



RADIO TEST REPORT

FCC ID : QDS-BRCM1096
Equipment : 802.11be WLAN PCI-E Custom Combination Card
Brand Name : Broadcom
Model Name : BCM94398FCREF7X7
Applicant : Broadcom Corporation
270 Innovation Drive San Jose California USA
Manufacturer : Broadcom Corporation
270 Innovation Drive San Jose California USA
Standard : 47 CFR FCC Part 15.407

The product was received on Oct. 03, 2022, and testing was started from Oct. 04, 2022 and completed on Oct. 12, 2022. 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.)



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Photographs of EUT v01



Summary of Test Result

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 Isotropically 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:

1. 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: **Viola Huang**



1 General Description

1.1 Information

1.1.1 RF General Information

EUT Connected to Standard-Power AP

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5925-6425	be (EHT320)	6105-6265	31-63 [2]

Band	Mode	BWch (MHz)	Nant
UNII 5	be (EHT320)	320	2

EUT Connected to LPI AP

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5925-7125	be (EHT320)	6105-6905	31-191 [6]

Band	Mode	BWch (MHz)	Nant
UNII 5-8	be (EHT320)	320	2

Note:

- ♦ EHT320 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM modulation.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	Airgain	N60AGAU	PCB Antenna	I-PEX	3.4
2	2	Airgain	N60AGAU	PCB Antenna	I-PEX	3.4

Note 1: The above information was declared by manufacturer.

Note 2: Directional gain information

Maximum Output Power	Power Spectral Density
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	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{in}} \left[\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right]^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{in}} \left[\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right]^2}{N_{ANT}} \right]$$

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

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2))^2$$

$$DG = 10 \log \left[\frac{(NSS1(g1,1) + NSS1(g1,2))^2}{N_{ANT}} \right] \Rightarrow 10 \log \left[\frac{(10^{G1/20} + 10^{G2/20})^2}{N_{ANT}} \right]$$

Where ;

$$G1 = 10 ; G2 = 10$$

$$6G \ G1 = 3.4dBi; \ G2 = 3.4 \text{ dBi}; \ DG = 6.41dBi$$

For IEEE 802.11be mode (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11be EHT320	0.976	0.11	605.313u	3k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
Device Type	<input type="checkbox"/>	Indoor Access Point	<input type="checkbox"/>	Subordinate
	<input type="checkbox"/>	Indoor Client	<input type="checkbox"/>	Standard Power Access Point
	<input checked="" type="checkbox"/>	Dual Client	<input type="checkbox"/>	Standard Client
	<input type="checkbox"/>	Fixed Client		
Test Software Version	Tera Term V4.75			
Software / Firmware Version for CBP	24.10.400 (wlan=r994488 c0 utf_tput_320mhz2) FWID 01-62326e26			

Note: The above information was declared by manufacturer.



1.2 Applicable Standards

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

- ◆ 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 662911 D01 v02r01
- ◆ 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	TH03-CB	Owen Hsu	24.5~24.9 / 56~61	Oct. 05, 2022~Oct. 07, 2022
Radiated below 1GHz	03CH03-CB	KJ Chang	24.9~25.2 / 61~63	Oct. 04, 2022~Oct. 07, 2022
Radiated above 1GHz	03CH04-CB		23~23.9 / 55~58	
AC Conduction	CO02-CB	Tim Chen	23~24 / 58~59	Oct. 12, 2022
RF Conducted <Contention-Based Protocol test>	DF02-CB	Jeff Wu	23.4~24.3 / 57~58	Oct. 04, 2022~Oct. 05, 2022



1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 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%



2 Test Configuration of EUT

2.1 Test Channel Mode

Test Mode : Mode 1

Mode	Power Setting
802.11be EHT320_Nss1_2TX	-
6105MHz	76
6265MHz	76

Test Mode : Mode 2

Mode	Power Setting
802.11be EHT320_Nss1_2TX	-
6105MHz	56
6265MHz	56
6425MHz	60
6585MHz	58
6745MHz	57
6905MHz	52



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	CTX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Peak Power Spectral Density (E.I.R.P.)
Test Condition	Conducted measurement at transmit chains
1	EUT Connected to Standard-Power AP
2	EUT Connected to LPI AP

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis (Note 1)



The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission MASK
Test Condition	Conducted measurement at transmit chains
1	EUT Connected to Standard-Power AP
2	EUT Connected to LPI AP

Note 1: The unwanted emissions of UNII -5 used max setting 76 to measure.

Note 2: The Adapter are for measurement only, would not be marketed.

Adapter information as below:

Power	Brand	Model
Adapter	FSP	FSP065-REB

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Test Fixture	GIGABYTE	Whiskey lake	N/A
B	NB	DELL	E6430	N/A
C	Adapter	FSP	FSP065-REB	N/A

For Radiated:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Test Fixture	GIGABYTE	Whiskey lake	N/A
C	Adapter	FSP	FSP065-REB	N/A



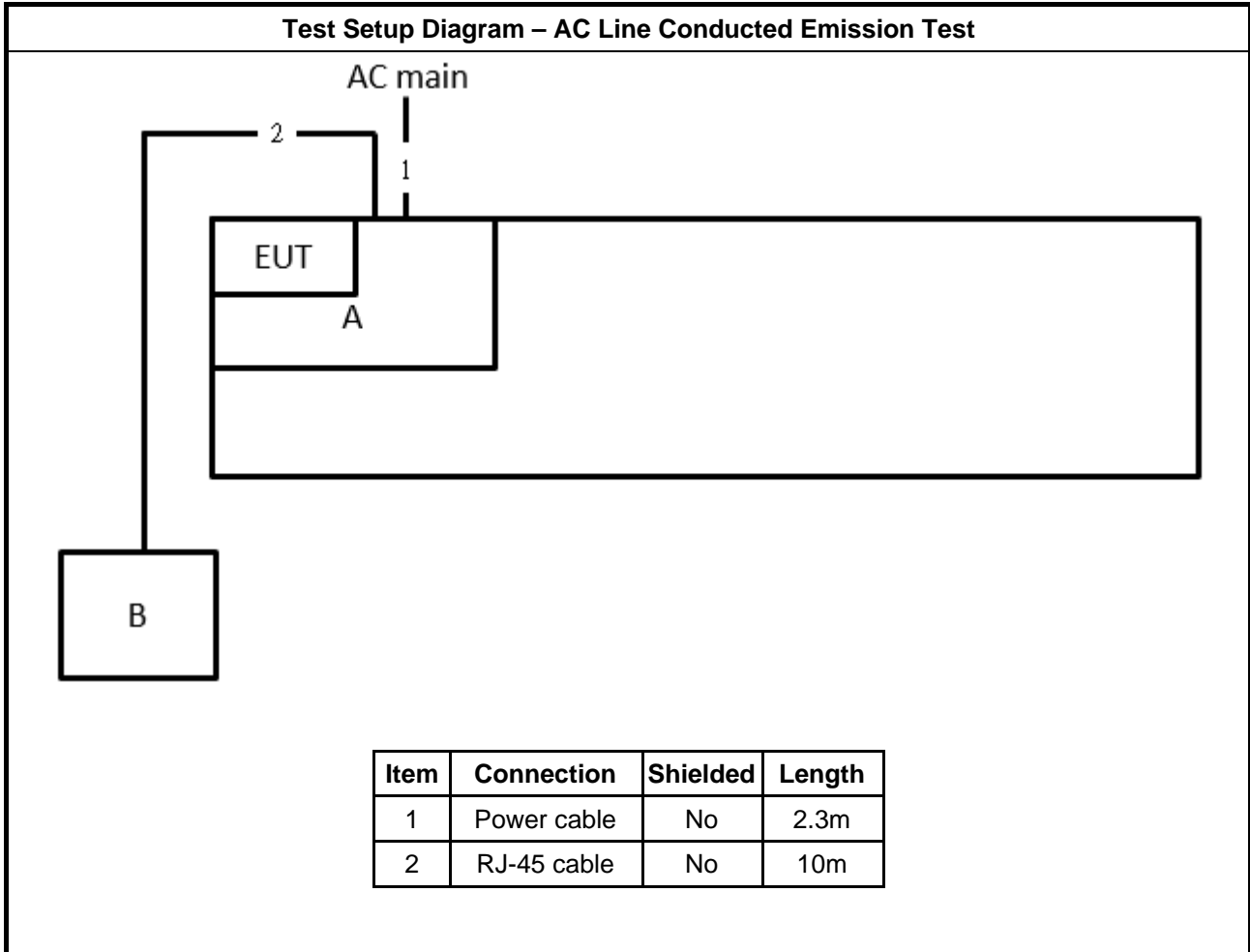
RF Conducted (For other tests):

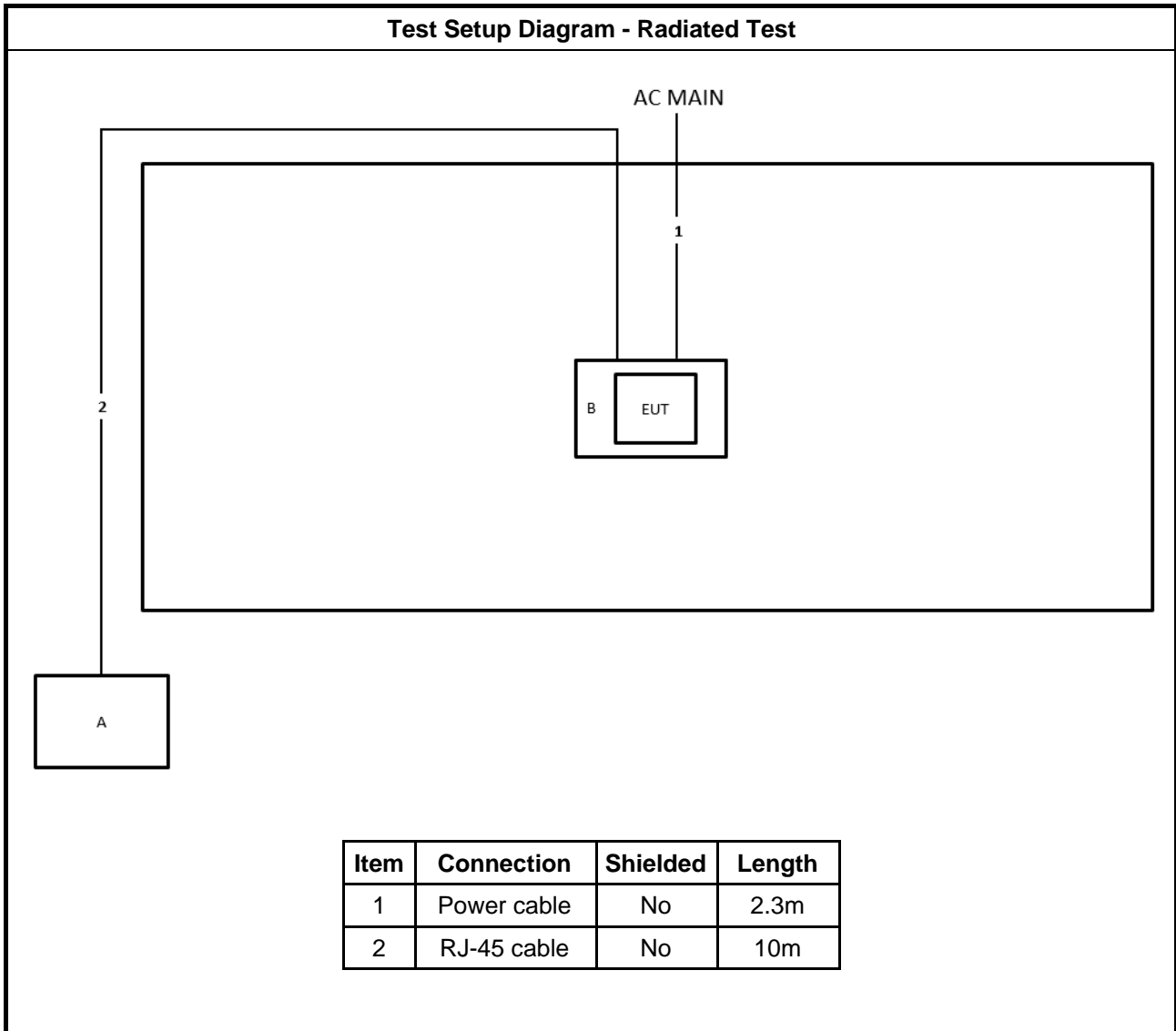
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Test Fixture	GIGABYTE	Whiskey lake	N/A
C	Adapter	FSP	FSP065-REB	N/A

For RF Conducted (For Contention Based Protocol test):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E6230	N/A
C	WLAN AP	Broadcom	BCM 67263	N/A
D	Test Fixture	GIGABYTE	Whiskey lake	N/A
E	Adapter	FSP	FSP065-REB	N/A

2.6 Test Setup Diagram







3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

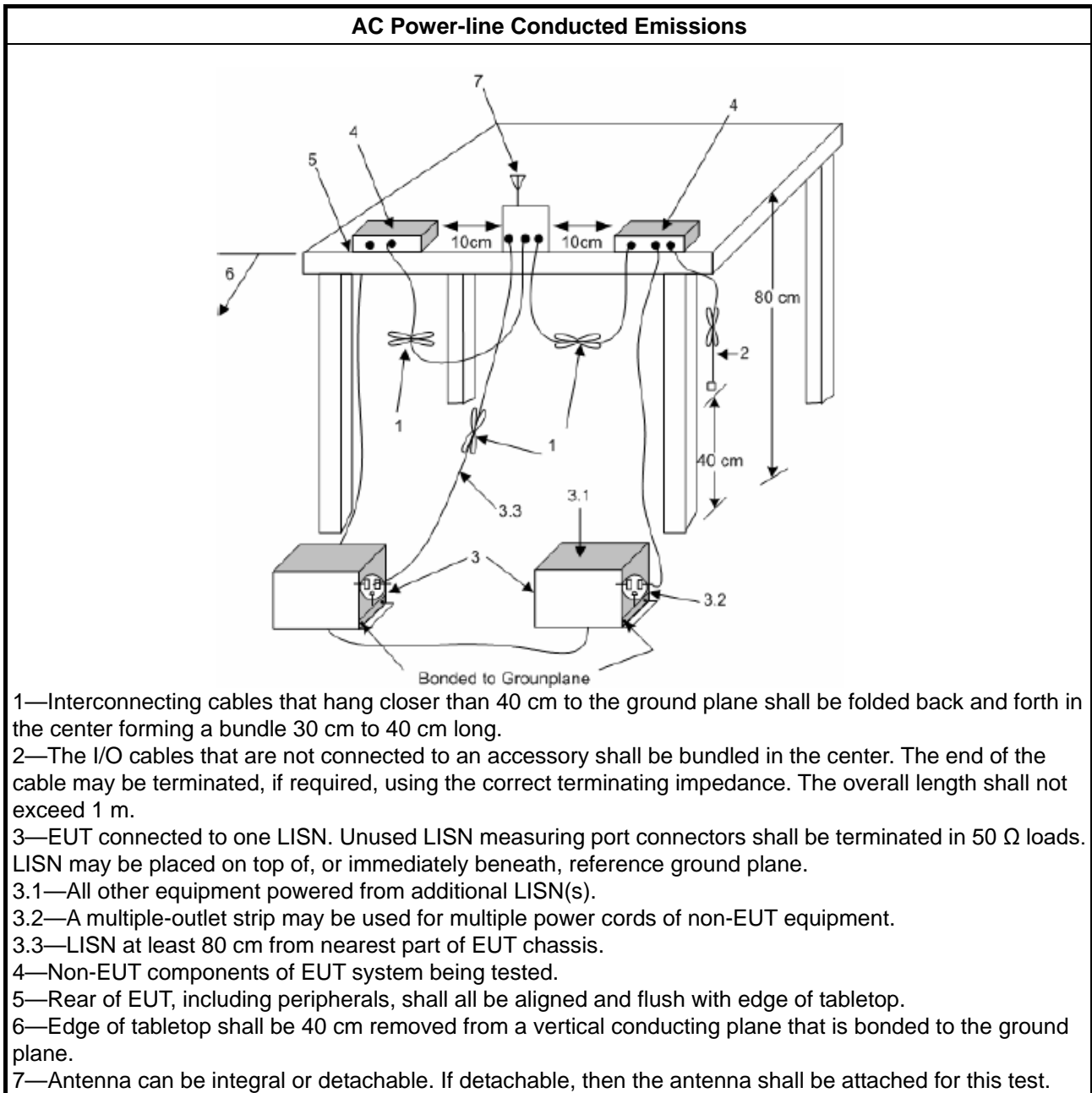
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. 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

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5925-6425 GHz band, N/A
<input checked="" type="checkbox"/>	For the 6425-6525 GHz band, N/A
<input checked="" type="checkbox"/>	For the 6525-6875 GHz band, N/A
<input checked="" type="checkbox"/>	For the 6875-7125 GHz band, N/A
RLAN Devices	
<input type="checkbox"/>	For the 5925-6425 GHz band, N/A
<input type="checkbox"/>	For the 6425-6525 GHz band, N/A
<input type="checkbox"/>	For the 6525-6875 GHz band, N/A
<input type="checkbox"/>	For the 6875-7125 GHz band, N/A

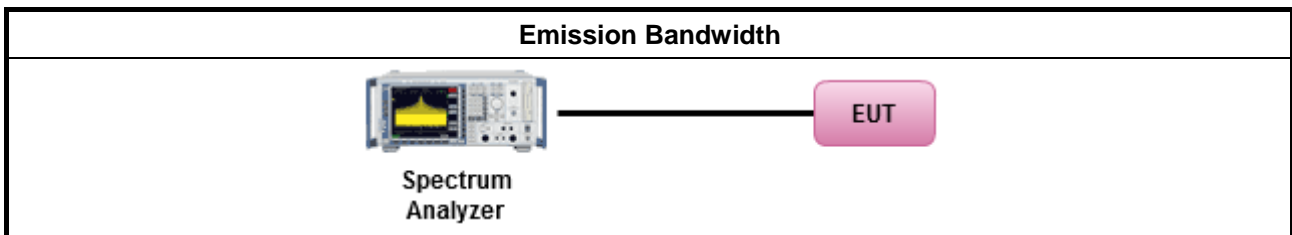
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: 	
<input checked="" type="checkbox"/>	According to 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.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



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

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

Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.925 ~ 6.425 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/> For the 6.425 ~ 6.525 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/> For the 6.525 ~ 6.875 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/> For the 6.875 ~ 7.125 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
RLAN Devices	
<input type="checkbox"/> For the 5.925 ~ 7.125 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For RLAN devices(Indoor) other than client devices < 30 dBm / occupied bandwidth. ▪ For client devices(Indoor) < 24 dBm / occupied bandwidth.

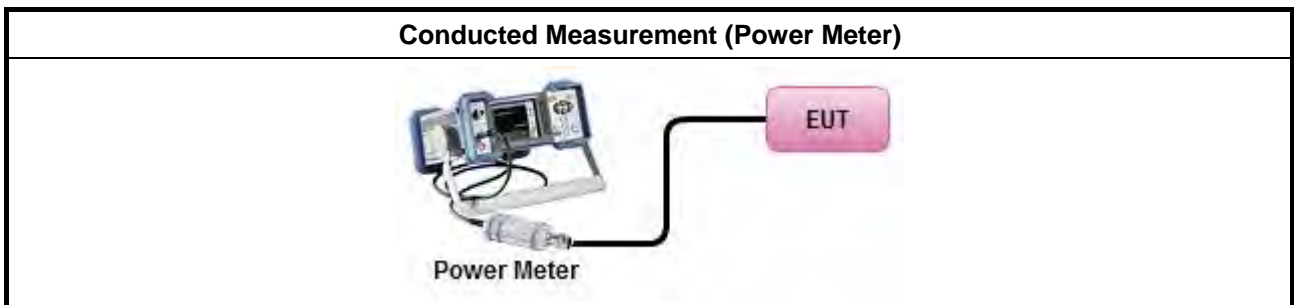
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ According to FCC KDB 987594 D02 clause II.E, the test measurement procedure shall refer to KDB 789033. 	
Average over on/off periods with duty factor	
<input type="checkbox"/>	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.
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
Wideband RF power meter and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
<input checked="" type="checkbox"/>	For conducted measurement.
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	
<input type="checkbox"/>	For radiated measurement.
<ul style="list-style-type: none"> ▪ 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. 	

3.3.4 Test Setup



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

Refer as Appendix C



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	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.925 ~ 6.425 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/>	For the 6.425 ~ 6.525 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/>	For the 6.525 ~ 6.875 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/>	For the 6.875 ~ 7.125 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.
RLAN Devices	
<input type="checkbox"/>	For the 5.925 ~ 7.125 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For RLAN devices(Indoor) other than client devices < 5 dBm / MHz. ▪ For client devices(Indoor) < -1 dBm / MHz.

3.4.2 Measuring Instruments

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

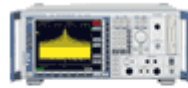


3.4.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ According to KDB 987594 D02 clause II.F, the measurement procedure shall refer to KDB 789033. Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:
<input type="checkbox"/>	Refer as FCC KDB 789033 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]
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<input checked="" type="checkbox"/>	For conducted measurement.
	<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit. ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$
<input type="checkbox"/>	For radiated measurement.
	<ul style="list-style-type: none"> ▪ 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.

Test Method

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

3.4.4 Test Setup**Conducted Measurement**Spectrum
Analyzer

EUT

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

Refer as Appendix D



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

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).

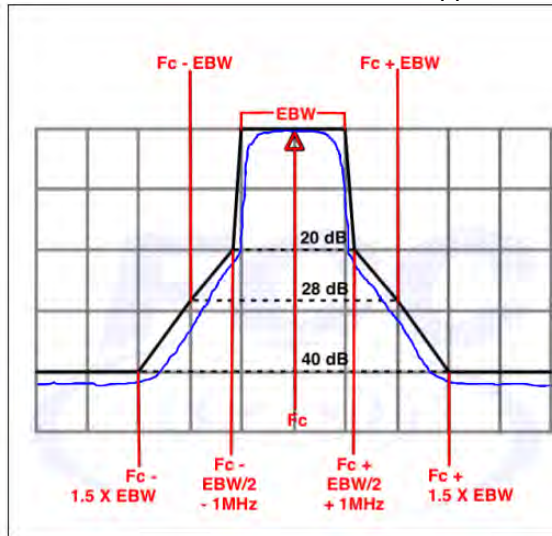
Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, 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($20 \times \log(\text{standard distance}/\text{test distance}) = 20\log(3/1) = 9.54\text{dB}$).
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 – 7.125 GHz emission	e.i.r.p. -27 dBm [68.2 dBuV/m@3m] 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($20 \times \log(\text{standard distance}/\text{test distance}) = 20\log(3/1) = 9.54\text{dB}$). 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.
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 one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.





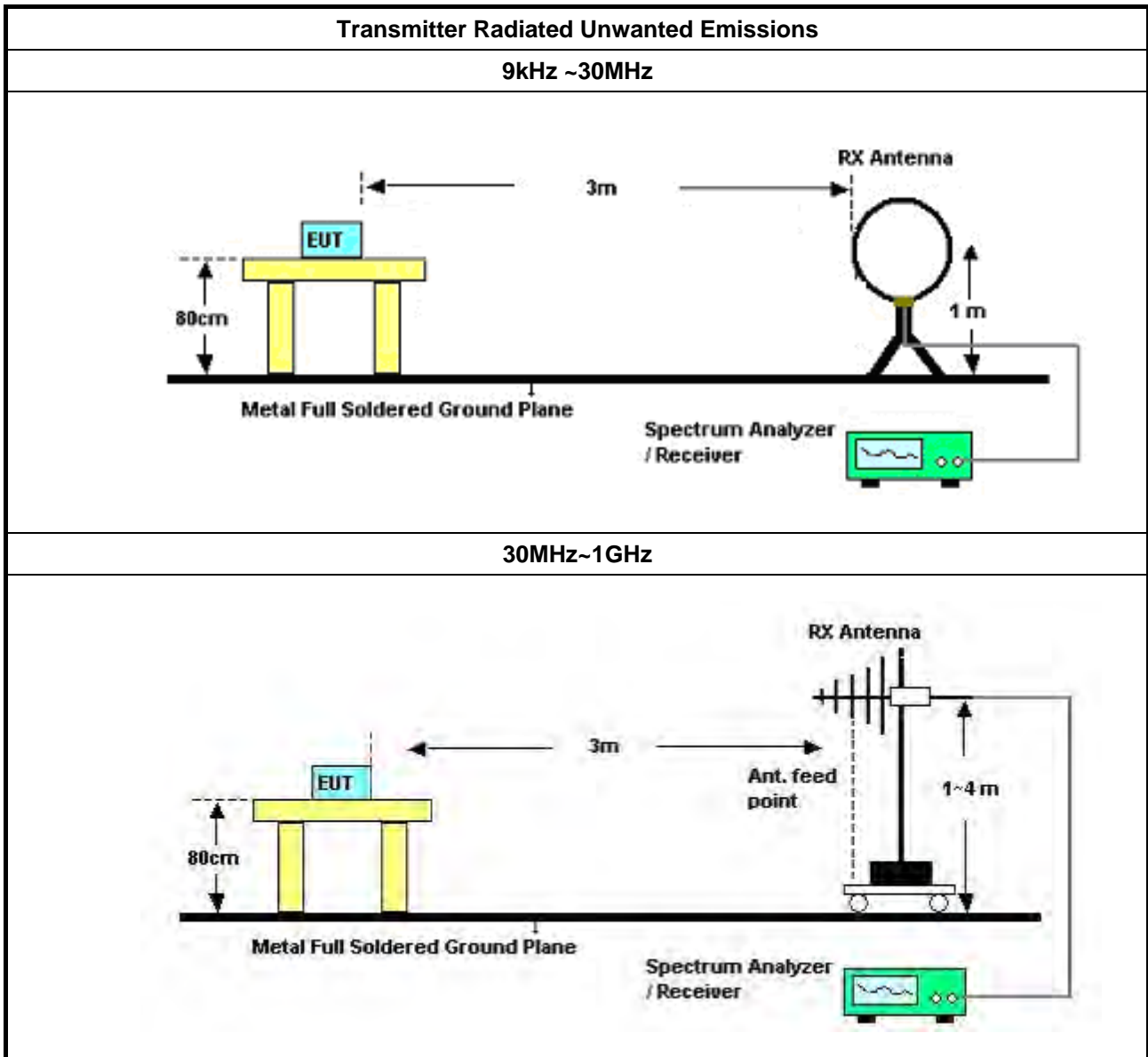
3.5.2 Measuring Instruments

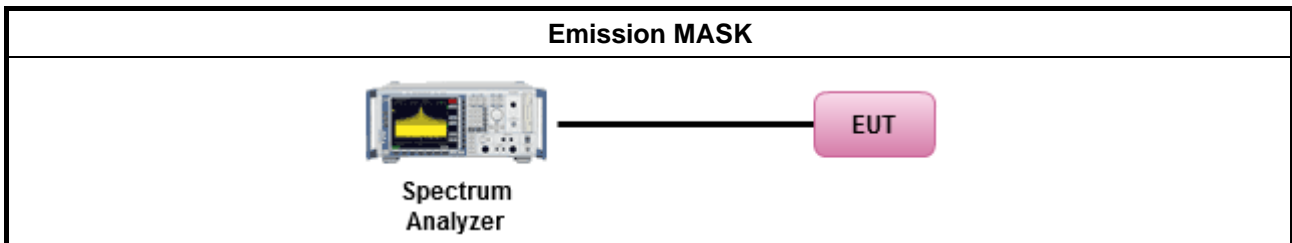
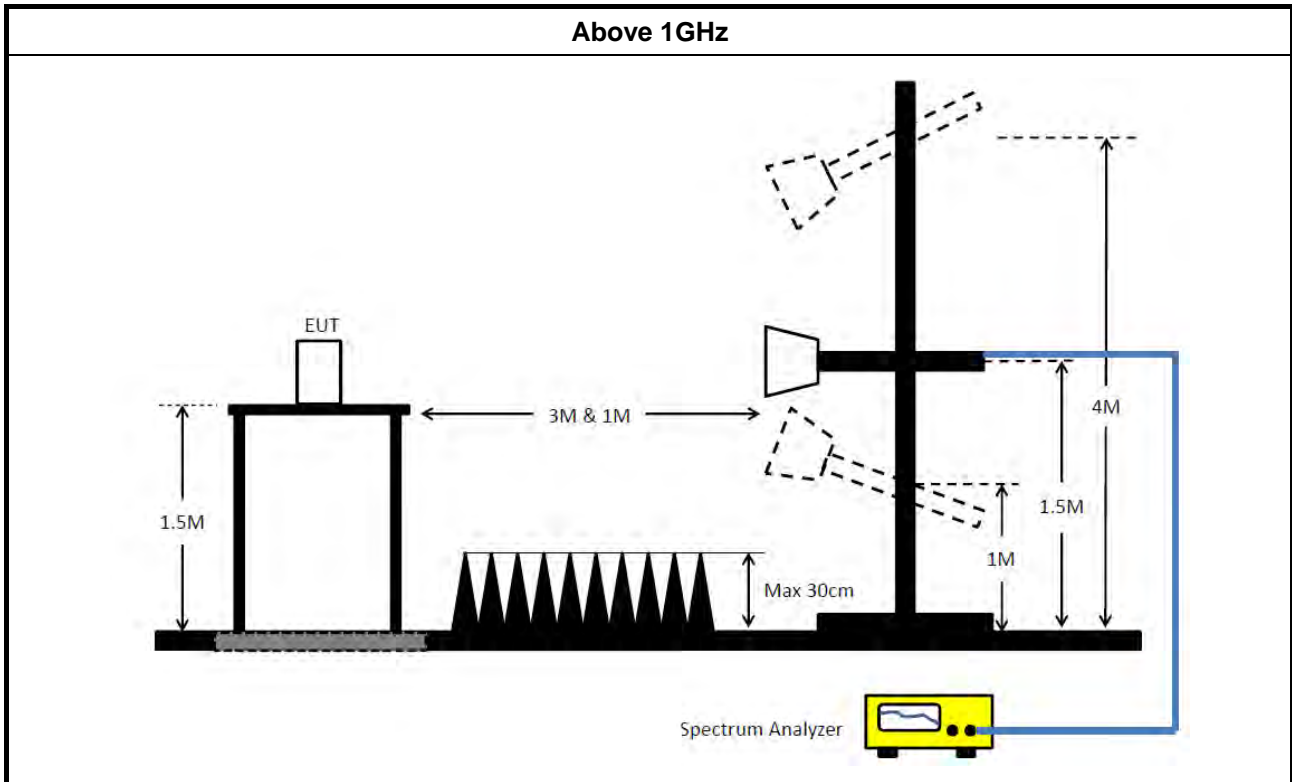
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ According to 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). 	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging). (For unrestricted band measurement)
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
<input checked="" type="checkbox"/>	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)
<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)3)d)ii) for Band edge Integration measurements. 	
<ul style="list-style-type: none"> ▪ For emission MASK shall be measured using following options below: 	
<input checked="" type="checkbox"/>	Refer as FCC KDB 987594 D02, J) In-Band Emissions
<ul style="list-style-type: none"> ▪ For radiated measurement. 	
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 	
<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. 	

3.5.4 Test Setup





3.5.5 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

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.

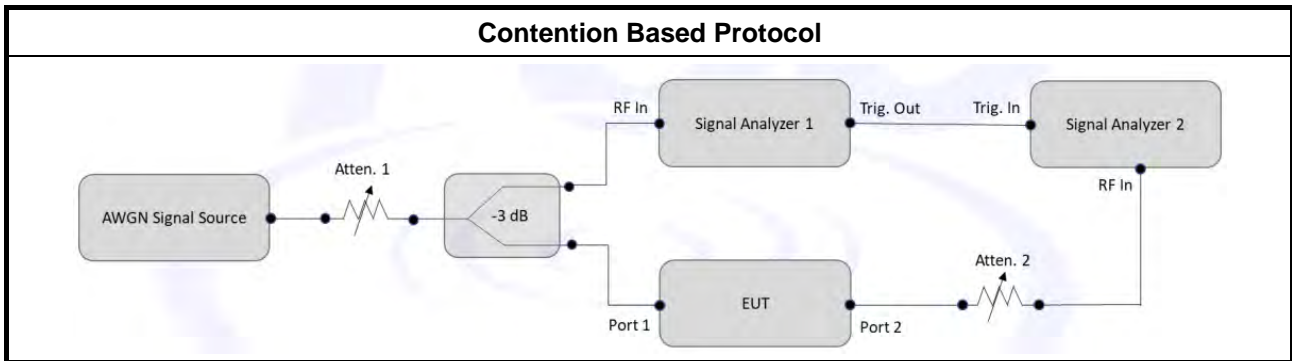
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method	
<input type="checkbox"/>	For Contention Based Protocol shall be measured using following options below:
<input checked="" type="checkbox"/>	Refer as FCC KDB 987594 D02, I) In-Band Emissions

3.6.4 Test Setup



3.6.5 Test Result of Contention Based Protocol

Refer as Appendix F



4 Test Equipment and Calibration Data

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-50-16-2	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	May 18, 2022	May 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH03-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH03-CB	30 MHz ~ 1 GHz	Jan. 26, 2022	Jan. 25, 2023	Radiation (03CH03-CB)
Bilog Antenna with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	2928 & AT-N0608	20MHz ~ 2GHz	Feb. 21, 2022	Feb. 20, 2023	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 10, 2022	Jan. 09, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+29	30MHz ~ 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Band Rejector	MTJ	6G Band Rejector	CB6G-BRJ-01	1GHz ~ 7.4GHz	Oct. 04, 2022	Oct. 03, 2023	Radiation (03CH04-CB)
Band Rejector	MTJ	6G Band Rejector	CB6G-BRJ-02	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Temp. and Humidity Chamber	Gaint Force	GTH-408-40-C P-AR	MAA1410-011	-40~100 degree	Sep. 02, 2022	Sep. 01, 2023	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1531344	300MHz~40GHz	Jul. 31, 2022	Jul. 30, 2023	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1728002	300MHz~40GHz	Jul. 31, 2022	Jul. 30, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
Band Rejector	MTJ	6G Band Rejector	CB6G-BRJ-01	1GHz ~ 7.4GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH03-CB)
Band Rejector	MTJ	6G Band Rejector	CB6G-BRJ-02	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz ~26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH03-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)
Spectrum Analyzer	R&S	FSV40	101025	9kHz ~ 40GHz	Nov. 06, 2021	Nov. 05, 2022	Conducted (DF02-CB)
Vector Signal generator	R&S	SMW200A	109426	100kHz- 7.5GHz	Dec. 28, 2021	Dec. 27, 2022	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -07	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -08	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-60	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-61	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-62	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-63	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-66	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
100MS/s Digitizer	N.I	USB-5133	F65206	N/A	Nov. 25, 2021	Nov. 24, 2022	Conducted (DF02-CB)

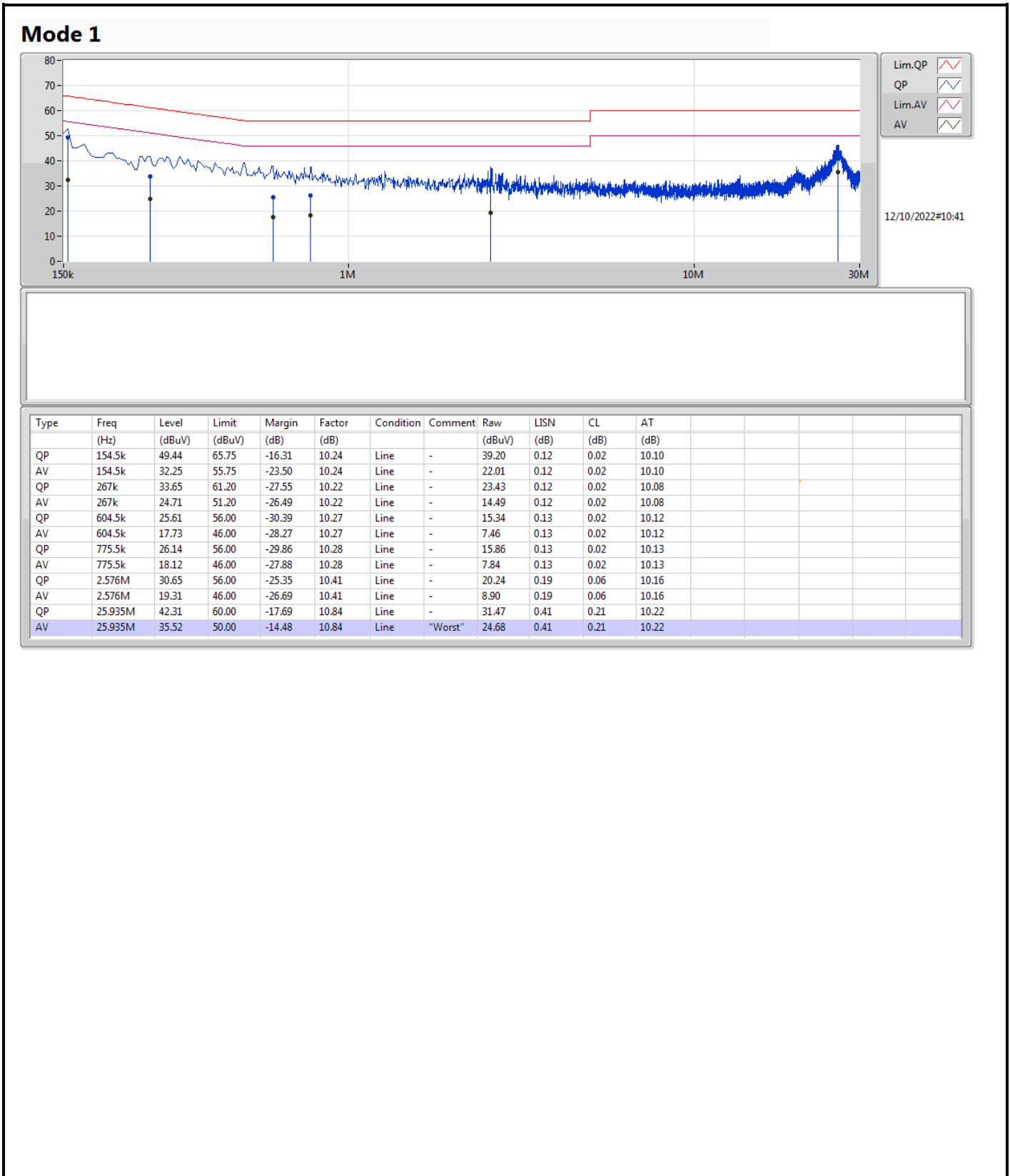
Note: Calibration Interval of instruments listed above is one year.

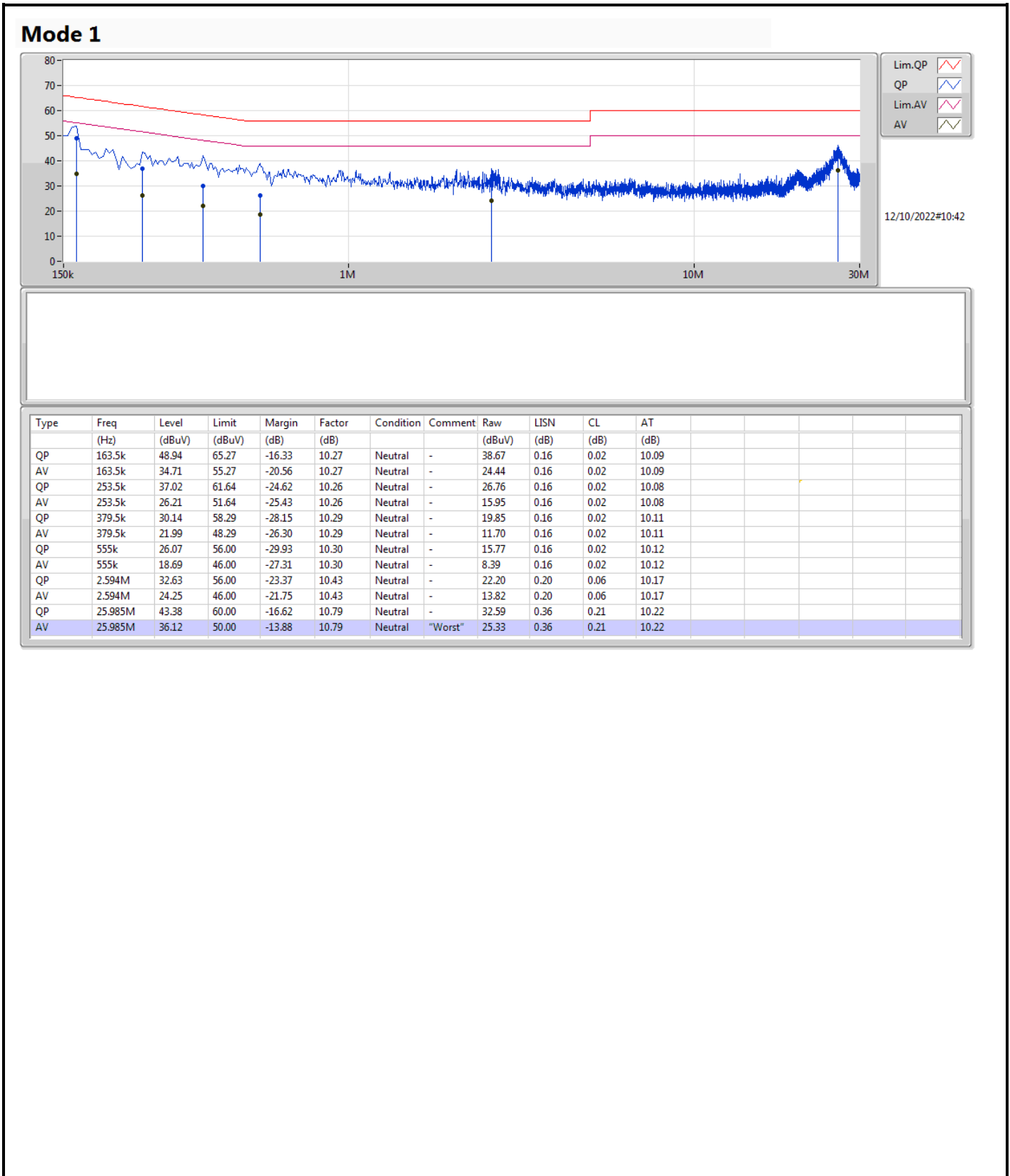
N.C.R. means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	25.985M	36.12	50.00	-13.88	Neutral







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
802.11be EHT320_Nss1_2TX	480M	318.527M	319MD1D	477.84M	317.643M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth



Result

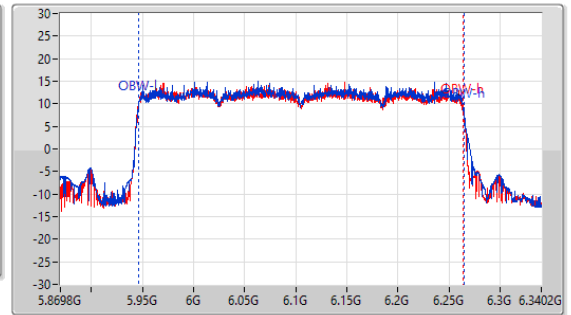
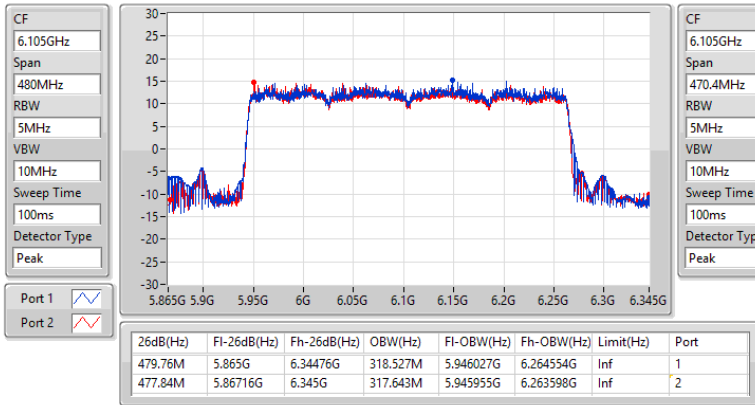
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11be EHT320_Nss1_2TX	-	-	-	-	-	-
6105MHz	Pass	Inf	479.76M	318.527M	477.84M	317.643M
6265MHz	Pass	Inf	480M	318.279M	479.04M	317.851M

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

5.925-6.425GHz_802.11be EHT320_Nss1_2TX
6105MHz

EBW

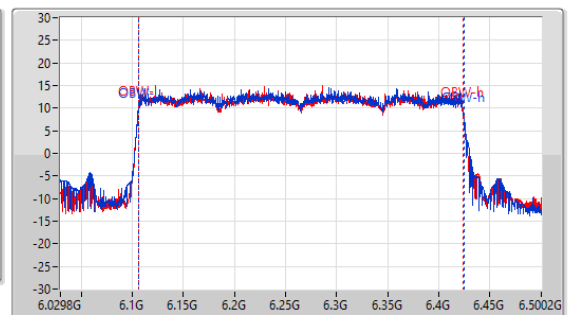
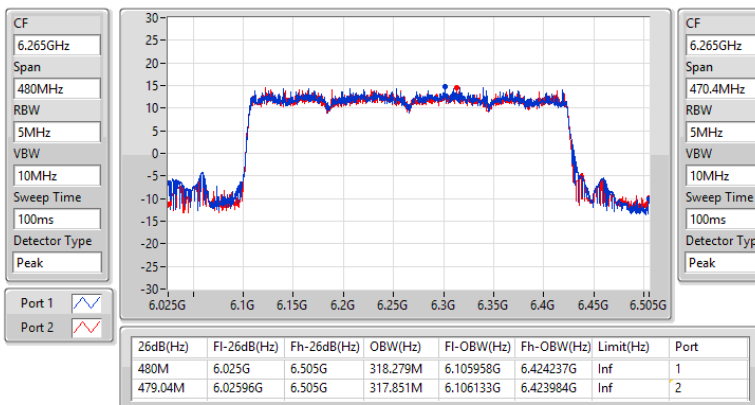
07/10/2022



5.925-6.425GHz_802.11be EHT320_Nss1_2TX
6265MHz

EBW

07/10/2022





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
802.11be EHT320_Nss1_2TX	457.44M	316.992M	317MD1D	430.8M	316.51M
6.425-6.525GHz	-	-	-	-	-
802.11be EHT320_Nss1_2TX	456.72M	316.818M	317MD1D	437.52M	316.35M
6.525-6.875GHz	-	-	-	-	-
802.11be EHT320_Nss1_2TX	457.68M	316.457M	316MD1D	436.32M	316.195M
6.875-7.125GHz	-	-	-	-	-
802.11be EHT320_Nss1_2TX	435.12M	316.348M	316MD1D	378.24M	316.005M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth



Result

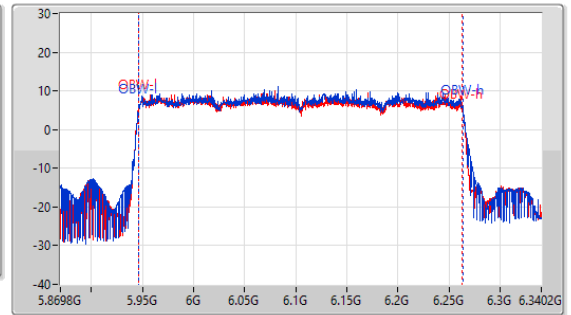
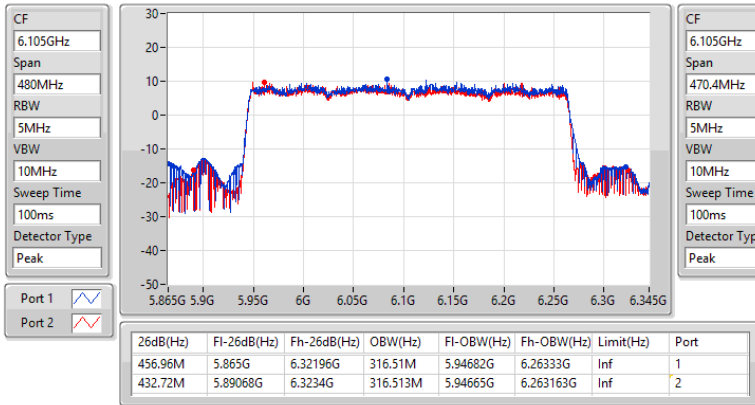
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11be EHT320_Nss1_2TX	-	-	-	-	-	-
6105MHz	Pass	Inf	456.96M	316.51M	432.72M	316.513M
6265MHz	Pass	Inf	457.44M	316.992M	430.8M	316.65M
6425MHz	Pass	Inf	456.72M	316.818M	437.52M	316.35M
6585MHz	Pass	Inf	457.68M	316.195M	436.32M	316.457M
6745MHz	Pass	Inf	378.24M	316.207M	435.12M	316.348M
6905MHz	Pass	Inf	414.72M	316.005M	428.64M	316.024M

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

5.925-6.425GHz_802.11be EHT320_Nss1_2TX
6105MHz

EBW

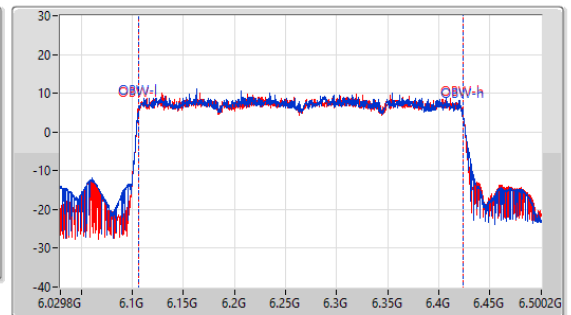
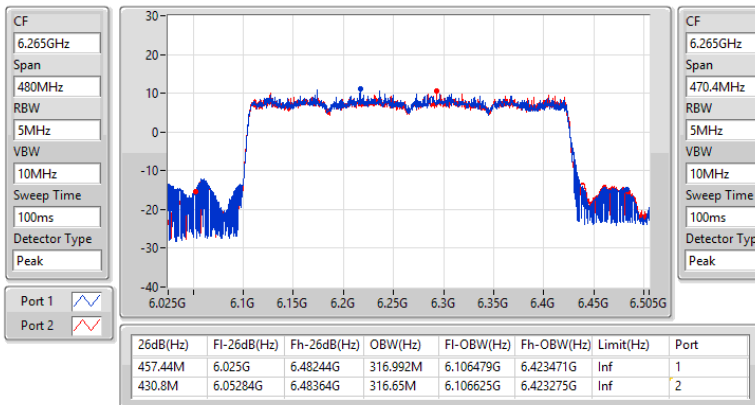
07/10/2022



5.925-6.425GHz_802.11be EHT320_Nss1_2TX
6265MHz

EBW

07/10/2022

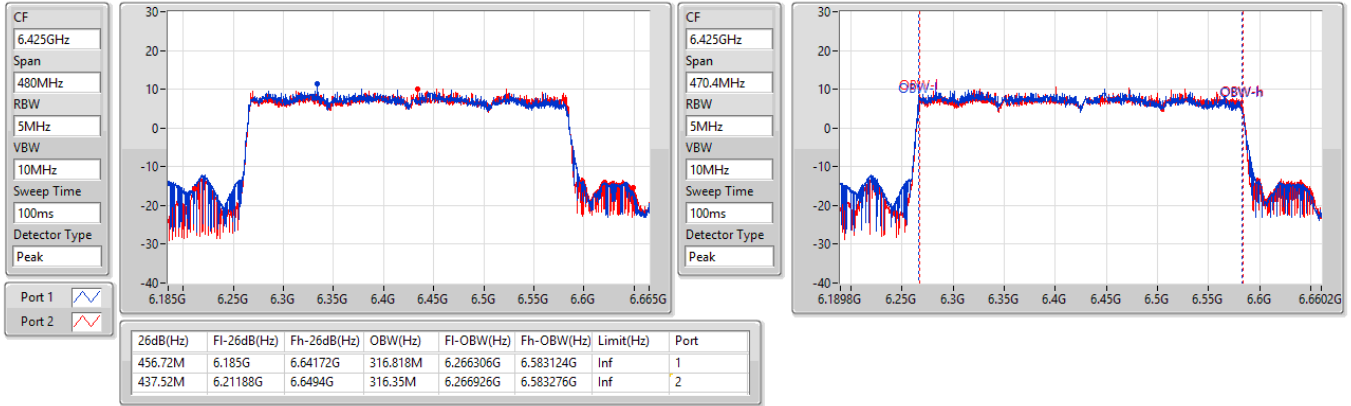


6.425-6.525GHz_802.11be EHT320_Nss1_2TX

EBW

6425MHz

07/10/2022

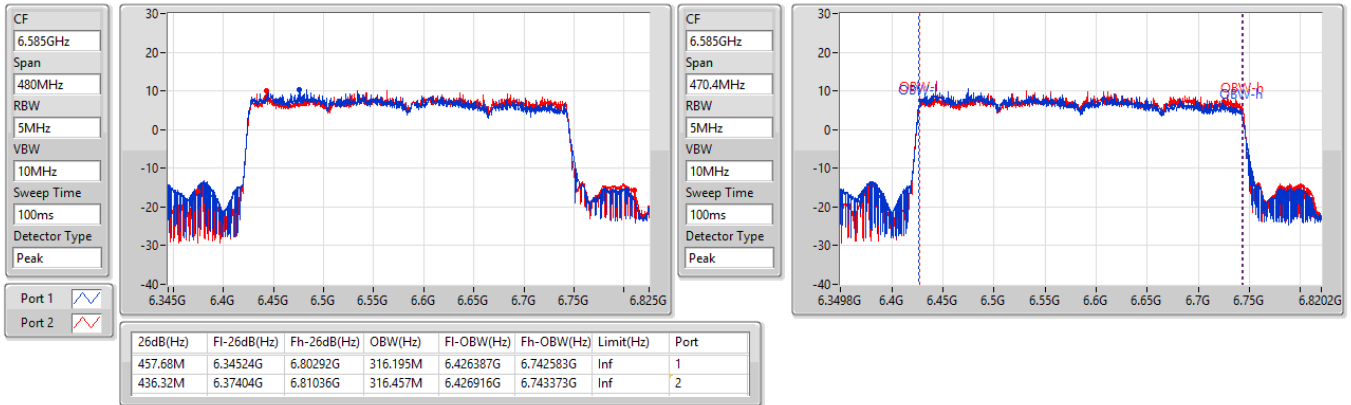


6.525-6.875GHz_802.11be EHT320_Nss1_2TX

EBW

6585MHz

07/10/2022

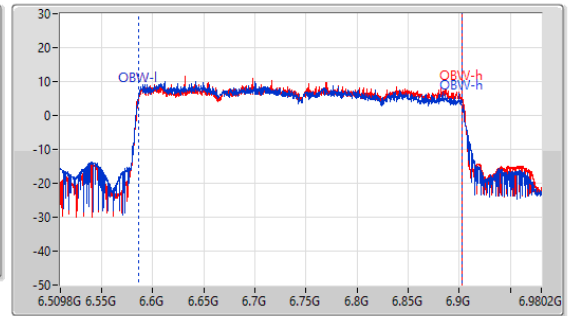
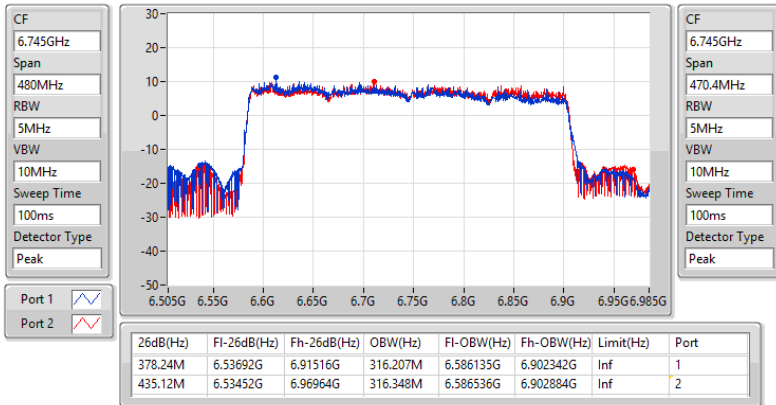


6.875-7.125GHz_802.11be EHT320_Nss1_2TX

EBW

6745MHz

07/10/2022

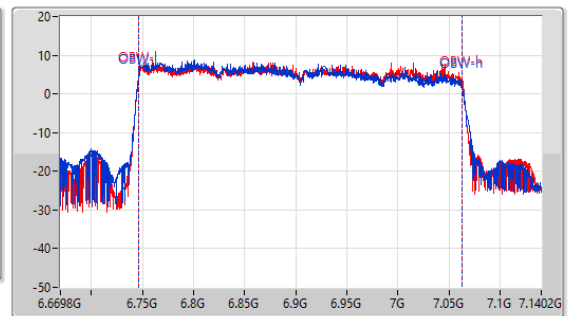
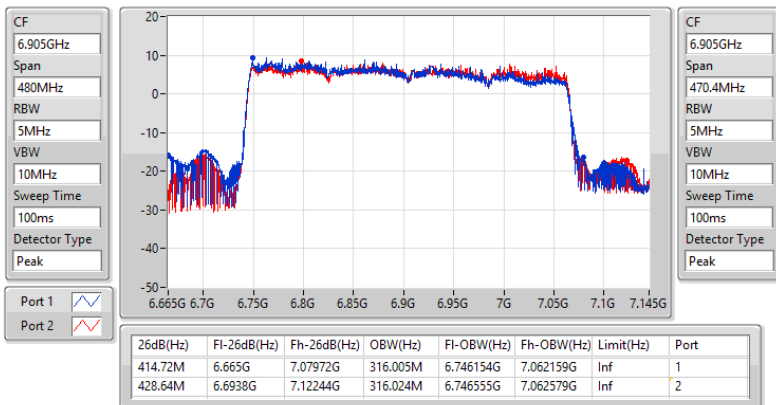


6.875-7.125GHz_802.11be EHT320_Nss1_2TX

EBW

6905MHz

07/10/2022





Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-	-	-
802.11be EHT320_Nss1_2TX	22.42	0.17458	25.82	0.38194



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT320_Nss1_2TX	-	-	-	-	-	-	-	-
6105MHz	Pass	3.40	19.54	19.27	22.42	Inf	25.82	30.00
6265MHz	Pass	3.40	19.60	19.22	22.42	Inf	25.82	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-	-	-
802.11be EHT320_Nss1_2TX	17.96	0.06252	21.36	0.13677
6.425-6.525GHz	-	-	-	-
802.11be EHT320_Nss1_2TX	17.78	0.05998	21.18	0.13122
6.525-6.875GHz	-	-	-	-
802.11be EHT320_Nss1_2TX	17.58	0.05728	20.98	0.12531
6.875-7.125GHz	-	-	-	-
802.11be EHT320_Nss1_2TX	17.34	0.05420	20.74	0.11858



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT320_Nss1_2TX	-	-	-	-	-	-	-
6105MHz	Pass	3.40	15.05	14.55	17.82	21.22	24.00
6265MHz	Pass	3.40	15.06	14.83	17.96	21.36	24.00
6425MHz	Pass	3.40	14.90	14.64	17.78	21.18	24.00
6585MHz	Pass	3.40	14.49	14.64	17.58	20.98	24.00
6745MHz	Pass	3.40	14.23	14.42	17.34	20.74	24.00
6905MHz	Pass	3.40	13.57	13.76	16.68	20.08	24.00

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



Summary

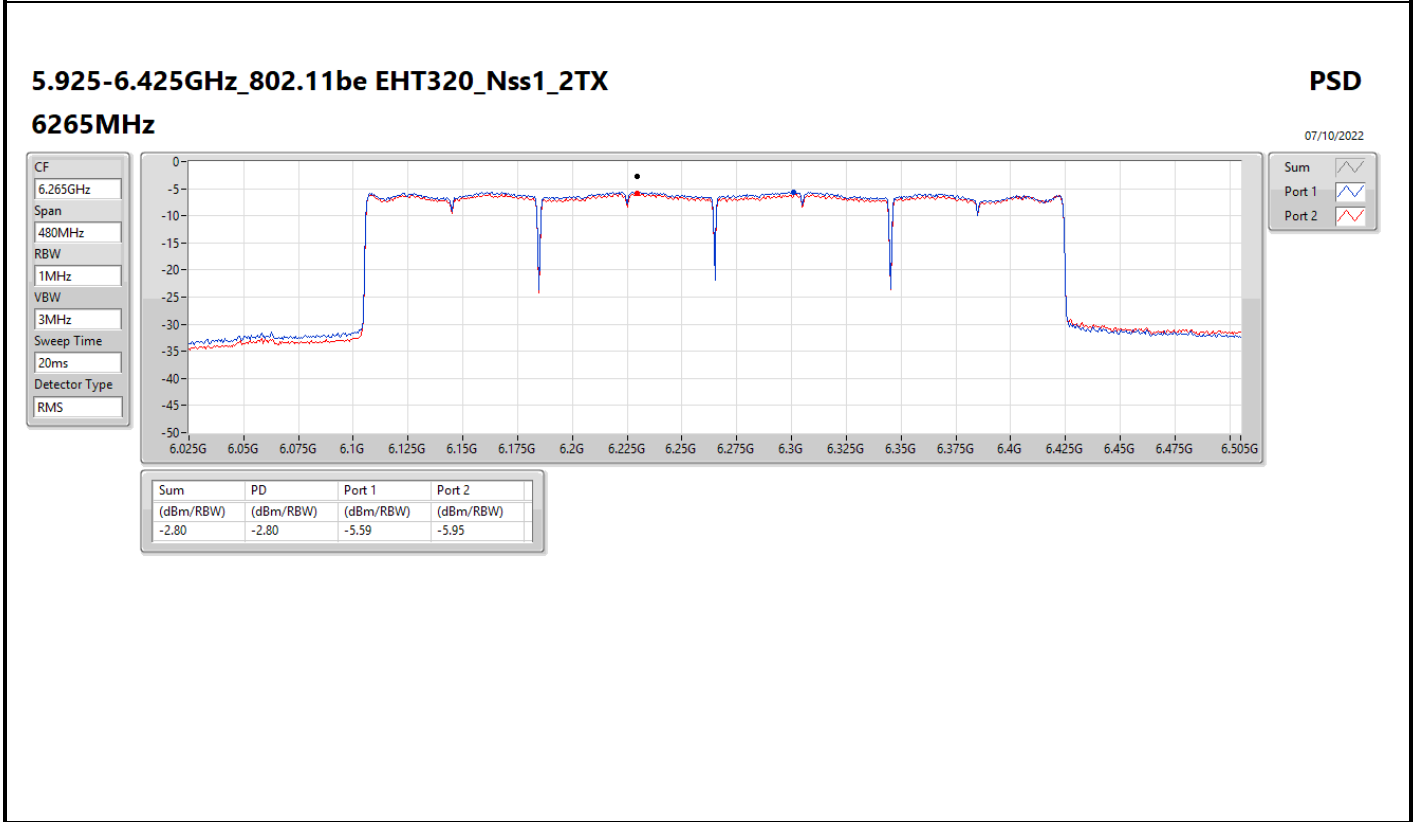
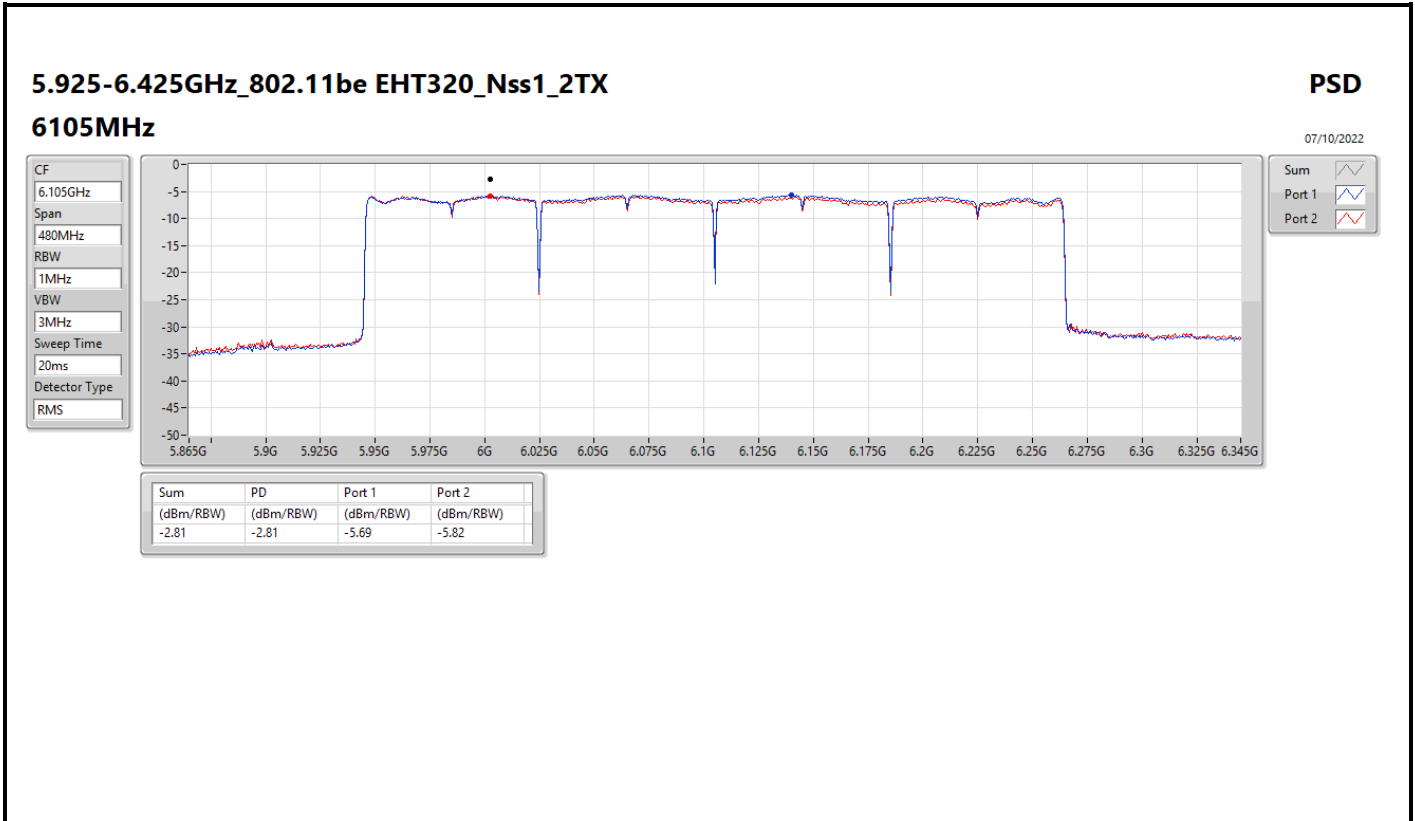
Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.925-6.425GHz	-	-
802.11be EHT320_Nss1_2TX	-2.80	3.61



Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11be EHT320_Nss1_2TX	-	-	-	-	-	-	-
6105MHz	Pass	6.41	-5.69	-5.82	-2.81	3.60	17.00
6265MHz	Pass	6.41	-5.59	-5.95	-2.80	3.61	17.00

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;





Summary

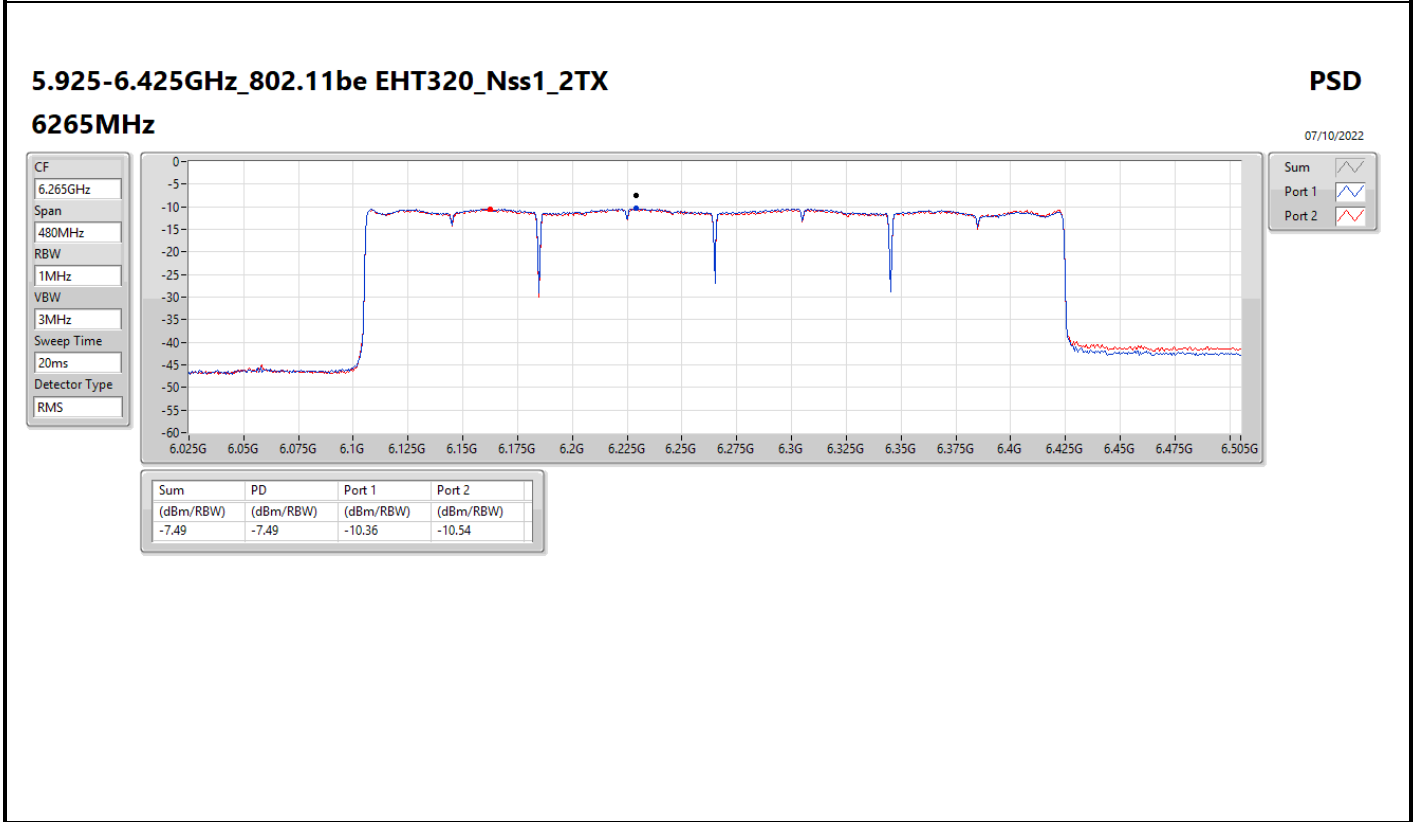
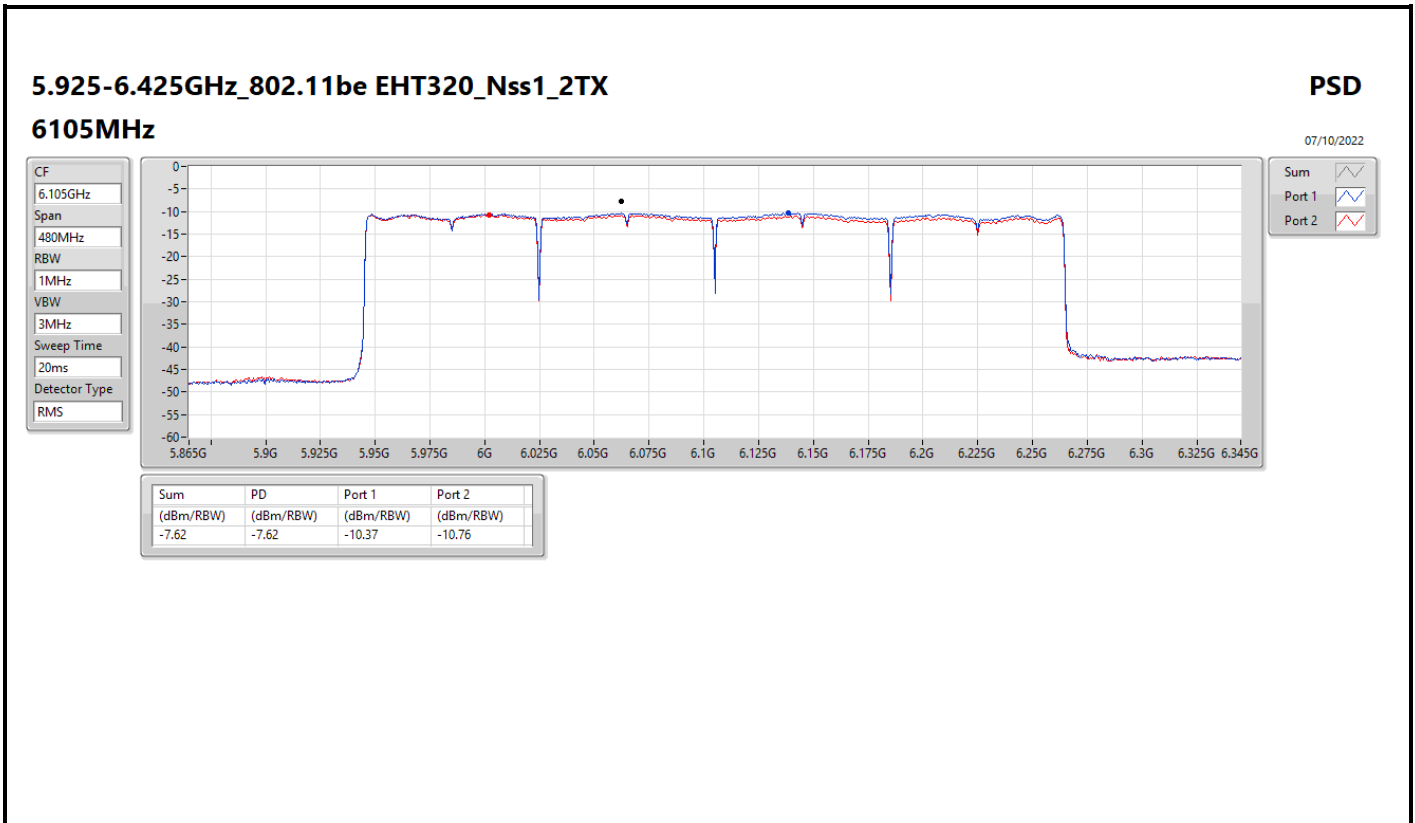
Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.925-6.425GHz	-	-
802.11be EHT320_Nss1_2TX	-7.49	-1.08
6.425-6.525GHz	-	-
802.11be EHT320_Nss1_2TX	-7.60	-1.19
6.525-6.875GHz	-	-
802.11be EHT320_Nss1_2TX	-7.59	-1.18
6.875-7.125GHz	-	-
802.11be EHT320_Nss1_2TX	-7.53	-1.12



Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11be EHT320_Nss1_2TX	-	-	-	-	-	-	-
6105MHz	Pass	6.41	-10.37	-10.76	-7.62	-1.21	-1.00
6265MHz	Pass	6.41	-10.36	-10.54	-7.49	-1.08	-1.00
6425MHz	Pass	6.41	-10.25	-10.74	-7.60	-1.19	-1.00
6585MHz	Pass	6.41	-10.26	-10.58	-7.59	-1.18	-1.00
6745MHz	Pass	6.41	-10.20	-10.66	-7.53	-1.12	-1.00
6905MHz	Pass	6.41	-10.23	-10.90	-7.54	-1.13	-1.00

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;





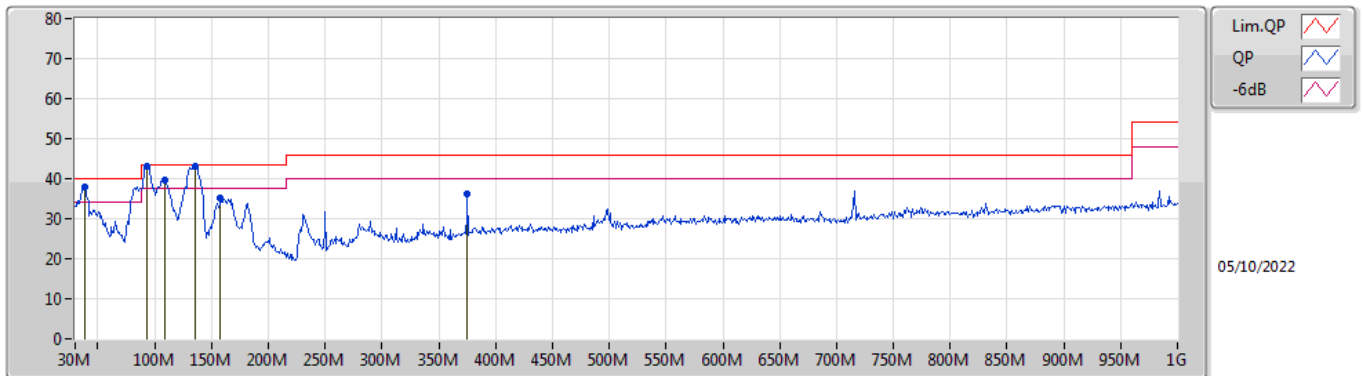




Summary

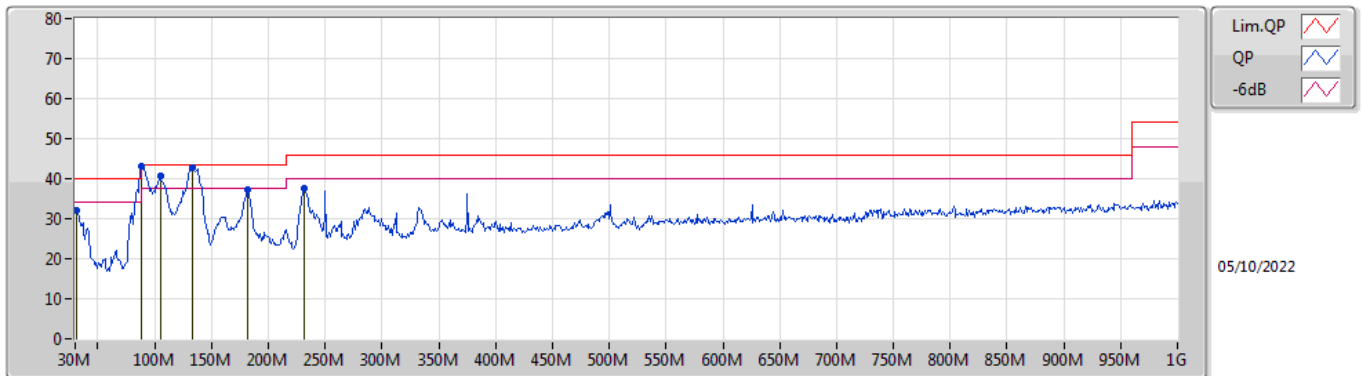
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	93.05M	43.21	43.50	-0.29	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	38.73M	37.80	40.00	-2.20	-7.74	3	Vertical	209	3.00	-	45.54	19.90	0.82	28.46
PK	93.05M	43.21	43.50	-0.29	-11.99	3	Vertical	113	1.00	"Worst"	55.20	15.23	1.25	28.47
PK	108.57M	39.65	43.50	-3.85	-9.68	3	Vertical	85	1.00	-	49.33	17.35	1.34	28.37
PK	135.73M	43.05	43.50	-0.45	-9.54	3	Vertical	53	1.50	-	52.59	17.23	1.51	28.28
PK	158.04M	35.22	43.50	-8.28	-10.75	3	Vertical	99	1.25	-	45.97	15.87	1.64	28.26
PK	375.32M	36.35	46.00	-9.65	-5.09	3	Vertical	205	1.50	-	41.44	20.73	2.52	28.34

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	30.97M	32.18	40.00	-7.82	-3.22	3	Horizontal	158	1.50	-	35.40	24.50	0.75	28.47
PK	88M	43.05	43.50	-0.45	-13.09	3	Horizontal	102	2.00	"Worst"	56.14	14.21	1.21	28.51
PK	104.69M	40.53	43.50	-2.97	-10.04	3	Horizontal	90	2.00	-	50.57	17.05	1.31	28.40
PK	133.79M	42.72	43.50	-0.78	-9.43	3	Horizontal	110	2.00	-	52.15	17.36	1.50	28.29
PK	181.32M	37.29	43.50	-6.21	-11.58	3	Horizontal	91	1.50	-	48.87	14.77	1.74	28.09
PK	231.76M	37.71	46.00	-8.29	-9.81	3	Horizontal	119	1.50	-	47.52	16.04	1.99	27.84

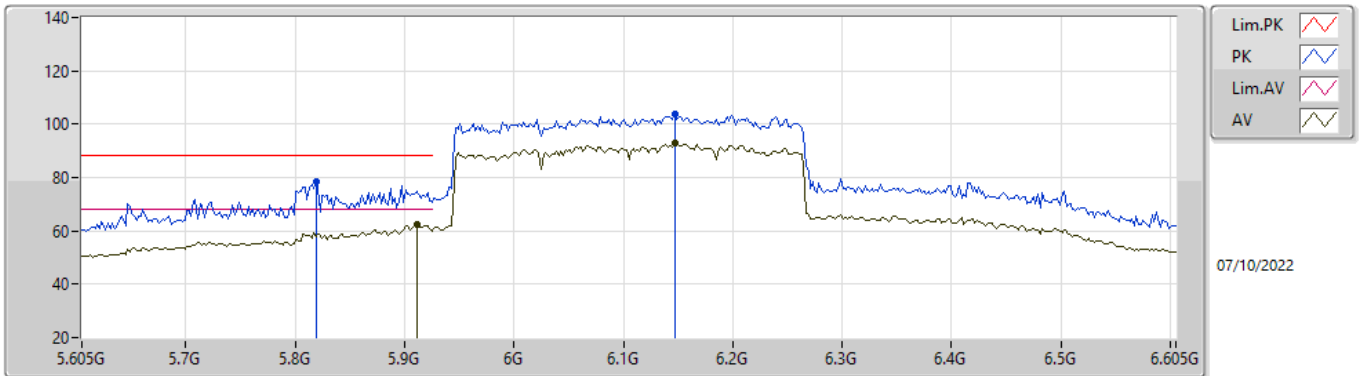


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
6.875-7.125GHz	-	-	-	-	-	-	-	-	-	-	-
802.11be EHT320_Nss1_2TX	Pass	AV	7.2698G	53.97	54.00	-0.03	3	Vertical	226	1.76	-

802.11be EHT320_Nss1_2TX

6105MHz_TnomVnom

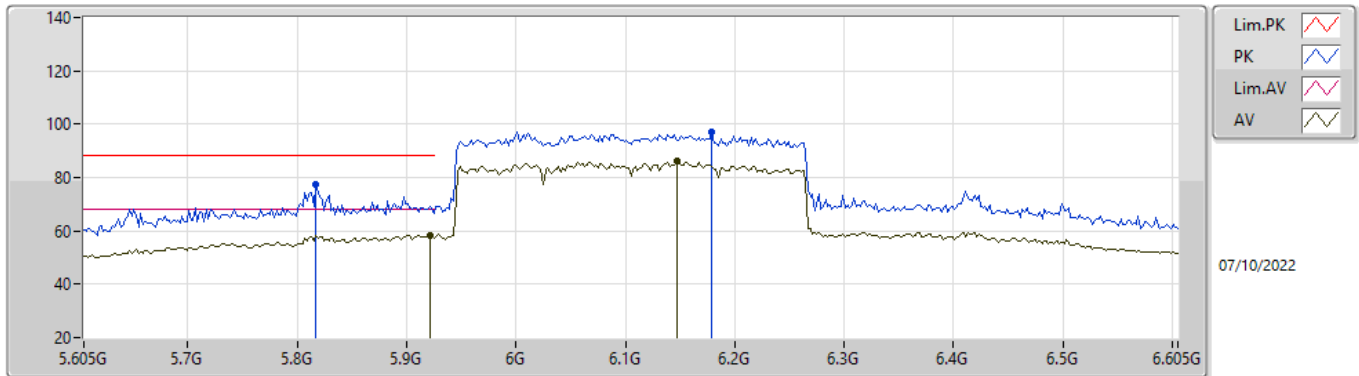


EUT_Z_2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.819G	78.32	88.20	-9.88	71.20	3	Vertical	338	1.78	-	33.94	5.71	32.53
AV	5.911G	62.51	68.20	-5.69	55.12	3	Vertical	338	1.78	-	34.18	5.76	32.55
PK	6.147G	104.00	Inf	-Inf	96.50	3	Vertical	338	1.78	-	34.19	5.95	32.64
AV	6.147G	93.13	Inf	-Inf	85.63	3	Vertical	338	1.78	-	34.19	5.95	32.64

802.11be EHT320_Nss1_2TX

6105MHz_TnomVnom

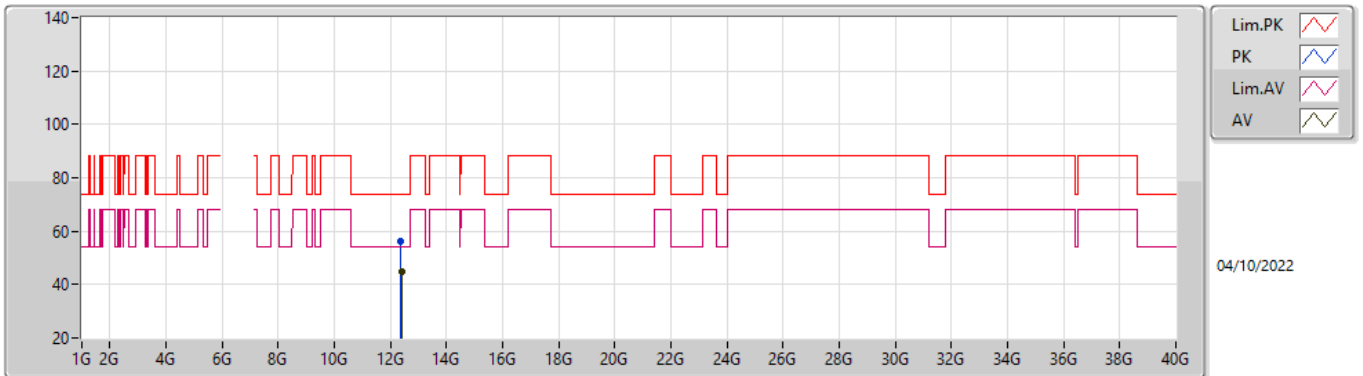


EUT_Z_2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.817G	77.60	88.20	-10.60	70.49	3	Horizontal	171	2.16	-	33.93	5.71	32.53
AV	5.921G	58.48	68.20	-9.72	51.12	3	Horizontal	171	2.16	-	34.16	5.76	32.56
PK	6.179G	97.29	Inf	-Inf	89.76	3	Horizontal	171	2.16	-	34.20	5.98	32.65
AV	6.147G	85.96	Inf	-Inf	78.46	3	Horizontal	171	2.16	-	34.19	5.95	32.64

802.11be EHT320_Nss1_2TX

6105MHz_TnomVnom

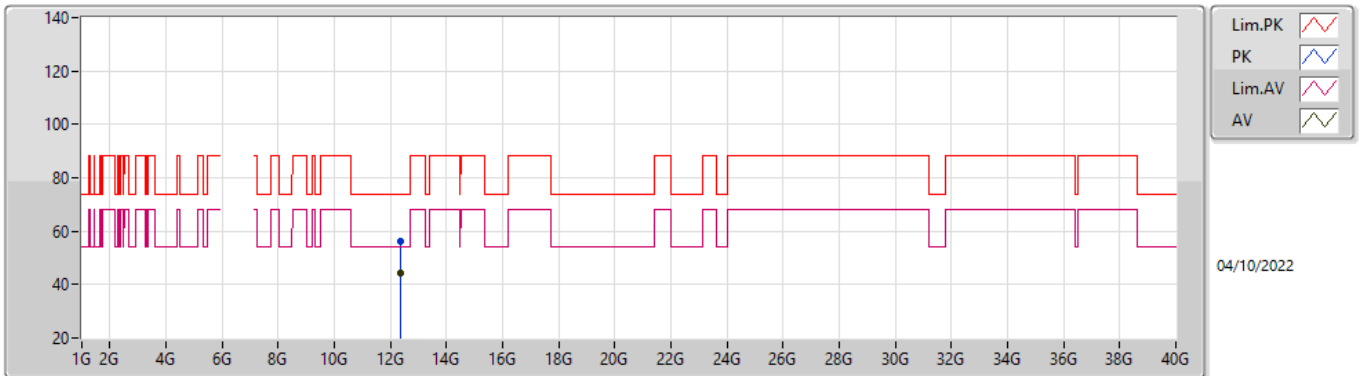


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.3796G	56.24	74.00	-17.76	42.64	3	Vertical	108	1.80	-	39.02	8.79	34.21
AV	12.3876G	44.71	54.00	-9.29	31.11	3	Vertical	108	1.80	-	39.01	8.79	34.20

802.11be EHT320_Nss1_2TX

6105MHz_TnomVnom

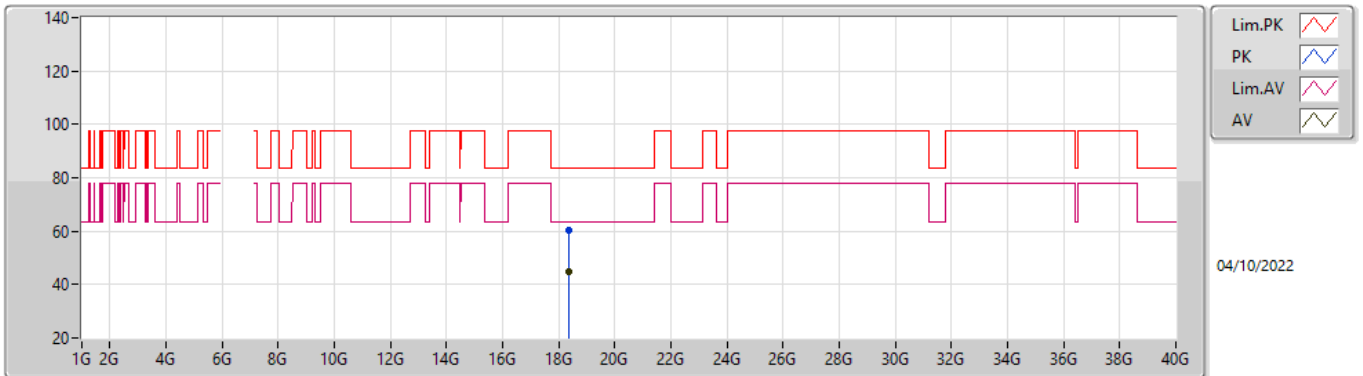


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.378G	56.23	74.00	-17.77	42.63	3	Horizontal	20	1.72	-	39.02	8.79	34.21
AV	12.3508G	44.40	54.00	-9.60	30.79	3	Horizontal	20	1.72	-	39.05	8.78	34.22

802.11be EHT320_Nss1_2TX

6105MHz_TnomVnom

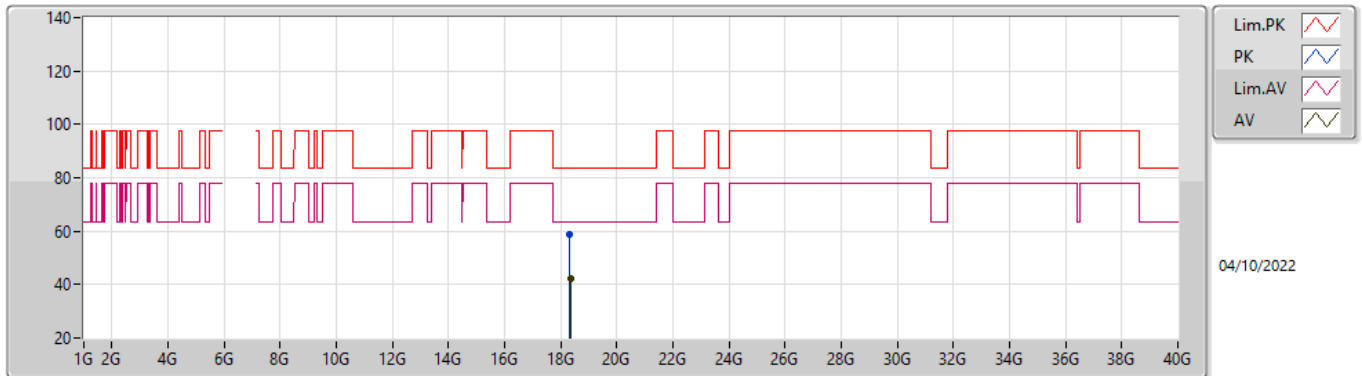


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	18.339G	60.60	83.54	-22.94	59.04	1	Vertical	272	1.57	-	37.54	14.52	50.50
AV	18.385G	44.93	63.54	-18.61	43.38	1	Vertical	272	1.57	-	37.55	14.53	50.53

802.11be EHT320_Nss1_2TX

6105MHz_TnomVnom

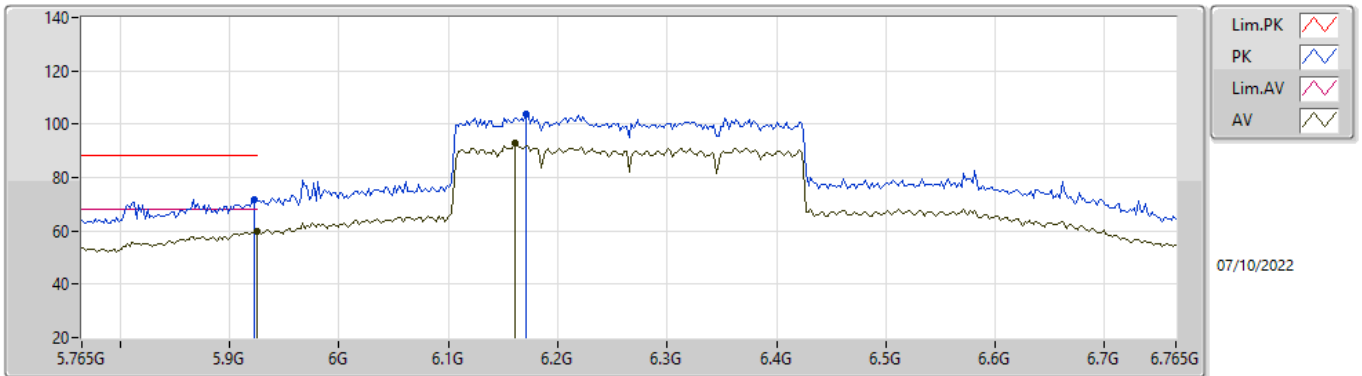


EUT_Z_TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	18.305G	58.62	83.54	-24.92	57.07	1	Horizontal	302	1.57	-	37.52	14.51	50.48
AV	18.36G	42.35	63.54	-21.19	40.80	1	Horizontal	302	1.57	-	37.54	14.53	50.52

802.11be EHT320_Nss1_2TX

6265MHz_TnomVnom

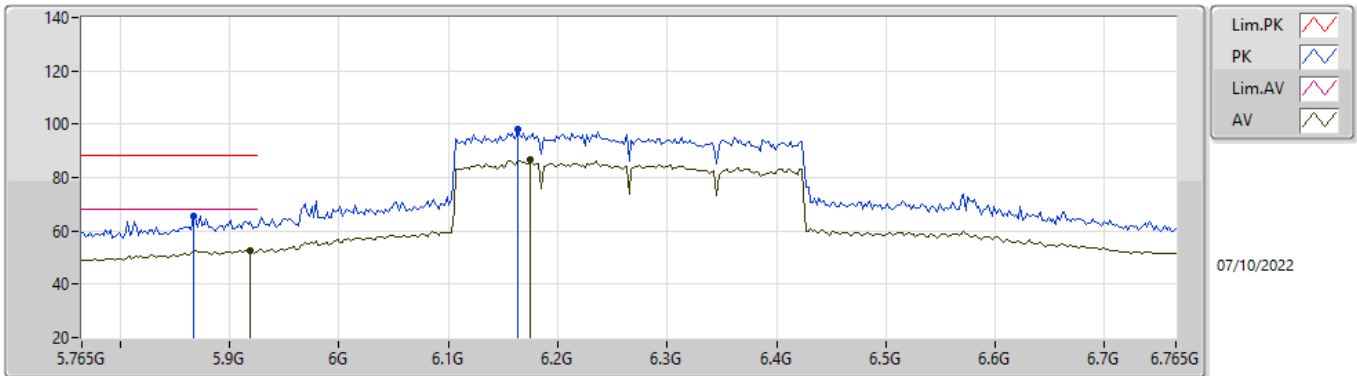


EUT_Z_2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.923G	71.85	88.20	-16.35	64.50	3	Vertical	278	2.00	-	34.15	5.76	32.56
AV	5.925G	60.04	68.20	-8.16	52.69	3	Vertical	278	2.00	-	34.15	5.76	32.56
PK	6.171G	103.85	Inf	-Inf	96.32	3	Vertical	278	2.00	-	34.20	5.97	32.64
AV	6.161G	92.79	Inf	-Inf	85.27	3	Vertical	278	2.00	-	34.20	5.96	32.64

802.11be EHT320_Nss1_2TX

6265MHz_TnomVnom

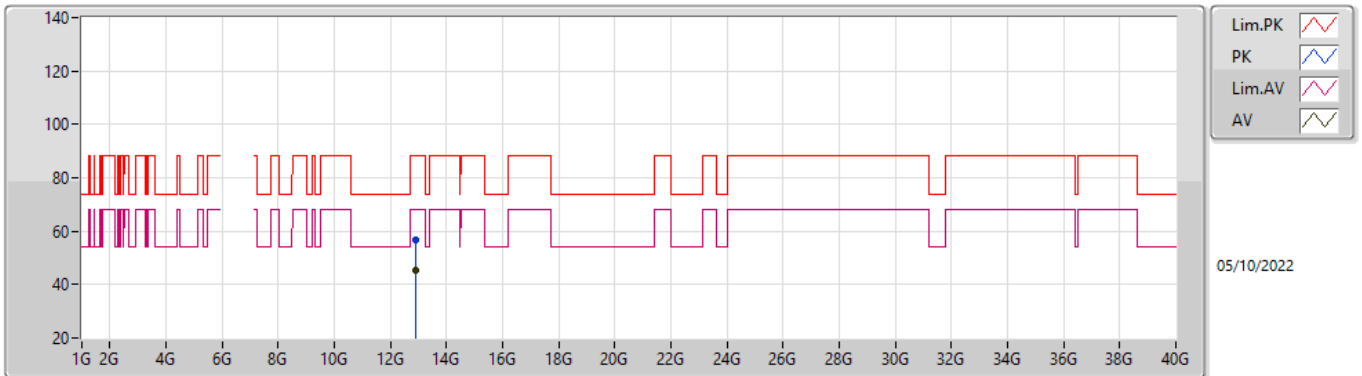


EUT_Z_2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.867G	65.71	88.20	-22.49	58.45	3	Horizontal	155	2.48	-	34.07	5.73	32.54
AV	5.919G	52.79	68.20	-15.41	45.43	3	Horizontal	155	2.48	-	34.16	5.76	32.56
PK	6.163G	97.98	Inf	-Inf	90.46	3	Horizontal	155	2.48	-	34.20	5.96	32.64
AV	6.175G	86.69	Inf	-Inf	79.17	3	Horizontal	155	2.48	-	34.20	5.97	32.65

802.11be EHT320_Nss1_2TX

6265MHz_TnomVnom

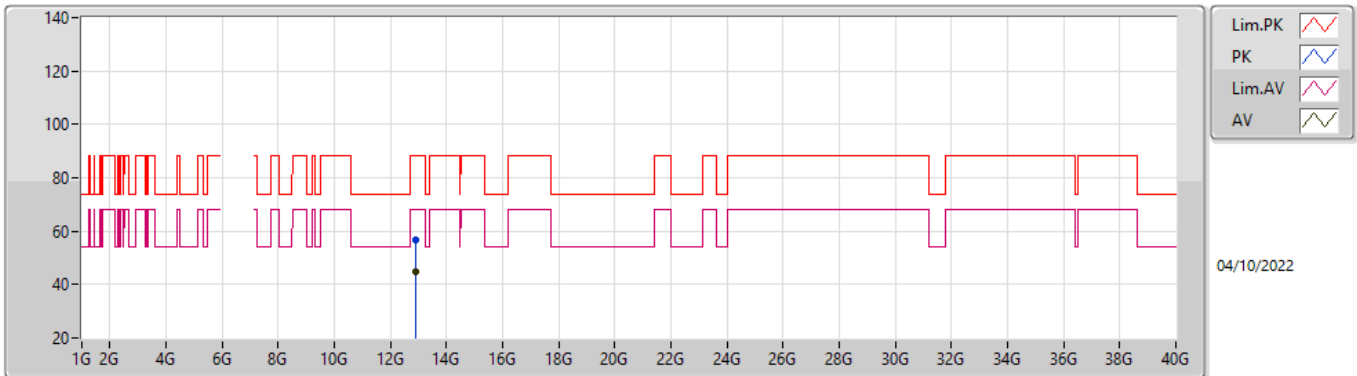


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.9172G	56.73	88.20	-31.47	41.79	3	Vertical	215	1.80	-	39.90	9.06	34.02
RMS	12.9132G	45.16	68.20	-23.04	30.23	3	Vertical	215	1.80	-	39.90	9.06	34.03

802.11be EHT320_Nss1_2TX

6265MHz_TnomVnom

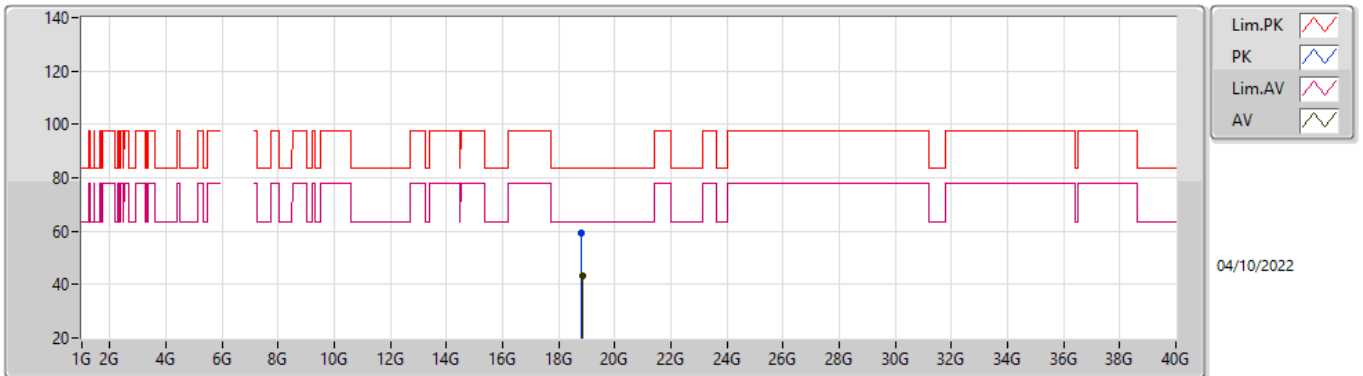


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.8996G	56.91	88.20	-31.29	41.99	3	Horizontal	326	1.39	-	39.90	9.05	34.03
RMS	12.9076G	45.04	68.20	-23.16	30.12	3	Horizontal	326	1.39	-	39.90	9.05	34.03

802.11be EHT320_Nss1_2TX

6265MHz_TnomVnom

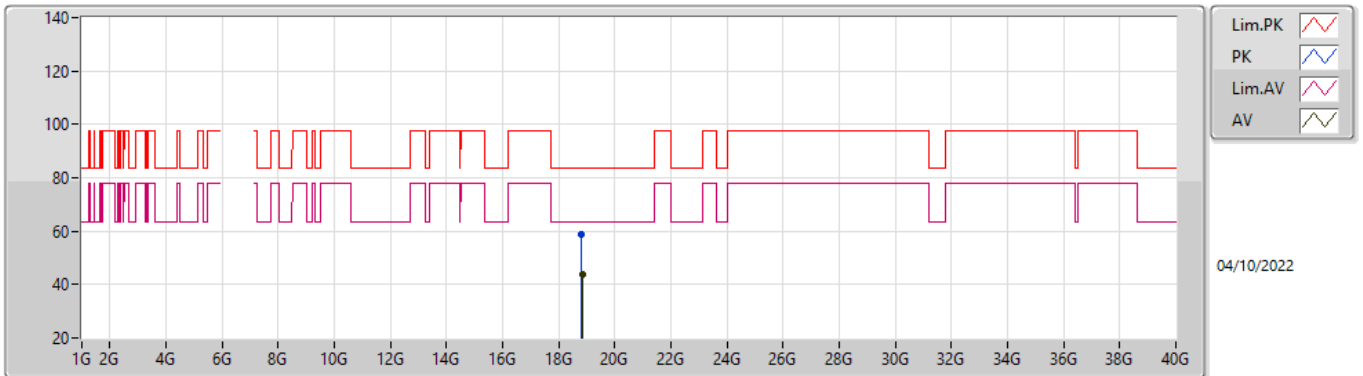


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	18.819G	59.17	83.54	-24.37	57.44	1	Vertical	280	1.58	-	37.64	14.69	50.60
AV	18.84G	43.53	63.54	-20.01	41.81	1	Vertical	280	1.58	-	37.63	14.69	50.60

802.11be EHT320_Nss1_2TX

6265MHz_TnomVnom

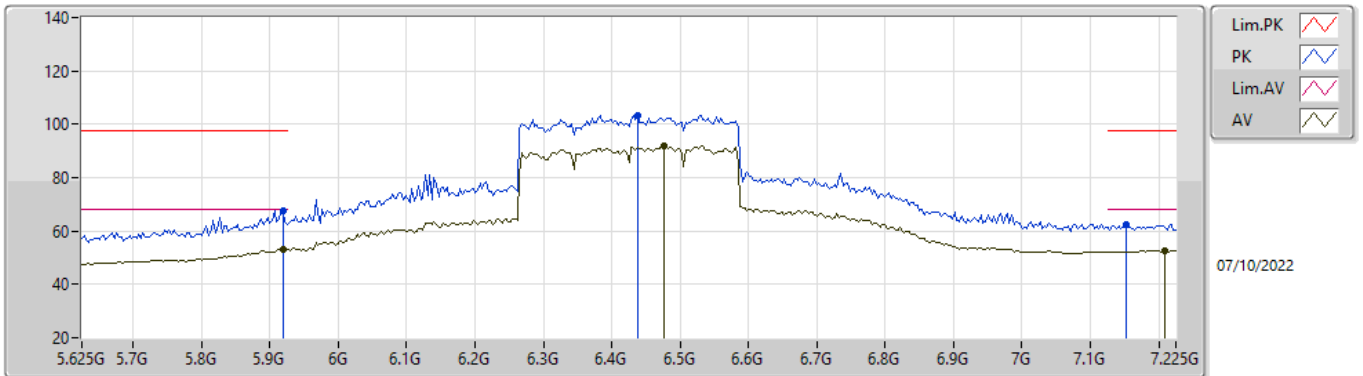


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	18.819G	58.88	83.54	-24.66	57.15	1	Horizontal	74	1.60	-	37.64	14.69	50.60
AV	18.83G	43.56	63.54	-19.98	41.83	1	Horizontal	74	1.60	-	37.64	14.69	50.60

802.11be EHT320_Nss1_2TX

6425MHz_TnomVnom

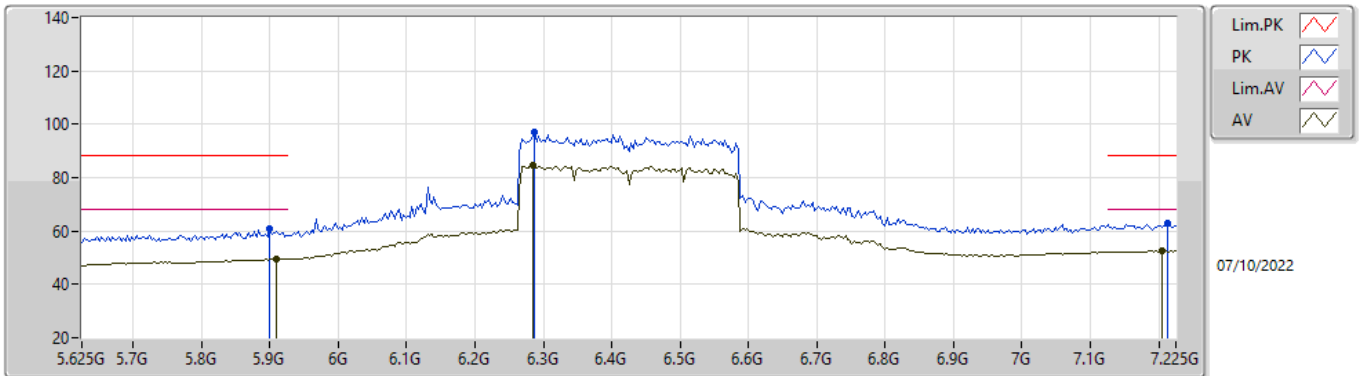


EUT_Z2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.9194G	67.67	88.20	-20.53	60.31	3	Vertical	224	1.80	-	34.16	5.76	32.56
AV	5.9194G	53.02	68.20	-15.18	45.66	3	Vertical	224	1.80	-	34.16	5.76	32.56
PK	6.4378G	103.39	Inf	-Inf	95.22	3	Vertical	224	1.80	-	34.88	6.04	32.75
AV	6.4762G	91.92	Inf	-Inf	83.54	3	Vertical	224	1.80	-	35.06	6.08	32.76
PK	7.1514G	62.50	88.20	-25.70	52.11	3	Vertical	224	1.80	-	36.80	6.75	33.16
AV	7.209G	52.43	68.20	-15.77	41.88	3	Vertical	224	1.80	-	36.92	6.81	33.18

802.11be EHT320_Nss1_2TX

6425MHz_TnomVnom

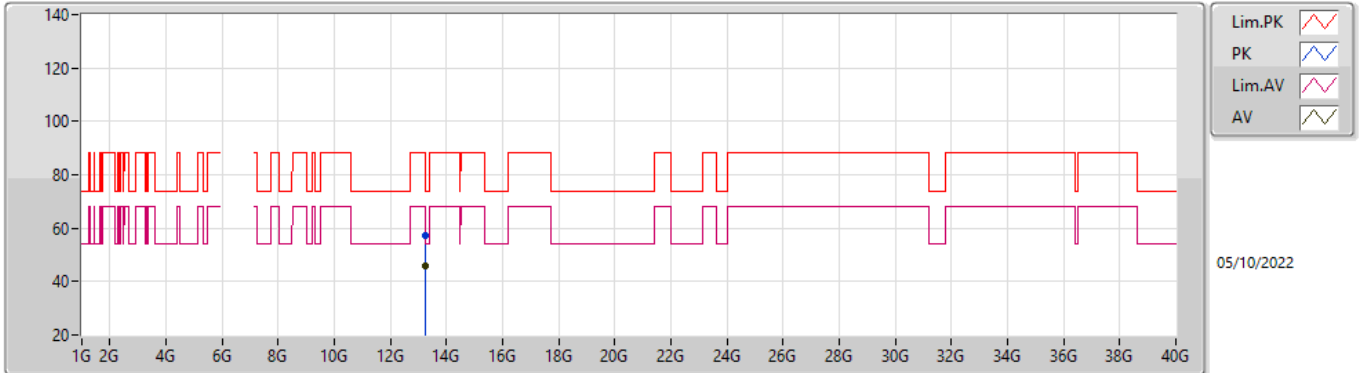


EUT_Z2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.9002G	60.76	88.20	-27.44	53.36	3	Horizontal	147	2.20	-	34.20	5.75	32.55
AV	5.9098G	49.54	68.20	-18.66	42.16	3	Horizontal	147	2.20	-	34.18	5.75	32.55
PK	6.2874G	96.92	Inf	-Inf	89.21	3	Horizontal	147	2.20	-	34.40	6.00	32.69
AV	6.2842G	84.69	Inf	-Inf	76.98	3	Horizontal	147	2.20	-	34.40	6.00	32.69
PK	7.2122G	62.86	88.20	-25.34	52.31	3	Horizontal	147	2.20	-	36.92	6.81	33.18
AV	7.2058G	52.44	68.20	-15.76	41.90	3	Horizontal	147	2.20	-	36.91	6.81	33.18

802.11be EHT320_Nss1_2TX

6425MHz_TnomVnom

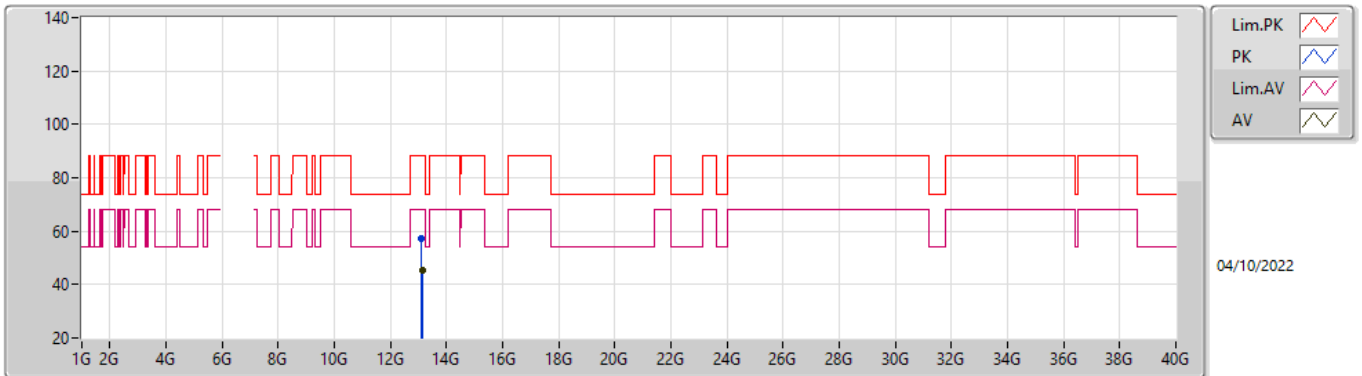


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.242G	57.00	97.74	-40.74	41.88	3	Vertical	262	2.03	-	39.94	9.22	34.04
RMS	13.2428G	45.65	68.20	-22.55	30.53	3	Vertical	262	2.03	-	39.94	9.22	34.04

802.11be EHT320_Nss1_2TX

6425MHz_TnomVnom

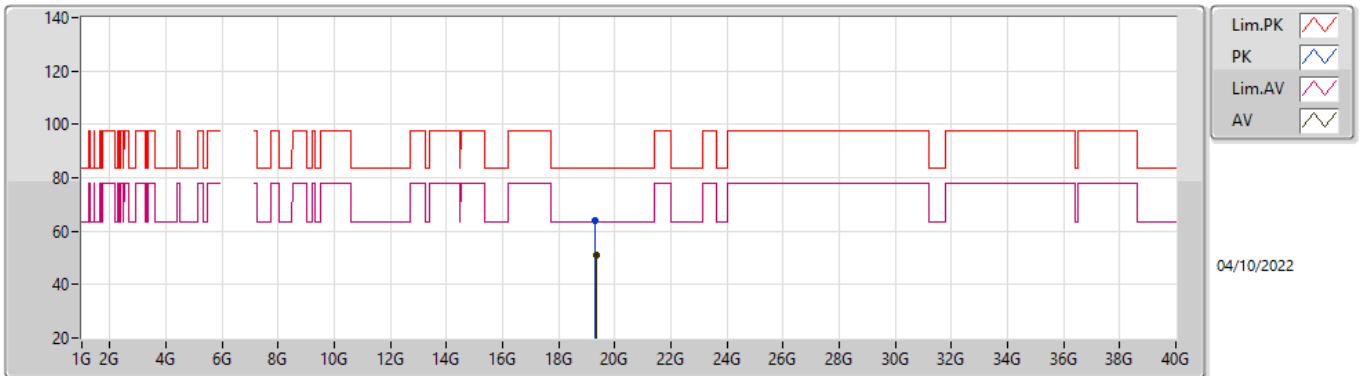


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.114G	57.19	88.20	-31.01	42.32	3	Horizontal	262	1.63	-	39.73	9.16	34.02
RMS	13.162G	45.59	68.20	-22.61	30.62	3	Horizontal	262	1.63	-	39.82	9.18	34.03

802.11be EHT320_Nss1_2TX

6425MHz_TnomVnom

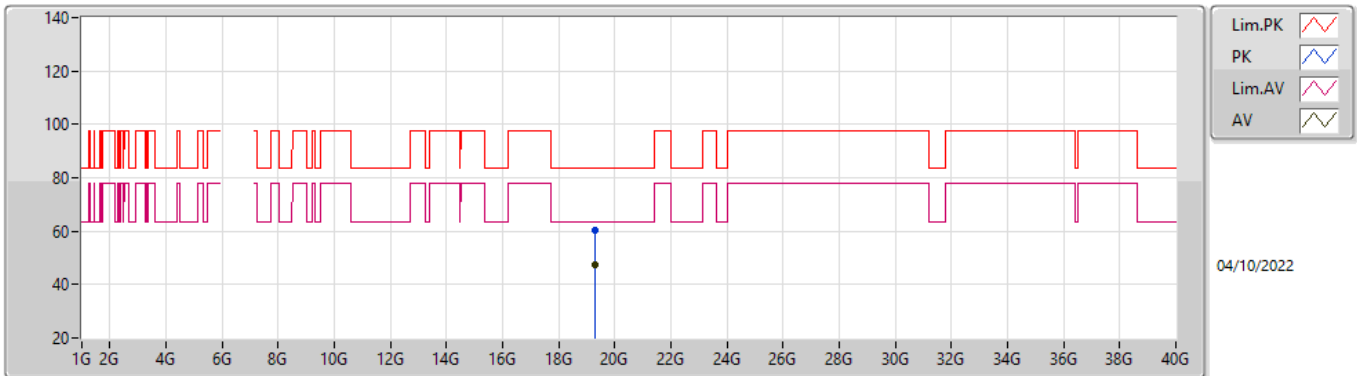


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	19.298G	64.02	83.54	-19.52	62.15	1	Vertical	194	1.58	-	37.62	14.85	50.60
AV	19.321G	50.83	63.54	-12.71	48.94	1	Vertical	194	1.58	-	37.63	14.86	50.60

802.11be EHT320_Nss1_2TX

6425MHz_TnomVnom

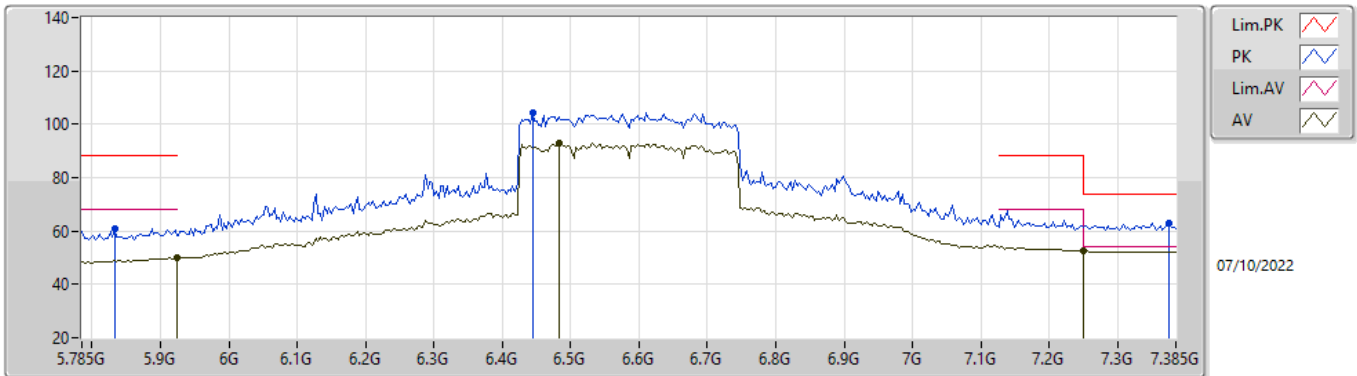


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	19.305G	60.15	83.54	-23.39	58.27	1	Horizontal	128	1.58	-	37.62	14.86	50.60
AV	19.313G	47.27	63.54	-16.27	45.38	1	Horizontal	128	1.58	-	37.63	14.86	50.60

802.11be EHT320_Nss1_2TX

6585MHz_TnomVnom

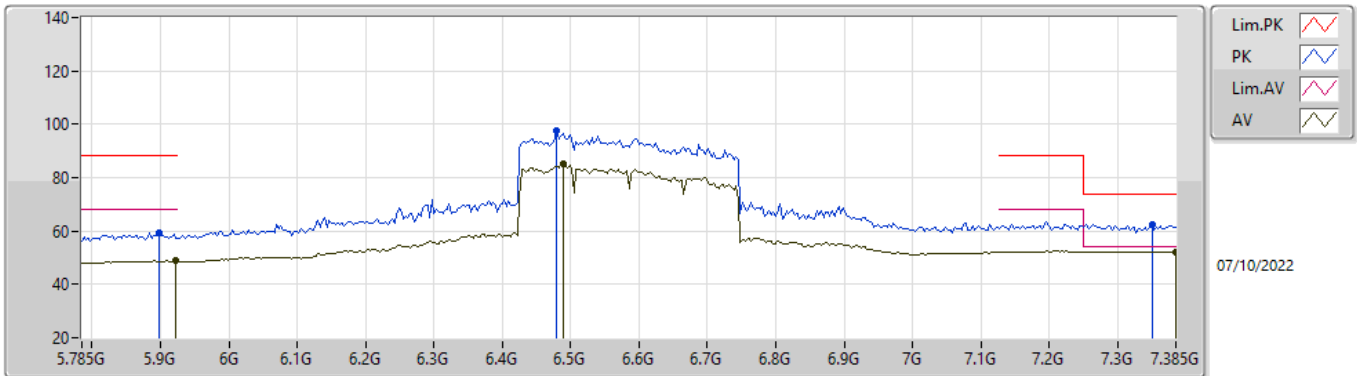


EUT_Z_TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.833G	60.81	88.20	-27.39	53.65	3	Vertical	225	1.80	-	33.97	5.72	32.53
AV	5.925G	49.90	68.20	-18.30	42.55	3	Vertical	225	1.80	-	34.15	5.76	32.56
PK	6.4442G	104.37	Inf	-Inf	96.19	3	Vertical	225	1.80	-	34.89	6.04	32.75
AV	6.4826G	92.92	Inf	-Inf	84.50	3	Vertical	225	1.80	-	35.10	6.08	32.76
PK	7.3754G	62.75	74.00	-11.25	52.41	3	Vertical	225	1.80	-	36.60	6.98	33.24
AV	7.25G	52.45	54.00	-1.55	41.80	3	Vertical	225	1.80	-	37.00	6.85	33.20

802.11be EHT320_Nss1_2TX

6585MHz_TnomVnom

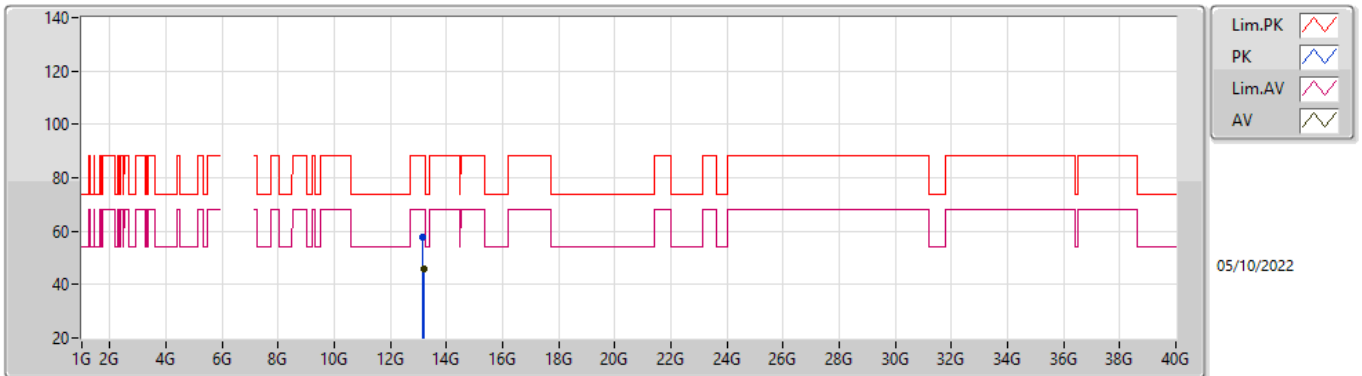


EUT_Z2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.897G	59.23	88.20	-28.97	51.84	3	Horizontal	-0	2.95	-	34.19	5.75	32.55
AV	5.9226G	48.74	68.20	-19.46	41.39	3	Horizontal	-0	2.95	-	34.15	5.76	32.56
PK	6.4794G	97.36	Inf	-Inf	88.96	3	Horizontal	-0	2.95	-	35.08	6.08	32.76
AV	6.489G	85.11	Inf	-Inf	76.66	3	Horizontal	-0	2.95	-	35.13	6.09	32.77
PK	7.3498G	62.60	74.00	-11.40	52.28	3	Horizontal	-0	2.95	-	36.60	6.95	33.23
AV	7.385G	52.27	54.00	-1.73	41.93	3	Horizontal	-0	2.95	-	36.60	6.98	33.24

802.11be EHT320_Nss1_2TX

6585MHz_TnomVnom

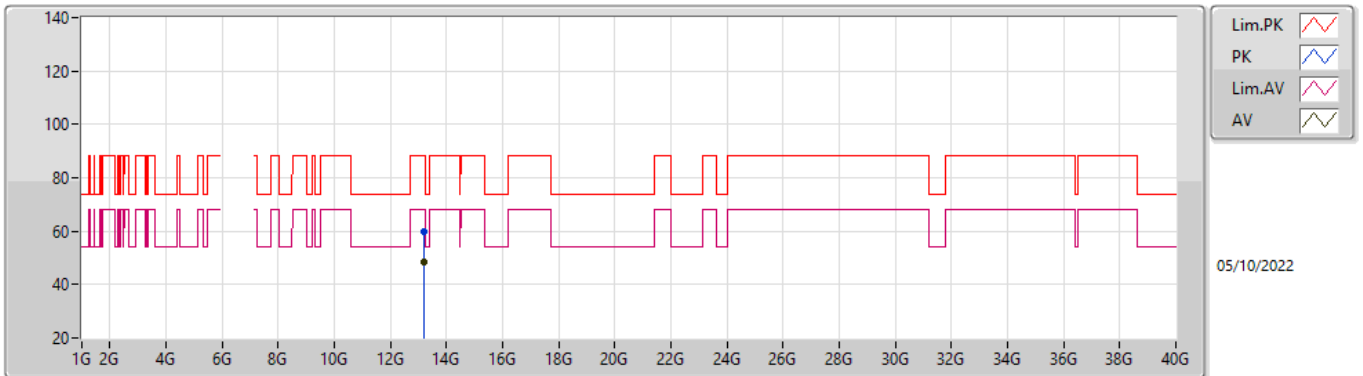


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.172G	57.76	88.20	-30.44	42.76	3	Vertical	93	1.80	-	39.84	9.19	34.03
RMS	13.1772G	46.10	68.20	-22.10	31.09	3	Vertical	93	1.80	-	39.85	9.19	34.03

802.11be EHT320_Nss1_2TX

6585MHz_TnomVnom

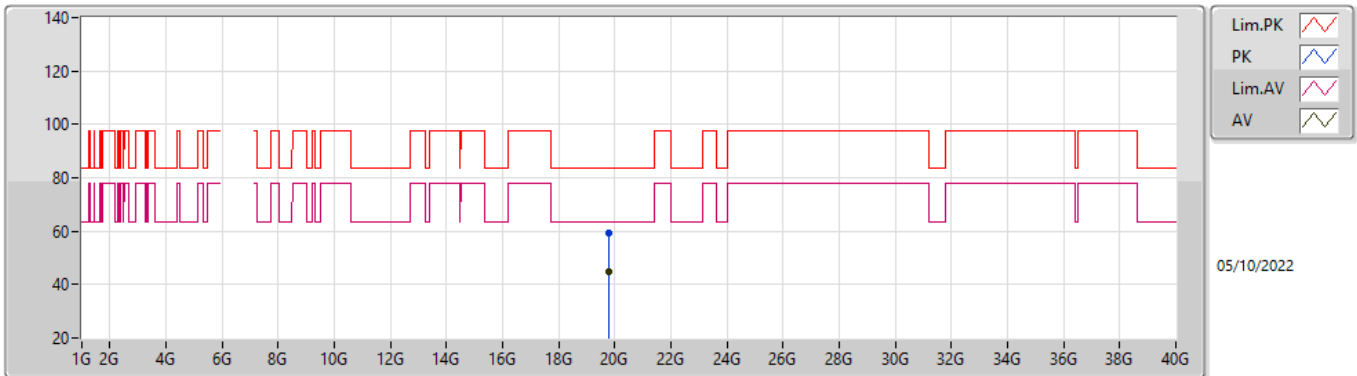


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.179G	59.67	88.20	-28.53	44.65	3	Horizontal	223	1.80	-	39.86	9.19	34.03
RMS	13.179G	48.57	68.20	-19.63	33.55	3	Horizontal	223	1.80	-	39.86	9.19	34.03

802.11be EHT320_Nss1_2TX

6585MHz_TnomVnom

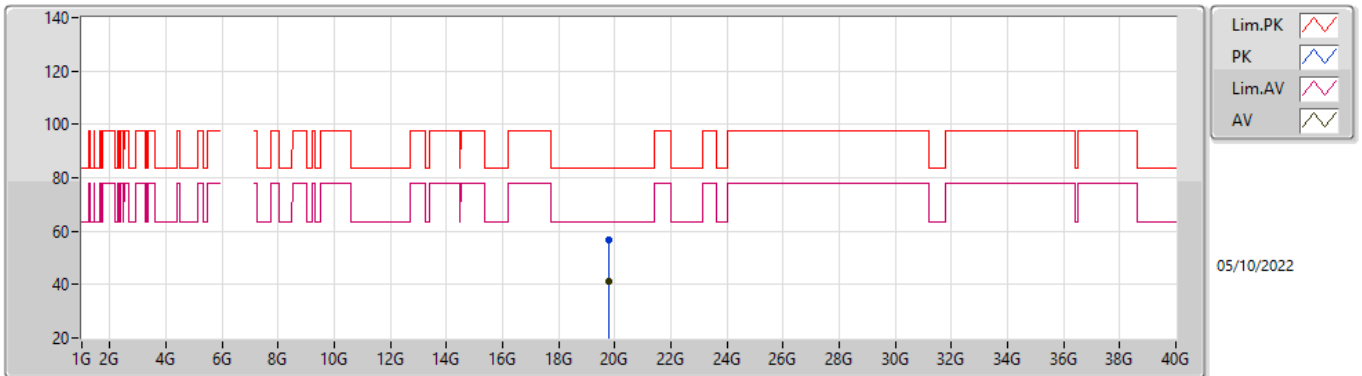


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	19.781G	59.17	83.54	-24.37	57.00	1	Vertical	197	1.57	-	37.58	15.02	50.43
AV	19.785G	45.03	63.54	-18.51	42.87	1	Vertical	197	1.57	-	37.57	15.02	50.43

802.11be EHT320_Nss1_2TX

6585MHz_TnomVnom

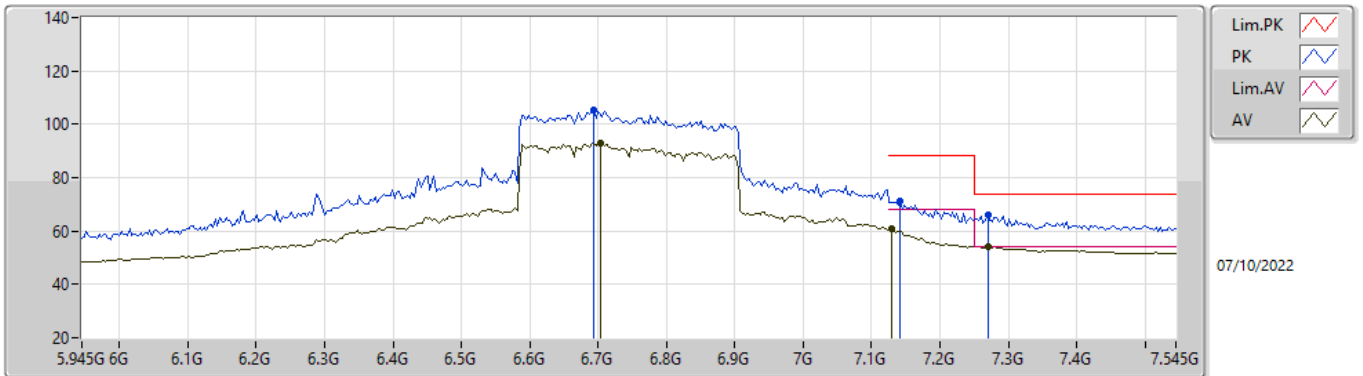


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	19.778G	56.86	83.54	-26.68	54.69	1	Horizontal	129	1.60	-	37.58	15.02	50.43
AV	19.778G	41.46	63.54	-22.08	39.29	1	Horizontal	129	1.60	-	37.58	15.02	50.43

802.11be EHT320_Nss1_2TX

6745MHz_TnomVnom

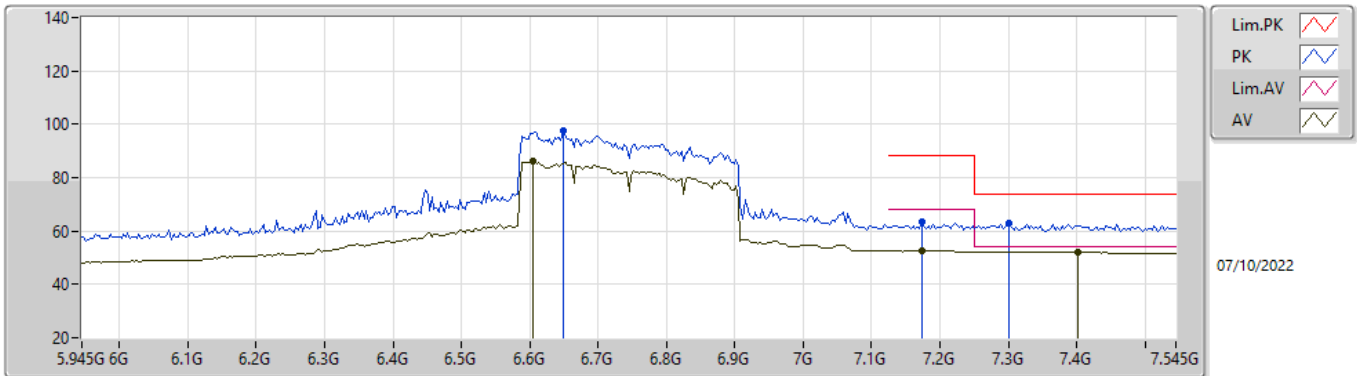


EUT_Z_2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	6.6938G	105.56	Inf	-Inf	96.18	3	Vertical	226	1.76	-	36.08	6.20	32.90
AV	6.7034G	93.18	Inf	-Inf	83.79	3	Vertical	226	1.76	-	36.10	6.20	32.91
PK	7.1418G	71.12	88.20	-17.08	60.79	3	Vertical	226	1.76	-	36.75	6.74	33.16
AV	7.129G	60.70	68.20	-7.50	50.45	3	Vertical	226	1.76	-	36.67	6.73	33.15
PK	7.2698G	65.84	74.00	-8.16	55.25	3	Vertical	226	1.76	-	36.92	6.87	33.20
AV	7.2698G	53.97	54.00	-0.03	43.38	3	Vertical	226	1.76	-	36.92	6.87	33.20

802.11be EHT320_Nss1_2TX

6745MHz_TnomVnom

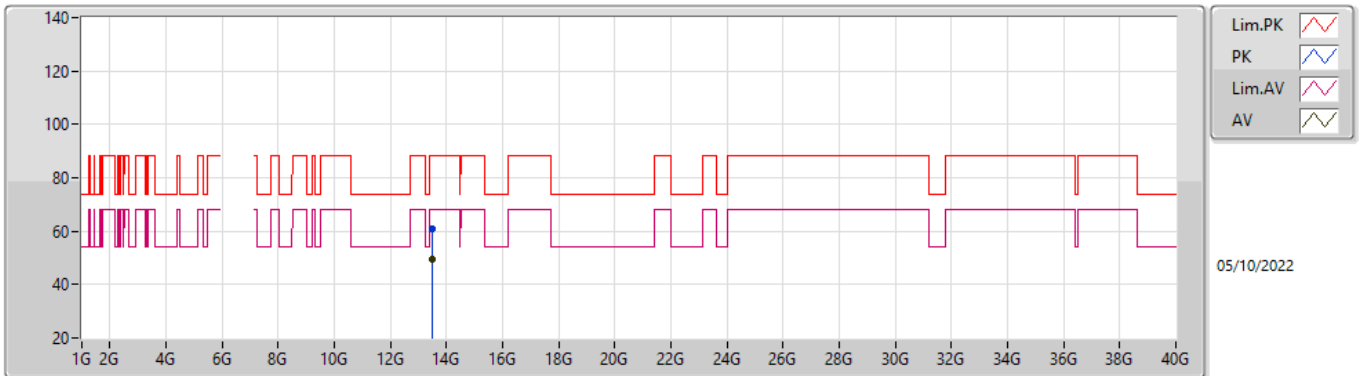


EUT_Z2TX
Setting 76
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	6.649G	97.34	Inf	-Inf	88.11	3	Horizontal	158	2.12	-	35.90	6.20	32.87
AV	6.6042G	86.38	Inf	-Inf	77.21	3	Horizontal	158	2.12	-	35.81	6.20	32.84
PK	7.1738G	63.55	88.20	-24.65	53.10	3	Horizontal	158	2.12	-	36.85	6.77	33.17
AV	7.1738G	52.51	68.20	-15.69	42.06	3	Horizontal	158	2.12	-	36.85	6.77	33.17
PK	7.3018G	62.78	74.00	-11.22	52.30	3	Horizontal	158	2.12	-	36.79	6.90	33.21
AV	7.401G	52.31	54.00	-1.69	41.96	3	Horizontal	158	2.12	-	36.60	7.00	33.25

802.11be EHT320_Nss1_2TX

6745MHz_TnomVnom

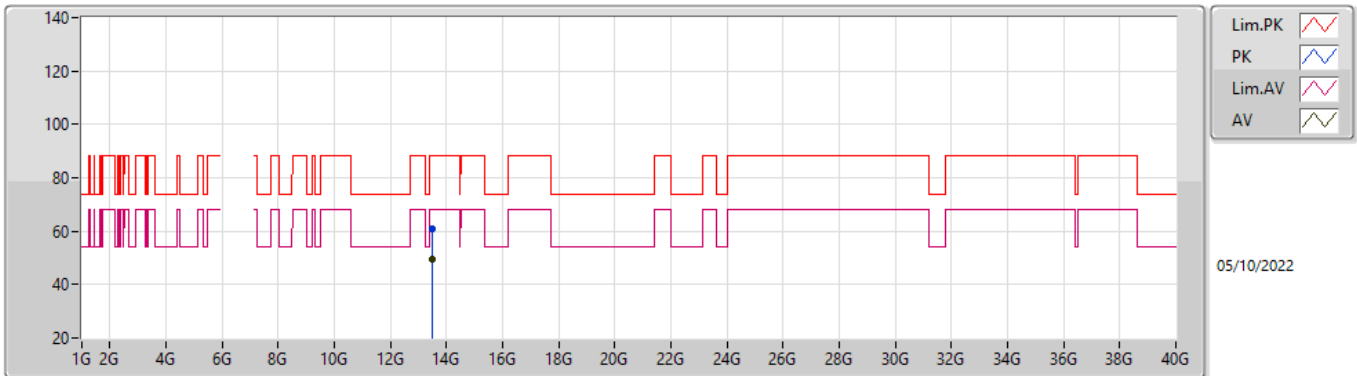


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.498G	60.68	88.20	-27.52	45.01	3	Vertical	354	1.80	-	40.40	9.35	34.08
RMS	13.492G	49.33	68.20	-18.87	33.66	3	Vertical	354	1.80	-	40.40	9.35	34.08

802.11be EHT320_Nss1_2TX

6745MHz_TnomVnom

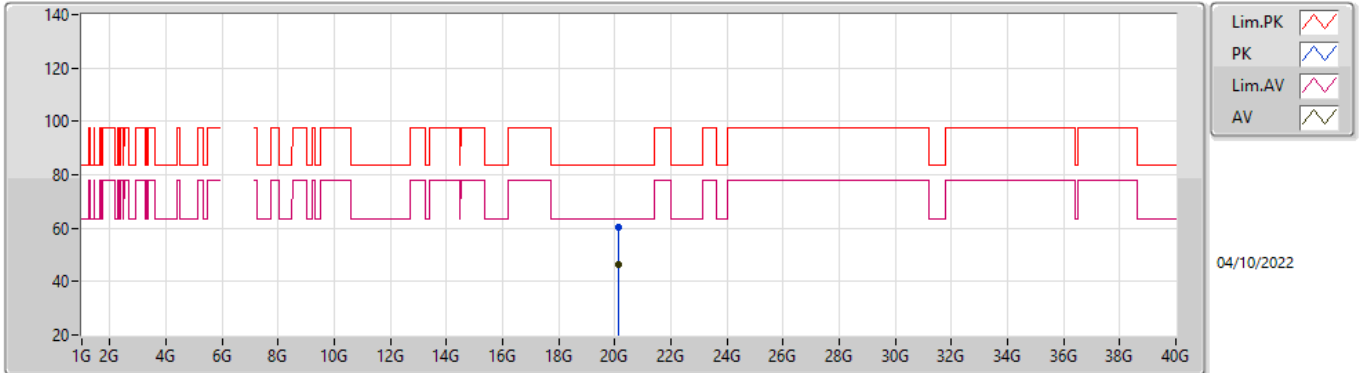


EUT_Z_2TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.492G	60.83	97.74	-36.91	45.16	3	Horizontal	226	1.80	-	40.40	9.35	34.08
RMS	13.49G	49.40	68.20	-18.80	33.74	3	Horizontal	226	1.80	-	40.40	9.34	34.08

802.11be EHT320_Nss1_2TX

6745MHz_TnomVnom

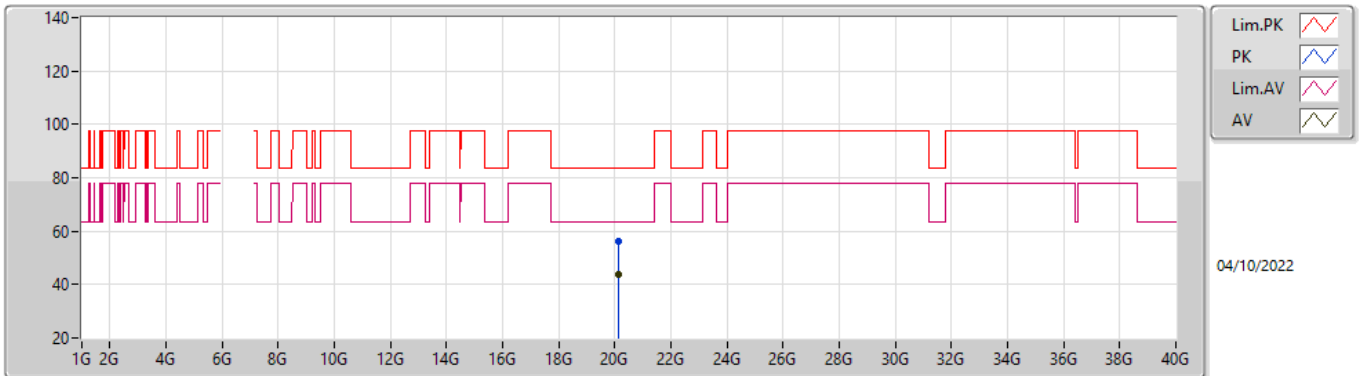


EUT_Z_TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	20.121G	60.54	83.54	-23.00	58.19	1	Vertical	322	1.57	-	37.50	15.13	50.28
AV	20.116G	46.46	63.54	-17.08	44.12	1	Vertical	322	1.57	-	37.49	15.13	50.28

802.11be EHT320_Nss1_2TX

6745MHz_TnomVnom

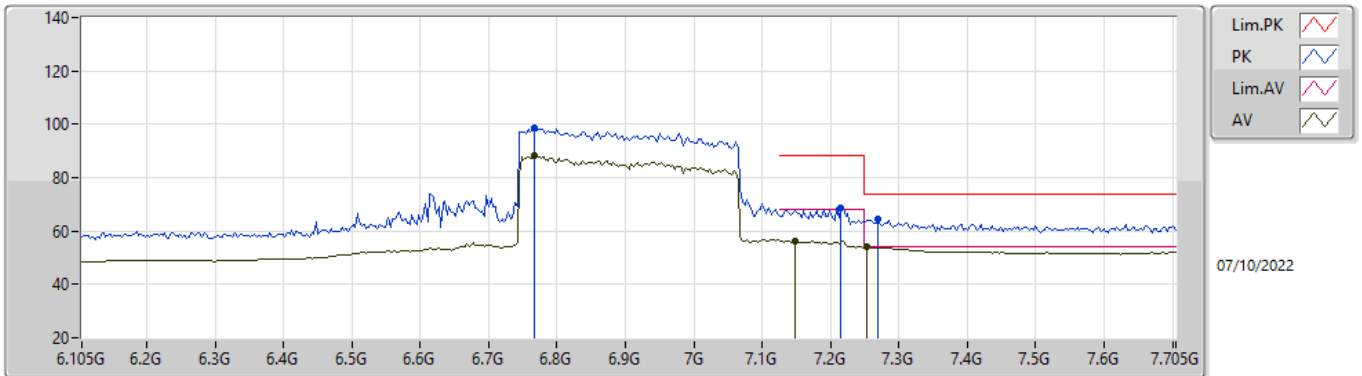


EUT_Z_TX
Setting 76
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	20.145G	56.21	83.54	-27.33	53.82	1	Horizontal	257	1.62	-	37.52	15.14	50.27
AV	20.118G	43.63	63.54	-19.91	41.29	1	Horizontal	257	1.62	-	37.49	15.13	50.28

802.11be EHT320_Nss1_2TX

6905MHz_TnomVnom

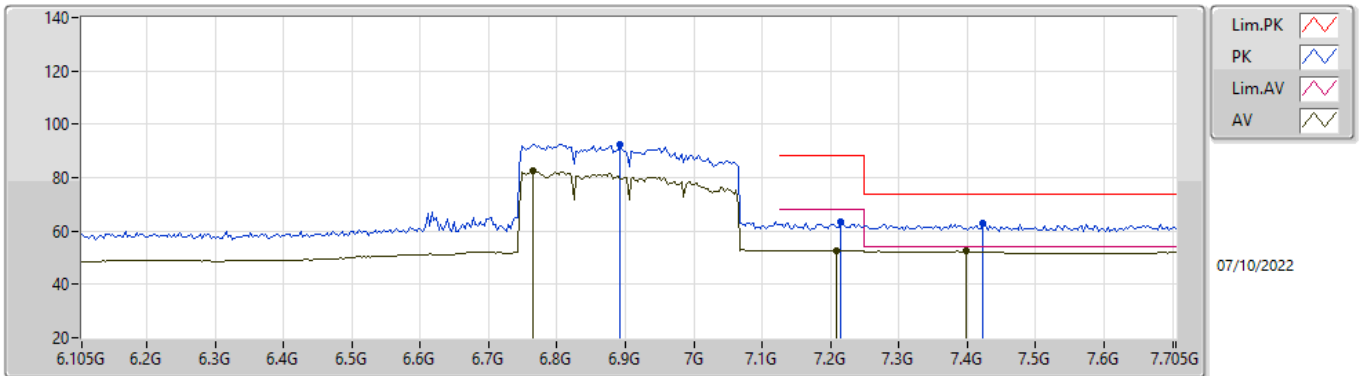


EUT_Z_2TX
Setting 54
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	6.7674G	98.81	Inf	-Inf	89.46	3	Vertical	229	1.82	-	36.10	6.20	32.95
AV	6.7674G	88.53	Inf	-Inf	79.18	3	Vertical	229	1.82	-	36.10	6.20	32.95
PK	7.2154G	68.81	88.20	-19.39	58.24	3	Vertical	229	1.82	-	36.93	6.82	33.18
AV	7.1482G	56.44	68.20	-11.76	46.06	3	Vertical	229	1.82	-	36.79	6.75	33.16
PK	7.2698G	64.54	74.00	-9.46	53.95	3	Vertical	229	1.82	-	36.92	6.87	33.20
AV	7.2538G	53.96	54.00	-0.04	43.33	3	Vertical	229	1.82	-	36.98	6.85	33.20

802.11be EHT320_Nss1_2TX

6905MHz_TnomVnom

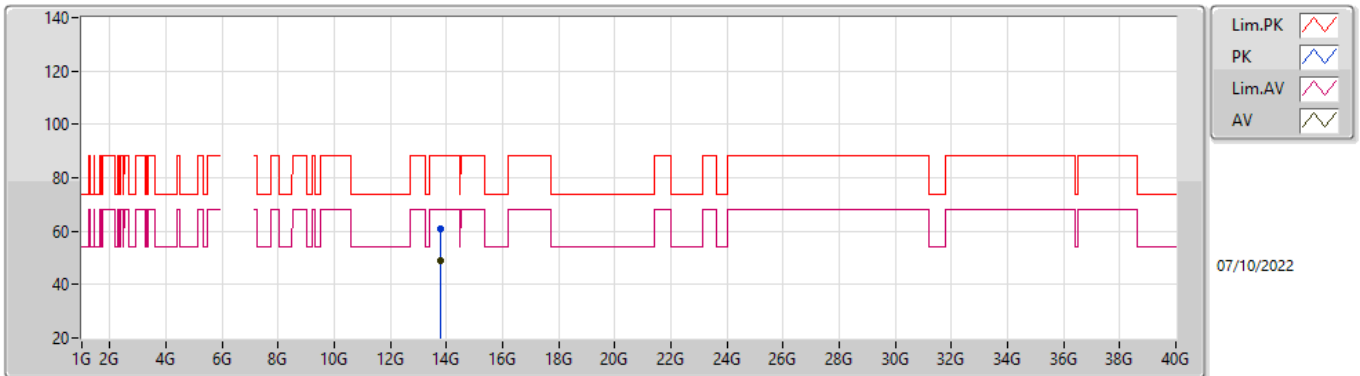


EUT_Z_2TX
Setting 54
04-D-B-2-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	6.8922G	92.57	Inf	-Inf	83.33	3	Horizontal	20	2.34	-	35.90	6.38	33.04
AV	6.7642G	82.72	Inf	-Inf	73.37	3	Horizontal	20	2.34	-	36.10	6.20	32.95
PK	7.2154G	63.27	88.20	-24.93	52.70	3	Horizontal	20	2.34	-	36.93	6.82	33.18
AV	7.209G	52.63	68.20	-15.57	42.08	3	Horizontal	20	2.34	-	36.92	6.81	33.18
PK	7.4234G	62.77	74.00	-11.23	52.46	3	Horizontal	20	2.34	-	36.55	7.01	33.25
AV	7.3978G	52.34	54.00	-1.66	41.99	3	Horizontal	20	2.34	-	36.60	7.00	33.25

802.11be EHT320_Nss1_2TX

6905MHz_TnomVnom

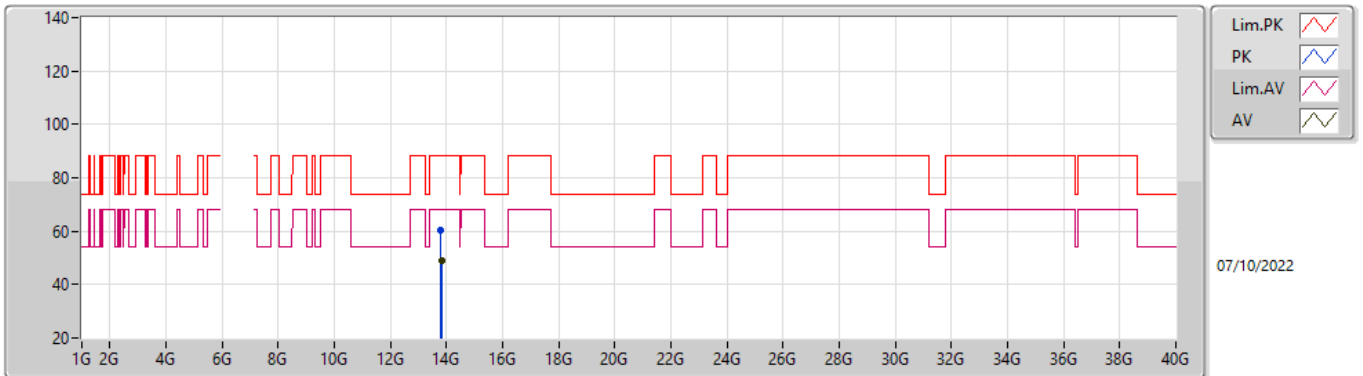


EUT_Z_2TX
Setting 54
04-D-B-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.8104G	60.79	88.20	-27.41	44.56	3	Vertical	0	2.96	-	40.62	9.51	33.90
RMS	13.81G	49.10	68.20	-19.10	32.87	3	Vertical	0	2.96	-	40.62	9.51	33.90

802.11be EHT320_Nss1_2TX

6905MHz_TnomVnom

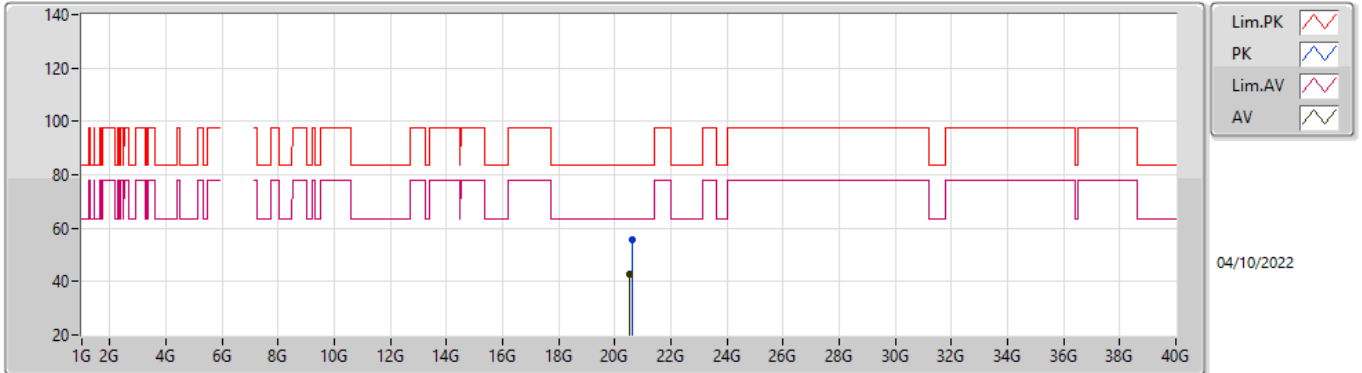


EUT_Z_2TX
Setting 54
04-D-B-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	13.81G	60.59	88.20	-27.61	44.36	3	Horizontal	-0	2.68	-	40.62	9.51	33.90
RMS	13.8132G	49.12	68.20	-19.08	32.88	3	Horizontal	-0	2.68	-	40.63	9.51	33.90

802.11be EHT320_Nss1_2TX

6905MHz_TnomVnom

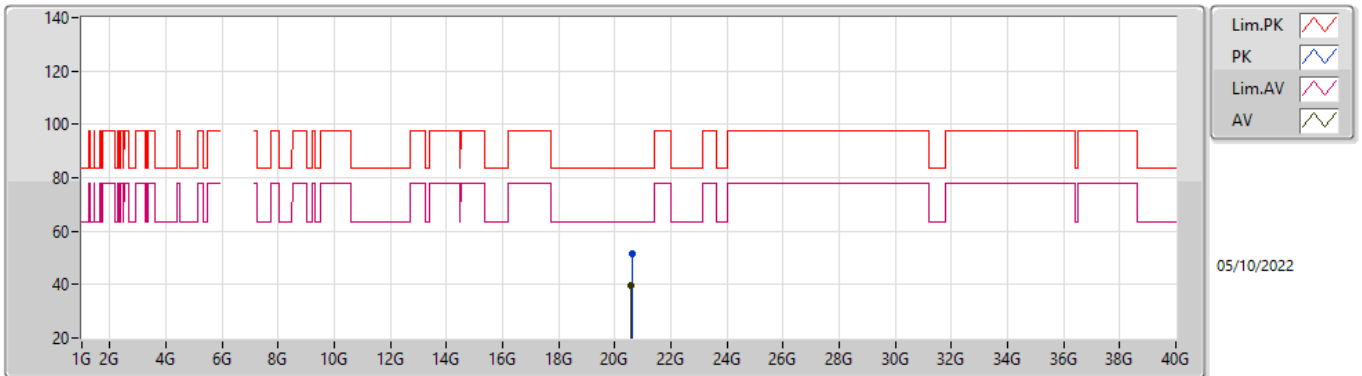


EUT_Z_2TX
Setting 54
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	20.601G	55.52	83.54	-28.02	52.67	1	Vertical	62	1.65	-	37.74	15.25	50.14
AV	20.506G	42.95	63.54	-20.59	40.22	1	Vertical	62	1.65	-	37.70	15.23	50.20

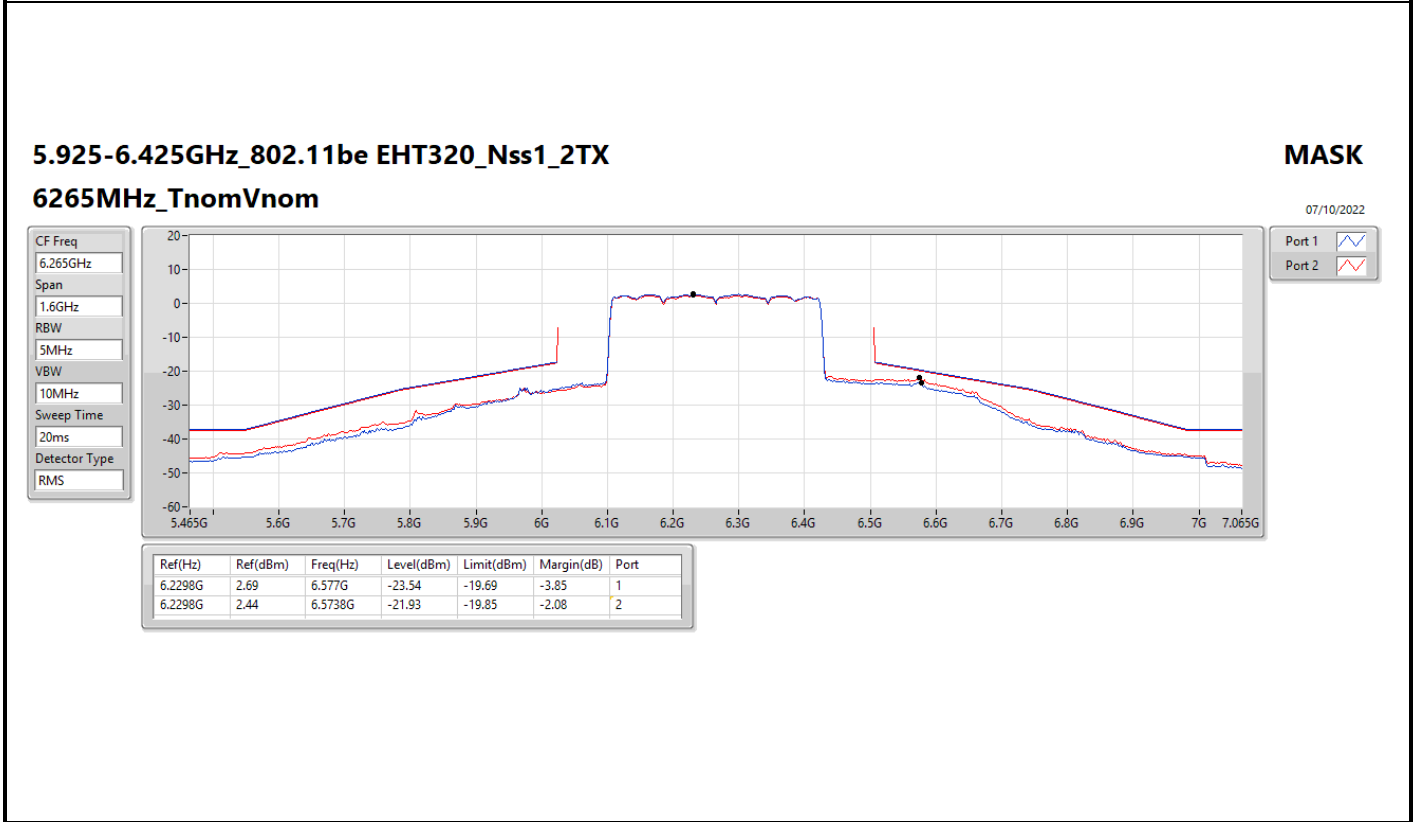
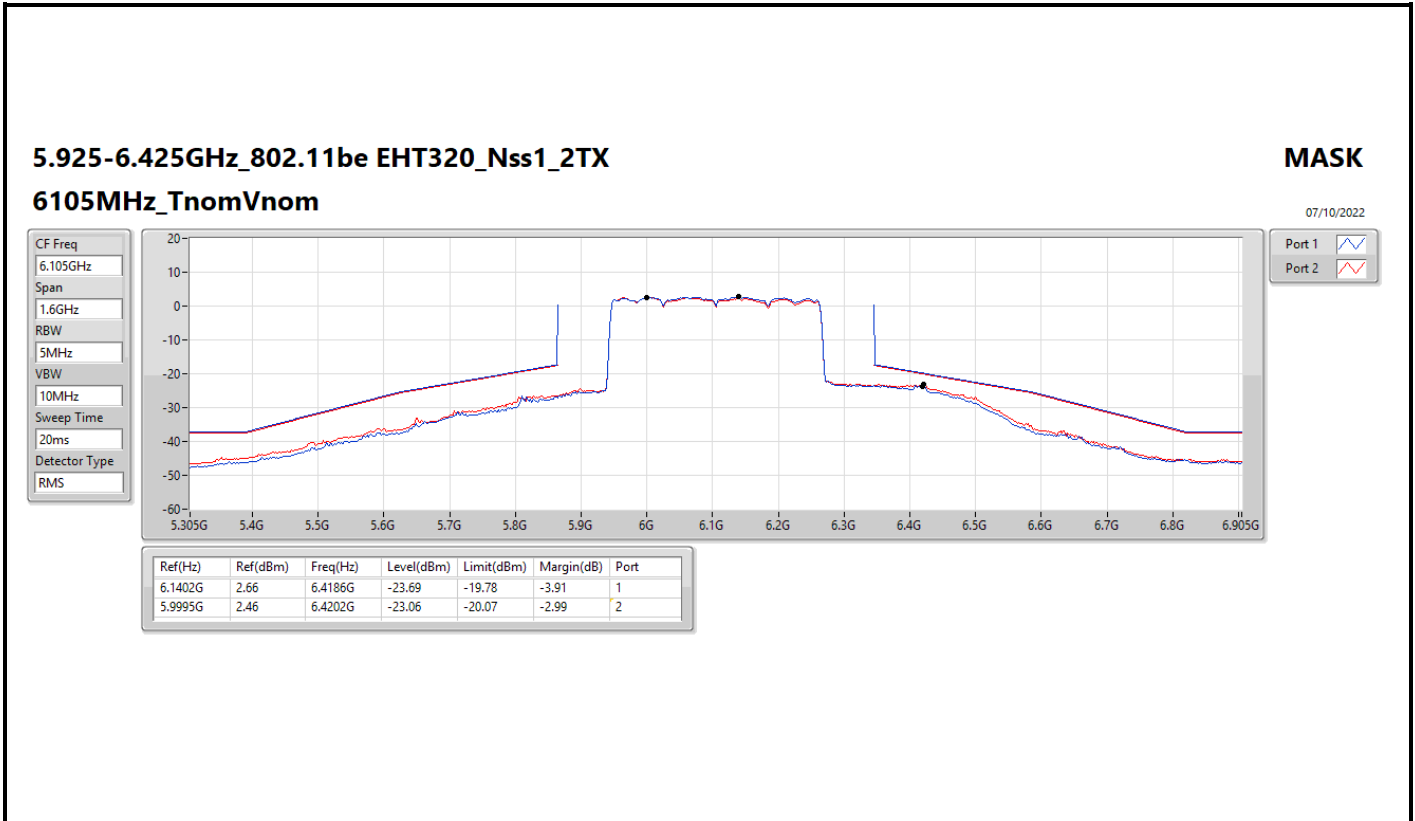
802.11be EHT320_Nss1_2TX

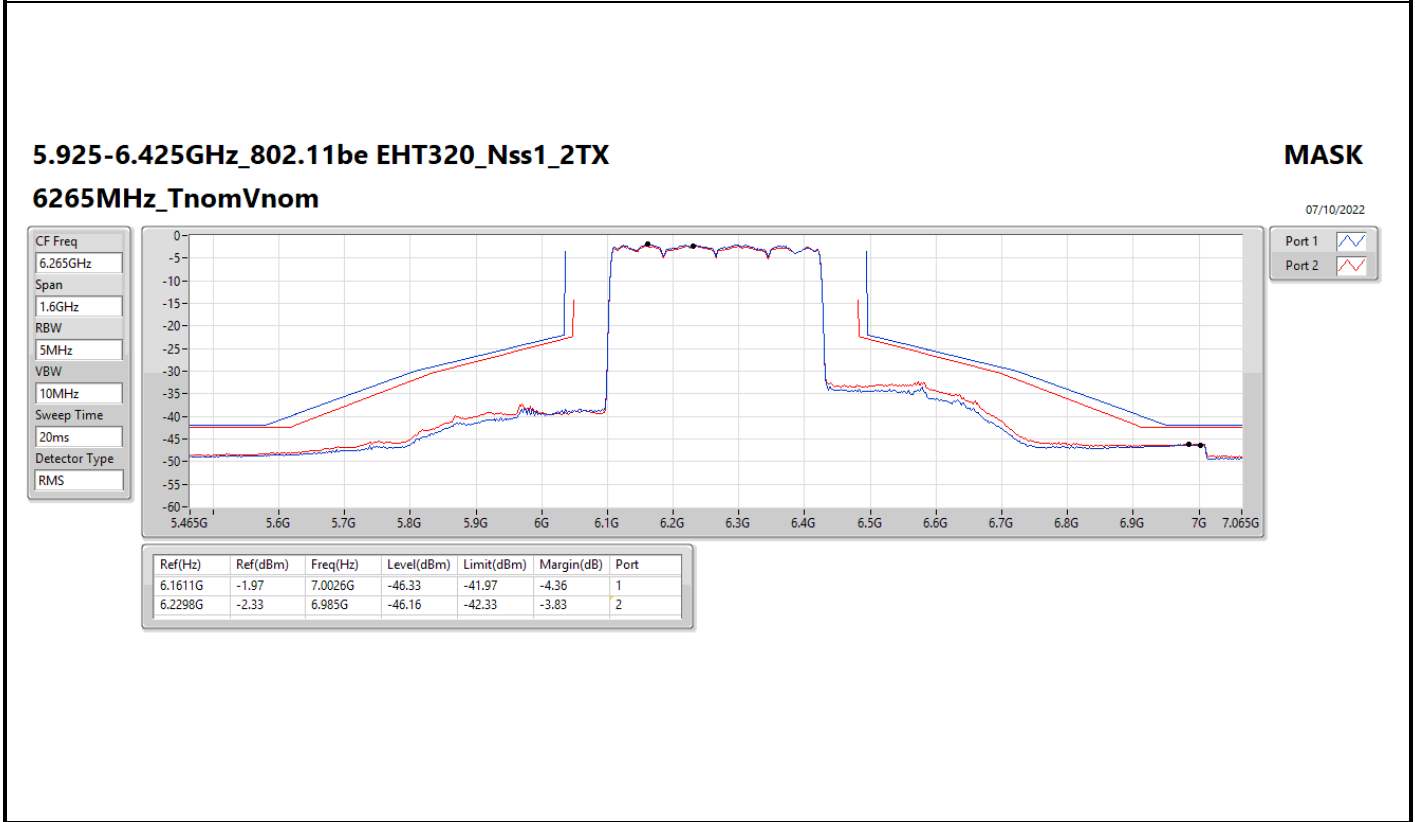
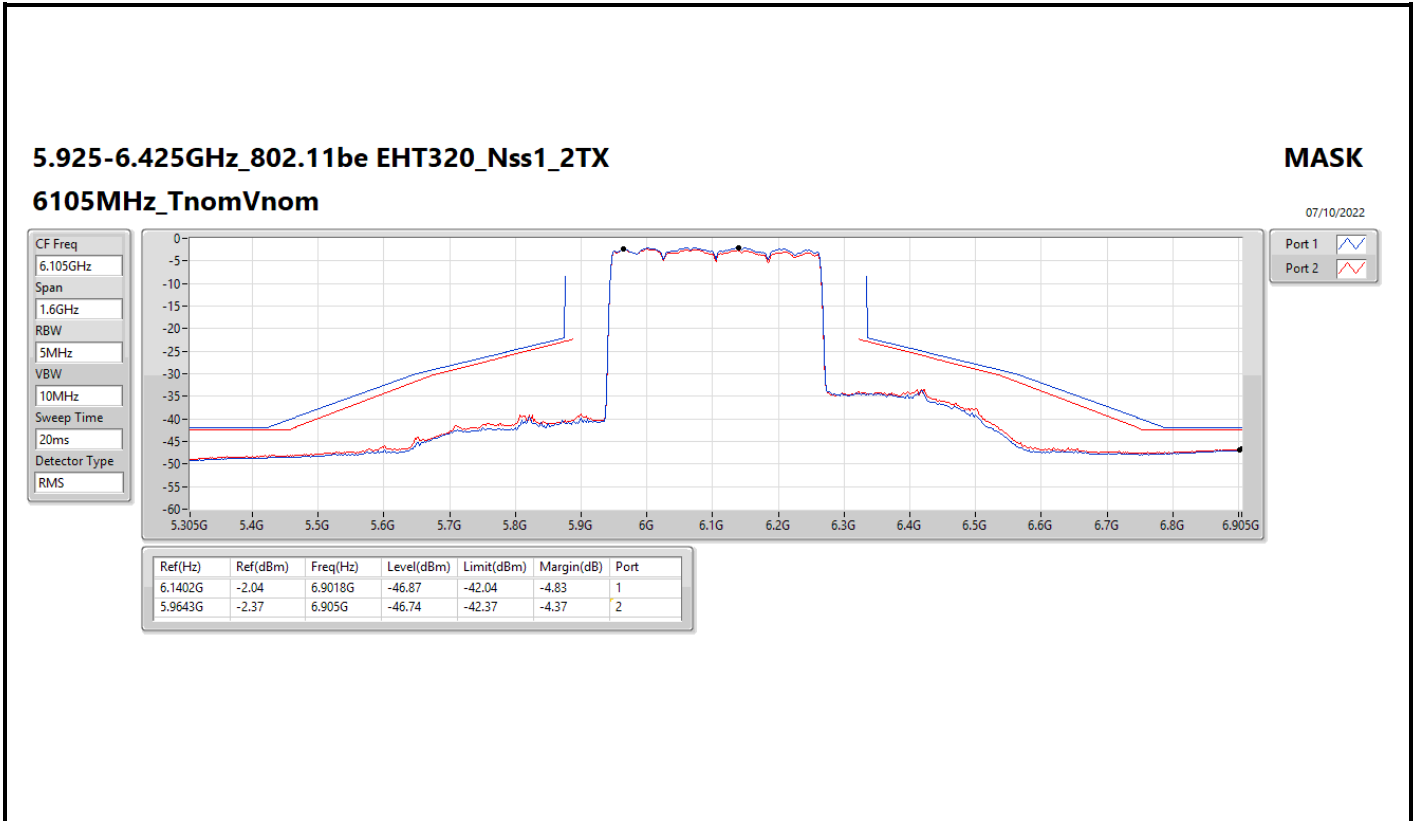
6905MHz_TnomVnom



EUT_Z_2TX
Setting 54
04-D-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	20.628G	51.64	83.54	-31.90	48.75	1	Horizontal	80	1.64	-	37.75	15.26	50.12
AV	20.574G	39.47	63.54	-24.07	36.66	1	Horizontal	80	1.64	-	37.73	15.24	50.16





6.425-6.525GHz_802.11be EHT320_Nss1_2TX
6425MHz_TnomVnom

MASK

07/10/2022

CF Freq
6.425GHz

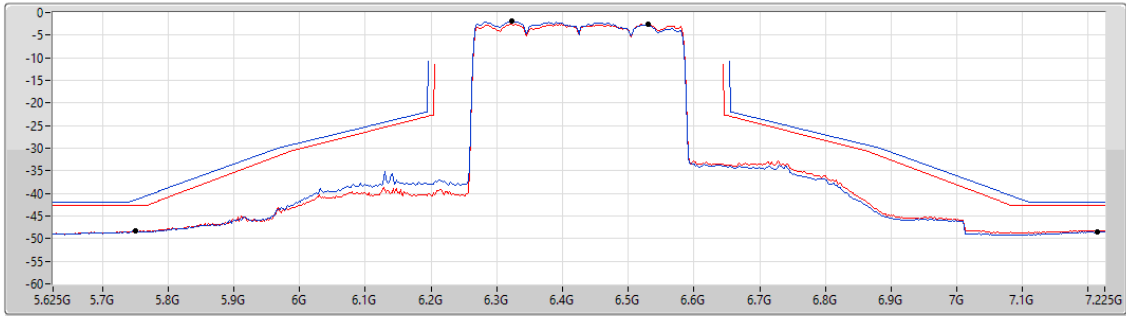
Span
1.6GHz


RBW
5MHz


VBW
10MHz

Sweep Time
20ms

Detector Type
RMS



Port 1 

Port 2 

Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port
6.3227G	-1.93	7.2138G	-48.50	-41.93	-6.57	1
6.5305G	-2.58	5.7498G	-48.20	-42.58	-5.62	2

6.525-6.875GHz_802.11be EHT320_Nss1_2TX
6585MHz_TnomVnom

MASK

07/10/2022

CF Freq
6.585GHz

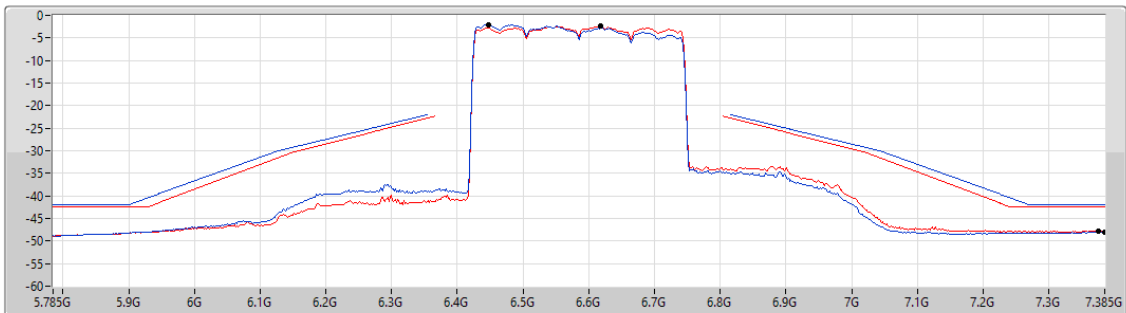
Span
1.6GHz


RBW
5MHz


VBW
10MHz

Sweep Time
20ms

Detector Type
RMS



Port 1 

Port 2 

Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port
6.4475G	-2.01	7.385G	-47.95	-42.01	-5.94	1
6.6186G	-2.36	7.3754G	-47.77	-42.36	-5.41	2

6.875-7.125GHz_802.11be EHT320_Nss1_2TX
6745MHz_TnomVnom

MASK

07/10/2022

CF Freq
6.745GHz

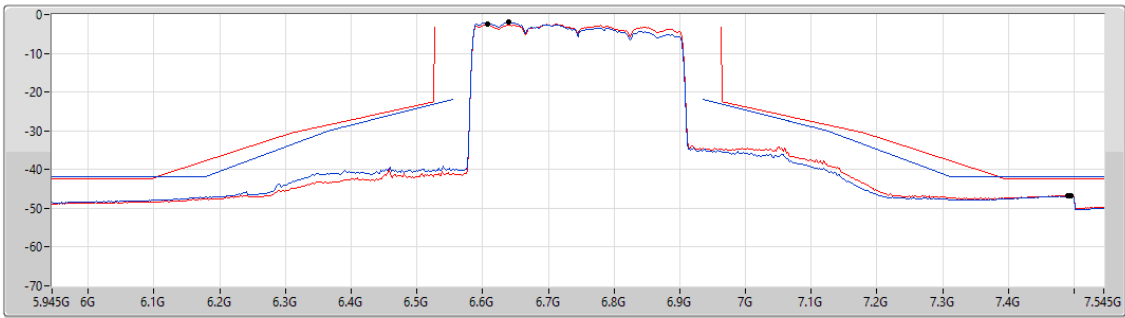
Span
1.6GHz


RBW
5MHz


VBW
10MHz

Sweep Time
20ms

Detector Type
RMS



Port 1 

Port 2 

Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port
6.6395G	-1.90	7.4906G	-46.81	-41.90	-4.91	1
6.6075G	-2.51	7.4954G	-46.75	-42.51	-4.24	2

6.875-7.125GHz_802.11be EHT320_Nss1_2TX
6905MHz_TnomVnom

MASK

07/10/2022

CF Freq
6.905GHz

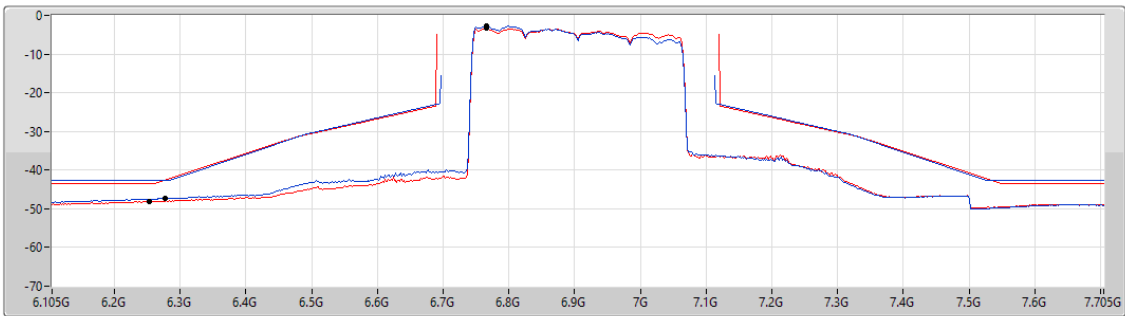
Span
1.6GHz


RBW
5MHz


VBW
10MHz

Sweep Time
20ms

Detector Type
RMS



Port 1 

Port 2 

Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port
6.7659G	-2.74	6.2778G	-47.30	-42.74	-4.56	1
6.7659G	-3.41	6.2522G	-48.12	-43.41	-4.71	2



Contention-Based Protocol Result

Appendix F

Contention Based protocol 802.11be HET320											
UNII Band	Channel	Bandwidth (MHz)	Frequency (MHz)	Interference frequency (MHz)	AWGN Threshold Level (dBm)	EUT Status	Number of Detected (out of 10 times)	Detection Probability (%)	Limit (%)	Test Result	
5	31	320	6105	Low edge	5950	-73.00	OFF	9	90	90	PASS
				Center	6105	-68.06	OFF	9	90	90	PASS
				High edge	6260	-68.01	OFF	9	90	90	PASS
5/6/7	95	320	6425	Low edge	6270	-72.00	OFF	10	100	90	PASS
				Center	6425	-67.02	OFF	9	90	90	PASS
				High edge	6580	-72.07	OFF	10	100	90	PASS
6/7	159	320	6745	Low edge	6590	-71.00	OFF	9	90	90	PASS
				Center	6745	-69.03	OFF	9	90	90	PASS
				High edge	6900	-73.00	OFF	9	90	90	PASS
7/8	191	320	6905	Low edge	6750	-75.00	OFF	9	90	90	PASS
				Center	6905	-70.02	OFF	10	100	90	PASS
				High edge	7060	-73.08	OFF	9	90	90	PASS



Contention-Based Protocol Result

Appendix F

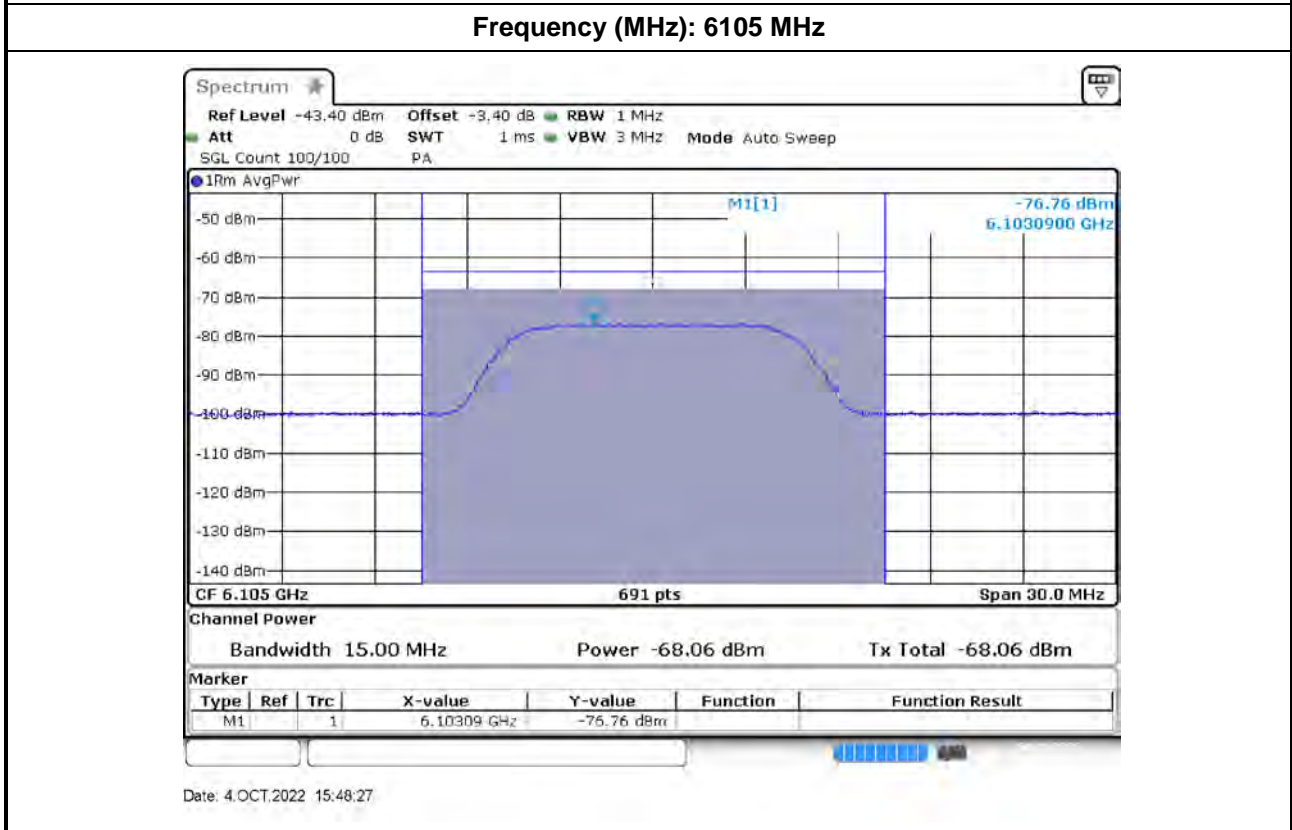
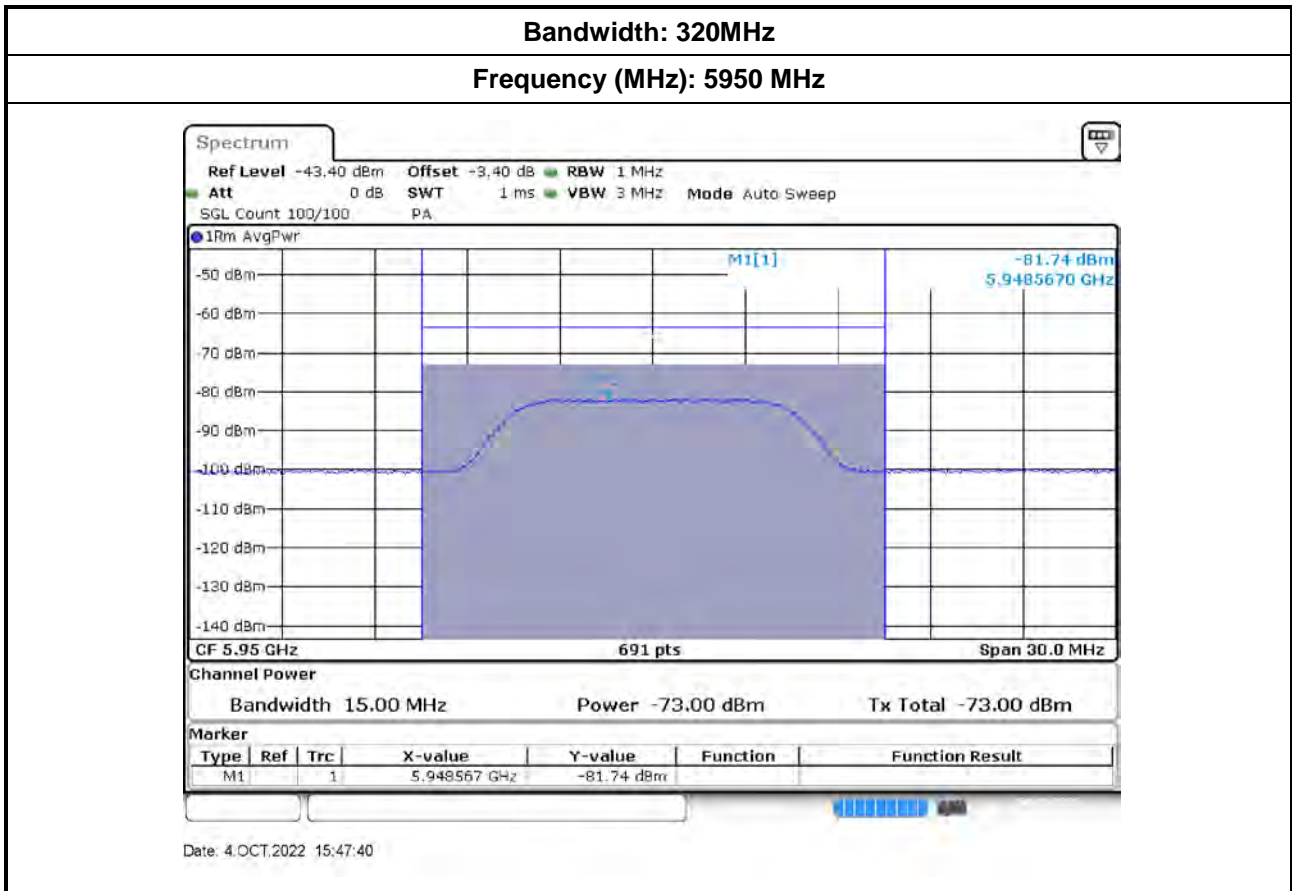
Contention Based Protocol Threshold Level										
UNII Band	Channel	Bandwidth (MHz)	Frequency (MHz)	Interference frequency (MHz)		EUT Status	Injected AWGN Power (dBm)	Ant Gain (dBi)	Detection Power(dBm)	Detection Limit (dBm)
5	31	320	6105	Low edge	5950	OFF	-69.60	3.40	-73.00	≤ -62
						Minimal	-70.60	3.40	-74.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				Center	6105	OFF	-64.60	3.40	-68.06	≤ -62
						Minimal	-65.60	3.40	-69.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				High edge	6260	OFF	-64.60	3.40	-68.01	≤ -62
						Minimal	-65.60	3.40	-69.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
5/6/7	95	320	6425	Low edge	6270	OFF	-68.60	3.40	-72.00	≤ -62
						Minimal	-69.60	3.40	-73.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				Center	6425	OFF	-63.60	3.40	-67.02	≤ -62
						Minimal	-64.60	3.40	-68.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				High edge	6580	OFF	-68.60	3.40	-72.07	≤ -62
						Minimal	-69.60	3.40	-73.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
6/7	159	320	6745	Low edge	6590	OFF	-67.60	3.40	-71.00	≤ -62
						Minimal	-68.60	3.40	-72.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				Center	6745	OFF	-65.60	3.40	-69.03	≤ -62
						Minimal	-66.60	3.40	-70.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				High edge	6900	OFF	-69.60	3.40	-73.00	≤ -62
						Minimal	-70.60	3.40	-74.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62

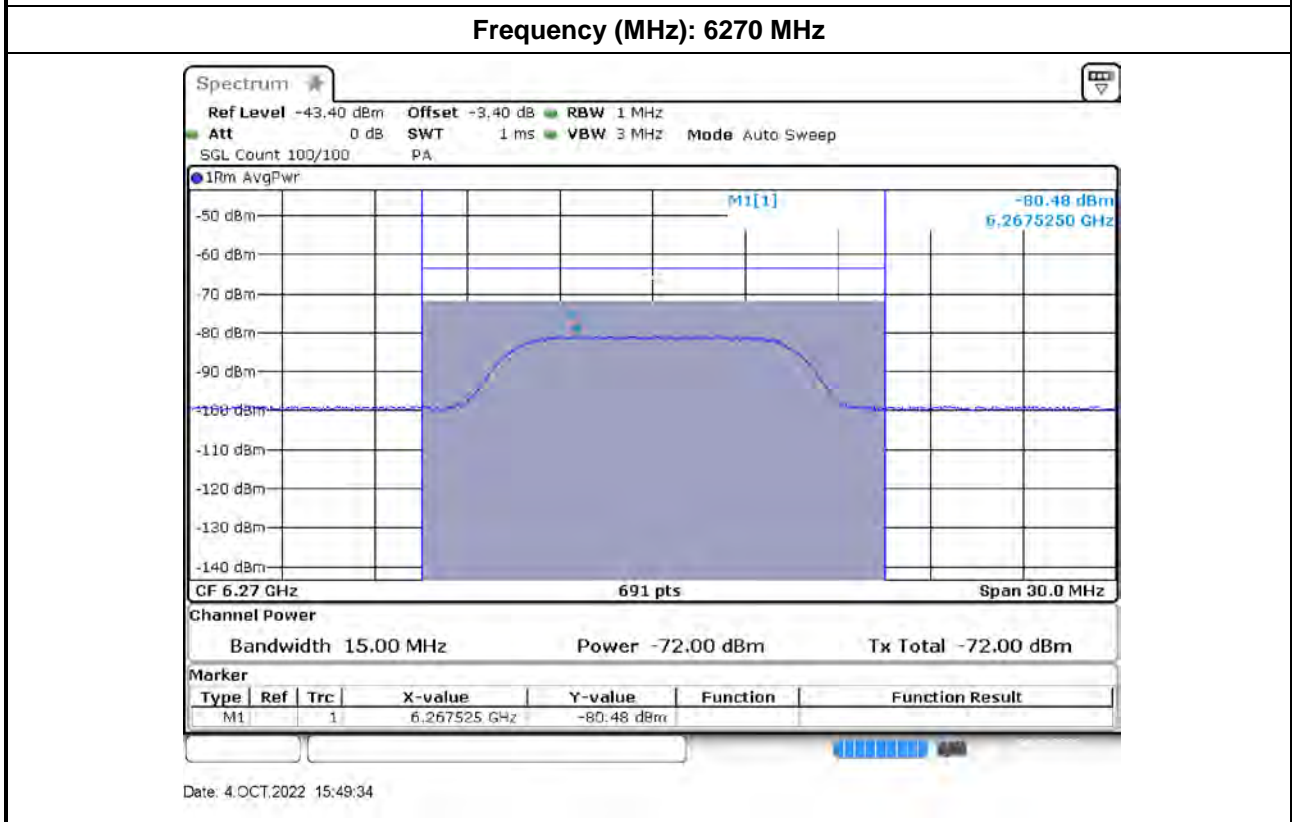
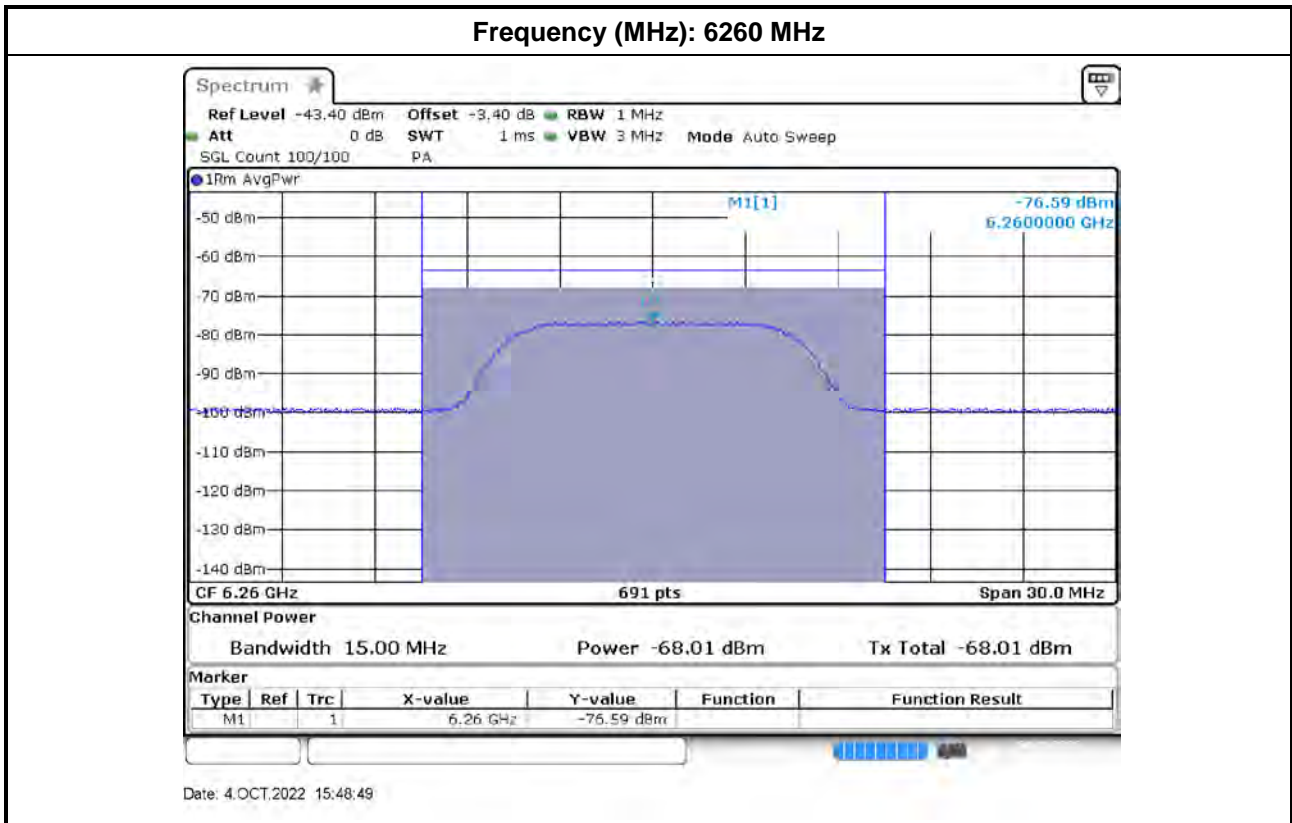


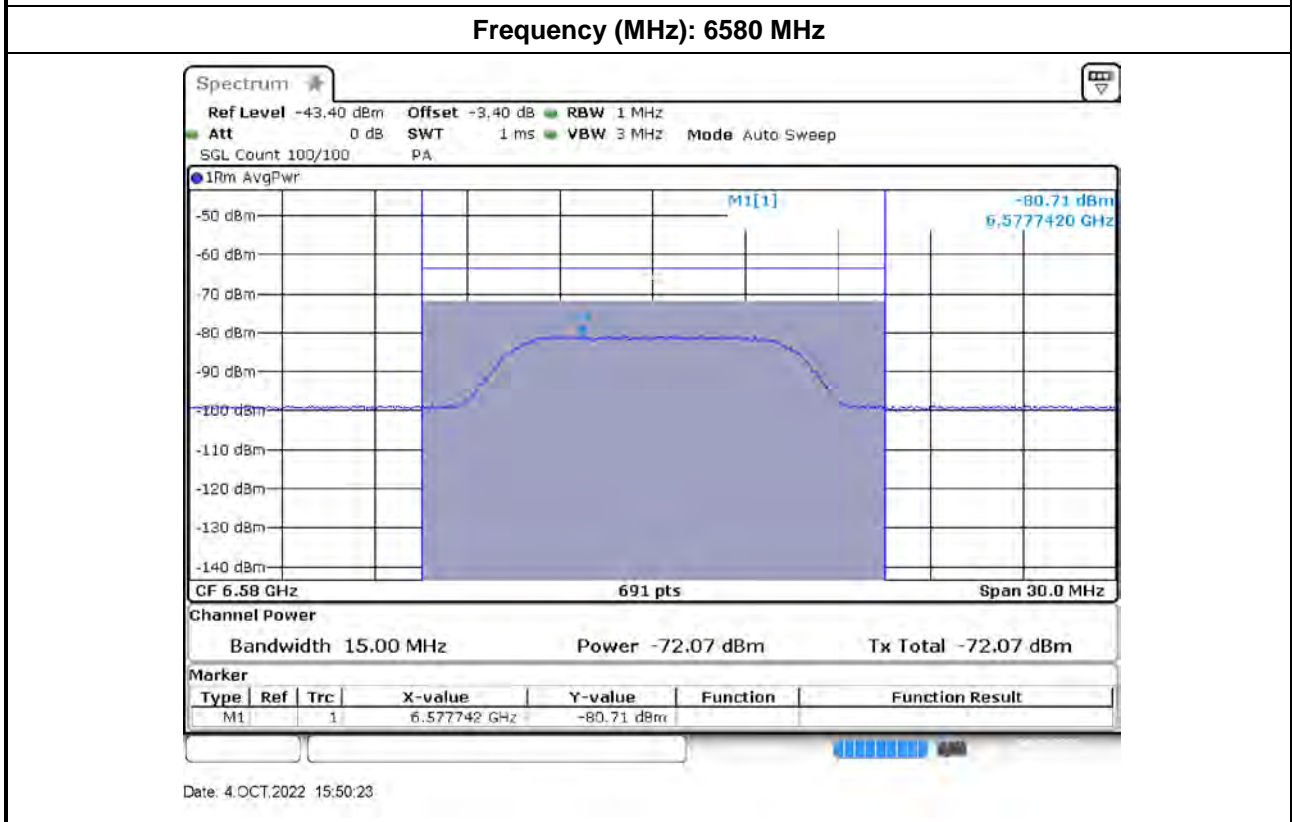
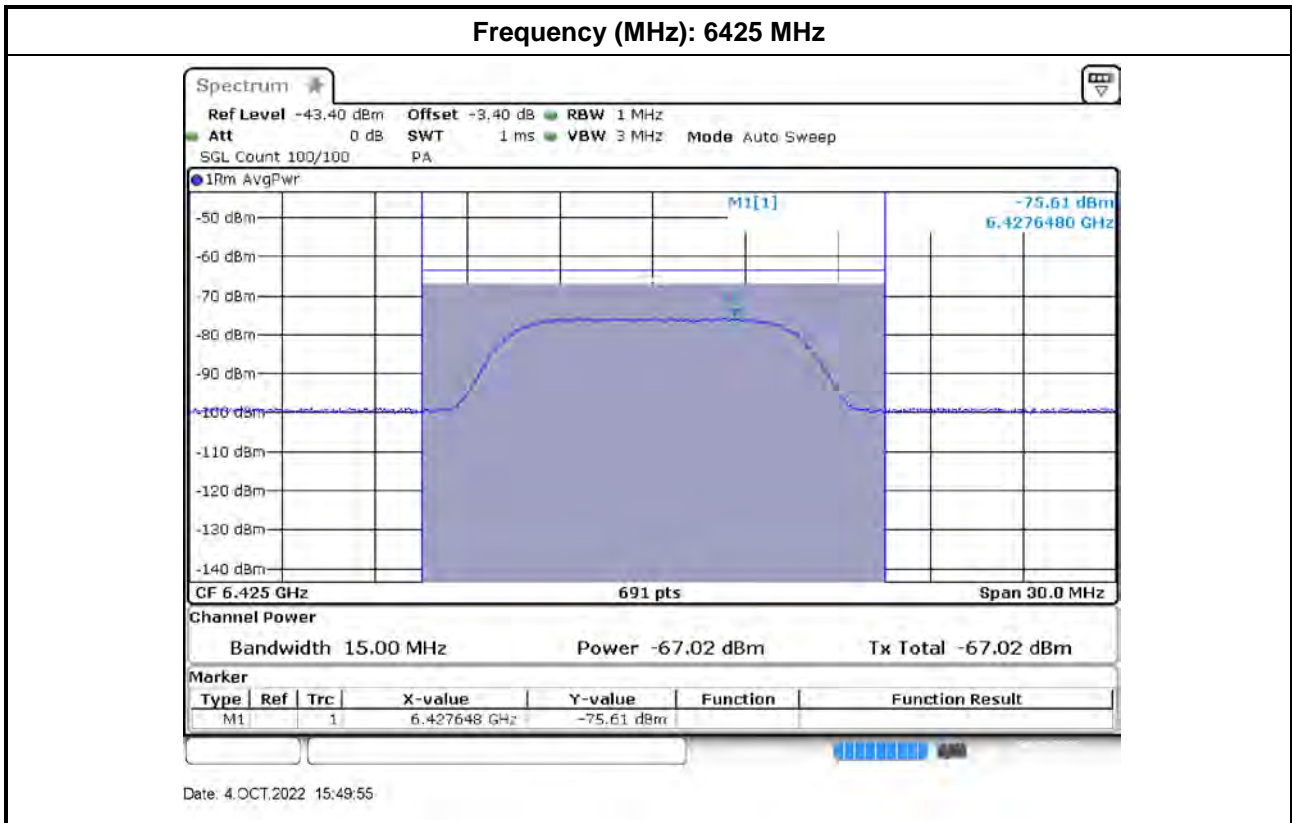
Contention-Based Protocol Result

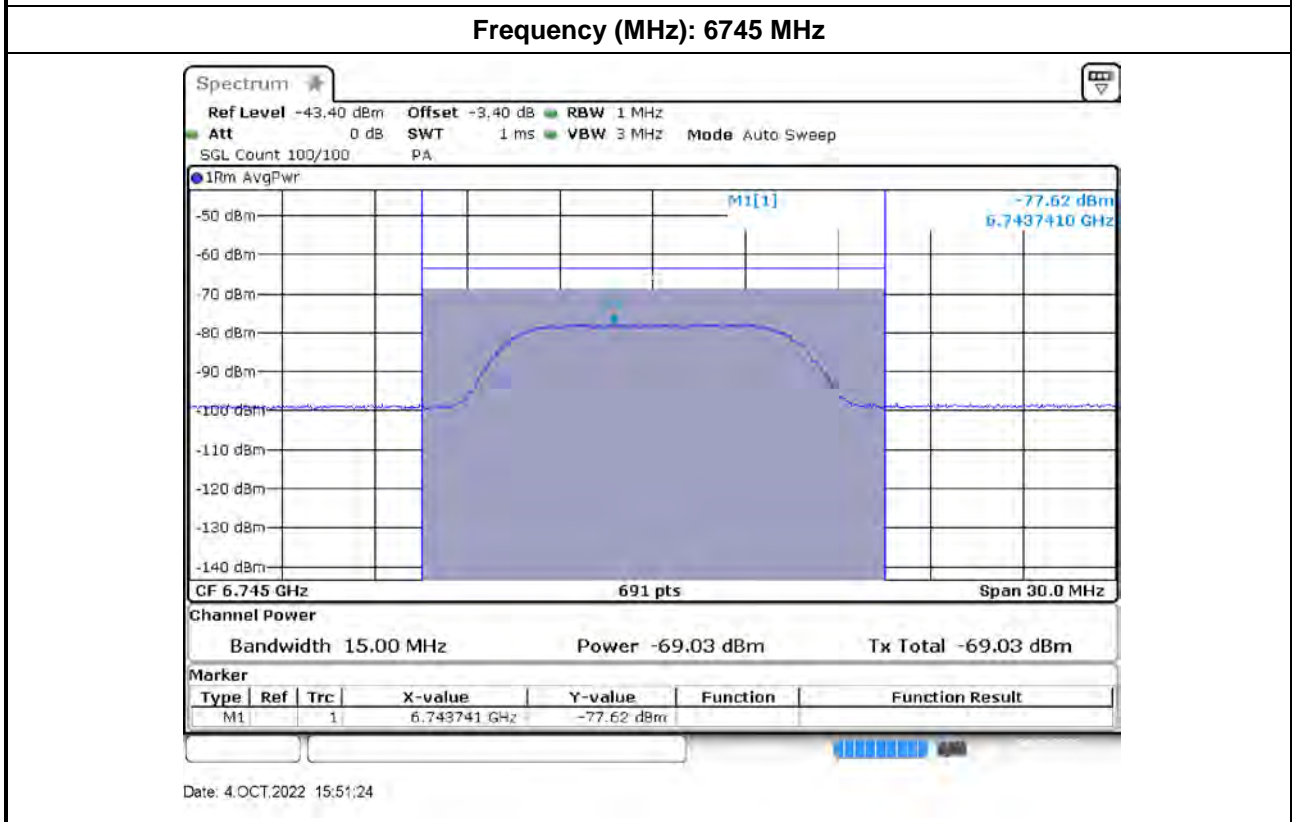
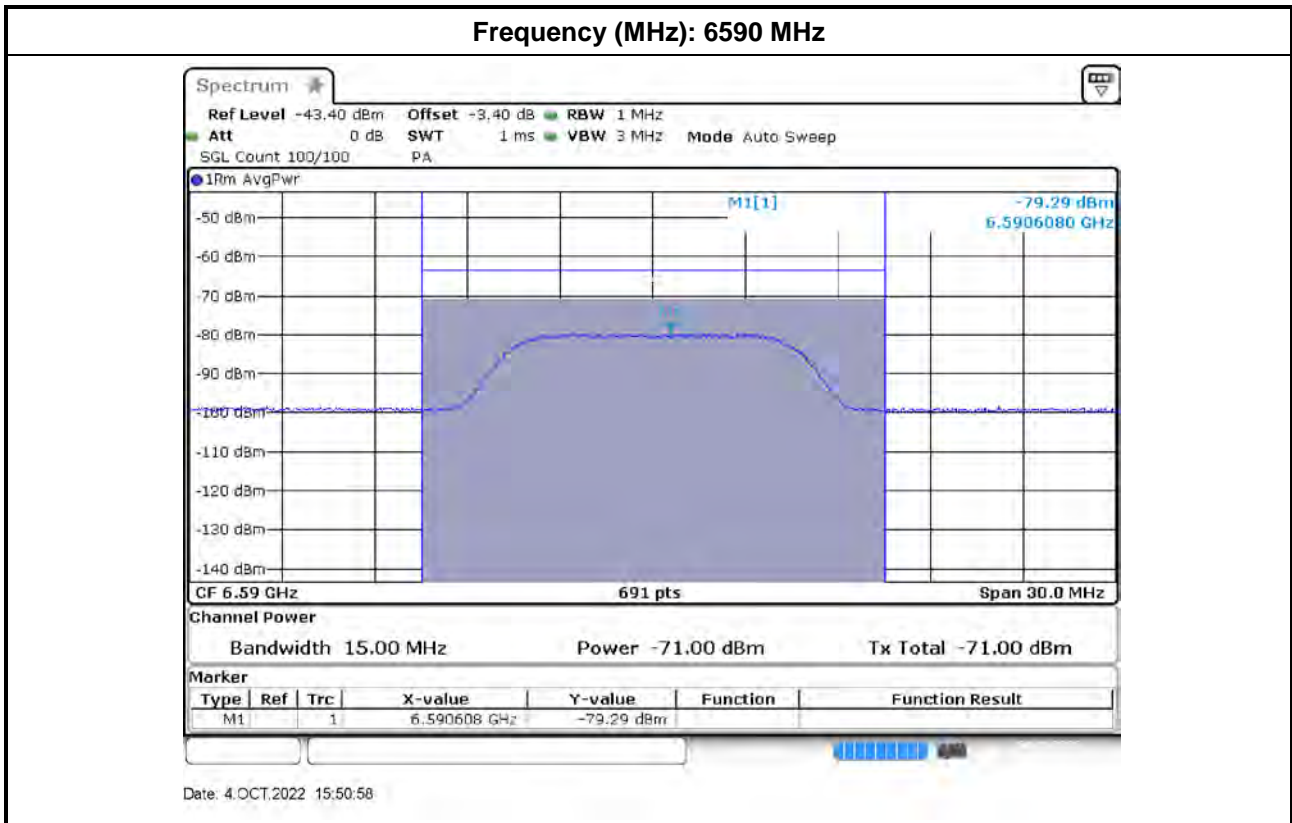
Appendix F

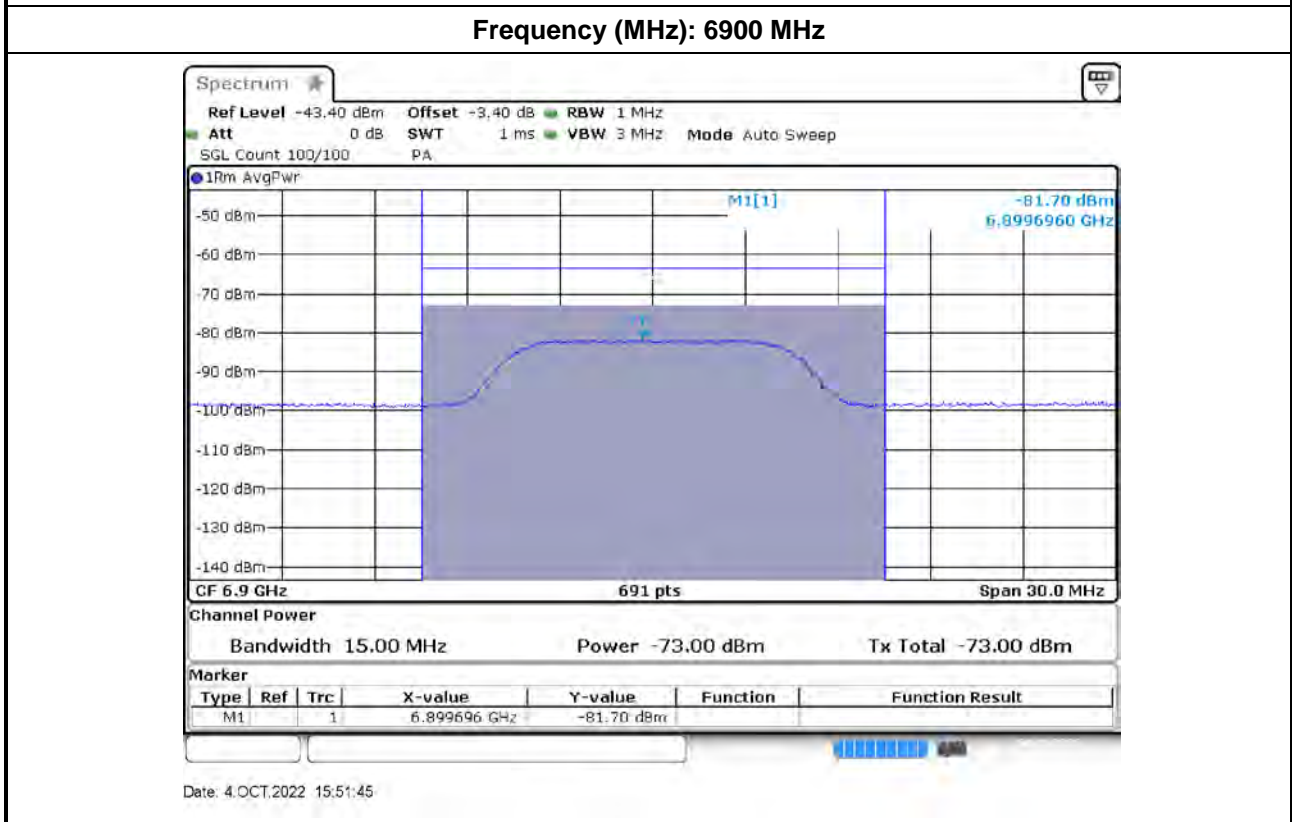
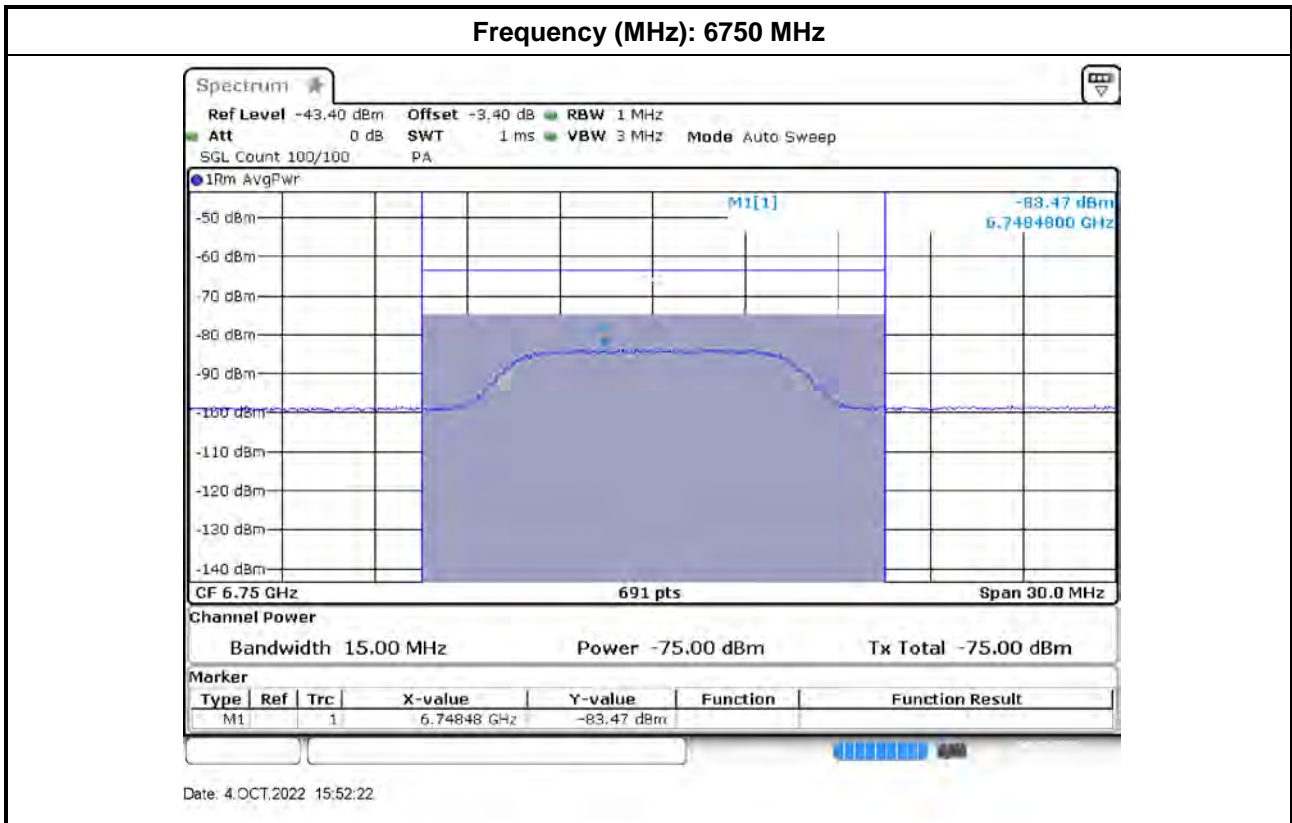
7/8	191	320	6905	Low edge	6750	OFF	-71.60	3.40	-75.00	≤ -62
						Minimal	-72.60	3.40	-76.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				Center	6905	OFF	-66.60	3.40	-70.02	≤ -62
						Minimal	-67.60	3.40	-71.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62
				High edge	7060	OFF	-69.60	3.40	-73.08	≤ -62
						Minimal	-70.60	3.40	-74.00	≤ -62
						ON	-78.60	3.40	-82.00	≤ -62

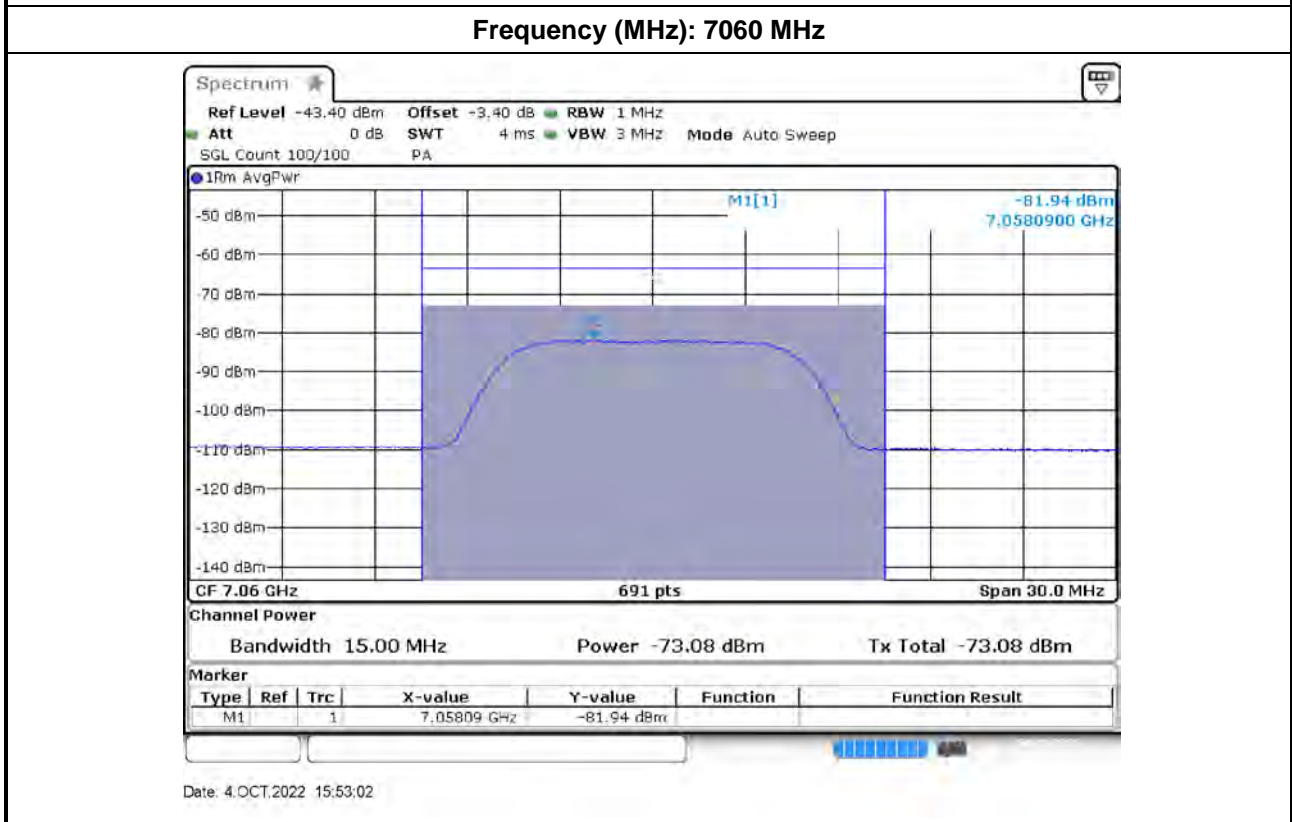
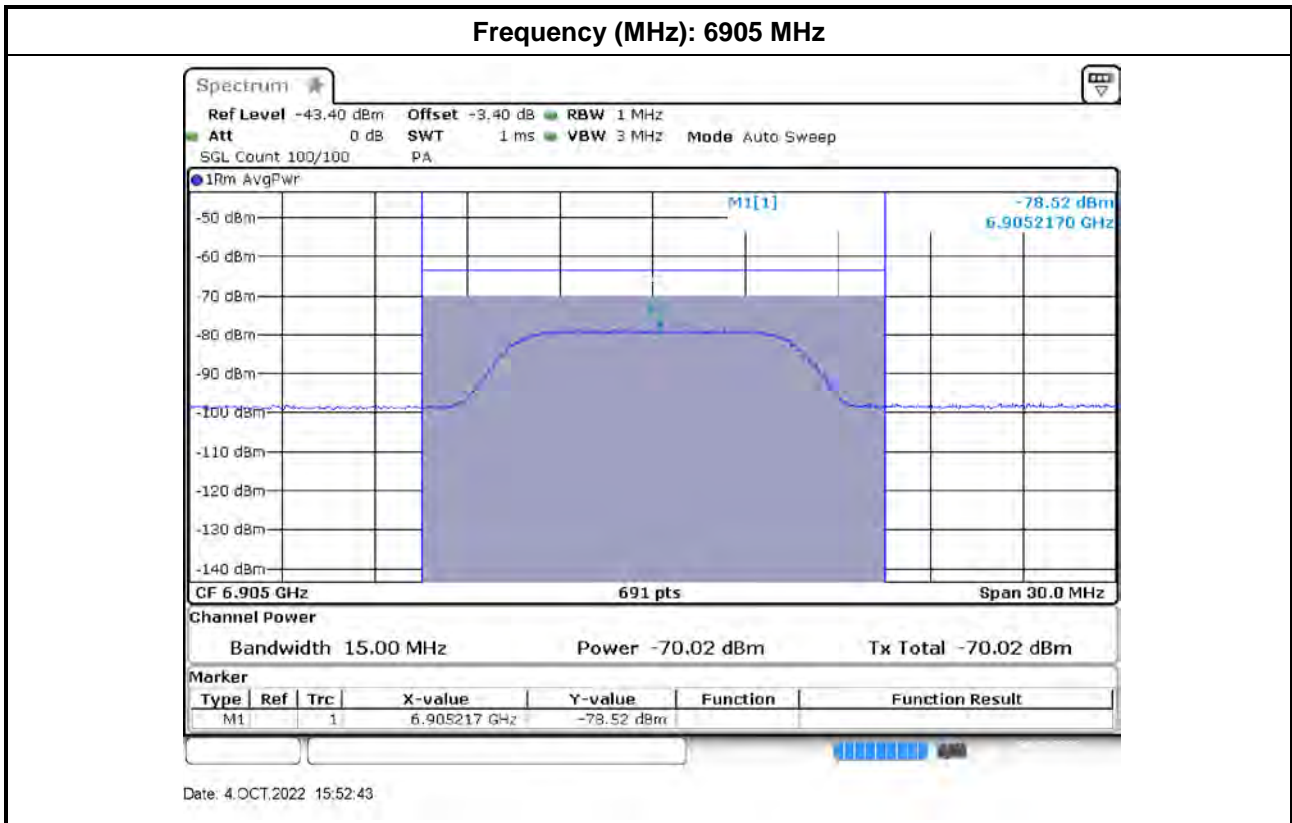






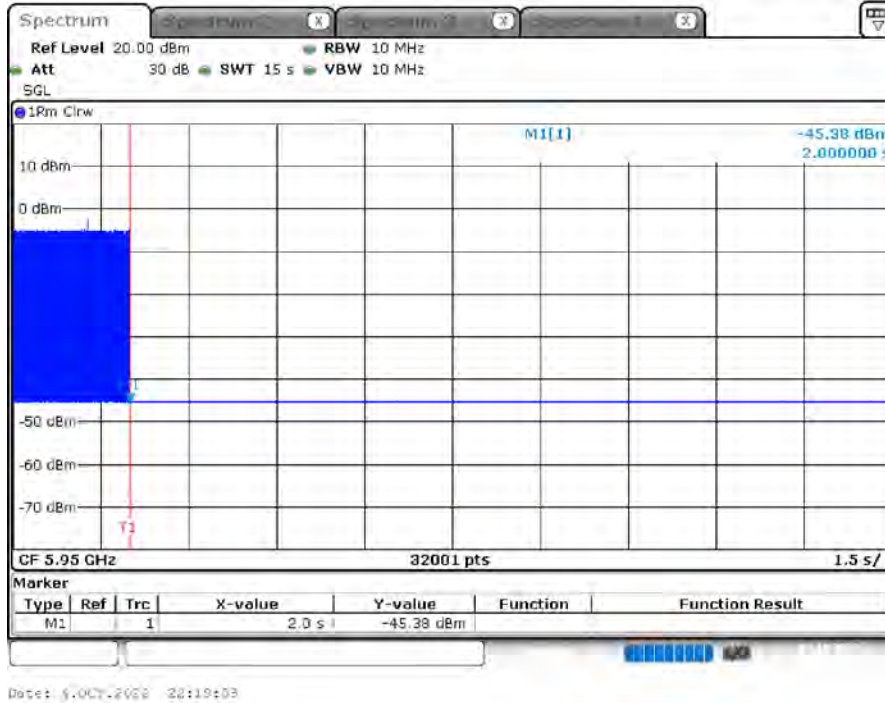






Bandwidth: 320MHz

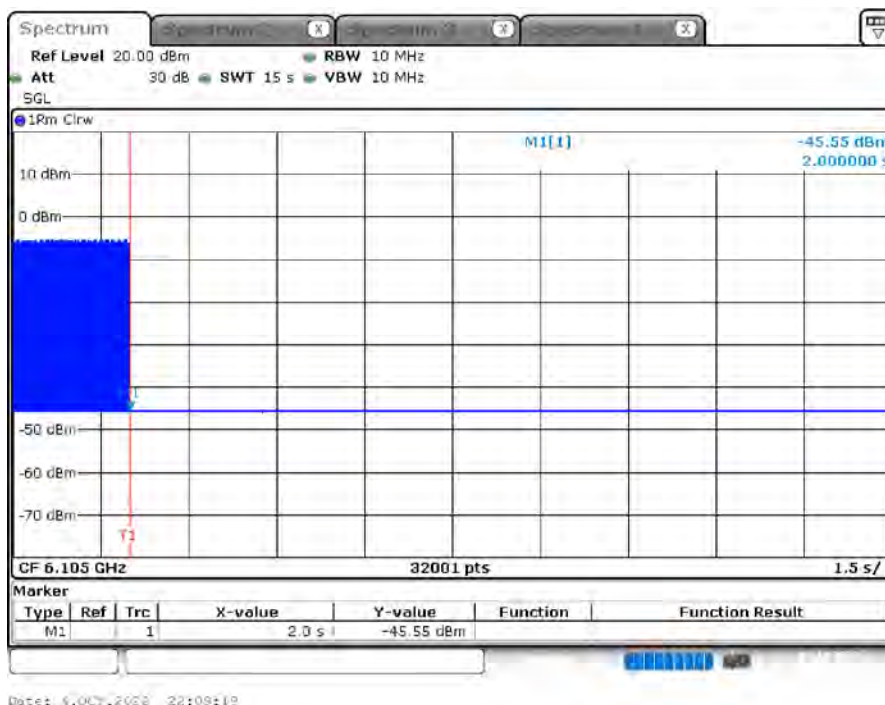
Test CH 31 ; Incumbent signal 5950 MHz



Date: 5.OCT.2022 22:19:03

Note : M1 : Inject AWGN signal

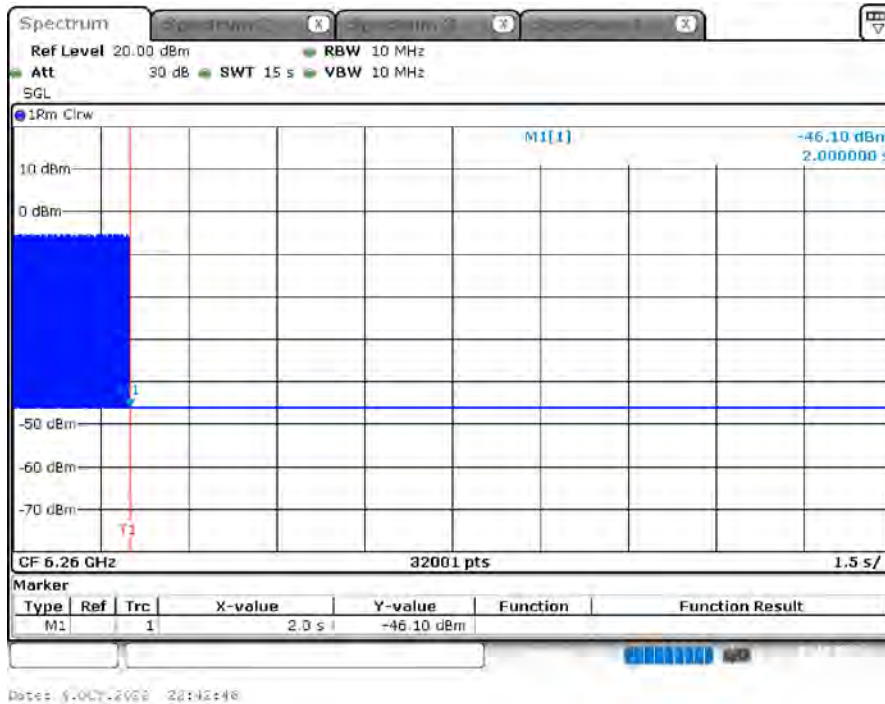
Test CH 31 ; Incumbent signal 6105 MHz



Date: 5.OCT.2022 22:09:19

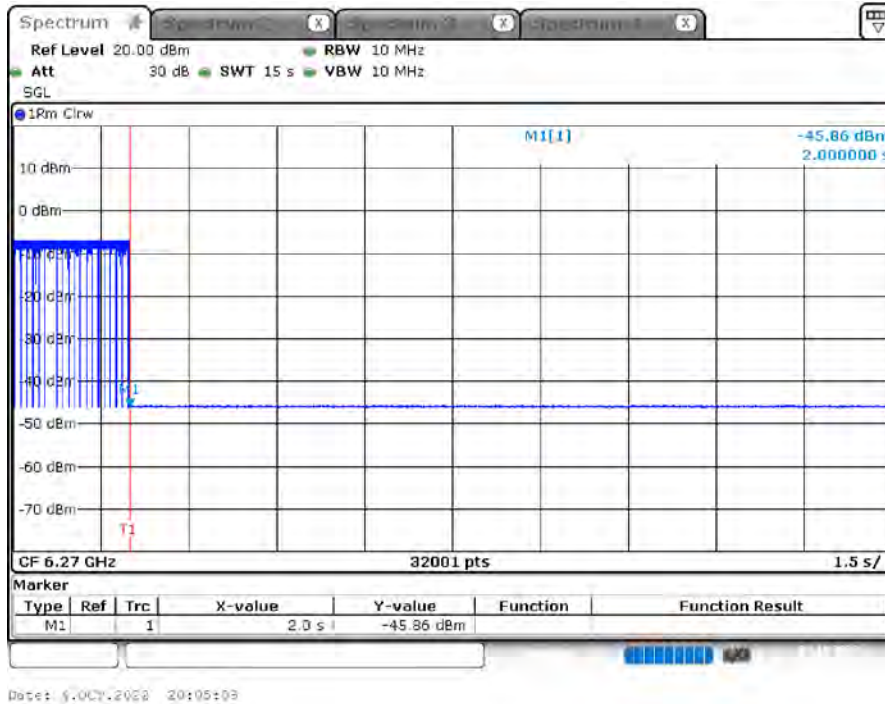
Note : M1 : Inject AWGN signal

Test CH 31 ; Incumbent signal 6260 MHz



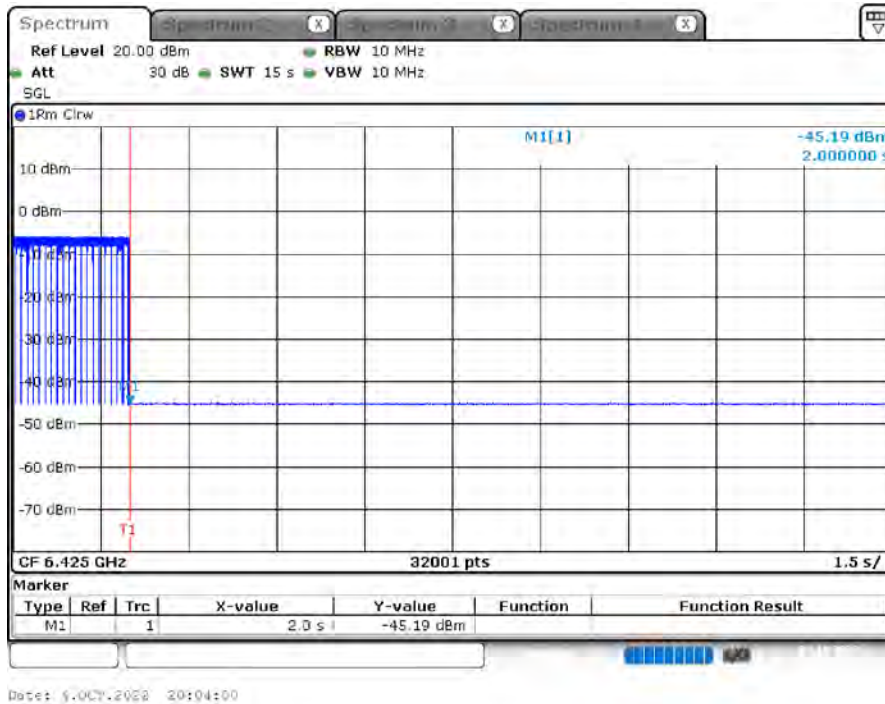
Note : M1 : Inject AWGN signal

Test CH 94 ; Incumbent signal 6270 MHz



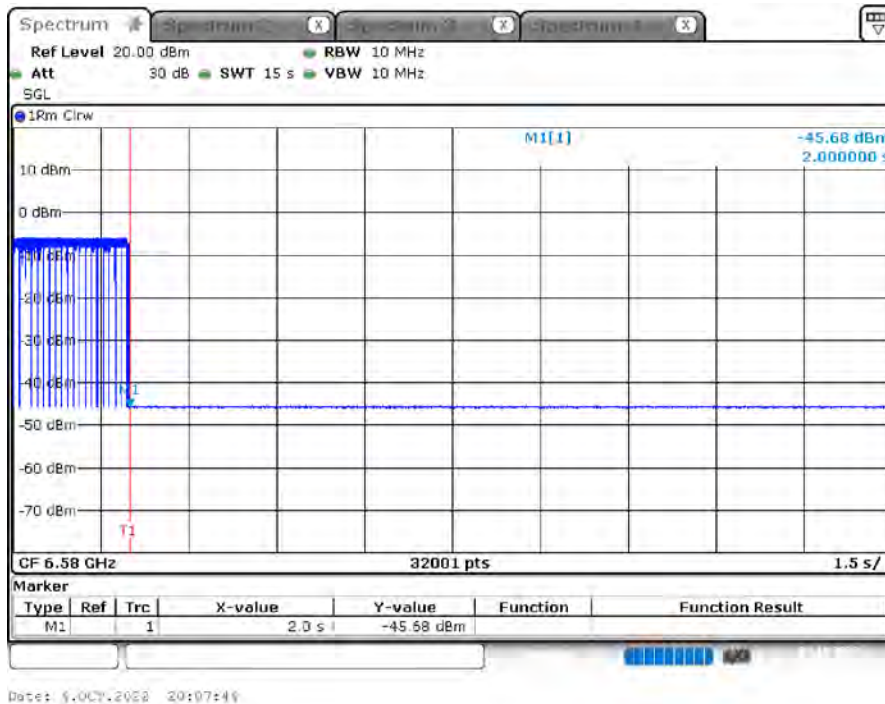
Note : M1 : Inject AWGN signal

Test CH 94 ; Incumbent signal 6425 MHz

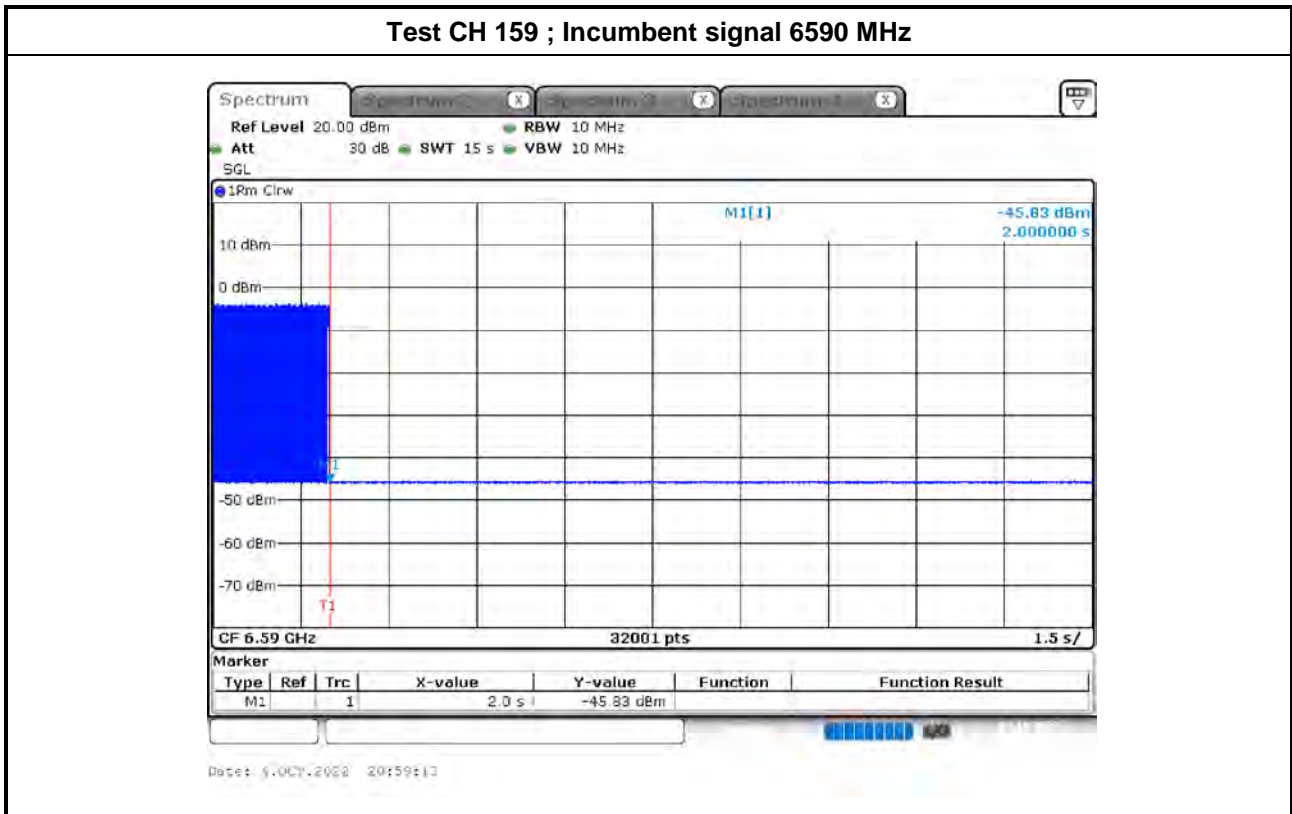


Note : M1 : Inject AWGN signal

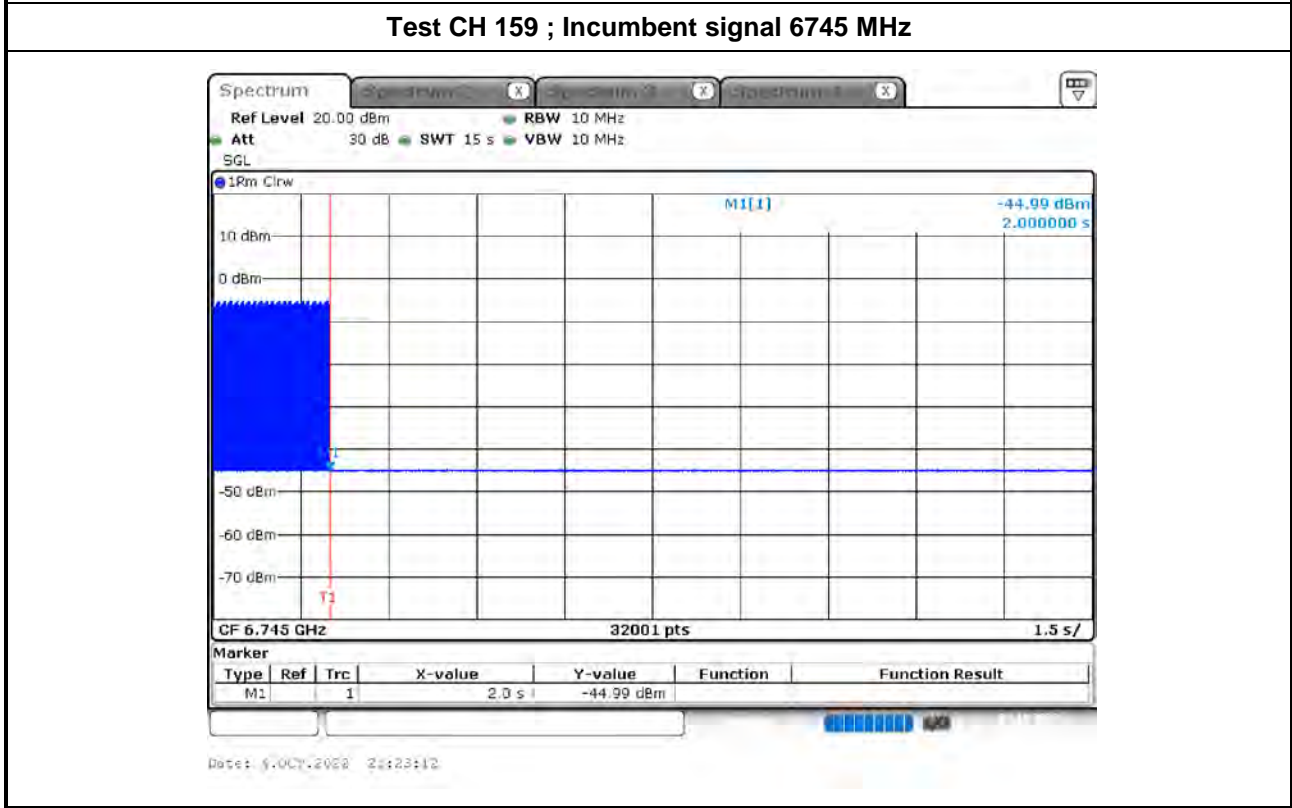
Test CH 94 ; Incumbent signal 6580 MHz



Note : M1 : Inject AWGN signal

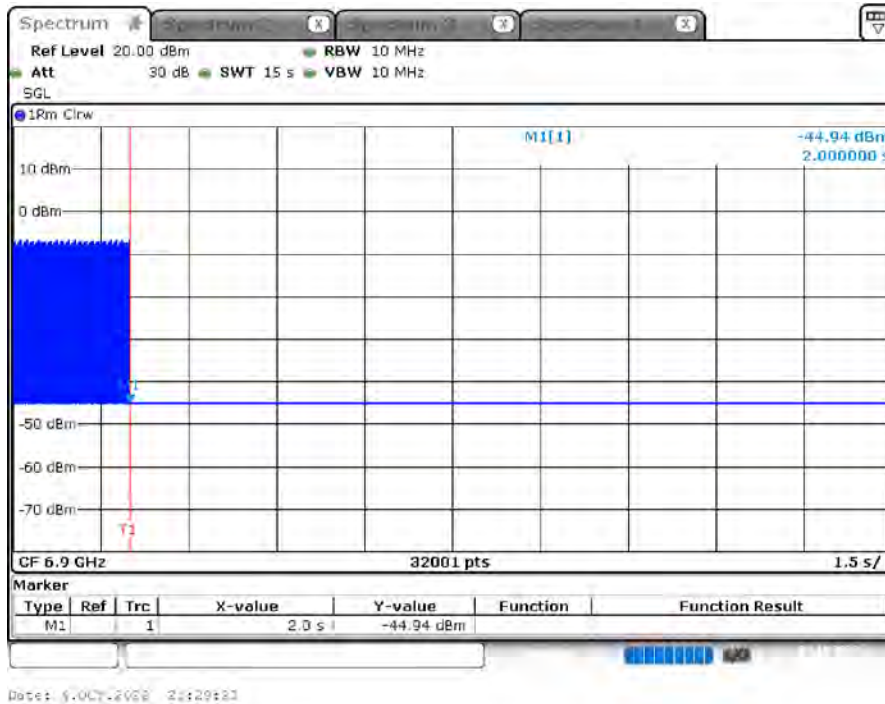


Note : M1 : Inject AWGN signal



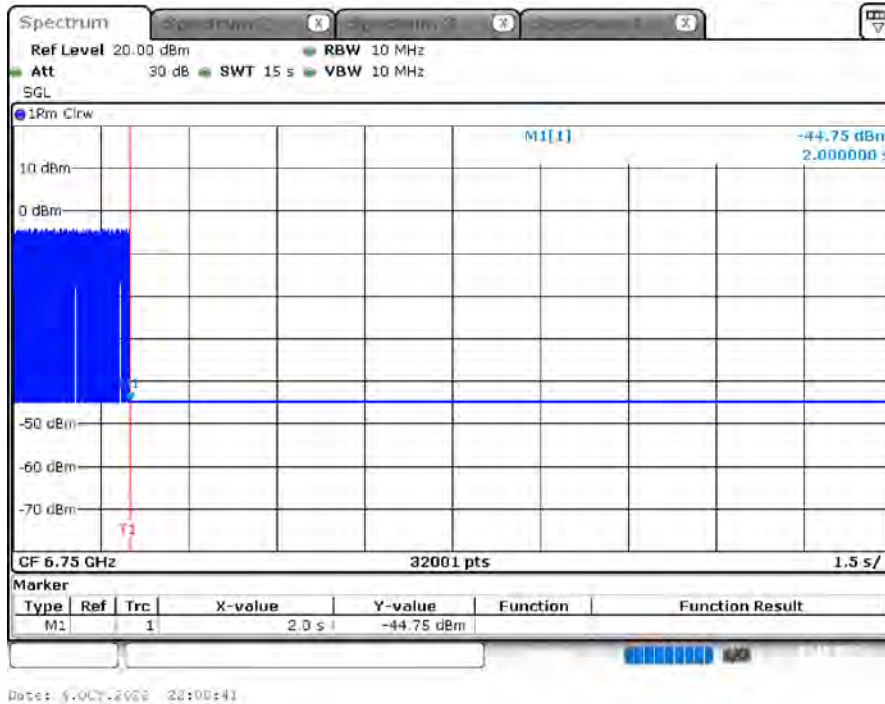
Note : M1 : Inject AWGN signal

Test CH 159 ; Incumbent signal 6900 MHz

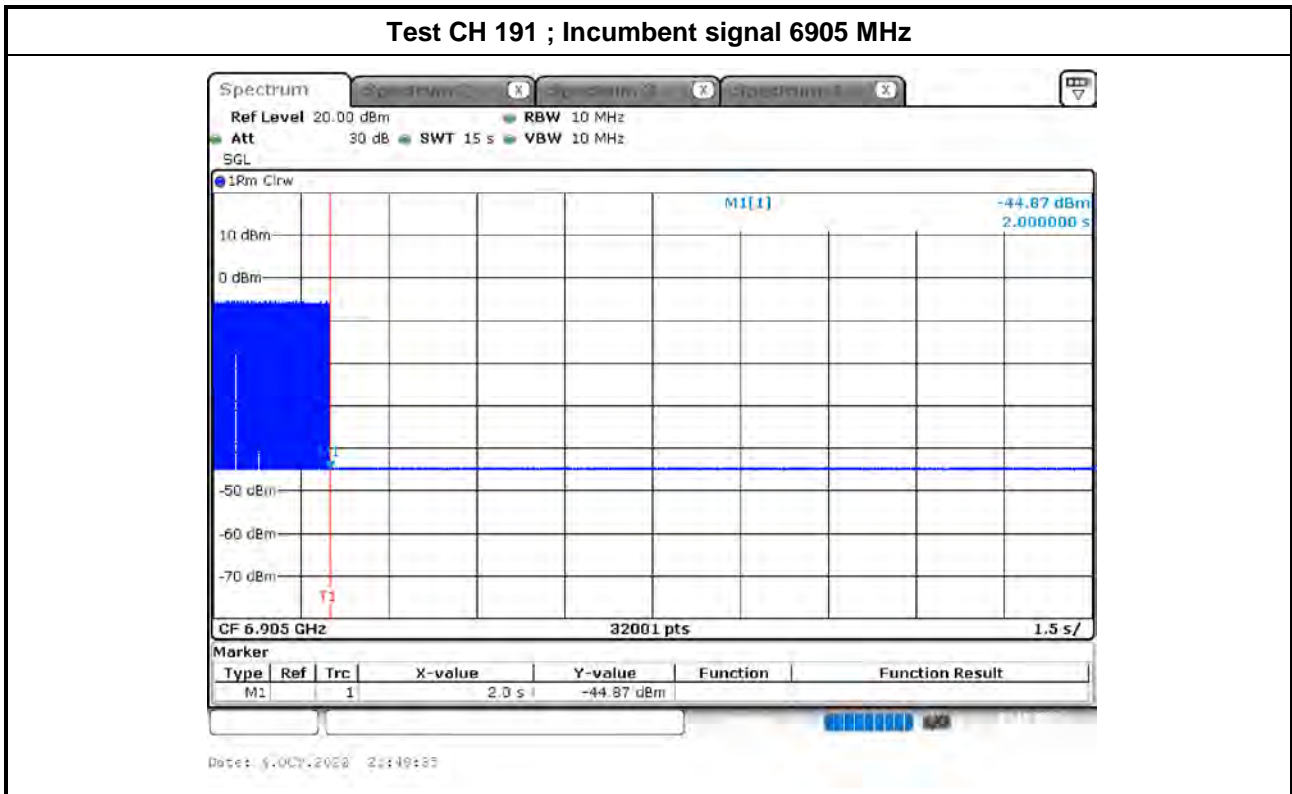


Note : M1 : Inject AWGN signal

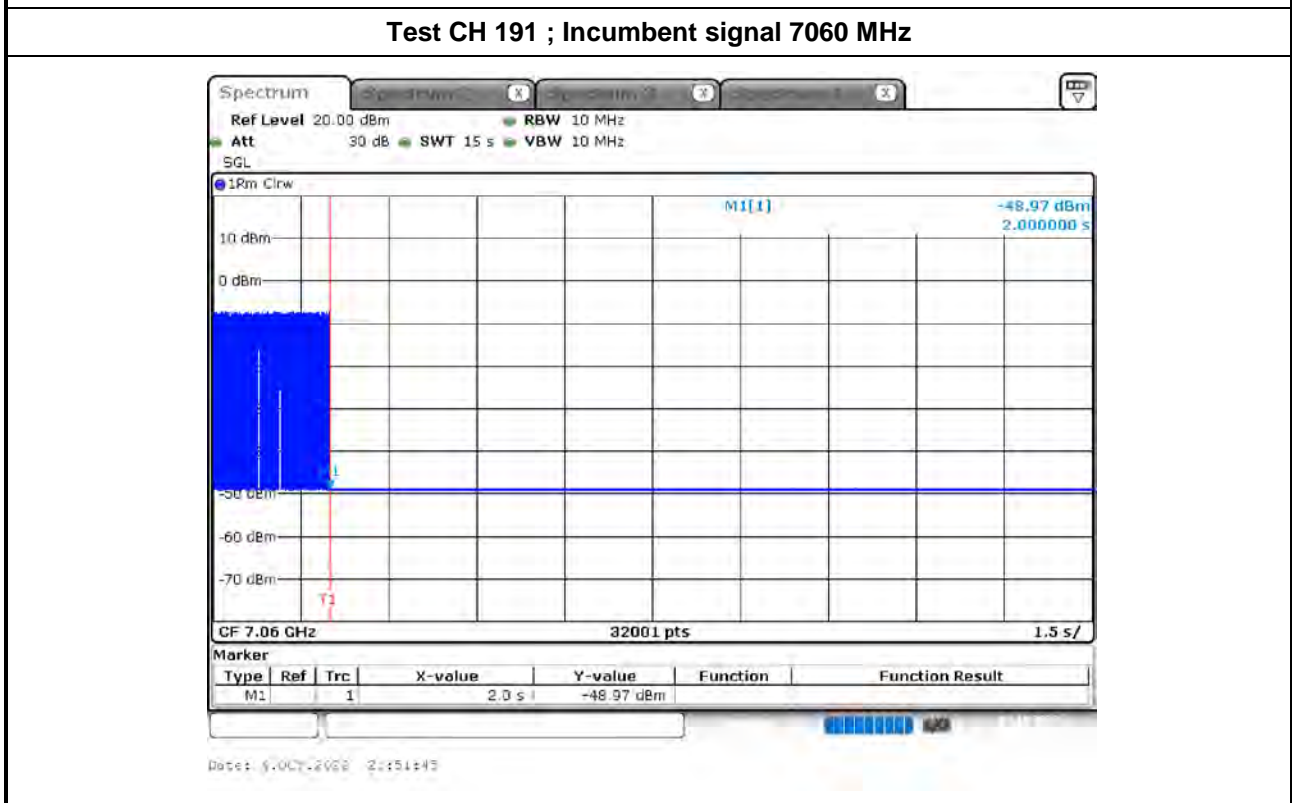
Test CH 191 ; Incumbent signal 6750 MHz



Note : M1 : Inject AWGN signal



Note : M1 : Inject AWGN signal



Note : M1 : Inject AWGN signal