



FCC Test Report

Equipment : MAX-STREAM AC4000 MU-MIMO TRI-BAND ROUTER
Brand Name : LINKSYS
Model No. : EA9300, EA9250
FCC ID : Q87-EA9300
Standard : 47 CFR FCC Part 15.407
Operating Band : 5250 MHz – 5350 MHz
5470 MHz – 5725 MHz
Applicant : Linksys LLC
121 Theory Drive, Irvine, CA 92617, USA
Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client
TPC Function : TPC

The product sample received on Dec. 27, 2016 and completely tested on Jan. 05, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.



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Summary of Test Result

Conformance Test Specifications			
Report Clause	Ref. Std. Clause	Description	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



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FCC ID: Q87-EA9300

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		5500-5720	100-144 [12]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5690	106-138 [3]

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	3TX
5.25-5.35GHz	802.11ac VHT20	20	3TX
5.25-5.35GHz	802.11ac VHT20-BF	20	3TX
5.25-5.35GHz	802.11ac VHT40	40	3TX
5.25-5.35GHz	802.11ac VHT40-BF	40	3TX
5.25-5.35GHz	802.11ac VHT80	80	3TX
5.25-5.35GHz	802.11ac VHT80-BF	80	3TX
5.47-5.725GHz	802.11a	20	3TX
5.47-5.725GHz	802.11ac VHT20	20	3TX
5.47-5.725GHz	802.11ac VHT20-BF	20	3TX
5.47-5.725GHz	802.11ac VHT40	40	3TX
5.47-5.725GHz	802.11ac VHT40-BF	40	3TX
5.47-5.725GHz	802.11ac VHT80	80	3TX
5.47-5.725GHz	802.11ac VHT80-BF	80	3TX

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	P/N	Antenna Type	Connector
1	ARISTOTLE	RFA-52-F90-1-9537	Dipole Antenna	I-PEX
2	ARISTOTLE	RFA-52-F90-2-9537	Dipole Antenna	I-PEX
3	ARISTOTLE	RFA-52-F90-3-9537	Dipole Antenna	I-PEX
4	ARISTOTLE	RFA-05-F90-1-9537	Dipole Antenna	I-PEX
5	ARISTOTLE	RFA-05-F90-2-9537	Dipole Antenna	I-PEX
6	ARISTOTLE	RFA-05-F90-3-9537	Dipole Antenna	I-PEX

Gain (dBi)					
Ant.	2.4GHz (Radio2)	5GHz			
		B1 (Radio3)	B2 (Radio3)	B3 (Radio1)	B4 (Radio1)
1	1.30	2.51	2.51	-	-
2	1.71	2.19	2.19	-	-
3	1.72	2.52	2.52	-	-
4	-	-	-	1.98	1.98
5	-	-	-	1.14	1.14
6	-	-	-	2.37	2.37

Note: The EUT has six antennas.

<For 2.4GHz Band>

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

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

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

<For 5GHz Band 1/2>

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

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

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

<For 5GHz Band 3/4>

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

Ant. 4, Ant. 5 and Ant. 6 can be used as transmitting/receiving antenna.

Ant. 4, Ant. 5 and Ant. 6 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
802.11a	0.975	0.11
802.11ac VHT20	0.97	0.132
802.11ac VHT20-BF	0.98	0.088
802.11ac VHT40	0.934	0.297
802.11ac VHT40-BF	0.939	0.273
802.11ac VHT80	0.873	0.59
802.11ac VHT80-BF	0.876	0.575

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	

Note: The product has beamforming function for 802.11n / 802.11ac in 2.4GHz band and 5GHz band.

1.1.5 Table for Multiple Model Name

The EUT has two model names which are identical to each other in all aspects except for the following table:

Model Name	Description
EA9300	All the models are identical, the different model names served as marketing strategy.
EA9250	

Note: From the above models, model: EA9300 was selected as representative model for the test and its data was recorded in this report.

1.1.6 Table for Multiple Source

The EUT has two source which are identical to each other in all aspects except for the following table:

Source	Brand Name	VENDORNO	PARTDESC
First source	SK HYNIX	H5TC2G63GFR-PBA	MEMORY,SDRAM DDR3,128MX16,FBGA, 96PIN,H5TC2G63GFR-PBA,0~+95,CLASS 2
Second source	WINBOND	W632GU6KB-12	MEMORY,SDRAM DDR3,128MX16,WBGA, 96PIN,W632GU6KB,0~+85,CLASS 2

**1.1.7 Table for Class II Change**

This product is an extension of original one reported under Sporton project number: FR6D1310AB

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

Modifications	Performance Checking
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	Andy Tsai/Eddie Weng/ Ron Huang/Peter Wu	22°C / 54%	Dec. 28, 2016~ Jan. 04, 2017
Radiated	03CH01-CB	Stim Sung/Steven Liang	22°C / 54%	Jan. 04, 2017~ Jan. 05, 2017

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%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%
Frequency Stability	6.06 x10 ⁻⁸	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_Nss1_3TX	-
5260MHz	70
5300MHz	71
5320MHz	71
5500MHz	72
5580MHz	72
5700MHz	71
5720MHz Straddle 5.47-5.725GHz	73
5720MHz Straddle 5.725-5.85GHz	73
802.11ac VHT20_Nss1,(MCS0)_3TX	-
5260MHz	70
5300MHz	71
5320MHz	72
5500MHz	72
5580MHz	72
5700MHz	67
5720MHz Straddle 5.47-5.725GHz	74
5720MHz Straddle 5.725-5.85GHz	74
802.11ac VHT40_Nss1,(MCS0)_3TX	-
5270MHz	76
5310MHz	77
5510MHz	65
5550MHz	77
5670MHz	72
5710MHz Straddle 5.47-5.725GHz	76
5710MHz Straddle 5.725-5.85GHz	76

Mode	Power Setting
802.11ac VHT80_Nss1,(MCS0)_3TX	-
5290MHz	75
5530MHz	53
5610MHz	70
5690MHz Straddle 5.47-5.725GHz	76
5690MHz Straddle 5.725-5.85GHz	76
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
5260MHz	72
5300MHz	73
5320MHz	75
5500MHz	76
5580MHz	76
5700MHz	67
5720MHz Straddle 5.47-5.725GHz	78
5720MHz Straddle 5.725-5.85GHz	78
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
5270MHz	71
5310MHz	72
5510MHz	64
5550MHz	74
5670MHz	72
5710MHz Straddle 5.47-5.725GHz	78
5710MHz Straddle 5.725-5.85GHz	78
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-
5290MHz	72
5530MHz	53
5610MHz	70
5690MHz Straddle 5.47-5.725GHz	78
5690MHz Straddle 5.725-5.85GHz	78

Note:

- ♦ 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.
- ♦ There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11ac. All test results were recorded in the report.

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 EUT was performed in Z axis and Y axis position for Radiated emission above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	
1	WLAN 2.4GHz(Radio2)+WLAN 5GHz Band 1, Band 2(Radio3)+ 5G Band 3, Band 4(Radio1)
Refer to Sporton Test Report No.: FA6D1310-01 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less 98%.

2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	Rating	DC Power Line
Adapter 1	APD	DA-60M12	Input: 100-240V~50-60Hz 1.5A Max. (1.5A Max) Output: 12V, 5A	Non-Shielded, 1.0m.
Adapter 2	Ktec	KSA-65W-120500M2	Input: 100-240V~50-60Hz 1.5A Output: 12V, 5.0A	Non-Shielded, 1.0m.
Others				
Power Core*2 (For Adapter 1 use: Non-Shielded, 1.3m / for Adapter 2 use: Non-Shielded, 1.7m)				

2.5 Support Equipment

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

For Non-Beamforming Mode

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

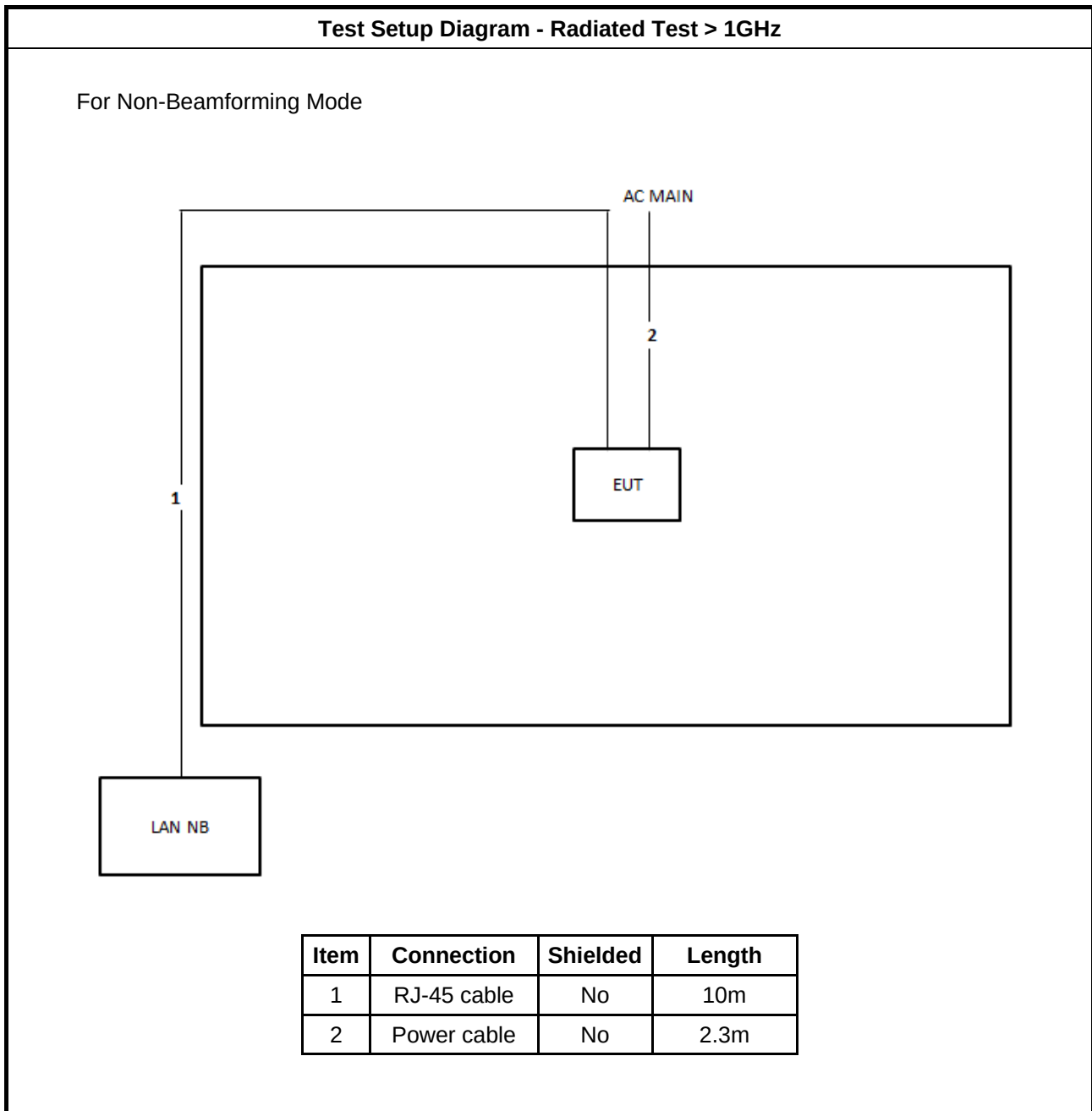
For Beamforming Mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook*2	DELL	E4300	DoC
2	RX Device	Broadcom	BCM943162ZP	QDS-BRCM1075

For Test Site No: TH01-CB

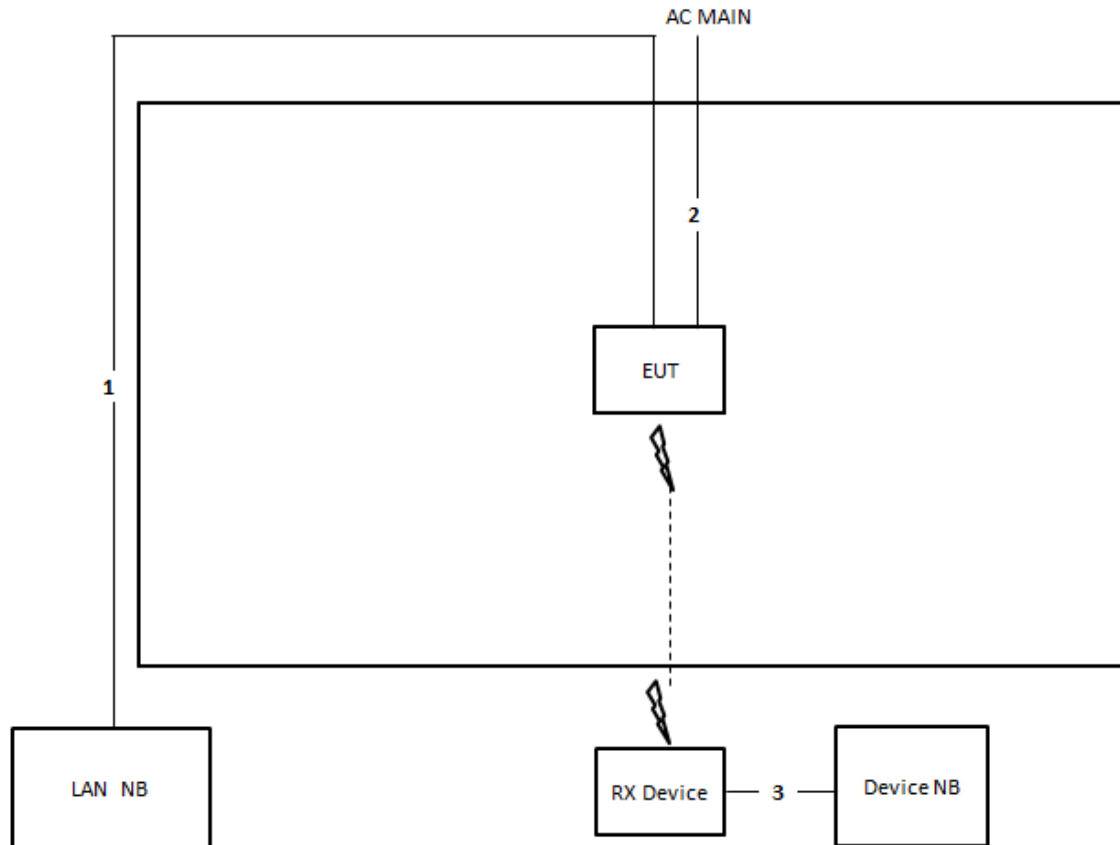
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test > 1GHz

For Beamforming Mode



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.3m
3	RJ-45 cable	No	1.5m

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.

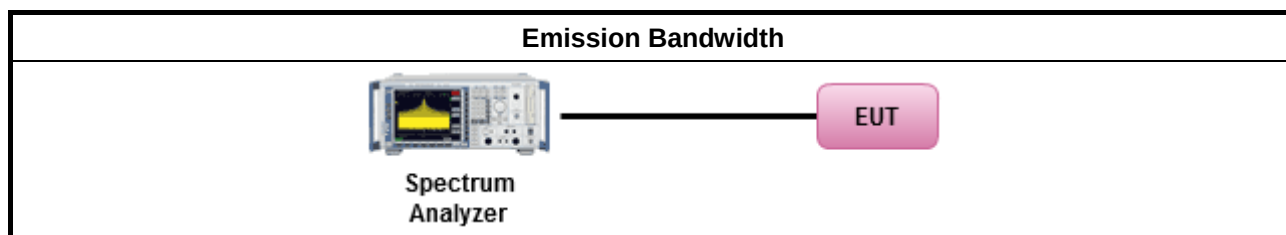
3.1.2 Measuring Instruments

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

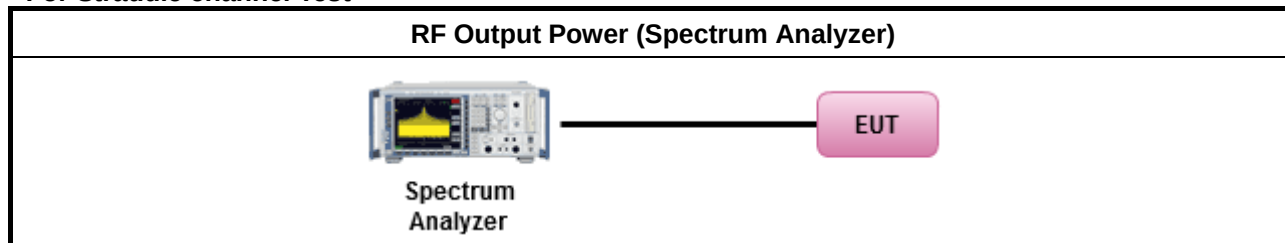
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

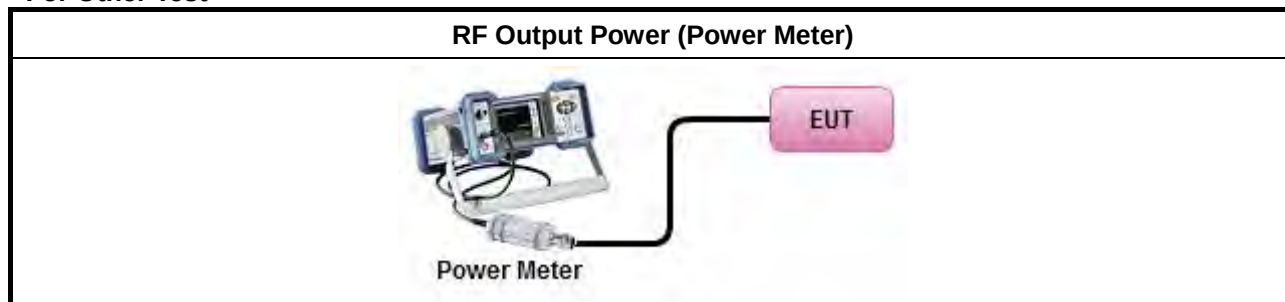
Test Method	
Maximum Conducted Output Power	
	average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off 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

<For Straddle channel Test>



<For Other Test>



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 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 (θ-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.	

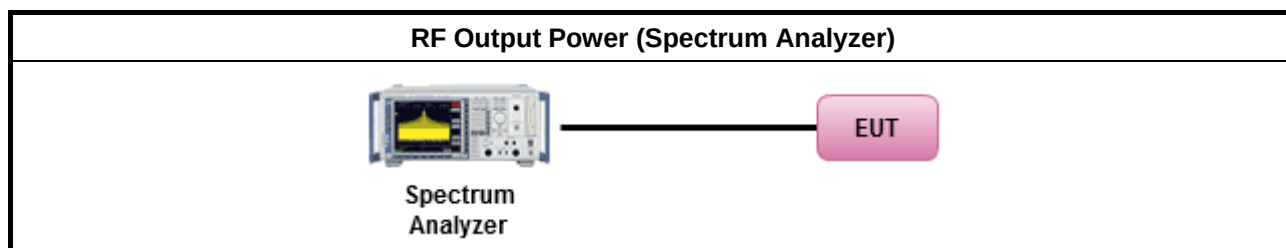
3.3.2 Measuring Instruments

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, 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]	
☒ 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).

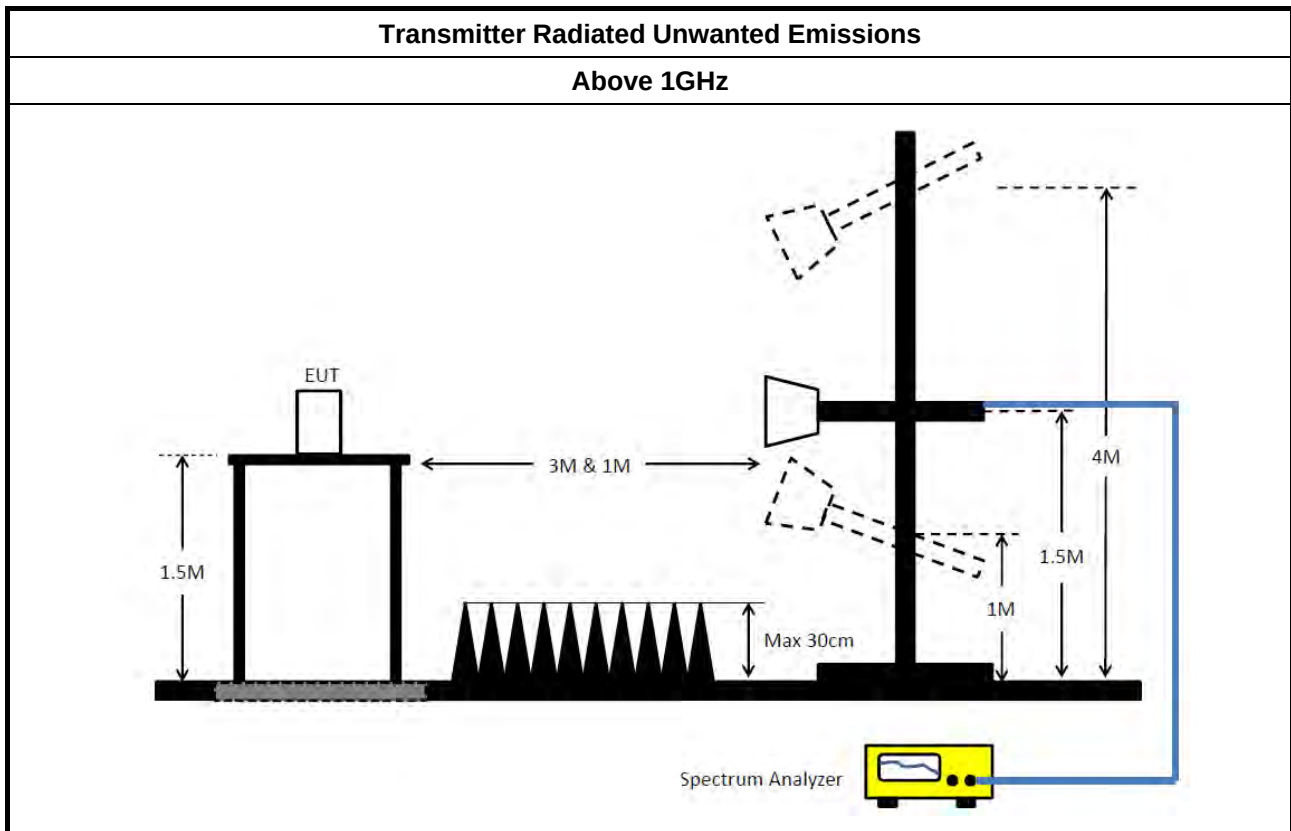
3.4.2 Measuring Instruments

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.

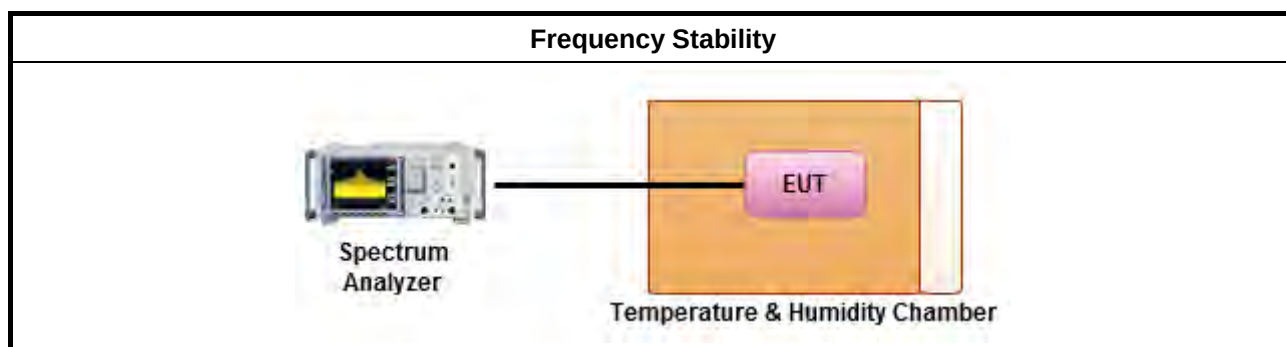
3.5.2 Measuring Instruments

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~40°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	00075790	750MHz ~ 18GHz	Nov. 10, 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	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 21, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	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	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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



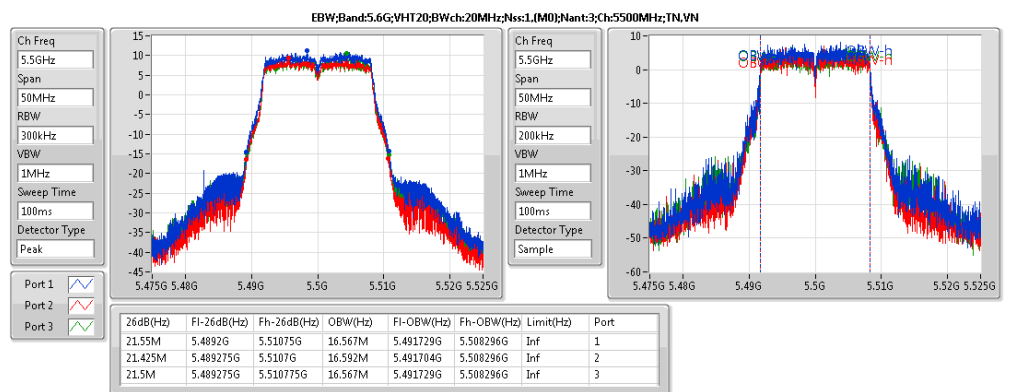
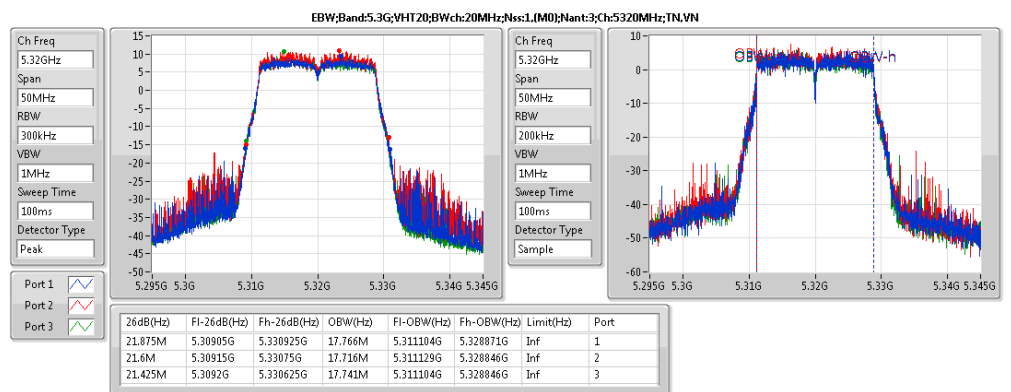
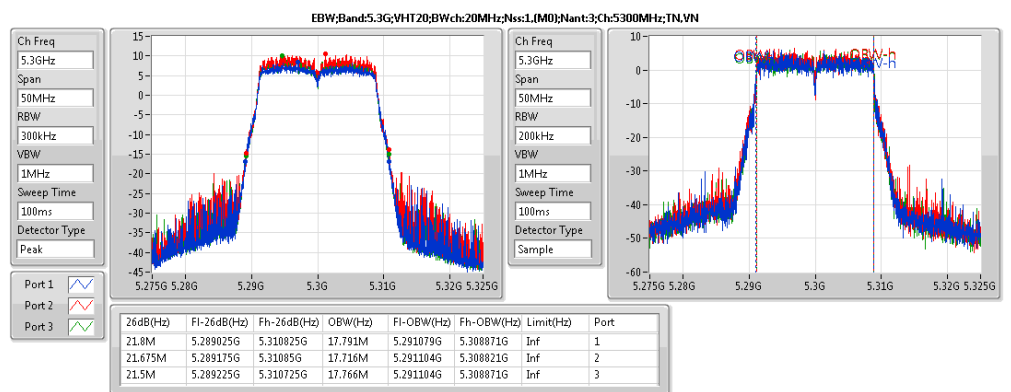
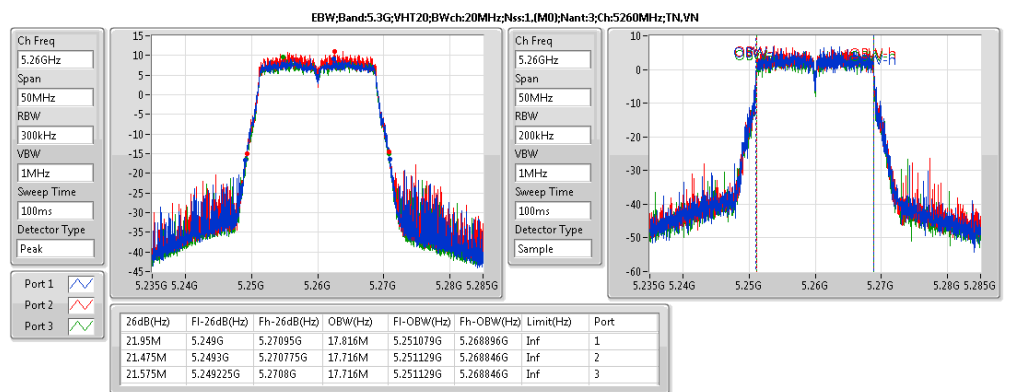
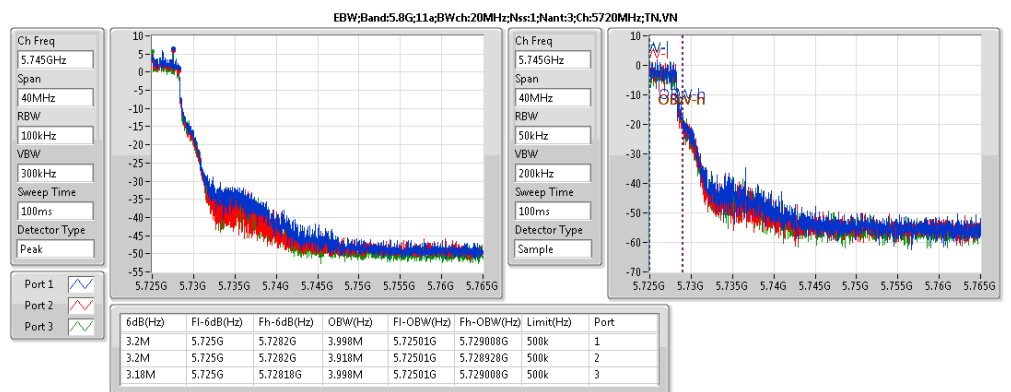
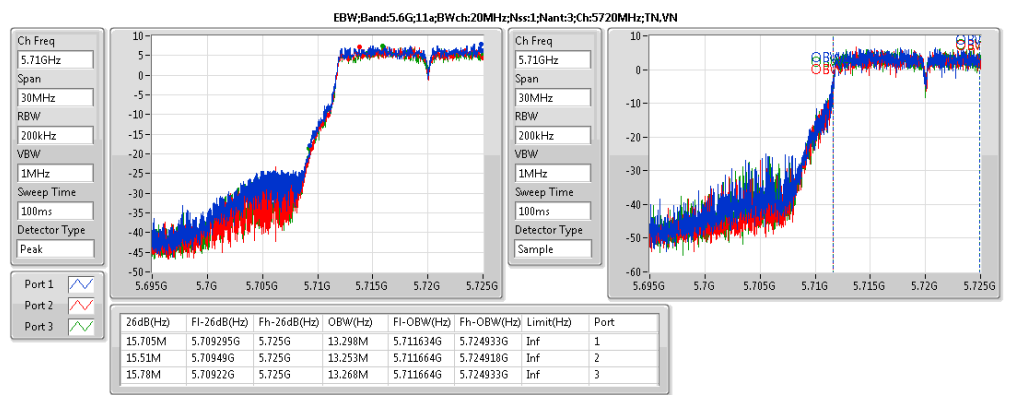
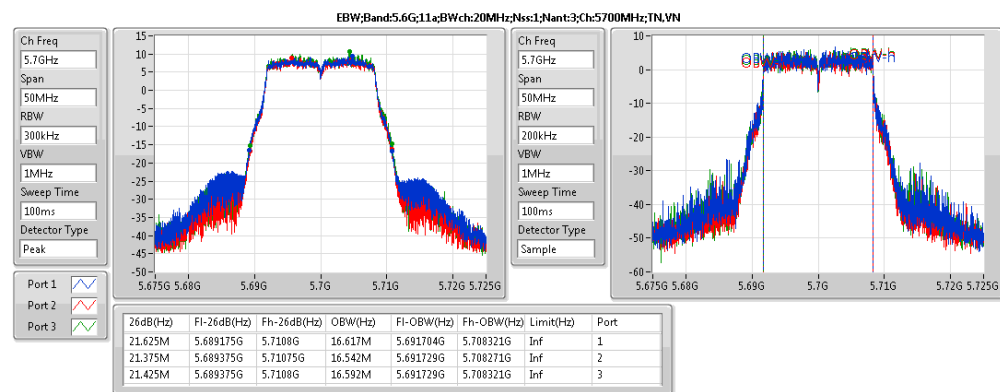
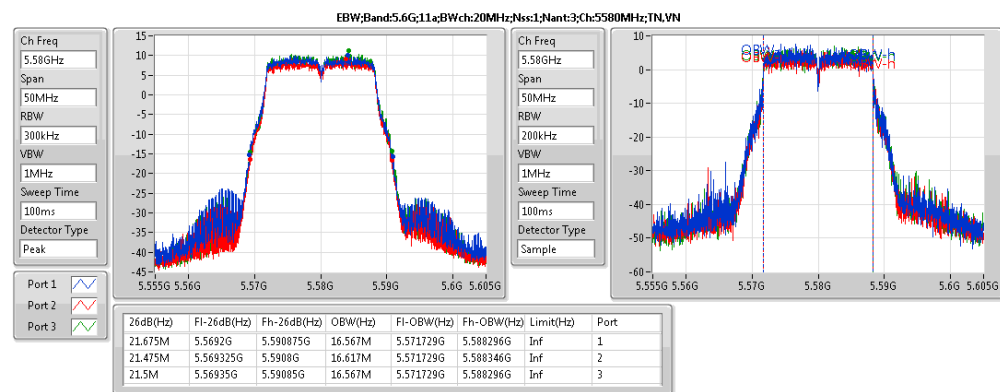
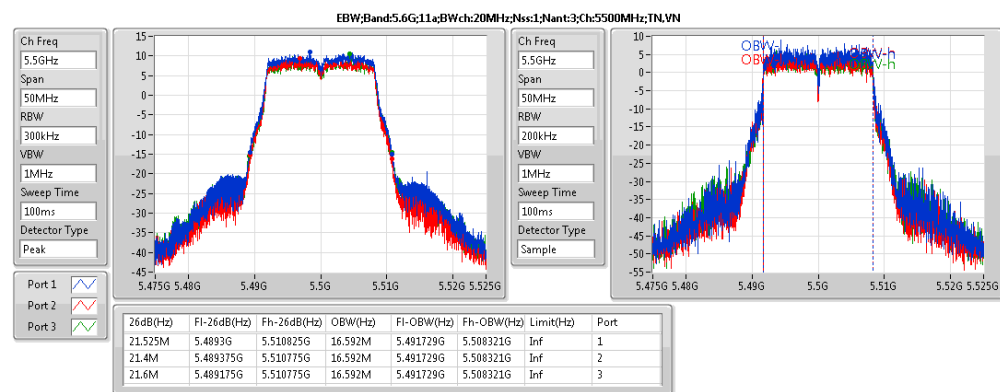
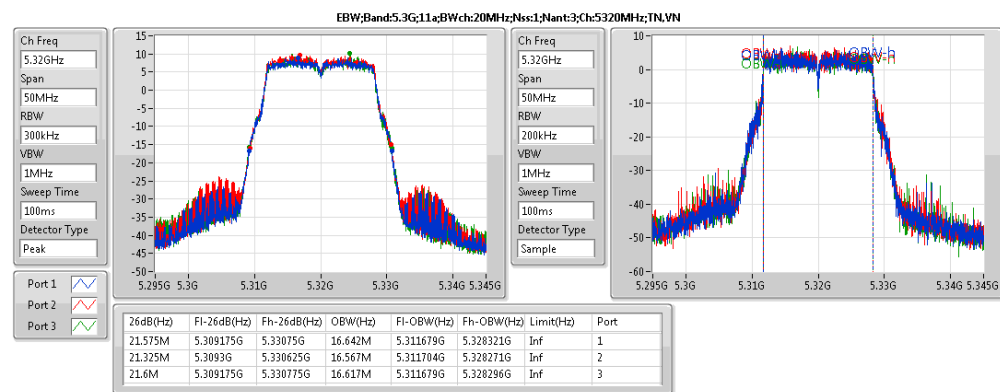
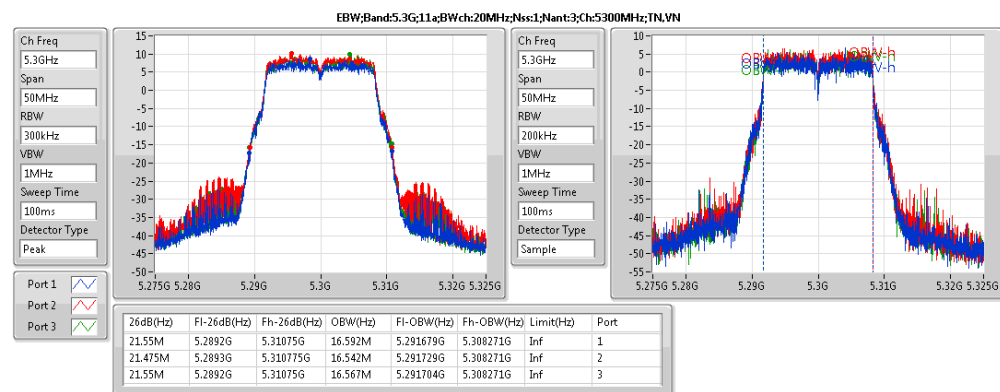
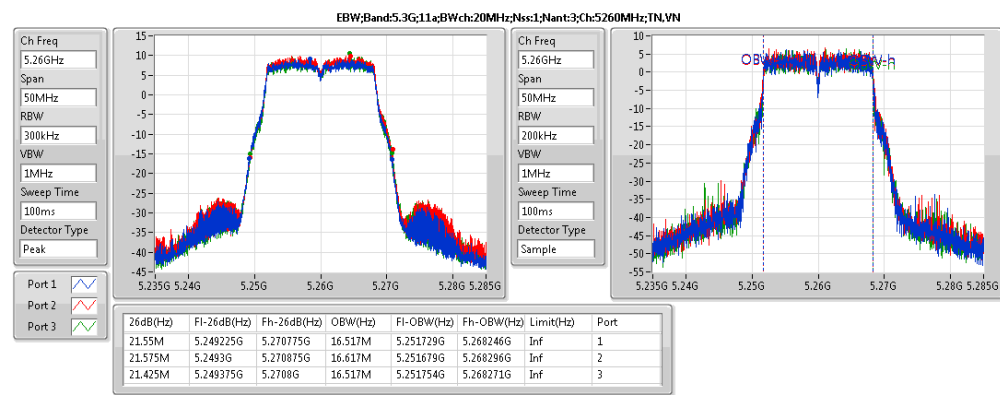
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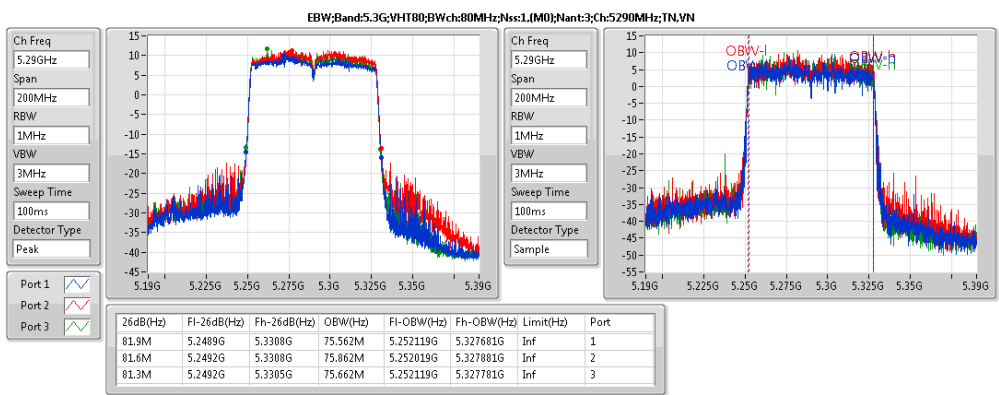
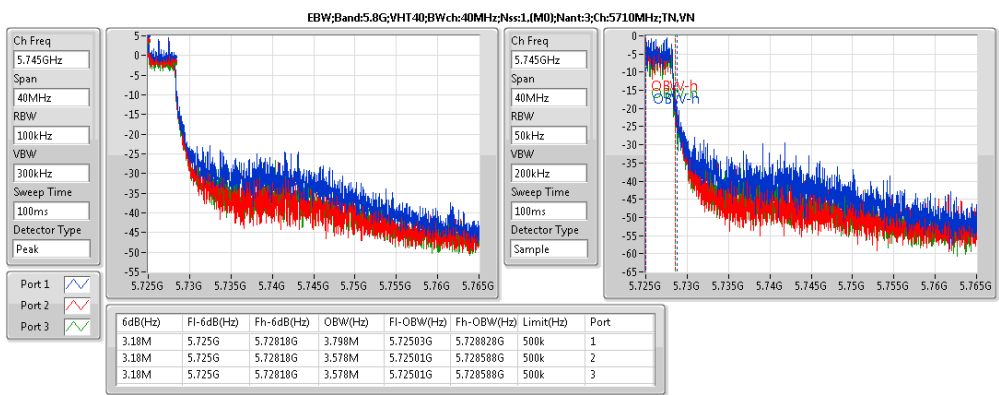
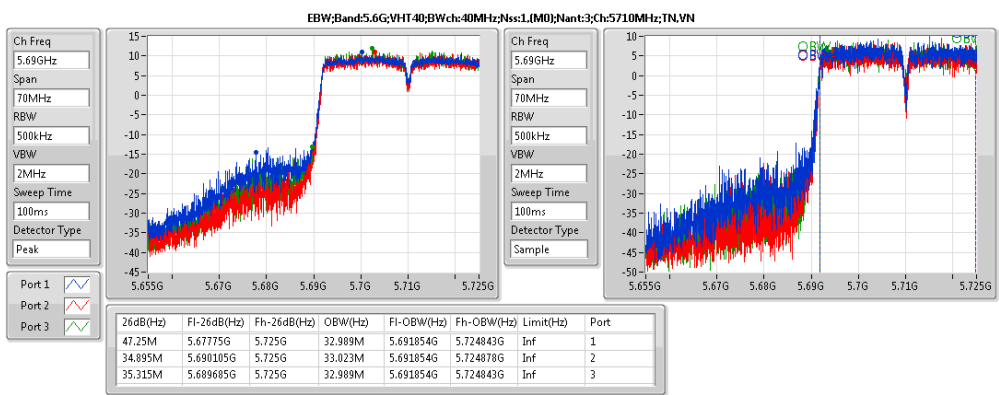
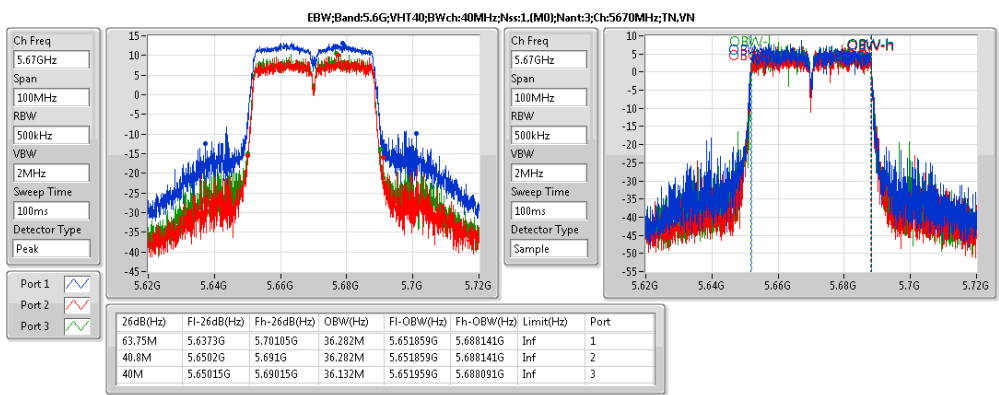
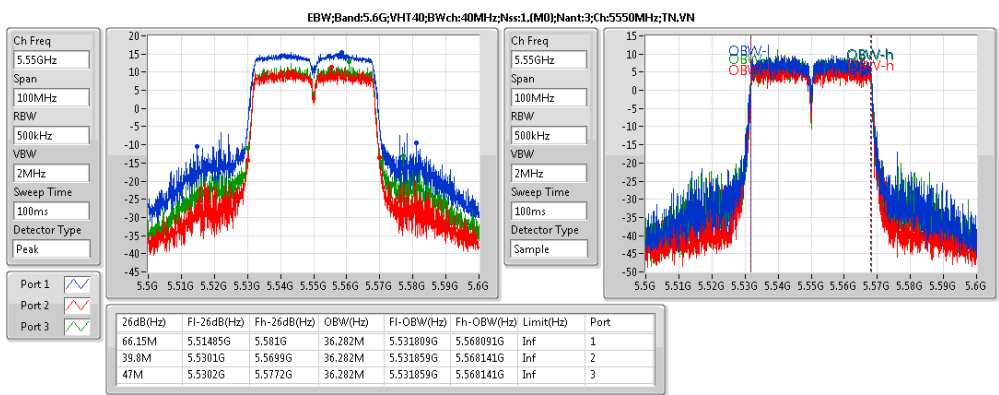
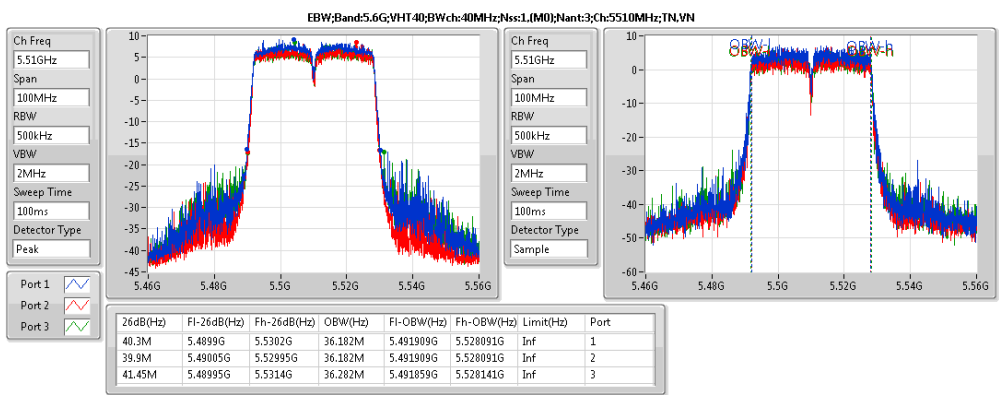
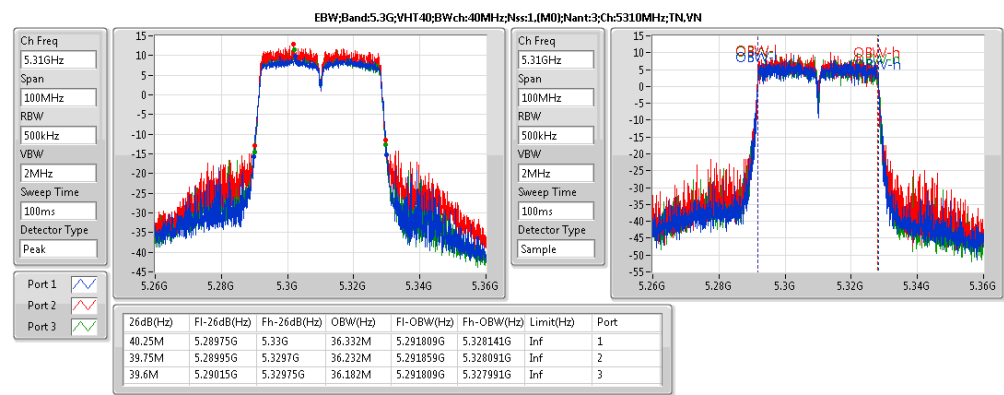
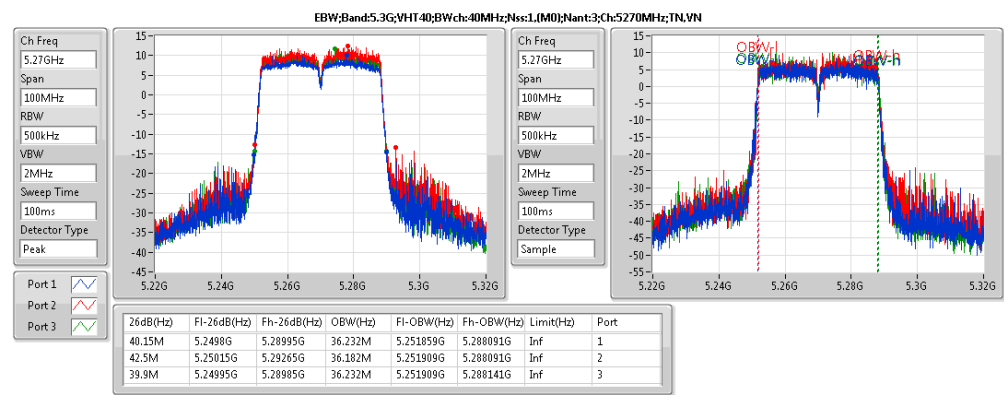
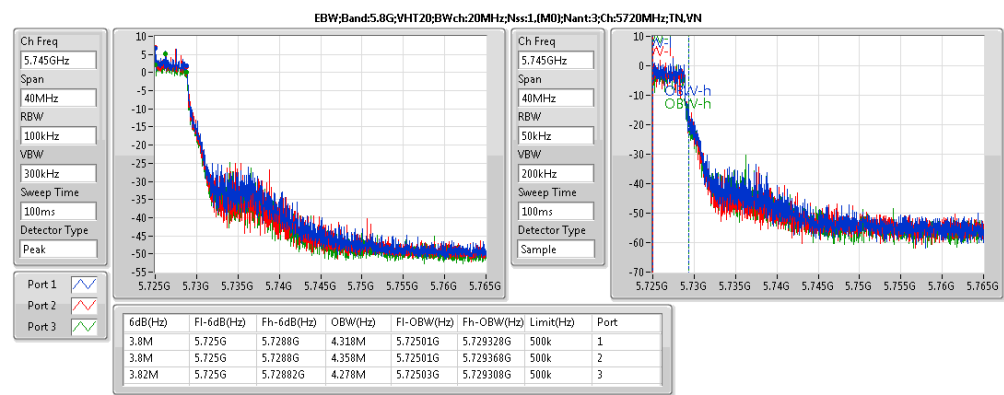
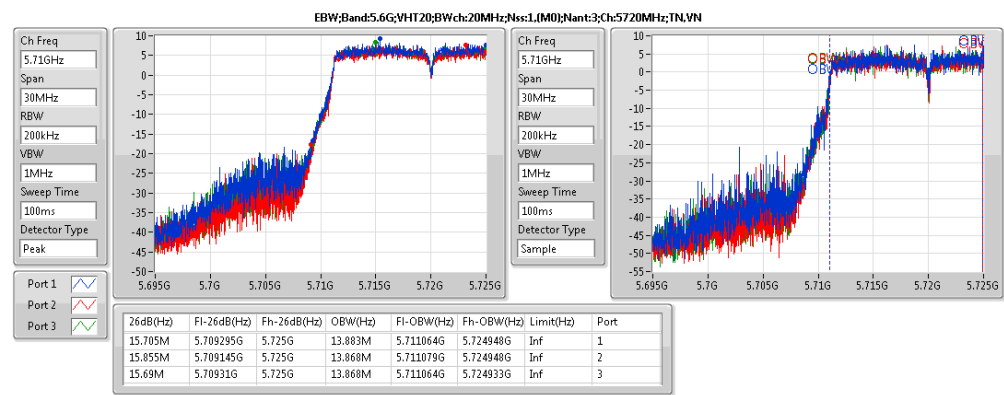
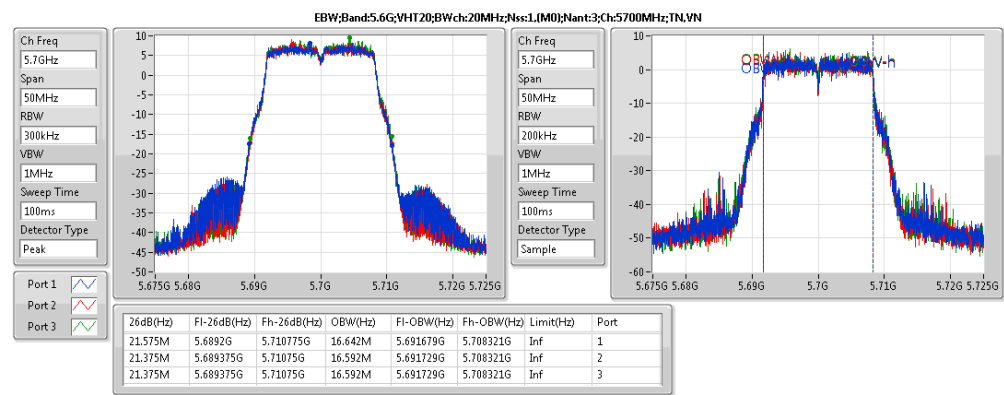
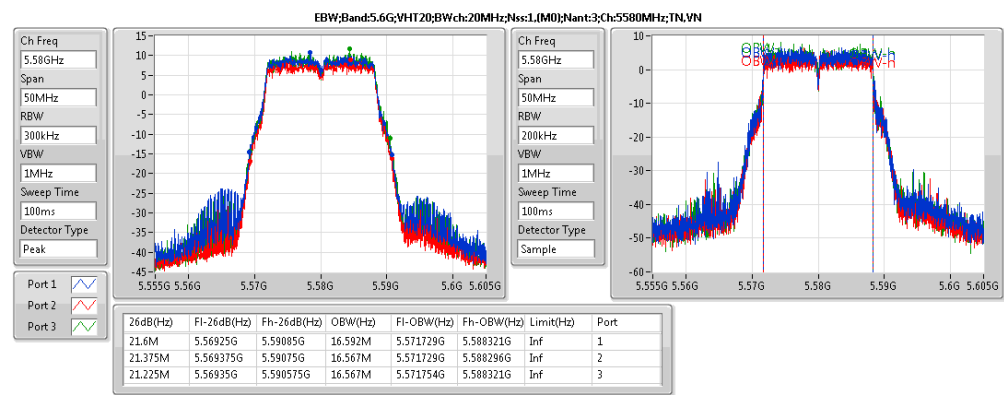
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5.3G;11a;Nss1;Ntx3	21.6M	16.642M	16M6D1D	21.325M	16.517M
5.6G;11a;Nss1;Ntx3	21.675M	16.617M	16M6D1D	15.51M	13.253M
5.8G;11a;Nss1;Ntx3	3.2M	3.998M	4M00D1D	3.18M	3.918M
5.3G;VHT20;Nss1,(M0);Ntx3	21.95M	17.816M	17M8D1D	21.425M	17.716M
5.6G;VHT20;Nss1,(M0);Ntx3	21.6M	16.642M	16M6D1D	15.69M	13.868M
5.8G;VHT20;Nss1,(M0);Ntx3	3.82M	4.358M	4M36D1D	3.8M	4.278M
5.3G;VHT40;Nss1,(M0);Ntx3	42.5M	36.332M	36M3D1D	39.6M	36.182M
5.6G;VHT40;Nss1,(M0);Ntx3	66.15M	36.282M	36M3D1D	34.895M	32.989M
5.8G;VHT40;Nss1,(M0);Ntx3	3.18M	3.798M	3M80D1D	3.18M	3.578M
5.3G;VHT80;Nss1,(M0);Ntx3	81.9M	75.862M	75M9D1D	81.3M	75.562M
5.6G;VHT80;Nss1,(M0);Ntx3	99.3M	75.962M	76M0D1D	75.525M	72.414M
5.8G;VHT80;Nss1,(M0);Ntx3	3.18M	4.218M	4M22D1D	3.16M	3.758M
5.3G;VHT20,BF;Nss1,(M0);Ntx3	21.9M	17.841M	17M8D1D	21.45M	17.716M
5.6G;VHT20,BF;Nss1,(M0);Ntx3	24.675M	17.791M	17M8D1D	15.75M	13.853M
5.8G;VHT20,BF;Nss1,(M0);Ntx3	3.82M	4.378M	4M38D1D	3.8M	4.278M
5.3G;VHT40,BF;Nss1,(M0);Ntx3	40.2M	36.282M	36M3D1D	39.45M	36.182M
5.6G;VHT40,BF;Nss1,(M0);Ntx3	67.05M	36.282M	36M3D1D	35.105M	32.989M
5.8G;VHT40,BF;Nss1,(M0);Ntx3	3.18M	3.858M	3M86D1D	3.16M	3.698M
5.3G;VHT80,BF;Nss1,(M0);Ntx3	81.6M	75.762M	75M8D1D	81.1M	75.562M
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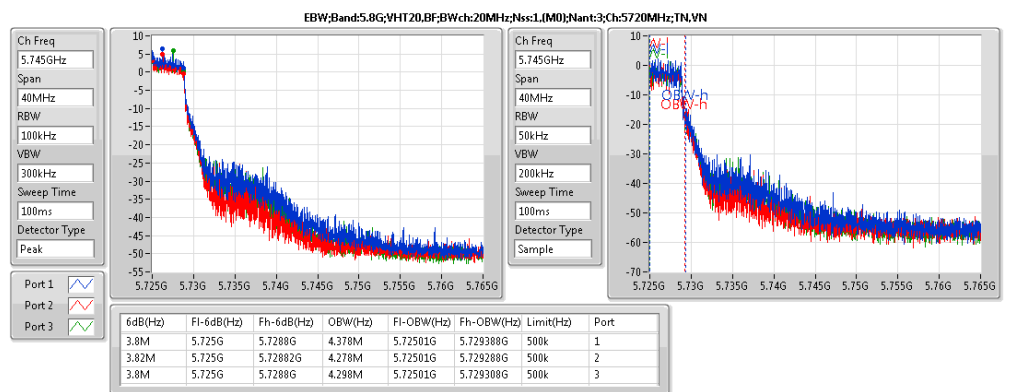
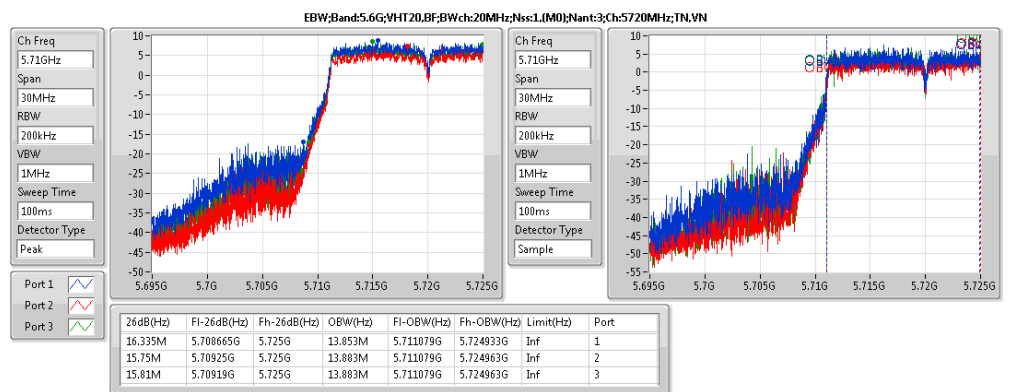
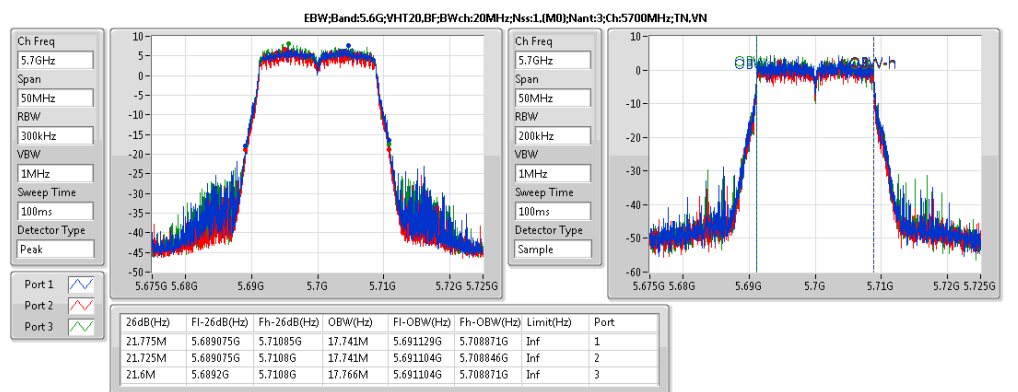
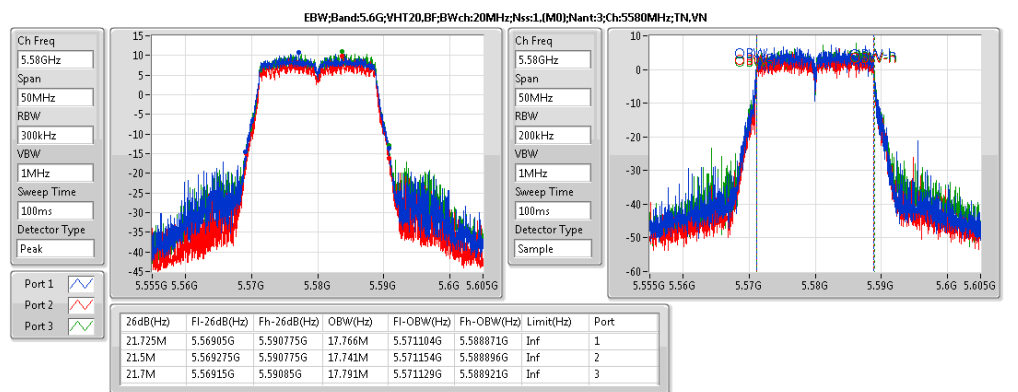
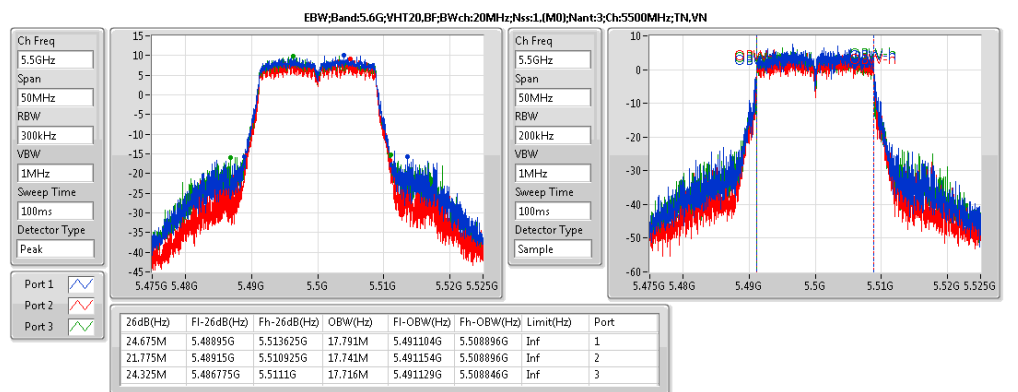
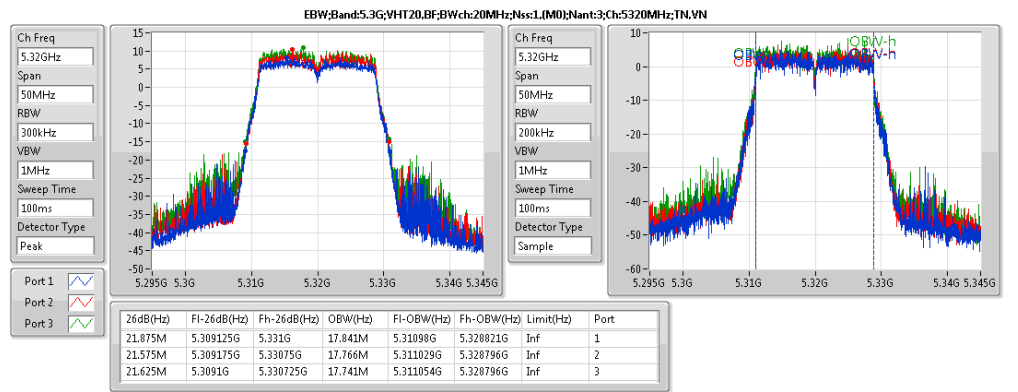
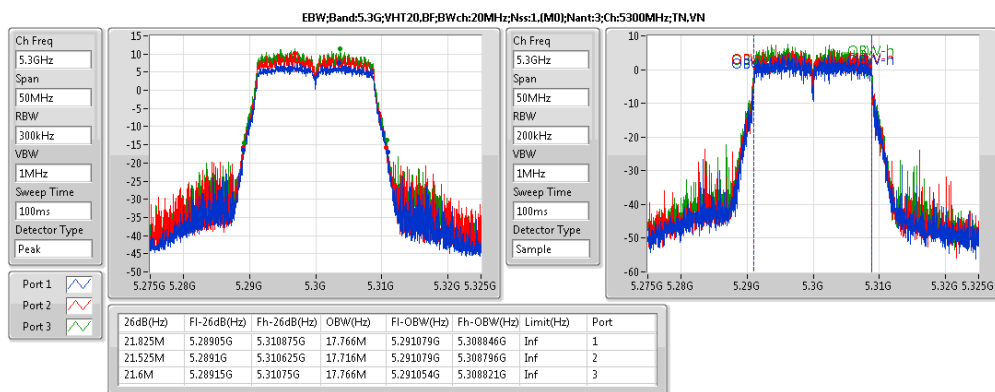
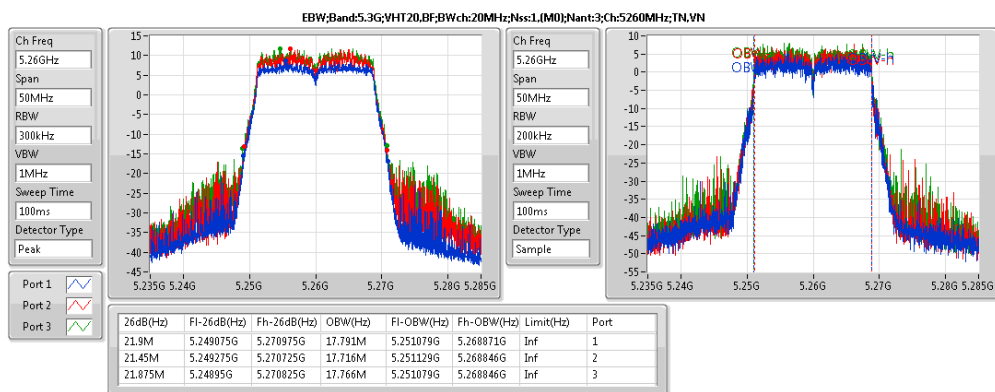
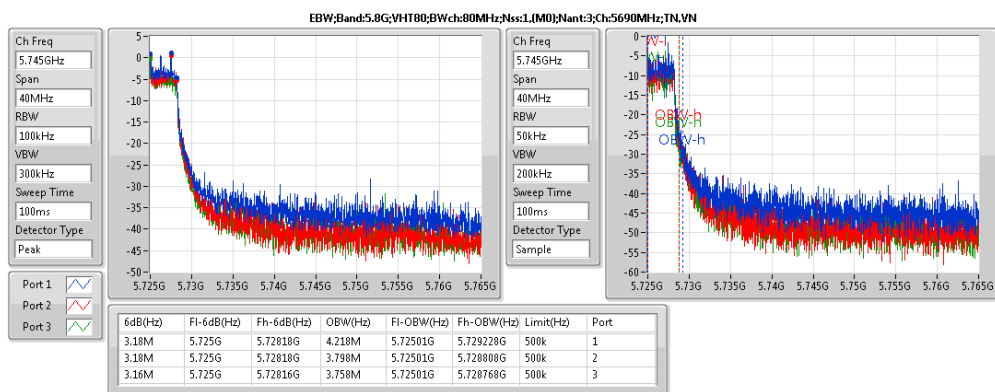
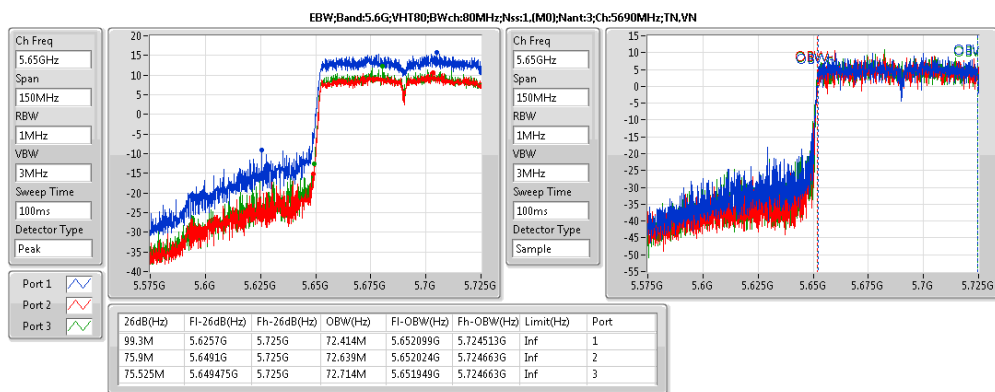
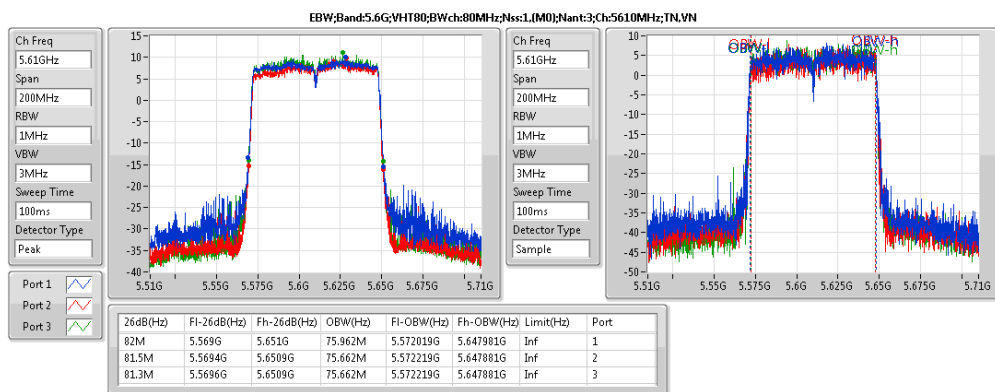
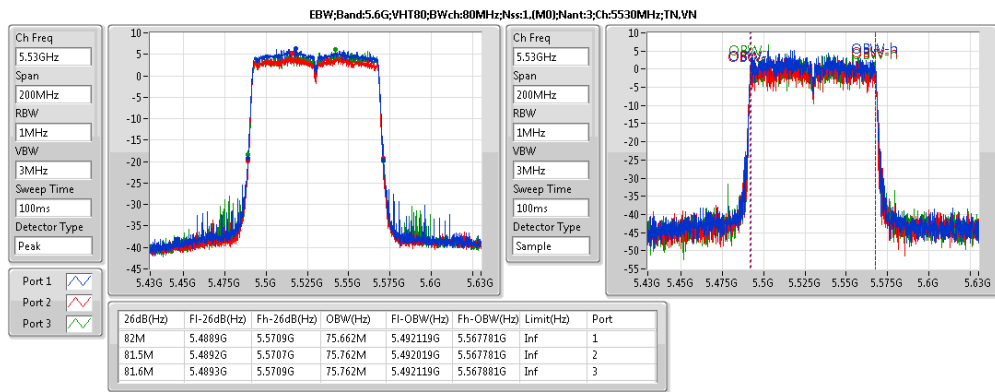


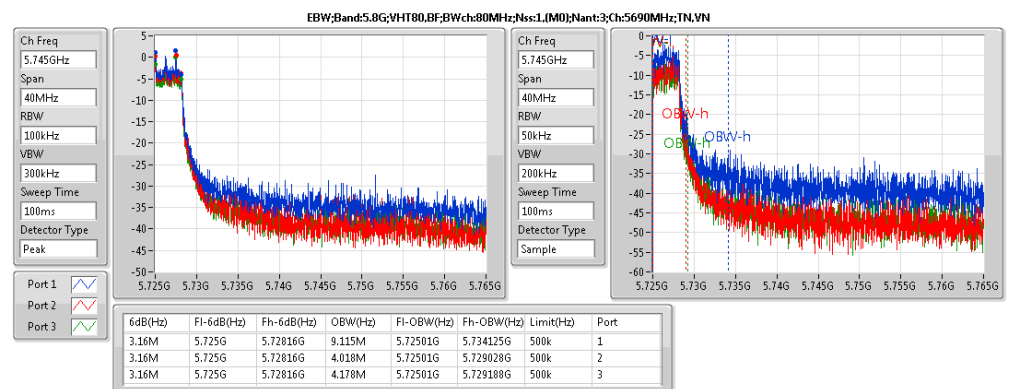
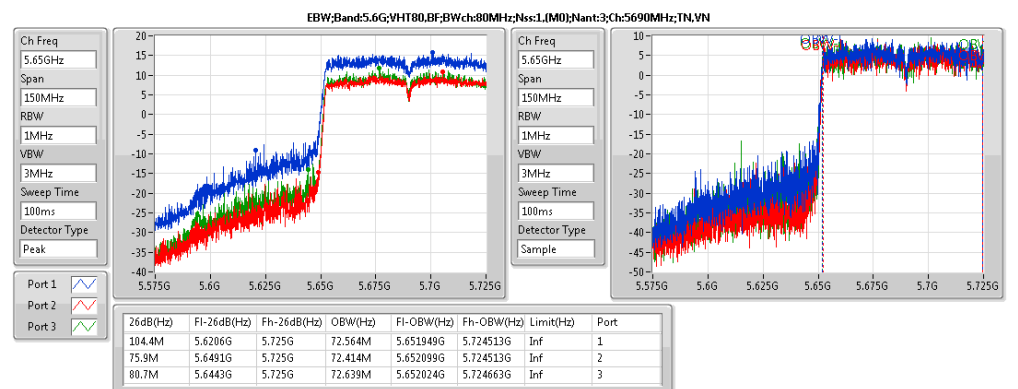
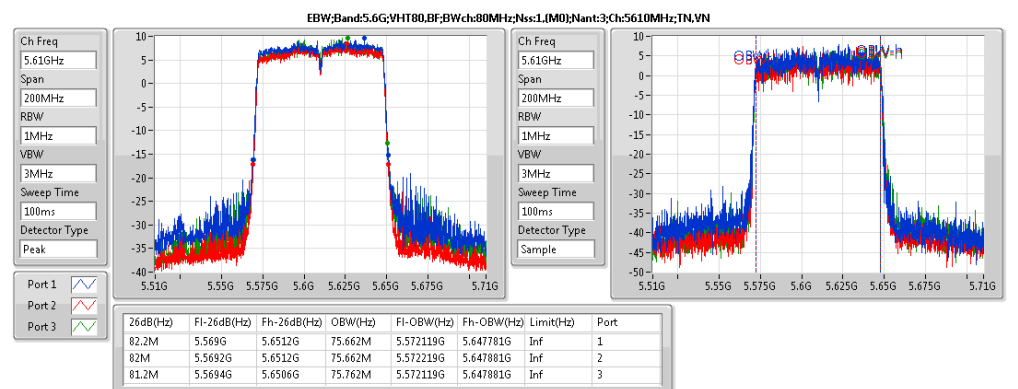
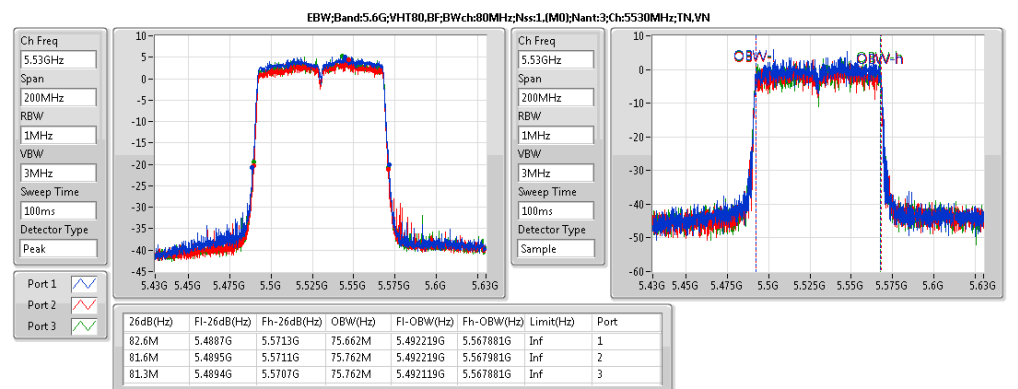
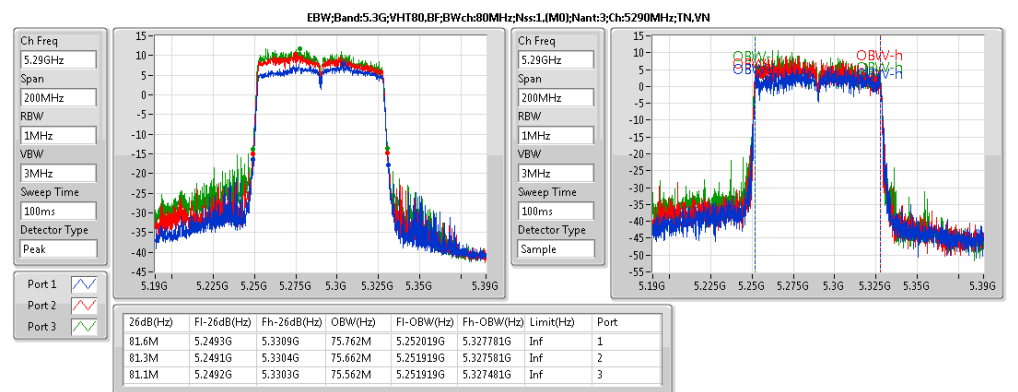
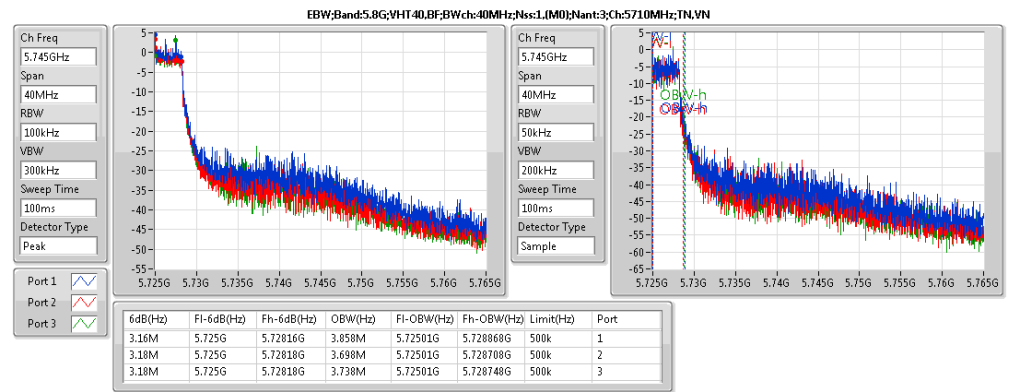
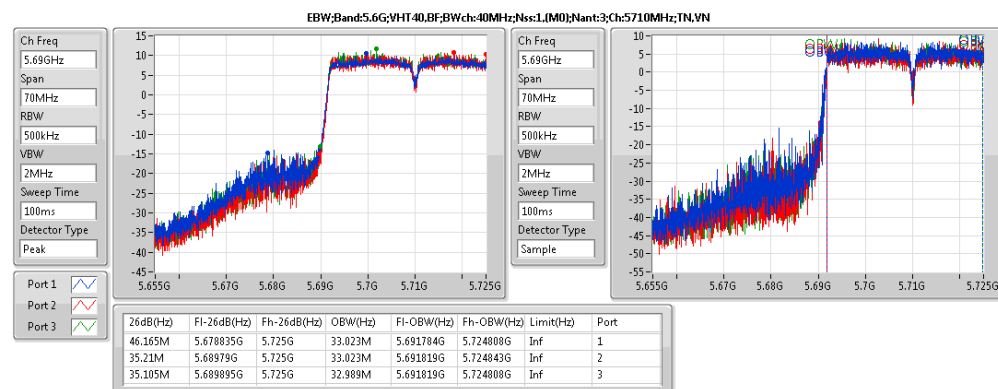
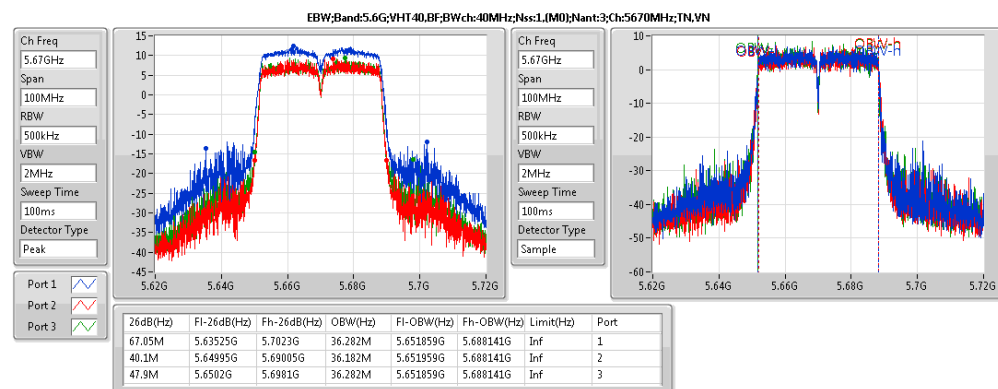
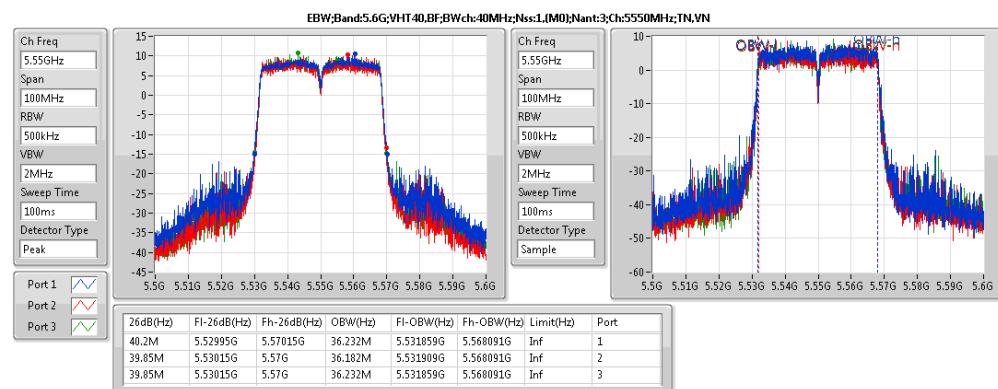
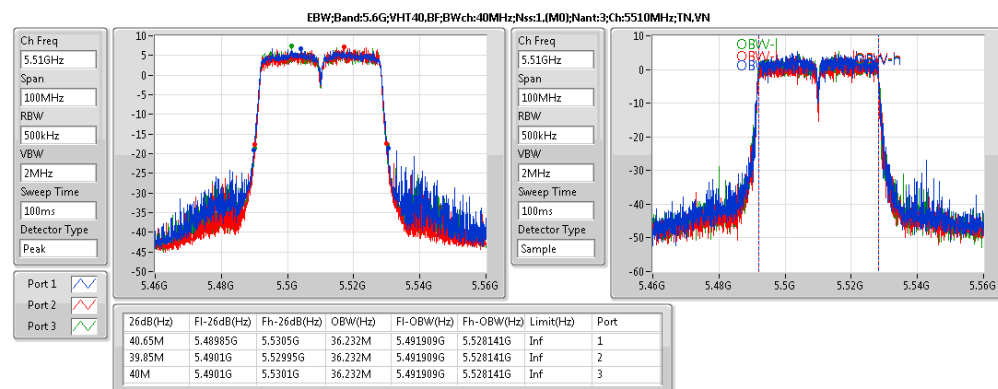
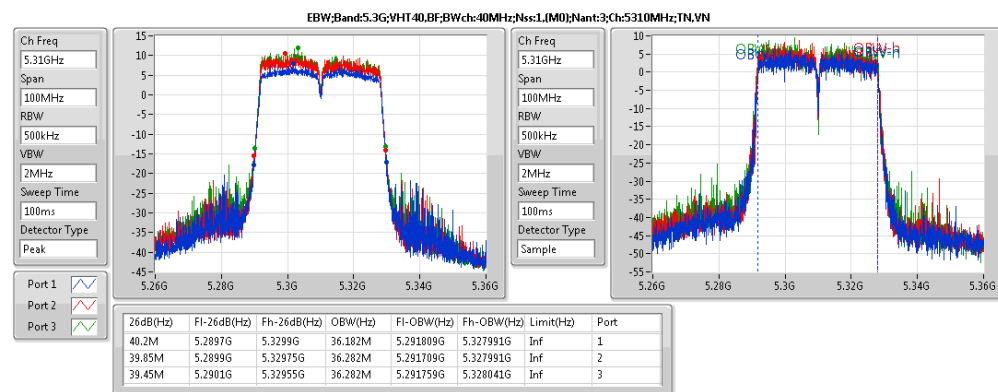
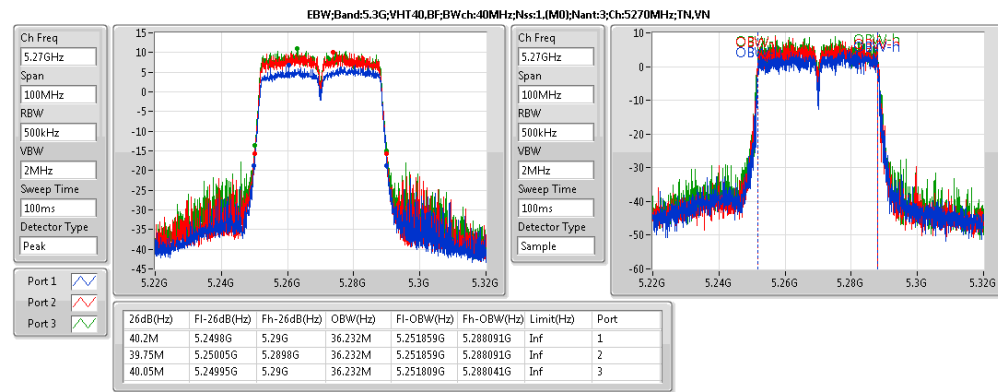
Result

Mode	Result	Limit (Hz)	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)	P3-N dB (Hz)	P3-OBW (Hz)
5.3G;11a;Nss1;Ntx3;5260	Pass	Inf	21.55M	16.517M	21.575M	16.617M	21.425M	16.517M
5.3G;11a;Nss1;Ntx3;5300	Pass	Inf	21.55M	16.592M	21.475M	16.542M	21.55M	16.567M
5.3G;11a;Nss1;Ntx3;5320	Pass	Inf	21.575M	16.642M	21.325M	16.567M	21.6M	16.617M
5.6G;11a;Nss1;Ntx3;5500	Pass	Inf	21.525M	16.592M	21.4M	16.592M	21.6M	16.592M
5.6G;11a;Nss1;Ntx3;5580	Pass	Inf	21.675M	16.567M	21.475M	16.617M	21.5M	16.567M
5.6G;11a;Nss1;Ntx3;5700	Pass	Inf	21.625M	16.617M	21.375M	16.542M	21.425M	16.592M
5.6G;11a;Nss1;Ntx3;5720	Pass	Inf	15.705M	13.298M	15.51M	13.253M	15.78M	13.268M
5.8G;11a;Nss1;Ntx3;5720	Pass	500k	3.2M	3.998M	3.2M	3.918M	3.18M	3.998M
5.3G;VHT20;Nss1,(M0);Ntx3;5260	Pass	Inf	21.95M	17.816M	21.475M	17.716M	21.575M	17.716M
5.3G;VHT20;Nss1,(M0);Ntx3;5300	Pass	Inf	21.8M	17.791M	21.675M	17.716M	21.5M	17.766M
5.3G;VHT20;Nss1,(M0);Ntx3;5320	Pass	Inf	21.875M	17.766M	21.6M	17.716M	21.425M	17.741M
5.6G;VHT20;Nss1,(M0);Ntx3;5500	Pass	Inf	21.55M	16.567M	21.425M	16.592M	21.5M	16.567M
5.6G;VHT20;Nss1,(M0);Ntx3;5580	Pass	Inf	21.6M	16.592M	21.375M	16.567M	21.225M	16.567M
5.6G;VHT20;Nss1,(M0);Ntx3;5700	Pass	Inf	21.575M	16.642M	21.375M	16.592M	21.375M	16.592M
5.6G;VHT20;Nss1,(M0);Ntx3;5720	Pass	Inf	15.705M	13.883M	15.855M	13.868M	15.69M	13.868M
5.8G;VHT20;Nss1,(M0);Ntx3;5720	Pass	500k	3.8M	4.318M	3.8M	4.358M	3.82M	4.278M
5.3G;VHT40;Nss1,(M0);Ntx3;5270	Pass	Inf	40.15M	36.232M	42.5M	36.182M	39.9M	36.232M
5.3G;VHT40;Nss1,(M0);Ntx3;5310	Pass	Inf	40.25M	36.332M	39.75M	36.232M	39.6M	36.182M
5.6G;VHT40;Nss1,(M0);Ntx3;5510	Pass	Inf	40.3M	36.182M	39.9M	36.182M	41.45M	36.282M
5.6G;VHT40;Nss1,(M0);Ntx3;5550	Pass	Inf	66.15M	36.282M	39.8M	36.282M	47M	36.282M
5.6G;VHT40;Nss1,(M0);Ntx3;5670	Pass	Inf	63.75M	36.282M	40.8M	36.282M	40M	36.132M
5.6G;VHT40;Nss1,(M0);Ntx3;5710	Pass	Inf	47.25M	32.989M	34.895M	33.023M	35.315M	32.989M
5.8G;VHT40;Nss1,(M0);Ntx3;5710	Pass	500k	3.18M	3.798M	3.18M	3.578M	3.18M	3.578M
5.3G;VHT80;Nss1,(M0);Ntx3;5290	Pass	Inf	81.9M	75.562M	81.6M	75.862M	81.3M	75.662M
5.6G;VHT80;Nss1,(M0);Ntx3;5530	Pass	Inf	82M	75.662M	81.5M	75.762M	81.6M	75.762M
5.6G;VHT80;Nss1,(M0);Ntx3;5610	Pass	Inf	82M	75.962M	81.5M	75.662M	81.3M	75.662M
5.6G;VHT80;Nss1,(M0);Ntx3;5690	Pass	Inf	99.3M	72.414M	75.9M	72.639M	75.525M	72.714M
5.8G;VHT80;Nss1,(M0);Ntx3;5690	Pass	500k	3.18M	4.218M	3.18M	3.798M	3.16M	3.758M
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5260	Pass	Inf	21.9M	17.791M	21.45M	17.716M	21.875M	17.766M
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5300	Pass	Inf	21.825M	17.766M	21.525M	17.716M	21.6M	17.766M
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5320	Pass	Inf	21.875M	17.841M	21.575M	17.766M	21.625M	17.741M
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5500	Pass	Inf	24.675M	17.791M	21.775M	17.741M	24.325M	17.716M
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5580	Pass	Inf	21.725M	17.766M	21.5M	17.741M	21.7M	17.791M
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5700	Pass	Inf	21.775M	17.741M	21.725M	17.741M	21.6M	17.766M
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5720	Pass	Inf	16.335M	13.853M	15.75M	13.883M	15.81M	13.883M
5.8G;VHT20,BF;Nss1,(M0);Ntx3;5720	Pass	500k	3.8M	4.378M	3.82M	4.278M	3.8M	4.298M
5.3G;VHT40,BF;Nss1,(M0);Ntx3;5270	Pass	Inf	40.2M	36.232M	39.75M	36.232M	40.05M	36.232M
5.3G;VHT40,BF;Nss1,(M0);Ntx3;5310	Pass	Inf	40.2M	36.182M	39.85M	36.282M	39.45M	36.282M
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5510	Pass	Inf	40.65M	36.232M	39.85M	36.232M	40M	36.232M
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5550	Pass	Inf	40.2M	36.232M	39.85M	36.182M	39.85M	36.232M
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5670	Pass	Inf	67.05M	36.282M	40.1M	36.182M	47.9M	36.282M
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5710	Pass	Inf	46.165M	33.023M	35.21M	33.023M	35.105M	32.989M
5.8G;VHT40,BF;Nss1,(M0);Ntx3;5710	Pass	500k	3.16M	3.858M	3.18M	3.698M	3.18M	3.738M
5.3G;VHT80,BF;Nss1,(M0);Ntx3;5290	Pass	Inf	81.6M	75.762M	81.3M	75.662M	81.1M	75.562M
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5530	Pass	Inf	82.6M	75.662M	81.6M	75.762M	81.3M	75.762M
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5610	Pass	Inf	82.2M	75.662M	82M	75.662M	81.2M	75.762M
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5690	Pass	Inf	104.4M	72.564M	75.9M	72.414M	80.7M	72.639M
5.8G;VHT80,BF;Nss1,(M0);Ntx3;5690	Pass	500k	3.16M	9.115M	3.16M	4.018M	3.16M	4.178M











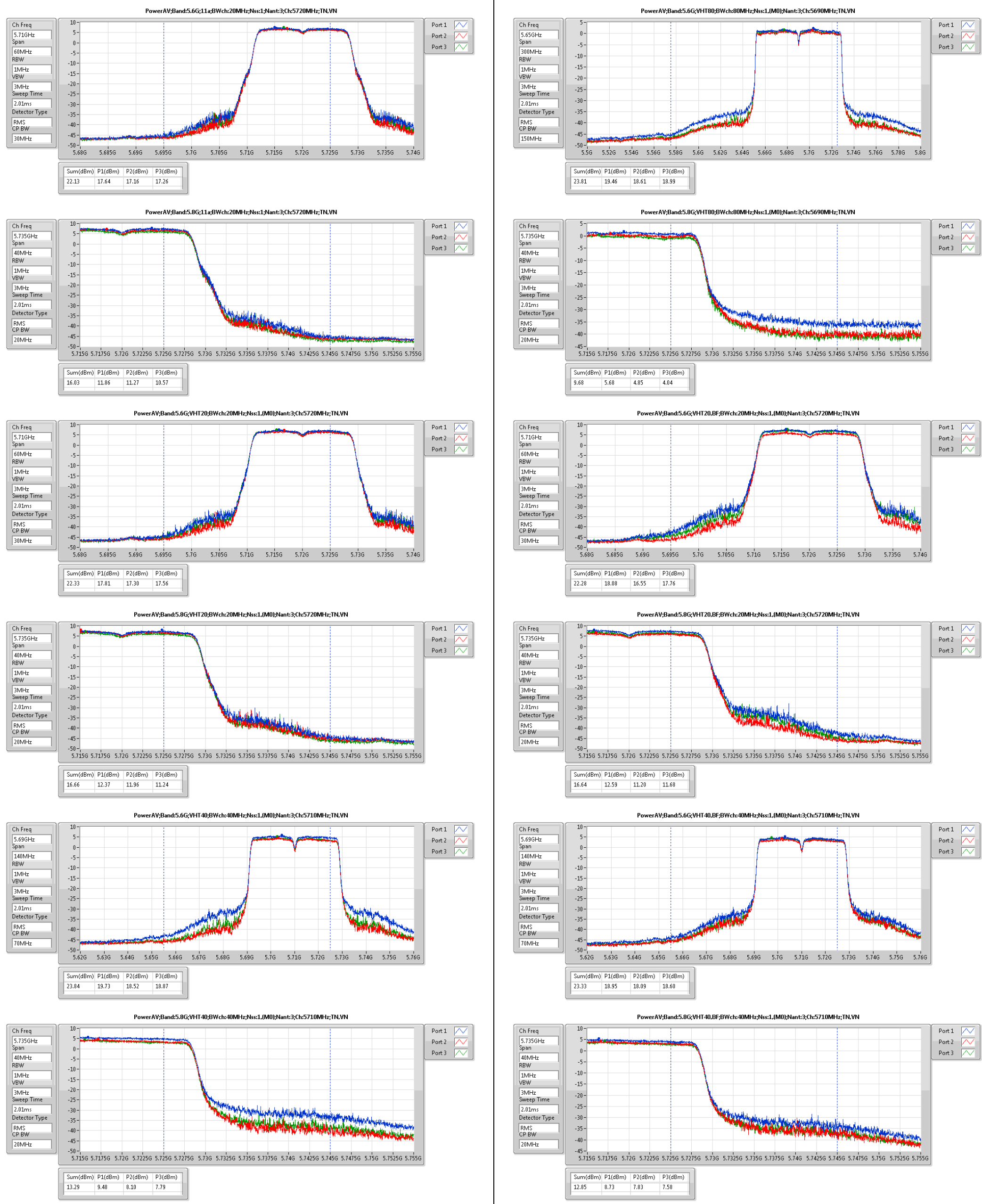
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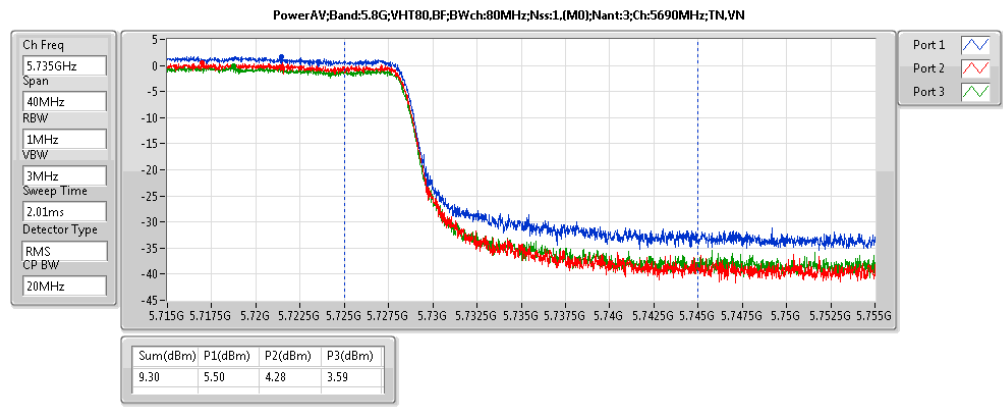
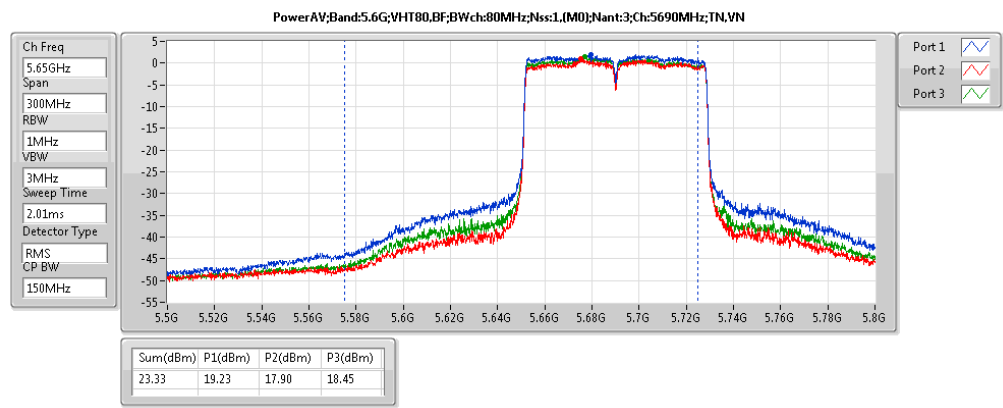
Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
5.3G;11a;Nss1;Ntx3	22.96	0.1977	25.48	0.35318
5.6G;11a;Nss1;Ntx3	23.54	0.22594	25.91	0.38994
5.8G;11a;Nss1;Ntx3	16.04	0.04018	18.41	0.06934
5.3G;VHT20;Nss1,(M0);Ntx3	22.68	0.18535	25.20	0.33113
5.6G;VHT20;Nss1,(M0);Ntx3	23.54	0.22594	25.91	0.38994
5.8G;VHT20;Nss1,(M0);Ntx3	16.65	0.04624	19.02	0.0798
5.3G;VHT40;Nss1,(M0);Ntx3	23.78	0.23878	26.30	0.42658
5.6G;VHT40;Nss1,(M0);Ntx3	23.87	0.24378	26.24	0.42073
5.8G;VHT40;Nss1,(M0);Ntx3	13.29	0.02133	15.66	0.03681
5.3G;VHT80;Nss1,(M0);Ntx3	23.08	0.20324	25.60	0.36308
5.6G;VHT80;Nss1,(M0);Ntx3	23.81	0.24044	26.18	0.41495
5.8G;VHT80;Nss1,(M0);Ntx3	9.68	0.00929	12.05	0.01603
5.3G;VHT20,BF;Nss1,(M0);Ntx3	22.74	0.18793	29.92	0.98175
5.6G;VHT20,BF;Nss1,(M0);Ntx3	23.21	0.20941	29.83	0.96161
5.8G;VHT20,BF;Nss1,(M0);Ntx3	16.63	0.04603	23.25	0.21135
5.3G;VHT40,BF;Nss1,(M0);Ntx3	22.70	0.18621	29.88	0.97275
5.6G;VHT40,BF;Nss1,(M0);Ntx3	23.33	0.21528	29.95	0.98855
5.8G;VHT40,BF;Nss1,(M0);Ntx3	12.85	0.01928	19.46	0.08831
5.3G;VHT80,BF;Nss1,(M0);Ntx3	22.70	0.18621	29.88	0.97275
5.6G;VHT80,BF;Nss1,(M0);Ntx3	23.33	0.21528	29.95	0.98855
5.8G;VHT80,BF;Nss1,(M0);Ntx3	9.30	0.00851	15.92	0.03908



Result

Mode	Result	DG (dBi)	Sum (dBm)	Sum Lim. (dBm)	EIRP (dBm)	EIRP Lim. (dBm)	P1 (dBm)	P2 (dBm)	P3 (dBm)
5.3G;11a;Nss1;Ntx3;5260	Pass	2.52	22.50	23.98	25.02	30.00	17.71	17.72	17.75
5.3G;11a;Nss1;Ntx3;5300	Pass	2.52	22.96	23.98	25.48	30.00	17.37	18.54	18.54
5.3G;11a;Nss1;Ntx3;5320	Pass	2.52	22.37	23.98	24.89	30.00	17.63	17.62	17.54
5.6G;11a;Nss1;Ntx3;5500	Pass	2.37	23.54	23.98	25.91	30.00	19.21	19.23	17.69
5.6G;11a;Nss1;Ntx3;5580	Pass	2.37	23.24	23.98	25.61	30.00	18.37	18.47	18.57
5.6G;11a;Nss1;Ntx3;5700	Pass	2.37	22.36	23.98	24.73	30.00	17.36	17.72	17.68
5.6G;11a;Nss1;Ntx3;5720	Pass	2.37	22.13	22.91	24.50	28.91	17.64	17.16	17.26
5.8G;11a;Nss1;Ntx3;5720	Pass	2.37	16.04	30.00	18.41	36.00	11.86	11.27	10.57
5.3G;VHT20;Nss1,(M0);Ntx3;5260	Pass	2.52	22.60	23.98	25.12	30.00	17.92	17.92	17.64
5.3G;VHT20;Nss1,(M0);Ntx3;5300	Pass	2.52	22.68	23.98	25.20	30.00	17.11	18.28	18.24
5.3G;VHT20;Nss1,(M0);Ntx3;5320	Pass	2.52	22.58	23.98	25.10	30.00	17.87	17.81	17.74
5.6G;VHT20;Nss1,(M0);Ntx3;5500	Pass	2.37	23.54	23.98	25.91	30.00	19.26	19.20	17.67
5.6G;VHT20;Nss1,(M0);Ntx3;5580	Pass	2.37	23.41	23.98	25.78	30.00	18.66	18.61	18.65
5.6G;VHT20;Nss1,(M0);Ntx3;5700	Pass	2.37	21.29	23.98	23.66	30.00	16.41	16.76	16.37
5.6G;VHT20;Nss1,(M0);Ntx3;5720	Pass	2.37	22.33	22.96	24.70	28.96	17.81	17.30	17.56
5.8G;VHT20;Nss1,(M0);Ntx3;5720	Pass	2.37	16.65	30.00	19.02	36.00	12.37	11.96	11.24
5.3G;VHT40;Nss1,(M0);Ntx3;5270	Pass	2.52	23.78	23.98	26.30	30.00	18.95	18.88	19.19
5.3G;VHT40;Nss1,(M0);Ntx3;5310	Pass	2.52	23.78	23.98	26.30	30.00	18.96	18.91	19.16
5.6G;VHT40;Nss1,(M0);Ntx3;5510	Pass	2.37	22.11	23.98	24.48	30.00	17.80	17.86	16.13
5.6G;VHT40;Nss1,(M0);Ntx3;5550	Pass	2.37	23.87	23.98	26.24	30.00	19.74	18.77	18.70
5.6G;VHT40;Nss1,(M0);Ntx3;5670	Pass	2.37	22.92	23.98	25.29	30.00	18.24	18.30	17.88
5.6G;VHT40;Nss1,(M0);Ntx3;5710	Pass	2.37	23.84	23.98	26.21	30.00	19.73	18.52	18.87
5.8G;VHT40;Nss1,(M0);Ntx3;5710	Pass	2.37	13.29	30.00	15.66	36.00	9.48	8.10	7.79
5.3G;VHT80;Nss1,(M0);Ntx3;5290	Pass	2.52	23.08	23.98	25.60	30.00	18.16	18.19	18.57
5.6G;VHT80;Nss1,(M0);Ntx3;5530	Pass	2.37	18.92	23.98	21.29	30.00	14.50	14.45	13.40
5.6G;VHT80;Nss1,(M0);Ntx3;5610	Pass	2.37	22.51	23.98	24.88	30.00	17.79	17.77	17.65
5.6G;VHT80;Nss1,(M0);Ntx3;5690	Pass	2.37	23.81	23.98	26.18	30.00	19.46	18.61	18.99
5.8G;VHT80;Nss1,(M0);Ntx3;5690	Pass	2.37	9.68	30.00	12.05	36.00	5.68	4.85	4.04
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5260	Pass	7.18	22.64	22.80	29.82	30.00	16.20	17.83	19.11
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5300	Pass	7.18	22.72	22.80	29.90	30.00	16.43	17.81	19.18
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5320	Pass	7.18	22.74	22.80	29.92	30.00	17.00	17.80	18.90
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5500	Pass	6.62	22.73	23.36	29.35	30.00	18.90	16.84	17.89
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5580	Pass	6.62	23.21	23.36	29.83	30.00	19.05	17.38	18.72
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5700	Pass	6.62	20.53	23.36	27.14	30.00	16.05	15.07	16.07
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5720	Pass	6.62	22.28	22.36	28.90	28.97	18.08	16.55	17.76
5.8G;VHT20,BF;Nss1,(M0);Ntx3;5720	Pass	6.62	16.63	29.38	23.25	36.00	12.59	11.20	11.68
5.3G;VHT40,BF;Nss1,(M0);Ntx3;5270	Pass	7.18	22.65	22.80	29.83	30.00	16.07	18.14	18.94
5.3G;VHT40,BF;Nss1,(M0);Ntx3;5310	Pass	7.18	22.70	22.80	29.88	30.00	16.79	17.96	18.81
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5510	Pass	6.62	20.24	23.36	26.86	30.00	16.09	15.11	15.13
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5550	Pass	6.62	23.31	23.36	29.93	30.00	19.24	17.87	18.41
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5670	Pass	6.62	22.34	23.36	28.96	30.00	17.90	17.23	17.56
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5710	Pass	6.62	23.33	23.36	29.95	30.00	18.95	18.09	18.60
5.8G;VHT40,BF;Nss1,(M0);Ntx3;5710	Pass	6.62	12.85	29.38	19.46	36.00	8.73	7.83	7.58
5.3G;VHT80,BF;Nss1,(M0);Ntx3;5290	Pass	7.18	22.70	22.80	29.88	30.00	16.38	18.05	18.98
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5530	Pass	6.62	17.82	23.36	24.44	30.00	13.82	12.50	12.71
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5610	Pass	6.62	22.00	23.36	28.62	30.00	17.86	16.70	17.05
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5690	Pass	6.62	23.33	23.36	29.95	30.00	19.23	17.90	18.45
5.8G;VHT80,BF;Nss1,(M0);Ntx3;5690	Pass	6.62	9.30	29.38	15.92	36.00	5.50	4.28	3.59







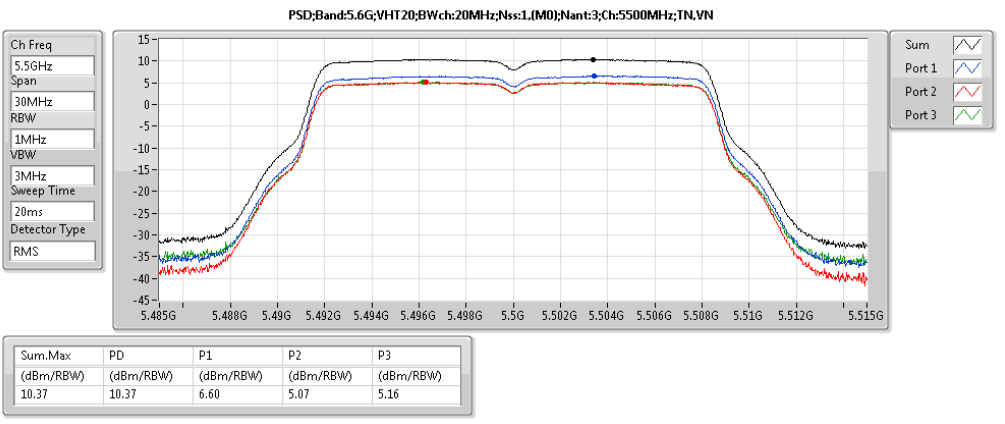
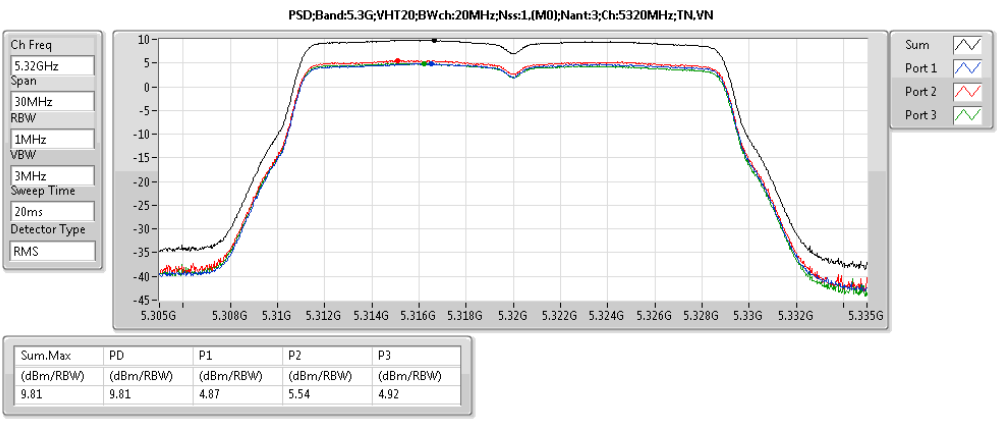
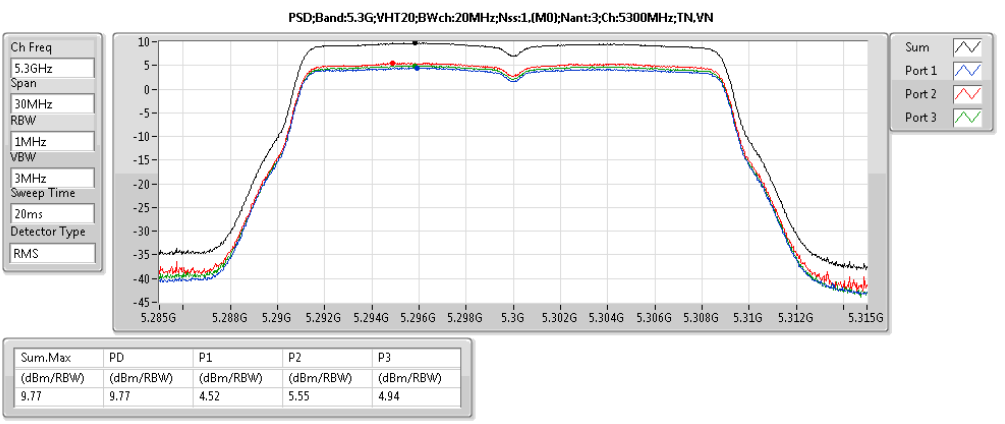
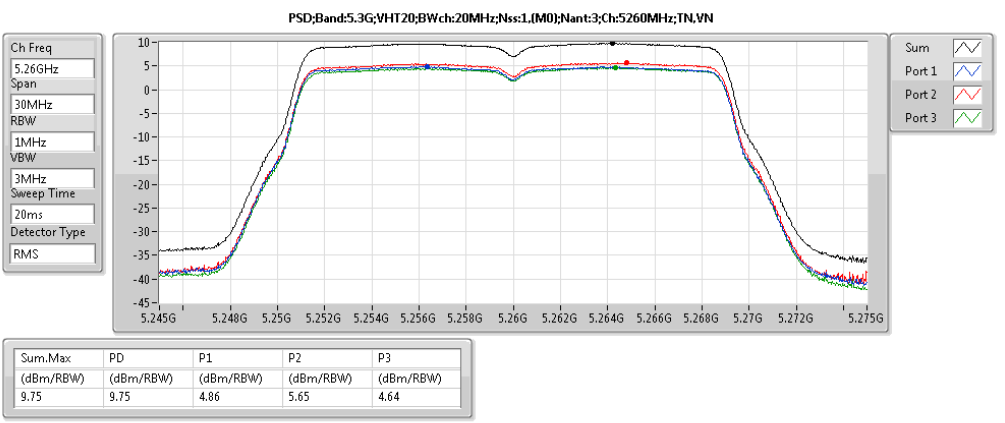
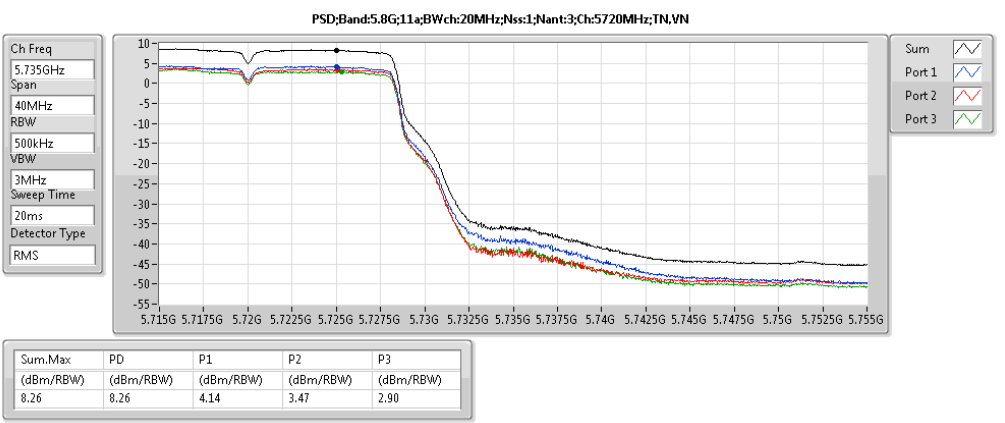
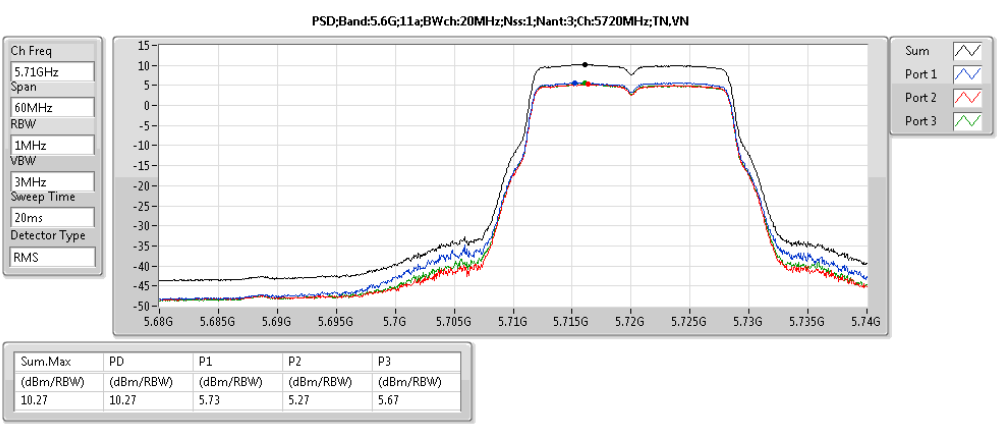
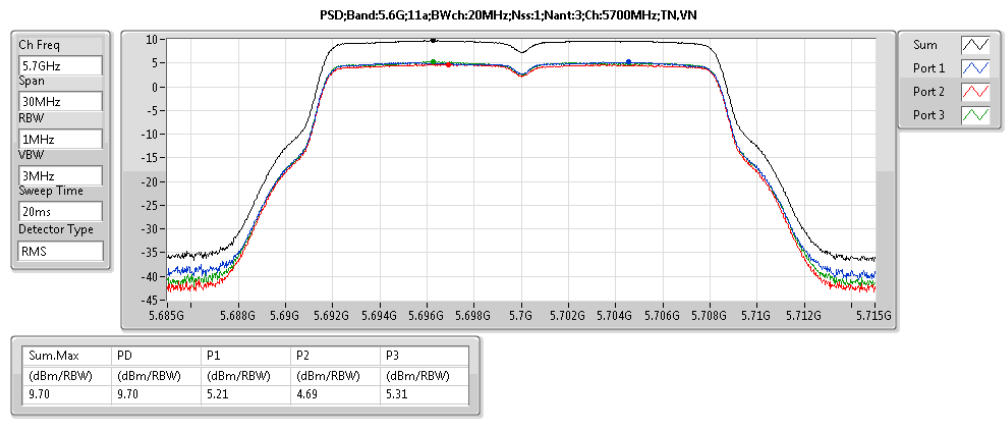
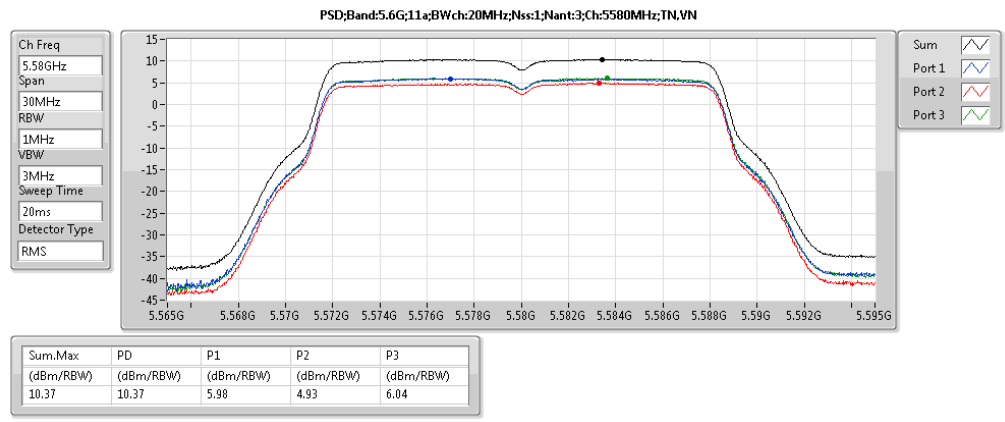
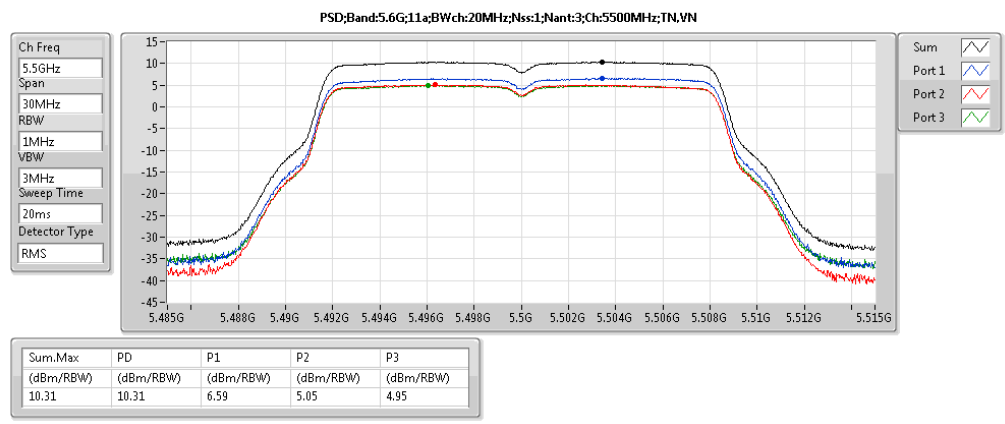
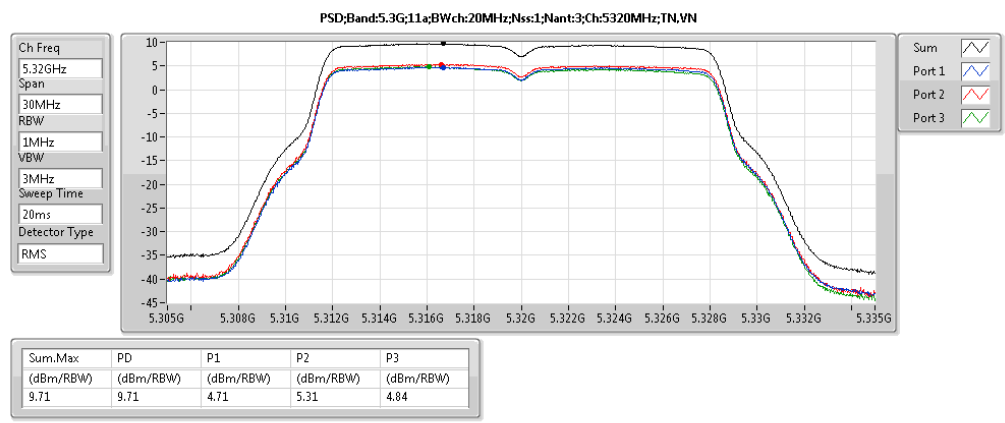
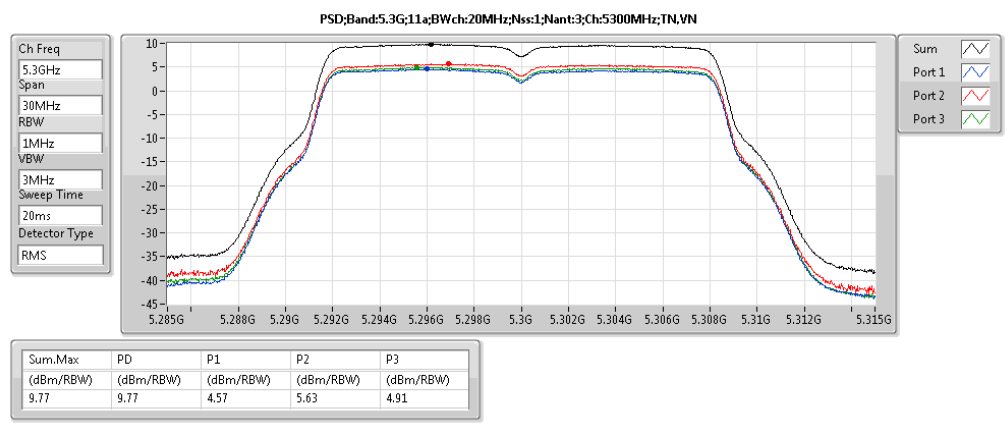
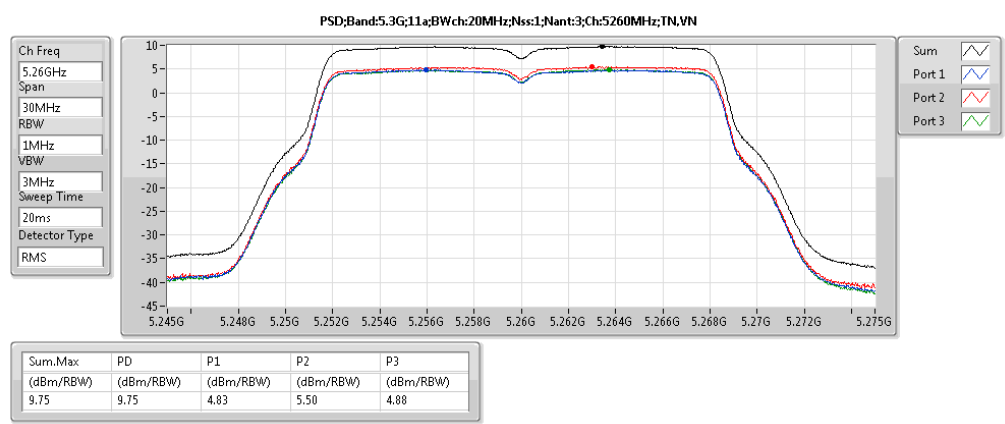
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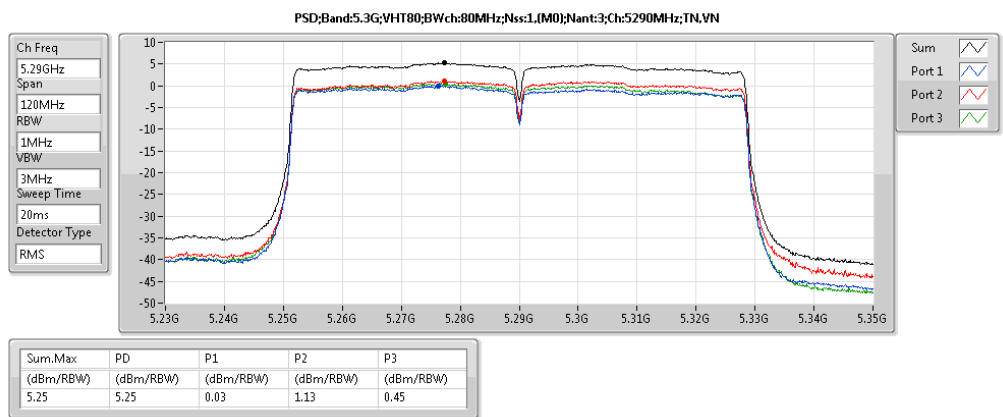
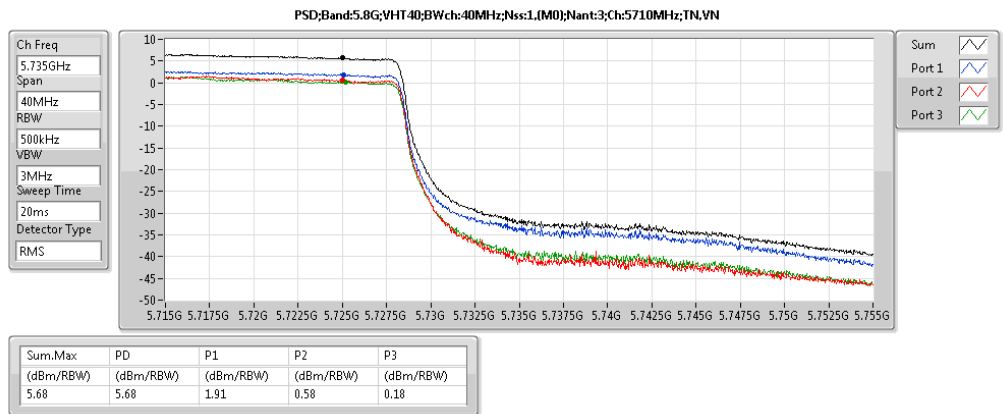
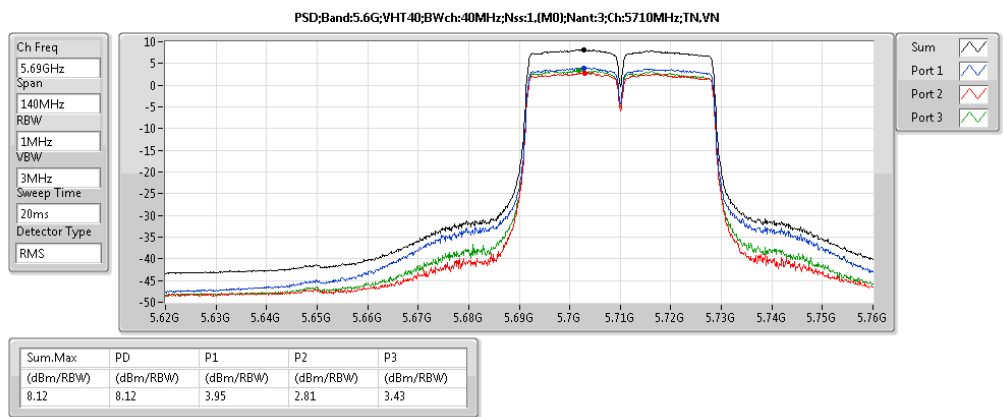
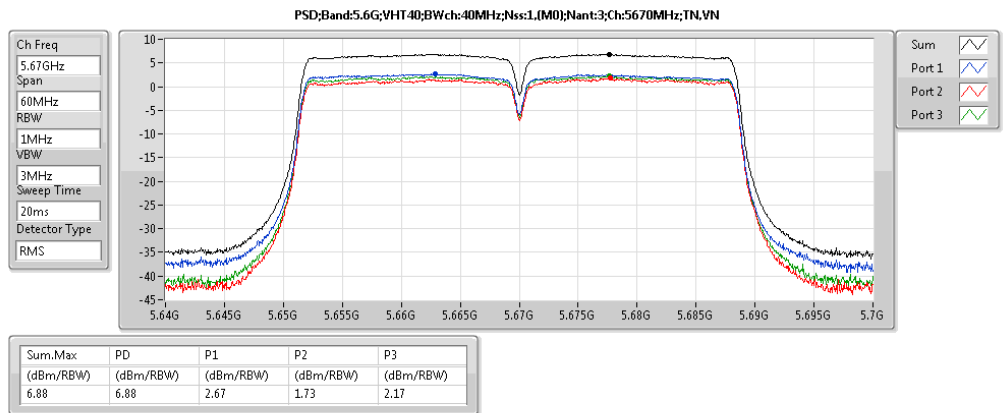
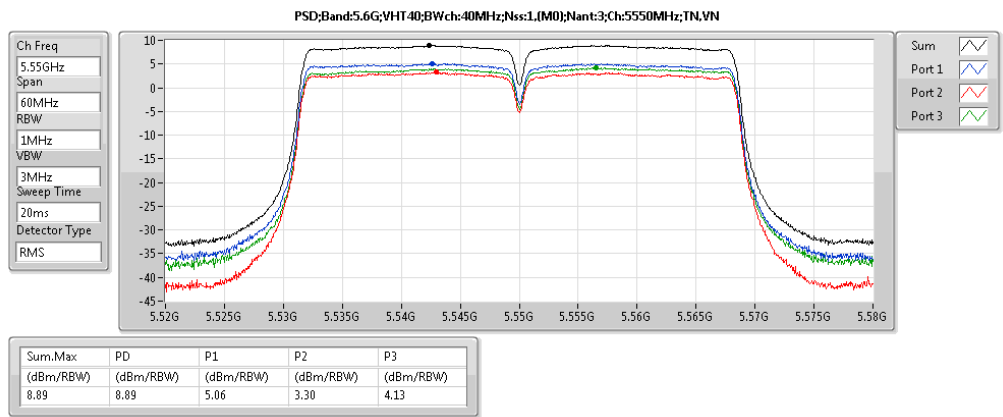
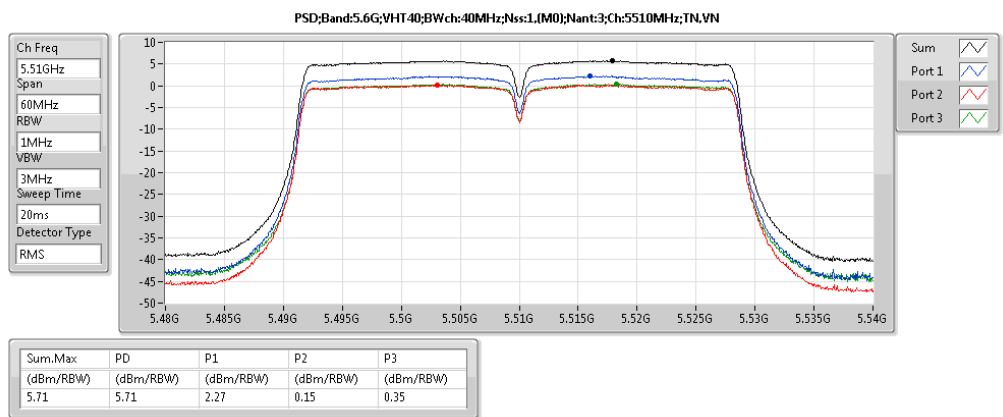
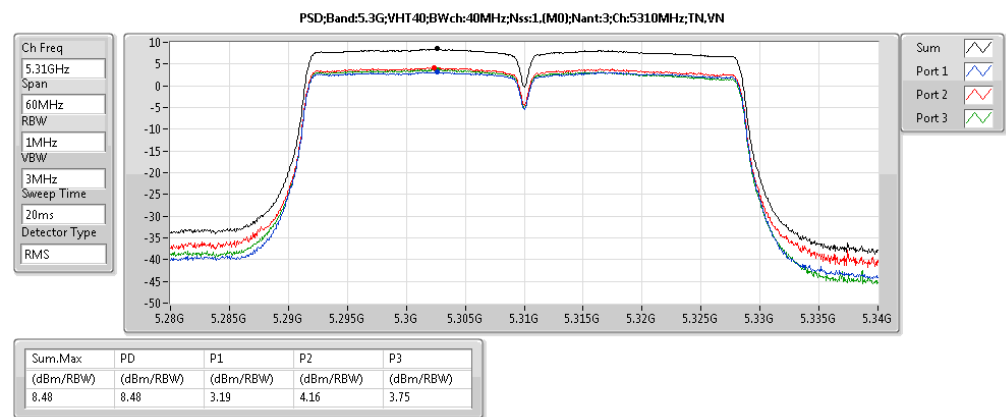
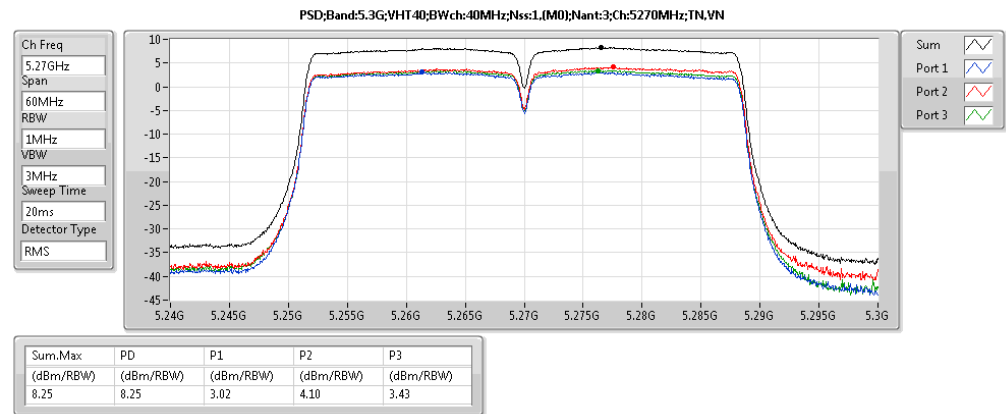
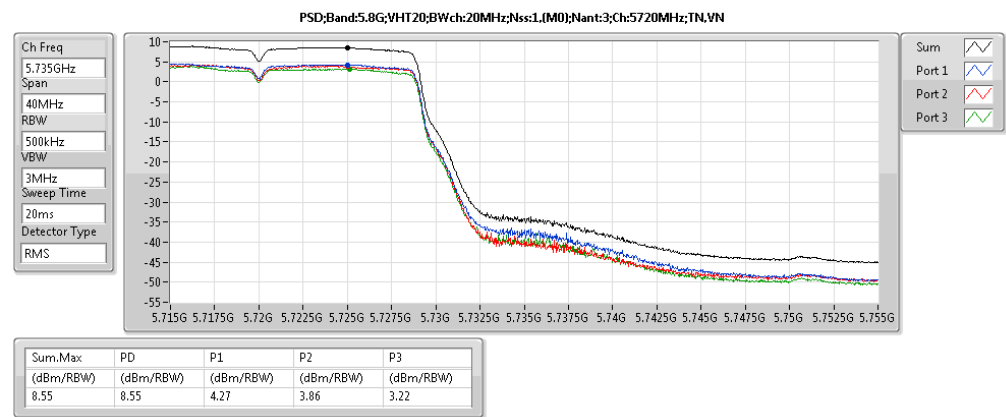
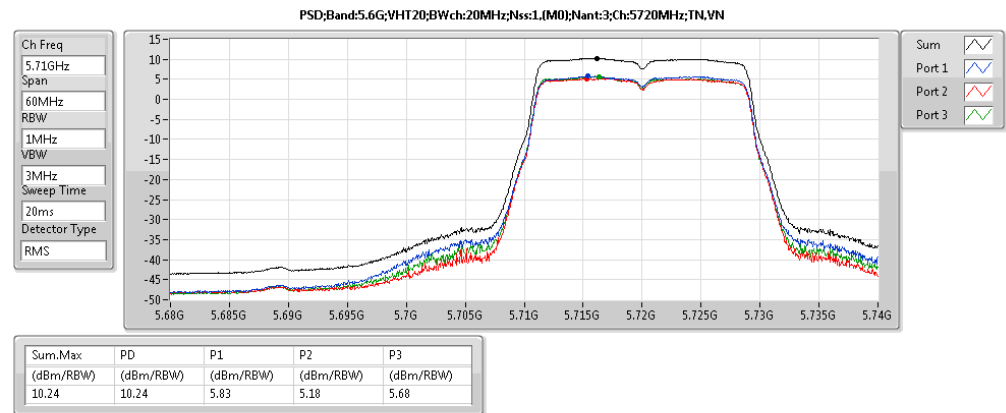
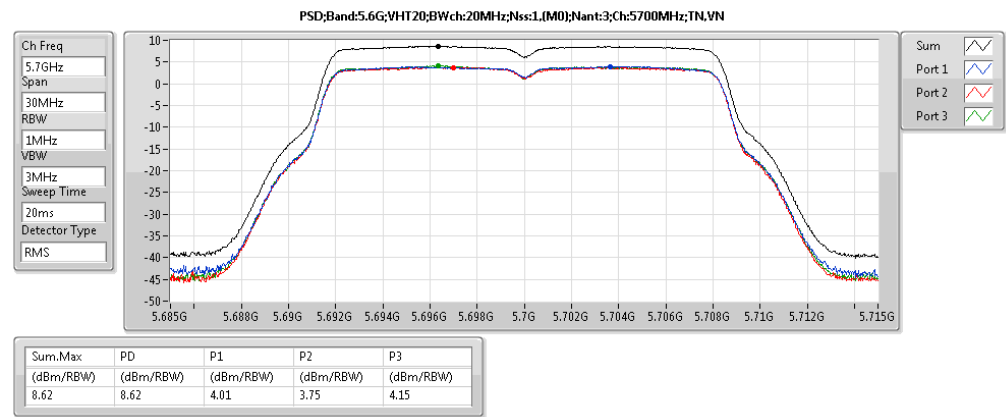
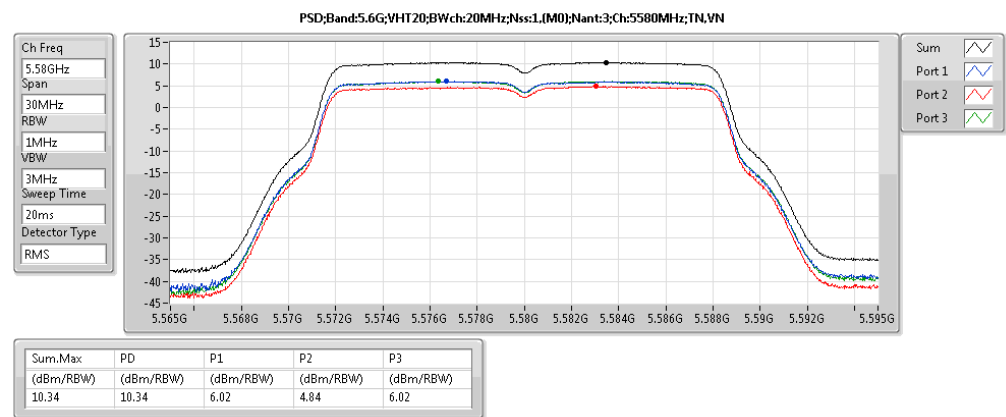
Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
5.3G;11a;Nss1;Ntx3	9.77	16.95
5.6G;11a;Nss1;Ntx3	10.37	16.99
5.8G;11a;Nss1;Ntx3	8.26	14.88
5.3G;VHT20;Nss1,(M0);Ntx3	9.81	16.99
5.6G;VHT20;Nss1,(M0);Ntx3	10.37	16.99
5.8G;VHT20;Nss1,(M0);Ntx3	8.55	15.17
5.3G;VHT40;Nss1,(M0);Ntx3	8.48	15.66
5.6G;VHT40;Nss1,(M0);Ntx3	8.89	15.51
5.8G;VHT40;Nss1,(M0);Ntx3	5.68	12.30
5.3G;VHT80;Nss1,(M0);Ntx3	5.25	12.43
5.6G;VHT80;Nss1,(M0);Ntx3	4.87	11.49
5.8G;VHT80;Nss1,(M0);Ntx3	2.14	8.76
5.3G;VHT20,BF;Nss1,(M0);Ntx3	9.66	16.84
5.6G;VHT20,BF;Nss1,(M0);Ntx3	10.21	16.83
5.8G;VHT20,BF;Nss1,(M0);Ntx3	8.47	15.09
5.3G;VHT40,BF;Nss1,(M0);Ntx3	6.71	13.89
5.6G;VHT40,BF;Nss1,(M0);Ntx3	7.62	14.24
5.8G;VHT40,BF;Nss1,(M0);Ntx3	5.21	11.83
5.3G;VHT80,BF;Nss1,(M0);Ntx3	3.76	10.94
5.6G;VHT80,BF;Nss1,(M0);Ntx3	4.35	10.97
5.8G;VHT80,BF;Nss1,(M0);Ntx3	1.69	8.31

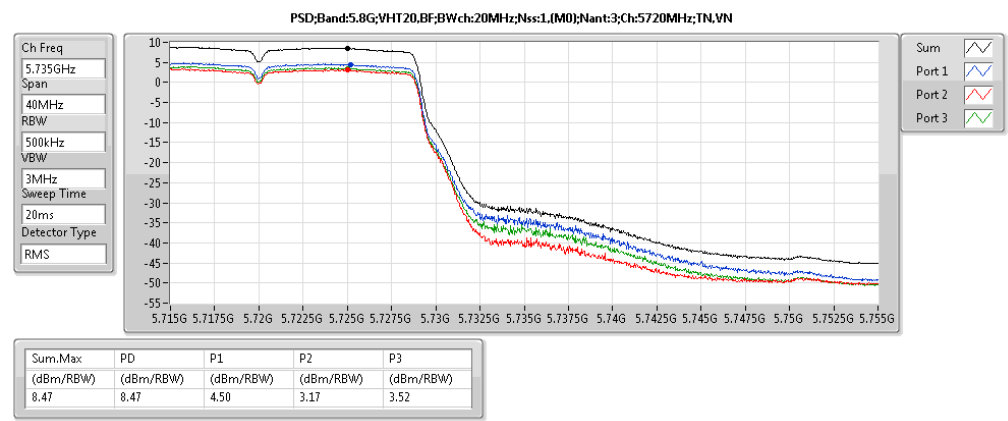
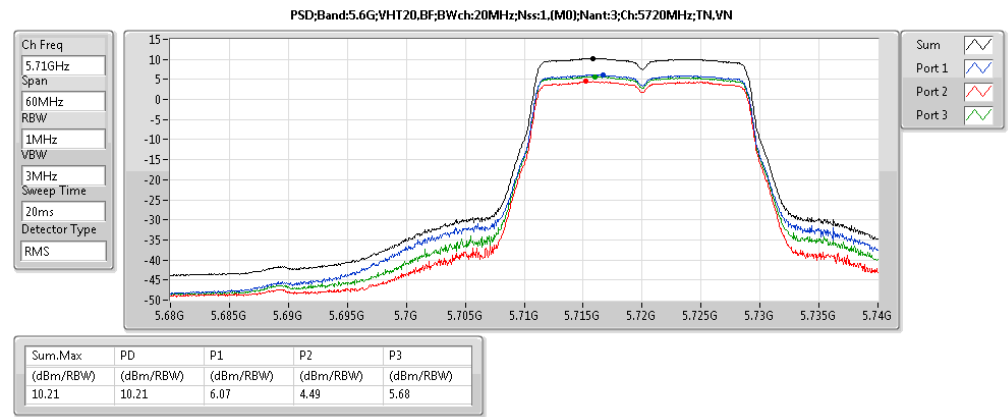
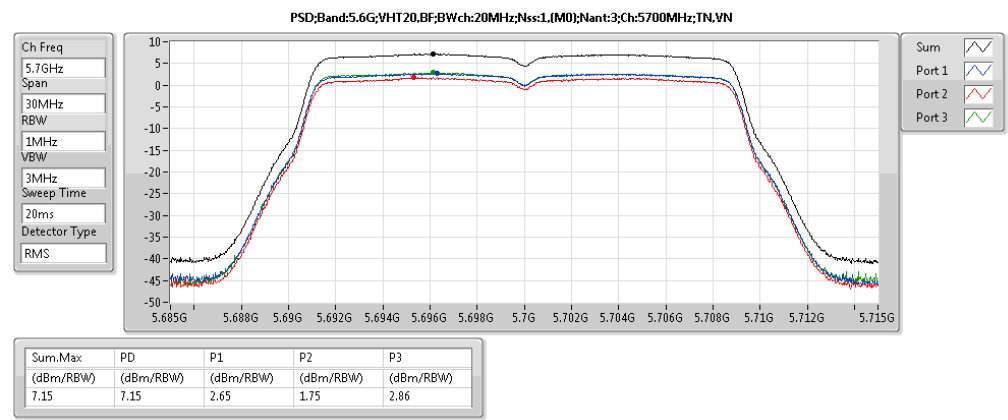
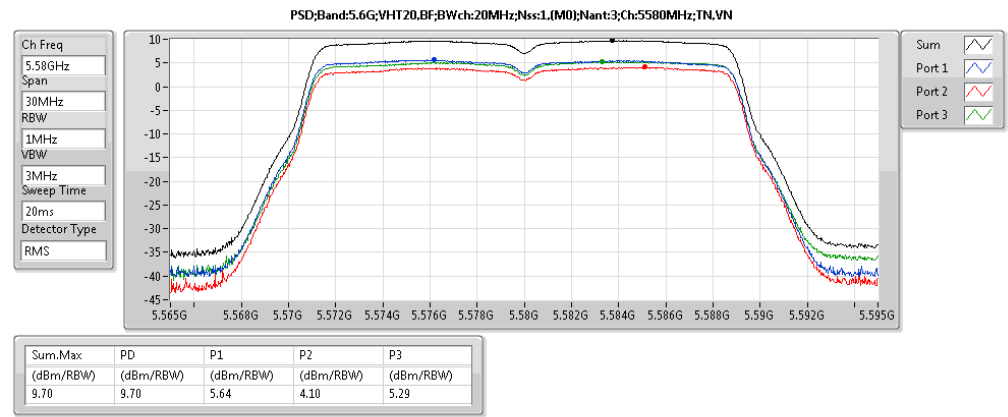
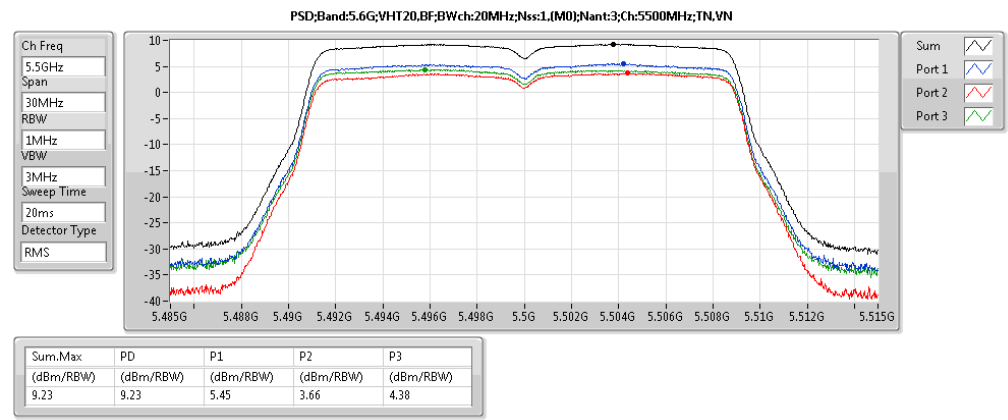
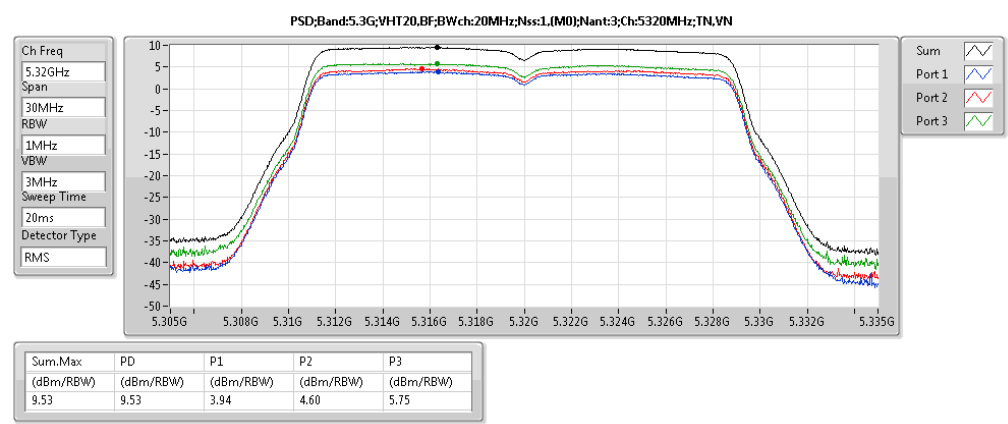
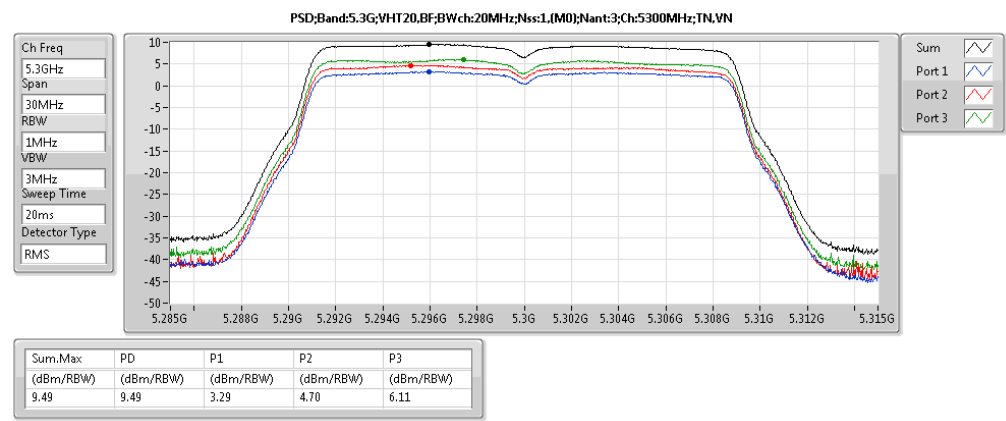
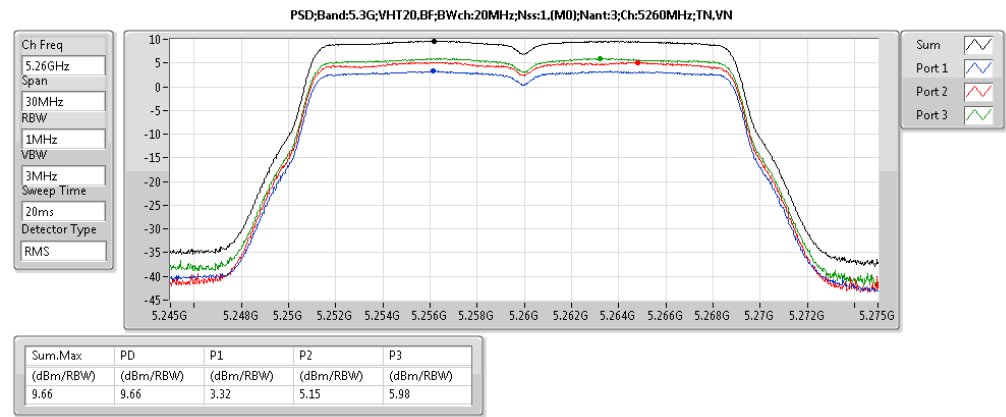
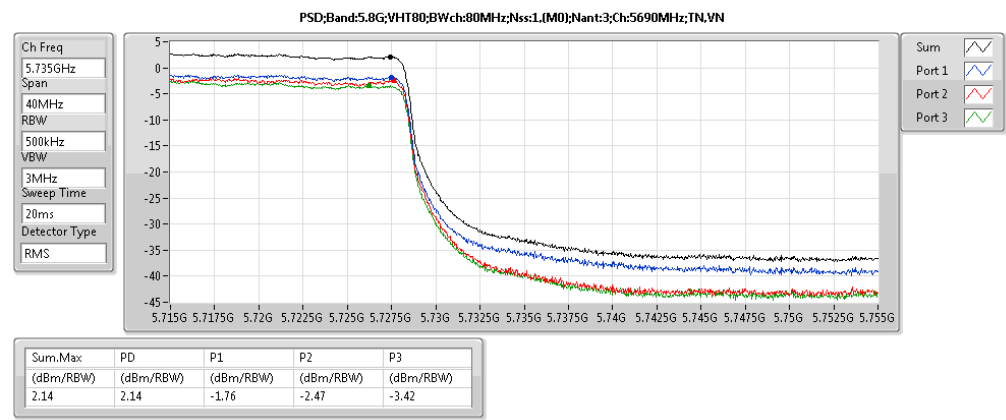
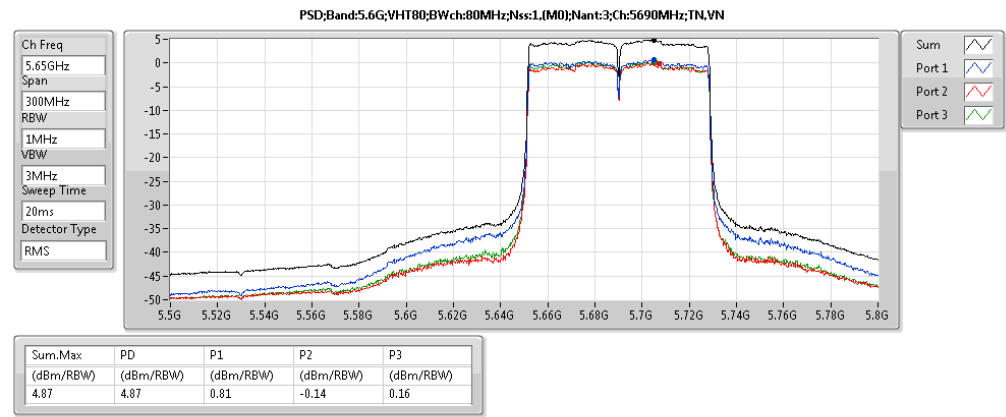
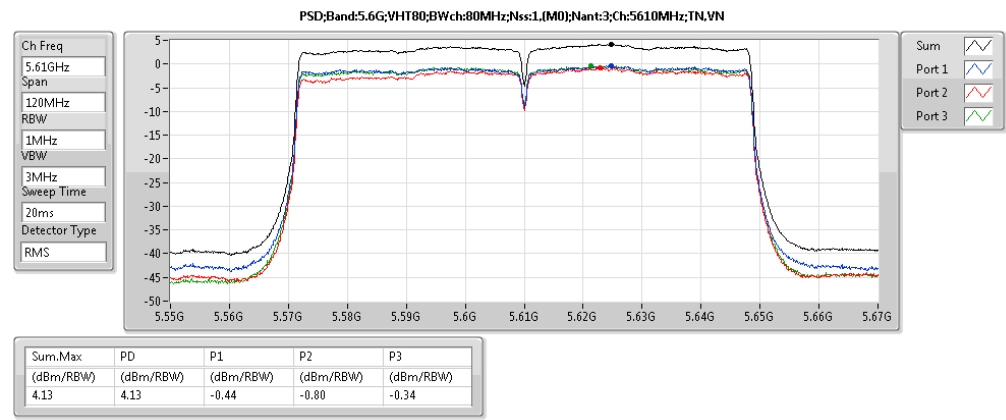
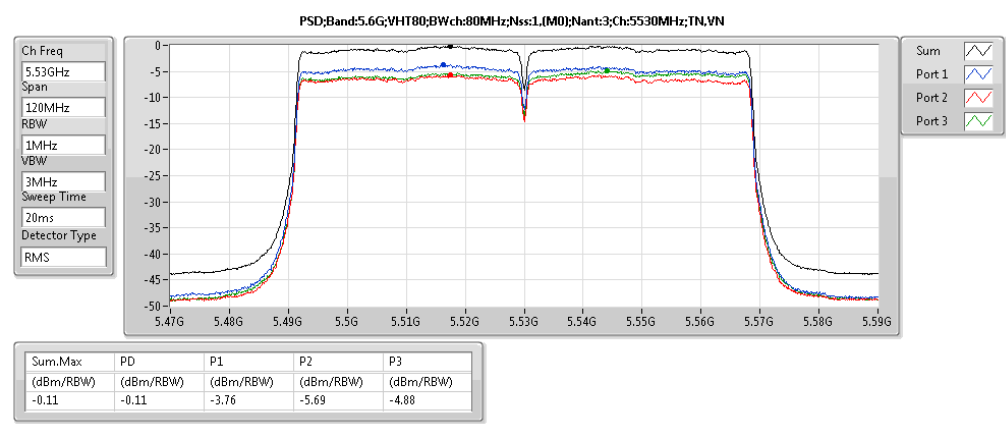


Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)	P3 (dBm/RBW)
5.3G;11a;Nss1;Ntx3;5260	Pass	7.18	9.75	9.82	4.83	5.50	4.88
5.3G;11a;Nss1;Ntx3;5300	Pass	7.18	9.77	9.82	4.57	5.63	4.91
5.3G;11a;Nss1;Ntx3;5320	Pass	7.18	9.71	9.82	4.71	5.31	4.84
5.6G;11a;Nss1;Ntx3;5500	Pass	6.62	10.31	10.38	6.59	5.05	4.95
5.6G;11a;Nss1;Ntx3;5580	Pass	6.62	10.37	10.38	5.98	4.93	6.04
5.6G;11a;Nss1;Ntx3;5700	Pass	6.62	9.70	10.38	5.21	4.69	5.31
5.6G;11a;Nss1;Ntx3;5720	Pass	6.62	10.27	10.38	5.73	5.27	5.67
5.8G;11a;Nss1;Ntx3;5720	Pass	6.62	8.26	29.38	4.14	3.47	2.90
5.3G;VHT20;Nss1,(M0);Ntx3;5260	Pass	7.18	9.75	9.82	4.86	5.65	4.64
5.3G;VHT20;Nss1,(M0);Ntx3;5300	Pass	7.18	9.77	9.82	4.52	5.55	4.94
5.3G;VHT20;Nss1,(M0);Ntx3;5320	Pass	7.18	9.81	9.82	4.87	5.54	4.92
5.6G;VHT20;Nss1,(M0);Ntx3;5500	Pass	6.62	10.37	10.38	6.60	5.07	5.16
5.6G;VHT20;Nss1,(M0);Ntx3;5580	Pass	6.62	10.34	10.38	6.02	4.84	6.02
5.6G;VHT20;Nss1,(M0);Ntx3;5700	Pass	6.62	8.62	10.38	4.01	3.75	4.15
5.6G;VHT20;Nss1,(M0);Ntx3;5720	Pass	6.62	10.24	10.38	5.83	5.18	5.68
5.8G;VHT20;Nss1,(M0);Ntx3;5720	Pass	6.62	8.55	29.38	4.27	3.86	3.22
5.3G;VHT40;Nss1,(M0);Ntx3;5270	Pass	7.18	8.25	9.82	3.02	4.10	3.43
5.3G;VHT40;Nss1,(M0);Ntx3;5310	Pass	7.18	8.48	9.82	3.19	4.16	3.75
5.6G;VHT40;Nss1,(M0);Ntx3;5510	Pass	6.62	5.71	10.38	2.27	0.15	0.35
5.6G;VHT40;Nss1,(M0);Ntx3;5550	Pass	6.62	8.89	10.38	5.06	3.30	4.13
5.6G;VHT40;Nss1,(M0);Ntx3;5670	Pass	6.62	6.88	10.38	2.67	1.73	2.17
5.6G;VHT40;Nss1,(M0);Ntx3;5710	Pass	6.62	8.12	10.38	3.95	2.81	3.43
5.8G;VHT40;Nss1,(M0);Ntx3;5710	Pass	6.62	5.68	29.38	1.91	0.58	0.18
5.3G;VHT80;Nss1,(M0);Ntx3;5290	Pass	7.18	5.25	9.82	0.03	1.13	0.45
5.6G;VHT80;Nss1,(M0);Ntx3;5530	Pass	6.62	-0.11	10.38	-3.76	-5.69	-4.88
5.6G;VHT80;Nss1,(M0);Ntx3;5610	Pass	6.62	4.13	10.38	-0.44	-0.80	-0.34
5.6G;VHT80;Nss1,(M0);Ntx3;5690	Pass	6.62	4.87	10.38	0.81	-0.14	0.16
5.8G;VHT80;Nss1,(M0);Ntx3;5690	Pass	6.62	2.14	29.38	-1.76	-2.47	-3.42
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5260	Pass	7.18	9.66	9.82	3.32	5.15	5.98
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5300	Pass	7.18	9.49	9.82	3.29	4.70	6.11
5.3G;VHT20,BF;Nss1,(M0);Ntx3;5320	Pass	7.18	9.53	9.82	3.94	4.60	5.75
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5500	Pass	6.62	9.23	10.38	5.45	3.66	4.38
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5580	Pass	6.62	9.70	10.38	5.64	4.10	5.29
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5700	Pass	6.62	7.15	10.38	2.65	1.75	2.86
5.6G;VHT20,BF;Nss1,(M0);Ntx3;5720	Pass	6.62	10.21	10.38	6.07	4.49	5.68
5.8G;VHT20,BF;Nss1,(M0);Ntx3;5720	Pass	6.62	8.47	29.38	4.50	3.17	3.52
5.3G;VHT40,BF;Nss1,(M0);Ntx3;5270	Pass	7.18	6.30	9.82	-0.09	1.80	2.84
5.3G;VHT40,BF;Nss1,(M0);Ntx3;5310	Pass	7.18	6.71	9.82	0.57	1.87	3.17
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5510	Pass	6.62	3.70	10.38	-0.37	-1.27	-1.31
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5550	Pass	6.62	6.85	10.38	2.89	1.57	1.93
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5670	Pass	6.62	5.90	10.38	1.35	0.90	1.24
5.6G;VHT40,BF;Nss1,(M0);Ntx3;5710	Pass	6.62	7.62	10.38	3.25	2.36	3.00
5.8G;VHT40,BF;Nss1,(M0);Ntx3;5710	Pass	6.62	5.21	29.38	1.14	0.28	-0.00
5.3G;VHT80,BF;Nss1,(M0);Ntx3;5290	Pass	7.18	3.76	9.82	-2.73	-0.75	0.41
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5530	Pass	6.62	-1.60	10.38	-5.46	-6.90	-6.64
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5610	Pass	6.62	2.72	10.38	-1.24	-2.61	-2.19
5.6G;VHT80,BF;Nss1,(M0);Ntx3;5690	Pass	6.62	4.35	10.38	0.30	-1.00	-0.38
5.8G;VHT80,BF;Nss1,(M0);Ntx3;5690	Pass	6.62	1.69	29.38	-2.08	-3.22	-3.87



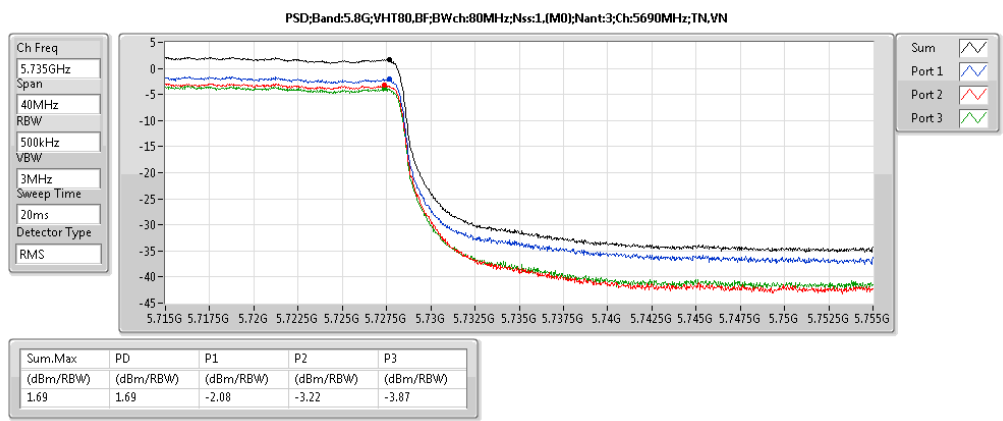
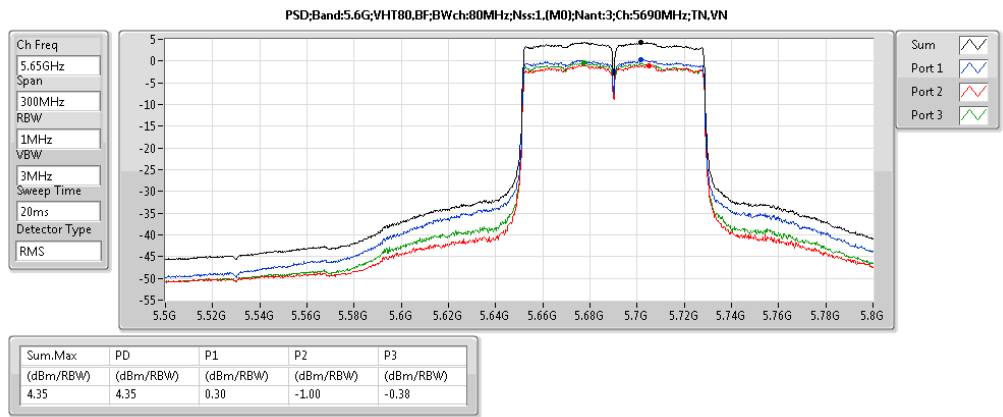
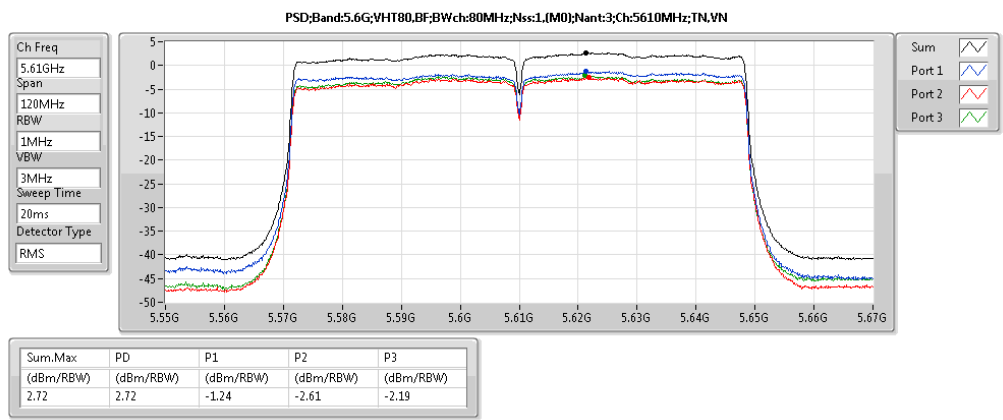
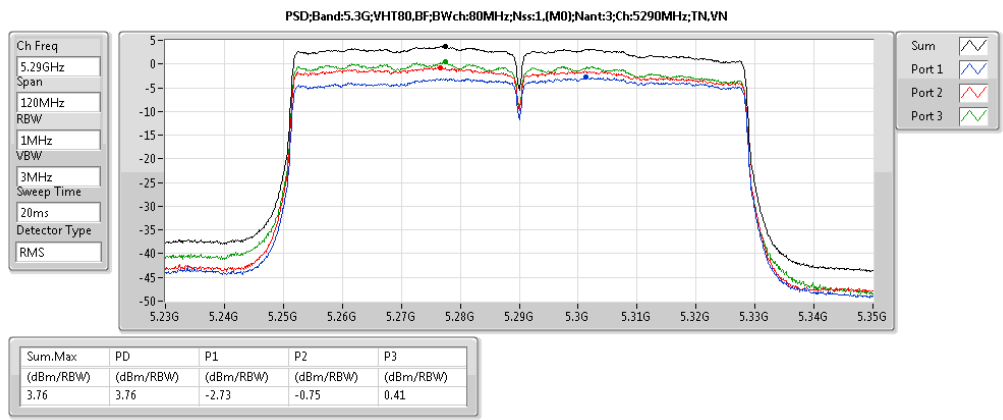
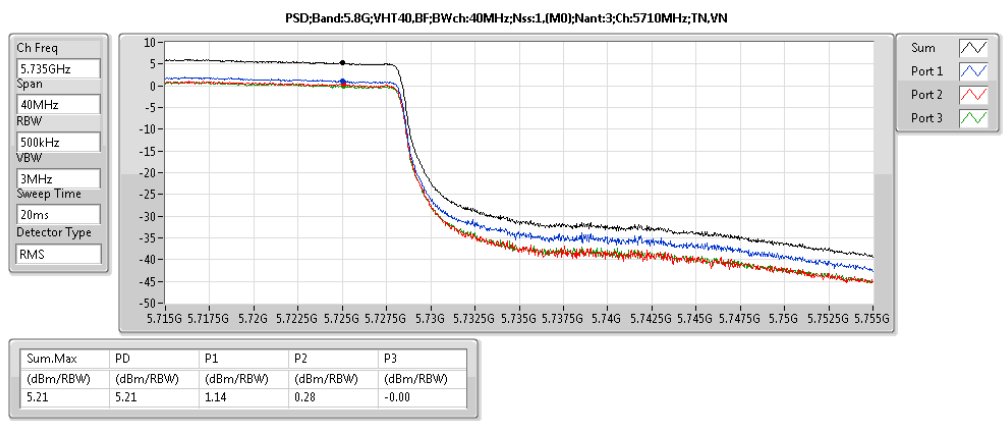
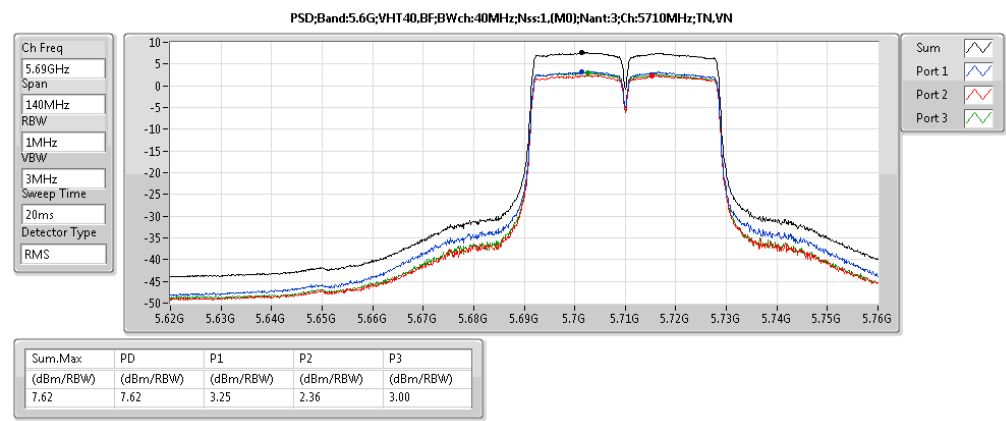
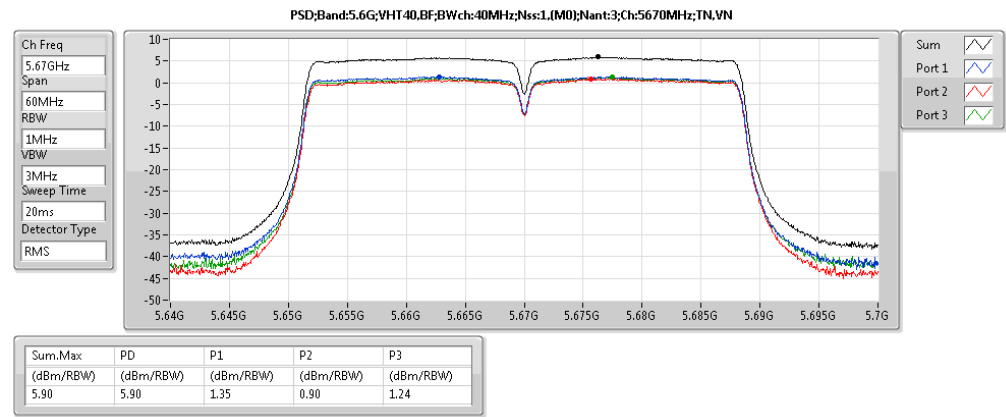
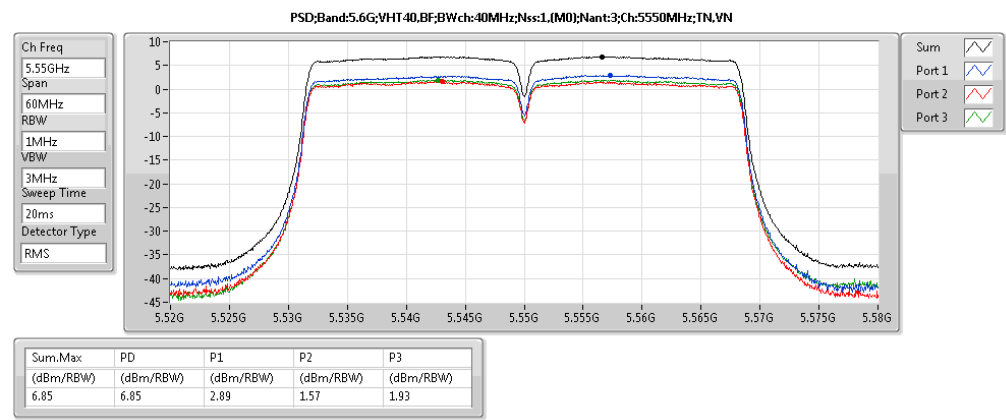
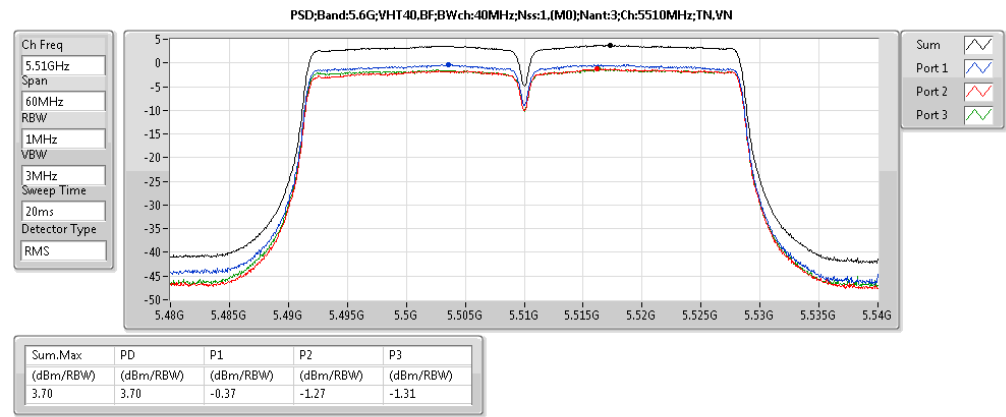
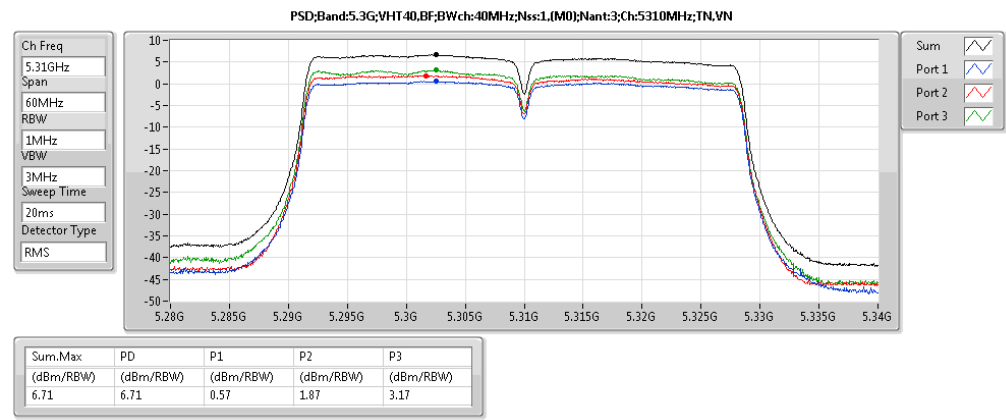
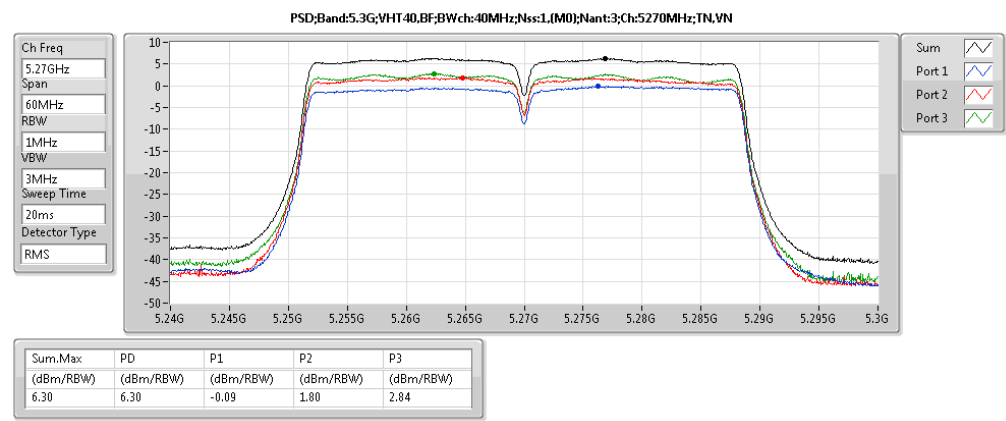






PSD Result

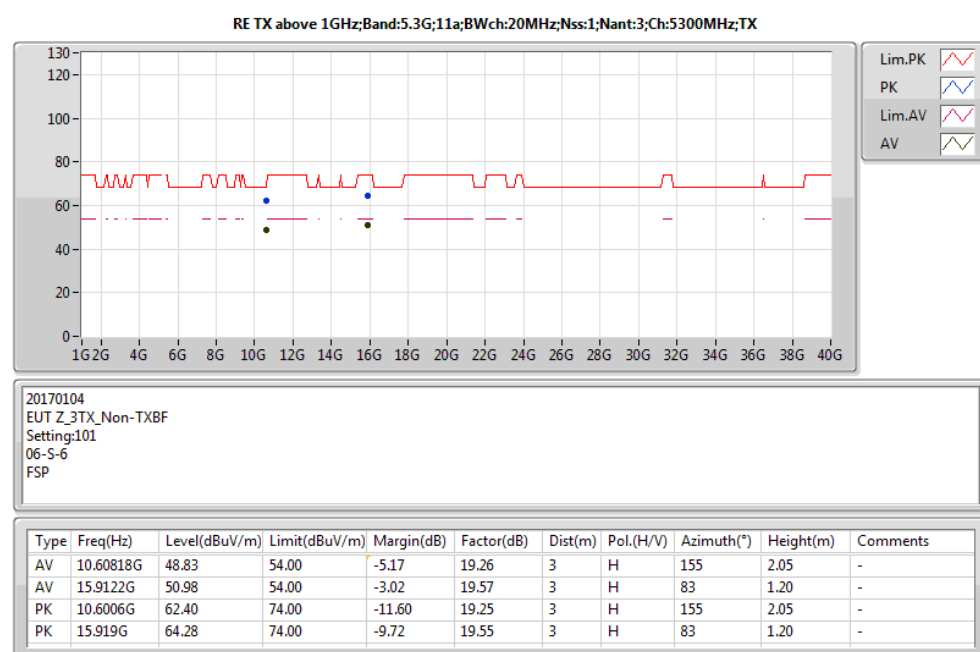
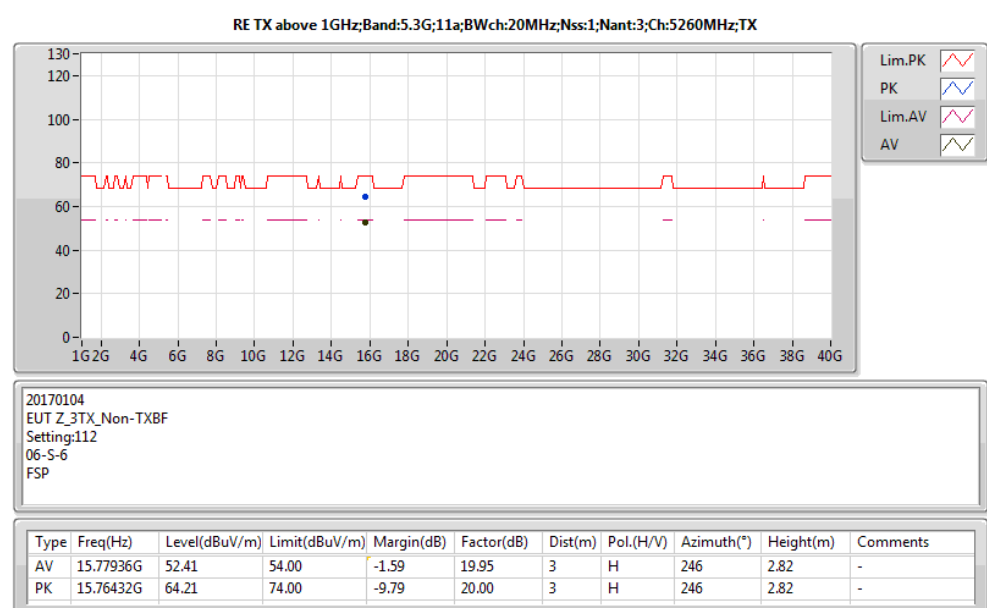
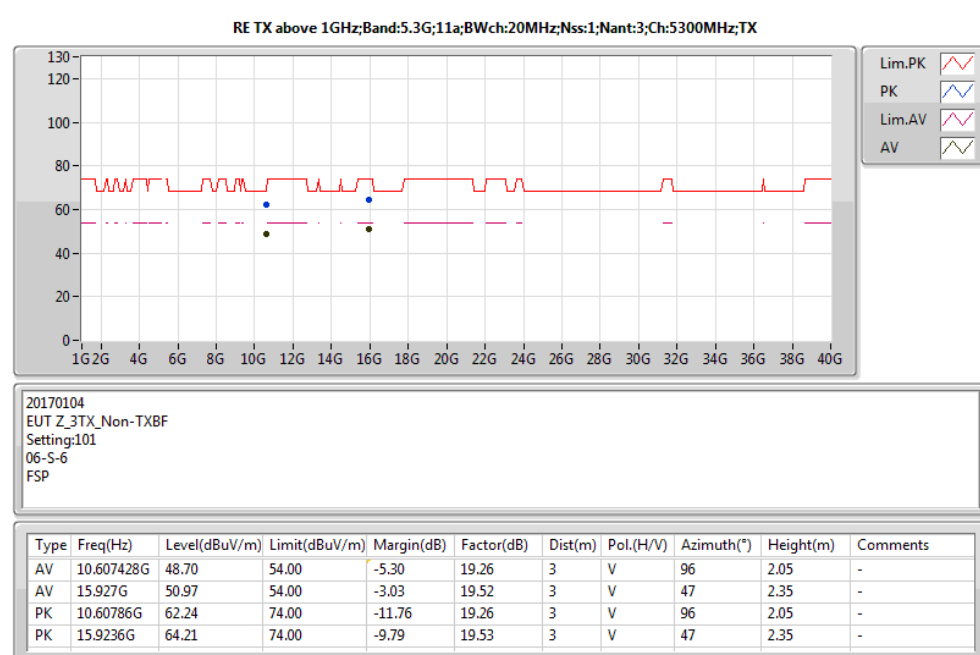
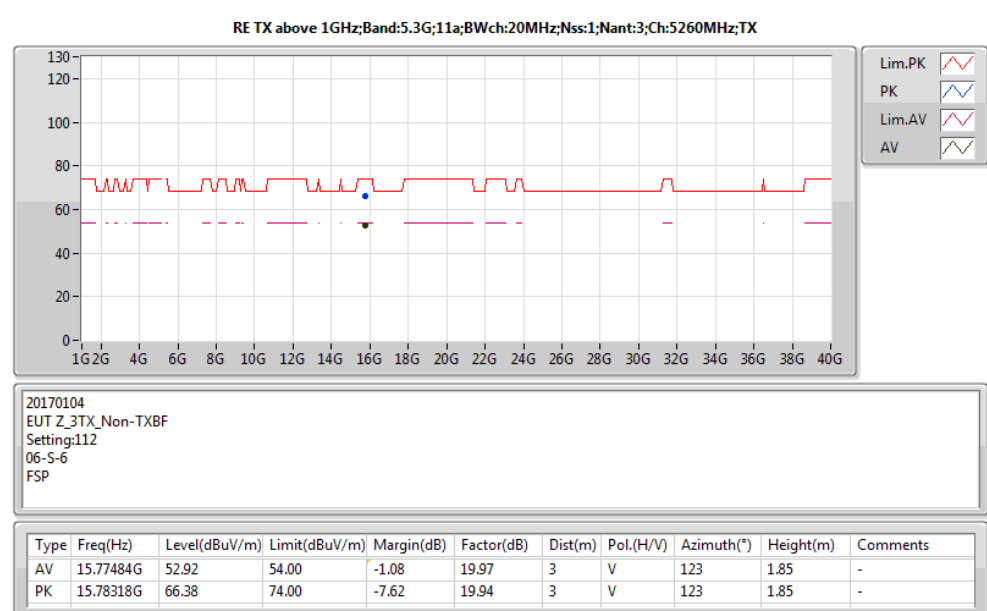
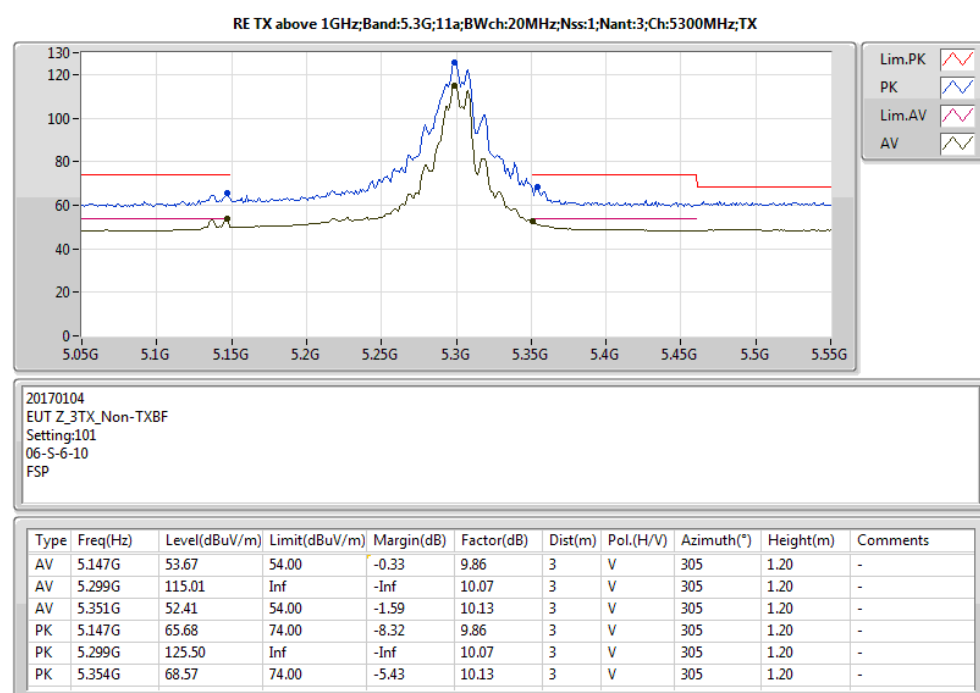
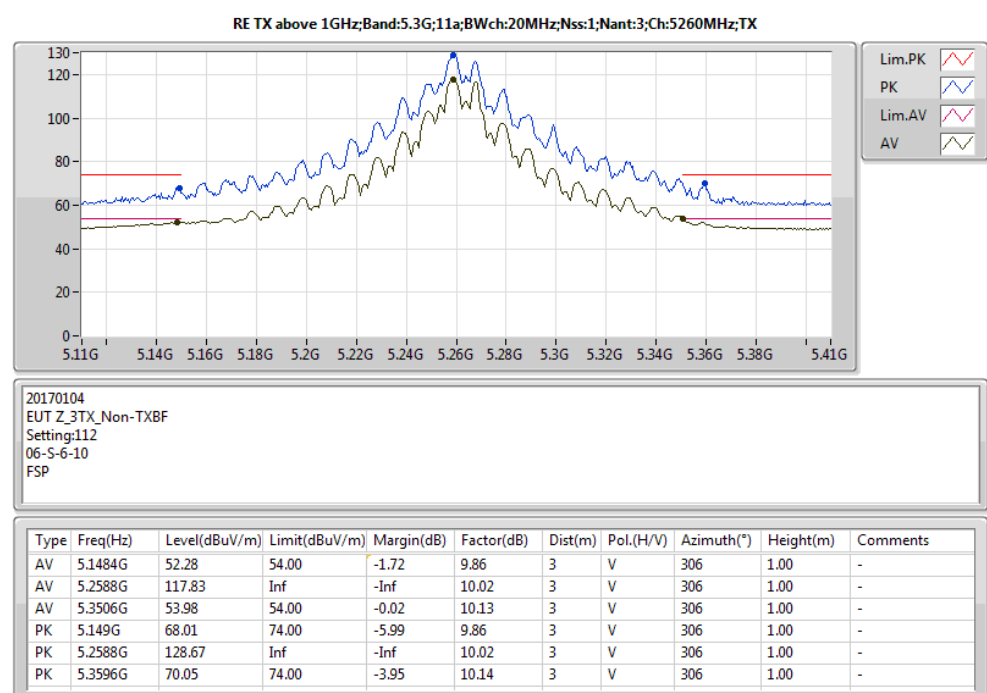
Appendix C

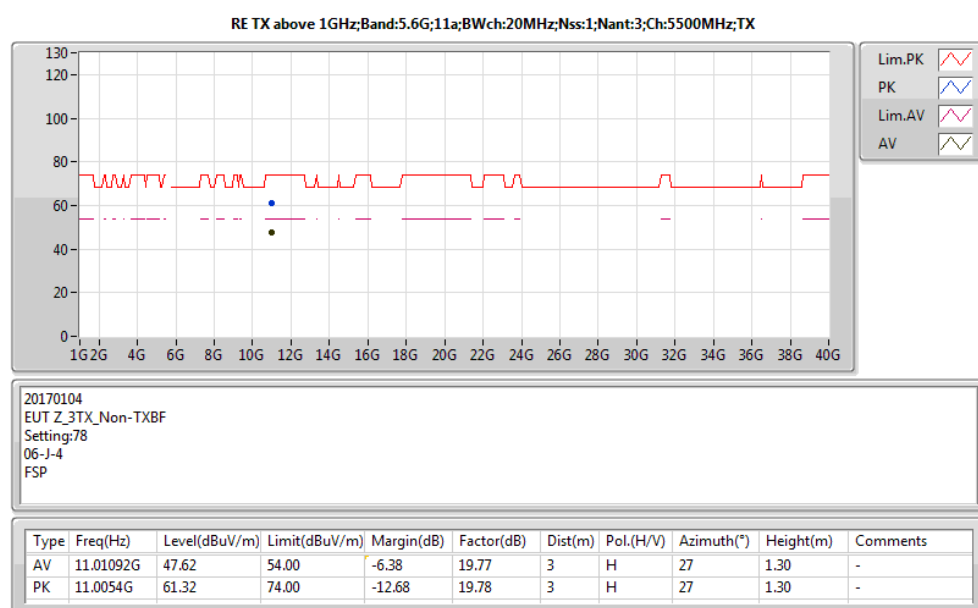
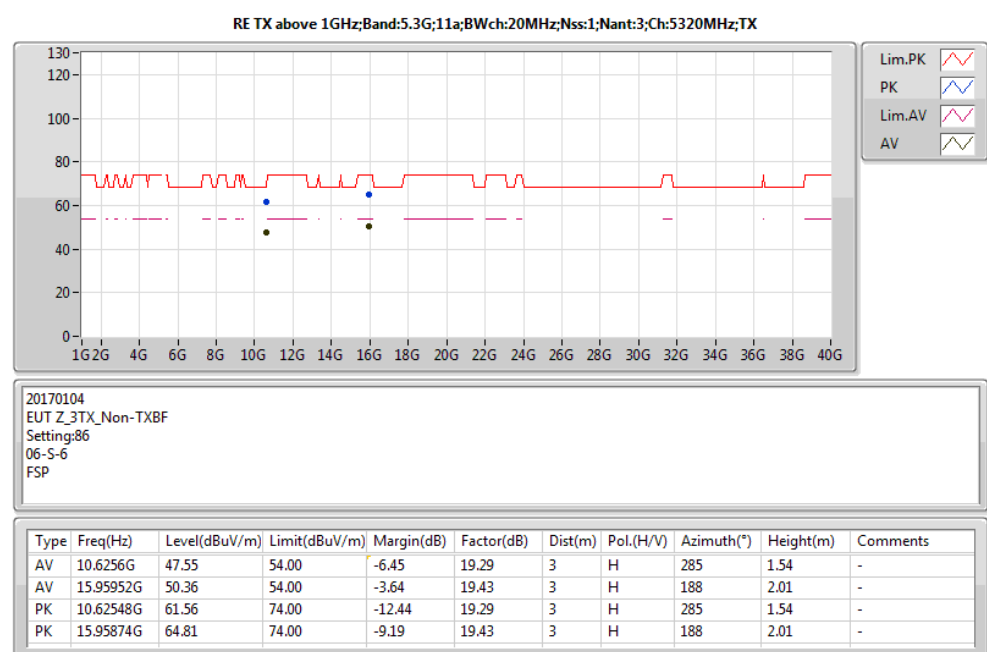
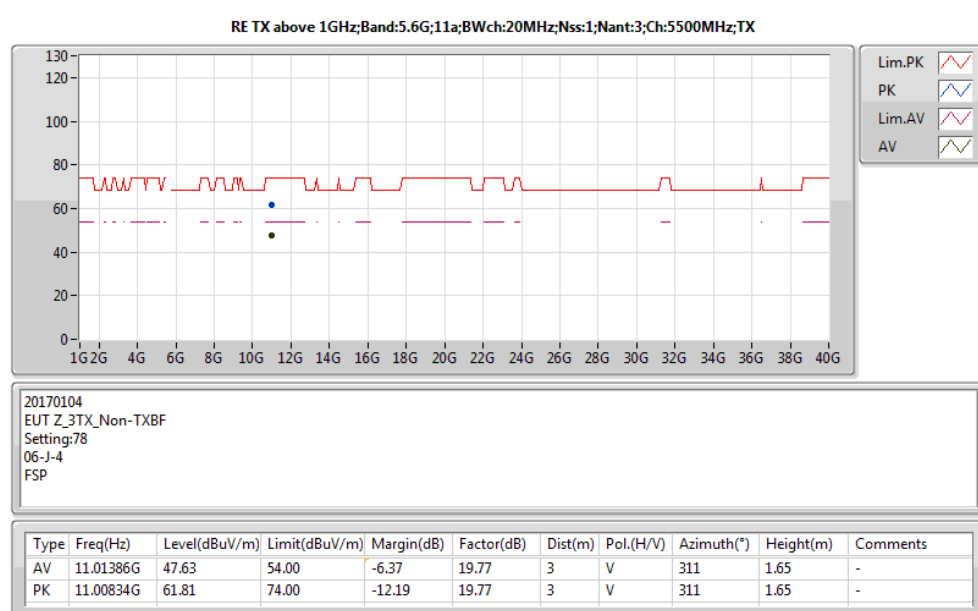
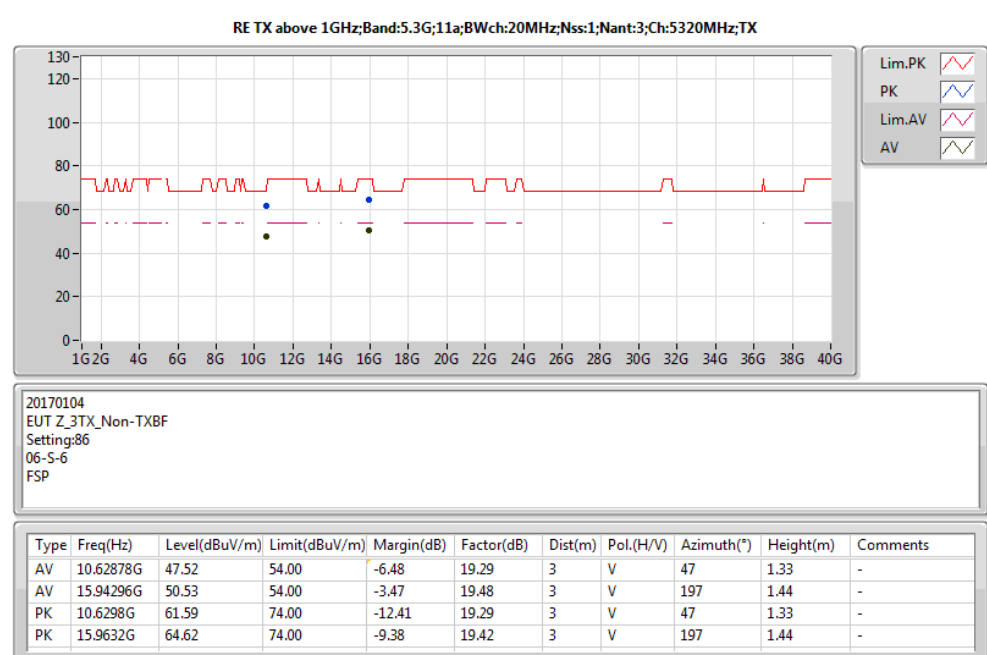
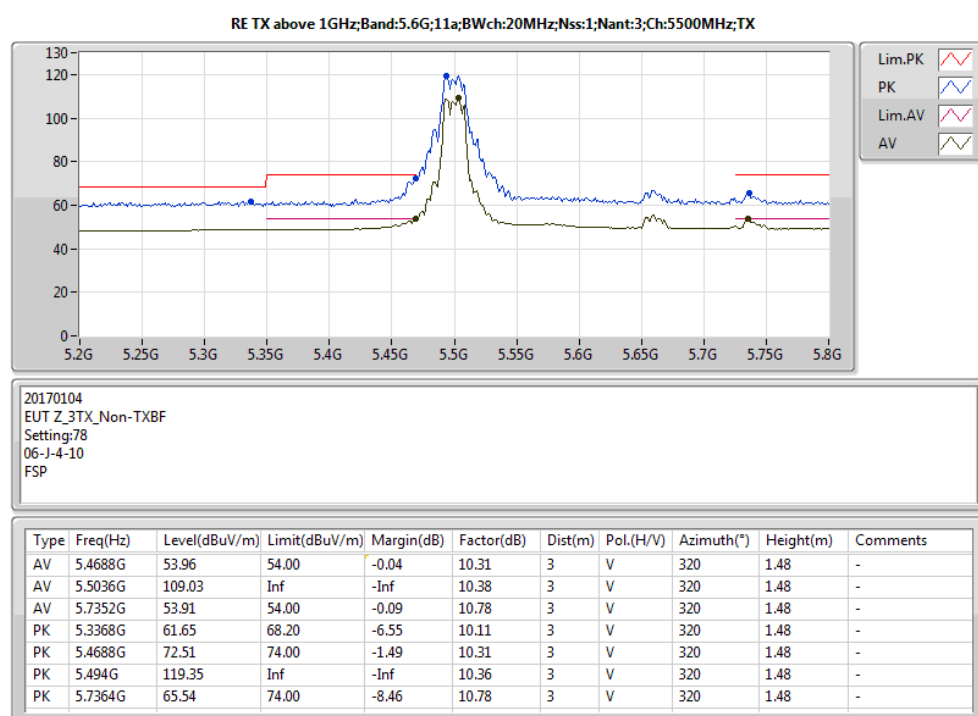
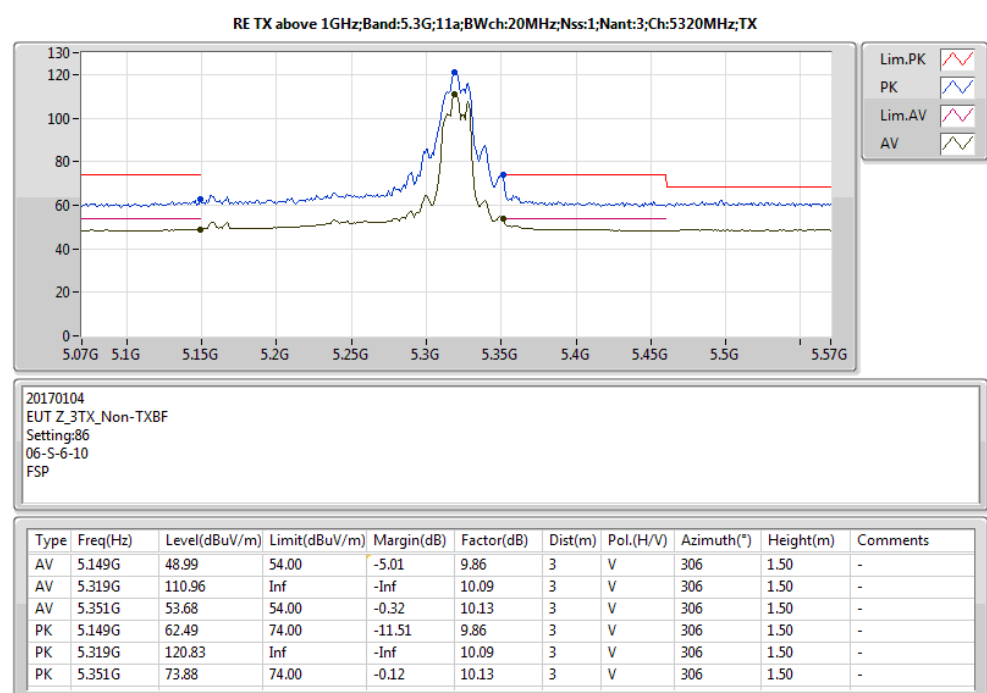


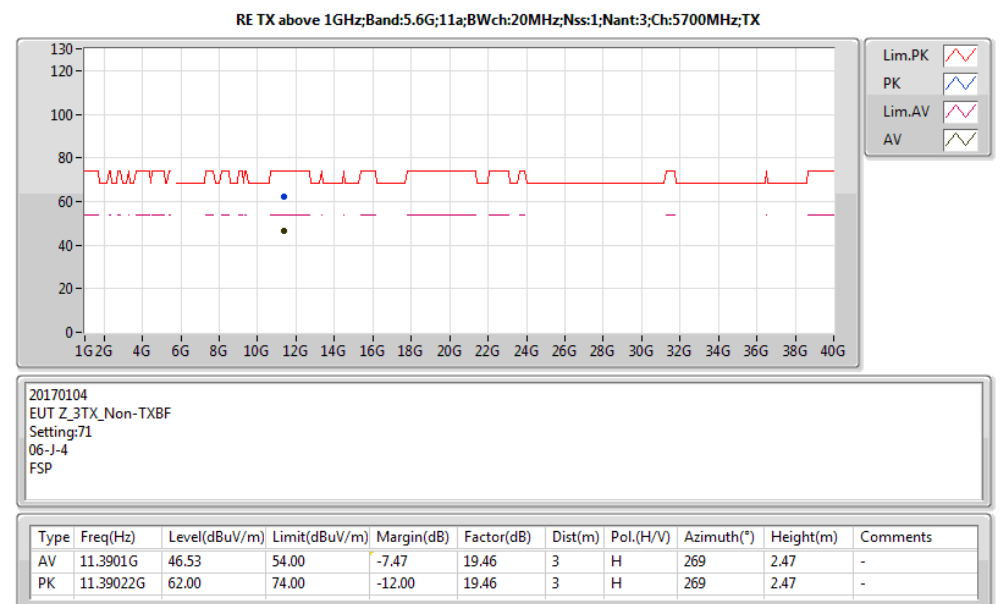
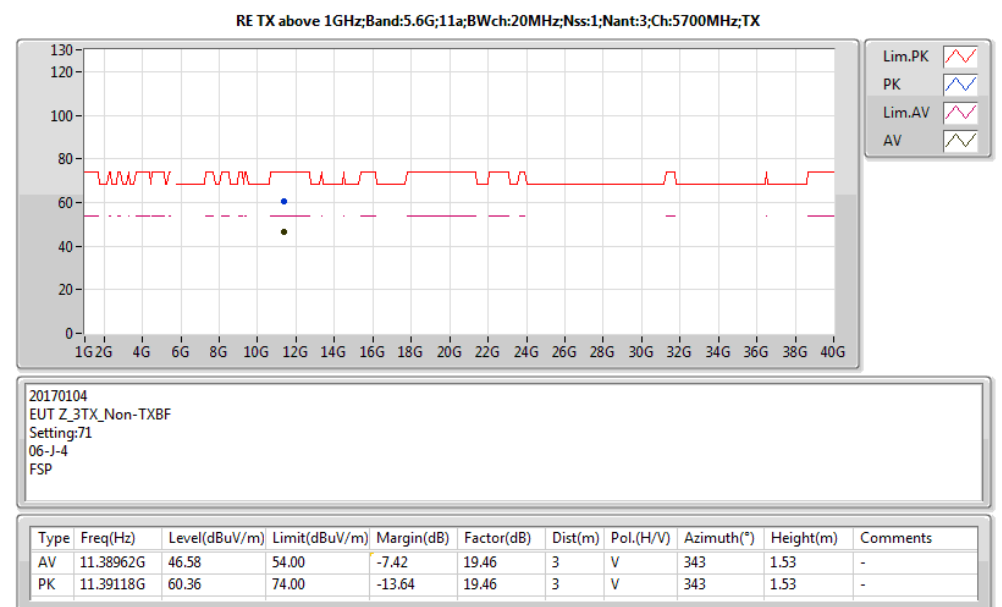
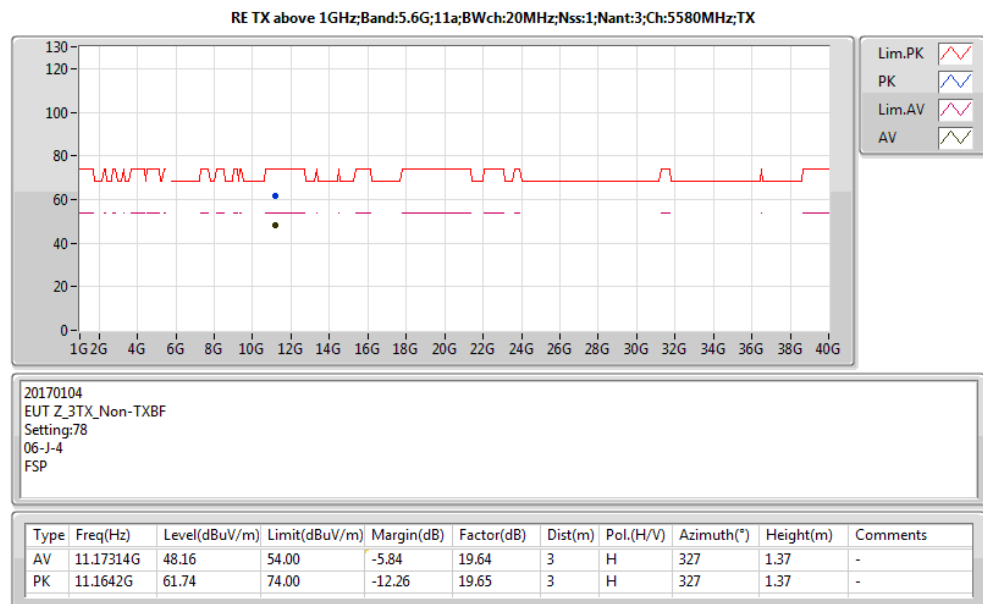
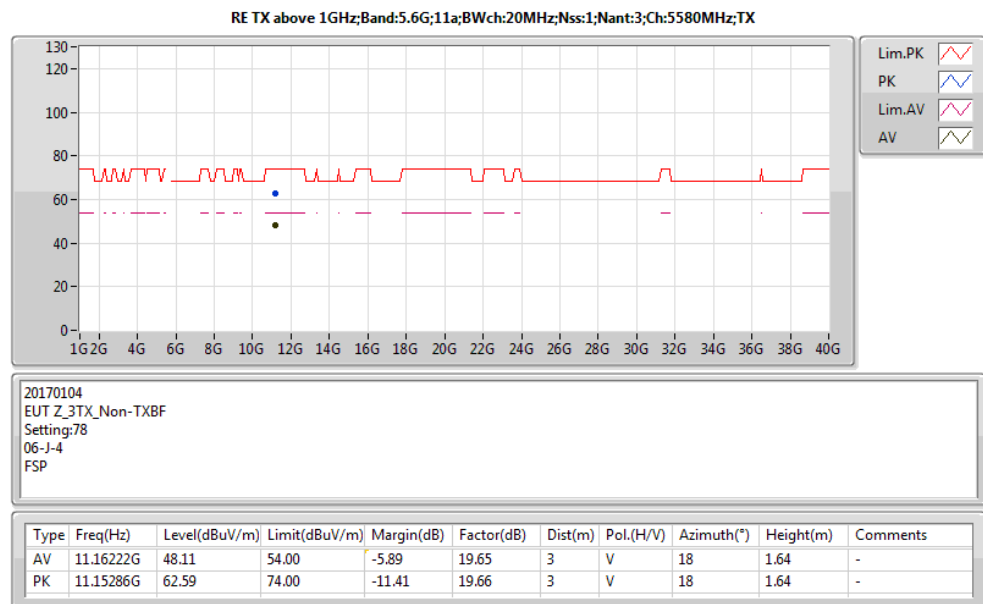
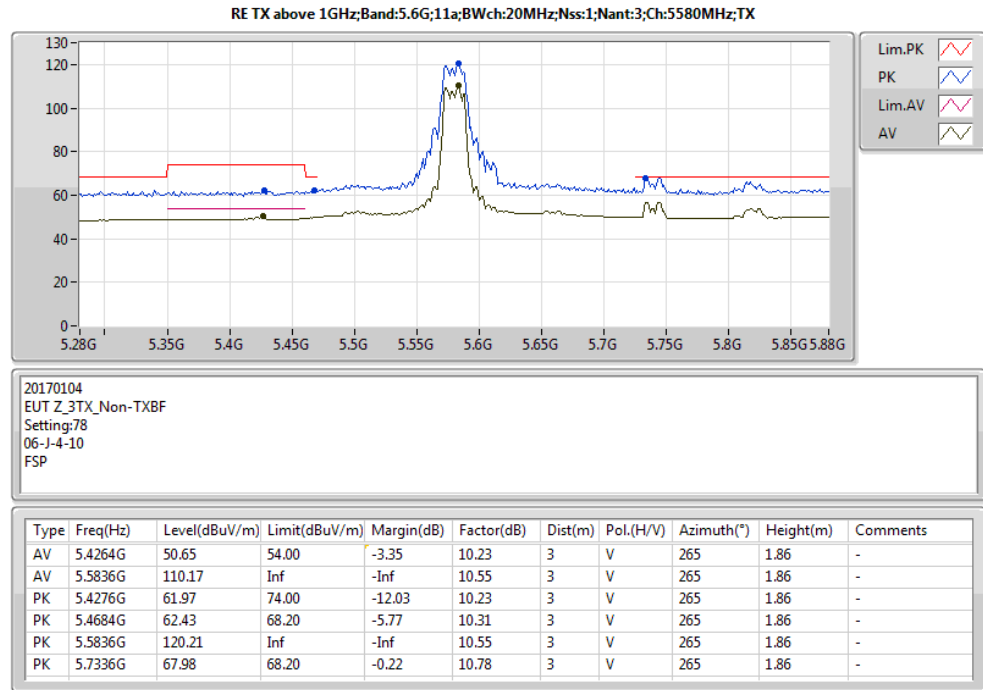


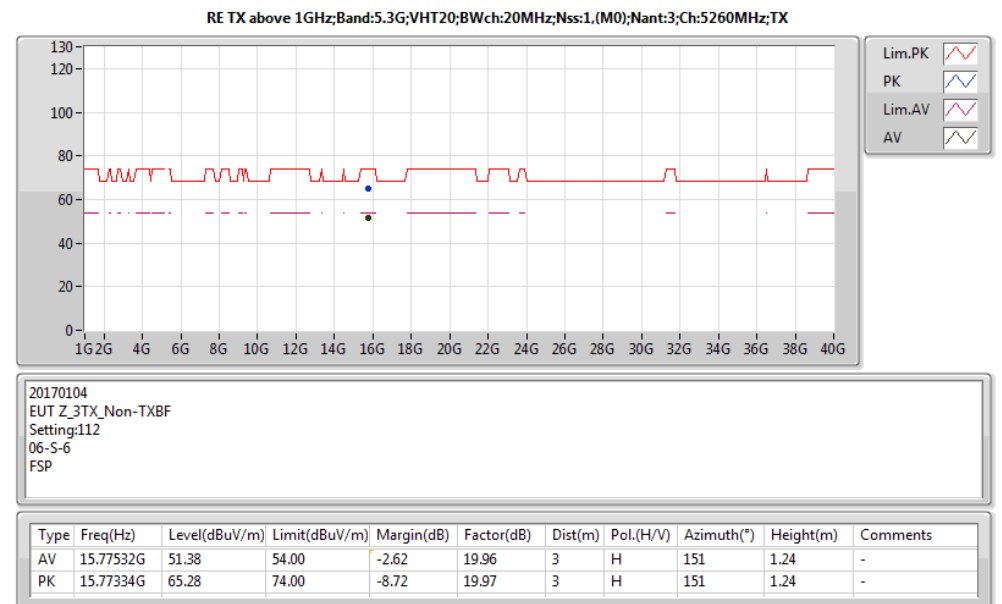
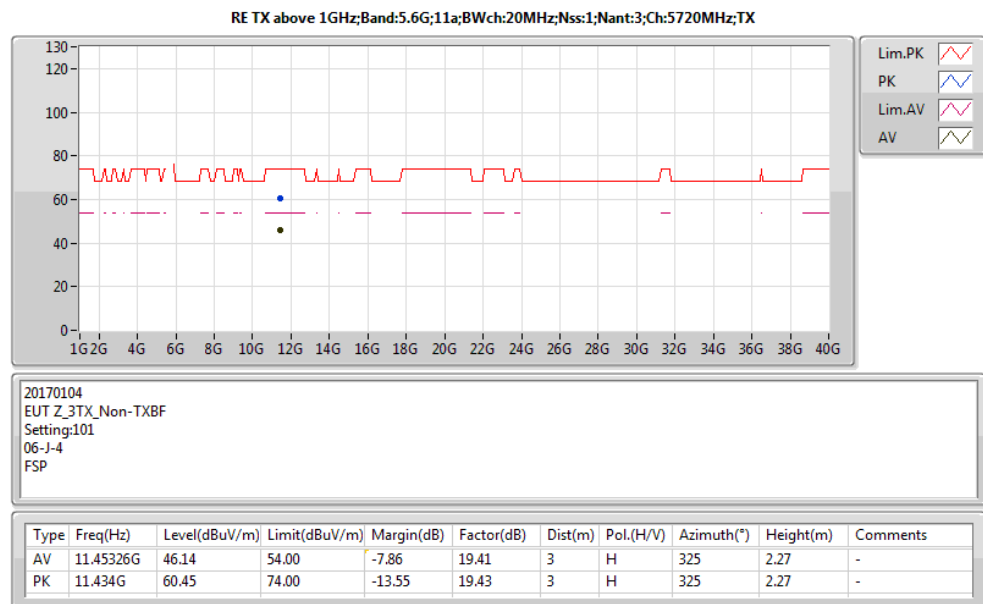
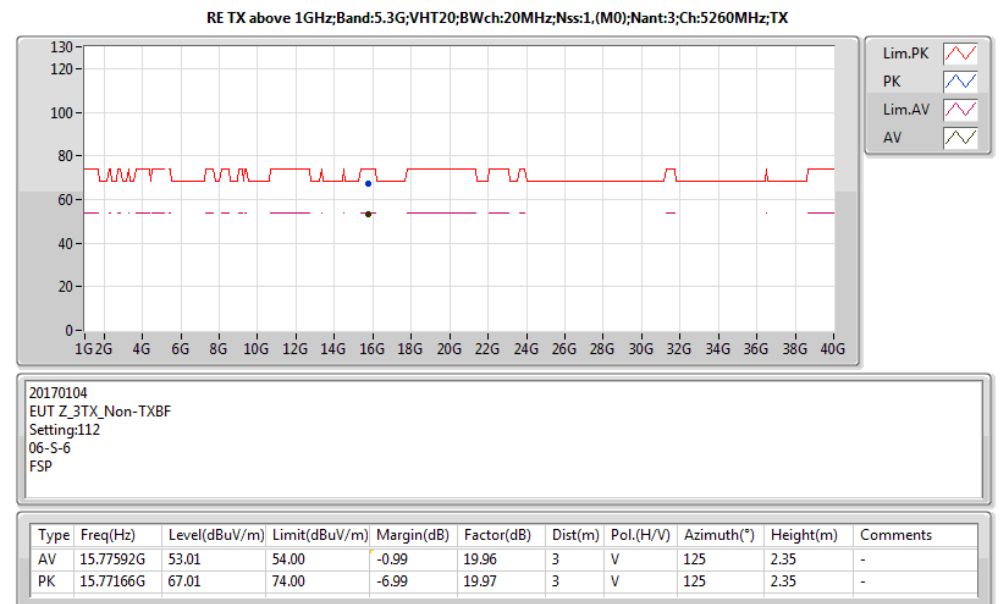
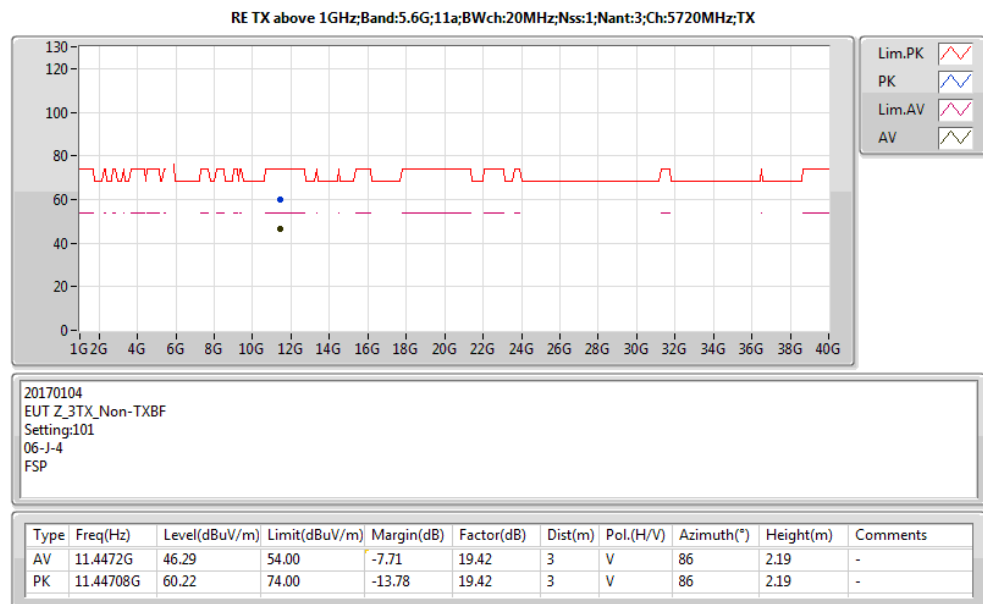
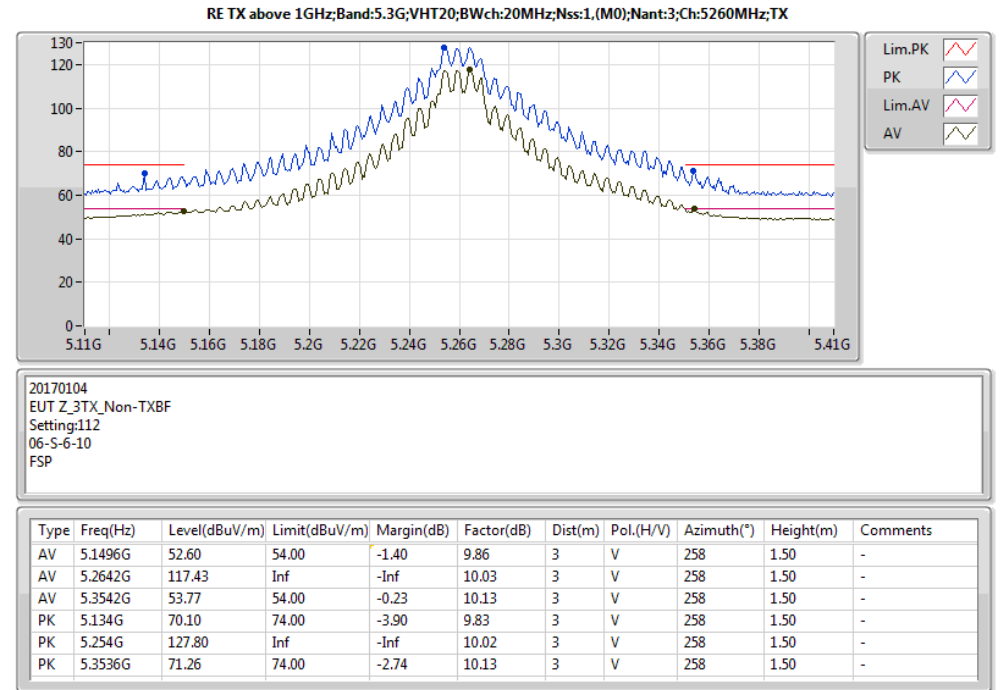
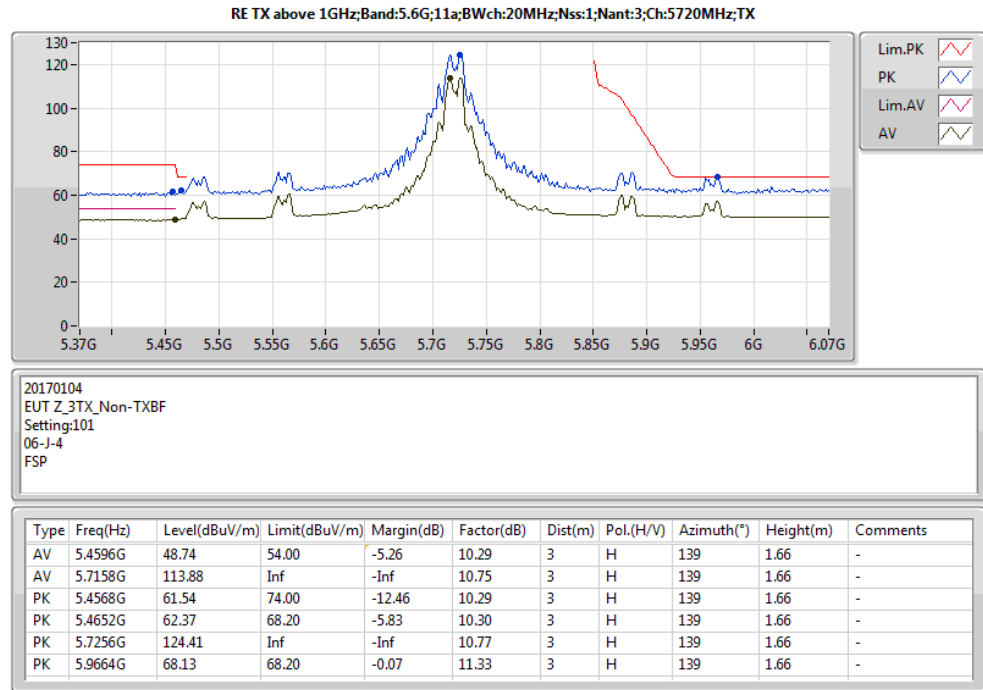
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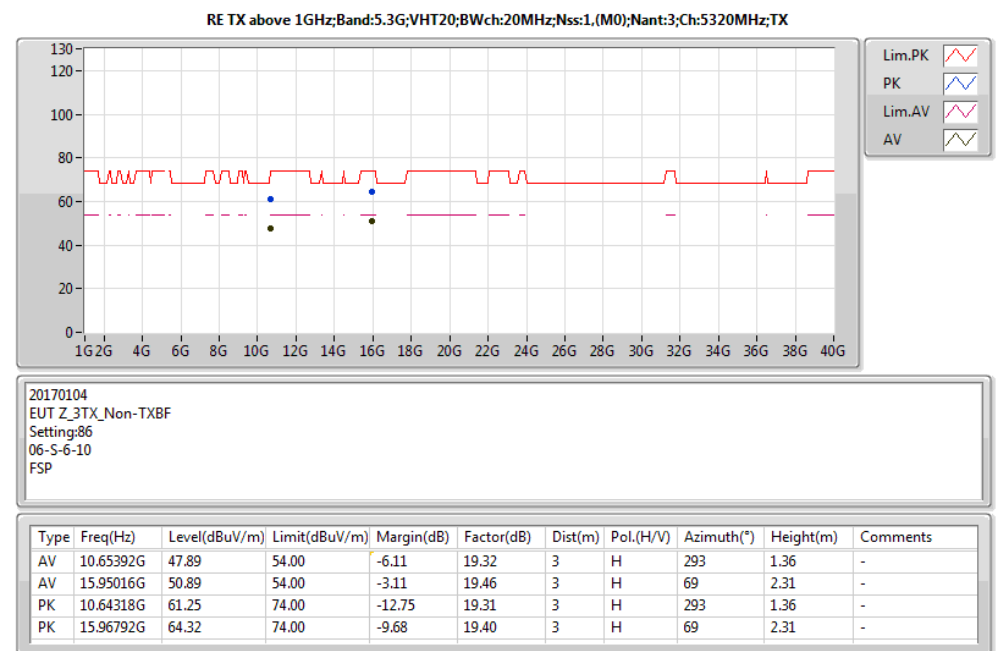
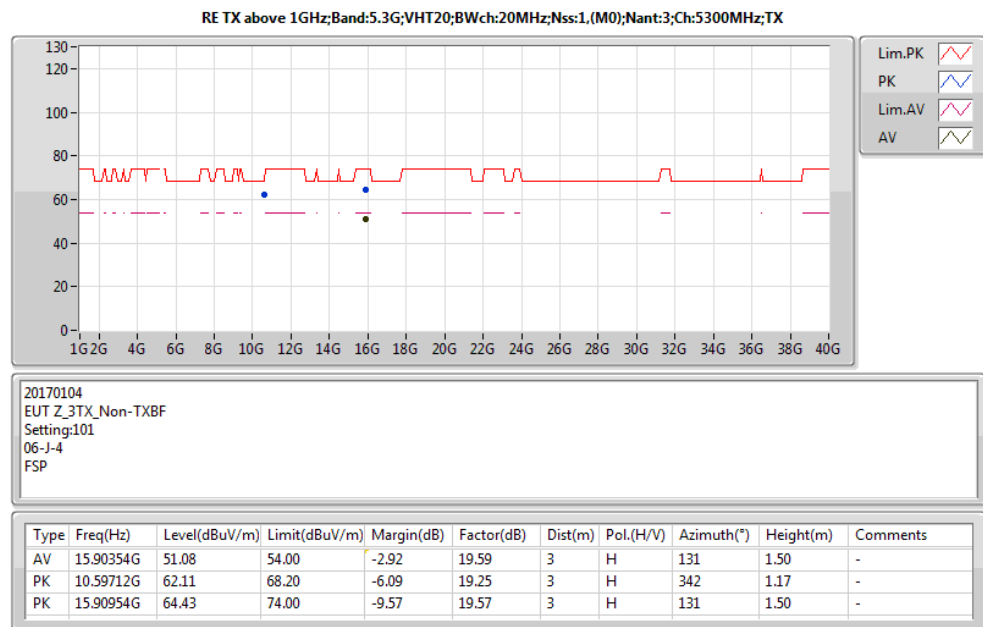
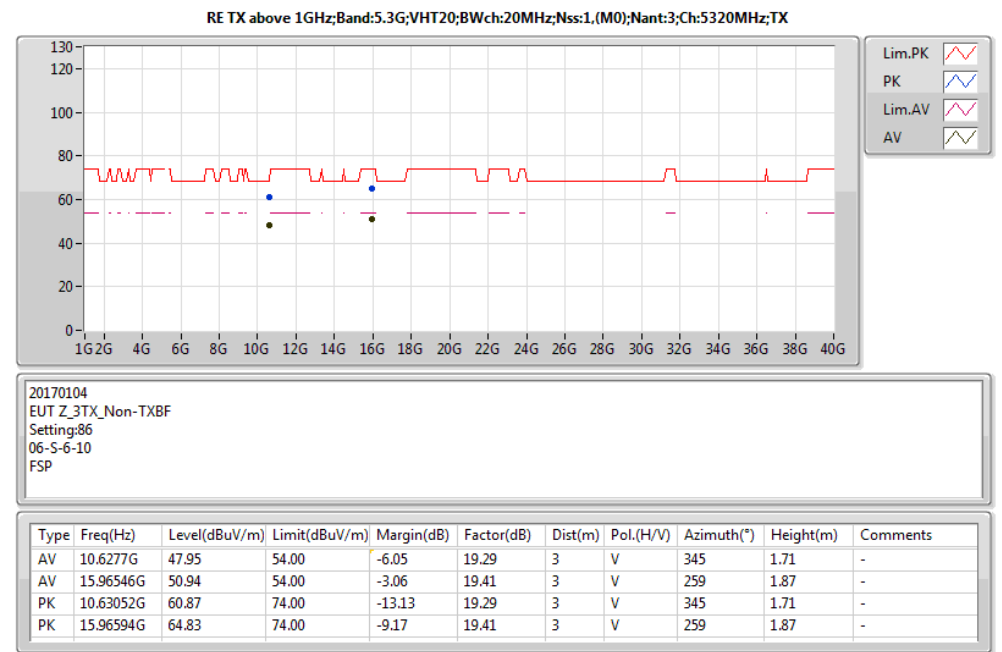
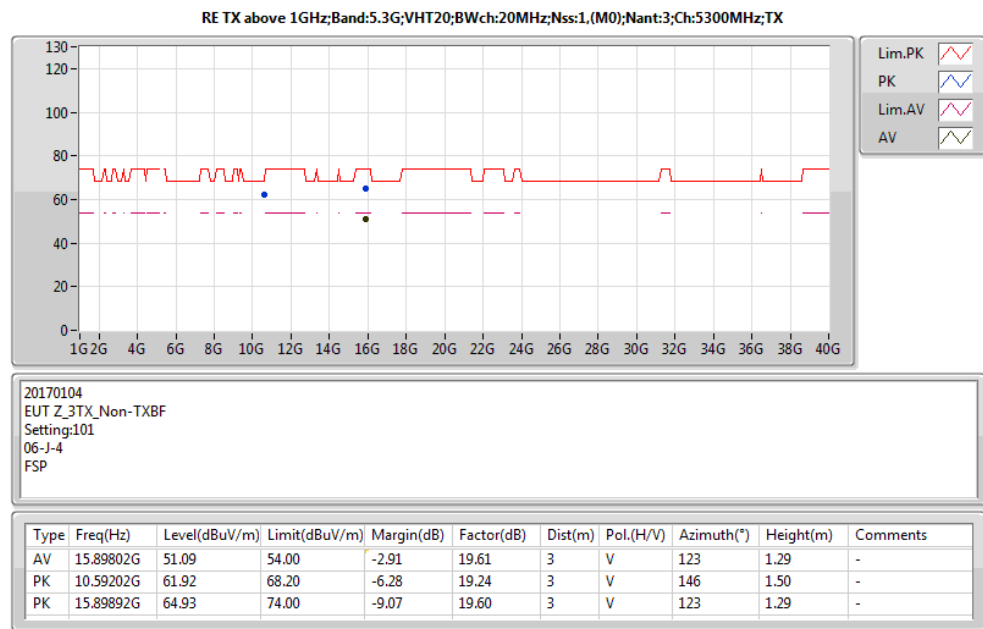
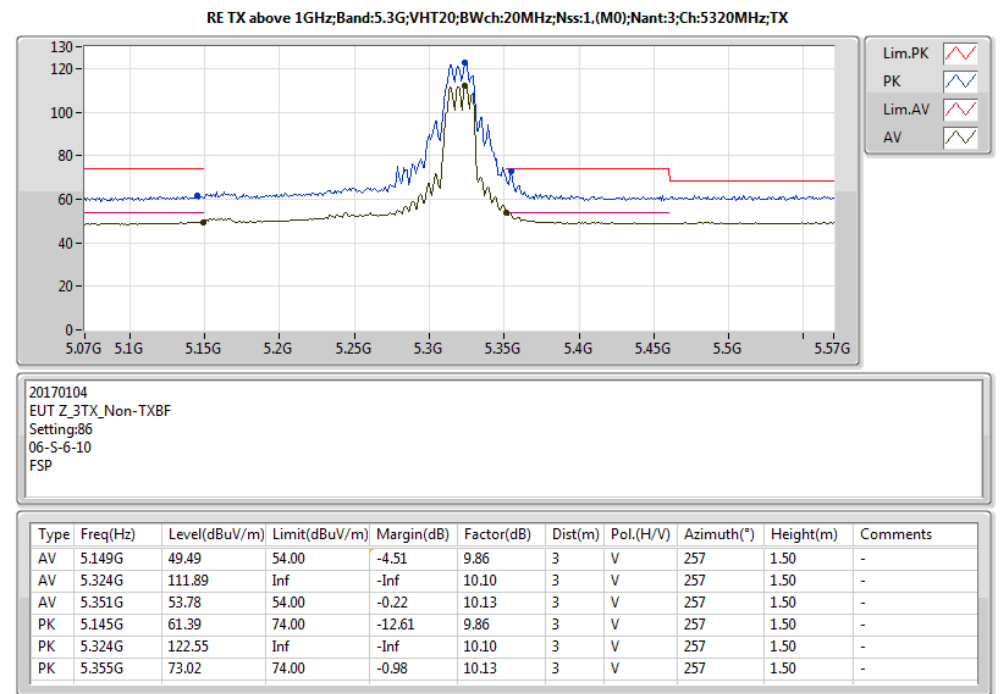
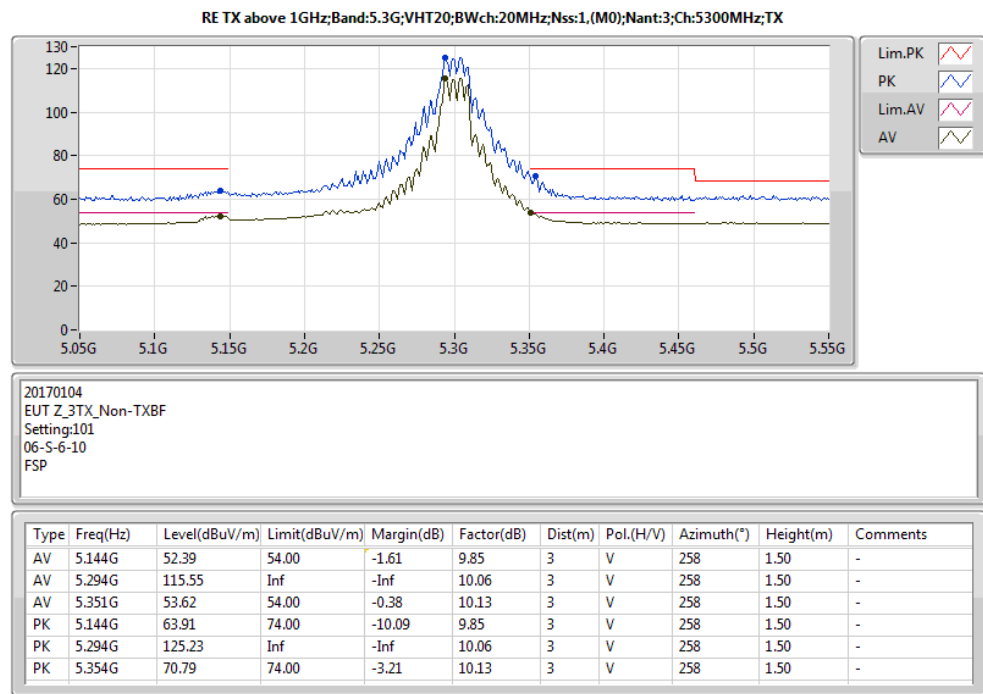
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5.3G;11a;Nss1;Ntx3;5260;TX	Pass	AV	5.3506G	53.98	54.00	-0.02	10.13	3	V	306	1.00	-

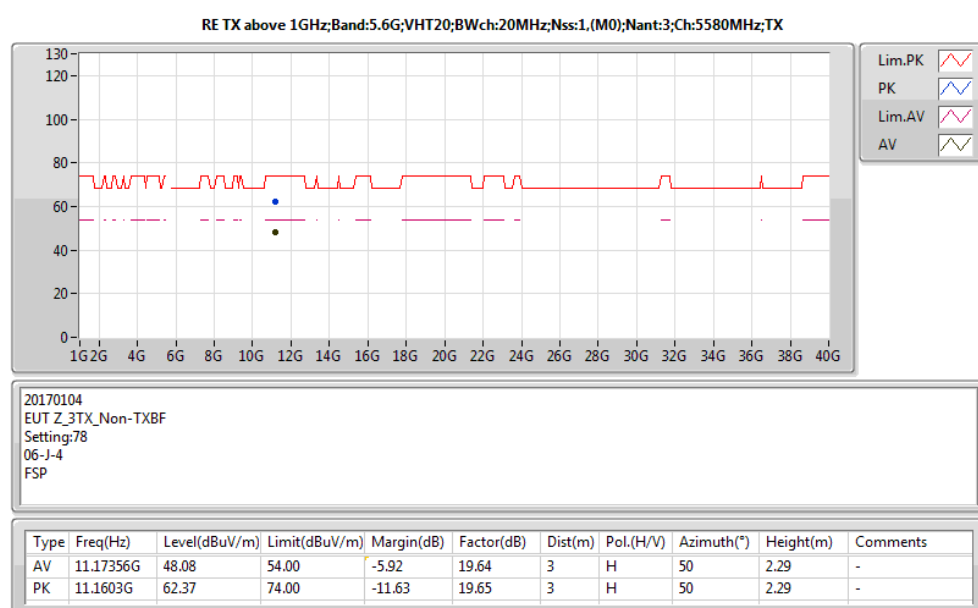
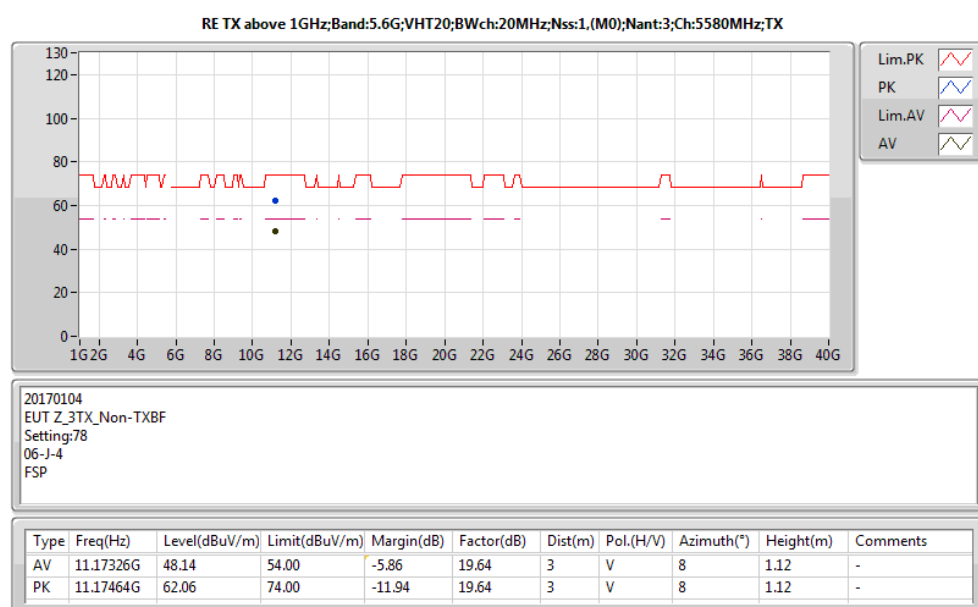
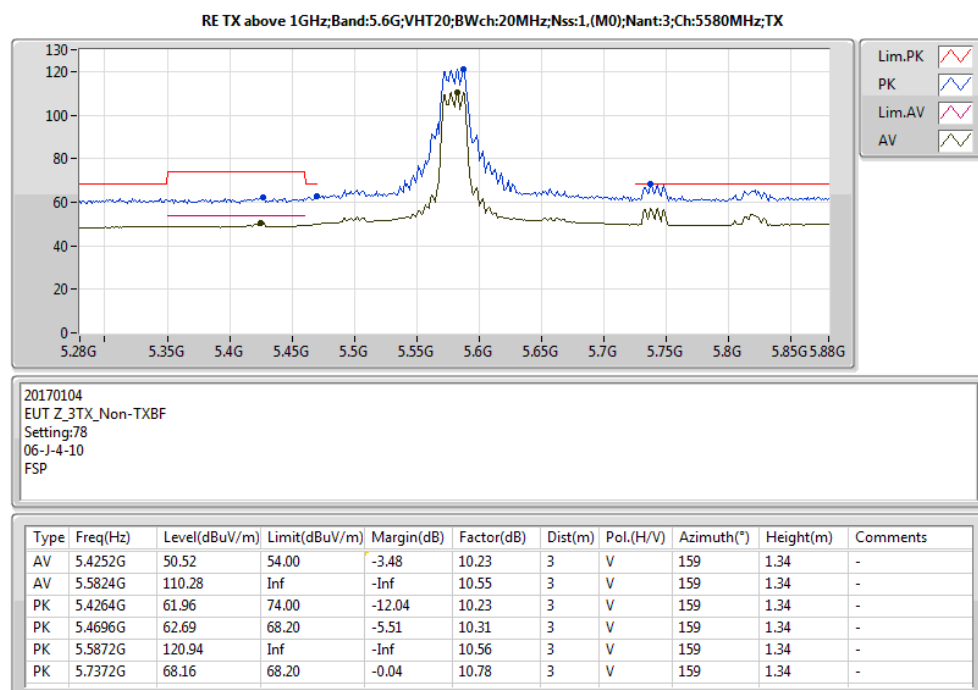
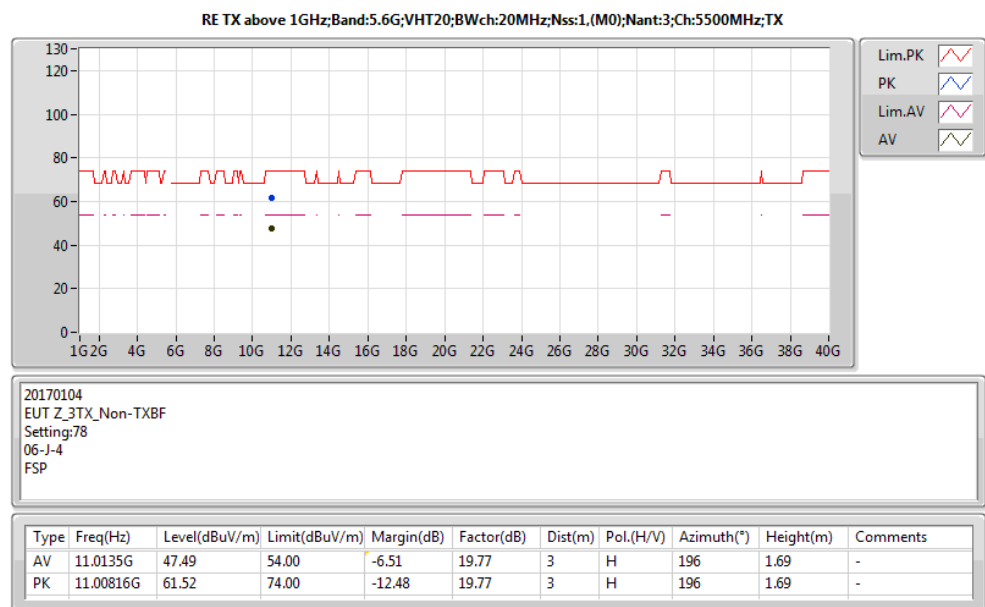
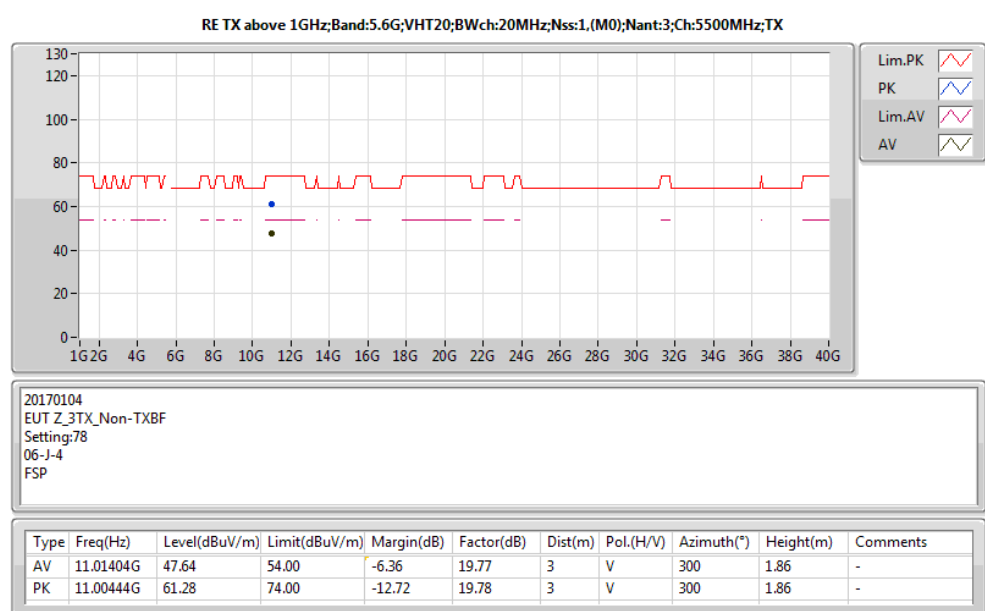
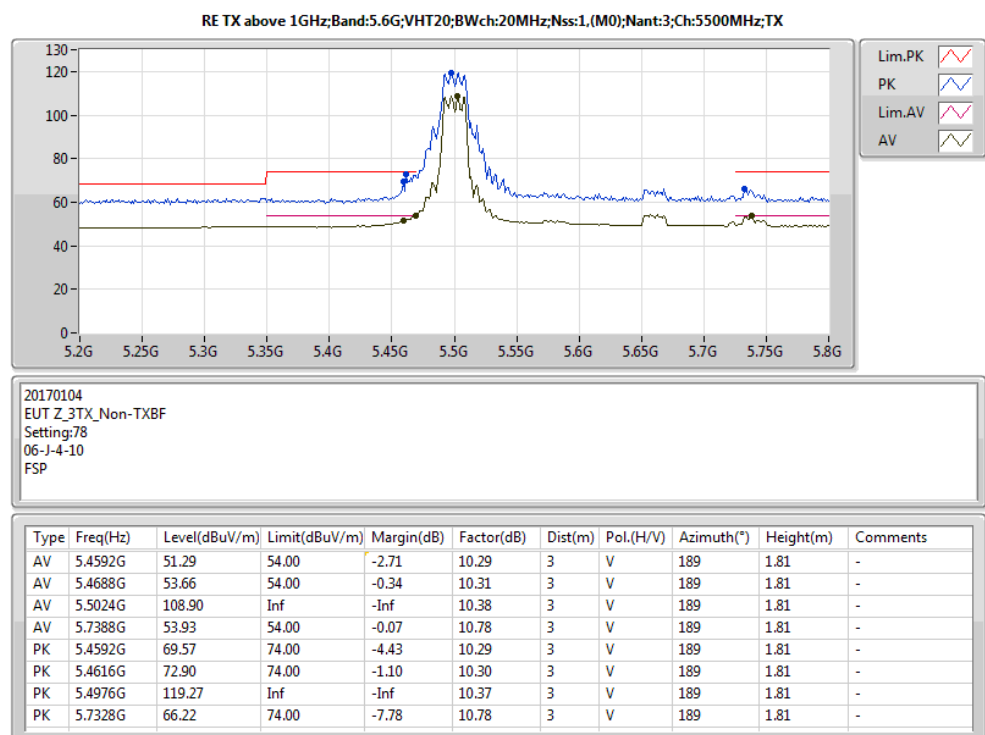


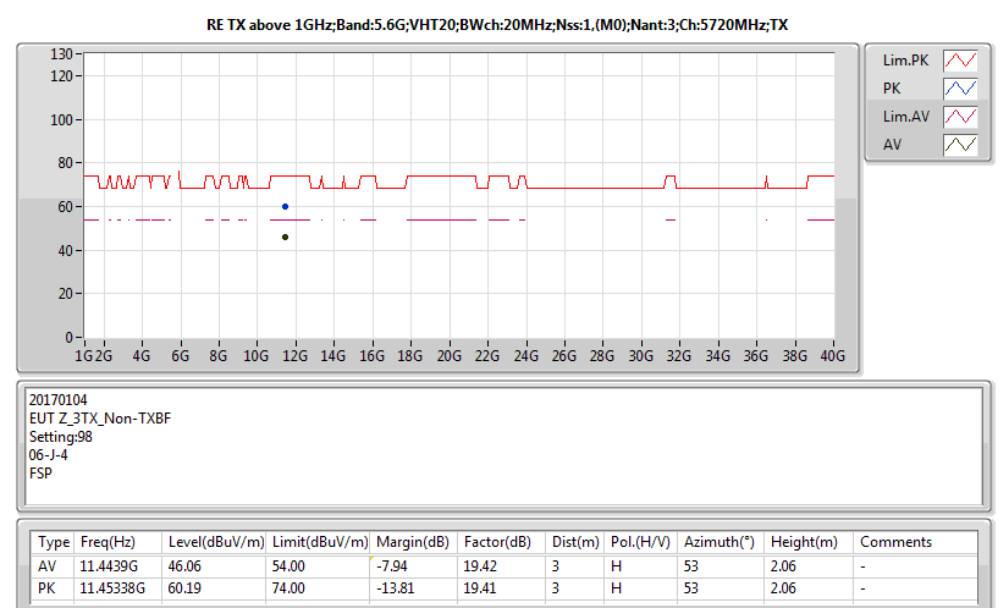
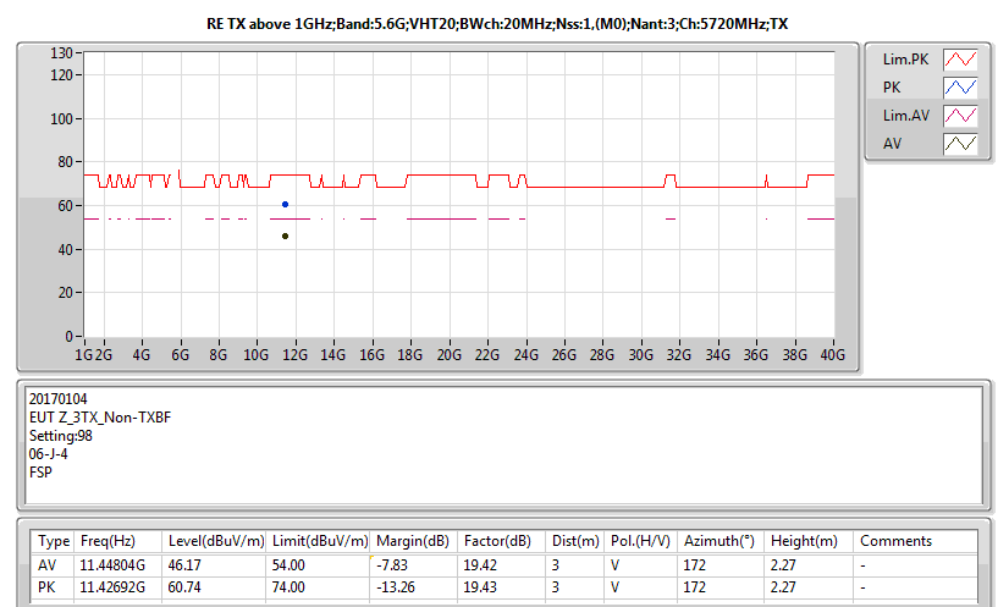
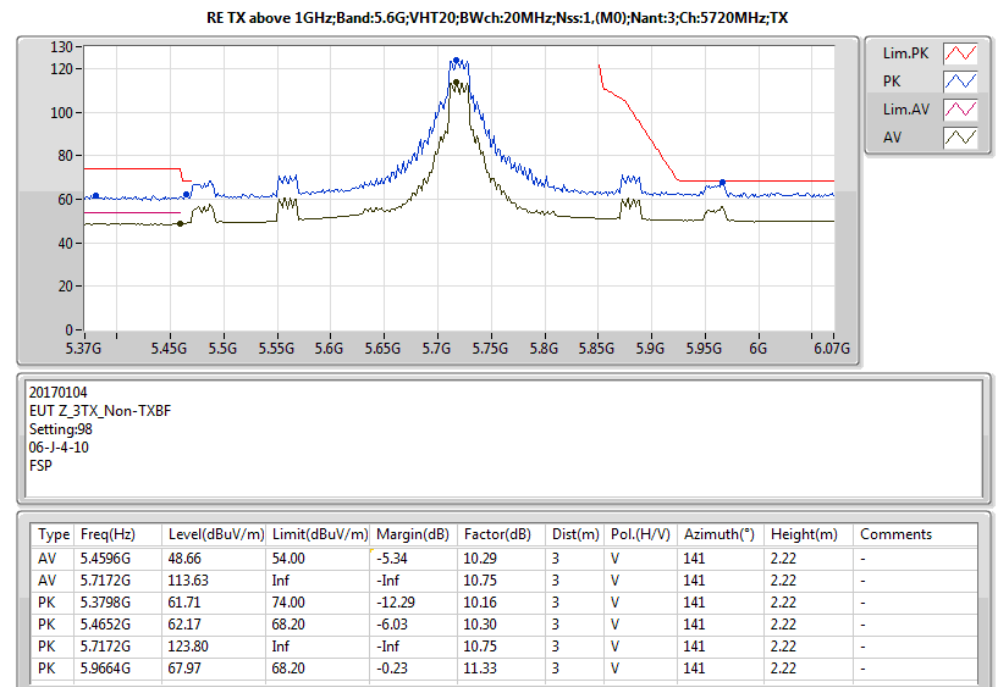
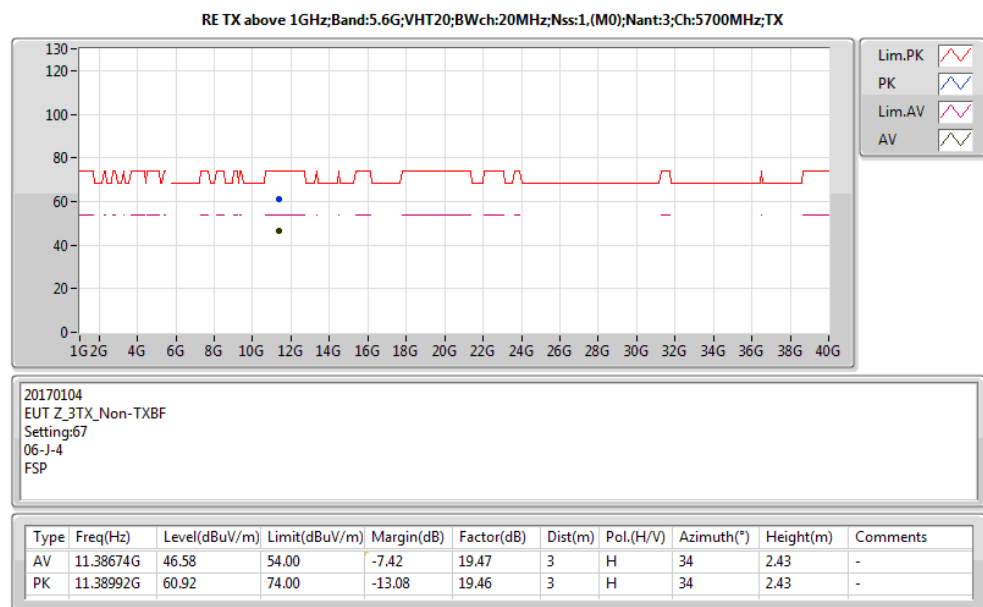
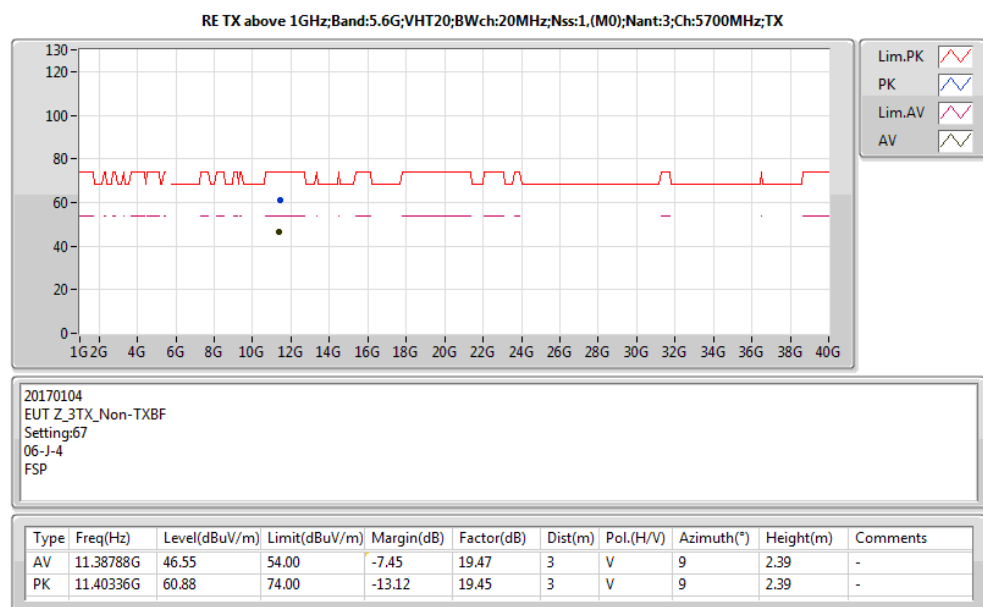
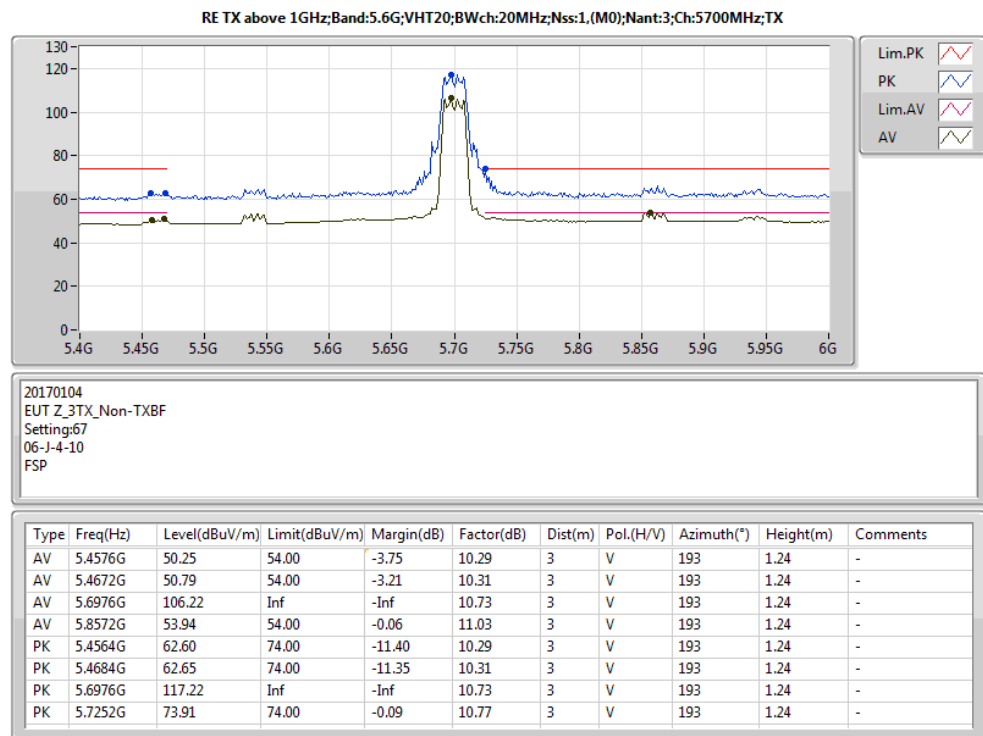


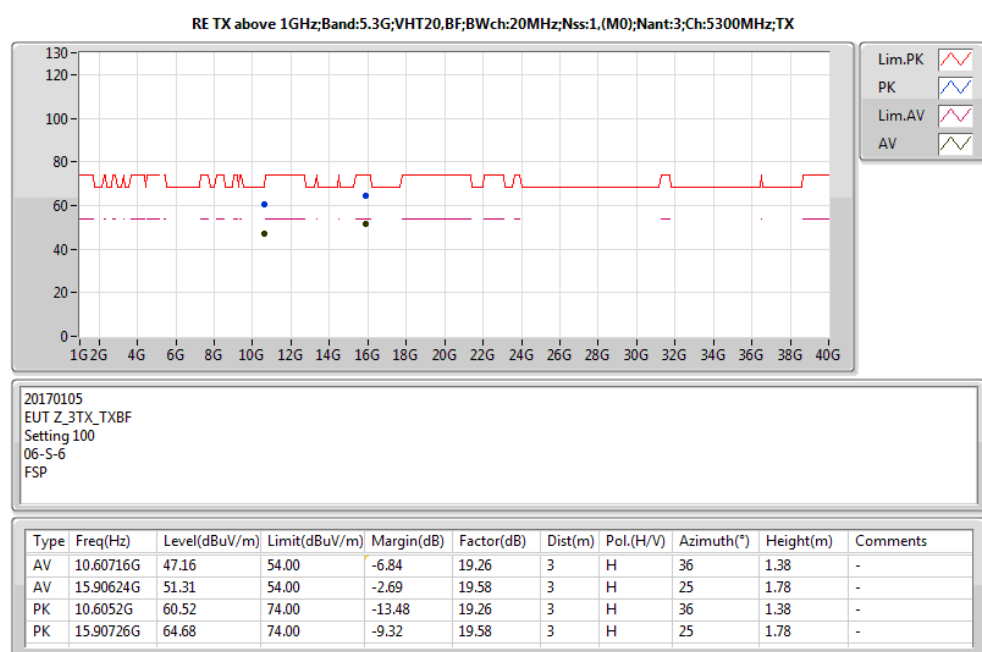
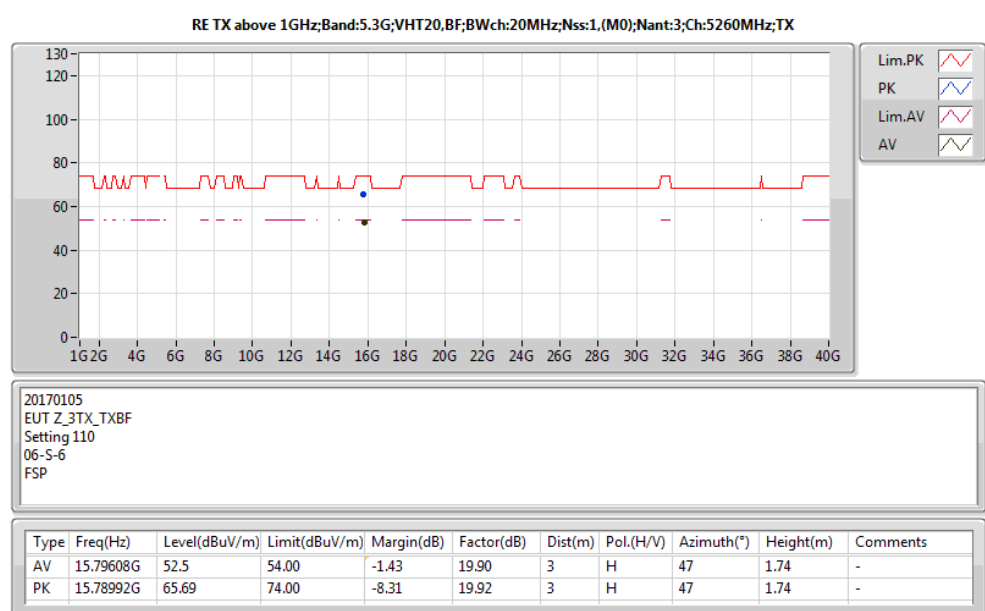
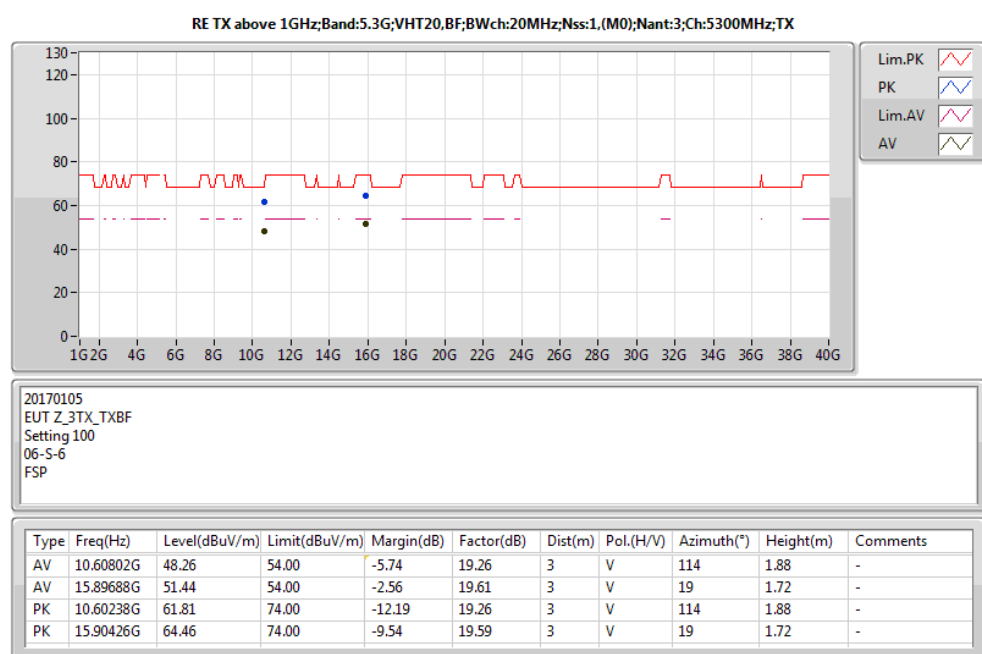
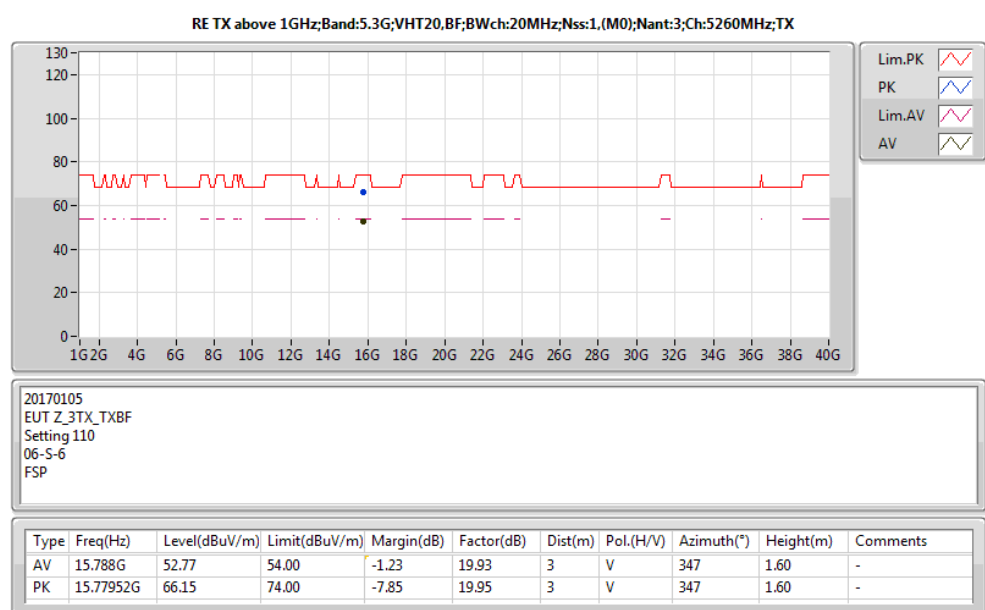
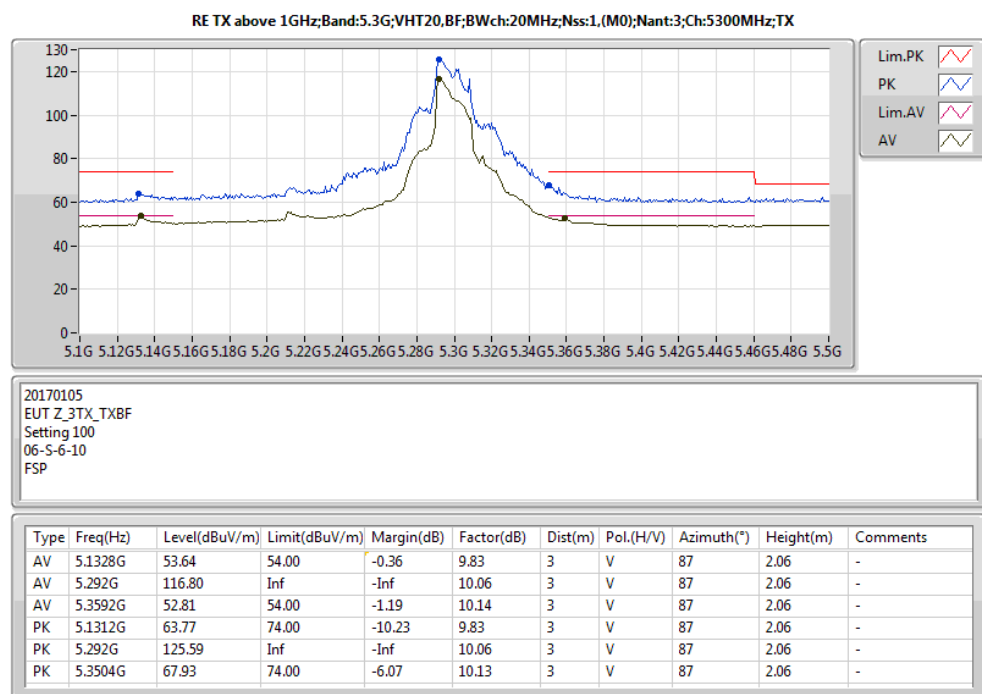
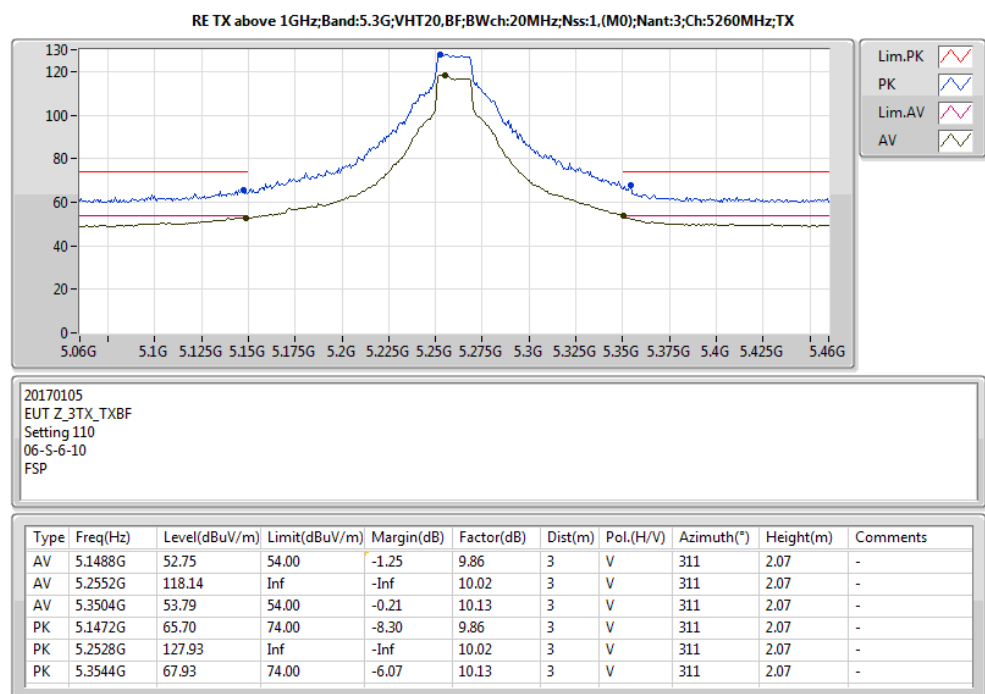


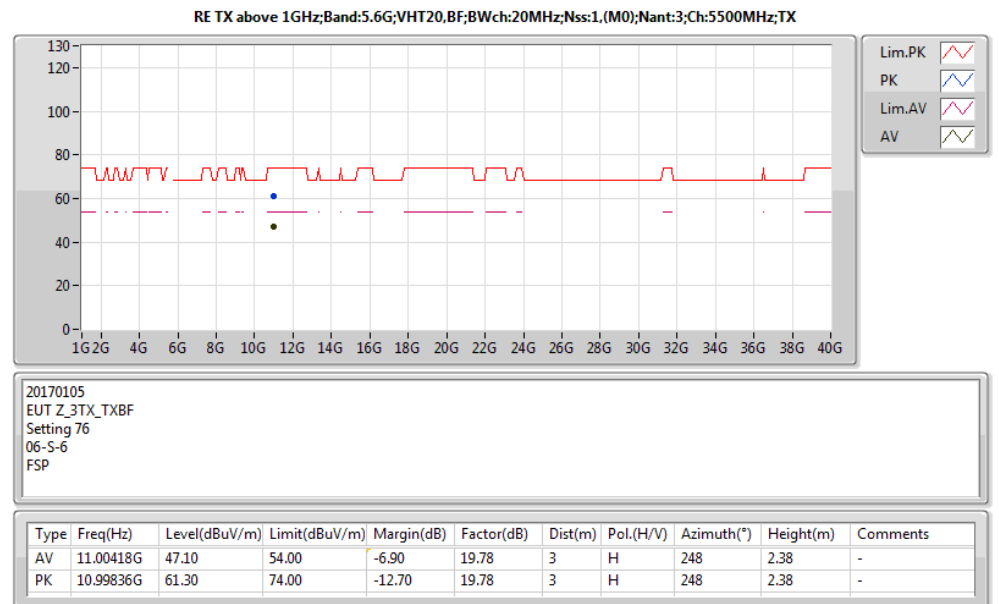
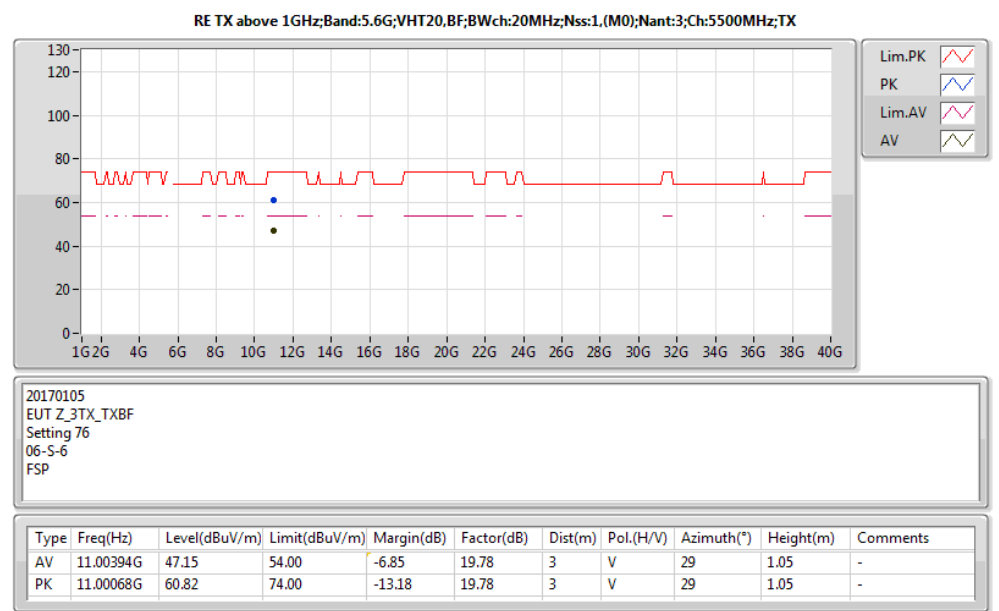
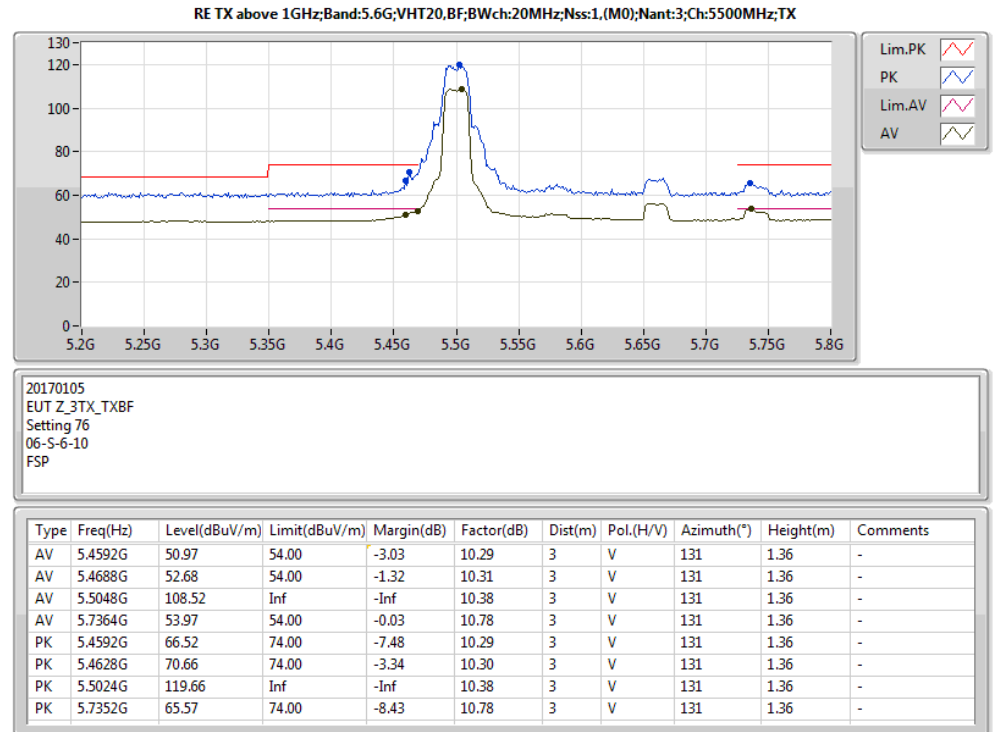
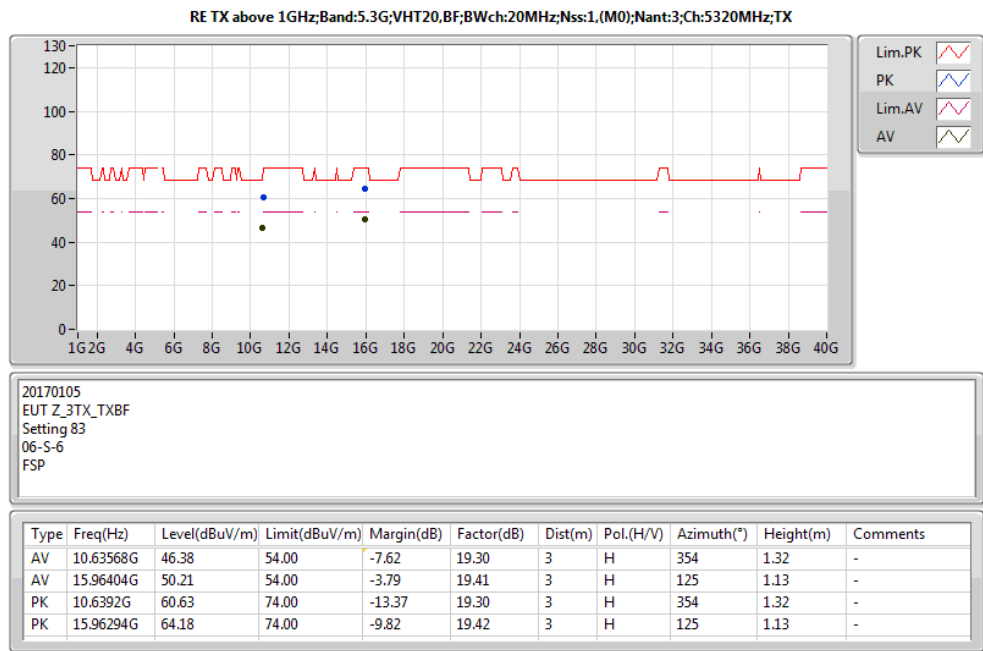
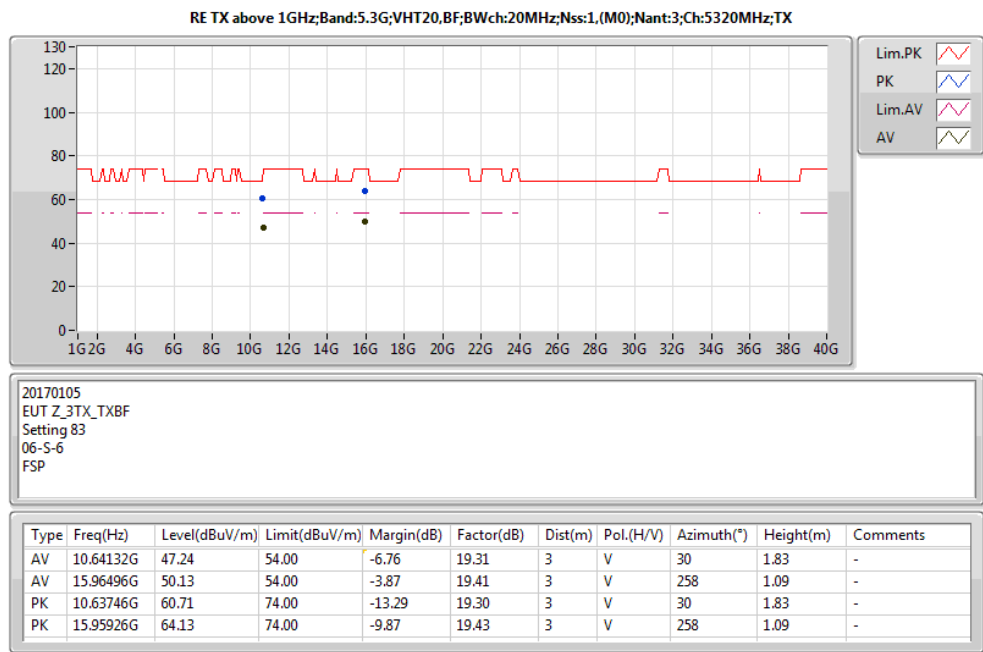
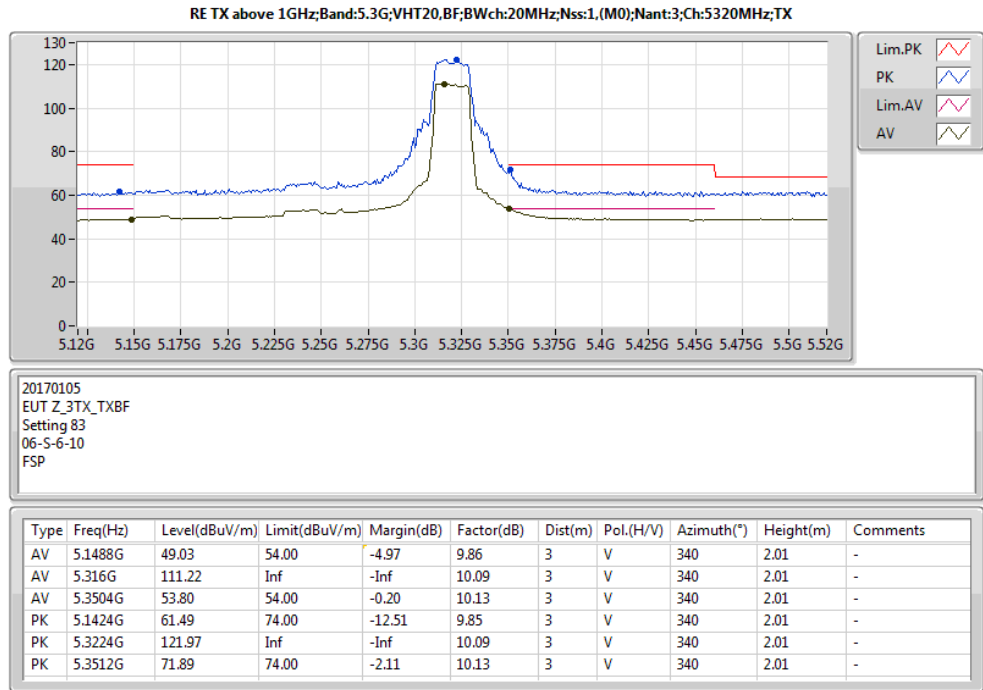


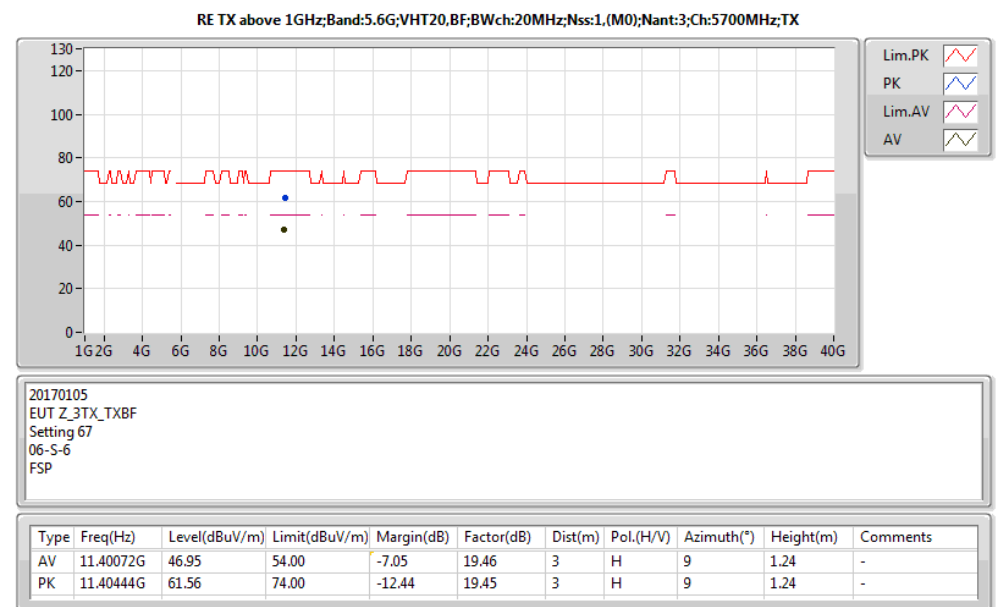
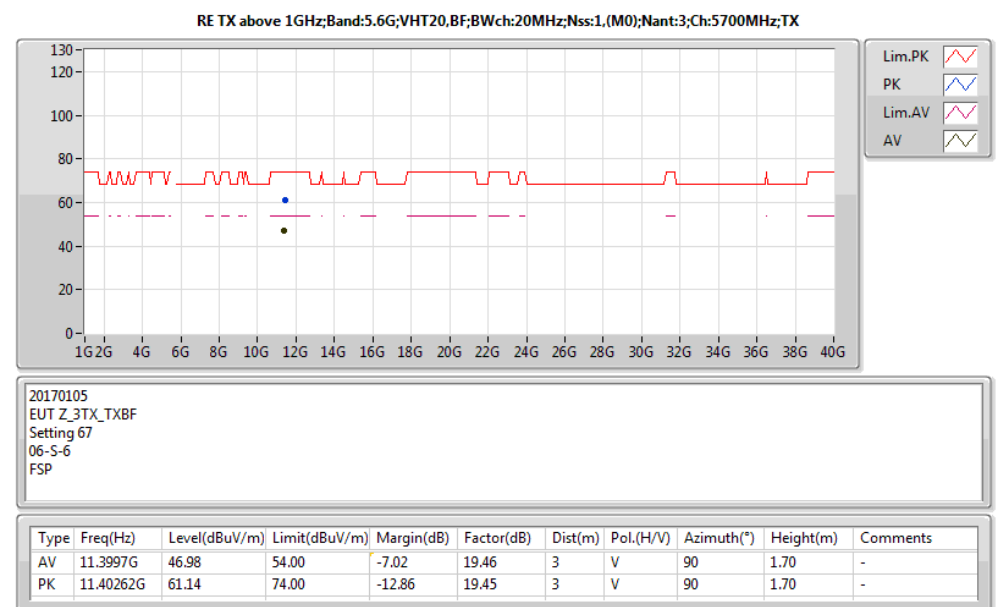
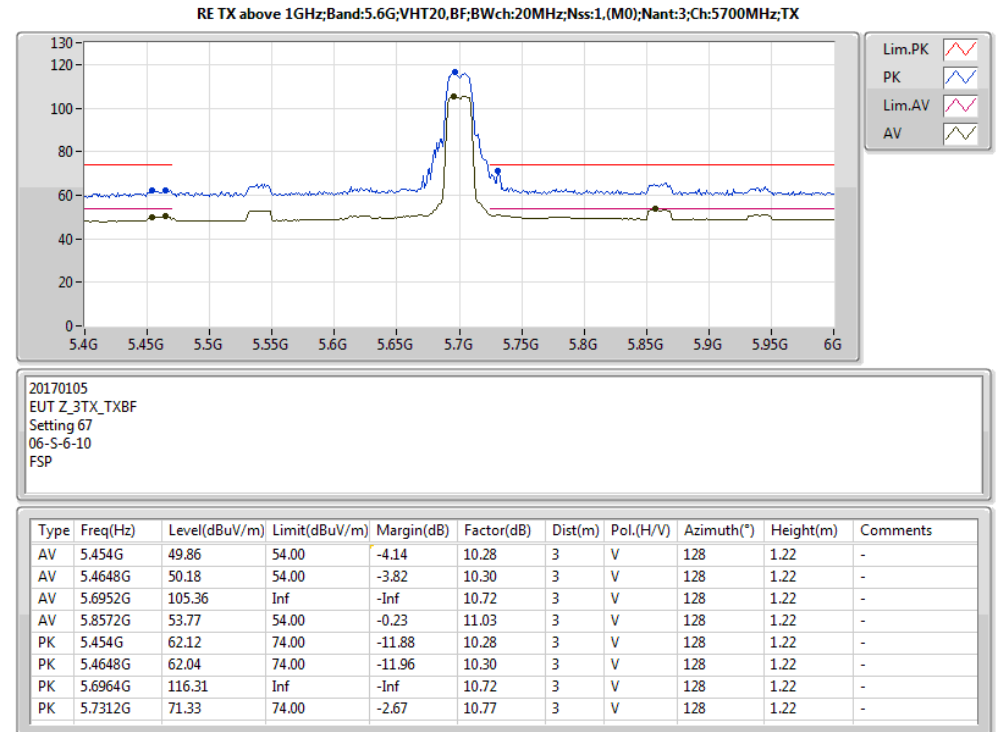
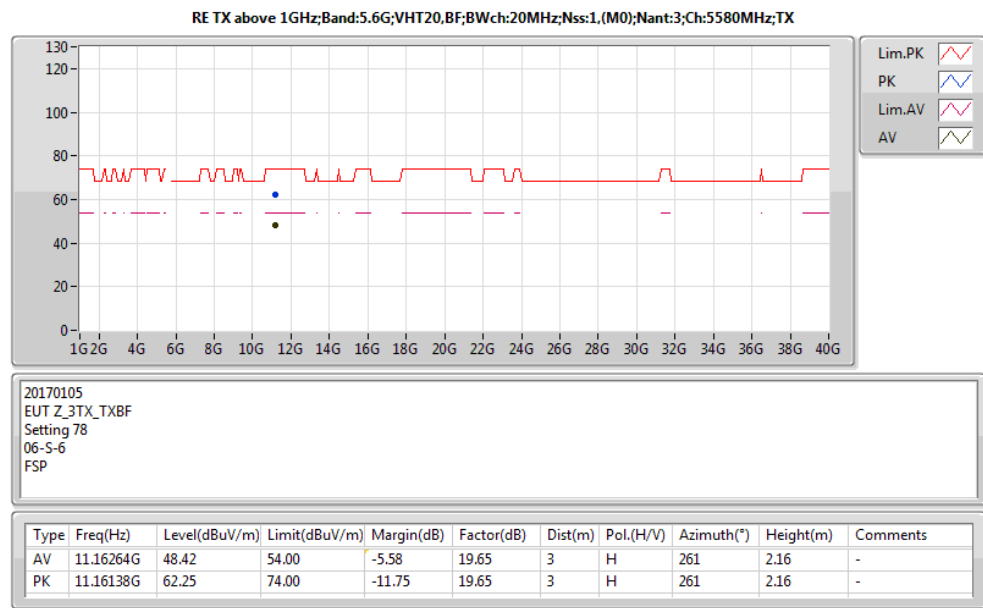
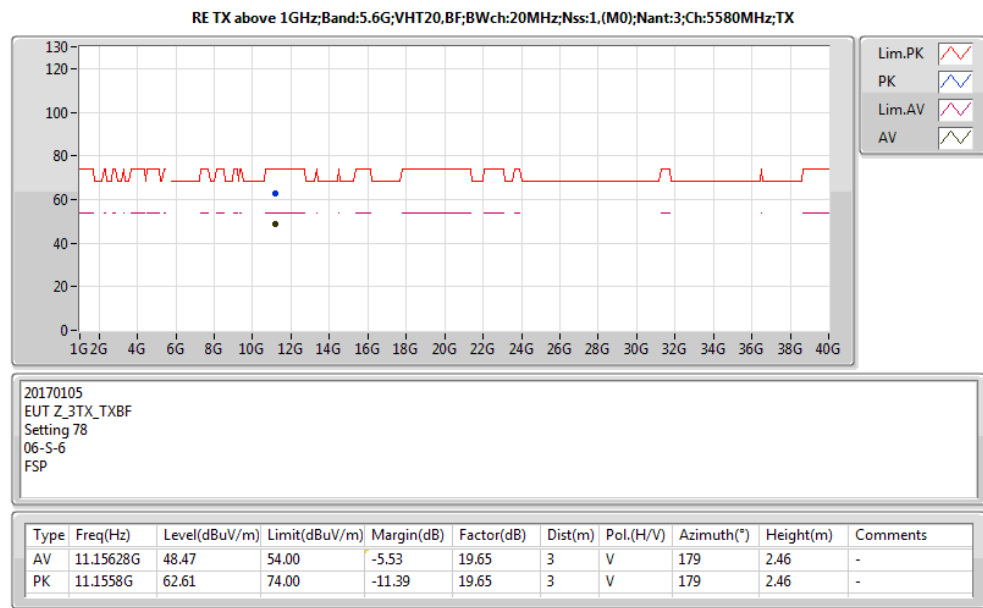
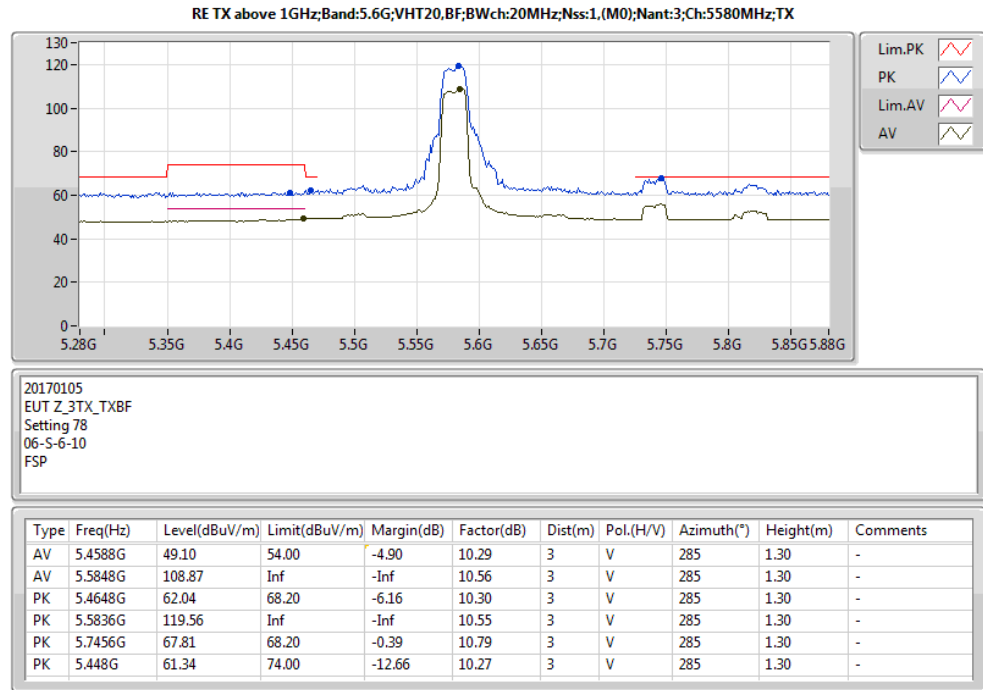


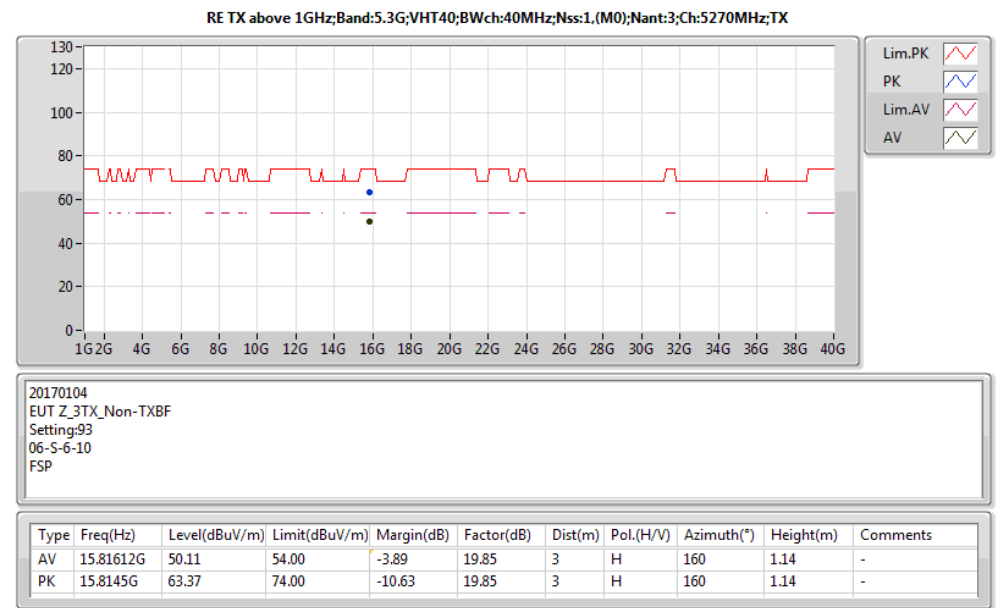
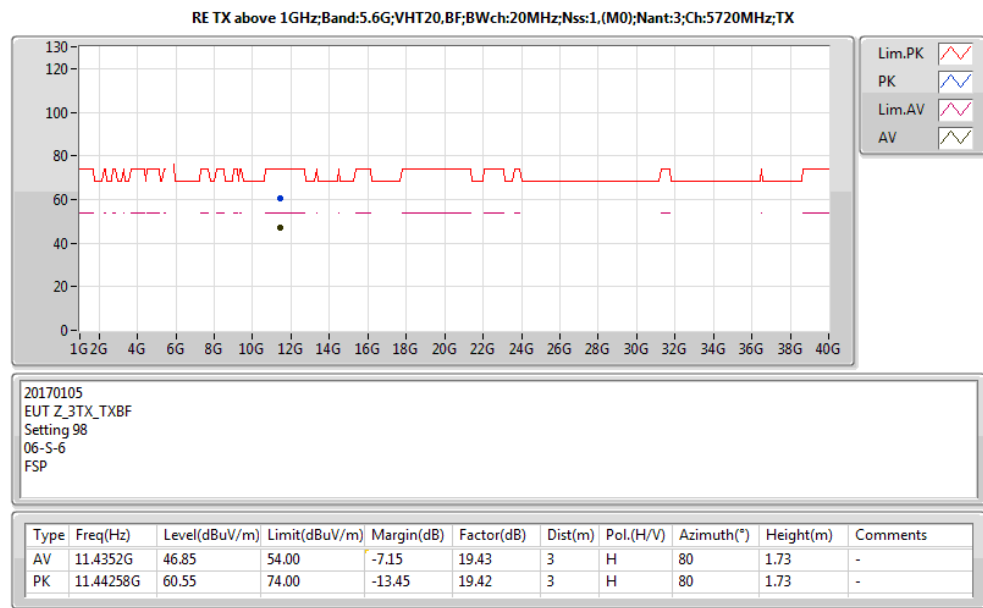
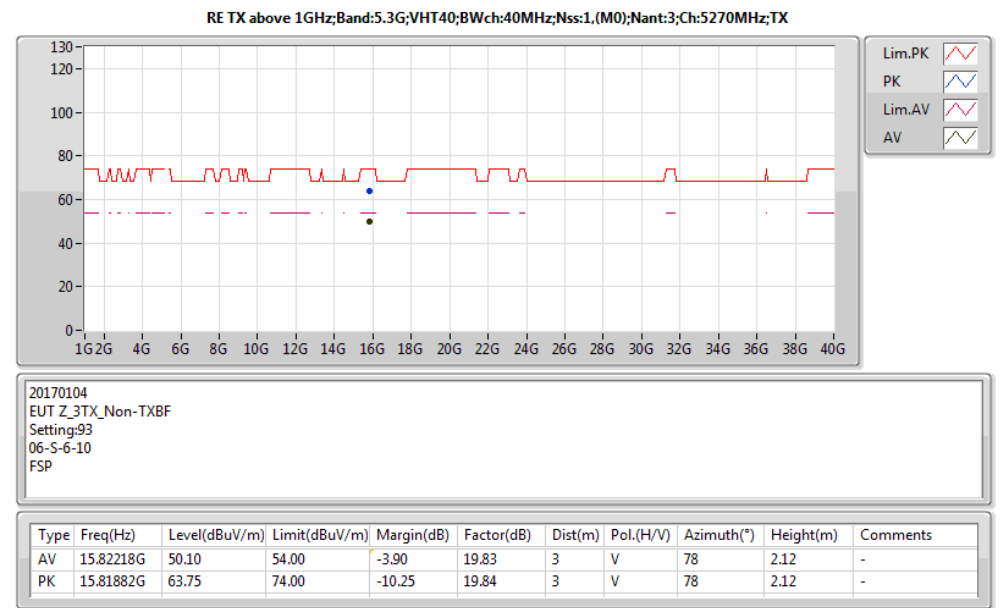
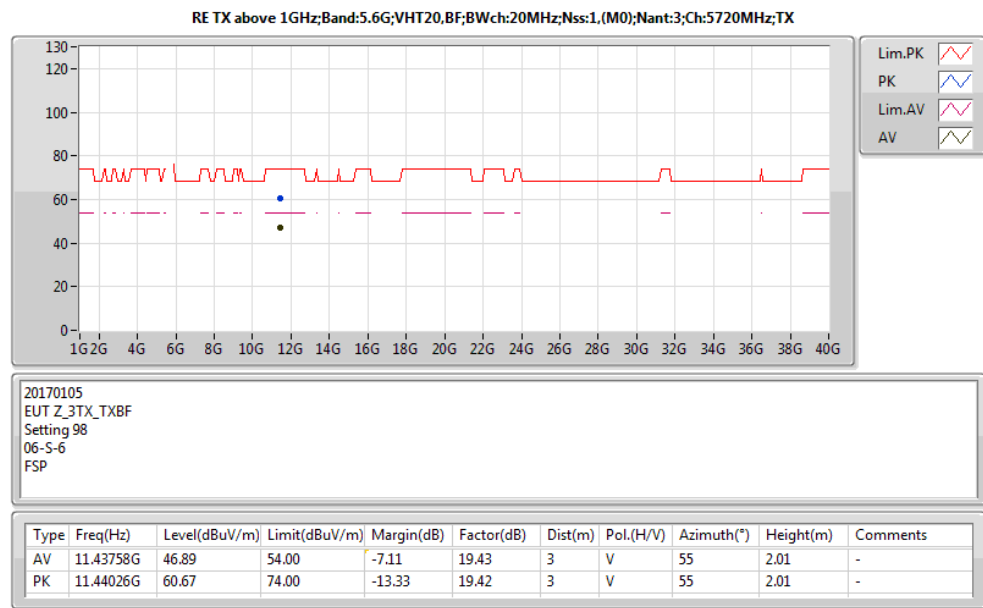
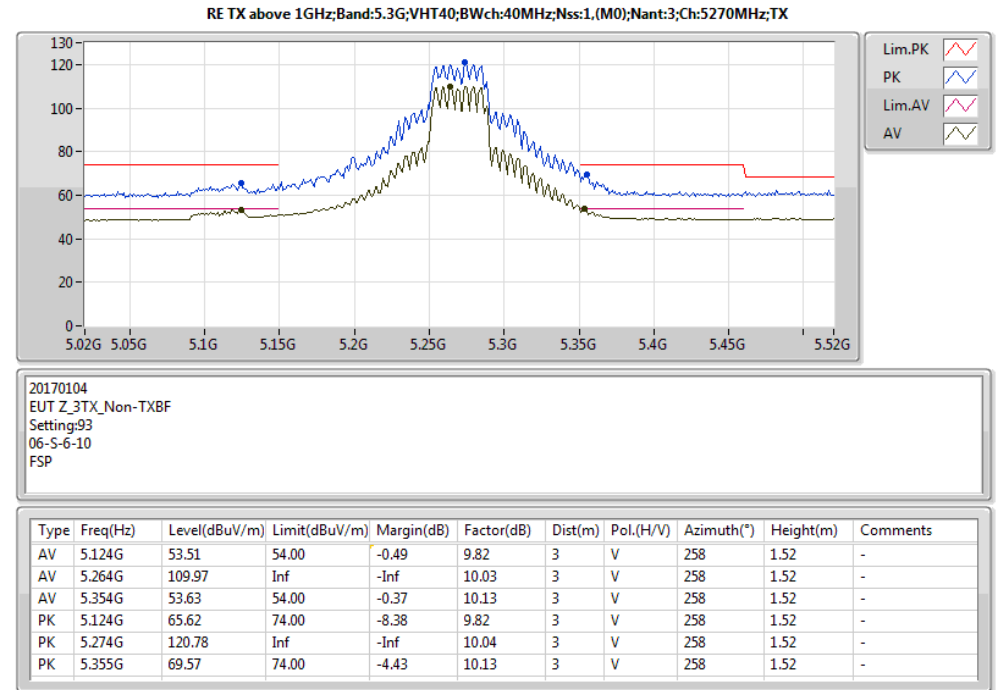
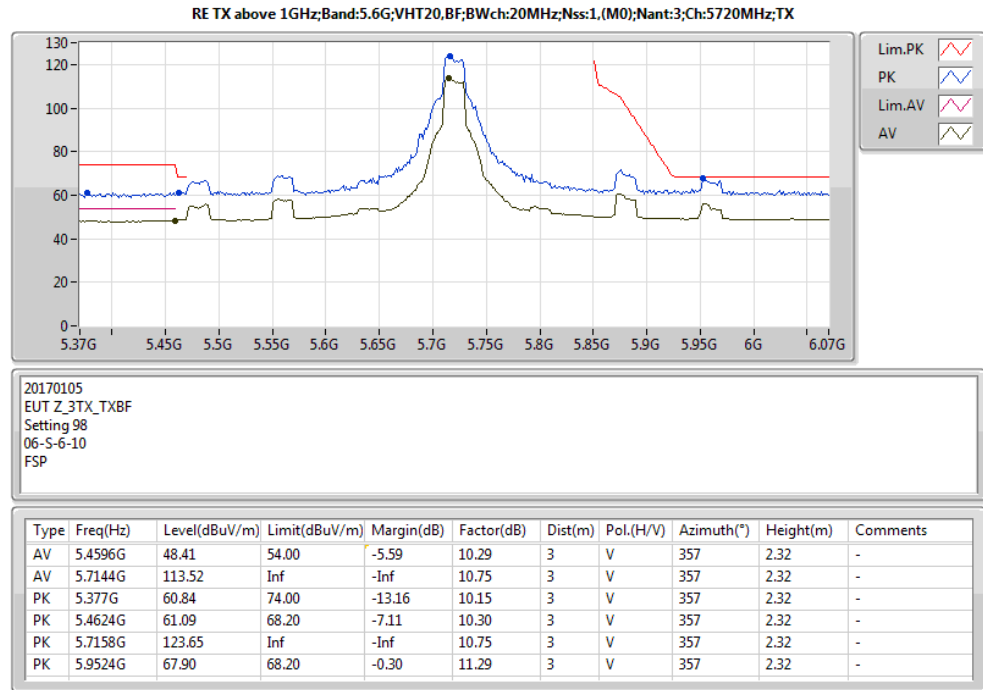


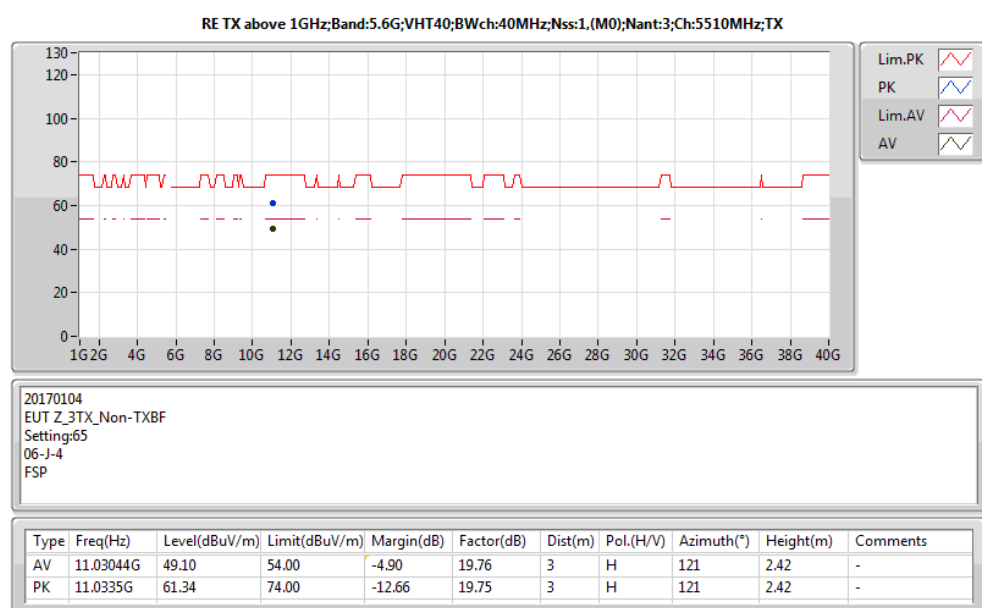
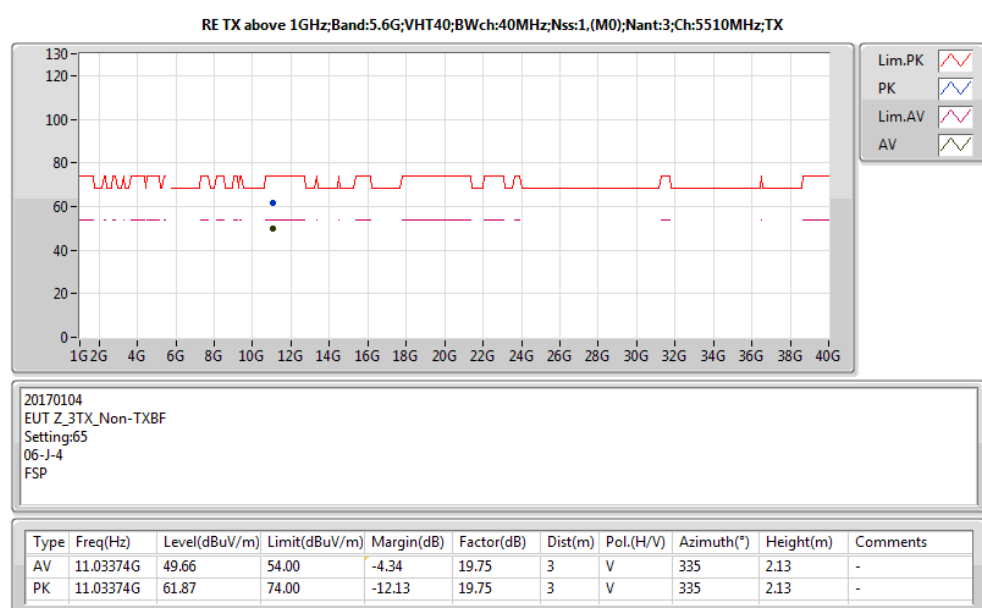
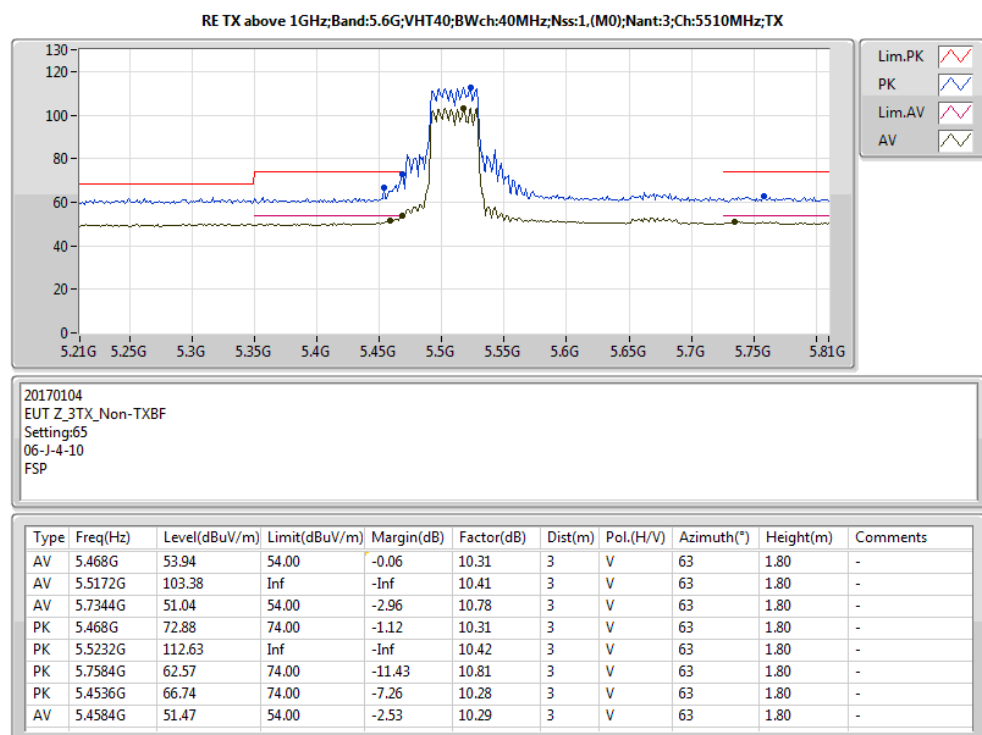
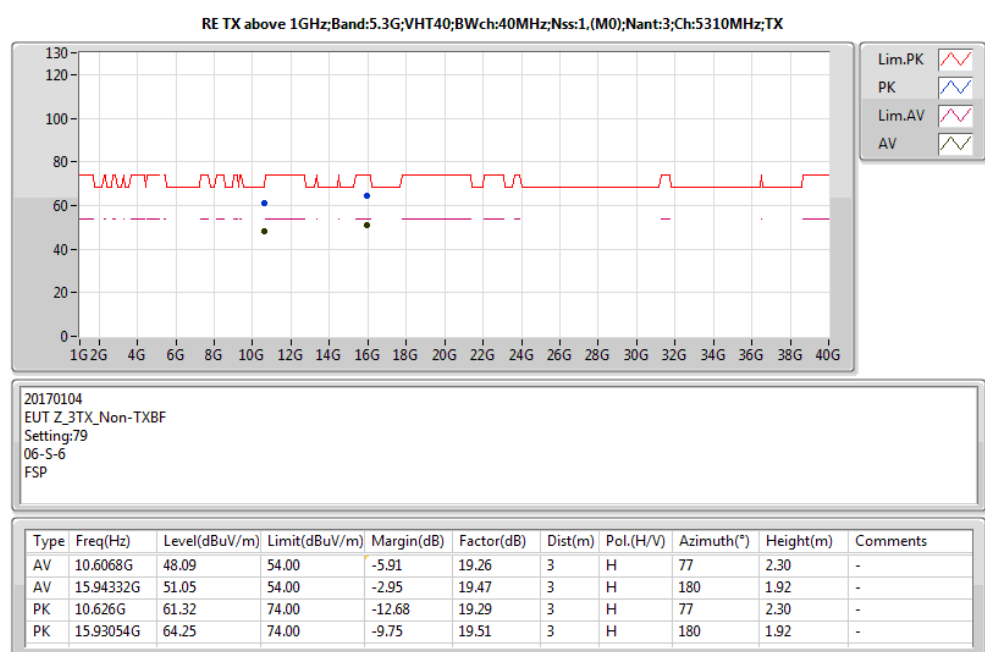
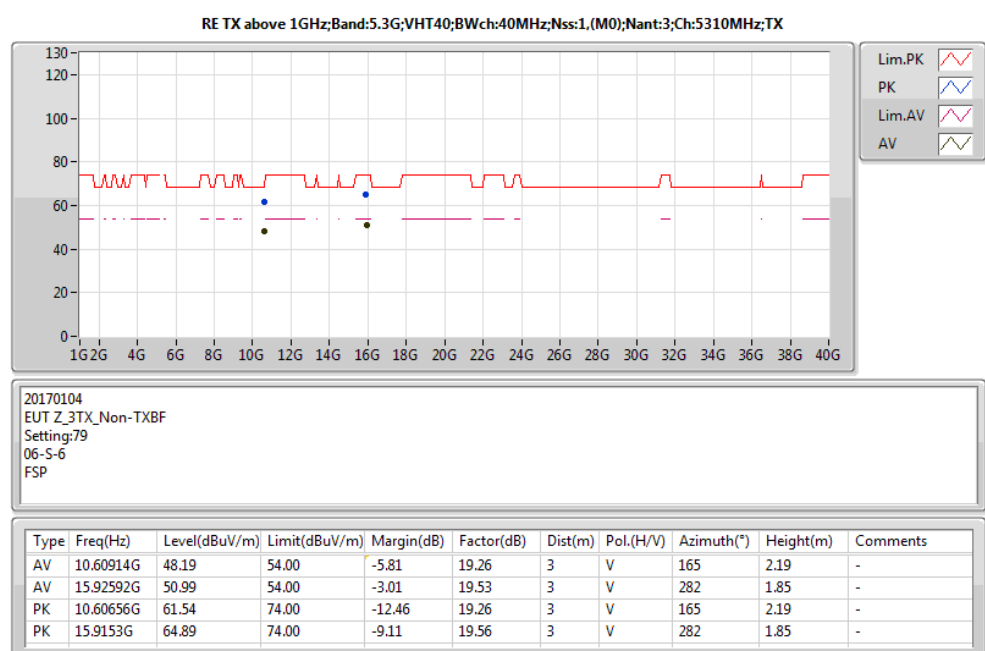
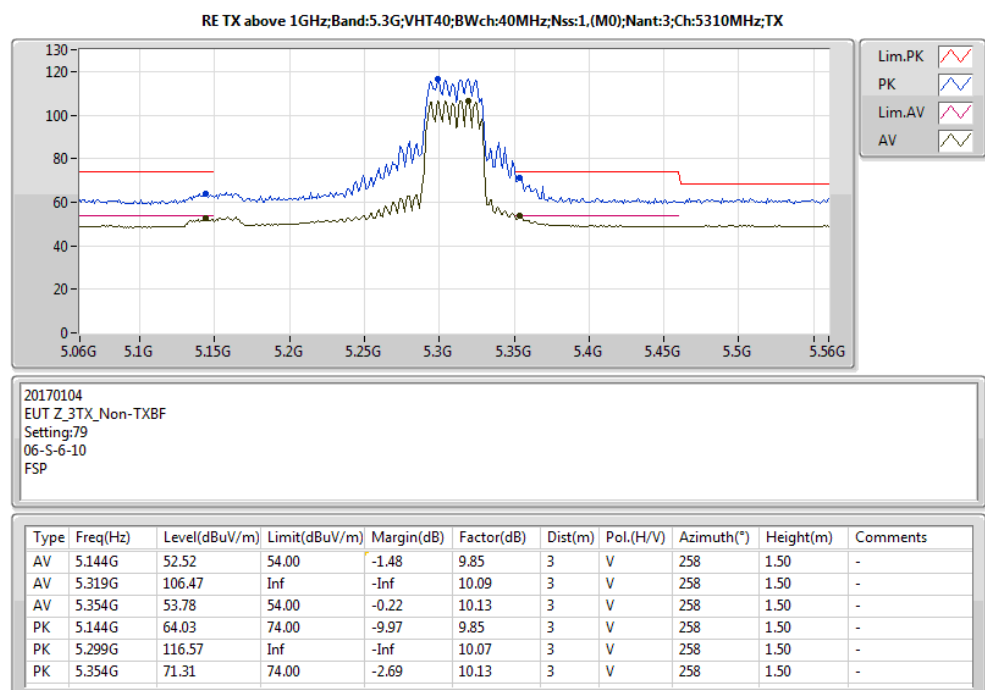


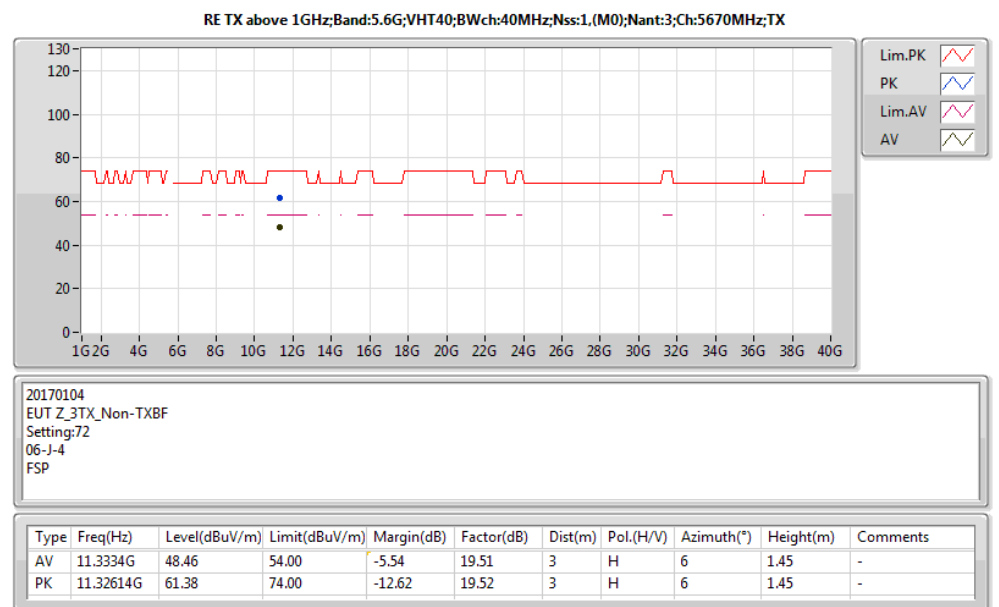
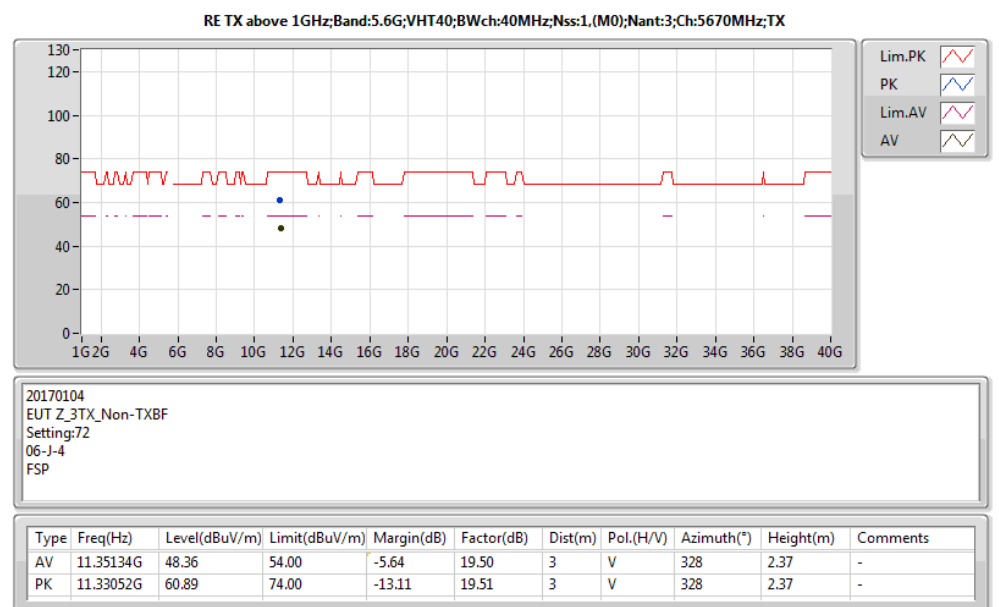
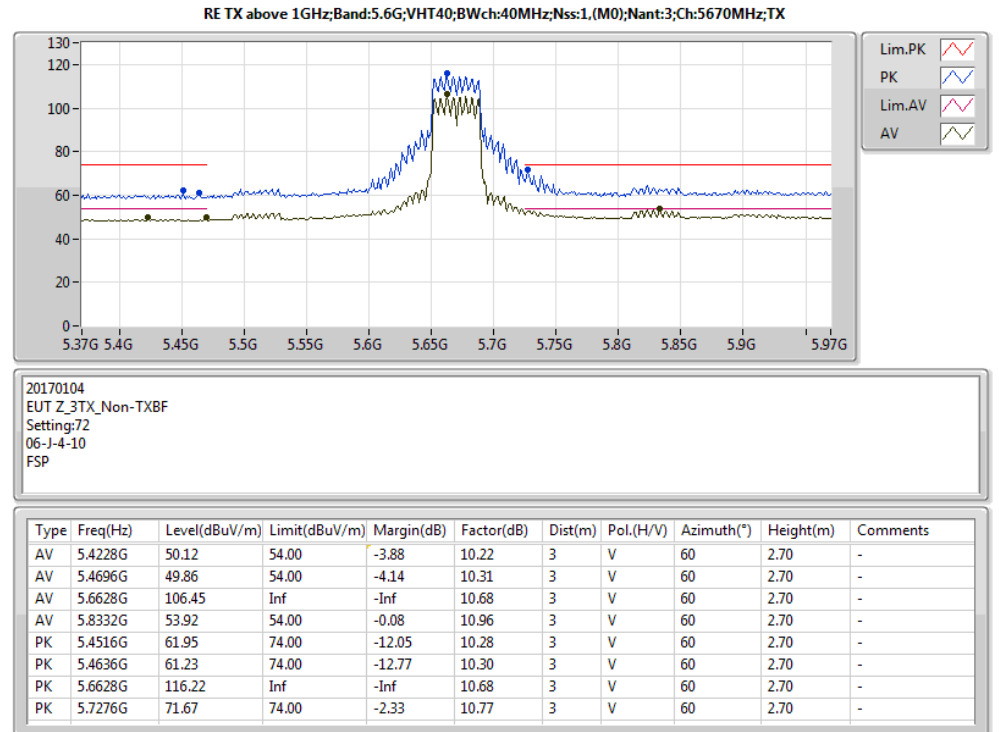
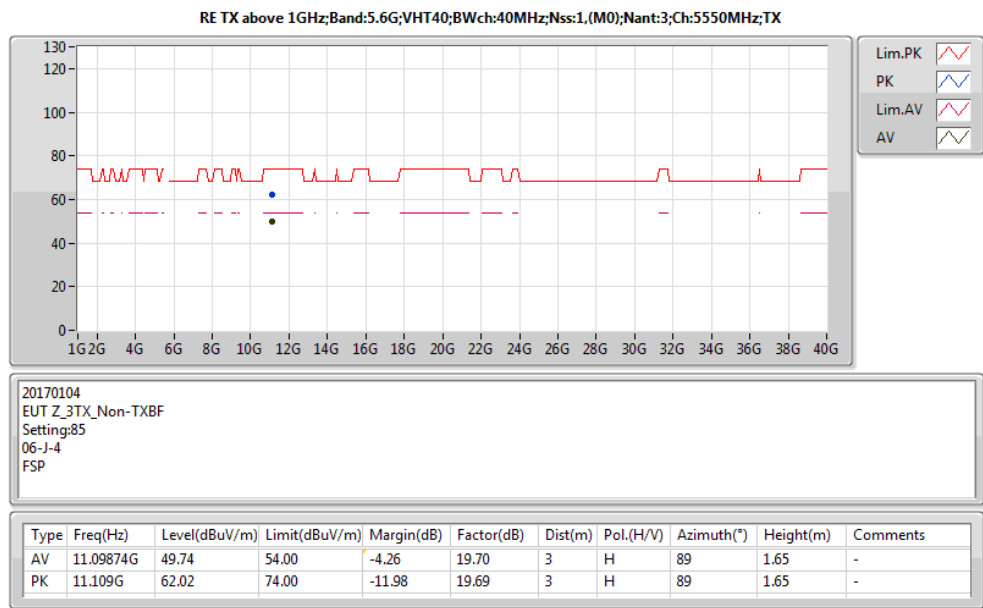
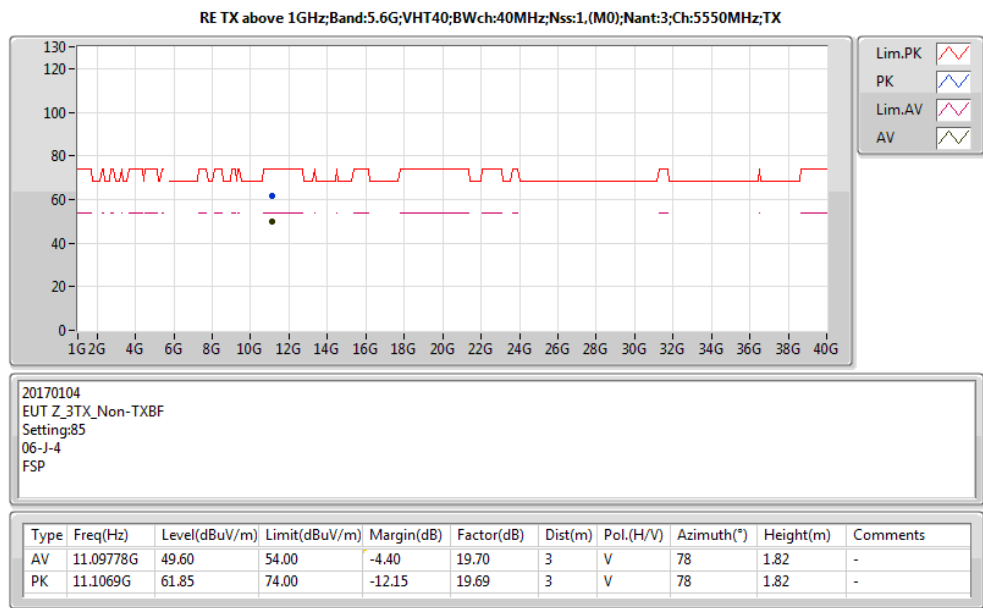
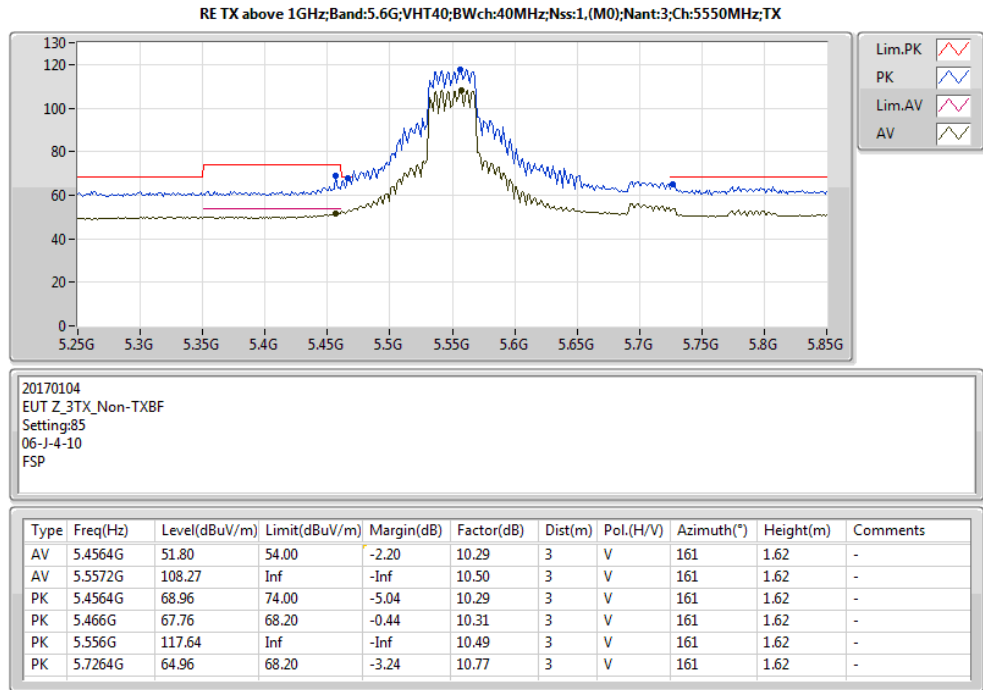


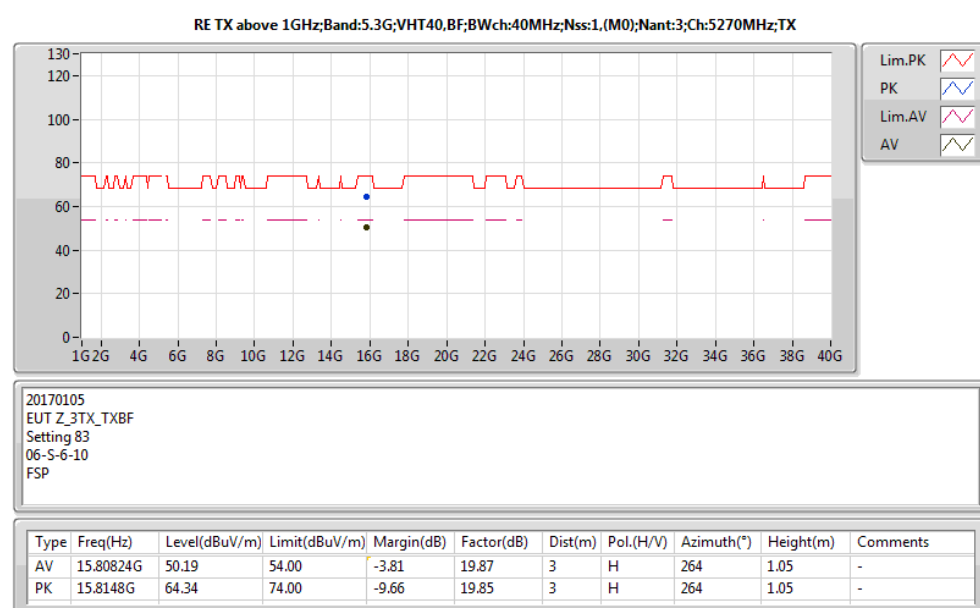
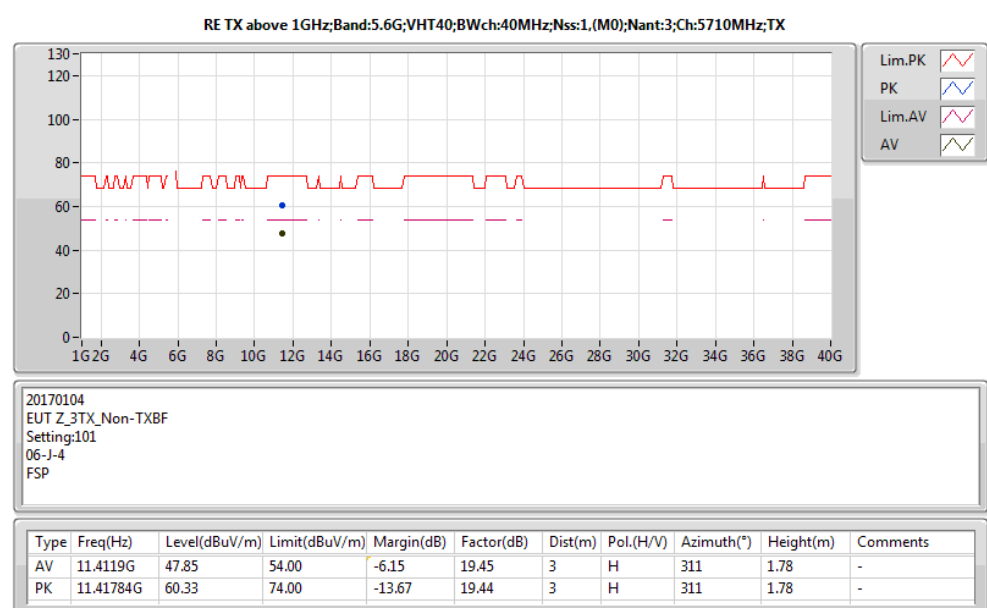
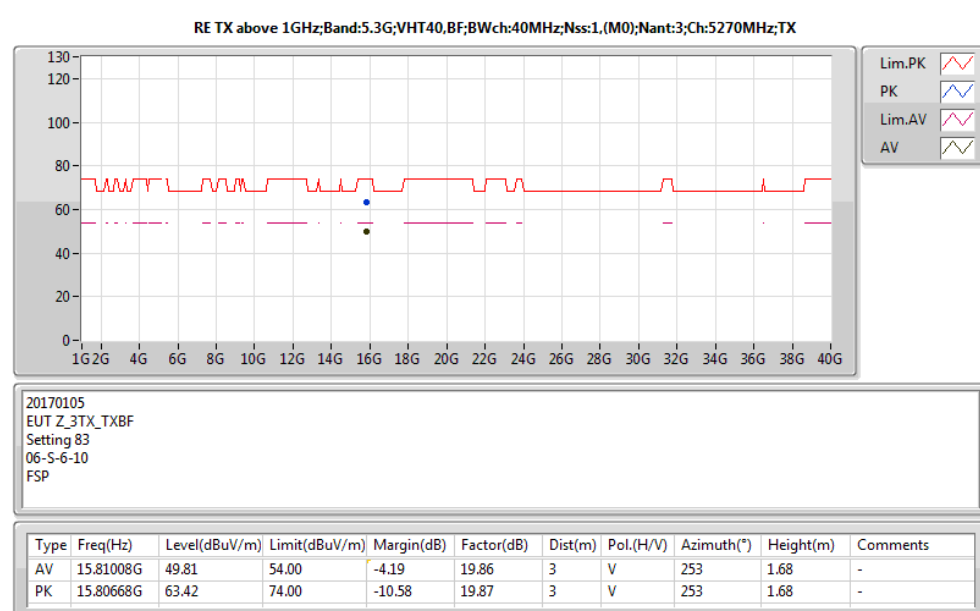
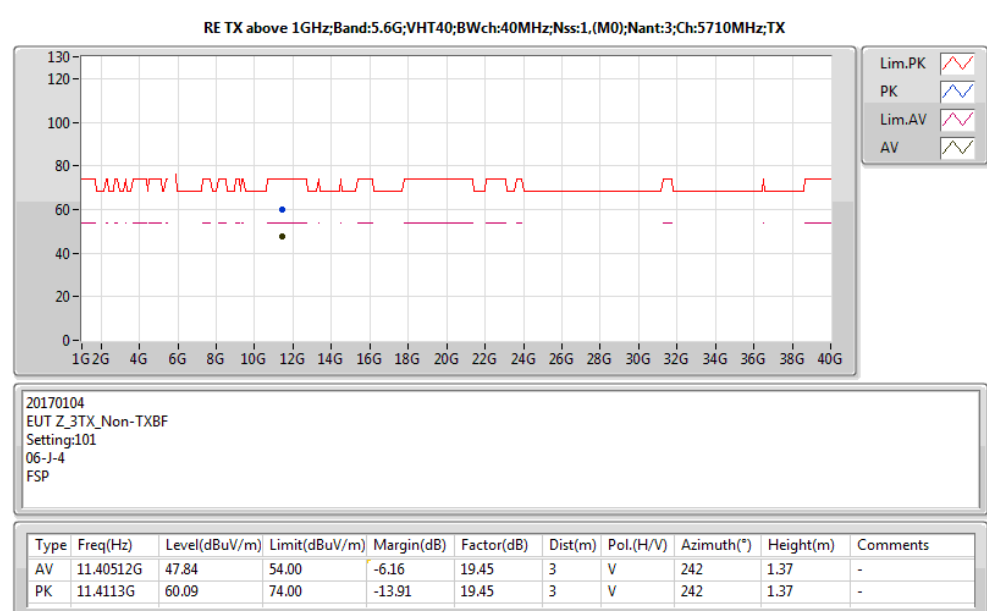
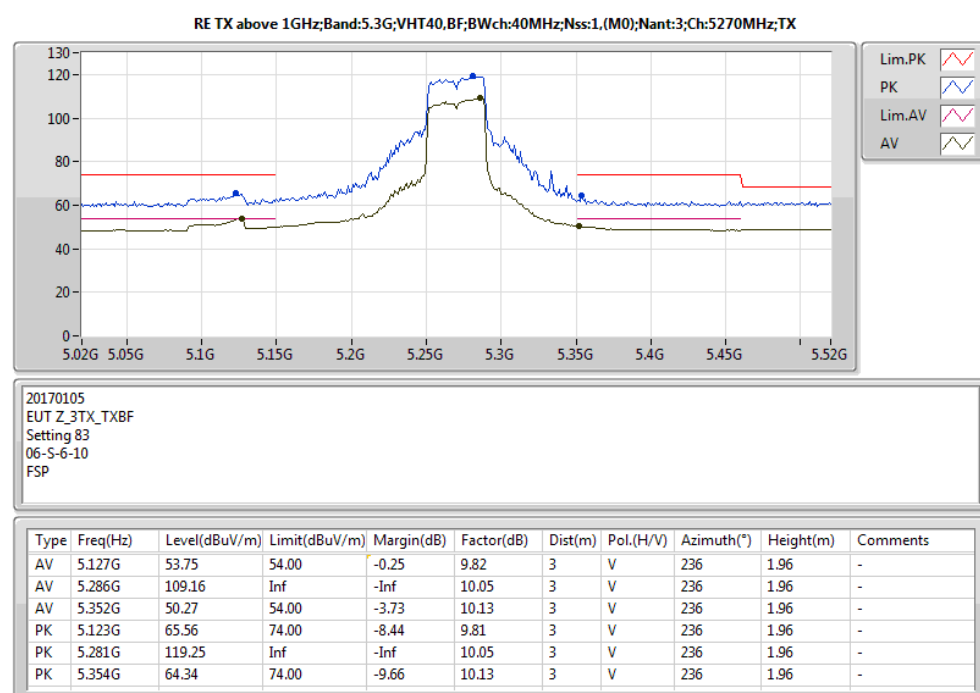
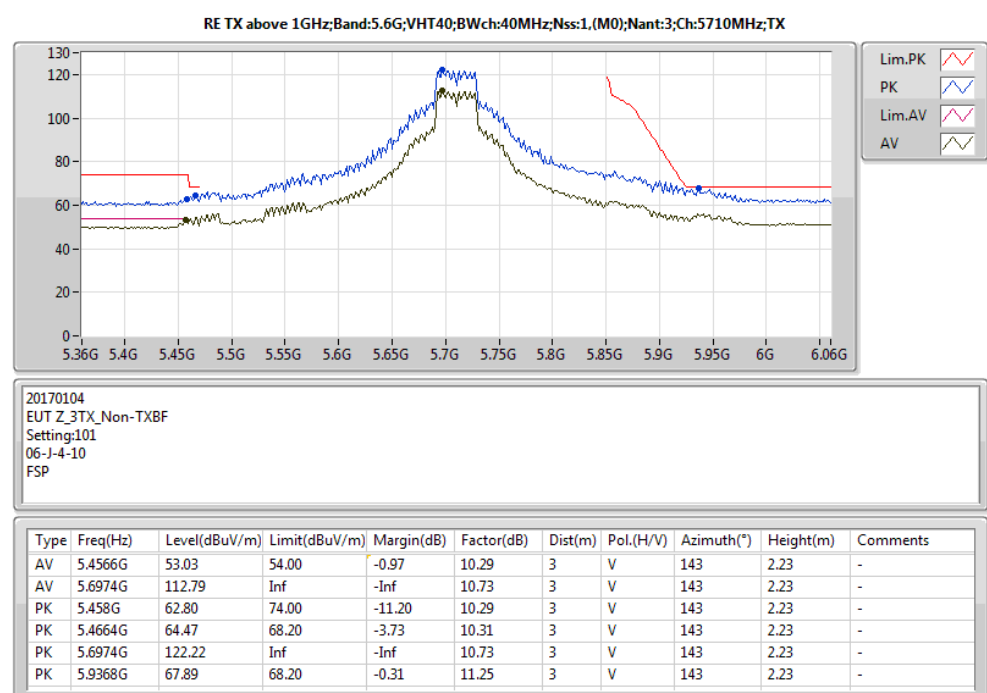


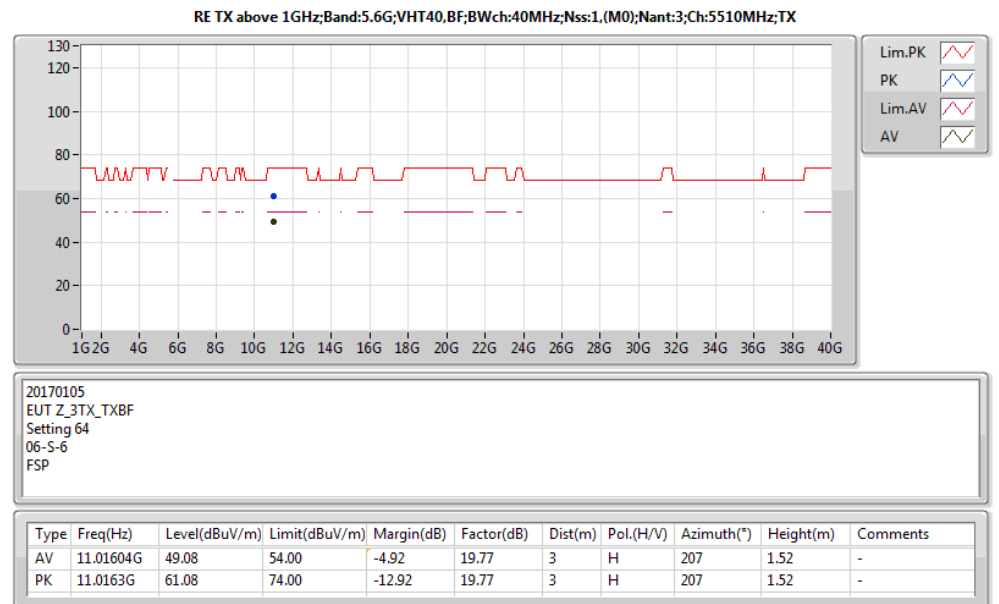
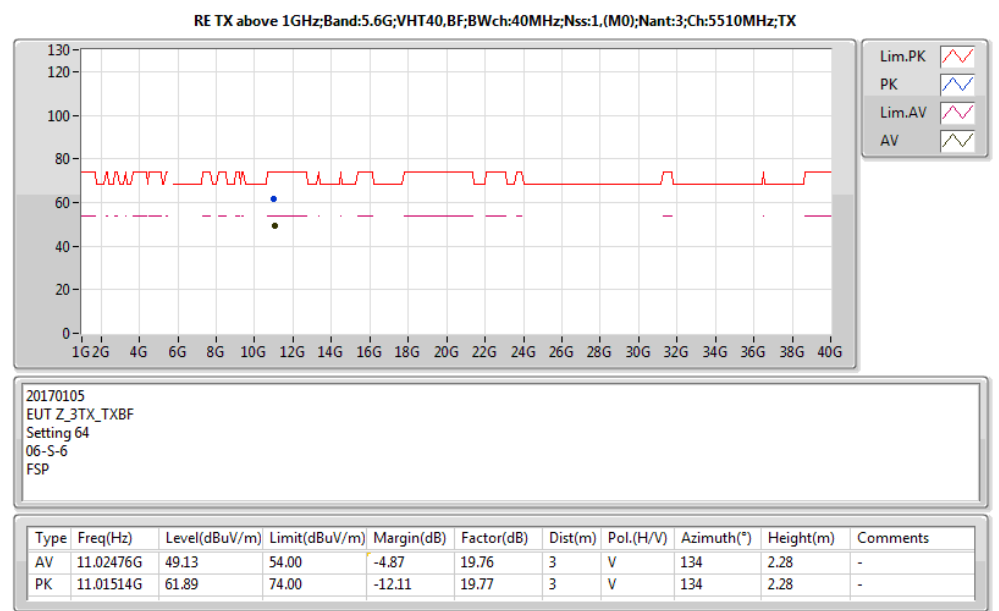
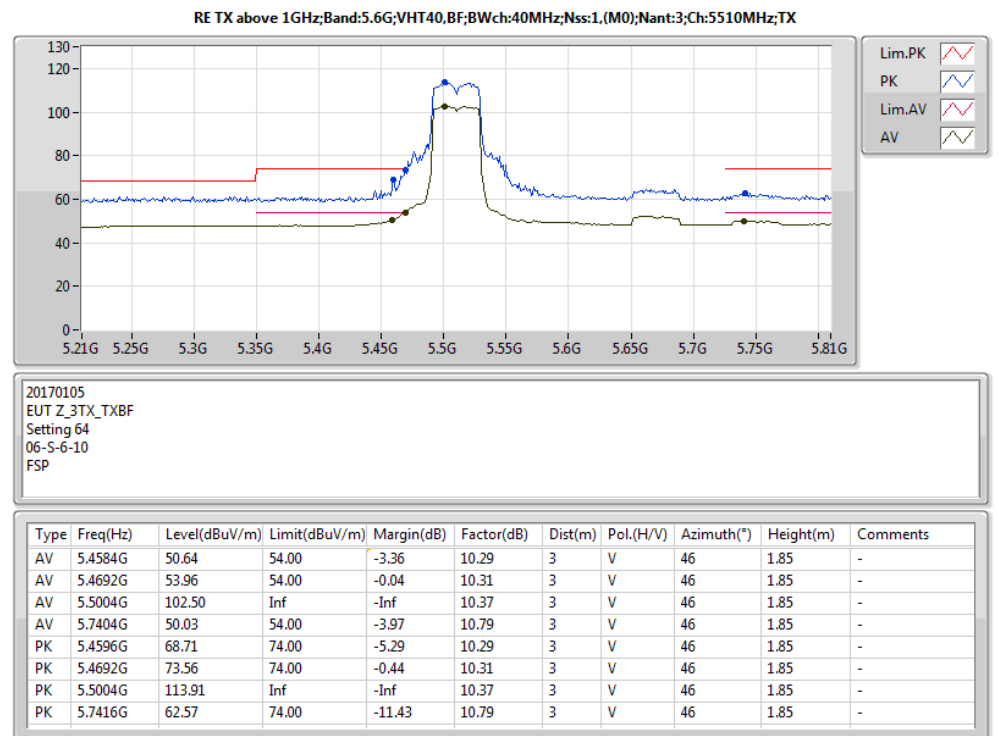
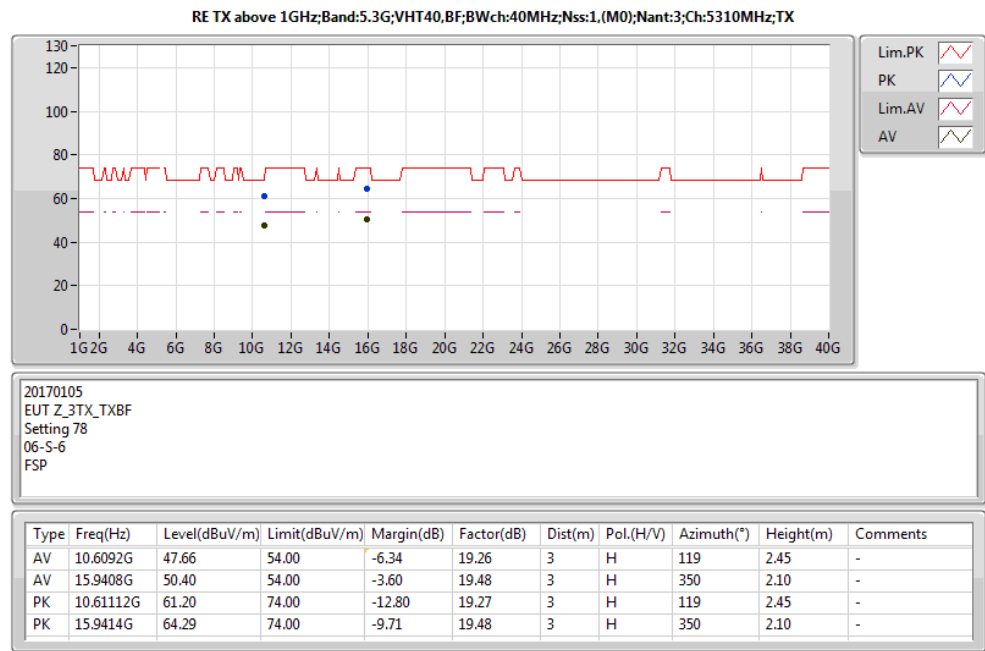
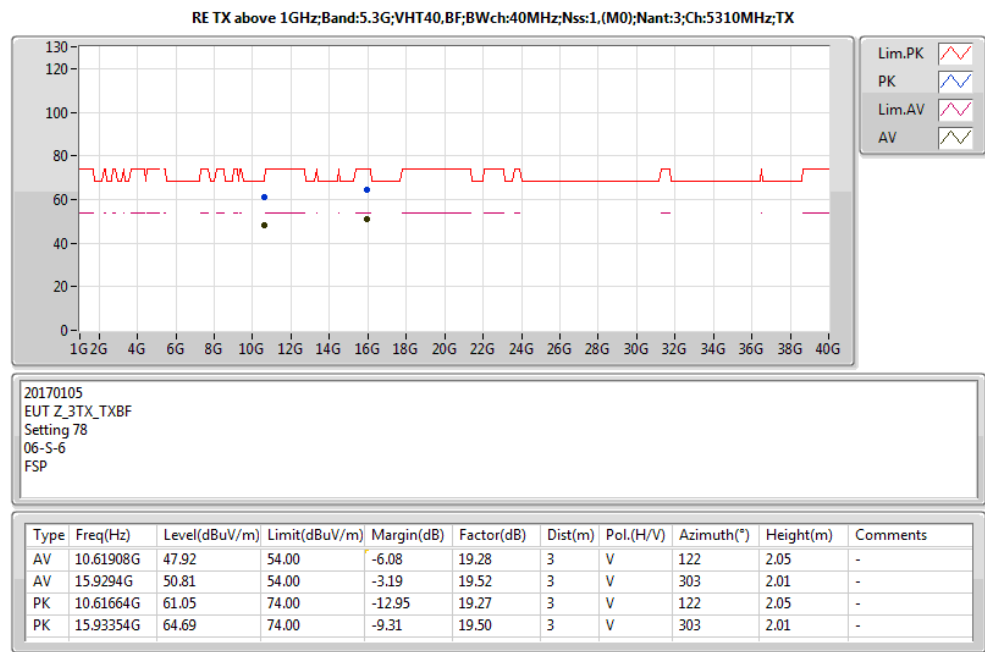
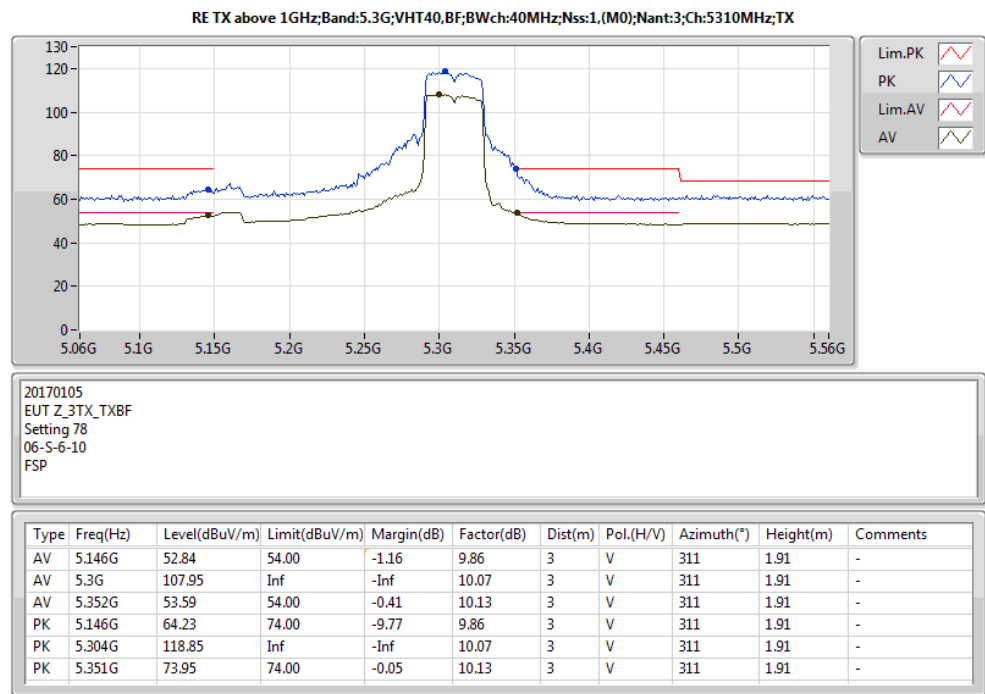


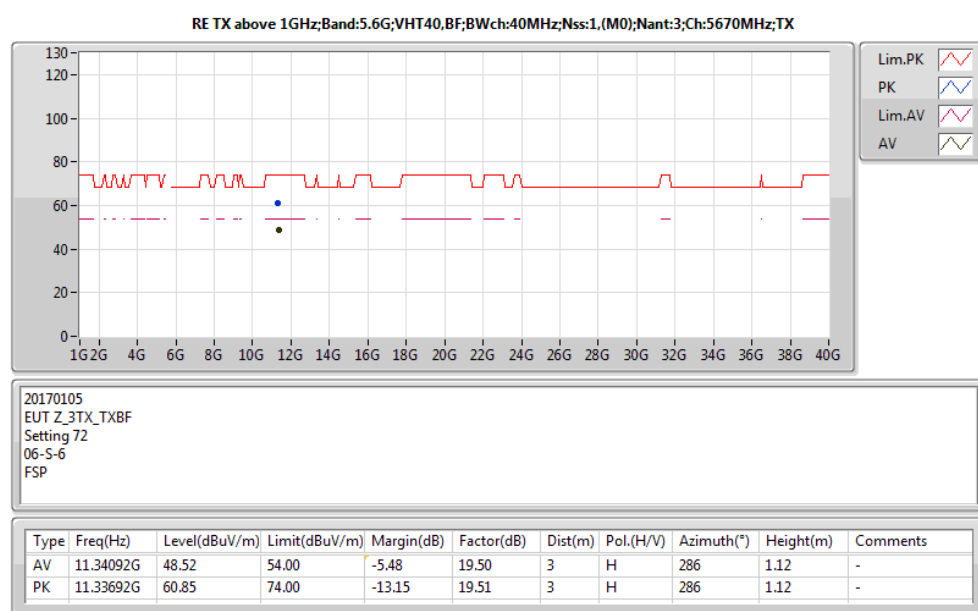
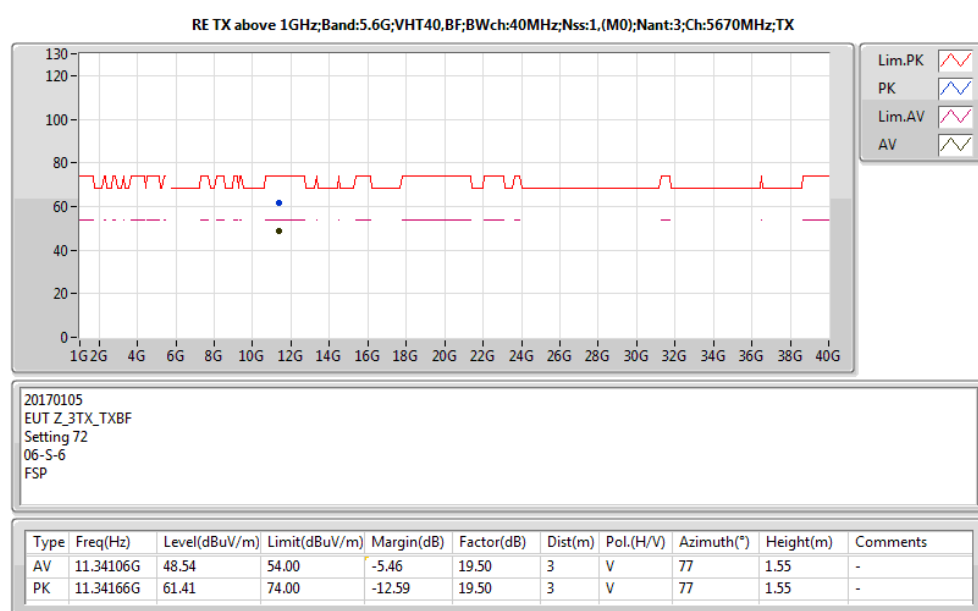
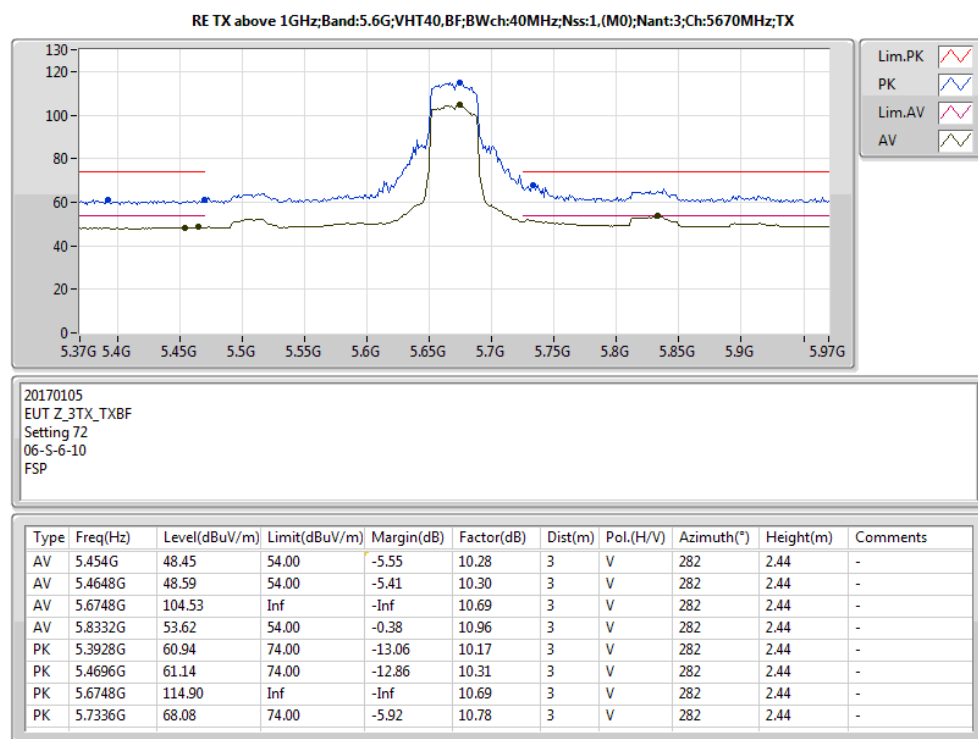
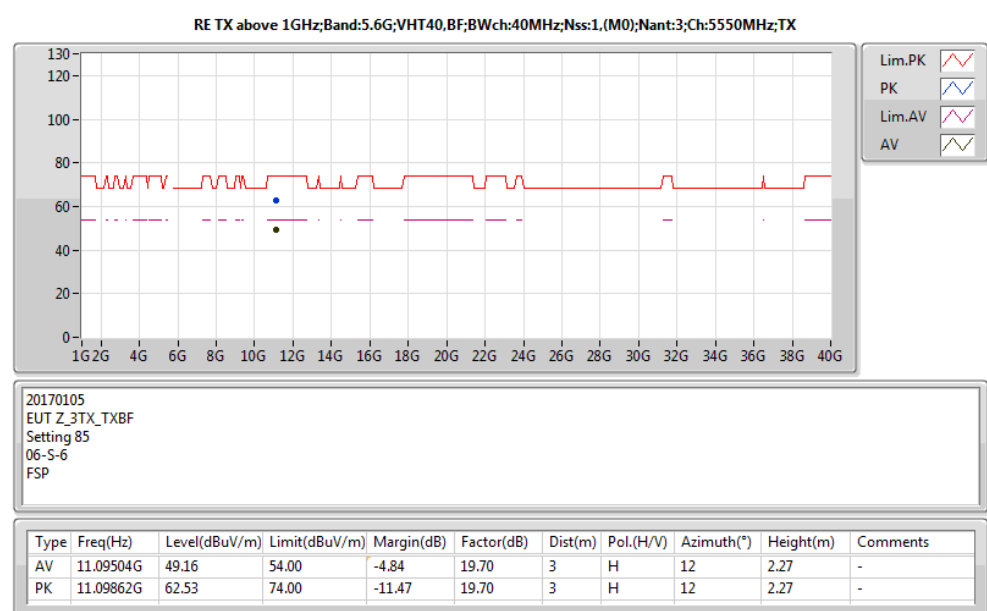
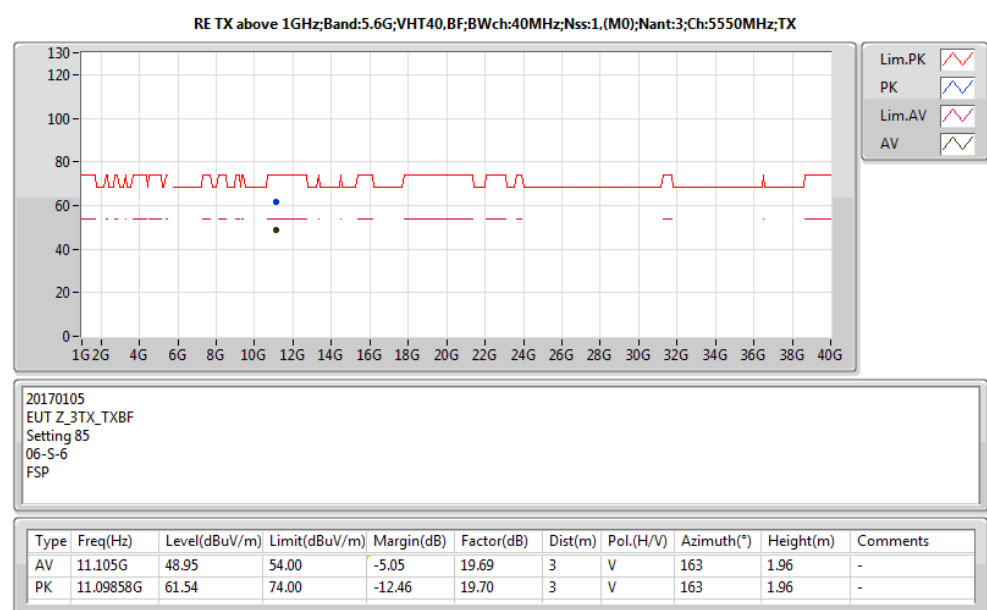
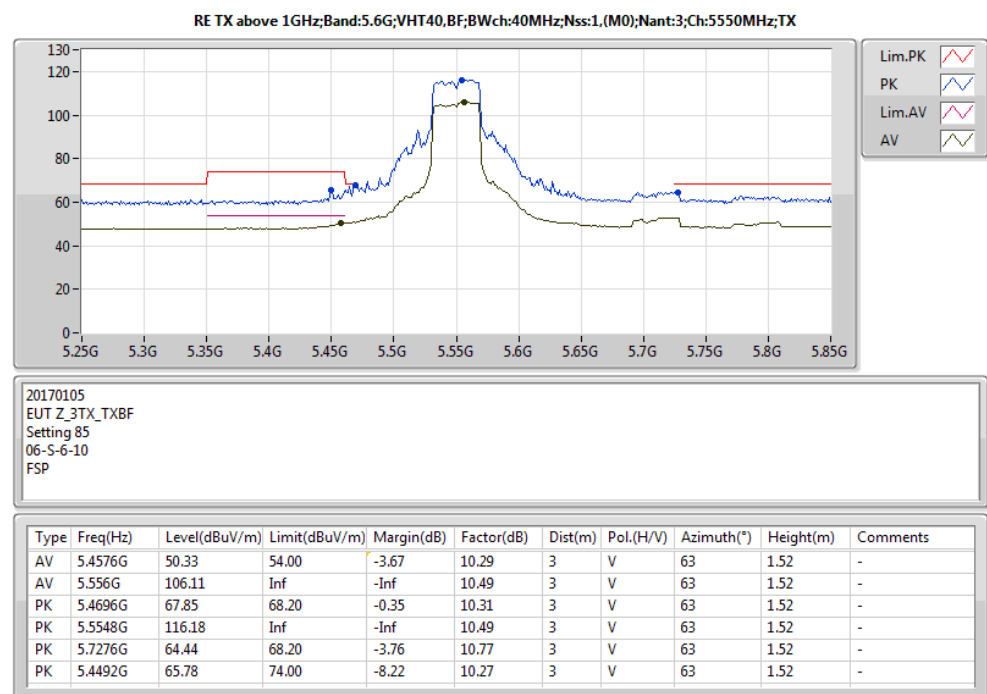


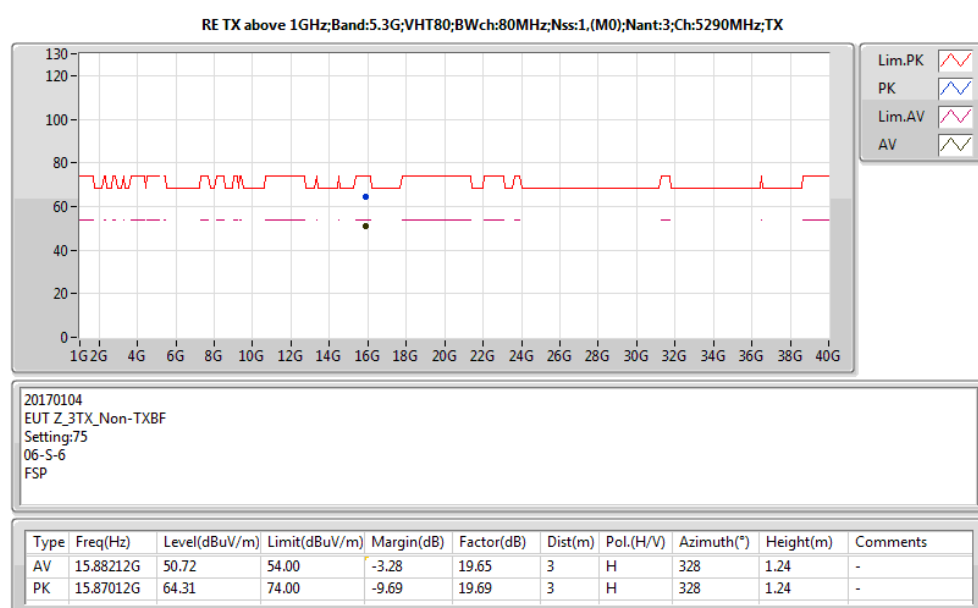
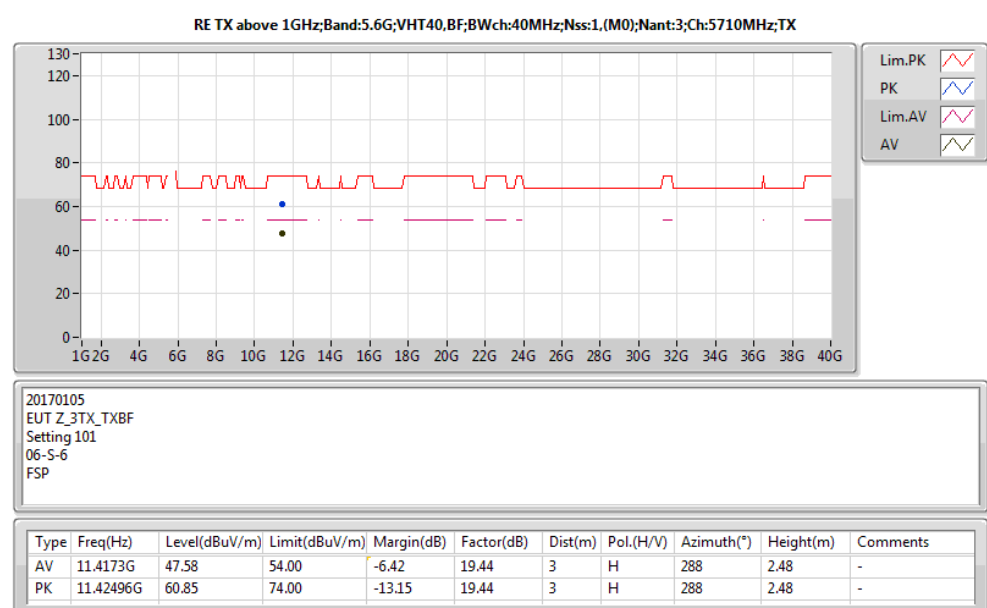
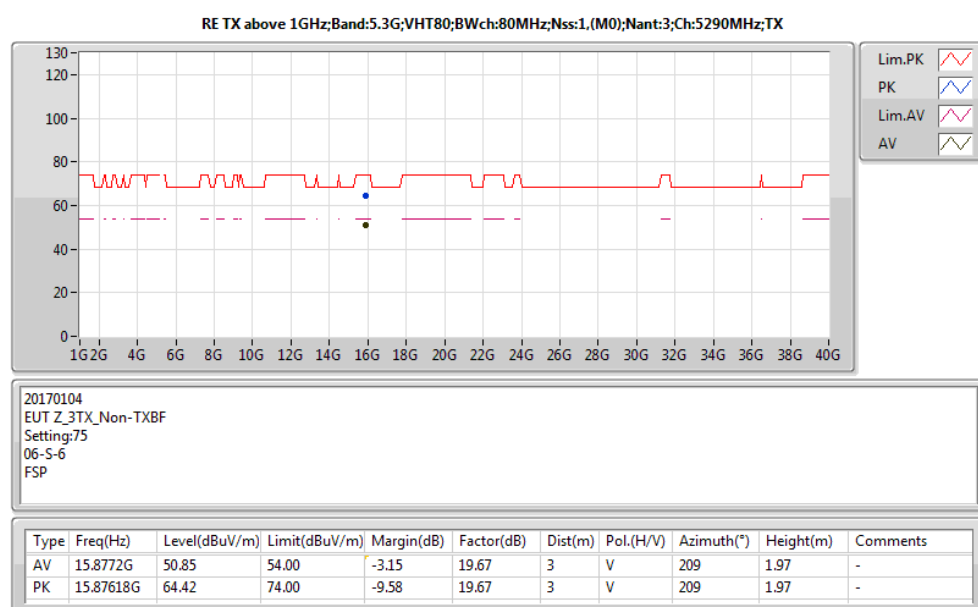
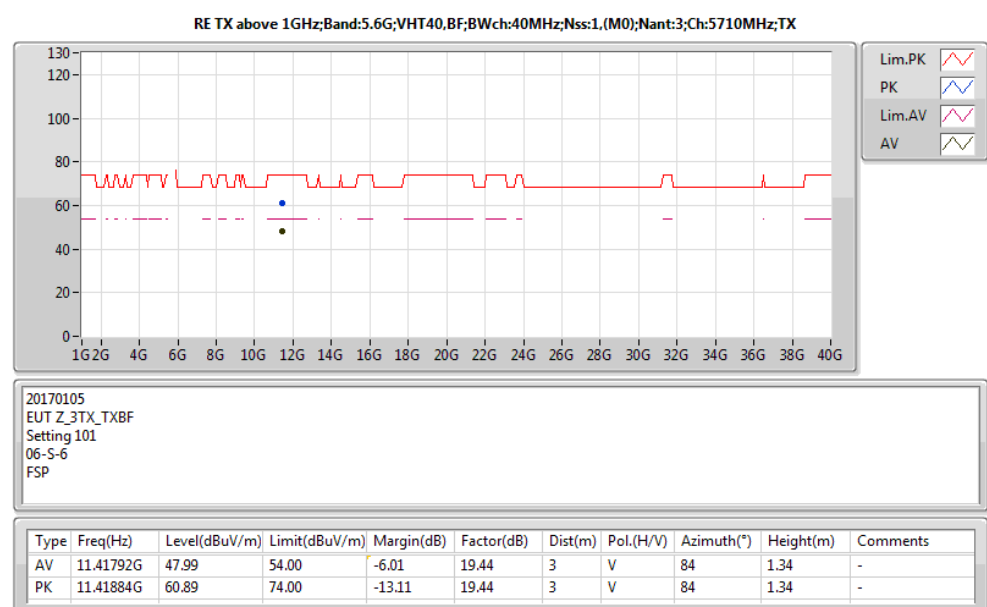
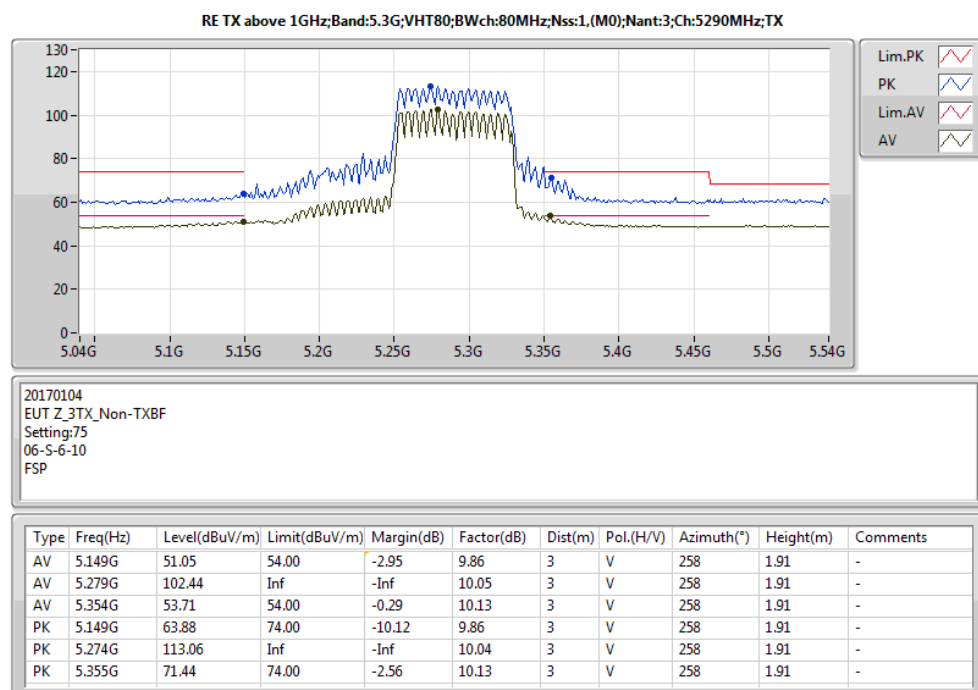
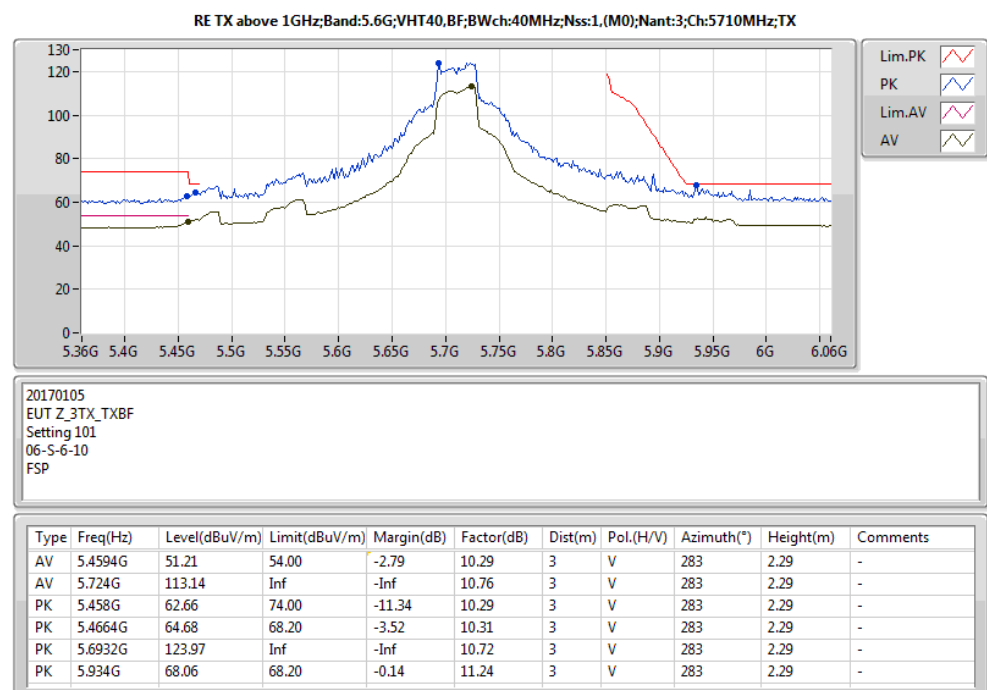


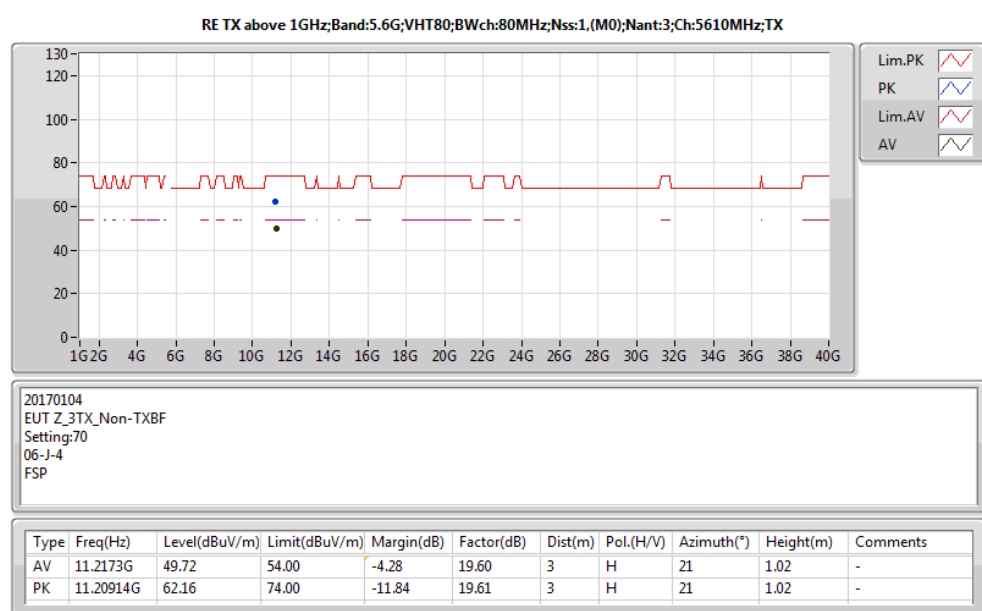
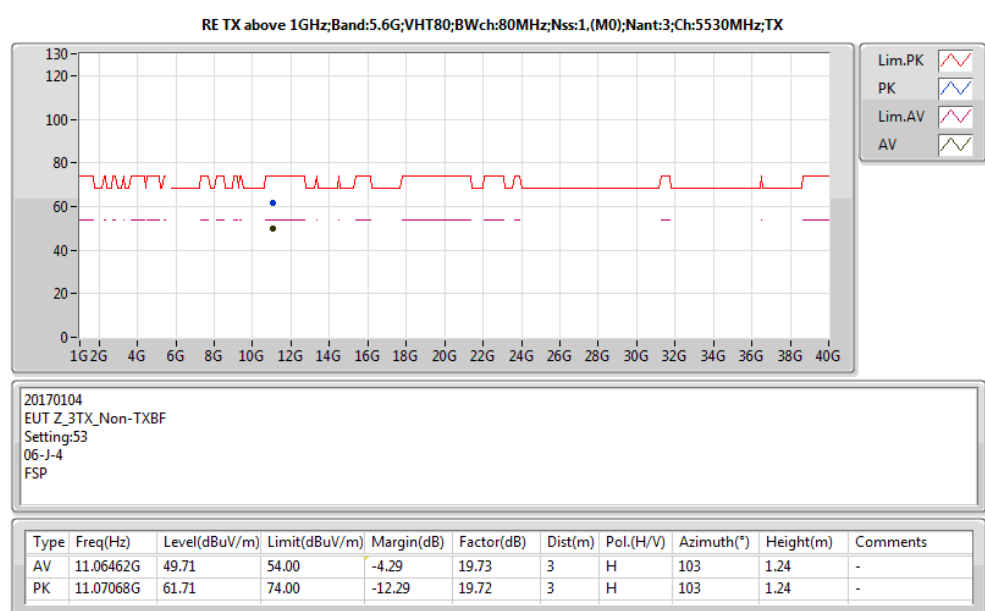
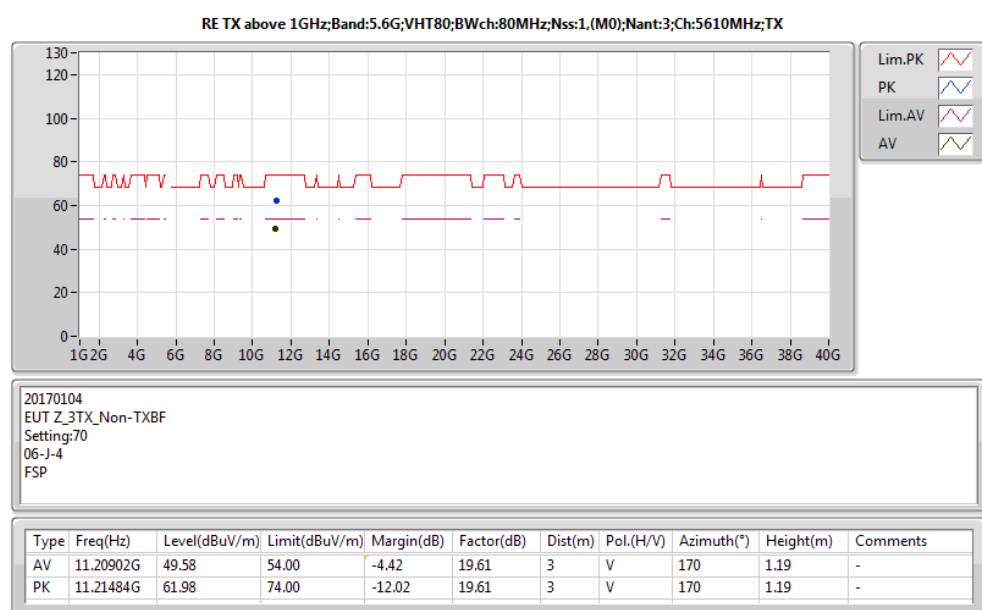
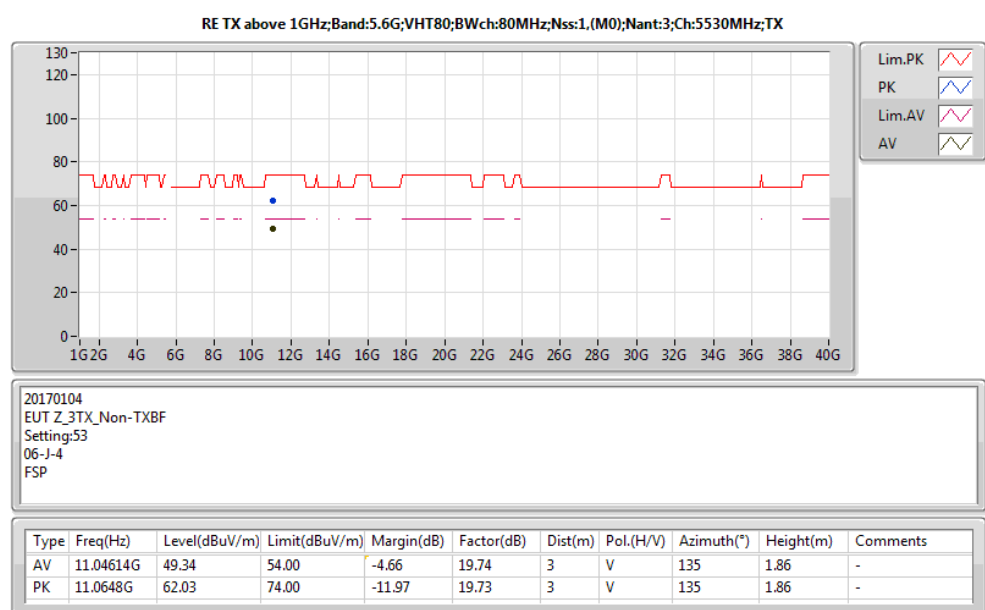
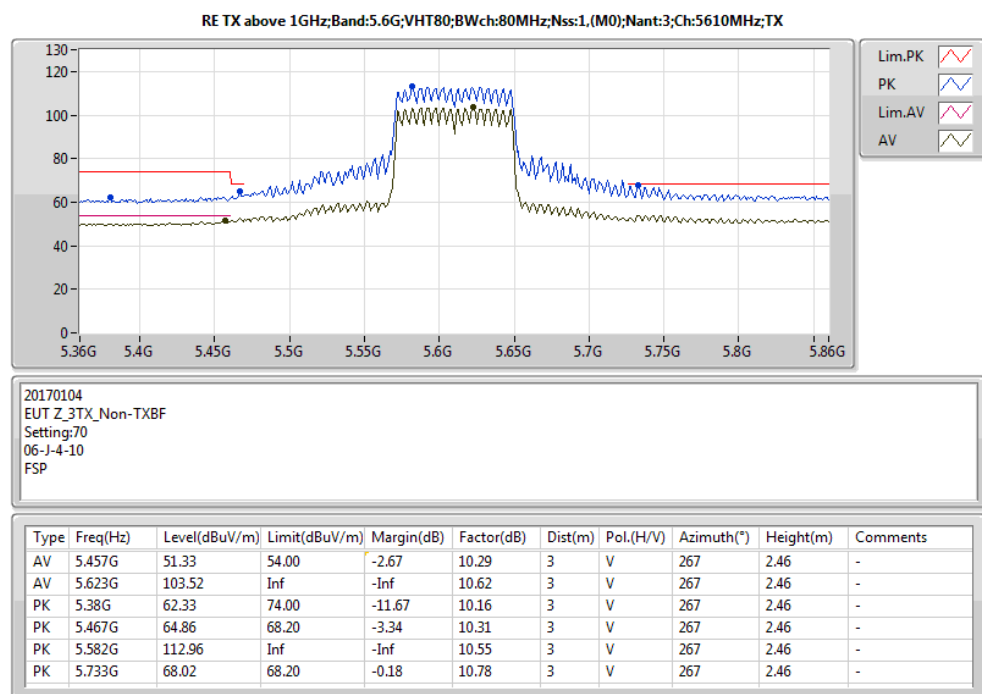
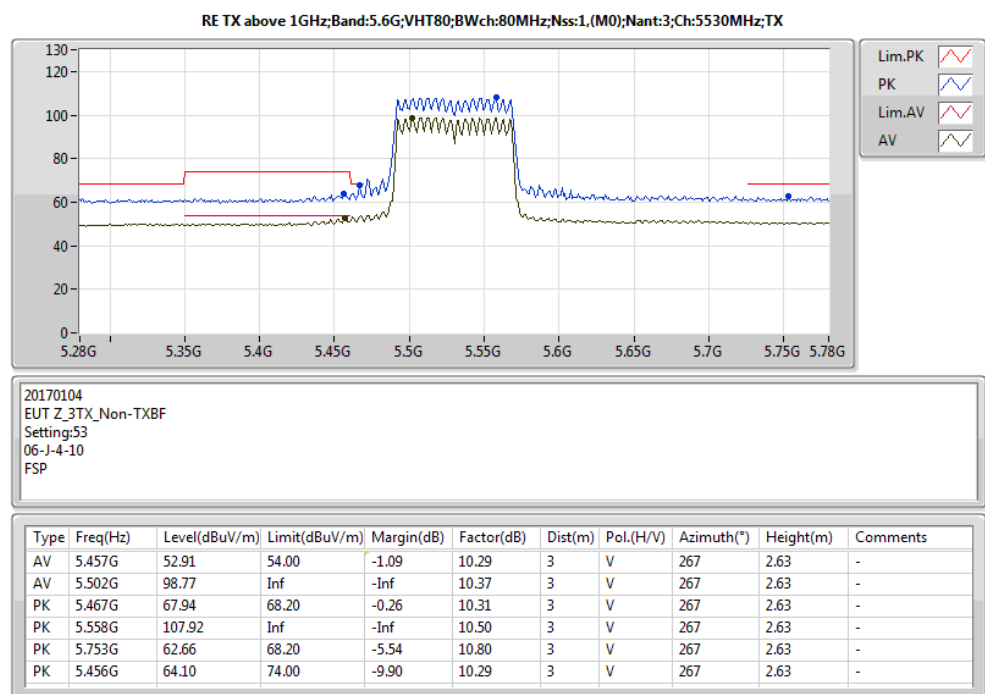


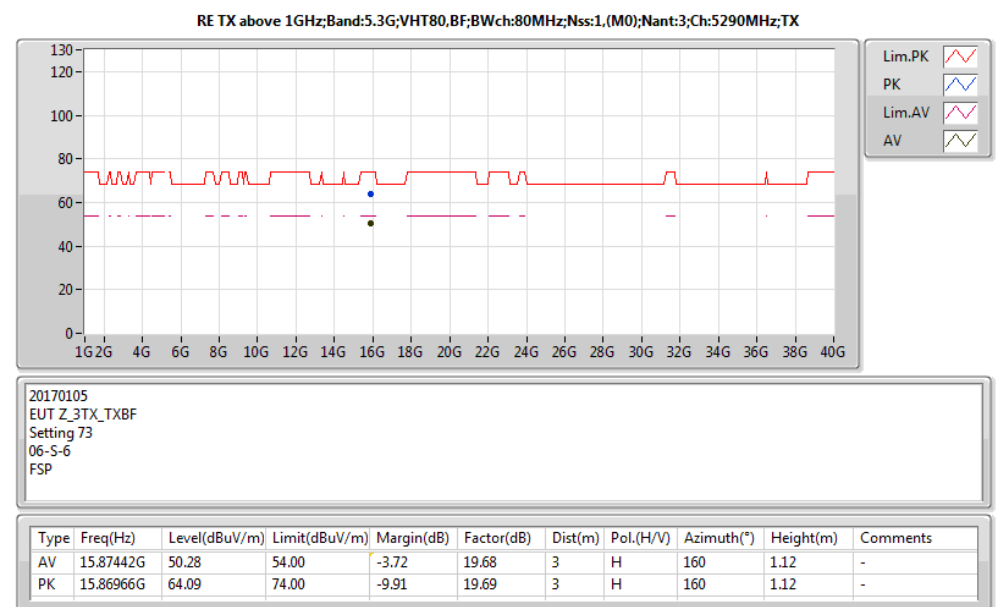
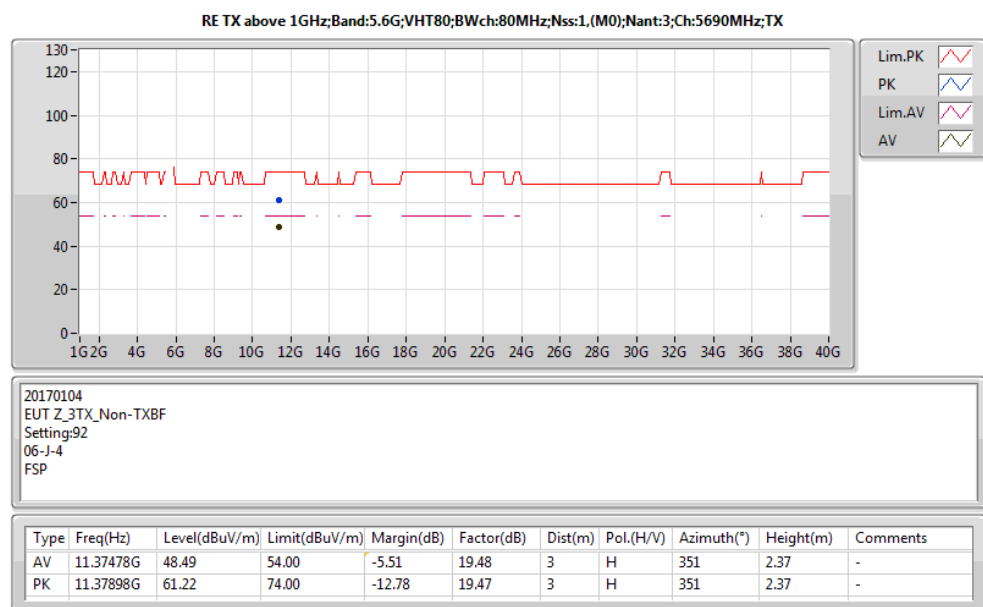
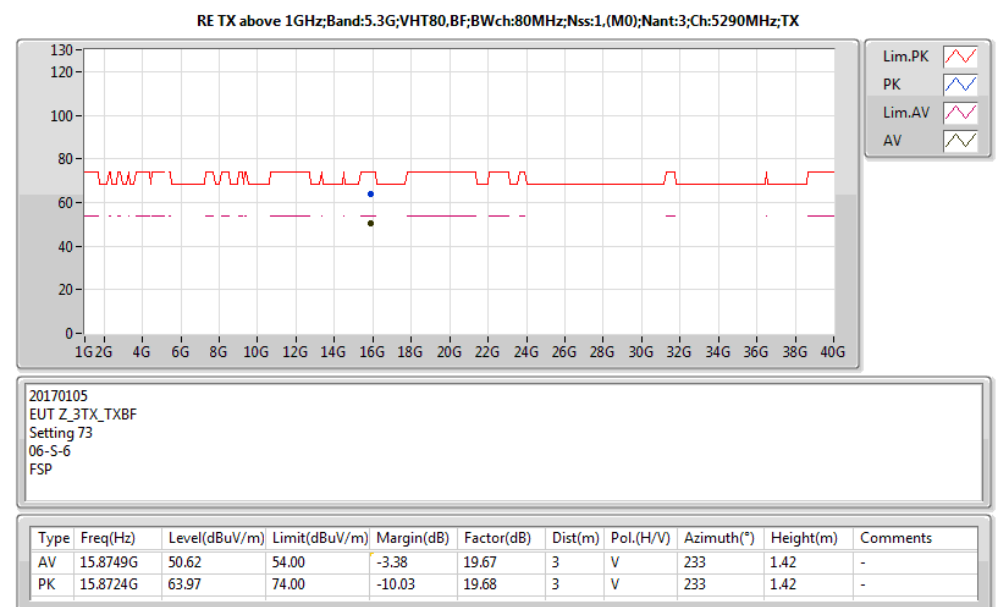
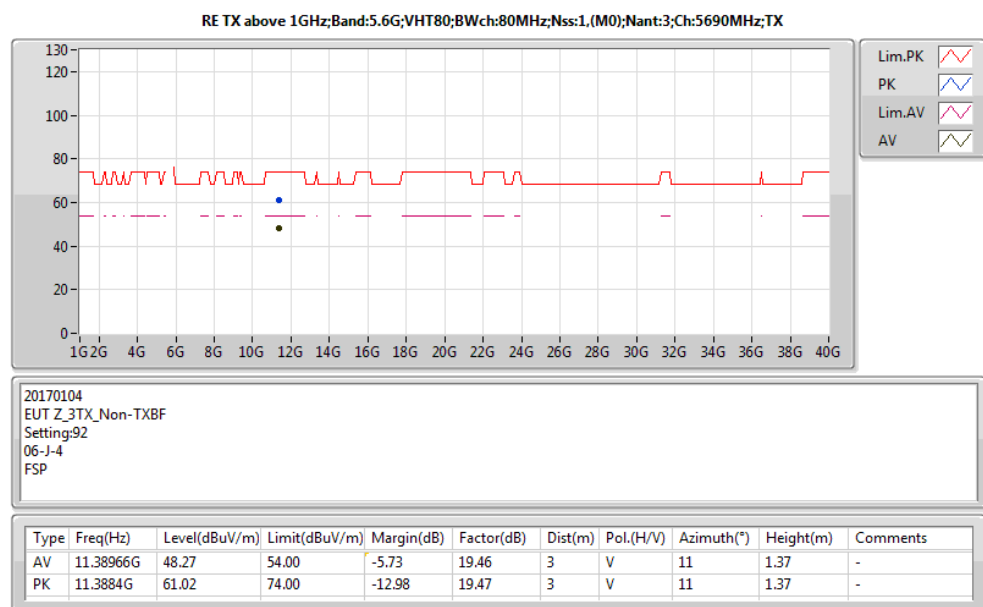
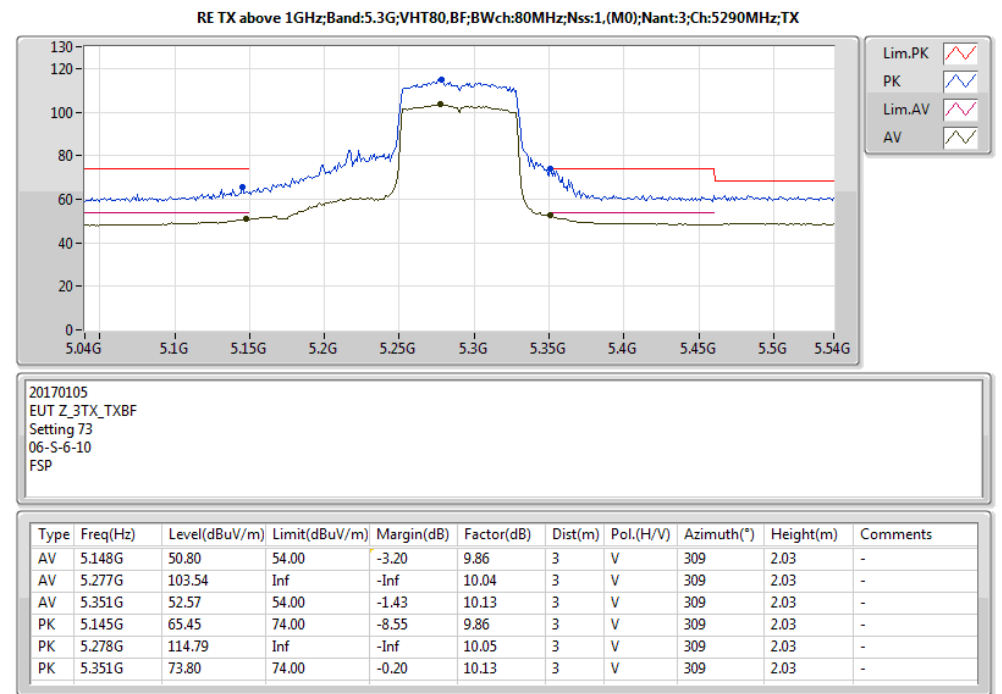
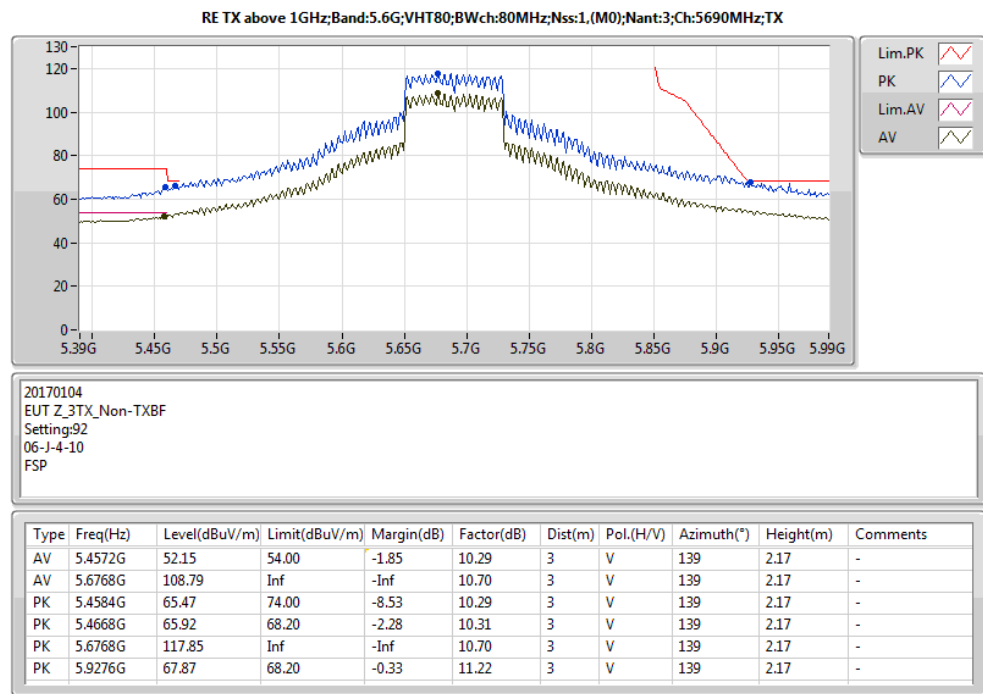


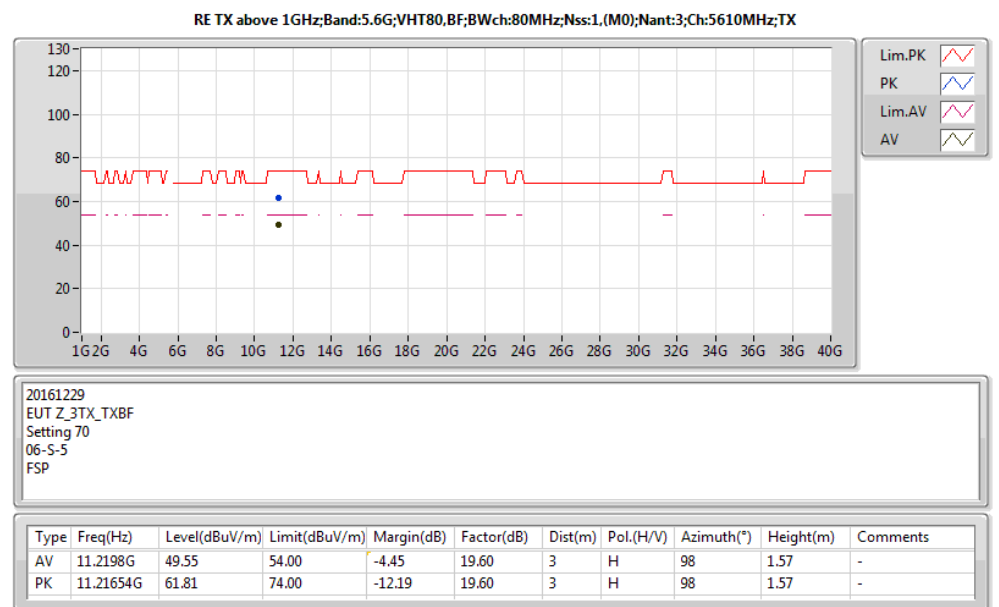
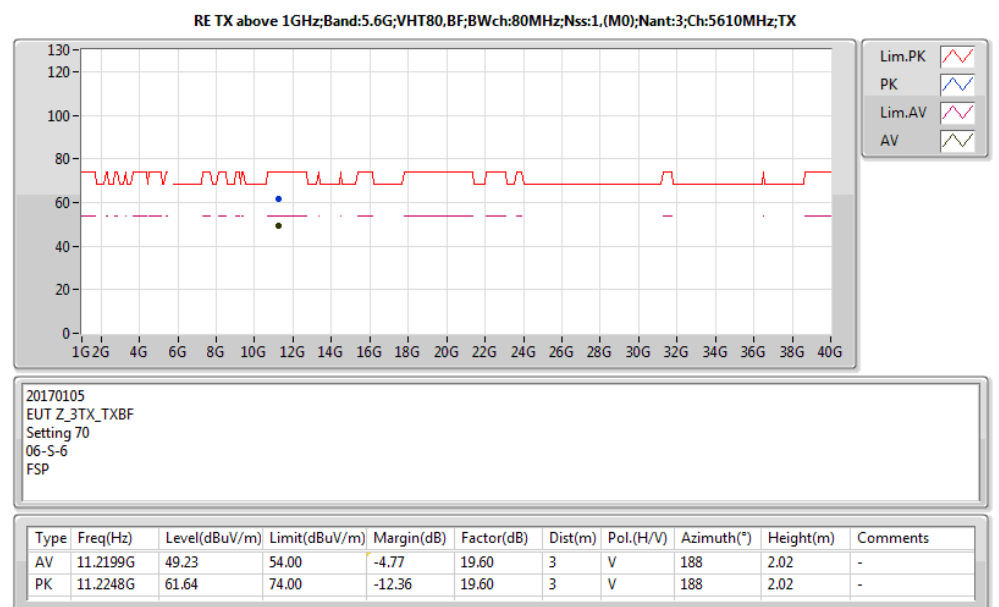
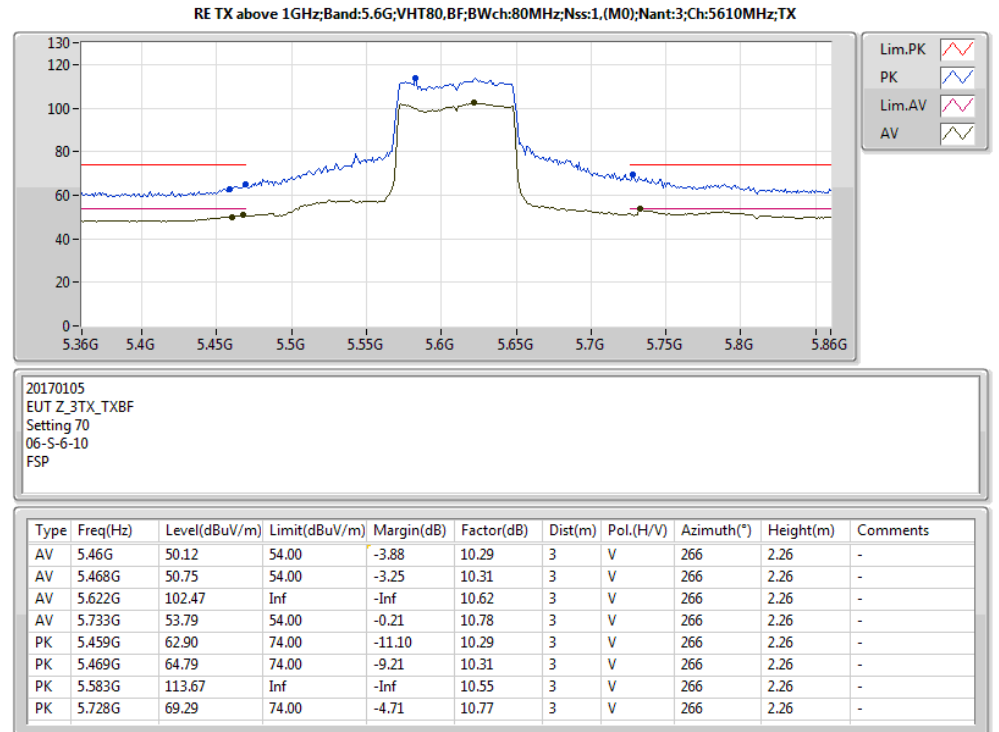
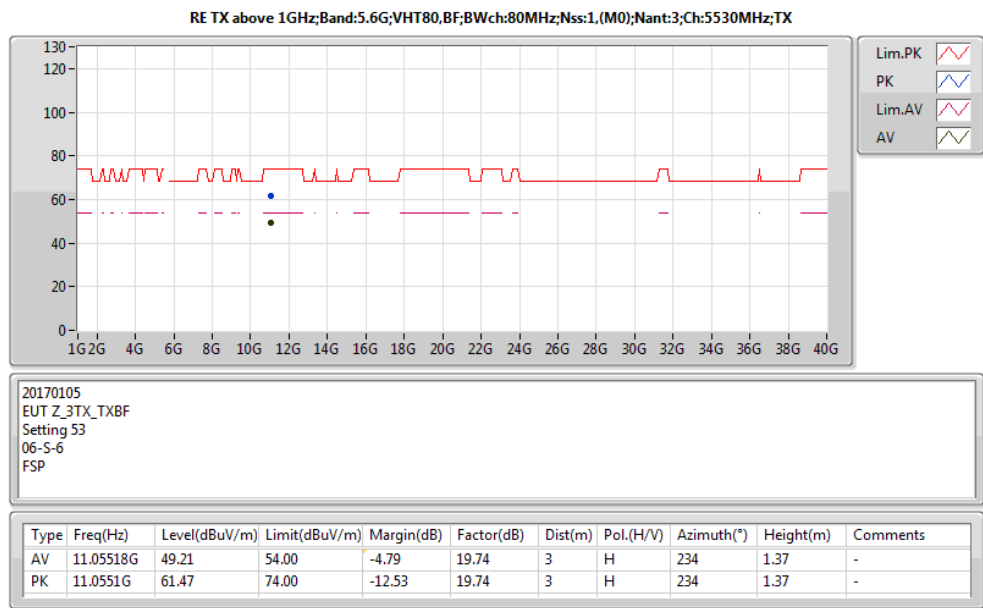
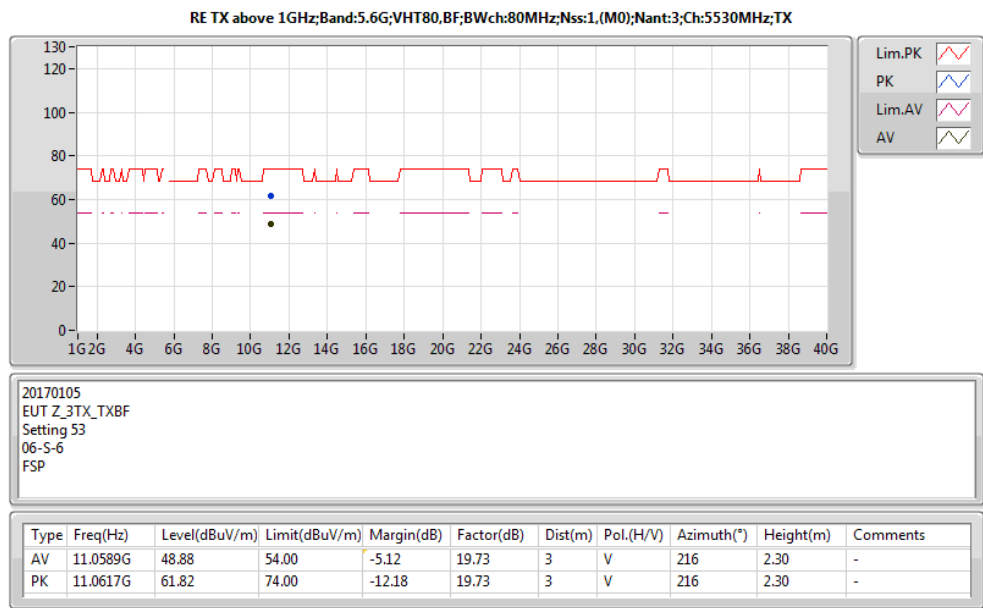
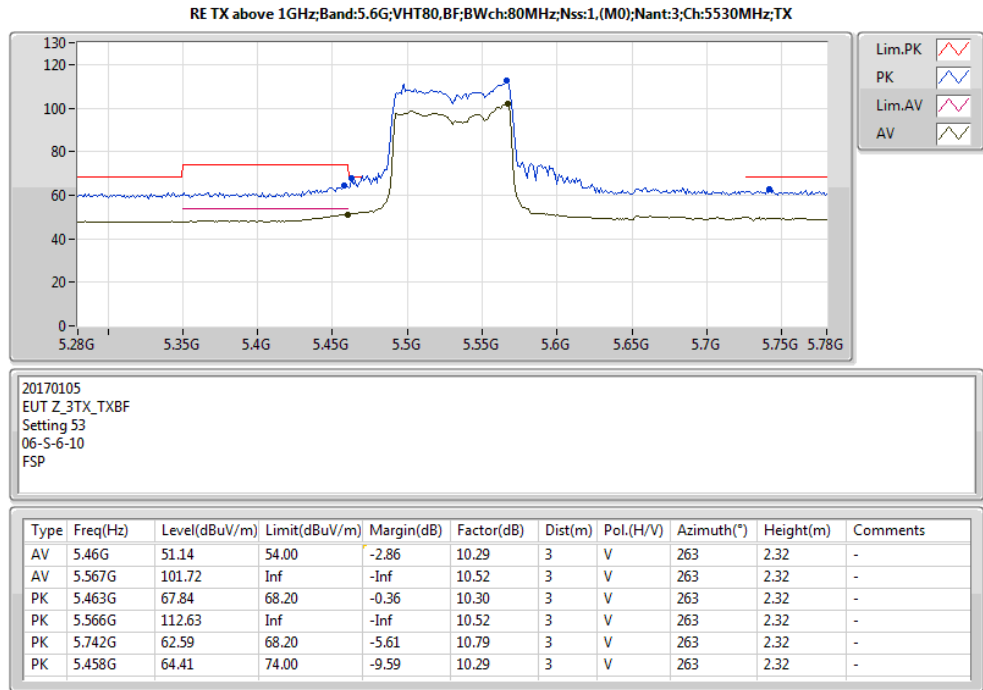


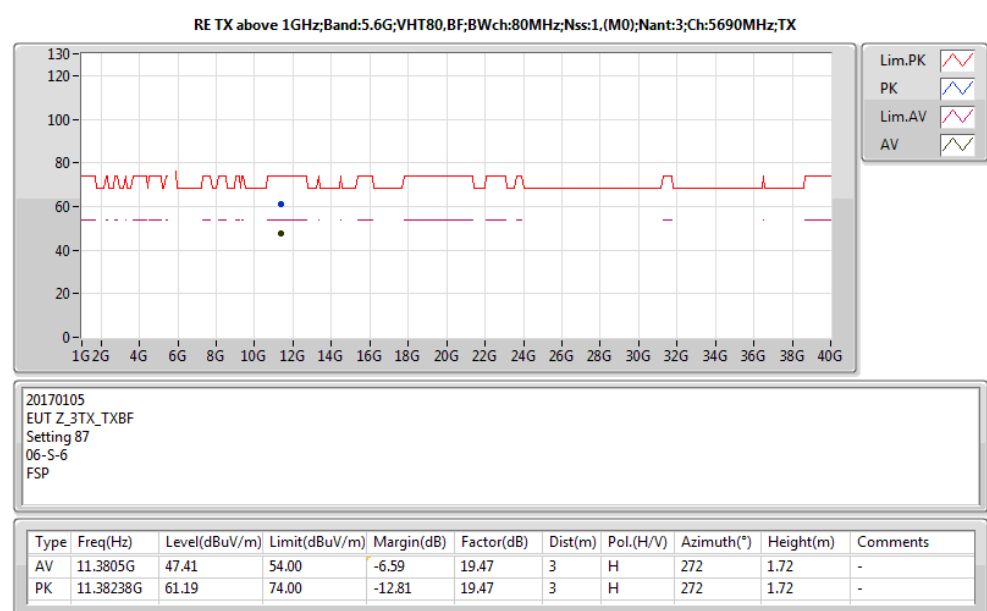
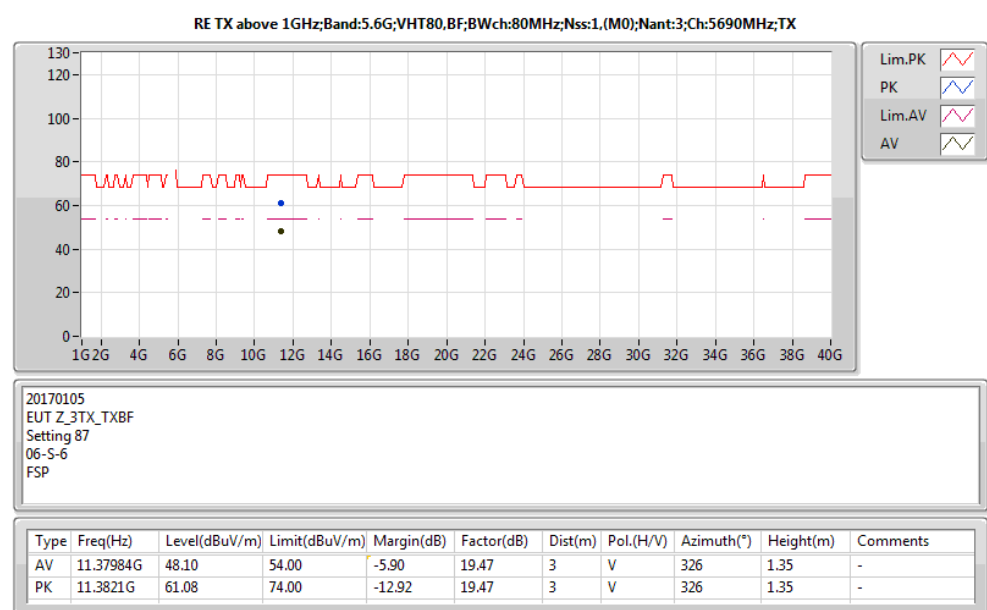
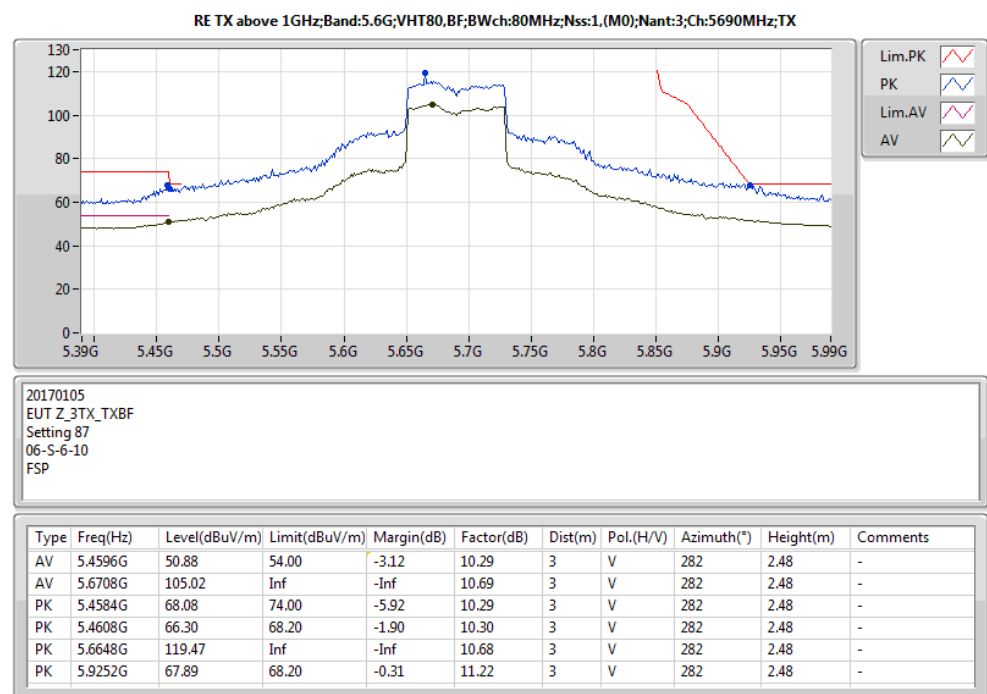












Mode: 20 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5299.9920	5299.9918	5299.9917	5299.9909
110.00	5299.9918	5299.9913	5299.9911	5299.9910
93.50	5299.9917	5299.9910	5299.9909	5299.9904
Max. Deviation (MHz)	0.0083	0.0090	0.0091	0.0096
Max. Deviation (ppm)	1.57	1.70	1.72	1.81
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5299.9948	5299.9939	5299.9937	5299.9928
10	5299.9938	5299.9931	5299.9930	5299.9923
20	5299.9918	5299.9916	5299.9915	5299.9912
30	5299.9903	5299.9900	5299.9891	5299.9885
40	5299.9889	5299.9888	5299.9878	5299.9873
Max. Deviation (MHz)	0.0111	0.0112	0.0122	0.0127
Max. Deviation (ppm)	2.09	2.11	2.30	2.40
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5579.9919	5579.9918	5579.9912	5579.9905
110.00	5579.9918	5579.9908	5579.9898	5579.9895
93.50	5579.9911	5579.9904	5579.9901	5579.9898
Max. Deviation (MHz)	0.0089	0.0096	0.0102	0.0105
Max. Deviation (ppm)	1.59	1.72	1.83	1.88
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5579.9938	5579.9937	5579.9934	5579.9924
10	5579.9919	5579.9918	5579.9916	5579.9908
20	5579.9918	5579.9908	5579.9907	5579.9899
30	5579.9903	5579.9898	5579.9893	5579.9883
40	5579.9889	5579.9885	5579.9880	5579.9879
Max. Deviation (MHz)	0.0111	0.0115	0.0120	0.0121
Max. Deviation (ppm)	1.99	2.06	2.15	2.17
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	5309.9926	5309.9924	5309.9921	5309.9916
110.00	5309.9918	5309.9912	5309.9909	5309.9900
93.50	5309.9912	5309.9905	5309.9904	5309.9898
Max. Deviation (MHz)	0.0088	0.0095	0.0096	0.0102
Max. Deviation (ppm)	1.66	1.79	1.81	1.92
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5309.9942	5309.9939	5309.9930	5309.9922
10	5309.9931	5309.9925	5309.9923	5309.9916
20	5309.9918	5309.9910	5309.9901	5309.9893
30	5309.9903	5309.9900	5309.9897	5309.9891
40	5309.9897	5309.9892	5309.9891	5309.9881
Max. Deviation (MHz)	0.0103	0.0108	0.0109	0.0119
Max. Deviation (ppm)	1.94	2.03	2.05	2.24
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5549.9919	5549.9912	5549.9904	5549.9897
110.00	5549.9918	5549.9915	5549.9908	5549.9902
93.50	5549.9910	5549.9903	5549.9901	5549.9896
Max. Deviation (MHz)	0.0090	0.0097	0.0099	0.0104
Max. Deviation (ppm)	1.62	1.75	1.78	1.87
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5549.9955	5549.9947	5549.9939	5549.9934
10	5549.9938	5549.9932	5549.9926	5549.9923
20	5549.9918	5549.9912	5549.9904	5549.9895
30	5549.9903	5549.9893	5549.9889	5549.9881
40	5549.9896	5549.9895	5549.9886	5549.9883
Max. Deviation (MHz)	0.0104	0.0107	0.0114	0.0119
Max. Deviation (ppm)	1.87	1.93	2.05	2.14
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	5289.9927	5289.9918	5289.9915	5289.9908
110.00	5289.9918	5289.9913	5289.9911	5289.9903
93.50	5289.9915	5289.9907	5289.9901	5289.9899
Max. Deviation (MHz)	0.0085	0.0093	0.0099	0.0101
Max. Deviation (ppm)	1.61	1.76	1.87	1.91
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5289.9938	5289.9932	5289.9925	5289.9917
10	5289.9926	5289.9916	5289.9912	5289.9907
20	5289.9918	5289.9913	5289.9911	5289.9910
30	5289.9903	5289.9897	5289.9888	5289.9878
40	5289.9890	5289.9883	5289.9878	5289.9870
Max. Deviation (MHz)	0.0110	0.0117	0.0122	0.0130
Max. Deviation (ppm)	2.08	2.21	2.31	2.46
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5529.9928	5529.9922	5529.9913	5529.9909
110.00	5529.9918	5529.9908	5529.9898	5529.9891
93.50	5529.9910	5529.9903	5529.9894	5529.9889
Max. Deviation (MHz)	0.0090	0.0097	0.0106	0.0111
Max. Deviation (ppm)	1.63	1.75	1.92	2.01
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5529.9942	5529.9937	5529.9935	5529.9927
10	5529.9928	5529.9923	5529.9913	5529.9908
20	5529.9918	5529.9915	5529.9905	5529.9904
30	5529.9903	5529.9899	5529.9889	5529.9880
40	5529.9887	5529.9881	5529.9874	5529.9865
Max. Deviation (MHz)	0.0113	0.0119	0.0126	0.0135
Max. Deviation (ppm)	2.04	2.15	2.28	2.44
Result	Pass			