




FCC REPORT

For LTE

Report No. : **CHTEW22120078** **Report Verification:** 

Project No. : **SHT2211015101EW**

FCC ID : **2A6LY-0002**

Applicant : **Resvent Medical Technology Co., Ltd.**

Address : Room-602, Building B&C, Gaoxingqi Industrial Park, Liuxian No.1 Road, Xingdong Community, Bao'an, 518100 ShenZhen, PEOPLE'S REPUBLIC OF CHINA

Product Name : **iBreeze PAP**

Trade Mark : -

Model No : iBreeze 20A

Listed Model(s) : -

Standard : **FCC CFR Title 47 Part 2**
FCC CFR Title 47 Part 90

Date of receipt of test sample : Nov.23, 2022

Date of testing : Nov.23, 2022-Dec.12, 2022

Date of issue : Dec.12, 2022

Result : **Pass**

Compiled by
(position+printedname+signature)....: File administrators Fanghui Zhu

Fanghui Zhu

Supervised by
(position+printedname+signature).....: Project Engineer Xiaodong Zhao

Xiaodong Zhao

Approved by
(position+printedname+signature).....: Manager Hans Hu

Hans Hu

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

Shenzhen Huatongwei International Inspection Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen Huatongwei International Inspection Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen Huatongwei International Inspection Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

The test report merely correspond to the test sample.

Contents

<u>1.</u>	<u>TEST STANDARDS AND REPORT VERSION</u>	<u>3</u>
1.1.	Applicable Standards	3
1.2.	Report version information	3
<u>2.</u>	<u>TEST DESCRIPTION</u>	<u>4</u>
<u>3.</u>	<u>SUMMARY</u>	<u>5</u>
3.1.	Client Information	5
3.2.	Product Description	5
3.3.	Radio Specification Description	6
3.4.	Testing Laboratory Information	6
<u>4.</u>	<u>TEST CONFIGURATION</u>	<u>7</u>
4.1.	Test frequency list	7
4.2.	Descriptions of Test mode	7
4.3.	Test sample information	7
4.4.	Support unit used in test configuration and system	8
4.5.	Testing environmental condition	8
4.6.	Statement of the measurement uncertainty	8
4.7.	Equipments Used during the Test	9
<u>5.</u>	<u>TEST CONDITIONS AND RESULTS</u>	<u>10</u>
5.1.	Conducted Output Power	10
5.2.	Peak-to-Average Ratio	11
5.3.	99% Occupied Bandwidth & 26 dB Bandwidth	12
5.4.	Band Edge	13
5.5.	Conducted Spurious Emissions	14
5.6.	Frequency stability VS Temperature measurement	15
5.7.	Frequency stability VS Voltage measurement	16
5.8.	ERP	17
5.9.	Radiated Spurious Emission	18
<u>6.</u>	<u>TEST SETUP PHOTOS OF THE EUT</u>	<u>25</u>
<u>7.</u>	<u>EXTERNAL AND INTERNAL PHOTOS OF THE EUT</u>	<u>25</u>
<u>8.</u>	<u>APPENDIX REPORT</u>	<u>25</u>

1. TEST STANDARDS AND REPORT VERSION

1.1. Applicable Standards

The tests were performed according to following standards:

[FCC Rules Part 2](#): FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

[FCC Rules Part 90](#): PRIVATE LAND MOBILE RADIO 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	2022-12-12	Original

2. Test Description

Section	Test Item	Section in CFR 47	Result ^{#1}	Test Engineer
5.1	Conducted Output Power	Part 2.1046 Part 90.635(b)	Pass	Xiaodong Zhao
5.2	Peak-to-Average Ratio	-	Pass	Xiaodong Zhao
5.3	99% Occupied Bandwidth & 26 dB Bandwidth	Part 2.1049	Pass	Xiaodong Zhao
5.4	Band Edge	Part 2.1051 Part 90.691	Pass	Xiaodong Zhao
5.5	Conducted Spurious Emissions	Part 2.1051 Part 90.691	Pass	Xiaodong Zhao
5.6	Frequency stability vs temperature	Part 2.1055(a)(1)(b) Part 90.213	Pass	Xiaodong Zhao
5.7	Frequency stability vs voltage	Part 2.1055(d)(1)(2) Part 90.213	Pass	Xiaodong Zhao
5.8	ERP	Part 22.913(a) Part 90.635(b)	Pass	Xiaodong Zhao
5.9	Radiated Spurious Emissions	Part 2.1053 Part 90.691	Pass	Yifan Wang

Note:

#1: The test result does not include measurement uncertainty value

3. SUMMARY

3.1. Client Information

Applicant:	Resvent Medical Technology Co., Ltd.
Address:	Room-602, Building B&C, Gaoxingqi Industrial Park, Liuxian No.1 Road, Xingdong Community, Bao'an, 518100 ShenZhen, PEOPLE'S REPUBLIC OF CHINA
Manufacturer:	Resvent Medical Technology Co., Ltd.
Address:	Room-602, Building B&C, Gaoxingqi Industrial Park, Liuxian No.1 Road, Xingdong Community, Bao'an, 518100 ShenZhen, PEOPLE'S REPUBLIC OF CHINA

3.2. Product Description

Main unit information:	
Product Name:	iBreeze PAP
Trade Mark:	-
Model No.:	iBreeze 20A
Listed Model(s):	-
Power supply:	DC 24V from adapter
Hardware version:	1.0
Software version:	V01.00.00
Accessory unit information:	
Adapter information:	Model : MDA60-220S24-W1 Input: 100-240VA.C., 1.18-0.56A 50/60Hz 2A Max Output: 24Vd.c., 2.5A

3.3. Radio Specification Description

Operation Band:	<input checked="" type="checkbox"/> FDD Band 26		
Operation Frequency Range:		Uplink	Downlink
	FDD Band 26	814.7 – 823.3 MHz	859.7 – 868.3 MHz
Channel bandwidth:	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz		
Power Class:	<input checked="" type="checkbox"/> Class 3 <input type="checkbox"/> Class 4		
Uplink Modulation type ^{#2} :	<input checked="" type="checkbox"/> QPSK	<input checked="" type="checkbox"/> 16QAM	<input type="checkbox"/> 64QAM <input type="checkbox"/> 256QAM
Downlink Modulation type ^{#2} :	<input checked="" type="checkbox"/> QPSK	<input checked="" type="checkbox"/> 16QAM	<input type="checkbox"/> 64QAM <input type="checkbox"/> 256QAM
Antenna type:	PIFA		
Antenna Gain ^{#3} :	0.56dB		

Note:

☒: means that this feature is supported; ☐: means that this feature is not supported

#2: 16QAM only supports 25%RB.

#3: 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	
Connect information:	Tel: 86-755-26715499 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn	
Qualifications	Type	Accreditation Number
	FCC	762235

4. TEST CONFIGURATION

4.1. Test frequency list

TDD Band 26	Test Frequency ID	Bandwidth[MHz]	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
	Low Range	1.4	26997	814.7	8697	859.7
		3	26705	815.5	8705	860.5
		5	26715	816.5	8715	861.5
		10	-	-	-	-
		15	26765	821.5		
	Mid Range	1.4/3/5/10	26740	819	8740	864
	High Range	1.4	26783	823.3	8783	868.3
		3	26775	822.5	8775	867.5
		5	26765	821.5	8765	866.5
		10	-	-	-	-

4.2. Descriptions of Test mode

For RF test items

The EUT has been tested under typical operating condition. Testing was performed by configuring EUT to maximum output power status.

Test Items	Band	Bandwidth (MHz)					Modulation		RB #		
		1.4	3	5	10	15	QPSK	16QAM	1	Half	Full
Conducted Output Power	26	○	○	○	○	○	○	○	○	○	○
Peak-to-Average Ratio	26	○	○	○	○	○	○	○	○	-	○
99% Occupied Bandwidth & 26 dB Bandwidth	26	○	○	○	○	○	○	○	-	-	○
Band Edge	26	○	○	○	○	○	○	○	○	-	○
Conducted Spurious Emission	26	○	○	○	○	○	○	○	○	-	-
Frequency Stability	26	○	○	○	○	○	○	○	-	-	○
ERP	26	○	○	○	○	○	○	○	○	-	-
Radiated Spurious Emission	26	○	○	○	○	○	○	○	○	-	-
Remark	1. The mark "○" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not test. 3. 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.
Conducted test items	Please refer to the description in the appendix report
Radiated test items	YPHT22110151001

Note:

Conducted test items: Conducted Output Power, Peak-Average Ratio, 99% Occupied Bandwidth & 26 dB Bandwidth, Band Edge, Conducted Spurious Emissions, Frequency stability, ERP

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
	VL=Lower Voltage	AC 102V
	VH=Higher Voltage	AC 138V
Temperature	TN=Normal Temperature	25 °C
	Extreme Temperature	From -30°C to + 50°C
Humidity	30~60 %	
Air Pressure	950-1050 hPa	

4.6. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	Conducted Carrier Output Power	0.63
2	99% Occupied Bandwidth & 26dB bandwidth	0.002%
3	Emission Mask	0.92dB
4	Frequency Stability	0.06ppm
5	Transmit Conducted Spurious Emission	1.68dB
6	Transmit 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

●	Conducted test item						
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
○	Signal and spectrum Analyzer	R&S	HTWE0242	FSV40	100048	2022/08/25	2023/08/24
○	Signal & Spectrum Analyzer	R&S	HTWE0262	FSW26	103440	2022/08/25	2023/08/24
●	Spectrum Analyzer	Agilent	HTWE0286	N9020A	MY50510187	2022/08/25	2023/08/24
●	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2022/08/25	2023/08/24
●	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A

●	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	HTWE0170	HFH2-Z2	100020	2021/04/06	2024/04/05
●	Broadband Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	BBHA9170472	2020/04/27	2023/04/26
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2021/04/06	2024/04/05
●	Horn Antenna	SCHWARZBECK	HTWE0126	9120D	1011	2020/04/01	2023/03/31
●	Pre-amplifier	CD	HTWE0071	PAP-0102	12004	2022/11/04	2023/11/03
●	Broadband Preamplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2022/02/28	2023/02/27
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-01	6m 18GHz S Serisa	N/A	2022/02/25	2023/02/24
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-02	6m 3GHz RG Serisa	N/A	2022/02/25	2023/02/24
●	RF Connection Cable	HUBER+SUHNER	HTWE0119-05	6m 3GHz RG Serisa	N/A	2022/02/25	2023/02/24
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-04	6m 3GHz RG Serisa	N/A	2022/02/25	2023/02/24
●	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)
●	Climate chamber	ESPEC	HTWE0254	GPL-2	N/A	2022/08/29	2023/08/28
●	DC Power Supply	Gwinstek	HTWE0274	SPS-2415	GER835793	N/A	N/A

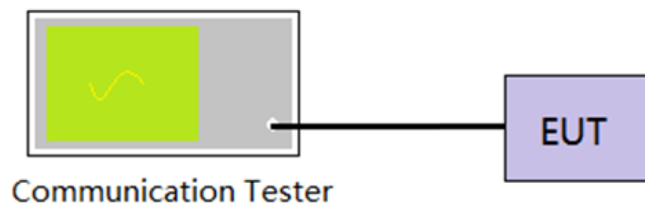
5. TEST CONDITIONS AND RESULTS

5.1. Conducted Output Power

LIMIT

LTE Band 26: 100W

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT output port was connected to communication tester.
2. Set EUT at maximum power through communication tester.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

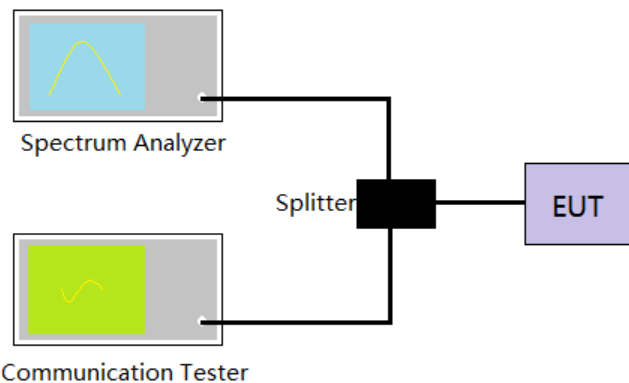
Refer to appendix A on the section 8 appendix report

5.2. Peak-to-Average Ratio

LIMIT

13dB

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. Center Frequency = Carrier frequency, RBW > Emission bandwidth of signal
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed.
 - i. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms.
 - ii. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power
6. Record the maximum PAPR level associated with a probability of 0.1%.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS

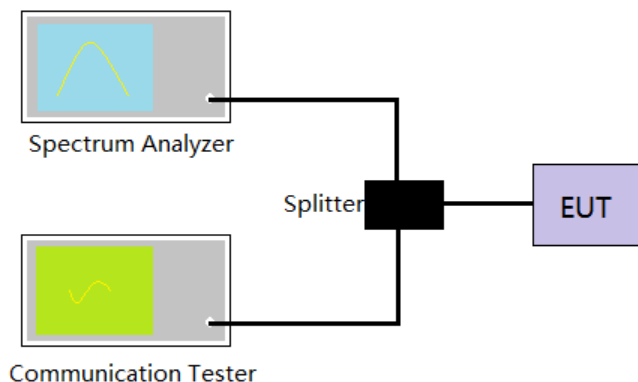
☒ **Passed** ☐ **Not Applicable**

Refer to appendix B on the section 8 appendix report

5.3. 99% Occupied Bandwidth & 26 dB Bandwidth

LIMIT

N/A

TEST CONFIGURATION**TEST PROCEDURE**

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. Spectrum analyzer setting as follow:
Center Frequency= Carrier frequency, RBW=1% to 5% of the anticipated OBW, VBW= 3 * RBW,
Detector=Peak,
Trace maximum hold.
4. Record the value of 99% Occupied bandwidth and 26dB bandwidth.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS☒ **Passed** ☐ **Not Applicable**

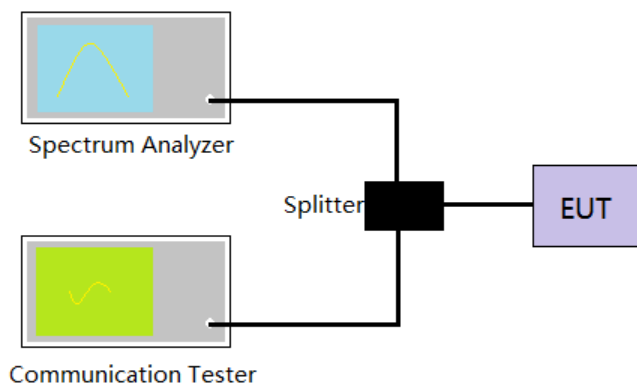
Refer to appendix C on the section 8 appendix report

5.4. Band Edge

LIMIT

- (1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. The band edges of low and high channels were measured.
4. Spectrum analyzer setting as follow:
RBW= no less than 1% of the OBW, VBW =3 * RBW, Sweep time= Auto
5. Record the test plot.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS

☒ Passed ☐ Not Applicable

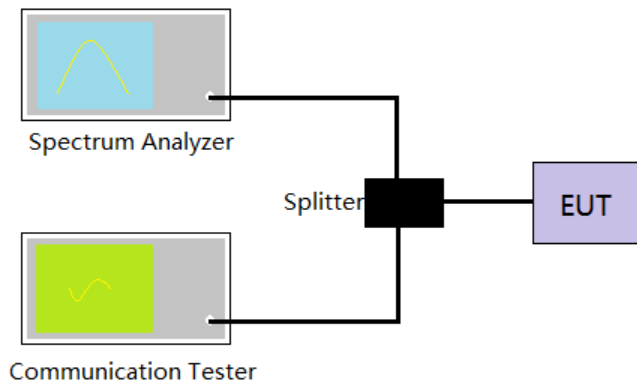
Refer to appendix D on the section 8 appendix report

5.5. Conducted Spurious Emissions

LIMIT

- (3) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (4) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. Spectrum analyzer setting as follow:
Below 1GHz, RBW=100KHz, VBW = 300KHz, Detector=Peak, Sweep time= Auto
Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peak, Sweep time= Auto
Scan frequency range up to 10th harmonic.
4. Record the test plot.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS

☒ Passed ☐ Not Applicable

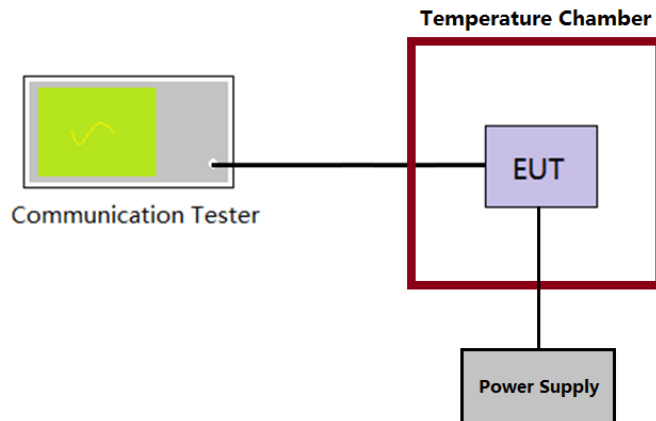
Refer to appendix E on the section 8 appendix report

5.6. Frequency stability VS Temperature measurement

LIMIT

2.5ppm

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment under test was connected to an external DC power supply and input rated voltage.
2. The EUT output port was connected to communication tester.
3. The EUT was placed inside the temperature chamber.
4. Turn EUT off and set the chamber temperature to -30°C . After the temperature stabilized for approximately 30 minutes recorded the frequency.
5. Repeat step 4 measure with 10°C increased per stage until the highest temperature of $+50^{\circ}\text{C}$ reached.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS

☒ Passed ☐ Not Applicable

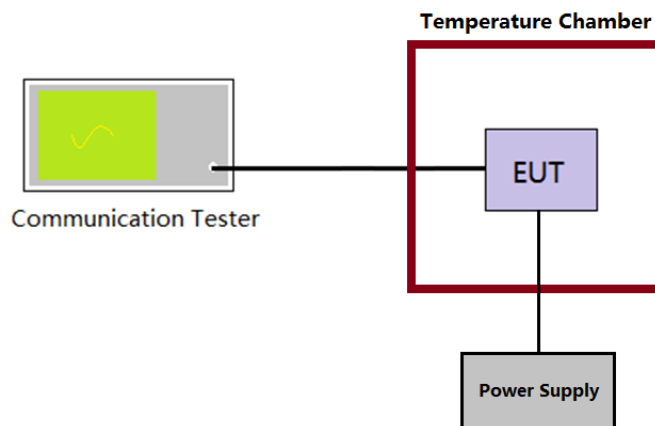
Refer to appendix F on the section 8 appendix report

5.7. Frequency stability VS Voltage measurement

LIMIT

2.5ppm

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment under test was connected to an external DC power supply and input rated voltage.
2. The EUT output port was connected to communication tester.
3. The EUT was placed inside the temperature chamber at 25°C
4. The power supply voltage to the EUT was varied $\pm 15\%$ of the nominal value measured at the input to the EUT
5. Record the maximum frequency change.

TEST MODE:

Please refer to the clause 4.2

TEST RESULTS

☒ Passed ☐ Not Applicable

Refer to appendix F on the section 8 appendix report

5.8. ERP

LIMIT

LTE Band 26: 7W(38.50dBm) 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.
2. $ERP = \text{conducted power} + \text{Gain(dBd)}$

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

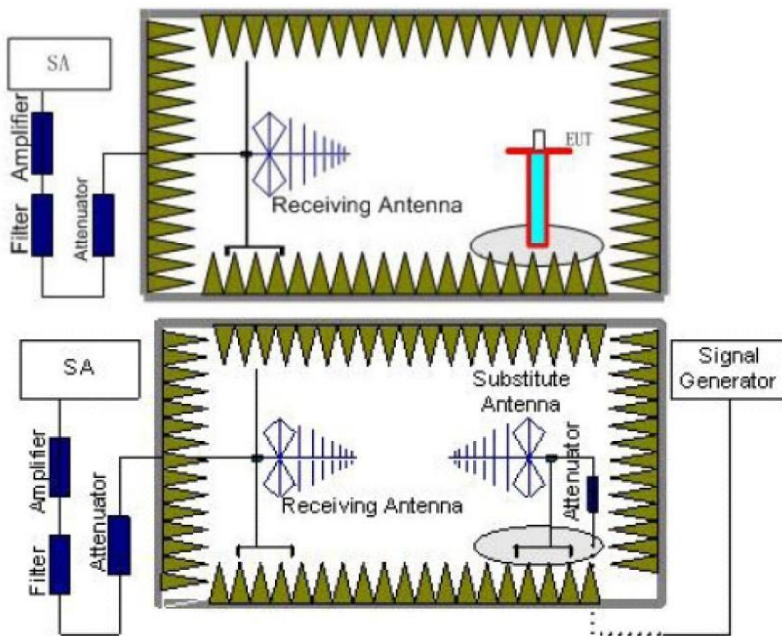
Refer to appendix G on the section 8 appendix report

5.9. Radiated Spurious Emission

LIMIT

- (5) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (6) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

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
$$P_e = \text{equivalent emission power in dBm}$$
$$P_s = \text{source (signal generator) power in dBm}$$
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:

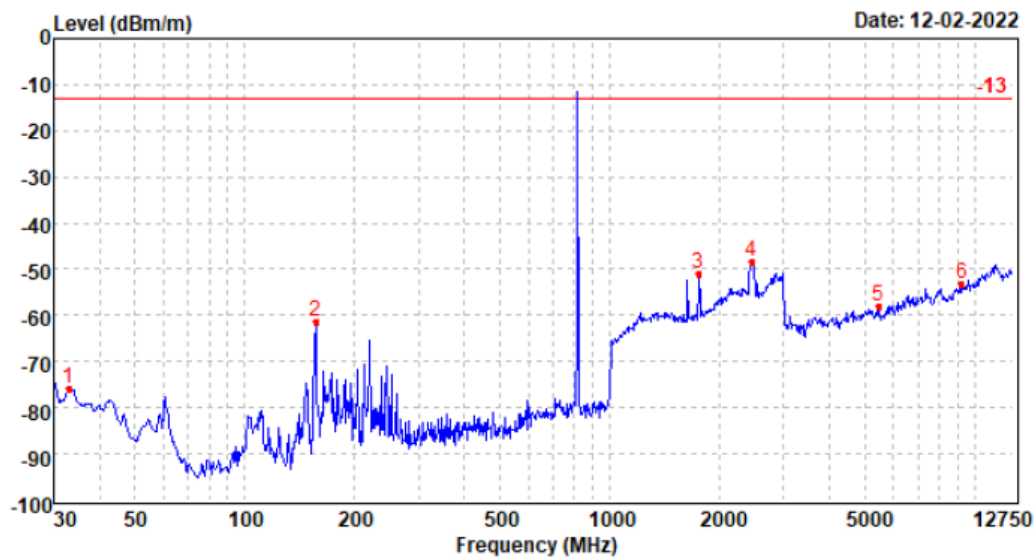
Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

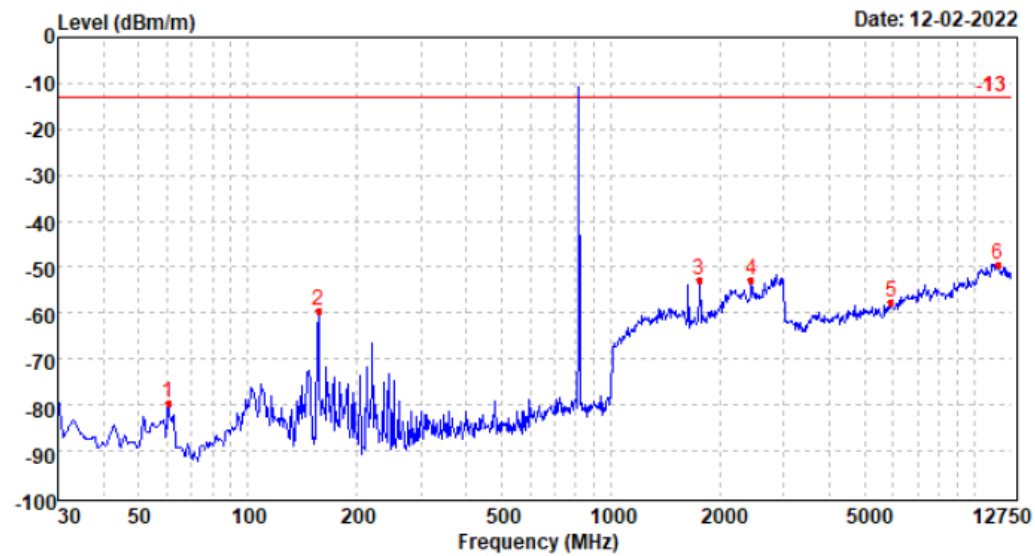
LTE Band26-5MHz

Test channel: Low Polarization: Horizontal

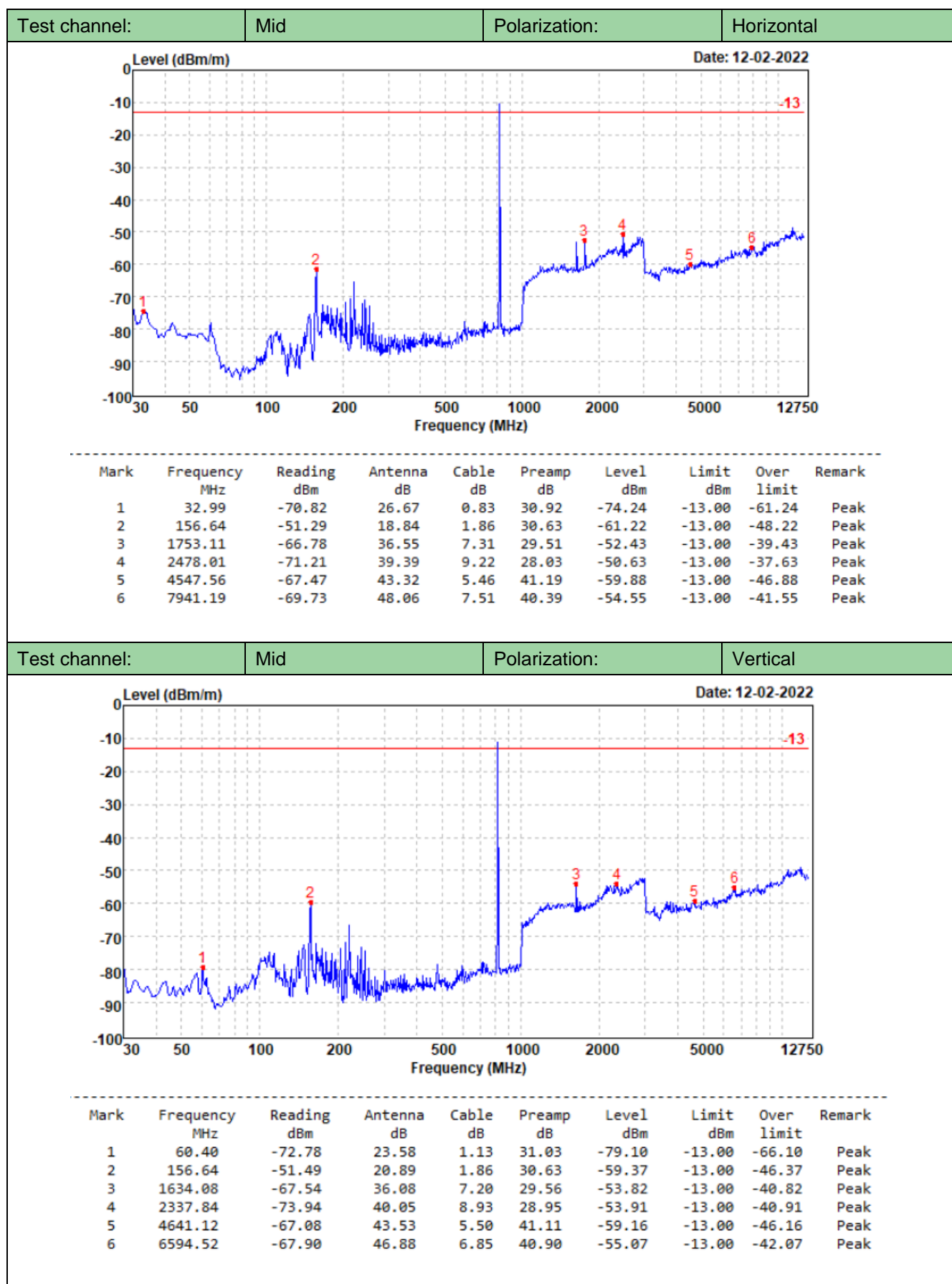


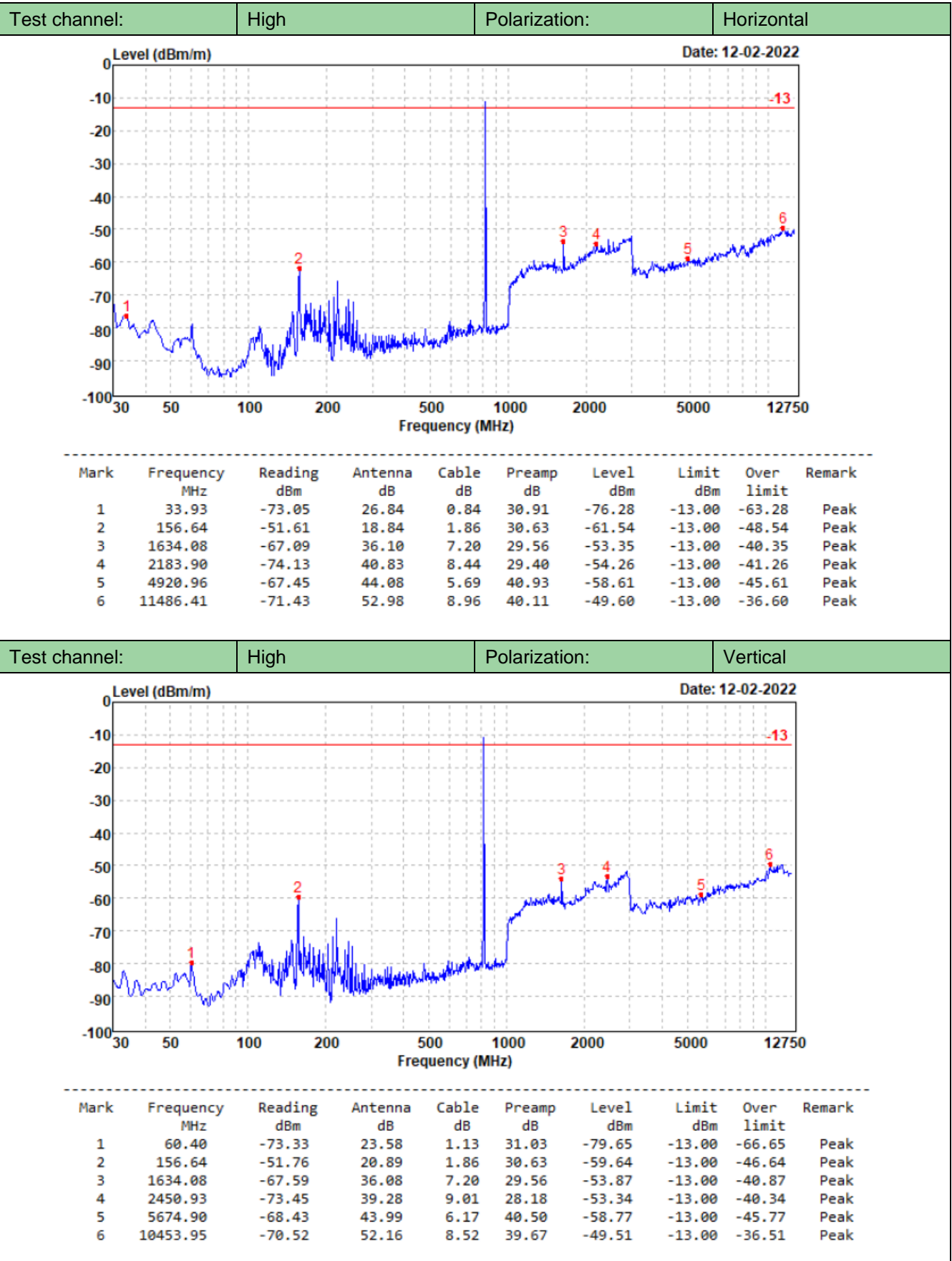
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	32.99	-72.24	26.67	0.83	30.92	-75.66	-13.00	-62.66	Peak
2	156.64	-51.58	18.84	1.86	30.63	-61.51	-13.00	-48.51	Peak
3	1753.11	-65.45	36.55	7.31	29.51	-51.10	-13.00	-38.10	Peak
4	2456.32	-68.60	39.51	9.05	28.15	-48.19	-13.00	-35.19	Peak
5	5462.30	-67.44	43.97	6.04	40.54	-57.97	-13.00	-44.97	Peak
6	9228.06	-70.97	49.34	7.93	39.48	-53.18	-13.00	-40.18	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	60.40	-73.33	23.58	1.13	31.03	-79.65	-13.00	-66.65	Peak
2	156.64	-51.67	20.89	1.86	30.63	-59.55	-13.00	-46.55	Peak
3	1753.11	-66.82	36.36	7.31	29.51	-52.66	-13.00	-39.66	Peak
4	2437.50	-72.78	39.29	9.07	28.31	-52.73	-13.00	-39.73	Peak
5	5925.86	-68.42	44.52	6.32	39.94	-57.52	-13.00	-44.52	Peak
6	11633.54	-71.29	53.14	9.01	40.22	-49.36	-13.00	-36.36	Peak





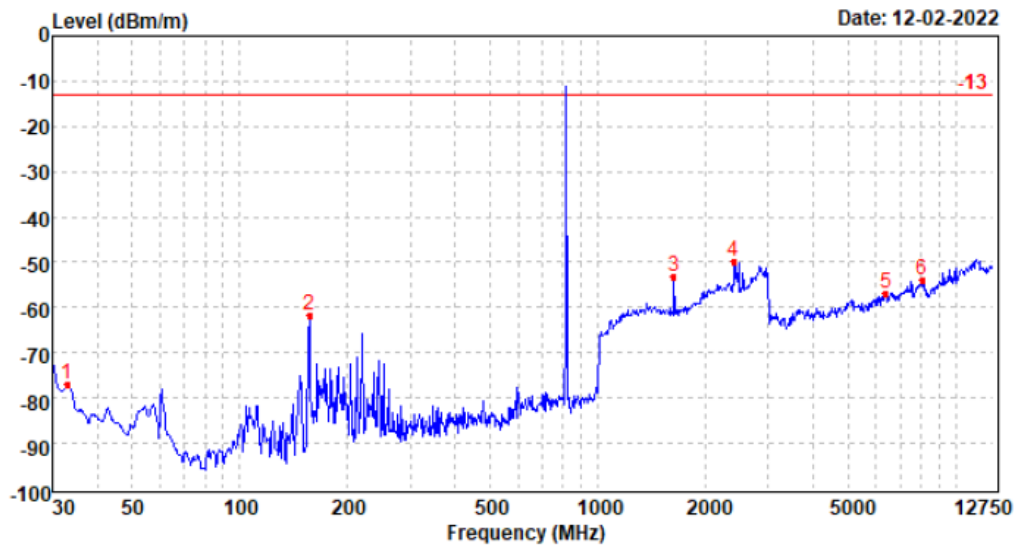
LTE Band26-10MHz

Test channel:

Mid

Polarization:

Horizontal



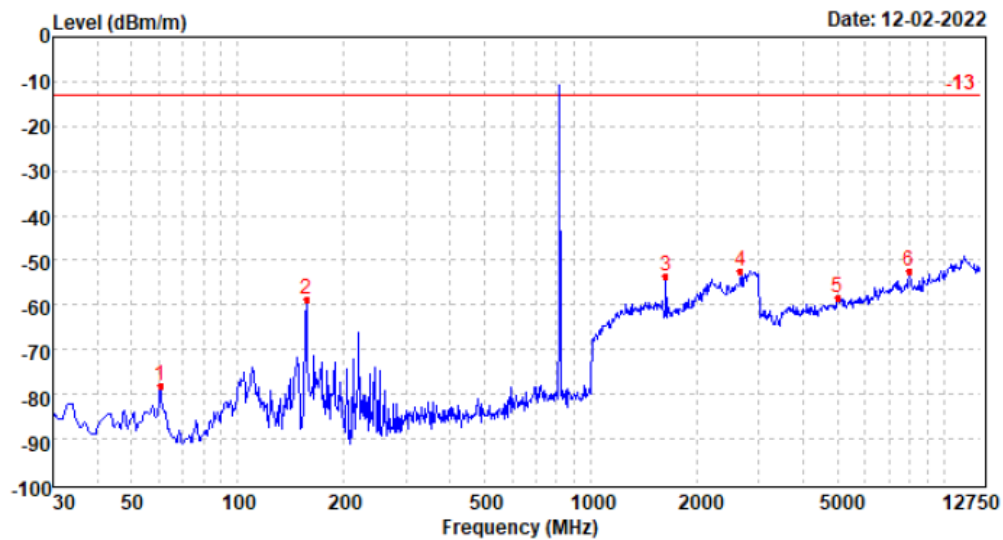
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	32.99	-73.56	26.67	0.83	30.92	-76.98	-13.00	-63.98	Peak
2	156.64	-51.79	18.84	1.86	30.63	-61.72	-13.00	-48.72	Peak
3	1634.08	-66.96	36.10	7.20	29.56	-53.22	-13.00	-40.22	Peak
4	2405.58	-70.41	39.79	9.27	28.64	-49.99	-13.00	-36.99	Peak
5	6396.13	-69.05	46.10	6.73	40.71	-56.93	-13.00	-43.93	Peak
6	8083.96	-69.17	47.83	7.57	39.99	-53.76	-13.00	-40.76	Peak

Test channel:

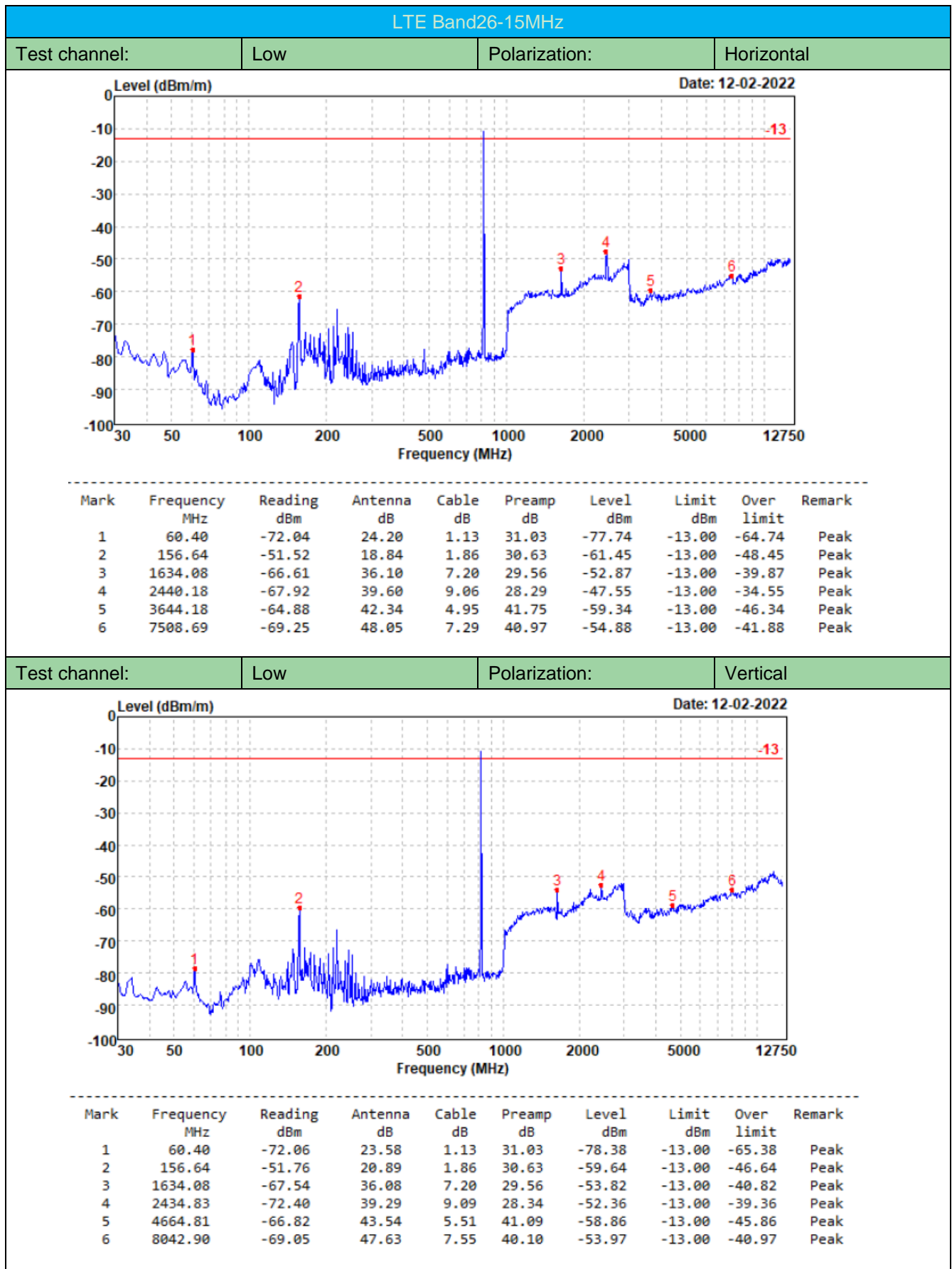
Mid

Polarization:

Vertical



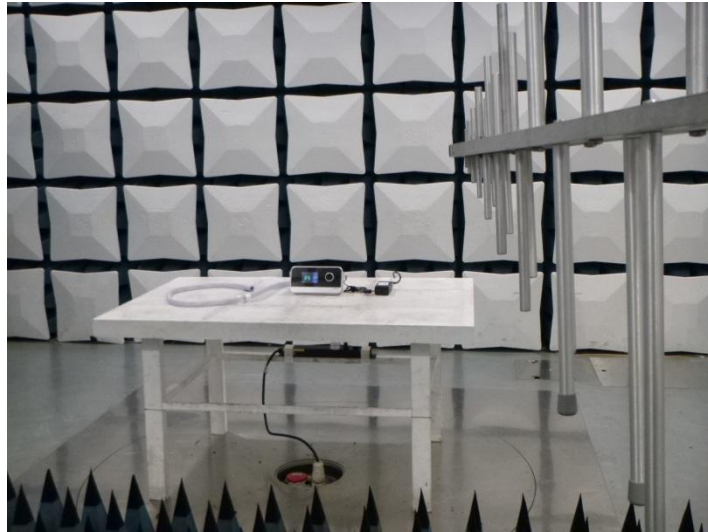
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	60.40	-71.61	23.58	1.13	31.03	-77.93	-13.00	-64.93	Peak
2	156.64	-50.95	20.89	1.86	30.63	-58.83	-13.00	-45.83	Peak
3	1634.08	-67.34	36.08	7.20	29.56	-53.62	-13.00	-40.62	Peak
4	2661.43	-75.71	39.63	10.31	26.69	-52.46	-13.00	-39.46	Peak
5	5009.43	-67.53	44.48	5.75	40.90	-58.20	-13.00	-45.20	Peak
6	8002.06	-67.44	47.61	7.53	40.22	-52.52	-13.00	-39.52	Peak



Remark:

1. Remark"---" means that the emission level is too low to be measured
2. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

6. TEST SETUP PHOTOS OF THE EUT



7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Refer to the test report No.: CHTEW22120077

8. APPENDIX REPORT