

TEST REPORT

Product : 4G LTE smartphone
Trade mark : iTree
Model/Type reference : S988
Serial Number : N/A
Report Number : EED32N80998107
FCC ID : 2A3BAITREES988
Date of Issue : Dec. 10, 2021
Test Standards : 47 CFR Part 2
47 CFR Part 22 subpart H
47 CFR Part 24 subpart E
47 CFR Part 27
Test result : PASS

Prepared for:

FAR WIDE Telecommunications CO.,LTD.
10F, No.127, Anxing Rd, Xindian Dist.,
New Taipei City 231 Taiwan

Prepared by:

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

Compiled by:



Tom Chen

Reviewed by:



Aaron Ma

Approved by:



David Wang

Date:

Dec. 10, 2021

Check No.: 1731111021



2 Version

Version No.	Date	Description
00	Dec. 10, 2021	Original

3 Test Summary

LTE band 2			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 24.232(c)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 24.232(c)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
peak-to-average ratio	Part 24.232(d)	KDB 971168 D01v03r01	PASS
99% &26dBOccupied Bandwidth	Part 2.1049(h)	Part 24.238(b) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 24.238(a)	Part 24.238(b) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 24.238(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053 /Part 2.1057 / Part 24.238(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 24.235	TIA-603-E-2016&KDB 971168 D01v03r01	PASS

LTE band 4			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 27.50(d)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 27.50(d)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
peak-to-average ratio	Part 27.50(d)	KDB 971168 D01v03r01	PASS
99% &26dBOccupied Bandwidth	Part 2.1049(h)	Part 27.53(h) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 27.53(h)	Part 27.53(h) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 27.53(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54	TIA-603-E-2016&KDB 971168 D01v03r01	PASS

LTE Band 5			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(ERP)	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
99%&26dB Occupied Bandwidth	Part 2.1049(h)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/Part 22.917(a)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/ Part 22.355	TIA-603-E-2016&KDB 971168 D01v03r01	PASS

LTE Band 7			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 27.50(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 27.50(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
peak-to-average ratio	Part 27.50(d)	KDB 971168 D01v03r01	PASS
99% & 26dB Occupied Bandwidth	Part 2.1049(h)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 27.53(m)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(m)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 27.53(m)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54	TIA-603-E-2016&KDB 971168 D01v03r01	PASS

LTE Band 12			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 27.50(c)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 27.50(c)	TIA-603-E-2016 & 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 27.53(g)	KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(g)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 27.53(g)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS

LTE Band 41			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 27.50(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(ERP)	Part 2.1046(a) / Part 27.50(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Peak-to-Average Ratio	Part 27.50(d)	KDB 971168 D01v03r01	PASS
99%&26dB Occupied Bandwidth	Part 2.1049(h)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 27.53(m)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(m)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 27.53(m)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54	TIA-603-E-2016&KDB 971168 D01v03r01	PASS

Remark:

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

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

4 Content

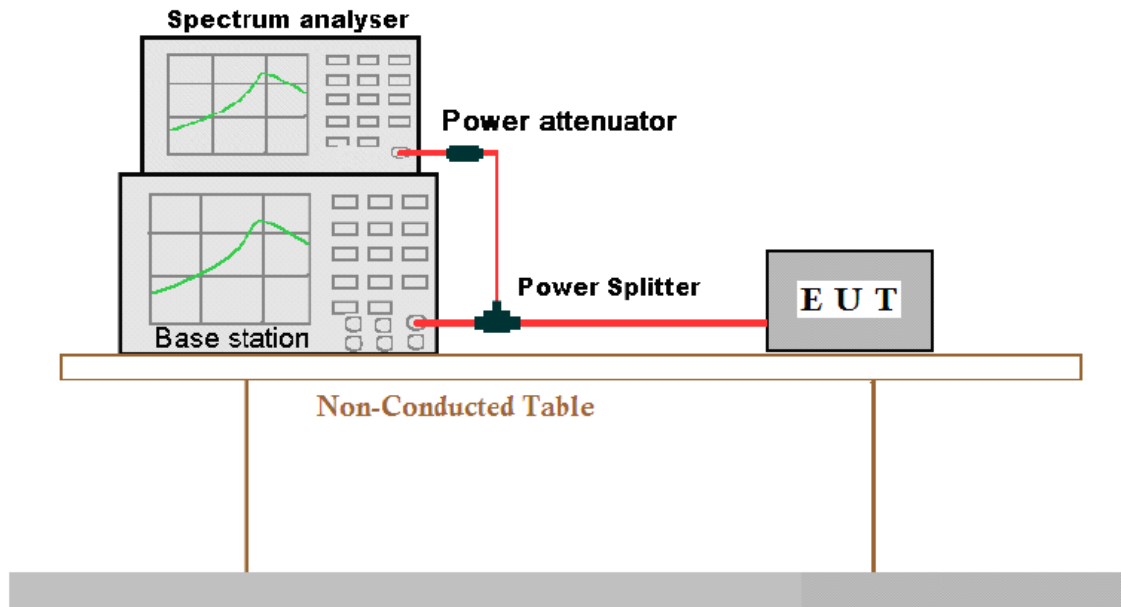
1 COVER PAGE	1
2 VERSION	2
3 TEST SUMMARY	3
4 CONTENT	6
5 TEST REQUIREMENT	7
5.1 TEST SETUP	7
5.1.1 <i>For Radiated Emissions test setup</i>	7
5.2 TEST ENVIRONMENT	8
5.3 TEST CONDITION	9
6 GENERAL INFORMATION	11
6.1 CLIENT INFORMATION	11
6.2 GENERAL DESCRIPTION OF EUT	11
6.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD	12
6.4 DESCRIPTION OF SUPPORT UNITS	12
6.5 TEST LOCATION	12
6.6 DEVIATION FROM STANDARDS	12
6.7 ABNORMALITIES FROM STANDARD CONDITIONS	12
6.8 OTHER INFORMATION REQUESTED BY THE CUSTOMER	12
6.9 MEASUREMENT UNCERTAINTY (95% CONFIDENCE LEVELS, K=2)	12
7 EQUIPMENT LIST	13
8 RADIO TECHNICAL REQUIREMENTS SPECIFICATION	15
8.1 CONDUCTED OUTPUT POWER AND EFFECTIVE (ISOTROPIC) RADIATED POWER	16
8.2 PEAK-TO-AVERAGE RATIO	17
8.3 26dB BANDWIDTH AND OCCUPIED BANDWIDTH	18
8.4 BAND EDGE AT ANTENNA TERMINALS	19
8.5 SPURIOUS EMISSION AT ANTENNA TERMINAL	20
8.6 FREQUENCY STABILITY	21
8.7 FIELD STRENGTH OF SPURIOUS RADIATION	22
PHOTOGRAPHS OF TEST SETUP	41
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	43

5 Test Requirement

5.1 Test setup

5.1.1 For Radiated Emissions test setup

Test setup 1:



Radiated Emissions setup:

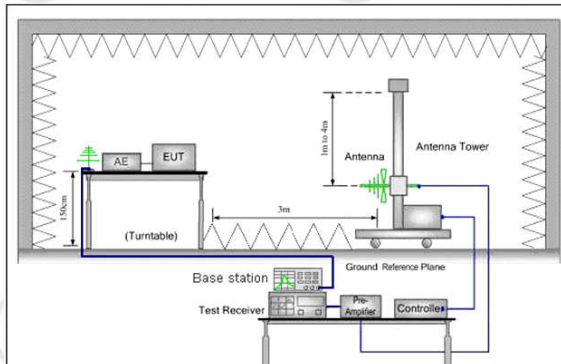


Figure 1.30MHz to 1GHz

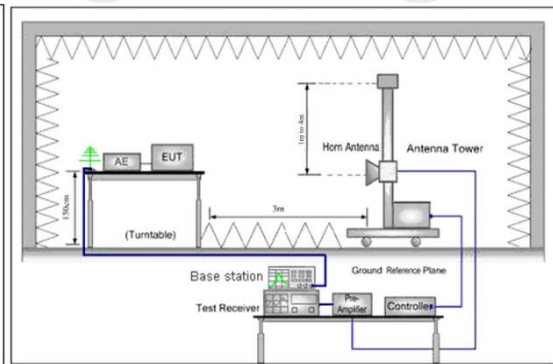


Figure 2. above 1GHz

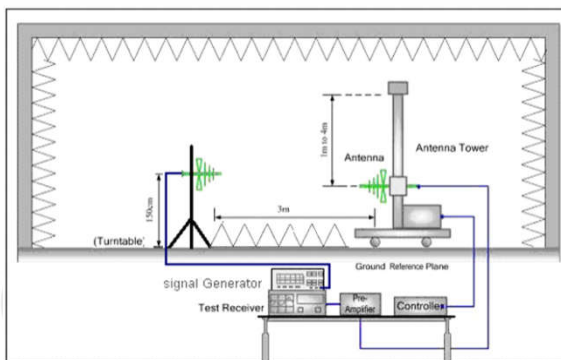


Figure 1. 30MHz to 1GHz

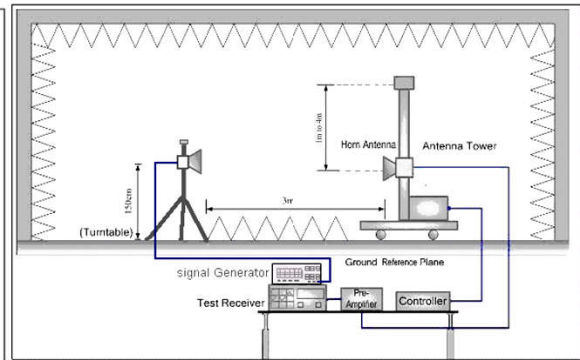


Figure 2. above 1GHz

5.2 Test Environment**Operating Environment:****Radiated Spurious Emissions:**

Temperature: 22~25.0 °C

Humidity: 50~56 % RH

Atmospheric Pressure: 1010mbar

RF Conducted:

Humidity: 50~55 % RH

Atmospheric Pressure: 1010mbar

Temperature: NT (Normal Temperature) 22~25.0 °C

LT (Low Temperature) 0 °C

HT (High Temperature) 40.0 °C

Working Voltage of the EUT: NV (Normal Voltage) DC 3.8V

LV (Low Voltage) DC 4.35V

HV (High Voltage) DC 3.4V

5.3 Test Condition

Test channel:

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTE band2 TX:1850-1910MHz RX:1930-1990MHz	Low Range	1.4	18607	1850.7	607	1930.7
		3	18615	1851.5	615	1931.5
		5	18625	1852.5	625	1932.5
		10	18650	1855	650	1935
		15	18675	1857.5	675	1937.5
		20	18700	1860	700	1940
	Mid Range	1.4/3/5/10/15/20	18900	1880	900	1960
	High Range	1.4	19193	1909.3	1193	1989.3
		3	19185	1908.5	1185	1988.5
		5	19175	1907.5	1175	1987.5
		10	19150	1905	1150	1985
		15	19125	1902.5	1125	1982.5
		20	19100	1900	1100	1980

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTE band 4 TX:1710-1755 MHz RX: 2110-2155MHz	Low Range	1.4	19957	1710.7	1957	2110.7
		3	19965	1711.5	1965	2111.5
		5	19976	1712.5	1975	2112.5
		10	20000	1715	2000	2115.0
		15	20025	1717.5	2026	2117.6
		20	20050	1720	2050	2120.0
	Mid Range	1.4/3/5/10/15/20	20175	1732.5	2175	2132.5
	High Range	1.4	20393	1754.3	2393	2154.3
		3	20385	1753.5	2386	2153.5
		5	20375	1752.5	2376	2152.5
		10	20350	1750	2350	2160.0
		15	20325	1747.5	2325	2147.5
		20	20300	1745	2300	2145.0

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTE band 5 TX:824-849 MHz RX: 869-894MHz	Low Range	1.4	20407	824.7	2407	869.7
		3	20415	825.5	2415	870.5
		5	20425	826.5	2425	871.5
		10	20450	829	2450	874
	Mid Range	1.4/3/5/10	20525	836.5	2525	881.5
	High Range	1.4	20643	848.3	2643	893.3
		3	20635	847.5	2635	892.5
		5	20625	846.5	2625	891.5
		10	20600	844	2600	889

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTEband7 TX:2500–2570MHz RX:2620–2690MHz	Low Range	5	20775	2502.5	2775	2622.5
		10	20800	2505	2800	2625
		15	20825	2507.5	2825	2627.5
		20	20850	2510	2850	2630
	Mid Range	5/10/15/20	21100	2535	3100	2655
	High Range	5	21425	2567.5	3425	2687.5
		10	21400	2565	3400	2685
		15	21375	2562.5	3375	2682.5
		20	21350	2560	3350	2680

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTE band 12 TX:699 to 716 MHz RX 729 to746 MHz	Low Range	1.4	23017	699.7	5017	729.7
		3	23025	700.5	5025	730.5
		5	23035	701.5	5035	731.5
		10	23060	704	5060	734
	Mid Range	1.4/3/5/10	23095	707.5	5095	737.5
	High Range	1.4	23173	715.3	5173	745.3
		3	23165	714.5	5165	744.5
		5	23155	713.5	5155	743.5
		10	23130	711	5130	741

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTEband41 Tx: 2555- 2655MHz Rx:2555 - 2655MHz	Low Range	5	40265	2557.5	40265	2557.5
		10	40290	2560	40290	2560
		15	40315	2562.5	40315	2562.5
		20	40340	2565	40340	2565
	Mid Range	5/10/15/20	40620	2593	40620	2593
	High Range	5	41215	2652.5	41215	2652.5
		10	41190	2650	41190	2650
		15	41165	2648.5	41165	2648.5
		20	41140	2645	41140	2645

6 General Information

6.1 Client Information

Applicant:	FAR WIDE Telecommunications CO.,LTD.
Address of Applicant:	10F, No.127,Anxing Rd, Xindian Dist., New Taipei City 231 Taiwan
Manufacturer:	SHENZHEN TOPWELL TECHNOLOGY CO., LTD.
Address of Manufacturer:	15/F, Building A1, Qiaode Science & Technology Park, No.7 Road, Hi-Tech Industry Park, Guangming new district, Shenzhen, China.
Factory:	SHENZHEN TOPWELL TECHNOLOGY CO., LTD.
Address of Factory:	15/F, Building A1, Qiaode Science & Technology Park, No.7 Road, Hi-Tech Industry Park, Guangming new district, Shenzhen, China.

6.2 General Description of EUT

Product Name:	4G LTE smartphone	
Model No.(EUT):	S988	
Trade mark:	iTree	
EUT Supports Radios application:	Bluetooth 4.2 dual mode: 2402-2480MHz WiFi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz U-NII-1: 5180-5240MHz U-NII-3: 5745-5825MHz GPS: L1:1559MHz to 1610MHz NFC:13.56MHz GSM/GPRS/EGPRS 850: Tx: 824-849MHz, Rx: 869-894MHz GSM/GPRS/EGPRS 1900: Tx: 1850-1910MHz, Rx: 1930-1990MHz WCDMA Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz WCDMA Band 5: Tx: 824- 849MHz, Rx: 869 -894MHz LTE Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz LTE Band 4: Tx: 1710-1755 MHz, Rx: 2110-2155 MHz LTE Band 5: Tx: 824-849 MHz, Rx: 869-894MHz LTE Band 7: TX:2500-2570 MHz, Rx: 2620-2690 MHz LTE Band 12: Tx: 699-716 MHz, Rx: 729-746 MHz LTE Band 41: Tx: 2555-2655 MHz, Rx: 2555 -2655 MHz	
Power Supply:	AC/DC ADAPTER	Model: TPA-23A050200UU01 Input: 100-240V~ 50/60Hz, 0.3A OUTPUT: 5.0V ---2000mA
	Battery:	Model:B35 DC 3.8V, 3500mAh, 13.3Wh
Sample Received Date:	Oct. 12, 2021	
Sample tested Date:	Oct. 12, 2021 to Nov. 17, 2021	

6.3 Product Specification subjective to this standard

Frequency Band:	LTE Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz LTE Band 4: Tx: 1710-1755 MHz, Rx: 2110-2155 MHz LTE Band 5: Tx: 824-849 MHz, Rx: 869-894MHz LTE Band 7: TX:2500-2570 MHz, Rx: 2620-2690 MHz LTE Band 12: Tx: 699-716 MHz, Rx: 729-746 MHz LTE Band 41: Tx: 2555-2655 MHz, Rx: 2555 -2655 MHz
Modulation Type:	QPSK, 16QAM
Antenna Type	PIFA Antenna
Antenna Gain:	LTE B2: 0.81dBi, LTE B4: 0.76dBi, LTE B5: -0.51dBi, LTE B7: 1.02dBi, LTE B12 :-0.49dBi, LTE B41:1.01dBi
Test Voltage:	DC 3.8V

6.4 Description of Support Units

The EUT has been tested independently.

6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

6.6 Deviation from Standards

None.

6.7 Abnormalities from Standard Conditions

None.

6.8 Other Information Requested by the Customer

None.

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

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.46dB (30MHz-1GHz)
		0.55dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.3dB (30MHz-1GHz)
		4.5dB (1GHz-12.75GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%

7 Equipment List

Communication RF test system					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Spectrum Analyzer	Keysight	N9010A	MY54510339	12-28-2020	12-27-2021
Spectrum Analyzer	R&S	FSV40	101200	08-26-2021	08-25-2022
Signal Generator	Agilent	E4438C	MY45095744	12-28-2020	12-27-2021
Signal Generator	Keysight	E8257D	MY53401106	12-28-2020	12-27-2021
Communication test set	R&S	CMW200	111935	12-28-2020	12-27-2021
Communication test set	R&S	CMW500	152394	12-28-2020	12-27-2021
DC Power	Keysight	E3642A	MY56376035	12-28-2020	12-27-2021
RF control unit	JS Tonscend	JS0806-1	158060004	12-28-2020	12-27-2021
DC power Box	JS Tonscend	JS0806-4	158060007	---	---
high-low temperature test chamber	Dong Guang Qin Zhuo	LK-80GA	QZ20150611879	12-28-2020	12-27-2021
Temperature/Humidity Indicator	biaozhi	HM10	1804186	06-23-2021	06-22-2022
Automatic test software	JS Tonscend	JS1120	2.6.9.0518	---	---
High-pass filter	Sinoscite	FL3CX03WG18NM12-0398-002	---	---	---
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	---	---
band rejection filter	Sinoscite	FL5CX01CA09CL12-0395-001	---	---	---
band rejection filter	Sinoscite	FL5CX01CA08CL12-0393-001	---	---	---
band rejection filter	Sinoscite	FL5CX02CA04CL12-0396-002	---	---	---
band rejection filter	Sinoscite	FL5CX02CA03CL12-0394-001	---	---	---

3M Semi/full-anechoic Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
RSE Automatic test software	JS Tonscend	JS36-RSE	10166	---	---
Receiver	Keysight	N9038A	MY57290136	03-04-2021	03-03-2022
Spectrum Analyzer	Keysight	N9020B	MY57111112	03-04-2021	03-03-2022
Spectrum Analyzer	Keysight	N9030B	MY57140871	03-04-2021	03-03-2022
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-28-2021	04-27-2024
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-15-2021	04-14-2024
Horn Antenna	ETS-LINDGREN	3117	57407	07-04-2021	07-03-2024
Preamplifier	EMCI	EMC184055 SE	980597	05-20-2021	05-19-2022
Preamplifier	EMCI	EMC001330	980563	04-15-2021	04-14-2022
Preamplifier	JS Tonscend	980380	EMC051845 SE	12-31-2020	12-30-2021
Communication test set	R&S	CMW500	102898	12-31-2020	12-30-2021
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	04-16-2021	04-15-2022
Fully Anechoic Chamber	TDK	FAC-3	---	01-09-2021	01-08-2024
Cable line	Times	SFT205-NMSM-2.50M	394812-0001	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	---	---
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	---	---
Cable line	Times	EMC104-NMNM-1000	SN160710	---	---
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	---	---
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	---	---
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	---	---
Cable line	Times	HF160-KMKM-3.00M	393493-0001	---	---

8 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	PART 22	PART 22 – PUBLIC MOBILE SERVICES Subpart H – Cellular Radiotelephone Service
2	PART 24	PART 24 – PERSONAL COMMUNICATIONS SERVICES Subpart E – Broadband PCS
3	PART 27	PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES
3	PART 2	Frequency allocations and radio treaty matters; general rules and regulations
4	TIA-603-E-2016	Land Mobile FM or PM -Communications Equipment -Measurement and Performance Standards
5	KDB971168 D01	KDB971168 D01 Power Meas License Digital Systems v03r01

Test Results List:

Test Requirement	Test method	Test item	Verdict	Note
Part 2.1046(a)/part 24.232(c)/ Part 27.50(d)(h)(c)/Part 22.913(a)	TIA-603-E-2016& KDB 971168 D01v03r01	Conducted output power	PASS	Appendix A)
Part 2.1046(a)/ Part 24.232(c)/Part 27.50(d)(h)(g)/ Part 22.913(a)	TIA-603-E-2016& KDB 971168 D01v03r01	Effective Radiated Power of Transmitter(ERP)	PASS	Appendix A)
Part 24.232(d)/Part 27.50(d)	KDB 971168 D01v03r01	peak-to-average ratio	PASS	Appendix B)
Part 2.1049(h)	Part 24.238(b) &KDB 971168 D01v03r01	99% &26dB Occupied Bandwidth	PASS	Appendix C)
Part 2.1051/Part 24.238(a)/ Part 27.53(h)(m)(g) / Part 22.917(a)	Part 24.238(b) &KDB 971168 D01v03r01	Band Edge at antenna terminals	PASS	Appendix D)
Part 2.1051/ Part 2.1057/ Part 24.238(a)(b)/ Part 27.53(h)(m)(g) /Part 22.917(a)(b)	TIA-603-E-2016& KDB 971168 D01v03r012	Spurious emissions at antenna terminals	PASS	Appendix E)
Part 2.1055/ Part 24.235/Part 27.54/ Part 22.355	TIA-603-E-2016& KDB 971168 D01v03r01	Frequency stability	PASS	Appendix F)
Part 2.1053/ Part 2.1057/ Part 24.238(a)(b)/ Part 27.53(h)(m) / Part 22.917(a)(b)	TIA-603-E-2016& KDB 971168 D01v03r01	Field strength of spurious radiation	PASS	Appendix G)

8.1 Conducted Output Power and Effective (Isotropic) Radiated Power

Description of the Conducted Output Power Measurement and ERP/EIRP Measurement:	A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported. According to KDB 412172 D01 Power Approach Calculate power in dBm by the following formula: ERP(dBm) = Conducted output power(dBm) + antenna gain (dBd) EIRP(dBm) = Conducted output power(dBm) + antenna gain (dBi) EIRP=ERP+2.15dB																			
Measurement Procedure:	The transmitter output was connected to a calibrated coaxial cable, attenuator and power meter, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The power output at the transmitter antenna port was determined by adding the value of the cable insertion loss to the power reading. The tests were performed at three frequencies (low channel, middle channel and high channel) and on the highest power levels, which can be setup on the transmitters.																			
Limit:	<table border="1"> <thead> <tr> <th>Mode</th><th>band 2</th><th>band 4</th><th>band 5</th><th>band 7</th><th>band 12</th><th>band 41</th></tr> </thead> <tbody> <tr> <td>Limit</td><td>33dBm</td><td>33dBm</td><td>38.45dBm</td><td>33dBm</td><td>34.77dBm</td><td>33dBm</td></tr> </tbody> </table>						Mode	band 2	band 4	band 5	band 7	band 12	band 41	Limit	33dBm	33dBm	38.45dBm	33dBm	34.77dBm	33dBm
Mode	band 2	band 4	band 5	band 7	band 12	band 41														
Limit	33dBm	33dBm	38.45dBm	33dBm	34.77dBm	33dBm														
Instruments Used:	Refer to section 7 for details																			
Test Results:	Refer to Appendix A																			

8.2 Peak-to-Average Ratio

Test Requirement:	Part 24.232(d)/Part 27.50(d)
Test Method:	KDB 971168 D01v03r01
Test Setup:	Refer to section 5 for details
Limit:	13dB
Measurement Procedure:	Use one of the procedures to measure the total peak power and record as PPK. Use one of the applicable procedures to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from: $\text{PAPR (dB)} = \text{PPk (dBm)} - \text{PAvg (dBm)}.$
Instruments Used:	Refer to section 7 for details
Test Results:	Refer to Appendix A

8.3 26dB Bandwidth and Occupied Bandwidth

Test Requirement:	Part 2.1049(h)
Test Method:	KDB 971168 D01v03r01 Section 4.2
Test Setup:	Refer to section 5 for details
Limit:	N/A
Measurement Procedure:	The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel, middle channel and high channel).the resolution bandwidth of the analyser is set to 100kHz or 1% of the emission bandwidth, the EUT emission bandwidth is measured as the width of the signal between two points, outside of which all emission are attenuated at least 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to peak or peak hold power.
Instruments Used:	Refer to section 7 for details
Test Results:	Refer to Appendix A

8.4 Band Edge at antenna terminals

Test Requirement:	Part 2.1051
Test Method:	KDB 971168 D01v03r01 Section 6.0
Test Setup:	Refer to section 5 for details
Measurement Procedure:	The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel).in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of 100kHz or 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed. The EUT emission bandwidth is measured as the width of the signal between two points, outside of which all emission are attenuated at least 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to peak or peak hold power.
Limit:	Refer to Appendix A
Instruments Used:	Refer to section 7 for details
Test Results:	Refer to Appendix A

8.5 Spurious Emission at Antenna Terminal

Test Requirement:	Part 2.1051/Part 2.1057
Test Method:	TIA-603-E-2016 Clause 2.2.13
Test Setup:	Refer to section 5 for details
Measurement Procedure:	The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyzer, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel).the equipment operates below 10GHz: to the tenth harmonic of the highest fundamental frequency or to 40GHz.whichever is lower, the resolution bandwidth of the spectrum analyzer was set at 100kHz for spurious emissions below 1 GHz, and 1 MHz for spurious emissions above 1GHz.the video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to mean or average power.
Instruments Used:	Refer to section 7 for details
Limit:	Refer to Appendix A
Test Results:	Refer to Appendix A

8.6 Frequency Stability

Test Requirement:	Part 2.1055	
Test Method:	TIA-603-E-2016 Clause 2.2.2	
Test Setup:	Refer to section 5 for details	
Measurement Procedure:	The transmitter output was connected to a calibrated coaxial cable and a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel).The EUT was place in the temperature chamber, the DC leads and RF output cable exited the chamber though an opening made for that purpose. After Operate the equipment in standby conditions for 15 minutes before proceeding. The temperature was varied from -30°C to +55°C at intervals of not more than 10°C The frequency stability was read from the base station.Since the EUT is hand carried,battery powered equipment,at 25°C the input voltage was reduced from 3.8V(primary supply voltage) to 3.5V(end point voltage), the frequency stability and input voltage was record.	
Instruments Used:	Refer to section 7 for details	
Limit:	Operation Band	Frequency stability Limit(ppm)
	Band 2/ 4/ 5/ 12/ 41	±2.5ppm
	Band 7	---
Test Results:	Refer to Appendix A	

8.7 Field strength of spurious radiation

Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-30MHz	Peak	10kHz	30kHz	Peak
	30MHz-1GHz	Peak	120kHz	300kHz	Peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Measurement Procedure:	1. Scan up to 10th harmonic, find the maximum radiation frequency to measure. 2. The technique used to find the Spurious Emissions of the transmitter was the antenna substitution method. Substitution method was performed to determine the actual ERP/EIRP emission levels of the EUT. Test procedure as below: The EUT was powered ON and placed on a 1.5m high table at a 3 meter fully Anechoic Chamber. The antenna of the transmitter was extended to its maximum length. modulation mode and the measuring receiver shall be tuned to the frequency of the transmitter under test. The EUT was set 3 meters (above 18GHz the distance is 1 meter) away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made. Steps 1) to 3) were performed with the EUT and the receive antenna in both vertical and horizontal polarization. The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter. A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 3) is obtained for this set of conditions. The output power into the substitution antenna was then measured. Steps 6) and 7) were repeated with both antennas polarized. Calculate power in dBm by the following formula: $\text{ERP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBd)}$ $\text{EIRP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBi)}$ $\text{EIRP} = \text{ERP} + 2.15\text{dB}$ where: Pg is the generator output power into the substitution antenna. Test the EUT in the lowest channel, the middle channel the Highest channel The radiation measurements are performed in X, Y, Z axis positioning for EUT operation mode, And found the X axis positioning which it is worse case. Repeat above procedures until all frequencies measured was complete.				
Limit:	Attenuated at least 43+10log(P)				

Measurement Data

Remark: Only the worst case was recorded in the report.

QPSK

Mode:		LTE Traffic						
Band:		2		Channel:			18700	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	168	-74.28	-13.00	61.28	Pass	Horizontal
2	80.0620	150	357	-73.92	-13.00	60.92	Pass	Horizontal
3	166.6033	150	97	-73.91	-13.00	60.91	Pass	Horizontal
4	270.0260	150	258	-71.67	-13.00	58.67	Pass	Horizontal
5	562.4425	150	62	-75.83	-13.00	62.83	Pass	Horizontal
6	761.9144	150	213	-71.86	-13.00	58.86	Pass	Horizontal
7	1268.6269	150	275	-63.57	-13.00	50.57	Pass	Horizontal
8	3775.5388	150	283	-57.07	-13.00	44.07	Pass	Horizontal
9	5049.1025	150	360	-54.37	-13.00	41.37	Pass	Horizontal
10	8791.0396	150	47	-50.81	-13.00	37.81	Pass	Horizontal
11	11941.1971	150	257	-47.46	-13.00	34.46	Pass	Horizontal
12	14403.5702	150	329	-42.92	-13.00	29.92	Pass	Horizontal

Mode:		LTE Traffic						
Band:		2		Channel:			18700	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.2841	150	163	-65.50	-13.00	52.50	Pass	Vertical
2	62.4045	150	357	-69.89	-13.00	56.89	Pass	Vertical
3	80.0620	150	190	-71.49	-13.00	58.49	Pass	Vertical
4	208.9038	150	311	-69.55	-13.00	56.55	Pass	Vertical
5	411.4803	150	181	-71.89	-13.00	58.89	Pass	Vertical
6	730.2861	150	172	-69.32	-13.00	56.32	Pass	Vertical
7	1279.4279	150	4	-59.65	-13.00	46.65	Pass	Vertical
8	2808.3808	150	338	-58.62	-13.00	45.62	Pass	Vertical
9	3567.7784	150	38	-57.27	-13.00	44.27	Pass	Vertical
10	6984.9492	150	198	-53.15	-13.00	40.15	Pass	Vertical
11	9130.8065	150	214	-47.46	-13.00	34.46	Pass	Vertical
12	14355.5678	150	286	-44.20	-13.00	31.20	Pass	Vertical

Mode:		LTE Traffic						
Band:		2		Channel:			18900	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.0304	150	34	-67.44	-13.00	54.44	Pass	Horizontal
2	62.4045	150	160	-69.32	-13.00	56.32	Pass	Horizontal
3	137.1094	150	160	-73.76	-13.00	60.76	Pass	Horizontal
4	208.9038	150	321	-69.64	-13.00	56.64	Pass	Horizontal
5	411.4803	150	330	-71.99	-13.00	58.99	Pass	Horizontal
6	726.0172	150	160	-68.83	-13.00	55.83	Pass	Horizontal
7	1319.8320	150	339	-59.38	-13.00	46.38	Pass	Horizontal
8	2811.7812	150	250	-58.03	-13.00	45.03	Pass	Horizontal
9	3762.7881	150	360	-56.72	-13.00	43.72	Pass	Horizontal
10	7563.9782	150	192	-52.21	-13.00	39.21	Pass	Horizontal
11	11854.9427	150	360	-46.65	-13.00	33.65	Pass	Horizontal
12	14345.0673	150	192	-43.67	-13.00	30.67	Pass	Horizontal

Mode:		LTE Traffic						
Band:		2			Channel:		18900	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	54.4489	150	149	-66.20	-13.00	53.20	Pass	Vertical
2	184.2609	150	347	-68.63	-13.00	55.63	Pass	Vertical
3	208.9038	150	160	-69.39	-13.00	56.39	Pass	Vertical
4	360.0600	150	136	-72.45	-13.00	59.45	Pass	Vertical
5	477.6475	150	230	-75.44	-13.00	62.44	Pass	Vertical
6	687.5975	150	347	-68.99	-13.00	55.99	Pass	Vertical
7	1400.4400	150	149	-46.81	-13.00	33.81	Pass	Vertical
8	3703.0000	150	269	-49.39	-13.00	36.39	Pass	Vertical
9	5554.5000	150	74	-48.75	-13.00	35.75	Pass	Vertical
10	7406.0000	150	251	-45.38	-13.00	32.38	Pass	Vertical
11	11491.1746	150	191	-36.77	-13.00	23.77	Pass	Vertical
12	15599.1300	150	329	-30.36	-13.00	17.36	Pass	Vertical

Mode:		LTE Traffic						
Band:		2		Channel:			19100	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	241	-74.53	-13.00	61.53	Pass	Horizontal
2	80.0620	150	357	-76.20	-13.00	63.20	Pass	Horizontal
3	176.1112	150	112	-73.99	-13.00	60.99	Pass	Horizontal
4	270.0260	150	28	-73.76	-13.00	60.76	Pass	Horizontal
5	562.6365	150	165	-75.55	-13.00	62.55	Pass	Horizontal
6	762.3025	150	137	-72.18	-13.00	59.18	Pass	Horizontal
7	2453.9454	150	223	-64.50	-13.00	51.50	Pass	Horizontal
8	3768.7884	150	162	-57.41	-13.00	44.41	Pass	Horizontal
9	5577.1289	150	181	-54.45	-13.00	41.45	Pass	Horizontal
10	8488.7744	150	28	-51.62	-13.00	38.62	Pass	Horizontal
11	10266.3633	150	162	-48.27	-13.00	35.27	Pass	Horizontal
12	14399.8200	150	12	-43.35	-13.00	30.35	Pass	Horizontal

Mode:		LTE Traffic						
Band:		2		Channel:			19100	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	73	-67.22	-13.00	54.22	Pass	Vertical
2	62.5985	150	311	-69.23	-13.00	56.23	Pass	Vertical
3	184.2609	150	108	-71.48	-13.00	58.48	Pass	Vertical
4	284.9670	150	357	-71.53	-13.00	58.53	Pass	Vertical
5	411.4803	150	357	-71.34	-13.00	58.34	Pass	Vertical
6	712.2404	150	330	-69.27	-13.00	56.27	Pass	Vertical
7	2834.5835	150	258	-58.71	-13.00	45.71	Pass	Vertical
8	4533.0767	150	170	-55.83	-13.00	42.83	Pass	Vertical
9	6146.4073	150	54	-54.58	-13.00	41.58	Pass	Vertical
10	8980.0490	150	99	-50.66	-13.00	37.66	Pass	Vertical
11	12373.9687	150	360	-46.97	-13.00	33.97	Pass	Vertical
12	16511.9256	150	144	-43.45	-13.00	30.45	Pass	Vertical

Mode:		LTE Traffic						
Band:		4		Channel:			20050	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	224	-74.71	-13.00	61.71	Pass	Horizontal
2	62.5985	150	189	-74.87	-13.00	61.87	Pass	Horizontal
3	109.9440	150	91	-75.26	-13.00	62.26	Pass	Horizontal
4	166.6033	150	83	-74.10	-13.00	61.10	Pass	Horizontal
5	270.0260	150	39	-72.17	-13.00	59.17	Pass	Horizontal
6	635.2070	150	118	-74.56	-13.00	61.56	Pass	Horizontal
7	1037.8038	150	109	-64.98	-13.00	51.98	Pass	Horizontal
8	2588.7589	150	347	-60.38	-13.00	47.38	Pass	Horizontal
9	5548.6274	150	80	-54.19	-13.00	41.19	Pass	Horizontal
10	9170.5585	150	283	-49.66	-13.00	36.66	Pass	Horizontal
11	11198.6599	150	88	-47.51	-13.00	34.51	Pass	Horizontal
12	14398.3199	150	265	-43.69	-13.00	30.69	Pass	Horizontal

Mode:		LTE Traffic						
Band:		4		Channel:			20050	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.2841	150	272	-66.55	-13.00	53.55	Pass	Vertical
2	62.5985	150	70	-69.25	-13.00	56.25	Pass	Vertical
3	137.1094	150	357	-74.01	-13.00	61.01	Pass	Vertical
4	208.9038	150	291	-69.08	-13.00	56.08	Pass	Vertical
5	411.4803	150	254	-73.58	-13.00	60.58	Pass	Vertical
6	720.0020	150	149	-68.73	-13.00	55.73	Pass	Vertical
7	2671.1671	150	14	-59.02	-13.00	46.02	Pass	Vertical
8	4492.5746	150	174	-56.33	-13.00	43.33	Pass	Vertical
9	5470.6235	150	146	-55.03	-13.00	42.03	Pass	Vertical
10	8783.5392	150	322	-51.00	-13.00	38.00	Pass	Vertical
11	11210.6605	150	360	-47.35	-13.00	34.35	Pass	Vertical
12	14412.5706	150	130	-44.15	-13.00	31.15	Pass	Vertical

Mode:		LTE Traffic						
Band:		4		Channel:			20175	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	39.8960	150	310	-74.45	-13.00	61.45	Pass	Horizontal
2	80.0620	150	356	-73.36	-13.00	60.36	Pass	Horizontal
3	166.0212	150	107	-74.43	-13.00	61.43	Pass	Horizontal
4	270.0260	150	216	-72.93	-13.00	59.93	Pass	Horizontal
5	450.0940	150	0	-76.41	-13.00	63.41	Pass	Horizontal
6	758.8098	150	143	-71.85	-13.00	58.85	Pass	Horizontal
7	2636.3636	150	338	-61.72	-13.00	48.72	Pass	Horizontal
8	4265.3133	150	106	-54.19	-13.00	41.19	Pass	Horizontal
9	5012.3506	150	212	-53.72	-13.00	40.72	Pass	Horizontal
10	6825.9413	150	178	-54.01	-13.00	41.01	Pass	Horizontal
11	9734.5867	150	300	-47.16	-13.00	34.16	Pass	Horizontal
12	16500.6750	150	186	-44.64	-13.00	31.64	Pass	Horizontal

Mode:		LTE Traffic						
Band:		4		Channel:			20175	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.2244	150	126	-66.53	-13.00	53.53	Pass	Vertical
2	62.5985	150	347	-69.49	-13.00	56.49	Pass	Vertical
3	208.9038	150	303	-69.44	-13.00	56.44	Pass	Vertical
4	284.9670	150	12	-71.30	-13.00	58.30	Pass	Vertical
5	411.4803	150	295	-72.26	-13.00	59.26	Pass	Vertical
6	731.4503	150	357	-68.89	-13.00	55.89	Pass	Vertical
7	1283.2283	150	34	-59.31	-13.00	46.31	Pass	Vertical
8	3015.0008	150	230	-56.89	-13.00	43.89	Pass	Vertical
9	5005.6003	150	46	-54.61	-13.00	41.61	Pass	Vertical
10	7016.4508	150	246	-52.32	-13.00	39.32	Pass	Vertical
11	9611.5806	150	70	-48.77	-13.00	35.77	Pass	Vertical
12	13683.5342	150	344	-44.82	-13.00	31.82	Pass	Vertical

Mode:		LTE Traffic						
Band:		4			Channel:		20300	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	39.8960	150	0	-74.66	-13.00	61.66	Pass	Horizontal
2	80.0620	150	357	-76.84	-13.00	63.84	Pass	Horizontal
3	166.0212	150	100	-74.19	-13.00	61.19	Pass	Horizontal
4	270.0260	150	30	-72.67	-13.00	59.67	Pass	Horizontal
5	449.9000	150	357	-75.37	-13.00	62.37	Pass	Horizontal
6	758.6157	150	47	-72.04	-13.00	59.04	Pass	Horizontal
7	1187.4187	150	110	-66.52	-13.00	53.52	Pass	Horizontal
8	2672.7673	150	65	-64.30	-13.00	51.30	Pass	Horizontal
9	3953.2977	150	93	-57.44	-13.00	44.44	Pass	Horizontal
10	5952.8976	150	306	-54.52	-13.00	41.52	Pass	Horizontal
11	9739.0870	150	32	-48.30	-13.00	35.30	Pass	Horizontal
12	14360.8180	150	148	-43.95	-13.00	30.95	Pass	Horizontal

Mode:		LTE Traffic						
Band:		4		Channel:			20300	
Remark:		20M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	62	-66.57	-13.00	53.57	Pass	Vertical
2	62.5985	150	258	-69.59	-13.00	56.59	Pass	Vertical
3	80.0620	150	357	-71.13	-13.00	58.13	Pass	Vertical
4	208.9038	150	285	-69.79	-13.00	56.79	Pass	Vertical
5	411.4803	150	168	-71.24	-13.00	58.24	Pass	Vertical
6	732.8086	150	204	-69.29	-13.00	56.29	Pass	Vertical
7	1159.2159	150	35	-60.33	-13.00	47.33	Pass	Vertical
8	2569.3569	150	17	-58.50	-13.00	45.50	Pass	Vertical
9	3817.5409	150	182	-57.14	-13.00	44.14	Pass	Vertical
10	5911.6456	150	12	-54.57	-13.00	41.57	Pass	Vertical
11	9248.5624	150	194	-48.22	-13.00	35.22	Pass	Vertical
12	12794.7397	150	194	-47.37	-13.00	34.37	Pass	Vertical

Mode:		LTE Traffic						
Band:		5			Channel:		20450	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	54.2549	150	58	-76.74	-13.00	63.74	Pass	Horizontal
2	80.0620	150	357	-73.63	-13.00	60.63	Pass	Horizontal
3	166.6033	150	103	-78.16	-13.00	65.16	Pass	Horizontal
4	270.0260	150	236	-73.52	-13.00	60.52	Pass	Horizontal
5	375.0010	150	357	-75.33	-13.00	62.33	Pass	Horizontal
6	598.1456	150	314	-75.93	-13.00	62.93	Pass	Horizontal
7	1319.8320	150	184	-59.67	-13.00	46.67	Pass	Horizontal
8	2483.9484	150	278	-57.34	-13.00	44.34	Pass	Horizontal
9	3768.7884	150	73	-57.77	-13.00	44.77	Pass	Horizontal
10	6974.4487	150	164	-53.08	-13.00	40.08	Pass	Horizontal
11	9739.8370	150	332	-47.89	-13.00	34.89	Pass	Horizontal
12	14400.5700	150	97	-44.09	-13.00	31.09	Pass	Horizontal

Mode:		LTE Traffic						
Band:		5			Channel:		20450	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.0304	150	312	-66.10	-13.00	53.10	Pass	Vertical
2	80.0620	150	357	-69.11	-13.00	56.11	Pass	Vertical
3	109.9440	150	53	-74.44	-13.00	61.44	Pass	Vertical
4	184.2609	150	169	-72.03	-13.00	59.03	Pass	Vertical
5	284.9670	150	357	-72.80	-13.00	59.80	Pass	Vertical
6	411.4803	150	116	-72.00	-13.00	59.00	Pass	Vertical
7	1796.8797	150	357	-60.15	-13.00	47.15	Pass	Vertical
8	3033.0017	150	323	-57.29	-13.00	44.29	Pass	Vertical
9	5003.3502	150	65	-54.44	-13.00	41.44	Pass	Vertical
10	6983.4492	150	228	-52.86	-13.00	39.86	Pass	Vertical
11	9643.8322	150	199	-49.08	-13.00	36.08	Pass	Vertical
12	14393.8197	150	263	-43.31	-13.00	30.31	Pass	Vertical

Mode:		LTE Traffic						
Band:		5		Channel:			20525	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	225	-74.98	-13.00	61.98	Pass	Horizontal
2	80.0620	150	357	-74.58	-13.00	61.58	Pass	Horizontal
3	137.1094	150	331	-73.37	-13.00	60.37	Pass	Horizontal
4	270.0260	150	181	-73.48	-13.00	60.48	Pass	Horizontal
5	375.0010	150	83	-78.11	-13.00	65.11	Pass	Horizontal
6	610.1760	150	172	-74.53	-13.00	61.53	Pass	Horizontal
7	1783.6784	150	4	-60.53	-13.00	47.53	Pass	Horizontal
8	2933.1933	150	40	-57.72	-13.00	44.72	Pass	Horizontal
9	4471.5736	150	91	-56.44	-13.00	43.44	Pass	Horizontal
10	7025.4513	150	188	-52.20	-13.00	39.20	Pass	Horizontal
11	10423.8712	150	188	-47.47	-13.00	34.47	Pass	Horizontal
12	14496.5748	150	3	-43.93	-13.00	30.93	Pass	Horizontal

Mode:		LTE Traffic						
Band:		5		Channel:			20525	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	170	-66.60	-13.00	53.60	Pass	Vertical
2	80.0620	150	357	-69.58	-13.00	56.58	Pass	Vertical
3	137.1094	150	322	-73.84	-13.00	60.84	Pass	Vertical
4	184.2609	150	135	-72.47	-13.00	59.47	Pass	Vertical
5	239.9500	150	357	-73.69	-13.00	60.69	Pass	Vertical
6	411.4803	150	286	-72.12	-13.00	59.12	Pass	Vertical
7	1381.8382	150	4	-58.76	-13.00	45.76	Pass	Vertical
8	2185.7186	150	241	-59.10	-13.00	46.10	Pass	Vertical
9	3012.0006	150	304	-57.32	-13.00	44.32	Pass	Vertical
10	4521.8261	150	296	-56.30	-13.00	43.30	Pass	Vertical
11	6931.6966	150	143	-53.19	-13.00	40.19	Pass	Vertical
12	11836.1918	150	243	-47.34	-13.00	34.34	Pass	Vertical

Mode:		LTE Traffic						
Band:		5		Channel:			20600	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	54	-75.77	-13.00	62.77	Pass	Horizontal
2	80.0620	150	357	-72.95	-13.00	59.95	Pass	Horizontal
3	137.1094	150	152	-75.59	-13.00	62.59	Pass	Horizontal
4	270.0260	150	321	-72.89	-13.00	59.89	Pass	Horizontal
5	365.2991	150	357	-78.40	-13.00	65.40	Pass	Horizontal
6	614.0568	150	330	-75.50	-13.00	62.50	Pass	Horizontal
7	1278.6279	150	134	-58.42	-13.00	45.42	Pass	Horizontal
8	2696.9697	150	347	-58.53	-13.00	45.53	Pass	Horizontal
9	3769.5385	150	191	-57.17	-13.00	44.17	Pass	Horizontal
10	5949.1475	150	80	-54.70	-13.00	41.70	Pass	Horizontal
11	8884.7942	150	299	-51.16	-13.00	38.16	Pass	Horizontal
12	11878.1939	150	106	-47.82	-13.00	34.82	Pass	Horizontal

Mode:		LTE Traffic						
Band:		5			Channel:		20600	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	0	-65.89	-13.00	52.89	Pass	Vertical
2	80.0620	150	357	-70.17	-13.00	57.17	Pass	Vertical
3	137.1094	150	357	-74.14	-13.00	61.14	Pass	Vertical
4	184.2609	150	104	-72.29	-13.00	59.29	Pass	Vertical
5	239.9500	150	357	-71.03	-13.00	58.03	Pass	Vertical
6	411.4803	150	185	-72.80	-13.00	59.80	Pass	Vertical
7	1685.0685	150	140	-60.31	-13.00	47.31	Pass	Vertical
8	2534.1534	150	231	-57.76	-13.00	44.76	Pass	Vertical
9	3765.7883	150	194	-57.83	-13.00	44.83	Pass	Vertical
10	5880.8940	150	3	-54.81	-13.00	41.81	Pass	Vertical
11	8113.7557	150	316	-51.39	-13.00	38.39	Pass	Vertical
12	11867.6934	150	90	-47.23	-13.00	34.23	Pass	Vertical

Mode:		LTE Traffic						
Band:		7		Channel:			20850	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	39.8960	150	0	-76.29	-13.00	63.29	Pass	Horizontal
2	80.0620	150	357	-75.58	-13.00	62.58	Pass	Horizontal
3	137.1094	150	302	-74.26	-13.00	61.26	Pass	Horizontal
4	270.0260	150	275	-73.19	-13.00	60.19	Pass	Horizontal
5	434.3769	150	25	-77.77	-13.00	64.77	Pass	Horizontal
6	750.0780	150	0	-70.07	-13.00	57.07	Pass	Horizontal
7	1273.0273	150	320	-58.84	-13.00	45.84	Pass	Horizontal
8	2087.9088	150	52	-59.55	-13.00	46.55	Pass	Horizontal
9	5028.8514	150	285	-53.80	-13.00	40.80	Pass	Horizontal
10	7474.7237	150	65	-52.11	-13.00	39.11	Pass	Horizontal
11	9661.8331	150	293	-48.49	-13.00	35.49	Pass	Horizontal
12	13916.0458	150	97	-45.68	-13.00	32.68	Pass	Horizontal

Mode:		LTE Traffic						
Band:		7			Channel:		20850	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	96	-67.37	-13.00	54.37	Pass	Vertical
2	62.4045	150	115	-70.06	-13.00	57.06	Pass	Vertical
3	199.9780	150	357	-70.15	-13.00	57.15	Pass	Vertical
4	284.9670	150	26	-73.36	-13.00	60.36	Pass	Vertical
5	411.4803	150	168	-72.43	-13.00	59.43	Pass	Vertical
6	733.1966	150	106	-69.16	-13.00	56.16	Pass	Vertical
7	1307.0307	150	240	-64.62	-13.00	51.62	Pass	Vertical
8	2036.9037	150	231	-66.41	-13.00	53.41	Pass	Vertical
9	4517.3259	150	163	-55.52	-13.00	42.52	Pass	Vertical
10	7012.7006	150	355	-52.69	-13.00	39.69	Pass	Vertical
11	9820.8410	150	272	-48.72	-13.00	35.72	Pass	Vertical
12	14411.8206	150	355	-44.34	-13.00	31.34	Pass	Vertical

Mode:		LTE Traffic						
Band:		7			Channel:		21100	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	80.0620	150	357	-75.36	-13.00	62.36	Pass	Horizontal
2	137.1094	150	85	-73.90	-13.00	60.90	Pass	Horizontal
3	270.0260	150	23	-72.94	-13.00	59.94	Pass	Horizontal
4	411.8684	150	309	-78.51	-13.00	65.51	Pass	Horizontal
5	608.0416	150	121	-75.08	-13.00	62.08	Pass	Horizontal
6	750.0780	150	228	-71.31	-13.00	58.31	Pass	Horizontal
7	1376.4376	150	14	-59.85	-13.00	46.85	Pass	Horizontal
8	2032.9033	150	220	-59.34	-13.00	46.34	Pass	Horizontal
9	4593.8297	150	265	-56.26	-13.00	43.26	Pass	Horizontal
10	7488.2244	150	30	-51.89	-13.00	38.89	Pass	Horizontal
11	10291.1146	150	116	-48.32	-13.00	35.32	Pass	Horizontal
12	14378.8189	150	204	-44.07	-13.00	31.07	Pass	Horizontal

Mode:		LTE Traffic						
Band:		7			Channel:		21100	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	18	-66.63	-13.00	53.63	Pass	Vertical
2	80.0620	150	357	-68.31	-13.00	55.31	Pass	Vertical
3	199.9780	150	357	-71.73	-13.00	58.73	Pass	Vertical
4	284.9670	150	9	-73.21	-13.00	60.21	Pass	Vertical
5	411.4803	150	357	-73.58	-13.00	60.58	Pass	Vertical
6	750.0780	150	187	-68.26	-13.00	55.26	Pass	Vertical
7	1302.4302	150	276	-64.24	-13.00	51.24	Pass	Vertical
8	1716.0716	150	214	-66.26	-13.00	53.26	Pass	Vertical
9	4640.3320	150	281	-54.70	-13.00	41.70	Pass	Vertical
10	7047.2024	150	316	-52.74	-13.00	39.74	Pass	Vertical
11	10123.1062	150	28	-48.33	-13.00	35.33	Pass	Vertical
12	14387.8194	150	28	-44.10	-13.00	31.10	Pass	Vertical

Mode:		LTE Traffic						
Band:		7			Channel:		21350	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	39.8960	150	117	-75.34	-13.00	62.34	Pass	Horizontal
2	54.6429	150	189	-75.43	-13.00	62.43	Pass	Horizontal
3	137.1094	150	189	-74.56	-13.00	61.56	Pass	Horizontal
4	270.0260	150	261	-73.10	-13.00	60.10	Pass	Horizontal
5	437.4815	150	357	-77.46	-13.00	64.46	Pass	Horizontal
6	750.0780	150	90	-71.65	-13.00	58.65	Pass	Horizontal
7	1275.6276	150	341	-59.40	-13.00	46.40	Pass	Horizontal
8	1546.2546	150	18	-61.25	-13.00	48.25	Pass	Horizontal
9	4671.0836	150	274	-55.73	-13.00	42.73	Pass	Horizontal
10	6489.1745	150	73	-53.09	-13.00	40.09	Pass	Horizontal
11	9721.0861	150	221	-48.35	-13.00	35.35	Pass	Horizontal
12	14387.0694	150	314	-43.47	-13.00	30.47	Pass	Horizontal

Mode:		LTE Traffic						
Band:		7			Channel:		21350	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.0304	150	72	-66.53	-13.00	53.53	Pass	Vertical
2	80.0620	150	357	-70.48	-13.00	57.48	Pass	Vertical
3	184.2609	150	188	-71.77	-13.00	58.77	Pass	Vertical
4	208.9038	150	224	-71.75	-13.00	58.75	Pass	Vertical
5	411.4803	150	126	-71.86	-13.00	58.86	Pass	Vertical
6	729.8980	150	357	-68.54	-13.00	55.54	Pass	Vertical
7	1324.4324	150	153	-61.05	-13.00	48.05	Pass	Vertical
8	4536.8268	150	20	-56.26	-13.00	43.26	Pass	Vertical
9	6021.1511	150	276	-54.50	-13.00	41.50	Pass	Vertical
10	7163.4582	150	330	-50.81	-13.00	37.81	Pass	Vertical
11	10379.6190	150	286	-47.80	-13.00	34.80	Pass	Vertical
12	14391.5696	150	134	-44.29	-13.00	31.29	Pass	Vertical

Mode:		LTE Traffic						
Band:		12		Channel:			23060	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	39.7019	150	39	-71.72	-13.00	58.72	Pass	Horizontal
2	62.4045	150	153	-76.08	-13.00	63.08	Pass	Horizontal
3	101.9884	150	39	-67.66	-13.00	54.66	Pass	Horizontal
4	199.9780	150	357	-76.05	-13.00	63.05	Pass	Horizontal
5	252.5625	150	39	-63.28	-13.00	50.28	Pass	Horizontal
6	445.6311	150	205	-74.65	-13.00	61.65	Pass	Horizontal
7	1266.4266	150	56	-58.56	-13.00	45.56	Pass	Horizontal
8	2104.3104	150	109	-52.81	-13.00	39.81	Pass	Horizontal
9	3191.2596	150	210	-56.92	-13.00	43.92	Pass	Horizontal
10	5058.8529	150	226	-53.15	-13.00	40.15	Pass	Horizontal
11	9267.3134	150	360	-49.17	-13.00	36.17	Pass	Horizontal
12	14372.0686	150	210	-43.22	-13.00	30.22	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12		Channel:			23060	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	41.8364	150	135	-66.08	-13.00	53.08	Pass	Vertical
2	62.4045	150	171	-69.16	-13.00	56.16	Pass	Vertical
3	80.0620	150	171	-71.73	-13.00	58.73	Pass	Vertical
4	137.1094	150	83	-73.31	-13.00	60.31	Pass	Vertical
5	208.9038	150	303	-69.16	-13.00	56.16	Pass	Vertical
6	411.4803	150	109	-71.78	-13.00	58.78	Pass	Vertical
7	1304.4304	150	153	-58.83	-13.00	45.83	Pass	Vertical
8	2111.7112	150	126	-58.52	-13.00	45.52	Pass	Vertical
9	2938.5939	150	232	-57.77	-13.00	44.77	Pass	Vertical
10	3928.5464	150	107	-57.72	-13.00	44.72	Pass	Vertical
11	6445.6723	150	62	-53.93	-13.00	40.93	Pass	Vertical
12	13709.7855	150	89	-45.75	-13.00	32.75	Pass	Vertical

Mode:		LTE Traffic						
Band:		12			Channel:		23095	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	27	-70.64	-13.00	57.64	Pass	Horizontal
2	62.5985	150	125	-76.40	-13.00	63.40	Pass	Horizontal
3	123.7207	150	27	-69.15	-13.00	56.15	Pass	Horizontal
4	199.9780	150	357	-74.74	-13.00	61.74	Pass	Horizontal
5	270.4141	150	36	-64.14	-13.00	51.14	Pass	Horizontal
6	500.1560	150	250	-75.11	-13.00	62.11	Pass	Horizontal
7	1420.6421	150	285	-57.85	-13.00	44.85	Pass	Horizontal
8	2133.7134	150	125	-51.32	-13.00	38.32	Pass	Horizontal
9	3745.5373	150	333	-57.01	-13.00	44.01	Pass	Horizontal
10	6347.4174	150	264	-54.16	-13.00	41.16	Pass	Horizontal
11	11221.1611	150	92	-47.37	-13.00	34.37	Pass	Horizontal
12	16580.1790	150	180	-43.75	-13.00	30.75	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12		Channel:			23095	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.0304	150	127	-67.37	-13.00	54.37	Pass	Vertical
2	62.5985	150	118	-69.58	-13.00	56.58	Pass	Vertical
3	80.0620	150	153	-71.16	-13.00	58.16	Pass	Vertical
4	208.9038	150	348	-70.48	-13.00	57.48	Pass	Vertical
5	284.9670	150	0	-71.70	-13.00	58.70	Pass	Vertical
6	411.4803	150	285	-72.41	-13.00	59.41	Pass	Vertical
7	1414.2414	150	285	-59.51	-13.00	46.51	Pass	Vertical
8	2129.5130	150	145	-58.16	-13.00	45.16	Pass	Vertical
9	5025.8513	150	148	-53.95	-13.00	40.95	Pass	Vertical
10	7420.7210	150	196	-52.02	-13.00	39.02	Pass	Vertical
11	11995.1998	150	80	-47.35	-13.00	34.35	Pass	Vertical
12	14361.5681	150	338	-43.80	-13.00	30.80	Pass	Vertical

Mode:		LTE Traffic						
Band:		12		Channel:			23130	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	320	-75.43	-13.00	62.43	Pass	Horizontal
2	80.0620	150	357	-72.42	-13.00	59.42	Pass	Horizontal
3	140.6021	150	245	-73.10	-13.00	60.10	Pass	Horizontal
4	199.9780	150	357	-74.03	-13.00	61.03	Pass	Horizontal
5	278.3697	150	34	-66.39	-13.00	53.39	Pass	Horizontal
6	492.9766	150	51	-74.28	-13.00	61.28	Pass	Horizontal
7	1426.0426	150	69	-58.19	-13.00	45.19	Pass	Horizontal
8	2133.1133	150	123	-51.35	-13.00	38.35	Pass	Horizontal
9	3158.2579	150	54	-57.07	-13.00	44.07	Pass	Horizontal
10	5002.6001	150	265	-53.81	-13.00	40.81	Pass	Horizontal
11	9646.0823	150	273	-47.88	-13.00	34.88	Pass	Horizontal
12	14402.0701	150	38	-44.02	-13.00	31.02	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12		Channel:			23130	
Remark:		10MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.0304	150	188	-65.85	-13.00	52.85	Pass	Vertical
2	62.5985	150	162	-69.16	-13.00	56.16	Pass	Vertical
3	80.0620	150	357	-71.39	-13.00	58.39	Pass	Vertical
4	208.9038	150	295	-69.63	-13.00	56.63	Pass	Vertical
5	284.9670	150	357	-71.60	-13.00	58.60	Pass	Vertical
6	411.4803	150	348	-72.53	-13.00	59.53	Pass	Vertical
7	1465.8466	150	224	-59.93	-13.00	46.93	Pass	Vertical
8	2714.5715	150	215	-57.30	-13.00	44.30	Pass	Vertical
9	3813.7907	150	104	-57.30	-13.00	44.30	Pass	Vertical
10	5916.8958	150	239	-54.62	-13.00	41.62	Pass	Vertical
11	11191.9096	150	273	-47.61	-13.00	34.61	Pass	Vertical
12	15905.1453	150	64	-44.43	-13.00	31.43	Pass	Vertical

Mode:		LTE Traffic						
Band:		41			Channel:		40340	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.4045	150	72	-74.06	-13.00	61.06	Pass	Horizontal
2	80.0620	150	357	-72.37	-13.00	59.37	Pass	Horizontal
3	120.0340	150	268	-75.67	-13.00	62.67	Pass	Horizontal
4	199.9780	150	357	-73.13	-13.00	60.13	Pass	Horizontal
5	270.0260	150	214	-72.85	-13.00	59.85	Pass	Horizontal
6	449.9000	150	357	-75.34	-13.00	62.34	Pass	Horizontal
7	1272.8273	150	1	-58.62	-13.00	45.62	Pass	Horizontal
8	1559.8560	150	9	-60.34	-13.00	47.34	Pass	Horizontal
9	3514.5257	150	346	-56.98	-13.00	43.98	Pass	Horizontal
10	5007.1004	150	261	-53.94	-13.00	40.94	Pass	Horizontal
11	8605.0303	150	269	-51.14	-13.00	38.14	Pass	Horizontal
12	14417.8209	150	311	-43.83	-13.00	30.83	Pass	Horizontal

Mode:		LTE Traffic						
Band:		41			Channel:		40340	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	290	-66.52	-13.00	53.52	Pass	Vertical
2	62.5985	150	220	-68.68	-13.00	55.68	Pass	Vertical
3	137.1094	150	211	-72.82	-13.00	59.82	Pass	Vertical
4	208.9038	150	329	-69.53	-13.00	56.53	Pass	Vertical
5	411.4803	150	0	-71.97	-13.00	58.97	Pass	Vertical
6	721.5543	150	319	-70.14	-13.00	57.14	Pass	Vertical
7	1267.8268	150	52	-58.58	-13.00	45.58	Pass	Vertical
8	1692.2692	150	300	-60.43	-13.00	47.43	Pass	Vertical
9	5006.3503	150	163	-54.70	-13.00	41.70	Pass	Vertical
10	6456.1728	150	356	-53.92	-13.00	40.92	Pass	Vertical
11	10297.1149	150	146	-48.24	-13.00	35.24	Pass	Vertical
12	14399.0700	150	46	-44.56	-13.00	31.56	Pass	Vertical

Mode:		LTE Traffic						
Band:		41			Channel:		40620	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.2841	150	142	-74.80	-13.00	61.80	Pass	Horizontal
2	55.4191	150	284	-71.88	-13.00	58.88	Pass	Horizontal
3	109.9440	150	37	-75.21	-13.00	62.21	Pass	Horizontal
4	176.3053	150	89	-73.10	-13.00	60.10	Pass	Horizontal
5	270.0260	150	257	-72.79	-13.00	59.79	Pass	Horizontal
6	750.0780	150	178	-71.93	-13.00	58.93	Pass	Horizontal
7	1278.4278	150	231	-57.74	-13.00	44.74	Pass	Horizontal
8	2034.5035	150	178	-59.87	-13.00	46.87	Pass	Horizontal
9	3483.7742	150	204	-57.50	-13.00	44.50	Pass	Horizontal
10	5021.3511	150	64	-54.01	-13.00	41.01	Pass	Horizontal
11	8968.0484	150	12	-49.98	-13.00	36.98	Pass	Horizontal
12	15325.3663	150	323	-45.22	-13.00	32.22	Pass	Horizontal

Mode:		LTE Traffic						
Band:		41		Channel:			40620	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	42.0304	150	110	-66.34	-13.00	53.34	Pass	Vertical
2	62.5985	150	172	-68.22	-13.00	55.22	Pass	Vertical
3	137.1094	150	216	-72.43	-13.00	59.43	Pass	Vertical
4	181.5443	150	357	-66.78	-13.00	53.78	Pass	Vertical
5	411.4803	150	75	-72.19	-13.00	59.19	Pass	Vertical
6	729.7039	150	75	-68.47	-13.00	55.47	Pass	Vertical
7	1226.2226	150	65	-59.05	-13.00	46.05	Pass	Vertical
8	2153.3153	150	198	-58.81	-13.00	45.81	Pass	Vertical
9	4531.5766	150	204	-54.99	-13.00	41.99	Pass	Vertical
10	7022.4511	150	112	-52.02	-13.00	39.02	Pass	Vertical
11	9782.5891	150	252	-47.57	-13.00	34.57	Pass	Vertical
12	14419.3210	150	286	-43.80	-13.00	30.80	Pass	Vertical

Mode:		LTE Traffic						
Band:		41		Channel:			41140	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.0900	150	198	-73.08	-13.00	60.08	Pass	Horizontal
2	109.9440	150	82	-74.21	-13.00	61.21	Pass	Horizontal
3	137.1094	150	357	-75.40	-13.00	62.40	Pass	Horizontal
4	199.9780	150	357	-72.55	-13.00	59.55	Pass	Horizontal
5	270.0260	150	206	-72.61	-13.00	59.61	Pass	Horizontal
6	606.8774	150	214	-75.74	-13.00	62.74	Pass	Horizontal
7	1272.0272	150	198	-57.31	-13.00	44.31	Pass	Horizontal
8	2183.5184	150	73	-58.68	-13.00	45.68	Pass	Horizontal
9	4701.8351	150	113	-56.65	-13.00	43.65	Pass	Horizontal
10	7624.7312	150	148	-51.56	-13.00	38.56	Pass	Horizontal
11	10221.3611	150	46	-47.18	-13.00	34.18	Pass	Horizontal
12	14536.3268	150	254	-43.88	-13.00	30.88	Pass	Horizontal

Mode:		LTE Traffic						
Band:		41		Channel:			41140	
Remark:		20MHz						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	40.2841	150	143	-65.77	-13.00	52.77	Pass	Vertical
2	62.5985	150	357	-68.83	-13.00	55.83	Pass	Vertical
3	137.1094	150	338	-74.17	-13.00	61.17	Pass	Vertical
4	208.9038	150	276	-69.81	-13.00	56.81	Pass	Vertical
5	284.9670	150	26	-71.72	-13.00	58.72	Pass	Vertical
6	411.4803	150	240	-72.87	-13.00	59.87	Pass	Vertical
7	1434.0434	150	232	-59.13	-13.00	46.13	Pass	Vertical
8	1907.4907	150	0	-60.09	-13.00	47.09	Pass	Vertical
9	3250.5125	150	305	-57.01	-13.00	44.01	Pass	Vertical
10	5017.6009	150	360	-54.06	-13.00	41.06	Pass	Vertical
11	9215.5608	150	28	-48.92	-13.00	35.92	Pass	Vertical
12	13680.5340	150	126	-45.88	-13.00	32.88	Pass	Vertical

Note:

1.Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

2.All modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.