

TEST REPORT

Application No.: SUCR2508000810AT
Applicant: Gosuncn Technology Group Co., Ltd.
Address of Applicant: 6F, 2819 KaiChuang Blvd., Science Town, Huangpu District, Guangzhou City, Guangdong, China.
Manufacturer: Gosuncn Technology Group Co., Ltd.
Address of Manufacturer: 6F, 2819 KaiChuang Blvd., Science Town, Huangpu District, Guangzhou City, Guangdong, China.
EUT Description: LTE OBDII Dongle
Model No.: GD201E
Trade Mark: 
FCC ID: 2APNR-GD201E2
Standards: 47 CFR Part 2
47 CFR Part 22
47 CFR Part 24
47 CFR Part 27
47 CFR Part 90
Date of Receipt: 2025-08-11
Date of Test: 2025-08-23 to 2025-09-10
Date of Issue: 2025-09-11

Test Result :	PASS *
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* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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Version

Revision Record			
Version	Description	Date	Remark
01	Original	2025-09-11	

Authorized for issue by:				
Tested By				
		Hayley_Zhang/Project Engineer		
Approved By				
		Cloud Peng /Reviewer		

Contents

Version	2
1 Test Summary.....	4
1.1 LTE Cat-M1 Band 5/ LTE Cat-M1 Band 26(824~849 MHz).....	4
1.2 LTE Cat-M1 Band 2	5
1.3 LTE Cat-M1 Band 4 / LTE Cat-M1 Band 66	6
1.4 LTE Cat-M1 Band 12	7
1.5 LTE Cat-M1 Band 13	8
1.6 LTE Cat-M1 Band 26(814~824 MHz).....	9
2 General Information	10
2.1 Details of Client	10
2.2 Test Location	10
2.3 Test Facility	10
2.4 General Description of EUT	11
2.5 Test Mode.....	12
2.6 Test Environment.....	12
2.7 Description of Support Units	12
2.8 Technical Specification	13
2.9 Test Frequencies.....	14
3 Main Test Instruments.....	20
4 Measurement Uncertainty	21
5 Description of Tests	22
5.1 Field Strength of Spurious Radiation.....	22
5.2 Test Conditions.....	46

1 Test Summary

1.1 LTE Cat-M1 Band 5/ LTE Cat-M1 Band 26(824~849 MHz)

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §22.913(a)(5)	ERP ≤ 7 W	Reference report R1907A0446-R1V1, R1907A0446-R7	
Peak-Average Ratio	§22.913(d)	Limits≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.		
Band Edges Compliance	§2.1051, §22.917(a)	≤ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.		
Spurious Emission at Antenna Terminals	§2.1051, §22.917(a)	FCC: ≤ -13 dBm/100 kHz, from 9 kHz to 10th harmonics but outside authorized operating frequency ranges.		
Field Strength of Spurious Radiation	§2.1053, §22.917(a)	FCC: ≤ -13 dBm/100 kHz.	Section 5.1	Pass

1.2 LTE Cat-M1 Band 2

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §24.232(c)	EIRP $\leq$ 2 W	Reference report R1907A0446-R2	
Peak-Average Ratio	§24.232(d)	Limit $\leq$ 13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.		
Band Edges Compliance	§2.1051, §24.238(a)	$\leq$ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.		
Spurious Emission at Antenna Terminals	§2.1051, §24.238(a)	$\leq$ -13 dBm/1 MHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges.		
Field Strength of Spurious Radiation	§2.1053, §24.238(a)	$\leq$ -13 dBm/1 MHz.	Section 5.1	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(1) §24.235	Within authorized bands of operation/frequency block.	Reference report R1907A0446-R2	

1.3 LTE Cat-M1 Band 4 / LTE Cat-M1 Band 66

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)(4)	EIRP $\leq$ 1 W	Reference report R1907A0446-R3V1	
Peak-Average Ratio	§27.50(d)(5)	Limit $\leq$ 13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.		
Band Edges Compliance	§2.1051, §27.53(h)	$\leq$ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.		
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)	$\leq$ -13 dBm/1 MHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges.		
Field Strength of Spurious Radiation	§2.1053, §27.53(h)	$\leq$ -13 dBm/1 MHz.	Section 5.1	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(1) §27.54	Within authorized bands of operation/frequency block.	Reference report R1907A0446-R3V1	

1.4 LTE Cat-M1 Band 12

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §27.50(c)(10)	ERP ≤ 3 W.	Reference report R1907A0446-R3V1	
Peak-Average Ratio	---	Limit≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.		
Band Edges Compliance	§2.1051, §27.53(g)	≤ 43+10log10(P[Watts])		
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	≤ 43+10log10(P[Watts])		
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	FCC: ≤ -13 dBm/100 kHz.	Section 5.1	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(1) §27.54	Within authorized bands of operation/frequency block.	Reference report R1907A0446-R3V1	

1.5 LTE Cat-M1 Band 13

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(b)(10)	ERP ≤ 3 W.	Reference report R1907A0446-R3V1	
Peak-Average Ratio	---	Limit≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049,	OBW: No limit. EBW: No limit.		
Band Edges Compliance	§2.1051, §27.53(c)	≤ 43+10log10(P[Watts])		
Spurious Emission at Antenna Terminals	§2.1051, §27.53(c) §27.53(f)	≤ -13 dBm/100 kHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges. 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. 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.		
Field Strength of Spurious Radiation	§2.1053, §27.53(c) §27.53(f)	FCC: ≤ -13 dBm/100 kHz. 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.	Section 5.1	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(1) §27.54	Within authorized bands of operation/frequency block.	Reference report R1907A0446-R3V1	

1.6 LTE Cat-M1 Band 26(814~824 MHz)

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Transmitter Conducted Power Output	§2.1046, §90.635(b)	< 100 W.	Reference report R1907A0446-R8	
Peak-Average Ratio	---	Limit≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.		
Emission Mask	§2.1051 § 90.691(a)	For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50+10\log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.		
Spurious Emission at Antenna Terminals	§2.1051, §90.691	< $43 + 10\log_{10}(P[\text{Watts}])$ for all out-of-band emissions		
Field Strength of Spurious Radiation	§2.1053, §90.691	< $43 + 10\log_{10}(P[\text{Watts}])$ for all out-of-band emissions	Section 5.1	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(1) §90.213	Within authorized bands of operation/frequency block.	Reference report R1907A0446-R8	

Remark:

The LTE Cat M1&Cat NB2&EGPRS Module (Model: BG95-M3) has been certified, and the reports are issued by TA Technology (Shanghai) Co., Ltd. So, we only evaluate the Field Strength of Spurious Radiation test of this sample, other test data please refer to module test report.

2 General Information

2.1 Details of Client

Applicant:	Gosuncn Technology Group Co., Ltd.
Address of Applicant:	6F, 2819 KaiChuang Blvd., Science Town, Huangpu District, Guangzhou City, Guangdong, China.
Manufacturer:	Gosuncn Technology Group Co., Ltd.
Address of Manufacturer:	6F, 2819 KaiChuang Blvd., Science Town, Huangpu District, Guangzhou City, Guangdong, China.

2.2 Test Location

Company:	SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.
Address:	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone
Post code:	215000
Test engineer:	King-p Li

2.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 6336.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

- **FCC –Designation Number: CN1312**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized as an accredited testing laboratory.

Designation Number: CN1312.

Test Firm Registration Number: 717327

2.4 General Description of EUT

Hardware Version:	GD201_HW_V1.0		
Software Version:	BG95M3LAR02A03		
Power Supply:	12V, 24V		
Antenna Type:	LDS Antenna		
Antenna Gain:	☒ Provided by client		
	LTE Cat-M1 Band 2:	1.03dBi	LTE Cat-M1 Band 4: 0.73dBi
	LTE Cat-M1 Band 5:	-0.33dBi	LTE Cat-M1 Band 12: -0.55dBi
	LTE Cat-M1 Band 13:	-1.26dBi	LTE Cat-M1 Band 26: -0.33dBi
	LTE Cat-M1 Band 66:	0.73dBi	
RF Cable*:	0.8dB(Below 1GHz)	1.0dB(1.0~2.4GHz)	1.2dB(2.4~3.4GHz)
	1.5dB(Above 3.4GHz)		
Note: *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information , SGS is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion. Remark: 1.As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information. 2.The product is divided into SIM version and ESIM version, with only the difference in card slot. We used the SIM version for testing.			

2.5 Test Mode

Test Mode	Test Modes Description
LTE/TM1	LTE system, QPSK modulation
Remark: The test mode(s) are selected according to relevant radio technology specifications.	

2.6 Test Environment

Environment Parameter	101.0~101.30 kPa Selected Values During Tests	
Relative Humidity	45-56 % RH Ambient	
Value	Temperature(°C)	Voltage(V)
NTNV	22~23	12, 24
LTLV	-20	9
LTHV	-20	32
HTLV	55	9
HTHV	55	32
Remark: NV: Normal Voltage LV: Low Extreme Test Voltage HV: High Extreme Test Voltage NT: Normal Temperature LT: Low Extreme Test Temperature HT: High Extreme Test Temperature		

2.7 Description of Support Units

Description	Manufacturer	Model No.	Inventory No.
Board	/	GD201E_Bench_A	/
Adapter	ZTEWelink	MAC-120100X-D-16	/

2.8 Technical Specification

Characteristics	Description				
Radio System Type	☒ LTE				
Supported Frequency Range	Band	TX		RX	
	LTE Cat-M1 Band 2	1850 to 1910 MHz		1930 to 1990 MHz	
	LTE Cat-M1 Band 4	1710 to 1755 MHz		2110 to 2155 MHz	
	LTE Cat-M1 Band 5	824 to 849 MHz		869 to 894 MHz	
	LTE Cat-M1 Band 12	699 to 716 MHz		729 to 746 MHz	
	LTE Cat-M1 Band 13	777 to 787 MHz		746 to 756 MHz	
	LTE Cat-M1 Band 26 (814 to 824 MHz)	814 to 824MHz		859 to 869 MHz	
	LTE Cat-M1 Band 26 (824 to 849 MHz)	824 to 849 MHz		869 to 894 MHz	
	LTE Cat-M1 Band 66	1710 to 1780 MHz		2110 to 2200 MHz	
Supported Channel Bandwidth	LTE Cat-M1 Band 2	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz			
		☒ 15 MHz ☒ 20 MHz			
	LTE Cat-M1 Band 4	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz			
		☒ 15 MHz ☒ 20 MHz			
	LTE Cat-M1 Band 5	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz			
	LTE Cat-M1 Band 12	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz			
	LTE Cat-M1 Band 13	☒ 5 MHz ☒ 10 MHz			
	LTE Cat-M1 Band 26 (814 to 824 MHz)	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz			
	LTE Cat-M1 Band 26 (824 to 849 MHz)	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz ☒ 15 MHz			
LTE Cat-M1 Band 66	☒ 1.4 MHz ☒ 3 MHz ☒ 5 MHz ☒ 10 MHz				
	☒ 15MHz ☒ 20MHz				
Characteristics	Description				

2.9 Test Frequencies

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band 2	1.4MHz	TX	Channel 18607	Channel 18900	Channel 19193
			1850.7 MHz	1880 MHz	1909.3 MHz
		RX	Channel 607	Channel 900	Channel 1193
			1930.7 MHz	1960 MHz	1989.3 MHz
	3MHz	TX	Channel 18615	Channel 18900	Channel 19185
			1851.5 MHz	1880 MHz	1908.5 MHz
		RX	Channel 615	Channel 900	Channel 1185
			1931.5 MHz	1960 MHz	1988.5 MHz
	5MHz	TX	Channel 18625	Channel 18900	Channel 19175
			1852.5 MHz	1880 MHz	1907.5 MHz
		RX	Channel 625	Channel 900	Channel 1175
			1932.5 MHz	1960 MHz	1987.5 MHz
	10MHz	TX	Channel 18650	Channel 18900	Channel 19150
			1855 MHz	1880 MHz	1905 MHz
		RX	Channel 650	Channel 900	Channel 1150
			1935 MHz	1960 MHz	1985 MHz
	15MHz	TX	Channel 18675	Channel 18900	Channel 19125
			1857.5 MHz	1880 MHz	1902.5 MHz
		RX	Channel 675	Channel 900	Channel 1125
			1937.5 MHz	1960 MHz	1982.5 MHz
	20MHz	TX	Channel 18700	Channel 18900	Channel 19100
			1860 MHz	1880 MHz	1900 MHz
		RX	Channel 700	Channel 900	Channel 1100
			1940 MHz	1960 MHz	1980 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band 4	1.4MHz	TX	Channel 19957	Channel 20175	Channel 20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz
		RX	Channel 1957	Channel 2175	Channel 2393
			2110.7 MHz	2132.5MHz	2154.3 MHz
	3MHz	TX	Channel 19965	Channel 20175	Channel 20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz
		RX	Channel 1965	Channel 2175	Channel 2385
			2111.5 MHz	2132.5MHz	2153.5 MHz
	5MHz	TX	Channel 19975	Channel 20175	Channel 20375
			1712.5 MHz	1732.5 MHz	1752.5 MHz
		RX	Channel 1975	Channel 2175	Channel 2425
			2112.5 MHz	2132.5MHz	2157.5 MHz
	10MHz	TX	Channel 20000	Channel 20175	Channel 20350
			1715 MHz	1732.5 MHz	1750 MHz
		RX	Channel 2000	Channel 2175	Channel 2350
			2115 MHz	2132.5MHz	2150 MHz
	15MHz	TX	Channel 20025	Channel 20175	Channel 20325
			1717.5 MHz	1732.5 MHz	1747.5 MHz
		RX	Channel 2025	Channel 2175	Channel 2325
			2117.5 MHz	2132.5MHz	2147.5 MHz
	20MHz	TX	Channel 20050	Channel 20175	Channel 20300
			1720 MHz	1732.5 MHz	1745 MHz
		RX	Channel 2050	Channel 2175	Channel 2300
			2120 MHz	2132.5MHz	2145 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band 5	1.4MHz	TX	Channel 20407	Channel 20525	Channel 20643
			824.7 MHz	836.5 MHz	848.3 MHz
		RX	Channel 2407	Channel 2525	Channel 2643
			869.7 MHz	881.5 MHz	893.3 MHz
	3MHz	TX	Channel 20415	Channel 20525	Channel 20635
			825.5 MHz	836.5 MHz	847.5 MHz
		RX	Channel 2415	Channel 2525	Channel 2635
			870.5 MHz	881.5 MHz	892.5 MHz
	5MHz	TX	Channel 20425	Channel 20525	Channel 20625
			826.5 MHz	836.5 MHz	846.5 MHz
		RX	Channel 2425	Channel 2525	Channel 2625
			871.5 MHz	881.5 MHz	891.5 MHz
	10MHz	TX	Channel 20450	Channel 20525	Channel 20600
			829 MHz	836.5 MHz	844 MHz
		RX	Channel 2450	Channel 2525	Channel 2600
			874 MHz	881.5 MHz	889 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band 12	1.4MHz	TX	Channel 23017	Channel 23095	Channel 23173
			699.7 MHz	707.5 MHz	715.3 MHz
		RX	Channel 5017	Channel 5095	Channel 5173
			729.7 MHz	737.5 MHz	745.3 MHz
	3MHz	TX	Channel 23025	Channel 23095	Channel 23165
			700.5 MHz	707.5 MHz	714.5 MHz
		RX	Channel 5025	Channel 5095	Channel 5165
			730.5 MHz	737.5 MHz	744.5 MHz
	5MHz	TX	Channel 23035	Channel 23095	Channel 23155
			701.5 MHz	707.5 MHz	713.5 MHz
		RX	Channel 5035	Channel 5095	Channel 5155
			731.5 MHz	737.5 MHz	743.5 MHz
	10MHz	TX	Channel 23060	Channel 23095	Channel 23130
			704 MHz	707.5 MHz	711 MHz
		RX	Channel 5060	Channel 5095	Channel 5130
			734 MHz	737.5 MHz	741 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band 13	5MHz	TX	Channel 23205	Channel 23230	Channel 23255
			779.5 MHz	782 MHz	784.5 MHz
		RX	Channel 5205	Channel 5230	Channel 5255
			748.5 MHz	751 MHz	753.5 MHz
	10MHz	TX	Channel 23230	Channel 23230	Channel 23230
			782 MHz	782 MHz	782 MHz
		RX	Channel 5230	Channel 5230	Channel 5230
			751 MHz	751 MHz	751 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band 26 (814-824)	1.4MHz	TX	Channel 26697	Channel 26740	Channel 26783
			814.7 MHz	819 MHz	823.3 MHz
		RX	Channel 8697	Channel 8740	Channel 8783
			859.7 MHz	864MHz	868.3 MHz
	3MHz	TX	Channel 26705	Channel 26740	Channel 26775
			815.5 MHz	819 MHz	822.5 MHz
		RX	Channel 8705	Channel 8740	Channel 8775
			860.5 MHz	864MHz	867.5 MHz
	5MHz	TX	Channel 26715	Channel 26740	Channel 26765
			816.5 MHz	819 MHz	821.5 MHz
		RX	Channel 8715	Channel 8740	Channel 8765
			861.5 MHz	864MHz	866.5 MHz
	10MHz	TX	Channel 26740	Channel 26740	Channel 26740
			819 MHz	819 MHz	819 MHz
		RX	Channel 8740	Channel 8740	Channel 8740
			864MHz	864MHz	864MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band26 (824-849)	1.4MHz	TX	Channel 26797	Channel 26915	Channel 27033
			824.7 MHz	836.5 MHz	848.3 MHz
		RX	Channel 8797	Channel 8915	Channel 9033
			869.7 MHz	881.5 MHz	893.3 MHz
	3MHz	TX	Channel 26805	Channel 26915	Channel 27025
			825.5 MHz	836.5 MHz	847.5 MHz
		RX	Channel 8805	Channel 8915	Channel 9025
			860.5 MHz	881.5 MHz	892.5 MHz
	5MHz	TX	Channel 26815	Channel 26915	Channel 27015
			826.5 MHz	836.5 MHz	846.5 MHz
		RX	Channel 8815	Channel 8915	Channel 9015
			871.5 MHz	881.5 MHz	891.5 MHz
	10MHz	TX	Channel 26840	Channel 26915	Channel 26990
			829 MHz	836.5 MHz	844 MHz
		RX	Channel 8840	Channel 8915	Channel 8990
			874 MHz	881.5 MHz	889 MHz
	15MHz	TX	Channel 26865	Channel 26915	Channel 26965
			831.5 MHz	836.5 MHz	841.5 MHz
		RX	Channel 8865	Channel 8915	Channel 8965
			876.5 MHz	881.5 MHz	886.5 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
			Low (L)	Middle (M)	High (H)
LTE Cat-M1 Band66	1.4MHz	TX	Channel 131979	Channel 132322	Channel 132665
			1710.7 MHz	1745 MHz	1779.3 MHz
		RX	Channel 66443	Channel 66786	Channel 67329
			2110.7 MHz	2145MHz	2199.3 MHz
	3MHz	TX	Channel 131987	Channel 132322	Channel 132657
			1711.5 MHz	1745 MHz	1778.5MHz
		RX	Channel 66451	Channel 66786	Channel 67321
			2111.5 MHz	2145MHz	2198.5MHz
	5MHz	TX	Channel 131997	Channel 132322	Channel 132647
			1712.5 MHz	1745 MHz	1777.5 MHz
		RX	Channel 66461	Channel 66786	Channel 67311
			2112.5 MHz	2145MHz	2197.5 MHz
	10MHz	TX	Channel 132022	Channel 132322	Channel 132622
			1715 MHz	1745 MHz	1775 MHz
		RX	Channel 66486	Channel 66786	Channel 67286
			2115 MHz	2145MHz	2195 MHz
	15MHz	TX	Channel 132047	Channel 132322	Channel 132597
			1717.5 MHz	1745 MHz	1772.5 MHz
		RX	Channel 66511	Channel 66786	Channel 67261
			2117.5 MHz	2145MHz	2192.5 MHz
	20MHz	TX	Channel 132072	Channel 132322	Channel 132572
			1720 MHz	1745 MHz	1770 MHz
		RX	Channel 66536	Channel 66786	Channel 67236
			2120 MHz	2145MHz	2190 MHz

3 Main Test Instruments

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
RF Radiated Test						
1	Semi-Anechoic Chamber	Brilliant-emc	N/A	SUWI-04-02-01	6/3/2023	6/2/2026
2	Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	1/20/2025	1/19/2026
3	Signal Analyzer	KEYSIGHT	N9020A	SUWI-01-02-09	11/21/2024	11/20/2025
4	Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	1/15/2025	1/14/2026
5	Signal Generator	ROHDE&SCHWARZ	SMW100A	SUWI-01-18-01	1/16/2025	1/15/2026
6	Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	VULB 9168	SUWI-01-11-04	8/22/2024	8/21/2026
7	Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9120D	SUWI-01-11-02	5/7/2025	5/6/2027
8	Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9170	SUWI-01-11-03	5/7/2025	5/6/2027
9	Active Loop Antenna	SCHWRZBECK MESS- ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	5/7/2025	5/6/2027
10	Amplifier	Tonscend	TAP9K3G40	SUWI-01-14-01	1/16/2025	1/15/2026
11	Amplifier	Tonscend	TAP01018050	SUWI-01-14-02	1/16/2025	1/15/2026
12	Amplifier	Tonscend	TAP18040048	SUWI-01-14-03	1/20/2025	1/19/2026
13	Wideband Radio Communication Tester	Anritsu	MT8820C	SUWI-01-26-01	9/10/2024 8/25/2025	9/9/2025 8/24/2026
14	Wideband Radio Communication Tester	Anritsu	MT8821C	SUWI-01-26-03	11/19/2024	11/18/2025
15	Wideband Radio Communication Tester	ROHDE&SCHWARZ	CMW500	SUWI-01-16-09	9/10/2024 8/26/2025	9/9/2025 8/25/2026
16	Radio Communication Analyzer	StarPoint	SP9500E	SUWI-01-28-02	11/19/2024	11/18/2025
17	Signal Generator	ROHDE&SCHWARZ	SMB100A	SUWI-01-08-01	1/16/2025	1/15/2026
18	DC Power Supply	HYELEC	HY3005B	SUWI-01-18-01	1/15/2025	1/14/2026
19	Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-05	2/13/2025	2/12/2026
20	Measurement Software	Tonscend	JS32-RE 4.0.0.0	SUWI-02-09-06	NCR	NCR

Remark: NCR=No Calibration Requirement.

4 Measurement Uncertainty

For a 95% confidence level ($k = 2$), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

No.	Item	Measurement Uncertainty
1	Total RF power, conducted	±0.54dB
2	RF power density, conducted	±1.03dB
3	Spurious emissions, conducted	±0.54dB
4	Radio Frequency	±1.0 %
5	Duty Cycle	±0.37%
6	Occupied Bandwidth	±1.0 %
7	Radiated Emission	± 3.13dB (9k -30MHz)
		± 4.88dB (30M -1GHz)
		± 4.75dB (1GHz to 18GHz)
		± 4.77dB (Above 18GHz)
Remark: The U _{lab} (lab Uncertainty) is less than U _{CISPR/ETSI} (CISPR/ETSI Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.		

5 Description of Tests

5.1 Field Strength of Spurious Radiation

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 5.8

Below 1GHz test procedure as below:

- 1). The EUT was powered ON and placed on a 80cm high table in the chamber. The antenna of the transmitter was extended to its maximum length.
- 2). The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.
- 3). Steps 1) and 2) were performed with the EUT and the receive antenna in both vertical and horizontal polarization.
- 4). Test the EUT in the lowest channel, the middle channel ,the Highest channel.
- 5). The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, Only the test worst case mode is recorded in the report.
- 6). Repeat above procedures until all frequencies measured was complete.

$$E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dB}\mu\text{V)} + (\text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)} - \text{AMP(dB)})$$

$$\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20 \log D - 104.8; \text{ where D is the measurement distance in meters}$$

Above 1GHz test procedure as below:

- 1) Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber
- 2) Calculate power in dBm by the following formula:

$$E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dB}\mu\text{V)} + (\text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)} - \text{AMP(dB)})$$

$$\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20 \log D - 104.8; \text{ where D is the measurement distance in meters}$$
- 3). Test the EUT in the lowest channel, the middle channel the Highest channel
- 4). The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, Only the test worst case mode is recorded in the report.
- 5). Repeat above procedures until all frequencies measured was complete

Remark1: Reference test setup 2

Remark2: The emission below 18G were measured at a 3m test distance, while emissions above 18GHz were measured at a 1m test distance. At a measurement distance of 1 meter the limit line was increased by $20 \cdot \log(3/1) = 9.54 \text{ dB}$.

Remark: Reference test setup 2

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level

2) Scan from 9kHz to 40GHz, The disturbance between 9KHz to 30MHz and 18GHz to 40GHz was very low, and the harmonics were the highest point could be found when testing, so only the 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.

3) All modes have been tested, but only the worst case data displayed in this report.

Test Band = Cat M1 Band 2_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3702.75	76.27	-48.50	28.82	-38.67	-13.00	25.67	Horizontal
2	5554.5	69.74	-47.66	32.62	-40.56	-13.00	27.56	Horizontal
3	8031.75	50.06	-44.45	36.33	-53.32	-13.00	40.32	Horizontal
4	10482	48.66	-40.76	39.14	-48.22	-13.00	35.22	Horizontal
5	12301.5	50.53	-39.73	39.22	-45.24	-13.00	32.24	Horizontal
6	15393.75	52.42	-37.26	39.49	-40.61	-13.00	27.61	Horizontal

Test Band = Cat M1 Band 2_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3702.75	79.27	-48.50	28.82	-35.67	-13.00	22.67	Vertical
2	5554.5	69.36	-47.66	32.62	-40.94	-13.00	27.94	Vertical
3	7617	50.28	-44.68	36.38	-53.28	-13.00	40.28	Vertical
4	10896.75	48.85	-40.03	39.43	-47.02	-13.00	34.02	Vertical
5	12252	50.58	-39.77	39.25	-45.20	-13.00	32.20	Vertical
6	16410	54.50	-37.40	38.56	-39.60	-13.00	26.60	Vertical

Test Band = Cat M1 Band 2_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3776.25	75.21	-48.26	28.94	-39.37	-13.00	26.37	Horizontal
2	5614.5	59.78	-47.67	32.65	-50.50	-13.00	37.50	Horizontal
3	7421.25	50.69	-46.17	36.26	-54.48	-13.00	41.48	Horizontal
4	8970	48.19	-43.43	37.37	-53.13	-13.00	40.13	Horizontal
5	12316.5	51.05	-39.70	39.21	-44.70	-13.00	31.70	Horizontal
6	15401.25	52.30	-37.23	39.48	-40.71	-13.00	27.71	Horizontal

Test Band = Cat M1 Band 2_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3744	73.29	-48.36	28.89	-41.44	-13.00	28.44	Vertical
2	5614.5	60.95	-47.67	32.65	-49.33	-13.00	36.33	Vertical
3	7610.25	50.33	-44.64	36.38	-53.19	-13.00	40.19	Vertical
4	10913.25	49.02	-40.10	39.44	-46.90	-13.00	33.90	Vertical
5	15186.75	51.54	-36.88	39.86	-40.74	-13.00	27.74	Vertical
6	17521.5	51.92	-36.82	41.93	-38.23	-13.00	25.23	Vertical

Test Band = Cat M1 Band 2_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3783	71.94	-48.24	28.95	-42.60	-13.00	29.60	Horizontal
2	5674.5	59.76	-47.54	32.67	-50.37	-13.00	37.37	Horizontal
3	9020.25	48.97	-43.10	37.43	-51.96	-13.00	38.96	Horizontal
4	12281.25	50.48	-39.75	39.23	-45.30	-13.00	32.30	Horizontal
5	14643.75	49.62	-37.39	40.24	-42.80	-13.00	29.80	Horizontal
6	17449.5	52.02	-37.09	41.50	-38.84	-13.00	25.84	Horizontal

Test Band = Cat M1 Band 2_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3783	75.34	-48.24	28.95	-39.20	-13.00	26.20	Vertical
2	5675.25	58.12	-47.54	32.67	-52.01	-13.00	39.01	Vertical
3	7619.25	50.12	-44.69	36.38	-53.46	-13.00	40.46	Vertical
4	9630.75	48.34	-42.19	38.28	-50.83	-13.00	37.83	Vertical
5	12220.5	50.51	-39.80	39.27	-45.28	-13.00	32.28	Vertical
6	14765.25	50.82	-36.79	40.22	-41.01	-13.00	28.01	Vertical

Test Band = Cat M1 Band 4_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3423	89.66	-48.38	28.44	-25.54	-13.00	12.54	Horizontal
2	5134.125	82.15	-47.84	31.58	-29.38	-13.00	16.38	Horizontal
3	6845.625	63.69	-46.82	35.25	-43.13	-13.00	30.13	Horizontal
4	8557.125	55.83	-44.10	36.91	-46.62	-13.00	33.62	Horizontal
5	10369.125	52.56	-41.21	39.06	-44.85	-13.00	31.85	Horizontal
6	14712.75	37.39	-36.70	40.23	-54.34	-13.00	41.34	Horizontal

Test Band = Cat M1 Band 4_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3672.375	59.36	-48.45	28.78	-55.57	-13.00	42.57	Vertical
2	3978.75	55.82	-48.20	29.27	-58.38	-13.00	45.38	Vertical
3	5518.5	45.92	-47.63	32.61	-64.36	-13.00	51.36	Vertical
4	7587.75	44.60	-44.77	36.38	-59.04	-13.00	46.04	Vertical
5	9511.5	41.93	-42.36	38.12	-57.57	-13.00	44.57	Vertical
6	13162.125	38.33	-38.59	39.04	-56.47	-13.00	43.47	Vertical

Test Band = Cat M1 Band 4_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3481.5	90.45	-48.31	28.49	-24.64	-13.00	11.64	Horizontal
2	5222.25	78.05	-47.87	31.82	-33.25	-13.00	20.25	Horizontal
3	6897.375	68.77	-46.73	35.34	-37.89	-13.00	24.89	Horizontal
4	8619.375	53.43	-44.00	36.98	-48.85	-13.00	35.85	Horizontal
5	10343.25	48.67	-41.19	39.04	-48.74	-13.00	35.74	Horizontal
6	14718	37.33	-36.71	40.23	-54.41	-13.00	41.41	Horizontal

Test Band = Cat M1 Band 4_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3448.5	89.72	-48.35	28.46	-25.43	-13.00	12.43	Vertical
2	5171.625	77.86	-47.87	31.68	-33.59	-13.00	20.59	Vertical
3	6895.875	68.99	-46.74	35.33	-37.67	-13.00	24.67	Vertical
4	8619.375	53.98	-44.00	36.98	-48.30	-13.00	35.30	Vertical
5	10344	53.25	-41.19	39.04	-44.16	-13.00	31.16	Vertical
6	13217.25	38.49	-38.77	39.13	-56.41	-13.00	43.41	Vertical

Test Band = Cat M1 Band 4_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3481.875	89.68	-48.31	28.49	-25.41	-13.00	12.41	Horizontal
2	5223	77.42	-47.86	31.82	-33.88	-13.00	20.88	Horizontal
3	6964.125	61.97	-46.65	35.44	-44.49	-13.00	31.49	Horizontal
4	8704.875	49.53	-44.11	37.08	-52.77	-13.00	39.77	Horizontal
5	10446	42.64	-40.97	39.11	-54.48	-13.00	41.48	Horizontal
6	13873.125	37.90	-38.81	40.11	-56.06	-13.00	43.06	Horizontal

Test Band = Cat M1 Band 4_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3483	89.06	-48.31	28.49	-26.02	-13.00	13.02	Vertical
2	5223	75.93	-47.86	31.82	-35.37	-13.00	22.37	Vertical
3	6963.75	65.65	-46.65	35.44	-40.82	-13.00	27.82	Vertical
4	8706.75	51.42	-44.11	37.08	-50.87	-13.00	37.87	Vertical
5	10446.375	48.22	-40.97	39.11	-48.89	-13.00	35.89	Vertical
6	14721.75	37.05	-36.72	40.23	-54.70	-13.00	41.70	Vertical

Test Band = Cat M1 Band 5_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1649.3333	81.90	-49.83	25.57	-37.61	-13.00	24.61	Horizontal
2	2474.2222	68.15	-49.05	27.15	-49.01	-13.00	36.01	Horizontal
3	3487.1111	52.57	-48.46	28.49	-62.66	-13.00	49.66	Horizontal
4	4648	50.39	-48.06	30.43	-62.50	-13.00	49.50	Horizontal
5	6779.5556	50.81	-46.89	35.15	-56.19	-13.00	43.19	Horizontal
6	8022.2222	49.99	-44.50	36.32	-53.45	-13.00	40.45	Horizontal

Test Band = Cat M1 Band 5_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1649.3333	83.94	-49.83	25.57	-35.57	-13.00	22.57	Vertical
2	2474.2222	68.30	-49.05	27.15	-48.86	-13.00	35.86	Vertical
3	3299.1111	55.11	-48.63	28.34	-60.44	-13.00	47.44	Vertical
4	4314.2222	49.73	-48.03	29.80	-63.76	-13.00	50.76	Vertical
5	5558.6667	51.05	-47.55	32.62	-59.14	-13.00	46.14	Vertical
6	7607.1111	50.38	-44.71	36.38	-53.21	-13.00	40.21	Vertical

Test Band = Cat M1 Band 5_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1664.8889	82.89	-49.79	25.60	-36.57	-13.00	23.57	Horizontal
2	2496.8889	73.07	-48.92	27.19	-43.91	-13.00	30.91	Horizontal
3	3517.3333	70.57	-48.44	28.53	-44.60	-13.00	31.60	Horizontal
4	4834.6667	50.16	-48.07	30.84	-62.34	-13.00	49.34	Horizontal
5	6256.4444	51.19	-47.42	33.77	-57.71	-13.00	44.71	Horizontal
6	7635.1111	50.25	-44.88	36.37	-53.52	-13.00	40.52	Horizontal

Test Band = Cat M1 Band 5_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1664.4444	85.52	-49.79	25.60	-33.94	-13.00	20.94	Vertical
2	2497.3333	68.63	-48.92	27.20	-48.35	-13.00	35.35	Vertical
3	3570.2222	60.16	-48.47	28.61	-54.95	-13.00	41.95	Vertical
4	4838.2222	50.13	-48.08	30.84	-62.36	-13.00	49.36	Vertical
5	6545.7778	50.59	-47.10	34.77	-56.99	-13.00	43.99	Vertical
6	7610.2222	50.28	-44.73	36.38	-53.33	-13.00	40.33	Vertical

Test Band = Cat M1 Band 5_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1679.5556	81.24	-49.76	25.62	-38.16	-13.00	25.16	Horizontal
2	2519.1111	67.01	-48.95	27.23	-49.97	-13.00	36.97	Horizontal
3	3547.1111	53.90	-48.45	28.58	-61.24	-13.00	48.24	Horizontal
4	5257.7778	51.02	-47.90	31.92	-60.22	-13.00	47.22	Horizontal
5	7449.3333	50.41	-46.13	36.31	-54.67	-13.00	41.67	Horizontal
6	8026.2222	50.17	-44.52	36.33	-53.28	-13.00	40.28	Horizontal

Test Band = Cat M1 Band 5_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1679.5556	84.50	-49.76	25.62	-34.90	-13.00	21.90	Vertical
2	2519.1111	67.27	-48.95	27.23	-49.71	-13.00	36.71	Vertical
3	3359.1111	53.70	-48.67	28.39	-61.84	-13.00	48.84	Vertical
4	5102.2222	51.29	-47.92	31.49	-60.41	-13.00	47.41	Vertical
5	7032	51.26	-46.46	35.56	-54.91	-13.00	41.91	Vertical
6	8017.7778	49.89	-44.49	36.32	-53.54	-13.00	40.54	Vertical

Test Band = Cat M1 Band 12_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1399.5556	76.79	-50.01	24.10	-44.38	-13.00	31.38	Horizontal
2	2099.5556	67.82	-49.46	26.48	-50.42	-13.00	37.42	Horizontal
3	2800	62.25	-48.68	27.74	-53.95	-13.00	40.95	Horizontal
4	3498.6667	64.95	-48.43	28.50	-50.24	-13.00	37.24	Horizontal
5	4199.5556	56.42	-48.36	29.62	-57.58	-13.00	44.58	Horizontal
6	4900	52.54	-48.17	30.98	-59.91	-13.00	46.91	Horizontal

Test Band = Cat M1 Band 12_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1416	82.49	-49.98	24.21	-38.54	-13.00	25.54	Vertical
2	2099.1111	67.47	-49.46	26.48	-50.77	-13.00	37.77	Vertical
3	2832	63.54	-48.71	27.80	-52.63	-13.00	39.63	Vertical
4	3540	62.36	-48.45	28.56	-52.79	-13.00	39.79	Vertical
5	4248.4444	54.16	-48.20	29.70	-59.60	-13.00	46.60	Vertical
6	4898.6667	56.68	-48.17	30.98	-55.77	-13.00	42.77	Vertical

Test Band = Cat M1 Band 12_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1400	75.36	-50.01	24.10	-45.81	-13.00	32.81	Horizontal
2	1784	79.48	-49.82	25.78	-39.82	-13.00	26.82	Horizontal
3	2099.1111	70.38	-49.46	26.48	-47.86	-13.00	34.86	Horizontal
4	2799.5556	70.08	-48.68	27.74	-46.12	-13.00	33.12	Horizontal
5	3498.6667	63.87	-48.43	28.50	-51.32	-13.00	38.32	Horizontal
6	4248.4444	56.89	-48.20	29.70	-56.87	-13.00	43.87	Horizontal

Test Band = Cat M1 Band 12_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1416.4444	83.71	-49.98	24.22	-37.32	-13.00	24.32	Vertical
2	2124	67.65	-49.47	26.52	-50.55	-13.00	37.55	Vertical
3	2799.1111	66.17	-48.68	27.74	-50.03	-13.00	37.03	Vertical
4	3587.5556	64.97	-48.47	28.64	-50.12	-13.00	37.12	Vertical
5	4199.5556	55.02	-48.36	29.62	-58.98	-13.00	45.98	Vertical
6	4898.6667	57.02	-48.17	30.98	-55.43	-13.00	42.43	Vertical

Test Band = Cat M1 Band 12_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1416	78.62	-49.98	24.21	-42.41	-13.00	29.41	Horizontal
2	1766.2222	66.65	-49.80	25.75	-52.66	-13.00	39.66	Horizontal
3	2099.5556	70.71	-49.46	26.48	-47.53	-13.00	34.53	Horizontal
4	2798.6667	69.55	-48.68	27.74	-46.66	-13.00	33.66	Horizontal
5	3540	63.93	-48.45	28.56	-51.22	-13.00	38.22	Horizontal
6	4198.6667	58.19	-48.36	29.62	-55.81	-13.00	42.81	Horizontal

Test Band = Cat M1 Band 12_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1399.5556	82.63	-50.01	24.10	-38.54	-13.00	25.54	Vertical
2	2124	69.92	-49.47	26.52	-48.28	-13.00	35.28	Vertical
3	2799.1111	63.79	-48.68	27.74	-52.41	-13.00	39.41	Vertical
4	3498.6667	62.41	-48.43	28.50	-52.78	-13.00	39.78	Vertical
5	4198.6667	56.71	-48.36	29.62	-57.29	-13.00	44.29	Vertical
6	4899.5556	58.08	-48.17	30.98	-54.37	-13.00	41.37	Vertical

Test Band = Cat M1 Band 13 BW 10M_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1555.5	84.35	-49.89	25.19	-35.61	-13.00	22.61	Horizontal
2	1784	61.22	-49.82	25.78	-58.08	-13.00	45.08	Horizontal
3	2333.5	68.58	-49.25	26.90	-49.03	-13.00	36.03	Horizontal
4	3111.5	58.06	-48.89	28.19	-57.90	-13.00	44.90	Horizontal
5	3504	64.03	-48.43	28.51	-51.16	-13.00	38.16	Horizontal
6	6218	50.90	-47.47	33.63	-58.20	-13.00	45.20	Horizontal

Test Band = Cat M1 Band 13 BW 10M_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1555.5	87.59	-49.89	25.19	-32.37	-13.00	19.37	Vertical
2	1757	83.00	-49.79	25.74	-36.31	-13.00	23.31	Vertical
3	2358	65.36	-49.33	26.94	-52.29	-13.00	39.29	Vertical
4	3111.5	55.02	-48.89	28.19	-60.94	-13.00	47.94	Vertical
5	5159	50.83	-47.97	31.65	-60.76	-13.00	47.76	Vertical
6	8598.5	48.03	-43.84	36.96	-54.11	-13.00	41.11	Vertical

Test Band = Cat M1 Band 13 BW 5M_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1555.5	81.51	-49.89	25.19	-38.45	-13.00	25.45	Horizontal
2	2344.5	67.38	-49.29	26.92	-50.25	-13.00	37.25	Horizontal
3	3111	52.99	-48.89	28.19	-62.97	-13.00	49.97	Horizontal
4	5098	50.69	-47.92	31.47	-61.02	-13.00	48.02	Horizontal
5	6904	50.79	-46.49	35.35	-55.61	-13.00	42.61	Horizontal
6	8060.5	49.89	-44.65	36.37	-53.65	-13.00	40.65	Horizontal

Test Band = Cat M1 Band 13 BW 5M_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1556	80.34	-49.89	25.19	-39.61	-13.00	26.61	Vertical
2	2332.5	67.04	-49.24	26.90	-50.57	-13.00	37.57	Vertical
3	3126	55.23	-48.84	28.20	-60.67	-13.00	47.67	Vertical
4	4268.5	49.80	-48.13	29.73	-63.86	-13.00	50.86	Vertical
5	5704.5	51.52	-47.51	32.68	-58.57	-13.00	45.57	Vertical
6	8999.5	47.92	-42.93	37.40	-52.87	-13.00	39.87	Vertical

Test Band = Cat M1 Band 13 BW 5M_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1559.68	63.65	-49.89	25.22	-56.28	-40.00	16.28	Horizontal
2	2339.52	52.74	-49.27	26.91	-64.88	-13.00	51.88	Horizontal
3	3119.36	50.26	-48.86	28.20	-65.67	-13.00	52.67	Horizontal
4	3899.2	47.52	-48.43	29.14	-67.03	-13.00	54.03	Horizontal
5	4679.04	48.06	-48.07	30.49	-64.78	-13.00	51.78	Horizontal
6	5458.88	48.54	-47.41	32.49	-61.65	-13.00	48.65	Horizontal

Test Band = Cat M1 Band 13 BW 5M_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1559.68	58.97	-49.89	25.22	-60.96	-40.00	20.96	Vertical
2	2339.52	54.89	-49.27	26.91	-62.73	-13.00	49.73	Vertical
3	3119.36	49.06	-48.86	28.20	-66.87	-13.00	53.87	Vertical
4	3899.2	47.81	-48.43	29.14	-66.74	-13.00	53.74	Vertical
5	4679.04	48.41	-48.07	30.49	-64.43	-13.00	51.43	Vertical
6	5458.88	49.25	-47.41	32.49	-60.94	-13.00	47.94	Vertical

Test Band = Cat M1 Band 13 BW 5M_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	2347.5	65.75	-49.30	26.93	-51.88	-13.00	38.88	Horizontal
2	3146	55.02	-48.78	28.22	-60.81	-13.00	47.81	Horizontal
3	3912.5	51.39	-48.42	29.16	-63.13	-13.00	50.13	Horizontal
4	4829	50.05	-48.06	30.82	-62.45	-13.00	49.45	Horizontal
5	6874.5	50.44	-46.60	35.30	-56.12	-13.00	43.12	Horizontal
6	8002.5	49.85	-44.43	36.30	-53.54	-13.00	40.54	Horizontal

Test Band = Cat M1 Band 13 BW 5M_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	2347.5	66.93	-49.30	26.93	-50.70	-13.00	37.70	Vertical
2	3130	55.26	-48.83	28.20	-60.63	-13.00	47.63	Vertical
3	4278	49.52	-48.10	29.74	-64.10	-13.00	51.10	Vertical
4	5585.5	51.39	-47.63	32.63	-58.87	-13.00	45.87	Vertical
5	7566	50.23	-45.22	36.39	-53.86	-13.00	40.86	Vertical
6	8577.5	48.07	-43.99	36.94	-54.24	-13.00	41.24	Vertical

Test Band = Cat M1 Band 26_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1634.6667	82.73	-49.86	25.55	-36.84	-13.00	23.84	Horizontal
2	2476.8889	68.84	-49.03	27.16	-48.30	-13.00	35.30	Horizontal
3	3457.3333	54.27	-48.54	28.47	-61.07	-13.00	48.07	Horizontal
4	4882.2222	50.45	-48.14	30.94	-62.01	-13.00	49.01	Horizontal
5	6771.1111	51.21	-46.87	35.13	-55.79	-13.00	42.79	Horizontal
6	8228.4444	49.11	-44.39	36.55	-53.99	-13.00	40.99	Horizontal

Test Band = Cat M1 Band 26_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1651.1111	81.84	-49.82	25.58	-37.67	-13.00	24.67	Vertical
2	2452.4444	61.31	-49.18	27.11	-56.01	-13.00	43.01	Vertical
3	3302.2222	55.63	-48.63	28.34	-59.92	-13.00	46.92	Vertical
4	4456	49.89	-48.14	30.03	-63.48	-13.00	50.48	Vertical
5	5565.3333	50.79	-47.57	32.63	-59.42	-13.00	46.42	Vertical
6	8006.6667	49.99	-44.45	36.31	-53.41	-13.00	40.41	Vertical

Test Band = Cat M1 Band 26_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1665.3333	75.57	-49.79	25.60	-43.88	-13.00	30.88	Horizontal
2	2497.3333	72.61	-48.92	27.20	-44.37	-13.00	31.37	Horizontal
3	3517.3333	55.48	-48.44	28.53	-59.69	-13.00	46.69	Horizontal
4	4431.5556	49.79	-48.10	29.99	-63.58	-13.00	50.58	Horizontal
5	5750.2222	51.53	-47.61	32.70	-58.64	-13.00	45.64	Horizontal
6	8182.6667	49.70	-44.33	36.50	-53.39	-13.00	40.39	Horizontal

Test Band = Cat M1 Band 26_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1681.3333	79.98	-49.76	25.62	-39.42	-13.00	26.42	Vertical
2	2521.3333	69.74	-48.96	27.24	-47.24	-13.00	34.24	Vertical
3	3517.3333	52.15	-48.44	28.53	-63.02	-13.00	50.02	Vertical
4	4697.3333	50.22	-48.08	30.53	-62.58	-13.00	49.58	Vertical
5	6624.8889	50.47	-47.02	34.90	-56.91	-13.00	43.91	Vertical
6	8672.4444	48.89	-44.18	37.04	-53.52	-13.00	40.52	Vertical

Test Band = Cat M1 Band 26_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1696	82.86	-49.73	25.64	-36.48	-13.00	23.48	Horizontal
2	2544	74.24	-49.02	27.28	-42.76	-13.00	29.76	Horizontal
3	3547.1111	54.02	-48.45	28.58	-61.12	-13.00	48.12	Horizontal
4	4607.5556	49.87	-48.04	30.34	-63.10	-13.00	50.10	Horizontal
5	6651.1111	50.32	-46.91	34.94	-56.91	-13.00	43.91	Horizontal
6	8994.6667	48.27	-42.98	37.39	-52.58	-13.00	39.58	Horizontal

Test Band = Cat M1 Band 26_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1696	82.74	-49.73	25.64	-36.60	-13.00	23.60	Vertical
2	2520	66.07	-48.95	27.24	-50.91	-13.00	37.91	Vertical
3	3547.1111	52.48	-48.45	28.58	-62.66	-13.00	49.66	Vertical
4	4127.1111	49.72	-48.29	29.50	-64.32	-13.00	51.32	Vertical
5	5470.6667	50.51	-47.40	32.52	-59.64	-13.00	46.64	Vertical
6	8993.3333	48.15	-43.00	37.39	-52.71	-13.00	39.71	Vertical

Test Band = Cat M1 Band 26_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1664.8889	78.57	-49.79	25.60	-40.89	-13.00	27.89	Horizontal
2	2497.3333	70.04	-48.92	27.20	-46.94	-13.00	33.94	Horizontal
3	3517.3333	53.10	-48.44	28.53	-62.07	-13.00	49.07	Horizontal
4	4584.8889	49.97	-48.07	30.29	-63.07	-13.00	50.07	Horizontal
5	6587.5556	50.82	-47.12	34.84	-56.72	-13.00	43.72	Horizontal
6	8993.7778	48.32	-42.99	37.39	-52.54	-13.00	39.54	Horizontal

Test Band = Cat M1 Band 26_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1664.8889	81.67	-49.79	25.60	-37.79	-13.00	24.79	Vertical
2	2521.7778	69.88	-48.96	27.24	-47.10	-13.00	34.10	Vertical
3	3368	50.14	-48.67	28.39	-65.40	-13.00	52.40	Vertical
4	4444.8889	49.65	-48.12	30.01	-63.72	-13.00	50.72	Vertical
5	6452	50.77	-47.16	34.52	-57.13	-13.00	44.13	Vertical
6	8984.4444	48.47	-43.10	37.38	-52.51	-13.00	39.51	Vertical

Test Band = Cat M1 Band 66_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3456.375	90.51	-48.34	28.47	-24.63	-13.00	11.63	Horizontal
2	5184.75	77.70	-47.88	31.72	-33.72	-13.00	20.72	Horizontal
3	6912.75	65.31	-46.71	35.36	-41.30	-13.00	28.30	Horizontal
4	8640.75	51.68	-44.03	37.00	-50.61	-13.00	37.61	Horizontal
5	10272.375	47.05	-41.42	38.99	-50.64	-13.00	37.64	Horizontal
6	14556.75	37.62	-38.22	40.24	-55.61	-13.00	42.61	Horizontal

Test Band = Cat M1 Band 66_ TM1

Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3456.375	91.63	-48.34	28.47	-23.51	-13.00	10.51	Vertical
2	5135.25	81.20	-47.84	31.58	-30.33	-13.00	17.33	Vertical
3	6912.75	64.15	-46.71	35.36	-42.46	-13.00	29.46	Vertical
4	8558.625	49.44	-44.10	36.91	-53.00	-13.00	40.00	Vertical
5	10271.625	46.05	-41.43	38.99	-51.65	-13.00	38.65	Vertical
6	11982.75	41.88	-39.52	39.40	-53.50	-13.00	40.50	Vertical

Test Band = Cat M1 Band 66_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3473.625	87.68	-48.32	28.48	-27.42	-13.00	14.42	Horizontal
2	5210.25	74.46	-47.88	31.79	-36.89	-13.00	23.89	Horizontal
3	7012.875	68.73	-46.50	35.52	-37.51	-13.00	24.51	Horizontal
4	8683.875	49.94	-44.10	37.05	-52.36	-13.00	39.36	Horizontal
5	10519.125	43.32	-40.76	39.16	-53.54	-13.00	40.54	Horizontal
6	14719.5	37.28	-36.71	40.23	-54.47	-13.00	41.47	Horizontal

Test Band = Cat M1 Band 66_ TM1

Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3473.25	88.46	-48.32	28.48	-26.64	-13.00	13.64	Vertical
2	5210.25	72.09	-47.88	31.79	-39.26	-13.00	26.26	Vertical
3	6947.25	68.07	-46.67	35.42	-38.44	-13.00	25.44	Vertical
4	10420.5	46.66	-41.12	39.09	-50.62	-13.00	37.62	Vertical
5	13724.25	37.53	-38.22	39.89	-56.07	-13.00	43.07	Vertical
6	15403.875	36.48	-37.25	39.47	-56.56	-13.00	43.56	Vertical

Test Band = Cat M1 Band 66_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3523.5	87.33	-48.29	28.54	-27.68	-13.00	14.68	Horizontal
2	5334.75	74.33	-47.76	32.14	-36.55	-13.00	23.55	Horizontal
3	7112.625	48.83	-45.88	35.70	-56.60	-13.00	43.60	Horizontal
4	10005	40.69	-41.71	38.80	-57.48	-13.00	44.48	Horizontal
5	13855.125	38.23	-38.86	40.08	-55.80	-13.00	42.80	Horizontal
6	15884.25	37.98	-38.08	38.61	-56.75	-13.00	43.75	Horizontal

Test Band = Cat M1 Band 66_ TM1

Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3523.5	85.03	-48.29	28.54	-29.98	-13.00	16.98	Vertical
2	5285.625	73.57	-47.80	32.00	-37.49	-13.00	24.49	Vertical
3	7112.625	62.72	-45.88	35.70	-42.71	-13.00	29.71	Vertical
4	10570.875	47.25	-41.08	39.20	-49.89	-13.00	36.89	Vertical
5	13743	37.48	-38.42	39.91	-56.28	-13.00	43.28	Vertical
6	17338.875	36.39	-37.29	40.83	-55.33	-13.00	42.33	Vertical

5.2 Test Conditions

Field Strength of Spurious Radiation	
Test Case	Test Conditions
Test Environment	Ambient Climate & Rated Voltage
Test Setup	Test Setup 2
RF Channels (TX)	L, M, H (L= low channel, M= middle channel, H= high channel)
Test Mode	LTE/TM1 Remark: All bandwidth and modulation of GSM/ UMTS/LTE have been pre tested, and only the worst results are reflected in the report.

---End of Report--