FCC RADIO TEST REPORT

FCC ID	:	**A4RGHH4K**
Equipment	:	**Wireless Device**
Model Name	:	**GHH4K**
Applicant	:	**Google LLC** **1600 Amphitheatre Parkway,** **Mountain View, CA, 94043 USA**
Standard	:	**47 CFR FCC Part 15.519**

The product was received on Mar 10, 2025, and testing was performed from Mar 19, 2025 to Mar. 29, 2025. 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 from 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	Issue Date
FR511001J	01	Initial issue of report	Apr. 28, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1	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

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Yun Huang

Report Producer: Clio Lo

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
General Specs Bluetooth, BLE, BLE ASK, BLE GFSK, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, NFC, UWB, 60GHz and GNSS. **Antenna Type** UWB: PIFA Antenna

Antenna information		
6489.6 MHz	**Peak Gain (dBi)**	1.8
7987.2 MHz	**Peak Gain (dBi)**	2.8

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

EUT Information List	
S/N	Performed Test Item
51181WRCVW219X	Equivalent Isotropic Radiated Power
	Radiated Spurious Emission
51181WRCVW219R	Conducted Emission

1.2 Modification of EUT

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

1.3 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:

1.4 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.

1.5 Testing Location Information

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.**	
	CO07-HY	03CH20-HY

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Conduction	CO07-HY	Louis Chung	21.5~23.6 °C 48.2~53.6 %	Mar. 29, 2025
Radiated	03CH20-HY	John Chuang, David Dai and Sam Chou	19.1~19.7 °C 65~69.8 %	Mar. 19, 2025~ Mar. 25, 2025

1.6 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)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1000MHz)	6.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 6GHz)	5.4 dB	Confidence levels of 95%
Radiated Emission (6GHz ~ 18GHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.7 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Mode

Test Configuration					
Config	Channel	Modulation	Config	STS Nums	Payload Length (bytes)
Mode 1	5	BPRF9	0	0	127
Mode 2	5	BPRF10	0	0	127
Mode 3	5	BPRF9	1	1	127
Mode 4	5	BPRF10	1	1	127
Mode 5	5	BPRF9	3	1	0
Mode 6	5	BPRF10	3	1	0
Mode 7	5	HPRF27	0	0	255
Mode 8	5	HPRF27	1	1	255
Mode 9	5	HPRF27	3	1	0
Mode 10	9	BPRF9	0	0	127
Mode 11	9	BPRF10	0	0	127
Mode 12	9	BPRF9	1	1	127
Mode 13	9	BPRF10	1	1	127
Mode 14	9	BPRF9	3	1	0
Mode 15	9	BPRF10	3	1	0
Mode 16	9	HPRF27	0	0	255
Mode 17	9	HPRF27	1	1	255
Mode 18	9	HPRF27	3	1	0

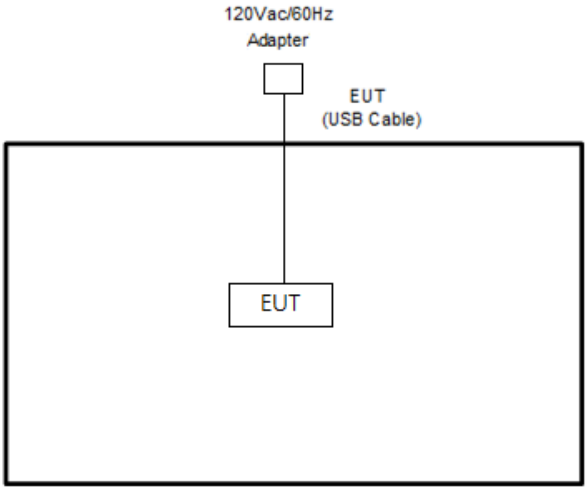
2.2 The Worst Case Measurement Configuration

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".	

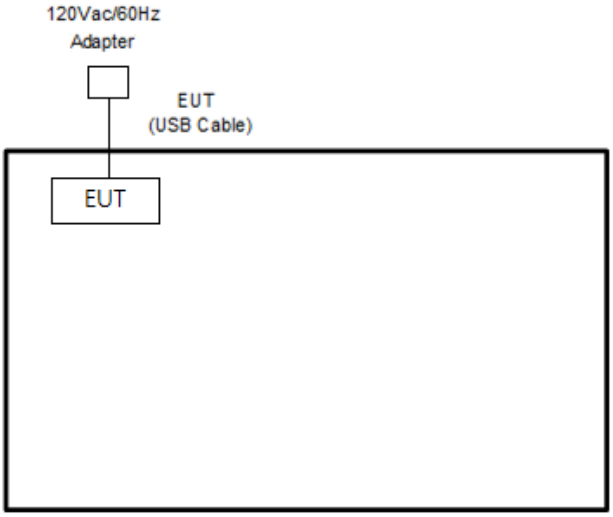
The Worst Case Mode for Following Conformance Tests			
Tests Item	UWB Bandwidth, Peak Power Measurement, Radiated Emissions		
Test Condition	Radiated measurement		
Operating Mode	CTX		
1	Adapter Mode		
Mode 1 configuration was tested and found to be the worst case and measured during the test.			
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
CH05		V	
CH09			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 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.	Adapter	N/A	N/A	N/A	N/A	N/A

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

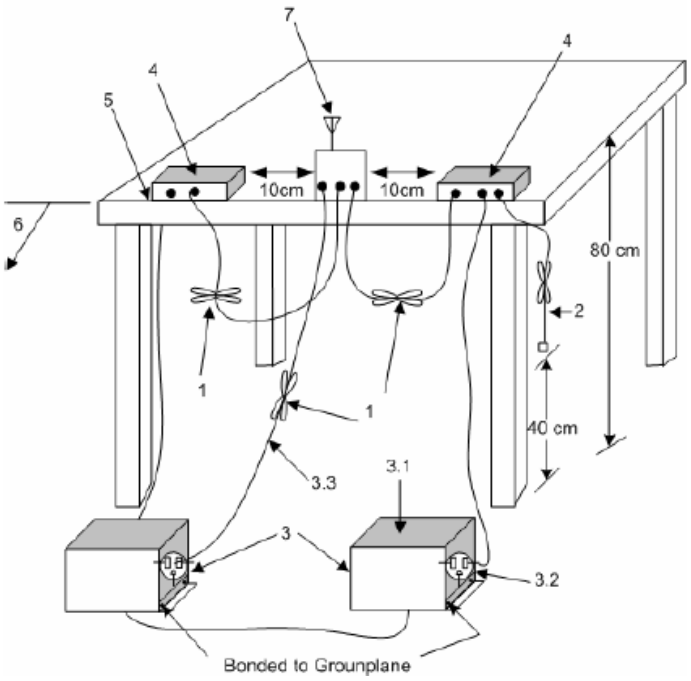
Refer a test equipment and calibration data table in this test report.

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

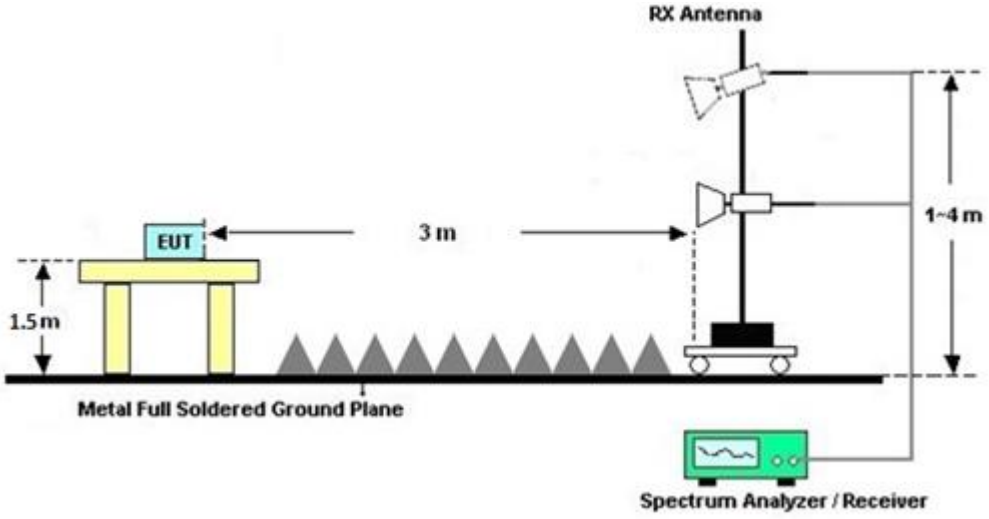
Refer a test equipment and calibration data table in this test report.

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.

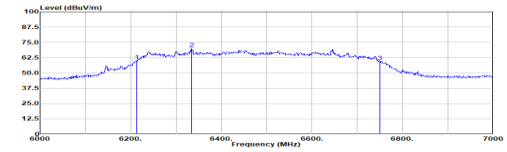
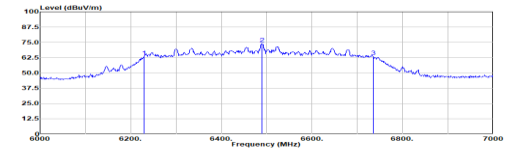
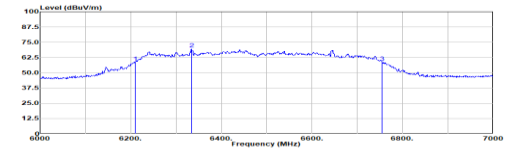
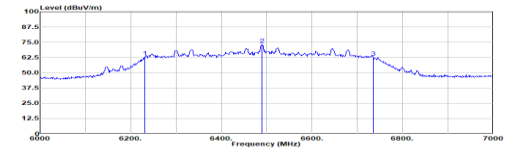
3.2.4 Test Setup

UWB Bandwidth - Test Distance: 3m



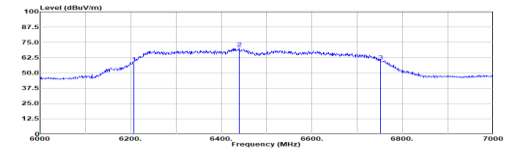
3.2.5 Test Result of UWB Bandwidth

Test mode	F_L (MHz)	F_H (MHz)	UWB Bandwidth (MHz)	Bandwidth limit (MHz)	Result	Pol [H/V]
1	6213	6749	536	≥ 500	Pass	H
2	6230	6735	505	≥ 500	Pass	H
3	6210	6755	545	≥ 500	Pass	H
4	6231	6735	504	≥ 500	Pass	H
5	6207	6752	545	≥ 500	Pass	H
6	6205	6772	567	≥ 500	Pass	H
7	6214	6756	542	≥ 500	Pass	H
8	6213	6761	548	≥ 500	Pass	H
9	6207	6761	554	≥ 500	Pass	H
10	7701	8255	554	≥ 500	Pass	H
11	7718	8232	514	≥ 500	Pass	H
12	7698	8253	555	≥ 500	Pass	H
13	7718	8245	527	≥ 500	Pass	H
14	7700	8260	560	≥ 500	Pass	H
15	7689	8256	567	≥ 500	Pass	H
16	7701	8256	555	≥ 500	Pass	H
17	7702	8256	554	≥ 500	Pass	H
18	7696	8246	550	≥ 500	Pass	H

UWB Bandwidth	
Mode 1	**Mode 2**
	
Mode 3	**Mode 4**
	

UWB Bandwidth

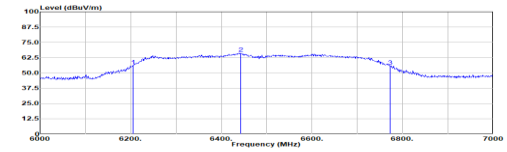
Mode 5




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : BPRF9
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6207.00	58.10	------	------	47.64	34.31	14.09	37.94	0.00	251	261	Peak
2	6439.00	70.26	------	------	58.84	35.03	14.35	37.96	0.00	251	261	Peak
3	6752.00	59.78	------	------	47.16	36.00	14.71	38.09	0.00	251	261	Peak

Mode 6

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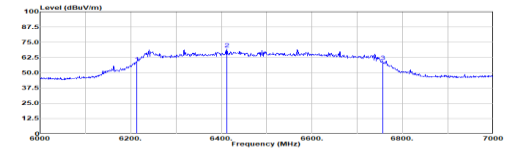
Condition     : 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : BPRF10
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x00
Calibration   : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6205.00	55.98	------	------	45.52	34.31	14.09	37.94	0.00	251	240	Peak
2	6443.00	66.03	------	------	54.57	35.06	14.36	37.96	0.00	251	240	Peak
3	6772.00	55.45	------	------	42.85	35.96	14.74	38.10	0.00	251	240	Peak

Mode 7

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Condition     : 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : HPRF27
Config        : 0
STS Nums      : 0
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```
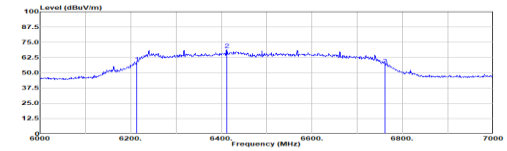

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6214.00	58.18	------	------	47.69	34.33	14.10	37.94	0.00	251	253	Peak
2	6412.00	69.53	------	------	58.29	34.87	14.32	37.95	0.00	251	253	Peak
3	6756.00	59.17	------	------	46.55	35.99	14.72	38.09	0.00	251	253	Peak

Mode 8

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Condition     : 3m HF_9120D_02360_241101 Horizontal
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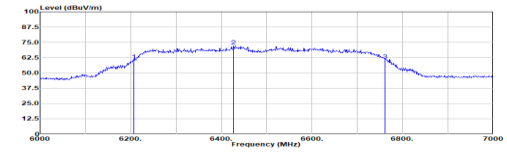
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : HPRF27
Config        : 1
STS Nums      : 1
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6213.00	58.12	------	------	47.64	34.33	14.09	37.94	0.00	252	254	Peak
2	6412.00	69.04	------	------	57.80	34.87	14.32	37.95	0.00	252	254	Peak
3	6761.00	56.58	------	------	43.96	35.98	14.73	38.09	0.00	252	254	Peak

UWB Bandwidth

Mode 9

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Condition     : 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : HPRF27
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```
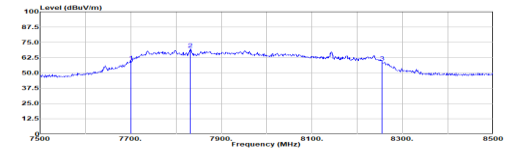

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6207.00	60.36	------	------	49.90	34.31	14.09	37.94	0.00	251	250	Peak
2	6427.00	72.10	------	------	60.76	34.96	14.34	37.96	0.00	251	250	Peak
3	6761.00	60.30	------	------	47.68	35.98	14.73	38.09	0.00	251	250	Peak

Mode 10

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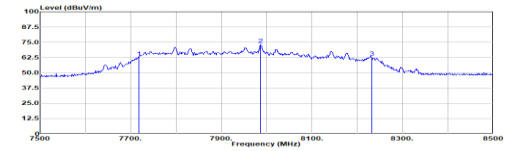
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF9
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7701.00	59.21	------	------	45.66	36.60	15.74	38.79	0.00	100	238	Peak
2	7831.00	69.33	------	------	55.39	36.96	15.87	38.89	0.00	100	238	Peak
3	8255.00	58.80	------	------	44.63	37.11	16.33	39.27	0.00	100	238	Peak

Mode 11

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Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF10
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```
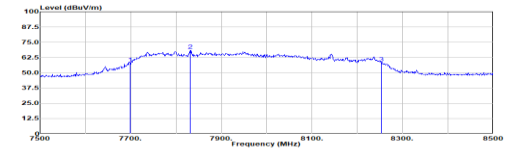

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7718.00	62.68	------	------	49.13	36.60	15.75	38.80	0.00	100	239	Peak
2	7987.00	73.05	------	------	58.82	37.10	16.15	39.02	0.00	100	239	Peak
3	8232.00	62.76	------	------	48.67	37.03	16.31	39.25	0.00	100	239	Peak

Mode 12

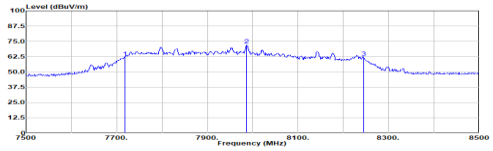



```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7698.00	57.71	------	------	44.19	36.58	15.73	38.79	0.00	100	238	Peak
2	7831.00	68.43	------	------	54.49	36.96	15.87	38.89	0.00	100	238	Peak
3	8253.00	58.22	------	------	44.06	37.11	16.32	39.27	0.00	100	238	Peak

UWB Bandwidth

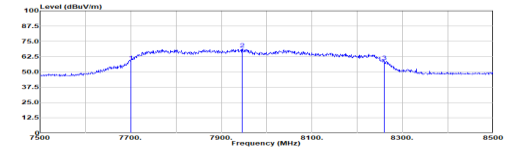
Mode 13




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF10
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7718.00	61.94	------	------	48.39	36.60	15.75	38.80	0.00	100	238	Peak
2	7987.00	72.11	------	------	57.88	37.10	16.15	39.02	0.00	100	238	Peak
3	8245.00	61.81	------	------	47.68	37.08	16.32	39.27	0.00	100	238	Peak

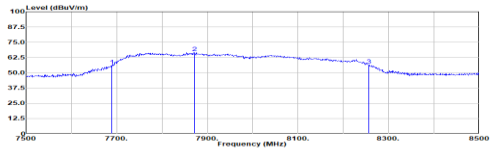
Mode 14




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF9
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7700.00	58.57	------	------	45.03	36.60	15.73	38.79	0.00	100	239	Peak
2	7946.00	68.70	------	------	54.51	37.10	16.08	38.99	0.00	100	239	Peak
3	8260.00	58.37	------	------	44.20	37.12	16.33	39.28	0.00	100	239	Peak

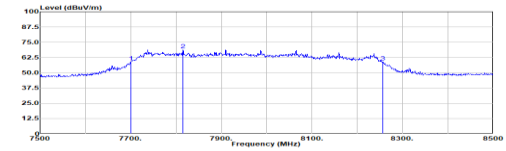
Mode 15




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF10
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x00
Calibration   : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7689.00	55.73	------	------	42.27	36.51	15.73	38.78	0.00	100	239	Peak
2	7871.00	66.46	------	------	52.41	37.04	15.94	38.93	0.00	100	239	Peak
3	8256.00	56.15	------	------	41.99	37.11	16.33	39.28	0.00	100	239	Peak

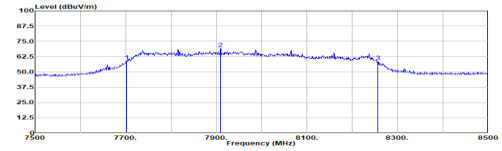
Mode 16




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : HPRF27
Config        : 0
STS Nums      : 0
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

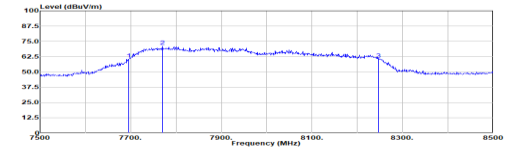
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7701.00	58.72	------	------	45.17	36.60	15.74	38.79	0.00	100	239	Peak
2	7815.00	68.78	------	------	54.88	36.93	15.85	38.88	0.00	100	239	Peak
3	8256.00	58.73	------	------	44.57	37.11	16.33	39.28	0.00	100	239	Peak

UWB Bandwidth	
Mode 17	Mode 18




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
                RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : HPRF27
Config        : 1
STS Nums      : 1
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7702.00	58.85	------	------	45.30	36.60	15.74	38.79	0.00	100	236	Peak
2	7909.00	69.12	------	------	54.97	37.10	16.01	38.96	0.00	100	236	Peak
3	8256.00	58.34	------	------	44.18	37.11	16.33	39.28	0.00	100	236	Peak




```
Site          : 03CH20-HY
Condition     : 3m HF_9120D_02360_241101 VERTICAL
                RBW:1000.000kHz VBW:3000.000kHz SWT:3.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : HPRF27
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7696.00	60.44	------	------	46.93	36.57	15.73	38.79	0.00	100	239	Peak
2	7770.00	70.82	------	------	57.16	36.72	15.79	38.85	0.00	100	239	Peak
3	8246.00	60.38	------	------	46.25	37.08	16.32	39.27	0.00	100	239	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

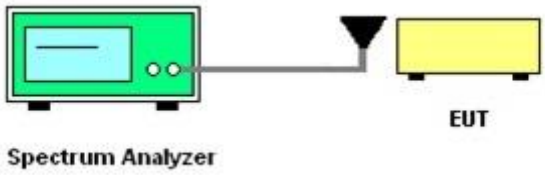
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedure

Follow the test step as below:

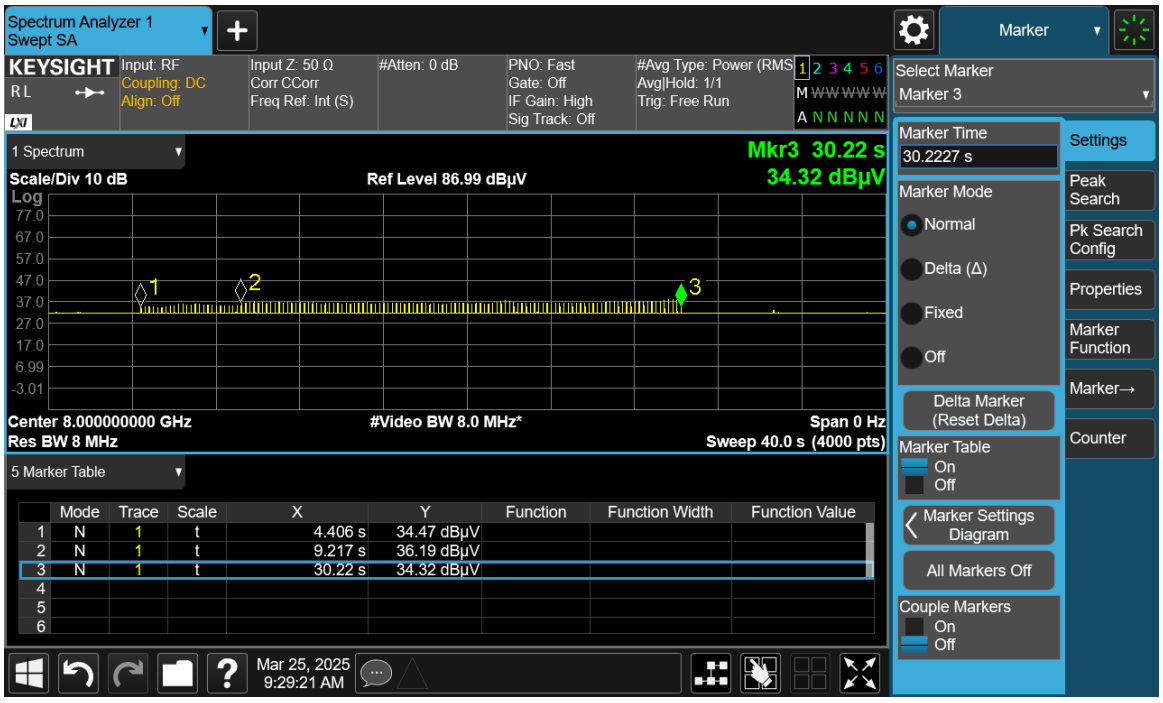
1. Turn on both EUT and companion receiver.
2. Set the EUT to TX mode, and EUT starts polling.
3. Set the companion receiver to associate EUT and EUT starts to transmit.
4. Disable the RX function of the companion receiver to disassociate the EUT.
5. Check if EUT stop transmitting once step 4 is made.

3.3.4 Test Setup



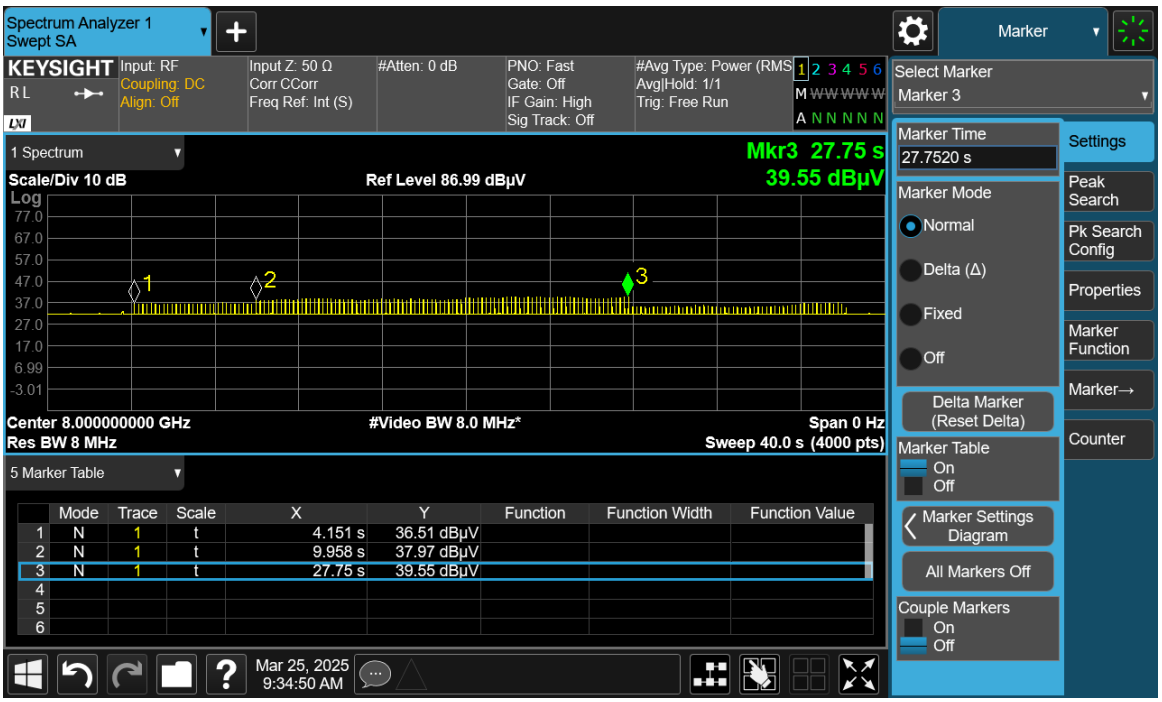
3.3.5 Test Result

Plot 1



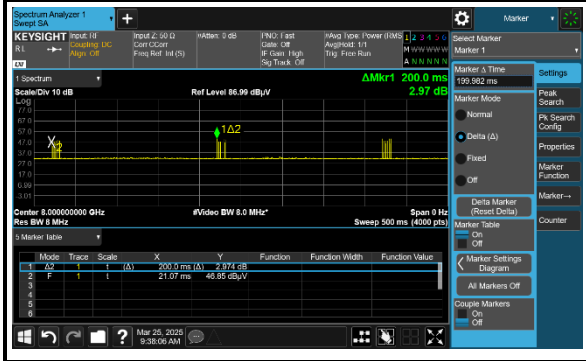
M1 to M2: Set the EUT to TX mode, and EUT starts polling.
M2 to M3: Set the companion receiver to associate EUT and EUT starts to transmit.
M3: Disable the TX function of EUT. EUT stops transmitting and polling.

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

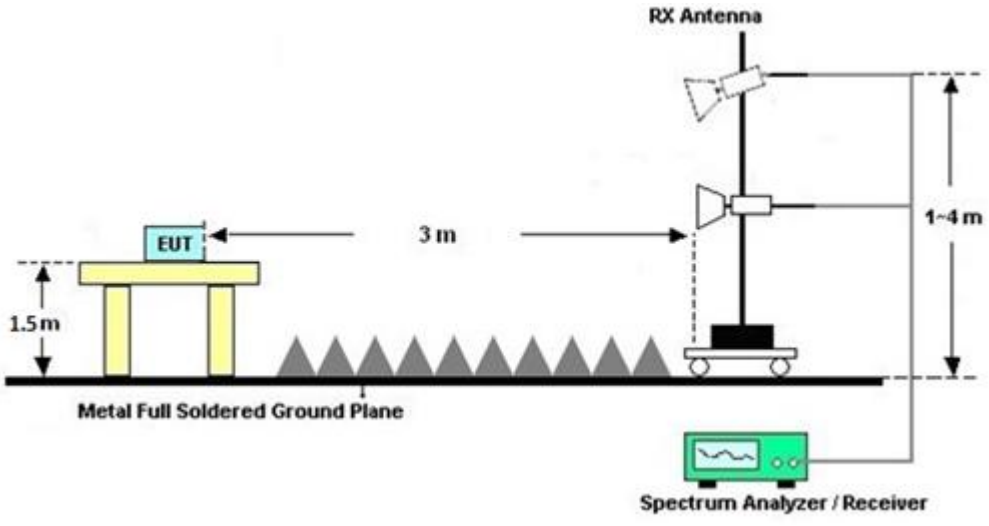
3.4.2 Measuring Instruments

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: 50MHz • VBW: 80MHz • Detector: Peak detector • Trace: Max hold	

3.4.4 Test Setup

Peak Power Measurement


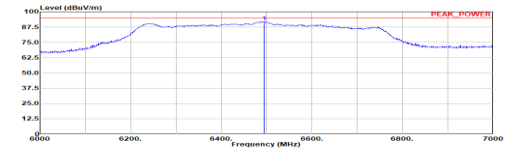
3.4.5 Test Result of Peak Power Measurement

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	6495	91.73	-3.5	0	-3.5	Pass	H
2	6488	92.46	-2.77	0	-2.77	Pass	H
3	6488	91.56	-3.67	0	-3.67	Pass	H
4	6496	92.38	-2.85	0	-2.85	Pass	H
5	6427	85.59	-9.64	0	-9.64	Pass	H
6	6428	85.89	-9.34	0	-9.34	Pass	H
7	6365	84.79	-10.44	0	-10.44	Pass	H
8	6365	84.34	-10.89	0	-10.89	Pass	H
9	6428	85.52	-9.71	0	-9.71	Pass	H
10	7745	92.06	-3.17	0	-3.17	Pass	V
11	7735	92.39	-2.84	0	-2.84	Pass	V
12	7739	91.59	-3.64	0	-3.64	Pass	V
13	7742	91.36	-3.87	0	-3.87	Pass	V
14	7792	84.87	-10.36	0	-10.36	Pass	V
15	7800	85.18	-10.05	0	-10.05	Pass	V
16	7863	84.69	-10.54	0	-10.54	Pass	V
17	7861	84.95	-10.28	0	-10.28	Pass	V
18	7924	84.4	-10.83	0	-10.83	Pass	V

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

Pre-located worst frequency Plots

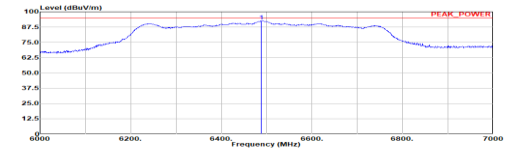
Mode 1




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 Horizontal
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : BPRF9
Config        : 0
STS Nums      : 0
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6495.00	91.73	95.23	-3.50	79.99	35.28	14.42	37.96	0.00	251	256	Peak

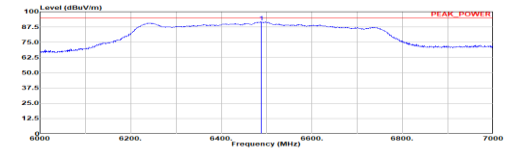
Mode 2




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 Horizontal
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : BPRF10
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6488.00	92.46	95.23	-2.77	80.76	35.25	14.41	37.96	0.00	249	239	Peak

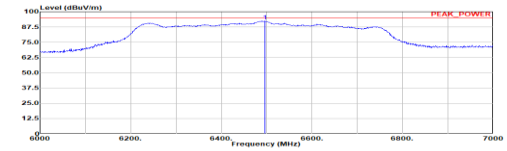
Mode 3




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 Horizontal
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

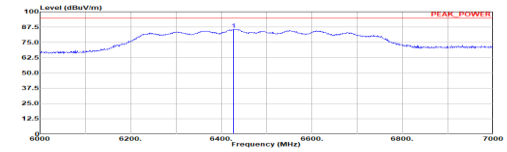
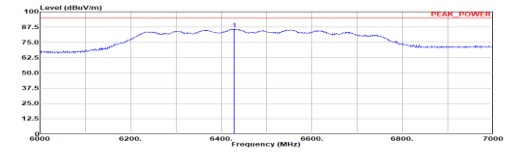
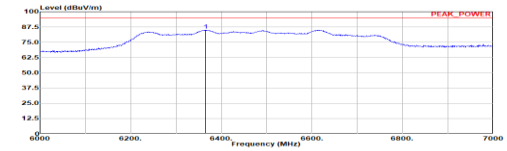
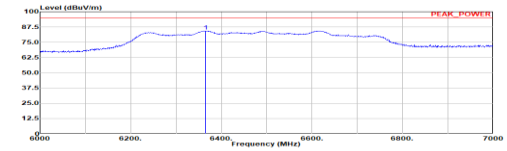
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6488.00	91.56	95.23	-3.67	79.86	35.25	14.41	37.96	0.00	254	251	Peak

Mode 4



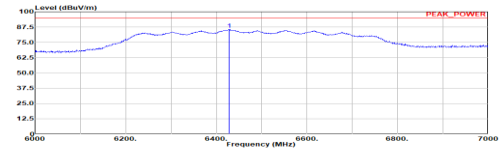

```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 Horizontal
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6496.00	92.38	95.23	-2.85	80.64	35.28	14.42	37.96	0.00	250	244	Peak

Pre-located worst frequency Plots	
Mode 5	**Mode 6**
	
Mode 7	**Mode 8**
	

Pre-located worst frequency Plots

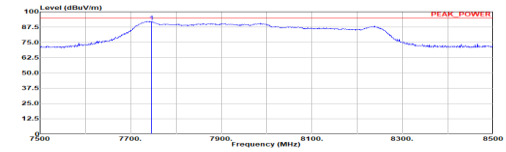
Mode 9




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 Horizontal
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 05
Modulation    : HPRF27
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6428.00	85.52	95.23	-9.71	74.17	34.97	14.34	37.96	0.00	251	250	Peak

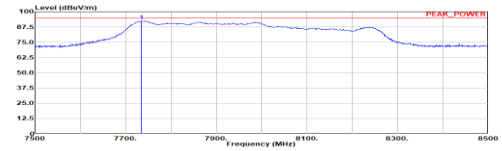
Mode 10




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 VERTICAL
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF9
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7745.00	92.06	95.23	-3.17	78.52	36.60	15.77	38.83	0.00	100	238	Peak

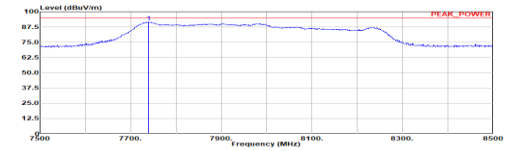
Mode 11




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 VERTICAL
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF10
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

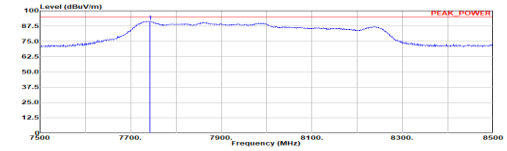
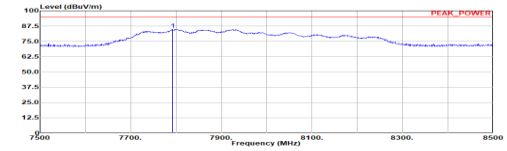
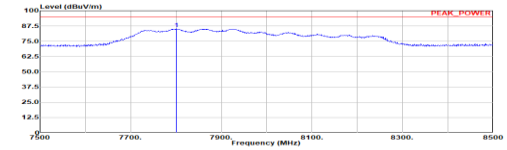
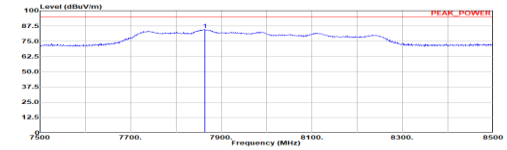
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7735.00	92.39	95.23	-2.84	78.85	36.60	15.76	38.82	0.00	100	239	Peak

Mode 12

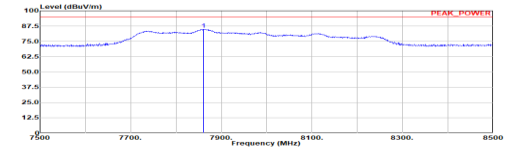



```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 VERTICAL
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7739.00	91.59	95.23	-3.64	78.04	36.60	15.77	38.82	0.00	100	238	Peak

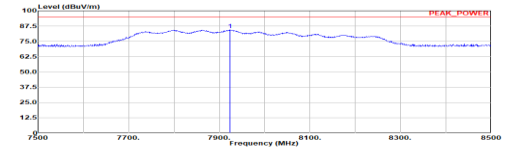
Pre-located worst frequency Plots	
Mode 13	**Mode 14**
	
Mode 15	**Mode 16**
	

Pre-located worst frequency Plots	
Mode 17	**Mode 18**




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 VERTICAL
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : HPRF27
Config        : 1
STS Nums      : 1
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7861.00	84.95	95.23	-10.28	70.92	37.02	15.93	38.92	0.00	100	236	Peak




```
Site          : 03CH20-HY
Condition     : PEAK_POWER 3m HF_9120D_02360_241101 VERTICAL
                RBW:50000.000kHz VBW:80000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Peak
Channel       : 09
Modulation    : HPRF27
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7924.00	84.40	95.23	-10.83	70.23	37.10	16.04	38.97	0.00	100	239	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)

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.

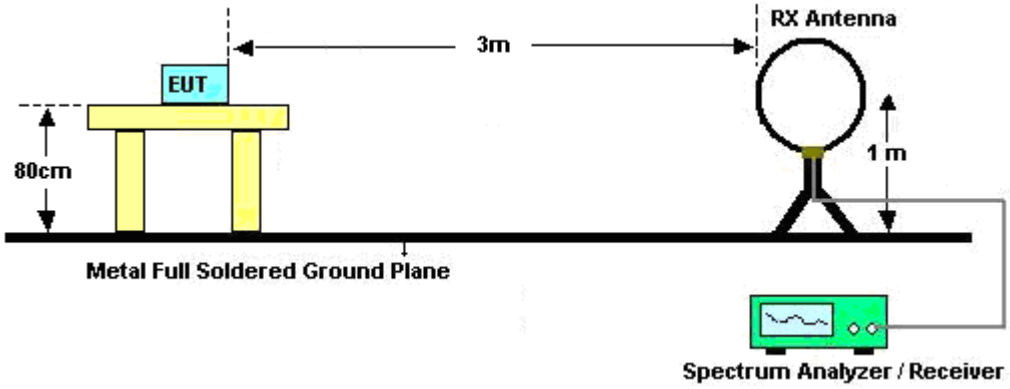
3.5.3 Test Procedures

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.

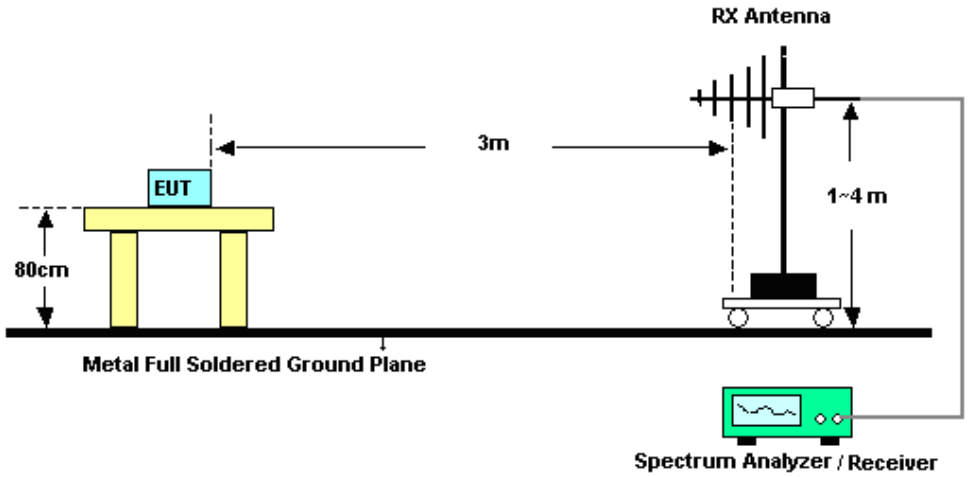
Test Method for Radiated Emissions below 960MHz and Emissions from Digital Circuitry	
■	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing 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

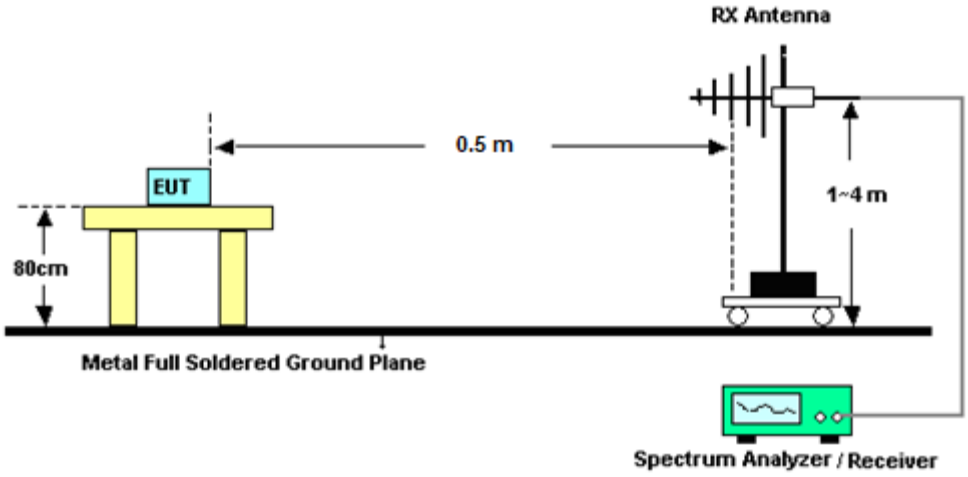
Radiated Emissions below 30MHz



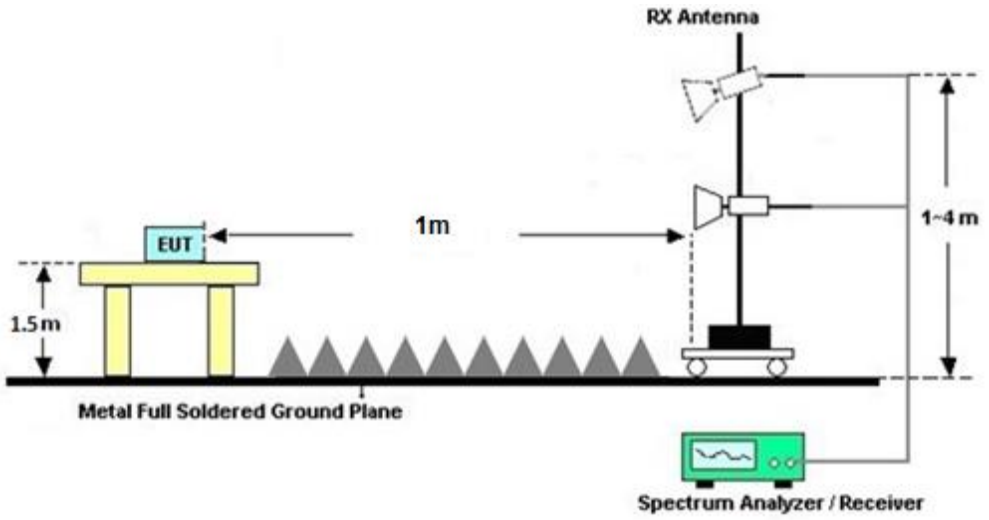
Radiated Emissions from 30MHz to 960 MHz and Emissions from Digital Circuitry



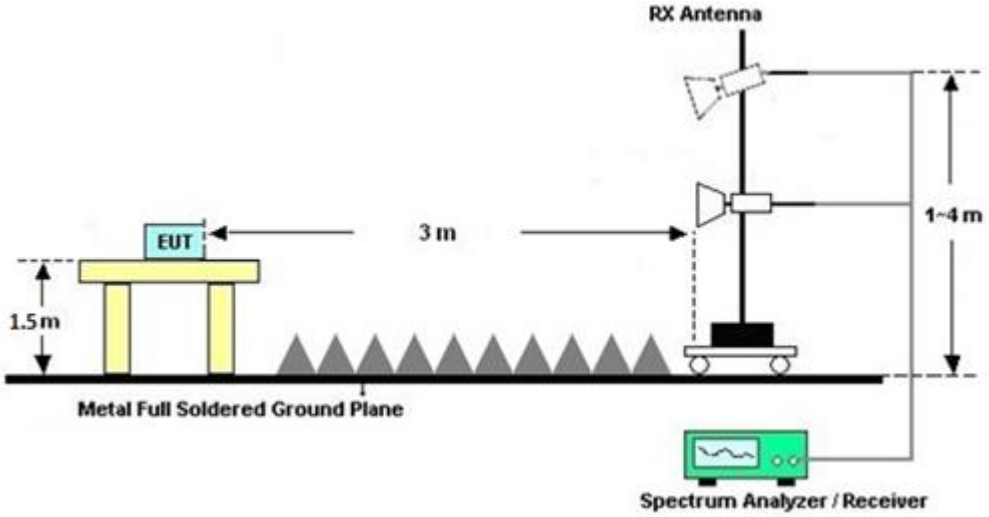
Radiated Emissions from 960 MHz to 1GHz



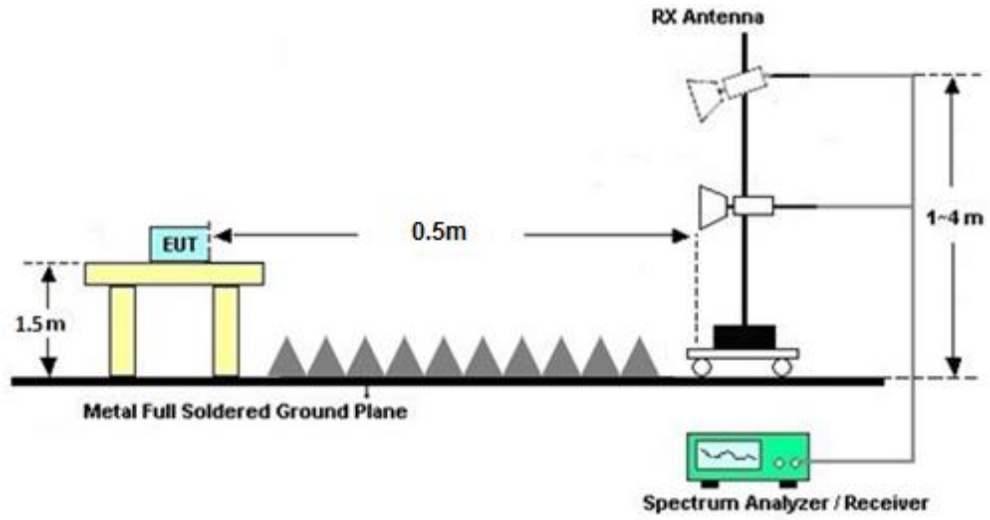
Radiated Emissions from 1GHz to 1.61 GHz



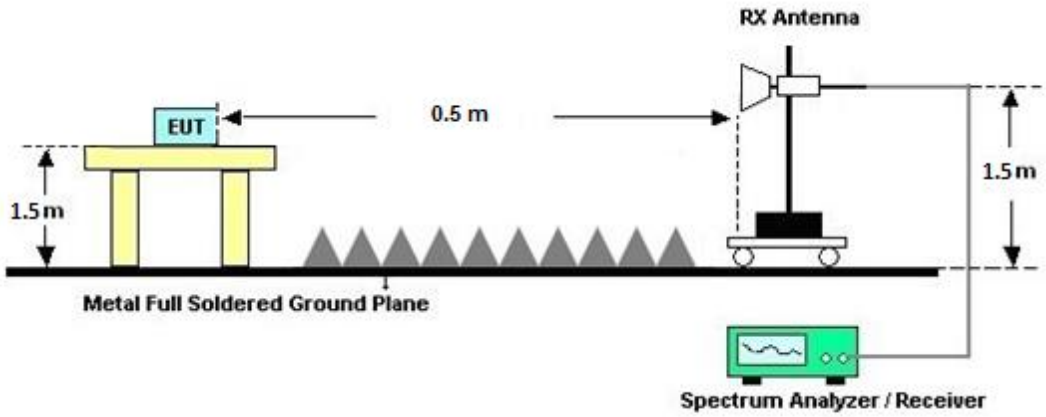
Radiated Emissions from 1.61 GHz to 10.60 GHz



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)

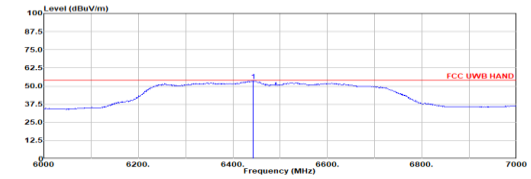
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, 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	6443	53.48	-41.3	53.93	-0.45	Pass	H
2	6440	53.53	-41.3	53.93	-0.4	Pass	H
3	6442	53.83	-41.3	53.93	-0.1	Pass	H
4	6491	53.19	-41.3	53.93	-0.74	Pass	H
5	6491	53.85	-41.3	53.93	-0.08	Pass	H
6	6440	53.79	-41.3	53.93	-0.14	Pass	H
7	6441	53.19	-41.3	53.93	-0.74	Pass	H
8	6432	53.39	-41.3	53.93	-0.54	Pass	H
9	6441	53.6	-41.3	53.93	-0.33	Pass	H
10	7766	52.49	-41.3	53.93	-1.44	Pass	V
11	7952	52.5	-41.3	53.93	-1.43	Pass	V
12	7770	52.12	-41.3	53.93	-1.81	Pass	V
13	7950	52.52	-41.3	53.93	-1.41	Pass	V
14	7946	52.85	-41.3	53.93	-1.08	Pass	V
15	7770	53.72	-41.3	53.93	-0.21	Pass	V
16	7774	52.32	-41.3	53.93	-1.61	Pass	V
17	7949	52.85	-41.3	53.93	-1.08	Pass	V
18	7774	52.45	-41.3	53.93	-1.48	Pass	V

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

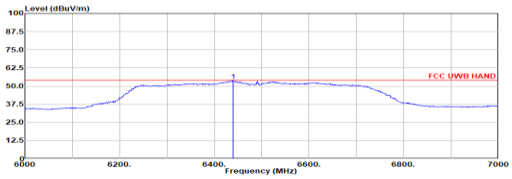
Mode 1




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Average
Channel       : 05
Modulation    : BPRF9
Config        : 0
STS Nums      : 0
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6443.00	53.48	53.93	-0.45	42.02	35.06	14.36	37.96	0.00	251	256	Average

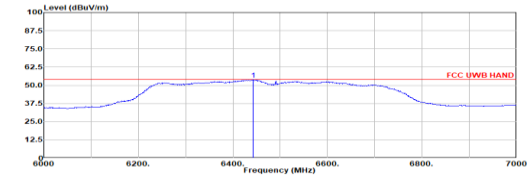
Mode 2




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Average
Channel       : 05
Modulation    : BPRF10
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6440.00	53.53	53.93	-0.40	42.09	35.04	14.36	37.96	0.00	249	239	Average

Mode 3

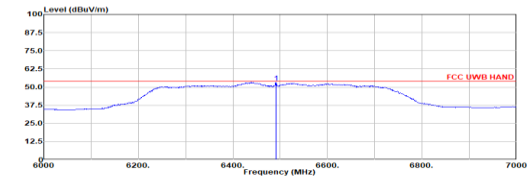



```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : 511001
Detector      : Average
Channel       : 05
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6442.00	53.83	53.93	-0.10	42.38	35.05	14.36	37.96	0.00	254	251	Average

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

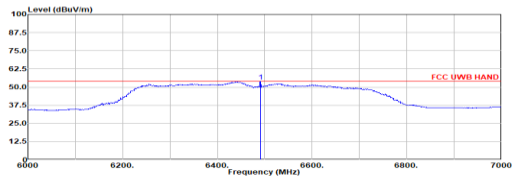
Mode 4




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 05
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6491.00	53.19	53.93	-0.74	41.48	35.26	14.41	37.96	0.00	250	244	Average

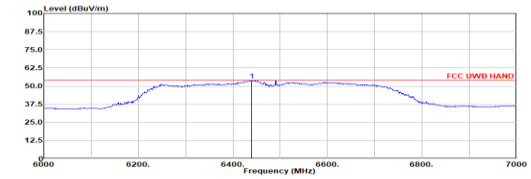
Mode 5




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 05
Modulation    : BPRF9
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6491.00	53.85	53.93	-0.08	42.14	35.26	14.41	37.96	0.00	251	261	Average

Mode 6

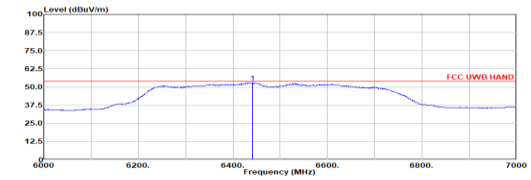



```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 HORIZONTAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 05
Modulation    : BPRF10
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x00
Calibration   : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6440.00	53.79	53.93	-0.14	42.35	35.04	14.36	37.96	0.00	251	240	Average

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

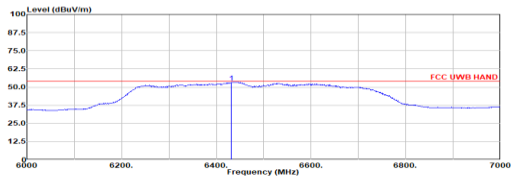
Mode 7




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 05
Modulation    : HPRF27
Config        : 0
STS Nums      : 0
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6441.00	53.19	53.93	-0.74	41.74	35.05	14.36	37.96	0.00	251	253	Average

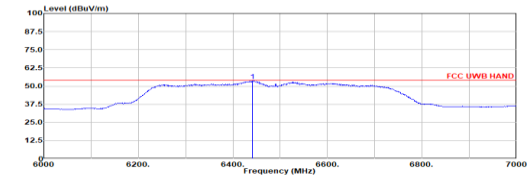
Mode 8




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 05
Modulation    : HPRF27
Config        : 1
STS Nums      : 1
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6432.00	53.39	53.93	-0.54	42.01	34.99	14.35	37.96	0.00	252	254	Average

Mode 9

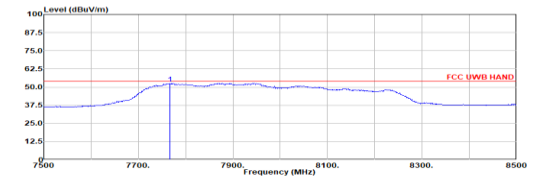



```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 05
Modulation    : HPRF27
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	6441.00	53.60	53.93	-0.33	42.15	35.05	14.36	37.96	0.00	251	250	Average

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

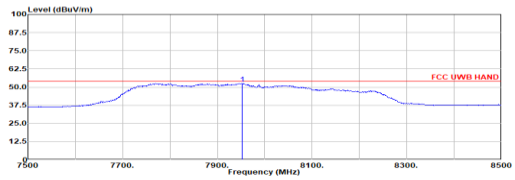
Mode 10




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : BPRF9
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7766.00	52.49	53.93	-1.44	38.84	36.70	15.79	38.84	0.00	100	238	Average

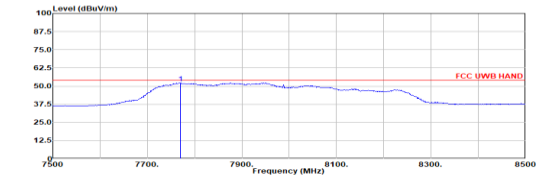
Mode 11




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : BPRF10
Config        : 0
STS Nums      : 0
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7952.00	52.50	53.93	-1.43	38.30	37.10	16.09	38.99	0.00	100	239	Average

Mode 12

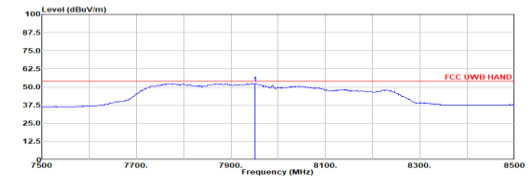



```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : BPRF9
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7770.00	52.12	53.93	-1.81	38.46	36.72	15.79	38.85	0.00	100	238	Average

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

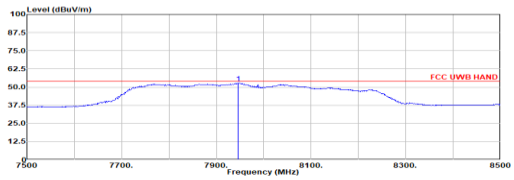
Mode 13




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : BPRF10
Config        : 1
STS Nums      : 1
Payload Length: 127
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7950.00	52.52	53.93	-1.41	38.33	37.10	16.08	38.99	0.00	100	238	Average

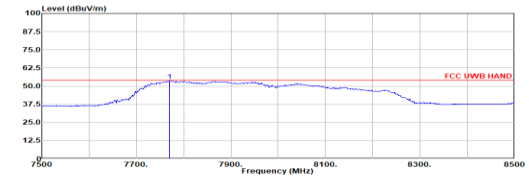
Mode 14




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : BPRF9
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7946.00	52.85	53.93	-1.08	38.66	37.10	16.08	38.99	0.00	100	239	Average

Mode 15

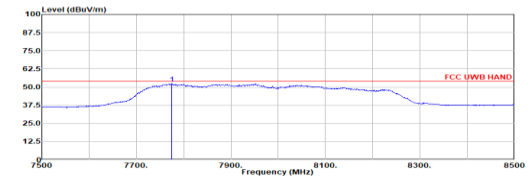



```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : BPRF10
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x00
Calibration   : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7770.00	53.72	53.93	-0.21	40.06	36.72	15.79	38.85	0.00	100	239	Average

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

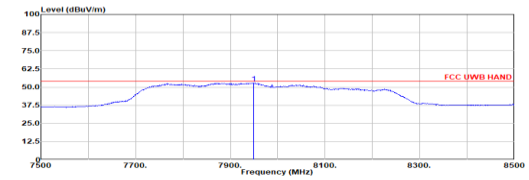
Mode 16




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : HPRF27
Config        : 0
STS Nums      : 0
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7774.00	52.32	53.93	-1.61	38.63	36.74	15.80	38.85	0.00	100	239	Average

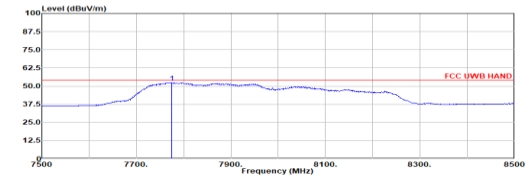
Mode 17




```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : HPRF27
Config        : 1
STS Nums      : 1
Payload Length: 255
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7949.00	52.85	53.93	-1.08	38.66	37.10	16.80	38.99	0.00	100	236	Average

Mode 18

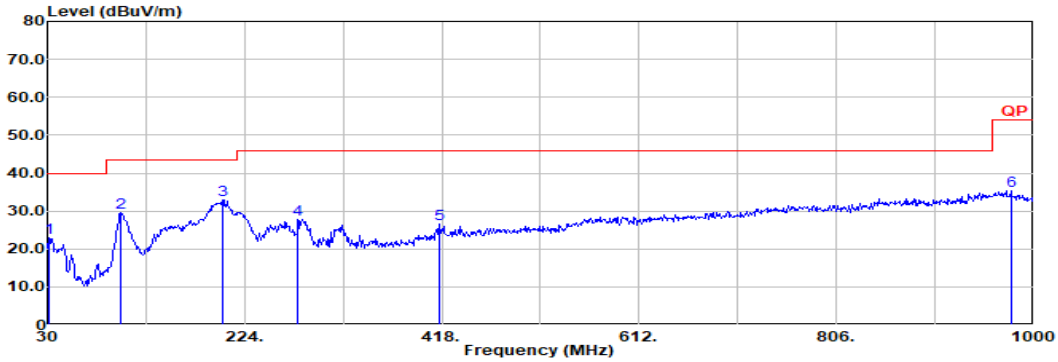



```
Site          : 03CH20-HY
Condition     : FCC UWB HAND 3m HF_9120D_02360_241101 VERTICAL
              : RBW:1000.000kHz VBW:3000.000kHz SWT:1.000sec
Project       : S11001
Detector      : Average
Channel       : 09
Modulation    : HPRF27
Config        : 3
STS Nums      : 1
Payload Length: 0
RMS Power     : 0x19
Adaptive      : 0x01
Calibration   : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	7774.00	52.45	53.93	-1.48	38.76	36.74	15.80	38.85	0.00	100	239	Average

3.5.7 Radiated Emissions (30MHz – 1GHz)

CH05 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 5	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

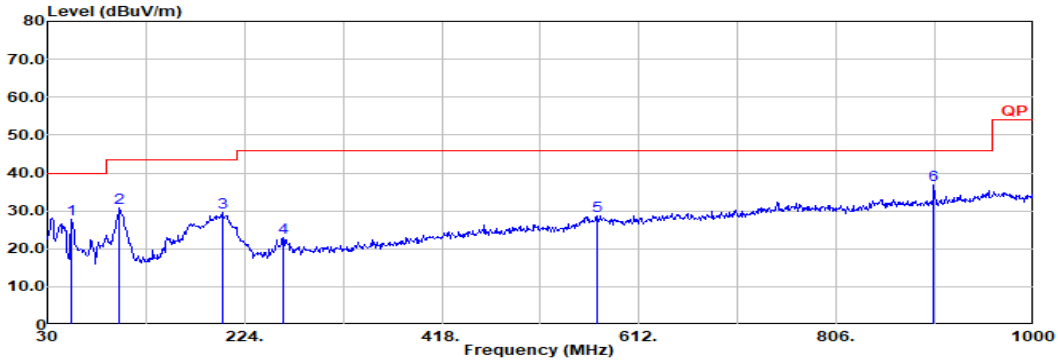



```
Site           : 03CH20-HY
Condition      : QP 3m Bilog_55606 & 08_241127 HORIZONTAL
               : RBW:120.000kHz VBW:300.000kHz SWT:1.000sec
Project        : 511001
Detector       : Peak
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	31.94	22.91	40.00	-17.09	33.87	23.56	0.99	35.75	0.24	--	--	Peak
2	101.78	29.53	43.50	-13.97	46.74	16.45	1.80	35.68	0.22	--	--	Peak
3	201.69	33.05	43.50	-10.45	50.72	15.11	2.53	35.51	0.20	--	--	Peak
4	276.38	27.83	46.00	-18.17	41.19	18.84	2.95	35.34	0.19	--	--	Peak
5	416.06	26.48	46.00	-19.52	35.29	22.40	3.61	34.97	0.15	--	--	Peak
6	977.69	35.25	54.00	-18.75	31.77	30.96	5.50	33.04	0.06	--	--	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: Peak emission setting: RBW=120kHz; VBW = 300kHz.

CH05 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 5	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m

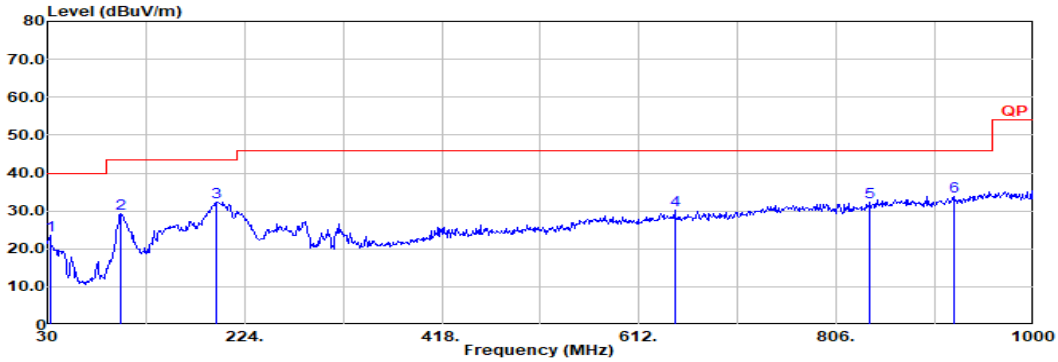



```
Site           : 03CH20-HY
Condition      : QP 3m Bilog_55606 & 08_241127 VERTICAL
               : RBW:120.000kHz VBW:300.000kHz SWT:1.000sec
Project        : 511001
Detector       : Peak
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	54.25	27.88	40.00	-12.12	49.08	13.00	1.30	35.73	0.23	--	--	Peak
2	100.81	30.87	43.50	-12.63	48.21	16.33	1.79	35.68	0.22	--	--	Peak
3	201.69	29.50	43.50	-14.00	47.17	15.11	2.53	35.51	0.20	--	--	Peak
4	261.83	22.82	46.00	-23.18	34.89	20.24	2.87	35.37	0.19	--	--	Peak
5	571.26	28.66	46.00	-17.34	32.63	26.24	4.23	34.55	0.11	--	--	Peak
6	902.03	36.96	46.00	-9.04	35.71	29.10	5.31	33.32	0.16	--	--	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: Peak emission setting: RBW=120kHz; VBW = 300kHz.

CH09 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 15	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

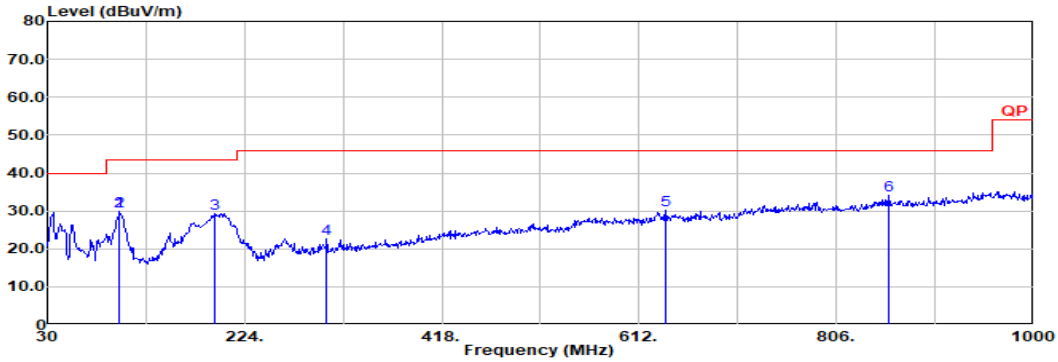



```
Site           : 03CH20-HY
Condition      : QP 3m Bilog_55606 & 08_241127 HORIZONTAL
               : RBW:120.000kHz VBW:300.000kHz SWT:1.000sec
Project        : 511001
Detector       : PEAK
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x18
Adaptive       : 0x00
Calibration    : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	32.91	23.62	40.00	-16.38	34.92	23.21	1.01	35.75	0.23	--	--	Peak
2	101.78	29.29	43.50	-14.21	46.50	16.45	1.80	35.68	0.22	--	--	Peak
3	195.87	32.41	43.50	-11.09	50.24	15.00	2.49	35.52	0.20	--	--	Peak
4	646.92	30.08	46.00	-15.92	33.21	26.50	4.50	34.28	0.15	--	--	Peak
5	838.98	32.23	46.00	-13.77	31.93	28.61	5.11	33.53	0.11	--	--	Peak
6	922.40	33.94	46.00	-12.06	32.16	29.54	5.36	33.25	0.13	--	--	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: Peak emission setting: RBW=120kHz; VBW = 300kHz.

CH09 Radiated Emissions (30MHz – 1GHz)			
Test Mode	Mode 15	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m



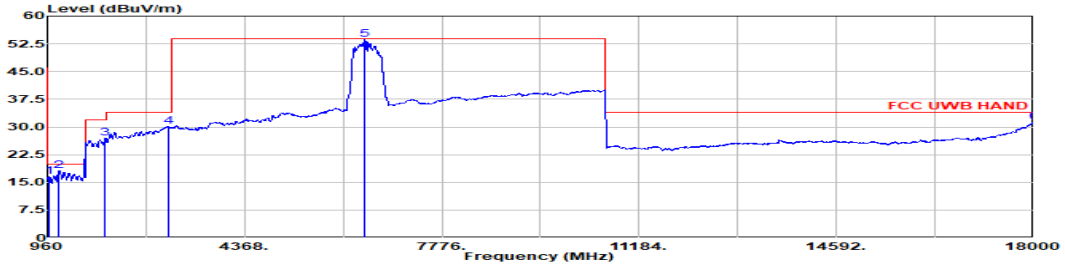

```
Site           : 03CH20-HY
Condition      : QP 3m Bilog_55606 & 08_241127 VERTICAL
               : RBW:120.000kHz VBW:300.000kHz SWT:1.000sec
Project        : 511001
Detector       : PEAK
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x18
Adaptive       : 0x00
Calibration    : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	100.81	29.79	43.50	-13.71	47.13	16.33	1.79	35.68	0.22	--	--	Peak
2	100.81	29.79	43.50	-13.71	47.13	16.33	1.79	35.68	0.22	--	--	Peak
3	194.90	29.39	43.50	-14.11	47.23	14.99	2.49	35.52	0.20	--	--	Peak
4	304.51	22.78	46.00	-23.22	35.41	19.35	3.09	35.26	0.19	--	--	Peak
5	638.19	30.10	46.00	-15.90	33.23	26.57	4.47	34.31	0.14	--	--	Peak
6	857.41	34.02	46.00	-11.98	33.05	29.15	5.17	33.46	0.11	--	--	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: Peak emission setting: RBW=120kHz; VBW = 300kHz.

3.5.8 Radiated Emissions (960MHz – 18GHz)

CH05 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 5	**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 HF_9120D_02360_241101 Horizontal
                : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project         : 511001
Detector        : Average
Channel         : 05
Modulation      : BPRF9
Config          : 3
STS Nums        : 1
Payload Length: 0
RMS Power       : 0x19
Adaptive        : 0x01
Calibration     : 0x00
```

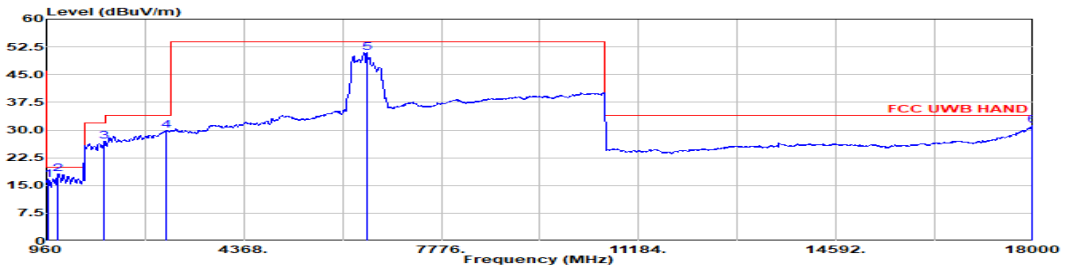
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	976.04	16.46	19.93	-3.47	28.49	31.08	5.50	33.05	-15.56	--	--	Average
2	1158.60	18.16	19.93	-1.77	31.37	25.99	5.99	35.65	-9.54	--	--	Average
3	1955.04	27.02	31.93	-4.91	29.21	26.15	7.78	36.12	0.00	--	--	Average
4	3042.28	30.20	33.93	-3.73	26.75	29.70	9.87	36.12	0.00	--	--	Average
5	6437.50	53.70	53.93	-0.23	42.29	35.02	14.35	37.96	0.00	--	--	Average
6	17992.60	31.33	33.93	-2.60	24.66	43.16	24.53	45.46	-15.56	--	--	Average

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: Aux Factor = Distance extrapolation factor)
  Example: Corrected Reading: 31.22 (dB/m) + 5.51 (dB) + 25.67 (dBuV) – 31.37 (dB) + 0.23 dB + (-15.56) (dB) = 15.70 (dBuV/m)

CH05 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 5	**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 HF_9120D_02360_241101 Vertical
                : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project         : 511001
Detector        : Average
Channel         : 05
Modulation      : BPRF9
Config          : 3
STS Nums        : 1
Payload Length: 0
RMS Power       : 0x19
Adaptive        : 0x01
Calibration     : 0x00
```

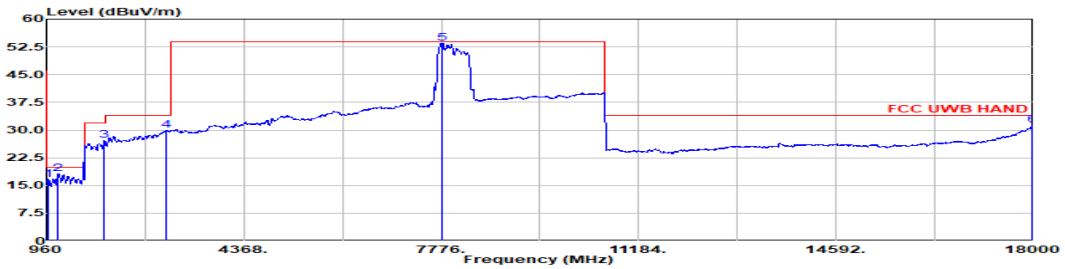
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	975.20	16.49	19.93	-3.44	28.51	31.09	5.50	33.05	-15.56	--	--	Average
2	1161.04	18.17	19.93	-1.76	31.37	26.00	5.99	35.65	-9.54	--	--	Average
3	1960.36	27.01	31.93	-4.92	29.24	26.10	7.79	36.12	0.00	--	--	Average
4	3022.30	29.90	33.93	-4.03	26.45	29.70	9.84	36.09	0.00	--	--	Average
5	6490.00	50.97	53.93	-2.96	39.26	35.26	14.41	37.96	0.00	--	--	Average
6	17985.20	31.34	33.93	-2.59	24.71	43.11	24.53	45.45	-15.56	--	--	Average

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: Aux Factor = Distance extrapolation factor)

CH09 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 15	**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.		



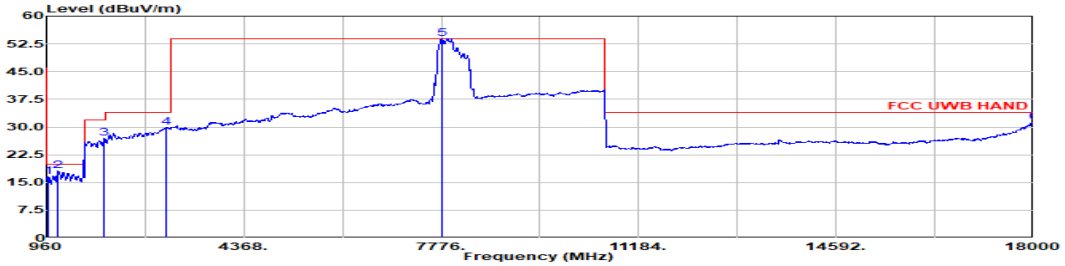

```
Site            : 03CH20-HY
Condition       : FCC UWB HAND 3m HF_9120D_02360_241101 Horizontal
                : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project         : 511001
Detector        : Average
Channel         : 09
Modulation      : BPRF10
Config          : 3
STS Nums        : 1
Payload Length: 0
RMS Power       : 0x18
Adaptive        : 0x00
Calibration     : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	976.04	16.43	19.93	-3.50	28.46	31.08	5.50	33.05	-15.56	--	--	Average
2	1161.04	18.17	19.93	-1.76	31.37	26.00	5.99	35.65	-9.54	--	--	Average
3	1952.38	27.09	31.93	-4.84	29.26	26.18	7.77	36.12	0.00	--	--	Average
4	3032.29	29.88	33.93	-4.05	26.42	29.70	9.86	36.10	0.00	--	--	Average
5	7780.00	53.47	53.93	-0.46	39.74	36.78	15.80	38.85	0.00	--	--	Average
6	17985.20	31.32	33.93	-2.61	24.69	43.11	24.53	45.45	-15.56	--	--	Average

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: Aux Factor = Distance extrapolation factor)

CH09 Radiated Emissions (960MHz – 18GHz)			
Test Mode	Mode 15	**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 HF_9120D_02360_241101 Vertical
                : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project         : 511001
Detector        : Average
Channel         : 09
Modulation      : BPRF10
Config          : 3
STS Nums        : 1
Payload Length: 0
RMS Power       : 0x18
Adaptive        : 0x00
Calibration     : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	975.84	16.44	19.93	-3.49	28.47	31.08	5.50	33.05	-15.56	--	--	Average
2	1159.21	18.15	19.93	-1.78	31.36	25.99	5.99	35.65	-9.54	--	--	Average
3	1954.66	26.99	31.93	-4.94	29.18	26.15	7.78	36.12	0.00	--	--	Average
4	3034.51	29.92	33.93	-4.01	26.46	29.70	9.86	36.10	0.00	--	--	Average
5	7787.50	53.84	53.93	-0.09	40.06	36.83	15.81	38.86	0.00	--	--	Average
6	17992.60	31.19	33.93	-2.74	24.52	43.16	24.53	45.46	-15.56	--	--	Average

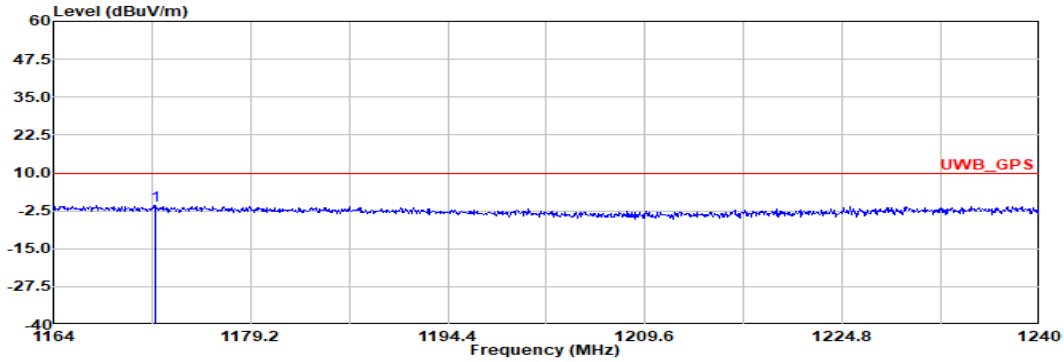
Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission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

3.5.9 Radiated Emissions (1164MHz – 1240MHz)

CH05 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 5	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

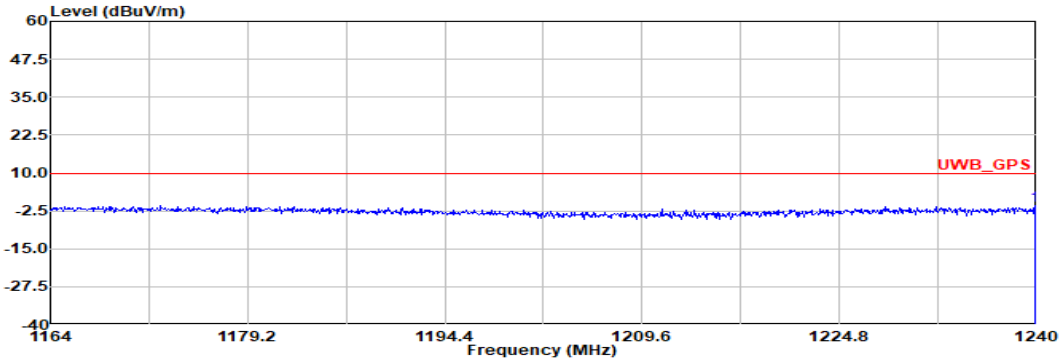



```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Horizontal
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1171.90	-0.62	9.93	-10.55	2.98	26.04	6.02	35.66	0.00	100	0	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 Limit (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH05 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 5	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m

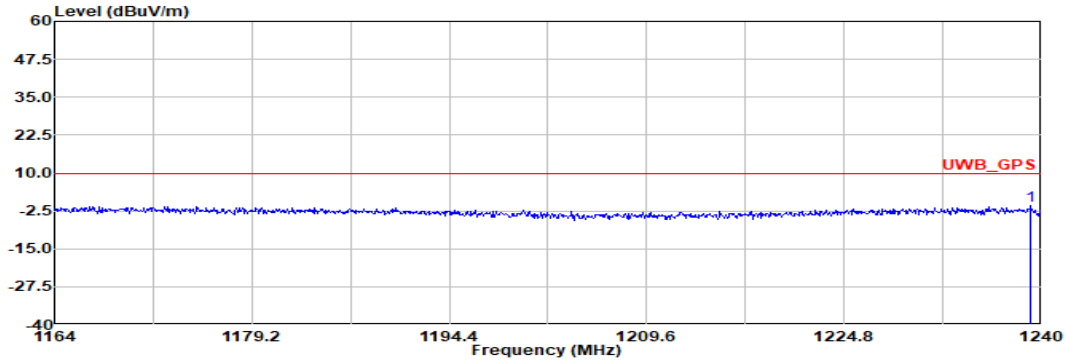



```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Vertical
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1239.85	-0.62	9.93	-10.55	2.97	25.90	6.20	35.69	0.00	100	0	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 Limit (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH09 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 15	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

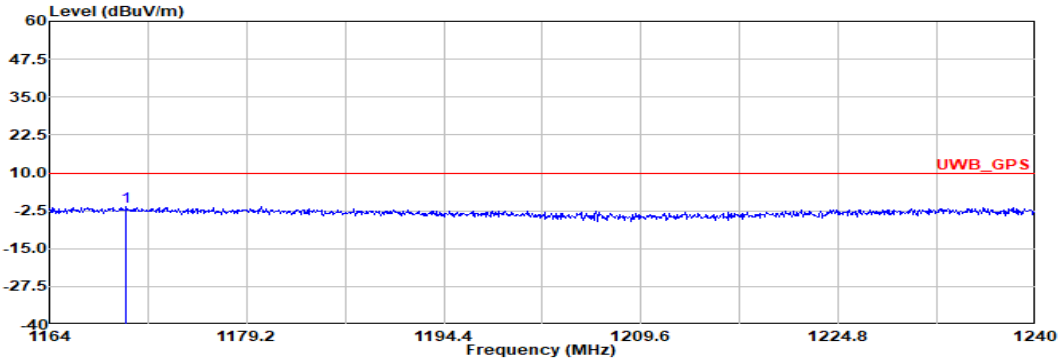



```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Horizontal
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1239.16	-0.93	9.93	-10.86	2.65	25.92	6.19	35.69	0.00	100	0	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 Limit (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH09 Radiated Emissions (1164MHz – 1240MHz)			
Test Mode	Mode 15	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m



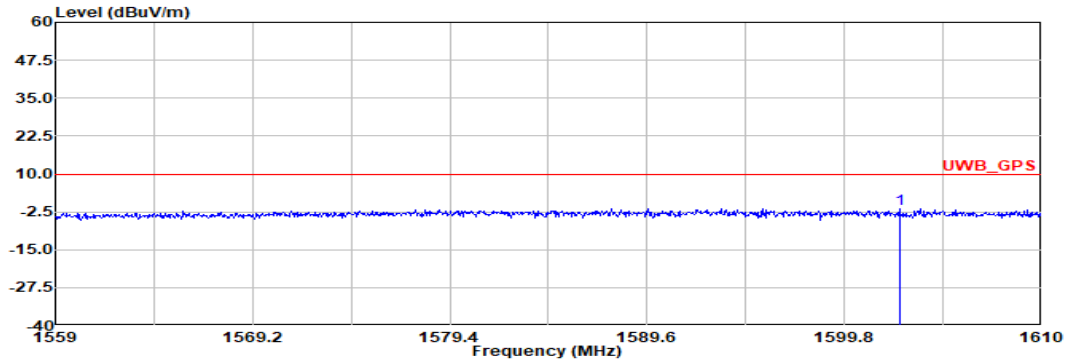

```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Vertical
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1169.93	-1.13	9.93	-11.06	2.50	26.00	6.02	35.65	0.00	100	0	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 Limit (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 5	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

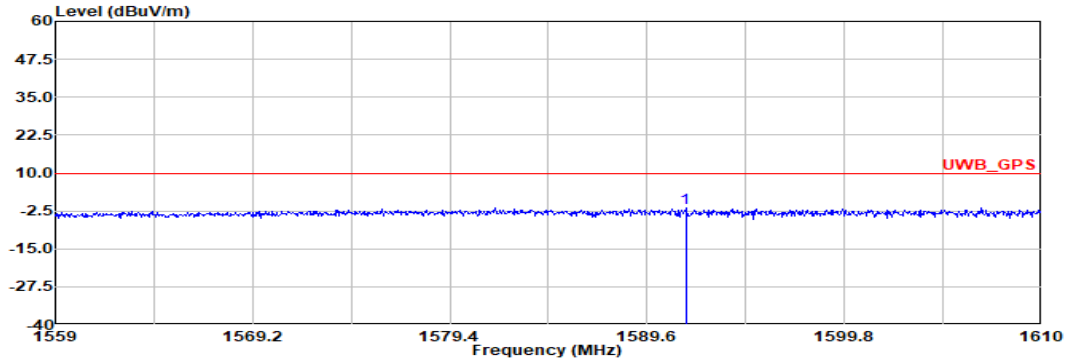



```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Horizontal
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1602.66	-1.40	9.93	-11.33	2.20	25.23	7.04	35.87	0.00	100	0	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 Limit (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH05 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 5	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m

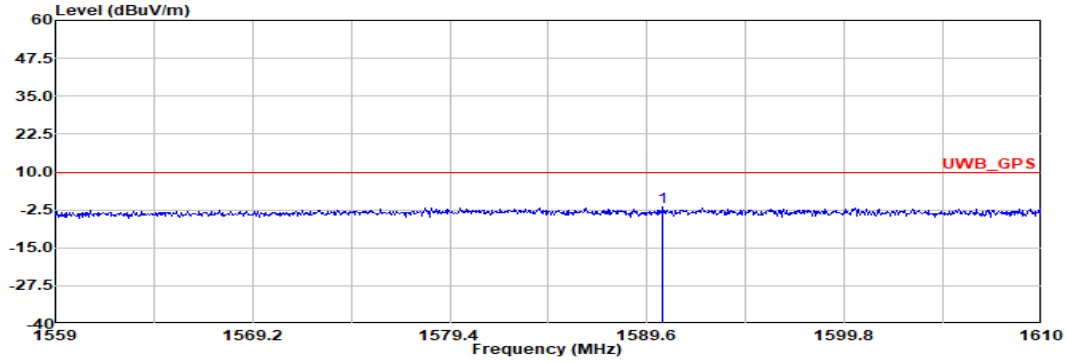



```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Vertical
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1591.59	-1.42	9.93	-11.35	2.06	25.37	7.01	35.86	0.00	100	0	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 Limit (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH09 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 15	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	3m

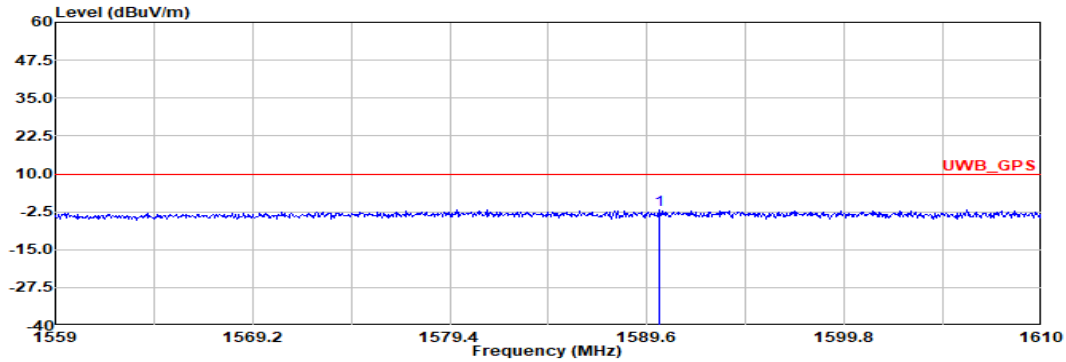



```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Horizontal
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1590.42	-1.69	9.93	-11.62	1.77	25.39	7.01	35.86	0.00	100	0	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 Limit (dBm) + 95.23. E(dBuV/m) = -85.3 + 95.23 = 9.93dBuV/m.

CH09 Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Mode 15	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	3m



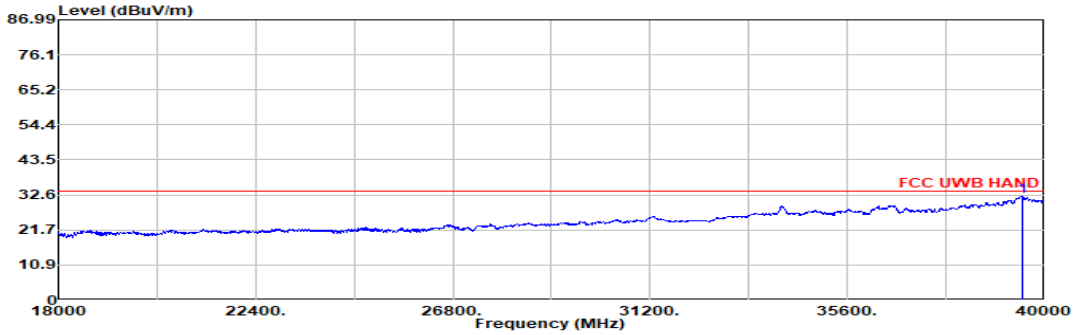

```
Site           : 03CH20-HY
Condition      : UWB_GPS 3m HF_9120D_02360_241101 Vertical
               : RBW:1.000kHz VBW:3.000kHz SWT:40.000sec
Project        : 511001
Detector       : Peak
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1590.26	-1.85	9.93	-11.78	1.61	25.39	7.01	35.86	0.00	100	0	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 Limit (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 5	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	0.5m




```
Site           : 03CH20-HY
Condition      : FCC UWB HAND 1m BBHA9170_1224_240624 Horizontal
               : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project        : 511001
Detector       : Average
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	39496.00	32.27	33.93	-1.66	49.08	45.76	9.19	56.20	-15.56	--	--	Average

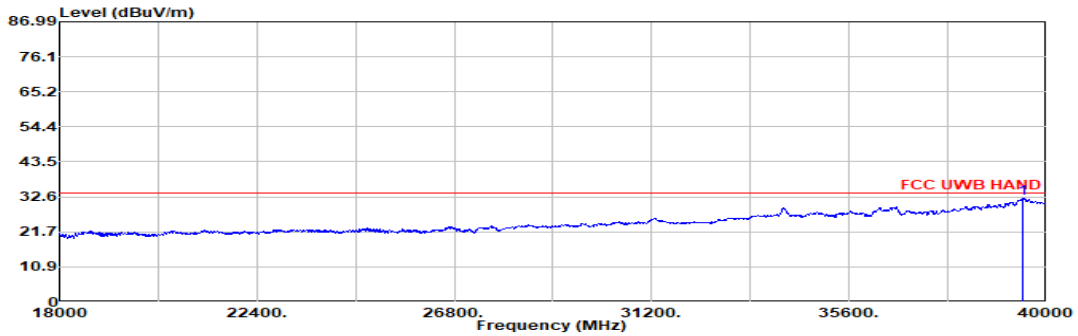
Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: Average emission 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 Factor (dB) = Level (dBuV/m)
  (Note: Aux Factor = Distance extrapolation factor)

CH05 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 5	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	0.5m




```
Site           : 03CH20-HY
Condition      : FCC UWB HAND 1m BBHA9170_1224_240624 Vertical
               : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project        : 511001
Detector       : Average
Channel        : 05
Modulation     : BPRF9
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x19
Adaptive       : 0x01
Calibration    : 0x00
```

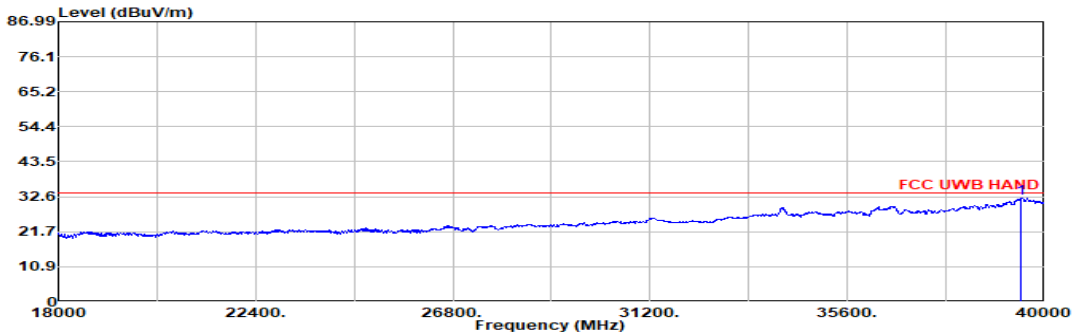
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	39454.00	32.30	33.93	-1.63	49.66	45.34	9.09	56.23	-15.56	--	--	Average

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 Factor (dB) = Level (dBuV/m)
  (Note: Aux Factor = Distance extrapolation factor)

CH09 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 15	**Polarization**	H
Operating Function	Adapter Mode	**Test Distance**	0.5m




```
Site           : 03CH20-HY
Condition      : FCC UWB HAND 1m BBHA9170_1224_240624 Horizontal
               : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project        : 511001
Detector       : Average
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x18
Adaptive       : 0x00
Calibration    : 0x01
```

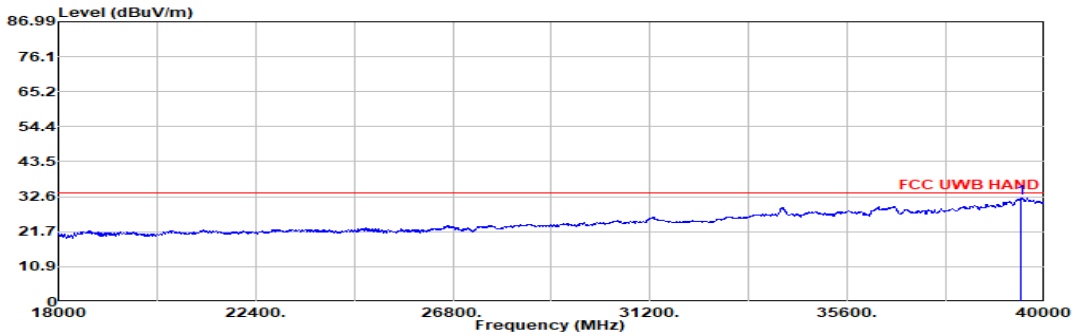
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	39454.00	32.28	33.93	-1.65	49.64	45.34	9.09	56.23	-15.56	--	--	Average

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 Factor (dB) = Level (dBuV/m)
  (Note: Aux Factor = Distance extrapolation factor)

CH09 Radiated Emissions (18GHz – 40GHz)			
Test Mode	Mode 15	**Polarization**	V
Operating Function	Adapter Mode	**Test Distance**	0.5m




```
Site           : 03CH20-HY
Condition      : FCC UWB HAND 1m BBHA9170_1224_240624 Vertical
               : RBW:1000.000kHz VBW:3000.000kHz SWT:18.000sec
Project        : 511001
Detector       : Average
Channel        : 09
Modulation     : BPRF10
Config         : 3
STS Nums       : 1
Payload Length: 0
RMS Power      : 0x18
Adaptive       : 0x00
Calibration    : 0x01
```

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	39468.00	32.25	33.93	-1.68	49.42	45.48	9.13	56.22	-15.56	--	--	Average

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 Factor (dB) = Level (dBuV/m)
  (Note: Aux Factor = Distance extrapolation factor)

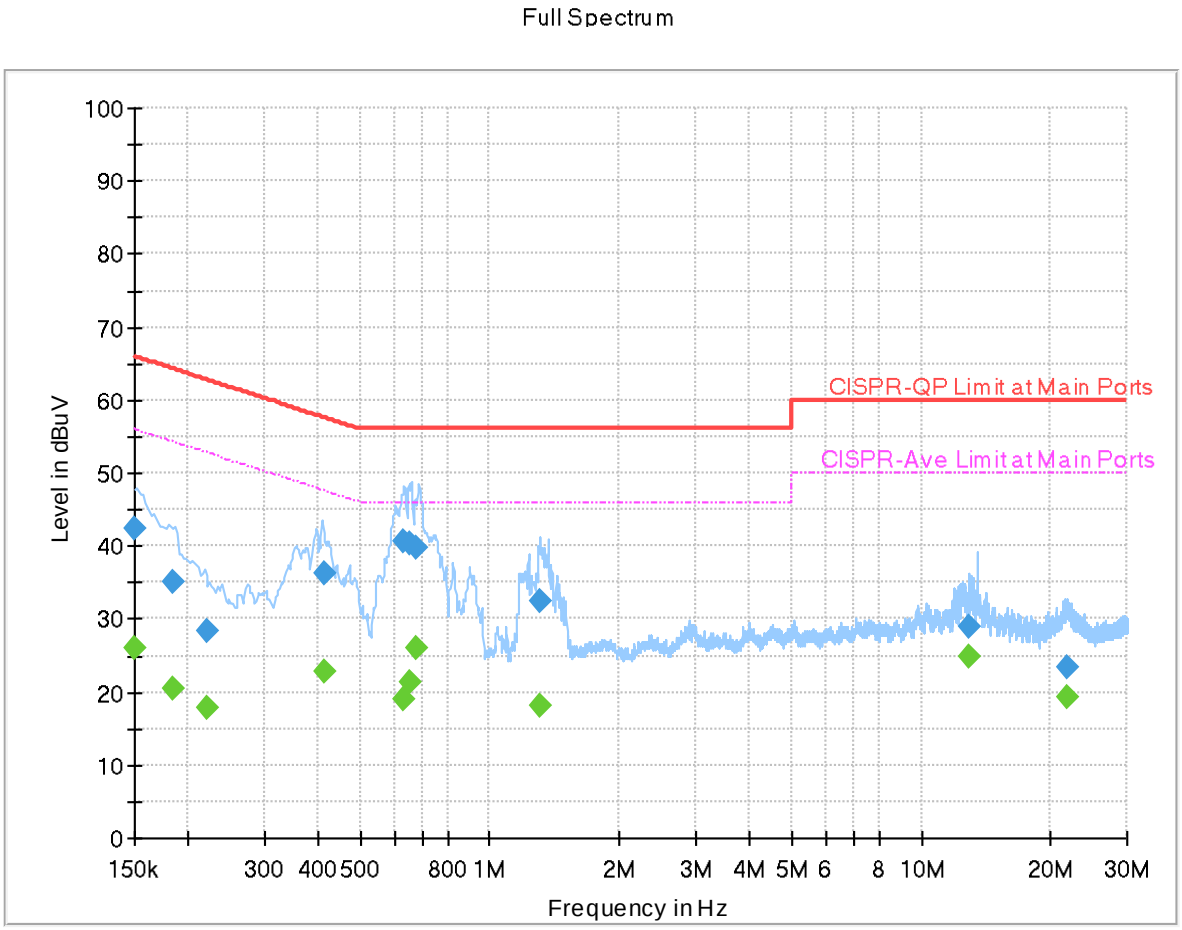
4 Test Equipment and Calibration Data

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	N/A	Oct. 16, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Oct. 15, 2025	Radiation (03CH20-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Aug. 28, 2025	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 27, 2024	Mar 19, 2025 ~ Mar. 25, 2025	May 26, 2025	Radiation (03CH20-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar 19, 2025 ~ Mar. 25, 2025	N/A	Radiation (03CH20-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar 19, 2025 ~ Mar. 25, 2025	N/A	Radiation (03CH20-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar 19, 2025 ~ Mar. 25, 2025	N/A	Radiation (03CH20-HY)
Signal Analyzer	Keysight	N9010B	MY60240520	N/A	Dec. 09, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Dec. 08, 2025	Radiation (03CH20-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802N1 D01N-06	55606 & 08	30MHz~1GHz	Nov. 27, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Nov. 26, 2025	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	02360	1GHz-18GHz	Nov. 01, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Oct. 31 , 2025	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1224	18GHz-40GHz	Jun. 24, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Jun. 23, 2025	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Dec. 31, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Dec. 30, 2025	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45SE	980792	N/A	Nov. 12, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Nov. 11, 2025	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,804015/2,804027/2	N/A	Jan. 16, 2025	Mar 19, 2025 ~ Mar. 25, 2025	Jan. 15, 2026	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303A	TP211382	N/A	Mar. 27, 2024	Mar 19, 2025 ~ Mar. 25, 2025	Mar. 26, 2025	Radiation (03CH20-HY)
Software	Audix	N/A	RK-002156	N/A	N/A	Mar 19, 2025 ~ Mar. 25, 2025	N/A	Radiation (03CH20-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Mar. 29, 2025	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 29, 2025	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Oct. 23, 2024	Mar. 29, 2025	Oct. 22, 2025	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Mar. 03, 2025	Mar. 29, 2025	Mar. 02, 2026	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Mar. 24, 2025	Mar. 29, 2025	Mar. 23, 2026	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 23, 2024	Mar. 29, 2025	Sep. 22, 2025	Conduction (CO07-HY)

Appendix A. AC Conducted Emission Test Results

EUT Information

Report NO :	511001
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line



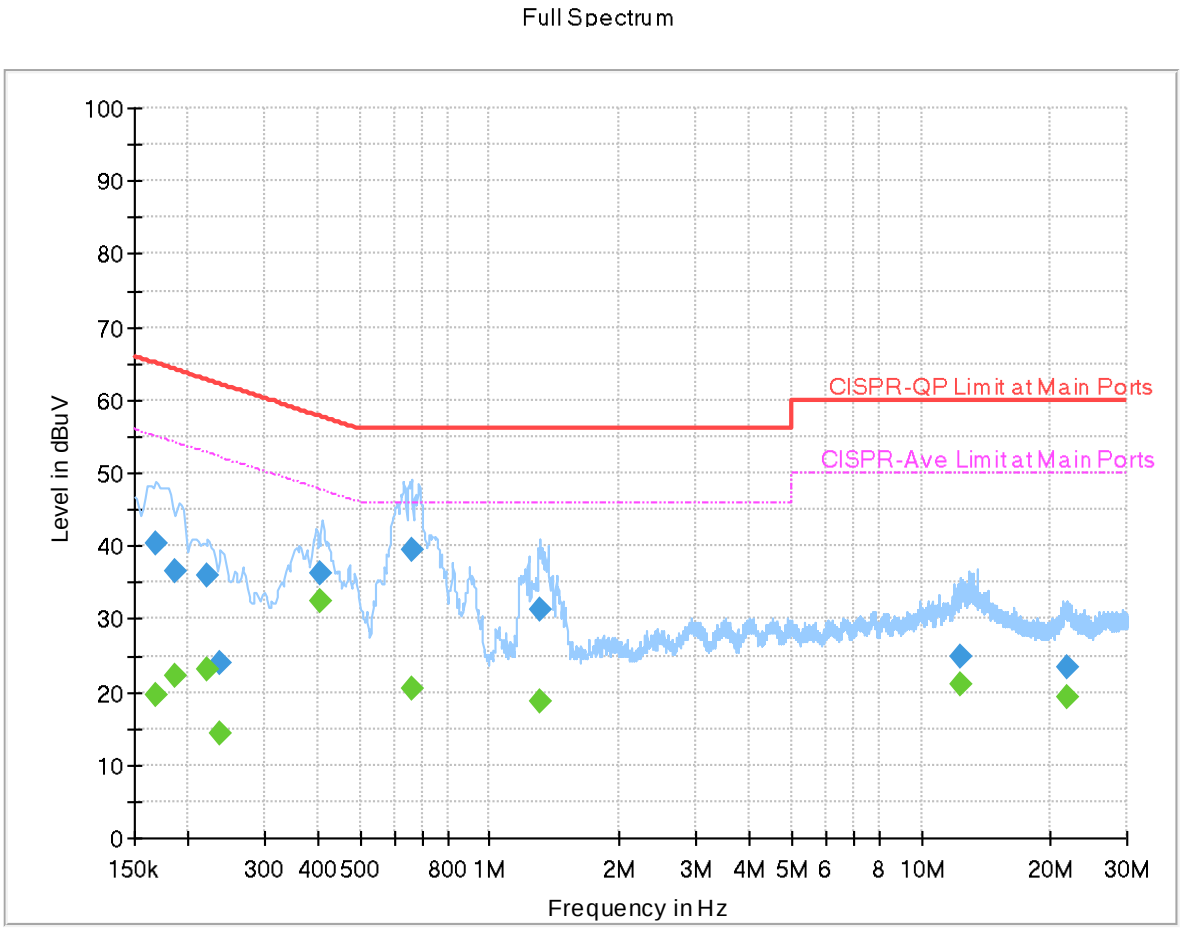
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	PE	Corr. (dB)
0.150000	---	25.93	56.00	30.07	L1	FLO	20.0
0.150000	42.31	---	66.00	23.69	L1	FLO	20.0
0.184650	---	20.44	54.27	33.83	L1	FLO	20.0
0.184650	35.10	---	64.27	29.17	L1	FLO	20.0
0.222000	---	17.94	52.74	34.80	L1	FLO	20.0
0.222000	28.31	---	62.74	34.43	L1	FLO	20.0
0.413160	---	22.69	47.59	24.90	L1	FLO	20.0
0.413160	36.29	---	57.59	21.30	L1	FLO	20.0
0.632670	---	19.15	46.00	26.85	L1	FLO	20.0
0.632670	40.63	---	56.00	15.37	L1	FLO	20.0
0.654000	---	21.28	46.00	24.72	L1	FLO	20.0
0.654000	40.40	---	56.00	15.60	L1	FLO	20.0
0.678750	---	26.13	46.00	19.87	L1	FLO	20.0
0.678750	39.70	---	56.00	16.30	L1	FLO	20.0
1.311000	---	18.03	46.00	27.97	L1	FLO	20.0
1.311000	32.43	---	56.00	23.57	L1	FLO	20.0
12.970500	---	24.82	50.00	25.18	L1	FLO	20.5
12.970500	28.95	---	60.00	31.05	L1	FLO	20.5
21.750000	---	19.21	50.00	30.79	L1	FLO	20.9

21.750000	**23.44**	**---**	**60.00**	**36.56**	**L1**	**FLO**	**20.9**

EUT Information

Report NO :	511001
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	PE	Corr. (dB)
0.168990	---	19.63	55.01	35.38	N	FLO	20.0
0.168990	40.21	---	65.01	24.80	N	FLO	20.0
0.186000	---	22.32	54.21	31.89	N	FLO	20.0
0.186000	36.63	---	64.21	27.58	N	FLO	20.0
0.221820	---	23.21	52.75	29.54	N	FLO	20.0
0.221820	35.99	---	62.75	26.76	N	FLO	20.0
0.237750	---	14.44	52.17	37.73	N	FLO	20.0
0.237750	23.98	---	62.17	38.19	N	FLO	20.0
0.405780	---	32.38	47.73	15.35	N	FLO	20.0
0.405780	36.40	---	57.73	21.33	N	FLO	20.0
0.663000	---	20.57	46.00	25.43	N	FLO	20.0
0.663000	39.34	---	56.00	16.66	N	FLO	20.0
1.303080	---	18.63	46.00	27.37	N	FLO	20.0
1.303080	31.43	---	56.00	24.57	N	FLO	20.0
12.342390	---	21.03	50.00	28.97	N	FLO	20.5
12.342390	24.87	---	60.00	35.13	N	FLO	20.5
21.760350	---	19.21	50.00	30.79	N	FLO	20.9
21.760350	23.50	---	60.00	36.50	N	FLO	20.9

————THE END————