TEST REPORT

Product	:	GPON ONT
Trade mark	:	ZTE
Model/Type reference	:	ZXHN F6705, ZXHN F6705T
Serial Number	:	N/A
Report Number	:	EED32R82051202
Date of Issue	:	Nov. 14, 2025
Test Standards	:	ETSI EN 301 893 V2.2.1 (2024-11)
Test result	:	PASS

Prepared for:

ZTE Corporation

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, NanshanDistrict, Shenzhen, Guangdong, P. R. China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Park, Zone 70, Bao'an District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by: Frazer Li — Reviewed by: Keven Tan

Approved by: Aaron Ma — Date: Nov. 14, 2025

Check No.:5351031125

Modification Record

Version No.	Last Report No.	Modification Description
00	EED32R81545902	First report
01	EED32R82051202	Update the versions.
Note: The new versions has changed the antenna from external to internal. This does not affect the RF performance, so only the RSE test was conducted. Other test data come from the report of No.EED32R81545902.		

1 Test Summary

ETSI EN 301 893 V2.2.1 (2024-11)				
Test Item	**Test Requirement**	**Test Method**	**Limit**	**Result**
Nominal centre frequency	Clause 4.2.1.4	Clause 5.4.3.2.1	Clause 4.2.1.3	PASS
Nominal channel bandwidth and occupied bandwidth	Clause 4.2.2.3	Clause 5.4.3.2.1	Clause 4.2.2.2	PASS
RF output power	Clause 4.2.3.3	Clause 5.4.4.2.1	Clause 4.2.3.2	PASS
Transmit Power Control (TPC)	Clause 4.2.3.3	Clause 5.4.4.2.1	Clause 4.2.3.2	PASS
Power Spectral Density (PSD)	Clause 4.2.3.3	Clause 5.4.4.2.1	Clause 4.2.3.2	PASS
Transmitter unwanted emissions outside the transmitter's operating bands	Clause 4.2.4.1.3	Clause 5.4.5.2.1	Clause 4.2.4.1.2	PASS
Transmitter unwanted emissions within the transmitter's operating bands	Clause 4.2.4.2.3	Clause 5.4.6.2.2	Clause 4.2.4.2.2	PASS
Receiver spurious emissions	Clause 4.2.5.3	Clause 5.4.7.2.2	Clause 4.2.5.2	PASS
Dynamic Frequency Selection (DFS)	Clause 4.2.6.2	Clause 5.4.8.2.1	Clause 4.2.6.2.1	PASS
Adaptivity (channel access mechanism)	Clause 4.2.7.4	Clause 5.4.9.3.2	Clause 4.2.7.3	PASS
Receiver blocking	Clause 4.2.8.5	Clause 5.4.10.2.1	Clause 4.2.8.4	PASS
Adjacent channel selectivity	Clause 4.2.9.5	Clause 5.4.11.2.1	Clause 4.2.9.4	PASS
User Access Restrictions (UAR)	Clause 4.2.10.2	Clause 5.4.12.3	Clause 4.2.10.3	PASS
Country determination capability	Clause B.2.2.11.3	Clause B.2.2.11.2	Clause B.2.2.11.4	N/A[1]

Remark:
N/A[1]: The product does not support 5G Wi-Fi sub-band 4 or RF output power of less than 25 mW EIRP in sub-band 4.;In this whole report not application.
Tx: In this whole report Tx (or tx) means Transmitter.
Rx: In this whole report Rx (or rx) means Receiver.
RF: In this whole report RF means Radiated Frequency.
CH: In this whole report CH means channel.
Volt: In this whole report Volt means Voltage.
Temp: In this whole report Temp means Temperature.
Humid: In this whole report Humid means humidity.
Press: In this whole report Press means Pressure.

Model No.: ZXHN F6705, ZXHN F6705T
Only the model ZXHN F6705 was tested. ZXHN F6705 compared with ZXHN F6705T, only have different model number. All of the models' circuit theory, electrical design and the key pieces are the same.
ZXHN F6705/ ZXHN F6705T has eight configs, all of the configs use the same PCB, the differences are shown in the following table.

No.	ZXHN F6705/ ZXHN F6705T	Power Adapter
1	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+1*POTS+1*USB2.0+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band external antennas with 5dBi gain)	12V, 1.5A
2	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+1*USB2.0+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band external antennas with 5dBi gain)	12V, 1.5A
3	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+1*POTS+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band external antennas with 5dBi gain)	12V, 1.5A
4	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band external antennas with 5dBi gain)	12V, 1.5A
5	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+1*POTS+1*USB2.0+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band internal antennas with 5dBi gain)	12V, 1.5A
6	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+1*USB2.0+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band internal	12V, 1.5A

	antennas with 5dBi gain)	
7	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+1*POTS+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band internal antennas with 5dBi gain)	12V, 1.5A
8	WAN interface: GPON LAN interface: 1*2.5GE+3*GE+2WIFI(2.4GHz 11be 2x2 MIMO+5GHz 11be 2x2 MIMO@160Mhz）(two dual band internal antennas with 5dBi gain)	12V, 1.5A

2 Content

Page

1 TEST SUMMARY 3

2 CONTENT 6

3 TEST REQUIREMENT 7

3.1 TEST SETUP 7
3.1.1 *For Conducted test setup* 7
3.1.2 *For Radiated Emissions test setup* 7
3.2 TEST ENVIRONMENT 8
3.3 TEST CONDITION 9

4 GENERAL INFORMATION 12

4.1 CLIENT INFORMATION 12
4.2 GENERAL DESCRIPTION OF EUT 12
4.3 OTHER INFORMATION 13
4.4 DESCRIPTION OF SUPPORT UNITS 15
4.5 TEST LOCATION 15
4.6 DEVIATION FROM STANDARDS 15
4.7 ABNORMALITIES FROM STANDARD CONDITIONS 15
4.8 OTHER INFORMATION REQUESTED BY THE CUSTOMER 15
4.9 MEASUREMENT UNCERTAINTY (95% CONFIDENCE LEVELS, K=2) 15

5 EQUIPMENT LIST 16

6 RADIO TECHNICAL REQUIREMENTS SPECIFICATION 19

APPENDIX A: SPURIOUS EMISSIONS 20

RADIATED SPURIOUS EMISSIONS 21
1) Transmitter unwanted emissions outside the 5 GHz RLAN bands *21*
2) Receiver spurious emissions *25*

APPENDIX B: USER ACCESS RESTRICTIONS(UAR) 29

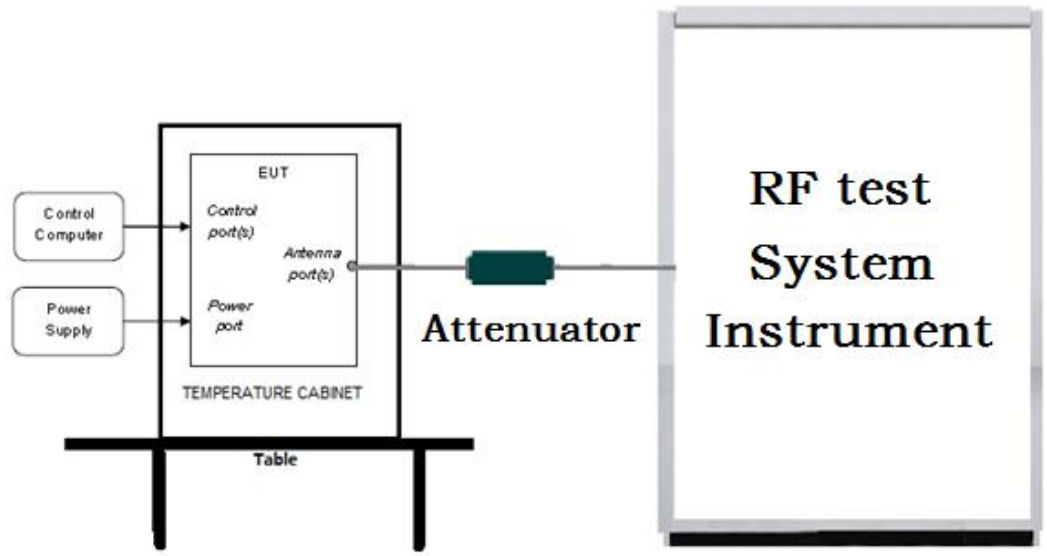
PHOTOGRAPHS OF TEST SETUP 30

PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS 34

3 Test Requirement

3.1 Test setup

3.1.1 For Conducted test setup



3.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

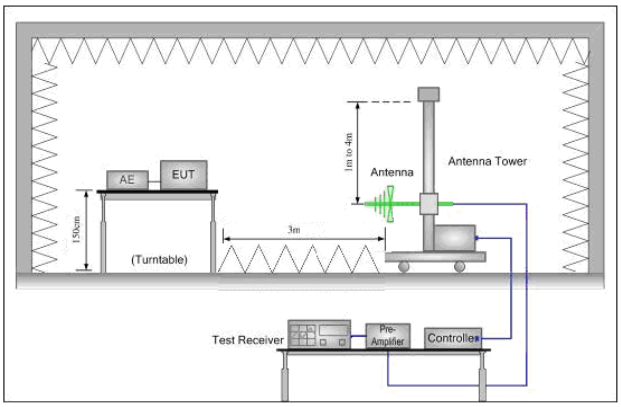


Figure 1. 30MHz to 1GHz

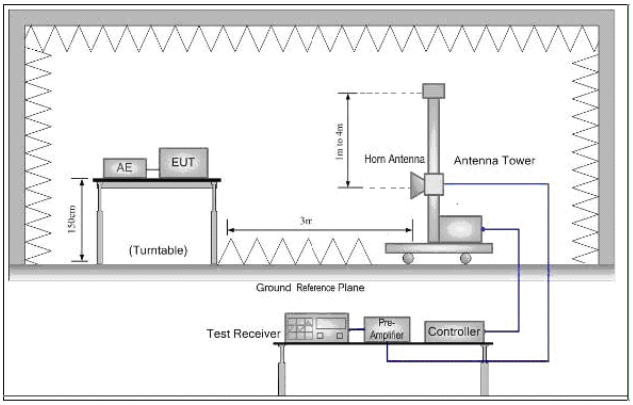


Figure 2. Above 1GHz

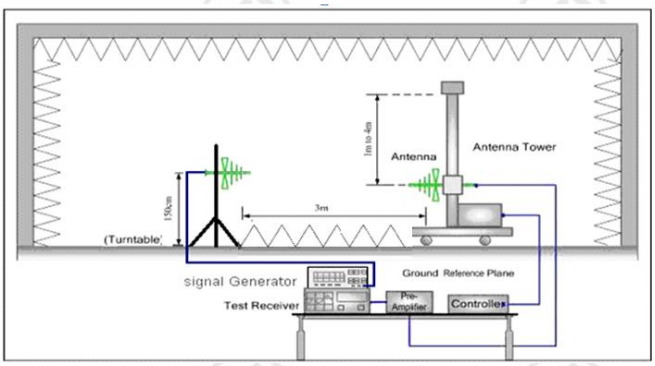


Figure 1. 30MHz to 1GHz

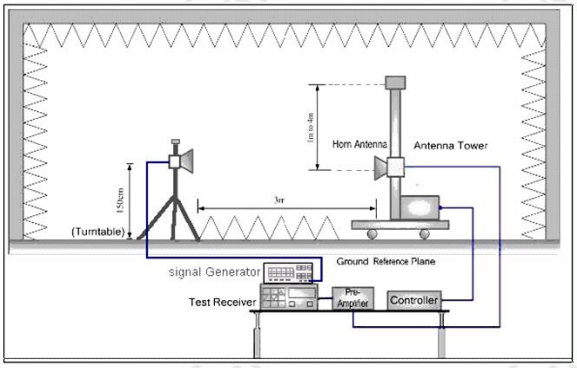


Figure 2. Above 1GHz

3.2 Test Environment

Environment Parameter	Selected Values During Tests		
Test condition	Ambient		
	Temperature(℃)	DC Voltage(V)	Humidity(%)
NT/NV	22	12.0	55
LT/NV	-5	12.0	55
HT/NV	45	12.0	55

Note:

1) The EUT just work in such extreme temperature of -5℃~+45℃, so here the EUT is tested in the temperature of -5℃~+45℃

2) NV: Normal Voltage NT:Normal Temperature
LT: Low Extreme Test Temperature HT: High Extreme Test Temperature

5.1.2 Normal test conditions

5.1.2.1 Normal temperature and humidity

Unless otherwise declared by the manufacturer, the normal temperature and humidity conditions for tests shall be any convenient combination of temperature and humidity within the following ranges:

- temperature: +15 °C to +35 °C;
- relative humidity: 20 % to 75 %.

The actual values during the tests shall be recorded.

5.1.2.2 Normal power source

The normal test voltage for the equipment shall be the nominal voltage for which the equipment was designed.

5.1.3 Extreme test conditions

Some tests in the present document need to be repeated at extreme temperatures. Where that is the case, measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer.

3.3 Test Condition

Table 10: Test channels for sub-band 1, sub-band 2 and sub-band 3

Test	Clause	Test channel		
		Sub-band 1	Sub-band 2	Sub-band 3
Nominal centre frequency (see note 1)	5.4.2	C_11	C_21	C_31
Occupied bandwidth	5.4.3	C_11	C_21	C_31
RF output power, Power Spectral Density (PSD)	5.4.4	C_12, C_13	C_22, C_23	C_32, C_33
Transmit Power Control (TPC) (see note 1)	5.4.4	n.a.	C_22, C_23	C_32, C_33
Transmitter unwanted emissions outside the transmitter's operating bands (see note 1)	5.4.5	C_11	C_21	C_31
Transmitter unwanted emissions within the transmitter's operating bands (for single-channel operation)	5.4.6	C_12, C_13	C_22, C_23	C_32, C_33

Test	Clause	Test channel		
		Sub-band 1	Sub-band 2	Sub-band 3
Transmitter unwanted emissions within the transmitter's operating bands (for multi-channel operation in adjacent channels) (see note 3 for multi-channel operation in non-adjacent channels)	5.4.6	$C_{gen}1$, $C_{gen}2$ (see note 4 for channels in the group of adjacent channels not used for transmission)		
Receiver spurious emissions (see note 1)	5.4.7	C_11	C_21	C_31
Dynamic Frequency Selection (DFS)	5.4.8	n.a.	C_24	C_34 (see note 2)
Adaptivity (channel access mechanism)	5.4.9	$C_{gen}3$		
Receiver blocking	5.4.10	C_11	C_21	C_31
Adjacent channel selectivity	5.4.11	C_11	C_21	C_31

Test channel definitions:

C_11, C_21, C_31:	One channel from the channel plan for the sub-band. For occupied bandwidth, testing shall be repeated for every nominal channel bandwidth within the sub-band. For receiver blocking and adjacent channel selectivity, it is sufficient to only perform this test using the lowest nominal channel bandwidth.
C_12, C_22, C_32:	The lowest channel for every channel plan within this sub-band. For PSD testing, it is sufficient to only perform this test using the lowest nominal channel bandwidth. For unwanted emissions testing, it is sufficient to only perform this test using a nominal channel bandwidth of 20 MHz.
C_13, C_23, C_33:	The highest channel for every channel plan within this sub-band. For PSD testing, it is sufficient to only perform this test using the lowest nominal channel bandwidth. For unwanted emissions testing, it is sufficient to only perform this test using a nominal channel bandwidth of 20 MHz.
C_14, C_24, C_34:	One channel from the channel plan for this sub-band. If more than one nominal channel bandwidth is specified for this sub-band, testing shall be performed using the lowest and highest nominal channel bandwidth.
$C_{gen}1$:	The lowest channel in the group of adjacent channels for all supported total bandwidths (N).
$C_{gen}2$:	The highest channel in the group of adjacent channels for all supported total bandwidths (N).
$C_{gen}3$:	One channel (in case of single-channel testing) or a group of adjacent channels (in case of multi-channel testing) from the channel plan.

NOTE 1:	In case of more than one channel plan, testing of these specific requirements needs only to be performed using one of the channel plans.
NOTE 2:	Where the channel plan includes channels whose nominal channel bandwidth falls completely or partly within the 5 600 MHz to 5 650 MHz band, the tests for the Channel Availability Check (CAC) (and, where implemented, for the off-channel CAC) shall be performed on one of these channels in addition to a channel within the band 5 470 MHz to 5 600 MHz or within the band 5 650 MHz to 5 725 MHz.
NOTE 3:	For multi-channel operation in non-adjacent channels, each group of adjacent channels shall be tested individually with the specified test channels.
NOTE 4:	If one or more of the channels in the group of adjacent channels might not be used for transmission, channel configurations suitable to verify each of the supported channel edge masks as shown in figure 2, figure 3 and figure 4 shall be tested in addition.

Table B.4: Test channels for sub-band 4

Test	Clause	Test channel
Nominal centre frequency (see note 1)	B.3.4.2	$C_4$1
Occupied bandwidth	B.3.4.3	$C_4$1
RF output power, Power Spectral Density (PSD)	B.3.4.4	$C_4$2, $C_4$3
Transmit Power Control (TPC) (see note 1)	B.3.4.4	$C_4$2, $C_4$3
Transmitter unwanted emissions outside the transmitter's operating bands (see note 1)	B.3.4.5	$C_4$1
Transmitter unwanted emissions within the transmitter's operating bands (for single-channel operation)	B.3.4.6	$C_4$2, $C_4$3
Transmitter unwanted emissions within the transmitter's operating bands (for multi-channel operation in adjacent channels) (see note 2 for multi-channel operation in non-adjacent channels)	B.3.4.6	C_{gen}1, C_{gen}2 (see note 3 for channels in the group of adjacent channels not used for transmission)
Receiver spurious emissions (see note 1)	B.3.4.7	$C_4$1
Adaptivity (channel access mechanism)	B.3.4.9	C_{gen}3
Receiver blocking	B.3.4.10	$C_4$1
Adjacent channel selectivity	B.3.4.11	$C_4$1

Test channel definitions:

$C_4$1: One channel from the channel plan in sub-band 4. For occupied bandwidth, testing shall be repeated for every nominal channel bandwidth within sub-band 4. For receiver blocking and adjacent channel selectivity, it is sufficient to only perform this test using the lowest nominal channel bandwidth.

$C_4$2: The lowest channel for every channel plan in sub-band 4. For PSD testing, it is sufficient to only perform this test using the lowest nominal channel bandwidth. For unwanted emissions testing, it is sufficient to only perform this test using a nominal channel bandwidth of 20 MHz.

$C_4$3: The highest channel for every channel plan in sub-band 4. For PSD testing, it is sufficient to only perform this test using the lowest nominal channel bandwidth. For unwanted emissions testing, it is sufficient to only perform this test using a nominal channel bandwidth of 20 MHz.

C_{gen}1: See definition in table 10.

C_{gen}2: See definition in table 10.

C_{gen}3: See definition in table 10.

NOTE 1: In case of more than one channel plan, testing of these specific requirements needs only to be performed using one of the channel plans.

NOTE 2: For multi-channel operation in non-adjacent channels, each group of adjacent channels shall be tested individually with the specified test channels.

NOTE 3: If one or more of the channels in the group of adjacent channels might not be used for transmission, channel configurations suitable to verify each of the supported channel edge masks as shown in figure 2, figure 3 and figure 4 shall be tested in addition.

The worst case configurations, The worst case data was recorded in the report.

SISO

Operating Frequency	802.11 Mode	Data rate
Sub-band 1: 5150-5250MHz; Sub-band 2: 5250-5350MHz; Sub-band 3: 5470-5725MHz;	a	6Mb/s
	n(HT20)	MCS0
	n(HT40)	MCS0
	ac(VHT20)	MCS0
	ac(VHT40)	MCS0
	ac(VHT80)	MCS0
	ac(VHT160)	MCS0
	ax(HE20)	MCS0
	ax(HE40)	MCS0
	ax(HE80)	MCS0
	ax(HE160)	MCS0
	be(EHT20)	MCS0
	be(EHT40)	MCS0
	be(EHT80)	MCS0
	be(EHT160)	MCS0

MIMO

Operating Frequency	802.11 Mode	Data rate
Sub-band 1: 5150-5250MHz; Sub-band 2: 5250-5350MHz; Sub-band 3: 5470-5725MHz;	n(HT20)	MCS0
	n(HT40)	MCS0
	ac(VHT20)	MCS0
	ac(VHT40)	MCS0
	ac(VHT80)	MCS0
	ac(VHT160)	MCS0
	ax(HE20)	MCS0
	ax(HE40)	MCS0
	ax(HE80)	MCS0
	ax(HE160)	MCS0
	be(EHT20)	MCS0
	be(EHT40)	MCS0
	be(EHT80)	MCS0
	be(EHT160)	MCS0

4 General Information

4.1 Client Information

Applicant:	ZTE Corporation
Address of Applicant:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, NanshanDistrict, Shenzhen, Guangdong, P. R. China
Manufacturer:	ZTE Corporation
Address of Manufacturer:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, NanshanDistrict, Shenzhen, Guangdong, P. R. China

4.2 General Description of EUT

Product Name:	GPON ONT
Model No.:	ZXHN F6705, ZXHN F6705T
Test model No.:	ZXHN F6705
Trade mark:	ZTE
Type of Modulation:	IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11ac(VHT20/VHT40/VHT80/VHT160): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) IEEE 802.11ax(HE20/HE40/HE80/HE160): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM) IEEE 802.11be(HE20/HE40/HE80/HE160): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM,4096QAM)
Frequency band(s) of operation:	Sub-band 1: 5150-5250MHz; Sub-band 2: 5250-5350MHz; Sub-band 3: 5470-5725MHz
Sample Type:	Fixed-Use
Test Power Grade:	Default
Test Software of EUT:	QATool.exe
Antenna Type:	Dipole antenna
Antenna Configuration:	☒ Single Transmitting; ☒ MIMO（☒ 2T2R,☒ 3T3R,☐ 4T4R, ☐ Other);
Antenna Gain:	ANT 5G_0: 5.3 dBi, ANT 5G_1: 5.1 dBi, ANT 5G_2: 3.8 dBi, Beamforming gain: 4.8 dB
Power Supply:	DC 12.0V
Test voltage:	DC 12.0V

4.3 Other Information

RED Directive:	2014/53/EU
Sample Received Date1:	Aug. 26, 2025
Sample tested Date1:	Aug. 26, 2025 to Sep. 09, 2025
Sample Received Date2:	Nov. 03, 2025
Sample tested Date2:	Nov. 03, 2025 to Nov. 08, 2025

Operation Frequency each of channel

802.11a/802.11n/802.11ac/802.11ax/802.11be(20MHz) Frequency/Channel Operations:

Sub-band 1		Sub-band 2		Sub-band 3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	52	5260	100	5500
40	5200	56	5280	104	5520
44	5220	60	5300	108	5540
48	5240	64	5320	112	5560
-	-	-	-	116	5580
-	-	-	-	120	5600
-	-	-	-	124	5620
-	-	-	-	128	5640
-	-	-	-	132	5660
-	-	-	-	136	5680
-	-	-	-	140	5700

Note:Channel 28 is a channel defined in clause 4.2.1 for sub-band 3.

802.11n/802.11ac/802.11ax/802.11be(40MHz) Frequency/Channel Operations:

Sub-band 1		Sub-band 2		Sub-band 3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	54	5270	102	5510
46	5230	62	5310	110	5550
-	-	-	-	118	5590
-	-	-	-	126	5630
-	-	-	-	134	5670

802.11ac/802.11ax/802.11be(80MHz)Frequency/Channel Operations:

Sub-band 1		Sub-band 2		Sub-band 3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	58	5290	106	5530
-	-	-	-	122	5610

802.11ac/802.11ax/802.11be(160MHz) Frequency/Channel Operations:

Sub-band 1 & Sub-band 2	Sub-band 3

Channel	Frequency (MHz)	Channel	Frequency (MHz)
50	5250	114	5570

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

1）Support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Netbook	Asus	FL8700JP1065-0D8GXYQ2X10	FCC&CE	CTI

4.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Park, Zone 70, Bao'an District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 3368 3668 Fax:+86 (0) 755 3368 3385

CNAS-Lab Code: L1910

A2LA certificate number: 3061.01

No tests were sub-contracted.

4.6 Deviation from Standards

None.

4.7 Abnormalities from Standard Conditions

None.

4.8 Other Information Requested by the Customer

None.

4.9 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio frequency	7.8×10^{-8}
2	RF Power conducted	0.46dB(30MHz-1GHz)
		0.55dB(1GHz-18GHz)
3	Unwanted Emission, conducted	0.46dB(30MHz-1GHz)
		0.55dB(1GHz-18GHz)
4	Spurious Emission, radiated	4.3dB (30MHz-1GHz)
		4.5dB (1GHz-18GHz)
		3.4dB (18GHz-26GHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC and low frequency voltages test	0.026%

5 Equipment List

RF test system					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Spectrum Analyzer	Keysight	N9010A	MY54510339	12-05-2024	12-04-2025
Signal Generator	Keysight	N5182B	MY53051549	11-30-2024	11-29-2025
DC Power	Keysight	E3642A	MY56376072	11-30-2024	11-29-2025
Communication test set	R&S	CMW500	169004	03-03-2025	03-02-2026
RF control unit(power unit)	JS Tonscend	JS0806-2	22G8060592	07-20-2025	07-19-2026
Wi-Fi 7GHz Band Extendder	JS Tonscend	TS-WF7U2	2206200002	05-12-2025	05-11-2026
High-low temperature test chamber	Dong Guang Qin Zhuo	LK-80GA	QZ20150611879	11-30-2024	11-29-2025
Temperature/ Humidity Indicator	biaozhi	HM10	1804186	05-26-2025	05-25-2026
BT&WI-FI Automatic test software	JS Tonscend	JS1120-3	V3.3.20	---	---
Spectrum Analyzer	R&S	FSV3044	101509	02-14-2025	02-13-2026

3M full-anechoic Chamber Test 1					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Fully Anechoic Chamber	TDK	FAC-3	---	01-09-2024	01-08-2027
Receiver	Keysight	N9038A	MY57290136	01-04-2025	01-03-2026
Spectrum Analyzer	Keysight	N9020B	MY57111112	01-14-2025	01-13-2026
Spectrum Analyzer	Keysight	N9030B	MY57140871	01-14-2025	01-13-2026
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-12-2025	04-11-2026
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-12-2025	04-11-2026
Horn Antenna	ETS-LINDGREN	3117	57407	06-29-2025	06-28-2026
Preamplifier	EMCI	EMC001330	980563	03-03-2025	03-02-2026
Preamplifier	Tonscend	TAP-011858	AP21B806112	07-07-2025	07-06-2026
Preamplifier	Tonscend	EMC051845SE	980380	12-05-2024	12-04-2025
Communication test set	R&S	CMW500	102898	01-04-2025	01-03-2026
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	03-31-2025	03-30-2026
RSE Automatic test software	JS Tonscend	JS36-RSE	V4.0.0.0	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0001		---
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	---	---
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	---	---
Cable line	Times	EMC104-NMNM-1000	SN160710	---	---
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	---	---
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	---	---
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	---	---
Cable line	Times	HF160-KMKM-3.00M	393493-0001	---	---

3M full-anechoic Chamber Test 2					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Fully Anechoic Chamber	TDK	FAC-3	---	01-09-2024	01-08-2027
Receiver	Keysight	N9038A	MY57290136	01-04-2025	01-03-2026
Spectrum Analyzer	Keysight	N9020B	MY57111112	01-14-2025	01-13-2026
Spectrum Analyzer	Keysight	N9030B	MY57140871	01-14-2025	01-13-2026
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-12-2025	04-11-2026
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-12-2025	04-11-2026
Horn Antenna	ETS-LINDGREN	3117	57407	06-29-2025	06-28-2026
Preamplifier	EMCI	EMC001330	980563	03-03-2025	03-02-2026
Preamplifier	Tonscend	TAP-011858	AP21B806112	07-07-2025	07-06-2026
Preamplifier	Tonscend	EMC051845SE	980380	12-05-2024	12-04-2025
Communication test set	R&S	CMW500	102898	01-04-2025	01-03-2026
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	03-31-2025	03-30-2026
RSE Automatic test software	JS Tonscend	JS36-RSE	V4.0.0.0	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0001		---
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	---	---
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	---	---
Cable line	Times	EMC104-NMNM-1000	SN160710	---	---
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	---	---
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	---	---
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	---	---
Cable line	Times	HF160-KMKM-3.00M	393493-0001	---	---

6 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	ETSI EN 301 893 V2.2.1 (2024-11)	5 GHz WAS/RLAN; Harmonised Standard for access to radio spectrum

Test Results List:

ETSI EN 301 893 V2.2.1 (2024-11)		Test Descriptions & Test Conditions	Verdict	Note
Test Requirement	Test Method			
Clause 4.2.1.4	Clause 5.4.3.2.1	Nominal centre frequency		Note 1
		NT/NV	PASS	
		LT/NV	PASS	
		HT/NV	PASS	
Clause 4.2.2.3	Clause 5.4.3.2.1	Nominal channel bandwidth and occupied bandwidth		Note 1
		NT/NV	PASS	
Clause 4.2.3.3	Clause 5.4.4.2.1	RF output power		Note 1
		NT/NV	PASS	
		LT/NV	PASS	
		HT/NV	PASS	
Clause 4.2.3.3	Clause 5.4.4.2.1	Transmit Power Control (TPC)		Note 1
		NT/NV	PASS	
		LT/NV	PASS	
		HT/NV	PASS	
Clause 4.2.3.3	Clause 5.4.4.2.1	Power Spectral Density (PSD)		Note 1
		NT/NV	PASS	
Clause 4.2.6.2	Clause 5.4.8.2.1	Dynamic Frequency Selection (DFS)		Note 2
		NT/NV	PASS	
Clause 4.2.7.4	Clause 5.4.9.3.2	Adaptivity (channel access mechanism)		Note 1
		NT/NV	PASS	
Clause 4.2.8.5	Clause 5.4.10.2.1	Receiver blocking		Note 1
		NT/NV	PASS	
Clause 4.2.4.2.3	Clause 5.4.6.2.2	Transmitter unwanted emissions within the transmitter's operating bands		Note 1
		NT/NV	PASS	
Clause 4.2.9.5	Clause 5.4.11.2.1	Adjacent channel selectivity		Note 1
		NT/NV	PASS	
Clause 4.2.4.1.3	Clause 5.4.5.2.1	Transmitter unwanted emissions outside the transmitter's operating bands		Appendix A
		NT/NV	PASS	
Clause 4.2.5.3	Clause 5.4.7.2.2	Receiver spurious emissions		Appendix A
		NT/NV	PASS	
Clause 4.2.10.2	Clause 5.4.12.3	User Access Restrictions (UAR)		Appendix B
		NT/NV	PASS	

Note 1: The test data please refer to Appendix: 5G Wi-Fi Band 1,2,3 of EED32Q82176702
Note 2: The test data please refer to Appendix: 5G Wi-Fi DFS of EED32Q82176702

Appendix A: Spurious emissions

Test Procedure:

1. Scan from 30MHz to 26GHz; find the maximum radiation frequency to measure.
2. The technique used to find the Spurious Emissions of the transmitter was the antenna substitution method. Substitution method was performed to determine the actual ERP/EIRP emission levels of the EUT.

Test procedure as below:

1) The EUT was powered ON and placed on a 1.5m high table at a 3 meter fully Anechoic Chamber. The antenna of the transmitter was extended to its maximum length. Modulation mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.
2) The EUT was set 3 meters (above 18GHz the distance is 1 meter) away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.
4) Steps 1) to 3) were performed with the EUT and the receive antenna in both vertical and horizontal polarization.
5) The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter.
6) A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 3) is obtained for this set of conditions.
7) The output power into the substitution antenna was then measured.
8) Steps 6) and 7) were repeated with both antennas polarized.
9) Calculate power in dBm by the following formula:

ERP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBd) + Beamforming gain (dBd)
EIRP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBi) + Beamforming gain (dBi)
EIRP=ERP+2.15dB

where:

Pg is the generator output power into the substitution antenna.

10) Test the EUT in the lowest channel , the Highest channel

Repeat above procedures until all frequencies measured was complete.

Limit:

Transmitter limits for spurious emissions		
Frequency range	**Maximum power (dBm)**	**Bandwidth**
30MHz to 47MHz	-36	100kHz
47MHz to 74MHz	-54	100kHz
74MHz to 87.5MHz	-36	100kHz
87.5MHz to 118MHz	-54	100kHz
118MHz to 174MHz	-36	100kHz
174MHz to 230MHz	-54	100kHz
230MHz to 470MHz	-36	100kHz
470MHz to 862MHz	-54	100kHz
862MHz to 1GHz	-36	100kHz
1GHz to 5.15GHz	-30	1MHz
5.35GHz to 5.47GHz	-30	1MHz
5.725GHz to 26GHz	-30	1MHz

Spurious emission limits for receivers		
Frequency range	**Maximum power**	**Bandwidth**
30MHz to 1GHz	-57dBm	100kHz
1GHz to 26GHz	-47dBm	1MHz

Radiated Spurious Emissions

1) Transmitter unwanted emissions outside the 5 GHz RLAN bands

Remark: Through Pre-scan, for 20MHz Occupied Bandwidth, 802.11 a was the worst case; for 40MHz Occupied Bandwidth, MIMO mode of 802.11 n(HT40) was the worst case; only the worst case was in the report; for 80MHz Occupied Bandwidth, MIMO mode of 802.11 ax(HE80) was the worst case; only the worst case was in the report; for 160MHz Occupied Bandwidth, MIMO mode of 802.11 be(EHT160) was the worst case; only the worst case(Sub-band 3) was in the report.

Mode	802.11 a Transmitting	Remark	\
Band	\	Channel	5500MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.4982	150	167	-64.07	-54.00	10.07	PASS	Horizontal
2	208.8859	150	357	-67.42	-54.00	13.42	PASS	Horizontal
3	500.012	150	167	-61.65	-54.00	7.65	PASS	Horizontal
4	3082.6791	150	108	-39.32	-30.00	9.32	PASS	Horizontal
5	12555.3555	150	61	-44.90	-30.00	14.90	PASS	Horizontal
6	16511.7512	150	90	-41.20	-30.00	11.20	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	49.887	150	334	-58.50	-54.00	4.50	PASS	Vertical
2	208.8859	150	69	-70.75	-54.00	16.75	PASS	Vertical
3	500.109	150	0	-66.30	-54.00	12.30	PASS	Vertical
4	2526.8763	150	357	-40.36	-30.00	10.36	PASS	Vertical
5	12517.4017	150	11	-45.30	-30.00	15.30	PASS	Vertical
6	17657.2657	150	127	-40.61	-30.00	10.61	PASS	Vertical

Mode	802.11 n(HT40) Transmitting	Remark	\
Band	\	Channel	5510MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.4012	150	10	-63.87	-54.00	9.87	PASS	Horizontal
2	208.8859	150	357	-67.33	-54.00	13.33	PASS	Horizontal
3	500.012	150	328	-61.90	-54.00	7.90	PASS	Horizontal
4	2691.8846	150	76	-39.77	-30.00	9.77	PASS	Horizontal
5	12588.7089	150	314	-45.27	-30.00	15.27	PASS	Horizontal
6	17595.1595	150	106	-40.07	-30.00	10.07	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.4012	150	274	-57.72	-54.00	3.72	PASS	Vertical
2	208.8859	150	74	-71.15	-54.00	17.15	PASS	Vertical
3	500.109	150	0	-66.20	-54.00	12.20	PASS	Vertical
4	2428.4214	150	256	-40.17	-30.00	10.17	PASS	Vertical
5	12530.053	150	181	-45.02	-30.00	15.02	PASS	Vertical
6	17660.7161	150	96	-40.71	-30.00	10.71	PASS	Vertical

Mode	802.11 ax(HE80) Transmitting	Remark	\
Band	\	Channel	5530MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	65.2145	150	32	-64.27	-54.00	10.27	PASS	Horizontal
2	208.8859	150	357	-67.81	-54.00	13.81	PASS	Horizontal
3	500.012	150	357	-61.94	-54.00	7.94	PASS	Horizontal
4	2709.7605	150	180	-39.74	-30.00	9.74	PASS	Horizontal
5	12592.1592	150	282	-45.40	-30.00	15.40	PASS	Horizontal
6	16495.6496	150	147	-40.91	-30.00	10.91	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.4012	150	74	-58.15	-54.00	4.15	PASS	Vertical
2	187.5438	150	47	-70.94	-54.00	16.94	PASS	Vertical
3	525.8166	150	357	-65.99	-54.00	11.99	PASS	Vertical
4	2675.9338	150	150	-40.00	-30.00	10.00	PASS	Vertical
5	12421.9422	150	205	-45.42	-30.00	15.42	PASS	Vertical
6	17100.6101	150	263	-40.80	-30.00	10.80	PASS	Vertical

Mode	802.11 be(EHT160)Transmitting	Remark	\
Band	\	Channel	5570MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	65.2145	150	27	-63.81	-54.00	9.81	PASS	Horizontal
2	208.8859	150	357	-67.52	-54.00	13.52	PASS	Horizontal
3	500.109	150	228	-61.79	-54.00	7.79	PASS	Horizontal
4	2565.6533	150	187	-40.31	-30.00	10.31	PASS	Horizontal
5	12520.8521	150	315	-45.16	-30.00	15.16	PASS	Horizontal
6	16457.6958	150	165	-41.85	-30.00	11.85	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	49.984	150	122	-57.98	-54.00	3.98	PASS	Vertical
2	187.5438	150	55	-71.02	-54.00	17.02	PASS	Vertical
3	500.012	150	83	-66.07	-54.00	12.07	PASS	Vertical
4	2685.0092	150	83	-40.39	-30.00	10.39	PASS	Vertical
5	12449.545	150	356	-45.22	-30.00	15.22	PASS	Vertical
6	17728.5729	150	58	-41.16	-30.00	11.16	PASS	Vertical

2) Receiver spurious emissions

Remark: Through Pre-scan, for 20MHz Occupied Bandwidth, 802.11 a was the worst case; for 40MHz Occupied Bandwidth, MIMO mode of 802.11 ac(VHT40) was the worst case; only the worst case was in the report; for 80MHz Occupied Bandwidth, MIMO mode of 802.11 ax(HE80) was the worst case; only the worst case was in the report; for 160MHz Occupied Bandwidth, MIMO mode of 802.11 be(EHT160) was the worst case; only the worst case was in the report.

Mode	802.11 a Receiving	Remark	\
Band	\	Channel	5500MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	80.006	150	3	-65.41	-57.00	8.41	PASS	Horizontal
2	208.8769	150	357	-68.57	-57.00	11.57	PASS	Horizontal
3	500.037	150	100	-62.67	-57.00	5.67	PASS	Horizontal
4	2040.0416	150	207	-62.19	-47.00	15.19	PASS	Horizontal
5	12554.4222	150	164	-54.83	-47.00	7.83	PASS	Horizontal
6	16537.9815	150	200	-50.89	-47.00	3.89	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	46.4908	150	310	-61.91	-57.00	4.91	PASS	Vertical
2	187.4874	150	51	-72.02	-57.00	15.02	PASS	Vertical
3	500.037	150	89	-66.94	-57.00	9.94	PASS	Vertical
4	2280.0512	150	138	-56.79	-47.00	9.79	PASS	Vertical
5	12492.4997	150	121	-55.29	-47.00	8.29	PASS	Vertical
6	17582.0233	150	95	-50.62	-47.00	3.62	PASS	Vertical

Mode	802.11 ac(VHT40) Receiving	Remark	/
Band	\	Channel	5510MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	80.006	150	3	-65.11	-57.00	8.11	PASS	Horizontal
2	208.8769	150	3	-68.91	-57.00	11.91	PASS	Horizontal
3	500.037	150	360	-61.90	-57.00	4.90	PASS	Horizontal
4	2040.0416	150	174	-62.25	-47.00	15.25	PASS	Horizontal
5	12547.2219	150	194	-54.81	-47.00	7.81	PASS	Horizontal
6	16530.0612	150	220	-50.69	-47.00	3.69	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	39.9915	150	359	-60.62	-57.00	3.62	PASS	Vertical
2	208.8769	150	269	-71.99	-57.00	14.99	PASS	Vertical
3	500.037	150	3	-66.74	-57.00	9.74	PASS	Vertical
4	2280.0512	150	311	-56.58	-47.00	9.58	PASS	Vertical
5	12550.102	150	93	-54.33	-47.00	7.33	PASS	Vertical
6	17570.1428	150	276	-50.82	-47.00	3.82	PASS	Vertical

Mode	802.11 ax(HE80) Receiving	Remark	/
Band	\	Channel	5530MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	80.006	150	3	-62.76	-57.00	5.76	PASS	Horizontal
2	208.8769	150	3	-68.51	-57.00	11.51	PASS	Horizontal
3	375.0463	150	360	-61.69	-57.00	4.69	PASS	Horizontal
4	2040.0416	150	298	-61.93	-47.00	14.93	PASS	Horizontal
5	13114.2446	150	259	-55.25	-47.00	8.25	PASS	Horizontal
6	16459.4984	150	308	-50.83	-47.00	3.83	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.1471	150	300	-62.25	-57.00	5.25	PASS	Vertical
2	208.8769	150	278	-71.78	-57.00	14.78	PASS	Vertical
3	500.037	150	360	-68.37	-57.00	11.37	PASS	Vertical
4	2280.0512	150	334	-57.13	-47.00	10.13	PASS	Vertical
5	12467.6587	150	91	-55.48	-47.00	8.48	PASS	Vertical
6	17036.6015	150	128	-51.38	-47.00	4.38	PASS	Vertical

Mode	802.11 be(eht160) Receiving	Remark	/
Band	\	Channel	5570MHz

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	80.006	150	3	-64.99	-57.00	7.99	PASS	Horizontal
2	208.8769	150	14	-68.88	-57.00	11.88	PASS	Horizontal
3	375.0463	150	359	-61.43	-57.00	4.43	PASS	Horizontal
4	2039.7216	150	247	-61.90	-47.00	14.90	PASS	Horizontal
5	12495.0198	150	218	-54.92	-47.00	7.92	PASS	Horizontal
6	16531.1412	150	62	-50.70	-47.00	3.70	PASS	Horizontal

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.3026	150	137	-62.12	-57.00	5.12	PASS	Vertical
2	208.8769	150	286	-71.41	-57.00	14.41	PASS	Vertical
3	500.037	150	74	-67.25	-57.00	10.25	PASS	Vertical
4	2280.0512	150	178	-57.01	-47.00	10.01	PASS	Vertical
5	12392.0557	150	23	-54.71	-47.00	7.71	PASS	Vertical
6	17577.7031	150	0	-50.76	-47.00	3.76	PASS	Vertical

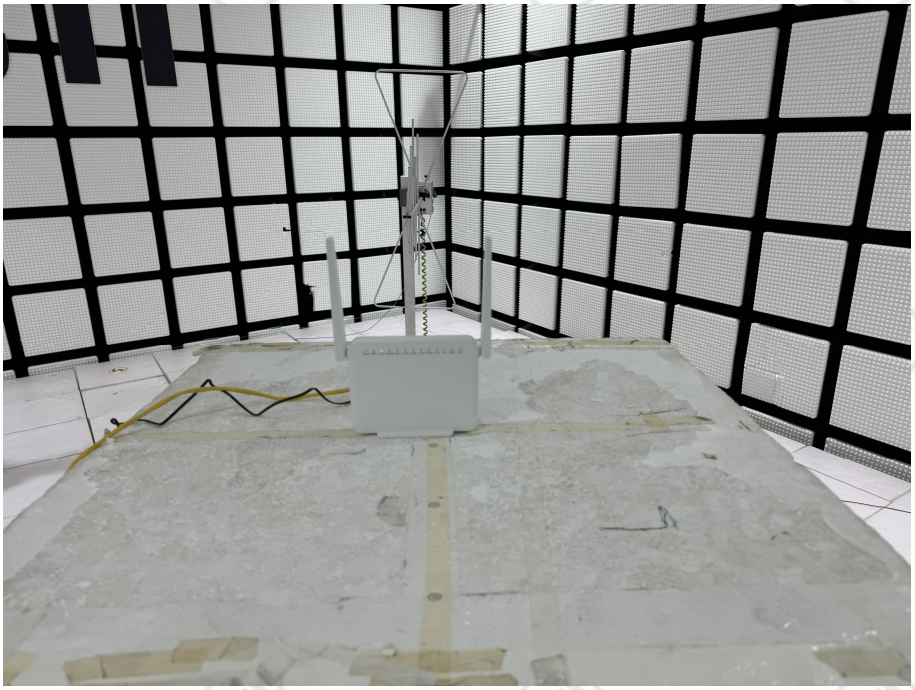
Appendix B: User Access Restrictions(UAR)

Requirement
User Access Restrictions are restraints

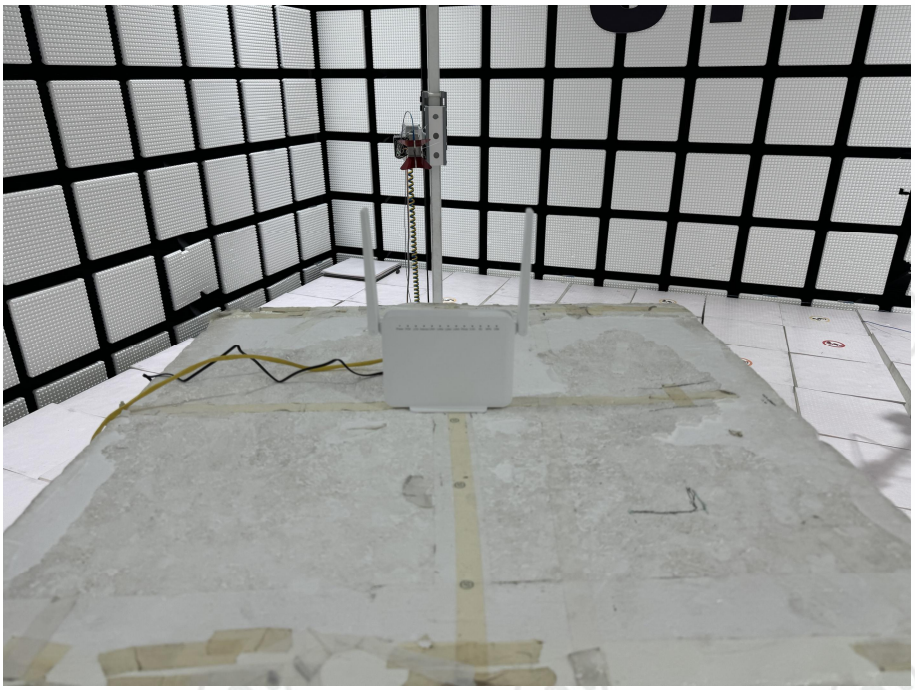
The equipment shall be so constructed that settings (hardware and/or software) are not accessible to the user if changing those settings result in the equipment no longer being conformant to the following:
• The DFS requirements as specified in clause 4.2.6.
• The adaptivity requirements as specified in clause 4.2.7, in particular the thresholds as defined or referred to in clause 4.2.7.3.1.4 and in clause 4.2.7.3.2.5.
The equipment does not allow the user to change the country of operation and/or the operating frequency band if that results in the equipment no longer being conformant to the DFS and/or the adaptivity requirements.

Conclusion:
The EUT does not allow the user to change the country of operation and/or the operating frequency band.
The EUT does not accept software and/or firmware which results in the equipment no
longer being compliant with the DFS requirements, e.g.:
• Software and/or firmware provided by the manufacturer but intended for other regulatory regimes;
• Modified software and/or firmware where the software and/or firmware is available as open source code;
• Previous versions of the software and/or firmware (downgrade).

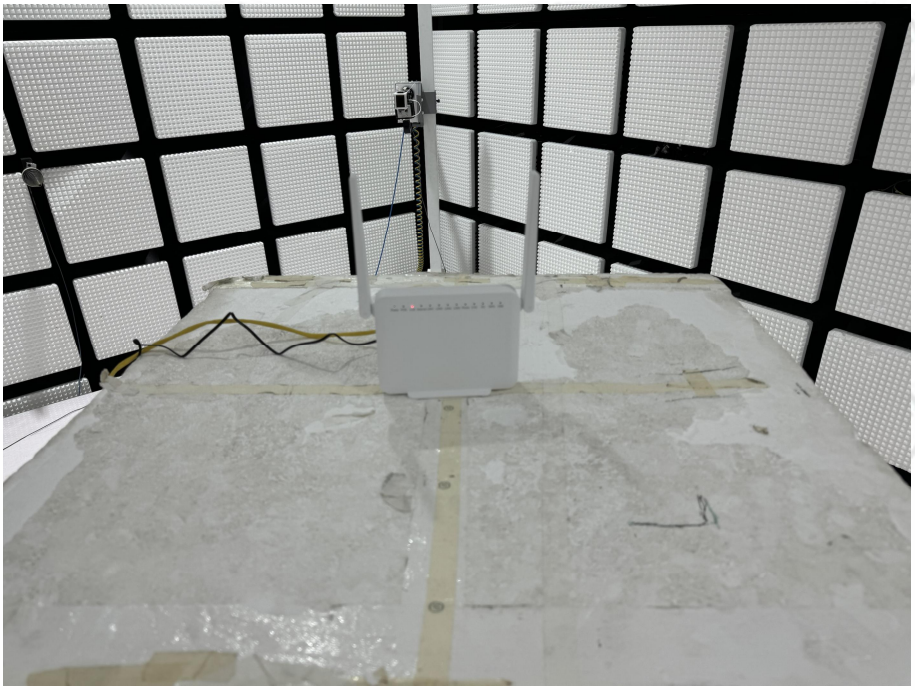
PHOTOGRAPHS OF TEST SETUP



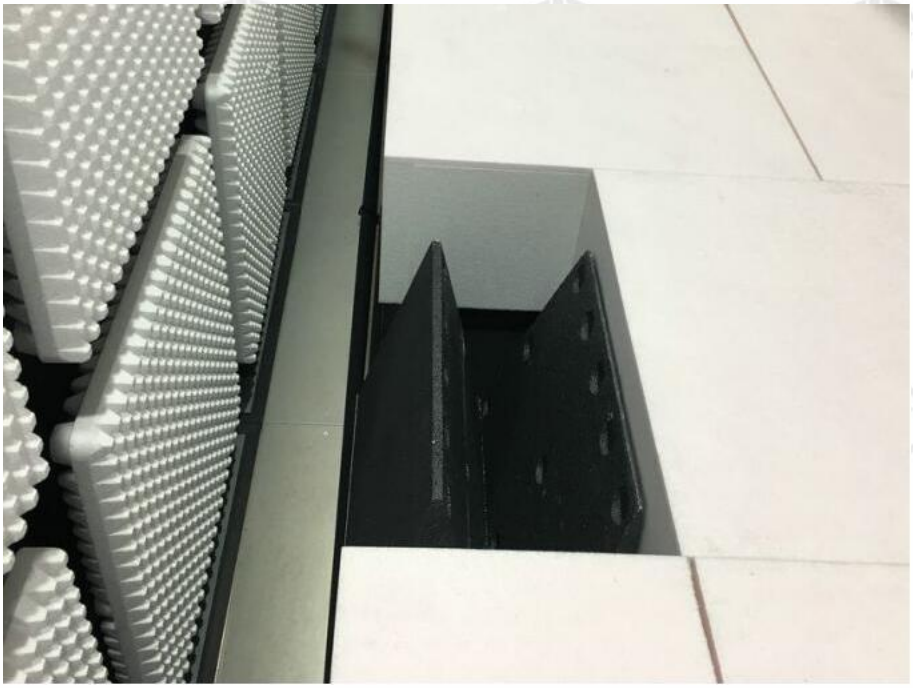
Radiated spurious emission Test Setup-1(Below 1GHz)



Radiated spurious emission Test Setup-2(Above 1GHz)

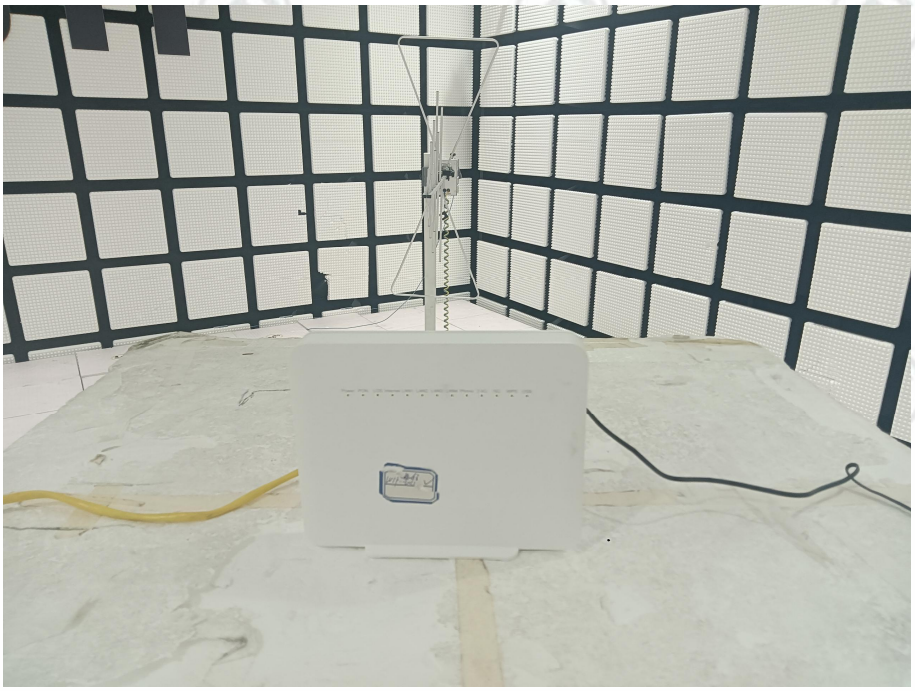


Radiated spurious emission Test Setup-3(Above 18GHz)

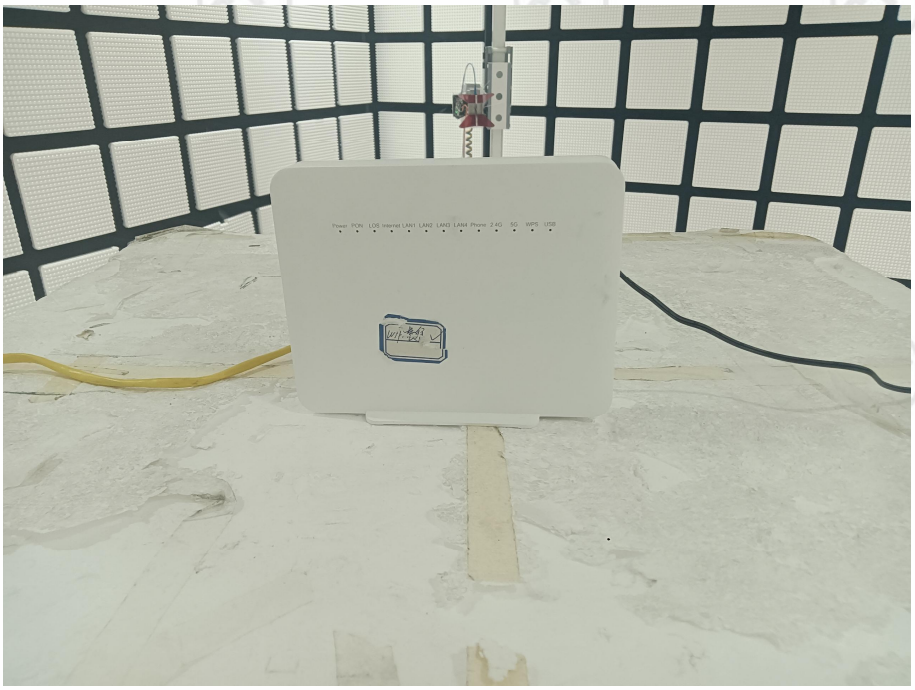


Radiated spurious emission Test Setup-4
There are absorbing materials under the ground.

New:



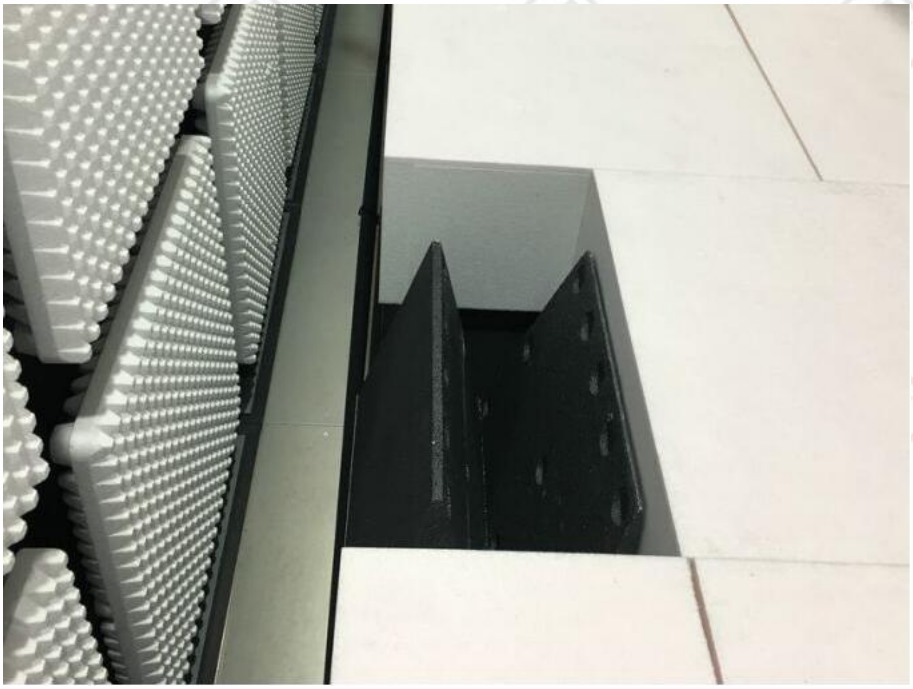
Radiated spurious emission Test Setup-1(Below 1GHz)



Radiated spurious emission Test Setup-2(Above 1GHz)



Radiated spurious emission Test Setup-3(Above 18GHz)



Radiated spurious emission Test Setup-4
There are absorbing materials under the ground.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32R82051201 for EUT external and internal photos.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;

2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;

3. The result(s) shown in this report refer(s) only to the sample(s) tested;

4. Unless otherwise stated,the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;

5. Without written approval of CTI, this report can't be reproduced except in full;

*** End of Report ***