RADIO TEST REPORT

FCC ID	:	VW3FAST5290
Equipment	:	Wireless Home Router
Brand Name	:	SAGEMCOM
Model Name	:	FAST 5290V1.1
Applicant	:	SAGEMCOM BROADBAND SAS 250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE
Manufacturer	:	SAGEMCOM BROADBAND SAS 250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE
Standard	:	47 CFR FCC Part 15.407

The product was received on Apr. 18, 2022, and testing was started from Apr. 29, 2022 and completed on May 05, 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 variant 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.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR163028-08AA	01	Initial issue of report	May 24, 2022

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(b)	Unwanted Emissions	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: Vicky Huang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160), ax (HEW160)	5250	50 [1]
5470-5725		5570	114 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n (HT20)	20	4TX
5.15-5.25GHz	802.11n (HT20)-BF	20	4TX
5.15-5.25GHz	802.11ac (VHT20)	20	4TX
5.15-5.25GHz	802.11ac (VHT20)-BF	20	4TX
5.15-5.25GHz	802.11ax (HEW20)	20	4TX
5.15-5.25GHz	802.11ax (HEW20)-BF	20	4TX
5.15-5.25GHz	802.11n (HT40)	40	4TX
5.15-5.25GHz	802.11n (HT40)-BF	40	4TX
5.15-5.25GHz	802.11ac (VHT40)	40	4TX
5.15-5.25GHz	802.11ac (VHT40)-BF	40	4TX
5.15-5.25GHz	802.11ax (HEW40)	40	4TX
5.15-5.25GHz	802.11ax (HEW40)-BF	40	4TX
5.15-5.25GHz	802.11ac (VHT80)	80	4TX
5.15-5.25GHz	802.11ac (VHT80)-BF	80	4TX
5.15-5.25GHz	802.11ax (HEW80)	80	4TX

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ax (HEW80)-BF	80	4TX
5.25-5.35GHz	802.11a	20	4TX
5.25-5.35GHz	802.11n HT20	20	4TX
5.25-5.35GHz	802.11n HT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11ax HEW20	20	4TX
5.25-5.35GHz	802.11ax HEW20-BF	20	4TX
5.25-5.35GHz	802.11n HT40	40	4TX
5.25-5.35GHz	802.11n HT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11ax HEW40	40	4TX
5.25-5.35GHz	802.11ax HEW40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.25-5.35GHz	802.11ax HEW80	80	4TX
5.25-5.35GHz	802.11ax HEW80-BF	80	4TX
5.15-5.35GHz	802.11ac VHT160	160	4TX
5.15-5.35GHz	802.11ac VHT160-BF	160	4TX
5.15-5.35GHz	802.11ax HEW160	160	4TX
5.15-5.35GHz	802.11ax HEW160-BF	160	4TX
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX
5.725-5.85GHz	802.11a	20	4TX
5.725-5.85GHz	802.11n (HT20)	20	4TX
5.725-5.85GHz	802.11n (HT20)-BF	20	4TX
5.725-5.85GHz	802.11ac (VHT20)	20	4TX
5.725-5.85GHz	802.11ac (VHT20)-BF	20	4TX
5.725-5.85GHz	802.11ax (HEW20)	20	4TX
5.725-5.85GHz	802.11ax (HEW20)-BF	20	4TX
5.725-5.85GHz	802.11n (HT40)	40	4TX
5.725-5.85GHz	802.11n (HT40)-BF	40	4TX
5.725-5.85GHz	802.11ac (VHT40)	40	4TX
5.725-5.85GHz	802.11ac (VHT40)-BF	40	4TX
5.725-5.85GHz	802.11ax (HEW40)	40	4TX
5.725-5.85GHz	802.11ax (HEW40)-BF	40	4TX
5.725-5.85GHz	802.11ac (VHT80)	80	4TX
5.725-5.85GHz	802.11ac (VHT80)-BF	80	4TX
5.725-5.85GHz	802.11ax (HEW80)	80	4TX
5.725-5.85GHz	802.11ax (HEW80)-BF	80	4TX

Note:
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz					
1	1	2	-	Galtronics	02102140-07252C1 DB1	PCB	I-PEX	Note 1
2	2	3	-	Galtronics	02102140-07252C2 DB2	PCB	I-PEX	
3	3	4	-	Galtronics	02102140-07252c3 DB3	PCB	I-PEX	
4	-	1	-	Galtronics	02102142-07252CX 5G	PCB	I-PEX	
5	-	-	1	Galtronics	02102475-07252-1 6G1	PCB	I-PEX	
6	-	-	2	Galtronics	02102475-07252-2 6G2	PCB	I-PEX	
7	-	-	3	Galtronics	02102475-07252-3 6G3	PCB	I-PEX	
8	-	-	4	Galtronics	02102475-07252-4 6G4	PCB	I-PEX	

Note 1:

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
1	4.12	3.13	3.67	3.57	3.29	-	-	-	-
2	3.66	4.52	5.1	5.33	5.58	-	-	-	-
3	2.01	1.8	2.64	1.87	2.2	-	-	-	-
4	-	3.19	1.58	2.36	3.7	-	-	-	-
5	-	-	-	-	-	3.07	2.98	3.17	5.85
6	-	-	-	-	-	4.39	4.2	4.57	5.95
7	-	-	-	-	-	3.74	3.39	3.25	4.8
8	-	-	-	-	-	4.68	5.79	6.18	4.91

Directional Gain (dBi)								
WLAN 2.4GHz [3T1S]	WLAN 5GHz UNII 1 [4T1S]	WLAN 5GHz UNII 2A [4T1S]	WLAN 5GHz UNII 2C [4T1S]	WLAN 5GHz UNII 3 [4T1S]	WLAN 6GHz UNII 5 [4T1S]	WLAN 6GHz UNII 6 [4T1S]	WLAN 6GHz UNII 7 [4T1S]	WLAN 6GHz UNII 8 [4T1S]
4.65	4.68	5.22	5.53	5.91	5.11	6.19	6.29	6.22

Note2: The above information was declared by manufacturer.

The directional gain is measured which follows the procedure of KDB 662911 D03. The antenna report is provided in the operational description for this application.

For 2.4GHz function:

For IEEE 802.11b/g/n/VHT/ax (3TX/3RX):

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

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

For 5GHz function:
For IEEE 802.11a/n/ac/ax (4TX/4RX):
Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.
For 6GHz function:
For IEEE 802.11ax (4TX/4RX):
Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

1.1.3 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz and n/ac/ax in 5GHz UNII 1~UNII 3 and ax in 6GHz UNII 5~UNII 8.			
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
	☒	Point-to-multipoint	☐	Point-to-point
TPC Function	☒	With TPC	☐	Without TPC
Test Software Version	Acccess Manual Tool (ver.3.2.1.3)			

Note: The above information was declared by manufacturer.

1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR163028AB, FR163028-02

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

Modifications	Performance Checking
1. Remove 2 filters. And remove components which the correspond postions UL16.UL33.UL10.UL34.UL12.UL35.UL14.UL36 (for 5G), H17.UH18.UH11.UH19.UH13.UH20.UH15.UH21 (for 6G).	Unwanted Emissions above 1GHz After evaluating, the worst case is found at 802.11ax HEW20 CH36, 802.11ax HEW40 CH134, 802.11ax HEW80 CH58, CH155 and based on original power to retest this channel only.
2. Adding an adapter (Model: NBS50A120410VU). 3. Change the WAN port from 1Gbps to 2.5Gbps. 4. Change some components and shilded case on main board (Please refer to internal photos for detail change.) 5. Adding a RJ-45 cable for accessory.	1. AC Power-line Conducted Emissions 2. Unwanted Emissions below 1GHz
6. Removing an adapter(Model: NBS60E120500M2) and power cable. 7. Change the Model name from “FAST 5290“ to “FAST 5290V1.1“	It does not affect the test results.

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
- 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 662911 D03 v01
- 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 (TAF: 3787)	ADD: 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 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
Radiated (Below 1GHz)	03CH05-CB	KJ Chang	24.2-26.1 / 55-58	Apr. 29, 2022~ May 03, 2022
Radiated (Above 1GHz)	03CH02-CB	KJ Chang	23.8-24.9 / 55-58	Apr. 29, 2022~ May 03, 2022
	03CH03-CB	KJ Chang	23.5-24.6 / 55-59	Apr. 29, 2022~ May 03, 2022
AC Conduction	CO02-CB	Ryan Huang	22~23 / 56~58	May 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)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 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
1	EUT-WLAN 2.4GHz+Adapter
2	EUT-WLAN 5GHz+Adapter
3	EUT- WLAN 6GHz+Adapter
For operating mode 1 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	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, Z axis and Y axis position, and the worst case was found at Y axis. So the measurement will follow this same test configuration.	
1	EUT in Y axis-WLAN 2.4GHz+Adapter
2	EUT in Y axis-WLAN 5GHz+Adapter
3	EUT in Y axis- WLAN 6GHz+Adapter
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Z axis and Y axis position, and the worst case was found at Y axis. So the measurement will follow this same test configuration.	
1	EUT in Y axis + WLAN 5GHz

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz UNII 1~UNII 3 + WLAN 6GHz UNII 5~UNII 8
Refer to Sporton Test Report No.: FA163028-08 for Co-location RF Exposure Evaluation.	

2.2 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.3 Accessories

Accessories			
Equipment Name	**Brand Name**	**Model Name**	**Rating**
Adapter	SAGEMCOM	NBS50A120410VU	Input: 100-127V~50/60Hz, 1.5A Output: 12.0V, 4.1A
Other			
RJ-45 cable*1, Shielded, 1.8m			

2.4 Support Equipment

For AC Conduction:

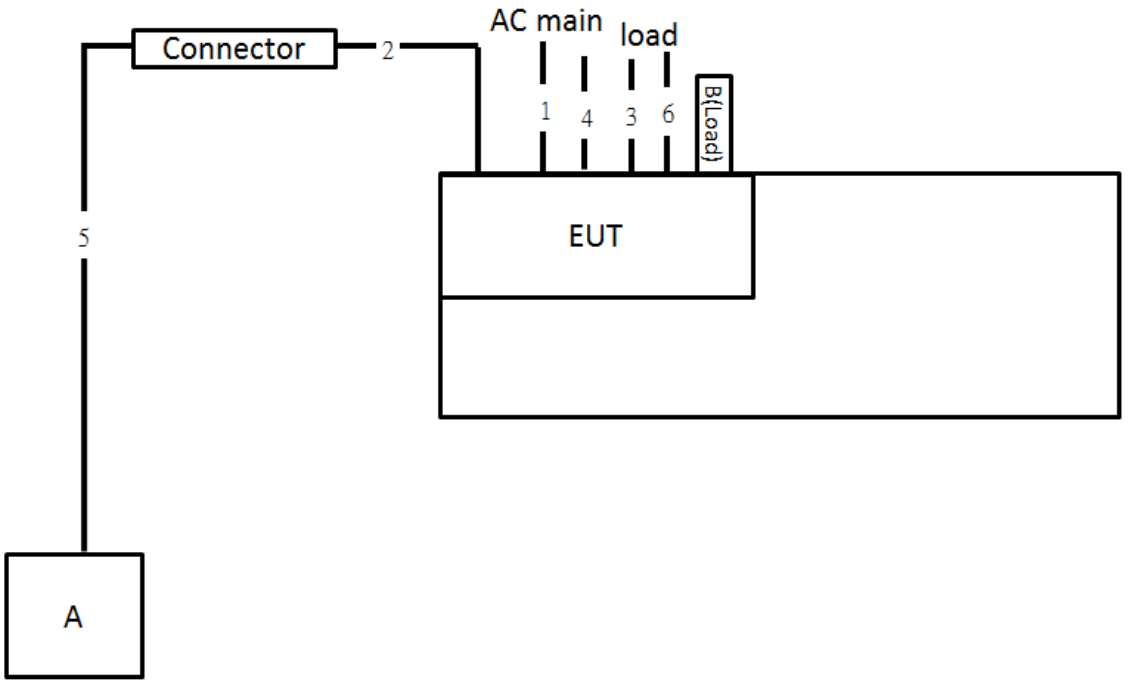
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	LAN1 NB	DELL	E6430	N/A
B	Flash disk3.0	Transcend	JetFlash-700	N/A

For Radiated:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

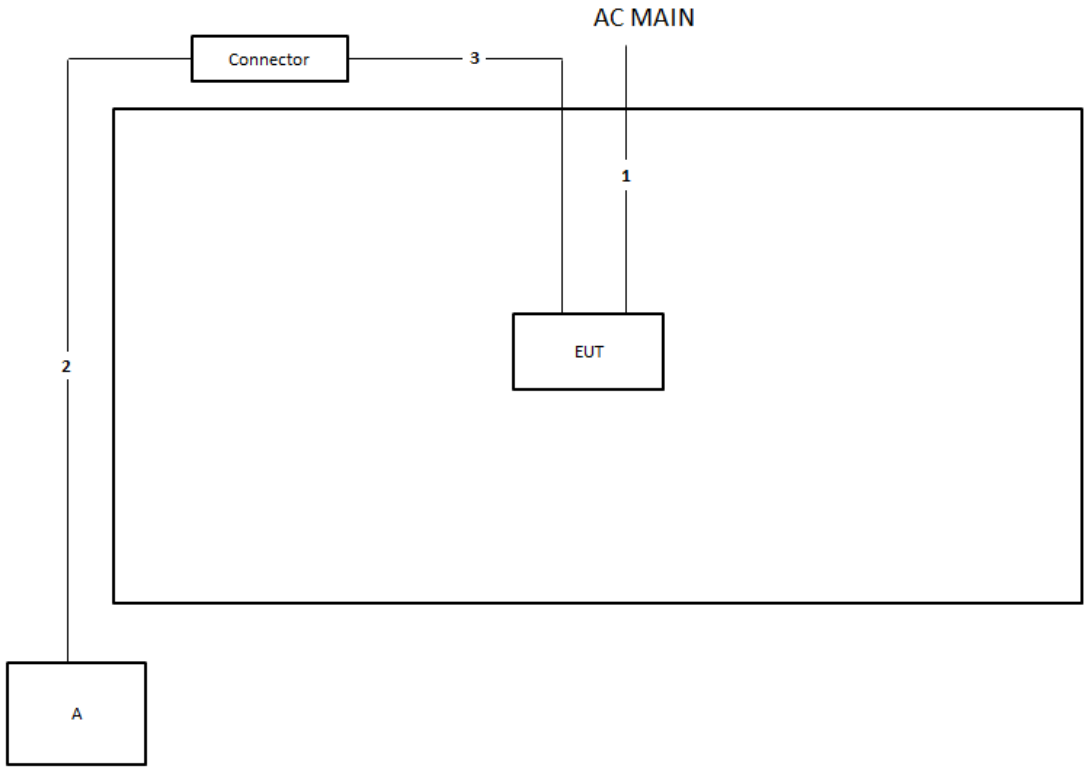
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



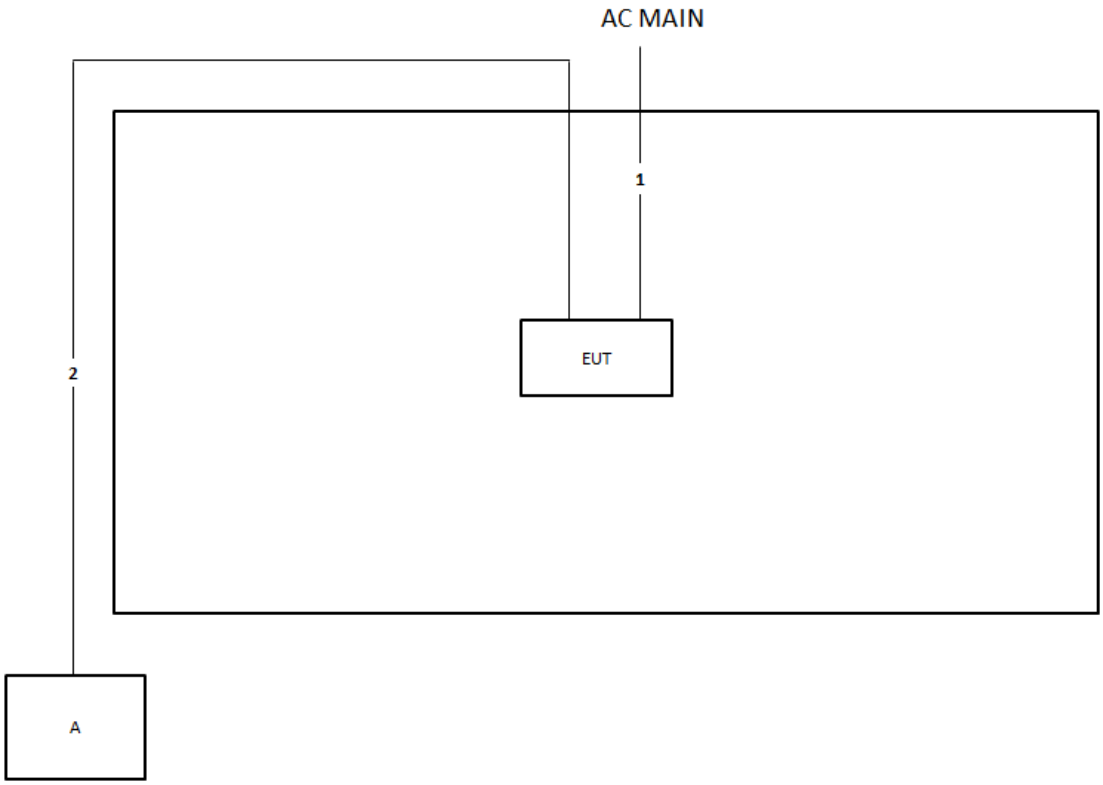
Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	Yes	1.8m
3	RJ-45 cable*2	No	1.5m
4	Coaxial cable	Yes	1.5m
5	RJ-45 cable	Yes	10m
6	RJ-11 cable	No	1.9m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	Yes	10m
3	RJ-45 cable	Yes	1.8m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

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

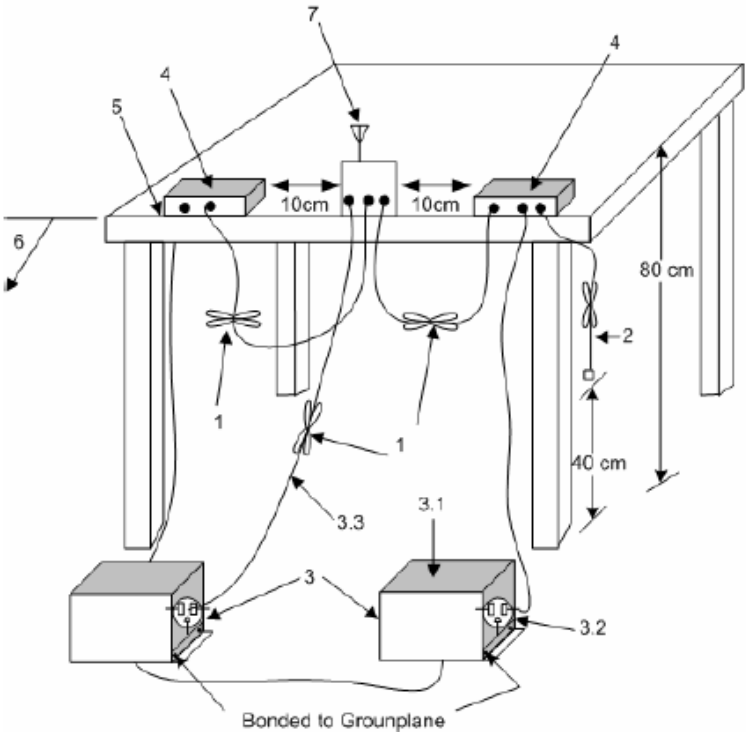
Refer a test equipment and calibration data table in this test report.

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

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.
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:

a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level

b. Margin = -Limit + Level

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Unwanted Emissions

3.2.1 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.

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
☒ 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
☐ 5.85 - 5.895 GHz	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of - 7 dBm/MHz at or above 5.925 GHz. (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an

	e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	

3.2.2 Measuring Instruments

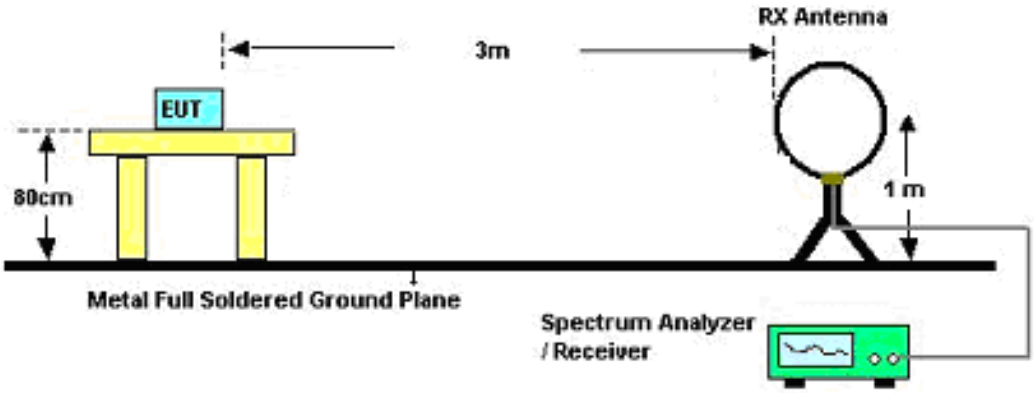
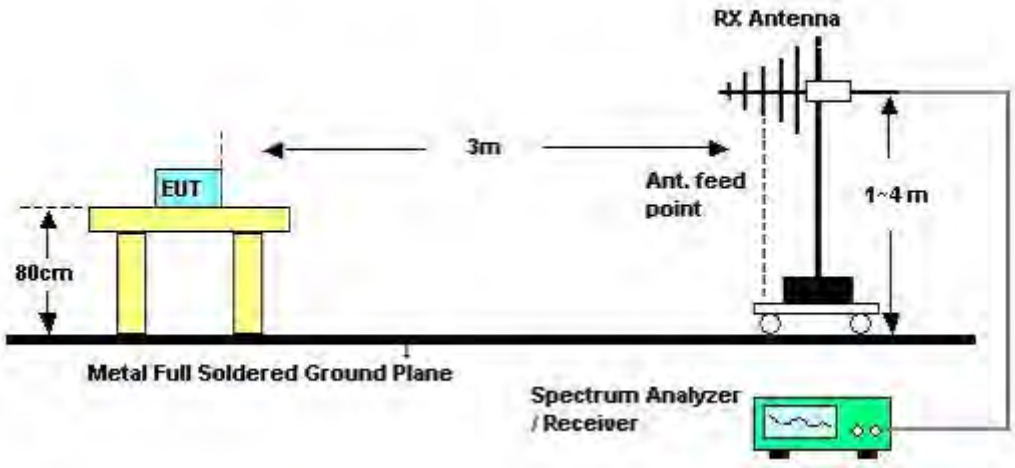
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

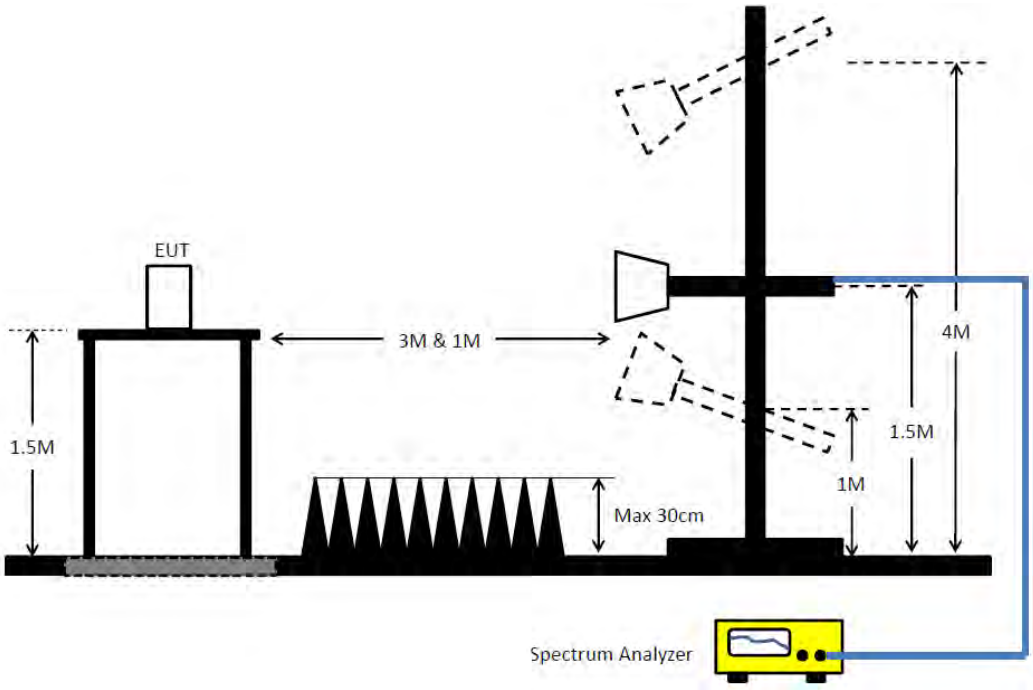
Test Method			
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).			
▪ The average emission levels shall be measured in [duty cycle ≥ 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).	
		☒ 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.	
		☐ 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.	
▪ 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.			

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

3.2.4 Test Setup

Transmitter Radiated Unwanted Emissions
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.2.5 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.

3.2.6 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.

3.2.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix B

4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 19, 2021	Oct. 18, 2022	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 18, 2022	Mar. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 18, 2022	Mar. 17, 2023	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 19, 2022	Apr. 18, 2023	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 06, 2021	May 05, 2022	Radiation (03CH03-CB)
Horn Antenna	ETS・Lindgren	3115	6821	750MHz~ 18GHz	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 02, 2021	Jul. 01, 2022	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 04, 2021	Jun. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)

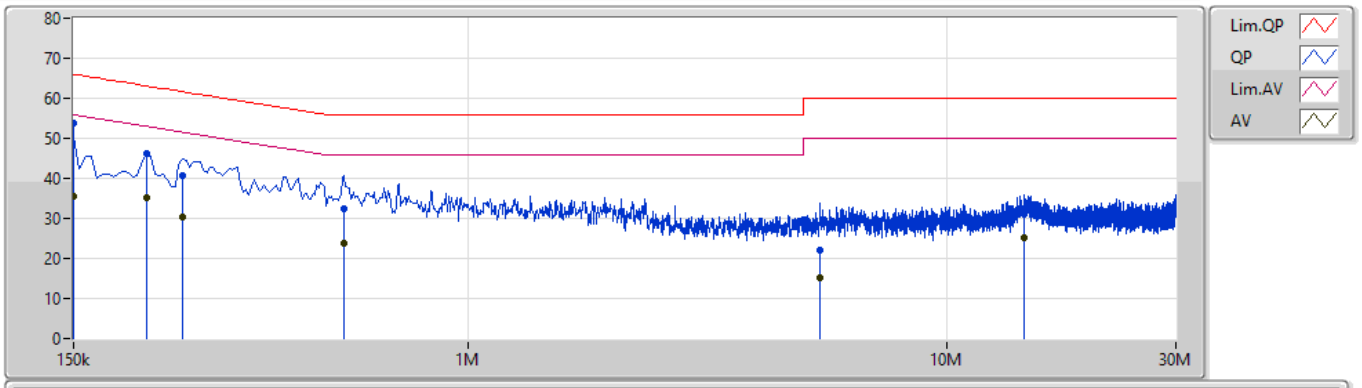
Note: Calibration Interval of instruments listed above is one year.
NCR means Non-Calibration required.

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150k	53.99	66.00	-12.01	Neutral

Mode 1

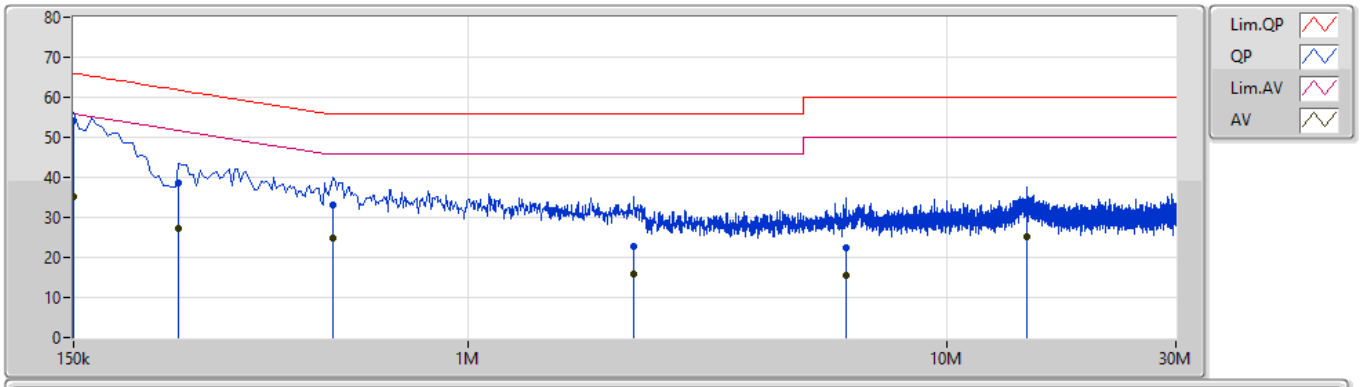
05/05/2022



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	53.89	66.00	-12.11	9.97	Line	"Worst"	43.92	0.06	0.02	9.89
AV	150k	35.37	56.00	-20.63	9.97	Line	-	25.40	0.06	0.02	9.89
QP	213k	46.30	63.09	-16.79	9.97	Line	-	36.33	0.06	0.02	9.89
AV	213k	35.09	53.09	-18.00	9.97	Line	-	25.12	0.06	0.02	9.89
QP	253.5k	40.71	61.64	-20.93	9.97	Line	-	30.74	0.06	0.02	9.89
AV	253.5k	30.43	51.64	-21.21	9.97	Line	-	20.46	0.06	0.02	9.89
QP	550.5k	32.46	56.00	-23.54	9.97	Line	-	22.49	0.06	0.02	9.89
AV	550.5k	23.95	46.00	-22.05	9.97	Line	-	13.98	0.06	0.02	9.89
QP	5.433M	21.94	60.00	-38.06	10.12	Line	-	11.82	0.15	0.07	9.90
AV	5.433M	15.03	50.00	-34.97	10.12	Line	-	4.91	0.15	0.07	9.90
QP	14.474M	30.96	60.00	-29.04	10.31	Line	-	20.65	0.26	0.11	9.94
AV	14.474M	25.16	50.00	-24.84	10.31	Line	-	14.85	0.26	0.11	9.94

Mode 1

05/05/2022

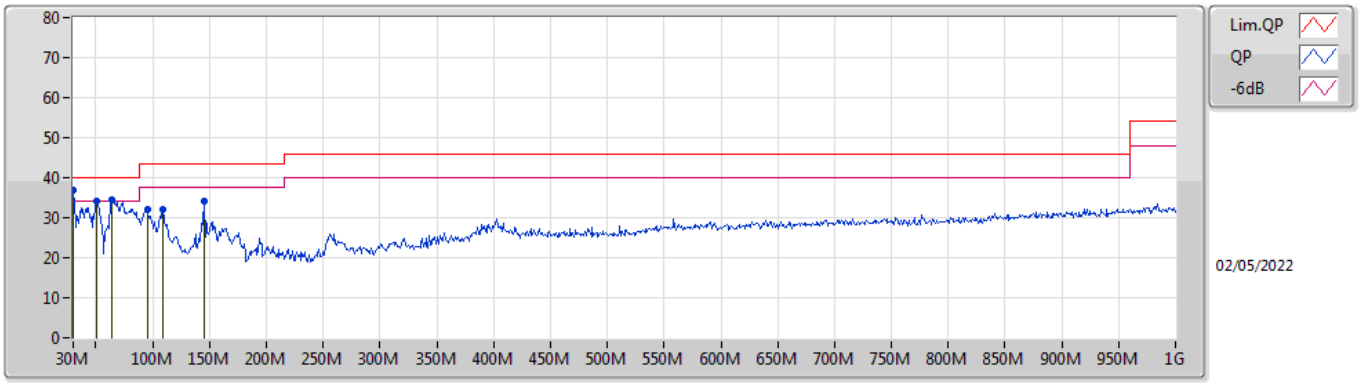


Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	53.99	66.00	-12.01	9.98	Neutral	"Worst"	44.01	0.07	0.02	9.89
AV	150k	35.27	56.00	-20.73	9.98	Neutral	-	25.29	0.07	0.02	9.89
QP	249k	38.68	61.79	-23.11	9.98	Neutral	-	28.70	0.07	0.02	9.89
AV	249k	27.29	51.79	-24.50	9.98	Neutral	-	17.31	0.07	0.02	9.89
QP	523.5k	32.97	56.00	-23.03	9.98	Neutral	-	22.99	0.07	0.02	9.89
AV	523.5k	25.00	46.00	-21.00	9.98	Neutral	-	15.02	0.07	0.02	9.89
QP	2.216M	22.89	56.00	-33.11	10.04	Neutral	-	12.85	0.10	0.05	9.89
AV	2.216M	15.99	46.00	-30.01	10.04	Neutral	-	5.95	0.10	0.05	9.89
QP	6.131M	22.40	60.00	-37.60	10.15	Neutral	-	12.25	0.18	0.07	9.90
AV	6.131M	15.57	50.00	-34.43	10.15	Neutral	-	5.42	0.18	0.07	9.90
QP	14.685M	31.06	60.00	-28.94	10.32	Neutral	-	20.74	0.27	0.11	9.94
AV	14.685M	25.15	50.00	-24.85	10.32	Neutral	-	14.83	0.27	0.11	9.94

Summary

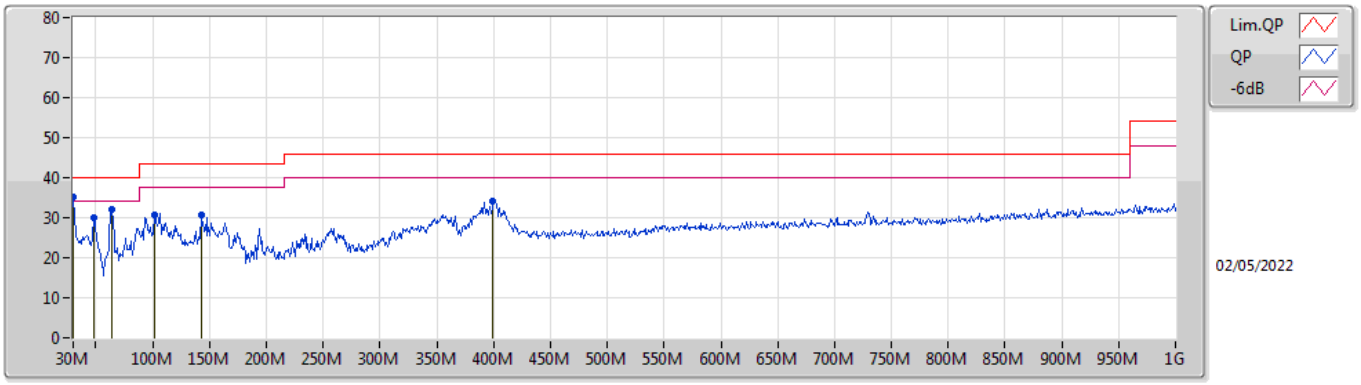
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	30M	36.74	40.00	-3.26	Vertical

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	30M	36.74	40.00	-3.26	-6.76	3	Vertical	357	3.00	"Worst"	43.50	23.99	0.80	31.55
PK	50.37M	34.28	40.00	-5.72	-16.84	3	Vertical	360	1.25	-	51.12	13.92	1.10	31.86
PK	63.95M	34.65	40.00	-5.35	-18.51	3	Vertical	53	1.50	-	53.16	12.22	1.20	31.93
PK	94.99M	32.06	43.50	-11.44	-14.81	3	Vertical	122	1.50	-	46.87	15.74	1.40	31.95
PK	108.57M	31.93	43.50	-11.57	-12.88	3	Vertical	149	1.00	-	44.81	17.55	1.54	31.97
PK	145.43M	34.15	43.50	-9.35	-13.68	3	Vertical	197	1.50	-	47.83	16.48	1.85	32.01

Mode 2



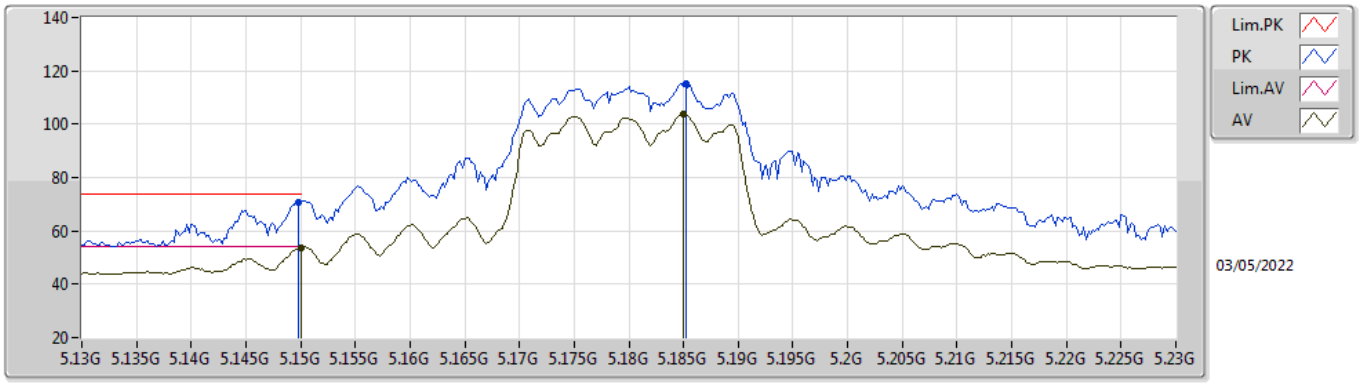
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	30M	35.08	40.00	-4.92	-6.76	3	Horizontal	1	2.00	"Worst"	41.84	23.99	0.80	31.55
PK	48.43M	29.83	40.00	-10.17	-16.19	3	Horizontal	359	1.50	-	46.02	14.59	1.07	31.85
PK	63.95M	32.02	40.00	-7.98	-18.51	3	Horizontal	66	1.50	-	50.53	12.22	1.20	31.93
PK	101.78M	30.57	43.50	-12.93	-13.56	3	Horizontal	258	3.00	-	44.13	16.90	1.51	31.97
PK	142.52M	30.65	43.50	-12.85	-13.45	3	Horizontal	70	2.00	-	44.10	16.73	1.83	32.01
PK	399.57M	34.31	46.00	-11.69	-7.43	3	Horizontal	182	1.00	-	41.74	21.53	3.20	32.16

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	Pass	AV	5.15G	53.79	54.00	-0.21	3	Vertical	327	1.89	-

802.11ax HEW20_Nss1,(MCS0)_4TX

5180MHz_TnomVnom

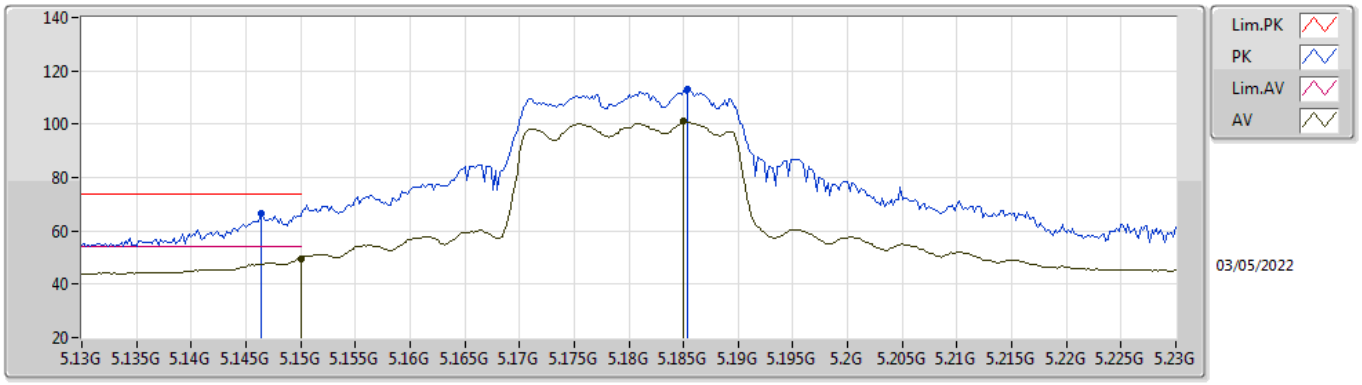


EUT Y_4TX
Setting 87
02-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1498G	70.53	74.00	-3.47	63.83	3	Vertical	327	1.89	-	33.60	5.25	32.15
AV	5.15G	53.79	54.00	-0.21	47.09	3	Vertical	327	1.89	-	33.60	5.25	32.15
PK	5.1852G	115.43	Inf	-Inf	108.62	3	Vertical	327	1.89	-	33.67	5.29	32.15
AV	5.185G	103.83	Inf	-Inf	97.02	3	Vertical	327	1.89	-	33.67	5.29	32.15

802.11ax HEW20_Nss1,(MCS0)_4TX

5180MHz_TnomVnom

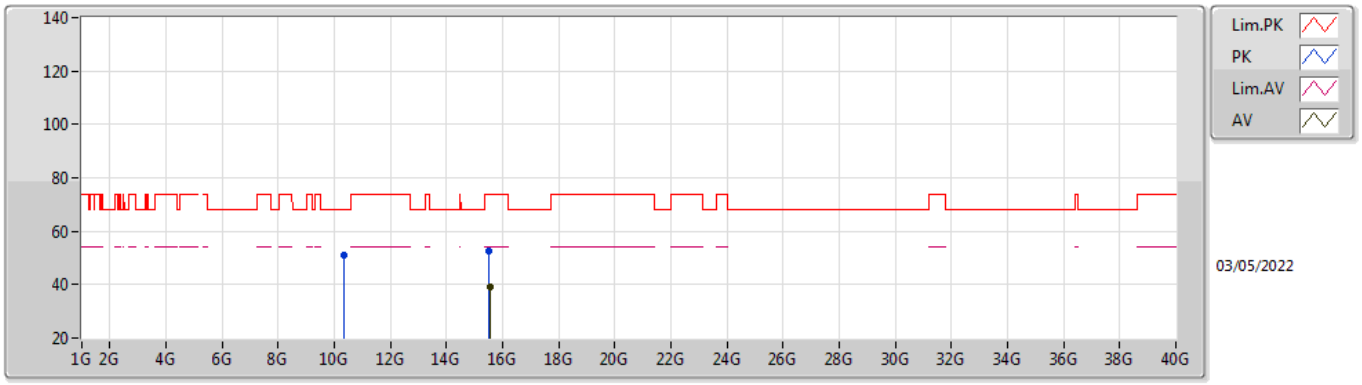


EUT Y_4TX
Setting 87
02-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1464G	66.62	74.00	-7.38	59.93	3	Horizontal	348	2.01	-	33.59	5.25	32.15
AV	5.15G	49.59	54.00	-4.41	42.89	3	Horizontal	348	2.01	-	33.60	5.25	32.15
PK	5.1854G	113.35	Inf	-Inf	106.54	3	Horizontal	348	2.01	-	33.67	5.29	32.15
AV	5.185G	100.95	Inf	-Inf	94.14	3	Horizontal	348	2.01	-	33.67	5.29	32.15

802.11ax HEW20_Nss1,(MCS0)_4TX

5180MHz_TnomVnom

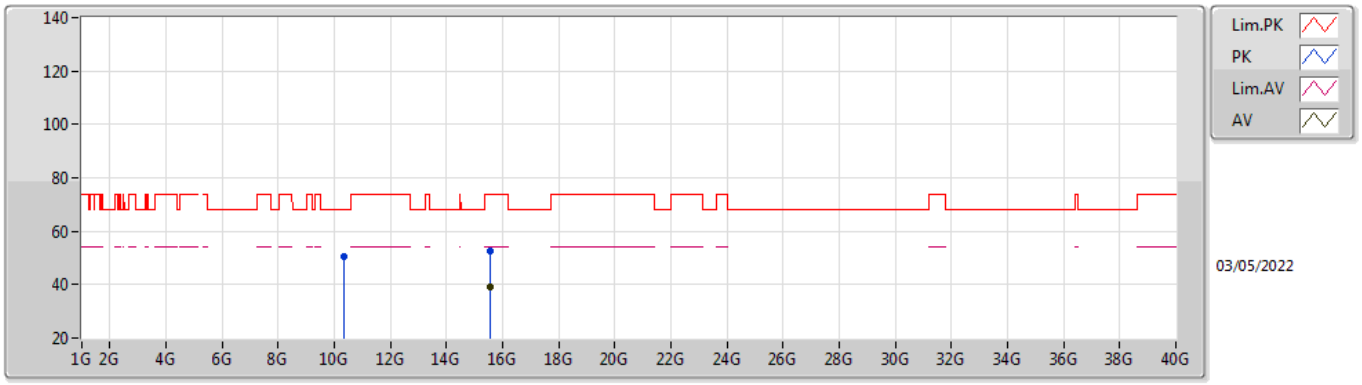


EUT Y_4TX
Setting 87
02-B-C-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.3543G	51.07	68.20	-17.13	37.93	3	Vertical	17	1.37	-	38.65	7.44	32.95
PK	15.52932G	52.73	74.00	-21.27	38.20	3	Vertical	3	1.84	-	37.92	9.79	33.18
AV	15.54606G	39.31	54.00	-14.69	24.89	3	Vertical	3	1.84	-	37.82	9.80	33.20

802.11ax HEW20_Nss1,(MCS0)_4TX

5180MHz_TnomVnom

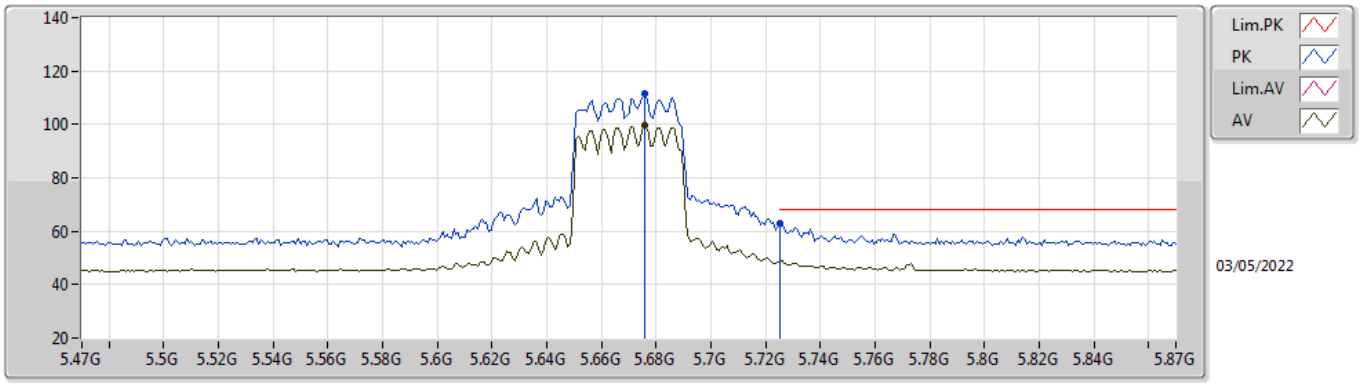


EUT Y_4TX
Setting 87
02-B-C-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.36156G	50.63	68.20	-17.57	37.51	3	Horizontal	282	1.73	-	38.64	7.44	32.96
PK	15.53304G	52.39	74.00	-21.61	37.89	3	Horizontal	241	1.61	-	37.90	9.79	33.19
AV	15.53652G	39.27	54.00	-14.73	24.79	3	Horizontal	241	1.61	-	37.88	9.79	33.19

802.11ax HEW40_Nss1,(MCS0)_4TX

5670MHz_TnomVnom

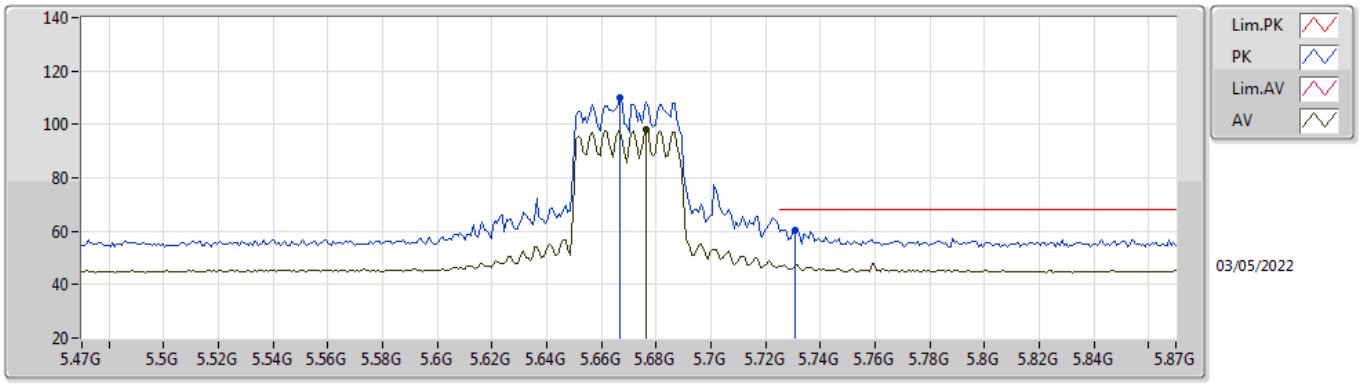


EUT Y_4TX
Setting 75
02-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.6756G	111.42	Inf	-Inf	104.11	3	Vertical	285	1.70	-	33.85	5.60	32.14
AV	5.6756G	99.78	Inf	-Inf	92.47	3	Vertical	285	1.70	-	33.85	5.60	32.14
PK	5.7252G	63.12	68.20	-5.08	55.81	3	Vertical	285	1.70	-	33.85	5.60	32.14

802.11ax HEW40_Nss1,(MCS0)_4TX

5670MHz_TnomVnom

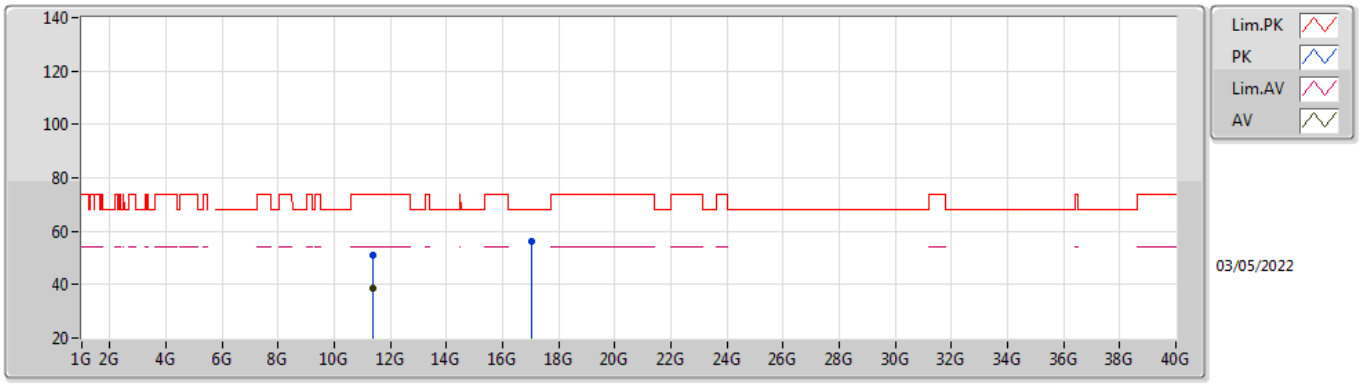


EUT Y_4TX
Setting 75
02-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.6668G	109.96	Inf	-Inf	102.67	3	Horizontal	53	1.40	-	33.83	5.60	32.14
AV	5.6764G	97.91	Inf	-Inf	90.60	3	Horizontal	53	1.40	-	33.85	5.60	32.14
PK	5.7308G	60.59	68.20	-7.61	53.29	3	Horizontal	53	1.40	-	33.84	5.60	32.14

802.11ax HEW40_Nss1,(MCS0)_4TX

5670MHz_TnomVnom

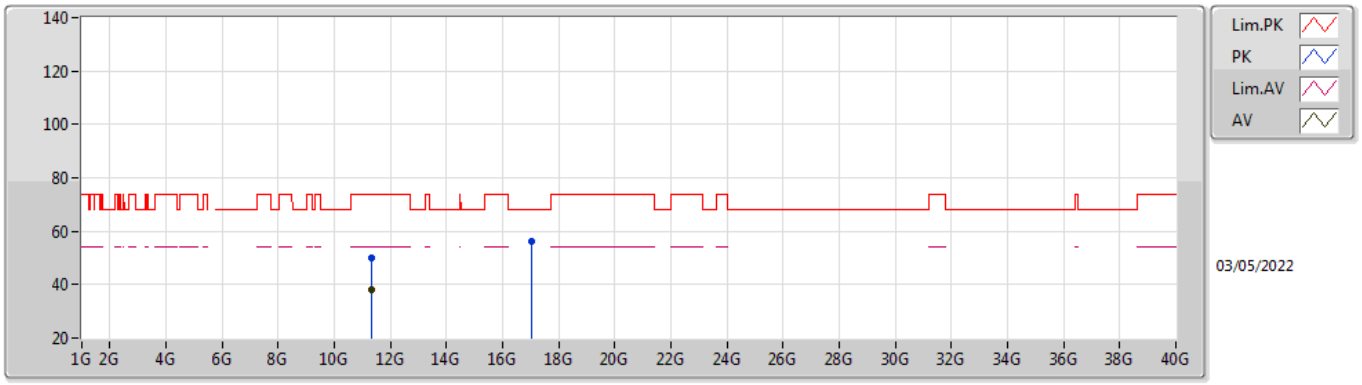


EUT Y_4TX
Setting 75
02-B-C-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.35488G	51.11	74.00	-22.89	37.70	3	Vertical	130	2.46	-	38.80	7.84	33.23
AV	11.35314G	38.55	54.00	-15.45	25.14	3	Vertical	130	2.46	-	38.80	7.84	33.23
PK	17.02356G	55.95	68.20	-12.25	37.86	3	Vertical	45	2.30	-	41.09	10.51	33.51

802.11ax HEW40_Nss1,(MCS0)_4TX

5670MHz_TnomVnom

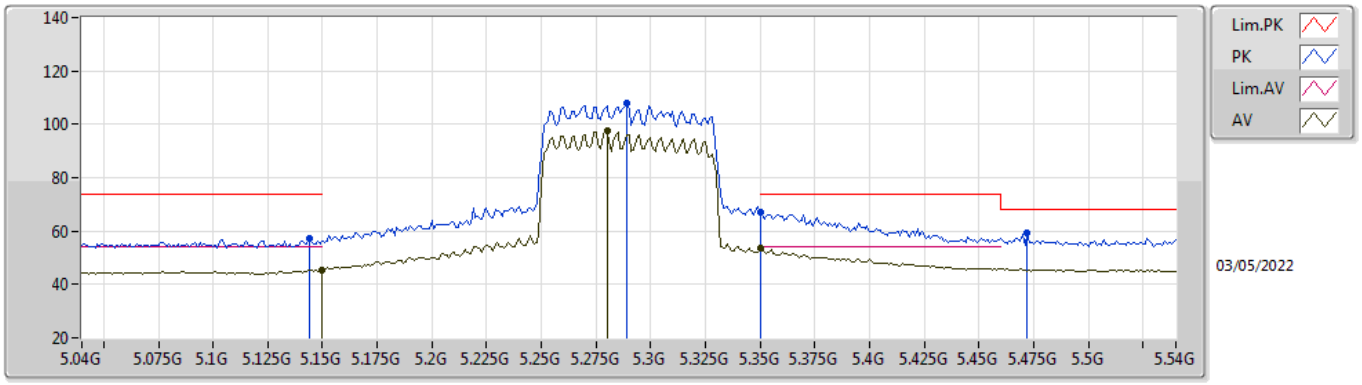


EUT Y_4TX
Setting 75
02-B-C-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.3403G	50.23	74.00	-23.77	36.83	3	Horizontal	14	1.24	-	38.80	7.84	33.24
AV	11.34396G	38.27	54.00	-15.73	24.87	3	Horizontal	14	1.24	-	38.80	7.84	33.24
PK	17.01408G	56.19	68.20	-12.01	38.14	3	Horizontal	132	1.54	-	41.06	10.51	33.52

802.11ax HEW80_Nss1,(MCS0)_4TX

5290MHz_TnomVnom

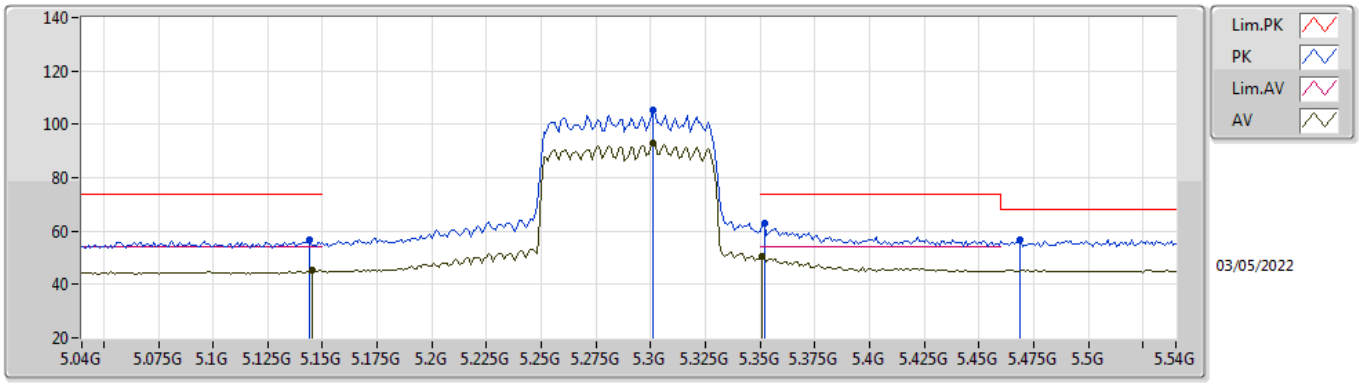


EUT Y_4TX
Setting 75
02-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.144G	57.27	74.00	-16.73	50.59	3	Vertical	206	1.98	-	33.59	5.24	32.15
AV	5.15G	45.47	54.00	-8.53	38.77	3	Vertical	206	1.98	-	33.60	5.25	32.15
PK	5.289G	108.14	Inf	-Inf	101.16	3	Vertical	206	1.98	-	33.78	5.34	32.14
AV	5.28G	97.65	Inf	-Inf	90.69	3	Vertical	206	1.98	-	33.76	5.34	32.14
PK	5.35G	66.92	74.00	-7.08	59.78	3	Vertical	206	1.98	-	33.90	5.38	32.14
AV	5.35G	53.67	54.00	-0.33	46.53	3	Vertical	206	1.98	-	33.90	5.38	32.14
PK	5.472G	59.33	68.20	-8.87	51.99	3	Vertical	206	1.98	-	34.00	5.47	32.13

802.11ax HEW80_Nss1,(MCS0)_4TX

5290MHz_TnomVnom

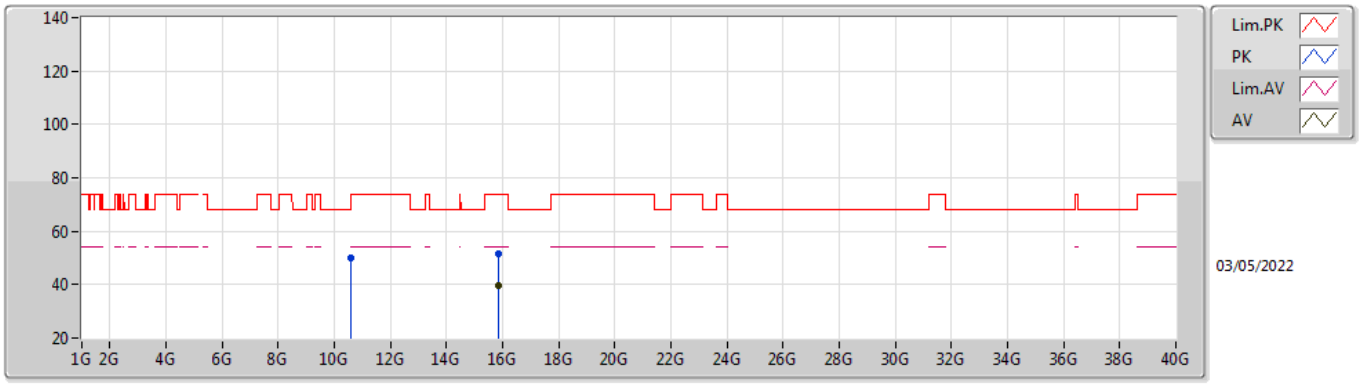


EUT Y_4TX
Setting 75
02-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.144G	56.92	74.00	-17.08	50.24	3	Horizontal	343	1.83	-	33.59	5.24	32.15
AV	5.145G	45.15	54.00	-8.85	38.46	3	Horizontal	343	1.83	-	33.59	5.25	32.15
PK	5.301G	105.37	Inf	-Inf	98.36	3	Horizontal	343	1.83	-	33.80	5.35	32.14
AV	5.301G	92.98	Inf	-Inf	85.97	3	Horizontal	343	1.83	-	33.80	5.35	32.14
PK	5.352G	63.06	74.00	-10.94	55.92	3	Horizontal	343	1.83	-	33.90	5.38	32.14
AV	5.351G	50.76	54.00	-3.24	43.62	3	Horizontal	343	1.83	-	33.90	5.38	32.14
PK	5.469G	56.92	68.20	-11.28	49.58	3	Horizontal	343	1.83	-	34.00	5.47	32.13

802.11ax HEW80_Nss1,(MCS0)_4TX

5290MHz_TnomVnom

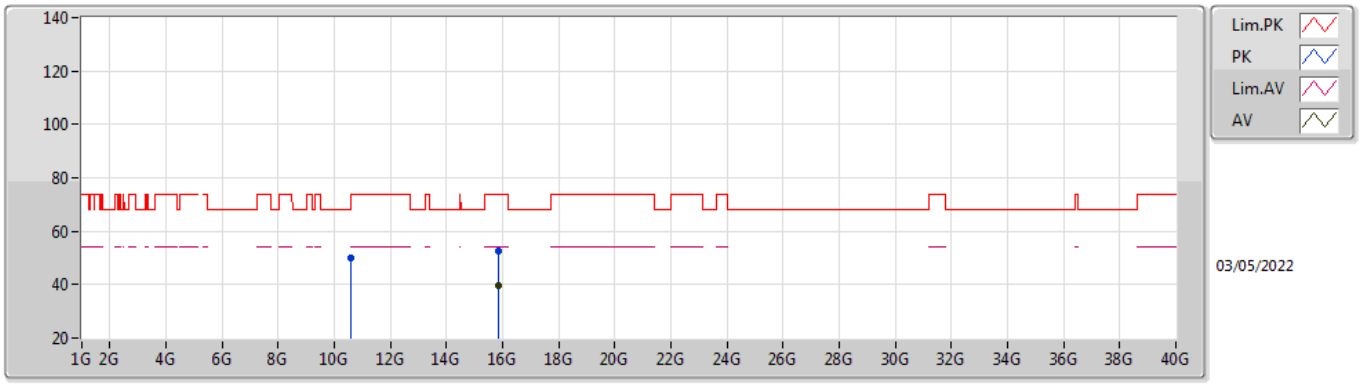


EUT Y_4TX
Setting 75
02-B-C-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.57274G	50.09	68.20	-18.11	37.11	3	Vertical	185	2.31	-	38.53	7.53	33.08
PK	15.86574G	51.68	74.00	-22.32	37.95	3	Vertical	143	1.20	-	37.37	9.94	33.58
AV	15.86214G	39.54	54.00	-14.46	25.80	3	Vertical	143	1.20	-	37.38	9.94	33.58

802.11ax HEW80_Nss1,(MCS0)_4TX

5290MHz_TnomVnom

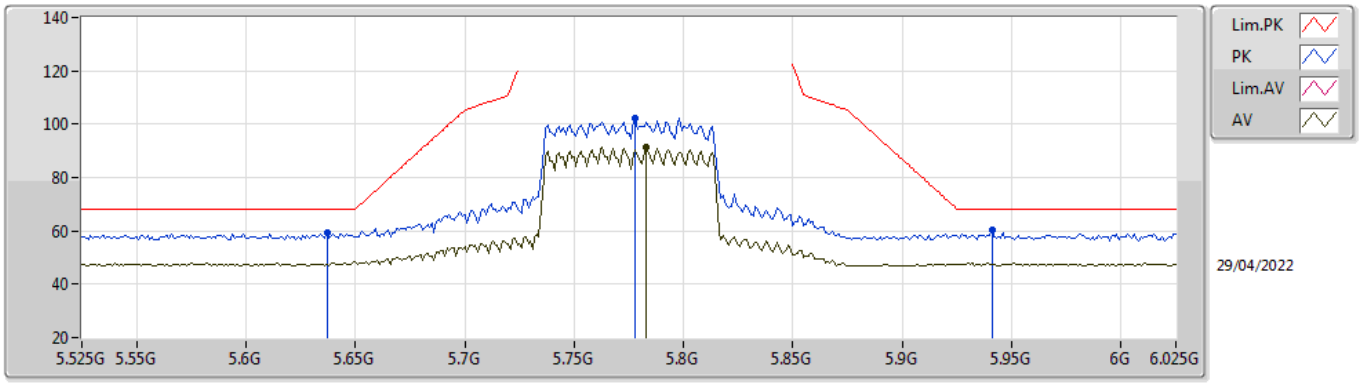


EUT Y_4TX
Setting 75
02-B-C-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.5773G	50.23	68.20	-17.97	37.26	3	Horizontal	105	1.22	-	38.52	7.53	33.08
PK	15.87114G	52.71	74.00	-21.29	39.00	3	Horizontal	149	2.26	-	37.36	9.94	33.59
AV	15.86412G	39.86	54.00	-14.14	26.13	3	Horizontal	149	2.26	-	37.37	9.94	33.58

802.11ax HEW80_Nss1,(MCS0)_4TX

5775MHz_TnomVnom

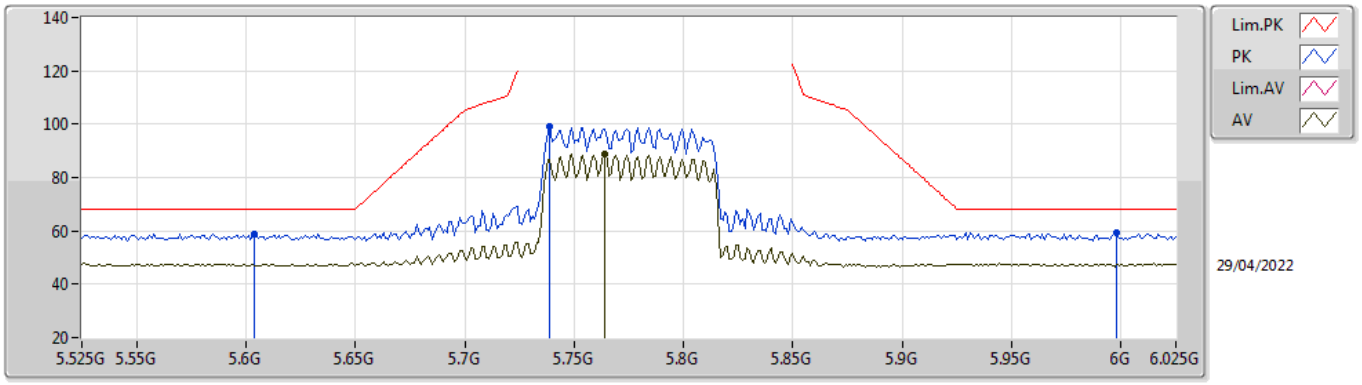


EUT Y_4TX
Setting 84
03-C-E-2-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.637G	59.13	68.20	-9.07	52.62	3	Vertical	273	1.76	-	34.53	7.40	35.42
PK	5.778G	102.19	Inf	-Inf	96.08	3	Vertical	273	1.76	-	34.20	7.40	35.49
AV	5.783G	91.61	Inf	-Inf	85.50	3	Vertical	273	1.76	-	34.20	7.40	35.49
PK	5.941G	60.38	68.20	-7.82	53.65	3	Vertical	273	1.76	-	34.76	7.54	35.57

802.11ax HEW80_Nss1,(MCS0)_4TX

5775MHz_TnomVnom

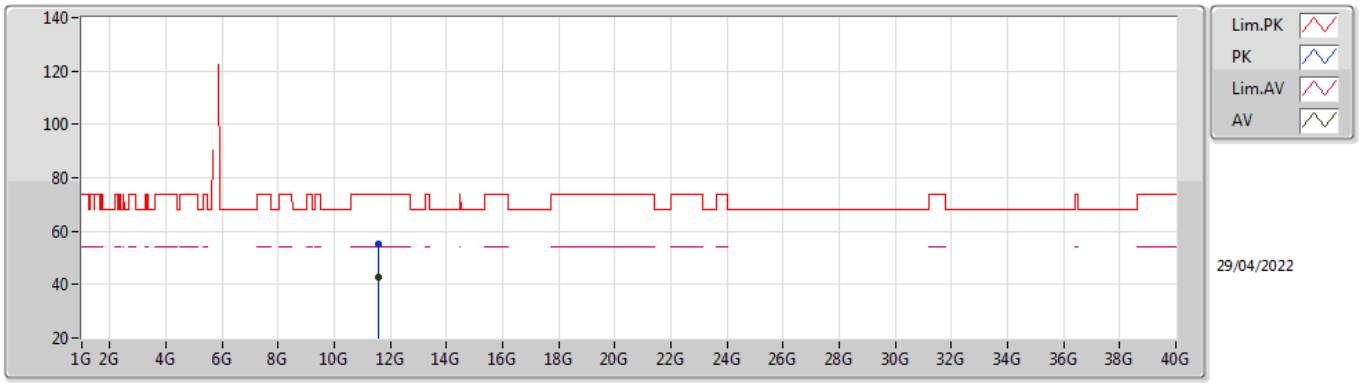


EUT Y_4TX
Setting 84
03-C-E-2-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.604G	58.96	68.20	-9.24	52.37	3	Horizontal	72	1.00	-	34.59	7.40	35.40
PK	5.739G	99.26	Inf	-Inf	93.11	3	Horizontal	72	1.00	-	34.22	7.40	35.47
AV	5.764G	88.58	Inf	-Inf	82.46	3	Horizontal	72	1.00	-	34.20	7.40	35.48
PK	5.998G	59.32	68.20	-8.88	52.52	3	Horizontal	72	1.00	-	34.80	7.60	35.60

802.11ax HEW80_Nss1,(MCS0)_4TX

5775MHz_TnomVnom

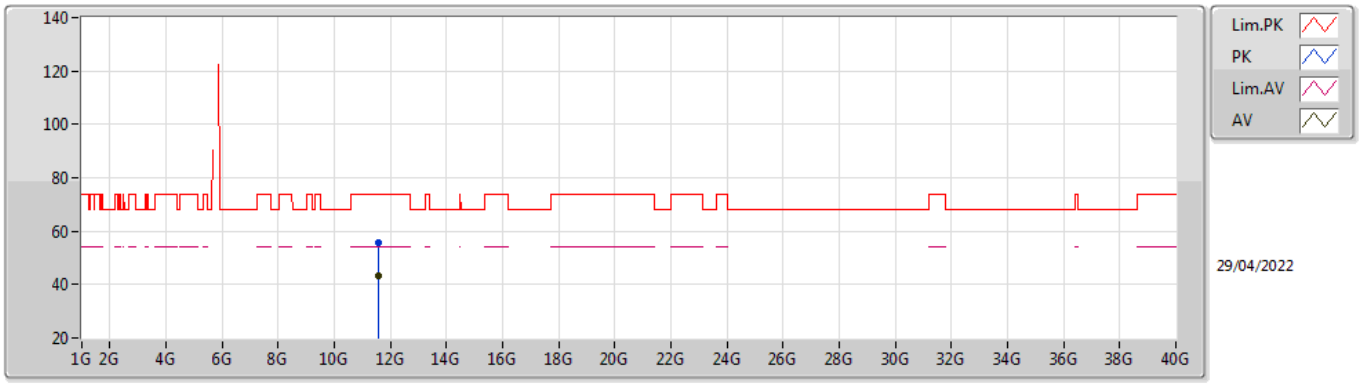


EUT Y_4TX
Setting 84
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.55954G	55.22	74.00	-18.78	40.84	3	Vertical	215	1.62	-	39.24	10.73	35.59
AV	11.55114G	42.97	54.00	-11.03	28.63	3	Vertical	215	1.62	-	39.20	10.73	35.59

802.11ax HEW80_Nss1,(MCS0)_4TX

5775MHz_TnomVnom



EUT Y_4TX
Setting 84
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.55G	55.52	74.00	-18.48	41.18	3	Horizontal	-0	1.13	-	39.20	10.73	35.59
AV	11.56014G	43.10	54.00	-10.90	28.72	3	Horizontal	-0	1.13	-	39.24	10.73	35.59