

TEST REPORT

Applicant: Ziyang Freqty Medical Equipment Co., Ltd.

Address: Floor 2-3, unit 7, building 3, No.222, West Section 3, outer ring road, Yanjiang District, Ziyang City, Sichuan Province, P.R. China

Product Name: Intraoral Digital Impression Instrument

Model Name: PANDA free

Type of Equipment: Certification Ordinance Article 2-1-19-4-3

Test method(s): DSPR 60GHz 帶小電力データ通信システムの特性試験方法

Report Number: 2502X21152E-RF-07B

Report Date: 2026/3/10

The above device has been tested and found compliant with the requirement of the relevant standards by Bay Area Compliance Laboratories Corp. (Dongguan).

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1 - DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2502X21152E-RF-07B	Original Report	2026/3/10

2 - SUMMARY OF TEST RESULTS

Rules and clauses	Description of Test	Result
OR: Article 5, Annex 1.9	Frequency Tolerance and Frequency Range	Compliant
OR: Article 6, Annex 2.30	Occupied Bandwidth	Compliant
OR: Article 7, Annex 3.31	Unwanted Emission strength	Compliant
OR: Article 49-20, Article 14.9	Antenna Output Power, Tolerance and Antenna Gain	Compliant
OR: Article 24.2	Secondary Radiated Emission Strength	Compliant
OR: Article 9.4(9) RE: Article 6.2(3) Notice No.424	Interference Prevention Function	Compliant
OR: Article 49-20	Construction Protection Confirmation	Compliant
OR: Article 14-2; Notice No.31; Notice No.32	Radio waves exposed to the human	Compliant

Note:

OR: Ordinance Regulating radio equipment (November 30, 1950, Radio Regulatory Commission Regulations No.18)

RE: Regulations for Enforcement of the radio law (November 30, 1950, Radio Regulatory Commission Regulations No.14)

Notice No.424: MIC Notice No.424, 1994.

Notice No.31: MIC Notice No.31, 2019.

Notice No.32: MIC Notice No.32, 2019.

3 - GENERAL INFORMATION

3.1 Product Description for Equipment Under Test (EUT)

Product Name:	Intraoral Digital Impression Instrument
Test Model:	PANDA free
Rated Input Voltage:	3.65Vdc from battery or 12Vdc from Base
Serial Number:	3AR5-6
EUT Received Date:	2025/9/29
EUT Received Status:	Good

3.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

3.3 Technical Specification

Operation Frequency Range (GHz):	60.16-62.64
Nominal RF Output Power (Conducted, mW):	0.1
Antenna Gain (dBi)[▲]:	9.6
Modulation Type:	BPSK
Emission Type	G1D

3.4 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

3.5 Measurement Uncertainty

Parameter	Measurement Uncertainty
Frequency Error	±0.076 ppm
Occupied bandwidth and spreading bandwidth	±5 %
RF output power, conducted	±0.55dB
Unwanted Emissions, radiated	30MHz~1GHz: 5.12 dB, 1GHz~18GHz: 5.61 dB, 18GHz~26.5GHz: 5.33 dB, 26.5GHz~40GHz: 5.33 dB, 40~60G: 5.65dB, 60G~90G: 5.62dB, 90G-140G: 5.62dB, 140G-220G: 5.62dB, 220G-325G: 5.62dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%

Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

4 - EUT TEST CONFIGURATION

4.1 Description of Test Configuration

The system was configured for testing in engineering mode, which was provided by manufacturer. 4 channels are provided as below table:

Channel No.	Frequency(GHz)
0	60.16
1	60.32
2	62.48
3	62.64

The extreme voltage test conditions which were declared by the manufacturer and the normal conditions are as below:

The EUT in built a Power manage system, power deviation of the RF chipset is less than 1% when extreme voltage supplied, therefore the test only performed at normal voltage condition. Details as following:

Voltage Condition	EUT Input Voltage (V_{DC})	RF chipset input Voltage(V_{DC})
NV	3.65	3.3
LV	3	3.3
HV	4.2	3.3

4.2 EUT Exercise Software

The test was performed in engineering mode, which was provided by manufacturer. The maximum power level was configured by the software as below table:

Mode	Channel	Frequency (GHz)	Power level
60G	0	60.16	Default
	1	60.32	Default
	2	62.48	Default
	3	62.64	Default

4.3 Equipment Modifications

No modification was made to the EUT tested.

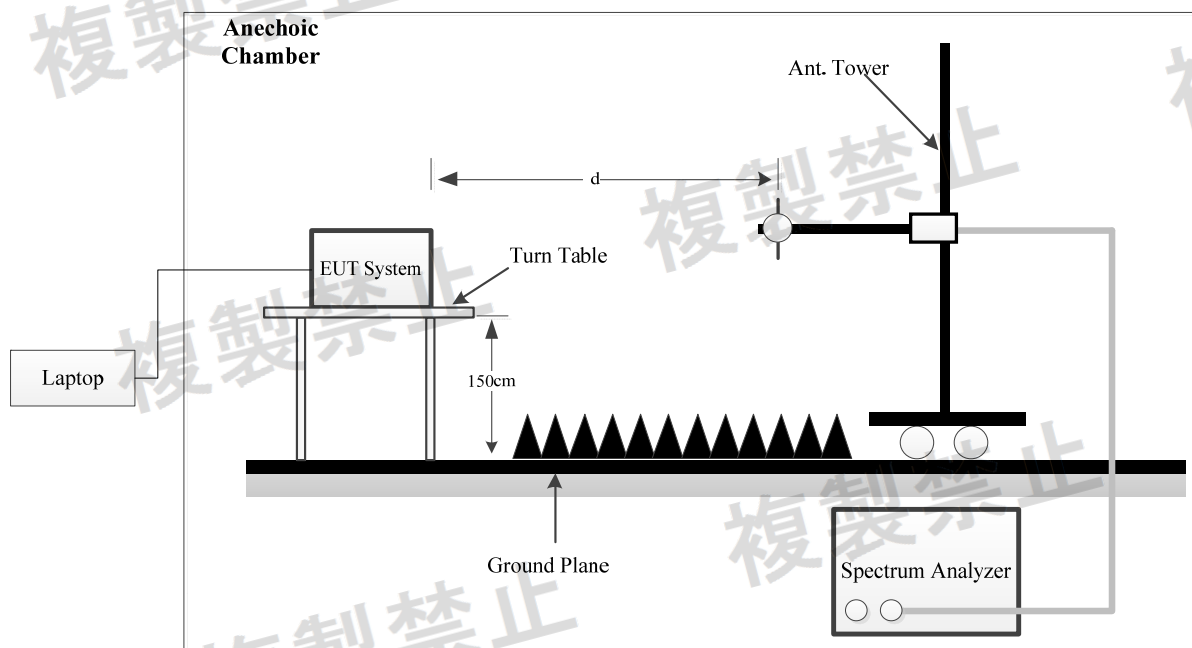
4.4 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Ziyang Freqty	Base	PSS-2	3AR5-7

4.5 Support Cable List and Details

Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
/	/	/	/	/	/

4.6 Typical Configuration for Test Setup



Note: $d = 3\text{m}$ for below 40GHz, 1m for above 40GHz.

4.7 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date	Calibration Agency	Calibration Method ^{Note}
Below 1GHz							
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2025/6/23	2028/6/22	BACL Metrology	C
Narda	Coaxial Attenuator	779-6dB	04269	2025/6/23	2028/6/22	BACL Metrology	C
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2025/7/1	2026/6/30	BACL Metrology	C
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2025/7/1	2026/6/30	BACL Metrology	C
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2025/7/1	2026/6/30	BACL Metrology	C
Sonoma	Amplifier	310N	185914	2025/8/25	2026/8/24	BACL Metrology	C
R&S	EMI Test Receiver	ESR3	102453	2025/6/25	2026/6/24	BACL Metrology	C
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A	/	/
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2025/9/4	2026/9/3	BACL Metrology	C
Agilent	Signal Generator	E8247C	MY43321350	2025/7/28	2026/7/27	BACL Metrology	C
Above 1GHz							
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6	SMQ	C
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21	CASIC203	C
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21	CASIC203	C
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-03 1304	2023/2/22	2026/2/21	CASIC203	C
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2023/2/22	2026/2/21	CASIC203	C
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-02 1302	2023/2/22	2026/2/21	CASIC203	C
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16	BACL Metrology	C
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2024/12/9	2025/12/8	BACL Metrology	C
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2025/9/4	2026/9/3	BACL Metrology	C
Agilent	Signal Generator	E8247C	MY43321350	2025/7/28	2026/7/27	BACL Metrology	C
AH	Preamplifier	PAM-0118P	469	2025/4/11	2026/4/10	GRGTEST	C
AH	Preamplifier	PAM-1840VH	191	2025/7/31	2026/7/30	BACL Metrology	C
R&S	Spectrum Analyzer	FSV40	101944	2025/8/8	2026/8/7	GRGTEST	C
Decentest	Multiplex Switch Test Control Set & Filter Switch Unit	DT7220SCU & DT7220FSU	DS79902 & DS79905	2025/8/25	2026/8/24	BACL Metrology	C
OML	Waveguide Mixer	WR19/M19HWD	U60313-1	2023/9/11	2026/9/10	CASIC203	C
OML	Horn Antenna	M19RH	11648-01	2023/2/27	2026/2/26	CASIC203	C
Flann Micowave	Horn Antenna	24245-AB	26	2023/2/27	2026/2/26	CASIC203	C
Agilent	mm-Wave	83556A	3138A00547	2023/2/16	2026/2/15	CASIC203	C

	Source Modules						
Agilent	Waveguide Mixer	11970V	2521A011767	2023/2/16	2026/2/15	CASIC203	C
Flann Microwave	Horn Antenna	861V/385	736	2023/2/27	2026/2/26	CASIC203	C
NSI	Horn Antenna	NSI-RF-SG15	F-08-EM195-3	2023/2/27	2026/2/26	CASIC203	C
Agilent	mm-Wave Source Modules	83557A	3942A00699	2023/2/16	2026/2/15	CASIC203	C
OML	Waveguide Mixer	WR12/M12HWD	E60120-1	2023/2/16	2026/2/15	CASIC203	C
OML	Horn Antenna	M12RH	E60120-2	2023/2/27	2026/2/26	CASIC203	C
OML	Waveguide Mixer	WR08/M08HWD	F60313-1	2023/2/16	2026/2/15	CASIC203	C
OML	Horn Antenna	M08RH	F60313-2	2023/2/27	2026/2/26	CASIC203	C
Agilent	Thermocouple Detector	V8486A	MY52320007	2023/3/3	2026/3/2	CASIC203	C
Resenberger	Coaxial Cable	LU7-022-1000	0031	2025/2/28	2026/2/27	BACL(DG)	D
Agilent	Coaxial Cable	5061-5458	1301	2025/2/28	2026/2/27	BACL(DG)	D
Agilent	Spectrum Analyzer	E4440A	MY44303352	2025/7/31	2026/7/30	BACL Metrology	C
GLOBAL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2025/8/1	2026/7/31	BACL Metrology	C
Dongling	Simuslated Transport Vibration Test Stand	ES-10-240	D1804182	2025/7/28	2026/7/27	BACL Metrology	C

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to requirements, traceable to National Primary Standards and International System of Units (SI).

Note:

- Calibration conducted by the National Institute of Information and Communications Technology (NICT) (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1).
- Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992).
- Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
- Calibration conducted by using measuring instruments and other equipment which shall have been given any of calibration, etc. listed above from a) to c)

4.8 Test Environmental Conditions

Test Item:	RE Below 1GHz	RE Above 1GHz
Temperature:	25.3 °C	22.5~23.1 °C
Relative Humidity:	48.0 %	46~50.0 %
ATM Pressure:	101.0 kPa	100.9~101.5 kPa
Tester:	Zoo Zou	Willem Qiu
Test Date:	2025/10/22	2025/11/5~2025/11/6

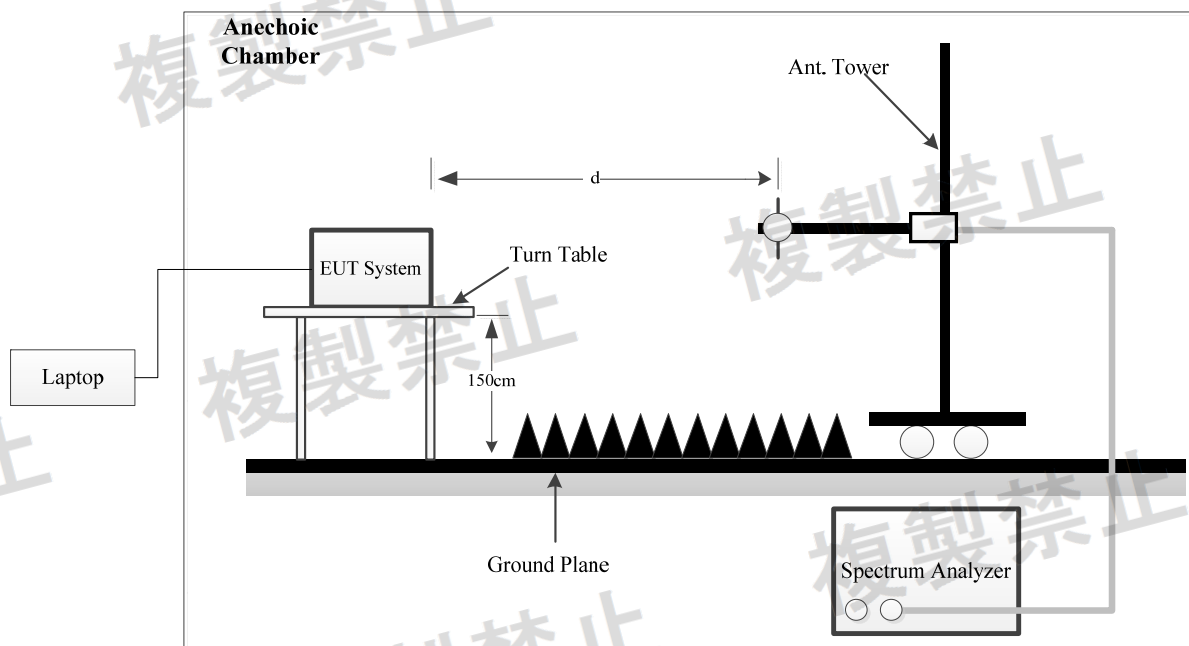
5 - REQUIREMENTS AND TEST PROCEDURES

5.1 Frequency Tolerance and Frequency Range

5.1.1 Requirements

OR: Article 5, Annex 1.9: $\pm 500\text{ppm}$ or within 57-66GHz range.

5.1.2 Test setup block diagram



Note: $d = 1\text{m}$

5.1.3 Test Procedure

- (1) Set the spectrum analyzer to “SA Setting” and sweep. Confirm from the spectrum display on the screen whether the occupied frequency bandwidth of the signal under test is less than the specified value of 9 GHz. If the lower and upper frequencies of the signal under test, defined below, are clearly within the range of 57 GHz to 66 GHz, and the occupied frequency bandwidth is less than 9 GHz, the test result is considered Pass.
- (2) If the technical standard cannot be determined using the procedure in (1), sweep the spectrum analyzer settings as described in Section 2 until the waveform stabilizes. Convert all data to real power dimensions, calculate the total power sum, and determine the total power. Perform power integration sequentially from the lowest frequency to the highest frequency, and maximum frequencies, sequentially perform power integration to determine the lower and upper frequency limits corresponding to 0.5% of the total power. The occupied frequency bandwidth is then calculated as (Upper Frequency - Lower Frequency).
- (3) For radio equipment with multiple antennas where transmission can be turned on/off per antenna, measurements shall be performed for each antenna.

SA Setting:

Set the spectrum analyzer as follows during measurement.

Center Frequency: Test frequency

Sweep Frequency: Approximately twice the specified occupied bandwidth (Note 1)

Resolution Bandwidth: 1 MHz

Video Bandwidth: 1 MHz

Y-axis Scale: 10 dB/Div

Input Level: Signal level must be sufficiently higher than the spectrum analyzer's noise level

Number of Data Points: 1,000 points or more

Sweep Time: Minimum time to guarantee measurement accuracy. However, for burst signals, at least one burst per sample must be captured.
 Sweep Mode: Continuous sweep
 Detection Mode: Positive peak
 Display Mode: Max hold

5.1.3.1 Test Condition

Voltage Fluctuation Test	TC1	Temp: 25°C	LV
	TC2		NV
	TC3		HV
Environment Test	TC4	Voltage: NV	Low Temp: 5°C
	TC5		High Temp: +35°C
	TC6	Voltage: NV Temp: 35°C	Humidity: 95%
Vibration Test	TC7	Voltage: NV Temp: 25°C	Amplitude: 3mm
	TC8		Amplitude: 1mm

Note: Extreme test temperature is 5°C to +35 °C which declared by manufacturer.

5.1.3.2 Voltage Fluctuation Test

- Set the power supply to test voltage;
Perform step (1) to step (3) in section 5.1.3.
- Record the test result.
- Repeat the test result for NV, LV and HV.

5.1.3.3 Vibration test

- Set the vibration test system as the table below:

Frequency	ASD(Acceleration Spectral Density) random vibration
From 5Hz to 20Hz	0.96m ² /s ³
Exceeding 20Hz to 500Hz	-3dB/Octave

- Start the vibration test system;
- Perform step (1) to step (3) in section 5.1.3.
- Record the test result.

5.1.3.4 Temperature test

- Place the device to be tested in the temperature and humidity tester in the non-operation state and set the temperature of the temperature and humidity tester to a low temperature while in this condition
The low temperature is 0°C, -10°C and -20°C, use the minimum value within the range of the specification of the device to be tested.
The high temperature is 40°C, 50°C and 60°C, use the highest value within the range of the specification of the device to be tested.
- Leave it in this condition for 1 hour.
- Apply the prescribed power supply voltage to operate to device to be tested in the temperature and humidity tester.
- Perform step (1) to step (3) in section 5.1.3.
- Record the test result.
- Repeat the test result for LT and HT.

5.1.3.5 Humidity Test

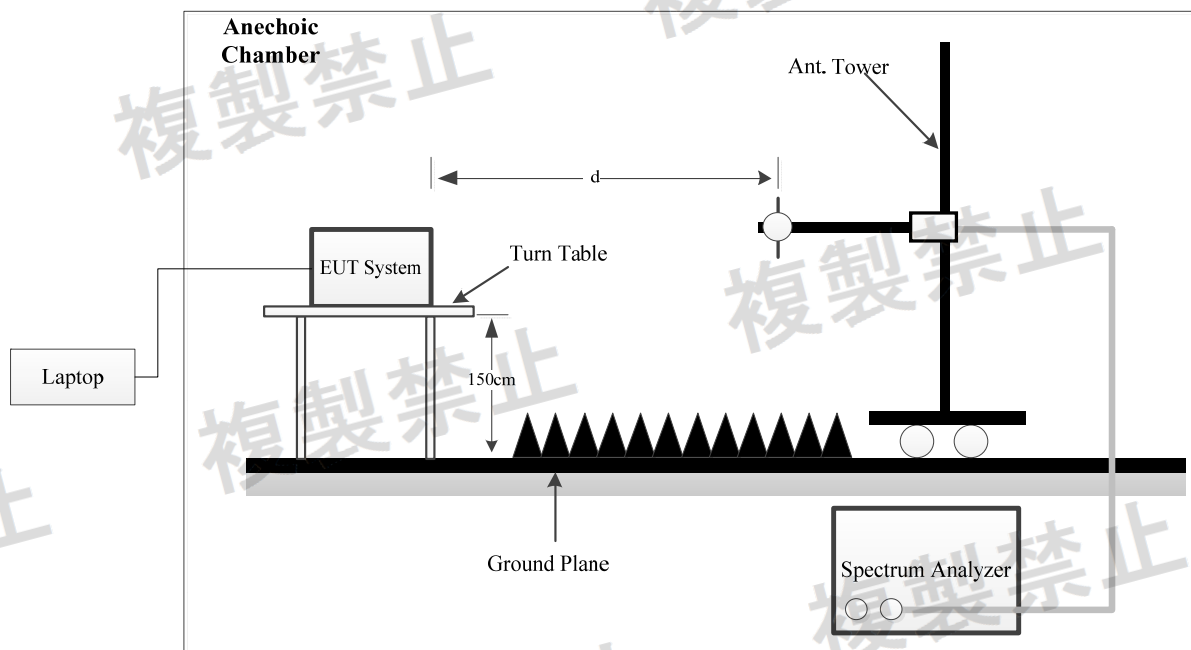
- a) Place the device to be tested in the temperature and humidity tester in the non-operating state. While this condition remains, set the temperature to 35°C and the relative humidity to 95% or the maximum or the maximum humidity in the specification of the device to be tested in the temperature and humidity tester.
- b) Leave it in this condition for 4 hours.
- c) After this time, the setting of the temperature and humidity tester is changed back to the normal temperature and normal humidity and, after confirming that there is no condensation, operate the device to be tested by applying the prescribed power supply voltage.
- d) Perform step (1) to step (3) in section 5.1.3.
- e) Record the test result.

5.2 Occupied Bandwidth

5.2.1 Requirements

OR: Article 6, Annex 2.30: within $9 - \Delta f$ GHz. Where $\Delta f = \text{"the absolute value of the frequency tolerance"} \times 2$

5.2.2 Test setup block diagram



Note: $d = 1\text{m}$

5.2.3 Test Procedure

- (1) Set the spectrum analyzer to “SA Setting” and sweep. Confirm from the spectrum display on the screen whether the occupied frequency bandwidth of the signal under test is less than the specified value of 9 GHz. If the lower and upper frequencies of the signal under test, defined below, are clearly within the range of 57 GHz to 66 GHz, and the occupied frequency bandwidth is less than 9 GHz, the test result is considered Pass.
- (2) If the technical standard cannot be determined using the procedure in (1), sweep the spectrum analyser settings as described in Section 2 until the waveform stabilises. Convert all data to real power dimensions, calculate the total power as the sum of all powers, and sequentially perform power integration from the minimum and maximum frequencies. Determine the lower and upper frequency limits where the integrated power reaches 0.5% of the total power. Calculate the occupied frequency bandwidth as (Upper Frequency) - (Lower Frequency).
- (3) For radio equipment with multiple antennas where transmission can be turned on/off per antenna, measurements shall be performed for each antenna.

SA Setting:

Set the spectrum analyzer as follows during measurement.

Center Frequency: Test frequency

Sweep Frequency: Approximately twice the specified occupied bandwidth (Note 1)

Resolution Bandwidth: 1 MHz

Video Bandwidth: 1 MHz

Y-axis Scale: 10 dB/Div

Input Level: Signal level must be sufficiently higher than the spectrum analyzer's noise level

Number of Data Points: 1,000 points or more

Sweep Time: Minimum time to guarantee measurement accuracy. However, for burst signals, at least one burst per sample must be captured.

Sweep Mode: Continuous sweep

Detection Mode: Positive peak

Display Mode: Max hold

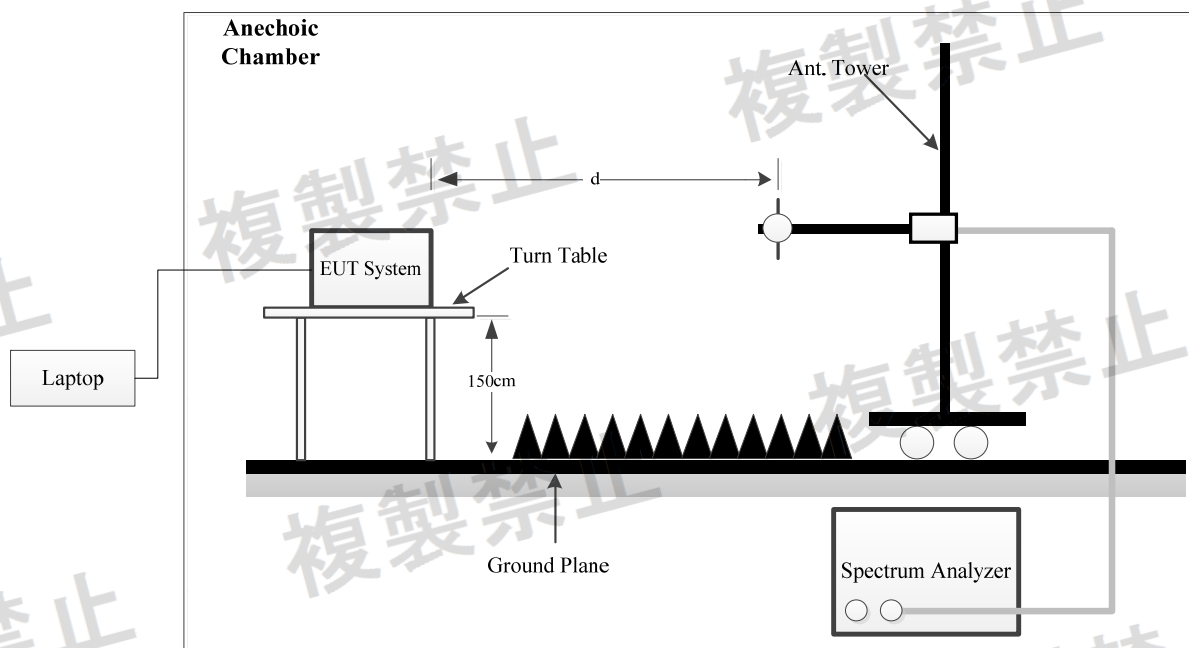
5.3 Unwanted emission Strength

5.3.1 Requirements

OR: Article 7, Annex 3.26:

Frequency Band	Measurement Bandwidth	Limit
55.62GHz or less	1MHz	$\leq -30\text{dBm/MHz}$
55.62 – 57GHz	1MHz	$\leq -26\text{dBm/MHz}$
66-67.5GHz	1MHz	$\leq -26\text{dBm/MHz}$
67.5GHz – 2 th the highest operating frequency	1MHz	$\leq -30\text{dBm/MHz}$

5.3.2 Test setup block diagram



Note: $d = 3\text{m}$ for below 40GHz, 1m for above 40GHz.

5.3.3 Test Procedure

(1) Search for unwanted emissions Approximately align the height and direction of the test equipment and the measurement antenna. Set the spectrum analyser to “Step 1”, search for unwanted emissions, and identify the spectrum requiring level measurement. To enhance the frequency measurement accuracy of the spectrum analyser, sequentially narrow the frequency sweep width to 1GHz, 100MHz, and 10MHz to determine the unwanted emission frequency.

(2) Level measurement of unwanted emissions For each frequency of unwanted emissions identified in (1) (or each frequency if multiple exist), record the maximum indication value using the operations from (a) to (c) below. Subsequently, measure the level of the unwanted emission at the frequency corresponding to each unwanted emission frequency using the substitution measurements from (d) to (h). Furthermore, when measuring multiple test items simultaneously, to enhance measurement efficiency, a fixed value may be output from the standard signal generator. The operations from (d) to (f) may be repeated at frequency intervals that do not compromise measurement accuracy. After obtaining the values G_S and L_F (the so-called conversion values) as shown in k beforehand, the operations from (a) to (c) may be performed for each test item to complete the measurement:

- Set the spectrum analyser to “Step 2”.
- Rotate the test equipment to align it with the direction of maximum received power for the unwanted emission.

- (c) Vary the height of the measurement antenna above ground by approximately ± 50 cm centred on the test equipment's antenna. Adjust the direction of the measurement antenna to locate the position where the received power of the unwanted emission is maximum. Record the spectrum analyser reading at this point as "E". If the unwanted emission is a burst wave, take the average value within the burst as "E".
- (d) Remove the test equipment from the stand. Position the aperture of the replacement antenna to align with the aperture of the test equipment. Transmit radio waves of the same frequency from the replacement standard signal generator and receive them.
- (e) Rotate the replacement antenna to adjust it to the direction of maximum power.
- (f) Vary the height of the measurement antenna above ground by approximately ± 50 cm centred on the replacement antenna. Adjust the direction of the measurement antenna to find the position yielding maximum received power.
- (g) Adjust the output of the standard signal generator to record the power P_s equal to 'E', or record P_s as a value close to "E" (within ± 1 dB) and calculate P_s from the difference with 'E'.
- (h) Determine the spurious emission power (dBm) using the following equation:
Spurious emission power = $P_s + G_s - G_t - L_f$

Where:

P_s : Output of the standard signal generator (dBm)

G_s : Absolute gain of the replacement antenna (dBi)

G_t : Absolute gain of the test item's antenna (dBi)

L_f : Loss of the feed line between the standard signal generator and the replacement antenna (dB)

- (3) For radio equipment with multiple antennas, where transmission can be switched on or off for each antenna, measurements shall be taken for each antenna.

Where the Spectrum analyzer setting as following:

Step 1:

Set the spectrum analyzer as follows when searching for unwanted emissions outside the specified frequency band.

Sweep frequency bandwidth: 30 MHz to approximately twice the carrier frequency (Note 1)

Resolution bandwidth: 100 kHz when the search frequency is 1 GHz or less; 1 MHz when over 1 GHz

Video bandwidth: Similar to resolution bandwidth

Y-axis scale: 10 dB/Div

Input level: Value providing maximum dynamic range

Sweep time: Minimum time guaranteeing measurement accuracy (Note 2)

Number of data points: 400 points or more

Sweep mode: Single sweep

Detection mode: Positive peak

Note 1: Excludes specified frequency bands. For unwanted emission searches, the lower measurement frequency limit is 30 MHz; however, for waveguide-based devices, sweeping starts at 0.7 times the cutoff frequency. For frequency bands with different allowable unwanted emission intensity values, sweeping is divided into segments based on the frequency width where measurement accuracy is guaranteed, as follows.

Designated Frequency Band: 57.0 GHz ~ 66.0 GHz

Sweep Frequency Band ①: 30 MHz ~ 55.62 GHz (Note 1)

Sweep Frequency Band ②: 55.62 GHz ~ 57.0 GHz

Sweep Frequency Band ③: 66 GHz ~ 67.5 GHz

Sweep Frequency Band ④: 67.5 GHz ~ Approximately twice the carrier frequency

Note 2: For burst waves, the time per sample must contain at least one burst. However, to shorten sweep time, a time equal to or greater than the value calculated as "Sweep Frequency Bandwidth (MHz) $\div$ Resolution Bandwidth (MHz) $\times$ Burst Period (sec)" may be set as the sweep time.

Step 2:

Set the spectrum analyzer as follows for unwanted emission amplitude measurement.

Center frequency: Unwanted emission frequency (detected frequency)

Sweep frequency bandwidth: 0 Hz

Resolution bandwidth: 100 kHz when center frequency ≤ 1 GHz; 1MHz when center frequency > 1 GHz
Video Bandwidth: Similar to resolution bandwidth
Y-axis Scale: 10 dB/Div
Input Level: Value providing maximum dynamic range
Sweep Time: Minimum time ensuring measurement accuracy
Number of Data Points: 400 points or more
Sweep Mode: Single sweep
Detection Mode: Sample

5.4 Antenna Output Power, Tolerance and Antenna Gain

5.4.1 Requirements

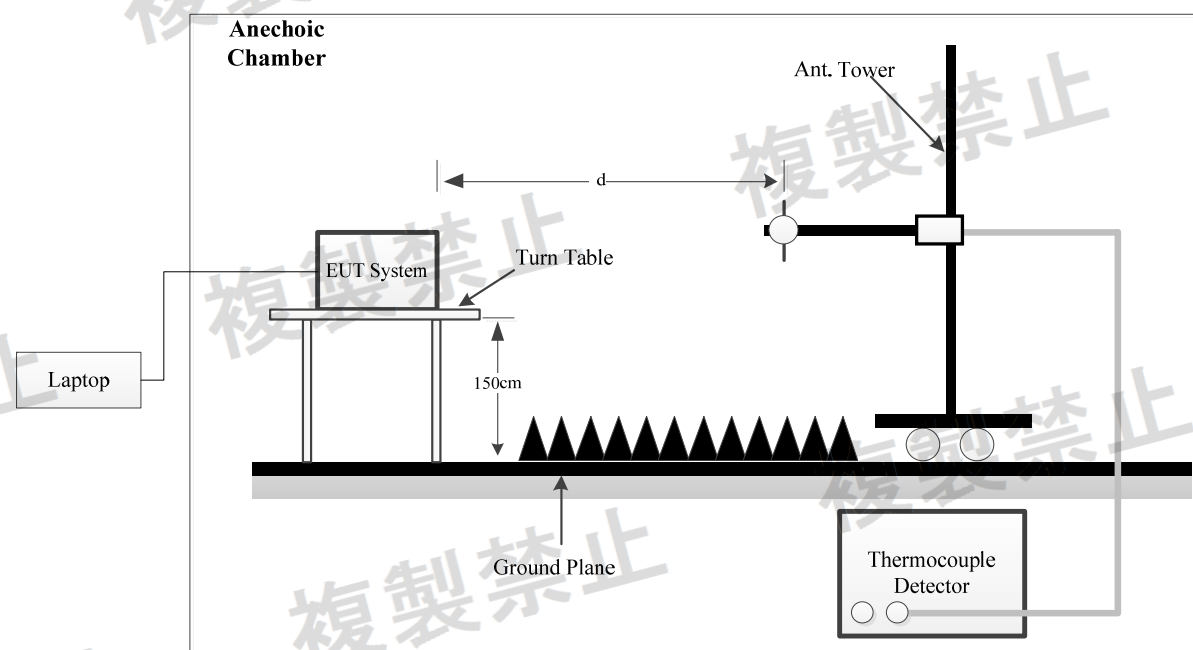
OR: Article 49-20, Article 14.9:

Output Power: 10mW or less

Output Power Tolerance: +50% ~ -70%

Antenna Gain: 47dBi or less

5.4.2 Test setup block diagram



Note: $d = 1\text{m}$

5.4.3 Test Procedure

Measure the antenna power (total power) using a Thermocouple Detector according to the following procedure.

- (1) Align the height and direction of the test equipment and the measurement antenna approximately opposite each other, following the measurement system diagram.
- (2) Rotate the test equipment to adjust it to the direction of maximum received power.
- (3) Vary the height of the test antenna above ground by approximately $\pm 50\text{ cm}$ centered on the test device's antenna. Simultaneously adjust the test antenna's orientation to find the position where power is maximum. Record the power meter reading at this point as "E".
- (4) Remove the test equipment from the stand. Position the aperture of the replacement antenna to align with the aperture of the test equipment. Transmit radio waves at the test frequency from the replacement standard signal generator and receive them.
- (5) Rotate the replacement antenna to adjust it to the direction of maximum power.
- (6) Vary the height of the measurement antenna above ground by approximately $\pm 50\text{ cm}$ centered on the replacement antenna. Adjust the direction of the measurement antenna to find the position where power is maximized.
- (7) Adjust the output of the standard signal generator to record the power P_s equal to "E", or record P_s as a value close to 'E' (within $\pm 1\text{ dB}$) and calculate P_s from the difference with "E".
- (8) Calculate the antenna power using the following formula: $P_o = P_s + G_s - G_T - L_F$ Symbols: P_s : Output of the standard signal generator (dBm) G_s : Absolute gain of the replacement antenna (dBi) G_T : Absolute antenna

gain of the test subject equipment (dBi) L_F : Loss of the feed line between the standard signal generator and the replacement antenna (dB)

(9) The antenna power shall be as follows:

① For continuous wave: The P_o value

② For burst wave: The average power value of the repeated burst wave converted to the true number P_o value and the transmission duty cycle,

calculated as the average power per burst interval: Average power per burst interval = $P_o \times (T/B)$

Where P_o = Average power of the repeating burst wave measured by the power meter (mW)

T = Burst repetition period (seconds)

B = Burst duration (seconds)

(10) For radio equipment with multiple antennas where transmission can be turned on/off per antenna, measurements shall be taken per antenna.

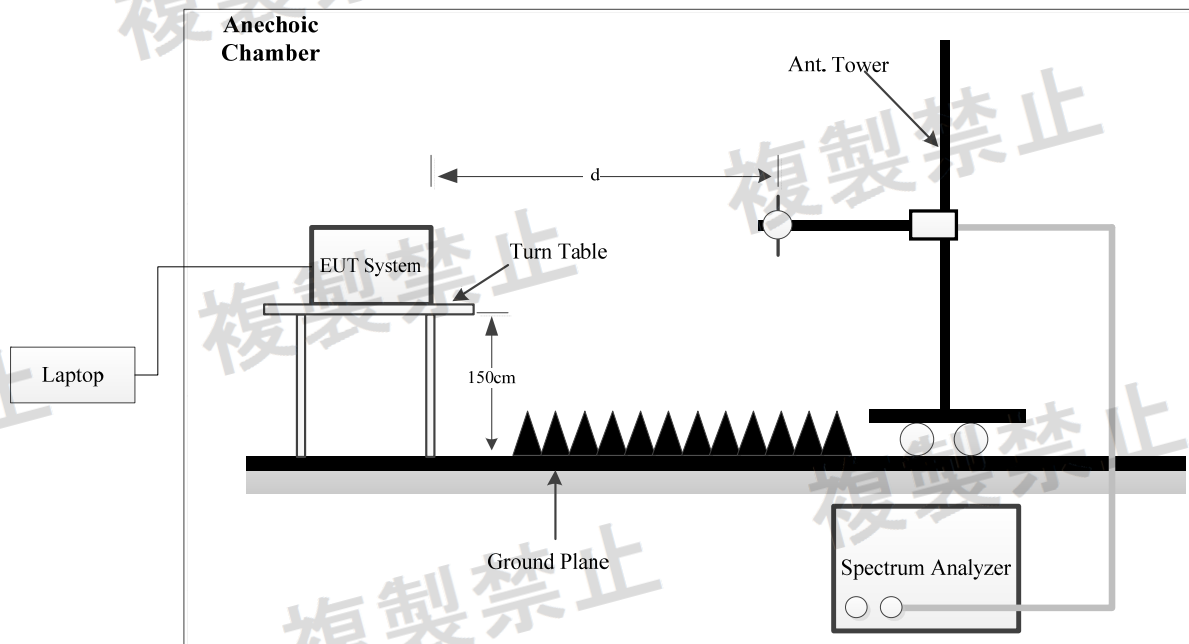
5.5 Secondary Radiated Emission Strength

5.5.1 Requirements

OR: Article 24.2:

Frequency Band	Measurement Bandwidth	Limit
30MHz-1000MHz	100kHz	$\leq 4 \text{ nW}$
1000MHz - 12.5GHz	1MHz	$\leq 20 \text{ nW}$

5.5.2 Test setup block diagram



Note: $d = 1\text{m}$

5.5.3 Test Procedure

(1) Search for unwanted emissions Approximately align the height and direction of the test equipment and the measurement antenna. Set the spectrum analyser to “Step 1”, search for unwanted emissions, and identify the spectrum requiring level measurement. To enhance the frequency measurement accuracy of the spectrum analyser, sequentially narrow the frequency sweep width to 1GHz, 100MHz, and 10MHz to determine the unwanted emission frequency.

(2) Level measurement of unwanted emissions For each frequency of unwanted emissions identified in (1) (or each frequency if multiple exist), record the maximum indication value using the operations from (a) to (c) below. Subsequently, measure the level of the unwanted emission at the frequency corresponding to each unwanted emission frequency using the substitution measurements from (d) to (h). Furthermore, when measuring multiple test items simultaneously, to enhance measurement efficiency, a fixed value may be output from the standard signal generator. The operations from (d) to (f) may be repeated at frequency intervals that do not compromise measurement accuracy. After obtaining the values G_S and L_F (the so-called conversion values) as shown in k beforehand, the operations from (a) to (c) may be performed for each test item to complete the measurement:

- Set the spectrum analyser to “Step 2”.
- Rotate the test equipment to align it with the direction of maximum received power for the unwanted emission.
- Vary the height of the measurement antenna above ground by approximately $\pm 50 \text{ cm}$ centred on the test equipment's antenna. Adjust the direction of the measurement antenna to locate the position where the received power of the unwanted emission is maximum. Record the spectrum analyser reading at this point as “E”. If the unwanted emission is a burst wave, take the average value within the burst as “E”.

- (d) Remove the test equipment from the stand. Position the aperture of the replacement antenna to align with the aperture of the test equipment. Transmit radio waves of the same frequency from the replacement standard signal generator and receive them.
- (e) Rotate the replacement antenna to adjust it to the direction of maximum power.
- (f) Vary the height of the measurement antenna above ground by approximately ± 50 cm centred on the replacement antenna. Adjust the direction of the measurement antenna to find the position yielding maximum received power.
- (g) Adjust the output of the standard signal generator to record the power P_s equal to 'E', or record P_s as a value close to "E" (within ± 1 dB) and calculate P_s from the difference with 'E'.
- (h) Determine the spurious emission power (dBm) using the following equation:
Spurious emission power = $P_s + G_s - G_T - L_F$

Where:

P_s : Output of the standard signal generator (dBm)

G_s : Absolute gain of the replacement antenna (dBi)

G_T : Absolute gain of the test item's antenna (dBi)

L_F : Loss of the feed line between the standard signal generator and the replacement antenna (dB)

- (3) For radio equipment with multiple antennas, where transmission can be switched on or off for each antenna, measurements shall be taken for each antenna.

Where the Spectrum analyzer setting as following:

Step 1:

Set the spectrum analyzer as follows when searching for unwanted emissions outside the specified frequency band.

Sweep frequency bandwidth: 30 MHz to approximately twice the carrier frequency (Note 1)

Resolution bandwidth: 100 kHz when the search frequency is 1 GHz or less; 1 MHz when over 1 GHz

Video bandwidth: Similar to resolution bandwidth

Y-axis scale: 10 dB/Div

Input level: Value providing maximum dynamic range

Sweep time: Minimum time guaranteeing measurement accuracy

Number of data points: 400 points or more

Sweep mode: Single sweep

Detection mode: Positive peak

Note 1: Excludes specified frequency bands. For unwanted emission searches, the lower measurement frequency limit is 30 MHz; however, for waveguide-based devices, sweeping starts at 0.7 times the cutoff frequency. For frequency bands with different allowable unwanted emission intensity values, sweeping is divided into segments based on the frequency width where measurement accuracy is guaranteed, as follows.

Step 2:

Set the spectrum analyzer as follows for unwanted emission amplitude measurement.

Center frequency: Unwanted emission frequency (detected frequency)

Sweep frequency bandwidth: 0 Hz

Resolution bandwidth: 100 kHz when center frequency ≤ 1 GHz; 1MHz when center frequency > 1 GHz

Video Bandwidth: Similar to resolution bandwidth

Y-axis Scale: 10 dB/Div

Input Level: Value providing maximum dynamic range

Sweep Time: Minimum time ensuring measurement accuracy

Number of Data Points: 400 points or more

Sweep Mode: Single sweep

Detection Mode: Sample

5.6 Interference Prevention Function

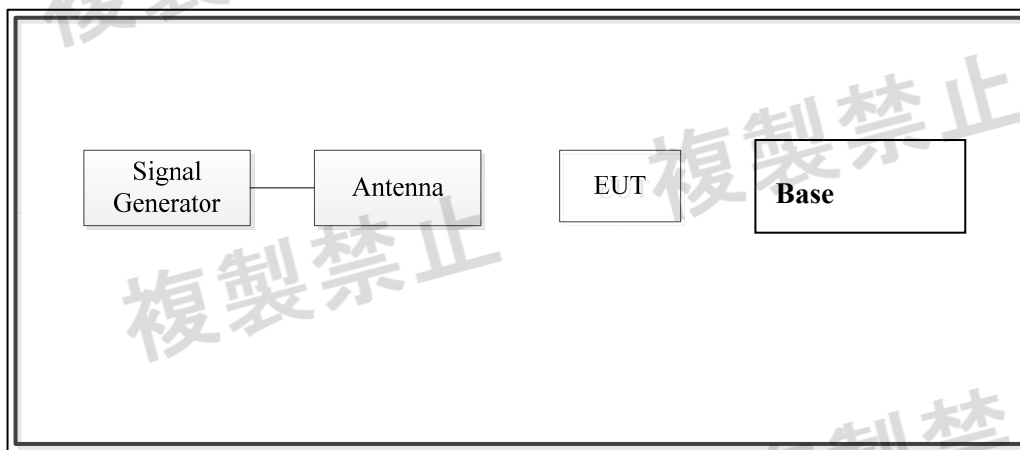
5.6.1 Requirements

OR: Article 9.4(8), RE: Article 6.2(3):

A wireless device used mainly in the same premises to automatically transmit or receive identification codes.

Article 1.8 of MPT Ministerial Notice No. 424 of 1994: 19 bits or more.

5.6.2 Test setup block diagram



5.6.3 Test Procedure

(1) When the test equipment has the capability to automatically transmit identification codes

- Transmit the identification code from the test equipment.
- Verify the transmitted identification code.

(2) When the test equipment has the capability to automatically receive identification codes

- Transmit the identification code from the counterpart device.
- Confirm that communication occurs with the test equipment.
- Transmit a code different from the counterpart device.
- Confirm that the test equipment either stops transmission or displays that the identification code is different.

5.7 Radio Waves Exposed To the Human

5.7.1 Requirements

OR: Article 14-2; Notice No.31:

Frequency	Average power
100kHz-6GHz	20mW
6-30GHz	8mW
30-300GHz	2mW

6 - TEST DATA AND RESULTS

6.1 Frequency Tolerance and Frequency Range

60160 MHz

Test Condition	Mode	F _c (MHz)	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)	Value of the frequency tolerance (MHz)
TC1	60G SRD	60160	59428.7	61305.6	≥ 57000	≤ 66000	207.15
TC4		60160	59413.7	61340.5	≥ 57000	≤ 66000	217.1
TC5		60160	59413.7	61320.6	≥ 57000	≤ 66000	207.15
TC6		60160	59413.7	61315.6	≥ 57000	≤ 66000	204.65
TC7		60160	59458.7	61275.6	≥ 57000	≤ 66000	207.15
TC8		60160	59443.7	61290.6	≥ 57000	≤ 66000	207.15

60320 MHz

Test Condition	Mode	F _c (MHz)	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)	Value of the frequency tolerance (MHz)
TC1	60G SRD	60320	59493.9	61320.8	≥ 57000	≤ 66000	87.35
TC4		60320	59488.9	61320.8	≥ 57000	≤ 66000	84.85
TC5		60320	59493.9	61325.8	≥ 57000	≤ 66000	89.85
TC6		60320	59488.9	61325.8	≥ 57000	≤ 66000	87.35
TC7		60320	59478.9	61320.8	≥ 57000	≤ 66000	79.85
TC8		60320	59473.9	61340.8	≥ 57000	≤ 66000	87.35

62480 MHz

Test Condition	Mode	F _c (MHz)	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)	Value of the frequency tolerance (MHz)
TC1	60G SRD	62480	61648.9	63490.8	≥ 57000	≤ 66000	89.85
TC4		62480	61618.9	63515.8	≥ 57000	≤ 66000	87.35
TC5		62480	61633.9	63505.8	≥ 57000	≤ 66000	89.85
TC6		62480	61618.9	63505.8	≥ 57000	≤ 66000	82.35
TC7		62480	61643.9	63505.8	≥ 57000	≤ 66000	94.85
TC8		62480	61628.9	63500.8	≥ 57000	≤ 66000	84.85

62640 MHz

Test Condition	Mode	F _c (MHz)	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)	Value of the frequency tolerance (MHz)
TC1	60G SRD	62640	61633.9	63505.8	≥ 57000	≤ 66000	-70.15
TC4		62640	61623.9	63490.8	≥ 57000	≤ 66000	-82.65
TC5		62640	61648.9	63480.8	≥ 57000	≤ 66000	-75.15
TC6		62640	61648.9	63475.8	≥ 57000	≤ 66000	-77.65
TC7		62640	61648.9	63470.8	≥ 57000	≤ 66000	-80.15
TC8		62640	61638.9	63485.8	≥ 57000	≤ 66000	-77.65

Note: Value of the frequency tolerance = (F_H + F_L)/2 - F_C.

6.2 Occupied Bandwidth

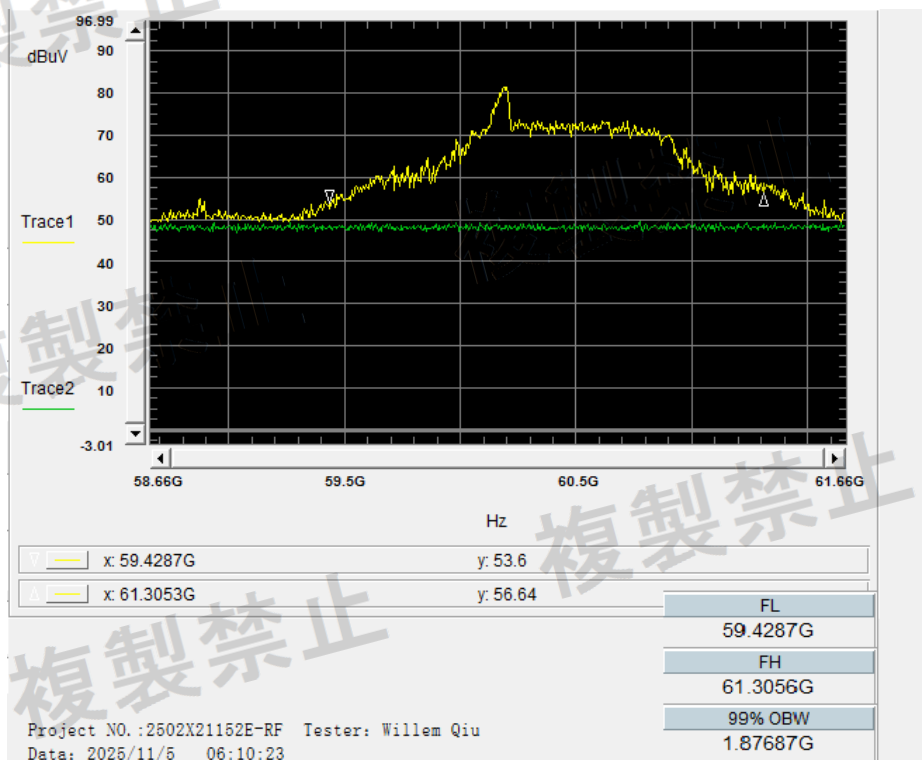
Test Condition	Mode	Fc (GHz)	Result (MHz)	Limit (MHz)
TC1	60G SRD	60.16	1876.87	≤ 8565.8
		60.32	1826.96	≤ 8820.3
		62.48	1841.93	≤ 8810.3
		62.64	1871.88	≤ 8834.7

Note:

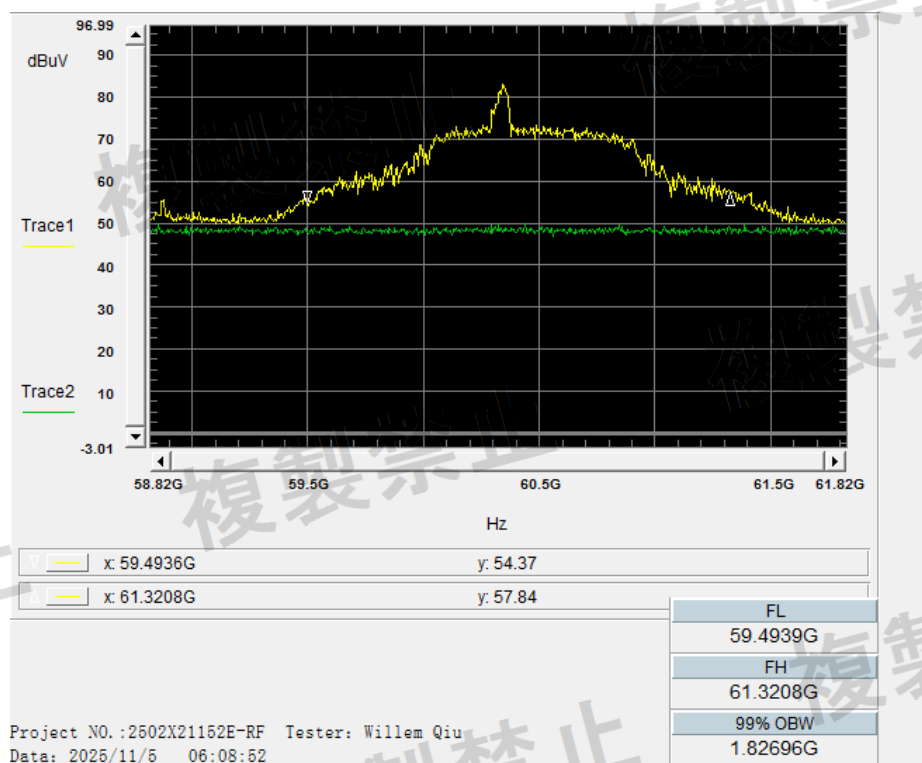
The limit is $9 - \Delta f$ GHz.

Where Δf = "the absolute value of the frequency tolerance" $\times 2$.

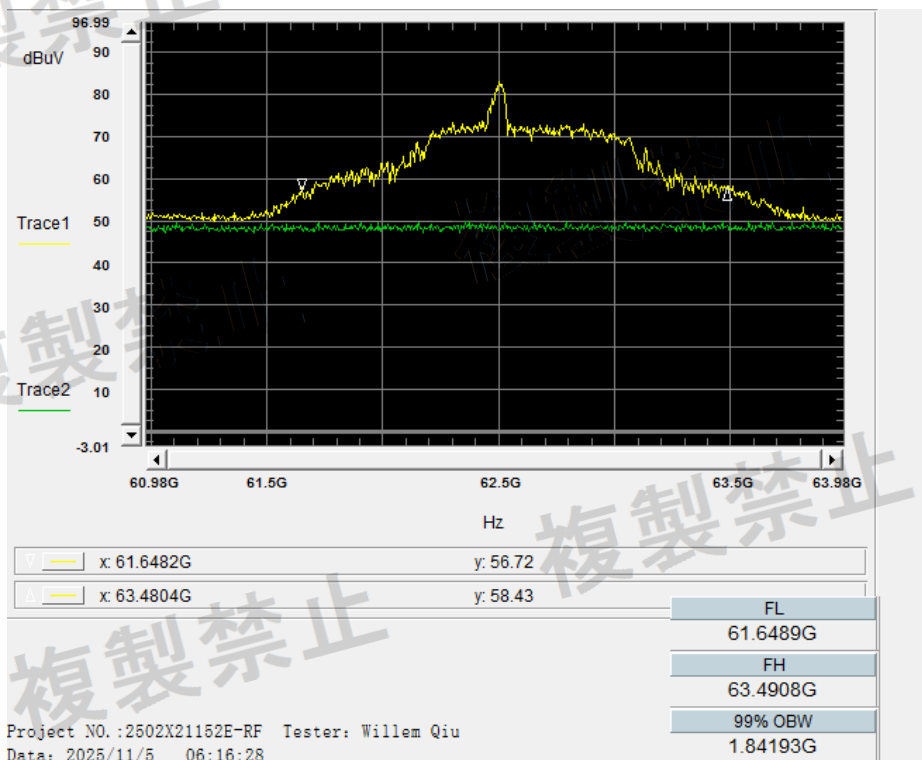
60160 MHz



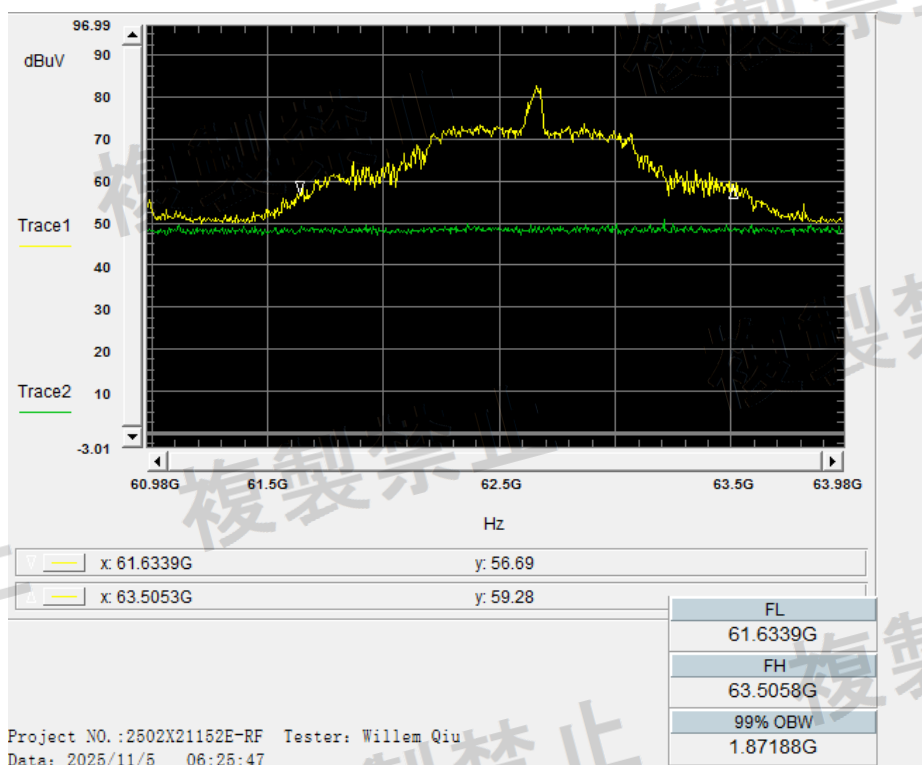
60320 MHz



62480 MHz



62640 MHz



6.3 Unwanted emission Strength

< 40GHz

60160 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
524.80	H	42.70	-61.97	0.00	0.25	-62.22	-30	32.22
524.13	V	48.19	-53.88	0.00	0.25	-54.13	-30	24.13
1484.40	H	70.57	-47.38	9.11	0.39	-38.66	-30	8.66
1484.40	V	70.78	-47.46	9.11	0.39	-38.74	-30	8.74
19067.20	H	50.24	-60.65	9.70	1.52	-52.47	-30	22.47
19443.20	V	50.39	-60.90	9.70	1.55	-52.75	-30	22.75
31484.20	H	45.32	-58.89	9.70	4.34	-53.53	-30	23.53
33429.30	V	45.53	-55.58	9.70	4.84	-50.72	-30	20.72

60320 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
524.25	H	42.75	-61.94	0.00	0.25	-62.19	-30	32.19
524.37	V	48.28	-53.78	0.00	0.25	-54.03	-30	24.03
1484.40	H	70.53	-47.42	9.11	0.39	-38.70	-30	8.70
1484.40	V	70.88	-47.36	9.11	0.39	-38.64	-30	8.64
19067.60	H	50.52	-60.37	9.70	1.52	-52.19	-30	22.19
19443.50	V	50.44	-60.85	9.70	1.55	-52.70	-30	22.70
31484.90	H	45.41	-58.80	9.70	4.34	-53.44	-30	23.44
33429.40	V	45.36	-55.75	9.70	4.84	-50.89	-30	20.89

62480 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
524.64	H	42.81	-61.87	0.00	0.25	-62.12	-30	32.12
524.21	V	48.36	-53.70	0.00	0.25	-53.95	-30	23.95
1484.40	H	71.23	-46.72	9.11	0.39	-38.00	-30	8.00
1484.40	V	69.18	-49.06	9.11	0.39	-40.34	-30	10.34
19087.50	H	50.46	-60.40	9.70	1.52	-52.22	-30	22.22
19449.90	V	50.29	-60.99	9.70	1.55	-52.84	-30	22.84
31489.20	H	45.57	-58.65	9.70	4.34	-53.29	-30	23.29
33428.10	V	45.11	-56.01	9.70	4.84	-51.15	-30	21.15

62640 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
524.53	H	42.97	-61.71	0.00	0.25	-61.96	-30	31.96
524.86	V	48.44	-53.61	0.00	0.25	-53.86	-30	23.86
1484.40	H	69.57	-48.38	9.11	0.39	-39.66	-30	9.66
1484.40	V	70.68	-47.56	9.11	0.39	-38.84	-30	8.84
19085.90	H	50.63	-60.23	9.70	1.52	-52.05	-30	22.05
19442.80	V	50.74	-60.55	9.70	1.55	-52.40	-30	22.40
31484.60	H	45.51	-58.70	9.70	4.34	-53.34	-30	23.34
33427.50	V	44.89	-56.23	9.70	4.84	-51.37	-30	21.37

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

>40GHz**60160 MHz**

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
46.23	H	28.52	-60.52	24	-36.52	-30	6.52
48.12	V	28.45	-60.29	24	-36.29	-30	6.29
77.42	H	22.45	-62.8	24.1	-38.7	-30	8.7
78.59	V	21.35	-63.76	24.1	-39.66	-30	9.66
92.54	H	26.63	-62.77	24.2	-38.57	-30	8.57
93.61	V	27.45	-61.82	24.2	-37.62	-30	7.62

60320 MHz

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
46.62	H	28.18	-60.8	24	-36.8	-30	6.8
48.47	V	28.44	-60.25	24	-36.25	-30	6.25
77.52	H	22.24	-63	24.1	-38.9	-30	8.9
78.41	V	21.61	-63.52	24.1	-39.42	-30	9.42
92.37	H	26.24	-63.18	24.2	-38.98	-30	8.98
93.29	V	27.43	-61.88	24.2	-37.68	-30	7.68

62480 MHz

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
46.2	H	28.48	-60.56	24	-36.56	-30	6.56
48.49	V	28.21	-60.48	24	-36.48	-30	6.48
77.27	H	22.05	-63.22	24.1	-39.12	-30	9.12
78.49	V	21.36	-63.76	24.1	-39.66	-30	9.66
92.32	H	26.27	-63.16	24.2	-38.96	-30	8.96
93.62	V	27.21	-62.06	24.2	-37.86	-30	7.86

62640 MHz

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
46.2	H	28.52	-60.52	24	-36.52	-30	6.52
48.49	V	28.14	-60.55	24	-36.55	-30	6.55
77.27	H	22.38	-62.89	24.1	-38.79	-30	8.79
78.49	V	21.59	-63.53	24.1	-39.43	-30	9.43
92.32	H	26.27	-63.16	24.2	-38.96	-30	8.96
93.62	V	27.39	-61.88	24.2	-37.68	-30	7.68

Note:

Absolute Level = Substituted Level + Antenna Gain

Margin = Limit - Absolute Level

OOB**60160 MHz**

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
55.62	H	31.35	-56.22	24	-32.22	-26	6.22
55.62	V	31.25	-56.32	24	-32.32	-26	6.32
57	H	31.01	-56.35	24	-32.35	-26	6.35
57	V	31.05	-56.31	24	-32.31	-26	6.31
66	H	30.98	-54.97	24.1	-30.87	-26	4.87
66	V	30.86	-55.09	24.1	-30.99	-26	4.99
67.5	H	30.21	-55.51	24.1	-31.41	-26	5.41
67.5	V	30.33	-55.39	24.1	-31.29	-26	5.29

60320 MHz

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
55.62	H	31.24	-56.33	24	-32.33	-26	6.33
55.62	V	31.14	-56.43	24	-32.43	-26	6.43
57	H	31.03	-56.33	24	-32.33	-26	6.33
57	V	31	-56.36	24	-32.36	-26	6.36
66	H	30.88	-55.07	24.1	-30.97	-26	4.97
66	V	29.95	-56	24.1	-31.9	-26	5.9
67.5	H	30.11	-55.61	24.1	-31.51	-26	5.51
67.5	V	30.24	-55.48	24.1	-31.38	-26	5.38

62480 MHz

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
55.62	H	31.19	-56.38	24	-32.38	-26	6.38
55.62	V	31.2	-56.37	24	-32.37	-26	6.37
57	H	31.76	-55.6	24	-31.6	-26	5.6
57	V	31.85	-55.51	24	-31.51	-26	5.51
66	H	30.92	-55.03	24.1	-30.93	-26	4.93
66	V	30.69	-55.26	24.1	-31.16	-26	5.16
67.5	H	30.06	-55.66	24.1	-31.56	-26	5.56
67.5	V	30.17	-55.55	24.1	-31.45	-26	5.45

62640 MHz

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		Absolute Level (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBi)			
55.62	H	31.04	-56.53	24	-32.53	-26	6.53
55.62	V	31.15	-56.42	24	-32.42	-26	6.42
57	H	31.83	-55.53	24	-31.53	-26	5.53
57	V	31.94	-55.42	24	-31.42	-26	5.42
66	H	30.06	-55.89	24.1	-31.79	-26	5.79
66	V	30.11	-55.84	24.1	-31.74	-26	5.74
67.5	H	30.2	-55.52	24.1	-31.42	-26	5.42
67.5	V	30.16	-55.56	24.1	-31.46	-26	5.46

Note:

Absolute Level = Substituted Level + Antenna Gain

Margin = Limit - Absolute Level

6.4 Antenna Output power, Tolerance and Antenna gain**Power**

Frequency (GHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method		EIRP (dBm)
			Substituted Level (dBm)	Antenna Gain (dBi)	
60.16	H	59.41	-27.46	24.1	-3.36
60.16	V	59.68	-27.19	24.1	-3.09
60.32	H	59.31	-27.53	24.1	-3.43
60.32	V	59.55	-27.29	24.1	-3.19
62.48	H	59.07	-27.43	24.1	-3.33
62.48	V	58.97	-27.53	24.1	-3.43
62.64	H	59.53	-26.95	24.1	-2.85
62.64	V	59.41	-27.07	24.1	-2.97

Note:

Absolute Level = Substituted Level + Antenna Gain

Declared power & Antenna gain

Declared power:	0.1	mW (Limit: ≤10mW)
Antenna gain:	9.6	dBi (Limit: ≤47dBi)

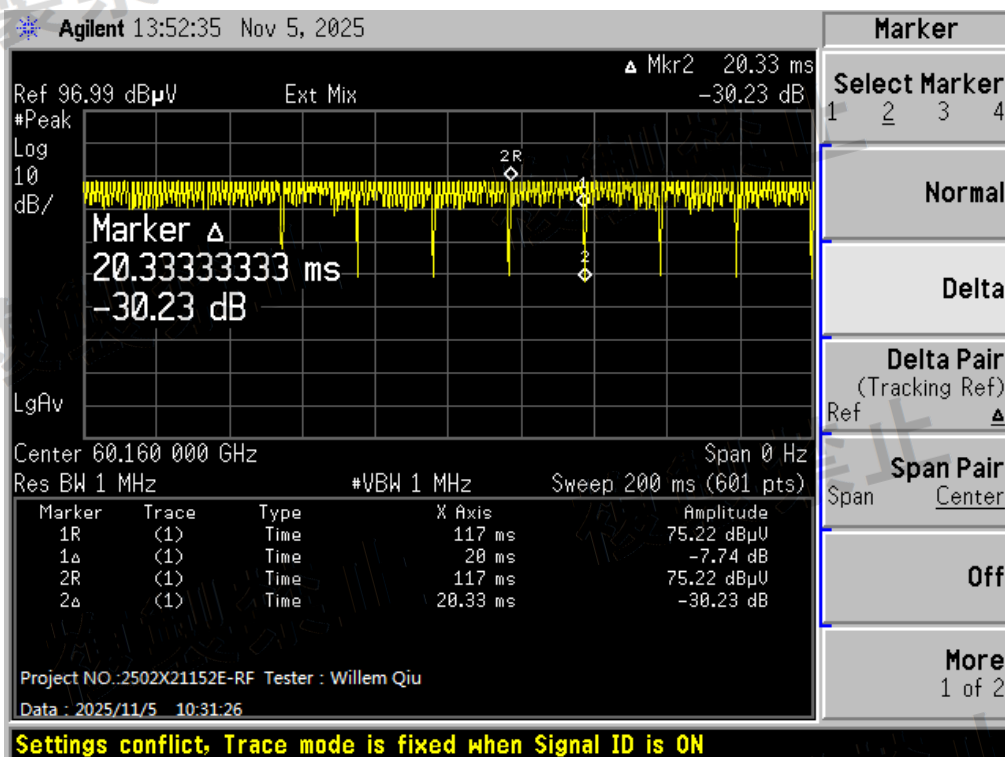
Power Tolerance

Frequency (GHz)	Maximum Result (dBm)	Tx on (ms)	Tx on + Tx off (ms)	Duty Cycle (%)	Conducted Power (mW)	Power Tolerance (%)	Limit (%)
60.16	-3.09	20	20.33	98.38	0.055	-45	-70 ~ +50
60.32	-3.19	20	20.33	98.38	0.053	-47	-70 ~ +50
62.48	-3.33	20	20.33	98.38	0.052	-48	-70 ~ +50
62.64	-2.85	20	20.33	98.38	0.058	-42	-70 ~ +50

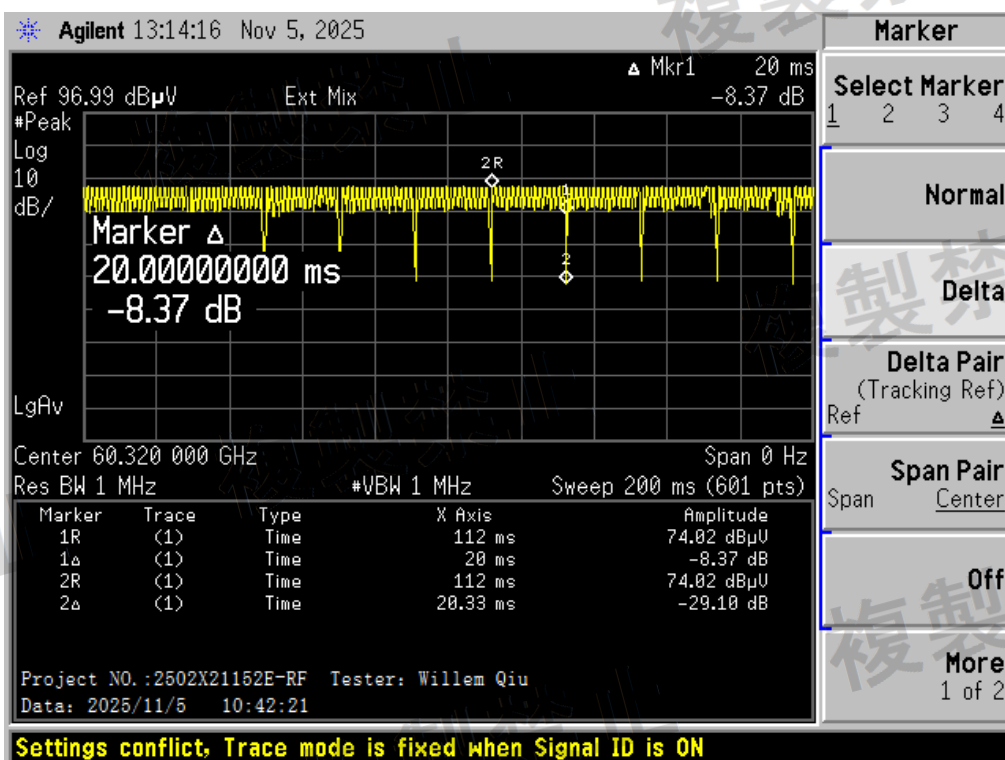
Note:

Conducted Power (mW) = $10^{[(\text{Maximum Result (dBm)} - \text{Antenna Gain})/10]} / \text{Duty Cycle}$;Power Tolerance = $(\text{Conducted Power (mW)} - \text{Declared Power (mW)}) / \text{Declared Power (mW)} * 100\%$.

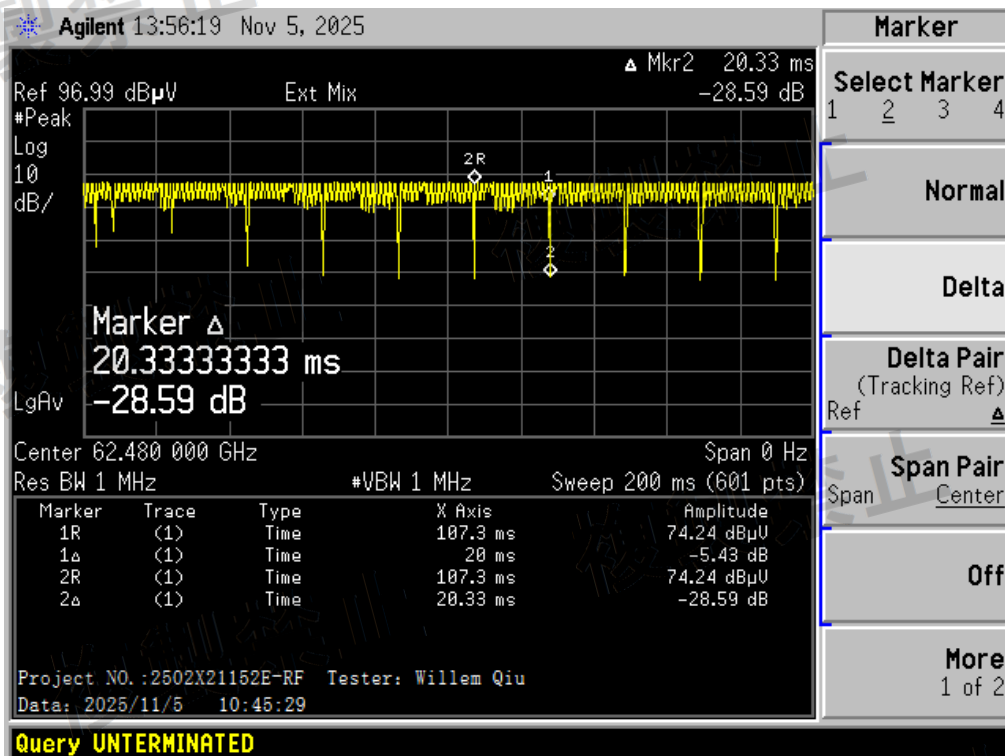
60160 MHz



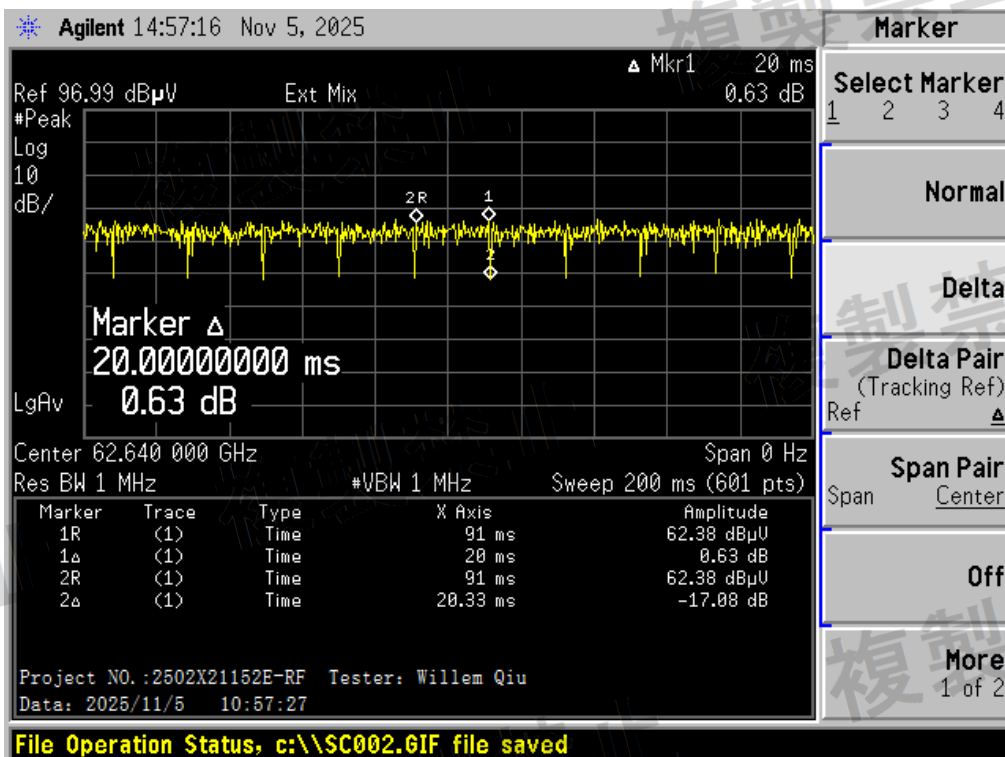
60320 MHz



62480 MHz



62640 MHz



6.5 Secondary Radiated Emission Strength**60160 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
374.60	H	41.53	-65.73	0.00	0.19	-65.92	-54	11.92
484.10	V	42.21	-60.73	0.00	0.25	-60.98	-54	6.98
1156.52	H	50.33	-66.44	7.21	0.36	-59.59	-47	12.59
1375.38	V	50.45	-66.25	8.48	0.38	-58.15	-47	11.15
5435.45	H	47.48	-63.82	11.53	1.03	-53.32	-47	6.32
5654.56	V	47.34	-64.03	11.67	1.05	-53.41	-47	6.41

60320 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
374.42	H	41.67	-65.60	0.00	0.19	-65.79	-54	11.79
484.69	V	42.34	-60.60	0.00	0.25	-60.85	-54	6.85
1155.68	H	50.66	-66.11	7.20	0.36	-59.27	-47	12.27
1375.68	V	50.92	-65.78	8.48	0.38	-57.68	-47	10.68
5436.54	H	47.57	-63.74	11.54	1.03	-53.23	-47	6.23
5655.47	V	47.05	-64.32	11.67	1.05	-53.70	-47	6.70

62480 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
374.35	H	41.79	-65.48	0.00	0.19	-65.67	-54	11.67
484.06	V	42.47	-60.47	0.00	0.25	-60.72	-54	6.72
1156.37	H	50.68	-66.09	7.21	0.36	-59.24	-47	12.24
1375.52	V	50.91	-65.79	8.48	0.38	-57.69	-47	10.69
5434.52	H	47.74	-63.55	11.53	1.03	-53.05	-47	6.05
5654.96	V	47.30	-64.07	11.67	1.05	-53.45	-47	6.45

62640 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
374.91	H	41.86	-65.40	0.00	0.19	-65.59	-54	11.59
484.55	V	42.63	-60.31	0.00	0.25	-60.56	-54	6.56
1154.75	H	50.43	-66.33	7.20	0.36	-59.49	-47	12.49
1374.69	V	50.88	-65.81	8.47	0.38	-57.72	-47	10.72
5436.37	H	47.51	-63.80	11.53	1.03	-53.30	-47	6.30
5655.69	V	47.22	-64.15	11.67	1.05	-53.53	-47	6.53

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit - Absolute Level

Note 3: No spurious emission detected for Above 18GHz.

6.6 Interference Prevention Function

Item	Result	Requirement	Verdict
Methodology to transmit ID Code:	Automatically	Automatically	Good
Methodology to receive ID Code:	Automatically	Automatically	Good
Identification Codes (ID Codes):	00:D0:BD:B0:43:83	/	/
Bits of ID Codes:	48 bits	19 bits or more	Compliant

Test Result: Compliant

6.7 Radio Waves Exposed To the Human

Mode	Frequency	Tune-up power (Conducted) [▲]	Limit	Result
	MHz	(mW)		
BLE	2402-2480	0.5	20	Pass
60G SRD	60160-62640	0.1	2	Pass

Note: The **Tune-up Power** was provided by the applicant.

Simultaneous computation:

The EUT have two type RF transmitters, BLE and 60G SRD, the simultaneously transmit should be as below:

$$\text{Sum}_{\text{Power}} = \text{Power}_{\text{BLE}} / \text{Power}_{\text{Limit}} + \text{Power}_{\text{SRD}} / \text{Power}_{\text{Limit}} = 0.075 < 1$$

Conclusion: Compliant

7 - CONSTRUCTION PROTECTION CONFIRMATION

7.1 Requirements

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

7.2 Confirmation Result

The RF module was covered with the shielding case, which is cannot be easily opened. Please refer the EUT photo.

8 - EXHIBIT A – EUT PHOTOGRAPHS

Please refer to the attachment 2502X21152E-RF-EXP EUT External photos and 2502X21152E-RF-INP EUT Internal photos.

9 - EXHIBIT B – TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2502X21152E-RF-TSP Test Setup Photos.

END OF REPORT