

Report No.: FR2N2822AE

RADIO TEST REPORT

FCC ID : 2AYRA-08436

Equipment : Linksys Velop Pro 6E

Brand Name : LINKSYS

Model Name: MX6200, MX62EC, MX62WH, MX62MS, SPNMX62,

MX6203, MX6202, MX6201, MX62

Applicant : Linksys USA, Inc.

121 Theory, Irvine, CA. 92617, USA

Standard : 47 CFR FCC Part 15.407

The product was received on Nov. 28, 2022, and testing was started from Nov. 29, 2022 and completed on Feb. 16, 2023. We, Sporton International Inc. Hsinchu Laboratory, 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

TEL: 886-3-656-9065 FAX: 886-3-656-9085

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History of this test report

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Report No.	Version	Description	Issued Date
FR2N2822AE	01	Initial issue of report	Mar. 22, 2023
FR2N2822AE	02	Changing the address of Applicant to "121 Theory, Irvine, CA. 92617, USA" from "121 Theory, Suite 150, Irvine, CA. 92617, USA".	Mar. 30, 2023

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Summary of Test Result

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Equivalent Isotopically Radiated Power (E.I.R.P.)	PASS	-
3.4	15.407(a)	Peak Power Spectral Density (E.I.R.P.)	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-
3.6	15.407(d)	Contention-Based Protocol	PASS	-

Declaration of Conformity:

- The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
- 2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen Report Producer: Cathy Chiu

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1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5925-7125	ax (HEW20)	5955-7095	1-229 [58]
5925-7125	ax (HEW40)	5965-7085	3-227 [29]
5925-7125	ax (HEW80)	5985-7025	7-215 [14]
5925-7125	ax (HEW160)	6025-6985	15-207 [7]

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Band	Mode	BWch (MHz)	Nant
5.925-7.125GHz	802.11ax HEW20	20	2TX
5.925-7.125GHz	802.11ax HEW20-BF	20	2TX
5.925-7.125GHz	802.11ax HEW40	40	2TX
5.925-7.125GHz	802.11ax HEW40-BF	40	2TX
5.925-7.125GHz	802.11ax HEW80	80	2TX
5.925-7.125GHz	802.11ax HEW80-BF	80	2TX
5.925-7.125GHz	802.11ax HEW160	160	2TX
5.925-7.125GHz	802.11ax HEW160-BF	160	2TX

Note

HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation..

BWch is the nominal channel bandwidth.

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1.1.2 Antenna Information

Ant.		Р	ort		Brand	Model Name	Antenna Type	Connector	Gain
AIII.	2.4GHz	5GHz	6GHz	Bluetooth	Dialiu	Woder Name	Antenna Type	Connector	(dBi)
1	1	1	-	-	Galtronics	02102140-07691-4	PCB Antenna	I-PEX	
2	2	2	-	-	Galtronics	02102140-07691-3	PCB Antenna	I-PEX	
3	-	-	1	-	Galtronics	02102475-07691-3	PCB Antenna	I-PEX	Note1
4	-	-	2	-	Galtronics	02102475-07691-4	PCB Antenna	I-PEX	
5	-	-	-	1	Galtronics	02102073-07691	PCB Antenna	I-PEX	

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Note1:

	Antenna Gain (dBi)									
Ant.	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8	Bluetooth
1	2.626	3.600	3.535	3.323	3.333	-	-	-	-	-
2	2.626	3.600	3.535	3.323	3.333	-	-	-	-	-
3	-	-	-	-	-	3.076	3.246	3.429	3.429	-
4	-	-	-	-	-	3.076	3.246	3.429	3.429	-
5	•	-	-	-	•	-	-	-	-	2.562

Note2: The above information was declared by manufacturer.

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Note3: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	Directional Gain = 10-log $\frac{\left[\sum_{j=1}^{N_{obs}} \left(\sum_{j=1}^{N_{obs}} \mathcal{S}_{j,k}\right)^{2}\right]}{N_{obs}}$
BF	$DirectionalGate = 10 \cdot log \left[\sum_{j=1}^{N_{tot}} \left(\sum_{k=1}^{N_{tot}} g_{j,k} \right)^{2} \right] $ N_{tot}	$Directional Gain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{min}} \left[\sum_{k=1}^{N_{min}} \mathbf{S}_{j,k} \right]^{2}}{N_{min}} \right]$

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Ex.

Directional Gain (NSS1) formula :

DirectionalGain = $10 \cdot \log \frac{\left[\sum_{j=1}^{p_{eff}} \left(\sum_{k=1}^{p_{eff}} \mathcal{B}_{j,k}\right)^{2}\right]}{N_{ein}}$

NSS1(g1,1) = $10^{G1/20}$; NSS1(g1,2)= $10^{G2/20}$;

 $gj_k = (Nss1(g1,1) + Nss1(g1,2))^2$

 $DG = 10 \log[(Nss1(g1,1) + Nss1(g1,2))^{2} / N_{ANT}] \Rightarrow 10 \log[(10^{G1/20} + 10^{G2/20})^{2} / N_{ANT}] \Rightarrow 10 \log[(10^{G1/20} + 10^{G1/20})^{2} / N_{ANT}] \Rightarrow 10 \log[(10^{G1/20} + 10^{$

Where;

2.4G G1= 2.626 dBi ;2.4G G2= 2.626 dBi ;DG= 5.636dBi

5G UNII-1 G1= 3.6 dBi ;5G Band1 G2= 3.6 dBi ;DG= 6.610dBi

5G UNII-2A G1= 3.535 dBi ;5G Band2 G2= 3.535 dBi ;DG= 6.545dBi

5G UNII-2C G1= 3.323 dBi ;5G Band3 G2= 3.323 dBi ;DG= 6.333dBi

5G UNII-3 G1= 3.333 dBi :5G Band4 G2= 3.333 dBi :DG= 6.343dBi

6G UNII-5 G1= 3.076 dBi ;6.2G G2= 3.076 dBi ;DG= 6.086dBi

6G UNII-6 G1= 3.246 dBi ;6.4G G2= 3.246 dBi ;DG= 6.256dBi

6G UNII-7 G1= 3.429 dBi ;6.7G G2= 3.429 dBi ;DG= 6.439dBi

6G UNII-8 G1= 3.429 dBi ;7G G2= 3.429 dBi ;DG= 6.439dBi

<For 2.4GHz function>

For IEEE 802.11b/g/n/VHT/ax (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

<For 5GHz function>

For IEEE 802.11a/n/ac/ax (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

<For 6GHz function>

For IEEE 802.11ax (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

<For Bluetooth function> (1TX/1RX):

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

Port 1 could transmit/receive simultaneously.

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1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF	0.906	0.43	1.8m	1k
802.11ax HEW40-BF	0.894	0.49	1.8m	1k
802.11ax HEW80-BF	0.895	0.48	1.928m	1k
802.11ax HEW160-BF	0.918	0.37	1.925m	1k

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Note:	
DC is Duty Cycle.	
DCF is Duty Cycle Factor.	

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter					
	\boxtimes	With beamforming		Without beamforming		
Beamforming Function	The	on for 11n/VHT/ax in 2.4GHz, n/ac/ax				
	\boxtimes	Indoor Access Point		Subordinate		
Doving Type		Indoor Client		Standard Power Access Point		
Device Type		Dual Client		Standard Client		
		Fixed Client				
Channel Puncturing Function		Supported	\boxtimes	Unsupported		
Support RU	\boxtimes	Full RU		Partial RU		
Test Software Version		Non-beamforming: QRCT V4.0.209.0 Beamforming: DOS [ver 6.1.7601]				
Software / Firmware Version for CBP	Version 1.0.2.211785					

Note: The above information was declared by manufacturer.

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1.1.5 Table for Multiple Listing

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

Model Name	Description
MX6200	
MX62EC	
MX62WH	
MX62MS	
SPNMX62	All the models are identical, the difference model for difference model served as marketing strategy.
MX6203	onvoca do mainoung onatogy.
MX6202	
MX6201	
MX62	

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Note 1: From the above models, model: MX6200 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

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1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

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- 47 CFR FCC Part 15.407
- ANSI C63.10-2013
- FCC KDB 789033 D02 v02r01

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 987594 D02 v01r01
- FCC KDB 412172 D01 v01r01
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information

Test Lab.: Sporton International Inc. Hsinchu Laboratory

Hsinchu ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

(TAF: 3787) TEL: 886-3-656-9065 FAX: 886-3-656-9085

Test site Designation No. TW3787 with FCC.

Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted (For other tests)	TH03-CB	Owen Hsu	16.5~17.5 / 61~64	Jan. 31, 2023~ Feb. 02, 2023
RF Radiated (E.I.R.P. Power/PSD)	03CH03-CB	Ken Yeh	21.7~23.2 / 60~63	Nov. 29, 2022~ Feb. 13, 2023
Radiated (below 1GHz)	10CH01-CB	Tim Chen	19~20 / 56~57	Feb. 15, 2023 ~ Feb. 16, 2023
Radiated (above 1GHz)	03CH03-CB	Ken Yeh	21.7~23.2 / 60~63	Nov. 29, 2022~ Feb. 13, 2023
RF Conducted (Contention-Based Protocol test)	DF02-CB	Jeff Wu	21.3~22.6 / 61~63	Jan. 19, 2023~ Jan. 31, 2023
AC Conduction	CO01-CB	Tim Chen	22~23 / 56~57	Jan. 12, 2023

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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

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level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	5.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.4 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%

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2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5955MHz	18
6175MHz	18
6415MHz	17
6435MHz	17
6475MHz	18
6515MHz	16
6535MHz	16
6695MHz	16
6855MHz	16
6875MHz Straddle 6.525-6.875GHz	16
6895MHz	17
6995MHz	16
7095MHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5965MHz	21
6165MHz	20
6405MHz	20
6445MHz	20
6485MHz	19
6525MHz Straddle 6.425-6.525GHz	19
6565MHz	19
6685MHz	19
6845MHz	19
6885MHz Straddle 6.525-6.875GHz	19
6925MHz	19
7005MHz	19
7085MHz	20
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5985MHz	24
6145MHz	23
6385MHz	24
6465MHz	23
6545MHz Straddle 6.425-6.525GHz	22
6625MHz	22

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Mode	Power Setting
6705MHz	22
6785MHz	22
6865MHz Straddle 6.525-6.875GHz	22
6945MHz	22
7025MHz	22
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-
6025MHz	27
6185MHz	26
6345MHz	25
6505MHz Straddle 6.425-6.525GHz	25
6665MHz	24
6825MHz Straddle 6.525-6.875GHz	24
6985MHz	24

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Note:

 The EUT supports non-beamforming and beamforming mode, only beamforming mode has been selected to test.

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2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests		
Tests Item	AC power-line conducted emissions	
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz	
Operating Mode	Normal Link	
1	EUT + Adapter 3 + plug	
2	EUT + Adapter 4 + plug	
3	EUT + Adapter 1	
4	EUT + Adapter 2	
For operating mode 2 is the worst case and it was record in this test report.		

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The Worst Case Mode for Following Conformance Tests		
Tests Item	Emission Bandwidth Contention Based Protocol	
Test Condition	Conducted measurement at transmit chains	

Th	The Worst Case Mode for Following Conformance Tests		
Tests Item	Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) Peak Power Spectral Density (E.I.R.P.)		
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.		
After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result wa written in the report.			
1	EUT in Z axis		

Th	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.		
After evaluating, the worst case was found at Z axis from Radiated Emission test Above 1GHz. So the measurement will follow this same test configuration.			
Operating Mode < 1GHz	СТХ		
1	EUT in Z axis + WLAN 2.4GHz + Adapter 1		

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2	EUT in Z axis + WLAN 2.4GHz + Adapter 2		
3	EUT in Z axis + WLAN 2.4GHz + Adapter 4 + plug		
4	EUT in Z axis + WLAN 2.4GHz + Adapter 3 + plug		
Mode 3 has been evaluate follow this same test mode	ed to be the worst case among Mode 1~4, thus measurement for Mode 5~7 will		
5	EUT in Z axis + WLAN 5GHz + Adapter 4 + plug		
6	EUT in Z axis + WLAN 6GHz + Adapter 4 + plug		
7	EUT in Z axis + Bluetooth + Adapter 4 + plug		
For operating mode 3 is the worst case and it was record in this test report.			
Operating Mode > 1GHz	Mode > 1GHz CTX		
After evaluating, the worst written in the report.	After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result wa written in the report.		
1	EUT in Z axis		

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The Worst Case Mode for Following Conformance Tests		
Tests Item Emission MASK		
Test Condition Conducted measurement at transmit chains		

The Worst Case Mode for Following Conformance Tests		
Tests Item Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation		
Operating Mode		
1 Bluetooth + WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz		
Refer to Sporton Test Report No.: FA2N2822 for Co-location RF Exposure Evaluation.		

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2.3 EUT Operation during Test

For CTX 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 10 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 Client and transmit duty cycle no less than 98%.

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For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	Ktec	KSA-30W-120250VU	Input: 100-240V~50/60Hz, 1.0A Output: 12.0V, 2.5A
Adapter 2	APD	WA-30P12FU	Input: 100-240V~, 50-60Hz, 0.9A Max. Output: 12.0V, 2.5A
Adapter 3	Ktec	KSA-30W-120250D5	Input: 100-240V~50/60Hz, 1.0A Output: 12.0V, 2.5A, 30.0W
Adapter 4	APD	WA-30P12R	Input: 100-240V~, 50-60Hz, 0.9A Max. Output: 12.0V, 2.5A, 30.0W
Others			
RJ-45 cable*1, non-shielded, 0.9m			
Plug 1*1 (Equip with Adapter 3 use only)			
Plug 2*1 (Equip with Adapter 4 use only)			

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2.5 Support Equipment

For AC Conduction:

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
Α	LAN1 NB	DELL	T3400	N/A	
В	LAN2 NB	DELL	E6430	N/A	
С	2.4G NB	DELL	T3400	N/A	
D	5G NB	DELL	T3400	N/A	
Е	6G NB	DELL	T3400	N/A	
F	Smart phone	Samsung	Galaxy J2	N/A	

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For Radiated (below 1GHz):

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
Α	Notebook	DELL	T3400	N/A	

For Radiated Emission (above 1GHz) and RF Radiated (Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) and Peak Power Spectral Density (E.I.R.P.):

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
Α	Notebook	Lenovo	L440	N/A	
В	Notebook	DELL	E4300	N/A	
С	Client	Cybertan	Maple(MX6000s)	N/A	

For RF Conducted (Other tests):

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
Α	Notebook	DELL	E4300	N/A	

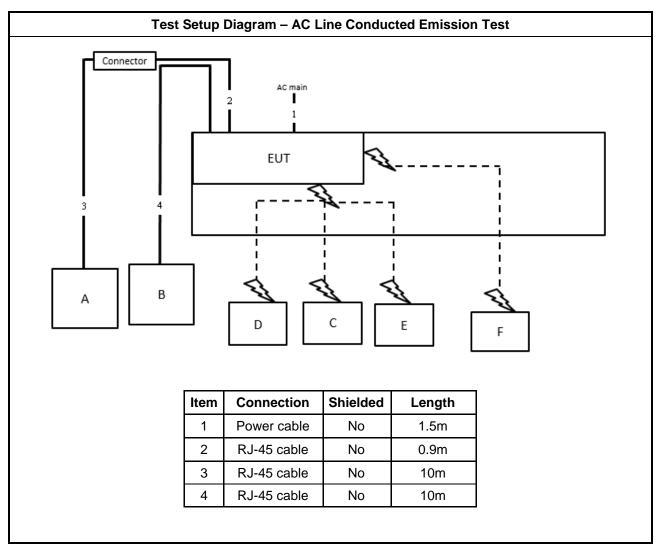
For RF Conducted (Contention Based Protocol test):

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
Α	Notebook	DELL	E4300	N/A	
В	Notebook	DELL	E6230	N/A	
С	WLAN module	Intel	AX210NGW	PD9AX210NG	

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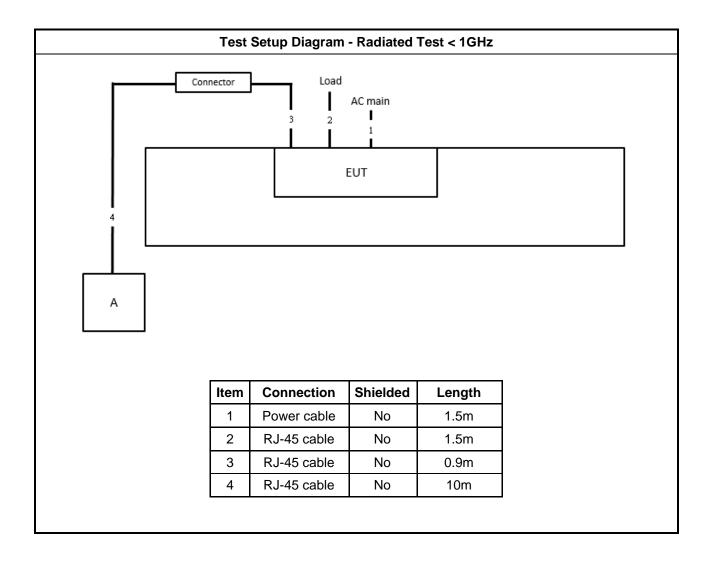


2.6 Test Setup Diagram

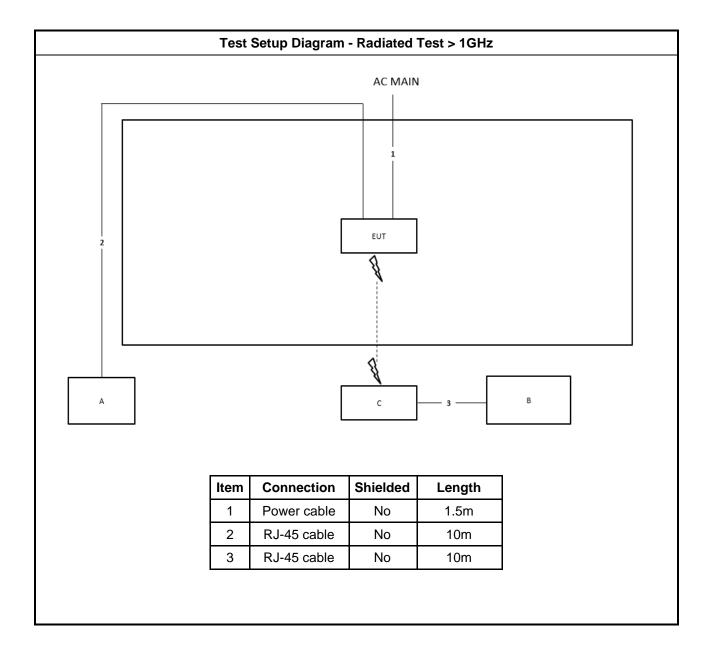


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3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit			
Frequency Emission (MHz) Quasi-Peak Average			
0.15-0.5	66 - 56 *	56 - 46 *	
0.5-5	56	46	
5-30	60	50	
Note 1: * Decreases with the logarithm of the frequency.			

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3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

	Test Method
\boxtimes	Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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3.1.4 Test Setup

AC Power-line Conducted Emissions

1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.

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- 2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
- 3.1—All other equipment powered from additional LISN(s).
- 3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
- 3.3—LISN at least 80 cm from nearest part of EUT chassis.
- 4—Non-EUT components of EUT system being tested.
- 5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
- 6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
- 7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level
- b. Margin = Limit + (Read Level + LISN Factor + Cable Loss)

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

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3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit			
UNII Devices			
For the 5925-6425 GHz band, N/A			
For the 6425-6525 GHz band, N/A			
For the 6525-6875 GHz band, N/A			
For the 6875-7125 GHz band, N/A			
RLAN Devices			
For the 5925-6425 GHz band, N/A			
☐ For the 6425-6525 GHz band, N/A			
For the 6525-6875 GHz band, N/A			
☐ For the 6875-7125 GHz band, N/A			

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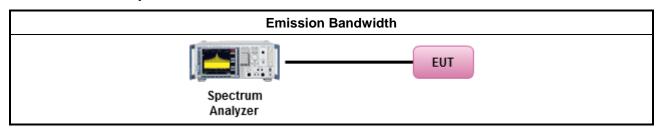
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

		Test Method	
•	For the emission bandwidth shall be measured using one of the options below:		
		According to FCC KDB 987594 D02 clause II.C, measurement procedure shall refer to FCC KDB 789033 D02, 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.	

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

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3.3 Maximum Equivalent Isotopically Radiated Power (E.I.R.P.)

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3.3.1 Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) Limit

		Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) Limit
UNI	l De	vices
\boxtimes	For	the 5.925 ~ 6.425 GHz band:
	•	For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm).
	•	For indoor access point : e.i.r.p < 30 dBm.
	•	For subordinate device control of an indoor access point : e.i.r.p < 30 dBm.
	•	For client device control of a standard power access point : e.i.r.p < 30 dBm.
	•	For client device control of an indoor access point : e.i.r.p < 24 dBm.
\boxtimes	For	the 6.425 ~ 6.525 GHz band:
	•	For indoor access point : e.i.r.p < 30 dBm.
	•	For client device control of an indoor access point : e.i.r.p < 24 dBm.
\boxtimes	For	the 6.525 ~ 6.875 GHz band:
	•	For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm).
		For indoor access point : e.i.r.p < 30 dBm.
	•	For subordinate device control of an indoor access point : e.i.r.p < 30 dBm.
	•	For client device control of a standard power access point : e.i.r.p < 30 dBm.
	•	For client device control of an indoor access point : e.i.r.p < 24 dBm.
\boxtimes	For	the 6.875 ~ 7.125 GHz band:
	•	For indoor access point : e.i.r.p < 30 dBm.
		For client device control of an indoor access point : e.i.r.p < 24 dBm.
RLA	AN D	evices
	For	the 5.925 ~ 7.125 GHz band:
	•	For low-power indoor access-points & indoor subordinate devices < 30 dBm.
		For low-power client devices < 24 dBm.
	For	the 5.925 ~ 6.875 GHz band:
		For standard-power access points & fixed client devices < 36 dBm.
		For standard client devices < 30 dBm.

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3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

		Test Method
•	Acc 789	ording to FCC KDB 987594 D02 clause II.E, the test measurement procedure shall refer to KDB 033.
	Ave	rage over on/off periods with duty factor
	\boxtimes	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging). Spectrum analyzer setting: RBW/VBW: 1/3MHz; Detector: RMS; Trace mode: Average; Sweep Count 100.
		Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wid	eband RF power meter and average over on/off periods with duty factor
		Refer as FCC KDB 789033 D02, 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: $P_{total} = P_1 + P_2 + + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$
\boxtimes	For	radiated measurement.
	•	Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	•	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	•	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

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Note:

The test is the final test result, It includes antenna /cable loss factor & FSL factor. The EIRP calculation refer to "KDB 412172 D01 Determining ERP and EIRP v01r01"

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EIRP Formula:

EIRP(dBm) = PR(dBm) + LP(FSL factor)

PR(dBm): Power measurement level include antenna/cable loss

LP: Free Space Loss(dB)

PR Formula:

PR(dBm) = P Meas(dBm) - GR(dBi) + LC(dB)

where;

P Meas(dBm): Power measurement level

GR(dBi): Gain of the receive(measurement) antenna (dBi)

LC(dB): Measurement cable loss (dB)

LP(FSL factor) Formula:

 $LP(dB) = 20 \log F + 20 \log D - 27.54$

where:

F(MHz): EUT center frequency D(m): Measurement distance

For Example:

Test mode HE20 Non BF 2T1S 5955MHz EIRP measurement

PR Formula:

PR(dBm) = -36.32 - 11.61 + 6.68 = -41.25

LP(FSL factor) Formula:

LP(dB) = 20log(5955) + 20log(3) -27.5 = 57.54

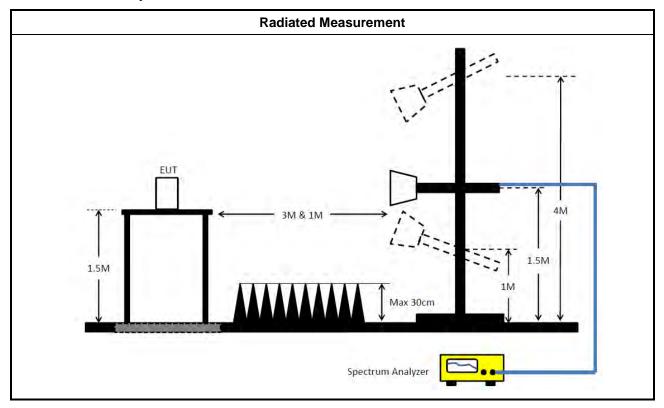
EIRP Formula:

EIRP(dBm) = -41.25 + 57.54 = 16.29

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3.3.4 Test Setup



3.3.5 Test Result of Maximum Equivalent Isotopically Radiated Power (E.I.R.P)

Refer as Appendix C

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3.4 Peak Power Spectral Density (E.I.R.P.)

3.4.1 Peak Power Spectral Density (E.I.R.P.) Limit

		Peak Power Spectral Density (E.I.R.P.) Limit			
UNI	JNII Devices				
\boxtimes	For	the 5.925 ~ 6.425 GHz band:			
	•	For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz.			
	•	For indoor access point : e.i.r.p PSD < 5 dBm/MHz.			
	-	For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz.			
	•	For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz.			
	•	For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.			
\boxtimes	For	the 6.425 ~ 6.525 GHz band:			
	-	For indoor access point : e.i.r.p PSD < 5 dBm/MHz.			
	-	For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.			
\boxtimes	For	the 6.525 ~ 6.875 GHz band:			
	•	For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz.			
	-	For indoor access point : e.i.r.p PSD < 5 dBm/MHz.			
	-	For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz.			
	-	For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz.			
	-	For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.			
\boxtimes	For	the 6.875 ~ 7.125 GHz band:			
	•	For indoor access point : e.i.r.p PSD < 5 dBm/MHz.			
	•	For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.			
RLA	AN D	Pevices			
	For	the 5.925 ~ 7.125 GHz band:			
	•	For low-power indoor access-points & indoor subordinate devices < 5 dBm / MHz.			
	-	For low-power client devices < -1 dBm / MHz.			
	For	the 5.925 ~ 6.875 GHz band:			
	•	For standard-power access points & fixed client devices < 23 dBm / MHz.			
	•	For standard client devices < 17 dBm / MHz.			

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3.4.2 Measuring Instruments

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

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3.4.3 Test Procedures

	Test Method					
•	Pea outp	ording to FCC KDB 987594 D02 clause II.F, the measurement procedure shall refer to KDB 789033. It power spectral density procedures that the same method as used to determine the conducted pout power shall be used to determine the peak power spectral density and use the peak search cition on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density II be measured using below options:				
		Refer as FCC KDB 789033 D02, 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]					
	\boxtimes	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).				
		Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)				
	duty cycle < 98% and average over on/off periods with duty factor					
	\boxtimes	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).				
		Refer as FCC KDB 789033 D02, 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: PPSDtotal = PPSD1 + PPSD2 + + PPSDn (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRPtotal = PPSDtotal + DG				
\boxtimes	For	or radiated measurement.				
	•	 Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" 				
	•	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.				

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Test Method

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Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

Note:

The test is the final test result, It includes antenna /cable loss factor & FSL factor.

The EIRP PSD calculation refer to "KDB 412172 D01 Determining ERP and EIRP v01r01"

EIRP PSD Formula:

EIRP PSD(dBm/MHz) = PR(dBm/MHz) + LP(FSL factor)

where;

PR(dBm/MHz): Power measurement level include antenna/cable loss

LP: Free Space Loss(dB)

PR Formula:

PR(dBm/MHz) = P Meas(dBm/MHz) - GR(dBi) + LC(dB)

where:

P Meas(dBm/MHz): PSD measurement level

GR(dBi): Gain of the receive(measurement) antenna (dBi)

LC(dB): Measurement cable loss (dB)

LP(FSL factor) Formula:

 $LP(dB) = 20 \log F + 20 \log D - 27.54$

where;

F(MHz) : EUT center frequency D(m) : Measurement distance

For Example:

Test mode HE20 Non BF 2T1S 5955MHz EIRP PSD measurement

PR Formula:

PR(dBm/MHz) = -47.78 - 11.61 + 6.68 = -52.71

LP(FSL factor) Formula:

LP(dB) = 20log(5953.5) + 20log(3) -27.5 = 57.54

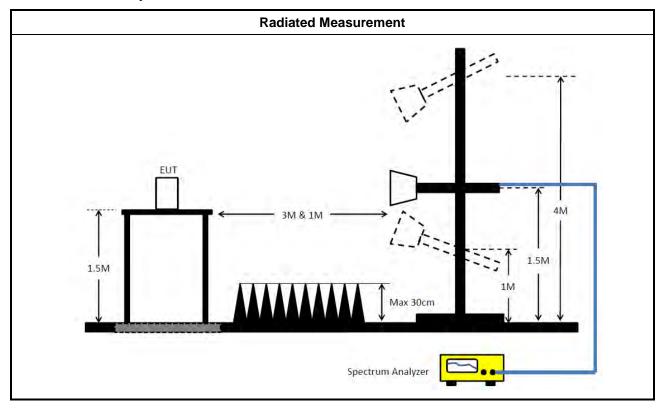
EIRP PSD Formula

EIRP PSD(dBm/MHz) = -52.71 + 57.54 = 4.83

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3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density (E.I.R.P.)

Refer as Appendix D

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3.5 Unwanted Emissions

3.5.1 Transmitter 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			

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- 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.
- Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m(20 x log (standard distance/ test distance) = 20log(3/1) = 9.54dB.

 EX. Above 18GHz emission limit calculation (3m to 1m) = 54dBuV/m at 3m + 9.54dB = 63.54 dBuV/m at 1m.

Un-restricted band emissions above 1GHz Limit				
Frequency	Limit			
Any outside the 5.945 –	e.i.r.p27 dBm [68.2 dBuV/m@3m]			
7.125 GHz emission	Note 1: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m(20 x log (standard distance/test distance) = 20log(3/1) = 9.54dB. EX. Above 18GHz emission limit calculation (3m to 1m) = 68.2dBuV/m at 3m + 9.54dB = 77.74 dBuV/m at 1m. Note 2:-27 dBm EIRP OOBE is measured RMS which is a deviation from the current 15E rules for 5 GHz bands. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.			

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Frequency Emission MASK Limit 5.945 - 7.125 GHz Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than oneand one-half times the channel bandwidth must be suppressed by at least 40 dB. Fc - EBW Fc + EBW 28 dB 40 dB Fc + 1.5 X EBW EBW/2 - 1MHz

1.5 X EBW

+ 1MHz

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3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method

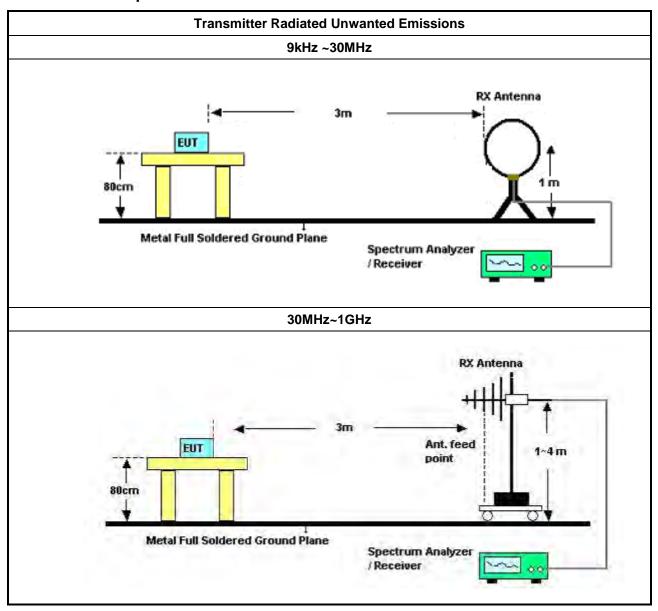
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- According to FCC KDB 987594 D02 II.G. the unwanted emission measurement procedure shall refer to KDB 789300(except emission MASK).
 - Measurements may be performed at a distance other than the limit distance provided they are not performed in the 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 ≥ 98 or duty factor].
- For the transmitter unwanted emissions shall be measured using following options below:
 - Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
 - Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
 - Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging). (For unrestricted band measurement)
 - Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
 - Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. (For restricted band average measurement)
 - Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
 - Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
 - Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
 - Refer as FCC KDB 789033 D02, clause G)3)d)ii) for Band edge Integration measurements.
- For emission MASK shall be measured using following options below:
 - Refer as FCC KDB 987594 D02, J) In-Band Emissions
- 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.

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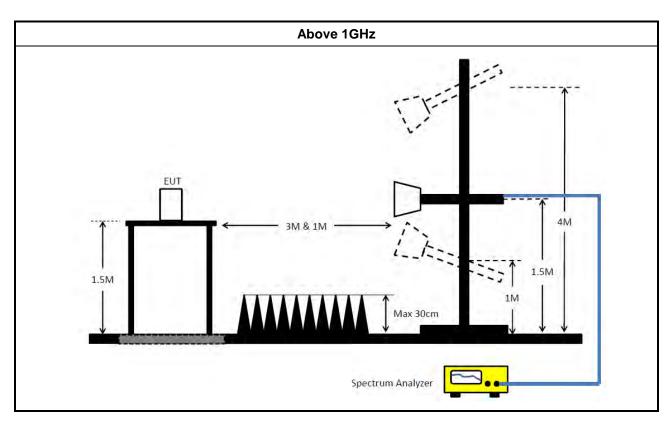


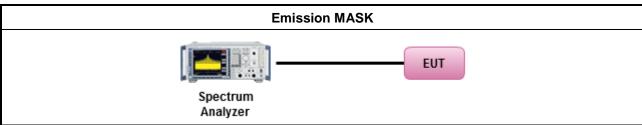
3.5.4 Test Setup



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3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

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3.6 Contention Based Protocol

3.6.1 Contention Based Protocol Limit

EUT can detect an AWGN signal with 90% (or better) level of certainty.

3.6.2 Measuring Instruments

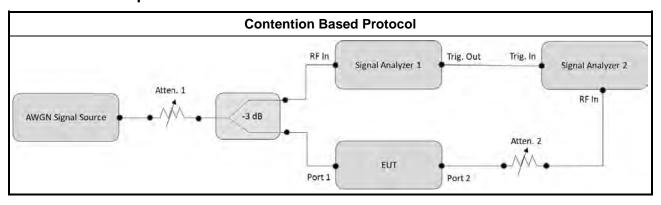
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

	Test Method						
■ For Contention Based Protocol shall be measured using following options below:							
Refer as FCC KDB 987594 D02, I) Contention Based Protocol.							

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3.6.4 Test Setup



3.6.5 Test Result of Contention Based Protocol

Refer as Appendix F

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4 Test Equipment and Calibration Data

		ı			I		
Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-5 0-16-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 12, 2022	Apr. 11, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
10m Semi Anechoic Chamber NSA	TDK	SAC-10M	10CH01-CB	30MHz~1GHz 10m,3m	Jan. 18, 2023	Jan. 17, 2024	Radiation (10CH01-CB)
Amplifier	Agilent	8447D	2944A10783	9kHz ~ 1.3GHz	Mar. 11, 2022	Mar. 10, 2023	Radiation (10CH01-CB)
Amplifier	Agilent	8447D	2944A10784	9kHz ~ 1.3GHz	Mar. 11, 2022	Mar. 10, 2023	Radiation (10CH01-CB)
Low Cable	Woken	SUCOFLEX 104	low cable-01	25MHz ~ 1GHz	Oct. 18, 2022	Oct. 17, 2023	Radiation (10CH01-CB)
Low Cable	Woken	SUCOFLEX 104	low cable-02	25MHz ~ 1GHz	Oct. 18, 2022	Oct. 17, 2023	Radiation (10CH01-CB)
EMI Test Receiver	Rohde&Schwarz	ESCI	100186	9kHz ~ 3GHz	Jul. 11, 2022	Jul. 10, 2023	Radiation (10CH01-CB)
Spectrum Analyzer	Rohde&Schwarz	FSV30	101026	9kHz ~ 30GHz	Apr. 22, 2022	Apr. 21, 2023	Radiation (10CH01-CB)
Bilog Antenna with 6dB Attenuator	Chase & EMCI	CBL6111A &N-6-06	1543 &AT-N0609	30MHz ~ 1GHz	Jun. 25, 2022	Jun. 24, 2023	Radiation (10CH01-CB)
Amplifier	EM	EM101	060703	10MHz ~ 1GHz	Oct. 19, 2022	Oct. 18, 2023	Radiation (10CH01-CB)
Low Cable	TITAN	T318E	low cable-03	30MHz ~ 1GHz	Oct. 18, 2022	Oct. 17, 2023	Radiation (10CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (10CH01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (10CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)

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Calibration Calibration Brand Model No. Serial No. Characteristics Remark Instrument **Date Due Date BBHA 9120** BBHA 9120 D Radiation **SCHWARZBECK** 1GHz~18GHz Horn Antenna Jun. 23, 2022 Jun. 22, 2023 1370 D (03CH03-CB) Radiation **BBHA 9170** BBHA9170252 Horn Antenna Schwarzbeck 15GHz ~ 40GHz Aug. 22, 2022 Aug. 21, 2023 (03CH03-CB) Radiation Pre-Amplifier 8449B 3008A02097 1GHz ~ 26.5GHz Jul. 01, 2022 Jun. 30, 2023 Agilent (03CH03-CB) Radiation Pre-Amplifier SGH **SGH184** 20221107-3 18GHz ~ 40GHz Nov. 16, 2022 Nov. 15, 2023 (03CH03-CB) Spectrum Radiation R&S Jun. 09, 2023 FSP40 100019 9kHz ~ 40GHz Jun. 10, 2022 Analyzer (03CH03-CB) Radiation 1GHz ~ 18GHz RG402 RF Cable-high Woken Oct. 03, 2022 Oct. 02, 2023 Cable-20+29 (03CH03-CB) Radiation RF Cable-high Woken RG402 High Cable-29 1GHz ~ 18GHz Oct. 03, 2022 Oct. 02, 2023 (03CH03-CB) Radiation High Cable Woken WCA0929M 40G#5+7 1GHz ~ 40 GHz Dec. 14, 2021 Dec. 13, 2022 (03CH03-CB) Radiation 1GHz ~ 40 GHz High Cable Woken WCA0929M 40G#5+6 Dec. 07, 2022 Dec. 06, 2023 (03CH03-CB) Radiation High Cable Woken WCA0929M 40G#5 1GHz ~ 40 GHz Dec. 08, 2021 Dec. 07, 2022 (03CH03-CB) Radiation High Cable Woken WCA0929M 40G#5 1GHz ~ 40 GHz Dec. 07, 2022 Dec. 06, 2023 (03CH03-CB) Radiation Dec. 13, 2022 Woken WCA0929M 40G#7 1GHz ~ 40 GHz High Cable Dec. 14, 2021 (03CH03-CB) Radiation High Cable Woken WCA0929M 40G#6 1GHz ~ 40 GHz Dec. 07, 2022 Dec. 06, 2023 (03CH03-CB) Radiation **SPORTON** Test Software SENSE V5.10 N.C.R. N.C.R. (03CH03-CB) Spectrum Conducted 9kHz~40GHz Dec. 30, 2022 Dec. 29, 2023 R&S FSV40 101028 (TH03-CB) analyzer Conducted Power Sensor Anritsu MA2411B 1726195 300MHz~40GHz Sep. 04, 2022 Sep. 03, 2023 (TH03-CB) Conducted Power Meter Anritsu ML2495A 1035008 300MHz~40GHz Sep. 04, 2022 Sep. 03, 2023 (TH03-CB) Conducted RG402 RF Cable-high Woken High Cable-11 1 GHz -18 GHz Oct. 03, 2022 Oct. 02, 2023 (TH03-CB) Conducted Woken RG402 High Cable-12 1 GHz -18 GHz Oct. 03, 2022 Oct. 02, 2023 RF Cable-high (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-13 1 GHz -18 GHz Oct. 03, 2022 Oct. 02, 2023 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-14 1 GHz -18 GHz Oct. 03, 2022 Oct. 02, 2023 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-15 1 GHz -18 GHz Oct. 03, 2022 Oct. 02, 2023 (TH03-CB)

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Calibration Calibration Model No. Serial No. Instrument **Brand** Characteristics Remark **Date Due Date** Conducted SP-SWI Switch SPTCB **SWI-03** 1 GHz -26.5 GHz Oct. 04, 2022 Oct. 03, 2023 (TH03-CB) Conducted Test Software **SPORTON** SENSE V5.10 N.C.R. N.C.R. (TH03-CB) Spectrum Conducted R&S FSV40 101025 9kHz ~ 40GHz Oct. 28, 2022 Oct. 27, 2023 Analyzer (DF02-CB) Signal Conducted SMB100A R&S 181239 1MHz-40GHz Dec. 30, 2022 Dec. 29, 2023 generator (DF02-CB) Vector Signal Conducted SMW200A 100kHz- 7.5GHz Dec. 29, 2022 R&S 109426 Dec. 28, 2023 (DF02-CB) generator RF Power Conducted STI 1GHz ~ 8GHz Oct. 04, 2022 Oct. 03, 2023 2 Way DV-2way -05 Divider (DF02-CB) RF Power Conducted Oct. 04, 2022 STI 2 Way DV-2way -06 1GHz ~ 8GHz Oct. 03, 2023 Divider (DF02-CB) RF Power Conducted STI 2 Way DV-2way -07 1GHz ~ 8GHz Oct. 04, 2022 Oct. 03, 2023 (DF02-CB) Divider **RF** Power Conducted 1GHz ~ 8GHz STI 2 Way DV-2way -08 Oct. 04, 2022 Oct. 03, 2023 Divider (DF02-CB) Conducted RG402 Woken High Cable-60 1 GHz -18 GHz Oct. 03, 2022 Oct. 02, 2023 RF Cable-high (DF02-CB) Conducted RG402 Oct. 02, 2023 RF Cable-high Woken High Cable-61 1 GHz - 18 GHz Oct. 03, 2022 (DF02-CB) Conducted RF Cable-high Woken RG402 High Cable-62 1 GHz - 18 GHz Oct. 03, 2022 Oct. 02, 2023 (DF02-CB) Conducted RG402 RF Cable-high Woken High Cable-63 1 GHz - 18 GHz Oct. 03, 2022 Oct. 02, 2023 (DF02-CB) Conducted RF Cable-high Woken RG402 High Cable-66 1 GHz – 18 GHz Oct. 03, 2022 Oct. 02, 2023 (DF02-CB) 100MS/s Conducted USB-5133 01BFB476 N/A N.I Apr. 17, 2022 Apr. 16, 2023

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(DF02-CB)

Note: Calibration Interval of instruments listed above is one year. NCR means Non-Calibration required.

Digitizer

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Conducted Emissions at Powerline

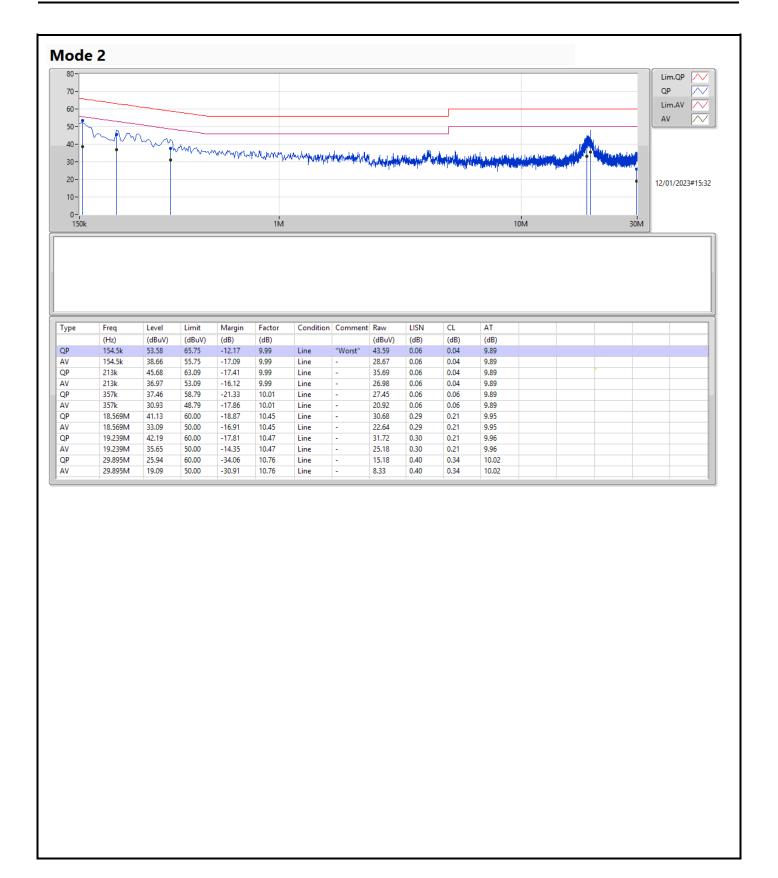
Appendix A

Summary

Mode	Result	Туре	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	QP	154.5k	54.07	65.75	-11.68	Neutral

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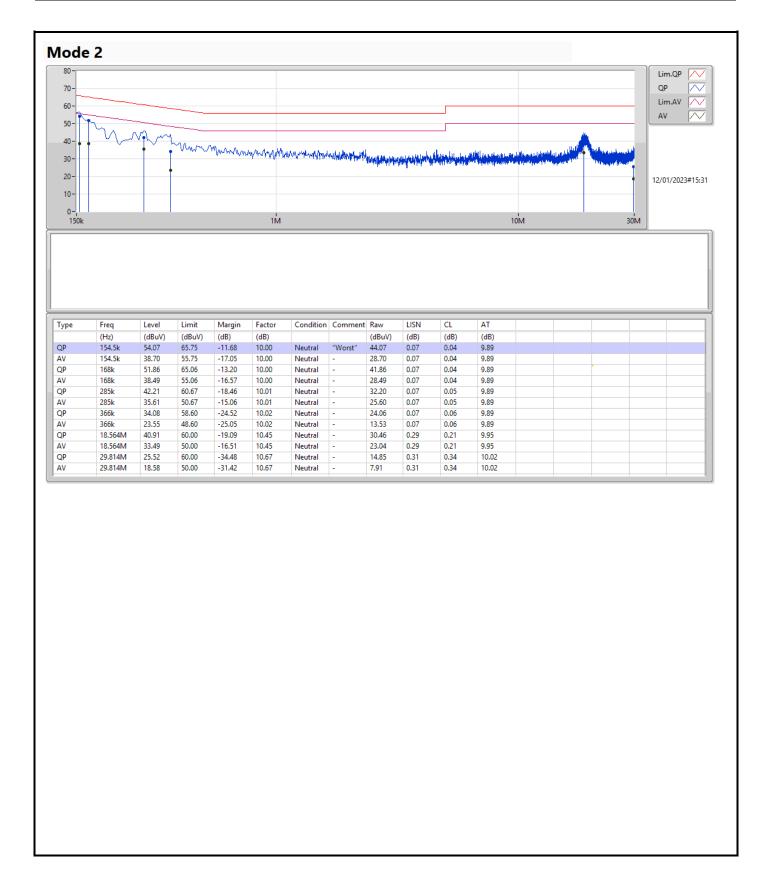
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Appendix B **EBW**

Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
5.925-6.425GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	22.11M	18.909M	18M9D1D	21.15M	18.878M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.8M	37.714M	37M7D1D	40.44M	37.637M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	87.12M	77.095M	77M1D1D	81.96M	76.905M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	274.32M	160.996M	161MD1D	166.32M	154.69M
6.425-6.525GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	21.66M	18.934M	18M9D1D	20.88M	18.874M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.8M	38.069M	38M1D1D	39.72M	37.69M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	82.8M	77.091M	77M1D1D	82.32M	77.001M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	171.6M	156.065M	156MD1D	166.56M	155.895M
6.525-6.875GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	21.75M	18.923M	18M9D1D	21.12M	18.871M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	41.04M	37.737M	37M7D1D	40.44M	37.682M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	82.68M	78.094M	78M1D1D	81.96M	77.028M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	237.84M	156.023M	156MD1D	166.56M	155.568M
6.875-7.125GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	21.57M	18.901M	18M9D1D	20.94M	18.883M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.56M	37.733M	37M7D1D	40.38M	37.675M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	82.32M	77.159M	77M2D1D	81.84M	77.009M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	264.48M	156.019M	156MD1D	167.04M	155.506M

 $\label{eq:max-NdB} \mbox{ Asximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;} \mbox{ Max-OBW = Maximum 99% occupied bandwidth;} \mbox{ Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;} \mbox{ Min-OBW = Minimum 99% occupied bandwidth} \mbox{ } \mbox{ Coupled bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;} \mbox{ Min-OBW = Minimum 99% occupied bandwidth} \mbox{ } \mbox{ }$

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Appendix B **EBW**

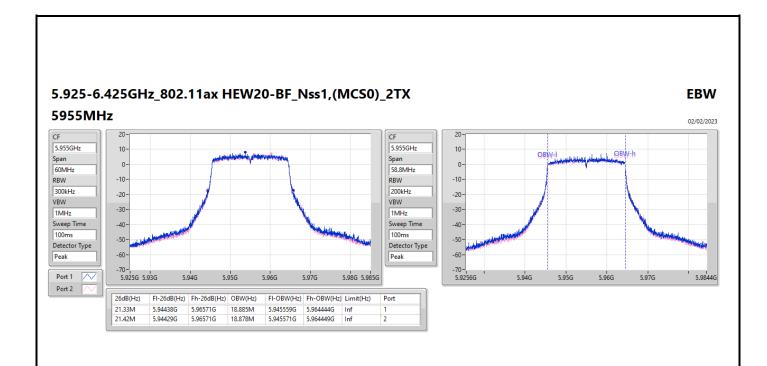
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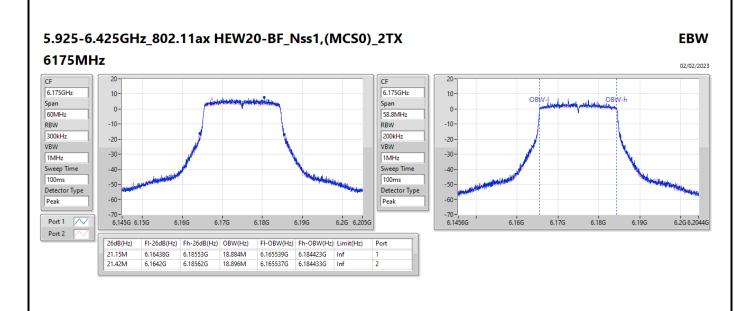
Mode	Result	Limit	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	=	-	÷	=	-
5955MHz	Pass	Inf	21.33M	18.885M	21.42M	18.878M
6175MHz	Pass	Inf	21.15M	18.884M	21.42M	18.896M
6415MHz	Pass	Inf	21.36M	18.909M	22.11M	18.894M
6435MHz	Pass	Inf	21.66M	18.874M	21.24M	18.912M
6475MHz	Pass	Inf	20.88M	18.878M	21.45M	18.934M
6515MHz	Pass	Inf	21.27M	18.881M	21.54M	18.885M
6535MHz	Pass	Inf	21.39M	18.9M	21.75M	18.904M
6695MHz	Pass	Inf	21.12M	18.892M	21.75M	18.911M
6855MHz	Pass	Inf	21.27M	18.871M	21.6M	18.904M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	21.39M	18.897M	21.18M	18.923M
6895MHz	Pass	Inf	20.94M	18.898M	21.42M	18.901M
6995MHz	Pass	Inf	21.3M	18.883M	21.36M	18.886M
7095MHz	Pass	Inf	21.18M	18.896M	21.57M	18.901M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	=	-	÷	=	-
5965MHz	Pass	Inf	40.44M	37.647M	40.56M	37.637M
6165MHz	Pass	Inf	40.62M	37.714M	40.44M	37.674M
6405MHz	Pass	Inf	40.8M	37.698M	40.56M	37.709M
6445MHz	Pass	Inf	39.72M	38.069M	40.62M	37.69M
6485MHz	Pass	Inf	40.44M	37.703M	40.56M	37.692M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	40.62M	37.693M	40.8M	37.743M
6565MHz	Pass	Inf	40.74M	37.708M	41.04M	37.737M
6685MHz	Pass	Inf	40.44M	37.689M	40.44M	37.729M
6845MHz	Pass	Inf	40.8M	37.733M	40.68M	37.682M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	40.5M	37.684M	40.5M	37.715M
6925MHz	Pass	Inf	40.5M	37.714M	40.56M	37.708M
7005MHz	Pass	Inf	40.56M	37.71M	40.38M	37.733M
7085MHz	Pass	Inf	40.56M	37.676M	40.56M	37.675M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5985MHz	Pass	Inf	87.12M	76.905M	82.2M	76.981M
6145MHz	Pass	Inf	81.96M	77.015M	81.96M	76.985M
6385MHz	Pass	Inf	82.44M	77.081M	82.32M	77.095M
6465MHz	Pass	Inf	82.32M	77.001M	82.8M	77.083M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	82.8M	77.091M	82.32M	77.037M
6625MHz	Pass	Inf	82.32M	78.094M	81.96M	77.132M
6705MHz	Pass	Inf	82.2M	77.13M	82.08M	77.048M
6785MHz	Pass	Inf	82.44M	77.042M	82.2M	77.163M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	82.2M	77.028M	82.68M	77.071M
6945MHz	Pass	Inf	82.32M	77.159M	82.2M	77.009M
7025MHz	Pass	Inf	81.84M	77.026M	82.2M	77.02M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6025MHz	Pass	Inf	274.32M	160.996M	222M	156.72M
6185MHz	Pass	Inf	268.32M	156.541M	167.52M	155.691M
6345MHz	Pass	Inf	226.08M	155.746M	166.32M	154.69M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	171.6M	155.895M	166.56M	156.065M
6665MHz	Pass	Inf	173.04M	155.568M	167.04M	155.641M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	237.84M	156.023M	166.56M	155.635M
6985MHz	Pass	Inf	264.48M	156.019M	167.04M	155.506M

Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band Port X-OBW = Port X 99% occupied bandwidth

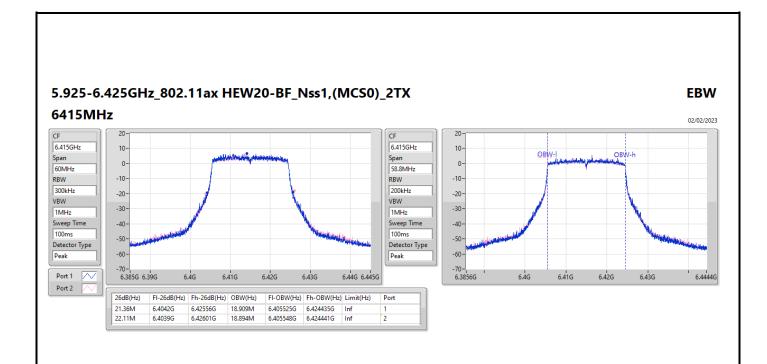
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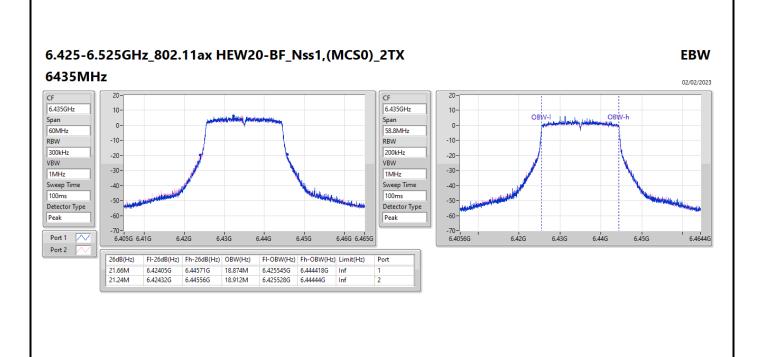
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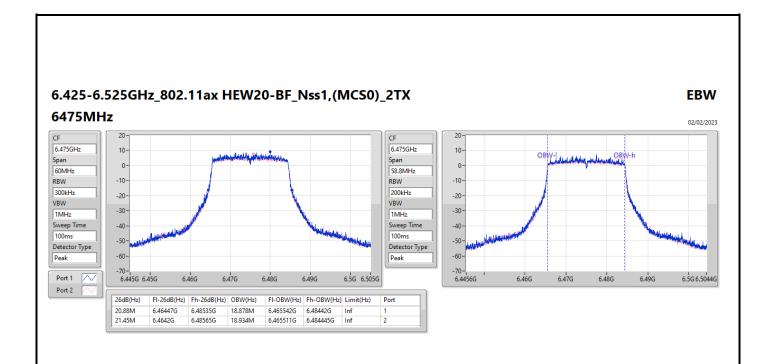
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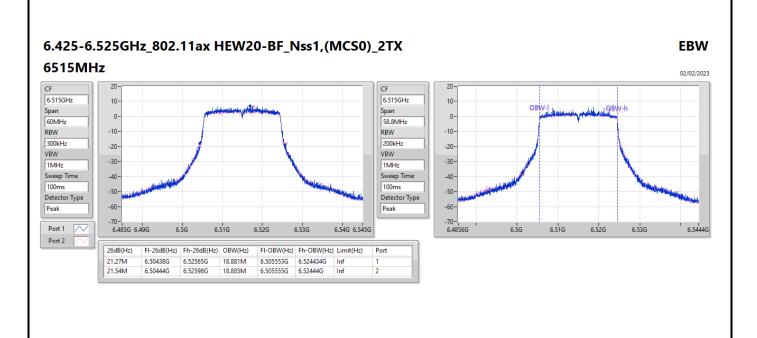




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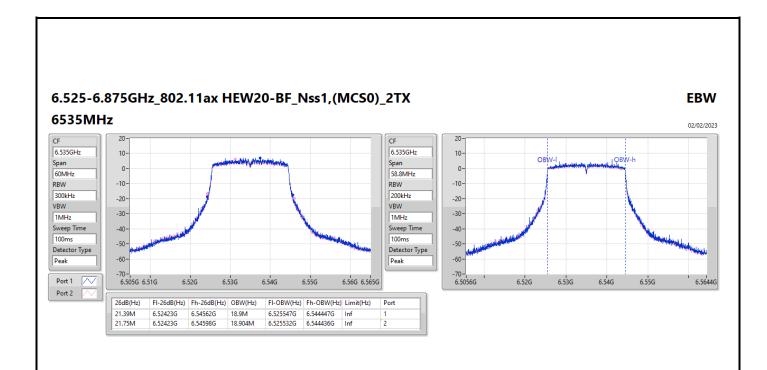
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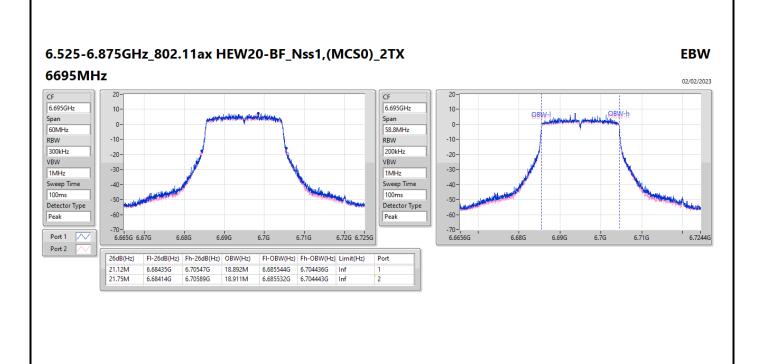




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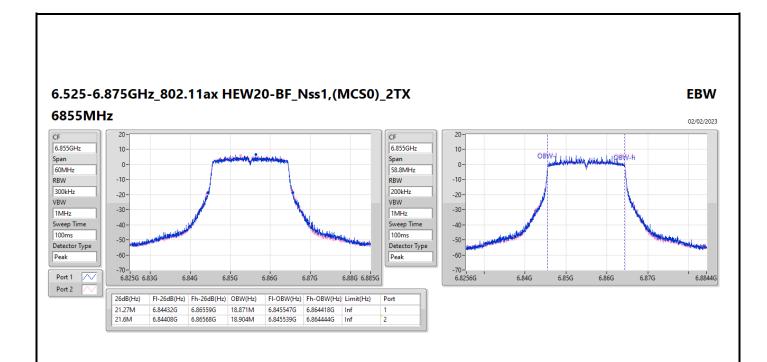
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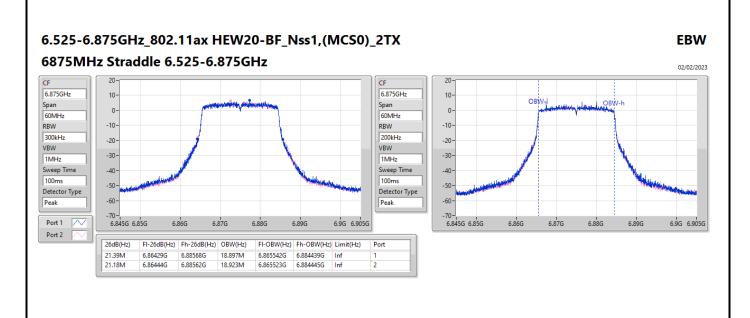




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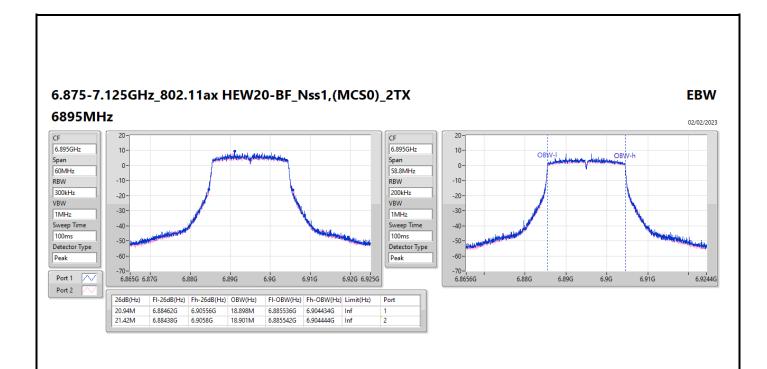
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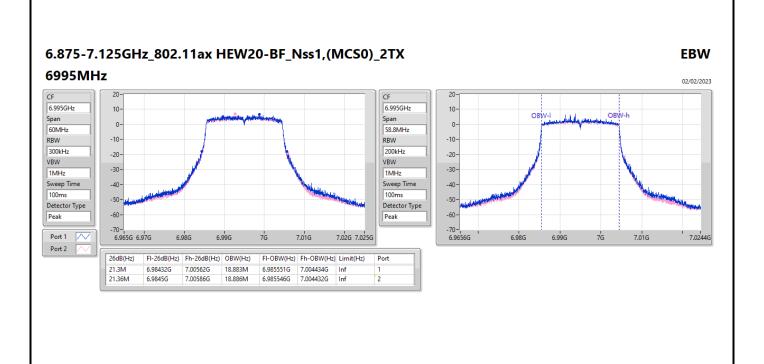




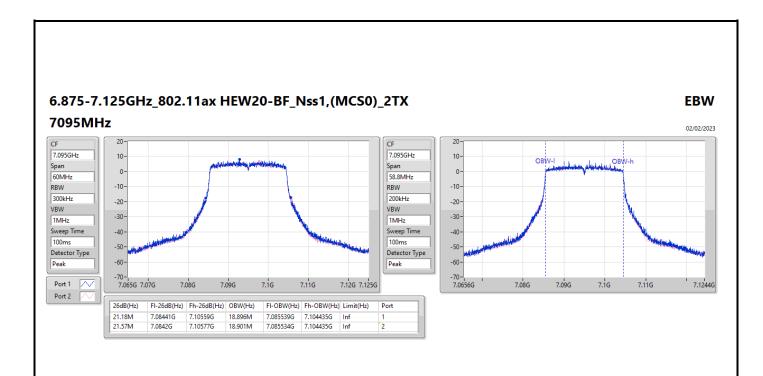
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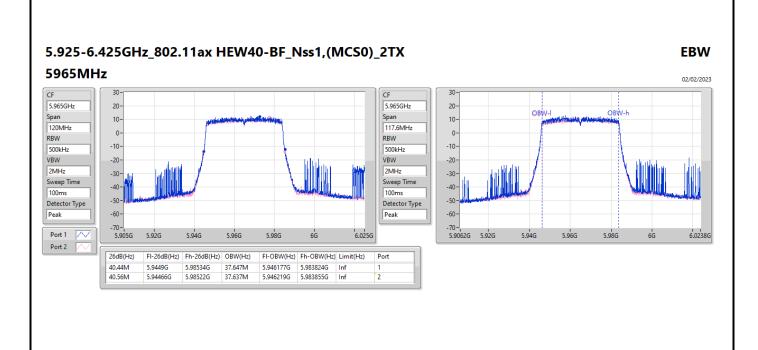
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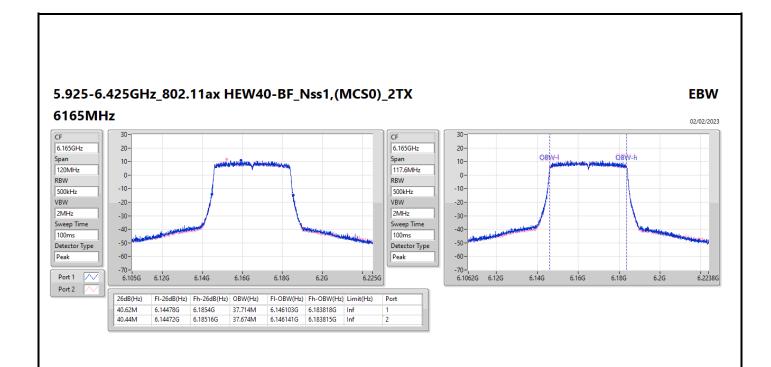


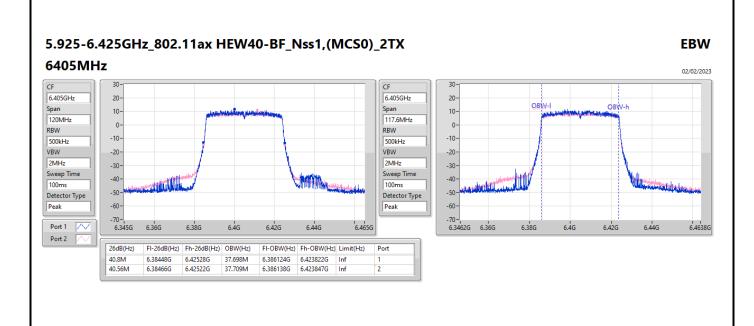
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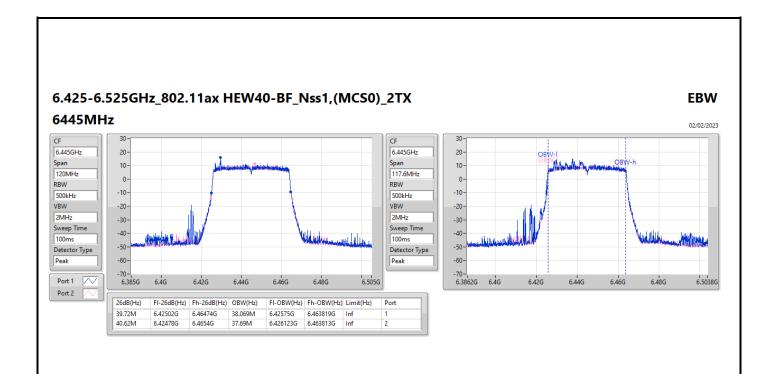


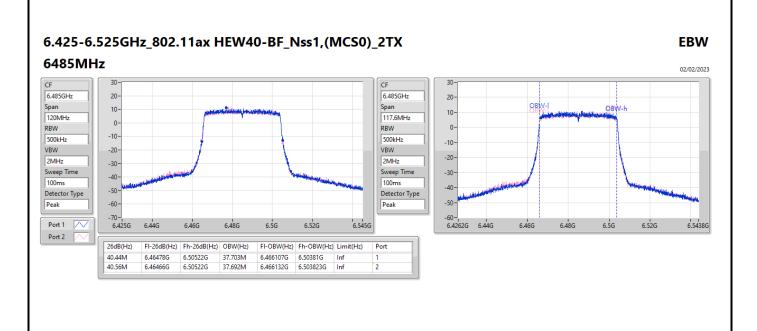
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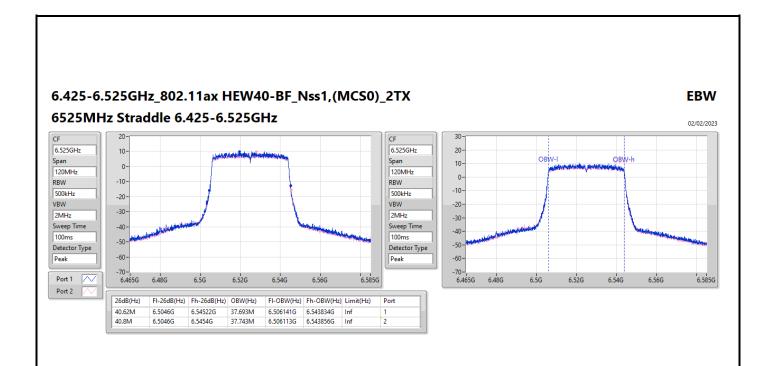
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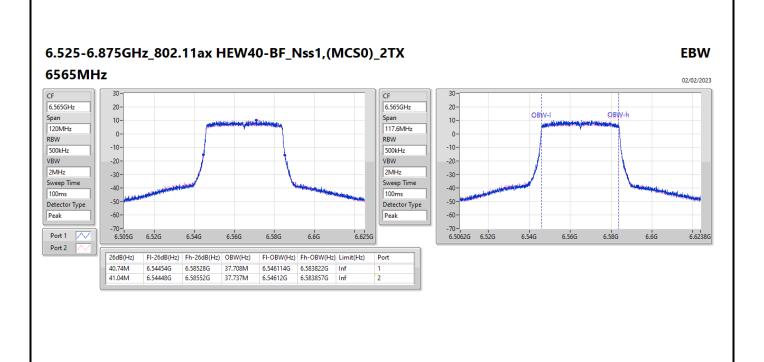




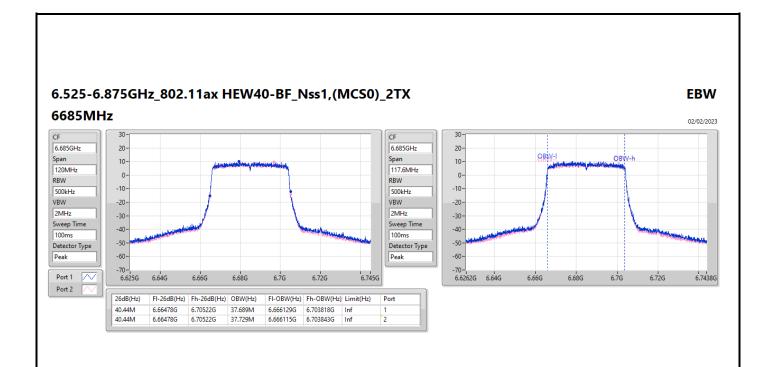
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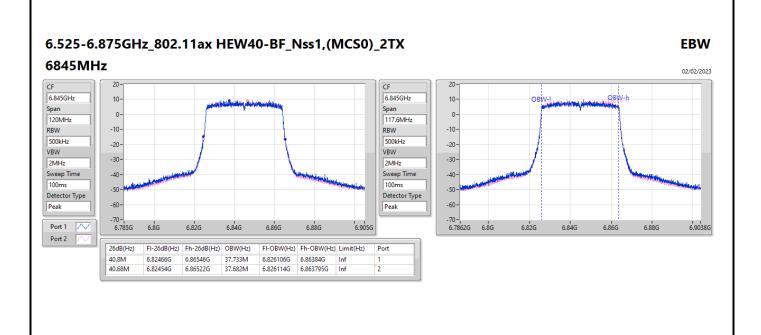
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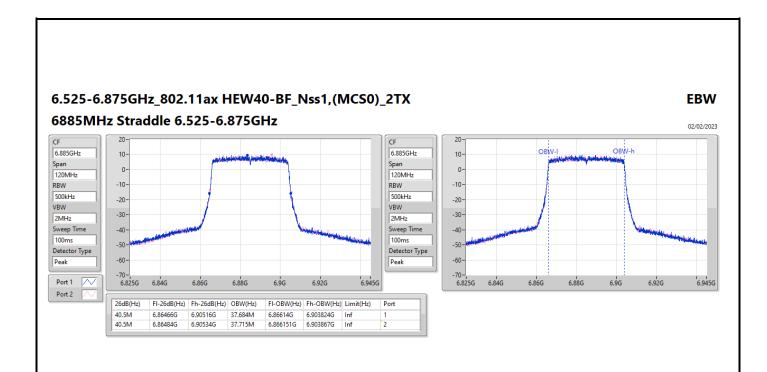
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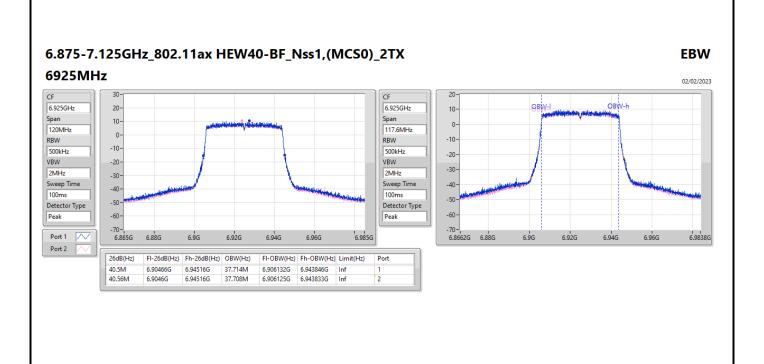




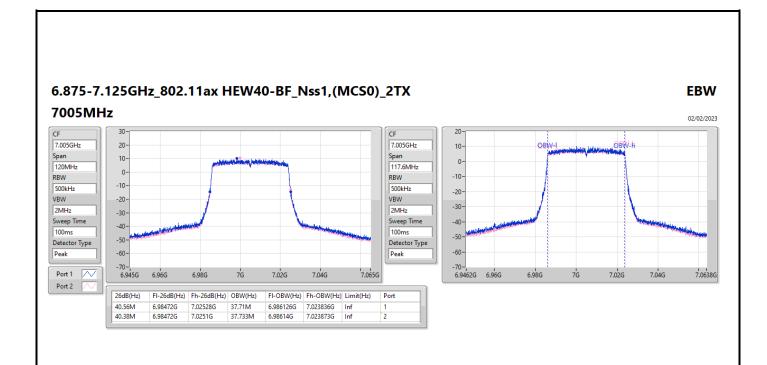
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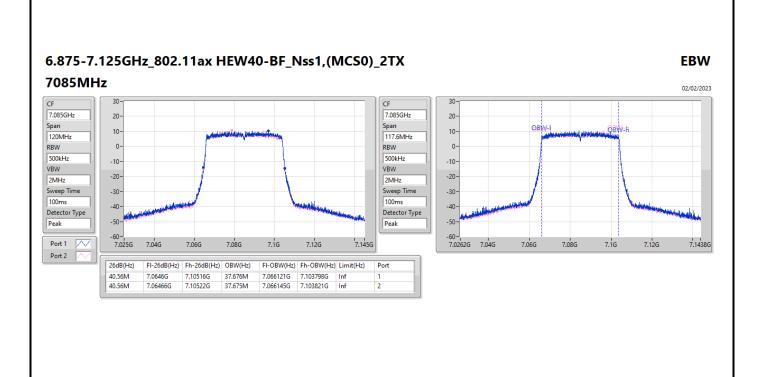
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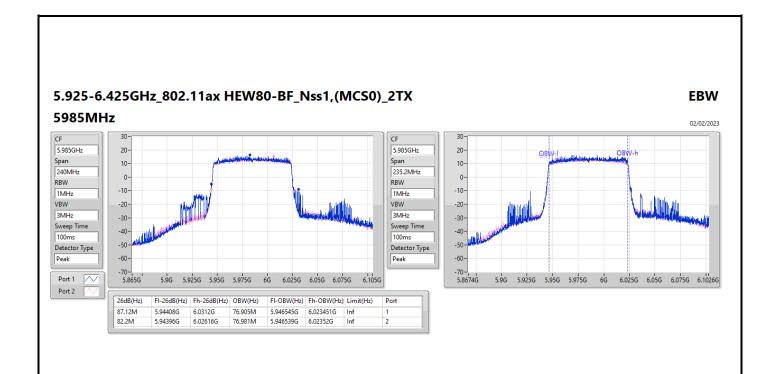
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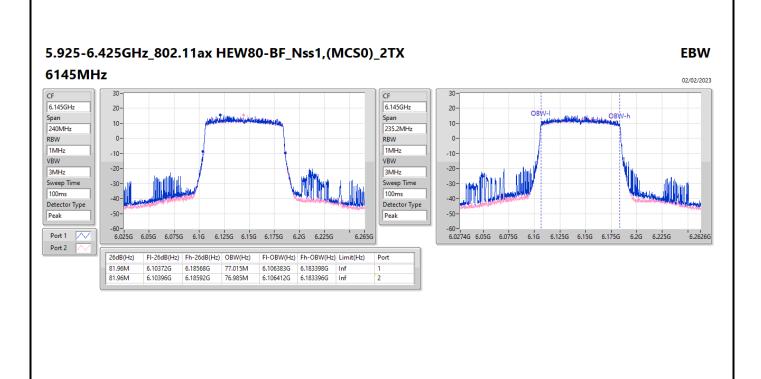




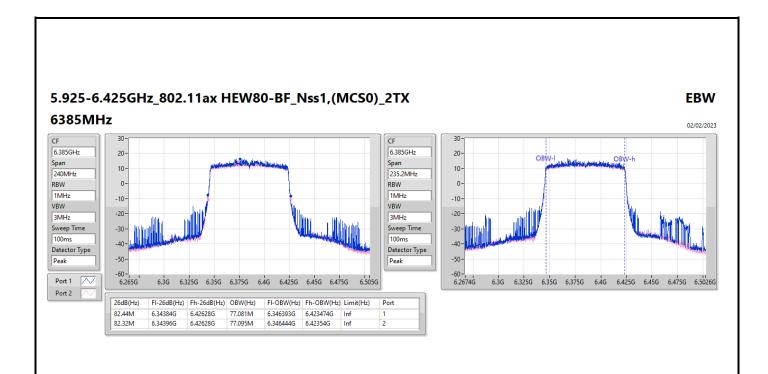
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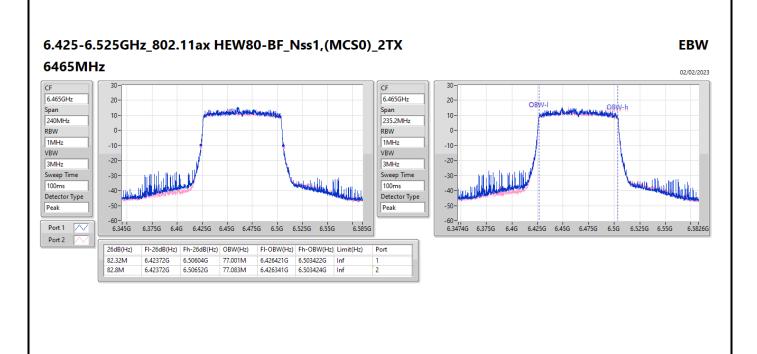
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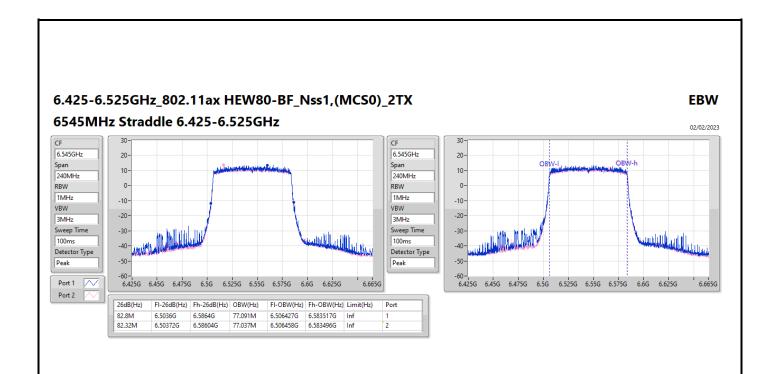
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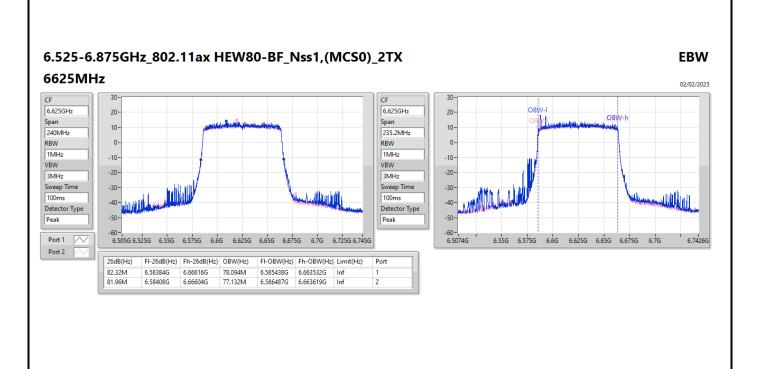




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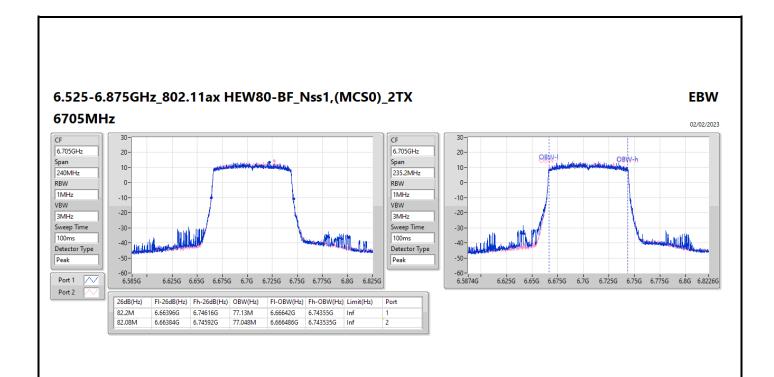
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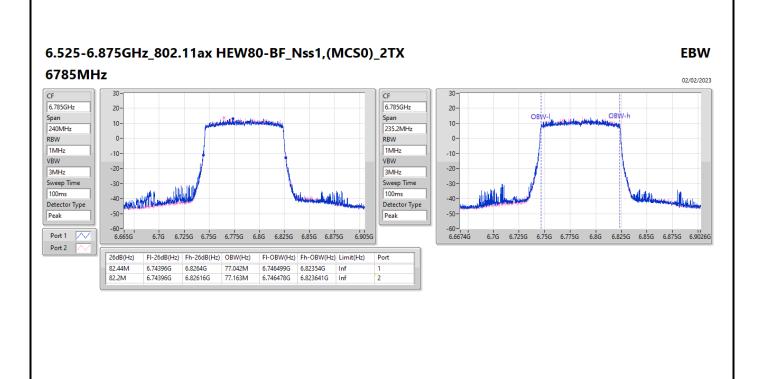




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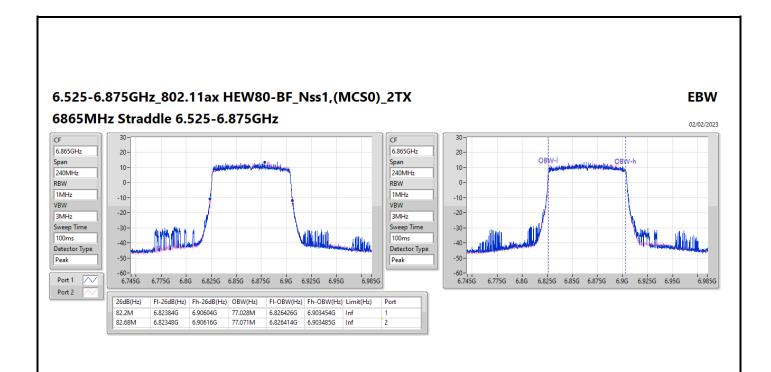
Report No. : FR2N2822AE

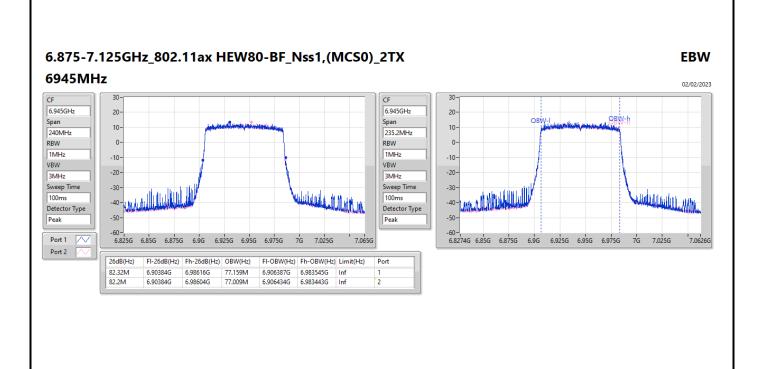




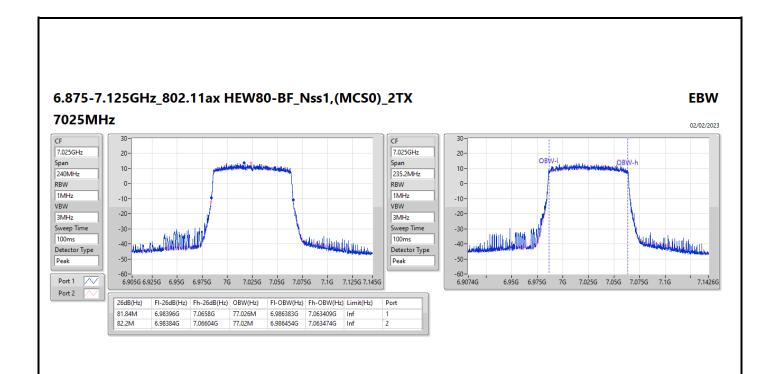
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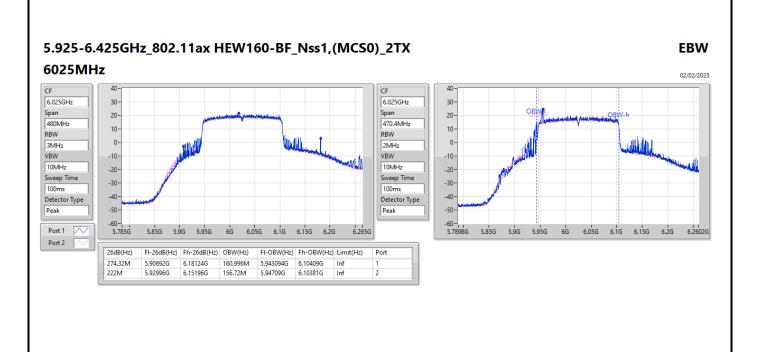
Report No. : FR2N2822AE



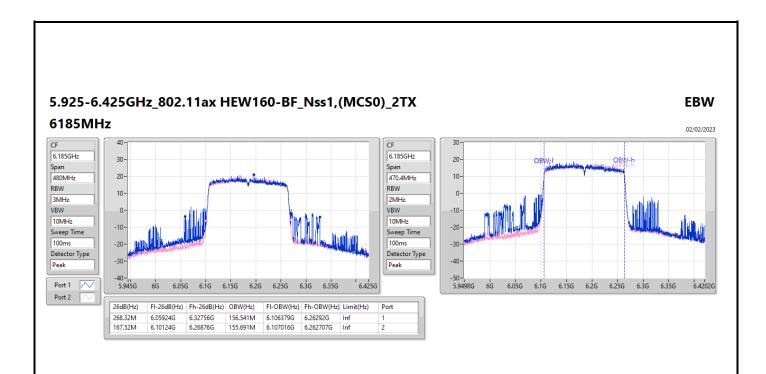


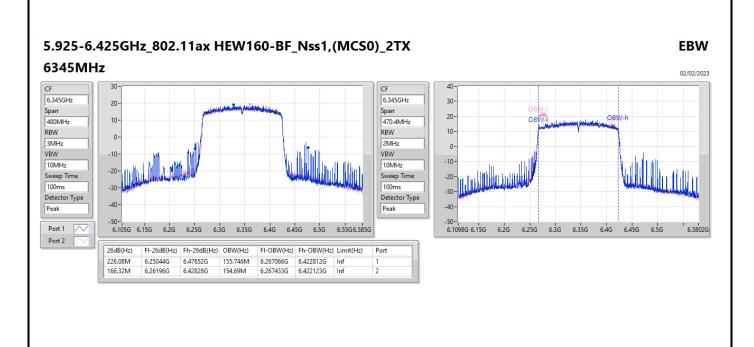
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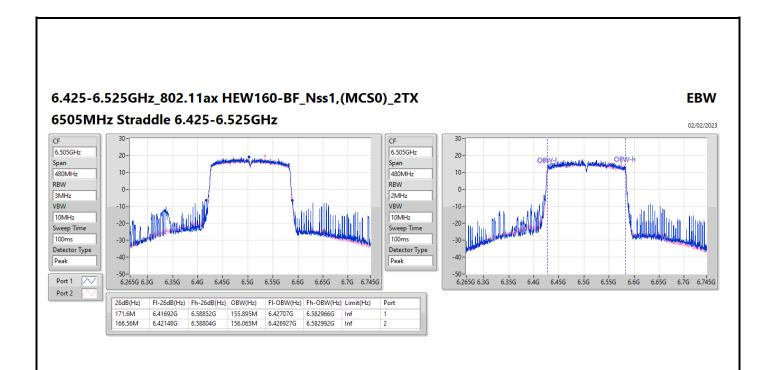
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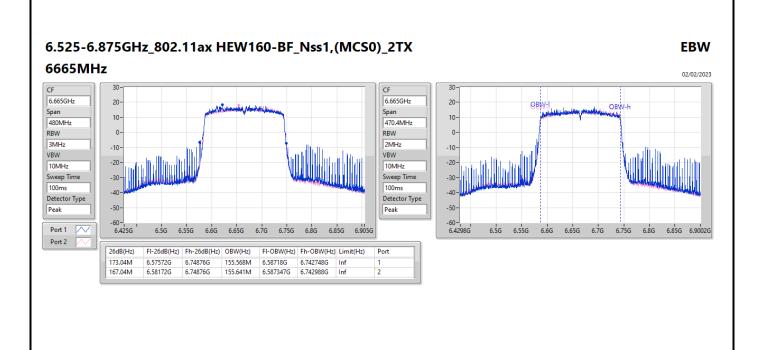




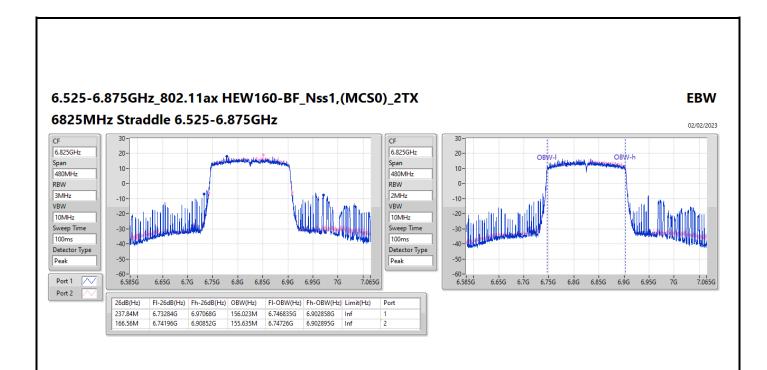
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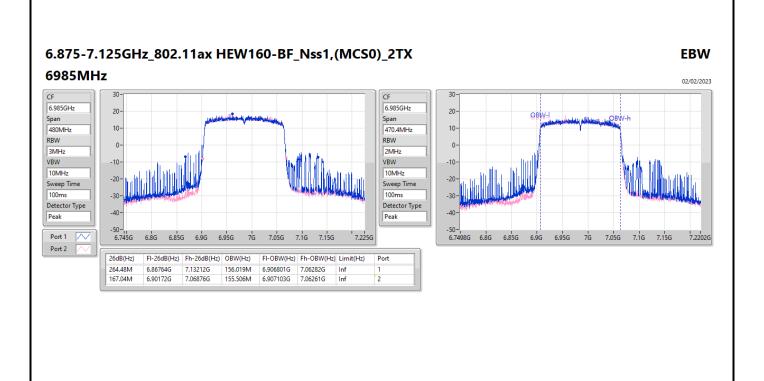
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Average Power Appendix C

Summary

Mode	EIRP	EIRP
	(dBm)	(W)
5.925-6.425GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	16.99	0.05000
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	19.73	0.09397
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	22.11	0.16255
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	25.41	0.34754
6.425-6.525GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	17.08	0.05105
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	19.82	0.09594
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.87	0.15382
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	25.48	0.35318
6.525-6.875GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	16.53	0.04498
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	19.97	0.09931
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	22.92	0.19588
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	23.97	0.24946
6.875-7.125GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	17.32	0.05395
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	19.96	0.09908
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	22.39	0.17338
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	24.45	0.27861

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Appendix C

Result

SPORTON LAB.

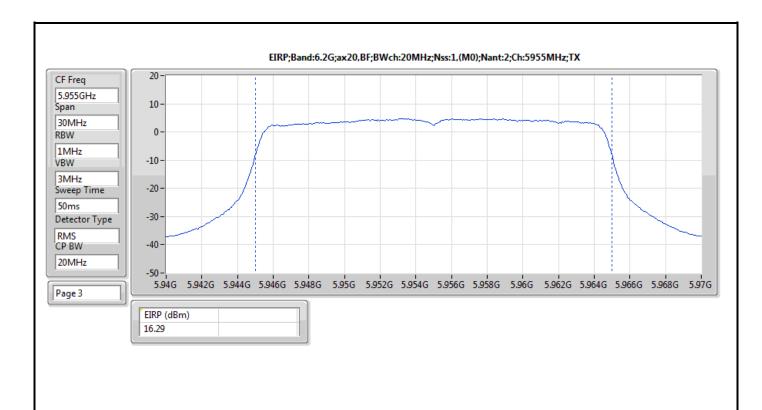
Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-
5955MHz	Pass	16.29	30.00
6175MHz	Pass	16.99	30.00
6415MHz	Pass	16.47	30.00
6435MHz	Pass	15.93	30.00
6475MHz	Pass	17.08	30.00
6515MHz	Pass	16.12	30.00
6535MHz	Pass	15.60	30.00
6695MHz	Pass	16.53	30.00
6855MHz	Pass	16.22	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	15.91	30.00
6895MHz	Pass	17.32	30.00
6995MHz	Pass	16.34	30.00
7095MHz	Pass	17.07	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-
5965MHz	Pass	19.73	30.00
6165MHz	Pass	19.40	30.00
6405MHz	Pass	19.65	30.00
6445MHz	Pass	19.82	30.00
6485MHz	Pass	19.66	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	19.69	30.00
6565MHz	Pass	19.11	30.00
6685MHz	Pass	19.97	30.00
6845MHz	Pass	19.71	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	19.41	30.00
6925MHz	Pass	19.54	30.00
7005MHz	Pass	19.45	30.00
7085MHz	Pass	19.96	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-
5985MHz	Pass	22.11	30.00
6145MHz	Pass	21.64	30.00
6385MHz	Pass	21.59	30.00
6465MHz	Pass	21.87	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	21.67	30.00
6625MHz	Pass	22.11	30.00
6705MHz	Pass	22.92	30.00
6785MHz	Pass	22.41	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	22.28	30.00
6945MHz	Pass	22.05	30.00
7025MHz	Pass	22.39	30.00
802.11ax HEW160-BF Nss1,(MCS0) 2TX	-	-	-
6025MHz	Pass	25.41	30.00
6185MHz	Pass	24.71	30.00
6345MHz	Pass	22.90	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	25.48	30.00
6665MHz	Pass	23.91	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	23.97	30.00
6985MHz	Pass	24.45	30.00

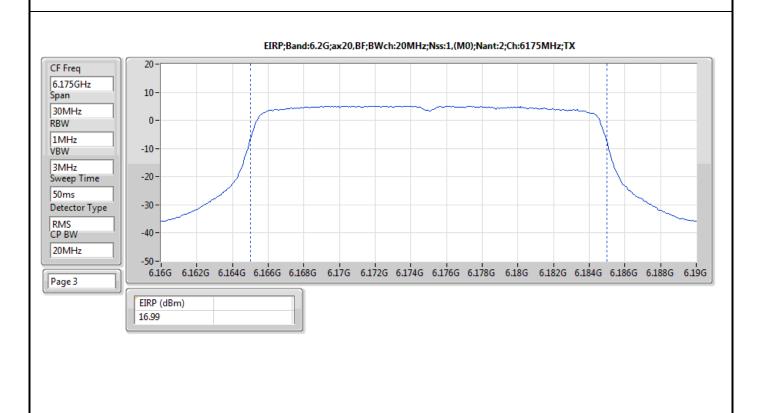
DG = Directional Gain; Port X = Port X output power

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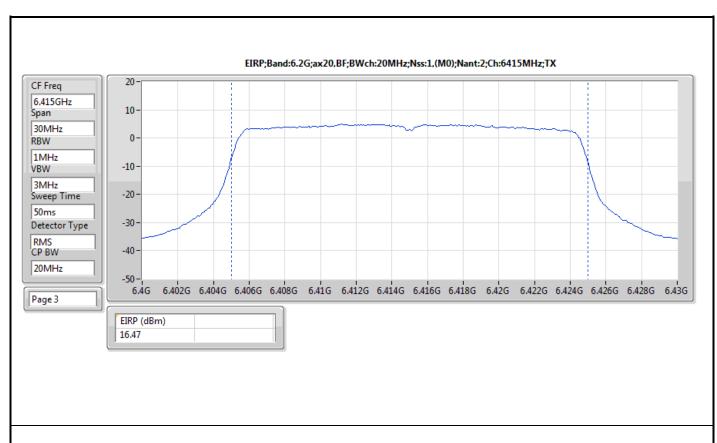


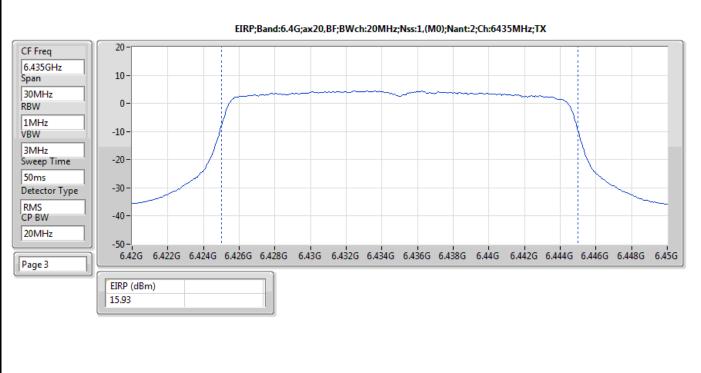


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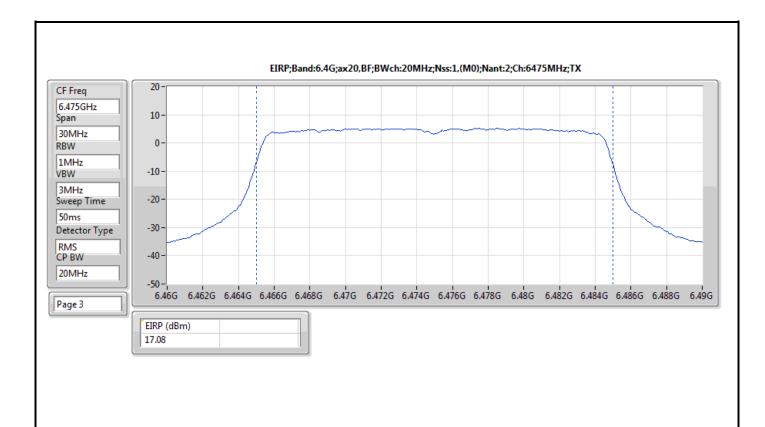


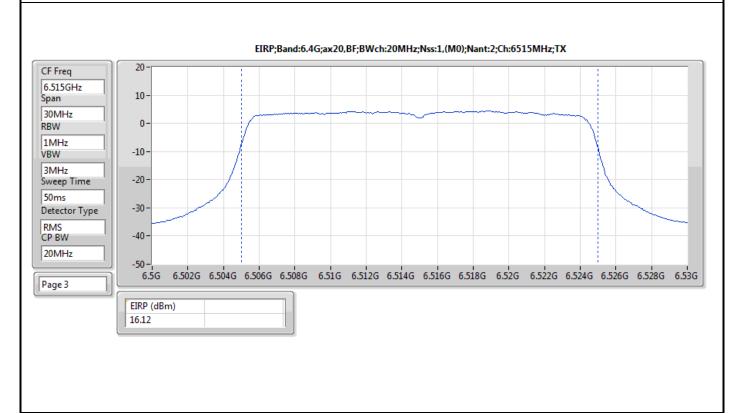


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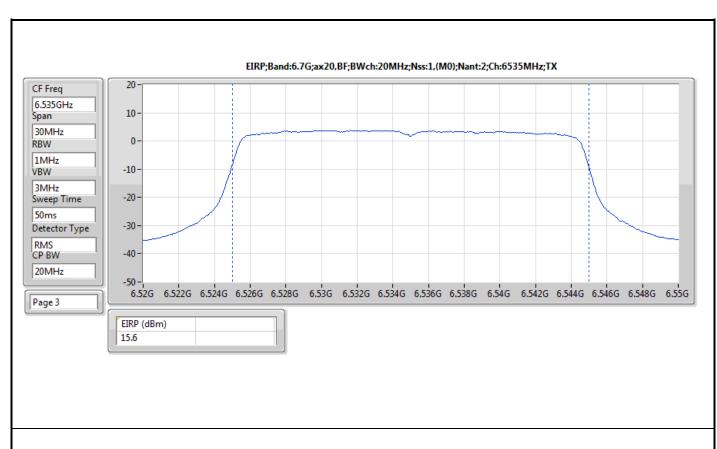


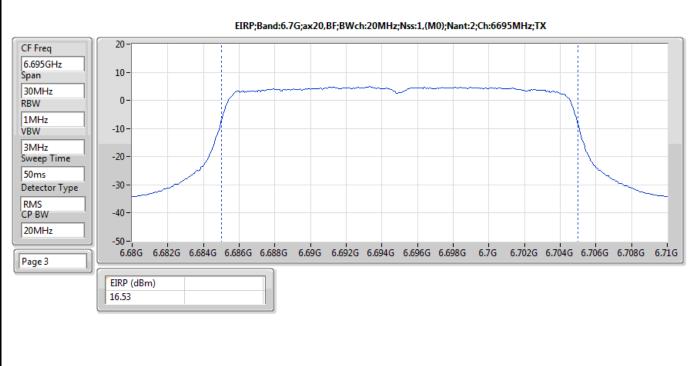


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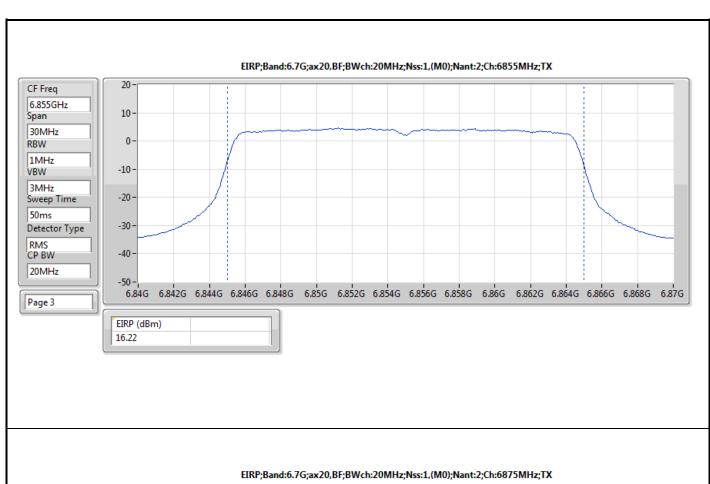


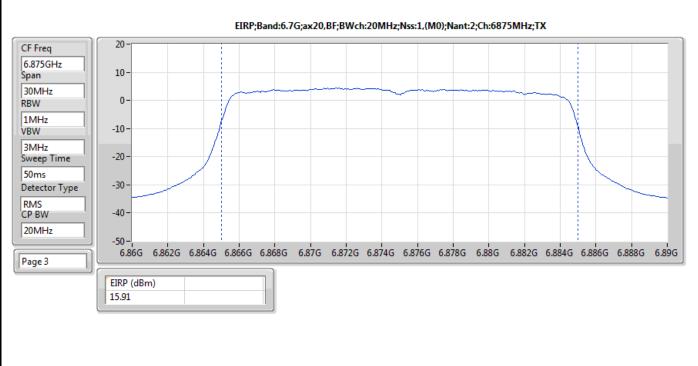


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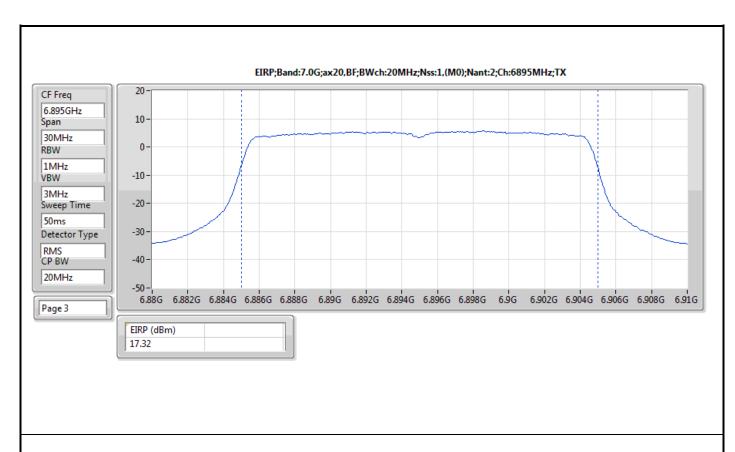


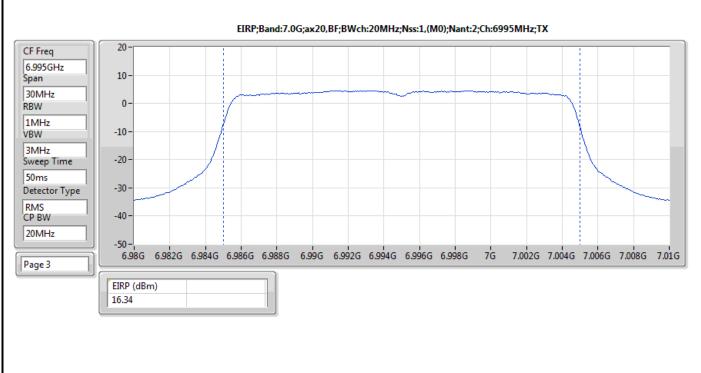




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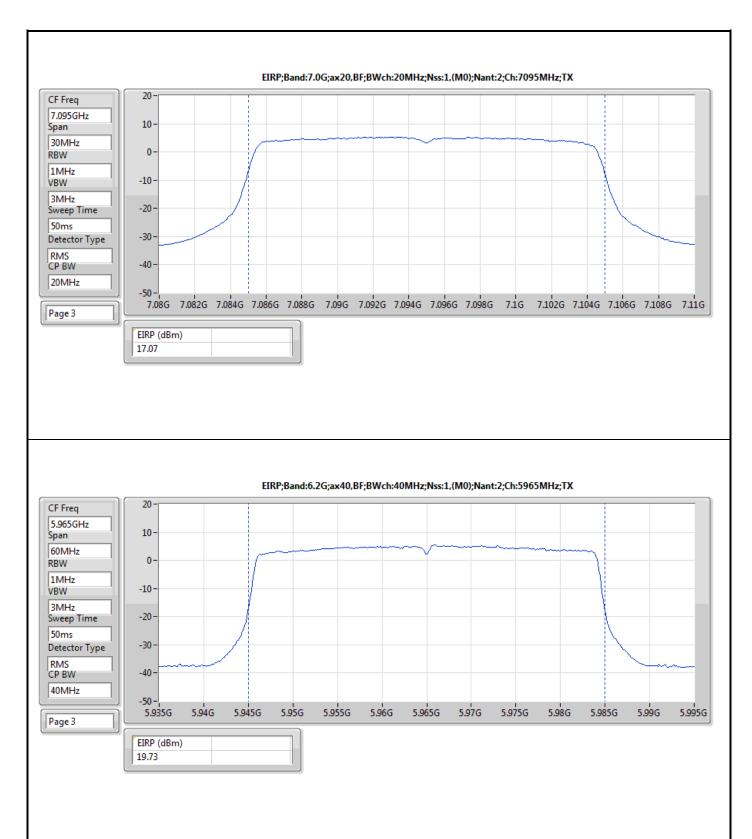




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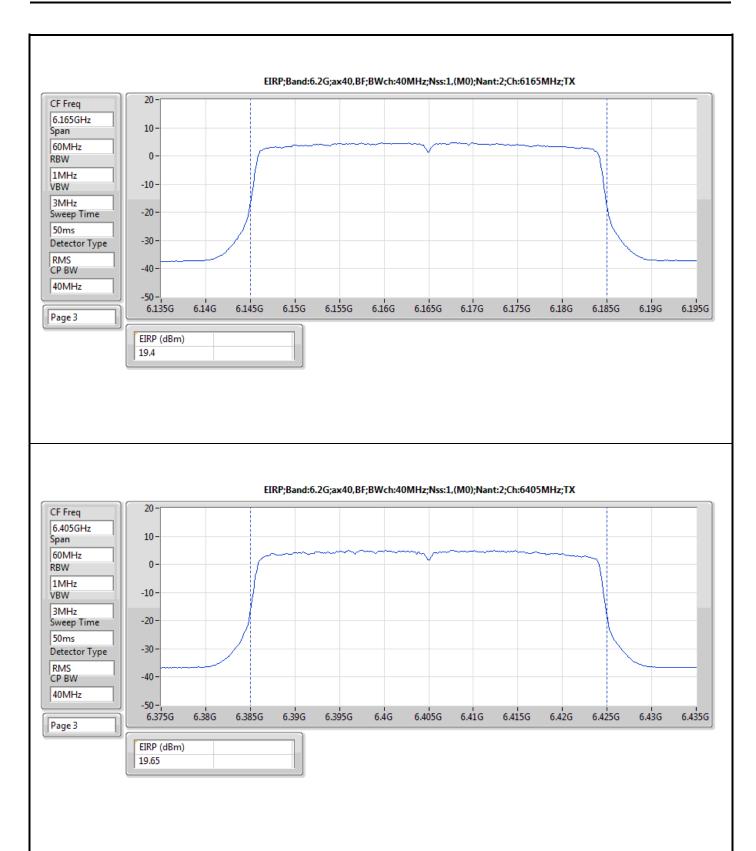




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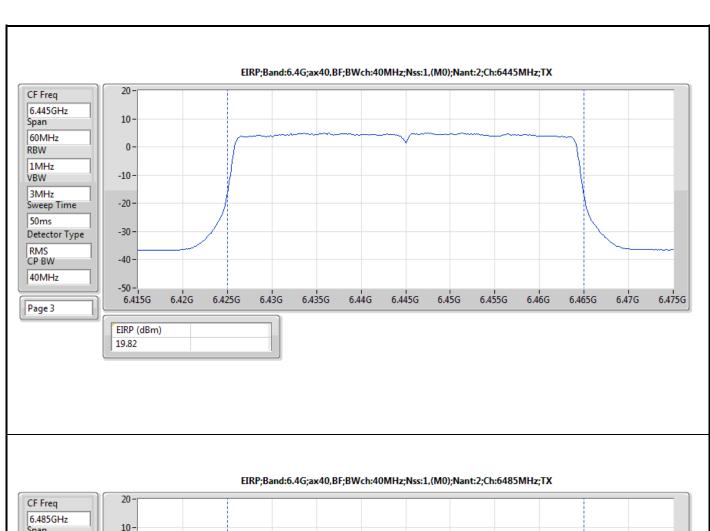
Appendix C

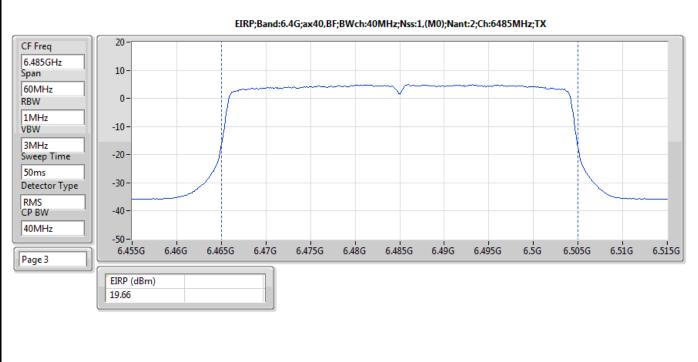


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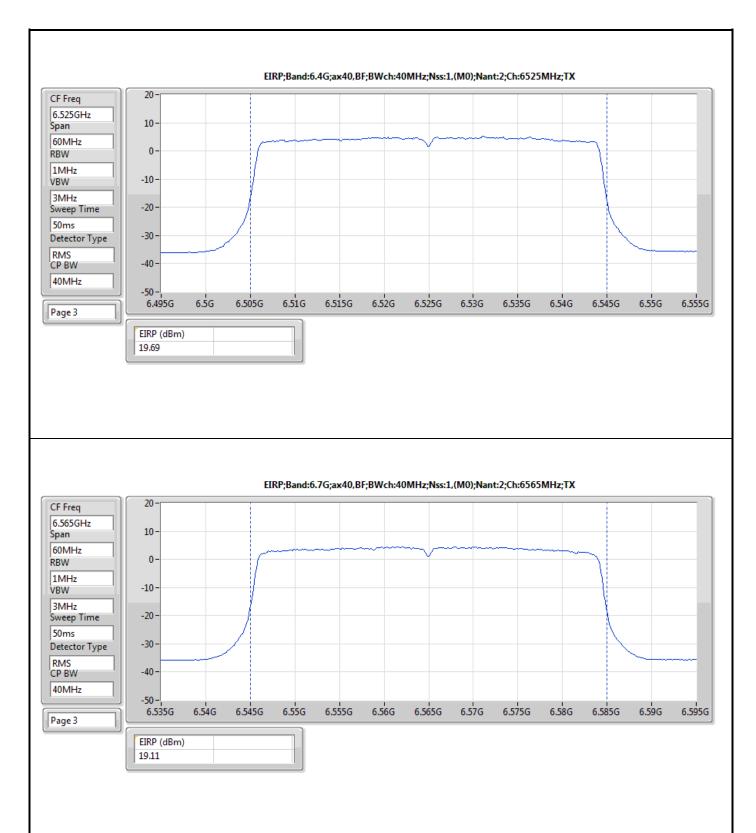




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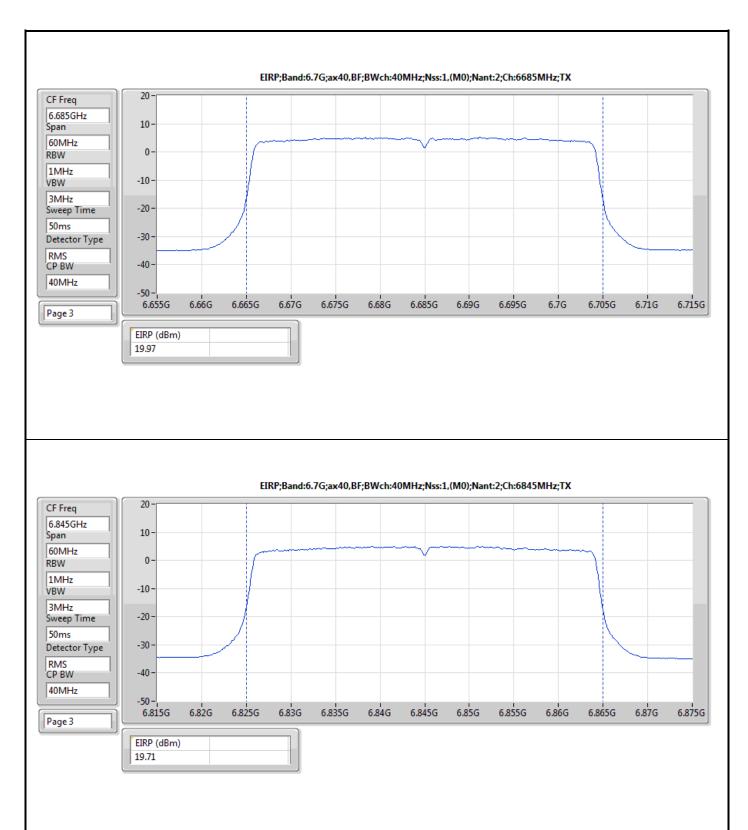




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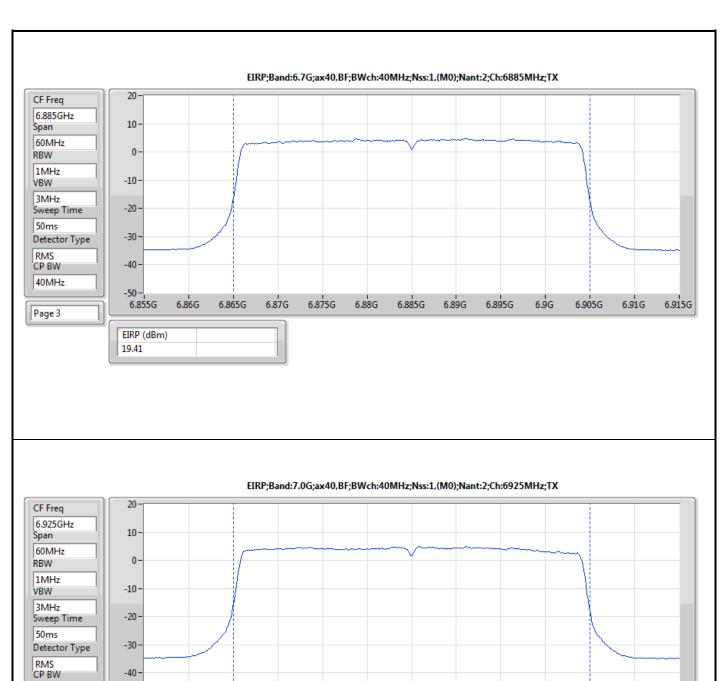


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Appendix C





-50 -

6.895G

EIRP (dBm) 19.54 6.9G

6.905G

6.91G

6.915G

6.92G

6.925G

6.93G

40MHz

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6.935G

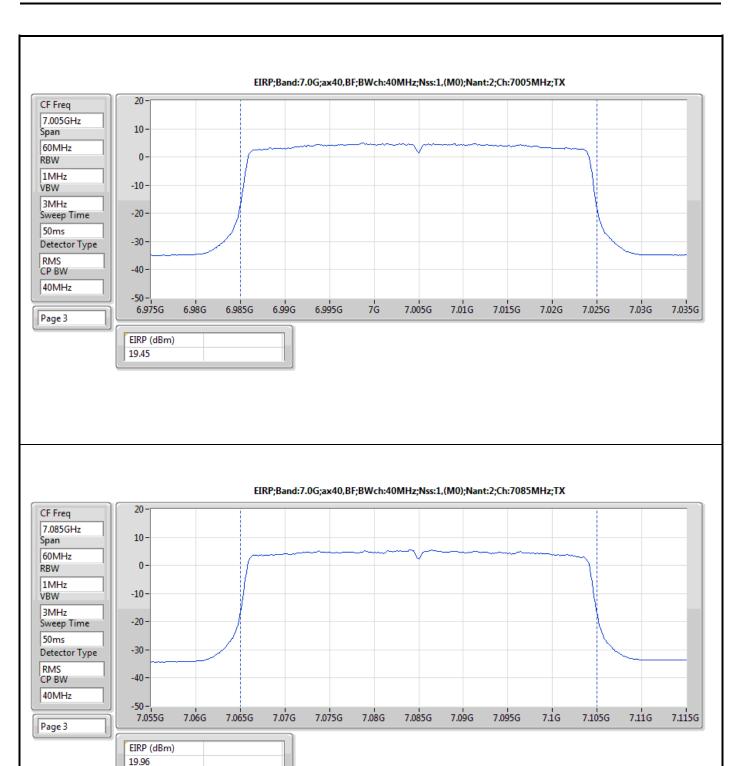
6.94G

6.945G

6.95G

6.955G

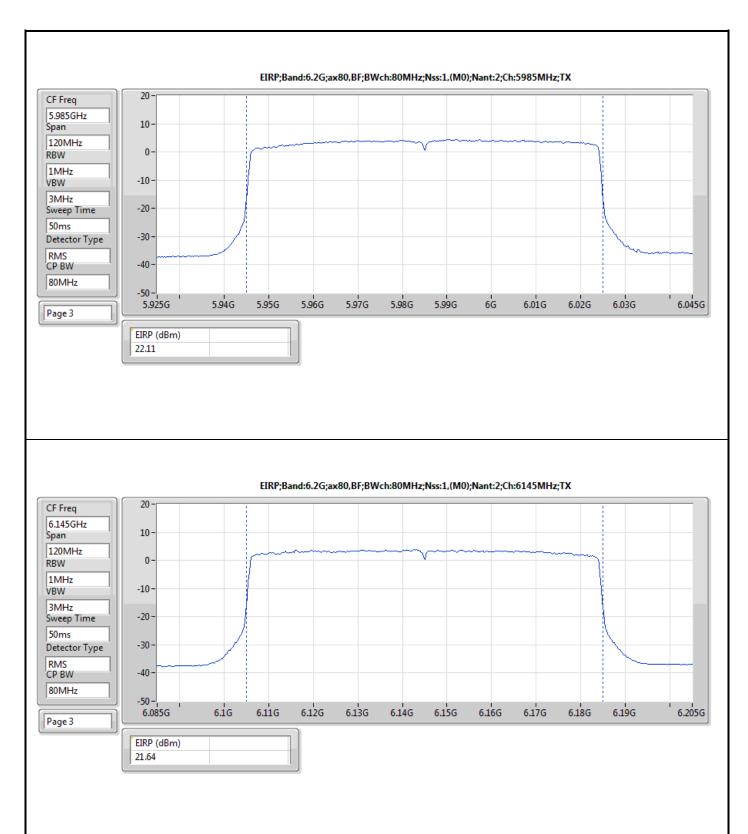
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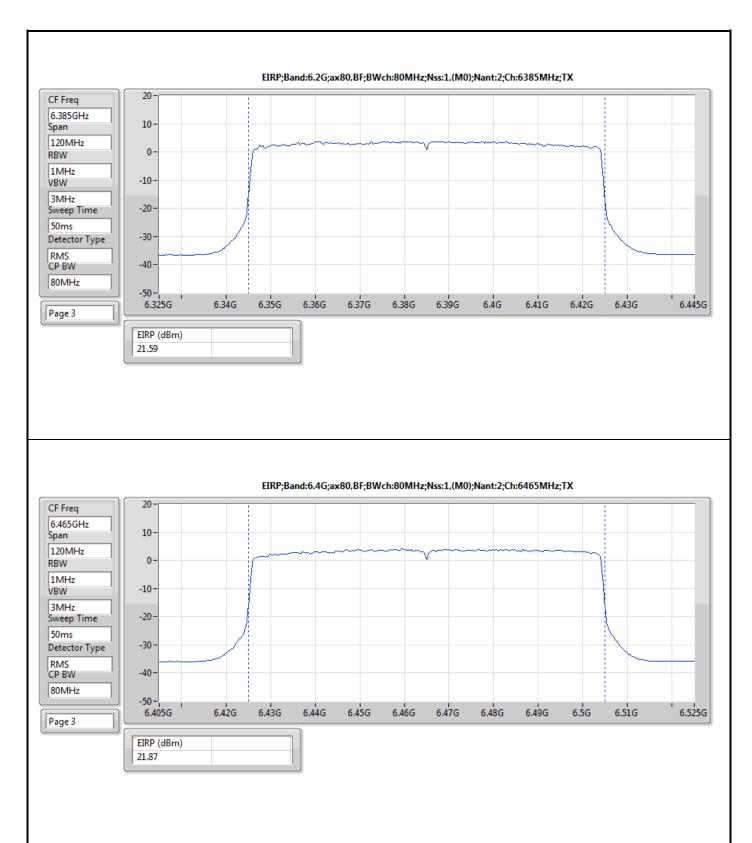
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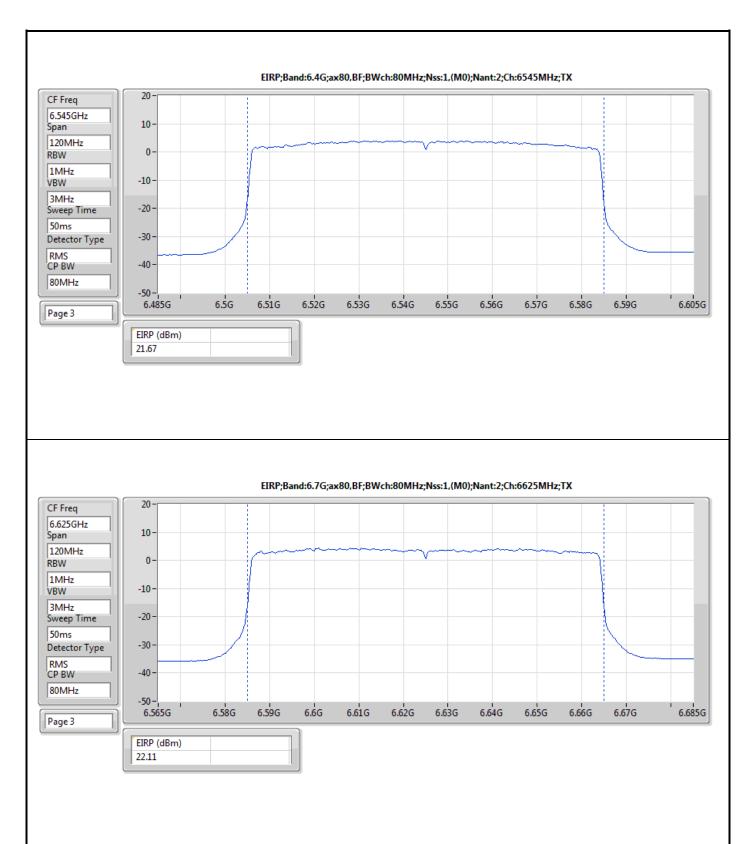




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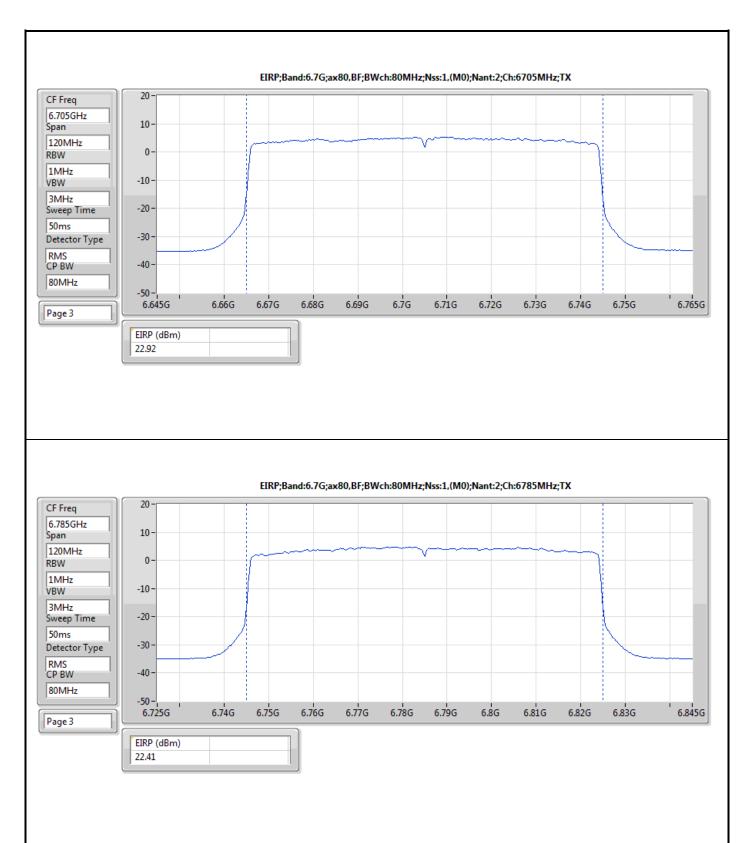




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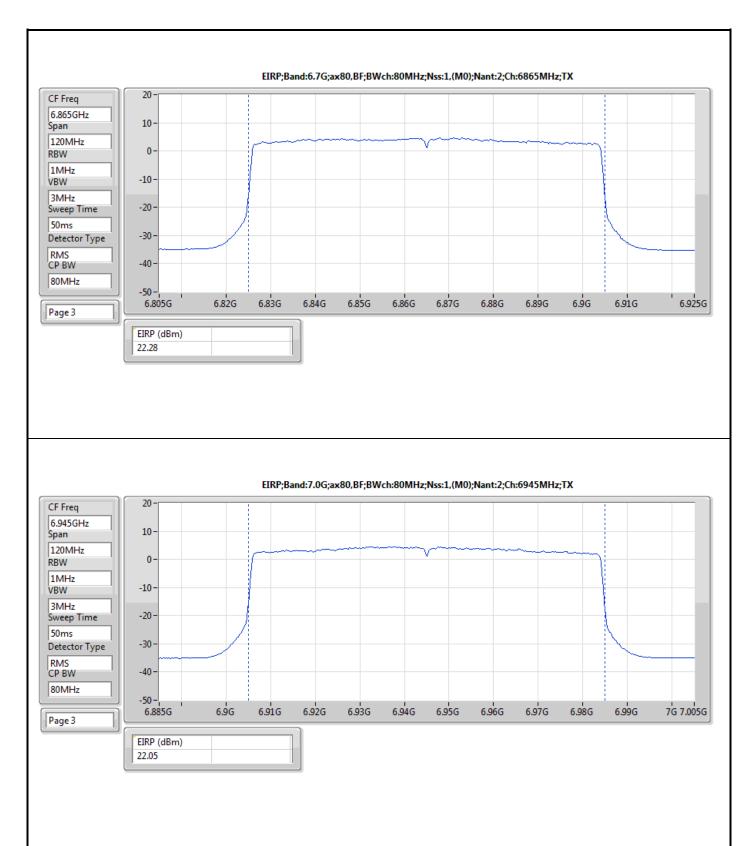




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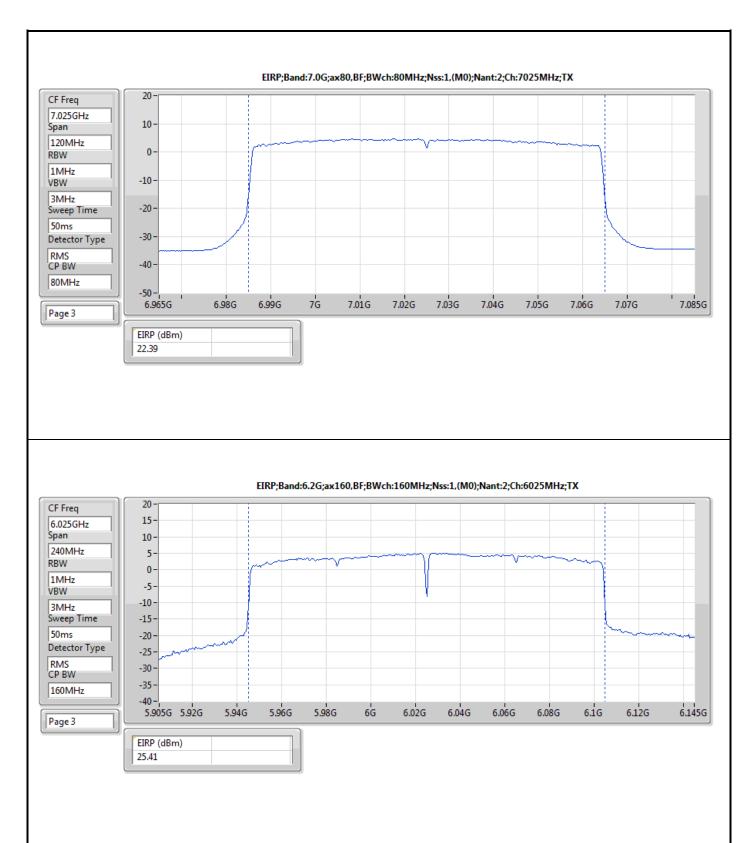




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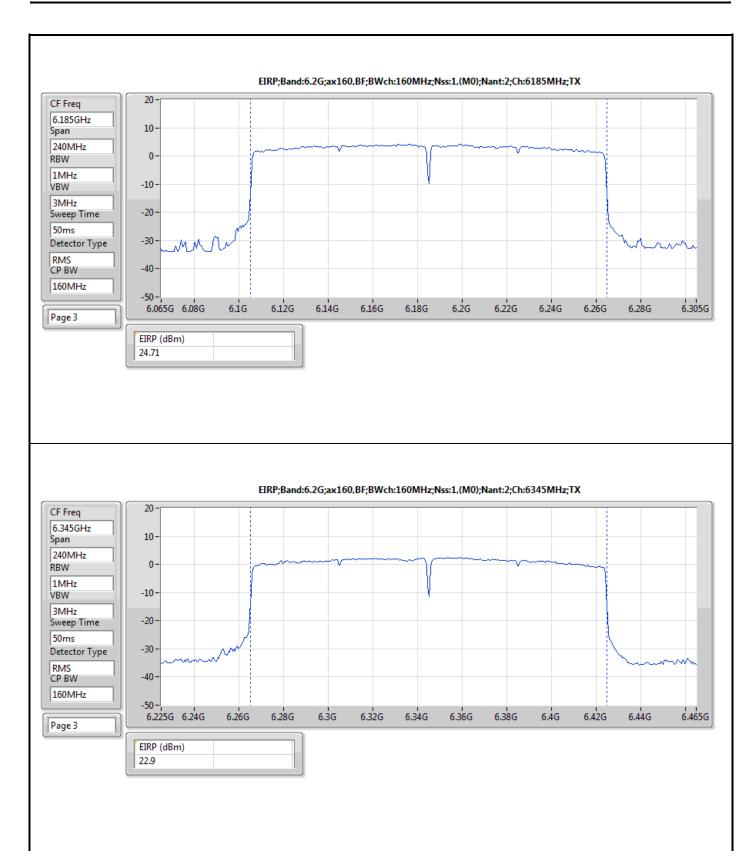
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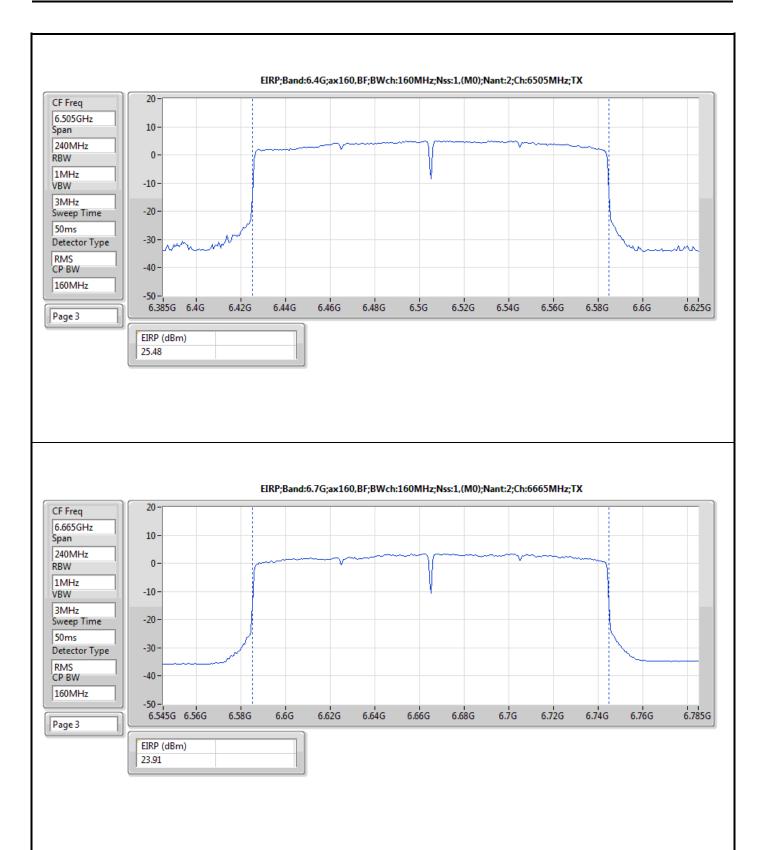
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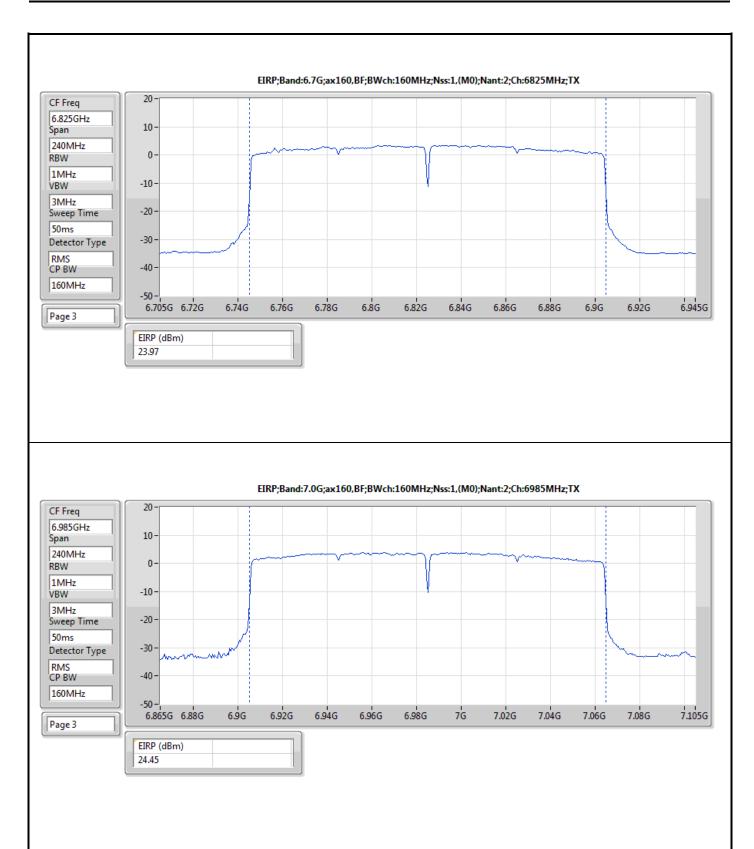
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Summary

Mode	EIRP PD
	(dBm/RBW)
5.925-6.425GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.90
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.91
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.87
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.86
6.425-6.525GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.82
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.97
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.66
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.65
6.525-6.875GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.86
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.94
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.85
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.63
6.875-7.125GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.99
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.98
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.79
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.37

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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Appendix D **PSD**

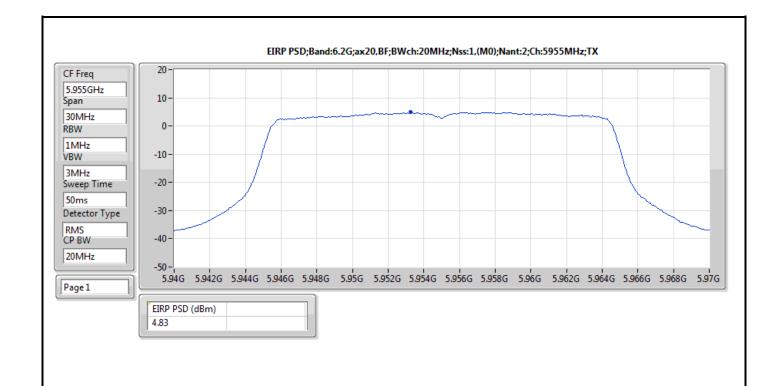
Result

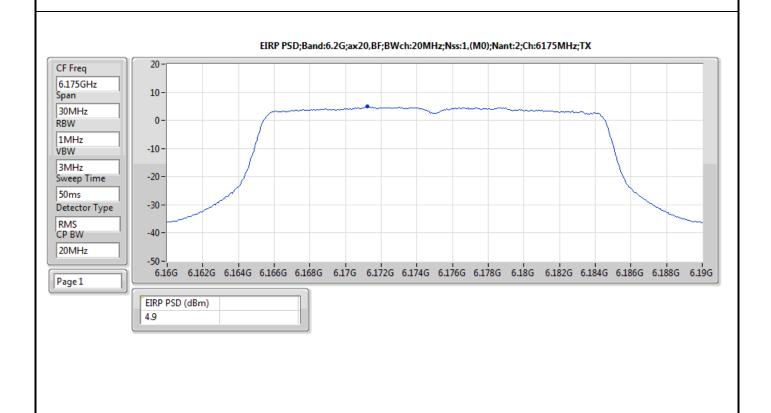
Mode	Result	EIRP PD	EIRP PD Limit
		(dBm/RBW)	(dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-
5955MHz	Pass	4.83	5.00
6175MHz	Pass	4.90	5.00
6415MHz	Pass	4.68	5.00
6435MHz	Pass	4.82	5.00
6475MHz	Pass	4.78	5.00
6515MHz	Pass	4.47	5.00
6535MHz	Pass	4.77	5.00
6695MHz	Pass	4.86	5.00
6855MHz	Pass	4.26	5.00
6875MHz Straddle 6.525-6.875GHz	Pass	4.26	5.00
6895MHz	Pass	4.90	5.00
6995MHz	Pass	4.35	5.00
7095MHz	Pass	4.99	5.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	=
5965MHz	Pass	4.60	5.00
6165MHz	Pass	4.83	5.00
6405MHz	Pass	4.91	5.00
6445MHz	Pass	4.97	5.00
6485MHz	Pass	4.81	5.00
6525MHz Straddle 6.425-6.525GHz	Pass	4.40	5.00
6565MHz	Pass	4.71	5.00
6685MHz	Pass	4.94	5.00
6845MHz	Pass	4.21	5.00
6885MHz Straddle 6.525-6.875GHz	Pass	4.74	5.00
6925MHz	Pass	4.98	5.00
7005MHz	Pass	4.95	5.00
7085MHz	Pass	4.97	5.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-
5985MHz	Pass	4.87	5.00
6145MHz	Pass	4.43	5.00
6385MHz	Pass	4.58	5.00
6465MHz	Pass	4.44	5.00
6545MHz Straddle 6.425-6.525GHz	Pass	4.66	5.00
6625MHz	Pass	4.60	5.00
6705MHz	Pass	4.62	5.00
6785MHz	Pass	4.85	5.00
6865MHz Straddle 6.525-6.875GHz	Pass	4.50	5.00
6945MHz	Pass	4.13	5.00
7025MHz	Pass	4.79	5.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-
6025MHz	Pass	4.86	5.00
6185MHz	Pass	4.78	5.00
6345MHz	Pass	4.17	5.00
6505MHz Straddle 6.425-6.525GHz	Pass	4.65	5.00
6665MHz	Pass	4.17	5.00
6825MHz Straddle 6.525-6.875GHz	Pass	4.63	5.00
JOZJIVII IZ JU dudio U.JZJ-U.U/JULIZ	Pass	4.03	5.00

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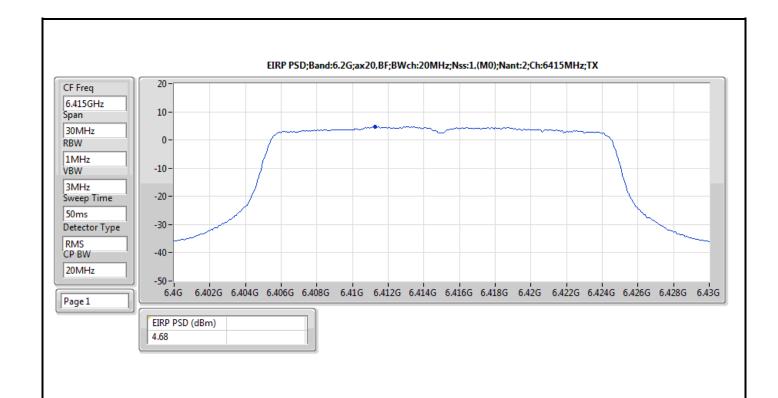
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band; PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

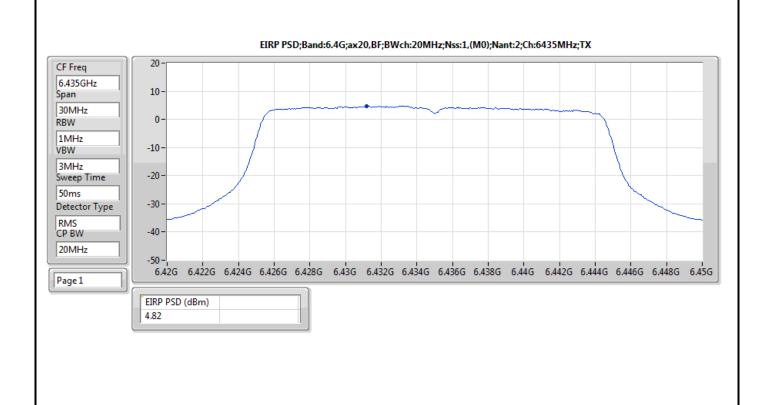




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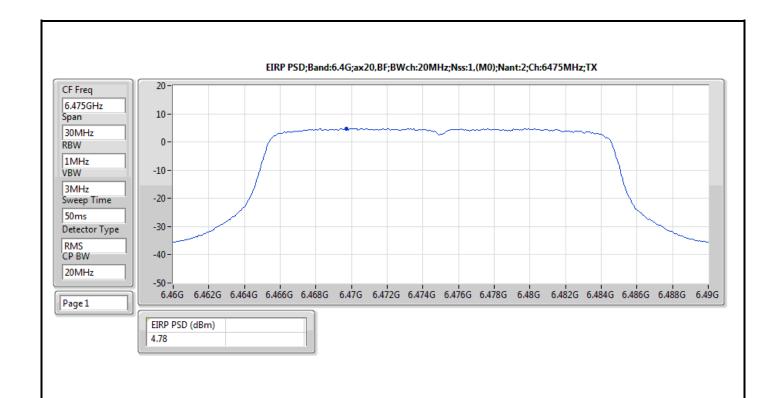
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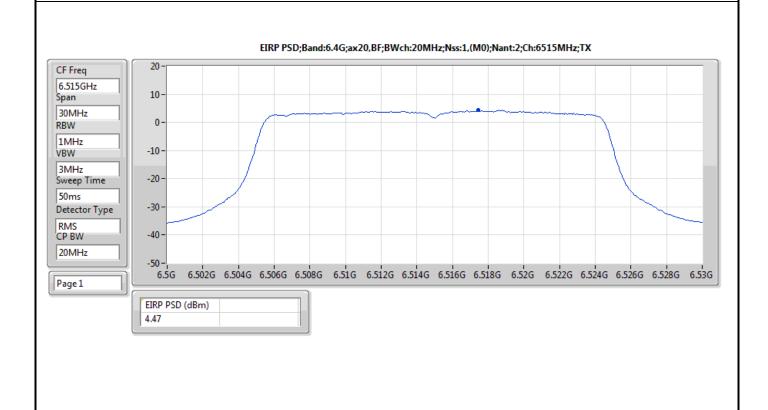




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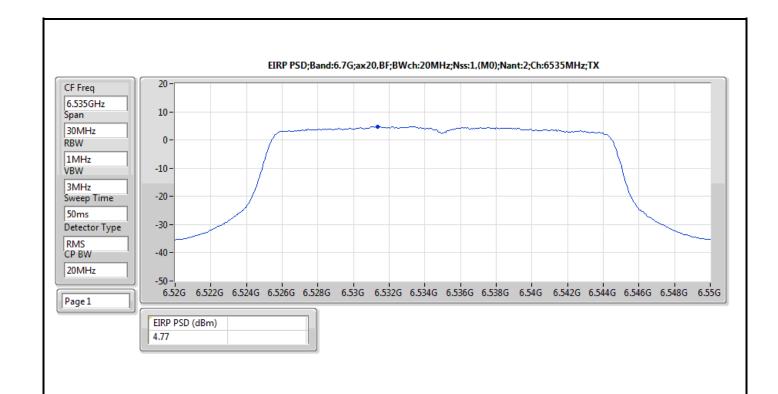
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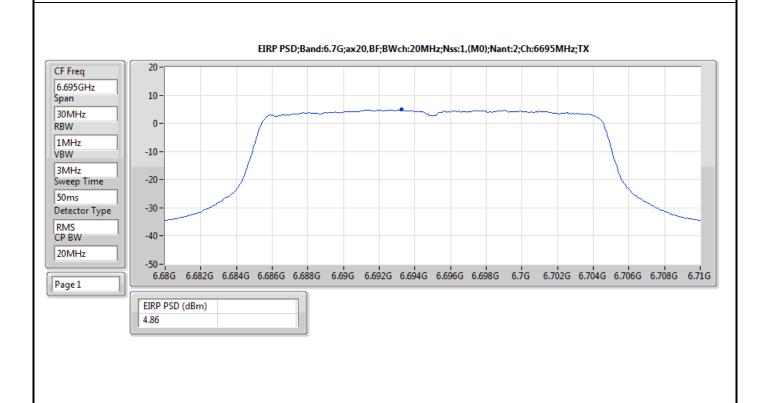




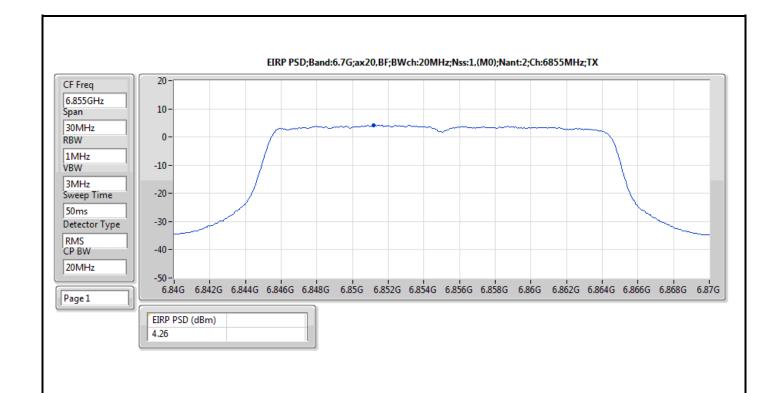
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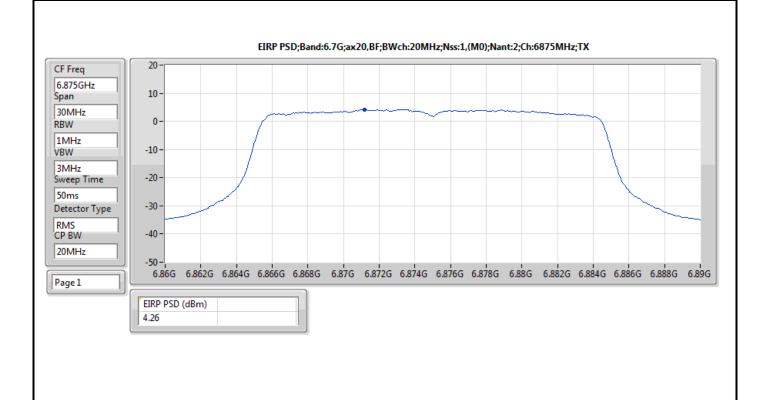
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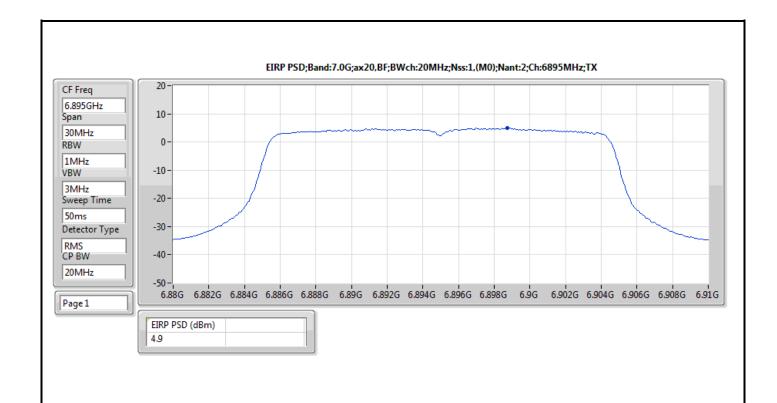
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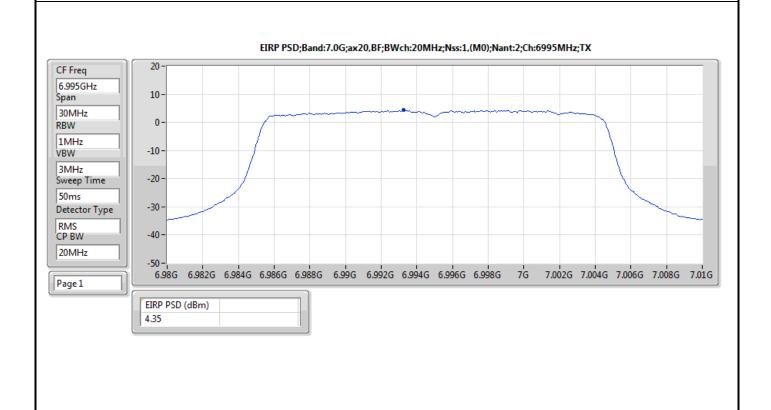




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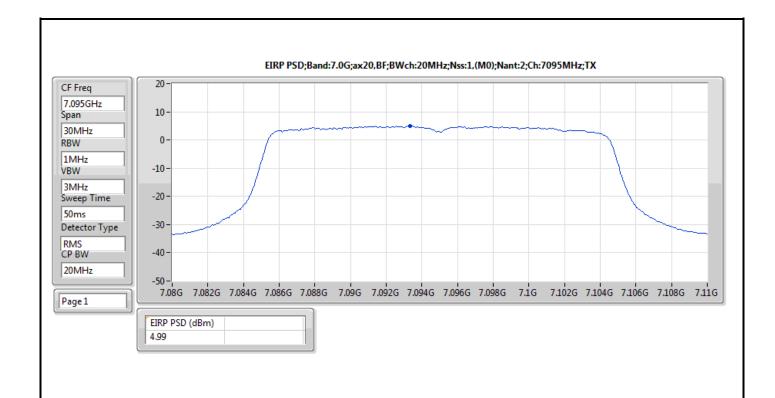
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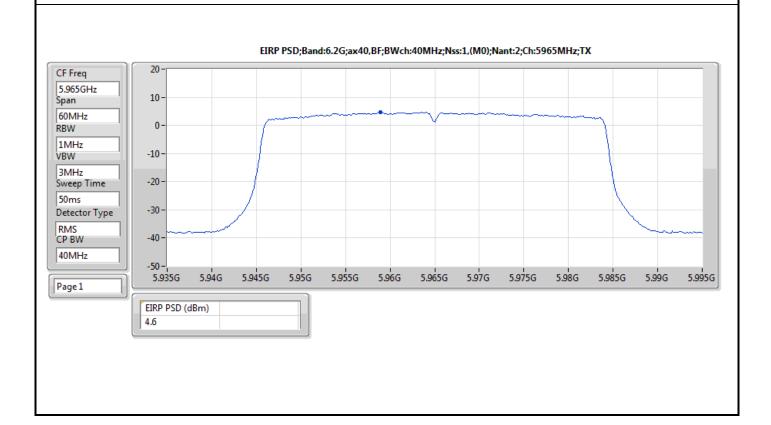




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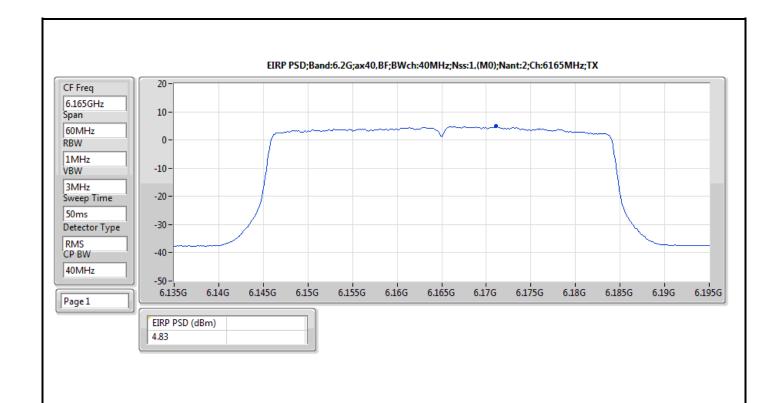
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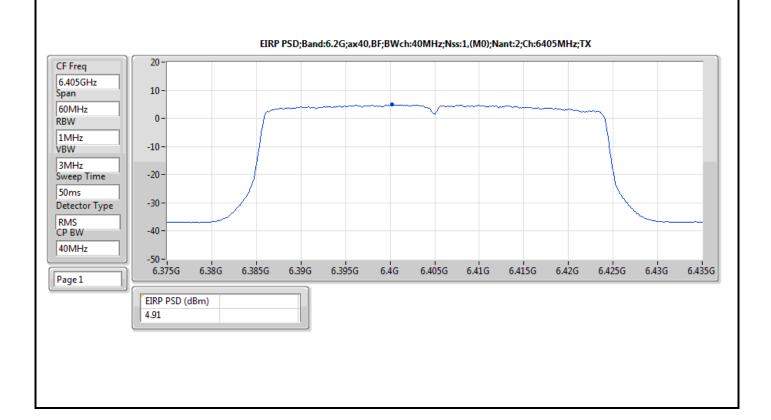




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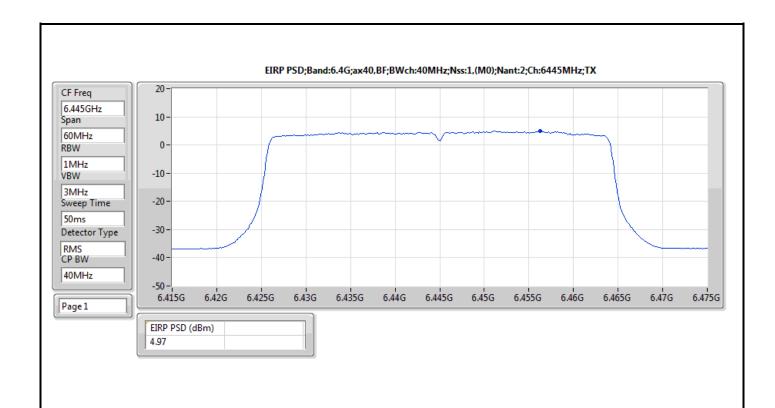
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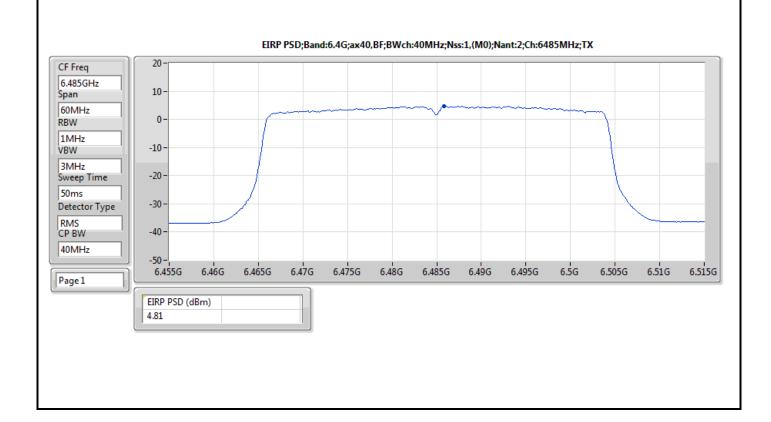




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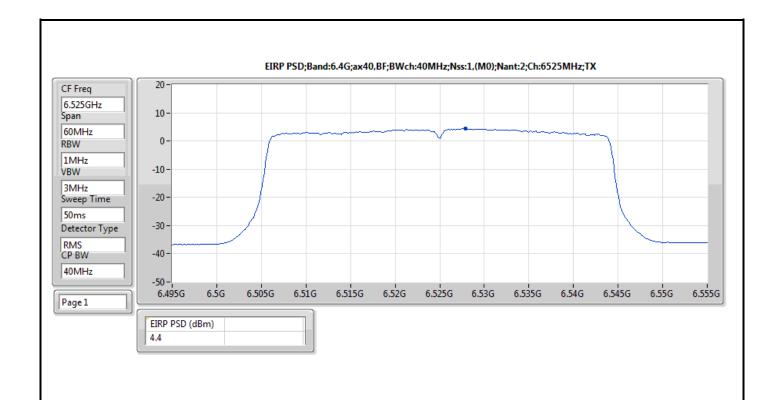
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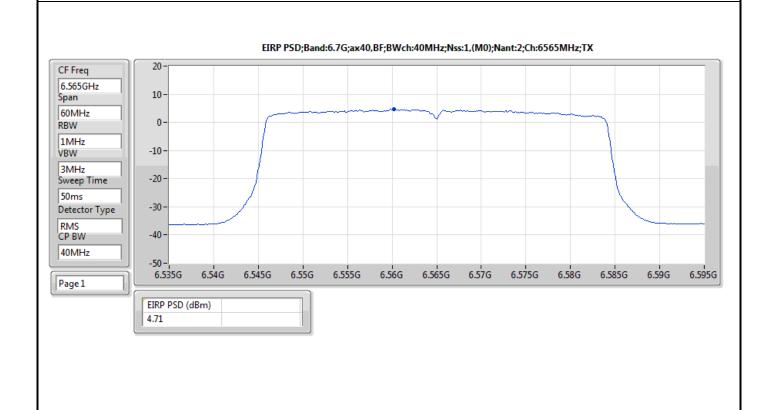




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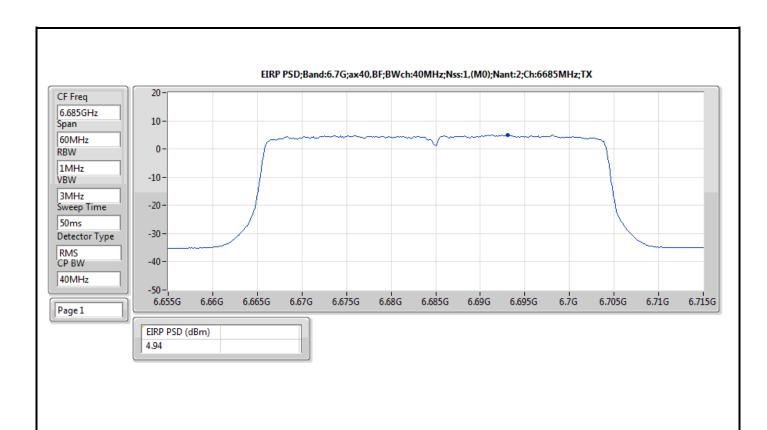
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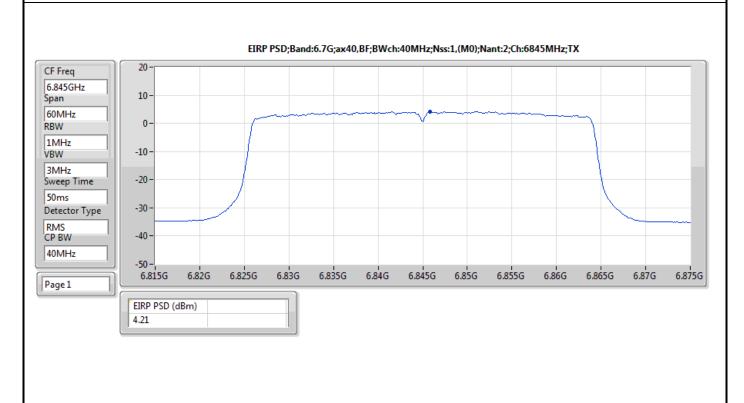




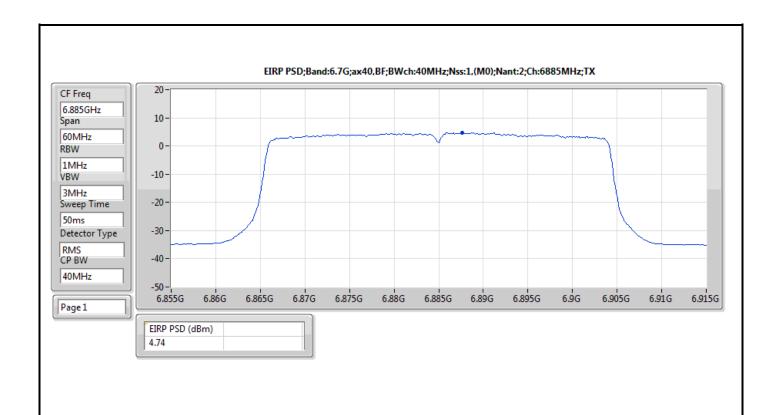
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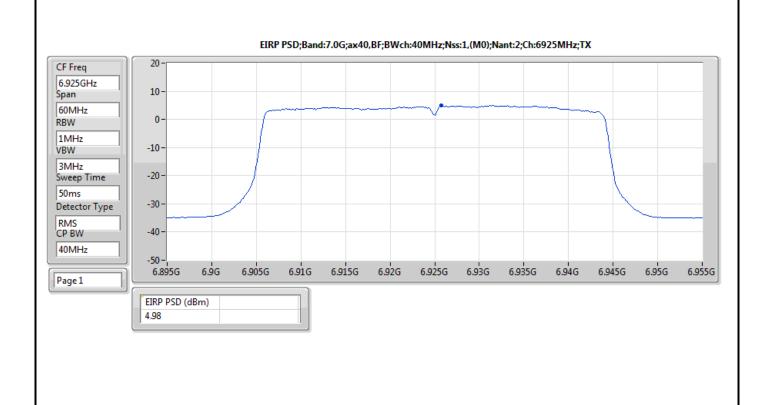
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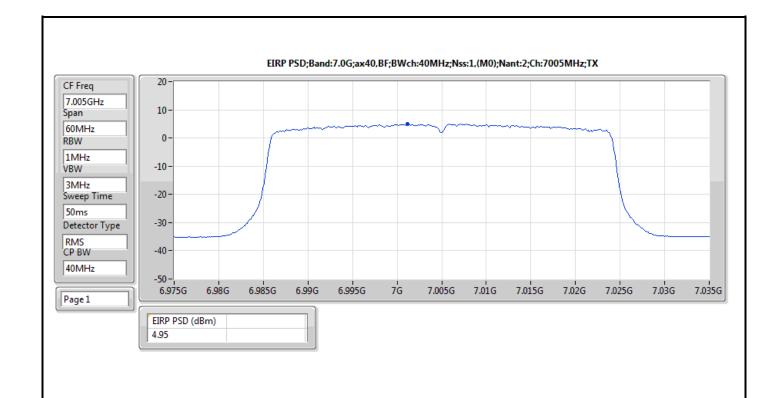
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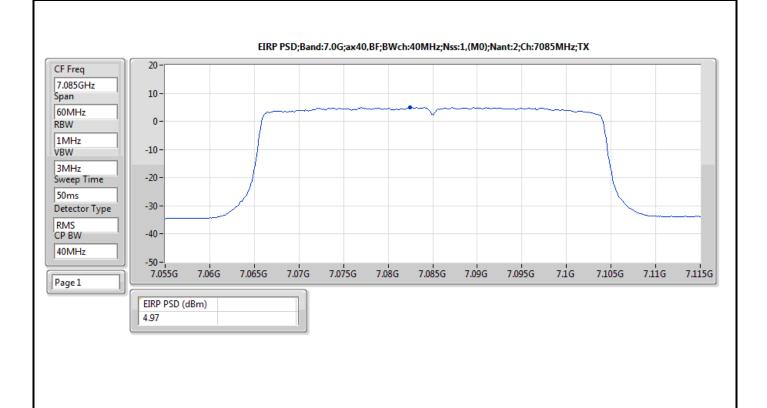




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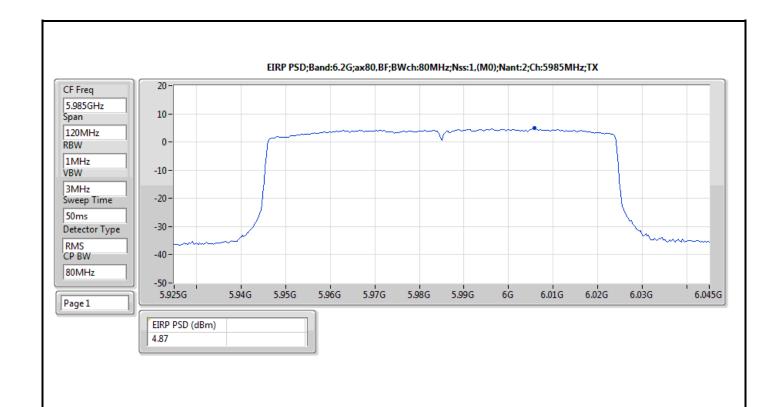
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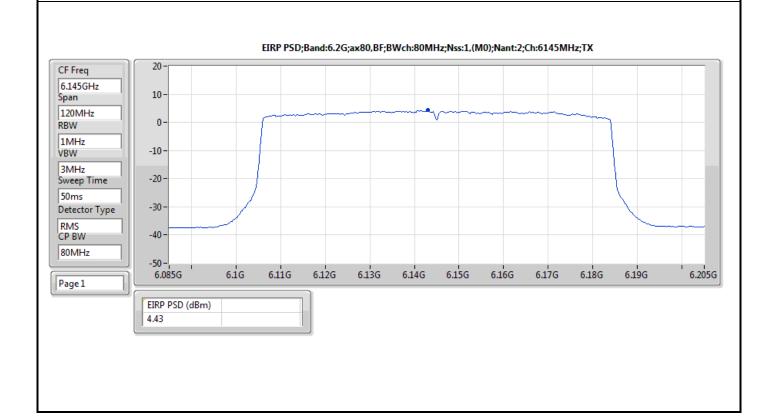




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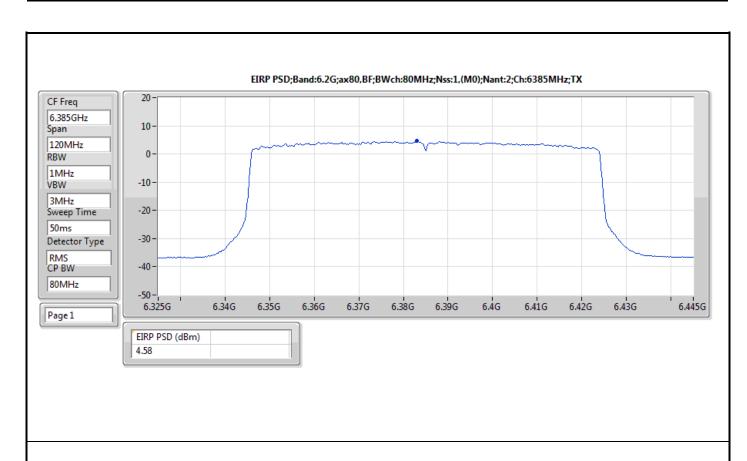
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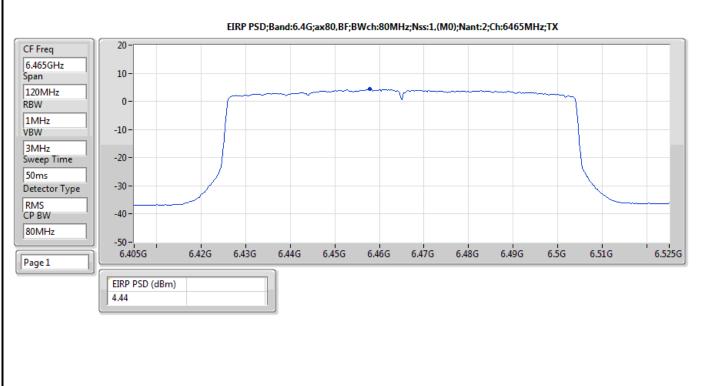




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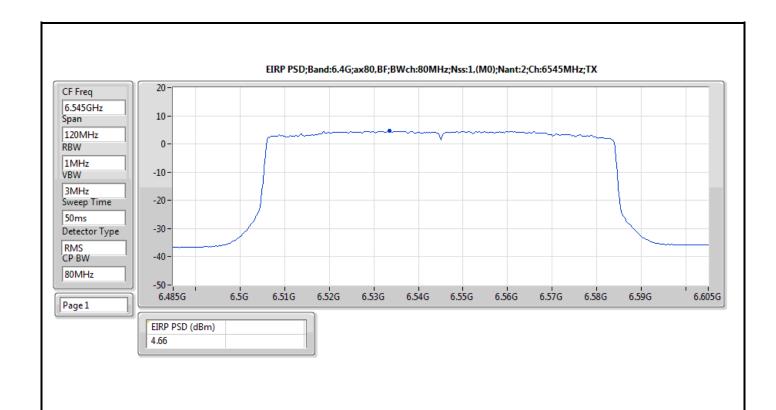
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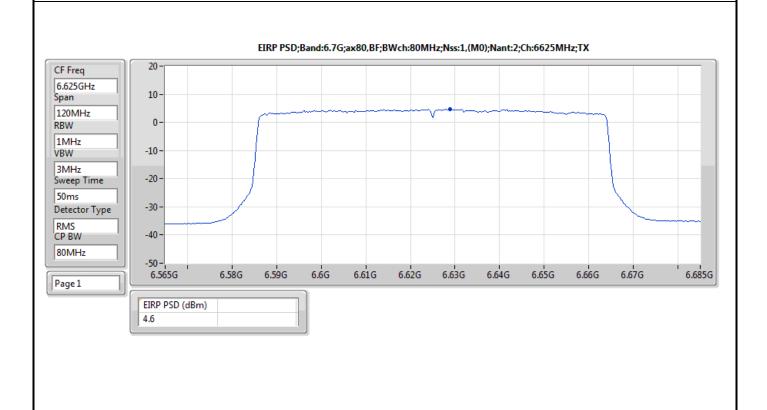




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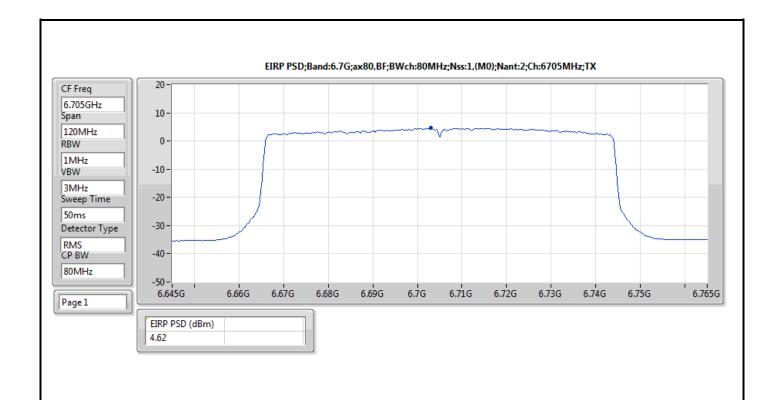
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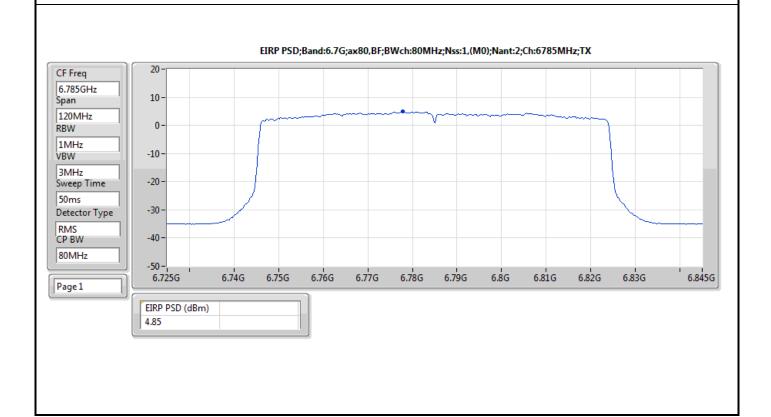




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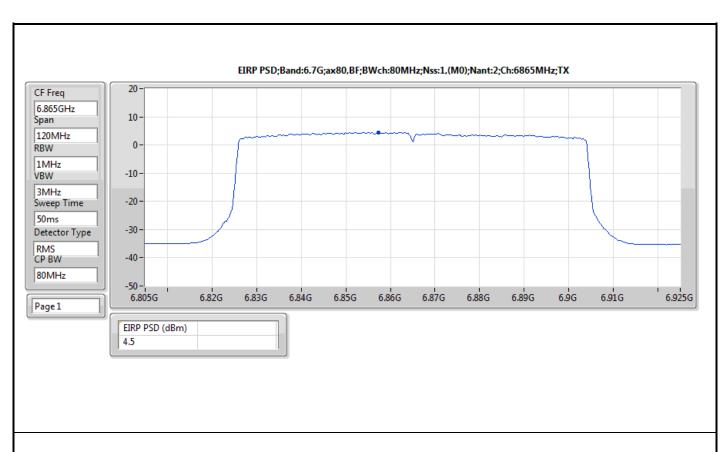
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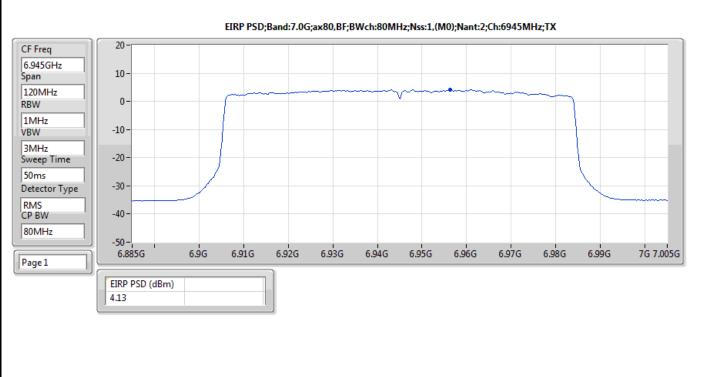




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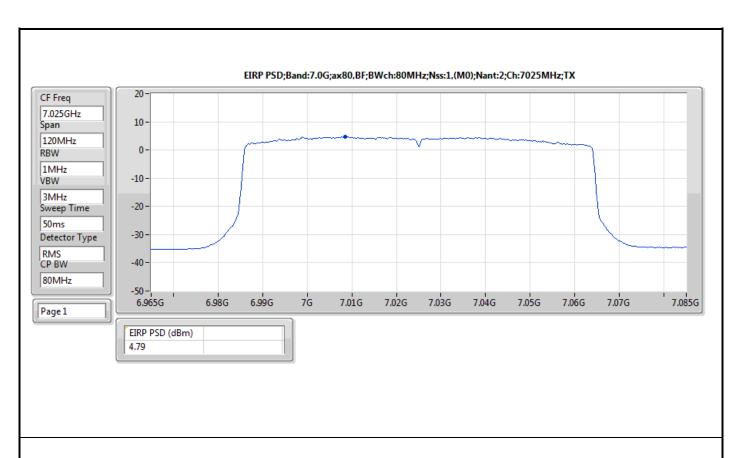
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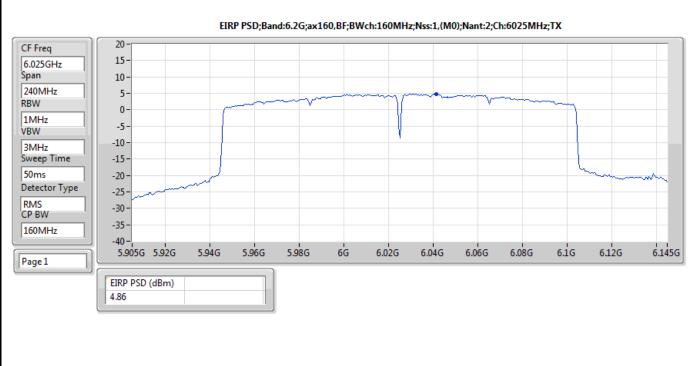




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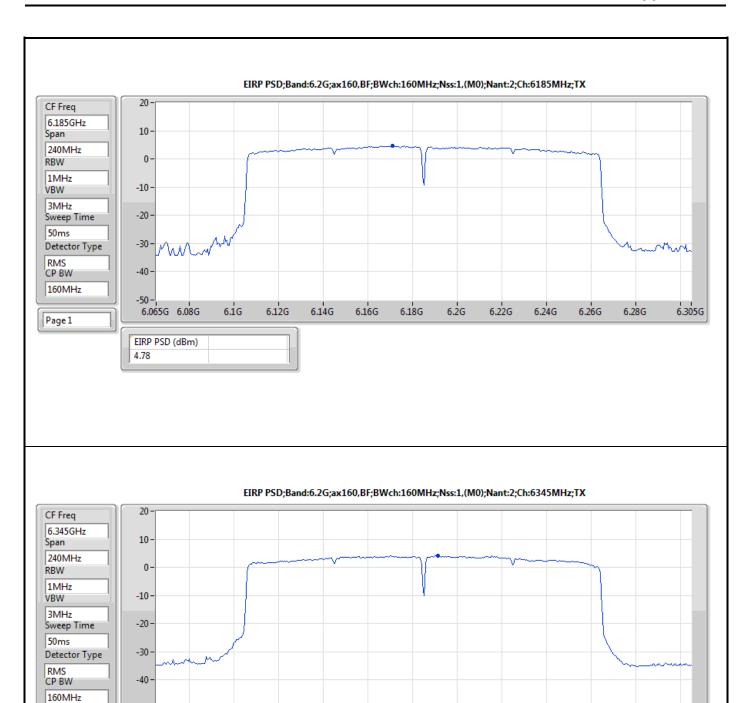
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6.3G

6.32G

6.34G

6.36G

6.38G

6.4G

6.42G

6.44G

6.465G

-50 -

4.17

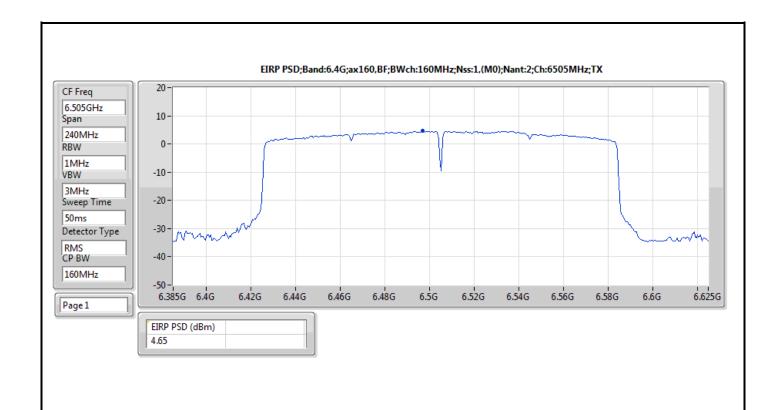
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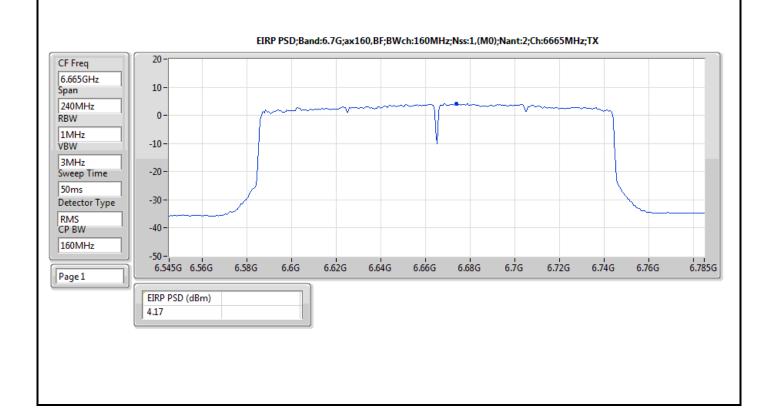
6.225G 6.24G

EIRP PSD (dBm)

6.26G

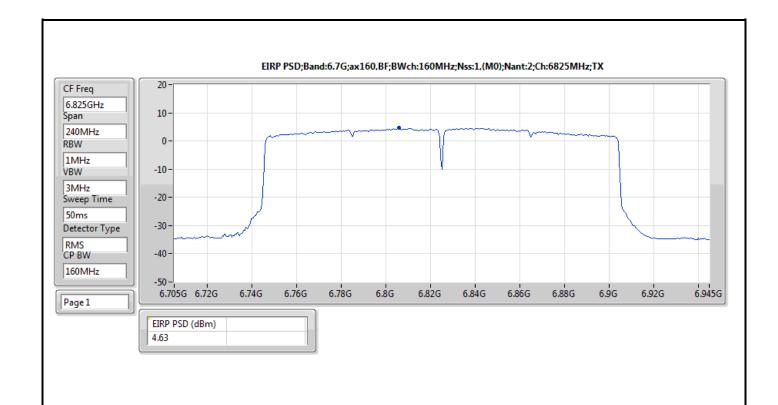
6.28G

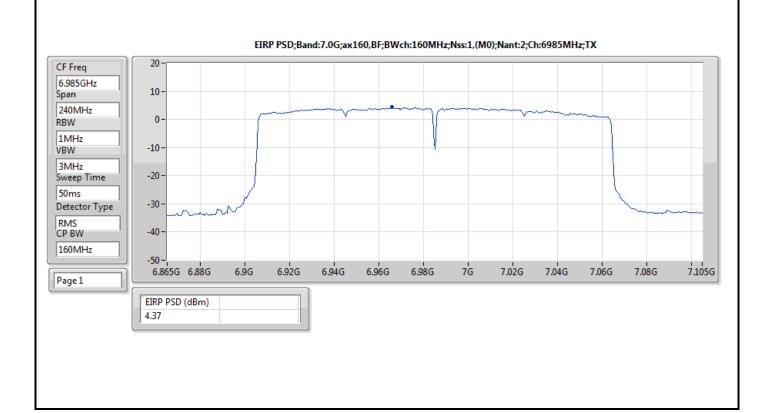




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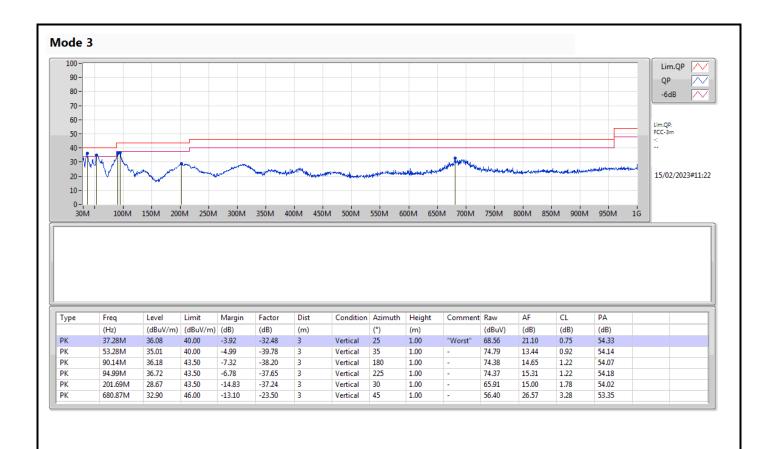
Radiated Emissions below 1GHz

Appendix E.1

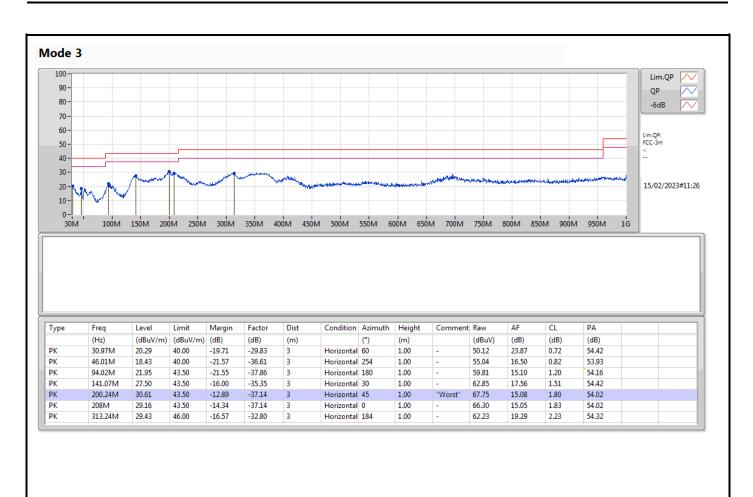
Summary

Mode	Result	Туре	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition	
Mode 3	Pass	PK	37.28M	36.08	40.00	-3.92	Vertical	

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RSE TX above 1GHz

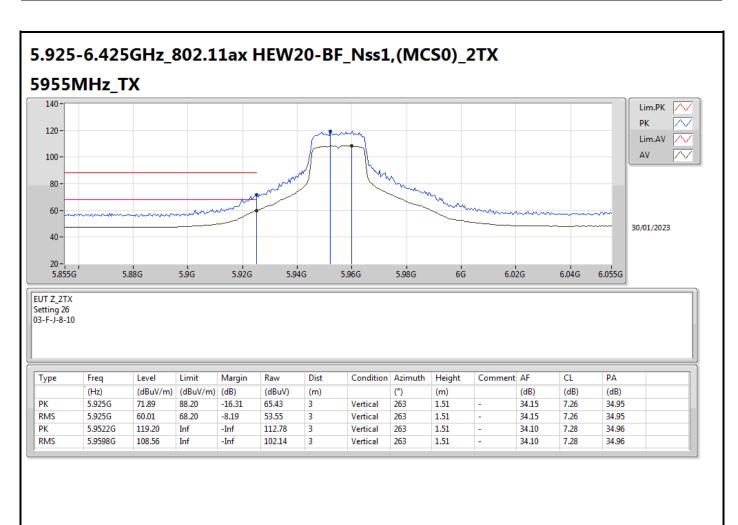
Appendix E.2

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
5.925-6.425GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	Pass	AV	5.917G	67.17	68.20	-1.03	3	Vertical	94	1.60	-

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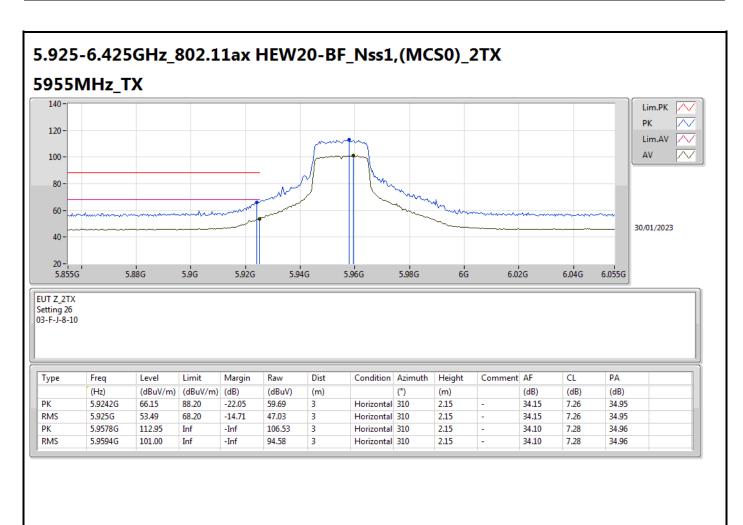




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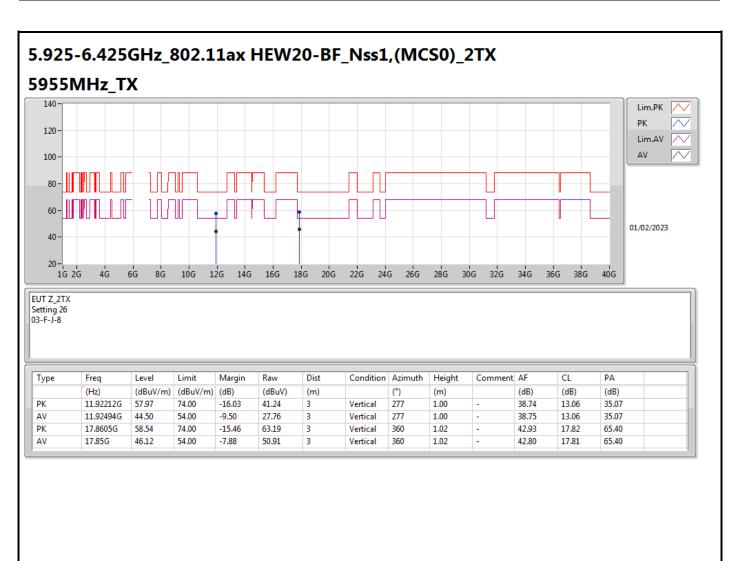




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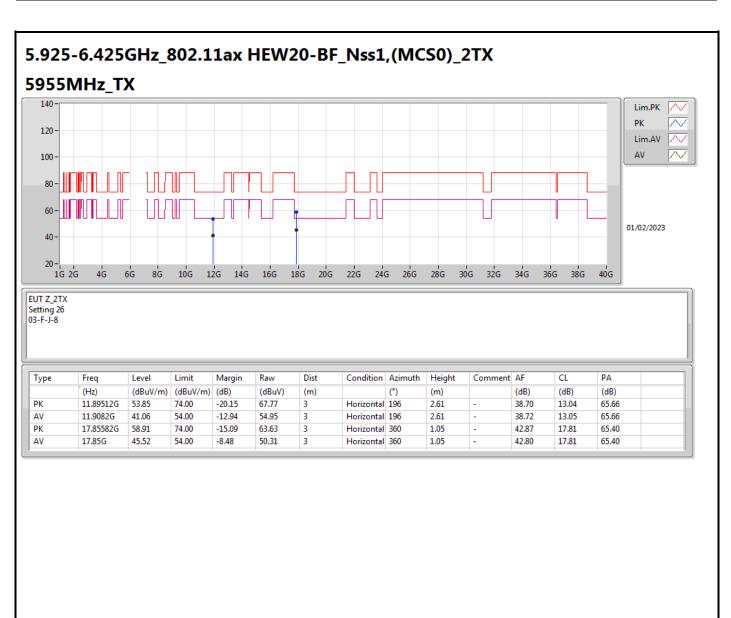




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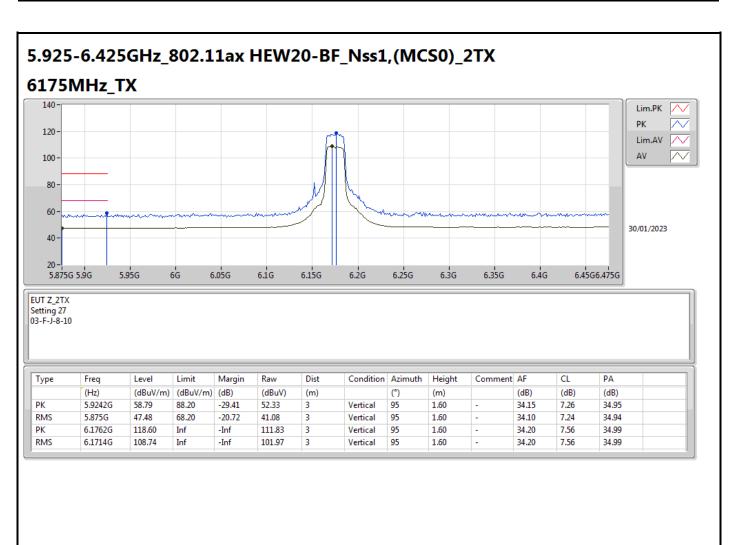




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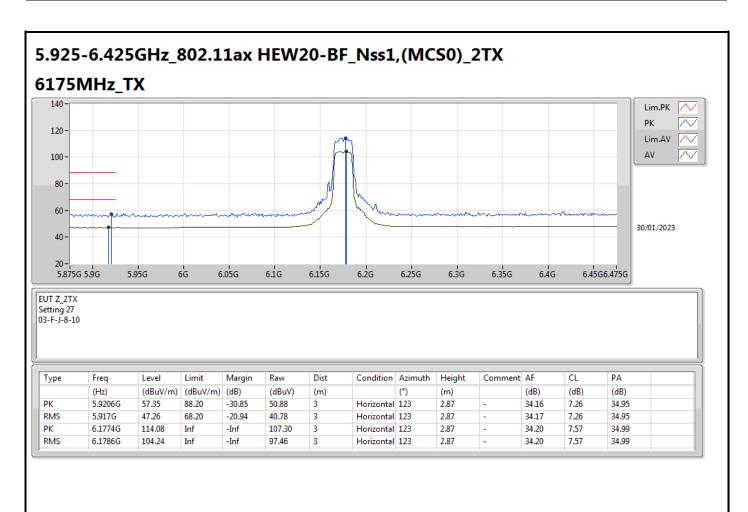




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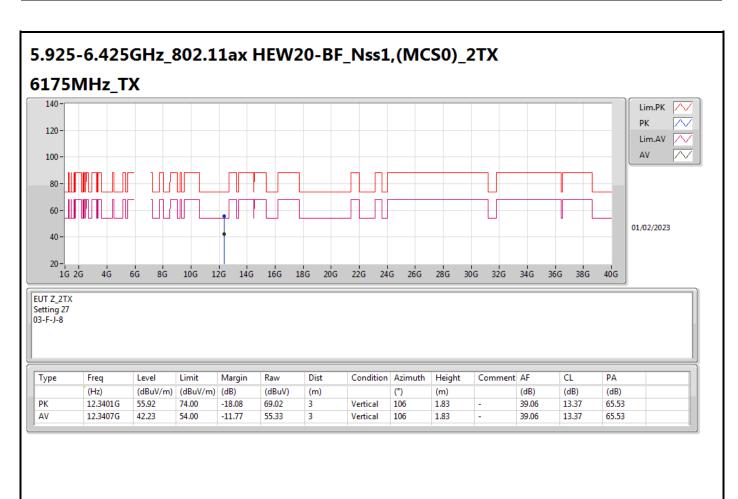




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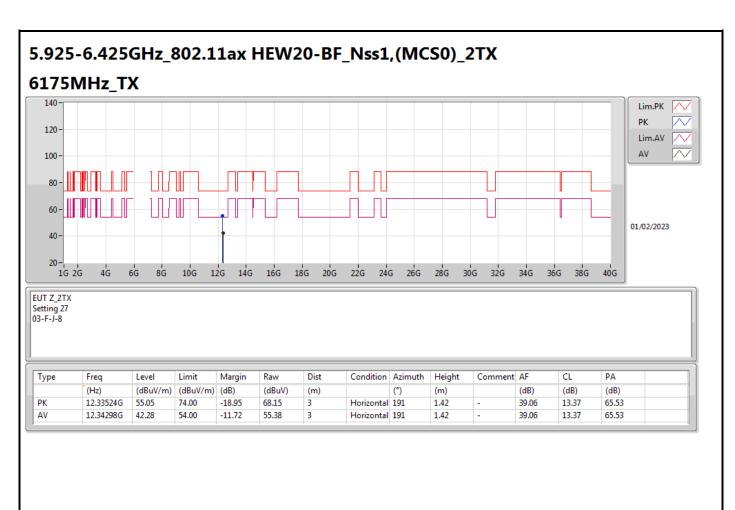




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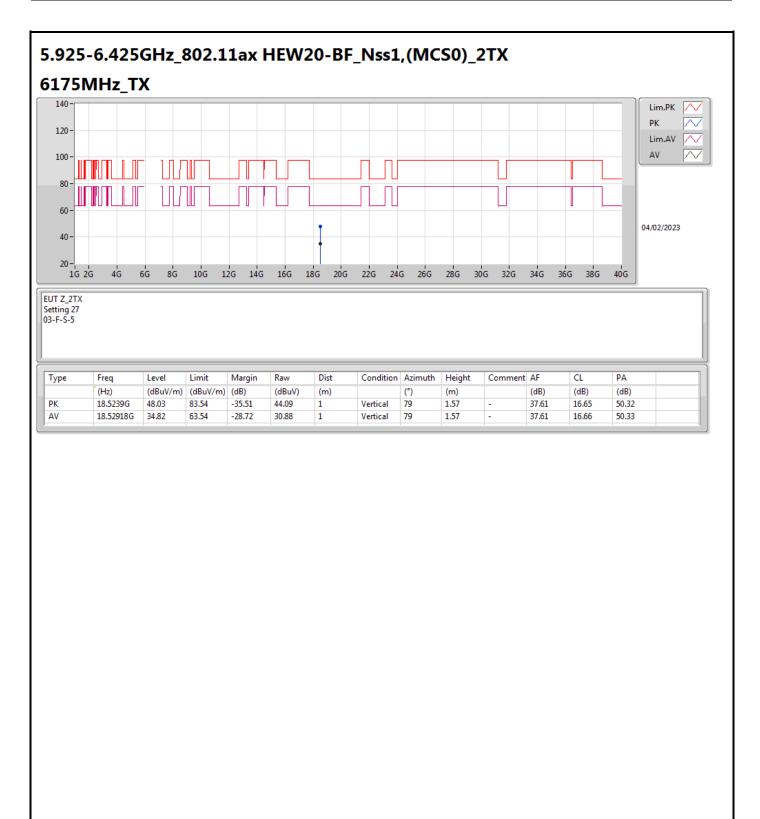




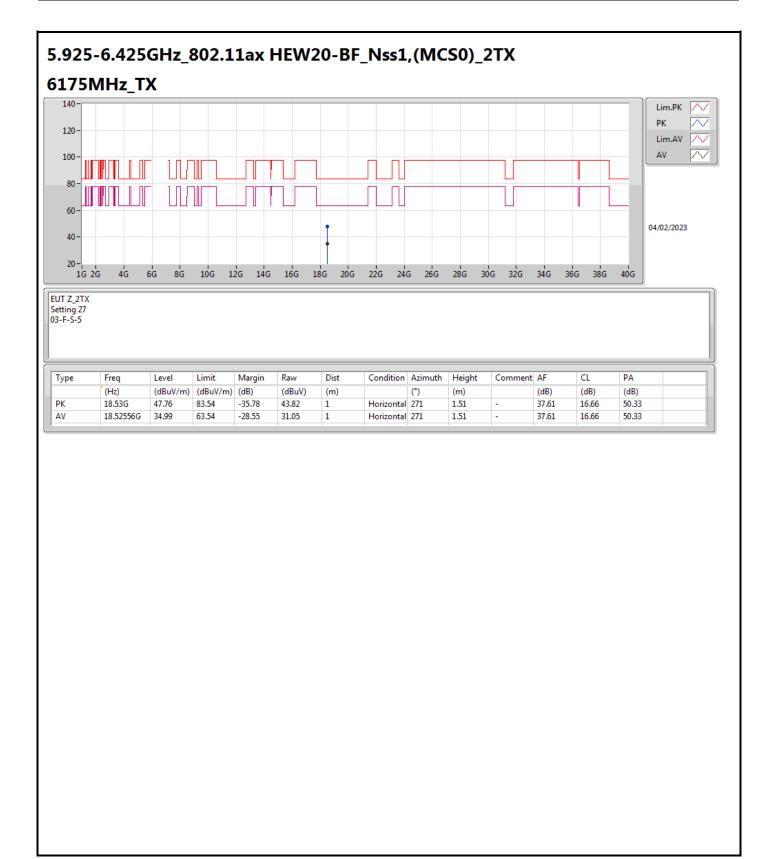
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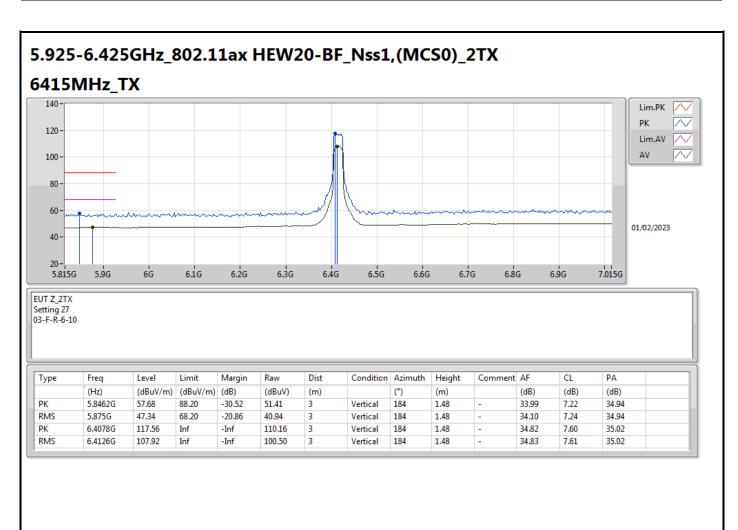








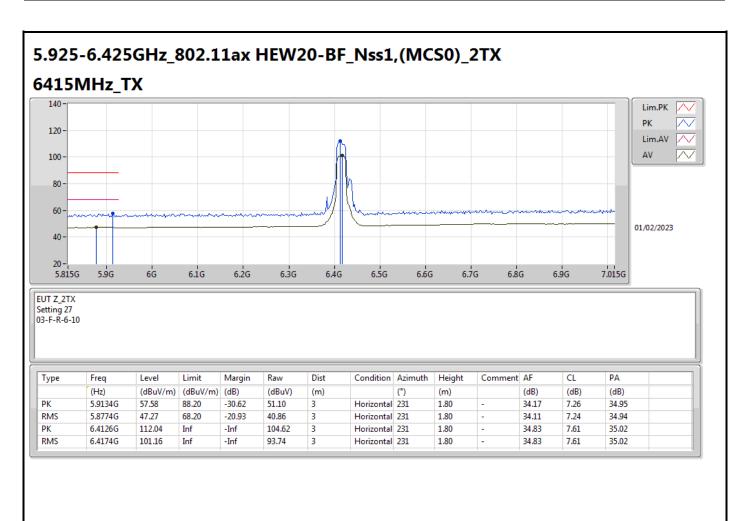




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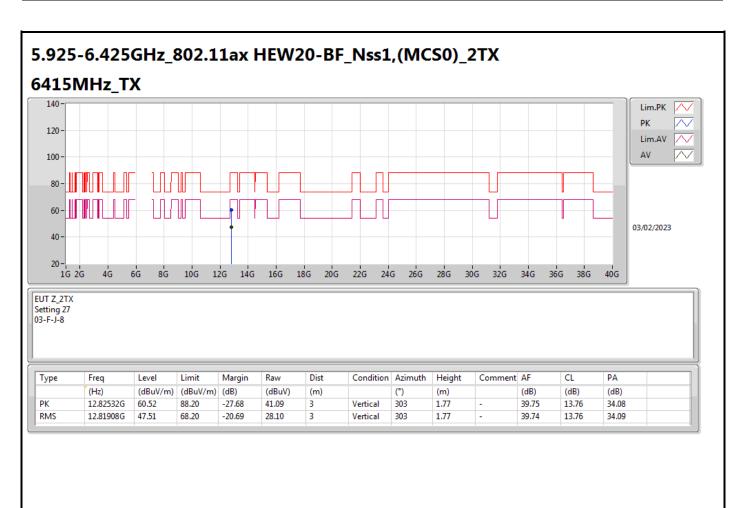




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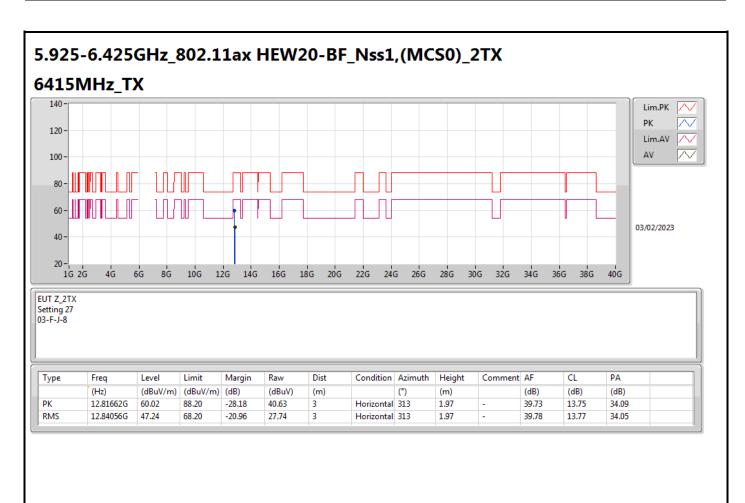




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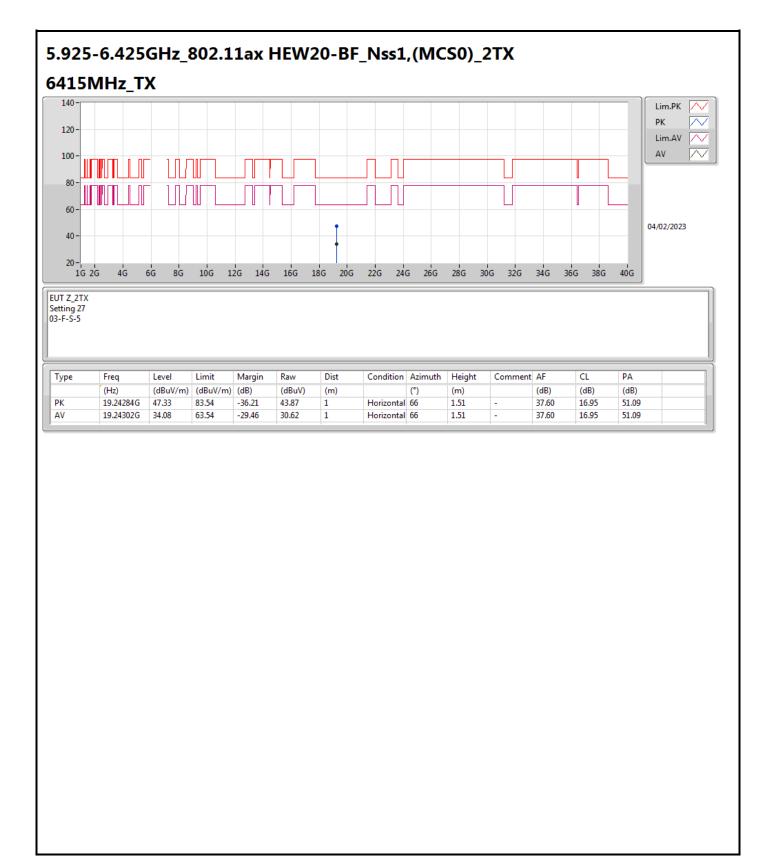
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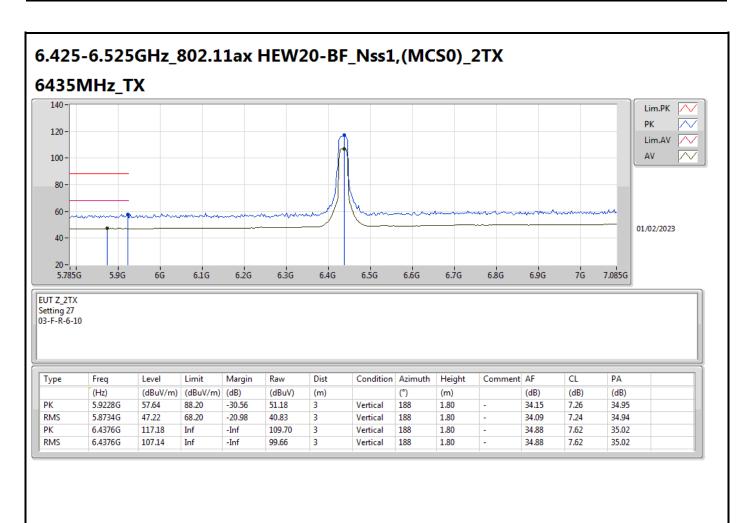








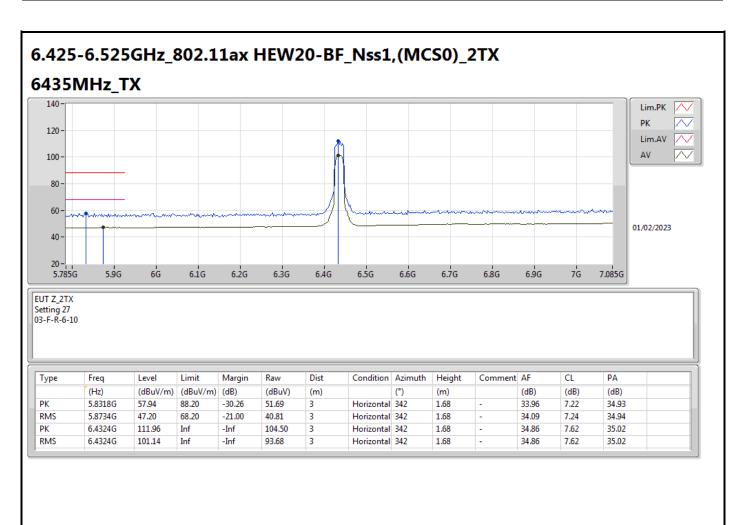




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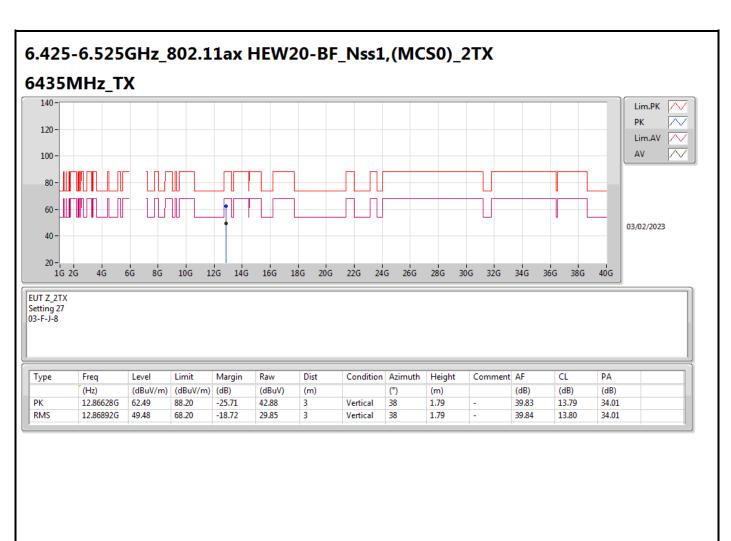




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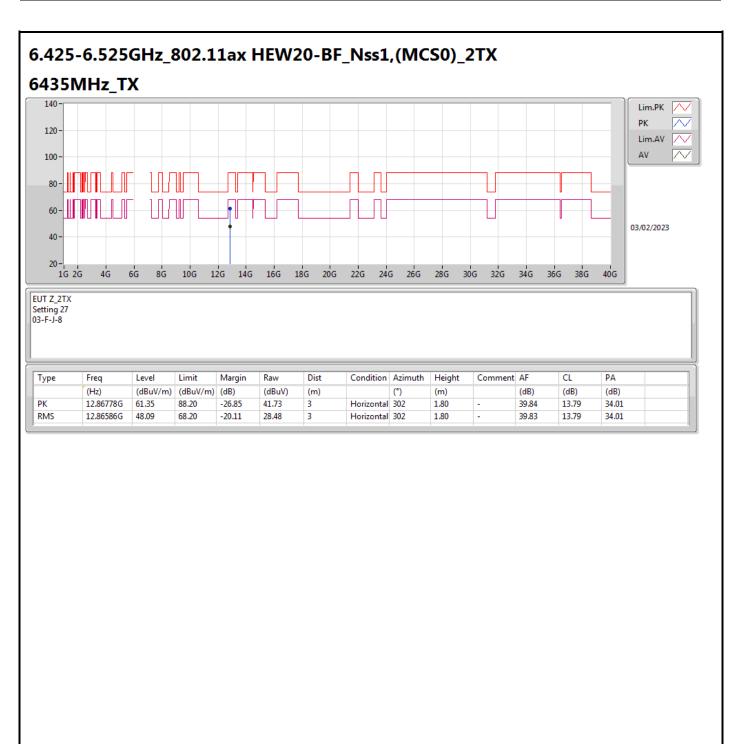




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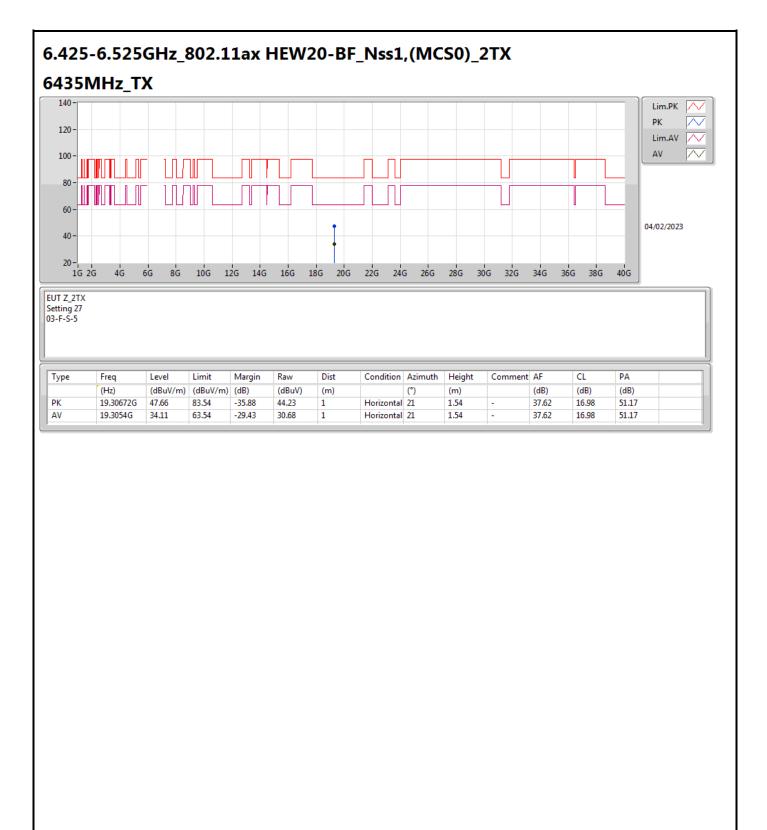




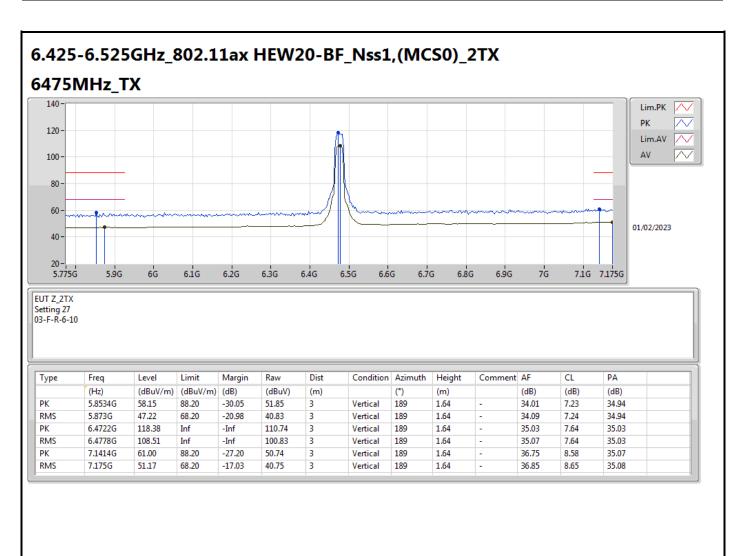
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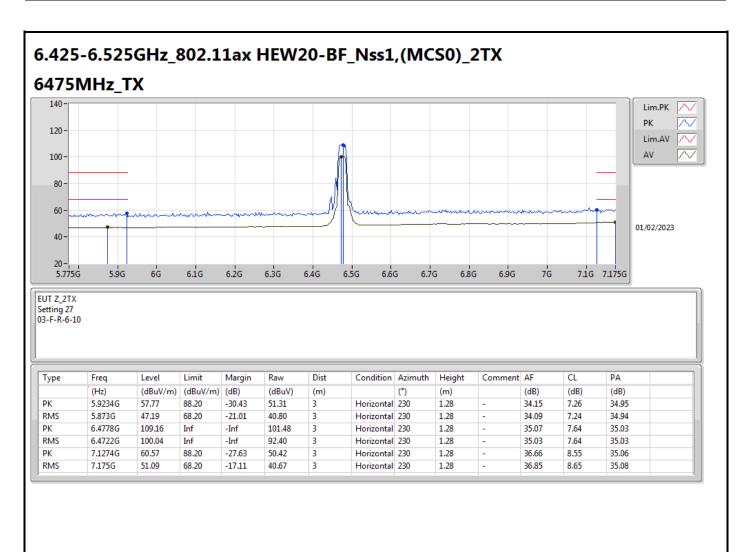




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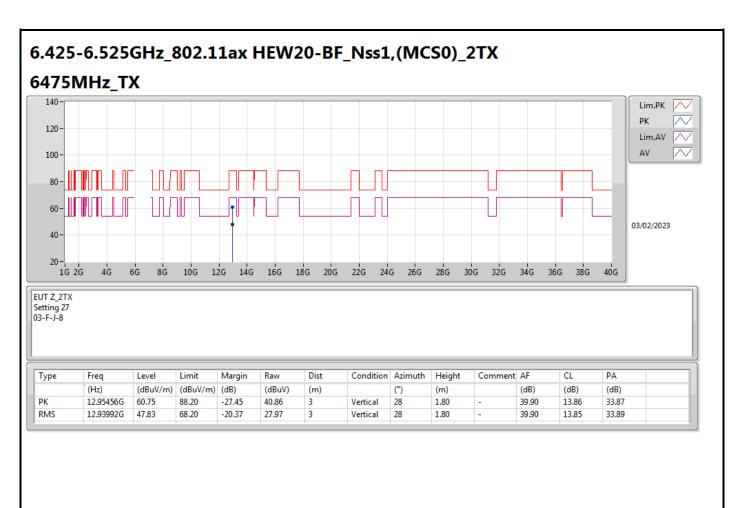




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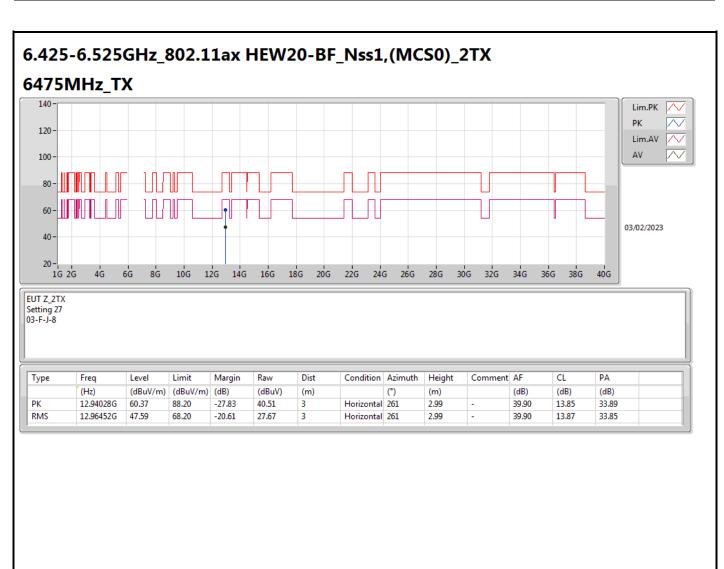




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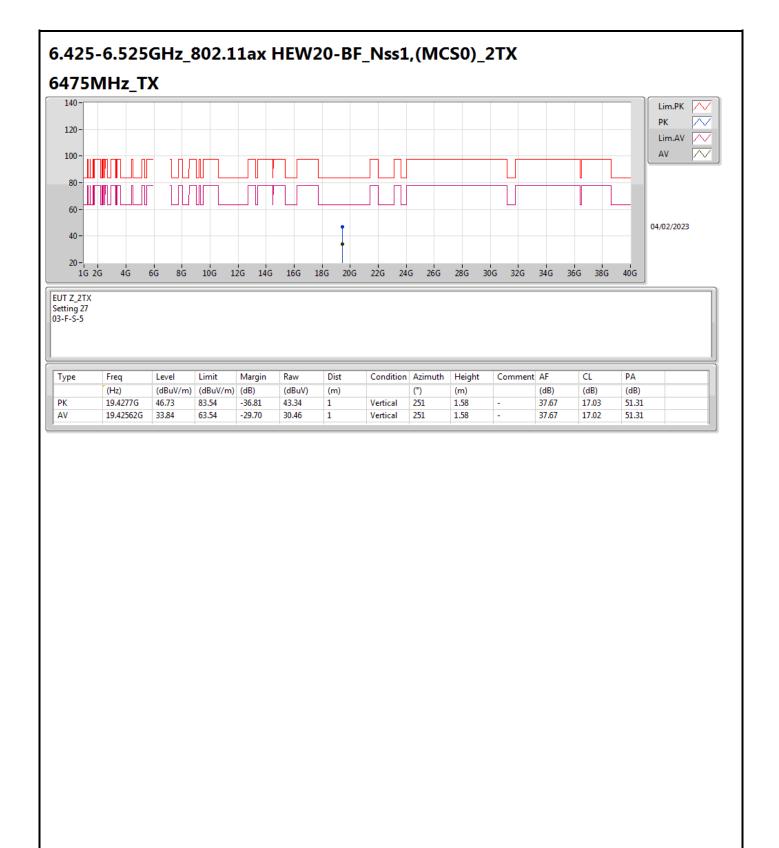




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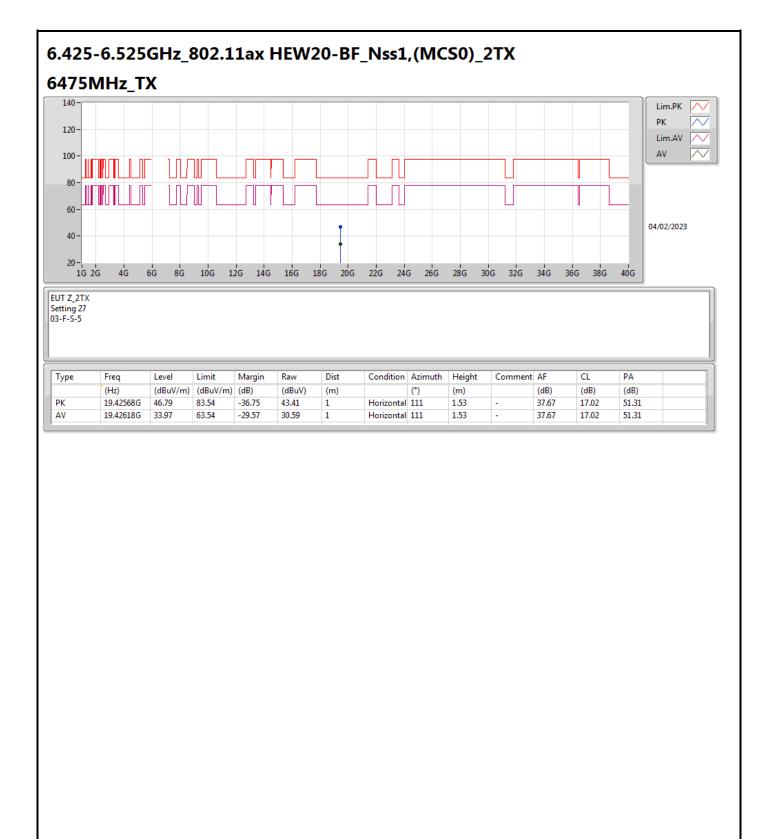




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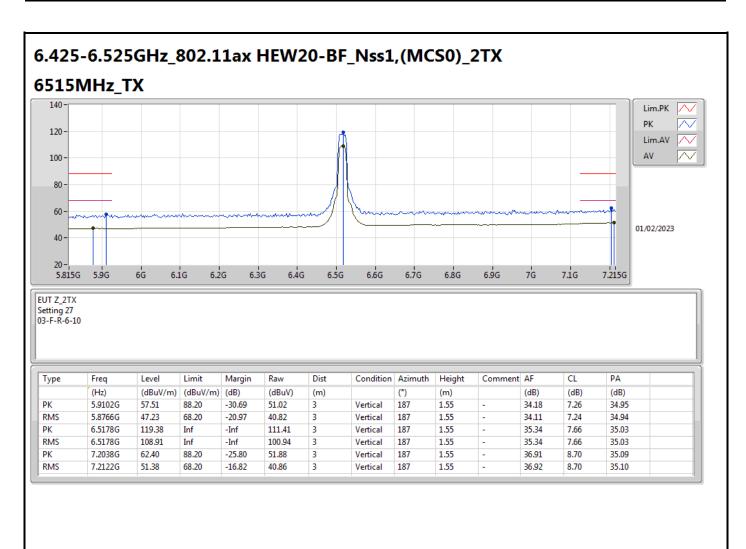




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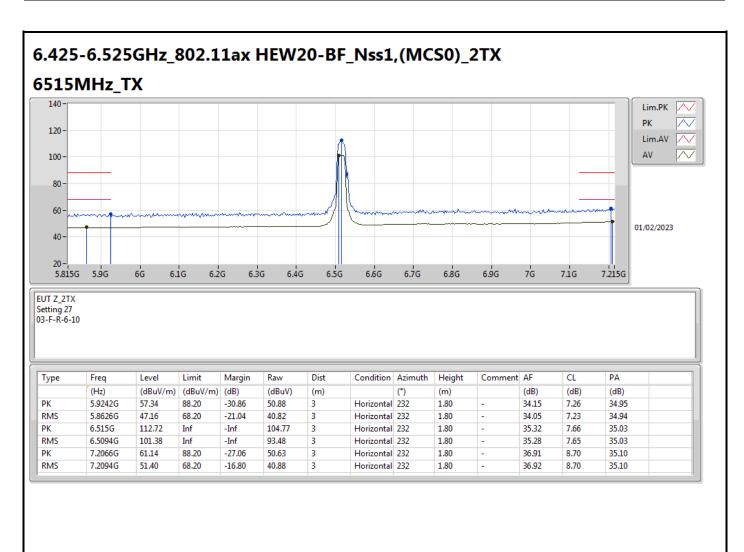




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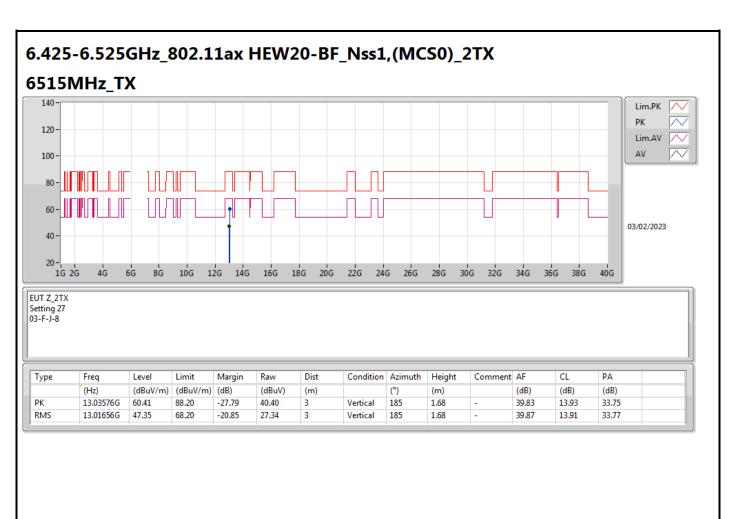




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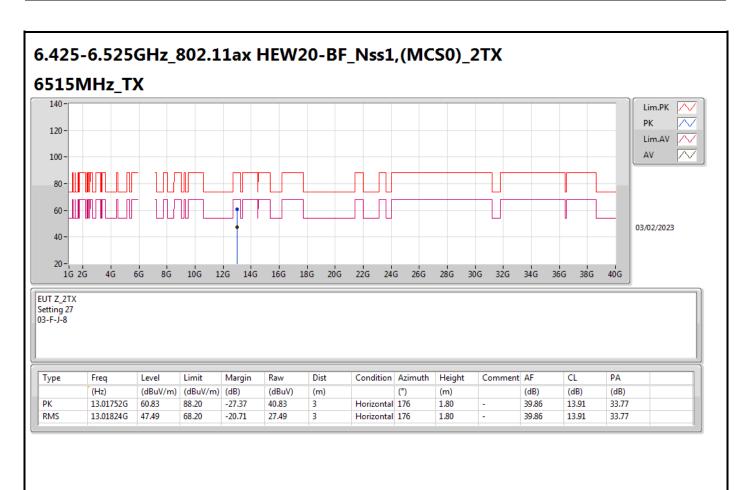




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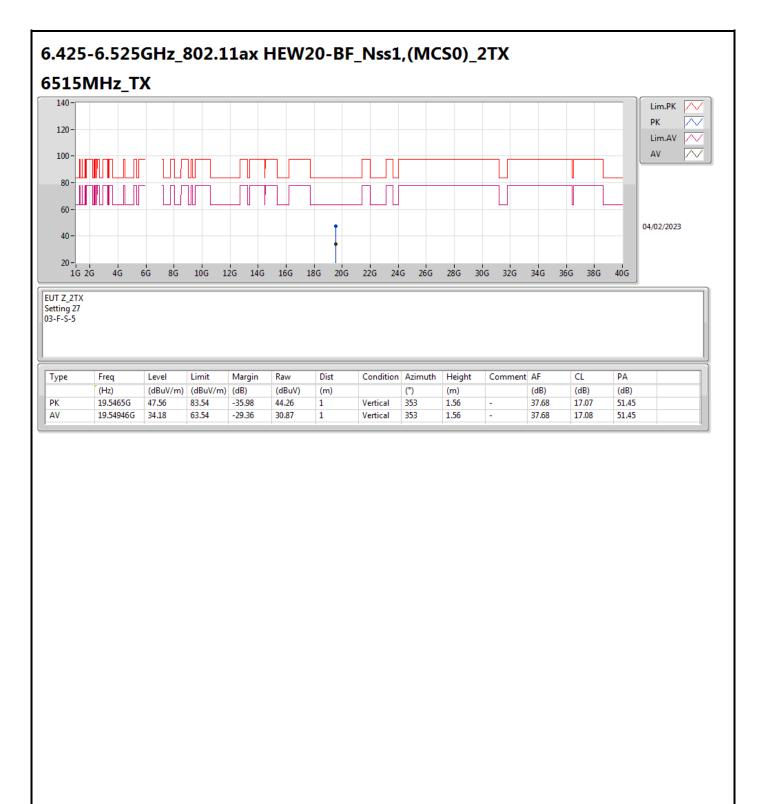




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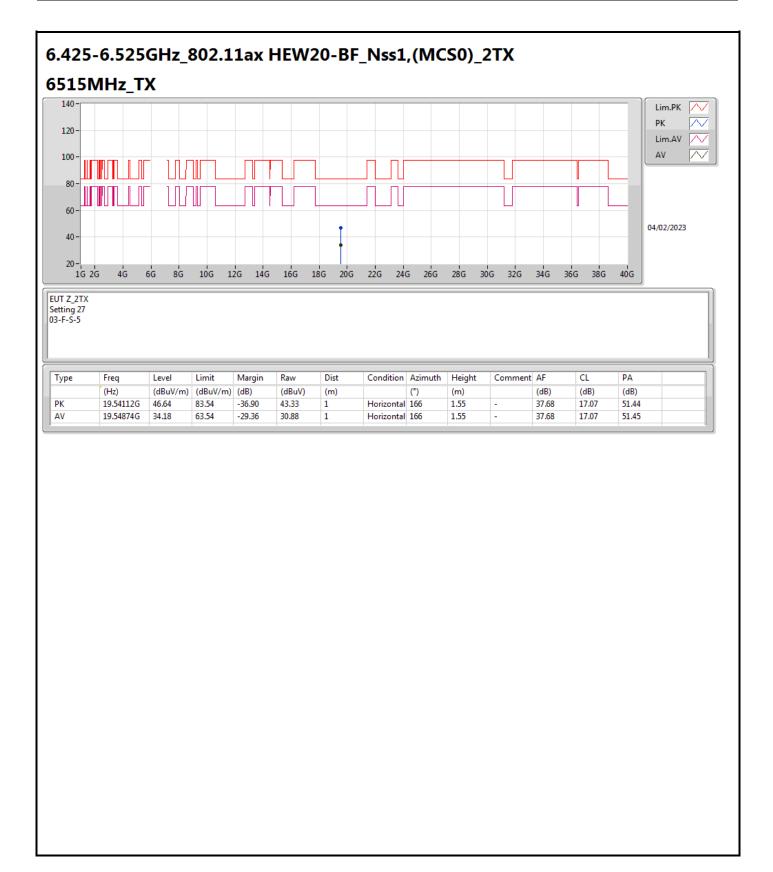




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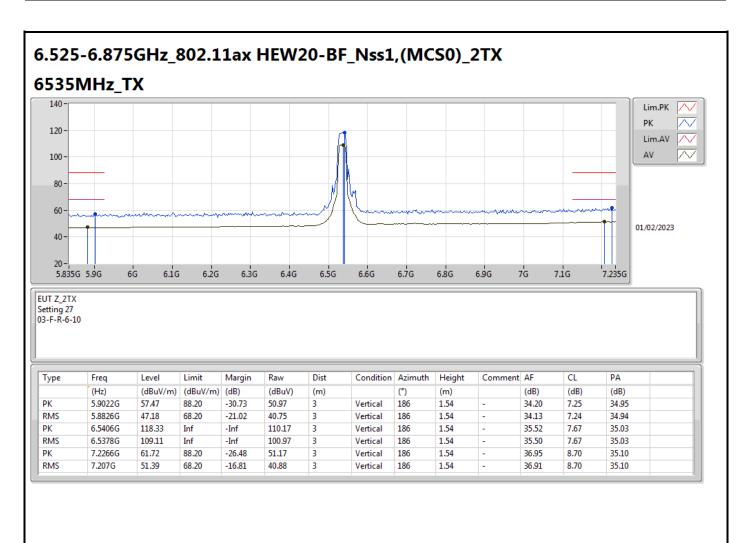




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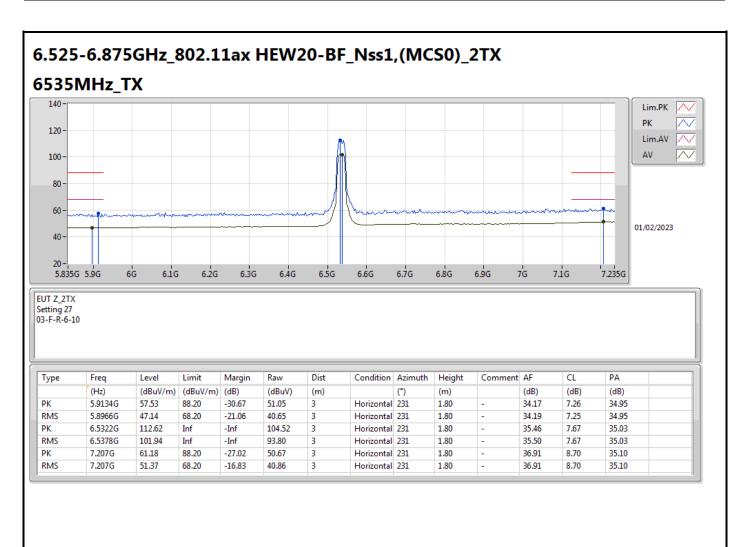




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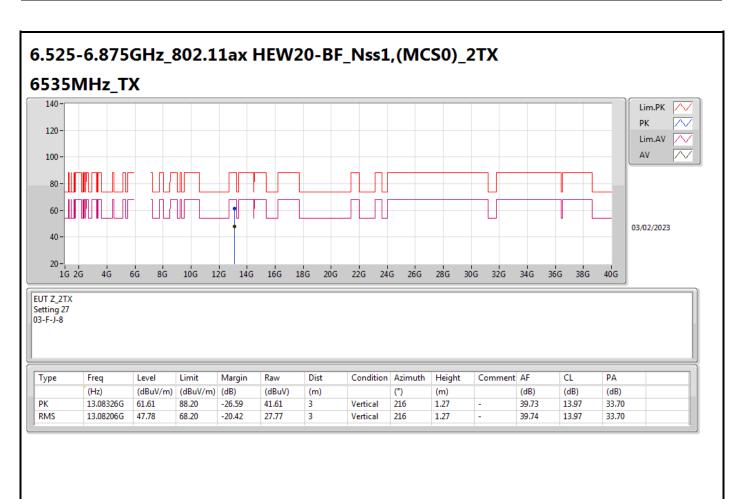




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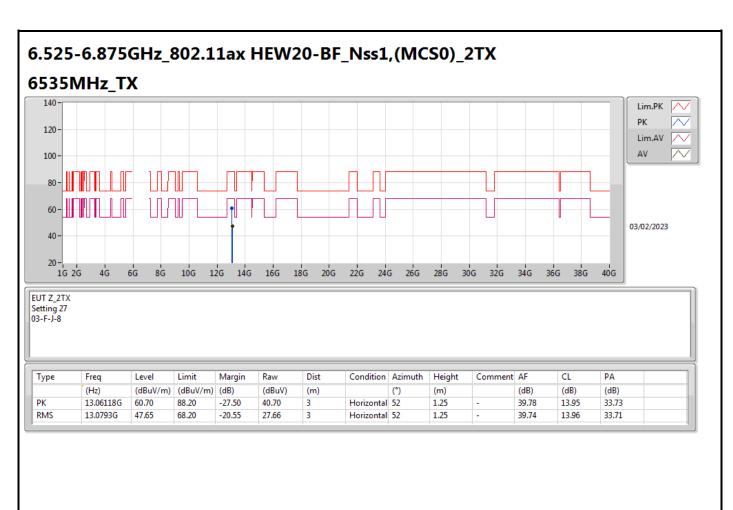




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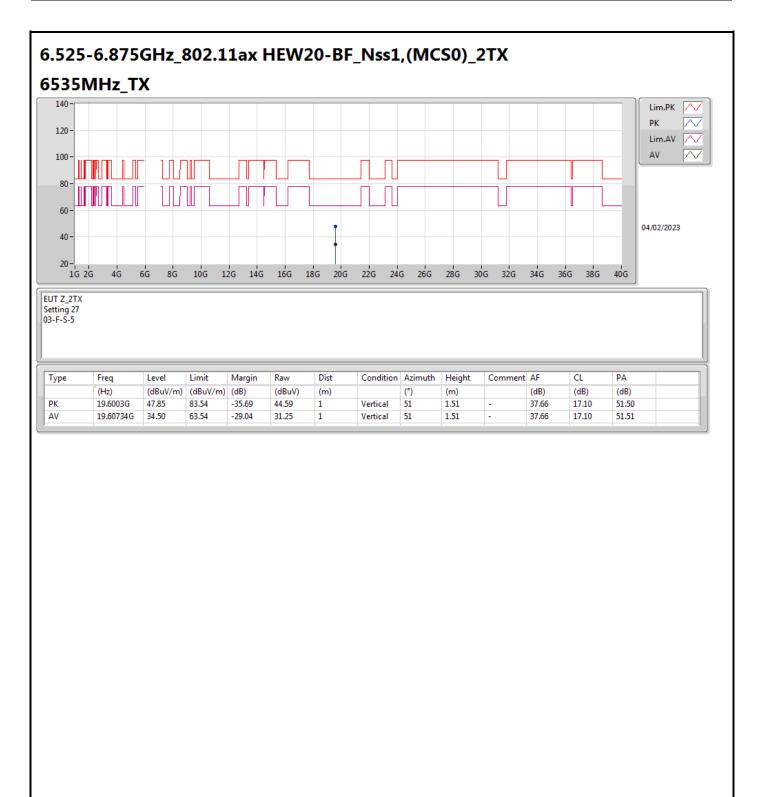




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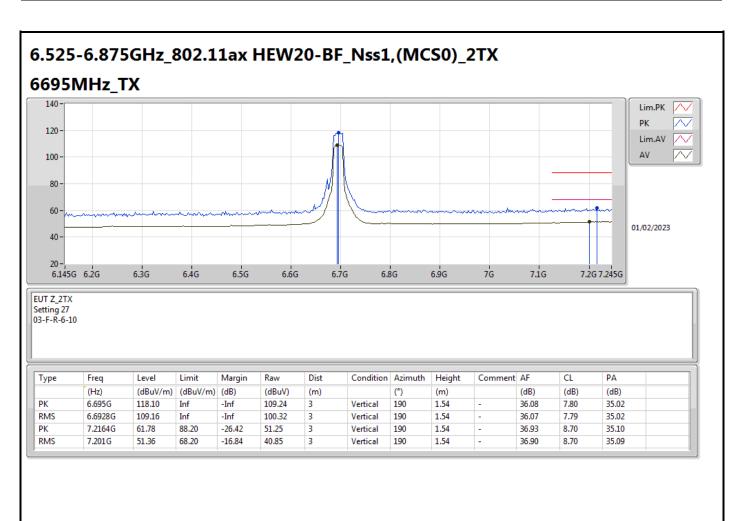








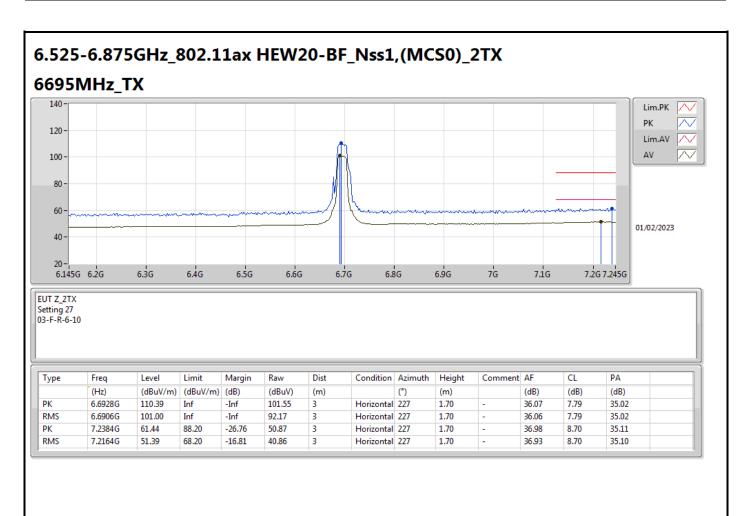




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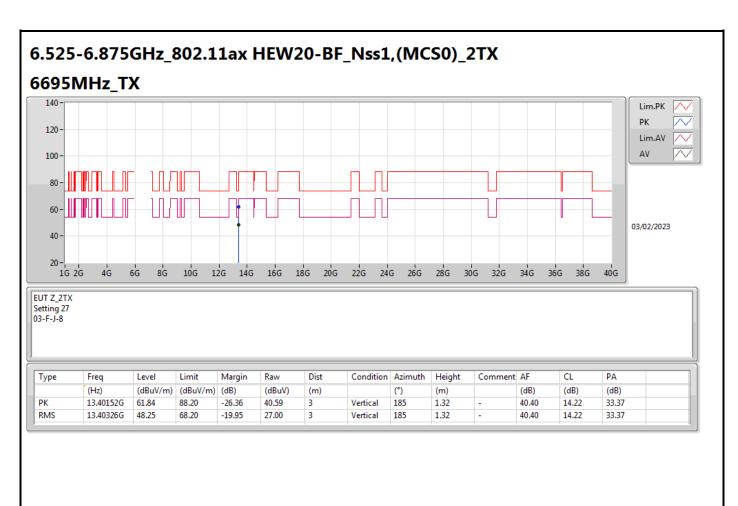




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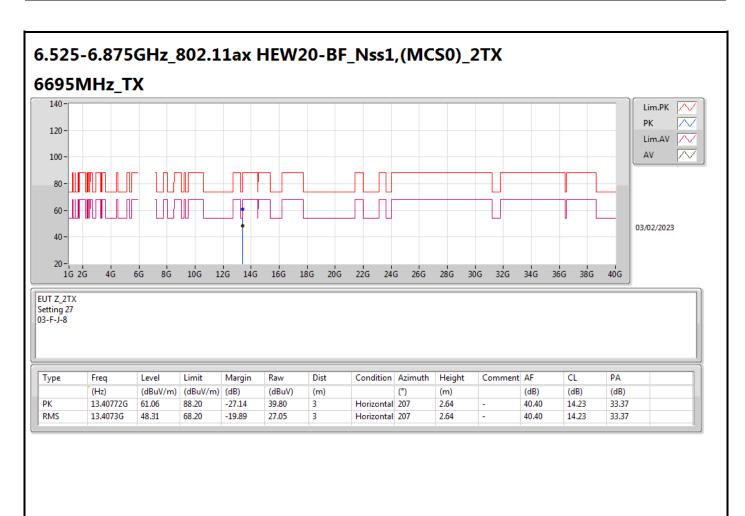




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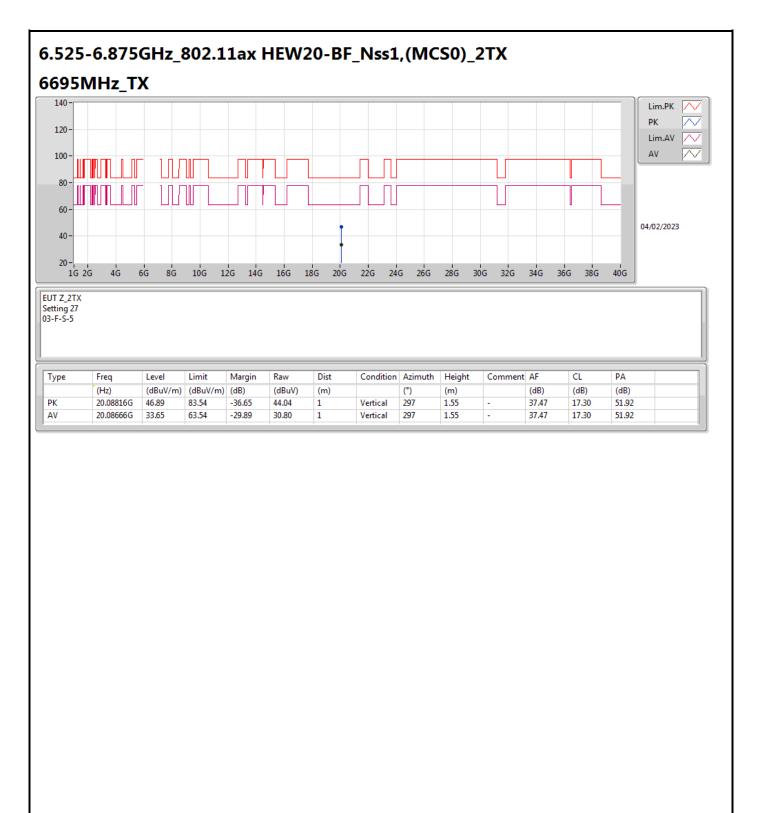




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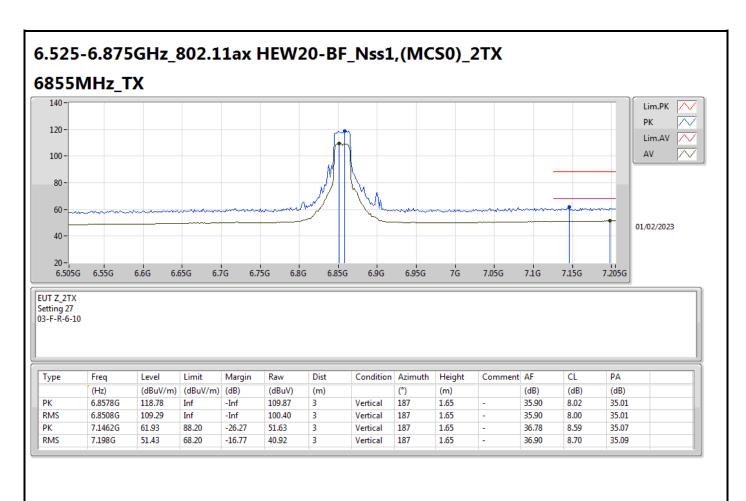








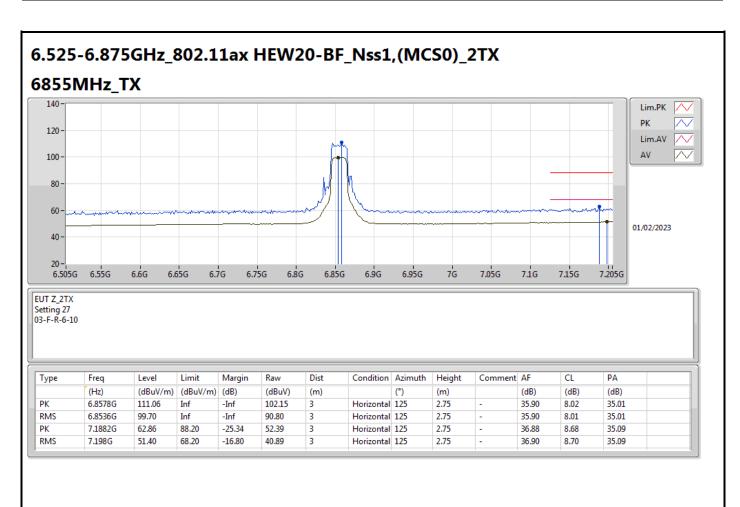




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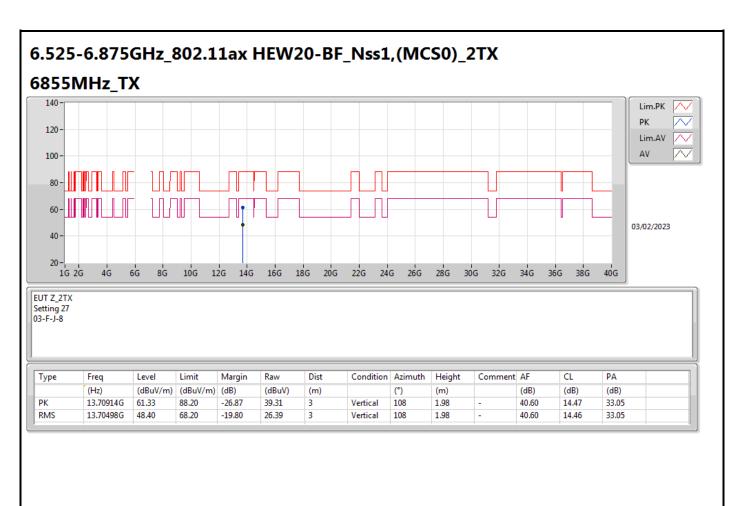




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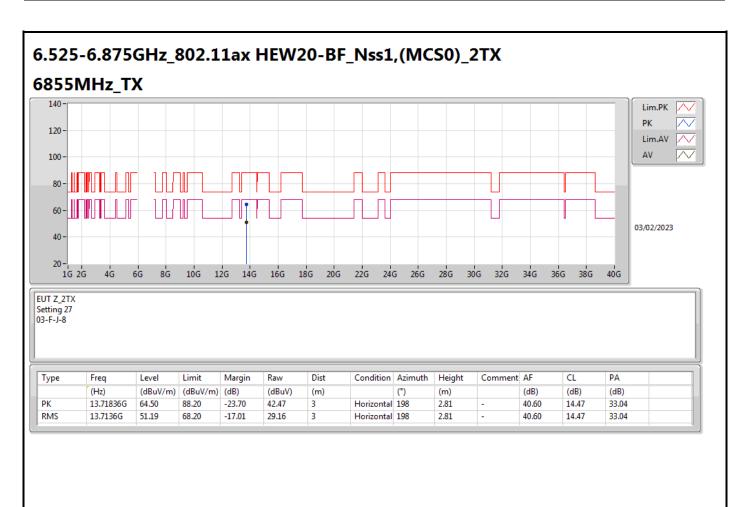




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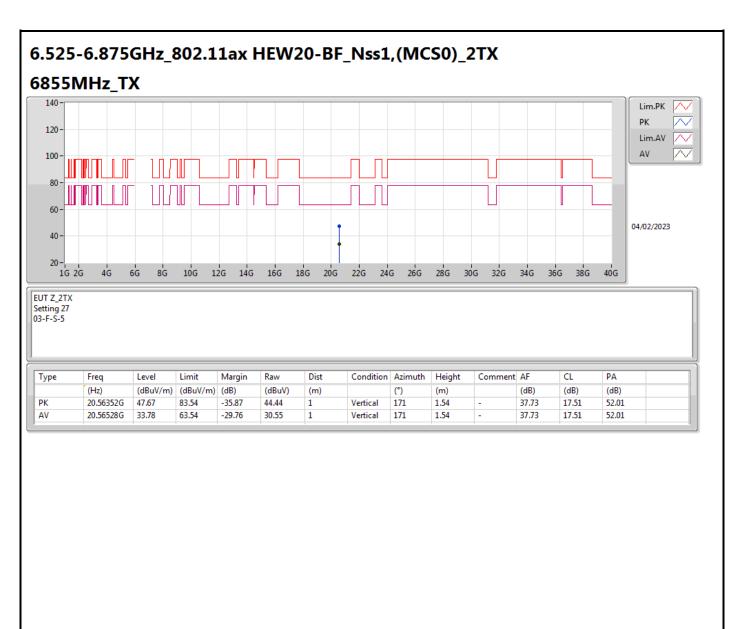




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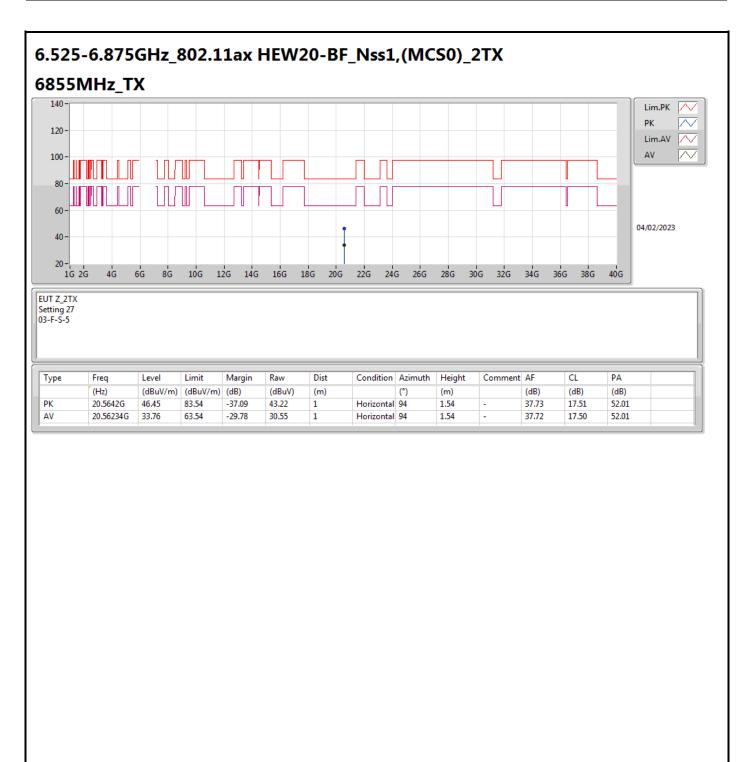




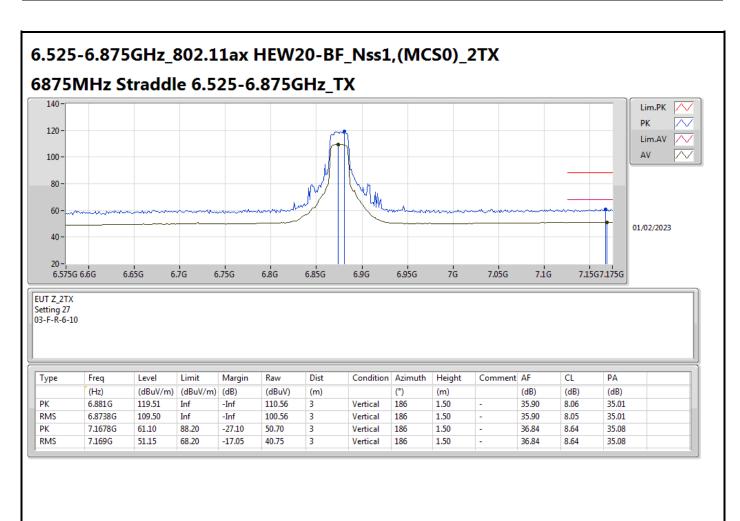
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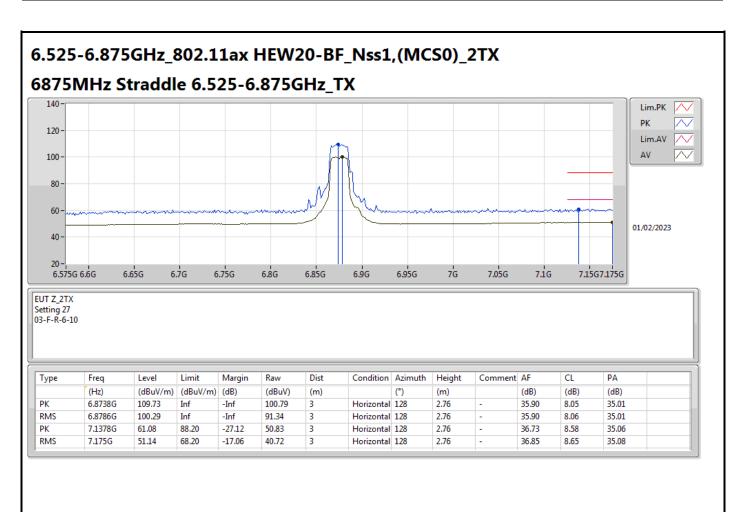




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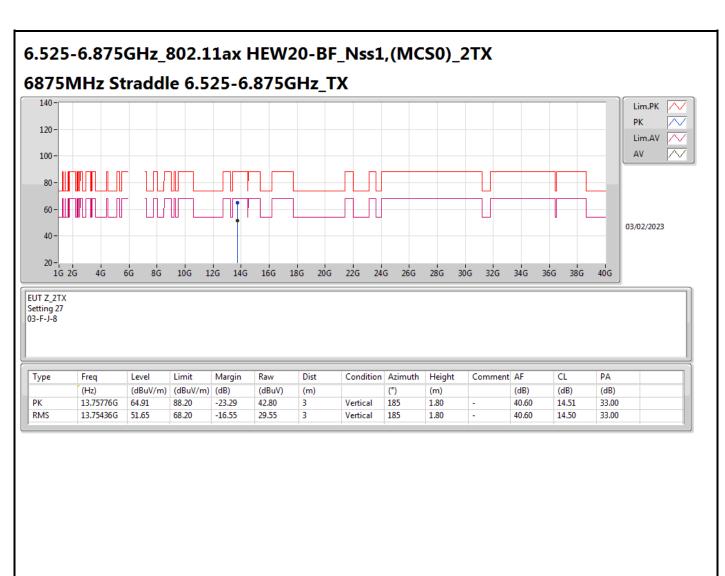




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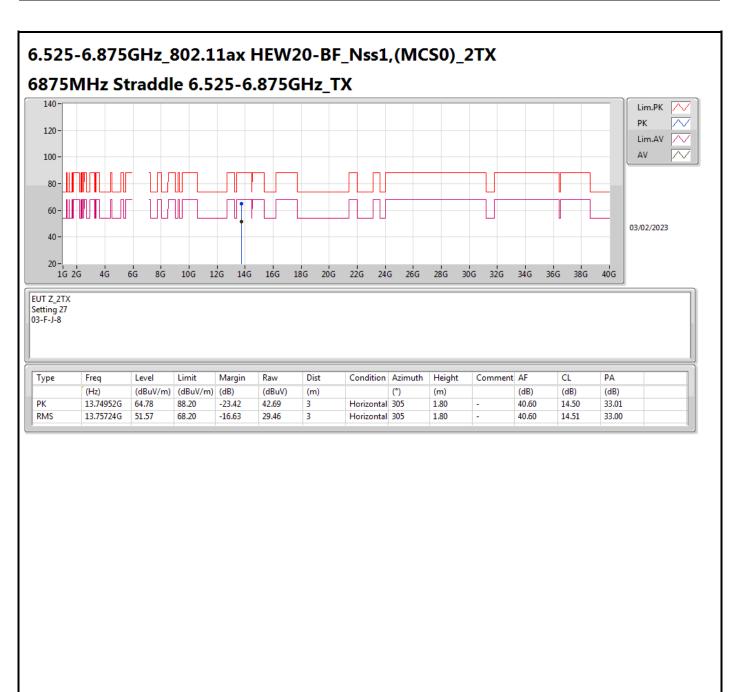




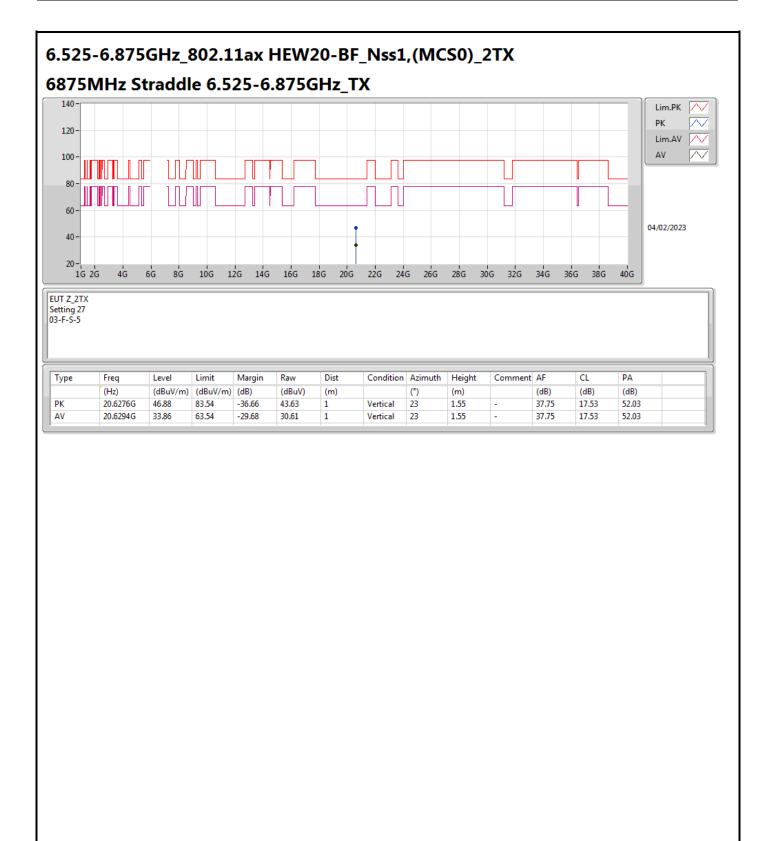
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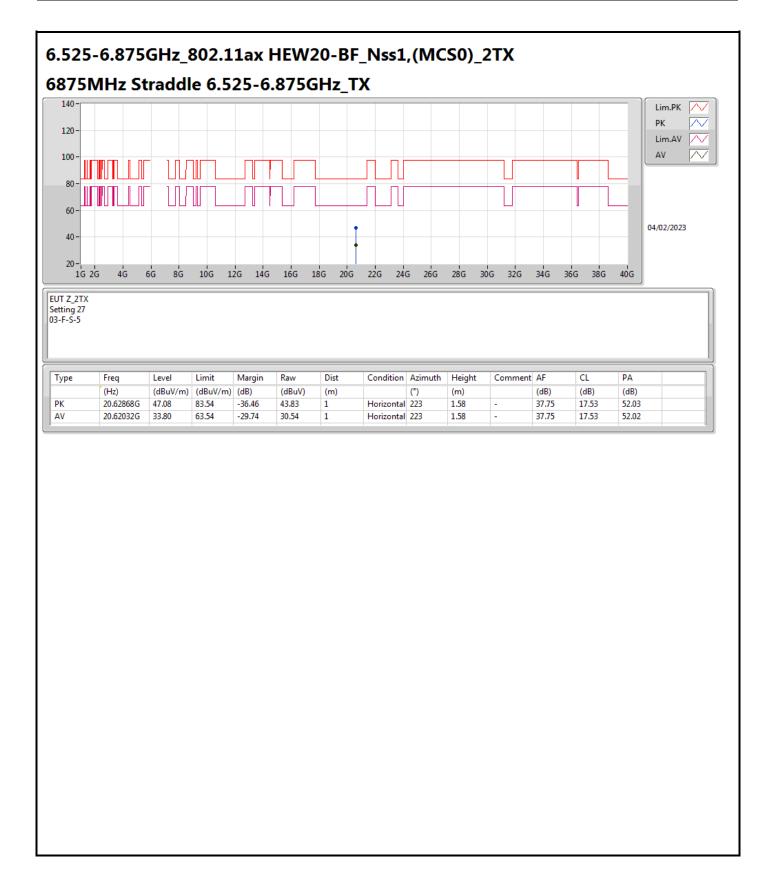




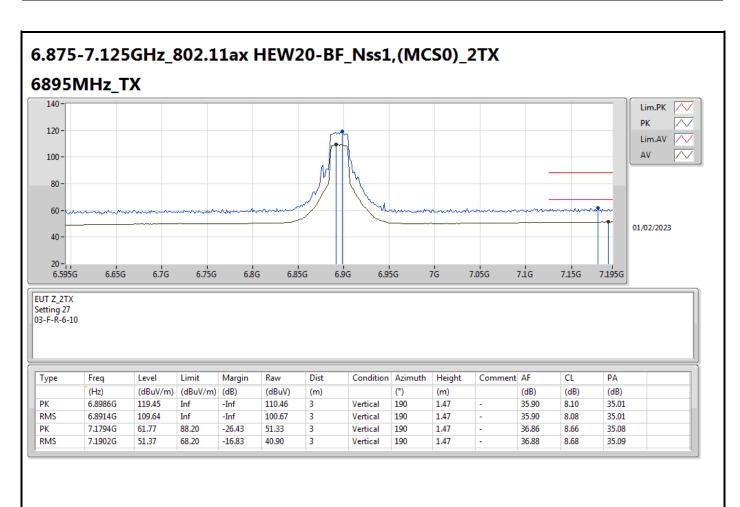
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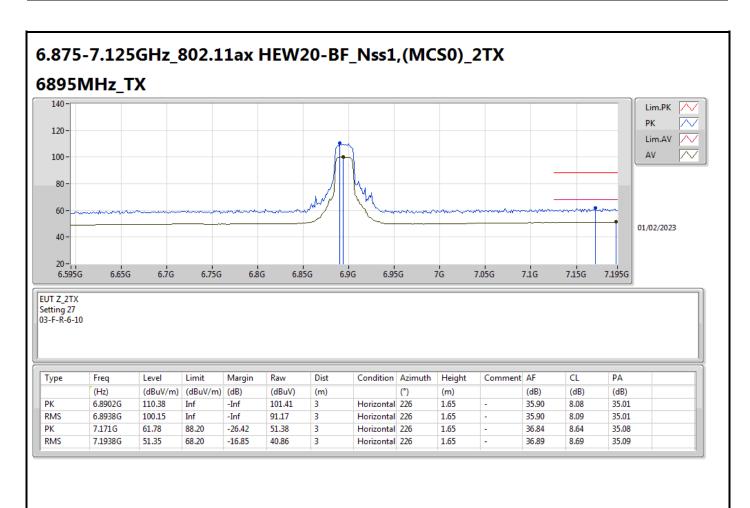




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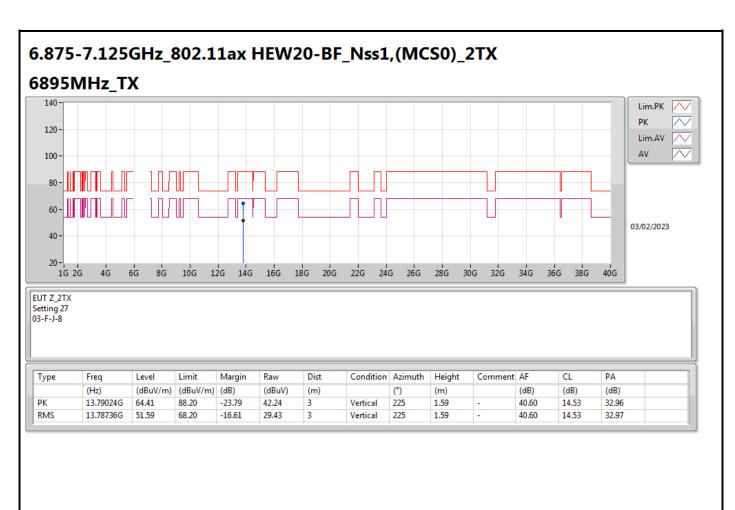




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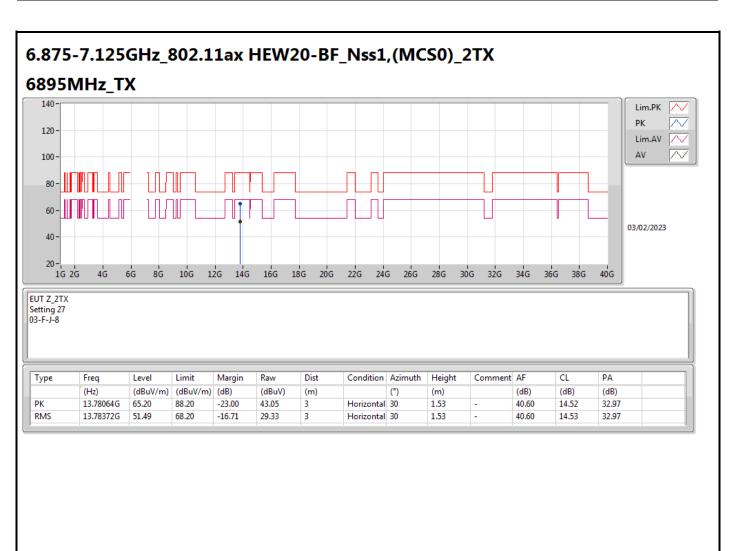




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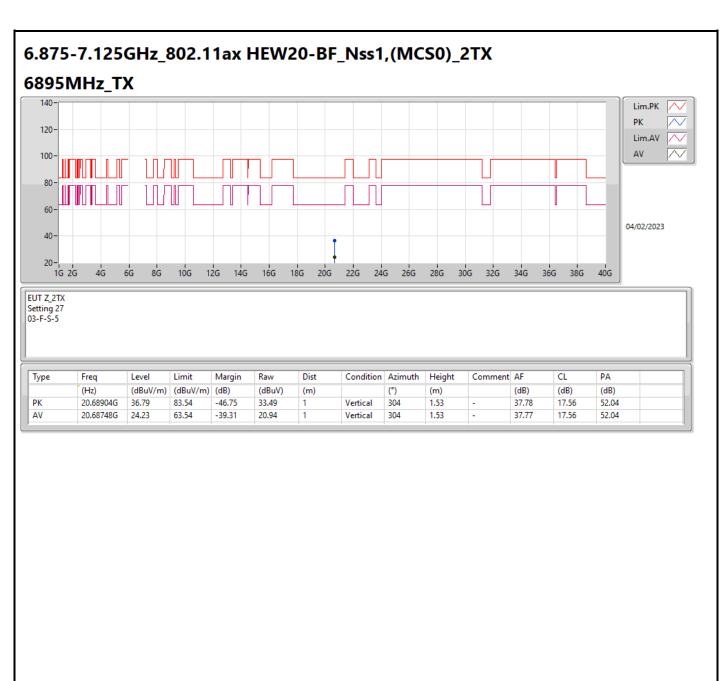




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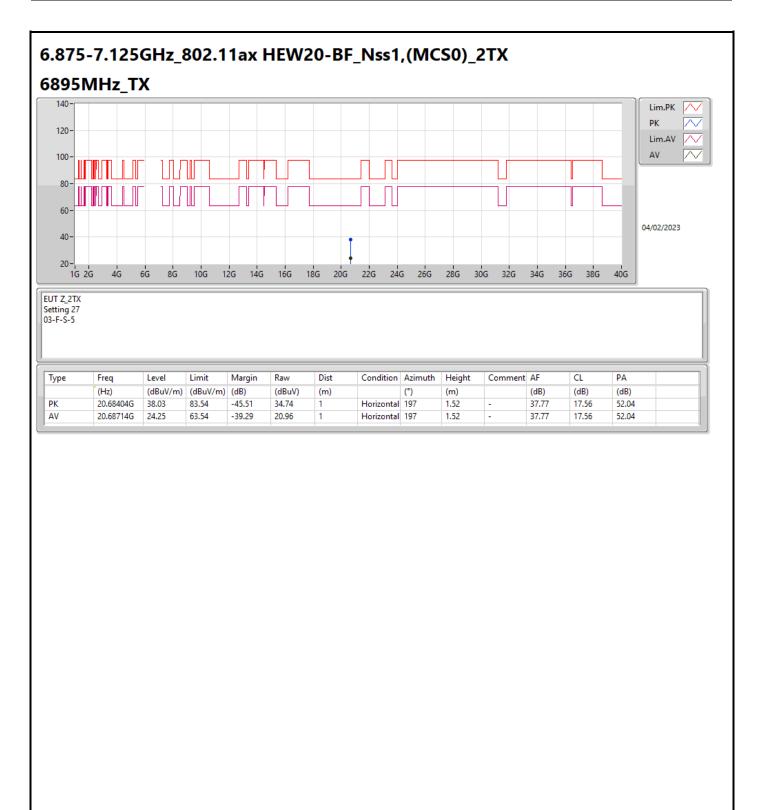




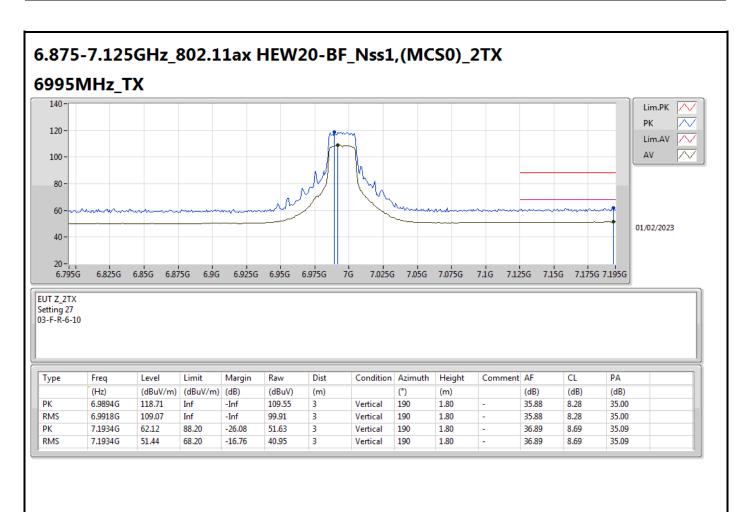
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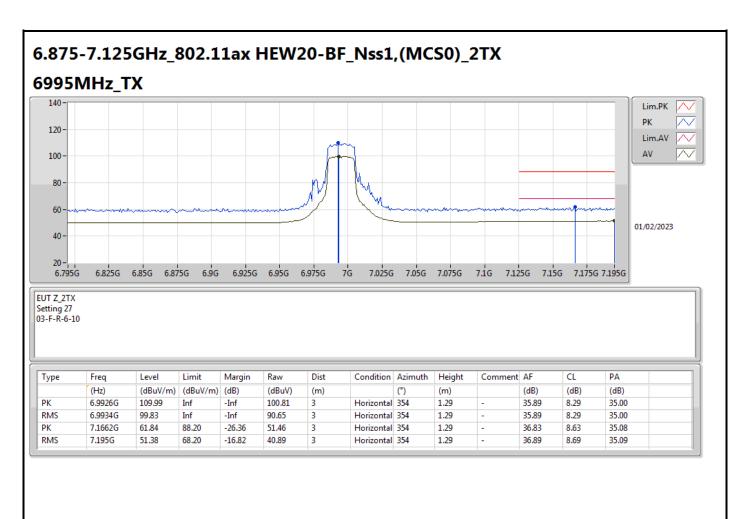




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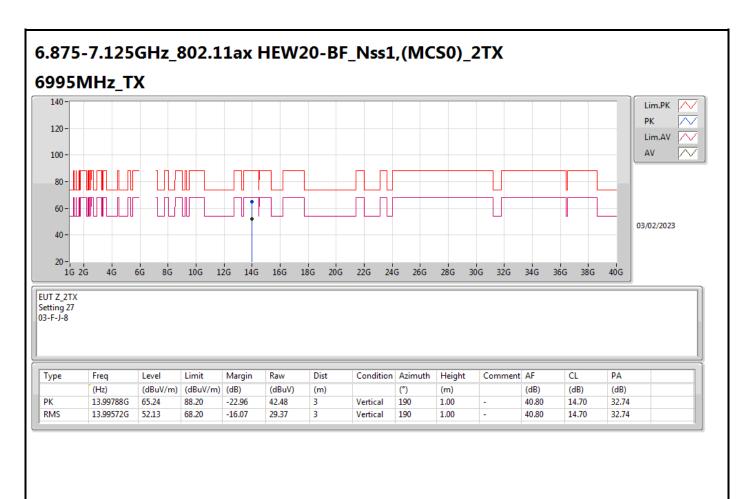




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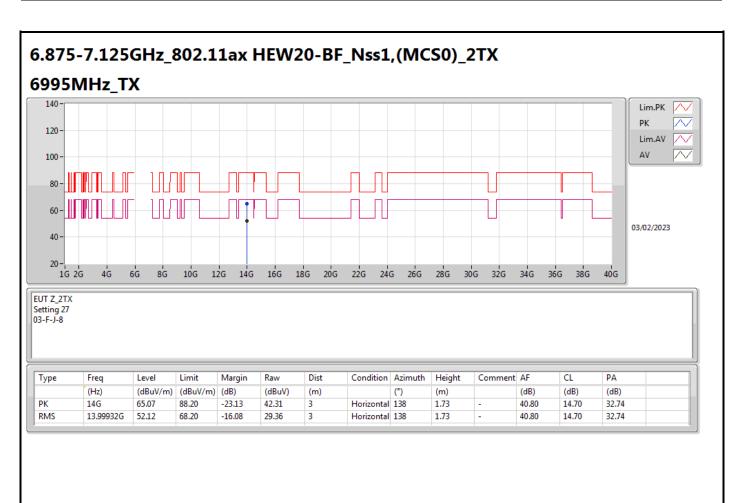




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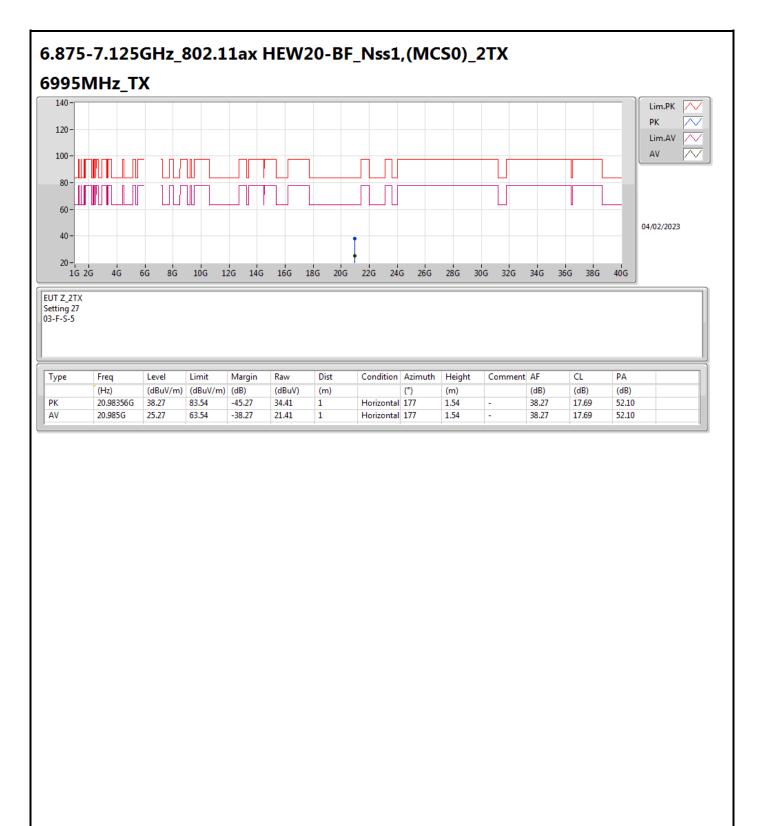




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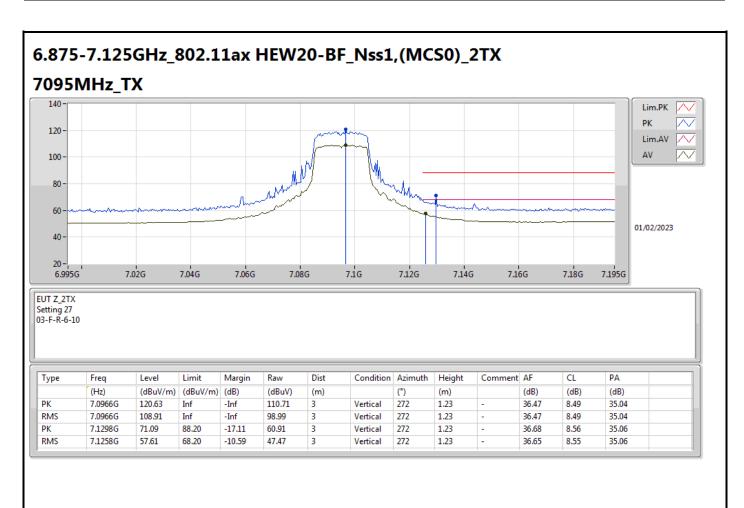




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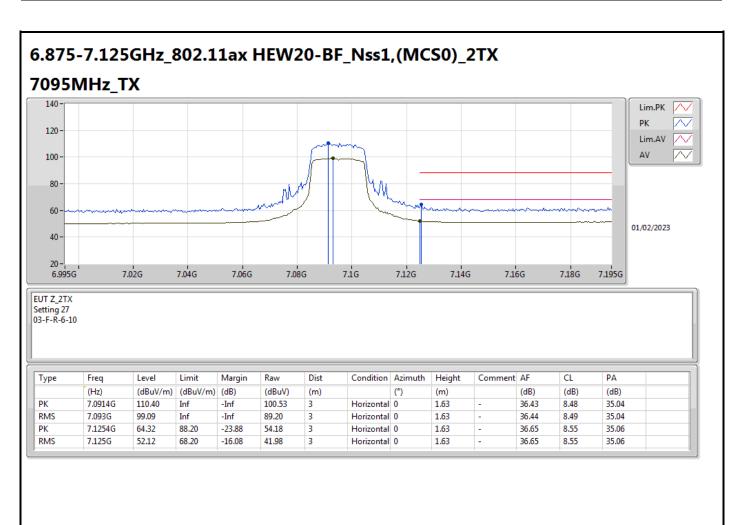




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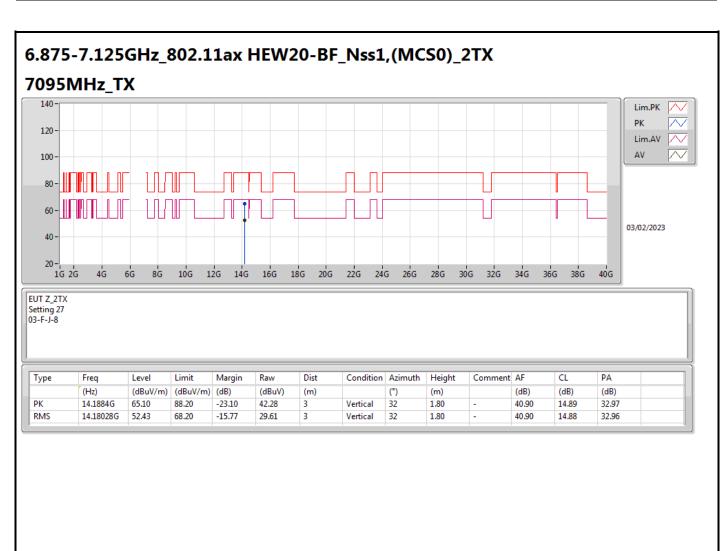




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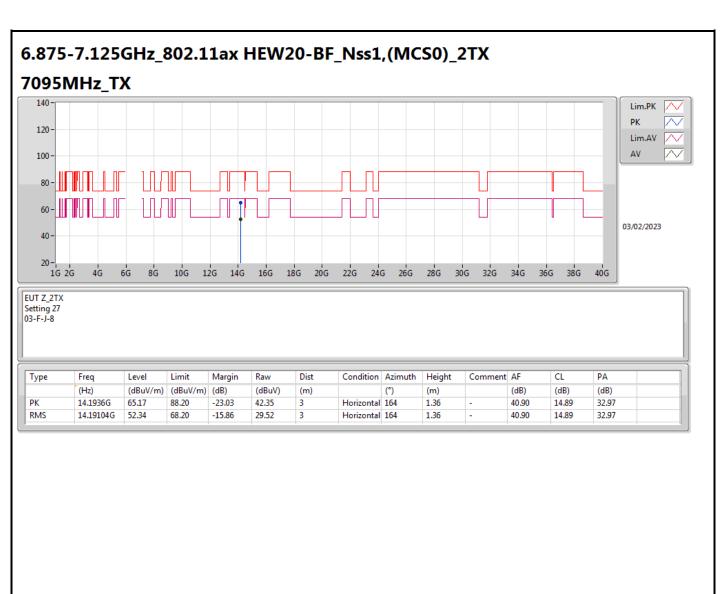




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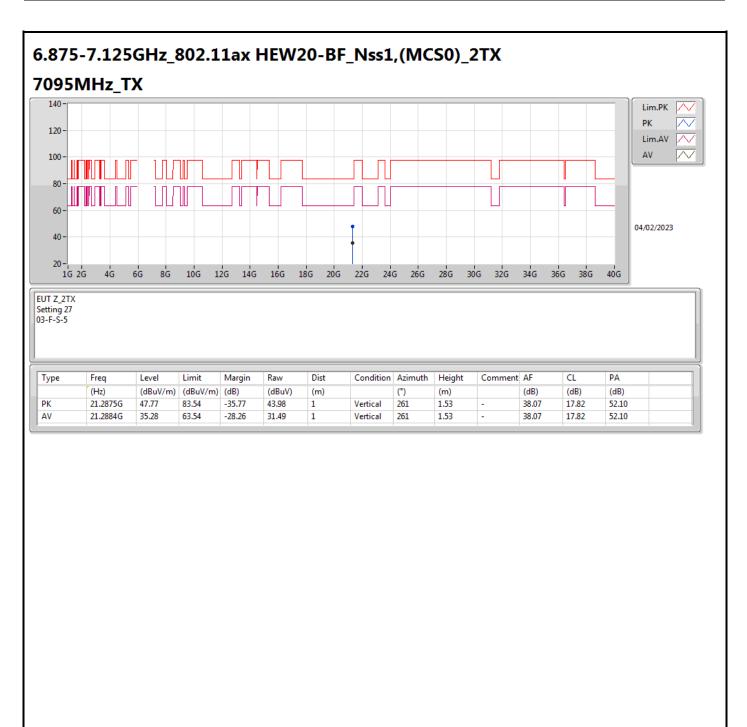




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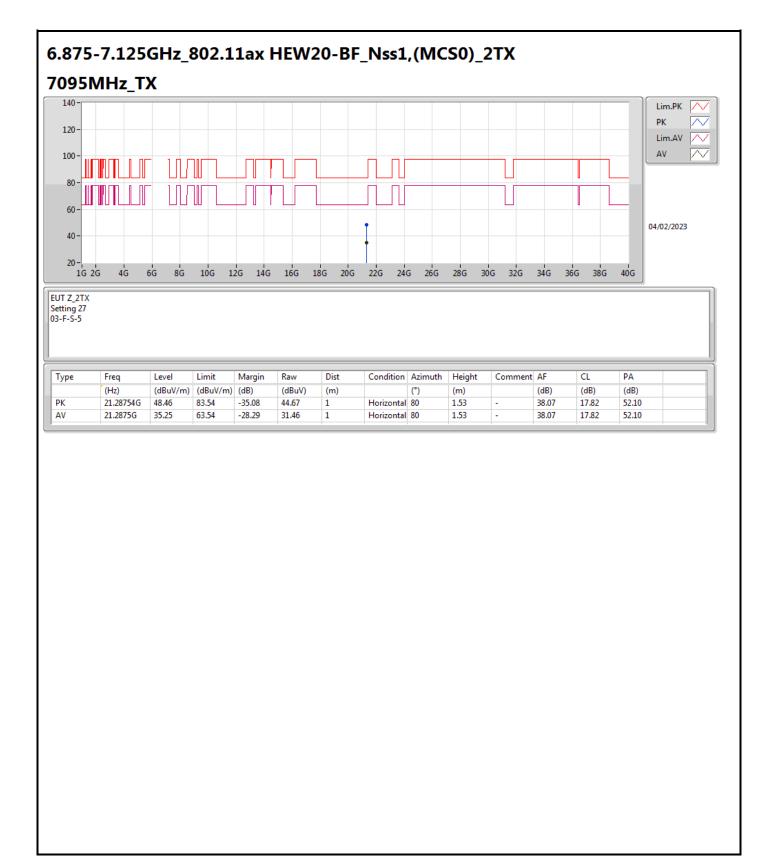




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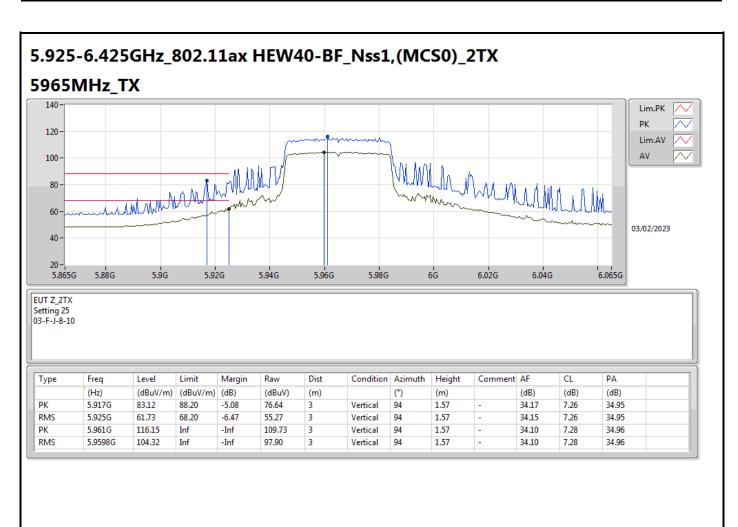




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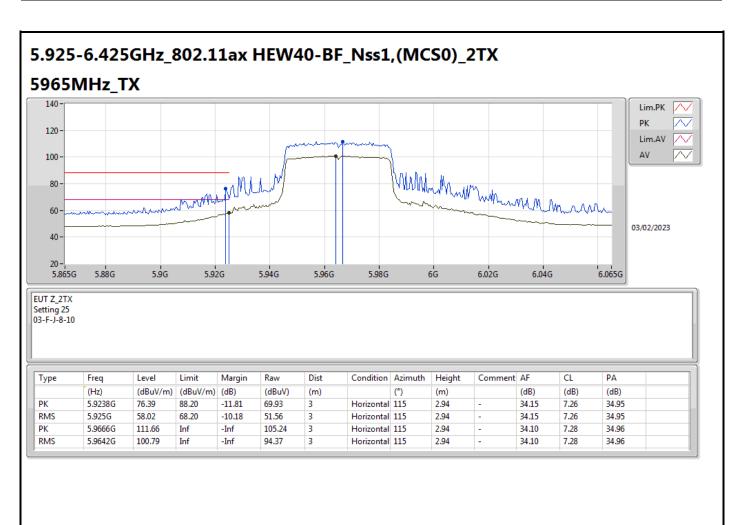




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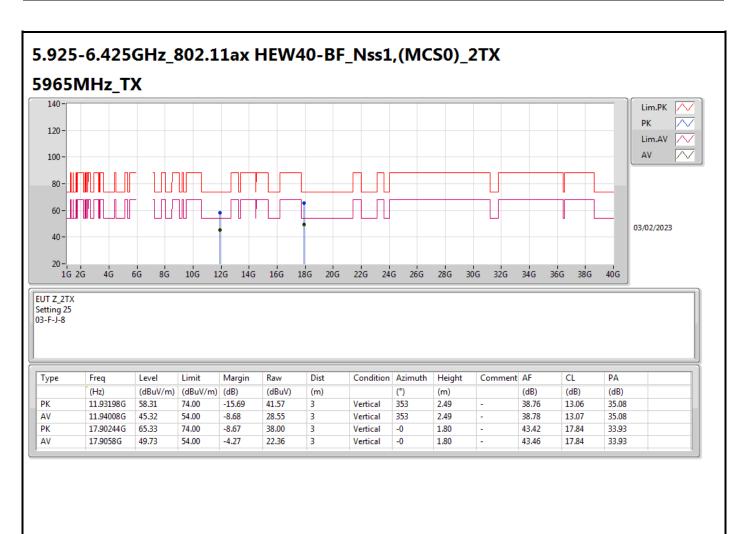




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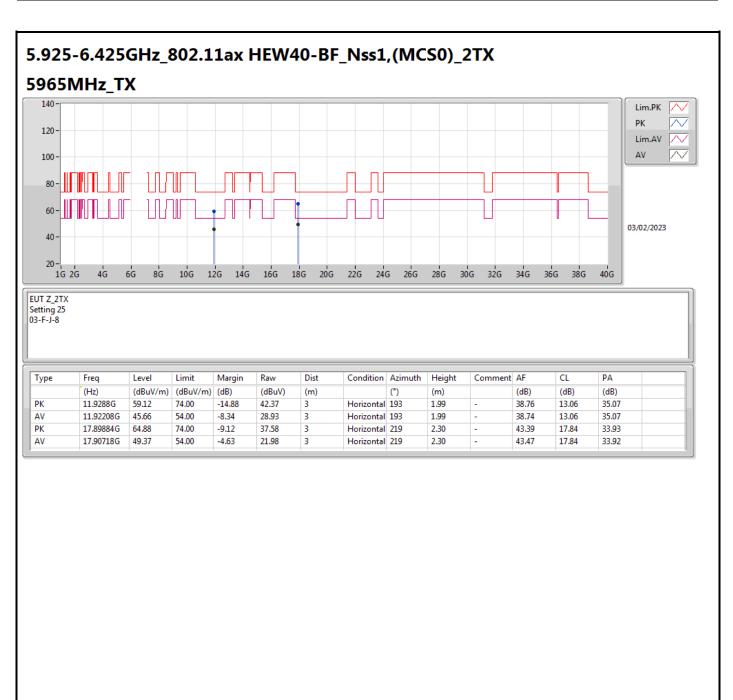




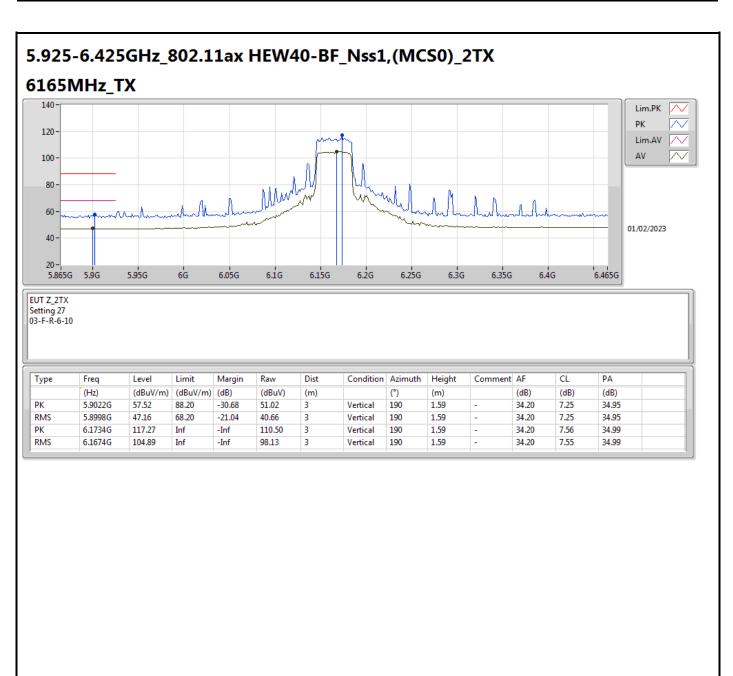
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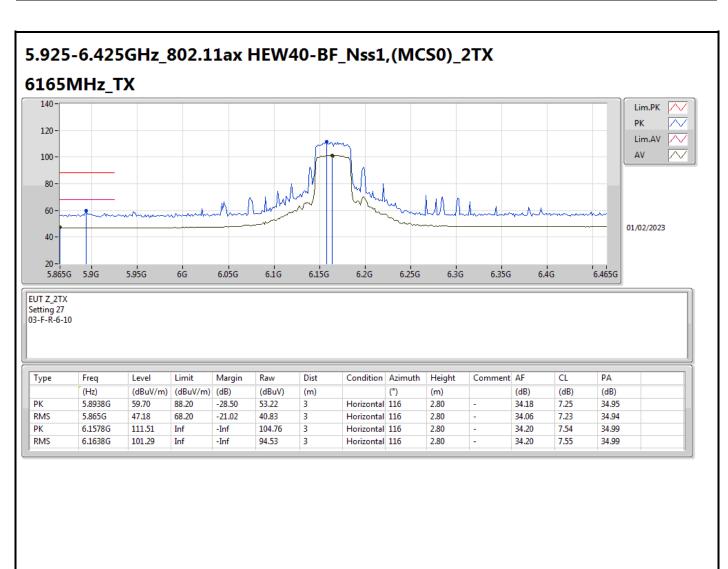




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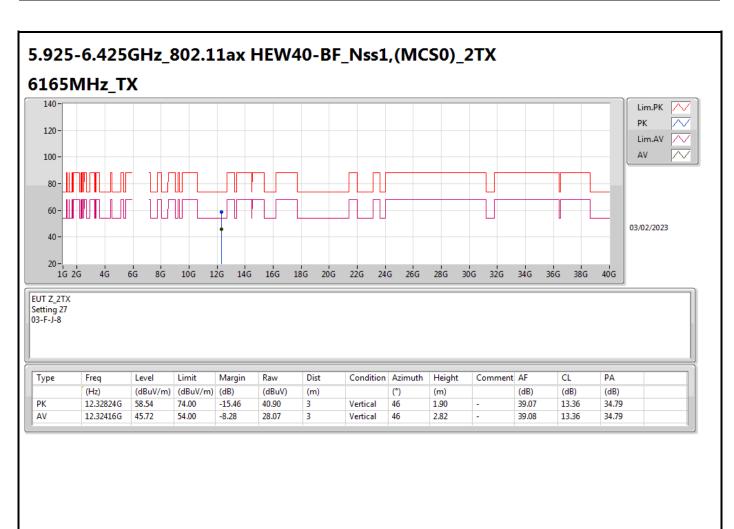




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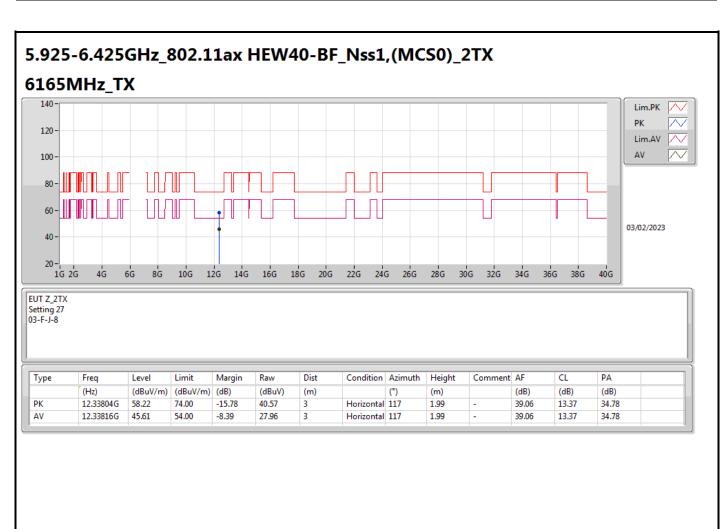




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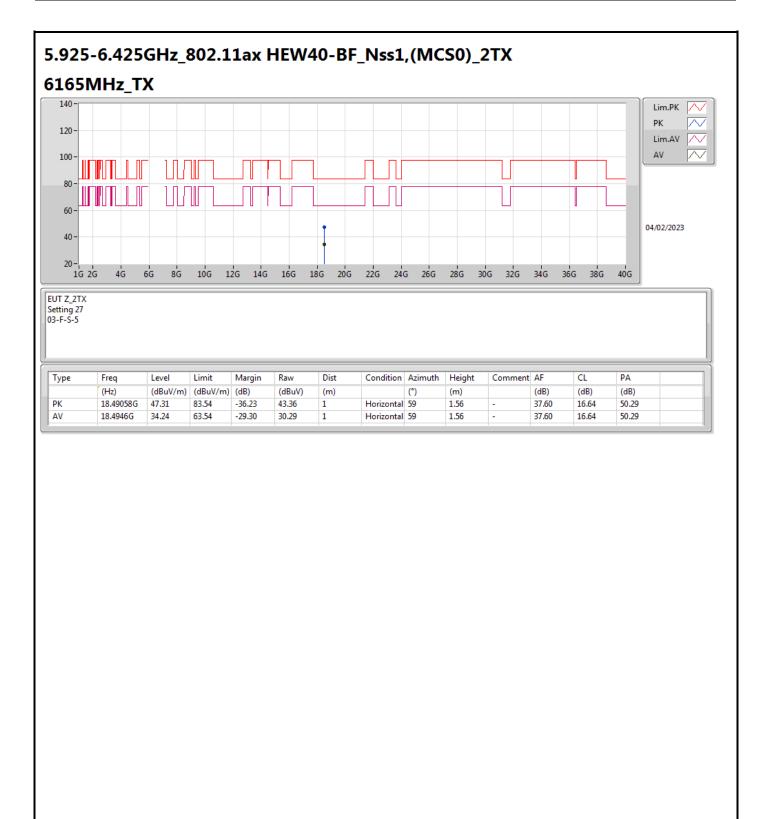
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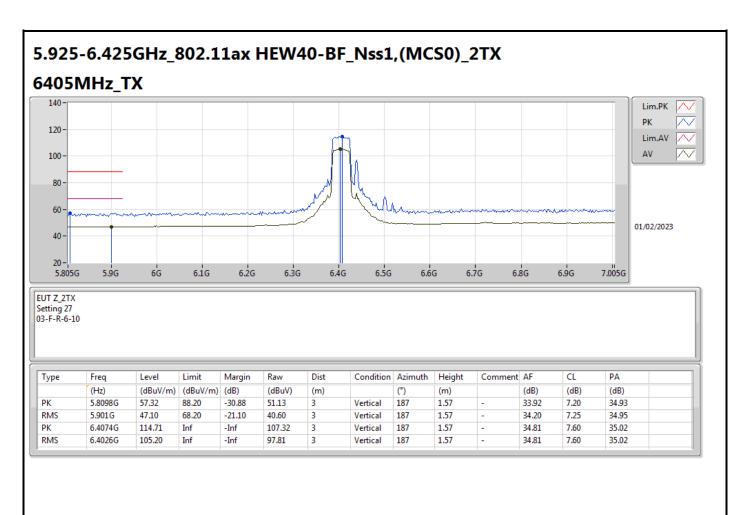








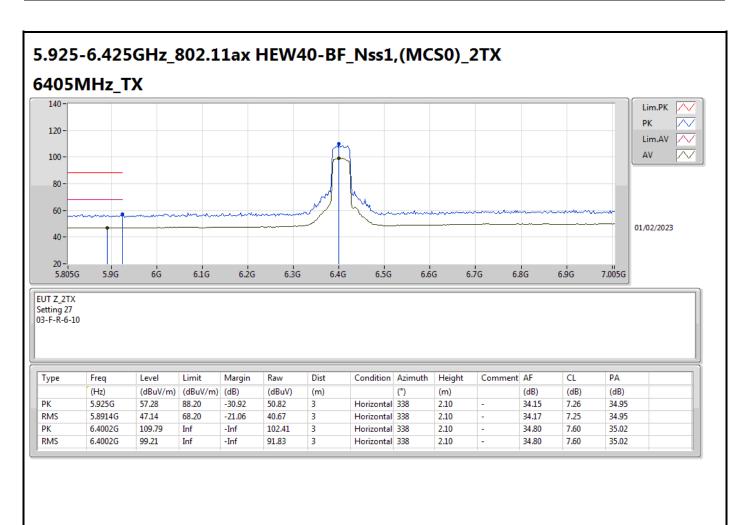




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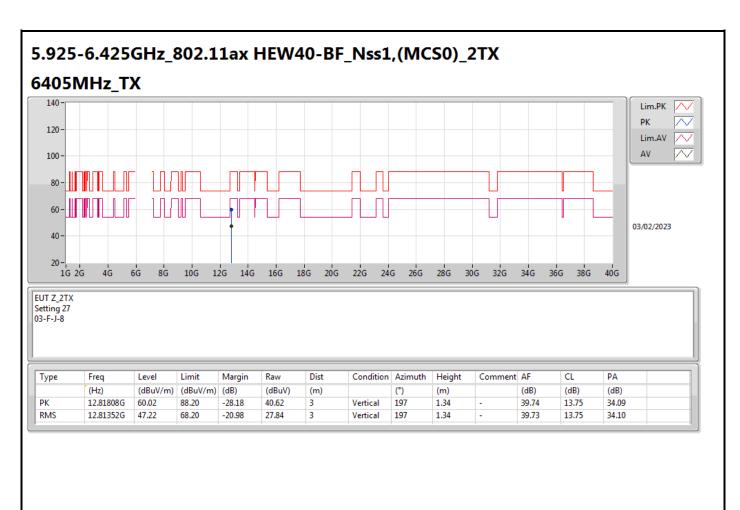




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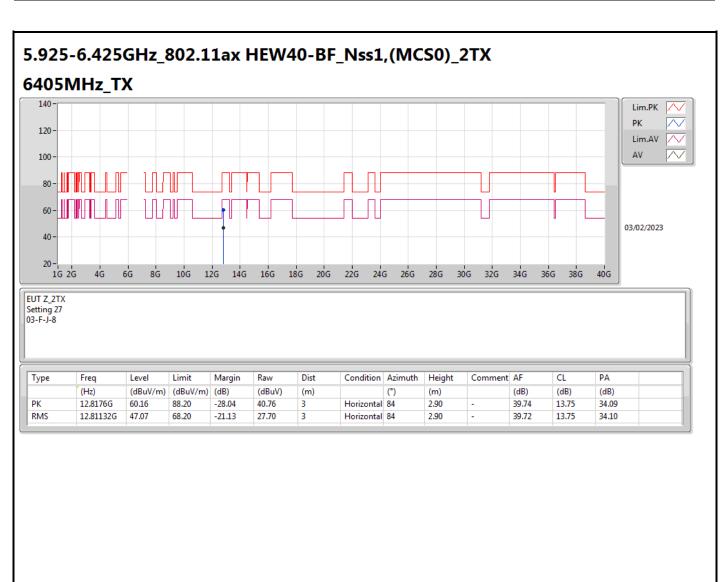




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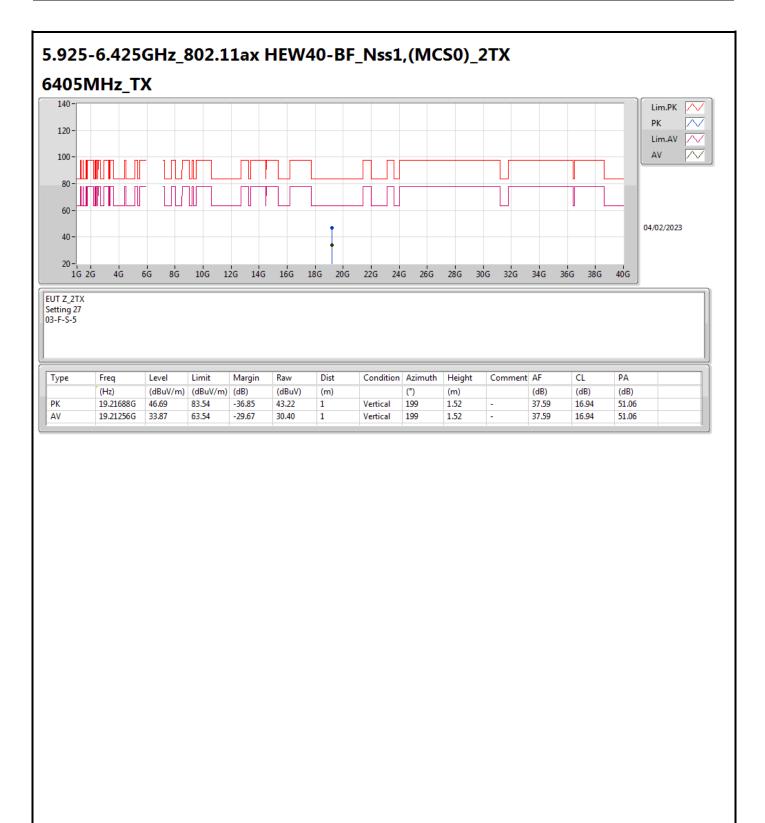




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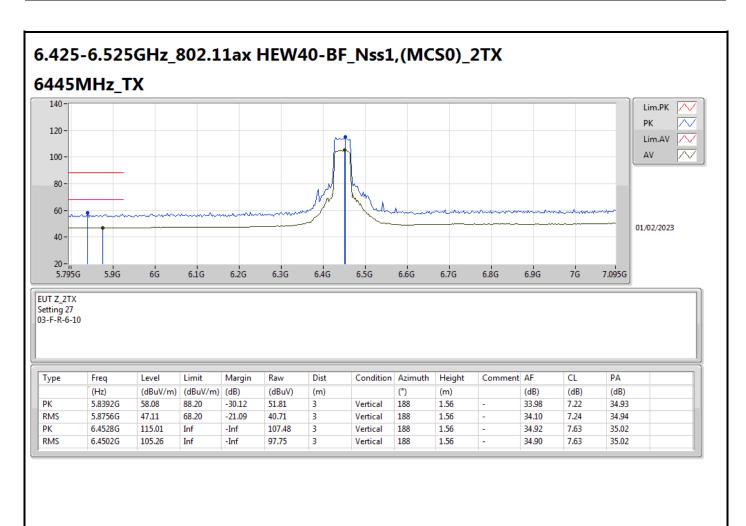




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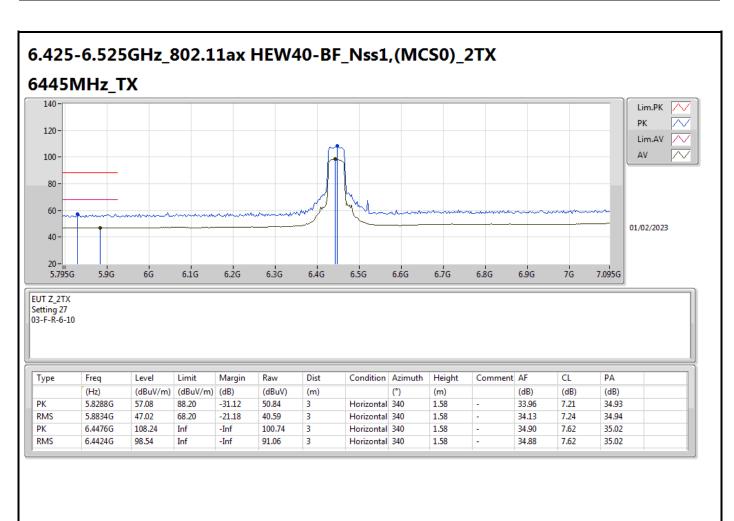




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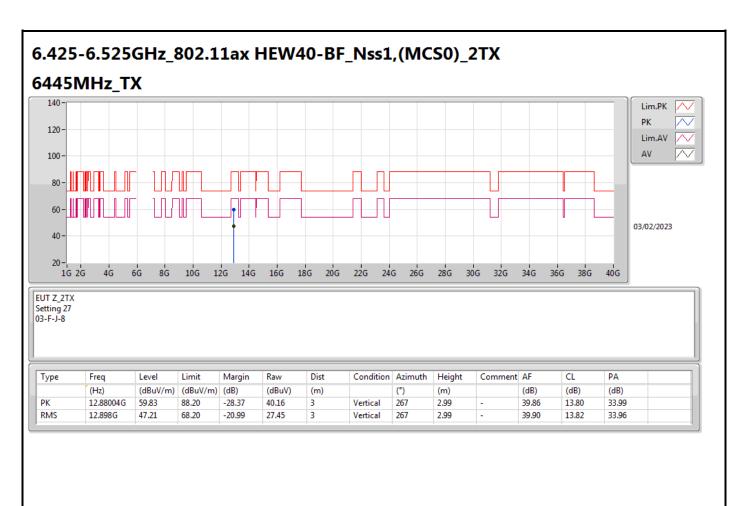




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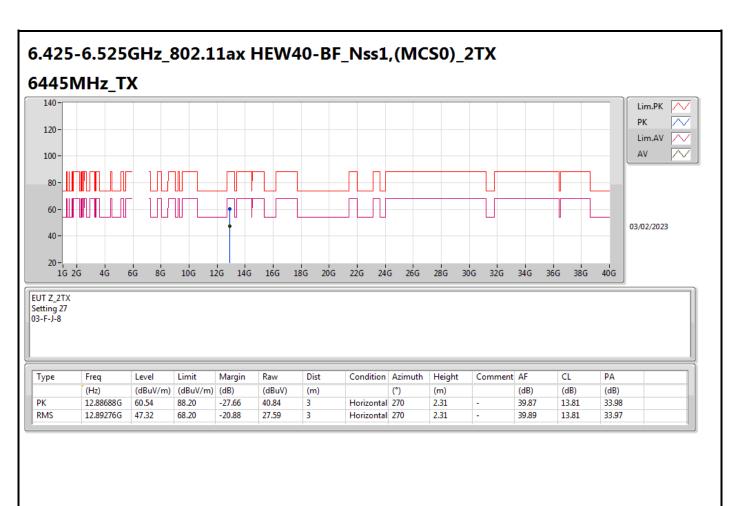




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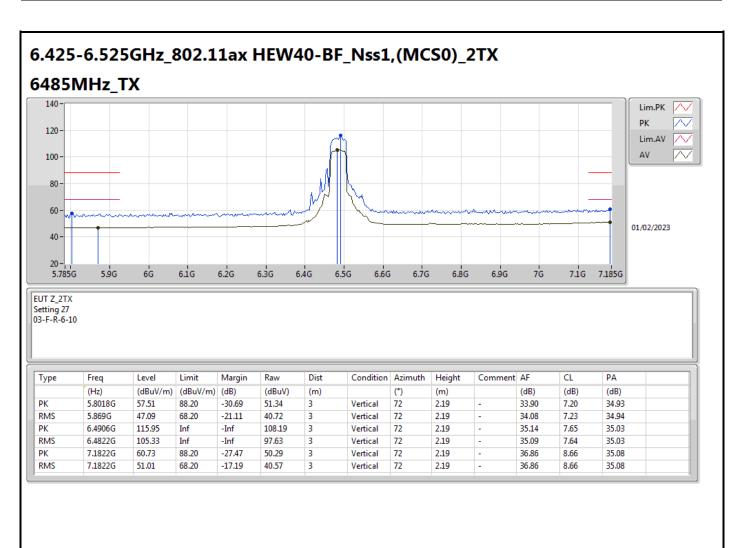




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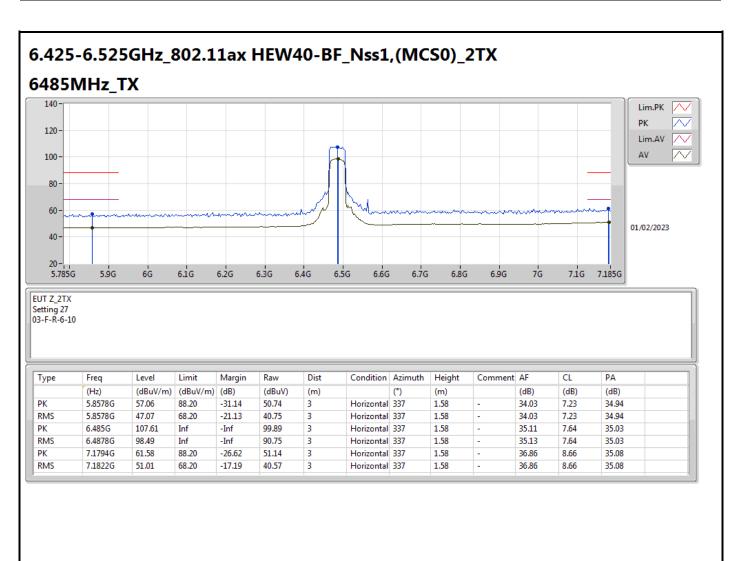




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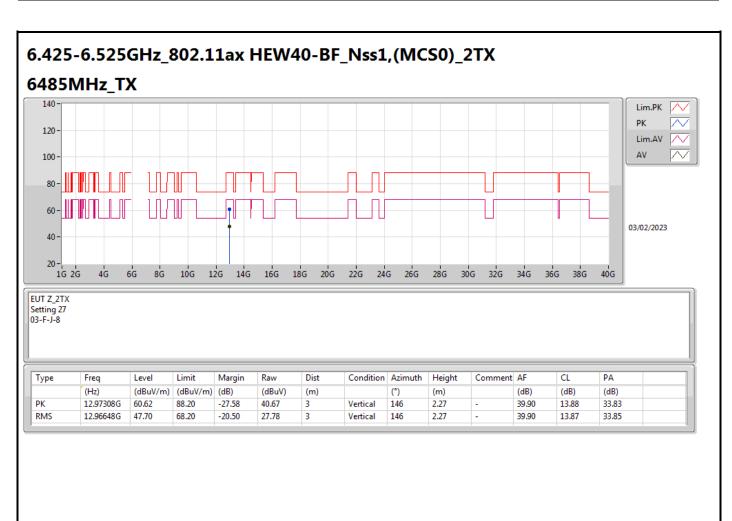




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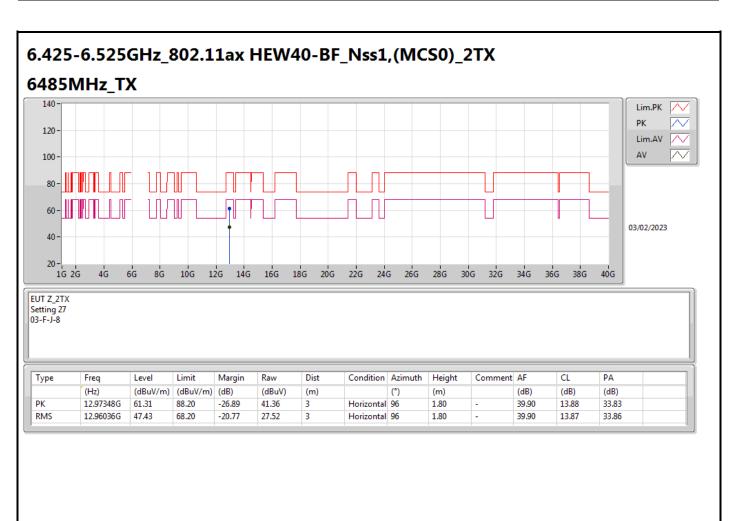




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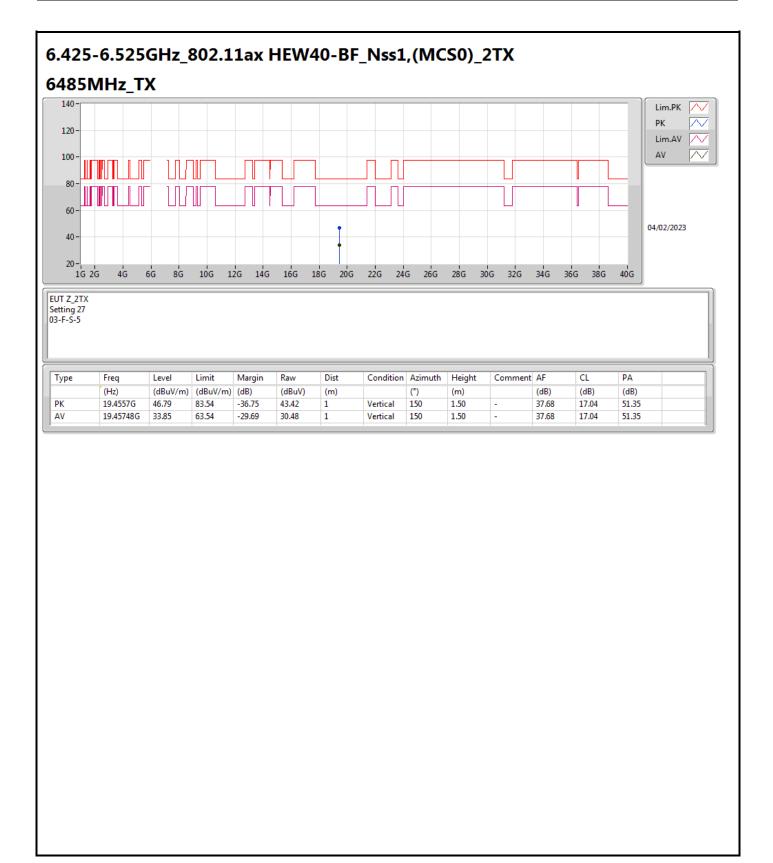




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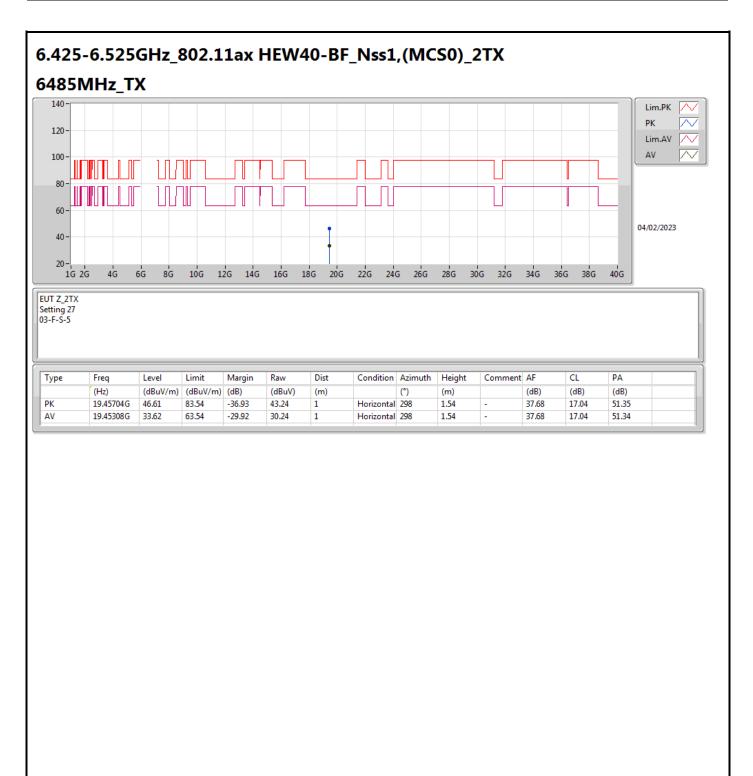




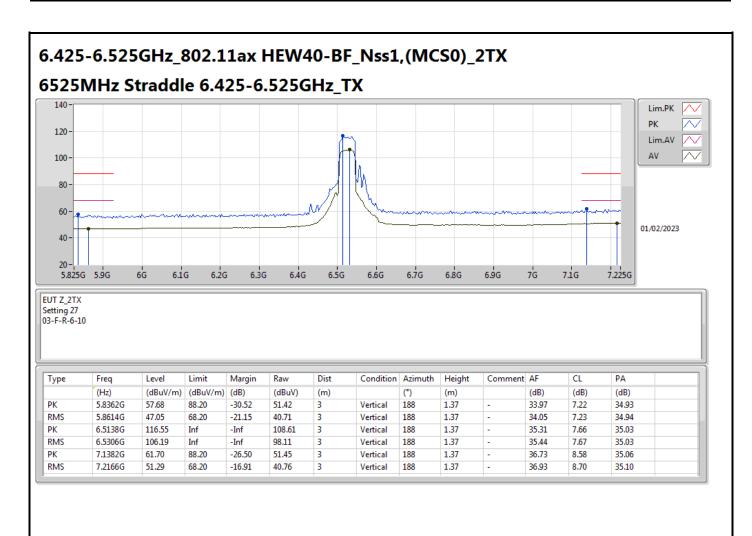
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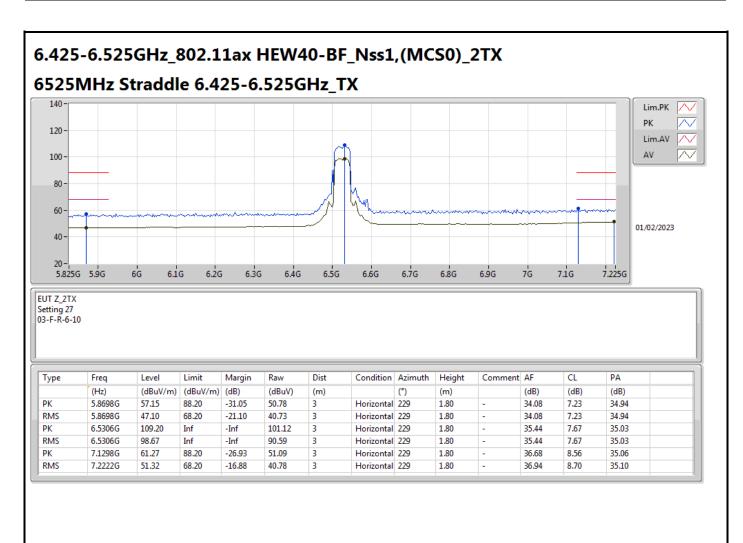




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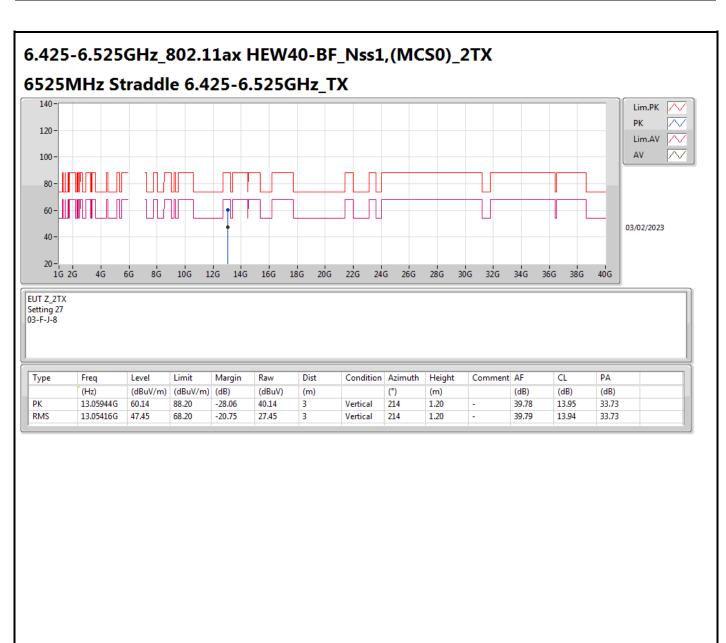




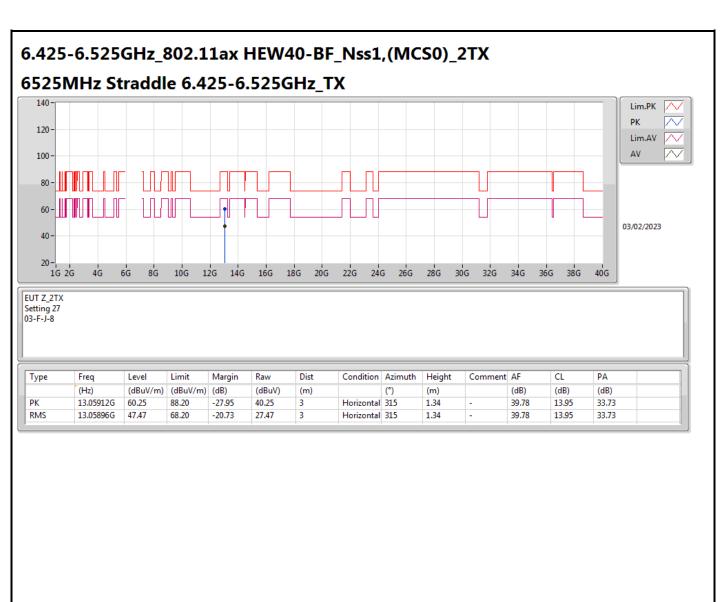
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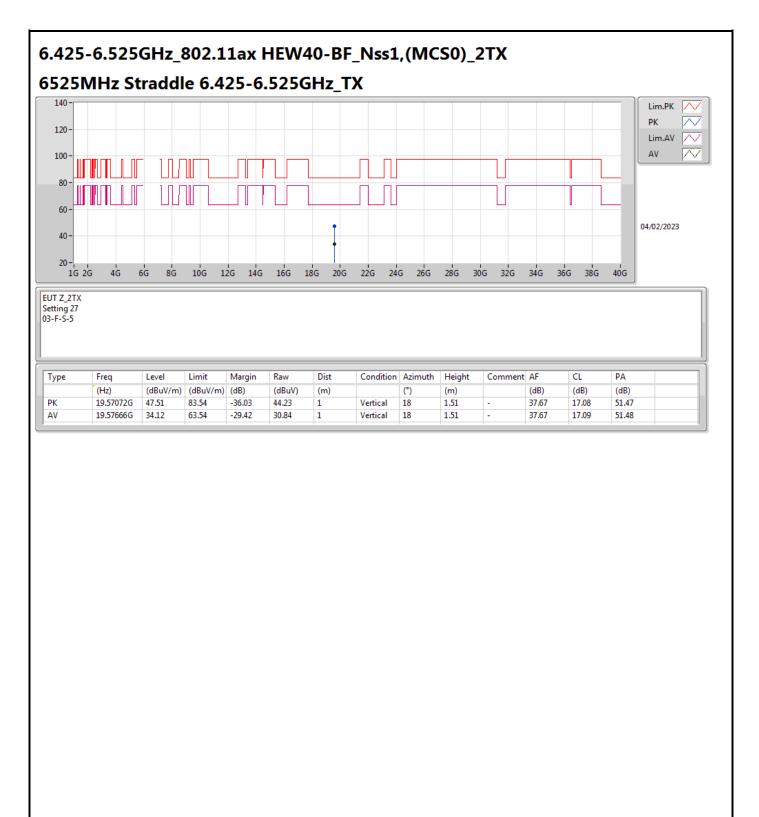




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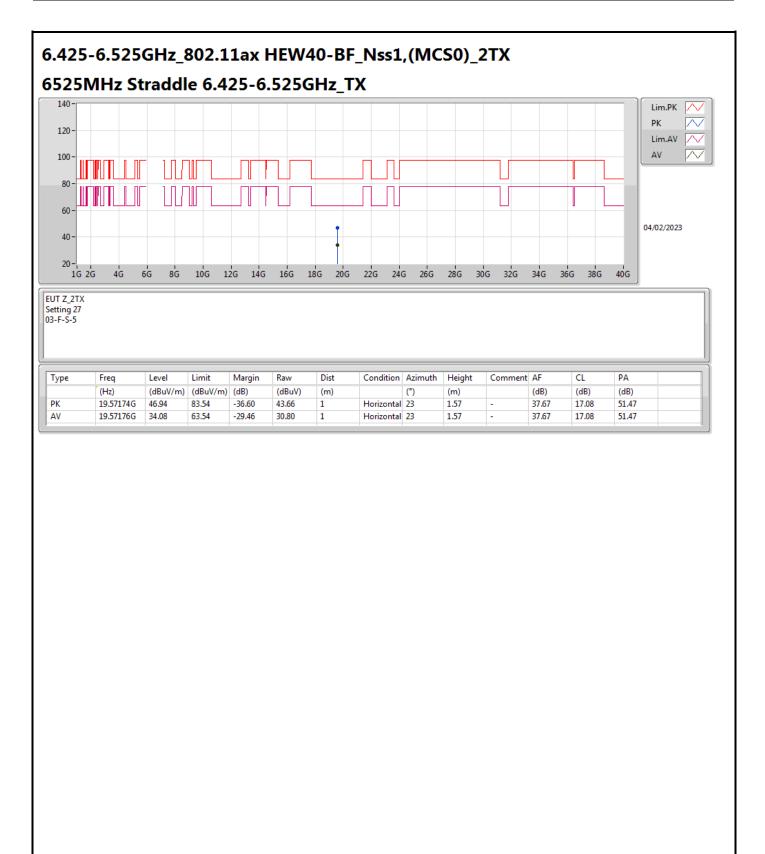




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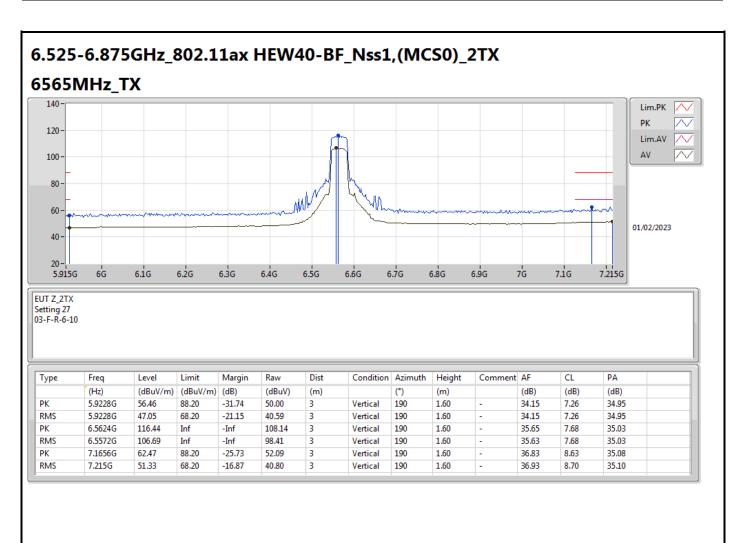




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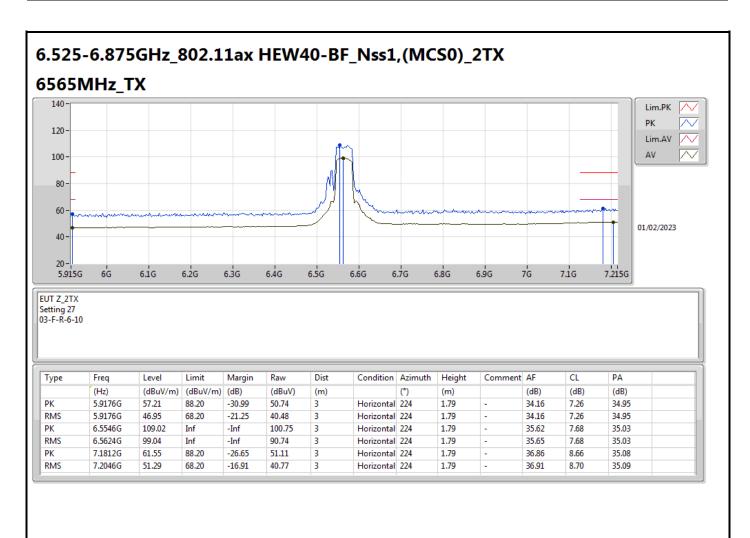




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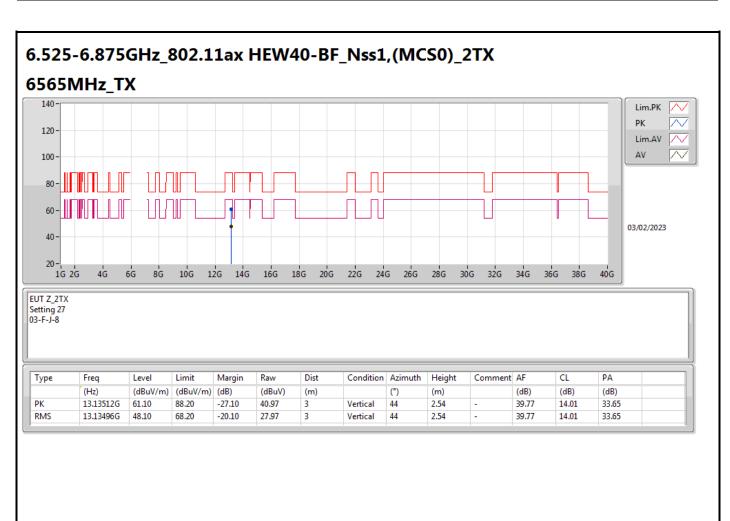




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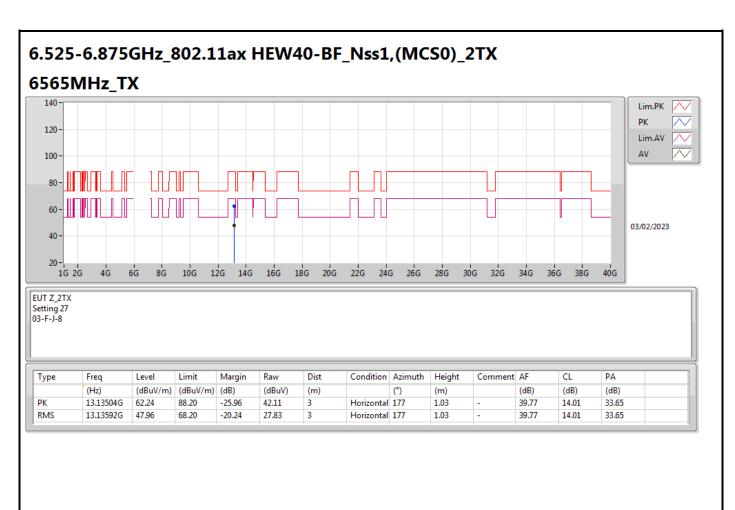




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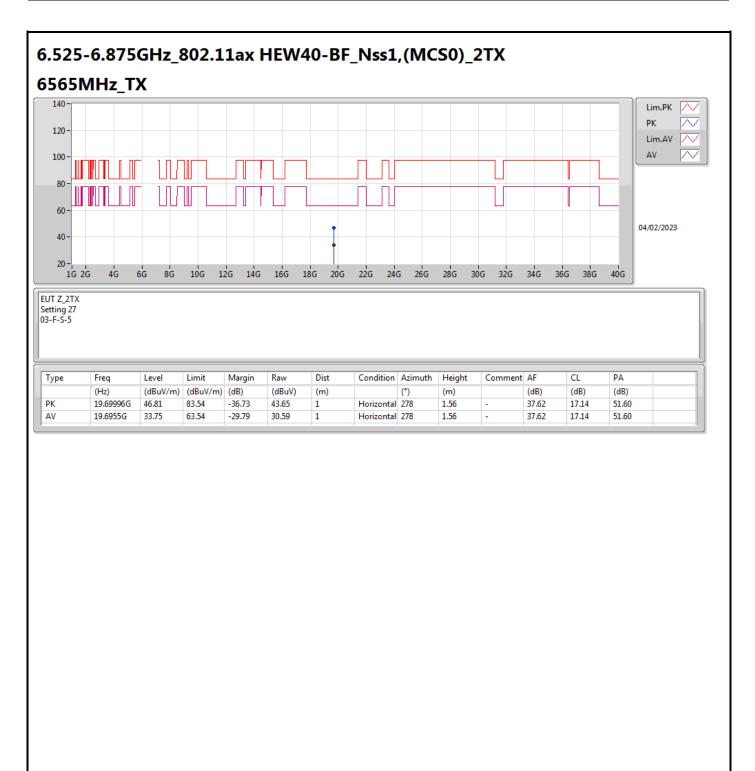




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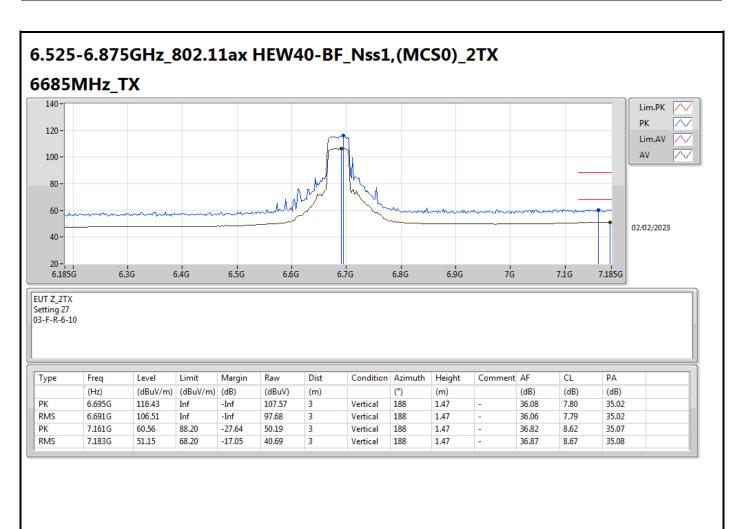




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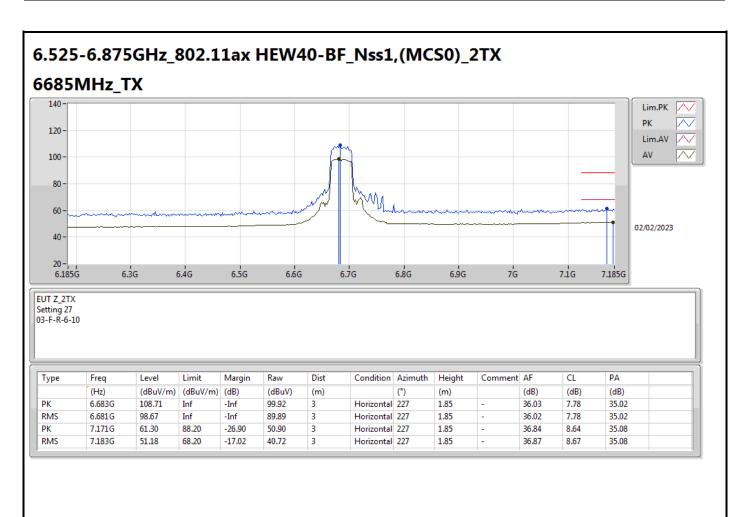




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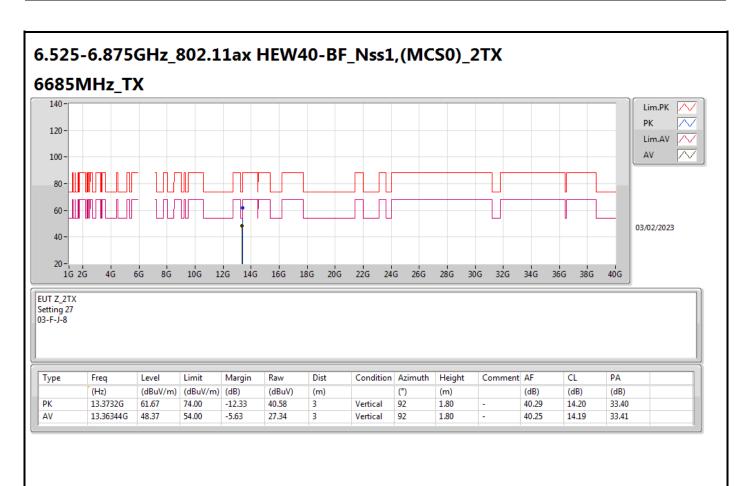




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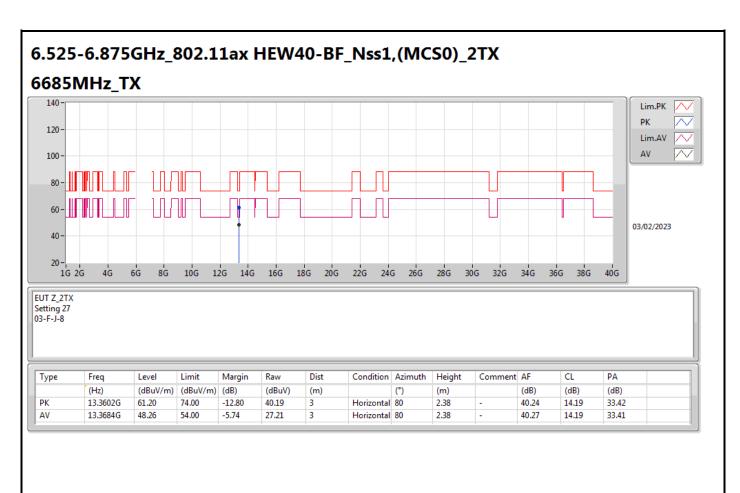




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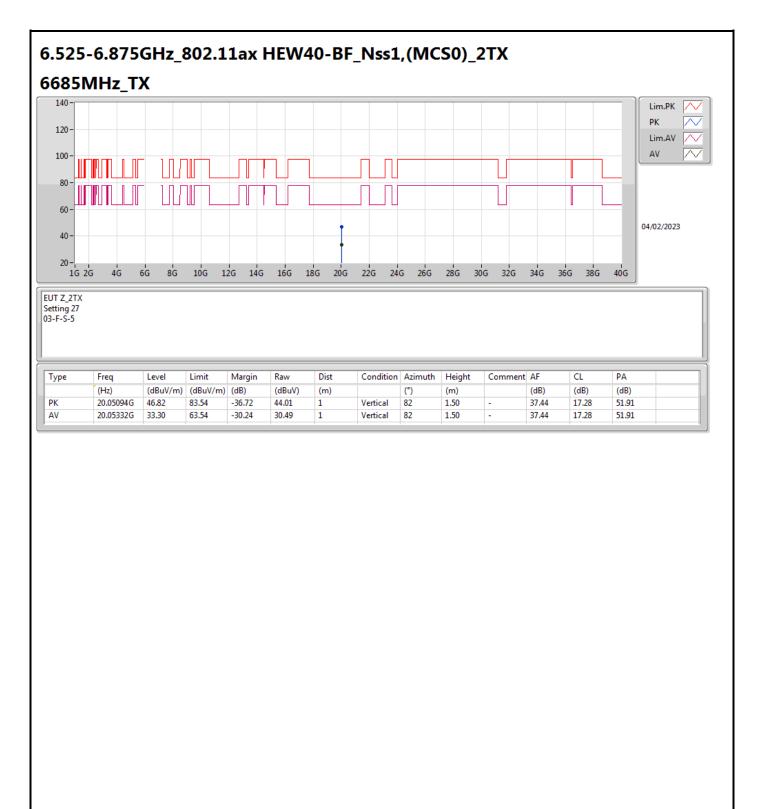




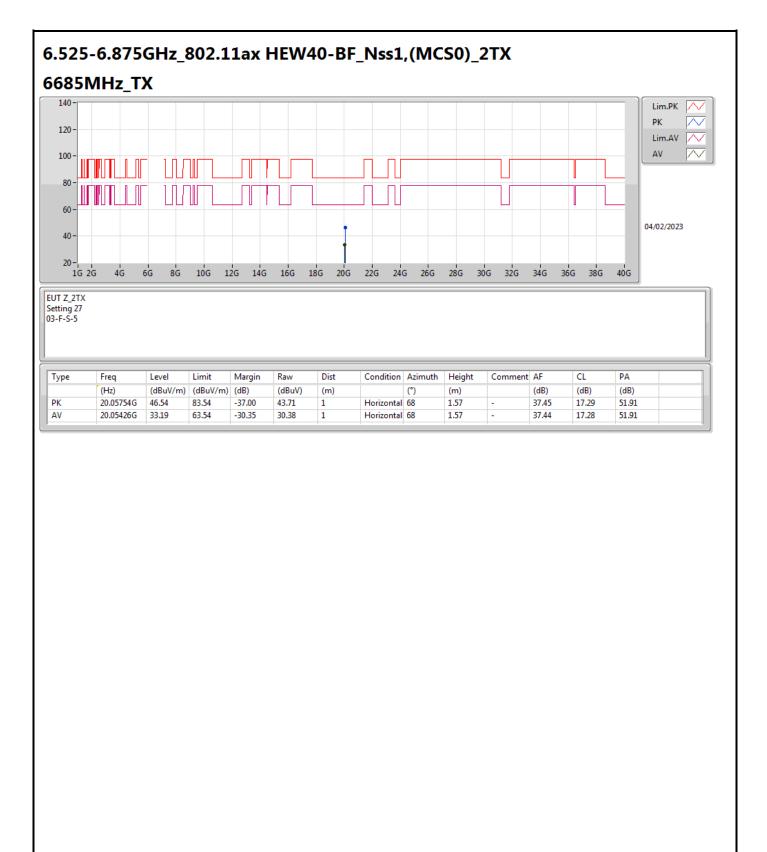
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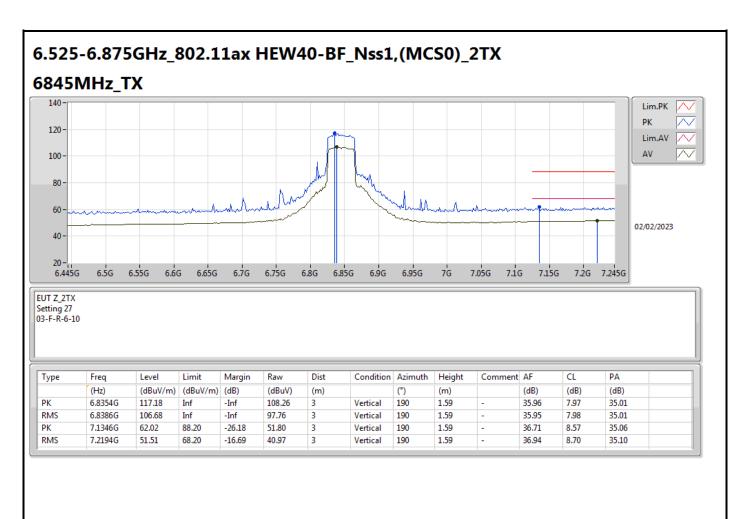








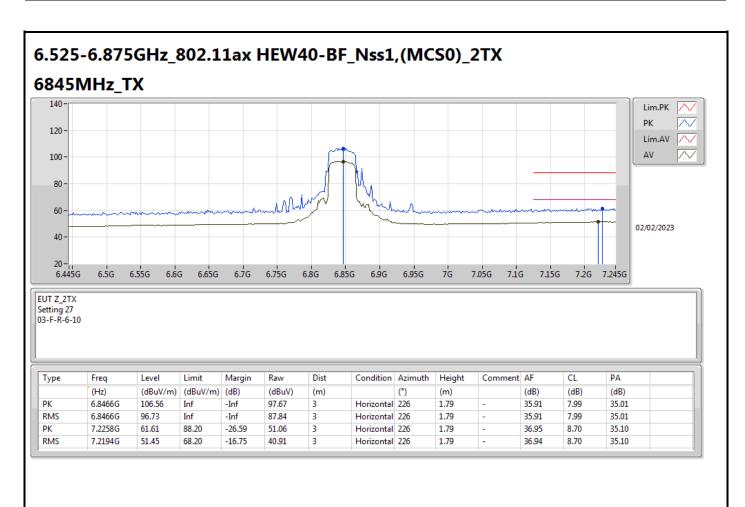




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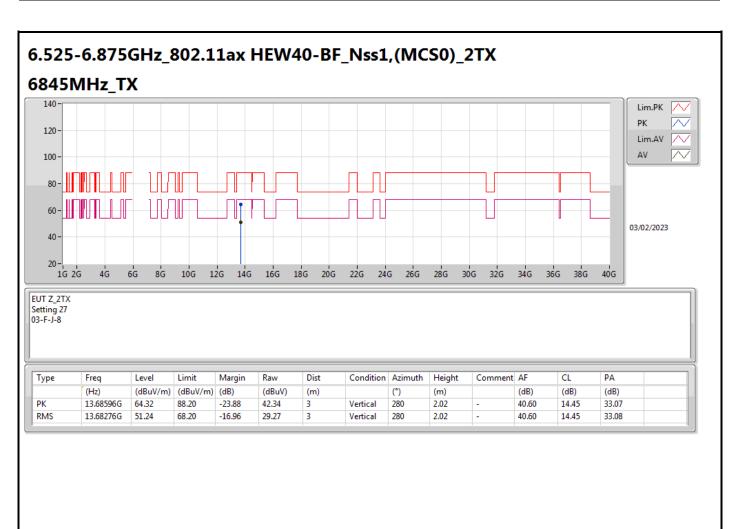




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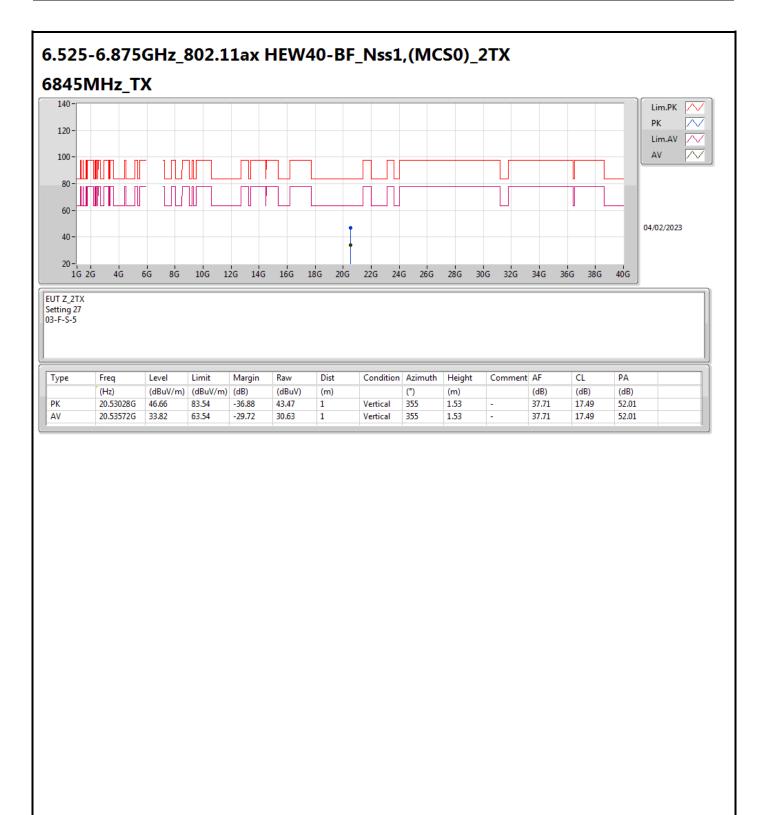




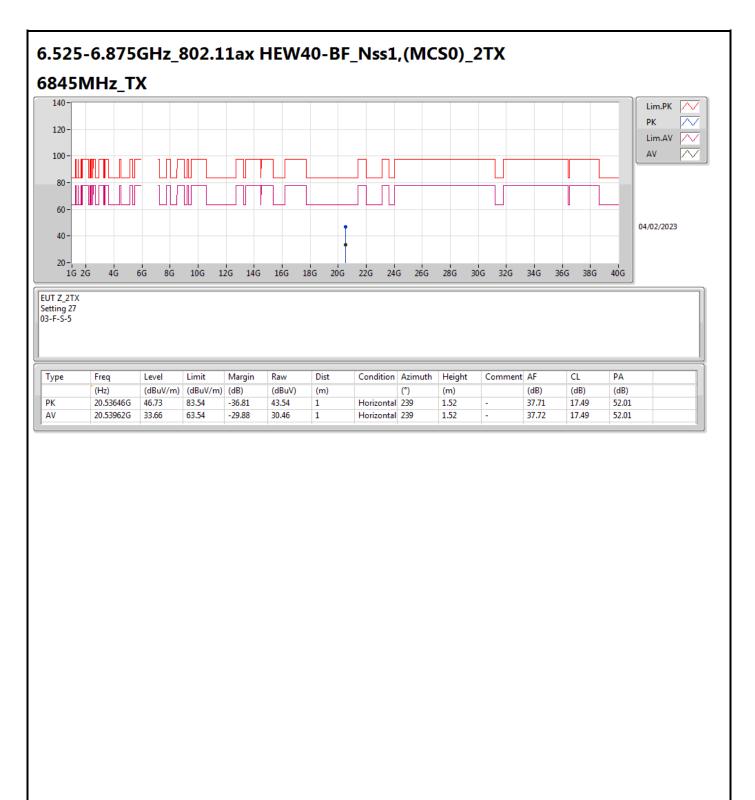
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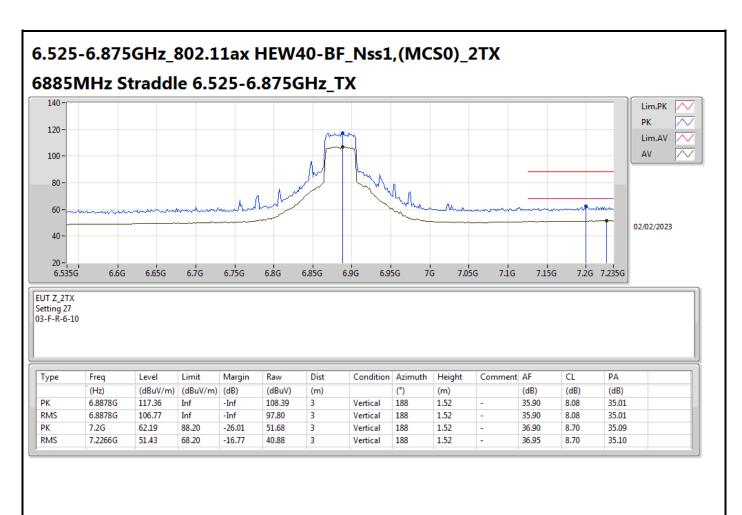








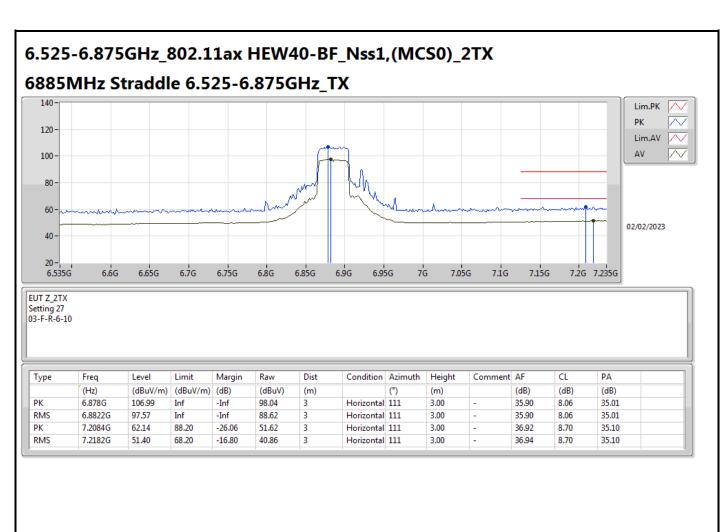




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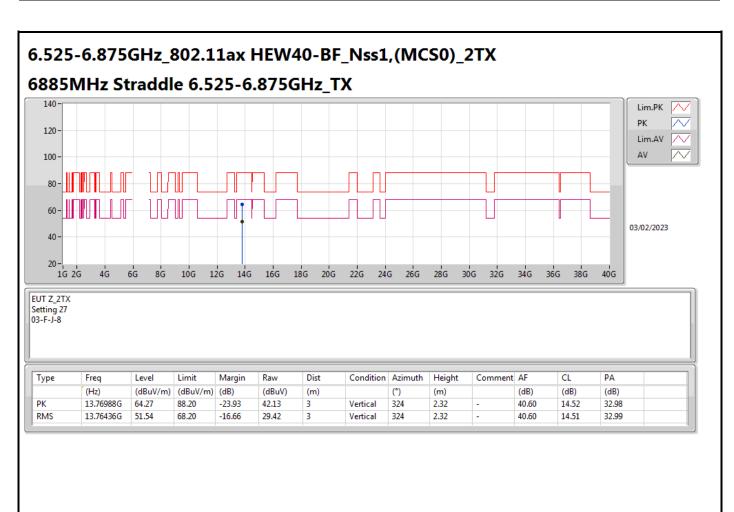




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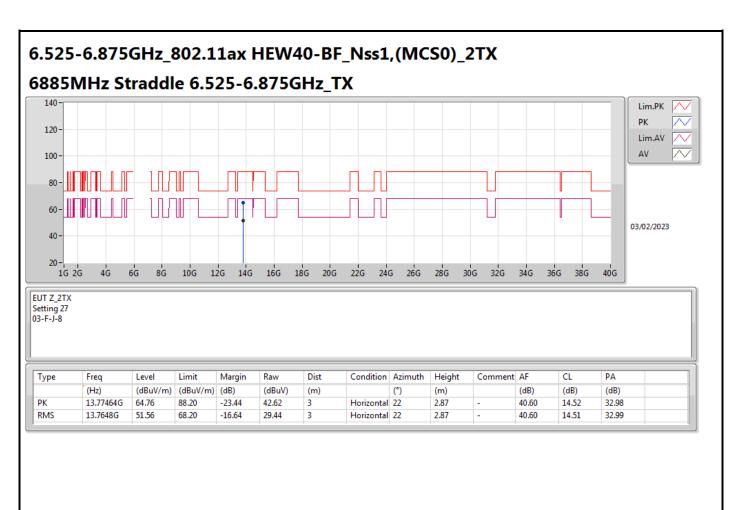




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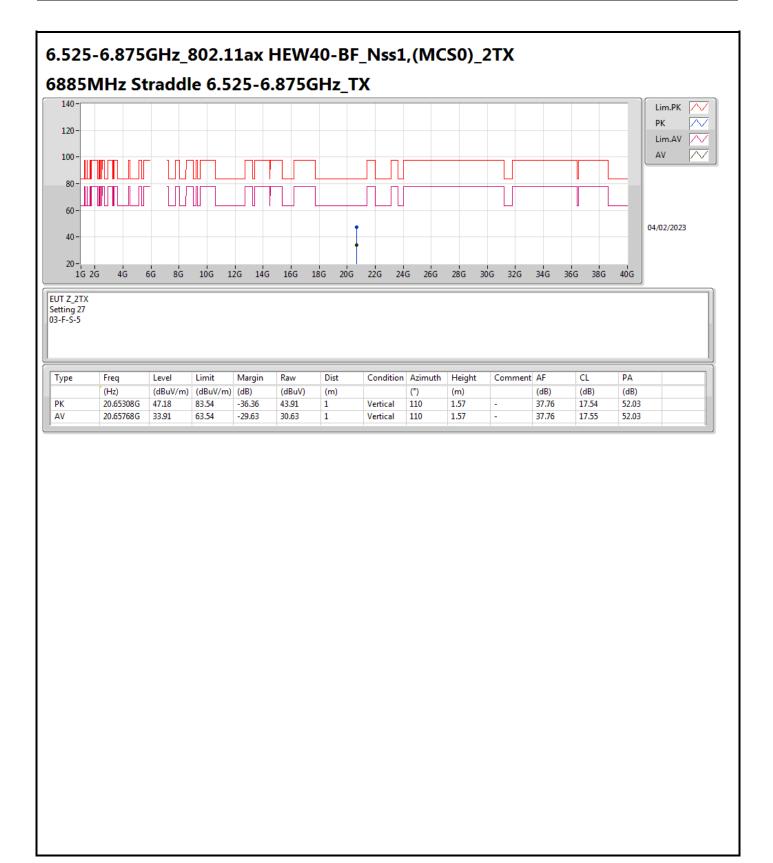




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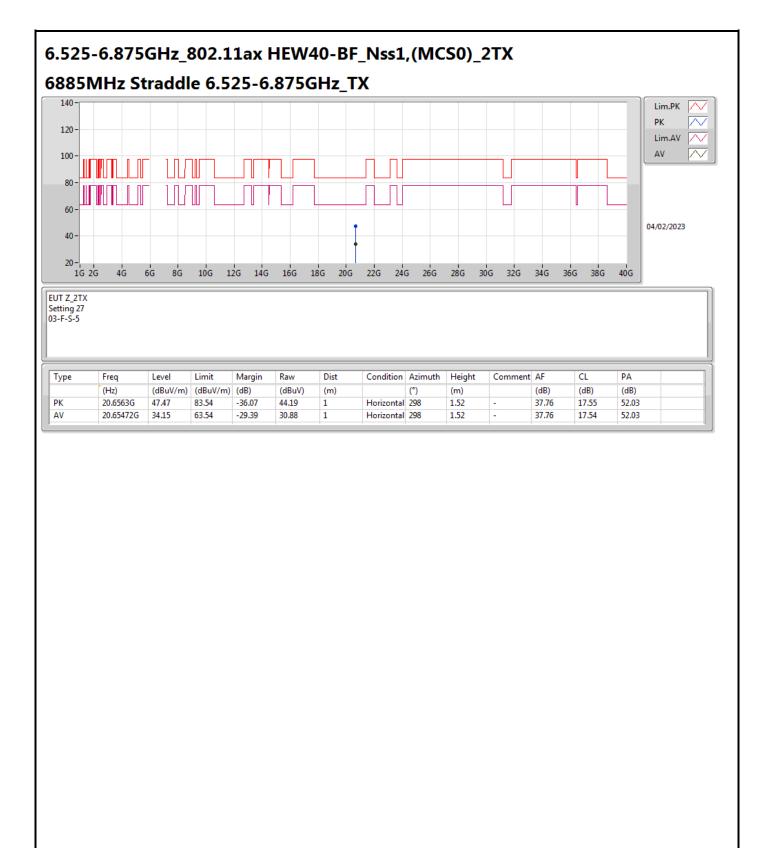




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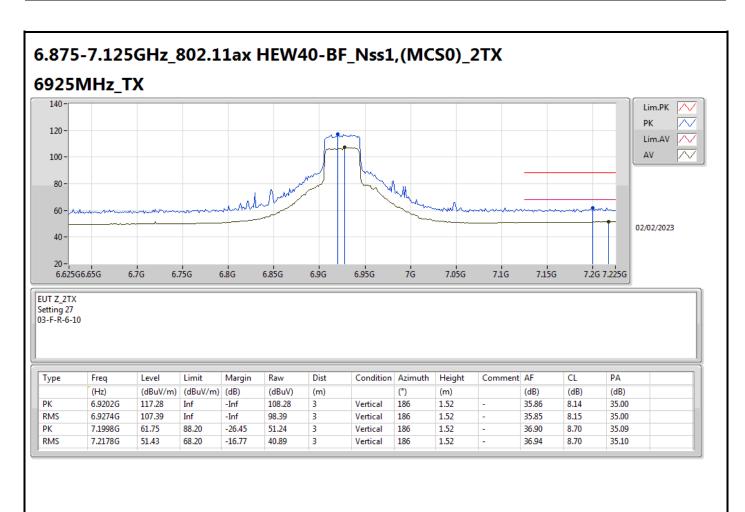




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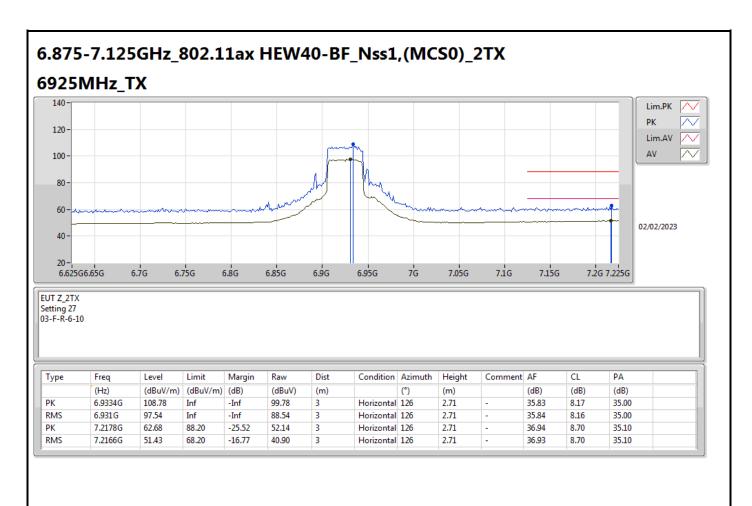




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