

Project No: TM-2602000265P
Report No.: TMWK2603001435KR

FCC ID: JNZVR0050

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FCC RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C

Test Standard	FCC Part 15.249
FCC ID	JNZVR0050
Brand Name	logi, logitech, Logitech
Product name	Camera and Speakerphone
Model No.	VR0050
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10-2020 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory)

Approved by:

sehni . Hu

Sehni Hu
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	June 10, 2026	Initial Issue	ALL	Allison Chen



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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Logitech Far East Ltd. #2 Creation Rd. 4, Science-Based Ind. Park Hsinchu Taiwan
Manufacturer	Logitech Europe S.A. EPFL – Quartier de l'Innovation Daniel Borel Innovation Center, 1015 Lausanne, Switzerland.
Equipment	Camera and Speakerphone
Model Name	VR0050
Model Discrepancy	N/A
EUT Functions	24GHz Radar
Received Date	February 12, 2026
Date of Test	May 04~June 01, 2026
Output Power	Peak : 101.26 dBuV/m Average : 88.05 dBuV/m
Power Operation	Power from Adapter. Brand / Model: logi / HA-1151-19 I/P: 100-240Vac, 2.0A, 50-60Hz O/P: 19.5Vdc, 7.7A 150.0W
HW Version	PB2-2
SW Version	920.72
Sweep Characteristics	Sweep Bandwidth: 90MHz Sweep Time: 493 us

Remark:

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

1.2 EUT CHANNEL INFORMATION

Frequency Range	24.15 ~ 24.24 GHz
Centre frequency	24.199 GHz
Modulation Type	FMCW
Number of channel	1

1.3 ANTENNA INFORMATION

Antenna Type	☐ PCB ☐ PIFA ☐ Dipole ☐ Coils ☒ Patch
Antenna Gain	Gain: 6.6 dBi
Brand / Model	Terasilic / SenseBoost12-PH12
Antenna connector	N/A

Notes:

1.The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.37 dB
Channel Bandwidth	± 2.85 dB
Radiated Emission_9kHz-30MHz	± 2.750 dB
Radiated Emission_30MHz-200MHz	± 3.874 dB
Radiated Emission_200MHz-1GHz	± 4.065 dB
Radiated Emission_1GHz-6GHz	± 5.594 dB
Radiated Emission_6GHz-18GHz	± 5.556 dB
Radiated Emission_18GHz-26GHz	± 3.165 dB
Radiated Emission_26GHz-40GHz	± 3.216 dB
Radiated Emission_40GHz-60GHz	± 2.259 dB
Radiated Emission_60GHz-90GHz	± 2.215 dB
Radiated Emission_90GHz-140GHz	± 2.225 dB

Remark:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.



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1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

AC Powerline Conducted Emission and Conducted:

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	Ben Yang	--
Radiation	Ben Yang, Tony Chao	--
RF Conducted	Jerry Chang	--

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC pubic Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309.

1.6 INSTRUMENT CALIBRATION

AC Mains Conduction					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI	100064	2025-06-02	2026-06-01
LISN	TESEQ	LN2-16N	22012	2026-02-04	2027-02-03
Cable	Woken	RFC-SMA-100-NMR-084SFL402	MFR-2Y194	2026-03-20	2027-03-19
Software	e3 V9-210616c				

Conducted_FCC					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2025-12-09	2026-12-08
Coaxial Cable	TELEDYNE	ROHS-095-0004-1.2MTR	201100-013	2025-05-19	2026-05-18
PXA Signal Analyzer	Keysight	N9030B	MY62291089	2025-09-24	2026-09-23
Software	N/A				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.



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966A_Radiated mmwave					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Signal Analyzer	Agilent	N9010A	MY52220817	2026-03-13	2027-03-12
Active Loop Antenna	COM-POWER	AL-130	121051	2026-02-04	2027-02-03
Thermo-Hygro Meter	HTC	HTC-1	HTC-D06	2025-05-26	2026-05-25
Bi-Log Antenna	Sunol Sciences	JB3	A030105&532	2025-06-26	2026-06-25
Preamplifier	EMEC	EM330	060609	2026-02-13	2027-02-12
Cable	Huber+Suhner	104PEA	20995+21000+182330	2025-08-06	2026-08-05
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2025-12-19	2026-12-18
Preamplifier	HP	8449B	3008A00965	2025-12-17	2026-12-16
Cable	EMCI	EMC101G	1508S0193+230206+250412	2026-01-14	2027-01-13
Pre-Amplifier	SCHWARZBECK	BBHA9170	1047	2025-12-09	2026-12-08
Horn Antenna	EMC	EMC184045SE	980860	2025-11-19	2026-11-18
Signal Generator	R&S	SMB100A	175936	2026-01-21	2027-01-20
STANDARD GAIN HORN ANTENNA	CMI	RCHO08R	RCHO08R	2023-06-16	2026-06-15
STANDARD GAIN HORN ANTENNA	CMI	RCHO12R	RCHO12R	2023-06-16	2026-06-15
STANDARD GAIN HORN ANTENNA	CMI	RCHO19R	RCHO19R	2023-06-15	2026-06-14
SA EXTENSION MODULE	VDI	SAX WR8.0	SAX982	2023-06-14	2026-06-13
SA EXTENSION MODULE	VDI	SAX WR12	SAX983	2023-06-14	2026-06-13
SA EXTENSION MODULE	VDI	SAX WR19	SAX993	2023-06-14	2026-06-13
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Software	e3 V9-210616c				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.



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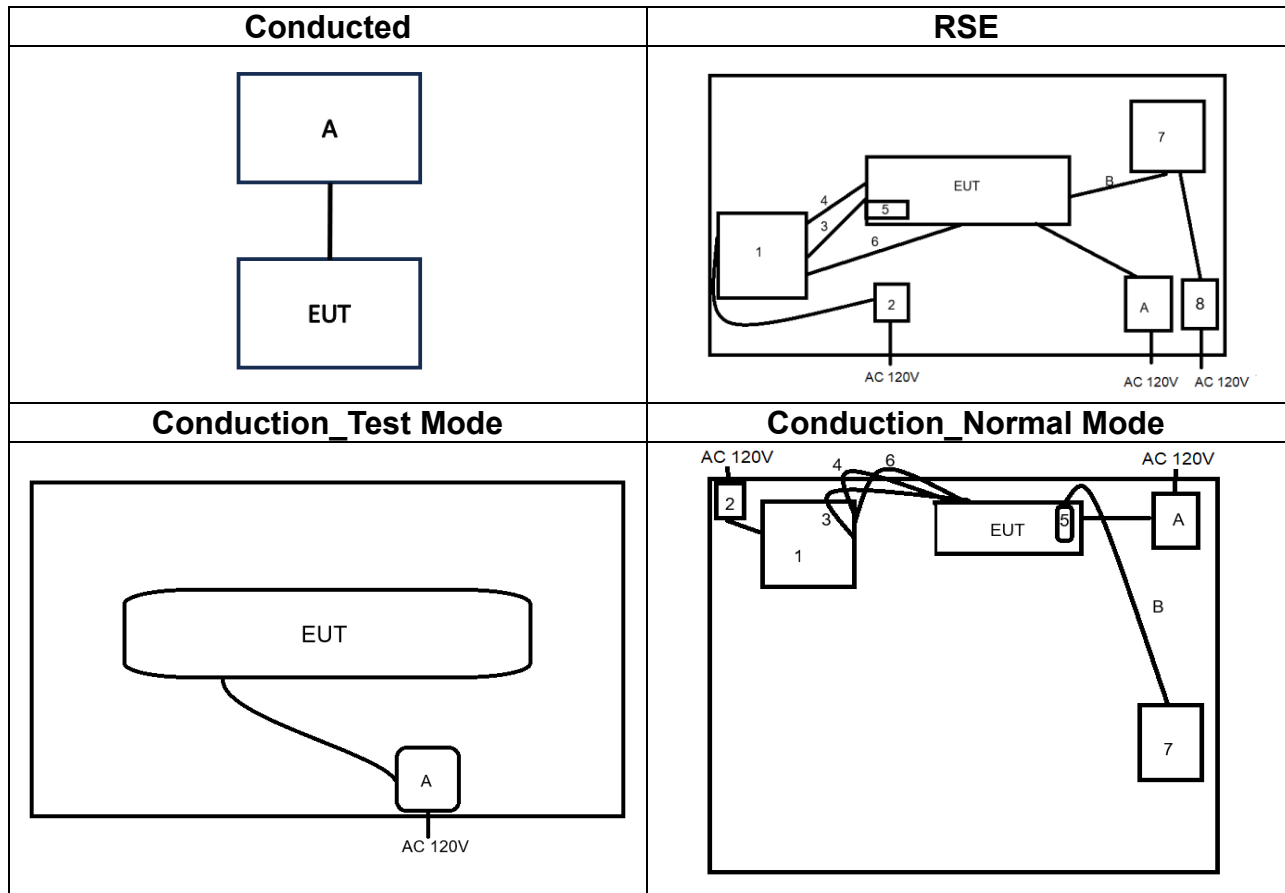
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1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

Support Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	NB	Lenovo	ThinkPad X260	N/A	N/A
2	Adapter	Lenovo	ADLX45DLC3A	N/A	N/A
3	Type-C Cable	Xiao mi	SJX10ZM	N/A	N/A
	Type-C Cable	UGREEN	50997	N/A	N/A
4	RJ45	atake	AC6-FL10	N/A	N/A
5	USB	ADATA	C008	N/A	N/A
6	HDMI Cable	PX	HD2-2XC	N/A	N/A
7	Monitor	Lenovo	LED HDTV	N/A	N/A
	Monitor	Lenovo	T24I-20	N/A	N/A
8	Adapter	Lenovo	1230	N/A	N/A
A	Adapter	logi	HA-1151-19	N/A	N/A
B	HDMI Cable	logi	N/A	N/A	N/A

1.8 TEST SET UP DIAGRAM



1.9 TEST PROGRAM

This EUT powered on to set the frequency, modulation and power to allow continuous transmission of the sample.

1.10 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10-2020, FCC Part 15.249.



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2. TEST SUMMARY

FCC Standard Section	Report Section	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207(a)	4.1	AC Conducted Emission	Pass
15.215	4.2	20dB Bandwidth and Occupied Bandwidth (99%)	Pass
15.249(a)	4.3	Filed strength of fundamental	Pass
15.249(a)	4.3	Radiation Spurious Emission	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF MEASUREMENT

AC Power Line Conduction Emission	
Test Condition	AC Power line conduction emission for line and neutral
Power supply Mode	Mode 1: EUT power by Adapter
Worst Mode	☒ Mode 1

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Adapter
Worst Mode	☒ Mode 1
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☒ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Adapter
Worst Mode	☒ Mode 1

Remark:

1. The worst mode was record in this test report.
2. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the minimum margin for radiated emission(Bandedge & Harmonic) as worse case.
3. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report

3.2 FAR FIELD CONDITION FOR FREQUENCY ABOVE 40GHZ

The equipment under test was transmitting while connected to its integral antenna and is placed on a turn table. The measurement antenna is in the far field of the EUT per formula $2D^2/\lambda$ where D is the larger between the dimension of the measurement antenna and the transmitting antenna of the EUT.

In this case, "D" is the largest dimension of the measurement antenna. The EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

Model	Frequency Range (GH)	Largest Dimension of the Horn Antenna (mm)	Minimum Test Distance Rm (m)
RCHO19R	40~60	31	0.38
RCHO12R	60~90	21	0.26
RCHO08R	90~140	15	0.21

4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

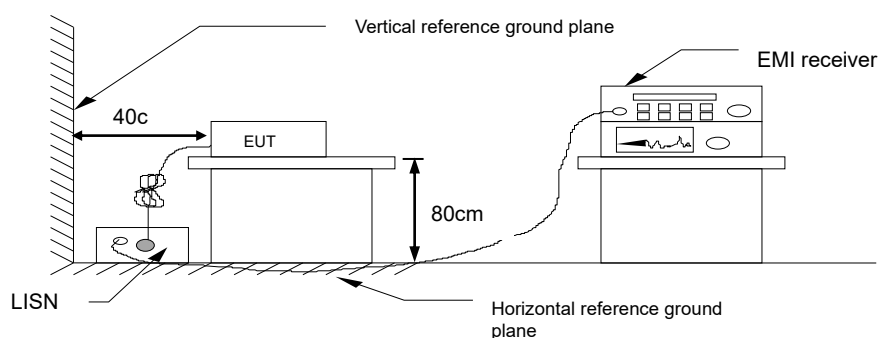
Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

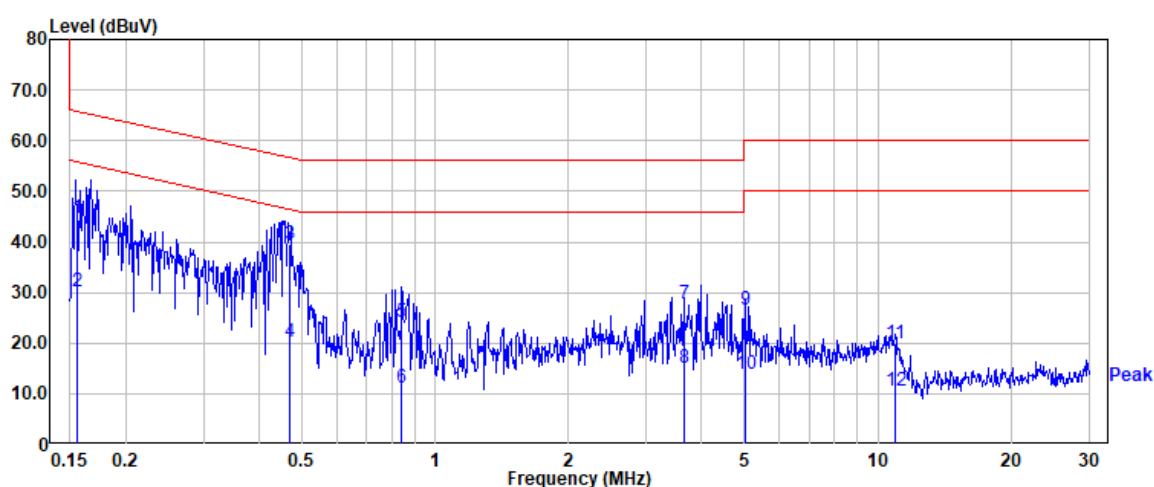
4.1.3 Test Setup



4.1.4 Test Result

Normal Mode

Project No	: TM-2602000265P	Test Date	: 2026-06-01
Operation Band	: System	Temp./Humi.	: 25°C / 65%
Test Chamber	: Conduction	Engineer	: Tony.Chao
Probe	: Line	Test Voltage	: AC 120V/60Hz
Note	:		



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.156	44.58	0.11	44.69	65.69	-21.00	QP
0.156	30.13	0.11	30.24	55.69	-25.45	Average
0.469	39.46	0.08	39.54	56.53	-16.99	QP
0.469	20.06	0.08	20.14	46.53	-26.39	Average
0.843	23.95	0.09	24.04	56.00	-31.96	QP
0.843	11.08	0.09	11.17	46.00	-34.83	Average
3.659	27.69	0.15	27.84	56.00	-28.16	QP
3.659	14.95	0.15	15.10	46.00	-30.90	Average
5.012	26.32	0.17	26.49	60.00	-33.51	QP
5.012	13.60	0.17	13.77	50.00	-36.23	Average
10.961	19.78	0.26	20.04	60.00	-39.96	QP
10.961	10.41	0.26	10.67	50.00	-39.33	Average

Note: 1. Actual FS= Spectrum Read Level + Factor

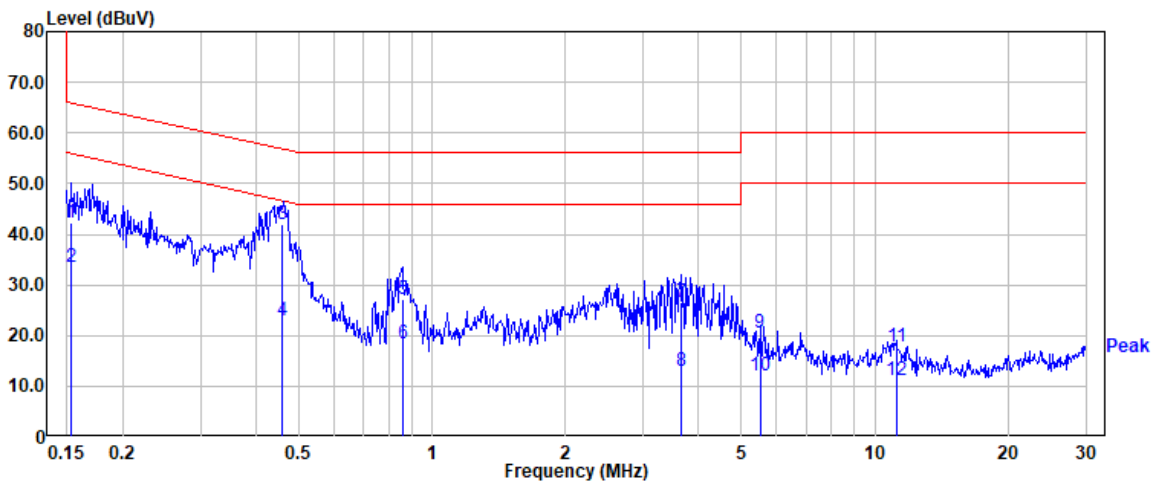
Note: 2. Margin= Actual FS – Limit



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Project No : TM-2602000265P Test Date : 2026-06-01
Operation Band : System Temp./Humi. : 25°C / 65%
Test Chamber : Conduction Engineer : Tony.Chao
Probe : Neutral Test Voltage : AC 120V/60Hz
Note :



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.154	42.10	0.12	42.22	65.79	-23.57	QP
0.154	33.35	0.12	33.47	55.79	-22.32	Average
0.458	41.88	0.10	41.98	56.72	-14.74	QP
0.458	22.89	0.10	22.99	46.72	-23.73	Average
0.862	27.06	0.11	27.17	56.00	-28.83	QP
0.862	18.31	0.11	18.42	46.00	-27.58	Average
3.644	26.48	0.17	26.65	56.00	-29.35	QP
3.644	12.87	0.17	13.04	46.00	-32.96	Average
5.510	20.49	0.19	20.68	60.00	-39.32	QP
5.510	11.89	0.19	12.08	50.00	-37.92	Average
11.182	17.60	0.26	17.86	60.00	-42.14	QP
11.182	10.90	0.26	11.16	50.00	-38.84	Average

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS – Limit



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Project No : TM-2602000265P

Operation Band : System

Test Chamber : Conduction

Probe : Line

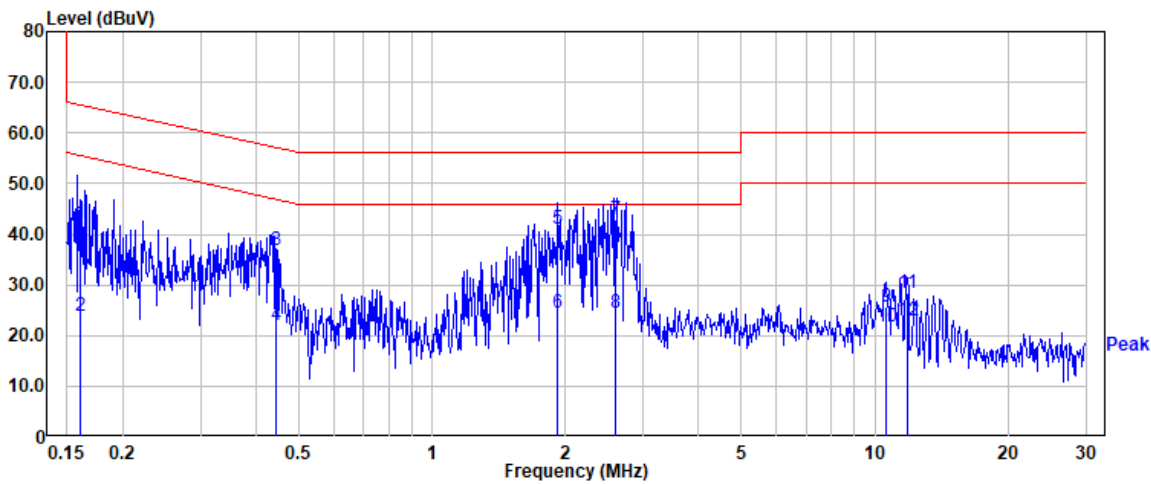
Note :

Test Date : 2026-06-01

Temp./Humi. : 25°C / 65%

Engineer : Tony.Chao

Test Voltage : AC 230V/60Hz



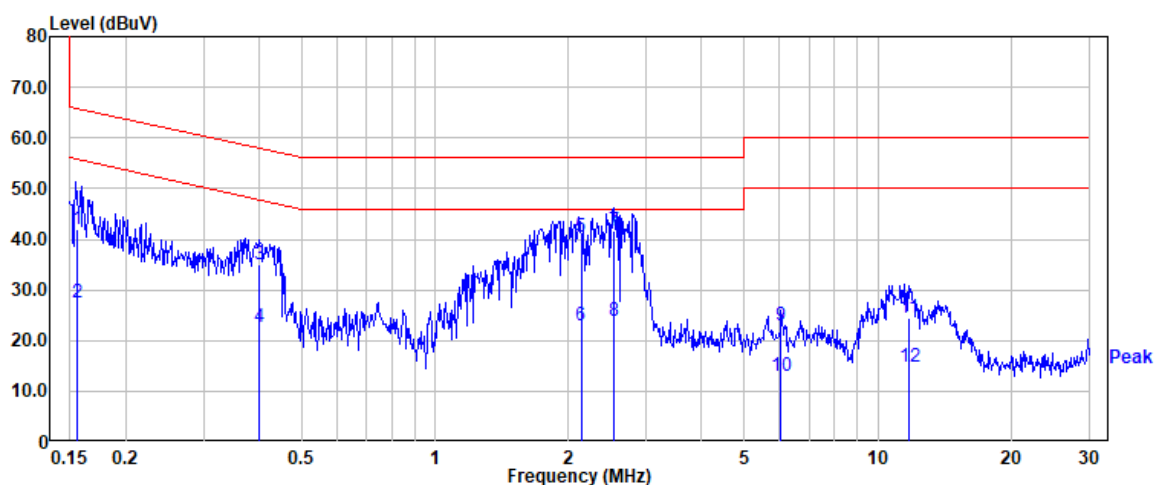
Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.161	42.28	0.11	42.39	65.41	-23.02	QP
0.161	23.76	0.11	23.87	55.41	-31.54	Average
0.446	36.75	0.08	36.83	56.95	-20.12	QP
0.446	21.87	0.08	21.95	46.95	-25.00	Average
1.925	40.87	0.12	40.99	56.00	-15.01	QP
1.925	24.39	0.12	24.51	46.00	-21.49	Average
2.594	42.73	0.13	42.86	56.00	-13.14	QP
2.594	24.27	0.13	24.40	46.00	-21.60	Average
10.585	25.53	0.26	25.79	60.00	-34.21	Peak
10.585	21.56	0.26	21.82	50.00	-28.18	Average
11.826	27.97	0.27	28.24	60.00	-31.76	QP
11.826	22.57	0.27	22.84	50.00	-27.16	Average

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS – Limit

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Project No : TM-2602000265P
Operation Band : System
Test Chamber : Conduction
Probe : Neutral
Note :
Test Date : 2026-06-01
Temp./Humi. : 25°C / 65%
Engineer : Tony.Chao
Test Voltage : AC 230V/60Hz



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.156	41.79	0.12	41.91	65.67	-23.76	QP
0.156	27.49	0.12	27.61	55.67	-28.06	Average
0.402	34.90	0.10	35.00	57.81	-22.81	QP
0.402	22.48	0.10	22.58	47.81	-25.23	Average
2.138	40.35	0.14	40.49	56.00	-15.51	QP
2.138	22.95	0.14	23.09	46.00	-22.91	Average
2.542	41.50	0.15	41.65	56.00	-14.35	QP
2.542	23.72	0.15	23.87	46.00	-22.13	Average
6.057	22.66	0.20	22.86	60.00	-37.14	QP
6.057	12.87	0.20	13.07	50.00	-36.93	Average
11.753	24.34	0.26	24.60	60.00	-35.40	QP
11.753	14.41	0.26	14.67	50.00	-35.33	Average

Note: 1. Actual FS= Spectrum Read Level + Factor

Note: 2. Margin= Actual FS – Limit

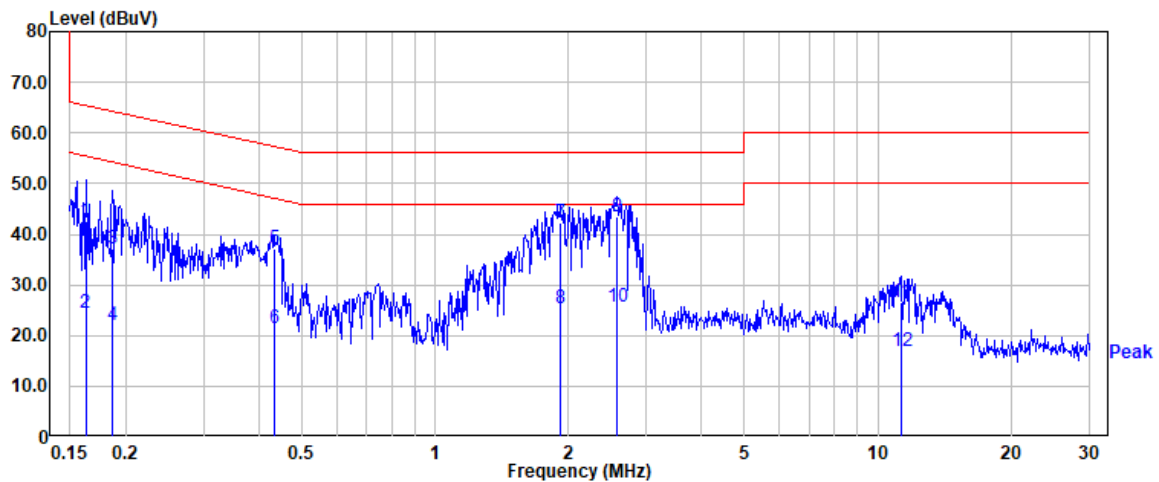
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Radar

Project No : TM-2602000265P
Operation Band : 24G
Test Chamber : Conduction
Probe : Line
Note : 24 GHz

Test Date : 2026-05-22
Temp./Humi. : 25°C / 65%
Engineer : Ben.Yang
Test Voltage : AC 120V/60Hz

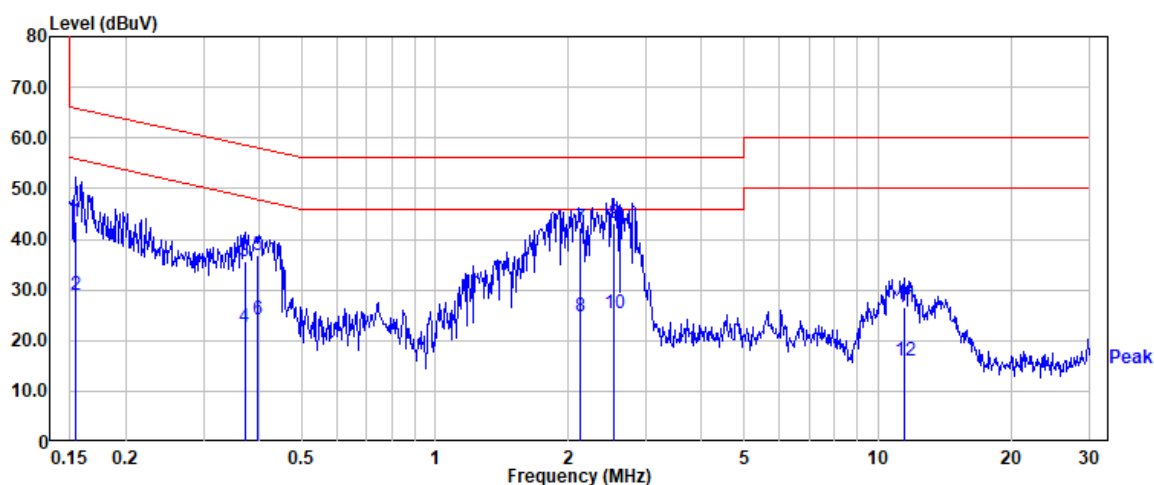


Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.163	42.35	0.10	42.45	65.33	-22.88	QP
0.163	24.47	0.10	24.57	55.33	-30.76	Average
0.187	37.13	0.10	37.23	64.19	-26.96	QP
0.187	22.01	0.10	22.11	54.19	-32.08	Average
0.433	36.95	0.08	37.03	57.19	-20.16	QP
0.433	21.26	0.08	21.34	47.19	-25.85	Average
1.919	42.16	0.12	42.28	56.00	-13.72	QP
1.919	25.12	0.12	25.24	46.00	-20.76	Average
2.572	43.32	0.13	43.45	56.00	-12.55	QP
2.572	25.51	0.13	25.64	46.00	-20.36	Average
11.296	26.36	0.26	26.62	60.00	-33.38	QP
11.296	16.54	0.26	16.80	50.00	-33.20	Average

Note: 1. Actual FS= Spectrum Read Level + Factor

Note: 2. Margin= Actual FS – Limit

Project No : TM-2602000265P Test Date : 2026-05-22
Operation Band : 24G Temp./Humi. : 25°C / 65%
Test Chamber : Conduction Engineer : Ben.Yang
Probe : Neutral Test Voltage : AC 120V/60Hz
Note : 24 GHz



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.154	43.32	0.12	43.44	65.78	-22.34	QP
0.154	28.83	0.12	28.95	55.78	-26.83	Average
0.372	35.55	0.10	35.65	58.46	-22.81	QP
0.372	22.50	0.10	22.60	48.46	-25.86	Average
0.399	36.74	0.10	36.84	57.87	-21.03	QP
0.399	24.16	0.10	24.26	47.87	-23.61	Average
2.126	42.10	0.14	42.24	56.00	-13.76	QP
2.126	24.72	0.14	24.86	46.00	-21.14	Average
2.533	43.11	0.15	43.26	56.00	-12.74	QP
2.533	25.35	0.15	25.50	46.00	-20.50	Average
11.521	26.16	0.26	26.42	60.00	-33.58	QP
11.521	15.60	0.26	15.86	50.00	-34.14	Average

Note: 1. Actual FS= Spectrum Read Level + Factor

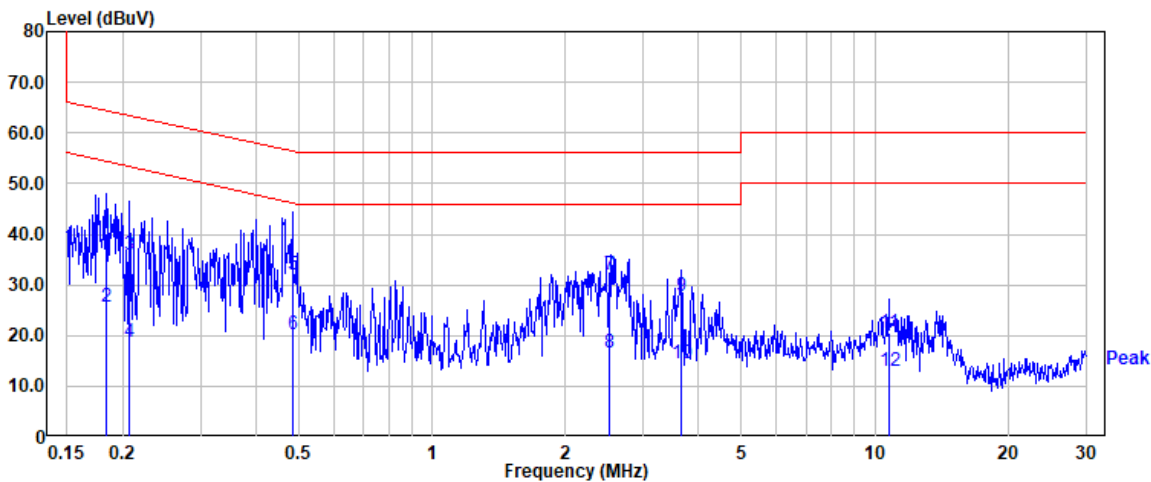
Note: 2. Margin= Actual FS – Limit



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Project No	: TM-2602000265P	Test Date	: 2026-05-22
Operation Band	: 24G	Temp./Humi.	: 25°C / 65%
Test Chamber	: Conduction	Engineer	: Ben.Yang
Probe	: Line	Test Voltage	: AC 230V/60Hz
Note	: 24 GHz		



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.184	40.09	0.10	40.19	64.31	-24.12	QP
0.184	25.51	0.10	25.61	54.31	-28.70	Average
0.208	35.96	0.09	36.05	63.29	-27.24	QP
0.208	18.55	0.09	18.64	53.29	-34.65	Average
0.485	31.89	0.08	31.97	56.24	-24.27	QP
0.485	20.06	0.08	20.14	46.24	-26.10	Average
2.525	31.89	0.13	32.02	56.00	-23.98	QP
2.525	16.51	0.13	16.64	46.00	-29.36	Average
3.651	27.51	0.15	27.66	56.00	-28.34	QP
3.651	14.39	0.15	14.54	46.00	-31.46	Average
10.762	20.18	0.26	20.44	60.00	-39.56	QP
10.762	12.87	0.26	13.13	50.00	-36.87	Average

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS – Limit



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Project No : TM-2602000265P

Operation Band : 24G

Test Chamber : Conduction

Probe : Neutral

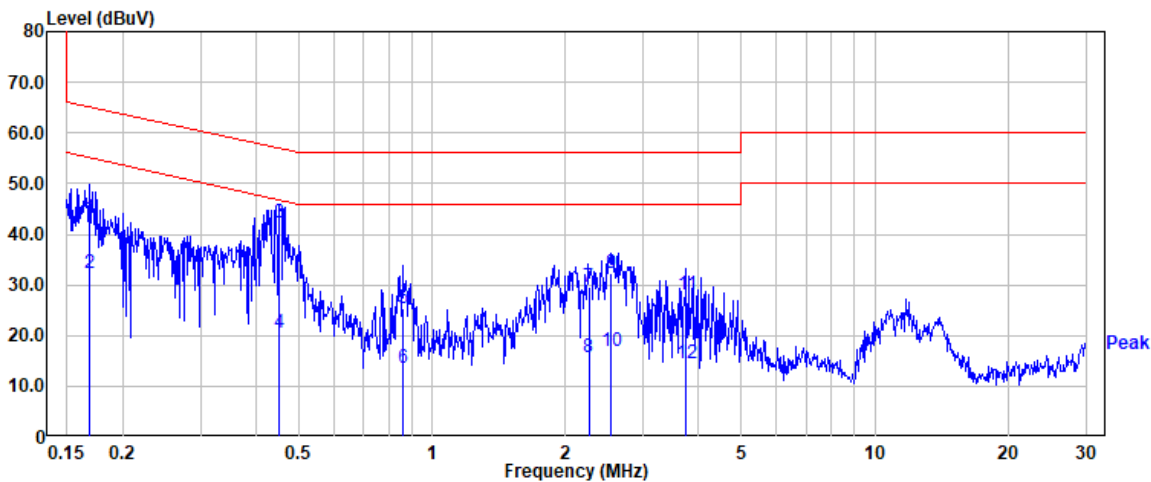
Note : 24 GHz

Test Date : 2026-05-22

Temp./Humi. : 25°C / 65%

Engineer : Ben.Yang

Test Voltage : AC 230V/60Hz

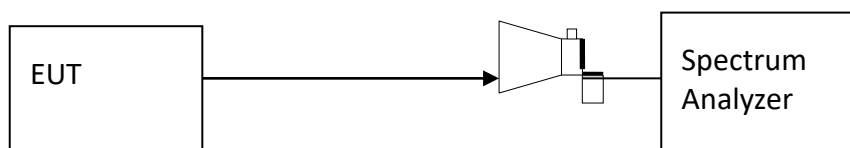


Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.168	43.13	0.12	43.25	65.05	-21.80	QP
0.168	32.26	0.12	32.38	55.05	-22.67	Average
0.452	42.12	0.10	42.22	56.84	-14.62	QP
0.452	20.56	0.10	20.66	46.84	-26.18	Average
0.862	25.38	0.11	25.49	56.00	-30.51	QP
0.862	13.35	0.11	13.46	46.00	-32.54	Average
2.261	29.45	0.14	29.59	56.00	-26.41	QP
2.261	15.65	0.14	15.79	46.00	-30.21	Average
2.535	32.25	0.15	32.40	56.00	-23.60	QP
2.535	16.68	0.15	16.83	46.00	-29.17	Average
3.755	27.95	0.17	28.12	56.00	-27.88	QP
3.755	14.24	0.17	14.41	46.00	-31.59	Average

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS – Limit

4.2 20dB BANDWIDTH AND OCCUPIED BANDWIDTH (99%)

TEST CONFIGURATION



TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth and 20dB Bandwidth
3. Measure and record the result of 20 dB Bandwidth and 99% Bandwidth. in the test report.

TEST RESULTS

Compliance.

Temperature: 24.1~25.4°C **Test Date:** May 04~05, 2026
Humidity: 58~59% RH **Tested by:** Jerry Chang

Test Condition	Frequency(GHz)	Occupied Bandwidth 99% (MHz)	20 dB Bandwidth (MHz)
VR0050	24.15~24.24	90.172	92.593

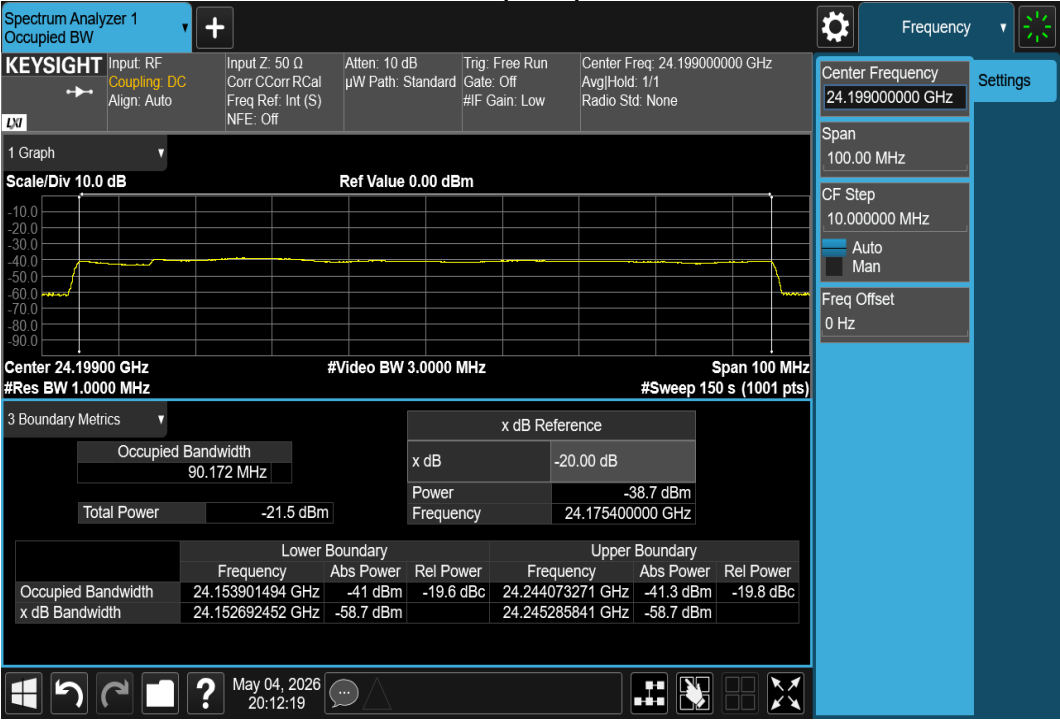


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Test Plot

20dB Bandwidth & BANDWIDTH (99%)



4.3 FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION

4.3.1 Test Limit

According to §15.249(a)

(1) The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

* Field strength limits are specified at a distance of 3 meters

Fundamental Limit Conversion		
Average (mV/m) at 3M	Average (dBuV/m) at 3M	Peak (dBuV/m) at 3M
250	107.96	127.96

Harmonic Limit Conversion		
Average (uV/m) at 3M	Average (dBuV/m) at 3M	Peak (dBuV/m) at 3M
2500	67.96	87.96

(2) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209(follow the table), whichever is the lesser attenuation

Below 30 MHz

Frequency	Field Strength ($\mu\text{A/m}$)	Magnetic field strength (H-Field) ($\mu\text{A/m}$)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

4.3.2 Test Procedure

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m, below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10-2020, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. The SA setting following :

(1) Below 30MHz :

(1.1) 9KHz-490KHz: RBW=200Hz / VBW=1kHz / Sweep=AUTO

(1.2) 490KHz-30MHz: RBW=10kHz / VBW=30kHz / Sweep=AUTO

(2) 30MHz to 1GHz :

RBW = 100kHz, VBW $\geq$ 3*RBW, Sweep = Auto,

Detector = Peak, Trace = Max hold.

(3) Above 1G :

(3.1) For Peak measurement : RBW = 1MHz, VBW $\geq$ 3 RBW, Detector = Peak.

(3.2) For Average measurement : RBW = 1MHz, VBW $\geq$ 3 RBW, Detector = RMS.

Data result :

Actual FS = Spectrum Reading Level + Distance factor $[20*\log(D/3)]$

Margin = Actual FS- Limit

Note:

1. The measurement distance of the Fundamental frequency is 3m.
For PK measurement, including FMCW desensitization factor.
Follow Annex L of the ANSI C63.10-2020 standard.
FMCW desensitization factor = $20 * \log(\alpha)$

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

BW_{chirp} : Follow report sec 1.2.

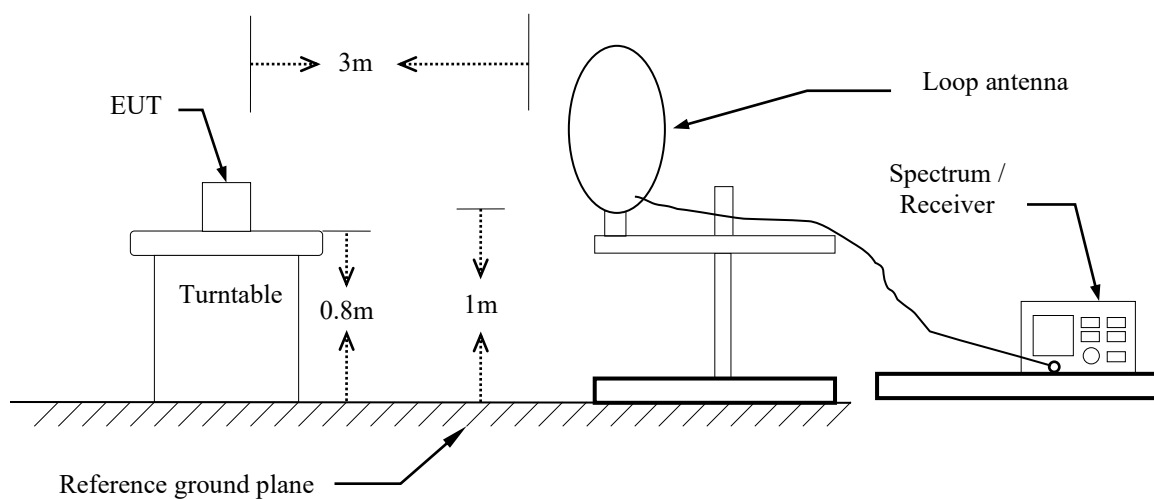
T_{Chirp} : Follow report sec 1.2.

RBW : 1MHz

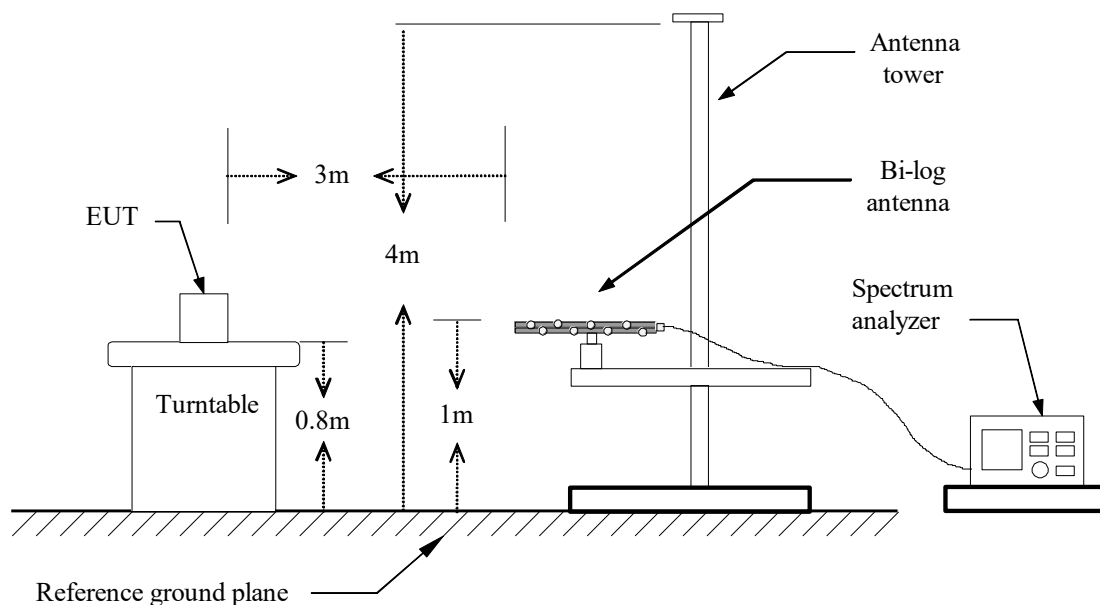
2. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)
3. Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site. There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.
4. Measuring distance: 1-40G@3m, 40-90G@0.5m, 90-100G@0.21m
5. For frequencies above 40 GHz, the worst pattern is recorded in the report after the pre-scan using the Field Strength of Fundamental.

4.3.3 Test Setup

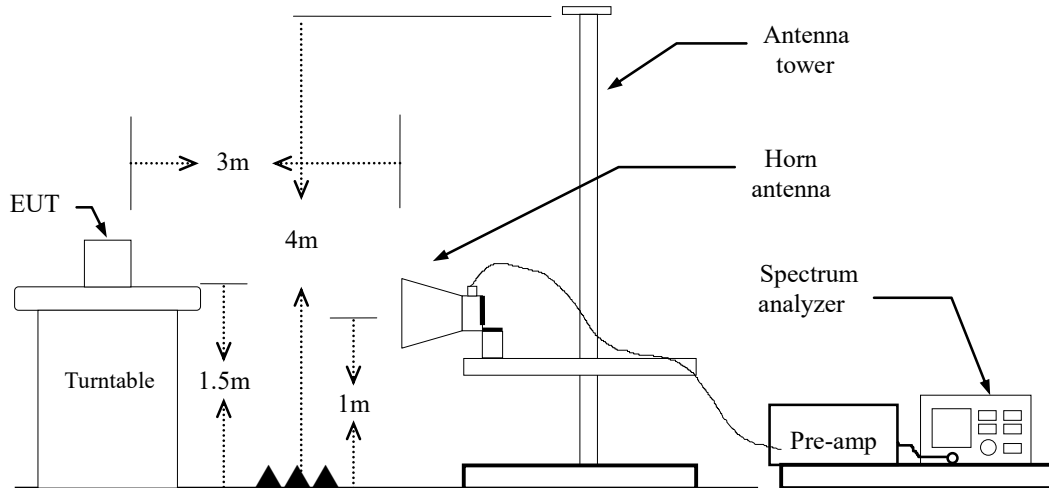
9kHz ~ 30MHz



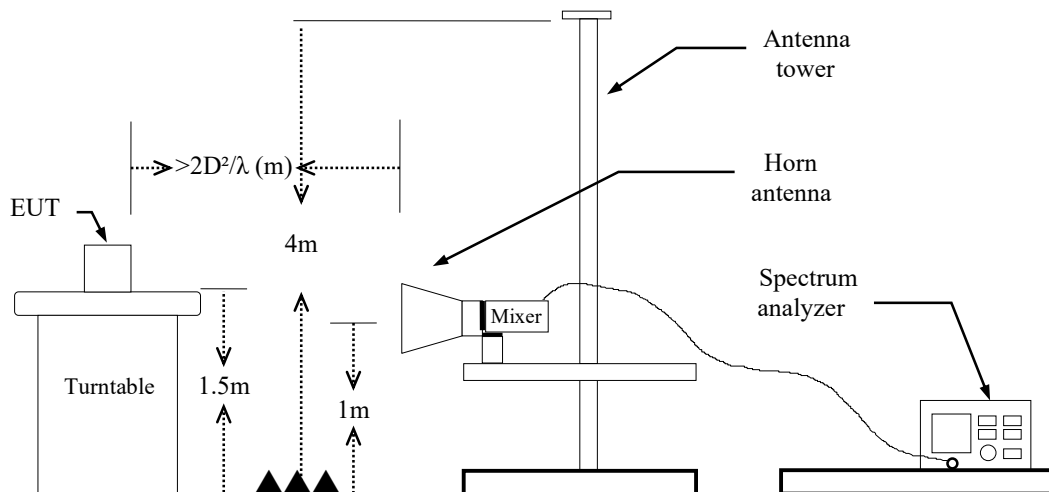
30MHz ~ 1GHz



Above 1 GHz



Above 40 GHz

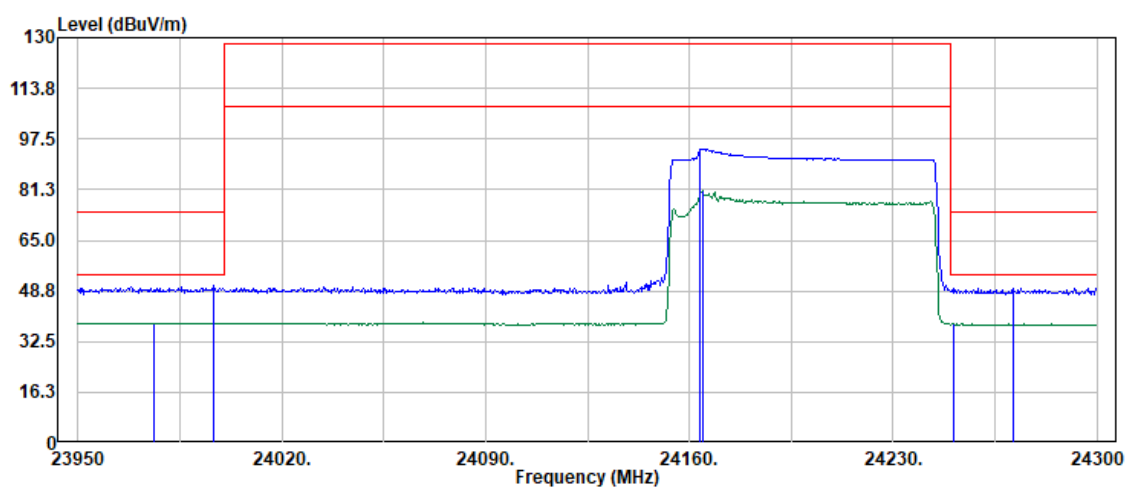


4.3.4 Test Result

Test Data

(1) Filed strength of fundamental :

Project No	: TM-2602000265P	Test Date	: 2026-05-05
Operation Band	: Radar	Temp./Humi.	: 25.4/58
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: VERTICAL
Operation Mode	: Main	Engineer	: Ben.Yang
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



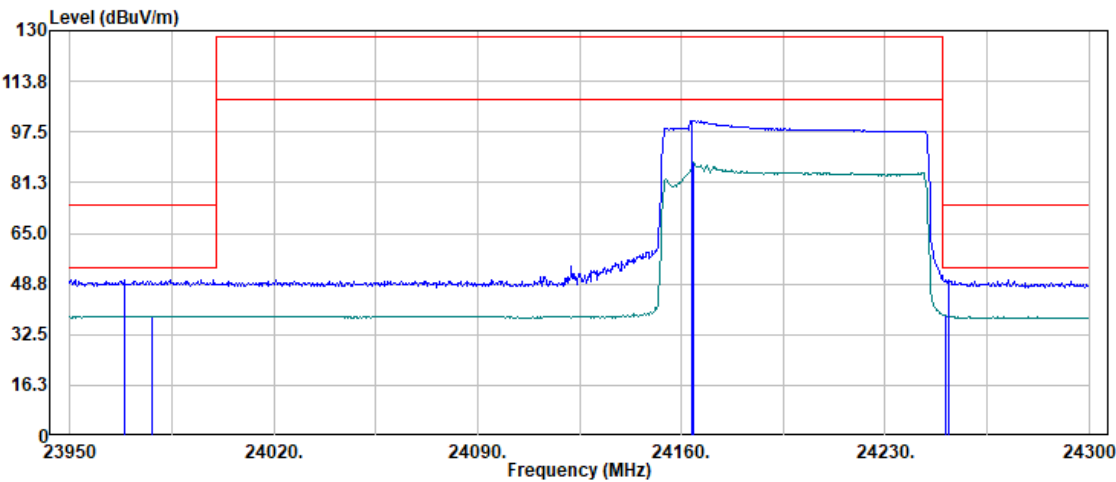
Trace: 1						
Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
23975.90	36.90	1.52	38.42	54.00	-15.58	Average
23996.55	48.80	1.49	50.29	74.00	-23.71	Peak
24163.85	92.85	1.49	94.34	127.96	-33.62	Peak
24164.55	79.58	1.49	81.07	107.96	-26.89	Average
24250.65	36.35	1.79	38.14	54.00	-15.86	Average
24271.30	47.98	1.77	49.75	74.00	-24.25	Peak



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Project No	: TM-2602000265P	Test Date	: 2026-05-05
Operation Band	: Radar	Temp./Humi.	: 25.4/58
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: HORIZONTAL
Operation Mode	: Main	Engineer	: Ben.Yang
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



Trace: 1

Freq	Read	Factor	Actual	Limit	Margin	Detector
-----	Level	-----	FS	@3m	-----	Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
23968.55	48.63	1.53	50.16	74.00	-23.84	Peak
23978.35	36.99	1.52	38.51	54.00	-15.49	Average
24163.50	99.77	1.49	101.26	127.96	-26.70	Peak
24164.20	86.56	1.49	88.05	107.96	-19.91	Average
24251.00	36.74	1.79	38.53	54.00	-15.47	Average
24251.70	48.16	1.79	49.95	74.00	-24.05	Peak

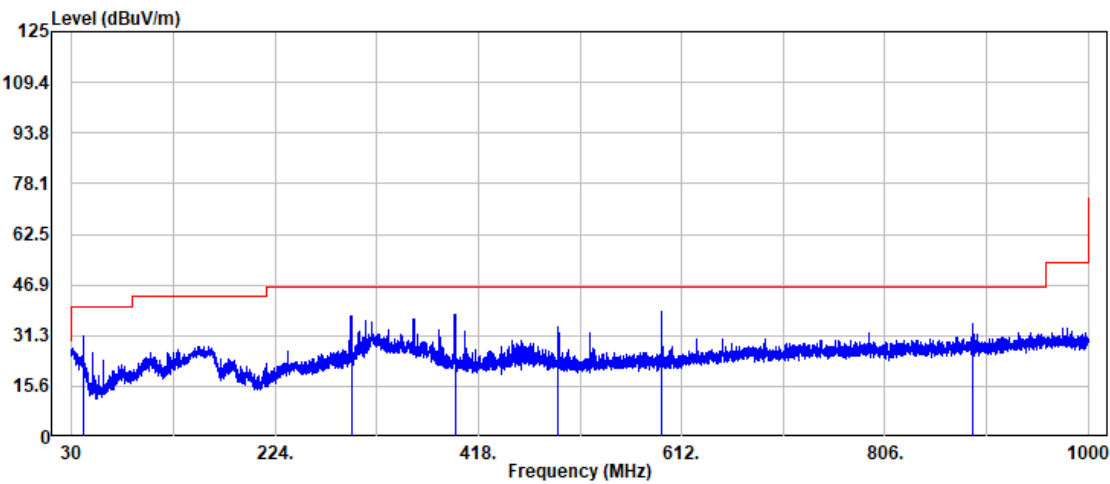


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(2) Below 1G :

Project No	: TM-2602000265P	Test Date	: 2026-05-22
Operation Band	: Radar	Temp./Humi.	: 25.4/52
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: VERTICAL
Operation Mode	: TX	Engineer	: Tony.Chao
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



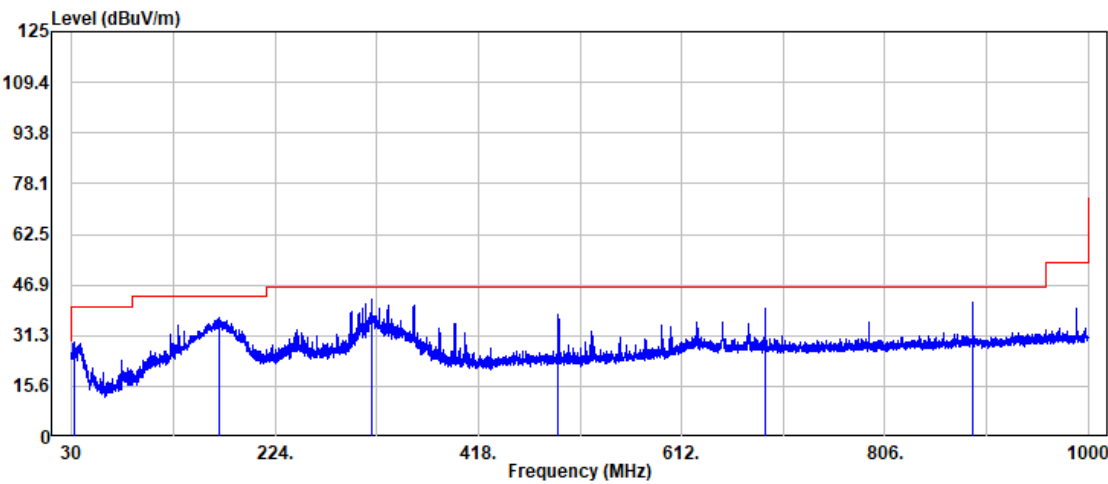
Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
41.40	42.37	-11.30	31.07	40.00	-8.93	Peak
296.75	46.43	-9.29	37.14	46.00	-8.86	Peak
395.69	44.63	-6.84	37.79	46.00	-8.21	Peak
494.51	38.38	-4.32	34.06	46.00	-11.94	Peak
593.45	42.14	-3.36	38.78	46.00	-7.22	Peak
890.15	33.28	1.63	34.91	46.00	-11.09	Peak



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Project No	: TM-2602000265P	Test Date	: 2026-05-22
Operation Band	: Radar	Temp./Humi.	: 25.4/52
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: HORIZONTAL
Operation Mode	: TX	Engineer	: Tony.Chao
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
32.18	33.22	-4.08	29.14	40.00	-10.86	Peak
170.53	48.20	-11.58	36.62	43.50	-6.88	Peak
316.76	50.67	-8.88	41.79	46.00	-4.21	Peak
494.51	41.94	-4.32	37.62	46.00	-8.38	Peak
692.27	40.99	-1.18	39.81	46.00	-6.19	Peak
890.15	39.98	1.63	41.61	46.00	-4.39	Peak

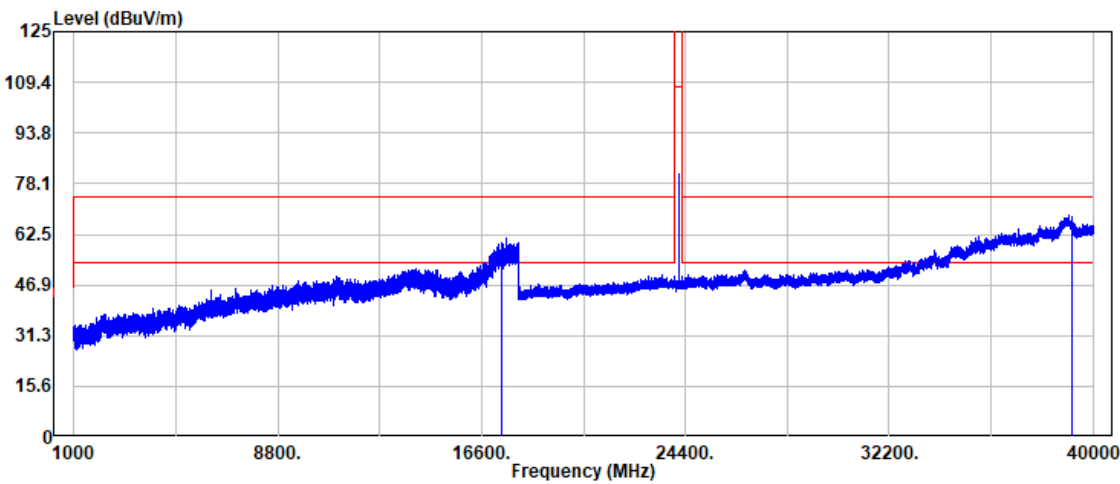


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(3) Above 1GHz: 1 ~ 40GHz

Project No	: TM-2602000265P	Test Date	: 2026-05-05
Operation Band	: Radar	Temp./Humi.	: 25.4/58
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: VERTICAL
Operation Mode	: TX	Engineer	: Ben.Yang
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



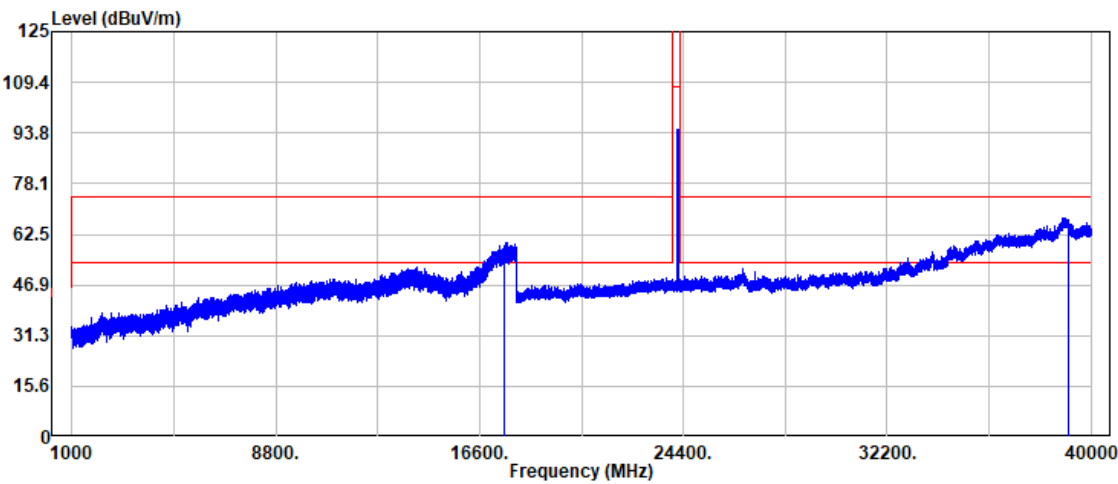
Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
17351.17	34.91	25.20	60.11	74.00	-13.89	Peak
17351.17	24.66	25.20	49.86	54.00	-4.14	Average
39179.00	50.62	17.16	67.78	74.00	-6.22	Peak
39179.00	31.67	17.16	48.83	54.00	-5.17	Average



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Project No	: TM-2602000265P	Test Date	: 2026-05-05
Operation Band	: Radar	Temp./Humi.	: 25.4/58
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: HORIZONTAL
Operation Mode	: TX	Engineer	: Ben.Yang
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
17558.95	33.75	25.22	58.97	74.00	-15.03	Peak
17558.95	24.64	25.22	49.86	54.00	-4.14	Average
39127.00	49.73	17.40	67.13	74.00	-6.87	Peak
39127.00	31.76	17.40	49.16	54.00	-4.84	Average

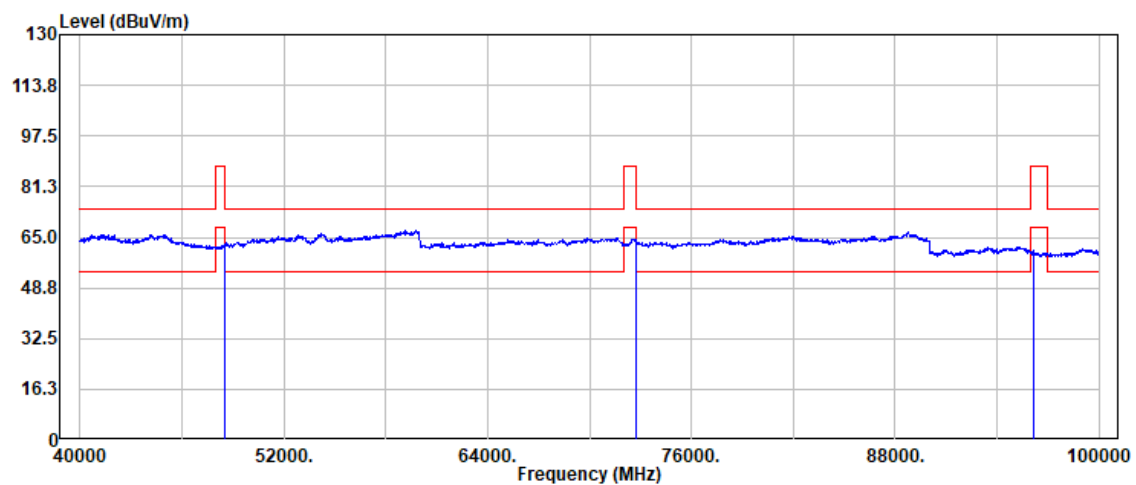


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(3) Above 1GHz: 40 ~ 100GHz

Project No	: TM-2602000265P	Test Date	: 2026-05-05
Operation Band	: Radar	Temp./Humi.	: 25.4/58
Frequency	: 24.15~24.24 GHz	Antenna Pol.	: HORIZONTAL
Operation Mode	: TX	Engineer	: Ben.Yang
EUT Pol	: H	Test Chamber	: 966A
Setting	:		



Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
48480.00	16.94	45.63	62.57	87.96	-25.39	Peak
48480.00	3.37	45.63	49.00	67.96	-18.96	Average
72720.00	14.50	49.48	63.98	87.96	-23.98	Peak
72720.00	3.57	49.48	53.05	67.96	-14.91	Average
96190.00	15.42	45.19	60.61	87.96	-27.35	Peak
96190.00	3.30	45.19	48.49	67.96	-19.47	Average

- End of Test Report -