

FCC Test Report

Report No.: 2605P02622EA

Applicant: CHINA DRAGON TECHNOLOGY LIMITED

Address: B4 Bldg, Haosan No.1 Industry Park, Shajing Street, Bao'an District, Shenzhen 518104 China

Product Name: 60G Radar module

Product Model: R601T3R03

Multiple Models: N/A

Trade Mark: N/A

FCC ID: ROWR2

Standards: 47 CFR Part 15, Subpart C(15.255)

Test Date: 2026-01-27 to 2026-04-08

Test Result: Complied

Report Date: 2026-04-10

Reviewed by:

James Fu

James Fu
Project Engineer

Approved by:

Jacob Kong

Jacob Kong
Manager

Prepared by:

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China



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Revision History

Version No.	Issued Date	Description
00	2026-04-10	Original

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1 General Information

1.1 Client Information

Applicant:	CHINA DRAGON TECHNOLOGY LIMITED
Address:	B4 Bldg, Haosan No.1 Industry Park, Shajing Street, Bao'an District, Shenzhen 518104 China
Manufacturer:	CHINA DRAGON TECHNOLOGY LIMITED
Address:	B4 Bldg, Haosan No.1 Industry Park, Shajing Street, Bao'an District, Shenzhen 518104 China

1.2 Product Description of EUT

The EUT is 60G Radar module that contains 60GHz Radar radio, this report covers the full testing of the 60GHz Radar.

Sample Serial Number	3GFY-1 (assigned by WATC)
Sample Received Date	2026-01-22
Sample Status	Good Condition
Frequency Range	58-61.0GHz
Peak EIRP	11.97dBm
Modulation Technology	FMCW
Chirps Time [#]	128us
Antenna Gain [#]	5.0dBi
Spatial Streams [#]	1TX3RX
Power Supply	DC 4.5-5.5V(Typical DC 5.0V)
Adapter Information	N/A
Modification	Sample No Modification by the test lab

1.3 Antenna information

15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
Device Antenna information:	
The Radar antenna is integral antenna which cannot replace by end-user. Please see product internal photos for details.	

1.4 Related Submittal(s)/Grant(s)

No Related Submittal(s)/Grant(s)

1.5 Measurement Uncertainty

Parameter		Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
AC Power Lines Conducted Emissions		±3.14dB
Emissions, Radiated	Below 30MHz	±2.78dB
	Below 1GHz	±4.84dB
	1~40GHz	±5.44dB
	40~60GHz	±4.83dB
	60~90GHz	±4.94dB
	90~140GHz	±5.46dB
	140~220GHz	±6.00dB
	220~325GHz	±7.35dB
EIRP		±4.94dB
Frequency Error		150Hz
Bandwidth		0.34%
Duty Cycle		1%
Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.		

1.6 Laboratory Location

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

1.7 Test Methodology

FCC CFR 47 Part 15.255

KDB 364244 D01 Meas 15.255 Radars v01r01

ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024

2 Description of Measurement

2.1 Test Configuration

The system was configured for testing in production version with highest transmitter activity (on time), which was provided by the manufacturer.

According to KDB 364244 D01 Meas 15.255 Radars v01r01, for radar transmitters employing FMCW or other frequency-agile techniques, the requisite RF parameters shall be measured with the active frequency sweep, hop, or step function.

The device was operating in frequency of 58-61GHz using FMCW modulation, so the measurement was performed with the device operate at swept frequency mode in 58-61GHz range.

Worst-Case Configuration:

For radiated emissions, EUT was investigated in three orthogonal orientations, the worst-case orientation was recorded in report

For radiated emissions below 30MHz, three antenna orientations (parallel, perpendicular, ground-parallel) were tested, only record the worse case test data in report.

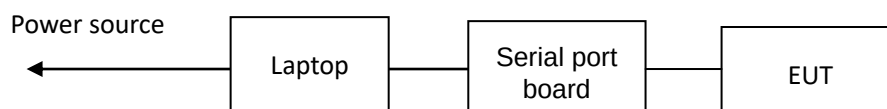
2.2 Test Auxiliary Equipment

Manufacturer	Description	Model	Serial Number
unknown	Serial port board	unknown	unknown
Dell	laptop	P48F	6DCCRC2
Dell	Adapter	FA90PM111	unknown

2.3 Interconnecting Cables

Manufacturer	Description	Length(m)	From	To
unknown	Serial port board flat cable	0.3	Serial port board	EUT
Dell	Power cable	1.7	adapter	laptop
Dell	Power cable	1.0	Power source	adapter

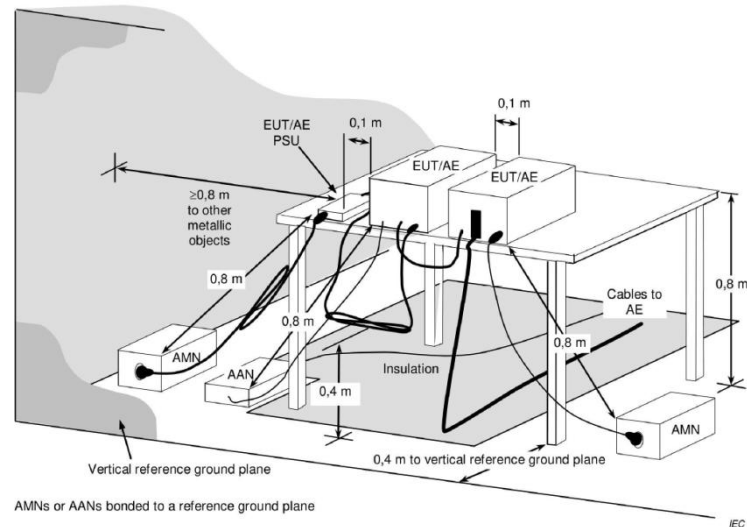
2.4 Block Diagram of Connection between EUT and AE



Note: for reference only, the actual connection setup used for testing please refer to the test photos.

2.5 Test Setup

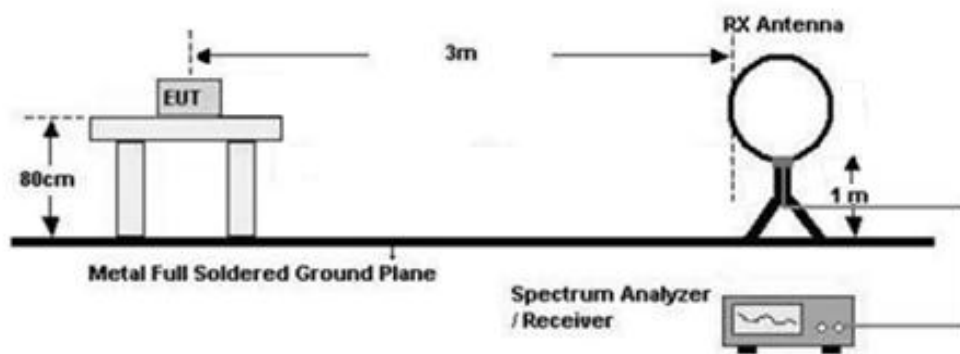
1) Conducted emission measurement:



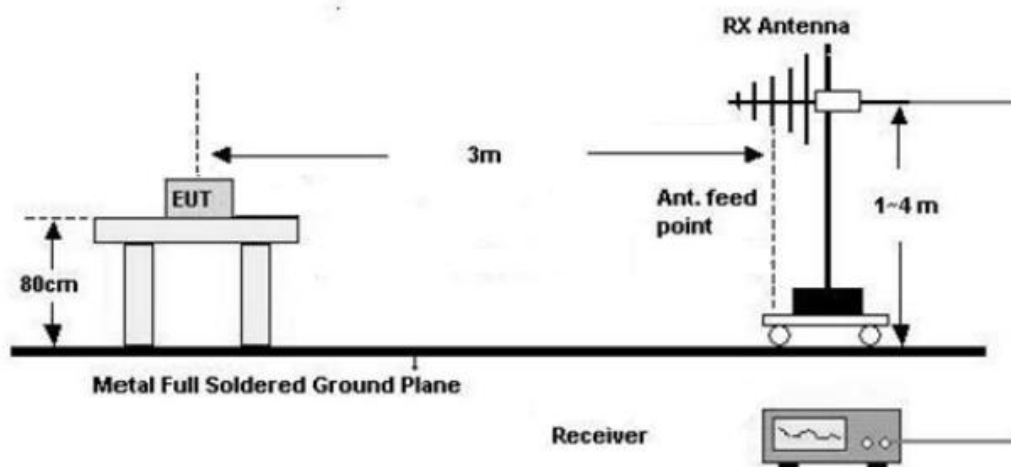
Note: The 0.8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be >0.8 m.

2) Radiated emission measurement:

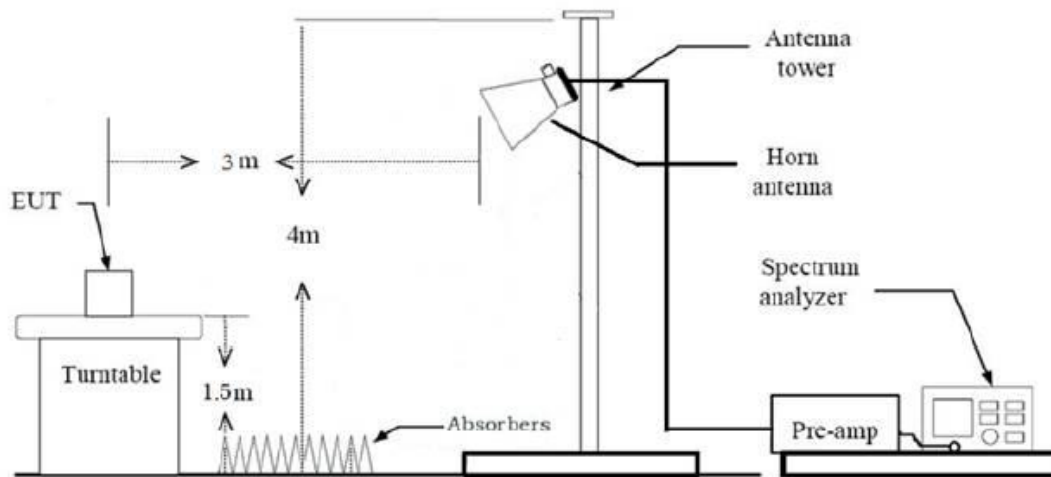
Below 30MHz (3m SAC)



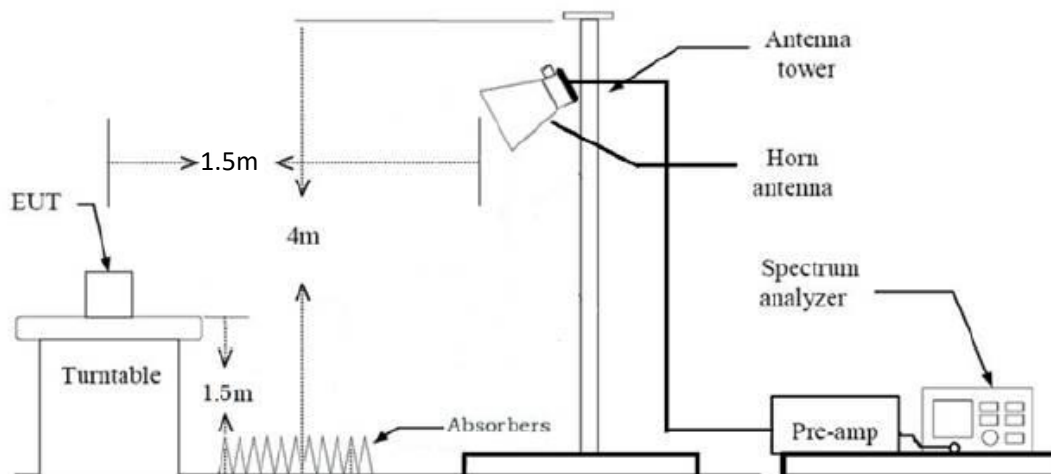
30MHz-1GHz (3m SAC)



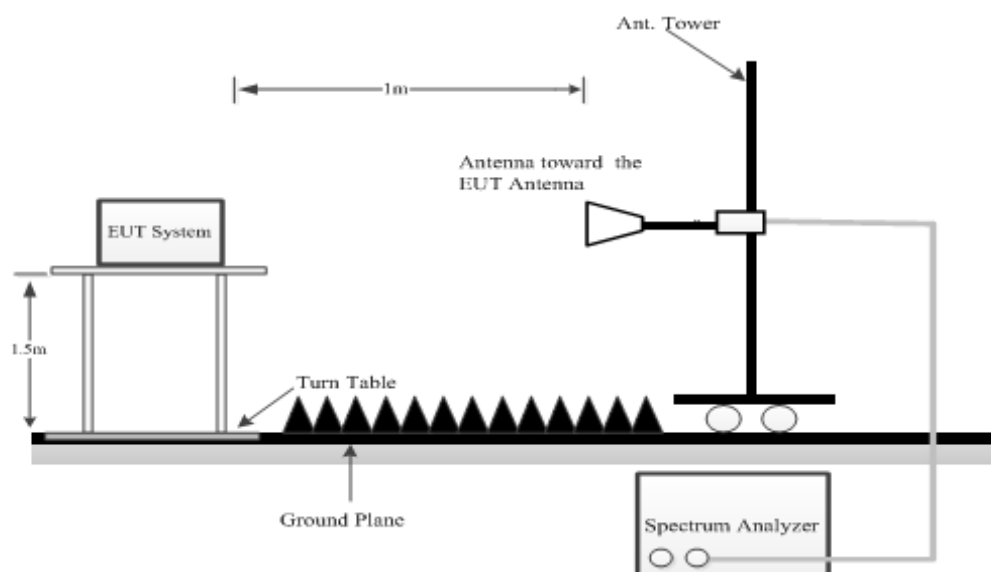
1GHz-18GHz



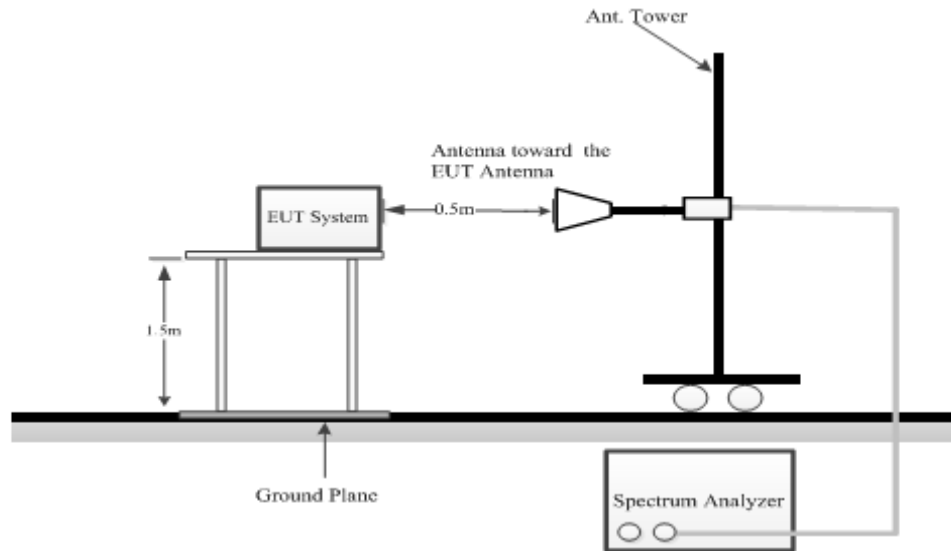
18GHz~40GHz



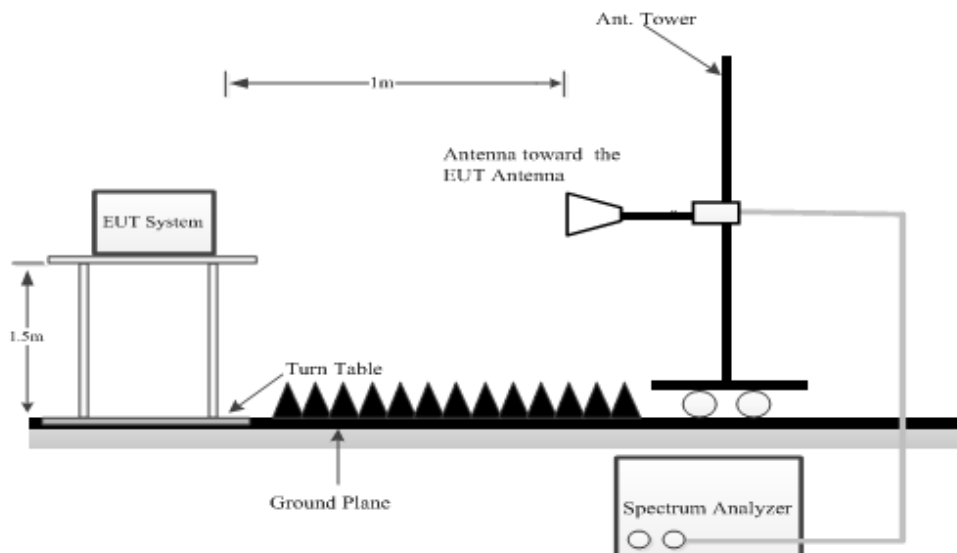
40GHz~90GHz



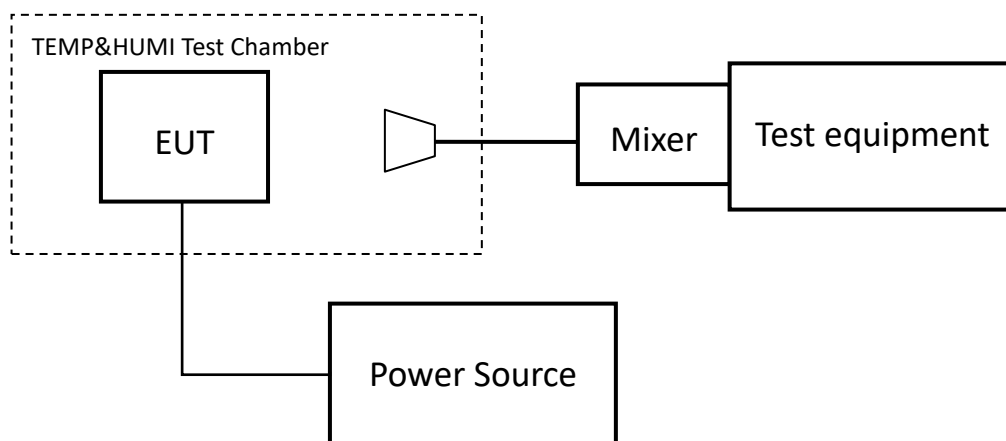
90GHz~200GHz



3) Emission Bandwidth measurement:



4) Frequency Stability measurement:



2.6 Test Procedure

Conducted emission:

1. The E.U.T is placed on a non-conducting table 40cm from the vertical ground plane and 80cm above the horizontal ground plane (Please refer to the block diagram of the test setup and photographs).
2. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.
3. Line conducted data is recorded for both Line and Neutral

Radiated Emission Procedure:

a) For below 30MHz

1. All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz- 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were $40 \cdot \log(\text{test distance} / \text{specification distance})$.
2. Loop antenna use, investigation was done on the three antenna orientations (parallel, perpendicular, ground-parallel)
3. The RBW/VBW of receiver is set to 200Hz/1kHz for 9kHz to 150kHz range, to 9kHz/30kHz for 150kHz to 30MHz range for scan Peak emission, 200Hz/9kHz IF BW was used for final measurement in the Quasi-peak or average detection mode for frequency range 9~150kHz/150kHz~30MHz respectively.
4. If the Peak emission complies with the QP limit, then perform final measurement is optional.

b) For 30MHz-1GHz:

1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.
2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.
3. The RBW/VBW of receiver is set to 100kHz/300kHz for scan Peak emission, 120kHz IF BW was used for final measurement in the Quasi-peak detection mode.
4. If the Peak emission complies with the QP limit, then perform final measurement is optional.

c) For above 1GHz:

1. The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m chamber. The measurement distance from the EUT to the receiving antenna is 3 m (1-18GHz) and 1.5 m (18GHz-40GHz).
2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
4. Base on FCC 15.31 (f): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.
5. For above 40GHz, External harmonic mixers are utilized. The antenna is scanned around the entire perimeter surface of the EUT, in both horizontal and vertical polarizations. The Mixers and it's RF cables is compose a system for calibration, the conversion factor was added into the test Spectrum Analyzer in testing.
6. According to ANSI C63.10-2020, the far-field boundary is $R_m = 2D^2 / \lambda$
Where:
D is the largest dimension of the antenna aperture in m and
 λ is the free-space wavelength in m at the frequency of measurement.
7. The minimum test distance for the frequency range 40GHz-200GHz determine as below:

Model	Frequency Range (GHz)	Largest Dimension of the Horn Antenna (mm)	Minimum Test Distance R_m (m)
M19RH	40-60	46.3	0.86
861V/385	50-75	43.7	0.95
M12RH	60-90	30.02	0.54
M08RH	90-140	19.7	0.36
M05RH	140-220	12.5	0.23

Note: the test distances used were 1.0 m from 40 GHz to 90 GHz, and 0.5 m from 90 GHz to 200GHz, it can be seen that the EUT was always in the Far-field of the Receive Antenna during all Radiated Emissions Tests.

Bandwidth Test:

1. Use the same setup for radiated above 1GHz, found the maximum fundamental level.
2. Change the spectrum analyzer setting for bandwidth testing
3. Test the bandwidth and record the result

Output Power Test:

1. Use the same setup for radiated above 1GHz, found the maximum fundamental level.
2. Correct the power reading from the spectrum analyzer for any external gain and/or attenuation between the measurement antenna and the spectrum analyzer.
3. For FMCW emissions, correct the peak level by apply the Desensitization factor according to ANSI C63.10-2020 Annex L.
4. Calculate the EIRP from the corrected result from above
5. Where applicable, calculate conducted output power from the EIRP

Frequency Stability Test:

a) Frequency Stability VS temperature Test:

1. The EUT was supply power with normal voltage and placed in the center of the environmental chamber
2. Adjust the location of the measurement antenna to obtain a suitable signal level in measurement

instrument

3. Turn off the EUT and set the temperature control on the chamber to the highest specified in the regulatory requirements and allow the chamber temperature to stabilize.
4. While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency
5. Switch OFF the EUT, Lower the chamber temperature by not more than 10 °C, and allow the temperature inside the chamber to stabilize
6. Repeat step 4 and step 5 down to the lowest specified temperature

b) Frequency Stability VS Voltage Test:

1. EUT was placed at ambient room temperature (+15 °C to +25 °C) and connect to a power source which can vary supply voltage
2. Adjust the location of the measurement antenna to obtain a suitable signal level in measurement instrument
3. Varying the supply voltage at 85% and 115% of the nominal supply voltage, record the operating frequency

2.7 Measurement Method

Description of Test	Measurement Method
AC Line Conducted Emissions	ANSI C63.10-2020 Section 6.2
Peak EIRP and Transmitter Off-times	ANSI C63.10-2020 Section 9.6&9.7&9.8
99% Occupied Bandwidth	ANSI C63.10-2020 Section 9.4
Frequency Stability	ANSI C63.10-2020 Section 9.5
Spurious emissions	ANSI C63.10-2020 Section 6.3&6.4&6.5&6.6&9.6&9.7&9.10&9.11

2.8 Measurement Equipment

Manufacturer	Description	Model	Management No.	Calibration Date	Calibration Due Date
AC Line Conducted Emission Test					
ROHDE& SCHWARZ	EMI TEST RECEIVER	ESR	101817	2025/5/23	2026/5/22
R&S	LISN	ENV216	101748	2025/5/23	2026/5/22
N/A	Coaxial Cable	NO.12	N/A	2025/5/23	2026/5/22
Farad	Test Software	EZ-EMC	Ver. EMEC-3A1	/	/
Radiated Emission and EIRP Test					
R&S	EMI test receiver	ESR3	102758	2025/5/23	2026/5/22
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2025/5/23	2026/5/22
SONOMA INSTRUMENT	Low frequency amplifier	310	186014	2025/9/19	2026/9/18
A.H. Systems	PREAMPLIFIER	PAM-0118P	531	2025/9/19	2026/9/18
COM-POWER	Amplifier	PAM-840A	461306	2025/9/19	2026/9/18
BACL	Loop Antenna	1313-1A	4010611	2024/2/7	2027/2/6
SCHWARZBECK	Log - periodic wideband antenna	VULB 9163	9163-872	2023/7/7	2026/7/6
Astro Antenna Ltd	Horn antenna	AHA-118S	3015	2023/7/6	2026/7/5
Ducommun technologies	Horn Antenna	ARH-4223-02	1007726-03	2023/7/10	2026/7/9
Ducommun technologies	Horn Antenna	ARH-2823-02	1007726-03	2023/7/10	2026/7/9
N/A	Coaxial Cable	NO.9	N/A	2025/9/19	2026/9/18
N/A	Coaxial Cable	NO.13	N/A	2025/9/19	2026/9/18
N/A	Coaxial Cable	NO.15	N/A	2025/9/19	2026/9/18
N/A	Coaxial Cable	NO.16	N/A	2025/9/19	2026/9/18
Audix	Test Software	E3	191218 V9	/	/
Agilent	Waveguide Mixer	11970V	A011767	2023/2/16	2026/2/15
Flann Microwave	Horn Antenna	24245-AB	26	2023/2/27	2026/2/26
Agilent	Spectrum Analyzer	E4440A	MY44303368	2025/7/31	2026/7/30
Resenberger	Coaxial Cable	LU7-022-1000	NO.31	2025/2/28	2026/2/27
Resenberger	Coaxial Cable	LU7-022-1000	NO.32	2025/2/28	2026/2/27
OML	Waveguide Mixer	WR19/M19HWD	U60313-01	2023/2/16	2026/2/15
OML	Horn Antenna	M19RH	11648-01	2023/2/27	2026/2/26
OML	Waveguide Mixer	WR12/M12HWD	E60120-01	2023/2/16	2026/2/15
OML	Horn Antenna	M12RH	E60120-02	2023/2/27	2026/2/26

OML	Waveguide Mixer	WR08/M08HWD	F60313-01	2023/2/16	2026/2/15
OML	Horn Antenna	M08RH	F60313-02	2023/2/27	2026/2/26
OML	Waveguide Mixer	WR05/M05HWD	G60106-01	2023/2/16	2026/2/15
OML	Horn Antenna	M05RH	G60106-02	2023/2/27	2026/2/26
Bandwidth Measurement					
Agilent	Waveguide Mixer	11970V	A011767	2026/2/15	2029/2/14
Flann Microwave	Horn Antenna	24245-AB	26	2026/2/26	2029/2/25
Agilent	Spectrum Analyzer	E4440A	MY44303368	2025/7/31	2026/7/30
Resenberger	Coaxial Cable	LU7-022-1000	NO.31	2026/2/27	2027/2/26
Resenberger	Coaxial Cable	LU7-022-1000	NO.32	2026/2/27	2027/2/26
Frequency Stability Test					
Agilent	Waveguide Mixer	11970V	A011767	2026/2/15	2029/2/14
Flann Microwave	Horn Antenna	861V/385	736-1	2026/2/26	2029/2/25
Agilent	Spectrum Analyzer	E4440A	MY44303368	2025/7/31	2026/7/30
Resenberger	Coaxial Cable	LU7-022-1000	NO.31	2026/2/27	2027/2/26
Resenberger	Coaxial Cable	LU7-022-1000	NO.32	2026/2/27	2027/2/26
BACL	TEMP&HUMI Test Chamber	BTH-150	30022	2024/11/6	2025/11/5
FLUKE	Digital Multimeter	15B+	N/A	2024/11/6	2025/11/5
UNI-T	DC Power Supply	UTP1310S	C221286498	/	/

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.

3 Test Results

3.1 Test Summary

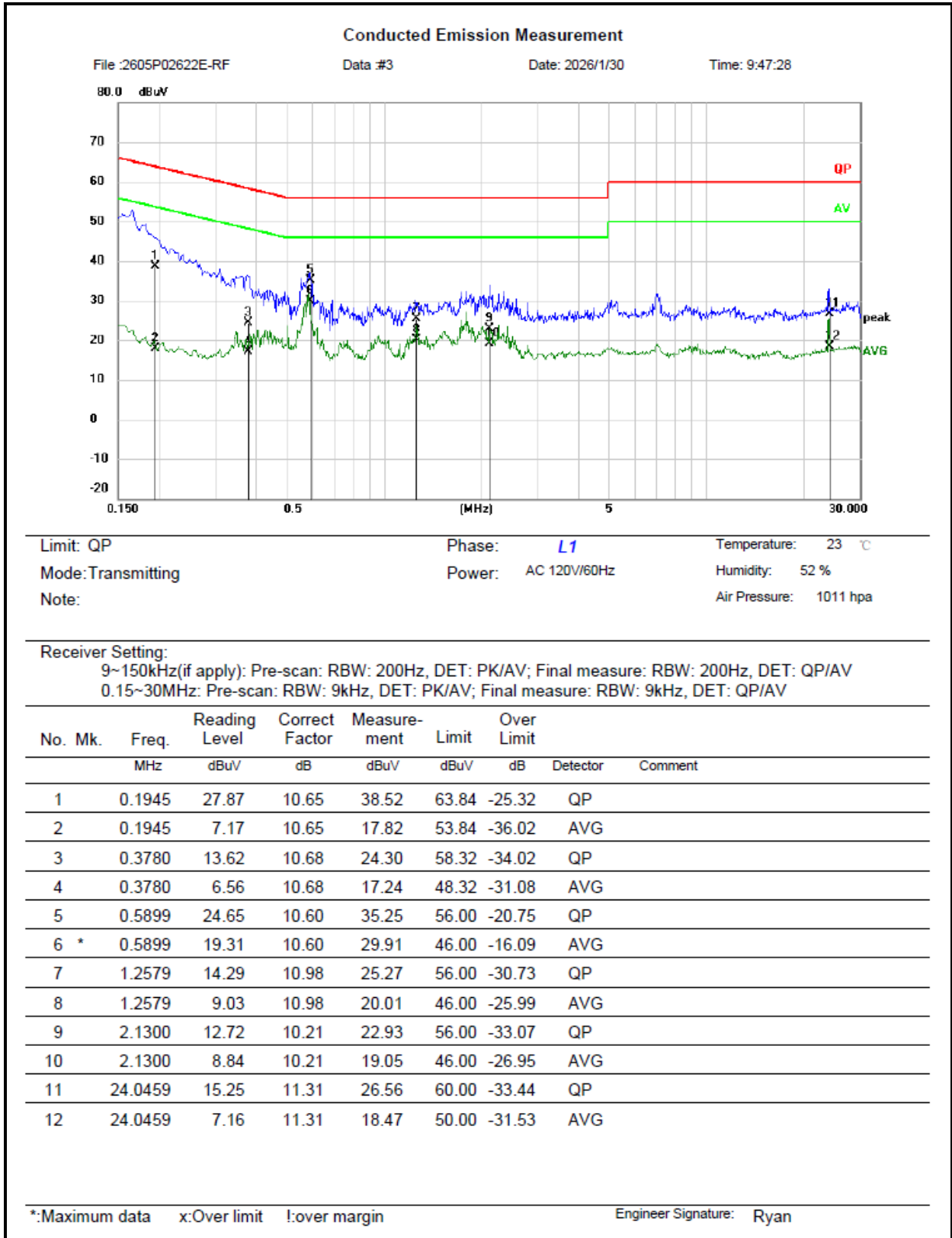
FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.255(c)(2)(ii)	Peak EIRP and Transmitter Off-times	Compliance
§15.215, §15.255 (e)	99% Occupied Bandwidth	Compliance
§15.255 (f)	Frequency Stability	Compliance
§15.255 (h)	Group Installation	Compliance
§15.205, §15.209, §15.255(d)	Radiated emission	Compliance

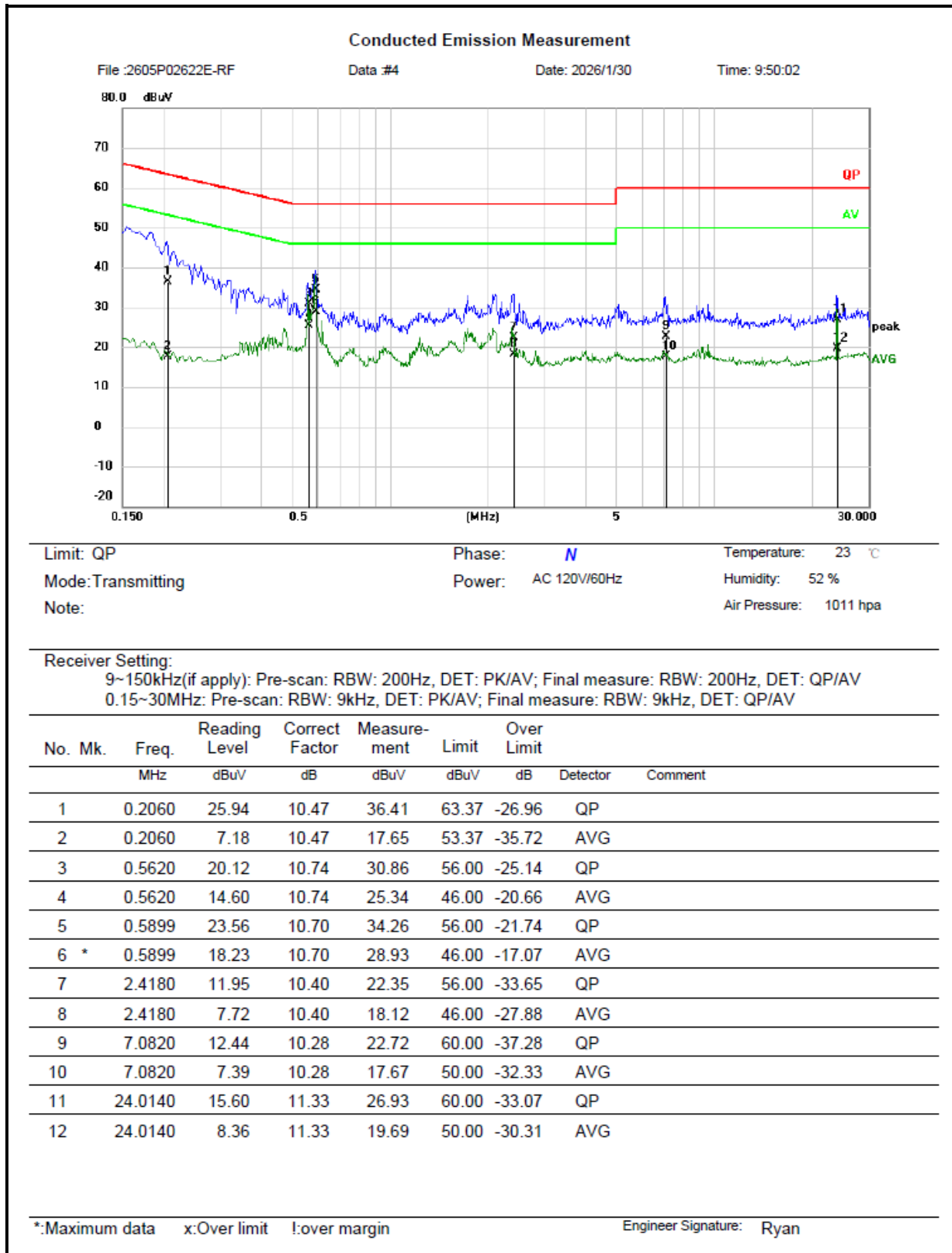
3.2 Limit

Test items	Limit
AC Line Conducted Emissions	See details §15.207 (a)
Peak EIRP And Transmitter Off-times	57.0–61.56 GHz: the peak EIRP shall not exceed 3 dBm except that the peak EIRP shall not exceed 20 dBm if the sum of continuous transmitter off-times of at least two milliseconds equals at least 16.5 milliseconds within any contiguous interval of 33 milliseconds
Emission Bandwidth	KDB 364244 Meas 15.255 Radars v01r01 For other than pulsed radar transmitters, the fundamental emission bandwidth is presumed to be "...the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage $\beta/2$ of the total mean power of a given emission. Unless otherwise specified in an ITU–R Recommendation for the appropriate class of emission, the value of $\beta/2$ should be taken as 0.5%," as defined in §2.1(c) of the FCC rules. This is also known as the 99% occupied bandwidth (OBW)
Radiated Emissions	Limits on spurious emissions: (1) The power density of any emissions outside the 57-71 GHz band shall consist solely of spurious emissions. (2) Radiated emissions below 40 GHz shall not exceed the general limits in § 15.209. (3) Between 40 GHz and 200 GHz, the level of these emissions shall not exceed 90 pW/cm ² at a distance of 3 meters. (4) The levels of the spurious emissions shall not exceed the level of the fundamental emission.
Frequency Stability	Fundamental emissions must be contained within the frequency bands specified in this section during all conditions of operation. Equipment is presumed to operate over the temperature range –20 to + 50 degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

3.3 AC Line Conducted Emissions Test Data

Test Date:	2026-01-30	Test By:	Ryan Zhang
Environment condition:	Temperature: 23°C; Relative Humidity: 52%; ATM Pressure: 101.1kPa		





Remark:

Measurement (dBuV)= Reading Level (dBuV) + Correct Factor(dB)

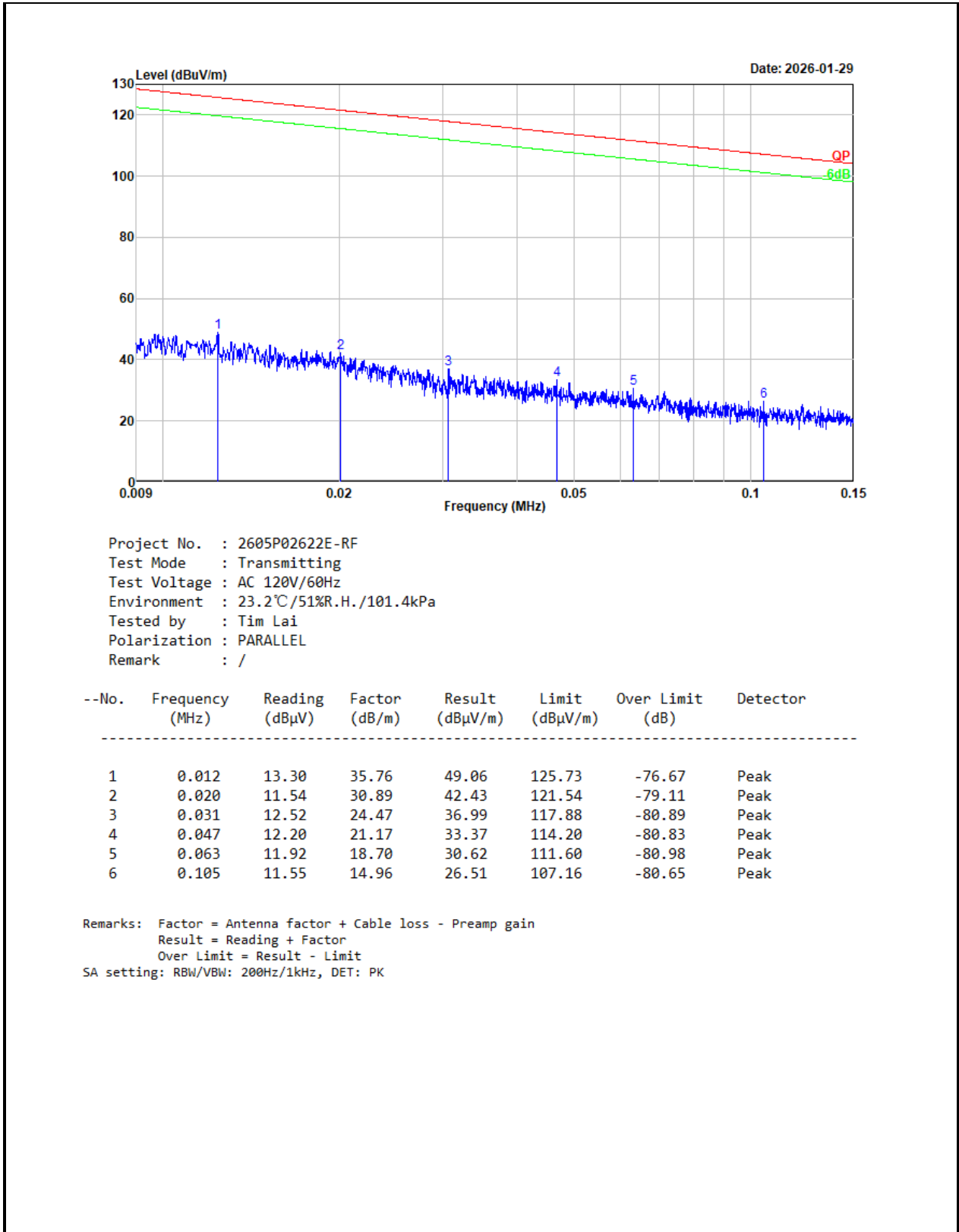
Correct Factor (dB)= LISN Voltage Division Factor (dB)+ Cable loss(dB)

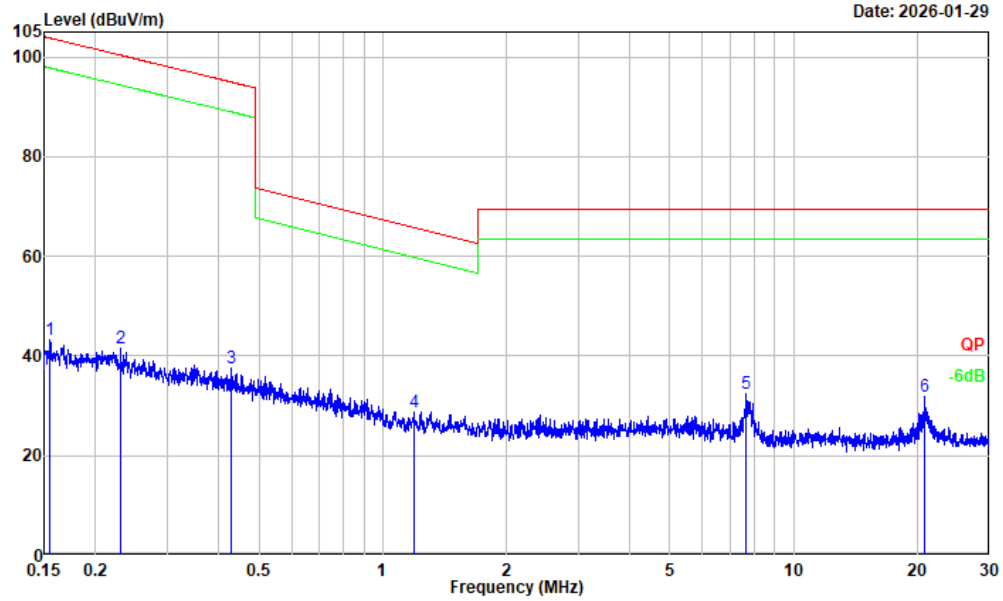
Over Limit = Measurement – Limit

3.4 Radiated emission Test Data

9 kHz-30MHz:

Test Date:	2026-01-29	Test By:	Tim Lai
Environment condition:	Temperature: 23.2°C; Relative Humidity: 51%; ATM Pressure: 101.4kPa		





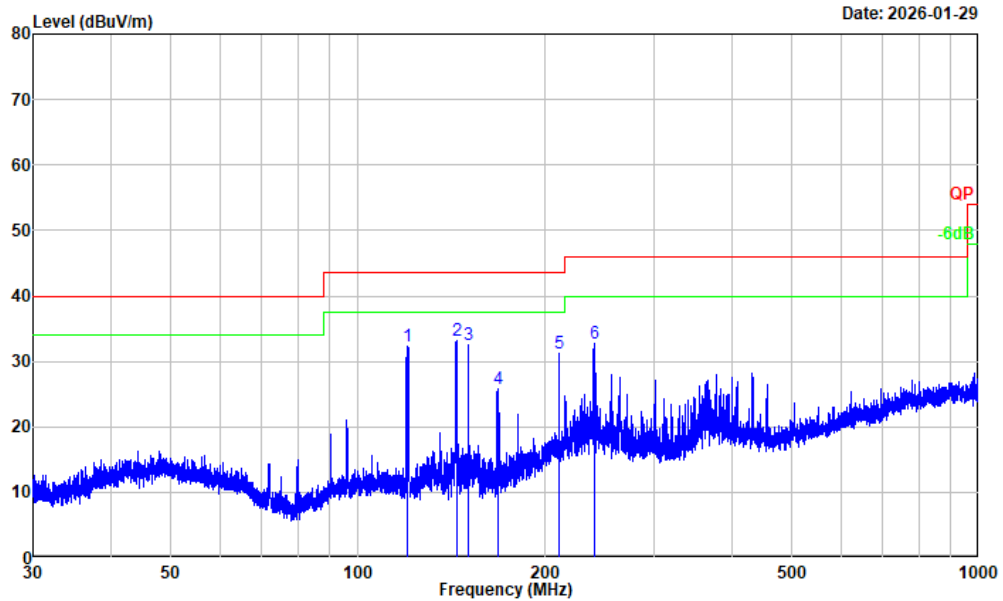
Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : PARALLEL
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	0.155	29.72	13.52	43.24	103.78	-60.54	Peak
2	0.231	30.05	11.39	41.44	100.34	-58.90	Peak
3	0.429	30.49	7.02	37.51	94.95	-57.44	Peak
4	1.195	28.92	-0.05	28.87	65.89	-37.02	Peak
5	7.673	36.28	-3.87	32.41	69.54	-37.13	Peak
6	20.887	34.95	-3.16	31.79	69.54	-37.75	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: RBW/VBW: 10kHz/30kHz, DET: PK

30MHz-1GHz:

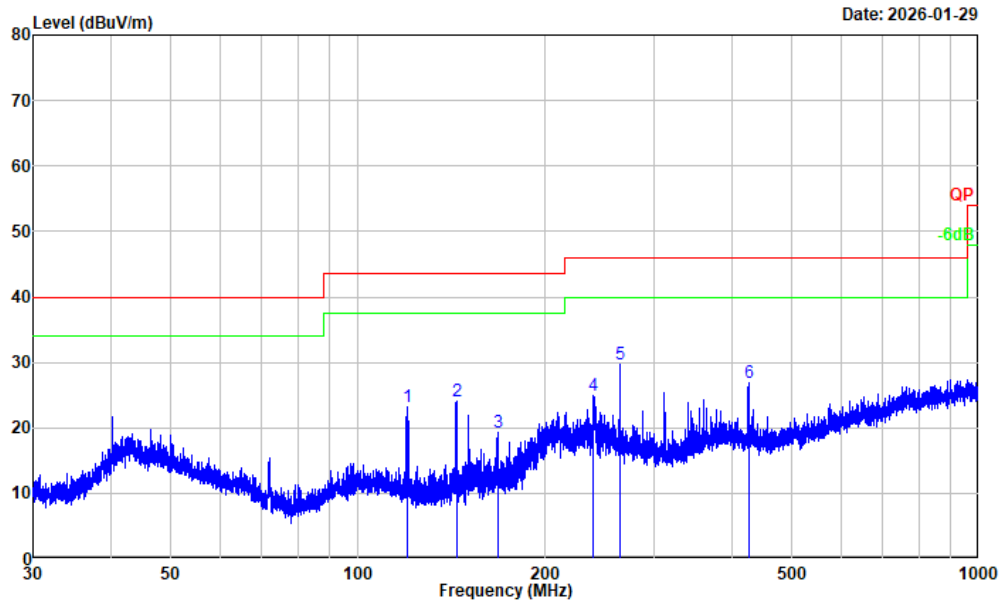
Test Date:	2026-01-29	Test By:	Tim Lai
Environment condition:	Temperature: 23.2°C; Relative Humidity: 51%; ATM Pressure: 101.4kPa		



Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : horizontal
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	120.224	48.03	-15.78	32.25	43.50	-11.25	Peak
2	144.651	50.67	-17.47	33.20	43.50	-10.30	Peak
3	150.802	49.81	-17.25	32.56	43.50	-10.94	Peak
4	168.045	42.13	-16.35	25.78	43.50	-17.72	Peak
5	211.249	45.05	-13.80	31.25	43.50	-12.25	Peak
6	240.303	45.39	-12.64	32.75	46.00	-13.25	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Pre-scan: RBW/VBW: 100kHz/300kHz, DET: PK
Final measure: RBW: 120kHz, DET: QP



Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : vertical
Remark : /

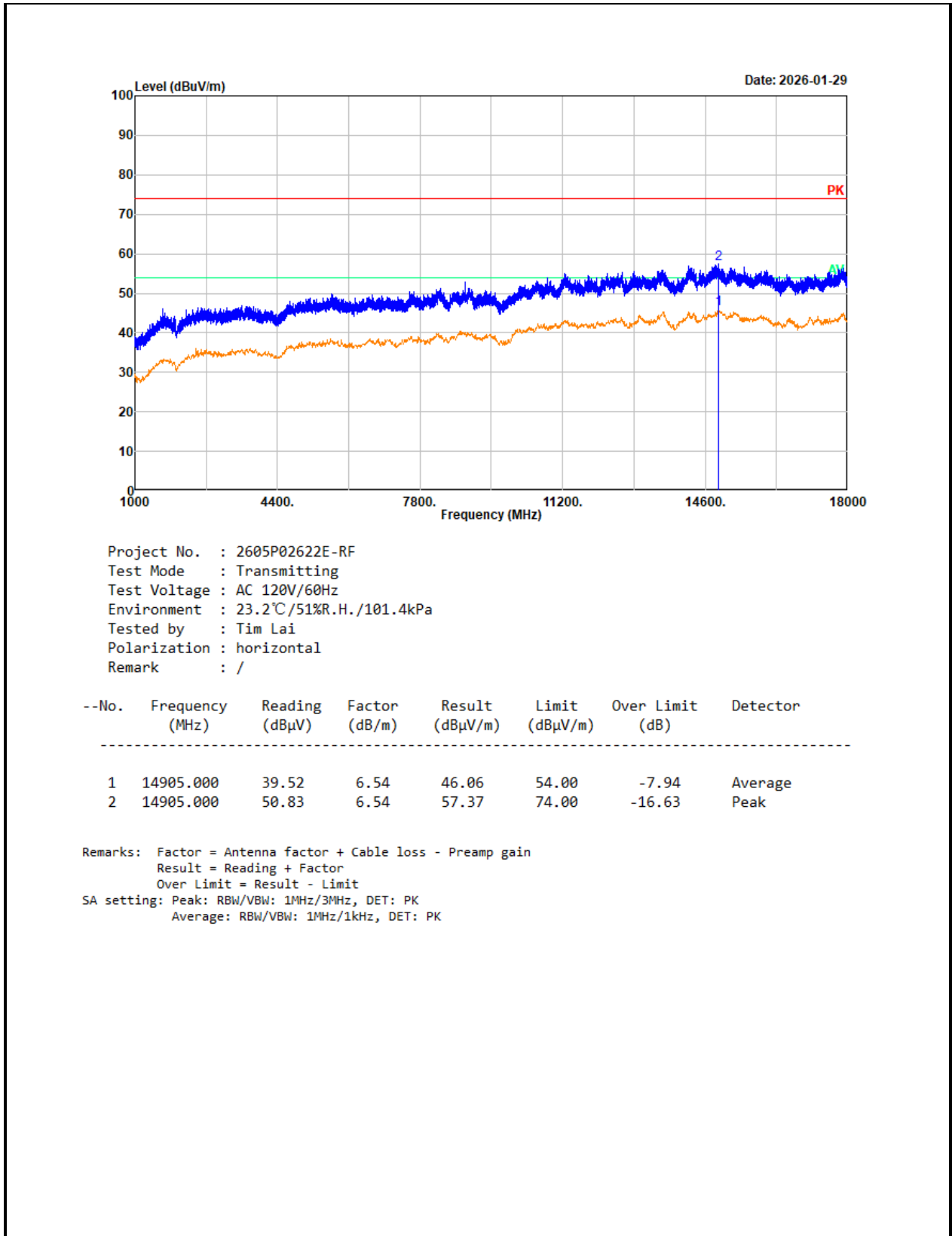
--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector

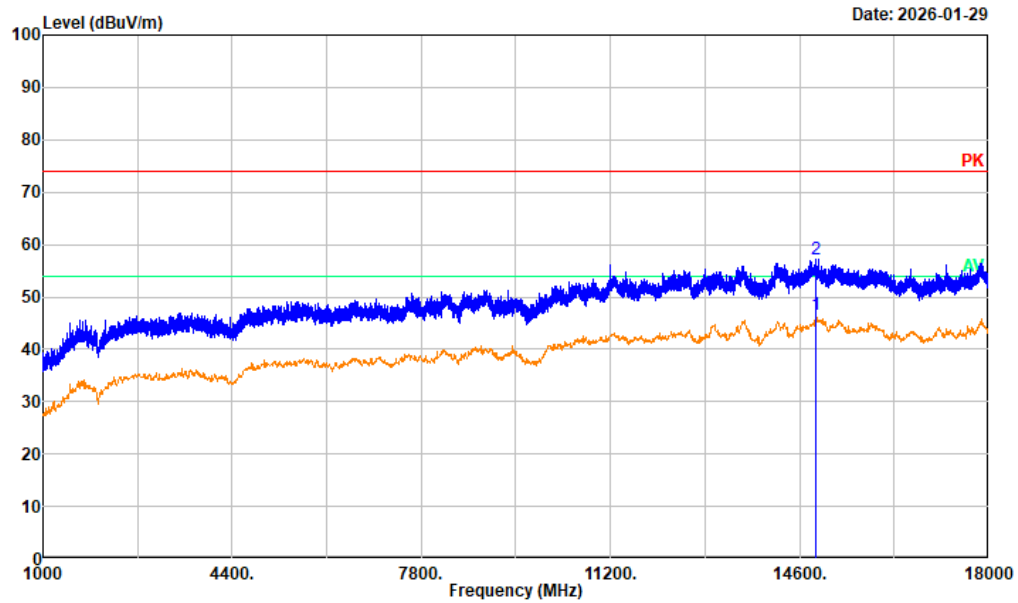
1	120.013	38.97	-15.74	23.23	43.50	-20.27	Peak
2	144.208	41.50	-17.47	24.03	43.50	-19.47	Peak
3	168.193	35.72	-16.33	19.39	43.50	-24.11	Peak
4	239.777	37.54	-12.65	24.89	46.00	-21.11	Peak
5	264.050	41.68	-12.07	29.61	46.00	-16.39	Peak
6	426.334	35.25	-8.28	26.97	46.00	-19.03	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Pre-scan: RBW/VBW: 100kHz/300kHz, DET: PK
Final measure: RBW: 120kHz, DET: QP

1~40GHz:

Test Date:	2026-01-29	Test By:	Tim Lai
Environment condition:	Temperature: 23.2°C; Relative Humidity: 51%; ATM Pressure: 101.4kPa		

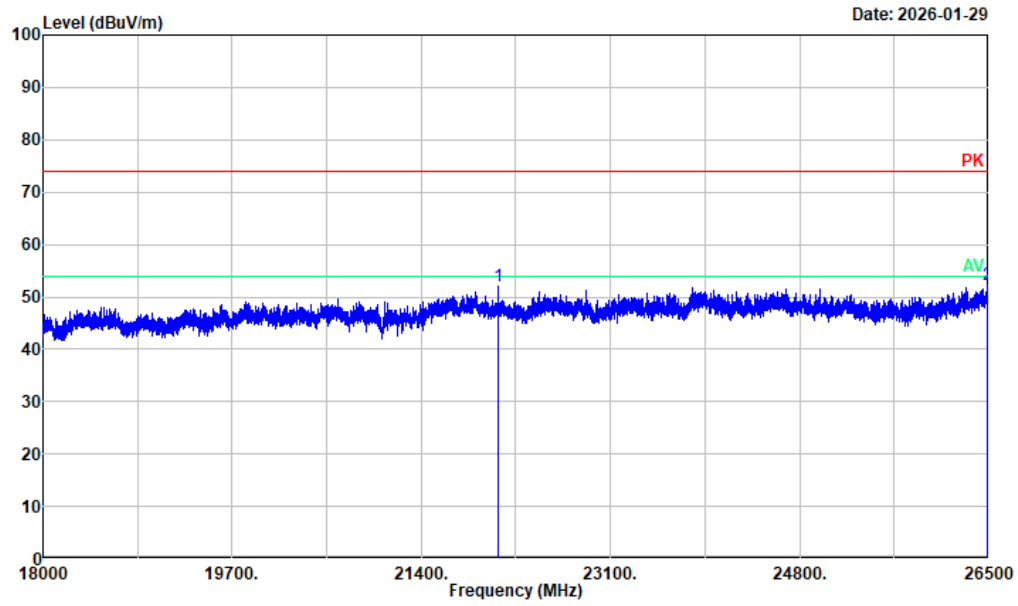




Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : vertical
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	14887.000	40.02	6.54	46.56	54.00	-7.44	Average
2	14887.000	50.59	6.54	57.13	74.00	-16.87	Peak

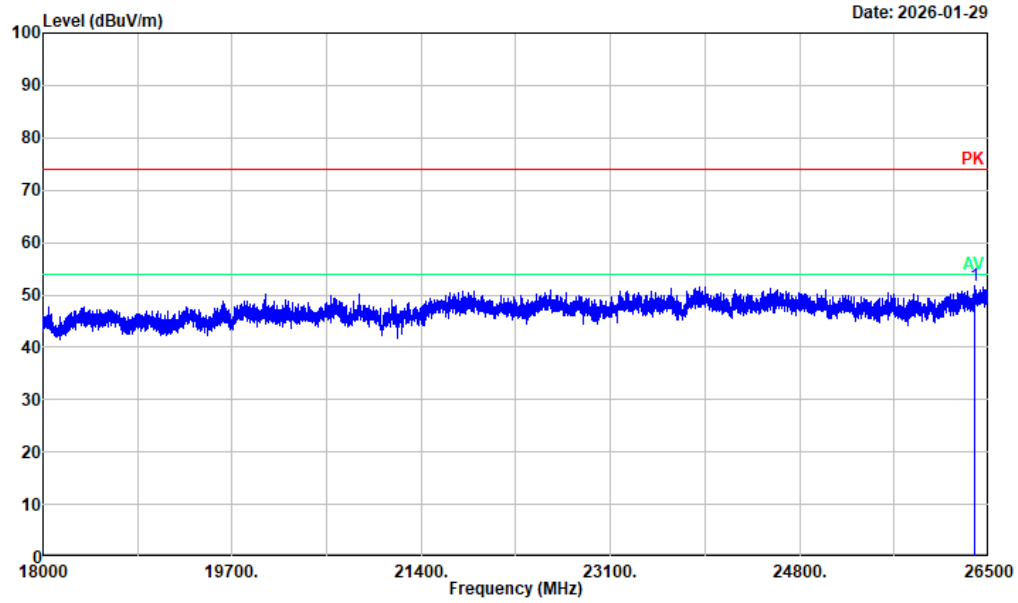
Remarks: Factor = Antenna factor + Cable loss - Preamp gain
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VBW: 1MHz/3MHz, DET: PK
Average: RBW/VBW: 1MHz/1kHz, DET: PK



Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : horizontal
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	22087.000	54.90	-2.92	51.98	74.00	-22.02	Peak
2	26491.000	51.58	0.59	52.17	74.00	-21.83	Peak

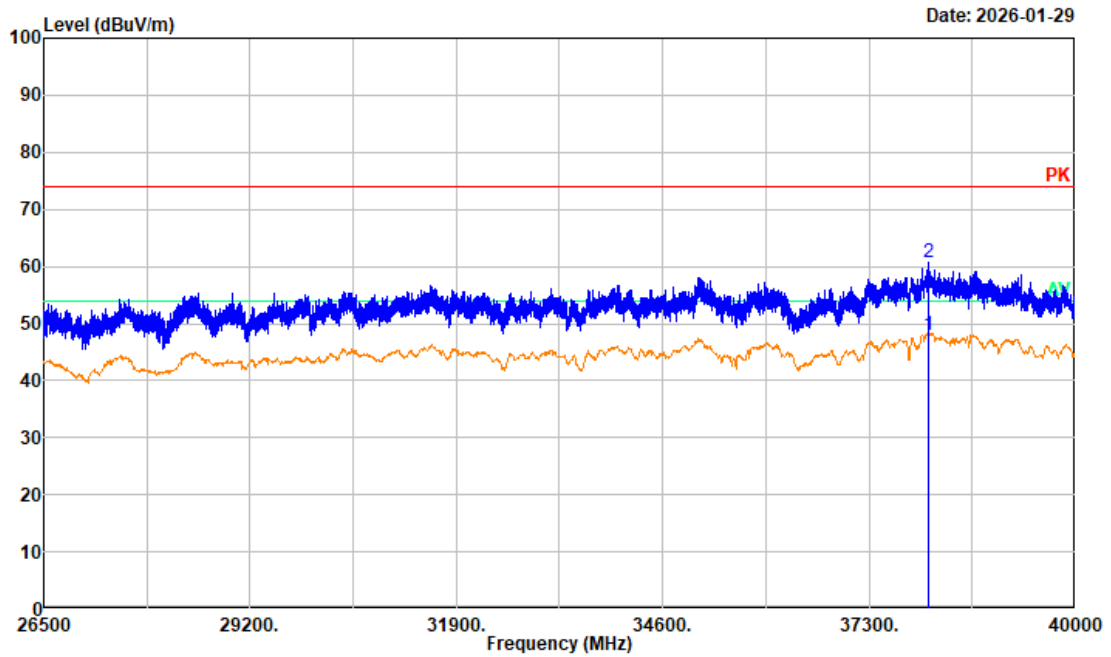
Remarks: Factor = Antenna factor + Cable loss - Preamp gain - Distance extrapolate factor
Distance extrapolate factor = $20 \cdot \log(\text{specified distance}/\text{measured distance})$
Specified distance = 3 meters, measured distance = 1.5 meters
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VBW: 1MHz/3MHz, DET: PK



Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : vertical
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	26375.000	51.39	0.38	51.77	74.00	-22.23	Peak

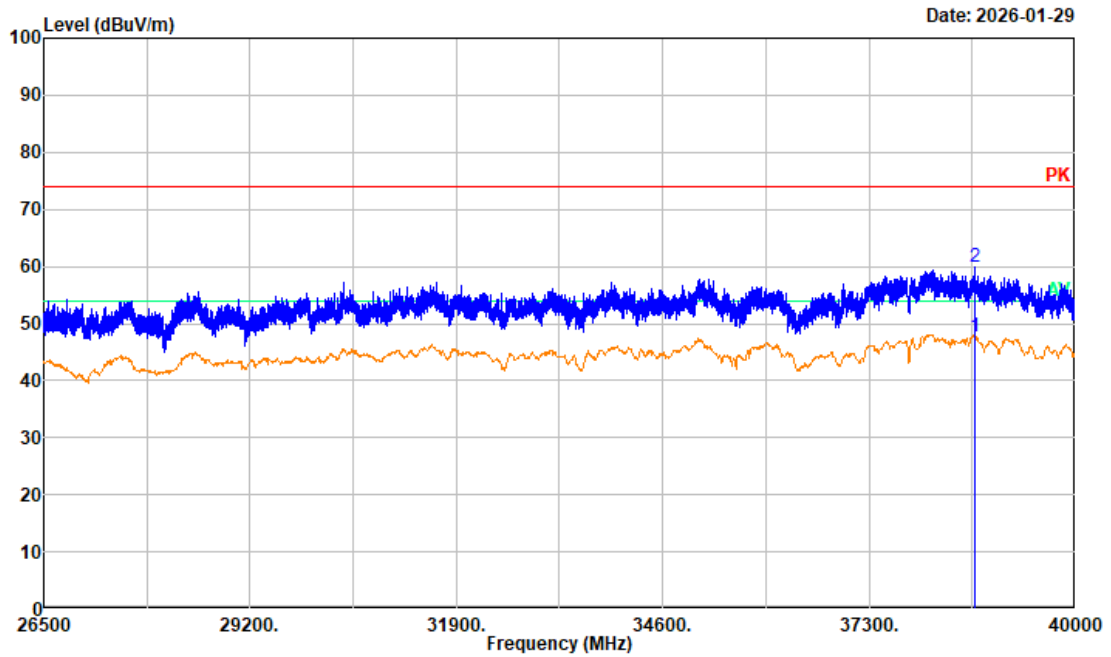
Remarks: Factor = Antenna factor + Cable loss - Preamp gain - Distance extrapolate factor
Distance extrapolate factor = $20 \cdot \log(\text{specified distance}/\text{measured distance})$
Specified distance = 3 meters, measured distance = 1.5 meters
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VBW: 1MHz/3MHz, DET: PK



Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : horizontal
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	38069.000	33.56	14.33	47.89	54.00	-6.11	Average
2	38069.000	46.33	14.33	60.66	74.00	-13.34	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain - Distance extrapolate factor
Distance extrapolate factor = $20 \times \log(\text{specified distance}/\text{measured distance})$
Specified distance = 3 meters, measured distance = 1.5 meters
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VBW: 1MHz/3MHz, DET: PK
Average: RBW/VBW: 1MHz/1kHz, DET: PK



Project No. : 2605P02622E-RF
Test Mode : Transmitting
Test Voltage : AC 120V/60Hz
Environment : 23.2°C/51%R.H./101.4kPa
Tested by : Tim Lai
Polarization : vertical
Remark : /

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	38688.000	35.98	11.77	47.75	54.00	-6.25	Average
2	38688.000	48.17	11.77	59.94	74.00	-14.06	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain - Distance extrapolate factor
Distance extrapolate factor = $20 \times \log(\text{specified distance}/\text{measured distance})$
Specified distance = 3 meters, measured distance = 1.5 meters
Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VBW: 1MHz/3MHz, DET: PK
Average: RBW/VBW: 1MHz/1kHz, DET: PK

40GHz-200GHz:

Test Date:	2026-01-27	Test By:	Luke Li
Environment condition:	Temperature: 22°C; Relative Humidity:59%; ATM Pressure: 101.4kPa		

Frequency (GHz)	Reading (dBμV)	Polar (H/V)	Factor (dB/m)	Field Strength@3m (dBμV/m)	Power Density (pW/cm ²)	Limit (pW/cm ²)
45.330	50.16	H	39.62	80.24	28.03	90.00
46.420	50.69	V	39.79	80.94	32.94	90.00
66.540	51.85	H	42.93	85.24	88.65	90.00
66.110	51.63	V	42.86	84.95	82.92	90.00
96.590	50.86	H	45.92	81.22	35.13	90.00
95.390	50.48	V	45.77	80.69	31.09	90.00
161.230	49.65	H	49.82	83.91	65.26	90.00
161.420	49.88	V	49.83	84.15	68.97	90.00

Note:

Factor = Antenna Factor

E_{meas} = Reading + Factor

$E_{SpecLimit} = E_{meas} + 20\log(D_{Meas}/D_{SpecLimit})$

D_{Meas} is the measurement distance, in m

$D_{SpecLimit}$ is the distance specified by the limit, in m

The Specified distance is 3m, so Field Strength@3m= Reading + Factor + $20\log(D_{Meas}/3)$

Calculate the power density at the distance specified by the limit from the field strength at the distance specified by the limit using following Equation:

$$PD = \frac{E_{SpecLimit}^2}{377}$$

where

PD is the power density at the distance specified by the limit, in W/m²
 $E_{SpecLimit}$ is the field strength at the distance specified by the limit, in V/m

3.5 Peak EIRP and Transmitter Off-times

Test Date:	2026-01-27	Test By:	Luke Li
Environment condition:	Temperature: 22°C; Relative Humidity:59%; ATM Pressure: 101.4kPa		

Peak EIRP:

Reading (dBμV)	Detector	Polar (H/V)	Chirps Correction Factor (dB)	Antenna Factor (dB/m)	E-Field@1m (dBμV/m)	EIRP (dBm)	Limit (dBm)
64.95	PK	H	9.99	41.83	116.77	11.97	20.00

Note:

The Mixers and it's RF cables is compose a system for calibration and already added into the reading.

E-Field =Reading + Chirps Correction Factor +Antenna Factor

EIRP=E-Field+ 20log(Measurement distance)-104.8

Measurement distance =1m

The test data recorded was the maximum polarization

Chirps Correction Factor Calculation:

Chirp Time▲ (μs)	Span (MHz)	RBW (MHz)	CF _{chirp} (dB)
128	2878.54	1	9.99

Note:

Refer to ANSI C63.10:2020+Cor.1-2023 Annex L1. The chirps correction factor was calculated using the formula:

$$\alpha = \frac{1}{\left(1 + \left[\left(\frac{2 \times \ln(2)}{\pi}\right)^2 \times \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} \times RBW^2}\right)^2\right]\right)^{0.25}}$$

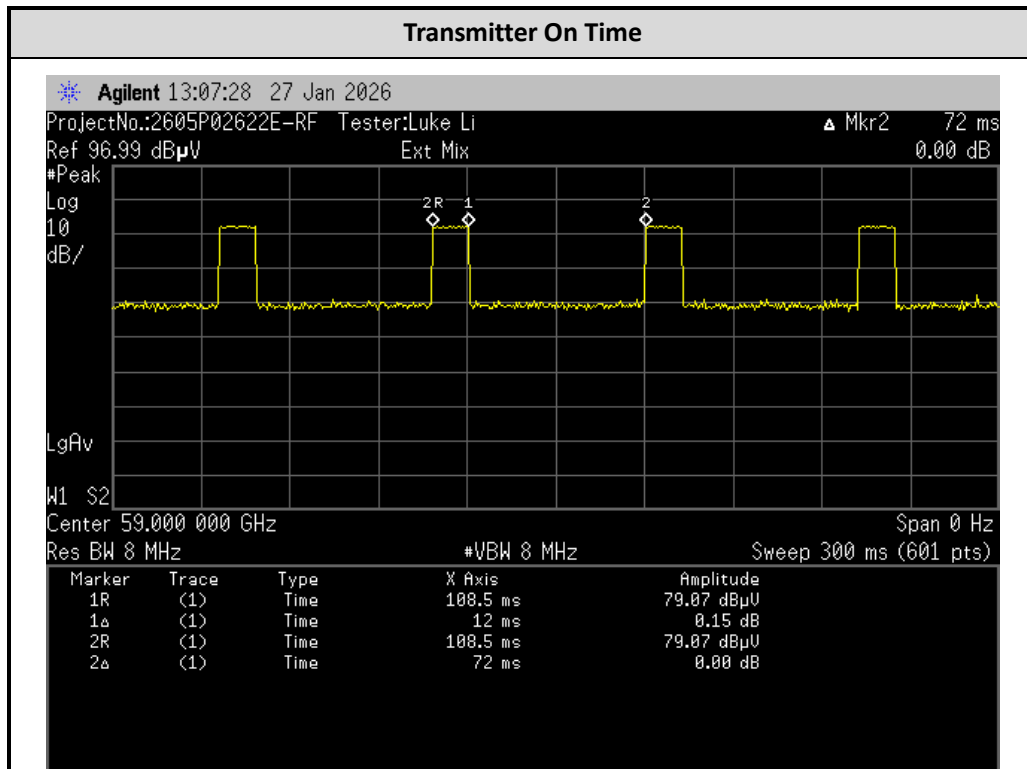
where

α is the reduction in amplitude
 BW_{Chirp} is the FMCW Chirp Bandwidth
 T_{Chirp} is the FMCW Chirp Time

Transmitter Off-times

Transmitter On (ms)	Observation Time (ms)	sum of continuous transmitter off-times (ms)	Limit (ms)
12	33	21	>16.5

Note: Sum of Continuous Transmitter Off-times= Observation Time(33ms) - Ton



3.6 Emission Bandwidth

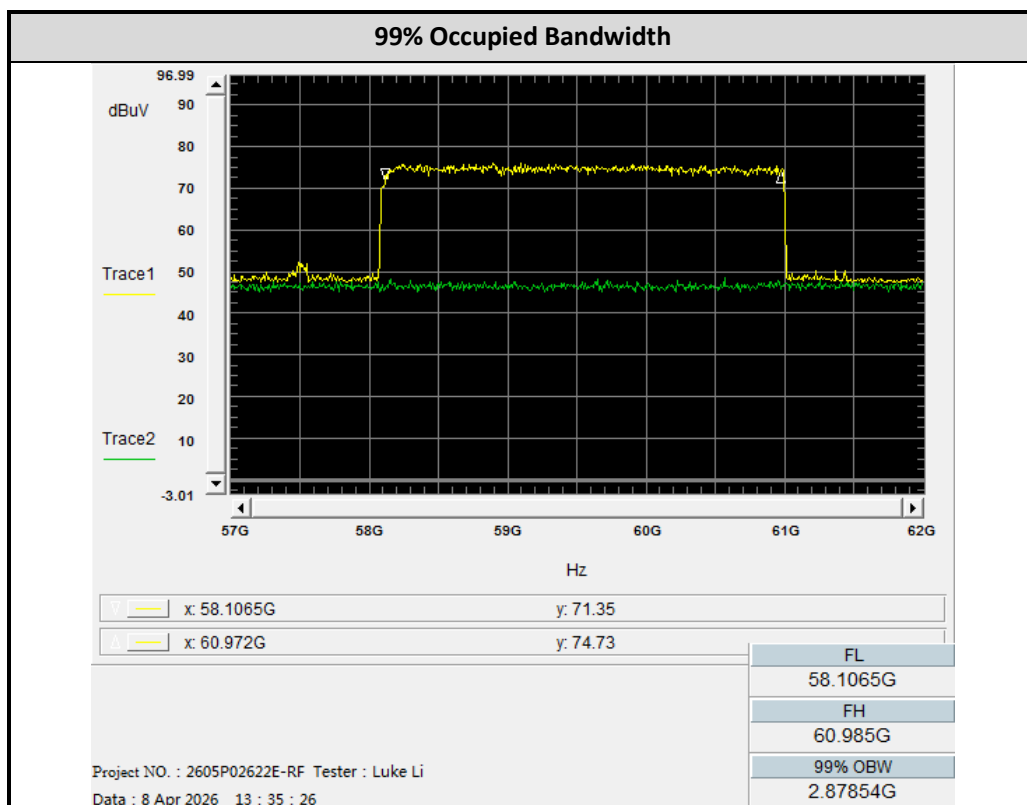
Test Date:	2026-04-08	Test By:	Luke Li
Environment condition:	Temperature: 24.7°C; Relative Humidity:54%; ATM Pressure: 100.5kPa		

99% Occupied Bandwidth (MHz)	F_L (GHz)	F_L Limit (GHz)	F_H (GHz)	F_H Limit (GHz)
2878.54	58.1065	57	60.985	61.56

Note:

F_L is the Low frequency of the 99% Occupied bandwidth.

F_H is the Upper frequency of the 99% Occupied bandwidth.



3.7 Frequency Stability

Test Date:	2026-04-08	Test By:	Luke Li
Environment condition:	Temperature: 24.7°C; Relative Humidity:54%; ATM Pressure: 100.5kPa		

Temperature °C	Voltage V _{DC}	Frequency (GHz)			
		f _L	f _H	f _L Limit	f _H Limit
-20	5	58.1035	60.9856	57	61.56
-10	5	58.1044	60.9842	57	61.56
0	5	58.1052	60.9839	57	61.56
10	5	58.1048	60.9858	57	61.56
20	5	58.1065	60.9850	57	61.56
30	5	58.1036	60.9869	57	61.56
40	5	58.1062	60.9841	57	61.56
50	5	58.1075	60.9868	57	61.56
20	4.5	58.1082	60.9838	57	61.56
20	5.5	58.1069	60.9844	57	61.56

3.8 Group Installtion

§15.255 (h)

Any transmitter that has received the necessary FCC equipment authorization under the rules of this chapter may be mounted in a group installation for simultaneous operation with one or more other transmitter(s) that have received the necessary FCC equipment authorization, without any additional equipment authorization. However, no transmitter operating under the provisions of this section may be equipped with external phase-locking inputs that permit beam-forming arrays to be realized.

Judgment: The frequency, amplitude and phase of the transmit signal are set within the EUT. There are no external phase-locking inputs or any other means of combining two or more units together to realize a beam-forming array.

4 Test Setup Photo

Please refer to the attachment 2605P02622E Test Setup photo.

5 E.U.T Photo

Please refer to the attachment 2605P02622E External photo and 2605P02622E Internal photo.

---End of Report---