

TEST REPORT

Product Name: two way radio

FCC ID: 2BOST-TWD

Trademark:



Model Number:

TWD25, TWD50, TWD100M, TWD125, TWD150, TWD200, TWD200M, TWD225, TWD250, TWD300, TWD300M, TWD325, TWD350, TWD400, TWD400M

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Sample Received Date: Sep. 10, 2025

Sample tested Date: Sep. 10, 2025 to Oct. 09, 2025

Issue Date: Oct. 09, 2025

Report No.: CTB25091003701RF01

Test Standards FCC Part 2, 22, 24E, 27

Test Results PASS

Remark: This is LTE radio test report.

Compiled by:

Reviewed by:

Approved by:

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Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "*" indicates the testing items were fulfilled by subcontracted lab. "#" indicates the items are not in CNAS accreditation scope.

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(Note: N/A means not applicable)



1. VERSION

Report No.	Issue Date	Description	Approved
CTB25091003701RF01	Oct. 09, 2025	Original	Valid

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 22.913(a)(2)/ Part 24.232(c)/Part27.50(h)(2)/ Part27.50(d)(4)/ Part27.50(c)(10)/ Part27.50(b)(10)/ Part27.50(a)(3)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
peak-to-average ratio	Part 22.913(d)/Part 27.50(d) /Part 27.50(a) (1)	KDB 971168 D01v03r01	PASS
99% & 26dB Occupied Bandwidth	Part 2.1049(h)	KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 24.238(a)/Part 27.53(g) (1) Part 22.917(a)/Part 27.53(i) (4)/ Part 27.53(c) /Part 27.253(f)/Part 27.53(a) (2)	KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 24.238(a)/Part 27.53(g) (1) Part 22.917(a)/Part 27.53(i) (4)/ Part 27.53(c) /Part 27.253(f)/Part 27.53(a) (2)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1051/ Part 24.238(a)/Part 27.53(g) (1) Part 22.917(a)/Part 27.53(i) (4)/ Part 27.53(c) /Part 27.253(f)/Part 27.53(a) (2)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54/ Part 22.355	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty
Occupancy bandwidth	54.3kHz
Conducted output power Above 1G	0.9dB
Conducted output power below 1G	0.9dB
Power Spectral Density , Conduction	0.9dB
Conduction spurious emissions	2.0dB
Out of band emission	2.0dB
3m camber Radiated spurious emission(30MHz-1GHz)	4.6dB
3m chamber Radiated spurious emission(1GHz-18GHz)	5.1dB
3m chamber Radiated spurious emission(18GHz-40GHz)	3.4dB
Receiver Reference Sensitivity level	1.9dB
humidity uncertainty	5.5%
Temperature uncertainty	0.63°C
frequency	1×10 ⁻⁷

4. PRODUCT INFORMATION AND TEST SETUP

4.1 Product Information

Model(s):	TWD25, TWD50, TWD100M, TWD125, TWD150, TWD200, TWD200M, TWD225, TWD250, TWD300, TWD300M, TWD325, TWD350, TWD400, TWD400M
Model Description:	All the model are the same circuit and RF module, only the model names are different. Test sample model: TWD25
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	FDD-LTE BAND 2: 1850-1910MHz FDD-LTE BAND 4: 1710-1755MHz FDD-LTE BAND 5: 824-849MHz FDD-LTE BAND 7: 2500-2570MHz FDD-LTE BAND 12: 699-716MHz FDD-LTE BAND 13: 777-787MHz FDD-LTE BAND 17: 704-716MHz TDD-LTE BAND 38: 2570-2620MHz TDD-LTE BAND 40a: 2305-2315MHz TDD-LTE BAND 40b: 2350-2360MHz TDD-LTE BAND 41: 2496-2690 MHz FDD-LTE BAND 66: 1710-1780MHz
Max. RF output power:	FDD-LTE BAND 2: 23.12dBm FDD-LTE BAND 4: 23.53dBm FDD-LTE BAND 5: 23.76dBm FDD-LTE BAND 7: 24.2dBm FDD-LTE BAND 12: 23.47dBm FDD-LTE BAND 13: 23.45dBm FDD-LTE BAND 17: 23.79dBm TDD-LTE BAND 38: 23.43dBm TDD-LTE BAND 40a: 20.92dBm TDD-LTE BAND 40b: 21.6dBm TDD-LTE BAND 41: 24.15dBm FDD-LTE BAND 66: 24.48dBm
Type of Modulation:	QPSK, 16QAM
Antenna installation:	FPC antenna
Antenna Gain:	FDD-LTE BAND 2: 2dBi FDD-LTE BAND 4: 1.9dBi FDD-LTE BAND 5: -0.8dBi FDD-LTE BAND 7: 1.7dBi FDD-LTE BAND 12: -2.2dBi FDD-LTE BAND 13: -2.1dBi FDD-LTE BAND 17: -2.3dBi TDD-LTE BAND 38: 1.8dBi

TDD-LTE BAND 40a: 1.7dBi

TDD-LTE BAND 40b: 1.7dBi

TDD-LTE BAND 41: 1.8dBi

FDD-LTE BAND 66: 2.4dBi

Ratings:

DC 5V charging from adapter

DC 3.7V by battery

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

4.3 Support Equipment

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Test Mode

Test Mode List		
Test Mode	Description	Remark
TM1	FDD-LTE BAND 2	Low, Middle, High Channels
TM2	FDD-LTE BAND 4	Low, Middle, High Channels
TM3	FDD-LTE BAND 5	Low, Middle, High Channels
TM4	FDD-LTE BAND 7	Low, Middle, High Channels
TM5	FDD-LTE BAND 12	Low, Middle, High Channels
TM6	FDD-LTE BAND 13	Low, Middle, High Channels
TM7	FDD-LTE BAND 17	Low, Middle, High Channels
TM8	TDD-LTE BAND 38	Low, Middle, High Channels
TM9	TDD-LTE BAND 40a	Low, Middle, High Channels
TM10	TDD-LTE BAND 40b	Low, Middle, High Channels
TM11	TDD-LTE BAND 41	Low, Middle, High Channels
TM12	FDD-LTE BAND 66	Low, Middle, High Channels

LTE BAND 2

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 2	Low Range	1.4	18607	1850.7
		3	18615	1851.5
		5	18625	1852.5
		10	18650	1855
		15	18675	1857.5
		20	18700	1860
	Mid Range	1.4/3/5/10/15/20	18900	1880
	High Range	1.4	19193	1909.3
		3	19185	1908.5
		5	19175	1907.5
		10	19150	1905
		15	19125	1902.5
		20	19100	1900

LTE BAND 4

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 4	Low Range	1.4	19957	1710.7
		3	19965	1711.5
		5	19975	1712.5
		10	20000	1715
		15	20025	1717.5
		20	20050	1720
	Mid Range	1.4/3/5/10/15/20	20175	1732.5
	High Range	1.4	20393	1754.3
		3	20385	1753.5
		5	20375	1752.5
		10	20350	1750
		15	20325	1747.5
		20	20300	1745

LTE BAND 5

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 5	Low Range	1.4	20407	824.7
		3	20415	825.5
		5	20425	826.5
		10	20450	829
	Mid Range	1.4/3/5/10	20525	836.5
	High Range	1.4	20643	848.3
		3	20635	847.5
		5	20625	846.5
		10	20600	844

LTE BAND 7

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 7	Low Range	5	20775	2502.5
		10	20800	2505
		15	20825	2507.5
		20	20850	2510
	Mid Range	5/10/15/20	21100	2535
	High Range	5	21425	2567.5
		10	21400	2565
		15	21375	2562.5
		20	21350	2560

LTE BAND 12

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 12	Low Range	1.4	23017	699.7
		3	23025	700.5
		5	23035	701.5
		10	23060	704
	Mid Range	1.4/3/5/10	23095	707.5
	High Range	1.4	23173	715.3
		3	23165	714.5
		5	23155	713.5
		10	23130	711

LTE BAND 13

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 13	Low Range	5	23025	779.5
		10	23230	782
	Mid Range	5/10	23230	782
	High Range	5	23255	784.5
		10	23230	782

LTE BAND 17

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 17	Low Range	5	23755	706.5
		10	23780	709
	Mid Range	5/10	23790	710
	High Range	5	23825	713.5
		10	23800	711

LTE BAND 38

Test Mode	Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency (UL and DL) (MHz)
TDD band 38 TX/RX 2570– 2620 MHz	Low Range	5	37775	2572.5
		10	37800	2575
		15	37825	2577.5
		20	37850	2580
	Mid Range	5/10/15/20	38000	2595
	High Range	5	38225	2617.5
		10	38200	2615
		15	38175	2612.5
		20	38150	2610

LTE BAND 40 a

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 40a	Low Range	5	38725	2307.5
	Mid Range	5/10	38750	2310
	High Range	5	38775	2312.5

LTE BAND 40 b

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 40b	Low Range	5	39175	2352.5
	Mid Range	5/10	39200	2355
	High Range	5	39200	2357.5

LTE BAND 41

Test Mode	Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency of Uplink(MHz)
TDD band 41 TX/RX 2495– 2690 MHz	Low Range	5	39675	2498.5
		10	39700	2501
		15	39725	2503.5
		20	39750	2506
	Mid Range	5/10/15/20	40620	2593
	High Range	5	41656	2687.5
		10	41540	2685
		15	41515	2682.5
		20	41490	2680

LTE BAND 66

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)
LTE band 66	Low Range	1.4	66443	2110.7
		3	66451	2111.5
		5	66461	2112.5
		10	66486	2115
		15	66511	2117.5
		20	66536	2120
	Mid Range TX ¹	1.4/3/5/10/15/20	66786	2145
	Mid Range	1.4/3/5/10/15/20	66886	2155
	Paired High Range ²	1.4	67129	2179.3
		3	67121	2178.5
		5	67111	2177.5
		10	67086	2175
		15	67061	2172.5
		20	67036	2170
	High Range ³	1.4	67329	2199.3
		3	67321	2198.5
		5	67311	2197.5
		10	67286	2195
		15	67261	2192.5
		20	67236	2190

Note: EUT is UE category 1, 16QAM Modulation of 10MHz/15MHz/20MHz for all bands FULL RB size is not supported.

4.5 Test Environment

Humidity(%):	54
Atmospheric Pressure(kPa):	101
Normal Voltage(DC):	3.7V
Normal Temperature(°C)	23
Low Temperature(°C)	0
High Temperature(°C)	40

5. TEST FACILITY AND TEST INSTRUMENT USED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at 1&2F., Building A, No. 26, Xinxhe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

5.2 Test Instrument Used

No.	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Calibrated Date	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY52090073	A.14.16	2025/5/23	2026/5/22
2	Power Sensor	Agilent	U2021XA	MY56120032	/	2025/5/23	2026/5/22
3	Power Sensor	Agilent	U2021XA	MY56120034	/	2025/5/23	2026/5/22
4	Communication test set	R&S	CMW500	108058	V3.5.80	2025/5/23	2026/5/22
5	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	A.14.16	2025/5/23	2026/5/22
6	Signal Generator	Agilent	N5181A	MY50140365	A.01.60	2025/5/22	2026/5/21
7	Vector signal generator	Agilent	N5182A	MY47420195	A.01.87	2025/5/22	2026/5/21
8	Communication test set	Agilent	E5515C	MY50102567	B.19.07 (E1962B)	2025/5/22	2026/5/21
9	2.4 GHz Filter	Shenxiang	MSF2400-2483.5MS-1154	20181015001	/	2025/6/18	2026/6/17
10	5 GHz Filter	Shenxiang	MSF5150-5850 MS-1155	20181015001	/	2025/6/18	2026/6/17
11	Filter	Xingbo	XBLBQ-DZA120	190821-1-1	/	2025/5/24	2026/5/23
12	BT&WI-FI Automatic test software	Microwave	MTS8310	Ver. 2.0.0.0	/	/	/
13	Rohde & Schwarz SFU Broadcast Test System	R&S	SFU	101017	/	2024/10/31	2025/10/30
14	Temperature humidity chamber	Hongjing	TH-80CH	DG-15174	/	2025/5/22	2026/5/21
15	234G Automatic test software	Microwave	MTS8200	Ver. 2.0.0.0	/	/	/
16	966 chamber	C.R.T.	966	/	/	2024/6/23	2027/6/22
17	Receiver	R&S	ESPI	100362	RF_ATTEN_7 (104489/003)	2025/5/23	2026/5/22
18	Amplifier	HP	8447E	2945A02747	/	2025/5/23	2026/5/22
19	Amplifier	Agilent	8449B	3008A01838	/	2025/6/2	2026/6/1

20	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	/	2025/6/29	2026/6/28
21	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA9120D	01911	/	2025/6/1	2026/5/31
22	EMI test software	Fala	EZ-EMC	FA-03A2 RE	/	/	/
23	Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-224	/	2025/6/2	2026/6/1
24	loop antenna	ZHINAN	ZN30900A	GTS534	/	/	/
25	40G Horn antenna	A/H/System	SAS-574	588	/	2025/6/2	2026/6/1
26	Amplifier	AEROFLEX	Aeroflex	097	/	2025/6/2	2026/6/1
27	Power Metter	KEYSIGHT	N1912AP	N/A	A.05.00	2025/6/2	2026/6/1

6. RF EXPOSURE

6.1 Standard Applicable

According to §1.1307 and §2.1091, §2.1093, the portable transmitter must comply the RF exposure requirements.

6.2 Test Result

This product complied with the requirement of the RF exposure, please see the RF Exposure report.

7. RF OUTPUT POWER

7.1 Standard Applicable

According to §22.913(a)(2), the ERP of mobile and portable stations transmitters and auxiliary test transmitters must not exceed 7 Watts.

According to §24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(d)(4), fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

According to §27.50(c)(10), portable stations (hand-held devices) in the 698-746 MHz band are limited to 3 watts ERP.

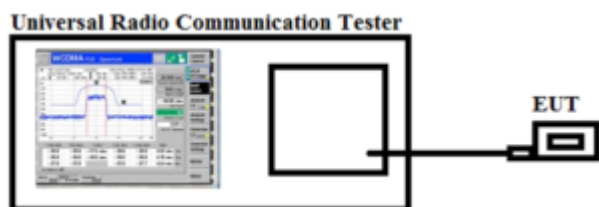
According to §27.50(h)(2), Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

According to §27.50(b)(10), Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

According to §27.50(a)(3), For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, *except that* for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.

7.2 Test Procedure

Conducted output power test method:



Radiated power test method:

1. The setup of EUT is according with per ANSI/TIA Standard 603E and ANSI C63.26 measurement procedure.
2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

7.3 Summary of Test Results/Plots

Please refer to Appendix 1: Conducted output power

Test result: Pass

8. PEAK-TO-AVERAGE RATIO (PAR) OF TRANSMITTER

8.1 Standard Applicable

According to §22.913(d), Power measurement. Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-to-average ratio (PAR) of the transmission must not exceed 13 dB.

According to §24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51, in measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

According to §27.50(d), the peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal.

According to §27.50(a) (1), For base and fixed stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

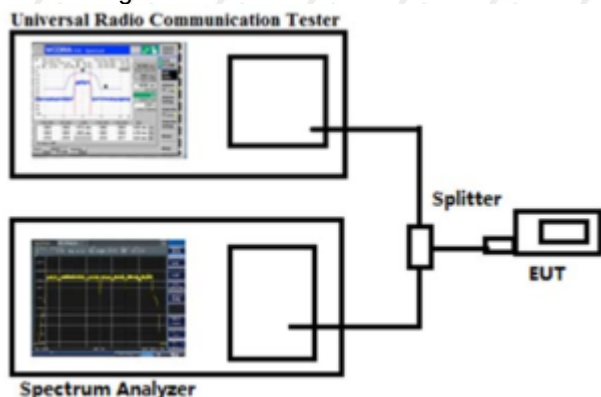
corresponding to the highest PAPR expected during periods of continuous transmission.

8.2 Test Procedure

According with KDB 971168

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW > Emission bandwidth of signal
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal " RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the " on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

Test Configuration for the emission bandwidth testing:



8.3 Summary of Test Results

Please refer to Appendix 3: Peak-to-Average Ratio

Test result: Pass

9. EMISSION BANDWIDTH

9.1 Standard Applicable

According to §22.917(b), the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

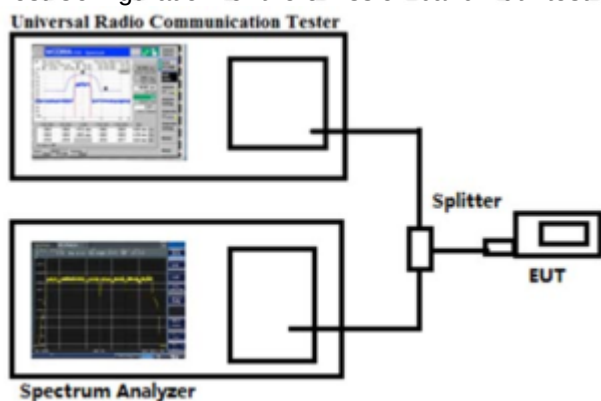
According to §24.238(b), the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §27.53, the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

9.2 Test Procedure

According to §22.917(b), the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Test Configuration for the emission bandwidth testing:



9.3 Summary of Test Results/Plots

Please refer to Appendix 4: 26dB Bandwidth and Occupied Bandwidth

Test result: Pass

10. OUT OF BAND EMISSIONS AT ANTENNA TERMINAL

10.1 Standard Applicable

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;

(3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed stations;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

According to §27.53 (f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

According to §27.53(h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

According to §27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB.

According to §27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz.

According to §27.53(a)(2), For base and fixed stations' operations in the 2305-2320 MHz band and the 2345-2360 MHz band:

(1) By a factor of not less than $43 + 10 \log(P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, and not less than

75 + 10 log (P) dB on all frequencies between 2320 and 2345 MHz;

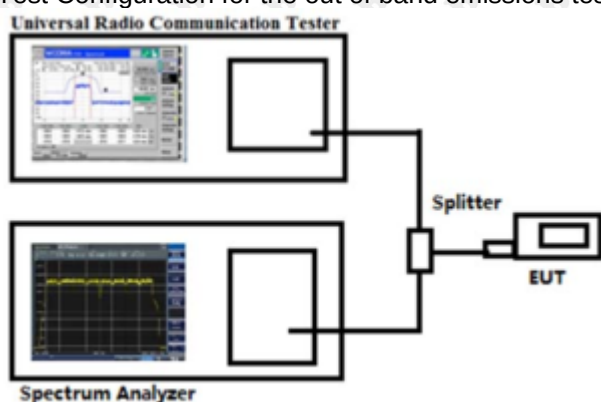
(2) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 70 + 10 log (P) dB on all frequencies between 2287.5 and 2300 MHz, 72 + 10 log (P) dB on all frequencies between 2285 and 2287.5 MHz, and 75 + 10 log (P) dB below 2285 MHz;

(3) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2362.5 MHz, 55 + 10 log (P) dB on all frequencies between 2362.5 and 2365 MHz, 70 + 10 log (P) dB on all frequencies between 2365 and 2367.5 MHz, 72 + 10 log (P) dB on all frequencies between 2367.5 and 2370 MHz, and 75 + 10 log (P) dB above 2370 MHz.

10.2 Test Procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 100kHz and 1MHz for the scan frequency from 30MHz to 1GHz and the scan frequency from 1GHz to up to 10 th harmonic.

Test Configuration for the out of band emissions testing:



10.3 Summary of Test Results/Plots

Please refer to Appendix 5 & 6: Band Edge & Conducted Spurious Emission

Test result: Pass

11. SPURIOUS RADIATED EMISSIONS

11.1 Standard Applicable

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(6) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;

(7) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;

(8) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed stations;

(9) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

(10) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

According to §27.53 (f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

According to §27.53(h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

According to §27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB.

According to §27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz.

According to §27.53(a)(2), For base and fixed stations' operations in the 2305-2320 MHz band and the 2345-2360 MHz band:

(1) By a factor of not less than $43 + 10 \log(P)$ dB on all frequencies between 2305 and 2320 MHz and on all

frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, and not less than $75 + 10 \log (P)$ dB on all frequencies between 2320 and 2345 MHz;

(2) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2300 and 2305 MHz, $70 + 10 \log (P)$ dB on all frequencies between 2287.5 and 2300 MHz, $72 + 10 \log (P)$ dB on all frequencies between 2285 and 2287.5 MHz, and $75 + 10 \log (P)$ dB below 2285 MHz;

(3) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2362.5 MHz, $55 + 10 \log (P)$ dB on all frequencies between 2362.5 and 2365 MHz, $70 + 10 \log (P)$ dB on all frequencies between 2365 and 2367.5 MHz, $72 + 10 \log (P)$ dB on all frequencies between 2367.5 and 2370 MHz, and $75 + 10 \log (P)$ dB above 2370 MHz.

11.2 Test Procedure

1. The setup of EUT is according with per ANSI/TIA-603-E and ANSI C63.4-2014 measurement procedure.
2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious attenuation limit in dB = $43 + 10 \log_{10}(\text{power out in Watts})$

11.3 Summary of Test Results/Plots

Note: 1. this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

2. All test modes (different bandwidth and different modulation) are performed, but only the worst case is recorded in this report.

Test Data:
QPSK

Band 2 18607 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1363.47	155	181	-58.75	-13	-45.75	Pass	H
1755.28	151	168	-50.84	-13	-37.84	Pass	H
3928.28	158	154	-48.06	-13	-35.06	Pass	H
5932.82	143	321	-46.07	-13	-33.07	Pass	H
6548.88	159	292	-44.48	-13	-31.48	Pass	H
8080.19	158	317	-44.16	-13	-31.16	Pass	H
1128.33	154	45	-55.35	-13	-42.35	Pass	V
1410.82	152	340	-55.47	-13	-42.47	Pass	V
3444.93	142	105	-49.46	-13	-36.46	Pass	V
3859.63	148	169	-49.50	-13	-36.50	Pass	V
5895.55	158	282	-46.76	-13	-33.76	Pass	V
6512.80	146	225	-46.03	-13	-33.03	Pass	V
Band 2 18900 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1349.37	150	342	-57.04	-13	-44.04	Pass	H
1802.74	146	104	-53.22	-13	-40.22	Pass	H
3799.53	150	195	-49.75	-13	-36.75	Pass	H
5926.31	146	257	-44.60	-13	-31.60	Pass	H
6372.93	149	339	-49.00	-13	-36.00	Pass	H
8051.52	151	214	-48.43	-13	-35.43	Pass	H
1139.33	149	347	-52.56	-13	-39.56	Pass	V
1361.31	148	306	-59.84	-13	-46.84	Pass	V
3564.51	147	21	-54.70	-13	-41.70	Pass	V
3923.21	148	34	-51.50	-13	-38.50	Pass	V
5895.49	150	118	-50.59	-13	-37.59	Pass	V
6551.82	150	31	-49.34	-13	-36.34	Pass	V

Band 2 19193 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1307.70	150	55	-54.97	-13	-41.97	Pass	H
1593.69	155	20	-51.42	-13	-38.42	Pass	H
3837.23	145	344	-46.65	-13	-33.65	Pass	H
5877.74	155	33	-39.93	-13	-26.93	Pass	H
6613.96	146	326	-43.01	-13	-30.01	Pass	H
8003.21	155	198	-44.60	-13	-31.60	Pass	H
1216.22	154	308	-55.54	-13	-42.54	Pass	V
1354.13	149	261	-57.29	-13	-44.29	Pass	V
3566.52	155	36	-54.85	-13	-41.85	Pass	V
3944.75	152	142	-50.22	-13	-37.22	Pass	V
5715.78	154	191	-40.67	-13	-27.67	Pass	V
6491.98	154	266	-47.49	-13	-34.49	Pass	V

16QAM

Band 2 18607 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1405.65	150	276	-57.95	-13	-44.95	Pass	H
1640.45	150	121	-48.52	-13	-35.52	Pass	H
3877.46	151	61	-50.88	-13	-37.88	Pass	H
5972.79	150	299	-45.19	-13	-32.19	Pass	H
6600.41	146	24	-45.81	-13	-32.81	Pass	H
7955.60	152	139	-44.34	-13	-31.34	Pass	H
1086.75	146	19	-50.77	-13	-37.77	Pass	V
1371.64	146	211	-54.09	-13	-41.09	Pass	V
3607.17	147	105	-51.10	-13	-38.10	Pass	V
3966.10	145	330	-50.97	-13	-37.97	Pass	V
5831.36	148	271	-42.93	-13	-29.93	Pass	V
6629.10	149	98	-51.54	-13	-38.54	Pass	V

Band 2 18900 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1292.56	149	255	-51.01	-13	-41.45	Pass	H
1644.05	147	336	-47.04	-13	-37.85	Pass	H
3884.99	149	157	-44.98	-13	-35.2	Pass	H
5909.40	151	274	-42.50	-13	-30.39	Pass	H
6569.09	153	118	-47.37	-13	-32.24	Pass	H
8026.21	148	240	-43.26	-13	-30.22	Pass	H
1142.69	146	36	-58.16	-13	-44.9	Pass	V
1443.26	153	280	-59.31	-13	-43.63	Pass	V
3456.92	147	79	-50.65	-13	-35.94	Pass	V
3928.14	149	164	-45.53	-13	-36.01	Pass	V
5726.32	150	134	-48.91	-13	-33.75	Pass	V
6501.38	149	289	-46.10	-13	-32.41	Pass	V
Band 2 19193 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1288.85	151	216	-58.91	-13	-45.91	Pass	H
1667.55	152	117	-50.79	-13	-37.79	Pass	H
3952.76	151	317	-43.62	-13	-30.62	Pass	H
5848.89	148	159	-41.95	-13	-28.95	Pass	H
6523.84	154	100	-43.22	-13	-30.22	Pass	H
8016.20	154	30	-42.55	-13	-29.55	Pass	H
1165.46	153	4	-52.23	-13	-39.23	Pass	V
1410.62	145	104	-60.61	-13	-47.61	Pass	V
3629.85	146	271	-51.79	-13	-38.79	Pass	V
3831.23	145	289	-50.43	-13	-37.43	Pass	V
5798.92	150	258	-51.24	-13	-38.24	Pass	V
6607.24	155	164	-45.34	-13	-32.34	Pass	V

Note:

- 1) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

QPSK

Band 4 19957 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1287.11	148	94	-58.02	-13	-45.02	Pass	H
1590.72	152	322	-48.37	-13	-35.37	Pass	H
3790.23	152	243	-47.26	-13	-34.26	Pass	H
5989.90	147	206	-44.07	-13	-31.07	Pass	H
6621.63	148	210	-46.64	-13	-33.64	Pass	H
7963.14	149	132	-39.40	-13	-26.40	Pass	H
1100.89	145	303	-55.94	-13	-42.94	Pass	V
1339.77	149	139	-58.58	-13	-45.58	Pass	V
3572.49	147	76	-48.86	-13	-35.86	Pass	V
3810.34	145	212	-52.82	-13	-39.82	Pass	V
5766.86	145	92	-41.96	-13	-28.96	Pass	V
6484.26	150	274	-51.30	-13	-38.30	Pass	V
Band 4 20175 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1304.67	152	182	-56.31	-13	-43.31	Pass	H
1764.90	146	336	-49.43	-13	-36.43	Pass	H
3773.94	150	309	-47.59	-13	-34.59	Pass	H
5939.31	155	137	-43.62	-13	-30.62	Pass	H
6596.64	148	297	-41.15	-13	-28.15	Pass	H
7962.93	148	121	-48.02	-13	-35.02	Pass	H
1123.15	153	290	-58.81	-13	-45.81	Pass	V
1357.77	155	237	-61.00	-13	-48.00	Pass	V
3610.33	147	122	-47.28	-13	-34.28	Pass	V
3890.71	155	302	-47.44	-13	-34.44	Pass	V
5771.20	154	206	-40.40	-13	-27.40	Pass	V
6441.76	155	157	-47.33	-13	-34.33	Pass	V

Band 4 20393 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1235.45	154	234	-55.63	-13	-42.63	Pass	H
1767.75	155	82	-45.17	-13	-32.17	Pass	H
3923.89	152	344	-42.53	-13	-29.53	Pass	H
5796.16	150	10	-43.02	-13	-30.02	Pass	H
6505.16	154	227	-46.48	-13	-33.48	Pass	H
8124.92	147	190	-45.45	-13	-32.45	Pass	H
1128.43	153	9	-53.95	-13	-40.95	Pass	V
1536.49	148	46	-58.53	-13	-45.53	Pass	V
3567.26	149	60	-52.48	-13	-39.48	Pass	V
3822.74	152	263	-47.06	-13	-34.06	Pass	V
5724.34	150	190	-43.95	-13	-30.95	Pass	V
6595.67	150	104	-47.57	-13	-34.57	Pass	V

16QAM

Band 4 19957 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1380.10	150	99	-57.86	-13	-44.86	Pass	H
1740.42	146	355	-55.46	-13	-42.46	Pass	H
3999.58	151	76	-53.23	-13	-40.23	Pass	H
5822.37	151	168	-44.38	-13	-31.38	Pass	H
6448.90	153	115	-47.96	-13	-34.96	Pass	H
8005.86	150	188	-47.62	-13	-34.62	Pass	H
1245.98	146	80	-56.99	-13	-43.99	Pass	V
1438.77	146	187	-54.29	-13	-41.29	Pass	V
3589.54	146	342	-51.53	-13	-38.53	Pass	V
3816.30	150	216	-44.82	-13	-31.82	Pass	V
5893.10	150	336	-49.26	-13	-36.26	Pass	V
6475.69	149	79	-50.84	-13	-37.84	Pass	V

Band 4 20175 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1288.76	155	261	-57.06	-13	-44.06	Pass	H
1619.49	150	282	-54.56	-13	-41.56	Pass	H
3962.42	153	246	-48.44	-13	-35.44	Pass	H
5877.82	153	180	-41.20	-13	-28.20	Pass	H
6395.31	145	134	-48.01	-13	-35.01	Pass	H
8007.69	145	2	-43.02	-13	-30.02	Pass	H
1217.00	154	9	-54.29	-13	-41.29	Pass	V
1466.47	153	82	-60.97	-13	-47.97	Pass	V
3633.48	148	226	-49.16	-13	-36.16	Pass	V
3879.64	152	300	-55.85	-13	-42.85	Pass	V
5850.02	150	339	-54.67	-13	-41.67	Pass	V
6481.45	148	154	-45.65	-13	-32.65	Pass	V
Band 4 20393 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1266.56	149	54	-54.08	-13	-41.08	Pass	H
1640.15	151	158	-50.97	-13	-37.97	Pass	H
3759.12	153	345	-49.53	-13	-36.53	Pass	H
5858.11	152	69	-44.17	-13	-31.17	Pass	H
6490.13	147	2	-44.93	-13	-31.93	Pass	H
7980.55	146	52	-46.38	-13	-33.38	Pass	H
1238.77	153	144	-51.95	-13	-38.95	Pass	V
1397.98	154	192	-52.01	-13	-39.01	Pass	V
3426.45	154	49	-52.03	-13	-39.03	Pass	V
3839.66	152	255	-46.19	-13	-33.19	Pass	V
5778.02	148	341	-44.89	-13	-31.89	Pass	V
6488.33	151	105	-44.97	-13	-31.97	Pass	V

Note:

3) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

4) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

QPSK

Band 5 20407 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1233.72	143	59	-57.28	-13	-44.28	Pass	H
1703.53	158	275	-48.92	-13	-35.92	Pass	H
3899.74	157	97	-47.15	-13	-34.15	Pass	H
5986.70	153	226	-43.64	-13	-30.64	Pass	H
6460.30	148	146	-43.57	-13	-30.57	Pass	H
8144.15	149	30	-42.95	-13	-29.95	Pass	H
1228.91	152	93	-53.05	-13	-40.05	Pass	V
1480.94	153	210	-58.77	-13	-45.77	Pass	V
3492.01	151	120	-52.18	-13	-39.18	Pass	V
3839.12	157	40	-50.04	-13	-37.04	Pass	V
5757.37	150	328	-50.38	-13	-37.38	Pass	V
6536.36	157	152	-47.16	-13	-34.16	Pass	V
Band 5 20525 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1259.42	150	338	-59.18	-13	-46.18	Pass	H
1791.88	146	242	-48.91	-13	-35.91	Pass	H
3925.90	150	191	-51.25	-13	-38.25	Pass	H
5907.79	146	10	-47.80	-13	-34.80	Pass	H
6375.94	149	54	-48.71	-13	-35.71	Pass	H
7988.17	151	353	-46.70	-13	-33.70	Pass	H
1333.10	149	330	-53.76	-13	-40.76	Pass	V
1490.20	148	184	-56.73	-13	-43.73	Pass	V
3538.39	147	147	-55.03	-13	-42.03	Pass	V
3865.04	148	261	-48.37	-13	-35.37	Pass	V
5789.47	150	87	-49.80	-13	-36.80	Pass	V
6583.51	150	76	-46.88	-13	-33.88	Pass	V

Band 5 20643 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1408.97	148	77	-55.21	-13	-42.21	Pass	H
1578.16	145	121	-53.14	-13	-40.14	Pass	H
3897.78	154	222	-46.15	-13	-33.15	Pass	H
6000.35	148	42	-43.77	-13	-30.77	Pass	H
6628.71	155	134	-44.27	-13	-31.27	Pass	H
8049.71	152	283	-42.39	-13	-29.39	Pass	H
1353.54	147	199	-57.86	-13	-44.86	Pass	V
1416.33	152	164	-59.40	-13	-46.40	Pass	V
3583.45	154	245	-52.66	-13	-39.66	Pass	V
3917.76	148	140	-47.43	-13	-34.43	Pass	V
5756.64	154	292	-44.00	-13	-31.00	Pass	V
6478.37	153	291	-49.00	-13	-36.00	Pass	V

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Band 5 20407 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1413.21	146	48	-60.92	-13	-47.92	Pass	H
1701.35	154	201	-49.97	-13	-36.97	Pass	H
3892.12	145	233	-51.21	-13	-38.21	Pass	H
5895.34	153	13	-43.67	-13	-30.67	Pass	H
6584.10	147	164	-46.47	-13	-33.47	Pass	H
7920.09	147	32	-39.97	-13	-26.97	Pass	H
1158.22	150	354	-53.38	-13	-40.38	Pass	V
1353.70	149	108	-52.58	-13	-39.58	Pass	V
3621.49	154	291	-53.09	-13	-40.09	Pass	V
3975.72	150	357	-49.40	-13	-36.40	Pass	V
5933.38	147	22	-46.20	-13	-33.20	Pass	V
6521.50	152	312	-47.36	-13	-34.36	Pass	V

Band 5 20525 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1333.67	147	246	-55.82	-13	-41.45	Pass	H
1627.08	152	319	-49.72	-13	-37.85	Pass	H
3811.78	147	16	-48.45	-13	-35.2	Pass	H
5869.56	152	263	-45.44	-13	-30.39	Pass	H
6559.73	154	289	-41.82	-13	-32.24	Pass	H
8060.83	145	279	-42.20	-13	-30.22	Pass	H
1201.21	153	256	-55.96	-13	-44.9	Pass	V
1431.75	149	273	-58.78	-13	-43.63	Pass	V
3555.94	152	87	-47.33	-13	-35.94	Pass	V
3867.79	148	296	-45.20	-13	-36.01	Pass	V
5883.05	149	247	-44.72	-13	-33.75	Pass	V
6503.92	154	245	-42.86	-13	-32.41	Pass	V
Band 5 20643 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1426.95	148	105	-55.97	-13	-42.97	Pass	H
1769.87	147	305	-50.36	-13	-37.36	Pass	H
3875.10	149	259	-40.36	-13	-27.36	Pass	H
5858.55	153	309	-44.18	-13	-31.18	Pass	H
6459.00	153	261	-41.50	-13	-28.50	Pass	H
8120.54	151	146	-43.05	-13	-30.05	Pass	H
1171.63	149	200	-57.74	-13	-44.74	Pass	V
1389.48	146	32	-55.74	-13	-42.74	Pass	V
3518.86	146	13	-48.67	-13	-35.67	Pass	V
3858.03	148	8	-53.23	-13	-40.23	Pass	V
5712.18	153	305	-49.66	-13	-36.66	Pass	V
6635.07	148	40	-45.98	-13	-32.98	Pass	V

Note:

5) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

6) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

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Band 7 20775 channel/BW 5(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1301.16	152	275	-58.31	-13	-45.31	Pass	H
1752.94	152	247	-46.95	-13	-33.95	Pass	H
3768.82	151	68	-48.06	-13	-35.06	Pass	H
6001.49	151	133	-47.30	-13	-34.30	Pass	H
6510.45	146	145	-43.66	-13	-30.66	Pass	H
8050.56	150	217	-38.14	-13	-25.14	Pass	H
1112.34	146	248	-50.34	-13	-37.34	Pass	V
1405.52	148	262	-56.22	-13	-43.22	Pass	V
3506.28	149	300	-47.02	-13	-34.02	Pass	V
3821.56	145	89	-50.44	-13	-37.44	Pass	V
5886.23	153	219	-44.37	-13	-31.37	Pass	V
6650.34	152	259	-47.50	-13	-34.50	Pass	V

Band 7 21100 channel/BW 5 (middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1257.72	149	131	-51.47	-13	-38.47	Pass	H
1640.92	151	27	-46.47	-13	-33.47	Pass	H
3850.92	147	209	-44.37	-13	-31.37	Pass	H
5835.12	154	174	-39.02	-13	-26.02	Pass	H
6494.23	152	273	-39.81	-13	-26.81	Pass	H
8122.02	145	221	-42.61	-13	-29.61	Pass	H
1147.51	146	74	-59.00	-13	-46.00	Pass	V
1368.02	150	79	-62.11	-13	-49.11	Pass	V
3446.65	147	128	-46.14	-13	-33.14	Pass	V
3928.55	154	119	-48.24	-13	-35.24	Pass	V
5763.95	152	181	-44.91	-13	-31.91	Pass	V
6563.76	151	321	-42.97	-13	-29.97	Pass	V

Band 7 21425 channel/BW 5 (highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1433.26	149	351	-53.54	-13	-40.54	Pass	H
1737.00	153	132	-46.48	-13	-33.48	Pass	H
3975.74	150	98	-45.88	-13	-32.88	Pass	H
5808.19	147	138	-38.84	-13	-25.84	Pass	H
6420.32	151	275	-46.04	-13	-33.04	Pass	H
8043.55	152	267	-42.46	-13	-29.46	Pass	H
1255.40	146	261	-56.23	-13	-43.23	Pass	V
1401.81	152	101	-56.88	-13	-43.88	Pass	V
3629.64	151	283	-47.32	-13	-34.32	Pass	V
3876.57	150	70	-44.74	-13	-31.74	Pass	V
5732.21	155	184	-47.81	-13	-34.81	Pass	V
6557.53	146	226	-49.45	-13	-36.45	Pass	V

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Band 7 20775 channel/BW 5 (lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1380.09	145	225	-56.14	-13	-43.14	Pass	H
1639.27	152	343	-55.47	-13	-42.47	Pass	H
3972.44	150	4	-49.52	-13	-36.52	Pass	H
5904.03	148	91	-49.27	-13	-36.27	Pass	H
6576.74	151	91	-48.15	-13	-35.15	Pass	H
7938.82	146	5	-48.68	-13	-35.68	Pass	H
1273.63	154	115	-57.88	-13	-44.88	Pass	V
1533.65	146	50	-53.72	-13	-40.72	Pass	V
3670.04	149	347	-51.19	-13	-38.19	Pass	V
3877.84	152	163	-47.32	-13	-34.32	Pass	V
5861.75	153	263	-43.88	-13	-30.88	Pass	V
6637.04	147	56	-46.44	-13	-33.44	Pass	V

Band 7 21100 channel/BW 5 (middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1325.68	153	122	-59.62	-13	-46.62	Pass	H
1702.93	154	283	-49.86	-13	-36.86	Pass	H
3915.98	149	76	-46.67	-13	-33.67	Pass	H
5804.56	151	334	-41.75	-13	-28.75	Pass	H
6474.14	149	261	-52.44	-13	-39.44	Pass	H
7926.64	146	246	-43.39	-13	-30.39	Pass	H
1309.19	148	281	-54.52	-13	-41.52	Pass	V
1400.31	147	245	-59.62	-13	-46.62	Pass	V
3492.96	154	154	-48.42	-13	-35.42	Pass	V
3989.81	153	31	-55.47	-13	-42.47	Pass	V
5761.39	149	360	-49.08	-13	-36.08	Pass	V
6552.94	146	187	-46.16	-13	-33.16	Pass	V

Band 7 21425 channel/BW 5 (highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1278.59	155	184	-56.23	-13	-43.23	Pass	H
1627.80	146	169	-54.71	-13	-41.71	Pass	H
3757.08	148	120	-46.51	-13	-33.51	Pass	H
5892.35	147	272	-40.02	-13	-27.02	Pass	H
6516.21	154	296	-41.82	-13	-28.82	Pass	H
7967.22	146	62	-47.01	-13	-34.01	Pass	H
1158.41	146	299	-54.93	-13	-41.93	Pass	V
1367.02	150	206	-52.80	-13	-39.80	Pass	V
3477.43	149	178	-52.54	-13	-39.54	Pass	V
3844.95	154	205	-47.28	-13	-34.28	Pass	V
5788.85	149	5	-44.65	-13	-31.65	Pass	V
6483.72	149	322	-43.58	-13	-30.58	Pass	V

Note:

7) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

8) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

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Band 12 23017 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1233.63	145	301	-56.92	-13	-43.92	Pass	H
1762.02	158	173	-49.82	-13	-36.82	Pass	H
3963.58	156	162	-47.35	-13	-34.35	Pass	H
5840.80	157	100	-43.54	-13	-30.54	Pass	H
6438.26	140	340	-42.81	-13	-29.81	Pass	H
8107.47	147	144	-42.81	-13	-29.81	Pass	H
1142.68	154	145	-54.70	-13	-41.70	Pass	V
1427.68	141	115	-57.42	-13	-44.42	Pass	V
3552.91	141	216	-50.34	-13	-37.34	Pass	V
3794.42	154	249	-50.06	-13	-37.06	Pass	V
5721.10	144	359	-46.51	-13	-33.51	Pass	V
6472.69	159	224	-47.36	-13	-34.36	Pass	V
Band 12 23095 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1295.57	150	2	-53.55	-13	-40.55	Pass	H
1773.83	146	32	-49.90	-13	-36.90	Pass	H
3938.41	150	106	-53.10	-13	-40.10	Pass	H
5890.34	146	245	-46.96	-13	-33.96	Pass	H
6391.74	149	47	-50.03	-13	-37.03	Pass	H
8039.95	151	156	-45.65	-13	-32.65	Pass	H
1216.39	149	65	-51.22	-13	-38.22	Pass	V
1458.25	148	228	-61.84	-13	-48.84	Pass	V
3685.65	147	197	-54.07	-13	-41.07	Pass	V
3956.84	148	127	-50.82	-13	-37.82	Pass	V
5832.46	150	129	-48.11	-13	-35.11	Pass	V
6551.75	150	192	-50.70	-13	-37.70	Pass	V

Band 12 23173 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1283.06	152	347	-58.16	-13	-45.16	Pass	H
1620.97	152	56	-53.07	-13	-40.07	Pass	H
3805.73	150	229	-42.76	-13	-29.76	Pass	H
5848.70	153	139	-40.48	-13	-27.48	Pass	H
6490.14	152	262	-39.48	-13	-26.48	Pass	H
7903.08	151	34	-46.89	-13	-33.89	Pass	H
1268.46	150	316	-54.40	-13	-41.40	Pass	V
1394.20	155	223	-55.85	-13	-42.85	Pass	V
3559.12	153	145	-53.78	-13	-40.78	Pass	V
3815.99	146	282	-49.51	-13	-36.51	Pass	V
5768.93	149	167	-40.81	-13	-27.81	Pass	V
6519.28	150	277	-48.26	-13	-35.26	Pass	V

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Band 12 23017 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1366.29	152	17	-61.07	-13	-48.07	Pass	H
1646.47	153	159	-44.75	-13	-31.75	Pass	H
3967.14	150	20	-50.27	-13	-37.27	Pass	H
5868.31	149	23	-45.10	-13	-32.10	Pass	H
6486.55	155	152	-44.89	-13	-31.89	Pass	H
7919.42	155	54	-40.34	-13	-27.34	Pass	H
1088.37	149	320	-54.44	-13	-41.44	Pass	V
1399.14	154	276	-55.14	-13	-42.14	Pass	V
3502.74	145	319	-49.85	-13	-36.85	Pass	V
3976.05	146	223	-48.80	-13	-35.80	Pass	V
5876.94	149	171	-46.04	-13	-33.04	Pass	V
6510.27	154	155	-51.41	-13	-38.41	Pass	V

Band 12 23095 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1264.68	154	175	-52.04	-13	-41.45	Pass	H
1760.57	153	23	-47.00	-13	-37.85	Pass	H
3875.28	152	68	-45.15	-13	-35.2	Pass	H
5926.58	147	21	-42.80	-13	-30.39	Pass	H
6530.11	153	326	-46.11	-13	-32.24	Pass	H
8054.76	150	209	-42.90	-13	-30.22	Pass	H
1138.40	151	76	-58.95	-13	-44.9	Pass	V
1387.06	146	292	-57.64	-13	-43.63	Pass	V
3513.17	149	262	-50.12	-13	-35.94	Pass	V
3774.96	147	125	-48.62	-13	-36.01	Pass	V
5852.64	147	266	-46.20	-13	-33.75	Pass	V
6427.35	151	8	-46.19	-13	-32.41	Pass	V
Band 12 23173 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1418.44	148	289	-59.27	-13	-46.27	Pass	H
1709.39	145	209	-46.52	-13	-33.52	Pass	H
3824.29	154	288	-40.87	-13	-27.87	Pass	H
5930.41	154	72	-38.67	-13	-25.67	Pass	H
6482.43	148	359	-38.46	-13	-25.46	Pass	H
7982.73	152	312	-44.06	-13	-31.06	Pass	H
1237.93	154	117	-52.46	-13	-39.46	Pass	V
1432.54	152	224	-62.13	-13	-49.13	Pass	V
3629.31	145	282	-47.67	-13	-34.67	Pass	V
3915.76	150	45	-47.18	-13	-34.18	Pass	V
5735.95	152	186	-45.21	-13	-32.21	Pass	V
6582.10	145	264	-43.40	-13	-30.40	Pass	V

Note:

9) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

10) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

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Band 13 23025 channel/BW 5(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1359.85	149	180	-54.00	-25	-29.00	Pass	H
1801.11	149	126	-48.75	-25	-23.75	Pass	H
3924.68	147	302	-50.19	-25	-25.19	Pass	H
5924.82	150	35	-44.02	-25	-19.02	Pass	H
6460.73	152	76	-43.29	-25	-18.29	Pass	H
8154.28	151	61	-43.44	-25	-18.44	Pass	H
1162.85	147	93	-51.41	-25	-26.41	Pass	V
1477.24	152	153	-57.90	-25	-32.90	Pass	V
3616.92	146	109	-53.25	-25	-28.25	Pass	V
3881.53	153	132	-52.61	-25	-27.61	Pass	V
5895.42	153	332	-47.56	-25	-22.56	Pass	V
6473.84	149	214	-44.81	-25	-19.81	Pass	V
Band 13 23230 channel/BW 5(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1315.98	155	342	-53.44	-25	-28.44	Pass	H
1630.03	148	303	-46.78	-25	-21.78	Pass	H
3824.50	154	169	-44.99	-25	-19.99	Pass	H
5933.36	146	307	-45.65	-25	-20.65	Pass	H
6449.12	146	279	-39.77	-25	-14.77	Pass	H
7991.51	149	126	-44.52	-25	-19.52	Pass	H
1208.21	146	304	-55.21	-25	-30.21	Pass	V
1377.44	155	276	-55.21	-25	-30.21	Pass	V
3481.25	152	9	-51.13	-25	-26.13	Pass	V
3777.80	147	285	-51.54	-25	-26.54	Pass	V
5740.65	154	146	-44.74	-25	-19.74	Pass	V
6599.18	152	38	-45.11	-25	-20.11	Pass	V

Band 13 23255 channel/BW 5(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1331.63	149	206	-56.81	-25	-31.81	Pass	H
1701.71	153	345	-52.12	-25	-27.12	Pass	H
3809.88	151	338	-47.70	-25	-22.70	Pass	H
5948.02	146	304	-41.56	-25	-16.56	Pass	H
6507.48	151	95	-43.29	-25	-18.29	Pass	H
8129.73	151	263	-40.37	-25	-15.37	Pass	H
1131.15	148	135	-55.51	-25	-30.51	Pass	V
1455.09	146	85	-60.64	-25	-35.64	Pass	V
3628.65	149	99	-52.59	-25	-27.59	Pass	V
3826.62	146	168	-48.28	-25	-23.28	Pass	V
5832.31	146	123	-46.65	-25	-21.65	Pass	V
6592.05	155	170	-50.79	-25	-25.79	Pass	V

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Band 13 23025 channel/BW 5(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1370.21	150	52	-56.84	-25	-31.84	Pass	H
1712.15	150	101	-45.54	-25	-20.54	Pass	H
3903.14	147	200	-43.24	-25	-18.24	Pass	H
5793.20	148	354	-40.78	-25	-15.78	Pass	H
6488.28	152	320	-43.72	-25	-18.72	Pass	H
8174.84	148	248	-47.39	-25	-22.39	Pass	H
1270.06	147	26	-56.19	-25	-31.19	Pass	V
1378.20	148	33	-59.23	-25	-34.23	Pass	V
3610.10	150	44	-54.92	-25	-29.92	Pass	V
3927.09	148	92	-53.96	-25	-28.96	Pass	V
5891.88	154	254	-45.01	-25	-20.01	Pass	V
6499.76	149	11	-49.76	-25	-24.76	Pass	V

Band 13 23230 channel/BW 5(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1409.45	148	301	-56.03	-25	-31.03	Pass	H
1671.79	153	87	-46.42	-25	-21.42	Pass	H
3955.75	145	262	-43.42	-25	-18.42	Pass	H
5961.17	150	138	-38.22	-25	-13.22	Pass	H
6578.65	151	351	-41.78	-25	-16.78	Pass	H
8046.95	146	250	-43.34	-25	-18.34	Pass	H
1266.54	151	290	-52.58	-25	-27.58	Pass	V
1374.20	147	85	-59.83	-25	-34.83	Pass	V
3536.74	154	99	-50.85	-25	-25.85	Pass	V
3816.91	154	159	-50.19	-25	-25.19	Pass	V
5757.65	152	99	-49.12	-25	-24.12	Pass	V
6611.98	151	172	-46.71	-25	-21.71	Pass	V
Band 13 23255 channel/BW 5(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1263.17	146	209	-55.31	-25	-30.31	Pass	H
1631.01	147	5	-44.00	-25	-19.00	Pass	H
3957.73	146	75	-43.84	-25	-18.84	Pass	H
5987.32	155	79	-44.52	-25	-19.52	Pass	H
6531.47	145	249	-45.38	-25	-20.38	Pass	H
8023.68	151	3	-44.25	-25	-19.25	Pass	H
1167.05	151	182	-55.89	-25	-30.89	Pass	V
1506.73	152	348	-56.13	-25	-31.13	Pass	V
3624.13	149	234	-52.94	-25	-27.94	Pass	V
3790.24	155	20	-52.40	-25	-27.40	Pass	V
5881.20	148	244	-44.55	-25	-19.55	Pass	V
6512.70	155	189	-46.00	-25	-21.00	Pass	V

Note:

11) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

12) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

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Band 17 23755 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1393.48	141	182	-57.81	-13	-44.81	Pass	H
1645.93	160	265	-49.89	-13	-36.89	Pass	H
3954.17	155	51	-48.00	-13	-35.00	Pass	H
5891.70	149	237	-44.26	-13	-31.26	Pass	H
6427.06	149	223	-42.01	-13	-29.01	Pass	H
8009.74	142	178	-42.56	-13	-29.56	Pass	H
1230.24	156	280	-53.46	-13	-40.46	Pass	V
1557.45	156	70	-55.48	-13	-42.48	Pass	V
3594.50	150	11	-48.53	-13	-35.53	Pass	V
3885.64	150	290	-49.09	-13	-36.09	Pass	V
5833.68	147	62	-49.98	-13	-36.98	Pass	V
6540.69	148	255	-46.28	-13	-33.28	Pass	V

Band 17 23790 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1369.63	150	190	-57.54	-13	-44.54	Pass	H
1767.36	146	328	-52.64	-13	-39.64	Pass	H
3878.72	150	106	-52.26	-13	-39.26	Pass	H
5840.25	146	239	-45.98	-13	-32.98	Pass	H
6534.46	149	238	-46.30	-13	-33.30	Pass	H
8056.43	151	198	-46.89	-13	-33.89	Pass	H
1302.22	149	175	-52.58	-13	-39.58	Pass	V
1296.63	148	301	-56.97	-13	-43.97	Pass	V
3650.57	147	114	-56.84	-13	-43.84	Pass	V
3850.75	148	116	-53.73	-13	-40.73	Pass	V
5820.52	150	145	-50.17	-13	-37.17	Pass	V
6488.44	150	8	-47.84	-13	-34.84	Pass	V

Band 17 23825 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1431.07	145	330	-55.66	-13	-42.66	Pass	H
1717.53	152	80	-53.76	-13	-40.76	Pass	H
3848.44	148	260	-44.26	-13	-31.26	Pass	H
5813.47	149	272	-39.67	-13	-26.67	Pass	H
6567.98	152	301	-43.99	-13	-30.99	Pass	H
8037.21	151	304	-45.88	-13	-32.88	Pass	H
1201.22	146	103	-59.09	-13	-46.09	Pass	V
1346.70	152	253	-57.82	-13	-44.82	Pass	V
3591.67	151	41	-52.87	-13	-39.87	Pass	V
3872.95	147	259	-47.40	-13	-34.40	Pass	V
5879.13	154	321	-40.08	-13	-27.08	Pass	V
6545.13	148	324	-50.01	-13	-37.01	Pass	V

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Band 17 23755 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1381.25	147	169	-56.80	-13	-43.80	Pass	H
1690.31	149	32	-44.81	-13	-31.81	Pass	H
3772.96	154	65	-51.28	-13	-38.28	Pass	H
5859.32	151	136	-44.00	-13	-31.00	Pass	H
6491.67	150	5	-45.10	-13	-32.10	Pass	H
8009.85	148	28	-42.02	-13	-29.02	Pass	H
1272.52	149	150	-52.81	-13	-39.81	Pass	V
1396.61	146	43	-53.50	-13	-40.50	Pass	V
3613.55	150	257	-48.98	-13	-35.98	Pass	V
3959.51	149	219	-48.61	-13	-35.61	Pass	V
5822.09	151	249	-46.45	-13	-33.45	Pass	V
6632.60	146	251	-50.67	-13	-37.67	Pass	V

Band 17 23790 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1245.43	154	63	-56.91	-13	-41.45	Pass	H
1788.54	146	142	-48.57	-13	-37.85	Pass	H
3885.54	150	136	-45.97	-13	-35.2	Pass	H
5990.58	151	276	-43.70	-13	-30.39	Pass	H
6538.10	146	121	-42.81	-13	-32.24	Pass	H
8152.01	146	188	-45.44	-13	-30.22	Pass	H
1194.22	150	230	-57.28	-13	-44.9	Pass	V
1465.90	154	5	-57.69	-13	-43.63	Pass	V
3557.62	150	289	-48.32	-13	-35.94	Pass	V
3913.15	146	258	-51.59	-13	-36.01	Pass	V
5846.60	154	206	-45.64	-13	-33.75	Pass	V
6427.86	154	49	-44.70	-13	-32.41	Pass	V

Band 17 23825 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1334.31	151	360	-52.49	-13	-39.49	Pass	H
1643.25	149	243	-51.46	-13	-38.46	Pass	H
3839.60	145	324	-40.91	-13	-27.91	Pass	H
5908.63	152	275	-41.11	-13	-28.11	Pass	H
6451.62	147	208	-40.66	-13	-27.66	Pass	H
8022.43	153	28	-48.60	-13	-35.60	Pass	H
1162.10	148	292	-52.51	-13	-39.51	Pass	V
1503.17	153	46	-58.41	-13	-45.41	Pass	V
3633.01	155	222	-51.51	-13	-38.51	Pass	V
3864.08	155	300	-51.92	-13	-38.92	Pass	V
5738.62	146	80	-50.80	-13	-37.80	Pass	V
6476.16	154	318	-43.65	-13	-30.65	Pass	V

Note:

13) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

14) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

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Band 38 37775 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1309.55	151	0	-54.32	-25	-29.32	Pass	H
1677.65	150	58	-45.49	-25	-20.49	Pass	H
3895.96	146	159	-49.60	-25	-24.60	Pass	H
5894.15	154	185	-40.96	-25	-15.96	Pass	H
6567.93	151	209	-45.66	-25	-20.66	Pass	H
8014.00	149	64	-42.76	-25	-17.76	Pass	H
1201.92	148	330	-63.02	-25	-38.02	Pass	V
1512.18	153	131	-58.08	-25	-33.08	Pass	V
3492.30	148	74	-48.28	-25	-23.28	Pass	V
3757.18	152	139	-53.10	-25	-28.10	Pass	V
5792.43	154	313	-43.21	-25	-18.21	Pass	V
6459.95	147	207	-44.32	-25	-19.32	Pass	V
Band 38 38000 channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1235.21	147	283	-56.29	-25	-31.29	Pass	H
1626.38	152	70	-46.87	-25	-21.87	Pass	H
3801.75	152	303	-51.30	-25	-26.30	Pass	H
5758.63	149	111	-45.75	-25	-20.75	Pass	H
6398.30	153	299	-45.75	-25	-20.75	Pass	H
7897.18	148	8	-43.15	-25	-18.15	Pass	H
1120.70	150	323	-56.12	-25	-31.12	Pass	V
1340.13	148	313	-61.91	-25	-36.91	Pass	V
3470.53	154	217	-45.00	-25	-20.00	Pass	V
3738.08	149	300	-47.95	-25	-22.95	Pass	V
5703.82	150	19	-44.55	-25	-19.55	Pass	V
6453.97	153	220	-49.27	-25	-24.27	Pass	V

Band 38 38225 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1264.27	153	169	-52.29	-25	-27.29	Pass	H
1680.44	152	120	-51.76	-25	-26.76	Pass	H
3943.13	154	2	-52.55	-25	-27.55	Pass	H
5899.72	145	67	-40.49	-25	-15.49	Pass	H
6564.55	149	281	-40.69	-25	-15.69	Pass	H
8019.75	150	2	-43.94	-25	-18.94	Pass	H
1269.31	151	4	-61.19	-25	-36.19	Pass	V
1376.89	152	167	-56.61	-25	-31.61	Pass	V
3494.95	154	125	-52.03	-25	-27.03	Pass	V
3870.83	152	18	-54.45	-25	-29.45	Pass	V
5839.07	154	78	-43.58	-25	-18.58	Pass	V
6630.71	155	355	-52.70	-25	-27.70	Pass	V
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Band 38 37775 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1246.27	150	198	-56.90	-25	-31.90	Pass	H
1783.64	152	199	-51.88	-25	-26.88	Pass	H
3856.00	152	312	-49.75	-25	-24.75	Pass	H
5904.18	152	359	-48.15	-25	-23.15	Pass	H
6558.11	146	266	-43.41	-25	-18.41	Pass	H
7920.57	148	65	-45.70	-25	-20.70	Pass	H
1124.06	154	239	-61.27	-25	-36.27	Pass	V
1527.03	146	4	-54.43	-25	-29.43	Pass	V
3631.66	149	78	-50.94	-25	-25.94	Pass	V
3834.01	146	175	-50.96	-25	-25.96	Pass	V
5895.13	150	219	-47.43	-25	-22.43	Pass	V
6524.30	150	203	-48.56	-25	-23.56	Pass	V

Band 38 38000 channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1327.61	151	124	-52.43	-25	-27.43	Pass	H
1811.25	152	169	-51.88	-25	-26.88	Pass	H
3829.55	152	50	-50.16	-25	-25.16	Pass	H
5953.73	153	152	-46.14	-25	-21.14	Pass	H
6457.81	150	271	-50.85	-25	-25.85	Pass	H
8087.40	151	165	-39.87	-25	-14.87	Pass	H
1240.48	146	205	-55.79	-25	-30.79	Pass	V
1341.97	151	195	-55.55	-25	-30.55	Pass	V
3640.96	147	355	-51.23	-25	-26.23	Pass	V
3929.50	147	201	-49.00	-25	-24.00	Pass	V
5889.02	149	254	-42.02	-25	-17.02	Pass	V
6547.38	151	206	-47.57	-25	-22.57	Pass	V
Band 38 38225 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1300.21	154	22	-56.45	-25	-31.45	Pass	H
1782.06	151	276	-48.49	-25	-23.49	Pass	H
3954.81	148	110	-45.56	-25	-20.56	Pass	H
5822.97	149	328	-48.88	-25	-23.88	Pass	H
6463.33	147	177	-48.74	-25	-23.74	Pass	H
7942.05	147	258	-42.96	-25	-17.96	Pass	H
1261.87	154	239	-58.35	-25	-33.35	Pass	V
1427.50	149	41	-60.29	-25	-35.29	Pass	V
3511.44	150	166	-47.43	-25	-22.43	Pass	V
3916.24	155	133	-51.49	-25	-26.49	Pass	V
5892.30	146	213	-45.51	-25	-20.51	Pass	V
6512.29	154	275	-46.89	-25	-21.89	Pass	V

Note:

15) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

16) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

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Band 41 40265 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1319.46	149	142	-58.41	-25	-33.41	Pass	H
1689.79	151	219	-47.65	-25	-22.65	Pass	H
3902.71	153	333	-45.42	-25	-20.42	Pass	H
5890.87	151	254	-42.96	-25	-17.96	Pass	H
6494.03	149	255	-40.68	-25	-15.68	Pass	H
8026.67	149	159	-43.66	-25	-18.66	Pass	H
1290.49	150	163	-53.88	-25	-28.88	Pass	V
1415.39	150	148	-55.84	-25	-30.84	Pass	V
3577.58	152	76	-53.82	-25	-28.82	Pass	V
3766.39	146	347	-51.08	-25	-26.08	Pass	V
5824.02	151	76	-48.15	-25	-23.15	Pass	V
6581.49	154	61	-46.12	-25	-21.12	Pass	V
Band 41 40740 channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1278.45	153	313	-57.27	-25	-32.27	Pass	H
1663.06	152	243	-49.55	-25	-24.55	Pass	H
3983.75	150	242	-48.59	-25	-23.59	Pass	H
5805.08	145	348	-40.02	-25	-15.02	Pass	H
6490.16	145	197	-44.01	-25	-19.01	Pass	H
8037.82	147	109	-42.08	-25	-17.08	Pass	H
1167.33	150	266	-53.14	-25	-28.14	Pass	V
1540.22	148	62	-58.66	-25	-33.66	Pass	V
3516.62	145	248	-50.98	-25	-25.98	Pass	V
3917.27	153	99	-52.85	-25	-27.85	Pass	V
5807.84	153	358	-47.16	-25	-22.16	Pass	V
6546.32	149	123	-45.41	-25	-20.41	Pass	V

Band 41 41215 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1327.09	148	70	-57.20	-25	-32.20	Pass	H
1751.51	149	88	-51.81	-25	-26.81	Pass	H
3887.54	153	191	-43.78	-25	-18.78	Pass	H
5920.56	149	181	-44.43	-25	-19.43	Pass	H
6448.77	149	267	-41.70	-25	-16.70	Pass	H
8172.70	152	334	-40.62	-25	-15.62	Pass	H
1263.00	151	87	-55.43	-25	-30.43	Pass	V
1465.39	151	185	-59.70	-25	-34.70	Pass	V
3448.51	150	219	-51.19	-25	-26.19	Pass	V
3914.74	154	225	-50.08	-25	-25.08	Pass	V
5810.18	147	105	-46.33	-25	-21.33	Pass	V
6633.67	152	333	-44.83	-25	-19.83	Pass	V

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Band 41 40265 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1411.59	151	204	-55.04	-25	-30.04	Pass	H
1626.33	149	287	-44.36	-25	-19.36	Pass	H
3986.22	154	113	-47.30	-25	-22.30	Pass	H
5834.21	149	298	-40.36	-25	-15.36	Pass	H
6517.13	149	185	-42.32	-25	-17.32	Pass	H
7981.68	145	232	-45.23	-25	-20.23	Pass	H
1245.74	151	340	-50.54	-25	-25.54	Pass	V
1372.35	153	303	-58.90	-25	-33.90	Pass	V
3525.97	154	292	-53.83	-25	-28.83	Pass	V
3920.81	145	278	-47.80	-25	-22.80	Pass	V
5711.36	147	15	-49.10	-25	-24.10	Pass	V
6497.37	150	54	-49.29	-25	-24.29	Pass	V

Band 41 40740 channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1332.98	149	123	-55.34	-25	-30.34	Pass	H
1768.45	149	48	-47.75	-25	-22.75	Pass	H
3968.05	153	171	-44.33	-25	-19.33	Pass	H
5919.06	154	7	-37.85	-25	-12.85	Pass	H
6539.21	153	92	-44.75	-25	-19.75	Pass	H
8035.81	151	352	-39.42	-25	-14.42	Pass	H
1261.08	149	260	-54.67	-25	-29.67	Pass	V
1523.03	150	158	-58.29	-25	-33.29	Pass	V
3615.17	146	48	-52.05	-25	-27.05	Pass	V
3886.75	147	277	-45.28	-25	-20.28	Pass	V
5745.94	150	237	-45.47	-25	-20.47	Pass	V
6522.35	150	318	-45.20	-25	-20.20	Pass	V

Band 41 41215 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1257.70	151	246	-54.82	-25	-29.82	Pass	H
1701.89	149	312	-47.58	-25	-22.58	Pass	H
3916.29	151	282	-40.85	-25	-15.85	Pass	H
5914.23	154	36	-44.37	-25	-19.37	Pass	H
6601.08	146	289	-44.28	-25	-19.28	Pass	H
8018.68	147	234	-45.80	-25	-20.80	Pass	H
1200.01	150	236	-55.14	-25	-30.14	Pass	V
1465.40	152	77	-54.91	-25	-29.91	Pass	V
3451.99	148	130	-52.29	-25	-27.29	Pass	V
3918.25	150	181	-51.38	-25	-26.38	Pass	V
5707.10	151	348	-44.24	-25	-19.24	Pass	V
6492.33	147	172	-44.30	-25	-19.30	Pass	V

Note:

17) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

18) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

QPSK							
Band 40A 38725 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1295.84	154	29	-54.06	-40	-14.06	Pass	H
1742.91	151	7	-43.29	-40	-3.29	Pass	H
3792.99	153	111	-45.60	-40	-5.60	Pass	H
5914.66	153	189	-44.60	-40	-4.60	Pass	H
6439.50	154	215	-44.18	-40	-4.18	Pass	H
8025.39	148	98	-41.14	-40	-1.14	Pass	H
1168.02	146	326	-55.16	-40	-15.16	Pass	V
1472.92	146	16	-61.72	-40	-21.72	Pass	V
3508.97	147	273	-49.49	-40	-9.49	Pass	V
3833.36	155	105	-46.88	-40	-6.88	Pass	V
5883.40	152	66	-43.62	-40	-3.62	Pass	V
6557.73	151	278	-44.01	-40	-4.01	Pass	V
Band 40A 38750 channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1380.56	147	129	-57.17	-40	-17.17	Pass	H
1776.97	153	18	-52.03	-40	-12.03	Pass	H
3837.52	152	303	-50.09	-40	-10.09	Pass	H
5976.28	150	224	-46.26	-40	-6.26	Pass	H
6498.96	150	312	-48.84	-40	-8.84	Pass	H
8142.06	153	341	-44.53	-40	-4.53	Pass	H
1230.48	151	170	-58.66	-40	-18.66	Pass	V
1367.53	150	326	-57.74	-40	-17.74	Pass	V
3438.83	154	283	-50.75	-40	-10.75	Pass	V
3898.93	148	144	-50.15	-40	-10.15	Pass	V
5791.77	148	343	-48.92	-40	-8.92	Pass	V
6578.32	151	310	-44.31	-40	-4.31	Pass	V

Band 40A 38775 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1275.13	152	287	-54.96	-40	-14.96	Pass	H
1635.09	151	34	-49.35	-40	-9.35	Pass	H
3927.67	148	348	-50.57	-40	-10.57	Pass	H
5885.80	149	288	-44.69	-40	-4.69	Pass	H
6590.64	146	70	-43.99	-40	-3.99	Pass	H
8107.47	151	352	-46.14	-40	-6.14	Pass	H
1250.82	153	94	-61.00	-40	-21.00	Pass	V
1357.69	154	295	-62.21	-40	-22.21	Pass	V
3538.30	151	324	-51.06	-40	-11.06	Pass	V
3923.63	154	97	-50.72	-40	-10.72	Pass	V
5757.39	146	142	-48.83	-40	-8.83	Pass	V
6482.69	147	289	-48.36	-40	-5.68	Pass	V
16QAM							
Band 40A 38725 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1269.05	154	288	-55.43	-40	-15.43	Pass	H
1762.02	153	106	-49.36	-40	-9.36	Pass	H
3863.06	151	179	-48.41	-40	-8.41	Pass	H
6001.70	146	73	-48.10	-40	-8.10	Pass	H
6436.71	146	303	-47.24	-40	-7.24	Pass	H
8028.72	154	171	-43.92	-40	-3.92	Pass	H
1155.51	152	28	-58.72	-40	-18.72	Pass	V
1401.21	152	28	-59.27	-40	-19.27	Pass	V
3632.58	149	126	-53.61	-40	-13.61	Pass	V
3849.05	152	308	-50.69	-40	-10.69	Pass	V
5881.94	148	228	-48.88	-40	-8.88	Pass	V
6450.33	146.09	215.05	-44.91	-40	-4.91	Pass	V

Band 40A 38750channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1406.12	153	204	-54.93	-40	-14.93	Pass	H
1674.65	154	222	-48.25	-40	-8.25	Pass	H
3784.01	148	357	-51.51	-40	-11.51	Pass	H
5998.34	152	217	-46.01	-40	-6.01	Pass	H
6543.43	149	310	-45.51	-40	-5.51	Pass	H
7994.75	151	45	-44.72	-40	-4.72	Pass	H
1233.48	149	162	-56.98	-40	-16.98	Pass	V
1465.61	151	89	-60.31	-40	-20.31	Pass	V
3499.73	145	156	-48.63	-40	-8.63	Pass	V
3827.54	149	120	-51.54	-40	-11.54	Pass	V
5749.28	145	119	-44.62	-40	-4.62	Pass	V
6519.62	145	271	-47.88	-40	-7.88	Pass	V
Band 40A 38875 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1261.27	152	166	-57.55	-40	-17.55	Pass	H
1803.47	146	261	-49.22	-40	-9.22	Pass	H
3857.42	149	174	-50.07	-40	-10.07	Pass	H
5912.39	151	76	-45.68	-40	-5.68	Pass	H
6431.77	154	335	-45.87	-40	-5.87	Pass	H
7993.23	148	285	-43.16	-40	-3.16	Pass	H
1207.37	149	322	-57.14	-40	-17.14	Pass	V
1440.96	152	207	-61.18	-40	-21.18	Pass	V
3627.32	150	243	-49.05	-40	-9.05	Pass	V
3808.40	146	21	-48.82	-40	-8.82	Pass	V
5746.46	152	201	-45.56	-40	-5.56	Pass	V
6515.87	151	193	-47.76	-40	-7.76	Pass	V

Note:

19) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

20) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

QPSK							
Band 40B 39175channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1266.91	153	89	-53.67	-40	-13.67	Pass	H
1779.10	146	16	-48.19	-40	-8.19	Pass	H
3852.70	152	257	-50.04	-40	-10.04	Pass	H
5882.84	154	310	-43.06	-40	-3.06	Pass	H
6504.56	152	144	-44.75	-40	-4.75	Pass	H
8157.25	150	218	-46.39	-40	-6.39	Pass	H
1225.86	155	86	-57.93	-40	-17.93	Pass	V
1352.27	147	287	-59.40	-40	-19.40	Pass	V
3497.82	153	155	-48.08	-40	-8.08	Pass	V
3932.51	154	321	-48.97	-40	-8.97	Pass	V
5811.25	151	343	-45.35	-40	-5.35	Pass	V
6513.07	146	241	-44.91	-40	-4.91	Pass	V
Band 40B 39200 channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1426.07	154	26	-57.61	-40	-17.61	Pass	H
1758.22	153	241	-50.03	-40	-10.03	Pass	H
3889.23	152	274	-49.24	-40	-9.24	Pass	H
5940.30	149	114	-45.56	-40	-5.56	Pass	H
6509.82	153	308	-46.42	-40	-6.42	Pass	H
8040.75	148	116	-44.80	-40	-4.80	Pass	H
1118.05	154	62	-58.82	-40	-18.82	Pass	V
1303.01	155	225	-58.51	-40	-18.51	Pass	V
3524.05	149	160	-51.88	-40	-11.88	Pass	V
3942.60	148	280	-52.02	-40	-12.02	Pass	V
5731.77	145	34	-46.22	-40	-6.22	Pass	V
6598.74	146	291	-46.70	-40	-6.70	Pass	V

Band 40B 39225 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1403.57	147	112	-58.44	-40	-18.44	Pass	H
1633.68	149	120	-50.98	-40	-10.98	Pass	H
3848.72	152	196	-50.98	-40	-10.98	Pass	H
5945.22	154	213	-45.04	-40	-5.04	Pass	H
6430.52	148	137	-47.27	-40	-7.27	Pass	H
8135.62	152	232	-45.77	-40	-5.77	Pass	H
1153.87	154	345	-56.28	-40	-16.28	Pass	V
1440.75	153	159	-58.95	-40	-18.95	Pass	V
3605.39	155	48	-51.02	-40	-11.02	Pass	V
3798.90	146	216	-49.84	-40	-9.84	Pass	V
5762.39	154	245	-47.05	-40	-7.05	Pass	V
6614.69	148	324	-44.34	-40	-4.34	Pass	V
16QAM							
Band 40B 39175 channel/BW 5(lowest channel)							
Frequency	Height	Azimuth	Spurious Emission Level (dBm)	Limit	Over Limit (dB)	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)		(dBm)			
1285.01	150	204	-53.59	-40	-13.59	Pass	H
1789.85	150	40	-46.92	-40	-6.92	Pass	H
3852.54	148	321	-48.42	-40	-8.42	Pass	H
5935.66	149	243	-44.10	-40	-4.10	Pass	H
6540.13	148	267	-47.18	-40	-7.18	Pass	H
8021.56	153	356	-46.11	-40	-6.11	Pass	H
1248.63	150	284	-58.78	-40	-18.78	Pass	V
1302.52	151	299	-61.91	-40	-21.91	Pass	V
3441.65	154	263	-51.87	-40	-11.87	Pass	V
3880.25	150	24	-50.13	-40	-10.13	Pass	V
5791.64	148	62	-48.10	-40	-8.10	Pass	V
6492.08	154	73	-47.01	-40	-7.01	Pass	V

Band 40B 39200channel/BW 5(middle channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1305.67	145	117	-54.22	-40	-14.22	Pass	H
1784.09	145	22	-47.08	-40	-7.08	Pass	H
3902.40	146	160	-47.65	-40	-7.65	Pass	H
5852.02	145	181	-45.90	-40	-5.90	Pass	H
6436.69	146	16	-45.95	-40	-5.95	Pass	H
8068.45	146	267	-47.21	-40	-7.21	Pass	H
1280.50	146	195	-58.78	-40	-18.78	Pass	V
1410.42	146	10	-60.02	-40	-20.02	Pass	V
3439.21	146	114	-53.14	-40	-13.14	Pass	V
3862.02	145	320	-51.66	-40	-11.66	Pass	V
5756.00	145	281	-48.54	-40	-8.54	Pass	V
6597.88	145	198	-47.30	-40	-7.30	Pass	V
Band 40B 39225 channel/BW 5(highest channel)							
Frequency	Height	Azimuth	Spurious Emission Level	Limit	Over Limit	Result	Antenna Polaxis.
(MHz)	(cm)	(deg)	(dBm)	(dBm)	(dB)		
1345.13	151	334	-52.05	-40	-12.05	Pass	H
1652.11	152	156	-48.71	-40	-8.71	Pass	H
3835.52	154	31	-48.88	-40	-8.88	Pass	H
5893.91	152	351	-46.06	-40	-6.06	Pass	H
6476.80	152	342	-49.77	-40	-9.77	Pass	H
8152.43	154	43	-44.57	-40	-4.57	Pass	H
1278.85	148	238	-56.11	-40	-16.11	Pass	V
1409.07	148	46	-61.40	-40	-21.40	Pass	V
3469.91	154	356	-49.78	-40	-9.78	Pass	V
3831.01	152	68	-49.71	-40	-9.71	Pass	V
5854.52	148	222	-47.87	-40	-7.87	Pass	V
6424.62	150	231	-45.80	-40	-5.80	Pass	V

Note:

21) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

22) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

QPSK

Band 66 131979 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1338.55	159	310	-59.16	-13	-46.16	Pass	H
1768.31	157	241	-49.75	-13	-36.75	Pass	H
3937.18	156	280	-45.61	-13	-32.61	Pass	H
5922.05	143	4	-44.16	-13	-31.16	Pass	H
6527.87	156	306	-44.11	-13	-31.11	Pass	H
7983.36	158	131	-44.30	-13	-31.30	Pass	H
1247.73	143	312	-57.10	-13	-44.10	Pass	V
1443.45	141	19	-57.18	-13	-44.18	Pass	V
3442.87	158	301	-49.79	-13	-36.79	Pass	V
3881.24	142	8	-51.09	-13	-38.09	Pass	V
5898.48	159	22	-46.61	-13	-33.61	Pass	V
6625.23	140	161	-47.68	-13	-34.68	Pass	V
Band 66 132322 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1215.49	150	169	-55.43	-13	-42.43	Pass	H
1695.43	146	337	-54.55	-13	-41.55	Pass	H
3918.68	150	338	-48.31	-13	-35.31	Pass	H
5788.04	146	240	-44.35	-13	-31.35	Pass	H
6422.72	149	12	-52.15	-13	-39.15	Pass	H
7942.75	151	243	-45.75	-13	-32.75	Pass	H
1299.66	149	358	-53.55	-13	-40.55	Pass	V
1329.05	148	15	-61.60	-13	-48.60	Pass	V
3686.09	147	195	-51.62	-13	-38.62	Pass	V
4006.74	148	59	-52.10	-13	-39.10	Pass	V
5885.54	150	74	-49.10	-13	-36.10	Pass	V
6468.55	150	320	-47.89	-13	-34.89	Pass	V

Band 66 132665 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1384.70	148	77	-59.07	-13	-46.07	Pass	H
1600.94	150	224	-53.51	-13	-40.51	Pass	H
3847.57	155	237	-47.28	-13	-34.28	Pass	H
5913.66	147	65	-39.87	-13	-26.87	Pass	H
6489.91	151	7	-44.72	-13	-31.72	Pass	H
8020.92	152	4	-44.91	-13	-31.91	Pass	H
1199.00	145	327	-55.06	-13	-42.06	Pass	V
1317.90	152	205	-53.94	-13	-40.94	Pass	V
3602.53	151	54	-50.84	-13	-37.84	Pass	V
3833.66	150	303	-48.72	-13	-35.72	Pass	V
5814.63	146	161	-43.51	-13	-30.51	Pass	V
6619.85	153	161	-47.66	-13	-34.66	Pass	V

16QAM

Band 66 131979 channel/BW1.4(lowest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1397.49	153	293	-60.05	-13	-47.05	Pass	H
1669.02	149	170	-44.80	-13	-31.80	Pass	H
3936.86	150	44	-50.16	-13	-37.16	Pass	H
5892.71	154	184	-46.61	-13	-33.61	Pass	H
6628.58	152	30	-43.05	-13	-30.05	Pass	H
8078.31	149	332	-44.24	-13	-31.24	Pass	H
1184.71	146	338	-55.29	-13	-42.29	Pass	V
1427.28	151	136	-57.27	-13	-44.27	Pass	V
3548.48	153	295	-51.12	-13	-38.12	Pass	V
3993.18	152	60	-49.60	-13	-36.60	Pass	V
5860.67	154	318	-46.52	-13	-33.52	Pass	V
6634.15	150	263	-47.35	-13	-34.35	Pass	V

Band 66 132322 channel/BW1.4(middle channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1397.55	151	292	-51.28	-13	-41.45	Pass	H
1677.32	150	215	-49.99	-13	-37.85	Pass	H
3796.08	145	273	-44.36	-13	-35.2	Pass	H
5885.33	148	147	-45.01	-13	-30.39	Pass	H
6431.67	149	233	-43.22	-13	-32.24	Pass	H
7969.97	147	58	-41.08	-13	-30.22	Pass	H
1261.27	146	249	-54.11	-13	-44.9	Pass	V
1435.96	149	328	-57.23	-13	-43.63	Pass	V
3541.05	148	76	-48.94	-13	-35.94	Pass	V
3875.71	154	235	-51.86	-13	-36.01	Pass	V
5886.64	147	259	-48.95	-13	-33.75	Pass	V
6447.91	154	270	-48.30	-13	-32.41	Pass	V
Band 66 132665 channel/BW1.4(highest channel)							
Frequency (MHz)	Height (cm)	Azimuth (deg)	Spurious Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	Antenna Polaxis.
1304.37	151	268	-58.82	-13	-45.82	Pass	H
1712.28	147	271	-46.89	-13	-33.89	Pass	H
3916.76	152	4	-43.64	-13	-30.64	Pass	H
5934.48	147	182	-39.40	-13	-26.40	Pass	H
6421.34	146	38	-40.44	-13	-27.44	Pass	H
8138.89	154	189	-47.61	-13	-34.61	Pass	H
1181.84	152	178	-54.57	-13	-41.57	Pass	V
1494.58	148	128	-60.19	-13	-47.19	Pass	V
3640.84	150	8	-52.47	-13	-39.47	Pass	V
3776.62	154	265	-53.46	-13	-40.46	Pass	V
5816.76	148	58	-48.41	-13	-35.41	Pass	V
6627.67	152	233	-47.20	-13	-34.20	Pass	V

Note:

23) Scan from 9kHz to 40GHz, the disturbance above 13GHz and below 1GHz are attenuated more than 20 dB below the applicable limit and not required to be reported, the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

24) Tested with all kind of bandwidth, RB Size and RB Offset, Found the 1.4MHz with full RB were the worst case; and then Only the worst case is recorded in the report.

12. FREQUENCY STABILITY

12.1 Standard Applicable

According to §22.355, §24.235, §27.54 the limit is 2.5ppm.

12.2 Test Procedure

According to §2.1055, the following test procedure was performed.

The Frequency Stability is measured directly with a Frequency Domain Analyzer. Frequency Deviation in ppm is calculated from the measured peak to peak value.

The Carrier Frequency Stability over Power Supply Voltage and over Temperature is measured with a Frequency Domain Analyzer in histogram mode

12.3 Summary of Test Results/Plots

Note: 1.Normal Voltage NV=DC 3.7V; Low Voltage LV=DC 3.33V; High Voltage HV=DC 4.07V

Please refer to Appendix 2: Frequency Stability

Test result: Pass

***** END OF REPORT *****