RADIO PERFORMANCE TEST REPORT

Test Report No. : **OT-263-RWD-027**

Reception No. : **2508002696**

Applicant : **AREVISION CO.,LTD.**

Address : **603,604,605, Gasan-dong, Woolim LionsValley-2cha, 2 Gasan digital 1-ro, Geumcheon-gu, Seoul, South Korea**

Manufacturer : **AREVISION CO.,LTD.**

Address : **603,604,605, Gasan-dong, Woolim LionsValley-2cha, 2 Gasan digital 1-ro, Geumcheon-gu, Seoul, South Korea**

Type of Equipment : **Robot Controller**

FCC ID. : **2BUSOROBOT-CTRL**

Model Name : **Robot Controller**

Multiple Model Name : **N/A**

Serial number : **N/A**

Total page of Report : **39 pages (including this page)**

Date of Incoming : **July 17, 2025**

Date of issue : **March 24, 2026**

SUMMARY

The equipment complies with the regulation; ***FCC PART 15 SUBPART C Section 15.247***

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).

Tested by	Reviewed by	Approved by
Ha-Ram, Lee / Deputy Chief Engineer	Tae-Ho, Kim / Chief Engineer	Jae-Ho, Lee / Director
ONETECH Corp.	ONETECH Corp.	ONETECH Corp.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

CONTENTS

Page

1. VERIFICATION OF COMPLIANCE 6

2. TEST SUMMARY 7

2.1 TEST ITEMS AND RESULTS 7

2.2 ADDITIONS, DEVIATIONS, EXCLUSIONS FROM STANDARDS 7

2.3 RELATED SUBMITTAL(S) / GRANT(S) 7

2.4 PURPOSE OF THE TEST 7

2.5 TEST METHODOLOGY 7

2.6 TEST FACILITY 7

3. GENERAL INFORMATION 8

3.1 PRODUCT DESCRIPTION 8

3.2 ALTERNATIVE TYPE(S)/MODEL(S); ALSO COVERED BY THIS TEST REPORT. 8

4. EUT MODIFICATIONS 8

5. SYSTEM TEST CONFIGURATION 9

5.1 JUSTIFICATION 9

5.2 PERIPHERAL EQUIPMENT 9

5.3 MODE OF OPERATION DURING THE TEST 10

5.4 CONFIGURATION OF TEST SYSTEM 15

5.5 ANTENNA REQUIREMENT 15

6. MEASUREMENT UNCERTAINTY 15

7. PRELIMINARY TEST 16

7.1 AC POWER LINE CONDUCTED EMISSIONS TESTS 16

7.2 GENERAL RADIATED EMISSIONS TESTS 16

8. MINIMUM 6 dB BANDWIDTH 17

8.1 OPERATING ENVIRONMENT 17

8.2 TEST SET-UP 17

8.3 TEST DATE 17

8.4 TEST DATA FOR 802.11B WLAN MODE 17

8.4.1 Test data for Antenna 1 17

8.5 TEST DATA FOR 802.11G WLAN MODE 18

8.5.1 Test data for Antenna 1 18

8.5.2 Test data for Antenna 2 18

8.6 TEST DATA FOR 802.11N_HT20 WLAN MODE 18

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8.6.1 Test data for Antenna 1 ..... *18*
8.6.2 Test data for Antenna 2 ..... *18*
9. MAXIMUM CONDUCTED (AVERAGE) OUTPUT POWER **19**
9.1 OPERATING ENVIRONMENT 19
9.2 TEST SET-UP 19
9.3 TEST DATE 19
9.4 TEST DATA FOR 802.11B WLAN MODE 19
9.4.1 Test data for Antenna 1 ..... *19*
9.5 TEST DATA FOR 802.11G WLAN MODE 20
9.5.1 Test data for Antenna 1 ..... *20*
9.5.2 Test data for Antenna 2 ..... *20*
9.5.3 Test data for MIMO *20*
9.6 TEST DATA FOR 802.11N_HT20 WLAN MODE 21
9.6.1 Test data for Antenna 1 ..... *21*
9.6.2 Test data for Antenna 2 ..... *21*
9.6.3 Test data for MIMO *21*
10. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND **22**
10.1 OPERATING ENVIRONMENT 22
10.2 TEST SET-UP FOR CONDUCTED MEASUREMENT 22
10.3 TEST SET-UP FOR RADIATED MEASUREMENT 22
10.4 TEST DATE 22
10.5 TEST DATA 22
10.6 TEST DATA FOR RADIATED EMISSION 23
10.6.1 Radiated Emission which fall in the Restricted Band *23*
10.6.2 Spurious & Harmonic Radiated Emission *26*
11. PEAK POWER SPECTRAL DENSITY **29**
11.1 OPERATING ENVIRONMENT 29
11.2 TEST SET-UP 29
11.3 TEST DATE 29
11.4 TEST DATA FOR 802.11B WLAN MODE 29
11.4.1 Test data for Antenna 1 ..... *29*
11.5 TEST DATA FOR 802.11G WLAN MODE 30
11.5.1 Test data for Antenna 1 ..... *30*
11.5.2 Test data for Antenna 2 ..... *30*
11.5.3 Test data for MIMO *30*
11.6 TEST DATA FOR 802.11N_HT20 WLAN MODE 31

11.6.1 Test data for Antenna 1 ..... *31*
11.6.2 Test data for Antenna 2 ..... *31*
11.6.3 Test data for MIMO *31*
12. RADIATED EMISSION TEST **32**
12.1 OPERATING ENVIRONMENT 32
12.2 TEST SET-UP 32
12.3 TEST DATE 32
12.4 TEST DATA FOR 30 MHZ ~ 1 000 MHZ 33
12.4.1 Test data for WLAN *33*
12.4.2 Test data for WLAN + Data Link (QPSK) Intermodulation *34*
12.5 TEST DATA FOR BELOW 30 MHZ 35
12.6 TEST DATA FOR ABOVE 1 GHZ 35
13. CONDUCTED EMISSION TEST **36**
13.1 OPERATING ENVIRONMENT 36
13.2 TEST SET-UP 36
13.3 TEST DATE 36
13.4 TEST DATA FOR WLAN 37
14. LIST OF TEST EQUIPMENT **39**

※ Please refer to the Annex section for All test plots

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-263-RWD-027	March 24, 2026	Initial Release	All

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

1. VERIFICATION OF COMPLIANCE

Applicant : AREVISION CO.,LTD.

Address : 603,604,605, Gasan-dong, Woolim LionsValley-2cha, 2 Gasan digital 1-ro, Geumcheon-gu, Seoul, South Korea

Contact Person : Vin, Yu / Research Engineer

Telephone No. : +82-10-5567-2540

FCC ID : 2BUSOROBOT-CTRL

Model Name : Robot Controller

Brand Name : -

Serial Number : N/A

Date : March 24, 2026

EQUIPMENT CLASS	DTS – DIGITAL TRNSMISSION SYSTEM
E.U.T. DESCRIPTION	Robot Controller
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 C Section 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02
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.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

2. TEST SUMMARY

2.1 Test items and results

SECTION	TEST ITEMS	RESULTS
15.247 (a) (2)	Minimum 6 dB Bandwidth	Met the Limit / PASS
15.247 (b) (3)	Maximum Conducted(average) Output Power	Met the Limit / PASS
15.247 (d)	100 kHz Bandwidth Outside the Frequency Band	Met the Limit / PASS
15.247 (d)	Radiated Emission which fall in the Restricted Band	Met the Limit / PASS
15.247 (e)	Peak Power Spectral Density	Met the Limit / PASS
15.209	Radiated Emission Limits	Met the Limit / PASS
15.207	Conducted Limits	Met the Limit / PASS
15.203	Antenna Requirement	Met requirement / PASS

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 FCC PART 15 SUBPART C Section 15.247.

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

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

3. GENERAL INFORMATION

3.1 Product Description

The AREVISION CO.,LTD., Model Robot Controller (referred to as the EUT in this report) is a Robot Controller. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	Robot Controller		
OPERATING FREQUENCY	WLAN 2.4 GHz	2 412 MHz ~ 2 462 MHz (802.11b/g/n(HT20))	
MODULATION TYPE	WLAN 2.4 GHz	802.11b: DSSS Modulation(DBPSK/DQPSK/CCK) 802.11g/n(HT20): OFDM Modulation(BPSK/QPSK/16QAM/64QAM)	
RF OUTPUT POWER	WLAN 2.4 GHz	Antenna 1	13.85 dBm(802.11b) 8.74 dBm(802.11g) 8.72 dBm(802.11n_HT20)
		Antenna 2	8.05 dBm(802.11g) 7.90 dBm(802.11n_HT20)
		MIMO	11.32 dBm(802.11g) 11.25 dBm(802.11n_HT20)
ANTENNA TYPE	WLAN 2.4 GHz	Chip Antenna	
ANTENNA GAIN	WLAN 2.4 GHz	Antenna 1	2.17 dBi
		Antenna 2	2.17 dBi
		Multiple Antenna	5.18 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	8 MHz, 24 MHz, 25 MHz, 37.4 MHz		

Note. The DataLink Module is certified. (Contains FCC ID: 2BUSOM-BOT-2450)

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

-. None

4. EUT MODIFICATIONS

-. None

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	AREVISION CO.,LTD.	N/A	N/A

5.2 Peripheral equipment

Defined as equipment needed for correct operation of the EUT, but not considered as tested:

Model	Manufacturer	Description	Connected to
Robot Controller	AREVISION CO.,LTD.	Robot Controller (EUT)	

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

5.3 Mode of operation during the test

For the testing, software used to control the EUT for staying in continuous transmitting mode is programmed.

-. Frequency / Channel Operation [WLAN]

Channel	Frequency
1	2 412
2	2 417
3	2 422
4	2 427
5	2 432
6	2 437
7	2 442
8	2 447
9	2 452
10	2 457
11	2 462

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

-. Low Channel_SISO [WLAN]

Modulation	DATA RATE	OUTPUT POWER[dBm]
		Antenna 1
802.11 b	1 Mbps	13.85
	2 Mbps	13.82
	5.5 Mbps	13.74
	11 Mbps	13.70

-. The worst case data rate for each modulation is determined 1 Mbps(Antenna 1) for IEEE 802.11b.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

-. Middle Channel_SISO [WLAN]

Modulation	DATA RATE	OUTPUT POWER[dBm]
		Antenna 1
802.11 b	1 Mbps	13.49
	2 Mbps	13.47
	5.5 Mbps	13.46
	11 Mbps	13.40

-. The worse case data rate for each modulation is determined 1 Mbps(Antenna 1) for IEEE 802.11b.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

-. High Channel_SISO [WLAN]

Modulation	DATA RATE	OUTPUT POWER[dBm]
		Antenna 1
802.11 b	1 Mbps	12.72
	2 Mbps	12.66
	5.5 Mbps	12.64
	11 Mbps	12.61

-. The worse case data rate for each modulation is determined 1 Mbps(Antenna 1) for IEEE 802.11b.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

-. Low Channel_MIMO [WLAN]

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Antenna 1	Antenna 2
802.11 g	6 Mbps	8.74	7.84
	9 Mbps	8.70	7.82
	12 Mbps	8.62	7.79
	18 Mbps	8.57	7.78
	24 Mbps	8.55	7.74
	36 Mbps	8.41	7.66
	48 Mbps	8.40	7.65
	54 Mbps	8.36	7.64
802.11 HT 20	MCS 0	8.72	7.69
	MCS 1	8.67	7.63
	MCS 2	8.60	7.60
	MCS 3	8.65	7.68
	MCS 4	8.56	7.59
	MCS 5	8.54	7.45
	MCS 6	8.53	7.43
	MCS 7	8.50	7.36

-. The worse case data rate for each modulation is determined 6 Mbps(Antenna 1/ Antenna 2) for IEEE 802.11g, MCS 0(Antenna 1/ Antenna 2) for HT20.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

-. Middle Channel_MIMO [WLAN]

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Antenna 1	Antenna 2
802.11 g	6 Mbps	8.55	7.81
	9 Mbps	8.52	7.78
	12 Mbps	8.48	7.75
	18 Mbps	8.43	7.72
	24 Mbps	8.40	7.68
	36 Mbps	8.32	7.64
	48 Mbps	8.26	7.62
	54 Mbps	8.24	7.59
802.11 HT 20	MCS 0	8.40	7.83
	MCS 1	8.34	7.75
	MCS 2	8.30	7.73
	MCS 3	8.32	7.78
	MCS 4	8.26	7.70
	MCS 5	8.25	7.64
	MCS 6	8.20	7.62
	MCS 7	8.16	7.59

-. The worse case data rate for each modulation is determined 6 Mbps(Antenna 1/ Antenna 2) for IEEE 802.11g, MCS 0(Antenna 1/ Antenna 2) for HT20.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

-. High Channel_MIMO [WLAN]

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Antenna 1	Antenna 2
802.11 g	6 Mbps	7.85	8.05
	9 Mbps	7.82	8.01
	12 Mbps	7.79	7.94
	18 Mbps	7.75	7.86
	24 Mbps	7.73	7.83
	36 Mbps	7.66	7.79
	48 Mbps	7.62	7.76
	54 Mbps	7.58	7.73
802.11 HT 20	MCS 0	7.81	7.90
	MCS 1	7.78	7.85
	MCS 2	7.73	7.84
	MCS 3	7.76	7.88
	MCS 4	7.68	7.82
	MCS 5	7.65	7.69
	MCS 6	7.62	7.65
	MCS 7	7.59	7.62

-. The worse case data rate for each modulation is determined 6 Mbps(Antenna 1/ Antenna 2) for IEEE 802.11g, MCS 0(Antenna 1/ Antenna 2) for HT20.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

-. Duty Cycle

Mode	Tx On Time [ms]	Tx Off Time [ms]	Duty Cycle [%]	Correction Factor [dB]
802.11b	12.430 5	12.458 6	99.77	0.01
802.11g	2.059 3	2.082 3	98.89	0.05
802.11n_HT20	1.920 5	1.939 8	99.01	0.04

Note – Duty Cycle : (Tx On Time / (Tx On Time + Tx Off Time)) * 100

Correction Factor : 10 * Log(1 / (Duty Cycle / 100))

5.4 Configuration of Test System

Line Conducted Test: The EUT was connected to an AC power source. All supporting equipments were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.10: 2020 to determine the worse operating conditions.

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 meter 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 EUT's antenna is a permanently attached Chip antenna and Dipole antenna, not designed for user replacement

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)
Conducted Output Power	0.90
Conducted Spurious Emission < 26.5 GHz	1.40
Power Spectral Density	1.22
Line Conducted Disturbance (150 kHz ~ 30 MHz)	2.00
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)	5.55

7. PRELIMINARY TEST

7.1 AC Power line Conducted Emissions Tests

During Preliminary Test, the following operating mode was investigated.

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

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

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8. MINIMUM 6 dB BANDWIDTH

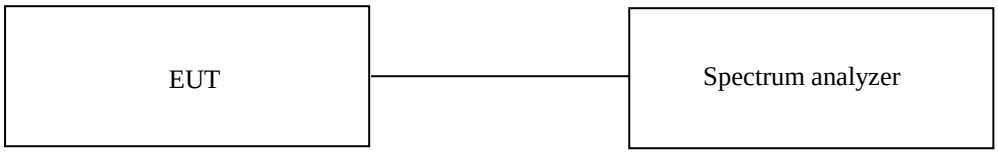
8.1 Operating environment

Temperature : 24 °C

Relative humidity : 53 % R.H.

8.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 6 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 6 dB.



8.3 Test Date

July 30, 2025 ~ October 15, 2025

8.4 Test data for 802.11b WLAN Mode

8.4.1 Test data for Antenna 1

-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)	LIMIT (MHz)	Margin (MHz)
Low	2 412.00	7.54	0.50	7.04
Middle	2 437.00	7.04	0.50	6.54
High	2 462.00	7.54	0.50	7.04

Remark. Margin = Measured Value - Limit

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8.5 Test data for 802.11g WLAN Mode

8.5.1 Test data for Antenna 1

-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)	LIMIT (MHz)	Margin (MHz)
Low	2 412.00	16.08	0.50	15.58
Middle	2 437.00	16.33	0.50	15.83
High	2 462.00	16.33	0.50	15.83

Remark. Margin = Measured Value - Limit

8.5.2 Test data for Antenna 2

-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)	LIMIT (MHz)	Margin (MHz)
Low	2 412.00	16.28	0.50	15.78
Middle	2 437.00	16.33	0.50	15.83
High	2 462.00	16.38	0.50	15.88

Remark. Margin = Measured Value - Limit

8.6 Test data for 802.11n_HT20 WLAN Mode

8.6.1 Test data for Antenna 1

-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)	LIMIT (MHz)	Margin (MHz)
Low	2 412.00	16.58	0.50	16.08
Middle	2 437.00	16.38	0.50	15.88
High	2 462.00	17.58	0.50	17.08

Remark. Margin = Measured Value - Limit

8.6.2 Test data for Antenna 2

-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)	LIMIT (MHz)	Margin (MHz)
Low	2 412.00	16.28	0.50	15.78
Middle	2 437.00	16.33	0.50	15.83
High	2 462.00	16.38	0.50	15.88

Remark. Margin = Measured Value - Limit

9. MAXIMUM CONDUCTED (AVERAGE) OUTPUT POWER

9.1 Operating environment

Temperature : 24 °C

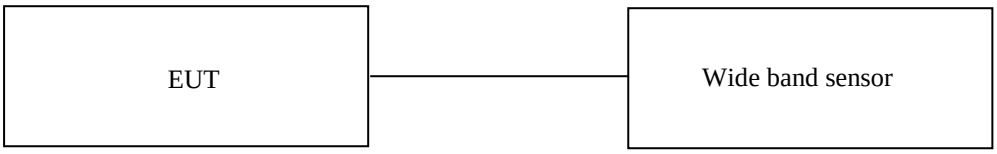
Relative humidity : 53 % R.H.

9.2 Test set-up

The maximum peak output power was measured with the wide band sensor connected to the antenna output of the EUT.

The Wide Band Sensor is measured when the EUT is transmitting at the appropriate center frequency its maximum power control level as described in Section 8.3(558074 D01 15.247 Meas Guidance v05r02).

Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.



9.3 Test Date

July 30, 2025 ~ October 15, 2025

9.4 Test data for 802.11b WLAN Mode

9.4.1 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : 99.77 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	13.84	0.01	13.85	30.00	16.15
MIDDLE	2 437.00	13.48	0.01	13.49	30.00	16.51
HIGH	2 462.00	12.71	0.01	12.72	30.00	17.28

Remark: Margin = Limit – Total Value

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.5 Test data for 802.11g WLAN Mode

9.5.1 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : 98.89 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	8.69	0.05	8.74	30.00	21.26
MIDDLE	2 437.00	8.50	0.05	8.55	30.00	21.45
HIGH	2 462.00	7.80	0.05	7.85	30.00	22.15

Remark: Margin = Limit – Total Value

9.5.2 Test data for Antenna 2

-. Test Result : Pass

-. Duty Cycle : 98.89 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	7.79	0.05	7.84	30.00	22.16
MIDDLE	2 437.00	7.76	0.05	7.81	30.00	22.19
HIGH	2 462.00	8.00	0.05	8.05	30.00	21.95

Remark: Margin = Limit – Total Value

9.5.3 Test data for MIMO

-. Test Result : Pass

-. Duty Cycle : 98.89 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	11.27	0.05	11.32	30.00	18.68
MIDDLE	2 437.00	11.16	0.05	11.21	30.00	18.79
HIGH	2 462.00	10.91	0.05	10.96	30.00	19.04

Remark: Margin = Limit – Total Value

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.6 Test data for 802.11n_HT20 WLAN Mode

9.6.1 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : 99.01 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	8.68	0.04	8.72	30.00	21.28
MIDDLE	2 437.00	8.36	0.04	8.40	30.00	21.60
HIGH	2 462.00	7.77	0.04	7.81	30.00	22.19

Remark: Margin = Limit – Total Value

9.6.2 Test data for Antenna 2

-. Test Result : Pass

-. Duty Cycle : 99.01 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	7.65	0.04	7.69	30.00	22.31
MIDDLE	2 437.00	7.79	0.04	7.83	30.00	22.17
HIGH	2 462.00	7.86	0.04	7.90	30.00	22.10

Remark: Margin = Limit – Total Value

9.6.3 Test data for MIMO

-. Test Result : Pass

-. Duty Cycle : 99.01 %

CHANNEL	Frequency (MHz)	Measured Value (dBm)	Duty Factor (dBm)	Total Value (dBm)	Limit (dBm)	Margin (dB)
LOW	2 412.00	11.21	0.04	11.25	30.00	18.75
MIDDLE	2 437.00	11.09	0.04	11.13	30.00	18.87
HIGH	2 462.00	10.83	0.04	10.87	30.00	19.13

Remark: Margin = Limit – Total Value

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND

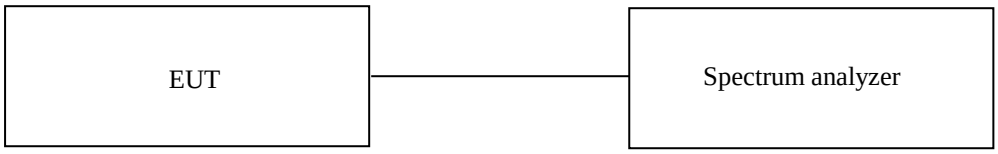
10.1 Operating environment

Temperature : 24 °C

Relative humidity : 53 % R.H.

10.2 Test set-up for conducted measurement

The antenna output of the EUT was connected to the spectrum analyzer. The resolution and video bandwidth is set to 100 kHz, and peak detection was used.



10.3 Test set-up for radiated measurement

The radiated emissions measurements were performed on the 3 m semi anechoic chamber. The EUT was placed on turntable approximately 1.5 m above the ground plane.

The frequency spectrum from 30 MHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

10.4 Test Date

July 30, 2025 ~ October 15, 2025

10.5 Test data

For Test data for Annex. Section

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.6 Test data for radiated emission

10.6.1 Radiated Emission which fall in the Restricted Band

10.6.1.1 Test data for 802.11b WLAN Mode

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

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : 99.77 %

-. Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	ATT (dB)	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel											
2 389.630	57.52	Peak	H	27.62	4.87	42.75	6.03		53.29	74.00	20.71
2 389.230	49.70	Average	H	27.62	4.87	42.75	6.03	0.01	45.48	54.00	8.52
2 389.840	52.69	Peak	V	27.62	4.87	42.75	6.03		48.46	74.00	25.54
2 390.040	43.93	Average	V	27.62	4.87	42.75	6.03	0.01	39.71	54.00	14.29
Test Data for High Channel											
2 498.920	57.47	Peak	H	27.60	4.93	42.73	6.03		53.30	74.00	20.70
2 499.910	49.19	Average	H	27.60	4.93	42.73	6.03	0.01	45.03	54.00	8.97
2 499.830	55.80	Peak	V	27.60	4.93	42.73	6.03		51.63	74.00	22.37
2 483.510	44.96	Average	V	27.60	4.93	42.73	6.03	0.01	40.80	54.00	13.20

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Total Level (dBμV/m)

Total Level = Reading + Antenna Factor + Cable Loss – AMP Gain + ATT + Duty Factor

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.6.1.2 Test data for 802.11g WLAN Mode

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

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : 99.22 %

-. Result : PASSED

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	ATT (dB)	Duty Factor (dB)	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Test Data for Low Channel											
2 387.390	61.72	Peak	H	27.63	4.87	42.75	6.03		57.50	74.00	16.50
2 390.040	44.45	Average	H	27.62	4.87	42.75	6.03	0.05	40.27	54.00	13.73
2 390.040	57.65	Peak	V	27.62	4.87	42.75	6.03		53.42	74.00	20.58
2 390.040	43.31	Average	V	27.62	4.87	42.75	6.03	0.05	39.13	54.00	14.87
Test Data for High Channel											
2 483.540	75.34	Peak	H	27.60	4.93	42.73	6.03		71.17	74.00	2.83
2 483.580	55.91	Average	H	27.60	4.93	42.73	6.03	0.05	51.79	54.00	2.21
2 483.770	65.21	Peak	V	27.60	4.93	42.73	6.03		61.04	74.00	12.96
2 483.620	47.83	Average	V	27.60	4.93	42.73	6.03	0.05	43.71	54.00	10.29

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss – AMP Gain + ATT + Duty Factor

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.6.1.3 Test data for 802.11n_HT20 WLAN Mode

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

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : 99.01 %

-. Result : PASSED

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	ATT (dB)	Duty Factor (dB)	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Test Data for Low Channel											
2 389.740	64.61	Peak	H	27.62	4.87	42.75	6.03		60.38	74.00	13.62
2 389.630	48.51	Average	H	27.62	4.87	42.75	6.03	0.04	44.32	54.00	9.68
2 389.940	59.66	Peak	V	27.62	4.87	42.75	6.03		55.43	74.00	18.57
2 389.940	44.95	Average	V	27.62	4.87	42.75	6.03	0.04	40.76	54.00	13.24
Test Data for High Channel											
2 484.070	74.49	Peak	H	27.60	4.93	42.73	6.03		70.32	74.00	3.68
2 483.580	55.52	Average	H	27.60	4.93	42.73	6.03	0.04	51.39	54.00	2.61
2 484.830	62.85	Peak	V	27.60	4.93	42.73	6.03		58.68	74.00	15.32
2 483.580	45.06	Average	V	27.60	4.93	42.73	6.03	0.04	40.93	54.00	13.07

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss – AMP Gain + ATT + Duty Factor

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.6.2 Spurious & Harmonic Radiated Emission

10.6.2.1 Test data for 802.11b WLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 26.5 GHz

-. Measurement distance : 3 m

-. Duty Cycle : 99.77 %

-. Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 824.000	51.81	Peak	H	31.50	6.98	42.24		48.05	74.00	25.95
4 824.000	43.22	Average	H	31.50	6.98	42.24	0.01	39.47	54.00	14.53
4 824.000	55.68	Peak	V	31.50	6.98	42.24		51.92	74.00	22.08
4 824.000	51.69	Average	V	31.50	6.98	42.24	0.01	47.94	54.00	6.06
Test Data for Middle Channel										
4 874.000	50.17	Peak	H	31.50	6.77	42.24		46.20	74.00	27.80
4 874.000	39.37	Average	H	31.50	6.77	42.24	0.01	35.41	54.00	18.59
4 874.000	54.93	Peak	V	31.50	6.77	42.24		50.96	74.00	23.04
4 874.000	50.94	Average	V	31.50	6.77	42.24	0.01	46.98	54.00	7.02
Test Data for High Channel										
4 924.000	49.72	Peak	H	31.55	6.77	42.24		45.80	74.00	28.20
4 924.000	39.38	Average	H	31.55	6.77	42.24	0.01	35.47	54.00	18.53
4 924.000	53.10	Peak	V	31.55	6.77	42.24		49.18	74.00	24.82
4 924.000	47.49	Average	V	31.55	6.77	42.24	0.01	43.58	54.00	10.42

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Total Level (dBμV/m)

Total Level = Reading + Antenna Factor + Cable Loss – AMP Gain + Duty Factor

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.6.2.2 Test data for 802.11g WLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 26.5 GHz

-. Measurement distance : 3 m

-. Duty Cycle : 99.22 %

-. Result : PASSED

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Test Data for Low Channel										
4 824.000	50.96	Peak	H	31.50	6.98	42.24		47.20	74.00	26.80
4 824.000	40.14	Average	H	31.50	6.98	42.24	0.05	36.43	54.00	17.57
4 824.000	56.03	Peak	V	31.50	6.98	42.24		52.27	74.00	21.73
4 824.000	44.90	Average	V	31.50	6.98	42.24	0.05	41.19	54.00	12.81
Test Data for Middle Channel										
4 874.000	50.44	Peak	H	31.50	6.77	42.24		46.47	74.00	27.53
4 874.000	38.42	Average	H	31.50	6.77	42.24	0.05	34.50	54.00	19.50
4 874.000	53.16	Peak	V	31.50	6.77	42.24		49.19	74.00	24.81
4 874.000	42.26	Average	V	31.50	6.77	42.24	0.05	38.34	54.00	15.66
Test Data for High Channel										
4 924.000	49.74	Peak	H	31.55	6.77	42.24		45.82	74.00	28.18
4 924.000	38.34	Average	H	31.55	6.77	42.24	0.05	34.47	54.00	19.53
4 924.000	51.65	Peak	V	31.55	6.77	42.24		47.73	74.00	26.27
4 924.000	40.52	Average	V	31.55	6.77	42.24	0.05	36.65	54.00	17.35

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss – AMP Gain + Duty Factor

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.6.2.3 Test data for 802.11n_HT20 WLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 26.5 GHz

-. Measurement distance : 3 m

-. Duty Cycle : 99.01 %

-. Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 824.000	51.71	Peak	H	31.50	6.98	42.24		47.95	74.00	26.05
4 824.000	38.96	Average	H	31.50	6.98	42.24	0.04	35.24	54.00	18.76
4 824.000	55.41	Peak	V	31.50	6.98	42.24		51.65	74.00	22.35
4 824.000	44.03	Average	V	31.50	6.98	42.24	0.04	40.31	54.00	13.69
Test Data for Middle Channel										
4 874.000	50.14	Peak	H	31.50	6.77	42.24		46.17	74.00	27.83
4 874.000	38.33	Average	H	31.50	6.77	42.24	0.04	34.40	54.00	19.60
4 874.000	52.78	Peak	V	31.50	6.77	42.24		48.81	74.00	25.19
4 874.000	41.45	Average	V	31.50	6.77	42.24	0.04	37.52	54.00	16.48
Test Data for High Channel										
4 924.000	49.60	Peak	H	31.55	6.77	42.24		45.68	74.00	28.32
4 924.000	37.59	Average	H	31.55	6.77	42.24	0.04	33.71	54.00	20.29
4 924.000	48.96	Peak	V	31.55	6.77	42.24		45.04	74.00	28.96
4 924.000	37.47	Average	V	31.55	6.77	42.24	0.04	33.59	54.00	20.41

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Total Level (dBμV/m)

Total Level = Reading + Antenna Factor + Cable Loss – AMP Gain + Duty Factor

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11. PEAK POWER SPECTRAL DENSITY

11.1 Operating environment

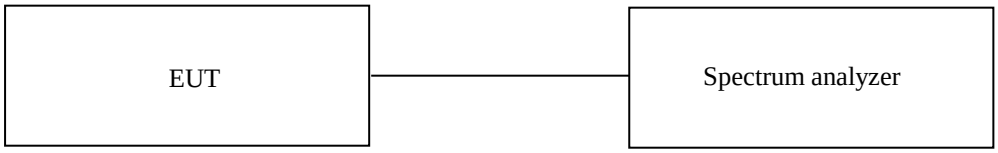
Temperature : 24 °C

Relative humidity : 53 % R.H.

11.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer.

The resolution bandwidth is set to 3 kHz ≤ RBW ≤ 100 kHz, the video bandwidth is set to 3 times the resolution bandwidth.



11.3 Test Date

July 30, 2025 ~ October 15, 2025

11.4 Test data for 802.11b WLAN Mode

11.4.1 Test data for Antenna 1

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-19.34	8.00	27.33
Middle	2 437.00	-19.21	8.00	27.20
High	2 462.00	-20.38	8.00	28.37

Remark. Margin = Limit – Measured value

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.5 Test data for 802.11g WLAN Mode

11.5.1 Test data for Antenna 1

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-26.74	8.00	34.69
Middle	2 437.00	-26.47	8.00	34.42
High	2 462.00	-27.34	8.00	35.29

Remark. Margin = Limit – Measured value

11.5.2 Test data for Antenna 2

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-26.50	8.00	34.45
Middle	2 437.00	-26.08	8.00	34.03
High	2 462.00	-25.81	8.00	33.76

Remark. Margin = Limit – Measured value

11.5.3 Test data for MIMO

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-23.61	8.00	31.56
Middle	2 437.00	-23.26	8.00	31.21
High	2 462.00	-23.50	8.00	31.45

Remark. Margin = Limit – Measured value

11.6 Test data for 802.11n_HT20 WLAN Mode

11.6.1 Test data for Antenna 1

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-26.97	8.00	34.93
Middle	2 437.00	-26.54	8.00	34.50
High	2 462.00	-27.13	8.00	35.09

Remark. Margin = Limit – Measured value

11.6.2 Test data for Antenna 2

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-26.73	8.00	34.69
Middle	2 437.00	-26.33	8.00	34.29
High	2 462.00	-25.88	8.00	33.84

Remark. Margin = Limit – Measured value

11.6.3 Test data for MIMO

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm/3kHz)	LIMIT (dBm/3kHz)	MARGIN (dB)
Low	2 412.00	-23.84	8.00	31.80
Middle	2 437.00	-23.42	8.00	31.38
High	2 462.00	-23.45	8.00	31.41

Remark. Margin = Limit – Measured value

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

12. RADIATED EMISSION TEST

12.1 Operating environment

Temperature	:	24 °C
Relative humidity	:	53 % R.H.

12.2 Test set-up

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

The frequency spectrum from 30 MHz to 26.5 GHz was scanned and emission levels maximized at each frequency recorded. The system was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna.

12.3 Test Date

July 30, 2025 ~ October 15, 2025

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

12.4 Test data for 30 MHz ~ 1 000 MHz

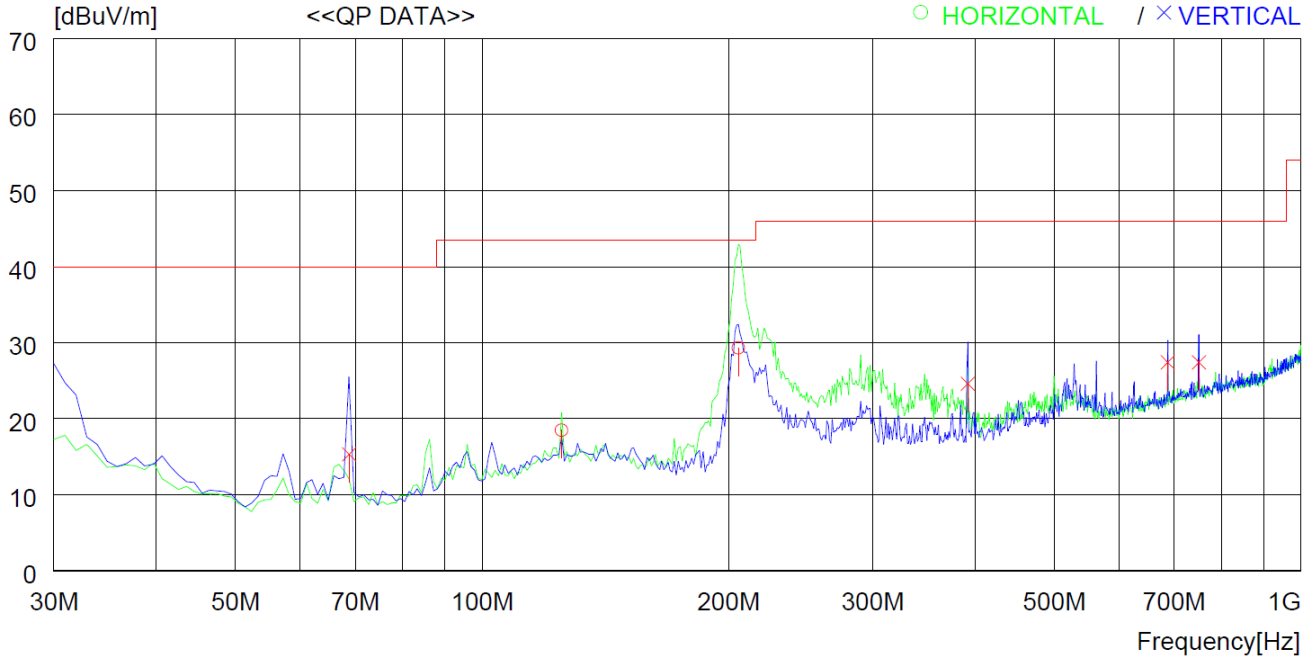
12.4.1 Test data for WLAN

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Robot Controller

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



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	125.060	30.2	19.0	1.4	32.1	18.5	43.5	25.0	200	359
2	205.570	43.8	15.8	1.8	32.1	29.3	43.5	14.2	200	359
----- Vertical ------										
3	68.800	33.4	12.9	1.1	32.1	15.3	40.0	24.7	400	319
4	391.810	33.6	20.7	2.5	32.2	24.6	46.0	21.4	100	359
5	687.655	31.0	25.4	3.5	32.5	27.4	46.0	18.6	100	9
6	750.703	29.8	26.3	3.6	32.3	27.4	46.0	18.6	100	359

-. Antenna 1, Antenna 2 and Multiple transmit tested, but the worst data were recorded.

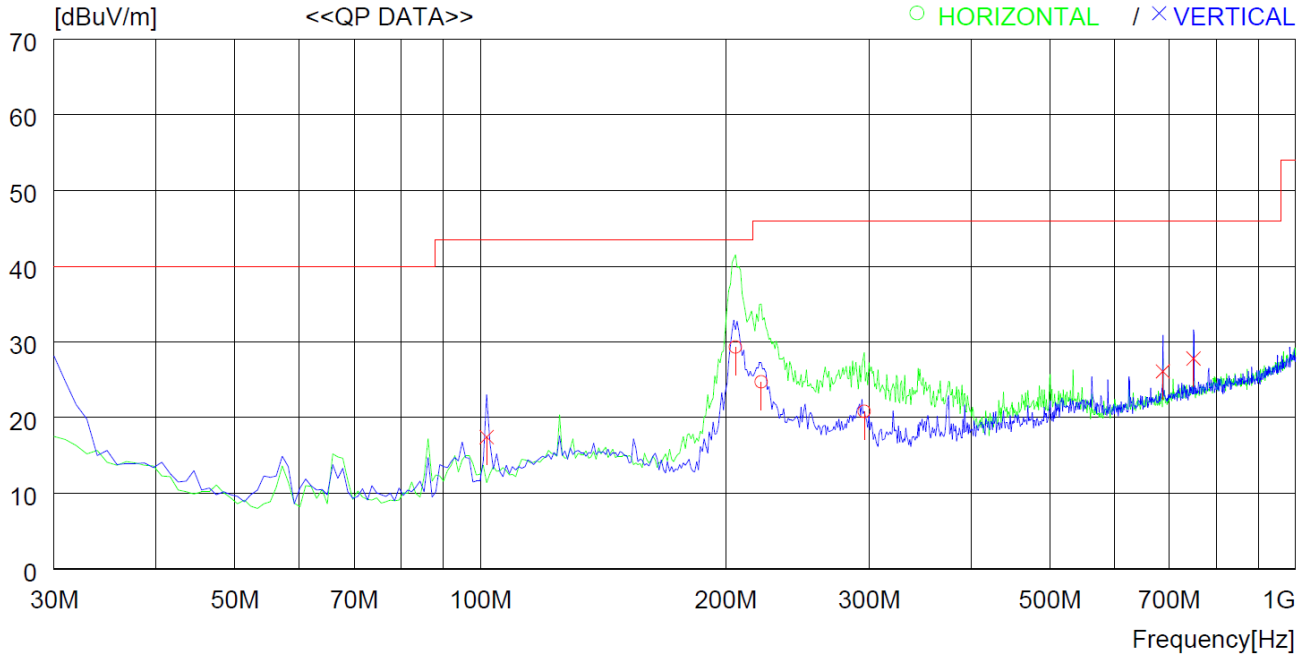
12.4.2 Test data for WLAN + Data Link (QPSK) Intermodulation

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Robot Controller

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



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	205.570	43.8	15.8	1.8	32.1	29.3	43.5	14.2	100	0
2	221.090	38.4	16.5	1.9	32.1	24.7	46.0	21.3	100	196
3	295.780	31.4	19.3	2.2	32.1	20.8	46.0	25.2	100	355
----- Vertical ------										
4	101.780	32.5	15.7	1.3	32.1	17.4	43.5	26.1	400	308
5	687.655	29.7	25.4	3.5	32.5	26.1	46.0	19.9	100	2
6	749.733	30.2	26.3	3.6	32.3	27.8	46.0	18.2	100	359

-. Antenna 1, Antenna 2 and Multiple transmit tested, but the worst data were recorded.

12.5 Test data for Below 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

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBµV)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level(dBµV/m)	Limits (dBµV/m)	Margin (dB)
Emission from the EUT more than 20 dB below the limit in each frequency range.									

12.6 Test data for above 1 GHz

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

1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 26.5 GHz

-. Measurement distance : 3 m

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBµV)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level(dBµV/m)	Limits (dBµV/m)	Margin (dB)
Emission from the EUT more than 20 dB below the limit in each frequency range.									

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

13. CONDUCTED EMISSION TEST

13.1 Operating environment

Temperature : 24 °C

Relative humidity : 53 % R.H.

13.2 Test set-up

The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a 50 Ω / 50 μH + 5 Ω Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

13.3 Test Date

July 30, 2025 ~ October 15, 2025

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

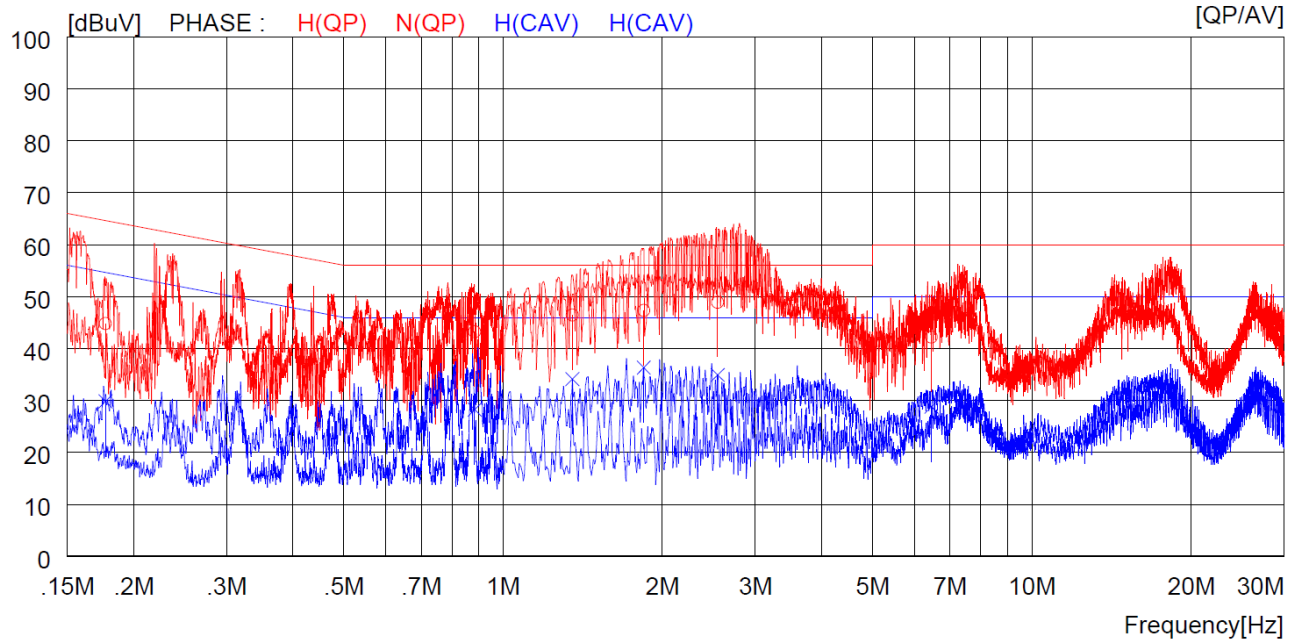
13.4 Test data for WLAN

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

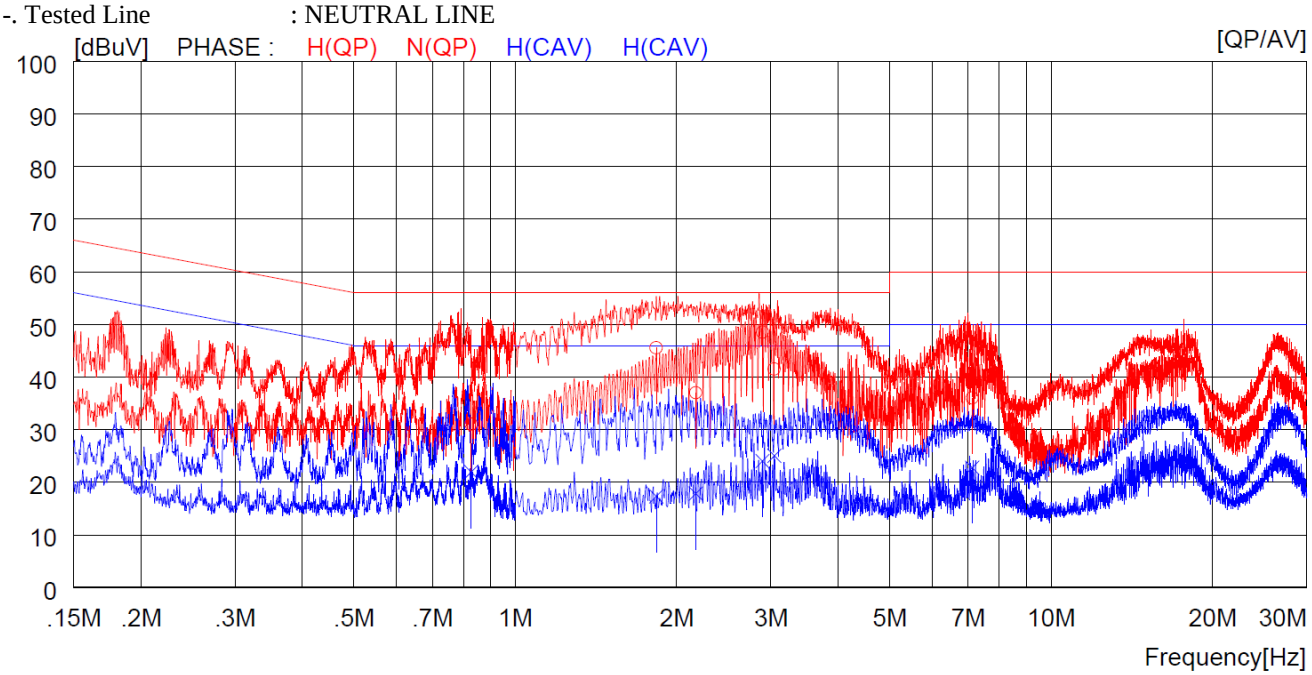
-. Antenna 1, Antenna 2 and Multiple transmit tested, but the worst data were recorded

.-. Tested Line : HOT LINE



NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.17700	34.7	----	10.1	44.8	----	64.6	----	19.8	----	H(QP)
2	0.88300	33.1	----	10.1	43.2	----	56.0	----	12.8	----	H(QP)
3	1.35200	36.3	----	10.1	46.4	----	56.0	----	9.6	----	H(QP)
4	1.84400	37.2	----	10.1	47.3	----	56.0	----	8.7	----	H(QP)
5	2.54400	38.8	----	10.1	48.9	----	56.0	----	7.1	----	H(QP)
6	6.45500	31.9	----	10.3	42.2	----	60.0	----	17.8	----	H(QP)
7	0.17700	----	19.7	10.1	----	29.8	----	54.6	----	24.8	H(CAV)
8	0.88300	----	18.1	10.1	----	28.2	----	46.0	----	17.8	H(CAV)
9	1.35200	----	24.0	10.1	----	34.1	----	46.0	----	11.9	H(CAV)
10	1.84400	----	26.2	10.1	----	36.3	----	46.0	----	9.7	H(CAV)
11	2.54400	----	24.8	10.1	----	34.9	----	46.0	----	11.1	H(CAV)
12	6.45500	----	18.5	10.3	----	28.8	----	50.0	----	21.2	H(CAV)

-. Tested Line : NEUTRAL LINE



NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.82700	20.9	----	10.1	31.0	----	56.0	----	25.0	----	N(QP)
2	1.83200	35.4	----	10.1	45.5	----	56.0	----	10.5	----	N(QP)
3	2.17200	26.9	----	10.1	37.0	----	56.0	----	19.0	----	N(QP)
4	2.89200	38.4	----	10.1	48.5	----	56.0	----	7.5	----	N(QP)
5	3.04400	31.3	----	10.2	41.5	----	56.0	----	14.5	----	N(QP)
6	7.12000	25.6	----	10.4	36.0	----	60.0	----	24.0	----	N(QP)
7	0.82700	----	11.8	10.1	----	21.9	----	46.0	----	24.1	N(CAV)
8	1.83200	----	7.2	10.1	----	17.3	----	46.0	----	28.7	N(CAV)
9	2.17200	----	7.7	10.1	----	17.8	----	46.0	----	28.2	N(CAV)
10	2.89200	----	13.9	10.1	----	24.0	----	46.0	----	22.0	N(CAV)
11	3.04400	----	14.8	10.2	----	25.0	----	46.0	----	21.0	N(CAV)
12	7.12000	----	12.3	10.4	----	22.7	----	50.0	----	27.3	N(CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

14. LIST OF TEST EQUIPMENT

Model Number	Manufacturer	Description	Serial Number	Last Cal.(Interval)
FSV40-N	Rohde & Schwarz	Spectrum Analyzer	101457	Jan. 13, 2025 (1Y)
ESU	Rohde & Schwarz	EMI Test Receiver	100261	Mar. 05, 2025 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	392756	Oct. 16, 2024 (1Y)
SCU18	Rohde & Schwarz	Pre-Amplifer	102266	Jul. 04, 2024 (1Y)
SCU40A	Rohde & Schwarz	Pre-Amplifer	100436	Jan. 15, 2025 (1Y)
DT2000-2t	Innco System	Turn Table	N/A	N/A
MA-4640-XPET	Innco System	Antenna Master	MA4640/652/43100318/P	N/A
CO3000	Innco System	Controller	1026/40960617/P	N/A
FMZB 1519-60D	Schwarzbeck	Loop Antenna	00113	Jan. 07, 2025 (2Y)
HLP-2008	TDK	Hybrid Antenna	131316	Mar. 09, 2024 (2Y)
BBHA9120D	Schwarzbeck	Horn Antenna	9120D-1366	Jun. 19, 2025 (1Y)
BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Jan. 04, 2025 (1Y)
HPF 3GHz	Rohde & Schwarz	High Pass Filter	N/A	Jan. 13, 2025 (1Y)
QFA1802-26-6-S	Qualwave	6 dB Attenuator	225335	Jan. 14, 2025 (1Y)
GP-4303D	LG Precision Co., Ltd	DC POWER SUPPLY	5071069	Jan. 05, 2025 (1Y)
NRP-Z91	Rohde & Schwarz	Wideband Power Sensor	103780	Jul. 02, 2025 (1Y)
NRP-Z81	Rohde & Schwarz	Wideband Power Sensor	104811	Jan. 15, 2025 (1Y)
ESCI	Rohde & Schwarz	EMI TEST RECEIVER	101012	Sep. 26, 2024 (1Y)
NSLK8128	Schwarzbeck	AMN	8128216	Mar. 12, 2025 (1Y)
ESH3-Z2	Rohde & Schwarz	PULSE LIMITER	100655	Mar. 12, 2025 (1Y)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)