FCC RADIO TEST REPORT

FCC ID	**:**	**A4RGTU8P**
Equipment	**:**	**Wireless Device**
Applicant	**:**	**Google LLC** **1600 Amphitheatre Parkway,** **Mountain View, California, 94043 USA**
Standard	**:**	**47 CFR FCC Part 15.519**

The product was received on Oct. 19, 2022, and testing was performed from Nov. 14, 2022 to Dec. 09, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in 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. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR1O0605-09F	01	Initial issue of report	Dec. 13, 2022
FR1O0605-09F	02	Revise antenna information	Dec. 23, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.2	15.203	Antenna Requirement	PASS	15.203
3.1	15.207	AC Power-line Conducted Emissions	PASS	15.207
3.2	15.503	UWB Bandwidth	PASS	≥ 500MHz
3.3	15.519(a)(1)	Technical requirements for Hand Held UWB systems	PASS	15.519(a)(1)
3.4	15.519(e)	Peak Power Measurement	PASS	≤ 0 dBm/50MHz
3.5	15.519(c) /15.519(d)	Radiated Emissions	PASS	UWB Emissions: 15.519(c) GPS Emissions: 15.519(d) Digital Emissions: 15.209

Declaration of Conformity:
1. The test results (PASS/FAIL) 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 this report " Measurement Uncertainty".
Comments and Explanations:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: William Chen

Report Producer: Clio Lo

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wireless Device
FCC ID	A4RGTU8P
EUT supports Radios application	UWB WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 WLAN 11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE

Remark: The above EUT's information was declared by manufacturer.

EUT Information List	
S/N	Performed Test Item
WIP2914105H800BC4 WIP2901105H8009ED	Equivalent Isotropic Radiated Power
WIP2901105H8009ED	Radiated Spurious Emission
WIP2901105H8009EG	Conducted Emission

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Channel Number & Tx/Rx Frequency Range	CH05: 6489.6 MHz CH09: 7987.2 MHz
Antenna Type	PIFA Antenna
Type of Modulation	BPM-BPSK

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Type of EUT

Operational Condition	
EUT Power Type	AC mains: AC voltage 120 V
Type of EUT	
■	Stand-alone
☐	Combined (EUT where the radio part is fully integrated within another device) Combined Equipment - Brand Name / Model No.: …
☐	Plug-in radio (EUT intended for a variety of host systems) Host System - Brand Name / Model No.: …
☐	Other:

1.5 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 414788 D01 Radiated Test Site v01r01

Remark: The TAF code is not including all the FCC KDB listed without accreditation.

1.6 Testing Location Information

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY (TAF Code: 1190)
Remark	The Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory

Note: The test site complies with ANSI C63.4 2014 requirement.

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH20-HY

Note: The test site complies with ANSI C63.4 2014 requirement.
FCC designation No.: TW1190 and TW3786

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Conduction	CO05-HY	Calvin Wang	23 ~ 26 °C 45 ~ 55 %	Dec. 02, 2022
Radiated	03CH20-HY	JC Liang	18 ~ 20 °C 66 ~ 70 %	Nov. 14, 2022~ Dec. 09, 2022

1.7 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
AC Conduction (150kHz ~ 30MHz)	3.5 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1000MHz) for 03CH20-HY	6.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 6GHz) for 03CH20-HY	4.3 dB	Confidence levels of 95%
Radiated Emission (6GHz ~ 18GHz) for 03CH20-HY	4.8 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz) for 03CH20-HY	5.4 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Mode

Test Configuration					
Mode	UWB Antenna	UWB Channel	preamble_cidx	rx_sts_mode	packet_length
1	1	5	9	1	125
2	1	5	9	0	125
3	1	5	9	3	0
4	1	5	10	1	125
5	1	5	10	0	125
6	1	5	10	3	0
7	1	5	11	1	125
8	1	5	11	0	125
9	1	5	11	3	0
10	1	5	12	1	125
11	1	5	12	0	125
12	1	5	12	3	0
13	1	9	9	1	125
14	1	9	9	0	125
15	1	9	9	3	0
16	1	9	10	1	125
17	1	9	10	0	125
18	1	9	10	3	0
19	1	9	11	1	125
20	1	9	11	0	125
21	1	9	11	3	0
22	1	9	12	1	125
23	1	9	12	0	125
24	1	9	12	3	0

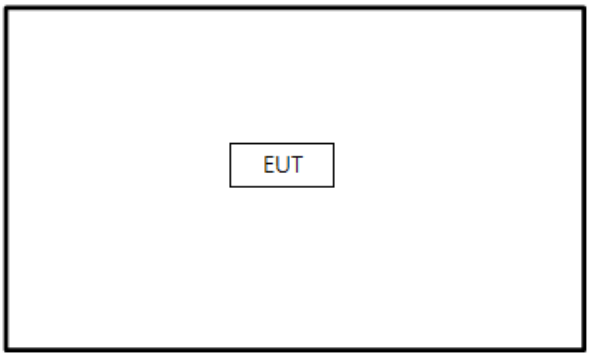
2.2 The Worst Case Measurement Configuration

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
1	Adapter Mode
Remark: Please refer to 15.207 which states, “Measurements to demonstrate compliance with the conducted limits are not required for devices employ Battery for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines”.	

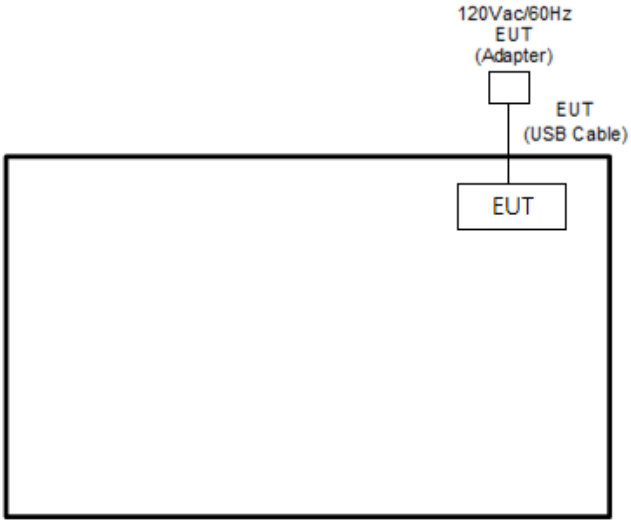
The Worst Case Mode for Following Conformance Tests			
Tests Item	UWB Bandwidth, Peak Power Measurement, Radiated Emissions		
Test Condition	Radiated measurement		
Operating Mode	CTX		
1	Adapter Mode		
Mode 1 configuration was tested and found to be the worst case and measured during the test.			
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Plane of all Test Modes	V	V	V
Remark: The measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape) and accessory (Adapter or Earphone), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find as worst plane, and recorded in this report.			

2.3 Test Setup Diagram

Test Setup Diagram - Radiated Test



Test Setup Diagram - AC Power-Line Conducted Emissions Test



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude5310	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

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

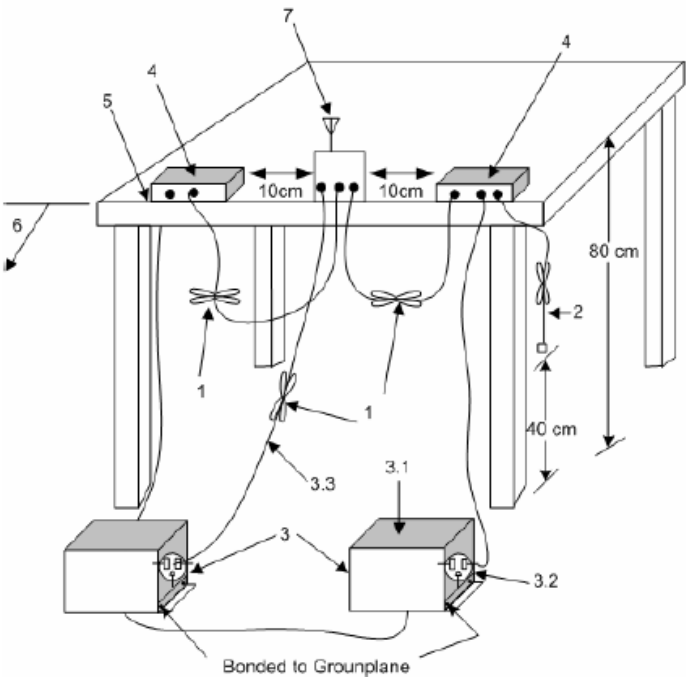
Refer a test equipment and calibration data table in this test report.

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



3.1.5 Test Result

Please refer to Appendix A.

3.2 UWB bandwidth

3.2.1 UWB bandwidth Limit

UWB bandwidth Limit
UWB bandwidth ≥ 500 MHz or Fractional bandwidth ≥ 0.2; Fractional bandwidth = $2(f_H - f_L)/ (f_H + f_L)$

3.2.2 Measuring Instruments

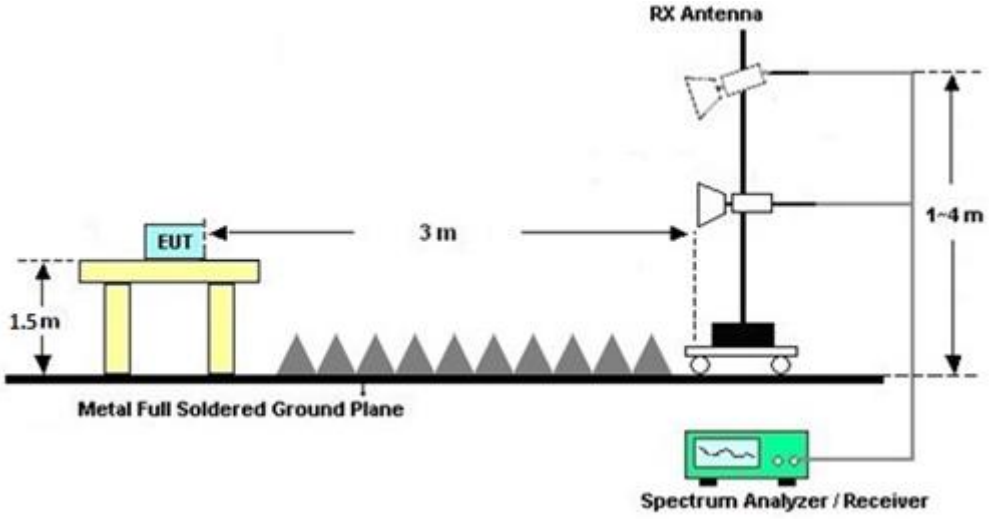
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
■	For the UWB bandwidth shall be measured using one of the options below:
	■ Refer as ANSI C63.10, clause 6.9.2 and clause 10.1 for UWB bandwidth testing.

3.2.4 Test Setup

UWB Bandwidth - Test Distance: 3m

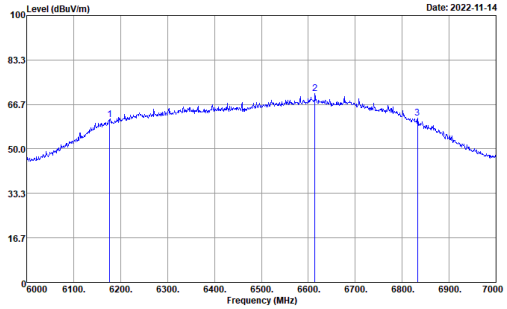


3.2.5 Test Result of UWB Bandwidth

Test mode	F_L (MHz)	F_H (MHz)	UWB Bandwidth (MHz)	Bandwidth limit (MHz)	Result	Pol [H/V]
1	6177	6833	656	≥ 500	Pass	H
2	6137	6866	729	≥ 500	Pass	H
3	6173	6833	660	≥ 500	Pass	H
4	6177	6841	664	≥ 500	Pass	H
5	6139	6856	717	≥ 500	Pass	H
6	6171	6833	662	≥ 500	Pass	H
7	6172	6839	667	≥ 500	Pass	H
8	6141	6859	718	≥ 500	Pass	H
9	6146	6864	718	≥ 500	Pass	H
10	6146	6845	699	≥ 500	Pass	H
11	6146	6847	701	≥ 500	Pass	H
12	6165	6833	668	≥ 500	Pass	H
13	7675	8331	656	≥ 500	Pass	H
14	7673	8330	657	≥ 500	Pass	H
15	7675	8331	656	≥ 500	Pass	H
16	7675	8330	655	≥ 500	Pass	H
17	7660	8346	686	≥ 500	Pass	H
18	7697	8304	607	≥ 500	Pass	H
19	7675	8331	656	≥ 500	Pass	H
20	7660	8336	676	≥ 500	Pass	H
21	7695	8330	635	≥ 500	Pass	H
22	7698	8306	608	≥ 500	Pass	H
23	7695	8306	611	≥ 500	Pass	H
24	7675	8331	656	≥ 500	Pass	H

CH05 UWB Bandwidth

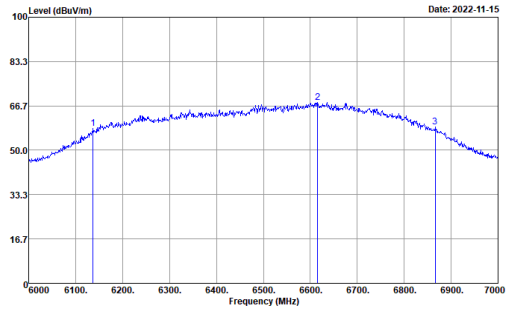
Mode 1: cidx-9_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6177.00	61.05	------	------	50.51	34.25	14.19	37.90	---	---	Peak
2	6614.00	70.77	------	------	58.13	35.86	14.65	37.87	---	---	Peak
3	6833.00	61.48	------	------	48.66	35.93	14.99	38.10	---	---	Peak

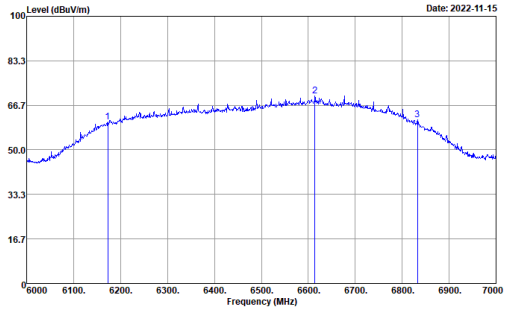
Mode 2: cidx-9_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6137.00	58.20	------	------	47.82	34.17	14.13	37.92	---	---	Peak
2	6616.00	68.02	------	------	55.38	35.86	14.65	37.87	---	---	Peak
3	6866.00	58.90	------	------	46.10	35.90	15.03	38.13	---	---	Peak

Mode 3: cidx-9_sts-3_packet length-0

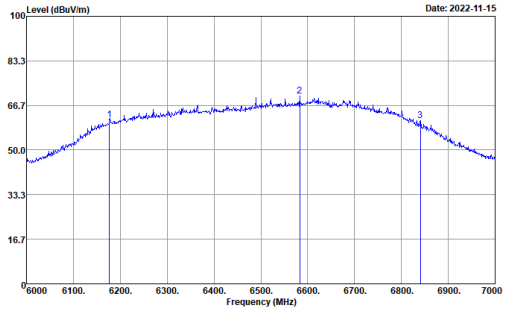


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6173.00	60.46	------	------	49.93	34.25	14.18	37.90	---	---	Peak
2	6614.00	70.32	------	------	57.68	35.86	14.65	37.87	---	---	Peak
3	6833.00	61.39	------	------	48.57	35.93	14.99	38.10	---	---	Peak

CH05 UWB Bandwidth

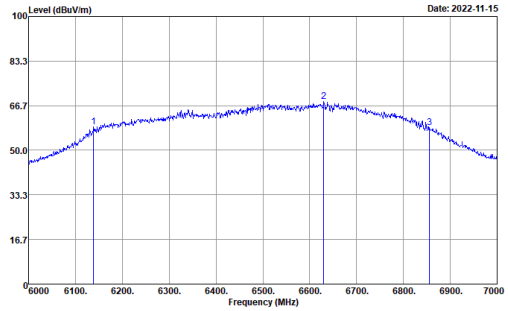
Mode 4: cidx-10_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6177.00	61.16	------	------	50.62	34.25	14.19	37.90	---	---	Peak
2	6583.00	70.27	------	------	57.76	35.73	14.62	37.84	---	---	Peak
3	6841.00	60.96	------	------	48.14	35.92	15.00	38.10	---	---	Peak

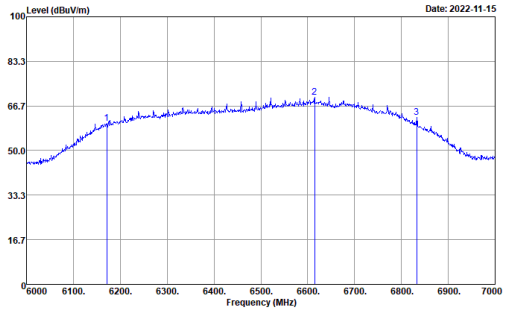
Mode 5: cidx-10_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6139.00	58.73	------	------	48.34	34.18	14.13	37.92	---	---	Peak
2	6630.00	68.14	------	------	55.43	35.92	14.68	37.89	---	---	Peak
3	6856.00	58.44	------	------	45.64	35.90	15.02	38.12	---	---	Peak

Mode 6: cidx-10_sts-3_packet length-0

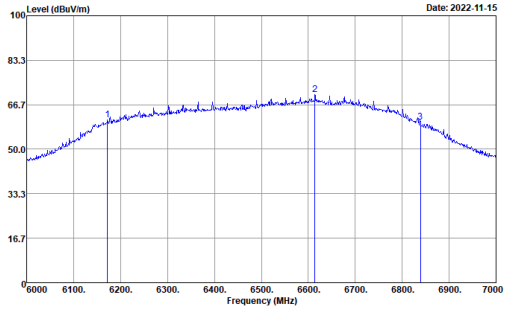


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6171.00	60.22	------	------	49.70	34.24	14.18	37.90	---	---	Peak
2	6615.00	70.06	------	------	57.42	35.86	14.65	37.87	---	---	Peak
3	6833.00	62.42	------	------	49.60	35.93	14.99	38.10	---	---	Peak

CH05 UWB Bandwidth

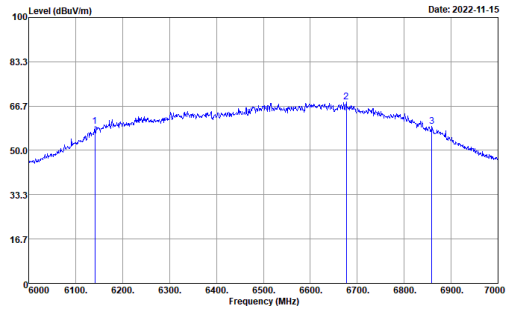
Mode 7: cidx-11_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6172.00	61.08	------	------	50.56	34.24	14.18	37.90	---	---	Peak
2	6614.00	70.53	------	------	57.89	35.86	14.65	37.87	---	---	Peak
3	6839.00	60.28	------	------	47.47	35.92	14.99	38.10	---	---	Peak

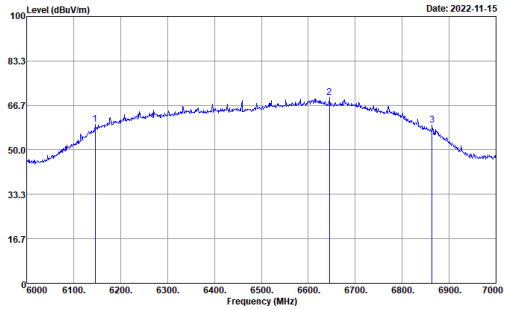
Mode 8: cidx-11_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6141.00	58.96	------	------	48.57	34.18	14.13	37.92	---	---	Peak
2	6677.00	68.31	------	------	55.49	36.00	14.75	37.93	---	---	Peak
3	6859.00	58.95	------	------	46.15	35.90	15.02	38.12	---	---	Peak

Mode 9: cidx-11_sts-3_packet length-0

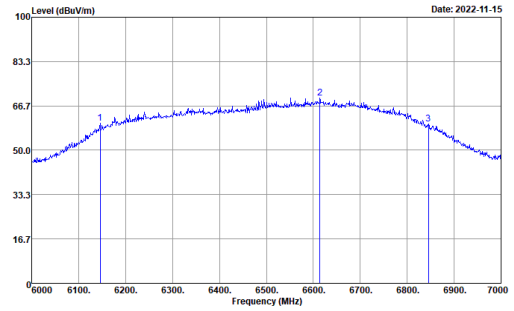


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6146.00	59.50	------	------	49.08	34.19	14.14	37.91	---	---	Peak
2	6645.00	69.56	------	------	56.78	35.98	14.70	37.90	---	---	Peak
3	6864.00	59.33	------	------	46.53	35.90	15.03	38.13	---	---	Peak

CH05 UWB Bandwidth

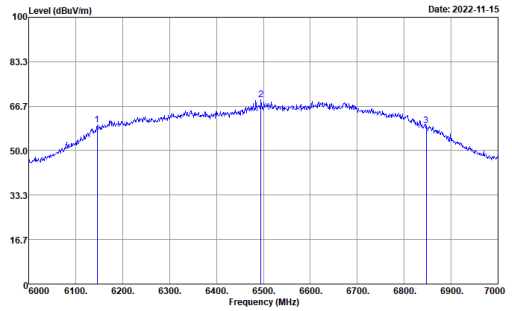
Mode 10: cidx-12_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6146.00	60.29	------	------	49.87	34.19	14.14	37.91	---	---	Peak
2	6614.00	69.62	------	------	56.98	35.86	14.65	37.87	---	---	Peak
3	6845.00	59.96	------	------	47.16	35.91	15.00	38.11	---	---	Peak

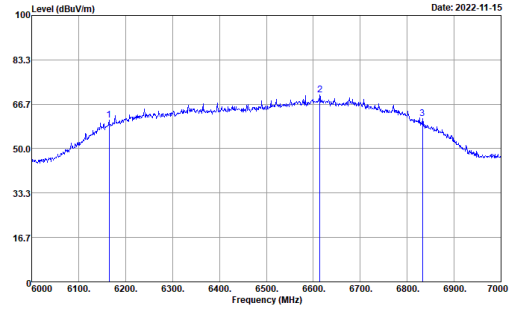
Mode 11: cidx-12_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6146.00	59.48	------	------	49.06	34.19	14.14	37.91	---	---	Peak
2	6495.00	69.12	------	------	57.02	35.27	14.58	37.75	---	---	Peak
3	6847.00	59.29	------	------	46.48	35.91	15.01	38.11	---	---	Peak

Mode 12: cidx-12_sts-3_packet length-0

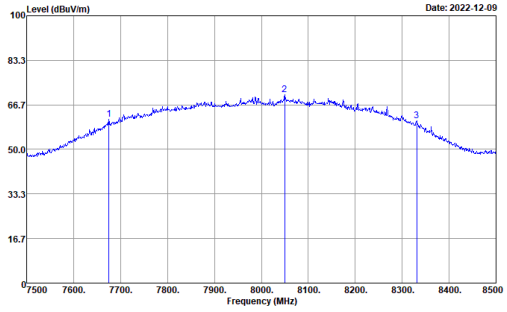


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6165.00	60.69	------	------	50.19	34.23	14.17	37.90	---	---	Peak
2	6614.00	70.12	------	------	57.48	35.86	14.65	37.87	---	---	Peak
3	6833.00	61.37	------	------	48.55	35.93	14.99	38.10	---	---	Peak

CH09 UWB Bandwidth

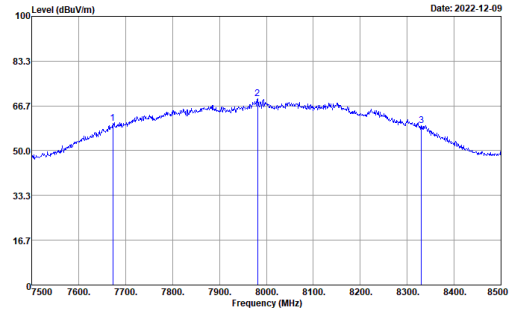
Mode 13: cidx-9_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7675.00	61.40	------	------	47.68	36.60	15.56	38.44	160	133	Peak
2	8050.00	70.38	------	------	55.86	37.20	16.13	38.81	160	133	Peak
3	8331.00	60.76	------	------	46.46	37.30	16.23	39.23	160	133	Peak

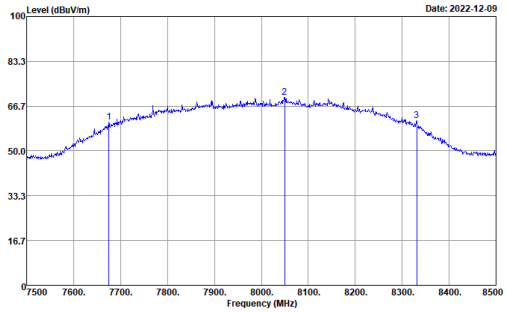
Mode 14: cidx-9_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7673.00	60.03	------	------	46.33	36.59	15.55	38.44	160	133	Peak
2	7981.00	69.26	------	------	54.63	37.16	16.18	38.71	160	133	Peak
3	8330.00	59.30	------	------	44.99	37.30	16.23	39.22	160	133	Peak

Mode 15: cidx-9_sts-3_packet length-0

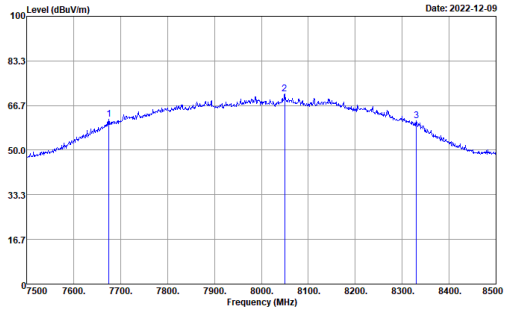


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7675.00	60.80	------	------	47.08	36.60	15.56	38.44	160	133	Peak
2	8050.00	70.05	------	------	55.53	37.20	16.13	38.81	160	133	Peak
3	8331.00	61.25	------	------	46.95	37.30	16.23	39.23	160	133	Peak

CH09 UWB Bandwidth

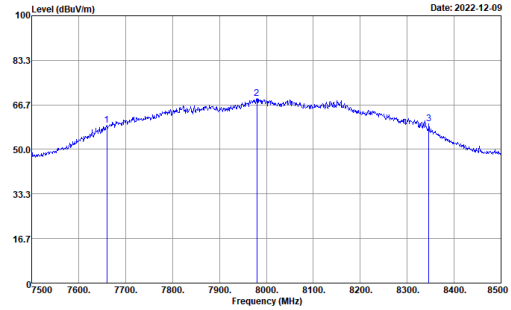
Mode 16: cidx-10_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7675.00	61.51	------	------	47.79	36.60	15.56	38.44	160	133	Peak
2	8050.00	70.90	------	------	56.38	37.20	16.13	38.81	160	133	Peak
3	8330.00	60.98	------	------	46.67	37.30	16.23	39.22	160	133	Peak

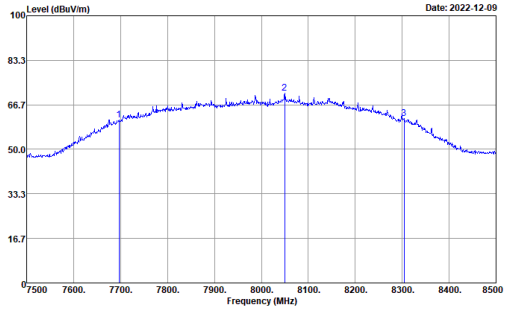
Mode 17: cidx-10_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7660.00	59.13	------	------	45.51	36.54	15.51	38.43	160	133	Peak
2	7980.00	69.05	------	------	54.42	37.16	16.18	38.71	160	133	Peak
3	8346.00	59.51	------	------	45.20	37.30	16.26	39.25	160	133	Peak

Mode 18: cidx-10_sts-3_packet length-0

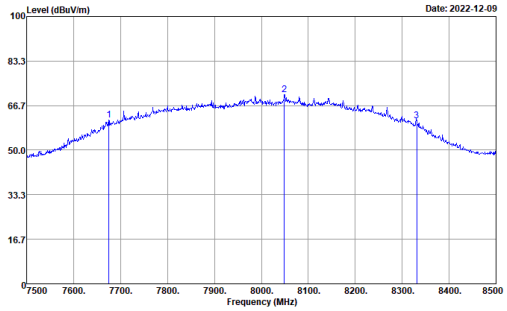


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7697.00	61.03	------	------	47.17	36.69	15.63	38.46	160	133	Peak
2	8050.00	71.02	------	------	56.50	37.20	16.13	38.81	160	133	Peak
3	8304.00	61.68	------	------	47.41	37.30	16.16	39.19	160	133	Peak

CH09 UWB Bandwidth

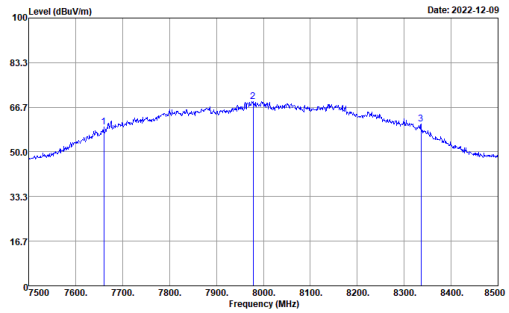
Mode 19: cidx-11_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7675.00	61.39	------	------	47.67	36.60	15.56	38.44	160	133	Peak
2	8049.00	70.73	------	------	56.20	37.20	16.13	38.80	160	133	Peak
3	8331.00	61.04	------	------	46.74	37.30	16.23	39.23	160	133	Peak

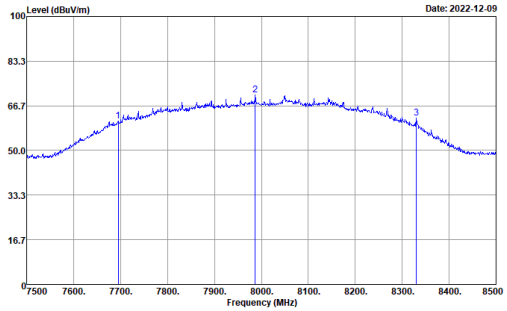
Mode 20: cidx-11_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7660.00	59.32	------	------	45.70	36.54	15.51	38.43	160	133	Peak
2	7978.00	68.92	------	------	54.30	37.16	16.17	38.71	160	133	Peak
3	8336.00	60.45	------	------	46.14	37.30	16.24	39.23	160	133	Peak

Mode 21: cidx-11_sts-3_packet length-0

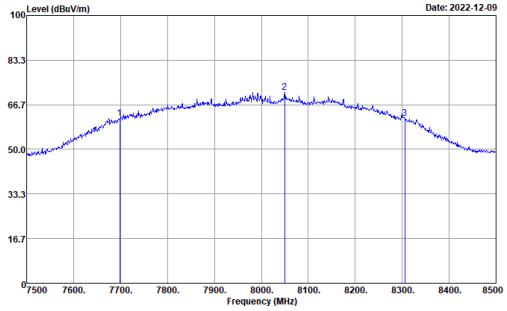


Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7695.00	61.07	------	------	47.23	36.68	15.62	38.46	160	133	Peak
2	7987.00	70.65	------	------	56.02	37.17	16.18	38.72	160	133	Peak
3	8330.00	62.02	------	------	47.71	37.30	16.23	39.22	160	133	Peak

CH09 UWB Bandwidth

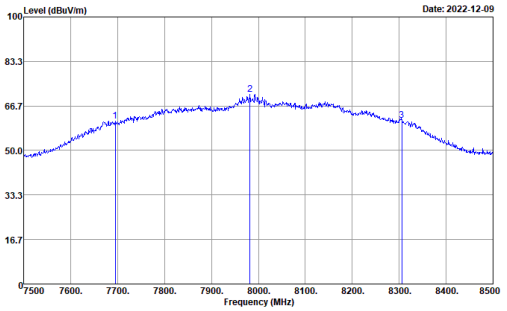
Mode 22: cidx-12_sts-1_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7698.00	61.70	------	------	47.84	36.69	15.63	38.46	160	133	Peak
2	8050.00	71.43	------	------	56.91	37.20	16.13	38.81	160	133	Peak
3	8306.00	61.56	------	------	47.28	37.30	16.17	39.19	160	133	Peak

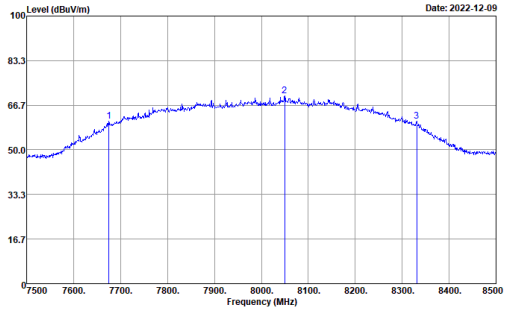
Mode 23: cidx-12_sts-0_packet length-125



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7695.00	61.09	------	------	47.25	36.68	15.62	38.46	160	133	Peak
2	7982.00	71.08	------	------	56.45	37.16	16.18	38.71	160	133	Peak
3	8306.00	61.42	------	------	47.14	37.30	16.17	39.19	160	133	Peak

Mode 24: cidx-12_sts-3_packet length-0



Site : 03CH20-HY
Condition : 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:3.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7675.00	60.67	------	------	46.95	36.60	15.56	38.44	160	133	Peak
2	8050.00	70.07	------	------	55.55	37.20	16.13	38.81	160	133	Peak
3	8331.00	60.64	------	------	46.34	37.30	16.23	39.23	160	133	Peak

3.3 Technical requirements for hand held UWB systems

3.3.1 Technical Requirements for transmission Limit

FCC 15.519(a) (1) A UWB device operating under the provisions of this section shall transmit only when it is sending information to an associated receiver. The UWB intentional radiator shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB intentional radiator at least every 10 seconds or the UWB device must cease transmitting.

3.3.2 Measuring Instruments

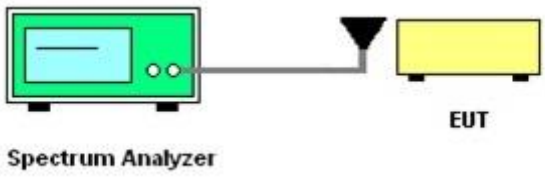
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedure

Follow the test step as below:

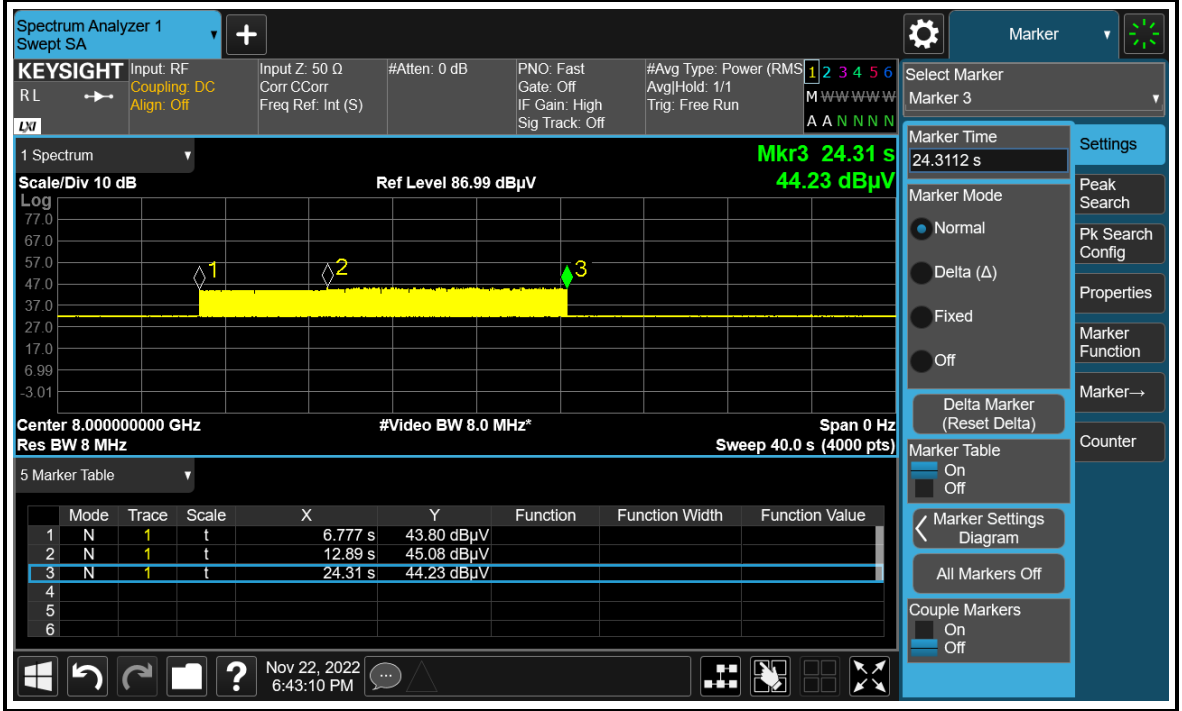
1. Turn on both EUT and companion receiver.
2. Set the EUT to TX mode, and EUT starts polling.
3. Set the companion receiver to associate EUT and EUT starts to transmit.
4. Disable the RX function of the companion receiver to disassociate the EUT.
5. Check if EUT stop transmitting once step 4 is made.

3.3.4 Test Setup



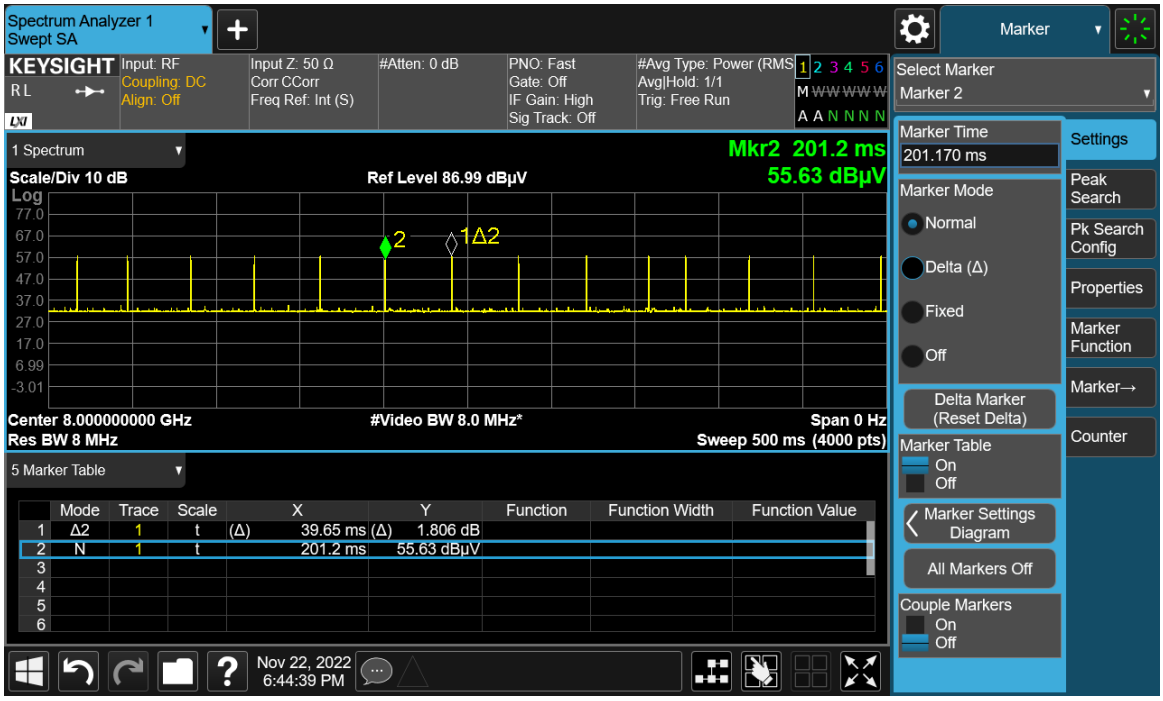
3.3.5 Test Result

Plot 1



M1 to M2: Set the EUT to TX mode, and EUT starts polling.
M2 to M3: Set the companion receiver to associate EUT and EUT starts to transmit.
M3: Disable the TX function of EUT. EUT stops transmitting and polling.

Plot 2



M1 to M2: Set the EUT to TX mode, and EUT starts polling.
M2 to M3: Set the companion receiver to associate EUT and EUT starts to transmit.
M3: RX function of the companion receiver is disabled. EUT disassociates the companion receiver and stops transmitting, but continues polling.

Plot 3

Plot 4

Plot 3 is zoom in plot of M2 to M3 (transmission)
Plot 4 is zoom in plot after M3 (polling only)

3.4 Peak Power Measurement

3.4.1 Peak Power Measurement Limit

Peak Power Measurement Limit
P_{eirp} = 0 dBm/50MHz

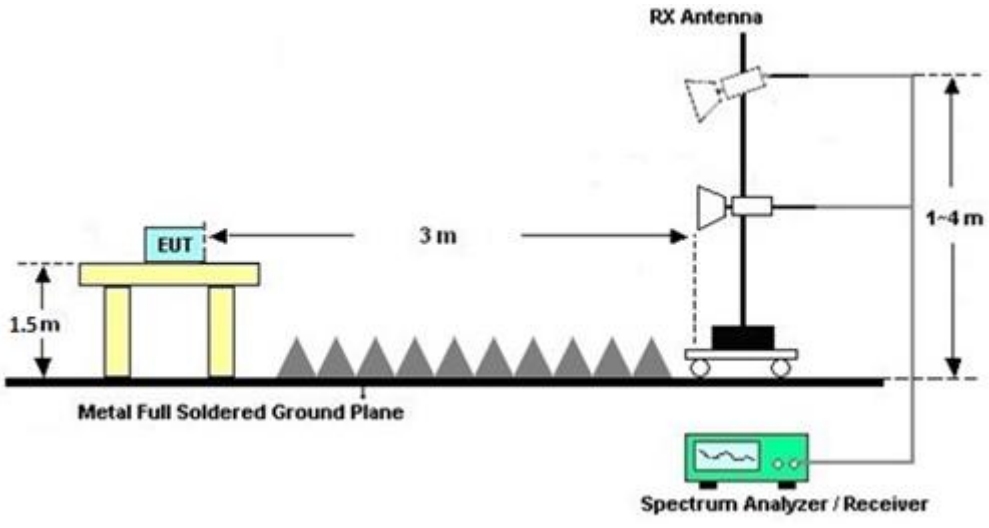
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
■	Peak Power Measurement
	■ Refer as ANSI C63.10, clause 10.3.1 for radiated measurement procedure testing.
	■ Refer as ANSI C63.10, clause 10.3.2 for measurement distance is 3m.
	■ Refer as ANSI C63.10, clause 10.3.5 for peak detector procedure testing.
	■ Refer as ANSI C63.10, clause 10.3.6 for bandwidth conversion of peak power.
□	Frequency of max peak power is pre-located: The span bandwidth is continuously reduced to find the worst frequency. Once the worst frequency is found, the setting of spectrum analyzer is set as below: • Central frequency: Worst frequency point • Span: Zero span • RBW: 40MHz • VBW: 40MHz • Detector: Peak detector • Trace: Max hold

3.4.4 Test Setup

Peak Power Measurement


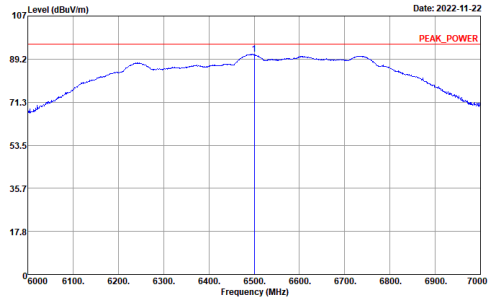
3.4.5 Test Result of Peak Power Measurement

Peak Measurement Result							
Test Mode	Freq. (MHz)	E-Field (dBuV/m)	$ERIP_{50MHz}$ (dBm)	$ERIP_{50MHz}$ Limit (dBm)	Margin (dB)	Result	Pol [H/V]
1	6500	91.13	-4.10	0	-4.10	Pass	H
2	6495	91.06	-4.17	0	-4.17	Pass	H
3	6615	83.82	-11.41	0	-11.41	Pass	H
4	6490	91.07	-4.16	0	-4.16	Pass	H
5	6494	91.09	-4.14	0	-4.14	Pass	H
6	6620	84.30	-10.93	0	-10.93	Pass	H
7	6490	91.31	-3.92	0	-3.92	Pass	H
8	6490	91.23	-4.00	0	-4.00	Pass	H
9	6614	84.54	-10.69	0	-10.69	Pass	H
10	6489	91.27	-3.96	0	-3.96	Pass	H
11	6491	91.31	-3.92	0	-3.92	Pass	H
12	6614	84.27	-10.96	0	-10.96	Pass	H
13	7986	92.23	-3.00	0	-3.00	Pass	H
14	7989	92.10	-3.13	0	-3.13	Pass	H
15	8049	85.03	-10.20	0	-10.20	Pass	H
16	7985	92.17	-3.06	0	-3.06	Pass	H
17	7983	92.27	-2.96	0	-2.96	Pass	H
18	8051	84.42	-10.81	0	-10.81	Pass	H
19	7990	92.23	-3.00	0	-3.00	Pass	H
20	7989	92.25	-2.98	0	-2.98	Pass	H
21	8050	84.42	-10.81	0	-10.81	Pass	H
22	7991	92.26	-2.97	0	-2.97	Pass	H
23	7987	92.44	-2.79	0	-2.79	Pass	H
24	8048	85.12	-10.11	0	-10.11	Pass	H

Note 1: EIRP [dBm] = E-Field [dBuV/m] - 95.23;
Note 2: Measurement worst emissions of receive antenna polarization.

CH05 Pre-located worst frequency Plots

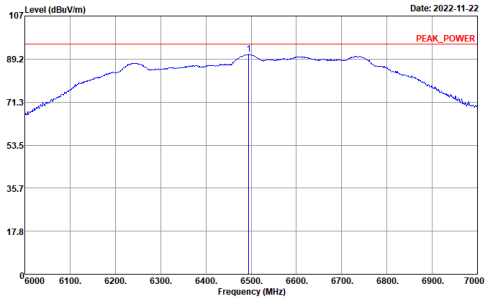
Mode 1: cidx-9_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6500.00	91.13	-4.10	95.23	78.79	35.30	14.58	37.54	---	---	Peak

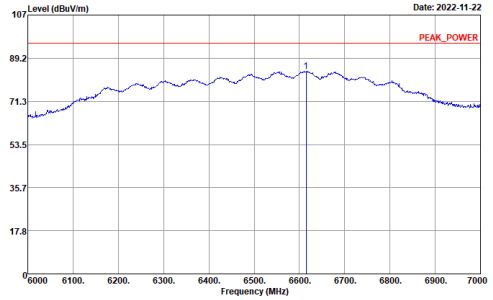
Mode 2: cidx-9_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6495.00	91.06	-4.17	95.23	78.75	35.27	14.58	37.54	---	---	Peak

Mode 3: cidx-9_sts-3_packet length-0

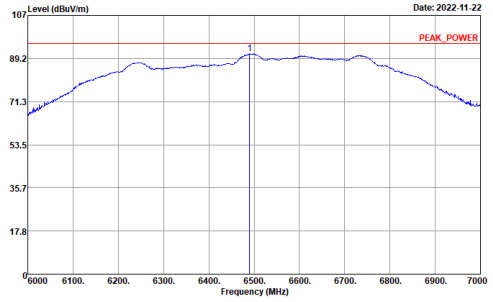


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6615.00	83.82	-11.41	95.23	70.95	35.86	14.65	37.64	---	---	Peak

CH05 Pre-located worst frequency Plots

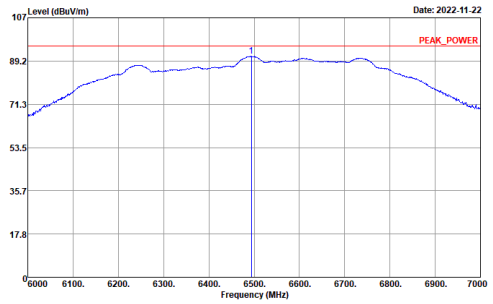
Mode 4: cidx-10_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6490.00	91.07	-4.16	95.23	78.81	35.24	14.57	37.55	---	---	Peak

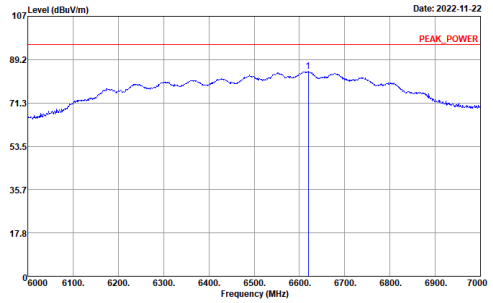
Mode 5: cidx-10_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6494.00	91.09	-4.14	95.23	78.79	35.26	14.58	37.54	---	---	Peak

Mode 6: cidx-10_sts-3_packet length-0

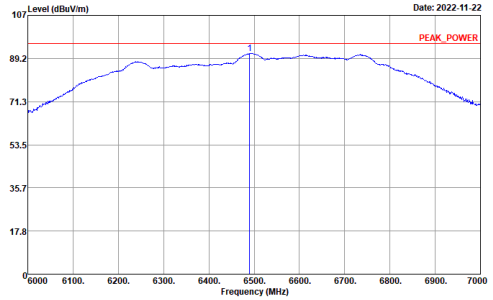


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6620.00	84.30	-10.93	95.23	71.40	35.88	14.66	37.64	---	---	Peak

CH05 Pre-located worst frequency Plots

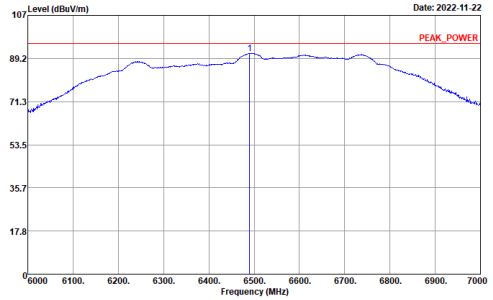
Mode 7: cidx-11_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6490.00	91.31	-3.92	95.23	79.05	35.24	14.57	37.55	---	---	Peak

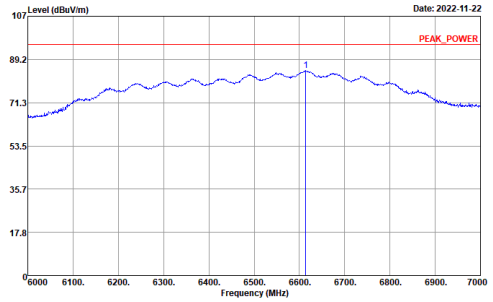
Mode 8: cidx-11_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6490.00	91.23	-4.00	95.23	78.97	35.24	14.57	37.55	---	---	Peak

Mode 9: cidx-11_sts-3_packet length-0

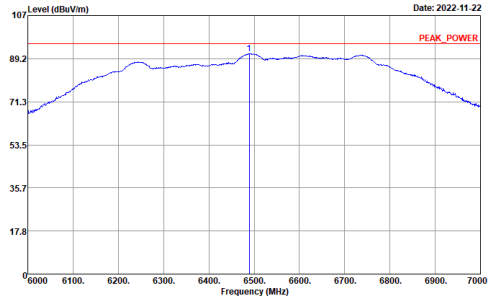


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6614.00	84.54	-10.69	95.23	71.67	35.86	14.65	37.64	---	---	Peak

CH05 Pre-located worst frequency Plots

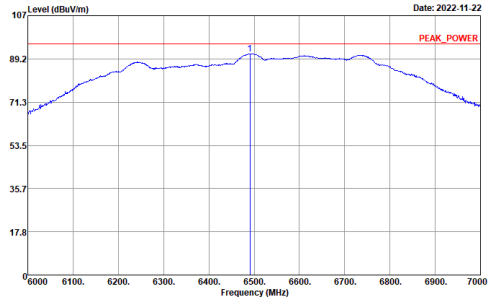
Mode 10: cidx-12_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6489.00	91.27	-3.96	95.23	79.02	35.23	14.57	37.55	---	---	Peak

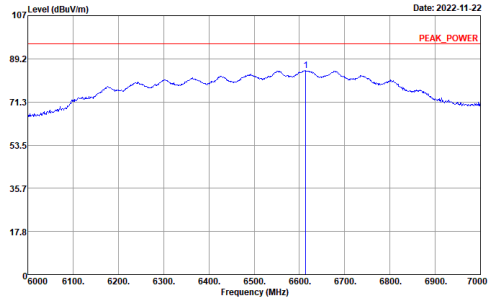
Mode 11: cidx-12_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6491.00	91.31	-3.92	95.23	79.03	35.25	14.58	37.55	---	---	Peak

Mode 12: cidx-12_sts-3_packet length-0

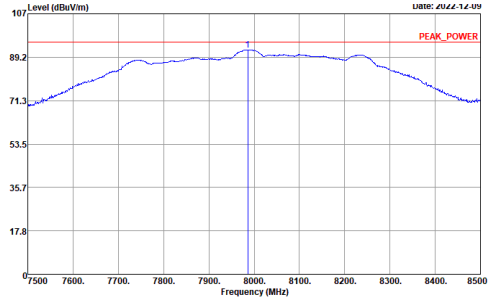


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6614.00	84.27	-10.96	95.23	71.40	35.86	14.65	37.64	---	---	Peak

CH09 Pre-located worst frequency Plots

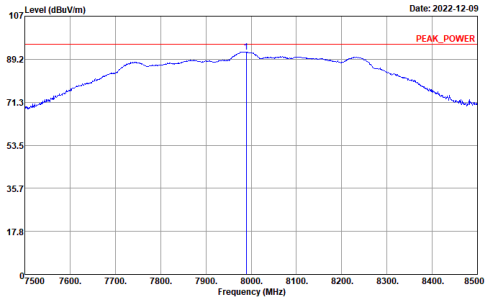
Mode 13: cidx-9_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7986.00	92.23	-3.00	95.23	77.60	37.17	16.18	38.72	160	133	Peak

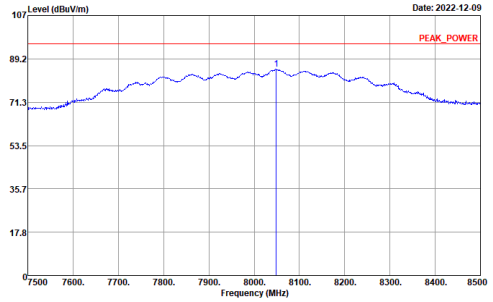
Mode 14: cidx-9_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7989.00	92.10	-3.13	95.23	77.45	37.18	16.19	38.72	160	133	Peak

Mode 15: cidx-9_sts-3_packet length-0

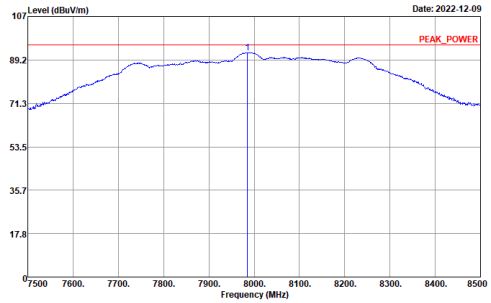


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8049.00	85.03	-10.20	95.23	70.50	37.20	16.13	38.80	160	133	Peak

CH09 Pre-located worst frequency Plots

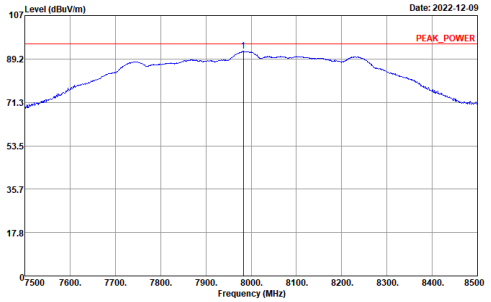
Mode 16: cidx-10_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7985.00	92.17	-3.06	95.23	77.54	37.17	16.18	38.72	160	133	Peak

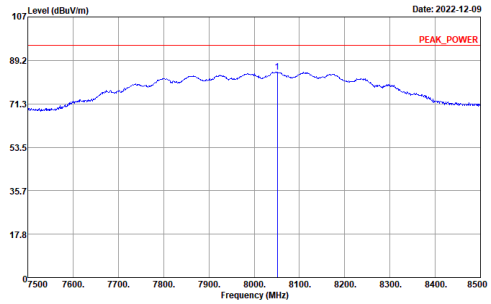
Mode 17: cidx-10_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7983.00	92.27	-2.96	95.23	77.64	37.17	16.18	38.72	160	133	Peak

Mode 18: cidx-10_sts-3_packet length-0

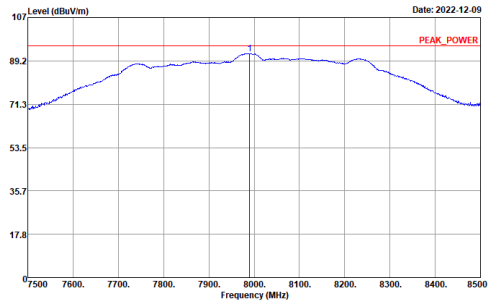


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8051.00	84.42	-10.81	95.23	69.90	37.20	16.13	38.81	160	133	Peak

CH09 Pre-located worst frequency Plots

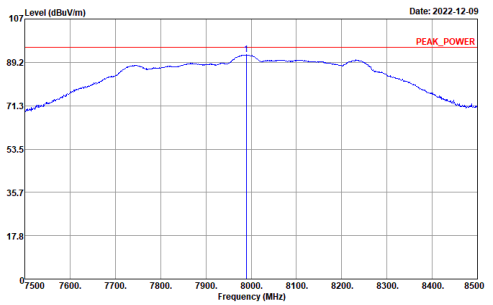
Mode 19: cidx-11_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7990.00	92.23	-3.00	95.23	77.58	37.18	16.19	38.72	160	133	Peak

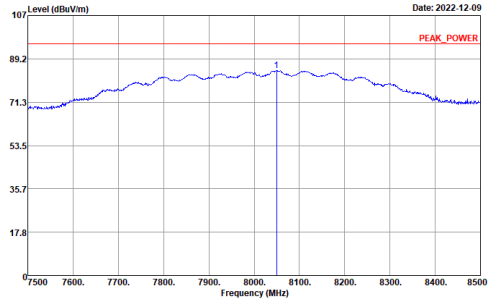
Mode 20: cidx-11_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7989.00	92.25	-2.98	95.23	77.60	37.18	16.19	38.72	160	133	Peak

Mode 21: cidx-11_sts-3_packet length-0

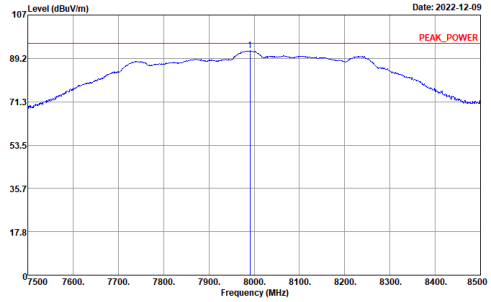


Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8050.00	84.42	-10.81	95.23	69.90	37.20	16.13	38.81	160	133	Peak

CH09 Pre-located worst frequency Plots

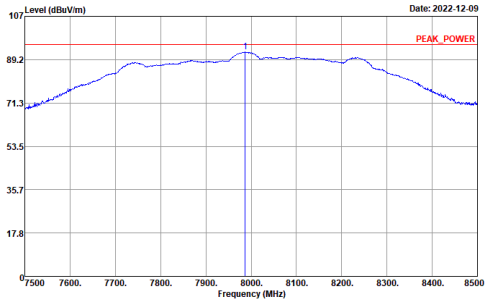
Mode 22: cidx-12_sts-1_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7991.00	92.26	-2.97	95.23	77.61	37.18	16.19	38.72	160	133	Peak

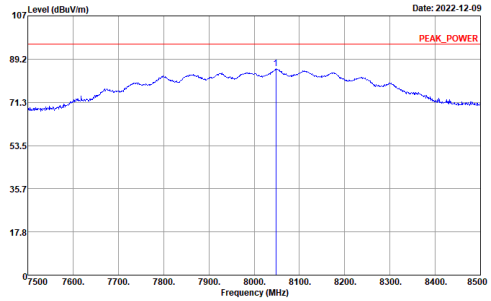
Mode 23: cidx-12_sts-0_packet length-125



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7987.00	92.44	-2.79	95.23	77.81	37.17	16.18	38.72	160	133	Peak

Mode 24: cidx-12_sts-3_packet length-0



Site : 03CH20-HY
Condition : PEAK_POWER 3m 9120D-02038_220809 HORIZONTAL
: RBW:50000.000KHz VBW:80000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8048.00	85.12	-10.11	95.23	70.59	37.20	16.13	38.80	160	133	Peak

3.5 Radiated Emissions

3.5.1 Radiated Emissions Limit

Radiated Emissions below 960MHz and Emissions from Digital Circuitry 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.

Radiated Emissions above 960MHz Limit	
Frequency Range (MHz)	**EIRP (dBm), RBW = 1MHz**
960-1610	−75.3
1610-1990	−63.3
1990-3100	−61.3
3100-10600	−41.3
Above 10600	−61.3

Note:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux (dB) + Aux 2 (dB) = Level (dBuV/m)
  (Note: Aux = Filter loss; Aux 2 = Distance extrapolation factor)

Radiated Emissions in GPS Bands Limit	
Frequency Range (MHz)	**EIRP (dBm), RBW ≥ 1kHz**
1164-1240	-85.3
1559-1610	-85.3

Note E (dBuv/m) = EIRP (dBm) + 95.23, example, E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m

3.5.2 Measuring Instruments

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

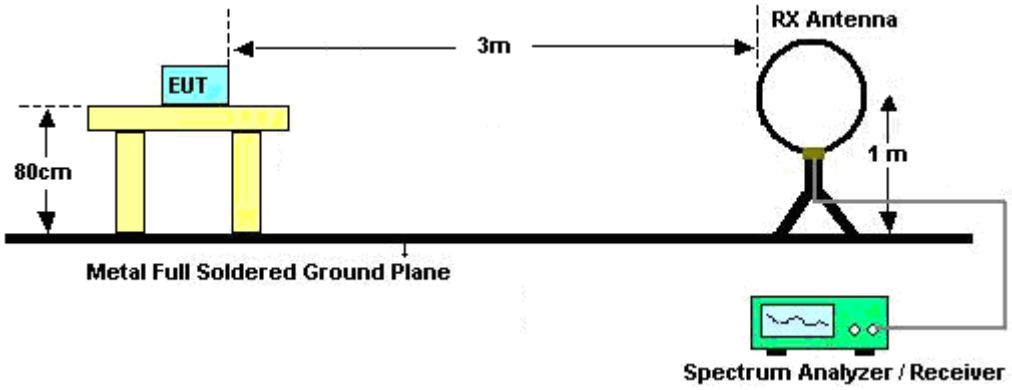
3.5.3 Test Procedures

Test Method for Radiated Emissions above 960MHz	
■	Radiated Emissions above 960MHz
	■ Refer as ANSI C63.10, clause 10.3.1 for radiated measurement procedure testing.
	■ Refer as ANSI C63.10, clause 10.3.2 for measurement distance is 3m. In some cases, it may be necessary to measure the radiated UWB emissions at a closer distance to obtain enough signal and margin to overcome the measurement system noise floor. Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
	■ Refer as ANSI C63.10, clause 10.3.4 for rms detector procedure testing.
	■ Refer as ANSI C63.10, clause 10.3.7 for evaluating AVG-PSD (RBW=1MHz).
	■ Refer as ANSI C63.10, clause 10.3.10 for evaluating AVG-PSD in GPS Band (RBW≥1kHz).
■	For radiated measurement.
	■ Refer as ANSI C63.10, clause 10.3.8 following eirp can be used radiated test configuration.
	■ Refer as ANSI C63.10, clause 10.3.9 following eirp can be directly determined using the field strength.

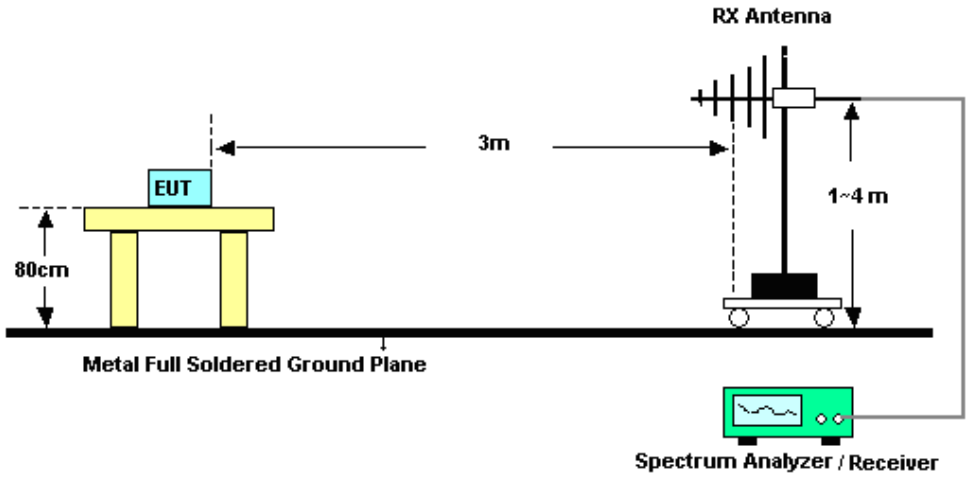
Test Method for Radiated Emissions below 960MHz and Emissions from Digital Circuitry	
■	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing 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) for above 30MHz-960MHz; 40dB/decade for frequency below 30MHz.
■	For the transmitter unwanted emissions shall be measured using following options below:
	■ Refer as ANSI C63.10, clause 4.1.4 Detector functions and selection of bandwidth
	□ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from 20log (dwell time/100 ms). Average emission = peak emission + 20 log (duty cycle).
	■ 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 1 GHz and test distance is 3m.
	■ If the noise floor can’t meet the limit, the test distance will be shorten and described in the report.
■	Any unwanted emissions level shall not exceed the fundamental emission level.

3.5.4 Test Setup

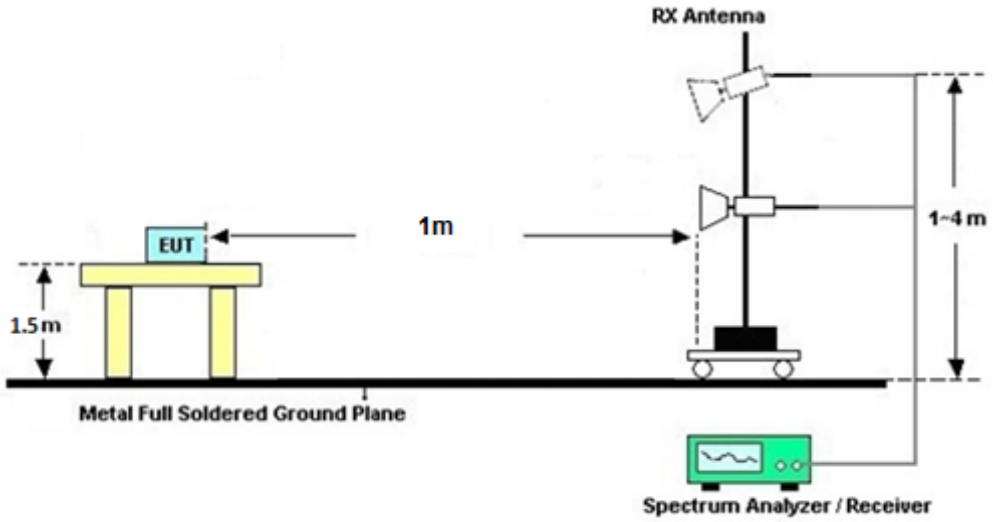
Radiated Emissions below 30MHz



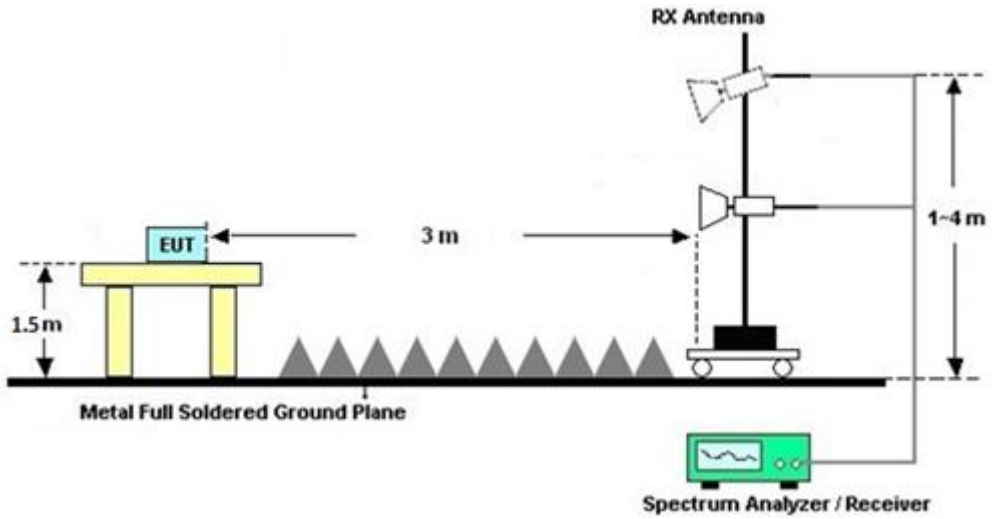
Radiated Emissions from 30MHz to 1GHz and Emissions from Digital Circuitry



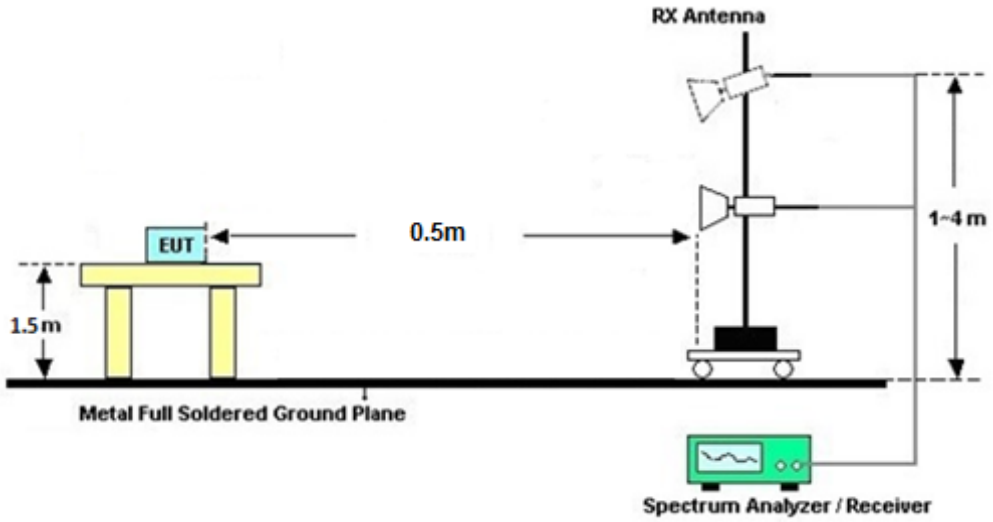
Radiated Emissions from 1GHz to 1.61 GHz



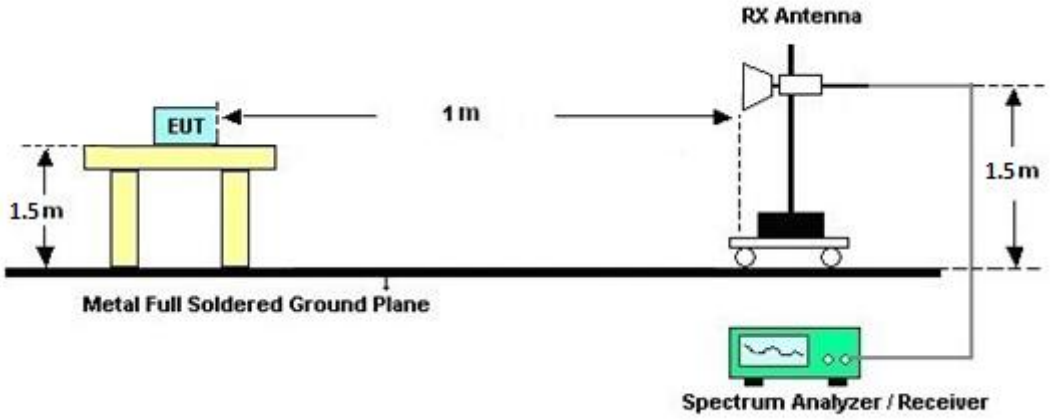
Radiated Emissions from 1.61 GHz to 10.60 GHz



Radiated Emissions from 10.60 GHz to 18GHz



Radiated Emissions above 18GHz



Note 1: Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna and the frequency range of 1 GHz to 40 GHz using a calibrated horn antenna.
Note 2: If test distance other than 3m is used, the used test distance will be recorded in test result.

3.5.5 Radiated Emissions (Below 30MHz)

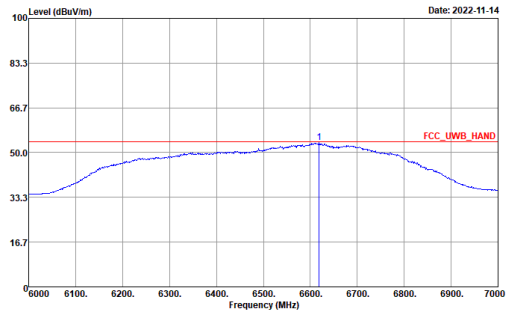
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Average Power Spectral Density

Test mode	Frequency (MHz)	Emission Level (dBuV/m)	Emission Limit (dBm/MHz)	Emission Limit (dBuV/m)	Margin (dB)	Result	Pol [H/V]
1	6619	53.66	-41.3	53.93	-0.27	Pass	H
2	6619	52.25	-41.3	53.93	-1.68	Pass	H
3	6612	50.42	-41.3	53.93	-3.51	Pass	H
4	6615	53.08	-41.3	53.93	-0.85	Pass	H
5	6613	52.01	-41.3	53.93	-1.92	Pass	H
6	6610	50.42	-41.3	53.93	-3.51	Pass	H
7	6620	53.13	-41.3	53.93	-0.80	Pass	H
8	6630	51.99	-41.3	53.93	-1.94	Pass	H
9	6627	50.27	-41.3	53.93	-3.66	Pass	H
10	6622	53.15	-41.3	53.93	-0.78	Pass	H
11	6607	52.22	-41.3	53.93	-1.71	Pass	H
12	6615	50.67	-41.3	53.93	-3.26	Pass	H
13	8054	53.62	-41.3	53.93	-0.31	Pass	H
14	8054	52.50	-41.3	53.93	-1.43	Pass	H
15	8049	51.00	-41.3	53.93	-2.93	Pass	H
16	8054	53.58	-41.3	53.93	-0.35	Pass	H
17	8054	52.62	-41.3	53.93	-1.31	Pass	H
18	8053	50.82	-41.3	53.93	-3.11	Pass	H
19	8053	53.49	-41.3	53.93	-0.44	Pass	H
20	8050	52.32	-41.3	53.93	-1.61	Pass	H
21	7987	50.99	-41.3	53.93	-2.94	Pass	H
22	8048	53.59	-41.3	53.93	-0.34	Pass	H
23	8049	52.55	-41.3	53.93	-1.38	Pass	H
24	7987	50.87	-41.3	53.93	-3.06	Pass	H

CH05 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

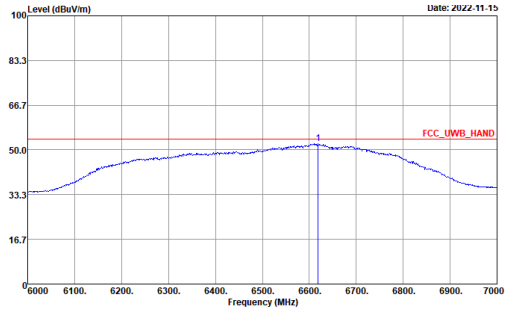
Mode 1: cidx-9_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6619.00	53.66	-0.27	53.93	40.99	35.88	14.66	37.87	200	116	Average

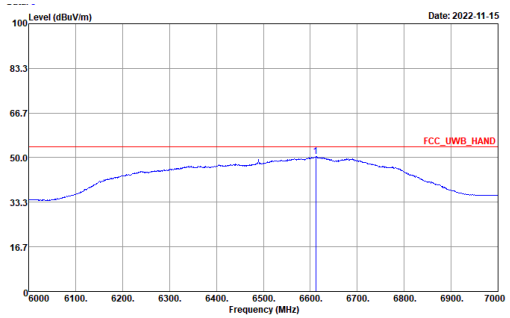
Mode 2: cidx-9_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6619.00	52.25	-1.68	53.93	39.58	35.88	14.66	37.87	200	116	Average

Mode 3: cidx-9_sts-3_packet length-0

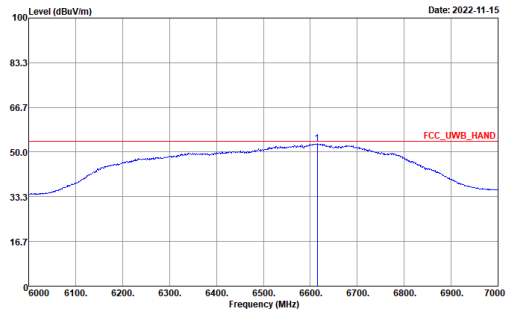


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6612.00	50.42	-3.51	53.93	37.79	35.85	14.65	37.87	200	116	Average

CH05 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

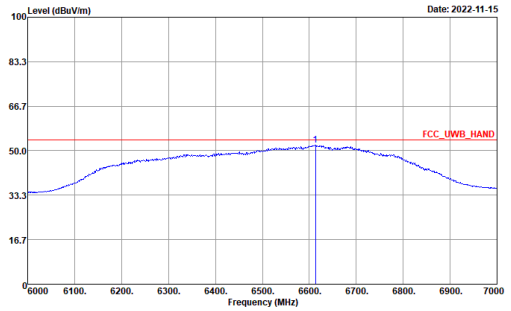
Mode 4: cidx-10_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6615.00	53.08	-0.85	53.93	40.44	35.86	14.65	37.87	200	116	Average

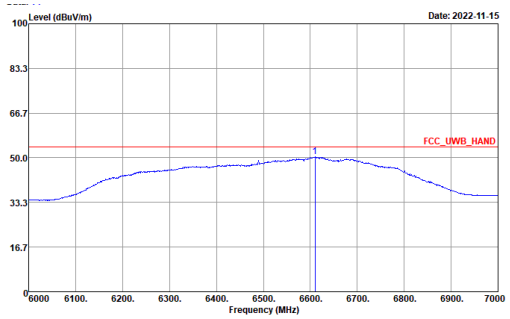
Mode 5: cidx-10_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6613.00	52.01	-1.92	53.93	39.38	35.85	14.65	37.87	200	116	Average

Mode 6: cidx-10_sts-3_packet length-0

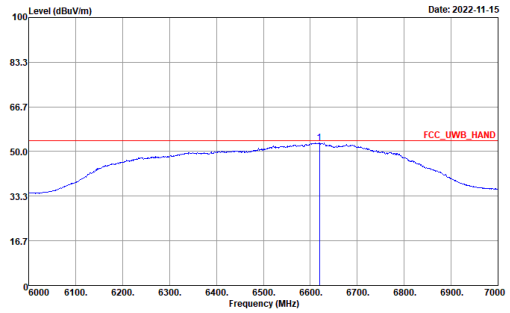


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 10
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6610.00	50.42	-3.51	53.93	37.79	35.84	14.65	37.86	200	116	Average

CH05 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

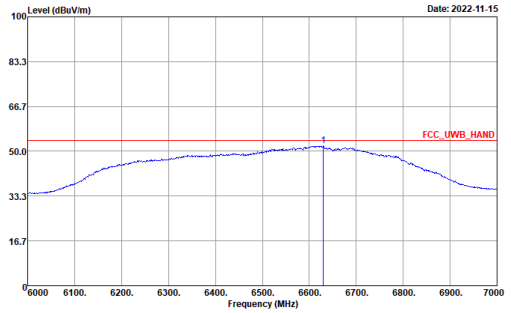
Mode 7: cidx-11_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6620.00	53.13	-0.80	53.93	40.46	35.88	14.66	37.87	200	116	Average

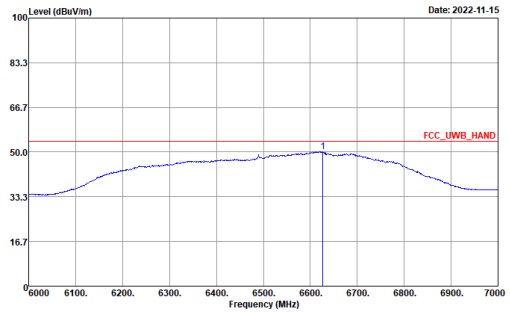
Mode 8: cidx-11_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6630.00	51.99	-1.94	53.93	39.28	35.92	14.68	37.89	200	116	Average

Mode 9: cidx-11_sts-3_packet length-0

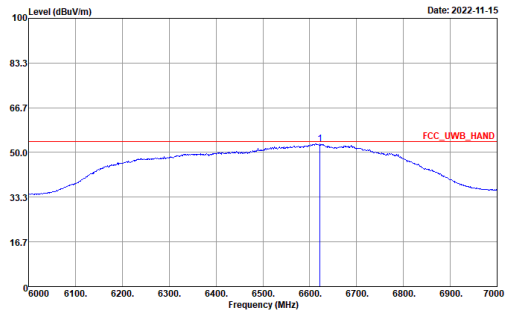


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 11
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6627.00	50.27	-3.66	53.93	37.57	35.91	14.67	37.88	200	116	Average

CH05 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

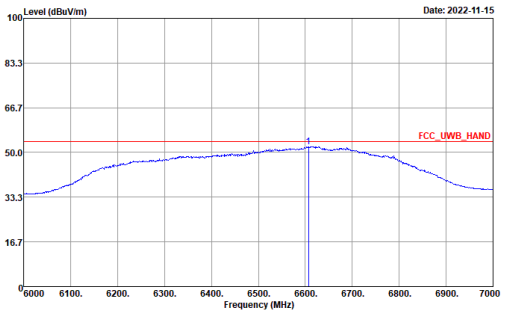
Mode 10: cidx-12_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6622.00	53.15	-0.78	53.93	40.48	35.89	14.66	37.88	200	116	Average

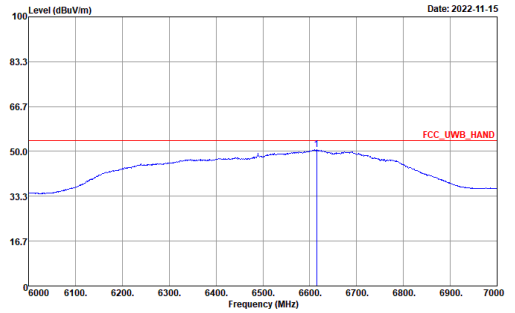
Mode 11: cidx-12_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 0
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6607.00	52.22	-1.71	53.93	39.61	35.83	14.64	37.86	200	116	Average

Mode 12: cidx-12_sts-3_packet length-0

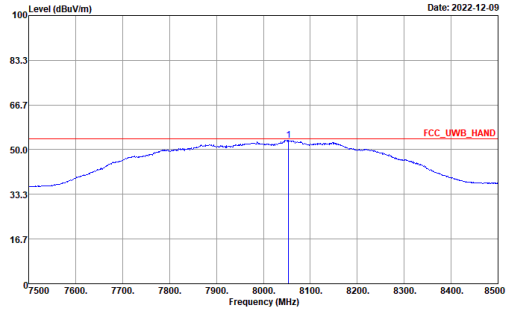


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 12
sts_mode : 3
packet_length : 0
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	6615.00	50.67	-3.26	53.93	38.03	35.86	14.65	37.87	200	116	Average

CH09 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

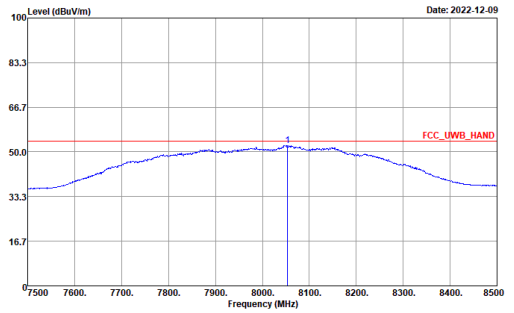
Mode 13: cidx-9_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8054.00	53.62	-0.31	53.93	39.11	37.20	16.12	38.81	160	133	Average

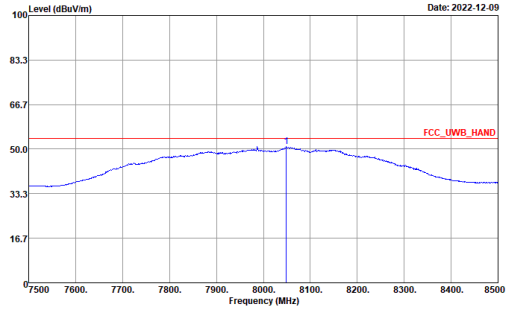
Mode 14: cidx-9_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8054.00	52.50	-1.43	53.93	37.99	37.20	16.12	38.81	160	133	Average

Mode 15: cidx-9_sts-3_packet length-0

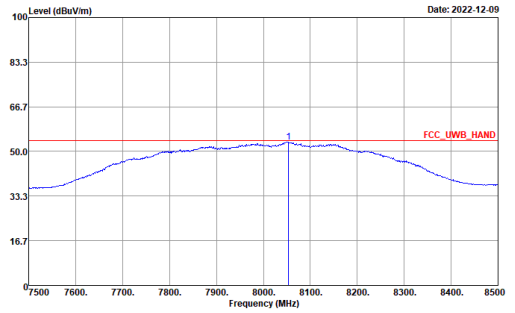


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8049.00	51.00	-2.93	53.93	36.47	37.20	16.13	38.80	160	133	Average

CH09 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

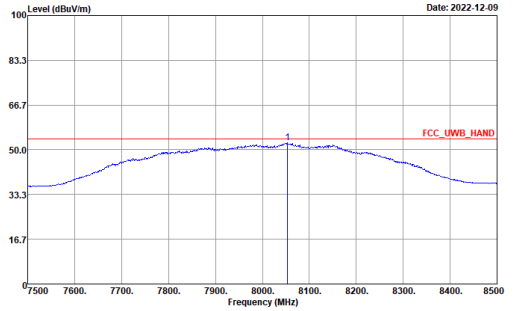
Mode 16: cidx-10_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8054.00	53.58	-0.35	53.93	39.07	37.20	16.12	38.81	160	133	Average

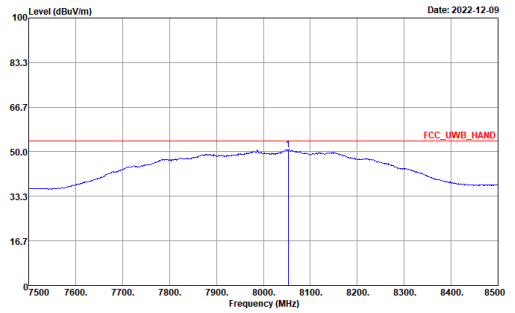
Mode 17: cidx-10_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8054.00	52.62	-1.31	53.93	38.11	37.20	16.12	38.81	160	133	Average

Mode 18: cidx-10_sts-3_packet length-0

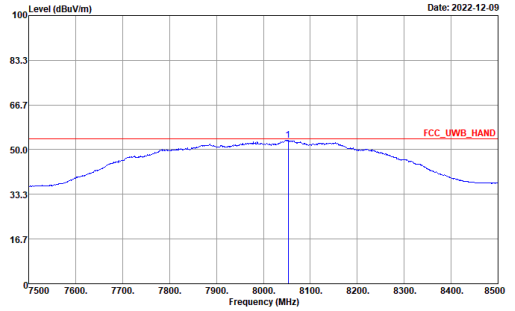


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 10
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8053.00	50.82	-3.11	53.93	36.30	37.20	16.13	38.81	160	133	Average

CH09 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

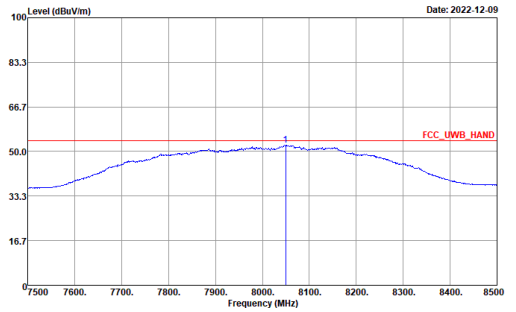
Mode 19: cidx-11_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8053.00	53.49	-0.44	53.93	38.97	37.20	16.13	38.81	160	133	Average

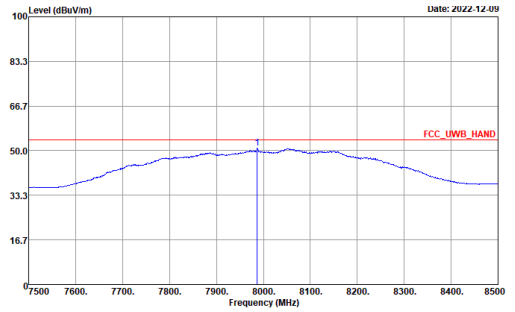
Mode 20: cidx-11_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8050.00	52.32	-1.61	53.93	37.80	37.20	16.13	38.81	160	133	Average

Mode 21: cidx-11_sts-3_packet length-0

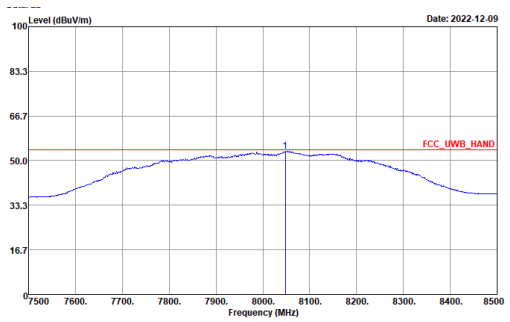


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7987.00	50.99	-2.94	53.93	36.36	37.17	16.18	38.72	160	133	Average

CH09 Radiated Emissions (Fundamental)			
Operating Function	Adapter Mode	**Polarization**	H
		Test Distance	3m

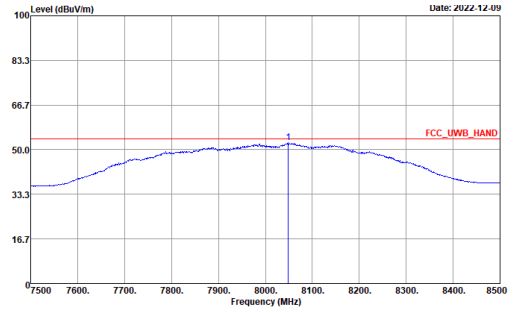
Mode 22: cidx-12_sts-1_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8048.00	53.59	-0.34	53.93	39.06	37.20	16.13	38.80	160	133	Average

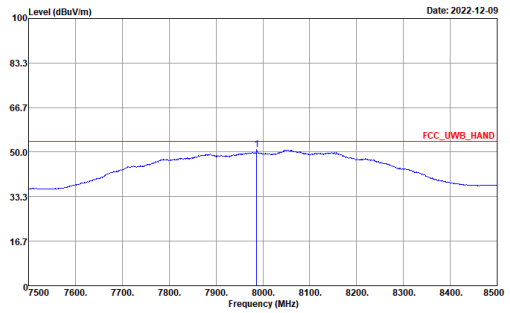
Mode 23: cidx-12_sts-0_packet length-125



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 0
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8049.00	52.55	-1.38	53.93	38.02	37.20	16.13	38.80	160	133	Average

Mode 24: cidx-12_sts-3_packet length-0

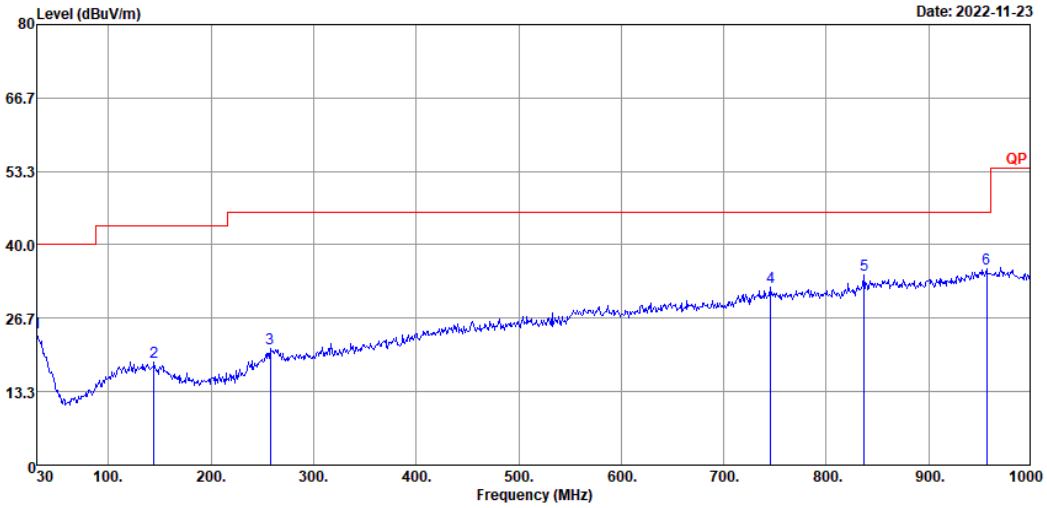


Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
: RBW:1000.000KHz VBW:3000.000KHz SWT:1.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 12
sts_mode : 3
packet_length : 0
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7987.00	50.87	-3.06	53.93	36.24	37.17	16.18	38.72	160	133	Average

3.5.7 Radiated Emissions (30MHz – 1GHz)

CH05 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

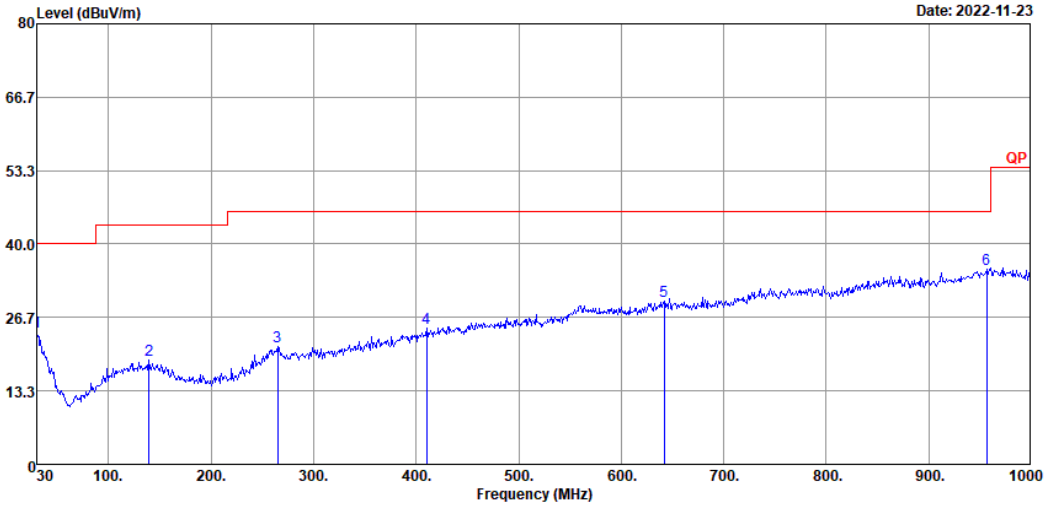


Site : 03CH20-HY
Condition : QP 3m LF_55606&08_221022 HORIZONTAL
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	30.00	23.99	-16.01	40.00	33.79	24.56	1.17	35.66	---	---	Peak	0.13	0.00
2	144.46	18.75	-24.75	43.50	34.07	17.69	2.34	35.48	---	---	Peak	0.13	0.00
3	257.95	21.24	-24.76	46.00	33.58	19.79	3.03	35.27	---	---	Peak	0.11	0.00
4	745.86	32.29	-13.71	46.00	32.96	27.95	4.99	33.76	---	---	Peak	0.15	0.00
5	837.04	34.50	-11.50	46.00	33.58	28.75	5.28	33.42	---	---	Peak	0.31	0.00
6	956.35	35.76	-10.24	46.00	31.79	31.08	5.62	32.96	---	---	Peak	0.23	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Peak emission setting: RBW=120kHz; VBW = 300kHz.

CH05 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m

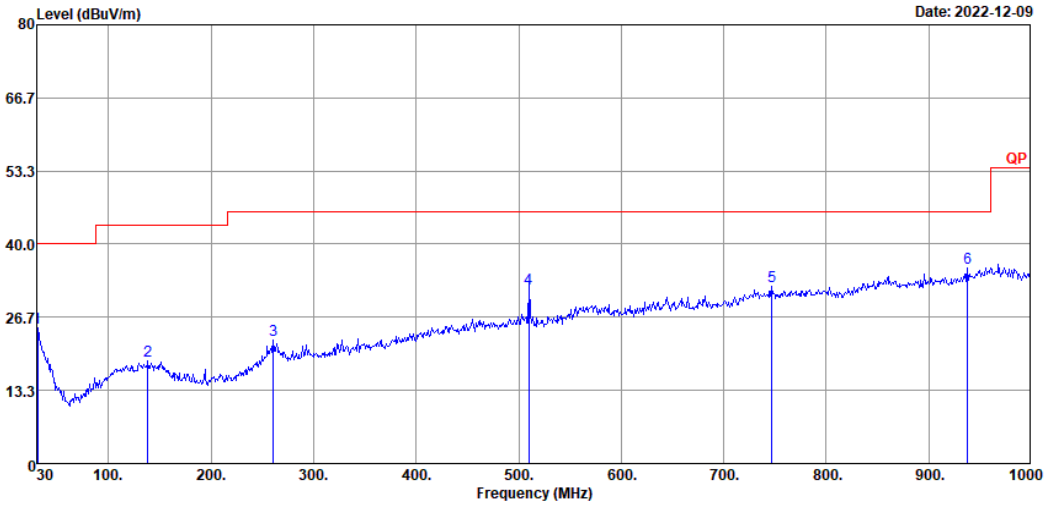


Site : 03CH20-HY
Condition : QP 3m LF_55606&08_221022 VERTICAL
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	30.00	24.01	-15.99	40.00	33.81	24.56	1.17	35.66	---	---	Peak	0.13	0.00
2	139.61	18.92	-24.58	43.50	34.19	17.79	2.31	35.50	---	---	Peak	0.13	0.00
3	264.74	21.40	-24.60	46.00	33.20	20.27	3.06	35.25	---	---	Peak	0.12	0.00
4	410.24	24.75	-21.25	46.00	33.40	22.27	3.79	34.83	---	---	Peak	0.12	0.00
5	642.07	29.69	-16.31	46.00	32.27	26.79	4.66	34.19	---	---	Peak	0.16	0.00
6	956.35	35.52	-10.48	46.00	31.55	31.08	5.62	32.96	---	---	Peak	0.23	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Peak emission setting: RBW=120kHz; VBW = 300kHz.

CH09: Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 13: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

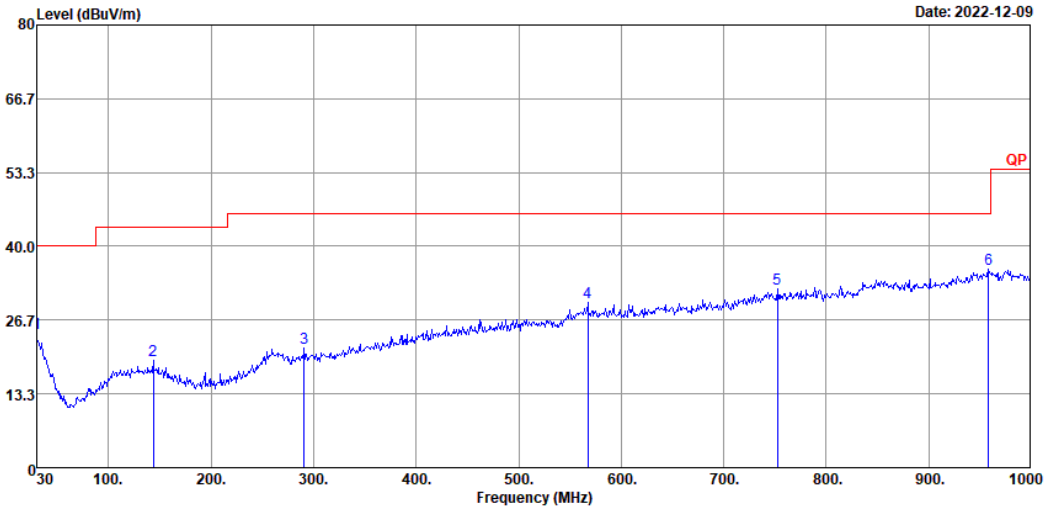


Site : 03CH20-HY
Condition : QP 3m LF_55606&08_221022 HORIZONTAL
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	30.97	24.73	-15.27	40.00	34.90	24.17	1.19	35.66	---	---	Peak	0.13	0.00
2	138.64	18.72	-24.78	43.50	34.07	17.72	2.30	35.50	---	---	Peak	0.13	0.00
3	260.86	22.47	-23.53	46.00	34.37	20.21	3.04	35.26	---	---	Peak	0.11	0.00
4	510.15	31.88	-14.12	46.00	38.05	24.08	4.16	34.58	---	---	Peak	0.17	0.00
5	746.83	32.34	-13.66	46.00	32.98	27.96	5.00	33.75	---	---	Peak	0.15	0.00
6	937.92	35.71	-10.29	46.00	32.73	30.19	5.59	33.01	---	---	Peak	0.21	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Peak emission setting: RBW=120kHz; VBW = 300kHz.

CH09 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 13: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m



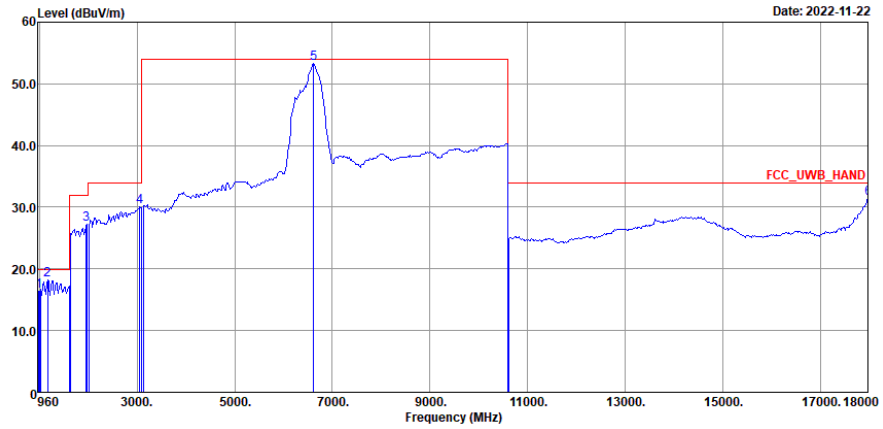
Site : 03CH20-HY
Condition : QP 3m LF_55606&08_221022 VERTICAL
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	30.00	24.25	-15.75	40.00	34.05	24.56	1.17	35.66	---	---	Peak	0.13	0.00
2	143.49	19.38	-24.12	43.50	34.71	17.70	2.33	35.49	---	---	Peak	0.13	0.00
3	290.93	21.72	-24.28	46.00	34.36	19.22	3.19	35.18	---	---	Peak	0.13	0.00
4	567.38	29.93	-16.07	46.00	33.65	26.07	4.40	34.43	---	---	Peak	0.24	0.00
5	752.65	32.35	-13.65	46.00	32.93	27.99	5.02	33.74	---	---	Peak	0.15	0.00
6	958.29	35.97	-10.03	46.00	31.98	31.10	5.62	32.96	---	---	Peak	0.23	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Peak emission setting: RBW=120kHz; VBW = 300kHz.

3.5.8 Radiated Emissions (960MHz – 18GHz)

CH05 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode		
Test Distance	The test distance between the receiving antenna and the EUT is as following: 3m for 1.61 GHz ~ 10.60 GHz frequency range, 1 m for 1GHz ~ 1.61 GHz, and 0.5 m for other frequency ranges.		



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

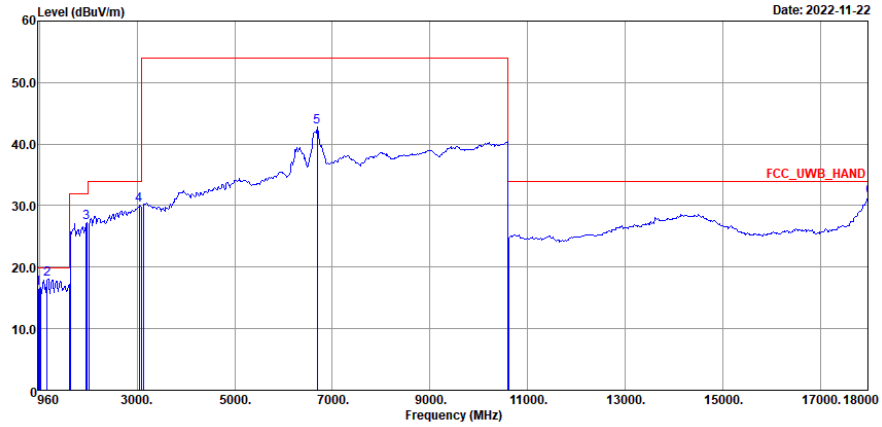
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	981.80	16.42	-3.51	19.93	28.33	30.66	5.64	32.88	---	---	Average	0.23	-15.56
2	1160.43	18.27	-1.66	19.93	31.35	25.96	6.08	35.58	---	---	Average	-9.54	0.00
3	1953.52	27.22	-4.71	31.93	29.16	26.14	7.84	35.92	---	---	Average	0.00	0.00
4	3047.83	30.10	-3.83	33.93	26.42	29.79	9.88	35.99	---	---	Average	0.00	0.00
5	6617.50	53.36	-0.57	53.93	40.47	35.87	14.66	37.64	---	---	Average	0.00	0.00
6	17985.20	31.36	-2.57	33.93	24.65	43.25	24.20	45.18	---	---	Average	-15.56	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting outside GPS Bands: RBW=1MHz; VBW=3MHz.
Note 5: Average emission setting in GPS bands: RBW=1kHz; VBW=3kHz.
Note 6: #5 is fundamental signal.

Note 7:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
  Example: Distance extrapolation factor = 20log (0.5m/3m) = -15.56 (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux Factor (dB) = Level (dBuV/m)
  (Note: For test item below 1GHz, Aux = Filter loss; Aux 2 = Distance extrapolation factor)
  (Note: For test item above 1GHz, Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)
  Example: Corrected Reading: 30.66 (dB/m) + 5.64 (dB) + 28.33 (dBuV) – 32.88 (dB) + (-15.33) (dB) = 16.42 (dBuV/m)

CH05 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode		
Test Distance	The test distance between the receiving antenna and the EUT is as following: 3m for 1.61 GHz ~ 10.60 GHz frequency range, 1 m for 1GHz ~ 1.61 GHz, and 0.5 m for other frequency ranges.		



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 VERTICAL
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

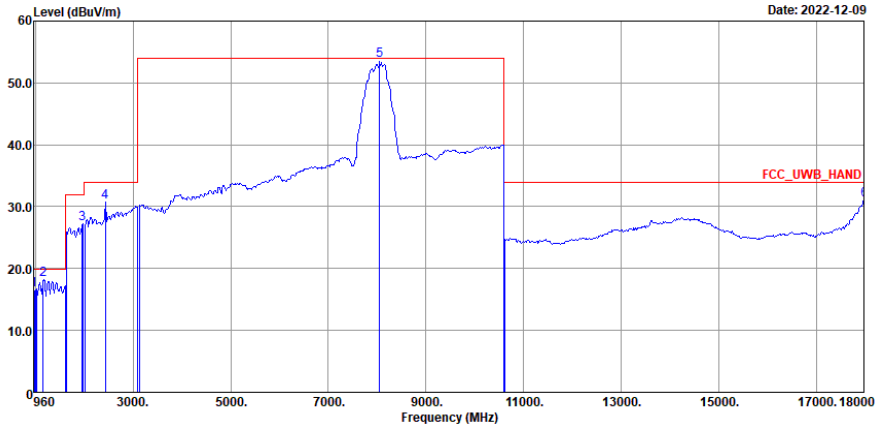
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	979.40	16.48	-3.45	19.93	28.34	30.73	5.63	32.89	---	---	Average	0.23	-15.56
2	1159.21	18.10	-1.83	19.93	31.19	25.96	6.07	35.58	---	---	Average	-9.54	0.00
3	1952.76	27.21	-4.72	31.93	29.16	26.13	7.84	35.92	---	---	Average	0.00	0.00
4	3046.72	30.09	-3.84	33.93	26.41	29.78	9.88	35.98	---	---	Average	0.00	0.00
5	6692.50	42.76	-11.17	53.93	29.70	36.00	14.77	37.71	---	---	Average	0.00	0.00
6	18000.00	31.38	-2.55	33.93	24.52	43.40	24.21	45.19	---	---	Average	-15.56	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting outside GPS Bands: RBW=1MHz; VBW=3MHz.
Note 5: Average emission setting in GPS bands: RBW=1kHz; VBW=3kHz.
Note 6: #5 is fundamental signal.

Note 7:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux Factor (dB) = Level (dBuV/m)
  (Note: For test item below 1GHz, Aux = Filter loss; Aux 2 = Distance extrapolation factor)
  (Note: For test item above 1GHz, Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

CH09 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 13: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode		
Test Distance	The test distance between the receiving antenna and the EUT is as following: 3m for 1.61 GHz ~ 10.60 GHz frequency range, 1 m for 1GHz ~ 1.61 GHz, and 0.5 m for other frequency ranges.		



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 HORIZONTAL
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

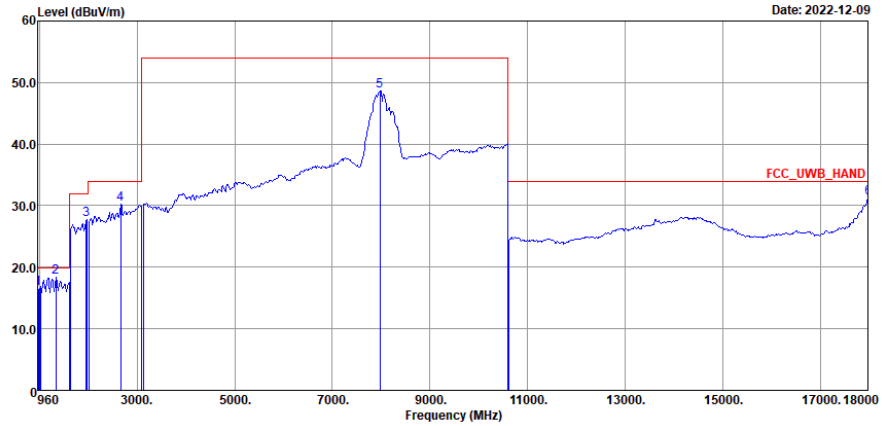
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	979.08	16.54	-3.39	19.93	28.39	30.74	5.63	32.89	---	---	Average	0.23	-15.56
2	1159.82	18.19	-1.74	19.93	31.28	25.96	6.07	35.58	---	---	Average	-9.54	0.00
3	1959.22	27.22	-4.71	31.93	29.08	26.21	7.85	35.92	---	---	Average	0.00	0.00
4	2430.67	30.80	-3.13	33.93	30.46	27.68	8.73	36.07	---	---	Average	0.00	0.00
5	8054.00	53.62	-0.31	53.93	39.11	37.20	16.12	38.81	---	---	Average	0.00	0.00
6	17992.60	31.15	-2.78	33.93	24.35	43.33	24.21	45.18	---	---	Average	-15.56	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting outside GPS Bands: RBW=1MHz; VBW=3MHz.
Note 5: Average emission setting in GPS bands: RBW=1kHz; VBW=3kHz.
Note 6: #5 is fundamental signal.

Note 7:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux Factor (dB) = Level (dBuV/m)
  (Note: For test item below 1GHz, Aux = Filter loss; Aux 2 = Distance extrapolation factor)
  (Note: For test item above 1GHz, Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

CH09 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 13: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode		
Test Distance	The test distance between the receiving antenna and the EUT is as following: 3m for 1.61 GHz ~ 10.60 GHz frequency range, 1 m for 1GHz ~ 1.61 GHz, and 0.5 m for other frequency ranges.		



Site : 03CH20-HY
Condition : FCC_UWB_HAND 3m 9120D-02038_220809 VERTICAL
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	978.96	16.47	-3.46	19.93	28.32	30.74	5.63	32.89	---	---	Average	0.23	-15.56
2	1333.06	18.36	-1.57	19.93	31.14	25.93	6.48	35.65	---	---	Average	-9.54	0.00
3	1959.98	27.72	-4.21	31.93	29.57	26.22	7.85	35.92	---	---	Average	0.00	0.00
4	2660.44	30.31	-3.62	33.93	28.68	28.50	9.16	36.03	---	---	Average	0.00	0.00
5	7975.00	48.71	-5.22	53.93	34.10	37.15	16.17	38.71	---	---	Average	0.00	0.00
6	17985.20	31.25	-2.68	33.93	24.54	43.25	24.20	45.18	---	---	Average	-15.56	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting outside GPS Bands: RBW=1MHz; VBW=3MHz.
Note 5: Average emission setting in GPS bands: RBW=1kHz; VBW=3kHz.
Note 6: #5 is fundamental signal.

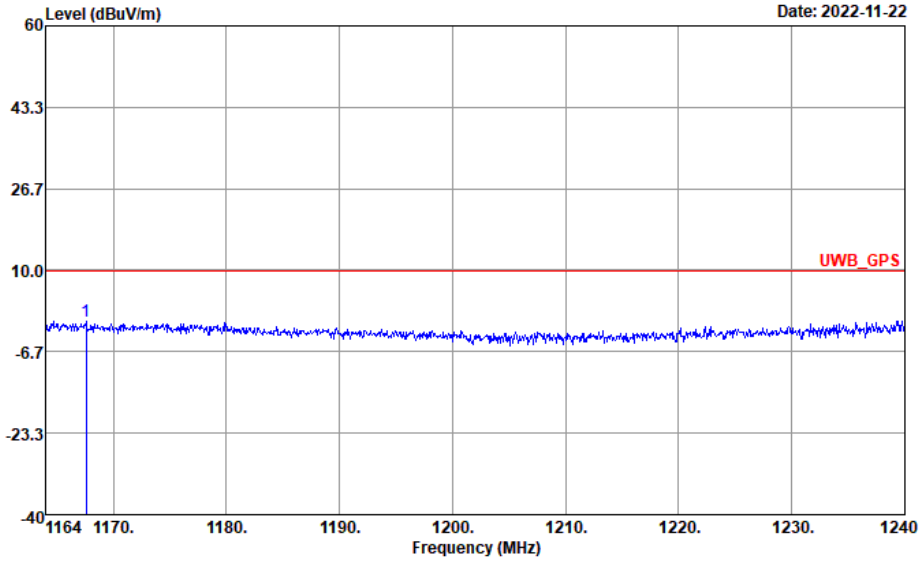
Note 7:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)

- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux Factor (dB) = Level (dBuV/m)
  (Note: For test item below 1GHz, Aux = Filter loss; Aux 2 = Distance extrapolation factor)
  (Note: For test item above 1GHz, Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

3.5.9 Radiated Emissions (1164MHz – 1240MHz)

CH05 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

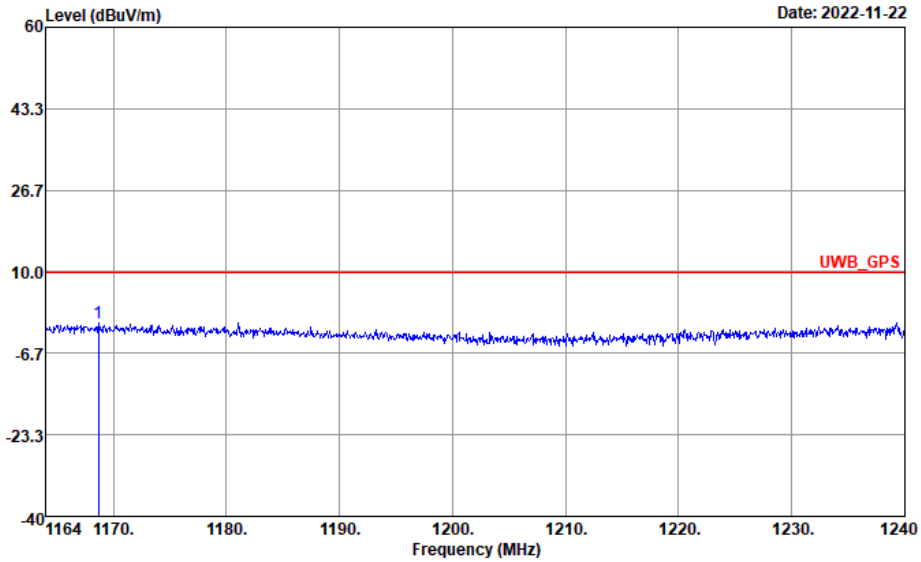


Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 HORIZONTAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1167.57	-0.38	-10.31	9.93	3.18	25.93	6.09	35.58	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH05 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m

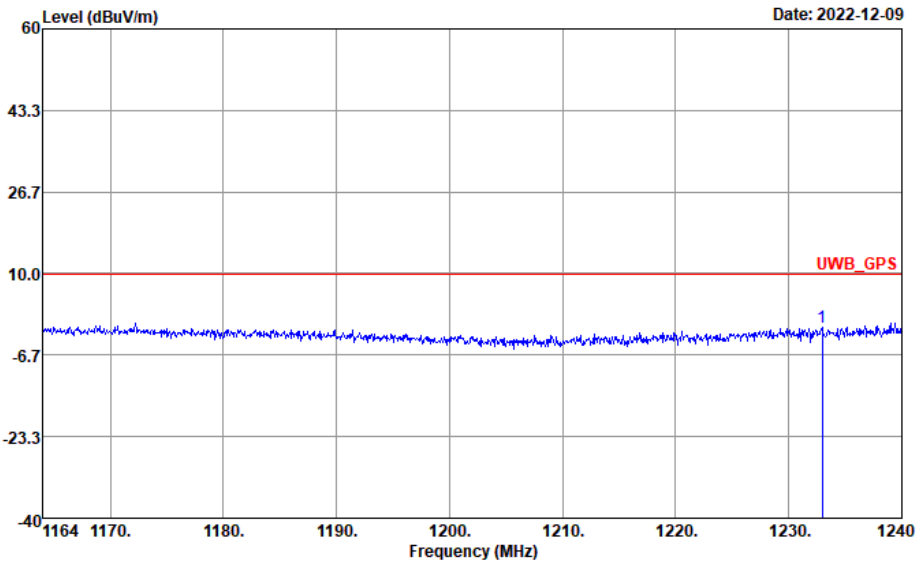


Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 VERTICAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1168.71	-0.36	-10.29	9.93	3.19	25.93	6.10	35.58	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.2 = 9.93dBuV/m.

CH09 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 19: cidx-11_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

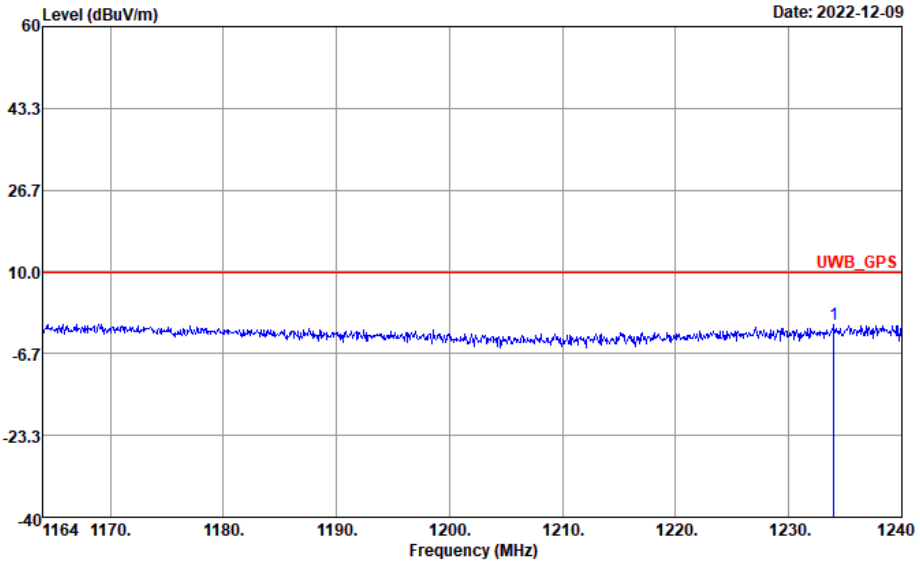


Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 HORIZONTAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0xfefec0fe
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1232.93	-0.96	-10.89	9.93	2.47	25.93	6.25	35.61	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.2 = 9.93dBuV/m.

CH09 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 19: cidx-11_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m



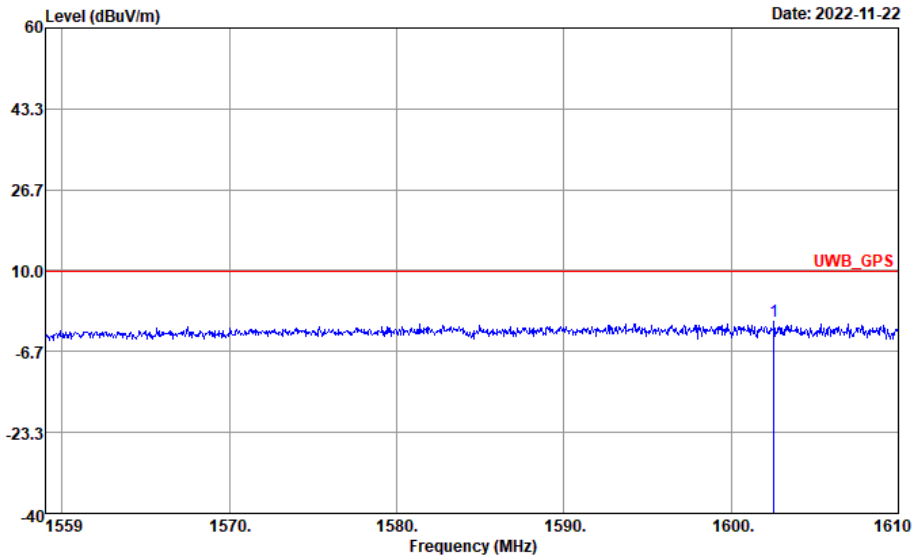
Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 VERTICAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0xfefec0fe
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1234.00	-0.84	-10.77	9.93	2.57	25.94	6.26	35.61	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

3.5.10 Radiated Emissions (1559MHz – 1610MHz)

CH05 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

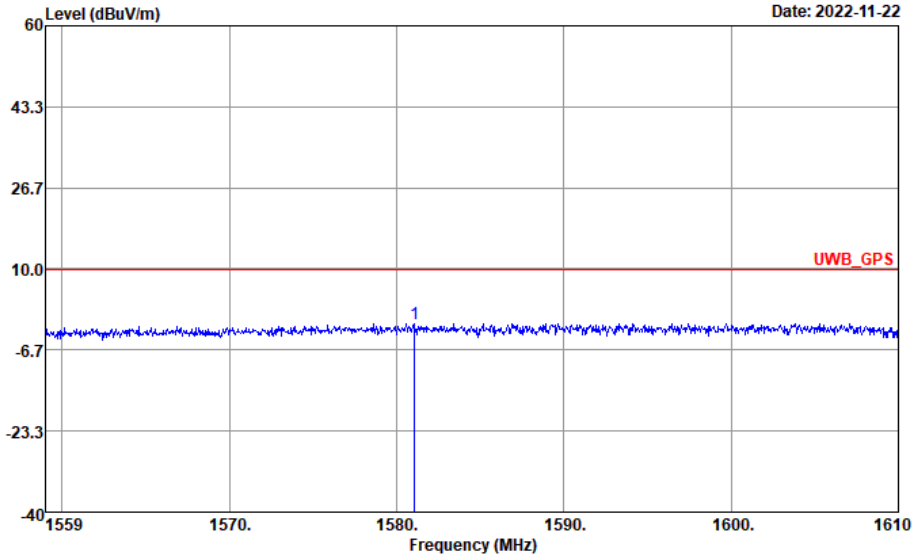


Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 HORIZONTAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1602.55	-0.34	-10.27	9.93	2.51	25.79	7.12	35.76	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH05 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m

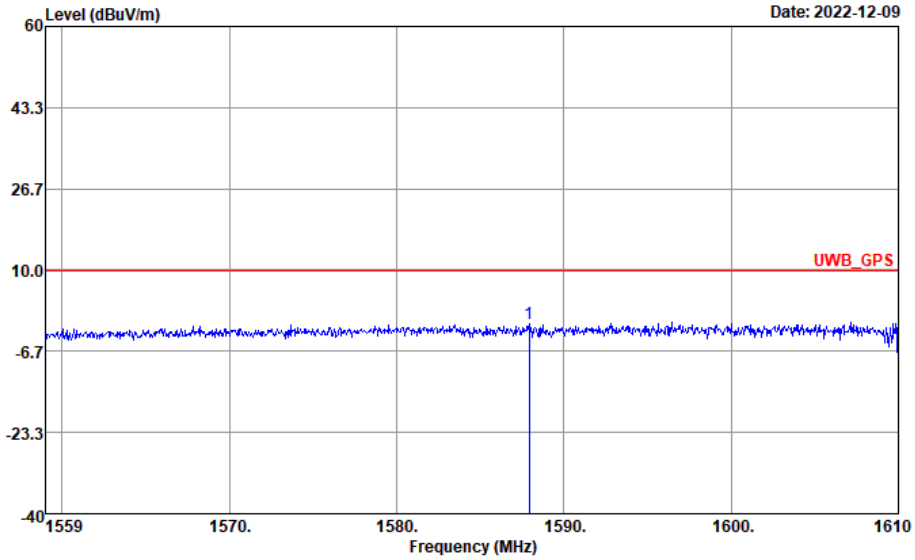


Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 VERTICAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1581.08	-1.21	-11.14	9.93	1.79	25.69	7.06	35.75	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH09 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 19: cidx-11_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

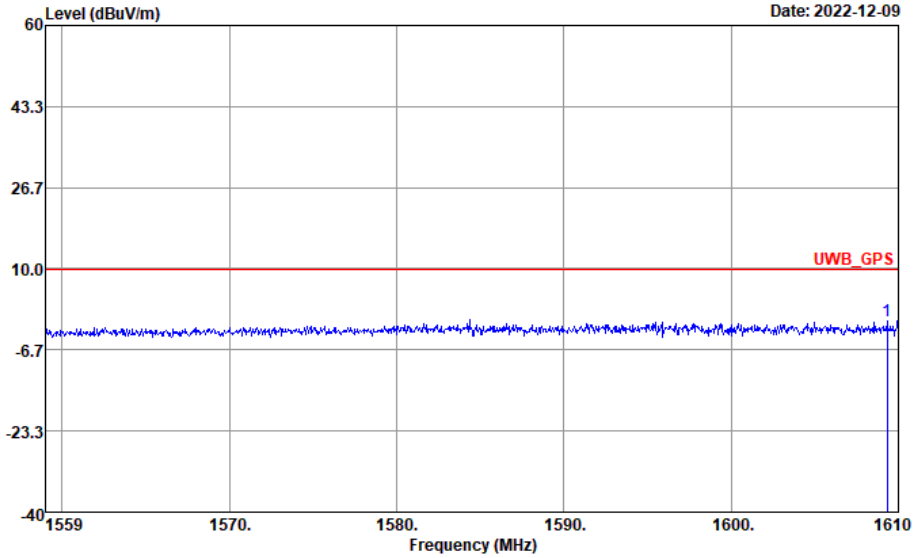


Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 HORIZONTAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0xfefec0fe
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1587.92	-0.96	-10.89	9.93	1.98	25.73	7.08	35.75	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH09 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 19: cidx-11_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m



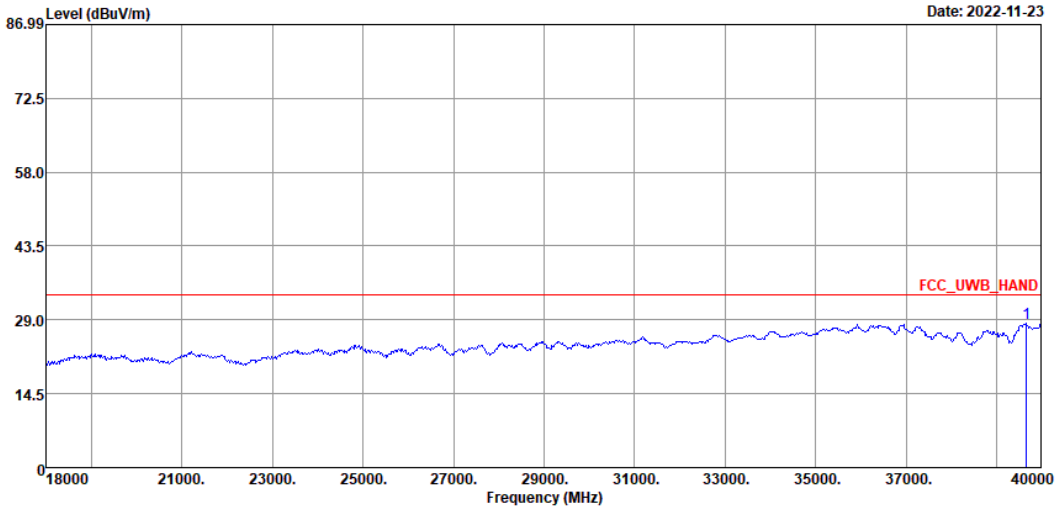
Site : 03CH20-HY
Condition : UWB_GPS 3m 9120D-02038_220809 VERTICAL
: RBW:1.000KHz VBW:3.000KHz SWT:40.000sec
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 11
sts_mode : 1
packet_length : 125
power_hex : 0xfefec0fe
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1609.34	-0.71	-10.64	9.93	2.16	25.76	7.13	35.76	---	---	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.
Note 5: E (dBuv/m) = EIRP (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

3.5.11 Radiated Emissions (18GHz – 40GHz)

CH05 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	0.5m



Site : 03CH20-HY
Condition : FCC_UWB_HAND 1m SHF_00994_221104 HORIZONTAL
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	39648.00	28.26	-5.67	33.93	46.41	44.44	9.19	56.22	---	---	Average	-15.56	0.00

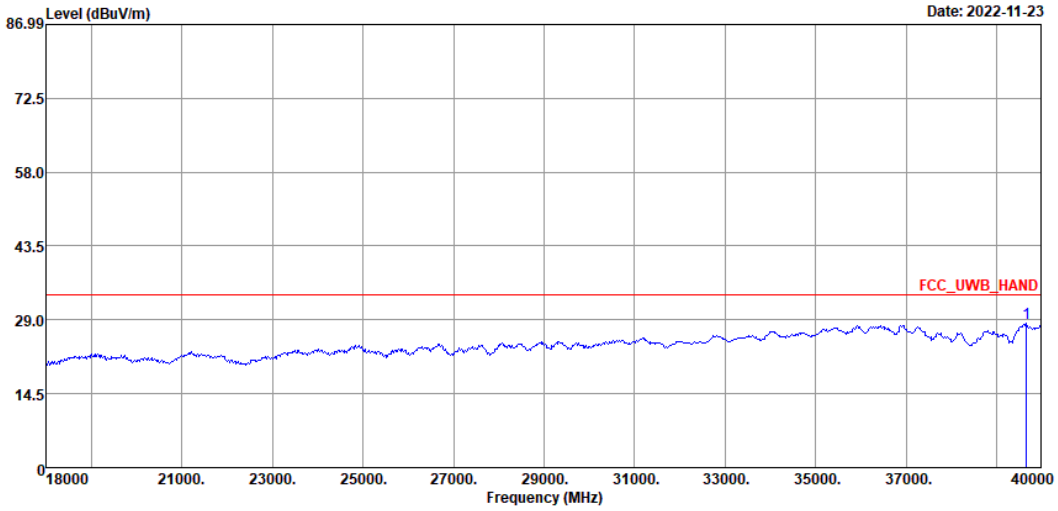
Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1MHz; VBW=3MHz.

Note 5:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)

- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux (dB) + Aux 2 (dB) = Level (dBuV/m)
  (Note: Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

CH05 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 1: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	0.5m



Site : 03CH20-HY
Condition : FCC_UWB_HAND 1m SHF_00994_221104 VERTICAL
Project : 1O0605-09
EUT : #28
Channel : CH5
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x5f5f505f
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	39648.00	28.23	-5.70	33.93	46.38	44.44	9.19	56.22	---	---	Average	-15.56	0.00

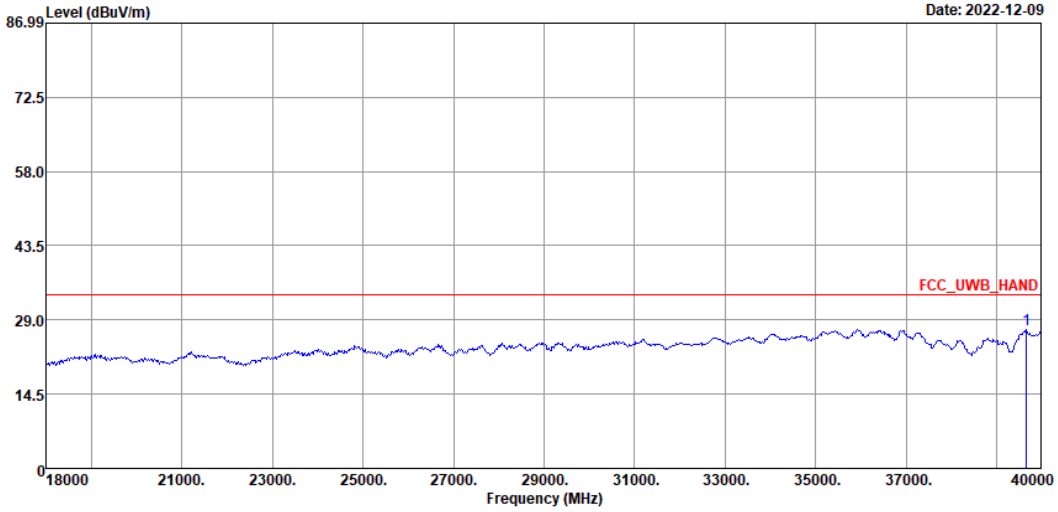
Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1MHz; VBW=3MHz.

Note 5:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)

- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux (dB) + Aux 2 (dB) = Level (dBuV/m)
  (Note: Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

CH09 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 13: cidx-9_sts-1_packet length-125	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	0.5m



Site : 03CH20-HY
Condition : FCC_UWB_HAND 1m SHF_00994_221104 HORIZONTAL
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

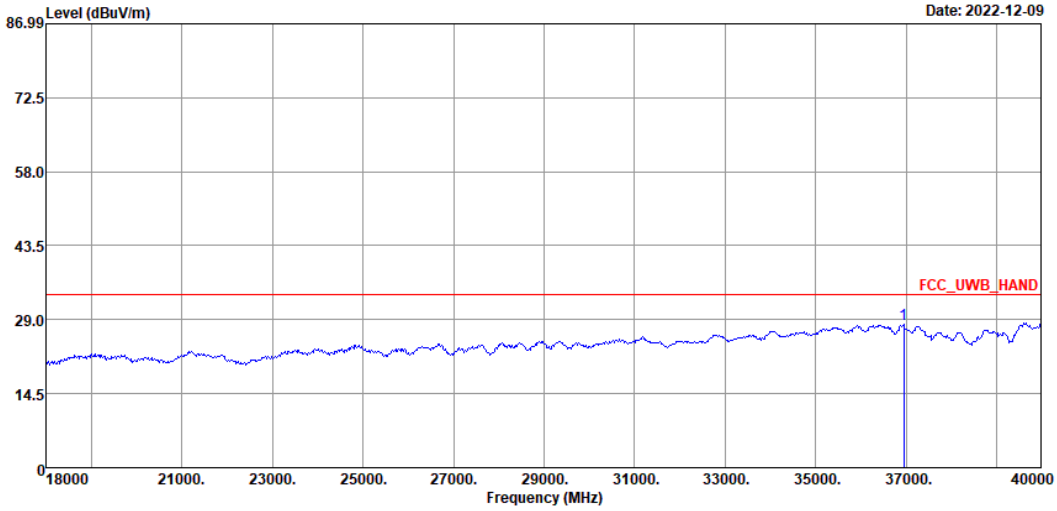
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	39648.00	27.02	-6.91	33.93	45.17	44.44	9.19	56.22	---	---	Average	-15.56	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1MHz; VBW=3MHz.

Note 5:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux (dB) + Aux 2 (dB) = Level (dBuV/m)
  (Note: Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

CH09 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 13: cidx-9_sts-1_packet length-125	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	0.5m



Site : 03CH20-HY
Condition : FCC_UWB_HAND 1m SHF_00994_221104 VERTICAL
Project : 1O0605-09
EUT : #28
Channel : CH9
cidx : 9
sts_mode : 1
packet_length : 125
power_hex : 0x6e6e586e
PG Delay : 28

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Aux Factor	Aux2 Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		dB	dB
1	36942.00	28.02	-5.91	33.93	49.87	42.92	8.85	58.06	---	---	Average	-15.56	0.00

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission setting: RBW=1MHz; VBW=3MHz.

Note 5:

- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux (dB) + Aux 2 (dB) = Level (dBuV/m)
  (Note: Aux = Distance extrapolation factor; Aux 2 = 0, which means the measuring units are not connecting to the Filter)

4 Test Equipment and Calibration Data

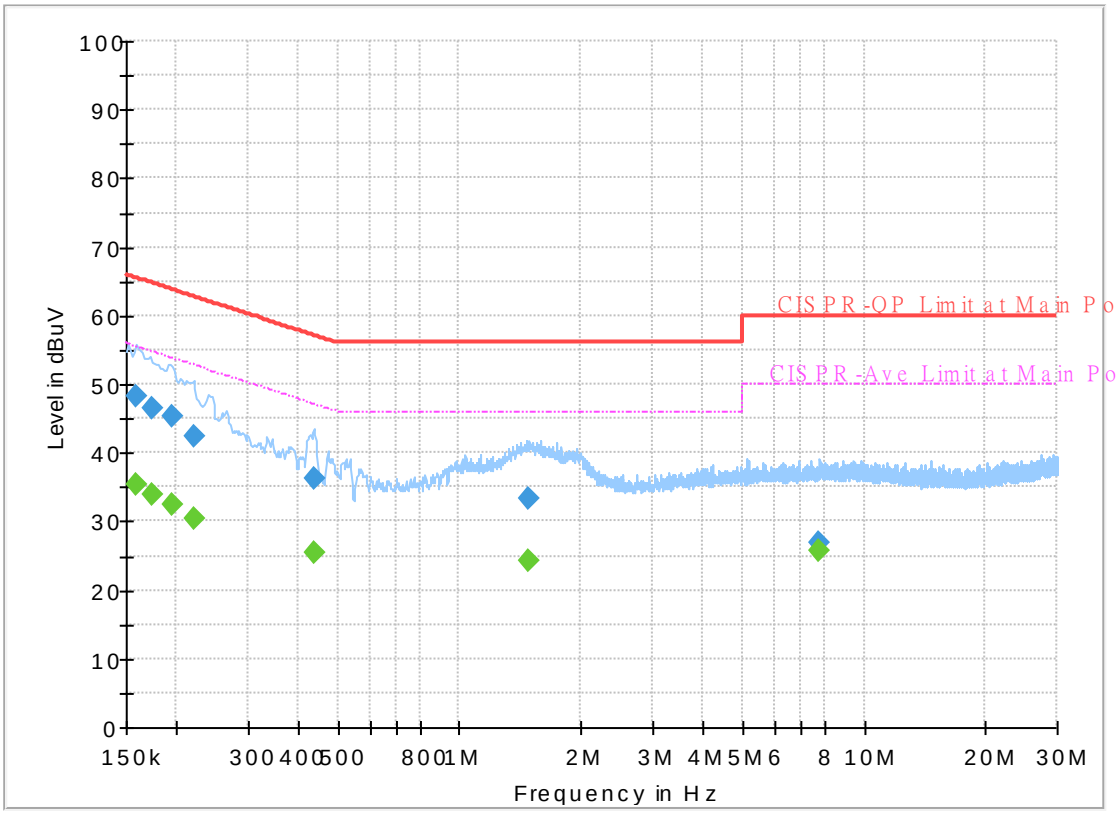
Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 07, 2022	Nov. 14, 2022~ Dec. 09, 2022	Jan. 06, 2023	Radiation (03CH20-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Oct. 18, 2022	Nov. 14, 2022~ Dec. 09, 2022	Oct. 17, 2023	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Nov. 14, 2022~ Dec. 09, 2022	Jun. 27, 2023	Radiation (03CH20-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Nov. 14, 2022~ Dec. 09, 2022	N/A	Radiation (03CH20-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Nov. 14, 2022~ Dec. 09, 2022	N/A	Radiation (03CH20-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Nov. 14, 2022~ Dec. 09, 2022	N/A	Radiation (03CH20-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802N 1D01N-06	55606 & 08	30MHz~1GHz	Oct. 22, 2022	Nov. 14, 2022~ Dec. 09, 2022	Oct. 21, 2023	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02038	1GHz~18GHz	Aug. 09, 2022	Nov. 14, 2022~ Dec. 09, 2022	Aug. 08, 2023	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00994	18GHz-40GHz	Nov. 04, 2022	Nov. 14, 2022~ Dec. 09, 2022	Nov. 03, 2023	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Jan. 03, 2022	Nov. 14, 2022~ Dec. 09, 2022	Jan. 02, 2023	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45SE	980792	N/A	Nov. 14, 2022	Nov. 14, 2022~ Dec. 09, 2022	Nov. 13, 2023	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,804 015/2,804027 /2	N/A	Jan. 19, 2022	Nov. 14, 2022~ Dec. 09, 2022	Jan. 18, 2023	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303B	TP200728	N/A	Mar. 22, 2022	Nov. 14, 2022~ Dec. 09, 2022	Mar. 21, 2023	Radiation (03CH20-HY)
Software	Audix	N/A	RK-002156	N/A	N/A	Nov. 14, 2022~ Dec. 09, 2022	N/A	Radiation (03CH20-HY)
Signal Analyzer	Keysight	N9010B	MY60240520	N/A	Dec. 23, 2021	Nov. 14, 2022~ Dec. 09, 2022	Dec. 22, 2022	Radiation (03CH20-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 02, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Oct. 06, 2022	Dec. 02, 2022	Oct. 05, 2023	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2022	Dec. 02, 2022	Nov. 16, 2023	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 17, 2022	Dec. 02, 2022	Nov. 16, 2023	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Dec. 02, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Aug. 01, 2022	Dec. 02, 2022	Jul. 31, 2023	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Dec. 02, 2022	Dec. 29, 2022	Conduction (CO05-HY)

Appendix A. AC Conducted Emission Test Results

EUT Information

Report NO :	1O0605-09
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



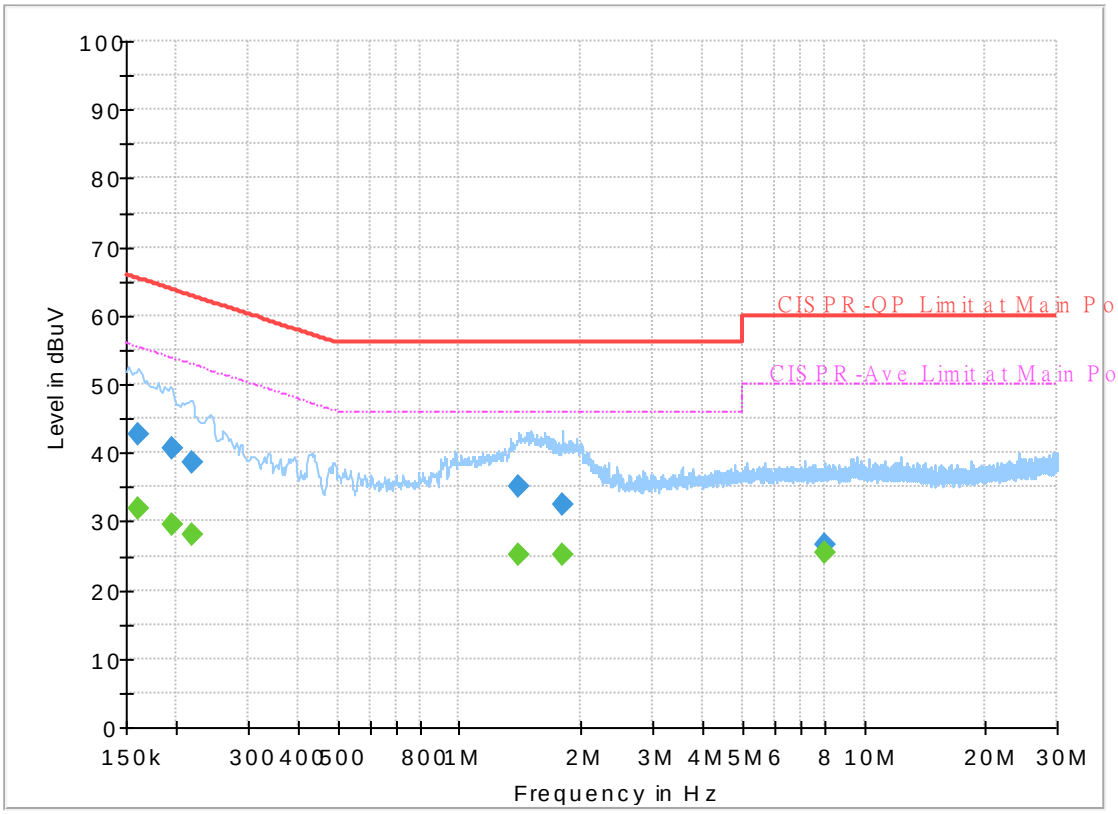
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	---	35.48	55.52	20.04	L1	OFF	19.8
0.159000	48.26	---	65.52	17.26	L1	OFF	19.8
0.174750	---	33.88	54.73	20.85	L1	OFF	19.8
0.174750	46.43	---	64.73	18.30	L1	OFF	19.8
0.195000	---	32.48	53.82	21.34	L1	OFF	19.8
0.195000	45.44	---	63.82	18.38	L1	OFF	19.8
0.219750	---	30.45	52.83	22.38	L1	OFF	19.8
0.219750	42.26	---	62.83	20.57	L1	OFF	19.8
0.435750	---	25.56	47.14	21.58	L1	OFF	19.8
0.435750	36.38	---	57.14	20.76	L1	OFF	19.8
1.488750	---	24.17	46.00	21.83	L1	OFF	19.9
1.488750	33.29	---	56.00	22.71	L1	OFF	19.9
7.775250	---	25.60	50.00	24.40	L1	OFF	20.1
7.775250	26.83	---	60.00	33.17	L1	OFF	20.1

EUT Information

Report NO :	1O0605-09
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	31.87	55.40	23.53	N	OFF	19.8
0.161250	42.63	---	65.40	22.77	N	OFF	19.8
0.195000	---	29.53	53.82	24.29	N	OFF	19.8
0.195000	40.77	---	63.82	23.05	N	OFF	19.8
0.217500	---	28.01	52.91	24.90	N	OFF	19.8
0.217500	38.57	---	62.91	24.34	N	OFF	19.8
1.403250	---	25.17	46.00	20.83	N	OFF	19.8
1.403250	35.08	---	56.00	20.92	N	OFF	19.8
1.794750	---	25.23	46.00	20.77	N	OFF	19.8
1.794750	32.57	---	56.00	23.43	N	OFF	19.8
7.968750	---	25.37	50.00	24.63	N	OFF	20.1
7.968750	26.49	---	60.00	33.51	N	OFF	20.1

————THE END————