



FCC Radio Test Report

Applicant : Motorola Mobility LLC
Equipment : moto tag
Brand Name : Motorola
Model Name : XT2445-1
FCC ID : IHDT6AB3
Standard : 47 CFR FCC Part 15.519
Test Date(S) : May 22, 2024 ~ May 25, 2024

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



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Appendix A. Setup Photographs



History of this test report

Report No.	Version	Description	Issued Date
FR441117B	01	Initial issue of report	May 28, 2024
FR441117B	02	1. Added S/N of conducted sample for 15.519(a)(1) testing 2. Updated section 3.2.5 description of marker on plots.	May 29, 2024



Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.4	15.203 15.519(a)(2)	Antenna Requirement	PASS	15.203
-	15.207	AC Power-line Conducted Emissions	Not Applicable	2
3.1	15.503	UWB Bandwidth	PASS	≥ 500MHz
3.2	15.519(a)(1)	Technical requirements for Hand Held UWB systems	PASS	15.519(a)(1)
3.3	15.519(e)	Peak Emissions within a 50 MHz Bandwidth	PASS	≤ 0 dBm/50MHz
3.4	15.519(c) /15.519(d)	Radiated Emissions	PASS	UWB Emissions: 15.519(c) GPS Emissions: 15.519(d) Digital Emissions: 15.209
Remark: 1. Not Applicable means after assessing, test items are not necessary to carry out. 2. The device is Powered by battery only.				

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.



1 General Description

1.1 Applicant

Motorola Mobility LLC

222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC

222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	moto tag
Brand Name	Motorola
Model Name	XT2445-1
FCC ID	IHDT6AB3
SN Code	Radiation: UT0D3L1445D008C Conducted: UT0D3L1445D0089
HW Version	EVT2
SW Version	1.0.9
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Channel Number & Tx/Rx Frequency Range	CH05: 6489.6 MHz CH09: 7987.2 MHz
Antenna Type	IFA Antenna
UWB category	hand held device
Antenna Gain	<CH05> : 2.5 dBi <CH09> : 3.5 dBi
Type of Modulation	BPM-BPSK

1.5 Modification of EUT

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

1.6 Type of EUT

Operational Condition	
EUT Power Type	From Battery
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:

1.7 Testing Location Information

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH06-KS	CN1257	314309

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH06-KS	Levi Zhao	22 ~ 23 °C 41 ~ 42 %	May 22, 2024~ May 25, 2024

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH06-KS	AUDIX	E3	210616



1.9 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 15F
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦ FCC KDB 393764 D01 v02
- ♦ FCC KDB 412172 D01 v01r01

1.10 Specification of Accessory

Specification of Accessory				
Battery	Brand Name	Motorola	Model Name	CR2032



2 Test Configuration of EUT

2.1 Test Mode

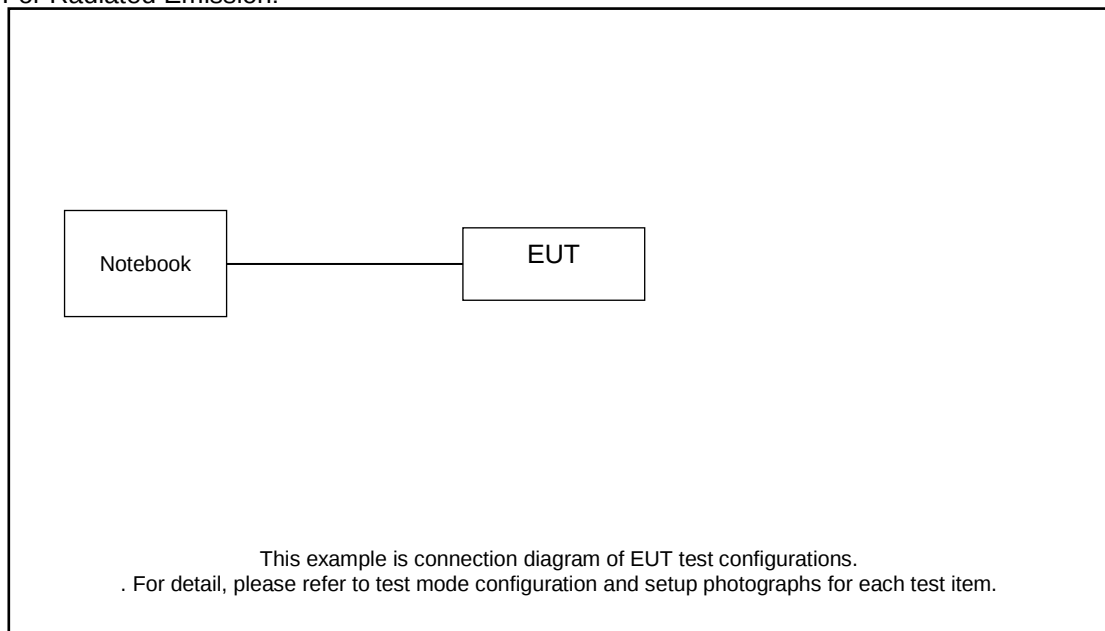
Test Configuration				
Mode	UWB Channel	preamble_cidx	rx_sts_mode	packet_length
Mode 1	5	9	0	67
Mode 2	5	9	1	67
Mode 3	5	9	3	0
Mode 4	5	10	0	67
Mode 5	5	10	1	67
Mode 6	5	10	3	0
Mode 7	5	11	0	67
Mode 8	5	11	1	67
Mode 9	5	11	3	0
Mode 10	5	12	0	67
Mode 11	5	12	1	67
Mode 12	5	12	3	0
Mode 13	9	9	0	67
Mode 14	9	9	1	67
Mode 15	9	9	3	0
Mode 16	9	10	0	67
Mode 17	9	10	1	67
Mode 18	9	10	3	0
Mode 19	9	11	0	67
Mode 20	9	11	1	67
Mode 21	9	11	3	0
Mode 22	9	12	0	67
Mode 23	9	12	1	67
Mode 24	9	12	3	0

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests			
Tests Item	UWB Bandwidth, Peak Emissions within a 50 MHz Bandwidth, Radiated Emissions		
Test Condition	Radiated measurement		
Operating Mode	CTX		
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
			
Worst Planes of EUT	V		
Remark: 1. 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 X plane as worst plane and recorded in this report. 2. The Notebook for debugging parameters.			

2.3 Test Setup Diagram

For Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Honor	N/A	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m

3 Transmitter Test Result

3.1 UWB bandwidth

3.1.1 UWB bandwidth Limit

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

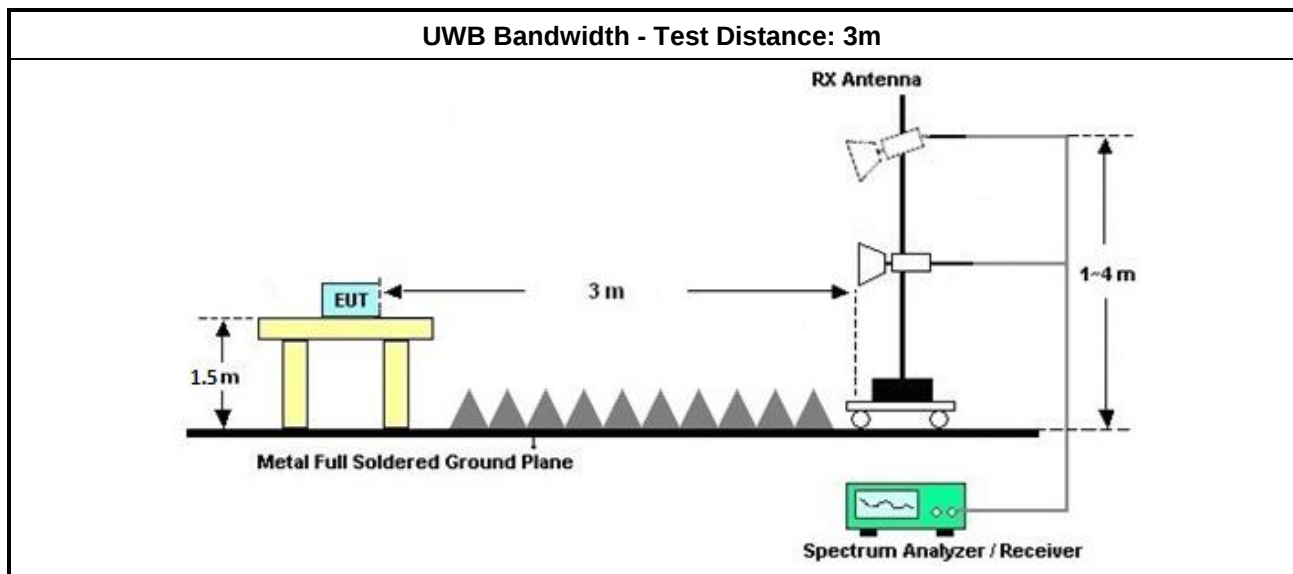
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
☒	For the UWB bandwidth shall be measured using one of the options below:
☒	Refer as ANSI C63.10, clause 6.9.3 and clause 10.1 for UWB bandwidth testing.

3.1.4 Test Setup



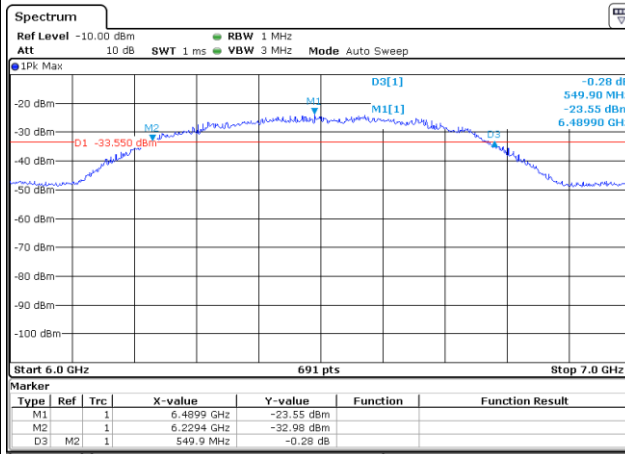
**3.1.5 Test Result of UWB Bandwidth**

Mode	Channel	Preamble_ cidx	Rx_sts_ mode	Packet_ length	Bandwidth (MHz)	Limit(MHz)	Result	Pol(H/V)
Mode 1	5	9	0	67	549.9	≥500	Pass	H
Mode 2	5	9	1	67	552.8	≥500	Pass	H
Mode 3	5	9	3	0	573.1	≥500	Pass	H
Mode 4	5	10	0	67	513.7	≥500	Pass	H
Mode 5	5	10	1	67	510.9	≥500	Pass	H
Mode 6	5	10	3	0	573.1	≥500	Pass	H
Mode 7	5	11	0	67	525.3	≥500	Pass	H
Mode 8	5	11	1	67	535.5	≥500	Pass	H
Mode 9	5	11	3	0	563	≥500	Pass	H
Mode 10	5	12	0	67	570.2	≥500	Pass	H
Mode 11	5	12	1	67	570.2	≥500	Pass	H
Mode 12	5	12	3	0	563	≥500	Pass	H
Mode 13	9	9	0	67	574.5	≥500	Pass	V
Mode 14	9	9	1	67	583.2	≥500	Pass	V
Mode 15	9	9	3	0	531.1	≥500	Pass	V
Mode 16	9	10	0	67	555.7	≥500	Pass	V
Mode 17	9	10	1	67	555.7	≥500	Pass	V
Mode 18	9	10	3	0	539.8	≥500	Pass	V
Mode 19	9	11	0	67	558.6	≥500	Pass	V
Mode 20	9	11	1	67	565.8	≥500	Pass	V
Mode 21	9	11	3	0	557.2	≥500	Pass	V
Mode 22	9	12	0	67	577.4	≥500	Pass	V
Mode 23	9	12	1	67	563	≥500	Pass	V
Mode 24	9	12	3	0	539.8	≥500	Pass	V



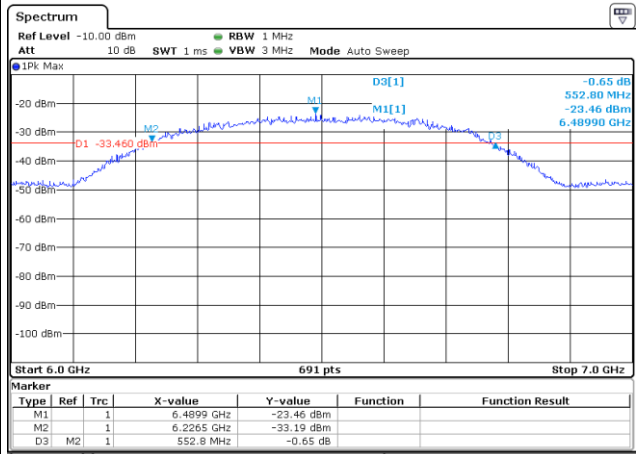
CH05 Bandwidth Plots

Mode 1: cidx-9_sts-0_packet length-67



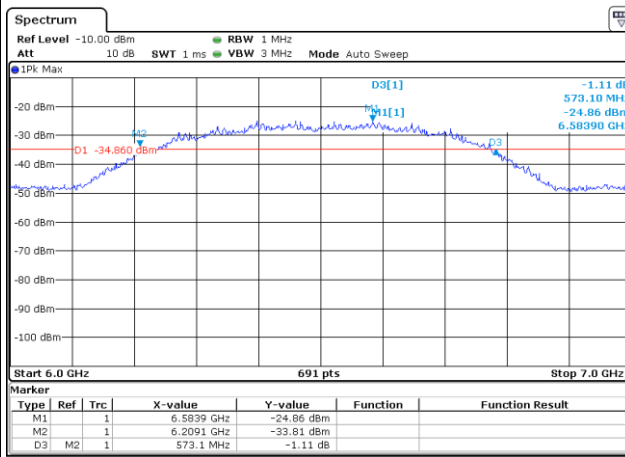
Date: 23 MAY 2024 20:57:51

Mode 2: cidx-9_sts-1_packet length-67



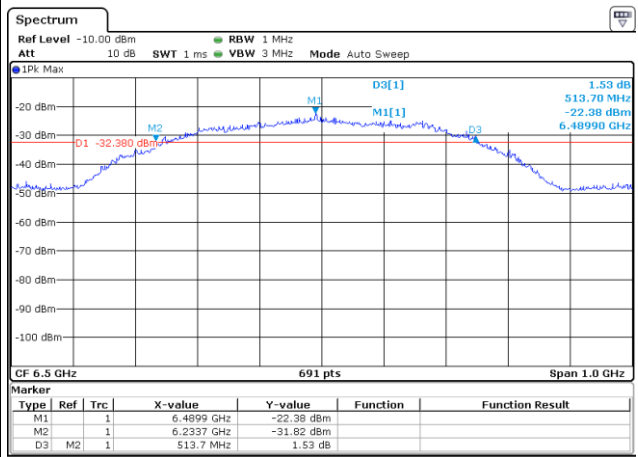
Date: 23 MAY 2024 21:00:41

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



Date: 23 MAY 2024 21:03:12

Mode 4: cidx-10_sts-0_packet length-67

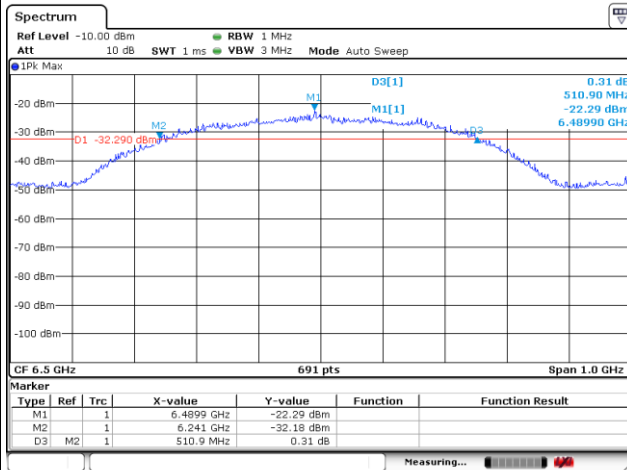


Date: 23 MAY 2024 21:07:06



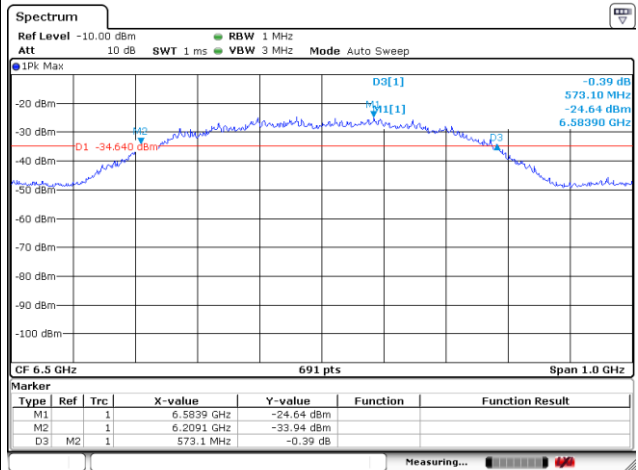
CH05 Bandwidth Plots

Mode 5: cidx-10_sts-1_packet length-67



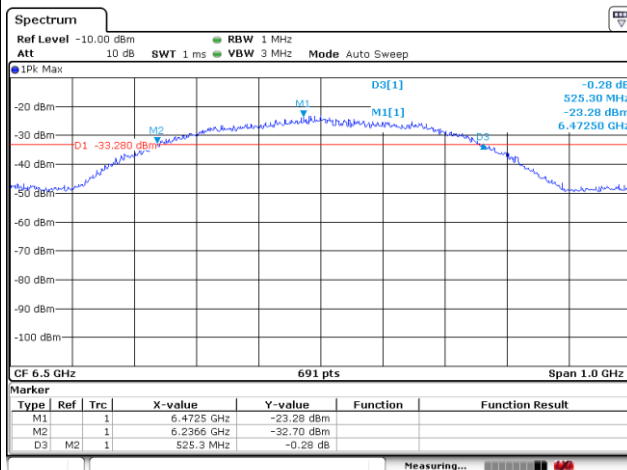
Date: 23 MAY 2024 21:08:59

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



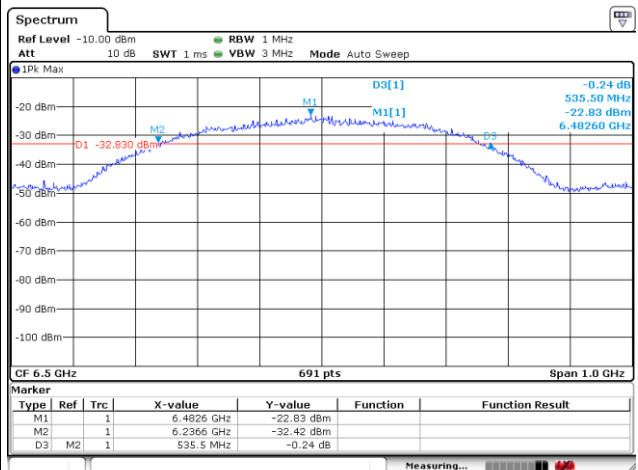
Date: 23 MAY 2024 21:13:36

Mode 7: cidx-11_sts-0_packet length-67



Date: 23 MAY 2024 21:15:54

Mode 8: cidx-11_sts-1_packet length-67

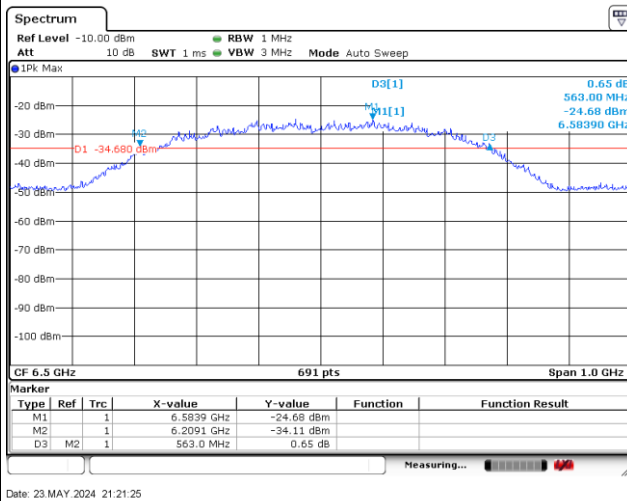


Date: 23 MAY 2024 21:19:14

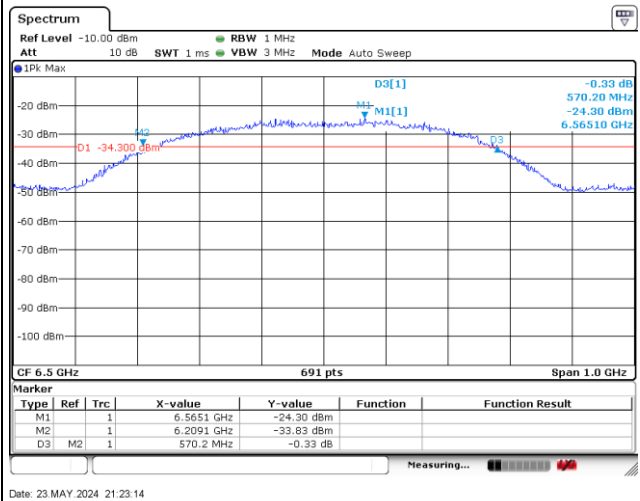


CH05 Bandwidth Plots

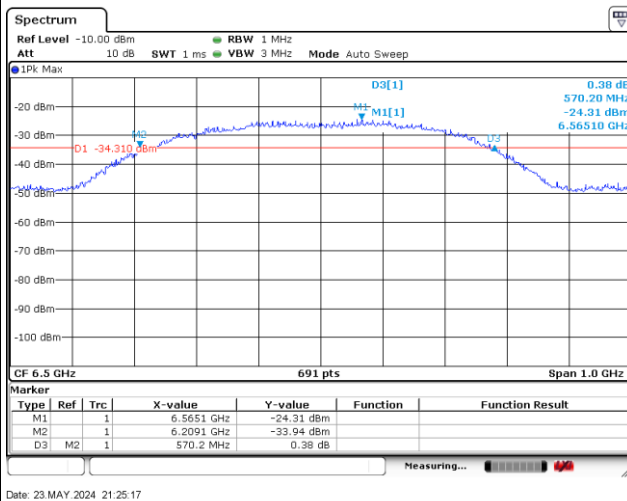
Mode 9: cidx-11_sts-3_packet length-0



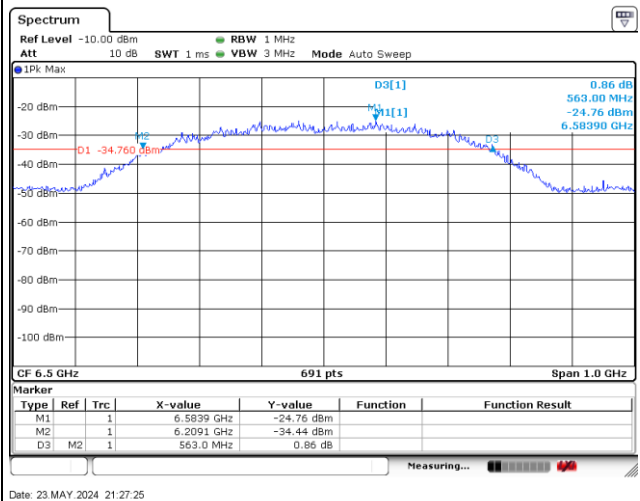
Mode 10: cidx-12_sts-0_packet length-67



Mode 11: cidx-12_sts-1_packet length-67



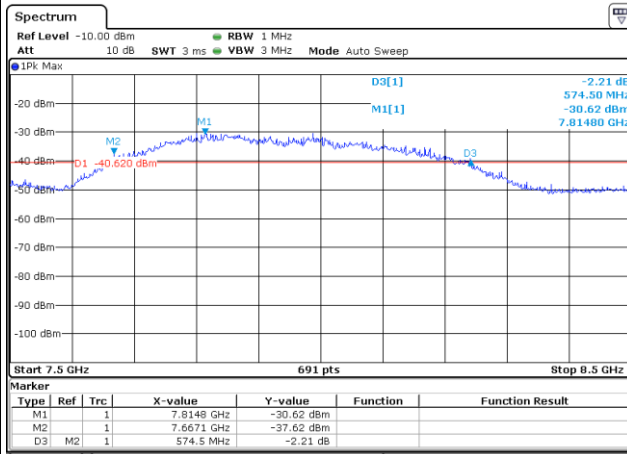
Mode 12: cidx-12_sts-3_packet length-0





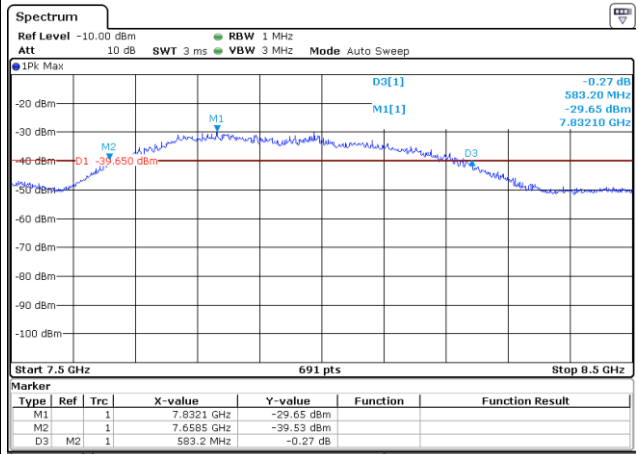
CH09 Bandwidth Plots

Mode 13: cidx-9_sts-0_packet length-67



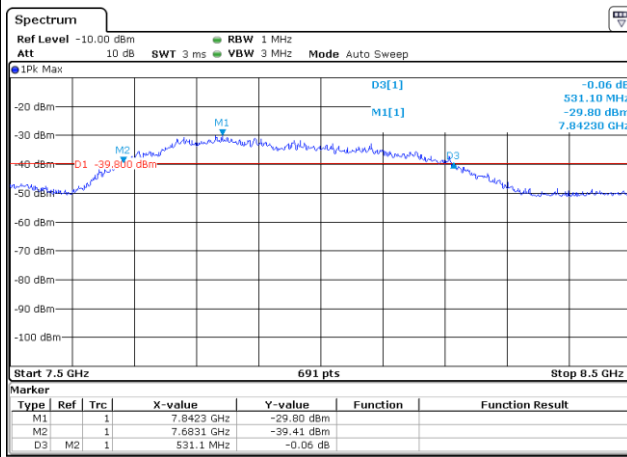
Date: 23 MAY 2024 21:50:48

Mode 14: cidx-9_sts-1_packet length-67



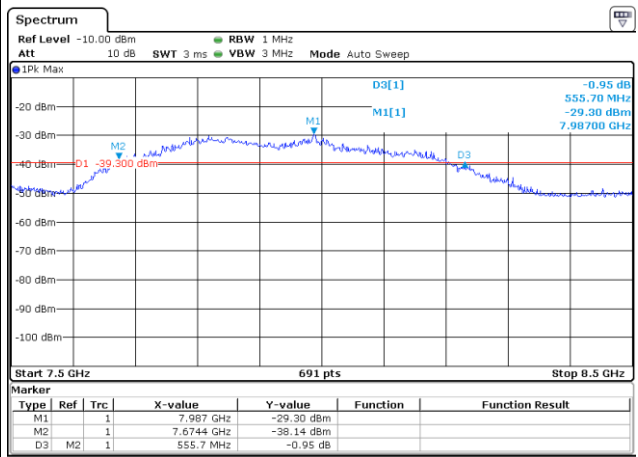
Date: 23 MAY 2024 21:52:33

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



Date: 23 MAY 2024 21:54:53

Mode 16: cidx-10_sts-0_packet length-67

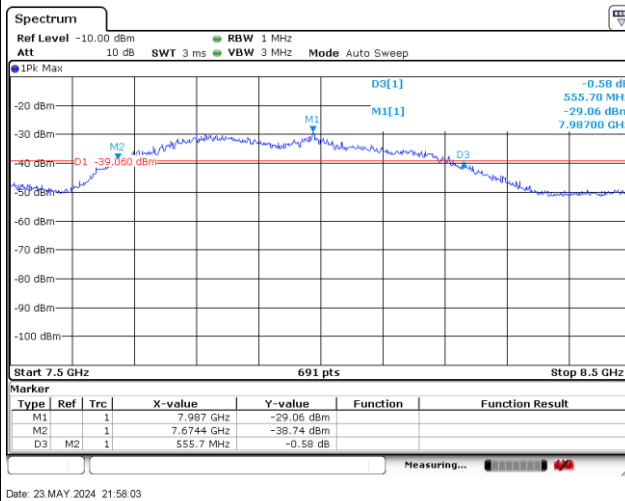


Date: 23 MAY 2024 21:56:27

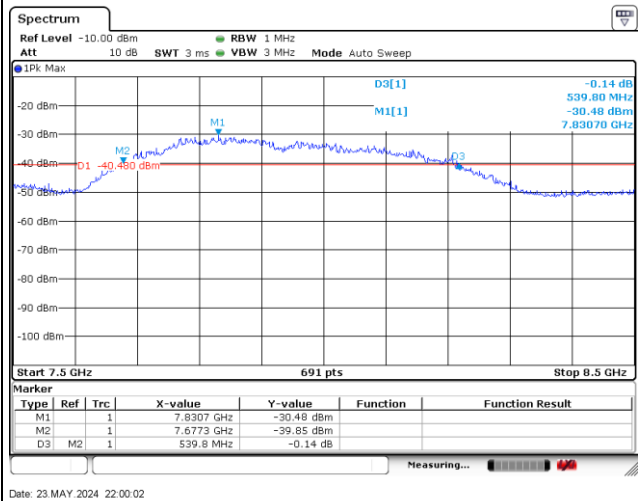


CH09 Bandwidth Plots

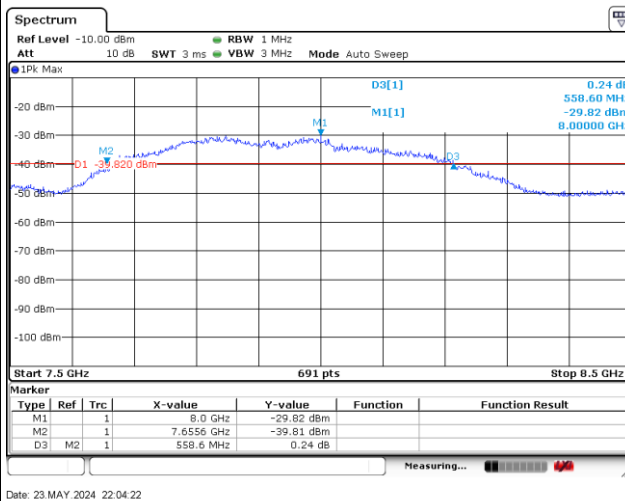
Mode 17: cidx-10_sts-1_packet length-67



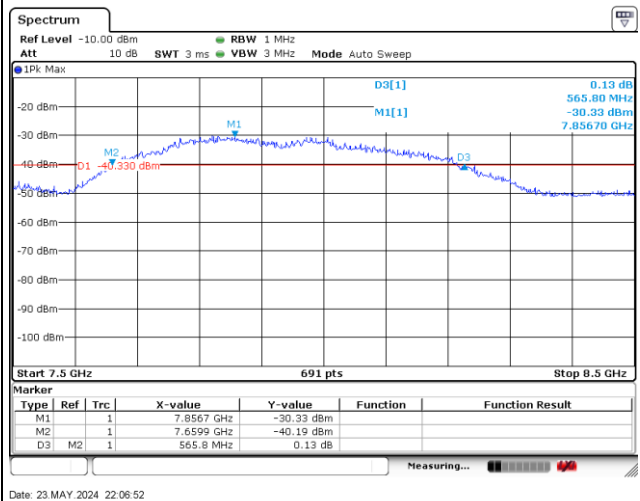
Mode 18: cidx-10_sts-3_packet length-0



Mode 19: cidx-11_sts-0_packet length-67



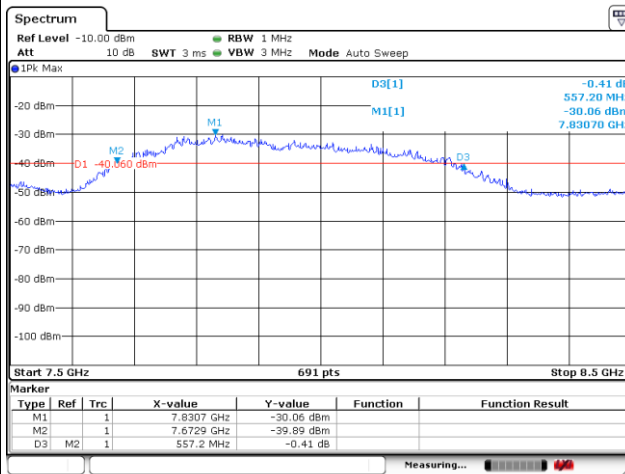
Mode 20: cidx-11_sts-1_packet length-67





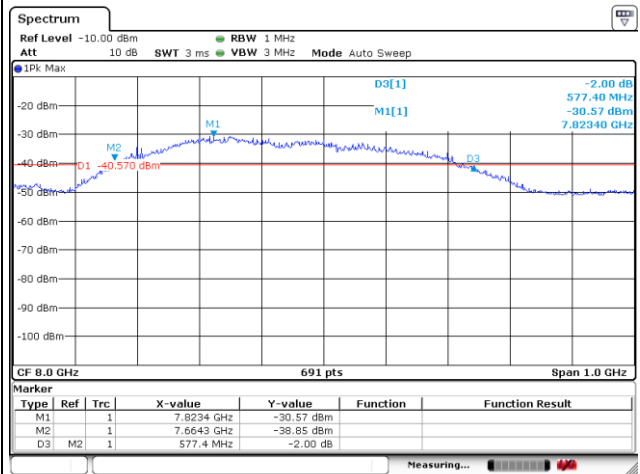
CH09 Bandwidth Plots

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



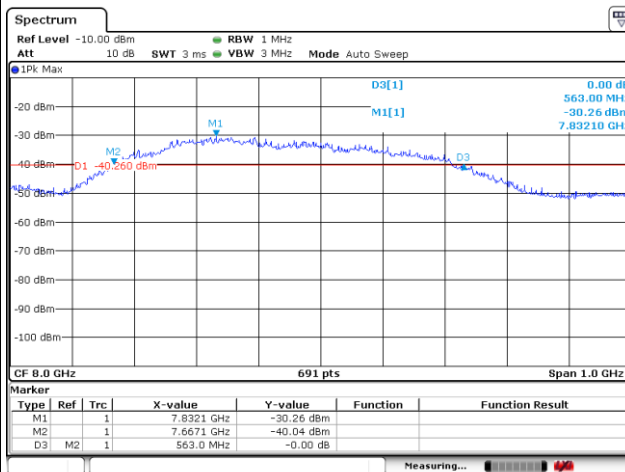
Date: 23 MAY 2024 22:01:46

Mode 22: cidx-12_sts-0_packet length-67



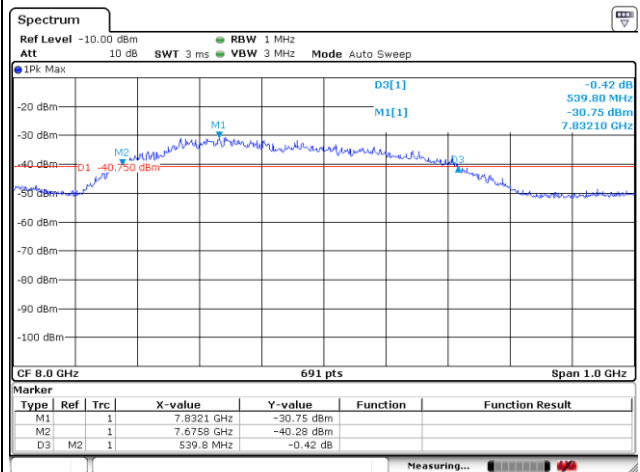
Date: 23 MAY 2024 22:10:25

Mode 23: cidx-12_sts-1_packet length-67



Date: 23 MAY 2024 22:11:56

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



Date: 23 MAY 2024 22:13:16

3.2 Technical requirements for hand held UWB systems

3.2.1 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.

3.2.2 Measuring Instruments

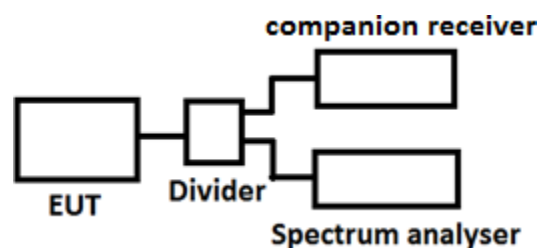
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedure

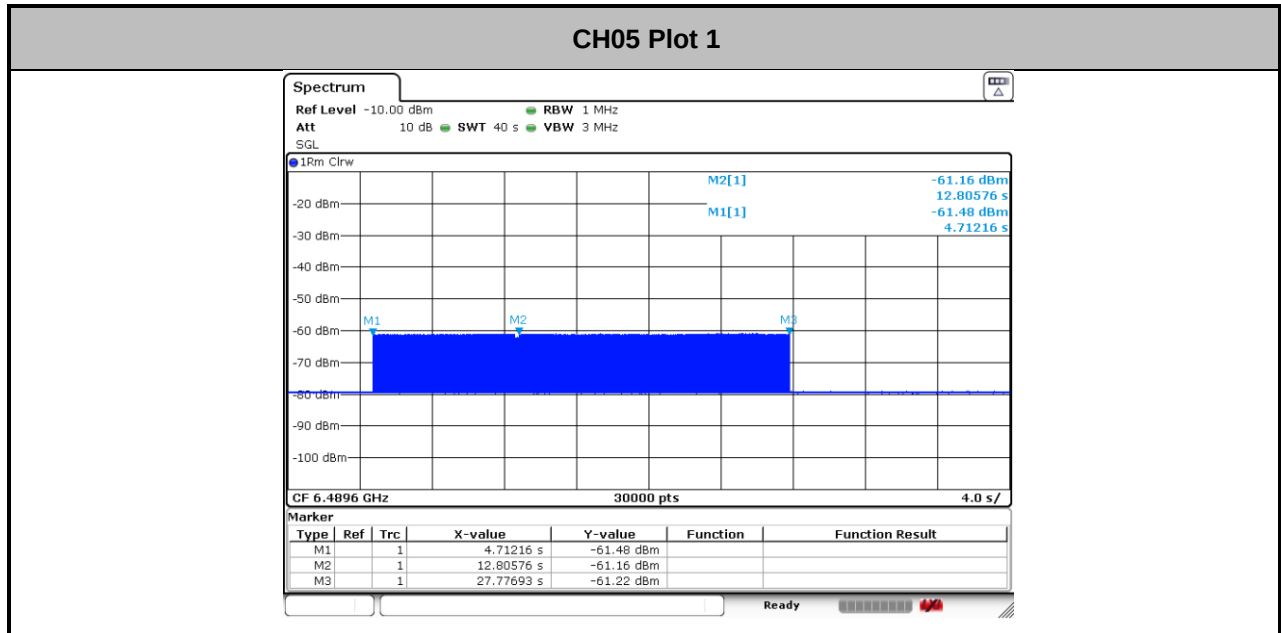
Follow the test step as below:

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 TX function of EUT.
5. Check if EUT stop transmitting once step 4 is made. (see plot 1 in clause 3.3.5)
6. Turn off both EUT and companion receiver.
7. Repeat step 1 to step 3.
8. Disable the RX function of the companion receiver to disassociate the EUT.
9. Check if EUT stop transmitting once step 8 is made. (see plot 2 in clause 3.3.5)

3.2.4 Test Setup



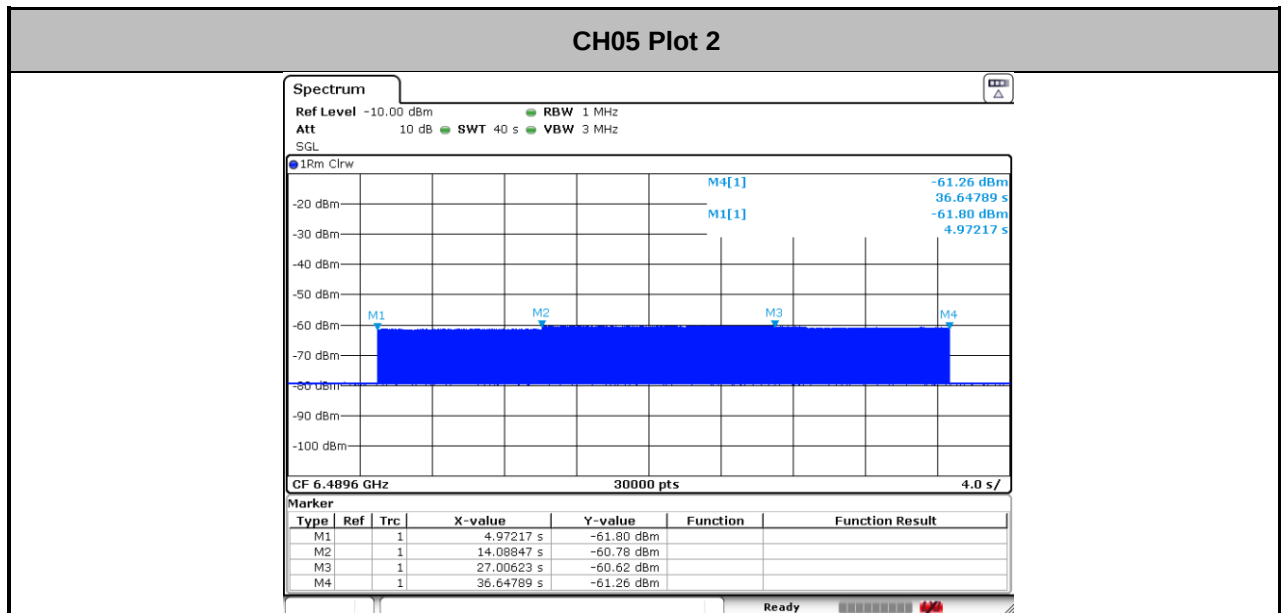
3.2.5 Test Result



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.



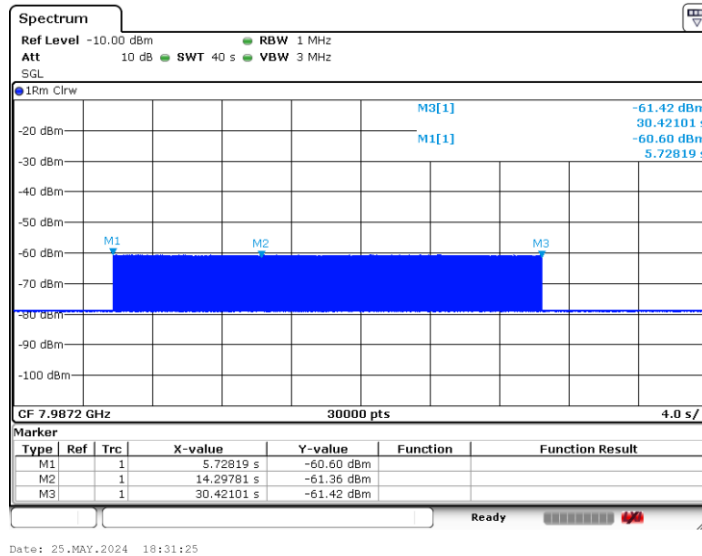
M1 to M2: Set the EUT to TX mode, and EUT starts polling.

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 until M4 stop polling.



CH09 Plot1

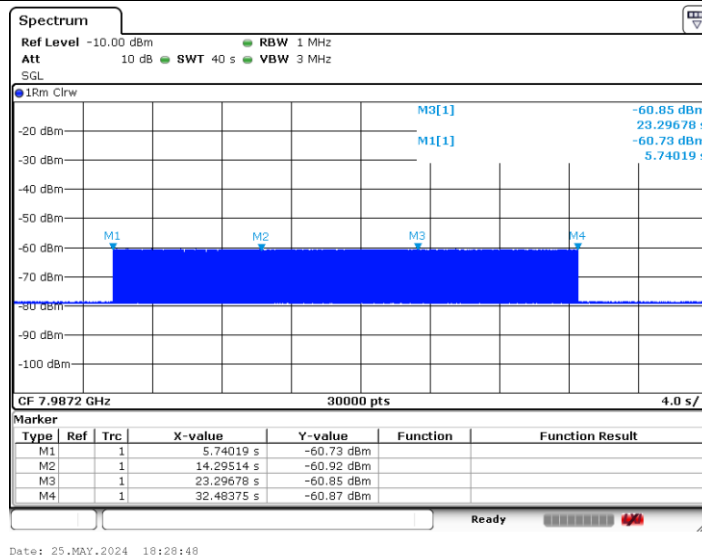


M1 to M2: Set the EUT to TX mode, and EUT starts polling.

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.

CH09 Plot2



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 until M4 stop polling.

3.3 Peak Power Measurement

3.3.1 Peak Power Measurement Limit

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

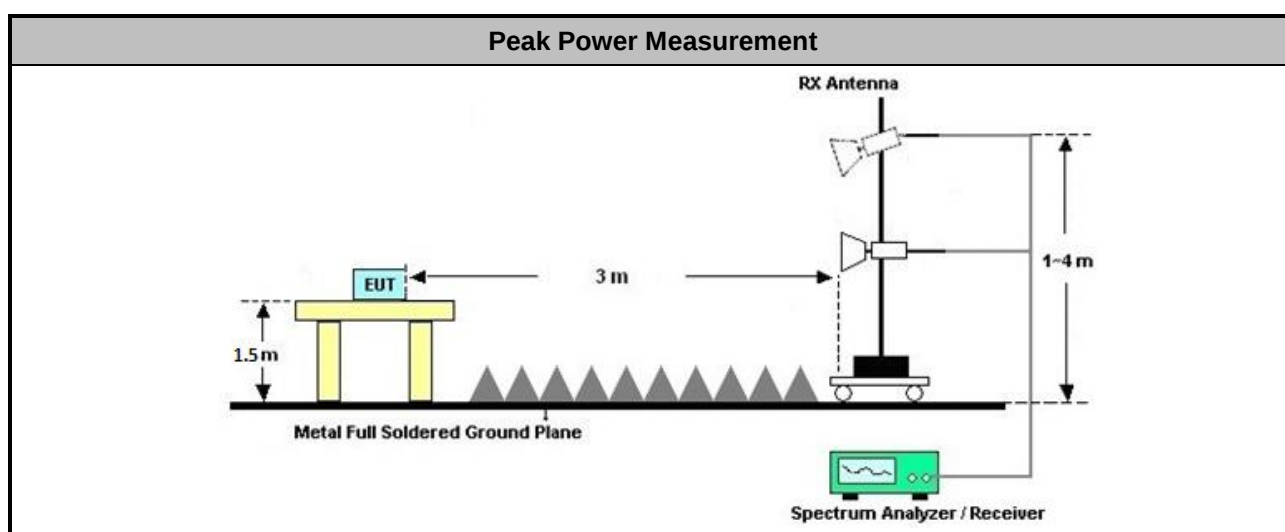
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

3.3.4 Test Setup





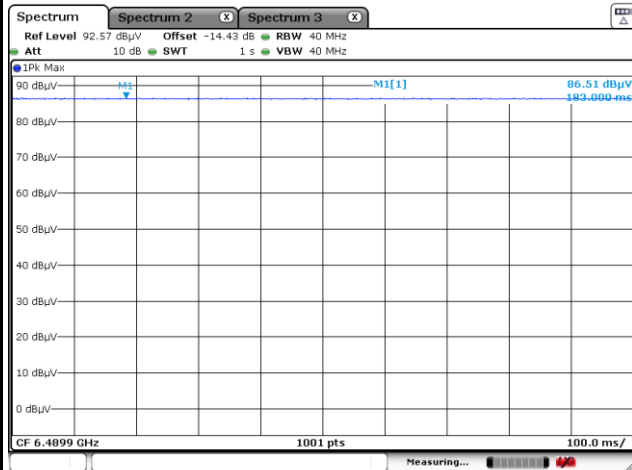
3.3.5 Test Result of Peak Power Measurement

Peak Measurement Result								
Mode	Freq. (MHz)	E-Field (dBuV/m)	EIRP _{40MHz} (dBm)	EIRP _{50MHz} Limit (dBm)	EIRP _{40MHz} Limit (dBm)	Margin [dB]	Result	Pol [H/V]
1	6489.9	86.51	-8.69	0	-1.94	-6.75	Pass	H
2	6489.9	86.52	-8.68	0	-1.94	-6.74	Pass	H
3	6396	78.37	-16.83	0	-1.94	-14.89	Pass	H
4	6489.9	86.76	-8.44	0	-1.94	-6.5	Pass	H
5	6489.9	86.71	-8.49	0	-1.94	-6.55	Pass	H
6	6396	77.89	-17.31	0	-1.94	-15.37	Pass	H
7	6489.9	86.8	-8.4	0	-1.94	-6.46	Pass	H
8	6489.9	86.79	-8.41	0	-1.94	-6.47	Pass	H
9	6396	78.32	-16.88	0	-1.94	-14.94	Pass	H
10	6489	86.42	-8.78	0	-1.94	-6.84	Pass	H
11	6414	84.35	-10.85	0	-1.94	-8.91	Pass	H
12	6395.8	77.02	-18.18	0	-1.94	-16.24	Pass	H
13	7987.596	89.22	-5.98	0	-1.94	-4.04	Pass	V
14	7987.096	89.26	-5.94	0	-1.94	-4	Pass	V
15	7956	81.21	-13.99	0	-1.94	-12.05	Pass	V
16	7987.195	89.45	-5.75	0	-1.94	-3.81	Pass	V
17	7987.144	89.37	-5.83	0	-1.94	-3.89	Pass	V
18	7893.696	81.04	-14.16	0	-1.94	-12.22	Pass	V
19	7987.266	89.44	-5.76	0	-1.94	-3.82	Pass	V
20	7987.241	89.41	-5.79	0	-1.94	-3.85	Pass	V
21	7893.696	81.07	-14.13	0	-1.94	-12.19	Pass	V
22	7974.596	89.01	-6.19	0	-1.94	-4.25	Pass	V
23	7955.796	86.53	-8.67	0	-1.94	-6.73	Pass	V
24	7839.527	80.3	-14.9	0	-1.94	-12.96	Pass	V
Note 1: EIRP [dBm] = E-Field [dBuV/m] - 95.2; Note 2: Bandwidth Correction Factor (BWCF) = 20 log (40MHz/50MHz). Note 3: EIRP _{40MHz} Limit = EIRP _{50MHz} Limit + BWCF, FCC Part 15.521(g). Note 4: Measurement worst emissions of receive antenna polarization.								



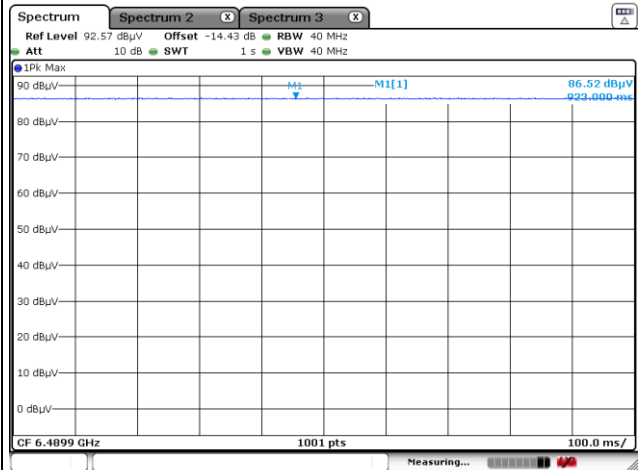
CH05 Peak Power Measurement Plots

Mode 1: cidx-9_sts-0_packet length-67



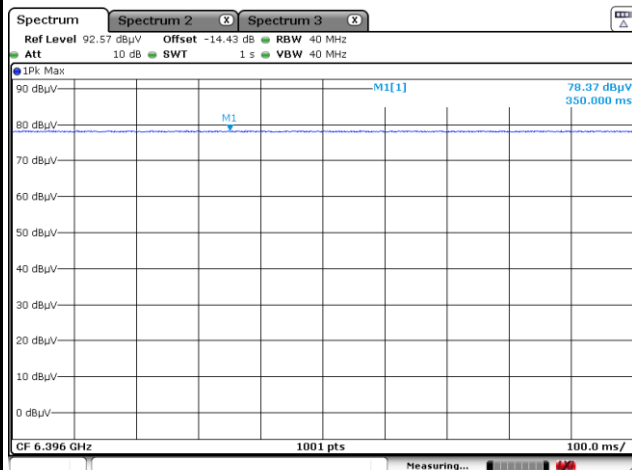
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Mode 2: cidx-9_sts-1_packet length-67



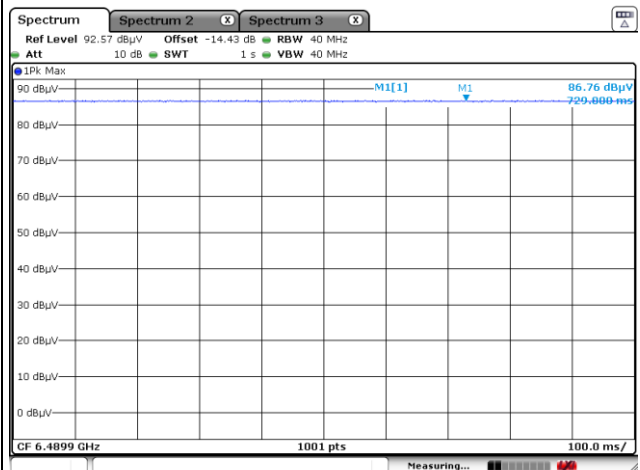
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Mode 3: cidx-9_sts-3_packet length-0



Date: 25 MAY 2024 01:35:48

Mode 4: cidx-10_sts-0_packet length-67

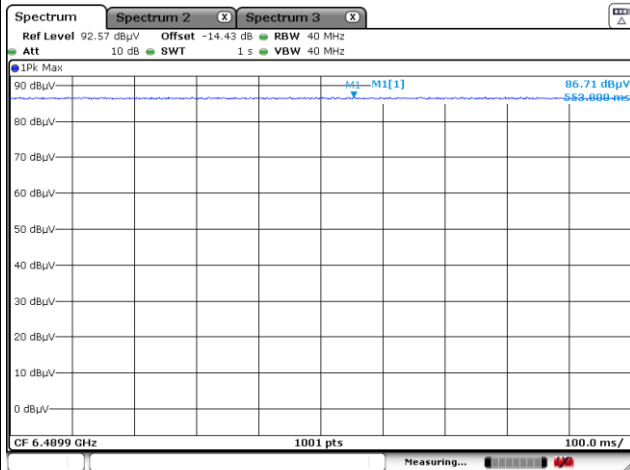


Date: 25 MAY 2024 01:48:17

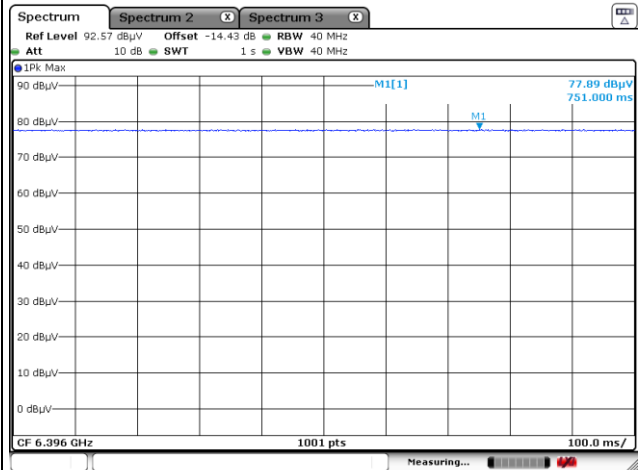


CH05 Peak Power Measurement Plots

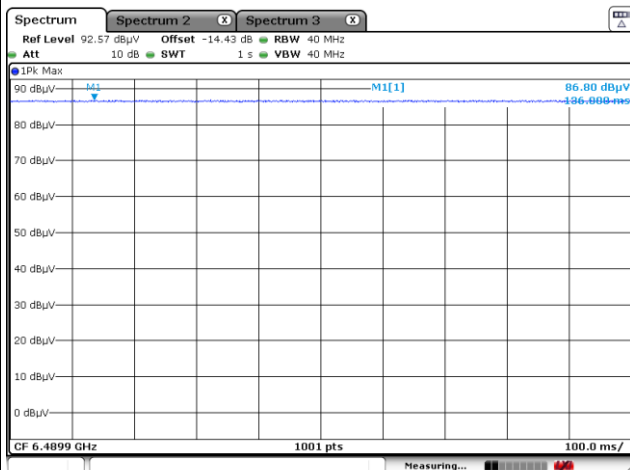
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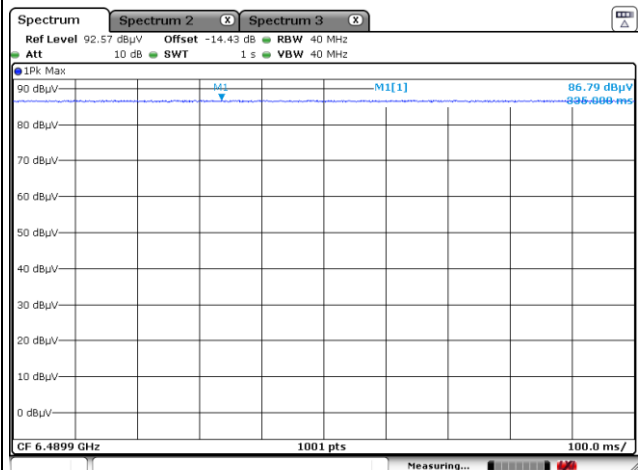
Mode 6: cidx-10_sts-3_packet length-0



Mode 7: cidx-11_sts-0_packet length-67



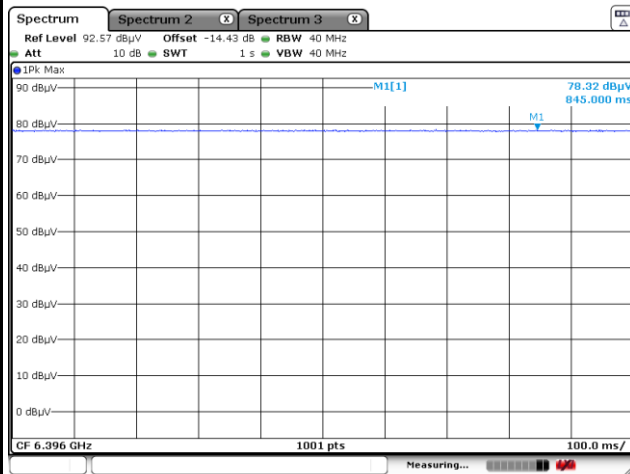
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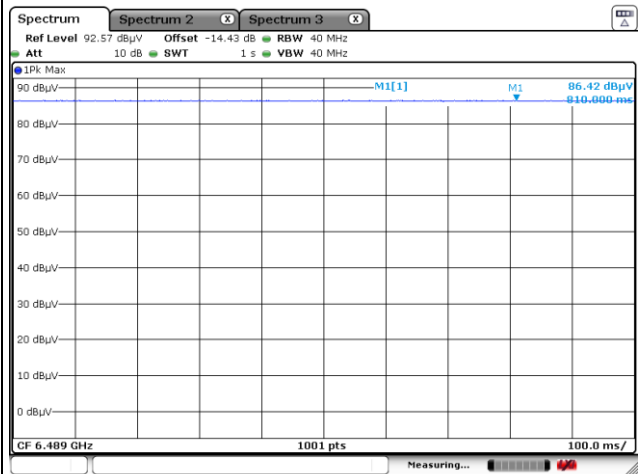
CH05 Peak Power Measurement Plots

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



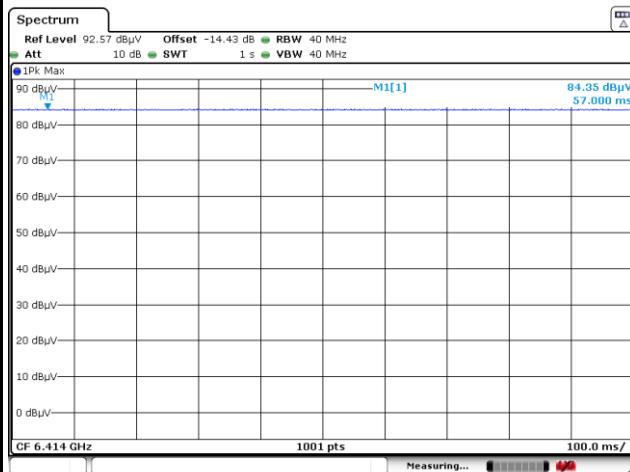
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Mode 10: cidx-12_sts-0_packet length-67



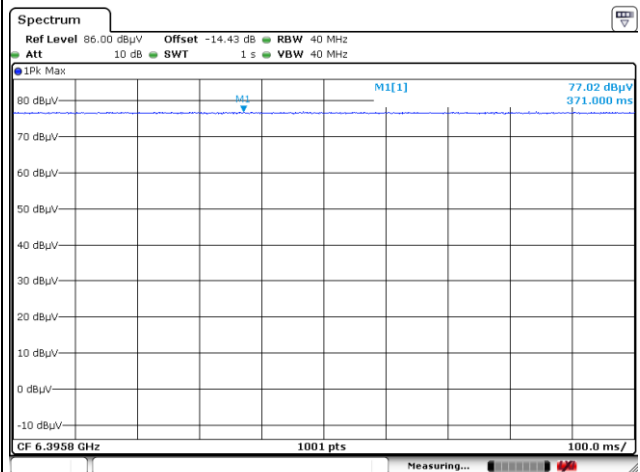
Date: 25 MAY 2024 02:38:43

Mode 11: cidx-12_sts-1_packet length-67



Date: 25 MAY 2024 02:50:41

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

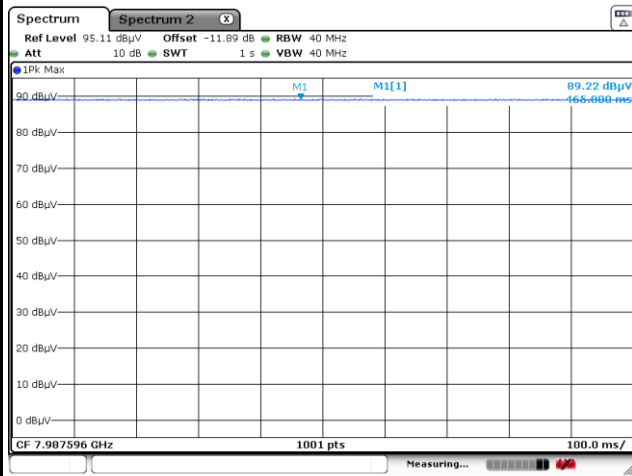


Date: 25 MAY 2024 04:00:16

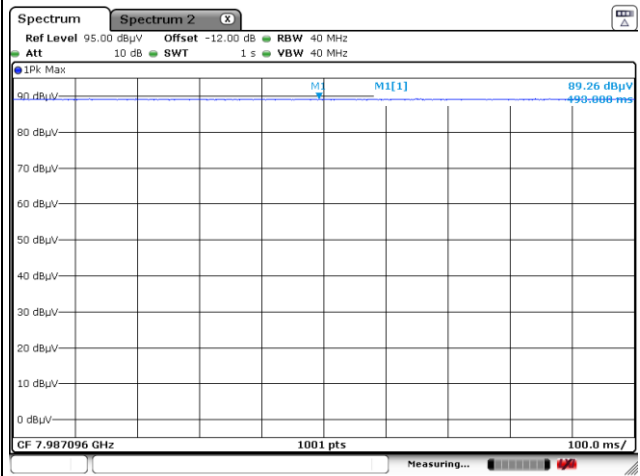


CH09 Peak Power Measurement Plots

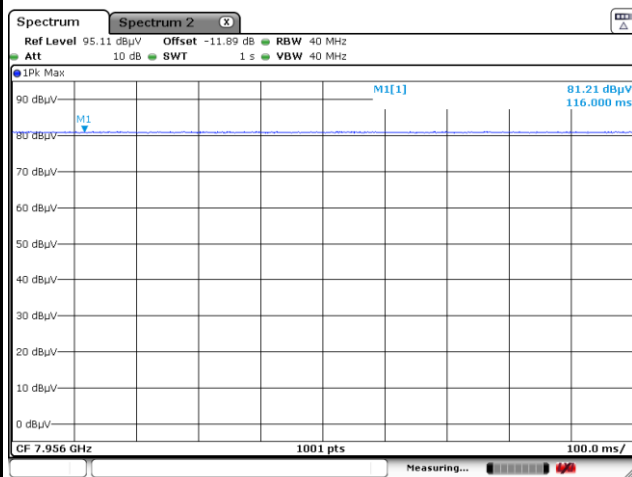
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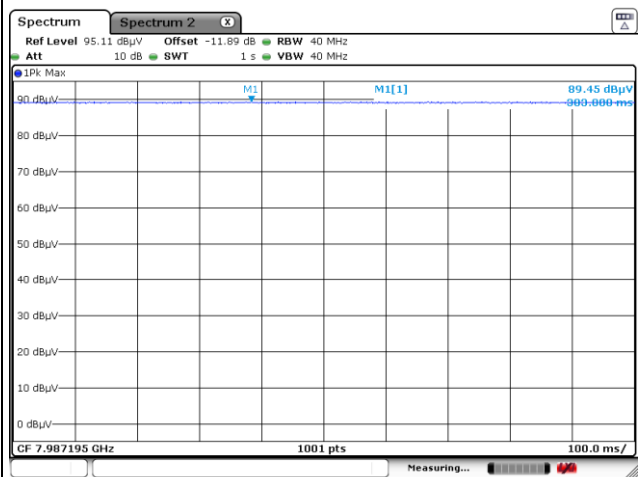
Mode 14: cidx-9_sts-1_packet length-67



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



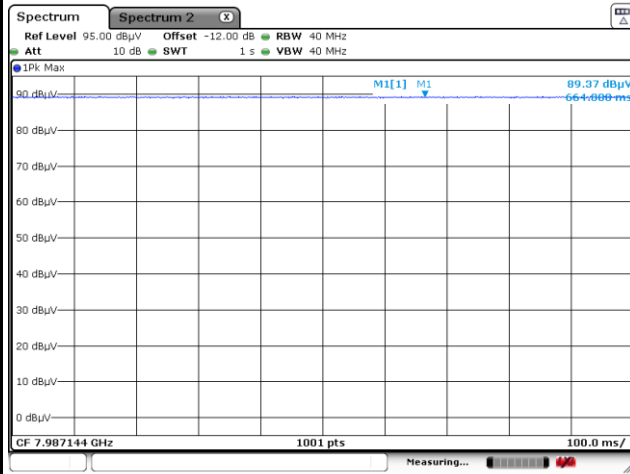
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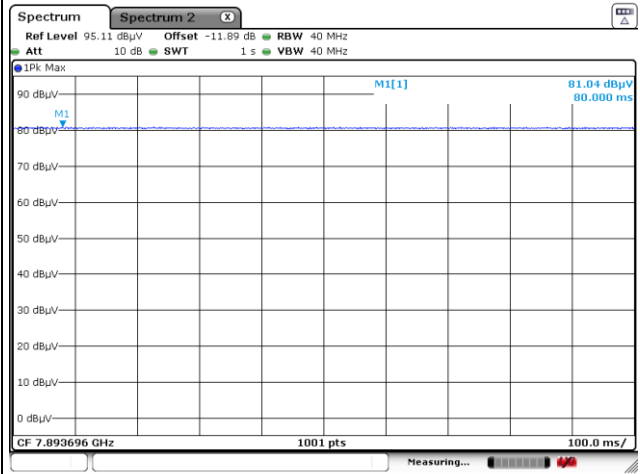


CH09 Peak Power Measurement Plots

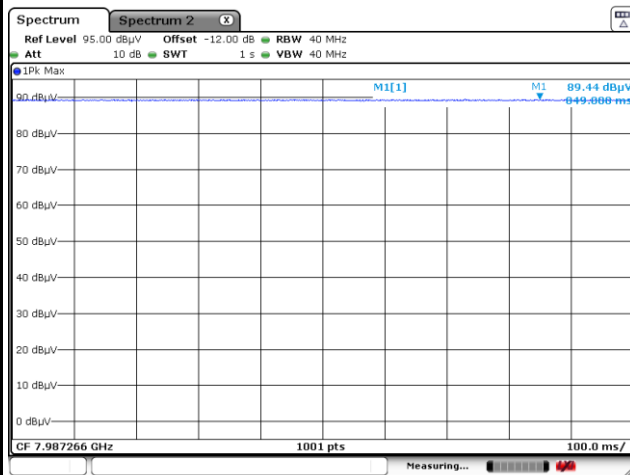
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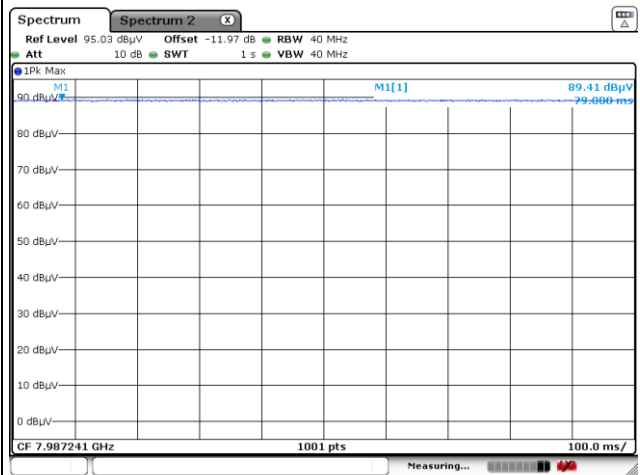
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Mode 19: cidx-11_sts-0_packet length-67



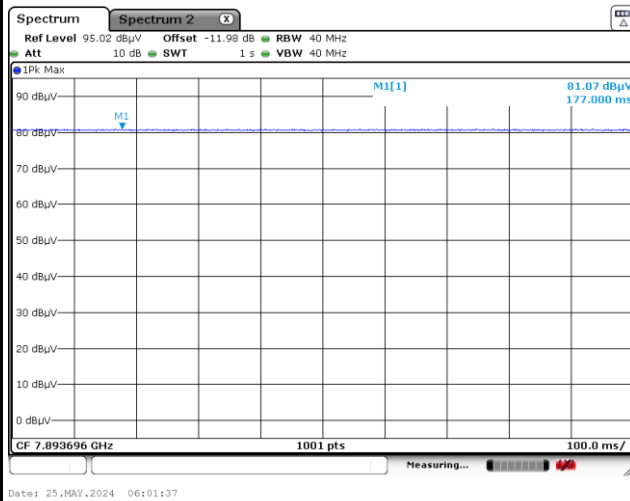
Mode 20: cidx-11_sts-1_packet length-67



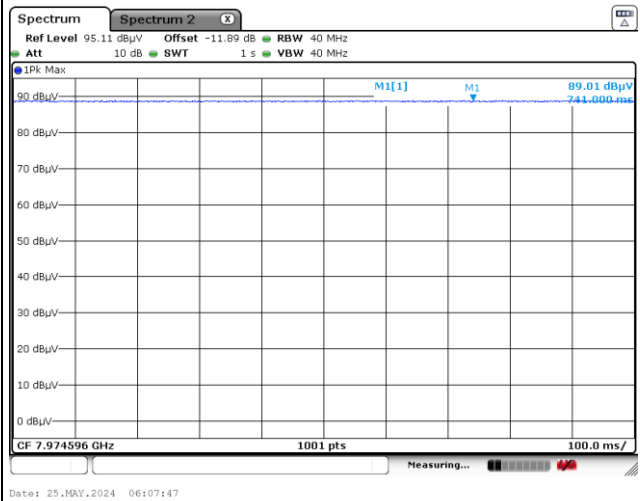


CH09 Peak Power Measurement Plots

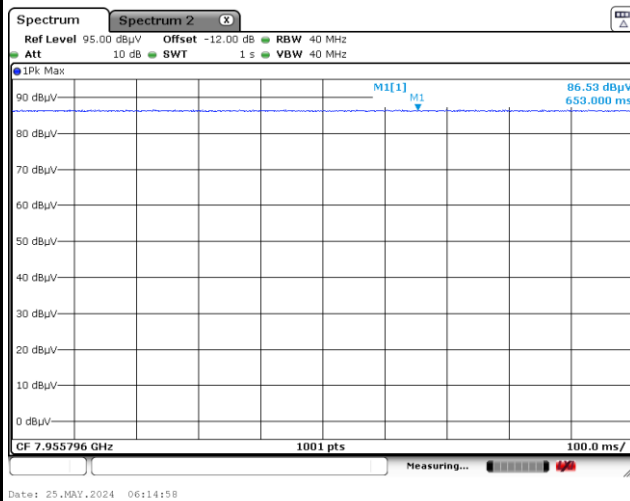
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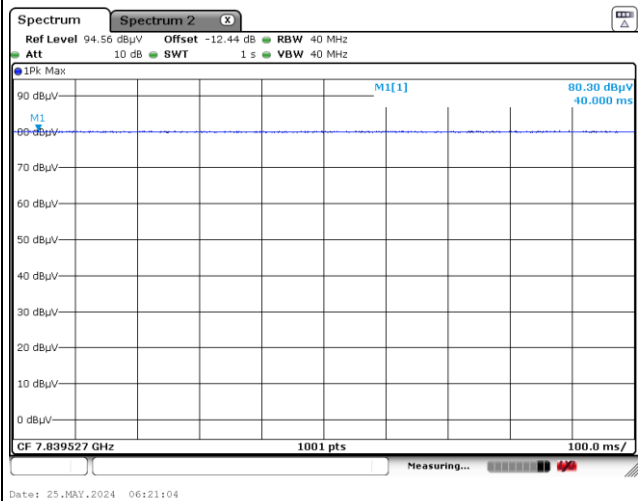
Mode 22: cidx-12_sts-0_packet length-67



Mode 23: cidx-12_sts-1_packet length-67



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





3.4 Radiated Emissions

3.4.1 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)	EIRP (dBuV/m @3m)
960-1610	-75.3	19.93
1610-1990	-63.3	31.93
1990-3100	-61.3	33.93
3100-10600	-41.3	53.93
Above 10600	-61.3	33.93

Radiated Emissions in GPS Bands Limit		
Frequency Range (MHz)	EIRP (dBm)	EIRP (dBuV/m @3m)
1164-1240	-85.3	9.93
1559-1610	-85.3	9.93

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



3.4.2 Measuring Instruments

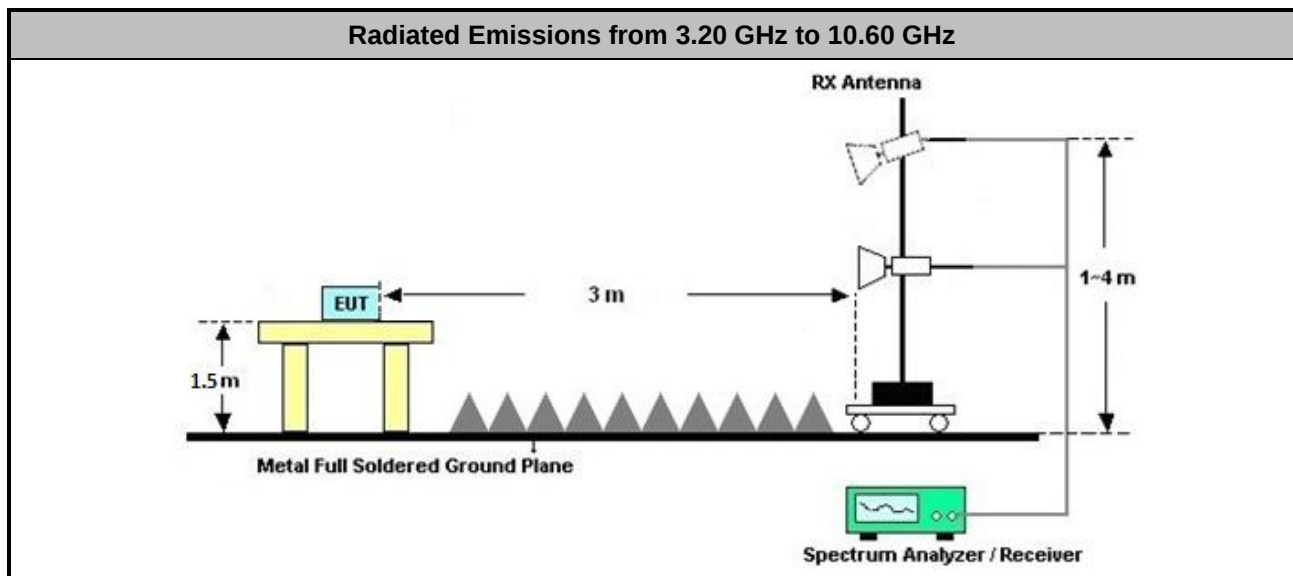
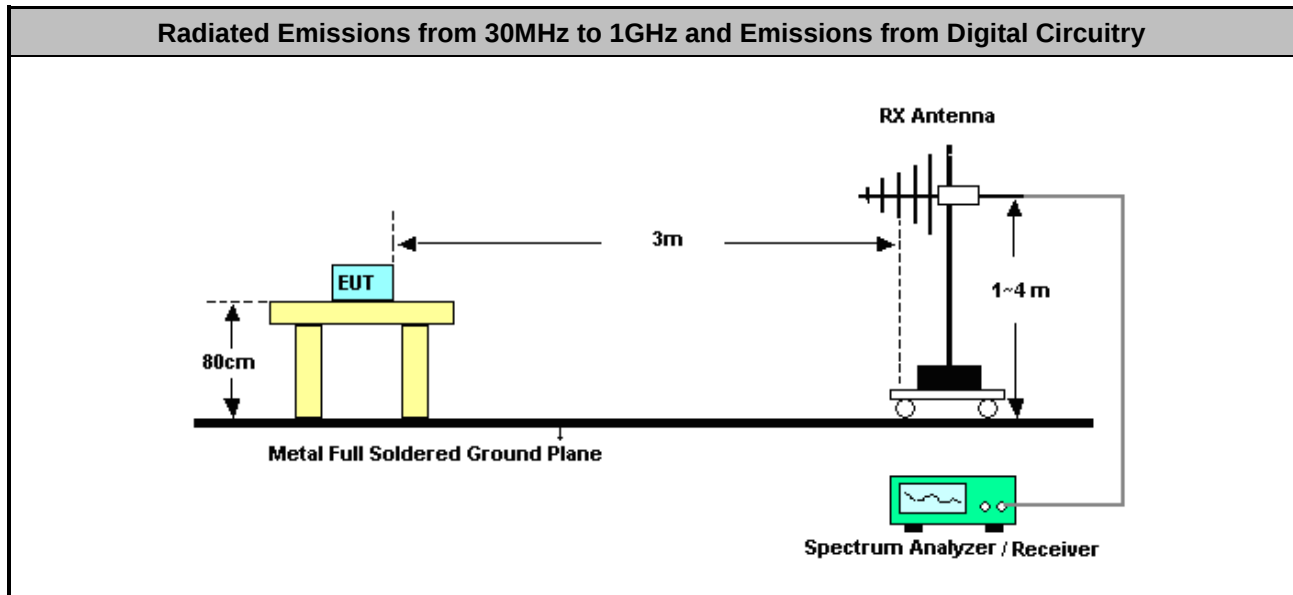
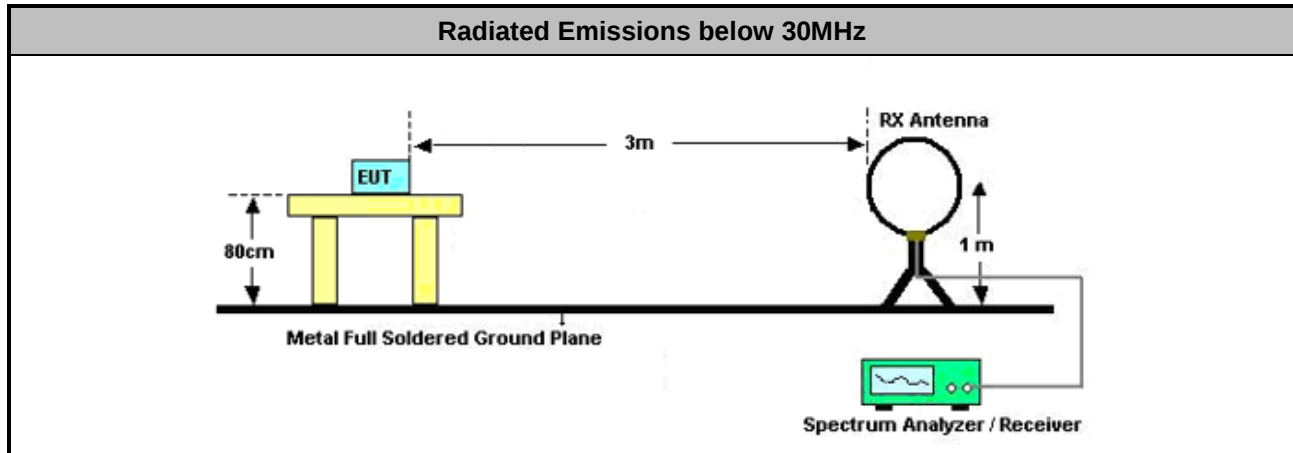
Refer a test equipment and calibration data table in this test report.

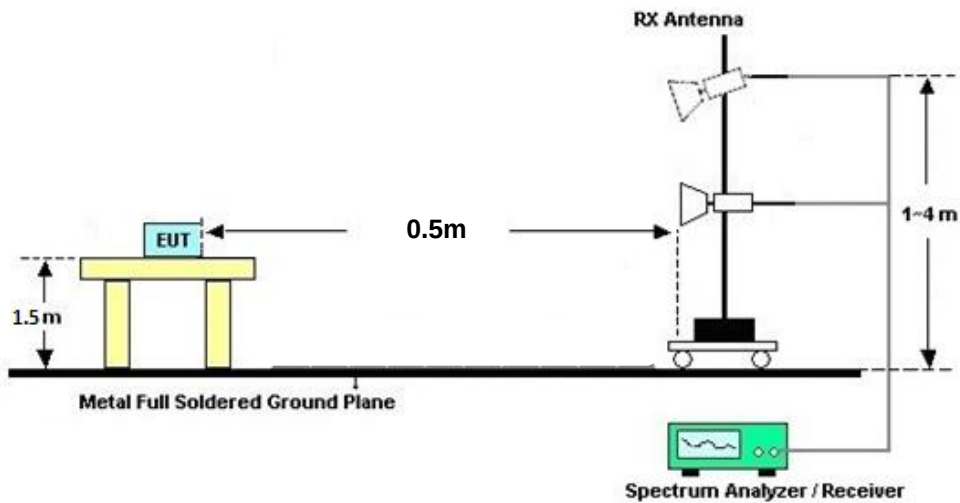
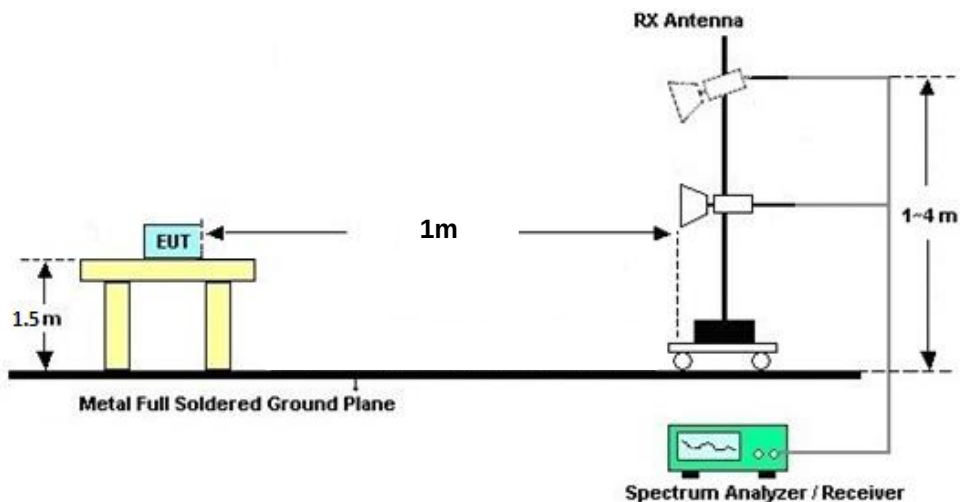
3.4.3 Test Procedures

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

Test Method for Radiated Emissions below 960MHz and Emissions from Digital Circuitry	
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements) for above 30MHz-960MHz; 40dB/decade for frequency below 30MHz.
☒	For the transmitter unwanted emissions shall be measured using following options below:
☒	Refer as ANSI C63.10, clause 4.1.4 Detector functions and selection of bandwidth
☐	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from $20\log(\text{dwell time}/100\text{ ms})$. Average emission = peak emission + 20 log (duty cycle).
☒	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
☒	For radiated measurement.
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1 GHz and test distance is 0.5m or 1m or 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.

3.4.4 Test Setup



Radiated Emissions from 0.96GHz to 1.164 GHz, 1.24GHz to 1.559 GHz and 10.60 GHz to 18GHz

Radiated Emissions 1.164 GHz to 1.24GHz, 1.559 GHz to 1.61GHz, 1.61 GHz to 3.2GHz and 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.

3.4.5 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.



3.4.6 Radiated Emissions (Fundamental)

Test mode	Frequency (MHz)	Emission Level (dBuV/m)	Emission Limit (dBm/MHz)	Emission Limit (dBuV/m)	Margin (dB)	Result	Pol (H/V)
1	6404	50.19	-41.3	53.9	-3.71	Pass	H
2	6411.59	51.08	-41.3	53.9	-2.82	Pass	H
3	6398.55	48.28	-41.3	53.9	-5.62	Pass	H
4	6404.35	49.94	-41.3	53.9	-3.96	Pass	H
5	6404.35	50.69	-41.3	53.9	-3.21	Pass	H
6	6407.25	48.28	-41.3	53.9	-5.62	Pass	H
7	6411.59	50.34	-41.3	53.9	-3.56	Pass	H
8	6411.59	50.92	-41.3	53.9	-2.98	Pass	H
9	6404.35	48.23	-41.3	53.9	-5.67	Pass	H
10	6411.59	50.28	-41.3	53.9	-3.62	Pass	H
11	6395.65	50.66	-41.3	53.9	-3.24	Pass	H
12	6408.7	48	-41.3	53.9	-5.9	Pass	H
13	7986.96	52.68	-41.3	53.9	-1.22	Pass	V
14	7955.07	53.4	-41.3	53.9	-0.5	Pass	V
15	7986.96	51.46	-41.3	53.9	-2.44	Pass	V
16	7986.96	53.1	-41.3	53.9	-0.8	Pass	V
17	7956.52	53.46	-41.3	53.9	-0.44	Pass	V
18	7986.96	51.49	-41.3	53.9	-2.41	Pass	V
19	7956.52	52.71	-41.3	53.9	-1.19	Pass	V
20	7963.77	53.32	-41.3	53.9	-0.58	Pass	V
21	7957.97	51.1	-41.3	53.9	-2.8	Pass	V
22	7986.96	52.59	-41.3	53.9	-1.31	Pass	V
23	7955.07	53.29	-41.3	53.9	-0.61	Pass	V
24	7842.03	51.54	-41.3	53.9	-2.36	Pass	V

Note: E (dBuV/m) Limit= EIRP (dBm) Lmit + 95.2 = -41.3 + 95.2 = 53.9 dBuV/m.



CH05 Radiated Emissions (Fundamental)

Operating Function	Standalone mode	Polarization	H																																																																														
		Test Distance	3m																																																																														
Mode 1: cidx-9_sts-0_packet length-67		Mode 2: cidx-9_sts-1_packet length-67																																																																															
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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></th><th></th></tr><tr><td>1</td><td>6404.00</td><td>50.19</td><td>-----</td><td>64.62</td><td>35.50</td><td>10.98</td><td>60.91</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg			1	6404.00	50.19	-----	64.62	35.50	10.98	60.91	0.00	---	---	Average	Horizontal	<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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></th><th></th></tr><tr><td>1</td><td>6411.59</td><td>51.08</td><td>-----</td><td>65.51</td><td>35.50</td><td>10.98</td><td>60.91</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg			1	6411.59	51.08	-----	65.51	35.50	10.98	60.91	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg																																																																							
1	6404.00	50.19	-----	64.62	35.50	10.98	60.91	0.00	---	---	Average	Horizontal																																																																					
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg																																																																							
1	6411.59	51.08	-----	65.51	35.50	10.98	60.91	0.00	---	---	Average	Horizontal																																																																					
Mode 3: cidx-9_sts-3_packet length-0		Mode 4: cidx-10_sts-0_packet length-67																																																																															
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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></th><th></th></tr><tr><td>1</td><td>6398.55</td><td>48.28</td><td>-----</td><td>62.72</td><td>35.50</td><td>10.97</td><td>60.91</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg			1	6398.55	48.28	-----	62.72	35.50	10.97	60.91	0.00	---	---	Average	Horizontal	<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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></th><th></th></tr><tr><td>1</td><td>6404.35</td><td>49.94</td><td>-----</td><td>64.37</td><td>35.50</td><td>10.98</td><td>60.91</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg			1	6404.35	49.94	-----	64.37	35.50	10.98	60.91	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg																																																																							
1	6398.55	48.28	-----	62.72	35.50	10.97	60.91	0.00	---	---	Average	Horizontal																																																																					
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg																																																																							
1	6404.35	49.94	-----	64.37	35.50	10.98	60.91	0.00	---	---	Average	Horizontal																																																																					



CH05 Radiated Emissions (Fundamental)

Operating Function

Standalone mode

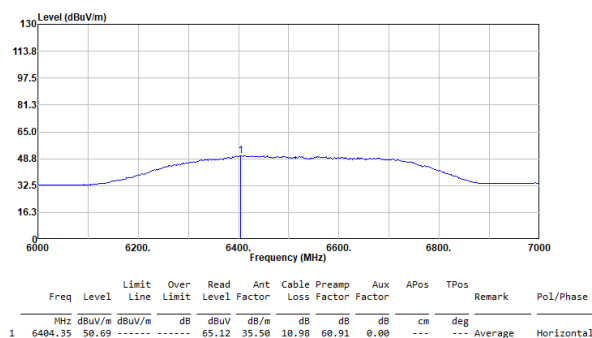
Polarization

H

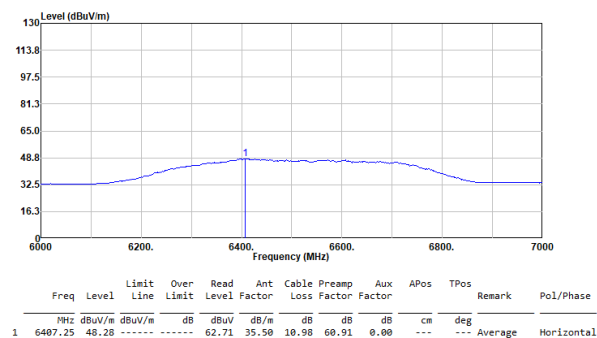
Test Distance

3m

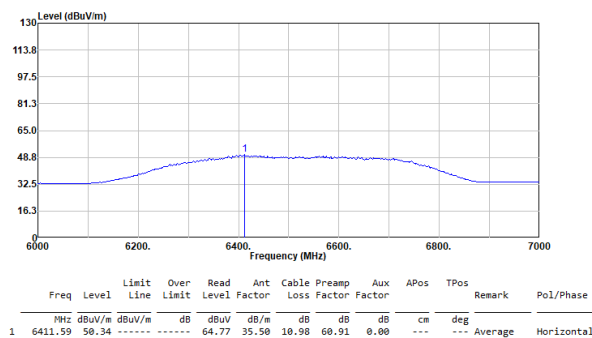
Mode 5: cidx-10_sts-1_packet length-67



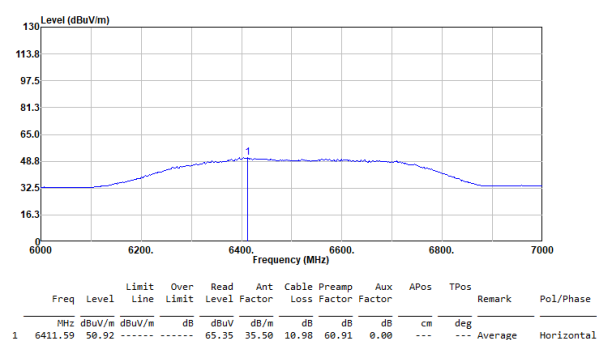
Mode 6: cidx-10_sts-3_packet length-0



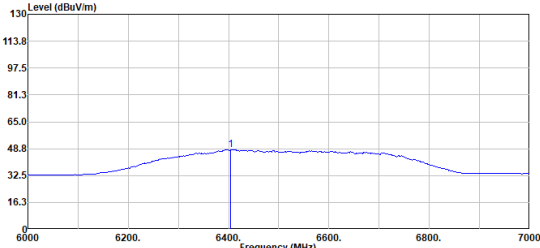
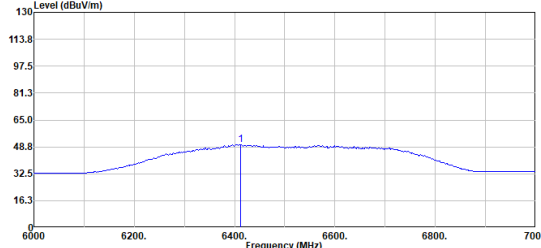
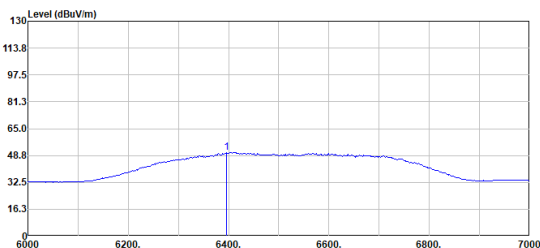
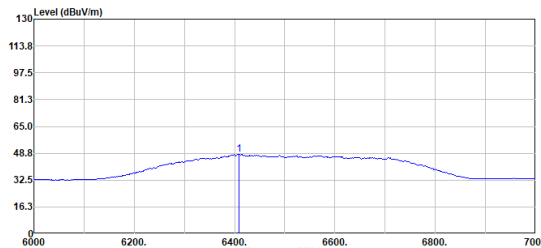
Mode 7: cidx-11_sts-0_packet length-67



Mode 8: cidx-11_sts-1_packet length-67

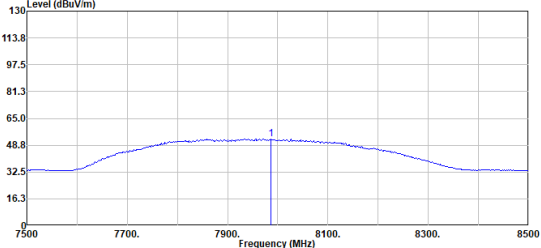
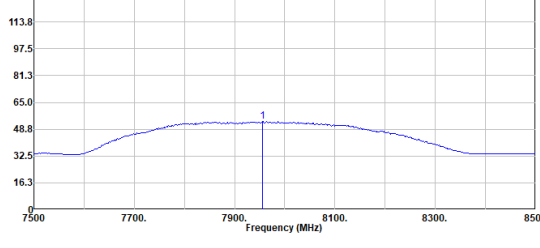
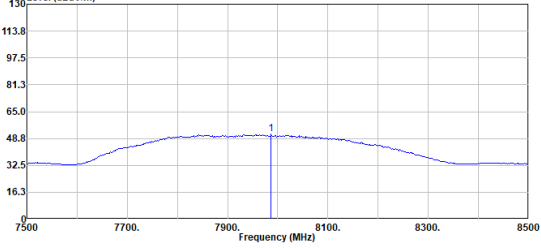
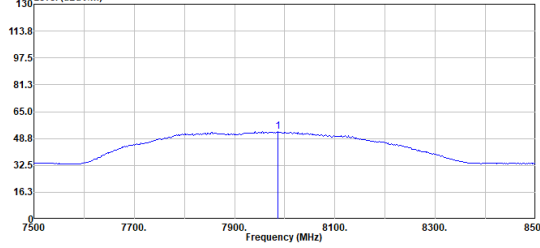




CH05 Radiated Emissions (Fundamental)																																																																																									
Operating Function	Standalone mode				Polarization		H																																																																																		
					Test Distance		3m																																																																																		
Mode 9: cidx-11_sts-3_packet length-0						Mode 10: cidx-12_sts-0_packet length-67																																																																																			
																																																																																									
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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>dB</th><th>cm</th><th>deg</th><th>Pol/Phase</th></tr><tr><td>1</td><td>6404.35</td><td>48.23</td><td>-----</td><td>62.66</td><td>35.50</td><td>10.98</td><td>60.91</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>												Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	dB	cm	deg	Pol/Phase	1	6404.35	48.23	-----	62.66	35.50	10.98	60.91	0.00	---	---	Average	Horizontal																																							
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																													
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	dB	cm	deg	Pol/Phase																																																																													
1	6404.35	48.23	-----	62.66	35.50	10.98	60.91	0.00	---	---	Average	Horizontal																																																																													
Mode 11: cidx-12_sts-1_packet length-67						Mode 12: cidx-12_sts-3_packet length-0																																																																																			
																																																																																									
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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>dB</th><th>cm</th><th>deg</th><th>Pol/Phase</th></tr><tr><td>1</td><td>6395.65</td><td>50.66</td><td>-----</td><td>65.09</td><td>35.51</td><td>10.97</td><td>60.91</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>												Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	dB	cm	deg	Pol/Phase	1	6395.65	50.66	-----	65.09	35.51	10.97	60.91	0.00	---	---	Average	Horizontal	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	dB	cm	deg	Pol/Phase	1	6408.70	48.00	-----	62.43	35.50	10.98	60.91	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																													
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	dB	cm	deg	Pol/Phase																																																																													
1	6395.65	50.66	-----	65.09	35.51	10.97	60.91	0.00	---	---	Average	Horizontal																																																																													
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																													
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	dB	cm	deg	Pol/Phase																																																																													
1	6408.70	48.00	-----	62.43	35.50	10.98	60.91	0.00	---	---	Average	Horizontal																																																																													



CH09 Radiated Emissions (Fundamental)

Operating Function	Standalone mode	Polarization	H																																																																														
		Test Distance	3m																																																																														
Mode 13: cidx-9_sts-0_packet length-67		Mode 14: cidx-9_sts-1_packet length-67																																																																															
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7986.96</td><td>52.68</td><td>-----</td><td>-----</td><td>64.57</td><td>35.90</td><td>12.41</td><td>60.20</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7986.96	52.68	-----	-----	64.57	35.90	12.41	60.20	0.00	---	---	Average	Horizontal	<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7955.07</td><td>53.48</td><td>-----</td><td>-----</td><td>65.48</td><td>35.90</td><td>12.36</td><td>60.26</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><th>Horizontal</th></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7955.07	53.48	-----	-----	65.48	35.90	12.36	60.26	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7986.96	52.68	-----	-----	64.57	35.90	12.41	60.20	0.00	---	---	Average	Horizontal																																																																					
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7955.07	53.48	-----	-----	65.48	35.90	12.36	60.26	0.00	---	---	Average	Horizontal																																																																					
Mode 15: cidx-9_sts-3_packet length-0		Mode 16: cidx-10_sts-0_packet length-67																																																																															
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7986.96</td><td>51.46</td><td>-----</td><td>-----</td><td>63.35</td><td>35.90</td><td>12.41</td><td>60.20</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><th>Horizontal</th></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7986.96	51.46	-----	-----	63.35	35.90	12.41	60.20	0.00	---	---	Average	Horizontal	<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7986.96</td><td>53.10</td><td>-----</td><td>-----</td><td>64.99</td><td>35.90</td><td>12.41</td><td>60.20</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><th>Horizontal</th></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7986.96	53.10	-----	-----	64.99	35.90	12.41	60.20	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7986.96	51.46	-----	-----	63.35	35.90	12.41	60.20	0.00	---	---	Average	Horizontal																																																																					
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7986.96	53.10	-----	-----	64.99	35.90	12.41	60.20	0.00	---	---	Average	Horizontal																																																																					



CH09 Radiated Emissions (Fundamental)

Operating Function

Standalone mode

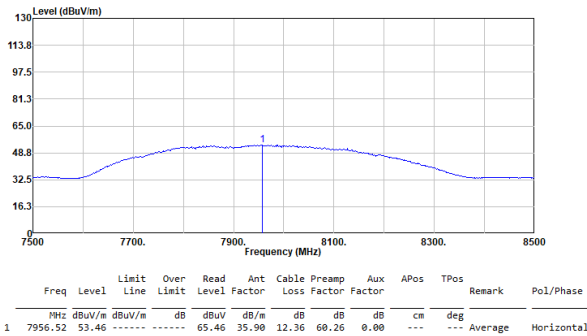
Polarization

H

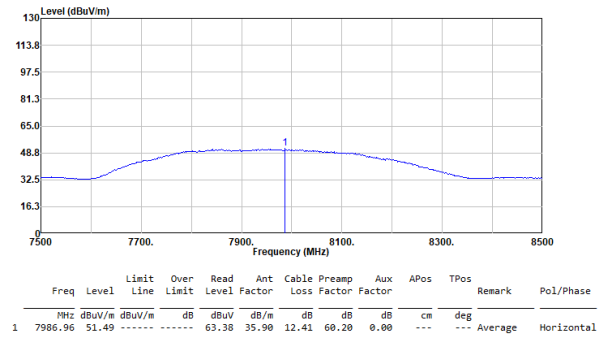
Test Distance

3m

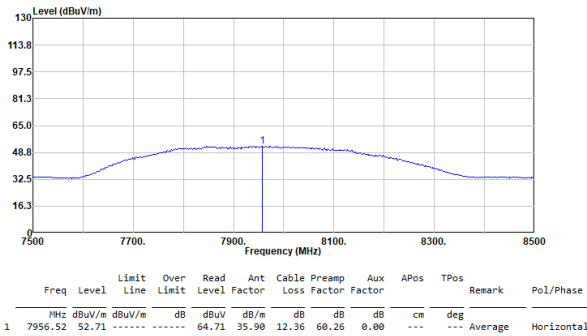
Mode 17: cidx-10_sts-1_packet length-67



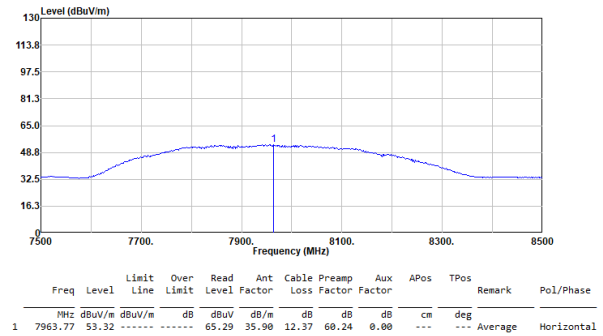
Mode 18: cidx-10_sts-3_packet length-0



Mode 19: cidx-11_sts-0_packet length-67

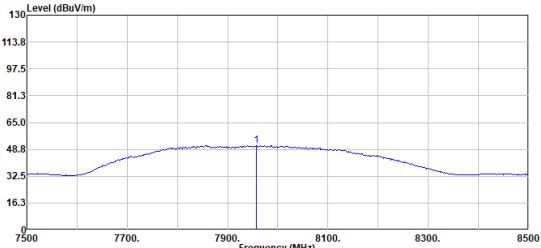
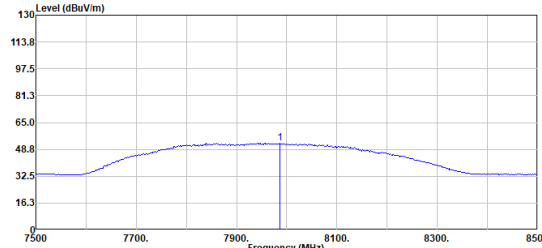
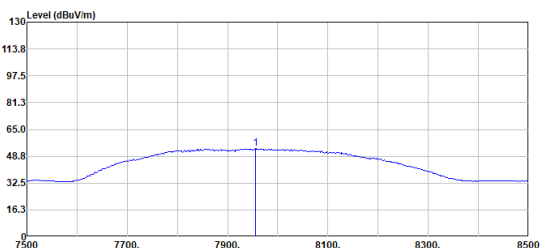
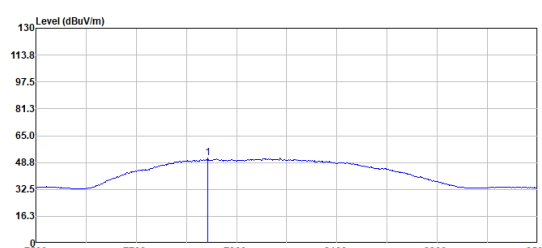


Mode 20: cidx-11_sts-1_packet length-67



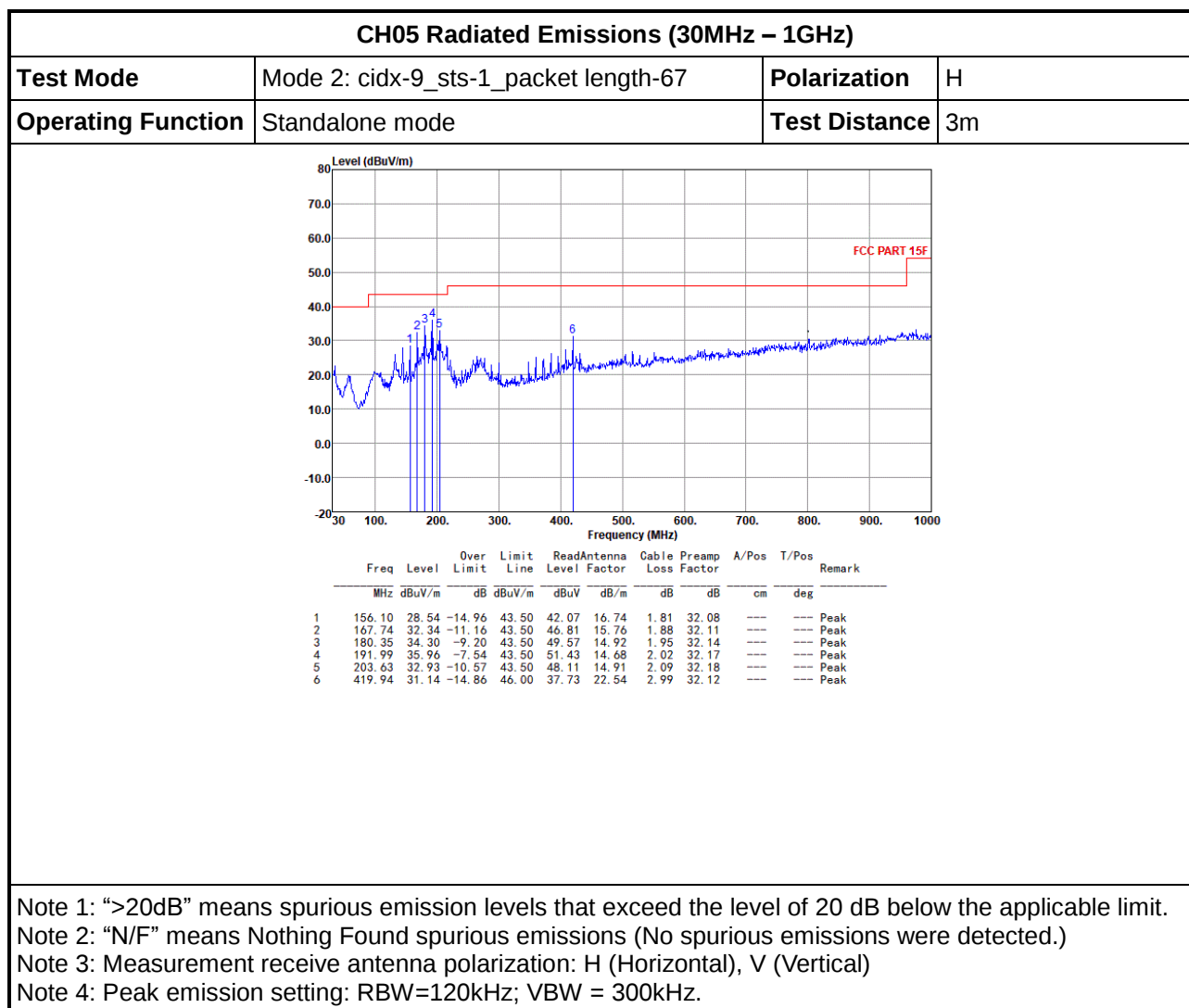


CH09 Radiated Emissions (Fundamental)

Operating Function	Standalone mode	Polarization	H																																																																														
		Test Distance	3m																																																																														
Mode 21: cidx-11_sts-3_packet length-0		Mode 22: cidx-12_sts-0_packet length-67																																																																															
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7957.97</td><td>51.10</td><td>-----</td><td>-----</td><td>63.08</td><td>35.90</td><td>12.37</td><td>60.25</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7957.97	51.10	-----	-----	63.08	35.90	12.37	60.25	0.00	---	---	Average	Horizontal	<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7986.96</td><td>52.59</td><td>-----</td><td>-----</td><td>64.48</td><td>35.90</td><td>12.41</td><td>60.20</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7986.96	52.59	-----	-----	64.48	35.90	12.41	60.20	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7957.97	51.10	-----	-----	63.08	35.90	12.37	60.25	0.00	---	---	Average	Horizontal																																																																					
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7986.96	52.59	-----	-----	64.48	35.90	12.41	60.20	0.00	---	---	Average	Horizontal																																																																					
Mode 23: cidx-12_sts-1_packet length-67		Mode 24: cidx-12_sts-3_packet length-0																																																																															
<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7955.07</td><td>53.29</td><td>-----</td><td>-----</td><td>65.29</td><td>35.90</td><td>12.36</td><td>60.26</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7955.07	53.29	-----	-----	65.29	35.90	12.36	60.26	0.00	---	---	Average	Horizontal	<table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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><th>Horizontal</th></tr><tr><td>1 7842.03</td><td>51.54</td><td>-----</td><td>-----</td><td>63.98</td><td>35.83</td><td>12.21</td><td>60.48</td><td>0.00</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>		Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal	1 7842.03	51.54	-----	-----	63.98	35.83	12.21	60.48	0.00	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7955.07	53.29	-----	-----	65.29	35.90	12.36	60.26	0.00	---	---	Average	Horizontal																																																																					
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																																																					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Average	Horizontal																																																																					
1 7842.03	51.54	-----	-----	63.98	35.83	12.21	60.48	0.00	---	---	Average	Horizontal																																																																					



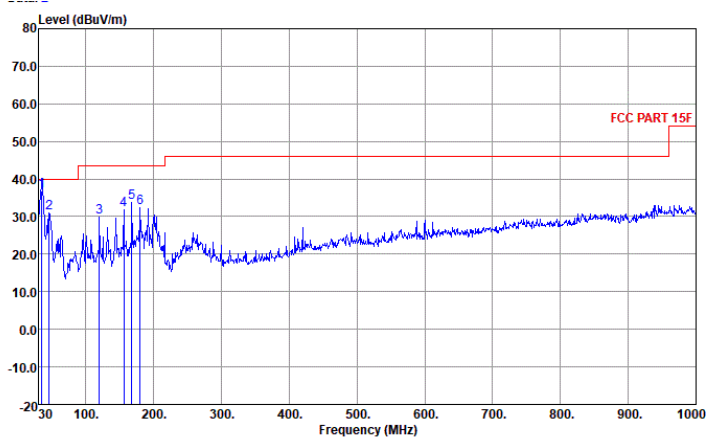
3.4.7 Radiated Emissions (30MHz – 1GHz)





CH05 Radiated Emissions (30MHz – 1GHz)

Test Mode	Mode 2: cidx-9_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode	Test Distance	3m



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	cm	deg	
1	34.85	36.85	-3.15	40.00	46.10	22.44	0.56	32.25	100	85 QP
2	45.52	31.07	-8.93	40.00	46.10	16.37	0.71	32.11	---	Peak
3	120.21	29.89	-13.61	43.50	43.00	17.35	1.59	32.05	---	Peak
4	156.10	31.84	-11.66	43.50	45.37	16.74	1.81	32.08	---	Peak
5	167.74	33.69	-9.81	43.50	48.16	15.76	1.88	32.11	---	Peak
6	180.35	32.37	-11.13	43.50	47.64	14.92	1.95	32.14	---	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.)

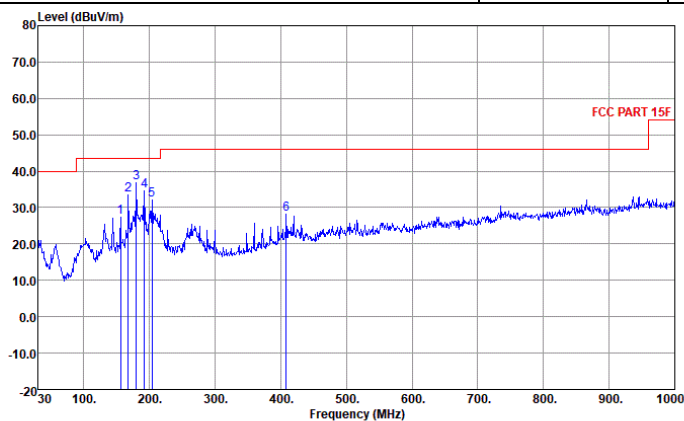
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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



CH09 Radiated Emissions (30MHz – 1GHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	H
Operating Function	Standalone mode	Test Distance	3m



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	cm	deg
1	156.10	27.37	-16.13	43.50	40.90	16.74	1.81	32.08	---	Peak
2	167.74	33.55	-9.95	43.50	48.02	15.76	1.88	32.11	---	Peak
3	180.35	36.85	-6.65	43.50	52.12	14.92	1.95	32.14	---	Peak
4	191.99	34.55	-8.95	43.50	50.02	14.68	2.02	32.17	---	Peak
5	203.63	32.15	-11.35	43.50	47.33	14.91	2.09	32.18	---	Peak
6	408.30	28.13	-17.87	46.00	34.90	22.39	2.95	32.11	---	Peak

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

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

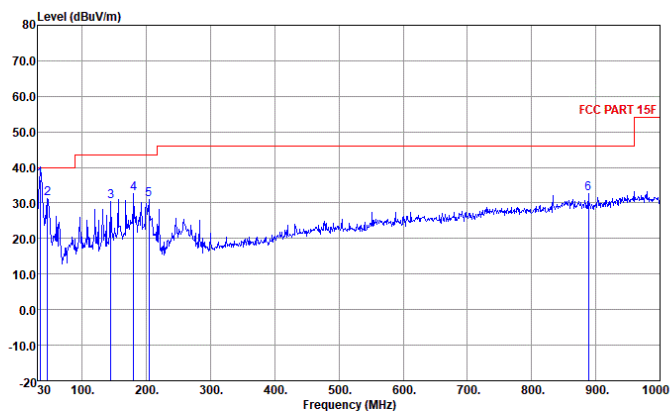
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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



CH09 Radiated Emissions (30MHz – 1GHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode	Test Distance	3m



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamplifier	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	cm	deg	
1	33.88	36.58	-3.42	40.00	45.30	22.95	0.55	32.22	100	174 QP
2	45.52	31.19	-8.81	40.00	46.22	16.37	0.71	32.11	---	Peak
3	144.46	30.48	-13.02	43.50	43.47	17.34	1.73	32.06	---	Peak
4	180.35	32.77	-10.73	43.50	48.04	14.92	1.95	32.14	---	Peak
5	203.63	31.03	-12.47	43.50	46.21	14.91	2.09	32.18	---	Peak
6	888.45	32.69	-13.31	46.00	30.55	29.15	4.34	31.35	---	Peak

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

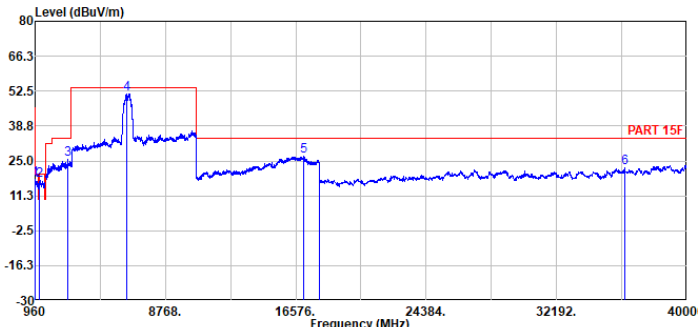
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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

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



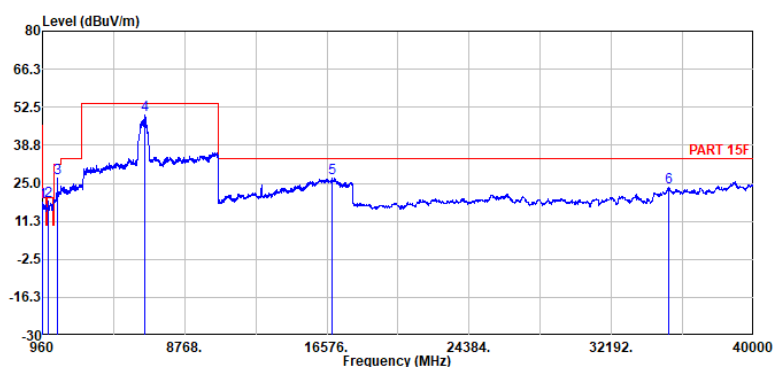
3.4.8 Radiated Emissions (960MHz – 40GHz)

CH05 Radiated Emissions (960MHz – 40GHz)																																																																																																																				
Test Mode	Mode 2: cidx-9_sts-1_packet length-67							Polarization	H																																																																																																											
Operating Function	Standalone mode																																																																																																																			
Test Distance	960 ~1164 MHz: 0.5m 1164 ~ 1240 MHz: 1m 1240 ~ 1559 MHz: 0.5m 1559 ~ 1610 MHz: 1m 1610 ~ 3200 MHz: 1m 1610 ~ 10600 MHz: 3m 10600 ~ 18000 MHz: 0.5m 18000 ~ 40000 MHz: 1m																																																																																																																			
 <table><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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></th><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>Pol/Phase</th></tr><tr><td>1</td><td>965.92</td><td>17.89</td><td>19.93</td><td>-2.04</td><td>61.56</td><td>29.84</td><td>4.24</td><td>62.19</td><td>-15.56</td><td>---</td><td>---</td><td>Average Horizontal</td></tr><tr><td>2</td><td>1242.23</td><td>17.17</td><td>19.93</td><td>-2.76</td><td>62.13</td><td>28.18</td><td>4.73</td><td>62.31</td><td>-15.56</td><td>---</td><td>---</td><td>Average Horizontal</td></tr><tr><td>3</td><td>2934.47</td><td>25.54</td><td>33.93</td><td>-8.39</td><td>56.31</td><td>32.68</td><td>7.30</td><td>61.21</td><td>-9.54</td><td>---</td><td>---</td><td>Average Horizontal</td></tr><tr><td>4</td><td>6419.00</td><td>51.41</td><td>53.93</td><td>-2.52</td><td>65.84</td><td>35.50</td><td>10.99</td><td>60.92</td><td>0.00</td><td>---</td><td>---</td><td>Average Horizontal</td></tr><tr><td>5</td><td>17052.00</td><td>26.71</td><td>33.93</td><td>-7.22</td><td>41.72</td><td>41.55</td><td>18.25</td><td>59.25</td><td>-15.56</td><td>---</td><td>---</td><td>Average Horizontal</td></tr><tr><td>6</td><td>36282.00</td><td>22.25</td><td>33.93</td><td>-11.68</td><td>14.06</td><td>39.41</td><td>33.19</td><td>54.87</td><td>-9.54</td><td>---</td><td>---</td><td>Average Horizontal</td></tr></table>														Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	Apos	TPos	Remark		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Pol/Phase	1	965.92	17.89	19.93	-2.04	61.56	29.84	4.24	62.19	-15.56	---	---	Average Horizontal	2	1242.23	17.17	19.93	-2.76	62.13	28.18	4.73	62.31	-15.56	---	---	Average Horizontal	3	2934.47	25.54	33.93	-8.39	56.31	32.68	7.30	61.21	-9.54	---	---	Average Horizontal	4	6419.00	51.41	53.93	-2.52	65.84	35.50	10.99	60.92	0.00	---	---	Average Horizontal	5	17052.00	26.71	33.93	-7.22	41.72	41.55	18.25	59.25	-15.56	---	---	Average Horizontal	6	36282.00	22.25	33.93	-11.68	14.06	39.41	33.19	54.87	-9.54	---	---	Average Horizontal
	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	Apos	TPos	Remark																																																																																																								
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	Pol/Phase																																																																																																								
1	965.92	17.89	19.93	-2.04	61.56	29.84	4.24	62.19	-15.56	---	---	Average Horizontal																																																																																																								
2	1242.23	17.17	19.93	-2.76	62.13	28.18	4.73	62.31	-15.56	---	---	Average Horizontal																																																																																																								
3	2934.47	25.54	33.93	-8.39	56.31	32.68	7.30	61.21	-9.54	---	---	Average Horizontal																																																																																																								
4	6419.00	51.41	53.93	-2.52	65.84	35.50	10.99	60.92	0.00	---	---	Average Horizontal																																																																																																								
5	17052.00	26.71	33.93	-7.22	41.72	41.55	18.25	59.25	-15.56	---	---	Average Horizontal																																																																																																								
6	36282.00	22.25	33.93	-11.68	14.06	39.41	33.19	54.87	-9.54	---	---	Average Horizontal																																																																																																								
Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit. Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.) Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical) Note 4: Average emission setting outside GPS Bands: RBW=1MHz; VBW=3MHz. Note 5: Average emission setting in GPS bands: RBW=1kHz; VBW=3kHz. Note 6: #5 is fundamental signal. Note 7: - Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB) Example: Distance extrapolation factor = 20log (0.5m/3m) = -15.56 (dB) - Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)																																																																																																																				



CH05 Radiated Emissions (960MHz – 40GHz)

Test Mode	Mode 2: cidx-9_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode		
Test Distance	960 ~ 1164 MHz: 0.5m 1164 ~ 1240 MHz: 1m 1240 ~ 1559 MHz: 0.5m 1559 ~ 1610 MHz: 1m 1610 ~ 3200 MHz: 1m 1610 ~ 10600 MHz: 3m 10600 ~ 18000 MHz: 0.5m 18000 ~ 40000 MHz: 1m		



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	979.79	18.27	19.93	-1.66	62.10	29.63	4.25	62.15	-15.56	---	---	Average	Vertical
2	1262.97	18.46	19.93	-1.47	63.33	28.23	4.77	62.31	-15.56	---	---	Average	Vertical
3	1780.13	27.00	31.93	-4.93	62.51	30.54	5.69	62.20	-9.54	---	---	Average	Vertical
4	6581.80	49.81	53.93	-4.12	63.94	35.80	11.06	60.99	0.00	---	---	Average	Vertical
5	16875.20	27.04	33.93	-6.89	41.89	41.80	18.15	59.24	-15.56	---	---	Average	Vertical
6	35358.00	23.45	33.93	-10.48	15.74	38.85	32.96	54.56	-9.54	---	---	Average	Vertical

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.

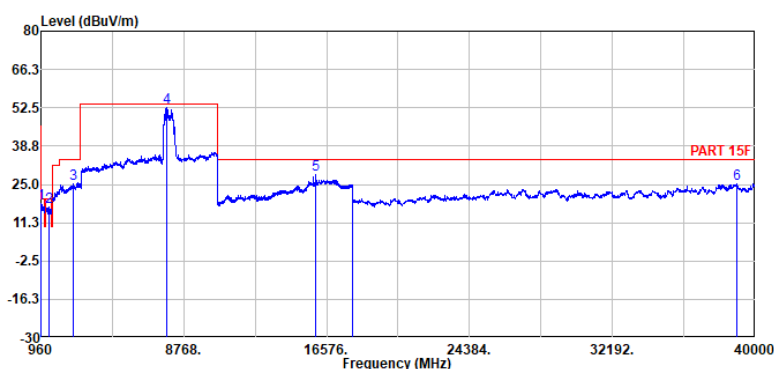
Note 7:

- 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) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



CH09 Radiated Emissions (960MHz – 40GHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	H
Operating Function	Standalone mode		
Test Distance	960 ~1164 MHz: 0.5m 1164 ~ 1240 MHz: 1m 1240 ~ 1559 MHz: 0.5m 1559 ~ 1610 MHz: 1m 1610 ~ 3200 MHz: 1m 1610 ~ 10600 MHz: 3m 10600 ~ 18000 MHz: 0.5m 18000 ~ 40000 MHz: 1m		



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	974.69	18.33	19.93	-1.60	62.00	29.81	4.25	62.17	-15.56	---	---	Average	Horizontal
2	1390.89	17.11	19.93	-2.82	61.58	28.40	5.01	62.32	-15.56	---	---	Average	Horizontal
3	2746.85	25.06	33.93	-8.87	56.67	32.51	7.11	61.69	-9.54	---	---	Average	Horizontal
4	7854.60	52.59	53.93	-1.34	65.02	35.80	12.22	60.45	0.00	---	---	Average	Horizontal
5	15979.80	28.64	33.93	-5.29	45.14	40.68	17.74	59.36	-15.56	---	---	Average	Horizontal
6	38988.00	25.12	33.93	-8.81	13.70	40.89	34.82	54.75	-9.54	---	---	Average	Horizontal

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.

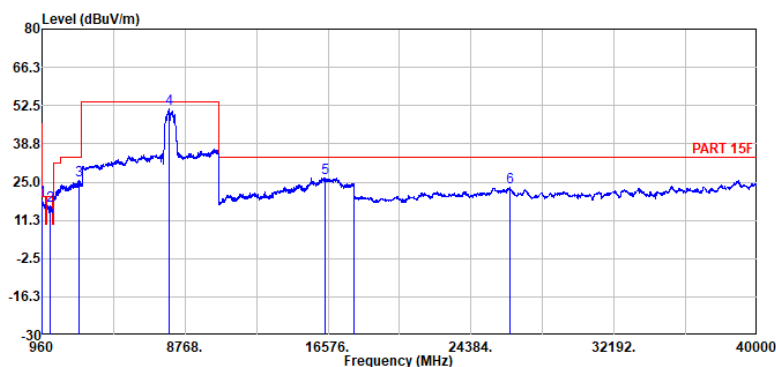
Note 7:

- 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) + Distance Factor (Aux Factor) (dB) = Level (dBUV/m)



CH09 Radiated Emissions (960MHz – 40GHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode		
Test Distance	960 ~1164 MHz: 0.5m 1164 ~ 1240 MHz: 1m 1240 ~ 1559 MHz: 0.5m 1559 ~ 1610 MHz: 1m 1610 ~ 3200 MHz: 1m 1610 ~ 10600 MHz: 3m 10600 ~ 18000 MHz: 0.5m 18000 ~ 40000 MHz: 1m		



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	972.65	18.50	19.93	-1.43	62.37	29.61	4.25	62.17	-15.56	---	---	Average	Vertical
2	1372.70	16.58	19.93	-3.35	61.09	28.40	4.97	62.32	-15.56	---	---	Average	Vertical
3	3004.43	25.42	33.93	-8.51	55.82	32.79	7.36	61.01	-9.54	---	---	Average	Vertical
4	7876.80	51.54	53.93	-2.39	63.89	35.80	12.26	60.41	0.00	---	---	Average	Vertical
5	16386.80	26.37	33.93	-7.56	42.20	41.09	17.93	59.29	-15.56	---	---	Average	Vertical
6	26492.00	23.07	33.93	-10.86	21.38	36.65	27.04	52.46	-9.54	---	---	Average	Vertical

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.

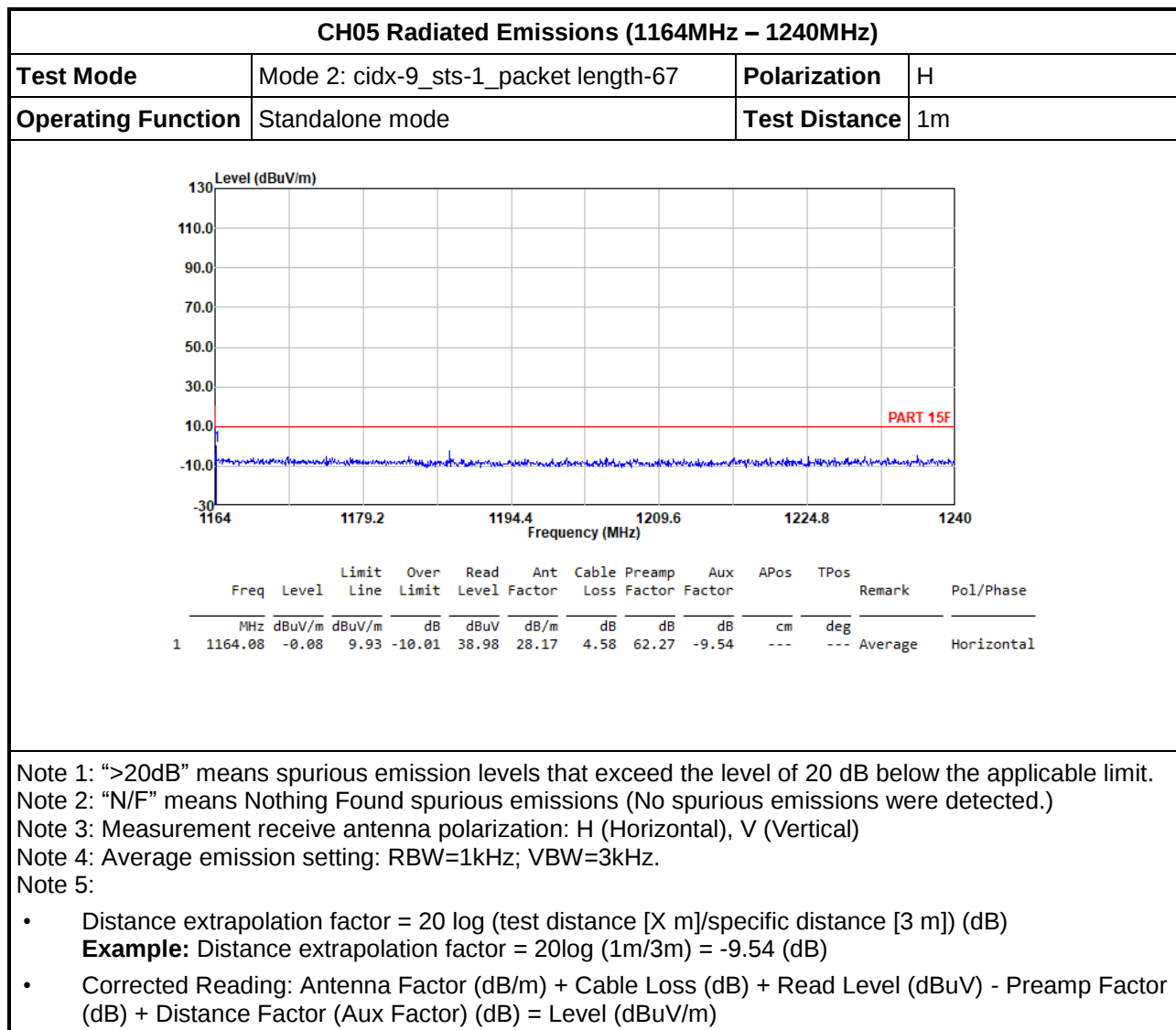
Note 6: #5 is fundamental signal.

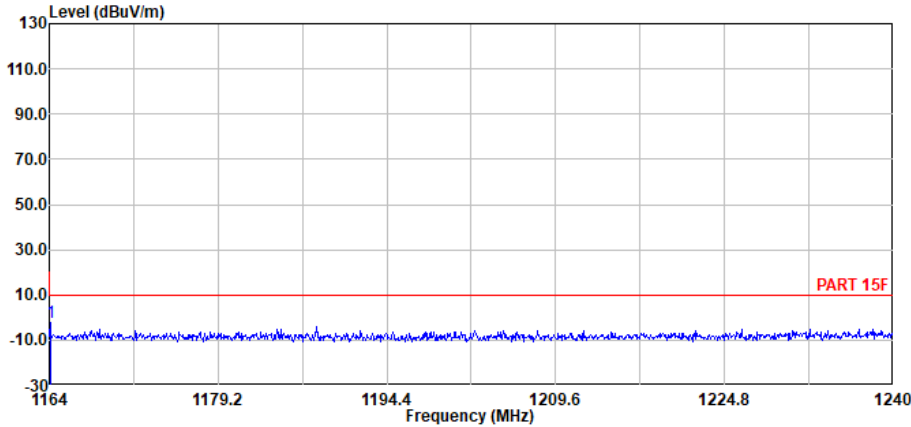
Note 7:

- 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) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



3.4.9 Radiated Emissions (1164MHz – 1240MHz)

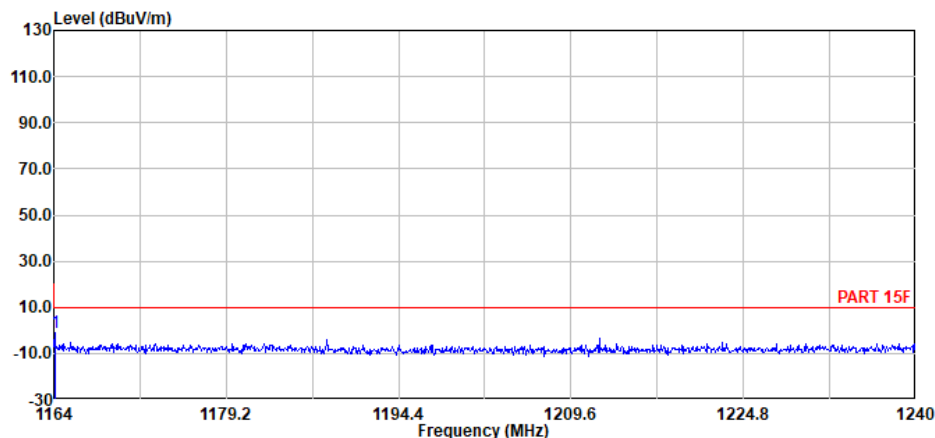


CH05 Radiated Emissions (1164MHz – 1240MHz)																																																						
Test Mode	Mode 2: cidx-9_sts-1_packet length-67							Polarization	V																																													
Operating Function	Standalone mode							Test Distance	1m																																													
Level (dBuV/m)  Frequency (MHz) <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</th></tr><tr><th></th><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></th><th></th></tr></thead><tbody><tr><td>1</td><td>1164.08</td><td>-1.95</td><td>9.93</td><td>-11.88</td><td>37.11</td><td>28.17</td><td>4.58</td><td>62.27</td><td>-9.54</td><td>---</td><td>---</td><td>Average</td><td>Vertical</td></tr></tbody></table>														Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg			1	1164.08	-1.95	9.93	-11.88	37.11	28.17	4.58	62.27	-9.54	---	---	Average	Vertical
	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																									
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg																																											
1	1164.08	-1.95	9.93	-11.88	37.11	28.17	4.58	62.27	-9.54	---	---	Average	Vertical																																									
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: Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB) Example: Distance extrapolation factor = 20log (1m/3m) = -9.54 (dB) Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)																																																						



CH09 Radiated Emissions (1164MHz – 1240MHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	H
Operating Function	Standalone mode	Test Distance	1m



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	1164.08	-0.91	9.93	-10.84	38.15	28.17	4.58	62.27	-9.54	---	---	Average	Horizontal

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.

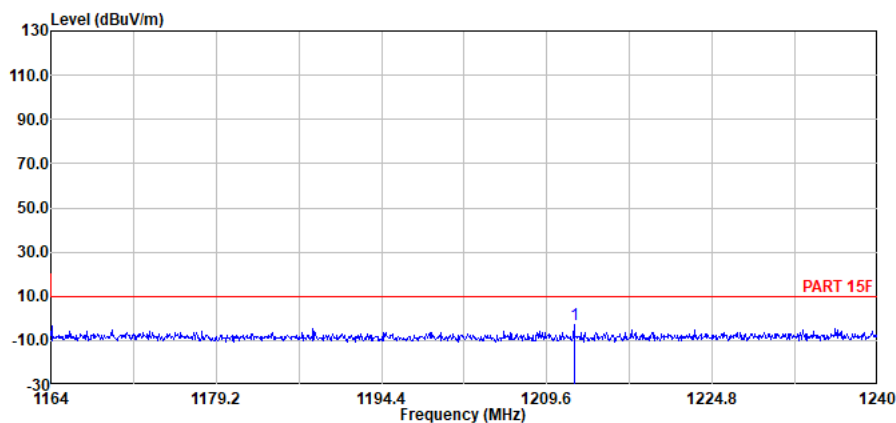
Note 5:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)
Example: Distance extrapolation factor = $20 \log (1\text{m}/3\text{m}) = -9.54$ (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



CH09 Radiated Emissions (1164MHz – 1240MHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode	Test Distance	1m



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	1212.11	-2.85	9.93	-12.78	36.20	28.12	4.68	62.31	-9.54	---	---	Average	Vertical

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)

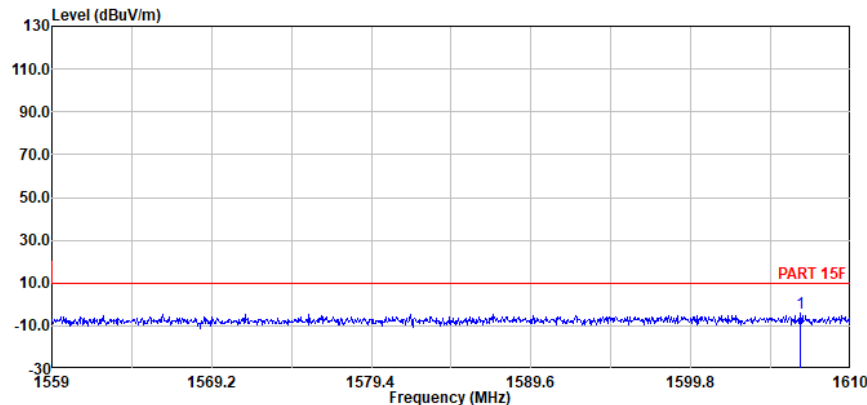
Note 4: Average emission setting: RBW=1kHz; VBW=3kHz.

Note 5:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)
Example: Distance extrapolation factor = $20 \log (1\text{m}/3\text{m}) = -9.54$ (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



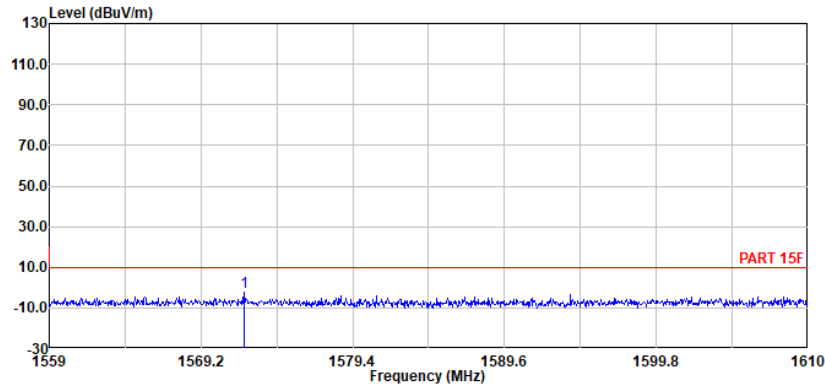
3.4.10 Radiated Emissions (1559MHz – 1610MHz)

CH05 Radiated Emissions (1559MHz – 1610MHz)																																																			
Test Mode	Mode 2: cidx-9_sts-1_packet length-67							Polarization		H																																									
Operating Function	Standalone mode							Test Distance		1m																																									
 <table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</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><th>Pol/Phase</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></th><th></th></tr><tr><td>1 1606.79</td><td>-4.32</td><td>9.93</td><td>-14.25</td><td>33.46</td><td>28.83</td><td>5.40</td><td>62.47</td><td>-9.54</td><td>---</td><td>---</td><td>Average</td><td>Horizontal</td></tr></table>													Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg			1 1606.79	-4.32	9.93	-14.25	33.46	28.83	5.40	62.47	-9.54	---	---	Average	Horizontal
Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase																																							
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg																																									
1 1606.79	-4.32	9.93	-14.25	33.46	28.83	5.40	62.47	-9.54	---	---	Average	Horizontal																																							
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: - Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB) Example: Distance extrapolation factor = 20log (1m/3m) = -9.54 (dB) - Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)																																																			



CH05 Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Mode 2: cidx-9_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode	Test Distance	1m



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	1572.11	-2.49	9.93	-12.42	35.86	28.30	5.34	62.45	-9.54	---	---	Average	Vertical

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.

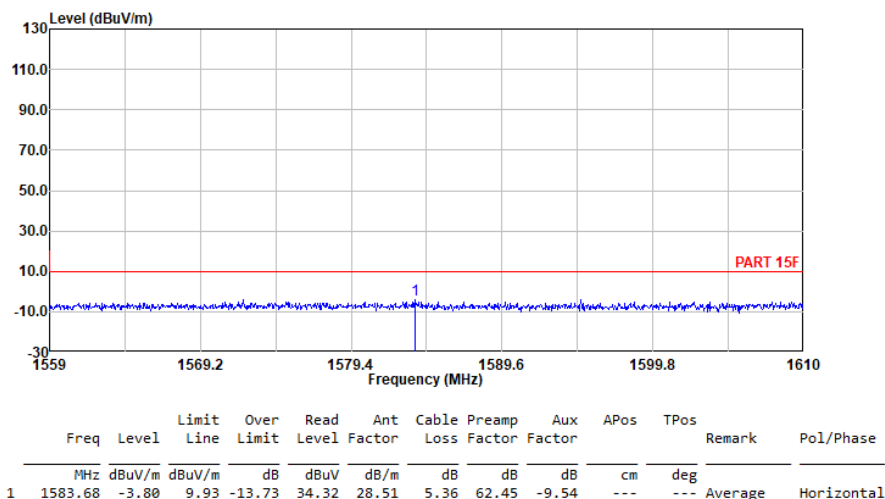
Note 5:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)
Example: Distance extrapolation factor = $20 \log (1\text{m}/3\text{m}) = -9.54$ (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



CH09 Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	H
Operating Function	Standalone mode	Test Distance	1m



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.

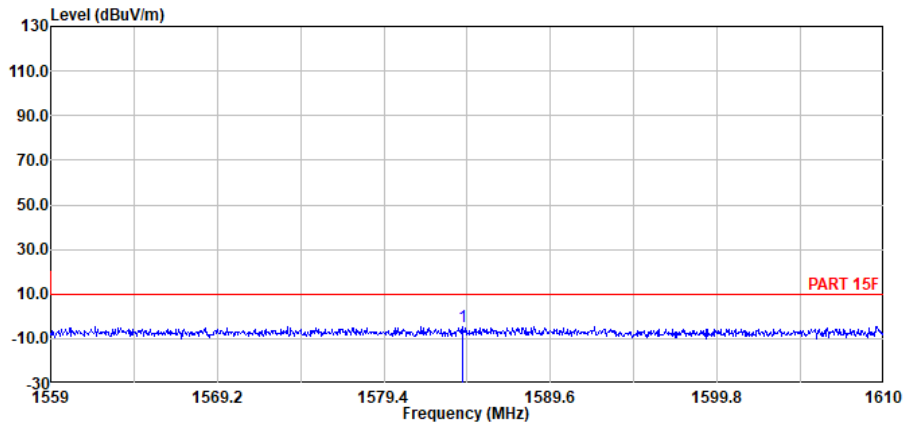
Note 5:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)
Example: Distance extrapolation factor = $20 \log (1\text{m}/3\text{m}) = -9.54$ (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



CH09 Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Mode 17: cidx-10_sts-1_packet length-67	Polarization	V
Operating Function	Standalone mode	Test Distance	1m



	Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg		
1	1584.25	-4.42	9.93	-14.35	33.70	28.52	5.36	62.46	-9.54	---	---	Average	Vertical

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:

- Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)
Example: Distance extrapolation factor = $20 \log (1\text{m}/3\text{m}) = -9.54$ (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Distance Factor (Aux Factor) (dB) = Level (dBuV/m)



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 10, 2023	May 22, 2024~May 25, 2024	Oct. 09, 2024	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY60242126	10Hz~44GHz	Oct. 10, 2023	May 22, 2024~May 25, 2024	Oct. 09, 2024	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 10, 2023	May 22, 2024~May 25, 2024	Oct. 09, 2024	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	59913	30MHz~1GHz	Aug. 19, 2023	May 22, 2024~May 25, 2024	Aug. 18, 2024	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240132	1GHz~18GHz	Jul. 12, 2023	May 22, 2024~May 25, 2024	Jul. 11, 2024	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101093	18GHz~40GHz	Jan. 05, 2024	May 22, 2024~May 25, 2024	Jan. 04, 2025	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	380827	9KHz ~1GHZ	Jul. 06, 2023	May 22, 2024~May 25, 2024	Jul. 05, 2024	Radiation (03CH06-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 04, 2024	May 22, 2024~May 25, 2024	Jan. 03, 2025	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	2082395	1Ghz~18Ghz	Jan. 04, 2024	May 22, 2024~May 25, 2024	Jan. 03, 2025	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270319	500MHz~26.5GHz	Oct. 10, 2023	May 22, 2024~May 25, 2024	Oct. 09, 2024	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	May 22, 2024~May 25, 2024	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	May 22, 2024~May 25, 2024	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	May 22, 2024~May 25, 2024	NCR	Radiation (03CH06-KS)

NCR: No Calibration Required.

5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.3 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.06 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.18 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.38 dB
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----- THE END -----