



FCC RADIO TEST REPORT

FCC ID : 2AG7G-F1A
Equipment : Plume Adaptive WiFi
Brand Name : Plume Design Inc
Model Name : F1A
Applicant : Plume Design Inc
290 S California Ave, Suite 200, Palo Alto, CA 94306, USA
Manufacturer : Plume Design Inc
290 S California Ave, Suite 200, Palo Alto, CA 94306, USA
Standard : 47 CFR FCC Part 15.517

The product was received on Jul. 30, 2020, and testing was started from Aug. 31, 2020 and completed on Oct. 22, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....3

Summary of Test Result.....4

1 General Description5

1.1 Information.....5

1.2 Testing Applied Standards5

1.3 Testing Location Information6

1.4 Measurement Uncertainty6

2 Test Configuration of EUT7

2.1 Test Mode.....7

2.2 The Worst Case Measurement Configuration.....7

2.3 Test Setup Diagram8

2.4 Support Unit used in test configuration and system.....9

3 Transmitter Test Result10

3.1 AC Power-line Conducted Emissions10

3.2 UWB bandwidth.....11

3.3 Technical requirements for indoor UWB systems13

3.4 Peak Power Measurement15

3.5 Radiated Emissions.....18

4 Test Equipment and Calibration Data31

Appendix A. Conducted Emissions Test Results

Appendix B. Setup Photographs



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	15.203
3.1	15.207	AC Power-line Conducted Emissions	PASS	15.207
3.2	15.503	UWB Bandwidth	PASS	≥ 500MHz
3.3	15.517(a)5	Technical requirements for indoor UWB systems	PASS	15.517(a)5
3.4	15.517(e)	Peak Power Measurement	PASS	≤ 0 dBm/50MHz
3.5	15.517(c) /15.517(d)	Radiated Emissions	PASS	UWB Emissions: 15.517(c) GPS Emissions: 15.517(d) Digital Emissions: 15.209

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang
Report Producer: Dara Chiu

1 General Description

1.1 Information

1.1.1 RF General Information

RF General Information		
Mode	Channel Number	Channel Frequency (MHz)
UWB	5	6489.85
UWB	9	7988.45

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain
1	-	-	IFA	I-PEX	4
2	-	-	IFA	I-PEX	3

1.1.3 Type of EUT

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

1.2 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.

1.3 Testing Location Information

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	CO05-HY	TH05-HY

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH11-HY	03CH12-HY

Note: The test site complies with ANSI C63.4 2014 requirement.
FCC designation No.: TW1190 and TW0007

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Conduction	CO05-HY	Howard Huang	26°C / 40%	Aug. 31, 2020
Conducted	TH05-HY	Steve Chen	22.1~25.3 °C / 48.9~56.4 %	Oct. 22, 2020
Radiated	03CH11-HY	Fu Chen	23°C / 55%	Sep. 02, 2020 ~ Sep. 04, 2020
Radiated	03CH12-HY	Jack Cheng	22°C / 60%	Sep. 18, 2020 ~ Sep. 28, 2020

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
AC Conduction (150kHz ~ 30MHz)	2.3 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.12 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.4 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.9 dB	Confidence levels of 95%

2 Test Configuration of EUT




2.1 Test Mode

Test Configuration		
Mode	Antenna	UWB Channel
1	1	5
2	1	9
3	2	5
4	2	9

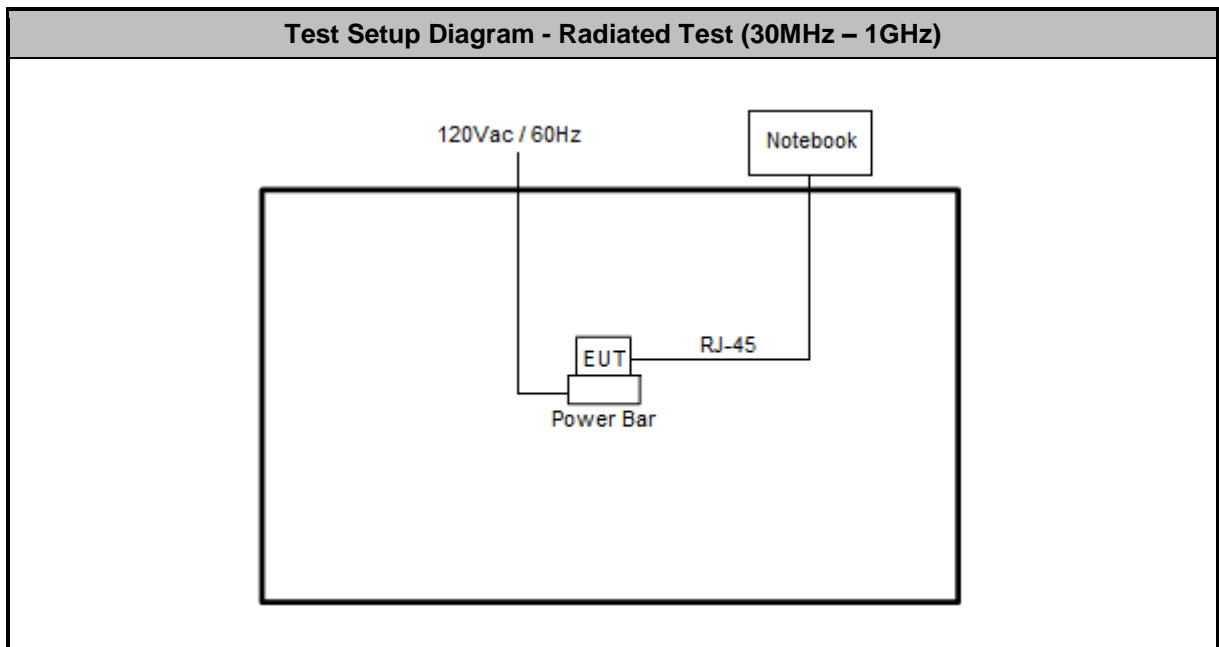
Test Configuration - Conducted Emissions	
Mode	UWB Channel
1	5
2	9

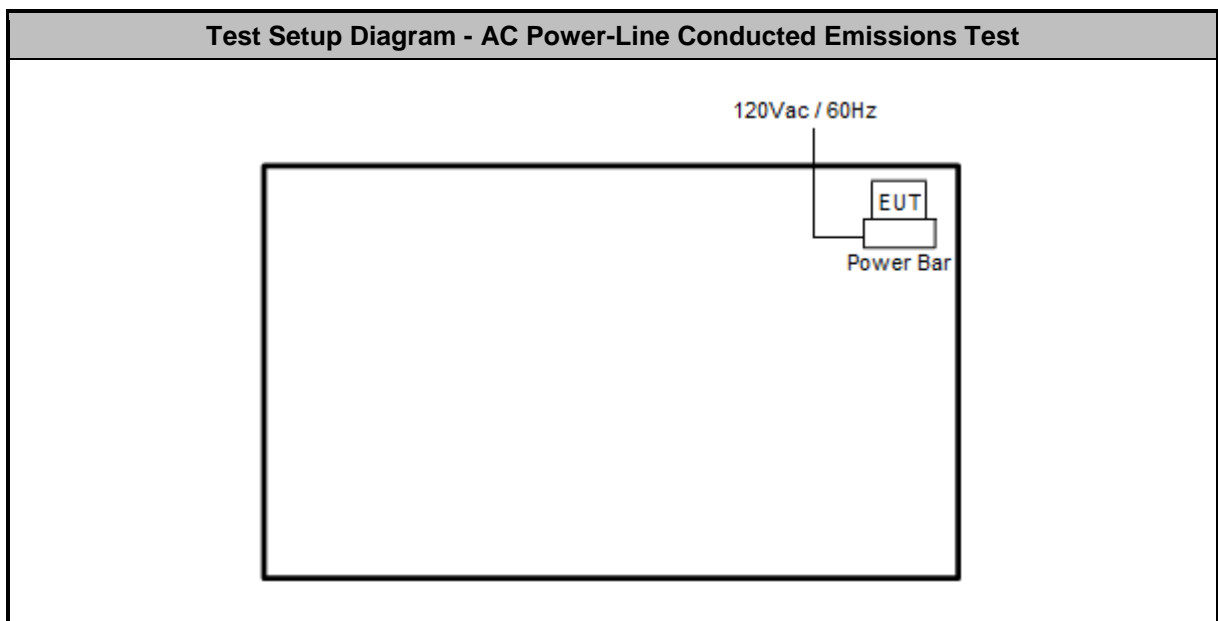
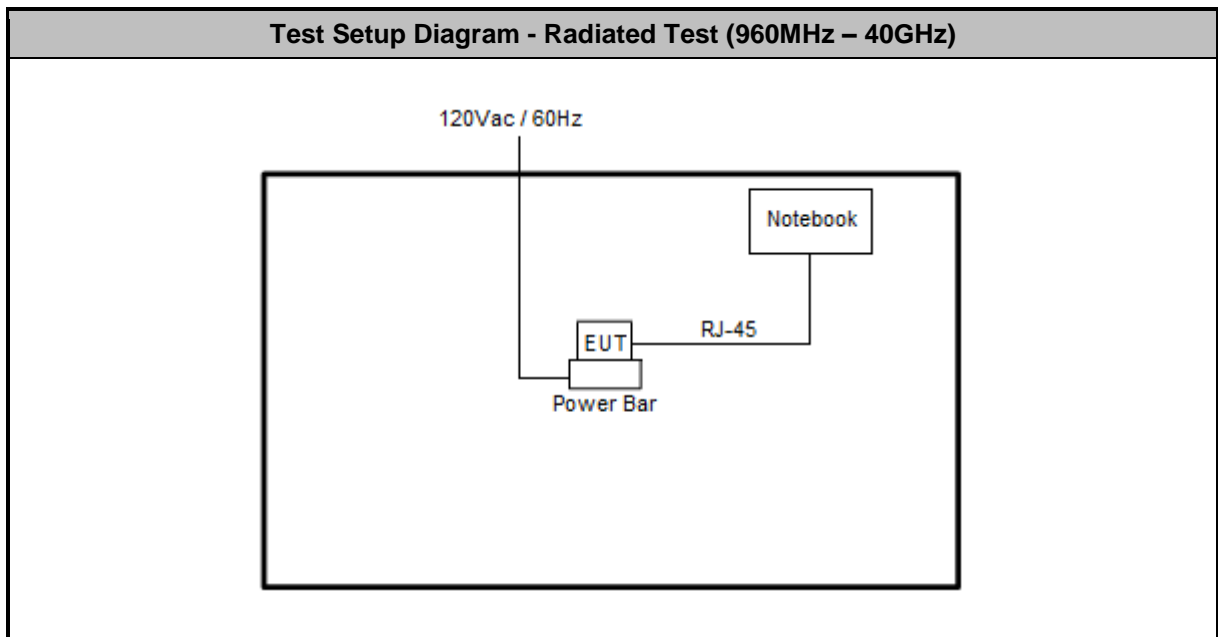
2.2 The Worst Case Measurement Configuration

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
<p>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".</p>	

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
			
Worst Planes of test mode 1			V
Worst Planes of test mode 2	V		
Worst Planes of test mode 3	V		
Worst Planes of test mode 4			V
Remark: There are no obvious new emissions for simultaneous transmission with 2.4GHz and 5GHz WiFi.			

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.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

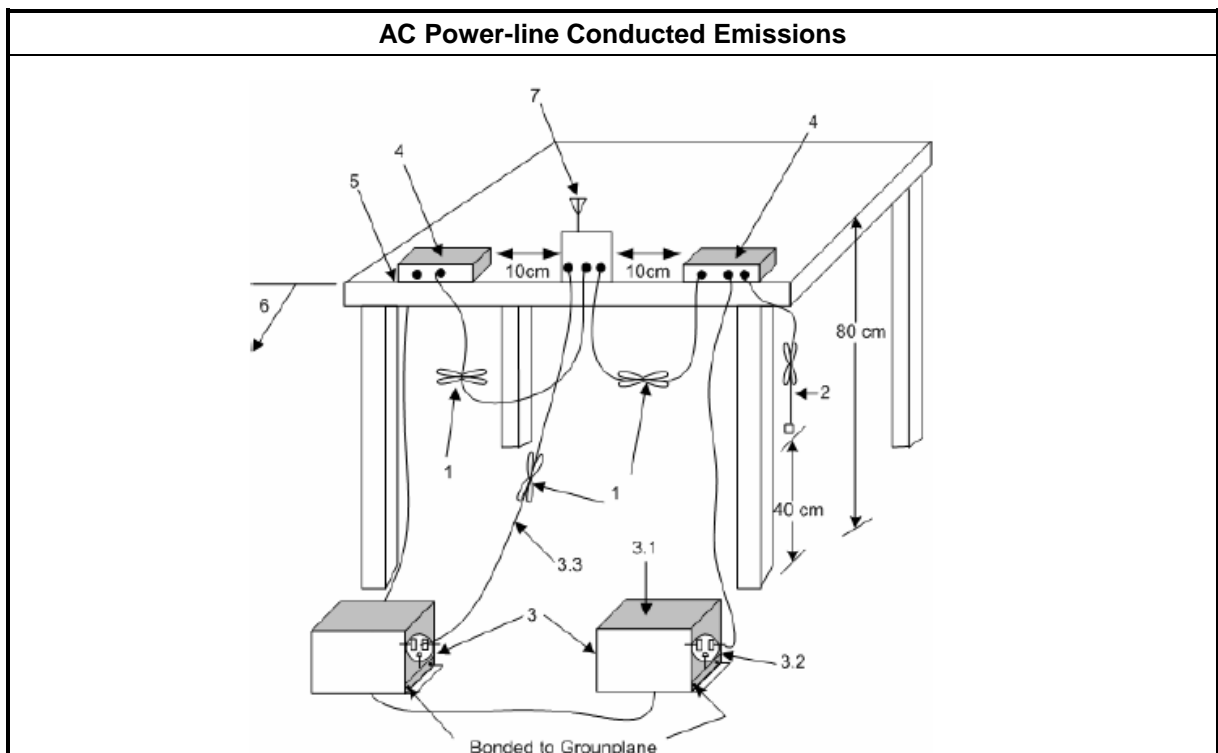
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
■ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



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 \geq 500 MHz or Fractional bandwidth \geq 0.2; Fractional bandwidth = $2(f_H - f_L) / (f_H + f_L)$

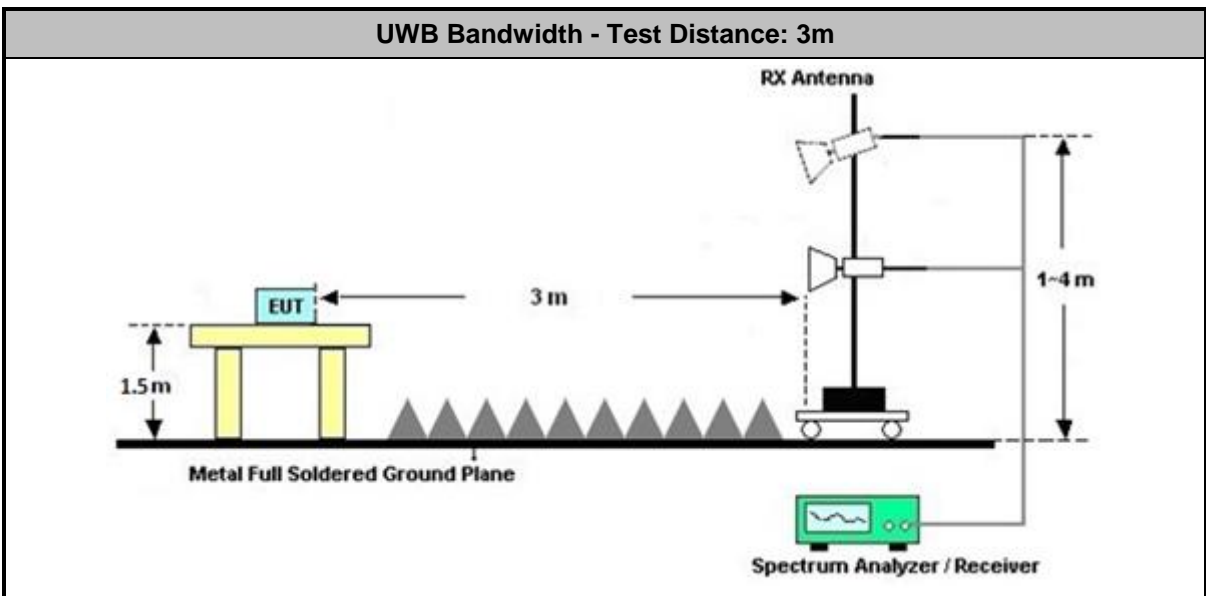
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ■ For the UWB bandwidth shall be measured using one of the options below:
<ul style="list-style-type: none"> ■ Refer as ANSI C63.10, clause 6.9.3 and clause 10.1 for UWB bandwidth testing.

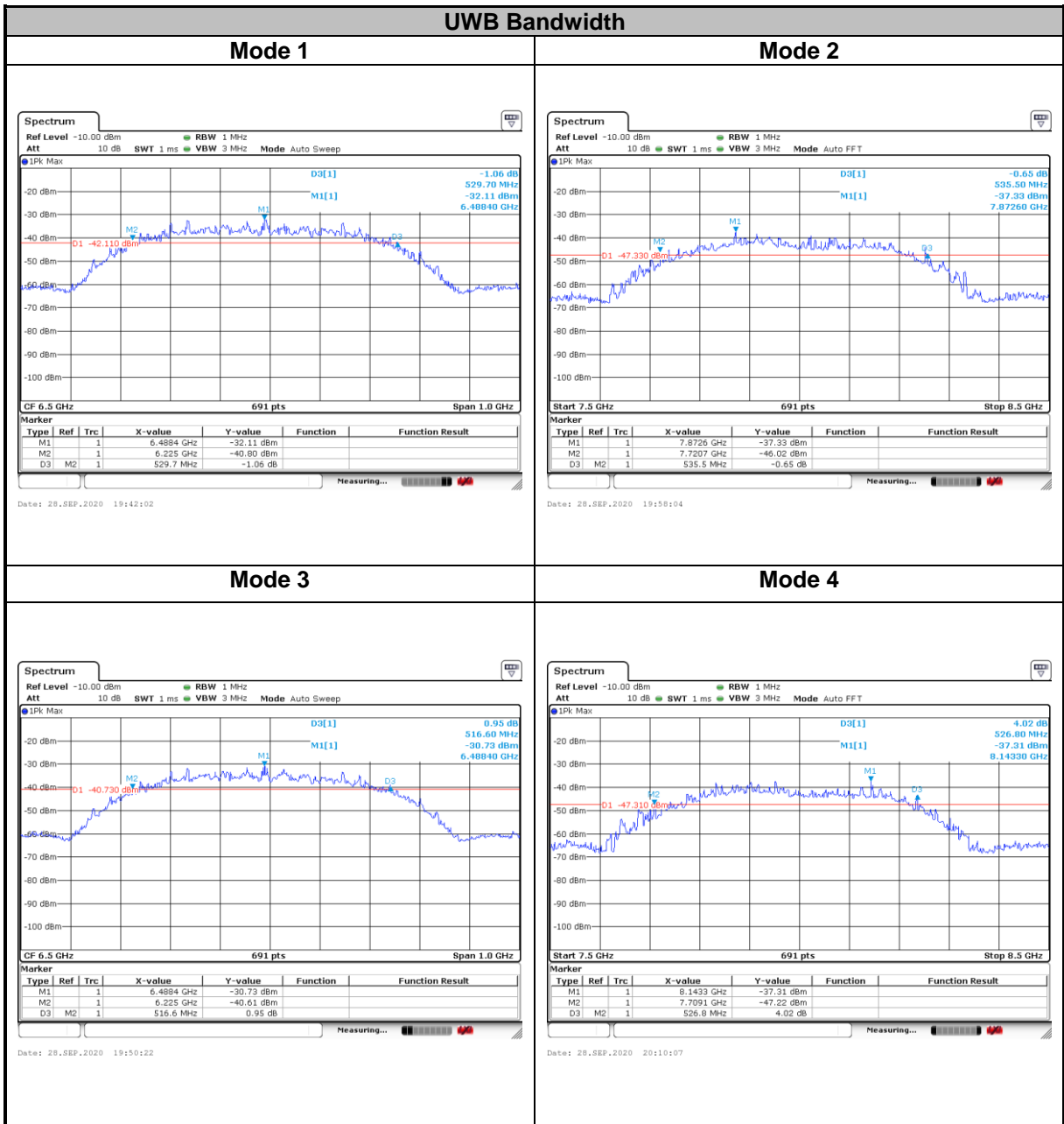
3.2.4 Test Setup





3.2.5 Test Result of UWB Bandwidth

Test mode	F _L	F _H	UWB bandwidth	Fractional bandwidth	Result
1	6225.00 MHz	6754.70 MHz	529.70 MHz	0.08	Pass
2	7720.70 MHz	8256.20 MHz	535.50 MHz	0.07	Pass
3	6225.00 MHz	6741.60 MHz	516.60 MHz	0.08	Pass
4	7709.10 MHz	8235.90 MHz	526.80 MHz	0.07	Pass



3.3 Technical requirements for indoor UWB systems

3.3.1 Technical Requirements for transmission Limit

FCC 15.517(a) (5) a communications system shall transmit only when the intentional radiator is sending information to an associated receiver.

3.3.2 Measuring Instruments

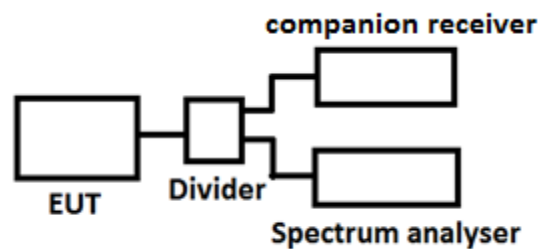
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedure

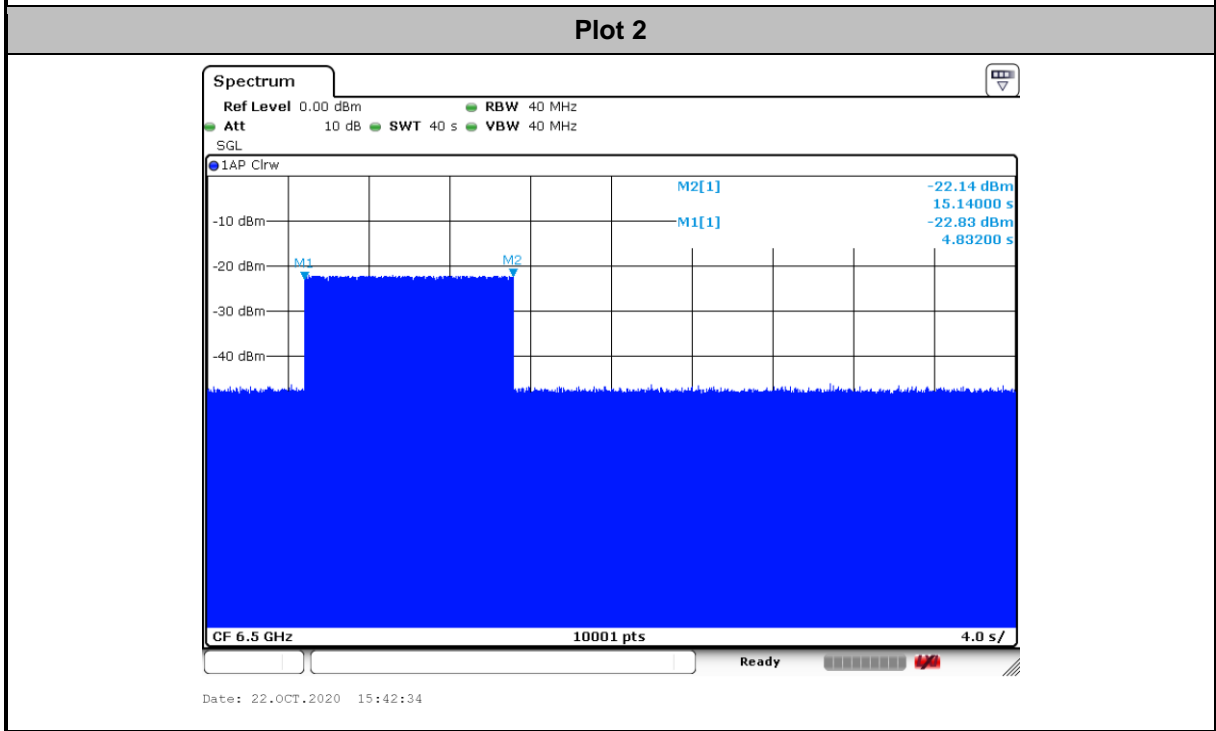
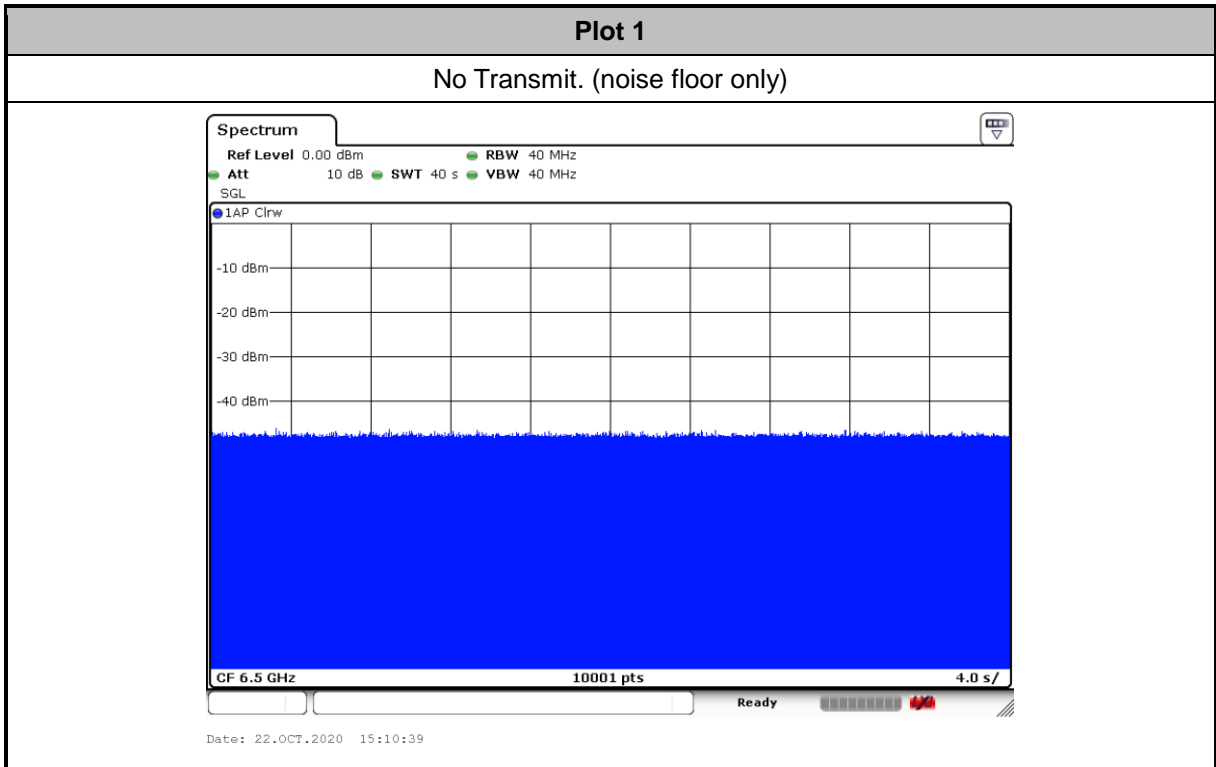
Follow the test step as below:

1. Power on EUT and companion receiver.
2. Check no transmitting signal from the EUT, when the EUT does not associate with the companion receiver.
3. (Plot 1 in report section 3.3.5)
4. Set the companion receiver to receiving mode.
5. Set the EUT to associate the companion receiver and then start to transmit.
6. Suspend the receiving function of the associated companion receiver.
7. Check if there is no transmission after stop sending information to receiver.
8. (Plot 2 in report section 3.3.5)

3.3.4 Test Setup



3.3.5 Test Result



M1: EUT associates the companion receiver and start to transmit.
 M2: Suspend the receiving function of the companion receiver. EUT disassociates with the companion receiver and then stop transmitting right away.

3.4 Peak Power Measurement

3.4.1 Peak Power Measurement Limit

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

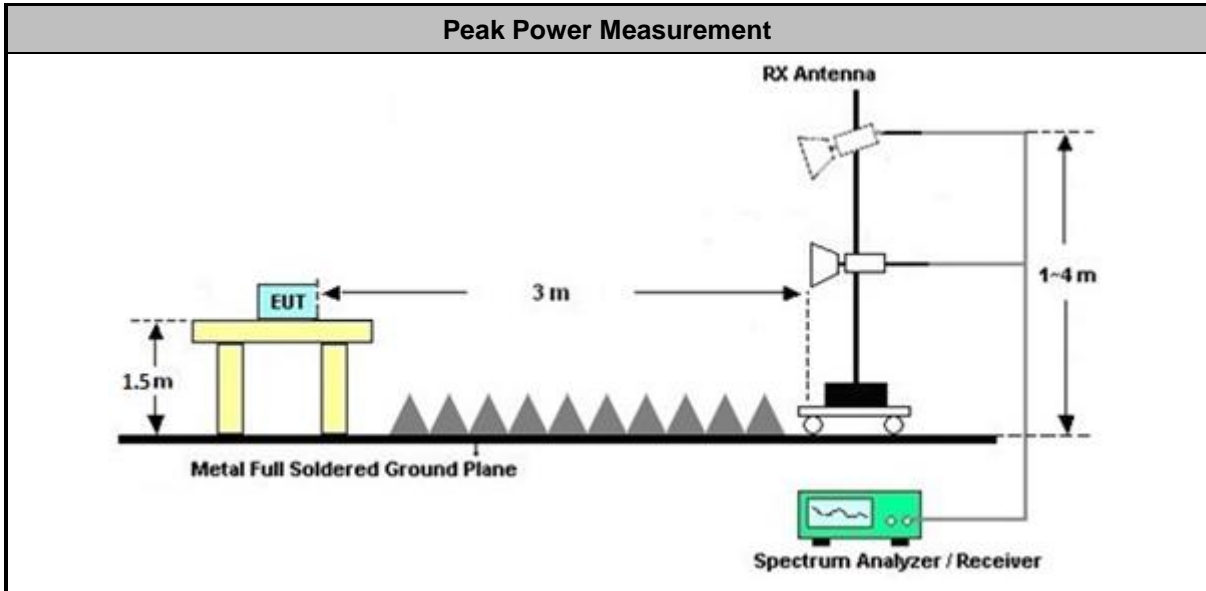
3.4.2 Measuring Instruments

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 10.3.4 for peak detector procedure testing.
■	Refer as ANSI C63.10, clause 10.3.6 for bandwidth conversion of peak power.

3.4.4 Test Setup



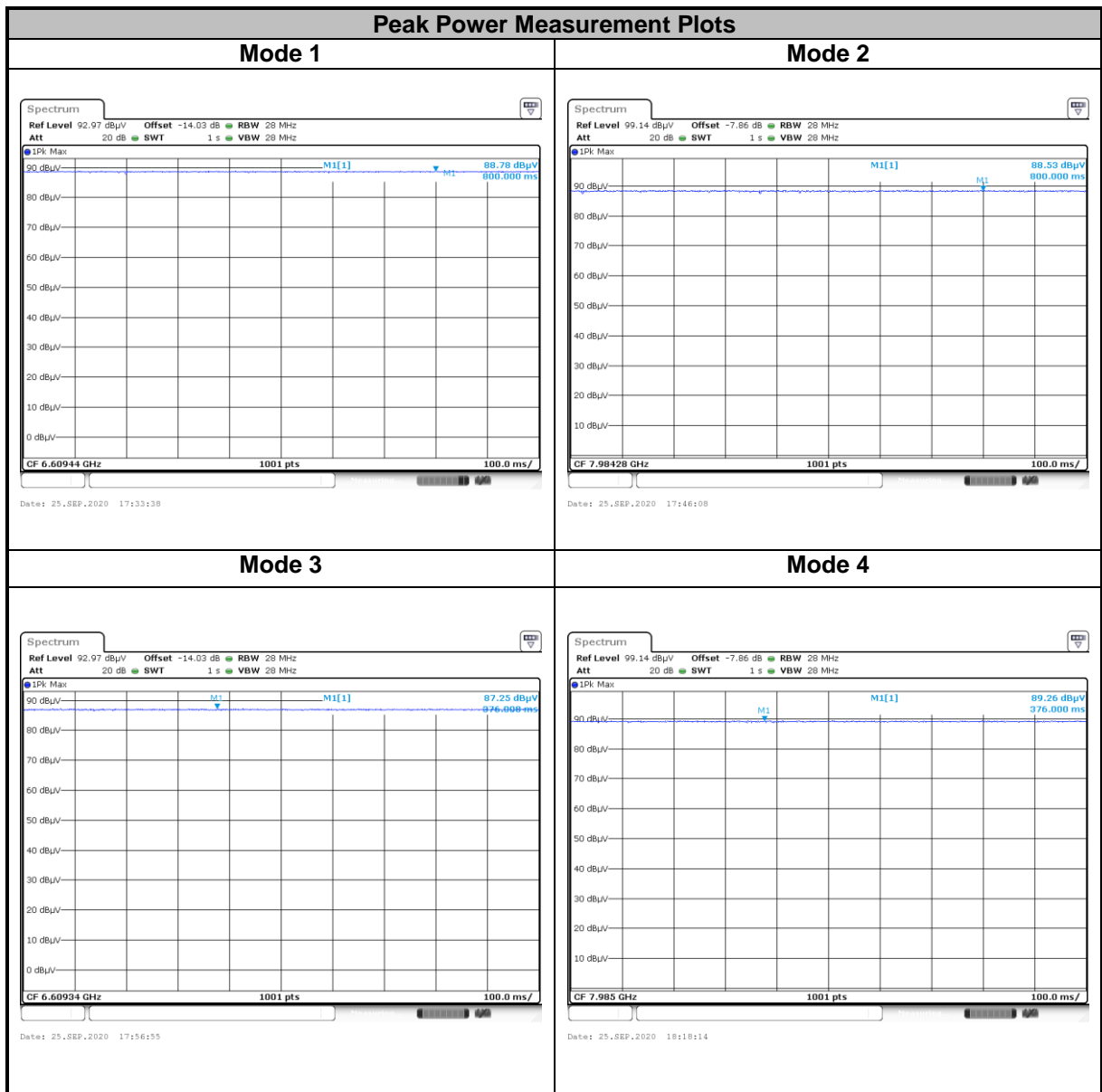


3.4.5 Test Result of Peak Power Measurement

Peak Measurement Result							
Test Mode	Freq. (MHz)	E-Field [dBuV/m]	ERIP _{28MHz} [dBm]	ERIP _{50MHz} Limit [dBm]	EIRP _{28MHz} Limit [dBm]	Margin [dB]	PoI [H/V]
1	6609.44	88.78	-6.42	0	-5.04	-1.38	H
2	7984.28	88.53	-6.67	0	-5.04	-1.63	V
3	6609.34	87.25	-7.95	0	-5.04	-2.91	V
4	7985.00	89.26	-5.94	0	-5.04	-0.90	V

Note 1: EIRP [dBm] = E-Field [dBuV/m] - 95.2;
 Note 2: Bandwidth Correction Factor (BWCF) = 20 log (28MHz/50MHz).
 Note 3: EIRP_{28MHz} Limit = EIRP_{50MHz} Limit + BWCF, FCC Part 15.521(g).
 Note 4: Measurement worst emissions of receive antenna polarization.

Pre-locate the worst frequency																																																																																							
Mode 1	Mode 2																																																																																						
<p>Site : 03CH12-HY Condition : FOR WORST FREQ. 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 031701 Setting : 32</p> <table border="1"> <thead> <tr> <th>Over</th> <th>Limit</th> <th>ReadAntenna</th> <th>Cable</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> </tr> <tr> <th>Level</th> <th>Line</th> <th>Level</th> <th>Loss</th> <th>Loss</th> <th>cm</th> <th>deg</th> <th></th> </tr> <tr> <th>Freq</th> <th>Level</th> <th>Limit</th> <th>Line</th> <th>Level</th> <th>Factor</th> <th>Loss</th> <th>Factor</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dB</th> <th>dB</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>6610.00</td> <td>85.12</td> <td>-----</td> <td>99.15</td> <td>34.38</td> <td>11.36</td> <td>59.77</td> <td>300</td> <td>68</td> <td>Peak</td> </tr> </tbody> </table>	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	Level	Line	Level	Loss	Loss	cm	deg		Freq	Level	Limit	Line	Level	Factor	Loss	Factor	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	1	6610.00	85.12	-----	99.15	34.38	11.36	59.77	300	68	Peak	<p>Site : 03CH12-HY Condition : FOR WORST FREQ. 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 031701 Setting : 20</p> <table border="1"> <thead> <tr> <th>Over</th> <th>Limit</th> <th>ReadAntenna</th> <th>Cable</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> </tr> <tr> <th>Level</th> <th>Line</th> <th>Level</th> <th>Loss</th> <th>Loss</th> <th>cm</th> <th>deg</th> <th></th> </tr> <tr> <th>Freq</th> <th>Level</th> <th>Limit</th> <th>Line</th> <th>Level</th> <th>Factor</th> <th>Loss</th> <th>Factor</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dB</th> <th>dB</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>7985.00</td> <td>69.79</td> <td>-----</td> <td>77.65</td> <td>37.81</td> <td>14.13</td> <td>59.00</td> <td>200</td> <td>42</td> <td>Peak</td> </tr> </tbody> </table>	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	Level	Line	Level	Loss	Loss	cm	deg		Freq	Level	Limit	Line	Level	Factor	Loss	Factor	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	1	7985.00	69.79	-----	77.65	37.81	14.13	59.00	200	42	Peak
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Note:

Frequency of max peak power is pre-located. Then 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: 28MHz
- VBW: 28MHz
- Detector: Peak detector
- Trace: Max hold



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	-53.3
1990-3100	-51.3
3100-10600	-41.3
Above 10600	-51.3

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) + 95.2, example, E(dBuV/m) = -85.3 + 95.2 = 9.9dBuV/m



3.5.2 Measuring Instruments

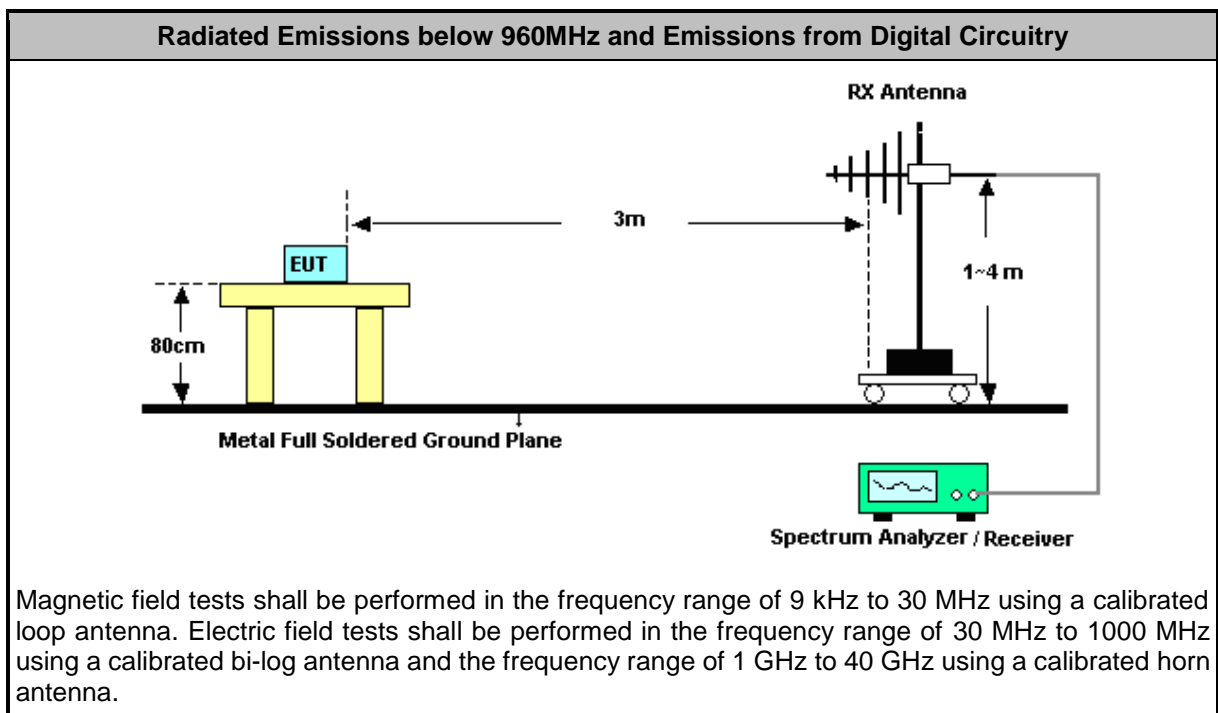
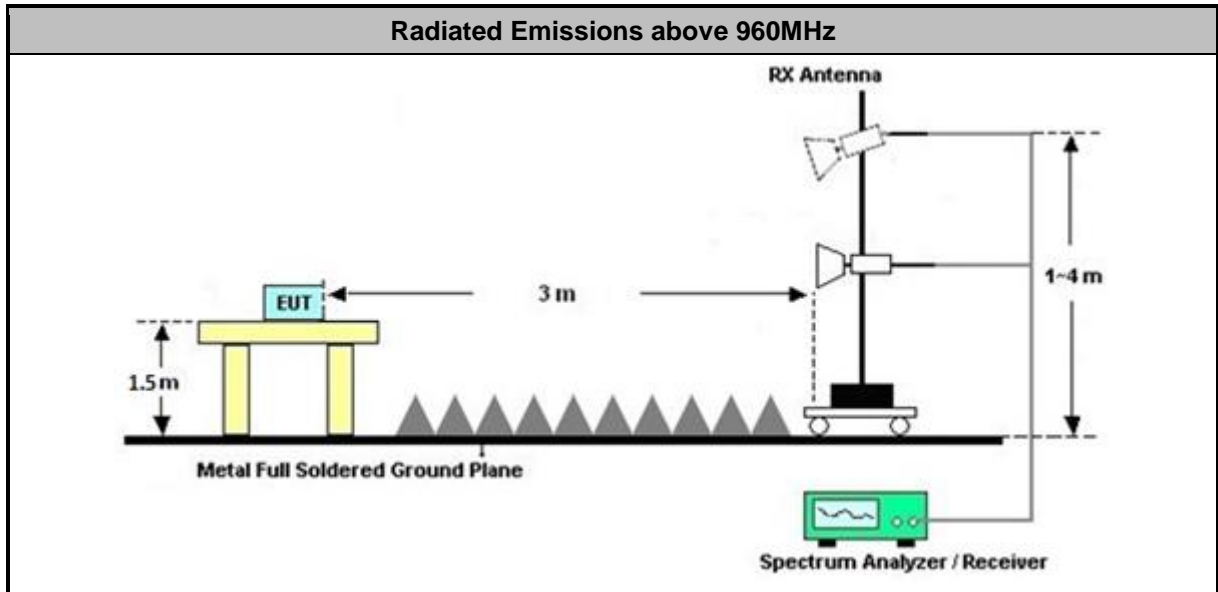
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

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

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

3.5.4 Test Setup



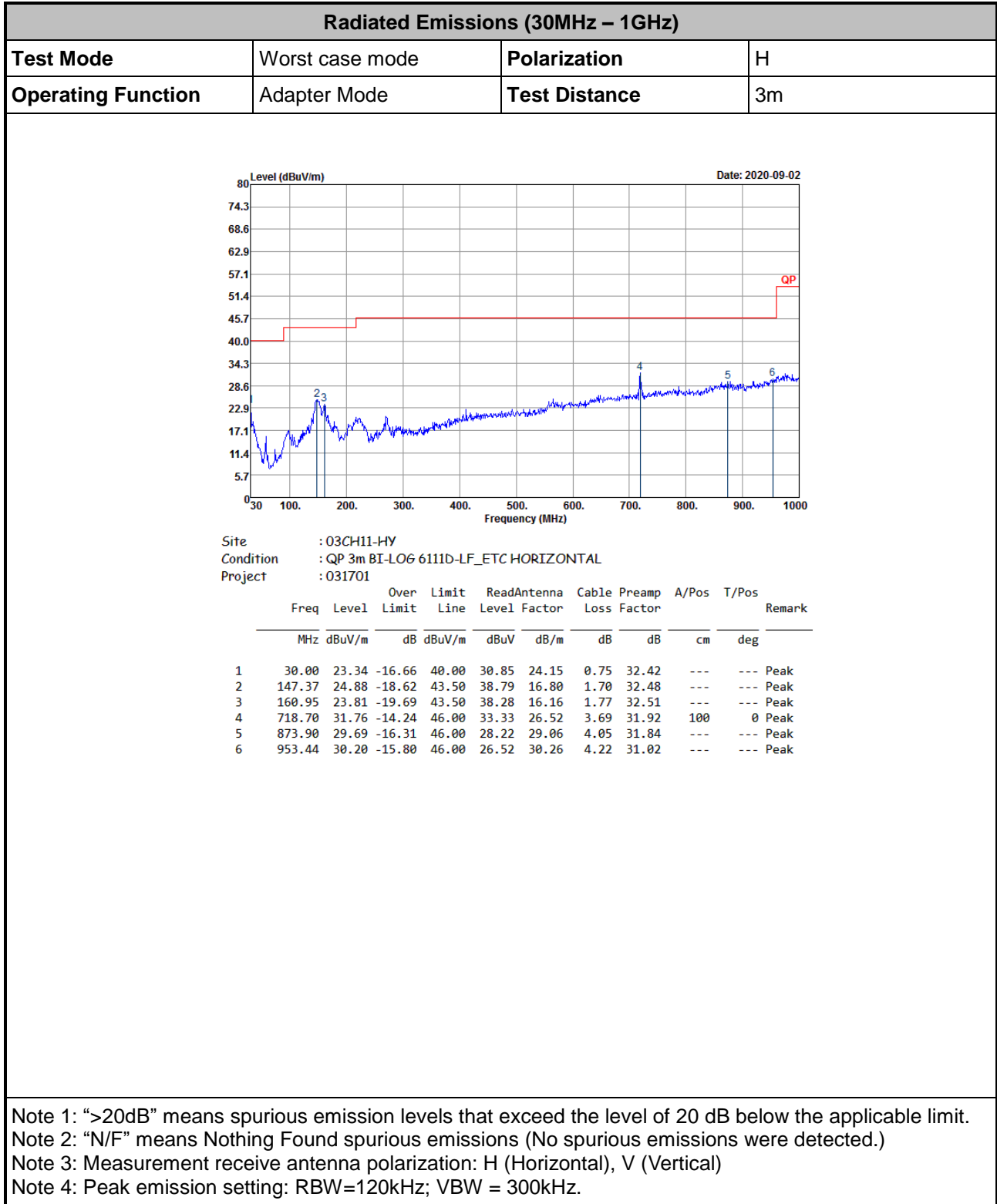
3.5.5 Radiated Emissions (Below 30MHz)

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

Remark: There is a comparison data 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.



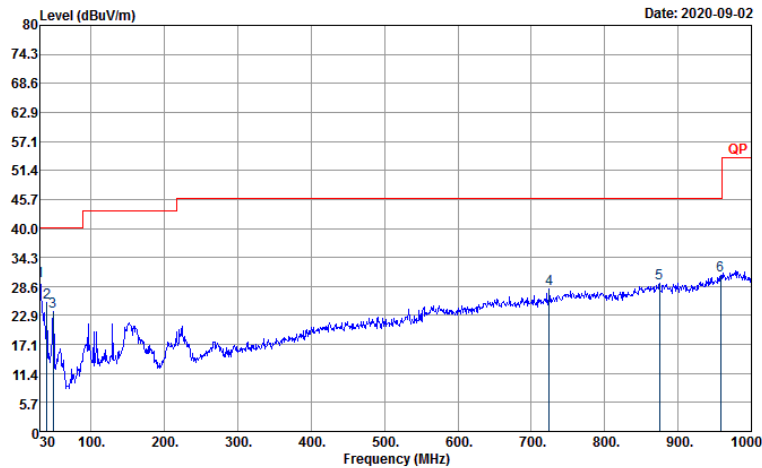
3.5.6 Radiated Emissions (30MHz – 1GHz)





Radiated Emissions (30MHz – 1GHz)

Test Mode	Worst case mode	Polarization	V
Operating Function	Adapter Mode	Test Distance	3m



Site : 03CH11-HY
 Condition : QP 3m BI-LO6 6111D-LF_ETC VERTICAL
 Project : 031701

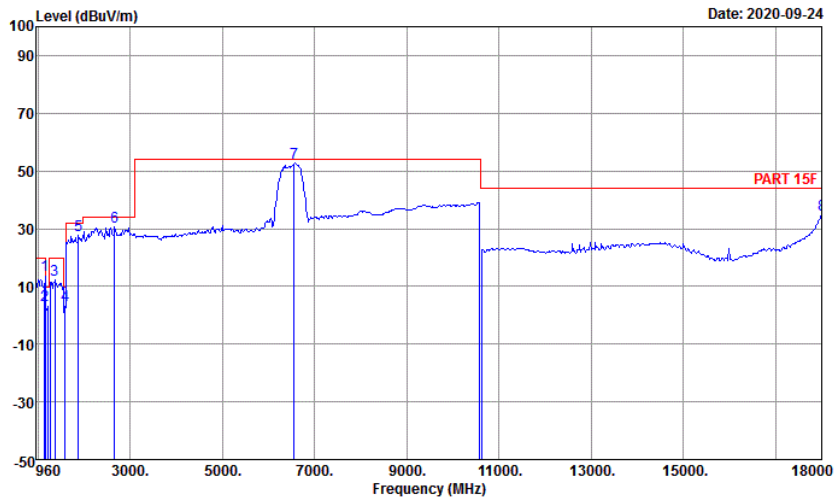
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.00	29.59	-10.41	40.00	37.10	24.15	0.75	32.42	100	0 Peak
2	39.70	25.38	-14.62	40.00	37.55	19.40	0.89	32.48	---	---
3	48.43	23.58	-16.42	40.00	40.43	14.67	0.98	32.53	---	---
4	724.52	28.09	-17.91	46.00	29.51	26.66	3.71	31.94	---	---
5	874.87	29.10	-16.90	46.00	27.63	29.06	4.05	31.84	---	---
6	958.29	30.86	-15.14	46.00	26.80	30.57	4.23	30.96	---	---

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.



3.5.7 Radiated Emissions (960MHz – 18GHz)

Radiated Emissions (960MHz – 18GHz)			
Test Mode	Worst case mode	Polarization	H
Operating Function	Adapter Mode		
Test Distance	The test distance between the receiving antenna and the EUT is 3 meter with 1.61 GHz ~ 10.60 GHz frequency range, and 0.5 m with other frequency range.		



Site : 03CH12-HY
 Condition : PART 15F HORN_9120D_1328 HORIZONTAL
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	dB
1	1162.37	13.90	-6.03	19.93	64.25	24.95	4.05	63.79	---	---	-15.56
2	1164.00	3.43	-6.50	9.93	53.77	24.96	4.05	63.79	---	---	-15.56
3	1375.26	12.11	-7.82	19.93	61.62	25.90	4.45	64.30	---	---	-15.56
4	1597.71	3.51	-6.42	9.93	53.60	25.10	4.91	64.54	---	---	-15.56
5	1875.62	27.78	-4.15	31.93	61.31	25.50	5.34	64.37	---	---	0.00
6	2660.44	30.64	-3.29	33.93	59.17	27.52	6.66	62.71	---	---	0.00
7	6565.00	52.70	-1.23	53.93	66.97	34.26	11.29	59.82	---	---	0.00
8	18000.00	34.65	-9.28	43.93	35.25	50.10	21.56	56.70	---	---	-15.56

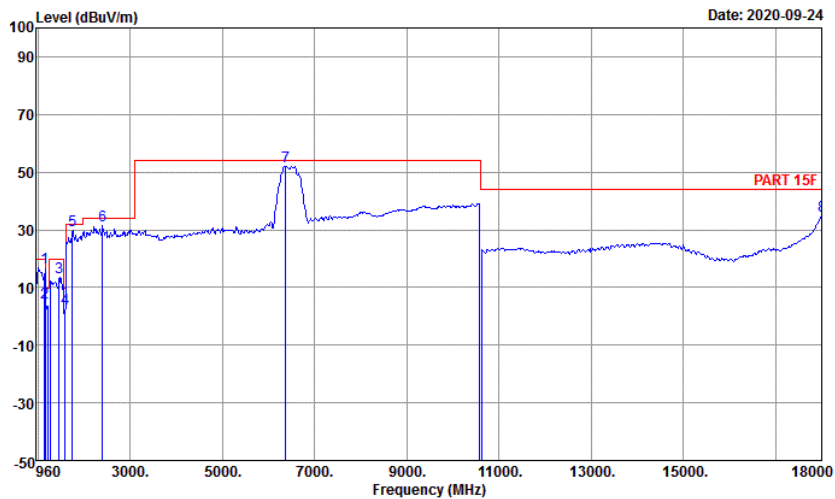
- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: Average emission setting outside GPS Bands: RBW=1MHz; VBW=3MHz.
- Note 5: Average emission setting in GPS bands: RBW=100kHz; VBW=300kHz.
- Note 7: #7 is fundamental signal.

Note 8:

- 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: 24.95 (dB/m) + 4.05 (dB) + 64.25 (dBuV) - 63.79 (dB) + (-15.56) (dB) = 13.90 (dBuV/m)



Radiated Emissions (960MHz – 18GHz)			
Test Mode	Worst case mode	Polarization	V
Operating Function	Adapter Mode		
Test Distance	The test distance between the receiving antenna and the EUT is 3 meter with 1.61 GHz ~ 10.60 GHz frequency range, and 0.5 m with other frequency range.		



Site : 03CH12-HY
 Condition : PART 15F HORN_9120D_1328 VERTICAL
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	dB
1	1163.18	17.04	-2.89	19.93	67.39	24.95	4.05	63.79	---	---	-15.56
2	1166.89	4.78	-5.15	9.93	55.11	24.97	4.06	63.80	---	---	-15.56
3	1468.09	13.50	-6.43	19.93	63.35	25.59	4.64	64.52	---	---	-15.56
4	1598.17	2.81	-7.12	9.93	52.90	25.10	4.91	64.54	---	---	-15.56
5	1757.06	29.68	-2.25	31.93	63.76	25.21	5.16	64.45	---	---	0.00
6	2398.48	31.35	-2.58	33.93	60.75	27.50	6.28	63.18	---	---	0.00
7	6370.00	52.00	-1.93	53.93	67.47	33.48	11.03	59.98	---	---	0.00
8	18000.00	34.87	-9.06	43.93	35.47	50.10	21.56	56.70	---	---	-15.56

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=100kHz; VBW=300kHz.
 Note 7: #7 is fundamental signal.

Note 8:

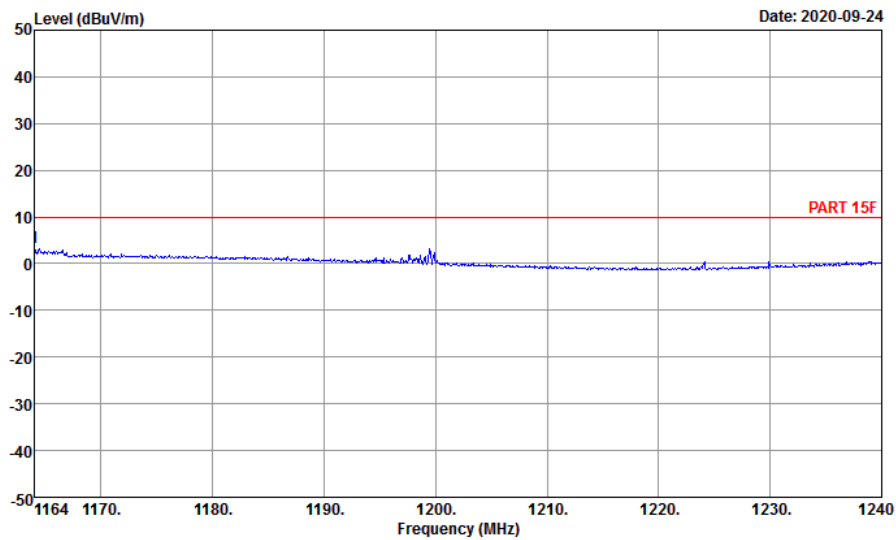
- Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
- Corrected Reading: Antenna Factor (dB/m) + Cable Loss (dB) + Read Level (dBuV) - Preamp Factor (dB) + Aux Factor (dB) = Level (dBuV/m)
 (Note: Aux Factor = Distance extrapolation factor)



3.5.8 Radiated Emissions (1164MHz – 1240MHz)

Radiated Emissions (1164MHz – 1240MHz)

Test Mode	Worst case mode	Polarization	H
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH12-HY
 Condition : PART 15F 1m HORN_9120D_1328 HORIZONTAL
 : RBW:100.000KHz VBW:300.000KHz SWT:1.001sec
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux		
Level	Line	Level	Factor	Loss	Factor			Factor		
Freq	dB	dBuV/m	dBuV	dB	dB	cm	deg	dB		
MHz	dB	dBuV/m	dBuV	dB	dB	cm	deg	dB		
1 1164.00	3.43	-6.50	9.93	53.77	24.96	4.05	63.79	---	---	-15.56

- 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=100kHz; VBW=300kHz.
 Note 5: E (dBuV/m) = EIRP (dBm) + 95.2. E(dBuV/m) = -85.3 + 95.2 = 9.9dBuV/m.

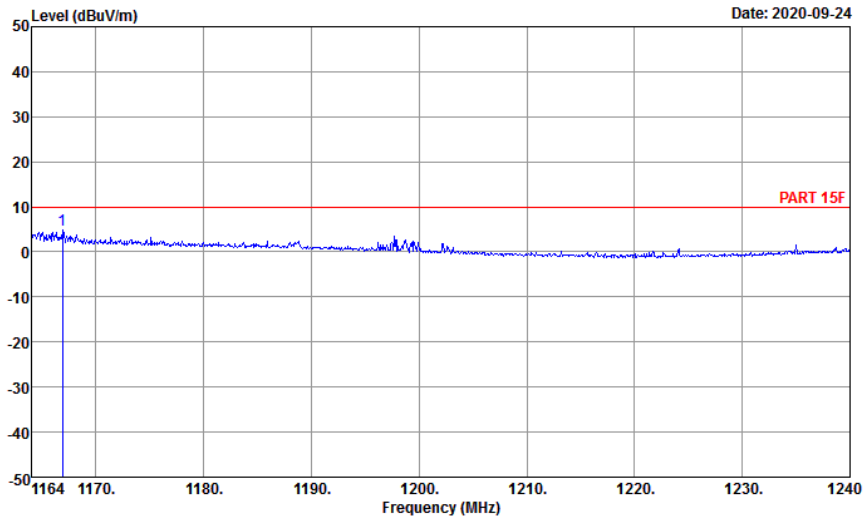
Note 6:

- 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)



Radiated Emissions (1164MHz – 1240MHz)

Test Mode	Worst case mode	Polarization	V
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH12-HY
 Condition : PART 15F 1m HORN_9120D_1328 VERTICAL
 : RBW:100.000KHz VBW:300.000KHz SWT:1.001sec
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux			
Freq	Level	Limit	Level	Loss	Factor			Factor			
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	dB	
1	1166.89	4.78	-5.15	9.93	55.11	24.97	4.06	63.80	---	---	-15.56

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=100kHz; VBW=300kHz.

Note 5: $E \text{ (dBuV/m)} = \text{EIRP (dBm)} + 95.2$. $E \text{ (dBuV/m)} = -85.3 + 95.2 = 9.9 \text{ dBuV/m}$.

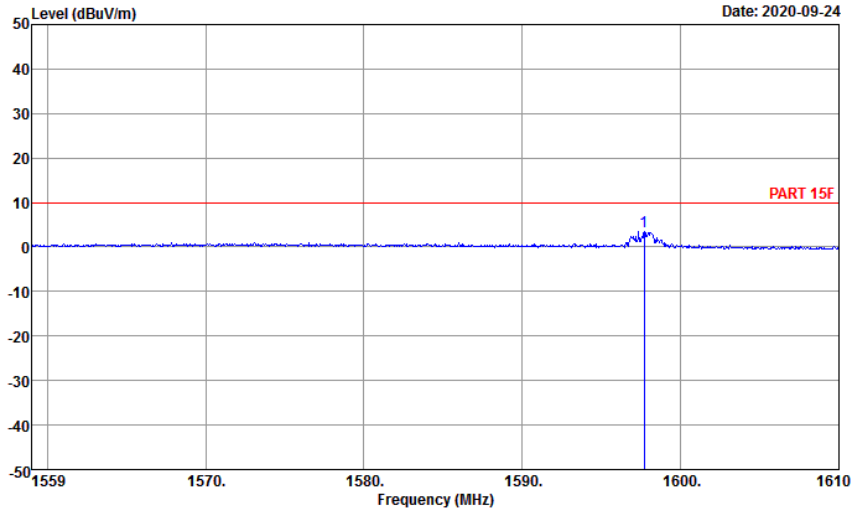
Note 6:

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



3.5.9 Radiated Emissions (1559MHz – 1610MHz)

Radiated Emissions (1559MHz – 1610MHz)			
Test Mode	Worst case mode	Polarization	H
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH12-HY
 Condition : PART 15F 1m HORN_9120D_1328 HORIZONTAL
 : RBW:100.000KHz VBW:300.000KHz SWT:1.001sec
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux			
Freq	Level	Limit	Level	Loss	Loss			Factor			
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	dB	
1	1597.71	3.51	-6.42	9.93	53.60	25.10	4.91	64.54	---	---	-15.56

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=100kHz; VBW=300kHz.

Note 5: E (dBuV/m) = EIRP (dBm) + 95.2. E(dBuV/m) = -85.3 + 95.2 = 9.9dBuV/m.

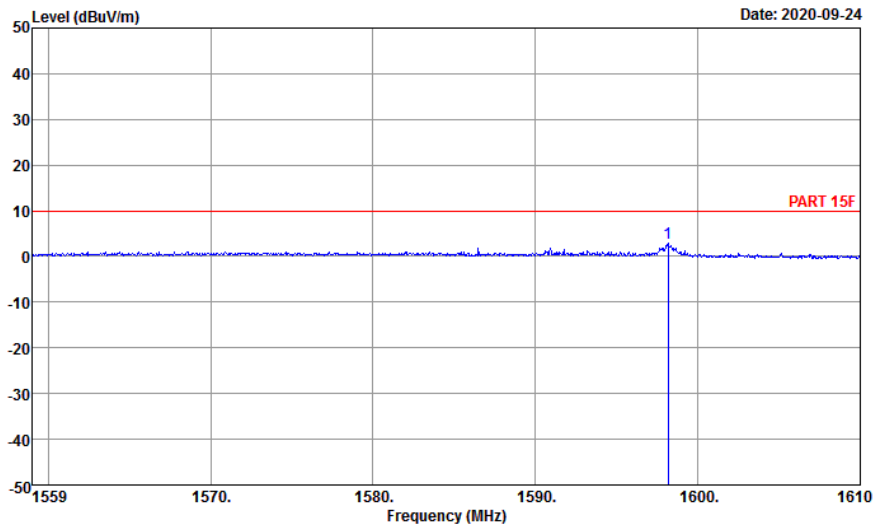
Note 6:

- 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)



Radiated Emissions (1559MHz – 1610MHz)

Test Mode	Worst case mode	Polarization	V
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH12-HY
 Condition : PART 15F 1m HORN_9120D_1328 VERTICAL
 : RBW:100.000KHz VBW:300.000KHz SWT:1.001sec
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	dB
1	1598.17	2.81	-7.12	9.93	52.90	25.10	4.91	64.54	---	---	-15.56

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=100kHz; VBW=300kHz.

Note 5: $E \text{ (dBuV/m)} = \text{EIRP (dBm)} + 95.2$. $E \text{ (dBuV/m)} = -85.3 + 95.2 = 9.9 \text{ dBuV/m}$.

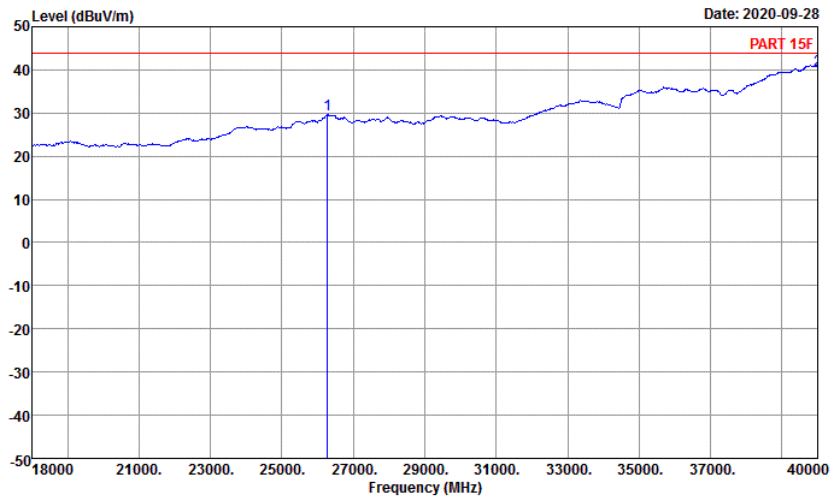
Note 6:

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



3.5.10 Radiated Emissions (18GHz – 40GHz)

Radiated Emissions (18GHz – 40GHz)			
Test Mode	Worst case mode	Polarization	H
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH12-HY
 Condition : PART 15F SHF HORN BBHA9170584 HORIZONTAL
 : RBW:1000.000KHz VBW:3000.000KHz SWT:11.001sec
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	dB
1	26272.00	29.68	-14.25	43.93	34.63	39.79	23.91	53.09	---	---	-15.56
2	40000.00	39.99	-3.94	43.93	34.92	45.10	29.83	54.30	---	---	-15.56

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

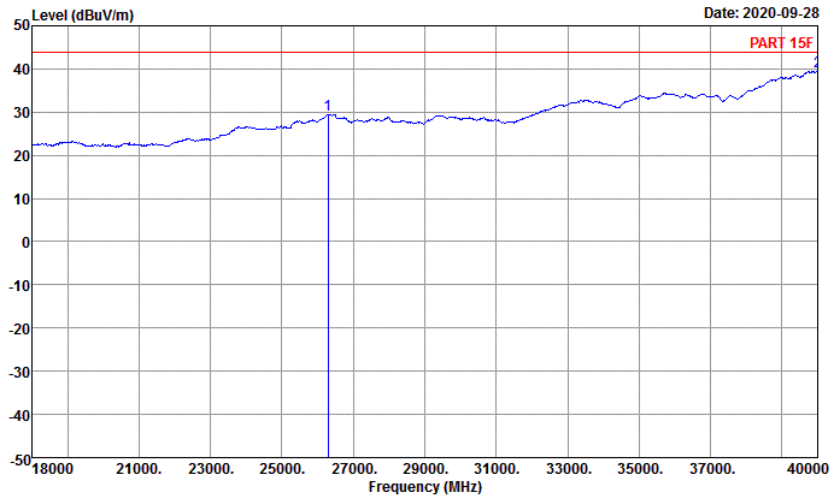
Note 5:

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



Radiated Emissions (18GHz – 40GHz)

Test Mode	Worst case mode	Polarization	V
Operating Function	Adapter Mode	Test Distance	0.5m



Site : 03CH12-HY
 Condition : PART 15F SHF HORN BBHA9170584 VERTICAL
 : RBW:1000.000KHz VBW:3000.000KHz SWT:11.001sec
 Detector : Average
 Project : 031701
 Setting : 32
 Average Type : RMS
 Tarce : Max Hold

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Aux	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	cm	deg	Factor	
			dB	dBuV/m	dBuV	dB/m	dB	dB		dB	
1	26294.00	29.48	-14.45	43.93	34.36	39.83	23.93	53.08	---	---	-15.56
2	40000.00	39.51	-4.42	43.93	34.44	45.10	29.83	54.30	---	---	-15.56

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

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

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

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

Note 5:

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



4 Test Equipment and Calibration Data

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 31, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Aug. 31, 2020	Nov. 14, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 15, 2019	Aug. 31, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Aug. 31, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Aug. 31, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Aug. 31, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Sep. 02, 2020 ~ Sep. 04, 2020	N/A	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 03, 2019	Sep. 02, 2020 ~ Sep. 04, 2020	Dec. 02, 2020	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 12, 2019	Sep. 02, 2020 ~ Sep. 04, 2020	Oct. 11, 2020	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Sep. 02, 2020 ~ Sep. 04, 2020	Jul. 13, 2021	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 02, 2020 ~ Sep. 04, 2020	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Sep. 02, 2020 ~ Sep. 04, 2020	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Sep. 02, 2020 ~ Sep. 04, 2020	N/A	Radiation (03CH11-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290045	20MHz~8.4GHz	Jan. 18, 2020	Sep. 02, 2020 ~ Sep. 04, 2020	Jan. 17, 2021	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 28, 2019	Sep. 02, 2020 ~ Sep. 04, 2020	Oct. 27, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WHK20/1000C 7/40SS	SN2	20M High Pass	Sep. 15, 2019	Sep. 02, 2020 ~ Sep. 04, 2020	Sep. 14, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 12, 2020	Sep. 02, 2020 ~ Sep. 04, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 12, 2020	Sep. 02, 2020 ~ Sep. 04, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 12, 2020	Sep. 02, 2020 ~ Sep. 04, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP140325	N/A	Nov. 07, 2019	Sep. 02, 2020 ~ Sep. 04, 2020	Nov. 06, 2020	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP161237	N/A	Oct. 25, 2019	Sep. 02, 2020 ~ Sep. 04, 2020	Oct. 24, 2020	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Nov. 14, 2019	Sep. 18, 2020 ~ Sep. 28, 2020	Nov. 13, 2020	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120D	9120D-1212	1GHz ~ 18GHz	May 20, 2020	Sep. 18, 2020 ~ Sep. 28, 2020	May 19, 2021	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917058 4	18GHz~40GHz	Dec. 10, 2019	Sep. 18, 2020 ~ Sep. 28, 2020	Dec. 09, 2020	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917098 0	18GHz ~ 40GHz	Jan. 10, 2019	Sep. 18, 2020 ~ Sep. 28, 2020	Jan. 09, 2021	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-30 3K	17100018000 54002	1GHz~18GHz	Feb. 07, 2020	Sep. 18, 2020 ~ Sep. 28, 2020	Feb. 06, 2021	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 13, 2019	Sep. 18, 2020 ~ Sep. 28, 2020	Dec. 12, 2020	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY54200485	10Hz~44GHz	Feb. 10, 2020	Sep. 18, 2020 ~ Sep. 28, 2020	Feb. 09, 2021	Radiation (03CH12-HY)
Spectrum Analyzer	R&S	FSV40	101907	10Hz~40GHz	May 14, 2020	Sep. 18, 2020 ~ Sep. 28, 2020	May 13, 2021	Radiation (03CH12-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 12, 2019	Sep. 18, 2020 ~ Sep. 28, 2020	Dec. 11, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 25, 2020	Sep. 18, 2020 ~ Sep. 28, 2020	Feb. 24, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 25, 2020	Sep. 18, 2020 ~ Sep. 28, 2020	Feb. 24, 2021	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP140349	N/A	Oct. 25, 2019	Sep. 18, 2020 ~ Sep. 28, 2020	Oct. 24, 2020	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 18, 2020 ~ Sep. 28, 2020	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Sep. 18, 2020 ~ Sep. 28, 2020	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Sep. 18, 2020 ~ Sep. 28, 2020	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Sep. 18, 2020 ~ Sep. 28, 2020	N/A	Radiation (03CH12-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101907	10Hz~40GHz	May. 05, 2020	Oct. 22, 2020	May. 04, 2021	Conducted (TH05-HY)
Power Divider	MTJ	2Way SMA Power Divider	MD10003	0.5~18GHz	Jan. 11, 2020	Oct. 22, 2020	Jan. 10, 2021	Conducted (TH05-HY)
RF Cable	MTJ	SBF405	MTJ-30cm-01	30MHz~18GHz	Mar. 09, 2020	Oct. 22, 2020	Mar. 08, 2021	Conducted (TH05-HY)
RF Cable	MTJ	SBF405	MTJ-30cm-02	30MHz~18GHz	Mar. 09, 2020	Oct. 22, 2020	Mar. 08, 2021	Conducted (TH05-HY)
RF Cable	MTJ	SBF405	MTJ-30cm-03	30MHz~18GHz	Mar. 09, 2020	Oct. 22, 2020	Mar. 08, 2021	Conducted (TH05-HY)

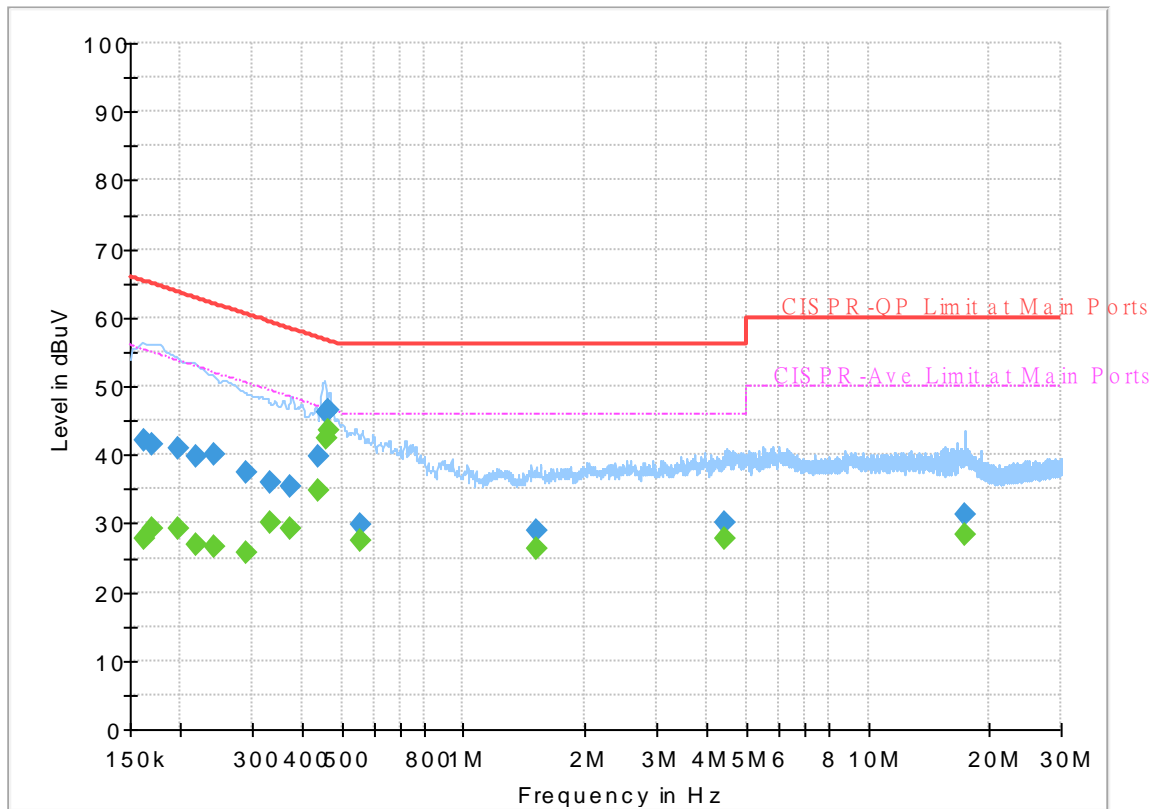


Appendix A. AC Conducted Emission Test Results

EUT Information

Report NO : 031701
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

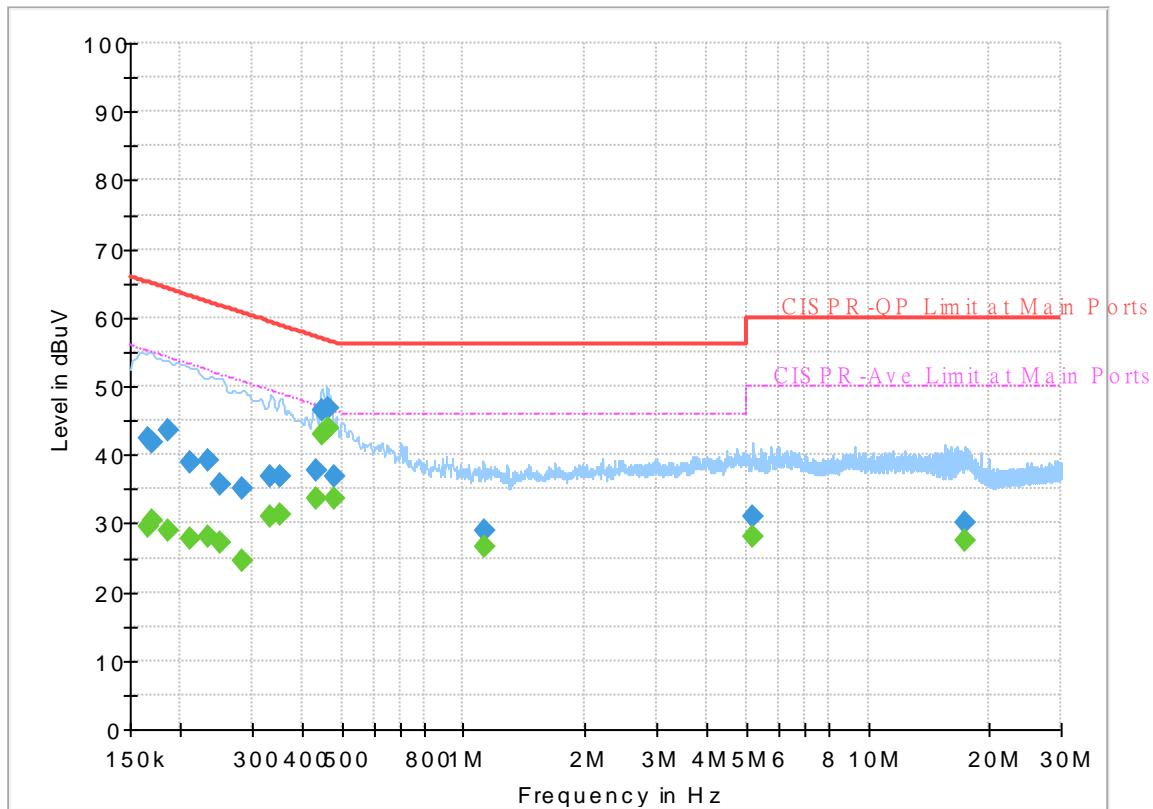
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.162420	---	27.82	55.34	27.52	L1	OFF	19.6
0.162420	42.19	---	65.34	23.15	L1	OFF	19.6
0.170250	---	29.33	54.95	25.62	L1	OFF	19.6
0.170250	41.39	---	64.95	23.56	L1	OFF	19.6
0.197250	---	29.37	53.73	24.36	L1	OFF	19.6
0.197250	40.89	---	63.73	22.84	L1	OFF	19.6
0.217500	---	27.01	52.91	25.90	L1	OFF	19.6
0.217500	39.62	---	62.91	23.29	L1	OFF	19.6
0.241440	---	26.51	52.05	25.54	L1	OFF	19.6
0.241440	40.07	---	62.05	21.98	L1	OFF	19.6
0.289500	---	25.70	50.54	24.84	L1	OFF	19.6
0.289500	37.41	---	60.54	23.13	L1	OFF	19.6
0.333780	---	30.20	49.36	19.16	L1	OFF	19.6
0.333780	35.90	---	59.36	23.46	L1	OFF	19.6
0.372750	---	29.24	48.44	19.20	L1	OFF	19.6
0.372750	35.39	---	58.44	23.05	L1	OFF	19.6
0.438000	---	34.85	47.10	12.25	L1	OFF	19.6
0.438000	39.76	---	57.10	17.34	L1	OFF	19.6
0.458250	---	42.50	46.72	4.22	L1	OFF	19.6
0.458250	46.30	---	56.72	10.42	L1	OFF	19.6
0.463110	---	43.59	46.64	3.05	L1	OFF	19.6

0.463110	46.37	---	56.64	10.27	L1	OFF	19.6
0.557430	---	27.43	46.00	18.57	L1	OFF	19.6
0.557430	29.73	---	56.00	26.27	L1	OFF	19.6
1.513500	---	26.40	46.00	19.60	L1	OFF	19.6
1.513500	28.91	---	56.00	27.09	L1	OFF	19.6
4.438500	---	27.67	46.00	18.33	L1	OFF	19.8
4.438500	30.18	---	56.00	25.82	L1	OFF	19.8
17.335500	---	28.41	50.00	21.59	L1	OFF	20.3
17.335500	31.22	---	60.00	28.78	L1	OFF	20.3

EUT Information

Report NO : 031701
 Test Mode : Mode 2
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

Full Spectrum



Final_Result

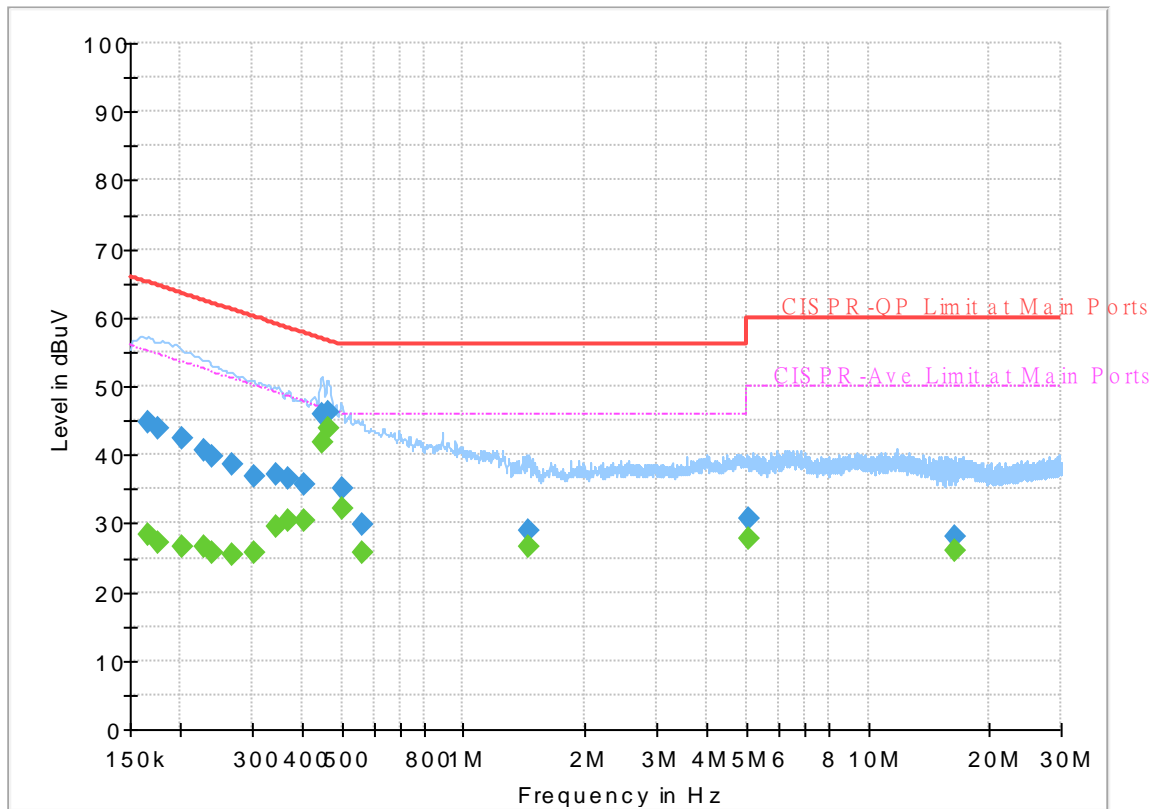
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.165660	---	29.62	55.18	25.56	N	OFF	19.5
0.165660	42.32	---	65.18	22.86	N	OFF	19.5
0.169260	---	30.54	55.00	24.46	N	OFF	19.5
0.169260	41.71	---	65.00	23.29	N	OFF	19.5
0.187170	---	28.81	54.16	25.35	N	OFF	19.5
0.187170	43.62	---	64.16	20.54	N	OFF	19.5
0.209940	---	27.81	53.21	25.40	N	OFF	19.5
0.209940	38.86	---	63.21	24.35	N	OFF	19.5
0.233520	---	28.14	52.32	24.18	N	OFF	19.5
0.233520	39.24	---	62.32	23.08	N	OFF	19.5
0.249720	---	27.19	51.77	24.58	N	OFF	19.5
0.249720	35.73	---	61.77	26.04	N	OFF	19.5
0.285000	---	24.47	50.67	26.20	N	OFF	19.5
0.285000	34.95	---	60.67	25.72	N	OFF	19.5
0.332880	---	31.11	49.38	18.27	N	OFF	19.5
0.332880	36.97	---	59.38	22.41	N	OFF	19.5
0.352500	---	31.36	48.90	17.54	N	OFF	19.5
0.352500	36.78	---	58.90	22.12	N	OFF	19.5
0.430530	---	33.50	47.24	13.74	N	OFF	19.5
0.430530	37.73	---	57.24	19.51	N	OFF	19.5
0.446010	---	43.04	46.95	3.91	N	OFF	19.5

0.446010	46.43	---	56.95	10.52	N	OFF	19.5
0.462750	---	43.87	46.64	2.77	N	OFF	19.5
0.462750	46.85	---	56.64	9.79	N	OFF	19.5
0.480750	---	33.63	46.33	12.70	N	OFF	19.5
0.480750	36.74	---	56.33	19.59	N	OFF	19.5
1.124250	---	26.55	46.00	19.45	N	OFF	19.6
1.124250	28.89	---	56.00	27.11	N	OFF	19.6
5.208360	---	28.03	50.00	21.97	N	OFF	19.7
5.208360	31.00	---	60.00	29.00	N	OFF	19.7
17.351250	---	27.44	50.00	22.56	N	OFF	19.9
17.351250	30.22	---	60.00	29.78	N	OFF	19.9

EUT Information

Report NO : 031701
 Test Mode : Mode 2
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

Full Spectrum



Final_Result

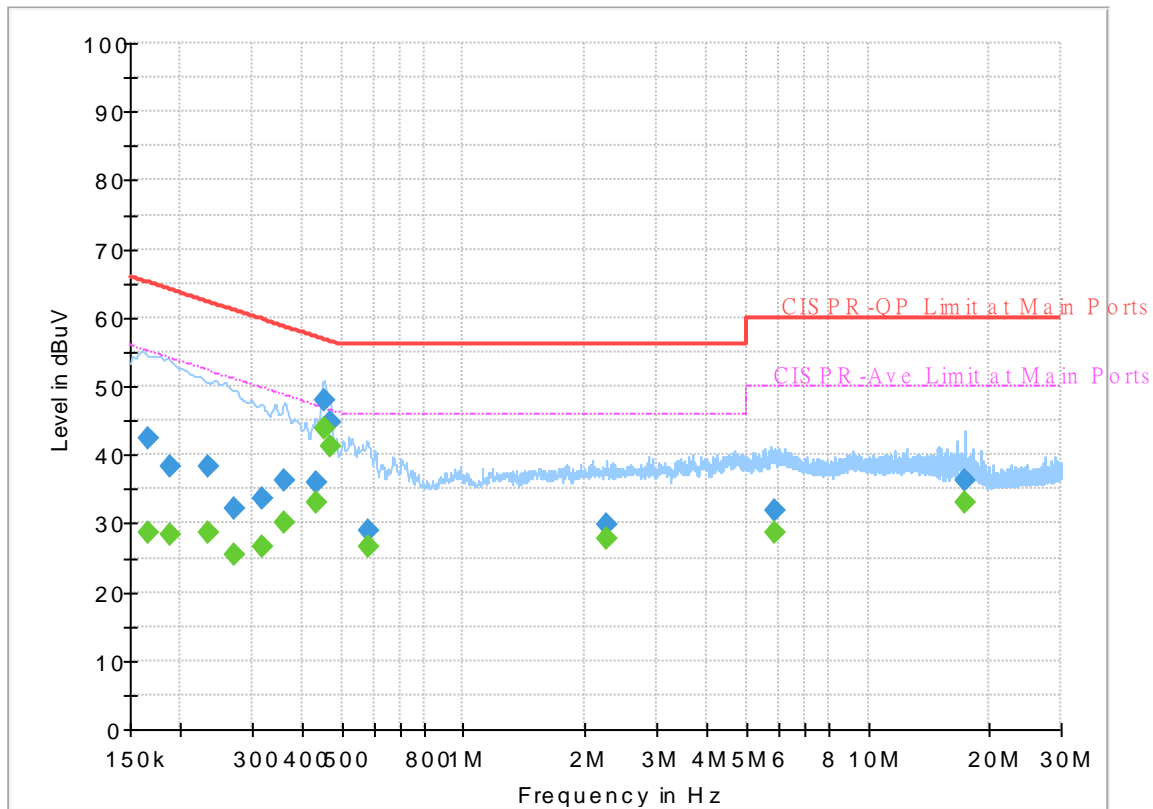
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.165750	---	28.43	55.17	26.74	L1	OFF	19.6
0.165750	44.61	---	65.17	20.56	L1	OFF	19.6
0.176640	---	27.15	54.64	27.49	L1	OFF	19.6
0.176640	43.84	---	64.64	20.80	L1	OFF	19.6
0.201750	---	26.67	53.54	26.87	L1	OFF	19.6
0.201750	42.25	---	63.54	21.29	L1	OFF	19.6
0.228750	---	26.48	52.50	26.02	L1	OFF	19.6
0.228750	40.65	---	62.50	21.85	L1	OFF	19.6
0.240000	---	25.80	52.10	26.30	L1	OFF	19.6
0.240000	39.86	---	62.10	22.24	L1	OFF	19.6
0.268710	---	25.41	51.16	25.75	L1	OFF	19.6
0.268710	38.65	---	61.16	22.51	L1	OFF	19.6
0.305250	---	25.88	50.10	24.22	L1	OFF	19.6
0.305250	36.85	---	60.10	23.25	L1	OFF	19.6
0.345750	---	29.66	49.06	19.40	L1	OFF	19.6
0.345750	37.08	---	59.06	21.98	L1	OFF	19.6
0.368250	---	30.35	48.54	18.19	L1	OFF	19.6
0.368250	36.46	---	58.54	22.08	L1	OFF	19.6
0.404250	---	30.36	47.77	17.41	L1	OFF	19.6
0.404250	35.80	---	57.77	21.97	L1	OFF	19.6
0.447720	---	41.71	46.92	5.21	L1	OFF	19.6

0.447720	45.99	---	56.92	10.93	L1	OFF	19.6
0.463740	---	43.88	46.63	2.75	L1	OFF	19.6
0.463740	46.30	---	56.63	10.33	L1	OFF	19.6
0.500730	---	32.16	46.00	13.84	L1	OFF	19.6
0.500730	35.20	---	56.00	20.80	L1	OFF	19.6
0.565350	---	25.63	46.00	20.37	L1	OFF	19.6
0.565350	29.94	---	56.00	26.06	L1	OFF	19.6
1.455270	---	26.69	46.00	19.31	L1	OFF	19.6
1.455270	28.98	---	56.00	27.02	L1	OFF	19.6
5.068500	---	27.67	50.00	22.33	L1	OFF	19.8
5.068500	30.74	---	60.00	29.26	L1	OFF	19.8
16.358280	---	26.06	50.00	23.94	L1	OFF	20.3
16.358280	28.04	---	60.00	31.96	L1	OFF	20.3

EUT Information

Report NO : 031701
 Test Mode : Mode 2
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.165750	---	28.74	55.17	26.43	N	OFF	19.5
0.165750	42.31	---	65.17	22.86	N	OFF	19.5
0.189420	---	28.39	54.06	25.67	N	OFF	19.5
0.189420	38.36	---	64.06	25.70	N	OFF	19.5
0.233250	---	28.63	52.33	23.70	N	OFF	19.5
0.233250	38.40	---	62.33	23.93	N	OFF	19.5
0.271230	---	25.31	51.08	25.77	N	OFF	19.5
0.271230	32.16	---	61.08	28.92	N	OFF	19.5
0.318930	---	26.56	49.74	23.18	N	OFF	19.5
0.318930	33.60	---	59.74	26.14	N	OFF	19.5
0.359250	---	30.20	48.75	18.55	N	OFF	19.5
0.359250	36.18	---	58.75	22.57	N	OFF	19.5
0.433500	---	33.17	47.19	14.02	N	OFF	19.5
0.433500	35.95	---	57.19	21.24	N	OFF	19.5
0.453120	---	43.99	46.82	2.83	N	OFF	19.5
0.453120	48.05	---	56.82	8.77	N	OFF	19.5
0.466620	---	41.19	46.57	5.38	N	OFF	19.5
0.466620	44.73	---	56.57	11.84	N	OFF	19.5
0.581550	---	26.75	46.00	19.25	N	OFF	19.5
0.581550	28.92	---	56.00	27.08	N	OFF	19.5
2.263920	---	27.86	46.00	18.14	N	OFF	19.6

2.263920	29.86	---	56.00	26.14	N	OFF	19.6
5.880750	---	28.58	50.00	21.42	N	OFF	19.7
5.880750	31.84	---	60.00	28.16	N	OFF	19.7
17.367000	---	33.06	50.00	16.94	N	OFF	19.9
17.367000	36.17	---	60.00	23.83	N	OFF	19.9