

RADIO PERFORMANCE TEST REPORT

Test Report No. : OT-266-RWD-003

Reception No. : 2602000718

Applicant : Kona Mobility Co., Ltd.

Address : 23F, 2095 Dalgubeol-daero, Jung-gu, Daegu, South Korea

Manufacturer : KONA I Co., Ltd.

Address : 8F, 3, Eunhaeng-ro, Yeongdeungpo-gu, South Korea

Type of Equipment : 3rd Generation Smart Card Key

FCC ID : 2BU5I-KSC500

Model No. : KSC500

Multiple Model Name : KSC500U

Serial number : N/A

Total page of Report : 22 pages (including this page)

Date of Incoming : April 28, 2026

Date of issuing : June 05, 2026

SUMMARY

The equipment complies with the regulation; **FCC PART 15 SUBPART F Section 15.519**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

This test report is not associated with the accreditation granted by the Korean Laboratory Accreditation Scheme (KOLAS).

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OTC-TRF-RF-001(0)

CONTENTS

PAGE

1. VERIFICATION OF COMPLIANCE	5
2. TEST SUMMARY	6
2.1 TEST ITEMS AND RESULTS	6
2.2 ADDITIONS, DEVIATIONS, EXCLUSIONS FROM STANDARDS	6
2.3 RELATED SUBMITTAL(S) / GRANT(S)	6
2.4 PURPOSE OF THE TEST	6
2.5 TEST METHODOLOGY	6
2.6 TEST FACILITY	6
3. GENERAL INFORMATION	7
3.1 PRODUCT DESCRIPTION	7
3.2 ALTERNATIVE TYPE(S)/MODEL(S); ALSO COVERED BY THIS TEST REPORT	7
4. EUT MODIFICATIONS	7
5. SYSTEM TEST CONFIGURATION	8
5.1 JUSTIFICATION	8
5.2 PERIPHERAL EQUIPMENT	8
5.3 MODE OF OPERATION DURING THE TEST	8
5.4 CONFIGURATION OF TEST SYSTEM	9
5.5 ANTENNA REQUIREMENT	9
6. MEASUREMENT UNCERTAINTY	10
7. PRELIMINARY TEST	10
7.1 AC POWER LINE CONDUCTED EMISSIONS TESTS	10
7.2 GENERAL RADIATED EMISSIONS TESTS	10
8. 10 DB BANDWIDTH MEASUREMENT	11
8.1 OPERATING ENVIRONMENT	11
8.2 TEST SET-UP	11
8.3 TEST DATE	11
8.4 TEST DATA	11
9. RADIATED EMISSIONS MEASUREMENT	12
9.1 OPERATING ENVIRONMENT	12
9.2 TEST SET-UP	12
9.3 TEST DATE	12
9.4 TEST DATA FOR 9 KHz ~ 30 MHz	13
9.5 TEST DATA FOR 30 MHz ~ 960 MHz	14

9.6 TEST DATA FOR 960 MHz ~ 40 GHz	15
9.7 LIMIT	16
10. RADIATED EMISSIONS IN GPS BANDS MEASUREMENT.....	17
10.1 OPERATING ENVIRONMENT	17
10.2 TEST SET-UP	17
10.3 TEST DATE	17
10.4 TEST DATA.....	18
10.5 LIMIT	18
11. PEAK EMISSIONS WITHIN A 50 MHZ BANDWIDTH MEASUREMENT	19
11.1 OPERATING ENVIRONMENT	19
11.2 TEST SET-UP	19
11.3 TEST DATE	19
11.4 TEST DATA.....	20
12. CEASE TRANSMISSION TIME.....	21
12.1 OPERATING ENVIRONMENT	21
12.2 TEST SET-UP	21
12.3 TEST DATE	21
12.4 TEST DATA.....	21
13. LIST OF TEST EQUIPMENT	22

※ Please refer to the Annex section for All test plots

Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-266-RWD-003	June 05, 2026	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : Kona Mobility Co., Ltd.
Address : 23F, 2095 Dalgubeol-daero, Jung-gu, Daegu, South Korea
Contact Person : Hae Lee Jun / Manager
Telephone No. : +82-2-561-8202
FCC ID : 2BU5I-KSC500
Model Name : KSC500
Brand Name : -
Serial Number : N/A
Date : June 05, 2026

EQUIPMENT CLASS	UWB – ULTRA WIDEBAND TRANSMITTER
E.U.T. DESCRIPTION	3rd Generation Smart Card Key
THIS REPORT CONCERNS	Original grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2020
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SUBPART F Section 15.519
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	None
FINAL TEST WAS CONDUCTED ON	3 m, Semi Anechoic Chamber

The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. TEST SUMMARY

2.1 Test items and results

Test Procedure	TEST ITEMS	RESULTS
15.207	AC Conducted Emissions	N/A (See Note)
15.519(a)(1)	Cease Transmission Time	Met the Limit / PASS
15.519(b)	10 dB Bandwidth	Met the Limit / PASS
15.519(c)(d) 15.209	Radiated Emissions	Met the Limit / PASS
15.519(e)	Peak Emissions within a 50 MHz Bandwidth	Met the Limit / PASS
15.203	Antenna requirement	Met requirement / PASS

Note: This test is not applicable because the EUT uses DC battery and it's not to be connected to the public utility (AC) power line.

2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

2.3 Related Submittal(s) / Grant(s)

Original submittal only

2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in section 2.1.

2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2020. Radiated testing was performed at a distance of 3 m from EUT to the antenna.

2.6 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025.

The Electromagnetic compatibility measurement facilities are located at 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea.

-. Site Filing:

VCCI (Voluntary Control Council for Interference) – Registration No. R-20122/ C-14617/ G-10666/ T-11842

ISED (Innovation, Science and Economic Development Canada) – Registration No. Site# 3736A-3

KOLAS (Korea Laboratory Accreditation Scheme) - Accreditation NO. KT085

FCC (Federal Communications Commission) - Accreditation No. KR0013

RRA (Radio Research Agency) – Designation No. KR0013

3. GENERAL INFORMATION

3.1 Product Description

The Kona Mobility Co., Ltd., Model: KSC500 (referred to as the EUT in this report) is a Transmitter that it controls locking and unlocking the door of a vehicle. Product specification information described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	3rd Generation Smart Card Key
TX FREQUENCY	7 987.2 MHz
RF OUTPUT POWER	-41.30 dBm/MHz (Average) 0 dBm/50MHz (Peak)
MODULATION	BPSK
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>= 1 MHz)	24.305 MHz, 55.2 MHz
ANTENNA TYPE	Chip Antenna
ANTEENA GAIN	2.45 dBi
RATED SUPPLY VOLTAGE	DC 3.80 V

3.2 Alternative type(s)/model(s); also covered by this test report.

-. The following lists consist of the added model and their differences.

Model Name	Differences	Tested
KSC500	Basic Model	☒
KSC500U	The model is identical to basic model except for the model name only.	☐

Note: 1. Applicant consigns only basic model to test. Therefore this test report just guarantees the units, which have been tested.

2. The Applicant/manufacture is responsible for the compliance of all variants.

4. EUT MODIFICATIONS

-. None

5. SYSTEM TEST CONFIGURATION

5.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
MAIN BOARD	N/A	SMART CARD KEY_V4.0	-

5.2 Peripheral equipment

-. None

5.3 Mode of operation during the test

Software was programmed into the EUT to maintain continuous transfer mode. The EUT was set at 7 987.2 MHz. To get a maximum radiated emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis. So, the worst data was recorded in this test report.

-. Duty Cycle

Frequency (MHz)	Tx On Time (ms)	Tx Off Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
7 987.2	0.562 4	262.937 5	0.21	26.71

Note – Duty Cycle : $(\text{Tx On Time} / (\text{Tx On Time} + \text{Tx Off Time})) * 100$

Duty Cycle Factor : $10 * \text{Log}(1 / (\text{Duty Cycle} / 100))$

5.4 Configuration of Test System

Line Conducted Test: It is not need to test this requirement, because the EUT shall be operated by DC battery.

Radiated Emission Test: Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2020 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 m Semi Anechoic Chamber

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

5.5 Antenna Requirement

For intentional device, according to section 15.203, 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.

Antenna Construction:

The antenna of the EUT is Chip Antenna on the main board, so no consideration of replacement by the user.

6. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020.

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence.

The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (dB)
Line Conducted Disturbance (150 kHz ~ 30 MHz)	1.40
Radiated Disturbance (9 kHz ~ 30 MHz)	3.28
Radiated Disturbance (30 MHz ~ 1 GHz)	4.42
Radiated Disturbance (1 GHz ~ 18 GHz)	5.12
Radiated Disturbance (18 GHz ~ 40 GHz)	4.62

7. PRELIMINARY TEST

7.1 AC Power line Conducted Emissions Tests

During Preliminary Tests, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
It is not need to test this requirement, because the EUT shall be operated by DC battery	

7.2 General Radiated Emissions Tests

During Preliminary Test, the following operating mode was investigated.

Operation Mode	The Worse operating condition (Please check one only)
Transmitting Mode	X

8. 10 dB Bandwidth Measurement

8.1 Operating environment

Temperature : 24 °C
Relative humidity : 49 % R.H.

8.2 Test set-up

1. Configure the EUT according to ANSI C63.10:2020 Section 10.1

The frequency at which the maximum power level is measured with the peak detector is designated f_M . The peak power measurements shall be made using a spectrum analyzer or EMI receiver with a 1 MHz resolution bandwidth and a video bandwidth of 1 MHz or greater. The instrument shall be set to peak detection using the maximum-hold trace mode. The outermost 1 MHz segments above and below f_M , where the peak power falls by 10 dB relative to the level at f_M , are designated as f_H and f_L , respectively:

2. For the lowest frequency bound f_L , the emission is searched from a frequency lower than f_M that has, by inspection, a peak power much lower than 10 dB less than the power at f_M and increased toward f_M until the peak power indicates 10 dB less than the power at f_M . The frequency of that segment is recorded.
3. This process is repeated for the highest frequency bound f_H , beginning at a frequency higher than f_M that has, by inspection, a peak power much lower than 10 dB below the power at f_M . The frequency of that segment is recorded.
4. The two recorded frequencies represent the highest f_H and lowest f_L bounds of the UWB transmission, and the -10 dB bandwidth (B-10) is defined as $(f_H - f_L)$. The center frequency (f_c) is mathematically determined from $(f_H - f_L) / 2$.
5. The fractional bandwidth is defined as $2(f_H - f_L) / (f_H + f_L)$.
6. Determine whether the -10 dB bandwidth $(f_H - f_L)$ is ≥ 500 MHz, or whether the fractional bandwidth $2(f_H - f_L) / (f_H + f_L)$ is ≥ 0.2 .

8.3 Test date

April 28, 2026 ~ May 27, 2026

8.4 Test data

-. Test Result : Pass

Frequency (MHz)	FM (MHz)	FL (MHz)	FH(MHz)	10 dB Bandwidth (MHz)	Limit (MHz)
7 971.45	7 834.40	7 705.50	8 237.40	531.90	≥ 500 MHz

9. Radiated Emissions Measurement

9.1 Operating environment

Temperature : 24 °C
Relative humidity : 49 % R.H.

9.2 Test set-up

1. Configure the EUT according to ANSI C63.10:2020. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable for measured the frequency range below 960 MHz and antenna tower was placed below 1 meters far away from the turntable for measured the frequency range above 960 MHz.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. The measurements made over the frequency range from 9 kHz to 960 MHz were maximized using an EMI receiver with peak detector capabilities. Measurements of the radiated field from 9 kHz to 960 MHz were made with the measurement antenna located a distance of 3 meters from the EUT. If the emissions level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
6. Measurements above 960 MHz were maximized using a spectrum analyzer with RMS detector capabilities. A spectrum analyzer was used for the final measurements utilizing an RMS detector at the frequencies with the largest amplitudes. The prescribed RBW of 1 MHz and VBW of 3 MHz, and a1 msec averaging time were used for these measurements. Measurements of the radiated field at frequencies above 960 MHz were made with the measurement antenna located a distance of below 1 meter from the EUT.
7. The spectrum between 9 kHz and 960 MHz contained no intentional radiation and lies below the limits. The spectrum from 960MHz to 18 GHz contained intentional UWB signals between 3100 MHz and 10600 MHz and lie below the limits. No other emissions above 10600 MHz were detected. The maximum frequency tested was 40 GHz.
8. Per 47 CFR, Part 15, Subpart F, §15.519(c) (§15.209) all digital emissions from the transmitter not intended to be radiated from the antenna port meet the 15.209 subpart C limits.
9. Additional measurements in the 960 MHz to 40 GHz range were performed to determine the nature of all unintentional emissions in this span. Conducted antenna port measurement and terminated antenna port measurement were done in the 960 MHz to 8 GHz range show that all noise peaks have the same frequency and polarization and are determined to be emission from the digital circuit and are not radiated from the antenna.

9.3 Test date

April 28, 2026 ~ May 27, 2026

9.4 Test data for 9 kHz ~ 30 MHz

-. Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)

-. Frequency range : 9 kHz ~ 30 MHz

-. Measurement distance : 3 m

Frequency (MHz)	Reading (dB μ V)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level(dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
All emissions observed were 20 dB below the limit.									

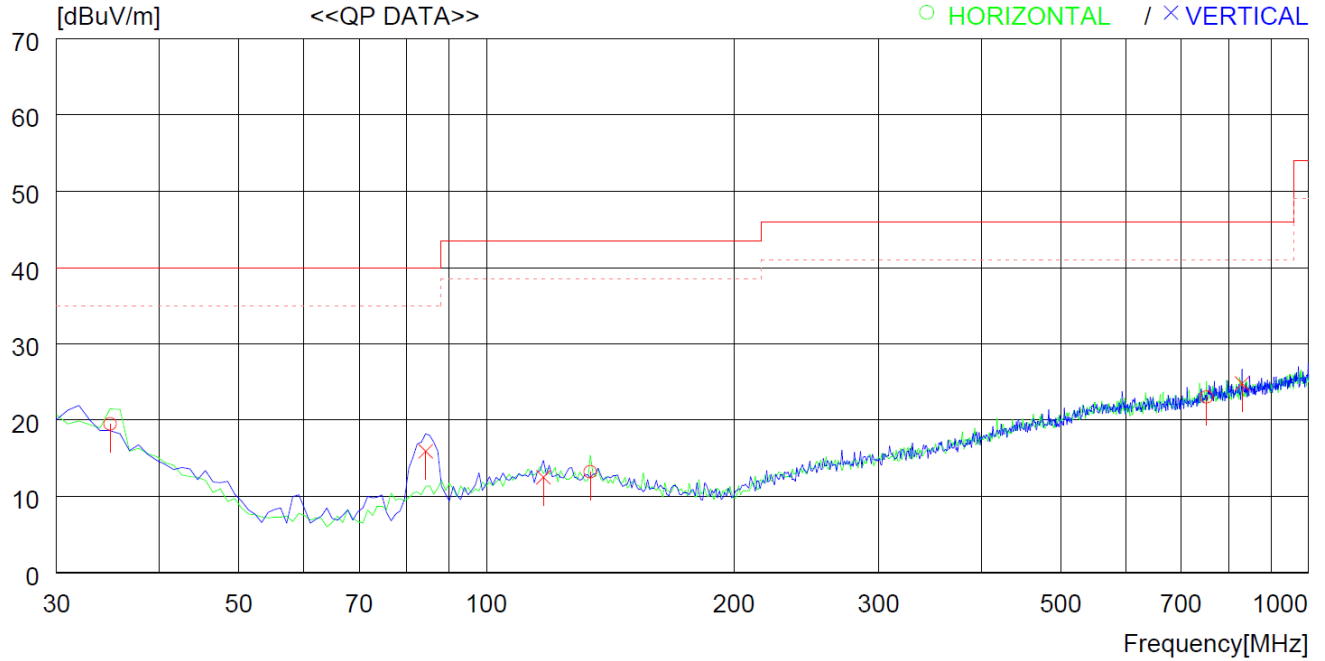
9.5 Test data for 30 MHz ~ 960 MHz

Measurement distance : 3 m

Result : PASSED

EUT : 3rd Generation Smart Card Key

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	34.850	28.3	22.6	1.1	32.5	19.5	40.0	20.5	200	0
2	133.790	26.1	17.4	2.1	32.4	13.2	43.5	30.3	200	354
3	751.673	24.6	25.7	5.0	32.3	23.0	46.0	23.0	200	43
----- Vertical -----										
4	84.320	33.2	13.5	1.7	32.5	15.9	40.0	24.1	200	359
5	117.300	25.0	17.9	2.0	32.4	12.5	43.5	31.0	200	264
6	830.241	25.4	26.2	5.2	32.0	24.8	46.0	21.2	200	359

9.6 Test data for 960 MHz ~ 40 GHz

-. Resolution bandwidth : 1 MHz for Peak and Average Mode

-. Video bandwidth : 1 MHz for Peak and Average Mode

-. Measurement distance : 0.5 m

-. Operating Condition : Highest Output Power Transmitting Mode

Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP Gain (dB)	Distance Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
960 MHz ~ 1 610 MHz										
1 600.550	54.25	Peak	H	25.10	0.97	42.95	-15.56	21.81	39.90	18.09
1 600.550	42.89	Average	H	25.10	0.97	42.95	-15.56	10.45	19.90	9.45
1 390.920	51.13	Peak	V	25.90	0.50	43.00	-15.56	18.97	39.90	20.93
1 005.180	41.16	Average	V	24.50	0.16	43.08	-15.56	7.18	19.90	12.72
1 610 MHz ~ 1 990 MHz										
1 897.180	53.10	Peak	H	25.69	0.96	42.87	-15.56	21.32	51.90	30.58
1 894.910	41.65	Average	H	25.68	0.96	42.87	-15.56	9.86	31.90	22.04
1 660.300	51.07	Peak	V	25.00	0.91	42.94	-15.56	18.48	51.90	33.42
1 659.160	40.49	Average	V	25.00	0.91	42.94	-15.56	7.90	31.90	24.00
1 990 MHz ~ 3 100 MHz										
2 291.100	51.57	Peak	H	27.94	1.20	42.78	-15.56	22.37	53.90	31.53
2 292.200	41.04	Average	H	27.93	1.20	42.78	-15.56	11.83	33.90	22.07
2 689.200	48.91	Peak	V	27.86	1.78	42.69	-15.56	20.30	53.90	33.60
2 093.700	40.06	Average	V	26.82	1.17	42.82	-15.56	9.67	33.90	24.23
3 100 MHz ~ 10 600 MHz										
8 138.700	68.30	Peak	H	36.92	1.95	42.47	-15.56	49.14	73.90	24.76
7 779.100	42.73	Average	H	36.36	2.11	42.33	-15.56	23.31	53.90	30.59
7 884.000	61.15	Peak	V	36.64	2.20	42.37	-15.56	42.06	73.90	31.84
7 891.500	41.02	Average	V	36.67	2.21	42.37	-15.56	21.97	53.90	31.93
10 600 MHz ~ 40 000 MHz										
15 216.700	52.07	Peak	H	40.53	4.06	42.44	-15.56	38.66	53.90	15.24
11 283.800	40.00	Average	H	39.27	2.53	42.83	-15.56	23.41	33.90	10.49
11 158.100	50.98	Peak	V	39.28	2.74	42.84	-15.56	34.60	53.90	19.30
11 276.400	39.60	Average	V	39.25	2.54	42.83	-15.56	23.00	33.90	10.90

Remark. -Total = Reading + Antenna Factor + Cable loss - Amp Gain + Distance Factor

- Distance Factor = $20 \log (0.5/3) = -15.56$ (measurement distance is 0.5 meter)

9.7 Limit

The radiated emissions at or below 960 MHz from a device shall not exceed the emission levels in section 15.209(a).

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2 400/F(KHz)	300
0.490~1.705	24 000/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

The radiated emissions above 960 MHz from a device shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz.

Freq. (MHz)	EIRP (dBm)	Field (dBμV/m) at 3m
960-1 610	-75.3	19.90
1 610-1 990	-63.3	31.90
1 990-3 100	-61.3	33.90
3 100-10 600	-41.3	53.90
10 600 above	-61.3	33.90

Note 1: This may be converted to a peak field strength level at 3 meters using $E(\text{dB}\mu\text{V/m}) = P(\text{dBm EIRP}) + 95.2 \text{ dB}$.

From 47 CFR Section 15.519(c): Emissions from digital circuitry used to enable the operation of the UWB transmitter shall comply with the limits in Section 15.209 of this chapter, rather than the limits specified in this subpart, provided it can be clearly demonstrated that those emissions from the UWB device are due solely to emissions from digital circuitry contained within the transmitter and that the emissions are not intended to be radiated from the transmitter's antenna. Emissions from associated digital devices, as defined in Section 15.3(k) of this chapter, e.g., emissions from digital circuitry used to control additional functions or capabilities other than the UWB transmission, are subject to the limits contained in Subpart B of Part 15 of this chapter.

The radiated emissions from a device operating under the provisions of this section shall not exceed the emission levels in Section 15.209.

Freq. (MHz)	E- Field (dBμV/m) at 3m	
	Quasi Peak	
30 ~ 88	40.00	
88 ~ 216	43.50	
216 ~ 960	46.00	
	Peak	Average
Above 960	74.00	54.00

10. Radiated Emissions in GPS Bands Measurement

10.1 Operating environment

Temperature : 24 °C
Relative humidity : 49 % R.H.

10.2 Test set-up

1. Configure the EUT according to ANSI C63.10:2020. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Measurements frequencies were maximized using a spectrum analyzer with Average detector capabilities. A spectrum analyzer was used for the final measurements utilizing an Average detector at the frequencies with the largest amplitudes. The prescribed RBW of 1 kHz and VBW of 1 kHz, and a 1 msec averaging time were used for these measurements.
6. Per 47 CFR, Part 15, Subpart F, §15.519(c) (§15.209) all digital emissions from the transmitter not intended to be radiated from the antenna port meet the 15.209 subpart C limits.

10.3 Test date

April 28, 2026 ~ May 27, 2026

10.4 Test data

- . Resolution bandwidth : 1 kHz for Peak and Average Mode
- . Video bandwidth : 1 kHz for Peak and Average Mode
- . Measurement distance : 0.5 m
- . Operating Condition : Highest Output Power Transmitting Mode

Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP Gain (dB)	Distance Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
1 164 MHz ~ 1 240 MHz										
1 198.811	22.32	Peak	H	25.20	0.20	43.04	-15.56	-10.88	9.90	20.78
1 224.018	10.54	Average	H	25.30	0.24	43.04	-15.56	-22.52	9.90	32.42
1 225.688	21.58	Peak	V	25.30	0.25	43.03	-15.56	-11.46	9.90	21.36
1 214.376	10.34	Average	V	25.26	0.23	43.04	-15.56	-22.77	9.90	32.67
1 559 MHz ~ 1 610 MHz										
1 600.039	37.64	Peak	H	25.10	0.97	42.95	-15.56	5.20	9.90	4.70
1 600.039	23.60	Average	H	25.10	0.97	42.95	-15.56	-8.84	9.90	18.74
1 600.039	23.84	Peak	V	25.10	0.97	42.95	-15.56	-8.60	9.90	18.50
1 600.039	10.58	Average	V	25.10	0.97	42.95	-15.56	-21.86	9.90	31.76

Remark. -Total = Reading + Antenna Factor + Cable loss - Amp Gain + Distance Factor

- Distance Factor = $20 \log (0.5/3) = -15.56$ (measurement distance is 0.5 meter)

10.5 Limit

In addition to the radiated emission limits specified in the table in paragraph Part 15, Subpart F, §15.519(c) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz.

Freq. (MHz)	EIRP (dBm)	E- Field (dBμV/m) at 3 m
1 164 ~ 1 240	-85.3	9.9
1 559 ~ 1 610	-85.3	9.9

Note 1: This may be converted to a peak field strength level at 3 meters using $E(\text{dBuV/m}) = P(\text{dBm EIRP}) + 95.2 \text{ dB}$.

11. Peak Emissions within a 50 MHz Bandwidth Measurement

11.1 Operating environment

Temperature : 24 °C
Relative humidity : 49 % R.H.

11.2 Test set-up

1. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1 meters far away from the turntable.
2. The horn receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
3. For maximum peak emission amplitude, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading and was used to determine the frequency at which the highest radiated emission occurs, fM.
4. The individual UWB bandwidths were measured for each BAND_ID (nb) of the UWB spectrum. Both horizontal and vertical polarizations were taken into account to determine the full UWB BW on the maximized (in azimuth and elevation) signals.
5. A spectrum analyzer was used for the final measurement utilizing a peak detector at the frequency with the largest amplitude. The prescribed resolution bandwidth of 50 MHz was not supported by the spectrum analyzer. However, when a peak measurement is required, The resolution bandwidth for this measurement was set to 10 MHz, and the measurement was centered on the frequency at which the highest radiated emission occurred, fM. The video bandwidth was 10 MHz.

11.3 Test date

April 28, 2026 ~ May 27, 2026

11.4 Test data

-. Resolution bandwidth : 10 MHz for Peak Mode, 1 MHz for RMS Mode

-. Video bandwidth : 10 MHz for Peak Mode, 3 MHz for RMS Mode

-. Measurement distance : 1 m

-. Operating Condition : Highest Output Power Transmitting Mode

Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP Gain (dB)	Distance Factor (dB)	RBW (dB)	Total (dBuV/m)	EIRP at 3m Limits (dBuV/m)	Margin (dB)
Peak Field Strength of Fundamental											
7 987.20	82.06	Peak	H	36.85	2.27	42.41	-9.54	13.98	83.21	95.20	11.99
7 987.20	78.11	Peak	V	36.85	2.27	42.41	-9.54	13.98	79.26	95.20	15.94
Average Field Strength of Fundamental											
7 987.20	58.04	RMS	H	36.85	2.27	42.41	-9.54	-	45.21	53.90	8.69
7 987.20	55.51	RMS	V	36.85	2.27	42.41	-9.54	-	42.68	53.90	11.22

- Measurements were gathered with distance 1M and converted to 3M using the following formula:

$$\text{distance } 1\text{m} \rightarrow 3\text{m} = 20\log(1\text{m}/3\text{m}) = -9.54$$

- Measurements were gathered with a RBW of 10MHz and converted to 50MHz using the following formula:

$$\text{EIRP}_{10\text{ MHz}} = \text{EIRP}_{50\text{ MHz}} - 20\log(10\text{MHz}/50\text{MHz}) = 0\text{dBm} - (-13.98\text{dBm}) = 13.98\text{dBm}$$

- **Total = Reading + Ant. Factor + Cable Loss - AMP Gain + Distance Factor + RBW**

$$\text{EIRP at 3m(dBuV/m)} = \text{EIRP Limit(dBm/50MHz)} + 95.2$$

12. CEASE TRANSMISSION TIME

12.1 Operating environment

Temperature : 24 °C

Relative humidity : 49 % R.H.

12.2 Test set-up

1. Trigger the spectrum analyzer sweep on the RF waveform of the EUT.
2. Set the spectrum analyzer sweep time greater than the specified time.
3. A UWB device shall transmit only when it is sending information to an associated receiver. The UWB intentional radiator shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB intentional radiator at least every 10 seconds or the UWB device must cease transmitting.
4. Document the test results.

12.3 Test date

April 28, 2026 ~ May 27, 2026

12.4 Test data

-. Test Result : Pass

Frequency (MHz)	Cease Transmission Time (s)	Limit (s)
7 987.20	0.24	10.0

13. LIST OF TEST EQUIPMENT

Model Number	Manufacturer	Description	Serial Number	Last Cal.(Interval)
FSVA40	Rohde & Schwarz	Signal Analyzer	101593	Jan. 12, 2026 (1Y)
ESR	Rohde & Schwarz	EMI Test Receiver	101470	Mar. 11, 2026 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 11, 2026 (1Y)
SCU18	Rohde & Schwarz	Signal Conditioning unit	102266	Jul. 02, 2025 (1Y)
SCU40A	Rohde & Schwarz	Signal Conditioning unit	100436	Jan. 15, 2026 (1Y)
FMZB 1513	Schwarzbeck	Loop Antenna	1513-235	Mar. 18, 2026 (2Y)
CBL6112B	Schaffner	Bilog Antenna	2867	Dec. 17, 2025 (2Y)
BBHA9120D	Schwarzbeck	Horn Antenna	9120D-1349	Jun. 27, 2025 (1Y)
BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170179	Jan. 13, 2026 (1Y)
ZUP36-6	TDK-Lambda	DC Power Supply	6MJ-850Z16-0014	Jan. 12, 2026 (1Y)
SMB100A	Rohde & Schwarz	Signal Generator	177648	Jan. 14, 2026 (1Y)
DT3000	Innco System	Turn Table	DT3000/093	N/A
MA4000-EP	Innco System	Antenna Master	MA4000/332	N/A
CO3000	Innco System	Controller	CO3000/904	N/A