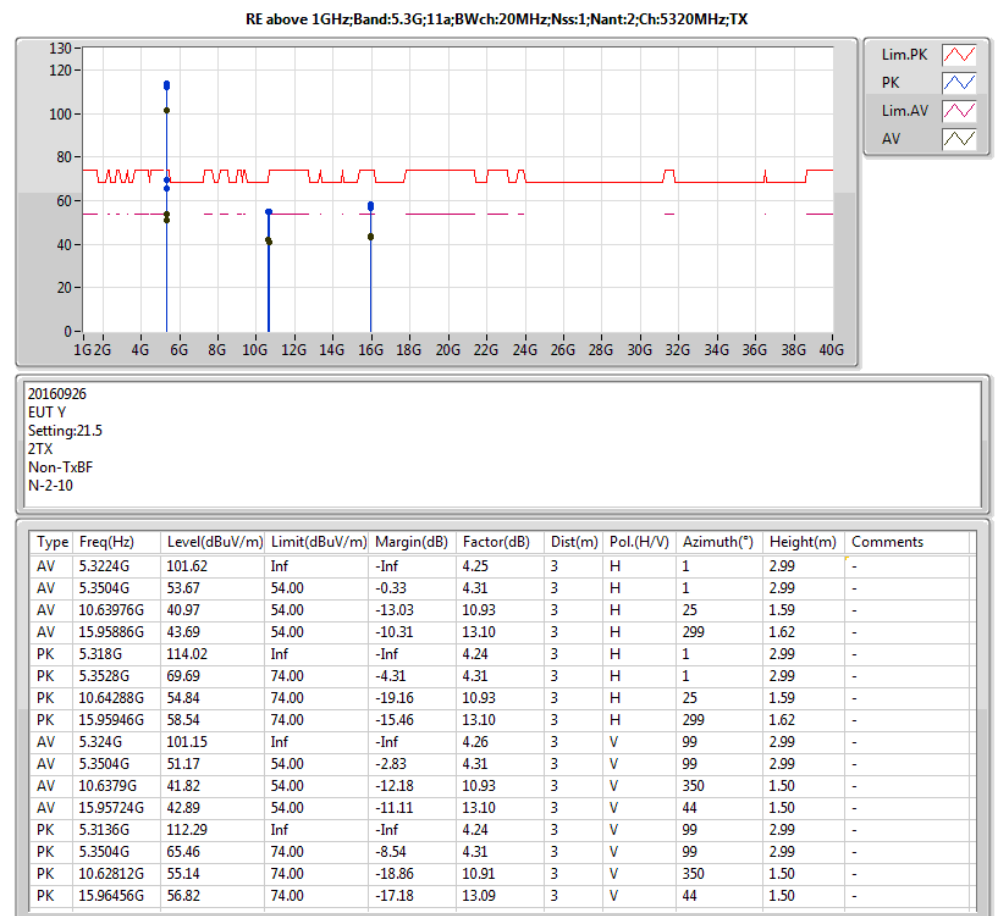
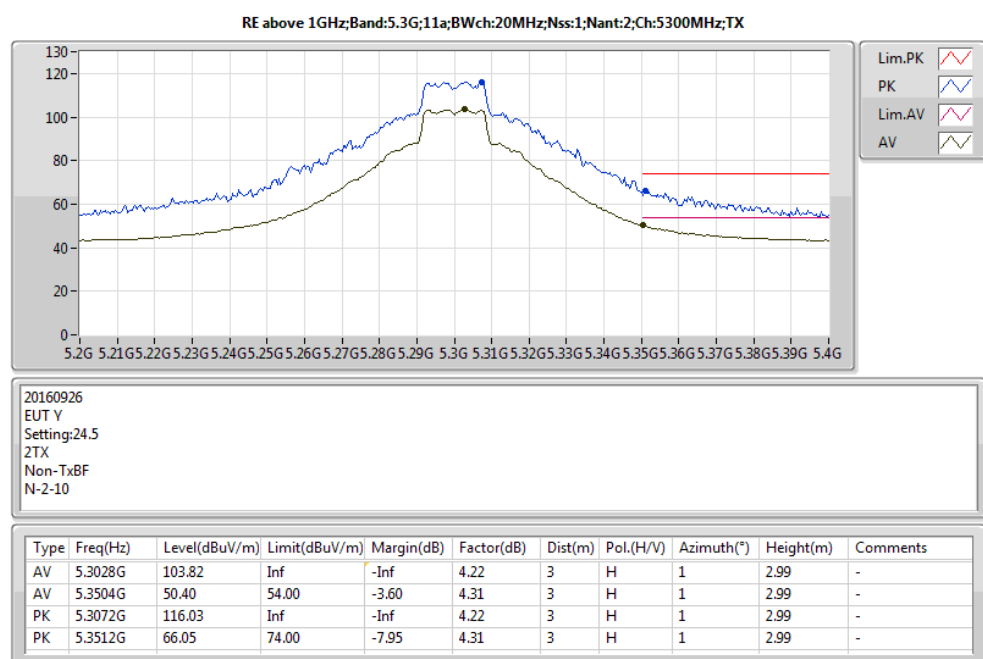
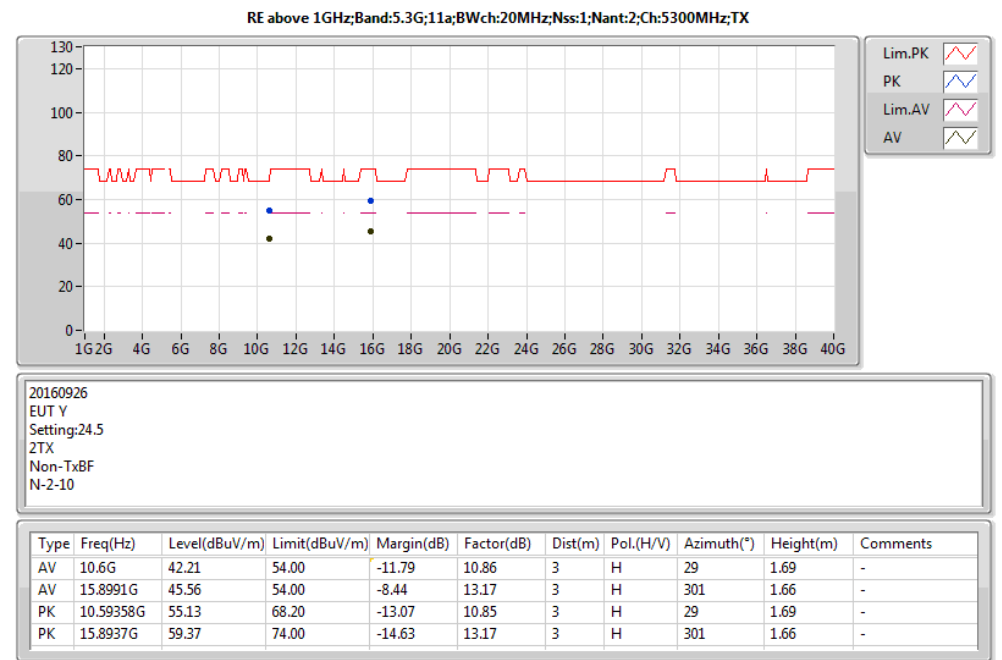
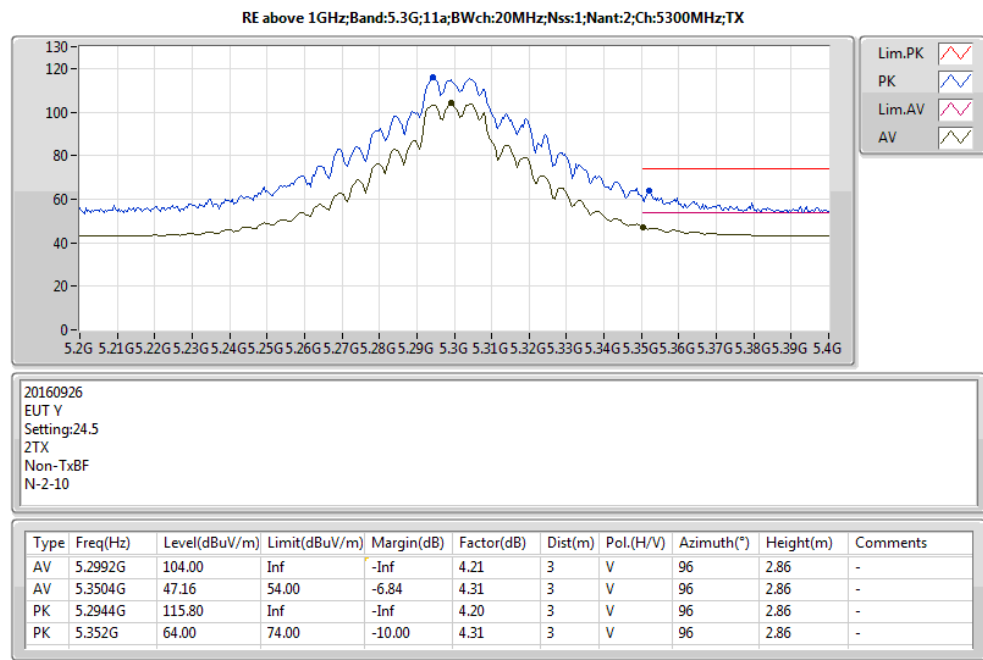
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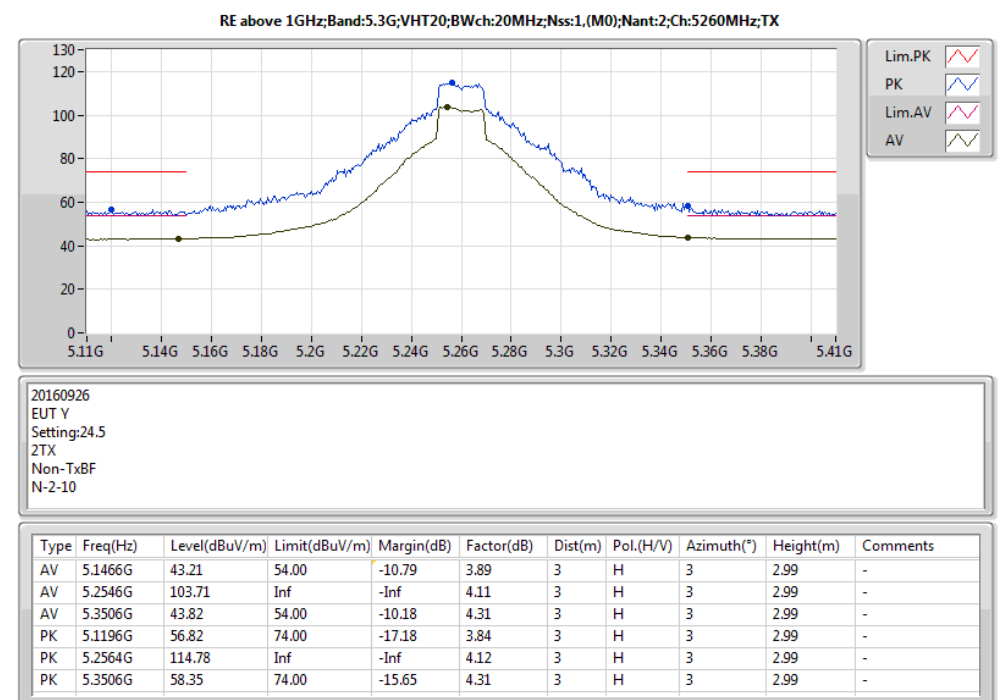
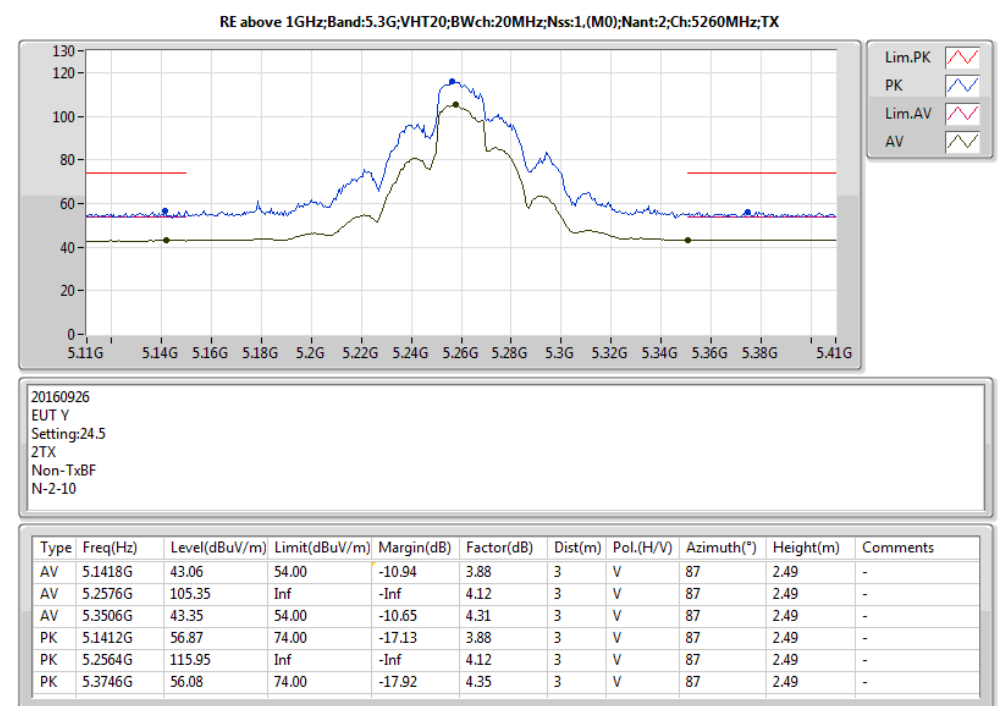
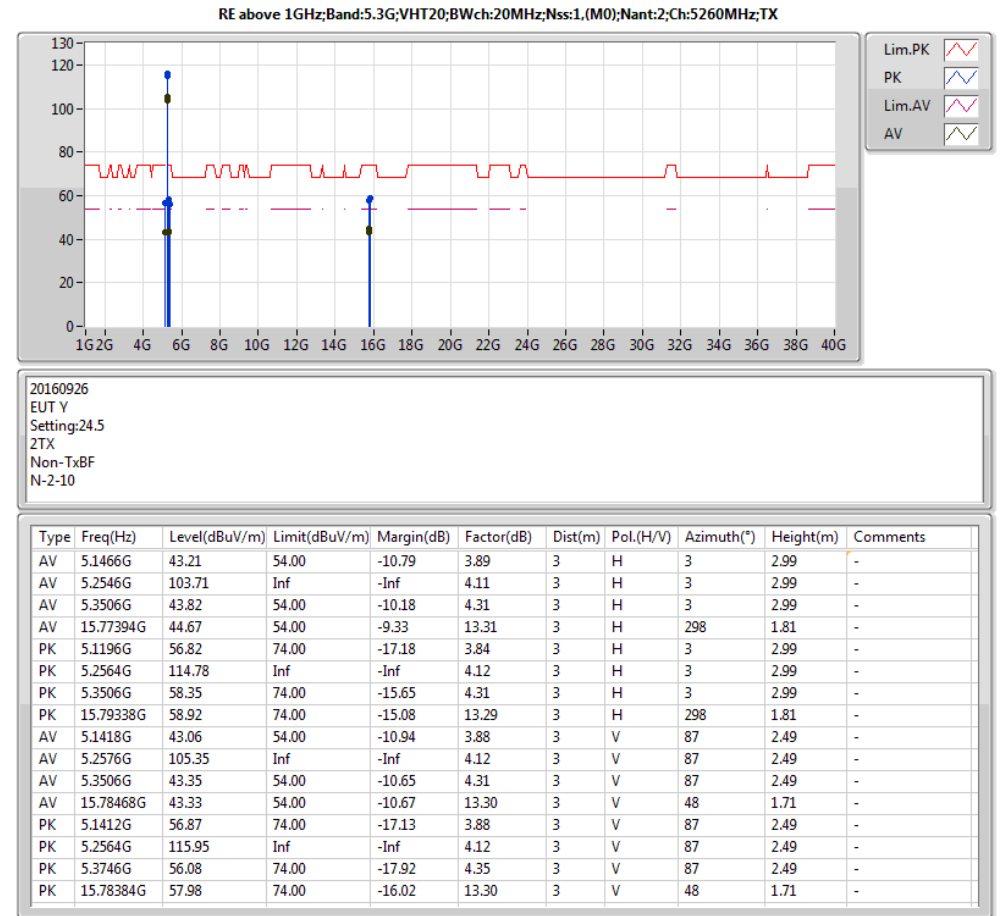
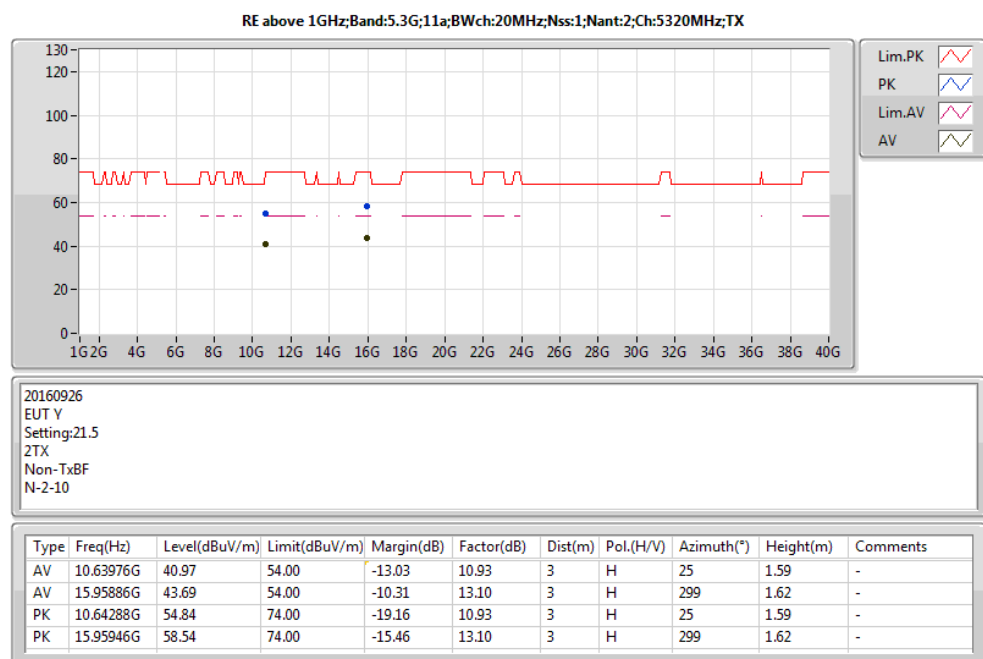
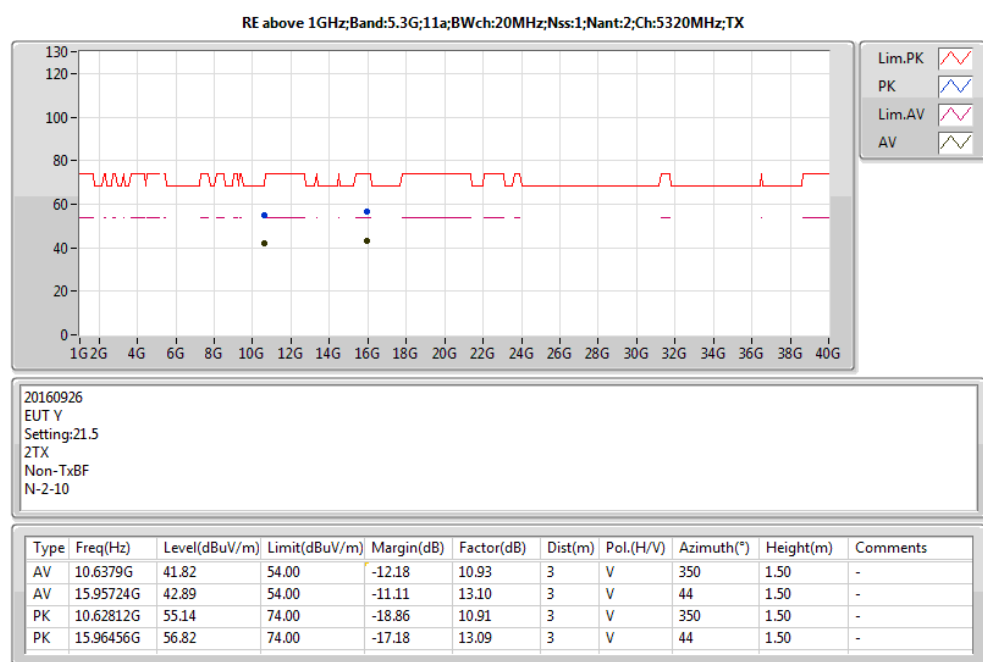
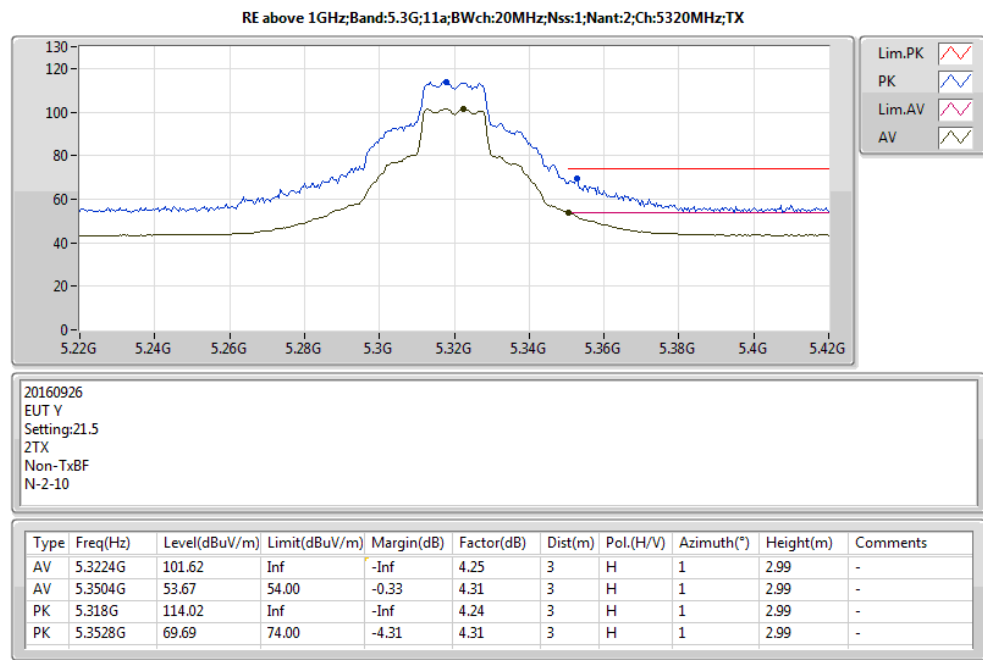
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7785G	45.36	54.00	-8.64	13.31	3	H	298	1.87	-
PK	15.77742G	59.15	74.00	-14.85	13.31	3	H	298	1.87	-

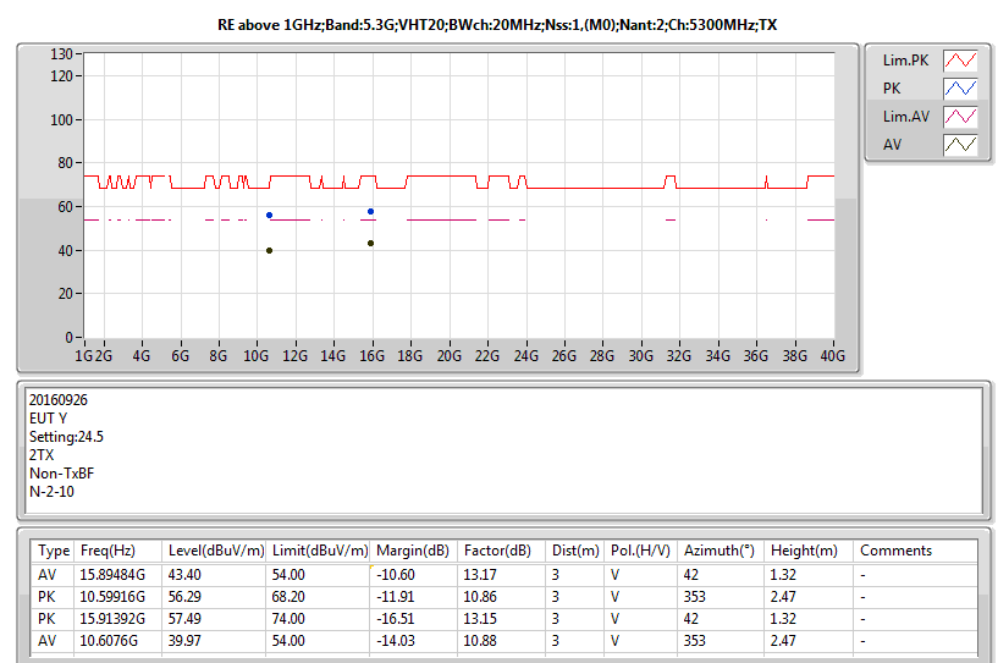
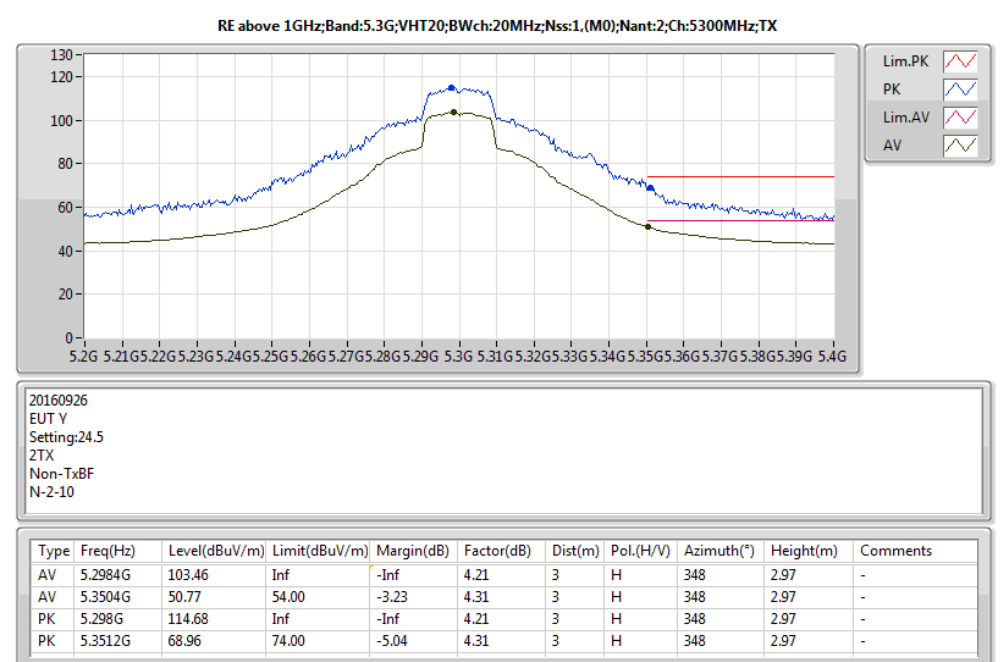
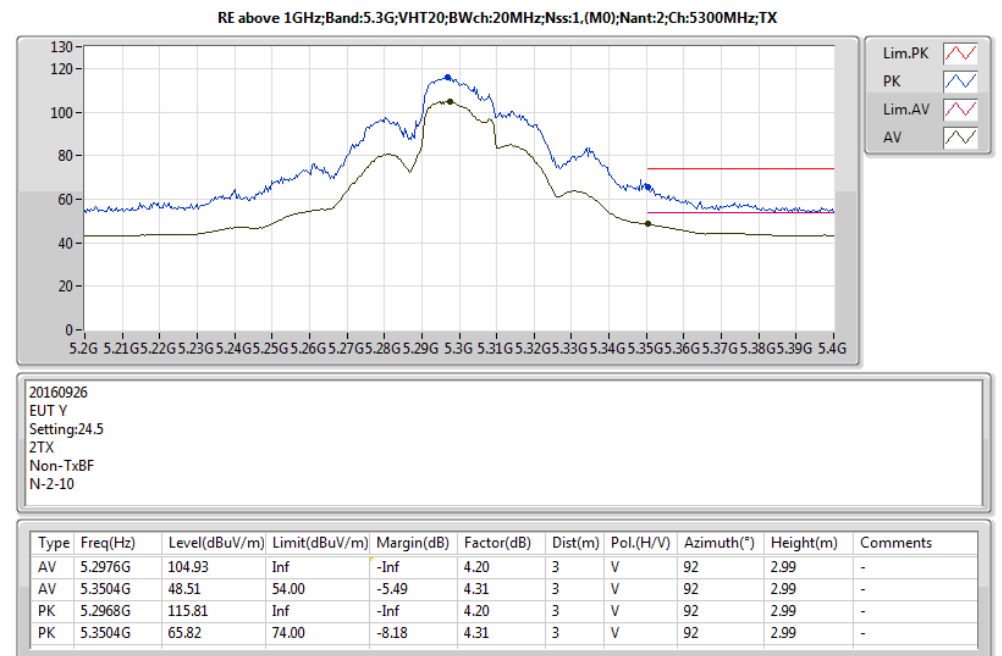
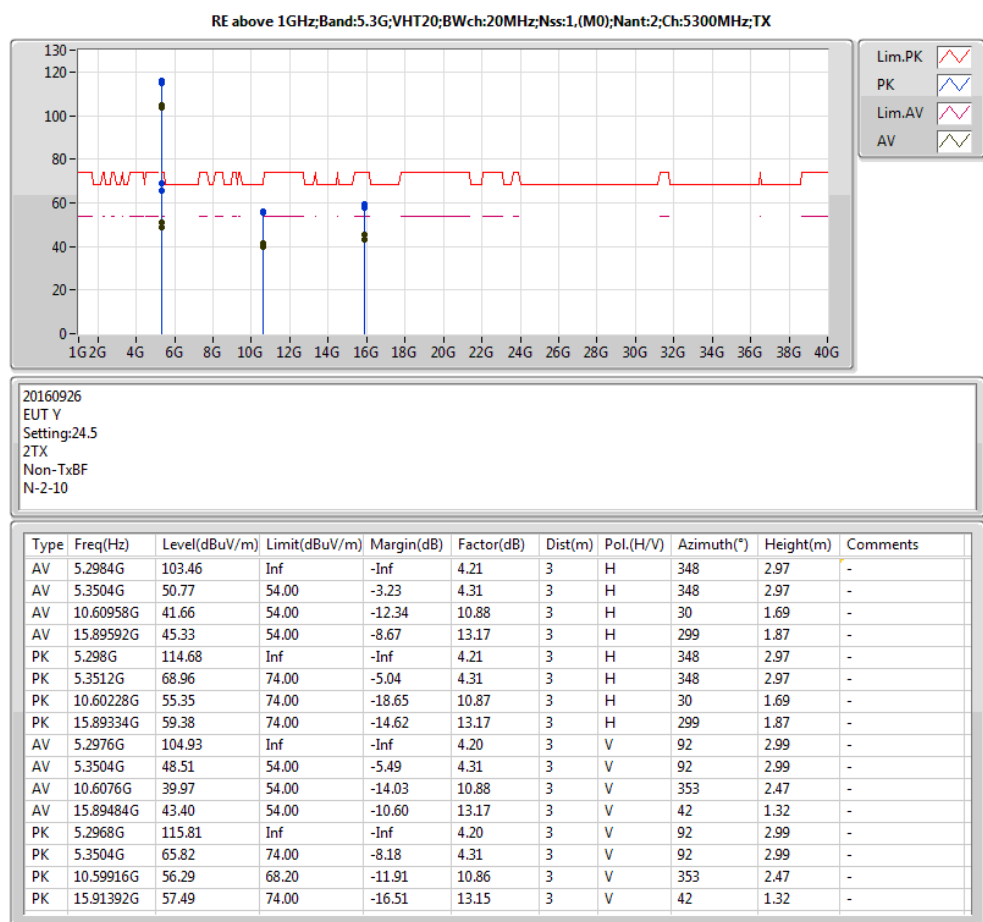
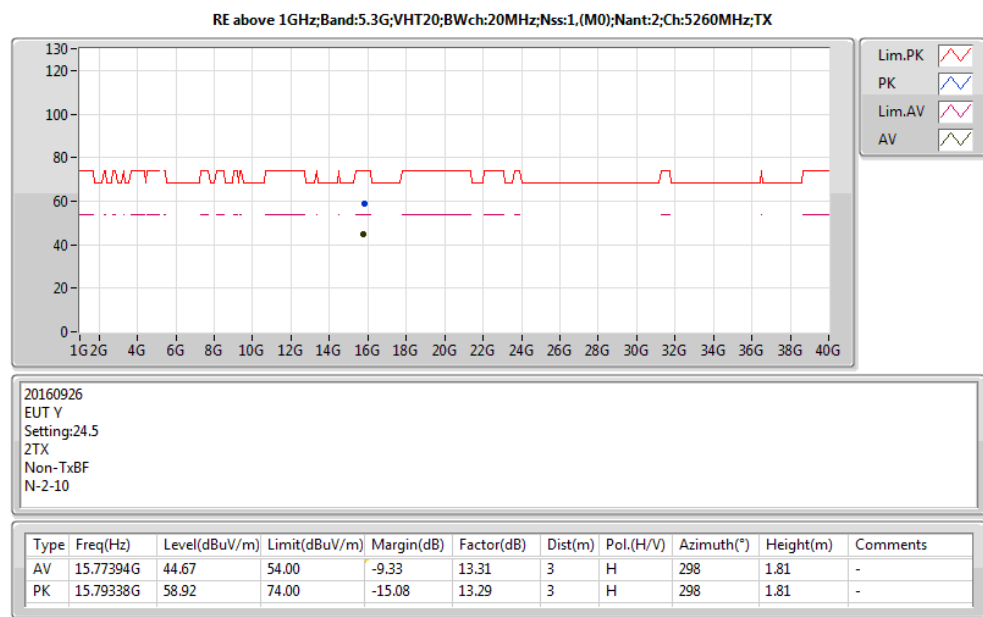
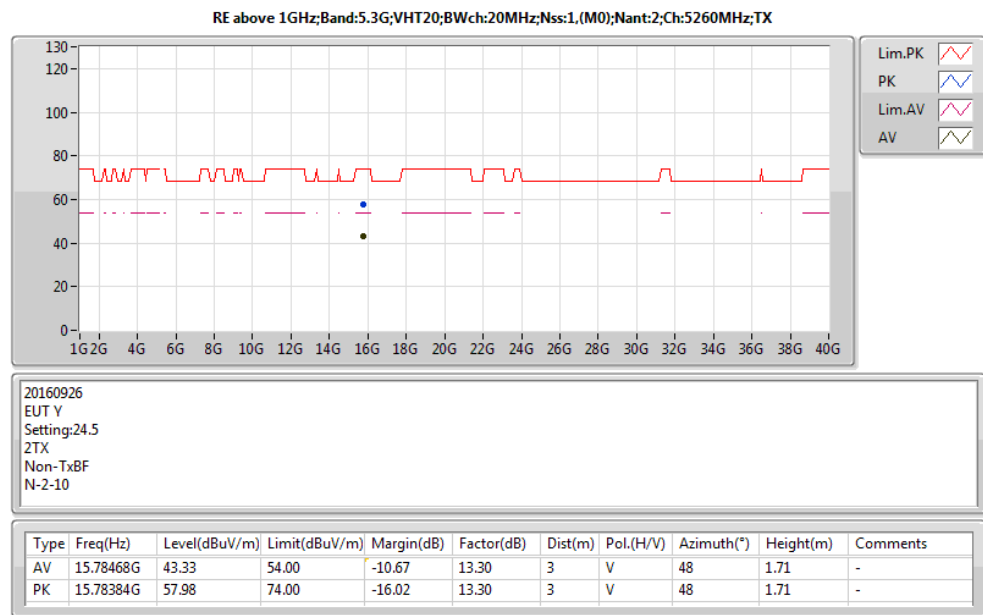


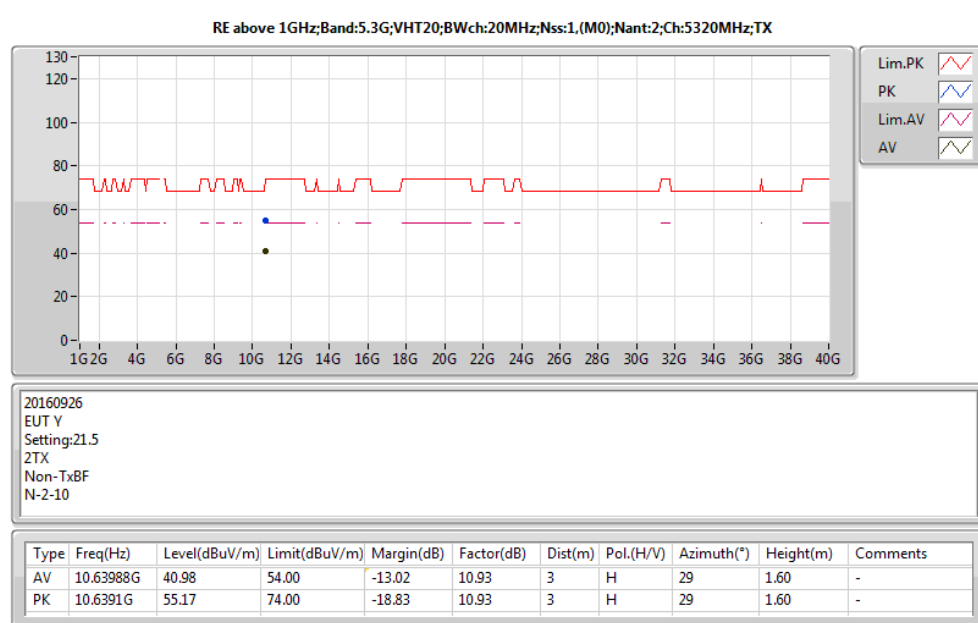
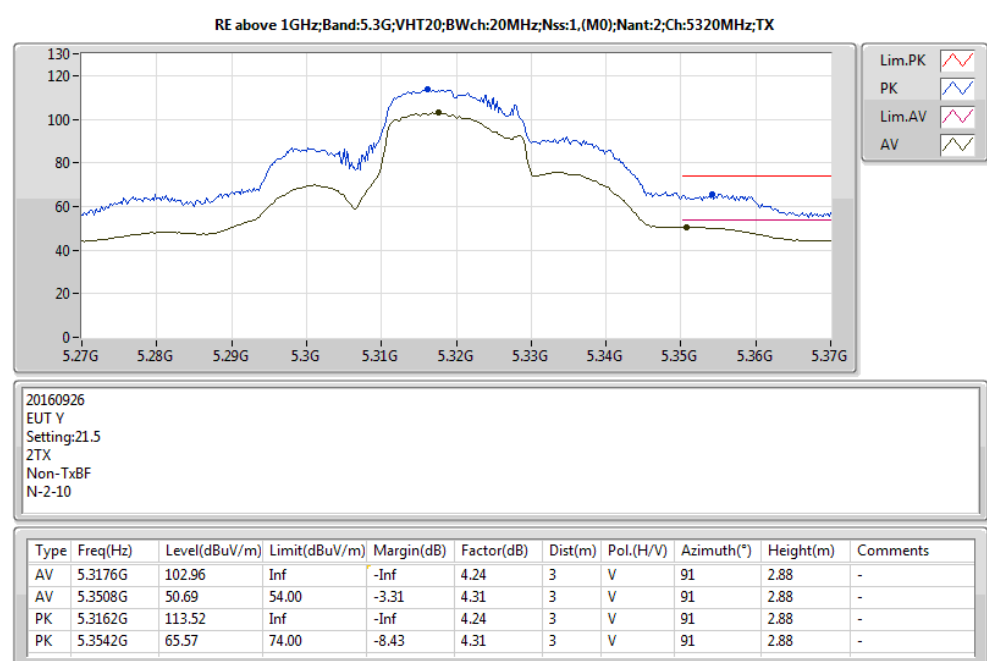
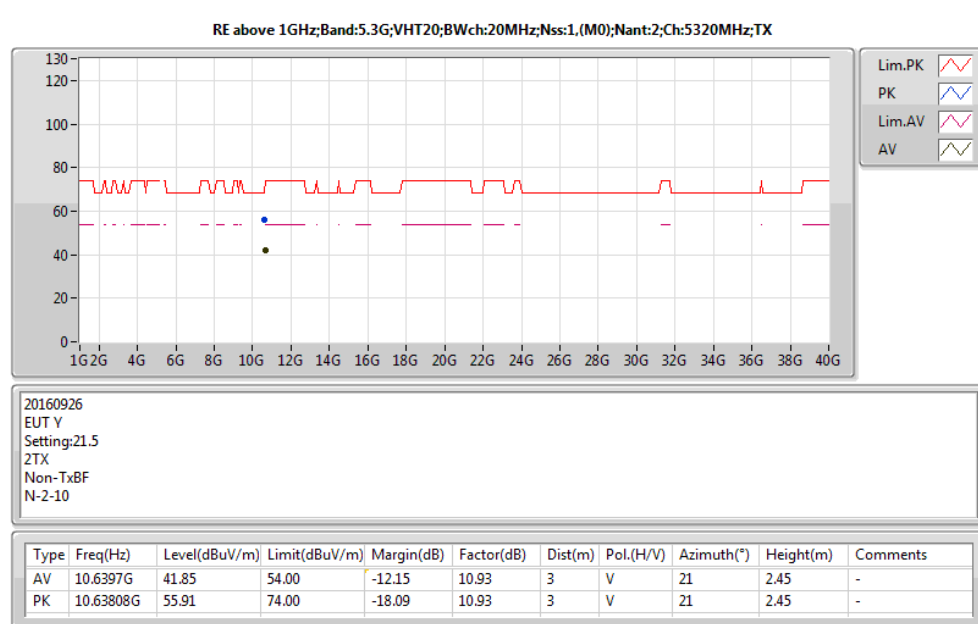
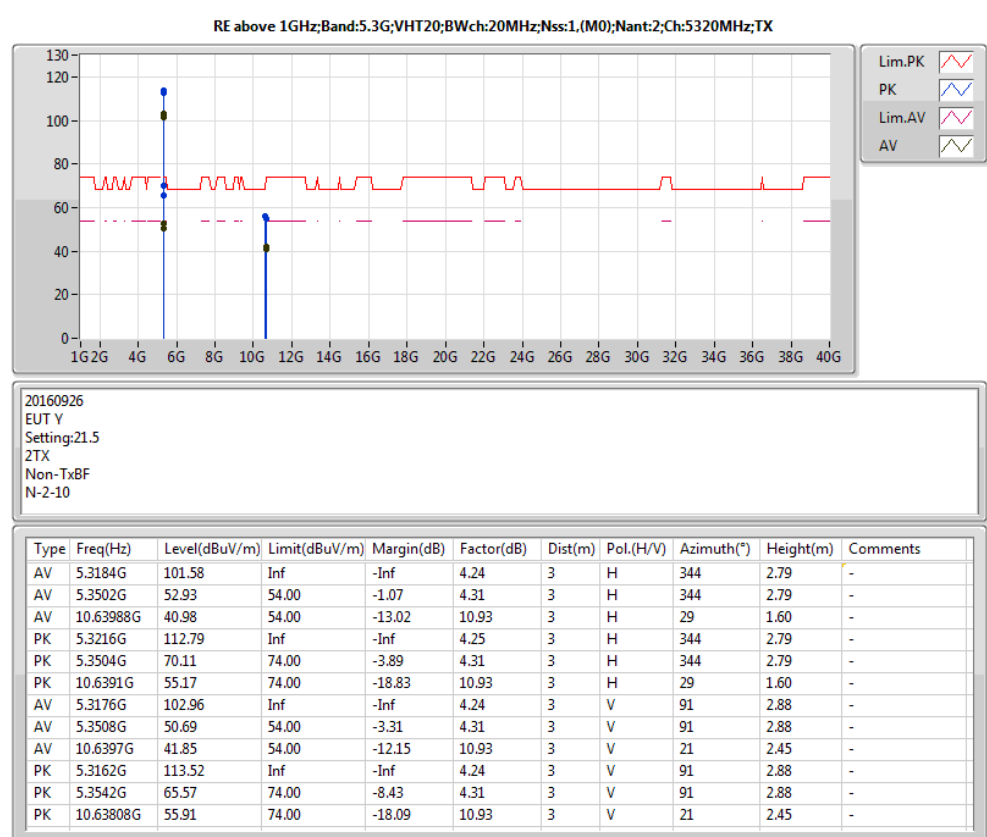
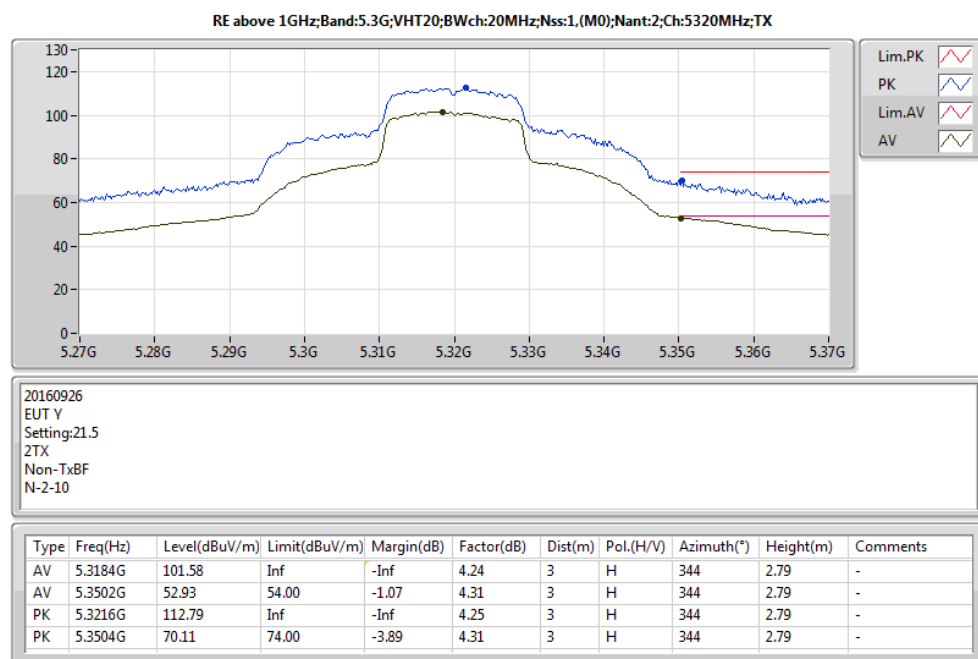
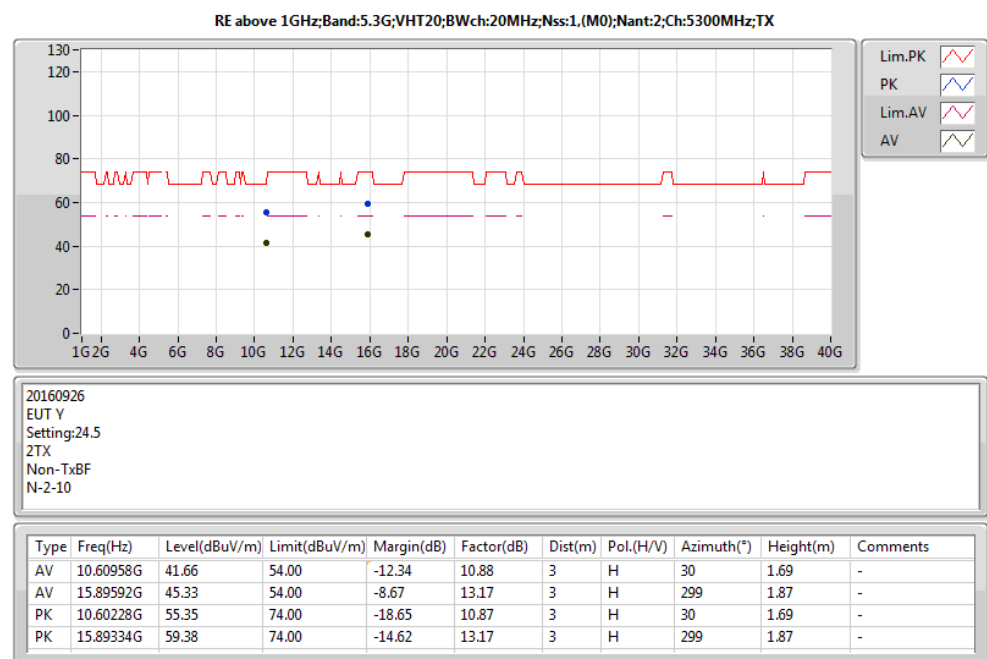
20160926
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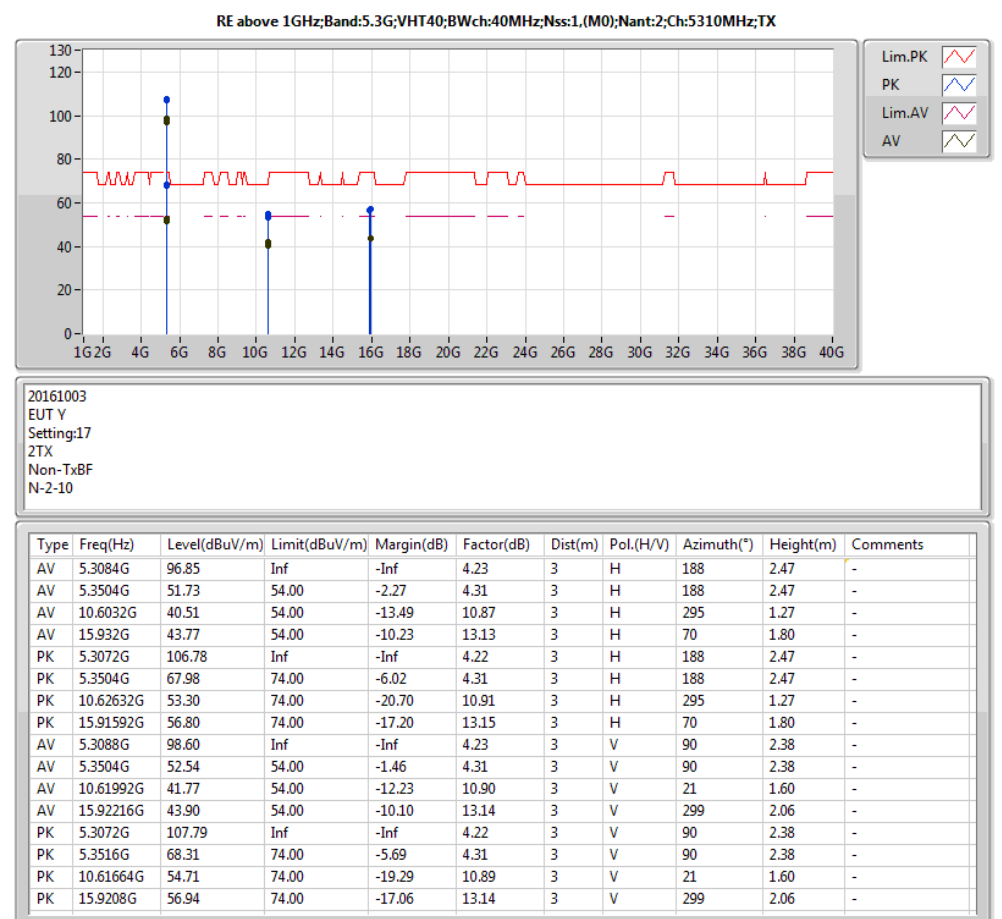
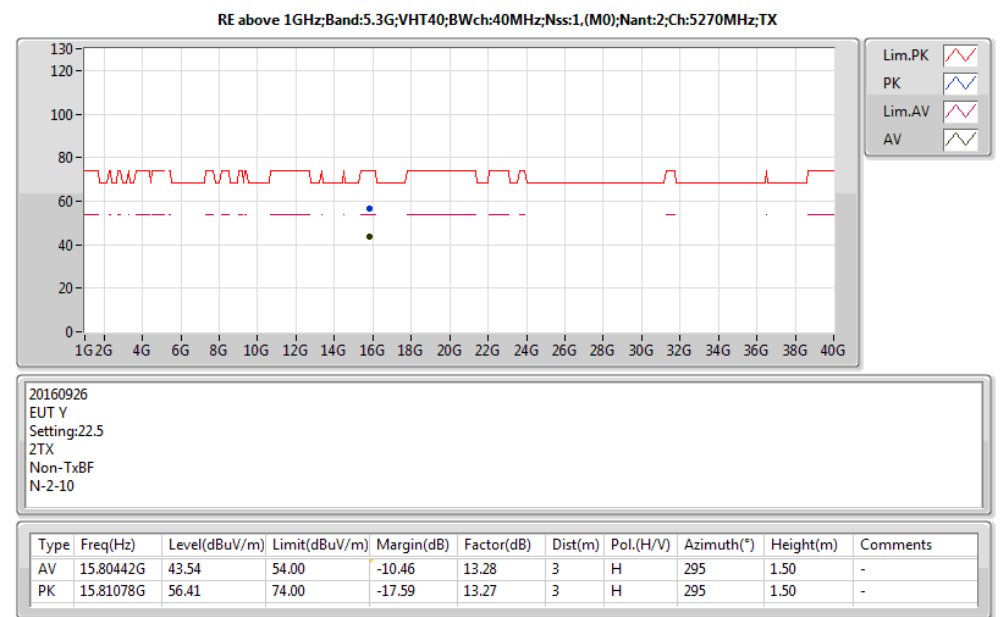
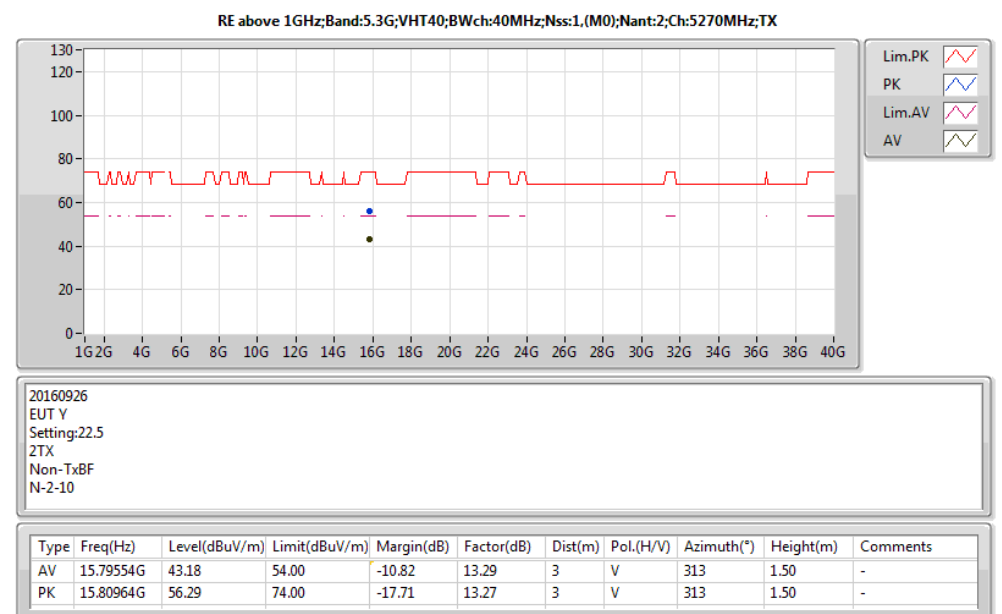
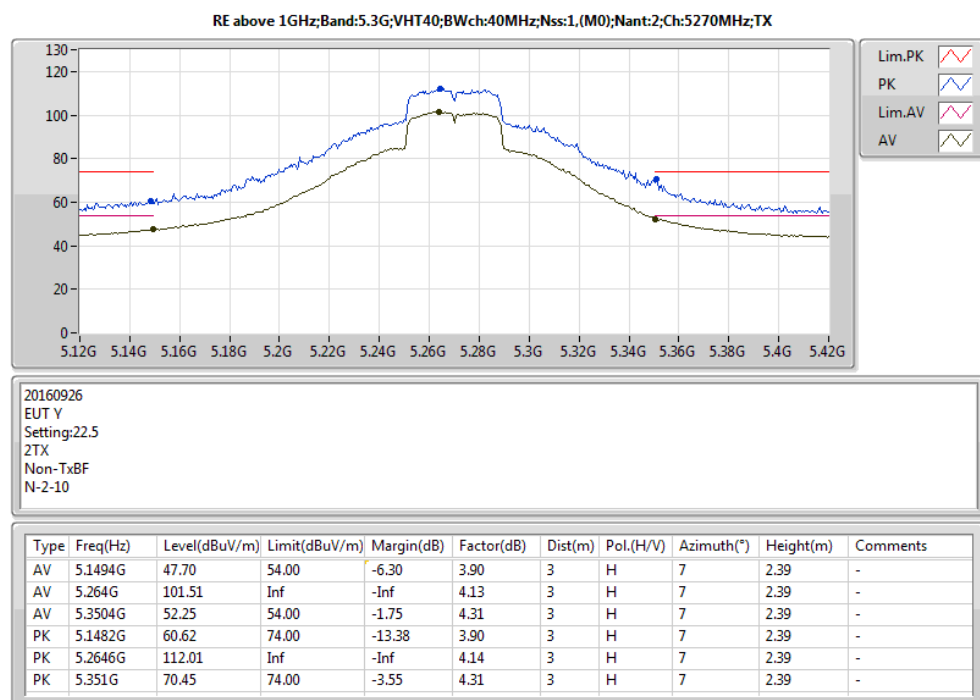
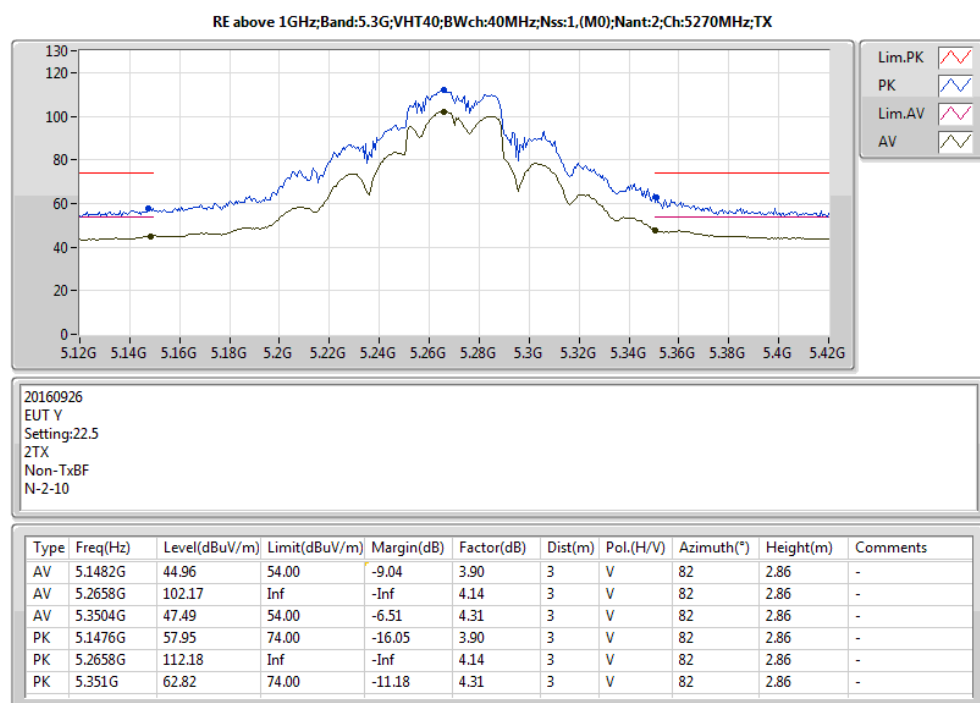
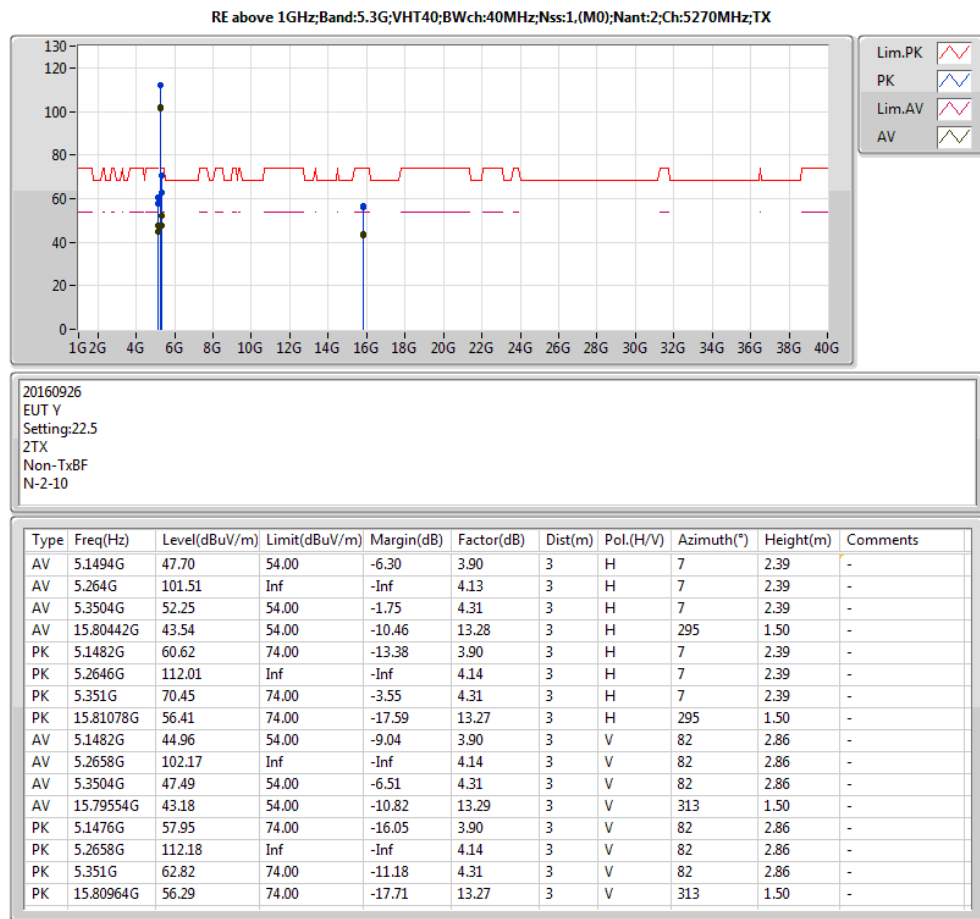
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.3028G	103.82	Inf	-Inf	4.22	3	H	1	2.99	-
AV	5.3504G	50.40	54.00	-3.60	4.31	3	H	1	2.99	-
AV	10.6G	42.21	54.00	-11.79	10.86	3	H	29	1.69	-
AV	15.8991G	45.56	54.00	-8.44	13.17	3	H	301	1.66	-
PK	5.3072G	116.03	Inf	-Inf	4.22	3	H	1	2.99	-
PK	5.3512G	66.05	74.00	-7.95	4.31	3	H	1	2.99	-
PK	10.59358G	55.13	68.20	-13.07	10.85	3	H	29	1.69	-
PK	15.8937G	59.37	74.00	-14.63	13.17	3	H	301	1.66	-
AV	5.2992G	104.00	Inf	-Inf	4.21	3	V	96	2.86	-
AV	5.3504G	47.16	54.00	-6.84	4.31	3	V	96	2.86	-
AV	10.59838G	42.48	Inf	-Inf	10.86	3	V	349	1.47	-
AV	15.8973G	43.66	54.00	-10.34	13.17	3	V	43	1.58	-
PK	5.2944G	115.80	Inf	-Inf	4.20	3	V	96	2.86	-
PK	5.352G	64.00	74.00	-10.00	4.31	3	V	96	2.86	-
PK	10.59874G	56.33	68.20	-11.87	10.86	3	V	349	1.47	-
PK	15.89778G	58.09	74.00	-15.91	13.17	3	V	43	1.58	-

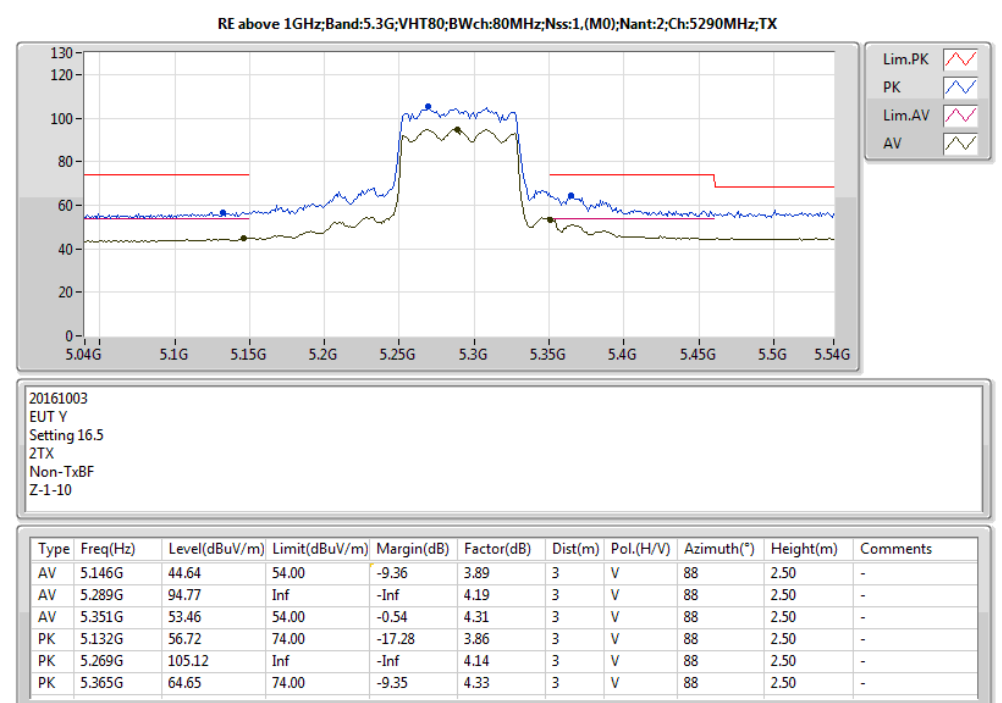
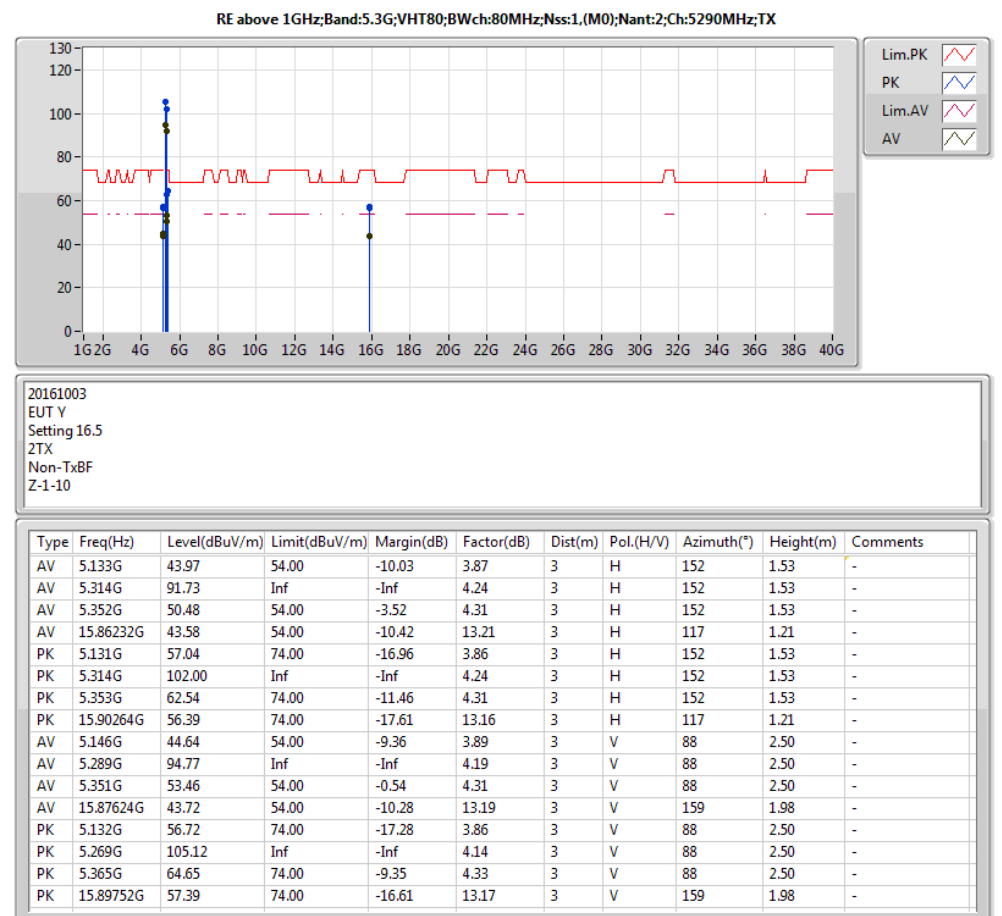
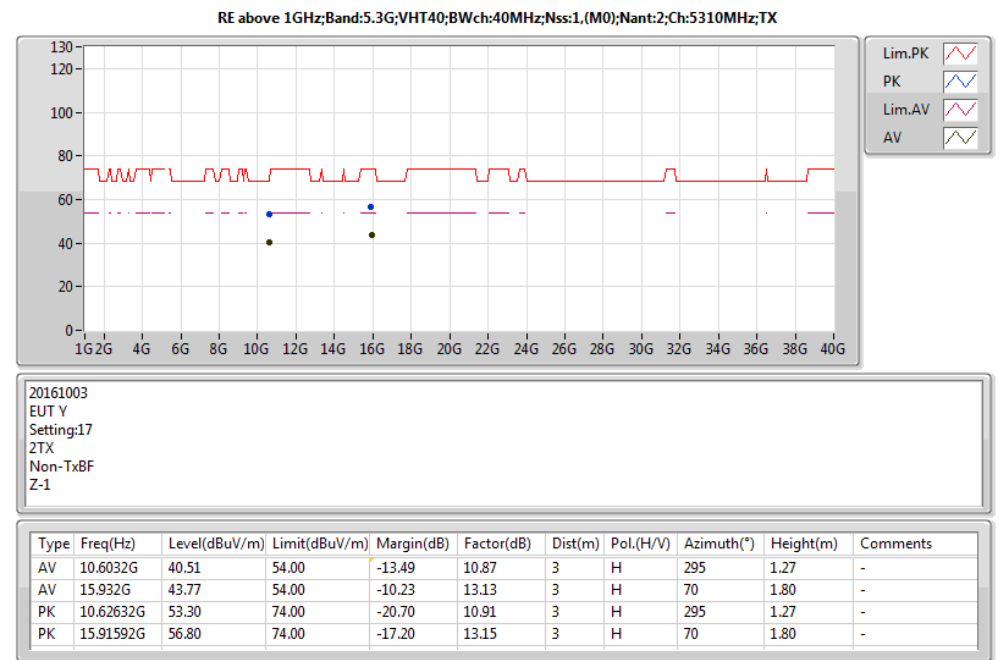
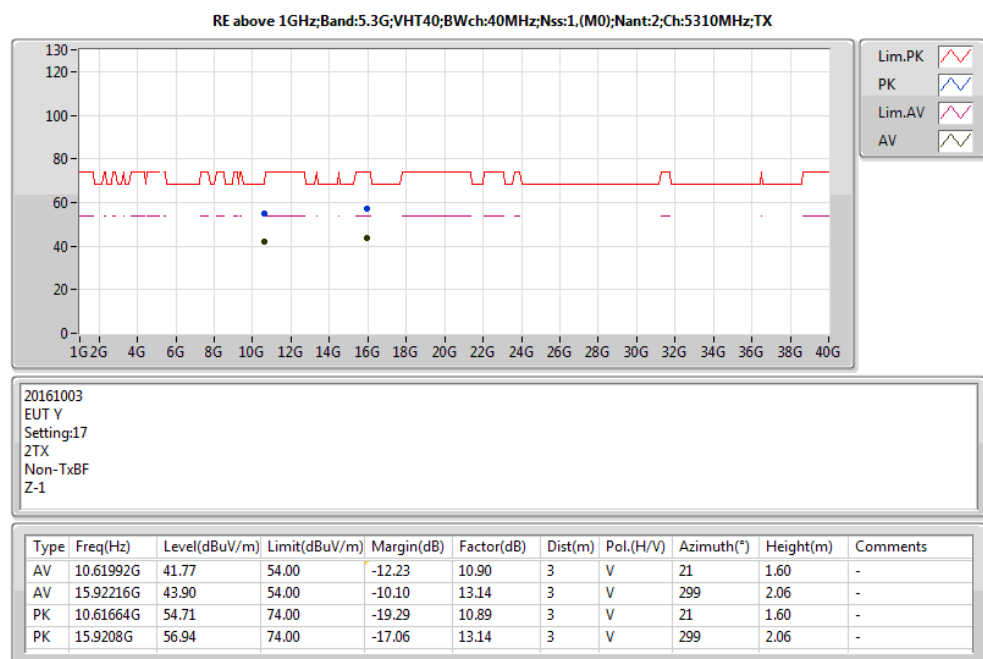
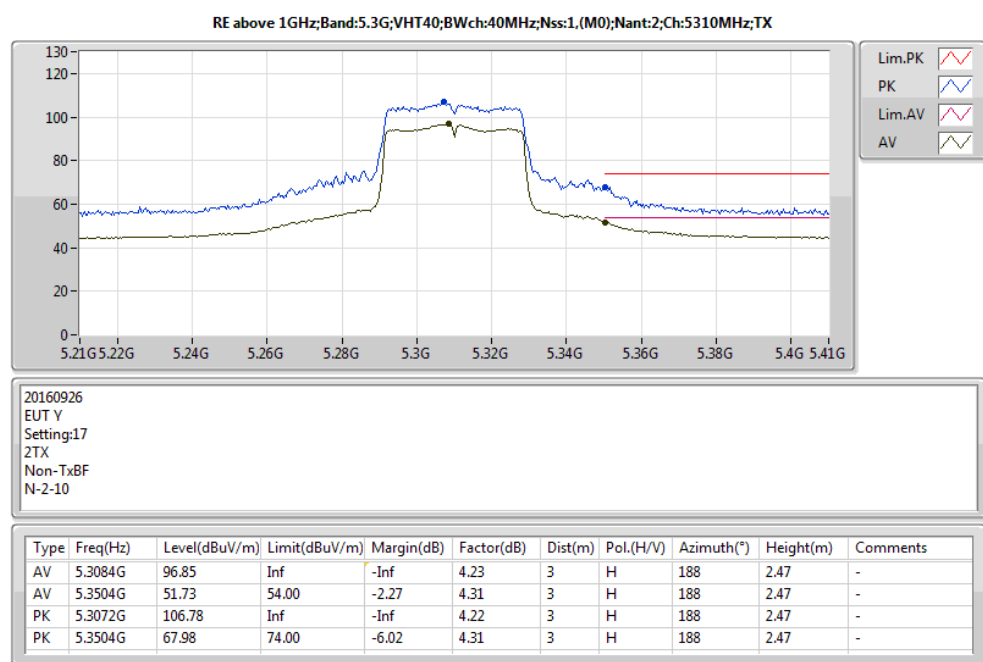
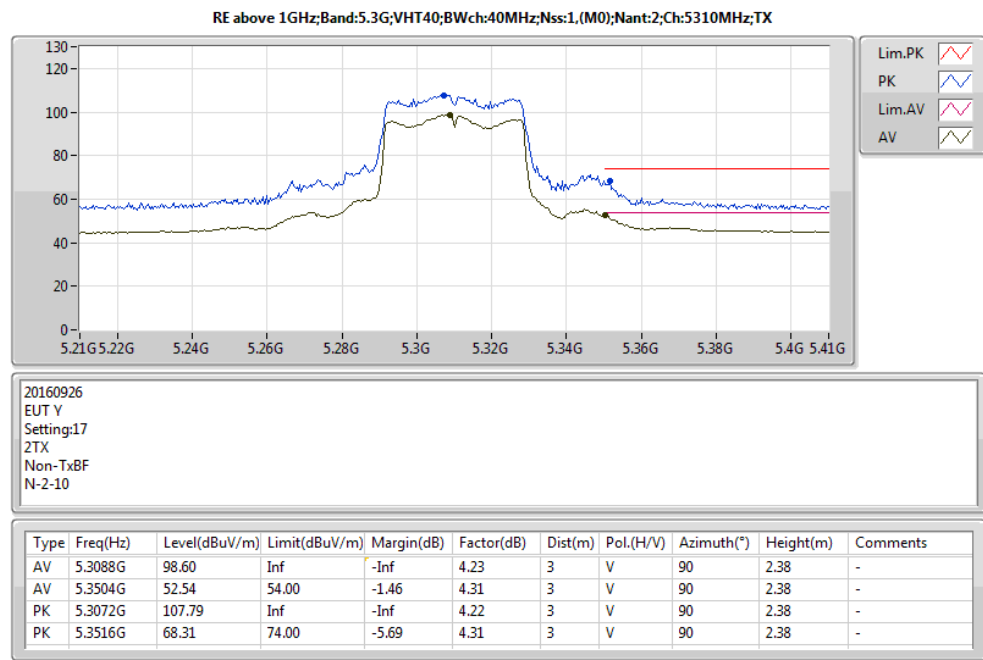


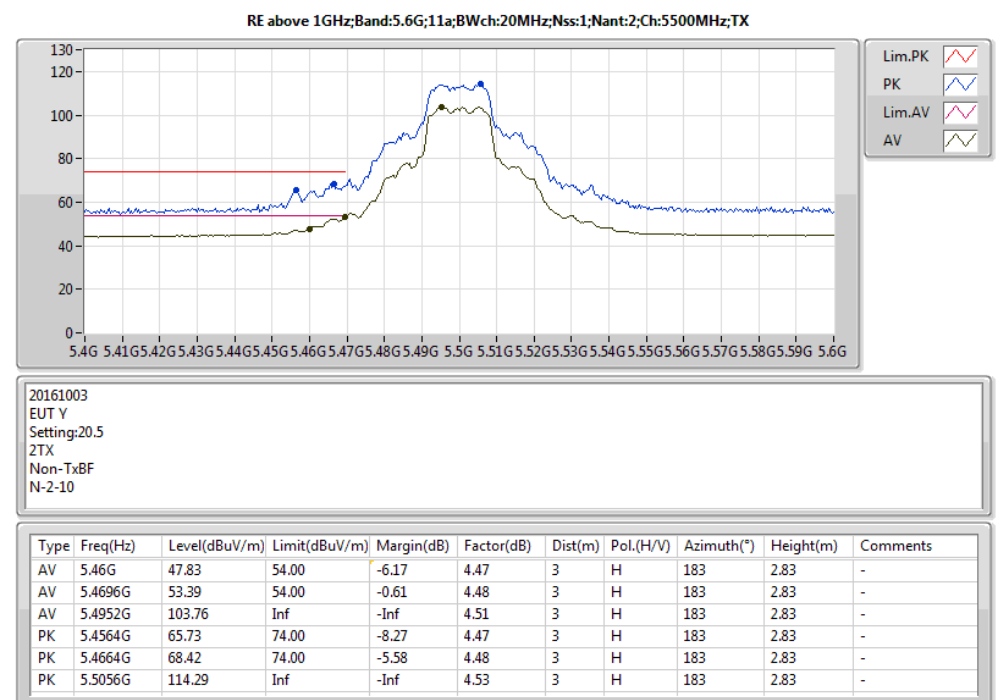
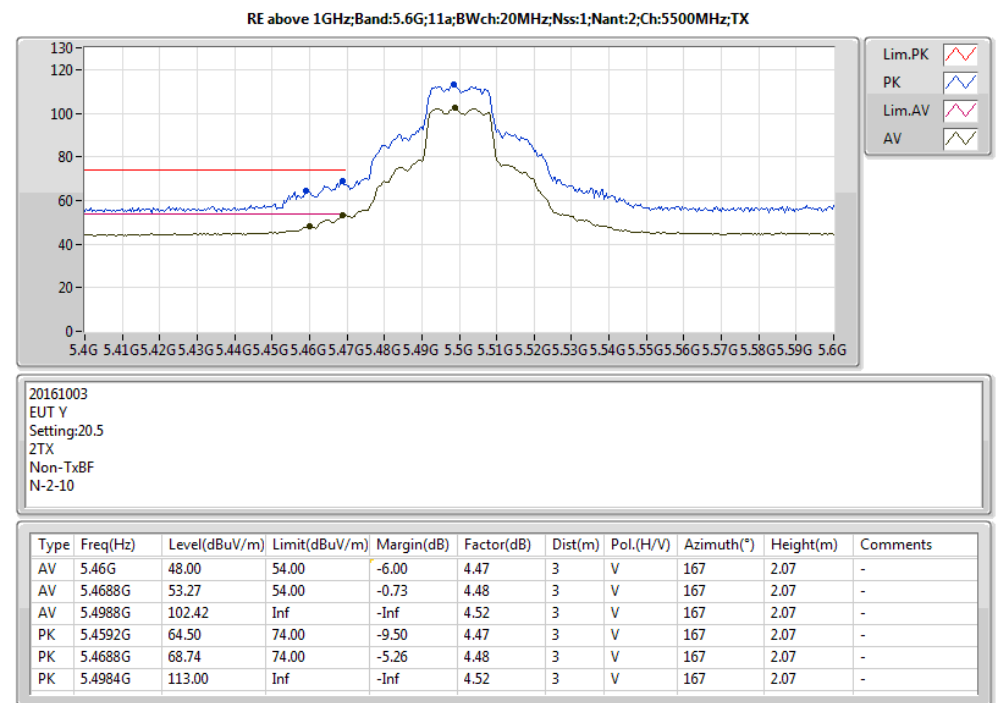
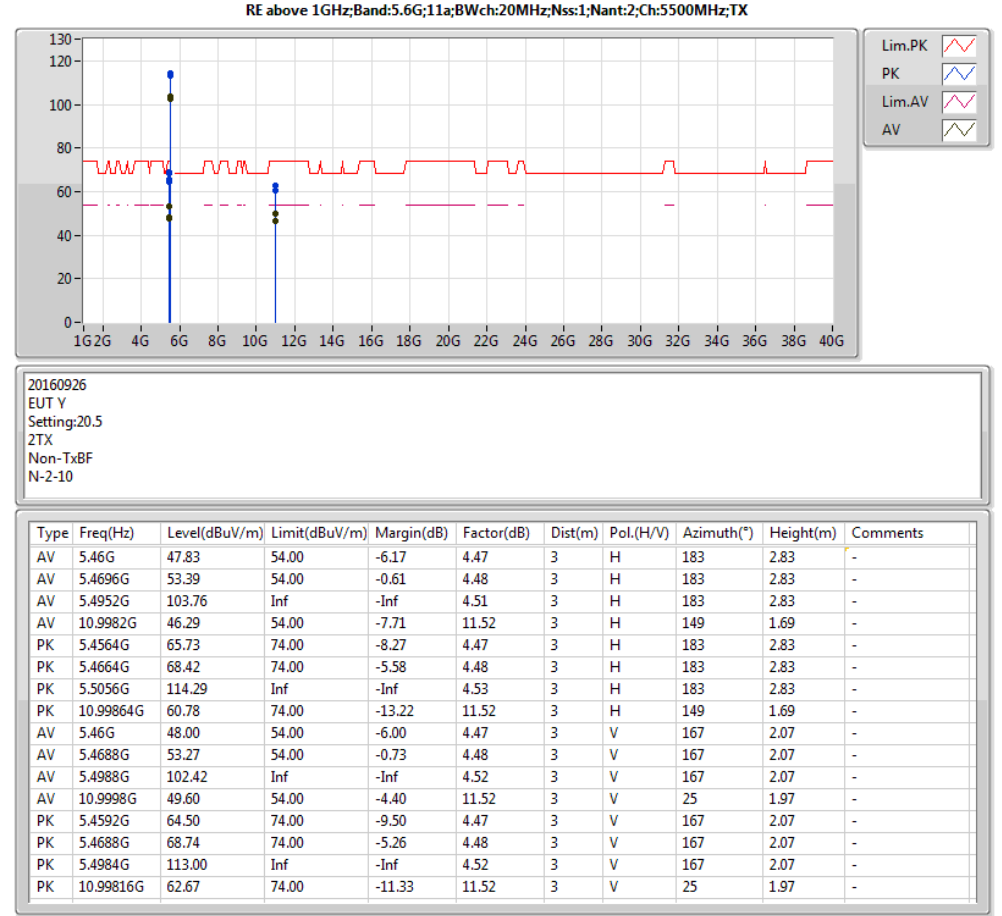
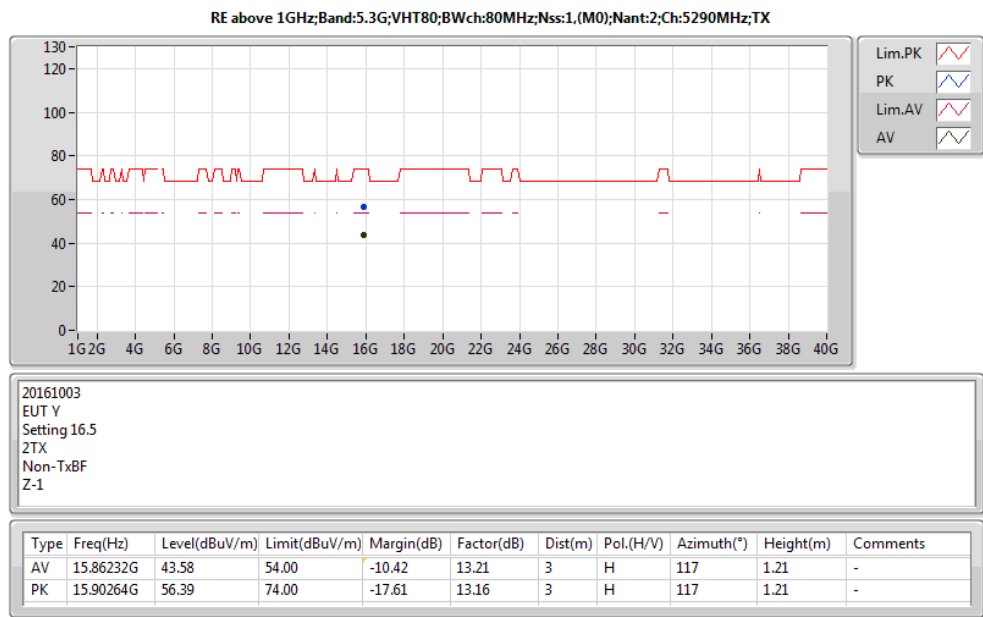
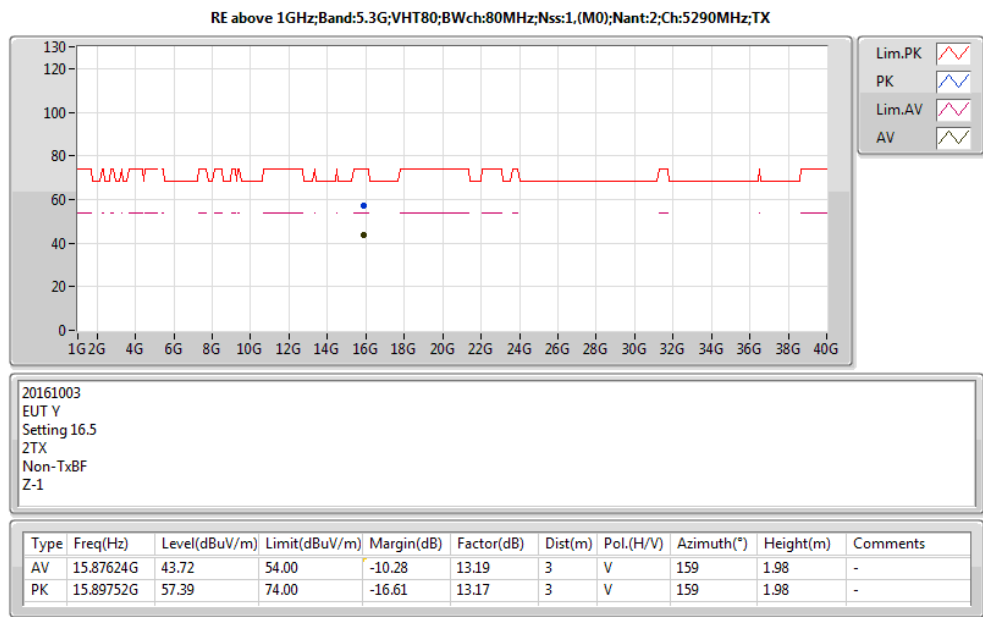
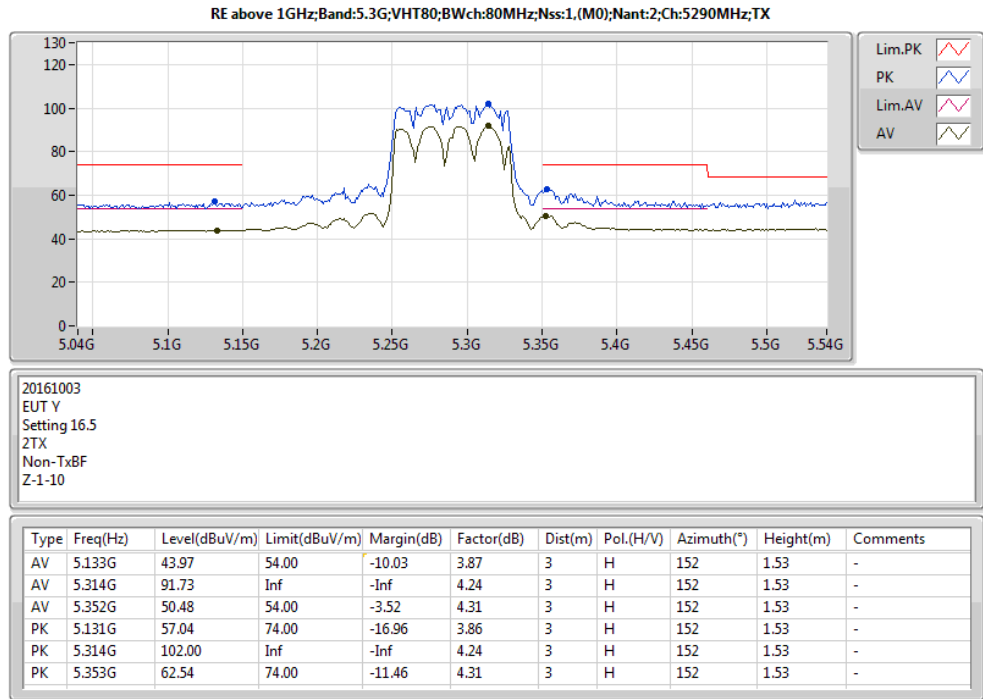


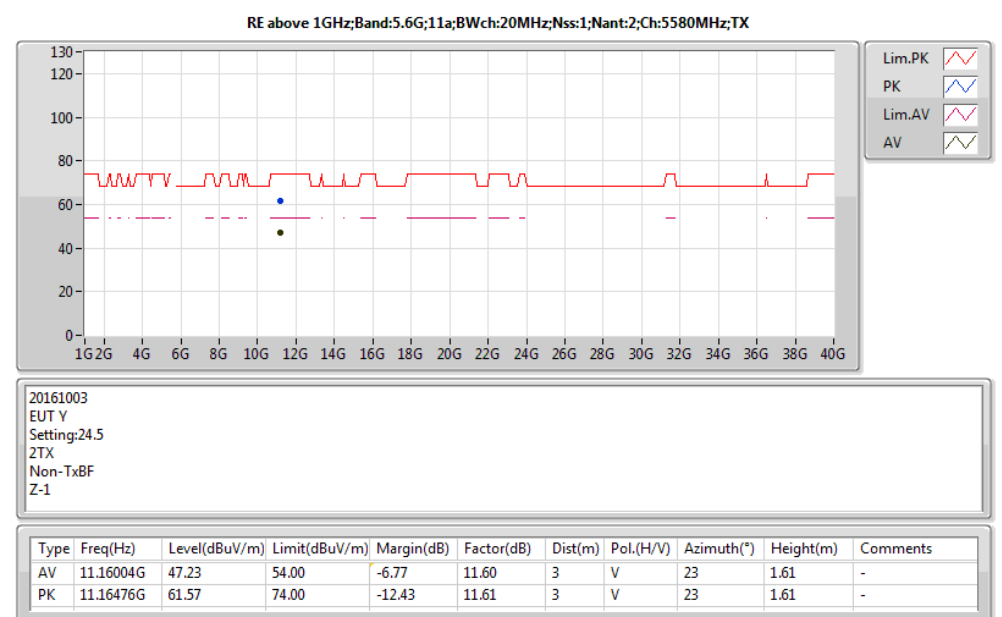
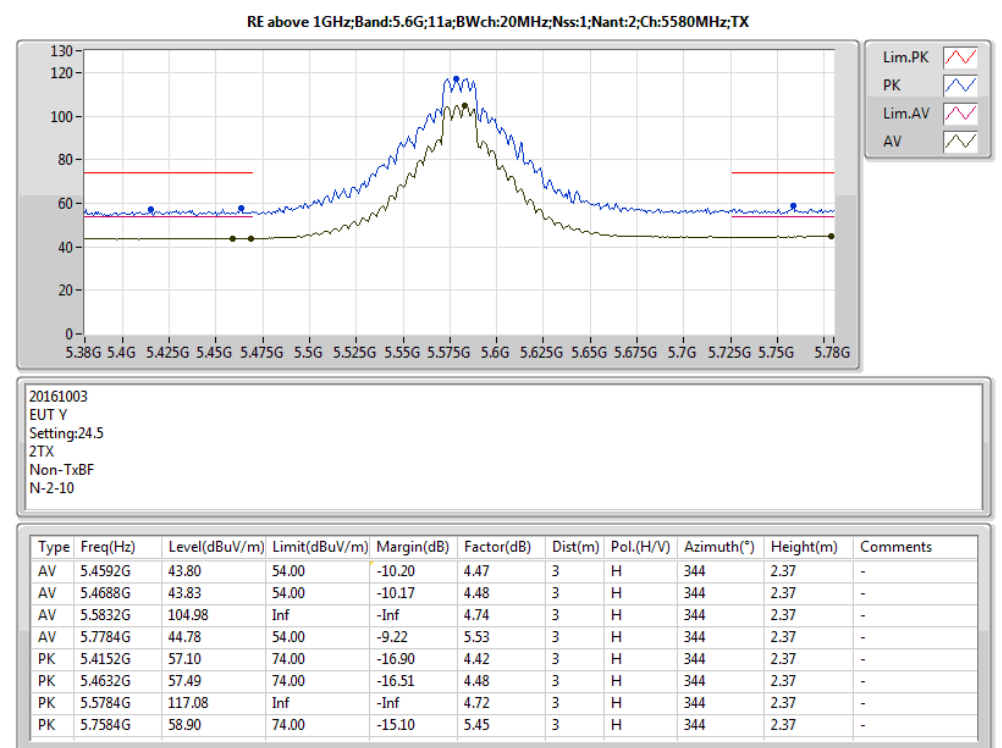
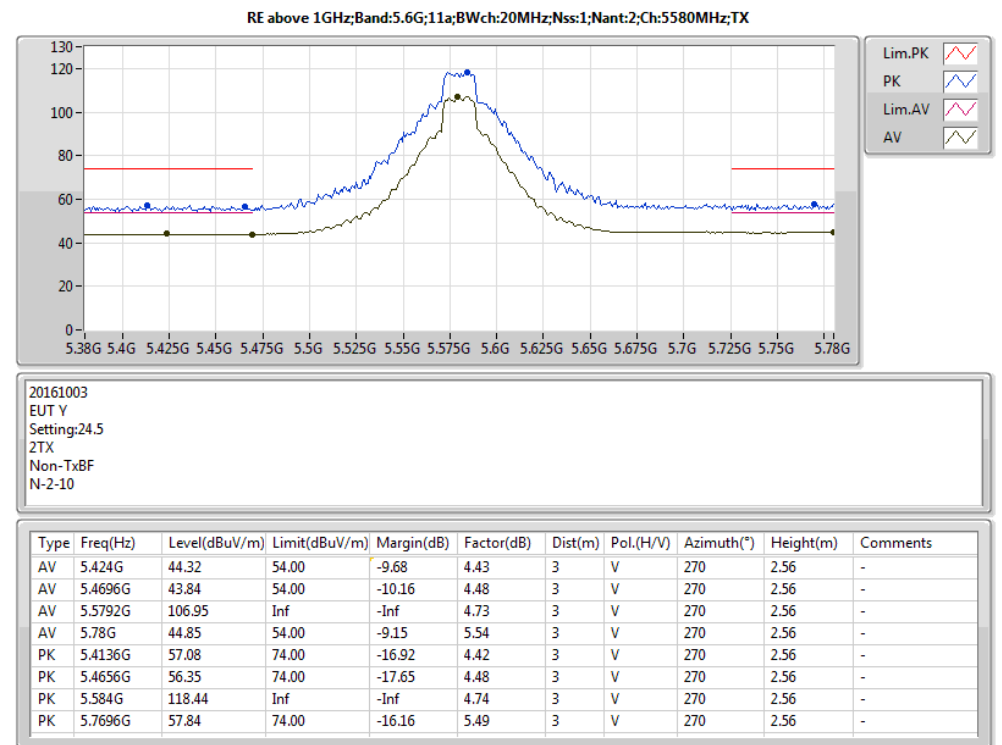
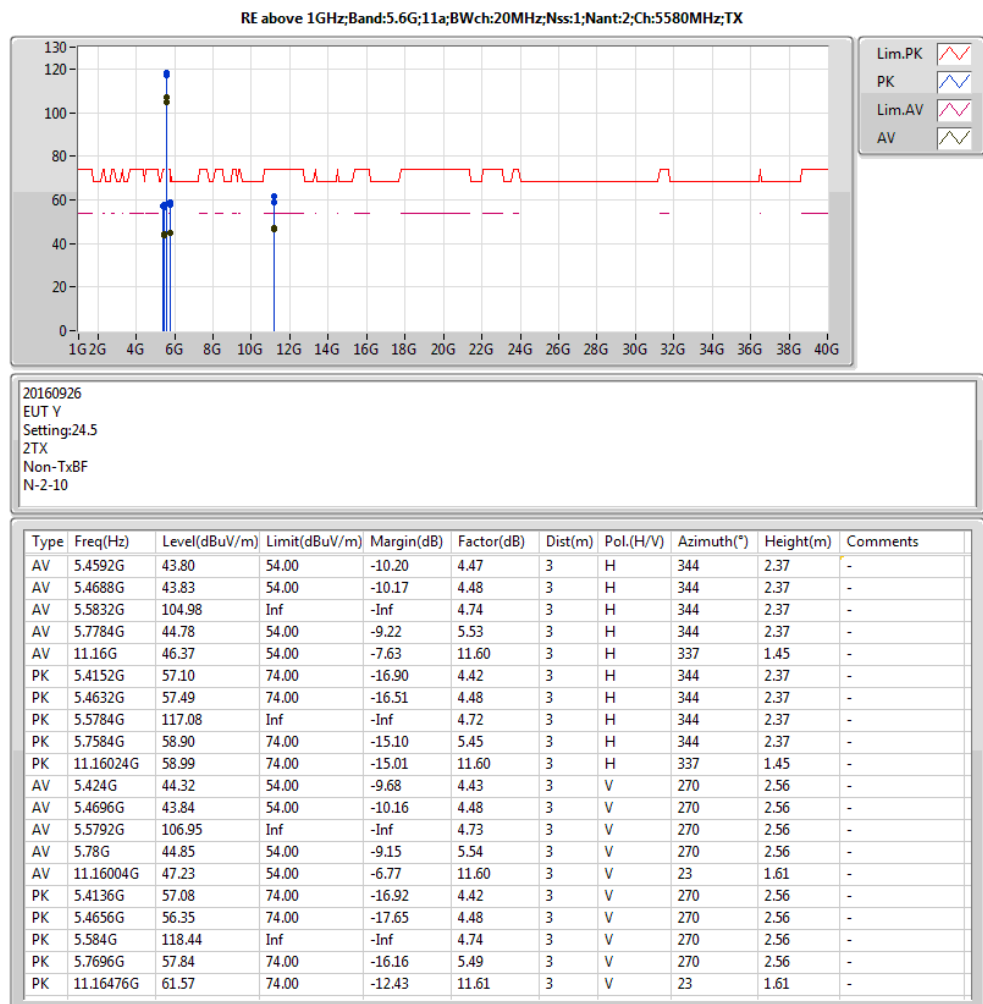
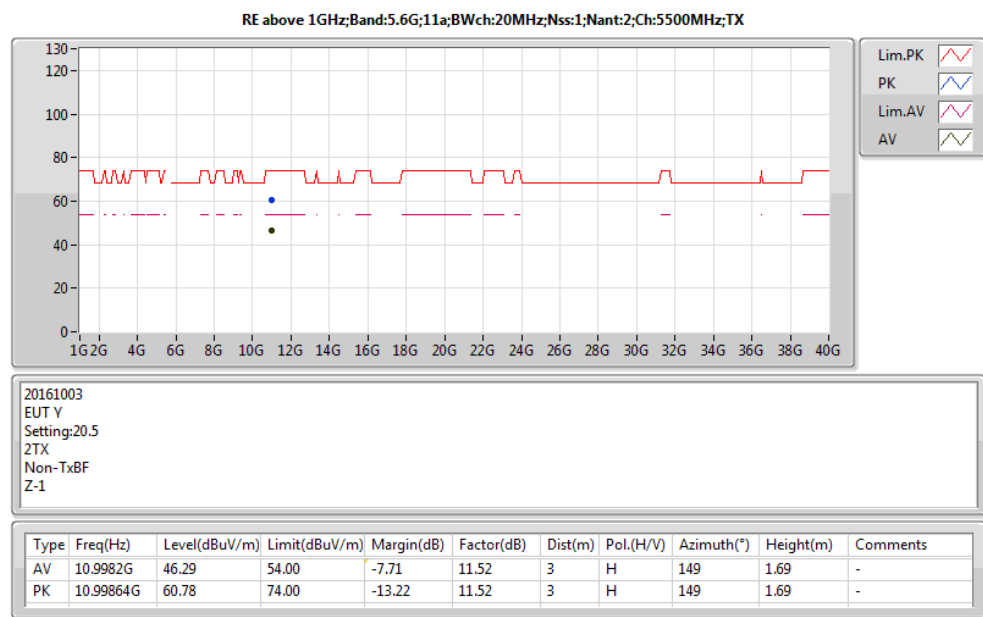
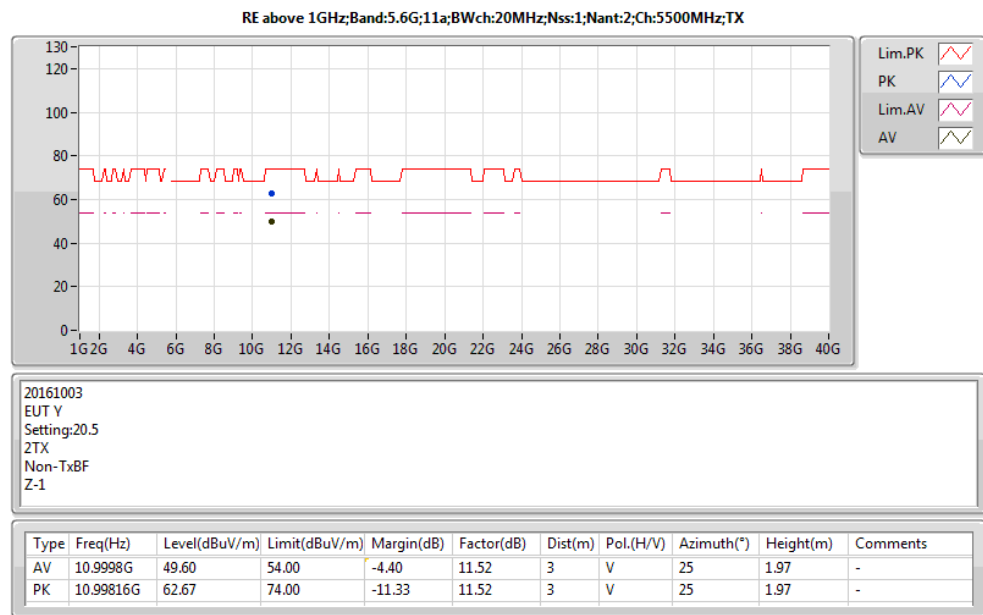


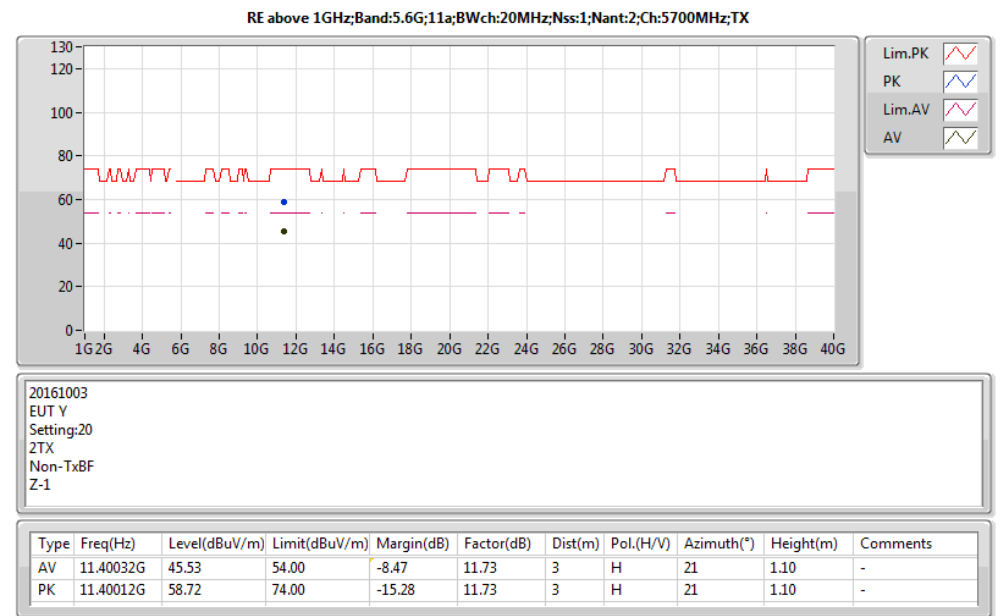
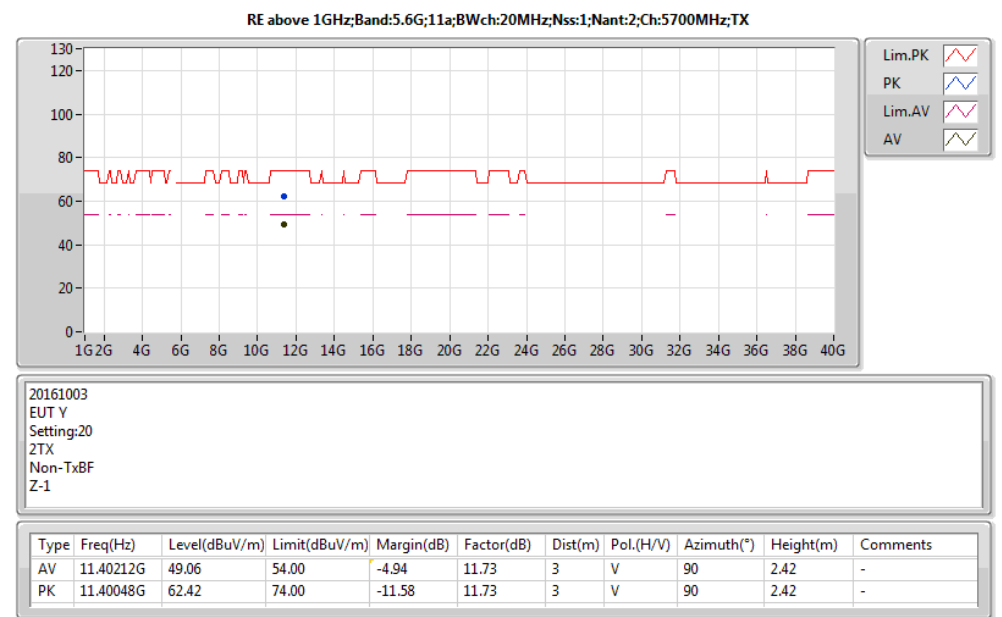
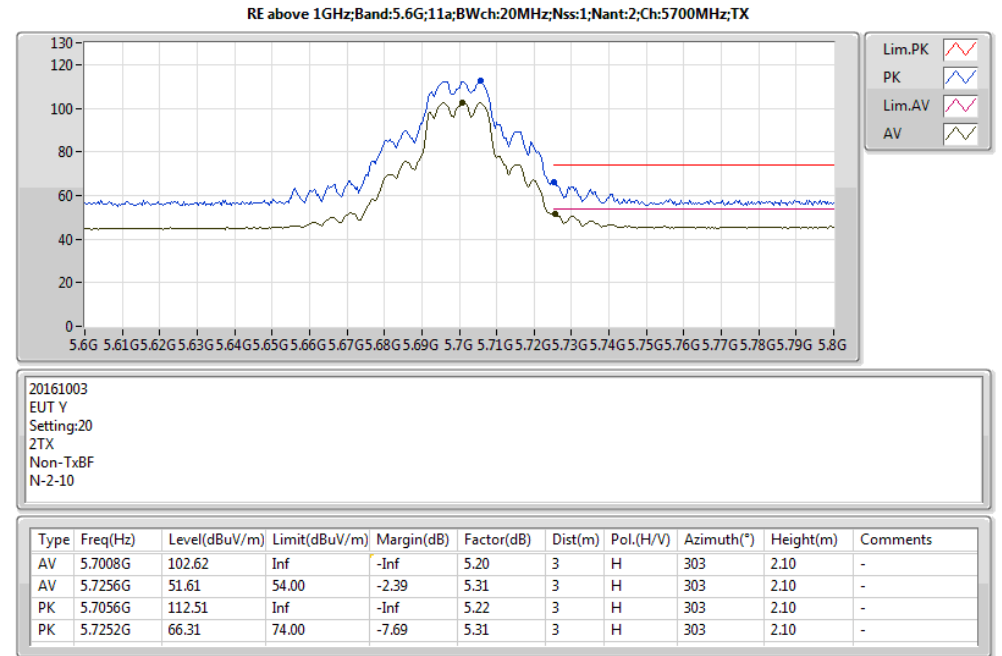
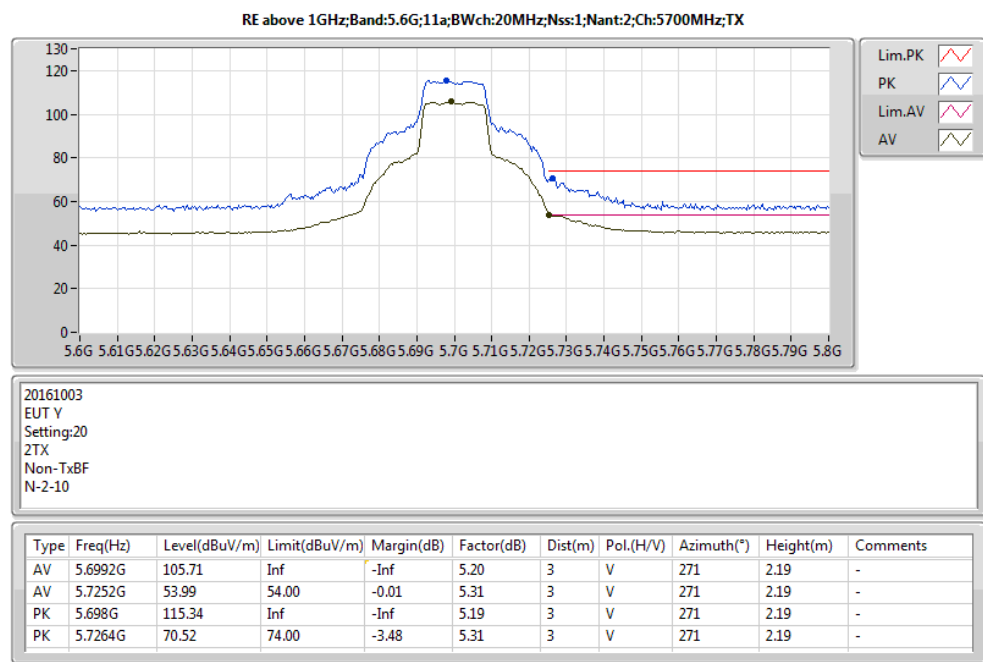
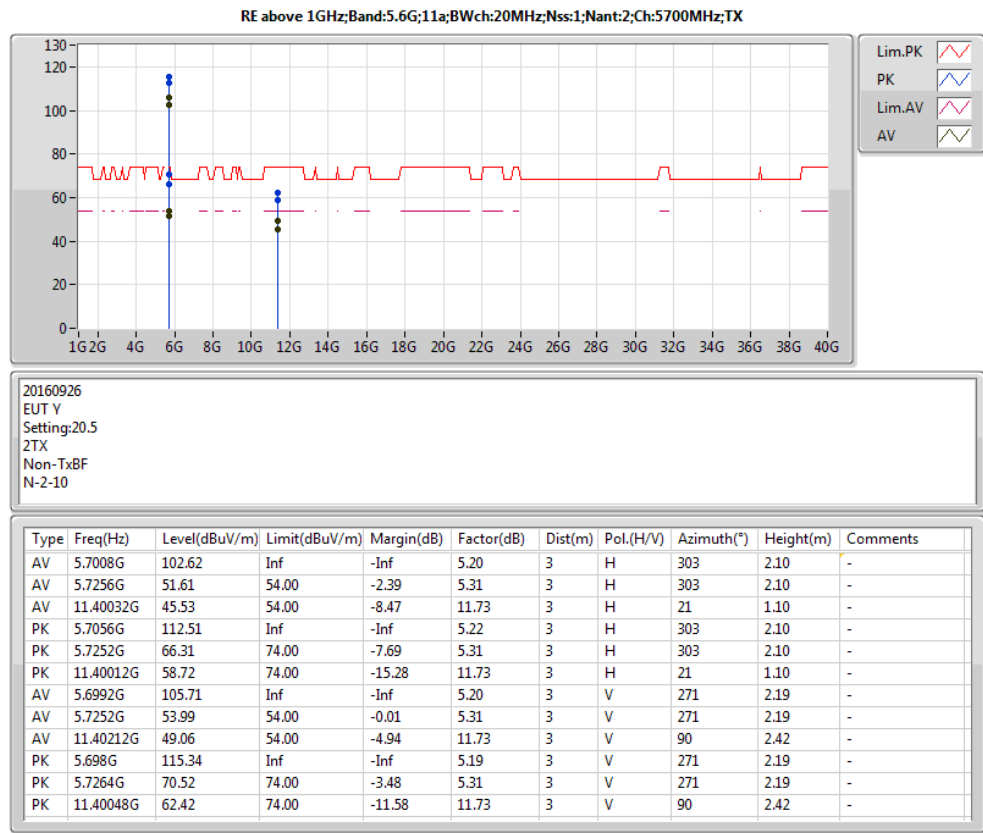
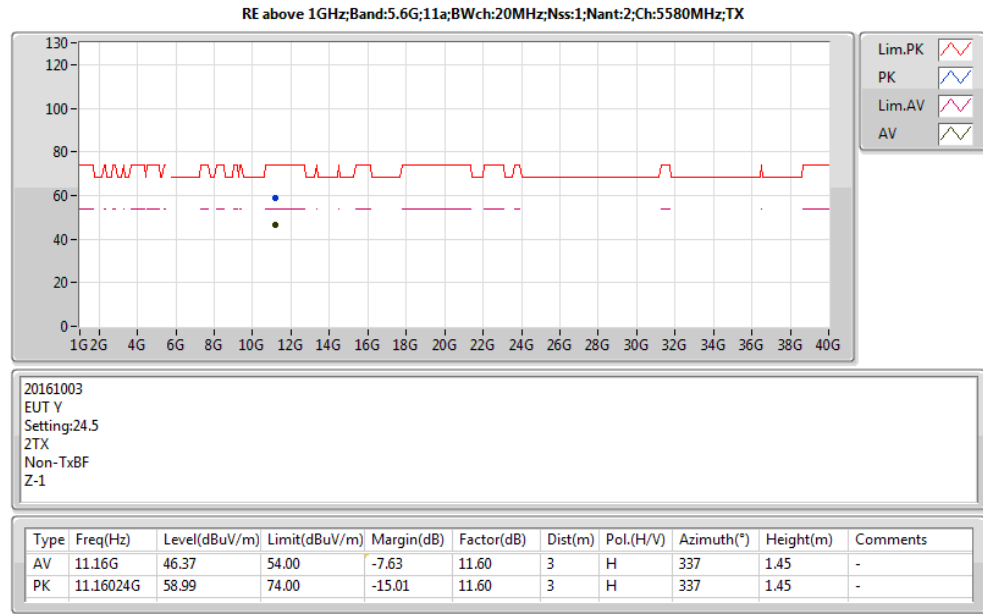


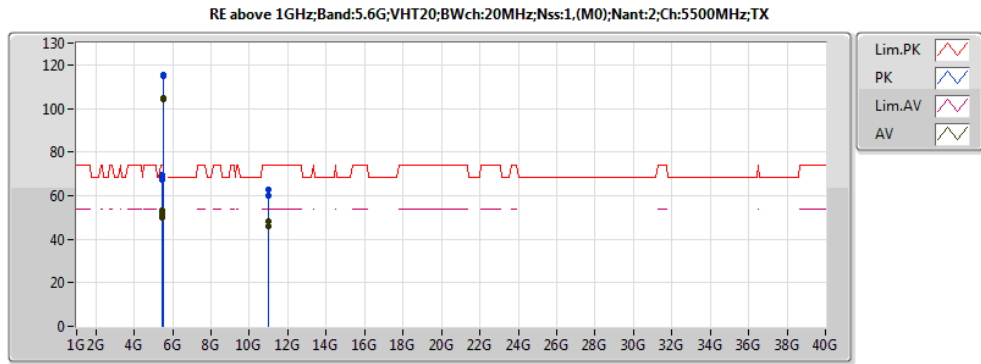






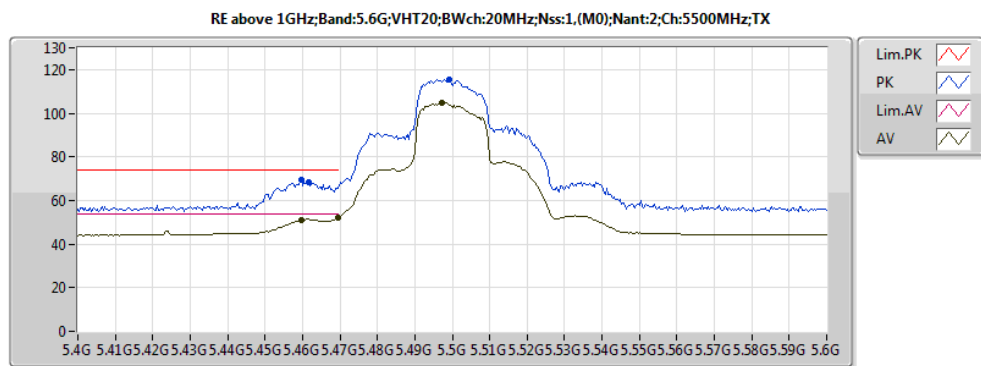






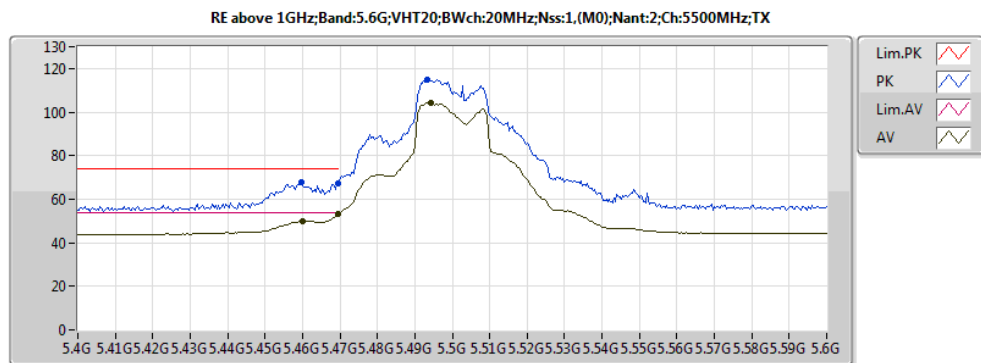
20160926
EUT Y
Setting:21
2TX
Non-TxBF
N-2-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.46G	50.05	54.00	-3.95	4.47	3	H	177	1.91	-
AV	5.4696G	53.36	54.00	-0.64	4.48	3	H	177	1.91	-
AV	5.4944G	104.34	Inf	-Inf	4.51	3	H	177	1.91	-
AV	10.99612G	45.92	54.00	-8.08	11.51	3	H	151	2.37	-
PK	5.4596G	67.84	74.00	-6.16	4.47	3	H	177	1.91	-
PK	5.4696G	66.98	74.00	-7.02	4.48	3	H	177	1.91	-
PK	5.4932G	114.88	Inf	-Inf	4.51	3	H	177	1.91	-
PK	10.99792G	60.09	74.00	-13.91	11.52	3	H	151	2.37	-
AV	5.4596G	50.88	54.00	-3.12	4.47	3	V	92	2.07	-
AV	5.4696G	52.28	54.00	-1.72	4.48	3	V	92	2.07	-
AV	5.4972G	104.82	Inf	-Inf	4.52	3	V	92	2.07	-
AV	10.99964G	48.04	54.00	-5.96	11.52	3	V	23	1.93	-
PK	5.4596G	69.23	74.00	-4.77	4.47	3	V	92	2.07	-
PK	5.4616G	68.62	74.00	-5.38	4.47	3	V	92	2.07	-
PK	5.4992G	115.60	Inf	-Inf	4.52	3	V	92	2.07	-
PK	10.99796G	62.93	74.00	-11.07	11.52	3	V	23	1.93	-



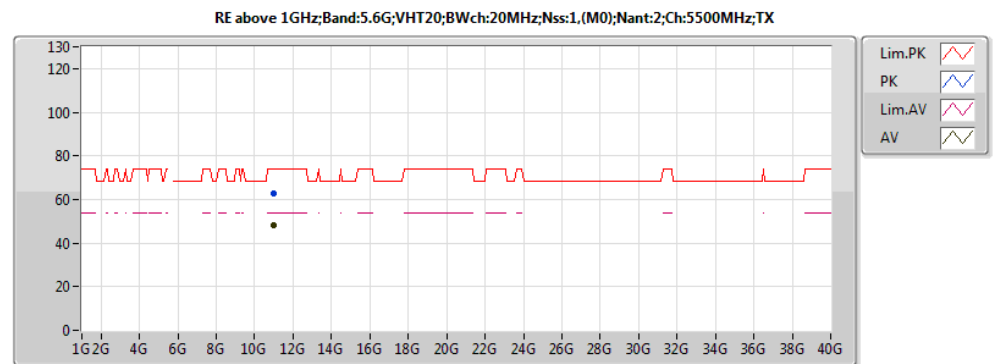
20161003
EUT Y
Setting:21
2TX
Non-TxBF
N-2-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4596G	50.88	54.00	-3.12	4.47	3	V	92	2.07	-
AV	5.4696G	52.28	54.00	-1.72	4.48	3	V	92	2.07	-
AV	5.4972G	104.82	Inf	-Inf	4.52	3	V	92	2.07	-
PK	5.4596G	69.23	74.00	-4.77	4.47	3	V	92	2.07	-
PK	5.4616G	68.62	74.00	-5.38	4.47	3	V	92	2.07	-
PK	5.4992G	115.60	Inf	-Inf	4.52	3	V	92	2.07	-



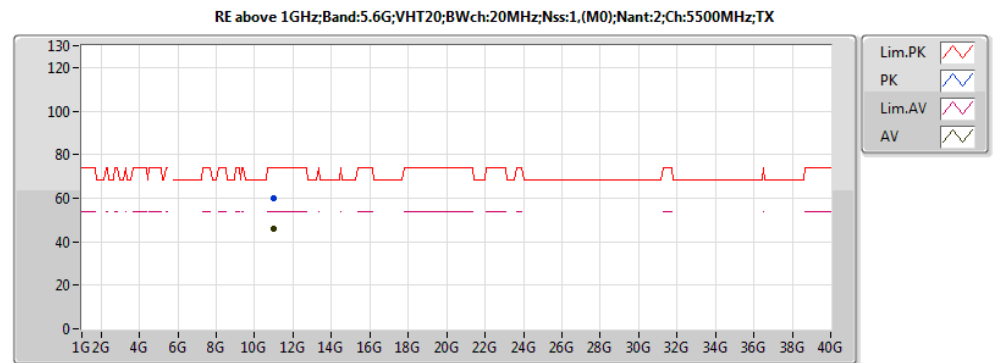
20161003
EUT Y
Setting:21
2TX
Non-TxBF
N-2-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.46G	50.05	54.00	-3.95	4.47	3	H	177	1.91	-
AV	5.4696G	53.36	54.00	-0.64	4.48	3	H	177	1.91	-
AV	5.4944G	104.34	Inf	-Inf	4.51	3	H	177	1.91	-
PK	5.4596G	67.84	74.00	-6.16	4.47	3	H	177	1.91	-
PK	5.4696G	66.98	74.00	-7.02	4.48	3	H	177	1.91	-
PK	5.4932G	114.88	Inf	-Inf	4.51	3	H	177	1.91	-



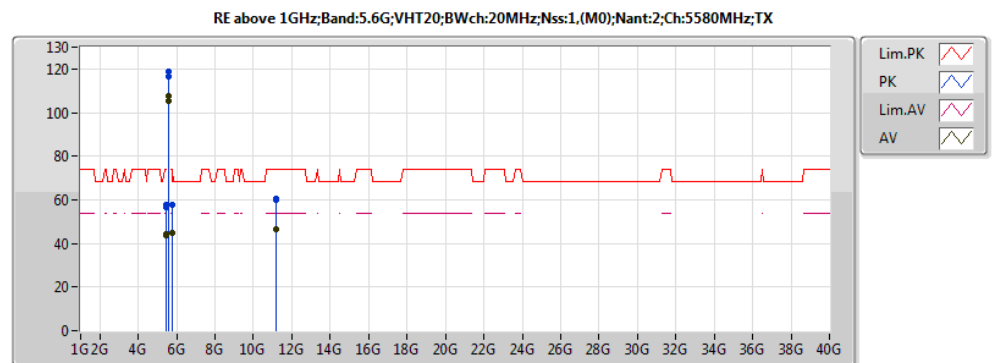
20161003
EUT Y
Setting:21
2TX
Non-TxBF
Z-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.99964G	48.04	54.00	-5.96	11.52	3	V	23	1.93	-
PK	10.99796G	62.93	74.00	-11.07	11.52	3	V	23	1.93	-



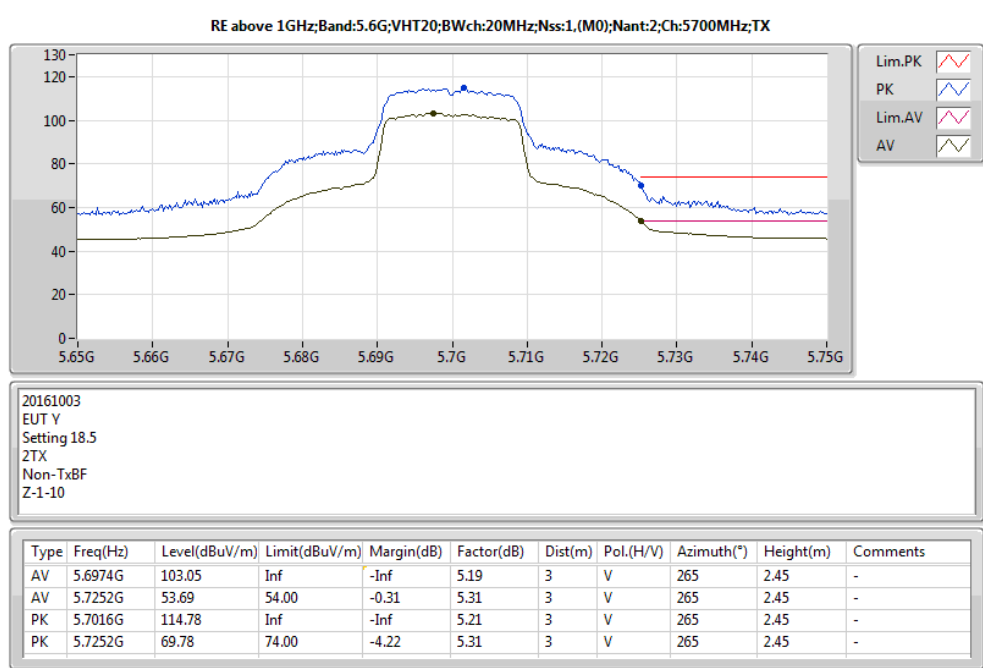
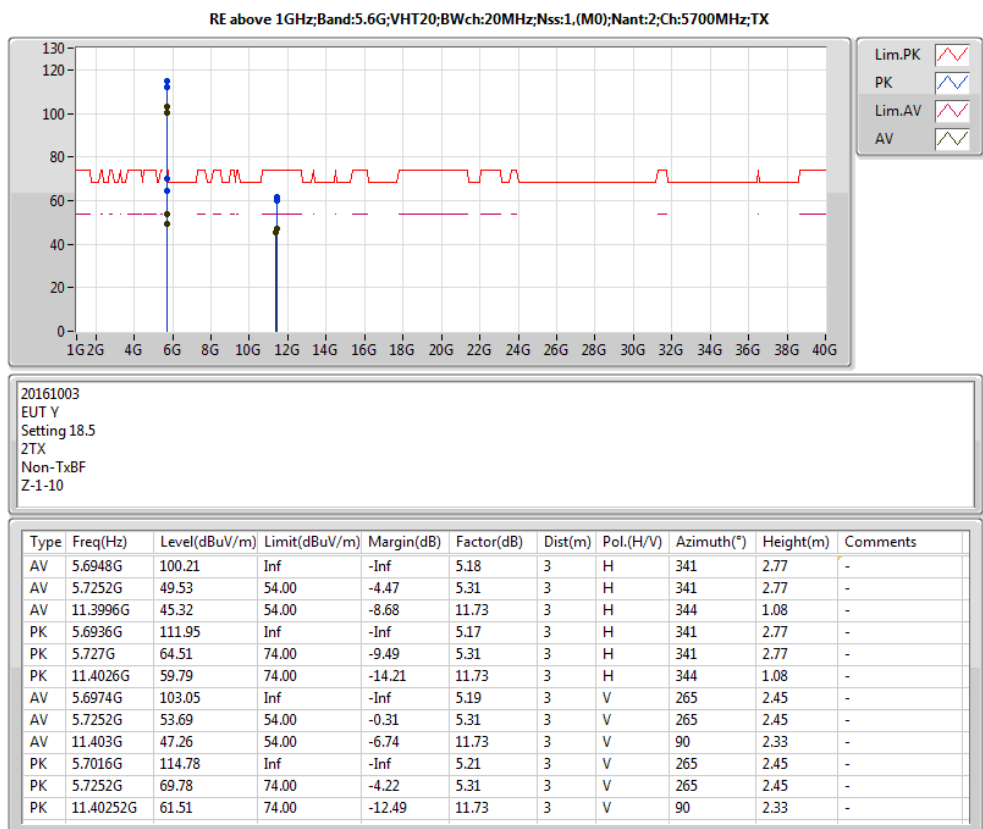
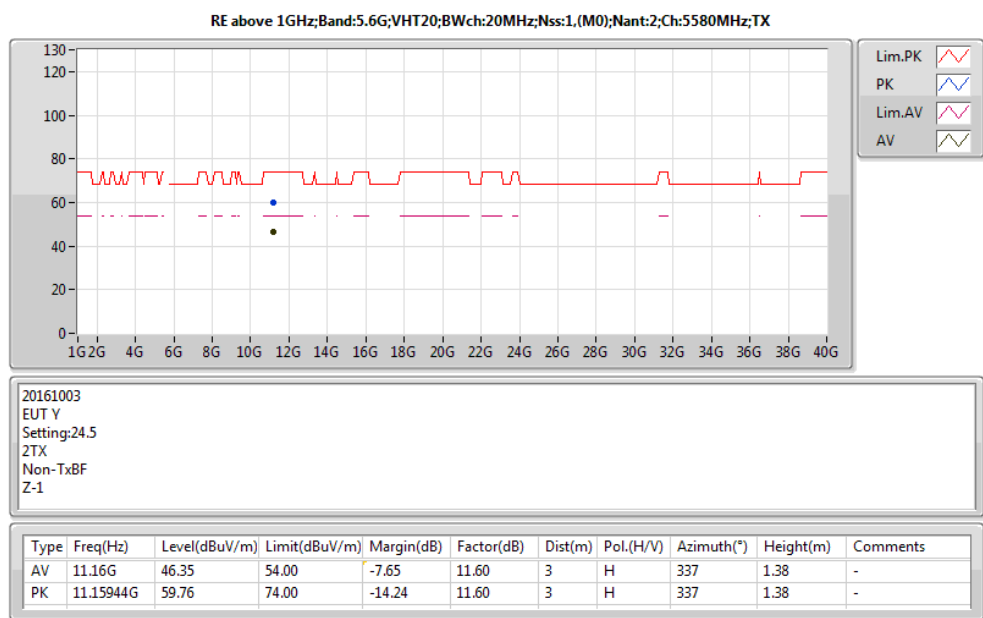
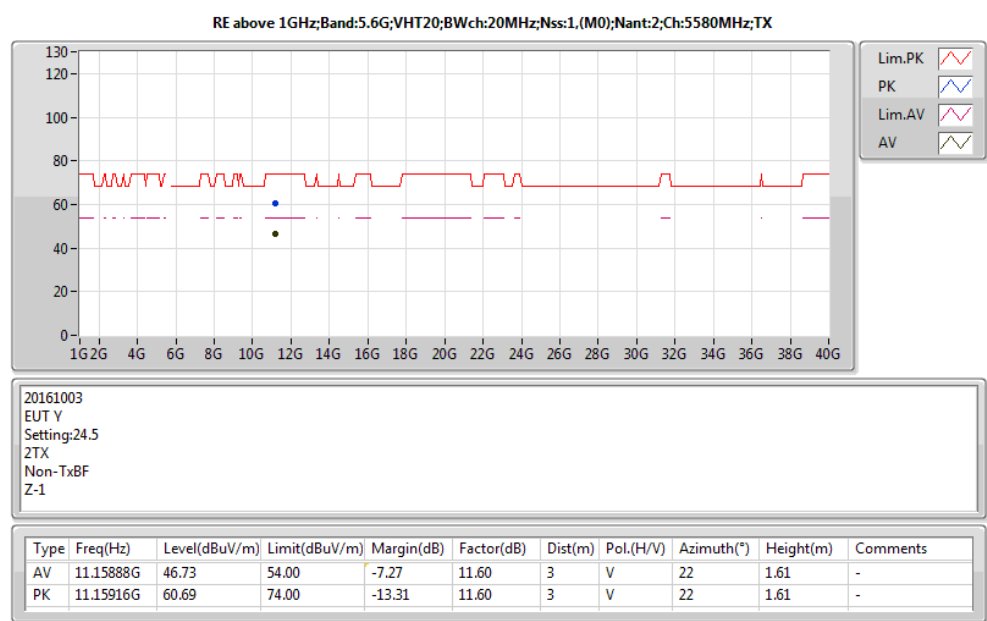
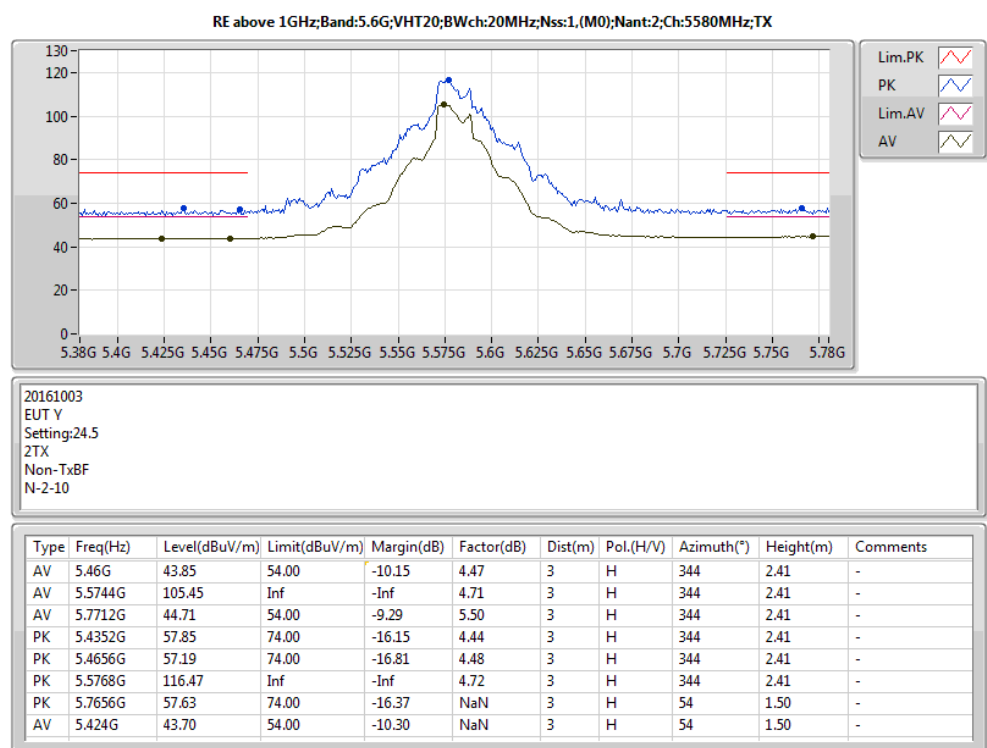
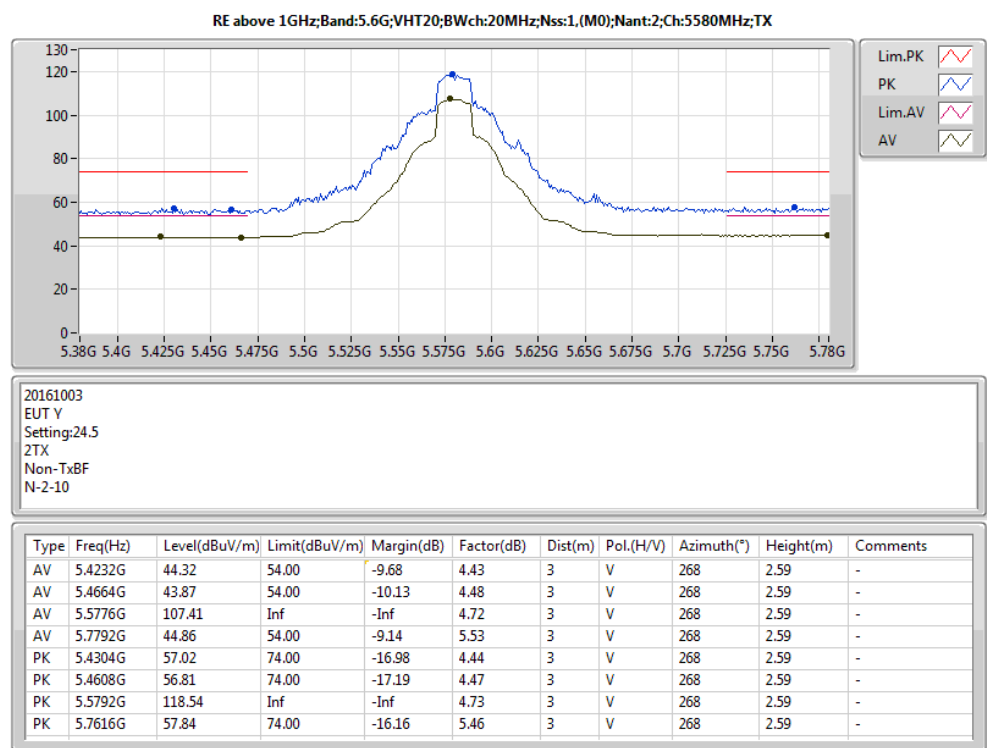
20161003
EUT Y
Setting:21
2TX
Non-TxBF
Z-1

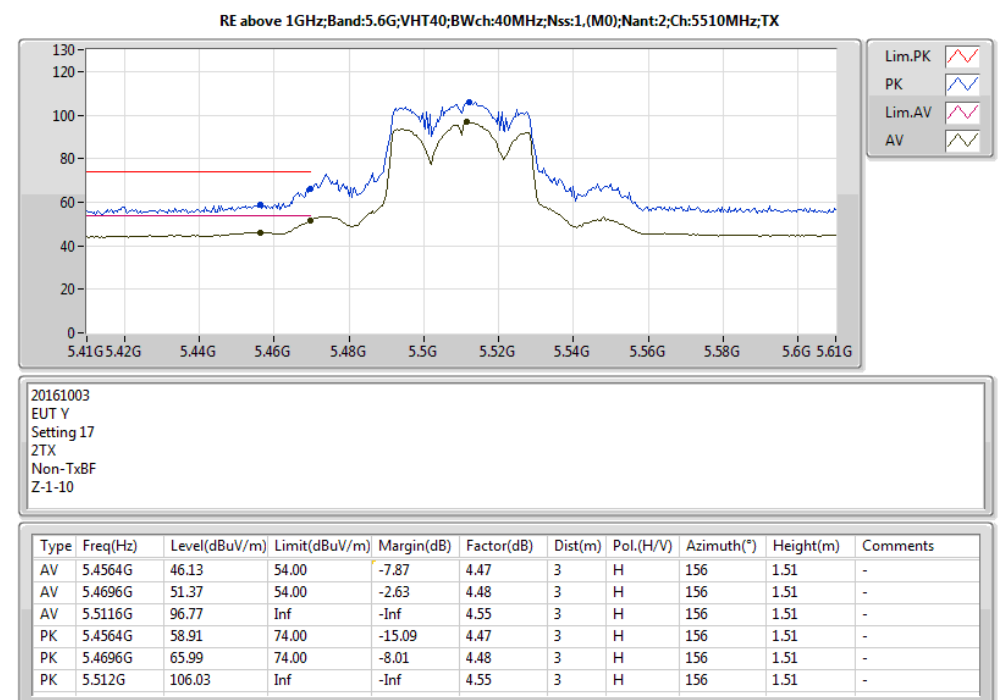
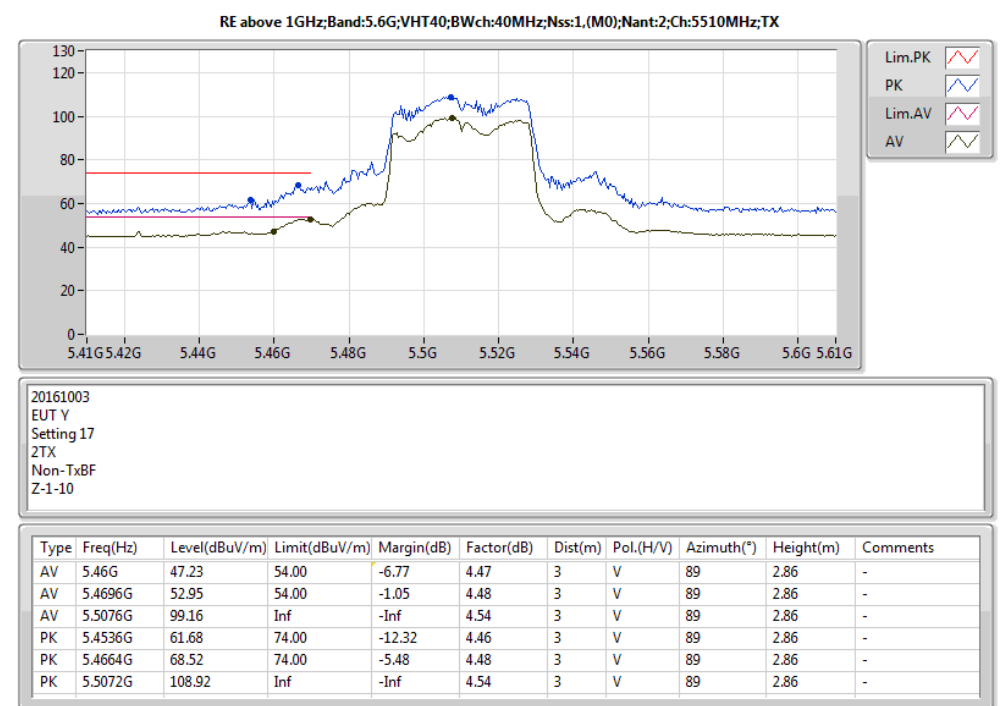
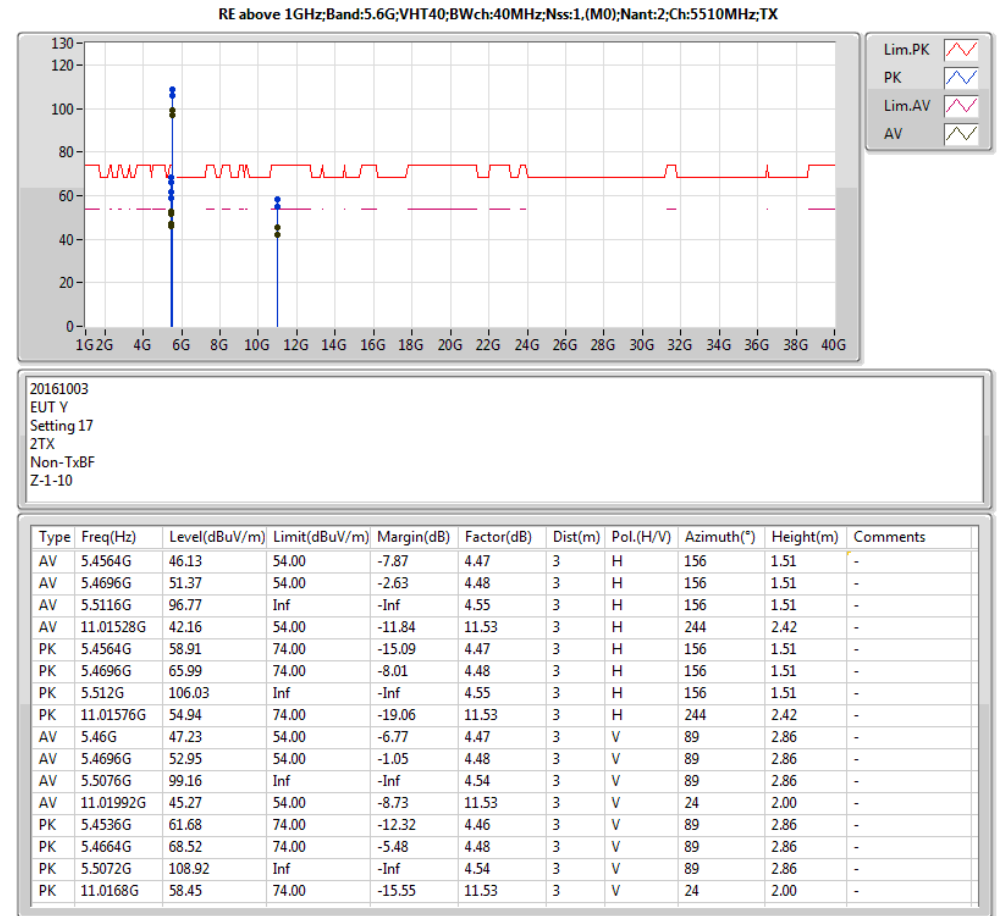
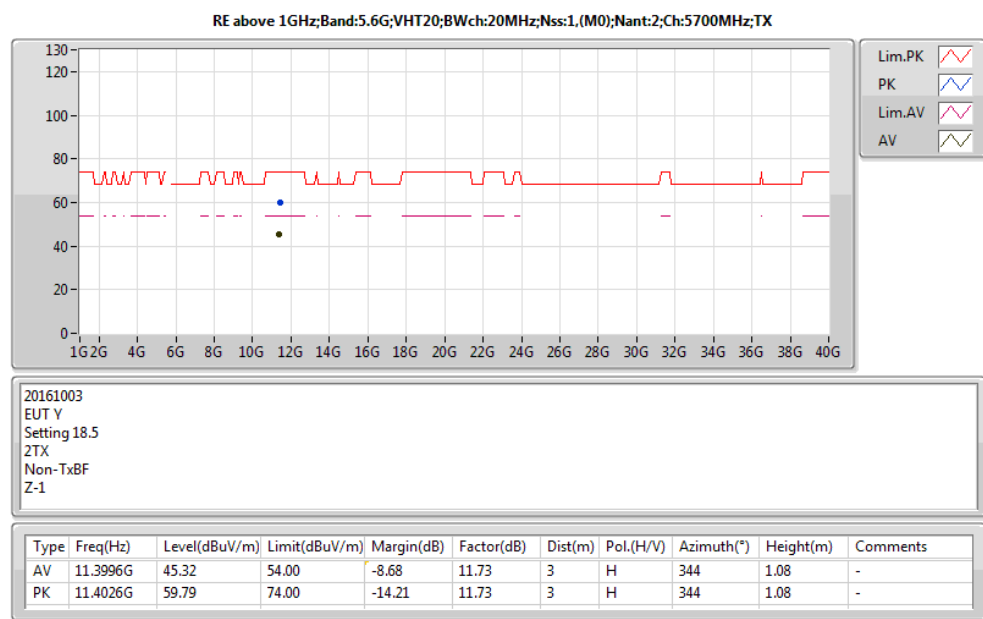
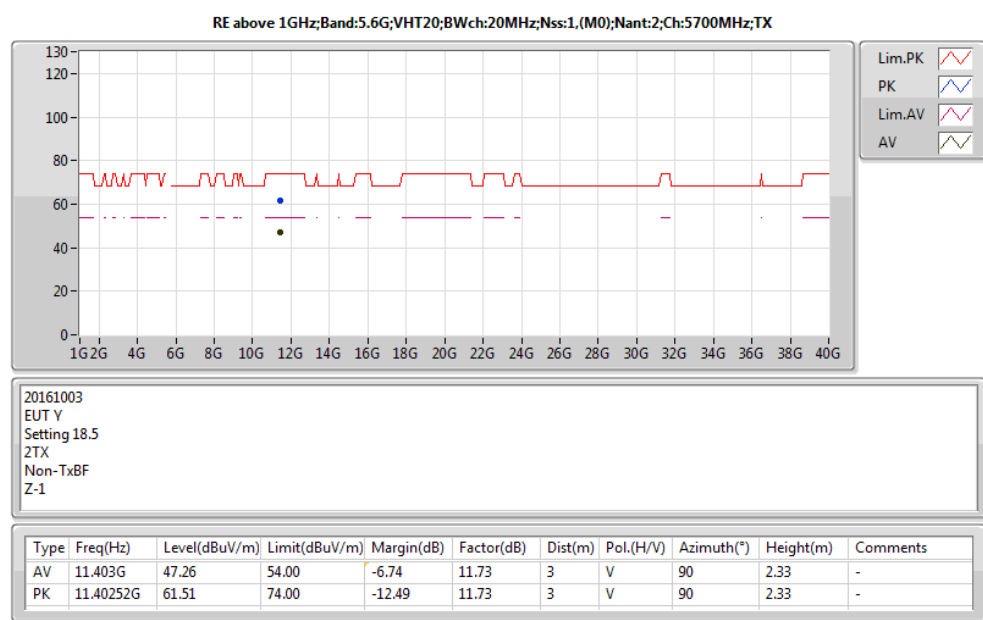
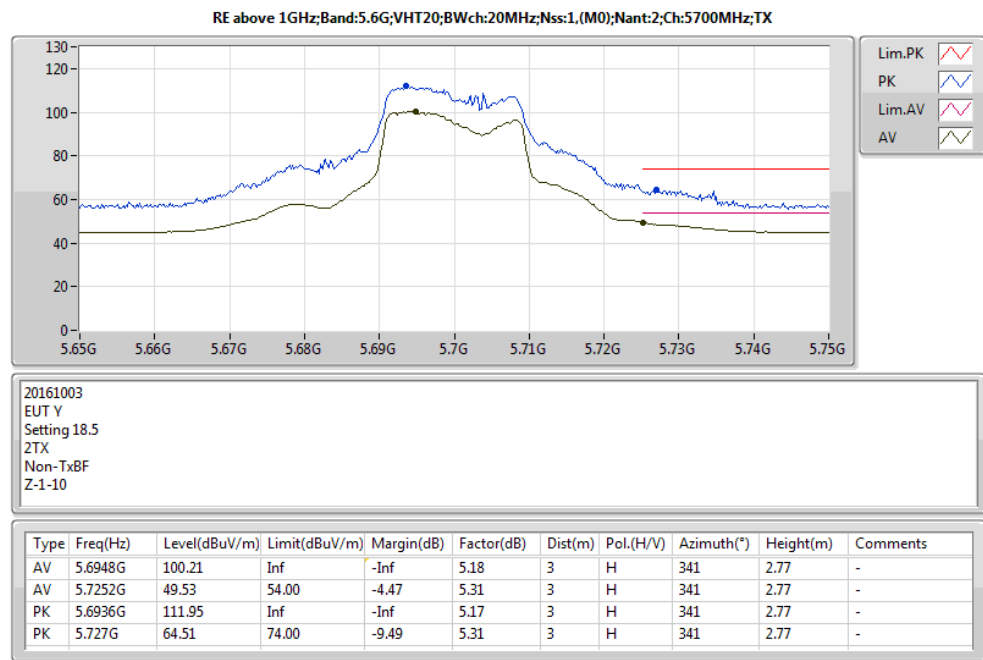
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	10.99612G	45.92	54.00	-8.08	11.51	3	H	151	2.37	-
PK	10.99792G	60.09	74.00	-13.91	11.52	3	H	151	2.37	-

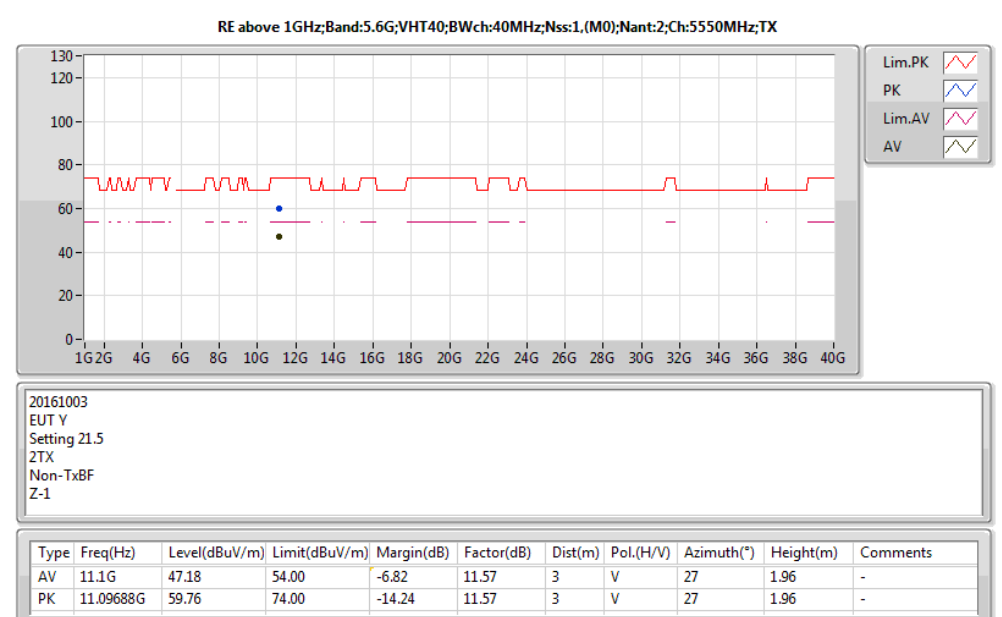
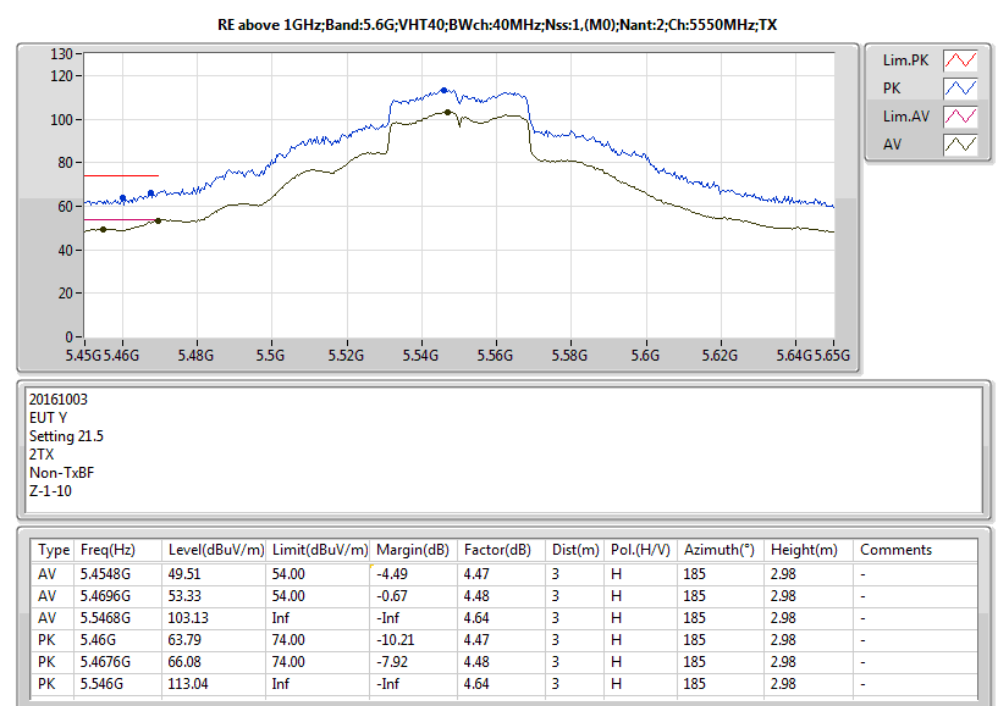
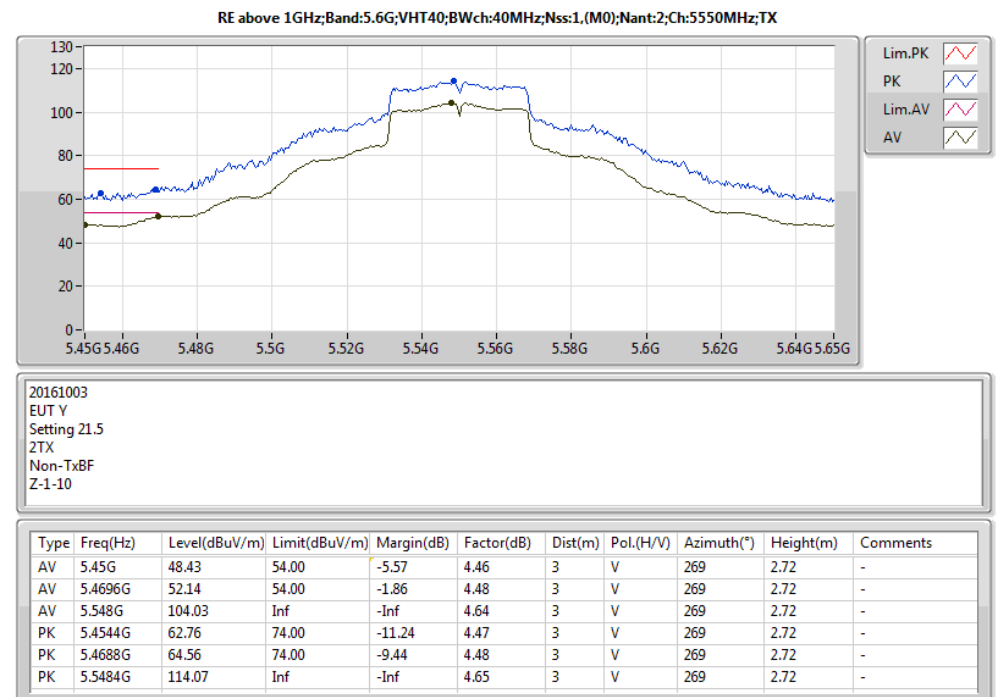
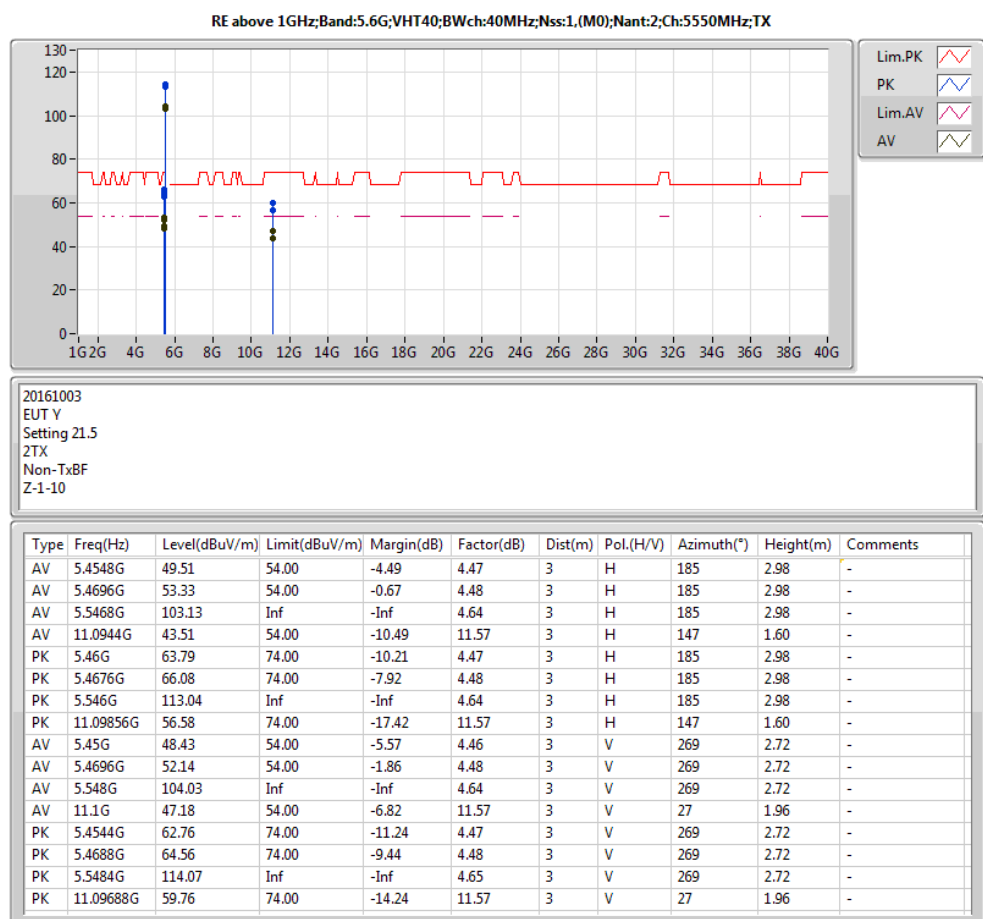
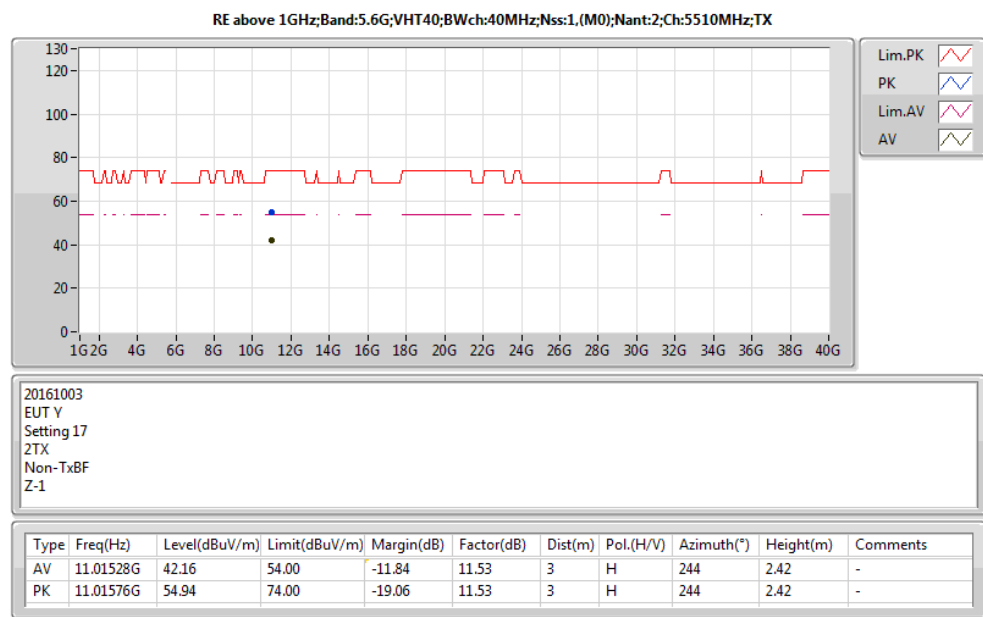
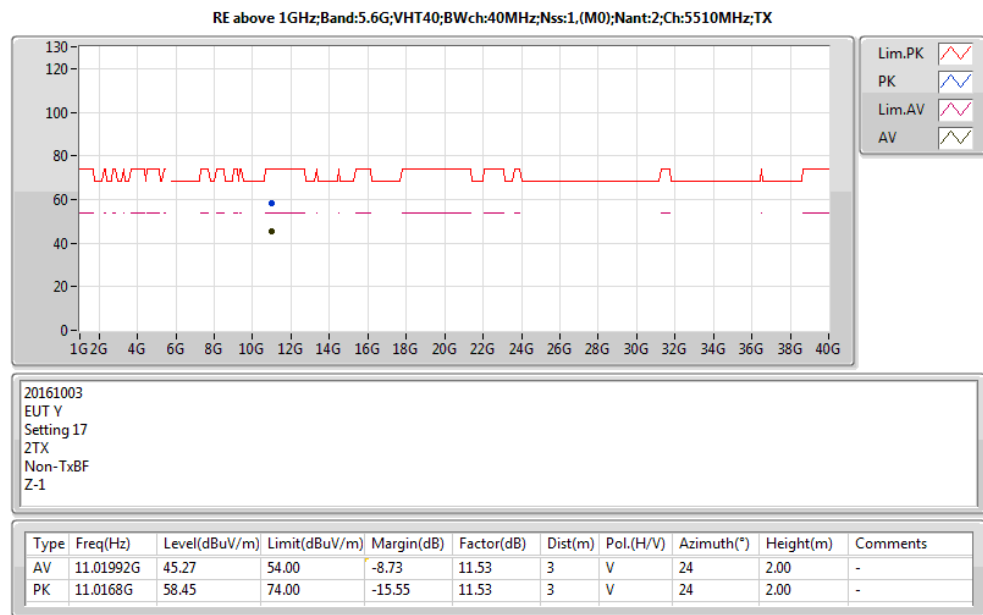


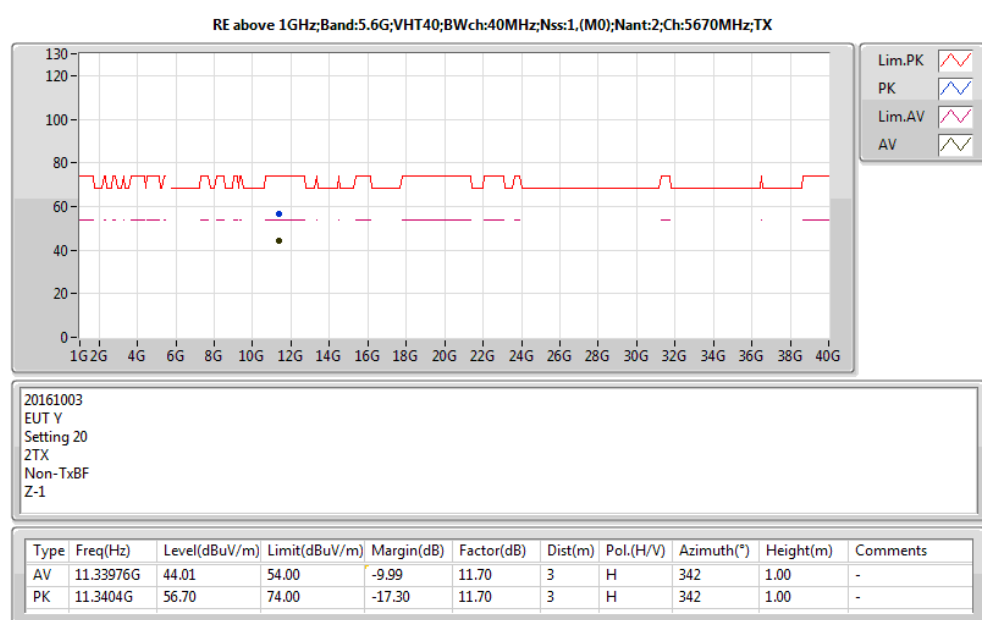
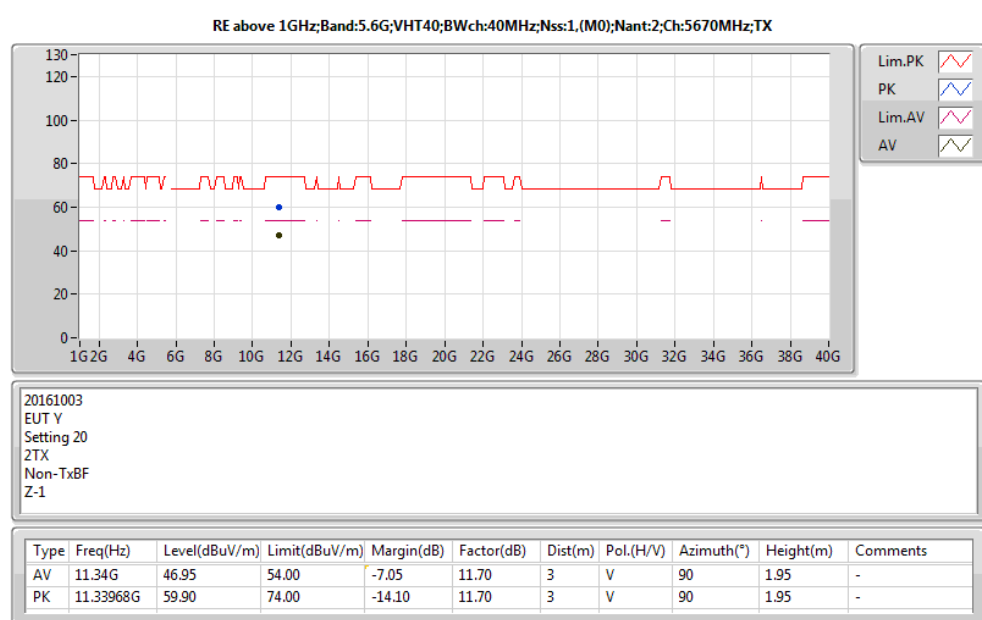
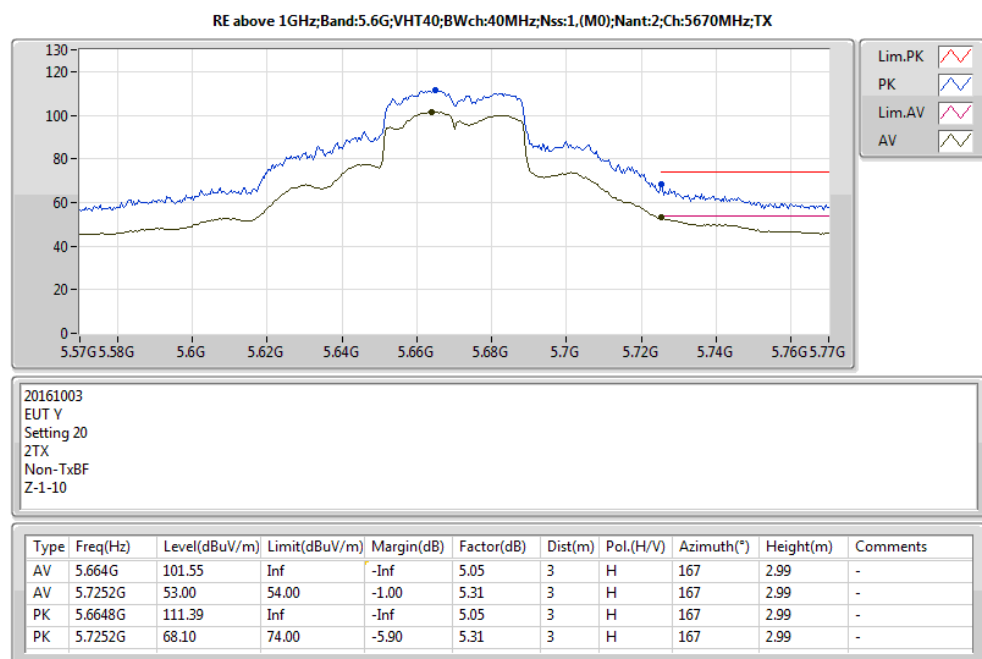
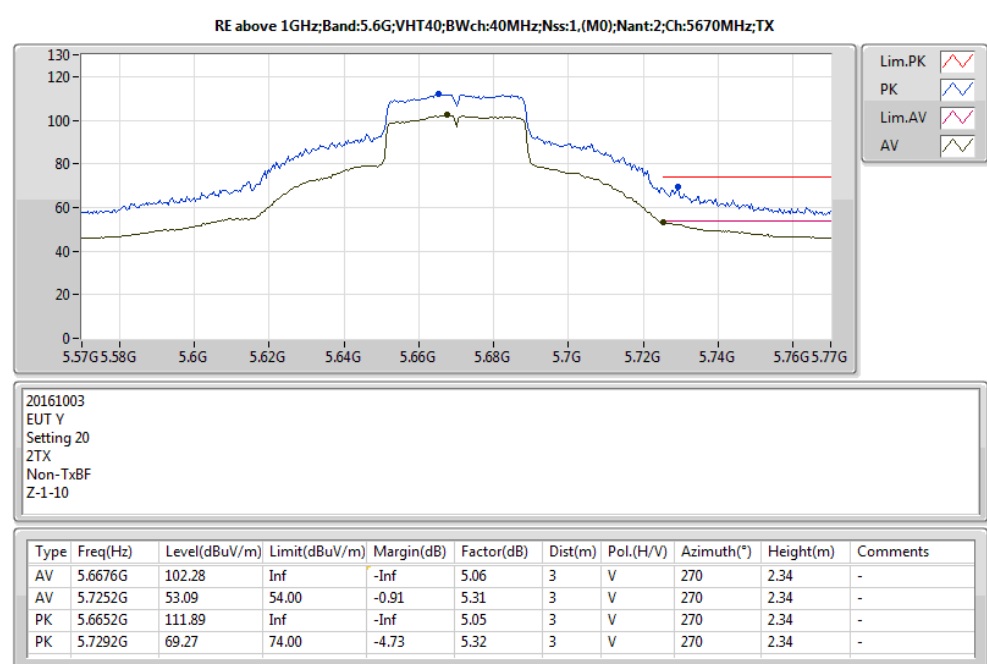
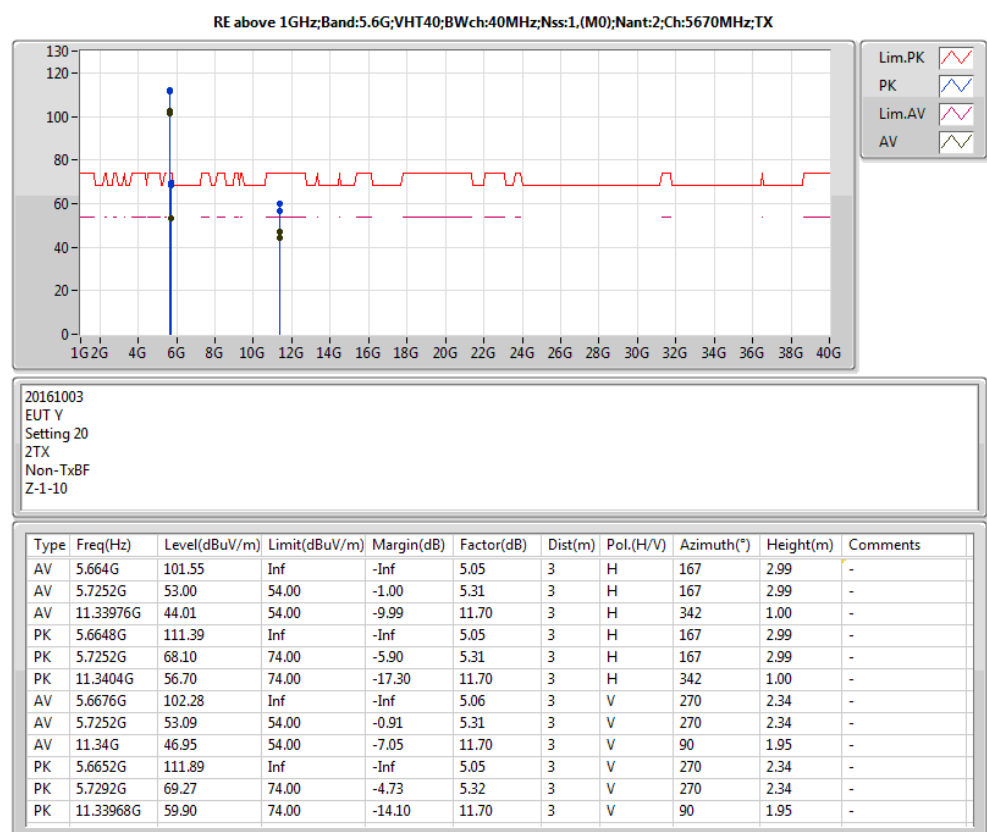
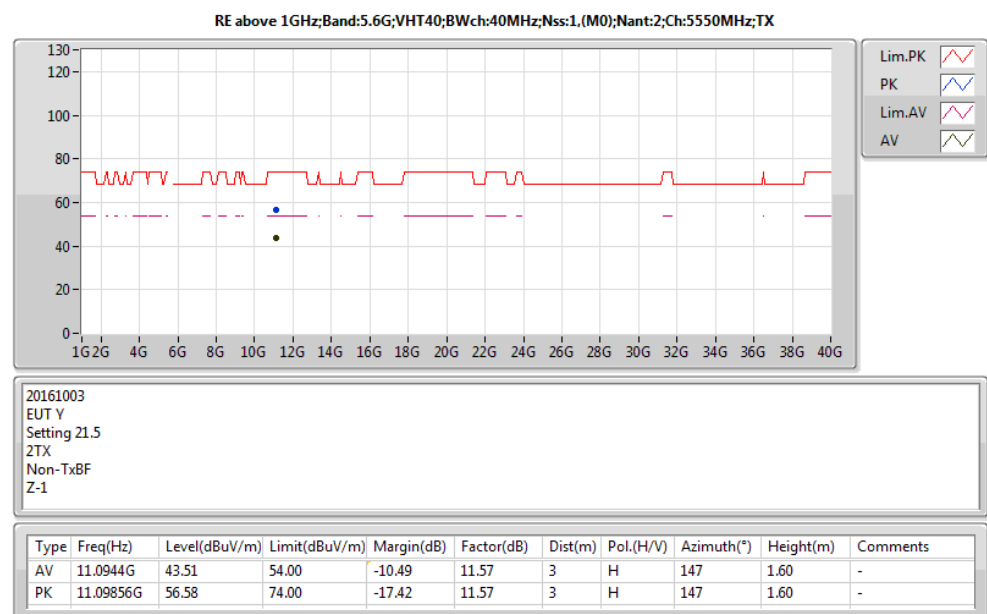
20160926
EUT Y
Setting:21
2TX
Non-TxBF
N-2-10

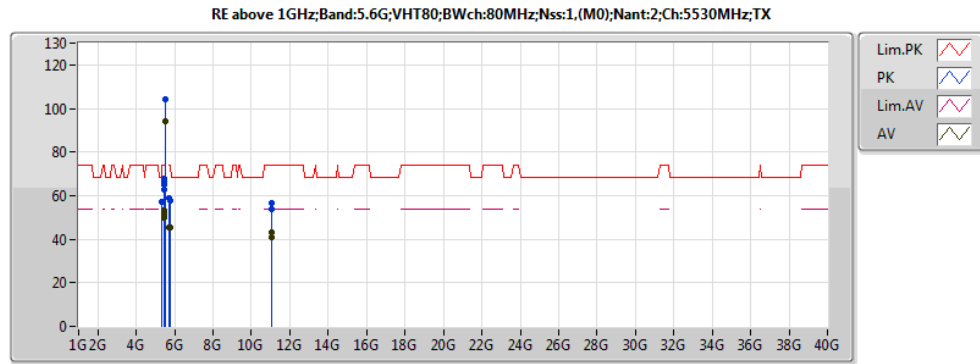
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.424G	43.70	54.00	-10.30	NaN	3	H	54	1.50	-
AV	5.46G	43.85	54.00	-10.15	4.47	3	H	344	2.41	-
AV	5.5744G	105.45	Inf	-Inf	4.71	3	H	344	2.41	-
AV	5.7712G	44.71	54.00	-9.29	5.50	3	H	344	2.41	-
AV	11.16G	46.35	54.00	-7.65	11.60	3	H	337	1.38	-
PK	5.4352G	57.85	74.00	-16.15	4.44	3	H	344	2.41	-
PK	5.4656G	57.19	74.00	-16.81	4.48	3	H	344	2.41	-
PK	5.5768G	116.47	Inf	-Inf	4.72	3	H	344	2.41	-
PK	5.7656G	57.63	74.00	-16.37	NaN	3	H	54	1.50	-
PK	11.15944G	59.76	74.00	-14.24	11.60	3	H	337	1.38	-
AV	5.4232G	44.32	54.00	-9.68	4.43	3	V	268	2.59	-
AV	5.4664G	43.87	54.00	-10.13	4.48	3	V	268	2.59	-
AV	5.5776G	107.41	Inf	-Inf	4.72	3	V	268	2.59	-
AV	5.7792G	44.86	54.00	-9.14	5.53	3	V	268	2.59	-
AV	11.15888G	46.73	54.00	-7.27	11.60	3	V	22	1.61	-
PK	5.4304G	57.02	74.00	-16.98	4.44	3	V	268	2.59	-
PK	5.4608G	56.81	74.00	-17.19	4.47	3	V	268	2.59	-
PK	5.5792G	118.54	Inf	-Inf	4.73	3	V	268	2.59	-
PK	5.7616G	57.84	74.00	-16.16	5.46	3	V	268	2.59	-
PK	11.15916G	60.69	74.00	-13.31	11.60	3	V	22	1.61	-





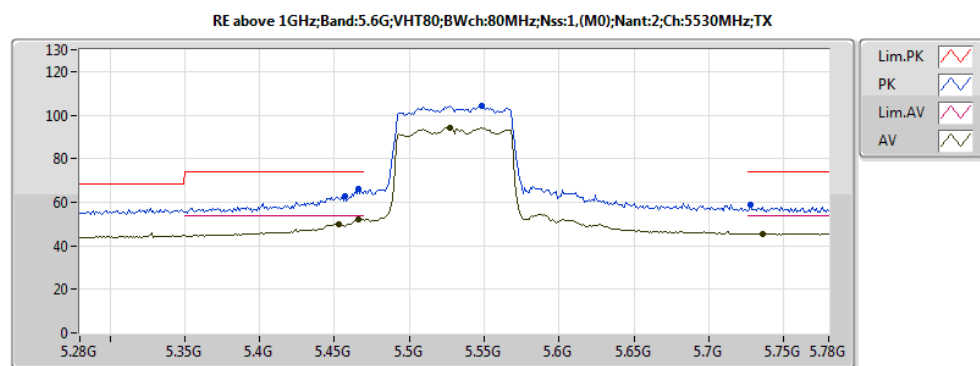






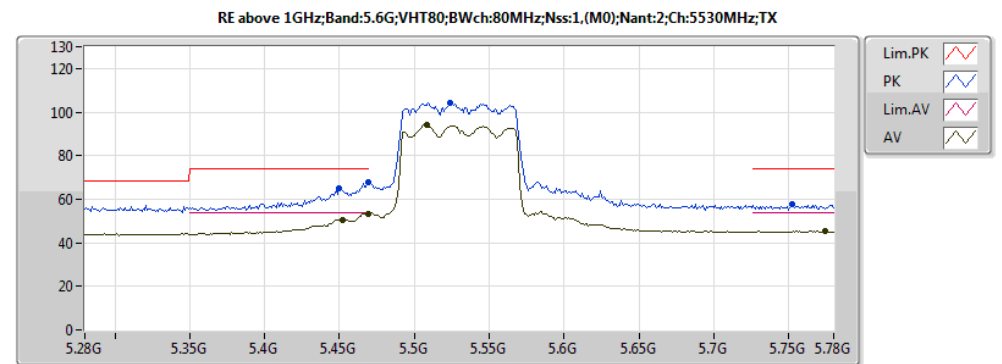
20161003
EUT Y
Setting 16.5
2TX
Non-TxBF
Z-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.452G	50.57	54.00	-3.43	4.46	3	H	187	2.99	-
AV	5.469G	53.44	54.00	-0.56	4.48	3	H	187	2.99	-
AV	5.508G	94.09	Inf	-Inf	4.54	3	H	187	2.99	-
AV	5.774G	45.29	54.00	-8.71	5.51	3	H	187	2.99	-
AV	11.04928G	40.82	54.00	-13.18	11.55	3	H	121	1.78	-
PK	5.45G	64.81	74.00	-9.19	4.46	3	H	187	2.99	-
PK	5.469G	67.57	74.00	-6.43	4.48	3	H	187	2.99	-
PK	5.524G	104.43	Inf	-Inf	4.58	3	H	187	2.99	-
PK	5.752G	57.93	74.00	-16.07	5.42	3	H	187	2.99	-
PK	11.0672G	53.88	74.00	-20.12	11.56	3	H	121	1.78	-
AV	5.453G	50.14	54.00	-3.86	4.46	3	V	266	2.50	-
AV	5.466G	52.16	54.00	-1.84	4.48	3	V	266	2.50	-
AV	5.527G	94.38	Inf	-Inf	4.59	3	V	266	2.50	-
AV	5.736G	45.62	54.00	-8.38	5.35	3	V	266	2.50	-
AV	11.05968G	43.23	54.00	-10.77	11.55	3	V	25	2.01	-
PK	5.327G	57.05	68.20	-11.15	4.26	3	V	266	2.50	-
PK	5.457G	62.77	74.00	-11.23	NaN	3	V	54	1.50	-
PK	5.466G	66.38	74.00	-7.62	4.48	3	V	266	2.50	-
PK	5.548G	104.03	Inf	-Inf	4.64	3	V	266	2.50	-
PK	5.728G	58.90	74.00	-15.10	5.32	3	V	266	2.50	-
PK	11.05968G	56.78	74.00	-17.22	11.55	3	V	25	2.01	-



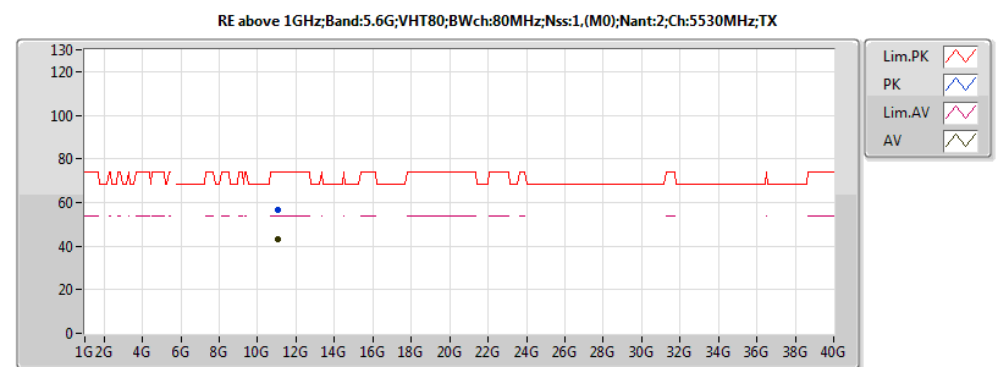
20161003
EUT Y
Setting 16.5
2TX
Non-TxBF
Z-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.453G	50.14	54.00	-3.86	4.46	3	V	266	2.50	-
AV	5.466G	52.16	54.00	-1.84	4.48	3	V	266	2.50	-
AV	5.527G	94.38	Inf	-Inf	4.59	3	V	266	2.50	-
AV	5.736G	45.62	54.00	-8.38	5.35	3	V	266	2.50	-
PK	5.466G	66.38	74.00	-7.62	4.48	3	V	266	2.50	-
PK	5.548G	104.03	Inf	-Inf	4.64	3	V	266	2.50	-
PK	5.728G	58.90	74.00	-15.10	5.32	3	V	266	2.50	-
PK	5.457G	62.77	74.00	-11.23	NaN	3	V	54	1.50	-



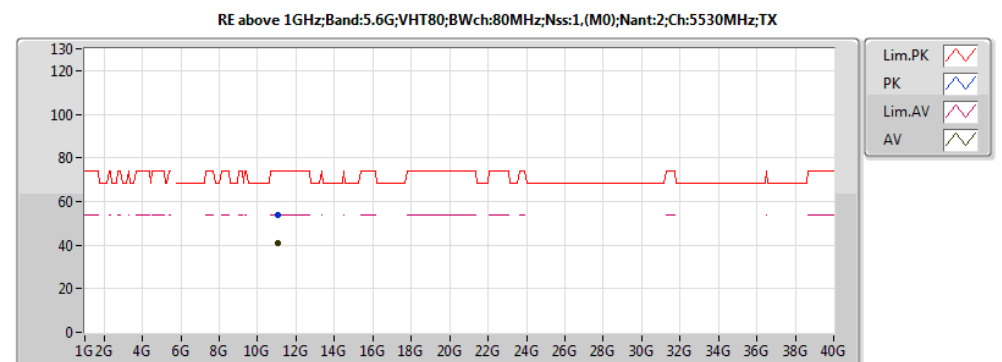
20161003
EUT Y
Setting 16.5
2TX
Non-TxBF
Z-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.452G	50.57	54.00	-3.43	4.46	3	H	187	2.99	-
AV	5.469G	53.44	54.00	-0.56	4.48	3	H	187	2.99	-
AV	5.508G	94.09	Inf	-Inf	4.54	3	H	187	2.99	-
AV	5.774G	45.29	54.00	-8.71	5.51	3	H	187	2.99	-
PK	5.45G	64.81	74.00	-9.19	4.46	3	H	187	2.99	-
PK	5.469G	67.57	74.00	-6.43	4.48	3	H	187	2.99	-
PK	5.524G	104.43	Inf	-Inf	4.58	3	H	187	2.99	-
PK	5.752G	57.93	74.00	-16.07	5.42	3	H	187	2.99	-



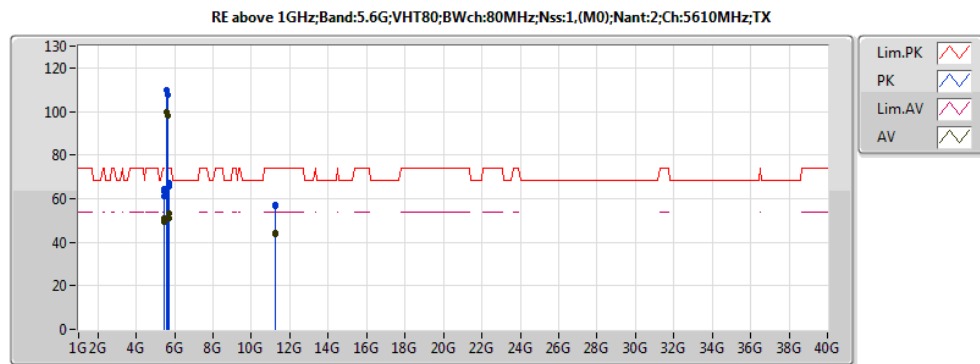
20161003
EUT Y
Setting 16.5
2TX
Non-TxBF
Z-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.05968G	43.23	54.00	-10.77	11.55	3	V	25	2.01	-
PK	11.05968G	56.78	74.00	-17.22	11.55	3	V	25	2.01	-



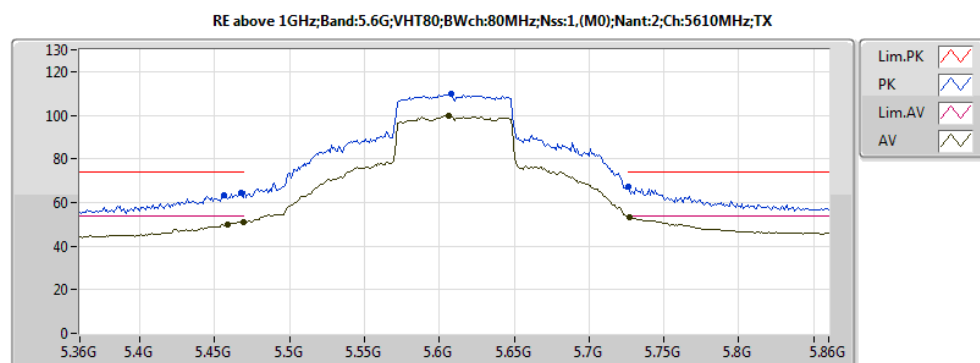
20161003
EUT Y
Setting 16.5
2TX
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Z-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.04928G	40.82	54.00	-13.18	11.55	3	H	121	1.78	-
PK	11.0672G	53.88	74.00	-20.12	11.56	3	H	121	1.78	-



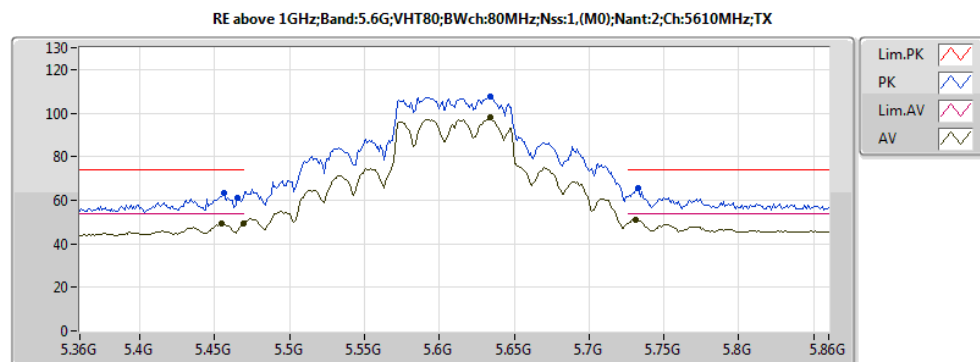
20161003
EUT Y
Setting 21
2TX
Non-TxBF
Z-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.455G	49.26	54.00	-4.74	4.47	3	H	304	2.22	-
AV	5.469G	49.04	54.00	-4.96	4.48	3	H	304	2.22	-
AV	5.634G	97.82	Inf	-Inf	4.92	3	H	304	2.22	-
AV	5.731G	51.02	54.00	-2.98	5.33	3	H	304	2.22	-
AV	11.22008G	44.05	54.00	-9.95	11.64	3	H	166	1.59	-
PK	5.456G	63.12	74.00	-10.88	4.47	3	H	304	2.22	-
PK	5.465G	61.04	74.00	-12.96	4.48	3	H	304	2.22	-
PK	5.634G	107.40	Inf	-Inf	4.92	3	H	304	2.22	-
PK	5.733G	65.40	74.00	-8.60	5.34	3	H	304	2.22	-
PK	11.2392G	57.21	74.00	-16.79	11.65	3	H	166	1.59	-
AV	5.459G	50.14	54.00	-3.86	4.47	3	V	269	2.01	-
AV	5.469G	51.18	54.00	-2.82	4.48	3	V	269	2.01	-
AV	5.606G	100.01	Inf	-Inf	4.81	3	V	269	2.01	-
AV	5.727G	53.31	54.00	-0.69	5.31	3	V	269	2.01	-
AV	11.21952G	43.85	54.00	-10.15	11.64	3	V	26	1.87	-
PK	5.456G	63.27	74.00	-10.73	4.47	3	V	269	2.01	-
PK	5.468G	64.49	74.00	-9.51	4.48	3	V	269	2.01	-
PK	5.608G	109.56	Inf	-Inf	4.81	3	V	269	2.01	-
PK	5.726G	67.20	74.00	-6.80	5.31	3	V	269	2.01	-
PK	11.22048G	56.80	74.00	-17.20	11.64	3	V	26	1.87	-



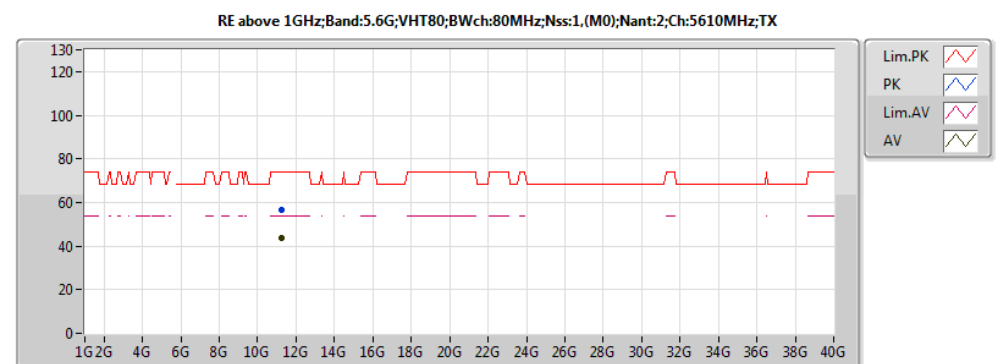
20161003
EUT Y
Setting 21
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Non-TxBF
Z-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.459G	50.14	54.00	-3.86	4.47	3	V	269	2.01	-
AV	5.469G	51.18	54.00	-2.82	4.48	3	V	269	2.01	-
AV	5.606G	100.01	Inf	-Inf	4.81	3	V	269	2.01	-
AV	5.727G	53.31	54.00	-0.69	5.31	3	V	269	2.01	-
PK	5.456G	63.27	74.00	-10.73	4.47	3	V	269	2.01	-
PK	5.468G	64.49	74.00	-9.51	4.48	3	V	269	2.01	-
PK	5.608G	109.56	Inf	-Inf	4.81	3	V	269	2.01	-
PK	5.726G	67.20	74.00	-6.80	5.31	3	V	269	2.01	-



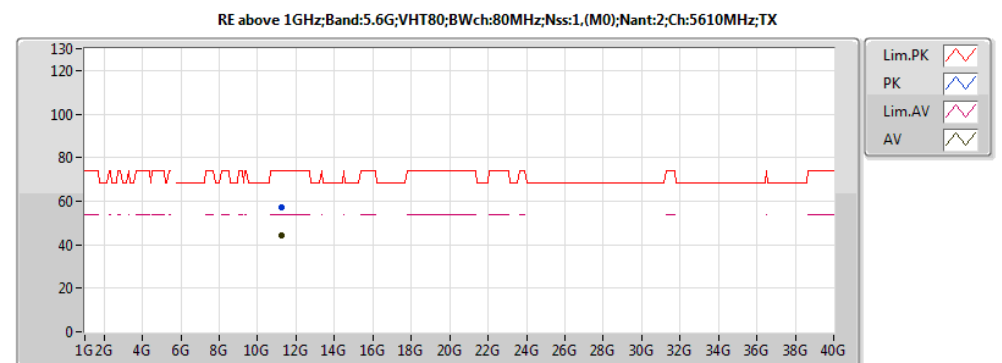
20161003
EUT Y
Setting 21
2TX
Non-TxBF
Z-1-10

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.455G	49.26	54.00	-4.74	4.47	3	H	304	2.22	-
AV	5.469G	49.04	54.00	-4.96	4.48	3	H	304	2.22	-
AV	5.634G	97.82	Inf	-Inf	4.92	3	H	304	2.22	-
AV	5.731G	51.02	54.00	-2.98	5.33	3	H	304	2.22	-
PK	5.456G	63.12	74.00	-10.88	4.47	3	H	304	2.22	-
PK	5.465G	61.04	74.00	-12.96	4.48	3	H	304	2.22	-
PK	5.634G	107.40	Inf	-Inf	4.92	3	H	304	2.22	-
PK	5.733G	65.40	74.00	-8.60	5.34	3	H	304	2.22	-



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Setting 21
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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	11.21952G	43.85	54.00	-10.15	11.64	3	V	26	1.87	-
PK	11.22048G	56.80	74.00	-17.20	11.64	3	V	26	1.87	-



20161003
EUT Y
Setting 21
2TX
Non-TxBF
Z-1

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.22008G	44.05	54.00	-9.95	11.64	3	H	166	1.59	-
PK	11.2392G	57.21	74.00	-16.79	11.65	3	H	166	1.59	-

Mode: 20 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5299.9642	5299.9634	5299.9627	5299.9625
110.00	5299.9635	5299.9627	5299.9620	5299.9618
93.50	5299.9625	5299.9620	5299.9618	5299.9615
Max. Deviation (MHz)	0.0375	0.0380	0.0382	0.0385
Max. Deviation (ppm)	7.08	7.17	7.21	7.26
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5299.9621	5299.9616	5299.9606	5299.9597
10	5299.9632	5299.9623	5299.9622	5299.9619
20	5299.9635	5299.9634	5299.9631	5299.9626
30	5299.9661	5299.9653	5299.9646	5299.9642
40	5299.9675	5299.9666	5299.9664	5299.9661
50	5299.9673	5299.9668	5299.9667	5299.9658
Max. Deviation (MHz)	0.0379	0.0384	0.0394	0.0403
Max. Deviation (ppm)	7.15	7.25	7.43	7.60
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5579.9640	5579.9634	5579.9629	5579.9624
110.00	5579.9635	5579.9631	5579.9622	5579.9613
93.50	5579.9632	5579.9622	5579.9615	5579.9611
Max. Deviation (MHz)	0.0368	0.0378	0.0385	0.0389
Max. Deviation (ppm)	6.59	6.77	6.90	6.97
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5579.9617	5579.9609	5579.9605	5579.9598
10	5579.9620	5579.9612	5579.9605	5579.9596
20	5579.9635	5579.9633	5579.9630	5579.9622
30	5579.9661	5579.9658	5579.9648	5579.9647
40	5579.9676	5579.9670	5579.9663	5579.9655
50	5579.9677	5579.9675	5579.9674	5579.9673
Max. Deviation (MHz)	0.0383	0.0391	0.0395	0.0404
Max. Deviation (ppm)	6.86	7.01	7.08	7.24
Result	Pass			

Mode: 40 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5309.9637	5309.9629	5309.9626	5309.9619
110.00	5309.9635	5309.9626	5309.9623	5309.9622
93.50	5309.9632	5309.9622	5309.9615	5309.9605
Max. Deviation (MHz)	0.0368	0.0378	0.0385	0.0395
Max. Deviation (ppm)	6.93	7.12	7.25	7.44
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5309.9599	5309.9598	5309.9590	5309.9581
10	5309.9615	5309.9611	5309.9603	5309.9602
20	5309.9635	5309.9629	5309.9623	5309.9614
30	5309.9661	5309.9653	5309.9645	5309.9636
40	5309.9673	5309.9664	5309.9655	5309.9650
50	5309.9640	5309.9639	5309.9631	5309.9628
Max. Deviation (MHz)	0.0401	0.0402	0.0410	0.0419
Max. Deviation (ppm)	7.55	7.57	7.72	7.89
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5549.9637	5549.9627	5549.9619	5549.9616
110.00	5549.9635	5549.9628	5549.9618	5549.9615
93.50	5549.9627	5549.9621	5549.9620	5549.9614
Max. Deviation (MHz)	0.0373	0.0379	0.0382	0.0386
Max. Deviation (ppm)	6.72	6.83	6.88	6.95
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5549.9618	5549.9616	5549.9610	5549.9603
10	5549.9619	5549.9617	5549.9611	5549.9609
20	5549.9635	5549.9627	5549.9618	5549.9612
30	5549.9661	5549.9659	5549.9650	5549.9646
40	5549.9665	5549.9660	5549.9652	5549.9651
50	5549.9638	5549.9629	5549.9619	5549.9614
Max. Deviation (MHz)	0.0382	0.0384	0.0390	0.0397
Max. Deviation (ppm)	6.88	6.92	7.03	7.15
Result	Pass			

Mode: 80 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5289.9644	5289.9643	5289.9642	5289.9641
110.00	5289.9635	5289.9627	5289.9622	5289.9620
93.50	5289.9627	5289.9625	5289.9616	5289.9612
Max. Deviation (MHz)	0.0373	0.0375	0.0384	0.0388
Max. Deviation (ppm)	7.05	7.09	7.26	7.33
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5289.9622	5289.9618	5289.9612	5289.9607
10	5289.9633	5289.9630	5289.9622	5289.9619
20	5289.9635	5289.9627	5289.9619	5289.9617
30	5289.9661	5289.9657	5289.9649	5289.9640
40	5289.9673	5289.9668	5289.9658	5289.9653
50	5289.9645	5289.9637	5289.9630	5289.9624
Max. Deviation (MHz)	0.0378	0.0382	0.0388	0.0393
Max. Deviation (ppm)	7.15	7.22	7.33	7.43
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5529.9644	5529.9641	5529.9637	5529.9634
110.00	5529.9635	5529.9632	5529.9622	5529.9613
93.50	5529.9627	5529.9622	5529.9612	5529.9603
Max. Deviation (MHz)	0.0373	0.0378	0.0388	0.0397
Max. Deviation (ppm)	6.75	6.84	7.02	7.18
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5529.9615	5529.9605	5529.9595	5529.9592
10	5529.9619	5529.9614	5529.9605	5529.9600
20	5529.9635	5529.9627	5529.9617	5529.9612
30	5529.9661	5529.9657	5529.9647	5529.9642
40	5529.9665	5529.9658	5529.9656	5529.9649
50	5529.9637	5529.9636	5529.9629	5529.9625
Max. Deviation (MHz)	0.0385	0.0395	0.0405	0.0408
Max. Deviation (ppm)	6.96	7.14	7.32	7.38
Result	Pass			