



FCC RADIO TEST REPORT

FCC ID : W2Z-01000015
Equipment : HDMI wireless 60G Extender
Brand Name : FUJIFILM Corporation
Model Name : HDV-W561-1 RX
Applicant : FUJIFILM Corporation
7-3, Akasaka 9-chome, Minato-ku, Tokyo 107-0052,
Japan
Manufacturer : Shenzhen HDCVT Technology Co.,Ltd
Floor 7,Building 5 ,Lihe industrial Park SongBai
Rd ,Nanshan District,Shenzhen ,GuangDong China
Standard : FCC 47 CFR Part 15.255

The product was received on Mar. 17, 2023 and testing was performed from Mar. 28, 2023 to Apr. 28, 2023. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures ANSI C63.10-2013 and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

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



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Appendix A. Setup Photographs



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Limit	Result (PASS/FAIL)	Remark
3.4	§15.255(e)	Emission Bandwidth	None	Pass	-
3.5	§15.255(c)	Peak EIRP & Average EIRP Peak Conducted power	Peak EIRP < 43dBm Average EIRP < 40dBm Conducted power BW_6dB(>100MHz): 500mW(Max)	Pass	-
3.6	§15.255(d)	Transmitter Spurious Emissions	Below 40GHz: §15.209 Above 40GHz: 90 pW/cm ² @ 3 m	Pass	-
3.7	§15.255(f)	Frequency Stability for Temperature & Voltage	Within 57 ~ 71GHz	Pass	-
4	§15.207	AC Power Conducted Emission	§15.207	Pass	-

Frequency Range	Field Strength Limit	Result
9 kHz – 490 kHz	2400 (uV/m)/F (kHz) at 300 meter distance	Pass
490 kHz – 1.705 MHz	24000 (uV/m)/F (kHz) at 30 meter distance	Pass
1.705 MHz – 30 MHz	30 uV/m at 30 meter distance	Pass
30 MHz – 88 MHz	100 uV/m at 3 meter distance	Pass
88 MHz – 216 MHz	150 uV/m at 3 meter distance	Pass
216 MHz – 960 MHz	200 uV/m at 3 meter distance	Pass
960 MHz – 40 GHz	500 uV/m at 3 meter distance	Pass
40 GHz – 200 GHz	90 pW/cm ² at 3 meter distance	Pass

Conformity Assessment Condition:

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

Disclaimer:

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

Reviewed by: Avis Chuang
Report Producer: Clio Lo



1 General Description

1.1 Information

1.1.1 The Channel Plan(s)

Frequency Range	57-71 GHz
The Channel Plan(s)	
Low-rate PHY (LRP) Band and LRP Channel List	<p>Channel Index 2 LRP: 60.163-60.797 GHz</p> <p>LRP CH0: 60.163 GHz:</p> <p>LRP CH1: 60.321 GHz:</p> <p>LRP CH2: 60.480 GHz:</p> <p>LRP CH3: 60.639 GHz:</p> <p>LRP CH4: 60.797 GHz</p> <p>Channel Index 3 LRP: 62.323-62.957 GHz</p> <p>LRP CH0: 62.323 GHz:</p> <p>LRP CH1: 62.481 GHz:</p> <p>LRP CH2: 62.640 GHz:</p> <p>LRP CH3: 62.799 GHz:</p> <p>LRP CH4: 62.957 GHz</p>

1.1.2 Modulation

Modulation
The LRP modulation is BPSK.



1.1.3 Antenna Information

Antenna Information	
Equipment placed on the market without antennas	
<input checked="" type="checkbox"/> Integral antenna	
Integral antenna gain	18 dBi for LRP
	<input type="checkbox"/> Temporary RF connector provided
	<input checked="" type="checkbox"/> No temporary RF connector provided
<input type="checkbox"/> External antenna (dedicated antennas)	
	<input type="checkbox"/> Single power level with corresponding antenna(s)
	<input type="checkbox"/> Multiple power settings and corresponding antenna(s)

Note: The above information was declared by manufacturer.

1.1.4 Power Levels

Worst Power Levels for LRP			
Applicable power levels	<input type="checkbox"/> Conducted <input checked="" type="checkbox"/> EIRP		
Frequency (GHz)	Highest (P _{high}):		
	Mode	AV Power (dBm)	Peak Power (dBm)
60.797	BPSK	7.44	29.2



1.1.5 Operating Conditions

Operating Conditions	
<input checked="" type="checkbox"/> -20 °C to +50 °C	
<input type="checkbox"/> 0 °C to +40 °C	
<input type="checkbox"/> Other:	
EUT Power Type	From adapter or host system
Test Software Version	SWAM3 (1.0.60255.2018-0403_05-45-23)
Supply Voltage	<input checked="" type="checkbox"/> AC State AC voltage 120 V
Supply Voltage	<input type="checkbox"/> DC State DC voltage V

1.1.6 Equipment Use Condition

Equipment Use Condition
<input type="checkbox"/> Fixed field disturbance sensors at 61-61.5GHz
<input type="checkbox"/> Except fixed field disturbance sensors at 61-61.5GHz
<input checked="" type="checkbox"/> Except fixed field disturbance sensors

1.1.7 User Condition




Intended Operation
<input checked="" type="checkbox"/> Indoor
<input type="checkbox"/> Outdoor (except outdoor fixed Point to Point)
<input type="checkbox"/> Outdoor fixed Point to Point

Note: The above information was declared by manufacturer.

1.1.8 Duty Cycle

Duty Cycle	Duty Cycle Factor (dB)
0.667 %	21.76

1.1.9 EUT Label Information

FUJIFILM Corporation **RX**
HDMI wireless 60G Extender
P/N: 853Y200025
Model: HDV-W561-1 RX
S/N : XXXXXXXX Made in China
FC IC: 7736B-01000015
FCC ID:W2Z-01000015
 **R** 201-230412  

Note: The above information was declared by manufacturer.

1.2 Modification of EUT

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



1.3 Testing Location

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

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

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No.
	03CH11-HY, 03CH18-HY

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

FCC designation No.: TW1190 and TW3786

1.4 Applied Standards

- ♦ FCC 47 CFR Part 2, 15.255
- ♦ ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency and Channel

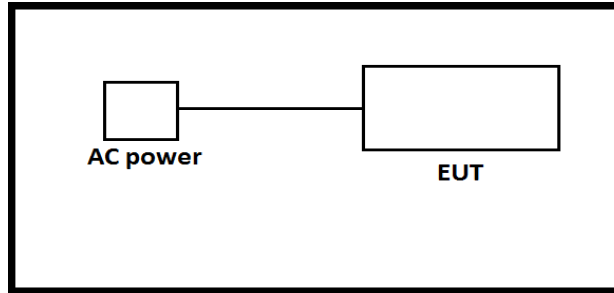
Frequency Band	Channel	Freq. (GHz)
Channel Index 2 60.163-60.797 GHz	0	60.163
	1	60.321
	2	60.480
	3	60.639
	4	60.797
Channel Index 3 62.323-62.957 GHz	0	62.323
	1	62.481
	2	62.640
	3	62.799
	4	62.957

2.2 Test Mode

For radiated measurement, 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 only the worst case emissions were reported in this report.

Test Configuration		
Mode 1	60G Tx (LRP)_Channel Index 2_CH0	60.163GHz
Mode 2	60G Tx (LRP)_Channel Index 2_CH4	60.797GHz
Mode 3	60G Tx (LRP)_Channel Index 3_CH4	62.957GHz

2.3 Connection Diagram of Test System



2.4 Far Field Condition for Frequency above 18GHz

Horn Antenna	Frequency (GHz)	Antenna Dimension A (mm)	Wavelength (λ) (m)	Far field R (m) $\geq 2A^2 / \lambda$	Measurement Distance (D) (m)
BBHA 9170	18	60	0.0167	0.43	1
	40	60	0.0075	0.96	
QWH-UPRR00	40	48	0.0075	0.61	0.87
	57	48	0.0053	0.87	
QWH-VPRR00	57	38	0.0053	0.54	0.62
	65	38	0.0046	0.62	
QWH-EPRR00	60	31	0.0050	0.38	0.6
	90	31	0.0033	0.6	
QWH-FPRR00	90	21	0.0033	0.26	0.42
	140	21	0.0021	0.42	
QWH-GPRR00	140	14	0.0021	0.18	0.26
	200	14	0.0015	0.26	

Note 1: The measurement distance may be far than the measurement distance above.

Note 2: λ is the wavelength of the emission under investigation [300/fMHz], in m.

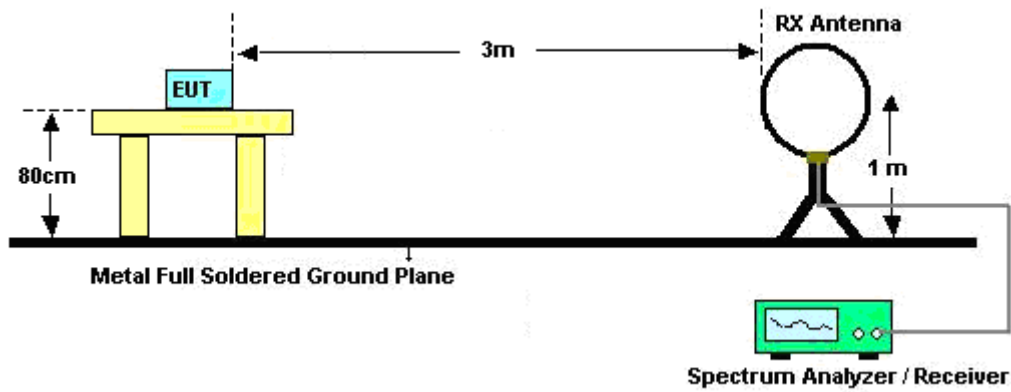
3 Radiated Test Items

3.1 Measuring Instruments

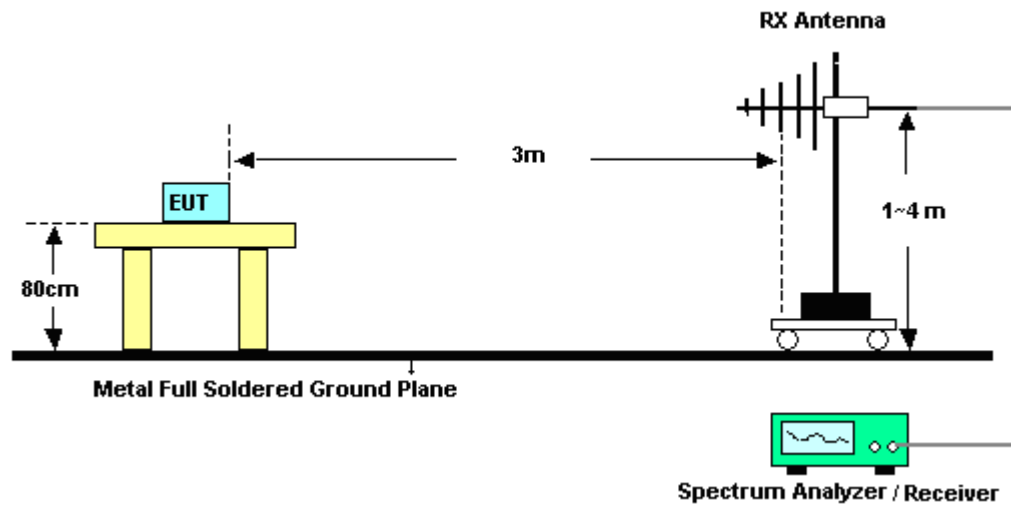
See list of measuring instruments of this test report.

3.2 Test Setup

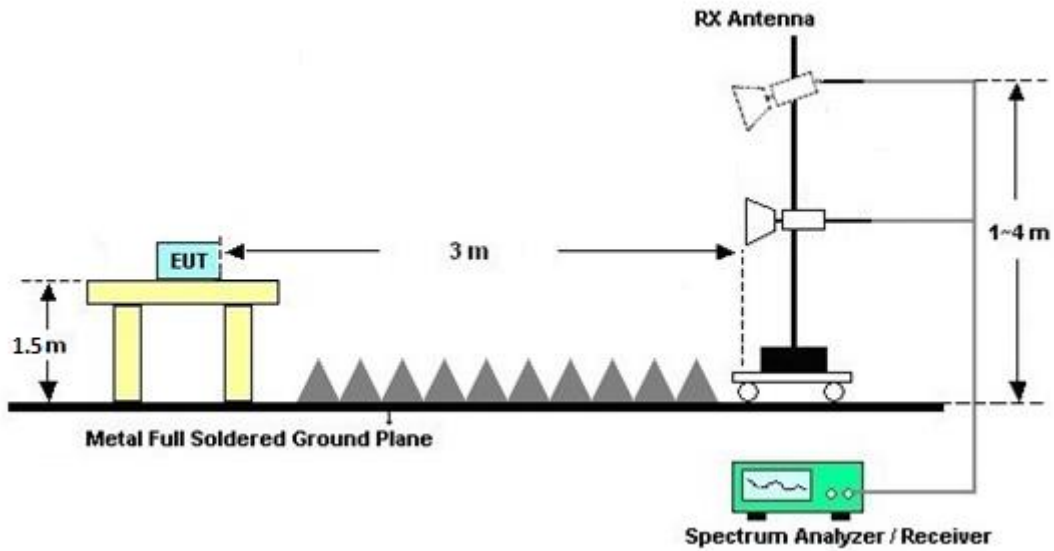
For radiated emissions from 9kHz to 30MHz



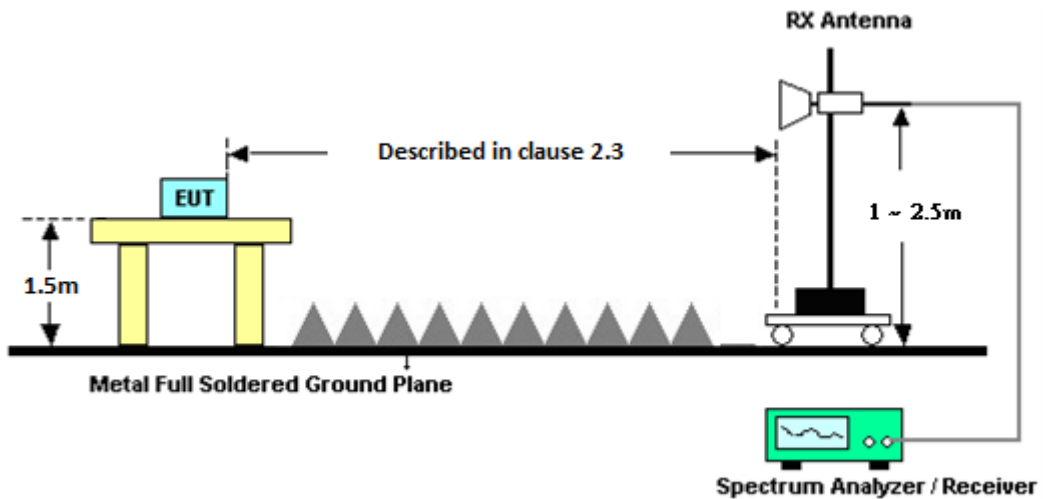
For radiated emissions from 30MHz to 1GHz



For radiated emissions 1GHz to 18GHz



For radiated emissions above 18GHz



3.3 Test Result of Radiated Test

Please refer to Clause 3.6.



3.4 Emission Bandwidth

3.4.1 Description of Emission Bandwidth Measurement

99% Occupied Bandwidth and 6dB Bandwidth are for reporting only.

Limit for Emission Bandwidth: Per Part15.215(C), the device shall operate in the 57 - 71 GHz band.

The emission bandwidth (EBW) is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least the specified amount below the maximum level of the modulated carrier.

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

The testing follows ANSI C63.10-2013 Section 9.3.



3.4.4 Test Results

<Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz>

Temperature	21.1 ~ 23.5°C	Relative Humidity	61.4 ~ 65.3%
Test Engineer	Eric Jeng		
99% Occupied Bandwidth (MHz)		Limit (GHz)	
189.815		Report Only	
6dB Bandwidth (MHz)		Limit (GHz)	
90.91		Report Only	
6dB Bandwidth Measurement			
Bandwidth (MHz)	Low Frequency (GHz)	High Frequency (GHz)	Result
90.91	60.118	60.208	Within band

<Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz>

Temperature	21.1 ~ 23.5°C	Relative Humidity	61.4 ~ 65.3%
Test Engineer	Eric Jeng		
99% Occupied Bandwidth (MHz)		Limit (GHz)	
219.163		Report Only	
6dB Bandwidth (MHz)		Limit (GHz)	
91.91		Report Only	
6dB Bandwidth Measurement			
Bandwidth (MHz)	Low Frequency (GHz)	High Frequency (GHz)	Result
91.91	60.751	60.843	Within band



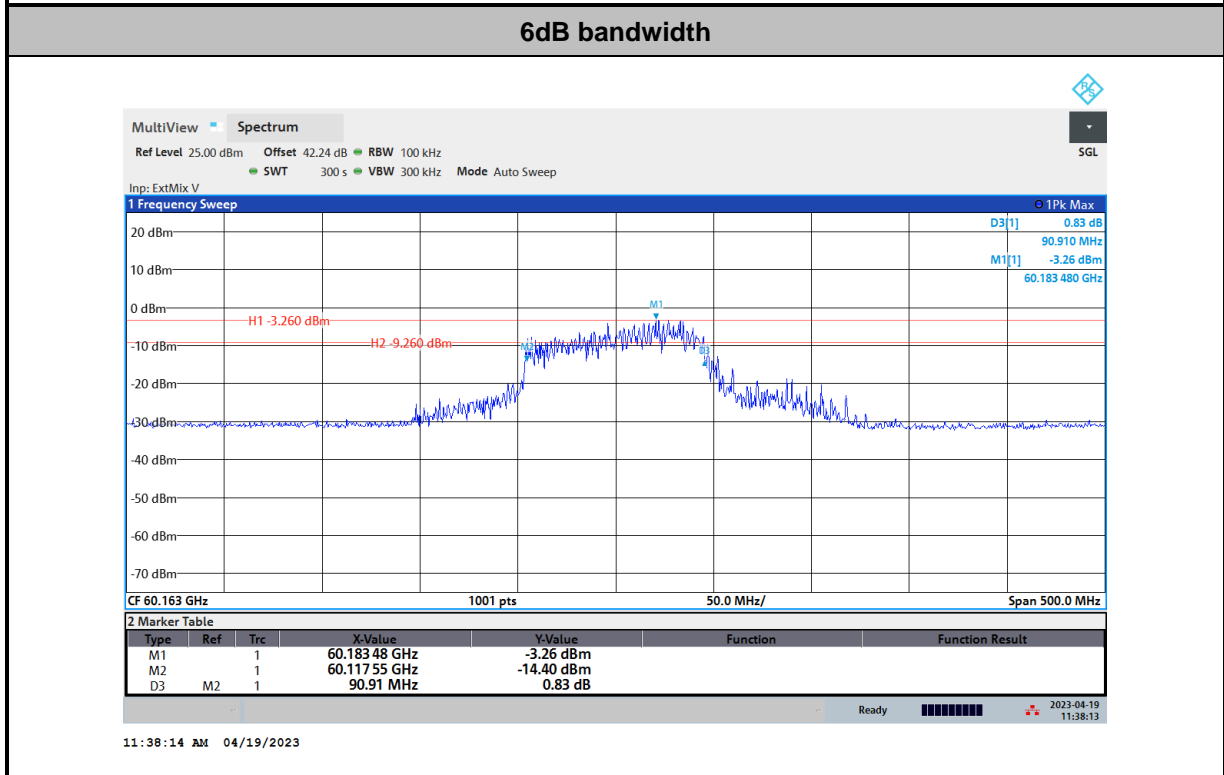
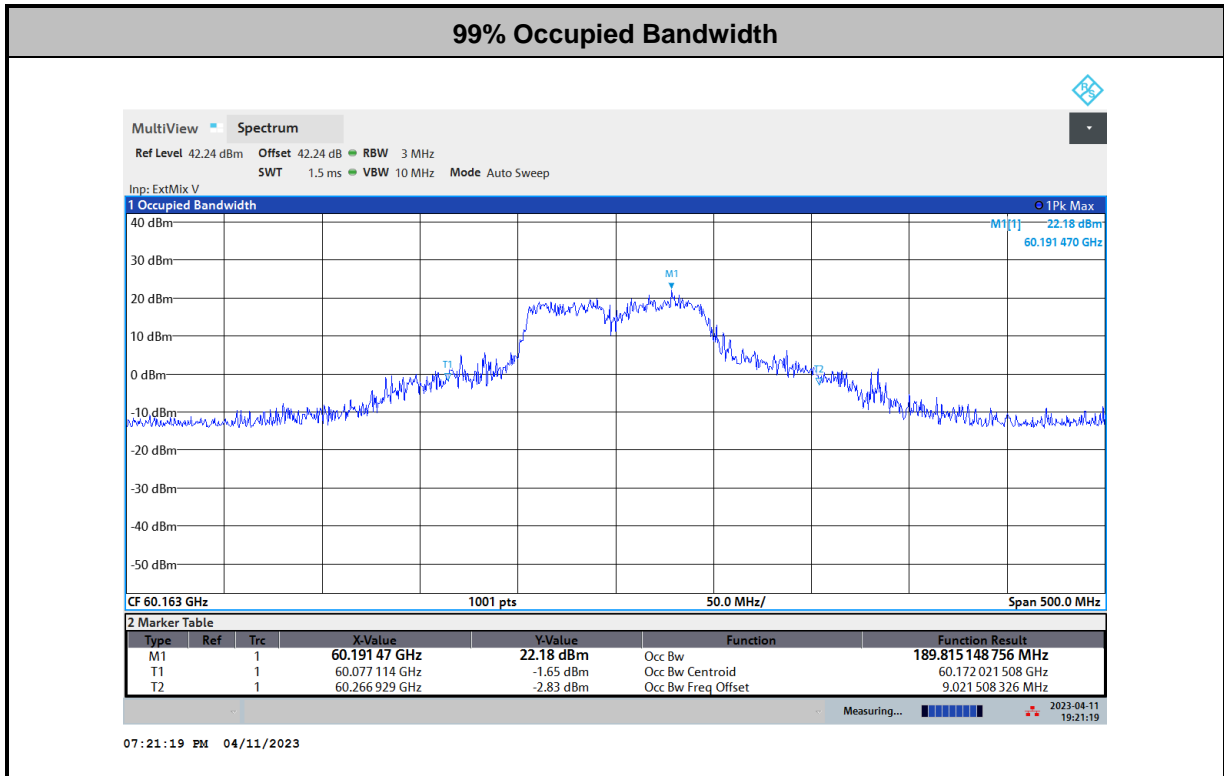
<Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz>

Temperature	21.1 ~ 23.5°C	Relative Humidity	61.4 ~ 65.3%
Test Engineer	Eric Jeng		
99% Occupied Bandwidth (MHz)	Limit (GHz)		
188.957	Report Only		
6dB Bandwidth (MHz)	Limit (GHz)		
90.91	Report Only		
6dB Bandwidth Measurement			
Bandwidth (MHz)	Low Frequency (GHz)	High Frequency (GHz)	Result
90.91	62.911	63.002	Within band



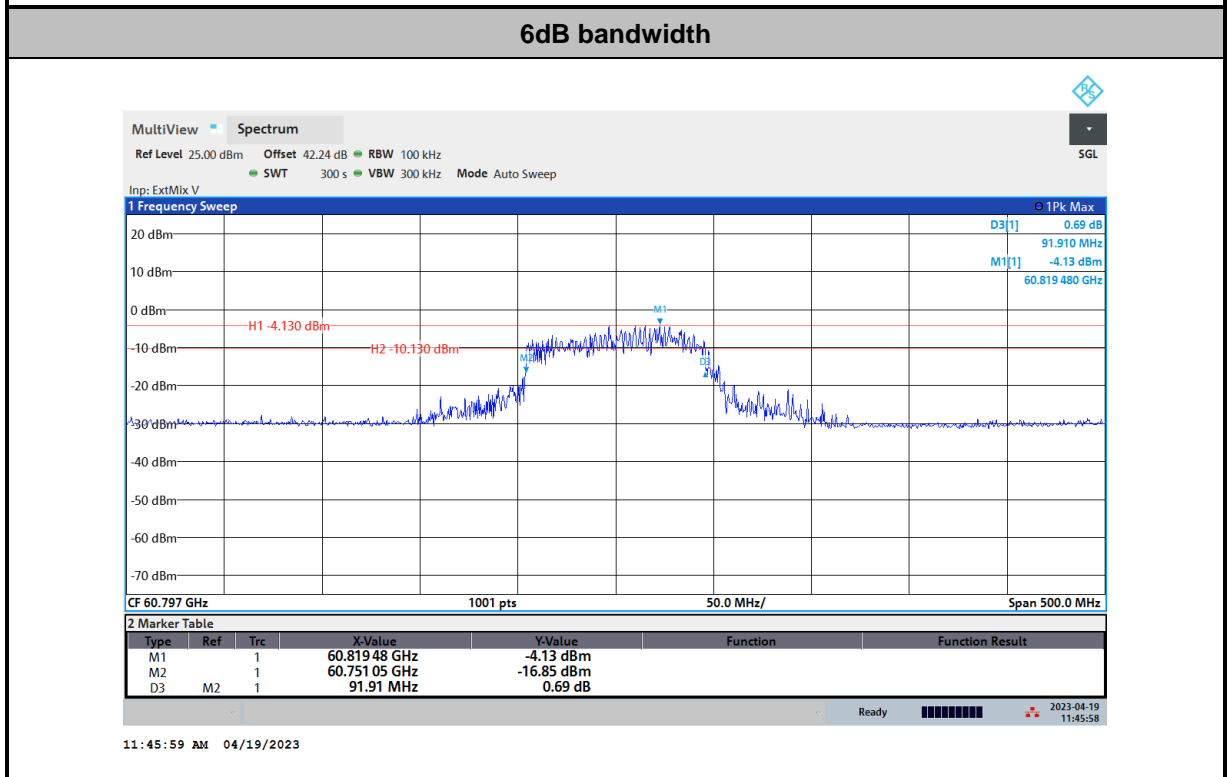
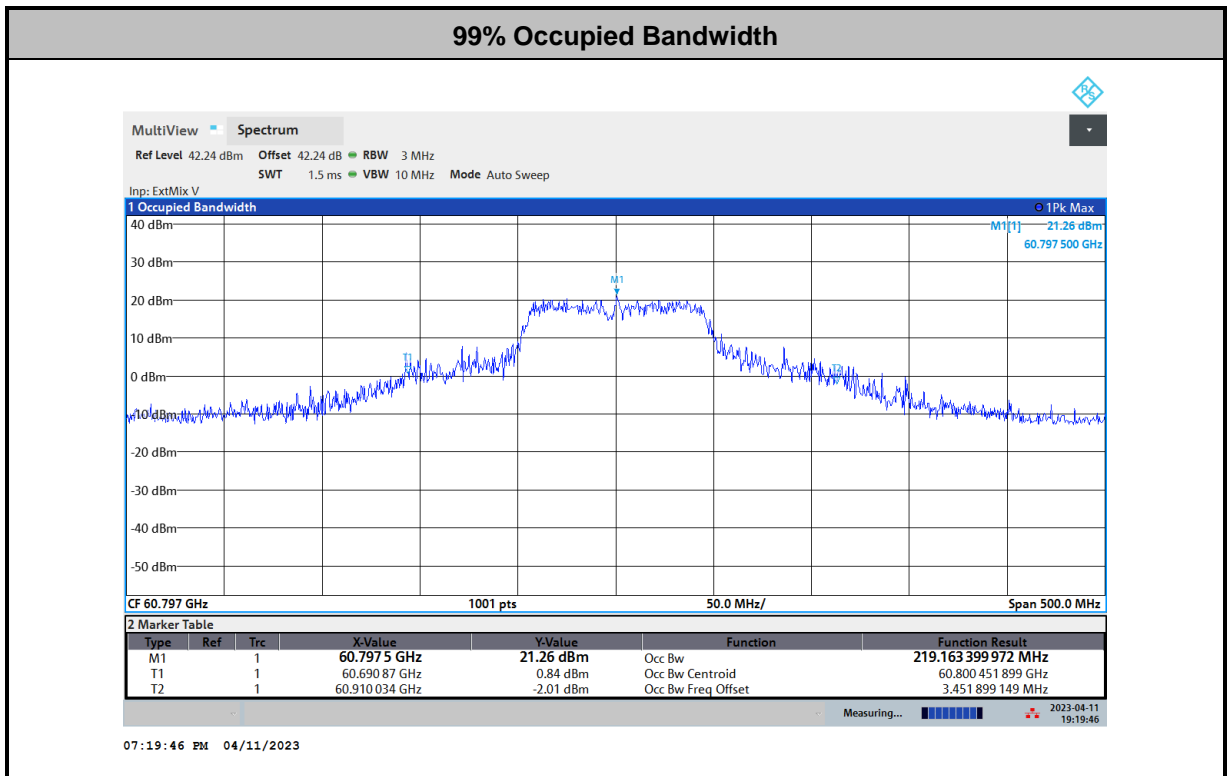
3.4.5 Test Plots

<Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz>



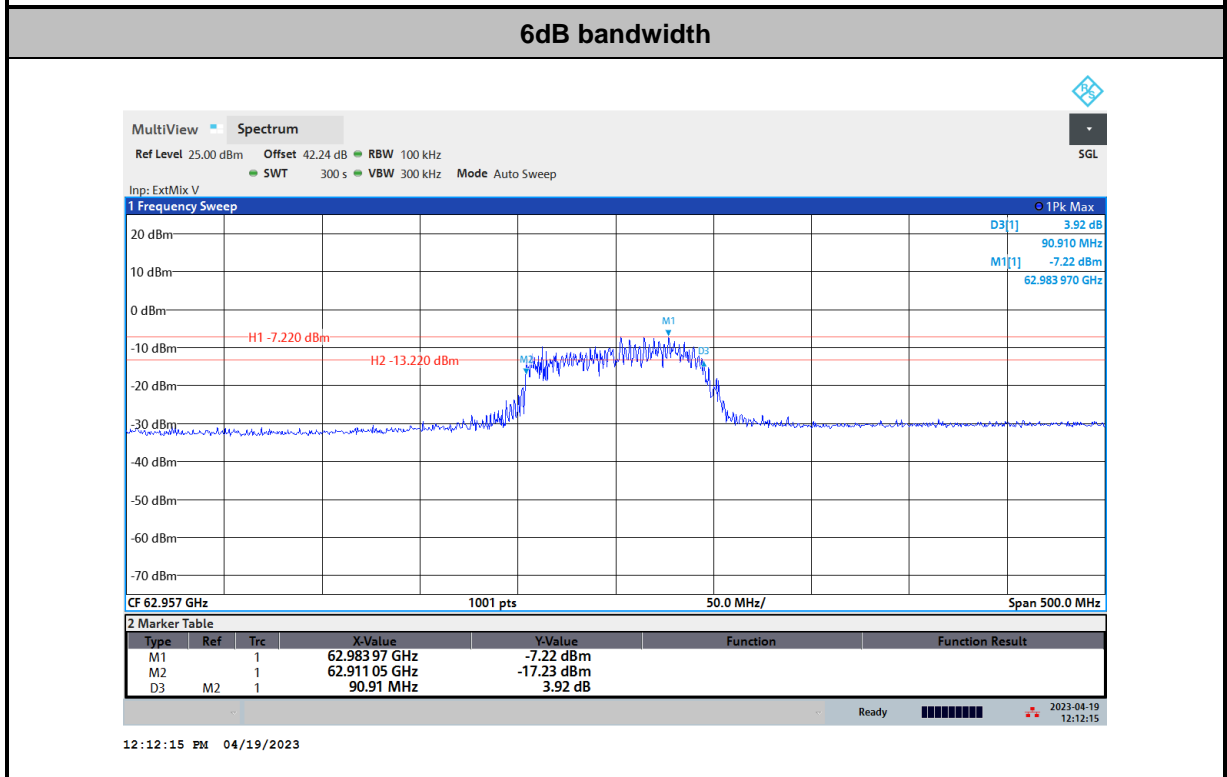
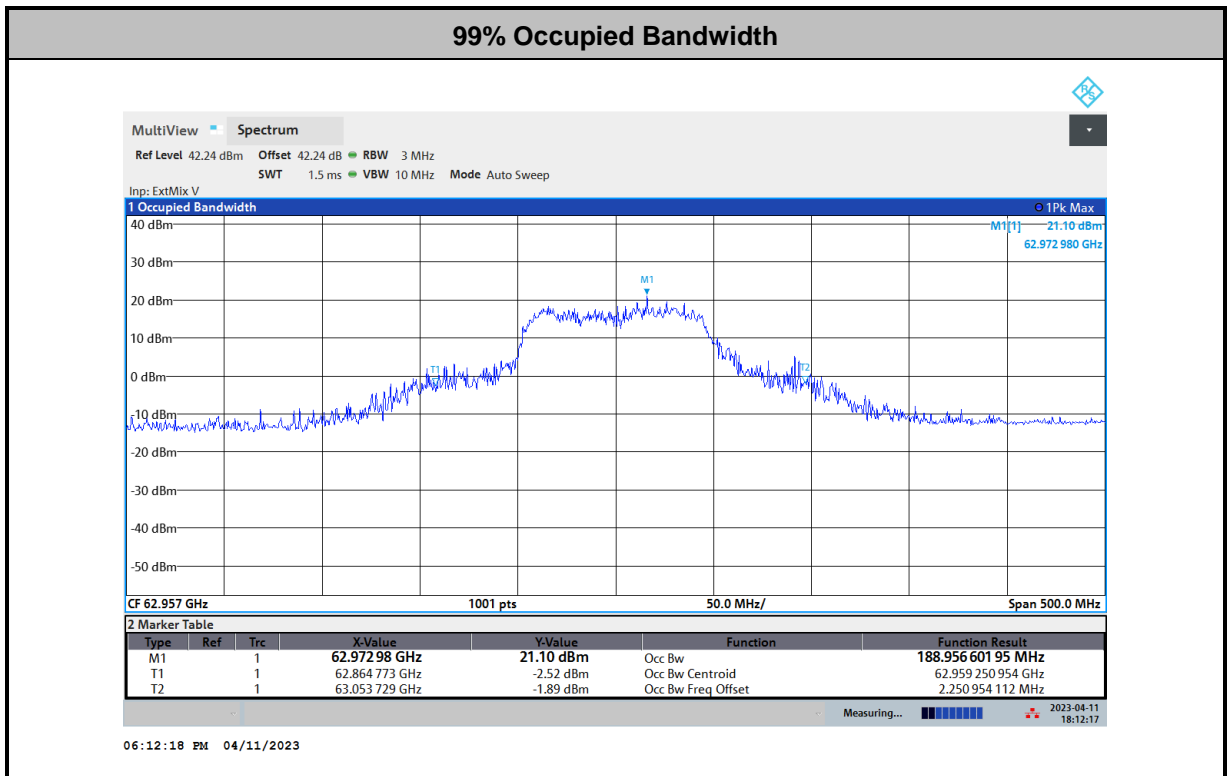


<Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz>





<Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz>





3.5 EIRP Power Measurement

3.5.1 Test Limit

Regulation	Product Type	Peak EIRP Power (dBm)	Average EIRP Power (dBm)
FCC 15.255 (c) (1)	Products other than fixed field disturbance sensors and short-range devices for interactive motion sensing	43	40

Peak Conducted Power Limit	
6dB Bandwidth	Peak Conducted Power*
>100MHz	500mW
≤ 100MHz	500mW x (BW/100) **
* For the applicable limit, see FCC 15.255 (e)	
** BW = 6dB emission bandwidth (measured at RBW = 100kHz)	

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

Method of measurement: Refer as ANSI C63.10-2013 clause 9.4, 9.5 and 9.11



3.5.4 Test Results

<Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz>

Temperature		21.1 ~ 23.5°C		Relative Humidity		61.4 ~ 65.3%		
Test Engineer		Eric Jeng						
Peak EIRP Power Measurement								
Frequency (GHz)	Measure Dist. (m)	Measure Ant Gain (dBi)	DSO (mV)	Power measured (dBm)	Emeas (dBuV/m)	EIRP (dBm)	EIRP Limit (dBm) Peak	Result
60.163	0.63	22.4	418.43	-12.79	137.654	28.94	43	PASS

Average EIRP Power Measurement					
Frequency (GHz)	Peak EIRP (dBm)	Duty factor (dB)	Average EIRP (dBm)	Limit (dBm)	Result
60.163	28.94	21.76	7.18	40	PASS

Note: Average EIRP Power (dBm) = Peak EIRP power (dBm) - 10*log(1/duty cycle), where duty cycle = 0.667%.

Peak Conducted Power Measurement					
Frequency (GHz)	Peak EIRP (dBm)	Antenna gain(dBi)	Conducted power (dBm)	Limit (dBm)	Result
60.163	28.94	18	10.94	26.58	PASS

Note: Peak conducted power limit = 500mW x (BW/100) = 26.58 dBm due to 6dB BW < 100MHz.



<Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz>

Temperature		21.1 ~ 23.5°C		Relative Humidity		61.4 ~ 65.3%		
Test Engineer		Eric Jeng						
Peak EIRP Power Measurement								
Frequency (GHz)	Measure Dist. (m)	Measure Ant Gain (dBi)	DSO (mV)	Power measured (dBm)	Emeas (dBuV/m)	EIRP (dBm)	EIRP Limit (dBm) Peak	Result
60.797	0.63	22.4	426.34	-12.62	137.915	29.2	43	PASS

Average EIRP Power Measurement					
Frequency (GHz)	Peak EIRP (dBm)	Duty factor (dB)	Average EIRP (dBm)	Limit (dBm)	Result
60.797	29.2	21.76	7.44	40	PASS

Note: Average EIRP Power (dBm) = Peak EIRP power (dBm) - 10*log(1/duty cycle), where duty cycle = 0.667%.

Peak Conducted Power Measurement					
Frequency (GHz)	Peak EIRP (dBm)	Antenna gain(dBi)	Conducted power (dBm)	Limit (dBm)	Result
60.797	29.2	18	11.2	26.62	PASS

Note: Peak conducted power limit = 500mW x (BW/100) = 26.62 dBm due to 6dB BW < 100MHz.



<Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz>

Temperature		21.1 ~ 23.5°C		Relative Humidity		61.4 ~ 65.3%		
Test Engineer		Eric Jeng						
Peak EIRP Power Measurement								
Frequency (GHz)	Measure Dist. (m)	Measure Ant Gain (dBi)	DSO (mV)	Power measured (dBm)	Emeas (dBuV/m)	EIRP (dBm)	EIRP Limit (dBm) Peak	Result
62.957	0.63	22.4	347.29	-17.18	133.658	24.95	43	PASS

Average EIRP Power Measurement					
Frequency (GHz)	Peak EIRP (dBm)	Duty factor (dB)	Average EIRP (dBm)	Limit (dBm)	Result
62.957	24.95	21.76	3.19	40	PASS

Note: Average EIRP Power (dBm) = Peak EIRP power (dBm) - 10*log(1/duty cycle), where duty cycle = 0.667%.

Peak Conducted Power Measurement					
Frequency (GHz)	Peak EIRP (dBm)	Antenna gain(dBi)	Conducted power (dBm)	Limit (dBm)	Result
62.957	24.95	18	6.95	26.58	PASS

Note: Peak conducted power limit = 500mW x (BW/100) = 26.58 dBm due to 6dB BW < 100MHz.



For radiated emissions, calculate the field strength (E) in dB μ V/meter.

$$E = 126.8 - 20 \cdot \log(\lambda) + P - G$$

where:

E : is the field strength of the emission at the measurement distance, in dB μ V/m

P : is the power measured at the output of the test antenna, in dBm

λ : is the wavelength of the emission under investigation [300/fMHz], in m

G : is the gain of the test antenna, in dBi For radiated emissions, calculate the EIRP (dBm). If the measurement was performed in the far field, calculate the EIRP.

$$EIRP = E\text{-meas} + 20 \cdot \log(d\text{-meas}) - 104.7$$

where:

EIRP : is the equivalent isotopically radiated power, in dBm

E-meas. : is the field strength of the emission at the measurement distance, in dB μ V/m

d-meas. : is the measurement distance, in m

NOTE 1: The procedure of ANSI C63.10-2013 9.11(e) was used. EUT was replaced with mm-wave signal source and variable attenuator is tuned so that the DSO indicates the same reading which represent for EUT's Peak EIRP power.

NOTE 2: Average EIRP Power (dBm) = Peak EIRP power (dBm) - $10 \cdot \log(1/\text{duty cycle})$

NOTE 3: Conducted Power (dBm) = Peak EIRP power (dBm) - antenna gain (dBi)

Calculation example:

$$E(\text{dB}\mu\text{V}/\text{m}) = 126.8 - 20 \cdot \log(\lambda) + P - G,$$

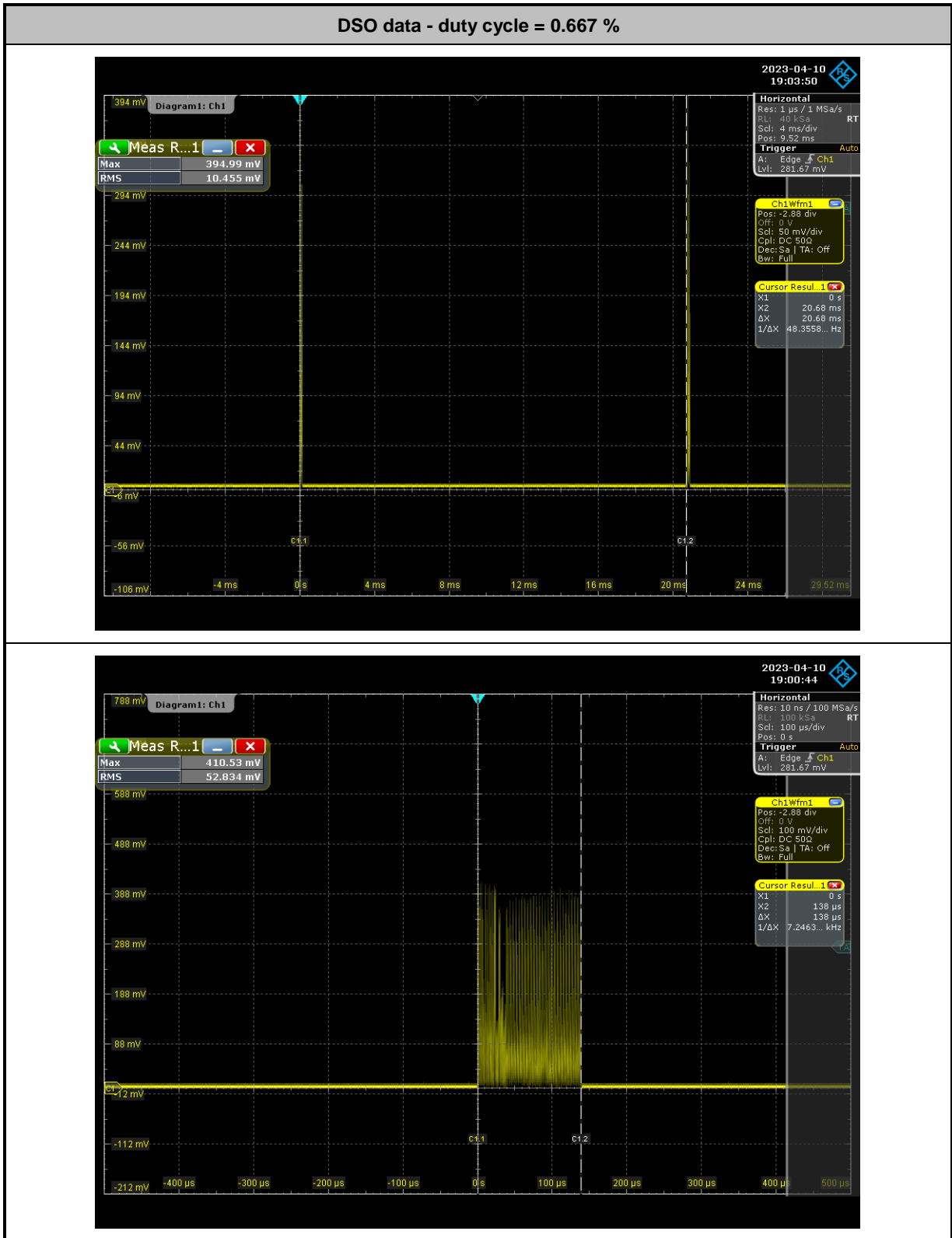
where $f=60.16\text{GHz}$, $P=-12.79\text{dBm}$, $G=22.4\text{dBi}$, then $E = 137.654 \text{ (dB}\mu\text{V}/\text{m)}$

$$EIRP \text{ (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20 \cdot \log(d) - 104.7 = 137.654 \text{ (dB}\mu\text{V}/\text{m}) + 20 \cdot \log(d=0.63) - 104.7 = 28.94\text{dBm}$$



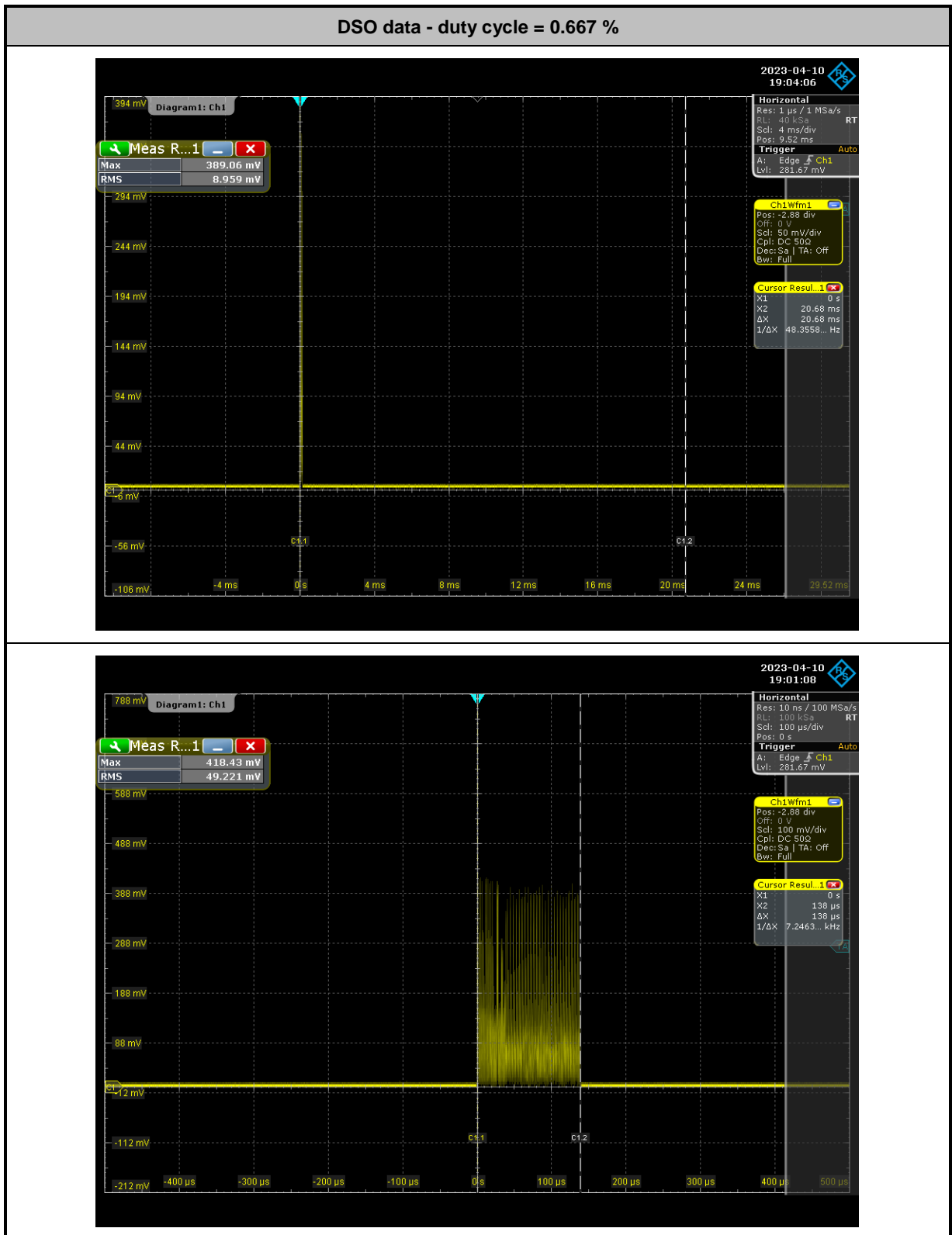
3.5.5 Test Plots

<Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz>



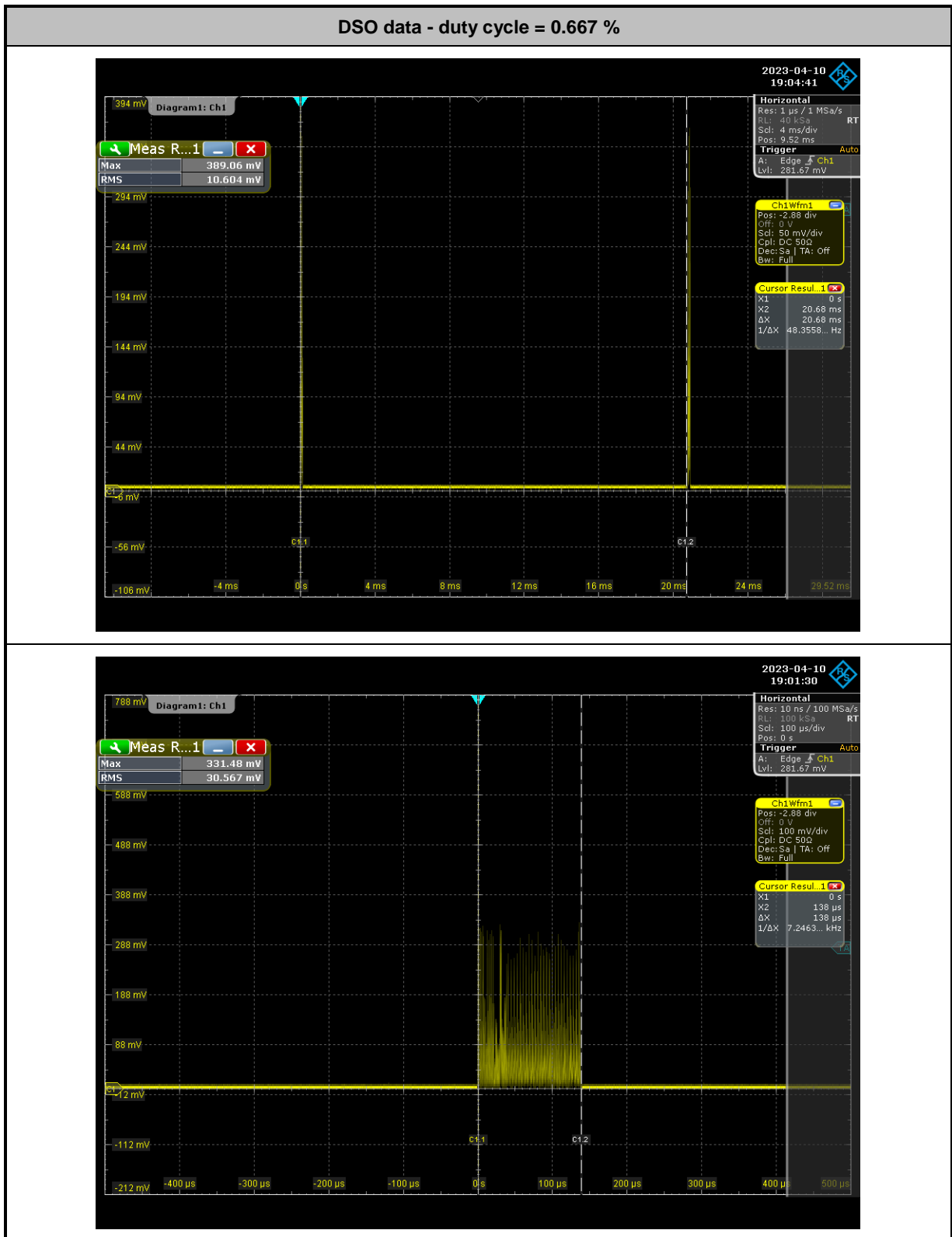


<Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz>





<Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz>





3.6 Transmit Spurious Emission

3.6.1 Limit of Radiated Spurious Emission

Frequency Range	Field Strength Limit
9 kHz – 490 kHz	2400 (uV/m)/F (kHz) at 300 meter distance
490 kHz – 1.705 MHz	24000 (uV/m)/F (kHz) at 30 meter distance
1.705 MHz – 30 MHz	30 uV/m at 30 meter distance
30 MHz – 88 MHz	100 uV/m at 3 meter distance
88 MHz – 216 MHz	150 uV/m at 3 meter distance
216 MHz – 960 MHz	200 uV/m at 3 meter distance
960 MHz – 40 GHz	500 uV/m at 3 meter distance
40 GHz – 200 GHz	90 pW/cm ² at 3 meter distance
Note1: For the applicable limit, see FCC 15.255 (d)	
Note2: Spurious emissions shall not exceed the level of fundamental emission.	

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

Method of measurement: Refer as ANSI C63.10-2013, clause 9.12 and 9.13.

For above 40GHz emission:

$$EIRP = Prx - Grx + \text{Cable loss} + \text{Free space loss} = Prx - Grx + \text{Cable loss} + 20 \cdot \log(4 \pi d / \lambda)$$

Which

Prx = Read Level

Grx = Rx Antenna Gain

A distance factor is offset and formula is $20 \cdot \log(D1/D2)$

Which

D1 = Specification distance = 3m

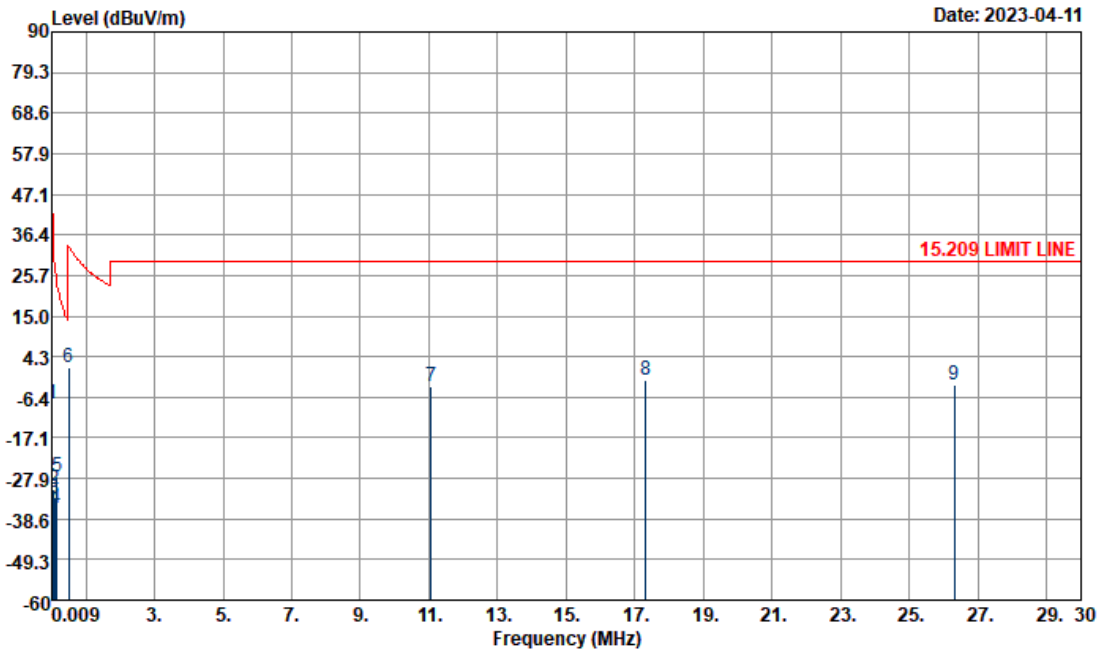
D2 = Measurement distance



3.6.4 Test Result

<Below 30MHz>

Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Troye Hsieh	Test Distance	3m
Test Range	9KHz to 30MHz	Test Polarization	Horizontal
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		

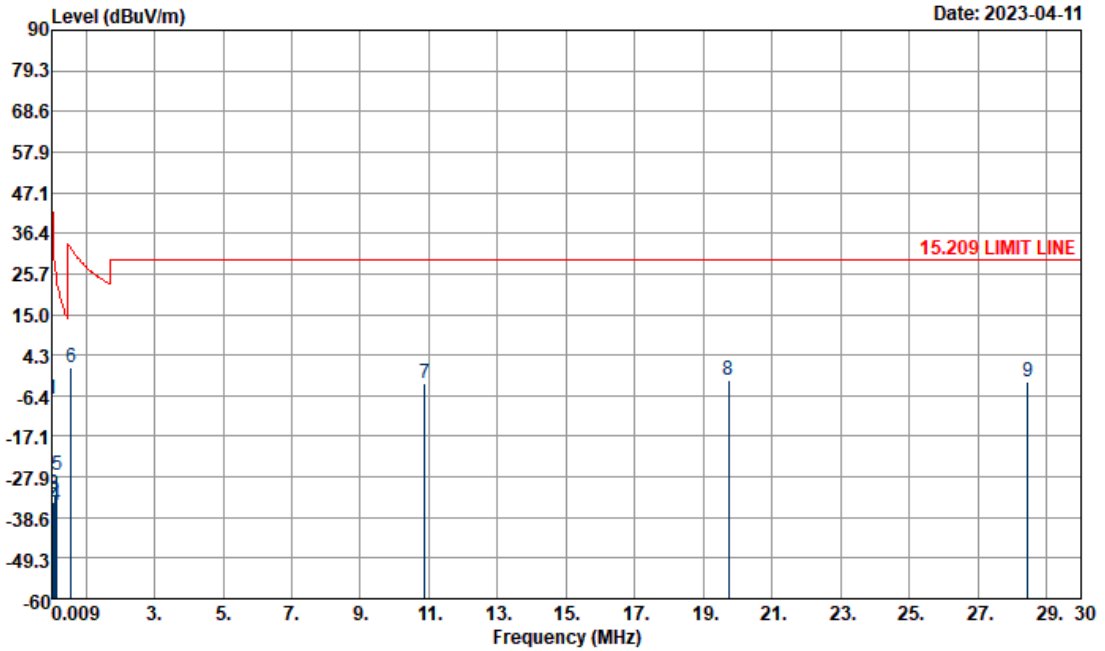


Site : 03CH11-HY
 Condition : 15.209 LIMIT LINE 3m LOOP_100488_220920 HORIZONTAL

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.0192	-8.17	-80	-50.11	41.94	51.97	19.84	0.02	-	-	A
0.07143	-30.79	-80	-61.32	30.53	29.47	19.72	0.02	-	-	A
0.09644	-33.4	-80	-61.32	27.92	26.92	19.66	0.02	-	-	Q
0.11252	-35.91	-80	-62.49	26.58	24.45	19.62	0.02	-	-	A
0.15918	-27.49	-80	-51.06	23.57	32.86	19.62	0.03	-	-	A
0.51253	1.33	-40	-32.08	33.41	21.75	19.54	0.04	-	-	Q
11.056	-3.41	-40	-32.91	29.5	16.81	19.61	0.17	-	-	Q
17.323	-1.95	-40	-31.45	29.5	18.1	19.76	0.19	-	-	Q
26.3	-3.35	-40	-32.85	29.5	15.96	20.53	0.16	-	-	Q



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Troye Hsieh	Test Distance	3m
Test Range	9KHz to 30MHz	Test Polarization	Vertical
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		

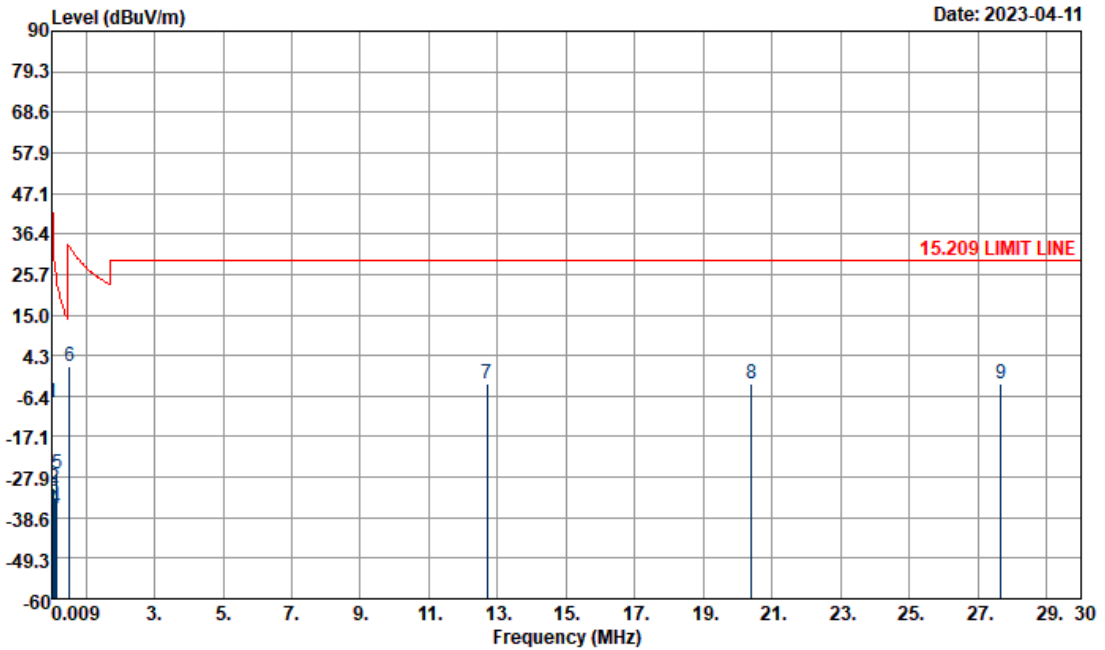


Site : 03CH11-HY
 Condition : 15.209 LIMIT LINE 3m LOOP_100488_220920 VERTICAL

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.00936	-7.3	-80	-55.48	48.18	52.59	20.08	0.03	-	-	A
0.06639	-34.37	-80	-65.53	31.16	25.89	19.72	0.02	-	-	A
0.09642	-32.55	-80	-60.47	27.92	27.77	19.66	0.02	-	-	Q
0.14464	-35.37	-80	-59.77	24.4	24.98	19.62	0.03	-	-	A
0.15442	-27.31	-80	-51.14	23.83	33.04	19.62	0.03	-	-	A
0.58012	1.08	-40	-31.25	32.33	21.49	19.55	0.04	-	-	Q
10.88	-3.21	-40	-32.71	29.5	17.01	19.61	0.17	-	-	Q
19.726	-2.47	-40	-31.97	29.5	17.39	19.96	0.18	-	-	Q
28.445	-2.89	-40	-32.39	29.5	16.48	20.46	0.17	-	-	Q



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Troye Hsieh	Test Distance	3m
Test Range	9KHz to 30MHz	Test Polarization	Horizontal
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

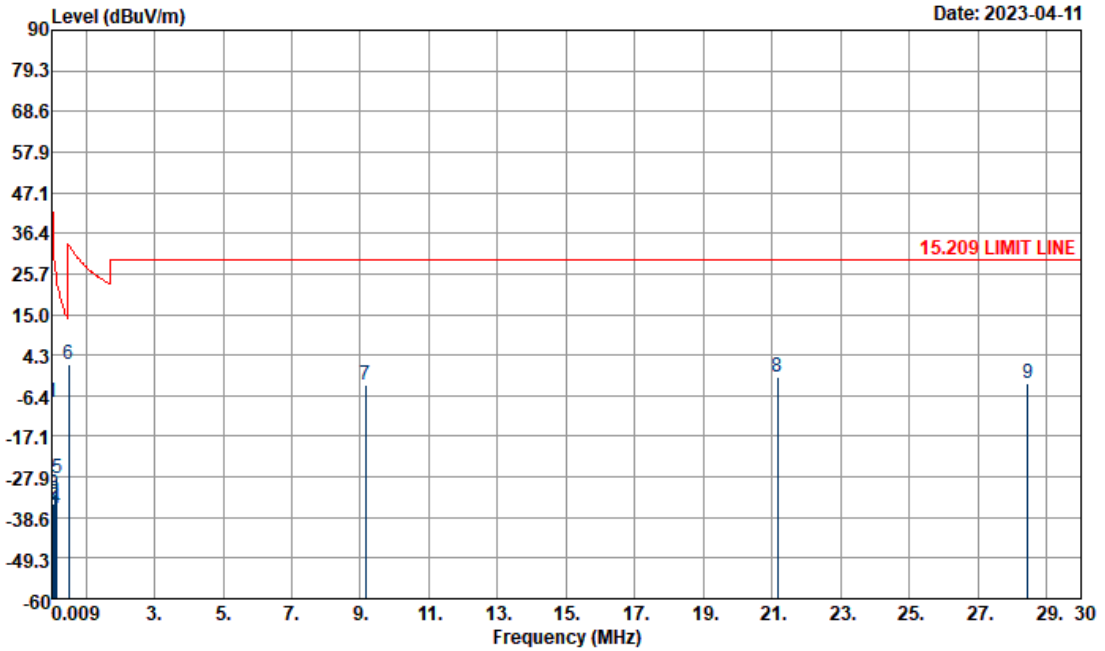


Site : 03CH11-HY
 Condition : 15.209 LIMIT LINE 3m LOOP_100488_220920 HORIZONTAL

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.01925	-8.39	-80	-50.31	41.92	51.76	19.83	0.02	-	-	A
0.07137	-30.79	-80	-61.32	30.53	29.47	19.72	0.02	-	-	A
0.09644	-33.32	-80	-61.24	27.92	27	19.66	0.02	-	-	Q
0.11252	-36.23	-80	-62.81	26.58	24.13	19.62	0.02	-	-	A
0.16088	-26.93	-80	-50.4	23.47	33.42	19.62	0.03	-	-	A
0.53506	1.5	-40	-31.54	33.04	21.92	19.54	0.04	-	-	Q
12.688	-3.35	-40	-32.85	29.5	16.84	19.63	0.18	-	-	Q
20.392	-3.17	-40	-32.67	29.5	16.62	20.03	0.18	-	-	Q
27.675	-3.09	-40	-32.59	29.5	16.2	20.54	0.17	-	-	Q



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Troye Hsieh	Test Distance	3m
Test Range	9KHz to 30MHz	Test Polarization	Vertical
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

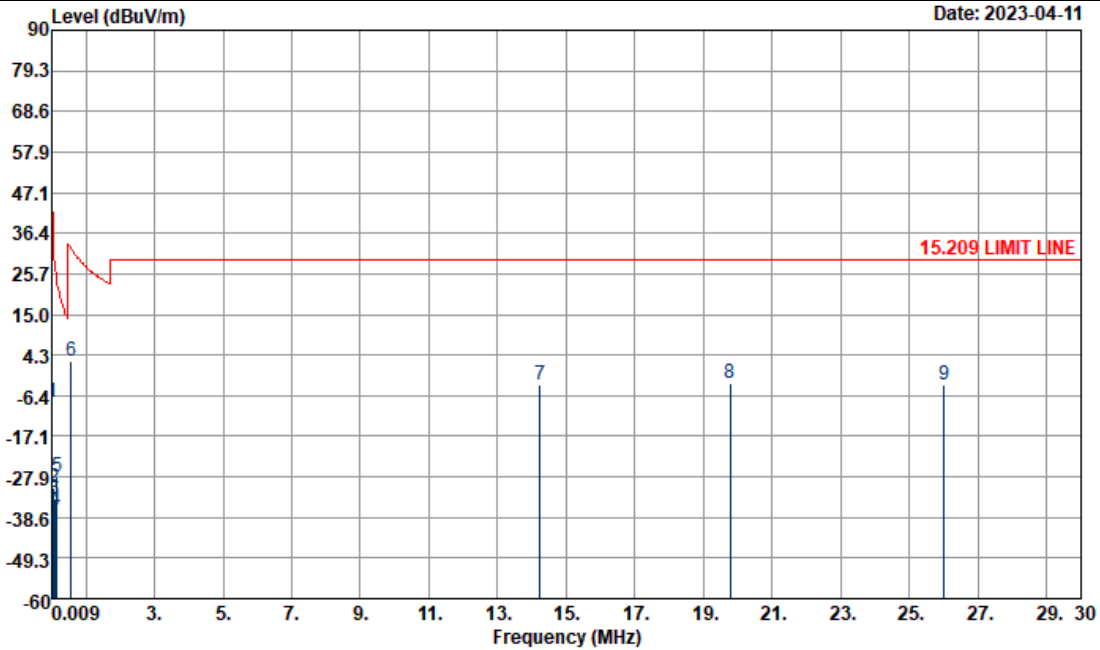


Site : 03CH11-HY
 Condition : 15.209 LIMIT LINE 3m LOOP_100488_220920 VERTICAL

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.00971	-8.35	-80	-56.21	47.86	51.58	20.05	0.02	-	-	A
0.06642	-35.12	-80	-66.28	31.16	25.14	19.72	0.02	-	-	A
0.0964	-32.23	-80	-60.15	27.92	28.09	19.66	0.02	-	-	Q
0.14464	-36.09	-80	-60.49	24.4	24.26	19.62	0.03	-	-	A
0.15442	-28.12	-80	-51.95	23.83	32.23	19.62	0.03	-	-	A
0.49751	1.83	-40	-31.84	33.67	22.25	19.54	0.04	-	-	Q
9.152	-3.41	-40	-32.91	29.5	16.85	19.59	0.15	-	-	Q
21.166	-1.71	-40	-31.21	29.5	18	20.12	0.17	-	-	Q
28.45	-3.01	-40	-32.51	29.5	16.37	20.45	0.17	-	-	Q



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Troye Hsieh	Test Distance	3m
Test Range	9KHz to 30MHz	Test Polarization	Horizontal
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		

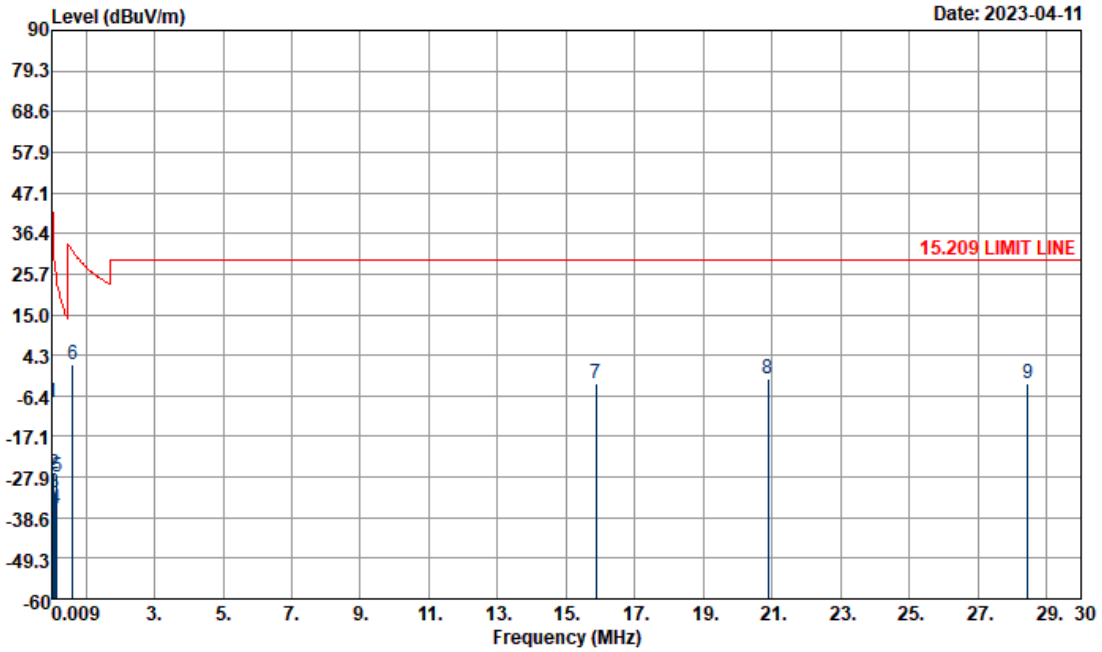


Site : 03CH11-HY
 Condition : 15.209 LIMIT LINE 3m LOOP 100488 220920 HORIZONTAL

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.0192	-8.3	-80	-50.24	41.94	51.84	19.84	0.02	-	-	A
0.07152	-30.59	-80	-61.11	30.52	29.67	19.72	0.02	-	-	A
0.09644	-33.48	-80	-61.4	27.92	26.84	19.66	0.02	-	-	Q
0.11256	-36.56	-80	-63.14	26.58	23.8	19.62	0.02	-	-	A
0.15068	-27.83	-80	-51.87	24.04	32.52	19.62	0.03	-	-	A
0.58012	2.47	-40	-29.86	32.33	22.88	19.55	0.04	-	-	Q
14.232	-3.5	-40	-33	29.5	16.67	19.64	0.19	-	-	Q
19.771	-3.2	-40	-32.7	29.5	16.66	19.96	0.18	-	-	Q
26.015	-3.51	-40	-33.01	29.5	15.8	20.53	0.16	-	-	Q



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Troye Hsieh	Test Distance	3m
Test Range	9KHz to 30MHz	Test Polarization	Vertical
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		



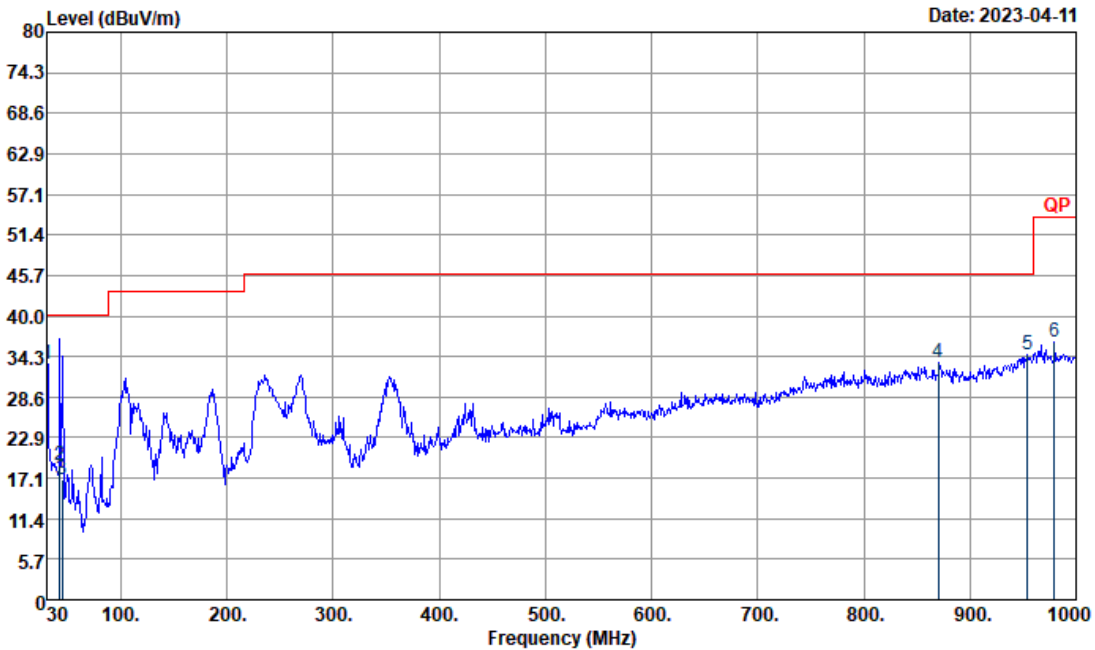
Site : 03CH11-HY
 Condition : 15.209 LIMIT LINE 3m LOOP_100488_220920 VERTICAL

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.01925	-8.31	-80	-50.23	41.92	51.84	19.83	0.02	-	-	A
0.06645	-26.8	-80	-57.95	31.15	33.46	19.72	0.02	-	-	A
0.0964	-32.21	-80	-60.13	27.92	28.11	19.66	0.02	-	-	Q
0.14464	-36.06	-80	-60.46	24.4	24.29	19.62	0.03	-	-	A
0.15238	-27.89	-80	-51.84	23.95	32.46	19.62	0.03	-	-	A
0.61016	1.82	-40	-30.08	31.9	22.23	19.55	0.04	-	-	Q
15.872	-3.11	-40	-32.61	29.5	17.03	19.66	0.2	-	-	Q
20.878	-2.13	-40	-31.63	29.5	17.61	20.09	0.17	-	-	Q
28.445	-3.38	-40	-32.88	29.5	15.99	20.46	0.17	-	-	Q



<30MHz to 1GHz>

Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Yuan Lee	Test Distance	3m
Test Range	30MHz to 1GHz	Test Polarization	Horizontal
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		

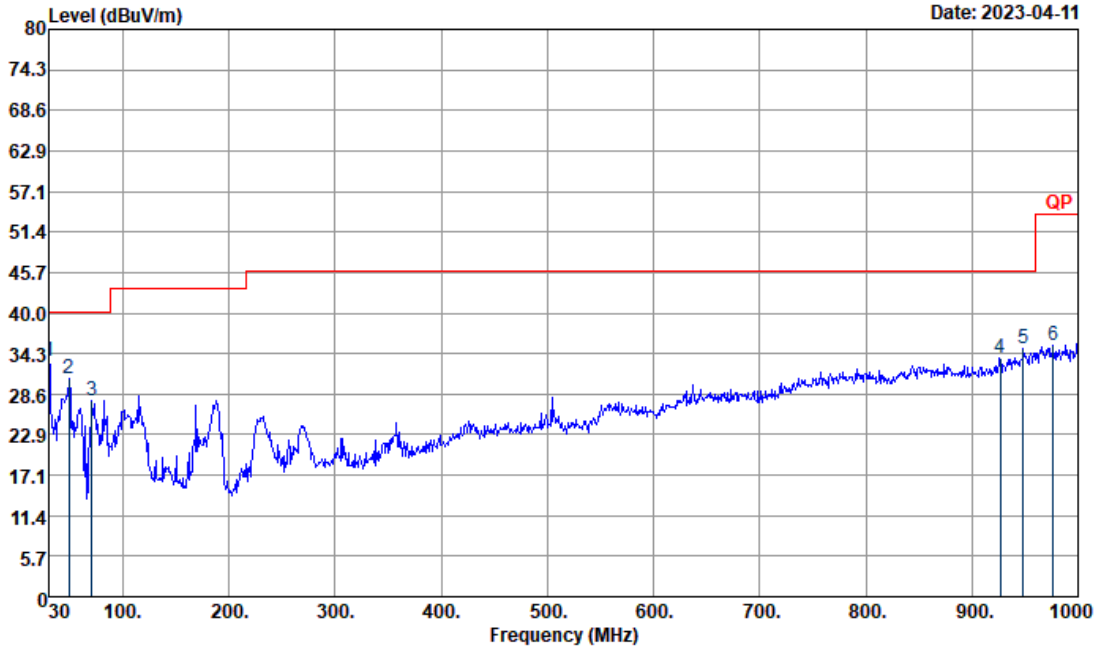


Site : 03CH11-HY
 Condition : QP 3m 2_BILOG_35414_221008 HORIZONTAL

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.27	33.12	-6.88	40	40.52	23.8	0.95	32.15	-	-	P
42.42	18.99	-21.01	40	32.13	17.99	1.09	32.22	100	315	Q
44.85	16.84	-23.16	40	31.28	16.7	1.1	32.24	100	113	Q
870.5	33.34	-12.66	46	30.73	28.69	5.37	31.45	-	-	P
954.5	34.53	-11.47	46	29.32	30.39	5.57	30.75	-	-	P
979.7	36.28	-17.72	54	30.44	30.33	6.01	30.5	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Yuan Lee	Test Distance	3m
Test Range	30MHz to 1GHz	Test Polarization	Vertical
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		

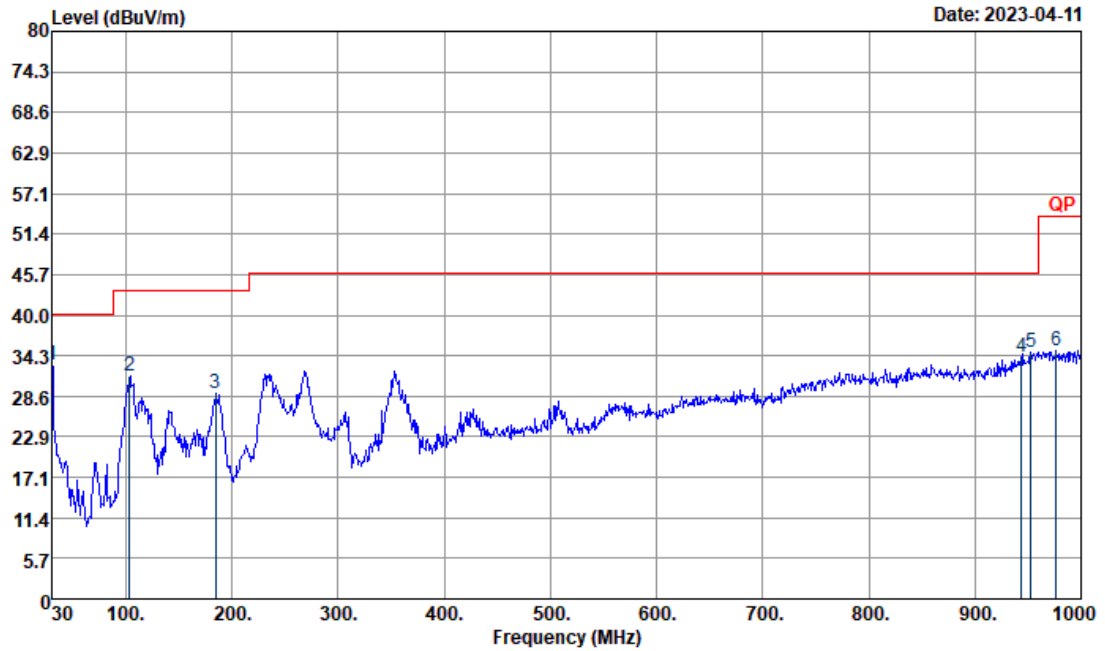


Site : 03CH11-HY
 Condition : QP 3m 2_BILOG_35414_221008 VERTICAL

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	33.2	-6.8	40	40.49	23.92	0.94	32.15	-	-	P
48.9	30.83	-9.17	40	47.31	14.56	1.21	32.25	-	-	P
70.77	27.72	-12.28	40	46.44	11.99	1.5	32.21	-	-	P
926.5	33.55	-12.45	46	30.17	29.07	5.32	31.01	-	-	P
948.2	35.09	-10.91	46	30.36	30.08	5.47	30.82	-	-	P
976.2	35.51	-18.49	54	29.63	30.46	5.95	30.53	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Yuan Lee	Test Distance	3m
Test Range	30MHz to 1GHz	Test Polarization	Horizontal
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

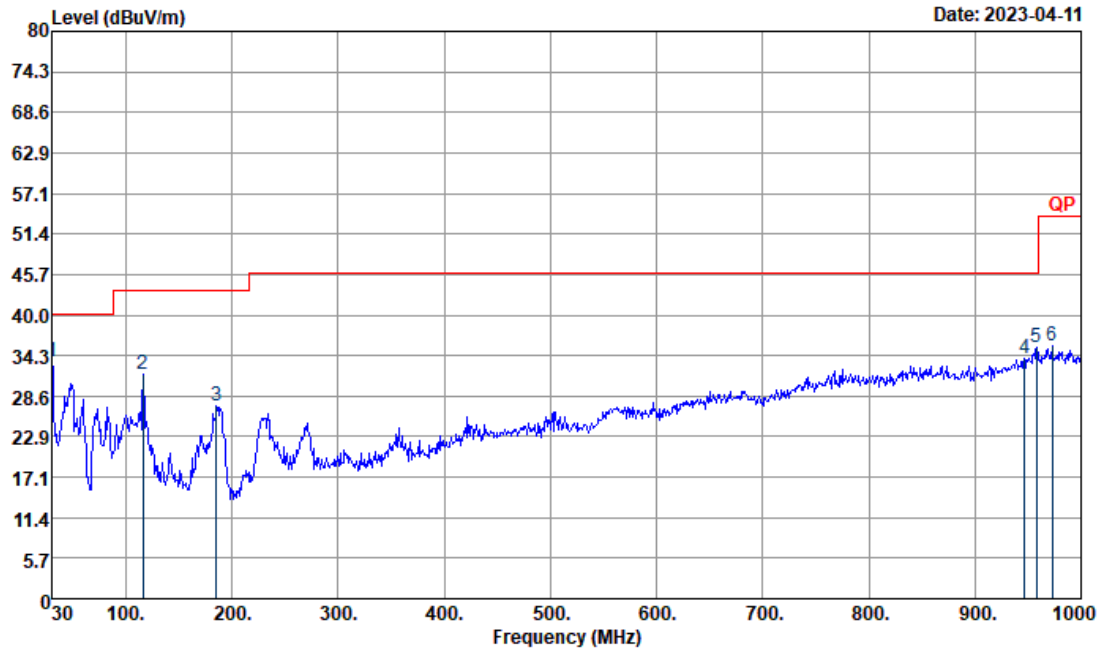


Site : 03CH11-HY
 Condition : QP 3m 2_BILOG_35414_221008 HORIZONTAL

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	33.03	-6.97	40	40.32	23.92	0.94	32.15	-	-	P
103.17	31.44	-12.06	43.5	45.72	16.17	1.68	32.13	-	-	P
184.44	28.95	-14.55	43.5	44.18	14.64	2.19	32.06	-	-	P
944	34.2	-11.8	46	29.72	29.88	5.45	30.85	-	-	P
952.4	34.81	-11.19	46	29.75	30.3	5.54	30.78	-	-	P
976.9	35.01	-18.99	54	29.14	30.44	5.96	30.53	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Yuan Lee	Test Distance	3m
Test Range	30MHz to 1GHz	Test Polarization	Vertical
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

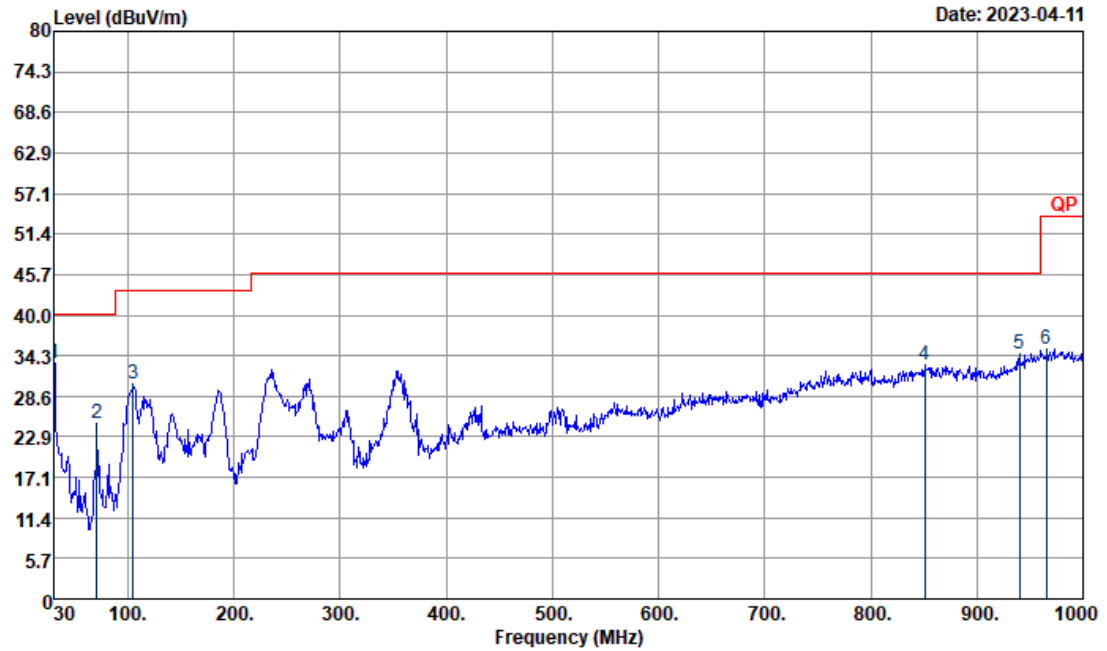


Site : 03CH11-HY
 Condition : QP 3m 2_BILOG_35414_221008 VERTICAL

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	33.52	-6.48	40	40.81	23.92	0.94	32.15	-	-	P
115.86	31.6	-11.9	43.5	44.89	17.06	1.8	32.15	-	-	P
184.98	27.19	-16.31	43.5	42.43	14.63	2.19	32.06	-	-	P
946.8	33.92	-12.08	46	29.26	30.02	5.47	30.83	-	-	P
958	35.43	-10.57	46	29.94	30.58	5.63	30.72	-	-	P
972.7	35.7	-18.3	54	29.82	30.56	5.89	30.57	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Yuan Lee	Test Distance	3m
Test Range	30MHz to 1GHz	Test Polarization	Horizontal
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		

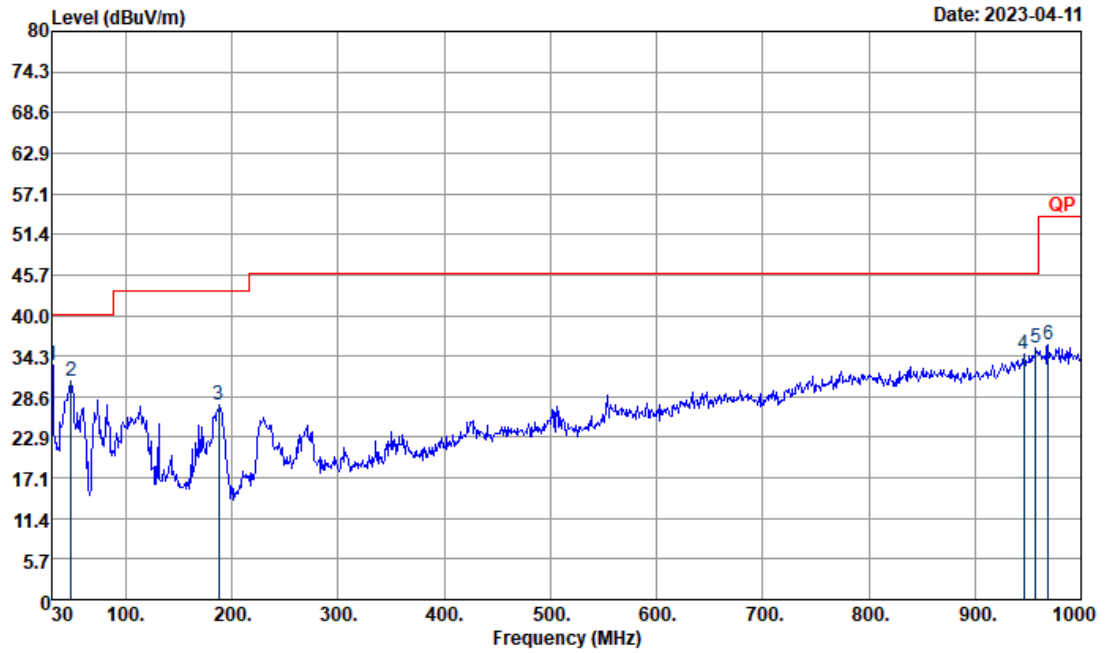


Site : 03CH11-HY
 Condition : QP 3m 2_BILOG_35414_221008 HORIZONTAL

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.27	33.19	-6.81	40	40.59	23.8	0.95	32.15	-	-	P
70.5	24.66	-15.34	40	43.4	11.98	1.5	32.22	-	-	P
104.79	30.23	-13.27	43.5	44.42	16.25	1.7	32.14	-	-	P
850.9	32.92	-13.08	46	30.28	28.71	5.52	31.59	-	-	P
939.8	34.55	-11.45	46	30.43	29.59	5.42	30.89	-	-	P
965.7	35.27	-18.73	54	29.58	30.56	5.77	30.64	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Yuan Lee	Test Distance	3m
Test Range	30MHz to 1GHz	Test Polarization	Vertical
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		



Site : 03CH11-HY
 Condition : QP 3m 2_BILOG_35414_221008 VERTICAL

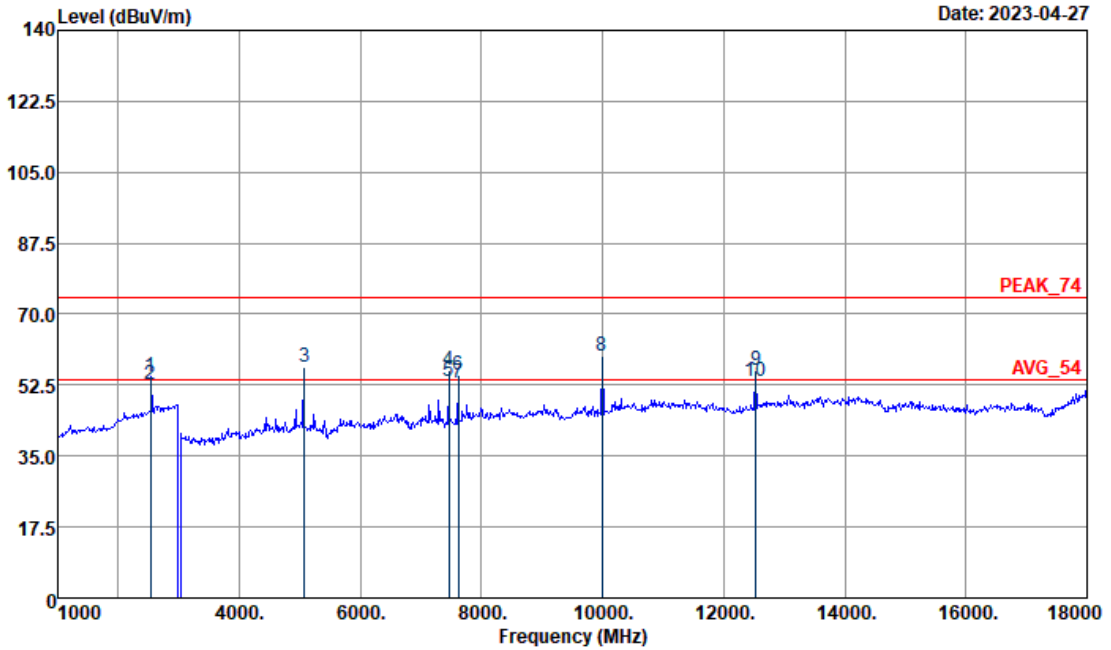
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	33.02	-6.98	40	40.31	23.92	0.94	32.15	-	-	P
48.36	30.71	-9.29	40	46.95	14.81	1.2	32.25	-	-	P
187.41	27.39	-16.11	43.5	42.69	14.57	2.2	32.07	-	-	P
946.1	34.51	-11.49	46	29.89	29.98	5.47	30.83	-	-	P
957.3	35.35	-10.65	46	29.92	30.54	5.62	30.73	-	-	P
969.2	35.88	-18.12	54	30.11	30.54	5.83	30.6	-	-	P

Note: The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.



<1GHz to 18GHz>

Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Fu Chen	Test Distance	3m
Test Range	1GHz to 18GHz	Test Polarization	Horizontal
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		
Remark	5070MHz and 9990MHz are unintentional radiator, can be ignored. The unintentional signal been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.		

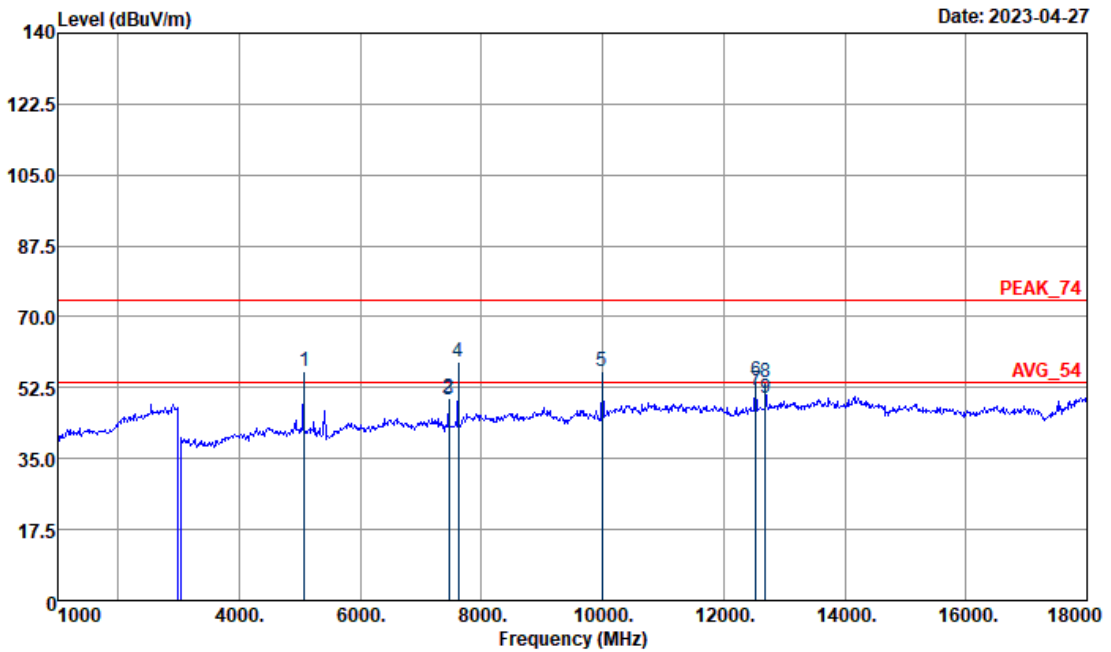


Site : 03CH11-HY
 Condition : PEAK_74 3m 9120D_01620_220824 HORIZONTAL
 :.
 Project : 331709

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2538	54.61	-19.39	74	53.33	28.05	7.38	34.15	132	172	P
2538	52.49	-1.51	54	51.21	28.05	7.38	34.15	132	172	A
5070*	56.88	-17.12	74	69.72	33.22	12.07	58.13	105	194	P
7455	55.98	-18.02	74	63.82	36.38	14.49	58.71	312	176	P
7455	53.52	-0.48	54	61.36	36.38	14.49	58.71	312	176	A
7620	54.88	-19.12	74	62.31	36.24	14.98	58.65	100	183	P
7620	53.18	-0.82	54	60.61	36.24	14.98	58.65	100	183	A
9990*	59.54	-14.46	74	63.5	38.54	17.17	59.67	254	214	P
12525	56.07	-17.93	74	61.1	39.05	19.26	63.34	100	119	P
12525	53.37	-0.63	54	58.4	39.05	19.26	63.34	100	119	A



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Fu Chen	Test Distance	3m
Test Range	1GHz to 18GHz	Test Polarization	Vertical
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CHO_60.163GHz		
Remark	5070MHz, 7620MHz and 9990MHz are unintentional radiator, can be ignored. The unintentional signal been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.		

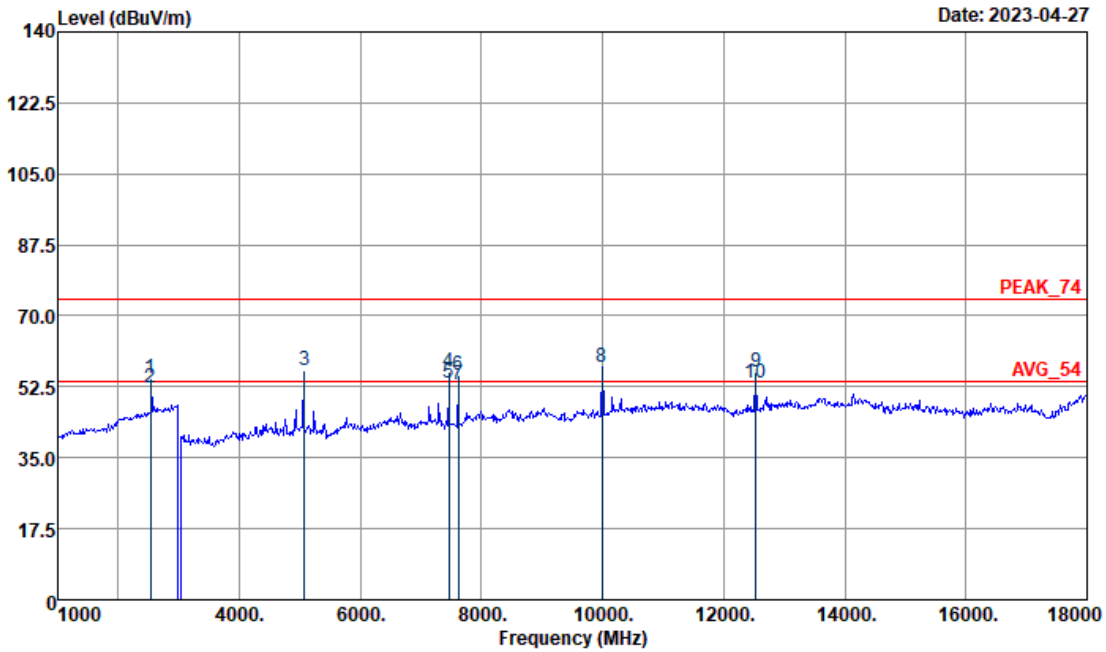


Site : 03CH11-HY
 Condition : PEAK_74 3m 9120D_01620_220824 VERTICAL
 Project : 331709

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5070*	56.71	-17.29	74	69.55	33.22	12.07	58.13	108	165	P
7455	50	-24	74	57.84	36.38	14.49	58.71	100	233	P
7455	49.68	-4.32	54	57.52	36.38	14.49	58.71	100	233	A
7620*	58.73	-15.27	74	66.16	36.24	14.98	58.65	100	119	P
9990*	56.44	-17.56	74	60.4	38.54	17.17	59.67	400	212	P
12525	54.39	-19.61	74	59.42	39.05	19.26	63.34	100	117	P
12525	51.77	-2.23	54	56.8	39.05	19.26	63.34	100	117	A
12690	53.9	-20.1	74	58.13	39.38	19.43	63.04	239	183	P
12690	49.93	-4.07	54	54.16	39.38	19.43	63.04	239	183	A



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Fu Chen	Test Distance	3m
Test Range	1GHz to 18GHz	Test Polarization	Horizontal
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		
Remark	5070MHz and 9990MHz are unintentional radiator, can be ignored. The unintentional signal been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.		

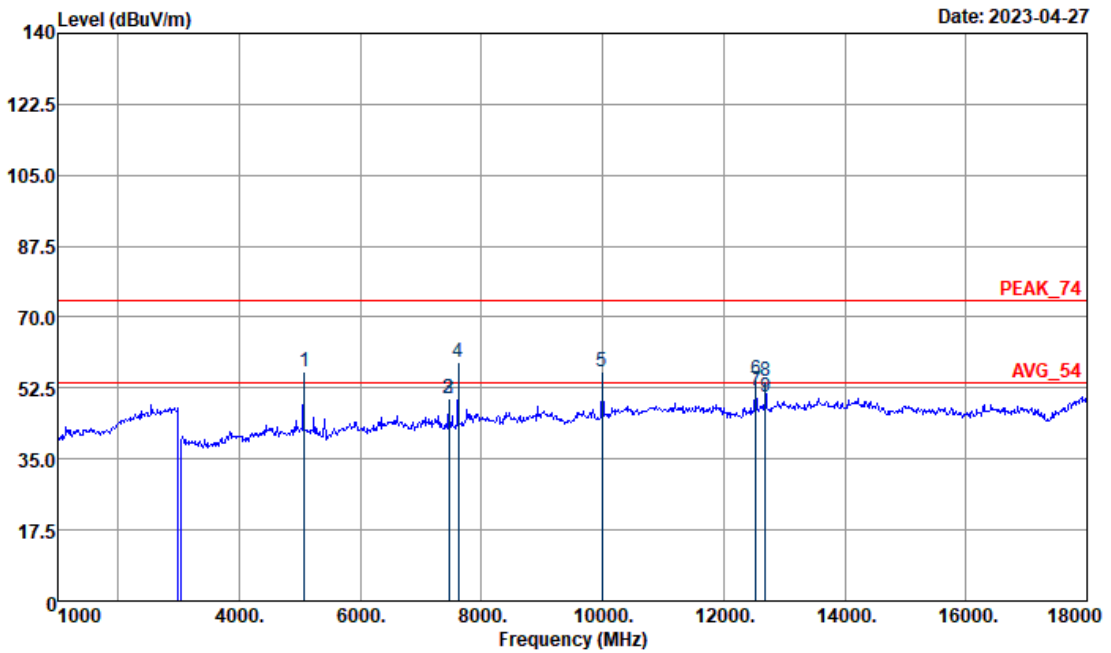


Site : 03CH11-HY
 Condition : PEAK_74 3m 9120D_01620_220824 HORIZONTAL
 Project : 331709

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2538	54.69	-19.31	74	53.41	28.05	7.38	34.15	134	175	P
2538	52.34	-1.66	54	51.06	28.05	7.38	34.15	134	175	A
5070*	56.72	-17.28	74	69.56	33.22	12.07	58.13	105	191	P
7455	55.98	-18.02	74	63.82	36.38	14.49	58.71	311	177	P
7455	53.37	-0.63	54	61.21	36.38	14.49	58.71	311	177	A
7620	55.41	-18.59	74	62.84	36.24	14.98	58.65	100	181	P
7620	52.92	-1.08	54	60.35	36.24	14.98	58.65	100	181	A
9990*	57.35	-16.65	74	61.31	38.54	17.17	59.67	254	214	P
12525	56.25	-17.75	74	61.28	39.05	19.26	63.34	100	123	P
12525	53.24	-0.76	54	58.27	39.05	19.26	63.34	100	123	A



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Fu Chen	Test Distance	3m
Test Range	1GHz to 18GHz	Test Polarization	Vertical
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		
Remark	5070MHz, 7620MHz and 9990MHz are unintentional radiator, can be ignored. The unintentional signal been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.		

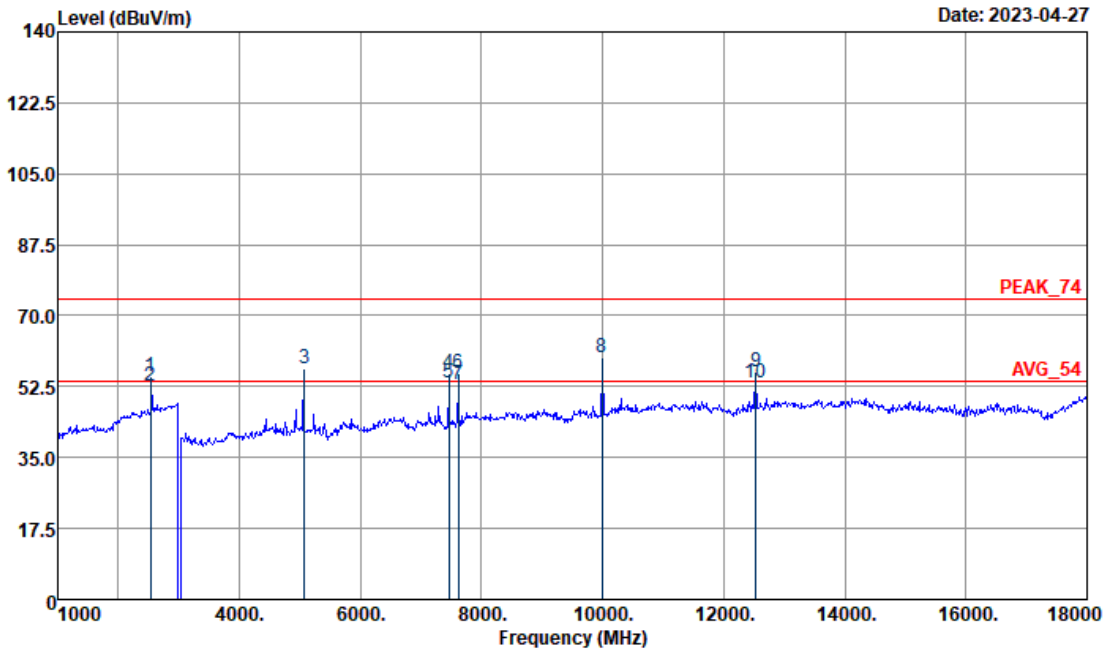


Site : 03CH11-HY
 Condition : PEAK_74 3m 9120D_01620_220824 VERTICAL
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5070*	56.48	-17.52	74	69.32	33.22	12.07	58.13	107	162	P
7455	50.09	-23.91	74	57.93	36.38	14.49	58.71	100	234	P
7455	49.98	-4.02	54	57.82	36.38	14.49	58.71	100	234	A
7620*	58.76	-15.24	74	66.19	36.24	14.98	58.65	100	118	P
9990*	56.54	-17.46	74	60.5	38.54	17.17	59.67	400	212	P
12525	54.45	-19.55	74	59.48	39.05	19.26	63.34	100	118	P
12525	51.67	-2.33	54	56.7	39.05	19.26	63.34	100	118	A
12690	54.08	-19.92	74	58.31	39.38	19.43	63.04	242	184	P
12690	50.28	-3.72	54	54.51	39.38	19.43	63.04	242	184	A



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Fu Chen	Test Distance	3m
Test Range	1GHz to 18GHz	Test Polarization	Horizontal
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		
Remark	5070MHz and 9990MHz are unintentional radiator, can be ignored. The unintentional signal been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.		

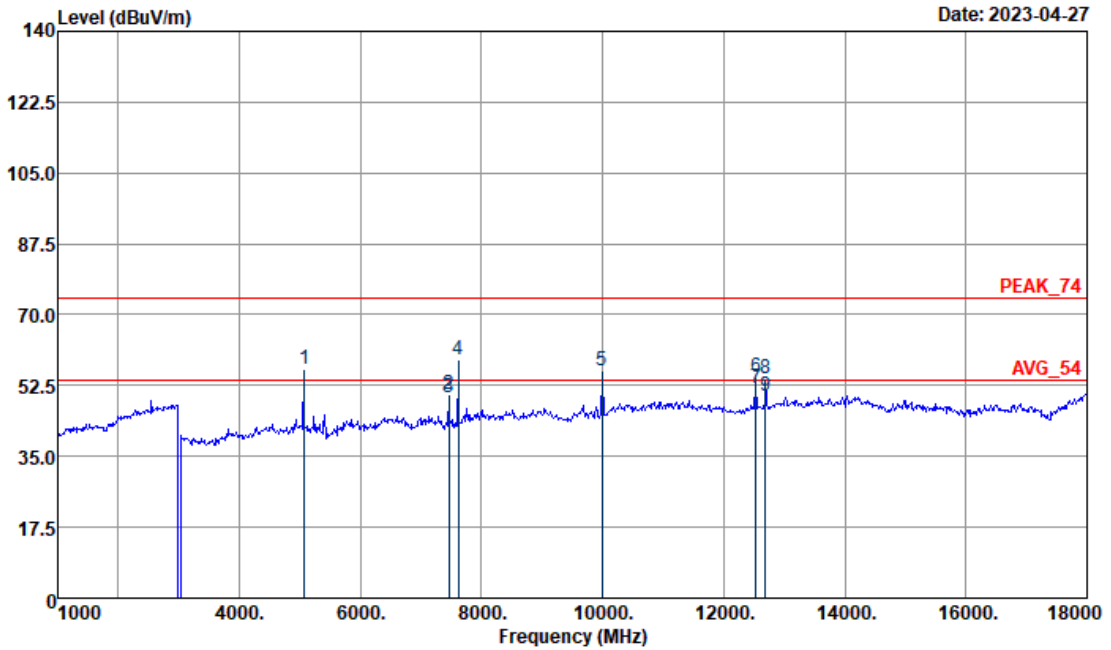


Site : 03CH11-HY
 Condition : PEAK_74 3m 9120D_01620_220824 HORIZONTAL
 Project : 331709

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2538	54.86	-19.14	74	53.58	28.05	7.38	34.15	132	172	P
2538	52.46	-1.54	54	51.18	28.05	7.38	34.15	132	172	A
5070*	56.87	-17.13	74	69.71	33.22	12.07	58.13	106	196	P
7455	55.92	-18.08	74	63.76	36.38	14.49	58.71	311	178	P
7455	53.27	-0.73	54	61.11	36.38	14.49	58.71	311	178	A
7620	55.78	-18.22	74	63.21	36.24	14.98	58.65	100	179	P
7620	53.15	-0.85	54	60.58	36.24	14.98	58.65	100	179	A
9990*	59.52	-14.48	74	63.48	38.54	17.17	59.67	253	214	P
12525	56.19	-17.81	74	61.22	39.05	19.26	63.34	100	121	P
12525	53.37	-0.63	54	58.4	39.05	19.26	63.34	100	121	A



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Fu Chen	Test Distance	3m
Test Range	1GHz to 18GHz	Test Polarization	Vertical
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		
Remark	5070MHz, 7620MHz and 9990MHz are unintentional radiator, can be ignored. The unintentional signal been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.		



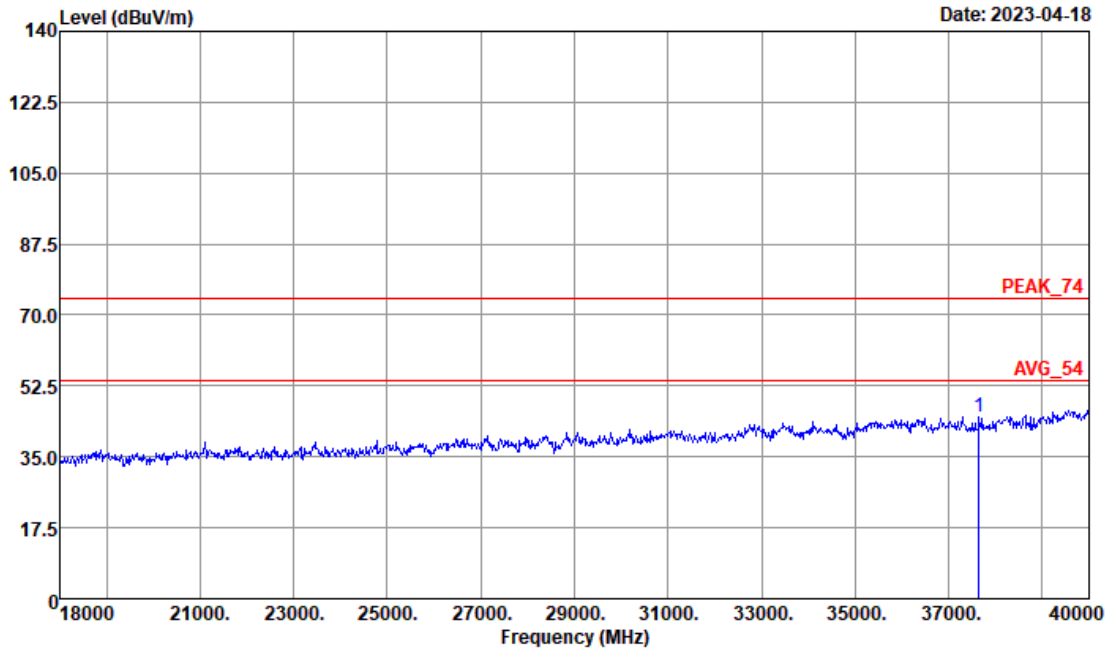
Site : 03CH11-HY
 Condition : PEAK_74 3m 9120D_01620_220824 VERTICAL
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5070*	56.47	-17.53	74	69.31	33.22	12.07	58.13	109	163	P
7455	50.15	-23.85	74	57.99	36.38	14.49	58.71	100	235	P
7455	49.68	-4.32	54	57.52	36.38	14.49	58.71	100	235	A
7620*	58.88	-15.12	74	66.31	36.24	14.98	58.65	100	118	P
9990*	56.34	-17.66	74	60.3	38.54	17.17	59.67	400	211	P
12525	54.47	-19.53	74	59.5	39.05	19.26	63.34	100	117	P
12525	51.77	-2.23	54	56.8	39.05	19.26	63.34	100	117	A
12690	54.1	-19.9	74	58.33	39.38	19.43	63.04	244	188	P
12690	50.08	-3.92	54	54.31	39.38	19.43	63.04	244	188	A



<18GHz to 40GHz>

Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Bank Lin	Test Distance	1m
Test Range	18GHz to 40GHz	Test Polarization	Horizontal
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		

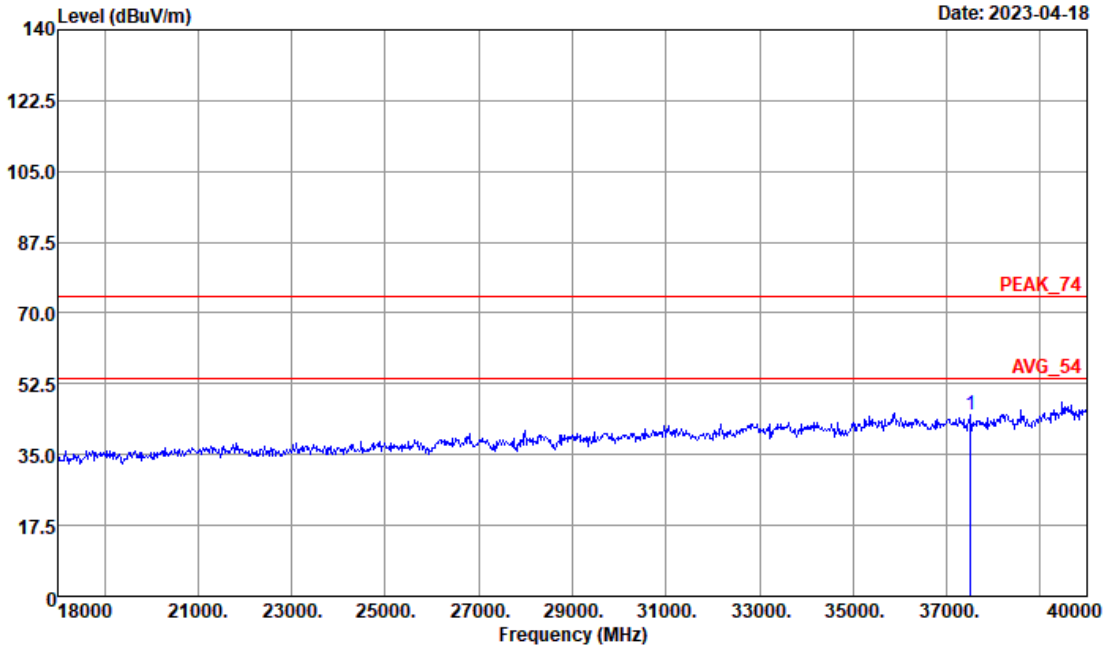


Site : 03CH11-HY
 Condition : PEAK_74 1m SHF_00991_220514 HORIZONTAL
 : .
 Detector : Peak
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37646.3	44.99	-9.54	-29.01	74	60.95	42.72	8.5	57.64	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Bank Lin	Test Distance	1m
Test Range	18GHz to 40GHz	Test Polarization	Vertical
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CHO_60.163GHz		

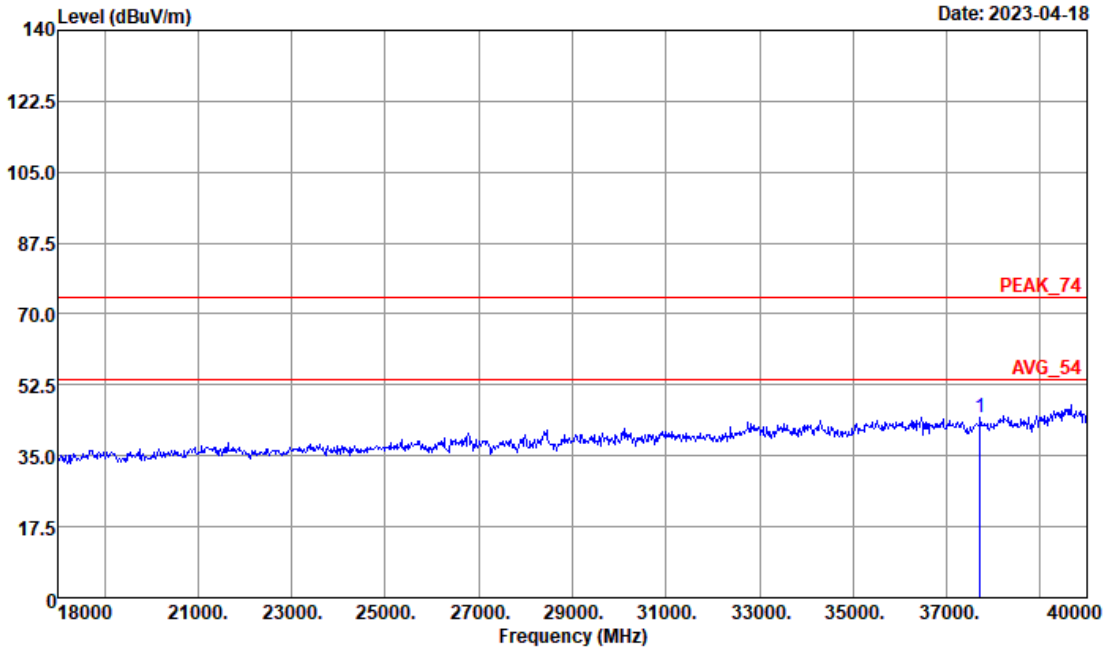


Site : 03CH11-HY
 Condition : PEAK_74 1m SHF_00991_220514 VERTICAL
 : .
 Detector : Peak
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37506.2	44.74	-9.54	-29.26	74	60.98	42.6	8.4	57.7	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Bank Lin	Test Distance	1m
Test Range	18GHz to 40GHz	Test Polarization	Horizontal
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

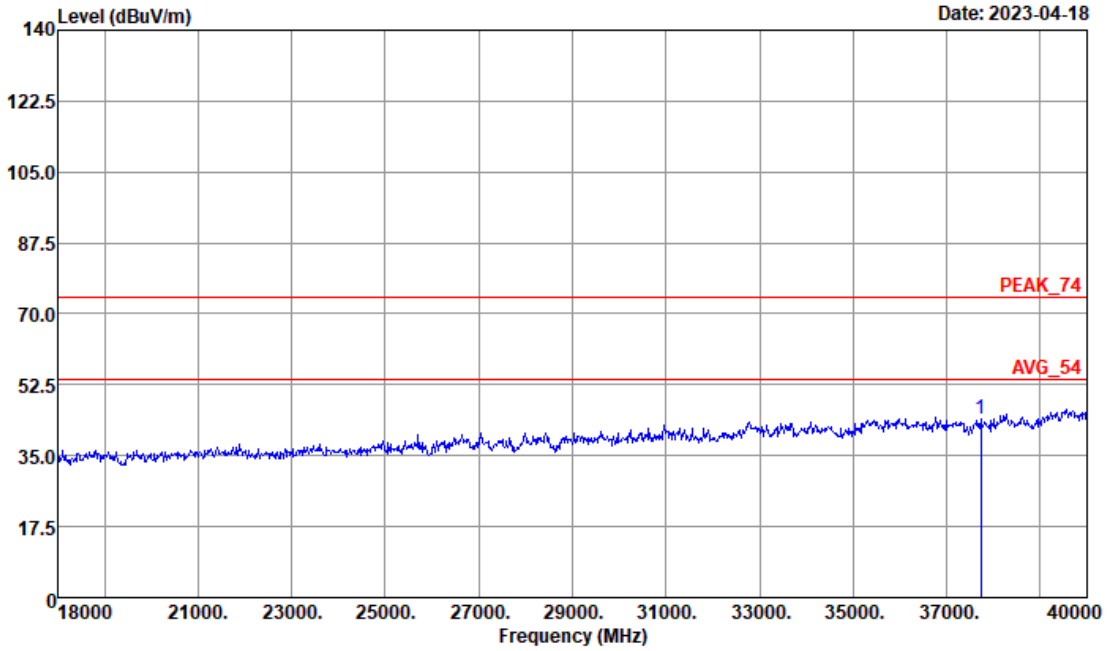


Site : 03CH11-HY
 Condition : PEAK_74 1m SHF_00991_220514 HORIZONTAL
 : .
 Detector : Peak
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37716.4	44.6	-9.54	-29.4	74	60.44	42.77	8.54	57.61	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Bank Lin	Test Distance	1m
Test Range	18GHz to 40GHz	Test Polarization	Vertical
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

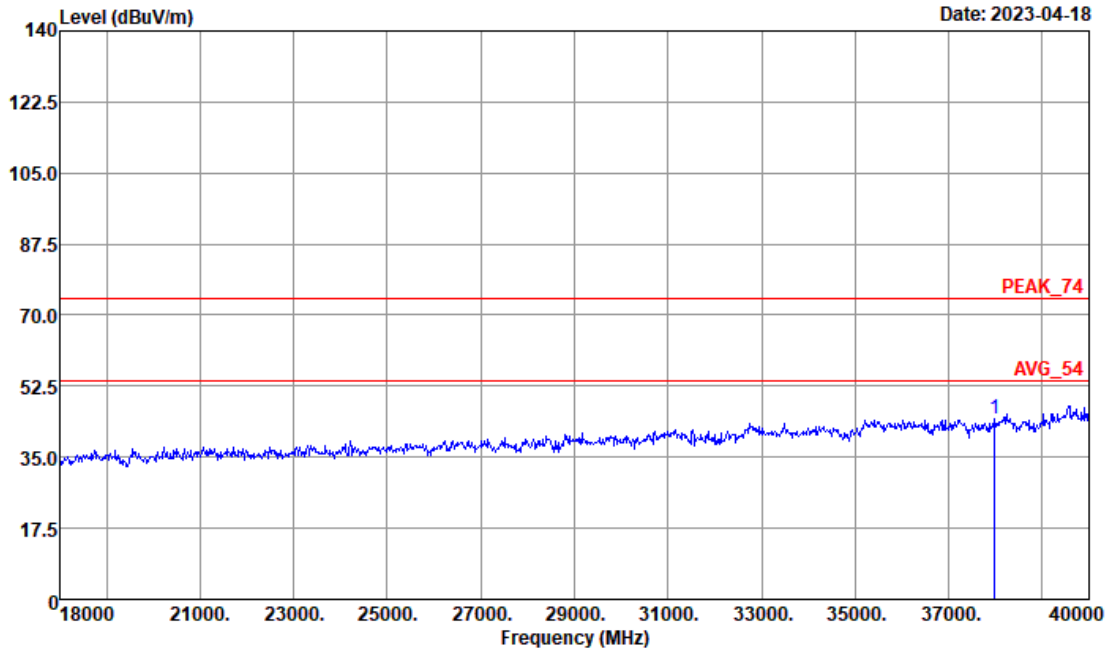


Site : 03CH11-HY
 Condition : PEAK_74 1m SHF_00991_220514 VERTICAL
 :
 Detector : Peak
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37730.4	43.92	-9.54	-30.08	74	59.74	42.78	8.55	57.61	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Bank Lin	Test Distance	1m
Test Range	18GHz to 40GHz	Test Polarization	Horizontal
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		

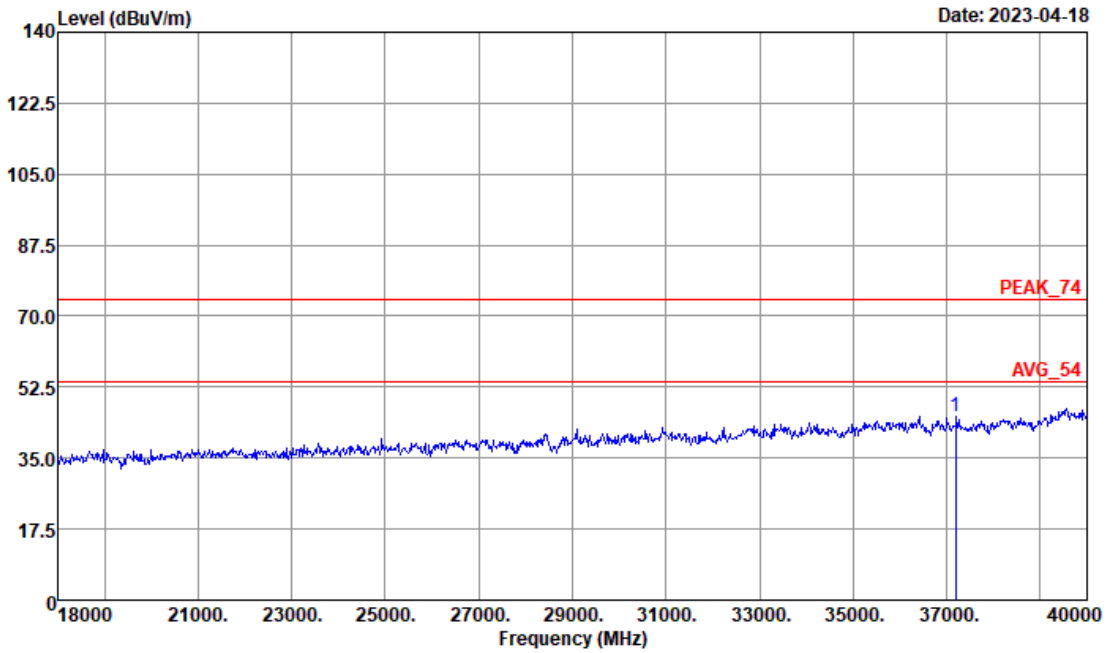


Site : 03CH11-HY
 Condition : PEAK_74 1m SHF_00991_220514 HORIZONTAL
 : .
 Detector : Peak
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37982.6	44.52	-9.54	-29.48	74	59.77	43.08	8.72	57.51	-	-	P



Temperature	19.1 ~ 24.3°C	Relative Humidity	52.4 ~ 68.5%
Test Engineer	Bank Lin	Test Distance	1m
Test Range	18GHz to 40GHz	Test Polarization	Vertical
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		



Site : 03CH11-HY
 Condition : PEAK_74 1m SHF_00991_220514 VERTICAL
 : .
 Detector : Peak
 Project : 331709

Frequency (MHz)	Level (dBμV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37198	45.16	-9.54	-28.84	74	61.56	42.52	8.5	57.88	-	-	P

Note: The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.



<40GHz to 200GHz>

Temperature	21.1 ~ 23.5°C	Relative Humidity	61.4 ~ 65.3%
Test Engineer	Eric Jeng	Test Range	40GHz to 200GHz
Test Configuration	Mode 1: 60G Tx (LRP)_Channel Index 2_CH0_60.163GHz		

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
40 - 57	22.64	0.87	48.594	-104.29
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-51.21	3	0.006692	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
71 - 90	22.4	0.6	89.9015	-100.11
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-41.45	3	0.063321	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
90 - 140	22.4	0.43	135.4366	-95.02
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-32.8	3	0.464032	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
140 - 200	22.8	0.27	170.609	-93.01
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-29.19	3	1.065486	90	PASS



Temperature	21.1 ~ 23.5°C	Relative Humidity	61.4 ~ 65.3%
Test Engineer	Eric Jeng	Test Range	40GHz to 200GHz
Test Configuration	Mode 2: 60G Tx (LRP)_Channel Index 2_CH4_60.797GHz		

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
40 - 57	22.64	0.87	46.2691	-103.56
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-50.91	3	0.00717	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
71 - 90	22.4	0.6	89.2675	-102.62
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-44.02	3	0.035039	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
90 - 140	22.4	0.43	135.4346	-95
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-32.78	3	0.466174	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
140 - 200	22.8	0.27	170.728	-92.97
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-29.14	3	1.077823	90	PASS



Temperature	21.1 ~ 23.5°C	Relative Humidity	61.4 ~ 65.3%
Test Engineer	Eric Jeng	Test Range	40GHz to 200GHz
Test Configuration	Mode 3: 60G Tx (LRP)_Channel Index 3_CH4_62.957GHz		

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
40 - 57	22.64	0.87	46.2791	-103.53
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-50.88	3	0.00722	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
71 - 90	22.4	0.6	88.5836	-102.53
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-44	3	0.0352	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
90 - 140	22.4	0.43	135.4456	-95.11
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-32.89	3	0.454514	90	PASS

Test Frequency (GHz)	Rx Antenna Gain (dBi)	Measurement Distance (m)	Read Worse Frequency (GHz)	Read Level (dBm)
140 - 200	22.8	0.27	170.723	-93.05
EIRP (dBm)	Specification Distance (m)	Power Density (pW/cm ²)	Limit (pW/cm ²)	Test Result
-29.22	3	1.058151	90	PASS



3.7 Frequency Stability

3.7.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency range, 57GHz – 71GHz.

3.7.2 Measuring Instruments

See list of measuring equipment of this test report.

3.7.3 Test Procedures

Method of measurement: Refer as ANSI C63.10-2013 clause 9.14

3.7.4 Test Result

Test Engineer	Eric Jeng			
Test Conditions	60G Tx (LRP)_Channel Index 2_CH4			Limit
Test Temperature (°C)	Voltage (Volt)	Measured Frequency (GHz)	Delta Frequency (±MHz)	Result
50	120	60.797745	0.00	Within band
40	120	60.797245	0.50	
30	120	60.798495	-0.75	
20 (ref)	120	60.797745	0.00	
10	120	60.79675	1.00	
0	120	60.79675	1.00	
-10	120	60.797255	0.49	
-20	120	60.8	-2.25	
20	102	60.796745	1.00	
20	138	60.798995	-1.25	



4 AC conducted Emission Measurement

4.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

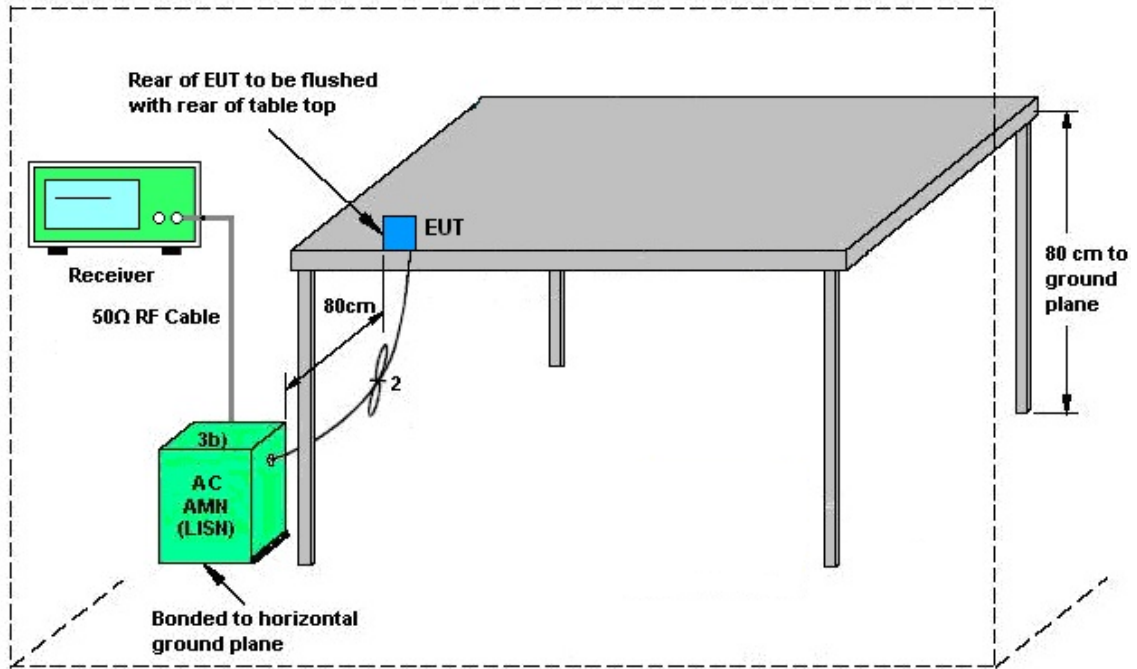
4.2 Measuring Instruments

See list of measuring equipment of this test report.

4.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

4.4 Test Setup

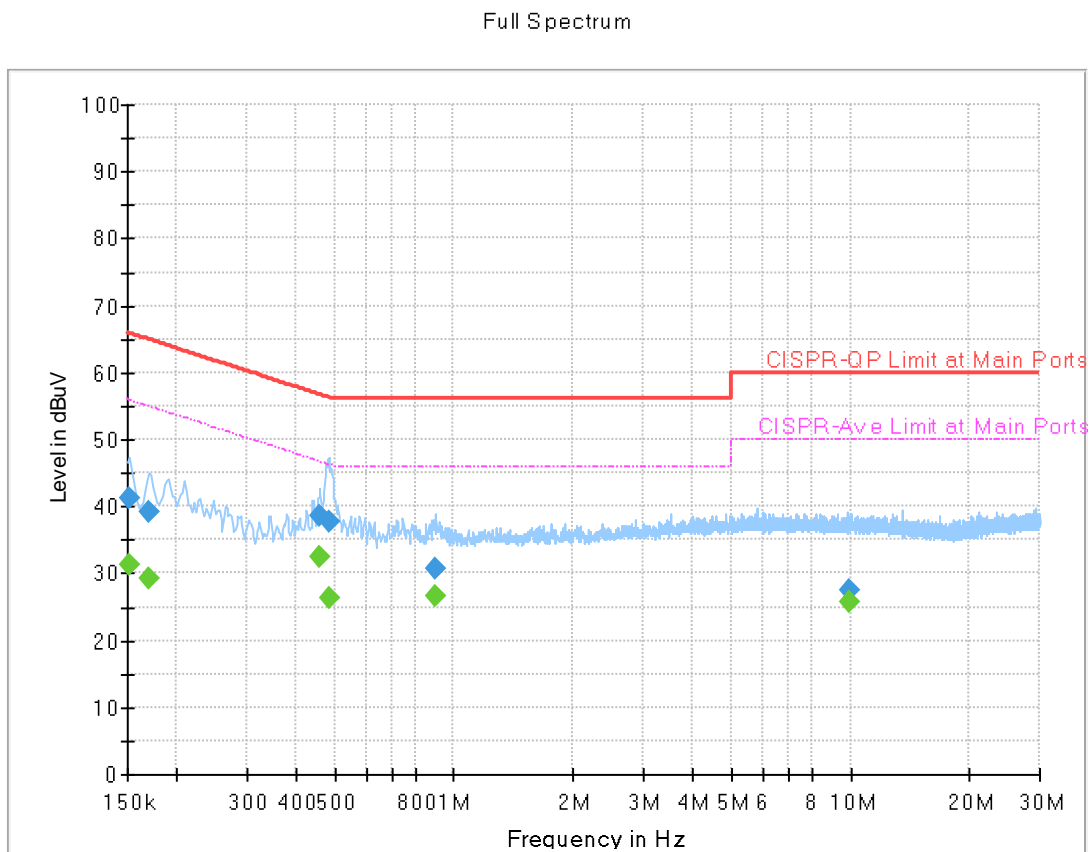


AMN = Artificial mains network (LISN)
 AE = Associated equipment
 EUT = Equipment under test
 ISN = Impedance stabilization network



4.5 Test Result of AC Conducted Emission

Test Engineer :	Calvin Wang	Temperature :	23~26°C
		Relative Humidity :	45~55%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Test mode :	Mode 1: 60G Tx (LRP)_Channel Index 2_CH4 + USB Cable (Charging from AC Adapter)		

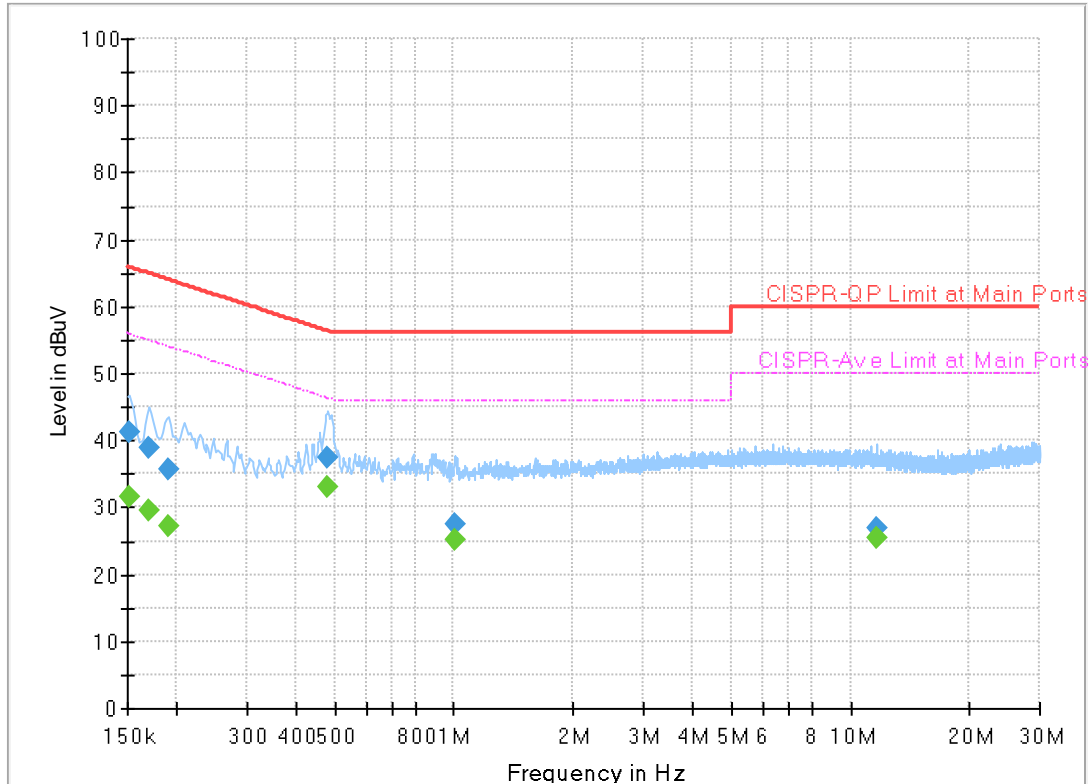


Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	31.33	55.88	24.55	L1	OFF	19.9
0.152250	41.23	---	65.88	24.65	L1	OFF	19.9
0.170250	---	29.16	54.95	25.79	L1	OFF	19.9
0.170250	39.05	---	64.95	25.90	L1	OFF	19.9
0.458250	---	32.42	46.72	14.30	L1	OFF	19.9
0.458250	38.65	---	56.72	18.07	L1	OFF	19.9
0.483000	---	26.34	46.29	19.95	L1	OFF	19.9
0.483000	37.58	---	56.29	18.71	L1	OFF	19.9
0.899250	---	26.48	46.00	19.52	L1	OFF	19.9
0.899250	30.83	---	56.00	25.17	L1	OFF	19.9
9.894750	---	25.68	50.00	24.32	L1	OFF	20.2
9.894750	27.36	---	60.00	32.64	L1	OFF	20.2



Test Engineer :	Calvin Wang	Temperature :	23~26°C
		Relative Humidity :	45~55%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Test mode :	Mode 1: 60G Tx (LRP)_Channel Index 2_CH4 + USB Cable (Charging from AC Adapter)		

Full Spectrum



Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	31.60	55.88	24.28	N	OFF	19.9
0.152250	41.19	---	65.88	24.69	N	OFF	19.9
0.170250	---	29.40	54.95	25.55	N	OFF	19.9
0.170250	38.96	---	64.95	25.99	N	OFF	19.9
0.190500	---	27.15	54.02	26.87	N	OFF	19.9
0.190500	35.61	---	64.02	28.41	N	OFF	19.9
0.478500	---	33.00	46.37	13.37	N	OFF	19.9
0.478500	37.53	---	56.37	18.84	N	OFF	19.9
1.002750	---	25.11	46.00	20.89	N	OFF	19.9
1.002750	27.48	---	56.00	28.52	N	OFF	19.9
11.640750	---	25.43	50.00	24.57	N	OFF	20.3
11.640750	26.96	---	60.00	33.04	N	OFF	20.3



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LOOP Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 20, 2022	Apr. 11, 2023~ Apr. 28, 2023	Sep. 19, 2023	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 08, 2022	Apr. 11, 2023~ Apr. 28, 2023	Oct. 07, 2023	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Aug. 24, 2022	Apr. 11, 2023~ Apr. 28, 2023	Aug. 23, 2023	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA9170	00991	18GHz~40GHz	May 14, 2022	Apr. 11, 2023~ Apr. 28, 2023	May 13, 2023	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 09, 2022	Apr. 11, 2023~ Apr. 28, 2023	Dec. 08, 2023	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 09, 2022	Apr. 11, 2023~ Apr. 28, 2023	Nov. 08, 2023	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03	1710001800 055007	1GHz~18GHz	Jun. 15, 2022	Apr. 11, 2023~ Apr. 28, 2023	Jun. 14, 2023	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Apr. 11, 2023~ Apr. 28, 2023	Jun. 27, 2023	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 07, 2022	Apr. 11, 2023~ Apr. 28, 2023	Oct. 06, 2023	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Oct. 18, 2022	Apr. 11, 2023~ Apr. 28, 2023	Oct. 17, 2023	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Apr. 11, 2023~ Apr. 28, 2023	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Apr. 11, 2023~ Apr. 28, 2023	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Apr. 11, 2023~ Apr. 28, 2023	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Apr. 11, 2023~ Apr. 28, 2023	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz~40GHz	Mar. 07, 2023	Apr. 11, 2023~ Apr. 28, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801595/2	30MHz~40GHz	Mar. 07, 2023	Apr. 11, 2023~ Apr. 28, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 07, 2023	Apr. 11, 2023~ Apr. 28, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	30M~40G	Mar. 07, 2023	Apr. 11, 2023~ Apr. 28, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN11	1.53G Low Pass	Sep. 12, 2022	Apr. 11, 2023~ Apr. 28, 2023	Sep. 11, 2023	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000- 60SS	SN3	3GHz High Pass Filter	Sep. 12, 2022	Apr. 11, 2023~ Apr. 28, 2023	Sep. 11, 2023	Radiation (03CH11-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101009	9kHz to 44GHz	Nov. 22, 2022	Apr. 06, 2023~ Apr. 22, 2023	Nov. 21, 2023	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z60	100986	40GHz to 60GHz	Apr. 09, 2021	Apr. 06, 2023~ Apr. 22, 2023	Apr. 08, 2024	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z75	101557	50 GHz to 75 GHz	Apr. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Apr. 05, 2024	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	FSZ-90	101811	60GHz to 90GHz	Nov 16, 2021	Apr. 06, 2023~ Apr. 22, 2023	Nov 15, 2024	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z140	101128	90GHz to 140GHz	Oct. 26, 2020	Apr. 06, 2023~ Apr. 22, 2023	Oct. 25, 2023	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z220	101014	140GHz to 220GHz	Dec. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Dec. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-UPRR00	QWH-UPRR 00-01	40-60 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-VPRR00	1371800009	50-75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-VPRR00	1371800008	50-75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-EPRR00	1372000000	60-90 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-FPRR00	1011500008	90-140 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-GPRR00	QWH-GPRR 00-01	140-220 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 22, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801589/2	N/A	Nov. 29, 2022	Apr. 06, 2023~ Apr. 22, 2023	Nov. 28, 2023	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801607/2	N/A	Nov. 29, 2022	Apr. 06, 2023~ Apr. 22, 2023	Nov. 28, 2023	Radiation (03CH18-HY)
Amplifier	Quinstars	QLW-50754530 -I2	953600006	50 ~ 75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 09, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Detector	Quinstars	QEA-FBFBVP	2672009	50 ~ 75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 09, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Oscilloscope	Rohde & Schwarz	RTO 1002	400025	600MHz, 10GSa/sec	Sep. 20, 2022	Apr. 06, 2023~ Apr. 09, 2023	Sep. 19, 2023	Radiation (03CH18-HY)
Power Meter	Agilent	E4416A	GB43312306	N/A	Apr. 12, 2022	Apr. 06, 2023~ Apr. 09, 2023	Apr. 11, 2023	Radiation (03CH18-HY)
Power Sensor	Keysight	V8486A	MY60170002	50 ~ 75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 09, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Signal Generator	Anritsu	MG3710A	6261943042	100kHz ~ 40GHz	May 23, 2022	Apr. 06, 2023~ Apr. 09, 2023	May 22, 2023	Radiation (03CH18-HY)
Active Frequency Multiplier	Eravant	SFA-50375341 6-15KF-E1	03099-01	50 ~ 75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 09, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Attenuator	SAGE	STA-30-15-M2	18953-02	50 ~ 75 GHz	Jul. 06, 2021	Apr. 06, 2023~ Apr. 09, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Thermal Chamber	ESPEC	SU-641	92013721	-30°C ~70°C	Oct. 17, 2022	Apr. 20, 2023~ Apr. 22, 2023	Oct. 16, 2023	Radiation (03CH18-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Sep. 16, 2022	Apr. 22, 2023	Sep. 15, 2023	Radiation (03CH18-HY)



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	Mar. 28, 2023	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2022	Mar. 28, 2023	Nov. 30, 2023	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2022	Mar. 28, 2023	Nov. 16, 2023	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 17, 2022	Mar. 28, 2023	Nov. 16, 2023	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Mar. 28, 2023	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Aug. 01, 2022	Mar. 28, 2023	Jul. 31, 2023	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 29, 2022	Mar. 28, 2023	Dec. 28, 2023	Conduction (CO05-HY)



6 Measurement Uncertainty

Test Item	Uncertainty
AC Power Conducted Emission Measurement (150 kHz ~ 30 MHz)	±3.50dB
Radiated Emission Measurement (9 kHz ~ 30 MHz)	±3.90dB
Radiated Emission Measurement (30 MHz ~ 1000 MHz)	±6.30dB
Radiated Emission Measurement (1 GHz ~ 6 GHz)	±4.40dB
Radiated Emission Measurement (6 GHz ~ 18 GHz)	±4.80dB
Radiated Emission Measurement (18 GHz ~ 40 GHz)	±5.30dB
Radiated Emission Measurement (40 GHz ~ 140 GHz)	±5.64dB
Radiated Emission Measurement (140 GHz ~ 200 GHz)	±6.62dB

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)