

TEST REPORT

Applicant: INGENICO

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Product Name: Smart POS Terminal

FCC ID: XKB-DX4LOBCLWB

Standard(s): 47 CFR Part 2, 47 CFR Part 22, Subpart H
47 CFR Part 24, Subpart E
47 CFR Part 27
ANSI C63.26-2015

Report Number: 2402Y99420E-RF-00EA1

Report Date: 2025/2/13

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

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CONTENTS

DOCUMENT REVISION HISTORY	4
1. GENERAL INFORMATION	5
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
1.2 ACCESSORY INFORMATION.....	5
1.3 OPERATION VOLTAGE(V_{DC})▲:	6
1.4 TRANSMISSION ANTENNA INFORMATION▲	6
1.5 EQUIPMENT MODIFICATIONS	6
2. SUMMARY OF TEST RESULTS	7
3. DESCRIPTION OF TEST CONFIGURATION	8
3.1 EUT OPERATION CONDITION:	8
3.2 SUPPORT EQUIPMENT LIST AND DETAILS	12
3.3 SUPPORT CABLE LIST AND DETAILS	12
3.4 BLOCK DIAGRAM OF TEST SETUP	12
3.5 TEST FACILITY.....	13
3.6 MEASUREMENT UNCERTAINTY	13
4. REQUIREMENTS AND TEST PROCEDURES	14
4.1 APPLICABLE STANDARD FOR PART 22 SUBPART H:	14
4.2 APPLICABLE STANDARD FOR PART 24 SUBPART E:	15
4.3 APPLICABLE STANDARD FOR PART 27:	16
4.4 TEST METHOD:	19
5. Test DATA AND RESULTS.....	22
5.1 ANTENNA PORT TEST DATA AND RESULTS FOR GSM 850 BAND:.....	22
5.2 ANTENNA PORT TEST DATA AND RESULTS FOR GSM 1900 BAND:.....	24
5.3 ANTENNA PORT TEST DATA AND RESULTS FOR WCDMA BAND 2:	26
5.4 ANTENNA PORT TEST DATA AND RESULTS FOR WCDMA BAND 4:	28
5.5 ANTENNA PORT TEST DATA AND RESULTS FOR WCDMA BAND 5:	30
5.6 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 2.....	33
5.7 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 4.....	36
5.8 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 5.....	41
5.9 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 7.....	44

5.10 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 12.....	47
5.11 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 17.....	50
5.12 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 41.....	52
5.13 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 66.....	55
5.14 RADIATED SPURIOUS EMISSIONS.....	58
EXHIBIT A - EUT PHOTOGRAPHS.....	76
EXHIBIT B - TEST SETUP PHOTOGRAPHS	77

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402Y99420E-RF-00EA1	Original Report	2025/2/13

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Smart POS Terminal
EUT Model:	AXIUM DX4000
Operation Bands and modes:	GPRS/EDGE: 850/1900 WCDMA: Band 2/4/5 LTE: Band 2/4/5/7/12/17/41/66
Modulation Type:	GMSK, 8PSK, BPSK, QPSK, 16QAM
Rated Input Voltage:	5Vdc from adapter or 7.2/7.4Vdc from battery
Serial Number:	For Radiated Spurious Emissions test: 2TOQ-1 (Configuration 1#: Screen 2#) 2TOQ-2 (Configuration 2#: Screen 1#) For RF Conducted test: 2TOQ-3 (Configuration 1#: Screen 2#) 2TOQ-4 (Configuration 2#: Screen 1#)
EUT Received Date:	2024/10/16
EUT Received Status:	Good

1.2 Accessory Information

Adapter Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter 1#	Xiamen Keli Electronics Co., Ltd	SW-0983	Input: 100-240Vac 50/60Hz0.5A Output: 5.0Vdc 2.0A
Adapter 2#	Jiangxi Jian Aohai Technology Co., Ltd	A319-050200U-US2	Input: 100-240Vac 50/60Hz0.5A Output: 5.0Vdc 2.0A
Adapter 3#	Xiamen Keli Electronics Co., Ltd	KL-WD050200U	Input: 100-240Vac 50/60Hz0.5A Output: 5.0Vdc 2.0A
Adapter 4# (New)	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD	KA1602-0502000DEU	Input: 100-240Vac 50/60Hz0.35A Output: 5.0Vdc 2.0A

Battery Information:

No.	Manufacturer	Model	Rated Voltage/Capacity
Battery 1#	XinyuGanfeng Electronics Co.,Ltd.	LD1865N	DC 7.4V Typical Capacity:2200mAh/16.28Wh
Battery 2# (Updated)	XinyuGanfeng Electronics Co.,Ltd.	LD18650P	7.2Vdc, Typical Capacity:3350mAh, 24.12Wh
Battery 3# (Updated)	SCUD (Fujian) Electronics CO.,LTD.	LD18650K-1	7.2Vdc, Typical Capacity:3350mAh, 24.12Wh
Battery 4# (New)	Dongguan Veken Battery Co.,Ltd. (Battery cell suplier: BAK)	LD18650N	7.2Vdc, Typical Capacity:2200mAh, 15.84Wh
Battery 5# (New)	Dongguan Veken Battery Co.,Ltd. (Battery cell suplier: EVE)	LD18650N	7.2Vdc, Typical Capacity:2200mAh, 15.84Wh

Screen Information:

No.	Manufacturer	Model
Screen 1#	GuangDonghongbosheng Optoelectronic Technology Co.,Ltd	MDT0500M
Screen 2#(New)	Shenzhen Great Prospect Optoelectronics Co.,Ltd.	MDT0500N

1.3 Operation Voltage(V_{DC})▲:

Lowest:	6.95	Normal:	7.2	Highest:	8.4
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1.4 Transmission Antenna Information▲

Manufacturer	Antenna Type	Operation Bands	Antenna Frequency Range (MHz)	Antenna Gain (Gr) (dBi)	Lc (dB)
Fuzhou ZHONGTIANXUN communication technology Co., Ltd	FPC	GSM850	824-849	-1.13	0.2
		PCS1900	1850-1910	0.45	0.3
		WCDMA B2	1850-1910	0.45	0.3
		WCDMA B4	1710-1755	1.81	0.3
		WCDMA B5	824-849	-1.13	0.2
		LTE B2	1850-1910	0.45	0.3
		LTE B4	1710-1755	1.81	0.3
		LTE B5	824-849	-1.13	0.2
		LTE B7	2500-2570	2.65	0.4
		LTE B12	699-716	-3.94	0.2
		LTE B17	704-716	-3.94	0.2
		LTE B41	2496-2690	2.67	0.4
		LTE B66	1710-1780	1.81	0.3
Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.					

1.5 Equipment Modifications

No modifications are made to the EUT during all test items.

2. SUMMARY OF TEST RESULTS

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

Note 1: This is Class II permissive change application based on the original device, model: AXIUM DX4000, FCC ID: XKB-DX4LOBCLWB, please refer to report No.: CR221263969-00E[▲], issued by China Certification ICT Co., Ltd (Dongguan) on 2023/4/23, which was provided by the manufacturer[▲]. Differences between the previous device and the current one are stated and guaranteed by the manufacturer, as following:

1. Add new Veken-2200mAh battery pack (2 different cells).
2. PCB upgrading with new Charge IC.
3. Add a new configuration with front camera.
4. Add a new Display.
5. WWAN Main Antenna changed.
6. Remove the Flypower adapter and add KEYU Multi-plug adapter..
7. Updated the label of current battery packs (LD18650P& LD18650k-1& LD18650N).
8. Changed battery protection circuit of LD18650k-1 and LD18650P.
9. Add the appearance color of the EUT.
10. Capacitors of NFC circuit adjusted.

The Bay Area Compliance Laboratories Corp. (Dongguan) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

Note 2: Per NFC report, powered by Battery 5# was the worst, so only performed it.

Note*: Please refer to report No.: CR221263969-00E[▲].

3. DESCRIPTION OF TEST CONFIGURATION

3.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in each operation mode.
Equipment Modifications:	No
EUT Exercise Software:	No
The maximum power was configured per 3GPP Standard for each operation modes as below setting:	
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 > GPRS or GPRS + 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		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				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9 15	1 / 5	0
	β_{ec}	20 /225	12/15	30 15	2/15	5/15
	β_c / β_d	11/15	6/15	15/9	2/15	-
	β_{hs}	22/15	12/15	30 15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
HSDPA Specific Settings	PR(dB)	0	2	1	2	0
	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
HSUPA Specific Settings	$A_{hs} = \beta_{hs} / \beta_c$	30/15				
	DE-DPCCH	6		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
	Referenc E_F 1	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

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
64 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	13	10	Table 6.2.4-2	Table 6.2.4-2
	6.6.3.3.2				
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		UpPTS		Extended cyclic prefix in downlink	
	DwPTS	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink	DwPTS	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	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
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 $\times (T_s) \times \# \text{ of S} + \# \text{ of U}$

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

where

$T_s = 1/(15000 \times 2048)$ seconds

3.2 Support Equipment List and Details

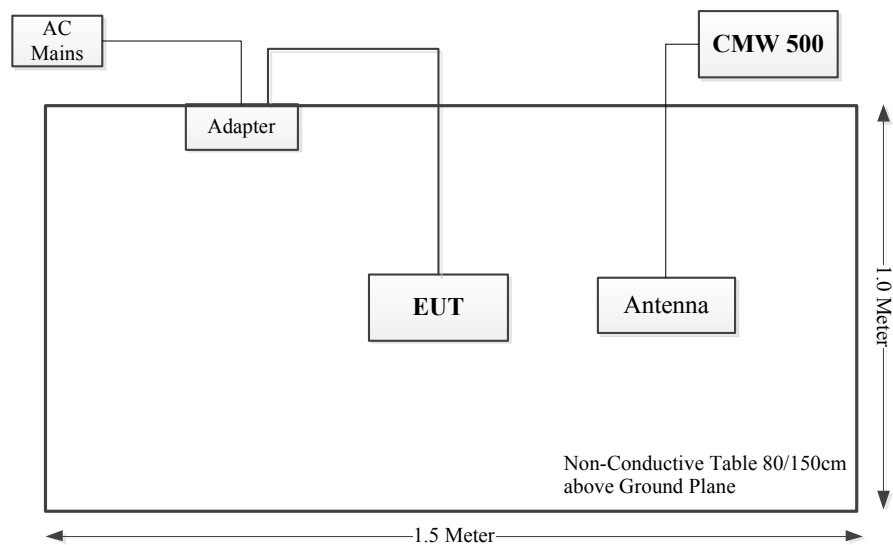
Manufacturer	Description	Model	Serial Number
R&S	Wideband Radio Communication Tester	CMW500	144976
Unknown	Antenna	Unknown	Unknown

3.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	1	Adapter	EUT
Signal Cable	No	No	3	Antenna	CMW500

3.4 Block Diagram of Test Setup

Radiated Spurious Emission:



3.5 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia 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. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3.6 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	30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
RF Frequency	±0.082×10 ⁻⁶

4. REQUIREMENTS AND TEST PROCEDURES

4.1 Applicable Standard For Part 22 Subpart H:

4.1.1 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-to-average 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 rms equivalent 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.

4.1.2 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

4.2 Applicable Standard For Part 24 Subpart E:

4.2.1 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.

4.2.2 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.

4.3 Applicable Standard For Part 27:

4.3.1 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.

(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.

4.3.2 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 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.

4.4 Test Method:

4.4.1 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:

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

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

where:

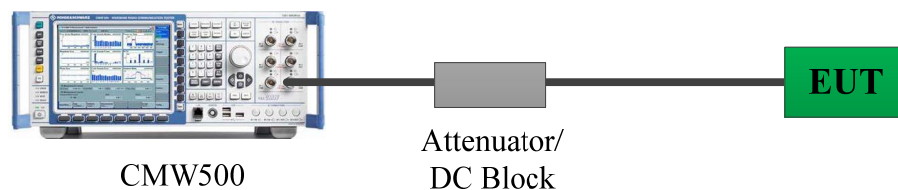
ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , typically dBW or dBm);

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.

4.4.2 Transmitter unwanted emissions- Radiated Spurious emissions

According to ANSI C63.26-2015 Section 5.5.3:

Test setup:

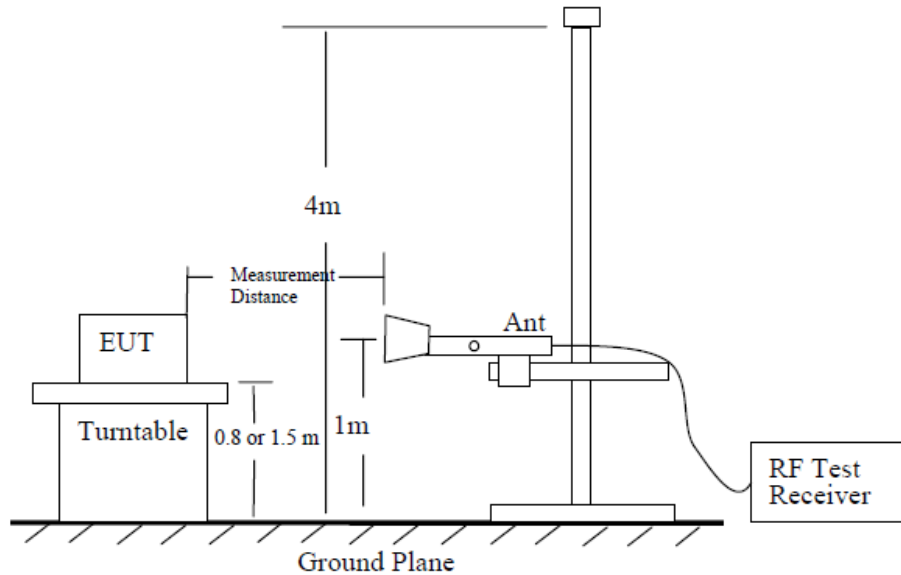


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

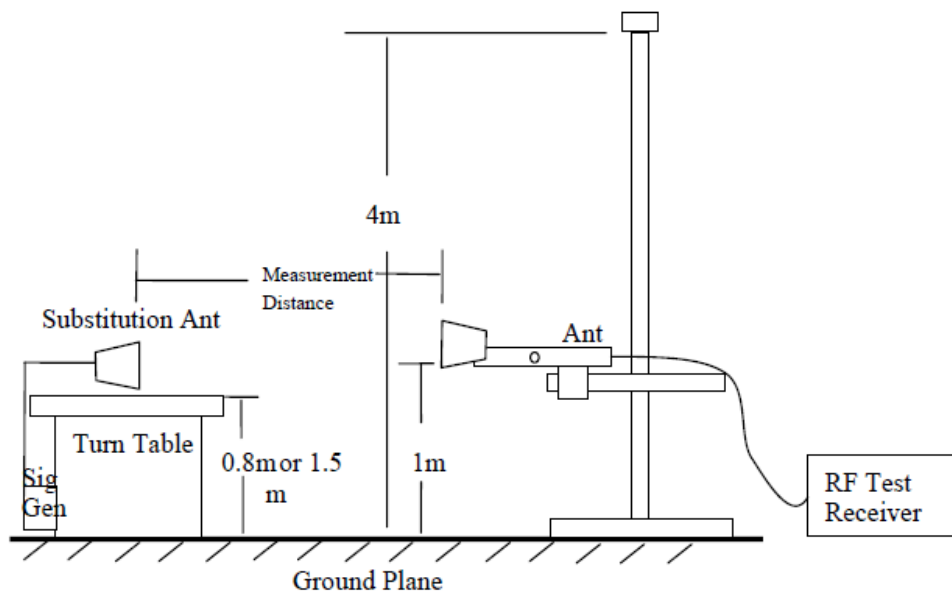


Figure 7—Substitution method set-up for radiated emission

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:

$$P_e = P_s(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$
 where

P_e = equivalent emission power in dBm
 P_s = 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: $\text{gain (dBd)} = \text{gain (dBi)} - 2.15 \text{ dB}$. 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.

5. Test DATA AND RESULTS

5.1 Antenna Port Test Data and Results for GSM 850 band:

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM488	2024/6/7	2025/6/6

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
GPRS	824.2	836.6	848.8
EDGE	824.2	836.6	848.8

Test Data:**FCC§2.1046;§ 22.913 (a):RF Output Power**

Test Mode	Conducted Peak Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
GPRS 1 Slot	32.8	32.65	32.77	29.32	38.45
GPRS 2 Slots	30.74	30.69	30.75	27.27	38.45
GPRS 3 Slots	28.69	28.78	28.72	25.3	38.45
GPRS 4 Slots	26.57	26.6	26.61	23.13	38.45
EDGE 1 Slot	28.9	28.61	28.39	25.42	38.45
EDGE 2 Slots	26.99	26.52	26.45	23.51	38.45
EDGE 3 Slots	24.88	24.61	24.54	21.4	38.45
EDGE 4 Slots	22.95	22.64	22.61	19.47	38.45

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

Result:**Pass**

5.2 Antenna Port Test Data and Results for GSM 1900 band:

Serial Number:	2TOQ-3, 2TOQ-4	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
GPRS	1850.2	1880	1909.8
EDGE	1850.2	1880	1909.8

Test Data:**Screen 1#****FCC§2.1046;§ 24.232 (c):RF Output Power**

Test Mode	Conducted Peak Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
GPRS 1 Slot	30.96	30.95	30.85	31.11	33
GPRS 2 Slots	28.95	29.03	28.89	29.18	33
GPRS 3 Slots	27.13	26.9	26.82	27.28	33
GPRS 4 Slots	24.98	24.9	24.84	25.13	33
EDGE 1 Slot	28.89	28.71	28.65	29.04	33
EDGE 2 Slots	26.96	26.8	26.53	27.11	33
EDGE 3 Slots	24.87	24.83	24.51	25.02	33
EDGE 4 Slots	22.98	22.88	22.47	23.13	33

Note: EIRP=Conducted Power(dBm) - Lc(dB) + G_T(dBi)**Result:****Pass****Spot Check:****Screen 2#****FCC§2.1046;§ 24.232 (c):RF Output Power**

Test Mode	Conducted Peak Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
GPRS 1 Slot	30.98	30.93	30.86	31.13	33
GPRS 2 Slots	29.01	28.91	28.8	29.16	33
GPRS 3 Slots	27.13	26.97	26.91	27.28	33
GPRS 4 Slots	25	24.9	24.97	25.15	33
EDGE 1 Slot	28.75	28.85	28.66	29	33
EDGE 2 Slots	26.95	26.84	26.65	27.1	33
EDGE 3 Slots	24.99	24.78	24.57	25.14	33
EDGE 4 Slots	22.92	22.9	22.55	23.07	33

Note: EIRP=Conducted Power(dBm) - Lc(dB) + G_T(dBi)**Result:****Pass**

5.3 Antenna Port Test Data and Results for WCDMA Band 2:

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:					
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM488	2024/6/7	2025/6/6
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).					

Test Frequency For Each Mode:			
Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
WCDMA	1852.4	1880	1907.6

Test Data:**FCC§2.1046;§ 24.232****RF Output Power:**

Test Mode	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	22.79	22.68	23.33	23.48	33
HSDPA Subtest 1	22.67	22.49	22.63	22.82	33
HSDPA Subtest 2	22.44	22.26	23.08	23.23	33
HSDPA Subtest 3	22.36	22.61	23.2	23.35	33
HSDPA Subtest 4	22.1	22.56	22.56	22.71	33
HSUPA Subtest 1	22.62	22.7	23.58	23.73	33
HSUPA Subtest 2	22.6	22.39	23.17	23.32	33
HSUPA Subtest 3	22.39	22.44	23.25	23.4	33
HSUPA Subtest 4	22.24	22.86	22.66	23.01	33
HSUPA Subtest 5	22.11	22.15	23.03	23.18	33
DC-HSDPA Subtest 1	22.86	22.92	23.4	23.55	33
DC-HSDPA Subtest 2	22.65	22.88	22.74	23.03	33
DC-HSDPA Subtest 3	22.52	23.14	22.59	23.29	33
DC-HSDPA Subtest 4	22.23	22.65	22.96	23.11	33
HSPA+ Subtest 1	22.09	22.46	22.58	22.73	33

Note: EIRP=Conducted Power(dBm) - Lc(dB) + G_T(dBi)**Result:****Pass**

5.4 Antenna Port Test Data and Results for WCDMA Band 4:

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	#REF!

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency For Each Mode:

Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
WCDMA	1712.4	1732.6	1752.6

Test Data:**FCC§2.1046;§27.50(d)(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	23	23.28	23.36	24.87	30
HSDPA Subtest 1	22.34	22.76	23.32	24.83	30
HSDPA Subtest 2	22.43	22.18	22.85	24.36	30
HSDPA Subtest 3	22.22	22.43	22.74	24.25	30
HSDPA Subtest 4	21.99	21.99	22.85	24.36	30
HSUPA Subtest 1	22.87	23.14	23.28	24.79	30
HSUPA Subtest 2	22.39	22.94	23.16	24.67	30
HSUPA Subtest 3	22.36	22.42	23.16	24.67	30
HSUPA Subtest 4	22.05	22.68	22.65	24.19	30
HSUPA Subtest 5	21.86	22.4	22.88	24.39	30
DC-HSDPA Subtest 1	22.55	22.58	23.55	25.06	30
DC-HSDPA Subtest 2	22.46	22.71	22.42	24.22	30
DC-HSDPA Subtest 3	22.44	22.52	22.63	24.14	30
DC-HSDPA Subtest 4	22.13	22.14	22.35	23.86	30
HSPA+ Subtest 1	21.83	22.42	22.82	24.33	30
Note: EIRP=Conducted Power(dBm) - Lc(dB) + G _T (dBi)					
				Result:	Pass

5.5 Antenna Port Test Data and Results for WCDMA Band 5:

Serial Number:	2TOQ-3, 2TOQ-4	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency:

Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
WCDMA	826.4	836.6	846.6

Test Data:**Screen 1#****FCC§2.1046;§ 22.913 (a)****RF Output Power:**

Test Mode	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	22.37	22.52	22.97	19.49	38.45
HSDPA Subtest 1	22.39	22.46	23.26	19.78	38.45
HSDPA Subtest 2	22.17	22.06	22.9	19.42	38.45
HSDPA Subtest 3	21.99	21.91	21.96	18.51	38.45
HSDPA Subtest 4	21.82	21.89	22.76	19.28	38.45
HSUPA Subtest 1	22.88	22.94	23.04	19.56	38.45
HSUPA Subtest 2	22.67	22.89	22.93	19.45	38.45
HSUPA Subtest 3	22.42	22.53	23.34	19.86	38.45
HSUPA Subtest 4	22.25	23.05	22.38	19.57	38.45
HSUPA Subtest 5	22.09	22.49	22.75	19.27	38.45
DC-HSDPA Subtest 1	22.81	22.91	23.28	19.8	38.45
DC-HSDPA Subtest 2	22.42	22.86	23.34	19.86	38.45
DC-HSDPA Subtest 3	22.35	22.45	23.11	19.63	38.45
DC-HSDPA Subtest 4	22.3	23.01	22.42	19.53	38.45
HSPA+ Subtest 1	22.03	21.96	22.26	18.78	38.45
Note: ERP= Conducted Power(dBm) - Lc(dB) + G _T (dBd) G _T (dBd)=G _T (dBi)-2.15					
				Result:	Pass

Spot Check:**Screen 2#****FCC§2.1046;§ 22.913 (a)****RF Output Power:**

Test Mode	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	22.38	22.44	22.93	19.45	38.45
HSDPA Subtest 1	22.43	22.42	23.32	19.84	38.45
HSDPA Subtest 2	22.19	22.05	22.92	19.44	38.45
HSDPA Subtest 3	21.97	21.87	22	18.52	38.45
HSDPA Subtest 4	21.83	21.82	22.73	19.25	38.45
HSUPA Subtest 1	22.8	23.03	22.93	19.55	38.45
HSUPA Subtest 2	22.67	22.84	22.79	19.36	38.45
HSUPA Subtest 3	22.54	22.51	23.34	19.86	38.45
HSUPA Subtest 4	22.34	23	22.33	19.52	38.45
HSUPA Subtest 5	22.1	22.46	22.87	19.39	38.45
DC-HSDPA Subtest 1	22.8	23.03	23.28	19.8	38.45
DC-HSDPA Subtest 2	22.39	22.91	23.35	19.87	38.45
DC-HSDPA Subtest 3	22.25	22.41	23.03	19.55	38.45
DC-HSDPA Subtest 4	22.22	23.08	22.35	19.6	38.45
HSPA+ Subtest 1	22.04	22.02	22.35	18.87	38.45

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

Result:**Pass**

5.6 Antenna Port Test Data and Results for LTE Band 2

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:					
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM488	2024/6/7	2025/6/6
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).					

Test Frequency For Each Mode:			
Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1850.7	1880	1909.3
3MHz	1851.5	1880	1908.5
5MHz	1852.5	1880	1907.5
10MHz	1855	1880	1905
15MHz	1857.5	1880	1902.5
20MHz	1860	1880	1900

Test Data:**FCC§2.1046;§ 24.232****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		
1.4MHz QPSK	RB1#0	22.67	22.98	22.8	23.21	33
	RB1#3	22.81	22.98	22.9		
	RB1#5	22.9	23.06	22.99		
	RB3#0	22.92	22.84	22.8		
	RB3#3	22.98	22.78	22.93		
	RB6#0	21.88	21.79	21.82		
1.4MHz 16QAM	RB1#0	21.65	22.27	21.97	22.58	33
	RB1#3	21.66	22.34	22.1		
	RB1#5	21.77	22.43	22.06		
	RB3#0	22.08	21.77	22.17		
	RB3#3	21.98	21.94	22.08		
	RB6#0	21.16	21.18	21.16		
3MHz QPSK	RB1#0	22.76	22.74	22.68	22.99	33
	RB1#8	22.78	22.83	22.74		
	RB1#14	22.84	22.75	22.73		
	RB6#0	21.85	21.83	21.84		
	RB6#9	21.98	21.78	21.79		
	RB15#0	21.75	21.75	21.83		
3MHz 16QAM	RB1#0	22.69	21.79	22.29	22.97	33
	RB1#8	22.68	21.68	22.32		
	RB1#14	22.82	21.67	22.28		
	RB6#0	21.01	20.92	20.88		
	RB6#9	21.01	21.03	20.85		
	RB15#0	20.98	20.97	21.02		
5MHz QPSK	RB1#0	22.77	22.76	22.83	23.09	33
	RB1#13	22.88	22.72	22.75		
	RB1#24	22.94	22.75	22.68		
	RB15#0	21.83	21.83	21.83		
	RB15#10	21.75	21.76	21.74		
	RB25#0	21.75	21.75	21.85		
5MHz 16QAM	RB1#0	21.93	21.44	20.98	22.26	33
	RB1#13	22.06	21.6	21		
	RB1#24	22.11	21.6	21		
	RB15#0	20.84	20.93	20.98		
	RB15#10	20.85	21.03	21		
	RB25#0	21	20.9	21.07		
10MHz QPSK	RB1#0	22.84	22.76	22.8	23.12	33
	RB1#25	22.93	22.73	22.7		

	RB1#49	22.97	22.85	22.78		
	RB25#0	21.88	21.78	21.9		
	RB25#25	21.98	21.94	21.83		
	RB50#0	21.83	21.79	21.86		
10MHz 16QAM	RB1#0	22.09	21.24	22.05	22.33	33
	RB1#25	22.17	21.23	22.18		
	RB1#49	22.04	21.27	22.06		
	RB25#0	21.15	21.1	20.97		
	RB25#25	21.15	21.21	20.92		
	RB50#0	21.17	20.99	21.05		
15MHz QPSK	RB1#0	22.99	22.67	22.75	23.14	33
	RB1#38	22.99	22.85	22.74		
	RB1#74	22.94	22.79	22.81		
	RB36#0	21.9	21.78	21.87		
	RB36#39	21.91	21.7	21.79		
	RB75#0	21.82	21.76	21.87		
15MHz 16QAM	RB1#0	22.01	22.26	22.11	22.47	33
	RB1#38	22.04	22.32	22.09		
	RB1#74	22.1	22.31	22.15		
	RB36#0	21.12	21.01	20.97		
	RB36#39	21.16	20.95	20.99		
	RB75#0	21.07	20.94	21.1		
20MHz QPSK	RB1#0	22.9	22.7	22.8	23.23	33
	RB1#50	23	22.79	22.76		
	RB1#99	23.08	22.92	22.91		
	RB50#0	21.88	21.77	21.88		
	RB50#50	21.96	21.9	21.91		
	RB100#0	21.9	21.77	21.84		
20MHz 16QAM	RB1#0	21.97	22.59	21.99	22.97	33
	RB1#50	21.9	22.67	22.01		
	RB1#99	21.89	22.82	22.2		
	RB50#0	21	20.93	21.01		
	RB50#50	20.92	20.95	21.11		
	RB100#0	21.06	21.04	20.97		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)						
					Result:	Pass

5.7 Antenna Port Test Data and Results for LTE Band 4

Serial Number:	2TOQ-3, 2TOQ-4	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1710.7	1732.5	1754.3
3MHz	1711.5	1732.5	1753.5
5MHz	1712.5	1732.5	1752.5
10MHz	1715	1732.5	1750
15MHz	1717.5	1732.5	1747.5
20MHz	1720	1732.5	1745

Test Data:**Screen 1#****FCC§2.1046;§ 27.50(d)(4)****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		
1.4MHz QPSK	RB1#0	22	21.85	22.05	23.61	30
	RB1#3	22.02	21.86	22.07		
	RB1#5	22.08	21.75	22.05		
	RB3#0	22.1	21.99	22		
	RB3#3	22.08	21.87	22.04		
	RB6#0	21.02	20.96	20.96		
1.4MHz 16QAM	RB1#0	21.3	20.4	21.83	23.34	30
	RB1#3	21.19	20.42	21.74		
	RB1#5	21.18	20.37	21.82		
	RB3#0	21.2	20.97	21.2		
	RB3#3	21.33	20.78	21.19		
	RB6#0	20.41	20.07	20.19		
3MHz QPSK	RB1#0	21.99	21.87	21.76	23.53	30
	RB1#8	22.02	21.93	21.84		
	RB1#14	22.02	21.47	21.77		
	RB6#0	21.12	20.97	20.98		
	RB6#9	21.24	20.92	20.84		
	RB15#0	21.03	20.91	21.03		
3MHz 16QAM	RB1#0	21.77	20.78	21.11	23.35	30
	RB1#8	21.84	20.82	21.14		
	RB1#14	21.79	20.84	21.03		
	RB6#0	20.32	20.3	20.06		
	RB6#9	20.3	20.23	20.03		
	RB15#0	20.17	20.18	20.17		
5MHz QPSK	RB1#0	22.22	21.95	21.82	23.73	30
	RB1#13	22.07	21.88	21.95		
	RB1#24	22.17	21.12	21.99		
	RB15#0	21.12	20.88	21.03		
	RB15#10	21.06	20.87	20.99		
	RB25#0	21.05	21.01	21.11		
5MHz 16QAM	RB1#0	21.21	20.63	20.27	22.93	30
	RB1#13	21.42	20.71	20.45		
	RB1#24	21.36	20.72	20.55		
	RB15#0	20.03	20.18	20.23		
	RB15#10	20.09	20.17	20.16		
	RB25#0	20.3	20.08	20.35		
10MHz QPSK	RB1#0	22.12	21.94	20.95	23.63	30

	RB1#25	22.08	21.94	21.95		
	RB1#49	22.07	21.29	22.01		
	RB25#0	21.19	21.01	20.9		
	RB25#25	21.08	20.83	21.12		
	RB50#0	21.17	20.96	21		
10MHz 16QAM	RB1#0	21.21	20.44	21.21	22.85	30
	RB1#25	21.28	20.44	21.32		
	RB1#49	21.31	20.51	21.34		
	RB25#0	20.26	20.25	20.17		
	RB25#25	20.22	20.22	20.07		
	RB50#0	20.34	20.15	20.16		
15MHz QPSK	RB1#0	22.08	21.94	20.83	23.64	30
	RB1#38	22.13	21.84	21.5		
	RB1#74	22.09	20.76	22.02		
	RB36#0	21.1	21.08	21		
	RB36#39	21.02	20.96	21.09		
	RB75#0	21.05	21.04	21.01		
15MHz 16QAM	RB1#0	21.28	21.37	21.27	22.9	30
	RB1#38	21.3	21.39	21.34		
	RB1#74	21.22	21.14	21.35		
	RB36#0	20.32	20.15	20.23		
	RB36#39	20.22	20.16	20.33		
	RB75#0	20.26	20.25	20.25		
20MHz QPSK	RB1#0	22.22	21.97	21.5	23.73	30
	RB1#50	22.16	21.88	21.04		
	RB1#99	22.1	21.09	22.21		
	RB50#0	21.2	21.08	20.85		
	RB50#50	21.05	20.94	21.03		
	RB100#0	21.08	20.96	20.96		
20MHz 16QAM	RB1#0	21.1	21.93	20.57	23.44	30
	RB1#50	21.12	21.69	20.79		
	RB1#99	21.14	21.64	20.78		
	RB50#0	20.28	20.14	20.13		
	RB50#50	20.19	20.17	20.11		
	RB100#0	20.13	20.25	20.1		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)						
					Result:	Pass

Spot check:
Screen 2#

FCC§2.1046;§ 27.50(d)(4)

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		
1.4MHz QPSK	RB1#0	22.02	21.84	22	23.63	30
	RB1#3	22.02	21.79	22.08		
	RB1#5	22.12	21.74	22		
	RB3#0	22.12	22.03	21.96		
	RB3#3	22.03	21.86	21.95		
	RB6#0	21.03	20.95	20.84		
1.4MHz 16QAM	RB1#0	21.21	20.31	21.73	23.39	30
	RB1#3	21.22	20.4	21.72		
	RB1#5	21.21	20.47	21.88		
	RB3#0	21.23	20.88	21.19		
	RB3#3	21.35	20.74	21.25		
	RB6#0	20.33	20.13	20.1		
3MHz QPSK	RB1#0	22.04	21.89	21.82	23.55	30
	RB1#8	21.96	21.87	21.77		
	RB1#14	22.04	21.61	21.72		
	RB6#0	21.1	20.86	20.94		
	RB6#9	21.14	20.97	20.88		
	RB15#0	21.04	20.97	21.09		
3MHz 16QAM	RB1#0	21.69	20.72	21.13	23.38	30
	RB1#8	21.87	20.78	21.14		
	RB1#14	21.79	20.84	21.07		
	RB6#0	20.27	20.27	20.08		
	RB6#9	20.21	20.32	20.08		
	RB15#0	20.15	20.22	20.15		
5MHz QPSK	RB1#0	22.23	21.9	21.87	23.74	30
	RB1#13	22.16	21.83	22.05		
	RB1#24	22.21	21.1	21.98		
	RB15#0	21.07	20.96	21.05		
	RB15#10	21.12	20.92	20.99		
	RB25#0	20.96	20.99	21.1		
5MHz 16QAM	RB1#0	21.28	20.62	20.39	22.88	30
	RB1#13	21.3	20.68	20.54		
	RB1#24	21.37	20.69	20.53		
	RB15#0	20.04	20.16	20.24		
	RB15#10	20.14	20.18	20.18		
	RB25#0	20.18	20.07	20.3		
10MHz QPSK	RB1#0	22.09	21.93	20.98	23.6	30

	RB1#25	21.99	21.86	21.87		
	RB1#49	22.07	21.25	21.93		
	RB25#0	21.15	20.9	20.9		
	RB25#25	21	20.91	21.06		
	RB50#0	21.1	20.88	21.04		
10MHz 16QAM	RB1#0	21.23	20.41	21.2	22.85	30
	RB1#25	21.3	20.43	21.34		
	RB1#49	21.3	20.47	21.28		
	RB25#0	20.28	20.38	20.16		
	RB25#25	20.31	20.3	20.09		
	RB50#0	20.28	20.16	20.23		
15MHz QPSK	RB1#0	22	21.94	20.83	23.68	30
	RB1#38	22.11	21.82	21.44		
	RB1#74	22.17	20.86	21.99		
	RB36#0	21.14	20.99	20.87		
	RB36#39	21.03	20.87	21.03		
	RB75#0	21.1	20.96	20.92		
15MHz 16QAM	RB1#0	21.16	21.42	21.26	22.93	30
	RB1#38	21.35	21.32	21.37		
	RB1#74	21.14	21.14	21.35		
	RB36#0	20.3	20.13	20.15		
	RB36#39	20.27	20.1	20.24		
	RB75#0	20.27	20.21	20.2		
20MHz QPSK	RB1#0	22.17	22.02	21.39	23.83	30
	RB1#50	22.16	21.97	21.05		
	RB1#99	22.2	21.1	22.32		
	RB50#0	21.13	20.97	20.93		
	RB50#50	21.03	20.93	21.06		
	RB100#0	21.17	21.04	20.94		
20MHz 16QAM	RB1#0	21.1	21.93	20.6	23.44	30
	RB1#50	21.11	21.84	20.74		
	RB1#99	21.19	21.59	20.87		
	RB50#0	20.19	20.07	20.08		
	RB50#50	20.08	20.16	20.1		
	RB100#0	20.11	20.19	20.06		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Grt(dBi)					Result:	Pass

5.8 Antenna Port Test Data and Results for LTE Band 5

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	824.7	836.5	848.3
3MHz	825.5	836.5	847.5
5MHz	826.5	836.5	846.5
10MHz	829	836.5	844

Test Data:**FCC§2.1046;§ 22.913 (a)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.71	22.6	22.8	19.59	38.45
	RB1#3	22.83	22.73	22.97		
	RB1#5	22.79	22.75	22.94		
	RB3#0	23.07	22.93	22.74		
	RB3#3	22.99	22.98	22.89		
	RB6#0	22.01	21.82	21.83		
1.4MHz 16QAM	RB1#0	22.71	21.53	21.82	19.23	38.45
	RB1#3	22.58	21.5	22.04		
	RB1#5	22.68	21.59	21.98		
	RB3#0	21.97	21.98	21.62		
	RB3#3	21.88	21.95	21.99		
	RB6#0	21.01	20.97	21.14		
3MHz QPSK	RB1#0	22.73	22.62	22.75	19.46	38.45
	RB1#8	22.94	22.73	22.69		
	RB1#14	22.72	22.8	22.9		
	RB6#0	22	21.98	21.74		
	RB6#9	21.98	21.98	21.87		
	RB15#0	22.05	21.81	21.7		
3MHz 16QAM	RB1#0	22.7	21.58	21.96	19.22	38.45
	RB1#8	22.63	21.52	22		
	RB1#14	22.62	21.49	22.28		
	RB6#0	21.04	21.18	20.83		
	RB6#9	21.03	21.09	20.9		
	RB15#0	21.01	21.03	21.03		
5MHz QPSK	RB1#0	22.89	22.5	22.68	19.41	38.45
	RB1#13	22.84	22.71	22.71		
	RB1#24	22.87	22.82	22.88		
	RB15#0	21.95	21.82	21.72		
	RB15#10	21.96	21.9	21.71		
	RB25#0	21.92	21.84	21.7		
5MHz 16QAM	RB1#0	22.08	21.54	20.79	18.6	38.45
	RB1#13	21.91	21.63	20.76		
	RB1#24	21.99	21.71	20.87		
	RB15#0	20.89	21	20.93		
	RB15#10	20.83	21.08	21		
	RB25#0	20.95	20.86	21.02		
10MHz QPSK	RB1#0	23.03	22.75	22.61	19.55	38.45
	RB1#25	22.97	22.85	22.74		

	RB1#49	23.02	22.86	22.84		
	RB25#0	21.92	21.93	21.71		
	RB25#25	21.93	21.99	21.73		
	RB50#0	22.06	21.88	21.85		
10MHz 16QAM	RB1#0	22.03	21.41	22.02	18.64	38.45
	RB1#25	22.12	21.5	22.09		
	RB1#49	21.99	21.31	21.99		
	RB25#0	21.02	21.08	20.96		
	RB25#25	21.06	21.11	20.94		
	RB50#0	21.02	20.98	21.01		
Note: ERP= Conducted Power(dBm) - Lc(dB) + G _T (dBd) G _T (dBd)=G _T (dBi)-2.15						
					Result:	Pass

5.9 Antenna Port Test Data and Results for LTE Band 7

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:					
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).					

Test Frequency For Each Mode:			
Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2502.5	2535	2567.5
10MHz	2505	2535	2565
15MHz	2507.5	2535	2562.5
20MHz	2510	2535	2560

Test Data:**FCC§2.1046;§ 27.50(h)(2)****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	21.89	21.84	19.83	24.14	33
	RB1#13	21.8	21.84	20		
	RB1#24	21.69	21.66	19.46		
	RB15#0	20.79	20.81	19.91		
	RB15#10	20.77	20.85	19.86		
	RB25#0	20.85	20.73	19.74		
5MHz 16QAM	RB1#0	20.87	20.52	19.51	23.15	33
	RB1#13	20.9	20.42	19.78		
	RB1#24	20.88	20.6	19.31		
	RB15#0	19.75	19.95	19.94		
	RB15#10	19.81	19.98	19.84		
	RB25#0	19.95	19.92	19.76		
10MHz QPSK	RB1#0	21.73	21.76	20.3	24.12	33
	RB1#25	21.85	21.87	20.05		
	RB1#49	21.71	21.87	20.01		
	RB25#0	20.84	20.79	20.19		
	RB25#25	20.9	20.99	20.08		
	RB50#0	20.76	20.92	20.16		
10MHz 16QAM	RB1#0	20.99	20.47	20.61	23.37	33
	RB1#25	20.92	20.35	20.4		
	RB1#49	21.12	20.45	20.37		
	RB25#0	20.01	20.05	20.15		
	RB25#25	20.12	20.19	20.06		
	RB50#0	19.98	20.04	20.01		
15MHz QPSK	RB1#0	21.78	21.88	21.1	24.18	33
	RB1#38	21.58	21.8	20.16		
	RB1#74	21.5	21.93	19.68		
	RB36#0	20.95	20.95	20.67		
	RB36#39	20.77	20.91	19.96		
	RB75#0	20.96	20.72	20.37		
15MHz 16QAM	RB1#0	21.11	21.36	21.19	23.72	33
	RB1#38	21.12	21.26	20.51		
	RB1#74	21.23	21.47	20.05		
	RB36#0	20.03	20.03	20.3		
	RB36#39	20.07	19.99	19.92		
	RB75#0	20.04	20.1	20.2		
20MHz QPSK	RB1#0	21.75	21.68	21.9	24.19	33
	RB1#50	21.43	21.83	20.41		

	RB1#99	21.94	21.88	20.23		
	RB50#0	20.77	20.81	21		
	RB50#50	20.73	20.9	20.14		
	RB100#0	20.93	20.81	20.67		
20MHz 16QAM	RB1#0	20.93	21.71	21	24.06	33
	RB1#50	21	21.71	20.63		
	RB1#99	21.09	21.81	20.42		
	RB50#0	20.01	19.88	20.21		
	RB50#50	19.99	20.07	20.17		
	RB100#0	19.84	20.08	20.18		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + G _T (dBi)						
					Result:	Pass

5.10 Antenna Port Test Data and Results for LTE Band 12

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:					
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).					

Test Frequency For Each Mode:			
Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	699.7	707.5	715.3
3MHz	700.5	707.5	714.5
5MHz	701.5	707.5	713.5
10MHz	704	707.5	711

Test Data:**FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.24	22.42	22.46	16.21	34.77
	RB1#3	22.37	22.38	22.42		
	RB1#5	22.32	22.32	22.35		
	RB3#0	22.38	22.47	22.49		
	RB3#3	22.42	22.31	22.5		
	RB6#0	21.49	21.41	21.48		
1.4MHz 16QAM	RB1#0	22.21	20.85	21.9	15.96	34.77
	RB1#3	22.18	20.9	21.86		
	RB1#5	22.25	20.92	21.92		
	RB3#0	21.36	21.16	21.47		
	RB3#3	21.19	21.25	21.51		
	RB6#0	20.39	20.48	20.75		
3MHz QPSK	RB1#0	22.31	22.33	22.43	16.28	34.77
	RB1#8	22.39	22.28	22.57		
	RB1#14	22.51	22.34	22.43		
	RB6#0	21.57	21.41	21.53		
	RB6#9	21.42	21.38	21.47		
	RB15#0	21.38	21.29	21.58		
3MHz 16QAM	RB1#0	22.17	20.98	21.79	16.01	34.77
	RB1#8	22.26	20.94	21.78		
	RB1#14	22.3	21.07	21.77		
	RB6#0	20.54	20.68	20.57		
	RB6#9	20.45	20.66	20.53		
	RB15#0	20.48	20.38	20.56		
5MHz QPSK	RB1#0	22.37	22.34	22.42	16.19	34.77
	RB1#13	22.36	22.27	22.44		
	RB1#24	22.33	22.41	22.48		
	RB15#0	21.43	21.33	21.5		
	RB15#10	21.4	21.43	21.52		
	RB25#0	21.52	21.53	21.44		
5MHz 16QAM	RB1#0	21.44	20.89	20.54	15.26	34.77
	RB1#13	21.55	21.01	20.63		
	RB1#24	21.45	20.96	20.5		
	RB15#0	20.37	20.47	20.66		
	RB15#10	20.41	20.56	20.67		
	RB25#0	20.51	20.29	20.64		
10MHz QPSK	RB1#0	22.34	22.43	22.2	16.18	34.77
	RB1#25	22.42	22.3	22.25		

	RB1#49	22.46	22.47	22.37		
	RB25#0	21.45	21.34	21.41		
	RB25#25	21.36	21.39	21.53		
	RB50#0	21.38	21.49	21.5		
10MHz 16QAM	RB1#0	21.46	20.79	21.36	15.43	34.77
	RB1#25	21.42	20.87	21.54		
	RB1#49	21.45	20.92	21.72		
	RB25#0	20.43	20.55	20.45		
	RB25#25	20.49	20.69	20.52		
	RB50#0	20.45	20.39	20.55		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G_T(dBd)

G_T(dBd)=G_T(dBi)-2.15

Result:	Pass
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5.11 Antenna Port Test Data and Results for LTE Band 17

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	706.5	710	713.5
10MHz	709	710	711

Test Data:**FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	22.38	22.15	22.37	16.13	34.77
	RB1#13	22.27	22.25	22.38		
	RB1#24	22.42	22.32	22.4		
	RB15#0	21.42	21.34	21.41		
	RB15#10	21.36	21.28	21.43		
	RB25#0	21.37	21.4	21.52		
5MHz 16QAM	RB1#0	21.41	20.9	20.52	15.14	34.77
	RB1#13	21.29	20.95	20.64		
	RB1#24	21.43	21.06	20.6		
	RB15#0	20.38	20.6	20.54		
	RB15#10	20.34	20.59	20.56		
	RB25#0	20.4	20.41	20.64		
10MHz QPSK	RB1#0	22.38	22.34	22.33	16.36	34.77
	RB1#25	22.36	22.45	22.33		
	RB1#49	22.65	22.45	22.44		
	RB25#0	21.26	21.3	21.37		
	RB25#25	21.5	21.52	21.49		
	RB50#0	21.31	21.4	21.4		
10MHz 16QAM	RB1#0	21.41	20.91	21.45	15.35	34.77
	RB1#25	21.36	20.96	21.49		
	RB1#49	21.64	21.02	21.59		
	RB25#0	20.37	20.6	20.42		
	RB25#25	20.72	20.69	20.57		
	RB50#0	20.55	20.54	20.52		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

Result:**Pass**

5.12 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2498.5	2593	2687.5
10MHz	2501	2593	2685
15MHz	2503.5	2593	2682.5
20MHz	2506	2593	2680

Test Data:**FCC§2.1046;§ 27.50(h)(2)****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	22.04	22.16	22.09	24.78	33
	RB1#13	22.03	22.22	22.51		
	RB1#24	22.02	22.24	22.14		
	RB15#0	20.82	21.36	21.48		
	RB15#10	20.89	21.33	21.5		
	RB25#0	20.84	21.34	21.47		
5MHz 16QAM	RB1#0	21.27	21.07	22.02	24.29	33
	RB1#13	21.15	21	21.66		
	RB1#24	21.44	21.29	21.55		
	RB15#0	20.28	20.67	20.77		
	RB15#10	20.17	20.69	20.84		
	RB25#0	20.36	20.44	20.83		
10MHz QPSK	RB1#0	22.14	22.4	22.3	24.86	33
	RB1#25	22.21	22.49	22.54		
	RB1#49	22.05	22.47	22.59		
	RB25#0	21.11	21.41	21.69		
	RB25#25	21.14	21.49	21.72		
	RB50#0	21.07	21.49	21.6		
10MHz 16QAM	RB1#0	21.63	22.06	21.74	24.33	33
	RB1#25	21.3	21.98	21.66		
	RB1#49	21.22	22.02	21.75		
	RB25#0	20.37	20.7	20.79		
	RB25#25	20.33	20.72	20.93		
	RB50#0	20.38	20.62	20.89		
15MHz QPSK	RB1#0	22.03	22.09	22.33	24.71	33
	RB1#38	22.03	22.3	22.43		
	RB1#74	22.19	22.12	22.44		
	RB36#0	21.15	21.51	21.75		
	RB36#39	21.24	21.48	21.79		
	RB75#0	21.01	21.47	21.67		
15MHz 16QAM	RB1#0	21.58	21.75	21.83	24.11	33
	RB1#38	21.24	21.65	21.69		
	RB1#74	21.78	21.7	21.84		
	RB36#0	20.35	20.54	20.77		
	RB36#39	20.37	20.54	20.84		
	RB75#0	20.27	20.57	20.86		
20MHz QPSK	RB1#0	21.98	22.48	22.49	25.05	33
	RB1#50	22.07	22.53	22.48		

	RB1#99	22.03	22.54	22.78		
	RB50#0	21.04	21.34	21.6		
	RB50#50	21.02	21.5	21.7		
	RB100#0	21.01	21.31	21.49		
20MHz 16QAM	RB1#0	20.66	21.95	21.89	24.35	33
	RB1#50	20.87	22.04	22.08		
	RB1#99	20.79	21.99	21.95		
	RB50#0	20.13	20.57	20.8		
	RB50#50	20.17	20.62	20.85		
	RB100#0	20.01	20.59	20.77		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + G _T (dBi)						
					Result:	Pass

5.13 Antenna Port Test Data and Results for LTE Band 66

Serial Number:	2TOQ-3	Test Date:	2025/2/12
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.4	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/9/5	2025/9/4
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08-EM488	2024/6/7	2025/6/6

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1710.7	1745	1779.3
3MHz	1711.5	1745	1778.5
5MHz	1712.5	1745	1777.5
10MHz	1715	1745	1775
15MHz	1717.5	1745	1772.5
20MHz	1720	1745	1770

Test Data:**FCC§2.1046;§ 27.50(d)(4)****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		
1.4MHz QPSK	RB1#0	21.98	21.8	22.21	23.72	30
	RB1#3	21.99	21.91	22.13		
	RB1#5	21.97	21.93	22.12		
	RB3#0	22.04	21.87	22.04		
	RB3#3	22.1	21.9	22.03		
	RB6#0	20.97	20.82	21.1		
1.4MHz 16QAM	RB1#0	20.93	21.76	21.22	23.27	30
	RB1#3	20.89	21.76	21.23		
	RB1#5	20.86	21.71	21.31		
	RB3#0	21.14	21.05	21.28		
	RB3#3	21.21	21.1	21.33		
	RB6#0	20.33	19.98	20.3		
3MHz QPSK	RB1#0	21.98	21.61	21.9	23.49	30
	RB1#8	21.9	21.78	21.85		
	RB1#14	21.9	21.67	21.97		
	RB6#0	21.1	20.81	21.11		
	RB6#9	21.09	20.83	21.04		
	RB15#0	21.11	20.86	21.22		
3MHz 16QAM	RB1#0	21.78	20.93	21.62	23.29	30
	RB1#8	21.69	20.78	21.43		
	RB1#14	21.7	20.77	21.52		
	RB6#0	20.24	20.23	20.22		
	RB6#9	20.16	20.26	20.11		
	RB15#0	20.17	20.13	20.28		
5MHz QPSK	RB1#0	21.97	21.15	22.01	23.66	30
	RB1#13	22.03	21.65	22.15		
	RB1#24	22.1	21.41	21.99		
	RB15#0	20.96	20.79	21.2		
	RB15#10	20.96	20.76	21.08		
	RB25#0	21.04	20.8	21.12		
5MHz 16QAM	RB1#0	21.23	20.69	20.28	22.84	30
	RB1#13	21.3	20.68	20.32		
	RB1#24	21.33	20.7	20.28		
	RB15#0	20.06	20.04	20.31		
	RB15#10	20.13	20.03	20.36		
	RB25#0	20.26	19.96	20.31		
10MHz QPSK	RB1#0	22.1	21.37	21.93	23.61	30
	RB1#25	22.04	21.56	21.88		

	RB1#49	22.08	21.94	21.97		
	RB25#0	20.97	20.74	21.04		
	RB25#25	21	20.83	20.99		
	RB50#0	20.98	20.87	21.03		
10MHz 16QAM	RB1#0	21.24	20.51	21.32	22.96	30
	RB1#25	21.19	20.53	21.34		
	RB1#49	21.33	20.44	21.45		
	RB25#0	20.29	20.12	20.13		
	RB25#25	20.26	20.03	20.22		
	RB50#0	20.27	20.03	20.25		
15MHz QPSK	RB1#0	22.07	21.57	21.84	23.65	30
	RB1#38	22.04	21.52	21.91		
	RB1#74	22.14	21.87	22.01		
	RB36#0	21.06	20.85	21.05		
	RB36#39	21.09	20.83	21.11		
	RB75#0	21.03	20.74	21.05		
15MHz 16QAM	RB1#0	21.2	21.26	21.29	22.85	30
	RB1#38	21.28	21.3	21.34		
	RB1#74	21.27	21.25	21.33		
	RB36#0	20.28	19.94	20.22		
	RB36#39	20.33	20.05	20.31		
	RB75#0	20.34	19.98	20.35		
20MHz QPSK	RB1#0	22.14	21.96	21.98	23.65	30
	RB1#50	22.09	21.3	22.04		
	RB1#99	22.09	21.84	22		
	RB50#0	21.07	20.81	20.87		
	RB50#50	20.98	20.9	21.07		
	RB100#0	21.07	20.81	21		
20MHz 16QAM	RB1#0	21.09	21.72	21.07	23.23	30
	RB1#50	21.01	21.52	21.2		
	RB1#99	21.05	21.54	21.37		
	RB50#0	20.26	20.02	20.21		
	RB50#50	20.21	19.9	20.19		
	RB100#0	20.26	20.04	20.21		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)						
					Result:	Pass

5.14 Radiated Spurious Emissions

Serial Number:	2TOQ-1, 2TOQ-2	Test Date:	2024/10/25
Test Site:	Chamber 10m, Chamber B	Test Mode:	Transmitting
Tester:	Leesin Xiang, Leo Xiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.5~26.8	Relative Humidity: (%)	32~50	ATM Pressure: (kPa)	100.9
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
30MHz~1000MHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
Agilent	Signal Generator	E8247C	MY43321350	2024/9/5	2025/9/4
E-Microwave	Band Rejection Filter	OBF-ZP-703-748-SMAF	OE01902425	2024/6/7	2025/6/6
Sinoscite	Band Rejection Filter	BSF824-862MS	1438001	2024/6/7	2025/6/6
Sinoscite	Band Rejection Filter	BSF880-915MN	0382003	2024/6/11	2025/6/10

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-03 1304	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-02 1302	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2023/12/11	2024/12/10
Agilent	Signal Generator	E8247C	MY43321350	2024/9/5	2025/9/4
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
AH	Preamplifier	PAM-1840VH	191	2024/9/5	2025/9/4
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
R&S	Wideband Radio Communication Tester	CMW500	147473	2024/9/5	2025/9/4

* *Statement of Traceability: Bay Area Compliance Laboratories Corp. (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:

Screen 2#
Cellular Band (30MHz-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)			
GSM 850 Frequency:824.2MHz								
456.80	H	41.67	-64.34	0.00	0.36	-64.70	-13.00	51.70
460.68	V	40.52	-62.75	0.00	0.36	-63.11	-13.00	50.11
1648.40	H	87.17	-37.96	10.44	0.71	-28.23	-13.00	15.23
1648.40	V	84.46	-41.27	10.44	0.71	-31.54	-13.00	18.54
2472.60	H	76.77	-46.01	12.88	1.25	-34.38	-13.00	21.38
2472.60	V	71.37	-51.46	12.88	1.25	-39.83	-13.00	26.83
3296.80	H	66.56	-52.83	13.60	1.59	-40.82	-13.00	27.82
3296.80	V	66.10	-53.29	13.60	1.59	-41.28	-13.00	28.28
GSM 850 Frequency:836.6MHz								
455.72	H	42.42	-63.60	0.00	0.36	-63.96	-13.00	50.96
461.50	V	40.73	-62.53	0.00	0.36	-62.89	-13.00	49.89
1673.20	H	85.82	-38.93	10.61	0.73	-29.05	-13.00	16.05
1673.20	V	83.56	-41.79	10.61	0.73	-31.91	-13.00	18.91
2509.80	H	75.43	-47.45	13.11	1.25	-35.59	-13.00	22.59
2509.80	V	77.95	-44.95	13.11	1.25	-33.09	-13.00	20.09
3346.40	H	65.23	-53.98	13.83	1.61	-41.76	-13.00	28.76
3346.40	V	64.76	-54.50	13.83	1.61	-42.28	-13.00	29.28
GSM 850 Frequency:848.8MHz								
448.72	H	41.77	-64.35	0.00	0.37	-64.72	-13.00	51.72
465.35	V	41.00	-62.21	0.00	0.36	-62.57	-13.00	49.57
1697.60	H	84.32	-40.05	10.78	0.75	-30.02	-13.00	17.02
1697.60	V	83.39	-41.58	10.78	0.75	-31.55	-13.00	18.55
2546.40	H	76.82	-46.05	13.15	1.27	-34.17	-13.00	21.17
2546.40	V	80.58	-42.43	13.15	1.27	-30.55	-13.00	17.55
3395.20	H	63.22	-55.77	14.08	1.64	-43.33	-13.00	30.33
3395.20	V	64.14	-54.95	14.08	1.64	-42.51	-13.00	29.51

PCS Band (30MHz-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)			
GSM 1900 Frequency:1850.2MHz								
475.53	H	42.63	-63.12	0.00	0.36	-63.48	-13.00	50.48
454.42	V	40.55	-62.81	0.00	0.36	-63.17	-13.00	50.17
3700.40	H	55.55	-63.02	14.00	1.83	-50.85	-13.00	37.85
3700.40	V	59.21	-59.34	14.00	1.83	-47.17	-13.00	34.17
5550.60	H	55.54	-58.57	13.95	1.27	-45.89	-13.00	32.89
5550.60	V	60.58	-53.38	13.95	1.27	-40.70	-13.00	27.70
GSM 1900 Frequency:1880MHz								
463.87	H	43.31	-62.60	0.00	0.36	-62.96	-13.00	49.96
455.22	V	40.57	-62.78	0.00	0.36	-63.14	-13.00	50.14
3760.00	H	55.87	-61.97	13.76	1.63	-49.84	-13.00	36.84
3760.00	V	60.52	-57.19	13.76	1.63	-45.06	-13.00	32.06
5640.00	H	56.80	-56.92	14.02	1.31	-44.21	-13.00	31.21
5640.00	V	59.27	-54.34	14.02	1.31	-41.63	-13.00	28.63
GSM 1900 Frequency:1909.8MHz								
472.58	H	42.89	-62.90	0.00	0.36	-63.26	-13.00	50.26
449.51	V	42.11	-61.32	0.00	0.37	-61.69	-13.00	48.69
3819.60	H	56.41	-60.86	13.56	1.50	-48.80	-13.00	35.80
3819.60	V	61.20	-55.88	13.56	1.50	-43.82	-13.00	30.82
5729.40	H	56.26	-57.76	13.96	1.31	-45.11	-13.00	32.11
5729.40	V	58.82	-55.17	13.96	1.31	-42.52	-13.00	29.52

WCDMA Band 2(30MHz-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)			
WCDMA Band 2 Frequency:1852.4 MHz								
251.26	H	45.50	-63.76	0.00	0.27	-64.03	-13.00	51.03
460.48	V	43.16	-60.12	0.00	0.36	-60.48	-13.00	47.48
3704.80	H	48.34	-70.18	13.98	1.81	-58.01	-13.00	45.01
3704.80	V	49.04	-69.45	13.98	1.81	-57.28	-13.00	44.28
5557.20	H	49.23	-64.82	13.97	1.27	-52.12	-13.00	39.12
5557.20	V	50.40	-63.50	13.97	1.27	-50.80	-13.00	37.80
WCDMA Band 2 Frequency:1880MHz								
249.47	H	45.71	-63.58	0.00	0.27	-63.85	-13.00	50.85
452.08	V	42.82	-60.58	0.00	0.36	-60.94	-13.00	47.94
3760.00	H	48.20	-69.64	13.76	1.63	-57.51	-13.00	44.51
3760.00	V	48.82	-68.89	13.76	1.63	-56.76	-13.00	43.76
5640.00	H	48.70	-65.02	14.02	1.31	-52.31	-13.00	39.31
5640.00	V	48.61	-65.00	14.02	1.31	-52.29	-13.00	39.29
WCDMA Band 2 Frequency:1907.6MHz								
253.05	H	46.03	-63.21	0.00	0.27	-63.48	-13.00	50.48
446.82	V	43.58	-59.89	0.00	0.37	-60.26	-13.00	47.26
3815.20	H	47.51	-69.78	13.57	1.50	-57.71	-13.00	44.71
3815.20	V	48.98	-68.12	13.57	1.50	-56.05	-13.00	43.05
5722.80	H	48.59	-65.40	13.95	1.32	-52.77	-13.00	39.77
5722.80	V	48.39	-65.55	13.95	1.32	-52.92	-13.00	39.92

WCDMA Band 4(30MHz-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)			
WCDMA Band 4 Frequency:1712.4 MHz								
254.44	H	44.99	-64.23	0.00	0.27	-64.50	-13.00	51.50
457.72	V	42.62	-60.70	0.00	0.36	-61.06	-13.00	48.06
3424.80	H	50.89	-68.01	14.03	1.63	-55.61	-13.00	42.61
3424.80	V	52.74	-66.23	14.03	1.63	-53.83	-13.00	40.83
5137.20	H	49.25	-67.25	13.94	1.39	-54.70	-13.00	41.70
5137.20	V	48.49	-67.93	13.94	1.39	-55.38	-13.00	42.38
WCDMA Band 4 Frequency:1732.6MHz								
236.82	H	45.60	-63.93	0.00	0.25	-64.18	-13.00	51.18
445.80	V	42.64	-60.84	0.00	0.37	-61.21	-13.00	48.21
3465.20	H	48.73	-70.05	13.90	1.62	-57.77	-13.00	44.77
3465.20	V	47.87	-70.94	13.90	1.62	-58.66	-13.00	45.66
5197.80	H	48.76	-67.61	14.00	1.52	-55.13	-13.00	42.13
5197.80	V	48.63	-67.81	14.00	1.52	-55.33	-13.00	42.33
WCDMA Band 4 Frequency:1752.6MHz								
258.40	H	44.46	-64.71	0.00	0.28	-64.99	-13.00	51.99
450.47	V	42.72	-60.70	0.00	0.36	-61.06	-13.00	48.06
3505.20	H	46.82	-71.88	13.82	1.60	-59.66	-13.00	46.66
3505.20	V	46.83	-71.87	13.82	1.60	-59.65	-13.00	46.65
5257.80	H	48.15	-68.58	14.17	1.31	-55.72	-13.00	42.72
5257.80	V	48.07	-68.74	14.17	1.31	-55.88	-13.00	42.88

WCDMA Band 5(30MHz-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)			
WCDMA Band 5 Frequency:826.4 MHz								
261.44	H	46.31	-62.83	0.00	0.28	-63.11	-13.00	50.11
452.23	V	43.50	-59.89	0.00	0.36	-60.25	-13.00	47.25
1652.80	H	47.06	-78.00	10.47	0.72	-68.25	-13.00	55.25
1652.80	V	47.76	-77.90	10.47	0.72	-68.15	-13.00	55.15
2479.20	H	48.23	-74.57	12.93	1.25	-62.89	-13.00	49.89
2479.20	V	47.69	-75.15	12.93	1.25	-63.47	-13.00	50.47
3305.60	H	47.44	-71.95	13.63	1.59	-59.91	-13.00	46.91
3305.60	V	47.90	-71.50	13.63	1.59	-59.46	-13.00	46.46
WCDMA Band 5 Frequency:836.6MHz								
246.82	H	45.81	-63.53	0.00	0.26	-63.79	-13.00	50.79
470.50	V	42.79	-60.35	0.00	0.36	-60.71	-13.00	47.71
1673.20	H	47.61	-77.14	10.61	0.73	-67.26	-13.00	54.26
1673.20	V	47.49	-77.86	10.61	0.73	-67.98	-13.00	54.98
2509.80	H	47.92	-74.96	13.11	1.25	-63.10	-13.00	50.10
2509.80	V	48.80	-74.10	13.11	1.25	-62.24	-13.00	49.24
3346.40	H	47.40	-71.81	13.83	1.61	-59.59	-13.00	46.59
3346.40	V	48.02	-71.24	13.83	1.61	-59.02	-13.00	46.02
WCDMA Band 5 Frequency:846.6MHz								
243.85	H	46.33	-63.07	0.00	0.26	-63.33	-13.00	50.33
465.28	V	43.13	-60.08	0.00	0.36	-60.44	-13.00	47.44
1693.20	H	47.76	-76.68	10.75	0.75	-66.68	-13.00	53.68
1693.20	V	47.25	-77.79	10.75	0.75	-67.79	-13.00	54.79
2539.80	H	47.53	-75.34	13.14	1.27	-63.47	-13.00	50.47
2539.80	V	46.43	-76.56	13.14	1.27	-64.69	-13.00	51.69
3386.40	H	47.60	-71.43	14.03	1.63	-59.03	-13.00	46.03
3386.40	V	47.63	-71.49	14.03	1.63	-59.09	-13.00	46.09

LTE Bands:

(The Worst modulation and bandwidth was below)

LTE Band 2(30MHz-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)			
1RB, 1.4MHz, QPSK,Frequency:1850.7 MHz								
447.10	H	45.47	-60.67	0.00	0.37	-61.04	-13.00	48.04
454.86	V	43.57	-59.79	0.00	0.36	-60.15	-13.00	47.15
3701.40	H	54.07	-64.49	13.99	1.83	-52.33	-13.00	39.33
3701.40	V	54.65	-63.89	13.99	1.83	-51.73	-13.00	38.73
5552.10	H	50.22	-63.88	13.96	1.27	-51.19	-13.00	38.19
5552.10	V	49.95	-64.00	13.96	1.27	-51.31	-13.00	38.31
1RB, 1.4MHz, QPSK,Frequency:1880 MHz								
447.78	H	46.20	-59.93	0.00	0.37	-60.30	-13.00	47.30
456.72	V	44.11	-59.22	0.00	0.36	-59.58	-13.00	46.58
3760.00	H	52.13	-65.71	13.76	1.63	-53.58	-13.00	40.58
3760.00	V	53.56	-64.15	13.76	1.63	-52.02	-13.00	39.02
5640.00	H	50.35	-63.37	14.02	1.31	-50.66	-13.00	37.66
5640.00	V	50.26	-63.35	14.02	1.31	-50.64	-13.00	37.64
1RB, 1.4MHz, QPSK,Frequency:1909.3 MHz								
448.74	H	45.29	-60.83	0.00	0.37	-61.20	-13.00	48.20
456.38	V	44.33	-59.01	0.00	0.36	-59.37	-13.00	46.37
3818.60	H	51.54	-65.73	13.56	1.50	-53.67	-13.00	40.67
3818.60	V	54.98	-62.11	13.56	1.50	-50.05	-13.00	37.05
5727.90	H	50.05	-63.96	13.96	1.31	-51.31	-13.00	38.31
5727.90	V	50.93	-63.05	13.96	1.31	-50.40	-13.00	37.40

LTE Band 4(30MHz-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)			
1RB, 1.4MHz, QPSK,Frequency:1710.7 MHz								
445.82	H	46.27	-59.89	0.00	0.37	-60.26	-13.00	47.26
458.24	V	43.00	-60.31	0.00	0.36	-60.67	-13.00	47.67
3421.40	H	52.34	-66.57	14.04	1.63	-54.16	-13.00	41.16
3421.40	V	55.60	-63.38	14.04	1.63	-50.97	-13.00	37.97
5132.10	H	52.70	-63.81	13.93	1.37	-51.25	-13.00	38.25
5132.10	V	51.75	-64.67	13.93	1.37	-52.11	-13.00	39.11
1RB, 1.4MHz, QPSK,Frequency:1732.5 MHz								
442.71	H	45.44	-60.76	0.00	0.37	-61.13	-13.00	48.13
453.16	V	42.76	-60.62	0.00	0.36	-60.98	-13.00	47.98
3465.00	H	51.47	-67.31	13.91	1.62	-55.02	-13.00	42.02
3465.00	V	53.62	-65.19	13.91	1.62	-52.90	-13.00	39.90
5197.50	H	51.40	-64.97	14.00	1.52	-52.49	-13.00	39.49
5197.50	V	50.45	-65.99	14.00	1.52	-53.51	-13.00	40.51
1RB, 1.4MHz, QPSK,Frequency:1754.3MHz								
447.06	H	46.72	-59.42	0.00	0.37	-59.79	-13.00	46.79
452.29	V	43.29	-60.10	0.00	0.36	-60.46	-13.00	47.46
3508.60	H	52.51	-66.20	13.83	1.60	-53.97	-13.00	40.97
3508.60	V	54.79	-63.92	13.83	1.60	-51.69	-13.00	38.69
5262.90	H	50.67	-66.10	14.19	1.29	-53.20	-13.00	40.20
5262.90	V	49.62	-67.23	14.19	1.29	-54.33	-13.00	41.33

LTE Band 5(30MHz-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)			
1RB, 1.4MHz, QPSK, Frequency: 824.7 MHz								
441.06	H	46.15	-60.07	0.00	0.37	-60.44	-13.00	47.44
451.77	V	42.08	-61.32	0.00	0.36	-61.68	-13.00	48.68
1649.40	H	61.39	-63.72	10.45	0.71	-53.98	-13.00	40.98
1649.40	V	56.81	-68.90	10.45	0.71	-59.16	-13.00	46.16
2474.10	H	48.36	-74.42	12.89	1.25	-62.78	-13.00	49.78
2474.10	V	49.56	-73.27	12.89	1.25	-61.63	-13.00	48.63
3298.80	H	49.41	-70.00	13.60	1.59	-57.99	-13.00	44.99
3298.80	V	48.58	-70.83	13.60	1.59	-58.82	-13.00	45.82
1RB, 1.4MHz, QPSK, Frequency: 836.5 MHz								
440.82	H	45.43	-60.80	0.00	0.37	-61.17	-13.00	48.17
461.20	V	43.39	-59.88	0.00	0.36	-60.24	-13.00	47.24
1673.00	H	62.89	-61.86	10.61	0.73	-51.98	-13.00	38.98
1673.00	V	58.82	-66.53	10.61	0.73	-56.65	-13.00	43.65
2509.50	H	52.85	-70.03	13.11	1.25	-58.17	-13.00	45.17
2509.50	V	51.61	-71.29	13.11	1.25	-59.43	-13.00	46.43
3346.00	H	48.73	-70.48	13.83	1.61	-58.26	-13.00	45.26
3346.00	V	48.42	-70.84	13.83	1.61	-58.62	-13.00	45.62
1RB, 1.4MHz, QPSK, Frequency: 848.3 MHz								
433.97	H	45.74	-60.58	0.00	0.37	-60.95	-13.00	47.95
462.88	V	43.10	-60.14	0.00	0.36	-60.50	-13.00	47.50
1696.60	H	63.82	-60.56	10.78	0.75	-50.53	-13.00	37.53
1696.60	V	60.92	-64.06	10.78	0.75	-54.03	-13.00	41.03
2544.90	H	56.58	-66.29	13.14	1.27	-54.42	-13.00	41.42
2544.90	V	56.72	-66.29	13.14	1.27	-54.42	-13.00	41.42
3393.20	H	48.43	-70.57	14.07	1.64	-58.14	-13.00	45.14
3393.20	V	48.32	-70.77	14.07	1.64	-58.34	-13.00	45.34

LTE Band 7(30MHz-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)			
1RB, 5MHz, QPSK, Frequency: 2502.5 MHz								
440.14	H	46.28	-59.96	0.00	0.37	-60.33	-25.00	35.33
450.40	V	43.15	-60.27	0.00	0.36	-60.63	-25.00	35.63
5005.00	H	55.41	-62.24	14.00	1.43	-49.67	-25.00	24.67
5005.00	V	58.16	-59.25	14.00	1.43	-46.68	-25.00	21.68
7507.50	H	48.67	-60.46	13.20	1.33	-48.59	-25.00	23.59
7507.50	V	48.84	-60.77	13.20	1.33	-48.90	-25.00	23.90
1RB, 5MHz, QPSK, Frequency: 2535 MHz								
438.97	H	45.08	-61.17	0.00	0.37	-61.54	-25.00	36.54
461.17	V	42.40	-60.87	0.00	0.36	-61.23	-25.00	36.23
5070.00	H	55.59	-61.32	13.93	1.34	-48.73	-25.00	23.73
5070.00	V	56.30	-60.42	13.93	1.34	-47.83	-25.00	22.83
7605.00	H	48.53	-60.88	13.21	1.40	-49.07	-25.00	24.07
7605.00	V	48.37	-61.44	13.21	1.40	-49.63	-25.00	24.63
1RB, 5MHz, QPSK, Frequency: 2567.5 MHz								
440.36	H	46.37	-59.86	0.00	0.37	-60.23	-25.00	35.23
453.30	V	42.82	-60.56	0.00	0.36	-60.92	-25.00	35.92
5135.00	H	55.41	-61.09	13.94	1.38	-48.53	-25.00	23.53
5135.00	V	55.77	-60.65	13.94	1.38	-48.09	-25.00	23.09
7702.50	H	46.89	-62.80	13.40	1.47	-50.87	-25.00	25.87
7702.50	V	47.87	-62.14	13.40	1.47	-50.21	-25.00	25.21

LTE Band 12(30MHz-10GHz):

1RB, 1.4MHz, QPSK, Frequency: 699.7 MHz								
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)			
423.40	H	44.61	-61.86	0.00	0.37	-62.23	-13.00	49.23
459.77	V	42.27	-61.02	0.00	0.36	-61.38	-13.00	48.38
1399.40	H	57.86	-66.34	9.00	1.20	-58.54	-13.00	45.54
1399.40	V	58.59	-66.21	9.00	1.20	-58.41	-13.00	45.41
2099.10	H	56.11	-67.37	11.41	1.10	-57.06	-13.00	44.06
2099.10	V	58.40	-65.08	11.41	1.10	-54.77	-13.00	41.77
2798.80	H	48.68	-73.42	13.10	1.36	-61.68	-13.00	48.68
2798.80	V	48.76	-73.54	13.10	1.36	-61.80	-13.00	48.80
1RB, 1.4MHz,QPSK, Frequency:707.5 MHz								
442.82	H	46.50	-59.70	0.00	0.37	-60.07	-13.00	47.07
468.64	V	42.63	-60.53	0.00	0.36	-60.89	-13.00	47.89
1415.00	H	60.68	-63.81	9.08	1.22	-55.95	-13.00	42.95
1415.00	V	58.52	-66.49	9.08	1.22	-58.63	-13.00	45.63
2122.50	H	59.96	-63.48	11.27	1.11	-53.32	-13.00	40.32
2122.50	V	58.63	-64.79	11.27	1.11	-54.63	-13.00	41.63
2830.00	H	48.23	-73.44	13.34	1.36	-61.46	-13.00	48.46
2830.00	V	48.64	-73.26	13.34	1.36	-61.28	-13.00	48.28
1RB, 1.4MHz,QPSK, Frequency: 715.3 MHz								
441.52	H	46.49	-59.73	0.00	0.37	-60.10	-13.00	47.10
455.55	V	44.03	-59.32	0.00	0.36	-59.68	-13.00	46.68
1430.60	H	61.97	-62.82	9.15	1.25	-54.92	-13.00	41.92
1430.60	V	56.91	-68.32	9.15	1.25	-60.42	-13.00	47.42
2145.90	H	61.28	-62.13	11.12	1.12	-52.13	-13.00	39.13
2145.90	V	61.65	-61.72	11.12	1.12	-51.72	-13.00	38.72
2861.20	H	48.72	-72.51	13.59	1.35	-60.27	-13.00	47.27
2861.20	V	48.05	-73.44	13.59	1.35	-61.20	-13.00	48.20

LTE Band 17(30MHz-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)			
1RB, 5MHz,QPSK, Frequency: 706.5 MHz								
443.35	H	46.24	-59.95	0.00	0.37	-60.32	-13.00	47.32
471.00	V	43.44	-59.69	0.00	0.36	-60.05	-13.00	47.05
1413.00	H	58.66	-65.79	9.07	1.22	-57.94	-13.00	44.94
1413.00	V	56.96	-68.02	9.07	1.22	-60.17	-13.00	47.17
2119.50	H	61.74	-61.70	11.28	1.11	-51.53	-13.00	38.53
2119.50	V	64.17	-59.25	11.28	1.11	-49.08	-13.00	36.08
2826.00	H	48.37	-73.36	13.31	1.36	-61.41	-13.00	48.41
2826.00	V	48.81	-73.15	13.31	1.36	-61.20	-13.00	48.20
1RB, 5MHz,QPSK, Frequency:710 MHz								
436.87	H	46.08	-60.20	0.00	0.37	-60.57	-13.00	47.57
458.18	V	42.82	-60.49	0.00	0.36	-60.85	-13.00	47.85
1420.00	H	58.44	-66.14	9.10	1.23	-58.27	-13.00	45.27
1420.00	V	55.57	-69.51	9.10	1.23	-61.64	-13.00	48.64
2130.00	H	59.74	-63.69	11.22	1.11	-53.58	-13.00	40.58
2130.00	V	58.65	-64.75	11.22	1.11	-54.64	-13.00	41.64
2840.00	H	48.84	-72.69	13.42	1.36	-60.63	-13.00	47.63
2840.00	V	48.66	-73.11	13.42	1.36	-61.05	-13.00	48.05
1RB, 5MHz,QPSK, Frequency: 713.5 MHz								
442.50	H	45.70	-60.50	0.00	0.37	-60.87	-13.00	47.87
463.82	V	43.32	-59.91	0.00	0.36	-60.27	-13.00	47.27
1427.00	H	58.98	-65.74	9.14	1.24	-57.84	-13.00	44.84
1427.00	V	55.24	-69.94	9.14	1.24	-62.04	-13.00	49.04
2140.50	H	58.81	-64.61	11.16	1.12	-54.57	-13.00	41.57
2140.50	V	62.39	-60.99	11.16	1.12	-50.95	-13.00	37.95
2854.00	H	48.51	-72.82	13.53	1.35	-60.64	-13.00	47.64
2854.00	V	47.60	-73.99	13.53	1.35	-61.81	-13.00	48.81

LTE Band 41(30MHz-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)			
1RB, 5MHz,QPSK, Frequency: 2498.5 MHz								
450.42	H	45.97	-60.12	0.00	0.36	-60.48	-25.00	35.48
463.44	V	42.78	-60.46	0.00	0.36	-60.82	-25.00	35.82
4997.00	H	56.48	-61.19	14.00	1.44	-48.63	-25.00	23.63
4997.00	V	56.89	-60.52	14.00	1.44	-47.96	-25.00	22.96
7495.50	H	47.62	-61.50	13.20	1.32	-49.62	-25.00	24.62
7495.50	V	47.61	-62.00	13.20	1.32	-50.12	-25.00	25.12
1RB, 5MHz,QPSK, Frequency:2593 MHz								
445.25	H	44.99	-61.18	0.00	0.37	-61.55	-25.00	36.55
475.30	V	42.46	-60.61	0.00	0.36	-60.97	-25.00	35.97
5186.00	H	56.22	-60.17	13.99	1.50	-47.68	-25.00	22.68
5186.00	V	57.16	-59.28	13.99	1.50	-46.79	-25.00	21.79
7779.00	H	48.67	-61.24	13.32	1.53	-49.45	-25.00	24.45
7779.00	V	50.74	-59.43	13.32	1.53	-47.64	-25.00	22.64
1RB, 5MHz,QPSK, Frequency: 2687.5 MHz								
442.29	H	45.70	-60.51	0.00	0.37	-60.88	-25.00	35.88
457.41	V	44.00	-59.32	0.00	0.36	-59.68	-25.00	34.68
5375.00	H	55.66	-58.97	14.15	1.38	-46.20	-25.00	21.20
5375.00	V	57.61	-57.01	14.15	1.38	-44.24	-25.00	19.24
8062.50	H	49.10	-61.21	13.34	1.72	-49.59	-25.00	24.59
8062.50	V	52.82	-57.56	13.34	1.72	-45.94	-25.00	20.94

LTE Band 66(30MHz-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)			
1RB, 1.4MHz,QPSK, Frequency: 1710.7 MHz								
435.84	H	45.39	-60.91	0.00	0.37	-61.28	-13.00	48.28
479.10	V	43.20	-59.81	0.00	0.36	-60.17	-13.00	47.17
3421.40	H	53.56	-65.35	14.04	1.63	-52.94	-13.00	39.94
3421.40	V	52.73	-66.25	14.04	1.63	-53.84	-13.00	40.84
5132.10	H	50.64	-65.87	13.93	1.37	-53.31	-13.00	40.31
5132.10	V	49.84	-66.58	13.93	1.37	-54.02	-13.00	41.02
1RB, 1.4MHz,QPSK, Frequency:1745 MHz								
447.49	H	46.13	-60.00	0.00	0.37	-60.37	-13.00	47.37
469.77	V	44.21	-58.94	0.00	0.36	-59.30	-13.00	46.30
3490.00	H	55.27	-63.43	13.83	1.61	-51.21	-13.00	38.21
3490.00	V	54.28	-64.43	13.83	1.61	-52.21	-13.00	39.21
5235.00	H	50.16	-66.43	14.11	1.40	-53.72	-13.00	40.72
5235.00	V	51.75	-64.92	14.11	1.40	-52.21	-13.00	39.21
1RB, 1.4MHz,QPSK, Frequency: 1779.3 MHz								
436.82	H	45.89	-60.39	0.00	0.37	-60.76	-13.00	47.76
481.22	V	43.37	-59.61	0.00	0.36	-59.97	-13.00	46.97
3558.60	H	55.67	-63.24	13.98	1.55	-50.81	-13.00	37.81
3558.60	V	53.56	-65.35	13.98	1.55	-52.92	-13.00	39.92
5337.90	H	52.70	-63.11	14.22	1.26	-50.15	-13.00	37.15
5337.90	V	51.25	-64.59	14.22	1.26	-51.63	-13.00	38.63

Spot Check:**Screen 1#
Cellular Band (30MHz-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)			
GSM 1900 Frequency:1850.2MHz								
475.16	H	42.85	-62.90	0.00	0.36	-63.26	-13.00	50.26
454.67	V	40.54	-62.82	0.00	0.36	-63.18	-13.00	50.18
3700.40	H	56.57	-62.00	14.00	1.83	-49.83	-13.00	36.83
3700.40	V	58.81	-59.74	14.00	1.83	-47.57	-13.00	34.57
5550.60	H	56.58	-57.53	13.95	1.27	-44.85	-13.00	31.85
5550.60	V	59.50	-54.46	13.95	1.27	-41.78	-13.00	28.78
GSM 1900 Frequency:1880MHz								
463.82	H	43.42	-62.49	0.00	0.36	-62.85	-13.00	49.85
455.21	V	40.46	-62.89	0.00	0.36	-63.25	-13.00	50.25
3760.00	H	55.46	-62.38	13.76	1.63	-50.25	-13.00	37.25
3760.00	V	58.20	-59.51	13.76	1.63	-47.38	-13.00	34.38
5640.00	H	56.81	-56.91	14.02	1.31	-44.20	-13.00	31.20
5640.00	V	59.26	-54.35	14.02	1.31	-41.64	-13.00	28.64
GSM 1900 Frequency:1909.8MHz								
472.65	H	43.00	-62.79	0.00	0.36	-63.15	-13.00	50.15
449.33	V	42.00	-61.43	0.00	0.37	-61.80	-13.00	48.80
3819.60	H	57.88	-59.39	13.56	1.50	-47.33	-13.00	34.33
3819.60	V	60.21	-56.87	13.56	1.50	-44.81	-13.00	31.81
5729.40	H	56.83	-57.19	13.96	1.31	-44.54	-13.00	31.54
5729.40	V	58.55	-55.44	13.96	1.31	-42.79	-13.00	29.79

WCDMA Band 5(30MHz-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)			
WCDMA Band 5 Frequency:826.4 MHz								
261.49	H	46.42	-62.72	0.00	0.28	-63.00	-13.00	50.00
452.56	V	43.39	-60.00	0.00	0.36	-60.36	-13.00	47.36
1652.80	H	47.21	-77.85	10.47	0.72	-68.10	-13.00	55.10
1652.80	V	47.50	-78.16	10.47	0.72	-68.41	-13.00	55.41
2479.20	H	48.48	-74.32	12.93	1.25	-62.64	-13.00	49.64
2479.20	V	47.64	-75.20	12.93	1.25	-63.52	-13.00	50.52
3305.60	H	47.65	-71.74	13.63	1.59	-59.70	-13.00	46.70
3305.60	V	47.57	-71.83	13.63	1.59	-59.79	-13.00	46.79
WCDMA Band 5 Frequency:836.6MHz								
246.07	H	45.92	-63.43	0.00	0.26	-63.69	-13.00	50.69
470.12	V	42.68	-60.46	0.00	0.36	-60.82	-13.00	47.82
1673.20	H	47.29	-77.46	10.61	0.73	-67.58	-13.00	54.58
1673.20	V	47.59	-77.76	10.61	0.73	-67.88	-13.00	54.88
2509.80	H	47.82	-75.06	13.11	1.25	-63.20	-13.00	50.20
2509.80	V	47.22	-75.68	13.11	1.25	-63.82	-13.00	50.82
3346.40	H	47.85	-71.36	13.83	1.61	-59.14	-13.00	46.14
3346.40	V	48.42	-70.84	13.83	1.61	-58.62	-13.00	45.62
WCDMA Band 5 Frequency:846.6MHz								
243.69	H	46.44	-62.96	0.00	0.26	-63.22	-13.00	50.22
465.33	V	43.02	-60.19	0.00	0.36	-60.55	-13.00	47.55
1693.20	H	47.67	-76.77	10.75	0.75	-66.77	-13.00	53.77
1693.20	V	47.74	-77.30	10.75	0.75	-67.30	-13.00	54.30
2539.80	H	47.46	-75.41	13.14	1.27	-63.54	-13.00	50.54
2539.80	V	47.56	-75.43	13.14	1.27	-63.56	-13.00	50.56
3386.40	H	47.63	-71.40	14.03	1.63	-59.00	-13.00	46.00
3386.40	V	47.50	-71.62	14.03	1.63	-59.22	-13.00	46.22

LTE Bands:

(The Worst modulation and bandwidth was below)

LTE Band 4(30MHz-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)			
1RB, 1.4MHz, QPSK,Frequency:1710.7 MHz								
445.45	H	46.38	-59.78	0.00	0.37	-60.15	-13.00	47.15
458.81	V	42.89	-60.41	0.00	0.36	-60.77	-13.00	47.77
3421.40	H	53.19	-65.72	14.04	1.63	-53.31	-13.00	40.31
3421.40	V	55.75	-63.23	14.04	1.63	-50.82	-13.00	37.82
5132.10	H	52.82	-63.69	13.93	1.37	-51.13	-13.00	38.13
5132.10	V	50.31	-66.11	13.93	1.37	-53.55	-13.00	40.55
1RB, 1.4MHz, QPSK,Frequency:1732.5 MHz								
442.24	H	45.55	-60.66	0.00	0.37	-61.03	-13.00	48.03
453.76	V	42.65	-60.72	0.00	0.36	-61.08	-13.00	48.08
3465.00	H	51.20	-67.58	13.91	1.62	-55.29	-13.00	42.29
3465.00	V	53.29	-65.52	13.91	1.62	-53.23	-13.00	40.23
5197.50	H	51.24	-65.13	14.00	1.52	-52.65	-13.00	39.65
5197.50	V	50.51	-65.93	14.00	1.52	-53.45	-13.00	40.45
1RB, 1.4MHz, QPSK,Frequency:1754.3MHz								
447.02	H	46.83	-59.31	0.00	0.37	-59.68	-13.00	46.68
452.57	V	43.18	-60.21	0.00	0.36	-60.57	-13.00	47.57
3508.60	H	52.70	-66.01	13.83	1.60	-53.78	-13.00	40.78
3508.60	V	55.76	-62.95	13.83	1.60	-50.72	-13.00	37.72
5262.90	H	50.72	-66.05	14.19	1.29	-53.15	-13.00	40.15
5262.90	V	50.53	-66.32	14.19	1.29	-53.42	-13.00	40.42

Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit-Absolute Level

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402Y99420E-RF-A1-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Y99420E-RF-A1-INP EUT INTERNAL PHOTOGRAPHS

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402Y99420E-RF-00EA1-TSP TEST SETUP PHOTOGRAPHS.

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