



MEASUREMENT REPORT

FCC PART 15 Subpart C Section 231

Report No.: S20250915537901

Issue Date: 2025-12-03

Applicant: Queclink Wireless Solutions Co., Ltd.
Address: No.30, Lane 500, Xinlong Road, Minhang District, Shanghai,
China, 201101
FCC ID: YQD-GL33CG
Product: GPS Tracker
Model No.: GL33CG
Classification: Part 15 Security/Remote Control Transmitter
FCC Rule Part(s): Part 15 Subpart C (15.231)
Test Procedure(s): ANSI C63.10-2020
Result: Pass
Item Receipt Date: Sep. 22, 2025
Test Date: Sep. 25 ~ Nov. 17, 2025



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Compiled By

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Senior Test Engineer

Approved By

Line Chen

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Engineer Manager

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2014. Test results reported herein relate only to the item(s). The test report shall not be reproduced except in full without the written approval of Fangguang Inspection & Testing Co., Ltd. Wuxi Branch.

The test report must not be used by the client to claim product certifications, approval, or endorsement by NVLAP, NIST or any agency of U.S. Government.

Revision History

Report No.	Version	Description	Issue Date
S20250915537901	Rev. 01	/	2025-12-03

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§2.1033 General Information

Applicant:	Queclink Wireless Solutions Co., Ltd.
Applicant Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
Manufacturer:	Queclink Wireless Solutions Co., Ltd.
Manufacturer Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
Factory:	Queclink Wireless Solutions Co., Ltd.
Factory Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
Test Site:	Fanguang Inspection & Testing Co., Ltd.
LAB ID:	CN5037
LAB registration number:	600222-0
Test Site Address:	No.8 Ningyun Rd., Xinwu District Wuxi, Jiangsu 214000 China
FCC Rule Part(s):	Part 15 Subpart C (15.231)
FCC ID:	YQD-GL33CG
Test Device Serial No.:	S/N.:/ ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	Part 15 Security/Remote Control Transmitter

1. Introduction

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2. Fangguang Test Location

These measurement tests were performed at the Fangguang Inspection and testing Co.,LTD located at No.8 Ningyun Rd., Xinwu District Wuxi, Jiangsu 214000 China. The detailed description of the measurement facility was found to be in compliance with the requirements of ANSI C63.10-2014.

2. Product Information

2.1. Equipment Description

Product Name:	GPS Tracker
Model Name:	GL33CG
Trade Mark:	Queclink
Input Voltage Range:	DC 3.7V
Hardware Version:	1.03
Software Version:	GL33CGR01A03V14M128
EUT sample number:	S202509155379-1-1 (Radiated)

Note: This information is provided by the Customer and its authenticity is the responsibility of the Customer.

2.2. Product Specification Subjective to this Report

Operating Frequency	433.0 ~ 434.9MHz
Channel number	20
Channel space	100kHz
Type of modulation	ASK
Antenna Type:	PCB Antenna
Antenna Gain:	-6.16dBi

Note: The maximum Antenna Gain was declared by the manufacturer.

2.3. Operation Frequency / Channel List

Channel	Frequency	Channel	Frequency	Channel	Frequency
--	--	01	433.0 MHz	02	433.1 MHz
03	433.2 MHz	04	433.3 MHz	05	433.4 MHz
06	433.5 MHz	07	433.6 MHz	08	433.7 MHz
09	433.8 MHz	10	433.9 MHz	11	434.0 MHz
12	434.1 MHz	13	434.2 MHz	14	434.3 MHz
15	434.4 MHz	16	434.5 MHz	17	434.6 MHz
18	434.7 MHz	19	434.8 MHz	20	434.9 MHz

EUT was tested with Channel 11.

2.4. Description of Test Software

The test utility software used during testing was “sscom5.13.1.exe”, Power Parameter Value:

Software Version	Test Level
sscom5.13.1.exe	AT+GTEMS=gl33cg,3,1,45,11,30,,,,,,,,,FFFF\$

2.5. Test Mode

Test Mode	Mode 1: Transmit by 434.0M
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2.6. Test Configuration

The EUT was tested per the guidance of ANSI C63.10-2020 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.7. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.8. EUT Photo

The EUT external photo, internal photo and test setup photo, please refer to the plots in the S202509155379-A1/A2/A3.

2.9. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.10. Calculation with all conversion and correction factors used

For AC Line Conducted Emissions Test:

Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

For Radiated Emissions Below 1GHz Test:

Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

For Radiated Emissions Above 1GHz Test:

Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

3. Description of Test

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2020), and the guidance provided in Part 15 Subpart C (15.231) were used in the measurement of the EUT.

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2020.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. The turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-25GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 shall be considered sufficient to comply with the provisions of this section.”

- Use a unique coupling to the intentional radiator.

5. Test Equipment Calibration Date

Radiated Emission

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Loop Antenna	Schwarzbeck	FMZB 1519B	FWXGJC-2018-015	1 year	2026/06/21
Broadband Antenna	R&S	VULB 9168	FWXGJC-2024-055	1 year	2026/06/21
Broadband Horn Antenna	R&S	HF907	FWXGJC-2016-267-07	1 year	2026/06/21
Broadband Horn Antenna	Schwarzbeck	BBHA9170	FWXGJC-2018-016	1 year	2026/06/21
EMI Receiver	R&S	ESR26	FWXGJC-2016-267-01	1 year	2026/07/16
Spectrum Analyzer	Keysight	N9010B	FWXGJC-2018-010	1 year	2026/07/16
Pre-Amplifier	Tonscend	TAP0118048	FWXGJC-2024-056	1 year	2026/06/21
Pre-Amplifier	Chengyi	EMC184055SE	FWXGJC-2018-018	1 year	2026/07/16
Thermohygrometer	Yuhuaze	HTC-1	FWXDA-2016-387	1 year	2026/08/24
Wideband Radio Communication Tester	R&S	CMW500	FWXZ-2025-001	1 year	2026/07/07
Wireless Connectivity Tester	R&S	CMW270	FWXGJC-2018-023	1 year	2026/07/20
Anechoic Chamber	SAEMC	FSAC318	FGZZ-2024-035	3 year	2027/06/02

Auxiliary Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Filter	Tonscend	ZBSF6	07247867	1 year	2026/07/16
Filter	Tonscend	ZHPF6	07233297	1 year	2026/07/16
Attenuator	Tonscend	10dB	/	1 year	2026/07/16
RF Cable	Tonscend	T-1	/	1 year	2026/07/16

Test Software

Test Software	Manufacturer	Version	Asset No.	Function
JS32-RE	Tonscend	5.0.0	FWXWA-2024-002	RE

6. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 2.68dB
Radiated Emission Measurement (9kHz - 30MHz)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 3.06dB
Radiated Emission Measurement (30MHz -1GHz)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 4.01dB
Radiated Emission Measurement (1-18GHz)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 4.97dB
Radiated Emission Measurement (18-40GHz)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 5.32dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 30MHz-1GHz: 1.00 dB 1GHz-12.75GHz: 1.30 dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.60dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.80dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.20MHz
Frequency Stability
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.1×10^{-6} MHz

7. Test Result

7.1. Summary

FCC Part Section(s)	Test Description	Test Result	Reference
§ 15.205, §15.209, §15.231(e)	Radiated Emissions	Pass	Section 7.2
§ 15.231 (e)	Transmission Time	Pass	Section 7.3
§ 15.231 (c)	20dB Emission Bandwidth	Pass	Section 7.4
§ 15.207(a)	Conducted Emissions	Pass	Section 7.5

Notes: /

7.2. Radiated Emissions

7.2.1. Limit

FCC §15.205, §15.209, §15.231 (e)

According to FCC §15.231(e), the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emission (microvolts/meter)
40.66-40.70	1,000	100
70-130	500	50
130-174	500 to 1,500 ¹	50 to 150 ¹
174-260	1,500	150
260-470	1,500 to 5,000 ¹	150 to 500 ¹
Above 470	5,000	500

- (1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.
- (2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in §15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of §15.205 shall be demonstrated using the measurement instrumentation specified in that section.

- (3) The limits on the field strength of the spurious emissions in the above table are based on the

fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in §15.209, whichever limit permits a higher field strength.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

7.2.2. Test Procedure

- 1) The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at a 3 meters semi-anechoic chamber. 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) Height of receiving antenna 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) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5) If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

7.2.3. Test Setting

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

7.2.4. Test Setup

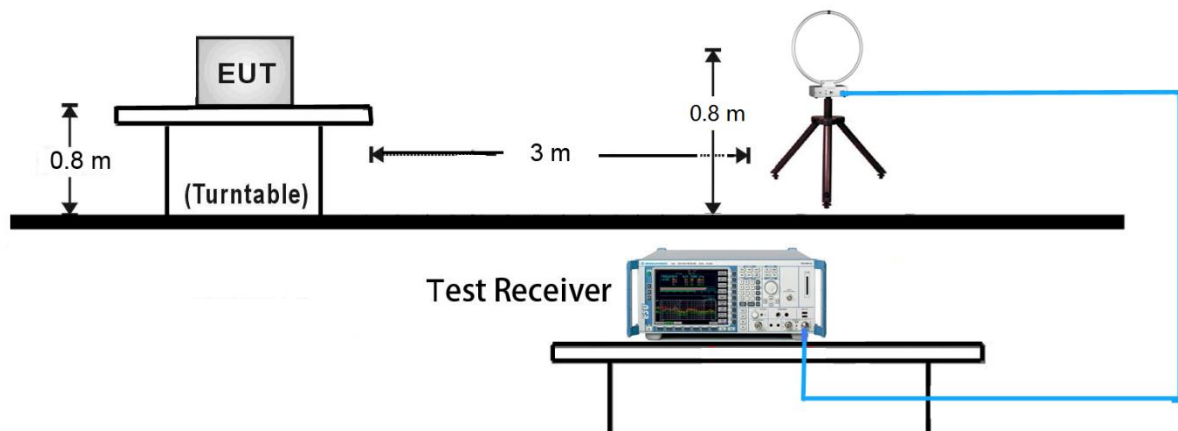


Figure 1. 9KHz to 30MHz radiated emissions test configuration

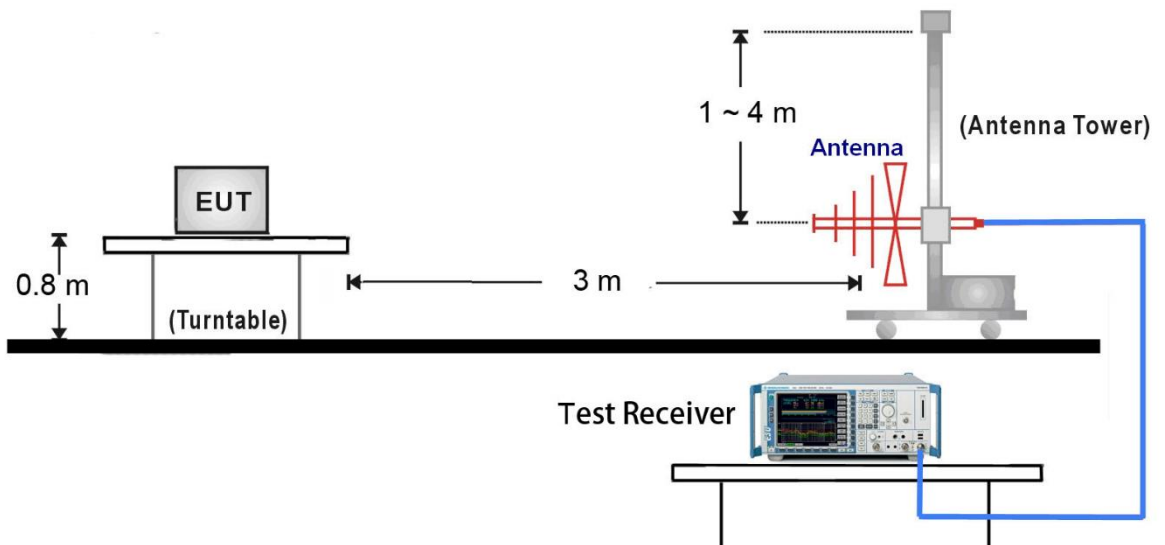


Figure 2. 30MHz to 1GHz radiated emissions test configuration

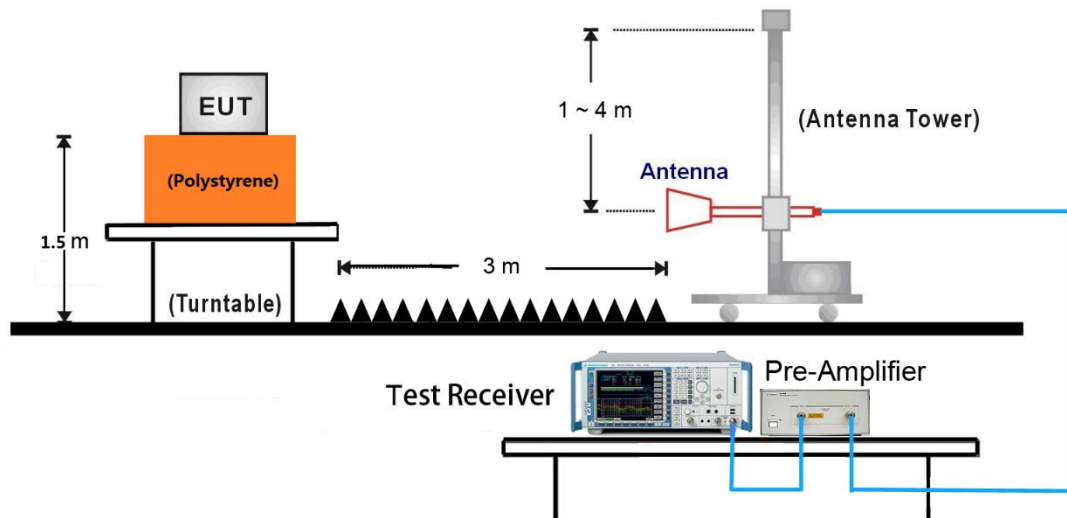


Figure 3. Above 1GHz radiated emissions test configuration

7.2.5. Test Result

Fundamental-Peak:

Frequency [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
434.0	70.87	20.31	92.87	22.00	100	10	Horizontal
434.0	68.97	20.31	92.87	23.90	100	0	Vertical

Fundamental-Average:

Frequency [MHz]	Peak [dBμV/m]	Duty cycle Corrected Factor [dB]	Corrected Amplitude [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
434.0	70.87	0	70.87	72.87	2.00	100	10	Horizontal
434.0	68.97	0	68.97	72.87	3.90	100	0	Vertical

Note 1:

Calculate Average value based on Duty Cycle correction factor:

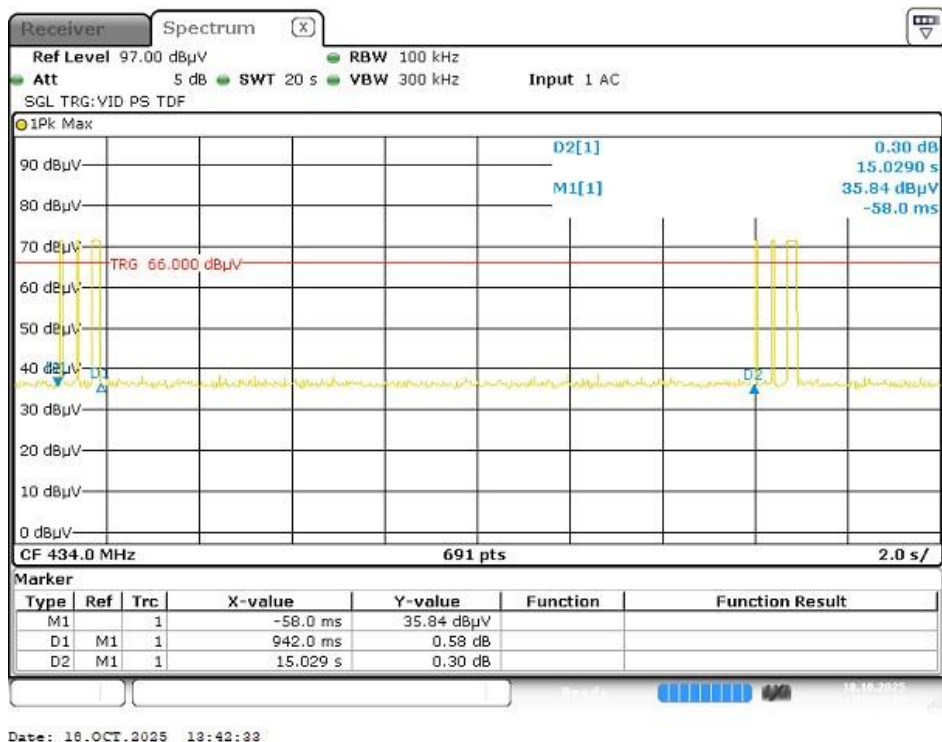
$T_p=100\text{ms}$

$T_{on}=100\text{ms}$

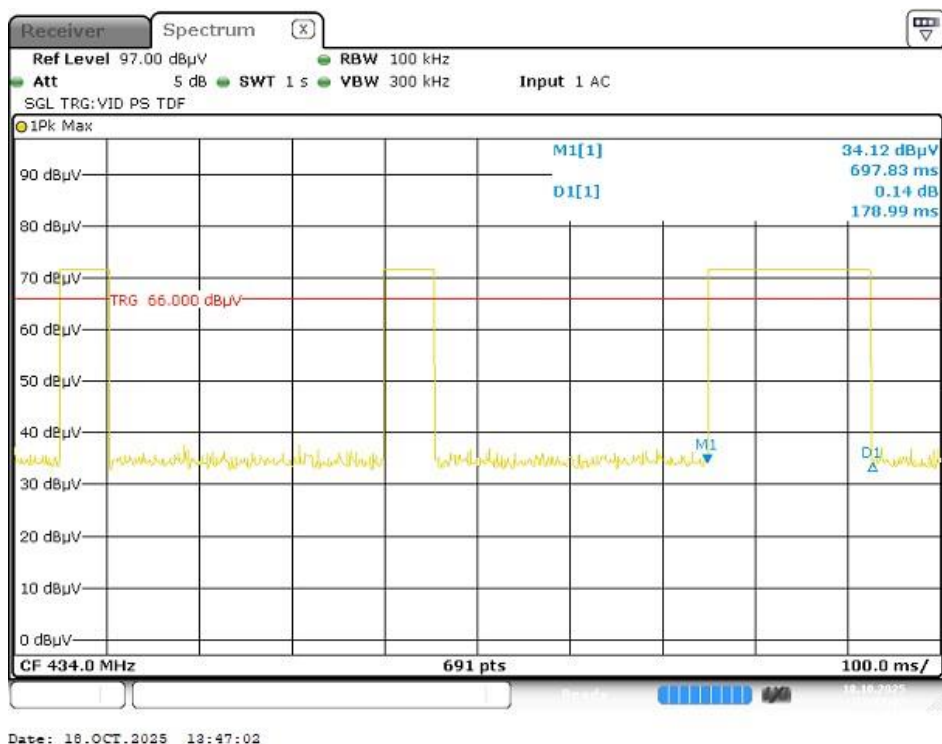
Duty Cycle Corrected Factor $=20*\log (T_{on}/T_p) =20*\log (100\text{ms}/100\text{ms}) = 0\text{dB}$

Average value = Peak value + Duty Cycle Corrected Factor

This duty cycle is the worst case for the EUT:



Duty cycle-1



Duty cycle-2

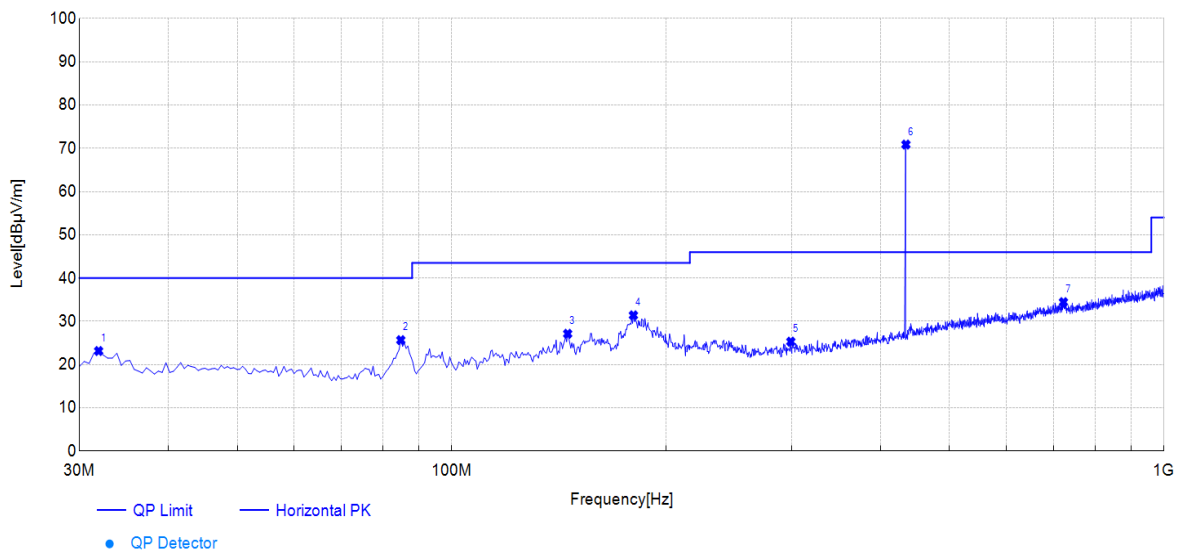
Radiated Spurious Emission:

9 kHz to 30MHz

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

30MHz – 1GHz

EUT:	GPS Tracker	Polarity:	Horizontal
Model:	GL33CG	Voltage:	DC 3.7V
Mode:	Transmit at 434.0MHz	Test Date:	2025.10.18
Environment:	Temp: 23.7°C; Humi:48%	Engineer:	Stone Zhang



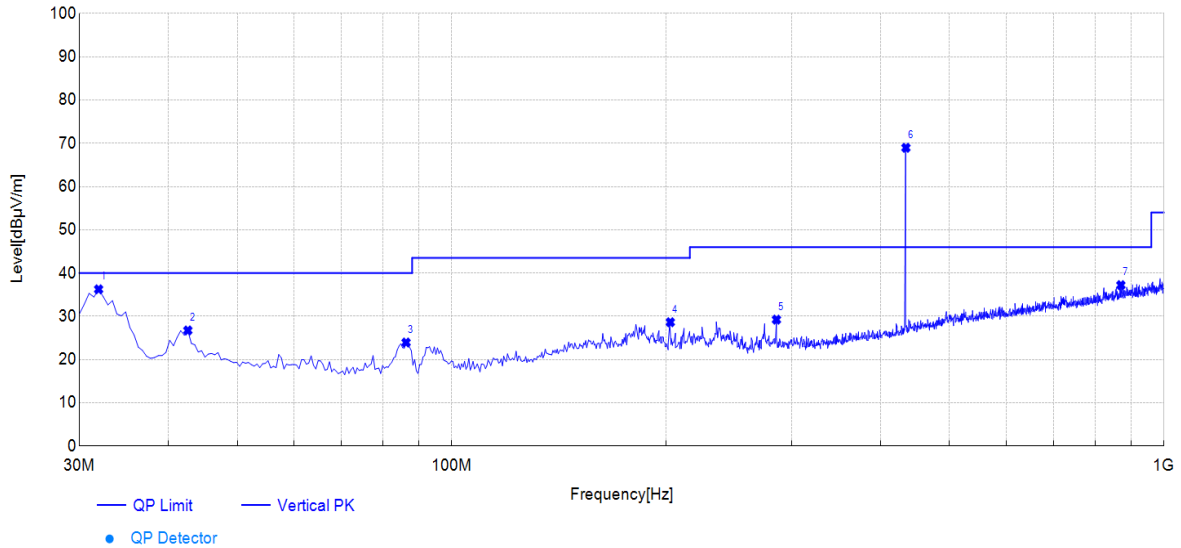
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	31.94	9.85	23.13	13.28	40.00	16.87	100	360	PK	Horizontal	PASS
2	84.83	14.54	25.65	11.11	40.00	14.35	100	46	PK	Horizontal	PASS
3	145.49	10.30	27.12	16.82	43.50	16.38	100	109	PK	Horizontal	PASS
4	179.94	15.00	31.39	16.39	43.50	12.11	100	360	PK	Horizontal	PASS
5	299.31	8.62	25.30	16.68	46.00	20.70	100	83	PK	Horizontal	PASS
6	434.00	50.56	70.87	20.31	/	/	100	10	PK	Horizontal	PASS
7	722.44	9.24	34.44	25.20	46.00	11.56	100	112	PK	Horizontal	PASS

Note:

- 1) If the spurious emissions maximized peak measured value complies with the QP/Average limit, it is unnecessary to perform QP/Average measurement.
- 2) The Mark 6 is fundamental.

EUT:	GPS Tracker	Polarity:	Vertical
Model:	GL33CG	Voltage:	DC 3.7V
Mode:	Transmit at 434.0MHz	Test Date:	2025.10.18
Environment:	Temp: 23.7°C; Humi:48%	Engineer:	Stone Zhang



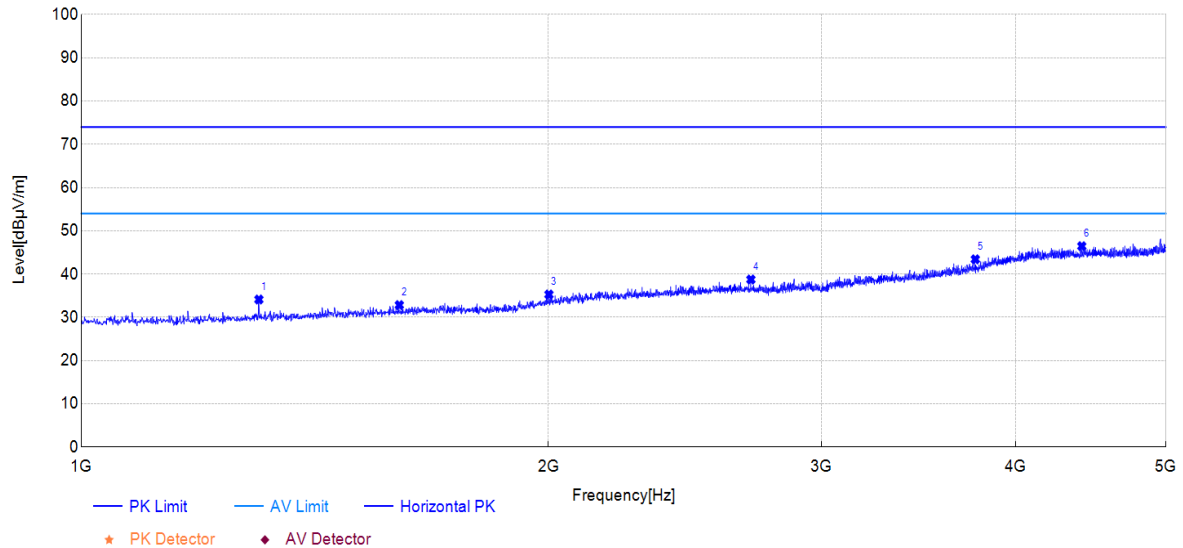
Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	31.94	22.96	36.24	13.28	40.00	3.76	150	134	PK	Vertical	PASS
2	42.62	13.64	26.73	13.09	40.00	13.27	150	269	PK	Vertical	PASS
3	86.29	12.86	23.94	11.08	40.00	16.06	150	98	PK	Vertical	PASS
4	202.75	13.34	28.63	15.29	43.50	14.87	150	98	PK	Vertical	PASS
5	285.72	12.76	29.23	16.47	46.00	16.77	150	108	PK	Vertical	PASS
6	434.21	48.66	68.97	20.31	/	/	150	0	PK	Vertical	PASS
7	869.95	9.42	37.21	27.79	46.00	8.79	150	348	PK	Vertical	PASS

Note:

- 1) If the spurious emissions maximized peak measured value complies with the QP/Average limit, it is unnecessary to perform QP/Average measurement.
- 2) The Mark 6 is fundamental.

Emission above 1GHz

EUT:	GPS Tracker	Polarity:	Horizontal
Model:	GL33CG	Voltage:	DC 3.7V
Mode:	Transmit at 434.0MHz	Test Date:	2025.10.18
Environment:	Temp: 23.7°C; Humi:48%	Engineer:	Stone Zhang



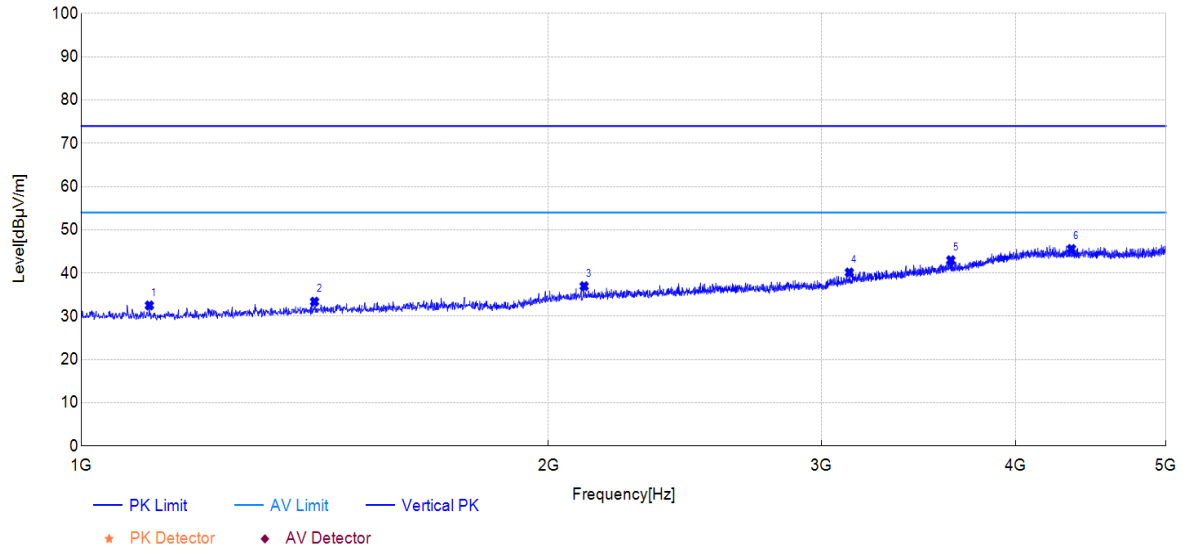
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	1301.60	57.00	34.12	-22.88	74.00	39.88	150	310	PK	Horizontal	PASS
2	1603.20	53.89	32.83	-21.06	74.00	41.17	150	103	PK	Horizontal	PASS
3	2001.60	53.43	35.27	-18.16	74.00	38.73	150	338	PK	Horizontal	PASS
4	2700.80	53.93	38.74	-15.19	74.00	35.26	150	112	PK	Horizontal	PASS
5	3768.00	53.87	43.41	-10.46	74.00	30.59	150	10	PK	Horizontal	PASS
6	4412.80	53.92	46.45	-7.47	74.00	27.55	150	99	PK	Horizontal	PASS

Note:

- 1) If the spurious emissions maximized peak measured value complies with the QP/Average limit, it is unnecessary to perform QP/Average measurement.

EUT:	GPS Tracker	Polarity:	Vertical
Model:	GL33CG	Voltage:	DC 3.7V
Mode:	Transmit at 434.0MHz	Test Date:	2025.10.18
Environment:	Temp: 23.7°C; Humi:48%	Engineer:	Stone Zhang



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	1106.40	55.29	32.52	-22.77	74.00	41.48	150	194	PK	Vertical	PASS
2	1413.60	54.67	33.39	-21.28	74.00	40.61	150	40	PK	Vertical	PASS
3	2108.80	54.32	36.96	-17.36	74.00	37.04	150	262	PK	Vertical	PASS
4	3125.60	53.75	40.13	-13.62	74.00	33.87	150	324	PK	Vertical	PASS
5	3633.60	53.65	42.97	-10.68	74.00	31.03	150	0	PK	Vertical	PASS
6	4345.60	53.26	45.58	-7.68	74.00	28.42	150	252	PK	Vertical	PASS

Note:

- 1) If the spurious emissions maximized peak measured value complies with the QP/Average limit, it is unnecessary to perform QP/Average measurement.

7.3. Transmission Time & Silent Time

7.3.1. Limit

Per FCC §15.231(e), devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

7.3.2. Test Procedure

1. With the EUT's antenna attached, the waveform was received by the test antenna which was connected to the spectrum analyzer.
2. Set center frequency of spectrum analyzer=operating frequency.
3. Set the spectrum analyzer as RBW=100k VBW=300k Span=0Hz.
4. Repeat above procedures until all frequency measured was complete.

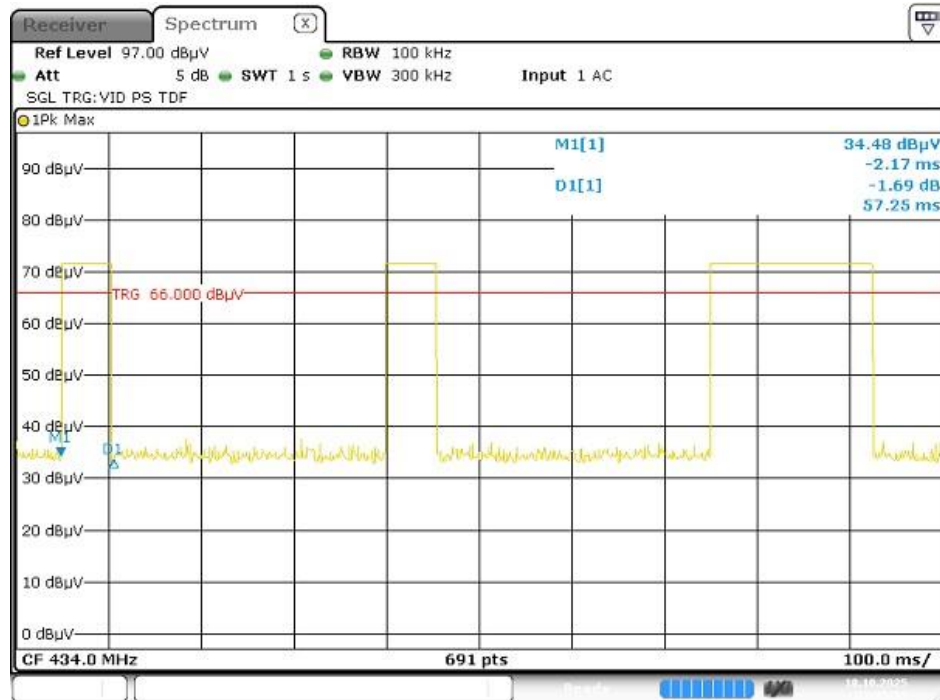
7.3.3. Test Result

EUT:	GPS Tracker	Polarity:	Vertical
Model:	GL33CG	Voltage:	DC 3.7V
Mode:	Transmit at 434.0MHz	Test Date:	2025.10.18
Environment:	Temp: 23.7°C; Humi:48%	Engineer:	Stone Zhang

Frequency (MHz)	Burst Time (s)	Burst Time (s)	Burst Time (s)	Transmission Time (s)	Limit (s)	Result
434.0	0.05725	0.05870	0.17899	0.29494	<1	Pass

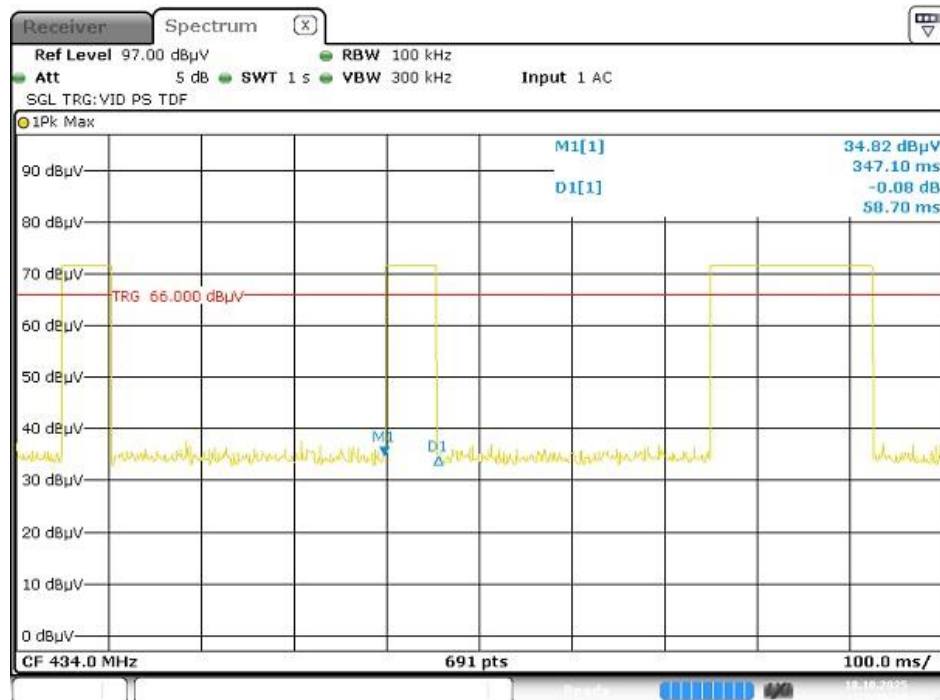
Frequency (MHz)	Silent Time (s)	Limit (s)	Result
434.0	14.1014	>10	Pass

Test Plot:



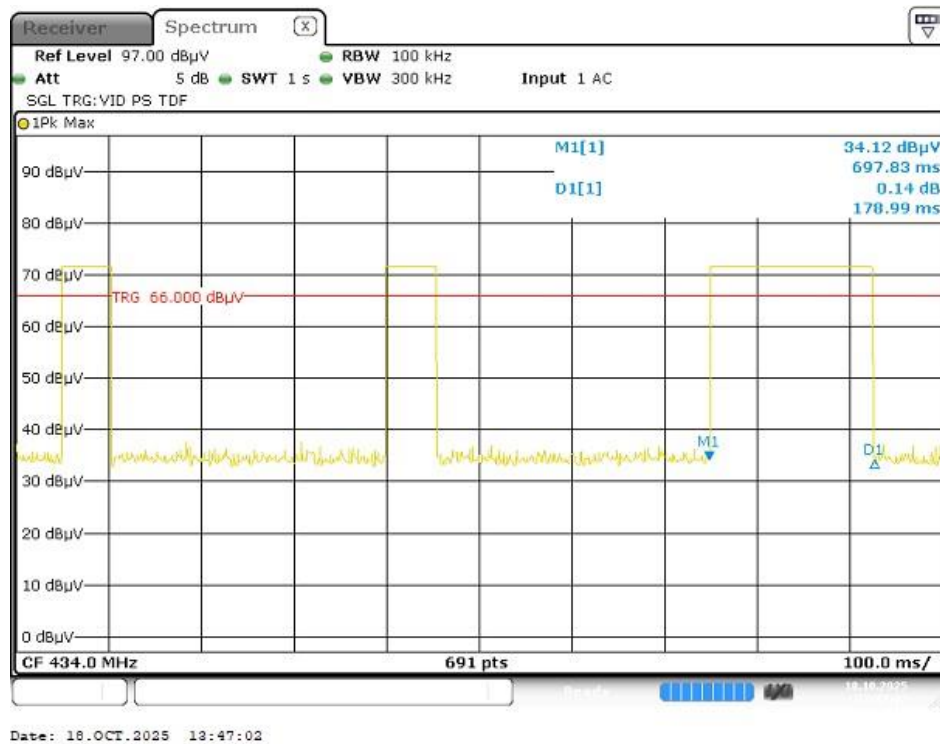
Date: 18.OCT.2025 12:45:55

Transmission Time-1

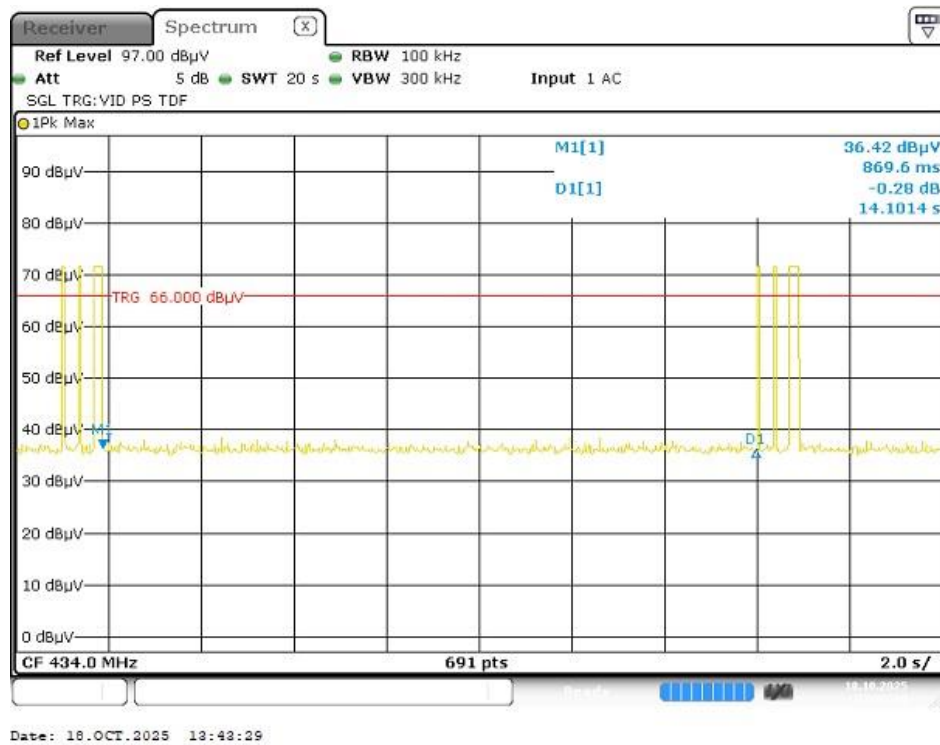


Date: 18.OCT.2025 12:46:29

Transmission Time-2



Transmission Time-3



Silent Time

7.4. 20dB Emission Bandwidth

7.4.1. Limit

Per 15.231(c), The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. Bandwidth is determined at the points 20 dB down from the modulated carrier.

7.4.2. Test Procedure

1. With the EUT's antenna attached, the waveform was received by the test antenna which was connected to the spectrum analyzer, plot the 20dB bandwidth.
2. Set center frequency of spectrum analyzer=operating frequency.
3. Set the RBW to 1% to 5% of the OBW.
4. Set the VBW $\geq [3 \times \text{RBW}]$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.

7.4.3. Test Result

EUT:	GPS Tracker	Polarity:	Vertical
Model:	GL33CG	Voltage:	DC 3.7V
Mode:	Transmit at 434.0MHz	Test Date:	2025.10.18
Environment:	Temp: 23.7°C; Humi:48%	Engineer:	Stone Zhang

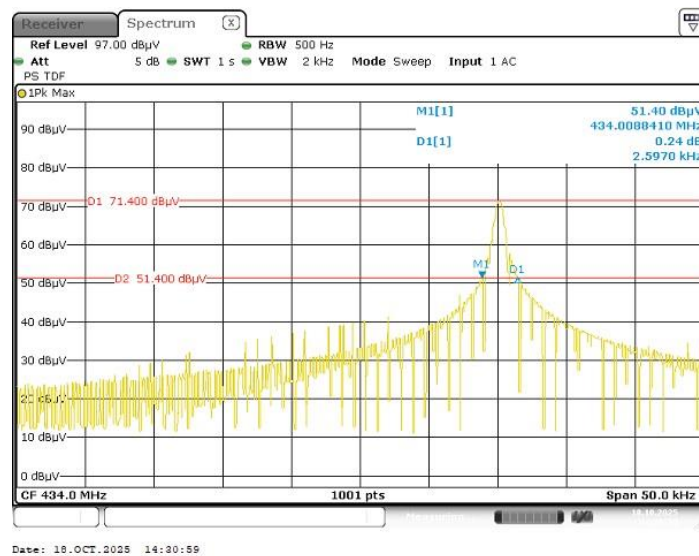
Frequency (MHz)	20dB Bandwidth (kHz)	Limit (kHz)	Result
434.0	2.5970	1085	Pass

Note:

1. 434.0 MHz Limit = 0.25% * Center Frequency = 0.25% * 434.0 MHz = 1085 kHz

Test Plot:

434.0 MHz:20 dB Emission Bandwidth



7.5. AC Conducted Emissions Measurement

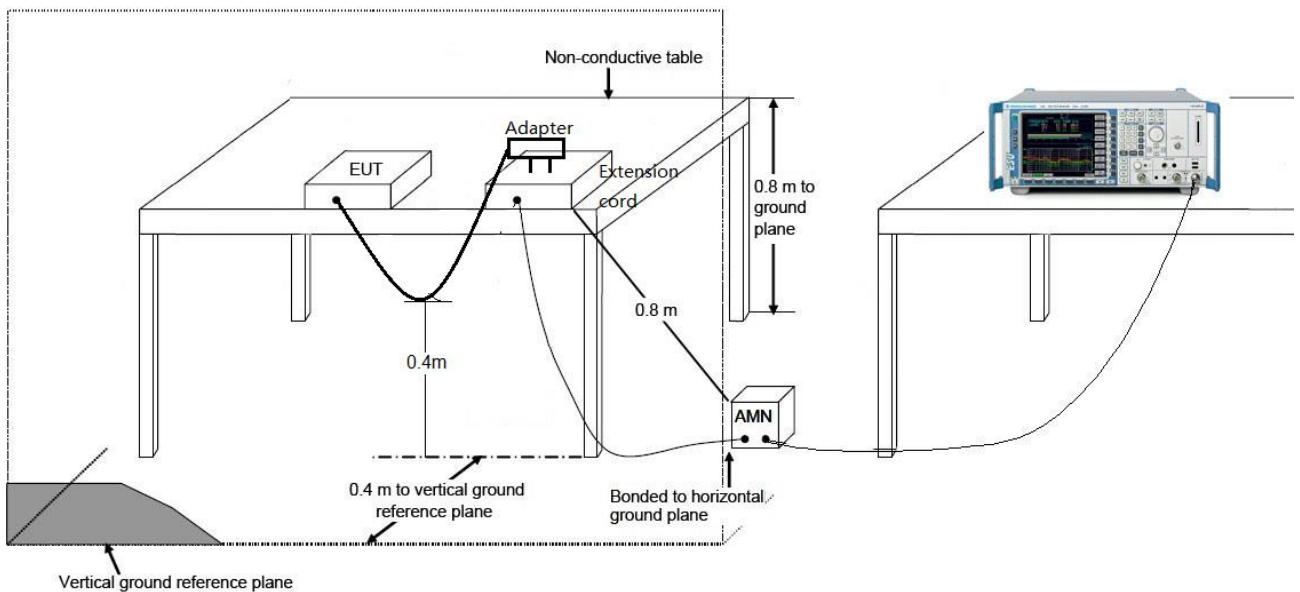
7.5.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 – 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

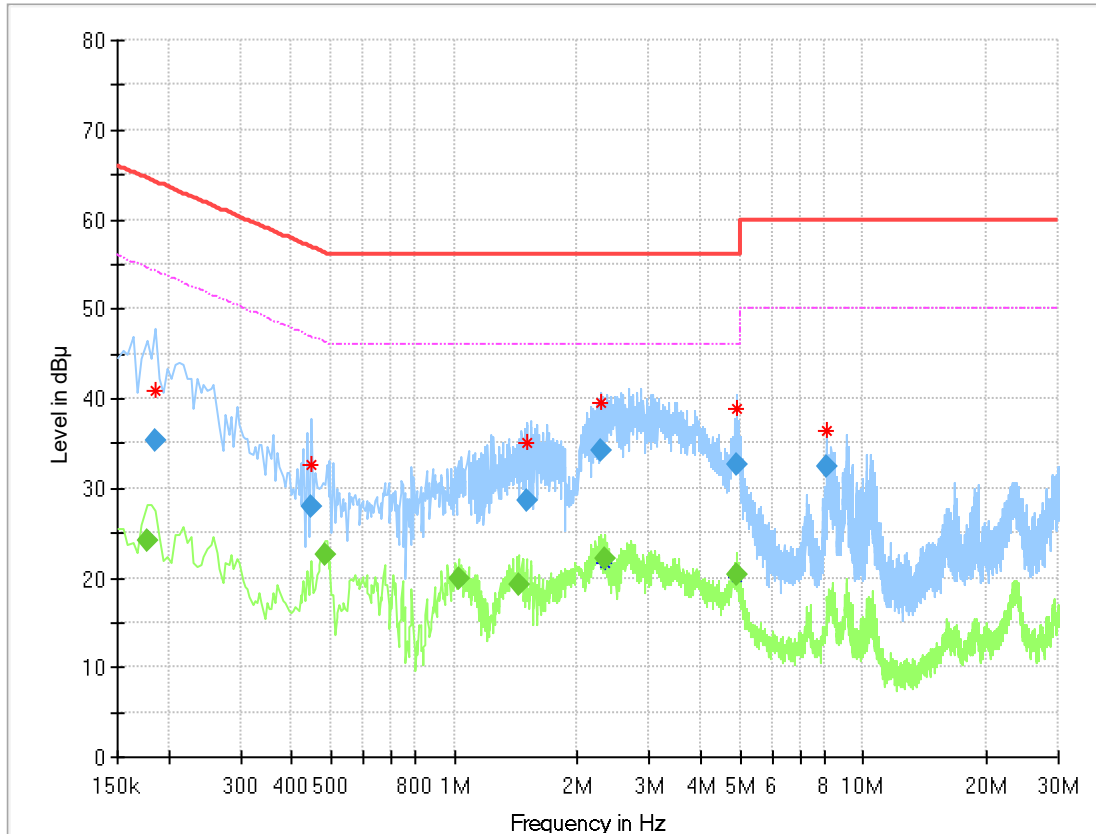
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.5.2. Test Setup



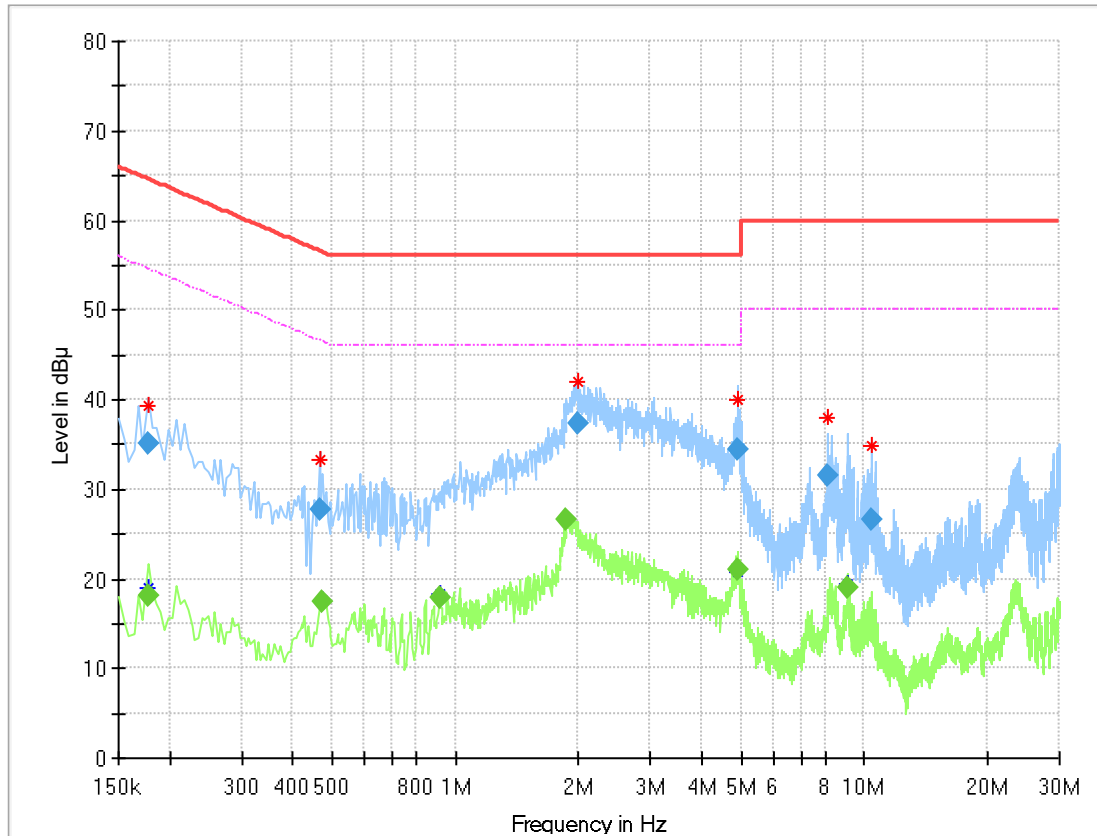
7.5.3. Test Result

EUT:	GPS Tracker	Polarity:	LINE
Model:	GL33CG	Test Date:	2025-10-19
Mode:	Charge Mode	Voltage:	AC120V 60Hz
Environment:	Temp: 24.1°C; Humi:65%	Engineer:	Stone Zhang



Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.177000	---	24.08	54.63	30.55	100.0	9.000	L1	ON	9.6
0.186000	35.30	---	64.21	28.91	100.0	9.000	L1	ON	9.6
0.447000	27.92	---	56.93	29.01	100.0	9.000	L1	ON	9.6
0.483000	---	22.53	46.29	23.76	100.0	9.000	L1	ON	9.6
1.023000	---	19.84	46.00	26.16	100.0	9.000	L1	ON	9.6
1.432500	---	19.27	46.00	26.73	100.0	9.000	L1	ON	9.6
1.509000	28.63	---	56.00	27.37	100.0	9.000	L1	ON	9.6
2.283000	34.24	---	56.00	21.76	100.0	9.000	L1	ON	9.6
2.332500	---	22.20	46.00	23.80	100.0	9.000	L1	ON	9.6
4.920000	32.59	---	56.00	23.41	100.0	9.000	L1	ON	9.7
4.920000	---	20.38	46.00	25.62	100.0	9.000	L1	ON	9.7
8.164500	32.42	---	60.00	27.58	100.0	9.000	L1	ON	9.7

EUT:	GPS Tracker	Polarity:	NEUTRAL
Model:	GL33CG	Test Date:	2025-10-19
Mode:	Charge Mode	Voltage:	AC120V 60Hz
Environment:	Temp: 24.1°C; Humi:65%	Engineer:	Stone Zhang



Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.177000	---	18.20	54.63	36.42	100.0	9.000	N	ON	9.6
0.177000	35.09	---	64.63	29.53	100.0	9.000	N	ON	9.6
0.465000	27.76	---	56.60	28.84	100.0	9.000	N	ON	9.6
0.474000	---	17.38	46.44	29.07	100.0	9.000	N	ON	9.6
0.915000	---	17.95	46.00	28.05	100.0	9.000	N	ON	9.6
1.869000	---	26.53	46.00	19.47	100.0	9.000	N	ON	9.6
1.986000	37.42	---	56.00	18.58	100.0	9.000	N	ON	9.6
4.906500	34.50	---	56.00	21.50	100.0	9.000	N	ON	9.7
4.906500	---	20.91	46.00	25.09	100.0	9.000	N	ON	9.7
8.151000	31.54	---	60.00	28.46	100.0	9.000	N	ON	9.7
9.118500	---	18.95	50.00	31.05	100.0	9.000	N	ON	9.7
10.392000	26.69	---	60.00	33.31	100.0	9.000	N	ON	9.8

8. Conclusion

The data collected relate only the item(s) tested and show that the **GPS Tracker** is compliance with Part 15C of the FCC Rules.

Statement

1. This report is invalid for the following states: without the special inspection and testing stamp or the official stamp of our institution; without the signature of the report authorized officer; if the report is altered.
2. It is forbidden to copy partial contents of the report except in full without the approval of our institution.
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4. The report content is only applicable to the tested sample(s) this time.
5. If there are any objections to the report content, please submit them to our company in writing within 15 days from the date of receiving the report.
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7. This report is issued by the following laboratory premises:

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