

RADIO PERFORMANCE TEST REPORT

Test Report No. : OT-223-RWD-047

Reception No. : 2112005097

Applicant : LG Innotek Co., Ltd.

Address : 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea

Manufacturer : LG Innotek Co., Ltd.

Address : 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea

Type of Equipment : RF Module

FCC ID. : YZP-ATC6NPL002

Model Name : ATC6NPL002

Multiple Model Name : N/A

Serial number : N/A

Total page of Report : 325 pages (including this page)

Date of Incoming : December 01, 2021

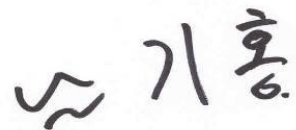
Date of issue : March 21, 2022

SUMMARY

The equipment complies with the regulation; **FCC PART 15 SUBPART E Section 15.407**

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.



Tested by
Youngyong Kim/ Manager
ONETECH Corp.

Reviewed by
Tae-Ho, Kim / Senior Manager
ONETECH Corp.

Approved by
Ki-Hong, Nam / General Manager
ONETECH Corp.

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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	8
2. TEST SUMMARY	9
2.1 Test items and results	9
2.2 Additions, deviations, exclusions from standards	9
2.3 Related Submittal(s) / Grant(s)	9
2.4 Purpose of the test	9
2.5 Test Methodology	9
2.6 Test Facility	9
3. GENERAL INFORMATION	10
3.1 Product Description	10
4. EUT MODIFICATIONS	31
5. SYSTEM TEST CONFIGURATION	32
5.1 Justification	32
5.2 Peripheral equipment	32
5.3 Mode of operation during the test	33
5.3.1 Test RU offset for Tones	33
5.3.2 Worst case configuration and mode	34
5.3.3 Frequency / Channel Operations	35
5.4 Configuration of Test System	74
5.5 Antenna Requirement	74
6. PRELIMINARY TEST	74
6.1 AC Power line Conducted Emissions Tests	74
6.2 General Radiated Emissions Tests	74
7. MIMIMUM 26 dB BANDWIDTH	75
7.1 Operating environment	75
7.2 Test set-up	75
7.3 Test Date	75
7.4 Test data for 802.11 ax(HE20) WLAN Mode	76
7.4.1 Test data for Antenna 0	76
7.4.2 Test data for Antenna 1	78
7.4.3 Test data for Staddle Channel_Antenna 0	80
7.4.4 Test data for Staddle Channel_Antenna 1	80

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

7.5 Test data for 802.11 ax(HE40) WLAN Mode	81
7.5.1 Test data for Antenna 0	81
7.5.2 Test data for Antenna 1	82
7.5.3 Test data for Staddle Channel_Antenna 0	83
7.5.4 Test data for Staddle Channel_Antenna 1	83
7.6 Test data for 802.11 ax(HE80) WLAN Mode	84
7.6.1 Test data for Antenna 0	84
7.6.2 Test data for Antenna 1	85
7.6.3 Test data for Staddle Channel_Antenna 0	86
7.6.4 Test data for Staddle Channel_Antenna 1	87
8. 6 dB BANDWIDTH	88
8.1 Operating environment	88
8.2 Test set-up	88
8.3 Test Date	88
8.4 Test data for 802.11 ax(HE20) WLAN Mode	89
8.4.1 Test data for Antenna 0	89
8.4.2 Test data for Antenna 1	90
8.4.3 Test data for Staddle Channel_Antenna 0	91
8.4.4 Test data for Staddle Channel_Antenna 1	91
8.5 Test data for 802.11 ax(HE40) WLAN Mode	92
8.5.1 Test data for Antenna 0	92
8.5.2 Test data for Antenna 1	92
8.5.3 Test data for Staddle Channel_Antenna 0	93
8.5.4 Test data for Staddle Channel_Antenna 1	93
8.6 Test data for 802.11 ax(HE80) WLAN Mode	94
8.6.1 Test data for Antenna 0	94
8.6.2 Test data for Antenna 1	94
8.6.3 Test data for Staddle Channel_Antenna 0	95
8.6.4 Test data for Staddle Channel_Antenna 1	96
9. MAXIMUM CONDUCTED OUTPUT POWER	97
9.1 Operating environment	97
9.2 Test set-up	97
9.3 Test Date	97
9.4 Test data for 802.11 ax(HE20) WLAN Mode	98
9.4.1 Test data for Antenna 0	98
9.4.2 Test data for Antenna 1	100
9.4.3 Test data for Multiple Transmit	102

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

9.4.4 Test data for Staddle Channel_Antenna 0	104
9.4.5 Test data for Staddle Channel_Antenna 1	104
9.4.6 Test data for Staddle Channel_Multiple Transmit	105
9.5 Test data for 802.11 ax(HE40) WLAN Mode	106
9.5.1 Test data for Antenna 0	106
9.5.2 Test data for Antenna 1	107
9.5.3 Test data for Multiple Transmit	108
9.5.4 Test data for Staddle Channel_Antenna 0	109
9.5.5 Test data for Staddle Channel_Antenna 1	109
9.5.6 Test data for Staddle Channel_Multiple Transmit	110
9.6 Test data for 802.11 ax(HE80) WLAN Mode	111
9.6.1 Test data for Antenna 0	111
9.6.2 Test data for Antenna 1	112
9.6.3 Test data for Multiple Transmit	113
9.6.4 Test data for Staddle Channel_Antenna 0	114
9.6.5 Test data for Staddle Channel_Antenna 1	115
9.6.6 Test data for Staddle Channel_Multiple Transmit	116
10. PEAK POWER SPECTRAL DENSITY	117
10.1 Operating environment	117
10.2 Test set-up	117
10.3 Test Date	117
10.4 Test data for 802.11 ax(HE20) WLAN Mode	118
10.4.1 Test data for Antenna 0	118
10.4.2 Test data for Antenna 1	120
10.4.3 Test data for Multiple Transmit	122
10.4.4 Test data for Staddle Channel_Antenna 0	124
10.4.5 Test data for Staddle Channel_Antenna 1	124
10.4.6 Test data for Staddle Channel_Multiple Transmit	125
10.5 Test data for 802.11 ax(HE40) WLAN Mode	126
10.5.1 Test data for Antenna 0	126
10.5.2 Test data for Antenna 1	127
10.5.3 Test data for Multiple Transmit	128
10.5.4 Test data for Staddle Channel_Antenna 0	129
10.5.5 Test data for Staddle Channel_Antenna 1	130
10.5.6 Test data for Staddle Channel_Multiple Transmit	131
10.6 Test data for 802.11 ax(HE80) WLAN Mode	132
10.6.1 Test data for Antenna 0	132

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

10.6.2 Test data for Antenna 1	133
10.6.3 Test data for Multiple Transmit	134
10.6.4 Test data for Staddle Channel_Antenna 0	135
10.6.5 Test data for Staddle Channel_Antenna 1	136
10.6.6 Test data for Staddle Channel_Multiple Transmit	137
11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION.....	138
11.1 Operating environment	138
11.2 Test set-up	138
11.3 Test Date.....	138
11.4 Test Data for U-NII-1	139
11.5 Test Data for U-NII-2A	140
11.6 Test Data for U-NII-2C	141
11.7 Test Data for U-NII-3	142
12. FREQUENCY STABILITY WITH VOLTAGE VARIATION.....	143
12.1 Operating environment	143
12.2 Test set-up	143
12.3 Test Date.....	143
12.4 Test Data for U-NII-1	144
12.5 Test Data for U-NII-2A	144
12.6 Test Data for U-NII-2C	145
12.7 Test Data for U-NII-3	145
13. RADIATED SPURIOUS EMISSIONS.....	146
13.1 Operating environment	146
13.2 Test set-up for conducted measurement	146
13.3 Test Date.....	147
13.4 Test data for Below 30 MHz	148
13.5 Test data for 30 MHz ~ 1 000 MHz.....	149
13.5.1 Test data for WLAN 5 GHz AX Mode.....	149
13.5.2 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + Bluetooth)	150
13.5.3 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + Bluetooth LE).....	151
13.5.4 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + WLAN 2 GHz AX Mode)	152
13.6 Test data for Above 1 GHz	153
13.6.1 Test data for UNII-1	153
13.6.2 Test data for UNII-2A.....	171
13.6.3 Test data for UNII-2C.....	189
13.6.4 Test data for UNII3.....	207
14. RADIATED RESTRICTED BAND EDGE MEASUREMENTS	225

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

14.1 Operating environment	225
14.2 Test set-up for conducted measurement	225
14.3 Test Date	226
14.4 Test data for Frequency UNII I	227
14.4.1 Test data for 802.11 ax(HE20) WLAN Mode	227
14.4.2 Test data for 802.11 ax(HE40) WLAN Mode	232
14.4.3 Test data for 802.11 ax(HE80) WLAN Mode	238
14.5 Test data for Frequency UNII 2A	245
14.5.1 Test data for 802.11 ax(HE20) WLAN Mode	245
14.5.2 Test data for 802.11 ax(HE40) WLAN Mode	250
14.5.3 Test data for 802.11 ax(HE80) WLAN Mode	256
14.6 Test data for Frequency UNII-2C	263
14.6.1 Test data for 802.11 ax(HE20) WLAN Mode	263
14.6.2 Test data for 802.11 ax(HE40) WLAN Mode	268
14.6.3 Test data for 802.11 ax(HE80) WLAN Mode	274
14.7 Test data for Frequency UNII-3	281
14.7.1 Test data for 802.11 ax(HE20) WLAN Mode	281
14.7.2 Test data for 802.11 ax(HE40) WLAN Mode	291
14.7.3 Test data for 802.11 ax(HE80) WLAN Mode	303
14.8 U-NII-3 Emission Limits	315
14.8.1 Emission Mask Plots	315
15. CONDUCTED EMISSION TEST	316
15.1 Operating environment	316
15.2 Test set-up	316
15.3 Test Date	316
15.4 Test data for WLAN 5 GHz AX Mode	317
15.5 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + Bluetooth)	319
15.6 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + Bluetooth LE)	321
15.7 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + WLAN 2.4 GHz AX Mode)	323
16. LIST OF TEST EQUIPMENT	325

※ Please refer to the Annex section for All test plots

Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-223-RWD-047	March 21, 2022	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : LG Innotek Co., Ltd.

Address : 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea

Contact Person : Jeong Inchang / Senior Research Engineer

Telephone No. : +82-62-950-0332

FCC ID : YZP-ATC6NPL002

Model Name : ATC6NPL002

Brand Name :  **LG Innotek**

Serial Number : N/A

Date : March 21, 2022

EQUIPMENT CLASS	Unlicensed National Information infrastructure(UNII)
E.U.T. DESCRIPTION	RF Module
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 E Section 15.407 789033 D02 General UNII Test Procedures New Rules v02r01
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

SECTION	TEST ITEMS	RESULTS
15.407(a)	26 dB Bandwidth	PASS
15.407(a)	Maximum Conducted Output Power	Met the Limit / PASS
15.407(a)	Peak Power Spectral Density	Met the Limit / PASS
15.407(e)	6 dB Bandwidth	Met the Limit / PASS
15.407(g)	Frequency Stability	Met the Limit / PASS
15.407(b)	Undesirable Emissions	Met the Limit / PASS
15.205, 15.407(b)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Met the Limit / PASS
15.207	Conducted Limits	Met the Limit / 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 E Section 15.407

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

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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 LG Innotek Co., Ltd., Model ATC6NPL002 (referred to as the EUT in this report) is a RF Module. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	RF Module	
OPERATING FREQUENCY	Bluetooth LE	2 402 MHz ~ 2 480 MHz
	Bluetooth	2 402 MHz ~ 2 480 MHz
	WLAN 2.4 GHz	2 412 MHz ~ 2 462 MHz (802.11b/g/n(HT20)/ax(HE20))
		2 422 MHz ~ 2 452 MHz (802.11n(HT40)/ax(HE40))
	WLAN 5 150 MHz ~ 5 250 MHz Band	5 180 MHz ~ 5 240 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))
		5 190 MHz ~ 5 230 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))
		5 210 MHz (802.11ac(VHT80)/ax(HE80))
	WLAN 5 250 MHz ~ 5 350 MHz Band	5 260 MHz ~ 5 320 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))
		5 270 MHz ~ 5 310 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))
		5 290 MHz (802.11ac(VHT80)/ax(HE80))
	WLAN 5 470 MHz ~ 5 725 MHz Band	5 500 MHz ~ 5 720 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))
		5 510 MHz ~ 5 710 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))
		5 530 MHz ~ 5 690 MHz (802.11ac(VHT80)/ax(HE80))
	WLAN 5 725 MHz ~ 5 850 MHz Band	5 745 MHz ~ 5 825 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))
		5 755 MHz ~ 5 795 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))
		5 775 MHz (802.11ac(VHT80)/ax(HE80))
MODULATION TYPE	Bluetooth LE	GFSK for 1 Mbps / 2 Mbps / 125 kbps / 500 kbps
	Bluetooth	GFSK for 1Mbps, $\pi/4$ -DQPSK for 2Mbps, 8-DPSK for 3Mbps
	WLAN 2.4 GHz	802.11b: DSSS Modulation(DBPSK/DQPSK/CCK)
		802.11g/n(HT20)/n(HT40)/ax(HE20)/ax(HE40): OFDM Modulation(BPSK/QPSK/16QAM/64QAM)
	WLAN 5 GHz	802.11a/n(HT20)/n(HT40)/ac(VHT80)/ax(HE20)/ax(HE40)/ax(HE80): OFDM Modulation(BPSK/QPSK/16QAM/64QAM)

RF OUTPUT POWER	Bluetooth LE	1 Mbps	1.21 dBm
		2 Mbps	1.17 dBm
		125 kbps	1.22 dBm
		500 kbps	1.24 dBm
	Bluetooth	1 Mbps	0.67 dBm
		2 Mbps	-0.27 dBm
		3 Mbps	0.09 dBm
	WLAN 2.4 GHz	Antenna 0	15.57 dBm(802.11b)
			11.80 dBm(802.11g)
			11.67 dBm(802.11n_HT20)
			13.27 dBm(802.11ax_HE20)_26 Tone
			13.06 dBm(802.11ax_HE20)_52 Tone
			12.66 dBm(802.11ax_HE20)_106 Tone
			11.85 dBm(802.11ax_HE20)_242 Tone
			11.47 dBm(802.11ax_HE20)_Single User
			11.31 dBm(802.11n_HT40)
			12.02 dBm(802.11ax_HE40)_26 Tone
			12.93 dBm(802.11ax_HE40)_52 Tone
			13.04 dBm(802.11ax_HE40)_106 Tone
			12.44 dBm(802.11ax_HE40)_242 Tone
			11.52 dBm(802.11ax_HE40)_484 Tone
			11.50 dBm(802.11ax_HE40)_Single User

RF OUTPUT POWER	WLAN 2.4 GHz	Antenna 1	16.19 dBm(802.11b) 12.88 dBm(802.11g) 13.11 dBm(802.11n_HT20) 13.35 dBm(802.11ax_HE20)_26 Tone 13.57 dBm(802.11ax_HE20)_52 Tone 13.47 dBm(802.11ax_HE20)_106 Tone 13.33 dBm(802.11ax_HE20)_242 Tone 13.65 dBm(802.11ax_HE20)_Single User 12.11 dBm(802.11n_HT40) 12.31 dBm(802.11ax_HE40)_26 Tone 12.67 dBm(802.11ax_HE40)_52 Tone 12.70 dBm(802.11ax_HE40)_106 Tone 12.68 dBm(802.11ax_HE40)_242 Tone 12.48 dBm(802.11ax_HE40)_484 Tone 12.69 dBm(802.11ax_HE40)_Single User
		Multiple Antenna	15.46 dBm(802.11n_HT20) 16.32 dBm(802.11ax_HE20)_26 Tone 16.22 dBm(802.11ax_HE20)_52 Tone 16.09 dBm(802.11ax_HE20)_106 Tone 15.66 dBm(802.11ax_HE20)_242 Tone 15.70 dBm(802.11ax_HE20)_Single User 14.74 dBm(802.11n_HT40) 14.90 dBm(802.11ax_HE40)_26 Tone 15.78 dBm(802.11ax_HE40)_52 Tone 15.83 dBm(802.11ax_HE40)_106 Tone 15.57 dBm(802.11ax_HE40)_242 Tone 15.04 dBm(802.11ax_HE40)_484 Tone 15.15 dBm(802.11ax_HE40)_Single User

RF OUTPUT POWER	WLAN 5 150 MHz ~ 5 250 MHz Band	Antenna 0	12.59 dBm(802.11a) 12.15 dBm(802.11n_HT20) 2.53 dBm(802.11ax_HE20)_26 Tone 4.65 dBm(802.11ax_HE20)_52 Tone 7.54 dBm(802.11ax_HE20)_106 Tone 10.29 dBm(802.11ax_HE20)_242 Tone 12.19 dBm(802.11ax_HE20)_Single User 9.02 dBm(802.11n_HT40) 3.32 dBm(802.11ax_HE40)_26 Tone 5.26 dBm(802.11ax_HE40)_52 Tone 7.72 dBm(802.11ax_HE40)_106 Tone 7.54 dBm(802.11ax_HE40)_242 Tone 7.43 dBm(802.11ax_HE40)_484 Tone 9.15 dBm(802.11ax_HE40)_Single User 8.33 dBm(802.11ac_VHT80) 3.10 dBm(802.11ax_HE40)_26 Tone 5.03 dBm(802.11ax_HE40)_52 Tone 4.87 dBm(802.11ax_HE40)_106 Tone 4.76 dBm(802.11ax_HE40)_242 Tone 4.72 dBm(802.11ax_HE40)_484 Tone 4.33 dBm(802.11ax_HE40)_996 Tone 8.55 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	--

RF OUTPUT POWER	WLAN 5 150 MHz ~ 5 250 MHz Band	Antenna 1	12.45 dBm(802.11a) 12.01 dBm(802.11n_HT20) 3.45 dBm(802.11ax_HE20)_26 Tone 5.63 dBm(802.11ax_HE20)_52 Tone 8.30 dBm(802.11ax_HE20)_106 Tone 10.77 dBm(802.11ax_HE20)_242 Tone 12.02 dBm(802.11ax_HE20)_Single User 8.87 dBm(802.11n_HT40) 4.18 dBm(802.11ax_HE40)_26 Tone 6.25 dBm(802.11ax_HE40)_52 Tone 8.44 dBm(802.11ax_HE40)_106 Tone 8.29 dBm(802.11ax_HE40)_242 Tone 8.20 dBm(802.11ax_HE40)_484 Tone 9.21 dBm(802.11ax_HE40)_Single User 8.11 dBm(802.11ac_VHT80) 4.10 dBm(802.11ax_HE40)_26 Tone 6.10 dBm(802.11ax_HE40)_52 Tone 5.90 dBm(802.11ax_HE40)_106 Tone 5.81 dBm(802.11ax_HE40)_242 Tone 5.75 dBm(802.11ax_HE40)_484 Tone 5.50 dBm(802.11ax_HE40)_996 Tone 8.27 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	--

RF OUTPUT POWER	WLAN 5 150 MHz ~ 5 250 MHz Band	Multiple Antenna	15.09 dBm(802.11n_HT20) 6.03 dBm(802.11ax_HE20)_26 Tone 8.18 dBm(802.11ax_HE20)_52 Tone 10.95 dBm(802.11ax_HE20)_106 Tone 13.55 dBm(802.11ax_HE20)_242 Tone 15.11 dBm(802.11ax_HE20)_Single User 11.95 dBm(802.11n_HT40) 6.78 dBm(802.11ax_HE40)_26 Tone 8.80 dBm(802.11ax_HE40)_52 Tone 11.11 dBm(802.11ax_HE40)_106 Tone 10.94 dBm(802.11ax_HE40)_242 Tone 10.84 dBm(802.11ax_HE40)_484 Tone 12.19 dBm(802.11ax_HE40)_Single User 11.24 dBm(802.11ac_VHT80) 6.64 dBm(802.11ax_HE40)_26 Tone 8.61 dBm(802.11ax_HE40)_52 Tone 8.42 dBm(802.11ax_HE40)_106 Tone 8.32 dBm(802.11ax_HE40)_242 Tone 8.27 dBm(802.11ax_HE40)_484 Tone 7.96 dBm(802.11ax_HE40)_996 Tone 11.42 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	------------------	--

RF OUTPUT POWER	WLAN 5 250 MHz ~ 5 350 MHz Band	Antenna 0	12.38 dBm(802.11a) 11.90 dBm(802.11n_HT20) 2.66 dBm(802.11ax_HE20)_26 Tone 4.79 dBm(802.11ax_HE20)_52 Tone 7.63 dBm(802.11ax_HE20)_106 Tone 10.35 dBm(802.11ax_HE20)_242 Tone 11.97 dBm(802.11ax_HE20)_Single User 8.28 dBm(802.11n_HT40) 3.52 dBm(802.11ax_HE40)_26 Tone 5.62 dBm(802.11ax_HE40)_52 Tone 7.88 dBm(802.11ax_HE40)_106 Tone 5.55 dBm(802.11ax_HE40)_242 Tone 7.49 dBm(802.11ax_HE40)_484 Tone 8.44 dBm(802.11ax_HE40)_Single User 6.35 dBm(802.11ac_VHT80) 3.18 dBm(802.11ax_HE40)_26 Tone 5.13 dBm(802.11ax_HE40)_52 Tone 4.96 dBm(802.11ax_HE40)_106 Tone 4.88 dBm(802.11ax_HE40)_242 Tone 4.86 dBm(802.11ax_HE40)_484 Tone 4.82 dBm(802.11ax_HE40)_996 Tone 6.54 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	--

RF OUTPUT POWER	WLAN 5 250 MHz ~ 5 350 MHz Band	Antenna 1	12.39 dBm(802.11a) 11.94 dBm(802.11n_HT20) 3.67 dBm(802.11ax_HE20)_26 Tone 5.73 dBm(802.11ax_HE20)_52 Tone 8.46 dBm(802.11ax_HE20)_106 Tone 10.87 dBm(802.11ax_HE20)_242 Tone 12.03 dBm(802.11ax_HE20)_Single User 8.21 dBm(802.11n_HT40) 4.43 dBm(802.11ax_HE40)_26 Tone 6.58 dBm(802.11ax_HE40)_52 Tone 8.63 dBm(802.11ax_HE40)_106 Tone 6.48 dBm(802.11ax_HE40)_242 Tone 8.39 dBm(802.11ax_HE40)_484 Tone 8.48 dBm(802.11ax_HE40)_Single User 6.23 dBm(802.11ac_VHT80) 4.28 dBm(802.11ax_HE40)_26 Tone 6.24 dBm(802.11ax_HE40)_52 Tone 6.07 dBm(802.11ax_HE40)_106 Tone 5.88 dBm(802.11ax_HE40)_242 Tone 5.90 dBm(802.11ax_HE40)_484 Tone 5.86 dBm(802.11ax_HE40)_996 Tone 6.54 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	--

RF OUTPUT POWER	WLAN 5 250 MHz ~ 5 350 MHz Band	Multiple Antenna	14.89 dBm(802.11n_HT20) 6.21 dBm(802.11ax_HE20)_26 Tone 8.29 dBm(802.11ax_HE20)_52 Tone 11.07 dBm(802.11ax_HE20)_106 Tone 13.58 dBm(802.11ax_HE20)_242 Tone 15.01 dBm(802.11ax_HE20)_Single User 11.23 dBm(802.11n_HT40) 6.98 dBm(802.11ax_HE40)_26 Tone 9.14 dBm(802.11ax_HE40)_52 Tone 11.28 dBm(802.11ax_HE40)_106 Tone 9.05 dBm(802.11ax_HE40)_242 Tone 10.97 dBm(802.11ax_HE40)_484 Tone 11.47 dBm(802.11ax_HE40)_Single User 9.30 dBm(802.11ac_VHT80) 6.77 dBm(802.11ax_HE40)_26 Tone 8.73 dBm(802.11ax_HE40)_52 Tone 8.56 dBm(802.11ax_HE40)_106 Tone 8.41 dBm(802.11ax_HE40)_242 Tone 8.42 dBm(802.11ax_HE40)_484 Tone 8.38 dBm(802.11ax_HE40)_996 Tone 9.55 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	------------------	---

RF OUTPUT POWER	WLAN 5 470 MHz ~ 5 725 MHz Band	Antenna 0	12.24 dBm(802.11a) 11.76 dBm(802.11n_HT20) 2.82 dBm(802.11ax_HE20)_26 Tone 4.98 dBm(802.11ax_HE20)_52 Tone 7.90 dBm(802.11ax_HE20)_106 Tone 10.64 dBm(802.11ax_HE20)_242 Tone 12.03 dBm(802.11ax_HE20)_Single User 9.62 dBm(802.11n_HT40) 3.69 dBm(802.11ax_HE40)_26 Tone 5.92 dBm(802.11ax_HE40)_52 Tone 8.02 dBm(802.11ax_HE40)_106 Tone 7.72 dBm(802.11ax_HE40)_242 Tone 7.76 dBm(802.11ax_HE40)_484 Tone 9.99 dBm(802.11ax_HE40)_Single User 5.91 dBm(802.11ac_VHT80) 3.20 dBm(802.11ax_HE40)_26 Tone 5.21 dBm(802.11ax_HE40)_52 Tone 4.98 dBm(802.11ax_HE40)_106 Tone 4.80 dBm(802.11ax_HE40)_242 Tone 4.78 dBm(802.11ax_HE40)_484 Tone 4.46 dBm(802.11ax_HE40)_996 Tone 6.27 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	--

RF OUTPUT POWER	WLAN 5 470 MHz ~ 5 725 MHz Band	Antenna 0_Straddle	9.32 dBm(802.11a) 9.20 dBm(802.11n_HT20) 2.00 dBm(802.11ax_HE20)_26 Tone 4.19 dBm(802.11ax_HE20)_52 Tone 6.86 dBm(802.11ax_HE20)_106 Tone 8.57 dBm(802.11ax_HE20)_242 Tone 9.31 dBm(802.11ax_HE20)_Single User 7.36 dBm(802.11n_HT40) -14.30 dBm(802.11ax_HE40)_26 Tone -6.24 dBm(802.11ax_HE40)_52 Tone 3.73 dBm(802.11ax_HE40)_106 Tone 5.66 dBm(802.11ax_HE40)_242 Tone 6.45 dBm(802.11ax_HE40)_484 Tone 7.74 dBm(802.11ax_HE40)_Single User 4.72 dBm(802.11ac_VHT80) -15.24 dBm(802.11ax_HE40)_26 Tone -7.11 dBm(802.11ax_HE40)_52 Tone 1.12 dBm(802.11ax_HE40)_106 Tone 2.80 dBm(802.11ax_HE40)_242 Tone 3.65 dBm(802.11ax_HE40)_484 Tone 4.16 dBm(802.11ax_HE40)_996 Tone 5.03 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	--------------------	--

RF OUTPUT POWER	WLAN 5 470 MHz ~ 5 725 MHz Band	Antenna 1	12.50 dBm(802.11a) 11.89 dBm(802.11n_HT20) 3.90 dBm(802.11ax_HE20)_26 Tone 8.53 dBm(802.11ax_HE20)_52 Tone 8.55 dBm(802.11ax_HE20)_106 Tone 11.07 dBm(802.11ax_HE20)_242 Tone 12.15 dBm(802.11ax_HE20)_Single User 9.93 dBm(802.11n_HT40) 5.05 dBm(802.11ax_HE40)_26 Tone 7.13 dBm(802.11ax_HE40)_52 Tone 9.13 dBm(802.11ax_HE40)_106 Tone 8.84 dBm(802.11ax_HE40)_242 Tone 8.81 dBm(802.11ax_HE40)_484 Tone 10.15 dBm(802.11ax_HE40)_Single User 5.90 dBm(802.11ac_VHT80) 4.26 dBm(802.11ax_HE40)_26 Tone 6.28 dBm(802.11ax_HE40)_52 Tone 6.15 dBm(802.11ax_HE40)_106 Tone 6.02 dBm(802.11ax_HE40)_242 Tone 5.96 dBm(802.11ax_HE40)_484 Tone 5.71 dBm(802.11ax_HE40)_996 Tone 6.27 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	---

RF OUTPUT POWER	WLAN 5 470 MHz ~ 5 725 MHz Band	Antenna 1_Straddle	9.42 dBm(802.11a) 9.23 dBm(802.11n_HT20) 3.92 dBm(802.11ax_HE20)_26 Tone 5.88 dBm(802.11ax_HE20)_52 Tone 8.59 dBm(802.11ax_HE20)_106 Tone 9.80 dBm(802.11ax_HE20)_242 Tone 9.35 dBm(802.11ax_HE20)_Single User 7.45 dBm(802.11n_HT40) -12.01 dBm(802.11ax_HE40)_26 Tone -4.37 dBm(802.11ax_HE40)_52 Tone 5.52 dBm(802.11ax_HE40)_106 Tone 7.38 dBm(802.11ax_HE40)_242 Tone 7.74 dBm(802.11ax_HE40)_484 Tone 7.79 dBm(802.11ax_HE40)_Single User 4.37 dBm(802.11ac_VHT80) -13.11 dBm(802.11ax_HE40)_26 Tone -5.17 dBm(802.11ax_HE40)_52 Tone 2.86 dBm(802.11ax_HE40)_106 Tone 4.42 dBm(802.11ax_HE40)_242 Tone 5.11 dBm(802.11ax_HE40)_484 Tone 5.32 dBm(802.11ax_HE40)_996 Tone 4.66 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	--------------------	--

RF OUTPUT POWER	WLAN 5 470 MHz ~ 5 725 MHz Band	Multiple Antenna	14.89 dBm(802.11n_HT20) 6.33 dBm(802.11ax_HE20)_26 Tone 9.99 dBm(802.11ax_HE20)_52 Tone 11.21 dBm(802.11ax_HE20)_106 Tone 13.87 dBm(802.11ax_HE20)_242 Tone 15.10 dBm(802.11ax_HE20)_Single User 12.79 dBm(802.11n_HT40) 7.44 dBm(802.11ax_HE40)_26 Tone 9.58 dBm(802.11ax_HE40)_52 Tone 11.62 dBm(802.11ax_HE40)_106 Tone 11.31 dBm(802.11ax_HE40)_242 Tone 11.33 dBm(802.11ax_HE40)_484 Tone 13.09 dBm(802.11ax_HE40)_Single User 8.92 dBm(802.11ac_VHT80) 6.77 dBm(802.11ax_HE40)_26 Tone 8.79 dBm(802.11ax_HE40)_52 Tone 8.61 dBm(802.11ax_HE40)_106 Tone 8.46 dBm(802.11ax_HE40)_242 Tone 8.42 dBm(802.11ax_HE40)_484 Tone 8.14 dBm(802.11ax_HE40)_996 Tone 9.28 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	------------------	--

RF OUTPUT POWER	WLAN 5 470 MHz ~ 5 725 MHz Band	Multiple Antenna _Straddle	12.22 dBm(802.11n_HT20) 5.99 dBm(802.11ax_HE20)_26 Tone 8.12 dBm(802.11ax_HE20)_52 Tone 10.82 dBm(802.11ax_HE20)_106 Tone 12.24 dBm(802.11ax_HE20)_242 Tone 12.34 dBm(802.11ax_HE20)_Single User 10.41 dBm(802.11n_HT40) -9.99 dBm(802.11ax_HE40)_26 Tone -2.19 dBm(802.11ax_HE40)_52 Tone 7.73 dBm(802.11ax_HE40)_106 Tone 9.62 dBm(802.11ax_HE40)_242 Tone 10.15 dBm(802.11ax_HE40)_484 Tone 10.78 dBm(802.11ax_HE40)_Single User 7.56 dBm(802.11ac_VHT80) -11.04 dBm(802.11ax_HE40)_26 Tone -3.02 dBm(802.11ax_HE40)_52 Tone 5.08 dBm(802.11ax_HE40)_106 Tone 6.69 dBm(802.11ax_HE40)_242 Tone 7.45 dBm(802.11ax_HE40)_484 Tone 7.79 dBm(802.11ax_HE40)_996 Tone 7.86 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-------------------------------	---

RF OUTPUT POWER	WLAN 5 725 MHz ~ 5 850 MHz Band	Antenna 0	11.47 dBm(802.11a) 11.43 dBm(802.11n_HT20) 10.25 dBm(802.11ax_HE20)_26 Tone 10.40 dBm(802.11ax_HE20)_52 Tone 10.13 dBm(802.11ax_HE20)_106 Tone 10.13 dBm(802.11ax_HE20)_242 Tone 11.28 dBm(802.11ax_HE20)_Single User 10.37 dBm(802.11n_HT40) 7.10 dBm(802.11ax_HE40)_26 Tone 7.39 dBm(802.11ax_HE40)_52 Tone 7.69 dBm(802.11ax_HE40)_106 Tone 7.32 dBm(802.11ax_HE40)_242 Tone 7.16 dBm(802.11ax_HE40)_484 Tone 10.38 dBm(802.11ax_HE40)_Single User 8.02 dBm(802.11ac_VHT80) 4.77 dBm(802.11ax_HE40)_26 Tone 4.91 dBm(802.11ax_HE40)_52 Tone 4.76 dBm(802.11ax_HE40)_106 Tone 4.66 dBm(802.11ax_HE40)_242 Tone 4.57 dBm(802.11ax_HE40)_484 Tone 4.48 dBm(802.11ax_HE40)_996 Tone 8.01 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	---

RF OUTPUT POWER	WLAN 5 725 MHz ~ 5 850 MHz Band	Antenna 0_Straddle	3.14 dBm(802.11a) 3.50 dBm(802.11n_HT20) 1.68 dBm(802.11ax_HE20)_26 Tone 3.49 dBm(802.11ax_HE20)_52 Tone 3.76 dBm(802.11ax_HE20)_106 Tone 3.11 dBm(802.11ax_HE20)_242 Tone 3.94 dBm(802.11ax_HE20)_Single User -2.90 dBm(802.11n_HT40) 1.45 dBm(802.11ax_HE40)_26 Tone 4.04 dBm(802.11ax_HE40)_52 Tone 3.01 dBm(802.11ax_HE40)_106 Tone -0.30 dBm(802.11ax_HE40)_242 Tone -3.47 dBm(802.11ax_HE40)_484 Tone -2.02 dBm(802.11ax_HE40)_Single User -9.20 dBm(802.11ac_VHT80) 2.00 dBm(802.11ax_HE40)_26 Tone 3.63 dBm(802.11ax_HE40)_52 Tone 0.73 dBm(802.11ax_HE40)_106 Tone -2.85 dBm(802.11ax_HE40)_242 Tone -5.78 dBm(802.11ax_HE40)_484 Tone -8.89 dBm(802.11ax_HE40)_996 Tone -8.06 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	--------------------	---

RF OUTPUT POWER	WLAN 5 725 MHz ~ 5 850 MHz Band	Antenna 1	11.78 dBm(802.11a) 11.49 dBm(802.11n_HT20) 11.36 dBm(802.11ax_HE20)_26 Tone 11.55 dBm(802.11ax_HE20)_52 Tone 11.29 dBm(802.11ax_HE20)_106 Tone 11.21 dBm(802.11ax_HE20)_242 Tone 11.16 dBm(802.11ax_HE20)_Single User 10.47 dBm(802.11n_HT40) 8.73 dBm(802.11ax_HE40)_26 Tone 9.01 dBm(802.11ax_HE40)_52 Tone 9.13 dBm(802.11ax_HE40)_106 Tone 8.83 dBm(802.11ax_HE40)_242 Tone 8.72 dBm(802.11ax_HE40)_484 Tone 10.31 dBm(802.11ax_HE40)_Single User 7.69 dBm(802.11ac_VHT80) 6.50 dBm(802.11ax_HE40)_26 Tone 6.53 dBm(802.11ax_HE40)_52 Tone 6.39 dBm(802.11ax_HE40)_106 Tone 6.26 dBm(802.11ax_HE40)_242 Tone 6.26 dBm(802.11ax_HE40)_484 Tone 5.91 dBm(802.11ax_HE40)_996 Tone 7.47 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-----------	---

RF OUTPUT POWER	WLAN 5 725 MHz ~ 5 850 MHz Band	Antenna 1_Straddle	3.33 dBm(802.11a) 3.62 dBm(802.11n_HT20) 3.83 dBm(802.11ax_HE20)_26 Tone 5.36 dBm(802.11ax_HE20)_52 Tone 5.47 dBm(802.11ax_HE20)_106 Tone 4.50 dBm(802.11ax_HE20)_242 Tone 4.12 dBm(802.11ax_HE20)_Single User -2.38 dBm(802.11n_HT40) 3.33 dBm(802.11ax_HE40)_26 Tone 5.93 dBm(802.11ax_HE40)_52 Tone 4.85 dBm(802.11ax_HE40)_106 Tone 1.50 dBm(802.11ax_HE40)_242 Tone -1.68 dBm(802.11ax_HE40)_484 Tone -1.56 dBm(802.11ax_HE40)_Single User -8.90 dBm(802.11ac_VHT80) 3.96 dBm(802.11ax_HE40)_26 Tone 5.51 dBm(802.11ax_HE40)_52 Tone 2.53 dBm(802.11ax_HE40)_106 Tone -0.93 dBm(802.11ax_HE40)_242 Tone -3.96 dBm(802.11ax_HE40)_484 Tone -7.03 dBm(802.11ax_HE40)_996 Tone -7.70 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	--------------------	--

RF OUTPUT POWER	WLAN 5 725 MHz ~ 5 850 MHz Band	Multiple Antenna	14.34 dBm(802.11n_HT20) 13.70 dBm(802.11ax_HE20)_26 Tone 13.90 dBm(802.11ax_HE20)_52 Tone 13.63 dBm(802.11ax_HE20)_106 Tone 13.54 dBm(802.11ax_HE20)_242 Tone 14.17 dBm(802.11ax_HE20)_Single User 13.43 dBm(802.11n_HT40) 10.97 dBm(802.11ax_HE40)_26 Tone 11.25 dBm(802.11ax_HE40)_52 Tone 11.33 dBm(802.11ax_HE40)_106 Tone 11.04 dBm(802.11ax_HE40)_242 Tone 11.02 dBm(802.11ax_HE40)_484 Tone 13.34 dBm(802.11ax_HE40)_Single User 10.87 dBm(802.11ac_VHT80) 8.60 dBm(802.11ax_HE40)_26 Tone 8.61 dBm(802.11ax_HE40)_52 Tone 8.50 dBm(802.11ax_HE40)_106 Tone 8.50 dBm(802.11ax_HE40)_242 Tone 8.48 dBm(802.11ax_HE40)_484 Tone 8.26 dBm(802.11ax_HE40)_996 Tone 10.76 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	------------------	--

RF OUTPUT POWER	WLAN 5 725 MHz ~ 5 850 MHz Band	Multiple Antenna _Straddle	6.57 dBm(802.11n_HT20) 5.90 dBm(802.11ax_HE20)_26 Tone 7.53 dBm(802.11ax_HE20)_52 Tone 7.71 dBm(802.11ax_HE20)_106 Tone 6.87 dBm(802.11ax_HE20)_242 Tone 7.04 dBm(802.11ax_HE20)_Single User 0.38 dBm(802.11n_HT40) 5.50 dBm(802.11ax_HE40)_26 Tone 8.10 dBm(802.11ax_HE40)_52 Tone 7.05 dBm(802.11ax_HE40)_106 Tone 3.70 dBm(802.11ax_HE40)_242 Tone 0.53 dBm(802.11ax_HE40)_484 Tone 1.23 dBm(802.11ax_HE40)_Single User -6.03 dBm(802.11ac_VHT80) 6.10 dBm(802.11ax_HE40)_26 Tone 7.68 dBm(802.11ax_HE40)_52 Tone 4.73 dBm(802.11ax_HE40)_106 Tone 1.23 dBm(802.11ax_HE40)_242 Tone -1.76 dBm(802.11ax_HE40)_484 Tone -4.85 dBm(802.11ax_HE40)_996 Tone -4.87 dBm(802.11ax_HE40)_Single User
--------------------	---------------------------------------	-------------------------------	---

ANTENNA TYPE	Dipole Antenna		
ANTENNA GAIN	Bluetooth LE	7 dBi	
	Bluetooth	7 dBi	
	WLAN 2.4 GHz	Antenna 0	7 dBi
		Antenna 1	7 dBi
		Multiple Antenna	10.01 dBi
	5 150 MHz ~ 5 250 MHz Band	Antenna 0	9 dBi
		Antenna 1	9 dBi
		Multiple Antenna	12.01 dBi
	5 250 MHz ~ 5 350 MHz Band	Antenna 0	9 dBi
		Antenna 1	9 dBi
		Multiple Antenna	12.01 dBi
	5 470 MHz ~ 5 725 MHz Band	Antenna 0	9 dBi
		Antenna 1	9 dBi
		Multiple Antenna	12.01 dBi
	5 725 MHz ~ 5 850 MHz Band	Antenna 0	9 dBi
		Antenna 1	9 dBi
		Multiple Antenna	12.01 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)		40 MHz	

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

-. None

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	LG Innotek Co., Ltd.	cTP3.0_Rev0.1	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
ATC6NPL002	LG Innotek Co., Ltd.	RF Module (EUT)	-
ZUP36-6	NEMIC-LAMBDA	DC Power Supply	EUT
ideapad320	Lenovo	Notebook PC	EUT

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.

5.3.1 Test RU offset for Tones

BW (MHz)	Tones (T)	RU offset	Test RU offset		
			Low	Mid	High
20	26	0~8	0	4	8
	52	37~40	37	38	40
	106	53~54	53	-	54
	242	61	-	61	-
	SU	-	-	-	-
40	26	0~17	0	9	17
	52	37~44	37	41	44
	106	53~56	53	54	56
	242	61~62	61	-	62
	484	65	-	65	-
	SU	-	-	-	-
80	26	0~36	0	18	36
	52	37~52	37	45	52
	106	53~60	53	57	60
	242	61~64	61	62	64
	484	65~66	65	-	66
	996	67	-	67	-
	SU	-	-	-	-

5.3.2 Worst case configuration and mode

Conducted Test

- 1) All data rate of operation were investigated and the worst case results are reported. (Worst case : MCS0)

Radiated Test

- 1) All modes of operation were investigated and the worst case configuration results are reported.
- 2) The EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis, but the worst data was recorded in this report.
- 3) All data rate of operation were investigated and the worst case results are reported. (Worst case : MCS0)
- 4) All mode(Tone, RU Offset) of operation were investigated and the worst case configuration results are reported

--. BW 20 MHz

Test	Tone	RU Offset
Radiated Spurious Emission & Harmonic	Tone : 26, 52, 106, 242 T	26 T : 4
		52T : 38
		106 T : 53
		242 T : 61
	SU	-
Restricted Band	Tone : 26, 52, 106 T	Low Edge: 0, 37, 53
		High Edge: 8, 40, 54
	242 T	61
	SU	-

- . BW 40 MHz

Test	Tone	RU Offset
Radiated Spurious Emission & Harmonic	Tone : 26, 52, 106, 242, 484 T	26 T : 9
		52T : 41
		106 T : 54
		242 T : 61
		484 T : 65
	SU	-
Restricted Band	Tone : 26, 52, 106, 242 T	Low Edge: 0, 37, 53, 61
		High Edge: 17, 44, 56, 62
	484T	65
	SU	-

- . BW 80 MHz

Test	Tone	RU Offset
Radiated Spurious Emission & Harmonic	Tone : 26, 52, 106, 242, 484, 996 T	26 T : 18
		52T : 45
		106 T : 57
		242 T : 62
		484 T : 65
		996 T : 67
	SU	-
Restricted Band	Tone : 26, 52, 106, 242, 484 T	Low Edge: 0, 37, 53, 61, 65
		High Edge: 36, 52, 60, 64, 66
	996 T	67
	SU	-

5.3.3 Frequency / Channel Operations

		Channel	Frequency
802.11ax HE20	Band 1	36	5 180
		44	5 220
		48	5 240
	Band 2A	52	5 260
		60	5 300
		64	5 320
	Band 2C	100	5 500
		116	5 580
		140	5 700
	Straddle	144	5 720
	Band 3	149	5 745
		157	5 785
		165	5 825
802.11ax HE40	Band 1	38	5 190
		46	5 230
	Band 2A	54	5 270
		62	5 310
	Band 2C	102	5 510
		110	5 550
		134	5 670
	Straddle	142	5 710
	Band 3	151	5 755
		159	5 795
802.11ax HE80	Band 1	42	5 210
	Band 2A	58	5 290
	Band 2C	106	5 530
	Straddle	138	5 690
	Band 3	155	5 775

-. Duty Cycle

802.11 ax(HE20)_ANT 0

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE20)	26	MCS0	1.360	1.552	87.63	0.574
		MCS1	1.360	1.560	87.18	0.596
		MCS2	1.360	1.568	86.73	0.618
		MCS3	1.360	1.568	86.73	0.618
		MCS4	1.360	1.560	87.18	0.596
		MCS5	1.360	1.560	87.18	0.596
		MCS6	1.360	1.560	87.18	0.596
		MCS7	1.360	1.552	87.63	0.574
		MCS8	1.360	1.552	87.63	0.574
		MCS9	1.360	1.568	86.73	0.618
	52	MCS0	1.352	1.544	87.56	0.577
		MCS1	1.360	1.560	87.18	0.596
		MCS2	1.360	1.560	87.18	0.596
		MCS3	1.360	1.560	87.18	0.596
		MCS4	1.360	1.560	87.18	0.596
		MCS5	1.360	1.552	87.63	0.574
		MCS6	1.360	1.560	87.18	0.596
		MCS7	1.360	1.560	87.18	0.596
		MCS8	1.360	1.560	87.18	0.596
		MCS9	1.352	1.552	87.11	0.599
	106	MCS0	1.357	1.552	87.46	0.582
		MCS1	1.357	1.555	87.31	0.590
		MCS2	1.357	1.552	87.46	0.582
		MCS3	1.355	1.552	87.29	0.591
		MCS4	1.355	1.552	87.29	0.591
		MCS5	1.355	1.552	87.29	0.591
		MCS6	1.355	1.552	87.29	0.591
		MCS7	1.355	1.552	87.29	0.591
		MCS8	1.355	1.552	87.29	0.591
		MCS9	1.355	1.552	87.29	0.591

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE20)	242	MCS0	1.357	1.552	87.46	0.582
		MCS1	1.355	1.552	87.29	0.591
		MCS2	1.357	1.552	87.46	0.582
		MCS3	1.357	1.552	87.46	0.582
		MCS4	1.355	1.549	87.44	0.583
		MCS5	1.355	1.552	87.29	0.591
		MCS6	1.357	1.552	87.46	0.582
		MCS7	1.355	1.552	87.29	0.591
		MCS8	1.355	1.557	86.99	0.605
		MCS9	1.355	1.549	87.44	0.583
		MCS10	1.357	1.552	87.46	0.582
		MCS11	1.357	1.552	87.46	0.582

802.11 ax(HE20)_ANT 1

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE20)	26	MCS0	1.355	1.548	87.53	0.578
		MCS1	1.355	1.556	87.08	0.601
		MCS2	1.355	1.556	87.08	0.601
		MCS3	1.355	1.556	87.08	0.601
		MCS4	1.355	1.556	87.08	0.601
		MCS5	1.355	1.556	87.08	0.601
		MCS6	1.355	1.548	87.53	0.578
		MCS7	1.355	1.548	87.53	0.578
		MCS8	1.355	1.548	87.53	0.578
		MCS9	1.347	1.548	87.02	0.604
	52	MCS0	1.355	1.548	87.53	0.578
		MCS1	1.355	1.556	87.08	0.601
		MCS2	1.355	1.556	87.08	0.601
		MCS3	1.355	1.548	87.53	0.578
		MCS4	1.355	1.548	87.53	0.578
		MCS5	1.355	1.556	87.08	0.601
		MCS6	1.355	1.556	87.08	0.601
		MCS7	1.355	1.556	87.08	0.601
		MCS8	1.355	1.548	87.53	0.578
		MCS9	1.355	1.548	87.53	0.578
	106	MCS0	1.358	1.551	87.55	0.577
		MCS1	1.355	1.551	87.38	0.586
		MCS2	1.355	1.551	87.38	0.586
		MCS3	1.355	1.551	87.38	0.586
		MCS4	1.355	1.551	87.38	0.586
		MCS5	1.355	1.551	87.38	0.586
		MCS6	1.358	1.551	87.55	0.577
		MCS7	1.355	1.551	87.38	0.586
		MCS8	1.358	1.551	87.55	0.577
		MCS9	1.355	1.551	87.38	0.586

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE20)	242	MCS0	1.358	1.551	87.55	0.577
		MCS1	1.355	1.551	87.38	0.586
		MCS2	1.355	1.551	87.38	0.586
		MCS3	1.355	1.551	87.38	0.586
		MCS4	1.355	1.551	87.38	0.586
		MCS5	1.358	1.551	87.55	0.577
		MCS6	1.355	1.548	87.53	0.578
		MCS7	1.358	1.551	87.55	0.577
		MCS8	1.355	1.551	87.38	0.586
		MCS9	1.355	1.548	87.53	0.578
		MCS10	1.358	1.551	87.55	0.577
		MCS11	1.358	1.551	87.55	0.577

802.11 ax(HE40)_ANT 0

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE40)	26	MCS0	1.355	1.499	90.39	0.439
		MCS1	1.355	1.501	90.23	0.446
		MCS2	1.355	1.507	89.91	0.462
		MCS3	1.355	1.501	90.23	0.446
		MCS4	1.355	1.501	90.23	0.446
		MCS5	1.355	1.501	90.23	0.446
		MCS6	1.355	1.499	90.39	0.439
		MCS7	1.352	1.501	90.05	0.455
		MCS8	1.355	1.501	90.23	0.446
		MCS9	1.355	1.501	90.23	0.446
	52	MCS0	1.355	1.499	90.39	0.439
		MCS1	1.355	1.501	90.23	0.446
		MCS2	1.355	1.501	90.23	0.446
		MCS3	1.352	1.499	90.21	0.447
		MCS4	1.355	1.499	90.39	0.439
		MCS5	1.355	1.499	90.39	0.439
		MCS6	1.355	1.501	90.23	0.446
		MCS7	1.355	1.499	90.39	0.439
		MCS8	1.355	1.501	90.23	0.446
		MCS9	1.352	1.499	90.21	0.447
	106	MCS0	1.357	1.501	90.41	0.438
		MCS1	1.355	1.501	90.23	0.446
		MCS2	1.355	1.499	90.39	0.439
		MCS3	1.357	1.501	90.41	0.438
		MCS4	1.355	1.501	90.23	0.446
		MCS5	1.357	1.501	90.41	0.438
		MCS6	1.357	1.501	90.41	0.438
		MCS7	1.357	1.501	90.41	0.438
		MCS8	1.352	1.499	90.21	0.447
		MCS9	1.357	1.501	90.41	0.438

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE40)	242	MCS0	1.357	1.501	90.41	0.438
		MCS1	1.357	1.501	90.41	0.438
		MCS2	1.355	1.501	90.23	0.446
		MCS3	1.355	1.501	90.23	0.446
		MCS4	1.357	1.501	90.41	0.438
		MCS5	1.352	1.501	90.05	0.455
		MCS6	1.357	1.501	90.41	0.438
		MCS7	1.355	1.501	90.23	0.446
		MCS8	1.357	1.501	90.41	0.438
		MCS9	1.355	1.501	90.23	0.446
		MCS10	1.355	1.499	90.39	0.439
		MCS11	1.355	1.501	90.23	0.446
	484	MCS0	1.357	1.501	90.41	0.438
		MCS1	1.355	1.501	90.23	0.446
		MCS2	1.357	1.507	90.09	0.453
		MCS3	1.355	1.499	90.39	0.439
		MCS4	1.352	1.496	90.37	0.440
		MCS5	1.352	1.499	90.21	0.447
		MCS6	1.355	1.501	90.23	0.446
		MCS7	1.355	1.501	90.23	0.446
		MCS8	1.355	1.501	90.23	0.446
		MCS9	1.355	1.499	90.39	0.439
		MCS10	1.355	1.501	90.23	0.446
		MCS11	1.352	1.499	90.21	0.447

802.11 ax(HE40)_ANT 1

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE40)	26	MCS0	1.355	1.497	90.49	0.434
		MCS1	1.355	1.500	90.33	0.442
		MCS2	1.355	1.500	90.33	0.442
		MCS3	1.355	1.500	90.33	0.442
		MCS4	1.355	1.497	90.49	0.434
		MCS5	1.355	1.500	90.33	0.442
		MCS6	1.355	1.500	90.33	0.442
		MCS7	1.355	1.500	90.33	0.442
		MCS8	1.355	1.500	90.33	0.442
		MCS9	1.355	1.500	90.33	0.442
	52	MCS0	1.355	1.497	90.49	0.434
		MCS1	1.355	1.497	90.49	0.434
		MCS2	1.355	1.497	90.49	0.434
		MCS3	1.355	1.500	90.33	0.442
		MCS4	1.355	1.500	90.33	0.442
		MCS5	1.355	1.500	90.33	0.442
		MCS6	1.355	1.497	90.49	0.434
		MCS7	1.355	1.500	90.33	0.442
		MCS8	1.355	1.500	90.33	0.442
		MCS9	1.355	1.500	90.33	0.442
	106	MCS0	1.358	1.500	90.51	0.433
		MCS1	1.355	1.500	90.33	0.442
		MCS2	1.358	1.500	90.51	0.433
		MCS3	1.358	1.500	90.51	0.433
		MCS4	1.355	1.497	90.49	0.434
		MCS5	1.355	1.497	90.49	0.434
		MCS6	1.355	1.500	90.33	0.442
		MCS7	1.355	1.500	90.33	0.442
		MCS8	1.358	1.500	90.51	0.433
		MCS9	1.355	1.500	90.33	0.442

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE40)	242	MCS0	1.358	1.500	90.51	0.433
		MCS1	1.355	1.497	90.49	0.434
		MCS2	1.355	1.500	90.33	0.442
		MCS3	1.355	1.497	90.49	0.434
		MCS4	1.358	1.500	90.51	0.433
		MCS5	1.355	1.497	90.49	0.434
		MCS6	1.358	1.500	90.51	0.433
		MCS7	1.355	1.497	90.49	0.434
		MCS8	1.355	1.497	90.49	0.434
		MCS9	1.358	1.500	90.51	0.433
		MCS10	1.355	1.500	90.33	0.442
		MCS11	1.355	1.497	90.49	0.434
	484	MCS0	1.358	1.500	90.51	0.433
		MCS1	1.355	1.497	90.49	0.434
		MCS2	1.355	1.497	90.49	0.434
		MCS3	1.355	1.500	90.33	0.442
		MCS4	1.358	1.500	90.51	0.433
		MCS5	1.355	1.497	90.49	0.434
		MCS6	1.355	1.497	90.49	0.434
		MCS7	1.355	1.497	90.49	0.434
		MCS8	1.355	1.500	90.33	0.442
		MCS9	1.355	1.500	90.33	0.442
		MCS10	1.355	1.500	90.33	0.442
		MCS11	1.355	1.500	90.33	0.442

802.11 ax(HE80)_ANT 0

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE80)	26	MCS0	1.355	1.536	88.19	0.546
		MCS1	1.355	1.539	88.04	0.553
		MCS2	1.355	1.539	88.04	0.553
		MCS3	1.355	1.539	88.04	0.553
		MCS4	1.352	1.536	88.02	0.554
		MCS5	1.355	1.539	88.04	0.553
		MCS6	1.355	1.539	88.04	0.553
		MCS7	1.355	1.541	87.89	0.561
		MCS8	1.355	1.539	88.04	0.553
		MCS9	1.355	1.539	88.04	0.553
	52	MCS0	1.357	1.539	88.21	0.545
		MCS1	1.355	1.541	87.89	0.561
		MCS2	1.352	1.539	87.87	0.562
		MCS3	1.355	1.536	88.19	0.546
		MCS4	1.349	1.533	88.00	0.555
		MCS5	1.355	1.541	87.89	0.561
		MCS6	1.355	1.539	88.04	0.553
		MCS7	1.355	1.539	88.04	0.553
		MCS8	1.349	1.544	87.39	0.585
		MCS9	1.355	1.539	88.04	0.553
	106	MCS0	1.357	1.539	88.21	0.545
		MCS1	1.355	1.536	88.19	0.546
		MCS2	1.352	1.533	88.17	0.547
		MCS3	1.357	1.539	88.21	0.545
		MCS4	1.355	1.541	87.89	0.561
		MCS5	1.355	1.539	88.04	0.553
		MCS6	1.355	1.539	88.04	0.553
		MCS7	1.357	1.539	88.21	0.545
		MCS8	1.355	1.536	88.19	0.546
		MCS9	1.355	1.539	88.04	0.553

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE80)	242	MCS0	1.357	1.539	88.21	0.545
		MCS1	1.357	1.539	88.21	0.545
		MCS2	1.355	1.536	88.19	0.546
		MCS3	1.357	1.539	88.21	0.545
		MCS4	1.352	1.533	88.17	0.547
		MCS5	1.357	1.539	88.21	0.545
		MCS6	1.355	1.536	88.19	0.546
		MCS7	1.355	1.536	88.19	0.546
		MCS8	1.355	1.536	88.19	0.546
		MCS9	1.357	1.539	88.21	0.545
		MCS10	1.357	1.539	88.21	0.545
		MCS11	1.357	1.539	88.21	0.545
	484	MCS0	1.357	1.539	88.21	0.545
		MCS1	1.355	1.539	88.04	0.553
		MCS2	1.355	1.539	88.04	0.553
		MCS3	1.355	1.539	88.04	0.553
		MCS4	1.355	1.539	88.04	0.553
		MCS5	1.355	1.536	88.19	0.546
		MCS6	1.357	1.539	88.21	0.545
		MCS7	1.355	1.539	88.04	0.553
		MCS8	1.355	1.536	88.19	0.546
		MCS9	1.357	1.539	88.21	0.545
		MCS10	1.357	1.539	88.21	0.545
		MCS11	1.355	1.539	88.04	0.553

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE80)	996	MCS0	1.357	1.539	88.21	0.545
		MCS1	1.355	1.539	88.04	0.553
		MCS2	1.355	1.541	87.89	0.561
		MCS3	1.357	1.539	88.21	0.545
		MCS4	1.357	1.541	88.06	0.552
		MCS5	1.355	1.536	88.19	0.546
		MCS6	1.355	1.539	88.04	0.553
		MCS7	1.357	1.539	88.21	0.545
		MCS8	1.357	1.539	88.21	0.545
		MCS9	1.355	1.536	88.19	0.546
		MCS10	1.357	1.539	88.21	0.545
		MCS11	1.357	1.541	88.06	0.552

802.11 ax(HE80)_ANT 1

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE80)	26	MCS0	1.355	1.535	88.29	0.541
		MCS1	1.355	1.537	88.14	0.548
		MCS2	1.355	1.537	88.14	0.548
		MCS3	1.355	1.537	88.14	0.548
		MCS4	1.355	1.535	88.29	0.541
		MCS5	1.355	1.537	88.14	0.548
		MCS6	1.355	1.537	88.14	0.548
		MCS7	1.355	1.537	88.14	0.548
		MCS8	1.355	1.535	88.29	0.541
		MCS9	1.355	1.537	88.14	0.548
	52	MCS0	1.358	1.537	88.31	0.540
		MCS1	1.355	1.537	88.14	0.548
		MCS2	1.355	1.537	88.14	0.548
		MCS3	1.355	1.535	88.29	0.541
		MCS4	1.355	1.537	88.14	0.548
		MCS5	1.355	1.537	88.14	0.548
		MCS6	1.358	1.537	88.31	0.540
		MCS7	1.355	1.537	88.14	0.548
		MCS8	1.358	1.537	88.31	0.540
		MCS9	1.355	1.537	88.14	0.548
	106	MCS0	1.358	1.537	88.31	0.540
		MCS1	1.358	1.537	88.31	0.540
		MCS2	1.358	1.537	88.31	0.540
		MCS3	1.355	1.535	88.29	0.541
		MCS4	1.358	1.537	88.31	0.540
		MCS5	1.355	1.537	88.14	0.548
		MCS6	1.355	1.535	88.29	0.541
		MCS7	1.355	1.537	88.14	0.548
		MCS8	1.355	1.535	88.29	0.541
		MCS9	1.358	1.537	88.31	0.540

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE80)	242	MCS0	1.358	1.537	88.31	0.540
		MCS1	1.355	1.537	88.14	0.548
		MCS2	1.355	1.535	88.29	0.541
		MCS3	1.358	1.537	88.31	0.540
		MCS4	1.358	1.537	88.31	0.540
		MCS5	1.358	1.537	88.31	0.540
		MCS6	1.355	1.535	88.29	0.541
		MCS7	1.358	1.537	88.31	0.540
		MCS8	1.355	1.537	88.14	0.548
		MCS9	1.355	1.537	88.14	0.548
		MCS10	1.355	1.537	88.14	0.548
		MCS11	1.358	1.537	88.31	0.540
	484	MCS0	1.358	1.537	88.31	0.540
		MCS1	1.355	1.535	88.29	0.541
		MCS2	1.355	1.537	88.14	0.548
		MCS3	1.355	1.537	88.14	0.548
		MCS4	1.355	1.535	88.29	0.541
		MCS5	1.355	1.537	88.14	0.548
		MCS6	1.355	1.537	88.14	0.548
		MCS7	1.355	1.537	88.14	0.548
		MCS8	1.355	1.535	88.29	0.541
		MCS9	1.355	1.537	88.14	0.548
		MCS10	1.355	1.537	88.14	0.548
		MCS11	1.355	1.535	88.29	0.541

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (HE80)	996	MCS0	1.358	1.537	88.31	0.540
		MCS1	1.355	1.537	88.14	0.548
		MCS2	1.355	1.537	88.14	0.548
		MCS3	1.355	1.537	88.14	0.548
		MCS4	1.355	1.535	88.29	0.541
		MCS5	1.355	1.537	88.14	0.548
		MCS6	1.358	1.537	88.31	0.540
		MCS7	1.355	1.535	88.29	0.541
		MCS8	1.355	1.537	88.14	0.548
		MCS9	1.355	1.537	88.14	0.548
		MCS10	1.358	1.537	88.31	0.540
		MCS11	1.355	1.535	88.29	0.541

802.11 ax(SU)_ANT 0

Mode	BW	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (SU)	BW 20	MCS0	1.042	1.058	98.49	0.066
		MCS1	0.550	0.566	97.17	0.125
		MCS2	0.384	0.400	96.00	0.177
		MCS3	0.302	0.318	94.97	0.224
		MCS4	0.220	0.236	93.22	0.305
		MCS5	0.180	0.196	91.84	0.370
		MCS6	0.166	0.182	91.21	0.400
		MCS7	0.156	0.172	90.70	0.424
		MCS8	0.140	0.156	89.74	0.470
		MCS9	0.128	0.144	88.89	0.512
		MCS10	0.126	0.142	88.73	0.519
		MCS11	0.116	0.132	87.88	0.561
	BW 40	MCS0	0.552	0.568	97.18	0.124
		MCS1	0.302	0.318	94.97	0.224
		MCS2	0.220	0.236	93.22	0.305
		MCS3	0.180	0.196	91.84	0.370
		MCS4	0.144	0.160	90.00	0.458
		MCS5	0.120	0.136	88.24	0.544
		MCS6	0.116	0.132	87.88	0.561
		MCS7	0.106	0.122	86.89	0.611
		MCS8	0.102	0.118	86.44	0.633
		MCS9	0.096	0.112	85.71	0.669
		MCS10	0.092	0.108	85.19	0.696
		MCS11	0.084	0.100	84.00	0.757

Mode	BW	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (SU)	BW 80	MCS0	0.292	0.308	94.81	0.232
		MCS1	0.174	0.190	91.58	0.382
		MCS2	0.140	0.156	89.74	0.470
		MCS3	0.116	0.132	87.88	0.561
		MCS4	0.098	0.114	85.96	0.657
		MCS5	0.085	0.101	84.16	0.749
		MCS6	0.085	0.101	84.16	0.749
		MCS7	0.083	0.099	83.84	0.766
		MCS8	0.079	0.095	83.16	0.801
		MCS9	0.079	0.095	83.16	0.801
		MCS10	0.075	0.091	82.42	0.840
		MCS11	0.075	0.091	82.42	0.840

802.11 ax(SU)_ANT 1

Mode	BW	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (SU)	BW 20	MCS0	1.041	1.057	98.49	0.066
		MCS1	0.545	0.561	97.15	0.126
		MCS2	0.383	0.399	95.99	0.178
		MCS3	0.301	0.317	94.95	0.225
		MCS4	0.219	0.235	93.19	0.306
		MCS5	0.179	0.195	91.79	0.372
		MCS6	0.165	0.181	91.16	0.402
		MCS7	0.157	0.173	90.75	0.421
		MCS8	0.137	0.153	89.54	0.480
		MCS9	0.127	0.143	88.81	0.515
		MCS10	0.125	0.141	88.65	0.523
		MCS11	0.115	0.131	87.79	0.566
	BW 40	MCS0	0.551	0.567	97.18	0.124
		MCS1	0.303	0.319	94.98	0.223
		MCS2	0.219	0.235	93.19	0.306
		MCS3	0.179	0.195	91.79	0.372
		MCS4	0.143	0.159	89.94	0.461
		MCS5	0.121	0.137	88.32	0.539
		MCS6	0.115	0.131	87.79	0.566
		MCS7	0.107	0.123	86.99	0.605
		MCS8	0.103	0.119	86.55	0.627
		MCS9	0.097	0.113	85.84	0.663
		MCS10	0.093	0.109	85.32	0.689
		MCS11	0.085	0.101	84.16	0.749

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

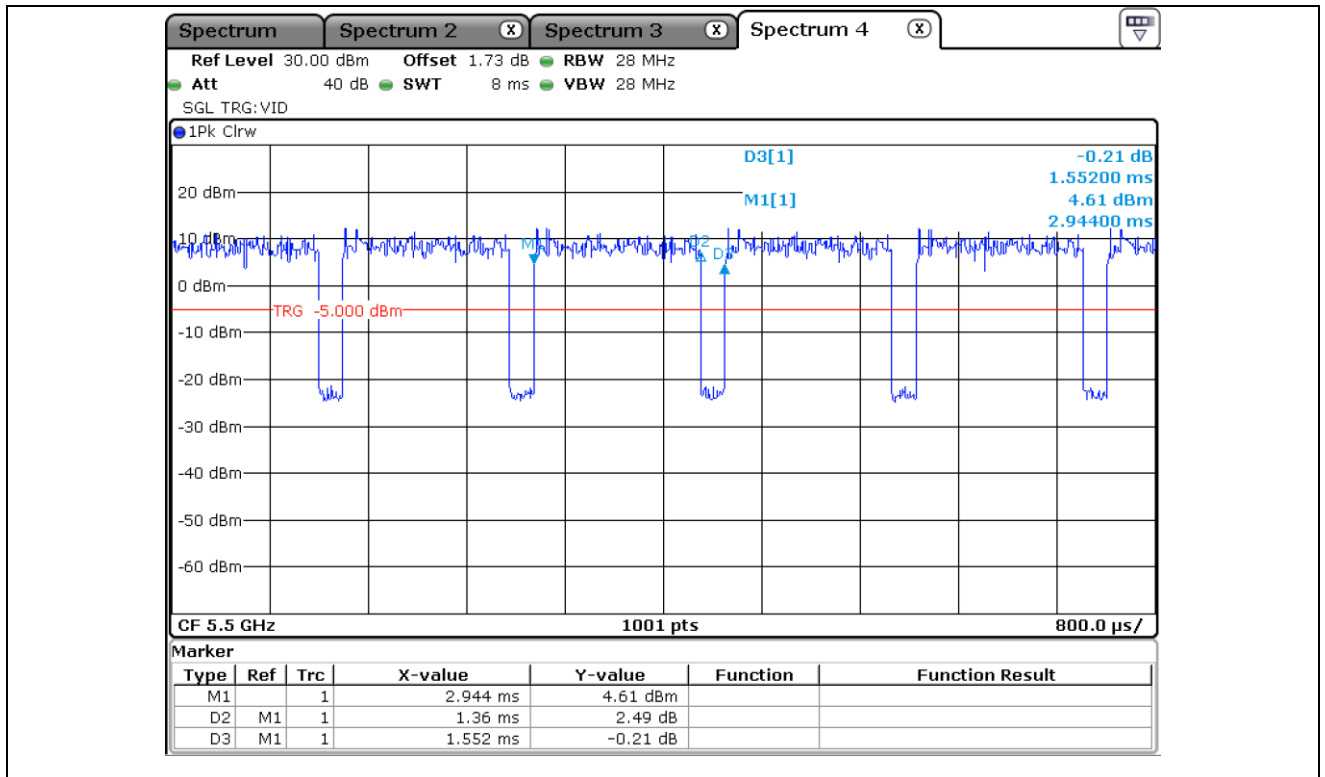
OTC-TRF-RF-001(0)

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

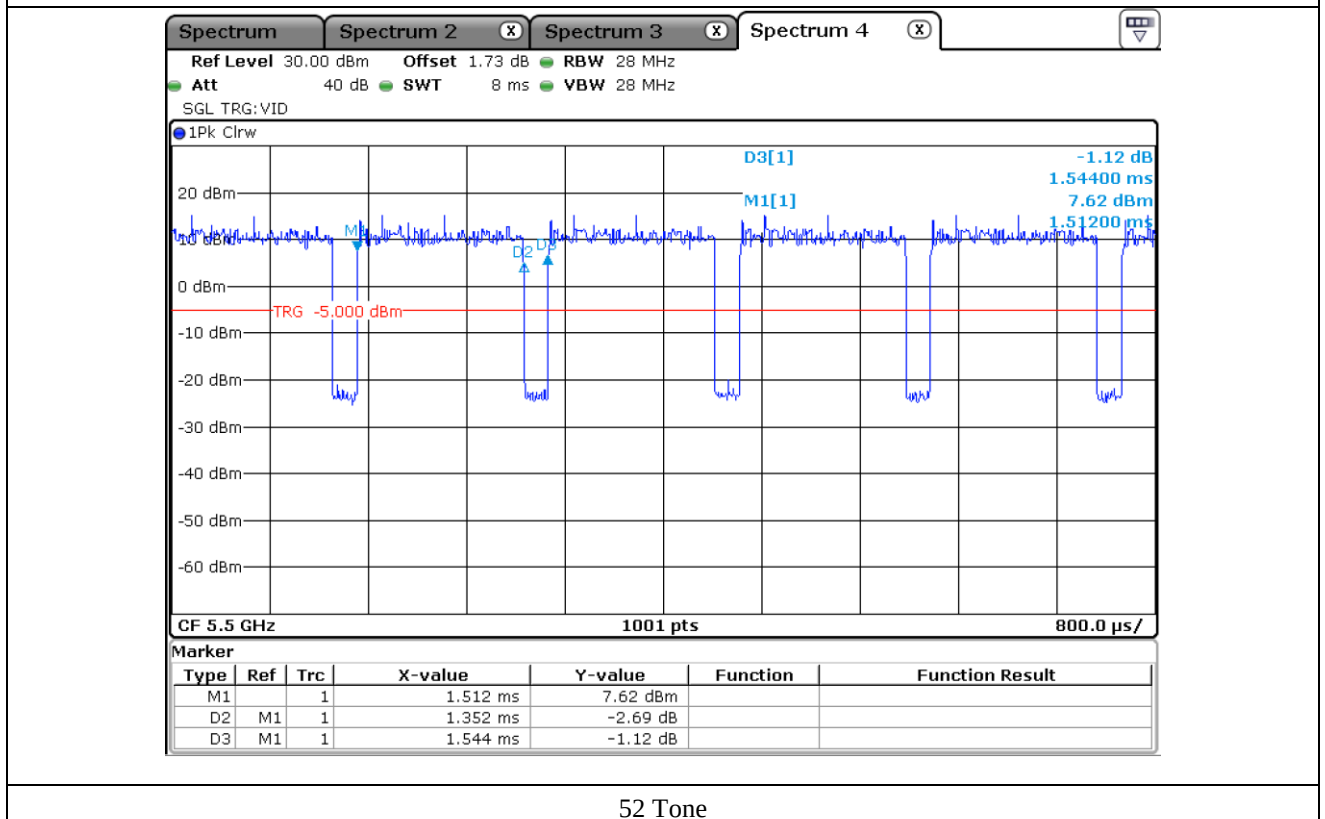
Mode	BW	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11ax (SU)	BW 80	MCS0	0.295	0.311	94.86	0.229
		MCS1	0.173	0.189	91.53	0.384
		MCS2	0.137	0.153	89.54	0.480
		MCS3	0.115	0.131	87.79	0.566
		MCS4	0.097	0.113	85.84	0.663
		MCS5	0.085	0.101	84.16	0.749
		MCS6	0.085	0.101	84.16	0.749
		MCS7	0.083	0.099	83.84	0.766
		MCS8	0.079	0.095	83.16	0.801
		MCS9	0.079	0.095	83.16	0.801
		MCS10	0.075	0.091	82.42	0.840
		MCS11	0.075	0.091	82.42	0.840

- Test Plot for 802.11 ax(HE20)

- Antenna 0



26 Tone

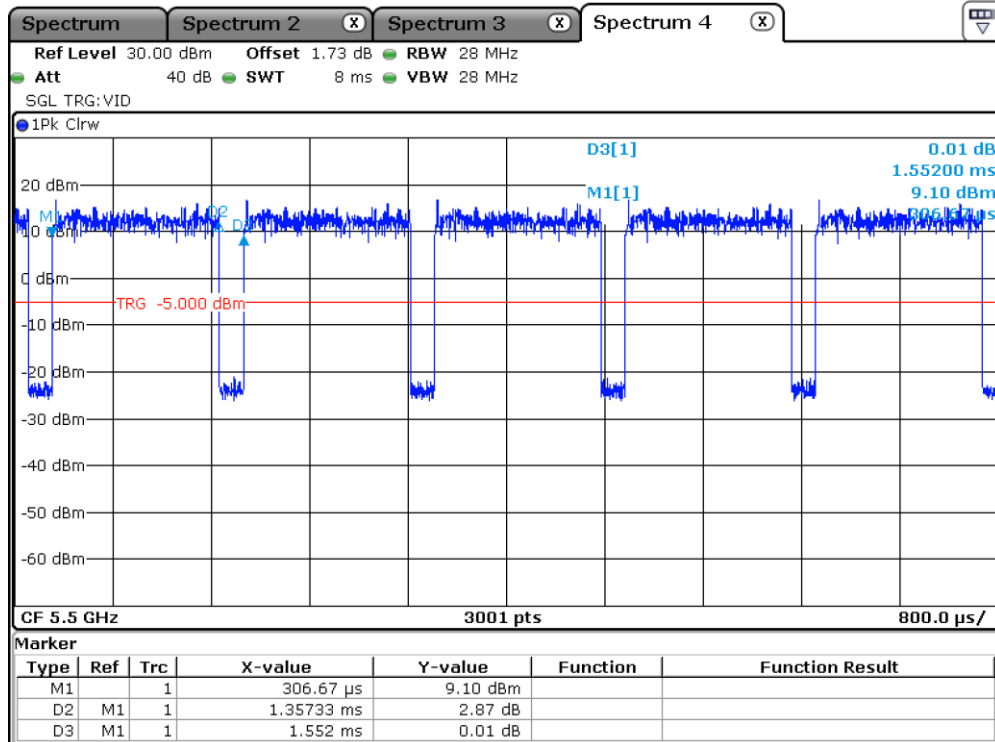


52 Tone

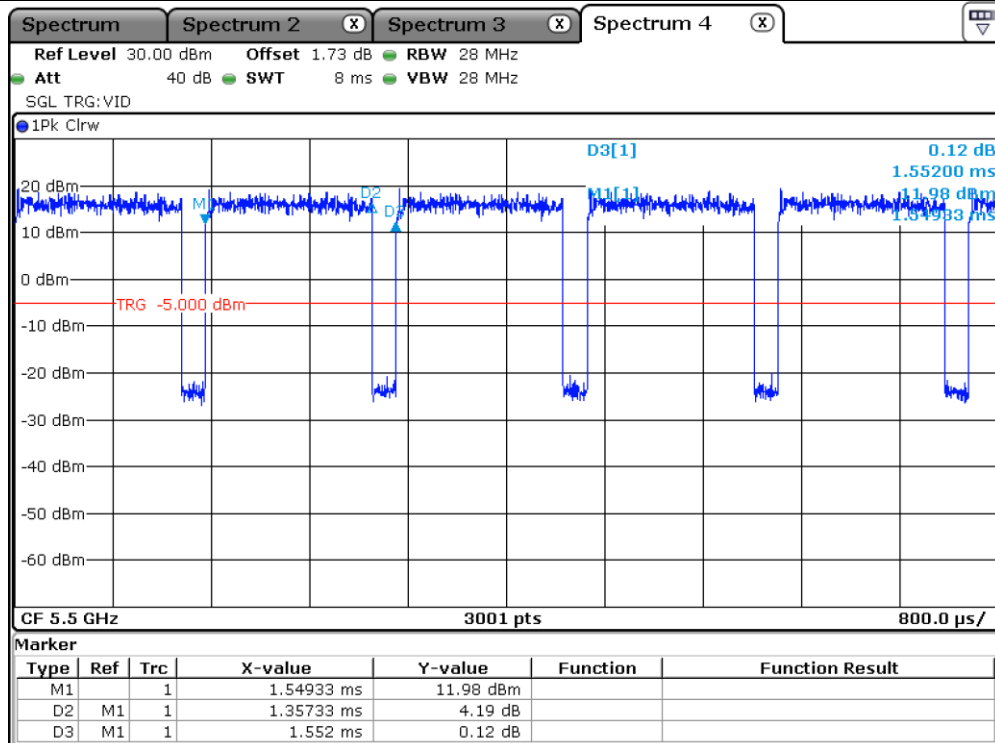
This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)



106 Tone



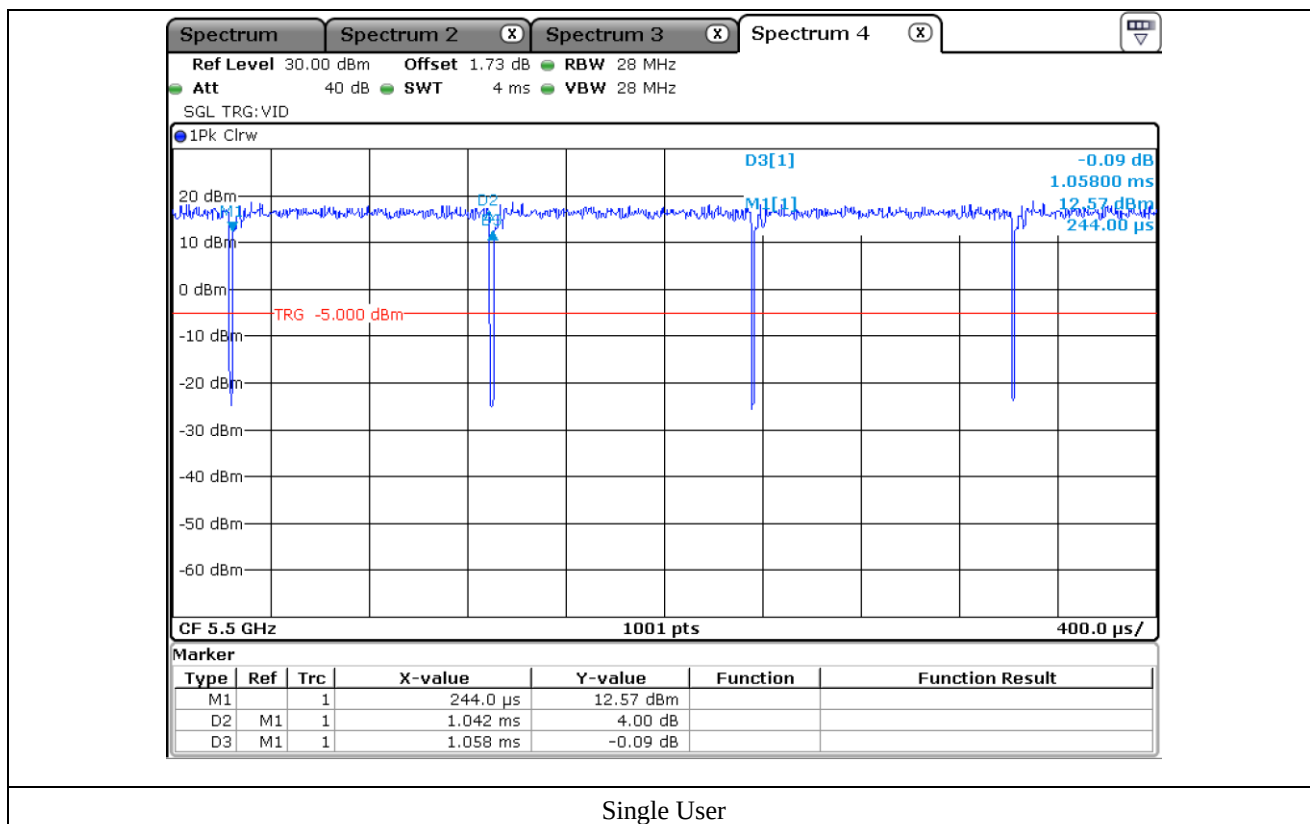
242 Tone

This Report is not correlated with the authentication of KOLAS

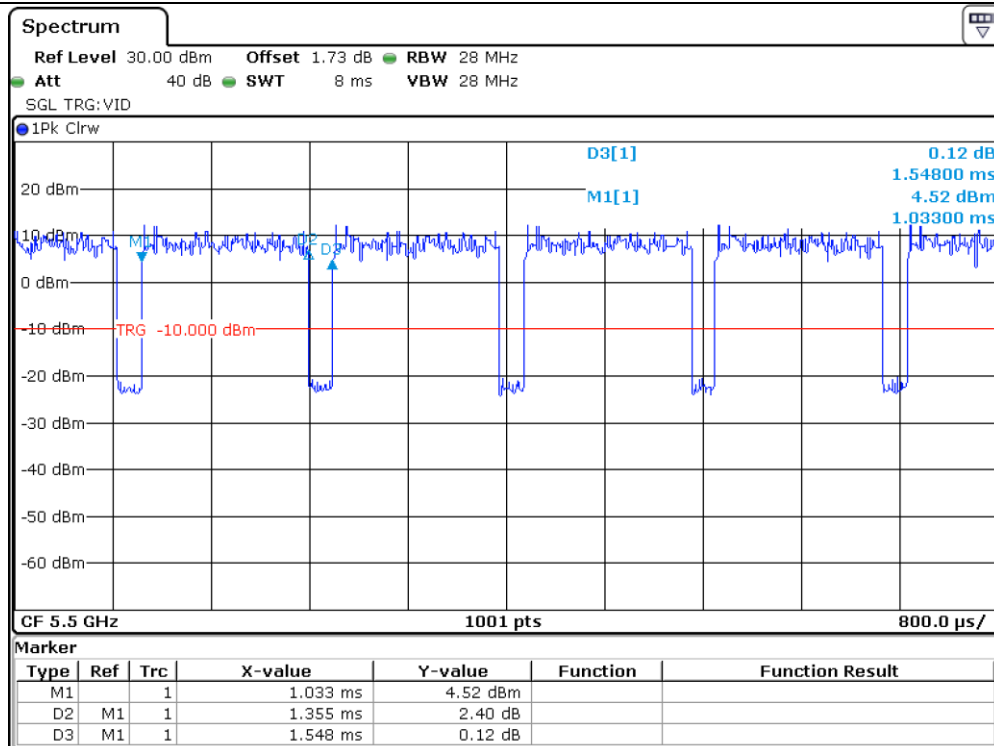
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

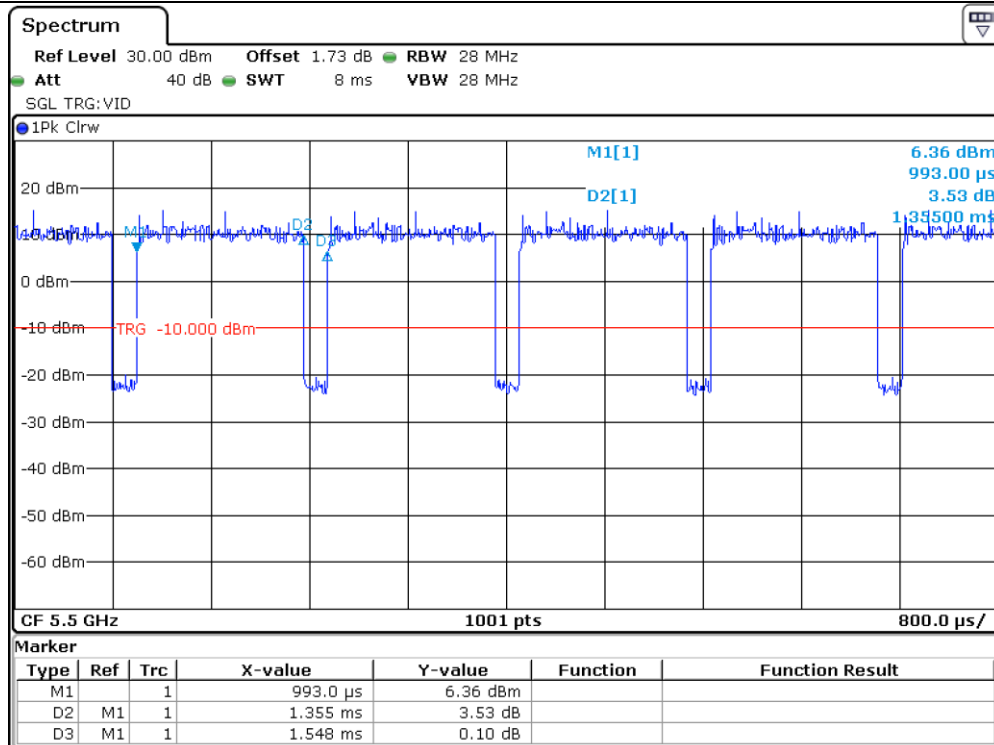
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



- Antenna 1



26 Tone



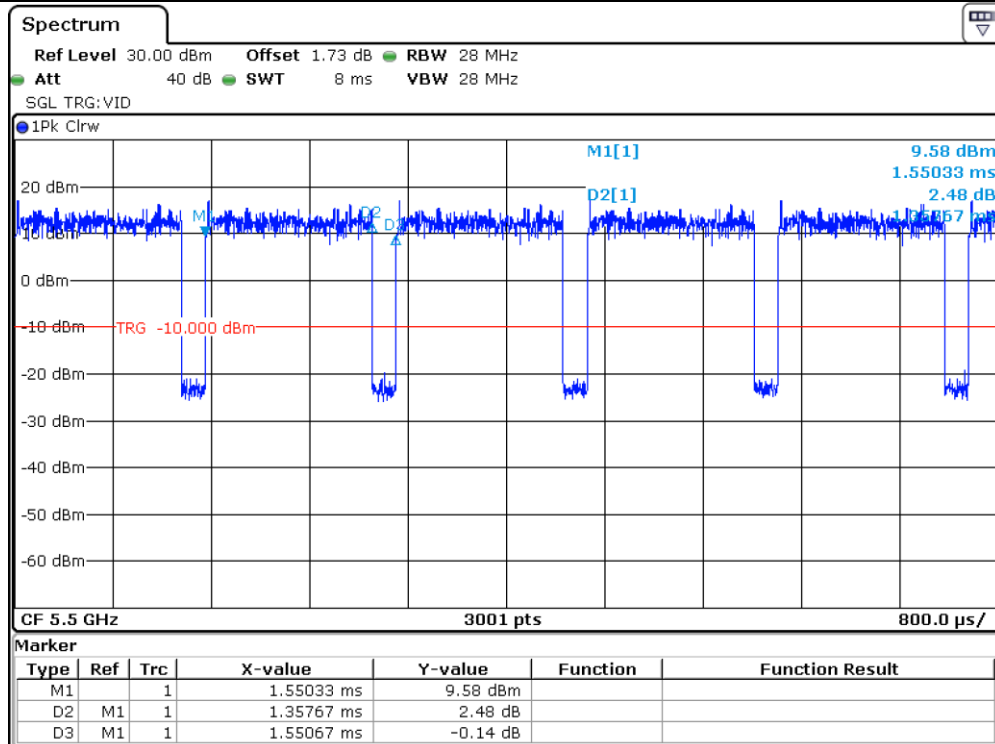
52 Tone

This Report is not correlated with the authentication of KOLAS

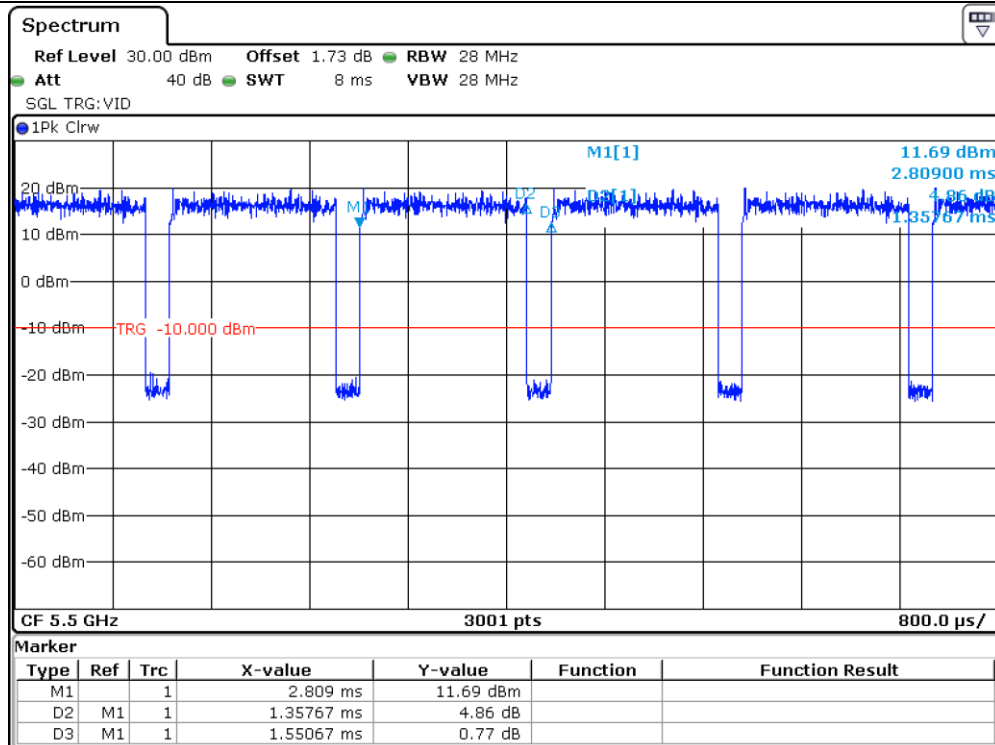
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



106 Tone



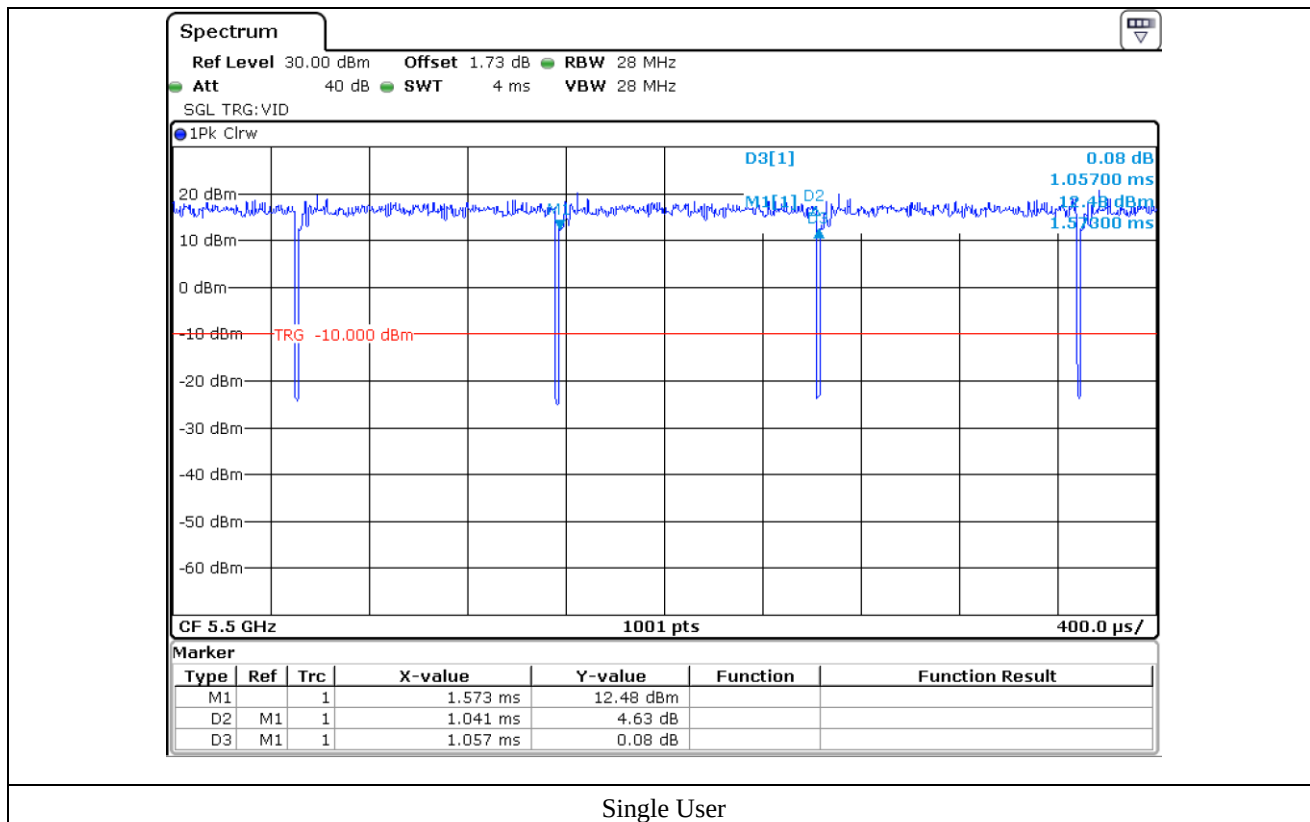
242 Tone

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

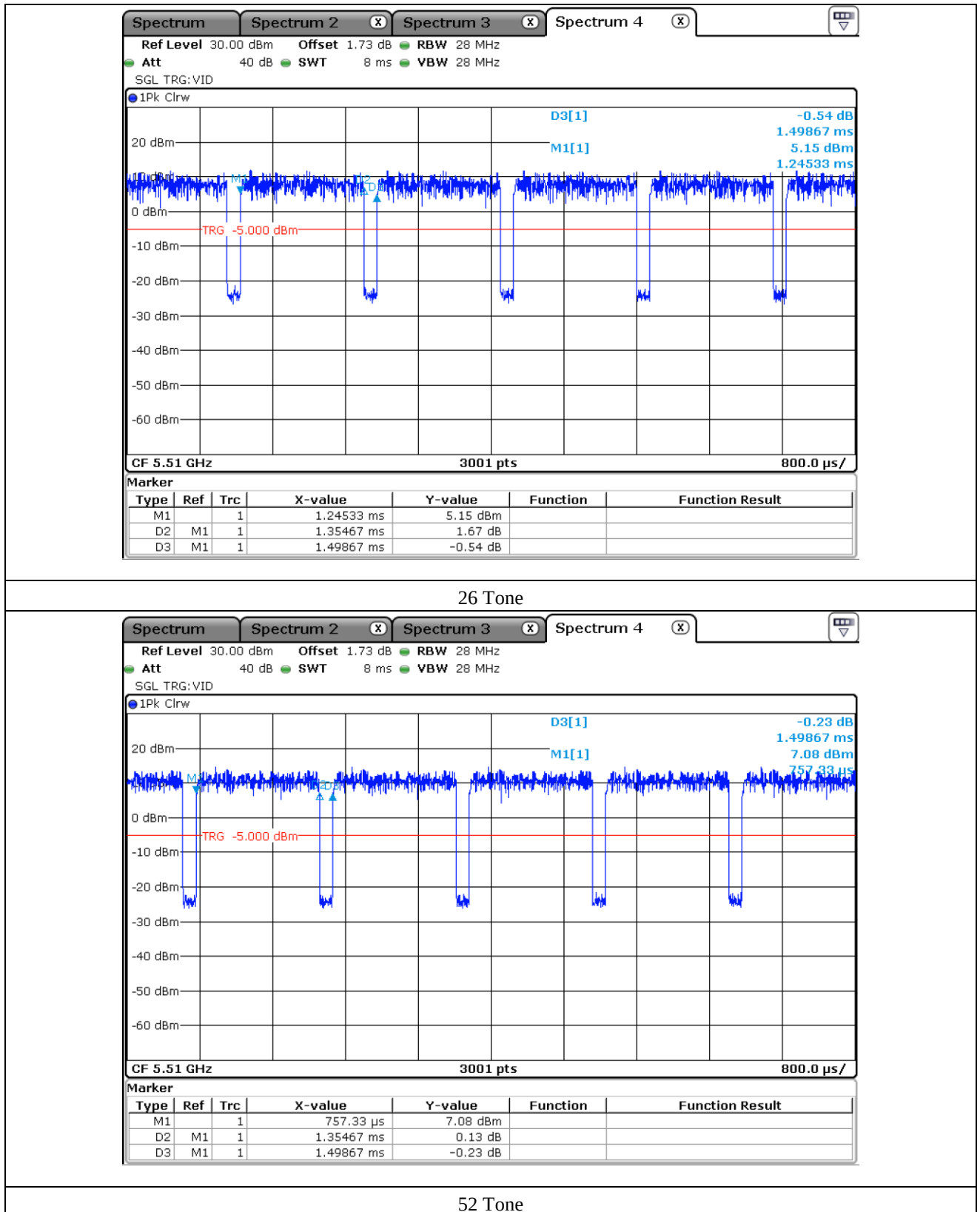
OTC-TRF-RF-001(0)

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



-. Test Plot for 802.11 ax(HE40)

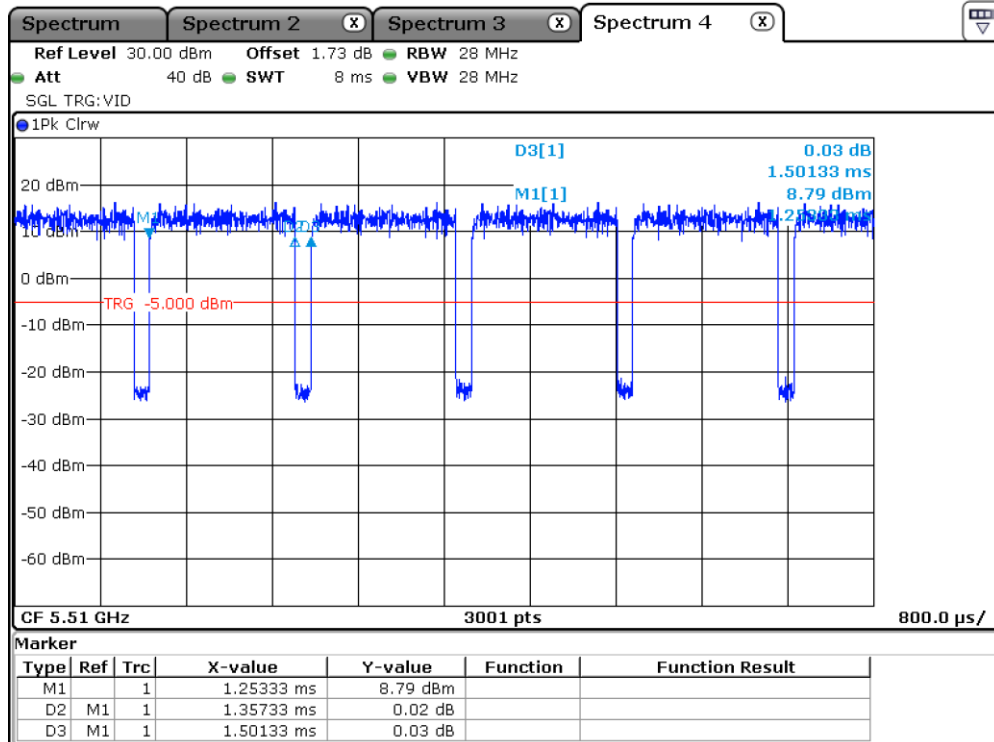
-. Antenna 0



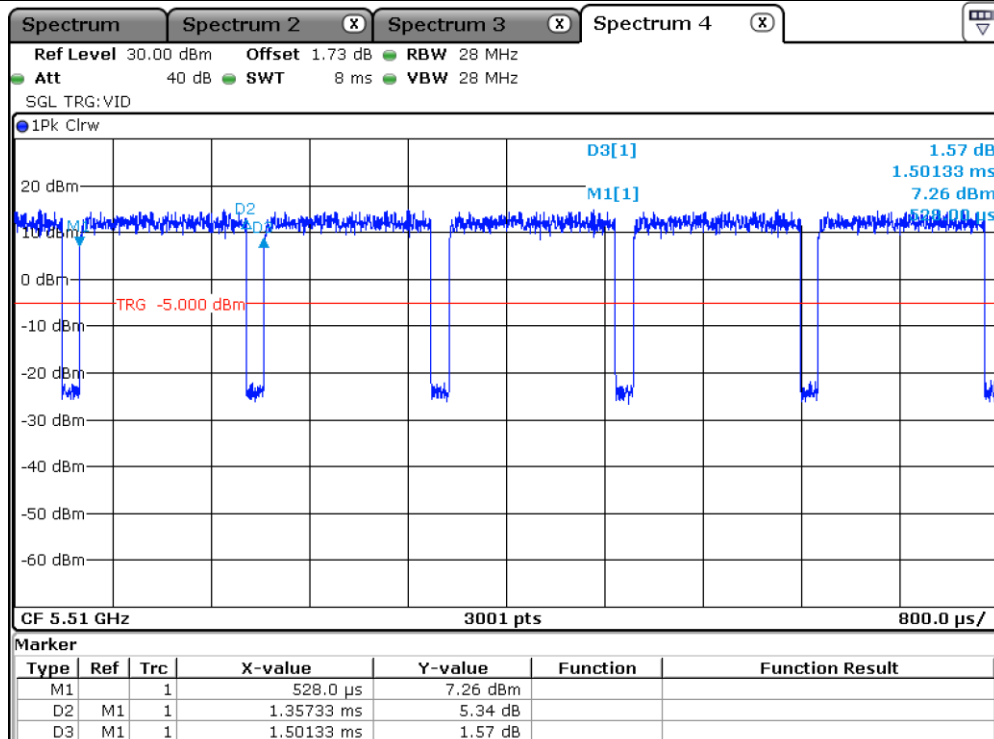
This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)



106 Tone



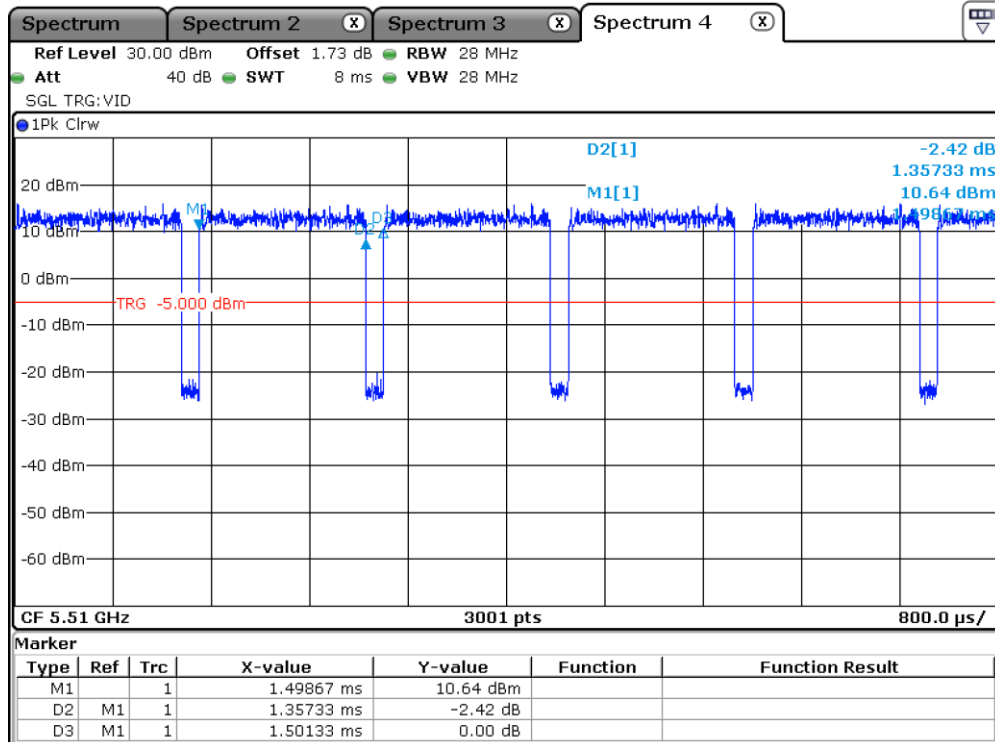
242 Tone

This Report is not correlated with the authentication of KOLAS

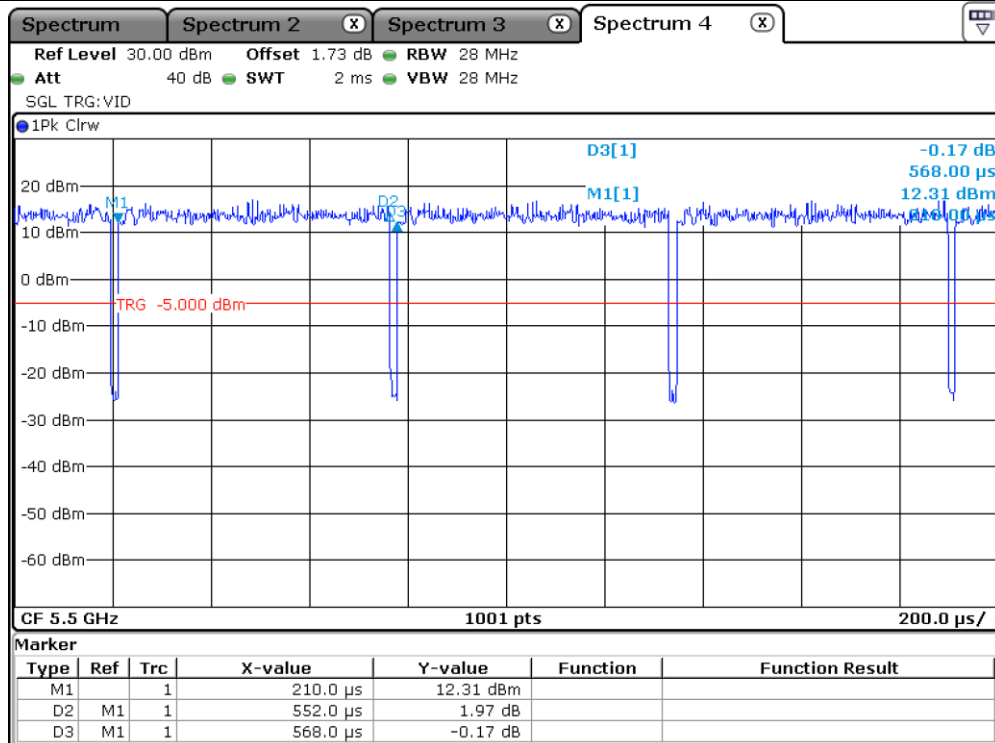
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



484 Tone



Single User

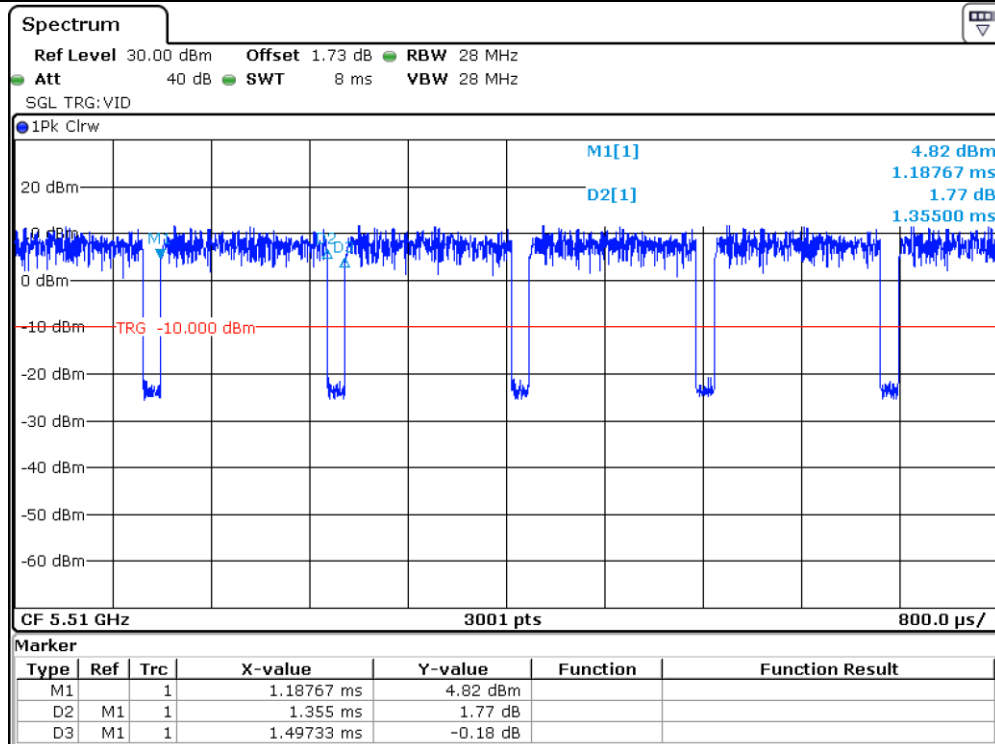
This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

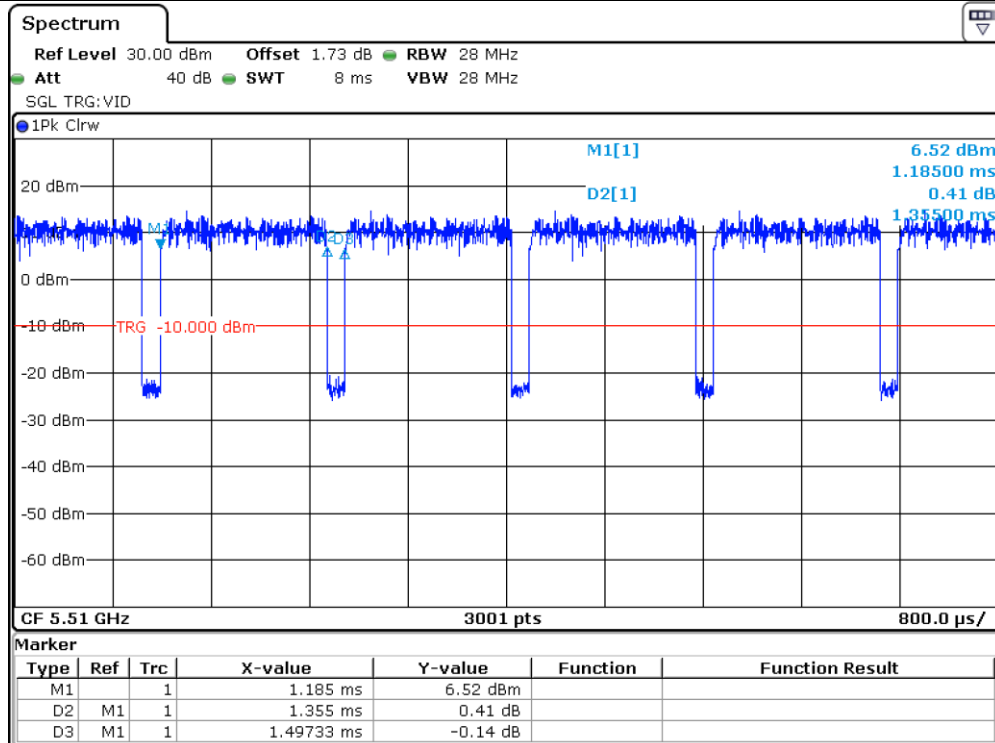
OTC-TRF-RF-001(0)

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

- Antenna 1



26 Tone



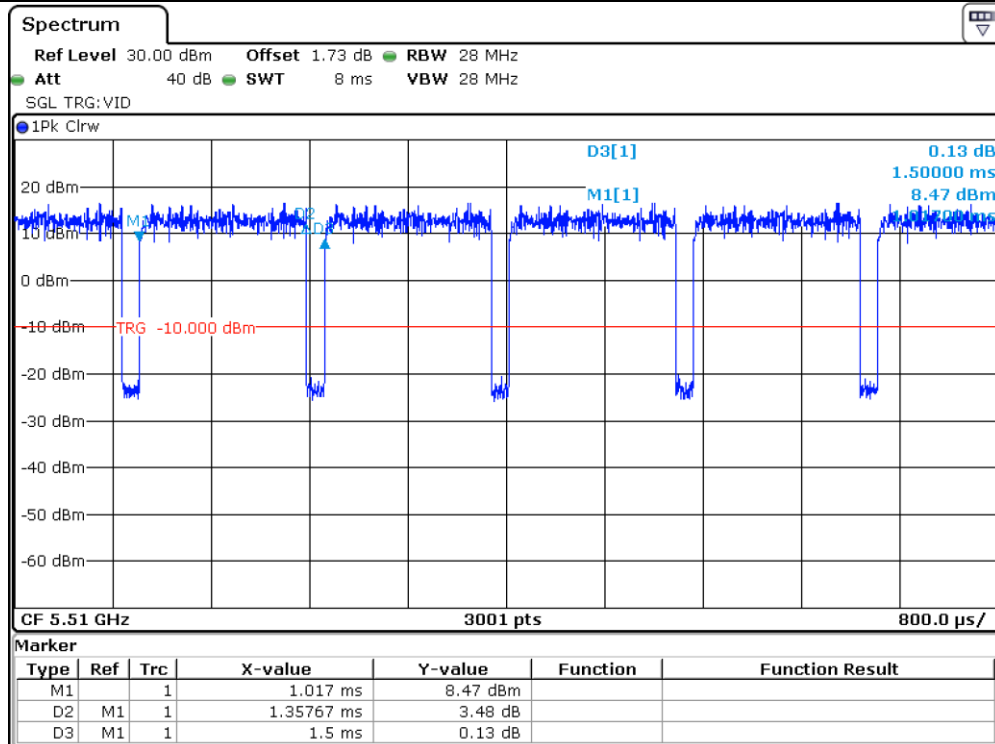
52 Tone

This Report is not correlated with the authentication of KOLAS

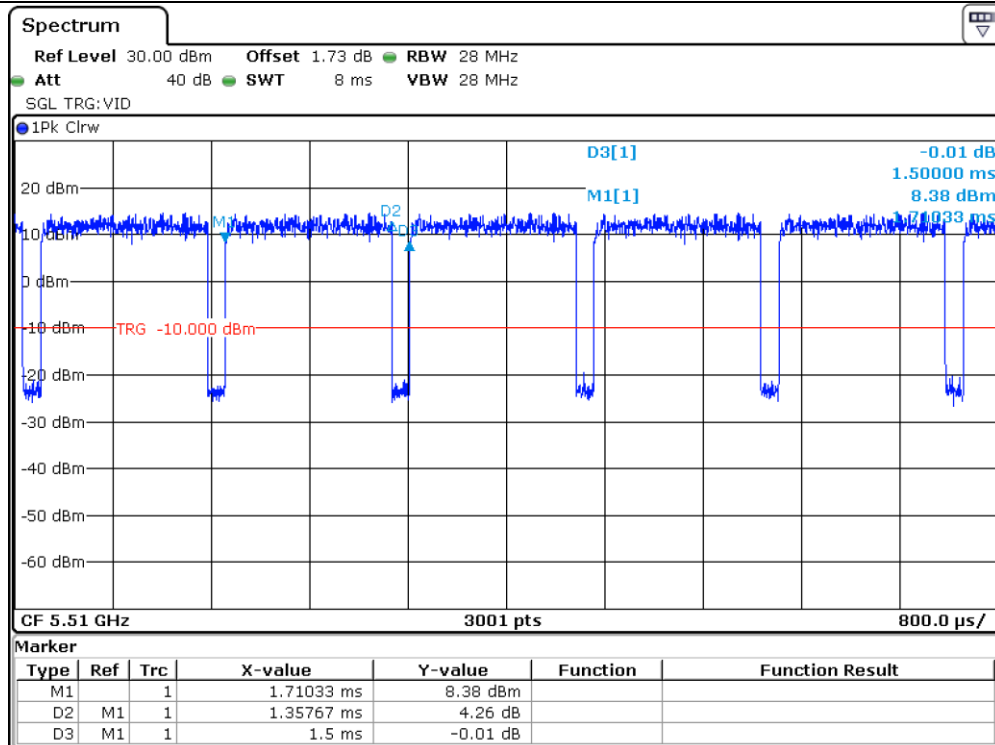
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



106 Tone



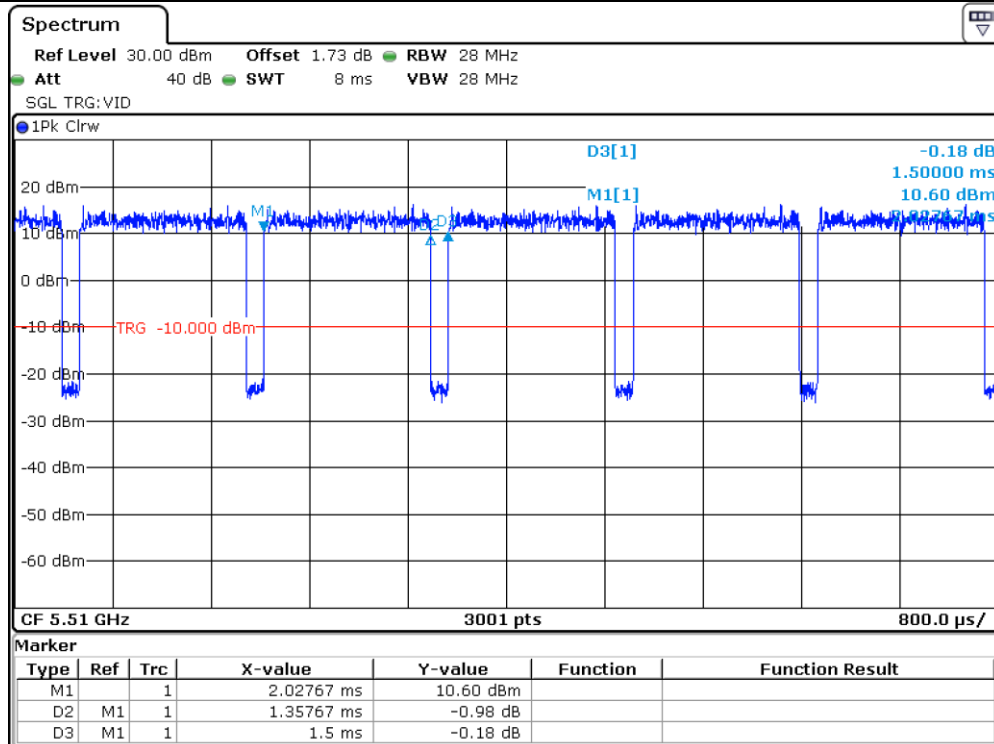
242 Tone

This Report is not correlated with the authentication of KOLAS

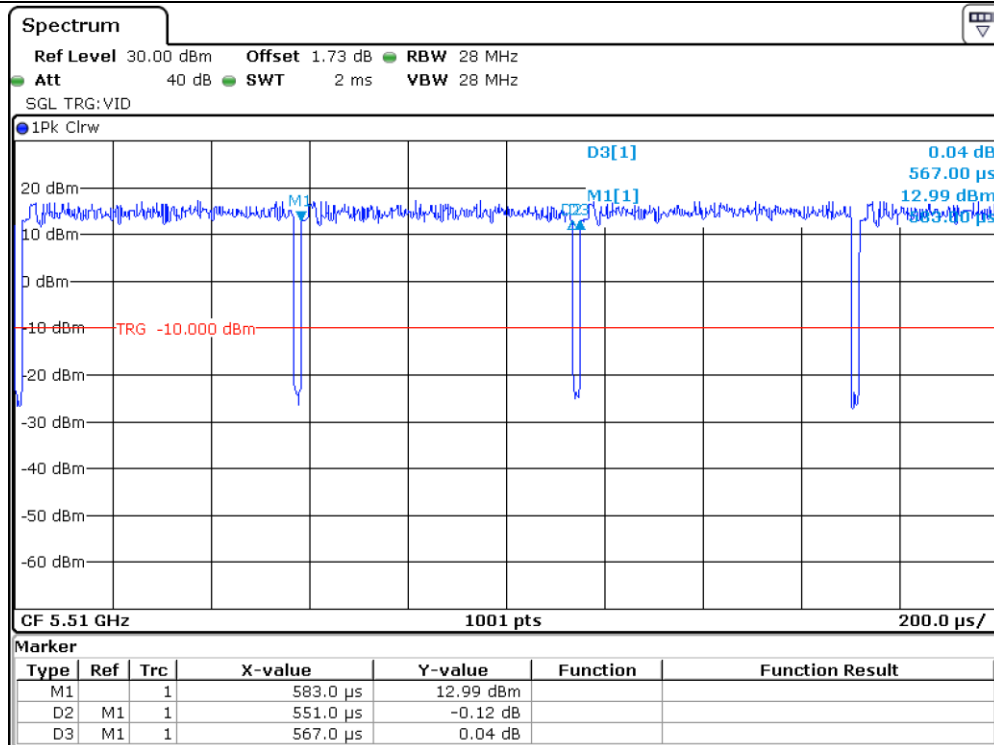
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



484 Tone



Single User

This Report is not correlated with the authentication of KOLAS

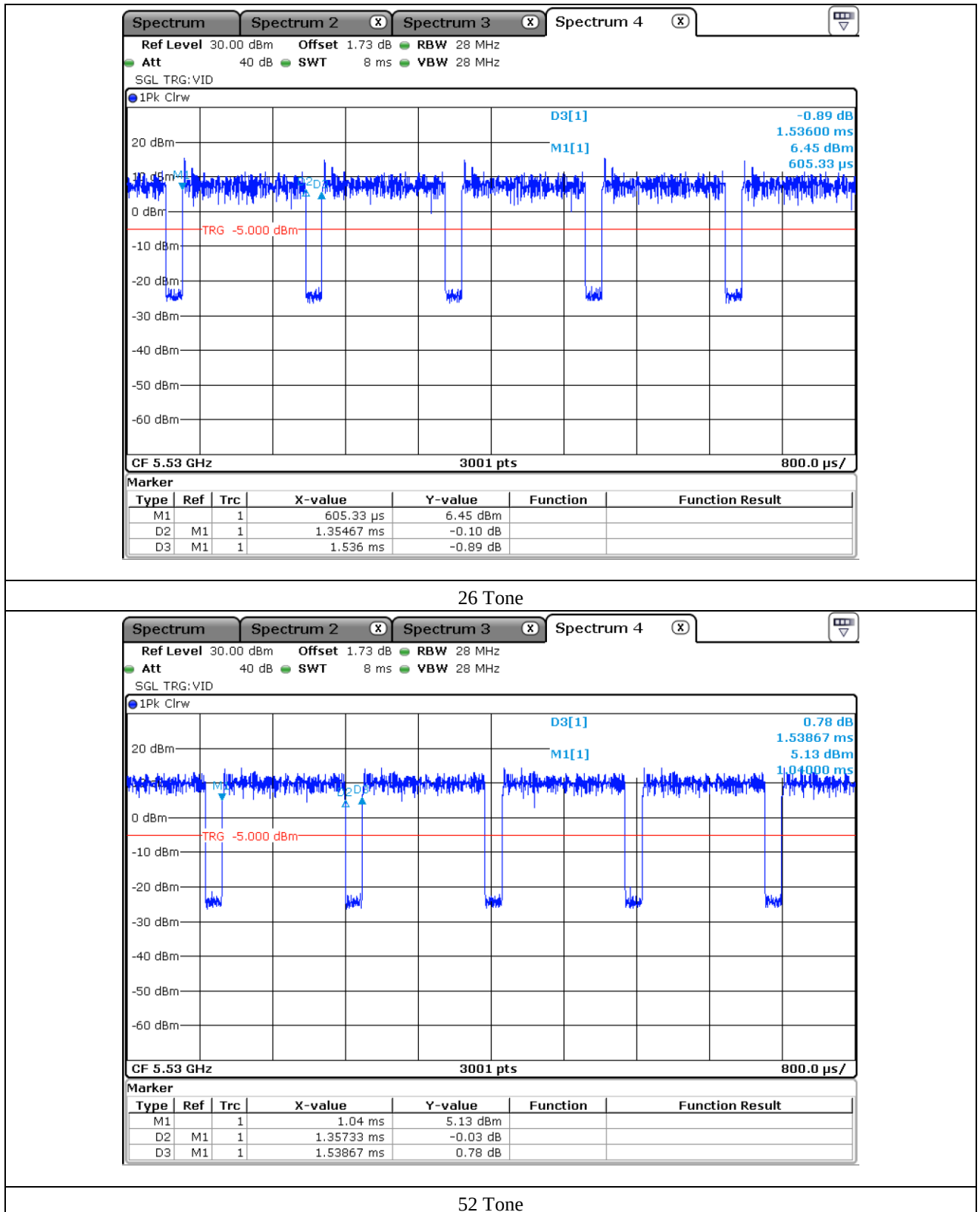
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. Test Plot for 802.11 ax(HE80)

-. Antenna 0

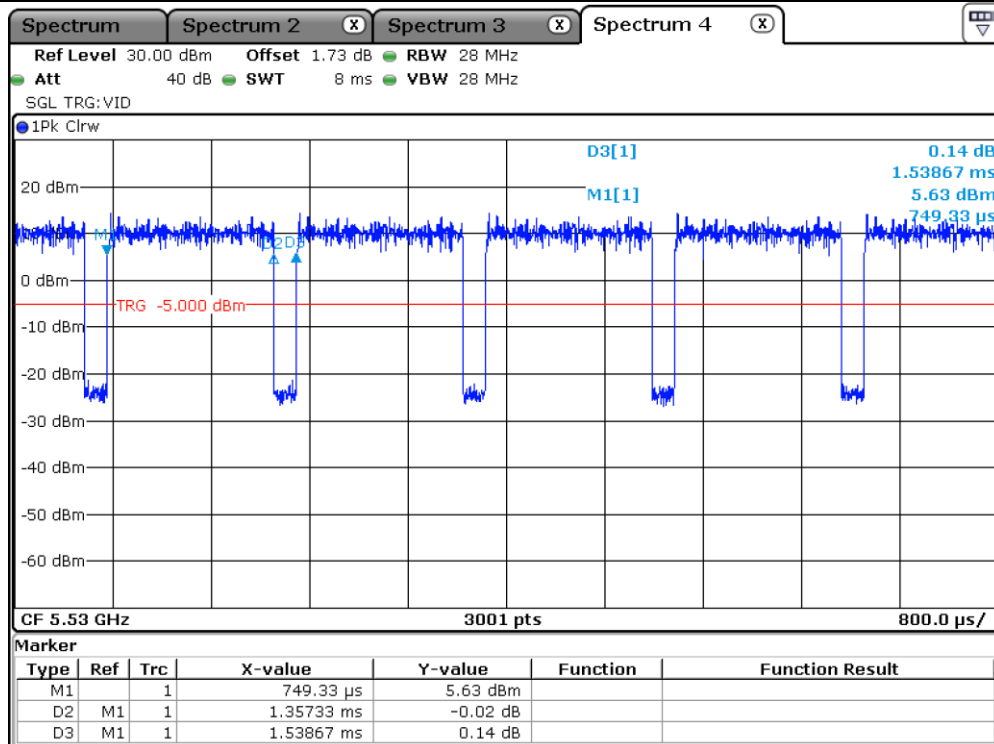


This Report is not correlated with the authentication of KOLAS

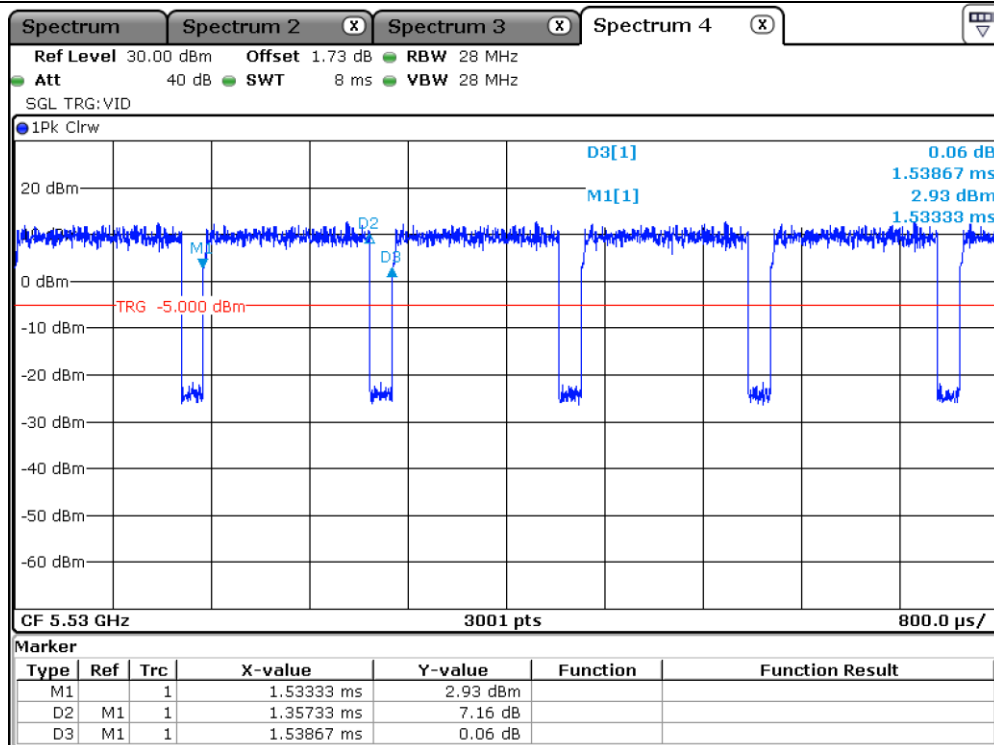
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



106 Tone



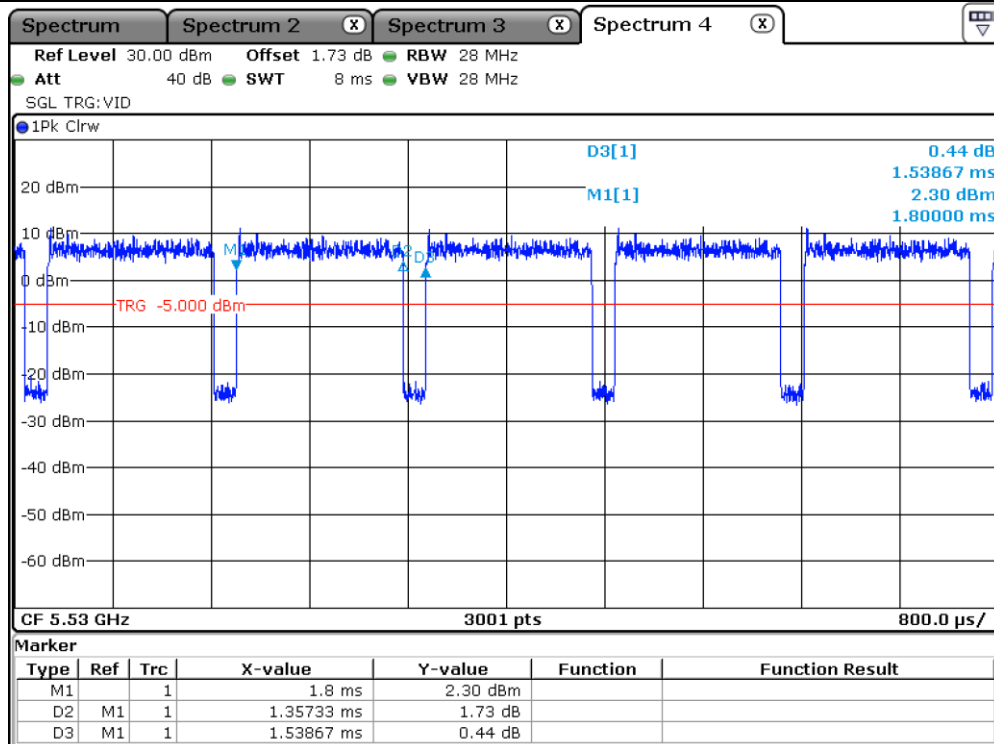
242 Tone

This Report is not correlated with the authentication of KOLAS

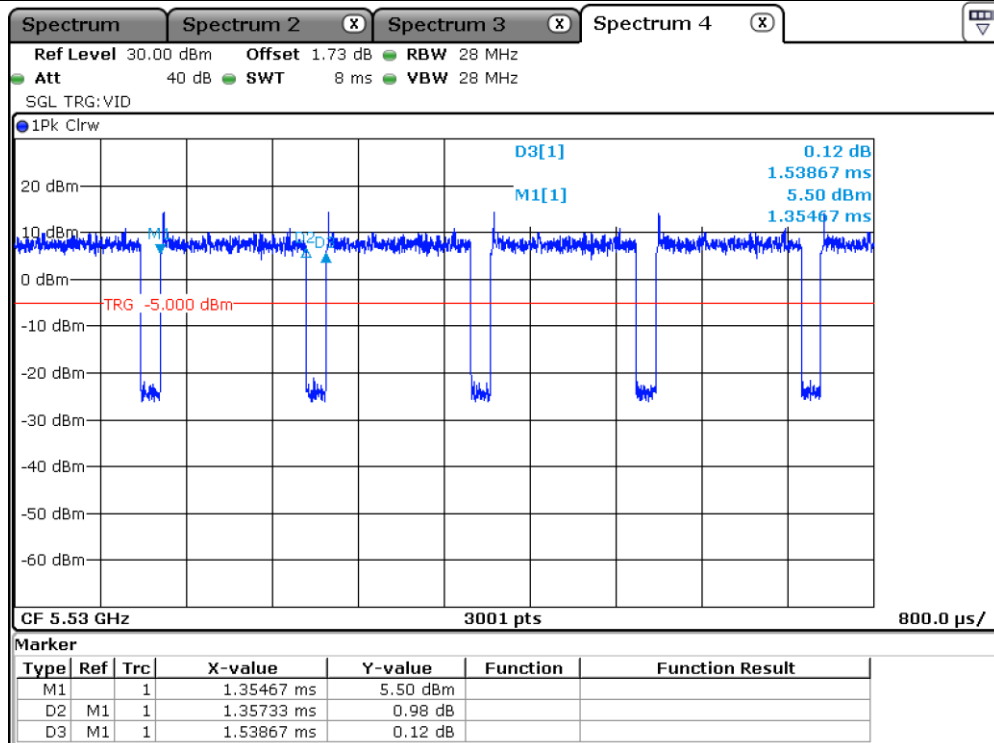
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



484 Tone



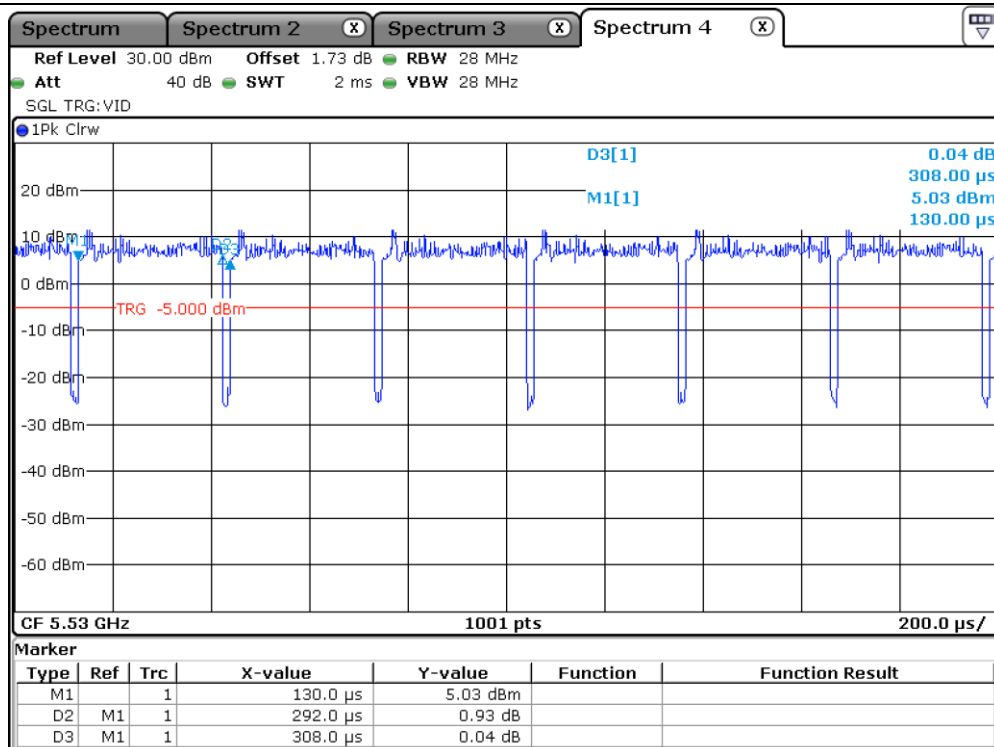
996 Tone

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

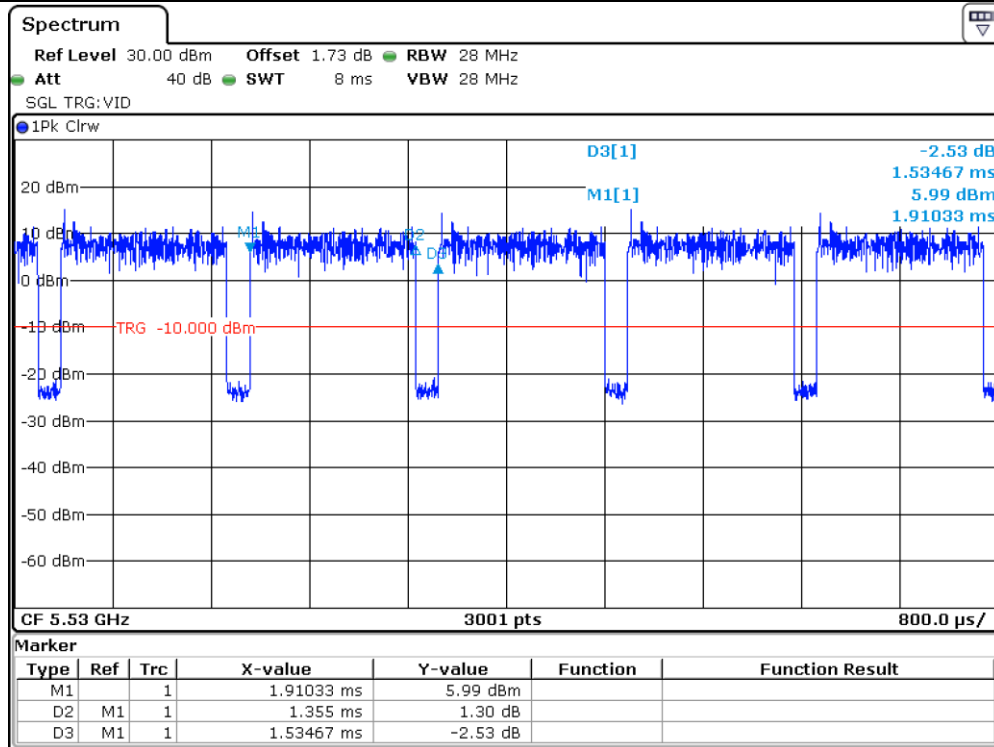
OTC-TRF-RF-001(0)

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

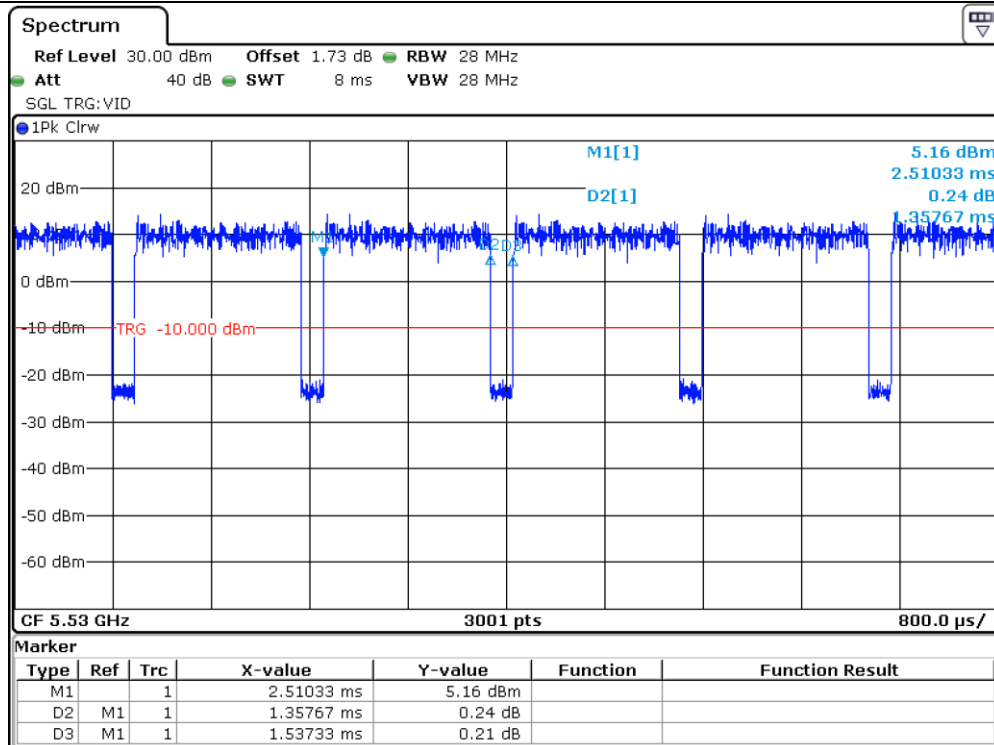


Single User

- Antenna 1



26 Tone



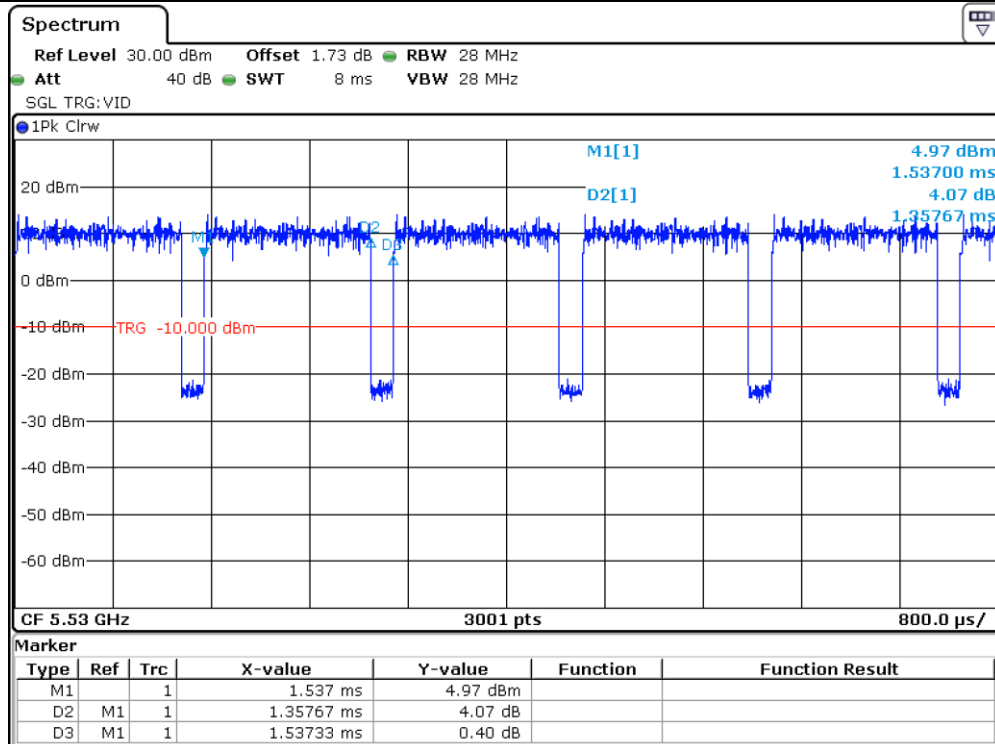
52 Tone

This Report is not correlated with the authentication of KOLAS

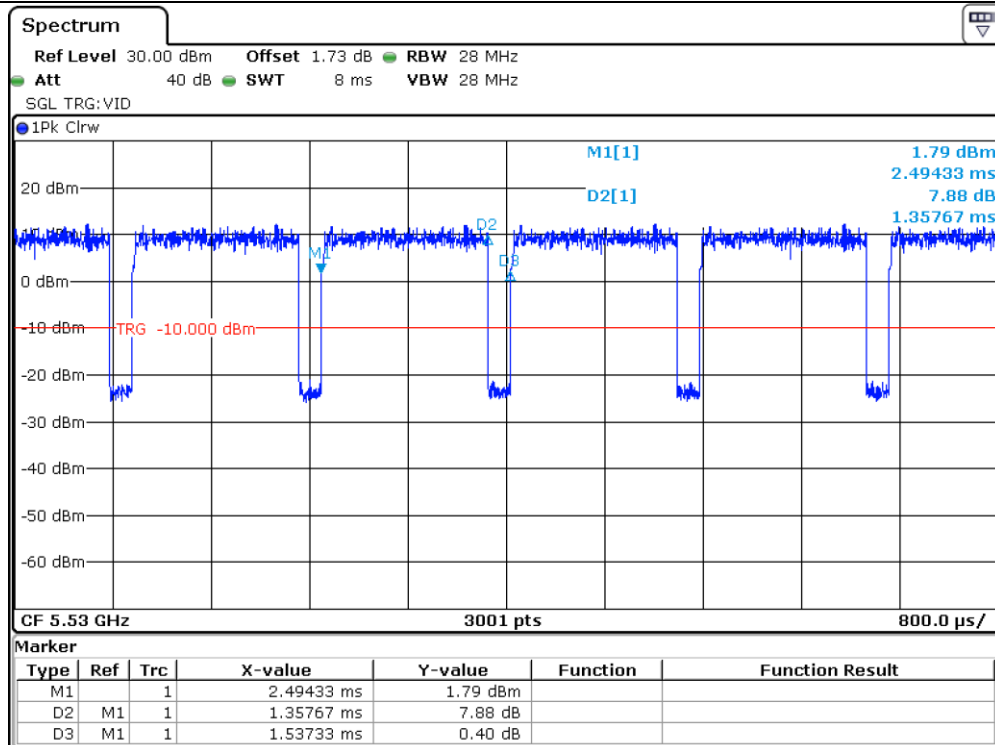
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



106 Tone



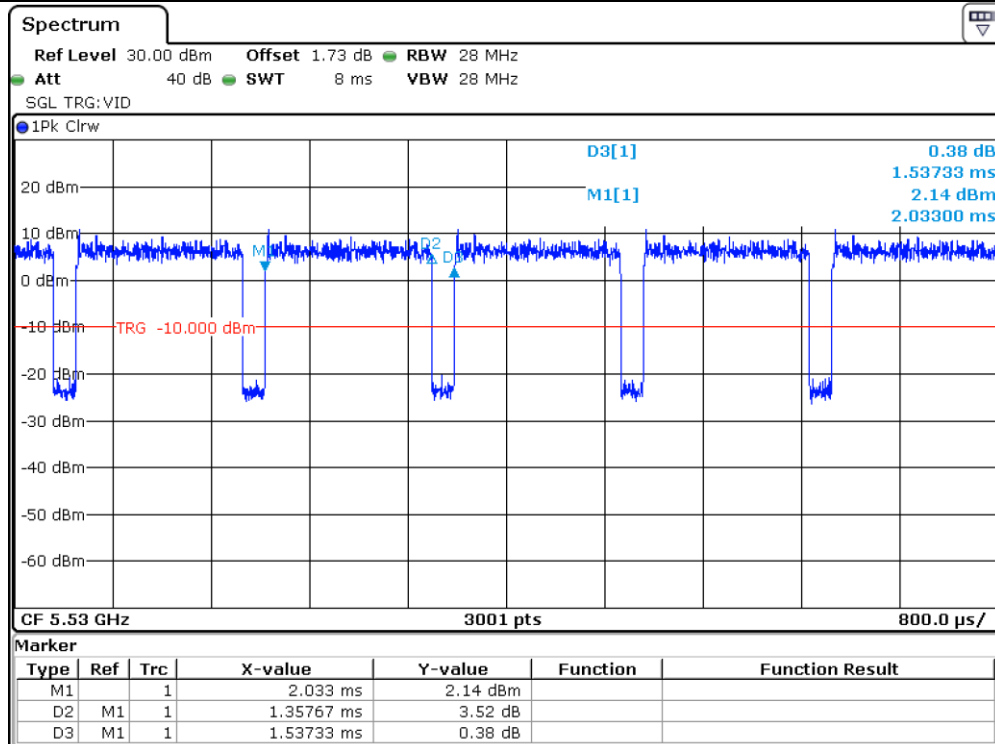
242 Tone

This Report is not correlated with the authentication of KOLAS

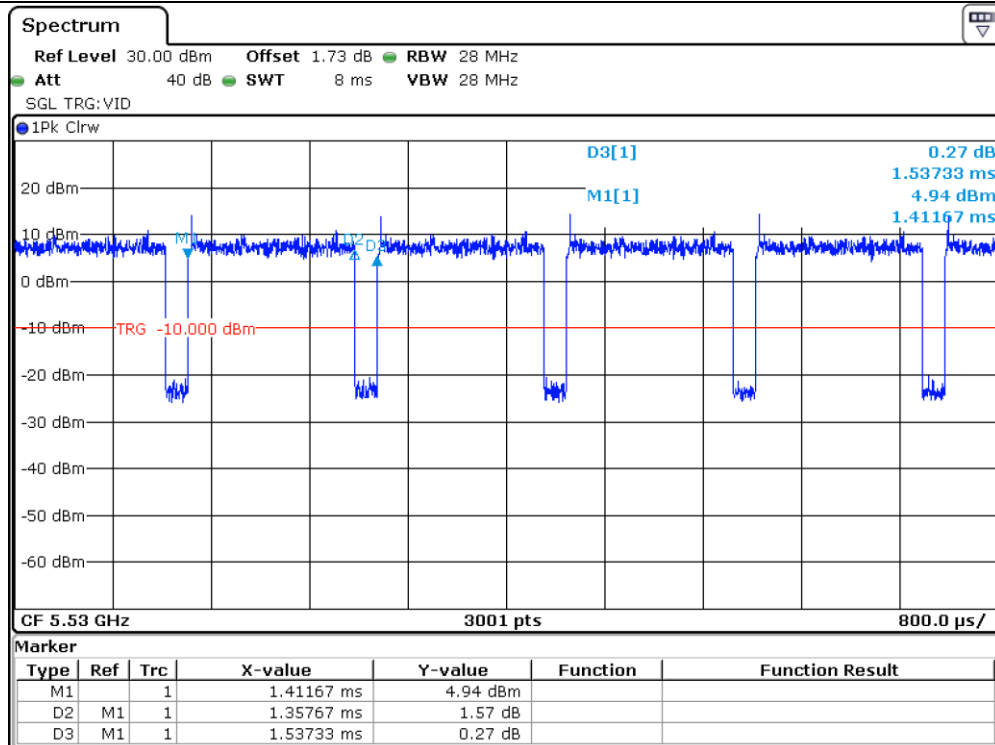
It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



484 Tone



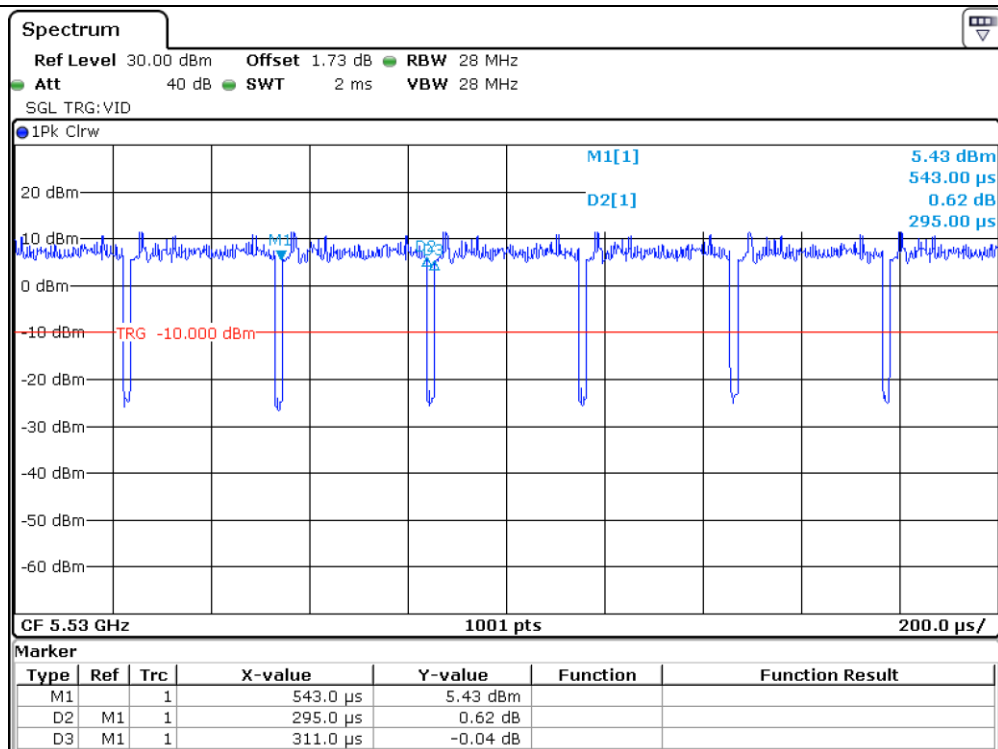
996 Tone

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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



Single User

5.4 Configuration of Test System

Line Conducted Test: The EUT was tested in the Transmitting mode. All supporting equipment 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 antenna of the EUT is a Dipole Antenna. However, The manufacture has designed a strucyure that connects to the antenna using a unique coupling connector of the Fakra Type. So no consideration of replacement by the user.

6. PRELIMINARY TEST

6.1 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

6.2 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

7. MINIMUM 26 dB BANDWIDTH

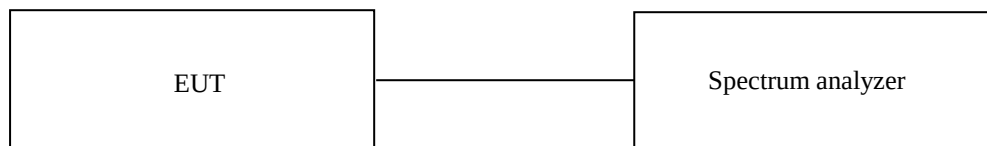
7.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

7.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to approximately 1% of the emission bandwidth, and peak detection was used. The 26 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 26 dB.



7.3 Test Date

December 05, 2021 ~ March 08, 2022

7.4 Test data for 802.11 ax(HE20) WLAN Mode

7.4.1 Test data for Antenna 0

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	19.13	19.08	19.13	-	-
			Mid	17.98	17.98	-	20.23	20.18
			High	19.13	19.13	19.28	-	-
	5220	44	Low	19.33	19.13	19.33	-	-
			Mid	17.98	17.93	-	20.33	20.23
			High	19.23	19.03	19.13	-	-
	5240	48	Low	19.13	18.98	19.03	-	-
			Mid	17.93	17.98	-	20.13	20.28
			High	19.13	19.18	19.28	-	-
UNII 2A	5260	52	Low	19.23	19.08	19.08	-	-
			Mid	17.93	17.98	-	19.78	19.88
			High	19.08	19.13	19.08	-	-
	5300	60	Low	18.93	19.28	19.18	-	-
			Mid	17.93	17.98	-	19.88	20.18
			High	19.28	19.03	18.98	-	-
	5320	64	Low	19.03	19.13	19.23	-	-
			Mid	17.93	17.98	-	19.98	20.13
			High	19.18	18.93	19.13	-	-
UNII 2C	5500	100	Low	19.03	19.13	19.18	-	-
			Mid	17.93	18.08	-	20.33	20.08
			High	19.08	19.18	19.08	-	-
	5580	116	Low	19.08	19.13	19.28	-	-
			Mid	17.93	17.98	-	20.03	20.18
			High	19.28	19.08	19.28	-	-
	5700	140	Low	18.98	19.03	19.13	-	-
			Mid	17.93	17.93	-	20.33	19.98
			High	19.18	19.08	19.23	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	18.83	19.08	19.03	-	-
			Mid	17.93	17.93	-	20.03	20.03
			High	18.98	19.08	19.13	-	-
	5785	157	Low	18.98	19.23	19.28	-	-
			Mid	17.93	17.98	-	20.18	20.13
			High	19.08	19.18	19.18	-	-
	5825	165	Low	19.13	19.23	19.23	-	-
			Mid	17.98	17.98	-	20.03	20.03
			High	19.18	18.93	19.08	-	-

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

7.4.2 Test data for Antenna 1

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	19.18	19.08	19.23	-	-
			Mid	17.98	18.18	-	20.33	20.18
			High	19.18	19.28	19.78	-	-
	5220	44	Low	19.08	19.23	19.13	-	-
			Mid	17.93	18.13	-	20.23	20.13
			High	19.33	19.08	19.38	-	-
	5240	48	Low	18.98	19.03	19.03	-	-
			Mid	18.03	17.98	-	20.03	20.23
			High	18.98	19.13	19.38	-	-
UNII 2A	5260	52	Low	19.03	19.13	19.03	-	-
			Mid	17.93	18.08	-	20.28	20.23
			High	19.38	19.13	19.38	-	-
	5300	60	Low	18.98	19.23	19.13	-	-
			Mid	17.98	18.08	-	20.33	20.18
			High	19.13	19.08	19.33	-	-
	5320	64	Low	18.98	18.98	19.18	-	-
			Mid	18.03	17.98	-	20.28	20.18
			High	19.13	18.98	19.43	-	-
UNII 2C	5500	100	Low	18.98	19.13	18.83	-	-
			Mid	18.13	17.94	-	20.23	20.23
			High	19.23	19.08	19.08	-	-
	5580	116	Low	19.13	19.18	19.13	-	-
			Mid	18.03	18.03	-	20.18	20.13
			High	19.33	19.08	19.08	-	-
	5700	140	Low	19.03	19.23	19.28	-	-
			Mid	17.88	17.98	-	20.13	20.23
			High	18.98	19.08	19.43	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	19.08	19.13	19.13	-	-
			Mid	18.03	18.08	-	20.28	20.48
			High	19.33	19.08	19.38	-	-
	5785	157	Low	18.68	19.23	19.18	-	-
			Mid	18.08	18.03	-	20.33	20.33
			High	19.33	19.53	19.48	-	-
	5825	165	Low	18.98	19.13	19.13	-	-
			Mid	18.03	17.98	-	20.43	20.13
			High	19.33	19.13	19.08	-	-

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

7.4.3 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	15.19	3.94
				Mid	14.05	3.89
				High	13.59	4.99
			52T	Low	15.19	3.94
				Mid	14.04	3.89
				High	14.04	5.04
			106T	Low	15.09	4.09
				High	14.04	4.99
			242T	Mid	15.04	4.99
			SU	-	15.09	5.14

7.4.4 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	15.19	3.89
				Mid	14.09	3.89
				High	14.09	5.19
			52T	Low	15.29	3.94
				Mid	14.04	3.99
				High	14.09	5.04
			106T	Low	15.09	3.99
				High	14.44	4.99
			242T	Mid	15.09	5.04
			SU	-	15.14	5.39

7.5 Test data for 802.11 ax(HE40) WLAN Mode

7.5.1 Test data for Antenna 0

HE40	Frequency [MHz]	Channel No.	RU Index	26dB BW(MHz)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	19.18	19.18	19.58	25.07	-	-
			Mid	18.18	21.38	20.48	-	40.26	39.96
			High	19.08	18.78	18.88	24.18	-	-
	5230	46	Low	19.08	19.38	19.28	27.07	-	-
			Mid	20.08	21.08	21.48	-	39.86	40.16
			High	18.98	18.98	19.08	23.88	-	-
UNII 2A	5270	54	Low	18.78	18.88	19.48	27.07	-	-
			Mid	20.28	20.28	20.18	-	39.56	39.26
			High	19.28	18.98	19.08	24.08	-	-
	5310	62	Low	19.08	19.58	19.58	24.98	-	-
			Mid	19.08	21.58	20.88	-	39.46	39.46
			High	18.98	19.08	18.98	23.48	-	-
UNII 2C	5510	102	Low	18.16	19.38	18.98	25.07	-	-
			Mid	20.38	20.08	20.28	-	40.06	39.96
			High	18.98	19.08	19.18	27.27	-	-
	5550	110	Low	19.18	19.08	18.88	26.77	-	-
			Mid	20.98	21.28	21.08	-	39.66	39.46
			High	18.88	18.88	18.88	26.47	-	-
	5670	134	Low	18.88	19.38	18.88	27.17	-	-
			Mid	21.18	21.38	19.98	-	40.06	39.76
			High	18.98	19.18	18.98	25.87	-	-
UNII 3	5755	151	Low	18.88	19.08	19.18	25.77	-	-
			Mid	20.88	20.78	20.08	-	39.56	40.06
			High	18.98	18.98	19.08	24.48	-	-
	5795	159	Low	19.18	19.18	19.18	24.08	-	-
			Mid	19.88	19.78	20.58	-	39.86	39.96
			High	18.88	18.78	18.78	25.37	-	-

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

7.5.2 Test data for Antenna 1

HE40	Frequency [MHz]	Channel No.	RU Index	26dB BW(MHz)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	18.78	19.28	19.48	24.28	-	-
			Mid	19.48	21.58	21.08	-	40.46	40.46
			High	18.98	19.18	19.58	23.48	-	-
	5230	46	Low	18.98	18.98	19.18	27.87	-	-
			Mid	20.38	21.08	20.28	-	40.76	39.56
			High	19.48	19.58	18.88	22.88	-	-
UNII 2A	5270	54	Low	19.08	19.48	19.48	24.38	-	-
			Mid	20.58	21.28	22.88	-	39.46	40.16
			High	19.68	19.08	19.18	23.38	-	-
	5310	62	Low	19.28	18.78	19.48	23.78	-	-
			Mid	20.28	21.68	18.68	-	40.86	40.06
			High	18.88	19.38	18.48	23.38	-	-
UNII 2C	5510	102	Low	19.28	19.28	19.18	26.97	-	-
			Mid	19.88	21.38	19.88	-	40.16	39.66
			High	19.08	18.88	18.68	25.97	-	-
	5550	110	Low	18.98	18.98	19.48	26.67	-	-
			Mid	21.88	20.78	20.38	-	40.66	39.76
			High	19.18	18.98	19.18	24.98	-	-
	5670	134	Low	18.88	19.08	19.68	28.07	-	-
			Mid	21.08	21.18	20.48	-	39.96	39.76
			High	19.58	19.08	19.78	25.07	-	-
UNII 3	5755	151	Low	18.98	19.18	19.38	25.37	-	-
			Mid	20.28	20.98	20.98	-	40.36	39.86
			High	19.08	18.88	19.38	25.27	-	-
	5795	159	Low	19.08	18.78	19.38	26.57	-	-
			Mid	20.48	20.78	20.58	-	40.06	40.56
			High	19.28	19.18	18.98	25.87	-	-

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

7.5.3 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE40	5710	142	26T	# Low	-	-
				# Mid	-	-
				High	14.50	5.18
			52T	# Low	-	-
				# Mid	-	-
				High	14.40	5.18
			106T	# Low	-	-
				# Mid	-	-
				High	14.80	5.18
			242T	# Low	-	-
				High	19.40	5.08
			484T	Mid	35.38	4.78
			SU	-	35.18	4.78

7.5.4 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE40	5710	142	26T	# Low	-	-
				# Mid	-	-
				High	15.90	4.98
			52T	# Low	-	-
				# Mid	-	-
				High	14.40	4.98
			106T	# Low	-	-
				# Mid	-	-
				High	15.30	4.78
			242T	# Low	-	-
				High	20.19	4.98
			484T	Mid	35.38	5.18
			SU	-	35.38	5.38

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

7.6 Test data for 802.11 ax(HE80) WLAN Mode

7.6.1 Test data for Antenna 0

HE80	Freq. [MHz]	Channel No.	RU Index	26dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	18.78	18.98	18.98	22.38	40.56	-	-
			Mid	38.36	19.38	18.78	20.38	-	80.92	80.72
			High	18.58	18.18	18.78	22.18	40.36	-	-
UNII 2A	5290	58	Low	18.98	18.78	18.98	20.78	43.16	-	-
			Mid	37.56	19.38	19.38	20.78	-	80.52	80.52
			High	18.98	18.38	18.98	20.98	42.56	-	-
UNII 2C	5530	106	Low	18.98	18.98	18.98	21.78	42.16	-	-
			Mid	38.36	18.78	19.18	21.58	-	80.52	80.32
			High	18.78	18.98	18.98	21.18	40.36	-	-
UNII 3	5775	155	Low	18.98	18.78	18.78	20.78	40.36	-	-
			Mid	38.16	19.18	19.18	20.58	-	80.12	80.32
			High	18.98	18.78	18.98	19.98	40.56	-	-

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

7.6.2 Test data for Antenna 1

HE80	Freq. [MHz]	Channel No.	RU Index	26dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	18.78	18.98	19.18	21.98	40.56	-	-
			Mid	39.36	19.78	20.58	21.78	-	80.72	80.72
			High	18.58	18.78	18.78	22.18	41.76	-	-
UNII 2A	5290	58	Low	18.98	19.18	18.98	21.98	42.76	-	-
			Mid	39.76	19.38	20.18	20.78	-	80.92	80.72
			High	18.78	18.98	18.98	20.38	42.76	-	-
UNII 2C	5530	106	Low	18.98	18.98	18.78	21.18	40.36	-	-
			Mid	38.56	19.98	19.38	20.58	-	80.52	80.32
			High	18.98	18.98	18.98	20.38	40.56	-	-
UNII 3	5775	155	Low	18.98	18.98	19.58	20.18	41.76	-	-
			Mid	38.56	19.38	19.18	20.38	-	80.72	80.92
			High	18.98	18.98	18.78	20.98	41.36	-	-

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

7.6.3 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE80	5690	138	26T	# Low	-	-
				# Mid	-	-
				High	14.62	5.16
			52T	# Low	-	-
				# Mid	-	-
				High	14.02	5.16
			106T	# Low	-	-
				# Mid	-	-
				High	13.82	5.16
			242T	# Low	-	-
				# Mid	-	-
				High	16.02	5.56
			484T	# Low	-	-
				High	41.79	5.16
			996T	Mid	75.56	5.16
			SU	-	75.36	5.36

7.6.4 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE80	5690	138	26T	# Low	-	-
				# Mid	-	-
				High	13.62	5.16
			52T	# Low	-	-
				# Mid	-	-
				High	14.62	5.16
			106T	# Low	-	-
				# Mid	-	-
				High	14.62	4.96
			242T	# Low	-	-
				# Mid	-	-
				High	16.82	5.16
			484T	# Low	-	-
				High	37.40	5.16
			996T	Mid	75.76	5.36
			SU	-	75.36	5.36

8. 6 dB BANDWIDTH

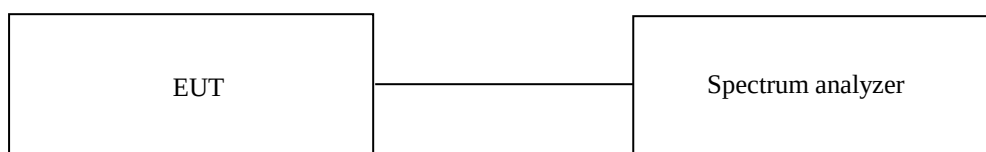
8.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % 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

December 05, 2021 ~ March 08, 2022

8.4 Test data for 802.11 ax(HE20) WLAN Mode

8.4.1 Test data for Antenna 0

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	6dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	2.10	4.00	8.29	-	-
			Mid	1.15	4.10	-	18.38	18.28
			High	2.00	4.00	8.19	-	-
	5785	157	Low	2.05	4.05	8.29	-	-
			Mid	1.15	4.10	-	18.63	18.38
			High	2.05	4.05	8.29	-	-
	5825	165	Low	2.10	4.05	8.29	-	-
			Mid	1.05	4.10	-	18.53	18.08
			High	2.05	4.00	8.29	-	-

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

8.4.2 Test data for Antenna 1

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	6dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	2.10	4.00	8.29	-	-
			Mid	1.05	4.15	-	18.53	18.48
			High	2.05	4.05	8.29	-	-
	5785	157	Low	2.10	4.00	8.29	-	-
			Mid	1.10	4.10	-	18.68	18.18
			High	2.05	4.00	8.29	-	-
	5825	165	Low	2.10	4.05	8.34	-	-
			Mid	1.15	4.15	-	18.43	17.83
			High	2.05	4.00	8.29	-	-

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

8.4.3 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE20	5720	144	26T	# Low	-
				# Mid	-
				High	4.34
			52T	# Low	-
				# Mid	-
				High	4.34
			106T	# Low	-
				High	4.29
			242T	Mid	4.29
			SU	-	4.34

8.4.4 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE20	5720	144	26T	# Low	-
				# Mid	-
				High	4.39
			52T	# Low	-
				# Mid	-
				High	4.39
			106T	# Low	-
				High	4.44
			242T	Mid	4.24
			SU	-	4.14

8.5 Test data for 802.11 ax(HE40) WLAN Mode

8.5.1 Test data for Antenna 0

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	6dB BW					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 3	5755	151	Low	2.00	4.00	8.29	17.68	-	-
			Mid	2.20	4.20	8.49	-	36.36	37.46
			High	2.00	4.10	8.19	17.98	-	-
	5795	159	Low	2.00	4.00	7.69	18.78	-	-
			Mid	2.20	4.00	8.49	-	37.76	37.66
			High	2.10	4.10	8.19	18.38	-	-

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

8.5.2 Test data for Antenna 1

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	6dB BW					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 3	5755	151	Low	1.90	4.20	8.29	18.08	-	-
			Mid	2.20	4.10	8.49	-	36.96	36.36
			High	2.10	4.10	8.19	18.08	-	-
	5795	159	Low	2.10	4.20	8.39	17.68	-	-
			Mid	2.20	4.20	8.19	-	36.66	36.96
			High	2.10	4.10	8.19	18.08	-	-

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

8.5.3 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE40	5710	142	26T	# Low	-
				# Mid	-
				High	3.98
			52T	# Low	-
				# Mid	-
				High	3.78
			106T	# Low	-
				# Mid	-
				High	3.88
			242T	# Low	-
				High	3.88
			484T	Mid	3.68
			SU	-	2.68

8.5.4 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE40	5710	142	26T	# Low	-
				# Mid	-
				High	4.08
			52T	# Low	-
				# Mid	-
				High	3.88
			106T	# Low	-
				# Mid	-
				High	3.78
			242T	# Low	-
				High	3.28
			484T	Mid	3.78
			SU	-	3.48

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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 Test data for 802.11 ax(HE80) WLAN Mode

8.6.1 Test data for Antenna 0

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	6dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 3	5775	155	Low	2.20	4.20	8.39	18.78	37.76	-	-
			Mid	1.20	4.20	8.39	18.78	-	77.92	77.52
			High	2.00	4.20	8.19	18.78	37.76	-	-

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

8.6.2 Test data for Antenna 1

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	6dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 3	5775	155	Low	2.20	4.20	8.39	18.78	37.76	-	-
			Mid	1.20	4.20	8.39	19.18	-	78.12	78.32
			High	2.00	4.20	8.19	18.98	37.76	-	-

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

8.6.3 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE80	5690	138	26T	# Low	-
				# Mid	-
				High	3.96
			52T	# Low	-
				# Mid	-
				High	3.96
			106T	# Low	-
				# Mid	-
				High	3.96
			242T	# Low	-
				# Mid	-
				High	4.16
			484T	# Low	-
				High	3.96
			996T	Mid	3.56
			SU	-	3.96

8.6.4 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE80	5690	138	26T	# Low	-
				# Mid	-
				High	3.96
			52T	# Low	-
				# Mid	-
				High	3.96
			106T	# Low	-
				# Mid	-
				High	4.16
			242T	# Low	-
				# Mid	-
				High	4.16
			484T	# Low	-
				High	4.16
			996T	Mid	3.96
			SU	-	3.96

9. MAXIMUM CONDUCTED OUTPUT POWER

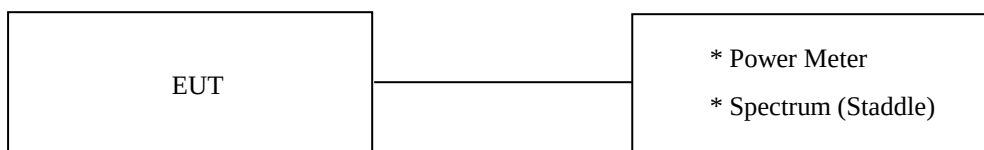
9.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

9.2 Test set-up

The maximum peak output power was measured with the Power Meter connected to the antenna output of the EUT. The EUT was operating in transmit mode at the appropriate center frequency. The test of the staddle channel is performed by spectrum.



9.3 Test Date

December 05, 2021 ~ March 08, 2022

9.4 Test data for 802.11 ax(HE20) WLAN Mode

9.4.1 Test data for Antenna 0

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	1.24	3.21	6.59	-	-
			Mid	1.47	3.64	-	9.43	11.25
			High	1.46	3.44	6.74	-	-
	5220	44	Low	2.03	3.93	7.26	-	-
			Mid	2.30	4.41	-	10.07	11.83
			High	2.22	4.14	7.37	-	-
	5240	48	Low	2.25	4.26	7.53	-	-
			Mid	2.53	4.65	-	10.29	12.19
			High	2.41	4.35	7.54	-	-
UNII 2A	5260	52	Low	2.46	4.37	7.63	-	-
			Mid	2.63	4.79	-	10.35	11.91
			High	2.45	4.36	7.59	-	-
	5300	60	Low	2.34	4.32	7.45	-	-
			Mid	2.55	4.72	-	10.22	11.80
			High	2.36	4.32	7.45	-	-
	5320	64	Low	2.44	4.36	7.48	-	-
			Mid	2.66	4.73	-	10.25	11.97
			High	2.50	4.42	7.61	-	-
UNII 2C	5500	100	Low	1.67	3.66	7.11	-	-
			Mid	1.91	4.06	-	10.01	11.26
			High	1.83	3.76	7.10	-	-
	5580	116	Low	2.60	4.63	7.90	-	-
			Mid	2.82	4.98	-	10.64	12.03
			High	2.63	4.57	7.83	-	-
	5700	140	Low	2.61	4.54	7.63	-	-
			Mid	2.62	4.79	-	10.26	11.31
			High	2.22	4.17	7.35	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

HE20	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	9.72	9.69	9.83	-	-
			Mid	9.89	10.12	-	9.73	11.16
			High	9.81	9.86	9.85	-	-
	5785	157	Low	10.04	10.10	10.13	-	-
			Mid	10.25	10.40	-	10.13	11.28
			High	9.89	9.91	10.04	-	-
	5825	165	Low	9.13	9.18	9.26	-	-
			Mid	9.15	9.41	-	9.15	10.58
			High	8.84	8.88	9.04	-	-

9.4.2 Test data for Antenna 1

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	2.56	4.65	7.69	-	-
			Mid	2.76	5.01	-	10.21	11.35
			High	2.65	4.70	7.73	-	-
	5220	44	Low	2.90	4.94	8.01	-	-
			Mid	3.22	5.38	-	10.61	11.77
			High	3.16	5.10	8.11	-	-
	5240	48	Low	3.24	5.18	8.23	-	-
			Mid	3.45	5.63	-	10.77	12.02
			High	3.32	5.28	8.30	-	-
UNII 2A	5260	52	Low	3.40	5.33	8.33	-	-
			Mid	3.51	5.73	-	10.76	11.83
			High	3.30	5.29	8.30	-	-
	5300	60	Low	3.31	4.23	8.22	-	-
			Mid	3.42	5.57	-	10.64	11.87
			High	3.32	5.21	8.27	-	-
	5320	64	Low	3.39	5.34	8.32	-	-
			Mid	3.67	5.73	-	10.87	12.03
			High	3.59	5.45	8.46	-	-
UNII 2C	5500	100	Low	2.71	4.89	7.93	-	-
			Mid	2.88	5.25	-	10.55	11.52
			High	2.78	4.91	7.91	-	-
	5580	116	Low	3.63	5.58	7.83	-	-
			Mid	3.77	5.92	-	11.07	12.15
			High	3.61	5.53	8.55	-	-
	5700	140	Low	3.73	8.53	8.53	-	-
			Mid	3.90	5.84	-	10.93	11.12
			High	3.70	5.42	8.44	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

HE20	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	11.16	11.18	11.29	-	-
			Mid	11.36	11.55	-	11.21	11.16
			High	11.14	11.20	11.22	-	-
	5785	157	Low	10.73	10.70	10.71	-	-
			Mid	10.76	10.79	-	10.65	10.70
			High	10.38	10.46	10.52	-	-
	5825	165	Low	10.43	10.30	10.53	-	-
			Mid	10.61	10.73	-	10.56	10.51
			High	10.45	10.45	10.60	-	-

9.4.3 Test data for Multiple Transmit

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power				
				(dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	4.96	7.00	10.18	-	-
			Mid	5.17	7.39	-	12.85	14.31
			High	5.11	7.12	10.27	-	-
	5220	44	Low	5.50	7.47	10.66	-	-
			Mid	5.80	7.93	-	13.36	14.81
			High	5.73	7.65	10.77	-	-
	5240	48	Low	5.78	7.75	10.90	-	-
			Mid	6.03	8.18	-	13.55	15.11
			High	5.90	7.85	10.95	-	-
UNII 2A	5260	52	Low	5.97	7.88	11.00	-	-
			Mid	6.10	8.29	-	13.57	14.88
			High	5.91	7.86	10.97	-	-
	5300	60	Low	5.86	7.28	10.86	-	-
			Mid	6.02	8.17	-	13.44	14.84
			High	5.88	7.80	10.89	-	-
	5320	64	Low	5.95	7.89	10.93	-	-
			Mid	6.21	8.27	-	13.58	15.01
			High	6.09	7.97	11.07	-	-
UNII 2C	5500	100	Low	5.23	7.33	10.55	-	-
			Mid	5.43	7.70	-	13.30	14.40
			High	5.34	7.38	10.53	-	-
	5580	116	Low	6.16	8.14	10.87	-	-
			Mid	6.33	8.48	-	13.87	15.10
			High	6.16	8.08	11.21	-	-
	5700	140	Low	6.22	9.99	11.11	-	-
			Mid	6.32	8.35	-	13.62	14.22
			High	6.03	7.85	10.94	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

HE20	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	13.51	13.51	13.63	-	-
			Mid	13.70	13.90	-	13.54	14.17
			High	13.54	13.59	13.60	-	-
	5785	157	Low	13.41	13.42	13.44	-	-
			Mid	13.52	13.61	-	13.41	14.01
			High	13.15	13.20	13.30	-	-
	5825	165	Low	12.84	12.78	12.95	-	-
			Mid	12.95	13.13	-	12.92	13.55
			High	12.73	12.74	12.90	-	-

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

Remark. 3: Limit(UNII 3) : 30.00 dBm

9.4.4 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	1.76	-20.77
				Mid	2.00	-20.89
				High	-14.63	1.68
			52T	Low	3.91	-18.72
				Mid	4.19	-18.87
				High	-11.37	3.49
			106T	Low	6.86	-15.27
				High	3.72	3.76
			242T	Mid	8.57	3.11
			SU	-	9.31	3.94

9.4.5 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	3.92	-18.94
				Mid	3.77	-18.50
				High	-13.02	3.83
			52T	Low	5.45	-16.62
				Mid	5.88	-17.46
				High	-9.12	5.36
			106T	Low	8.59	-14.66
				High	5.50	5.47
			242T	Mid	9.80	4.50
			SU	-	9.35	4.12

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

9.4.6 Test data for Staddle Channel_Multiple Transmit

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	5.98	-16.75
				Mid	5.99	-16.52
				High	-10.74	5.90
			52T	Low	7.76	-14.54
				Mid	8.12	-15.10
				High	-7.09	7.53
			106T	Low	10.82	-11.94
				High	7.71	7.71
			242T	Mid	12.24	6.87
			SU	-	12.34	7.04

9.5 Test data for 802.11 ax(HE40) WLAN Mode

9.5.1 Test data for Antenna 0

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	1.36	4.21	6.47	6.62	-	-
			Mid	2.60	4.80	7.04	-	6.77	8.71
			High	1.93	4.77	6.84	6.92	-	-
	5230	46	Low	2.05	4.40	7.41	7.26	-	-
			Mid	3.32	4.99	7.72	-	7.43	9.15
			High	2.44	5.26	7.39	7.54	-	-
UNII 2A	5270	54	Low	2.50	5.31	7.45	5.55	-	-
			Mid	3.52	5.39	7.88	-	7.48	8.30
			High	2.39	5.18	7.32	5.43	-	-
	5310	62	Low	2.44	5.21	7.32	5.41	-	-
			Mid	3.39	5.62	7.74	-	7.49	8.44
			High	2.59	5.36	7.38	5.49	-	-
UNII 2C	5510	102	Low	1.80	4.63	6.89	7.03	-	-
			Mid	2.88	5.10	7.39	-	7.16	9.34
			High	2.06	4.88	7.04	7.18	-	-
	5550	110	Low	2.16	5.02	7.24	7.48	-	-
			Mid	3.44	5.62	7.86	-	7.59	9.99
			High	2.68	5.50	7.66	7.72	-	-
	5670	134	Low	2.52	5.37	7.51	7.68	-	-
			Mid	3.69	5.92	8.02	-	7.76	9.75
			High	2.72	5.59	7.49	7.72	-	-
UNII 3	5755	151	Low	5.95	6.77	6.77	6.97	-	-
			Mid	7.02	7.30	7.33	-	7.16	10.35
			High	6.29	7.17	7.15	7.27	-	-
	5795	159	Low	6.45	7.23	7.32	7.32	-	-
			Mid	7.10	7.39	7.69	-	7.16	10.38
			High	5.56	6.50	6.59	6.84	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

9.5.2 Test data for Antenna 1

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	2.80	5.66	7.57	7.70	-	-
			Mid	3.71	6.06	8.09	-	7.76	8.74
			High	2.93	5.88	7.68	7.83	-	-
	5230	46	Low	3.05	5.33	8.14	7.98	-	-
			Mid	4.18	6.00	8.44	-	8.20	9.21
			High	3.41	6.25	8.12	8.29	-	-
UNII 2A	5270	54	Low	3.49	6.28	8.20	6.48	-	-
			Mid	4.38	6.33	8.63	-	8.26	8.39
			High	3.32	6.13	8.04	6.36	-	-
	5310	62	Low	3.32	6.18	8.13	6.37	-	-
			Mid	4.43	6.58	8.59	-	8.39	8.48
			High	3.65	6.36	8.23	6.48	-	-
UNII 2C	5510	102	Low	2.86	5.89	7.79	7.95	-	-
			Mid	3.88	6.31	8.30	-	8.02	9.69
			High	3.11	6.12	8.18	8.07	-	-
	5550	110	Low	3.25	6.23	8.11	8.36	-	-
			Mid	4.48	6.78	8.73	-	8.48	10.15
			High	3.71	6.57	8.44	8.57	-	-
	5670	134	Low	4.15	6.84	8.70	8.84	-	-
			Mid	5.05	7.13	9.13	-	8.81	9.54
			High	3.88	6.56	8.42	8.65	-	-
UNII 3	5755	151	Low	7.83	8.70	8.67	8.83	-	-
			Mid	8.73	9.01	9.13	-	8.72	10.31
			High	7.40	8.28	8.38	8.67	-	-
	5795	159	Low	7.47	8.22	8.27	8.29	-	-
			Mid	8.14	8.29	8.57	-	8.22	9.78
			High	7.05	7.89	7.93	8.05	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

9.5.3 Test data for Multiple Transmit

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	5.15	8.01	10.07	10.20	-	-
			Mid	6.20	8.49	10.61	-	10.30	11.74
			High	5.47	8.37	10.29	10.41	-	-
	5230	46	Low	5.59	7.90	10.80	10.65	-	-
			Mid	6.78	8.54	11.11	-	10.84	12.19
			High	5.96	8.80	10.78	10.94	-	-
UNII 2A	5270	54	Low	6.04	8.83	10.85	9.05	-	-
			Mid	6.98	8.90	11.28	-	10.90	11.36
			High	5.89	8.69	10.71	8.93	-	-
	5310	62	Low	5.91	8.73	10.75	8.93	-	-
			Mid	6.95	9.14	11.20	-	10.97	11.47
			High	6.16	8.90	10.84	9.02	-	-
UNII 2C	5510	102	Low	5.37	8.32	10.37	10.53	-	-
			Mid	6.42	8.76	10.88	-	10.62	12.53
			High	5.63	8.56	10.66	10.66	-	-
	5550	110	Low	5.75	8.68	10.71	10.95	-	-
			Mid	7.00	9.25	11.33	-	11.07	13.09
			High	6.24	9.08	11.08	11.18	-	-
	5670	134	Low	6.42	9.18	11.16	11.31	-	-
			Mid	7.44	9.58	11.62	-	11.33	12.66
			High	6.35	9.11	10.99	11.22	-	-
UNII 3	5755	151	Low	10.00	10.85	10.83	11.01	-	-
			Mid	10.97	11.25	11.33	-	11.02	13.34
			High	9.89	10.77	10.82	11.04	-	-
	5795	159	Low	10.00	10.77	10.83	10.84	-	-
			Mid	10.66	10.88	11.16	-	10.73	13.10
			High	9.38	10.26	10.32	10.50	-	-

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

Remark. 3: Limit(UNII 3) : 30.00 dBm

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

9.5.4 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26T	# Low	-	-
				# Mid	-	-
				High	-14.30	1.45
			52T	# Low	-	-
				# Mid	-	-
				High	-6.24	4.04
			106T	# Low	-	-
				# Mid	-	-
				High	3.73	3.03
			242T	# Low	-	-
				High	5.66	-0.30
			484T	Mid	6.45	-3.47
			SU	-	7.74	-2.02

9.5.5 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26T	# Low	-	-
				# Mid	-	-
				High	-12.01	3.33
			52T	# Low	-	-
				# Mid	-	-
				High	-4.37	5.93
			106T	# Low	-	-
				# Mid	-	-
				High	5.52	4.85
			242T	# Low	-	-
				High	7.38	1.50
			484T	Mid	7.74	-1.68
			SU	-	7.79	-1.56

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

9.5.6 Test data for Staddle Channel_Multiple Transmit

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26T	# Low	-	-
				# Mid	-	-
				High	-9.99	5.50
			52T	# Low	-	-
				# Mid	-	-
				High	-2.19	8.10
			106T	# Low	-	-
				# Mid	-	-
				High	7.73	7.05
			242T	# Low	-	-
				High	9.62	3.70
			484T	Mid	10.15	0.53
			SU	-	10.78	1.23

9.6 Test data for 802.11 ax(HE80) WLAN Mode

9.6.1 Test data for Antenna 0

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	1.94	3.86	3.81	3.76	4.04	-	-
			Mid	2.53	4.43	4.36	4.23	-	4.33	8.55
			High	3.10	5.03	4.87	4.76	4.72	-	-
UNII 2A	5290	58	Low	3.09	5.08	4.94	4.83	4.86	-	-
			Mid	2.96	4.96	4.91	4.88	-	4.82	6.54
			High	3.18	5.13	4.96	4.87	4.86	-	-
UNII 2C	5530	106	Low	2.24	4.28	4.14	4.10	4.22	-	-
			Mid	2.47	4.51	4.43	4.33	-	4.46	6.27
			High	3.20	5.21	4.98	4.80	4.78	-	-
UNII 3	5775	155	Low	4.44	4.42	4.33	4.21	4.51	-	-
			Mid	4.77	4.91	4.76	4.66	-	4.48	8.01
			High	4.12	4.22	4.18	4.23	4.57	-	-

9.6.2 Test data for Antenna 1

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	3.41	5.43	5.33	5.22	5.34	-	-
			Mid	3.53	5.53	5.47	5.41	-	5.50	8.27
			High	4.10	6.10	5.90	5.81	5.75	-	-
UNII 2A	5290	58	Low	4.16	6.09	5.98	5.85	5.87	-	-
			Mid	3.88	5.90	5.86	5.85	-	5.86	6.54
			High	4.28	6.24	6.07	5.88	5.90	-	-
UNII 2C	5530	106	Low	3.37	5.64	5.47	5.40	5.52	-	-
			Mid	3.59	5.77	5.67	5.60	-	5.71	6.27
			High	4.26	6.28	6.15	6.02	5.96	-	-
UNII 3	5775	155	Low	6.50	6.53	6.39	6.26	6.26	-	-
			Mid	5.91	6.13	6.11	6.19	-	5.91	7.47
			High	5.72	5.75	5.59	5.51	5.67	-	-

9.6.3 Test data for Multiple Transmit

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	Conducted Average Total Power (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	5.75	7.72	7.64	7.56	7.75	-	-
			Mid	6.07	8.02	7.96	7.87	-	7.96	11.42
			High	6.64	8.61	8.42	8.32	8.27	-	-
UNII 2A	5290	58	Low	6.67	8.62	8.50	8.38	8.40	-	-
			Mid	6.45	8.46	8.42	8.40	-	8.38	9.55
			High	6.77	8.73	8.56	8.41	8.42	-	-
UNII 2C	5530	106	Low	5.85	8.02	7.86	7.81	7.93	-	-
			Mid	6.08	8.19	8.10	8.02	-	8.14	9.28
			High	6.77	8.79	8.61	8.46	8.42	-	-
UNII 3	5775	155	Low	8.60	8.61	8.49	8.36	8.48	-	-
			Mid	8.39	8.57	8.50	8.50	-	8.26	10.76
			High	8.00	8.06	7.95	7.93	8.16	-	-

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

Remark. 3: Limit(UNII 3) : 30.00 dBm

9.6.4 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26T	# Low	-	-
				# Mid	-	-
				High	-15.24	2.00
			52T	# Low	-	-
				# Mid	-	-
				High	-7.11	3.63
			106T	# Low	-	-
				# Mid	-	-
				High	1.12	0.73
			242T	# Low	-	-
				# Mid	-	-
				High	2.80	-2.85
			484T	# Low	-	-
				High	3.65	-5.78
			996T	Mid	4.16	-8.89
			SU	-	5.03	-8.06

9.6.5 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26T	# Low	-	-
				# Mid	-	-
				High	-13.11	3.96
			52T	# Low	-	-
				# Mid	-	-
				High	-5.17	5.51
			106T	# Low	-	-
				# Mid	-	-
				High	2.86	2.53
			242T	# Low	-	-
				# Mid	-	-
				High	4.42	-0.93
			484T	# Low	-	-
				High	5.11	-3.96
			996T	Mid	5.32	-7.03
			SU	-	4.66	-7.70

9.6.6 Test data for Staddle Channel_Multiple Transmit

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Conducted Average Total Power (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26T	# Low	-	-
				# Mid	-	-
				High	-11.04	6.10
			52T	# Low	-	-
				# Mid	-	-
				High	-3.02	7.68
			106T	# Low	-	-
				# Mid	-	-
				High	5.08	4.73
			242T	# Low	-	-
				# Mid	-	-
				High	6.69	1.23
			484T	# Low	-	-
				High	7.45	-1.76
			996T	Mid	7.79	-4.85
			SU	-	7.86	-4.87

10. PEAK POWER SPECTRAL DENSITY

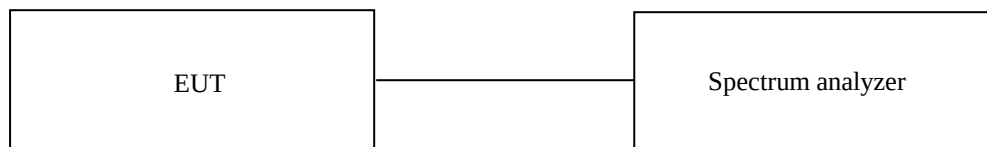
10.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

10.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz(500 kHz for frequency range 5 725 MHz ~ 5 850 MHz), the video bandwidth is set to 3 times the resolution bandwidth. The maximum level from the EUT in 1 MHz bandwidth was measured with above condition.



10.3 Test Date

December 05, 2021 ~ March 08, 2022

10.4 Test data for 802.11 ax(HE20) WLAN Mode

10.4.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	-0.46	-0.97	-1.03	-	-
			Mid	-1.53	-0.90	-	-1.29	0.49
			High	-0.39	-0.87	-1.17	-	-
	5220	44	Low	-0.18	-0.47	-0.81	-	-
			Mid	-1.27	-0.39	-	-1.05	0.63
			High	0.90	-0.09	-0.57	-	-
	5240	48	Low	0.22	-0.02	-0.53	-	-
			Mid	-0.85	0.03	-	-1.01	0.98
			High	0.28	-0.14	-0.29	-	-
UNII 2A	5260	52	Low	-0.26	-0.60	-0.44	-	-
			Mid	-1.34	-0.42	-	-0.88	0.16
			High	-0.04	-0.63	-0.40	-	-
	5300	60	Low	-0.03	-0.49	-0.45	-	-
			Mid	-1.10	-0.25	-	-1.22	0.05
			High	-0.28	-0.41	-0.41	-	-
	5320	64	Low	-0.28	-0.36	-0.40	-	-
			Mid	-1.16	-0.29	-	-0.94	0.06
			High	0.01	-0.64	-0.18	-	-
UNII 2C	5500	100	Low	-0.86	-1.63	-1.67	-	-
			Mid	-1.94	-1.25	-	-2.17	0.27
			High	-0.88	-1.40	-1.50	-	-
	5580	116	Low	-0.14	-0.70	-0.92	-	-
			Mid	-1.51	-0.38	-	-1.66	0.57
			High	-0.30	-0.97	-0.99	-	-
	5700	140	Low	-0.85	-1.01	-1.80	-	-
			Mid	-1.89	-0.80	-	-2.20	-0.17
			High	-1.10	-1.55	-2.08	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

HE20	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	3.59	1.03	-2.37	-	-
			Mid	3.26	1.35	-	-5.63	-3.00
			High	3.47	1.11	-1.61	-	-
	5785	157	Low	3.96	1.17	-1.59	-	-
			Mid	2.76	1.00	-	-5.25	-2.97
			High	3.84	0.19	-1.99	-	-
	5825	165	Low	3.27	0.35	-2.47	-	-
			Mid	2.50	0.55	-	-6.09	-3.43
			High	3.24	0.14	-2.04	-	-

10.4.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	-0.95	-1.19	-1.60	-	-
			Mid	-2.01	-0.99	-	-1.78	-0.16
			High	-0.52	-1.46	-1.48	-	-
	5220	44	Low	-0.56	-0.77	-1.21	-	-
			Mid	-1.75	-0.94	-	-1.72	0.25
			High	-0.12	-0.78	-1.46	-	-
	5240	48	Low	-0.62	-0.88	-1.20	-	-
			Mid	-1.81	-0.54	-	-1.71	0.42
			High	-0.47	-0.86	-1.12	-	-
UNII 2A	5260	52	Low	0.45	0.33	0.11	-	-
			Mid	-0.69	-0.05	-	-1.04	-0.01
			High	0.19	-0.12	-0.04	-	-
	5300	60	Low	0.44	-0.22	0.03	-	-
			Mid	-0.75	-0.10	-	-0.89	0.15
			High	0.56	0.10	0.10	-	-
	5320	64	Low	0.43	0.44	0.28	-	-
			Mid	-0.50	0.21	-	-0.66	0.22
			High	0.72	0.41	0.13	-	-
UNII 2C	5500	100	Low	-1.38	-1.60	-1.67	-	-
			Mid	-2.28	-1.20	-	-1.96	0.37
			High	-1.11	-1.60	-1.48	-	-
	5580	116	Low	-0.61	-0.64	-0.76	-	-
			Mid	-1.55	-0.77	-	-1.73	0.55
			High	-0.23	-0.64	-0.83	-	-
	5700	140	Low	-0.83	-1.37	-1.94	-	-
			Mid	-2.47	-1.39	-	-2.25	-0.37
			High	-1.10	-1.25	-1.78	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

HE20	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	4.08	1.42	-1.94	-	-
			Mid	3.16	1.11	-	-5.26	-3.05
			High	3.76	1.03	-1.79	-	-
	5785	157	Low	3.69	0.71	-1.75	-	-
			Mid	2.40	0.88	-	-5.94	-4.05
			High	3.33	0.31	-2.06	-	-
	5825	165	Low	3.99	0.96	-2.43	-	-
			Mid	3.18	0.79	-	-5.89	-3.70
			High	3.13	0.74	-2.11	-	-

10.4.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE20	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	2.31	1.93	1.70	-	-
			Mid	1.25	2.06	-	1.48	3.18
			High	2.56	1.85	1.69	-	-
	5220	44	Low	2.65	2.39	2.00	-	-
			Mid	1.51	2.35	-	1.64	3.45
			High	3.43	2.59	2.02	-	-
	5240	48	Low	2.83	2.58	2.16	-	-
			Mid	1.71	2.76	-	1.66	3.72
			High	2.93	2.52	2.32	-	-
UNII 2A	5260	52	Low	3.12	2.90	2.85	-	-
			Mid	2.01	2.78	-	2.05	3.08
			High	3.09	2.64	2.79	-	-
	5300	60	Low	3.22	2.65	2.81	-	-
			Mid	2.09	2.83	-	1.96	3.11
			High	3.17	2.86	2.86	-	-
	5320	64	Low	3.10	3.07	2.96	-	-
			Mid	2.19	2.98	-	2.21	3.15
			High	3.39	2.92	2.99	-	-
UNII 2C	5500	100	Low	1.90	1.39	1.34	-	-
			Mid	0.90	1.78	-	0.95	3.33
			High	2.02	1.51	1.52	-	-
	5580	116	Low	2.64	2.34	2.17	-	-
			Mid	1.48	2.44	-	1.31	3.57
			High	2.75	2.21	2.10	-	-
	5700	140	Low	2.17	1.82	1.14	-	-
			Mid	0.84	1.92	-	0.78	2.74
			High	1.91	1.61	1.08	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

HE20	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	6.85	4.24	0.86	-	-
			Mid	6.22	4.24	-	-2.43	-0.02
			High	6.63	4.08	1.31	-	-
	5785	157	Low	6.84	3.95	1.34	-	-
			Mid	5.60	3.95	-	-2.57	-0.47
			High	6.60	3.26	0.98	-	-
	5825	165	Low	6.66	3.67	0.56	-	-
			Mid	5.86	3.68	-	-2.98	-0.56
			High	6.20	3.46	0.93	-	-

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz

Remark. 3: Limit(UNII 3) : 30.0 dBm/500kHz

10.4.4 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	-1.49	-27.03
				Mid	-2.71	-26.65
				High	-20.70	-4.22
			52T	Low	-1.70	-24.44
				Mid	-1.81	-23.71
				High	-10.99	-5.36
			106T	Low	-1.94	-18.70
				High	-1.90	-5.11
			242T	Mid	-2.73	-5.95
			SU	-	-0.85	-4.03

10.4.5 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	0.03	-26.13
				Mid	-1.11	-23.56
				High	-21.25	-2.07
			52T	Low	-0.13	-24.56
				Mid	-0.20	-24.42
				High	-9.25	-3.33
			106T	Low	-0.48	-20.01
				High	-0.16	-3.21
			242T	Mid	-0.95	-4.42
			SU	-	-0.74	-3.98

10.4.6 Test data for Staddle Channel_Multiple Transmit

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26T	Low	2.35	-23.55
				Mid	1.17	-21.83
				High	-17.95	0.00
			52T	Low	2.16	-21.49
				Mid	2.08	-21.04
				High	-7.03	-1.22
			106T	Low	1.86	-16.30
				High	2.07	-1.05
			242T	Mid	1.26	-2.11
			SU	-	2.21	-1.00

10.5 Test data for 802.11 ax(HE40) WLAN Mode

10.5.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectrul Density					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	-0.54	-0.13	-1.21	-4.72	-	-
			Mid	0.02	-0.07	-1.33	-	-7.44	-5.40
			High	-0.44	0.09	-0.89	-4.57	-	-
	5230	46	Low	-0.32	0.29	-1.45	-4.15	-	-
			Mid	-0.48	0.47	-0.66	-	-7.19	-4.74
			High	-0.75	0.77	-0.66	-3.86	-	-
UNII 2A	5270	54	Low	-0.34	0.34	-0.40	-5.91	-	-
			Mid	-0.29	0.34	-0.24	-	-6.79	-5.81
			High	-0.01	0.16	-0.32	-5.78	-	-
	5310	62	Low	-0.20	0.34	-0.54	-5.98	-	-
			Mid	-0.38	0.08	-0.43	-	-6.45	-5.74
			High	0.17	0.04	-0.39	-5.97	-	-
UNII 2C	5510	102	Low	-1.27	-0.54	-1.99	-5.10	-	-
			Mid	-0.20	-0.45	-1.46	-	-7.95	-4.55
			High	-0.76	-0.31	-1.61	-5.03	-	-
	5550	110	Low	-1.12	-0.48	-1.41	-4.79	-	-
			Mid	0.15	-0.34	-1.61	-	-7.47	-4.12
			High	-0.52	-0.03	-1.43	-4.98	-	-
	5670	134	Low	-1.25	-0.16	-1.58	-4.98	-	-
			Mid	0.03	0.08	-1.03	-	-7.67	-4.61
			High	-0.91	-0.01	-1.54	-4.86	-	-
UNII 3	5755	151	Low	-0.22	-1.50	-4.30	-8.12	-	-
			Mid	0.74	-1.15	-4.61	-	-10.40	-6.53
			High	0.14	-1.23	-3.86	-7.42	-	-
	5795	159	Low	0.33	-1.87	-4.66	-7.82	-	-
			Mid	0.46	-2.20	-4.55	-	-10.94	-7.25
			High	-0.96	-2.32	-5.05	-8.51	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

10.5.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectrul Density					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	-1.35	-0.70	-1.81	-5.17	-	-
			Mid	-0.26	-0.58	-1.83	-	-7.96	-6.03
			High	-0.51	-0.53	-1.65	-5.01	-	-
	5230	46	Low	-0.82	-0.40	-1.61	-4.85	-	-
			Mid	-0.99	-0.10	-1.31	-	-7.81	-5.38
			High	-1.35	0.09	-1.43	-4.77	-	-
UNII 2A	5270	54	Low	0.32	0.80	0.10	-5.47	-	-
			Mid	0.04	0.60	0.01	-	-6.36	-6.44
			High	0.36	0.94	0.06	-5.43	-	-
	5310	62	Low	0.51	0.51	-0.16	-5.39	-	-
			Mid	0.15	0.87	0.03	-	-6.10	-6.11
			High	0.58	0.93	0.12	-5.19	-	-
UNII 2C	5510	102	Low	-1.10	-0.49	-1.50	-4.95	-	-
			Mid	-0.30	-0.57	-1.33	-	-7.77	-4.62
			High	-1.11	-0.07	-1.79	-5.03	-	-
	5550	110	Low	-0.85	-0.08	-1.47	-4.56	-	-
			Mid	0.24	-0.09	-1.35	-	-7.49	-4.08
			High	-0.51	0.05	-1.23	-4.70	-	-
	5670	134	Low	-1.09	-0.41	-1.31	-4.95	-	-
			Mid	-0.57	-0.39	-1.33	-	-7.82	-5.03
			High	-1.60	-0.37	-1.56	-4.77	-	-
UNII 3	5755	151	Low	0.14	-1.65	-4.62	-8.13	-	-
			Mid	0.64	-1.72	-5.00	-	-10.85	-7.09
			High	-0.65	-2.12	-5.21	-8.14	-	-
	5795	159	Low	-0.59	-2.08	-5.24	-8.43	-	-
			Mid	0.35	-2.59	-5.05	-	-11.49	-7.81
			High	-0.21	-2.04	-4.71	-8.67	-	-

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

10.5.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE40	Frequency [MHz]	Channel No.	RU Index	Peak Power Spectrual Density					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	2.09	2.61	1.51	-1.93	-	-
			Mid	2.89	2.69	1.44	-	-4.68	-2.69
			High	2.54	2.80	1.76	-1.77	-	-
	5230	46	Low	2.45	2.97	1.48	-1.48	-	-
			Mid	2.28	3.21	2.04	-	-4.48	-2.03
			High	1.97	3.45	1.98	-1.28	-	-
UNII 2A	5270	54	Low	3.01	3.59	2.87	-2.67	-	-
			Mid	2.89	3.48	2.90	-	-3.56	-3.10
			High	3.19	3.58	2.89	-2.59	-	-
	5310	62	Low	3.18	3.44	2.67	-2.66	-	-
			Mid	2.91	3.50	2.82	-	-3.26	-2.91
			High	3.39	3.52	2.88	-2.55	-	-
UNII 2C	5510	102	Low	1.83	2.50	1.27	-2.01	-	-
			Mid	2.76	2.50	1.62	-	-4.85	-1.57
			High	2.08	2.82	1.31	-2.02	-	-
	5550	110	Low	2.03	2.74	1.57	-1.66	-	-
			Mid	3.21	2.80	1.53	-	-4.47	-1.09
			High	2.50	3.02	1.68	-1.83	-	-
	5670	134	Low	1.84	2.73	1.57	-1.95	-	-
			Mid	2.75	2.86	1.83	-	-4.73	-1.80
			High	1.77	2.83	1.46	-1.80	-	-
UNII 3	5755	151	Low	2.98	1.44	-1.45	-5.11	-	-
			Mid	3.70	1.59	-1.79	-	-7.61	-3.79
			High	2.77	1.36	-1.47	-4.75	-	-
	5795	159	Low	2.91	1.04	-1.93	-5.10	-	-
			Mid	3.42	0.62	-1.78	-	-8.20	-4.51
			High	2.44	0.83	-1.87	-5.58	-	-

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz

Remark. 3: Limit(UNII 3) : 30.0 dBm/500kHz

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

10.5.4 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26T	Low	-1.33	-43.04
				Mid	-1.89	-49.16
				High	-20.86	-4.84
			52T	Low	-1.88	-41.92
				Mid	-2.20	-47.18
				High	-5.54	-5.09
			106T	Low	-1.63	-40.72
				Mid	-1.82	-44.50
				High	-2.79	-5.35
			242T	Low	-4.87	-42.04
				High	-5.79	-8.92
			484T	Mid	-8.23	-11.81
			SU	-	-5.70	-9.40

10.5.5 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26T	Low	0.12	-41.94
				Mid	-0.20	-45.52
				High	-21.34	-2.30
			52T	Low	-0.48	-39.78
				Mid	-0.63	-45.52
				High	-2.47	-3.12
			106T	Low	-0.60	-39.56
				Mid	-0.57	-42.10
				High	-0.63	-3.72
			242T	Low	-4.06	-40.36
				High	-3.76	-7.06
			484T	Mid	-6.82	-9.85
			SU	-	-6.01	-8.92

10.5.6 Test data for Staddle Channel_Multiple Transmit

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26T	Low	2.47	-39.44
				Mid	2.05	-43.96
				High	-18.08	-0.37
			52T	Low	1.89	-37.71
				Mid	1.67	-43.26
				High	-0.73	-0.98
			106T	Low	1.93	-37.09
				Mid	1.86	-40.12
				High	1.43	-1.45
			242T	Low	-1.44	-38.11
				High	-1.65	-4.88
			484T	Mid	-4.46	-7.71
			SU	-	-2.84	-6.14

10.6 Test data for 802.11 ax(HE80) WLAN Mode

10.6.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	-0.25	-1.27	-3.99	-7.30	-9.92	-	-
			Mid	-1.36	-0.85	-3.67	-6.90	-	-12.48	-8.44
			High	0.41	-0.18	-3.15	-6.49	-9.58	-	-
UNII 2A	5290	58	Low	0.32	-1.02	-3.64	-6.68	-9.64	-	-
			Mid	-1.58	-0.62	-2.91	-6.83	-	-13.02	-10.52
			High	0.18	-0.59	-3.14	-6.61	-9.46	-	-
UNII 2C	5530	106	Low	-0.45	-1.64	-4.45	-7.84	-10.50	-	-
			Mid	-1.61	-1.50	-3.98	-7.20	-	-12.98	-10.81
			High	0.19	-0.97	-3.77	-7.38	-10.30	-	-
UNII 3	5775	155	Low	-1.61	-4.48	-7.48	-10.42	-12.84	-	-
			Mid	-1.97	-4.00	-6.67	-9.92	-	-16.18	-11.93
			High	-1.75	-5.43	-7.33	-11.26	-13.02	-	-

10.6.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	Peak Power Spectrul Density (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	-0.22	-1.26	-4.25	-7.69	-10.12	-	-
			Mid	-2.09	-1.12	-3.97	-7.26	-	-13.07	-9.07
			High	0.11	-0.98	-3.75	-7.04	-9.74	-	-
UNII 2A	5290	58	Low	0.57	-0.17	-3.04	-6.67	-9.55	-	-
			Mid	-0.76	-0.04	-2.86	-6.13	-	-12.19	-11.25
			High	0.90	-0.06	-2.77	-6.14	-9.06	-	-
UNII 2C	5530	106	Low	-0.42	-1.68	-4.14	-7.76	-10.60	-	-
			Mid	-1.83	-1.51	-3.87	-6.92	-	-13.16	-11.23
			High	0.32	-1.23	-3.58	-7.21	-10.13	-	-
UNII 3	5775	155	Low	-0.83	-4.38	-7.04	-10.70	-13.75	-	-
			Mid	-2.86	-5.43	-7.73	-11.29	-	-16.89	-12.55
			High	-1.81	-5.03	-7.71	-11.43	-14.20	-	-

10.6.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

HE80	Freq. [MHz]	Channel No.	RU Index	Peak Power Spectral Density (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	2.77	1.75	-1.11	-4.48	-7.01	-	-
			Mid	1.30	2.03	-0.80	-4.06	-	-9.75	-5.73
			High	3.27	2.45	-0.43	-3.74	-6.65	-	-
UNII 2A	5290	58	Low	3.46	2.44	-0.32	-3.66	-6.58	-	-
			Mid	1.86	2.69	0.13	-3.45	-	-9.57	-7.86
			High	3.56	2.70	0.06	-3.36	-6.24	-	-
UNII 2C	5530	106	Low	2.57	1.35	-1.28	-4.79	-7.54	-	-
			Mid	1.29	1.51	-0.91	-4.05	-	-10.06	-8.00
			High	3.26	1.91	-0.66	-4.28	-7.20	-	-
UNII 3	5775	155	Low	1.81	-1.42	-4.24	-7.54	-10.26	-	-
			Mid	0.62	-1.64	-4.15	-7.54	-	-13.51	-9.22
			High	1.23	-2.21	-4.50	-8.33	-10.56	-	-

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz

Remark. 3: Limit(UNII 3) : 30.0 dBm/500kHz

10.6.4 Test data for Staddle Channel_Antenna 0

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectrul Density (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26T	Low	-1.75	-35.66
				Mid	-2.96	-50.47
				High	-23.92	-4.84
			52T	Low	-1.70	-35.42
				Mid	-1.43	-48.70
				High	-5.56	-5.09
			106T	Low	-4.51	-37.65
				Mid	-4.14	-49.35
				High	-5.18	-8.07
			242T	Low	-7.46	-39.30
				Mid	-7.69	-49.06
				High	-8.51	-11.78
			484T	Low	-10.71	-41.53
				High	-11.12	-14.21
			996T	Mid	-13.70	-18.13
			SU	-	-11.84	-16.06

10.6.5 Test data for Staddle Channel_Antenna 1

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectral Density (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26T	Low	-0.17	-34.48
				Mid	-1.63	-48.05
				High	-23.99	-2.98
			52T	Low	-0.47	-32.95
				Mid	-0.69	-46.49
				High	-3.74	-3.06
			106T	Low	-3.20	-33.69
				Mid	-3.20	-45.93
				High	-3.48	-5.83
			242T	Low	-6.54	-38.45
				Mid	-6.66	-44.21
				High	-6.98	-9.88
			484T	Low	-9.65	-39.98
				High	-9.56	-12.60
			996T	Mid	-12.77	-16.36
			SU	-	-12.37	-15.61

10.6.6 Test data for Staddle Channel_Multiple Transmit

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Peak Power Spectrul Density (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26T	Low	2.12	-32.02
				Mid	0.76	-46.08
				High	-20.95	-0.80
			52T	Low	1.97	-31.00
				Mid	1.97	-44.44
				High	-1.54	-0.95
			106T	Low	-0.79	-32.22
				Mid	-0.63	-44.30
				High	-1.24	-3.79
			242T	Low	-3.96	-35.84
				Mid	-4.13	-42.98
				High	-4.67	-7.71
			484T	Low	-7.14	-37.67
				High	-7.26	-10.32
			996T	Mid	-10.20	-14.14
			SU	-	-9.09	-12.82

11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION

11.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

11.2 Test set-up

Turn EUT off and set chamber temperature to -20 °C and then allow sufficient time (approximately 20 min to 30 min after chamber reach the assigned temperature) for EUT to stabilize. Turn on the EUT and measure the EUT operating frequency and then turn off the EUT after the measurement. The temperature in the chamber was raised 10 °C step from -20 °C to +50 °C. Repeat above method for frequency measurements every 10 °C step and then record all measured frequencies on each temperature step.



11.3 Test Date

December 05, 2021 ~ March 08, 2022

11.4 Test Data for U-NII-1

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 180 000 000	5 180 001 366	1 366
-10		5 180 002 752	2 752
0		5 180 006 969	6 969
10		5 180 009 927	9 927
20		5 180 010 933	10 933
30		5 180 012 673	12 673
40		5 180 017 111	17 111
50		5 180 019 341	19 341
-20	5 220 000 000	5 220 003 508	3 508
-10		5 220 006 914	6 914
0		5 220 008 135	8 135
10		5 220 010 881	10 881
20		5 220 015 505	15 505
30		5 220 019 907	19 907
40		5 220 021 742	21 742
50		5 220 026 243	26 243
-20	5 240 000 000	5 240 002 662	2 662
-10		5 240 006 225	6 225
0		5 240 008 915	8 915
10		5 240 011 501	11 501
20		5 240 013 357	13 357
30		5 240 017 331	17 331
40		5 240 019 989	19 989
50		5 240 021 198	21 198

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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 U-NII-2A

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 260 000 000	5 260 004 142	4 142
-10		5 260 008 306	8 306
0		5 260 011 979	11 979
10		5 260 013 970	13 970
20		5 260 017 331	17 331
30		5 260 019 863	19 863
40		5 260 024 392	24 392
50		5 260 028 032	28 032
-20	5 300 000 000	5 300 002 548	2 548
-10		5 300 004 891	4 891
0		5 300 006 250	6 250
10		5 300 009 176	9 176
20		5 300 013 695	13 695
30		5 300 015 963	15 963
40		5 300 018 037	18 037
50		5 300 021 944	21 944
-20	5 320 000 000	5 320 002 864	2 864
-10		5 320 005 075	5 075
0		5 320 006 360	6 360
10		5 320 008 458	8 458
20		5 320 011 248	11 248
30		5 320 012 251	12 251
40		5 320 014 989	14 989
50		5 320 017 785	17 785

11.6 Test Data for U-NII-2C

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 500 000 000	5 500 001 900	1 900
-10		5 500 005 477	5 477
0		5 500 006 625	6 625
10		5 500 008 268	8 268
20		5 500 012 701	12 701
30		5 500 017 150	17 150
40		5 500 020 754	20 754
50		5 500 024 227	24 227
-20	5 580 000 000	5 580 002 167	2 167
-10		5 580 006 420	6 420
0		5 580 009 124	9 124
10		5 580 011 549	11 549
20		5 580 014 078	14 078
30		5 580 017 415	17 415
40		5 580 018 867	18 867
50		5 580 023 601	23 601
-20	5 700 000 000	5 700 002 292	2 292
-10		5 700 004 389	4 389
0		5 700 006 306	6 306
10		5 700 007 484	7 484
20		5 700 012 376	12 376
30		5 700 016 704	16 704
40		5 700 018 955	18 955
50		5 700 021 122	21 122

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

11.7 Test Data for U-NII-3

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 745 000 000	5 745 003 196	3 196
-10		5 745 005 661	5 661
0		5 745 010 003	10 003
10		5 745 013 626	13 626
20		5 745 018 313	18 313
30		5 745 020 270	20 270
40		5 745 021 942	21 942
50		5 745 025 142	25 142
-20	5 785 000 000	5 785 003 181	3 181
-10		5 785 007 104	7 104
0		5 785 008 408	8 408
10		5 785 011 217	11 217
20		5 785 014 709	14 709
30		5 785 016 741	16 741
40		5 785 021 571	21 571
50		5 785 026 072	26 072
-20	5 825 000 000	5 825 004 189	4 189
-10		5 825 006 490	6 490
0		5 825 011 447	11 447
10		5 825 013 897	13 897
20		5 825 017 840	17 840
30		5 825 020 785	20 785
40		5 825 023 505	23 505
50		5 825 027 155	27 155

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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. FREQUENCY STABILITY WITH VOLTAGE VARIATION

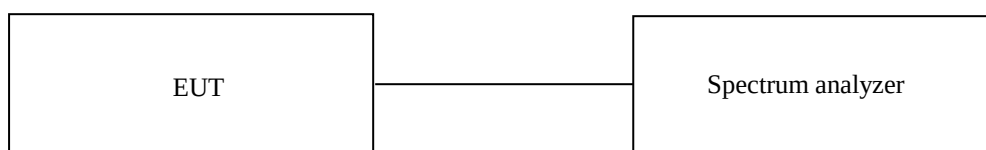
12.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

12.2 Test set-up

An external DC power supply was connected to the input of the EUT. The voltage of EUT set to 115 % of the nominal value and then was reduced to 85 % of nominal voltage. The output frequency was recorded at each step.



12.3 Test Date

December 05, 2021 ~ March 08, 2022

12.4 Test Data for U-NII-1

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
3.30	5 180 000 000	5 180 018 812	18 812
2.97		5 180 018 684	18 684
3.63		5 180 019 008	19 008
3.30	5 220 000 000	5 220 014 007	14 007
2.97		5 220 013 876	13 876
3.63		5 220 014 157	14 157
3.30	5 240 000 000	5 240 019 240	19 240
2.97		5 240 019 126	19 126
3.63		5 240 019 425	19 425

12.5 Test Data for U-NII-2A

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
3.30	5 180 000 000	5 260 019 103	19 103
2.97		5 260 018 978	18 978
3.63		5 260 019 298	19 298
3.30	5 220 000 000	5 300 017 208	17 208
2.97		5 300 017 081	17 081
3.63		5 300 017 394	17 394
3.30	5 240 000 000	5 320 018 918	18 918
2.97		5 320 018 814	18 814
3.63		5 320 019 074	19 074

12.6 Test Data for U-NII-2C

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
3.30	5 500 000 000	5 500 015 812	15 812
2.97		5 500 015 707	15 707
3.63		5 500 015 954	15 954
3.30	5 580 000 000	5 580 014 367	14 367
2.97		5 580 014 262	14 262
3.63		5 580 014 537	14 537
3.30	5 700 000 000	5 700 018 512	18 512
2.97		5 700 018 372	18 372
3.63		5 700 018 695	18 695

12.7 Test Data for U-NII-3

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
3.30	5 745 000 000	5 745 019 027	19 027
2.97		5 745 018 897	18 897
3.63		5 745 019 194	19 194
3.30	5 785 000 000	5 785 016 134	16 134
2.97		5 785 016 008	16 008
3.63		5 785 016 304	16 304
3.30	5 825 000 000	5 825 014 106	14 106
2.97		5 825 013 983	13 983
3.63		5 825 014 289	14 289

13. RADIATED SPURIOUS EMISSIONS

13.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

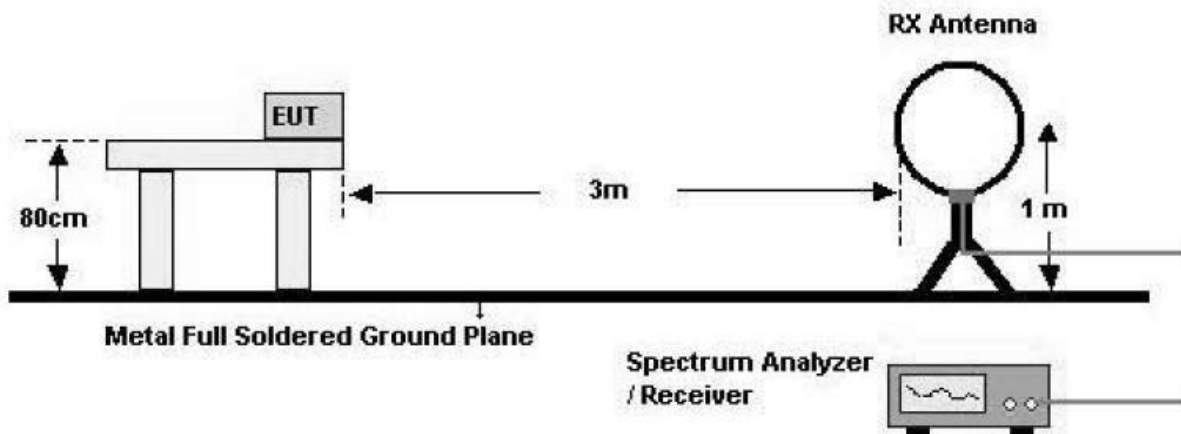
13.2 Test set-up for conducted measurement

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive 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.

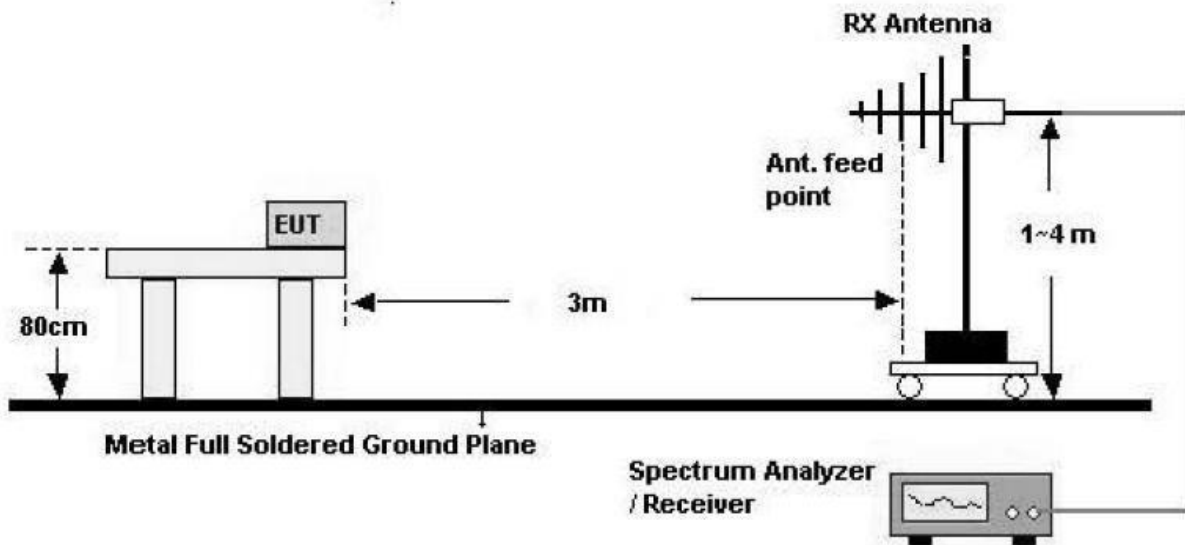
The frequency spectrum from 30 MHz to 40 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

- Test Configuration

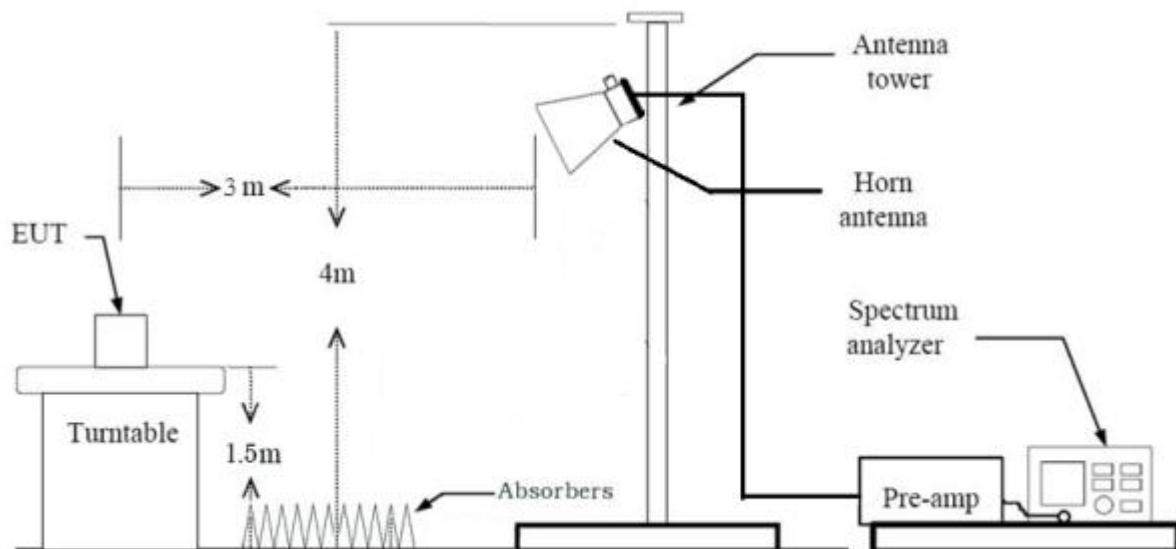
1. Below 30 MHz



2. 30 MHz - 1 GHz



3. Above 1 GHz



13.3 Test Date

December 05, 2021 ~ March 08, 2022

13.4 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.									

13.5 Test data for 30 MHz ~ 1 000 MHz

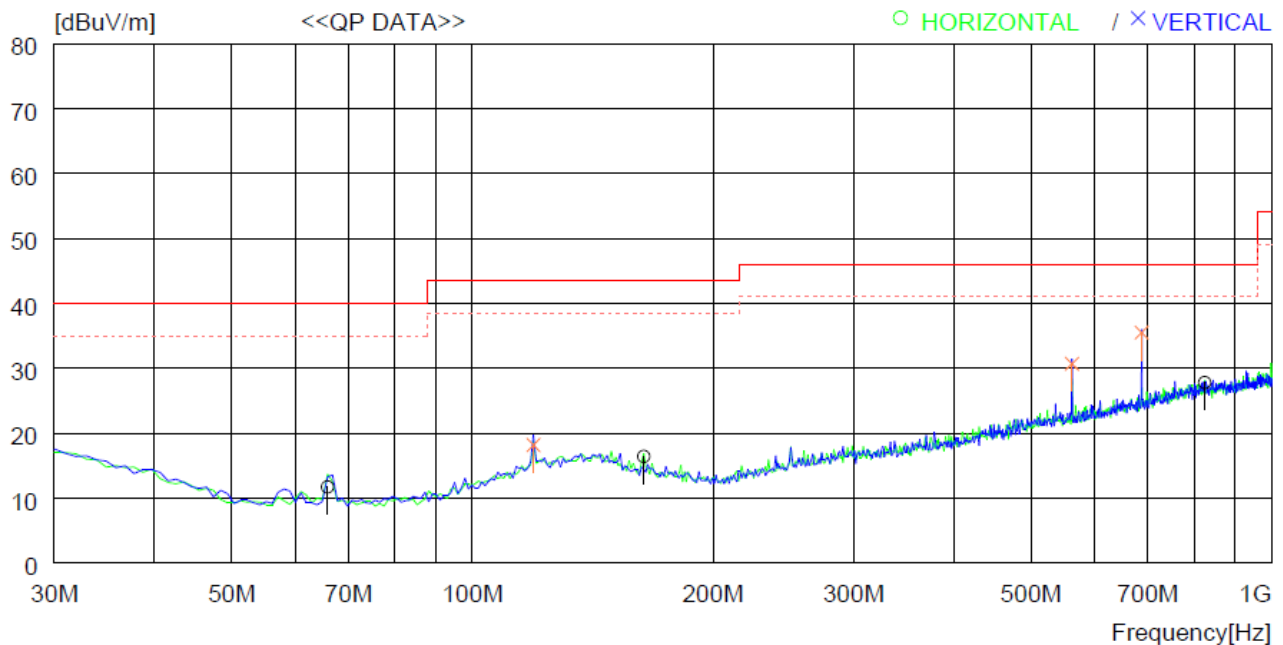
13.5.1 Test data for WLAN 5 GHz AX Mode

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

Result : PASSED

EUT : RF Module

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



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
		QP	FACTOR							
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	65.890	29.6	12.6	1.5	32.0	11.7	40.0	28.3	100	359
2	163.860	28.6	17.6	2.3	32.1	16.4	43.5	27.1	200	0
3	824.421	27.8	27.2	5.0	32.2	27.8	46.0	18.2	100	265
----- Vertical -----										
4	119.240	29.8	18.5	2.0	32.1	18.2	43.5	25.3	200	119
5	562.529	35.2	23.8	4.1	32.4	30.7	46.0	15.3	100	359
6	687.655	37.9	25.4	4.6	32.4	35.5	46.0	10.5	100	150

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

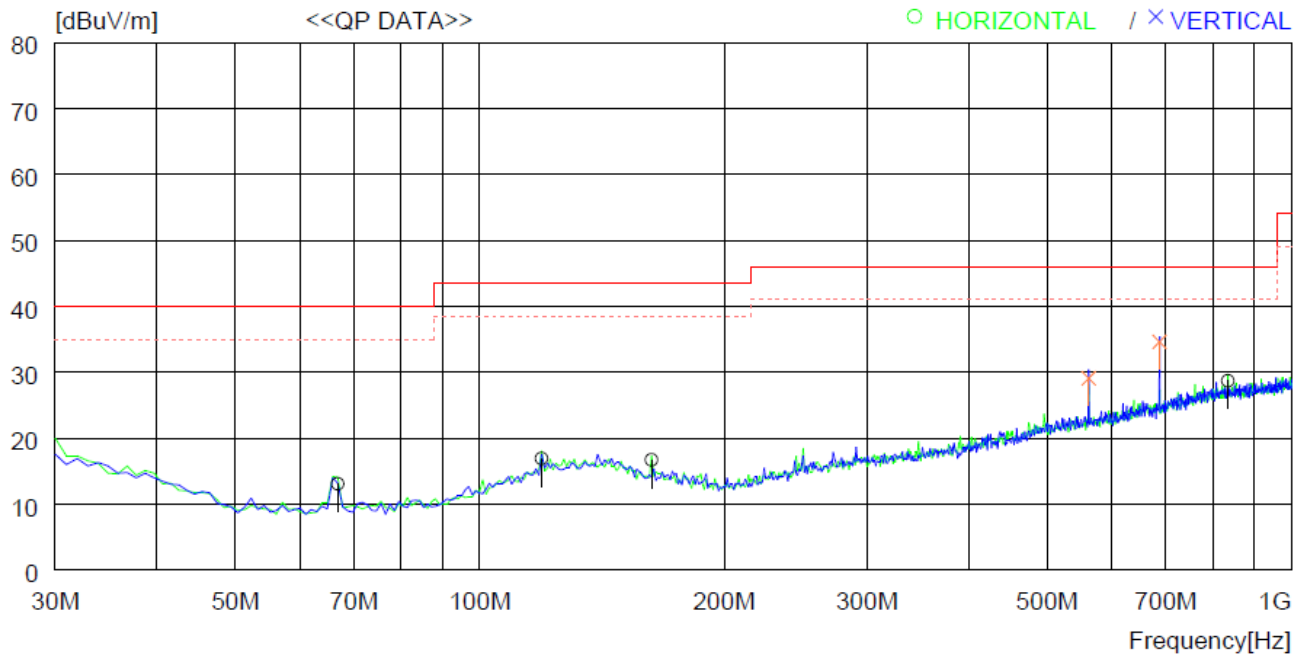
13.5.2 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + Bluetooth)

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

Result : PASSED

EUT : RF Module

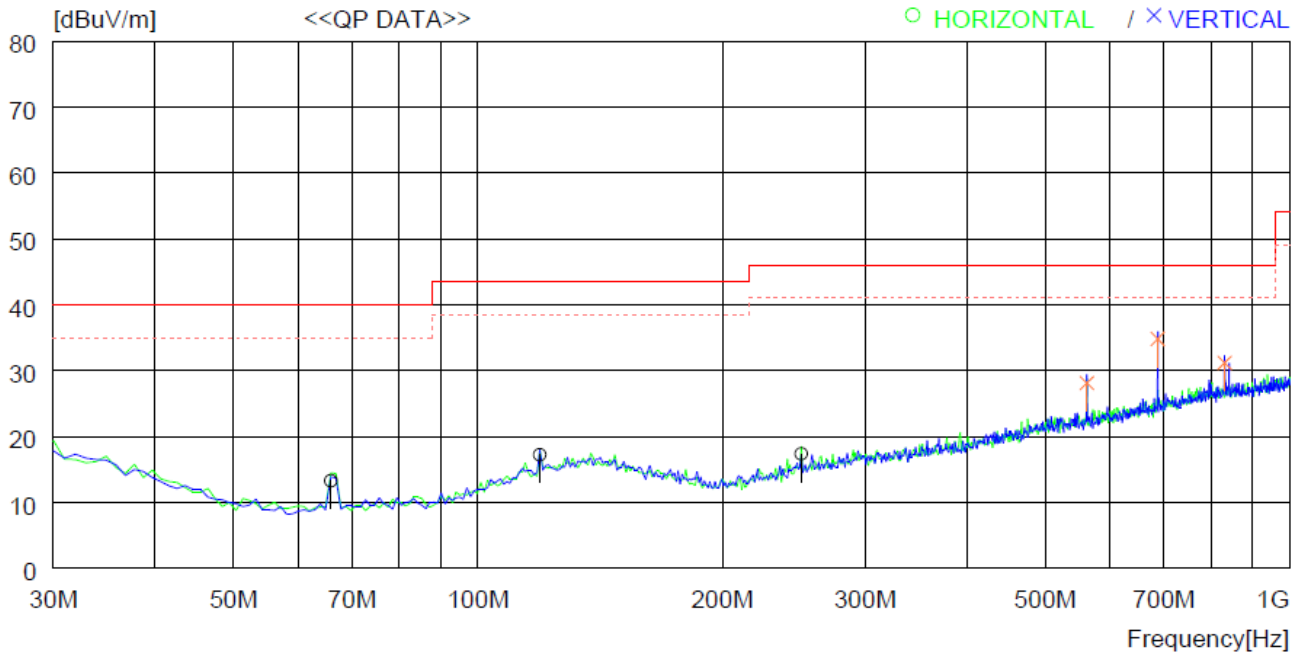
Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	66.860	30.9	12.6	1.6	32.0	13.1	40.0	26.9	100	174
2	119.240	28.5	18.5	2.0	32.1	16.9	43.5	26.6	200	0
3	162.890	28.8	17.7	2.3	32.1	16.7	43.5	26.8	100	350
4	835.091	28.6	27.2	5.1	32.2	28.7	46.0	17.3	100	359
----- Vertical -----										
5	562.529	33.6	23.8	4.1	32.4	29.1	46.0	16.9	100	359
6	687.655	37.0	25.4	4.6	32.4	34.6	46.0	11.4	100	191

13.5.3 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + Bluetooth LE)

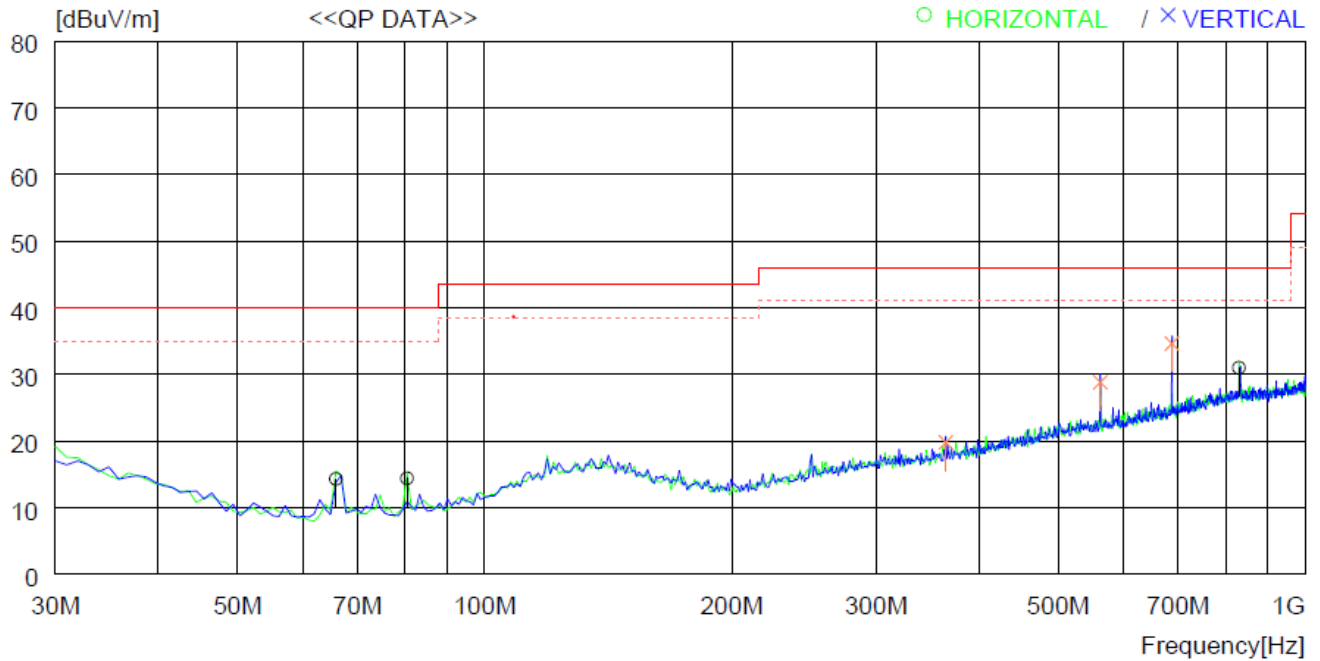
- Resolution bandwidth : 120 kHz
- Frequency range : 30 MHz ~ 1 000 MHz
- Measurement distance : 3 m



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	65.890	31.2	12.6	1.5	32.0	13.3	40.0	26.7	100	359
2	119.240	28.8	18.5	2.0	32.1	17.2	43.5	26.3	200	0
3	250.190	29.0	17.8	2.8	32.2	17.4	46.0	28.6	200	0
----- Vertical -----										
4	562.529	32.6	23.8	4.1	32.4	28.1	46.0	17.9	100	359
5	687.655	37.2	25.4	4.6	32.4	34.8	46.0	11.2	100	184
6	831.211	31.1	27.2	5.1	32.2	31.2	46.0	14.8	200	256

13.5.4 Test data for Intermodulation Mode(WLAN 5 GHz AX Mode + WLAN 2 GHz AX Mode)

- Resolution bandwidth : 120 kHz
- Frequency range : 30 MHz ~ 1 000 MHz
- Measurement distance : 3 m



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	65.890	32.2	12.6	1.5	32.0	14.3	40.0	25.7	100	359
2	80.440	31.8	12.9	1.7	32.0	14.4	40.0	25.6	100	359
3	830.241	30.9	27.2	5.1	32.2	31.0	46.0	15.0	200	314
----- Vertical -----										
4	364.650	28.5	20.2	3.3	32.2	19.8	46.0	26.2	100	264
5	562.529	33.3	23.8	4.1	32.4	28.8	46.0	17.2	100	359
6	687.655	37.0	25.4	4.6	32.4	34.6	46.0	11.4	100	359

13.6 Test data for Above 1 GHz

13.6.1 Test data for UNII-1

13.6.1.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	36	4
	44	4
	48	4

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 360.00	55.21	Peak	H	39.20	11.31	-	46.00	59.72	68.20	8.48
	10 360.00	56.41	Peak	V	39.20	11.31	-	46.00	60.92	68.20	7.28
Middle ch. Harmonic	10 440.00	55.89	Peak	H	39.30	11.35	-	46.00	60.54	68.20	7.66
	10 440.00	55.23	Peak	V	39.30	11.35	-	46.00	59.88	68.20	8.32
High ch. Harmonic	10 480.00	55.50	Peak	H	39.40	11.36	-	46.00	60.26	68.20	7.94
	10 480.00	55.24	Peak	V	39.40	11.36	-	46.00	60.00	68.20	8.20

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	36	38
	44	38
	48	38

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 360.00	55.48	Peak	H	39.20	11.31	-	46.00	59.99	68.20	8.21
	10 360.00	55.61	Peak	V	39.20	11.31	-	46.00	60.12	68.20	8.08
Middle ch. Harmonic	10 440.00	55.29	Peak	H	39.30	11.35	-	46.00	59.94	68.20	8.26
	10 440.00	55.33	Peak	V	39.30	11.35	-	46.00	59.98	68.20	8.22
High ch. Harmonic	10 480.00	55.51	Peak	H	39.40	11.36	-	46.00	60.27	68.20	7.93
	10 480.00	55.53	Peak	V	39.40	11.36	-	46.00	60.29	68.20	7.91

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	36	53
	44	53
	48	53

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 360.00	55.44	Peak	H	39.20	11.31	-	46.00	59.95	68.20	8.25
	10 360.00	55.51	Peak	V	39.20	11.31	-	46.00	60.02	68.20	8.18
Middle ch. Harmonic	10 440.00	55.56	Peak	H	39.30	11.35	-	46.00	60.21	68.20	7.99
	10 440.00	55.38	Peak	V	39.30	11.35	-	46.00	60.03	68.20	8.17
High ch. Harmonic	10 480.00	55.41	Peak	H	39.40	11.36	-	46.00	60.17	68.20	8.03
	10 480.00	55.57	Peak	V	39.40	11.36	-	46.00	60.33	68.20	7.87

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	36	61
	44	61
	48	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 360.00	55.41	Peak	H	39.20	11.31	-	46.00	59.92	68.20	8.28
	10 360.00	55.36	Peak	V	39.20	11.31	-	46.00	59.87	68.20	8.33
Middle ch. Harmonic	10 440.00	55.19	Peak	H	39.30	11.35	-	46.00	59.84	68.20	8.36
	10 440.00	55.43	Peak	V	39.30	11.35	-	46.00	60.08	68.20	8.12
High ch. Harmonic	10 480.00	55.62	Peak	H	39.40	11.36	-	46.00	60.38	68.20	7.82
	10 480.00	55.48	Peak	V	39.40	11.36	-	46.00	60.24	68.20	7.96

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	36	-
	44	-
	48	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 360.00	59.36	Peak	H	39.20	11.31	-	46.00	63.87	68.20	4.33
	10 360.00	57.51	Peak	V	39.20	11.31	-	46.00	62.02	68.20	6.18
Middle ch. Harmonic	10 440.00	59.63	Peak	H	39.30	11.35	-	46.00	64.28	68.20	3.92
	10 440.00	56.02	Peak	V	39.30	11.35	-	46.00	60.67	68.20	7.53
High ch. Harmonic	10 480.00	60.14	Peak	H	39.40	11.36	-	46.00	64.90	68.20	3.30
	10 480.00	56.12	Peak	V	39.40	11.36	-	46.00	60.88	68.20	7.32

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

13.6.1.2 Test data for 802.11 ax(HE40) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	38	8
	46	8

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 380.00	52.68	Peak	H	39.20	11.31	-	46.00	57.19	68.20	11.01
	10 380.00	52.33	Peak	V	39.20	11.31	-	46.00	56.84	68.20	11.36
High ch. Harmonic	10 460.00	52.51	Peak	H	39.40	11.36	-	46.00	57.27	68.20	10.93
	10 460.00	52.16	Peak	V	39.40	11.36	-	46.00	56.92	68.20	11.28

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	38	40
	46	40

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 380.00	52.13	Peak	H	39.20	11.31	-	46.00	56.64	68.20	11.56
	10 380.00	52.22	Peak	V	39.20	11.31	-	46.00	56.73	68.20	11.47
High ch. Harmonic	10 460.00	52.65	Peak	H	39.40	11.36	-	46.00	57.41	68.20	10.79
	10 460.00	52.18	Peak	V	39.40	11.36	-	46.00	56.94	68.20	11.26

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	38	54
	46	54

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 380.00	52.61	Peak	H	39.20	11.31	-	46.00	57.12	68.20	11.08
	10 380.00	52.63	Peak	V	39.20	11.31	-	46.00	57.14	68.20	11.06
High ch. Harmonic	10 460.00	52.11	Peak	H	39.40	11.36	-	46.00	56.87	68.20	11.33
	10 460.00	52.08	Peak	V	39.40	11.36	-	46.00	56.84	68.20	11.36

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	38	61
	46	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 380.00	55.18	Peak	H	39.20	11.31	-	46.00	59.69	68.20	8.51
	10 380.00	54.66	Peak	V	39.20	11.31	-	46.00	59.17	68.20	9.03
High ch. Harmonic	10 460.00	55.69	Peak	H	39.40	11.36	-	46.00	60.45	68.20	7.75
	10 460.00	54.81	Peak	V	39.40	11.36	-	46.00	59.57	68.20	8.63

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	38	65
	46	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 380.00	52.88	Peak	H	39.20	11.31	-	46.00	57.39	68.20	10.81
	10 380.00	51.96	Peak	V	39.20	11.31	-	46.00	56.47	68.20	11.73
High ch. Harmonic	10 460.00	52.38	Peak	H	39.40	11.36	-	46.00	57.14	68.20	11.06
	10 460.00	51.96	Peak	V	39.40	11.36	-	46.00	56.72	68.20	11.48

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	38	-
	46	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 380.00	56.10	Peak	H	39.20	11.31	-	46.00	60.61	68.20	7.59
	10 380.00	56.68	Peak	V	39.20	11.31	-	46.00	61.19	68.20	7.01
High ch. Harmonic	10 460.00	56.36	Peak	H	39.40	11.36	-	46.00	61.12	68.20	7.08
	10 460.00	55.77	Peak	V	39.40	11.36	-	46.00	60.53	68.20	7.67

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

13.6.1.3 Test data for 802.11 ax(HE80) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	42	18

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	51.84	Peak	H	39.30	11.35	-	46.00	56.49	68.20	11.71
	10 440.00	52.32	Peak	V	39.30	11.35	-	46.00	56.97	68.20	11.23

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	42	44

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	52.04	Peak	H	39.30	11.35	-	46.00	56.69	68.20	11.51
	10 440.00	52.19	Peak	V	39.30	11.35	-	46.00	56.84	68.20	11.36

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	42	56

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	52.73	Peak	H	39.30	11.35	-	46.00	57.38	68.20	10.82
	10 440.00	51.63	Peak	V	39.30	11.35	-	46.00	56.28	68.20	11.92

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	42	62

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	54.34	Peak	H	39.30	11.35	-	46.00	58.99	68.20	9.21
	10 440.00	51.85	Peak	V	39.30	11.35	-	46.00	56.50	68.20	11.70

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	42	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	54.35	Peak	H	39.30	11.35	-	46.00	59.00	68.20	9.20
	10 440.00	52.33	Peak	V	39.30	11.35	-	46.00	56.98	68.20	11.22

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 996 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
996	42	67

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	51.70	Peak	H	39.30	11.35	-	46.00	56.35	68.20	11.85
	10 440.00	51.08	Peak	V	39.30	11.35	-	46.00	55.73	68.20	12.47

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	42	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 440.00	57.32	Peak	H	39.30	11.35	-	46.00	61.97	68.20	6.23
	10 440.00	55.78	Peak	V	39.30	11.35	-	46.00	60.43	68.20	7.77

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

Spurious emission (Test Data above 1 GHz except for harmonic)

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
It was not observed any emissions from the EUT.											

13.6.2 Test data for UNII-2A

13.6.2.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	52	4
	60	4
	64	4

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 520.00	52.33	Peak	H	39.40	11.30	-	46.05	56.98	68.20	11.22
	10 520.00	52.41	Peak	V	39.40	11.30	-	46.05	57.06	68.20	11.14
Middle ch. Harmonic	10 600.00	51.85	Peak	H	39.40	11.41	-	46.05	56.61	74.00	17.39
	10 600.00	40.65	Average	H	39.40	11.41	0.58	46.05	45.99	54.00	8.01
	10 600.00	51.67	Peak	V	39.40	11.41	-	46.05	56.43	74.00	17.57
	10 600.00	40.66	Average	V	39.40	11.41	0.58	46.05	46.00	54.00	8.00
High ch. Harmonic	10 640.00	51.82	Peak	H	39.40	11.43	-	46.05	56.60	74.00	17.40
	10 640.00	40.83	Average	H	39.40	11.43	0.58	46.05	46.19	54.00	7.81
	10 640.00	51.63	Peak	V	39.40	11.43	-	46.05	56.99	74.00	17.01
	10 640.00	40.79	Average	V	39.40	11.43	0.58	46.05	45.57	54.00	8.43

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	52	38
	60	38
	64	38

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 520.00	52.68	Peak	H	39.40	11.30	-	46.05	57.33	68.20	10.87
	10 520.00	52.66	Peak	V	39.40	11.30	-	46.05	57.31	68.20	10.89
Middle ch. Harmonic	10 600.00	52.31	Peak	H	39.40	11.41	-	46.05	57.07	74.00	16.93
	10 600.00	41.66	Average	H	39.40	11.41	0.58	46.05	47.00	54.00	7.00
	10 600.00	52.16	Peak	V	39.40	11.41	-	46.05	56.92	74.00	17.08
	10 600.00	41.34	Average	V	39.40	11.41	0.58	46.05	46.68	54.00	7.32
High ch. Harmonic	10 640.00	52.06	Peak	H	39.40	11.43	-	46.05	56.84	74.00	17.16
	10 640.00	40.79	Average	H	39.40	11.43	0.58	46.05	46.15	54.00	7.85
	10 640.00	52.14	Peak	V	39.40	11.43	-	46.05	57.50	74.00	16.50
	10 640.00	40.83	Average	V	39.40	11.43	0.58	46.05	45.61	54.00	8.39

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	52	53
	60	53
	64	53

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 520.00	53.68	Peak	H	39.40	11.30	-	46.05	58.33	68.20	9.87
	10 520.00	53.16	Peak	V	39.40	11.30	-	46.05	57.81	68.20	10.39
Middle ch. Harmonic	10 600.00	52.05	Peak	H	39.40	11.41	-	46.05	56.81	74.00	17.19
	10 600.00	41.06	Average	H	39.40	11.41	0.58	46.05	46.40	54.00	7.60
	10 600.00	52.11	Peak	V	39.40	11.41	-	46.05	56.87	74.00	17.13
	10 600.00	41.06	Average	V	39.40	11.41	0.58	46.05	46.40	54.00	7.60
High ch. Harmonic	10 640.00	52.02	Peak	H	39.40	11.43	-	46.05	56.80	74.00	17.20
	10 640.00	40.85	Average	H	39.40	11.43	0.58	46.05	46.21	54.00	7.79
	10 640.00	52.34	Peak	V	39.40	11.43	-	46.05	57.70	74.00	16.30
	10 640.00	40.96	Average	V	39.40	11.43	0.58	46.05	45.74	54.00	8.26

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	52	61
	60	61
	64	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 520.00	54.19	Peak	H	39.40	11.30	-	46.05	58.84	68.20	9.36
	10 520.00	53.23	Peak	V	39.40	11.30	-	46.05	57.88	68.20	10.32
Middle ch. Harmonic	10 600.00	52.00	Peak	H	39.40	11.41	-	46.05	56.76	74.00	17.24
	10 600.00	41.08	Average	H	39.40	11.41	0.58	46.05	46.42	54.00	7.58
	10 600.00	52.89	Peak	V	39.40	11.41	-	46.05	57.65	74.00	16.35
	10 600.00	41.12	Average	V	39.40	11.41	0.58	46.05	46.46	54.00	7.54
High ch. Harmonic	10 640.00	52.96	Peak	H	39.40	11.43	-	46.05	57.74	74.00	16.26
	10 640.00	40.83	Average	H	39.40	11.43	0.58	46.05	46.19	54.00	7.81
	10 640.00	52.51	Peak	V	39.40	11.43	-	46.05	57.87	74.00	16.13
	10 640.00	40.40	Average	V	39.40	11.43	0.58	46.05	45.18	54.00	8.82

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 98.49 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	52	-
	60	-
	64	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	10 520.00	53.15	Peak	H	39.40	11.30	-	46.05	57.80	68.20	10.40
	10 520.00	53.22	Peak	V	39.40	11.30	-	46.05	57.87	68.20	10.33
Middle ch. Harmonic	10 600.00	51.99	Peak	H	39.40	11.41	-	46.05	56.75	74.00	17.25
	10 600.00	41.06	Average	H	39.40	11.41	0.07	46.05	45.89	54.00	8.11
	10 600.00	52.32	Peak	V	39.40	11.41	-	46.05	57.08	74.00	16.92
	10 600.00	41.15	Average	V	39.40	11.41	0.07	46.05	45.98	54.00	8.02
High ch. Harmonic	10 640.00	52.64	Peak	H	39.40	11.43	-	46.05	57.42	74.00	16.58
	10 640.00	40.89	Average	H	39.40	11.43	0.07	46.05	45.74	54.00	8.26
	10 640.00	52.33	Peak	V	39.40	11.43	-	46.05	57.18	74.00	16.82
	10 640.00	40.17	Average	V	39.40	11.43	0.07	46.05	44.95	54.00	9.05

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

13.6.2.2 Test data for 802.11 ax(HE40) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	54	8
	62	8

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low CH. Harmonic	10 540.00	51.65	Peak	H	39.40	11.30	-	46.05	56.30	68.20	11.90
	10 540.00	51.48	Peak	V	39.40	11.30	-	46.05	56.13	68.20	12.07
High Ch. Harmonic	10 620.00	51.95	Peak	H	39.40	11.41	-	46.05	56.71	74.00	17.29
	10 620.00	40.36	Average	H	39.40	11.41	0.44	46.05	45.56	54.00	8.44
	10 620.00	52.05	Peak	V	39.40	11.41	-	46.05	56.81	74.00	17.19
	10 620.00	40.33	Average	V	39.40	11.41	0.44	46.05	45.53	54.00	8.47

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	54	40
	62	40

Channel	Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low CH. Harmonic	10 540.00	51.88	Peak	H	39.40	11.30	-	46.05	56.53	68.20	11.67
	10 540.00	51.79	Peak	V	39.40	11.30	-	46.05	56.44	68.20	11.76
High Ch. Harmonic	10 620.00	51.78	Peak	H	39.40	11.41	-	46.05	56.54	74.00	17.46
	10 620.00	40.22	Average	H	39.40	11.41	0.44	46.05	45.42	54.00	8.58
	10 620.00	51.81	Peak	V	39.40	11.41	-	46.05	56.57	74.00	17.43
	10 620.00	40.34	Average	V	39.40	11.41	0.44	46.05	45.54	54.00	8.46

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	54	54
	62	54

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low CH. Harmonic	10 540.00	51.95	Peak	H	39.40	11.30	-	46.05	56.60	68.20	11.60
	10 540.00	51.68	Peak	V	39.40	11.30	-	46.05	56.33	68.20	11.87
High Ch. Harmonic	10 620.00	51.77	Peak	H	39.40	11.41	-	46.05	56.53	74.00	17.47
	10 620.00	40.34	Average	H	39.40	11.41	0.44	46.05	45.54	54.00	8.46
	10 620.00	51.67	Peak	V	39.40	11.41	-	46.05	56.43	74.00	17.57
	10 620.00	40.22	Average	V	39.40	11.41	0.44	46.05	45.42	54.00	8.58

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	54	61
	62	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low CH. Harmonic	10 540.00	52.04	Peak	H	39.40	11.30	-	46.05	56.69	68.20	11.51
	10 540.00	52.33	Peak	V	39.40	11.30	-	46.05	56.98	68.20	11.22
High Ch. Harmonic	10 620.00	51.65	Peak	H	39.40	11.41	-	46.05	56.41	74.00	17.59
	10 620.00	40.26	Average	H	39.40	11.41	0.44	46.05	45.46	54.00	8.54
	10 620.00	52.33	Peak	V	39.40	11.41	-	46.05	57.09	74.00	16.91
	10 620.00	40.34	Average	V	39.40	11.41	0.44	46.05	45.54	54.00	8.46

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	54	65
	62	65

Channel	Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low CH. Harmonic	10 540.00	52.02	Peak	H	39.40	11.30	-	46.05	56.67	68.20	11.53
	10 540.00	52.23	Peak	V	39.40	11.30	-	46.05	56.88	68.20	11.32
High Ch. Harmonic	10 620.00	51.73	Peak	H	39.40	11.41	-	46.05	56.49	74.00	17.51
	10 620.00	40.14	Average	H	39.40	11.41	0.44	46.05	45.34	54.00	8.66
	10 620.00	52.14	Peak	V	39.40	11.41	-	46.05	56.90	74.00	17.10
	10 620.00	40.23	Average	V	39.40	11.41	0.44	46.05	45.43	54.00	8.57

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 97.18 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	54	-
	62	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low CH. Harmonic	10 540.00	51.98	Peak	H	39.40	11.30	-	46.05	56.63	68.20	11.57
	10 540.00	52.06	Peak	V	39.40	11.30	-	46.05	56.71	68.20	11.49
High Ch. Harmonic	10 620.00	51.88	Peak	H	39.40	11.41	-	46.05	56.64	74.00	17.36
	10 620.00	40.16	Average	H	39.40	11.41	0.12	46.05	45.04	54.00	8.96
	10 620.00	51.98	Peak	V	39.40	11.41	-	46.05	56.74	74.00	17.26
	10 620.00	40.09	Average	V	39.40	11.41	0.12	46.05	44.97	54.00	9.03

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

13.6.2.3 Test data for 802.11 ax(HE80) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.19 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	58	18

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	51.33	Peak	H	39.40	11.41	-	46.05	56.09	68.20	12.11
	10 580.00	51.48	Peak	V	39.40	11.41	-	46.05	56.24	68.20	11.96

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	58	44

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	51.67	Peak	H	39.40	11.41	-	46.05	56.43	68.20	11.77
	10 580.00	51.41	Peak	V	39.40	11.41	-	46.05	56.17	68.20	12.03

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

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	58	56

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	52.15	Peak	H	39.40	11.41	-	46.05	56.91	68.20	11.29
	10 580.00	51.68	Peak	V	39.40	11.41	-	46.05	56.44	68.20	11.76

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	58	62

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	51.48	Peak	H	39.40	11.41	-	46.05	56.24	68.20	11.96
	10 580.00	51.22	Peak	V	39.40	11.41	-	46.05	55.98	68.20	12.22

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	58	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	51.52	Peak	H	39.40	11.41	-	46.05	56.28	68.20	11.92
	10 580.00	51.47	Peak	V	39.40	11.41	-	46.05	56.23	68.20	11.97

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 996 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
996	58	67

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	51.41	Peak	H	39.40	11.41	-	46.05	56.17	68.20	12.03
	10 580.00	51.58	Peak	V	39.40	11.41	-	46.05	56.34	68.20	11.86

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 94.81 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	58	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	10 580.00	51.38	Peak	H	39.40	11.41	-	46.05	56.14	68.20	12.06
	10 580.00	51.65	Peak	V	39.40	11.41	-	46.05	56.41	68.20	11.79

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

Spurious emission (Test Data above 1 GHz except for harmonic)

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
It was not observed any emissions from the EUT.											

13.6.3 Test data for UNII-2C

13.6.3.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	100	4
	116	4
	140	4

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 000.00	53.32	Peak	H	39.00	11.85	-	46.50	57.67	74.00	16.33
	11 000.00	41.51	Average	H	39.00	11.85	0.58	46.50	46.44	54.00	7.56
	11 000.00	53.06	Peak	V	39.00	11.85	-	46.50	57.41	74.00	16.59
	11 000.00	41.41	Average	V	39.00	11.85	0.58	46.50	46.34	54.00	7.66
Middle ch. Harmonic	11 160.00	52.95	Peak	H	39.00	12.36	-	46.50	57.81	74.00	16.19
	11 160.00	41.33	Average	H	39.00	12.36	0.58	46.50	46.77	54.00	7.23
	11 160.00	52.63	Peak	V	39.00	12.36	-	46.50	57.49	74.00	16.51
	11 160.00	41.35	Average	V	39.00	12.36	0.58	46.50	46.79	54.00	7.21
High ch. Harmonic	11 400.00	53.05	Peak	H	39.00	13.11	-	46.50	58.66	74.00	15.34
	11 400.00	41.22	Average	H	39.00	13.11	0.58	46.50	47.41	54.00	6.59
	11 400.00	53.15	Peak	V	39.00	13.11	-	46.50	58.76	74.00	15.24
	11 400.00	41.05	Average	V	39.00	13.11	0.58	46.50	47.24	54.00	6.76

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dBuV/m)} - \text{Total Level (dBuV/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	100	38
	116	38
	140	38

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 000.00	53.26	Peak	H	39.00	11.85	-	46.50	57.61	74.00	16.39
	11 000.00	41.44	Average	H	39.00	11.85	0.58	46.50	46.37	54.00	7.63
	11 000.00	52.95	Peak	V	39.00	11.85	-	46.50	57.30	74.00	16.70
	11 000.00	41.33	Average	V	39.00	11.85	0.58	46.50	46.26	54.00	7.74
Middle ch. Harmonic	11 160.00	52.68	Peak	H	39.00	12.36	-	46.50	57.54	74.00	16.46
	11 160.00	41.23	Average	H	39.00	12.36	0.58	46.50	46.67	54.00	7.33
	11 160.00	52.88	Peak	V	39.00	12.36	-	46.50	57.74	74.00	16.26
	11 160.00	41.16	Average	V	39.00	12.36	0.58	46.50	46.60	54.00	7.40
High ch. Harmonic	11 400.00	52.67	Peak	H	39.00	13.11	-	46.50	58.28	74.00	15.72
	11 400.00	41.33	Average	H	39.00	13.11	0.58	46.50	47.52	54.00	6.48
	11 400.00	52.62	Peak	V	39.00	13.11	-	46.50	58.23	74.00	15.77
	11 400.00	41.15	Average	V	39.00	13.11	0.58	46.50	47.34	54.00	6.66

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	100	53
	116	53
	140	53

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 000.00	53.15	Peak	H	39.00	11.85	-	46.50	57.50	74.00	16.50
	11 000.00	41.55	Average	H	39.00	11.85	0.58	46.50	46.48	54.00	7.52
	11 000.00	52.89	Peak	V	39.00	11.85	-	46.50	57.24	74.00	16.76
	11 000.00	41.44	Average	V	39.00	11.85	0.58	46.50	46.37	54.00	7.63
Middle ch. Harmonic	11 160.00	52.56	Peak	H	39.00	12.36	-	46.50	57.42	74.00	16.58
	11 160.00	41.15	Average	H	39.00	12.36	0.58	46.50	46.59	54.00	7.41
	11 160.00	52.66	Peak	V	39.00	12.36	-	46.50	57.52	74.00	16.48
	11 160.00	41.05	Average	V	39.00	12.36	0.58	46.50	46.49	54.00	7.51
High ch. Harmonic	11 400.00	52.68	Peak	H	39.00	13.11	-	46.50	58.29	74.00	15.71
	11 400.00	41.21	Average	H	39.00	13.11	0.58	46.50	47.40	54.00	6.60
	11 400.00	52.66	Peak	V	39.00	13.11	-	46.50	58.27	74.00	15.73
	11 400.00	41.18	Average	V	39.00	13.11	0.58	46.50	47.37	54.00	6.63

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	100	61
	116	61
	140	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 000.00	53.30	Peak	H	39.00	11.85	-	46.50	57.65	74.00	16.35
	11 000.00	41.72	Average	H	39.00	11.85	0.58	46.50	46.65	54.00	7.35
	11 000.00	52.96	Peak	V	39.00	11.85	-	46.50	57.31	74.00	16.69
	11 000.00	41.73	Average	V	39.00	11.85	0.58	46.50	46.66	54.00	7.34
Middle ch. Harmonic	11 160.00	52.44	Peak	H	39.00	12.36	-	46.50	57.30	74.00	16.70
	11 160.00	41.05	Average	H	39.00	12.36	0.58	46.50	46.49	54.00	7.51
	11 160.00	52.65	Peak	V	39.00	12.36	-	46.50	57.51	74.00	16.49
	11 160.00	41.03	Average	V	39.00	12.36	0.58	46.50	46.47	54.00	7.53
High ch. Harmonic	11 400.00	52.74	Peak	H	39.00	13.11	-	46.50	58.35	74.00	15.65
	11 400.00	41.16	Average	H	39.00	13.11	0.58	46.50	47.35	54.00	6.65
	11 400.00	53.06	Peak	V	39.00	13.11	-	46.50	58.67	74.00	15.33
	11 400.00	41.14	Average	V	39.00	13.11	0.58	46.50	47.33	54.00	6.67

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 98.49 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	100	-
	116	-
	140	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 000.00	52.58	Peak	H	39.00	11.85	-	46.50	56.93	74.00	17.07
	11 000.00	41.33	Average	H	39.00	11.85	0.07	46.50	45.75	54.00	8.25
	11 000.00	52.62	Peak	V	39.00	11.85	-	46.50	56.97	74.00	17.03
	11 000.00	41.18	Average	V	39.00	11.85	0.07	46.50	45.60	54.00	8.40
Middle ch. Harmonic	11 160.00	52.99	Peak	H	39.00	12.36	-	46.50	57.85	74.00	16.15
	11 160.00	41.22	Average	H	39.00	12.36	0.07	46.50	46.15	54.00	7.85
	11 160.00	52.79	Peak	V	39.00	12.36	-	46.50	57.65	74.00	16.35
	11 160.00	41.06	Average	V	39.00	12.36	0.07	46.50	45.99	54.00	8.01
High ch. Harmonic	11 400.00	52.78	Peak	H	39.00	13.11	-	46.50	58.39	74.00	15.61
	11 400.00	41.05	Average	H	39.00	13.11	0.07	46.50	46.73	54.00	7.27
	11 400.00	52.85	Peak	V	39.00	13.11	-	46.50	58.46	74.00	15.54
	11 400.00	41.15	Average	V	39.00	13.11	0.07	46.50	46.83	54.00	7.17

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

13.6.3.2 Test data for 802.11 ax(HE40) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	102	8
	110	8
	134	8

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 020.00	53.26	Peak	H	39.00	11.85	-	46.50	57.61	74.00	16.39
	11 020.00	41.38	Average	H	39.00	11.85	0.44	46.50	46.17	54.00	7.83
	11 020.00	52.98	Peak	V	39.00	11.85	-	46.50	57.33	74.00	16.67
	11 020.00	41.41	Average	V	39.00	11.85	0.44	46.50	46.20	54.00	7.80
Middle ch. Harmonic	11 100.00	52.88	Peak	H	39.00	12.36	-	46.50	57.74	74.00	16.26
	11 100.00	41.36	Average	H	39.00	12.36	0.44	46.50	46.66	54.00	7.34
	11 100.00	52.91	Peak	V	39.00	12.36	-	46.50	57.77	74.00	16.23
	11 100.00	41.23	Average	V	39.00	12.36	0.44	46.50	46.53	54.00	7.47
High ch. Harmonic	11 340.00	52.78	Peak	H	39.00	13.11	-	46.50	58.39	74.00	15.61
	11 340.00	41.22	Average	H	39.00	13.11	0.44	46.50	47.27	54.00	6.73
	11 340.00	52.82	Peak	V	39.00	13.11	-	46.50	58.43	74.00	15.57
	11 340.00	41.09	Average	V	39.00	13.11	0.44	46.50	47.14	54.00	6.86

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	102	40
	110	40
	134	40

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 020.00	53.05	Peak	H	39.00	11.85	-	46.50	57.40	74.00	16.60
	11 020.00	41.31	Average	H	39.00	11.85	0.44	46.50	46.10	54.00	7.90
	11 020.00	52.98	Peak	V	39.00	11.85	-	46.50	57.33	74.00	16.67
	11 020.00	41.25	Average	V	39.00	11.85	0.44	46.50	46.04	54.00	7.96
Middle ch. Harmonic	11 100.00	52.99	Peak	H	39.00	12.36	-	46.50	57.85	74.00	16.15
	11 100.00	41.45	Average	H	39.00	12.36	0.44	46.50	46.75	54.00	7.25
	11 100.00	52.87	Peak	V	39.00	12.36	-	46.50	57.73	74.00	16.27
	11 100.00	41.30	Average	V	39.00	12.36	0.44	46.50	46.60	54.00	7.40
High ch. Harmonic	11 340.00	53.11	Peak	H	39.00	13.11	-	46.50	58.72	74.00	15.28
	11 340.00	41.50	Average	H	39.00	13.11	0.44	46.50	47.55	54.00	6.45
	11 340.00	52.94	Peak	V	39.00	13.11	-	46.50	58.55	74.00	15.45
	11 340.00	41.37	Average	V	39.00	13.11	0.44	46.50	47.42	54.00	6.58

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	102	54
	110	54
	134	54

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 020.00	53.18	Peak	H	39.00	11.85	-	46.50	57.53	74.00	16.47
	11 020.00	41.45	Average	H	39.00	11.85	0.44	46.50	46.24	54.00	7.76
	11 020.00	52.99	Peak	V	39.00	11.85	-	46.50	57.34	74.00	16.66
	11 020.00	41.28	Average	V	39.00	11.85	0.44	46.50	46.07	54.00	7.93
Middle ch. Harmonic	11 100.00	53.30	Peak	H	39.00	12.36	-	46.50	58.16	74.00	15.84
	11 100.00	41.41	Average	H	39.00	12.36	0.44	46.50	46.71	54.00	7.29
	11 100.00	53.11	Peak	V	39.00	12.36	-	46.50	57.97	74.00	16.03
	11 100.00	41.22	Average	V	39.00	12.36	0.44	46.50	46.52	54.00	7.48
High ch. Harmonic	11 340.00	53.20	Peak	H	39.00	13.11	-	46.50	58.81	74.00	15.19
	11 340.00	41.41	Average	H	39.00	13.11	0.44	46.50	47.46	54.00	6.54
	11 340.00	53.07	Peak	V	39.00	13.11	-	46.50	58.68	74.00	15.32
	11 340.00	41.40	Average	V	39.00	13.11	0.44	46.50	47.45	54.00	6.55

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	102	61
	110	61
	134	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 020.00	52.95	Peak	H	39.00	11.85	-	46.50	57.30	74.00	16.70
	11 020.00	41.22	Average	H	39.00	11.85	0.44	46.50	46.01	54.00	7.99
	11 020.00	52.80	Peak	V	39.00	11.85	-	46.50	57.15	74.00	16.85
	11 020.00	41.16	Average	V	39.00	11.85	0.44	46.50	45.95	54.00	8.05
Middle ch. Harmonic	11 100.00	53.06	Peak	H	39.00	12.36	-	46.50	57.92	74.00	16.08
	11 100.00	41.31	Average	H	39.00	12.36	0.44	46.50	46.61	54.00	7.39
	11 100.00	53.00	Peak	V	39.00	12.36	-	46.50	57.86	74.00	16.14
	11 100.00	41.18	Average	V	39.00	12.36	0.44	46.50	46.48	54.00	7.52
High ch. Harmonic	11 340.00	53.24	Peak	H	39.00	13.11	-	46.50	58.85	74.00	15.15
	11 340.00	41.28	Average	H	39.00	13.11	0.44	46.50	47.33	54.00	6.67
	11 340.00	53.10	Peak	V	39.00	13.11	-	46.50	58.71	74.00	15.29
	11 340.00	41.22	Average	V	39.00	13.11	0.44	46.50	47.27	54.00	6.73

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	102	65
	110	65
	134	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 020.00	53.38	Peak	H	39.00	11.85	-	46.50	57.73	74.00	16.27
	11 020.00	41.46	Average	H	39.00	11.85	0.44	46.50	46.25	54.00	7.75
	11 020.00	53.20	Peak	V	39.00	11.85	-	46.50	57.55	74.00	16.45
	11 020.00	41.38	Average	V	39.00	11.85	0.44	46.50	46.17	54.00	7.83
Middle ch. Harmonic	11 100.00	53.16	Peak	H	39.00	12.36	-	46.50	58.02	74.00	15.98
	11 100.00	41.29	Average	H	39.00	12.36	0.44	46.50	46.59	54.00	7.41
	11 100.00	53.11	Peak	V	39.00	12.36	-	46.50	57.97	74.00	16.03
	11 100.00	41.18	Average	V	39.00	12.36	0.44	46.50	46.48	54.00	7.52
High ch. Harmonic	11 340.00	53.20	Peak	H	39.00	13.11	-	46.50	58.81	74.00	15.19
	11 340.00	41.35	Average	H	39.00	13.11	0.44	46.50	47.40	54.00	6.60
	11 340.00	53.10	Peak	V	39.00	13.11	-	46.50	58.71	74.00	15.29
	11 340.00	41.33	Average	V	39.00	13.11	0.44	46.50	47.38	54.00	6.62

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. Single User

- 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 ~ 40 GHz
- Measurement distance : 3 m
- Duty Cycle : 97.18 %
- Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	102	-
	110	-
	134	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 020.00	53.00	Peak	H	39.00	11.85	-	46.50	57.35	74.00	16.65
	11 020.00	41.05	Average	H	39.00	11.85	0.12	46.50	45.52	54.00	8.48
	11 020.00	52.88	Peak	V	39.00	11.85	-	46.50	57.23	74.00	16.77
	11 020.00	41.01	Average	V	39.00	11.85	0.12	46.50	45.48	54.00	8.52
Middle ch. Harmonic	11 100.00	53.13	Peak	H	39.00	12.36	-	46.50	57.99	74.00	16.01
	11 100.00	41.20	Average	H	39.00	12.36	0.12	46.50	46.18	54.00	7.82
	11 100.00	53.11	Peak	V	39.00	12.36	-	46.50	57.97	74.00	16.03
	11 100.00	41.13	Average	V	39.00	12.36	0.12	46.50	46.11	54.00	7.89
High ch. Harmonic	11 340.00	53.22	Peak	H	39.00	13.11	-	46.50	58.83	74.00	15.17
	11 340.00	41.29	Average	H	39.00	13.11	0.12	46.50	47.02	54.00	6.98
	11 340.00	53.20	Peak	V	39.00	13.11	-	46.50	58.81	74.00	15.19
	11 340.00	41.23	Average	V	39.00	13.11	0.12	46.50	46.96	54.00	7.04

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

13.6.3.3 Test data for 802.11 ax(HE80) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.19 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	106	18

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.40	Peak	H	39.00	12.36	-	46.50	58.26	74.00	15.74
	11 060.00	41.45	Average	H	39.00	12.36	0.55	46.50	46.86	54.00	7.14
	11 060.00	53.29	Peak	V	39.00	12.36	-	46.50	58.15	74.00	15.85
	11 060.00	41.33	Average	V	39.00	12.36	0.55	46.50	46.74	54.00	7.26

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	106	44

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.26	Peak	H	39.00	12.36	-	46.50	58.12	74.00	15.88
	11 060.00	41.32	Average	H	39.00	12.36	0.55	46.50	46.73	54.00	7.28
	11 060.00	53.15	Peak	V	39.00	12.36	-	46.50	58.01	74.00	15.99
	11 060.00	41.19	Average	V	39.00	12.36	0.55	46.50	46.60	54.00	7.41

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	106	56

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.22	Peak	H	39.00	12.36	-	46.50	58.08	74.00	15.92
	11 060.00	41.19	Average	H	39.00	12.36	0.55	46.50	46.60	54.00	7.41
	11 060.00	53.09	Peak	V	39.00	12.36	-	46.50	57.95	74.00	16.05
	11 060.00	41.15	Average	V	39.00	12.36	0.55	46.50	46.56	54.00	7.44

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	106	62

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.08	Peak	H	39.00	12.36	-	46.50	57.94	74.00	16.06
	11 060.00	41.26	Average	H	39.00	12.36	0.55	46.50	46.67	54.00	7.34
	11 060.00	53.01	Peak	V	39.00	12.36	-	46.50	57.87	74.00	16.13
	11 060.00	41.23	Average	V	39.00	12.36	0.55	46.50	46.64	54.00	7.37

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	106	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.16	Peak	H	39.00	12.36	-	46.50	58.02	74.00	15.98
	11 060.00	41.33	Average	H	39.00	12.36	0.55	46.50	46.74	54.00	7.27
	11 060.00	53.13	Peak	V	39.00	12.36	-	46.50	57.99	74.00	16.01
	11 060.00	41.19	Average	V	39.00	12.36	0.55	46.50	46.60	54.00	7.41

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 996 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
996	106	67

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.28	Peak	H	39.00	12.36	-	46.50	58.14	74.00	15.86
	11 060.00	41.26	Average	H	39.00	12.36	0.55	46.50	46.67	54.00	7.34
	11 060.00	53.20	Peak	V	39.00	12.36	-	46.50	58.06	74.00	15.94
	11 060.00	41.15	Average	V	39.00	12.36	0.55	46.50	46.56	54.00	7.44

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 94.81 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	106	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 060.00	53.33	Peak	H	39.00	12.36	-	46.50	58.19	74.00	15.81
	11 060.00	41.19	Average	H	39.00	12.36	0.23	46.50	46.28	54.00	7.72
	11 060.00	53.19	Peak	V	39.00	12.36	-	46.50	58.05	74.00	15.95
	11 060.00	41.06	Average	V	39.00	12.36	0.23	46.50	46.15	54.00	7.85

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

Spurious emission (Test Data above 1 GHz except for harmonic)

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
It was not observed any emissions from the EUT.											

13.6.4 Test data for UNII3

13.6.4.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	149	4
	157	4
	165	4

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 490.00	49.26	Peak	H	39.30	13.11	-	46.35	55.32	74.00	18.68
	11 490.00	39.49	Average	H	39.30	13.11	0.58	46.35	46.13	54.00	7.87
	11 490.00	50.72	Peak	V	39.30	13.11	-	46.35	56.78	74.00	17.22
	11 490.00	40.43	Average	V	39.30	13.11	0.58	46.35	47.07	54.00	6.93
Middle ch. Harmonic	11 570.00	50.20	Peak	H	39.40	13.15	-	46.35	56.40	74.00	17.60
	11 570.00	39.65	Average	H	39.40	13.15	0.58	46.35	46.43	54.00	7.57
	11 570.00	49.31	Peak	V	39.40	13.15	-	46.35	55.51	74.00	18.49
	11 570.00	40.54	Average	V	39.40	13.15	0.58	46.35	47.32	54.00	6.68
High ch. Harmonic	11 650.00	48.40	Peak	H	39.70	13.19	-	46.35	54.94	74.00	19.06
	11 650.00	39.29	Average	H	39.70	13.19	0.58	46.35	46.41	54.00	7.59
	11 650.00	51.04	Peak	V	39.70	13.19	-	46.35	57.58	74.00	16.42
	11 650.00	40.42	Average	V	39.70	13.19	0.58	46.35	47.54	54.00	6.46

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	149	38
	157	38
	165	38

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 490.00	48.78	Peak	H	39.30	13.11	-	46.35	54.84	74.00	19.16
	11 490.00	39.18	Average	H	39.30	13.11	0.58	46.35	45.82	54.00	8.18
	11 490.00	50.45	Peak	V	39.30	13.11	-	46.35	56.51	74.00	17.49
	11 490.00	40.66	Average	V	39.30	13.11	0.58	46.35	47.30	54.00	6.70
Middle ch. Harmonic	11 570.00	48.49	Peak	H	39.40	13.15	-	46.35	54.69	74.00	19.31
	11 570.00	39.00	Average	H	39.40	13.15	0.58	46.35	45.78	54.00	8.22
	11 570.00	49.81	Peak	V	39.40	13.15	-	46.35	56.01	74.00	17.99
	11 570.00	40.56	Average	V	39.40	13.15	0.58	46.35	47.34	54.00	6.66
High ch. Harmonic	11 650.00	47.93	Peak	H	39.70	13.19	-	46.35	54.47	74.00	19.53
	11 650.00	39.01	Average	H	39.70	13.19	0.58	46.35	46.13	54.00	7.87
	11 650.00	49.50	Peak	V	39.70	13.19	-	46.35	56.04	74.00	17.96
	11 650.00	40.29	Average	V	39.70	13.19	0.58	46.35	47.41	54.00	6.59

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	149	53
	157	53
	165	53

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 490.00	48.88	Peak	H	39.30	13.11	-	46.35	54.94	74.00	19.06
	11 490.00	39.46	Average	H	39.30	13.11	0.58	46.35	46.10	54.00	7.90
	11 490.00	51.10	Peak	V	39.30	13.11	-	46.35	57.16	74.00	16.84
	11 490.00	40.52	Average	V	39.30	13.11	0.58	46.35	47.16	54.00	6.84
Middle ch. Harmonic	11 570.00	48.20	Peak	H	39.40	13.15	-	46.35	54.40	74.00	19.60
	11 570.00	39.77	Average	H	39.40	13.15	0.58	46.35	46.55	54.00	7.45
	11 570.00	49.56	Peak	V	39.40	13.15	-	46.35	55.76	74.00	18.24
	11 570.00	40.43	Average	V	39.40	13.15	0.58	46.35	47.21	54.00	6.79
High ch. Harmonic	11 650.00	49.27	Peak	H	39.70	13.19	-	46.35	55.81	74.00	18.19
	11 650.00	38.83	Average	H	39.70	13.19	0.58	46.35	45.95	54.00	8.05
	11 650.00	51.04	Peak	V	39.70	13.19	-	46.35	57.58	74.00	16.42
	11 650.00	39.92	Average	V	39.70	13.19	0.58	46.35	47.04	54.00	6.96

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	149	61
	157	61
	165	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 490.00	49.36	Peak	H	39.30	13.11	-	46.35	55.42	74.00	18.58
	11 490.00	39.94	Average	H	39.30	13.11	0.58	46.35	46.58	54.00	7.42
	11 490.00	51.10	Peak	V	39.30	13.11	-	46.35	57.16	74.00	16.84
	11 490.00	39.58	Average	V	39.30	13.11	0.58	46.35	46.22	54.00	7.78
Middle ch. Harmonic	11 570.00	49.62	Peak	H	39.40	13.15	-	46.35	55.82	74.00	18.18
	11 570.00	40.06	Average	H	39.40	13.15	0.58	46.35	46.84	54.00	7.16
	11 570.00	50.96	Peak	V	39.40	13.15	-	46.35	57.16	74.00	16.84
	11 570.00	39.77	Average	V	39.40	13.15	0.58	46.35	46.55	54.00	7.45
High ch. Harmonic	11 650.00	50.36	Peak	H	39.70	13.19	-	46.35	56.90	74.00	17.10
	11 650.00	38.96	Average	H	39.70	13.19	0.58	46.35	46.08	54.00	7.92
	11 650.00	47.90	Peak	V	39.70	13.19	-	46.35	54.44	74.00	19.56
	11 650.00	38.99	Average	V	39.70	13.19	0.58	46.35	46.11	54.00	7.89

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

-. Single User

- 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 ~ 40 GHz
- Measurement distance : 3 m
- Duty Cycle : 98.49 %
- Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	149	-
	157	-
	165	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 490.00	49.51	Peak	H	39.30	13.11	-	46.35	55.57	74.00	18.43
	11 490.00	39.79	Average	H	39.30	13.11	0.07	46.35	45.92	54.00	8.08
	11 490.00	48.93	Peak	V	39.30	13.11	-	46.35	54.99	74.00	19.01
	11 490.00	39.59	Average	V	39.30	13.11	0.07	46.35	45.72	54.00	8.28
Middle ch. Harmonic	11 570.00	49.57	Peak	H	39.40	13.15	-	46.35	55.77	74.00	18.23
	11 570.00	39.69	Average	H	39.40	13.15	0.07	46.35	45.96	54.00	8.04
	11 570.00	49.49	Peak	V	39.40	13.15	-	46.35	55.69	74.00	18.31
	11 570.00	39.70	Average	V	39.40	13.15	0.07	46.35	45.97	54.00	8.03
High ch. Harmonic	11 650.00	49.69	Peak	H	39.70	13.19	-	46.35	56.23	74.00	17.77
	11 650.00	39.25	Average	H	39.70	13.19	0.07	46.35	45.86	54.00	8.14
	11 650.00	48.18	Peak	V	39.70	13.19	-	46.35	54.72	74.00	19.28
	11 650.00	39.05	Average	V	39.70	13.19	0.07	46.35	45.66	54.00	8.34

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

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

13.6.4.2 Test data for 802.11 ax(HE40) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	151	8
	159	8

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 510.00	49.42	Peak	H	39.30	13.11	-	46.35	55.48	74.00	18.52
	11 510.00	40.27	Average	H	39.30	13.11	0.44	46.35	46.77	54.00	7.23
	11 510.00	49.97	Peak	V	39.30	13.11	-	46.35	56.03	74.00	17.97
	11 510.00	40.35	Average	V	39.30	13.11	0.44	46.35	46.85	54.00	7.15
High ch. Harmonic	11 590.00	49.79	Peak	H	39.40	13.15	-	46.35	55.99	74.00	18.01
	11 590.00	39.95	Average	H	39.40	13.15	0.44	46.35	46.59	54.00	7.41
	11 590.00	49.35	Peak	V	39.40	13.15	-	46.35	55.55	74.00	18.45
	11 590.00	40.00	Average	V	39.40	13.15	0.44	46.35	46.64	54.00	7.36

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	151	40
	159	40

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 510.00	50.12	Peak	H	39.30	13.11	-	46.35	56.18	74.00	17.82
	11 510.00	40.49	Average	H	39.30	13.11	0.44	46.35	46.99	54.00	7.01
	11 510.00	49.61	Peak	V	39.30	13.11	-	46.35	55.67	74.00	18.33
	11 510.00	40.50	Average	V	39.30	13.11	0.44	46.35	47.00	54.00	7.00
High ch. Harmonic	11 590.00	48.06	Peak	H	39.40	13.15	-	46.35	54.26	74.00	19.74
	11 590.00	40.08	Average	H	39.40	13.15	0.44	46.35	46.72	54.00	7.28
	11 590.00	49.25	Peak	V	39.40	13.15	-	46.35	55.45	74.00	18.55
	11 590.00	39.93	Average	V	39.40	13.15	0.44	46.35	46.57	54.00	7.43

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	151	54
	159	54

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 510.00	49.13	Peak	H	39.30	13.11	-	46.35	55.19	74.00	18.81
	11 510.00	40.03	Average	H	39.30	13.11	0.44	46.35	46.53	54.00	7.47
	11 510.00	48.84	Peak	V	39.30	13.11	-	46.35	54.90	74.00	19.10
	11 510.00	40.25	Average	V	39.30	13.11	0.44	46.35	46.75	54.00	7.25
High ch. Harmonic	11 590.00	50.13	Peak	H	39.40	13.15	-	46.35	56.33	74.00	17.67
	11 590.00	40.56	Average	H	39.40	13.15	0.44	46.35	47.20	54.00	6.80
	11 590.00	50.38	Peak	V	39.40	13.15	-	46.35	56.58	74.00	17.42
	11 590.00	40.04	Average	V	39.40	13.15	0.44	46.35	46.68	54.00	7.32

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	151	61
	159	61

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 510.00	49.34	Peak	H	39.30	13.11	-	46.35	55.40	74.00	18.60
	11 510.00	40.21	Average	H	39.30	13.11	0.44	46.35	46.71	54.00	7.29
	11 510.00	49.97	Peak	V	39.30	13.11	-	46.35	56.03	74.00	17.97
	11 510.00	40.47	Average	V	39.30	13.11	0.44	46.35	46.97	54.00	7.03
High ch. Harmonic	11 590.00	48.51	Peak	H	39.40	13.15	-	46.35	54.71	74.00	19.29
	11 590.00	40.17	Average	H	39.40	13.15	0.44	46.35	46.81	54.00	7.19
	11 590.00	49.08	Peak	V	39.40	13.15	-	46.35	55.28	74.00	18.72
	11 590.00	39.86	Average	V	39.40	13.15	0.44	46.35	46.50	54.00	7.50

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	151	65
	159	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 510.00	50.06	Peak	H	39.30	13.11	-	46.35	56.12	74.00	17.88
	11 510.00	40.62	Average	H	39.30	13.11	0.44	46.35	47.12	54.00	6.88
	11 510.00	49.14	Peak	V	39.30	13.11	-	46.35	55.20	74.00	18.80
	11 510.00	40.37	Average	V	39.30	13.11	0.44	46.35	46.87	54.00	7.13
High ch. Harmonic	11 590.00	49.88	Peak	H	39.40	13.15	-	46.35	56.08	74.00	17.92
	11 590.00	40.23	Average	H	39.40	13.15	0.44	46.35	46.87	54.00	7.13
	11 590.00	49.36	Peak	V	39.40	13.15	-	46.35	55.56	74.00	18.44
	11 590.00	40.06	Average	V	39.40	13.15	0.44	46.35	46.70	54.00	7.30

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

-. Single User

- 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 ~ 40 GHz
- Measurement distance : 3 m
- Duty Cycle : 97.18 %
- Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	151	-
	159	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch. Harmonic	11 510.00	50.77	Peak	H	39.30	13.11	-	46.35	56.83	74.00	17.17
	11 510.00	40.68	Average	H	39.30	13.11	0.12	46.35	46.86	54.00	7.14
	11 510.00	49.95	Peak	V	39.30	13.11	-	46.35	56.01	74.00	17.99
	11 510.00	40.37	Average	V	39.30	13.11	0.12	46.35	46.55	54.00	7.45
High ch. Harmonic	11 590.00	48.44	Peak	H	39.40	13.15	-	46.35	54.64	74.00	19.36
	11 590.00	40.04	Average	H	39.40	13.15	0.12	46.35	46.36	54.00	7.64
	11 590.00	49.41	Peak	V	39.40	13.15	-	46.35	55.61	74.00	18.39
	11 590.00	40.30	Average	V	39.40	13.15	0.12	46.35	46.62	54.00	7.38

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{Duty Factor} - \text{Amp Factor}$$

13.6.4.3 Test data for 802.11 ax(HE80) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.19 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	155	18

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	51.09	Peak	H	39.40	13.15	-	46.35	57.29	74.00	16.71
	11 550.00	40.25	Average	H	39.40	13.15	0.55	46.35	47.00	54.00	7.00
	11 550.00	49.72	Peak	V	39.40	13.15	-	46.35	55.92	74.00	18.08
	11 550.00	40.27	Average	V	39.40	13.15	0.55	46.35	47.02	54.00	6.98

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	155	44

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	49.41	Peak	H	39.40	13.15	-	46.35	55.61	74.00	18.39
	11 550.00	40.38	Average	H	39.40	13.15	0.55	46.35	47.13	54.00	6.87
	11 550.00	49.05	Peak	V	39.40	13.15	-	46.35	55.25	74.00	18.75
	11 550.00	40.64	Average	V	39.40	13.15	0.55	46.35	47.39	54.00	6.62

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	155	56

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	49.36	Peak	H	39.40	13.15	-	46.35	55.56	74.00	18.44
	11 550.00	40.14	Average	H	39.40	13.15	0.55	46.35	46.89	54.00	7.12
	11 550.00	49.70	Peak	V	39.40	13.15	-	46.35	55.90	74.00	18.10
	11 550.00	40.35	Average	V	39.40	13.15	0.55	46.35	47.10	54.00	6.90

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

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	155	62

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	49.19	Peak	H	39.40	13.15	-	46.35	55.39	74.00	18.61
	11 550.00	40.44	Average	H	39.40	13.15	0.55	46.35	47.19	54.00	6.81
	11 550.00	49.97	Peak	V	39.40	13.15	-	46.35	56.17	74.00	17.83
	11 550.00	40.44	Average	V	39.40	13.15	0.55	46.35	47.19	54.00	6.81

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	155	65

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	48.97	Peak	H	39.40	13.15	-	46.35	55.17	74.00	18.83
	11 550.00	40.29	Average	H	39.40	13.15	0.55	46.35	47.04	54.00	6.97
	11 550.00	49.19	Peak	V	39.40	13.15	-	46.35	55.39	74.00	18.61
	11 550.00	40.15	Average	V	39.40	13.15	0.55	46.35	46.90	54.00	7.11

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. 996 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
996	155	67

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	49.37	Peak	H	39.40	13.15	-	46.35	55.57	74.00	18.43
	11 550.00	40.17	Average	H	39.40	13.15	0.55	46.35	46.92	54.00	7.09
	11 550.00	49.03	Peak	V	39.40	13.15	-	46.35	55.23	74.00	18.77
	11 550.00	40.35	Average	V	39.40	13.15	0.55	46.35	47.10	54.00	6.90

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 94.81 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	155	-

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor	AMP Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Middle CH. Harmonic	11 550.00	50.67	Peak	H	39.40	13.15	-	46.35	56.87	74.00	17.13
	11 550.00	40.29	Average	H	39.40	13.15	0.23	46.35	46.72	54.00	7.28
	11 550.00	50.15	Peak	V	39.40	13.15	-	46.35	56.35	74.00	17.65
	11 550.00	40.34	Average	V	39.40	13.15	0.23	46.35	46.77	54.00	7.23

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + Duty Factor - Amp Factor

Spurious emission (Test Data above 1 GHz except for harmonic)

Channel	Frequency (GHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Factor	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
	It was not observed any emissions from the EUT.										

14. RADIATED RESTRICTED BAND EDGE MEASUREMENTS

14.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

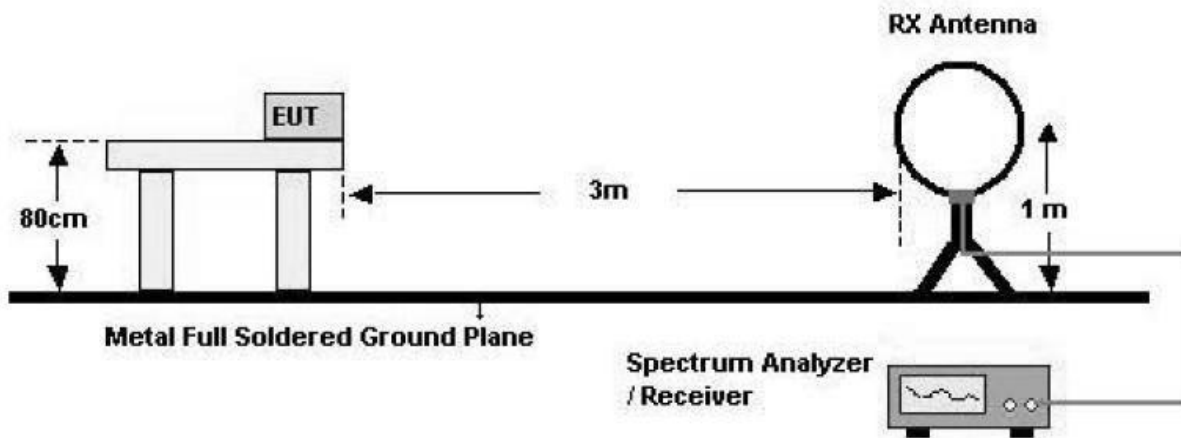
14.2 Test set-up for conducted measurement

The radiated emissions measurements were performed on the 3 m, open-field test site. The EUT was placed on a non-conductive turntable above the ground plane.

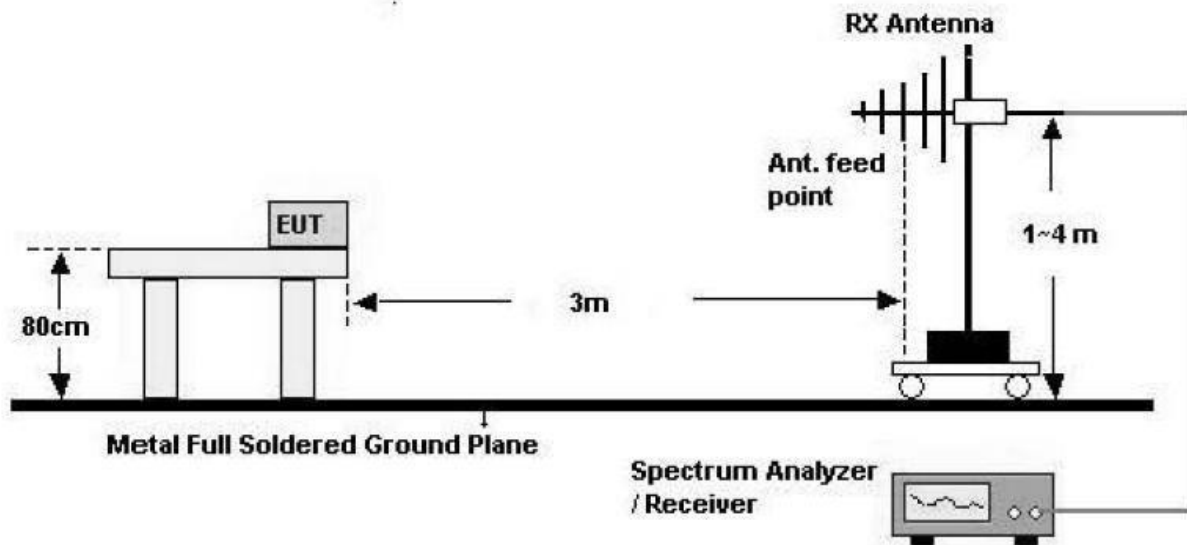
The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

- Test Configuration

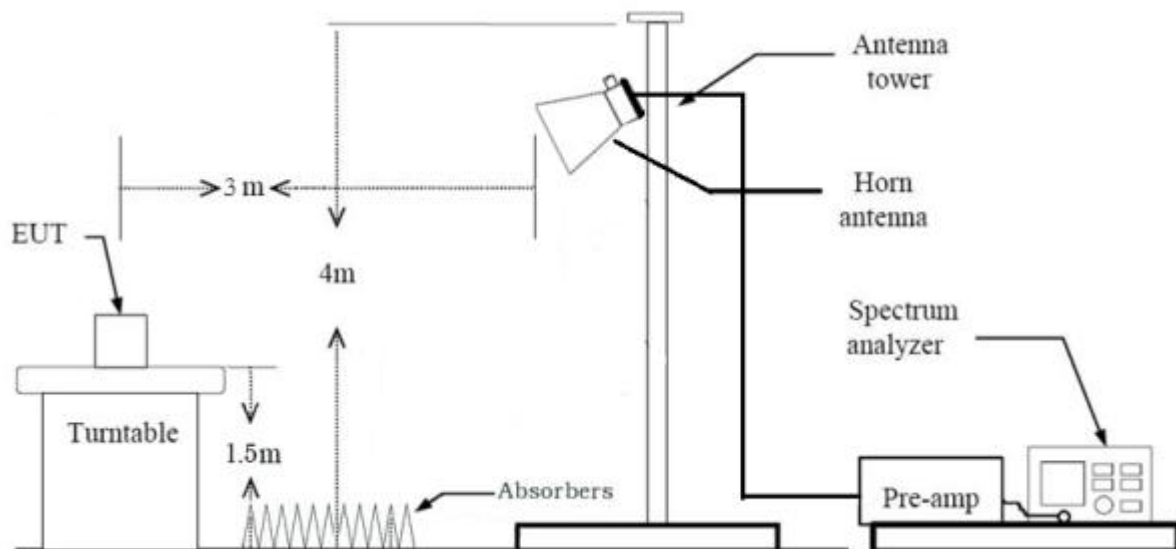
1. Below 30 MHz



2. 30 MHz - 1 GHz



3. Above 1 GHz



14.3 Test Date

December 05, 2021 ~ March 08, 2022

14.4 Test data for Frequency UNII I

14.4.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	36	0

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5132.790	58.30	Peak	H	34.20	8.21	-	45.03	6.16	61.84	74.00	12.16
	5146.370	45.31	Average	H	34.20	8.21	0.58	45.03	6.16	49.43	54.00	4.57
	5053.990	54.48	Peak	V	34.20	8.21	-	45.03	6.16	58.02	74.00	15.98
	4998.960	43.08	Average	V	34.20	8.21	0.58	45.03	6.16	47.20	54.00	6.80

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	36	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5136.180	60.06	Peak	H	34.20	8.21		45.03	6.16	63.60	74.00	10.40
	5145.010	44.29	Average	H	34.20	8.21	0.58	45.03	6.16	48.41	54.00	5.59
	4953.450	53.01	Peak	V	34.20	8.21		45.03	6.16	56.55	74.00	17.45
	4700.740	43.45	Average	V	34.20	8.21	0.58	45.03	6.16	47.57	54.00	6.43

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	36	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5149.090	59.27	Peak	H	34.20	8.21	-	45.03	6.16	62.81	74.00	11.19
	5147.730	44.43	Average	H	34.20	8.21	0.58	45.03	6.16	48.55	54.00	5.45
	4710.930	53.45	Peak	V	34.20	8.21	-	45.03	6.16	56.99	74.00	17.01
	5120.560	43.35	Average	V	34.20	8.21	0.58	45.03	6.16	47.47	54.00	6.53

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	36	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5149.770	61.64	Peak	H	34.20	8.21		45.03	6.16	65.18	74.00	8.82
	5143.660	45.20	Average	H	34.20	8.21	0.58	45.03	6.16	49.32	54.00	4.68
	5148.410	57.58	Peak	V	34.20	8.21		45.03	6.16	61.12	74.00	12.88
	5147.050	43.74	Average	V	34.20	8.21	0.58	45.03	6.16	47.86	54.00	6.14

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 98.49 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	36	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5142.300	59.72	Peak	H	34.20	8.21	-	45.03	6.16	63.26	74.00	10.74
	5148.410	45.67	Average	H	34.20	8.21	0.07	45.03	6.16	49.28	54.00	4.72
	5148.410	57.74	Peak	V	34.20	8.21	-	45.03	6.16	61.28	74.00	12.72
	5144.340	43.62	Average	V	34.20	8.21	0.07	45.03	6.16	47.23	54.00	6.77

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

14.4.2 Test data for 802.11 ax(HE40) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	38	0

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5136.180	56.09	Peak	H	34.20	8.21	-	45.03	6.16	59.63	74.00	14.37
	5136.180	45.46	Average	H	34.20	8.21	0.44	45.03	6.16	49.44	54.00	4.56
	5146.370	56.58	Peak	V	34.20	8.21	-	45.03	6.16	60.12	74.00	13.88
	5079.120	43.07	Average	V	34.20	8.21	0.44	45.03	6.16	47.05	54.00	6.95

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	38	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5147.050	56.60	Peak	H	34.20	8.21	-	45.03	6.16	60.14	74.00	13.86
	5098.820	43.48	Average	H	34.20	8.21	0.44	45.03	6.16	47.46	54.00	6.54
	4623.300	53.76	Peak	V	34.20	8.21	-	45.03	6.16	57.30	74.00	16.70
	4695.980	43.19	Average	V	34.20	8.21	0.44	45.03	6.16	47.17	54.00	6.83

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	38	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	4631.450	53.78	Peak	H	34.20	8.21		45.03	6.16	57.32	74.00	16.68
	5120.560	43.73	Average	H	34.20	8.21	0.44	45.03	6.16	47.71	54.00	6.29
	4826.410	53.77	Peak	V	34.20	8.21		45.03	6.16	57.31	74.00	16.69
	5120.560	43.44	Average	V	34.20	8.21	0.44	45.03	6.16	47.42	54.00	6.58

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	36	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5149.090	67.09	Peak	H	34.20	8.21	-	45.03	6.16	70.63	74.00	3.37
	5120.560	44.97	Average	H	34.20	8.21	0.44	45.03	6.16	48.95	54.00	5.05
	5149.770	61.63	Peak	V	34.20	8.21	-	45.03	6.16	65.17	74.00	8.83
	5120.560	43.48	Average	V	34.20	8.21	0.44	45.03	6.16	47.46	54.00	6.54

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	38	65

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5149.770	59.93	Peak	H	34.20	8.21	-	45.03	6.16	63.47	74.00	10.53
	5149.770	48.28	Average	H	34.20	8.21	0.44	45.03	6.16	52.26	54.00	1.74
	5149.770	56.54	Peak	V	34.20	8.21	-	45.03	6.16	60.08	74.00	13.92
	5149.090	45.45	Average	V	34.20	8.21	0.44	45.03	6.16	49.43	54.00	4.57

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 97.18 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	38	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5149.770	60.33	Peak	H	34.20	8.21		45.03	6.16	63.87	74.00	10.13
	5149.770	48.63	Average	H	34.20	8.21	0.12	45.03	6.16	52.29	54.00	1.71
	5147.050	57.17	Peak	V	34.20	8.21		45.03	6.16	60.71	74.00	13.29
	5149.770	44.55	Average	V	34.20	8.21	0.12	45.03	6.16	48.21	54.00	5.79

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

14.4.3 Test data for 802.11 ax(HE80) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.19 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	42	0

Channel	Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low ch.	5079.120	53.16	Peak	H	34.20	8.21		45.03	6.16	56.70	74.00	17.30
	5120.560	43.34	Average	H	34.20	8.21	0.55	45.03	6.16	47.43	54.00	6.57
	5138.220	53.30	Peak	V	34.20	8.21		45.03	6.16	56.84	74.00	17.16
	5030.210	43.34	Average	V	34.20	8.21	0.55	45.03	6.16	47.43	54.00	6.57

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	42	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5095.420	53.68	Peak	H	34.20	8.21	-	45.03	6.16	57.22	74.00	16.78
	5119.880	43.60	Average	H	34.20	8.21	0.55	45.03	6.16	47.69	54.00	6.31
	4889.590	53.13	Peak	V	34.20	8.21	-	45.03	6.16	56.67	74.00	17.33
	5136.180	43.26	Average	V	34.20	8.21	0.55	45.03	6.16	47.35	54.00	6.65

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	42	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	4735.380	53.79	Peak	H	34.20	8.21	-	45.03	6.16	57.33	74.00	16.67
	5120.560	43.84	Average	H	34.20	8.21	0.55	45.03	6.16	47.93	54.00	6.08
	4996.920	53.64	Peak	V	34.20	8.21	-	45.03	6.16	57.18	74.00	16.82
	5138.220	43.21	Average	V	34.20	8.21	0.55	45.03	6.16	47.30	54.00	6.71

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	42	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	4840.680	53.86	Peak	H	34.20	8.21		45.03	6.16	57.40	74.00	16.60
	5120.560	43.72	Average	H	34.20	8.21	0.55	45.03	6.16	47.81	54.00	6.20
	5134.830	54.06	Peak	V	34.20	8.21		45.03	6.16	57.60	74.00	16.40
	5130.070	43.15	Average	V	34.20	8.21	0.55	45.03	6.16	47.24	54.00	6.77

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	42	65

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5145.010	54.88	Peak	H	34.20	8.21	-	45.03	6.16	58.42	74.00	15.58
	5149.770	44.73	Average	H	34.20	8.21	0.55	45.03	6.16	48.82	54.00	5.18
	4742.860	53.65	Peak	V	34.20	8.21	-	45.03	6.16	57.19	74.00	16.81
	5146.370	43.39	Average	V	34.20	8.21	0.55	45.03	6.16	47.48	54.00	6.52

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 996 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
996	42	67

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5125.310	54.32	Peak	H	34.20	8.21	-	45.03	6.16	57.86	74.00	16.14
	5149.770	45.75	Average	H	34.20	8.21	0.55	45.03	6.16	49.84	54.00	4.17
	5138.900	53.79	Peak	V	34.20	8.21	-	45.03	6.16	57.33	74.00	16.67
	5147.050	43.69	Average	V	34.20	8.21	0.55	45.03	6.16	47.78	54.00	6.23

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + ATT + Duty Factor - Amp Gain -.

Single User

- 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 ~ 40 GHz
- Measurement distance : 3 m
- Duty Cycle : 94.81 %
- Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	42	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5135.500	62.07	Peak	H	34.20	8.21	-	45.03	6.16	65.61	74.00	8.39
	5143.660	48.87	Average	H	34.20	8.21	0.23	45.03	6.16	52.64	54.00	1.36
	5136.860	60.68	Peak	V	34.20	8.21	-	45.03	6.16	64.22	74.00	9.78
	5142.980	45.24	Average	V	34.20	8.21	0.23	45.03	6.16	49.01	54.00	4.99

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + ATT + Duty Factor - Amp Gain

14.5 Test data for Frequency UNII 2A

14.5.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	64	0

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5430.140	53.14	Peak	H	34.10	8.58		45.21	6.16	56.77	74.00	17.23
	5357.273	43.18	Average	H	34.10	8.58	0.58	45.21	6.16	47.39	54.00	6.61
	5422.308	54.01	Peak	V	34.10	8.58		45.21	6.16	57.64	74.00	16.36
	5421.748	42.88	Average	V	34.10	8.58	0.58	45.21	6.16	47.09	54.00	6.91

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	64	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.559	54.35	Peak	H	34.10	8.58		45.21	6.16	57.98	74.00	16.02
	5351.119	43.44	Average	H	34.10	8.58	0.58	45.21	6.16	47.65	54.00	6.35
	5390.559	53.72	Peak	V	34.10	8.58		45.21	6.16	57.35	74.00	16.65
	5441.888	43.06	Average	V	34.10	8.58	0.58	45.21	6.16	47.27	54.00	6.73

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	64	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.140	59.32	Peak	H	34.10	8.58	-	45.21	6.16	62.95	74.00	11.05
	5351.678	43.74	Average	H	34.10	8.58	0.58	45.21	6.16	47.95	54.00	6.05
	5354.196	55.92	Peak	V	34.10	8.58	-	45.21	6.16	59.55	74.00	14.45
	5350.140	43.25	Average	V	34.10	8.58	0.58	45.21	6.16	47.46	54.00	6.54

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	64	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.140	61.40	Peak	H	34.10	8.58	-	45.21	6.16	65.03	74.00	8.97
	5351.818	44.89	Average	H	34.10	8.58	0.58	45.21	6.16	49.10	54.00	4.90
	5350.420	61.98	Peak	V	34.10	8.58	-	45.21	6.16	65.61	74.00	8.39
	5352.517	43.75	Average	V	34.10	8.58	0.58	45.21	6.16	47.96	54.00	6.04

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 98.49 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	64	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.839	62.97	Peak	H	34.10	8.58		45.21	6.16	66.60	74.00	7.40
	5350.839	46.53	Average	H	34.10	8.58	0.07	45.21	6.16	50.23	54.00	3.77
	5350.140	62.87	Peak	V	34.10	8.58		45.21	6.16	66.50	74.00	7.50
	5350.559	46.56	Average	V	34.10	8.58	0.07	45.21	6.16	50.26	54.00	3.74

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

14.5.2 Test data for 802.11 ax(HE40) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	62	0

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.000	58.88	Peak	H	34.10	8.58		45.21	6.16	62.51	74.00	11.49
	5352.098	43.21	Average	H	34.10	8.58	0.44	45.21	6.16	47.28	54.00	6.72
	5353.497	54.94	Peak	V	34.10	8.58		45.21	6.16	58.57	74.00	15.43
	5371.259	42.99	Average	V	34.10	8.58	0.44	45.21	6.16	47.06	54.00	6.94

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.39 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	62	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.979	62.74	Peak	H	34.10	8.58		45.21	6.16	66.37	74.00	7.63
	5354.056	43.72	Average	H	34.10	8.58	0.44	45.21	6.16	47.79	54.00	6.21
	5352.378	60.96	Peak	V	34.10	8.58		45.21	6.16	64.59	74.00	9.41
	5352.797	43.76	Average	V	34.10	8.58	0.44	45.21	6.16	47.83	54.00	6.17

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	62	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5351.538	61.89	Peak	H	34.10	8.58	-	45.21	6.16	65.52	74.00	8.48
	5354.476	44.12	Average	H	34.10	8.58	0.44	45.21	6.16	48.19	54.00	5.81
	5350.000	60.03	Peak	V	34.10	8.58	-	45.21	6.16	63.66	74.00	10.34
	5357.552	43.51	Average	V	34.10	8.58	0.44	45.21	6.16	47.58	54.00	6.42

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	62	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5350.000	67.84	Peak	H	34.10	8.58		45.21	6.16	71.47	74.00	2.53
	5350.559	45.85	Average	H	34.10	8.58	0.44	45.21	6.16	49.92	54.00	4.08
	5350.420	64.84	Peak	V	34.10	8.58		45.21	6.16	68.47	74.00	5.53
	5352.098	43.79	Average	V	34.10	8.58	0.44	45.21	6.16	47.86	54.00	6.14

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 90.41 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	62	65

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5351.119	60.92	Peak	H	34.10	8.58		45.21	6.16	64.55	74.00	9.45
	5350.000	48.32	Average	H	34.10	8.58	0.44	45.21	6.16	52.39	54.00	1.61
	5351.259	59.76	Peak	V	34.10	8.58		45.21	6.16	63.39	74.00	10.61
	5353.916	45.75	Average	V	34.10	8.58	0.44	45.21	6.16	49.82	54.00	4.18

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 97.18 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	62	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5353.077	64.38	Peak	H	34.10	8.58		45.21	6.16	68.01	74.00	5.99
	5353.776	48.66	Average	H	34.10	8.58	0.12	45.21	6.16	52.41	54.00	1.59
	5353.916	64.01	Peak	V	34.10	8.58		45.21	6.16	67.64	74.00	6.36
	5352.657	48.69	Average	V	34.10	8.58	0.12	45.21	6.16	52.44	54.00	1.56

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

14.5.3 Test data for 802.11 ax(HE80) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.19 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	58	0

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5404.126	60.06	Peak	H	34.10	8.58		45.21	6.16	63.69	74.00	10.31
	5404.266	43.46	Average	H	34.10	8.58	0.55	45.21	6.16	47.64	54.00	6.36
	5441.748	54.21	Peak	V	34.10	8.58		45.21	6.16	57.84	74.00	16.16
	5366.643	43.09	Average	V	34.10	8.58	0.55	45.21	6.16	47.27	54.00	6.73

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	58	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5438.460	56.03	Peak	H	34.10	8.58	-	45.21	6.16	59.66	74.00	14.34
	5364.126	43.90	Average	H	34.10	8.58	0.55	45.21	6.16	48.08	54.00	5.93
	5358.671	53.92	Peak	V	34.10	8.58	-	45.21	6.16	57.55	74.00	16.45
	5361.049	43.24	Average	V	34.10	8.58	0.55	45.21	6.16	47.42	54.00	6.58

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	58	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5363.566	54.67	Peak	H	34.10	8.58		45.21	6.16	58.30	74.00	15.70
	5359.371	43.84	Average	H	34.10	8.58	0.55	45.21	6.16	48.02	54.00	5.99
	5356.993	54.45	Peak	V	34.10	8.58		45.21	6.16	58.08	74.00	15.92
	5360.909	43.09	Average	V	34.10	8.58	0.55	45.21	6.16	47.27	54.00	6.74

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	58	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5378.531	54.68	Peak	H	34.10	8.58		45.21	6.16	58.31	74.00	15.69
	5350.280	43.46	Average	H	34.10	8.58	0.55	45.21	6.16	47.64	54.00	6.36
	5368.322	54.36	Peak	V	34.10	8.58		45.21	6.16	57.99	74.00	16.01
	5381.888	43.10	Average	V	34.10	8.58	0.55	45.21	6.16	47.28	54.00	6.72

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 484 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
484	58	65

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5354.476	56.26	Peak	H	34.10	8.58		45.21	6.16	59.89	74.00	14.11
	5350.140	44.81	Average	H	34.10	8.58	0.55	45.21	6.16	48.99	54.00	5.02
	5352.238	54.40	Peak	V	34.10	8.58		45.21	6.16	58.03	74.00	15.97
	5351.119	43.59	Average	V	34.10	8.58	0.55	45.21	6.16	47.77	54.00	6.24

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. 996 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 88.21 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
996	58	67

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5364.965	56.36	Peak	H	34.10	8.58		45.21	6.16	59.99	74.00	14.01
	5350.000	44.87	Average	H	34.10	8.58	0.55	45.21	6.16	49.05	54.00	4.96
	5381.329	55.01	Peak	V	34.10	8.58		45.21	6.16	58.64	74.00	15.36
	5356.014	43.84	Average	V	34.10	8.58	0.55	45.21	6.16	48.02	54.00	5.99

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain} -.$$

Single User

- 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 ~ 40 GHz
- Measurement distance : 3 m
- Duty Cycle : 94.81 %
- Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	58	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
High ch.	5383.287	58.50	Peak	H	34.10	8.58		45.21	6.16	62.13	74.00	11.87
	5353.357	47.25	Average	H	34.10	8.58	0.23	45.21	6.16	51.11	54.00	2.89
	5353.636	59.04	Peak	V	34.10	8.58		45.21	6.16	62.67	74.00	11.33
	5352.797	47.31	Average	V	34.10	8.58	0.23	45.21	6.16	51.17	54.00	2.83

Remark: "H": Horizontal, "V": Vertical

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

Total Level = Reading + Antenna Factor + Cable Loss + ATT + Duty Factor - Amp Gain

14.6 Test data for Frequency UNII-2C

14.6.1 Test data for 802.11 ax(HE20) WLAN Mode

-. 26 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
26	100	0

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5459.470	58.44	Peak	H	34.10	8.58	-	45.21	6.16	62.07	74.00	11.93
	5416.760	42.65	Average	H	34.10	8.58	0.58	45.21	6.16	46.86	54.00	7.14
	5423.200	53.81	Peak	V	34.10	8.58	-	45.21	6.16	57.44	74.00	16.56
	5410.310	42.53	Average	V	34.10	8.58	0.58	45.21	6.16	46.74	54.00	7.26

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 52 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.53 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
52	100	37

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5459.470	55.73	Peak	H	34.10	8.58	-	45.21	6.16	59.36	74.00	14.64
	5456.320	42.61	Average	H	34.10	8.58	0.58	45.21	6.16	46.82	54.00	7.18
	5365.210	53.59	Peak	V	34.10	8.58	-	45.21	6.16	57.22	74.00	16.78
	5355.170	42.47	Average	V	34.10	8.58	0.58	45.21	6.16	46.68	54.00	7.32

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 106 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
106	100	53

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5454.370	58.93	Peak	H	34.10	8.58	-	45.21	6.16	62.56	74.00	11.44
	5415.560	42.92	Average	H	34.10	8.58	0.58	45.21	6.16	47.13	54.00	6.87
	5418.560	53.70	Peak	V	34.10	8.58	-	45.21	6.16	57.33	74.00	16.67
	5437.290	42.43	Average	V	34.10	8.58	0.58	45.21	6.16	46.64	54.00	7.36

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

- . 242 Tone

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 87.46 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
242	100	61

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5456.770	62.90	Peak	H	34.10	8.58	-	45.21	6.16	66.53	74.00	7.47
	5459.620	44.13	Average	H	34.10	8.58	0.58	45.21	6.16	48.34	54.00	5.66
	5459.320	58.42	Peak	V	34.10	8.58	-	45.21	6.16	62.05	74.00	11.95
	5430.690	42.56	Average	V	34.10	8.58	0.58	45.21	6.16	46.77	54.00	7.23

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$

-. Single User

- . 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 ~ 40 GHz
- . Measurement distance : 3 m
- . Duty Cycle : 98.49 %
- . Operating mode : Transmitting mode

Tone	Channel	RU Index
SU	100	-

Channel	Frequency (MHz)	Reading (dBuV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Duty Factor (dB)	AMP Factor	ATT Factor (dB)	Total (dBuV/m)	Limits (dBuV/m)	Margin (dB)
Low ch.	5459.615	61.73	Peak	H	34.10	8.58	-	45.21	6.16	65.36	74.00	8.64
	5459.016	44.63	Average	H	34.10	8.58	0.07	45.21	6.16	48.33	54.00	5.67
	5458.866	61.00	Peak	V	34.10	8.58	-	45.21	6.16	64.63	74.00	9.37
	5458.417	44.63	Average	V	34.10	8.58	0.07	45.21	6.16	48.33	54.00	5.67

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} + \text{ATT} + \text{Duty Factor} - \text{Amp Gain}$$