



TEST REPORT

Product Name: GPS TRACKER
FCC ID: 2BR4L-TRUTRAKPRO
Trademark: GREAT-WILL
Model Number: TRUTRAK PRO GAT 24, GAT24, GAT23, GAT25, GAT26, GAT27, GAT28, GAT30, GT851, GT21, GT22, GTB10
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Sample Received Date: Aug. 12, 2025
Sample tested Date: Aug. 12, 2025 to Sep. 03, 2025
Issue Date: Sep. 03, 2025
Report No.: CTB25081206901RF01
Test Standards: FCC Part 2, 22, 24E, 27
Test Results: PASS
Remark: This is LTE radio test report.

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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
CTB25081206901RF01	Sep. 03, 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 chamber 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):	TRUTRAK PRO GAT 24, GAT24, GAT23, GAT25, GAT26, GAT27, GAT28, GAT30, GT851, GT21, GT22, GTB10
Model Description:	All the model are the same circuit and RF module, only the model names are different. Test sample model: TRUTRAK PRO GAT 24
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 TDD-LTE BAND 38: 2570-2620MHz TDD-LTE BAND 41: 2496-2690 MHz FDD-LTE BAND 66: 1710-1780MHz
Max. RF output power:	FDD-LTE BAND 2: 23.94dBm FDD-LTE BAND 4: 25.3dBm FDD-LTE BAND 5: 23.82dBm FDD-LTE BAND 7: 23.7dBm TDD-LTE BAND 38: 21.87dBm TDD-LTE BAND 41: 21.85dBm FDD-LTE BAND 66: 22.29dBm
Type of Modulation:	QPSK, 16QAM
Antenna installation:	FPC antenna
Antenna Gain:	FDD-LTE BAND 2: 3.9dBi FDD-LTE BAND 4: 2.29dBi FDD-LTE BAND 5: -0.67dBi FDD-LTE BAND 7: 1.55dBi TDD-LTE BAND 38: 1.02dBi TDD-LTE BAND 41: 1.55dBi FDD-LTE BAND 66: 2.41dBi
Ratings:	Input: 5V=2A 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	TDD-LTE BAND 38	Low, Middle, High Channels
TM6	TDD-LTE BAND 41	Low, Middle, High Channels
TM7	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 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 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.

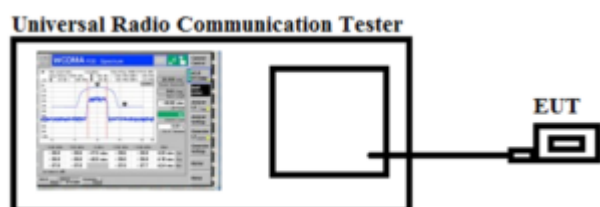
According to §27.50(h)(2), Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

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.

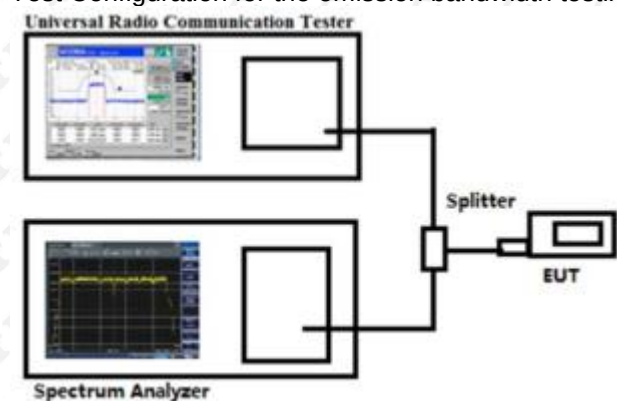
corresponding to the highest PAPR expected during periods of continuous transmission.

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.

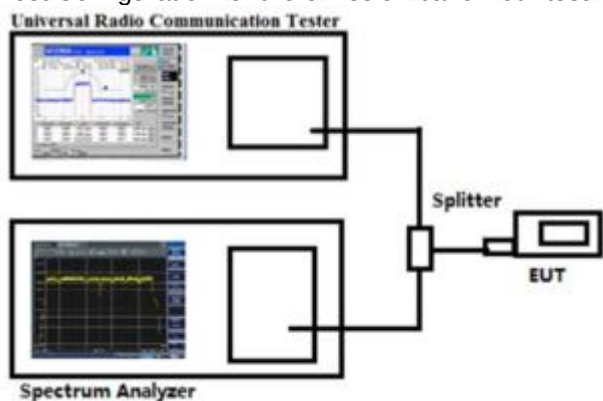
According to §24.238(b), the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

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;

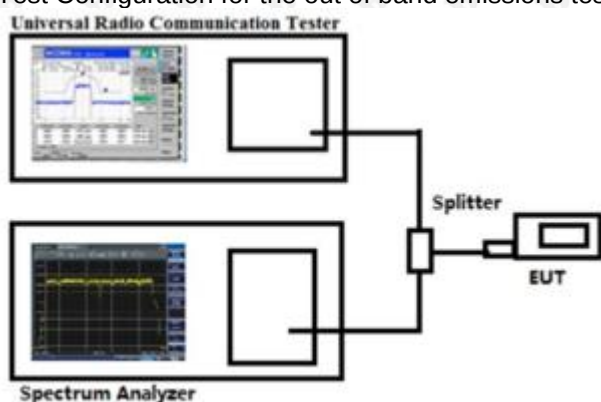
(2) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 70 + 10 log (P) dB on all frequencies between 2287.5 and 2300 MHz, 72 + 10 log (P) dB on all frequencies between 2285 and 2287.5 MHz, and 75 + 10 log (P) dB below 2285 MHz;

(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.
1234.93	144	331	-57.86	-13	-44.86	Pass	H
1683.81	142	155	-48.72	-13	-35.72	Pass	H
3838.75	157	211	-44.74	-13	-31.74	Pass	H
5819.06	151	202	-42.63	-13	-29.63	Pass	H
6601.54	148	327	-43.90	-13	-30.90	Pass	H
8014.65	142	73	-44.28	-13	-31.28	Pass	H
1197.41	152	346	-56.01	-13	-43.01	Pass	V
1461.12	151	214	-59.26	-13	-46.26	Pass	V
3635.62	143	21	-49.48	-13	-36.48	Pass	V
3762.67	142	111	-49.60	-13	-36.60	Pass	V
5822.37	140	156	-48.05	-13	-35.05	Pass	V
6643.57	157	66	-45.81	-13	-32.81	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.
1264.07	150	294	-59.29	-13	-46.29	Pass	H
1721.73	146	227	-50.92	-13	-37.92	Pass	H
3811.87	150	90	-50.60	-13	-37.60	Pass	H
5854.99	146	125	-47.66	-13	-34.66	Pass	H
6531.00	149	266	-51.15	-13	-38.15	Pass	H
8034.90	151	329	-46.87	-13	-33.87	Pass	H
1163.67	149	299	-53.83	-13	-40.83	Pass	V
1459.40	148	179	-59.96	-13	-46.96	Pass	V
3683.35	147	52	-54.61	-13	-41.61	Pass	V
3983.34	148	315	-50.31	-13	-37.31	Pass	V
5801.96	150	312	-45.61	-13	-32.61	Pass	V
6486.46	150	85	-47.68	-13	-34.68	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.
1304.84	151	126	-59.17	-13	-46.17	Pass	H
1699.25	148	275	-52.49	-13	-39.49	Pass	H
3896.79	153	298	-45.84	-13	-32.84	Pass	H
5964.97	155	314	-40.50	-13	-27.50	Pass	H
6472.51	152	239	-45.21	-13	-32.21	Pass	H
7961.50	149	158	-42.80	-13	-29.80	Pass	H
1258.29	151	137	-54.53	-13	-41.53	Pass	V
1469.04	147	180	-55.44	-13	-42.44	Pass	V
3460.65	153	342	-53.46	-13	-40.46	Pass	V
3958.82	149	20	-46.07	-13	-33.07	Pass	V
5826.03	154	77	-44.73	-13	-31.73	Pass	V
6617.92	151	43	-47.22	-13	-34.22	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.
1304.25	148	0	-57.11	-13	-44.11	Pass	H
1719.95	149	214	-46.55	-13	-33.55	Pass	H
3957.08	145	316	-51.70	-13	-38.70	Pass	H
5827.46	151	333	-44.65	-13	-31.65	Pass	H
6514.33	151	261	-45.40	-13	-32.40	Pass	H
7967.75	149	91	-41.35	-13	-28.35	Pass	H
1167.33	152	348	-53.04	-13	-40.04	Pass	V
1466.09	146	146	-55.21	-13	-42.21	Pass	V
3553.15	147	186	-54.01	-13	-41.01	Pass	V
3960.61	151	303	-52.20	-13	-39.20	Pass	V
5795.05	146	81	-46.76	-13	-33.76	Pass	V
6642.43	147	73	-50.72	-13	-37.72	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.
1284.07	145	207	-54.85	-13	-41.45	Pass	H
1815.93	145	67	-50.76	-13	-37.85	Pass	H
3842.11	154	336	-45.28	-13	-35.2	Pass	H
5841.78	149	62	-41.39	-13	-30.39	Pass	H
6506.45	153	130	-41.59	-13	-32.24	Pass	H
8139.80	153	260	-42.45	-13	-30.22	Pass	H
1265.76	149	167	-57.55	-13	-44.9	Pass	V
1335.33	149	183	-57.31	-13	-43.63	Pass	V
3546.69	146	118	-46.14	-13	-35.94	Pass	V
3765.40	150	241	-46.88	-13	-36.01	Pass	V
5859.61	153	45	-49.25	-13	-33.75	Pass	V
6456.55	150	328	-45.59	-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.
1419.78	146	64	-55.70	-13	-42.70	Pass	H
1688.62	145	79	-48.66	-13	-35.66	Pass	H
3805.16	146	125	-42.65	-13	-29.65	Pass	H
5929.45	148	93	-44.00	-13	-31.00	Pass	H
6423.30	147	348	-42.29	-13	-29.29	Pass	H
8110.80	152	167	-43.75	-13	-30.75	Pass	H
1180.43	146	143	-55.99	-13	-42.99	Pass	V
1528.92	154	129	-58.04	-13	-45.04	Pass	V
3599.38	146	68	-49.03	-13	-36.03	Pass	V
3804.70	150	228	-51.56	-13	-38.56	Pass	V
5851.49	146	295	-45.44	-13	-32.44	Pass	V
6456.62	154	88	-48.09	-13	-35.09	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.
1250.39	148	8	-60.30	-13	-47.30	Pass	H
1592.61	150	188	-46.81	-13	-33.81	Pass	H
3919.98	151	55	-52.84	-13	-39.84	Pass	H
5970.43	151	95	-44.96	-13	-31.96	Pass	H
6622.85	146	147	-46.69	-13	-33.69	Pass	H
8100.22	153	29	-43.60	-13	-30.60	Pass	H
1135.59	154	149	-55.50	-13	-42.50	Pass	V
1369.09	150	258	-55.50	-13	-42.50	Pass	V
3511.57	152	242	-51.61	-13	-38.61	Pass	V
3848.09	154	297	-53.72	-13	-40.72	Pass	V
5819.33	147	70	-47.35	-13	-34.35	Pass	V
6628.85	155	340	-48.55	-13	-35.55	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.
1247.56	149	258	-56.03	-13	-43.03	Pass	H
1703.55	147	316	-49.00	-13	-36.00	Pass	H
3795.31	147	11	-49.63	-13	-36.63	Pass	H
5883.24	150	246	-44.58	-13	-31.58	Pass	H
6516.41	145	352	-39.60	-13	-26.60	Pass	H
8095.46	152	341	-46.65	-13	-33.65	Pass	H
1203.82	153	114	-57.80	-13	-44.80	Pass	V
1416.39	147	342	-56.34	-13	-43.34	Pass	V
3505.79	146	136	-51.36	-13	-38.36	Pass	V
3795.78	151	99	-47.09	-13	-34.09	Pass	V
5796.52	148	304	-41.29	-13	-28.29	Pass	V
6594.78	147	264	-44.37	-13	-31.37	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.
1425.01	152	268	-55.35	-13	-42.35	Pass	H
1742.73	153	55	-50.90	-13	-37.90	Pass	H
3854.32	148	140	-44.60	-13	-31.60	Pass	H
5818.31	152	41	-44.03	-13	-31.03	Pass	H
6562.43	155	313	-44.06	-13	-31.06	Pass	H
8056.26	145	319	-41.30	-13	-28.30	Pass	H
1252.19	145	8	-56.24	-13	-43.24	Pass	V
1432.72	147	231	-54.57	-13	-41.57	Pass	V
3612.08	148	159	-46.77	-13	-33.77	Pass	V
3778.97	147	302	-46.39	-13	-33.39	Pass	V
5782.23	151	115	-43.59	-13	-30.59	Pass	V
6628.77	152	258	-48.59	-13	-35.59	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.
1430.25	154	66	-53.10	-13	-40.10	Pass	H
1675.70	149	166	-50.06	-13	-37.06	Pass	H
3848.67	146	188	-50.39	-13	-37.39	Pass	H
5892.97	146	253	-49.30	-13	-36.30	Pass	H
6505.42	154	293	-46.13	-13	-33.13	Pass	H
8023.30	152	271	-48.05	-13	-35.05	Pass	H
1211.50	148	69	-58.60	-13	-45.60	Pass	V
1509.28	155	82	-57.54	-13	-44.54	Pass	V
3559.12	146	172	-50.12	-13	-37.12	Pass	V
3736.25	151	41	-50.90	-13	-37.90	Pass	V
5797.91	155	119	-45.73	-13	-32.73	Pass	V
6542.52	154	3	-44.35	-13	-31.35	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.
1370.64	148	252	-59.78	-13	-46.78	Pass	H
1627.34	151	315	-52.86	-13	-39.86	Pass	H
3894.99	149	75	-50.16	-13	-37.16	Pass	H
5787.88	147	194	-45.56	-13	-32.56	Pass	H
6547.64	147	207	-48.87	-13	-35.87	Pass	H
8059.42	153	179	-47.49	-13	-34.49	Pass	H
1182.47	148	17	-56.98	-13	-43.98	Pass	V
1293.85	153	158	-62.81	-13	-49.81	Pass	V
3503.49	149	347	-48.22	-13	-35.22	Pass	V
3890.16	148	115	-52.69	-13	-39.69	Pass	V
5893.05	149	273	-54.79	-13	-41.79	Pass	V
6591.84	145	184	-50.83	-13	-37.83	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.
1325.65	146	286	-55.66	-13	-42.66	Pass	H
1571.53	146	163	-49.05	-13	-36.05	Pass	H
3787.90	150	318	-43.25	-13	-30.25	Pass	H
5867.72	154	255	-39.43	-13	-26.43	Pass	H
6469.37	146	22	-44.79	-13	-31.79	Pass	H
7910.60	152	207	-46.00	-13	-33.00	Pass	H
1173.47	147	233	-54.72	-13	-41.72	Pass	V
1375.53	154	46	-53.53	-13	-40.53	Pass	V
3457.04	151	140	-50.40	-13	-37.40	Pass	V
3841.95	155	119	-48.14	-13	-35.14	Pass	V
5781.24	151	201	-42.85	-13	-29.85	Pass	V
6566.10	147	4	-45.14	-13	-32.14	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.
1421.21	152	174	-57.88	-13	-44.88	Pass	H
1651.15	142	328	-51.01	-13	-38.01	Pass	H
3869.81	148	141	-48.33	-13	-35.33	Pass	H
5815.22	156	136	-45.46	-13	-32.46	Pass	H
6559.38	143	248	-45.75	-13	-32.75	Pass	H
8047.33	160	142	-44.69	-13	-31.69	Pass	H
1268.27	153	108	-52.99	-13	-39.99	Pass	V
1527.34	155	87	-56.65	-13	-43.65	Pass	V
3503.47	142	33	-50.97	-13	-37.97	Pass	V
3797.59	143	206	-49.58	-13	-36.58	Pass	V
5894.09	155	56	-46.86	-13	-33.86	Pass	V
6600.78	157	358	-49.10	-13	-36.10	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.
1340.97	150	142	-54.69	-13	-41.69	Pass	H
1755.35	146	27	-53.43	-13	-40.43	Pass	H
3876.17	150	139	-53.46	-13	-40.46	Pass	H
5772.66	146	44	-46.74	-13	-33.74	Pass	H
6394.38	149	131	-48.90	-13	-35.90	Pass	H
7979.50	151	236	-47.55	-13	-34.55	Pass	H
1185.73	149	76	-56.26	-13	-43.26	Pass	V
1361.47	148	277	-61.78	-13	-48.78	Pass	V
3537.90	147	28	-56.65	-13	-43.65	Pass	V
3936.90	148	155	-51.90	-13	-38.90	Pass	V
5888.79	150	144	-48.03	-13	-35.03	Pass	V
6506.69	150	351	-46.28	-13	-33.28	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.
1309.72	151	67	-59.50	-13	-46.50	Pass	H
1586.94	154	84	-49.60	-13	-36.60	Pass	H
3774.65	150	181	-44.03	-13	-31.03	Pass	H
5823.53	146	246	-38.48	-13	-25.48	Pass	H
6598.23	148	221	-45.23	-13	-32.23	Pass	H
8061.38	148	122	-42.79	-13	-29.79	Pass	H
1342.54	150	306	-55.25	-13	-42.25	Pass	V
1379.34	149	303	-56.44	-13	-43.44	Pass	V
3437.38	154	245	-52.40	-13	-39.40	Pass	V
3926.09	149	18	-48.45	-13	-35.45	Pass	V
5692.15	149	224	-45.17	-13	-32.17	Pass	V
6629.20	153	268	-47.25	-13	-34.25	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.
1422.84	148	272	-56.74	-13	-43.74	Pass	H
1609.13	152	233	-45.90	-13	-32.90	Pass	H
3923.61	150	67	-50.09	-13	-37.09	Pass	H
5999.61	149	17	-47.64	-13	-34.64	Pass	H
6459.67	153	120	-43.77	-13	-30.77	Pass	H
7918.50	152	359	-40.32	-13	-27.32	Pass	H
1209.46	155	258	-54.36	-13	-41.36	Pass	V
1442.90	152	307	-54.51	-13	-41.51	Pass	V
3533.48	153	14	-49.14	-13	-36.14	Pass	V
3933.88	155	298	-54.53	-13	-41.53	Pass	V
5815.84	153	351	-45.47	-13	-32.47	Pass	V
6627.75	149	55	-50.34	-13	-37.34	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.
1311.11	154	302	-56.15	-13	-41.45	Pass	H
1627.90	152	195	-52.84	-13	-37.85	Pass	H
3783.32	153	321	-47.02	-13	-35.2	Pass	H
5918.56	155	43	-41.22	-13	-30.39	Pass	H
6518.81	150	224	-48.15	-13	-32.24	Pass	H
7999.68	152	201	-39.54	-13	-30.22	Pass	H
1150.08	147	128	-59.62	-13	-44.9	Pass	V
1339.11	149	256	-59.33	-13	-43.63	Pass	V
3581.30	147	333	-49.62	-13	-35.94	Pass	V
3841.96	150	205	-50.09	-13	-36.01	Pass	V
5858.72	155	74	-47.27	-13	-33.75	Pass	V
6466.73	151	114	-46.06	-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.
1404.97	154	292	-58.47	-13	-45.47	Pass	H
1742.30	148	78	-51.20	-13	-38.20	Pass	H
3875.47	148	27	-43.48	-13	-30.48	Pass	H
5839.62	150	9	-40.51	-13	-27.51	Pass	H
6419.14	150	212	-38.15	-13	-25.15	Pass	H
8017.82	146	356	-42.57	-13	-29.57	Pass	H
1279.28	148	7	-56.91	-13	-43.91	Pass	V
1448.44	149	116	-58.29	-13	-45.29	Pass	V
3545.55	150	231	-52.48	-13	-39.48	Pass	V
3757.24	149	331	-53.09	-13	-40.09	Pass	V
5891.36	153	96	-45.93	-13	-32.93	Pass	V
6630.53	154	259	-43.13	-13	-30.13	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.
1407.18	151	71	-59.03	-13	-46.03	Pass	H
1729.41	150	45	-45.29	-13	-32.29	Pass	H
3870.50	148	345	-52.58	-13	-39.58	Pass	H
5906.80	151	77	-43.90	-13	-30.90	Pass	H
6493.59	152	233	-44.84	-13	-31.84	Pass	H
8100.45	150	332	-40.83	-13	-27.83	Pass	H
1214.25	152	59	-55.58	-13	-42.58	Pass	V
1516.97	147	224	-56.09	-13	-43.09	Pass	V
3657.01	146	132	-53.08	-13	-40.08	Pass	V
3972.72	153	185	-47.74	-13	-34.74	Pass	V
5883.87	150	349	-46.90	-13	-33.90	Pass	V
6526.53	149	320	-50.14	-13	-37.14	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.
1430.19	148	200	-53.14	-13	-40.14	Pass	H
1748.41	148	77	-48.54	-13	-35.54	Pass	H
3867.15	155	327	-44.01	-13	-31.01	Pass	H
5881.66	147	237	-44.22	-13	-31.22	Pass	H
6551.75	149	105	-42.70	-13	-29.70	Pass	H
8073.65	150	267	-43.88	-13	-30.88	Pass	H
1168.34	153	204	-59.02	-13	-46.02	Pass	V
1347.66	148	171	-62.60	-13	-49.60	Pass	V
3626.34	147	306	-51.83	-13	-38.83	Pass	V
3930.74	155	173	-46.85	-13	-33.85	Pass	V
5871.32	154	129	-41.34	-13	-28.34	Pass	V
6589.35	147	136	-45.04	-13	-32.04	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.
1403.50	147	153	-52.10	-13	-39.10	Pass	H
1644.33	154	238	-51.86	-13	-38.86	Pass	H
3901.44	149	10	-43.92	-13	-30.92	Pass	H
5895.78	148	211	-40.08	-13	-27.08	Pass	H
6574.44	150	311	-40.89	-13	-27.89	Pass	H
8013.12	152	200	-44.79	-13	-31.79	Pass	H
1162.41	149	89	-53.28	-13	-40.28	Pass	V
1526.96	146	269	-56.54	-13	-43.54	Pass	V
3448.62	154	193	-51.39	-13	-38.39	Pass	V
3883.50	153	170	-44.55	-13	-31.55	Pass	V
5708.76	154	333	-47.42	-13	-34.42	Pass	V
6548.67	155	338	-49.05	-13	-36.05	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.
1347.26	154	139	-52.98	-13	-39.98	Pass	H
1650.69	155	258	-53.92	-13	-40.92	Pass	H
3868.09	150	80	-47.29	-13	-34.29	Pass	H
5952.64	154	42	-46.53	-13	-33.53	Pass	H
6401.24	149	292	-45.78	-13	-32.78	Pass	H
7943.36	151	279	-50.06	-13	-37.06	Pass	H
1149.03	149	344	-54.26	-13	-41.26	Pass	V
1534.55	147	309	-51.95	-13	-38.95	Pass	V
3661.27	155	239	-46.89	-13	-33.89	Pass	V
3871.74	146	145	-48.40	-13	-35.40	Pass	V
5859.66	147	162	-49.24	-13	-36.24	Pass	V
6561.18	148	226	-48.04	-13	-35.04	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.
1240.69	154	317	-53.06	-13	-40.06	Pass	H
1641.28	148	351	-49.85	-13	-36.85	Pass	H
3953.71	147	317	-45.83	-13	-32.83	Pass	H
5878.42	151	158	-42.08	-13	-29.08	Pass	H
6506.02	150	22	-48.01	-13	-35.01	Pass	H
8078.39	148	297	-48.94	-13	-35.94	Pass	H
1306.91	147	28	-54.78	-13	-41.78	Pass	V
1478.45	146	329	-63.95	-13	-50.95	Pass	V
3584.53	148	145	-53.58	-13	-40.58	Pass	V
3989.40	149	235	-51.22	-13	-38.22	Pass	V
5889.73	145	176	-53.47	-13	-40.47	Pass	V
6605.83	151	231	-50.24	-13	-37.24	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.
1323.02	149	233	-59.53	-13	-46.53	Pass	H
1578.78	148	272	-53.75	-13	-40.75	Pass	H
3742.93	149	37	-49.40	-13	-36.40	Pass	H
5848.75	154	266	-42.57	-13	-29.57	Pass	H
6517.87	151	358	-46.01	-13	-33.01	Pass	H
7902.51	147	78	-47.91	-13	-34.91	Pass	H
1180.21	151	279	-50.75	-13	-37.75	Pass	V
1394.14	154	334	-50.53	-13	-37.53	Pass	V
3458.94	147	49	-48.69	-13	-35.69	Pass	V
3890.07	145	237	-45.77	-13	-32.77	Pass	V
5700.67	154	234	-42.42	-13	-29.42	Pass	V
6570.97	147	92	-47.91	-13	-34.91	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.

QPSK							
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)			
1246.25	153	182	-55.00	-25	-30.00	Pass	H
1664.36	153	266	-50.53	-25	-25.53	Pass	H
3899.06	153	176	-48.09	-25	-23.09	Pass	H
5868.25	145	219	-40.90	-25	-15.90	Pass	H
6558.05	150	64	-47.99	-25	-22.99	Pass	H
7904.99	154	141	-42.54	-25	-17.54	Pass	H
1120.06	147	318	-62.46	-25	-37.46	Pass	V
1406.36	148	31	-57.21	-25	-32.21	Pass	V
3530.15	153	221	-49.17	-25	-24.17	Pass	V
3782.54	148	177	-51.60	-25	-26.60	Pass	V
5731.70	146	98	-44.40	-25	-19.40	Pass	V
6475.02	145	305	-49.66	-25	-24.66	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)			
1234.75	152	180	-57.75	-25	-32.75	Pass	H
1625.86	151	49	-48.57	-25	-23.57	Pass	H
3801.65	147	251	-51.48	-25	-26.48	Pass	H
5758.22	150	42	-51.08	-25	-26.08	Pass	H
6398.38	150	32	-44.23	-25	-19.23	Pass	H
7897.69	148	339	-43.99	-25	-18.99	Pass	H
1121.27	149	138	-57.99	-25	-32.99	Pass	V
1340.25	147	171	-58.57	-25	-33.57	Pass	V
3470.04	151	312	-46.20	-25	-21.20	Pass	V
3738.08	155	180	-53.08	-25	-28.08	Pass	V
5702.93	147	254	-43.69	-25	-18.69	Pass	V
6454.11	147	116	-49.65	-25	-24.65	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)			
1393.97	149	181	-58.17	-25	-33.17	Pass	H
1801.90	146	129	-49.72	-25	-24.72	Pass	H
3857.40	150	276	-52.37	-25	-27.37	Pass	H
5814.91	151	99	-43.54	-25	-18.54	Pass	H
6583.67	154	45	-46.82	-25	-21.82	Pass	H
8044.01	145	24	-46.57	-25	-21.57	Pass	H
1228.67	150	139	-56.75	-25	-31.75	Pass	V
1358.12	145	348	-56.53	-25	-31.53	Pass	V
3643.62	147	311	-54.01	-25	-29.01	Pass	V
3753.41	146	89	-52.34	-25	-27.34	Pass	V
5858.95	146	116	-42.49	-25	-17.49	Pass	V
6535.63	152	324	-47.38	-25	-22.38	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)			
1253.35	148	226	-54.99	-25	-29.99	Pass	H
1771.01	149	231	-51.44	-25	-26.44	Pass	H
3984.91	148	336	-50.10	-25	-25.10	Pass	H
5798.62	148	147	-43.33	-25	-18.33	Pass	H
6456.64	154	102	-47.47	-25	-22.47	Pass	H
8050.84	149	168	-42.26	-25	-17.26	Pass	H
1190.75	150	339	-56.71	-25	-31.71	Pass	V
1368.47	152	41	-54.65	-25	-29.65	Pass	V
3627.96	154	47	-48.16	-25	-23.16	Pass	V
3888.04	149	102	-48.66	-25	-23.66	Pass	V
5812.61	152	339	-46.23	-25	-21.23	Pass	V
6455.26	146	325	-52.60	-25	-27.60	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)		
1382.57	149	69	-56.49	-25	-31.49	Pass	H
1688.85	154	174	-51.20	-25	-26.20	Pass	H
3901.74	152	280	-48.55	-25	-23.55	Pass	H
5795.62	151	120	-44.85	-25	-19.85	Pass	H
6514.69	152	93	-48.34	-25	-23.34	Pass	H
8026.34	151	338	-41.85	-25	-16.85	Pass	H
1186.10	147	273	-60.62	-25	-35.62	Pass	V
1386.19	153	143	-57.50	-25	-32.50	Pass	V
3586.21	145	312	-53.04	-25	-28.04	Pass	V
3847.02	145	242	-48.39	-25	-23.39	Pass	V
5796.81	146	205	-42.87	-25	-17.87	Pass	V
6489.02	152	80	-51.72	-25	-26.72	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)		
1255.87	153	249	-54.25	-25	-29.25	Pass	H
1713.69	153	158	-46.46	-25	-21.46	Pass	H
3873.71	150	221	-51.20	-25	-26.20	Pass	H
5759.37	154	148	-49.09	-25	-24.09	Pass	H
6538.47	149	181	-44.83	-25	-19.83	Pass	H
7910.12	150	21	-45.18	-25	-20.18	Pass	H
1170.02	154	36	-63.44	-25	-38.44	Pass	V
1524.70	146	211	-56.58	-25	-31.58	Pass	V
3527.46	151	309	-45.00	-25	-20.00	Pass	V
3835.64	153	356	-53.74	-25	-28.74	Pass	V
5761.29	152	124	-50.41	-25	-25.41	Pass	V
6611.97	146	50	-47.41	-25	-22.41	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 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)			
1251.95	153	114	-54.06	-25	-29.06	Pass	H
1625.42	150	60	-46.72	-25	-21.72	Pass	H
3997.04	148	211	-50.18	-25	-25.18	Pass	H
5817.30	152	314	-40.55	-25	-15.55	Pass	H
6600.57	154	52	-42.96	-25	-17.96	Pass	H
8134.54	152	356	-47.87	-25	-22.87	Pass	H
1278.72	152	102	-52.72	-25	-27.72	Pass	V
1493.25	150	329	-58.39	-25	-33.39	Pass	V
3593.83	153	355	-51.62	-25	-26.62	Pass	V
3902.61	154	21	-50.77	-25	-25.77	Pass	V
5887.09	148	291	-47.43	-25	-22.43	Pass	V
6491.00	145	332	-48.04	-25	-23.04	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)			
1358.34	154	307	-57.20	-25	-32.20	Pass	H
1734.20	154	140	-49.40	-25	-24.40	Pass	H
3815.08	150	149	-44.01	-25	-19.01	Pass	H
5969.72	154	211	-41.26	-25	-16.26	Pass	H
6459.55	152	290	-43.37	-25	-18.37	Pass	H
8034.86	153	183	-42.29	-25	-17.29	Pass	H
1207.03	151	165	-55.30	-25	-30.30	Pass	V
1373.11	152	46	-54.82	-25	-29.82	Pass	V
3635.34	150	159	-52.86	-25	-27.86	Pass	V
3760.11	151	277	-48.33	-25	-23.33	Pass	V
5875.83	153	82	-48.08	-25	-23.08	Pass	V
6493.00	153	245	-45.22	-25	-20.22	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)			
1384.83	149	208	-55.07	-25	-30.07	Pass	H
1792.63	150	26	-52.38	-25	-27.38	Pass	H
3881.31	151	170	-46.95	-25	-21.95	Pass	H
5882.89	148	232	-42.36	-25	-17.36	Pass	H
6425.32	151	146	-47.11	-25	-22.11	Pass	H
7996.85	151	86	-46.75	-25	-21.75	Pass	H
1145.74	151	46	-55.51	-25	-30.51	Pass	V
1402.55	146	71	-58.98	-25	-33.98	Pass	V
3495.35	153	318	-46.97	-25	-21.97	Pass	V
3785.42	154	73	-47.43	-25	-22.43	Pass	V
5793.06	149	108	-47.08	-25	-22.08	Pass	V
6525.38	148	92	-46.18	-25	-21.18	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)			
1320.50	150	28	-50.65	-25	-25.65	Pass	H
1682.27	150	53	-47.96	-25	-22.96	Pass	H
3845.62	151	28	-48.43	-25	-23.43	Pass	H
5874.59	152	248	-38.89	-25	-13.89	Pass	H
6603.04	148	217	-44.88	-25	-19.88	Pass	H
8098.50	149	122	-46.12	-25	-21.12	Pass	H
1199.03	151	209	-53.03	-25	-28.03	Pass	V
1558.03	154	322	-61.01	-25	-36.01	Pass	V
3443.84	152	350	-55.14	-25	-30.14	Pass	V
3793.35	154	47	-52.42	-25	-27.42	Pass	V
5897.63	150	111	-50.30	-25	-25.30	Pass	V
6641.51	148	43	-44.77	-25	-19.77	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)		
1399.96	155	142	-56.93	-25	-31.93	Pass	H
1771.04	152	206	-49.29	-25	-24.29	Pass	H
3860.07	152	48	-45.58	-25	-20.58	Pass	H
5980.30	153	36	-40.17	-25	-15.17	Pass	H
6580.50	152	302	-40.00	-25	-15.00	Pass	H
8059.50	149	240	-42.13	-25	-17.13	Pass	H
1132.62	153	153	-55.91	-25	-30.91	Pass	V
1388.81	147	87	-55.77	-25	-30.77	Pass	V
3577.69	151	193	-51.62	-25	-26.62	Pass	V
3916.84	151	105	-50.47	-25	-25.47	Pass	V
5760.84	153	342	-45.52	-25	-20.52	Pass	V
6650.68	152	307	-42.70	-25	-17.70	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)		
1339.28	149	117	-59.01	-25	-34.01	Pass	H
1768.59	148	313	-45.08	-25	-20.08	Pass	H
3986.84	151	335	-44.15	-25	-19.15	Pass	H
5936.39	152	153	-37.87	-25	-12.87	Pass	H
6470.20	147	45	-45.11	-25	-20.11	Pass	H
8031.73	154	79	-41.86	-25	-16.86	Pass	H
1144.19	146	60	-55.01	-25	-30.01	Pass	V
1483.58	155	259	-54.87	-25	-29.87	Pass	V
3492.77	151	269	-49.95	-25	-24.95	Pass	V
3915.55	151	230	-47.47	-25	-22.47	Pass	V
5806.26	150	352	-46.68	-25	-21.68	Pass	V
6547.82	145	194	-43.73	-25	-18.73	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.

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.
1357.75	153	302	-54.90	-13	-41.90	Pass	H
1700.97	151	26	-51.00	-13	-38.00	Pass	H
3952.83	150	55	-47.52	-13	-34.52	Pass	H
5857.82	145	79	-43.14	-13	-30.14	Pass	H
6452.62	156	28	-42.05	-13	-29.05	Pass	H
8098.66	158	2	-44.85	-13	-31.85	Pass	H
1264.60	158	308	-56.79	-13	-43.79	Pass	V
1439.41	160	118	-55.90	-13	-42.90	Pass	V
3492.63	154	26	-49.89	-13	-36.89	Pass	V
3767.62	158	153	-49.87	-13	-36.87	Pass	V
5900.03	156	275	-47.82	-13	-34.82	Pass	V
6472.15	158	319	-45.26	-13	-32.26	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.
1389.55	150	337	-57.87	-13	-44.87	Pass	H
1782.21	146	67	-50.67	-13	-37.67	Pass	H
3907.45	150	325	-48.19	-13	-35.19	Pass	H
5836.99	146	62	-43.26	-13	-30.26	Pass	H
6536.20	149	184	-47.71	-13	-34.71	Pass	H
7976.84	151	65	-49.13	-13	-36.13	Pass	H
1135.71	149	165	-52.96	-13	-39.96	Pass	V
1395.93	148	47	-60.23	-13	-47.23	Pass	V
3667.53	147	94	-56.67	-13	-43.67	Pass	V
4005.64	148	183	-49.65	-13	-36.65	Pass	V
5895.98	150	209	-46.90	-13	-33.90	Pass	V
6423.29	150	218	-48.49	-13	-35.49	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.
1377.19	148	152	-55.15	-13	-42.15	Pass	H
1580.20	145	2	-53.77	-13	-40.77	Pass	H
3898.58	147	297	-45.68	-13	-32.68	Pass	H
5997.71	147	71	-42.53	-13	-29.53	Pass	H
6533.20	155	324	-43.91	-13	-30.91	Pass	H
8067.33	149	244	-47.20	-13	-34.20	Pass	H
1194.50	151	105	-54.79	-13	-41.79	Pass	V
1407.58	151	299	-58.97	-13	-45.97	Pass	V
3453.79	151	121	-54.84	-13	-41.84	Pass	V
3899.69	147	33	-49.25	-13	-36.25	Pass	V
5702.84	154	98	-42.92	-13	-29.92	Pass	V
6534.28	155	338	-47.58	-13	-34.58	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.
1292.10	154	242	-61.44	-13	-48.44	Pass	H
1674.05	150	50	-45.76	-13	-32.76	Pass	H
3950.85	153	61	-48.58	-13	-35.58	Pass	H
6018.56	148	310	-45.10	-13	-32.10	Pass	H
6558.72	155	123	-44.41	-13	-31.41	Pass	H
7936.20	152	150	-43.96	-13	-30.96	Pass	H
1101.88	150	76	-50.83	-13	-37.83	Pass	V
1435.71	146	182	-57.29	-13	-44.29	Pass	V
3612.76	152	101	-54.28	-13	-41.28	Pass	V
3894.67	153	172	-51.21	-13	-38.21	Pass	V
5934.47	152	180	-43.57	-13	-30.57	Pass	V
6494.00	145	137	-48.31	-13	-35.31	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.
1299.96	145	135	-54.17	-13	-41.45	Pass	H
1635.29	146	154	-46.96	-13	-37.85	Pass	H
3897.90	155	313	-45.20	-13	-35.2	Pass	H
5953.00	152	42	-41.33	-13	-30.39	Pass	H
6567.30	151	282	-45.57	-13	-32.24	Pass	H
8156.44	154	29	-39.56	-13	-30.22	Pass	H
1167.97	151	191	-56.15	-13	-44.9	Pass	V
1317.21	153	254	-52.83	-13	-43.63	Pass	V
3469.23	147	46	-46.99	-13	-35.94	Pass	V
3816.51	146	340	-50.86	-13	-36.01	Pass	V
5792.66	150	79	-45.71	-13	-33.75	Pass	V
6496.61	146	80	-46.81	-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.
1394.83	146	59	-54.88	-13	-41.88	Pass	H
1704.54	154	16	-49.48	-13	-36.48	Pass	H
3803.30	145	357	-45.03	-13	-32.03	Pass	H
5942.48	151	214	-42.74	-13	-29.74	Pass	H
6486.74	150	298	-42.04	-13	-29.04	Pass	H
7993.52	151	341	-45.74	-13	-32.74	Pass	H
1300.75	147	159	-57.95	-13	-44.95	Pass	V
1409.57	152	284	-57.70	-13	-44.70	Pass	V
3583.08	149	19	-49.54	-13	-36.54	Pass	V
3828.92	155	22	-48.90	-13	-35.90	Pass	V
5734.25	147	253	-47.34	-13	-34.34	Pass	V
6478.97	152	80	-47.58	-13	-34.58	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.

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 *****