

Report No.: SEWM2302000049RG02

Rev.: 01 Page: 1 of 39

TEST REPORT

SEWM2302000049RG **Application No.:**

Applicant: Great Talent Technology Limited

35F, HBC HuiLong Center Building-II Minzhi Street, Longhua, Shenzhen, P.R. Address of Applicant:

China

Manufacturer: Great Talent Technology Limited

35F, HBC HuiLong Center Building-II Minzhi Street, Longhua, Shenzhen, P.R. **Address of Manufacturer:**

China

EUT Description: smart phone Model No.: U696CL Trade Mark: **UMX**

FCC ID: 2ALZM-U696CL Standards: 47 CFR Part 2 47 CFR Part 22 47 CFR Part 24

47 CFR Part 27 47 CFR Part 90

Date of Receipt: 2023/02/22

Date of Test: 2023/02/26 to 2023/03/02

Date of Issue: 2023/03/02

PASS * Test Result:

In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Authorized Signature:

Panta Sun Wireless Laboratory Manager



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 2 of 39

1 Version

Revision Record					
Version Chapter Date Modifier Remark					
01		2023/03/02		Original	

Prepared By	(King-p Li) / Test Engineer
Checked By	(Well Wei) / Reviewer



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Report No.: SEWM2302000049RG02

Rev.: 01 3 of 39 Page:

Contents

1	Versi	on	2
2	Test :	Summary	5
	2.1	GSM850/UMTS Band 5/LTE Band 5/26(824~849 MHz)	5
	2.2	GSM 1900/UMTS Band 2 /LTE Band 2 /25	6
	2.3	UMTS Band 4 /LTE Band 4 /66	7
	2.4	LTE Band 41	8
	2.5	LTE Band 12	9
	2.6	LTE Band 26(814~824 MHz)	10
	2.7	LTE Band 71	11
3	Gene	ral Information	13
	3.1	Details of Client	13
	3.2	Test Location	13
	3.3	Test Facility	13
	3.4	General Description of EUT	14
	3.5	Test Mode	15
	3.6	Test Environment	15
	3.7	Description of Support Units	15
	3.8	Technical Specification	16
	3.9	Test Frequencies	18
4	Desc	ription of Tests	25
	4.1	Conducted Output Power	25
	4.2	Effective (Isotropic) Radiated Power of Transmitter	26
	4.3	Occupied Bandwidth	27
	4.4	Band Edge at Antenna Terminals	28
	4.5	Spurious And Harmonic Emissions at Antenna Terminal	29
	4.6	Peak-Average Ratio	30
	4.7	Field Strength of Spurious Radiation	31
	4.8	Frequency Stability / Temperature Variation	32
	4.9	Test Setups	33
	4	4.9.1 Test Setup 1	33



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Penort No :	SEWM2302000049RG02
Report No.:	3EVVIVIZ3UZUUUU49RGUZ

Rev.:	01	
Page:	4 of 39	

	4.9.2 Test Setup 2	33
	4.9.3 Test Setup 3	34
	4.10 Test Conditions	35
5	Main Test Instruments	
6	Measurement Uncertainty	38
	Appendixes	



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Report No.: SEWM2302000049RG02

Rev.: 01 5 of 39 Page:

2 **Test Summary**

2.1 GSM850/UMTS Band 5/LTE Band 5/26(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	Section 1 of Appendix B.1&B.2&B.5&B.9	Pass
Peak-Average Ratio	§22.913(d)	Limit≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Reference report ZR/2021/5004001	
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 2 of Appendix B.1&B.2&B.5&B.9	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d) (2) §22.355	≤ ±2.5ppm.	Reference rep ZR/2021/5004	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 6 of 39

2.2 GSM 1900/UMTS Band 2 /LTE Band 2 /25

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §24.232(c)	EIRP ≤ 2 W	Section 1 of Appendix B.1&B.2&B.3&B.7	Pass
Peak-Average Ratio	§24.232(d)	Limit≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Reference report ZR/2021/5004001	a.u4
Band Edges Compliance	§2.1051, §24.238(a)	≤ -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)	≤ -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)	≤ -13 dBm/1 MHz.	Section 2 of Appendix B.1&B.2&B.3&B.7	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(2) §24.235	Within authorized bands of operation/frequency block.	Reference report ZR/2021/5004001	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 7 of 39

2.3 UMTS Band 4 /LTE Band 4 /66

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)(4)	EIRP ≤ 1 W	Section 1 of Appendix B.2&B.4&B.11	Pass
Peak-Average Ratio	§27.50(d)(5)	Limit≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Reference report ZR/2021/5004001	
Band Edges Compliance	§2.1051, §27.53(h)	≤ -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)	≤ -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)	≤ -13 dBm/1 MHz.	Section 2 of Appendix B.2&B.4&B.11	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(2) §27.54	Within authorized bands of operation/frequency block.	Reference report ZR/2021/5004001	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 8 of 39

2.4 LTE Band 41

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(h)(2)	EIRP ≤ 2W	Section 1 of Appendix B.10	Pass
Peak-Average Ratio		≤13 dB		
Modulation Characteristics	§2.1047	Digital modulation		
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.		
Band Edges Compliance	§2.1051, §27.53(m4)	For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as de ned in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz.	Reference ZR/2021/50	
Spurious Emission at Antenna Terminals	§2.1051, §27.53(m)	Channel Edge -25dBm/ 1 MHz 1 MHz 1 MHz 9 kHz 95 MHz X MHz 10th harmonics X=Max {6MHz, EBW}		
Field Strength of Spurious Radiation	§2.1053, §27.53(m)	Channel Edge -25dBm/ 1 MHz 1 MHz 9 kHz 95 MHz X MHz 10 th harmonics X=Max {6MHz, EBW}	Section 2 of Appendix B.10	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(2) §27.54	Within authorized bands of operation/frequency block.	Reference ZR/2021/50	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 9 of 39

2.5 LTE 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.	Section 1 of Appendix B.6	Pass
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)	≤ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Reference report ZR/2021/5004001	
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	FCC: ≤ -13 dBm/100 kHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges.		
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	FCC: ≤ -13 dBm/100 kHz.	Section 2 of Appendix B.6	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(2) §27.54	Within authorized bands of operation/frequency block.	Reference report ZR/2021/5004001	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 10 of 39

2.6 LTE 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.	Section 1 of Appendix B.8	Pass
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 Log10(f/6.1) decibels or 50+10Log10(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.	Reference report ZR/2021/5004001	
Spurious Emission at Antenna Terminals	§2.1051, §90.691	< 43 + 10Log10(P[Watts]) for all out-of-band emissions		
Field Strength of Spurious Radiation	§2.1053, §90.691	< 43 + 10Log10(P[Watts]) for all out-of-band emissions	Section 2 of Appendix B.8	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(2) §90.213	Within authorized bands of operation/frequency block.	Reference i ZR/2021/50	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 11 of 39

2.7 LTE Band 71

Test Item	FCC Rule No.	Requirements	Test Result	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §27.50(c)(10)	ERP ≤ 3 W	Section 1 of Appendix B.12	Pass
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) ≤ -13 dBm/1%*EBW, in 1 MH bands immediately outside and adjacent to the frequency block.		Reference re ZR/2021/5004	
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	≤ -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(g)	≤ -13 dBm/1 MHz.	Section 2 of Appendix B.12	Pass
Frequency Stability	§2.1055(a)(1)(b) §2.1055(d)(2) §27.54	within the authorized bands of operation.	Reference report ZR/2021/5004001	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 12 of 39

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Reference detail section:

Therefore in this report the Effective (Isotropic) Radiated Power Output Data and Field Strength of Spurious Radiation were performed based on the worst case of the original report with report number ZR/2021/5004001 issue on 2021/08/11 and SZCR210702192401 issue on 2021/07/14 and other test data please refer to the previous report with report number ZR/2021/5004001 issue on 2021/08/11 and SZCR210702192401 issue on 2021/07/14.



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 13 of 39

3 General Information

3.1 Details of Client

Applicant:	Great Talent Technology Limited
Address of Applicant:	35F,HBC HuiLong Center Building-II Minzhi Street,Longhua, Shenzhen, P.R. China
Manufacturer:	Great Talent Technology Limited
Address of Manufacturer:	35F,HBC HuiLong Center Building-II Minzhi Street,Longhua, Shenzhen, P.R. China

3.2 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, Weller Liu

3.3 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

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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 14 of 39

3.4 General Description of EUT

EUT Description:	smart phone					
Model No.:	U696CL					
Trade Mark:	UMX					
Hardware Version:	U696CL_V1.0					
Software Version:	UMX_U696CL_V11.01.02.	00.230218				
IMEI:	990018256309000					
Antenna Type:	☐ External, ☒ Integrated					
	GSM850: -0.46d	lBi	GSM1900:	1.21dBi		
	WCDMA Band II: 1.21d	Bi	WCDMA Ban	d IV: 0.27dBi		
	WCDMA Band V: -0.460	lBi				
	LTE Band 2: 1.21d	Bi	LTE Band 4:	0.27dBi		
	LTE Band 5: -0.46d	lBi	LTE Band 12:	: -3.18dBi		
Antenna Gain:	LTE Band 25: 1.21d	Bi	LTE Band 26:	: -0.46dBi		
	LTE Band 41: 2.72d	Bi	LTE Band 66	: 0.27dBi		
	LTE Band 71: -3.150	lBi				
	Note: The antenna gain are derived from the gain information report provided by the manufacturer.					
HPUE(only Band41):		t				
DE Cable	0.8dB(Below 1GHz) 1.0dB(1.0~2.4GHz) 1.2dB(2.4~3.4GHz)					
RF Cable:	1.5dB(Above 3.4GHz)					
	rovided and confirmed by the dintegrity of the information.	e applicant. SG	S is not liable	to the accuracy,		



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 15 of 39

3.5 Test Mode

Test Mode	Test Modes Description		
GSM/TM1	GSM system, GSM/GPRS, GMSK modulation		
GSM/TM2	GSM system, EGPRS, 8PSK modulation		
UMTS/TM1	UMTS system, WCDMA, QPSK modulation		
LTE/TM1	LTE system, QPSK modulation		
LTE/TM2	LTE system, 16QAM modulation		
Remark: The test mode(s) are selected according to relevant radio technology specifications.			

3.6 Test Environment

Environment Parameter	101.0 kPa Selected Values During Tests				
Relative Humidity	44~46 % RH Ambient				
Value	Temperature(°C) Voltage(V)				
NTNV	22~23	3.80			
Pomark:					

NV: Normal Voltage NT: Normal Temperature

3.7 Description of Support Units

The EUT has been tested as an independent unit.





Report No.: SEWM2302000049RG02

Rev.: 01 16 of 39 Page:

3.8 Technical Specification

Characteristics	Description							
Radio System Type	⊠ GSM	☑ UMTS		□ LTE				
	Band		TX		R	RX		
	GSM850		82	4 to 849	MHz	8	69 to 89	94 MHz
	GSM1900		18	50 to 19	10 MHz	1	930 to	1990 MHz
	UMTS Band II		18	50 to 19	10 MHz	1	930 to	1990 MHz
	UMTS Band I\	/	17	10 to 17	55 MHz	2	110 to 2	2155 MHz
	UMTS Band V		82	4 to 849	MHz	8	69 to 89	94 MHz
	LTE Band 2		18	50 to 19	10 MHz	1	930 to	1990 MHz
	LTE Band 4		17	10 to 17	55 MHz	2	110 to 2	2155 MHz
Supported Frequency Range	LTE Band 5		82	4 to 849	MHz	8	69 to 89	94 MHz
cappented i requency runge	LTE Band 12		69	9 to 716	MHz	7	29 to 7	46 MHz
	LTE Band 25		18	50 to 19	15MHz	1	930 to	1995 MHz
	LTE Band 26		81	4 to 824	MHz	8	859 to 869 MHz	
	(814 to 824 MHz)		OTT TO OZTIVITIZ			009 to 009 WH 12		
	LTE Band 26		824 to 849 MHz		8	869 to 894 MHz		
	(824 to 849 MHz)		2496 to 2690MHz			1001	20001411	
	LTE Band 41							2690MHz
	LTE Band 66					2200 MHz		
	LTE Band 71			3 to 698	MHz	6	17 to 6	52 MHz
	GSM system:).2 MHz				
	UMTS system			MHz	Ma	<u> </u>		<u> </u>
	LTE Band 2				⊠3 MHz	⊠5	MHz	⊠10 MHz
					⊠20 MHz	<u> </u>		<u> </u>
	LTE Band 4				⊠3 MHz	⊠5	MHz	⊠10 MHz
					⊠20 MHz	<u> </u>		N
Supported Channel Bandwidth					⊠3 MHz		MHz	⊠10 MHz
	LTE Band 12				⊠3 MHz		MHz	⊠10 MHz
	LTE Band 25				⊠3 MHz	⊠5	MHz	⊠10 MHz
				15 MHz	⊠20 MHz	<u> </u>		<u> </u>
	LTE Band 26(8	314-824)			⊠3 MHz		MHz	⊠10 MHz
	LTE Band 26(8	324-849)			⊠3 MHz	⊠5	MHz	⊠10 MHz
			<u> </u> ⊠1	15 MHz				



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 17 of 39

				_
LTE Band41	⊠5 MHz	⊠10 MHz	⊠15 MHz	⊠20 MHz
LTE Dandee	⊠1.4 MHz	⊠3 MHz	⊠5 MHz	⊠10 MHz
LTE Band66		⊠20MHz		
LTE Band71	⊠5MHz	⊠10MHz	⊠15MHz	⊠20MHz
Note1: WCDMA supports HSUPA, HSDPA, DC-HSDPA,HSPA+, the worst case was tested and the data displayed in this report.				



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 18 of 39

3.9 Test Frequencies

Test Mode	TX / RX		RF Channel	
i est Mode	17/17	Low (L)	Middle (M)	High (H)
	TX	Channel 128	Channel 190	Channel 251
GSM850		824.2MHz	836.6 MHz	848.8 MHz
GSIM650	RX	Channel 128	Channel 190	Channel 251
	KA.	869.2 MHz	881.6 MHz	893.8 MHz

Test Mode TX / RX		RF Channel			
1 est Mode	IA/IX	Low (L)	Middle (M)	High (H)	
	TX	Channel 512	Channel 661	Channel 810	
GSM1900		1850.2MHz	1880.0 MHz	1909.8 MHz	
G5M1900	RX	Channel 512	Channel 661	Channel 810	
	KA.	1930.2 MHz	1960.0 MHz	1989.8 MHz	

Test Mode	TX / RX		RF Channel	
i est Mode	IX/IX	Low (L)	Middle (M)	High (H)
	TX	Channel 9262	Channel 9400	Channel 9538
WCDMA Band II	17	1852.4 MHz	1880.0 MHz	1907.6 MHz
WCDIVIA BANG II	" RX	Channel 9662	Channel 9800	Channel 9938
	ľΛΛ	1932.4 MHz	1960.0 MHz	1987.6 MHz

Test Mode TX / RX		RF Channel			
i est ivioue		Low (L)	Middle (M)	High (H)	
		Channel 1312	Channel 1413	Channel 1513	
WCDMA Band IV	TX	1712.4MHz	1732.6 MHz	1752.6 MHz	
WCDIVIA BATILITY	DV	Channel 1537	Channel 1638	Channel 1738	
	RX	2112.4 MHz	2132.6 MHz	2152.6 MHz	

Test Mode	TX / RX	RF Channel				
i est ivioue	IA / IXA	Low (L)	Middle (M)	High (H)		
	TX	Channel 4132	Channel 4182	Channel 4233		
WCDMA Band V	17	826.4MHz	836.4 MHz	846.6 MHz		
VVCDIVIA Dariu V	RX	Channel 4357	Channel 4407	Channel 4458		
		871.4 MHz	881.4 MHz	891.6 MHz		



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 19 of 39

			i age.	19 01 09	
Test Mode	Bandwidth	TX / RX		RF Channel	
rest Mode	Dariuwiutii	IA/KA	Low (L)	Middle (M)	High (H)
			Channel 18607	Channel 18900	Channel 19193
		TX	1850.7 MHz	1880 MHz	1909.3 MHz
	1.4MHz	DV	Channel 607	Channel 900	Channel 1193
		RX	1930.7 MHz	1960 MHz	1989.3 MHz
			Channel 18615	Channel 18900	Channel 19185
		TX	1851.5 MHz	1880 MHz	1908.5 MHz
	3MHz	DV	Channel 615	Channel 900	Channel 1185
		RX	1931.5 MHz	1960 MHz	1988.5 MHz
		TX	Channel 18625	Channel 18900	Channel 19175
			1852.5 MHz	1880 MHz	1907.5 MHz
	5MHz	RX	Channel 625	Channel 900	Channel1175
LTE Band 2			1932.5 MHz	1960 MHz	1987.5 MHz
LTE Ballu Z			Channel 18650	Channel 18900	Channel 19150
		TX	1855 MHz	1880 MHz	1905 MHz
	10MHz	RX	Channel 650	Channel 900	Channel 1150
		ľΛ	1935 MHz	1960 MHz	1985 MHz
			Channel 18675	Channel 18900	Channel 19125
		TX	1857.5 MHz	1880 MHz	1902.5 MHz
	15MHz	RX	Channel 675	Channel 900	Channel 1125
		KA	1937.5 MHz	1960 MHz	1982.5 MHz
			Channel 18700	Channel 18900	Channel 19100
		TX	1860 MHz	1880 MHz	1900 MHz
	20MHz	RX	Channel 700	Channel 900	Channel 1100
		IXA	1940 MHz	1960 MHz	1980 MHz



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Rev.: 01 Page: 20 of 39

Toot Made	Dondwidth	TV / DV	Ü	RF Channel	
Test Mode	Bandwidth	TX / RX	Low (L)	Middle (M)	High (H)
			Channel 19957	Channel 20175	Channel 20393
		TX	1710.7 MHz	1732.5 MHz	1754.3 MHz
	1.4MHz	RX	Channel 1975	Channel 2175	Channel 2375
		NA.	2112.5 MHz	2132.5MHz	2152.5 MHz
			Channel 19965	Channel 20175	Channel 20385
		TX	1711.5 MHz	1732.5 MHz	1753.5 MHz
	3MHz	RX	Channel 2000	Channel 2175	Channel 2350
		KΛ	2115 MHz	2132.5MHz	2150 MHz
			Channel 19975	Channel 20175	Channel 20375
		TX	1712.5 MHz	1732.5 MHz	1752.5 MHz
	5MHz	RX	Channel 1975	Channel 2175	Channel 2375
LTC David 4			2112.5 MHz	2132.5MHz	2152.5 MHz
LTE Band 4			Channel 20000	Channel 20175	Channel 20350
		TX	1715 MHz	1732.5 MHz	1750 MHz
	10MHz	RX	Channel 2000	Channel 2175	Channel 2350
		NA.	2115 MHz	2132.5MHz	2150 MHz
			Channel 20025	Channel 20175	Channel 20325
		TX	1717.5 MHz	1732.5 MHz	1747.5 MHz
	15MHz	RX	Channel 2025	Channel 2175	Channel 2325
		100	2117.5 MHz	2132.5MHz	2147.5 MHz
			Channel 20050	Channel 20175	Channel 20300
		TX	1720 MHz	1732.5 MHz	1745 MHz
	20MHz	DV	Channel 2050	Channel 2175	Channel 2300
		RX	2120 MHz	2132.5MHz	2145 MHz

Test Mode	Bandwidth	TX / RX	RF Channel		
i est iviode	Dariuwiutii	IA/KA	Low (L)	Middle (M)	High (H)
			Channel 20407	Channel 20525	Channel 20643
		TX	824.7 MHz	836.5 MHz	848.3 MHz
	1.4MHz	RX	Channel 2407	Channel 2525	Channel 2643
		NA .	869.7 MHz	881.5 MHz	893.3 MHz
			Channel 20415	Channel 20525	Channel 20635
		TX	825.5 MHz	836.5 MHz	847.5 MHz
	3MHz	RX	Channel 2415	Channel 2525	Channel 2635
LTE David E			870.5 MHz	881.5 MHz	892.5 MHz
LTE Band 5		TX	Channel 20425	Channel 20525	Channel 20625
	51411		826.5 MHz	836.5 MHz	846.5 MHz
	5MHz	DV	Channel 2425	Channel 2525	Channel 2625
		RX	871.5 MHz	881.5 MHz	891.5 MHz
	10MHz		Channel 20450	Channel 20525	Channel 20600
		TX	829 MHz	836.5 MHz	844 MHz
		RX	Channel 2450	Channel 2525	Channel 2600
		INA.	874 MHz	881.5 MHz	889 MHz



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Report No.: SEWM2302000049RG02

Rev.: 01 21 of 39 Page:

Toot Mode	Dondwidth	TV / DV		RF Channel	
Test Mode	Bandwidth	TX / RX	Low (L)	Middle (M)	High (H)
			Channel 23017	Channel 23095	Channel 23173
		TX	699.7 MHz	707.5 MHz	715.3 MHz
	1.4MHz	RX	Channel 5017	Channel 5095	Channel 5173
		KA	729.7 MHz	737.5 MHz	745.3 MHz
			Channel 23025	Channel 23095	Channel 23165
		TX	700.5 MHz	707.5 MHz	714.5 MHz
	3MHz	RX	Channel 5025	Channel 5095	Channel 5165
LTC Daniel 40			730.5 MHz	737.5 MHz	744.5 MHz
LTE Band 12		TX	Channel 23035	Channel 23095	Channel 23155
	58411		701.5 MHz	707.5 MHz	713.5 MHz
	5MHz	DV	Channel 5035	Channel 5095	Channel 5155
		RX	731.5 MHz	737.5 MHz	743.5 MHz
	·		Channel 23060	Channel 23095	Channel 23130
		TX	704 MHz	707.5 MHz	711 MHz
	10MHz	RX	Channel 5060	Channel 5095	Channel 5130
		IXA	734 MHz	737.5 MHz	741 MHz

			RF Channel		
Test Mode	Bandwidth	TX / RX	Low (L)	Middle (M)	High (H)
			Channel 26047	Channel 26365	Channel 26683
		TX	1850.7 MHz	1882.5 MHz	1914.3 MHz
	1.4MHz	DV	Channel 8047	Channel 8365	Channel 8683
		RX	1930.7 MHz	1962.5 MHz	1994.3 MHz
			Channel 26055	Channel 26365	Channel 26675
		TX	1851.5 MHz	1882.5 MHz	1913.5 MHz
	3MHz	RX	Channel 8055	Channel 8365	Channel 8675
		KΛ	1931.5 MHz	1962.5 MHz	1993.5 MHz
			Channel 26065	Channel 26365	Channel 26665
		TX	1852.5 MHz	1882.5 MHz	1912.5 MHz
	5MHz	RX	Channel 8065	Channel 8365	Channel 8665
LTC Dand OF			1932.5 MHz	1962.5 MHz	1992.5 MHz
LTE Band 25	10MHz		Channel 26090	Channel 26365	Channel 26640
		TX	1855 MHz	1882.5 MHz	1910 MHz
		RX	Channel 8090	Channel 8365	Channel 8640
			1935 MHz	1962.5 MHz	1990 MHz
			Channel 26115	Channel 26365	Channel 26615
		TX	1857.5 MHz	1882.5 MHz	1907.5 MHz
	15MHz	RX	Channel 8115	Channel 8365	Channel 8615
		100	1937.5 MHz	1962.5 MHz	1987.5 MHz
			Channel 26140	Channel 26365	Channel 26590
		TX	1860 MHz	1882.5 MHz	1905 MHz
	20MHz	RX	Channel 8140	Channel 8365	Channel 8590
		KA	1940 MHz	1962.5 MHz	1985 MHz



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 22 of 39

Test Mode	Bandwidth	TX / RX		RF Channel	
rest mode	Dariuwiutii	IA/NA	Low (L)	Middle (M)	High (H)
			Channel 26697	Channel 26740	Channel 26783
		TX	814.7 MHz	819 MHz	823.3 MHz
	1.4MHz	RX	Channel 8697	Channel 8740	Channel 8783
		KA.	859.7 MHz	864MHz	868.3 MHz
			Channel 26705	Channel 26740	Channel 26775
	3MHz	TX	815.5 MHz	819 MHz	822.5 MHz
		RX	Channel 8705	Channel 8740	Channel 8775
LTE Band 26			860.5 MHz	864MHz	867.5 MHz
(814-824)		TX	Channel 26715	Channel 26740	Channel 26765
(002.)	51411		816.5 MHz	819 MHz	821.5 MHz
	5MHz	DV	Channel 8715	Channel 8740	Channel 8755
		RX	861.5 MHz	864MHz	866.5 MHz
			Channel 26740	Channel 26740	Channel 26740
		TX	819 MHz	819 MHz	819 MHz
	10MHz	RX	Channel 8740	Channel 8740	Channel 8740
		KΛ	864MHz	864MHz	864MHz

Test Mode	Bandwidth	TX / RX		RF Channel	
rest ivioue	St Wode Baridwidth	IA/ NA	Low (L)	Middle (M)	High (H)
			Channel 26797	Channel 26915	Channel 27033
		TX	824.7 MHz	836.5 MHz	848.3 MHz
	1.4MHz	RX	Channel 8697	Channel 8915	Channel 9033
		KA.	859.7 MHz	881.5 MHz	893.3 MHz
			Channel 26805	Channel 26915	Channel 27025
		TX	825.5 MHz	836.5 MHz	847.5 MHz
	3MHz	DV	Channel 8805	Channel 8915	Channel 9025
		RX	860.5 MHz	881.5 MHz	892.5 MHz
		5MHz TX RX	Channel 26815	Channel 26915	Channel 27015
LTE Band26			826.5 MHz	836.5 MHz	846.5 MHz
(824-849)	5MHZ		Channel 8815	Channel 8915	Channel 9015
(02:0:0)			871.5 MHz	881.5 MHz	891.5 MHz
			Channel 26840	Channel 26915	Channel 26990
		TX	829 MHz	836.5 MHz	844 MHz
	10MHz	RX	Channel 8840	Channel 8915	Channel 8990
		KA.	874 MHz	881.5 MHz	889 MHz
	15MHz		Channel 26865	Channel 26915	Channel 26965
		TX	831.5 MHz	836.5 MHz	841.5 MHz
		RX	Channel 8865	Channel 8915	Channel 8965
		100	876.5 MHz	881.5 MHz	886.5 MHz



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 23 of 39

Test Mode	Bandwidth	TX / RX	RF Channel			
Test Mode	Danuwiuin	IA/KA	Low (L)	Middle (M)	High (H)	
			Channel 39675	Channel40620	Channel 41565	
	5MHz	TX / RX	2498.5 MHz	2593 MHz	2687.5 MHz	
			Channel 39700	Channel40620	Channel 41540	
LTE Band 41	10MHz	TX / RX	2501 MHz	2593 MHz	2685 MHz	
(2496-2690)			Channel 39725	Channel40620	Channel 41515	
,	15MHz	TX / RX	2503.5 MHz	2593 MHz	2682.5 MHz	
			Channel 39750	Channel40620	Channel 41490	
	20MHz	TX / RX	2506 MHz	2593 MHz	2680 MHz	

Task Mada	D are also dalah	TV / DV		RF Channel	
Test Mode	Bandwidth	TX / RX	Low (L)	Middle (M)	High (H)
			Channel 131979	Channel 132322	Channel 132665
		TX	1710.7 MHz	1745 MHz	1779.3 MHz
	1.4MHz	RX	Channel 66443	Channel 66786	Channel 67329
		KA.	2110.7 MHz	2145MHz	2199.3 MHz
			Channel 131987	Channel 132322	Channel 132657
		TX	1711.5 MHz	1745 MHz	1778.5MHz
	3MHz	RX	Channel 66451	Channel 66786	Channel 67321
		N.	2111.5 MHz	2145MHz	2198.5MHz
			Channel 131997	Channel 132322	Channel 132647
	51411	TX	1712.5 MHz	1745 MHz	1777.5 MHz
	5MHz	RX	Channel 66461	Channel 66786	Channel 67311
LTE DanielCC			2112.5 MHz	2145MHz	2197.5 MHz
LTE Band66			Channel 132022	Channel 132322	Channel 132622
		TX	1715 MHz	1745 MHz	1775 MHz
	10MHz	RX	Channel 66486	Channel 66786	Channel 67286
		KA.	2115 MHz	2145MHz	2195 MHz
			Channel 132047	Channel 132322	Channel 132597
		TX	1717.5 MHz	1745 MHz	1772.5 MHz
	15MHz	RX	Channel 66511	Channel 66786	Channel 67261
		100	2117.5 MHz	2145MHz	2192.5 MHz
			Channel 132072	Channel 132322	Channel 132572
		TX	1720 MHz	1745 MHz	1770 MHz
	20MHz	RX	Channel 66536	Channel 66786	Channel 67236
		r.x	2120 MHz	2145MHz	2190 MHz



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 24 of 39

Toot Mode	Dondwidth	TV / DV	RF Channel			
Test Mode	Bandwidth	TX / RX	Low (L)	Middle (M)	High (H)	
			Channel 133147	Channel 133297	Channel 133447	
		TX	665.5 MHz	680.5 MHz	695.5 MHz	
	5MHz	RX	Channel 68611	Channel 68761	Channel 68911	
		INA.	619.5 MHz	634.5 MHz	649.5 MHz	
			Channel 133172	Channel 133297	Channel 133422	
		TX	668 MHz	680.5 MHz	693 MHz	
	10MHz	10MHz RX	Channel 68636	Channel 68761	Channel 68886	
LTC Daniel74			622 MHz	634.5 MHz	647 MHz	
LTE Band71		TX	Channel 133197	Channel 133297	Channel 133397	
	45141-		670.5 MHz	680.5 MHz	690.5 MHz	
	15MHz	RX	Channel 68661	Channel 68761	Channel 68861	
		KA.	624.5 MHz	634.5 MHz	644.5 MHz	
	20MHz		Channel 133222	Channel 133297	Channel 133372	
		TX	673 MHz	680.5 MHz	688 MHz	
		RX	Channel 68686	Channel 68761	Channel 68836	
		1	627 MHz	634.5 MHz	642 MHz	



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 25 of 39

4 Description of Tests

4.1 Conducted Output Power

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 5.2.1

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.

Remark: Reference test setup 1



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 26 of 39

4.2 Effective (Isotropic) Radiated Power of Transmitter

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 5.8.4

Calculate power in dBm by the following formula:

ERP (dBm) = Conducted Power (dBm) + antenna gain (dBi) EIRP(dBm) = Conducted Power (dBm) + antenna gain (dBi)

EIRP=ERP+2.15dB



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 27 of 39

4.3 Occupied Bandwidth

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 4.2 & 4.3

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. 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 span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1 percent of the selected span as is possible without being below 1 percent. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual. The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 percent of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded. The span between the two recorded frequencies is the occupied bandwidth.

Remark: Reference test setup 1

Test Settings

- The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
- RBW = 1 5% of the expected OBW
- VBW ≥ 3 x RBW
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- 7. The trace was allowed to stabilize
- 8. If necessary, steps 2 7 were repeated after changing the RBW such that it would be within
 - 1 5% of the 99% occupied bandwidth observed in Step 7



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 28 of 39

4.4 Band Edge at Antenna Terminals

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 6.0

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 two 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 rms.

Remark: Reference test setup 1

Test Settings

- Start and stop frequency were set such that the band edge would be placed in the center of the plot
- 2. Span was set large enough so as to capture all out of band emissions near the band edge
- 3. RBW > 1% of the emission bandwidth
- VBW > 3 x RBW
- Detector = RMS
- Number of sweep points ≥ 2 x Span/RBW
- Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 8. Sweep time = auto couple
- The trace was allowed to stabilize



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 29 of 39

4.5 Spurious And Harmonic Emissions at Antenna Terminal

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 6.0

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 level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log(P) dB. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

Remark: Reference test setup 1

Test Settings

- 1. Start frequency was set to 9kHz and stop frequency was set to at least 10* the fundamental frequency(Separated into at least two plots per channel)
- 2. Detector = RMS
- 3. Trace mode = trace average for continuous emissinos, max hold for pulse emissions
- 4. Sweep time = auto couple
- 5. The trace was allowed to stabilize
- 6. Please see test notes below for RBW and VBW settings



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 30 of 39

4.6 Peak-Average Ratio

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 5.7.2

A peak to average ratio measurement is performed at the conducted port of the EUT. For WCDMA signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level. For GSM signals, an average and a peak trace are used on a spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth. The traces are generated with the spectrum analyzer set to zero span mode.

Remark: Reference test setup 1

Test Settings

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



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Report No.: SEWM2302000049RG02

Rev.: 01 31 of 39 Page:

4.7 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 (dBμV/m) = Measured amplitude level (dBμV) + (Cable Loss (dB) + Antenna Factor (dB/m) – AMP(dB)) EIRP (dBm) = E (dBμV/m) + 20 log D - 104.8; 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 (dBμV/m) = Measured amplitude level (dBμV) + (Cable Loss (dB) + Antenna Factor (dB/m) – AMP(dB)) EIRP (dBm) = E (dBμV/m) + 20 log D - 104.8; 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*LOG(3/1) = 9.54 dB.

Remark: Reference test setup 2

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.



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Report No.: SEWM2302000049RG02

Rev.: 01 32 of 39 Page:

4.8 Frequency Stability / Temperature Variation

Measurement Procedure:

Frequency stability testing is performed in accordance with the guidelines of FCC KDB 971168 D01 V03r01; Section 9

- . The frequency stability of the transmitter is measured by:
- a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency.

Time Period and Procedure:

- 1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
- 2. The equipment is turned on in a "standby" condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
- 3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Remark: Reference test setup 3



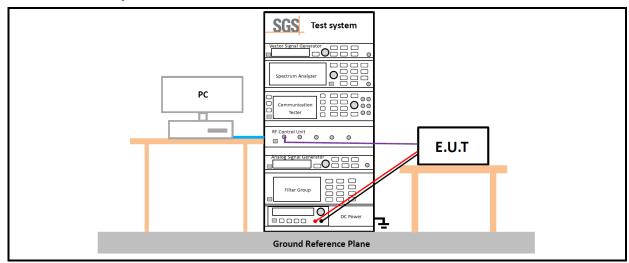


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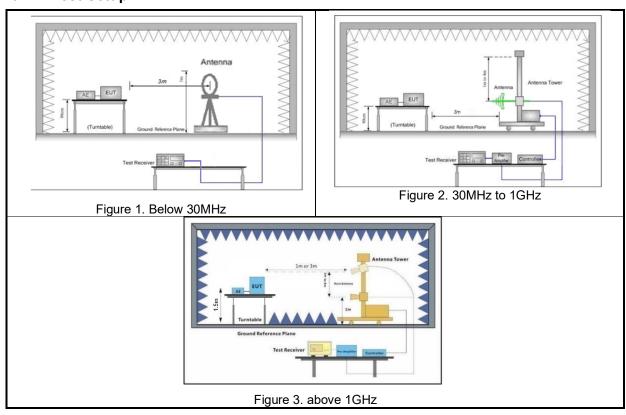
Rev.: 01 Page: 33 of 39

4.9 Test Setups

4.9.1 Test Setup 1



4.9.2 Test Setup 2





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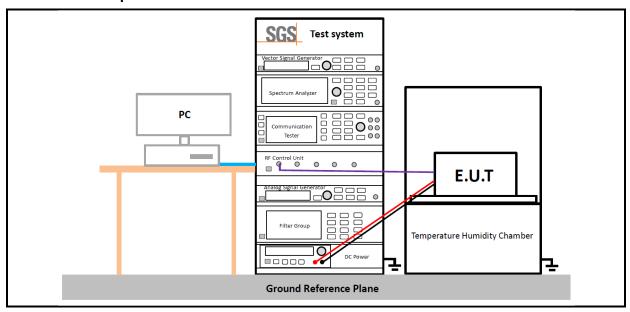
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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 34 of 39

4.9.3 Test Setup 3





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Report No.: SEWM2302000049RG02

Rev.: 01 35 of 39 Page:

4.10Test Conditions

	Transmit Output Power Data - Average Power, Total			
Test Case	Test Conditions			
Test Environment	Ambient Climate & Rated Voltage			
Test Setup	Test Setup 1			
RF Channels (TX)	L, M, H (L= low channel, M= middle channel, H= high channel)			
Test Mode	GSM/TM1;UMTS/TM1;LTE/TM1			
	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	GSM/TM1;UMTS/TM1;LTE/TM1 Remark: If applicable, the EUT conf. that has maximum power density (based on the equivalent power level) is selected.			



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Report No.: SEWM2302000049RG02

Rev.: 01 36 of 39 Page:

Main Test Instruments 5

RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy/mm/dd)	Cal.Due date (yyyy/mm/dd)
Shielding Room	Brilliant-emc	N/A	SUWI-04-01-06	2021/05/08	2024/05/07
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-07	2023/02/06	2024/02/05
Signal Analyzer	ROHDE&SCHWARZ	FSV3030	SUWI-01-02-02	2022/05/17	2023/05/16
Measurement Software	Tonscend	JS1120-3 Test System V 2.6.88.0336	SUWI-02-09-09	NCR	NCR
Radio Communication Analyzer	Anritsu	MT8821C	SUWI-01-26-03	2022/11/23	2023/11/22
Wideband Radio Communication Tester	ROHDE&SCHWARZ	CMW500	SUWI-01-16-05	2023/02/06	2024/02/05
DC Power Supply	HYELEC	HY3005B	SUWI-01-18-01	2023/02/06	2024/02/05
Temperature Chamber	ESPEC	SU-242	SUWI-01-13-01	2023/02/06	2024/02/05
Wideband Radio Communication Test Ststion	Anritsu	MT8000A	SUWI-01-34-02	2022/09/16	2023/09/15
Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	2022/05/28	2023/05/27



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 37 of 39

RSE Test System					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy/mm/dd)	Cal.Due date (yyyy/mm/dd)
Semi-Anechoic Chamber	Brilliant-emc	N/A	SUWI-04-02-01	2021/05/08	2024/05/07
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-05	2023/02/07	2024/02/06
Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	2022/05/28	2023/05/27
Signal Analyzer	KEYSIGHT	N9020A	SUWI-01-02-05	2022/11/23	2023/11/22
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2023/02/08	2024/02/07
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	VULB 9163	SUWI-01-11-01	2021/05/16	2023/05/15
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9120D	SUWI-01-11-02	2021/05/16	2023/05/15
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9170	SUWI-01-11-03	2021/05/14	2023/05/13
Amplifier	Tonscend	TAP9K3G40	SUWI-01-14-01	2023/02/06	2024/02/05
Amplifier	Tonscend	TAP01018050	SUWI-01-14-02	2023/02/06	2024/02/05
Amplifier	Tonscend	TAP18040048	SUWI-01-14-03	2023/02/08	2024/02/07
Active Loop Antenna	SCHWRZBECK MESS- ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	2021/06/10	2023/06/09
Wideband Radio Communication Tester	Anritsu	MT8820C	SUWI-01-16-08	2023/02/06	2024/02/05
Measurement Software	Tonscend	JS32-RE 4.0.0.0	SUWI-02-09-04	NCR	NCR



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Report No.: SEWM2302000049RG02

Rev.: 01 Page: 38 of 39

6 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		± 3.13dB (9k -30MHz)	
	Dadiated Emission	± 4.8dB (30M -1GHz)	
	Radiated Emission	± 4.8dB (1GHz to 18GHz)	
		± 4.80dB (Above 18GHz)	

Remark:

The U_{lab} (lab Uncertainty) is less than $U_{\text{cispr/ETSI}}$ (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.





Report No.: SEWM2302000049RG02

Rev.: 01 39 of 39 Page:

7 Appendixes

Appendix A.3	WWAN Setup Photos
Appendix B.1	GSM 850 & 1900
Appendix B.2	WCDMA Band II & IV & V
Appendix B.3	LTE Band 2
Appendix B.4	LTE Band 4
Appendix B.5	LTE Band 5
Appendix B.6	LTE Band 12
Appendix B.7	LTE Band 25
Appendix B.8	LTE Band 26(814-824)
Appendix B.9	LTE Band 26(824-849)
Appendix B.10	LTE Band 41
Appendix B.11	LTE Band 66
Appendix B.12	LTE Band 71

---End of Report---



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