RF TEST REPORT

Applicant	Deer Management Systems LLC
FCC ID	2BBNQ-DFDCAM1
Product	Defend Cam
Brand	Tactacam
Model	Defend Cam Gen 1
Report No.	R2404A0397-R1
Issue Date	May 28, 2024

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2023)/ FCC CFR 47 Part 22H (2023)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of Measurement Results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	PASS
2	Radiated Spurious Emission	2.1053 / 22.917 (a)	PASS
Date of Testing: April 16, 2024 ~ May 6, 2024 Date of Sample Received: April 15, 2024			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

This report only tests the RF Power Output and Effective Radiated Power and Radiated Spurious Emission of the Defend Cam Gen 1.
Other test items refer to the Module report (Report No.: R1907A0406-R4 for WCDMA Band V and LTE Band 5; R1907A0406-R1 for LTE Band 26; FCC ID: XMR201909EG91NAX).

1. Test Laboratory

1.1. Notes of the Test Report

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

1.2. Test Facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3. Testing Location

Company:	Eurofins TA Technology (Shanghai) Co., Ltd.
Address:	Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City:	Shanghai
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2. General Description of Equipment Under Test

2.1. Applicant and Manufacturer Information

Applicant	Deer Management Systems LLC
Applicant address	1668 Jordan West Road Decorah Iowa United States
Manufacturer	Deer Management Systems LLC
Manufacturer address	1668 Jordan West Road Decorah Iowa United States

2.2. General Information

EUT Description			
Model	Defend Cam Gen 1		
IMEI	Conducted: 867490074466041 Radiated: 867490074465480		
Hardware Version	P3		
Software Version	1.0		
Power Supply	Battery		
Antenna Type	External Antenna		
Antenna Gain	WCDMA Band V	3.68 dBi	
	LTE Band 5	3.68 dBi	
	LTE Band 26	4.44 dBi	
Test Mode(s)	WCDMA Band V; LTE Band 5/26		
Test Modulation	(WCDMA) BPSK, QPSK; (LTE) QPSK, 16QAM		
HSDPA UE Category	24		
HSUPA UE Category	6		
DC-HSDPA UE Category	24		
LTE Category	1		
Maximum E.R.P.	WCDMA Band V	24.75 dBm	
	LTE Band 5	25.41 dBm	
	LTE Band 26	26.03 dBm	
Rated Power Supply Voltage	9V		
Operating Voltage	Minimum: 6V Maximum: 12V		
Operating Temperature	Lowest: -25°C Highest: +55°C		
Testing Temperature	Lowest: -30°C Highest: +50°C		
Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	WCDMA Band V	824 ~ 849	869 ~ 894
	LTE Band 5	824 ~ 849	869 ~ 894
	LTE Band 26	824 ~ 849	869 ~ 894
EUT Accessory			
Power supply 1	Dry battery: 2 * 6 AA Battery DC 9V		

Power supply 2	Lithium battery: Manufacturer: EVE Energy CO., LTD. Model: B0900 DC 7.20V 37.44mAh
Note: 1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant. 2. There is more than one Power supply, each one should be applied throughout the compliance test respectively, however, only Power supply 1 will be recorded in this report. 3. For LTE, 16QAM only supports 25%RB.	

3. Applied Standards

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

Test standards:
FCC CFR 47 Part 22H (2023)

FCC CFR47 Part 2 (2023)

Reference standard:
ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (vertical), lie-down position (horizontal). The worst emission was found in stand-up position (vertical). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (vertical, horizontal polarization for WCDMA; vertical, vertical polarization for LTE) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.
Subsequently, only the worst case emissions are reported.
The following testing in WCDMA/LTE is set based on the maximum RF Output Power.
Test modes are chosen to be reported as the worst case configuration below:

Test items	Modes/Modulation
	WCDMA Band V
RF Power Output and Effective Radiated power	RMC HSDPA/HSUPA DC-HSDPA
Radiated Spurious Emission	RMC

Test modes are chosen as the worst case configuration below for LTE Band 5/26

Test items	Modes	Bandwidth (MHz)					Modulation		RB			Test Channel		
		1.4	3	5	10	15	QPSK	16QAM	1	50%	100%	L	M	H
RF power output and Effective Radiated power	LTE 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Radiated Spurious Emission	LTE 5	O	-	O	O	-	O	-	O	-	-	-	O	-
	LTE 26	O	-	O	-	O	O	-	O	-	-	-	O	-
Note	1. The mark “O” means that this configuration is chosen for testing. 2. The mark “-” means that this configuration is not testing.													

5. Test Case

5.1. RF Power Output and Effective Radiated Power

Ambient Condition

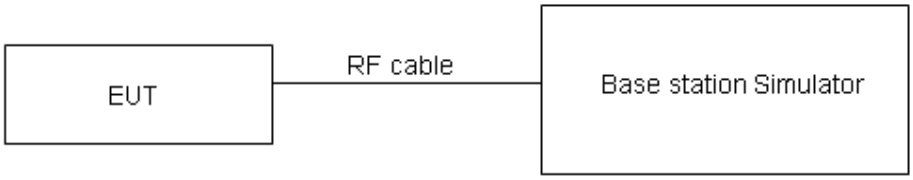
Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Methods of Measurement

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

ERP can then be calculated as follows:
EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)
EIRP (dBm) = ERP (dBm) + 2.15 (dB).

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 22.913(a)(5) specifies that "Mobile/portable stations are limited to 7 watts ERP".

Limit	≤ 7 W (38.45 dBm)

Measurement Uncertainty

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

Test Results

Refer to the section 6.1 of this report for test data.

5.2. Radiated Spurious Emission

Ambient Condition

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

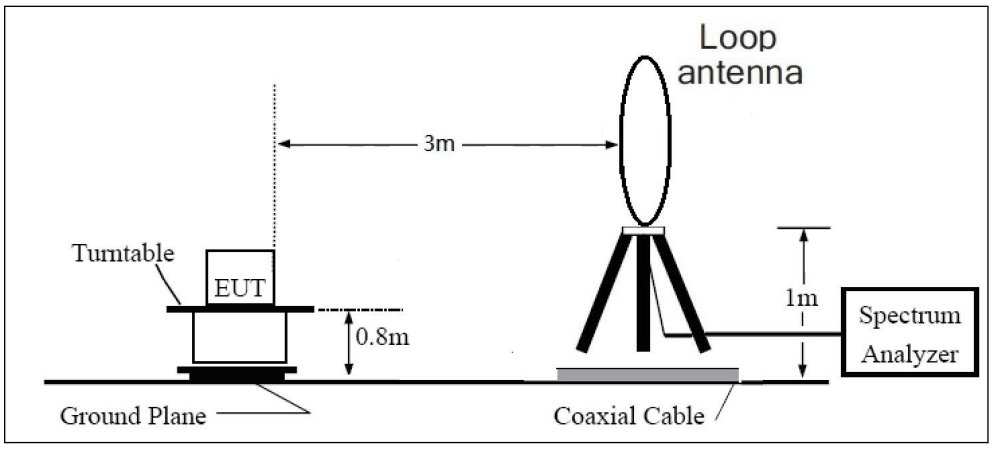
Method of Measurement

1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26-2015.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:
Power (EIRP) = PMea - PAg - Pcl + Ga
The measurement results are amend as described below:
Power (EIRP) = PMea - Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dB.

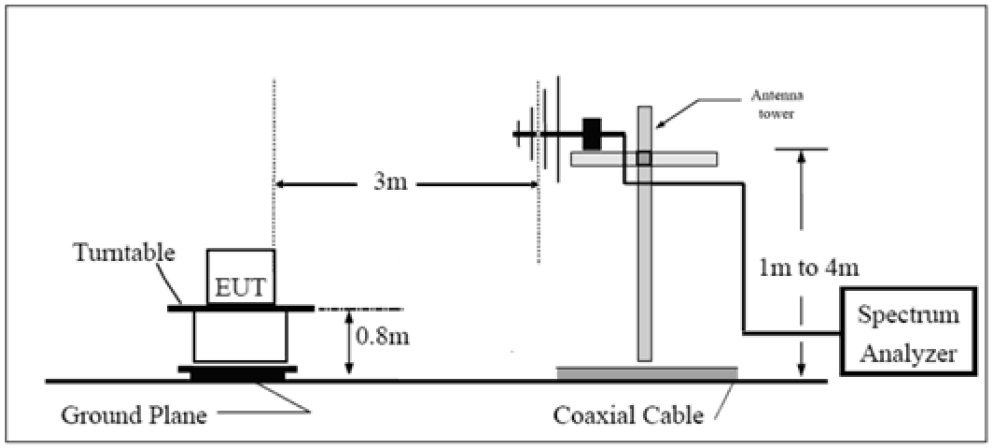
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test Setup

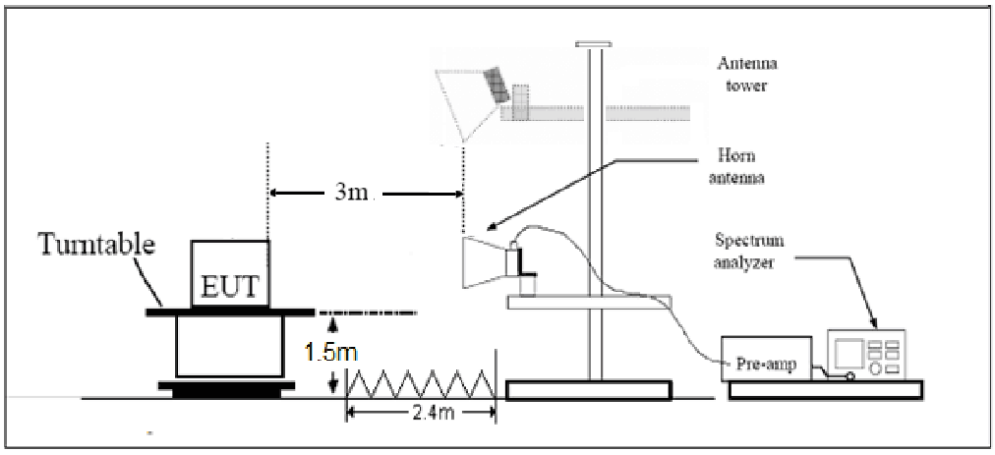
9KHz~ 30MHz



30MHz~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

Limits

Rule Part 22.917(a) specifies that “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.”

Limit	-13 dBm

Measurement Uncertainty

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

Test Results

Refer to the section 6.2 of this report for test data.

6. Test Result

6.1. RF Power Output and Effective Radiated Power

WCDMA Band V		Maximum Output Power (dBm)			ERP (dBm)		
		Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233
		826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)
RMC		23.17	23.22	23.16	24.70	24.75	24.69
HSDPA	Sub - Test 1	22.59	22.64	22.58	24.12	24.17	24.11
	Sub - Test 2	22.58	22.63	22.57	24.11	24.16	24.10
	Sub - Test 3	22.07	22.12	22.06	23.60	23.65	23.59
	Sub - Test 4	22.06	22.11	22.05	23.59	23.64	23.58
HSUPA	Sub - Test 1	21.55	21.60	21.54	23.08	23.13	23.07
	Sub - Test 2	19.54	19.59	19.53	21.07	21.12	21.06
	Sub - Test 3	20.52	20.58	20.52	22.05	22.11	22.05
	Sub - Test 4	19.51	19.57	19.51	21.04	21.10	21.04
	Sub - Test 5	23.00	23.06	23.00	24.53	24.59	24.53
DC-HSDPA	Sub - Test 1	22.51	22.58	22.50	24.04	24.11	24.03
	Sub - Test 2	22.50	22.57	22.49	24.03	24.10	24.02
	Sub - Test 3	22.08	22.06	22.00	23.61	23.59	23.53
	Sub - Test 4	22.07	22.05	21.99	23.60	23.58	23.52

LTE Band5						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
1.4	20407	1	#0	QPSK	23.70	25.23
1.4	20407	1	#Mid	QPSK	23.88	25.41
1.4	20407	1	#Max	QPSK	23.70	25.23
1.4	20407	3	#0	QPSK	23.58	25.11
1.4	20407	3	#Mid	QPSK	23.59	25.12
1.4	20407	3	#Max	QPSK	23.56	25.09
1.4	20407	6	#0	QPSK	22.54	24.07
1.4	20525	1	#0	QPSK	23.26	24.79
1.4	20525	1	#Mid	QPSK	23.35	24.88
1.4	20525	1	#Max	QPSK	23.23	24.76
1.4	20525	3	#0	QPSK	23.38	24.91
1.4	20525	3	#Mid	QPSK	23.38	24.91
1.4	20525	3	#Max	QPSK	23.35	24.88
1.4	20525	6	#0	QPSK	22.44	23.97
1.4	20643	1	#0	QPSK	23.70	25.23
1.4	20643	1	#Mid	QPSK	23.84	25.37
1.4	20643	1	#Max	QPSK	23.71	25.24
1.4	20643	3	#0	QPSK	23.74	25.27
1.4	20643	3	#Mid	QPSK	23.74	25.27
1.4	20643	3	#Max	QPSK	23.54	25.07
1.4	20643	6	#0	QPSK	22.50	24.03
3	20415	1	#0	QPSK	23.52	25.05
3	20415	1	#Mid	QPSK	23.40	24.93
3	20415	1	#Max	QPSK	23.48	25.01
3	20415	8	#0	QPSK	22.54	24.07
3	20415	8	#Mid	QPSK	22.54	24.07
3	20415	8	#Max	QPSK	22.53	24.06
3	20415	15	#0	QPSK	22.45	23.98
3	20525	1	#0	QPSK	23.41	24.94
3	20525	1	#Mid	QPSK	23.35	24.88
3	20525	1	#Max	QPSK	23.42	24.95
3	20525	8	#0	QPSK	22.35	23.88
3	20525	8	#Mid	QPSK	22.35	23.88
3	20525	8	#Max	QPSK	22.33	23.86
3	20525	15	#0	QPSK	22.35	23.88
3	20635	1	#0	QPSK	23.62	25.15
3	20635	1	#Mid	QPSK	23.50	25.03
3	20635	1	#Max	QPSK	23.61	25.14

3	20635	8	#0	QPSK	22.50	24.03
3	20635	8	#Mid	QPSK	22.51	24.04
3	20635	8	#Max	QPSK	22.57	24.10
3	20635	15	#0	QPSK	22.49	24.02
5	20425	1	#0	QPSK	23.52	25.05
5	20425	1	#Mid	QPSK	23.44	24.97
5	20425	1	#Max	QPSK	23.34	24.87
5	20425	12	#0	QPSK	22.38	23.91
5	20425	12	#Mid	QPSK	22.38	23.91
5	20425	12	#Max	QPSK	22.45	23.98
5	20425	25	#0	QPSK	22.43	23.96
5	20525	1	#0	QPSK	23.29	24.82
5	20525	1	#Mid	QPSK	23.27	24.80
5	20525	1	#Max	QPSK	23.34	24.87
5	20525	12	#0	QPSK	22.41	23.94
5	20525	12	#Mid	QPSK	22.42	23.95
5	20525	12	#Max	QPSK	22.45	23.98
5	20525	25	#0	QPSK	22.39	23.92
5	20625	1	#0	QPSK	23.46	24.99
5	20625	1	#Mid	QPSK	23.41	24.94
5	20625	1	#Max	QPSK	23.55	25.08
5	20625	12	#0	QPSK	22.45	23.98
5	20625	12	#Mid	QPSK	22.37	23.90
5	20625	12	#Max	QPSK	22.57	24.10
5	20625	25	#0	QPSK	22.46	23.99
10	20450	1	#0	QPSK	23.47	25.00
10	20450	1	#Mid	QPSK	23.56	25.09
10	20450	1	#Max	QPSK	23.36	24.89
10	20450	25	#0	QPSK	22.52	24.05
10	20450	25	#Mid	QPSK	22.52	24.05
10	20450	25	#Max	QPSK	22.53	24.06
10	20450	50	#0	QPSK	22.58	24.11
10	20525	1	#0	QPSK	23.38	24.91
10	20525	1	#Mid	QPSK	23.51	25.04
10	20525	1	#Max	QPSK	23.48	25.01
10	20525	25	#0	QPSK	22.43	23.96
10	20525	25	#Mid	QPSK	22.43	23.96
10	20525	25	#Max	QPSK	22.44	23.97
10	20525	50	#0	QPSK	22.51	24.04
10	20600	1	#0	QPSK	23.58	25.11
10	20600	1	#Mid	QPSK	23.63	25.16
10	20600	1	#Max	QPSK	23.76	25.29
10	20600	25	#0	QPSK	22.43	23.96

10	20600	25	#Mid	QPSK	22.33	23.86
10	20600	25	#Max	QPSK	22.58	24.11
10	20600	50	#0	QPSK	22.50	24.03
1.4	20407	1	#0	16QAM	22.78	24.31
1.4	20407	1	#Mid	16QAM	23.07	24.60
1.4	20407	1	#Max	16QAM	22.88	24.41
1.4	20525	1	#0	16QAM	22.87	24.40
1.4	20525	1	#Mid	16QAM	23.03	24.56
1.4	20525	1	#Max	16QAM	22.76	24.29
1.4	20643	1	#0	16QAM	22.65	24.18
1.4	20643	1	#Mid	16QAM	22.96	24.49
1.4	20643	1	#Max	16QAM	22.69	24.22
3	20415	1	#0	16QAM	22.43	23.96
3	20415	1	#Mid	16QAM	22.41	23.94
3	20415	1	#Max	16QAM	22.33	23.86
3	20525	1	#0	16QAM	23.09	24.62
3	20525	1	#Mid	16QAM	22.99	24.52
3	20525	1	#Max	16QAM	23.16	24.69
3	20635	1	#0	16QAM	22.65	24.18
3	20635	1	#Mid	16QAM	22.89	24.42
3	20635	1	#Max	16QAM	23.09	24.62
5	20425	1	#0	16QAM	22.68	24.21
5	20425	1	#Mid	16QAM	22.72	24.25
5	20425	1	#Max	16QAM	22.73	24.26
5	20525	1	#0	16QAM	22.28	23.81
5	20525	1	#Mid	16QAM	22.17	23.70
5	20525	1	#Max	16QAM	22.20	23.73
5	20625	1	#0	16QAM	22.31	23.84
5	20625	1	#Mid	16QAM	22.44	23.97
5	20625	1	#Max	16QAM	22.38	23.91
10	20450	1	#0	16QAM	23.11	24.64
10	20450	1	#Mid	16QAM	23.20	24.73
10	20450	1	#Max	16QAM	22.97	24.50
10	20525	1	#0	16QAM	22.96	24.49
10	20525	1	#Mid	16QAM	23.06	24.59
10	20525	1	#Max	16QAM	22.97	24.50
10	20600	1	#0	16QAM	22.53	24.06
10	20600	1	#Mid	16QAM	22.67	24.20
10	20600	1	#Max	16QAM	22.64	24.17

LTE Band26						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
1.4	26797	1	#0	QPSK	23.55	25.84
1.4	26797	1	#Mid	QPSK	23.68	25.97
1.4	26797	1	#Max	QPSK	23.50	25.79
1.4	26797	3	#0	QPSK	23.55	25.84
1.4	26797	3	#Mid	QPSK	23.55	25.84
1.4	26797	3	#Max	QPSK	23.52	25.81
1.4	26797	6	#0	QPSK	22.61	24.90
1.4	26915	1	#0	QPSK	23.20	25.49
1.4	26915	1	#Mid	QPSK	23.38	25.67
1.4	26915	1	#Max	QPSK	23.17	25.46
1.4	26915	3	#0	QPSK	23.40	25.69
1.4	26915	3	#Mid	QPSK	23.40	25.69
1.4	26915	3	#Max	QPSK	23.37	25.66
1.4	26915	6	#0	QPSK	22.51	24.80
1.4	27033	1	#0	QPSK	23.55	25.84
1.4	27033	1	#Mid	QPSK	23.54	25.83
1.4	27033	1	#Max	QPSK	23.41	25.70
1.4	27033	3	#0	QPSK	23.52	25.81
1.4	27033	3	#Mid	QPSK	23.52	25.81
1.4	27033	3	#Max	QPSK	23.50	25.79
1.4	27033	6	#0	QPSK	22.67	24.96
3	26805	1	#0	QPSK	23.46	25.75
3	26805	1	#Mid	QPSK	23.54	25.83
3	26805	1	#Max	QPSK	23.58	25.87
3	26805	8	#0	QPSK	22.58	24.87
3	26805	8	#Mid	QPSK	22.59	24.88
3	26805	8	#Max	QPSK	22.58	24.87
3	26805	15	#0	QPSK	22.60	24.89
3	26915	1	#0	QPSK	23.43	25.72
3	26915	1	#Mid	QPSK	23.37	25.66
3	26915	1	#Max	QPSK	23.37	25.66
3	26915	8	#0	QPSK	22.51	24.80
3	26915	8	#Mid	QPSK	22.51	24.80
3	26915	8	#Max	QPSK	22.49	24.78
3	26915	15	#0	QPSK	22.50	24.79
3	27025	1	#0	QPSK	23.55	25.84
3	27025	1	#Mid	QPSK	23.50	25.79
3	27025	1	#Max	QPSK	23.44	25.73
3	27025	8	#0	QPSK	22.62	24.91

3	27025	8	#Mid	QPSK	22.53	24.82
3	27025	8	#Max	QPSK	22.53	24.82
3	27025	15	#0	QPSK	22.62	24.91
5	26815	1	#0	QPSK	23.33	25.62
5	26815	1	#Mid	QPSK	23.40	25.69
5	26815	1	#Max	QPSK	23.44	25.73
5	26815	12	#0	QPSK	22.53	24.82
5	26815	12	#Mid	QPSK	22.53	24.82
5	26815	12	#Max	QPSK	22.51	24.80
5	26815	25	#0	QPSK	22.58	24.87
5	26915	1	#0	QPSK	23.27	25.56
5	26915	1	#Mid	QPSK	23.22	25.51
5	26915	1	#Max	QPSK	23.30	25.59
5	26915	12	#0	QPSK	22.44	24.73
5	26915	12	#Mid	QPSK	22.44	24.73
5	26915	12	#Max	QPSK	22.40	24.69
5	26915	25	#0	QPSK	22.43	24.72
5	27015	1	#0	QPSK	23.35	25.64
5	27015	1	#Mid	QPSK	23.74	26.03
5	27015	1	#Max	QPSK	23.55	25.84
5	27015	12	#0	QPSK	22.53	24.82
5	27015	12	#Mid	QPSK	22.54	24.83
5	27015	12	#Max	QPSK	22.54	24.83
5	27015	25	#0	QPSK	22.52	24.81
10	26840	1	#0	QPSK	23.30	25.59
10	26840	1	#Mid	QPSK	23.44	25.73
10	26840	1	#Max	QPSK	23.41	25.70
10	26840	25	#0	QPSK	22.62	24.91
10	26840	25	#Mid	QPSK	22.61	24.90
10	26840	25	#Max	QPSK	22.61	24.90
10	26840	50	#0	QPSK	22.66	24.95
10	26915	1	#0	QPSK	23.23	25.52
10	26915	1	#Mid	QPSK	23.55	25.84
10	26915	1	#Max	QPSK	23.33	25.62
10	26915	25	#0	QPSK	22.50	24.79
10	26915	25	#Mid	QPSK	22.40	24.69
10	26915	25	#Max	QPSK	22.51	24.80
10	26915	50	#0	QPSK	22.49	24.78
10	26990	1	#0	QPSK	23.64	25.93
10	26990	1	#Mid	QPSK	23.70	25.99
10	26990	1	#Max	QPSK	23.63	25.92
10	26990	25	#0	QPSK	22.49	24.78
10	26990	25	#Mid	QPSK	22.49	24.78

10	26990	25	#Max	QPSK	22.62	24.91
10	26990	50	#0	QPSK	22.56	24.85
15	26865	1	#0	QPSK	23.23	25.52
15	26865	1	#Mid	QPSK	23.48	25.77
15	26865	1	#Max	QPSK	23.57	25.86
15	26865	36	#0	QPSK	22.52	24.81
15	26865	36	#Mid	QPSK	22.51	24.80
15	26865	36	#Max	QPSK	22.49	24.78
15	26865	75	#0	QPSK	22.46	24.75
15	26915	1	#0	QPSK	23.19	25.48
15	26915	1	#Mid	QPSK	23.31	25.60
15	26915	1	#Max	QPSK	23.28	25.57
15	26915	36	#0	QPSK	22.45	24.74
15	26915	36	#Mid	QPSK	22.45	24.74
15	26915	36	#Max	QPSK	22.44	24.73
15	26915	75	#0	QPSK	22.49	24.78
15	26965	1	#0	QPSK	23.34	25.63
15	26965	1	#Mid	QPSK	23.30	25.59
15	26965	1	#Max	QPSK	23.44	25.73
15	26965	36	#0	QPSK	22.50	24.79
15	26965	36	#Mid	QPSK	22.43	24.72
15	26965	36	#Max	QPSK	22.53	24.82
15	26965	75	#0	QPSK	22.50	24.79
1.4	26797	1	#0	16QAM	22.37	24.66
1.4	26797	1	#Mid	16QAM	22.89	25.18
1.4	26797	1	#Max	16QAM	22.69	24.98
1.4	26915	1	#0	16QAM	22.76	25.05
1.4	26915	1	#Mid	16QAM	22.92	25.21
1.4	26915	1	#Max	16QAM	22.75	25.04
1.4	27033	1	#0	16QAM	22.56	24.85
1.4	27033	1	#Mid	16QAM	22.41	24.70
1.4	27033	1	#Max	16QAM	22.27	24.56
3	26805	1	#0	16QAM	22.63	24.92
3	26805	1	#Mid	16QAM	22.67	24.96
3	26805	1	#Max	16QAM	22.59	24.88
3	26915	1	#0	16QAM	22.68	24.97
3	26915	1	#Mid	16QAM	22.71	25.00
3	26915	1	#Max	16QAM	22.91	25.20
3	27025	1	#0	16QAM	22.30	24.59
3	27025	1	#Mid	16QAM	22.45	24.74
3	27025	1	#Max	16QAM	22.45	24.74
5	26815	1	#0	16QAM	22.73	25.02
5	26815	1	#Mid	16QAM	22.94	25.23

5	26815	1	#Max	16QAM	22.88	25.17
5	26915	1	#0	16QAM	22.27	24.56
5	26915	1	#Mid	16QAM	22.29	24.58
5	26915	1	#Max	16QAM	22.35	24.64
5	27015	1	#0	16QAM	22.38	24.67
5	27015	1	#Mid	16QAM	22.49	24.78
5	27015	1	#Max	16QAM	22.26	24.55
10	26840	1	#0	16QAM	22.32	24.61
10	26840	1	#Mid	16QAM	22.80	25.09
10	26840	1	#Max	16QAM	22.64	24.93
10	26915	1	#0	16QAM	22.87	25.16
10	26915	1	#Mid	16QAM	23.11	25.40
10	26915	1	#Max	16QAM	23.08	25.37
10	26990	1	#0	16QAM	22.39	24.68
10	26990	1	#Mid	16QAM	22.47	24.76
10	26990	1	#Max	16QAM	22.43	24.72
15	26865	1	#0	16QAM	22.63	24.92
15	26865	1	#Mid	16QAM	22.61	24.90
15	26865	1	#Max	16QAM	22.72	25.01
15	26915	1	#0	16QAM	22.87	25.16
15	26915	1	#Mid	16QAM	22.98	25.27
15	26915	1	#Max	16QAM	22.94	25.23
15	26965	1	#0	16QAM	22.07	24.36
15	26965	1	#Mid	16QAM	22.06	24.35
15	26965	1	#Max	16QAM	22.23	24.52

6.2. Radiated Spurious Emission

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

WCDMA Band V CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1674.20	-69.02	1.70	8.70	Horizontal	-64.17	-13.00	51.17	28
3	2510.40	-66.52	2.30	12.00	Horizontal	-58.97	-13.00	45.97	39
4	3344.00	-65.20	2.70	12.70	Horizontal	-57.35	-13.00	44.35	68
5	4180.50	-62.45	3.00	12.50	Horizontal	-55.10	-13.00	42.10	123
6	5018.40	-61.25	3.40	12.50	Horizontal	-54.30	-13.00	41.30	73
7	5863.70	-62.27	3.40	12.80	Horizontal	-55.02	-13.00	42.02	57
8	6699.40	-57.76	4.10	11.50	Horizontal	-52.51	-13.00	39.51	228
9	7533.30	-55.80	4.20	12.20	Horizontal	-49.95	-13.00	36.95	65
10	8357.90	-54.08	4.30	12.50	Horizontal	-48.03	-13.00	35.03	33
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 5 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-69.73	1.70	8.70	Vertical	-64.88	-13.00	51.88	275
3	2509.50	-69.14	2.30	12.00	Vertical	-61.59	-13.00	48.59	49
4	3344.10	-68.19	2.70	12.70	Vertical	-60.34	-13.00	47.34	180
5	4180.40	-66.31	3.00	12.50	Vertical	-58.96	-13.00	45.96	65
6	5019.00	-64.17	3.40	12.50	Vertical	-57.22	-13.00	44.22	138
7	5855.50	-61.71	3.40	12.80	Vertical	-54.46	-13.00	41.46	57
8	6692.00	-57.22	4.10	11.50	Vertical	-51.97	-13.00	38.97	69
9	7528.50	-55.17	4.20	12.20	Vertical	-49.32	-13.00	36.32	315
10	8365.00	-56.37	4.30	12.50	Vertical	-50.32	-13.00	37.32	192
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

LTE Band 5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-71.12	1.70	8.70	Vertical	-66.27	-13.00	53.27	225
3	2503.30	-69.90	2.30	12.00	Vertical	-62.35	-13.00	49.35	163
4	3337.30	-68.58	2.70	12.70	Vertical	-60.73	-13.00	47.73	0
5	4171.50	-66.51	3.00	12.50	Vertical	-59.16	-13.00	46.16	45
6	5006.25	-64.70	3.40	12.50	Vertical	-57.75	-13.00	44.75	178
7	5840.63	-60.58	3.40	12.80	Vertical	-53.33	-13.00	40.33	90
8	6675.00	-57.33	4.10	11.50	Vertical	-52.08	-13.00	39.08	156
9	7509.38	-56.68	4.20	12.20	Vertical	-50.83	-13.00	37.83	40
10	8343.75	-57.76	4.30	12.50	Vertical	-51.71	-13.00	38.71	272
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

LTE Band 5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-71.20	1.70	8.70	Vertical	-66.35	-13.00	53.35	76
3	2496.60	-66.66	2.30	12.00	Vertical	-59.11	-13.00	46.11	201
4	3329.20	-68.17	2.70	12.70	Vertical	-60.32	-13.00	47.32	31
5	4161.20	-66.93	3.00	12.50	Vertical	-59.58	-13.00	46.58	126
6	4989.00	-65.67	3.40	12.50	Vertical	-58.72	-13.00	45.72	97
7	5820.50	-62.05	3.40	12.80	Vertical	-54.80	-13.00	41.80	160
8	6652.00	-56.61	4.10	11.50	Vertical	-51.36	-13.00	38.36	204
9	7483.50	-56.04	4.20	12.20	Vertical	-50.19	-13.00	37.19	195
10	8315.00	-56.75	4.30	12.50	Vertical	-50.70	-13.00	37.70	302
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

LTE Band 26 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-71.16	1.70	8.70	Vertical	-66.31	-13.00	53.31	117
3	2509.50	-69.41	2.30	12.00	Vertical	-61.86	-13.00	48.86	80
4	3344.10	-68.09	2.70	12.70	Vertical	-60.24	-13.00	47.24	180
5	4180.10	-67.02	3.00	12.50	Vertical	-59.67	-13.00	46.67	231
6	5019.00	-65.08	3.40	12.50	Vertical	-58.13	-13.00	45.13	90
7	5855.50	-62.56	3.40	12.80	Vertical	-55.31	-13.00	42.31	315
8	6692.00	-57.40	4.10	11.50	Vertical	-52.15	-13.00	39.15	270
9	7528.50	-55.29	4.20	12.20	Vertical	-49.44	-13.00	36.44	216
10	8365.00	-57.45	4.30	12.50	Vertical	-51.40	-13.00	38.40	285
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

LTE Band 26 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.00	-70.44	1.70	8.70	Vertical	-65.59	-13.00	52.59	246
3	2502.00	-68.60	2.30	12.00	Vertical	-61.05	-13.00	48.05	198
4	3337.40	-69.52	2.70	12.70	Vertical	-61.67	-13.00	48.67	294
5	4170.00	-66.64	3.00	12.50	Vertical	-59.29	-13.00	46.29	169
6	5004.00	-64.78	3.40	12.50	Vertical	-57.83	-13.00	44.83	63
7	5838.00	-61.40	3.40	12.80	Vertical	-54.15	-13.00	41.15	45
8	6672.00	-58.66	4.10	11.50	Vertical	-53.41	-13.00	40.41	0
9	7506.00	-55.68	4.20	12.20	Vertical	-49.83	-13.00	36.83	194
10	8340.00	-56.89	4.30	12.50	Vertical	-50.84	-13.00	37.84	235
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

LTE Band 26 15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1658.00	-69.43	1.70	8.70	Vertical	-64.58	-13.00	51.58	225
3	2487.00	-66.73	2.30	12.00	Vertical	-59.18	-13.00	46.18	32
4	3319.80	-68.17	2.70	12.70	Vertical	-60.32	-13.00	47.32	97
5	4150.00	-66.60	3.00	12.50	Vertical	-59.25	-13.00	46.25	146
6	4974.00	-65.30	3.40	12.50	Vertical	-58.35	-13.00	45.35	118
7	5803.00	-61.56	3.40	12.80	Vertical	-54.31	-13.00	41.31	304
8	6632.00	-57.83	4.10	11.50	Vertical	-52.58	-13.00	39.58	42
9	7461.00	-55.54	4.20	12.20	Vertical	-49.69	-13.00	36.69	13
10	8290.00	-57.82	4.30	12.50	Vertical	-51.77	-13.00	38.77	169
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Wireless Communication Tester	R&S	CMW500	150415	2023-05-12	2024-05-11
Wireless Communication Tester	Agilent	E5515C	MY48367192	2023-05-12	2024-05-11
Radiated Spurious Emission					
Spectrum Analyzer	R&S	FSV30	100815	2023-12-05	2024-12-04
High-pass filter	Chengyi	HPF 1000MHz	2024021	2024-02-21	2025-02-21
High-pass filter	R&S	HPF 1500MHz	HPF 002	2024-02-21	2025-02-21
High-pass filter	R&S	HPF 3000MHz	HPF 003	2024-02-21	2025-02-21
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2023-04-16	2026-04-15
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	391	2022-09-29	2025-09-28
Horn Antenna	SCHWARZBECK	BBHA 9120D	1594	2023-12-05	2026-12-04
Software	R&S	EMC32	10.35.10	/	/

ANNEX A: The EUT Appearance

The EUT Appearance is submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos is submitted separately.

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