


# FCC REPORT

For LTE

**Report No.** ..... : **CHTEW23110049** **Report Verification:** 

**Project No.**..... : **SHT2310045701EW**

**FCC ID**..... : **2BCINEC2**

**Applicant** ..... : **SENTRY CS LTD**

**Address**..... : **5 Derech Hashalom, Tel Aviv, Israel**

**Product Name** ..... : **Eclipse II (Drone tracking system)**

**Trade Mark** ..... : -

**Model No.** ..... : **CVX-EC2-BU (Antenna model: CVX-EC2-D-ANT)**

**Listed Model(s)** ..... : -

**Standard** ..... : **FCC CFR Title 47 Part 2**  
**FCC CFR Title 47 Part 24 Subpart E**  
**FCC CFR Title 47 Part 27**

**Date of receipt of test sample**..... : **Apr.06, 2023**

**Date of testing**..... : **Apr.06, 2023-Aug.23, 2023**

**Date of issue**..... : **Nov. 14, 2023**

**Result**..... : **Pass**

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*Xu Yang*

**Testing Laboratory Name** ..... : **Shenzhen Huatongwei International Inspection Co., Ltd.**

**Address**..... : **1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China**

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*The test report merely correspond to the test sample.*

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## 1. TEST STANDARDS AND REPORT VERSION

### 1.1. Applicable Standards

The tests were performed according to following standards:

[FCC CFR Title 47 Part 2:](#) Frequency Allocations and Radio Treaty Matters; General Rules and Regulations

[FCC CFR Title 47 Part 24 Subpart E:](#) Broadband PCS

[FCC CFR Title 47 Part 27:](#) Miscellaneous Wireless Communications Services

[ANSI C63.26-2015:](#) American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

[KDB 971168 D01 Power Meas License Digital Systems v03:](#) MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS

### 1.2. Report version information

Revision No.	Date of issue	Description
N/A	2023-11-14	Original

## 2. TEST DESCRIPTION

Section	Test Item	Section in CFR 47	Result #1	Test Engineer
-	Conducted Output Power	Part 2.1046 Part 24.232(c) Part 27.50	Pass*	-
-	Peak-to-Average Ratio	Part 24.232 Part 27.50	Pass*	-
-	99% Occupied Bandwidth & 26 dB Bandwidth	Part 2.1049 Part 24.238(b) Part 27.53	Pass*	-
-	Band Edge	Part 2.1051 Part 24.238 Part 27.53	Pass*	-
-	Conducted Spurious Emissions	Part 2.1051 Part 24.238 Part 27.53	Pass*	-
-	Frequency stability vs temperature	Part 2.1055(a)(1)(b) Part 24.235 Part 27.54	Pass*	-
-	Frequency stability vs voltage	Part 2.1055(d)(1)(2) Part 24.235 Part 27.54	Pass*	-
5.1	ERP and EIRP	Part 24.232(b) Part 27.50	Pass	Yifang Wang
5.2	Radiated Spurious Emissions	Part 2.1053 Part 24.238 Part 27.53	Pass	Yifang Wang

Note:

- 1) #1: The test result does not include measurement uncertainty value
- 2) \*: Refer to module FCC ID: N7NEM75. EUT only uses LTE Band 2 and Band 12, and the rest of the band is turned off by software.

### 3. SUMMARY

#### 3.1. Client Information

Applicant:	SENTRY CS LTD
Address:	5 Derech Hashalom, Tel Aviv, Israel
Manufacturer:	SENTRY CS LTD
Address:	5 Derech Hashalom, Tel Aviv, Israel

#### 3.2. Product Description

Main unit information:	
Product Name:	Eclipse II (Drone tracking system)
Trade Mark:	-
Model No.:	CVX-EC2-BU (Antenna model: CVX-EC2-D-ANT)
Listed Model(s):	-
Power supply:	AC 100-240V 50Hz/60Hz
Test voltage:	AC 120V 60Hz
Hardware version:	Eclipse II
Software version:	Eclipse II

#### 3.3. Radio Specification Description

Support Operating Band:	<input checked="" type="checkbox"/> LTE Band 2 <input checked="" type="checkbox"/> LTE Band 12
Operating Frequency Range:	Please refer to note #2
Channel bandwidth:	Please refer to note #3
Uplink Modulation type:	<input checked="" type="checkbox"/> QPSK <input checked="" type="checkbox"/> 16QAM <input checked="" type="checkbox"/> 64QAM
Downlink Modulation type:	<input checked="" type="checkbox"/> QPSK <input checked="" type="checkbox"/> 16QAM <input checked="" type="checkbox"/> 64QAM
Antenna type:	Flexible FPCB Antenna
Antenna gain #4:	Band 2: 2.5dBi; Band 12: 1.0dBi

Note:

- ☒: means that this feature is supported; ☐: means that this feature is not supported
- #2: Operating frequency range is as follow:

LTE Band	Uplink frequency	Downlink frequency
LTE Band 2	1850.7 – 1909.3 MHz	1930.7 – 1989.3 MHz
LTE Band 12	699.7 – 715.3 MHz	729.7 – 745.3 MHz

- Supported channel bandwidth is as follow:

LTE Band	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
LTE Band 2	√	√	√	√	√	√
LTE Band 12	√	√	√	√	-	-

√: means that this feature is supported; -: means that this feature is not supported

- #4: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, HTW lab has not verified the authenticity of its information

### 3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Contact information:	Tel: 86-755-26715499 E-mail: <a href="mailto:cs@szhtw.com.cn">cs@szhtw.com.cn</a> <a href="http://www.szhtw.com.cn">http://www.szhtw.com.cn</a>	
Qualifications	Type	Accreditation Number
	FCC	762235

## 4. TEST CONFIGURATION

### 4.1. Test frequency list

LTE Band 2	<table><tr><th>Test Frequency ID</th><th>Bandwidth [MHz]</th><th>N<sub>UL</sub></th><th>Frequency of Uplink [MHz]</th><th>N<sub>DL</sub></th><th>Frequency of Downlink [MHz]</th></tr><tr><td rowspan="6">Low Range</td><td>1.4</td><td>18607</td><td>1850.7</td><td>607</td><td>1930.7</td></tr><tr><td>3</td><td>18615</td><td>1851.5</td><td>615</td><td>1931.5</td></tr><tr><td>5</td><td>18625</td><td>1852.5</td><td>625</td><td>1932.5</td></tr><tr><td>10</td><td>18650</td><td>1855</td><td>650</td><td>1935</td></tr><tr><td>15 <sup>[1]</sup></td><td>18675</td><td>1857.5</td><td>675</td><td>1937.5</td></tr><tr><td>20 <sup>[1]</sup></td><td>18700</td><td>1860</td><td>700</td><td>1940</td></tr><tr><td>Mid Range</td><td>1.4/3/5/10 15 <sup>[1]</sup>/20 <sup>[1]</sup></td><td>18900</td><td>1880</td><td>900</td><td>1960</td></tr><tr><td rowspan="6">High Range</td><td>1.4</td><td>19193</td><td>1909.3</td><td>1193</td><td>1989.3</td></tr><tr><td>3</td><td>19185</td><td>1908.5</td><td>1185</td><td>1988.5</td></tr><tr><td>5</td><td>19175</td><td>1907.5</td><td>1175</td><td>1987.5</td></tr><tr><td>10</td><td>19150</td><td>1905</td><td>1150</td><td>1985</td></tr><tr><td>15 <sup>[1]</sup></td><td>19125</td><td>1902.5</td><td>1125</td><td>1982.5</td></tr><tr><td>20 <sup>[1]</sup></td><td>19100</td><td>1900</td><td>1100</td><td>1980</td></tr><tr><td colspan="6">NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.</td></tr></table>	Test Frequency ID	Bandwidth [MHz]	N <sub>UL</sub>	Frequency of Uplink [MHz]	N <sub>DL</sub>	Frequency of Downlink [MHz]	Low Range	1.4	18607	1850.7	607	1930.7	3	18615	1851.5	615	1931.5	5	18625	1852.5	625	1932.5	10	18650	1855	650	1935	15 <sup>[1]</sup>	18675	1857.5	675	1937.5	20 <sup>[1]</sup>	18700	1860	700	1940	Mid Range	1.4/3/5/10 15 <sup>[1]</sup> /20 <sup>[1]</sup>	18900	1880	900	1960	High Range	1.4	19193	1909.3	1193	1989.3	3	19185	1908.5	1185	1988.5	5	19175	1907.5	1175	1987.5	10	19150	1905	1150	1985	15 <sup>[1]</sup>	19125	1902.5	1125	1982.5	20 <sup>[1]</sup>	19100	1900	1100	1980	NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.					
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LTE Band 12	<table><tr><th colspan="6">Table 4.3.1.1.12-1: Test frequencies for E-UTRA channel bandwidth for operating band 12</th></tr><tr><th>Test Frequency ID</th><th>Bandwidth [MHz]</th><th>N<sub>UL</sub></th><th>Frequency of Uplink [MHz]</th><th>N<sub>DL</sub></th><th>Frequency of Downlink [MHz]</th></tr><tr><td rowspan="5">Low Range</td><td>1.4</td><td>23017</td><td>699.7</td><td>5017</td><td>729.7</td></tr><tr><td>3</td><td>23025</td><td>700.5</td><td>5025</td><td>730.5</td></tr><tr><td>5 <sup>[1]</sup></td><td>23035</td><td>701.5</td><td>5035</td><td>731.5</td></tr><tr><td>10 <sup>[1]</sup></td><td>23060</td><td>704</td><td>5060</td><td>734</td></tr><tr><td>Mid Range</td><td>1.4/3 5 <sup>[1]</sup>/10 <sup>[1]</sup></td><td>23095</td><td>707.5</td><td>5095</td><td>737.5</td></tr><tr><td rowspan="4">High Range</td><td>1.4</td><td>23173</td><td>715.3</td><td>5173</td><td>745.3</td></tr><tr><td>3</td><td>23165</td><td>714.5</td><td>5165</td><td>744.5</td></tr><tr><td>5 <sup>[1]</sup></td><td>23155</td><td>713.5</td><td>5155</td><td>743.5</td></tr><tr><td>10 <sup>[1]</sup></td><td>23130</td><td>711</td><td>5130</td><td>741</td></tr><tr><td colspan="6">NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.</td></tr></table>	Table 4.3.1.1.12-1: Test frequencies for E-UTRA channel bandwidth for operating band 12						Test Frequency ID	Bandwidth [MHz]	N <sub>UL</sub>	Frequency of Uplink [MHz]	N <sub>DL</sub>	Frequency of Downlink [MHz]	Low Range	1.4	23017	699.7	5017	729.7	3	23025	700.5	5025	730.5	5 <sup>[1]</sup>	23035	701.5	5035	731.5	10 <sup>[1]</sup>	23060	704	5060	734	Mid Range	1.4/3 5 <sup>[1]</sup> /10 <sup>[1]</sup>	23095	707.5	5095	737.5	High Range	1.4	23173	715.3	5173	745.3	3	23165	714.5	5165	744.5	5 <sup>[1]</sup>	23155	713.5	5155	743.5	10 <sup>[1]</sup>	23130	711	5130	741	NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.																			
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## 4.2. Test mode

Test mode	Link mode
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- 1) Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems and ANSI C63.26 with maximum output power.
- 2) Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Test configuration is as follow:

Test Items	Bandwidth	Modulation	RB #		
			1	Half	Full
Radiated Spurious Emission	#5	#6	○	-	-

Note:

- #5: Test all kind of bandwidth in section 3.3
- #6: Test all kind of uplink modulation in section 3.3
- ○: means that this configuration is chosen for testing
- -: means that this configuration is not test.
- The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different bandwidth, modulations and RB size/offset in exploratory test. Subsequently, only the worst case emissions (highest bandwidth, QPSK, and 1RB0) are reported.

#### 4.3. Test sample information

Test item	HTW sample no.
Radiated test items	YPHT23040066001

Note:

Radiated test items: Radiated Spurious Emission

#### 4.4. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?				
✓ No				
Item	Equipment	Trade Name	Model No.	Other
1	-	-	-	-
2	-	-	-	-

#### 4.5. Testing environmental condition

Voltage	VN=Nominal Voltage	AC 120V
Temperature	TN=Normal Temperature	25 °C
Humidity	30~60 %	
Air Pressure	950-1050 hPa	

#### 4.6. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	Radiated Spurious Emission	4.54dB for 30MHz-1GHz 5.10dB for above 1GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

#### 4.7. Equipments Used during the Test

● Radiated Spurious Emission							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	C11121	2018/09/27	2023/09/26
●	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2022/08/25	2023/08/24
●	Loop Antenna	R&S	HTWE0546	HFH2-Z2E	101073	2021/05/25	2024/05/24
●	Horn Antenna	ETS	HTWE0548	3117	240120	2022/05/20	2025/05/19
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0547	VULB9163	945	2022/05/23	2025/05/22
○	Horn Antenna	STEATITE	HTWE0549	QMS-00880	25661	2022/05/20	2025/05/19
●	Pre-amplifier	CD	HTWE0071	PAP-0102	12004	2022/11/04	2023/11/03
●	Broadband Preamplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2023/02/27	2024/02/26
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-01	6m 18GHz S Serisa	N/A	2023/02/24	2024/02/23
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-02	6m 3GHz RG Serisa	N/A	2023/02/24	2024/02/23
●	RF Connection Cable	HUBER+SUHNER	HTWE0119-05	6m 3GHz RG Serisa	N/A	2023/02/24	2024/02/23
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-04	6m 3GHz RG Serisa	N/A	2023/02/24	2024/02/23
●	EMI Test Software	Audix	N/A	E3	N/A	N/A	N/A

● Auxiliary Equipment							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2022/08/25	2023/08/24
●	High pass filter	Wainwright	HTWE0297	WHKX3.0/18G-10SS	38	2023/05/15	2024/05/14
○	Band Stop filter	-	HTWE0039	N/A	N/A	2023/01/26	2024/01/25

## 5. TEST CONDITIONS AND RESULTS

### 5.1. ERP and EIRP

#### LIMIT

LTE Band 2: 2W(33dBm) EIRP

LTE Band 12: 3W(34.77dBm) ERP

#### TEST PROCEDURE

1. According to the power tested in section 5.1, select the maximum power in each mode, and use the following formula to calculate the corresponding ERP/EIRP.
2. ERP = conducted power + Gain(dBd)
3. EIRP = conducted power + Gain(dBi)  
ERP = EIRP - 2.15

#### TEST RESULTS

☒ Passed ☐ Not Applicable

#### TEST DATA

Band	Bandwidth	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
					(dBm)	(W)		
Band 2	1.4MHz	QPSK	22.11	2.50	24.61	0.29	2	PASS
		16QAM	21.43	2.50	23.93	0.25	2	PASS
		64QAM	20.29	2.50	22.79	0.19	2	PASS
	3MHz	QPSK	22.08	2.50	24.58	0.29	2	PASS
		16QAM	21.49	2.50	23.99	0.25	2	PASS
		64QAM	20.27	2.50	22.77	0.19	2	PASS
	5MHz	QPSK	22.18	2.50	24.68	0.29	2	PASS
		16QAM	21.52	2.50	24.02	0.25	2	PASS
		64QAM	20.36	2.50	22.86	0.19	2	PASS
	10MHz	QPSK	22.42	2.50	24.92	0.31	2	PASS
		16QAM	21.72	2.50	24.22	0.26	2	PASS
		64QAM	20.59	2.50	23.09	0.20	2	PASS
	15MHz	QPSK	22.35	2.50	24.85	0.31	2	PASS
		16QAM	21.67	2.50	24.17	0.26	2	PASS
		64QAM	20.57	2.50	23.07	0.20	2	PASS
	20MHz	QPSK	22.55	2.50	25.05	0.32	2	PASS
		16QAM	21.89	2.50	24.39	0.27	2	PASS
		64QAM	20.71	2.50	23.21	0.21	2	PASS

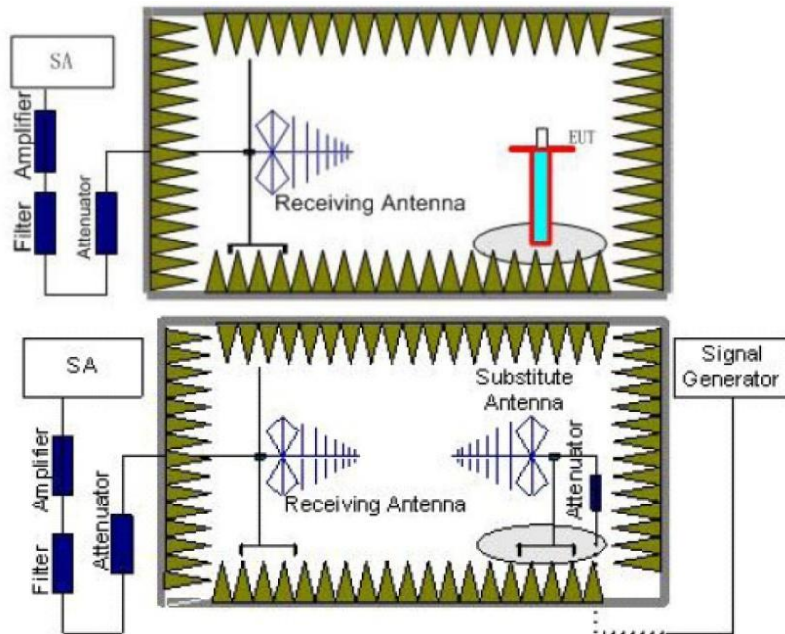
Band	Bandwidth	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	ERP		Limit (W)	Verdict
					(dBm)	(W)		
Band 12	1.4MHz	QPSK	22.60	1.00	23.60	0.23	3	PASS
		16QAM	21.88	1.00	22.88	0.19	3	PASS
		64QAM	20.79	1.00	21.79	0.15	3	PASS
	3MHz	QPSK	22.69	1.00	23.69	0.23	3	PASS
		16QAM	22.07	1.00	23.07	0.20	3	PASS
		64QAM	21.01	1.00	22.01	0.16	3	PASS
	5MHz	QPSK	22.75	1.00	23.75	0.24	3	PASS
		16QAM	22.06	1.00	23.06	0.20	3	PASS
		64QAM	20.93	1.00	21.93	0.16	3	PASS
	10MHz	QPSK	22.76	1.00	23.76	0.24	3	PASS
		16QAM	22.04	1.00	23.04	0.20	3	PASS
		64QAM	20.98	1.00	21.98	0.16	3	PASS

## 5.2. Radiated Spurious Emission

### LIMIT

LTE Band 2/12: -13dBm;

### TEST CONFIGURATION



### TEST PROCEDURE

1. Place the EUT in the center of the turntable.
  - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
  - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
4. Receiver or Spectrum set as follow:  
 Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto  
 Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto
5. Each emission under consideration shall be evaluated:
  - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
  - b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
  - c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
  - d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
  - e) Record the measured emission amplitude level and frequency
6. Repeat step 5 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.
7. 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.
8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
  9. 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.
  10. For each emission that was detected and measured in the initial test
    - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
    - b) 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 5 and step 6.
    - c) Record the output power level of the signal generator when equivalence is achieved in step b).
  11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
  12. 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.*
  13. 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
  14. Provide the complete measurement results as a part of the test report.

### **TEST MODE**

Please refer to the clause 4.2

### **TEST RESULTS**

☒ **Passed**      ☐ **Not Applicable**

Note: only show the worse case for QPSK modulation.

LTE Band 2									
Test channel:		Low			Polarization:			Horizontal	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	32.99	-76.59	26.67	1.04	30.71	-79.59	-13.00	-66.59	Peak
2	591.82	-80.78	27.49	4.87	29.77	-78.19	-13.00	-65.19	Peak
3	1393.45	-70.54	37.15	7.88	29.09	-54.60	-13.00	-41.60	Peak
4	2480.73	-70.89	39.38	11.03	27.20	-47.68	-13.00	-34.68	Peak
5	4996.69	-59.85	44.35	6.09	35.75	-45.16	-13.00	-32.16	Peak
6	10507.31	-70.70	51.70	9.76	36.04	-45.28	-13.00	-32.28	Peak

Test channel:		Mid			Polarization:			Horizontal	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	59.35	-77.56	24.46	1.42	30.84	-82.52	-13.00	-69.52	Peak
2	800.80	-80.29	29.86	5.77	29.66	-74.32	-13.00	-61.32	Peak
3	1407.29	-70.67	37.11	7.94	29.01	-54.63	-13.00	-41.63	Peak
4	2127.07	-70.69	40.31	10.03	28.94	-49.29	-13.00	-36.29	Peak
5	4983.99	-58.34	44.30	6.08	35.81	-43.77	-13.00	-30.77	Peak
6	9759.59	-70.54	50.44	9.46	33.66	-44.30	-13.00	-31.30	Peak

Test channel:		Mid			Polarization:			Vertical	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	161.11	-77.79	20.99	2.41	30.48	-84.87	-13.00	-71.87	Peak
2	847.15	-82.44	29.82	5.96	29.33	-75.99	-13.00	-62.99	Peak
3	1459.25	-70.85	37.76	8.09	28.95	-53.95	-13.00	-40.95	Peak
4	2212.88	-73.05	41.57	10.30	29.05	-50.23	-13.00	-37.23	Peak
5	4996.69	-51.81	44.50	6.09	35.75	-36.97	-13.00	-23.97	Peak
6	9784.47	-70.39	50.28	9.48	33.44	-44.07	-13.00	-31.07	Peak

Test channel:		High			Polarization:			Horizontal	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	38.78	-80.15	27.60	1.13	30.62	-82.04	-13.00	-69.04	Peak
2	847.15	-81.58	29.80	5.96	29.33	-75.15	-13.00	-62.15	Peak
3	1438.56	-70.49	36.92	8.02	28.79	-54.34	-13.00	-41.34	Peak
4	2239.79	-72.81	40.73	10.38	28.67	-50.37	-13.00	-37.37	Peak
5	4996.69	-56.55	44.35	6.09	35.75	-41.86	-13.00	-28.86	Peak
6	9809.40	-70.58	50.59	9.50	33.53	-44.02	-13.00	-31.02	Peak

Test channel:		High			Polarization:			Vertical	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	108.28	-81.47	24.66	1.95	30.62	-85.48	-13.00	-72.48	Peak
2	659.98	-81.54	28.21	5.18	29.66	-77.81	-13.00	-64.81	Peak
3	1396.51	-70.51	37.75	7.90	29.09	-53.95	-13.00	-40.95	Peak
4	2247.18	-72.62	41.14	10.38	28.61	-49.71	-13.00	-36.71	Peak
5	4996.69	-57.03	44.50	6.09	35.75	-42.19	-13.00	-29.19	Peak
6	10480.59	-69.97	52.25	9.75	36.05	-44.02	-13.00	-31.02	Peak

LTE Band 12									
Test channel:		Low			Polarization:			Horizontal	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-95.57	26.96	1.18	0.00	-67.43	-13.00	-54.43	Peak
2	461.06	-94.75	25.81	4.25	0.00	-64.69	-13.00	-51.69	Peak
3	1746.25	-57.36	36.52	3.52	37.86	-55.18	-13.00	-42.18	Peak
4	2376.15	-60.92	39.95	4.25	37.58	-54.30	-13.00	-41.30	Peak
5	3728.63	-65.83	42.26	5.20	36.95	-55.32	-13.00	-42.32	Peak
6	10971.98	-69.21	52.84	9.99	35.91	-42.29	-13.00	-29.29	Peak
Test channel:		Low			Polarization:			Vertical	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	143.46	-89.23	21.38	2.26	0.00	-65.59	-13.00	-52.59	Peak
2	494.65	-92.31	26.12	4.41	0.00	-61.78	-13.00	-48.78	Peak
3	1498.91	-60.42	37.76	3.20	37.40	-56.86	-13.00	-43.86	Peak
4	2500.25	-58.94	39.23	4.19	37.67	-53.19	-13.00	-40.19	Peak
5	4895.97	-69.17	44.06	6.11	35.90	-54.90	-13.00	-41.90	Peak
6	10860.83	-69.63	52.66	9.93	35.94	-42.98	-13.00	-29.98	Peak

Test channel:		Mid			Polarization:			Horizontal	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	93.74	-87.20	18.02	1.81	0.00	-67.37	-13.00	-54.37	Peak
2	401.97	-93.71	25.47	3.94	0.00	-64.30	-13.00	-51.30	Peak
3	1741.81	-56.50	36.51	3.50	37.83	-54.32	-13.00	-41.32	Peak
4	2370.11	-61.53	39.99	4.22	37.60	-54.92	-13.00	-41.92	Peak
5	4996.69	-66.83	44.35	6.09	35.75	-52.14	-13.00	-39.14	Peak
6	10888.51	-69.72	52.64	9.95	35.93	-43.06	-13.00	-30.06	Peak
Test channel:		Mid			Polarization:			Vertical	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	143.46	-89.07	21.38	2.26	0.00	-65.43	-13.00	-52.43	Peak
2	417.82	-94.08	25.36	4.03	0.00	-64.69	-13.00	-51.69	Peak
3	1498.91	-59.99	37.76	3.20	37.40	-56.43	-13.00	-43.43	Peak
4	2500.25	-58.71	39.23	4.19	37.67	-52.96	-13.00	-39.96	Peak
5	6078.64	-70.58	45.06	6.91	34.89	-53.50	-13.00	-40.50	Peak
6	10860.83	-70.34	52.66	9.93	35.94	-43.69	-13.00	-30.69	Peak

Test channel:		High			Polarization:			Horizontal	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	143.46	-88.86	17.66	2.26	0.00	-68.94	-13.00	-55.94	Peak
2	438.91	-94.22	26.04	4.13	0.00	-64.05	-13.00	-51.05	Peak
3	1746.25	-56.65	36.52	3.52	37.86	-54.47	-13.00	-41.47	Peak
4	2370.11	-60.70	39.99	4.22	37.60	-54.09	-13.00	-41.09	Peak
5	4570.77	-67.32	43.38	6.29	36.12	-53.77	-13.00	-40.77	Peak
6	10888.51	-68.89	52.64	9.95	35.93	-42.23	-13.00	-29.23	Peak
Test channel:		High			Polarization:			Vertical	
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	143.46	-88.34	21.38	2.26	0.00	-64.70	-13.00	-51.70	Peak
2	431.26	-93.32	25.51	4.09	0.00	-63.72	-13.00	-50.72	Peak
3	1498.91	-59.73	37.76	3.20	37.40	-56.17	-13.00	-43.17	Peak
4	2500.25	-59.21	39.23	4.19	37.67	-53.46	-13.00	-40.46	Peak
5	4996.69	-67.76	44.50	6.09	35.75	-52.92	-13.00	-39.92	Peak
6	10860.83	-69.05	52.66	9.93	35.94	-42.40	-13.00	-29.40	Peak

## **6. TEST SETUP PHOTOS OF THE EUT**

Please refer to Appendix A

## **7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT**

Refer to the test report No.: CHTEW23110047

-----End of Report-----