



FCC PART 15.249 TEST REPORT

On Behalf of

Mospen Products Company

3F-3, No. 181, Fu Hsing N. Rd., Taipei, 10596, Taiwan

FCC ID: 2BWVD-P40Y68S

Model: P40Y68S

June 30, 2026

This Report Concerns:

☒ Original Report

Equipment Type:

Remote Controller

Test Engineer:

Fan Yang / *Fan Yang*

Report Number:

QCT26ER-1633E-01

Test Date:

June 2~4, 2026

Test Result:

Pass

Reviewed By:

Vincent Yang / *Vincent Yang*

Approved By:

Kendy Wang / *Kendy Wang*

Prepared By:

Shenzhen QC Testing Laboratory Co., Ltd.

East of 1/F., Building E, Xinghong Science Park, No.111,
Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an
District, Shenzhen, Guangdong, China

Tel: 0755-23008269

Fax: 0755-23726780





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Report Number

Description

Issued Date

QCT26ER-1633E-01

Initial Issue

2026-06-30



1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Description	Remote Controller
Model No.	P40Y68S
Tested Model	P40Y68S
Sample(s) Status	Engineer sample
Operation Frequency:	2402MHz
Channel numbers:	1
Modulation type:	GFSK
Antenna Type:	PCB Antenna
Antenna gain*1:	0dBi
Power supply:	3V DC
Trade Mark:	M, MOCAL CREATIVE COMPANY LIMITED
Applicant	Mospen Products Company
Address	3F-3, No. 181, Fu Hsing N. Rd., Taipei, 10596, Taiwan
Manufacturer	MOCAL CREATIVE COMPANY LIMITED
Address	Lot No. 9-2, 9-3, 9-5, 9-6 Calmette Avenue, Protrade International Tech Park, An Tay Commune, BEN CAT TOWN Binh Duong, VIETNAM
Sample No.	Y26E1633E01WC

Note: *1 This information provided by Manufacturer, SZ QC Lab is not responsible for the accuracy of this information.

1.2 System Test Configuration

1.2.1 Support Equipment

N/A

1.2.2 Test mode and voltage

Transmitting mode: Keep the EUT in continuously transmitting.

Test voltage: DC 3V

RF power setting	Default power
Test software	Press and hold the button



1.3 Test Facility

Test Firm : Shenzhen QC Testing Laboratory Co., Ltd.

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS – Registration No.: L8464

The EMC Laboratory has been accredited by CNAS, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

A2LA Certificate Number: 6759.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 561109

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 29628

CAB identifier: CN0141

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

1.4 Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	3.43%
RF output power, conducted	0.63dB
Power Spectral Density, conducted	0.69dB
Unwanted Emissions, conducted	0.90dB
AC Power Line Conducted Emission	1.80dB
Radiated Spurious Emission test (9kHz-30MHz)	2.68dB
Radiated Spurious Emission test (30MHz-1000MHz)	4.10dB
Radiated Spurious Emission test (1000MHz-18000MHz)	4.70dB
Radiated Spurious Emission test (18GHz-40GHz)	4.80dB
Temperature	0.375°C
Humidity	1.2679%
DC and low frequency voltages	0.18%
Time	0.133%
Duty cycle	0.133%

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2



2. Summary of Test Results

Test Item	Section	Result
Antenna Requirement	15.203	Pass
Conduction Emission	15.207	Not Applicable
Radiated Emissions	15.205, 15.209, 15.249	Pass
20dB Bandwidth	15.215 (c)	Pass

- Note:
1. In the configuration tested, the EUT complied with the standards specified above.
 2. Test according to ANSI C63.10-2020+Cor.1-2023
 3. All indications of Pass/Fail in this report are opinions expressed by Shenzhen QC Testing Laboratory Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.
 4. The EUT is powered by the battery, and Conduction Emission is not applicable.



3. List of Test and Measurement Instruments

3.1 Radiated Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
1.	EMI Test Receiver	R&S	ESIB 7	2277573376	2026.03.12	2027.03.11
2.	EMI Test Receiver	ESPI3	ESPI3	101131	2026.03.12	2027.03.11
3.	Spectrum Analyzer	Rohde&Schwarz	FSV 40	101458	2026.03.13	2027.03.12
4.	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9168	VULB9168-588	2026.03.14	2028.03.13
5.	Loop Antenna	EMCO	6502	2133	2026.03.14	2028.03.13
6.	horn antenna	SCHWARZBECK	BBHA9120D	2069	2026.03.14	2028.03.13
7.	Horn Antenna	COM-MW	ZLB7-18-40G -950	12221225	2025.08.19	2027.08.18
8.	Pre-amplifier	MITEQ	TTA0001-18	2063645	2026.03.12	2027.03.11
9.	Pre-amplifier	MITEQ	TTA1800-30-H G	2063644	2026.03.12	2027.03.11
10.	Pre-amplifier	COM-MW	DLAN-18000 -40000-02	10229104	2026.03.12	2027.03.11
11.	966 Camber	ZhongYU	9*6*6	/	2025.08.12	2028.08.11
12.	Test Software	Farad	EZ-EMC Ver QCT03A2 RE+	N/A	N/A	N/A

3.2 RF Conducted test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
1.	Spectrum Analyzer	ROHDE& SCHWARZ	FSV 40	101458	2026.03.13	2027.03.12



4. Antenna requirement

Standard requirement: FCC Part15 C Section 15.203

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.

EUT Antenna: The antenna is PCB Antenna, the best case gain of the antenna is 0dBi, reference to the Internal Photos for details.

5. Radiated Emission Method

5.1 Applicable Standard

FCC Part15 C Section 15.249

5.2 Limit

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

As per FCC Section 15.249

(c) Field strength limits are specified at a distance of 3 meters.

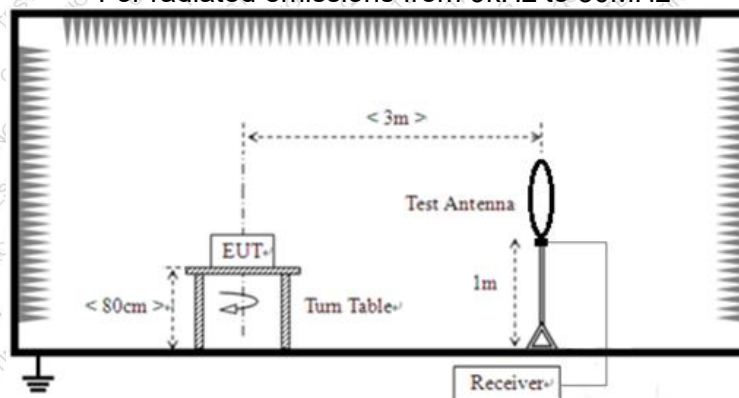
(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

5.3 Receiver setup

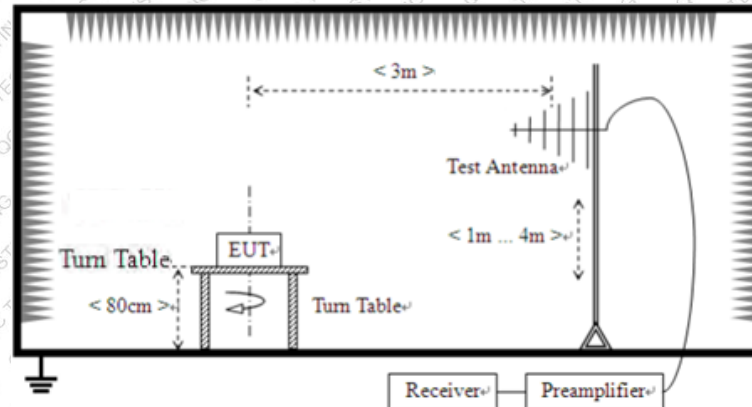
Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

5.4 Test setup

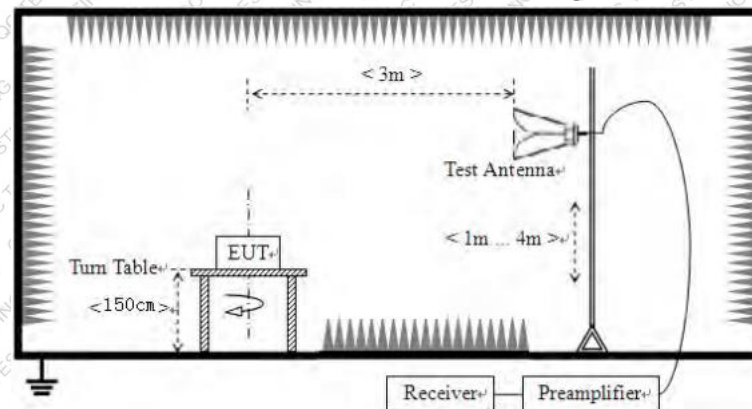
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



5.5 Test Procedure

1. The EUT was placed on the top of a rotating table (0.8 meters for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.



5.6 Test Data

Temperature	25°C	Humidity	49%
ATM Pressure	101.1kPa	Antenna Gain	0dBi
Test by	Charlie He	Test result	PASS

Remarks:

Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

Measurement data:

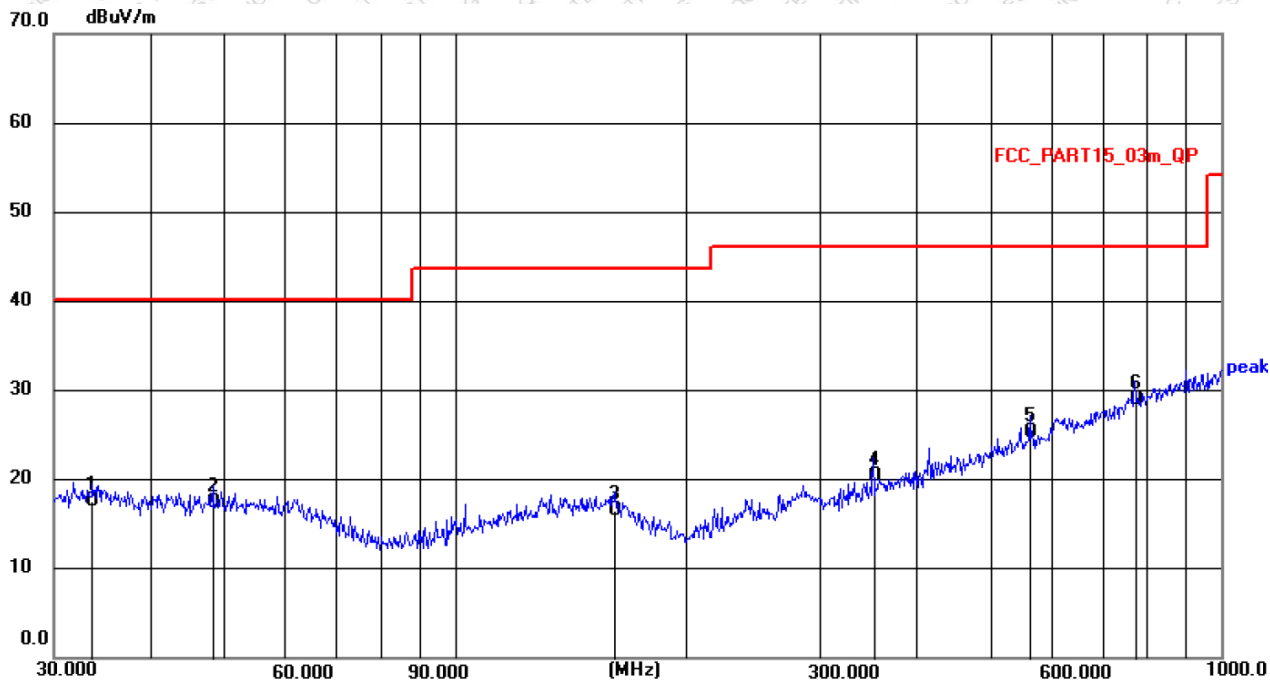
9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.



Below 1GHz:

Horizontal

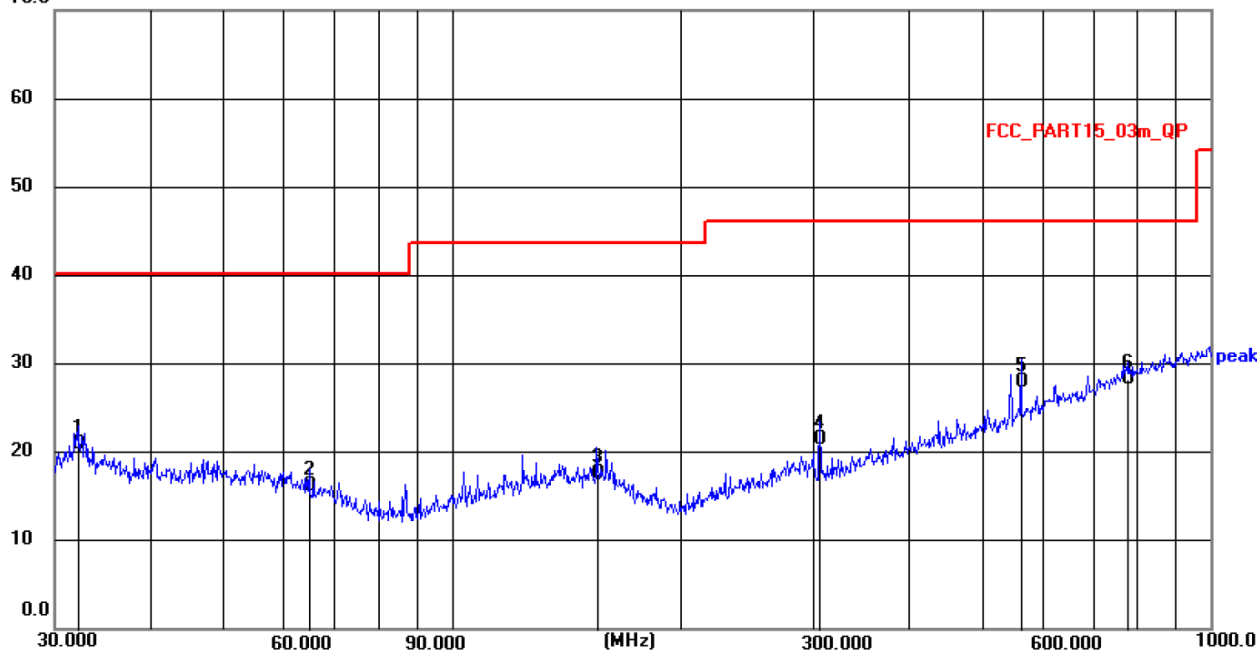


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	33.6802	2.09	15.43	17.52	40.00	22.48	QP
2	48.3316	2.94	14.46	17.40	40.00	22.60	QP
3	162.0413	2.39	14.19	16.58	43.50	26.92	QP
4	351.7079	4.43	15.99	20.42	46.00	25.58	QP
5	562.6623	4.64	20.66	25.30	46.00	20.70	QP
6 *	771.4485	4.85	24.20	29.05	46.00	16.95	QP



Vertical

70.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	32.1794	5.55	15.43	20.98	40.00	19.02	QP
2	64.8865	3.44	12.74	16.18	40.00	23.82	QP
3	155.3643	3.24	14.40	17.64	43.50	25.86	QP
4	305.6800	7.03	14.45	21.48	46.00	24.52	QP
5	562.6623	7.18	20.66	27.84	46.00	18.16	QP
6 *	779.6067	3.90	24.36	28.26	46.00	17.74	QP



Above 1G:

Frequency (MHz)	Read Level (dBμV)	polarization	Factor (dB/m)	Level (dBμV/m)	Limit Line (dBμV/m)	Margin (dB)	Detector
2310	58.57	H	-22.55	36.02	74	37.98	peak
2310	63.83	V	-22.55	41.28	74	32.72	peak
2365.67	66.42	H	-22.45	43.97	74	30.03	peak
2365.67	76.28	V	-22.45	53.83	74	20.17	peak
2374.58	69.05	H	-22.43	46.62	74	27.38	peak
2374.47	78.31	V	-22.43	55.88	74	18.12	peak
2374.47	58.72	V	-22.43	36.29	54	17.71	AVG
2381.07	71.72	H	-22.41	49.31	74	24.69	peak
2381.4	80.26	H	-22.41	57.85	74	16.15	peak
2381.4	61.48	H	-22.41	39.07	54	14.93	AVG
2390	76.23	H	-22.39	53.84	74	20.16	peak
2390	84.43	V	-22.39	62.04	74	11.96	peak
2390	70.19	V	-22.39	47.8	54	6.2	AVG
2400	86.19	H	-22.37	63.82	74	10.18	peak
2400	70.43	H	-22.37	48.06	54	5.94	AVG
2400	87.97	V	-22.37	65.6	74	8.4	peak
2400	73.76	V	-22.37	51.39	54	2.61	AVG
4804	66.11	H	-18.87	47.24	74	26.76	peak
4804	64.09	V	-18.87	45.22	74	28.78	peak
2483.5	58.96	H	-22.2	36.76	74	37.24	peak
2483.5	59.23	V	-22.2	37.03	74	36.97	peak

Frequency (MHz)	Read Level (dBμV)	polarization	Factor (dB/m)	Peak value (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)
2402	107.84	H	-22.37	85.47	93.98	8.51
2402	113.29	V	-22.37	90.92	93.98	3.06

Remarks:

1. Level = Reading + Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

6. 20dB Occupy Bandwidth

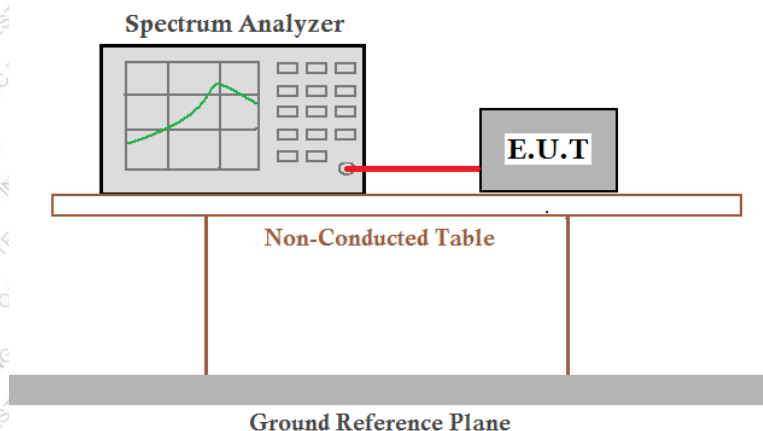
6.1 Applicable Standard

FCC Part15 C Section 15.215

6.2 Limit

N/A

6.3 Test setup



6.4 Test Data

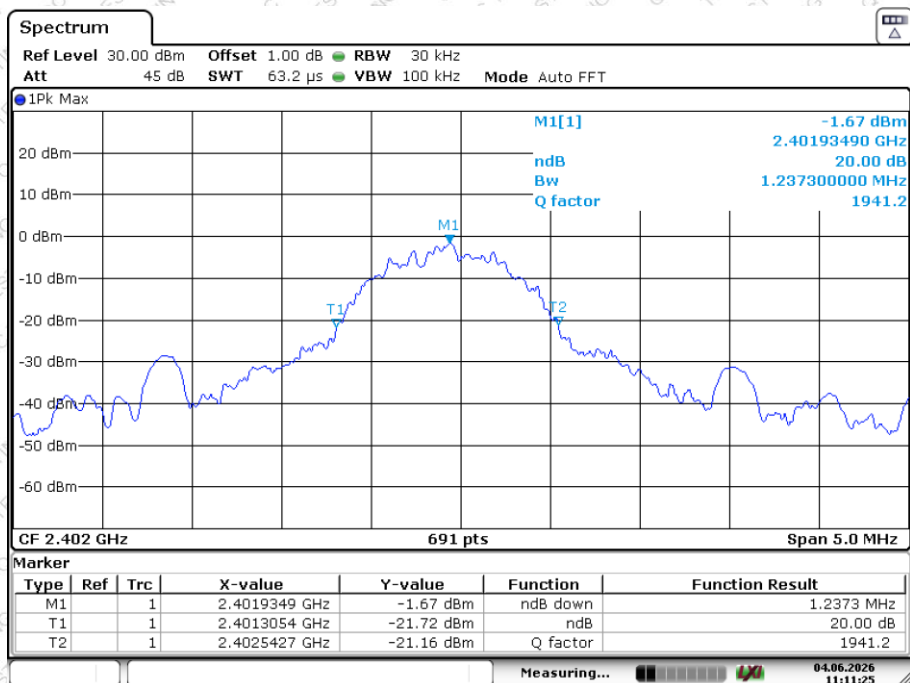
Temperature	23.5 °C	Humidity	48%
ATM Pressure	101.1kPa	Antenna Gain	0dBi
Test by	Fan Yang	Test result	PASS

Please refer to following table and plots.



Test Frequency (MHz)	20dB bandwidth (MHz)
2402	1.237

Test plot as follows:



Date: 4 JUN 2026 11:11:25

----- THE END OF TEST REPORT -----