



FCC RADIO TEST REPORT

FCC ID : A4RGWSQ2
Equipment : Wireless Device
Model Name : GWSQ2
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, CA, 94043 USA
Standard : 47 CFR FCC Part 15.519

The product was received on Feb. 18, 2025, and testing was performed from Mar. 04, 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.)



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History of this test report

Report No.	Version	Description	Issue Date
FR4D1913J	01	Initial issue of report	Apr. 09, 2025
FR4D1913J	02	Revise Section 3.5 This report is an updated version, replacing the report issued on Apr. 09, 2025.	Apr. 16, 2025
FR4D1913J	03	Revise Section 3.2, 3.4 and 3.5 This report is an updated version, replacing the report issued on Apr. 16, 2025.	Apr. 17, 2025
FR4D1913J	04	Revise Section 3.2 and 3.4 This report is an updated version, replacing the report issued on Apr. 17, 2025.	Apr. 17, 2025
FR4D1913J	05	Revise Section 3.5 This report is an updated version, replacing the report issued on Apr. 17, 2025.	Apr. 18, 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/manufacture 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: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
General Specs LTE/NTN, 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
51151WRCVL11SA	Equivalent Isotropic Radiated Power
	Radiated Spurious Emission
51151WRCVL11SP	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	19~19.7 °C 64.9~69.6 %	Mar. 04, 2025~ Mar. 06, 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

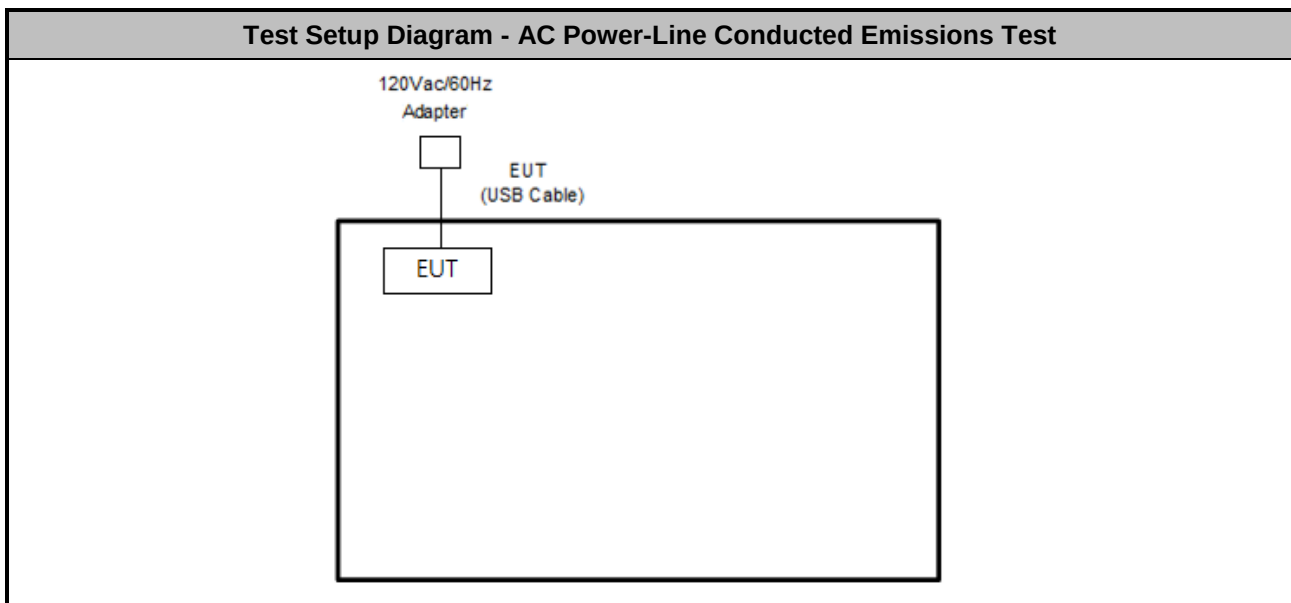
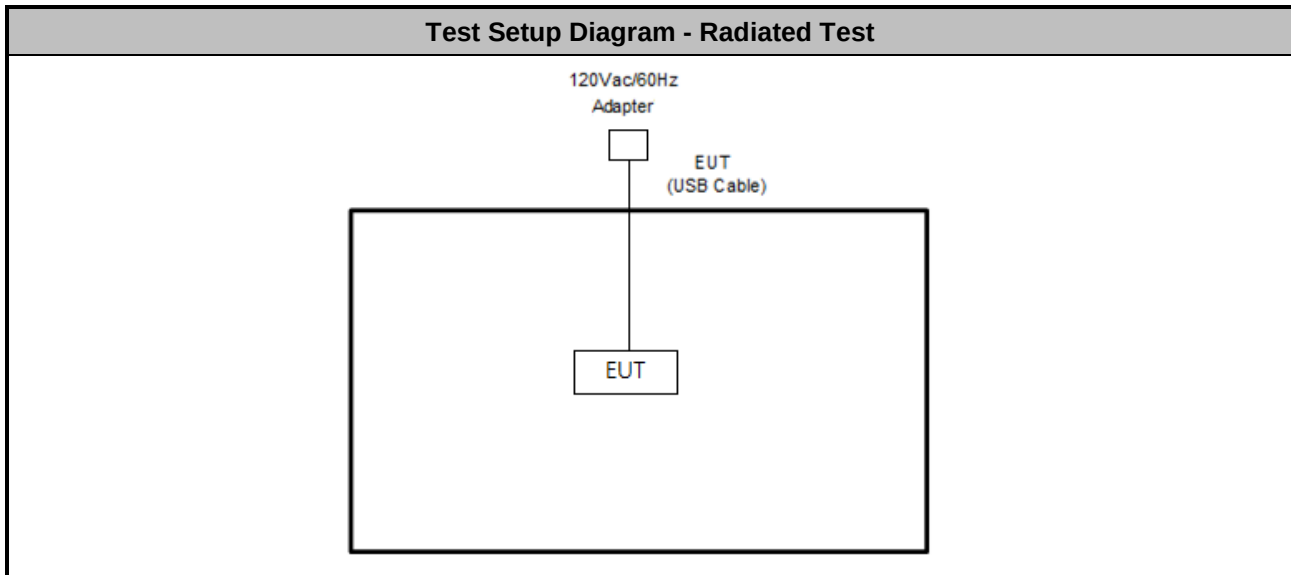
Test Configuration					
Config	Channel	Modulation	Config	STS Nums	Payload Length (bytes)
Mode 1	5	BPRF9	0	0	127
Mode 2	5	BPRF10	0	0	127
Mode 3	5	BPRF9	1	1	127
Mode 4	5	BPRF10	1	1	127
Mode 5	5	BPRF9	3	1	0
Mode 6	5	BPRF10	3	1	0
Mode 7	5	HPRF27	0	0	255
Mode 8	5	HPRF27	1	1	255
Mode 9	5	HPRF27	3	1	0
Mode 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



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.

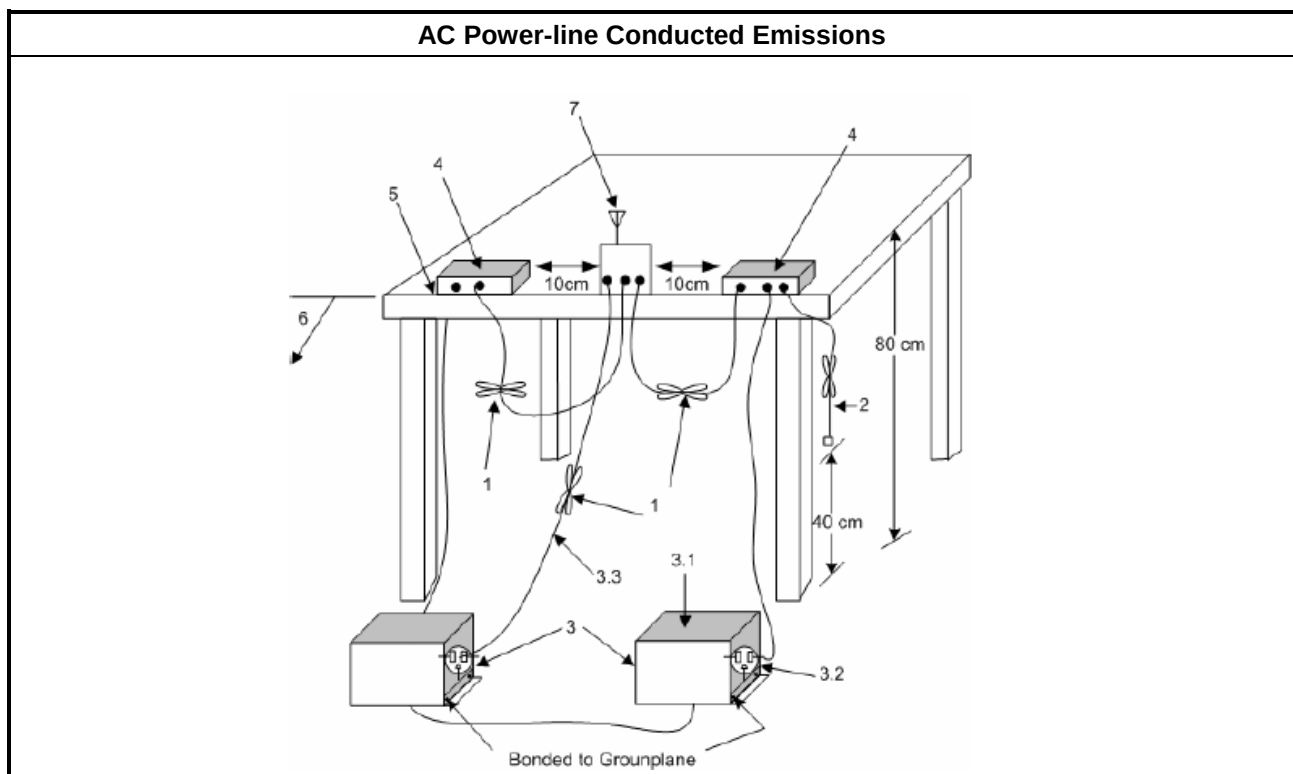
3.1.2 Measuring Instruments

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



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 = $2(f_H - f_L) / (f_H + f_L)$

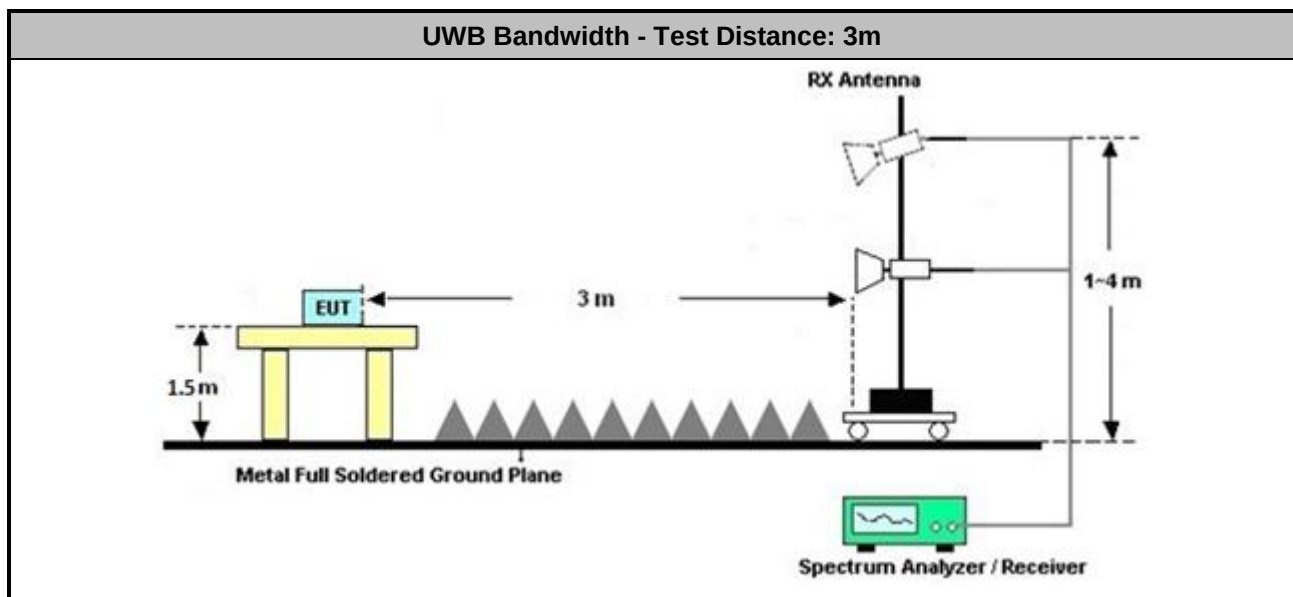
3.2.2 Measuring Instruments

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



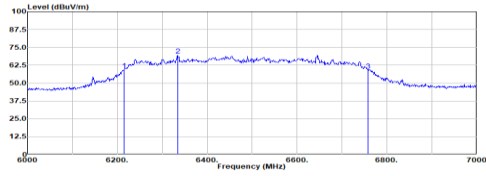
3.2.5 Test Result of UWB Bandwidth

Test mode	F _L (MHz)	F _H (MHz)	UWB Bandwidth (MHz)	Bandwidth limit (MHz)	Result	Pol [H/V]
1	6215	6758	543	≥ 500	Pass	H
2	6230	6736	506	≥ 500	Pass	H
3	6210	6764	554	≥ 500	Pass	H
4	6231	6748	517	≥ 500	Pass	H
5	6211	6762	551	≥ 500	Pass	H
6	6198	6781	583	≥ 500	Pass	H
7	6215	6762	547	≥ 500	Pass	H
8	6219	6759	540	≥ 500	Pass	H
9	6215	6761	546	≥ 500	Pass	H
10	7729	8264	535	≥ 500	Pass	H
11	7742	8247	505	≥ 500	Pass	H
12	7719	8266	547	≥ 500	Pass	H
13	7729	8256	527	≥ 500	Pass	H
14	7703	8272	569	≥ 500	Pass	H
15	7698	8282	584	≥ 500	Pass	H
16	7729	8270	541	≥ 500	Pass	H
17	7718	8259	541	≥ 500	Pass	H
18	7714	8266	552	≥ 500	Pass	H



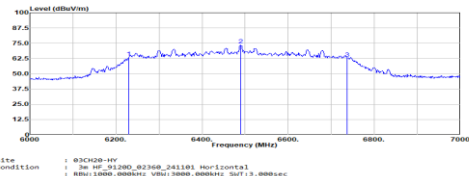
UWB Bandwidth

Mode 1



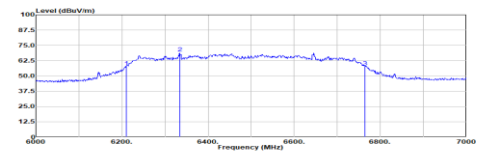
Site	: 03CH20-HY									
Condition	: 3m HF_91280_82360_241101 Horizontal									
Project	: RBU1000_0000Hz_V01:3000_0000Hz_S07:3.000sec									
Detect	: AD1913									
Channel	: 05									
Modulation	: BPSK16									
Config	: 0									
STS Name	: 0									
Payload Length	: 127									
RIS Power	: 0x18									
Adaptive	: 0x01									
Calibration	: 0x00									
Limit	Level	Line Margin	Read Level	Ant Level	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6215.00	59.12	-----	48.63	34.33	14.10	37.94	0.00	251	250 Peak
2	6334.00	60.42	-----	58.57	34.57	14.23	37.95	0.00	251	250 Peak
3	6758.00	58.91	-----	46.30	35.98	14.72	38.09	0.00	251	250 Peak

Mode 2



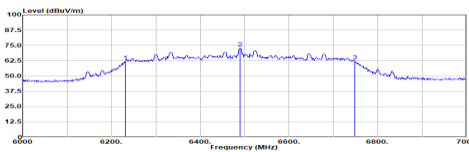
Site	: 03CH20-HY									
Condition	: 3m HF_91280_82360_241101 Horizontal									
Project	: RBU1000_0000Hz_V01:3000_0000Hz_S07:3.000sec									
Detect	: AD1913									
Channel	: 05									
Modulation	: BPSK16									
Config	: 0									
STS Name	: 0									
Payload Length	: 127									
RIS Power	: 0x18									
Adaptive	: 0x01									
Calibration	: 0x00									
Limit	Level	Line Margin	Read Level	Ant Level	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6215.00	63.36	-----	52.83	34.36	14.11	37.94	0.00	249	251 Peak
2	6490.00	73.79	-----	62.04	35.28	14.43	37.96	0.00	249	251 Peak
3	6730.00	62.63	-----	49.98	36.03	14.79	38.00	0.00	249	251 Peak

Mode 3

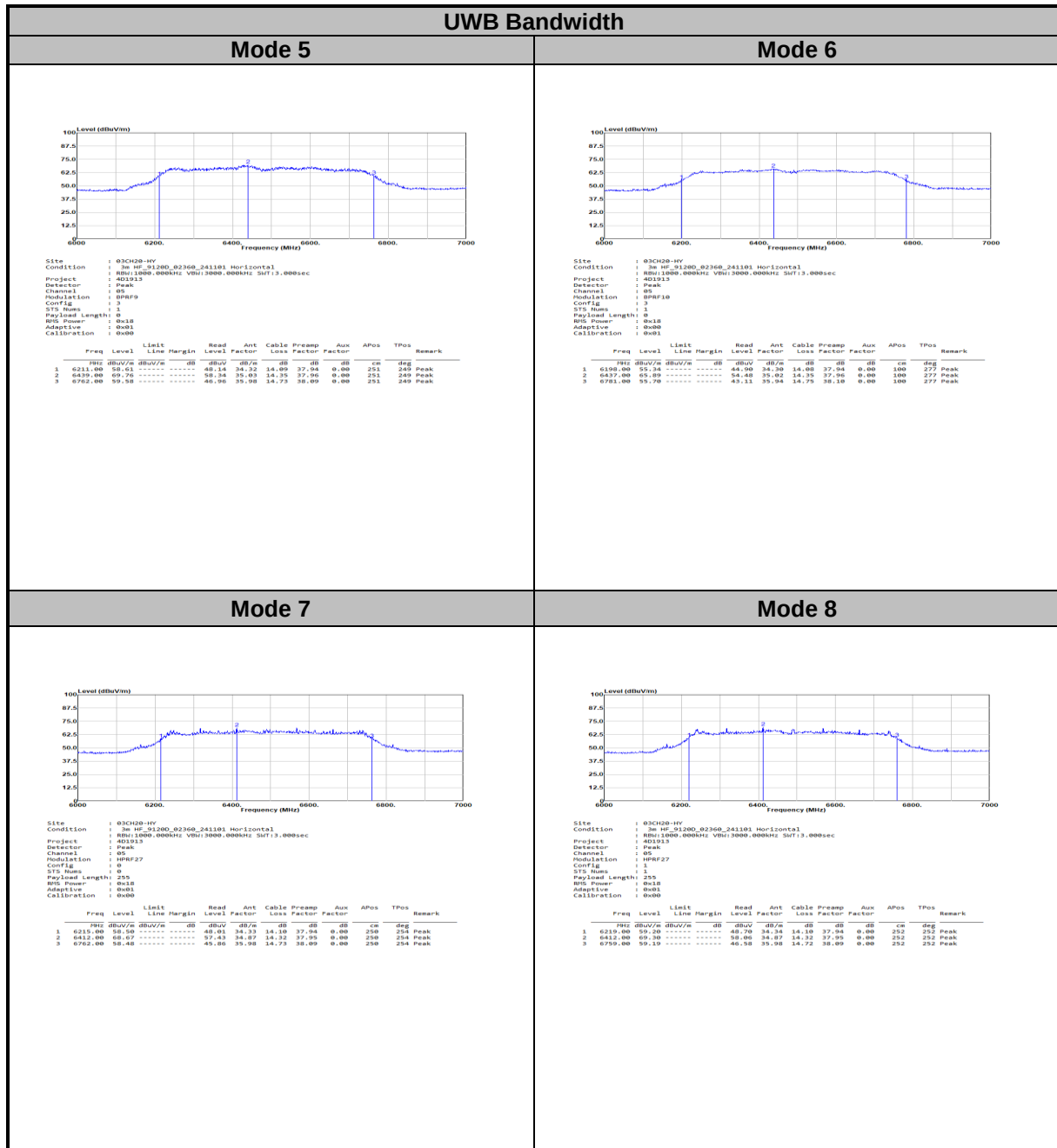


Site	: 03CH20-HY									
Condition	: 3m HF_91280_82360_241101 Horizontal									
Project	: RBU1000_0000Hz_V01:3000_0000Hz_S07:3.000sec									
Detect	: AD1913									
Channel	: 05									
Modulation	: BPSK16									
Config	: 0									
STS Name	: 1									
Payload Length	: 127									
RIS Power	: 0x18									
Adaptive	: 0x01									
Calibration	: 0x00									
Limit	Level	Line Margin	Read Level	Ant Level	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6215.00	57.48	-----	47.05	34.32	14.09	37.94	0.00	254	251 Peak
2	6334.00	60.72	-----	57.87	34.57	14.23	37.95	0.00	254	251 Peak
3	6760.00	57.18	-----	44.37	35.97	14.71	38.09	0.00	254	251 Peak

Mode 4



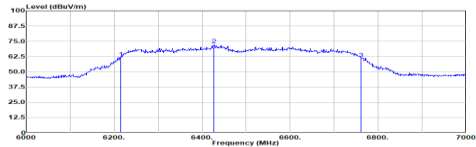
Site	: 03CH20-HY									
Condition	: 3m HF_91280_82360_241101 Horizontal									
Project	: RBU1000_0000Hz_V01:3000_0000Hz_S07:3.000sec									
Detect	: AD1913									
Channel	: 05									
Modulation	: BPSK16									
Config	: 1									
STS Name	: 1									
Payload Length	: 127									
RIS Power	: 0x18									
Adaptive	: 0x01									
Calibration	: 0x00									
Limit	Level	Line Margin	Read Level	Ant Level	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6231.00	61.93	-----	51.37	34.36	14.12	37.94	0.00	245	254 Peak
2	6490.00	72.80	-----	61.09	35.28	14.41	37.96	0.00	245	254 Peak
3	6740.00	62.14	-----	49.51	36.00	14.71	38.00	0.00	245	254 Peak





UWB Bandwidth

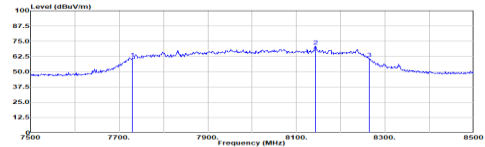
Mode 9



Site : 03CH20-HY
Condition : 3m HF_91280_02360_241101 Horizontal
Project : RNU1000-0000Hz_V01.3000-0000Hz_SuT1.3.000sec
Detector : A01913
Channel : 00
Modulation : BPSK27
Config : 1
SIS Name : 0
Payload Length : 127
RMS Power : 0.00
Adaptive : 0x00
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6215.00	61.47	-----	58.98	34.33	14.10	37.94	0.00	251	249	Peak
2	6427.00	71.96	-----	68.62	34.90	14.34	37.96	0.00	251	249	Peak
3	6761.00	69.67	-----	48.05	35.98	14.73	38.09	0.00	251	249	Peak

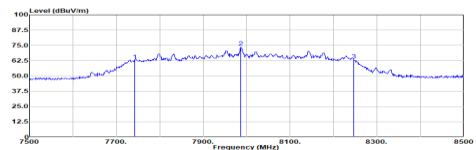
Mode 10



Site : 03CH20-HY
Condition : 3m HF_91280_02360_241101 Horizontal
Project : RNU1000-0000Hz_V01.3000-0000Hz_SuT1.3.000sec
Detector : A01913
Channel : 00
Modulation : BPSK9
Config : 0
SIS Name : 0
Payload Length : 127
RMS Power : 0.00
Adaptive : 0x00
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	7725.00	68.61	-----	47.26	36.68	15.76	38.81	0.00	234	245	Peak
2	8143.00	70.04	-----	56.92	36.93	15.26	39.17	0.00	234	245	Peak
3	8264.00	69.73	-----	46.55	37.13	16.33	39.28	0.00	234	245	Peak

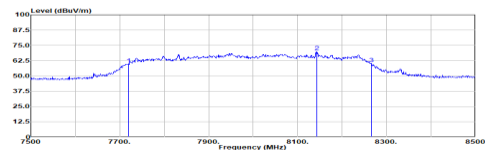
Mode 11



Site : 03CH20-HY
Condition : 3m HF_91280_02360_241101 Horizontal
Project : RNU1000-0000Hz_V01.3000-0000Hz_SuT1.3.000sec
Detector : A01913
Channel : 00
Modulation : BPSK10
Config : 1
SIS Name : 0
Payload Length : 127
RMS Power : 0.00
Adaptive : 0x00
Calibration : 0x00

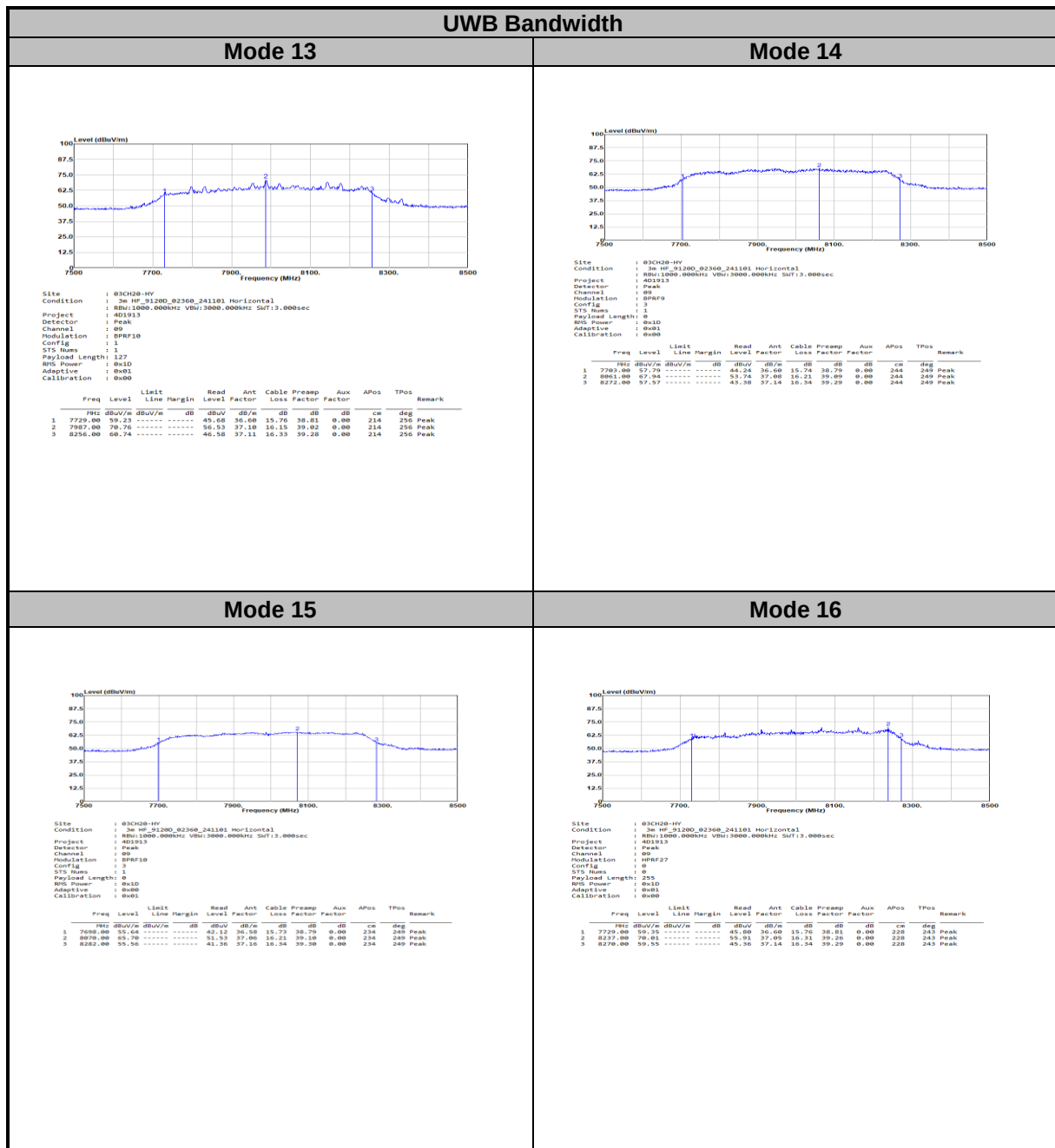
Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	7742.00	62.75	-----	49.28	36.08	15.77	38.82	0.00	245	251	Peak
2	7987.00	73.41	-----	59.18	37.10	16.15	39.02	0.00	245	251	Peak
3	8247.00	62.88	-----	48.74	37.00	16.32	39.27	0.00	245	251	Peak

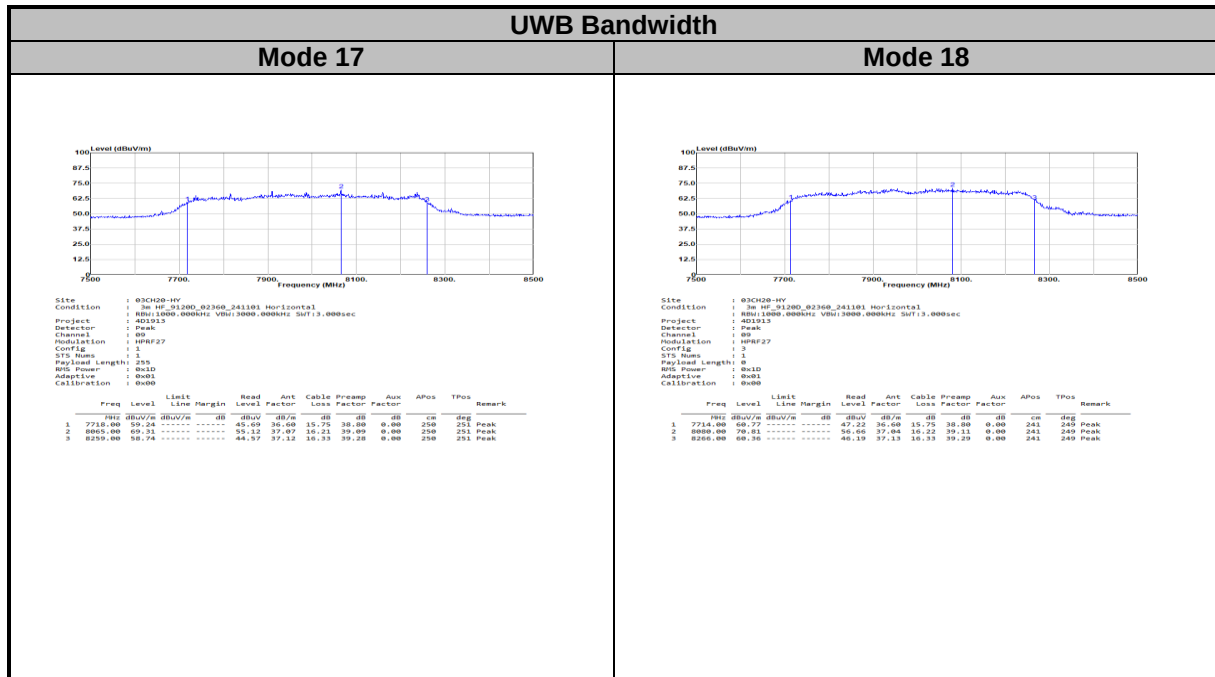
Mode 12



Site : 03CH20-HY
Condition : 3m HF_91280_02360_241101 Horizontal
Project : RNU1000-0000Hz_V01.3000-0000Hz_SuT1.3.000sec
Detector : A01913
Channel : 00
Modulation : BPSK9
Config : 1
SIS Name : 0
Payload Length : 127
RMS Power : 0.00
Adaptive : 0x00
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	7719.00	59.58	-----	46.02	36.08	15.75	38.81	0.00	232	251	Peak
2	8143.00	59.92	-----	56.00	36.83	16.26	39.17	0.00	232	251	Peak
3	8266.00	59.88	-----	45.71	37.13	16.33	39.28	0.00	232	251	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

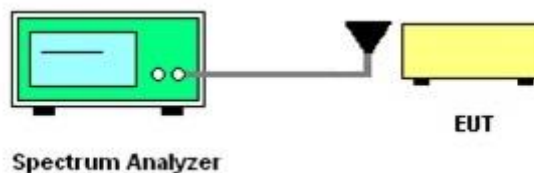
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedure

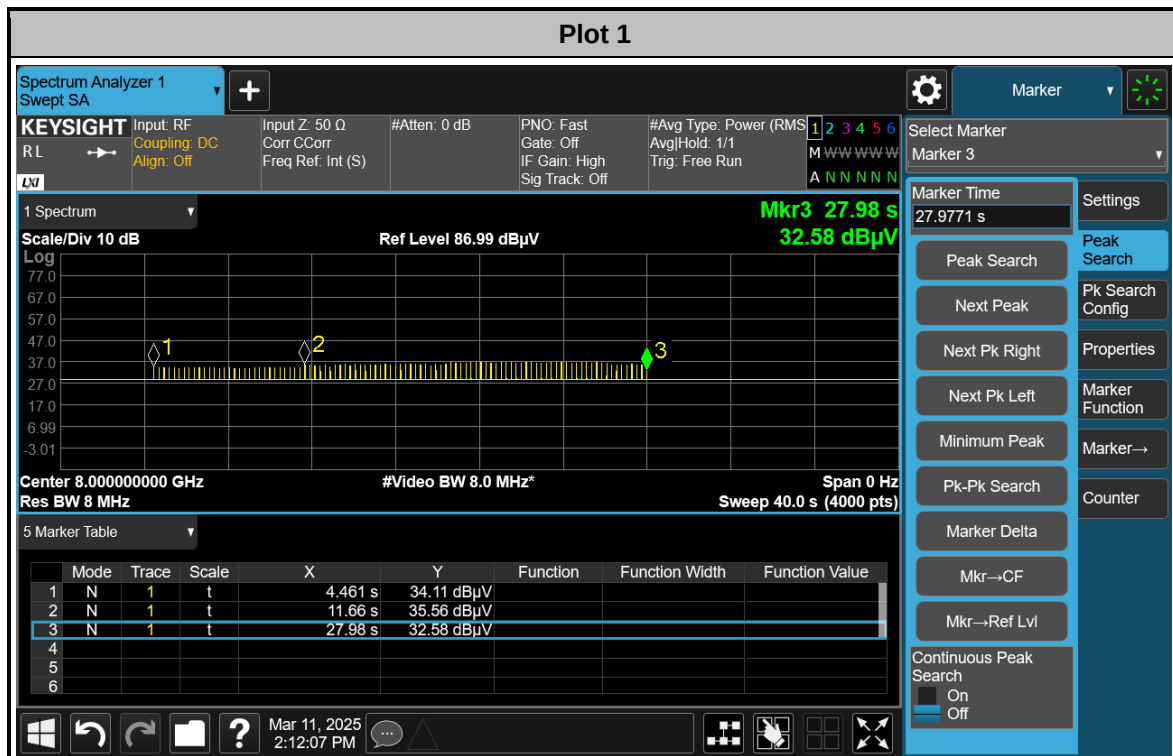
Follow the test step as below:

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



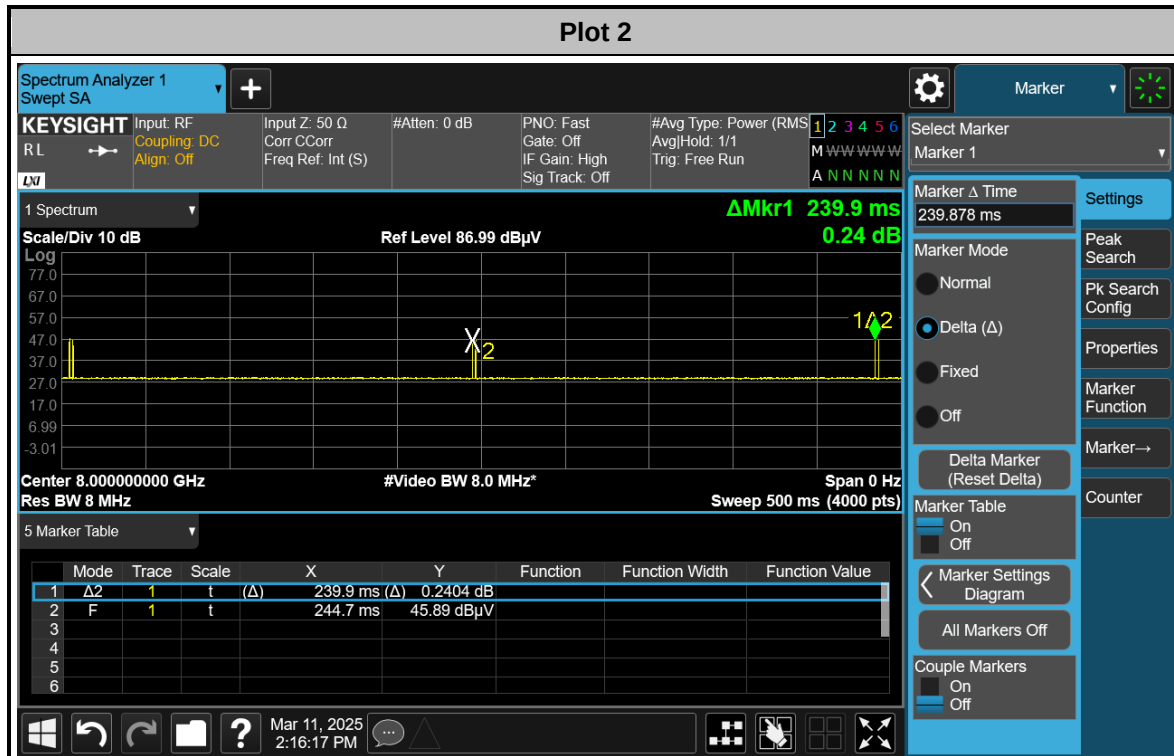
3.3.5 Test Result



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.



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 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
$P_{eip} = 0 \text{ dBm/50MHz}$

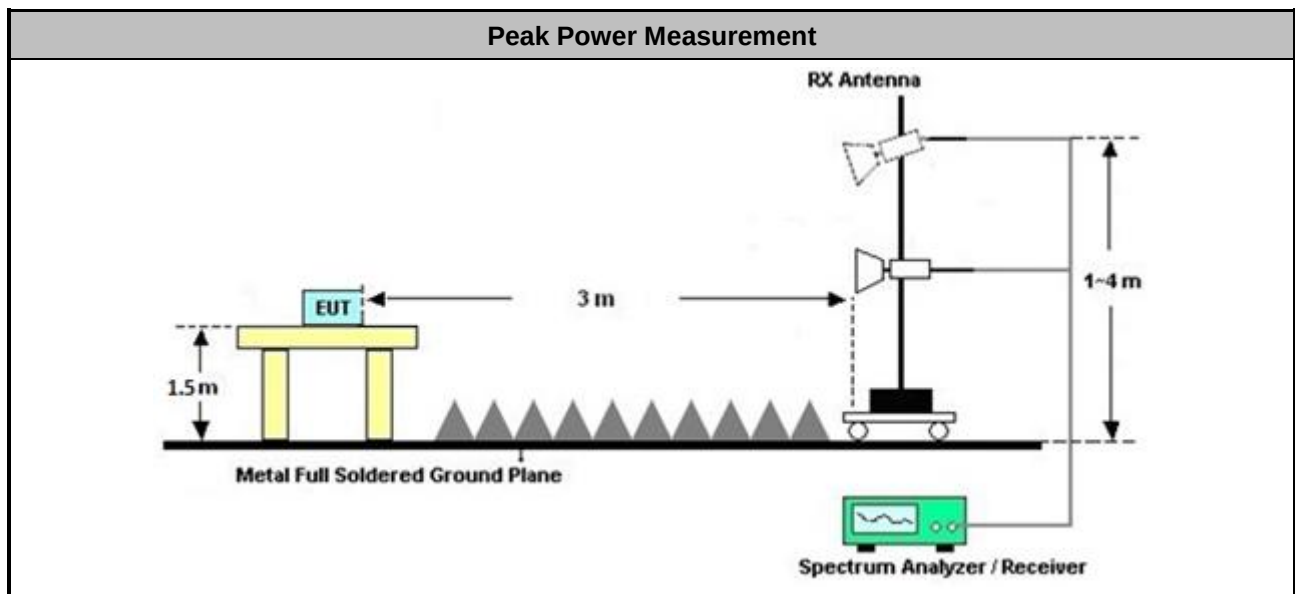
3.4.2 Measuring Instruments

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



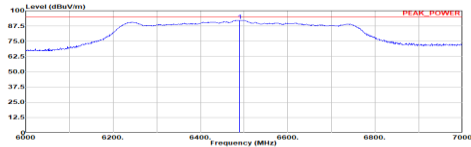
3.4.5 Test Result of Peak Power Measurement

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	6489	92.16	-3.07	0	-3.07	Pass	H
2	6490	92.80	-2.43	0	-2.43	Pass	H
3	6486	91.55	-3.68	0	-3.68	Pass	H
4	6490	91.75	-3.48	0	-3.48	Pass	H
5	6429	85.28	-9.95	0	-9.95	Pass	H
6	6427	84.90	-10.33	0	-10.33	Pass	H
7	6614	84.31	-10.92	0	-10.92	Pass	H
8	6615	84.30	-10.93	0	-10.93	Pass	H
9	6428	85.08	-10.15	0	-10.15	Pass	H
10	8235	92.60	-2.63	0	-2.63	Pass	H
11	7986	91.91	-3.32	0	-3.32	Pass	H
12	7980	91.79	-3.44	0	-3.44	Pass	H
13	8235	91.56	-3.67	0	-3.67	Pass	H
14	7924	84.93	-10.30	0	-10.30	Pass	H
15	8051	85.15	-10.08	0	-10.08	Pass	H
16	8111	85.39	-9.84	0	-9.84	Pass	H
17	8117	83.93	-11.30	0	-11.30	Pass	H
18	8051	84.53	-10.70	0	-10.70	Pass	H
Note 1: EIRP [dBm] = E-Field [dBuV/m] - 95.23; Note 2: Measurement worst emissions of receive antenna polarization.							



Pre-located worst frequency Plots

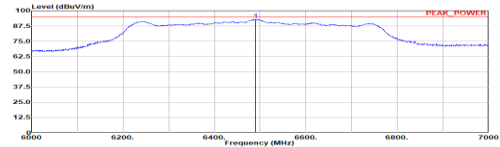
Mode 1



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU-SD000_000Hz_V0U-00000_000Hz_Suf11.000sec
Detector : AD1013
Channel : 05
Modulation : BPSK9
Config : 0
SIS Name : 0
Payload Length : 127
RPS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6490.00	92.16	95.23	-3.07	80.45	35.26	14.41	37.96	0.00	251	250 Peak

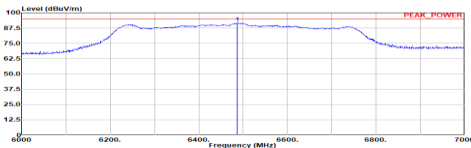
Mode 2



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU-SD000_000Hz_V0U-00000_000Hz_Suf11.000sec
Detector : AD1013
Channel : 05
Modulation : BPSK10
Config : 0
SIS Name : 0
Payload Length : 127
RPS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6490.00	92.00	95.23	-2.43	81.09	35.26	14.41	37.96	0.00	249	251 Peak

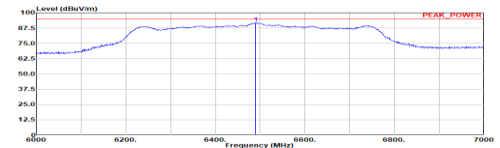
Mode 3



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU-SD000_000Hz_V0U-00000_000Hz_Suf11.000sec
Detector : AD1013
Channel : 05
Modulation : BPSK9
Config : 0
SIS Name : 0
Payload Length : 127
RPS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6490.00	91.55	95.23	-3.68	79.86	35.26	14.41	37.96	0.00	254	251 Peak

Mode 4



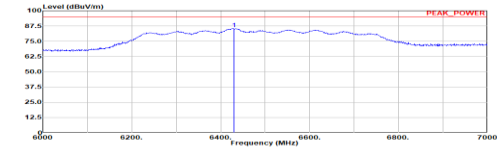
Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU-SD000_000Hz_V0U-00000_000Hz_Suf11.000sec
Detector : AD1013
Channel : 05
Modulation : BPSK10
Config : 0
SIS Name : 0
Payload Length : 127
RPS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6490.00	91.75	95.23	-3.48	80.84	35.26	14.41	37.96	0.00	248	250 Peak



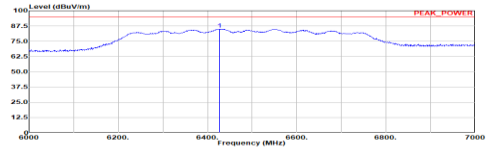
Pre-located worst frequency Plots

Mode 5



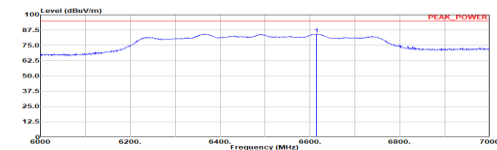
Site	: 03CH20-HY											
Condition	: PEAK_POWER 3m HF_01200_02360_241101 Horizontal											
Project	: R0U10000.0000Hz_V0U.00000.0000Hz_Suf1.000sec											
Detector	: 401015											
Channel	: 05											
Modulation	: SPSF9											
Config	: 1											
STS Name	: 1											
Payload Length	: 0											
RFS Power	: 0x10											
Adaptive	: 0x01											
Calibration	: 0x00											
	Freq	Level	Limit	Line Margin	Read Level	Ant	Cable Loss	Preamp	Aux	APos	TPos	Remark
		dBm	dBm/Hz	dB	dB		dB		dB	dB	deg	
1	6429.00	85.28	95.23	-9.95	73.93	34.97	14.34	37.96	0.00	251	249	Peak

Mode 6



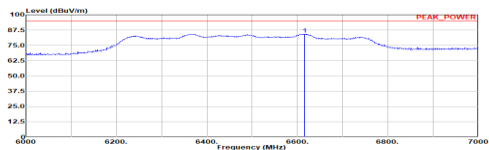
Site	: 03CH20-HY											
Condition	: PEAK_POWER 3m HF_01200_02360_241101 Horizontal											
Project	: R0U10000.0000Hz_V0U.00000.0000Hz_Suf1.000sec											
Detector	: 401015											
Channel	: 05											
Modulation	: SPSF10											
Config	: 1											
STS Name	: 1											
Payload Length	: 0											
RIS Power	: 0x10											
Adaptive	: 0x01											
Calibration	: 0x00											
	Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6427.00	84.90	95.23	-10.33	73.56	34.96	14.34	37.96	0.00	100	deg	Peak

Mode 7



Site	: 03CH20-HY										
Condition	: PEAK_POWER 3m HF_01200_02360_241101 Horizontal										
Project	: R0U10000.0000Hz_V0U.00000.0000Hz_Suf1.000sec										
Detector	: 401015										
Channel	: 05										
Modulation	: SPSF27										
Config	: 1										
STS Name	: 1										
Payload Length	: 255										
RIS Power	: 0x10										
Adaptive	: 0x01										
Calibration	: 0x00										
Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6614.00	84.31	95.23	-10.92	71.94	35.03	14.50	38.02	0.00	230	deg Peak

Mode 8

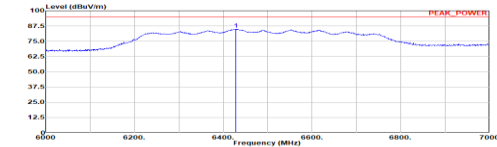


Site	: 03CH20-HY											
Condition	: PEAK_POWER 3m HF_01200_02360_241101 Horizontal											
Project	: R0U10000.0000Hz_V0U.00000.0000Hz_Suf1.000sec											
Detector	: 401015											
Channel	: 05											
Modulation	: SPSF27											
Config	: 1											
STS Name	: 1											
Payload Length	: 255											
RIS Power	: 0x10											
Adaptive	: 0x01											
Calibration	: 0x00											
	Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6615.00	84.30	95.23	-10.93	71.93	35.03	14.50	38.02	0.00	232	deg	Peak



Pre-located worst frequency Plots

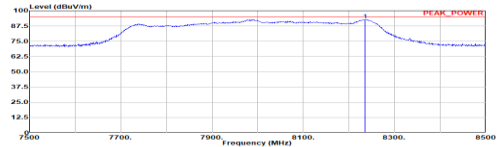
Mode 9



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU10000.000MHz_VMU.00000.000Hz_Suf1.000sec
Detector : 401013
Channel : 00
Modulation : 0
Config : 0
SIS Name : 0
Payload Length : 127
RIS Power : 0
Adaptive : 0
Calibration : 0

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss Factor	Preamp Factor	Aux Factor	APos	TPos	Remark
1	6428.00	85.00	95.23	-10.15	73.73	34.97	14.34	37.90	0.00	251	249 Peak

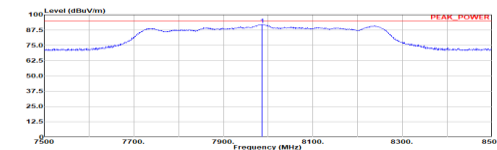
Mode 10



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU10000.000MHz_VMU.00000.000Hz_Suf1.000sec
Detector : 401013
Channel : 00
Modulation : 0
Config : 0
SIS Name : 0
Payload Length : 127
RIS Power : 0
Adaptive : 0
Calibration : 0

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss Factor	Preamp Factor	Aux Factor	APos	TPos	Remark
1	8235.00	92.60	95.23	-2.63	78.51	37.04	16.31	39.26	0.00	234	245 Peak

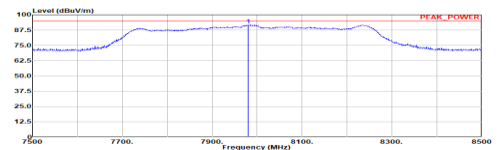
Mode 11



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU10000.000MHz_VMU.00000.000Hz_Suf1.000sec
Detector : 401013
Channel : 00
Modulation : 0
Config : 0
SIS Name : 0
Payload Length : 127
RIS Power : 0
Adaptive : 0
Calibration : 0
Detector : 401013
Plane : X

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss Factor	Preamp Factor	Aux Factor	APos	TPos	Remark
1	7985.00	91.31	95.23	-3.92	77.68	37.10	16.13	39.02	0.00	245	251 Peak

Mode 12



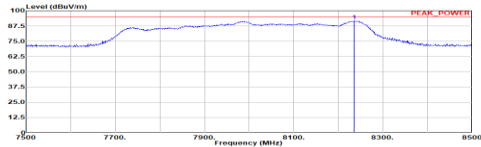
Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_01280_02360_241101 Horizontal
Project : RBU10000.000MHz_VMU.00000.000Hz_Suf1.000sec
Detector : 401013
Channel : 00
Modulation : 0
Config : 0
SIS Name : 0
Payload Length : 127
RIS Power : 0
Adaptive : 0
Calibration : 0

Freq	Level	Limit	Line Margin	Read Level	Ant Factor	Cable Loss Factor	Preamp Factor	Aux Factor	APos	TPos	Remark
1	7980.00	91.70	95.23	-3.44	77.96	37.10	16.14	39.01	0.00	232	251 Peak



Pre-located worst frequency Plots

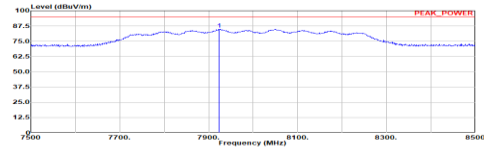
Mode 13



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_91200_02360_241101 Horizontal
Project : RBU:50000.000kHz VBU:00000.000kHz SUT:1.000sec
Detector : Peak
Channel : 00
Modulation : BPSK10
Config : 1
STS Name : 1
Payload Length: 127
RMS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB	dB	dB	dB	dB	deg	
1	8235.00	91.50	95.23	-3.67	77.47	37.04	16.31	39.26	0.00	228	254	Peak

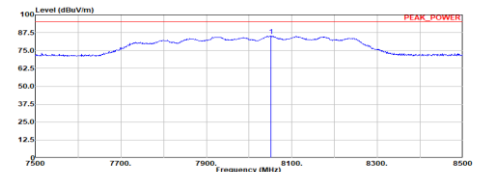
Mode 14



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_91200_02360_241101 Horizontal
Project : RBU:50000.000kHz VBU:00000.000kHz SUT:1.000sec
Detector : Peak
Channel : 00
Modulation : BPSK9
Config : 1
STS Name : 1
Payload Length: 0
RMS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB	dB	dB	dB	dB	deg	
1	7924.00	84.93	95.23	-10.30	70.76	37.10	16.04	38.97	0.00	244	249	Peak

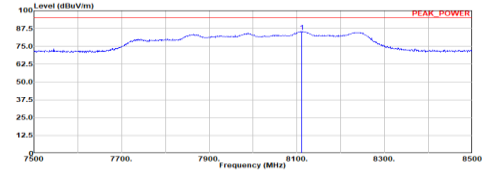
Mode 15



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_91200_02360_241101 Horizontal
Project : RBU:50000.000kHz VBU:00000.000kHz SUT:1.000sec
Detector : Peak
Channel : 00
Modulation : BPSK10
Config : 1
STS Name : 1
Payload Length: 0
RMS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

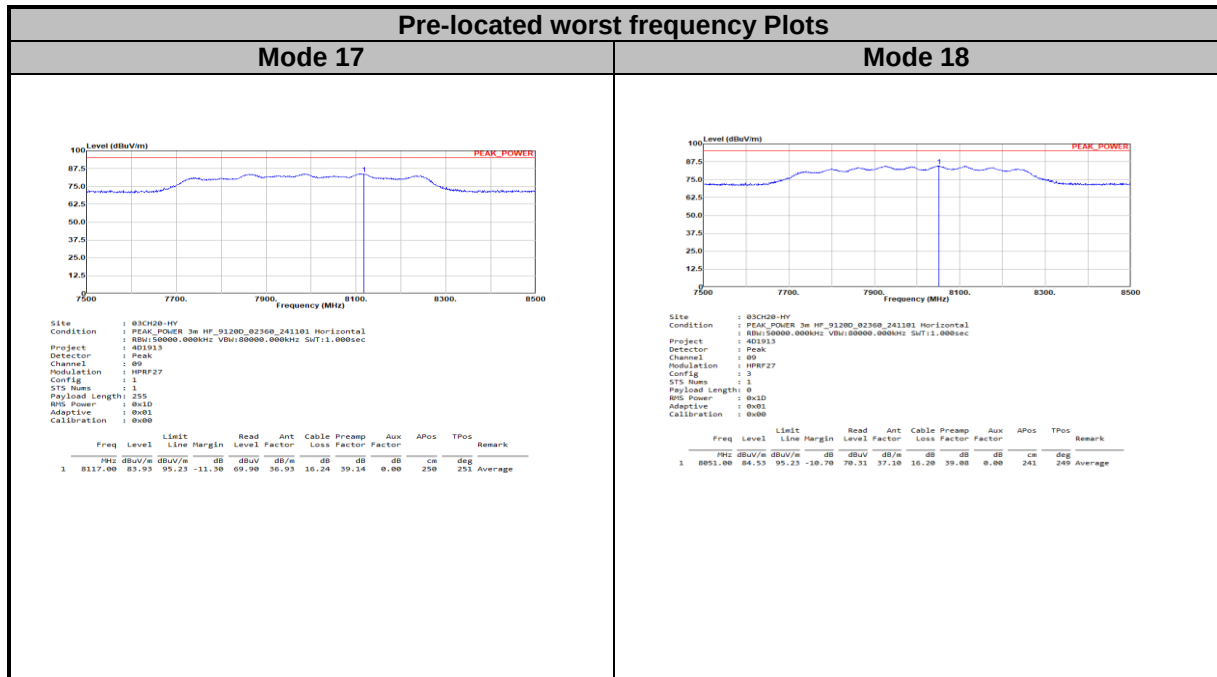
Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB	dB	dB	dB	dB	deg	
1	8051.00	85.15	95.23	-10.08	70.93	37.10	16.28	39.08	0.00	234	249	PEAK

Mode 16



Site : 03CH20-HY
Condition : PEAK_POWER 3m HP_91200_02360_241101 Horizontal
Project : RBU:50000.000kHz VBU:00000.000kHz SUT:1.000sec
Detector : Peak
Channel : 00
Modulation : HPSK27
Config : 0
STS Name : 0
Payload Length: 255
RMS Power : 0x10
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB	dB	dB	dB	dB	cm	deg
1	8111.00	85.39	95.23	-9.84	71.33	36.96	16.24	39.14	0.00	228	243	Average



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

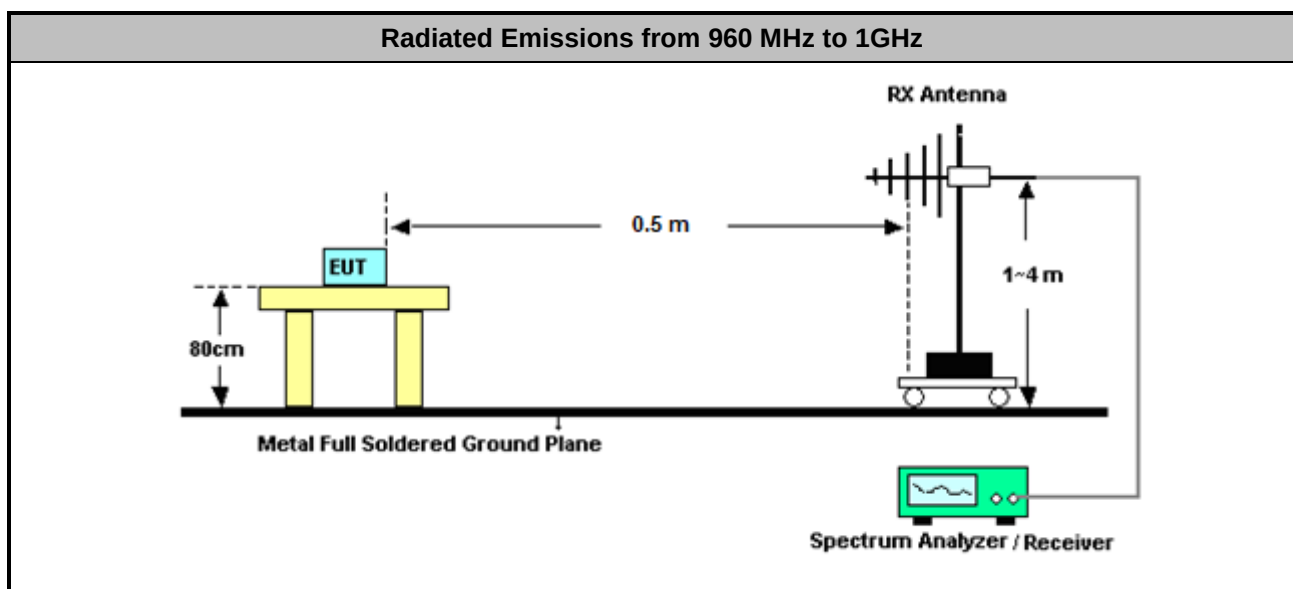
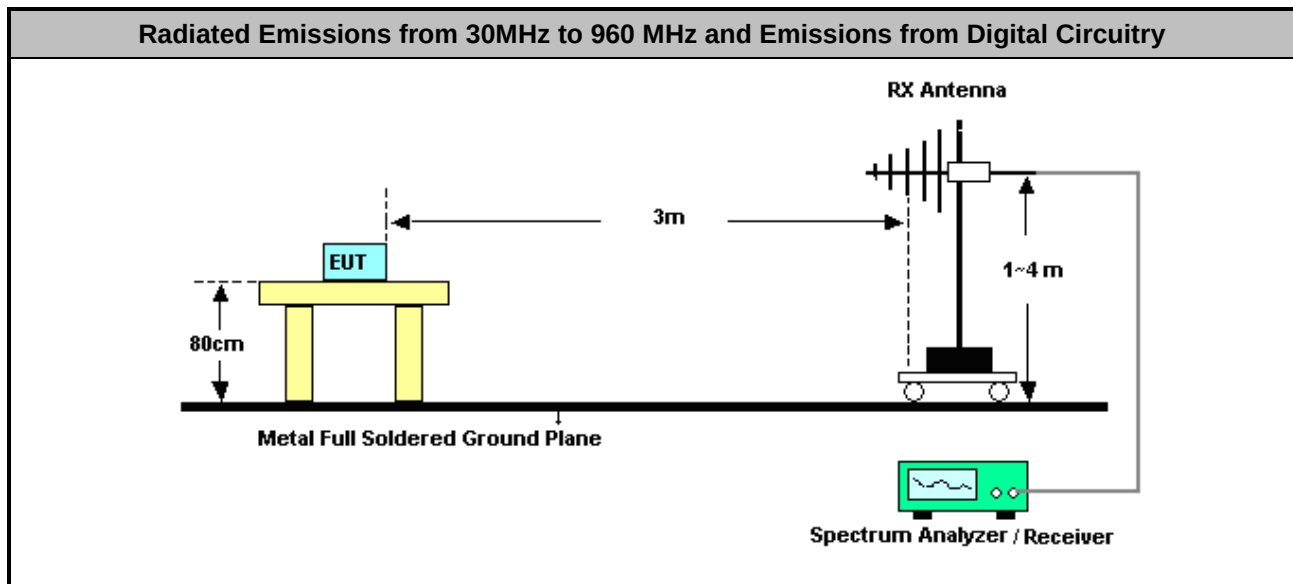
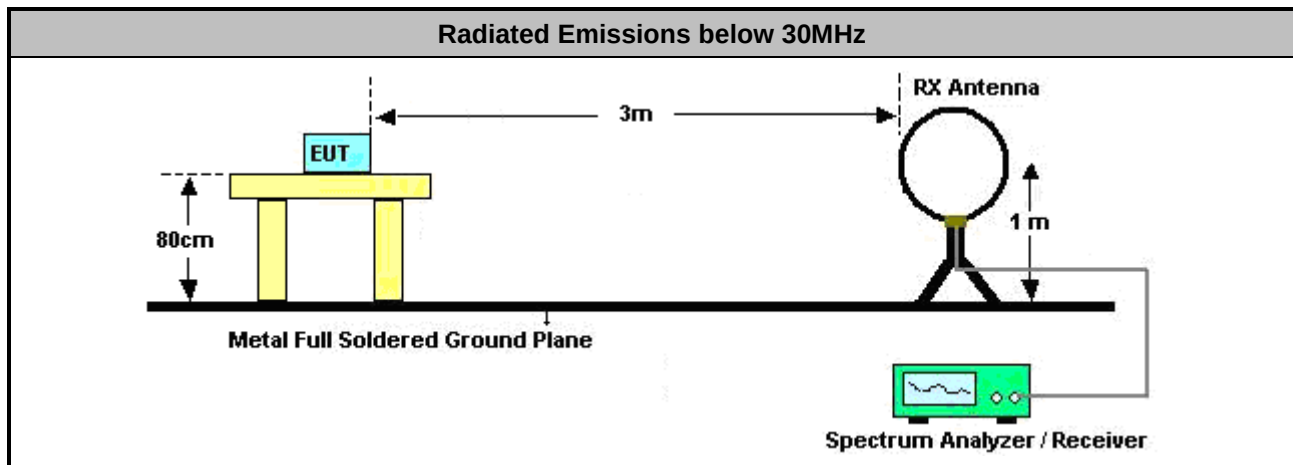
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

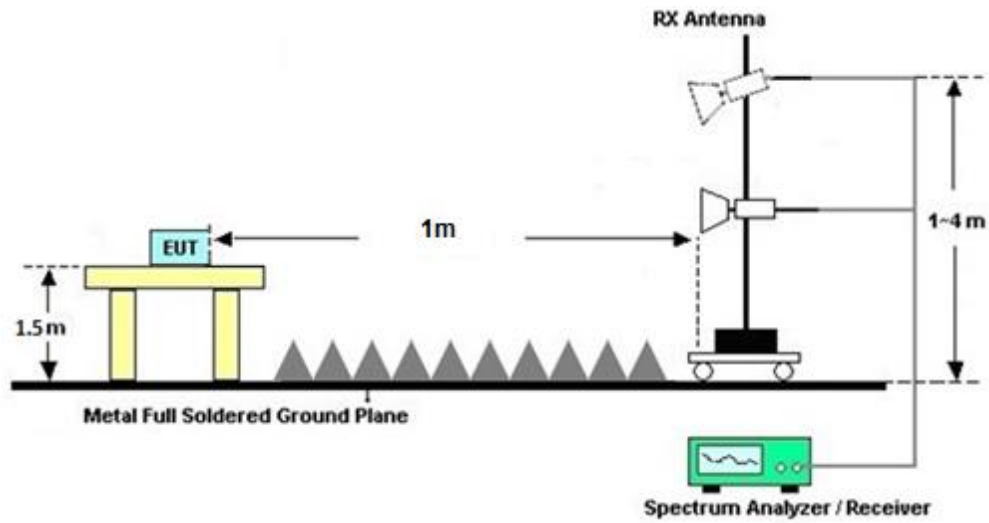
Test Method for Radiated Emissions above 960MHz	
■ Radiated Emissions above 960MHz	
■	Refer as ANSI C63.10, clause 10.3.1 for radiated measurement procedure testing.
■	Refer as ANSI C63.10, clause 10.3.2 for measurement distance is 3m. In some cases, it may be necessary to measure the radiated UWB emissions at a closer distance to obtain enough signal and margin to overcome the measurement system noise floor. Distance extrapolation factor = $20 \log(\text{test distance [X m]}/\text{specific distance [3 m]})$ (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 $\geq$ 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 $20 \log(\text{dwell time}/100 \text{ ms})$. Average emission = peak emission + $20 \log(\text{duty cycle})$.
■	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.	

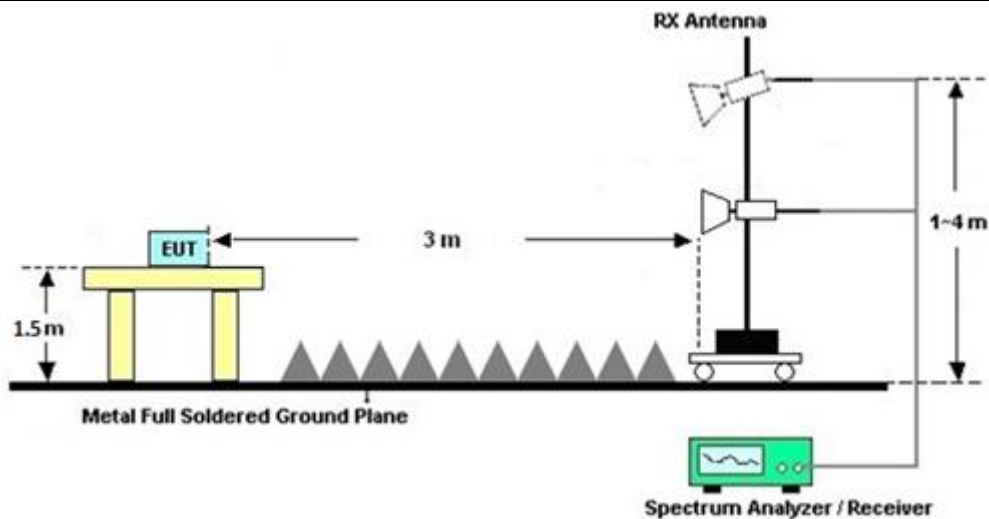
3.5.4 Test Setup

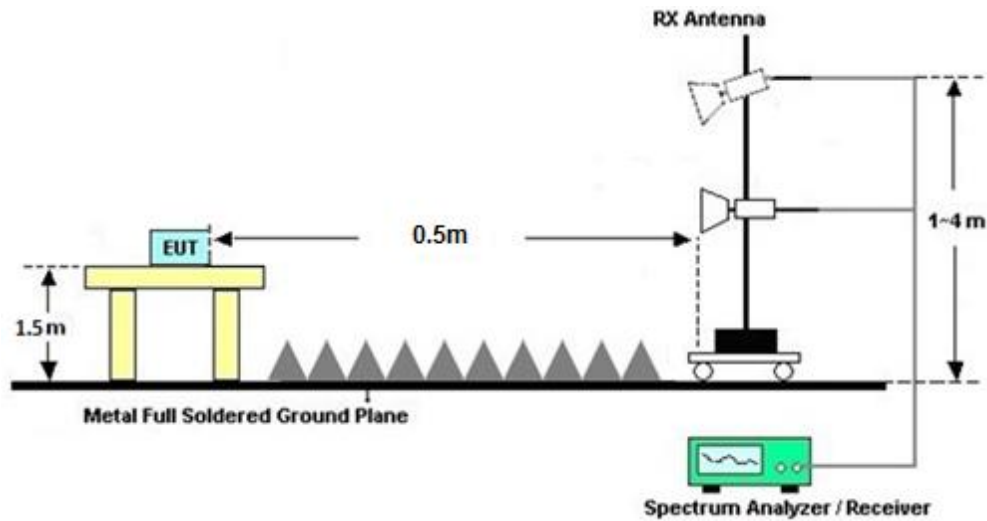
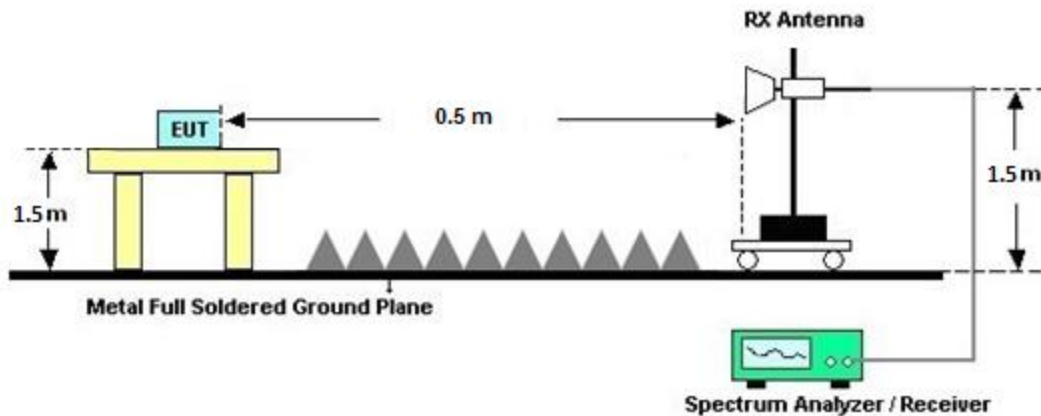


Radiated Emissions from 1GHz to 1.61 GHz



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	6437	53.71	-41.3	53.93	-0.22	Pass	H
2	6437	53.36	-41.3	53.93	-0.57	Pass	H
3	6433	53.82	-41.3	53.93	-0.11	Pass	H
4	6528	53.22	-41.3	53.93	-0.71	Pass	H
5	6441	53.44	-41.3	53.93	-0.49	Pass	H
6	6436	53.67	-41.3	53.93	-0.26	Pass	H
7	6440	52.48	-41.3	53.93	-1.45	Pass	H
8	6440	53.65	-41.3	53.93	-0.28	Pass	H
9	6441	53.37	-41.3	53.93	-0.56	Pass	H
10	8050	52.70	-41.3	53.93	-1.23	Pass	H
11	7988	52.66	-41.3	53.93	-1.27	Pass	H
12	7941	53.49	-41.3	53.93	-0.44	Pass	H
13	8051	52.66	-41.3	53.93	-1.27	Pass	H
14	7988	52.47	-41.3	53.93	-1.46	Pass	H
15	7988	53.42	-41.3	53.93	-0.51	Pass	H
16	8151	52.44	-41.3	53.93	-1.49	Pass	H
17	7943	52.61	-41.3	53.93	-1.32	Pass	H
18	7947	52.24	-41.3	53.93	-1.69	Pass	H



Radiated Emissions (Fundamental)

Operating Function

Adapter Mode

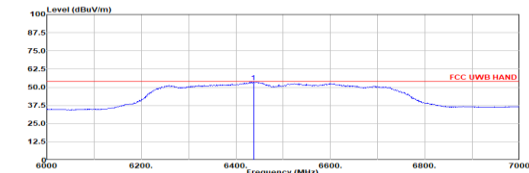
Polarization

H

Test Distance

3m

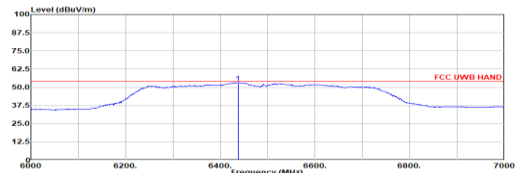
Mode 1



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 05
Modulation : BPRF9
Config : 0
STS Runs : 0
Payload Length : 127
RSS Power : 0x18
Adaptive : 0x01
Calibration : 0x00

Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor
Hz	dBuV/m	dB	dB	dB/m	dB	dB	dB	cm
1 6437.00	53.71	53.93	-0.22	42.30	35.02	14.35	37.96	0.00
								251 Average

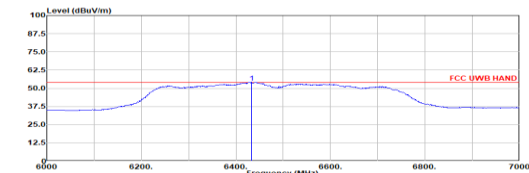
Mode 2



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 05
Modulation : BPRF10
Config : 0
STS Runs : 0
Payload Length : 127
RSS Power : 0x18
Adaptive : 0x01
Calibration : 0x00

Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor
Hz	dBuV/m	dB	dB	dB/m	dB	dB	dB	cm
1 6437.00	53.36	53.93	-0.57	41.95	35.02	14.35	37.96	0.00
								249 Average

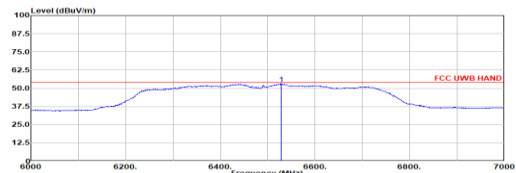
Mode 3



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 05
Modulation : BPRF9
Config : 1
STS Runs : 1
Payload Length : 127
RSS Power : 0x18
Adaptive : 0x01
Calibration : 0x00

Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor
Hz	dBuV/m	dB	dB	dB/m	dB	dB	dB	cm
1 6437.00	53.02	53.93	-0.91	42.43	35.00	14.35	37.96	0.00
								254 Average

Mode 4

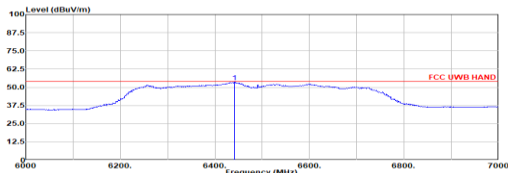
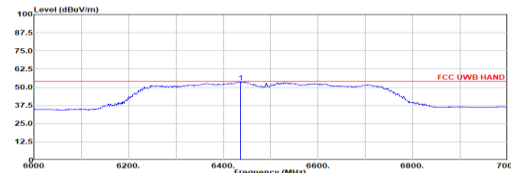
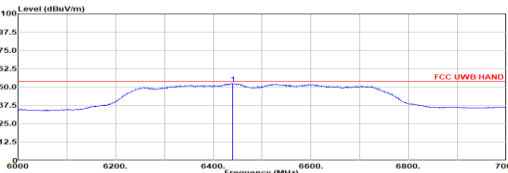
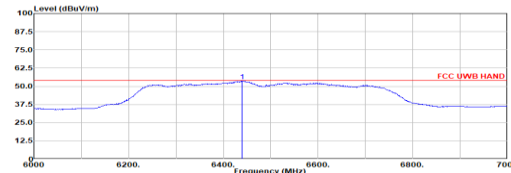


Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 05
Modulation : BPRF10
Config : 1
STS Runs : 1
Payload Length : 127
RSS Power : 0x18
Adaptive : 0x01
Calibration : 0x00

Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor
Hz	dBuV/m	dB	dB	dB/m	dB	dB	dB	cm
1 6528.00	53.22	53.93	-0.71	41.32	35.43	14.46	37.97	0.00
								245 Average

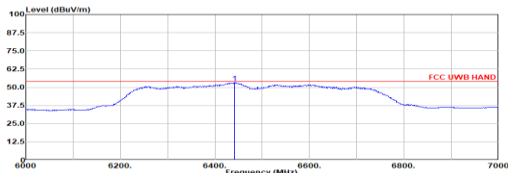
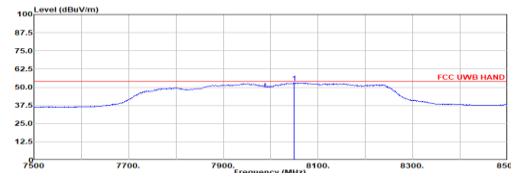
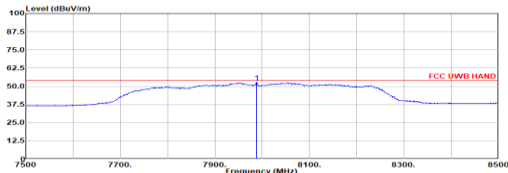
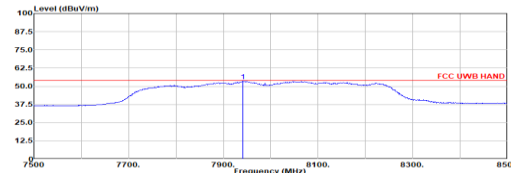


Radiated Emissions (Fundamental)

Operating Function	Adapter Mode	Polarization	H																																																																								
		Test Distance	3m																																																																								
Mode 5		Mode 6																																																																									
 Site : 03CH20-HY Condition : FCC UWB HAND 3m HF_91200_02368_241101 Horizontal Project : 4D1913 Detector : Average Channel : 05 Modulation : BPRF9 Config : 3 STS Rules : 1 Payload Length: 0 RSS Power : 0x18 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>Freq Level Line Margin</th><th>Level Factor</th><th>Level Factor</th><th>Loss Factor</th><th>Factor</th><th>Factor</th><th></th><th></th><th></th></tr><tr><th>MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>1 6441.00 53.44 53.93 -0.49 41.99 35.05 14.36 37.96 0.00 251 249 Average</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Freq Level Line Margin	Level Factor	Level Factor	Loss Factor	Factor	Factor				MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg									1 6441.00 53.44 53.93 -0.49 41.99 35.05 14.36 37.96 0.00 251 249 Average									 Site : 03CH20-HY Condition : FCC UWB HAND 3m HF_91200_02368_241101 Horizontal Project : 4D1913 Detector : Average Channel : 05 Modulation : BPRF10 Config : 3 STS Rules : 1 Payload Length: 0 RSS Power : 0x18 Adaptive : 0x00 Calibration : 0x01 <table><tr><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>Freq Level Line Margin</th><th>Level Factor</th><th>Level Factor</th><th>Loss Factor</th><th>Factor</th><th>Factor</th><th></th><th></th><th></th></tr><tr><th>MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>1 6436.00 53.67 53.93 -0.26 42.26 35.02 14.35 37.96 0.00 100 277 Average</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Freq Level Line Margin	Level Factor	Level Factor	Loss Factor	Factor	Factor				MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg									1 6436.00 53.67 53.93 -0.26 42.26 35.02 14.35 37.96 0.00 100 277 Average								
Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																			
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1 6441.00 53.44 53.93 -0.49 41.99 35.05 14.36 37.96 0.00 251 249 Average																																																																											
Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																			
Freq Level Line Margin	Level Factor	Level Factor	Loss Factor	Factor	Factor																																																																						
MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg																																																																											
1 6436.00 53.67 53.93 -0.26 42.26 35.02 14.35 37.96 0.00 100 277 Average																																																																											
Mode 7		Mode 8																																																																									
 Site : 03CH20-HY Condition : FCC UWB HAND 3m HF_91200_02368_241101 Horizontal Project : 4D1913 Detector : Average Channel : 05 Modulation : HPRF27 Config : 0 STS Rules : 1 Payload Length: 255 RSS Power : 0x18 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>Freq Level Line Margin</th><th>Level Factor</th><th>Level Factor</th><th>Loss Factor</th><th>Factor</th><th>Factor</th><th></th><th></th><th></th></tr><tr><th>MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>1 6440.00 52.48 53.93 -1.45 41.04 35.04 14.36 37.96 0.00 250 254 Average</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Freq Level Line Margin	Level Factor	Level Factor	Loss Factor	Factor	Factor				MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg									1 6440.00 52.48 53.93 -1.45 41.04 35.04 14.36 37.96 0.00 250 254 Average									 Site : 03CH20-HY Condition : FCC UWB HAND 3m HF_91200_02368_241101 Horizontal Project : 4D1913 Detector : Average Channel : 05 Modulation : HPRF27 Config : 1 STS Rules : 1 Payload Length: 255 RSS Power : 0x18 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>Freq Level Line Margin</th><th>Level Factor</th><th>Level Factor</th><th>Loss Factor</th><th>Factor</th><th>Factor</th><th></th><th></th><th></th></tr><tr><th>MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>1 6440.00 53.05 53.93 -0.28 42.21 35.04 14.36 37.96 0.00 252 252 Average</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Freq Level Line Margin	Level Factor	Level Factor	Loss Factor	Factor	Factor				MHz dBuV/m dBuV/m dB dB dB dB dB dB cm deg									1 6440.00 53.05 53.93 -0.28 42.21 35.04 14.36 37.96 0.00 252 252 Average								
Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																			
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1 6440.00 52.48 53.93 -1.45 41.04 35.04 14.36 37.96 0.00 250 254 Average																																																																											
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Radiated Emissions (Fundamental)

Operating Function	Adapter Mode	Polarization	H																																																																								
		Test Distance	3m																																																																								
Mode 9		Mode 10																																																																									
 Site : 03CH20-HV Condition : FCC UWB HAND 3m HF_91200.02360.241101 Horizontal Project : 4D1913 Detector : Average Channel : 05 Modulation : HPRF27 Config : 3 STS Runs : 1 Payload Length: 0 RSS Power : 0x10 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Line Margin</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th><th>Average</th></tr><tr><td>1 6441.00</td><td>53.37</td><td>53.93</td><td>-0.56</td><td>41.92</td><td>35.05</td><td>14.36</td><td>37.96</td><td>0.00</td><td>251</td><td>249</td><td>Average</td></tr></table>		Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	1 6441.00	53.37	53.93	-0.56	41.92	35.05	14.36	37.96	0.00	251	249	Average	 Site : 03CH20-HV Condition : FCC UWB HAND 3m HF_91200.02360.241101 Horizontal Project : 4D1913 Detector : Average Channel : 09 Modulation : BPRF9 Config : 0 STS Runs : 0 Payload Length: 127 RSS Power : 0x10 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Line Margin</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th><th>Average</th></tr><tr><td>1 8050.00</td><td>53.02</td><td>53.93</td><td>-0.91</td><td>38.80</td><td>37.10</td><td>16.20</td><td>39.08</td><td>0.00</td><td>234</td><td>245</td><td>Average</td></tr></table>		Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	1 8050.00	53.02	53.93	-0.91	38.80	37.10	16.20	39.08	0.00	234	245	Average
Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																
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1 6441.00	53.37	53.93	-0.56	41.92	35.05	14.36	37.96	0.00	251	249	Average																																																																
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1 8050.00	53.02	53.93	-0.91	38.80	37.10	16.20	39.08	0.00	234	245	Average																																																																
Mode 11		Mode 12																																																																									
 Site : 03CH20-HV Condition : FCC UWB HAND 3m HF_91200.02360.241101 Horizontal Project : 4D1913 Detector : Average Channel : 09 Modulation : BPRF10 Config : 0 STS Runs : 0 Payload Length: 127 RSS Power : 0x10 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Line Margin</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th><th>Average</th></tr><tr><td>1 7989.00</td><td>52.66</td><td>53.93</td><td>-1.27</td><td>36.43</td><td>37.10</td><td>16.15</td><td>39.82</td><td>0.00</td><td>245</td><td>251</td><td>Average</td></tr></table>		Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	1 7989.00	52.66	53.93	-1.27	36.43	37.10	16.15	39.82	0.00	245	251	Average	 Site : 03CH20-HV Condition : FCC UWB HAND 3m HF_91200.02360.241101 Horizontal Project : 4D1913 Detector : Average Channel : 09 Modulation : BPRF9 Config : 1 STS Runs : 1 Payload Length: 127 RSS Power : 0x10 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Line Margin</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th><th>Average</th></tr><tr><td>1 7941.00</td><td>53.49</td><td>53.93</td><td>-0.44</td><td>39.30</td><td>37.10</td><td>16.07</td><td>38.98</td><td>0.00</td><td>282</td><td>253</td><td>Average</td></tr></table>		Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	1 7941.00	53.49	53.93	-0.44	39.30	37.10	16.07	38.98	0.00	282	253	Average
Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																
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1 7989.00	52.66	53.93	-1.27	36.43	37.10	16.15	39.82	0.00	245	251	Average																																																																
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Radiated Emissions (Fundamental)

Operating Function

Adapter Mode

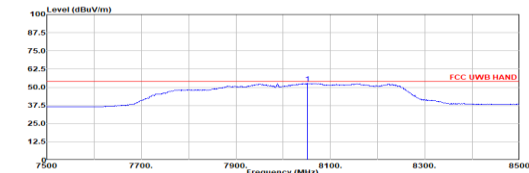
Polarization

H

Test Distance

3m

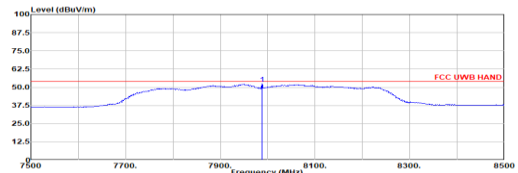
Mode 13



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF10
Config : 1
STS Runs : 1
Payload Length : 127
RSS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dB/m	dB	dB	dB	dB	cm	deg	Average
1	8051.00	52.60	53.93	-1.27	36.44	37.10	16.28	39.08	0.00		220	254 Average

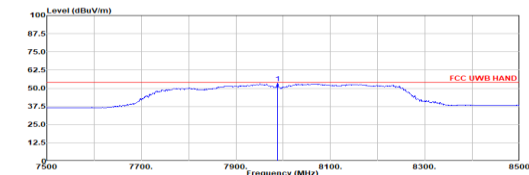
Mode 14



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF9
Config : 3
STS Runs : 1
Payload Length : 0
RSS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dB/m	dB	dB	dB	dB	cm	deg	Average
1	7986.00	52.47	53.93	-1.46	36.24	37.10	16.15	39.02	0.00		244	249 Average

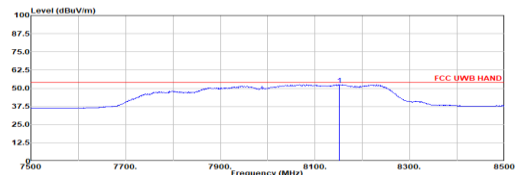
Mode 15



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF10
Config : 3
STS Runs : 1
Payload Length : 0
RSS Power : 0x1D
Adaptive : 0x00
Calibration : 0x01

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dB/m	dB	dB	dB	dB	cm	deg	Average
1	7986.00	53.42	53.93	-0.51	39.19	37.10	16.15	39.02	0.00		234	249 Average

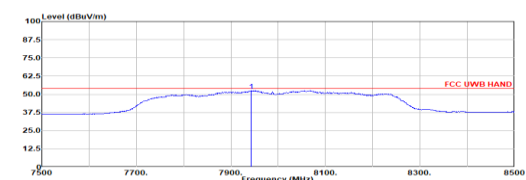
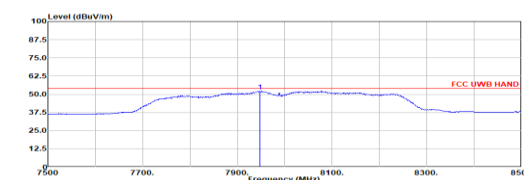
Mode 16



Site : 03CH20-HV
Condition : FCC UWB HAND 3m HF 91200.02360.241101 Horizontal
Project : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF27
Config : 0
STS Runs : 0
Payload Length : 255
RSS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

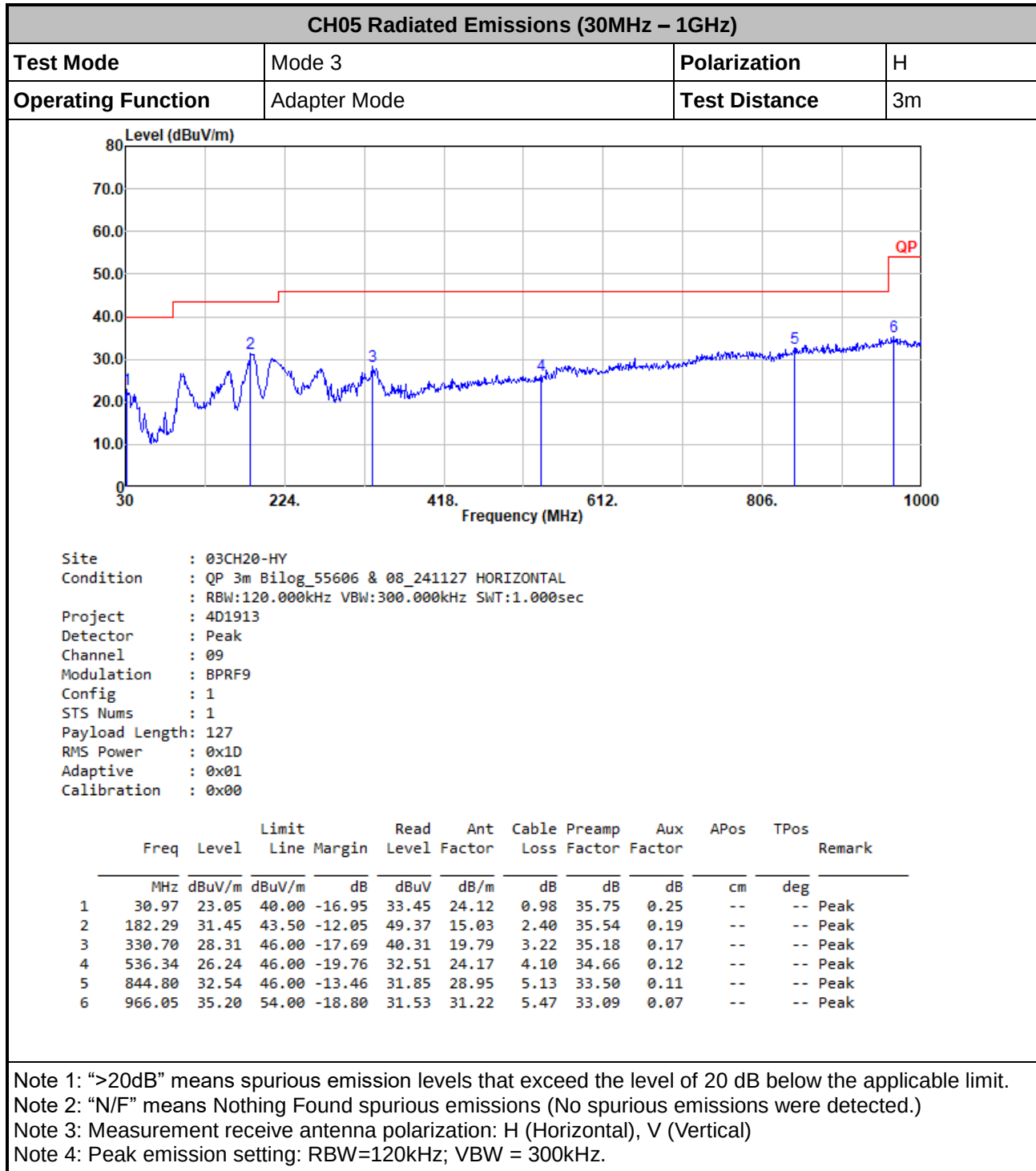
Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dB	dB/m	dB	dB	dB	dB	cm	deg	Average
1	8151.00	52.44	53.93	-1.49	36.95	36.88	16.26	39.17	0.00		228	243 Average



Radiated Emissions (Fundamental)																																																																																																	
Operating Function		Adapter Mode		Polarization		H																																																																																											
				Test Distance		3m																																																																																											
Mode 17				Mode 18																																																																																													
 Site : 03CH20-HV Condition : FCC UWB HAND 3m HF 91200-92300 241101 Horizontal Project : 4D1913 Detector : Average Channel : 09 Modulation : HPRF27 Config : 1 STS Runs : 1 Payload Length: 255 RSS Power : 0x10 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Margin</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th></tr><tr><th>Hz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th><th>Average</th></tr><tr><td>1</td><td>7943.00</td><td>52.61</td><td>53.93</td><td>-1.32</td><td>36.42</td><td>37.10</td><td>16.07</td><td>36.98</td><td>0.00</td><td>250</td><td>251 Average</td></tr></table>				Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor		Hz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	1	7943.00	52.61	53.93	-1.32	36.42	37.10	16.07	36.98	0.00	250	251 Average	 Site : 03CH20-HV Condition : FCC UWB HAND 3m HF 91200-92300 241101 Horizontal Project : 4D1913 Detector : Average Channel : 09 Modulation : HPRF27 Config : 3 STS Runs : 1 Payload Length: 0 RSS Power : 0x10 Adaptive : 0x01 Calibration : 0x00 <table><tr><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th>Remark</th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Margin</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th></tr><tr><th>Hz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th><th>Average</th></tr><tr><td>1</td><td>7947.00</td><td>52.24</td><td>53.93</td><td>-1.69</td><td>36.85</td><td>37.10</td><td>16.08</td><td>36.99</td><td>0.00</td><td>241</td><td>249 Average</td></tr></table>								Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor		Hz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	1	7947.00	52.24	53.93	-1.69	36.85	37.10	16.08	36.99	0.00	241	249 Average
Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																																									
Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor																																																																																									
Hz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average																																																																																						
1	7943.00	52.61	53.93	-1.32	36.42	37.10	16.07	36.98	0.00	250	251 Average																																																																																						
Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark																																																																																									
Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor																																																																																									
Hz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average																																																																																						
1	7947.00	52.24	53.93	-1.69	36.85	37.10	16.08	36.99	0.00	241	249 Average																																																																																						



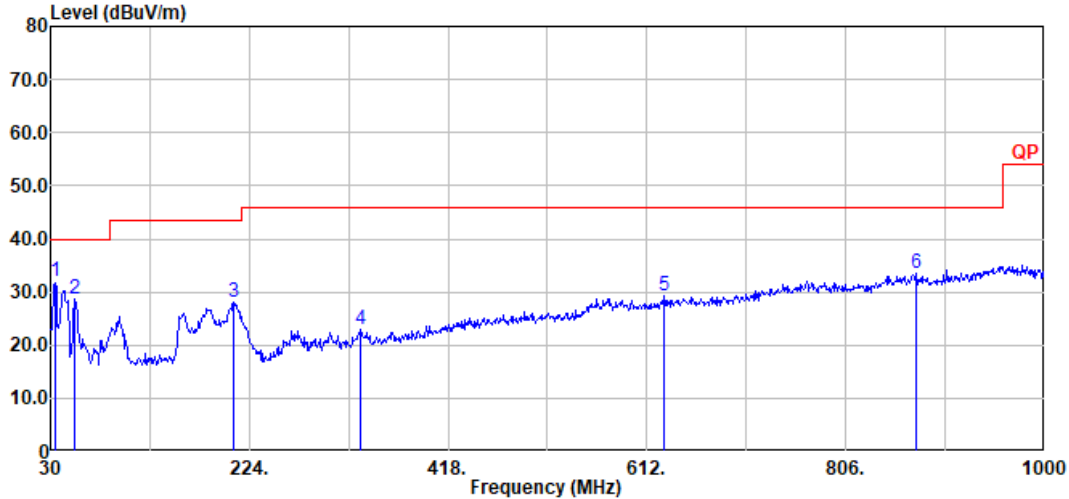
3.5.7 Radiated Emissions (30MHz – 1GHz)





CH05 Radiated Emissions (30MHz – 1GHz)

Test Mode	Mode 3	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 : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

	Freq	Level	Limit		Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	Loss	Factor	Factor	dB	cm	deg
1	34.85	31.85	40.00	-8.15	44.10	22.26	1.04	35.75	0.20	--	--	Peak
2	54.25	28.72	40.00	-11.28	49.92	13.00	1.30	35.73	0.23	--	--	Peak
3	208.48	28.02	43.50	-15.48	45.34	15.40	2.57	35.49	0.20	--	--	Peak
4	332.64	22.83	46.00	-23.17	34.73	19.87	3.23	35.17	0.17	--	--	Peak
5	628.49	29.41	46.00	-16.59	32.87	26.34	4.43	34.35	0.12	--	--	Peak
6	874.87	33.39	46.00	-12.61	32.33	29.12	5.22	33.41	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.)

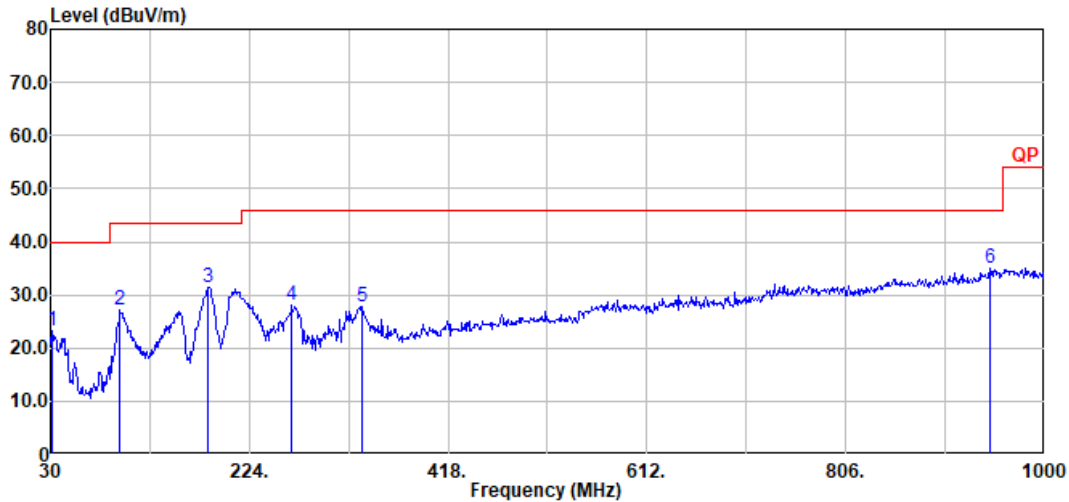
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: Peak emission setting: RBW=120kHz; VBW = 300kHz.



CH09 Radiated Emissions (30MHz – 1GHz)

Test Mode	Mode 12	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 : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

	Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.97	23.32	40.00	-16.68	33.72	24.12	0.98	35.75	0.25	--	--	--	Peak
2	97.90	27.28	43.50	-16.22	45.25	15.76	1.76	35.68	0.19	--	--	--	Peak
3	184.23	31.50	43.50	-12.00	49.45	14.97	2.42	35.53	0.19	--	--	--	Peak
4	265.71	28.01	46.00	-17.99	40.27	20.02	2.89	35.36	0.19	--	--	--	Peak
5	334.58	27.84	46.00	-18.16	39.63	19.96	3.24	35.16	0.17	--	--	--	Peak
6	946.65	34.96	46.00	-11.04	32.08	30.53	5.42	33.17	0.10	--	--	--	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.)

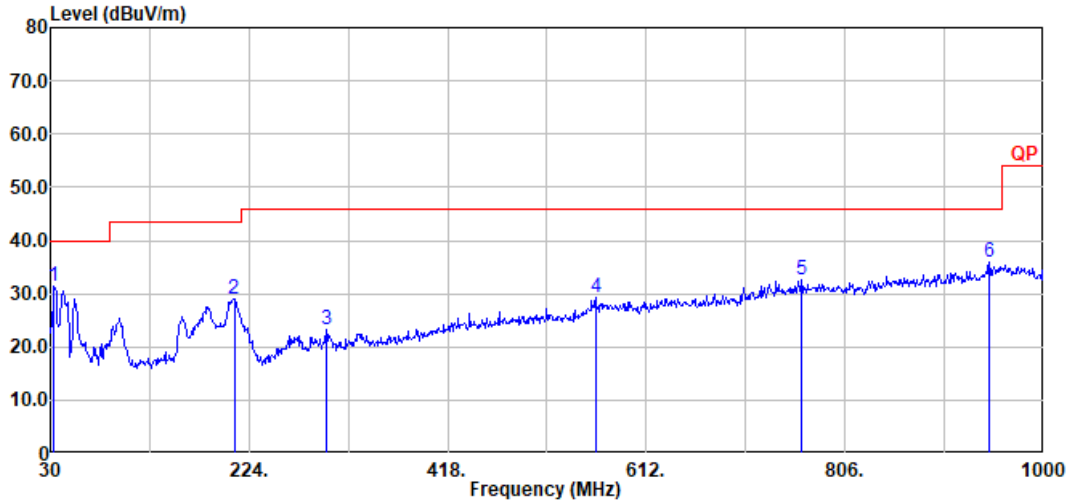
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: Peak emission setting: RBW=120kHz; VBW = 300kHz.



CH09 Radiated Emissions (30MHz – 1GHz)

Test Mode	Mode 12	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 : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

	Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	33.88	31.48	40.00	-8.52	43.26	22.74	1.02	35.75	0.21	--	--	--	Peak
2	209.45	29.09	43.50	-14.41	46.44	15.37	2.57	35.49	0.20	--	--	--	Peak
3	299.66	23.29	46.00	-22.71	35.95	19.36	3.07	35.28	0.19	--	--	--	Peak
4	562.53	29.17	46.00	-16.83	33.13	26.31	4.20	34.58	0.11	--	--	--	Peak
5	763.32	32.50	46.00	-13.50	33.10	28.21	4.88	33.84	0.15	--	--	--	Peak
6	946.65	35.80	46.00	-10.20	32.92	30.53	5.42	33.17	0.10	--	--	--	Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

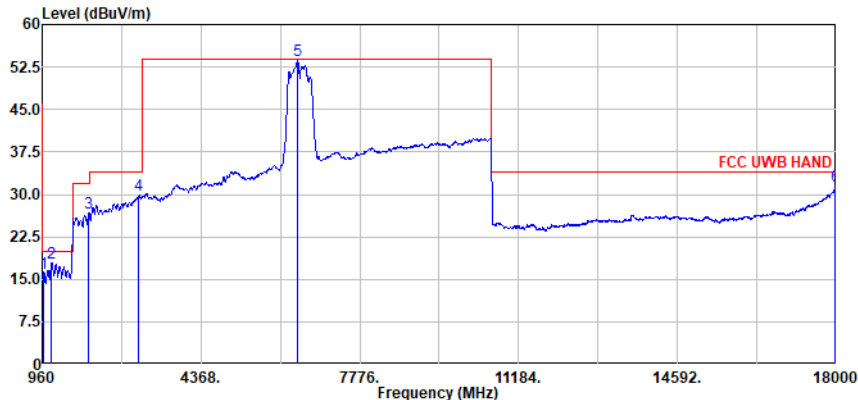
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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 3	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 : 4D1913
 Detector : Average
 Channel : 05
 Modulation : BPRF9
 Config : 1
 STS Num : 1
 Payload Length: 127
 RMS Power : 0x18
 Adaptive : 0x01
 Calibration : 0x00

	Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	975.92	15.97	19.93	-3.96	28.00	31.08	5.50	33.05	-15.56	--	--	--	Average
2	1159.21	17.93	19.93	-2.00	31.14	25.99	5.99	35.65	-9.54	--	--	--	Average
3	1949.34	26.82	31.93	-5.11	28.97	26.19	7.77	36.11	0.00	--	--	--	Average
4	3033.40	29.83	33.93	-4.10	26.37	29.70	9.86	36.10	0.00	--	--	--	Average
5	6445.00	53.61	53.93	-0.32	42.14	35.07	14.36	37.96	0.00	--	--	--	Average
6	17977.80	31.36	33.93	-2.57	24.77	43.07	24.52	45.44	-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.

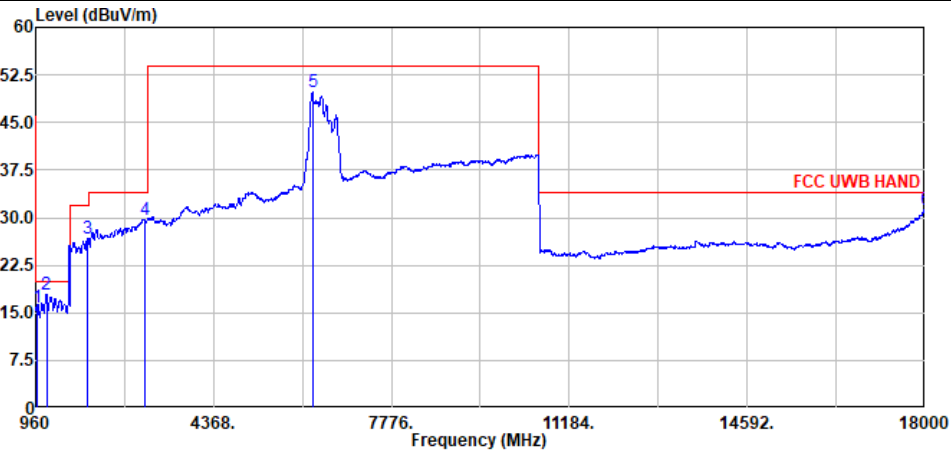
Note 6: #5 is fundamental signal.

Note 7:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)
Example: Distance extrapolation factor = $20 \log (0.5\text{m}/3\text{m}) = -15.56$ (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: 31.08 (dB/m) + 5.50 (dB) + 28.00 (dBuV) - 33.05 (dB) + (-15.56) (dB) = 15.97 (dBuV/m)

CH05 Radiated Emissions (960MHz – 18GHz)

Test Mode	Mode 3	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 : 4D1913
 Detector : Average
 Channel : 05
 Modulation : BPRF9
 Config : 1
 STS Num : 1
 Payload Length: 127
 RMS Power : 0x18
 Adaptive : 0x01
 Calibration : 0x00

	Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	975.68	15.93	19.93	-4.00		27.96	31.08	5.50	33.05	-15.56	--	--	Average
2	1167.14	17.93	19.93	-2.00		31.11	26.00	6.01	35.65	-9.54	--	--	Average
3	1952.38	26.78	31.93	-5.15		28.95	26.18	7.77	36.12	0.00	--	--	Average
4	3051.16	29.76	33.93	-4.17		26.30	29.70	9.89	36.13	0.00	--	--	Average
5	6265.00	49.78	53.93	-4.15		39.15	34.43	14.15	37.95	0.00	--	--	Average
6	18000.00	31.29	33.93	-2.64		24.58	43.20	24.54	45.47	-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.

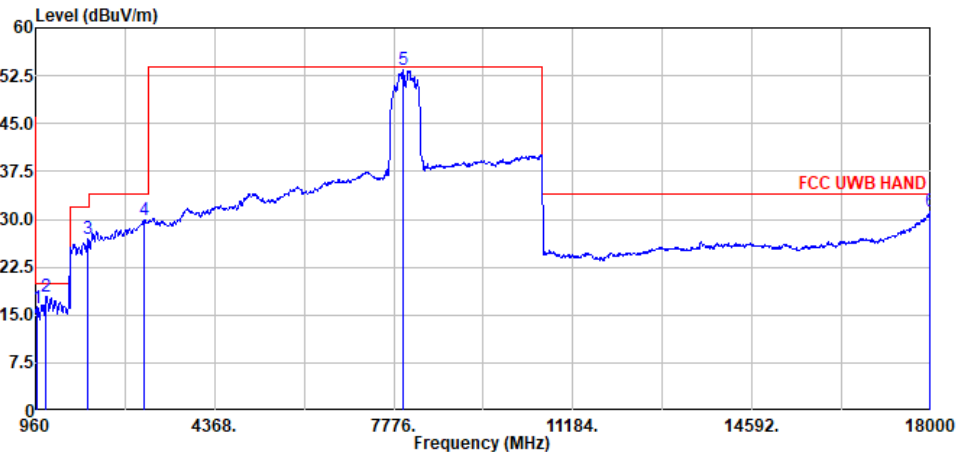
Note 7:

- 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 12	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 : 4D1913
 Detector : Average
 Channel : 09
 Modulation : BPRF9
 Config : 1
 STS Nums : 1
 Payload Length: 127
 RMS Power : 0x1D
 Adaptive : 0x01
 Calibration : 0x00

	Freq	Level	Limit		Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	Line	Margin	Level	Factor	Loss	Factor	Factor			
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	976.68	16.01	19.93	-3.92	28.08	31.03	5.50	33.04	-15.56	--	--	Average
2	1159.21	18.00	19.93	-1.93	31.21	25.99	5.99	35.65	-9.54	--	--	Average
3	1954.28	26.90	31.93	-5.03	29.08	26.16	7.78	36.12	0.00	--	--	Average
4	3027.85	29.83	33.93	-4.10	26.37	29.70	9.85	36.09	0.00	--	--	Average
5	7945.00	53.51	53.93	-0.42	39.33	37.10	16.07	38.99	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.

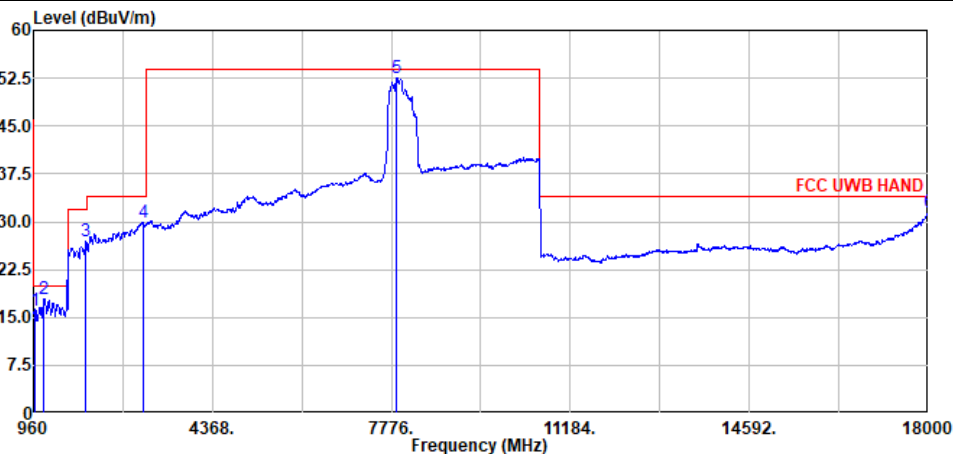
Note 7:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (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 12	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 : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

	Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	976.32	15.99	19.93	-3.94	28.03	31.06	5.50	33.04	-15.56	--	--	--	Average
2	1159.82	17.95	19.93	-1.98	31.15	26.00	5.99	35.65	-9.54	--	--	--	Average
3	1953.90	26.90	31.93	-5.03	29.08	26.16	7.78	36.12	0.00	--	--	--	Average
4	3043.39	29.78	33.93	-4.15	26.32	29.70	9.88	36.12	0.00	--	--	--	Average
5	7877.50	52.46	53.93	-1.47	38.37	37.06	15.96	38.93	0.00	--	--	--	Average
6	17992.60	31.38	33.93	-2.55	24.71	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.

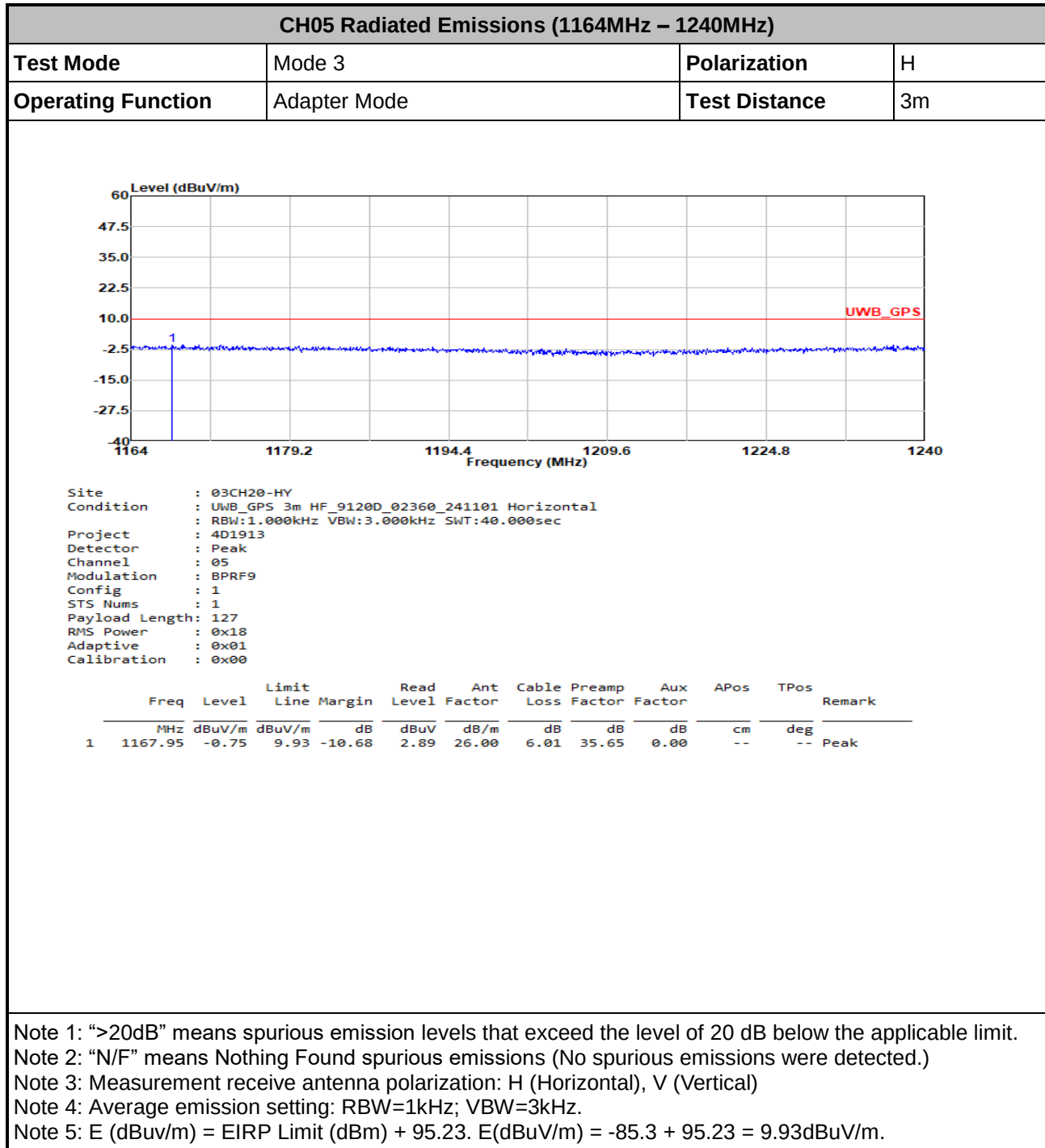
Note 6: #5 is fundamental signal.

Note 7:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (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)



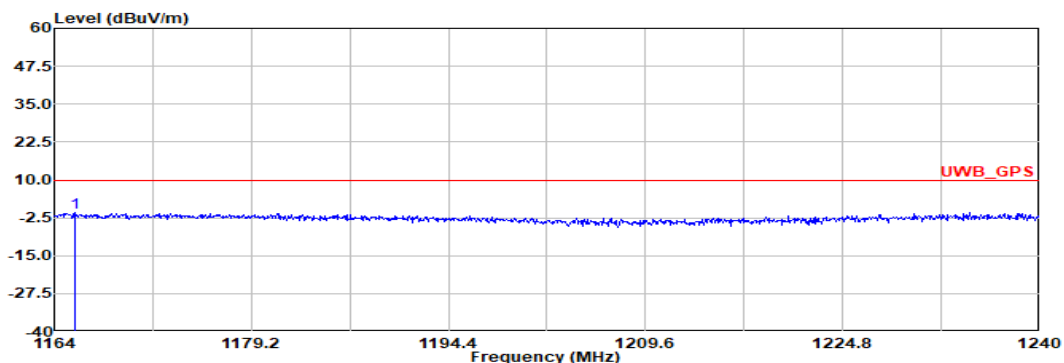
3.5.9 Radiated Emissions (1164MHz – 1240MHz)





CH05 Radiated Emissions (1164MHz – 1240MHz)

Test Mode	Mode 3	Polarization	V
Operating Function	Adapter Mode	Test Distance	3m



Site : 03CH20-HY
Condition : UWB_GPS 3m HF_9120D_02360_241101 Vertical
Project : 4D1913
Detector : Peak
Channel : 05
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x18
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 1165.60	-0.69	9.93		-10.62	2.95	26.00	6.01	35.65	0.00	--	--	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)

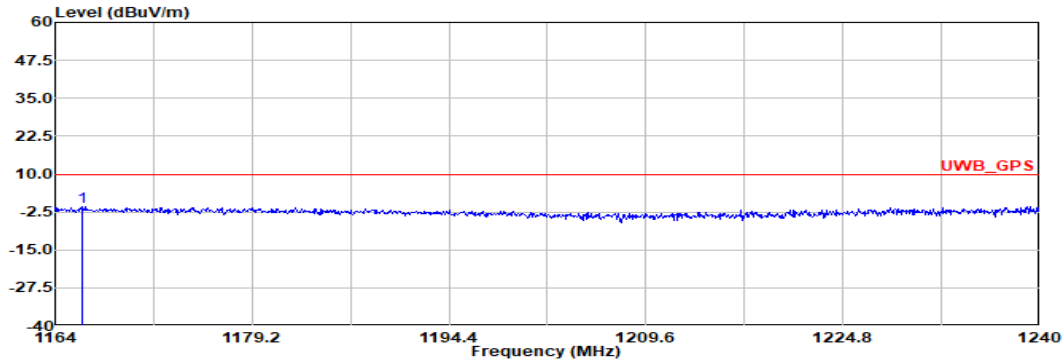
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.

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 12	Polarization	H
Operating Function	Adapter Mode	Test Distance	3m



Site : 03CH20-HY
Condition : UWB_GPS 3m HF_9120D_02360_241101 Horizontal
Project : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

	Freq	Level	Limit	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBUV/m	dBUV/m	dB	dBUV	dB/m	dB	dB	dB	cm	deg	
1	1166.13	-0.72	9.93	-10.65	2.92	26.00	6.01	35.65	0.00	--	--	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)

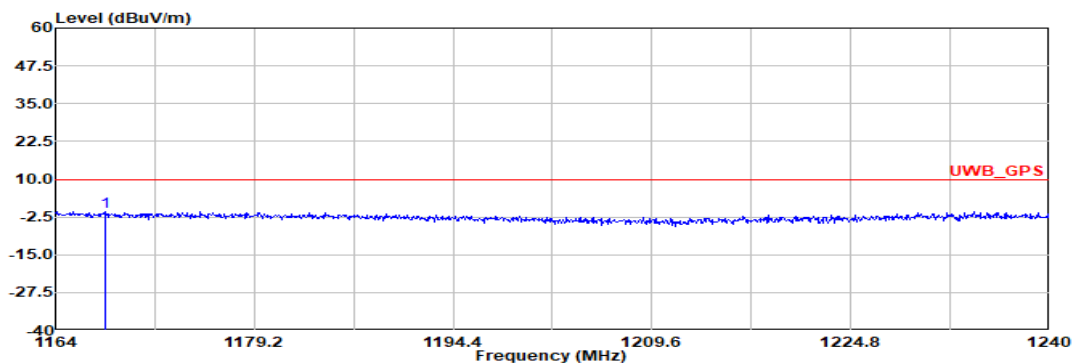
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.

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 12	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 : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 1167.80	-0.58	9.93		-10.51	3.06	26.00	6.01	35.65	0.00	--	--	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.)

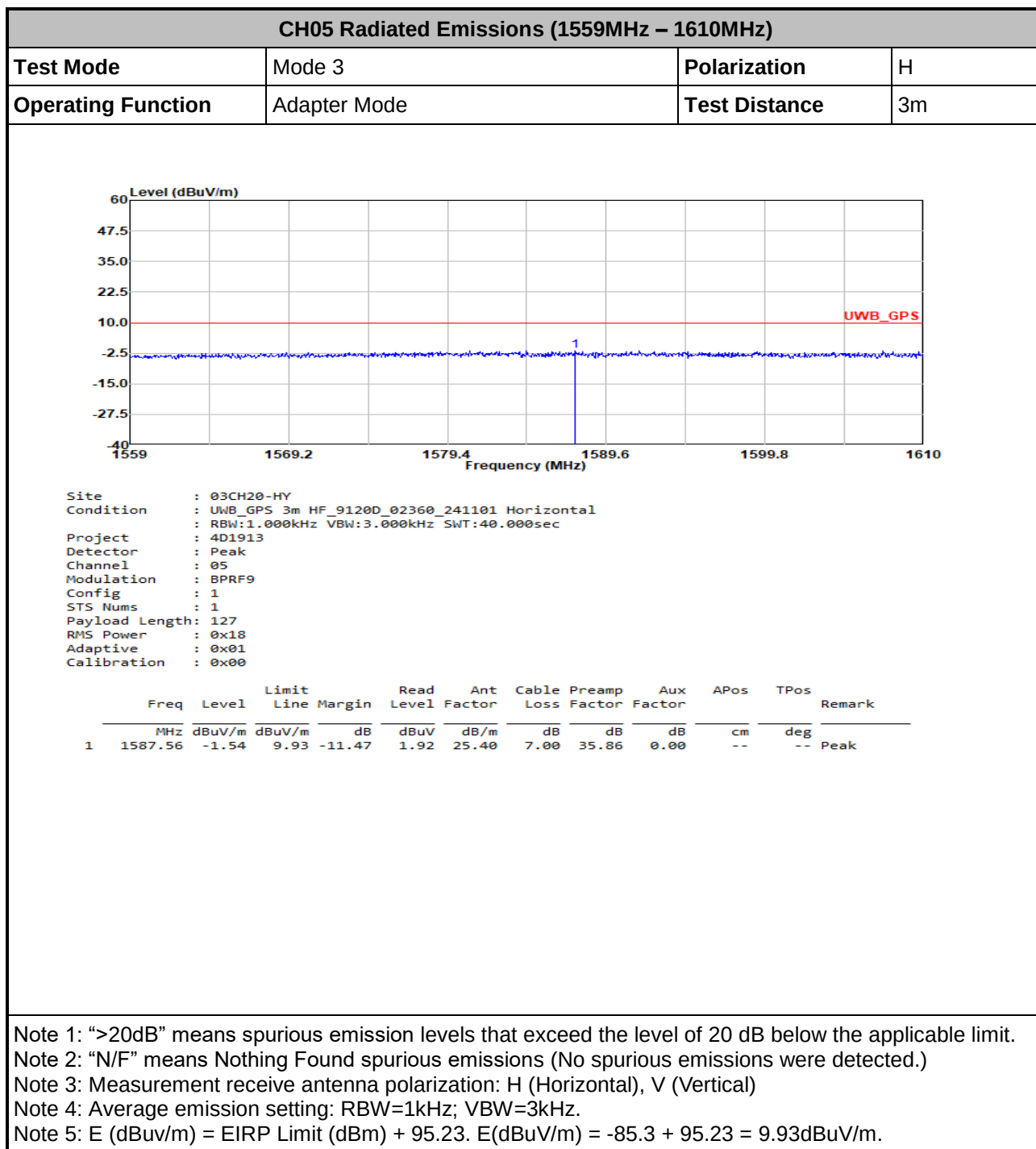
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.

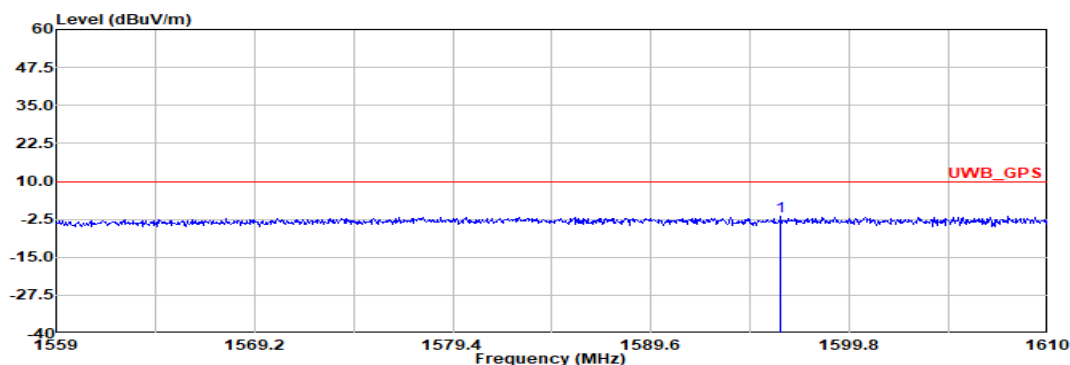


3.5.10 Radiated Emissions (1559MHz – 1610MHz)



CH05 Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Mode 3	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 : 4D1913
 Detector : Peak
 Channel : 05
 Modulation : BPRF9
 Config : 1
 STS Num : 1
 Payload Length: 127
 RMS Power : 0x18
 Adaptive : 0x01
 Calibration : 0x00

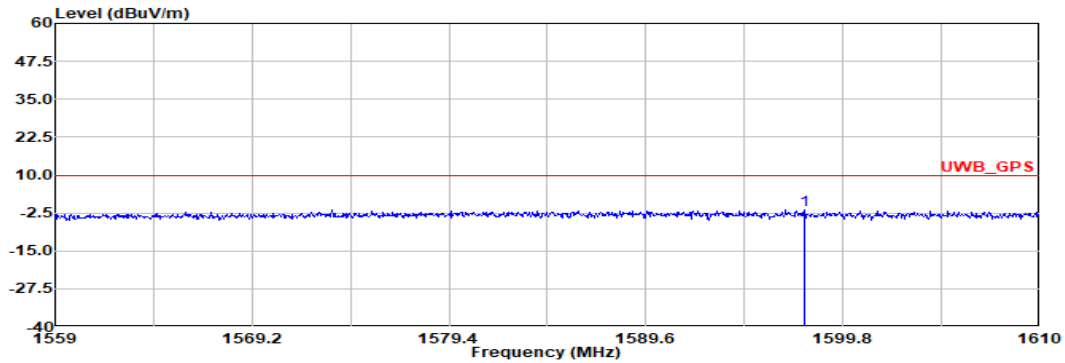
Freq	Level	Limit	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 1596.28	-1.44	9.93	-11.37	2.14	25.27	7.02	35.87	0.00	--	--	Peak

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: $E \text{ (dBuV/m)} = \text{EIRP Limit (dBm)} + 95.23$. $E \text{ (dBuV/m)} = -85.3 + 95.23 = 9.93 \text{ dBuV/m}$.



CH09 Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Mode 12	Polarization	H
Operating Function	Adapter Mode	Test Distance	3m



Site : 03CH20-HY
Condition : UWB_GPS 3m HF_9120D_02360_241101 Horizontal
Project : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Num : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

	Freq	Level	Limit	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1597.81	-1.50	9.93	-11.43	2.10	25.24	7.03	35.87	0.00	--	--	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)

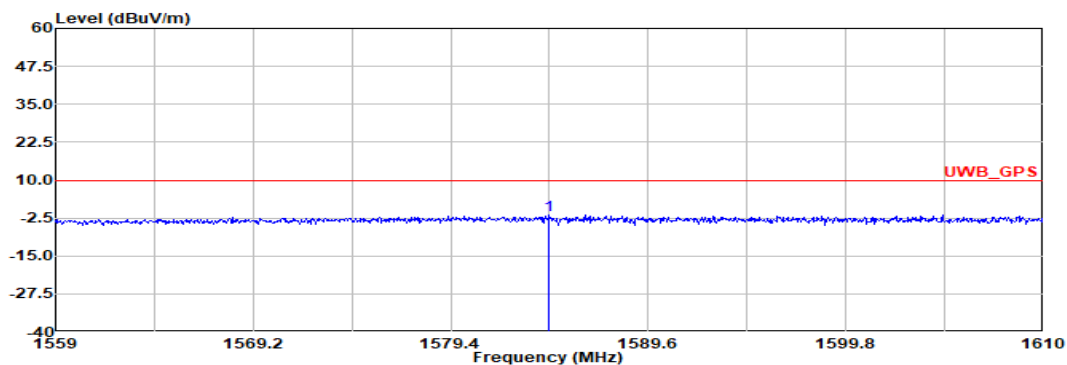
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.

Note 5: $E \text{ (dBuV/m)} = \text{EIRP Limit (dBm)} + 95.23$. $E \text{ (dBuV/m)} = -85.3 + 95.23 = 9.93 \text{ dBuV/m}$.



CH09 Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Mode 12	Polarization	V
Operating Function	Adapter Mode	Test Distance	3m



Site : 03CH20-HY
Condition : UWB_GPS 3m HF_9120D_02360_241101 Vertical
Project : 4D1913
Detector : Peak
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 1584.50	-1.50	9.93		-11.43	1.96	25.40	7.00	35.86	0.00	--	--	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.)

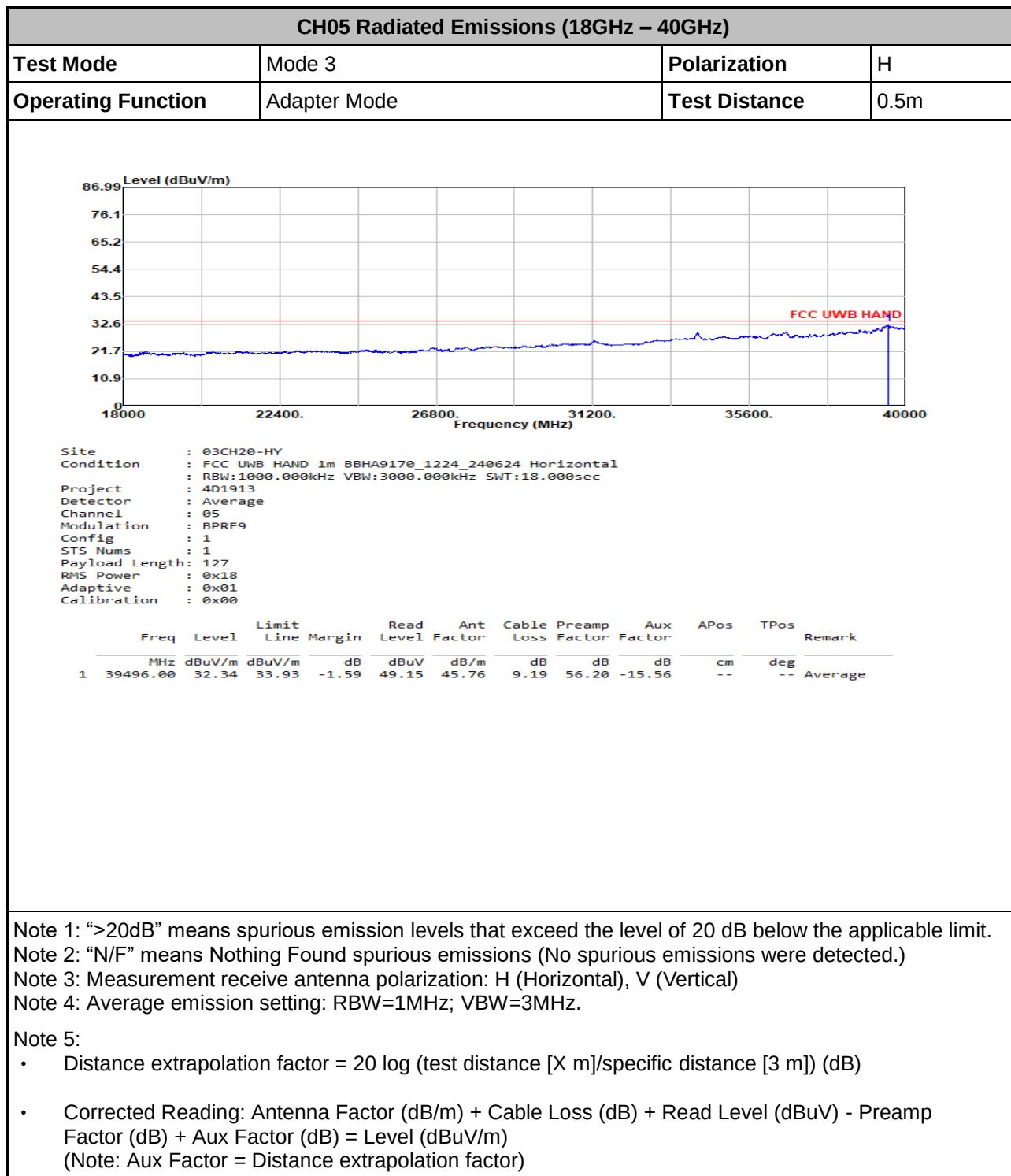
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



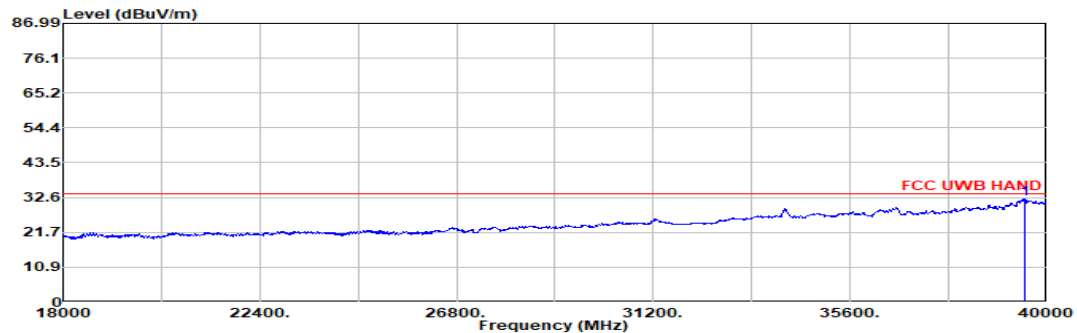
3.5.11 Radiated Emissions (18GHz – 40GHz)





CH05 Radiated Emissions (18GHz – 40GHz)

Test Mode	Mode 3	Polarization	V
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH20-HY
Condition : FCC UWB HAND 1m BBHA9170_1224_240624 Vertical
Project : 4D1913
Detector : Average
Channel : 05
Modulation : BPRF9
Config : 1
STS Num : 1
Payload Length : 127
RMS Power : 0x18
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 39496.00	32.31	33.93		-1.62	49.12	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.

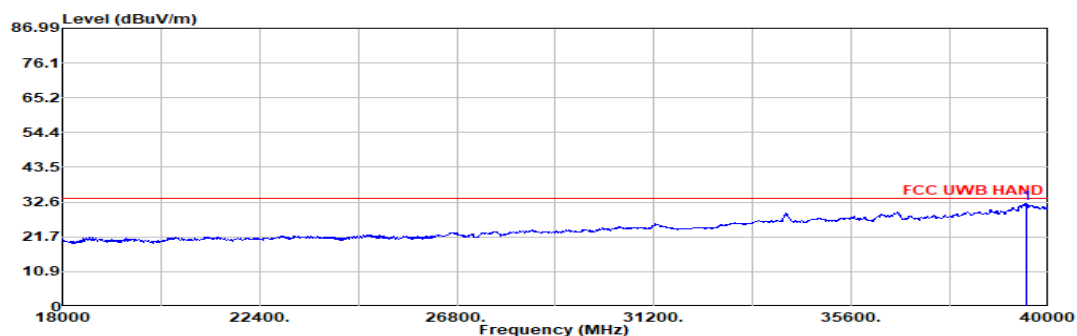
Note 5:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (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 12	Polarization	H
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH20-HY
Condition : FCC UWB HAND 1m BBHA9170_1224_240624 Horizontal
Project : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 39496.00	32.23	33.93		-1.70	49.04	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.

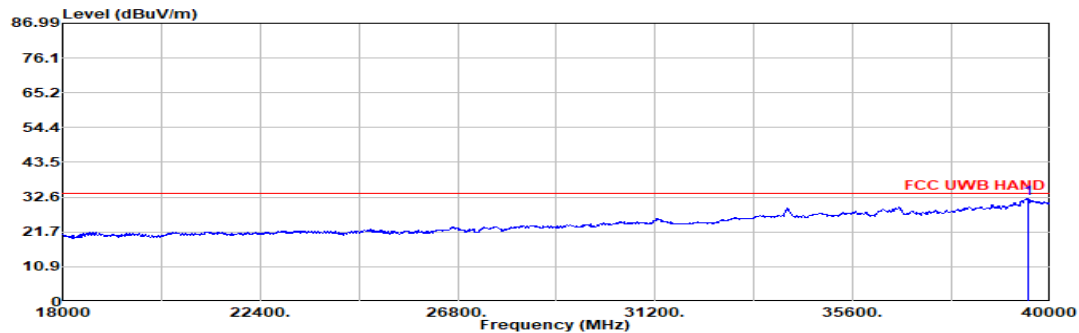
Note 5:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (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 12	Polarization	V
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH20-HY
Condition : FCC UWB HAND 1m BBHA9170_1224_240624 Vertical
Project : 4D1913
Detector : Average
Channel : 09
Modulation : BPRF9
Config : 1
STS Nums : 1
Payload Length: 127
RMS Power : 0x1D
Adaptive : 0x01
Calibration : 0x00

Freq	Level	Limit	Line	Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
MHz	dBuV/m	dBuV/m		dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1 39496.00	32.33	33.93		-1.60	49.14	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 = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (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. 04, 2025~ Mar. 06, 2025	Oct. 15, 2025	Radiation (03CH20-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Mar. 04, 2025~ Mar. 06, 2025	Aug. 28, 2025	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 27, 2024	Mar. 04, 2025~ Mar. 06, 2025	May 26, 2025	Radiation (03CH20-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar. 04, 2025~ Mar. 06, 2025	N/A	Radiation (03CH20-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 04, 2025~ Mar. 06, 2025	N/A	Radiation (03CH20-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 04, 2025~ Mar. 06, 2025	N/A	Radiation (03CH20-HY)
Signal Analyzer	Keysight	N9010B	MY60240520	N/A	Dec. 09, 2024	Mar. 04, 2025~ Mar. 06, 2025	Dec. 08, 2025	Radiation (03CH20-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802N1 D01N-06	55606 & 08	30MHz~1GHz	Nov. 27, 2024	Mar. 04, 2025~ Mar. 06, 2025	Nov. 26, 2025	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	02360	1GHz-18GHz	Nov. 01, 2024	Mar. 04, 2025~ Mar. 06, 2025	Oct. 31, 2025	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	1224	18GHz-40GHz	Jun. 24, 2024	Mar. 04, 2025~ Mar. 06, 2025	Jun. 23, 2025	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Dec. 31, 2024	Mar. 04, 2025~ Mar. 06, 2025	Dec. 30, 2025	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45SE	980792	N/A	Nov. 12, 2024	Mar. 04, 2025~ Mar. 06, 2025	Nov. 11, 2025	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,8040 15/2,804027/2	N/A	Jan. 16, 2025	Mar. 04, 2025~ Mar. 06, 2025	Jan. 15, 2026	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303A	TP211382	N/A	Mar. 27, 2024	Mar. 04, 2025~ Mar. 06, 2025	Mar. 26, 2025	Radiation (03CH20-HY)
Software	Audix	N/A	RK-002156	N/A	N/A	Mar. 04, 2025~ Mar. 06, 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	SCHWARZBE CK	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)

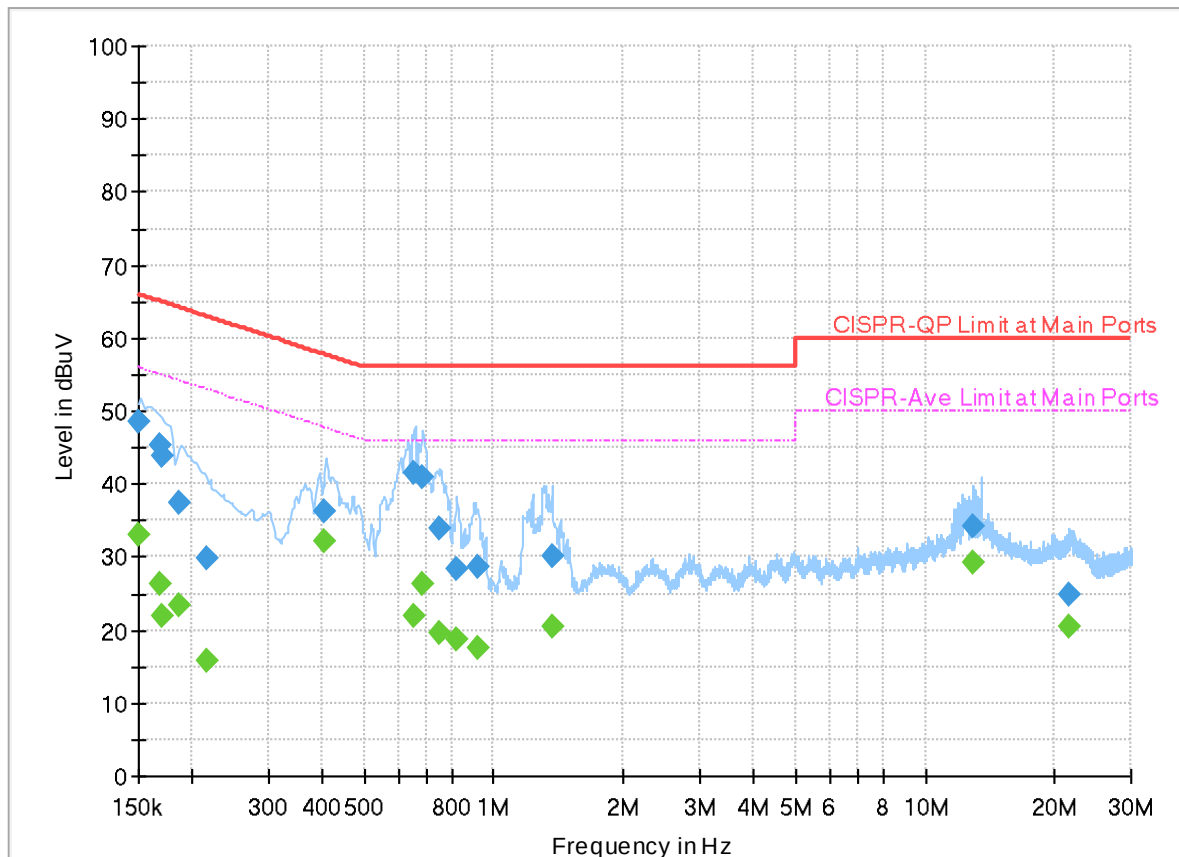


Appendix A. AC Conducted Emission Test Results

EUT Information

Report NO : 4D1913
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



Final Result

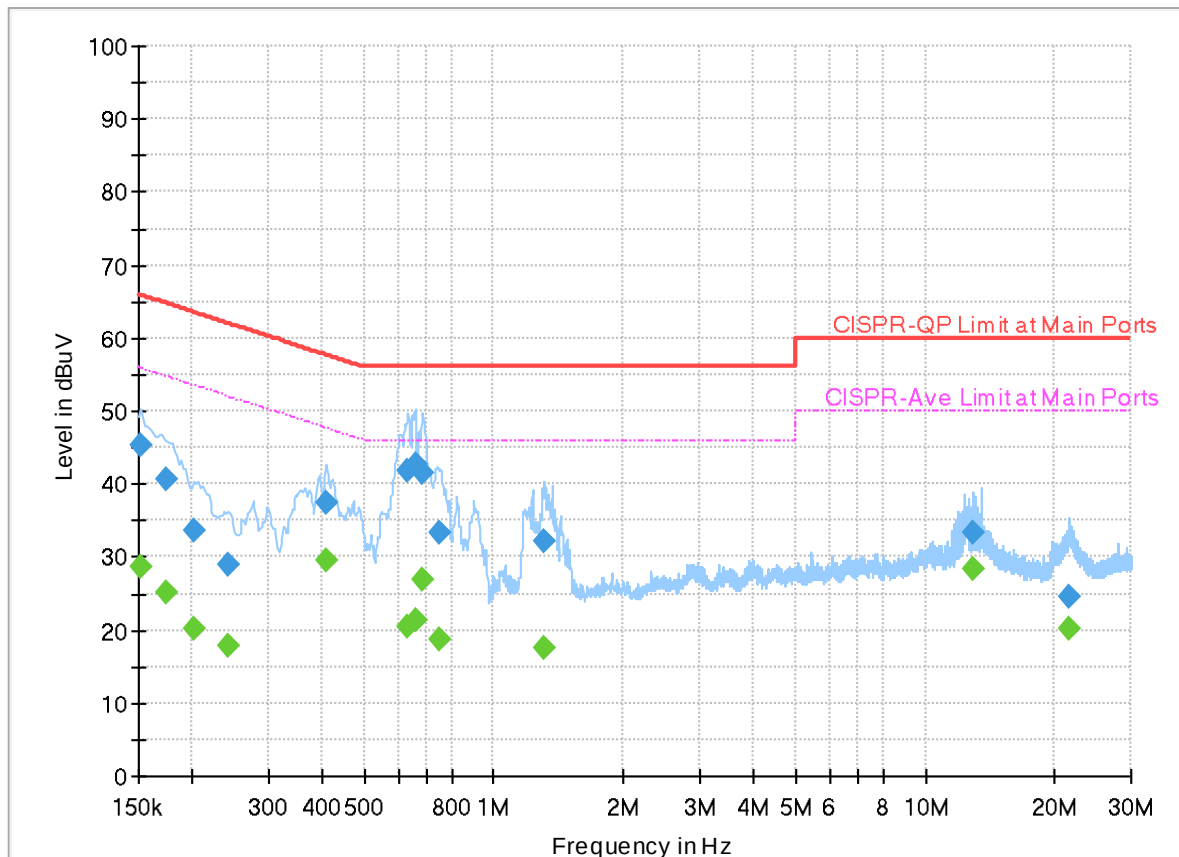
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	PE	Corr. (dB)
0.150000	---	32.98	56.00	23.02	L1	FLO	20.0
0.150000	48.63	---	66.00	17.37	L1	FLO	20.0
0.168000	---	26.32	55.06	28.74	L1	FLO	20.0
0.168000	45.30	---	65.06	19.76	L1	FLO	20.0
0.170250	---	22.02	54.95	32.93	L1	FLO	20.0
0.170250	43.97	---	64.95	20.98	L1	FLO	20.0
0.186630	---	23.32	54.19	30.87	L1	FLO	20.0
0.186630	37.54	---	64.19	26.65	L1	FLO	20.0
0.215250	---	15.72	53.00	37.28	L1	FLO	20.0
0.215250	29.79	---	63.00	33.21	L1	FLO	20.0
0.406230	---	32.09	47.73	15.64	L1	FLO	20.0
0.406230	36.29	---	57.73	21.44	L1	FLO	20.0
0.655800	---	22.06	46.00	23.94	L1	FLO	20.0
0.655800	41.44	---	56.00	14.56	L1	FLO	20.0
0.683880	---	26.17	46.00	19.83	L1	FLO	20.0
0.683880	40.98	---	56.00	15.02	L1	FLO	20.0
0.750570	---	19.62	46.00	26.38	L1	FLO	20.0
0.750570	33.88	---	56.00	22.12	L1	FLO	20.0
0.816000	---	18.57	46.00	27.43	L1	FLO	20.0

0.816000	28.41	---	56.00	27.59	L1	FLO	20.0
0.915000	---	17.63	46.00	28.37	L1	FLO	20.0
0.915000	28.65	---	56.00	27.35	L1	FLO	20.0
1.360500	---	20.45	46.00	25.55	L1	FLO	20.0
1.360500	30.11	---	56.00	25.89	L1	FLO	20.0
12.974640	---	29.35	50.00	20.65	L1	FLO	20.5
12.974640	34.21	---	60.00	25.79	L1	FLO	20.5
21.550200	---	20.45	50.00	29.55	L1	FLO	20.9
21.550200	24.79	---	60.00	35.21	L1	FLO	20.9

EUT Information

Report NO : 4D1913
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	PE	Corr. (dB)
0.152093	---	28.61	55.89	27.28	N	FLO	20.0
0.152093	45.23	---	65.89	20.66	N	FLO	20.0
0.173760	---	25.15	54.78	29.63	N	FLO	20.0
0.173760	40.70	---	64.78	24.08	N	FLO	20.0
0.201750	---	20.23	53.54	33.31	N	FLO	20.0
0.201750	33.67	---	63.54	29.87	N	FLO	20.0
0.242070	---	17.91	52.03	34.12	N	FLO	20.0
0.242070	28.90	---	62.03	33.13	N	FLO	20.0
0.408750	---	29.48	47.67	18.19	N	FLO	20.0
0.408750	37.43	---	57.67	20.24	N	FLO	20.0
0.627000	---	20.53	46.00	25.47	N	FLO	20.0
0.627000	41.74	---	56.00	14.26	N	FLO	20.0
0.659490	---	21.25	46.00	24.75	N	FLO	20.0
0.659490	42.67	---	56.00	13.33	N	FLO	20.0
0.679200	---	26.86	46.00	19.14	N	FLO	20.0
0.679200	41.60	---	56.00	14.40	N	FLO	20.0
0.748320	---	18.84	46.00	27.16	N	FLO	20.0
0.748320	33.24	---	56.00	22.76	N	FLO	20.0
1.307220	---	17.43	46.00	28.57	N	FLO	20.0

1.307220	32.02	---	56.00	23.98	N	FLO	20.0
12.974640	---	28.42	50.00	21.58	N	FLO	20.5
12.974640	33.23	---	60.00	26.77	N	FLO	20.5
21.603750	---	20.11	50.00	29.89	N	FLO	20.9
21.603750	24.44	---	60.00	35.56	N	FLO	20.9

————THE END————