



FCC RF Test Report

APPLICANT : CIPHERLAB CO. LTD.
EQUIPMENT : Mobile Computer
BRAND NAME : CIPHERLAB
MODEL NAME : RK96
FCC ID : Q3N-RK96
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : 15E 6 GHz Low Power Indoor Client (6XD)
TEST DATE(S) : Oct. 28, 2025 ~ Dec. 03, 2025

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

This report contains data that were produced under subcontract by Sporton International Inc. (Shenzhen).

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China



Table of Contents

1	General Description	5
1.1	Applicant	5
1.2	Manufacturer	5
1.3	Product Feature of Equipment Under Test	5
1.4	Product Specification of Equipment Under Test	6
1.5	Modification of EUT	9
1.6	Testing Location	9
1.7	Test Software	10
1.8	Applicable Standards	10
2	Test Configuration of Equipment Under Test	11
2.1	Carrier Frequency and Channel	11
2.2	Test Mode	14
2.3	Connection Diagram of Test System	15
2.4	Support Unit used in test configuration and system	16
2.5	EUT Operation Test Setup	16
2.6	Measurement Results Explanation Example	17
3	Test Result	18
3.1	26dB & 99% Occupied Bandwidth Measurement	18
3.2	Maximum conducted Output Power and Fundamental Maximum EIRP Measurement	19
3.3	Fundamental Power Spectral Density Measurement	20
3.4	In-Band Emissions (Channel Mask)	22
3.5	Unwanted Emissions Measurement	24
3.6	AC Conducted Emission Measurement	28
3.7	Antenna Requirements	30
4	List of Measuring Equipment	31
5	Measurement Uncertainty	32
Appendix A. Conducted Test Results		
Appendix B. AC Conducted Emission Test Result		
Appendix C. Radiated Spurious Emission		
Appendix D. Duty Cycle Plots		
Appendix E. Setup Photographs		



History of this test report

Report No.	Version	Description	Issued Date
FR532510F	01	Initial issue of report	Dec. 31, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(a)(11)	26dB Emission Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Pass	-
3.2	15.407(a)(8)	Maximum Conducted Output Power	Pass	-
3.2	15.407(a)(8)	Fundamental Maximum EIRP	Pass	-
3.3	15.407(a)(8)	Fundamental Power Spectral Density	Pass	-
3.4	15.407(b)(7)	In-Band Emissions (Channel Mask)	Pass	-
-	15.407(d)(6)	Contention Based Protocol	Not Performed	1
3.5	15.407(b)	Unwanted Emissions	Pass	Under limit 3.17 dB at 7292.200 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 16.84 dB at 0.552 MHz
3.7	15.203 15.407(a)	Antenna Requirement	Pass	-

Remark 1: The test report will be issued separately.

Conformity Assessment Condition:

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

CIPHERLAB CO. LTD.

12F., 333, DunHua S. Rd., Sec. 2, Taipei, Taiwan 10669

1.2 Manufacturer

CIPHERLAB CO. LTD.

12F., 333, DunHua S. Rd., Sec. 2, Taipei, Taiwan 10669

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Computer
Brand Name	CIPHERLAB
Model Name	RK96
FCC ID	Q3N-RK96
SN Code	Conducted: GO12580000169 Conduction: G012580000139 Radiation: S2580001892
HW Version	V1.02
SW Version	RK96.22.20250915
EUT Stage	DVT

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	U-NII-5: 5925 MHz ~ 6425 MHz U-NII-6: 6425 MHz ~ 6525 MHz U-NII-7: 6525 MHz ~ 6875 MHz U-NII-8: 6875 MHz ~ 7125 MHz
Maximum EIRP	<MIMO Ant.1+2> <5925 MHz ~ 7125 MHz > 802.11a : 8.56 dBm / 0.0072 W 802.11ax HE20 : 8.88 dBm / 0.0077 W 802.11ax HE40 : 11.52 dBm / 0.0142 W 802.11ax HE80 : 14.61 dBm / 0.0289 W 802.11ax HE160 : 17.36 dBm / 0.0545 W 802.11be EHT20 : 8.99 dBm / 0.0079 W 802.11be EHT40 : 11.65 dBm / 0.0146 W 802.11be EHT80 : 14.76 dBm / 0.0299 W 802.11be EHT160 : 17.47 dBm / 0.0558 W 802.11be EHT320 : 20.40 dBm / 0.1096 W
99% Occupied Bandwidth	802.11a : 17.682 MHz 802.11 be EHT20 : 19.334 MHz 802.11 be EHT40 : 38.620 MHz 802.11 be EHT80 : 78.616 MHz 802.11 be EHT160 : 159.950 MHz 802.11 be EHT320 : 317.340 MHz
Antenna Type / Gain	<5925 MHz ~ 6425 MHz > <Ant. 1> : Monopole(LDS) Antenna with gain 1.22 dBi <Ant. 2> : Monopole(LDS) Antenna with gain 1.57 dBi <6425 MHz ~ 6525 MHz > <Ant. 1> : Monopole(LDS) Antenna with gain 1.37 dBi <Ant. 2> : Monopole(LDS) Antenna with gain 1.54 dBi <6525 MHz ~ 6875 MHz > <Ant. 1> : Monopole(LDS) Antenna with gain 1.10 dBi <Ant. 2> : Monopole(LDS) Antenna with gain 1.31 dBi <6875 MHz ~ 7125 MHz > <Ant. 1> : Monopole(LDS) Antenna with gain 0.94 dBi <Ant. 2> : Monopole(LDS) Antenna with gain 1.11 dBi
Type of Modulation	802.11a: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ax: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM) 802.11be: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM / 4096QAM)

Remark:

1. The Ant.1/ Ant.2 in this report correspond to Ant.7/ Ant.8 in the antenna report.
2. WIFI MIMO support CDD mode.
3. For WLAN SISO/MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power.
4. For 802.11ax/be 20/40/80/160MHz mode, the whole testing has assessed only 802.11be EHT20/EHT40/EHT80/EHT160MHz by referring to the higher output power.

5. 802.11ax/be support full RU tone and partial RU tone, both full RU and partial RU-left (for low CH) and partial RU-right (for high CH) are tested for conducted power/PSD/Channel Mask in appendix A, all the other test case were performed with full RU with its maximum power/PSD.
6. The device does not support UNII-5 CH 2 & UNII-8 CH 233 by manufacturer declared.
7. 802.11be support small size RU, Large size RU and Puncturing modes as below, which is less than full RU conducted power, therefore have assessed only Power Density/RSE.

<Small size RU 52+26 Tone>:

Bandwidth	Tones		Index		For test modes configure
20MHz	26	52	2	37	1
20MHz	52	26	38	4	2
20MHz	52	26	40	6	3

<Small size RU 106+26 Tone>:

Bandwidth	Tones		Index		For test modes configure
20MHz	106	26	53	4	1
20MHz	26	106	4	54	2

<Large size RU 484+242 tone> & <80M BW Puncturing 20MHz>:

Bandwidth	Tones		Index		For test modes configure
80MHz	242	484	62	66	1
80MHz	242	484	61	66	2
80MHz	484	242	65	64	3
80MHz	484	242	65	63	4

<Large size RU 996+484 tone> & <160M BW Puncturing 40MHz>:

Bandwidth	Tones		Index		For test modes configure
160MHz	484-Left	996-Right	66-Left	67-Right	1
160MHz	484-Left	996-Right	65-Left	67-Right	2
160MHz	996-Left	484-Right	67-Left	66-Right	3
160MHz	996-Left	484-Right	67-Left	65-Right	4

<Large size RU 996+484+242 tone> & <160M BW Puncturing 20MHz>:

Bandwidth	Tones			Index			For test modes configure
160MHz	242-Left	484-Left	996-Right	62-Left	66-Left	67-Right	1
160MHz	242-Left	484-Left	996-Right	61-Left	66-Left	67-Right	2
160MHz	484-Left	242-Left	996-Right	65-Left	64-Left	67-Right	3
160MHz	484-Left	242-Left	996-Right	65-Left	63-Left	67-Right	4
160MHz	996-Left	242-Right	484-Right	67-Left	62-Right	66-Right	5
160MHz	996-Left	242-Right	484-Right	67-Left	61-Right	66-Right	6
160MHz	996-Left	484-Right	242-Right	67-Left	65-Right	64-Right	7
160MHz	996-Left	484-Right	242-Right	67-Left	65-Right	63-Right	8

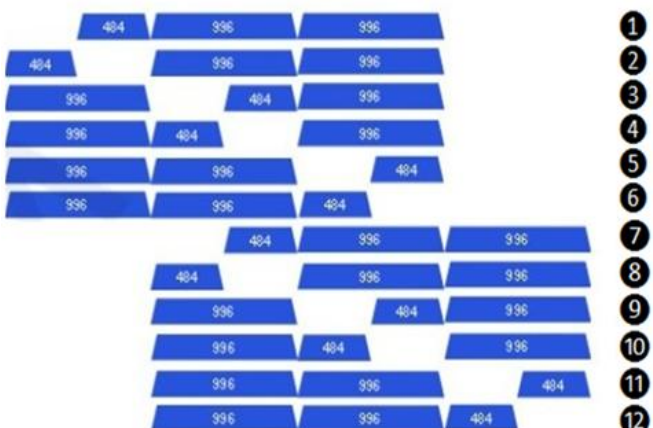
<Large size RU 3*996 tone> & <320M BW Puncturing 80MHz>:

Bandwidth	Tones	Index	For test modes configure
320MHz			1
			2
			3
			4

<Large size RU 3*996+484 tone> & <320M BW Puncturing 40MHz>:

Bandwidth	Tones	Index	For test modes configure
320MHz			1
			2
			3
			4
			5
			6
			7
			8

<Large size RU 2*996+484 tone> & <320M BW Puncturing 80+40MHz>:

Bandwidth	Tones	Index	For test modes configure
320MHz		1	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7	7
		8	8
		9	9
		10	10
		11	11
		12	12

Only the worse cases are shown in this report.

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO01-KS 03CH03-KS	CN1257	314309



Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ	CN1256	421272

Note: Test data subcontracted: conducted test case in section 3.1~3.4 of this report.

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH03-KS	AUDIX	E3	210616
2.	CO01-KS	AUDIX	E3	6.2009-8-24

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v03
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2020

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

<U-NII-5, 6, 7, 8>

BW 20M	Channel	-	1	5	9	13	17	21	25	29
	Freq. (MHz)	-	5955	5975	5995	6015	6035	6055	6075	6095
BW 40M	Channel	3			11		19		27	
	Freq. (MHz)	5965			6005		6045		6085	
BW 80M	Channel	7					23			
	Freq. (MHz)	5985					6065			
BW 160M	Channel	15								
	Freq. (MHz)	6025								

BW 20M	Channel	33	37	41	45	49	53	57	61
	Freq. (MHz)	6115	6135	6155	6175	6195	6215	6235	6255
BW 40M	Channel	35		43		51		59	
	Freq. (MHz)	6125		6165		6205		6245	
BW 80M	Channel	39				55			
	Freq. (MHz)	6145				6225			
BW 160M	Channel	47							
	Freq. (MHz)	6185							
BW 320M	Channel	31				63			
	Freq. (MHz)	6105				6265			



BW 20M	Channel	65	69	73	77	81	85	89	93
	Freq. (MHz)	6275	6295	6315	6335	6355	6375	6395	6415
BW 40M	Channel	67		75		83		91	
	Freq. (MHz)	6285		6325		6365		6405	
BW 80M	Channel	71				87			
	Freq. (MHz)	6305				6385			
BW 160M	Channel	79							
	Freq. (MHz)	6345							
BW 320M	Channel	95							
	Freq. (MHz)	6425							

BW 20M	Channel	97	101	105	109	113	117	121	125
	Freq. (MHz)	6435	6455	6475	6495	6515	6535	6555	6575
BW 40M	Channel	99		107		115		123	
	Freq. (MHz)	6445		6485		6525		6565	
BW 80M	Channel	103				119			
	Freq. (MHz)	6465				6545			
BW 160M	Channel	111							
	Freq. (MHz)	6505							

BW 20M	Channel	129	133	137	141	145	149	153	157
	Freq. (MHz)	6595	6615	6635	6655	6675	6695	6715	6735
BW 40M	Channel	131		139		147		155	
	Freq. (MHz)	6605		6645		6685		6725	
BW 80M	Channel	135				151			
	Freq. (MHz)	6625				6705			
BW 160M	Channel	143							
	Freq. (MHz)	6665							
BW 320M	Channel	127							
	Freq. (MHz)	6585							



BW 20M	Channel	161	165	169	173	177	181	185	189
	Freq. (MHz)	6755	6775	6795	6815	6835	6855	6875	6895
BW 40M	Channel	163		171		179		187	
	Freq. (MHz)	6765		6805		6845		6885	
BW 80M	Channel	167				183			
	Freq. (MHz)	6785				6865			
BW 160M	Channel	175							
	Freq. (MHz)	6825							
BW 320M	Channel	159							
	Freq. (MHz)	6745							

BW 20M	Channel	193	197	201	205	209	213	217	221
	Freq. (MHz)	6915	6935	6955	6975	6995	7015	7035	7055
BW 40M	Channel	195		203		211		219	
	Freq. (MHz)	6925		6965		7005		7045	
BW 80M	Channel	199				215			
	Freq. (MHz)	6945				7025			
BW 160M	Channel	207							
	Freq. (MHz)	6985							
BW 320M	Channel	191							
	Freq. (MHz)	6905							

BW 20M	Channel	225	229	-
	Freq. (MHz)	7075	7095	-
BW 40M	Channel	227		
	Freq. (MHz)	7085		



2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

Modulation	Data Rate
802.11a	6 Mbps
802.11be EHT20	MCS0
802.11be EHT40	MCS0
802.11be EHT80	MCS0
802.11be EHT160	MCS0
802.11be EHT320	MCS0

RSE Co-location mode
WIFI 6G 802.11be EHT80 CH215 + Bluetooth-LE 2Mbps CH38 Tx WIFI 6G 802.11be EHT80 CH215 + WIFI 2.4G 802.11b CH01

Test Cases	
AC Conducted Emission	Mode 1 : BT Link+ WLAN Link(6G)+ USB Cable (Charging From Adapter)
Remark: For Radiated Test Cases, the tests were performed with Adapter.	

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		20M BW	20M BW	20M BW	20M BW
L	Low	001	097	117	189
M	Middle	045	105	149	209
H	High	093	113	181	229
Straddle		-	-	185	-

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		40M BW	40M BW	40M BW	40M BW
L	Low	003	099	123	195
M	Middle	051	-	147	203
H	High	091	107	179	227
Straddle		-	115	187	-

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		80M BW	80M BW	80M BW	80M BW
L	Low	007	103	135	199
M	Middle	055		151	-
H	High	087		167	215
Straddle		-	119	183	-

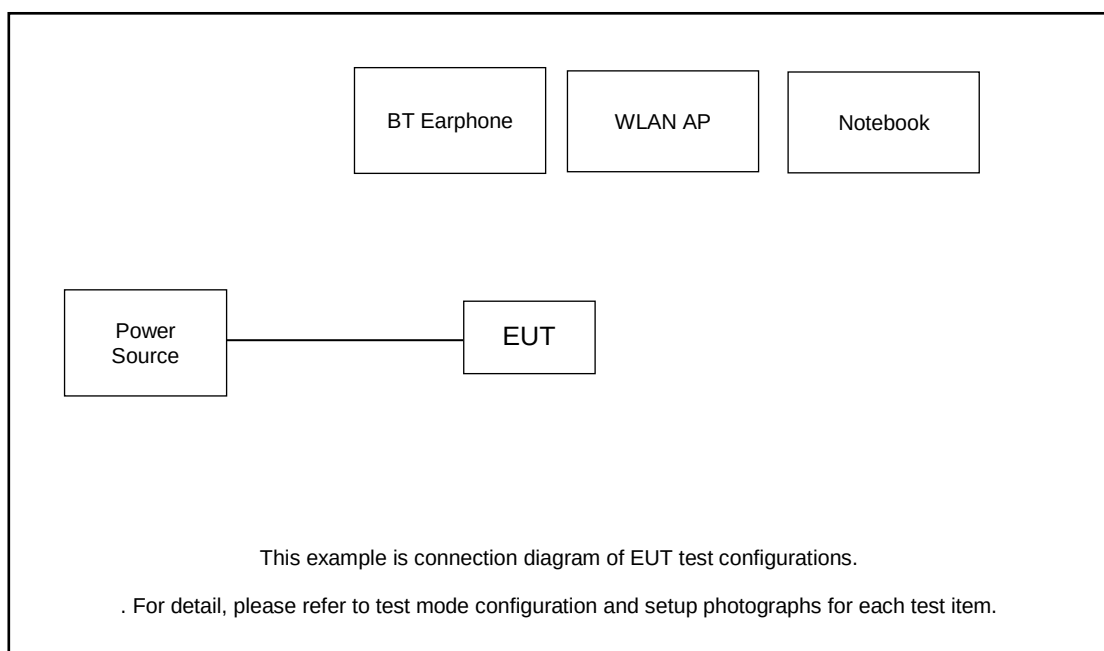
Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		160M BW	160M BW	160M BW	160M BW
L	Low	015	-	143	207
M	Middle	047			
H	High	079			
Straddle		-	111	175	-

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		320M BW	320M BW	320M BW	320M BW
L	Low	-	-	-	-
M	Middle	031			
H	High	063			
Straddle		95	127	159	191

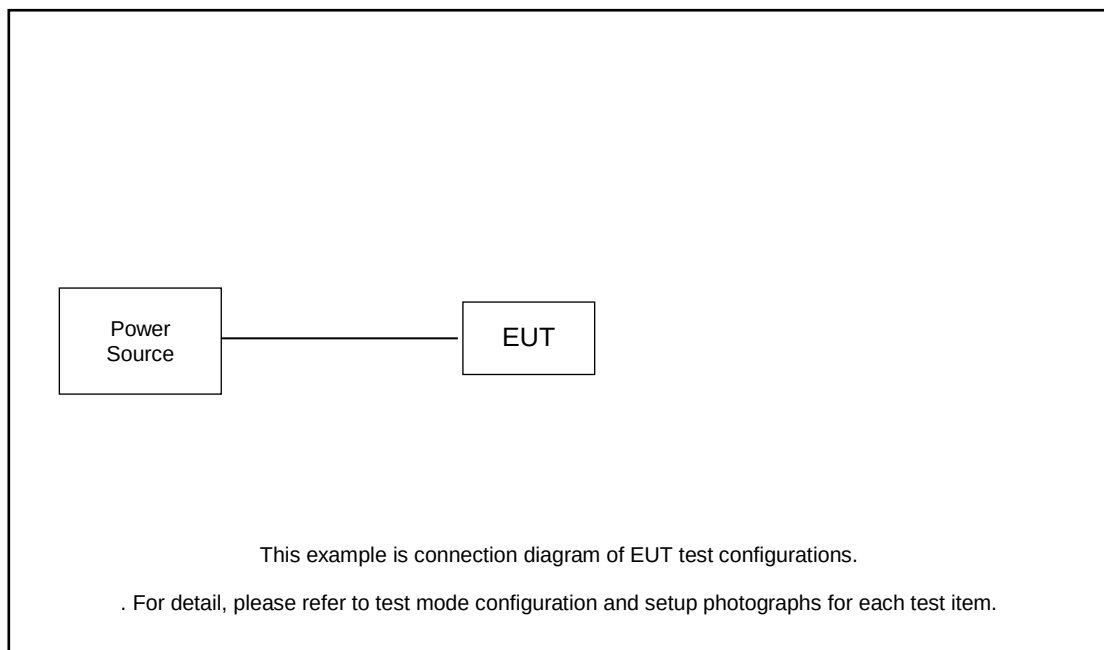
Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	Shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
2.	Bluetooth Earphone	Lenovo	thinkplus-BH3	N/A	N/A	N/A
3.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program (QRCT TX Tool) was provided and enabled to make EUT continuously transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.



2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 6.06 dB and 10dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 6.06 + 10 = 16.06 \text{ (dB)}\end{aligned}$$

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 CFR 15.407 (a)(11)

The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

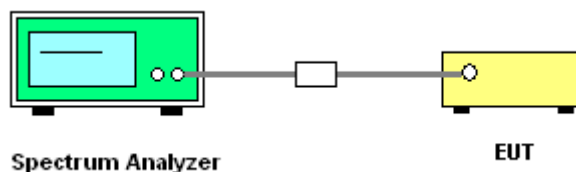
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01& ANSI C63.10-2020 clause 12.5.2 for 26dB BW and 6.9.3 for 99% occupied bandwidth measurements.
Section C) Emission bandwidth
2. Set RBW = shall be in the range of 1% to 5% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is in the range of 1% to 5%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

3.2 Maximum conducted Output Power and Fundamental Maximum EIRP Measurement

3.2.1 Limit of Fundamental Maximum EIRP

<FCC 14-30 CFR 15.407>

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

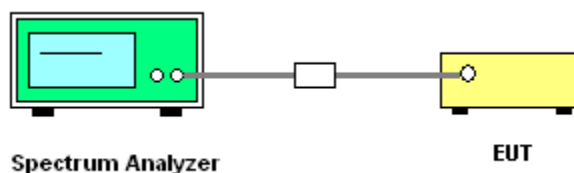
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

3.2.4 Test Setup



3.2.5 Test Result of Fundamental Maximum EIRP

Please refer to Appendix A.

3.3 Fundamental Power Spectral Density Measurement

3.3.1 Limit of Fundamental Power Spectral Density

<FCC 14-30 CFR 15.407>

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed -1 dBm e.i.r.p. in any 1-megahertz band.

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section F) Maximum power spectral density.

Method SA-2

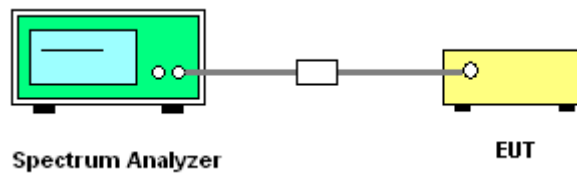
(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW $\geq$ 3 MHz.
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, attenuator loss and duty factor. Measure the PSD and record it.
 3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (b): Measure and sum spectral maxima across the outputs.

The measurement on each individual output were performed with the same span and number on each individual output. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

3.4 In-Band Emissions (Channel Mask)

3.4.1 Limit of Unwanted Emissions

<FCC 14-30 CFR 15.407>

(b)(7) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

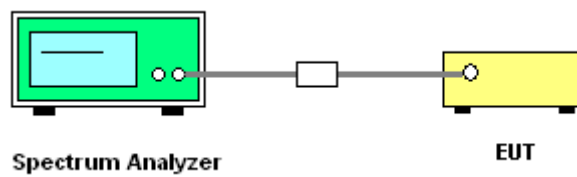
The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement.

Section J) In-Band Emissions.

1. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth
2. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW $\geq 3 \times$ RBW
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging)
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
3. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a. Suppressed by 20 dB at 1 MHz outside of the channel edge.
 - b. Suppressed by 28 dB at one channel bandwidth from the channel center.

- c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
4. Adjust the span to encompass the entire mask as necessary.
5. Clear trace.
6. Trace average at least 100 traces in power averaging (rms) mode.
7. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

3.4.4 Test Setup



3.4.5 Test Result

Please refer to Appendix A.

3.5 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.5.1 Limit of Unwanted Emissions

- (1) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27 (RMS)	68.2
- 7 (Peak)	88.2

Unwanted emissions outside of restricted bands are measured with a RMS detector.

In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit

- (2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table:

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

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

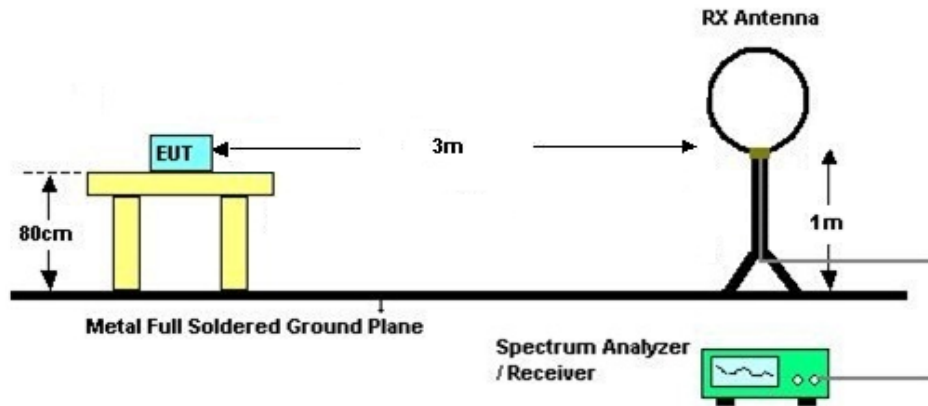


3.5.3 Test Procedures

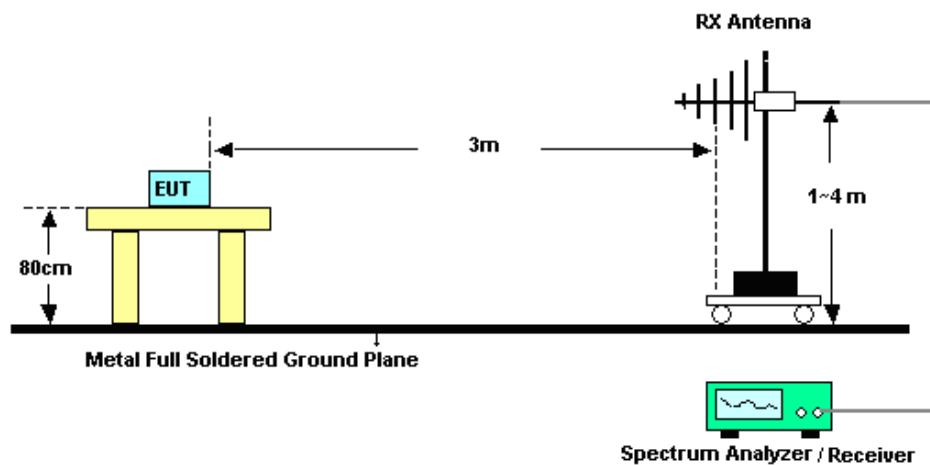
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section G) Unwanted emissions measurement.
(1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.5.4 Test Setup

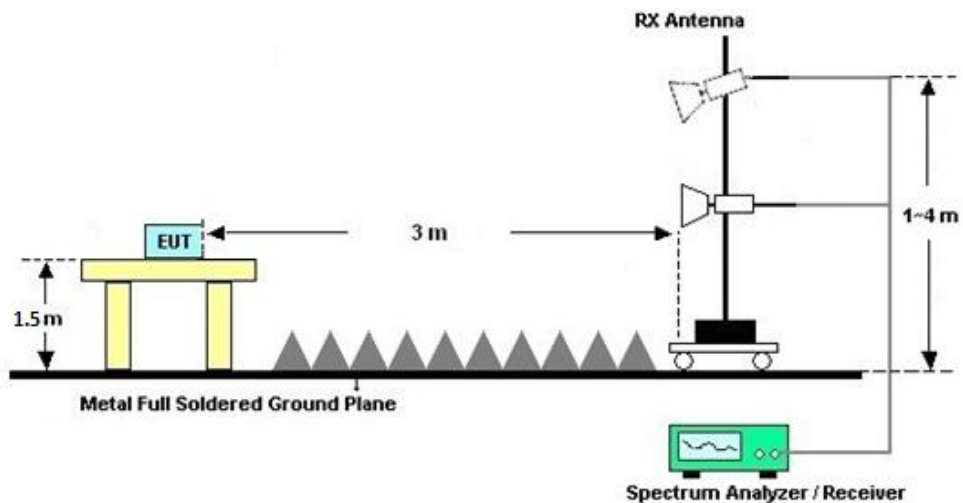
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.5.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

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

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C

3.5.7 Duty Cycle

Please refer to Appendix D.

3.5.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

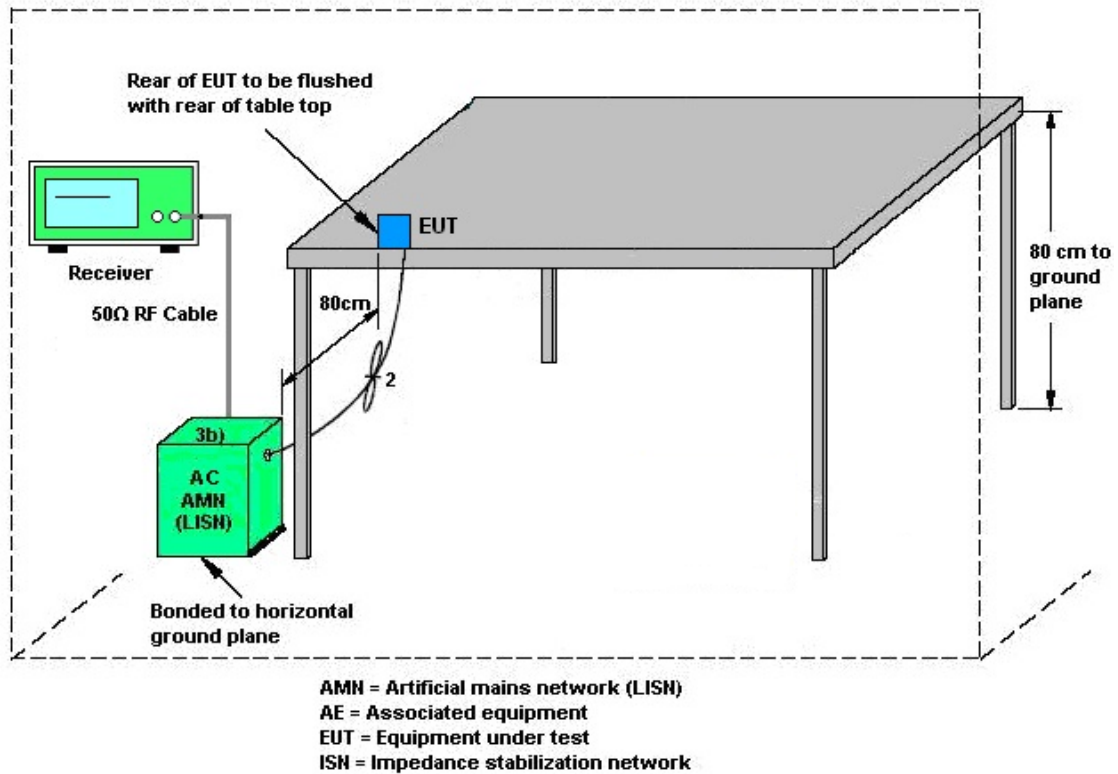
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

§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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used. The EUT complies with the requirement of 15.203.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e.,

Directional gain = $G_{ANT\ MAX}(Ant.1\ Gain, Ant.2\ Gain, \dots) + \text{Array Gain}$, as following table for Power, where Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

For PSD, the directional gain calculation is following,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / N_{ANT}]$ dBi, as following table for PSD.

N_{ANT} = number of transmit antennas

N_{SS} = number of spatial streams. (The worst case directional gain will occur when $N_{SS} = 1$)

<CDD Modes>				
			DG for Power	DG for PSD
	Ant. 1 (dBi)	Ant. 2 (dBi)	(dBi)	(dBi)
U-NII-5	1.22	1.57	1.57	4.41
U-NII-6	1.37	1.54	1.54	4.47
U-NII-7	1.10	1.31	1.31	4.22
U-NII-8	0.94	1.11	1.11	4.04



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 02, 2025	Oct. 28, 2025~ Nov. 04, 2025	Apr. 01, 2026	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 25, 2024	Oct. 28, 2025~ Nov. 04, 2025	Dec. 24, 2025	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Oct. 14, 2025	Oct. 28, 2025~ Nov. 04, 2025	Oct. 13, 2026	Conducted (TH01-SZ)
EMI Test Receiver	Keysight	N9038A	MY564000 04	3Hz~8.5GHz;Max 30dBm	Oct. 10, 2025	Dec. 03, 2025	Oct. 09, 2026	Radiation (03CH03-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY551502 44	10Hz~44GHz	Apr. 18, 2025	Dec. 03, 2025	Apr. 17, 2026	Radiation (03CH03-KS)
Active loop antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Aug. 10, 2025	Dec. 03, 2025	Aug. 09, 2026	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz~1GHz	Nov. 22, 2025	Dec. 03, 2025	Nov. 21, 2026	Radiation (03CH03-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00251982	1GHz~18GHz	Aug. 22, 2025	Dec. 03, 2025	Aug. 21, 2026	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101116	18GHz~40GHz	Oct. 18, 2025	Dec. 03, 2025	Oct. 17, 2026	Radiation (03CH03-KS)
Amplifier	SONOMA	310N	380826	9KHz~1GHz	Jul. 02, 2025	Dec. 03, 2025	Jul. 01, 2026	Radiation (03CH03-KS)
Amplifier	EM	EM18G40GA	060851	18~40GHz	Jan. 02, 2025	Dec. 03, 2025	Jan. 01, 2026	Radiation (03CH03-KS)
high gain Amplifier	EM	EM01G18GA	060834	1Ghz~18Ghz	Dec. 01, 2025	Dec. 03, 2025	Nov. 30, 2026	Radiation (03CH03-KS)
Amplifier	EM	EM01G18GA	060833	1Ghz~18Ghz	Jan. 02, 2025	Dec. 03, 2025	Jan. 01, 2026	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F1040900 04	N/A	NCR	Dec. 03, 2025	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 03, 2025	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 03, 2025	NCR	Radiation (03CH03-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2025	Nov. 09, 2025	Apr. 15, 2026	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Jul. 03, 2025	Nov. 09, 2025	Jul. 02, 2026	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Dec. 24, 2024	Nov. 09, 2025	Dec. 23, 2025	Conduction (CO01-KS)
AC Power Source	Ouhan	APW-130NYT	20220104 0060	AC 0V~300V,45Hz~1000Hz	Apr. 16, 2025	Nov. 09, 2025	Apr. 15, 2026	Conduction (CO01-KS)

NCR: No Calibration Required



5 Measurement Uncertainty

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	± 1.34 dB
Occupied Channel Bandwidth	± 0.012 MHz
Conducted Power	± 1.34 dB
Conducted Power Spectral Density	± 1.32 dB
Frequency	± 1.3 Hz
Conducted Generated signal Levels	± 0.56 dB
Conducted Time	0.44%

Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.84dB
---	--------

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.3dB
---	-------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.2dB
---	-------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.88dB
---	--------

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.32dB
---	--------

----- THE END -----



Appendix A. Conducted Test Results

A1. Conducted Test Results

Test Engineer:	Wen Shiwei	Temperature:	21~25	°C
Test Date:	2025/10/28~2025/12/03	Relative Humidity:	51~54	%

TEST RESULTS DATA
EIRP Power Table

Band V MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
11a	6Mbps	2	1	5955	Full	0.04	0.02	3.18	2.04	5.66	1.57		7.23	24.00	Pass
11a	6Mbps	2	45	6175	Full	0.04	0.02	2.92	3.30	6.12	1.57		7.69	24.00	Pass
11a	6Mbps	2	93	6415	Full	0.04	0.02	3.37	2.49	5.96	1.57		7.53	24.00	Pass
AX20	MCS0	2	1	5955	Full	0.01	0.01	3.62	2.52	6.12	1.57		7.69	24.00	Pass
AX20	MCS0	2	1	5955	26/0	0.01	0.01	-6.73	-7.17	-3.93	1.57		-2.36	24.00	Pass
AX20	MCS0	2	1	5955	52/37	0.01	0.01	-3.85	-4.40	-1.11	1.57		0.46	24.00	Pass
AX20	MCS0	2	1	5955	106/53	0.01	0.01	-0.87	-1.14	2.01	1.57		3.58	24.00	Pass
AX20	MCS0	2	45	6175	Full	0.01	0.01	2.84	3.37	6.12	1.57		7.69	24.00	Pass
AX20	MCS0	2	93	6415	Full	0.01	0.01	3.76	3.56	6.67	1.57		8.24	24.00	Pass
AX40	MCS0	2	3	5965	Full	0.02	0.02	6.38	6.31	9.36	1.57		10.93	24.00	Pass
AX40	MCS0	2	43	6165	Full	0.02	0.02	6.08	7.18	9.68	1.57		11.25	24.00	Pass
AX40	MCS0	2	91	6405	Full	0.02	0.02	6.24	7.10	9.70	1.57		11.27	24.00	Pass
AX80	MCS0	2	7	5985	Full	0.01	0.02	9.18	9.29	12.25	1.57		13.82	24.00	Pass
AX80	MCS0	2	39	6145	Full	0.01	0.02	8.41	10.30	12.47	1.57		14.04	24.00	Pass
AX80	MCS0	2	87	6385	Full	0.01	0.02	8.35	9.98	12.25	1.57		13.82	24.00	Pass
AX160	MCS0	2	15	6025	Full	0.02	0.02	12.27	12.99	15.66	1.57		17.23	24.00	Pass
AX160	MCS0	2	47	6185	Full	0.02	0.02	12.21	13.28	15.79	1.57		17.36	24.00	Pass
AX160	MCS0	2	79	6345	Full	0.02	0.02	11.52	12.39	14.99	1.57		16.56	24.00	Pass

Power Setting	
Ant 1	Ant 2
3	
2.5	
2.5	
4	
-5	
-2.5	
0.5	
3	
4	
6.5	
6	
6.5	
9.5	
9	
9	
13	
12.5	
12	

TEST RESULTS DATA
EIRP Power Table

Band VI MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
11a	6Mbps	2	97	6435	Full	0.04	0.02	3.54	3.01	6.29	1.54		7.83	24.00	Pass
11a	6Mbps	2	105	6475	Full	0.04	0.02	3.34	2.76	6.07	1.54		7.61	24.00	Pass
11a	6Mbps	2	113	6515	Full	0.04	0.02	2.91	2.71	5.82	1.54		7.36	24.00	Pass
AX20	MCS0	2	97	6435	Full	0.01	0.01	3.44	3.39	6.43	1.54		7.97	24.00	Pass
AX20	MCS0	2	97	6435	26/0	0.01	0.01	-5.70	-6.56	-3.10	1.54		-1.56	24.00	Pass
AX20	MCS0	2	97	6435	52/37	0.01	0.01	-3.27	-3.80	-0.52	1.54		1.02	24.00	Pass
AX20	MCS0	2	97	6435	106/53	0.01	0.01	-0.51	-0.71	2.40	1.54		3.94	24.00	Pass
AX20	MCS0	2	105	6475	Full	0.01	0.01	3.26	3.31	6.30	1.54		7.84	24.00	Pass
AX20	MCS0	2	113	6515	Full	0.01	0.01	2.88	3.30	6.11	1.54		7.65	24.00	Pass
AX40	MCS0	2	99	6445	Full	0.02	0.02	6.53	6.81	9.68	1.54		11.22	24.00	Pass
AX40	MCS0	2	107	6485	Full	0.02	0.02	6.37	6.60	9.50	1.54		11.04	24.00	Pass
AX80	MCS0	2	103	6465	Full	0.01	0.02	9.63	10.19	12.93	1.54		14.47	24.00	Pass

Power Setting	
Ant 1	Ant 2
3	
3	
3	
4	
-5	
-2.5	
0.5	
4	
4	
7	
7	
9.5	

Band VI straddle channel MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
AX40	MCS0	2	115	6525	Full	0.02	0.02	6.18	6.51	9.36	1.54	10.90	24.00	Pass	
AX80	MCS0	2	119	6545	Full	0.01	0.02	9.24	9.89	12.59	1.54	14.13	24.00	Pass	
AX160	MCS0	2	111	6505	Full	0.02	0.02	11.83	12.64	15.26	1.54	16.80	24.00	Pass	

Power Setting	
Ant 1	Ant 2
7	
10	
13	

TEST RESULTS DATA
EIRP Power Table

Band VII MIMO															Power Setting		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)			Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM				
11a	6Mbps	2	117	6535	Full	0.04	0.02	3.50	3.57	6.55	1.31	7.86	24.00	Pass	Ant 1	Ant 2	
11a	6Mbps	2	149	6695	Full	0.04	0.02	3.06	4.27	6.72	1.31	8.03	24.00	Pass	3.5		
11a	6Mbps	2	181	6855	Full	0.04	0.02	3.93	3.58	6.77	1.31	8.08	24.00	Pass	3		
AX20	MCS0	2	117	6535	Full	0.01	0.01	3.41	3.93	6.69	1.31	8.00	24.00	Pass	4.5		
AX20	MCS0	2	117	6535	26/0	0.01	0.01	-6.42	-6.10	-3.25	1.31	-1.94	24.00	Pass	-4.5		
AX20	MCS0	2	117	6535	52/37	0.01	0.01	-3.96	-3.30	-0.61	1.31	0.70	24.00	Pass	-2		
AX20	MCS0	2	117	6535	106/53	0.01	0.01	-0.76	-0.04	2.63	1.31	3.94	24.00	Pass	1		
AX20	MCS0	2	149	6695	Full	0.01	0.01	3.51	4.82	7.22	1.31	8.53	24.00	Pass	4.5		
AX20	MCS0	2	181	6855	Full	0.01	0.01	3.77	4.21	7.01	1.31	8.32	24.00	Pass	4		
AX40	MCS0	2	123	6565	Full	0.02	0.02	6.71	7.26	10.00	1.31	11.31	24.00	Pass	7.5		
AX40	MCS0	2	147	6685	Full	0.02	0.02	6.25	7.72	10.06	1.31	11.37	24.00	Pass	7.5		
AX40	MCS0	2	179	6845	Full	0.02	0.02	6.89	7.48	10.21	1.31	11.52	24.00	Pass	7.5		
AX80	MCS0	2	135	6625	Full	0.01	0.02	9.39	10.39	12.93	1.31	14.24	24.00	Pass	10		
AX80	MCS0	2	151	6705	Full	0.01	0.02	9.62	10.86	13.29	1.31	14.60	24.00	Pass	10.5		
AX80	MCS0	2	167	6785	Full	0.01	0.02	9.46	10.32	12.92	1.31	14.23	24.00	Pass	10		
AX160	MCS0	2	143	6665	Full	0.02	0.02	11.76	13.11	15.50	1.31	16.81	24.00	Pass	13		

Band VII straddle channel MIMO															Power Setting		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)			Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2					
11a	6Mbps	2	185	6875	Full	0.04	0.02	3.87	3.46	6.68	1.31		7.99	24.00	Pass	Ant 1	Ant 2
AX20	MCS0	2	185	6875	Full	0.01	0.01	3.88	4.26	7.08	1.31		8.39	24.00	Pass	3	
AX40	MCS0	2	187	6885	Full	0.02	0.02	6.67	6.91	9.80	1.31		11.11	24.00	Pass	4	
AX80	MCS0	2	183	6865	Full	0.01	0.02	9.91	10.29	13.11	1.31		14.42	24.00	Pass	7	
AX160	MCS0	2	175	6825	Full	0.02	0.02	12.28	13.16	15.75	1.31		17.06	24.00	Pass	10	
																13	

TEST RESULTS DATA
EIRP Power Table

Band VIII MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
11a	6Mbps	2	189	6895	Full	0.04	0.02	3.78	3.39	6.60	1.11		7.71	24.00	Pass
11a	6Mbps	2	209	6995	Full	0.04	0.02	4.12	4.44	7.29	1.11		8.40	24.00	Pass
11a	6Mbps	2	229	7095	Full	0.04	0.02	4.93	3.89	7.45	1.11		8.56	24.00	Pass
AX20	MCS0	2	189	6895	Full	0.01	0.01	3.91	4.21	7.07	1.11		8.18	24.00	Pass
AX20	MCS0	2	209	6995	Full	0.01	0.01	4.28	4.86	7.59	1.11		8.70	24.00	Pass
AX20	MCS0	2	229	7095	Full	0.01	0.01	5.29	4.16	7.77	1.11		8.88	24.00	Pass
AX20	MCS0	2	229	7095	26/8	0.01	0.01	-6.14	-5.51	-2.80	1.11		-1.69	24.00	Pass
AX20	MCS0	2	229	7095	52/40	0.01	0.01	-3.47	-2.88	-0.15	1.11		0.96	24.00	Pass
AX20	MCS0	2	229	7095	106/54	0.01	0.01	-0.56	0.41	2.96	1.11		4.07	24.00	Pass
AX40	MCS0	2	195	6925	Full	0.02	0.02	6.41	7.00	9.73	1.11		10.84	24.00	Pass
AX40	MCS0	2	203	6965	Full	0.02	0.02	6.96	7.75	10.38	1.11		11.49	24.00	Pass
AX40	MCS0	2	227	7085	Full	0.02	0.02	7.70	7.00	10.37	1.11		11.48	24.00	Pass
AX80	MCS0	2	199	6945	Full	0.01	0.02	9.87	10.39	13.15	1.11		14.26	24.00	Pass
AX80	MCS0	2	215	7025	Full	0.01	0.02	10.24	10.73	13.50	1.11		14.61	24.00	Pass
AX160	MCS0	2	207	6985	Full	0.02	0.02	12.86	13.38	16.14	1.11		17.25	24.00	Pass

Power Setting	
Ant 1	Ant 2
3	
4.5	
5.5	
4	
5	
6	
-4	
-1.5	
1.5	
7	
7.5	
8	
10	
11	
13.5	

TEST RESULTS DATA
EIRP Power Table

Band V MIMO															Power Setting		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)			Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2					
BE20	MCS0	2	1	5955	Full	0.02	0.02	3.77	2.65	6.26	1.57	7.83	24.00	Pass	4		
BE20	MCS0	2	1	5955	26/0	0.02	0.02	-6.65	-7.06	-3.84	1.57	-2.27	24.00	Pass	-5		
BE20	MCS0	2	1	5955	52/37	0.02	0.02	-3.74	-4.32	-1.01	1.57	0.56	24.00	Pass	-2.5		
BE20	MCS0	2	1	5955	106/53	0.02	0.02	-0.79	-1.06	2.09	1.57	3.66	24.00	Pass	0.5		
BE20	MCS0	2	45	6175	Full	0.02	0.02	2.99	3.50	6.26	1.57	7.83	24.00	Pass	3		
BE20	MCS0	2	93	6415	Full	0.02	0.02	3.87	3.67	6.78	1.57	8.35	24.00	Pass	4		
BE40	MCS0	2	3	5965	Full	0.02	0.02	6.51	6.45	9.49	1.57	11.06	24.00	Pass	6.5		
BE40	MCS0	2	43	6165	Full	0.02	0.02	6.20	7.30	9.80	1.57	11.37	24.00	Pass	6		
BE40	MCS0	2	91	6405	Full	0.02	0.02	6.37	7.24	9.84	1.57	11.41	24.00	Pass	6.5		
BE80	MCS0	2	7	5985	Full	0.02	0.02	9.32	9.45	12.40	1.57	13.97	24.00	Pass	9.5		
BE80	MCS0	2	39	6145	Full	0.02	0.02	8.55	10.46	12.62	1.57	14.19	24.00	Pass	9		
BE80	MCS0	2	87	6385	Full	0.02	0.02	8.51	10.12	12.40	1.57	13.97	24.00	Pass	9		
BE160	MCS0	2	15	6025	Full	0.02	0.02	12.42	13.12	15.79	1.57	17.36	24.00	Pass	13		
BE160	MCS0	2	47	6185	Full	0.02	0.02	12.32	13.39	15.90	1.57	17.47	24.00	Pass	12.5		
BE160	MCS0	2	79	6345	Full	0.02	0.02	11.63	12.50	15.10	1.57	16.67	24.00	Pass	12		
BE320	MCS0	2	31	6105	Full	0.01	0.02	15.31	16.27	18.83	1.57	20.40	24.00	Pass	15		
BE320	MCS0	2	63	6265	Full	0.01	0.02	15.00	16.01	18.54	1.57	20.11	24.00	Pass	14.5		

Band V straddle channel MIMO															Power Setting		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)			Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM				
BE320	MCS0	2	95	6425	Full	0.02	0.02	14.11	14.88	17.52	1.57		19.09	24.00	Pass	Ant 1	Ant 2
															14		

EIRP Power Table

Power Setting	
Ant 1	Ant 2
4	
-5	
-2.5	
0.5	
4	
4	
7	
7	
9.5	

Power Setting	
Ant 1	Ant 2
7	
10	
13	
15.5	

TEST RESULTS DATA
EIRP Power Table

Band VII MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting	
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM				
BE20	MCS0	2	117	6535	Full	0.02	0.02	3.56	4.06	6.83	1.31		8.14	24.00	Pass	Ant 1	Ant 2
BE20	MCS0	2	117	6535	26/0	0.02	0.02	-6.34	-6.02	-3.17	1.31		-1.86	24.00	Pass		4.5
BE20	MCS0	2	117	6535	52/37	0.02	0.02	-3.85	-3.22	-0.51	1.31		0.80	24.00	Pass		-4.5
BE20	MCS0	2	117	6535	106/53	0.02	0.02	-0.68	0.07	2.72	1.31		4.03	24.00	Pass		-2
BE20	MCS0	2	149	6695	Full	0.02	0.02	3.62	4.93	7.33	1.31		8.64	24.00	Pass		1
BE20	MCS0	2	181	6855	Full	0.02	0.02	3.88	4.34	7.13	1.31		8.44	24.00	Pass		4.5
BE40	MCS0	2	123	6565	Full	0.02	0.02	6.83	7.40	10.13	1.31		11.44	24.00	Pass		4
BE40	MCS0	2	147	6685	Full	0.02	0.02	6.38	7.84	10.18	1.31		11.49	24.00	Pass		7.5
BE40	MCS0	2	179	6845	Full	0.02	0.02	7.01	7.62	10.34	1.31		11.65	24.00	Pass		7.5
BE80	MCS0	2	135	6625	Full	0.02	0.02	9.55	10.55	13.09	1.31		14.40	24.00	Pass		10
BE80	MCS0	2	151	6705	Full	0.02	0.02	9.76	11.02	13.45	1.31		14.76	24.00	Pass		10.5
BE80	MCS0	2	167	6785	Full	0.02	0.02	9.62	10.46	13.07	1.31		14.38	24.00	Pass		10
BE160	MCS0	2	143	6665	Full	0.02	0.02	11.87	13.22	15.61	1.31		16.92	24.00	Pass		13

Band VII straddle channel MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting	
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM				
BE20	MCS0	2	185	6875	Full	0.02	0.02	4.03	4.37	7.21	1.31	8.52	24.00	Pass	4		
BE40	MCS0	2	187	6885	Full	0.02	0.02	6.80	7.03	9.93	1.31	11.24	24.00	Pass	7		
BE80	MCS0	2	183	6865	Full	0.02	0.02	10.05	10.43	13.25	1.31	14.56	24.00	Pass	10		
BE160	MCS0	2	175	6825	Full	0.02	0.02	12.39	13.27	15.86	1.31	17.17	24.00	Pass	13		
BE320	MCS0	2	159	6745	Full	0.01	0.02	15.23	16.27	18.79	1.31	20.10	24.00	Pass	15.5		
BE320	MCS0	2	191	6905	Full	0.01	0.02	14.11	14.82	17.49	1.31	18.80	24.00	Pass	14		

TEST RESULTS DATA
EIRP Power Table

Band VIII MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting	
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM			Ant 1	Ant 2
BE20	MCS0	2	189	6895	Full	0.02	0.02	4.02	4.34	7.19	1.11		8.30	24.00	Pass	4	
BE20	MCS0	2	209	6995	Full	0.02	0.02	4.43	4.99	7.73	1.11		8.84	24.00	Pass	5	
BE20	MCS0	2	229	7095	Full	0.02	0.02	5.40	4.27	7.88	1.11		8.99	24.00	Pass	6	
BE20	MCS0	2	229	7095	26/8	0.02	0.02	-6.06	-5.40	-2.71	1.11		-1.60	24.00	Pass	-4	
BE20	MCS0	2	229	7095	52/40	0.02	0.02	-3.39	-2.77	-0.06	1.11		1.05	24.00	Pass	-1.5	
BE20	MCS0	2	229	7095	106/54	0.02	0.02	-0.45	0.49	3.06	1.11		4.17	24.00	Pass	1.5	
BE40	MCS0	2	195	6925	Full	0.02	0.02	6.53	7.14	9.86	1.11		10.97	24.00	Pass	7	
BE40	MCS0	2	203	6965	Full	0.02	0.02	7.09	7.89	10.52	1.11		11.63	24.00	Pass	7.5	
BE40	MCS0	2	227	7085	Full	0.02	0.02	7.83	7.12	10.50	1.11		11.61	24.00	Pass	8	
BE80	MCS0	2	199	6945	Full	0.02	0.02	10.03	10.55	13.31	1.11		14.42	24.00	Pass	10	
BE80	MCS0	2	215	7025	Full	0.02	0.02	10.38	10.87	13.64	1.11		14.75	24.00	Pass	11	
BE160	MCS0	2	207	6985	Full	0.02	0.02	12.97	13.49	16.25	1.11		17.36	24.00	Pass	13.5	



Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5955	22.01	5943.88	5965.89	≤320	PASS
	Ant2	5955	22.25	5943.87	5966.12	≤320	PASS
	Ant1	6175	22.97	6163.49	6186.46	≤320	PASS
	Ant2	6175	22.08	6163.96	6186.04	≤320	PASS
	Ant1	6415	22.71	6403.62	6426.33	≤320	PASS
	Ant2	6415	22.10	6403.71	6425.81	≤320	PASS
	Ant1	6435	22.99	6423.31	6446.30	≤320	PASS
	Ant2	6435	22.22	6423.83	6446.05	≤320	PASS
	Ant1	6475	22.67	6463.95	6486.62	≤320	PASS
	Ant2	6475	22.70	6463.54	6486.24	≤320	PASS
	Ant1	6515	22.14	6504.02	6526.16	≤320	PASS
	Ant2	6515	21.81	6504.13	6525.94	≤320	PASS
	Ant1	6535	22.66	6523.42	6546.08	≤320	PASS
	Ant2	6535	22.14	6523.65	6545.79	≤320	PASS
	Ant1	6695	22.43	6683.87	6706.30	≤320	PASS
	Ant2	6695	22.26	6683.70	6705.96	≤320	PASS
	Ant1	6855	22.64	6843.58	6866.22	≤320	PASS
	Ant2	6855	22.56	6843.35	6865.91	≤320	PASS
	Ant1	6875	22.32	6863.76	6886.08	≤320	PASS
	Ant2	6875	22.15	6863.86	6886.01	≤320	PASS
	Ant1	6895	22.28	6883.80	6906.08	≤320	PASS
	Ant2	6895	22.47	6883.87	6906.34	≤320	PASS
	Ant1	6995	22.16	6983.96	7006.12	≤320	PASS
	Ant2	6995	22.84	6983.40	7006.24	≤320	PASS
	Ant1	7095	22.23	7083.75	7105.98	≤320	PASS
	Ant2	7095	21.20	7084.17	7105.37	≤320	PASS
11BE20MIMO	Ant1	5955	22.41	5943.86	5966.27	≤320	PASS
	Ant2	5955	22.53	5943.73	5966.26	≤320	PASS
	Ant1	6175	22.31	6163.81	6186.12	≤320	PASS
	Ant2	6175	21.94	6164.09	6186.03	≤320	PASS
	Ant1	6415	22.65	6403.37	6426.02	≤320	PASS
	Ant2	6415	22.57	6403.61	6426.18	≤320	PASS
	Ant1	6435	22.66	6423.55	6446.21	≤320	PASS



	Ant2	6435	22.99	6423.24	6446.23	≤320	PASS
	Ant1	6475	22.57	6463.80	6486.37	≤320	PASS
	Ant2	6475	22.65	6463.55	6486.20	≤320	PASS
	Ant1	6515	22.32	6503.48	6525.80	≤320	PASS
	Ant2	6515	22.60	6503.23	6525.83	≤320	PASS
	Ant1	6535	22.11	6523.95	6546.06	≤320	PASS
	Ant2	6535	22.23	6524.01	6546.24	≤320	PASS
	Ant1	6695	22.82	6683.60	6706.42	≤320	PASS
	Ant2	6695	23.26	6683.30	6706.56	≤320	PASS
	Ant1	6855	22.85	6843.74	6866.59	≤320	PASS
	Ant2	6855	23.05	6843.19	6866.24	≤320	PASS
	Ant1	6875	22.38	6864.00	6886.38	≤320	PASS
	Ant2	6875	23.17	6863.25	6886.42	≤320	PASS
	Ant1	6895	22.84	6883.54	6906.38	≤320	PASS
	Ant2	6895	21.99	6884.19	6906.18	≤320	PASS
	Ant1	6995	21.83	6983.91	7005.74	≤320	PASS
	Ant2	6995	21.65	6984.16	7005.81	≤320	PASS
	Ant1	7095	20.69	7084.79	7105.48	≤320	PASS
	Ant2	7095	21.55	7084.13	7105.68	≤320	PASS
11BE40MIMO	Ant1	5965	41.62	5944.30	5985.92	≤320	PASS
	Ant2	5965	43.16	5943.38	5986.54	≤320	PASS
	Ant1	6165	42.94	6142.88	6185.82	≤320	PASS
	Ant2	6165	43.14	6143.22	6186.36	≤320	PASS
	Ant1	6405	41.94	6383.96	6425.90	≤320	PASS
	Ant2	6405	42.60	6383.26	6425.86	≤320	PASS
	Ant1	6445	42.06	6423.90	6465.96	≤320	PASS
	Ant2	6445	43.08	6423.32	6466.40	≤320	PASS
	Ant1	6485	42.54	6463.58	6506.12	≤320	PASS
	Ant2	6485	42.48	6463.92	6506.40	≤320	PASS
	Ant1	6525	41.38	6504.32	6545.70	≤320	PASS
	Ant2	6525	42.72	6503.72	6546.44	≤320	PASS
	Ant1	6565	42.46	6543.72	6586.18	≤320	PASS
	Ant2	6565	43.74	6542.90	6586.64	≤320	PASS
	Ant1	6685	42.78	6663.38	6706.16	≤320	PASS
	Ant2	6685	42.80	6663.58	6706.38	≤320	PASS
	Ant1	6845	41.74	6824.38	6866.12	≤320	PASS
	Ant2	6845	43.22	6823.20	6866.42	≤320	PASS
	Ant1	6885	42.54	6863.40	6905.94	≤320	PASS
	Ant2	6885	42.84	6863.32	6906.16	≤320	PASS



	Ant1	6925	42.52	6903.70	6946.22	≤320	PASS
	Ant2	6925	43.30	6903.20	6946.50	≤320	PASS
	Ant1	6965	43.64	6943.04	6986.68	≤320	PASS
	Ant2	6965	43.42	6943.06	6986.48	≤320	PASS
	Ant1	7085	43.00	7063.82	7106.82	≤320	PASS
	Ant2	7085	43.64	7063.32	7106.96	≤320	PASS
11BE80MIMO	Ant1	5985	82.56	5943.36	6025.92	≤320	PASS
	Ant2	5985	83.60	5941.80	6025.40	≤320	PASS
	Ant1	6145	84.16	6102.64	6186.80	≤320	PASS
	Ant2	6145	84.64	6102.40	6187.04	≤320	PASS
	Ant1	6385	83.36	6343.44	6426.80	≤320	PASS
	Ant2	6385	82.96	6343.72	6426.68	≤320	PASS
	Ant1	6465	86.04	6421.44	6507.48	≤320	PASS
	Ant2	6465	82.84	6424.24	6507.08	≤320	PASS
	Ant1	6545	83.08	6502.52	6585.60	≤320	PASS
	Ant2	6545	85.76	6502.28	6588.04	≤320	PASS
	Ant1	6625	86.24	6582.20	6668.44	≤320	PASS
	Ant2	6625	84.84	6583.08	6667.92	≤320	PASS
	Ant1	6705	84.28	6662.48	6746.76	≤320	PASS
	Ant2	6705	83.52	6663.00	6746.52	≤320	PASS
	Ant1	6785	86.04	6741.72	6827.76	≤320	PASS
	Ant2	6785	85.40	6742.56	6827.96	≤320	PASS
	Ant1	6865	86.04	6821.92	6907.96	≤320	PASS
	Ant2	6865	86.48	6821.72	6908.20	≤320	PASS
	Ant1	6945	85.20	6902.12	6987.32	≤320	PASS
	Ant2	6945	83.96	6902.64	6986.60	≤320	PASS
	Ant1	7025	86.24	6981.96	7068.20	≤320	PASS
	Ant2	7025	86.00	6981.20	7067.20	≤320	PASS
11BE160MIMO	Ant1	6025	173.20	5938.52	6111.72	≤320	PASS
	Ant2	6025	174.48	5938.04	6112.52	≤320	PASS
	Ant1	6185	179.12	6095.96	6275.08	≤320	PASS
	Ant2	6185	174.96	6097.32	6272.28	≤320	PASS
	Ant1	6345	175.60	6255.96	6431.56	≤320	PASS
	Ant2	6345	174.56	6257.08	6431.64	≤320	PASS
	Ant1	6505	178.40	6415.56	6593.96	≤320	PASS
	Ant2	6505	174.08	6418.12	6592.20	≤320	PASS
	Ant1	6665	176.48	6577.56	6754.04	≤320	PASS
	Ant2	6665	173.44	6578.04	6751.48	≤320	PASS
	Ant1	6825	177.76	6735.96	6913.72	≤320	PASS



	Ant2	6825	174.16	6737.40	6911.56	≤320	PASS
	Ant1	6985	176.16	6896.44	7072.60	≤320	PASS
	Ant2	6985	170.72	6898.28	7069.00	≤320	PASS
11BE320MIMO	Ant1	6105	351.04	5928.84	6279.88	---	---
	Ant2	6105	342.88	5933.96	6276.84	---	---
	Ant1	6265	345.76	6090.60	6436.36	---	---
	Ant2	6265	345.76	6091.88	6437.64	---	---
	Ant1	6425	346.56	6250.92	6597.48	---	---
	Ant2	6425	348.80	6250.60	6599.40	---	---
	Ant1	6585	351.04	6409.32	6760.36	---	---
	Ant2	6585	346.56	6411.72	6758.28	---	---
	Ant1	6745	347.84	6571.40	6919.24	---	---
	Ant2	6745	342.88	6572.68	6915.56	---	---
	Ant1	6905	346.40	6729.96	7076.36	---	---
	Ant2	6905	345.60	6730.28	7075.88	---	---

Note1: For channels with a nominal bandwidth of 320MHz, compliance is demonstrated by way of the 99%BW.

Note2: For channels with a nominal bandwidth less than 320MHz(e.g 20,40,80,160MHz), compliance is demonstrated by way of the 26dB EBW.



Test Graphs

