

RF TEST REPORT

Applicant Suzhou MobyData Smart System Co., Ltd.

FCC ID 2A398-M16

Product Barcord Reader

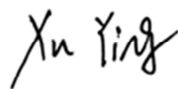
Brand MobyData

Model M93; M93S; M93 5G; OA96; OA98; OA89; OA99;
MB98; MB89; MB99; MB96; SA98; SA89; SA96;
SA99; V53; TP96; ER98; UT78; MS96; PDX50;
PDX50L

Report No. EFTA26040218-IE-02-R2V1

Issue Date July 28, 2026

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR 47 Part 22H / FCC CFR 47 Part 24E / FCC CFR47 Part 27C / FCC CFR 47 Part 90S**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.



Prepared by: Xu Ying



Approved by: Xu Kai

Eurofins TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000

TABLE OF CONTENT

1	Test Laboratory	12
1.1	Notes of the Test Report	12
1.2.	Test facility	12
1.3	Testing Location	12
2	General Description of Equipment under Test	13
2.1	Applicant and Manufacturer Information	13
2.2	General information	13
3	Applied Standards	18
4	Test Configuration	19
5	Test Case Results	24
5.1	RF Power Output and Effective Isotropic Radiated Power	24
5.2	Occupied Bandwidth	25
5.3	Band Edge Compliance	26
5.4	Peak-to-Average Power Ratio (PAPR)	27
5.5	Frequency Stability	28
5.6	Spurious Emissions at Antenna Terminals	29
5.7	Radiated Spurious Emission	30
6	Main Test Instruments	33
7	The EUT Appearance	34
8	Test Setup Photos	35

Version	Revision Description	Issue Date
Rev.0	Initial issue of report.	July 17, 2026
Rev.2	Updated data.	July 28, 2026
Note: This revised report (Report No.: EFTA26040218-IE-02-R2V1) supersedes and replaces the previously issued report (Report No.: EFTA26040218-IE-02-R2). Please discard or destroy the previously issued report and dispose of it accordingly.		

Summary of Measurement Results

Test Case	Clause in FCC rules	Limits	Verdict
NR Band n5/n26 (824-849MHz)			
RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	≤ 7 W (38.45 dBm)	PASS
Occupied Bandwidth	2.1049	No specific requirements	PASS
Band Edge Compliance	2.1051 22.917(a)	≤ -13 dBm	PASS
Peak-to-Average Power Ratio	22.913(d) KDB 971168 D01(5.7)	≤ 13 dB	PASS
Frequency Stability	2.1055 22.355(d)(1)	≤ 2.5 ppm	PASS
Spurious Emissions at Antenna Terminals	2.1051 22.917(a)	≤ -13 dBm	PASS
Radiated Spurious Emission	2.1053 22.917 (a)	≤ -13 dBm	PASS
NR Band n2/n25			
RF Power Output and Effective Isotropic Radiated Power	2.1046 24.232(c)	≤ 2 W (33 dBm)	PASS
Occupied Bandwidth	2.1049	No specific requirements	PASS
Band Edge Compliance	2.1051 24.238(a)	≤ -13 dBm	PASS
Peak-to-Average Power Ratio	24.232 (d) KDB 971168 D01(5.7)	≤ 13 dB	PASS
Frequency Stability	2.1055 24.235	The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.	PASS
Spurious Emissions at Antenna Terminals	2.1051 24.238(a)	≤ -13 dBm	PASS
Radiated Spurious Emission	2.1053 24.238(a)	≤ -13 dBm	PASS
NR Band n66			
RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(d)(4)	≤ 1 W (30 dBm)	PASS
Occupied Bandwidth	2.1049	No specific requirements	PASS
Band Edge Compliance	2.1051 27.53(h)	≤ -13 dBm	PASS

Test Case	Clause in FCC rules	Limits	Verdict
Peak-to-Average Power Ratio	27.50(d)(5) KDB971168 D01(5.7)	≤ 13 dB	PASS
Frequency Stability	2.1055 27.54	Shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	PASS
Spurious Emissions at Antenna Terminals	2.1051 27.53(h)	≤ -13 dBm	PASS
Radiated Spurious Emission	2.1053 27.53(h)	≤ -13 dBm	PASS
NR Band n38/n41			
RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(h)(2)	≤ 2 W (33 dBm)	PASS
Occupied Bandwidth	2.1049	No specific requirements	PASS
Band Edge Compliance	2.1051 27.53(m)(4)	The attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.	PASS
Peak-to-Average Power Ratio	27.50(d)(5) KDB971168 D01(5.7)	≤ 13 dB	PASS
Frequency Stability	2.1055 27.54	Shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	PASS

NR Test Report		Report No.: E7-1A20040210-12-02-1077					
Test Case	Clause in FCC rules	Limits	Verdict				
Spurious Emissions at Antenna Terminals	2.1051 27.53(m)	≤ -25 dBm	PASS				
Radiated Spurious Emission	2.1053 27.53(m)	≤ -25 dBm	PASS				
NR Band n12							
RF Power Output and Effective Radiated Power	2.1046 27.50(c)(10)	≤ 3 W (34.77 dBm)	PASS				
Occupied Bandwidth	2.1049	No specific requirements	PASS				
Band Edge Compliance	2.1051 27.53(g)	≤ -13 dBm	PASS				
Peak-to-Average Power Ratio	KDB971168 D01(5.7)	≤ 13 dB	PASS				
Frequency Stability	2.1055 27.54	Shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	PASS				
Spurious Emissions at Antenna Terminals	2.1051 27.53(g)	≤ -13 dBm	PASS				
Radiated Spurious Emission	2.1053 27.53(g)	≤ -13 dBm	PASS				
NR Band n13							
RF Power Output and Effective Radiated Power	2.1046 27.50(b)(10)	≤ 3 W (34.77 dBm)	PASS				
Occupied Bandwidth	2.1049	No specific requirements	PASS				
Band Edge Compliance	2.1051 27.53(c)(2)	The power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB; 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	PASS				
Peak-to-Average Power Ratio	KDB971168 D01(5.7)	≤ 13 dB	PASS				
Frequency Stability	2.1055 27.54	Shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	PASS				
Spurious Emissions at Antenna Terminals	2.1051 27.53(c) 27.53(f)	<table><tr><td>Limit out of the band 1559-1610 MHz</td><td>≤ -13 dBm</td></tr><tr><td>Limit in the band 1559-1610 MHz</td><td>≤ -40 dBm</td></tr></table>	Limit out of the band 1559-1610 MHz	≤ -13 dBm	Limit in the band 1559-1610 MHz	≤ -40 dBm	PASS
Limit out of the band 1559-1610 MHz	≤ -13 dBm						
Limit in the band 1559-1610 MHz	≤ -40 dBm						
Radiated Spurious Emission	2.1053 27.53(c) 27.53(f)	<table><tr><td>Limit out of the band 1559-1610 MHz</td><td>≤ -13 dBm</td></tr><tr><td>Limit in the band 1559-1610 MHz</td><td>≤ -40 dBm</td></tr></table>	Limit out of the band 1559-1610 MHz	≤ -13 dBm	Limit in the band 1559-1610 MHz	≤ -40 dBm	PASS
Limit out of the band 1559-1610 MHz	≤ -13 dBm						
Limit in the band 1559-1610 MHz	≤ -40 dBm						

Test Case	Clause in FCC rules	Limits	Verdict							
NR Band n26 (814-824MHz)										
RF Power Output and Effective Radiated Power	2.1046 90.635(b)	≤ 100 W (50 dBm)	PASS							
Occupied Bandwidth	2.1049	No specific requirements	PASS							
Emission Masks	2.1051 90.691(a)(1)	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.	PASS							
Peak-to-Average Power Ratio	KDB 971168 D01(5.7)	≤ 13 dB	PASS							
Frequency Stability	2.1055 90.213	<table><tr><td rowspan="3">Fixed and base stations</td><td colspan="2">Mobile stations</td></tr><tr><td>Over 2 watts output power</td><td>2 watts or less output power</td></tr><tr><td>1.5</td><td>2.5</td></tr></table>	Fixed and base stations	Mobile stations		Over 2 watts output power	2 watts or less output power	1.5	2.5	PASS
Fixed and base stations	Mobile stations									
	Over 2 watts output power	2 watts or less output power								
	1.5	2.5								
Spurious Emissions at Antenna Terminals	2.1051 90.691	≤ -13 dBm	PASS							
Radiated Spurious Emission	2.1053 90.691	≤ -13 dBm	PASS							
NR Band n30										
RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(a)(3)	≤ 50 mW / 1MHz (17 dBm / 1MHz) ≤ 250 mW / 5MHz (24 dBm / 5MHz)	PASS							
Occupied Bandwidth	2.1049	No specific requirements	PASS							
Band Edge Compliance	2.1051 27.53(a) (4)	By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328	PASS							

Test Case	Clause in FCC rules	Limits	Verdict
		and 2337 MHz; (ii) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log (P)$ dB on all frequencies between 2296 and 2300 MHz, $61 + 10 \log (P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log (P)$ dB on all frequencies between 2288 and 2292 MHz, and $70 + 10 \log (P)$ dB below 2288 MHz; (iii) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.	
Peak-to-Average Power Ratio	27.50(d)(5) KDB971168 D01(5.7)	≤ 13 dB	PASS
Frequency Stability	2.1055 / 27.54	Shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	PASS
Spurious Emissions at Antenna Terminals	2.1051 27.53(a) (4)	By a factor of not less than: $43 + 10 \log (P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than $55 + 10 \log (P)$ dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than $61 + 10 \log (P)$ dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than $67 + 10 \log (P)$ dB on all frequencies between 2328 and 2337 MHz; (ii) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log (P)$ dB on all frequencies between 2296 and 2300 MHz, $61 + 10 \log (P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log (P)$ dB on all frequencies between 2288 and 2292 MHz, and $70 + 10 \log (P)$ dB below 2288 MHz; (iii) By a factor of not less than $43 + 10 \log$	PASS

Test Case	Clause in FCC rules	Limits	Verdict
		(P) dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.	
Radiated Spurious Emission	2.1053 27.53(a) (4)	By a factor of not less than: $43 + 10 \log (P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than $55 + 10 \log (P)$ dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than $61 + 10 \log (P)$ dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than $67 + 10 \log (P)$ dB on all frequencies between 2328 and 2337 MHz; (ii) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log (P)$ dB on all frequencies between 2296 and 2300 MHz, $61 + 10 \log (P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log (P)$ dB on all frequencies between 2288 and 2292 MHz, and $70 + 10 \log (P)$ dB below 2288 MHz; (iii) By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.	PASS
NR Band n77/n78			
RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(k) (3) 27.50(j) (3)	$\leq 1 \text{ W (30 dBm)}$	PASS
Occupied Bandwidth	2.1049	No specific requirements	PASS
Band Edge Compliance	2.1051 27.53(n) (2) 27.53(l) (2)	Part 27.53(n) (2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz . Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation	PASS

Test Case	Clause in FCC rules	Limits	Verdict
		employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Part 27.53(l) (2) For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. 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	

Test Case	Clause in FCC rules	Limits	Verdict
		emissions are attenuated at least 26 dB below the transmitter power.	
Peak-to-Average Power Ratio	27.50(k) (4) 27.50(j)(4) KDB971168 D01(5.7)	≤ 13 dB	PASS
Frequency Stability	2.1055 / 27.54	Shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	PASS
Spurious Emissions at Antenna Terminals	2.1051 27.53(n) (2) / 27.53(l) (2)	≤ -13 dBm	PASS
Radiated Spurious Emission	2.1053 27.53(n) (2) / 27.53(l) (2)	≤ -13 dBm	PASS
Date of Testing: April 21, 2026 ~ July 10, 2026 Date of Sample Received: April 16, 2026			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3 Testing Location

Company:	Eurofins TA Technology (Shanghai) Co., Ltd.
Address:	Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City:	Shanghai
Post code:	201201
Country:	P. R. China
Contact:	Xu Kai
Telephone:	+86-021-50791141/2/3
Fax:	+86-021-50791141/2/3-8000
Website:	https://www.eurofins.com/electrical-and-electronics
E-mail:	Kain.Xu@cpt.eurofinscn.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	Suzhou MobyData Smart System Co., Ltd.
Applicant address	3f, building E, Yida Science Park, No.11 Jinpu Road, SIP, Suzhou, Jiangsu Province, China.
Manufacturer	Suzhou MobyData Smart System Co., Ltd.
Manufacturer address	3f, building E, Yida Science Park, No.11 Jinpu Road, SIP, Suzhou, Jiangsu Province, China.

2.2 General information

EUT Description				
Model	M93; M93S; M93 5G; OA96; OA98; OA89; OA99; MB98; MB89; MB99; MB96; SA98; SA89; SA96; SA99; V53; TP96; ER98; UT78; MS96; PDX50; PDX50L			
IMEI	Conducted	IMEI 1: 865940070207296 IMEI 2: 865940070207304		
	Radiated	IMEI 1: 865940070207270 IMEI 2: 865940070207288		
Hardware Version	V01			
Software Version	M16.01.01.20260309			
Power Supply	Battery			
Antenna Type	Internal Antenna			
Rated Power Supply Voltage	3.85VDC			
Operating Voltage	Minimum: 3.60VDC		Maximum: 4.65VDC	
Operating Temperature	Lowest: -20°C		Highest: +50°C	
Testing Temperature	Lowest: -30°C		Highest: +50°C	
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)	Gain (dBi)
	NR Band n2	1850 ~ 1910	1930 ~ 1990	1.10
	NR Band 5	824 ~ 849	869 ~ 894	-3.66
	NR Band n12	699 ~ 716	729 ~ 746	-4.22
	NR Band n13	777 ~ 787	746 ~ 756	-4.01
	NR Band n25	1850 ~ 1915	1930 ~ 1995	1.08
	NR Band n26 (824 ~ 849)	824 ~ 849	869 ~ 894	-3.46
	NR Band n26 (814 ~ 824)	814 ~ 824	859 ~ 869	-3.46
	NR Band n30	2305 ~ 2315	2350 ~ 2360	0.88
	NR Band n38	2570 ~ 2620	2570 ~ 2620	2.20

	NR Band n41	2496 ~ 2690	2496 ~ 2690	2.20
	NR Band n66	1710 ~ 1780	2110 ~ 2180	0.75
	NR Band n77 Subset 1	3450 ~ 3550	3450 ~ 3550	1.82
	NR Band n77 Subset 2	3700 ~ 3980	3700 ~ 3980	1.82
	NR Band n78 Subset 1	3450 ~ 3550	3450 ~ 3550	1.82
	NR Band n78 Subset 2	3700 ~ 3800	3700 ~ 3800	1.82
EN-DC Band(s)	DC_2A-n41A; DC_5A-n41A; DC_12A-n41A; DC_25A-n41A; DC_26A-n41A; DC_66A-n41A;			
	DC_2A-n77A; DC_5A-n77A; DC_7A-n77A; DC_12A-n77A; DC_13A-n77A; DC_25A-n77A; DC_66A-n77A;			
	DC_2A-n78A; DC_5A-n78A; DC_7A-n78A; DC_12A-n78A; DC_13A-n78A; DC_25A-n78A; DC_26A-n78A; DC_66A-n78A;			
Test Modulation	(NR) CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM			
NR Release	15			
Power Class	NR: 3			
EUT Accessory				
Battery	Manufacturer: SHEN ZHEN UTILITY ENERGY CO., LTD. Model: BATM15 3.85 VDC			
Note:				
1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.				
2. Radio equipment in band n77 is only allowed to operate from 3450 MHz to 3550 MHz for Subset 1; 3700 MHz to 3980 MHz for Subset 2 for the transmitter and receiver.				
3. Radio equipment in band n78 is only allowed to operate from 3450 MHz to 3550 MHz for Subset 1; 3700 MHz to 3800 MHz for Subset 2 for the transmitter and receiver.				
4. 5G NR n77/n78 supports both SA and NSA modes. n77 (3450-3550) completely covers n78 (3450-3550), So the report only shows n77 (3450-3550).				

2.3 Maximum ERP/EIRP and Emission

FCC Rule	Frequency Band	Frequency Range (MHz)	Maximum ERP/EIRP (W)	Emission Designator
Part 24	NR Band n2	1852.5-1907.5	0.1091	4M49G7D
	(PI/2 BPSK/ QPSK)			
Part 24	NR Band n2	1860-1900	0.1074	19M0G7D
	(PI/2 BPSK/ QPSK)			
Part 24	NR Band n2	1857.5-1902.5	0.0895	14M2W7D
	(QAM)			
Part 24	NR Band n2	1860-1900	0.0881	19M1W7D
	(QAM)			
Part 22	NR Band n5	834-839	0.0650	19M0G7D
	(PI/2 BPSK/ QPSK)			
Part 22	NR Band n5	834-839	0.0512	19M0W7D
	(QAM)			
Part 27	NR Band n12	706.5-708.5	0.0508	14M2G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n12	601.5-713.5	0.0400	4M51W7D
	(QAM)			
Part 27	NR Band n12	706.5-708.5	0.0390	14M2W7D
	(QAM)			
Part 27	NR Band n13	782	0.0863	9M32G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n13	779.5-784.5	0.0686	4M51W7D
	(QAM)			
Part 27	NR Band n13	782	0.0664	9M31W7D
	(QAM)			
Part 24	NR Band n25	1855-1910	0.1097	9M33G7D
	(PI/2 BPSK/ QPSK)			
Part 24	NR Band n25	1860-1905	0.1072	19M0G7D
	(PI/2 BPSK/ QPSK)			
Part 24	NR Band n25	1852.5-1912.5	0.0893	4M53W7D
	(QAM)			
Part 24	NR Band n25	1860-1905	0.0849	19M0W7D
	(QAM)			
Part 22	NR Band n26	829-844	0.0652	18M9G7D
	(824 ~ 849)			
	(PI/2 BPSK/ QPSK)			
Part 22	NR Band n26	829-844	0.0546	19M0W7D
	(824 ~ 849)			
	(QAM)			
Part 90	NR Band n26	816.5-821.5	0.2234	4M52G7D
	(814 ~ 824)			

	(PI/2 BPSK/ QPSK)			
Part 90	NR Band n26	819	0.2213	8M98G7D
	(814 ~ 824)			
	(PI/2 BPSK/ QPSK)			
Part 90	NR Band n26	816.5-821.5	0.1906	4M51W7D
	(814 ~ 824)			
	(QAM)			
Part 90	NR Band n26	819	0.1854	9M31W7D
	(814 ~ 824)			
	(QAM)			
Part 27	NR Band n30	2310	0.2301	8M99G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n30	2310	0.1854	9M34W7D
	(QAM)			
Part 27	NR Band n38	2590-2600	0.1297	38M0G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n38	2590-2600	0.1042	38M0W7D
	(QAM)			
Part 27	NR Band n41	2506.02-2679.99	0.1954	18M3G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n41	2546.01-2640	0.1787	97M9G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n41	2506.02-2679.99	0.1567	18M3W7D
	(QAM)			
Part 27	NR Band n41	2546.01-2640	0.1413	98M1W7D
	(QAM)			
Part 27	NR Band n66	1717.5-1772.5	0.2188	14M2G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n66	1720-1770	0.2143	19M0G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n66	1717.5-1772.5	0.1734	14M2W7D
	(QAM)			
Part 27	NR Band n66	1720-1770	0.1722	19M1W7D
	(QAM)			
Part 27	NR Band n77(3450-3550)	3465-3534.99	0.2061	28M0G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n77(3450-3550)	3500.01	0.1742	97M3G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n77(3450-3550)	3465-3534.99	0.1622	28M1W7D
	(QAM)			
Part 27	NR Band	3500.01	0.1371	97M8W7D

	n77(3450-3550)			
	(QAM)			
Part 27	NR Band n77(3700-3980)	3720-3960	0.2466	37M9G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n77(3700-3980)	3750-3930	0.2228	97M7G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n77(3700-3980)	3720-3960	0.1959	38M0W7D
	(QAM)			
Part 27	NR Band n77(3700-3980)	3750-3930	0.1742	97M7W7D
	(QAM)			
Part 27	NR Band n78(3700-3800)	3720-3780	0.2089	38M0G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n78(3700-3800)	3750	0.1828	97M7G7D
	(PI/2 BPSK/ QPSK)			
Part 27	NR Band n78(3700-3800)	3720-3780	0.1663	38M0W7D
	(QAM)			
Part 27	NR Band n78(3700-3800)	3750	0.1449	97M9W7D
	(QAM)			

3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR 47 Part 22H

FCC CFR 47 Part 24E

FCC CFR 47 Part 27C

FCC CFR 47 Part 90S

Reference standard:

FCC CFR 47 Part 2

ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in NR is set based on the maximum RF Output Power.

The following testing in different Bandwidth is set to detail in the following table:

ENDC test Effective Isotropic Radiated Power and RSE, report only show worst mode.

Test modes are chosen to be reported as the worst case configuration below for NR Band:

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM/ 64QAM/ 256QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	NR n2	O	O	O	O	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n5	O	O	O	O	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n12	O	O	O	-	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n13	O	O	-	-	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n25	O	O	O	O	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n26	O	O	O	O	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n30	O	O	-	-	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n38	-	-	-	O	-	O	O	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n41	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	DC_2A-n41A	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	DC_5A-n41A	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	DC_12A-n41A	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	DC_25A-n41A	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	DC_26A-n41A	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	DC_66A-n41A	-	-	-	O	-	O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O
	NR n66	O	O	O	O	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O
	NR n77 (3450-3550)	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_2A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_5A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_7A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_12A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_13A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_25A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_66A-n77 (3450-3550)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	NR n77 (3700-3980)	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_2A-n77 (3700-3980)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_5A-n77 (3700-3980)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_7A-n77 (3700-3980)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O
	DC_12A-n77 (3700-3980)A	-	-	-	O	-	O	O	-	O	-	O	-	O	O	O	O	O	O	O	O	O	O

DC_13A-n77 (3700-3980)A	-	-	-	0	-	0	0	-	0	-	0	-	0	0	0	0	0	0	0	0	0	0
DC_25A-n77 (3700-3980)A	-	-	-	0	-	0	0	-	0	-	0	-	0	0	0	0	0	0	0	0	0	0
DC_26A-n77 (3700-3980)A	-	-	-	0	-	0	0	-	0	-	0	-	0	0	0	0	0	0	0	0	0	0
DC_66A-n77 (3700-3980)A	-	-	-	0	-	0	0	-	0	-	0	-	0	0	0	0	0	0	0	0	0	0
DC_26A-n78 (3450-3550)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NR n78 (3700-3800)	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_2A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_5A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_7A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_12A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_13A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_25A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_26A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC_66A-n78 (3700-3800)A	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM/ 64QAM/ 256QAM	1	50%	100%	L	M	H
Occupied Bandwidth	NR n2	0	0	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n5	0	0	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n12	0	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n13	0	0	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n25	0	0	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n26	0	0	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n30	0	0	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n38	-	-	-	0	-	0	0	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n41	-	-	-	0	-	0	0	0	0	-	0	0	0	0	0	0	-	-	0	-	0	-
	NR n66	0	0	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	-	0	-	0	-
	NR n77 (3450-3550)	-	-	-	0	-	0	0	-	0	-	0	-	0	0	0	0	-	-	0	-	0	-
	NR n77 (3700-3980)	-	-	-	0	-	0	0	-	0	-	0	-	0	0	0	0	-	-	0	-	0	-
	NR n78 (3700-3800)	-	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	1	50%	100%	L	M	H
Band Edge Compliance	NR n2	0	0	-	0	-	-	-	-	-	-	-	-	-	0	0	0	0	-	0	0	-	0
	NR n5	0	0	-	0	-	-	-	-	-	-	-	-	-	0	0	0	0	-	0	0	-	0
	NR n12	0	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	0	0	-	0
	NR n13	0	0	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	0	0	-	0

RF Test Report
Report No.: EFTA26040218-IE-02-R2V1

	NR n25	O	O	-	O	-	-	-	-	-	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n26	O	O	-	O	-	-	-	-	-	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n30	O	O	-	-	-	-	-	-	-	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n38	-	-	-	O	-	O	O	-	-	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n41	-	-	-	O	-	-	-	-	O	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n66	O	O	-	O	-	-	-	-	-	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n77(3450-3550)	-	-	-	O	-	-	-	-	O	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n77(3700-3980)	-	-	-	O	-	-	-	-	O	-	-	-	-	O	O	O	O	-	O	O	-	O
	NR n78 (3700-3800)	-	-	-	O	-	-	-	-	O	-	-	-	-	O	O	O	O	-	O	O	-	O

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	1	50%	100%	L	M	H
Peak-to-Average Power Ratio	NR n2	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n5	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n12	-	-	O	-	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n13	-	O	-	-	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n25	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n26	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n30	-	O	-	-	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n38	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n41	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n66	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n77(3450-3550)	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n77(3700-3980)	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-
	NR n78 (3700-3800)	-	-	-	O	-	-	-	-	-	-	-	-	-	O	O	O	-	-	O	-	O	-

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM/64QAM/256QAM	1	50%	100%	L	M	H
Frequency Stability	NR n2	O	O	O	O	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n5	O	O	O	-	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	-	O	-
	NR n12	O	O	O	-	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n13	O	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n25	O	O	O	O	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n26	O	O	O	-	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	-	O	-
	NR n30	O	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n38	-	O	O	O	-	O	O	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n41	-	O	O	O	-	O	O	O	O	O	O	O	O	-	O	-	-	-	O	O	-	O
	NR n66	O	O	O	O	-	-	-	-	-	-	-	-	-	-	O	-	-	-	O	O	-	O
	NR n77 (3450-3550)	-	-	-	O	-	O	O	-	O	O	O	O	O	-	O	-	-	-	O	O	-	O
	NR n77 (3700-3980)	-	-	-	O	-	O	O	-	O	O	O	O	O	-	O	-	-	-	O	O	-	O
	NR n78 (3700-3800)	-	O	O	O	-	O	O	O	O	O	O	O	O	-	O	-	-	-	O	O	-	O

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM/64QAM/256QAM	1	50%	100%	L	M	H
Spurious Emissions at Antenna Terminals	NR n2	O	O	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n5	O	O	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n12	O	O	O	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n13	O	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n25	O	O	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n26	O	O	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n30	O	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n38	-	-	-	O	-	O	O	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n41	-	-	-	O	-	-	-	-	O	-	-	-	O	-	O	-	O	-	O	O	O	O
	NR n66	O	O	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	O	O	O
	NR n77 (3450-3550)	-	-	-	O	-	-	-	-	O	-	-	-	O	-	O	-	O	-	O	O	O	O
	NR n77 (3700-3980)	-	-	-	O	-	-	-	-	O	-	-	-	O	-	O	-	O	-	O	O	O	O
	NR n78 (3700-3800)	-	-	-	O	-	-	-	-	O	-	-	-	O	-	O	-	O	-	O	O	O	O

Test items	Mode	Bandwidth (MHz)													Modulation			RB			Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM/64QAM/256QAM	1	50%	100%	L	M	H
Radiates Spurious Emission	NR n2	-	-	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n5	-	-	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n12	-	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n13	-	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n25	-	-	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n26	-	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n30	-	O	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n38	-	-	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n41	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	DC_5A-n41A	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	NR n66	-	-	-	O	-	-	-	-	-	-	-	-	-	-	O	-	O	-	-	-	O	-
	NR n77 (3450-3550)	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	DC_5A-n77 (3450-3550)A	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	NR n77 (3700-3980)	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	DC_5A-n77 (3700-3980)A	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	NR n78 (3450-3550)	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	DC_5A-n78 (3450-3550)A	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	NR n78 (3700-3800)	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-
	DC_5A-n78 (3700-3800)A	-	-	-	-	-	-	-	-	-	-	-	-	O	-	O	-	O	-	-	-	O	-

Note: 1. The mark “O” means that this configuration is chosen for testing.

2. The mark “-” means that this configuration is not testing.

3. Sub 6GHz operates using FDD 15kHz/TDD 30kHz Subcarrier Spacing with both CP-OFDM and DFT-s OFDM waveforms. The band supports PI/2 BPSK, QPSK, 16QAM, 64QAM, and 256QAM modulation. The test data provided in this report represents the worst case configurations.

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Methods of Measurement

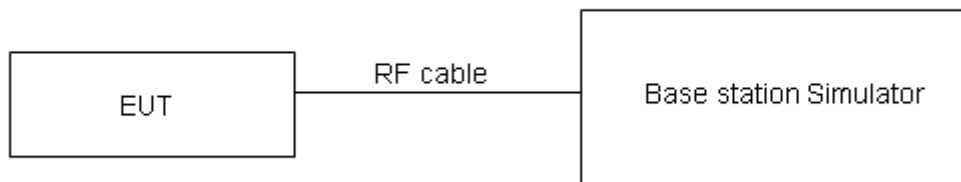
During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

ERP can then be calculated as follows:

$EIRP \text{ (dBm)} = \text{Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$EIRP \text{ (dBm)} = ERP \text{ (dBm)} + 2.15 \text{ (dB.)}$

Test Setup



Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=0.4$ dB for RF power output, $k = 2$, $U= 1.19$ dB for ERP/EIRP.

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX A Test Result

5.2 Occupied Bandwidth

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

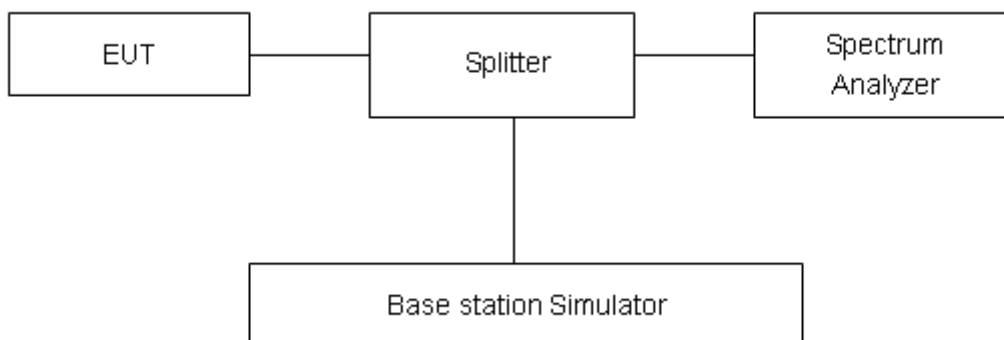
Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.

RBW is set to $\geq 1\%EBW$, VBW is set to 3x RBW.

99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=624\text{Hz}$.

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX B Test Result

5.3 Band Edge Compliance

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.

The testing follows KDB 971168 D01 v03r01 Section 6.0

The EUT was connected to spectrum analyzer and system simulator via a power divider.

The band edges of low and high channels for the highest RF powers were measured.

For LTE Band 7/38 set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.

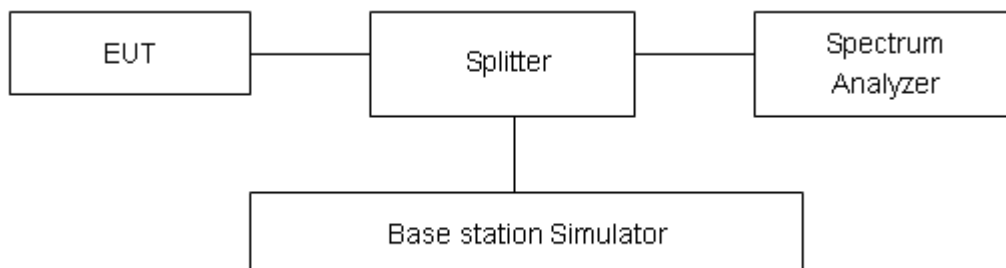
For LTE Band 41 the middle channel, high channel set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used; Low channel set RBW $\geq 2\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used. RBW is set to $\geq 1\%$ EBW, VBW is set to 3x RBW on spectrum analyzer.

Set spectrum analyzer with RMS detector.

The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

Checked that all the results comply with the emission limit line.

Test Setup



Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684\text{dB}$.

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX C Test Result

5.4 Peak-to-Average Power Ratio (PAPR)

Ambient condition

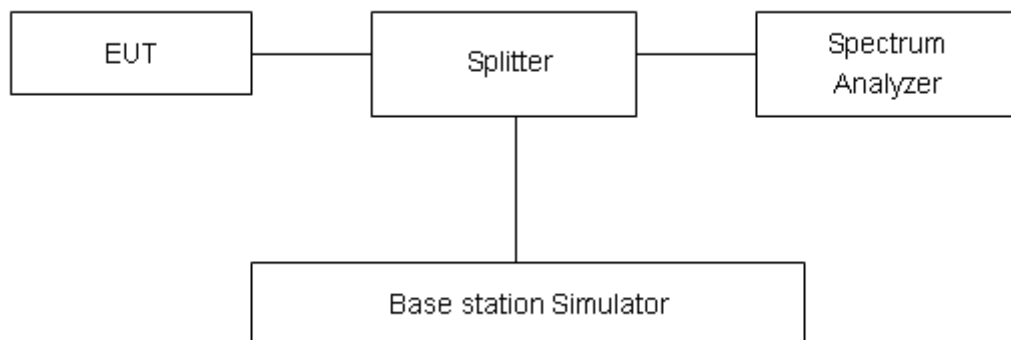
Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Methods of Measurement

The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).

The EUT was connected to spectrum and system simulator via a power divider and Set the CCDF in spectrum analyzer. Record the maximum PAPR level associated with a probability of 0.1%.

Test Setup



Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4$ dB.

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX D Test Result

5.5 Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

(1) With all power removed, the temperature was decreased to -10°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

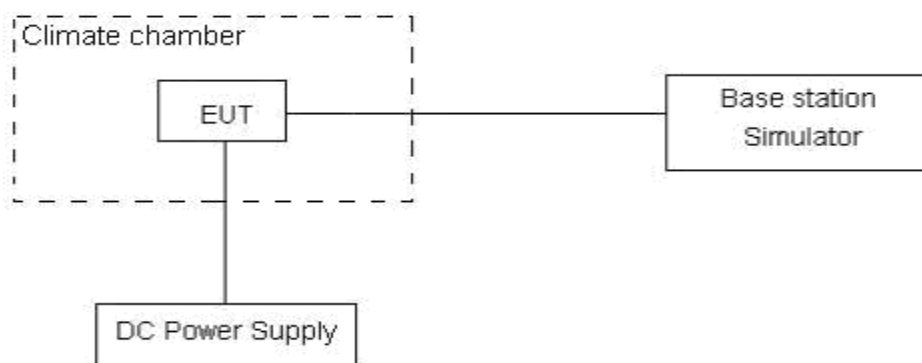
Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

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.

This transceiver is specified to operate with an input voltage of between 3.60 V and 4.65V, with a nominal voltage of 3.85V.

Test setup



Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 3$, $U = 0.01\text{ppm}$.

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX E Test Result

5.6 Spurious Emissions at Antenna Terminals

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.

RBW is set to 1 kHz (0.009MHz~ 0.15 MHz),

RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

RBW is set to 1000 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz)

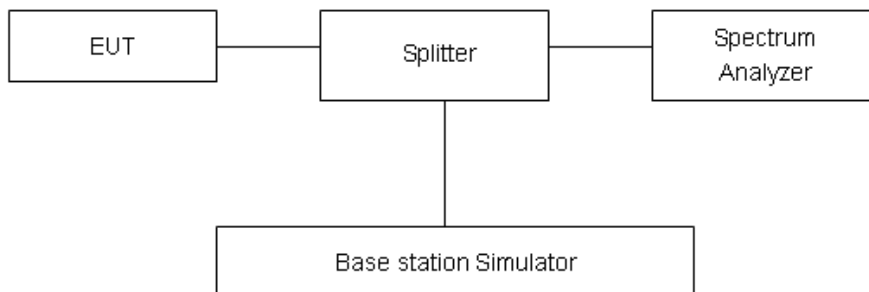
For Band 2/7/38/41/66, the RBW is set to 100KHz below 1G, and the factor is 10dB for 1MHz.

Sweep is set to AUTO.

Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.

The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup



Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
above 1GHz	1.407 dB

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX F Test Result

5.7 Radiated Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26-2015.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl), the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:

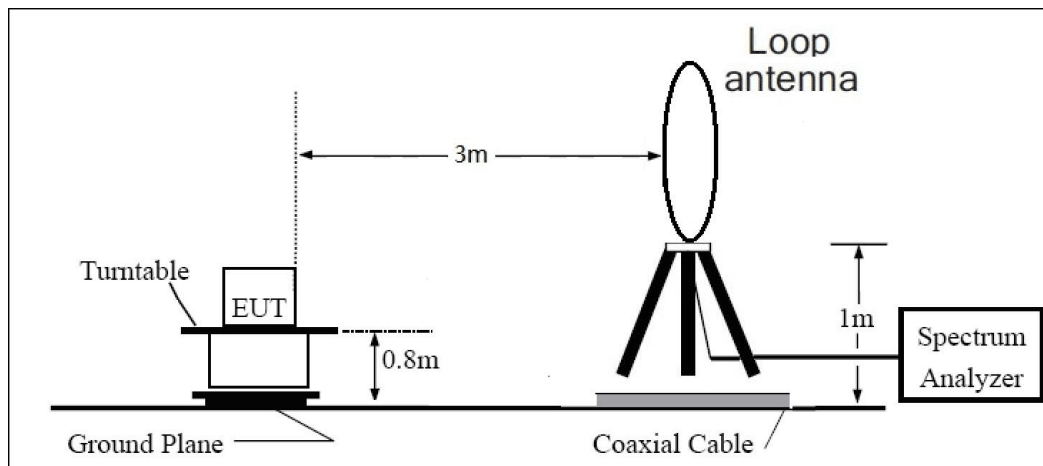
$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$
The measurement results are amend as described below:

$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, $\text{ERP} = \text{EIRP} - 2.15\text{dB}$.

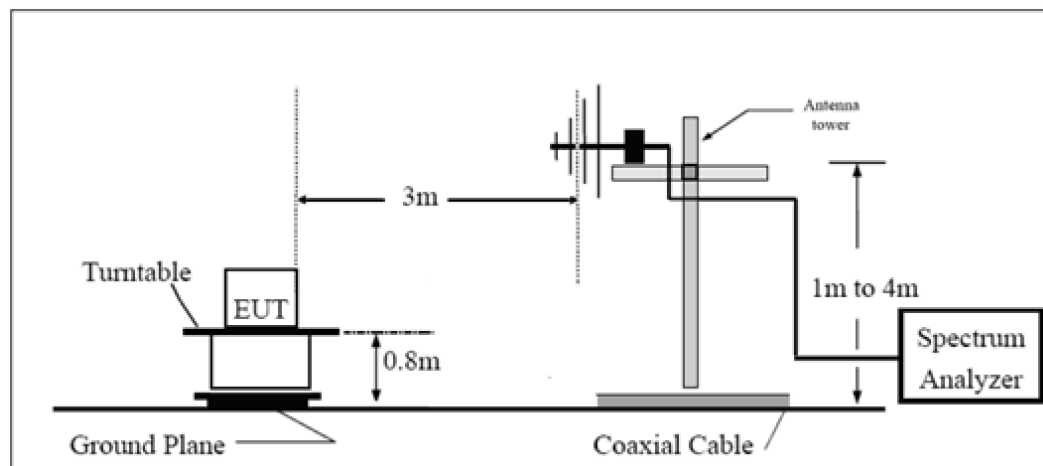
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

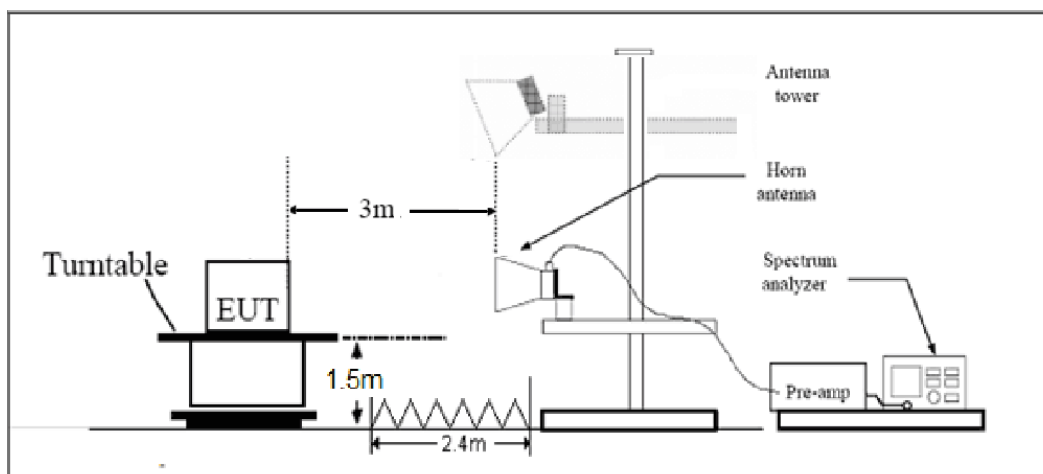
9KHz~ 30MHz



30MHz~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = \pm 1.96$, $U = \pm 3.55$ dB.

Test Results

The detailed test data see EFTA26040218-IE-02-R2-ANNEX G Test Result

6 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Wireless Communication Tester	Anritsu	MT8000A	6261844783	2026-04-21	2027-04-20
Wireless Communication Tester	Anritsu	MT8821C	6201538758	2026-04-21	2027-04-20
Climate Chamber	WEISS	VT 4002	582261194500 10	2026-04-20	2027-04-19
Wideband Radio Communication Tester	R&S	CMW500	125261	2026-04-21	2027-04-20
Spectrum Analyzer	Keysight	N9020A	MY52330084	2026-04-20	2027-04-19
DC Power Supply	UNI-T	UTP1310+	C220795889	2026-04-20	2027-04-19
Spectrum Analyzer	R&S	FSV40	101298	2026-04-20	2027-04-19
Signal & Specrum Analyzer	R&S	FSW	101186	2026-04-20	2027-04-19
Software	MW	MTS 8200	V2.0.0.0	/	/
Spectrum Analyzer	R&S	FSV30	100815	2025-11-24	2026-11-23
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	1439	2024-07-06	2027-07-05
Horn Antenna	SCHWARZBECK	BBHA 9120D	1594	2023-12-05	2026-12-04
Horn Antenna	R&S	BBHA 9170	101301	2023-09-16	2026-09-15
Software	R&S	EMC32	10.35.10	/	/
Software	MW	MTS 8200	V2.0.0.0	/	/

7 The EUT Appearance

Refer to *EUT Appearance*.

8 Test Setup Photos

Refer to *Part 22_24_27_90 Test Setup*.

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