中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: FJ Dynamics Co.,Ltd.

Address: 21F, Das Tower, No. 28, 1st South Keji Road, Nanshan District , Shenzhen，China

FCC ID: **2A2LL-V10A**

Product Name: **GNSS Receiver**

Standard(s): **47 CFR Part 2, 47 CFR Part 22, Subpart H**
47 CFR Part 24, Subpart E
47 CFR Part 27
47 CFR Part 90
ANSI C63.26-2015
KDB 971168 D01 Power Meas License Digital Systems v03r01
KDB 971168 D02 Misc Rev Approv License Devices v02r02

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

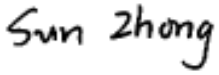
Report Number: **2503S31640E-RF-00G**

Date Of Issue: **2025/9/3**

Reviewed By: **Calvin Chen**

Title: RF Engineer

Approved By: **Sun Zhong**



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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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Each test item follows the test standard(s) without deviation.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2503S31640E-RF-00G	Original Report	2025/9/3

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

1.1.1 General

EUT Name:	GNSS Receiver
Trade Name:	FJD Trion
EUT Model:	V10a
Operation Bands and modes:	GPRS: 850/1900 WCDMA: Band 2/4/5 LTE: Band 2/4/5/7/12/13/14/17/25/26/38/41/66/71
Modulation Type:	GMSK,BPSK,8PSK,QPSK,16QAM
Rated Input Voltage:	DC 9~32V, Typical: DC 12V from AC/DC Adapter; or DC 7.3V from Built-in Battery
Sample Number:	RE:310A-1 RF: 310A-2
EUT Received Date:	2025/4/7
EUT Received Status:	Good

1.1.2 Operation Voltage (V_{DC}) ▲:

Lowest:	6.8	Normal:	7.3	Highest:	7.4

1.1.3 Transmission Antenna Information▲:

Antenna Type	Operation Bands	Antenna Frequency Range (MHz)	Antenna Gain(G_T) (dBi)	L_C (dB)
PIFA	GSM850	824-849	3.81	0
	PCS1900	1850-1910	-0.11	0
	WCDMA B2	1850-1910	-0.11	0
	WCDMA B4	1710-1755	1.65	0
	WCDMA B5	824-849	3.81	0
	LTE B2	1850-1910	-0.11	0
	LTE B4	1710-1755	1.65	0
	LTE B5	824-849	3.81	0
	LTE B7	2500-2570	3.01	0
	LTE B12	699-716	-1.41	0
	LTE B13	777-787	2.70	0
	LTE B14	788-798	2.70	0
	LTE B17	704-716	-1.41	0
	LTE B25	1850-1915	-0.11	0
	LTE B26	814-849	3.81	0
	LTE B38	2570-2620	3.45	0
	LTE B41	2496-2690	3.45	0
	LTE B66	1710-1780	1.65	0
	LTE B71	663-698	-4.12	0
Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.				

1.1.4 Accessory Information:

Accessory Description	Manufacturer	Model
Adapter	HUIZHOU FUJIA APPLIANCE TECH CO.,LTD	FJ-GN236CN

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:The EUT was configured for testing according to ANSI C63.26-2015.

The test items were performed with the EUT operating at testing mode. The device operates on GSM 850/ PCS 1900, WCDMA Band 2/4/5, LTE Band 2/4/5/7/12/13/14/17/25/26/38/41/66/71, test was performed with channels as below table:

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GSM 850	0.25	824.2	836.6	848.8
GSM 1900	0.25	1850.2	1880	1909.8
WCDMA Band 2	4.2	1852.4	1880	1907.6
WCDMA Band 4	4.2	1712.4	1732.6	1752.6
WCDMA Band 5	4.2	826.4	836.6	846.6
LTE Band 2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE Band 7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560
LTE Band 12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704	707.5	711
LTE Band 13	5	779.5	/	784.5
	10	/	782	/
LTE Band 14	5	790.5	/	795.5
	10	/	793	/
LTE Band 17	5	706.5	710	713.5
	10	709	710	711

LTE Band 25	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
	5	1852.5	1882.5	1912.5
	10	1855	1882.5	1910
	15	1857.5	1882.5	1907.5
	20	1860	1882.5	1905
LTE Band 26 (Part 22H) (B26_2)	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
	15	831.5	836.5	841.5
LTE Band 38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610
LTE Band 41	5	2498.5	2593	2687.5
	10	2501	2593	2685
	15	2503.5	2593	2682.5
	20	2506	2593	2680
LTE Band 66	1.4	1710.7	1745	1779.3
	3	1711.5	1745	1778.5
	5	1712.5	1745	1777.5
	10	1715	1745	1775
	15	1717.5	1745	1772.5
	20	1720	1745	1770
LTE Band 71	5	665.5	680.5	695.5
	10	668	680.5	693
	15	670.5	680.5	690.5
	20	673	680.5	688

Frequency Bands	**Bandwidth (MHz)**	**Test Frequency(MHz)**		
		Low	**Middle**	**High**
LTE Band 26 (Part 90) (B26_1)	1.4	814.7	/	823.3
	3	815.5	/	822.5
	5	816.5	/	821.5
	10	819	/	/

The maximum power was configured per 3GPP Standard for each operation modes as below setting:

GSM/GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/1900
Press Connection control to choose the different menus
Press RESET > choose all the reset all settings
Connection Press Signal Off to turn off the signal and change settings
Network Support > GSM + GPRS or GSM + EGSM
Main Service > Packet Data
Service selection > Test Mode A – Auto Slot Config. off
MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting
> Slot configuration > Uplink/Gamma
> 33 dBm for GPRS 850
> 30 dBm for GPRS 1900
> 27 dBm for EGPRS 850
> 26 dBm for EGPRS 1900
BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel
Frequency Offset > + 0 Hz
Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stable)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off
P0 > 4 dB
Slot Config > Unchanged (if already set under MS signal)
TCH > choose desired test channel
Hopping > Off
Main Timeslot > 3
Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)

Bit Stream > 2E9-1 PSR Bit Stream
AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input
Connection Press Signal on to turn on the signal and change settings

WCDMA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subset	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/ 5	0
	βec	209/225	12/15	30 15	2/15	5/15
	βc/ βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	CM (dB)	1.0	3.0	2.0	3.0	1.0
	PR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	Ahs=βhs/ βc	30/15				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate k ps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCl	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

DC-HSDPA

The following tests were conducted according to the test requirements in Table C.8.1.12 of 3GPP TS 34.121-1

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

HSPA+

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c .
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

LTE (FDD):

The following tests were conducted according to the test requirements in 3GPP TS36.101

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01".

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

LTE(TDD):

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink x (T_s) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
where
T_s = 1/(15000 x 2048) seconds

1.2.2 Support Equipment List and Details

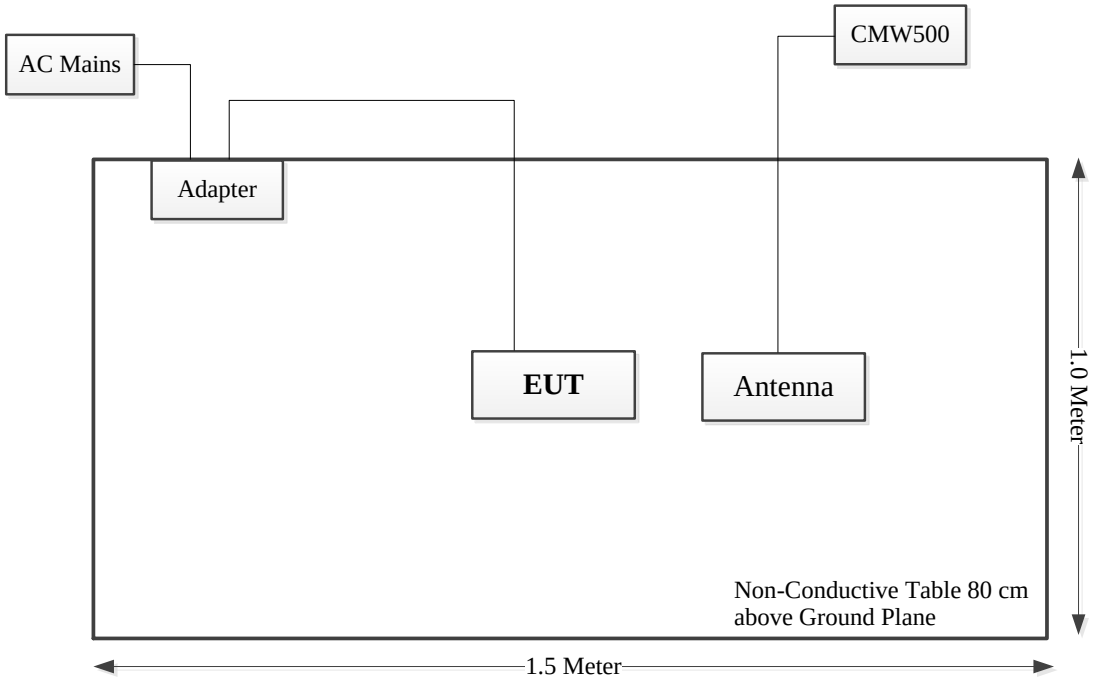
Manufacturer	Description	Model	Serial Number
R&S	Wideband Radio Communication Tester	CMW500	143458
Unknown	Antenna	Unknown	Unknown

1.2.3 Support Cable List and Details

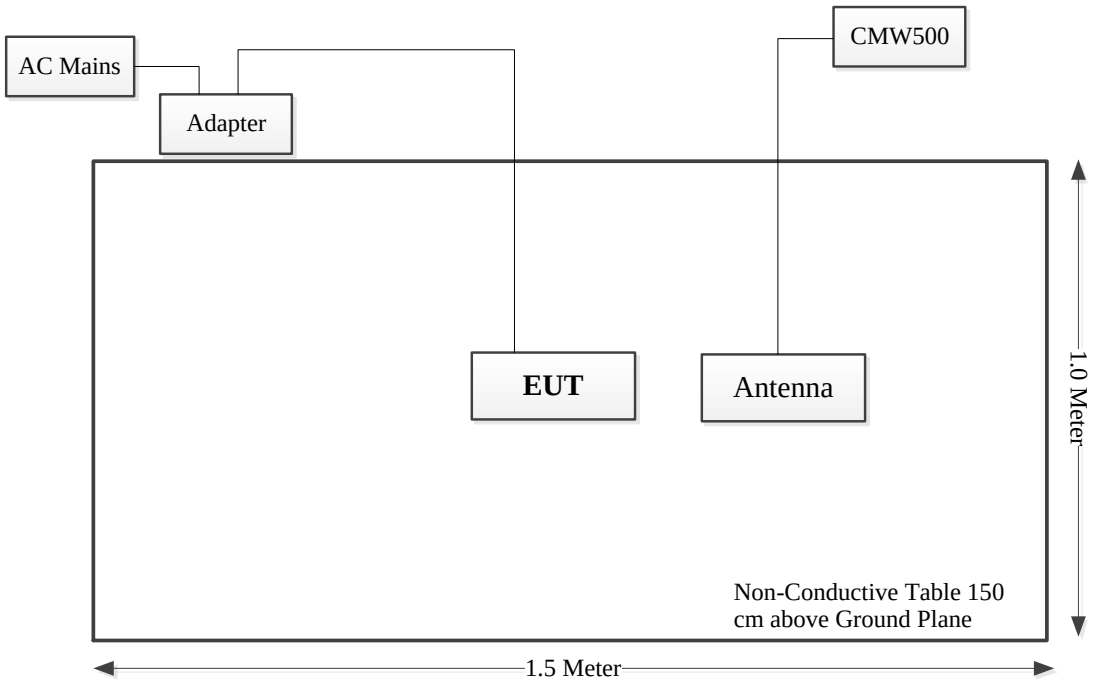
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	1	Adapter	EUT
Antenna Cable	No	No	10	CMW500	Antenna

1.2.4 Block Diagram of Test Setup

Radiated Spurious Emission Below 1G:



Radiated Spurious Emission Above 1G:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 4.12dB, 30M~200MHz: 4.15 dB, 200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB, 18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
RF Frequency	$\pm 0.082 \times 10^{-6}$

2. SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC §2.1046; §22.913; §24.232; §27.50; §90.635; §90.542	RF Output Power	Reporting
FCC §2.1047	Modulation Characteristics	Not Applicable
FCC §2.1049; §22.905; §22.917; §24.238; §27.53; §90.209; §90.543	Occupied Bandwidth	Note*
FCC §2.1051; §22.917; §24.238; §27.53; §90.691; §90.543	Spurious Emissions at Antenna Terminal	Note*
FCC §22.917; §24.238; §27.53; §90.691; §90.543	Out of band emission, Band Edge	Note*
FCC §2.1055; §22.355; §24.235; §27.54; §90.213	Frequency stability vs. temperature Frequency stability vs. voltage	Note*
FCC §2.1053; §22.917; §24.238; §27.53; §90.691; §90.543	Radiated Spurious Emission	Compliant

Note 1:
Note*: The device built in a certified module, FCC ID: XMR2023SC206EGL, the FCC ID base on the original FCC ID: XMR2023SC200EGL, model: SC200E-GL, per spot check, the RF parameters are identical with the original module report, therefore, the RF conducted test items please refer to the module report: SEWA2307000102RG01▲, which was issued by SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. on 2023/10/26. (according to KDB 996369 D02 Module Q&A v02r02, Answer 1 b))

The China Certification ICT Co., Ltd (Dongguan) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

3. REQUIREMENTS AND TEST PROCEDURES

3.1 Applicable Standard For Part 22 Subpart H

3.1.1 RF Output Power

FCC §22.913
(a)(5) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7watts.

(d) *Power measurement.* Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-toaverage ratio (PAR) of the transmission must not exceed 13 dB. Power measurements for base transmitters and repeaters must be made in accordance with either of the following:
(1) A Commission-approved average power technique (*see* FCC Laboratory's Knowledge Database); or
(2) For purposes of this section, peak transmit power must be measured over an interval of continuous transmission using instrumentation calibrated in terms of an rmsequivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, *etc.*, so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

3.1.2 Spurious Emissions

FCC §22.917

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows:
(1) In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. 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. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). 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.
(2) In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz

3.1.3 Frequency stability

FCC §22.355

Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C-1 of this section.

Table C-1 - Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency range (MHz)	Base, fixed (ppm)	Mobile >3 watts (ppm)	Mobile ≤3 watts (ppm)
25 to 50	20	20	50
50 to 450	5	5	50
450 to 512	2.5	5	5
821 to 896	1.5	**2.5**	**2.5**
928 to 929	5	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10	n/a	n/a

3.2 Applicable Standard For Part 24 Subpart E

3.2.1 RF Output Power

FCC §24.232
(c)Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

(d)Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.2.2 Spurious Emissions

FCC §24.238

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

(b) Measurement procedure. Compliance with these rules 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. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). 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.

(c) Alternative out of band emission limit. Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) Interference caused by out of band emissions. If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

3.2.3 Frequency stability

FCC §24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.3 Applicable Standard For Part 27

3.3.1 RF Output Power

FCC §27.50

(a)(3) *Mobile and portable stations.*
(i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, *except that* for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.
(ii) Mobile and portable stations are not permitted to transmit in the 2315-2320 MHz and 2345-2350 MHz bands.
(iii) *Automatic transmit power control.* Mobile and portable stations transmitting in the 2305-2315 MHz band or in the 2350-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications.
(iv) *Prohibition on external vehicle-mounted antennas.* The use of external vehicle-mounted antennas for mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band is prohibited.

(b)(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

(c)(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

(d)(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(d)(5) Equipment employed must be authorized in accordance with the provisions of §24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(h) The following power limits shall apply in the BRS and EBS:
(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

3.3.2 Spurious Emissions

FCC §27.53

(a) For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:

(4) For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:

(i) 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.

(c)For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

(3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to − 70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and − 80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(h) AWS emission limits

(1) ***General protection levels.*** Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}$ (P) dB.

(m)(4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less 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. 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.

3.3.3 Frequency stability

FCC §27.54

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.4 Applicable Standard For Part 90

3.4.1 RF Output Power

FCC §90.635

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

FCC §90.542

(a) (5) Licensees of fixed or base stations transmitting a signal in the 758-768 MHz band at an ERP greater than 1000 watts must comply with the provisions set forth in paragraph (b) of this section.

(6) Control stations and mobile stations transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 30 watts ERP.

3.4.2 Spurious Emissions

FCC §90.691

(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:
(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 Log10(f/6.1) decibels or 50 + 10 Log10(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.
(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 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 37.5 kHz.
(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

FCC §90.543

(c) Out-of-band emission limit. On any frequency outside of the frequency ranges covered by the ACP tables
in this section, the power of any emission must be reduced below the mean output power (P) by at least 43 + 10log (P) dB measured in a 100 kHz bandwidth for frequencies less than 1 GHz, and in a 1 MHz bandwidth for frequencies greater than 1 GHz.

3.4.3 Frequency stability

FCC §90.213

809-824 MHz band, 2.5ppm for 2W or less output power.

3.5 Test Method

3.5.1 Transmitter output power, e.r.p. and e.i.r.p

According to CFR Part 2.1046, ANSI C63.26-2015 Section 5.2.5.5 and KDB 971168 D01 Power Meas License Digital Systems v03r01:

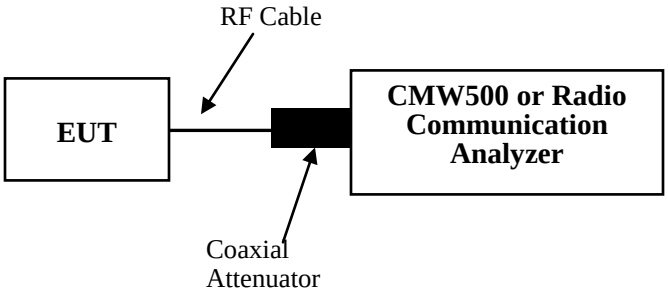
The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$ERP \text{ or } EIRP = P_{Meas} + G_T - L_C$$

where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, typically dBW or dBm);
P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;
G_T = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

Test Setup Block:



Note: The Insertion loss of the RF cable and coaxial Attenuator was offset into the Reading of CMW500.

3.5.2 Transmitter unwanted emissions- Radiated Spurious emissions

According to ANSI C63.26-2015 Section 5.5.3:

Test setup:

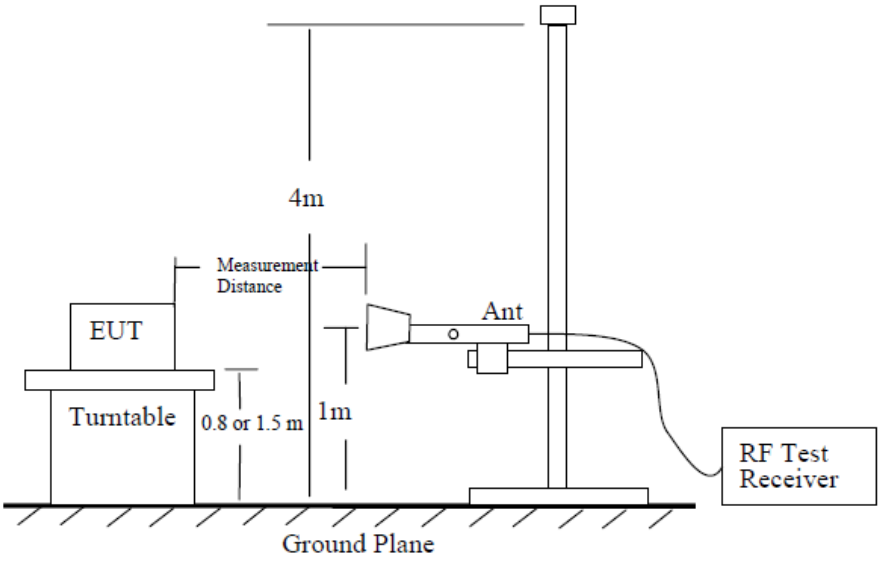


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

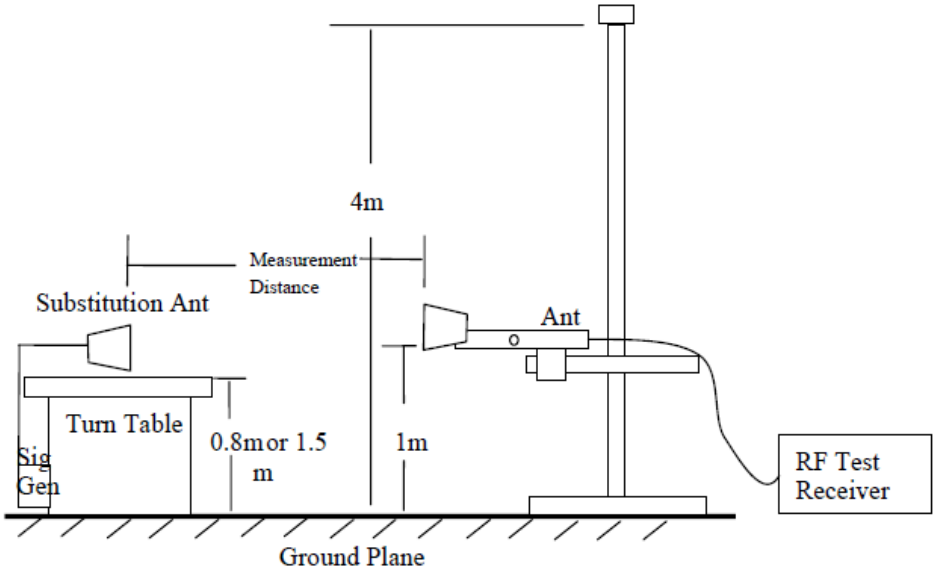


Figure 7—Substitution method set-up for radiated emission

Test Procedure:

a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.

b) Each emission under consideration shall be evaluated:

1) Raise and lower the measurement antenna in accordance 5.5.2, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.

2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.

3) Return the turntable to the azimuth where the highest emission amplitude level was observed.

4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.

5) Record the measured emission amplitude level and frequency using the appropriate RBW.

c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.

d) Set-up the substitution measurement with the reference point of the substitution antenna located as near as possible to where the center of the EUT radiating element was located during the initial EUT measurement.

e) Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.

f) Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.

g) For each emission that was detected and measured in the initial test [i.e., in step b) and step c)]:

1) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.

2) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step b) and step c).

3) Record the output power level of the signal generator when equivalence is achieved in step 2).

h) Repeat step e) through step g) with the measurement antenna oriented in the opposite polarization.

i) Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) − cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm
Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

j) Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from: gain (dBd) = gain (dBi) − 2.15 dB. If necessary, the antenna gain can be calculated from calibrated antenna factor information

k) Provide the complete measurement results as a part of the test report.

4. Test DATA AND RESULTS

4.1 Spot Check With Maximum Conducted Output Power

Sample Number:	310A-2	Test Date:	2025/7/1
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chloe Zhao	Test Result:	**PASS**

Environmental Conditions:					
Temperature: (℃)	25.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	100.2

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Anritsu	Radio Communication Analyzer	MT8820C	6201010144	2024/7/12	2025/7/11
R&S	Wideband Radio Communication Tester	CMW500	143458	2025/3/31	2026/3/30

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

GSM 850:

RF Output Power

Test Mode	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
GPRS	**32.25**	32.14	31.25	33.91	38.45

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

WCDMA Band 4:

RF Output Power					
Test Mode	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	24.11	**24.31**	24.15	25.96	30
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)					

LTE Band 66:

RF Output Power:						
Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	24.25	24.52	23.41	26.17	30
	RB1#12	24.21	24.35	24.15		
	RB1#24	24.11	24.11	24.35		
	25RB#0	24.36	23.25	24.14		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

4.2 EIRP/ERP calculated and Results

Test Data:
Per-spot check, the conducted output power is consistent with the original report, so the Maximum EIRP/ERP was re-calculated.

GSM 850 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
GPRS	32.29	33.95	38.45
EDGE	28.13	29.79	38.45

PCS 1900 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
GPRS	30.41	30.3	33
EDGE	26.87	26.76	33

WCDMA B2 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
WCDMA B2	23.87	23.76	33

WCDMA B4 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
WCDMA B4	24.18	25.83	30

WCDMA B5 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
WCDMA B5	24.17	25.83	38.45

LTE B2 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
1.4MHz QPSK	24.01	23.9	33
1.4MHz 16QAM	23.49	23.38	33
3MHz QPSK	24.06	23.95	33
3MHz 16QAM	23.48	23.37	33
5MHz QPSK	24.15	24.04	33
5MHz 16QAM	23.46	23.35	33
10MHz QPSK	24.16	24.05	33
10MHz 16QAM	23.54	23.43	33
15MHz QPSK	24.16	24.05	33
15MHz 16QAM	23.42	23.31	33
20MHz QPSK	23.92	23.81	33
20MHz 16QAM	23.25	23.14	33

LTE B4 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
1.4MHz QPSK	23.67	25.32	30
1.4MHz 16QAM	23.14	24.79	30
3MHz QPSK	23.94	25.59	30
3MHz 16QAM	23.34	24.99	30
5MHz QPSK	23.86	25.51	30
5MHz 16QAM	23.26	24.91	30
10MHz QPSK	24.00	25.65	30
10MHz 16QAM	23.45	25.1	30
15MHz QPSK	24.15	25.8	30
15MHz 16QAM	23.48	25.13	30
20MHz QPSK	24.05	25.7	30
20MHz 16QAM	23.47	25.12	30

LTE B5 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
1.4MHz QPSK	23.74	25.4	38.45
1.4MHz 16QAM	23.07	24.73	38.45
3MHz QPSK	23.84	25.5	38.45
3MHz 16QAM	23.18	24.84	38.45
5MHz QPSK	23.82	25.48	38.45
5MHz 16QAM	23.21	24.87	38.45
10MHz QPSK	24.07	25.73	38.45
10MHz 16QAM	23.49	25.15	38.45

LTE B7 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
5MHz QPSK	24.26	27.27	33
5MHz 16QAM	23.53	26.54	33
10MHz QPSK	24.16	27.17	33
10MHz 16QAM	23.51	26.52	33
15MHz QPSK	23.85	26.86	33
15MHz 16QAM	23.49	26.5	33
20MHz QPSK	24.07	27.08	33
20MHz 16QAM	23.47	26.48	33

LTE B12 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
1.4MHz QPSK	23.88	20.32	44.77
1.4MHz 16QAM	23.28	19.72	44.77
3MHz QPSK	23.91	20.35	44.77
3MHz 16QAM	23.36	19.8	44.77
5MHz QPSK	23.96	20.4	44.77
5MHz 16QAM	23.35	19.79	44.77
10MHz QPSK	24.24	20.68	44.77
10MHz 16QAM	23.50	19.94	44.77

LTE B13 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
5MHz QPSK	24.02	24.57	44.77
5MHz 16QAM	23.37	23.92	44.77
10MHz QPSK	24.27	24.82	44.77
10MHz 16QAM	23.55	24.1	44.77

LTE B14 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
5MHz QPSK	24.28	24.83	44.77
5MHz 16QAM	23.54	24.09	44.77
10MHz QPSK	24.53	25.08	44.77
10MHz 16QAM	23.88	24.43	44.77

LTE B17 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
5MHz QPSK	24.24	20.68	44.77
5MHz 16QAM	23.49	19.93	44.77
10MHz QPSK	24.43	20.87	44.77
10MHz 16QAM	23.68	20.12	44.77

LTE B25 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
1.4MHz QPSK	23.93	23.82	33
1.4MHz 16QAM	23.45	23.34	33
3MHz QPSK	24.04	23.93	33
3MHz 16QAM	23.43	23.32	33
5MHz QPSK	24.19	24.08	33
5MHz 16QAM	23.39	23.28	33
10MHz QPSK	24.16	24.05	33
10MHz 16QAM	23.48	23.37	33
15MHz QPSK	24.16	24.05	33
15MHz 16QAM	23.35	23.24	33
20MHz QPSK	24.08	23.97	33
20MHz 16QAM	23.43	23.32	33

LTE B26 band:(814-824MHz)

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
1.4MHz QPSK	24.08	25.74	50
1.4MHz 16QAM	23.32	24.98	50
3MHz QPSK	24.01	25.67	50
3MHz 16QAM	23.31	24.97	50
5MHz QPSK	24.09	25.75	50
5MHz 16QAM	23.40	25.06	50
10MHz QPSK	24.26	25.92	50
10MHz 16QAM	23.64	25.3	50

LTE B26 band: (824-849MHz)

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	ERP Limit (dBm)
1.4MHz QPSK	24.07	25.73	38.45
1.4MHz 16QAM	23.60	25.26	38.45
3MHz QPSK	24.17	25.83	38.45
3MHz 16QAM	23.54	25.2	38.45
5MHz QPSK	24.22	25.88	38.45
5MHz 16QAM	23.44	25.1	38.45
10MHz QPSK	24.43	26.09	38.45
10MHz 16QAM	23.88	25.54	38.45
15MHz QPSK	24.73	26.39	38.45
15MHz 16QAM	23.93	25.59	38.45

LTE B38 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
5MHz QPSK	24.04	27.49	33
5MHz 16QAM	23.18	26.63	33
10MHz QPSK	24.26	27.71	33
10MHz 16QAM	23.47	26.92	33
15MHz QPSK	24.24	27.69	33
15MHz 16QAM	23.40	26.85	33
20MHz QPSK	24.28	27.73	33
20MHz 16QAM	23.32	26.77	33

LTE B41 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
5MHz QPSK	24.02	27.47	33
5MHz 16QAM	24.22	27.67	33
10MHz QPSK	24.00	27.45	33
10MHz 16QAM	24.09	27.54	33
15MHz QPSK	24.23	27.68	33
15MHz 16QAM	24.38	27.83	33
20MHz QPSK	23.98	27.43	33
20MHz 16QAM	24.15	27.6	33

LTE B66 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	EIRP (dBm)	EIRP Limit (dBm)
1.4MHz QPSK	24.33	25.98	30
1.4MHz 16QAM	23.79	25.44	30
3MHz QPSK	24.46	26.11	30
3MHz 16QAM	23.81	25.46	30
5MHz QPSK	24.56	26.21	30
5MHz 16QAM	23.76	25.41	30
10MHz QPSK	24.83	26.48	30
10MHz 16QAM	24.14	25.79	30
15MHz QPSK	24.38	26.03	30
15MHz 16QAM	23.66	25.31	30
20MHz QPSK	24.56	26.21	30
20MHz 16QAM	24.02	25.67	30

LTE B71 band:

Test Mode	Maximum Conducted Average Output Power(dBm)	ERP (dBm)	EIRP Limit (dBm)
5MHz QPSK	24.26	17.99	34.77
5MHz 16QAM	23.64	17.37	34.77
10MHz QPSK	24.49	18.22	34.77
10MHz 16QAM	23.97	17.7	34.77
15MHz QPSK	24.19	17.92	34.77
15MHz 16QAM	23.63	17.36	34.77
20MHz QPSK	24.12	17.85	34.77
20MHz 16QAM	23.34	17.07	34.77

Note:

1. EIRP= Maximum Conducted Average Output Power(dBm) - L_C(dB) + G_T(dBi)
ERP= Maximum Conducted Average Output Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15
2. Maximum Conducted Average Output Power please refer to report SEWA2307000102RG01▲.

4.3 Radiated Spurious Emissions

30 MHz – 1 GHz

Sample Number:	310A-1	Test Date:	2025/8/30
Test Site:	966-2	Test Mode:	Transmitting
Tester:	Roinin Fu	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	21.5	Relative Humidity: (%)	53	ATM Pressure: (kPa)	100.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
R&S	EMI Test Receiver	ESR3	102724	2025/2/14	2026/2/13
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0100-03	2024/12/3	2025/12/2
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0370-01	2024/12/3	2025/12/2
XQY	Coaxial Cable	XQY-CMR400UF-NJ-NJ-7M	24056379	2025/6/4	2026/6/3
Sonoma	Amplifier	310N	186165	2024/12/3	2025/12/2
EMCO	Adjustable Dipole Antenna	3121C	9109-756	N/A	N/A
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2025/7/14	2026/7/13
Agilent	Signal Generator	E8247C	MY43321352	2025/01/09	2026/01/08

**** Statement of Traceability:*** *China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

Cellular Band (PART 22H)

GSM 850:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	824.2	MHz			
166.07	H	42.28	-69.59	0.00	0.24	-69.83	-13.00	56.83
54.23	V	43.45	-59.80	-12.95	0.13	-72.88	-13.00	59.88
			Frequency:	836.6	MHz			
65.34	H	40.58	-63.25	-7.47	0.14	-70.86	-13.00	57.86
66.23	V	41.28	-62.61	-7.00	0.15	-69.76	-13.00	56.76
			Frequency:	848.8	MHz			
65.27	H	39.87	-63.96	-7.51	0.14	-71.61	-13.00	58.61
65.34	V	40.22	-63.97	-7.47	0.14	-71.58	-13.00	58.58

WCDMA Band 5:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	826.4	MHz			
869.13	H	38.14	-62.10	0.00	0.58	-62.68	-13.00	49.68
65.34	V	40.72	-63.47	-7.47	0.14	-71.08	-13.00	58.08
			Frequency:	836.6	MHz			
88.23	H	39.59	-72.86	0.00	0.17	-73.03	-13.00	60.03
169.00	V	40.27	-68.72	0.00	0.24	-68.96	-13.00	55.96
			Frequency:	846.6	MHz			
64.57	H	39.71	-64.12	-7.88	0.14	-72.14	-13.00	59.14
254.30	V	41.36	-69.42	0.00	0.30	-69.72	-13.00	56.72

PCS Band (PART 24E)

GSM 1900:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	1850.2	MHz			
62.34	H	41.22	-62.64	-9.06	0.14	-71.84	-13.00	58.84
66.90	V	43.74	-59.92	-6.64	0.15	-66.71	-13.00	53.71
			Frequency:	1880	MHz			
63.19	H	45.10	-58.75	-8.61	0.14	-67.50	-13.00	54.50
425.63	V	42.07	-63.24	0.00	0.39	-63.63	-13.00	50.63
			Frequency:	1909.8	MHz			
68.12	H	41.71	-62.09	-6.00	0.15	-68.24	-13.00	55.24
412.57	V	39.52	-66.25	0.00	0.39	-66.64	-13.00	53.64

WCDMA Band 2:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	1852.4	MHz			
170.19	H	40.22	-71.83	0.00	0.24	-72.07	-13.00	59.07
63.45	V	40.63	-64.21	-8.47	0.14	-72.82	-13.00	59.82
			Frequency:	1880	MHz			
63.66	H	40.11	-63.73	-8.36	0.14	-72.23	-13.00	59.23
668.91	V	42.77	-59.27	0.00	0.50	-59.77	-13.00	46.77
			Frequency:	1907.6	MHz			
69.11	H	42.78	-61.01	-5.47	0.15	-66.63	-13.00	53.63
427.58	V	42.54	-62.70	0.00	0.40	-63.10	-13.00	50.10

AWS Band(Part 27)

WCDMA Band 4:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	1712.4	MHz			
65.33	H	44.36	-59.47	-7.48	0.14	-67.09	-13.00	54.09
110.53	V	45.11	-61.24	0.00	0.20	-61.44	-13.00	48.44
			Frequency:	1732.6	MHz			
437.94	H	41.74	-66.58	0.00	0.42	-67.00	-13.00	54.00
61.68	V	40.68	-64.76	-9.41	0.14	-74.31	-13.00	61.31
			Frequency:	1752.6	MHz			
62.49	H	39.11	-64.75	-8.98	0.14	-73.87	-13.00	60.87
423.55	V	42.45	-62.93	0.00	0.39	-63.32	-13.00	50.32

LTE Bands:
(The Worst modulation and bandwidth was below)

LTE Band 2:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency:				1850.7	MHz			
68.56	H	42.17	-61.62	-5.76	0.15	-67.53	-13.00	54.53
62.94	V	42.59	-62.42	-8.74	0.14	-71.30	-13.00	58.30
1.4MHz QPSK RB1#0, Frequency:				1880	MHz			
712.56	H	43.11	-61.21	0.00	0.51	-61.72	-13.00	48.72
69.52	V	45.67	-57.10	-5.25	0.15	-62.50	-13.00	49.50
1.4MHz QPSK RB1#0, Frequency:				1909.3	MHz			
63.49	H	42.10	-61.75	-8.45	0.14	-70.34	-13.00	57.34
334.74	V	40.59	-67.32	0.00	0.35	-67.67	-13.00	54.67

LTE Band 4:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency:				1710.7	MHz			
65.11	H	42.05	-61.78	-7.59	0.14	-69.51	-13.00	56.51
812.30	V	41.73	-56.73	0.00	0.56	-57.29	-13.00	44.29
1.4MHz QPSK RB1#0, Frequency:				1732.5	MHz			
62.55	H	43.65	-60.20	-8.95	0.14	-69.29	-13.00	56.29
128.92	V	39.28	-67.46	0.00	0.21	-67.67	-13.00	54.67
1.4MHz QPSK RB1#0, Frequency:				1754.3	MHz			
65.33	H	40.33	-63.50	-7.48	0.14	-71.12	-13.00	58.12
109.33	V	41.10	-65.32	0.00	0.19	-65.51	-13.00	52.51

LTE Band 5:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency:				824.7	MHz			
456.71	H	41.23	-66.65	0.00	0.42	-67.07	-13.00	54.07
63.37	V	42.65	-62.21	-8.51	0.14	-70.86	-13.00	57.86
1.4MHz QPSK RB1#0, Frequency:				836.5	MHz			
61.20	H	43.17	-60.70	-9.66	0.14	-70.50	-13.00	57.50
136.47	V	44.92	-62.67	0.00	0.22	-62.89	-13.00	49.89
1.4MHz QPSK RB1#0, Frequency:				848.3	MHz			
67.13	H	40.30	-63.51	-6.52	0.15	-70.18	-13.00	57.18
235.58	V	42.58	-67.91	0.00	0.29	-68.20	-13.00	55.20

LTE Band 7:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 2502.5 MHz								
65.74	H	42.78	-61.04	-7.26	0.15	-68.45	-25.00	43.45
69.33	V	43.10	-59.74	-5.36	0.15	-65.25	-25.00	40.25
5MHz QPSK RB1#0, Frequency: 2535 MHz								
68.52	H	45.37	-58.42	-5.78	0.15	-64.35	-25.00	39.35
541.20	V	45.61	-57.50	0.00	0.46	-57.96	-25.00	32.96
5MHz QPSK RB1#0, Frequency: 2567.5 MHz								
557.89	H	43.36	-62.31	0.00	0.48	-62.79	-25.00	37.79
69.12	V	43.02	-59.89	-5.47	0.15	-65.51	-25.00	40.51

LTE Band 12:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 699.7 MHz								
69.21	H	41.23	-62.56	-5.42	0.15	-68.13	-13.00	55.13
268.55	V	43.56	-66.61	0.00	0.31	-66.92	-13.00	53.92
1.4MHz QPSK RB1#0, Frequency: 707.5 MHz								
64.33	H	44.12	-59.72	-8.01	0.14	-67.87	-13.00	54.87
363.12	V	42.21	-64.96	0.00	0.37	-65.33	-13.00	52.33
1.4MHz QPSK RB1#0, Frequency: 715.3 MHz								
466.31	H	42.09	-65.56	0.00	0.42	-65.98	-13.00	52.98
61.52	V	43.74	-61.75	-9.49	0.14	-71.38	-13.00	58.38

LTE Band 13:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 779.5 MHz								
64.54	H	45.11	-58.72	-7.89	0.14	-66.75	-13.00	53.75
469.78	V	46.11	-57.64	0.00	0.43	-58.07	-13.00	45.07
5MHz QPSK RB1#0, Frequency: 784.5 MHz								
65.21	H	42.57	-61.26	-7.54	0.14	-68.94	-13.00	55.94
62.89	V	41.00	-64.03	-8.77	0.14	-72.94	-13.00	59.94

LTE Band 14:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 790.5 MHz								
61.58	H	42.55	-61.31	-9.46	0.14	-70.91	-13.00	57.91
661.25	V	43.29	-58.93	0.00	0.51	-59.44	-13.00	46.44
5MHz QPSK RB1#0, Frequency: 795.5 MHz								
68.59	H	40.15	-63.64	-5.75	0.15	-69.54	-13.00	56.54
415.36	V	42.95	-62.72	0.00	0.39	-63.11	-13.00	50.11

LTE Band 17:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 706.5 MHz								
61.98	H	42.56	-61.30	-9.25	0.14	-70.69	-13.00	57.69
661.35	V	43.02	-59.20	0.00	0.51	-59.71	-13.00	46.71
5MHz QPSK RB1#0, Frequency: 710 MHz								
66.22	H	41.71	-62.10	-7.00	0.15	-69.25	-13.00	56.25
426.37	V	43.69	-61.59	0.00	0.39	-61.98	-13.00	48.98
5MHz QPSK RB1#0, Frequency: 713.5 MHz								
67.56	H	40.02	-63.78	-6.29	0.15	-70.22	-13.00	57.22
415.96	V	42.57	-63.08	0.00	0.39	-63.47	-13.00	50.47

LTE Band 25:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 1850.7 MHz								
134.78	H	41.57	-70.68	0.00	0.22	-70.90	-13.00	57.90
62.01	V	43.69	-61.64	-9.23	0.14	-71.01	-13.00	58.01
1.4MHz QPSK RB1#0, Frequency: 1882.5 MHz								
63.56	H	44.12	-59.72	-8.41	0.14	-68.27	-13.00	55.27
159.61	V	43.97	-64.37	0.00	0.23	-64.60	-13.00	51.60
1.4MHz QPSK RB1#0, Frequency: 1914.3 MHz								
63.98	H	46.21	-57.63	-8.19	0.14	-65.96	-13.00	52.96
428.10	V	45.69	-59.53	0.00	0.40	-59.93	-13.00	46.93

LTE Band 26(814-824MHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency:				814.7	MHz			
60.51	H	40.29	-63.58	-10.03	0.14	-73.75	-13.00	60.75
334.69	V	39.78	-68.13	0.00	0.35	-68.48	-13.00	55.48
1.4MHz QPSK RB1#0, Frequency:				823.3	MHz			
59.64	H	46.39	-57.38	-10.47	0.14	-67.99	-13.00	54.99
63.82	V	45.21	-59.50	-8.28	0.14	-67.92	-13.00	54.92

LTE Band 26(824-849MHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency:				824.7	MHz			
61.35	H	40.21	-63.66	-9.58	0.14	-73.38	-13.00	60.38
335.26	V	38.56	-69.33	0.00	0.35	-69.68	-13.00	56.68
1.4MHz QPSK RB1#0, Frequency:				836.5	MHz			
59.54	H	46.25	-57.49	-10.51	0.14	-68.14	-13.00	55.14
53.28	V	45.32	-57.48	-13.39	0.13	-71.00	-13.00	58.00
1.4MHz QPSK RB1#0, Frequency:				848.3	MHz			
62.31	H	44.17	-59.69	-9.08	0.14	-68.91	-13.00	55.91
425.25	V	43.29	-62.03	0.00	0.39	-62.42	-13.00	49.42

LTE Band 38:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 2572.5 MHz								
62.78	H	41.26	-62.59	-8.83	0.14	-71.56	-25.00	46.56
338.92	V	44.47	-63.33	0.00	0.36	-63.69	-25.00	38.69
5MHz QPSK RB1#0, Frequency: 2595 MHz								
67.38	H	43.26	-60.55	-6.39	0.15	-67.09	-25.00	42.09
178.21	V	43.84	-65.81	0.00	0.25	-66.06	-25.00	41.06
5MHz QPSK RB1#0, Frequency: 2617.5 MHz								
62.58	H	41.20	-62.65	-8.93	0.14	-71.72	-25.00	46.72
170.57	V	40.53	-68.58	0.00	0.24	-68.82	-25.00	43.82

LTE Band 41:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 2498.5 MHz								
444.02	H	42.02	-66.16	0.00	0.43	-66.59	-25.00	41.59
65.32	V	43.14	-61.06	-7.48	0.14	-68.68	-25.00	43.68
5MHz QPSK RB1#0, Frequency: 2593 MHz								
60.25	H	40.08	-63.80	-10.17	0.14	-74.11	-25.00	49.11
61.98	V	39.12	-66.22	-9.25	0.14	-75.61	-25.00	50.61
5MHz QPSK RB1#0, Frequency: 2687.5 MHz								
63.47	H	41.70	-62.15	-8.46	0.14	-70.75	-25.00	45.75
685.91	V	42.33	-59.29	0.00	0.53	-59.82	-25.00	34.82

LTE Band 66:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 1710.7 MHz								
269.47	H	44.10	-67.34	0.00	0.31	-67.65	-13.00	54.65
68.76	V	45.44	-57.59	-5.66	0.15	-63.40	-13.00	50.40
1.4MHz QPSK RB1#0, Frequency: 1745 MHz								
63.95	H	42.57	-61.27	-8.21	0.14	-69.62	-13.00	56.62
698.64	V	46.31	-55.00	0.00	0.55	-55.55	-13.00	42.55
1.4MHz QPSK RB1#0, Frequency: 1779.3 MHz								
66.73	H	42.22	-61.59	-6.73	0.15	-68.47	-13.00	55.47
394.74	V	42.95	-63.40	0.00	0.38	-63.78	-13.00	50.78

LTE Band 71:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency:				665.5	MHz			
59.47	H	41.95	-61.77	-10.54	0.14	-72.45	-13.00	59.45
560.23	V	41.33	-61.97	0.00	0.47	-62.44	-13.00	49.44
5MHz QPSK RB1#0, Frequency:				680.5	MHz			
65.38	H	42.06	-61.77	-7.45	0.14	-69.36	-13.00	56.36
478.94	V	44.57	-58.86	0.00	0.41	-59.27	-13.00	46.27
5MHz QPSK RB1#0, Frequency:				695.5	MHz			
67.59	H	44.63	-59.17	-6.28	0.15	-65.60	-13.00	52.60
365.64	V	41.29	-65.81	0.00	0.37	-66.18	-13.00	53.18

Note 1:
The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.
Note 2:
Absolute Level = Substituted Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

Above 1GHz

Sample Number	310A-1	Test Date:	2025/8/29
Test Site:	966-1	Test Mode:	Transmitting
Tester:	Tao Zhu	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	20.3	Relative Humidity: (%)	58	ATM Pressure: (kPa)	100.3

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	9912-5985	2023/12/6	2026/12/5
R&S	Spectrum Analyzer	FSV40	101591	2025/3/31	2026/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2025/1/10	2026/1/9
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2025/1/10	2026/1/9
A.H	Pre-amplifier	PAM-0118P	628	2025/5/23	2026/5/22
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2023/2/22	2026/2/21
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2025/7/14	2026/7/13
Agilent	Signal Generator	E8247C	MY43321352	2025/1/9	2026/1/8
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2024/2/4	2027/2/3
PASTERNACK	Horn Antenna	PE9852/2F-20	112001	2024/2/4	2027/2/3
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2025/1/6	2026/1/5
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2024/2/4	2027/2/3
PASTERNACK	Horn Antenna	PE9850/2F-20	072002	2024/2/4	2027/2/3
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2025/1/6	2026/1/5
Decentest	Multiplex Switch Test Control Set	DT7220SCU	DQ77925	2025/8/4	2026/8/3
Decentest	Filter Switch Unit	DT7220FSU	DQ77928	2025/8/4	2026/8/3

**** Statement of Traceability:*** *China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

GSM850(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	824.2	MHz			
1648.400	H	59.46	-62.35	8.68	0.80	-54.47	-13.00	41.47
1648.400	V	53.25	-68.65	8.68	0.80	-60.77	-13.00	47.77
2472.600	H	63.36	-53.91	9.38	1.00	-45.53	-13.00	32.53
2472.600	V	59.75	-57.47	9.38	1.00	-49.09	-13.00	36.09
3296.800	H	44.59	-68.21	10.32	1.15	-59.04	-13.00	46.04
3296.800	V	43.98	-68.58	10.32	1.15	-59.41	-13.00	46.41
			Frequency:	836.6	MHz			
1673.200	H	62.82	-58.95	8.71	0.85	-51.09	-13.00	38.09
1673.200	V	54.52	-67.35	8.71	0.85	-59.49	-13.00	46.49
2509.800	H	62.32	-54.68	9.42	1.01	-46.27	-13.00	33.27
2509.800	V	59.68	-57.33	9.42	1.01	-48.92	-13.00	35.92
3346.400	H	43.69	-69.65	10.34	1.16	-60.47	-13.00	47.47
3346.400	V	43.92	-69.28	10.34	1.16	-60.10	-13.00	47.10
			Frequency:	848.8	MHz			
1697.600	H	67.52	-54.20	8.74	0.90	-46.36	-13.00	33.36
1697.600	V	52.12	-69.73	8.74	0.90	-61.89	-13.00	48.89
2546.400	H	61.37	-55.32	9.47	1.01	-46.86	-13.00	33.86
2546.400	V	59.49	-57.15	9.47	1.01	-48.69	-13.00	35.69
3395.200	H	44.52	-69.40	10.36	1.19	-60.23	-13.00	47.23
3395.200	V	43.37	-70.52	10.36	1.19	-61.35	-13.00	48.35

WCDMA Band 5(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
			Frequency:	826.4	MHz			
1652.800	H	46.45	-75.35	8.68	0.81	-67.48	-13.00	54.48
1652.800	V	48.14	-73.75	8.68	0.81	-65.88	-13.00	52.88
2479.200	H	47.26	-69.96	9.39	1.01	-61.58	-13.00	48.58
2479.200	V	48.37	-68.82	9.39	1.01	-60.44	-13.00	47.44
3305.600	H	45.25	-67.60	10.32	1.15	-58.43	-13.00	45.43
3305.600	V	43.41	-69.21	10.32	1.15	-60.04	-13.00	47.04
			Frequency:	836.6	MHz			
1673.200	H	58.29	-63.48	8.71	0.85	-55.62	-13.00	42.62
1673.200	V	49.56	-72.31	8.71	0.85	-64.45	-13.00	51.45
2509.800	H	47.64	-69.36	9.42	1.01	-60.95	-13.00	47.95
2509.800	V	46.28	-70.73	9.42	1.01	-62.32	-13.00	49.32
3346.400	H	43.60	-69.74	10.34	1.16	-60.56	-13.00	47.56
3346.400	V	44.11	-69.09	10.34	1.16	-59.91	-13.00	46.91
			Frequency:	846.6	MHz			
1693.200	H	48.23	-73.50	8.73	0.89	-65.66	-13.00	52.66
1693.200	V	47.45	-74.40	8.73	0.89	-66.56	-13.00	53.56
2539.800	H	47.76	-68.99	9.46	1.01	-60.54	-13.00	47.54
2539.800	V	48.71	-68.00	9.46	1.01	-59.55	-13.00	46.55
3386.400	H	44.36	-69.46	10.35	1.18	-60.29	-13.00	47.29
3386.400	V	44.55	-69.22	10.35	1.18	-60.05	-13.00	47.05

GSM1900(1-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Frequency: 1850.2 MHz								
3700.400	H	47.62	-66.37	10.60	1.25	-57.02	-13.00	44.02
3700.400	V	47.10	-66.87	10.60	1.25	-57.52	-13.00	44.52
5550.600	H	59.33	-51.28	11.44	1.49	-41.33	-13.00	28.33
5550.600	V	59.00	-51.44	11.44	1.49	-41.49	-13.00	28.49
Frequency: 1880 MHz								
3760.000	H	47.19	-65.93	10.66	1.24	-56.51	-13.00	43.51
3760.000	V	49.96	-63.04	10.66	1.24	-53.62	-13.00	40.62
5640.000	H	58.17	-52.81	11.33	1.54	-43.02	-13.00	30.02
5640.000	V	53.79	-57.07	11.33	1.54	-47.28	-13.00	34.28
Frequency: 1909.8 MHz								
3819.600	H	49.89	-62.71	10.72	1.29	-53.28	-13.00	40.28
3819.600	V	50.75	-61.70	10.72	1.29	-52.27	-13.00	39.27
5729.400	H	57.64	-53.67	11.22	1.59	-44.04	-13.00	31.04
5729.400	V	57.35	-53.83	11.22	1.59	-44.20	-13.00	31.20

WCDMA Band 2(1-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Frequency: 1852.4 MHz								
3704.800	H	44.45	-69.48	10.60	1.25	-60.13	-13.00	47.13
3704.800	V	45.14	-68.76	10.60	1.25	-59.41	-13.00	46.41
5557.200	H	46.33	-64.30	11.43	1.49	-54.36	-13.00	41.36
5557.200	V	45.52	-64.96	11.43	1.49	-55.02	-13.00	42.02
Frequency: 1880 MHz								
3760.000	H	45.15	-67.96	10.66	1.24	-58.54	-13.00	45.54
3760.000	V	45.48	-67.51	10.66	1.24	-58.09	-13.00	45.09
5640.000	H	45.40	-65.59	11.33	1.54	-55.80	-13.00	42.80
5640.000	V	45.96	-64.91	11.33	1.54	-55.12	-13.00	42.12
Frequency: 1907.6 MHz								
3815.200	H	44.60	-67.99	10.72	1.29	-58.56	-13.00	45.56
3815.200	V	45.46	-66.97	10.72	1.29	-57.54	-13.00	44.54
5722.800	H	44.77	-66.53	11.23	1.58	-56.88	-13.00	43.88
5722.800	V	45.93	-65.24	11.23	1.58	-55.59	-13.00	42.59

WCDMA Band 4(1-18GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Frequency: 1712.4 MHz								
3424.800	H	51.95	-62.10	10.37	1.17	-52.90	-13.00	39.90
3424.800	V	50.62	-63.40	10.37	1.17	-54.20	-13.00	41.20
5137.200	H	50.66	-60.22	11.28	1.46	-50.40	-13.00	37.40
5137.200	V	52.52	-58.25	11.28	1.46	-48.43	-13.00	35.43
Frequency: 1732.6 MHz								
3465.200	H	44.42	-69.75	10.39	1.15	-60.51	-13.00	47.51
3465.200	V	44.36	-69.76	10.39	1.15	-60.52	-13.00	47.52
5197.800	H	49.48	-61.95	11.32	1.44	-52.07	-13.00	39.07
5197.800	V	54.69	-56.59	11.32	1.44	-46.71	-13.00	33.71
Frequency: 1752.6 MHz								
3505.200	H	43.59	-70.67	10.41	1.18	-61.44	-13.00	48.44
3505.200	V	44.47	-69.72	10.41	1.18	-60.49	-13.00	47.49
5257.800	H	54.57	-56.58	11.35	1.47	-46.70	-13.00	33.70
5257.800	V	54.47	-56.46	11.35	1.47	-46.58	-13.00	33.58

LTE Bands:

(The Worst modulation and bandwidth was below)

LTE Band 4(1-18GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 1710.7 MHz								
3421.400	H	47.65	-66.39	10.37	1.17	-57.19	-13.00	44.19
3421.400	V	45.42	-68.60	10.37	1.17	-59.40	-13.00	46.40
5132.100	H	55.56	-55.27	11.28	1.47	-45.46	-13.00	32.46
5132.100	V	56.33	-54.39	11.28	1.47	-44.58	-13.00	31.58
1.4MHz QPSK RB1#0, Frequency: 1732.5 MHz								
3465.000	H	45.78	-68.39	10.39	1.15	-59.15	-13.00	46.15
3465.000	V	45.36	-68.76	10.39	1.15	-59.52	-13.00	46.52
5197.500	H	56.32	-55.11	11.32	1.44	-45.23	-13.00	32.23
5197.500	V	56.74	-54.54	11.32	1.44	-44.66	-13.00	31.66
1.4MHz QPSK RB1#0, Frequency: 1754.3 MHz								
3508.600	H	47.12	-67.13	10.41	1.19	-57.91	-13.00	44.91
3508.600	V	46.69	-67.49	10.41	1.19	-58.27	-13.00	45.27
5262.900	H	55.85	-55.27	11.36	1.47	-45.38	-13.00	32.38
5262.900	V	55.89	-55.01	11.36	1.47	-45.12	-13.00	32.12

LTE Band 5(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency:				824.7	MHz			
1649.400	H	51.91	-69.90	8.68	0.80	-62.02	-13.00	49.02
1649.400	V	52.30	-69.59	8.68	0.80	-61.71	-13.00	48.71
2474.100	H	53.49	-63.77	9.38	1.00	-55.39	-13.00	42.39
2474.100	V	54.88	-62.34	9.38	1.00	-53.96	-13.00	40.96
3298.800	H	44.42	-68.37	10.32	1.15	-59.20	-13.00	46.20
3298.800	V	45.84	-66.71	10.32	1.15	-57.54	-13.00	44.54
1.4MHz QPSK RB1#0, Frequency:				836.5	MHz			
1673.000	H	53.77	-68.00	8.71	0.85	-60.14	-13.00	47.14
1673.000	V	52.43	-69.44	8.71	0.85	-61.58	-13.00	48.58
2509.500	H	57.15	-59.85	9.42	1.01	-51.44	-13.00	38.44
2509.500	V	55.24	-61.78	9.42	1.01	-53.37	-13.00	40.37
3346.000	H	44.52	-68.81	10.34	1.16	-59.63	-13.00	46.63
3346.000	V	44.50	-68.69	10.34	1.16	-59.51	-13.00	46.51
1.4MHz QPSK RB1#0, Frequency:				848.3	MHz			
1696.600	H	52.66	-69.07	8.74	0.89	-61.22	-13.00	48.22
1696.600	V	51.25	-70.60	8.74	0.89	-62.75	-13.00	49.75
2544.900	H	54.32	-62.38	9.47	1.01	-53.92	-13.00	40.92
2544.900	V	55.50	-61.16	9.47	1.01	-52.70	-13.00	39.70
3393.200	H	44.58	-69.31	10.36	1.19	-60.14	-13.00	47.14
3393.200	V	44.60	-69.27	10.36	1.19	-60.10	-13.00	47.10

LTE Band 7(1-26GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency:				2502.5	MHz			
5005.000	H	48.92	-61.40	11.20	1.47	-51.67	-25.00	26.67
5005.000	V	45.73	-64.46	11.20	1.47	-54.73	-25.00	29.73
7507.500	H	44.99	-61.39	10.90	1.95	-52.44	-25.00	27.44
7507.500	V	45.23	-61.65	10.90	1.95	-52.70	-25.00	27.70
5MHz QPSK RB1#0, Frequency:				2535	MHz			
5070.000	H	53.89	-56.58	11.24	1.47	-46.81	-25.00	21.81
5070.000	V	47.50	-62.87	11.24	1.47	-53.10	-25.00	28.10
7605.000	H	47.77	-58.35	10.88	2.01	-49.48	-25.00	24.48
7605.000	V	47.02	-59.82	10.88	2.01	-50.95	-25.00	25.95
5MHz QPSK RB1#0, Frequency:				2567.5	MHz			
5135.000	H	60.46	-50.40	11.28	1.47	-40.59	-25.00	15.59
5135.000	V	49.30	-61.45	11.28	1.47	-51.64	-25.00	26.64
7702.500	H	47.13	-58.99	10.86	1.97	-50.10	-25.00	25.10
7702.500	V	46.96	-59.82	10.86	1.97	-50.93	-25.00	25.93

LTE Band 12(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 699.7 MHz								
1399.400	H	56.32	-64.97	8.22	0.71	-57.46	-13.00	44.46
1399.400	V	55.41	-65.92	8.22	0.71	-58.41	-13.00	45.41
2099.100	H	50.25	-68.78	9.16	0.91	-60.53	-13.00	47.53
2099.100	V	49.63	-69.35	9.16	0.91	-61.10	-13.00	48.10
2798.800	H	47.58	-68.65	9.88	1.04	-59.81	-13.00	46.81
2798.800	V	47.10	-69.00	9.88	1.04	-60.16	-13.00	47.16
1.4MHz QPSK RB1#0, Frequency: 707.5 MHz								
1415.000	H	51.58	-69.67	8.26	0.72	-62.13	-13.00	49.13
1415.000	V	51.25	-70.05	8.26	0.72	-62.51	-13.00	49.51
2122.500	H	52.60	-66.53	9.17	0.92	-58.28	-13.00	45.28
2122.500	V	49.02	-70.10	9.17	0.92	-61.85	-13.00	48.85
2830.000	H	46.74	-69.35	9.93	1.06	-60.48	-13.00	47.48
2830.000	V	46.88	-69.15	9.93	1.06	-60.28	-13.00	47.28
1.4MHz QPSK RB1#0, Frequency: 715.3 MHz								
1430.600	H	53.47	-67.73	8.31	0.73	-60.15	-13.00	47.15
1430.600	V	51.34	-69.92	8.31	0.73	-62.34	-13.00	49.34
2145.900	H	49.83	-69.41	9.19	0.93	-61.15	-13.00	48.15
2145.900	V	49.10	-70.16	9.19	0.93	-61.90	-13.00	48.90
2861.200	H	46.42	-69.52	9.98	1.07	-60.61	-13.00	47.61
2861.200	V	46.20	-69.75	9.98	1.07	-60.84	-13.00	47.84

LTE Band 13(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 779.5 MHz								
1559.000	H	49.30	-72.22	8.57	0.80	-64.45	-40.00	24.45
1559.000	V	50.21	-71.36	8.57	0.80	-63.59	-40.00	23.59
2338.500	H	48.96	-69.45	9.30	0.97	-61.12	-13.00	48.12
2338.500	V	49.31	-68.87	9.30	0.97	-60.54	-13.00	47.54
3118.000	H	48.25	-65.34	10.25	1.13	-56.22	-13.00	43.22
3118.000	V	47.66	-65.79	10.25	1.13	-56.67	-13.00	43.67
5MHz QPSK RB1#0, Frequency: 784.5 MHz								
1569.000	H	52.32	-69.29	8.58	0.81	-61.52	-40.00	21.52
1569.000	V	52.45	-69.21	8.58	0.81	-61.44	-40.00	21.44
2353.500	H	52.17	-66.08	9.31	0.97	-57.74	-13.00	44.74
2353.500	V	52.12	-65.89	9.31	0.97	-57.55	-13.00	44.55
3138.000	H	47.22	-66.28	10.26	1.14	-57.16	-13.00	44.16
3138.000	V	47.10	-66.23	10.26	1.14	-57.11	-13.00	44.11

LTE Band 14(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 790.5 MHz								
1581.000	H	52.68	-69.04	8.60	0.81	-61.25	-40.00	21.25
1581.000	V	52.10	-69.66	8.60	0.81	-61.87	-40.00	21.87
2371.500	H	49.33	-68.73	9.32	0.97	-60.38	-13.00	47.38
2371.500	V	48.77	-69.04	9.32	0.97	-60.69	-13.00	47.69
3162.000	H	46.55	-66.86	10.26	1.13	-57.73	-13.00	44.73
3162.000	V	47.20	-66.01	10.26	1.13	-56.88	-13.00	43.88
5MHz QPSK RB1#0, Frequency: 795.5 MHz								
1591.000	H	52.47	-69.35	8.61	0.82	-61.56	-40.00	21.56
1591.000	V	52.20	-69.65	8.61	0.82	-61.86	-40.00	21.86
2386.500	H	53.63	-64.27	9.33	0.98	-55.92	-13.00	42.92
2386.500	V	52.41	-65.24	9.33	0.98	-56.89	-13.00	43.89
3182.000	H	47.12	-66.20	10.27	1.12	-57.05	-13.00	44.05
3182.000	V	47.33	-65.77	10.27	1.12	-56.62	-13.00	43.62

LTE Band 17(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 706.5 MHz								
1413.000	H	50.23	-71.03	8.26	0.72	-63.49	-13.00	50.49
1413.000	V	50.45	-70.85	8.26	0.72	-63.31	-13.00	50.31
2119.500	H	49.36	-69.76	9.17	0.92	-61.51	-13.00	48.51
2119.500	V	49.65	-69.45	9.17	0.92	-61.20	-13.00	48.20
2826.000	H	47.55	-68.56	9.92	1.06	-59.70	-13.00	46.70
2826.000	V	47.63	-68.41	9.92	1.06	-59.55	-13.00	46.55
5MHz QPSK RB1#0, Frequency: 710 MHz								
1420.000	H	52.14	-69.09	8.28	0.73	-61.54	-13.00	48.54
1420.000	V	51.88	-69.40	8.28	0.73	-61.85	-13.00	48.85
2130.000	H	52.21	-66.96	9.18	0.92	-58.70	-13.00	45.70
2130.000	V	51.66	-67.50	9.18	0.92	-59.24	-13.00	46.24
2840.000	H	47.23	-68.81	9.94	1.06	-59.93	-13.00	46.93
2840.000	V	47.12	-68.88	9.94	1.06	-60.00	-13.00	47.00
5MHz QPSK RB1#0, Frequency: 713.5 MHz								
1427.000	H	52.68	-68.53	8.30	0.73	-60.96	-13.00	47.96
1427.000	V	51.63	-69.64	8.30	0.73	-62.07	-13.00	49.07
2140.500	H	48.70	-70.52	9.18	0.93	-62.27	-13.00	49.27
2140.500	V	48.35	-70.87	9.18	0.93	-62.62	-13.00	49.62
2854.000	H	47.22	-68.76	9.97	1.07	-59.86	-13.00	46.86
2854.000	V	47.86	-68.11	9.97	1.07	-59.21	-13.00	46.21

LTE Band 25(1-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 1850.4 MHz								
3700.800	H	52.41	-61.58	10.60	1.25	-52.23	-13.00	39.23
3700.800	V	51.66	-62.31	10.60	1.25	-52.96	-13.00	39.96
5551.200	H	50.69	-59.92	11.44	1.49	-49.97	-13.00	36.97
5551.200	V	51.36	-59.09	11.44	1.49	-49.14	-13.00	36.14
1.4MHz QPSK RB1#0, Frequency: 1882.5 MHz								
3765.000	H	47.22	-65.82	10.67	1.25	-56.40	-13.00	43.40
3765.000	V	47.63	-65.28	10.67	1.25	-55.86	-13.00	42.86
5647.500	H	47.63	-63.39	11.32	1.55	-53.62	-13.00	40.62
5647.500	V	47.58	-63.31	11.32	1.55	-53.54	-13.00	40.54
1.4MHz QPSK RB1#0, Frequency: 1914.3 MHz								
3828.600	H	50.44	-62.19	10.73	1.28	-52.74	-13.00	39.74
3828.600	V	50.69	-61.81	10.73	1.28	-52.36	-13.00	39.36
5742.900	H	48.69	-62.64	11.21	1.60	-53.03	-13.00	40.03
5742.900	V	48.63	-62.58	11.21	1.60	-52.97	-13.00	39.97

LTE Band 26(1-10GHz): **814-824MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 814.7 MHz								
1629.400	H	55.25	-66.60	8.66	0.81	-58.75	-13.00	45.75
1629.400	V	54.63	-67.28	8.66	0.81	-59.43	-13.00	46.43
2444.100	H	54.25	-63.21	9.37	1.00	-54.84	-13.00	41.84
2444.100	V	53.63	-63.70	9.37	1.00	-55.33	-13.00	42.33
3258.800	H	46.66	-66.31	10.30	1.17	-57.18	-13.00	44.18
3258.800	V	47.52	-65.21	10.30	1.17	-56.08	-13.00	43.08
1.4MHz QPSK RB1#0, Frequency: 823.3 MHz								
1646.600	H	52.98	-68.84	8.68	0.80	-60.96	-13.00	47.96
1646.600	V	52.89	-69.00	8.68	0.80	-61.12	-13.00	48.12
2469.900	H	52.79	-64.50	9.38	1.00	-56.12	-13.00	43.12
2469.900	V	51.80	-65.43	9.38	1.00	-57.05	-13.00	44.05
3293.200	H	45.64	-67.17	10.32	1.15	-58.00	-13.00	45.00
3293.200	V	44.88	-67.69	10.32	1.15	-58.52	-13.00	45.52

LTE Band 26(1-10GHz): **824-849MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 824.7 MHz								
1649.400	H	55.62	-66.19	8.68	0.80	-58.31	-13.00	45.31
1649.400	V	54.36	-67.53	8.68	0.80	-59.65	-13.00	46.65
2474.100	H	54.28	-62.98	9.38	1.00	-54.60	-13.00	41.60
2474.100	V	53.95	-63.26	9.38	1.00	-54.88	-13.00	41.88
3298.800	H	46.33	-66.46	10.32	1.15	-57.29	-13.00	44.29
3298.800	V	47.58	-64.97	10.32	1.15	-55.80	-13.00	42.80
1.4MHz QPSK RB1#0, Frequency: 836.5 MHz								
1673.000	H	52.47	-69.30	8.71	0.85	-61.44	-13.00	48.44
1673.000	V	52.51	-69.36	8.71	0.85	-61.50	-13.00	48.50
2509.500	H	52.95	-64.05	9.42	1.01	-55.64	-13.00	42.64
2509.500	V	51.38	-65.63	9.42	1.01	-57.22	-13.00	44.22
3346.000	H	45.26	-68.07	10.34	1.16	-58.89	-13.00	45.89
3346.000	V	44.81	-68.38	10.34	1.16	-59.20	-13.00	46.20
1.4MHz QPSK RB1#0, Frequency: 848.3 MHz								
1696.600	H	51.78	-69.95	8.74	0.89	-62.10	-13.00	49.10
1696.600	V	50.34	-71.51	8.74	0.89	-63.66	-13.00	50.66
2544.900	H	54.29	-62.41	9.47	1.01	-53.95	-13.00	40.95
2544.900	V	53.32	-63.34	9.47	1.01	-54.88	-13.00	41.88
3393.200	H	45.88	-68.02	10.36	1.19	-58.85	-13.00	45.85
3393.200	V	45.76	-68.10	10.36	1.19	-58.93	-13.00	45.93

LTE Band 38(1-26.5GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 2572.5 MHz								
5145.000	H	62.55	-48.40	11.29	1.44	-38.55	-25.00	13.55
5145.000	V	61.25	-49.58	11.29	1.44	-39.73	-25.00	14.73
7717.500	H	50.44	-55.66	10.86	1.99	-46.79	-25.00	21.79
7717.500	V	48.69	-58.04	10.86	1.99	-49.17	-25.00	24.17
5MHz QPSK RB1#0, Frequency: 2595 MHz								
5190.000	H	54.34	-57.02	11.31	1.44	-47.15	-25.00	22.15
5190.000	V	49.92	-61.30	11.31	1.44	-51.43	-25.00	26.43
7785.000	H	46.16	-59.88	10.84	1.99	-51.03	-25.00	26.03
7785.000	V	46.13	-60.35	10.84	1.99	-51.50	-25.00	26.50
5MHz QPSK RB1#0, Frequency: 2617.5 MHz								
5235.000	H	57.69	-53.58	11.34	1.46	-43.70	-25.00	18.70
5235.000	V	46.49	-64.59	11.34	1.46	-54.71	-25.00	29.71
7852.500	H	45.74	-60.08	10.83	2.03	-51.28	-25.00	26.28
7852.500	V	46.45	-59.76	10.83	2.03	-50.96	-25.00	25.96

LTE Band 41(1-27GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 2498.5 MHz								
4997.000	H	52.36	-57.94	11.20	1.48	-48.22	-25.00	23.22
4997.000	V	49.52	-60.66	11.20	1.48	-50.94	-25.00	25.94
7495.500	H	46.46	-59.91	10.90	1.94	-50.95	-25.00	25.95
7495.500	V	46.61	-60.25	10.90	1.94	-51.29	-25.00	26.29
5MHz QPSK RB1#0, Frequency: 2593 MHz								
5186.000	H	54.92	-56.40	11.31	1.44	-46.53	-25.00	21.53
5186.000	V	49.74	-61.45	11.31	1.44	-51.58	-25.00	26.58
7779.000	H	46.76	-59.29	10.84	1.99	-50.44	-25.00	25.44
7779.000	V	46.33	-60.17	10.84	1.99	-51.32	-25.00	26.32
5MHz QPSK RB1#0, Frequency: 2687.5 MHz								
5375.000	H	53.41	-57.57	11.43	1.49	-47.63	-25.00	22.63
5375.000	V	49.10	-61.87	11.43	1.49	-51.93	-25.00	26.93
8062.500	H	47.85	-57.03	10.81	2.12	-48.34	-25.00	23.34
8062.500	V	47.33	-58.04	10.81	2.12	-49.35	-25.00	24.35

LTE Band 66(1-18GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.4MHz QPSK RB1#0, Frequency: 1710.7 MHz								
3421.400	H	47.22	-66.82	10.37	1.17	-57.62	-13.00	44.62
3421.400	V	47.33	-66.68	10.37	1.17	-57.48	-13.00	44.48
5132.100	H	54.58	-56.25	11.28	1.47	-46.44	-13.00	33.44
5132.100	V	55.63	-55.09	11.28	1.47	-45.28	-13.00	32.28
1.4MHz QPSK RB1#0, Frequency: 1745 MHz								
3490.000	H	46.36	-67.88	10.40	1.17	-58.65	-13.00	45.65
3490.000	V	45.78	-68.41	10.40	1.17	-59.18	-13.00	46.18
5235.000	H	55.20	-56.07	11.34	1.46	-46.19	-13.00	33.19
5235.000	V	55.69	-55.39	11.34	1.46	-45.51	-13.00	32.51
1.4MHz QPSK RB1#0, Frequency: 1779.3 MHz								
3558.600	H	47.10	-67.03	10.46	1.22	-57.79	-13.00	44.79
3558.600	V	46.96	-67.06	10.46	1.22	-57.82	-13.00	44.82
5337.900	H	55.20	-55.76	11.40	1.47	-45.83	-13.00	32.83
5337.900	V	56.39	-54.43	11.40	1.47	-44.50	-13.00	31.50

LTE Band 71(1-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5MHz QPSK RB1#0, Frequency: 665.5 MHz								
1331.000	H	50.92	-69.41	8.03	0.76	-62.14	-13.00	49.14
1331.000	V	55.33	-65.33	8.03	0.76	-58.06	-13.00	45.06
1996.500	H	53.45	-65.89	9.10	0.89	-57.68	-13.00	44.68
1996.500	V	54.79	-63.94	9.10	0.89	-55.73	-13.00	42.73
2662.000	H	44.94	-71.34	9.66	1.06	-62.74	-13.00	49.74
2662.000	V	45.58	-70.62	9.66	1.06	-62.02	-13.00	49.02
5MHz QPSK RB1#0, Frequency: 680.5 MHz								
1361.000	H	53.07	-67.68	8.11	0.77	-60.34	-13.00	47.34
1361.000	V	52.35	-68.60	8.11	0.77	-61.26	-13.00	48.26
2041.500	H	57.75	-61.45	9.12	0.91	-53.24	-13.00	40.24
2041.500	V	55.39	-63.42	9.12	0.91	-55.21	-13.00	42.21
2722.000	H	44.65	-71.63	9.76	1.05	-62.92	-13.00	49.92
2722.000	V	44.55	-71.68	9.76	1.05	-62.97	-13.00	49.97
5MHz QPSK RB1#0, Frequency: 695.5 MHz								
1391.000	H	53.33	-67.84	8.19	0.72	-60.37	-13.00	47.37
1391.000	V	52.25	-69.00	8.19	0.72	-61.53	-13.00	48.53
2086.500	H	56.32	-62.75	9.15	0.91	-54.51	-13.00	41.51
2086.500	V	55.85	-63.09	9.15	0.91	-54.85	-13.00	41.85
2782.000	H	46.32	-69.92	9.85	1.05	-61.12	-13.00	48.12
2782.000	V	46.30	-69.83	9.85	1.05	-61.03	-13.00	48.03

Note 1:
The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.
Note 2:
Absolute Level = Substituted Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

5. EUT PHOTOGRAPHS

Please refer to the attachment 2503S31640E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2503S31640E-RF-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2503S31640E-RF-00G-TSP TEST SETUP PHOTOGRAPHS.

==== END OF REPORT =====