

**47 CFR PART 22/24/27 TEST REPORT**

**for**

**Smart Home Alarm System**

**Model No.: HSGW-G8**

**FCC ID: GX9HSGWF1919**

**of**

**Applicant: CLIMAX TECHNOLOGY CO., LTD.**

**Address: No. 258, Sinhu 2nd Rd., Neihu District, Taipei City 114,  
Taiwan (R.O.C.)**

**Tested and Prepared**

**by**

**Worldwide Testing Services (Taiwan) Co., Ltd.**

**FCC Registration No.: TW1477, TW0020, TW1072**

**Industry Canada filed test laboratory Reg. No. 20037**

**A2LA Accredited No.: 2732.01**



**Report No.: W6M22007-20039-P-247**

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.  
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## Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

### Certification of Test Report

Applicant : CLIMAX TECHNOLOGY CO., LTD.  
No. 258, Sinhu 2nd Rd., Neihu District, Taipei City 114,  
Taiwan (R.O.C.)

Manufacturer : CLIMAX TECHNOLOGY CO., LTD.  
No. 258, Sinhu 2nd Rd., Neihu District, Taipei City 114,  
Taiwan (R.O.C.)

#### Tested Equipment :

Type Description : Smart Home Alarm System  
Model Number : HSGW-G8  
Brand Name : ./.  
Operation Frequency : Please see chapter 2.3.  
RF Output Power: : GSM Band 850 MHz: 33.10 dBm (ERP)  
Band1900: 27.53 dBm (EIRP)  
WCDMA Band II: 22.88 dBm (EIRP)  
Band V: 24.53 dBm (ERP)  
LTE Band II: 22.79 dBm (EIRP)  
Band IV: 22.97 dBm (EIRP)  
Band VII: 21.43 dBm (ERP)  
Band XXVIII: 24.33 dBm (ERP)  
Power Supply : Adaptor (I/P: 100-240V~50/60Hz, 0.4A;  
O/P: 12.0V, 1.0A, 12.0W)  
Built-in battery (NI-MH 1600mAh\*6 AA)

Regulation Applied : 47CFR Part 22 (2019-10), Part 24 (2019-10),  
Part 27 (2019-10)

Test Method : 47CFR Part 2 (2019), TIA/EIA-603E (2016) and  
ANSI C63.26 (2015)

I HEREBY CERTIFY THAT: The test results written in this report were derived conscientiously in accordance with the requirements and procedures of 47CFR Part 2(2019), TIA/EIA-603E(2016), and it was found that the device described above is in compliance with the applicable limits specified in 47CFR Part 22/24/27.

#### Note:

1. The result of this test report is valid only in connection to the sample has been tested at the laboratory of Worldwide Testing Services (Taiwan) Co. Ltd.
2. This test report shall always be duplicated in full pages unless the written approval of the testing laboratory is obtained.



# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

Test Engineer:

August 13, 2020

Kent Lin

*Kent Lin*

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

August 13, 2020

Kevin Wang

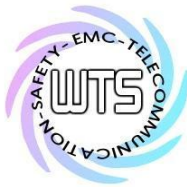
*Kevin Wang*

Date

WTS

Name

Signature



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# **Worldwide Testing Services(Taiwan) Co., Ltd.**

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## **1. Summary**

### **1.1 Description of tested equipment**

This equipment under tested, HSGW-G8, is a Smart Home Alarm System.

This test report only contains test requirements specified in 47CFR Part 22, Part 24 and Part 27 for GSM, WCDMA and LTE function. For other functions; please refer to separate test report with respect to the relevant test standard and specification.

### **1.2 Date of testing processing**

Date of receipt of test item: July 02, 2020

Date of test: from July 03, 2020 to August 11, 2020

Other Information: None

### **1.3 Modification Information**

No modification was made during the all test items been performed.

### **1.4 Test standards**

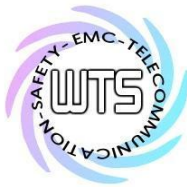
Technical standard: **47 CFR Part 2 (2019), TIA/EIA-603E (2016),  
ANSI C63.26 (2015)  
47CFR Part 22 (2019), Part 24 (2019) and Part 27 (2019)**

Deviation from test standard: None

### **1.5 Summary of test result**

#### **GSM & WCDMA**

Section in this Report	Test Item	FCC relevant Section	Verdict
3.2	RF Power Output (Effective radiated power)	2.1046(a), 22.913(a)	Pass
4.2	Modulation characteristics	2.1047	Not Required
5.2	Occupied bandwidth	2.1049(h)	Pass
6.2	Spurious emissions at antenna terminals	22.917(a), 2.1051	Pass
7.2	Field strength of spurious radiation	22.917(a), 2.1053	Pass
7.5	Band Edge emissions	22.917(a)	Pass
8.2	Frequency stability	2.1055 22.355	Pass



# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247  
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Section in this Report	Test Item	FCC Relevant Section	Verdict
3.2	RF Power Output (Equivalent isotropically radiated power)	2.1046(a), 24.232	Pass
4.2	Modulation characteristics	2.1047	Not Required
5.2	Occupied bandwidth	2.1049(h) 24.238(b)	Pass
6.2	Spurious emissions at antenna terminals	24.238(a), 2.1051	Pass
7.2	Field strength of spurious radiation	24.238(a), 2.1053	Pass
7.5	Band Edge emissions	24.238(b)	Pass
8.2	Frequency stability	2.1055 24.235	Pass

## LTE

Harmonized Standard Requirements and Conformance Test Specifications				
Item	Clause	Test Content	Limit	Test Result
3.2	§22.913 §24.232 §27.50	Effective Radiated Power and Equivalent Isotropic Radiated Power Measurement	ERP < 7 Watts (Band 5) EIRP < 2 Watts (Band 2) ERP < 3 Watts (Band 12, Band 13) EIRP < 1 Watts (Band 4)	Pass
5.3	§24.232 §27.50	Peak-to-Average Ratio	< 13 dB	Pass
6.2	§2.1049	Occupied Bandwidth	OBW : No Limit	Pass
7.2	§22.917 §24.238 §27.53	Conducted Spurious Emission Measurement	< 43+10log10(P[Watts])	Pass
8.2	§22.917 §24.238 §27.53	Radiated Spurious Emission Measurement	< 43+10log10(P[Watts])	Pass
8.5	§22.917 §24.238 §27.53	Conducted Band Edge Measurement	< 43+10log10(P[Watts])	Pass
9.2	§2.1055 §22.355 §24.235 §27.54	Frequency stability / Temperature variation Measurement	< 2.5 ppm	Pass



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Test item Name	Measurement Uncertainty
Estimation Result of Uncertainty of Radiated Emission(3M)	Expanded Uncertainty: 0.009-30 MHz: 1.88 dB 30-1000 MHz: 2.79 dB 1-18 GHz: 2.36 dB 18-40 GHz: 1.55 dB
Estimation Result of Uncertainty of Conducted Output Power Measurement	Expanded Uncertainty: 1.14 dB
Estimation Result of Uncertainty of Bandwidth Measurement	Expanded Uncertainty: 0.45 kHz
Estimation Result of Uncertainty of Frequency Drift Measurement	Expanded Uncertainty: 6.11 Hz
Estimation Result of Uncertainty of Band Edge Measurement	Expanded Uncertainty: 1.01 dBc

Measurement uncertainty is not included in the calculation of test results.





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## 2. General Information

### 2.1 Testing laboratory

#### 2.1.1 Location

OATS  
No.5-1, Shuang Sing Village,  
LiShuei Rd., Wanli Township,  
Taipei County 207, Taiwan (R.O.C.)  
Company  
Worldwide Testing Services (Taiwan) Co., Ltd.  
6F, NO. 58, LANE 188, RUEY-KUANG RD.  
NEIHU, TAIPEI 114, TAIWAN R.O.C.  
Tel : 886-2-66068877  
Fax : 886-2-66068879

#### 2.1.2 Details of accreditation status

Accredited testing laboratory  
A2LA-registration number: 2732.01  
FCC filed test laboratory Reg. No. TW1477, TW0020, TW1072  
Industry Canada filed test laboratory Reg. No. 20037

#### 2.1.3 Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.

Name: ./.  
Accredited number: ./.  
Street: ./.  
Town: ./.  
Country: ./.  
Telephone: ./.  
Fax: ./.

### 2.2 Details of approval holder

Name: CLIMAX TECHNOLOGY CO., LTD.  
Street: No. 258, Sinhu 2nd Rd., Neihu District,  
Town: Taipei City 114,  
Country: Taiwan (R.O.C.)  
Telephone: +886-2-2794-0001  
Fax: +886-2-2792-6618

#### Manufacturer: (if different from applicant)

Name: ./.  
Street: ./.  
Town: ./.  
Country: ./.

### 2.3 Description of Tested System

The EUT was tested alone without the Accessories or Peripherals.

Equipment	Model No.	Series No.	Software	Cable information	Note
No accessories were used with this EUT.					



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Frequencies Selected to be investigated:

**GSM**

**Band 850 MHz**

Low Frequency (ch 128): 824.2 MHz  
 Mid Frequency (ch 188): 836.2 MHz  
 High Frequency (ch 251): 848.8 MHz

**Band 1900 MHz**

Low Frequency (ch 512): 1850.2 MHz  
 Mid Frequency (ch 661): 1880.0 MHz  
 High Frequency (ch 810): 1909.8 MHz

**WCDMA Band II**

Low Frequency ( ch 9262): 1852.4 MHz  
 Mid Frequency ( ch 9400): 1880.0 MHz  
 High Frequency ( ch 9538): 1907.6 MHz

**WCDMA Band V**

Low Frequency ( ch 4132): 826.4 MHz  
 Mid Frequency ( ch 4183): 836.6 MHz  
 High Frequency ( ch 4233): 846.6 MHz

**LTE**

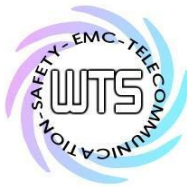
**Band II**

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.

**Band IV**

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	19957	1710.7	1957	2110.7
	3	19965	1711.5	1965	2111.5
	5	19975	1712.5	1975	2112.5
	10	20000	1715	2000	2115
	15	20025	1717.5	2025	2117.5
	20	20050	1720	2050	2120
Mid Range	1.4/3/5/10/15/20	20175	1732.5	2175	2132.5
High Range	1.4	20393	1754.3	2393	2154.3
	3	20385	1753.5	2385	2153.5
	5	20375	1752.5	2375	2152.5
	10	20350	1750	2350	2150
	15	20325	1747.5	2325	2147.5
	20	20300	1745	2300	2145



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**Band VII**

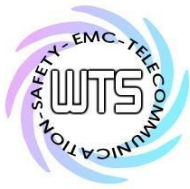
Test Frequency ID	Bandwidth [MHz]	N <sub>UL</sub>	Frequency of Uplink [MHz]	N <sub>DL</sub>	Frequency of Downlink [MHz]
Low Range	5	20775	2502.5	2775	2622.5
	10	20800	2505	2800	2625
	15	20825	2507.5	2825	2627.5
	20 <sup>[1]</sup>	20850	2510	2850	2630
Mid Range	5/10/15 20 <sup>[1]</sup>	21100	2535	3100	2655
High Range	5	21425	2567.5	3425	2687.5
	10	21400	2565	3400	2685
	15	21375	2562.5	3375	2682.5
	20 <sup>[1]</sup>	21350	2560	3350	2680

NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.

**Band XXVIII**

Test Frequency ID	Bandwidth [MHz]	N <sub>UL</sub>	Frequency of Uplink [MHz]	N <sub>DL</sub>	Frequency of Downlink [MHz]
Low Range	3	27225	704.5	9225	759.5
	5	27235	705.5	9235	760.5
	10 <sup>[1]</sup>	27260	708	9260	763
	15 <sup>[1]</sup>	27285	710.5	9285	765.5
	20 <sup>[1]</sup>	27310	713	9310	768
Mid Range	3	27375	719.5	9375	774.5
	5	27385	720.5	9385	775.5
	10 <sup>[1]</sup>	27410	723	9410	778
	15 <sup>[1]</sup>	27435	725.5	9435	780.5
	20 <sup>[1,2]</sup>	27460	728	9460	783
High Range	3	27645	746.5	9645	801.5
	5	27635	745.5	9635	800.5
	10[1]	27610	743	9610	798
	15[1]	27585	740.5	9585	795.5
	20[1]	27560	738	9560	793

NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.  
 NOTE 2: Mid Range for 20 MHz moved due to note 2 in Table 5.6.1-1 of TS 36.101 [27].  
 NOTE 3: For CA\_18A-28A and CA\_1A-18A-28A use test frequencies in Table 4.3.1.1.28-2.  
 NOTE 4: For CA\_19A-28A and CA\_1A-19A-28A use test frequencies in Table 4.3.1.1.28-3.



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Antenna Type:	PCB Antenna
Antenna Gain:	GSM850: 1.45 dBi, GSM1900: -0.27 dBi WCDMA Band II: -0.27 dBi, Band V: 1.45 dBi LTE Band II: -0.27 dBi, Band IV: -0.01 dBi, Band VII: -0.56 dBi, Band XXVIII: 0.65 dBi
Power supply:	Adaptor (I/P: 100-240V~50/60Hz, 0.4A; O/P: 12.0V, 1.0A, 12.0W) Built-in battery (NI-MH 1600mAh*6 AA)

## 2.4 Test environment

Temperature:	27 °C
Relative humidity content:	54 %
Air pressure:	86-103 Kpa

## 2.5 General Test Requirement

**Radiated Emission:** For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100 kHz respectively with an appropriate sweep speed.

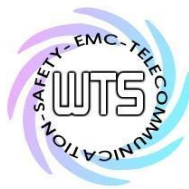
For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

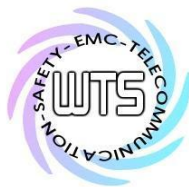


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## 2.6 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2020/6/11	2021/6/10
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2019/11/1	2020/10/31
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2019/9/24	2020/9/23
ETSTW-CE 008	HF-EICHLITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2020/7/22	2021/7/21
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2019/10/3	2020/10/2
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2020/7/29	2021/7/28
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2020/6/12	2021/6/11
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2020/7/16	2021/7/15
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2020/7/30	2021/7/29
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2020/7/8	2021/7/7
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2020/4/22	2021/4/21
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2020/2/18	2021/2/17
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2020/5/8	2021/5/7
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2020/8/3	2021/8/2
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2020/2/20	2021/2/19
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2020/2/20	2021/2/19
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2020/2/20	2021/2/19
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2020/3/6	2021/3/5
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2020/2/20	2021/2/19
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2020/5/8	2021/5/7
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function Test	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2019/9/23	2020/9/22
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2019/9/18	2020/9/17
ETSTW-RE 091	Match Pad	MDCS1500	None	WOKEN	2020/5/22	2021/5/21
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2020/2/20	2021/2/19
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2020/1/13	2021/1/12



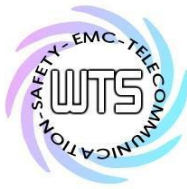
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

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ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Function test	
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2020/6/11	2021/6/10
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2020/8/7	2021/8/6
ETSTW-RE 126	5GHz Notch filter	5NSL12-5800/E221.3-O/O	1	K&L Microwave	2020/8/7	2021/8/6
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2020/2/20	2021/2/19
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2020/8/7	2021/8/6
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2020/8/7	2021/8/6
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2020/5/8	2021/5/7
ETSTW-RE 146	Preamplifier	JPA-10M1G	15090004	JPT	2020/6/5	2021/6/4
ETSTW-RE 147	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04005	ETC	2020/4/9	2021/4/8
ETSTW-RE 148	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04006	ETC	2020/7/9	2021/7/8
ETSTW-RF 002	Electromagnetic field probe	LF-30	K-0007	STT	2020/6/9	2021/6/8
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2020/5/21	2021/5/20
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2020/3/9	2021/3/8
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2020/4/20	2021/4/19
ETSTW-GSM 004	Wideband Radio Communication Tester	CMW500	128092	R&S	2019/10/25	2020/10/24
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2020/1/13	2021/1/12
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2020/1/13	2021/1/12
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2020/1/13	2021/1/12
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2020/1/13	2021/1/12
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2019/9/12	2020/9/11
ETSTW-GSM 024	Radio Communication Analyzer	MT8821C	None	Anritsu	2020/3/27	2021/3/26
ETSTW-GSM 025	Band Reject Filter	BRM19835	001	Micro-Tronics	2020/8/7	2021/8/6
ETSTW-Cable 011	SMA to N type Cable	RGU-400	None	THERMAX	Pre-test Use NCR	
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2020/2/20	2021/2/19
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2020/2/20	2021/2/19
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2020/2/20	2021/2/19
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2020/2/20	2021/2/19
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2020/7/1	2021/6/30
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2020/5/8	2021/5/7
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2019/9/18	2020/9/17
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2019/9/18	2020/9/17
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2020/2/20	2021/2/19
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2020/5/8	2021/5/7
ETSTW-Cable 047	Microwave Cable	SUCOFLEX 104	325518	HUBER+SUHNER	2020/7/3	2021/7/2





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ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2020/6/5	2021/6/4
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2020/5/8	2021/5/7
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2020/6/5	2021/6/4
ETSTW-Cable 072	SMA type cable (8m)	SUCOFLEX 104	805800/4	HUBER+SUHNER	2020/5/8	2021/5/7
ETSTW-Cable 074	SMA type cable (2m)	SUCOFLEX 104	802563/4	HUBER+SUHNER	2020/5/8	2021/5/7
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1	
WTSTW-SW 006	EMI TEST SOFTWARE	e3	None	AUDIX	Version 9.161014	
WTSTW-SW 008	Signal studio	Agilent	None	AUDIX	Version 2.0.0.1	
ETSTW-TH 001	Thermohygrometer	608-H1	45204316	Testo	2019/9/9	2020/9/8
ETSTW-TH 002	Thermohygrometer	608-H1	45204317	Testo	2019/9/9	2020/9/8

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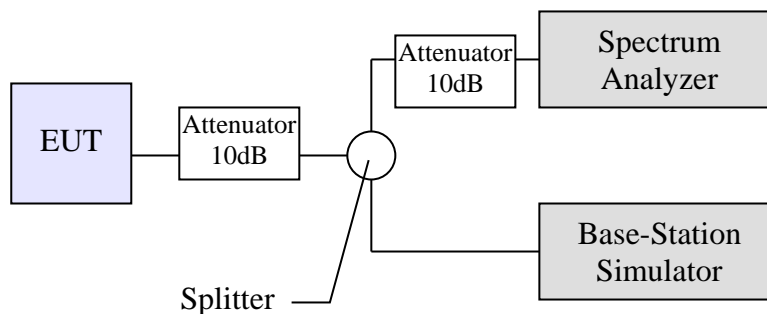
### 3. RF Power Output

#### 3.1 Test procedure

##### 3.1.1 Conducted Method

Per 47CFR Part 2.1046, the RF power output shall be measured at the RF output terminals and following procedure is employed:

The transmitter output was connected as the following figure:



The whole connection system is calibrated with a standard signal generator. Power on and make a link form simulator to EUT and then set the EUT to maximum output power.

Measure the RF power with the spectrum analyzer in accordance the following settings:

RBW: 300 kHz for Frequency below 1GHz and 1MHz for Frequency equal to and above 1GHz.

VBW: 300 kHz for Frequency below 1GHz and 1MHz for Frequency equal to and above 1GHz.

Span: 2MHz

Sweep: 3s

The power output at the transmitter antenna terminal is then determined by assign the value of the corrected factor to the spectrum analyzer reading.

Tests were performed at three frequencies (low, middle and high channels) and operation mode selected.





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**3.2 Test Results**

Test date: August 03, 2020

Temperature: 23.8 °C

Humidity: 53.4 %

Tester: Sora

**GSM**

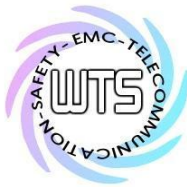
Band 850 MHz & 1900 MHz

GSM 850	POWER(dBm) Low Ch128/824.2MHz	POWER(dBm) Mid Ch188/836.2MHz	POWER(dBm) High Ch251/848.8MHz	ERP Low Ch128/824.2MHz	ERP Mid Ch188/836.2MHz	ERP High Ch251/848.8MHz
	31.65	31.56	31.48	33.10	33.01	32.93
GSM 1900	POWER(dBm) Low Ch512/1850.2MHz	POWER(dBm) Mid Ch661/1880MHz	POWER(dBm) High Ch810/1909.8MHz	EIRP Low Ch512/1850.2MHz	EIRP Mid Ch661/1880MHz	EIRP High Ch810/1909.8MHz
	27.80	27.70	27.66	27.53	27.43	27.39

**WCDMA**

Band II & Band V

WCDMA Band II	POWER(dBm) Low Ch9262/ 1852.4MHz	POWER(dBm) Mid Ch9400/ 1880MHz	POWER(dBm) High Ch9538/ 1907.6MHz	EIRP Low Ch9262/ 1852.4MHz	EIRP Mid Ch9400/1880MHz	EIRP High Ch9538/ 1907.6MHz
	23.02	23.07	23.15	22.75	22.8	22.88
WCDMA Band V	POWER(dBm) Low Ch4132/ 826.4MHz	POWER(dBm) Mid Ch4183/ 836.6MHz	POWER(dBm) High Ch4233/ 846.6MHz	ERP Low Ch4132/ 826.4MHz	ERP Mid Ch4183/ 836.6MHz	ERP High Ch4233/ 846.6MHz
	23.05	22.97	23.08	24.5	24.42	24.53



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LTE

Band II

BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch18607/1850.7 MHz	POWER(dBm) Mid Ch18900/1880 MHz	POWER(dBm) High Ch19193/1909.3 MHz	EIRP Low Ch18607/1850.7 MHz	EIRP Mid Ch18900/1880 MHz	EIRP High Ch19193/1909.3 MHz
1.4	QPSK	1	0	22.38	22.37	22.27	22.11	22.1	22
1.4	QPSK	1	3	22.33	22.31	22.31	22.06	22.04	22.04
1.4	QPSK	1	5	22.17	22.28	22.19	21.9	22.01	21.92
1.4	QPSK	3	0	22.32	22.47	22.49	22.05	22.2	22.22
1.4	QPSK	3	1	22.21	22.43	22.28	21.94	22.16	22.01
1.4	QPSK	3	3	22.32	22.44	22.37	22.05	22.17	22.1
1.4	QPSK	6	0	21.36	21.33	21.40	21.09	21.06	21.13
1.4	16QAM	1	0	21.10	20.70	20.38	20.83	20.43	20.11
1.4	16QAM	1	3	21.36	21.16	20.97	21.09	20.89	20.7
1.4	16QAM	1	5	21.07	21.01	20.77	20.8	20.74	20.5
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch18615/1851.5 MHz	POWER(dBm) Mid Ch18900/1880 MHz	POWER(dBm) High Ch19185/1908.5 MHz	EIRP Low Ch18615/1851.5 MHz	EIRP Mid Ch18900/1880 MHz	EIRP High Ch19185/1908.5 MHz
3	QPSK	1	0	22.36	22.62	22.37	22.09	22.35	22.1
3	QPSK	1	7	22.33	22.61	22.64	22.06	22.34	22.37
3	QPSK	1	14	22.18	22.29	22.21	21.91	22.02	21.94
3	QPSK	8	0	21.28	21.35	21.34	21.01	21.08	21.07
3	QPSK	8	3	21.26	21.36	21.33	20.99	21.09	21.06
3	QPSK	8	7	21.20	21.30	21.31	20.93	21.03	21.04
3	QPSK	15	0	21.25	21.58	21.42	20.98	21.31	21.15
3	16QAM	1	0	21.33	21.29	21.18	21.06	21.02	20.91
3	16QAM	1	7	21.15	21.55	21.51	20.88	21.28	21.24
3	16QAM	1	14	21.00	21.11	20.92	20.73	20.84	20.65



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BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch18625/1852.5 MHz	POWER(dBm) Mid Ch18900/1880 MHz	POWER(dBm) High Ch19175/1907.5 MHz	EIRP Low Ch18625/1852.5 MHz	EIRP Mid Ch18900/1880 MHz	EIRP High Ch19175/1907.5 MHz
5	QPSK	1	0	22.07	22.15	22.22	21.8	21.88	21.95
5	QPSK	1	12	22.34	22.48	22.42	22.07	22.21	22.15
5	QPSK	1	24	22.30	22.70	22.55	22.03	22.43	22.28
5	QPSK	12	0	21.41	21.49	21.39	21.14	21.22	21.12
5	QPSK	12	6	21.33	21.52	21.48	21.06	21.25	21.21
5	QPSK	12	13	21.11	21.40	21.44	20.84	21.13	21.17
5	QPSK	25	0	21.13	21.24	21.22	20.86	20.97	20.95
5	16QAM	1	0	21.39	21.34	21.35	21.12	21.07	21.08
5	16QAM	1	12	21.03	21.65	21.54	20.76	21.38	21.27
5	16QAM	1	24	21.02	21.09	21.46	20.75	20.82	21.19
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch18650/1855 MHz	POWER(dBm) Mid Ch18900/1880 MHz	POWER(dBm) High Ch19150/1905 MHz	EIRP Low Ch18650/1855 MHz	EIRP Mid Ch18900/1880 MHz	EIRP High Ch19150/1905 MHz
10	QPSK	1	0	22.18	22.31	22.26	21.91	22.04	21.99
10	QPSK	1	24	22.05	22.23	22.23	21.78	21.96	21.96
10	QPSK	1	49	22.18	22.27	22.45	21.91	22	22.18
10	QPSK	25	0	21.11	21.16	21.07	20.84	20.89	20.8
10	QPSK	25	12	21.04	21.33	21.23	20.77	21.06	20.96
10	QPSK	25	25	20.93	21.17	21.35	20.66	20.9	21.08
10	QPSK	50	0	21.06	21.32	21.38	20.79	21.05	21.11
10	16QAM	1	0	21.24	21.30	21.38	20.97	21.03	21.11
10	16QAM	1	24	21.15	21.57	21.22	20.88	21.3	20.95
10	16QAM	1	49	21.30	21.48	21.54	21.03	21.21	21.27



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BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm)	POWER(dBm)	POWER(dBm)	EIRP Low Ch18675/1857.5 MHz	EIRP Mid Ch18900/1880 MHz	EIRP High Ch19125/1902.5 MHz
				Low Ch18675/1857.5 MHz	Mid Ch18900/1880 MHz	High Ch19125/1902.5 MHz			
15	QPSK	1	0	23.06	22.73	22.64	22.79	22.46	22.37
15	QPSK	1	37	22.42	22.59	22.57	22.15	22.32	22.3
15	QPSK	1	74	22.22	22.49	22.51	21.95	22.22	22.24
15	QPSK	36	0	21.21	21.43	21.48	20.94	21.16	21.21
15	QPSK	36	19	21.23	21.45	21.54	20.96	21.18	21.27
15	QPSK	36	39	21.23	21.53	21.45	20.96	21.26	21.18
15	QPSK	75	0	21.54	21.61	21.79	21.27	21.34	21.52
15	16QAM	1	0	21.06	21.50	21.42	20.79	21.23	21.15
15	16QAM	1	37	21.18	21.77	21.53	20.91	21.5	21.26
15	16QAM	1	74	20.89	21.48	21.26	20.62	21.21	20.99
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm)	POWER(dBm)	POWER(dBm)	EIRP Low Ch18675/1857.5 MHz	EIRP Mid Ch18900/1880 MHz	EIRP High Ch19125/1902.5 MHz
				Low Ch18700/1860 MHz	Mid Ch18900/1880 MHz	High Ch19100/1900 MHz			
20	QPSK	1	0	22.79	22.57	22.67	22.52	22.3	22.4
20	QPSK	1	49	22.57	22.78	22.45	22.3	22.51	22.18
20	QPSK	1	99	22.37	22.36	22.52	22.1	22.09	22.25
20	QPSK	50	0	21.31	21.58	21.50	21.04	21.31	21.23
20	QPSK	50	25	21.27	21.44	21.45	21	21.17	21.18
20	QPSK	50	50	21.26	21.51	21.33	20.99	21.24	21.06
20	QPSK	100	0	21.58	21.60	21.78	21.31	21.33	21.51
20	16QAM	1	0	21.37	21.25	21.33	21.1	20.98	21.06
20	16QAM	1	49	21.23	21.56	21.46	20.96	21.29	21.19
20	16QAM	1	99	21.07	21.37	21.19	20.8	21.1	20.92



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## Band IV

BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm)	POWER(dBm)	POWER(dBm)	EIRP Low	EIRP Mid	EIRP High
				Low Ch19957/1710.7 MHz	Mid Ch20175/1732.5 MHz	High Ch20393/1754.3 MHz	Ch19957/1710.7 MHz	Ch20175/1732.5 MHz	Ch20393/1754.3 MHz
1.4	QPSK	1	0	22.71	22.21	22.44	22.7	22.2	22.43
1.4	QPSK	1	3	22.68	22.35	22.63	22.67	22.34	22.62
1.4	QPSK	1	5	22.63	22.21	22.43	22.62	22.2	22.42
1.4	QPSK	3	0	22.50	22.49	22.45	22.49	22.48	22.44
1.4	QPSK	3	1	22.56	22.36	22.27	22.55	22.35	22.26
1.4	QPSK	3	3	22.34	22.22	22.16	22.33	22.21	22.15
1.4	QPSK	6	0	21.70	21.73	21.57	21.69	21.72	21.56
1.4	16QAM	1	0	20.87	21.08	20.34	20.86	21.07	20.33
1.4	16QAM	1	3	21.41	21.34	20.86	21.4	21.33	20.85
1.4	16QAM	1	5	20.94	21.06	20.66	20.93	21.05	20.65
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm)	POWER(dBm)	POWER(dBm)	EIRP Low	EIRP Mid	EIRP High
				Low Ch19965/1711.5 MHz	Mid Ch20175/1732.5 MHz	High Ch20385/1753.5 MHz	Ch19965/1711.5 MHz	Ch20175/1732.5 MHz	Ch20385/1753.5 MHz
3	QPSK	1	0	22.16	22.01	22.07	22.15	22	22.06
3	QPSK	1	7	22.41	22.46	22.35	22.4	22.45	22.34
3	QPSK	1	14	22.33	22.02	22.04	22.32	22.01	22.03
3	QPSK	8	0	21.33	21.25	21.24	21.32	21.24	21.23
3	QPSK	8	3	21.45	21.27	21.19	21.44	21.26	21.18
3	QPSK	8	7	21.42	21.26	21.19	21.41	21.25	21.18
3	QPSK	15	0	21.48	21.50	21.26	21.47	21.49	21.25
3	16QAM	1	0	21.70	21.68	21.03	21.69	21.67	21.02
3	16QAM	1	7	21.30	21.57	20.97	21.29	21.56	20.96
3	16QAM	1	14	20.85	21.41	21.12	20.84	21.4	21.11



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BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm)	POWER(dBm)	POWER(dBm)	EIRP Low	EIRP Mid	EIRP High
				Low Ch19975/1712.5 MHz	Mid Ch20175/1732.5 MHz	High Ch20375/1752.5 MHz	Ch19975/1712.5 MHz	Ch20175/1732.5 MHz	Ch20375/1752.5 MHz
5	QPSK	1	0	22.75	22.80	22.51	22.74	22.79	22.5
5	QPSK	1	12	22.86	22.76	22.86	22.85	22.75	22.85
5	QPSK	1	24	22.82	22.78	22.76	22.81	22.77	22.75
5	QPSK	12	0	21.85	21.74	21.65	21.84	21.73	21.64
5	QPSK	12	6	21.83	21.68	21.58	21.82	21.67	21.57
5	QPSK	12	13	21.70	21.62	21.71	21.69	21.61	21.7
5	QPSK	25	0	21.83	21.78	21.87	21.82	21.77	21.86
5	16QAM	1	0	21.43	21.58	21.26	21.42	21.57	21.25
5	16QAM	1	12	21.79	21.55	21.28	21.78	21.54	21.27
5	16QAM	1	24	21.29	21.51	21.13	21.28	21.5	21.12
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm)	POWER(dBm)	POWER(dBm)	EIRP Low	EIRP Mid	EIRP High
				Low Ch20000/1715 MHz	Mid Ch20175/1732.5 MHz	High Ch20350/1750 MHz	Ch20000/1715 MHz	Ch20175/1732.5 MHz	Ch20350/1750 MHz
10	QPSK	1	0	22.69	22.55	22.98	22.68	22.54	22.97
10	QPSK	1	24	22.45	22.52	22.93	22.44	22.51	22.92
10	QPSK	1	49	22.42	22.59	22.65	22.41	22.58	22.64
10	QPSK	25	0	21.76	21.54	21.56	21.75	21.53	21.55
10	QPSK	25	12	21.64	21.52	21.44	21.63	21.51	21.43
10	QPSK	25	25	21.47	21.54	21.47	21.46	21.53	21.46
10	QPSK	50	0	21.83	21.69	21.85	21.82	21.68	21.84
10	16QAM	1	0	21.01	20.87	21.29	21	20.86	21.28
10	16QAM	1	24	20.95	21.54	20.91	20.94	21.53	20.9
10	16QAM	1	49	20.94	20.83	20.85	20.93	20.82	20.84



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BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch20025/1717.5 MHz	POWER(dBm) Mid Ch20175/1732.5 MHz	POWER(dBm) High Ch20325/1747.5 MHz	EIRP Low Ch20025/1717.5 MHz	EIRP Mid Ch20175/1732.5 MHz	EIRP High Ch20325/1747.5 MHz
15	QPSK	1	0	22.35	22.28	22.40	22.34	22.27	22.39
15	QPSK	1	37	22.37	22.36	22.07	22.36	22.35	22.06
15	QPSK	1	74	22.24	22.22	22.17	22.23	22.21	22.16
15	QPSK	36	0	21.06	21.05	21.05	21.05	21.04	21.04
15	QPSK	36	19	21.02	21.07	21.08	21.01	21.06	21.07
15	QPSK	36	39	21.07	21.08	21.00	21.06	21.07	20.99
15	QPSK	75	0	21.12	21.13	21.23	21.11	21.12	21.22
15	16QAM	1	0	21.02	21.01	21.19	21.01	21	21.18
15	16QAM	1	37	21.26	21.18	21.38	21.25	21.17	21.37
15	16QAM	1	74	21.21	21.07	21.05	21.2	21.06	21.04
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch20050/1720 MHz	POWER(dBm) Mid Ch20175/1732.5 MHz	POWER(dBm) High Ch20300/1745 MHz	EIRP Low Ch20050/1720 MHz	EIRP Mid Ch20175/1732.5 MHz	EIRP High Ch20300/1745 MHz
20	QPSK	1	0	22.42	22.55	22.43	22.41	22.54	22.42
20	QPSK	1	49	22.24	22.44	22.21	22.23	22.43	22.2
20	QPSK	1	99	22.35	22.02	22.10	22.34	22.01	22.09
20	QPSK	50	0	21.18	21.13	21.34	21.17	21.12	21.33
20	QPSK	50	25	21.19	21.09	21.18	21.18	21.08	21.17
20	QPSK	50	50	21.15	21.01	21.04	21.138	21	21.03
20	QPSK	100	0	21.25	21.21	21.16	21.24	21.2	21.15
20	16QAM	1	0	21.06	21.05	21.13	21.05	21.04	21.12
20	16QAM	1	49	21.38	21.44	21.11	21.37	21.43	21.1
20	16QAM	1	99	21.34	20.99	20.89	21.33	20.98	20.88



# Worldwide Testing Services(Taiwan) Co., Ltd.

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## Band VII

BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch20775/2502.5 MHz	POWER(dBm) Mid Ch21100/2535 MHz	POWER(dBm) High Ch21425/2567.5 MHz	EIRP Low Ch20775/2502.5 MHz	EIRP Mid Ch21100/2535 MHz	EIRP High Ch21425/2567.5 MHz
5	QPSK	1	0	21.34	21.05	20.28	20.78	20.49	19.72
5	QPSK	1	12	21.27	21.19	20.52	20.71	20.63	19.96
5	QPSK	1	24	21.02	21.01	20.08	20.46	20.45	19.52
5	QPSK	12	0	20.31	20.11	19.53	19.75	19.55	18.97
5	QPSK	12	6	20.44	20.12	19.47	19.88	19.56	18.91
5	QPSK	12	13	20.16	20.21	19.52	19.6	19.65	18.96
5	QPSK	25	0	20.27	20.24	19.58	19.71	19.68	19.02
5	16QAM	1	0	20.52	20.16	19.28	19.96	19.6	18.72
5	16QAM	1	12	20.49	20.43	19.13	19.93	19.87	18.57
5	16QAM	1	24	20.06	20.47	19.51	19.5	19.91	18.95
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch20800/2505 MHz	POWER(dBm) Mid Ch21100/2535 MHz	POWER(dBm) High Ch21400/2565 MHz	EIRP Low Ch20800/2505 MHz	EIRP Mid Ch21100/2535 MHz	EIRP High Ch21400/2565 MHz
10	QPSK	1	0	21.42	20.93	20.86	20.86	20.37	20.3
10	QPSK	1	24	21.19	21.01	20.66	20.63	20.45	20.1
10	QPSK	1	49	21.22	21.27	20.31	20.66	20.71	19.75
10	QPSK	25	0	20.35	19.98	19.60	19.79	19.42	19.04
10	QPSK	25	12	20.14	20.09	19.64	19.58	19.53	19.08
10	QPSK	25	25	20.06	20.11	19.54	19.5	19.55	18.98
10	QPSK	50	0	20.08	20.09	19.51	19.52	19.53	18.95
10	16QAM	1	0	20.46	20.07	19.69	19.9	19.51	19.13
10	16QAM	1	24	19.83	20.25	19.54	19.27	19.69	18.98
10	16QAM	1	49	19.92	20.11	19.38	19.36	19.55	18.82





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BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch20825/2507.5 MHz	POWER(dBm) Mid Ch21100/2535 MHz	POWER(dBm) High Ch21375/2562.5 MHz	EIRP Low Ch20825/2507.5 MHz	EIRP Mid Ch21100/2535 MHz	EIRP High Ch21375/2562.5 MHz
15	QPSK	1	0	21.51	21.06	21.03	20.95	20.5	20.47
15	QPSK	1	37	21.01	21.25	20.92	20.45	20.69	20.36
15	QPSK	1	74	20.92	21.10	20.12	20.36	20.54	19.56
15	QPSK	36	0	20.19	20.00	19.66	19.63	19.44	19.1
15	QPSK	36	19	19.91	20.05	19.73	19.35	19.49	19.17
15	QPSK	36	39	20.00	20.22	20.18	19.44	19.66	19.62
15	QPSK	75	0	20.09	20.20	19.82	19.53	19.64	19.26
15	16QAM	1	0	20.37	20.08	19.97	19.81	19.52	19.41
15	16QAM	1	37	20.03	20.28	19.69	19.47	19.72	19.13
15	16QAM	1	74	19.95	20.22	19.71	19.39	19.66	19.15
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch20850/ 2510MHz	POWER(dBm) Mid Ch21100/ 2535MHz	POWER(dBm) High Ch21350/ 2560MHz	EIRP Low Ch20850/2510 MHz	EIRP Mid Ch21100/2535 MHz	EIRP High Ch21350/2560 MHz
20	QPSK	1	0	21.99	21.20	21.75	21.43	20.64	21.19
20	QPSK	1	49	21.62	21.54	21.32	21.06	20.98	20.76
20	QPSK	1	99	21.25	21.57	20.66	20.69	21.01	20.1
20	QPSK	50	0	20.37	20.18	20.21	19.81	19.62	19.65
20	QPSK	50	25	20.45	20.37	20.21	19.89	19.81	19.65
20	QPSK	50	50	20.31	20.50	20.02	19.75	19.94	19.46
20	QPSK	100	0	20.58	20.79	20.42	20.02	20.23	19.86
20	16QAM	1	0	20.31	20.02	20.38	19.75	19.46	19.82
20	16QAM	1	49	20.32	20.19	20.02	19.76	19.63	19.46
20	16QAM	1	99	19.81	20.43	19.43	19.25	19.87	18.87



# Worldwide Testing Services(Taiwan) Co., Ltd.

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FCC ID: GX9HSGWF1919

Band XXVIII

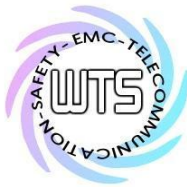
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch27225/704.5 MHz	POWER(dBm) Mid Ch27375/719.5 MHz	POWER(dBm) High Ch27645/746.5 MHz	EIRP Low Ch27225/704.5 MHz	EIRP Mid Ch27375/719.5 MHz	EIRP High Ch27645/746.5 MHz
3	QPSK	1	0	23.22	23.23	23.04	23.87	23.88	23.69
3	QPSK	1	7	23.51	23.21	23.23	24.16	23.86	23.88
3	QPSK	1	14	23.03	23.18	23.09	23.68	23.83	23.74
3	QPSK	8	0	22.14	22.32	22.18	22.79	22.97	22.83
3	QPSK	8	3	22.21	22.27	22.28	22.86	22.92	22.93
3	QPSK	8	7	22.22	22.38	22.25	22.87	23.03	22.9
3	QPSK	15	0	22.04	22.17	22.13	22.69	22.82	22.78
3	16QAM	1	0	22.01	22.05	22.04	22.66	22.7	22.69
3	16QAM	1	7	22.41	22.53	22.52	23.06	23.18	23.17
3	16QAM	1	14	22.30	22.38	22.39	22.95	23.03	23.04
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch27235/705.5 MHz	POWER(dBm) Mid Ch27385/720.5 MHz	POWER(dBm) High Ch27635/745.5 MHz	EIRP Low Ch27235/705.5 MHz	EIRP Mid Ch27385/720.5 MHz	EIRP High Ch27635/745.5 MHz
5	QPSK	1	0	23.19	23.07	23.06	23.84	23.72	23.71
5	QPSK	1	12	23.44	23.21	23.27	24.09	23.86	23.92
5	QPSK	1	24	23.25	23.22	23.07	23.9	23.87	23.72
5	QPSK	12	0	22.14	22.23	22.26	22.79	22.88	22.91
5	QPSK	12	6	22.21	22.27	22.24	22.86	22.92	22.89
5	QPSK	12	13	22.18	22.24	22.23	22.83	22.89	22.88
5	QPSK	25	0	22.06	22.15	22.05	22.71	22.8	22.7
5	16QAM	1	0	21.77	21.74	21.67	22.42	22.39	22.32
5	16QAM	1	12	22.07	22.58	22.17	22.72	23.23	22.82
5	16QAM	1	24	22.02	22.00	21.87	22.67	22.65	22.52



# Worldwide Testing Services(Taiwan) Co., Ltd.

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BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch27260/708M Hz	POWER(dBm) Mid Ch27410/723M Hz	POWER(dBm) High Ch27610/743M Hz	EIRP Low Ch27260/708 MHz	EIRP Mid Ch27410/723 MHz	EIRP High Ch27610/743 MHz
10	QPSK	1	0	23.20	23.00	23.39	23.85	23.65	24.04
10	QPSK	1	24	23.37	23.35	23.35	24.02	24	24
10	QPSK	1	49	23.11	23.35	23.44	23.76	24	24.09
10	QPSK	25	0	22.18	22.37	22.22	22.83	23.02	22.87
10	QPSK	25	12	22.19	22.34	22.44	22.84	22.99	23.09
10	QPSK	25	25	22.18	22.29	22.34	22.83	22.94	22.99
10	QPSK	50	0	22.19	22.18	22.28	22.84	22.83	22.93
10	16QAM	1	0	21.55	22.01	22.06	22.2	22.66	22.71
10	16QAM	1	24	21.85	22.24	22.11	22.5	22.89	22.76
10	16QAM	1	49	21.59	22.17	22.16	22.24	22.82	22.81
BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch27285/710.5 MHz	POWER(dBm) Mid Ch27435/725.5 MHz	POWER(dBm) High Ch27585/740.5 MHz	EIRP Low Ch27285/710.5 MHz	EIRP Mid Ch27435/725.5 MHz	EIRP High Ch27585/740.5 MHz
15	QPSK	1	0	23.26	23.34	23.68	23.91	23.99	24.33
15	QPSK	1	37	23.27	23.20	23.15	23.92	23.85	23.8
15	QPSK	1	74	23.07	23.32	23.26	23.72	23.97	23.91
15	QPSK	36	0	22.23	22.19	22.44	22.88	22.84	23.09
15	QPSK	36	19	22.25	22.19	22.32	22.9	22.84	22.97
15	QPSK	36	39	22.14	22.05	22.26	22.79	22.7	22.91
15	QPSK	75	0	22.56	22.61	22.55	23.21	23.26	23.2
15	16QAM	1	0	21.88	22.83	22.64	22.53	23.48	23.29
15	16QAM	1	37	22.59	21.61	22.34	23.24	22.26	22.99
15	16QAM	1	74	22.68	22.91	22.24	23.33	23.56	22.89



# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

BW(MHz)	Modulation	RB Size	RB offset	POWER(dBm) Low Ch27310/713M Hz	POWER(dBm) Mid Ch27460/728M Hz	POWER(dBm) High Ch27560/738M Hz	EIRP Low Ch27310/713 MHz	EIRP Mid Ch27460/728 MHz	EIRP High Ch27560/738 MHz
20	QPSK	1	0	22.68	23.29	22.85	23.33	23.94	23.5
20	QPSK	1	49	22.62	22.96	23.12	23.27	23.61	23.77
20	QPSK	1	99	22.93	22.84	22.97	23.58	23.49	23.62
20	QPSK	50	0	22.42	22.39	22.65	23.07	23.04	23.3
20	QPSK	50	25	22.28	22.39	22.38	22.93	23.04	23.03
20	QPSK	50	50	21.84	21.97	22.55	22.49	22.62	23.2
20	QPSK	100	0	22.02	22.07	22.19	22.67	22.72	22.84
20	16QAM	1	0	22.51	22.71	22.11	23.16	23.36	22.76
20	16QAM	1	49	22.60	22.85	22.24	23.25	23.5	22.89
20	16QAM	1	99	22.68	23.09	22.01	23.33	23.74	22.66

Test equipment: ETSTW-GSM 002, ETSTW-GSM 004

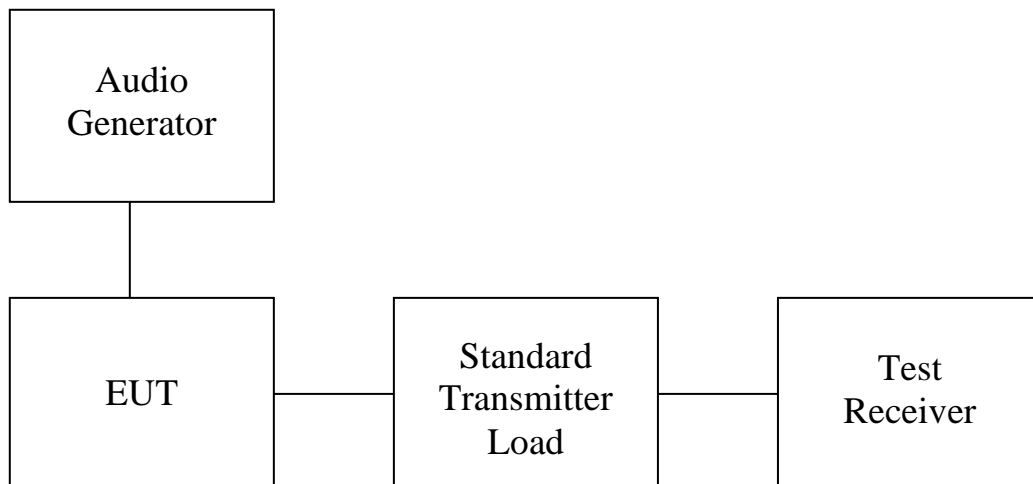
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

## 4. Modulation Characteristics

### 4.1 Test procedure

- A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz shall be submitted.  
The audio signal generator is connected to the audio input of the EUT with its full rating. The modulation response is measured at certain modulation frequencies, related to 1000Hz reference signal. Tests are performed for positive and negative modulation.
- Equipment which employs modulation Limiting: A curve or family of curves showing the percentage of modulation versus the modulation input voltage shall be supplied. The audio signal generator is connected to the audio input of the EUT with its full rating. The modulation limiting is measured at certain modulation frequencies from 100Hz to 15kHz.



### 4.2 Test Results

Test date: --

Temperature:--°C

Humidity:-- %

Tester: --

For digital modulation employed, this test item is not applicable.

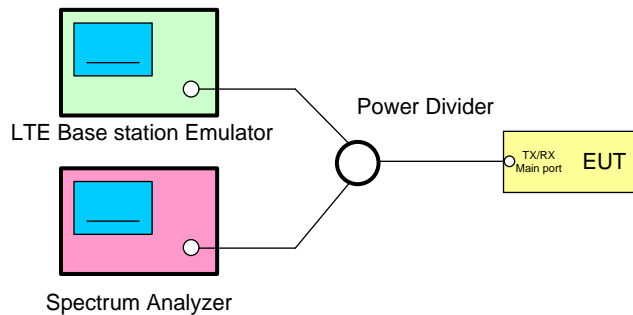
**5. Peak-to-Average Ratio**

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

**5.1 Test procedure**

1. The EUT main port was connected to the LTE emulator and spectrum analyzer via power divider
2. For Spectrum Analyzer setting :
3. Set the CCDF function in spectrum analyzer.
4. Set RBW  $\geq$  signal's occupied bandwidth.
5. Set the number of counts to a value that stabilizes the measured CCDF curve.
6. Set the measurement interval (sweep time) to 1ms.
7. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1%
8. Record the deviation as Peak to Average Ratio.

**5.2 Test Set up**





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### 5.3 Test Results

Test date: August 02, 2020~August 03, 2020

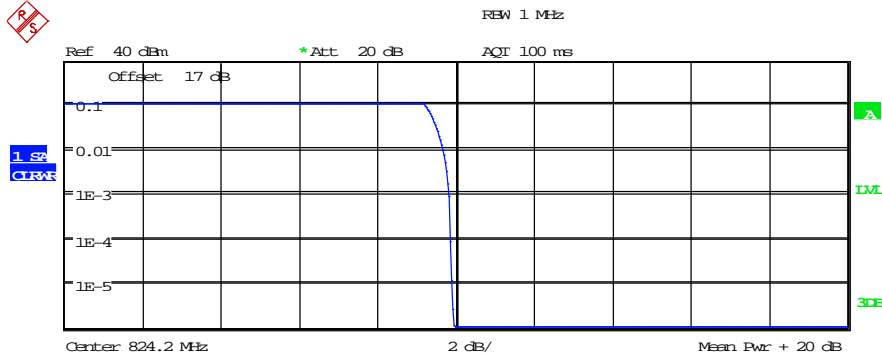
Temperature: 23.8 °C

Humidity: 53.4 %

Tester: Sora

GSM

Band 850 MHz



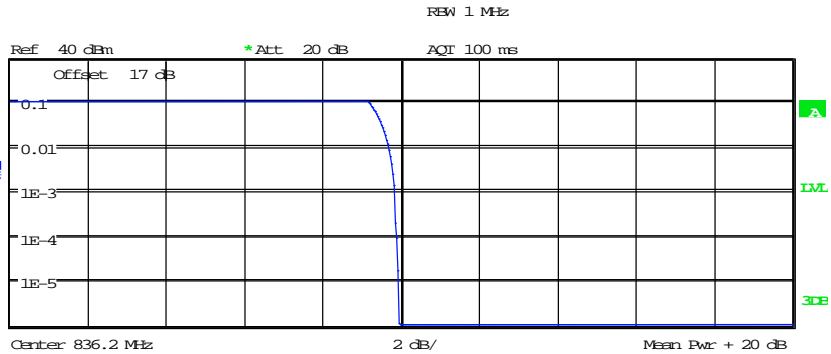
Center 824.2 MHz 2 dB/ Mean Pwr + 20 dB  
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.68 dBm
Peak	32.60 dBm
Crest	9.93 dB
10 %	9.23 dB
1 %	9.68 dB
.1 %	9.84 dB
.01 %	9.87 dB

Date: 2.AUG.2020 14:50:30



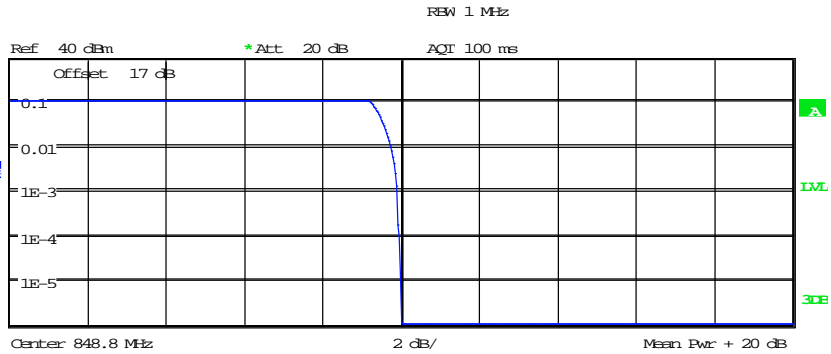
Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.47 dBm
Peak	32.39 dBm
Crest	9.93 dB
10 %	9.20 dB
1 %	9.71 dB
.1 %	9.84 dB
.01 %	9.90 dB

Date: 2.AUG.2020 14:50:05

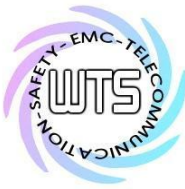


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.19 dBm
Peak	32.18 dBm
Crest	9.99 dB
10 %	9.23 dB
1 %	9.74 dB
.1 %	9.90 dB
.01 %	9.97 dB

Date: 2.AUG.2020 14:48:46

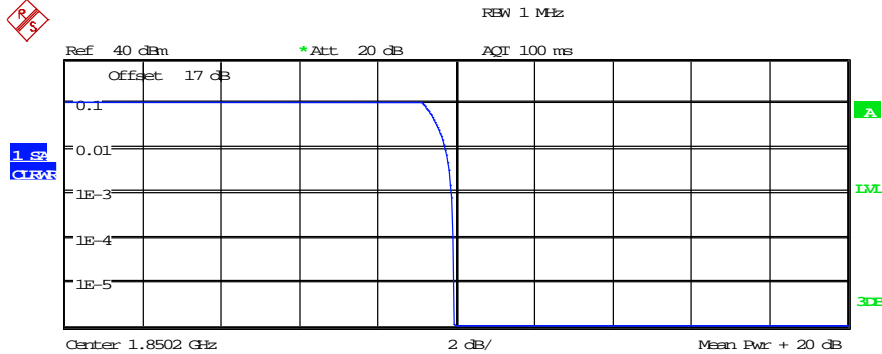




Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

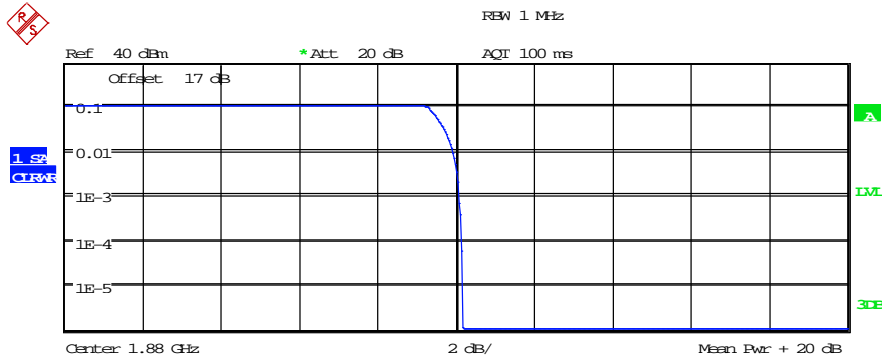
Band 1900 MHz



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	19.08 dBm
Peak	29.01 dBm
Crest	9.92 dB
10 %	9.17 dB
1 %	9.74 dB
.1 %	9.90 dB
.01 %	9.94 dB

Date: 2.AUG.2020 15:43:00



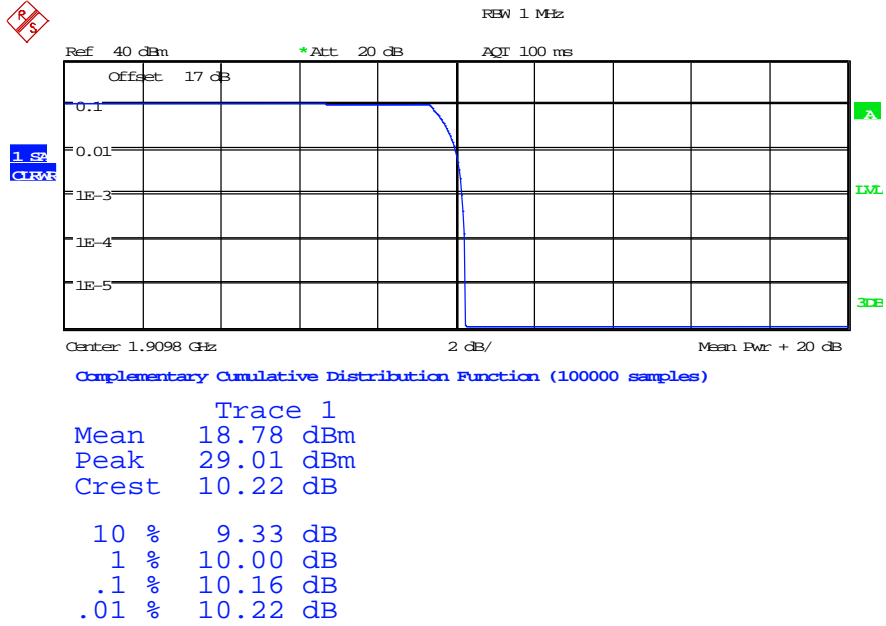
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	18.79 dBm
Peak	28.94 dBm
Crest	10.15 dB
10 %	9.29 dB
1 %	9.94 dB
.1 %	10.10 dB
.01 %	10.16 dB

Date: 2.AUG.2020 15:43:35

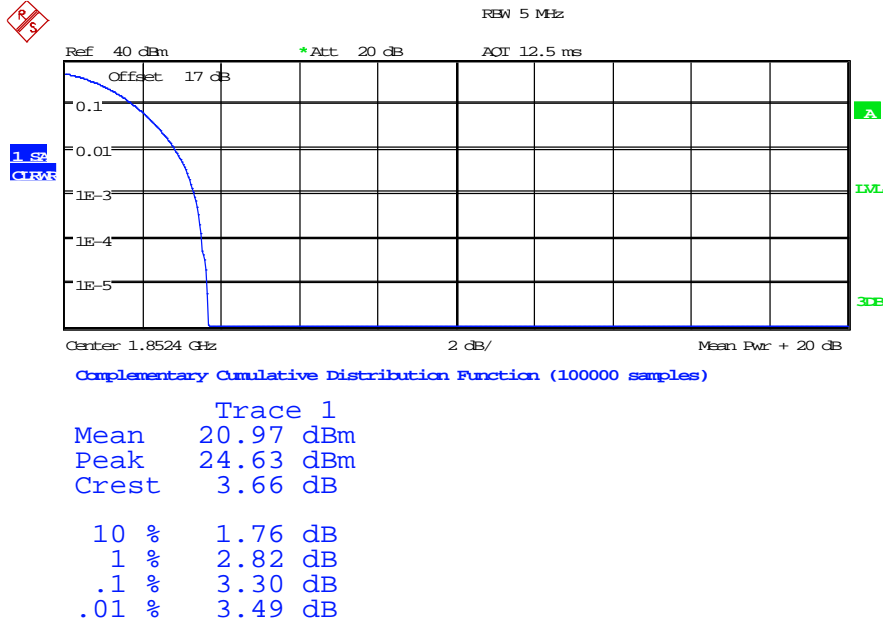


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 2.AUG.2020 15:45:19

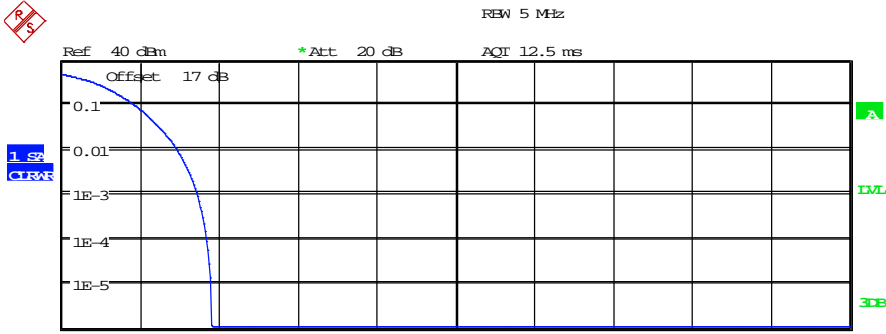
## WCDMA Band II



Date: 2.AUG.2020 13:17:08



Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



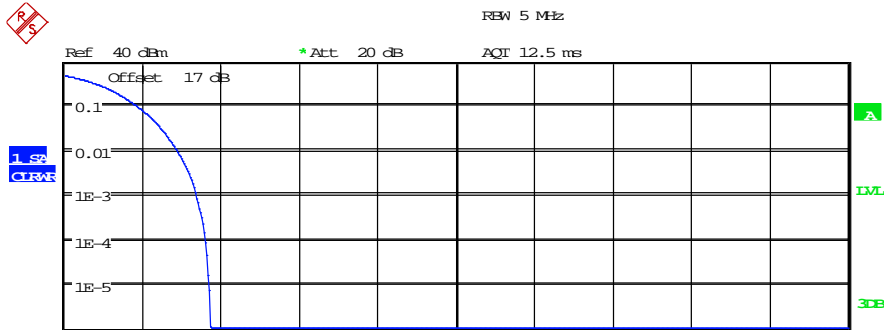
Center 1.88 GHz 2 dB/ Mean Pwr + 20 dB

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	21.04 dBm
Peak	24.84 dBm
Crest	3.81 dB
10 %	1.83 dB
1 %	2.92 dB
.1 %	3.43 dB
.01 %	3.69 dB

Date: 2.AUG.2020 13:16:03



Center 1.9076 GHz 2 dB/ Mean Pwr + 20 dB

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	21.04 dBm
Peak	24.77 dBm
Crest	3.74 dB
10 %	1.86 dB
1 %	2.88 dB
.1 %	3.37 dB
.01 %	3.62 dB

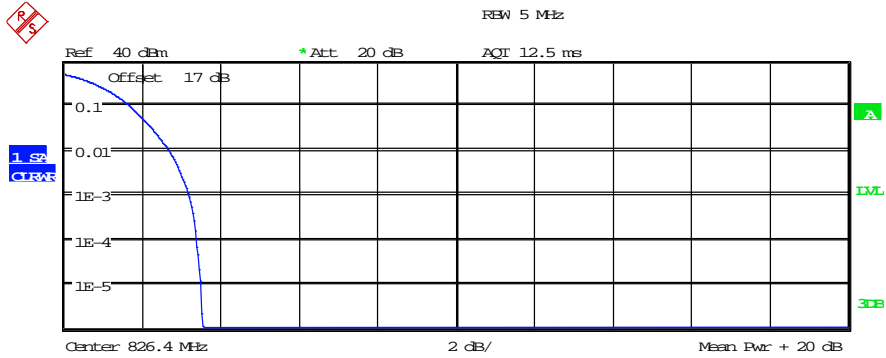
Date: 2.AUG.2020 13:17:58



Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

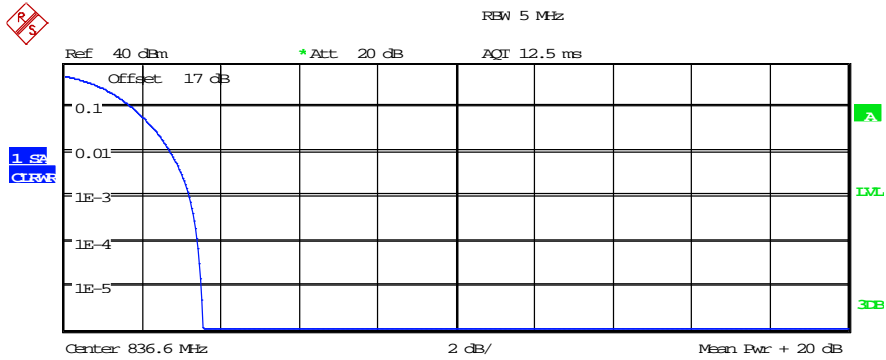
Band V



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.10 dBm
Peak	24.63 dBm
Crest	3.53 dB
10 %	1.67 dB
1 %	2.66 dB
.1 %	3.17 dB
.01 %	3.40 dB

Date: 2.AUG.2020 13:19:45



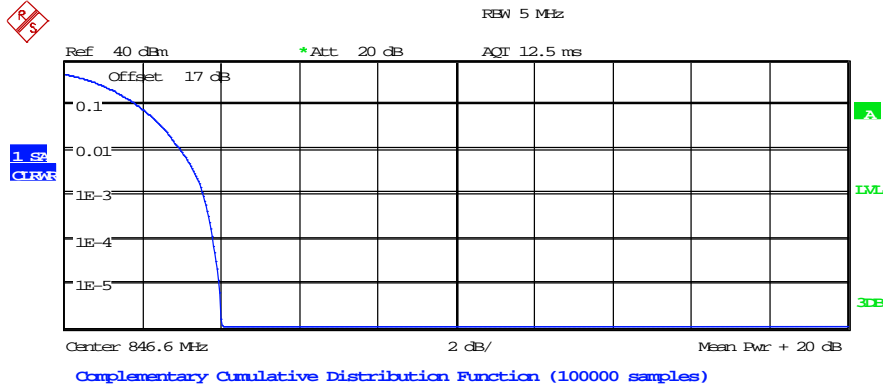
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.10 dBm
Peak	24.63 dBm
Crest	3.54 dB
10 %	1.73 dB
1 %	2.69 dB
.1 %	3.21 dB
.01 %	3.40 dB

Date: 2.AUG.2020 13:19:09



Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

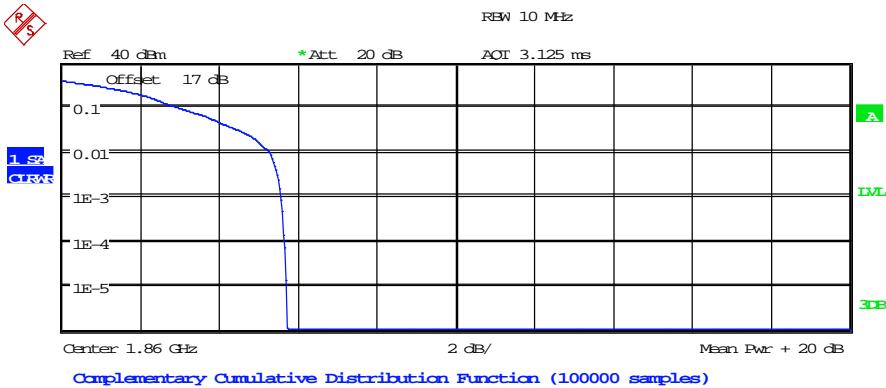


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.12 dBm
Peak	25.13 dBm
Crest	4.01 dB
10 %	1.86 dB
1 %	2.95 dB
.1 %	3.53 dB
.01 %	3.78 dB

Date: 2.AUG.2020 13:18:44

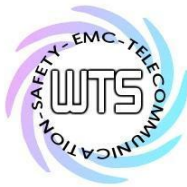
## LTE Band II



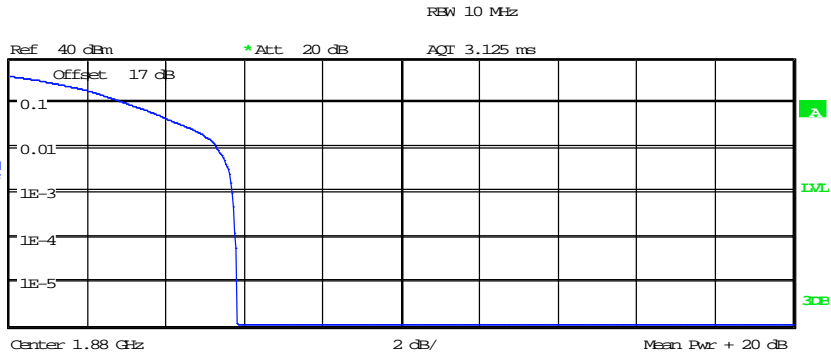
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	19.63 dBm
Peak	25.34 dBm
Crest	5.70 dB
10 %	2.98 dB
1 %	5.29 dB
.1 %	5.58 dB
.01 %	5.67 dB

Date: 3.AUG.2020 10:56:44



Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

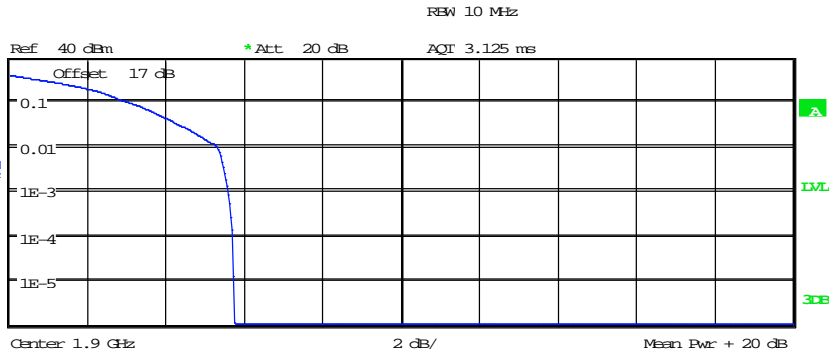


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	19.87 dBm
Peak	25.69 dBm
Crest	5.82 dB
10 %	3.01 dB
1 %	5.29 dB
.1 %	5.71 dB
.01 %	5.77 dB

Date: 3.AUG.2020 10:56:18

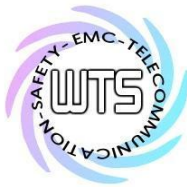


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	19.75 dBm
Peak	25.48 dBm
Crest	5.73 dB
10 %	3.08 dB
1 %	5.32 dB
.1 %	5.61 dB
.01 %	5.71 dB

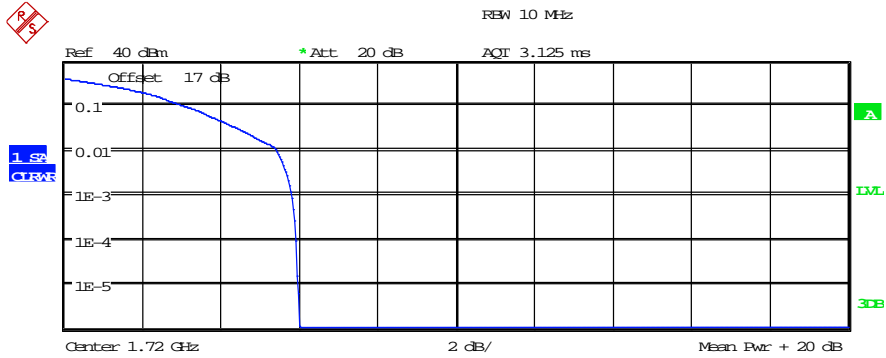
Date: 3.AUG.2020 10:57:10



Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

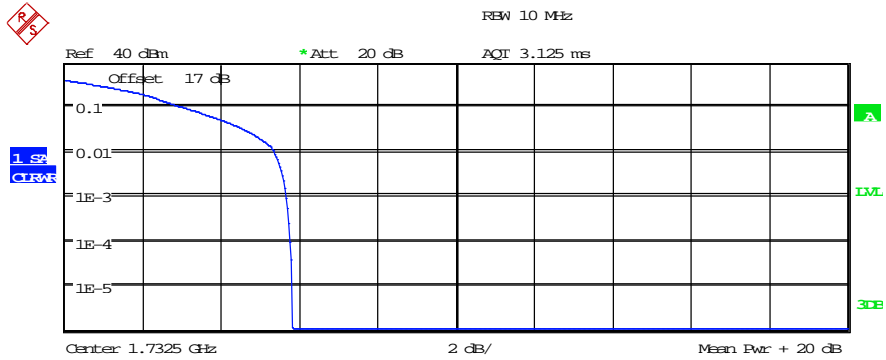
Band IV



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	19.83 dBm
Peak	25.83 dBm
Crest	6.00 dB
10 %	3.08 dB
1 %	5.42 dB
.1 %	5.80 dB
.01 %	5.93 dB

Date: 3.AUG.2020 10:54:46



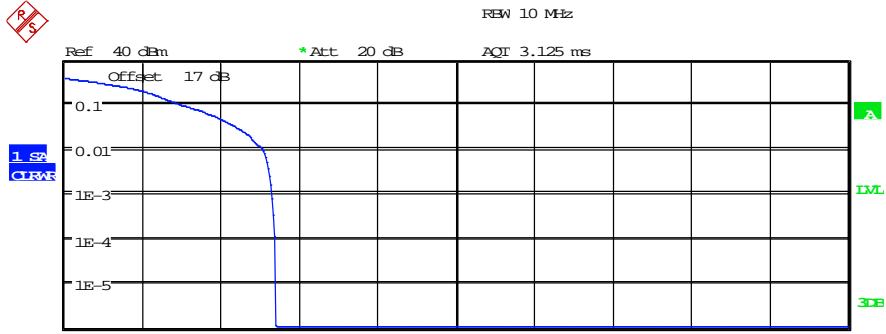
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	19.88 dBm
Peak	25.69 dBm
Crest	5.81 dB
10 %	3.04 dB
1 %	5.35 dB
.1 %	5.67 dB
.01 %	5.77 dB

Date: 3.AUG.2020 10:55:54



Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

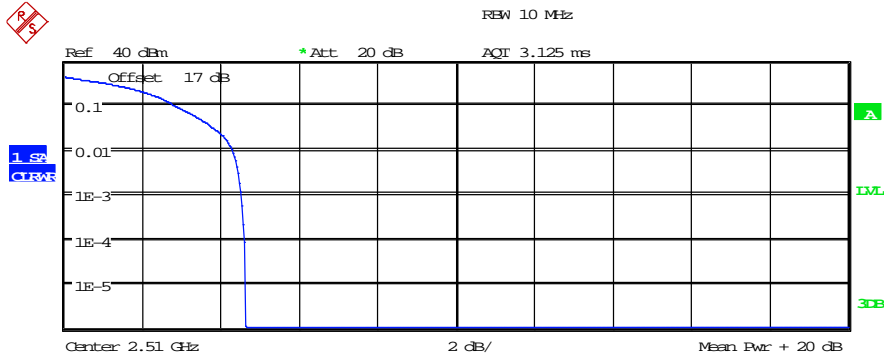


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	19.87 dBm
Peak	25.27 dBm
Crest	5.39 dB
10 %	3.04 dB
1 %	5.06 dB
.1 %	5.32 dB
.01 %	5.38 dB

Date: 3.AUG.2020 10:55:12

## Band VII



Complementary Cumulative Distribution Function (100000 samples)

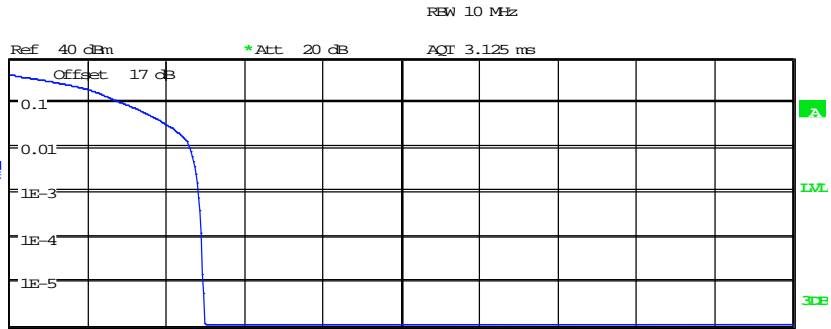
Trace 1	
Mean	18.17 dBm
Peak	22.80 dBm
Crest	4.63 dB
10 %	2.85 dB
1 %	4.29 dB
.1 %	4.52 dB
.01 %	4.62 dB

Date: 3.AUG.2020 10:53:41





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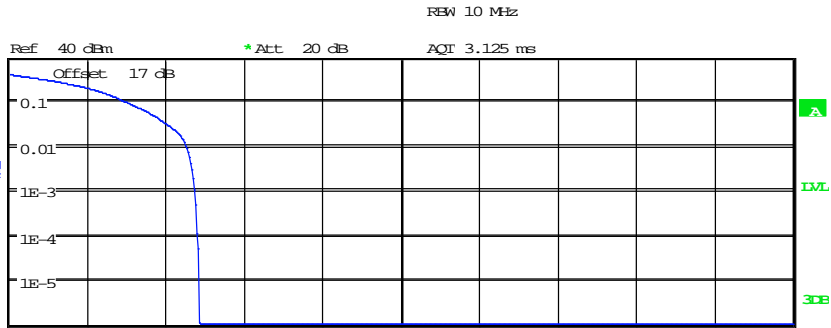
Center: 2.535 GHz      2 dB/      Mean Pwr: +20 dB

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	18.17 dBm
Peak	23.15 dBm
Crest	4.98 dB
10 %	2.92 dB
1 %	4.62 dB
.1 %	4.84 dB
.01 %	4.90 dB

Date: 3.AUG.2020 10:53:12



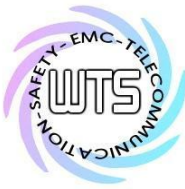
Center: 2.56 GHz      2 dB/      Mean Pwr: +20 dB

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	17.87 dBm
Peak	22.73 dBm
Crest	4.86 dB
10 %	3.01 dB
1 %	4.52 dB
.1 %	4.74 dB
.01 %	4.81 dB

Date: 3.AUG.2020 10:54:01

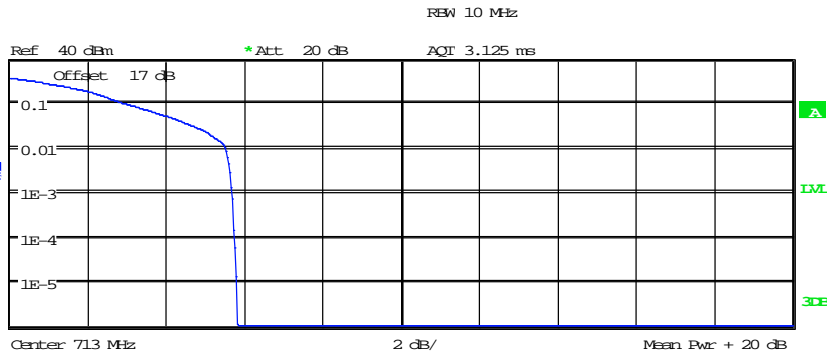


# Worldwide Testing Services(Taiwan) Co., Ltd.

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FCC ID: GX9HSGWF1919

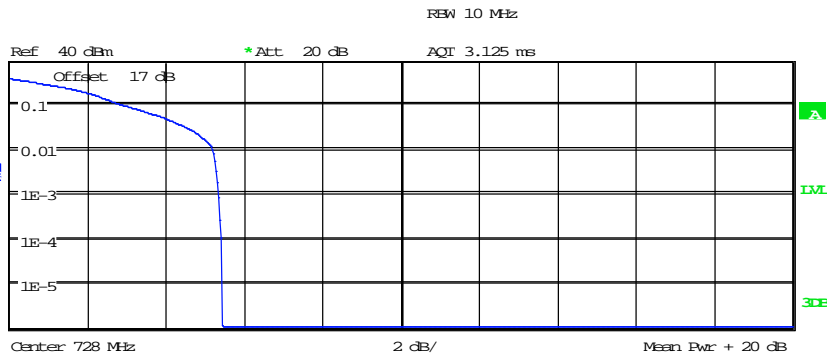
Band XXVIII



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.09 dBm
Peak	26.89 dBm
Crest	5.80 dB
10 %	3.01 dB
1 %	5.51 dB
.1 %	5.71 dB
.01 %	5.77 dB

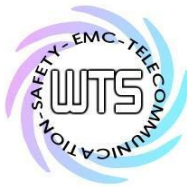
Date: 3.AUG.2020 10:52:00



Complementary Cumulative Distribution Function (100000 samples)

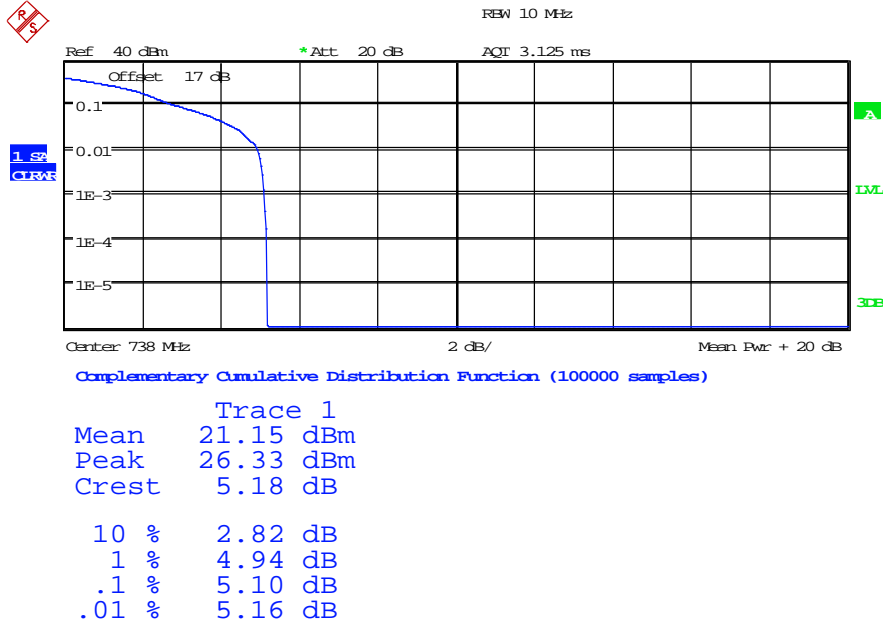
Trace 1	
Mean	20.75 dBm
Peak	26.18 dBm
Crest	5.43 dB
10 %	2.95 dB
1 %	5.19 dB
.1 %	5.35 dB
.01 %	5.42 dB

Date: 3.AUG.2020 10:51:33



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Date: 3.AUG.2020 10:52:22

Limit according to FCC §24.232 and §27.50, The peak-to-average ratio(PAR) of the transmission may not exceed 13dB.

Test equipment: ETSTW-RE 055, ETSTW-GSM 002, ETSTW-GSM 023, ETSTW-GSM 004

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**6. Occupied Bandwidth**

The occupied bandwidth (OBW) is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to a specified percentage 0.5% of the total mean transmitted power.

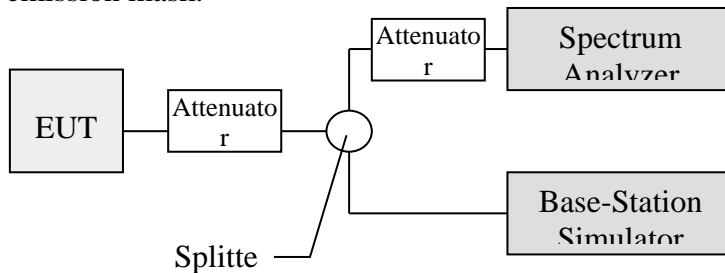
The 26 dB occupied bandwidth is the width of a frequency band such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal 26 dB.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

**6.1 Test procedure**

The RF output of the transceiver was connected as the following figure.

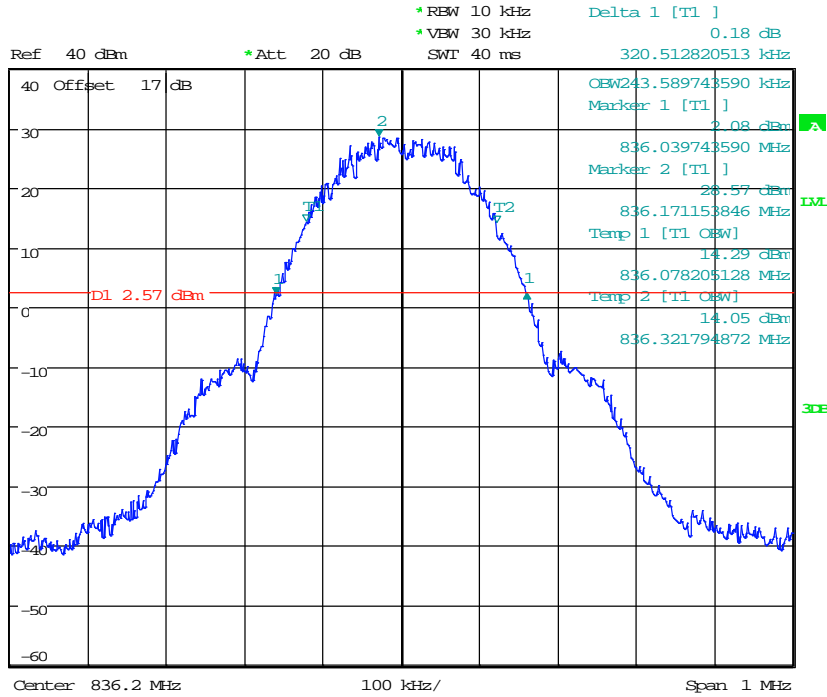
Occupied Bandwidth was measured with a occupied bandwidth function of the analyzer at 99% power was occupied. Then set the spectrum analyzer to cover the upper and lower band edges to measure emission mask.



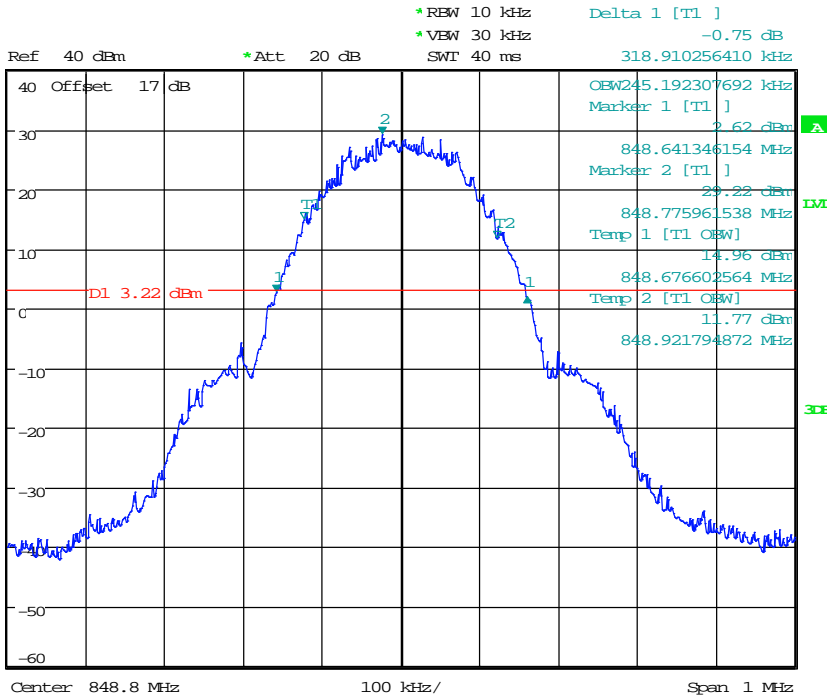




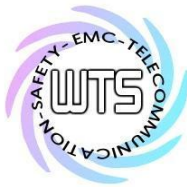
Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 2.AUG.2020 14:46:06



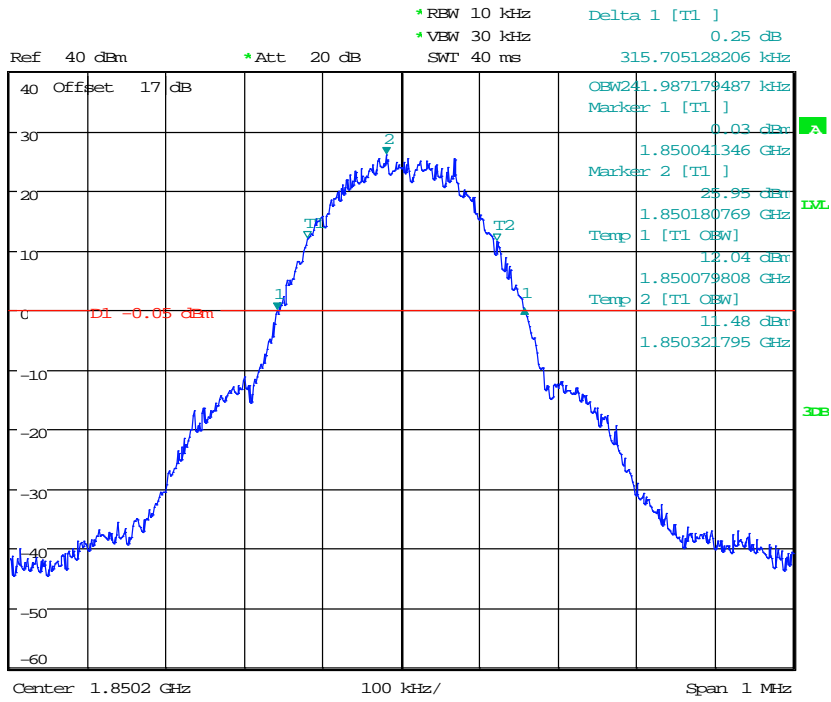
Date: 2.AUG.2020 14:47:31



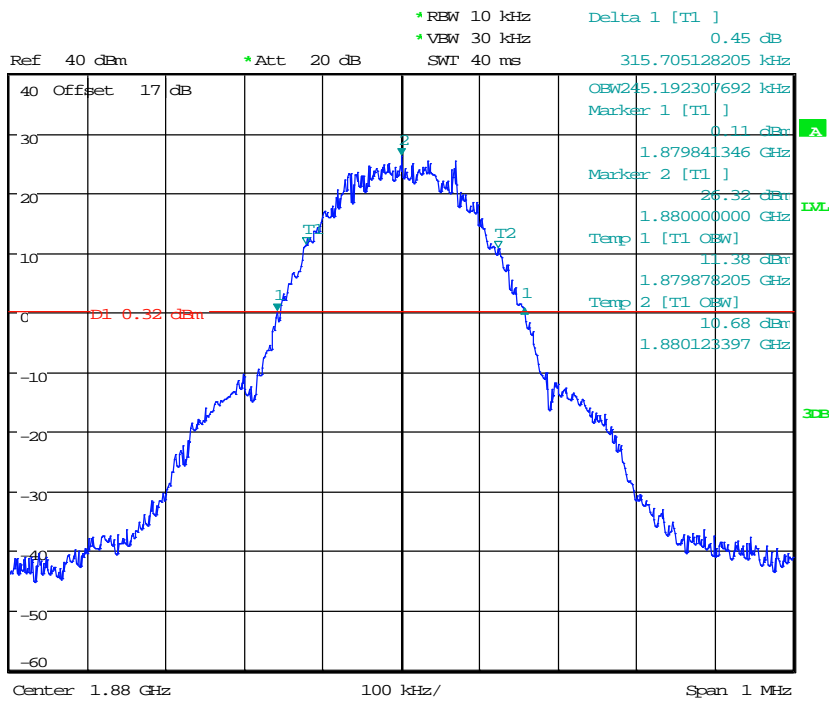
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

Band 1900 MHz



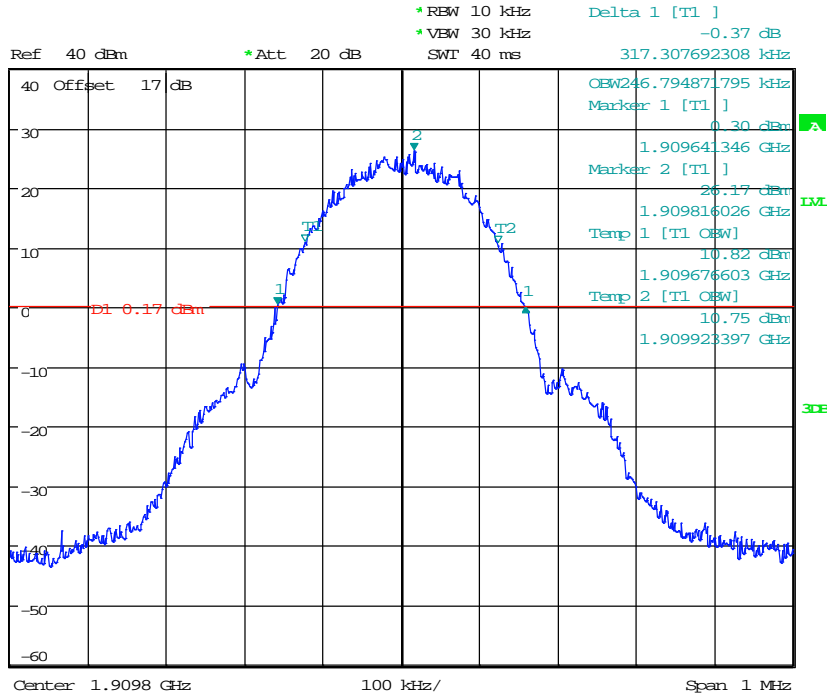
Date: 2.AUG.2020 15:42:06



Date: 2.AUG.2020 15:40:35

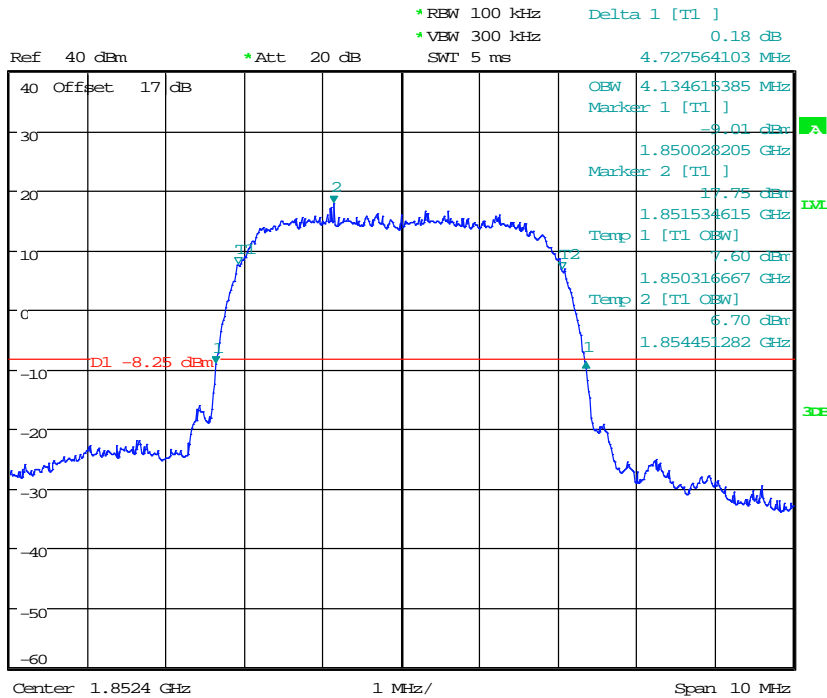


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 2.AUG.2020 15:39:12

## WCDMA Band II

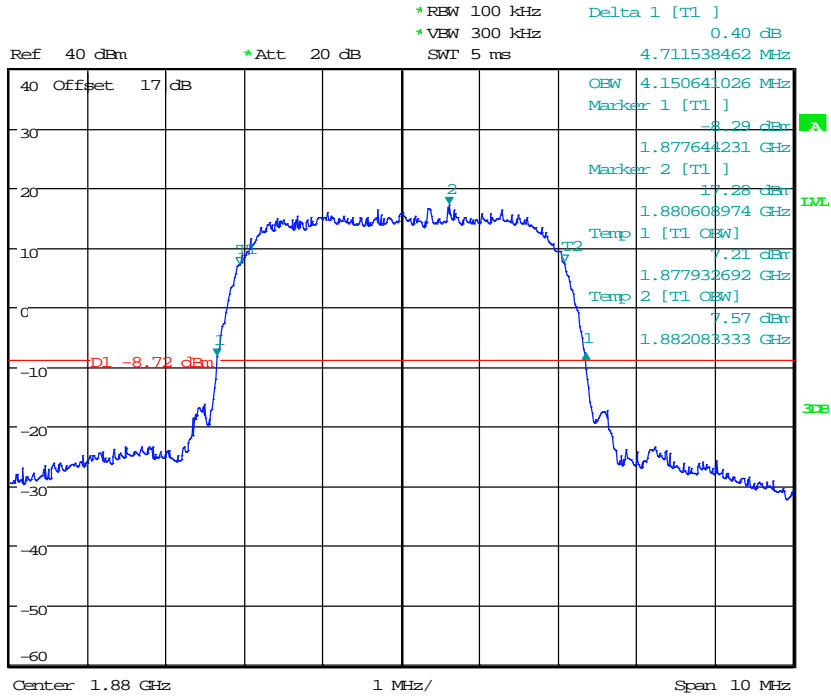


Date: 2.AUG.2020 13:05:29

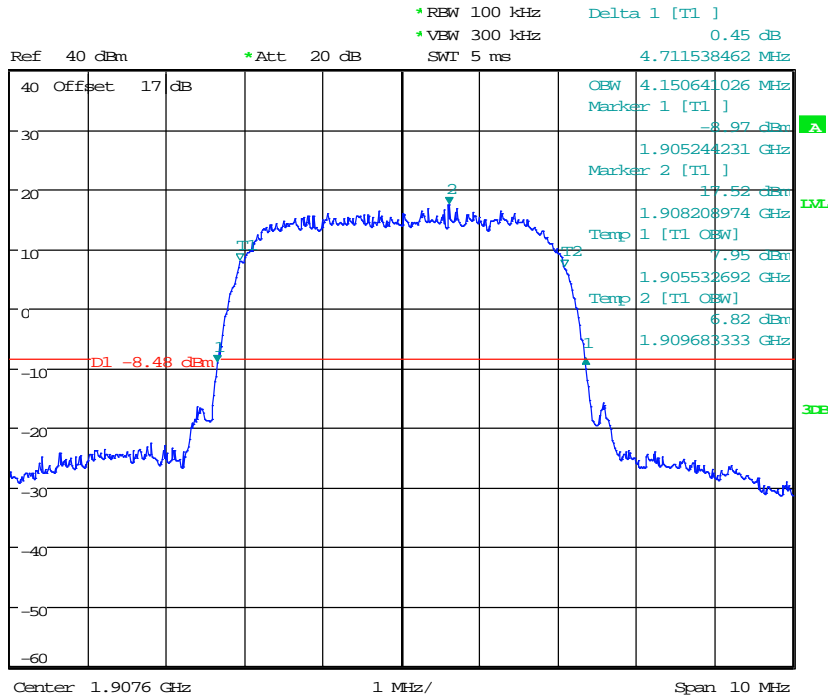




Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 2.AUG.2020 13:04:06



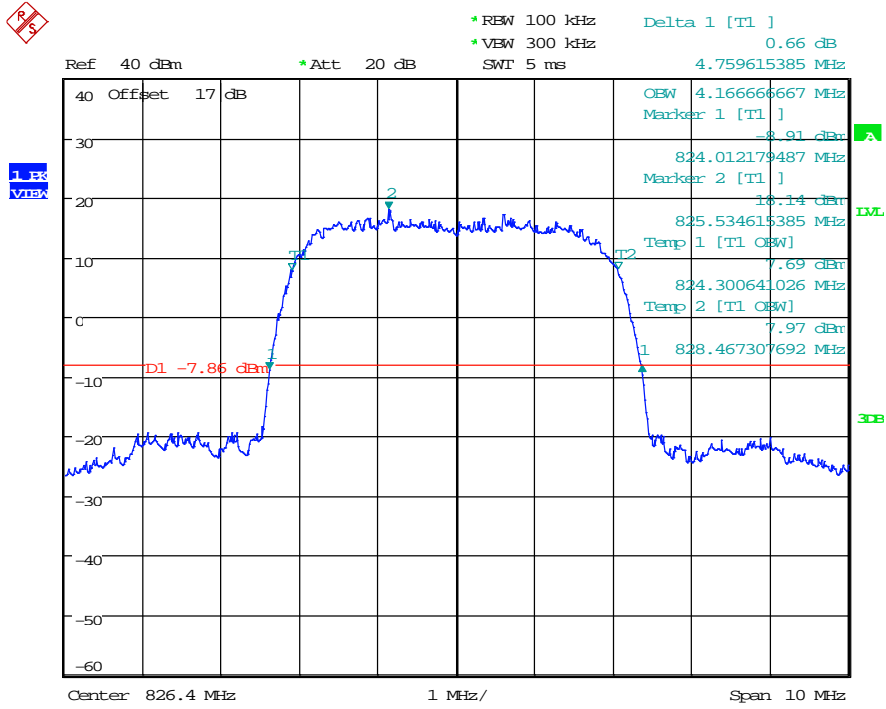
Date: 2.AUG.2020 13:02:45



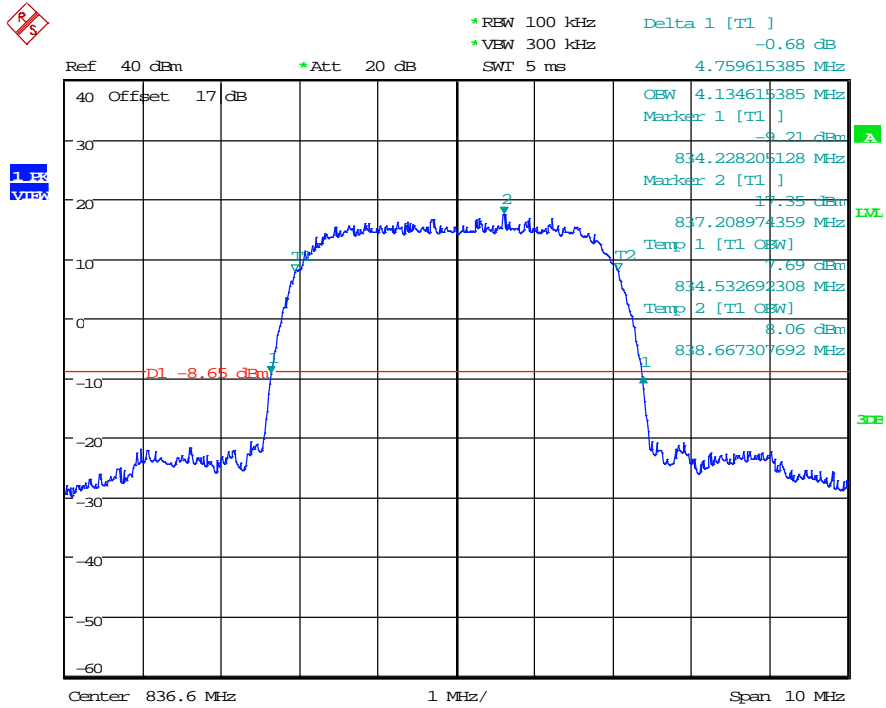
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

Band V



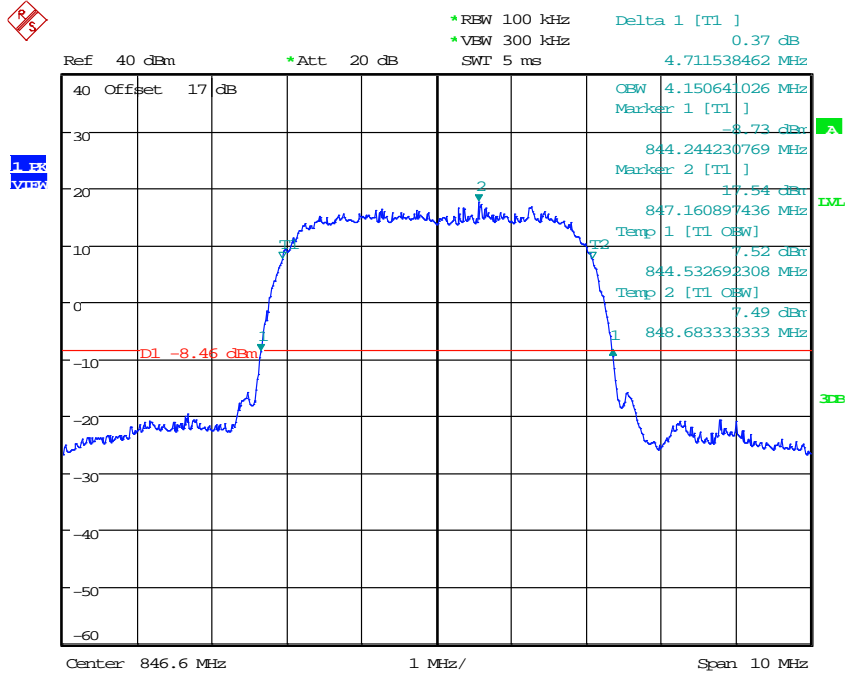
Date: 2.AUG.2020 12:57:07



Date: 2.AUG.2020 13:00:01

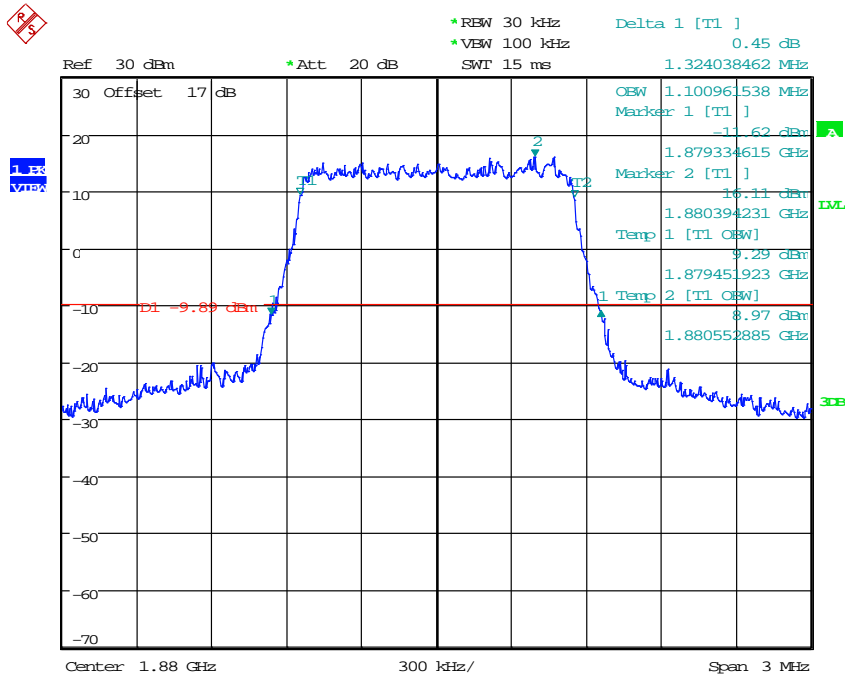


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

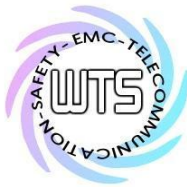


Date: 2.AUG.2020 13:01:17

LTE  
 Band II  
 QPSK  
 1.4MHz



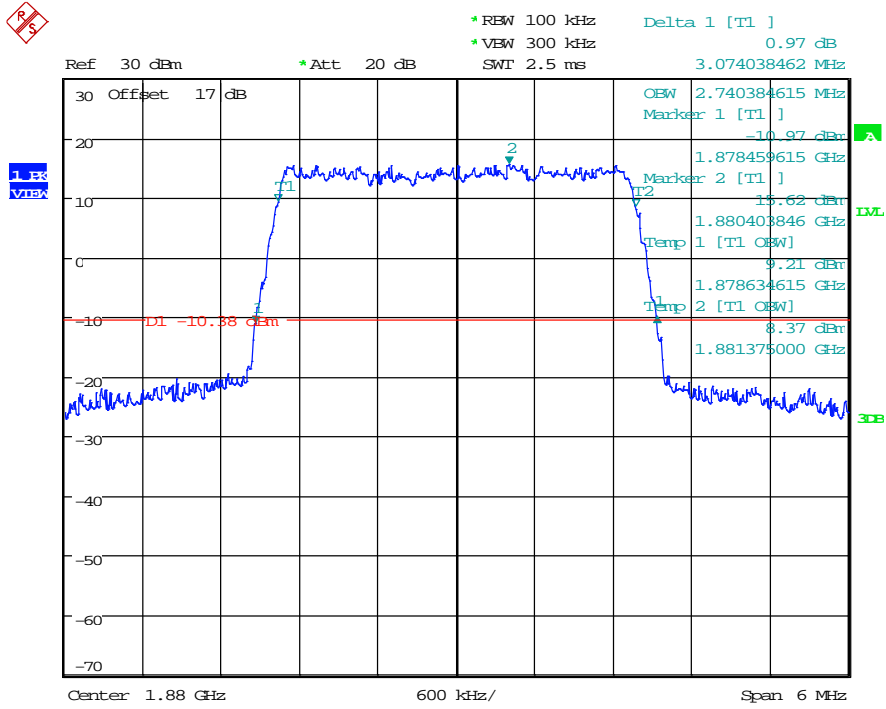
Date: 2.AUG.2020 16:50:34



Report Number: W6M22007-20039-P-247

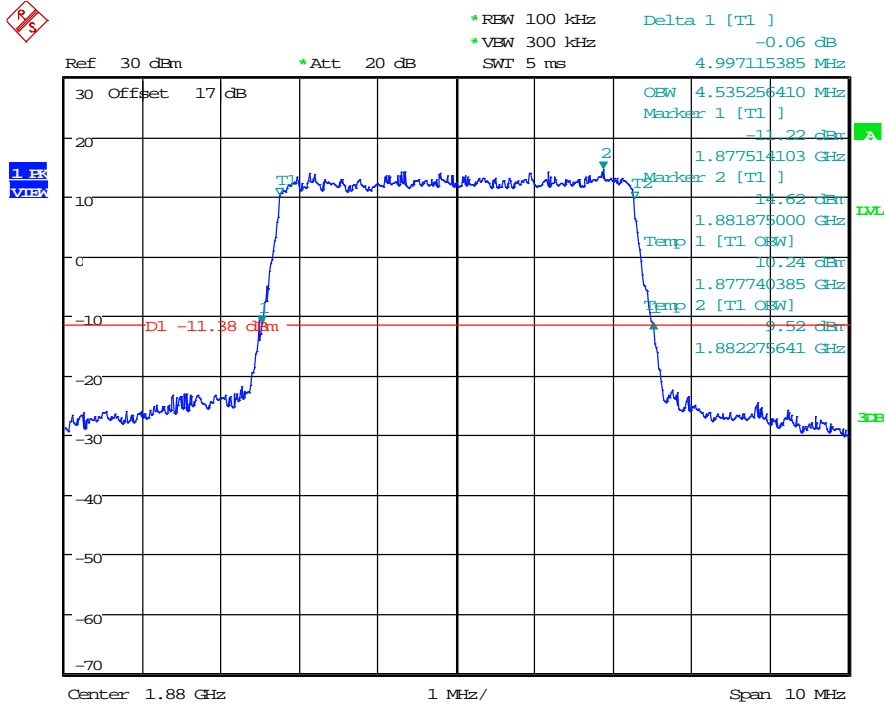
FCC ID: GX9HSGWF1919

3MHz



Date: 2.AUG.2020 16:52:05

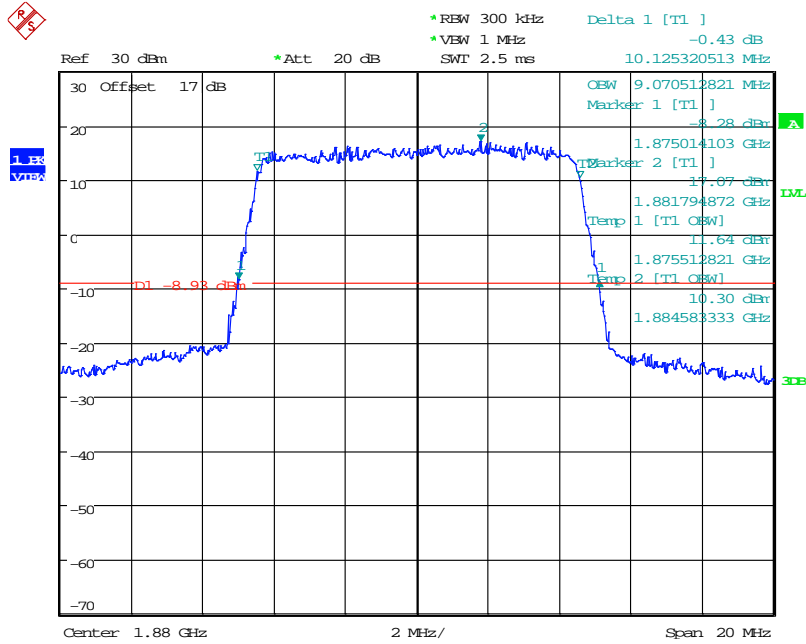
5MHz



Date: 2.AUG.2020 16:54:40

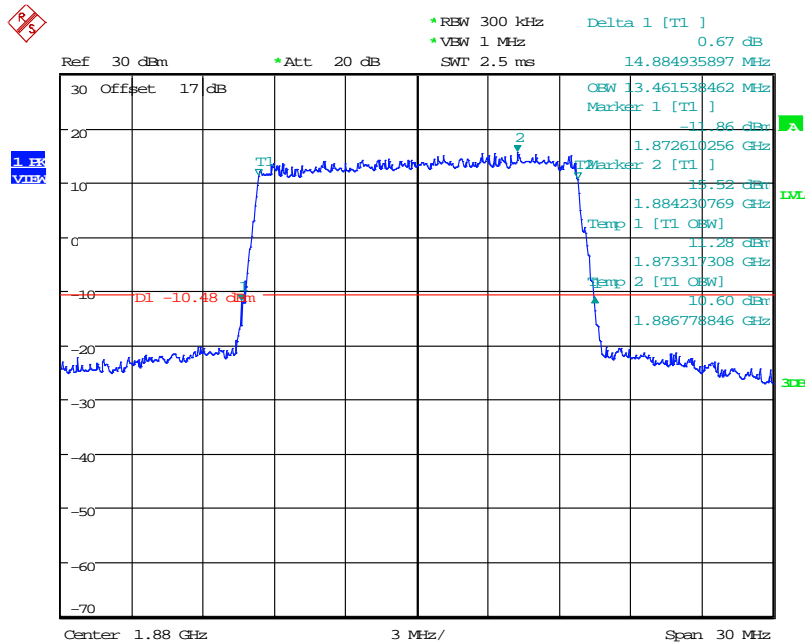


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919  
 10MHz



Date: 2.AUG.2020 16:58:56

15MHz



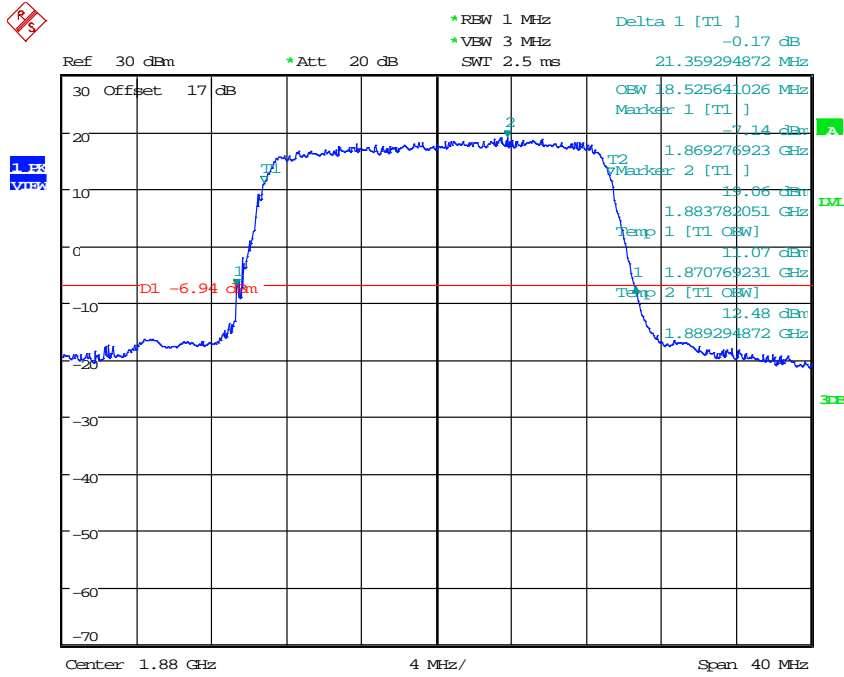
Date: 2.AUG.2020 17:03:28



Report Number: W6M22007-20039-P-247

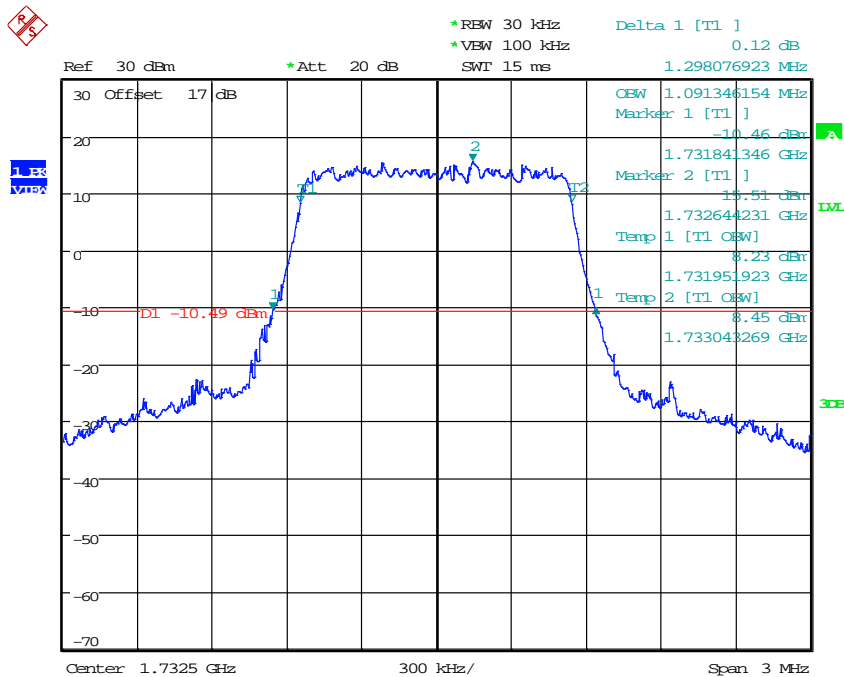
FCC ID: GX9HSGWF1919

20MHz



Date: 2.AUG.2020 17:05:17

Band IV  
QPSK  
1.4MHz



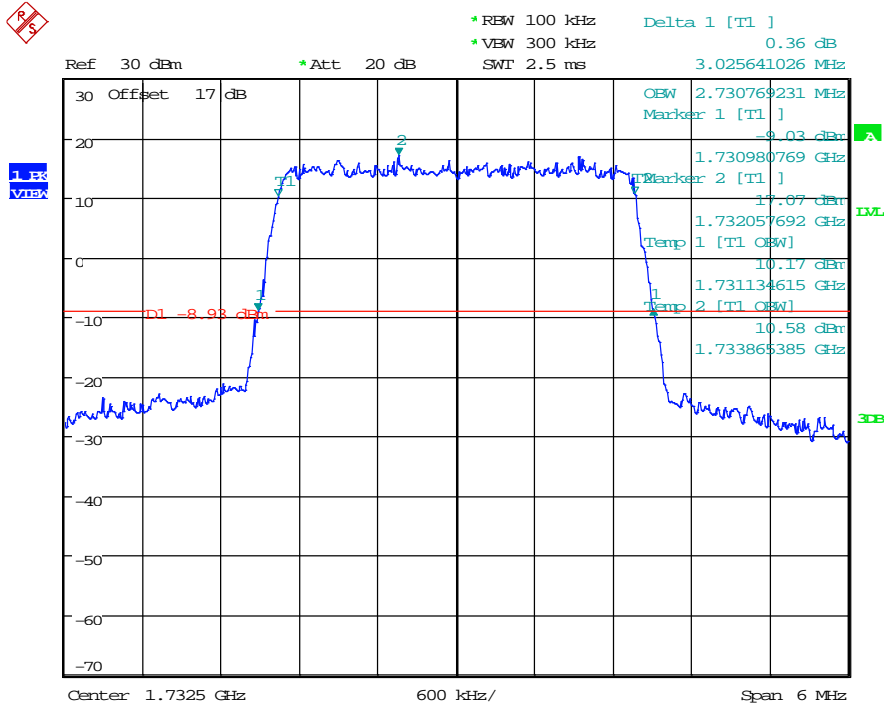
Date: 2.AUG.2020 17:16:46



Report Number: W6M22007-20039-P-247

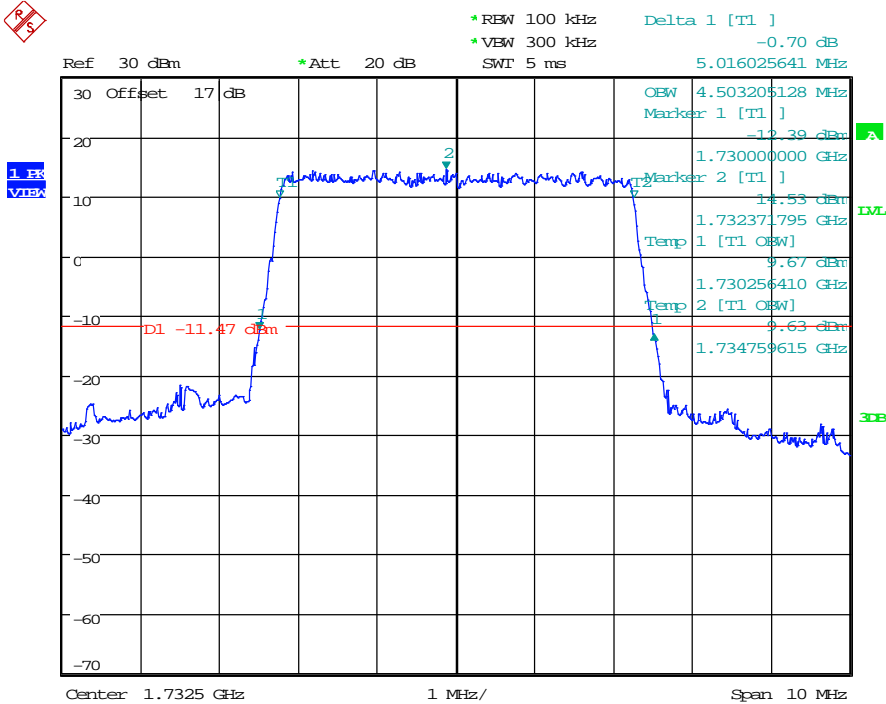
FCC ID: GX9HSGWF1919

3MHz

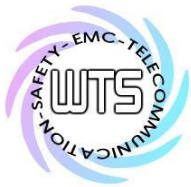


Date: 2.AUG.2020 17:15:18

5MHz



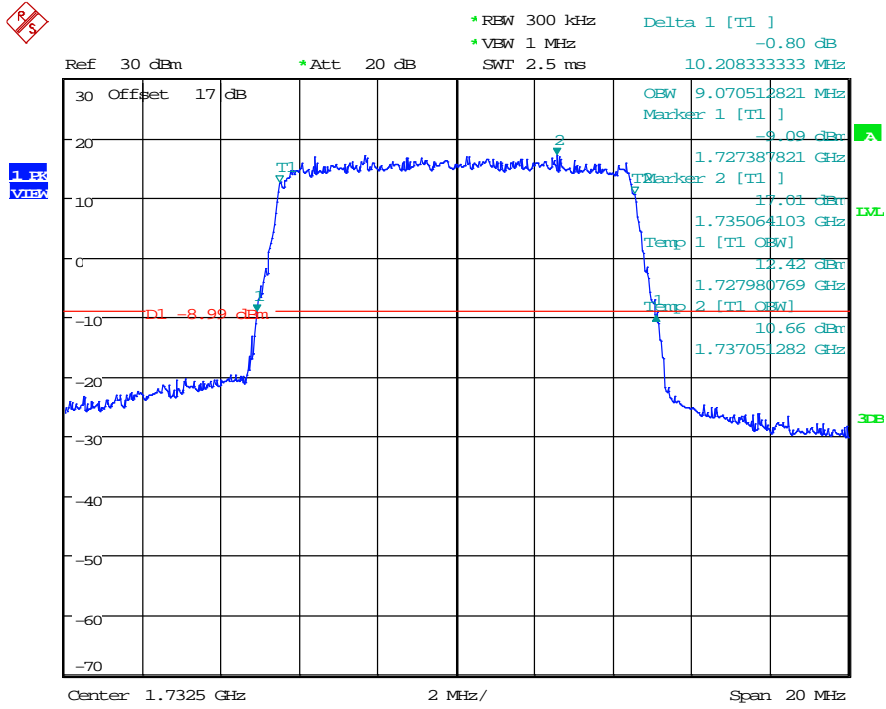
Date: 2.AUG.2020 17:14:11



Report Number: W6M22007-20039-P-247

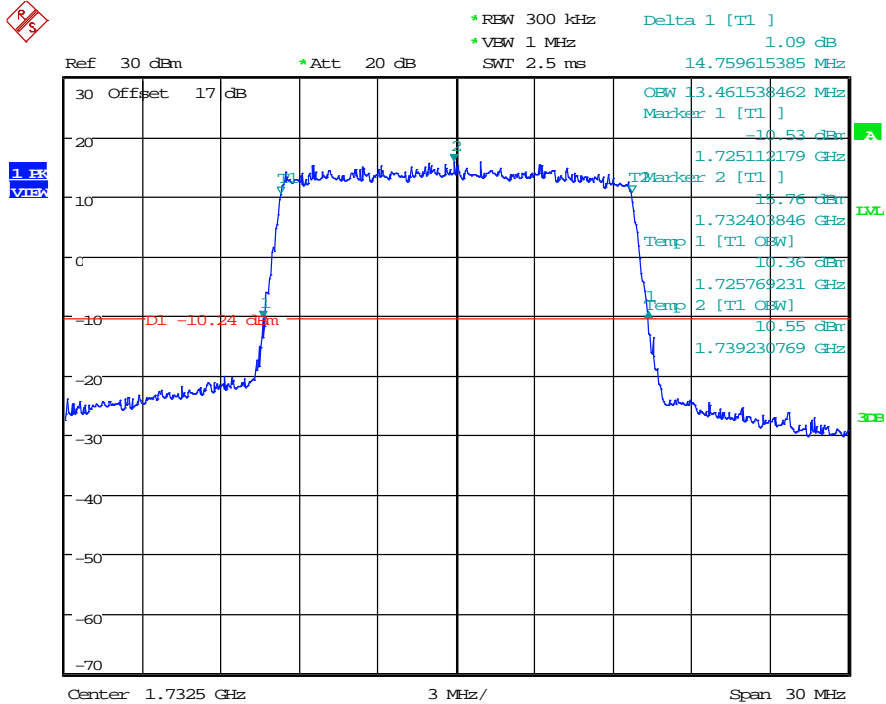
FCC ID: GX9HSGWF1919

10MHz



Date: 2.AUG.2020 17:12:46

15MHz

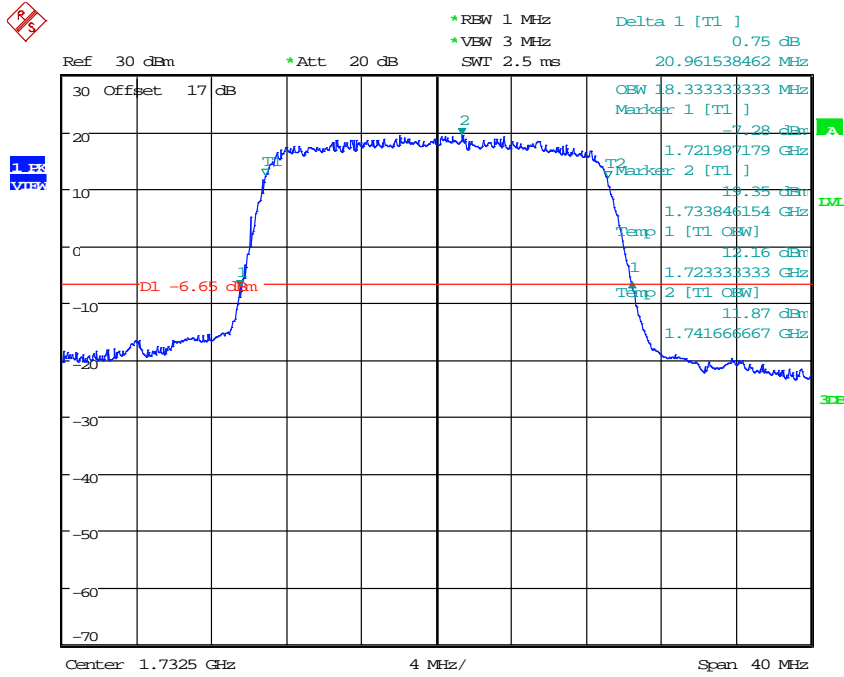


Date: 2.AUG.2020 17:11:39



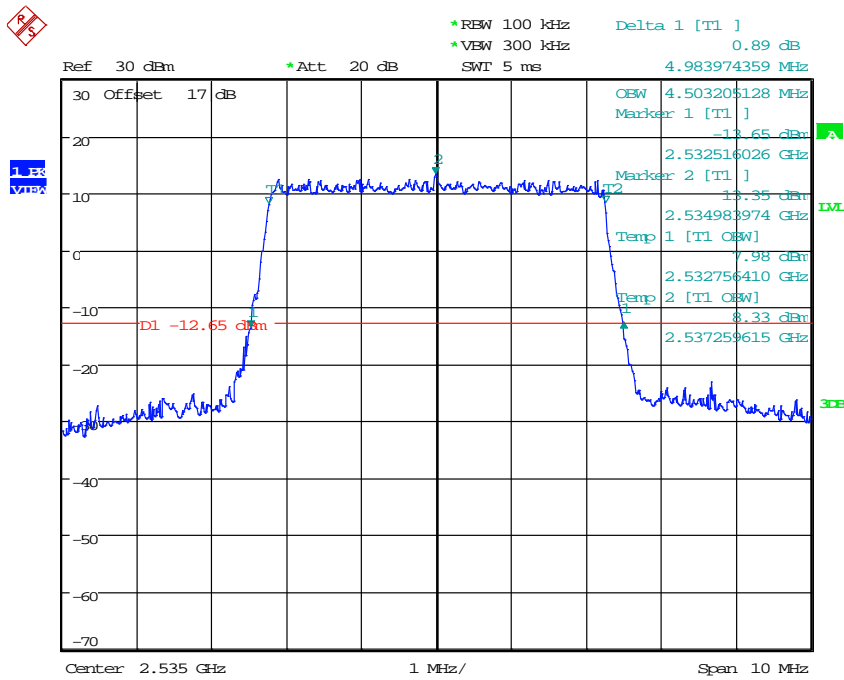


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919  
 20MHz



Date: 2.AUG.2020 17:10:13

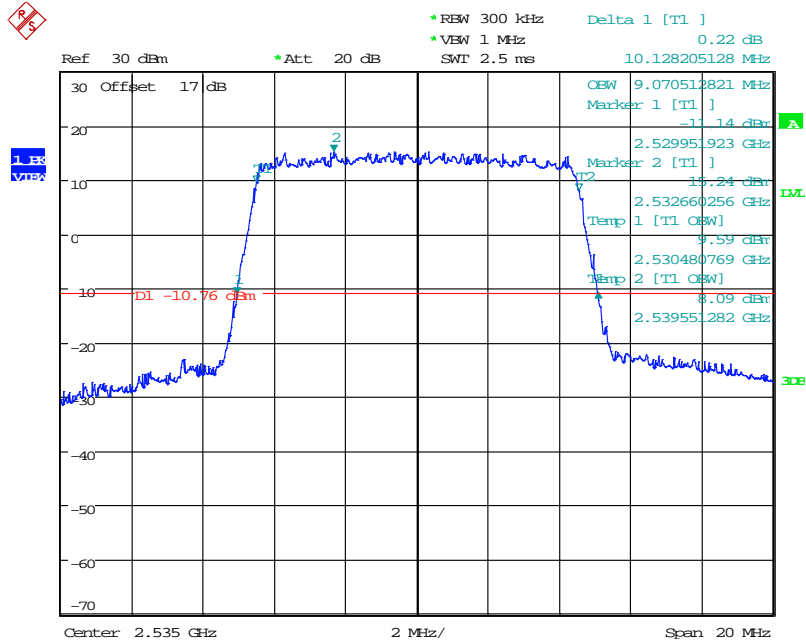
Band VII  
 QPSK  
 5MHz



Date: 3.AUG.2020 10:04:48

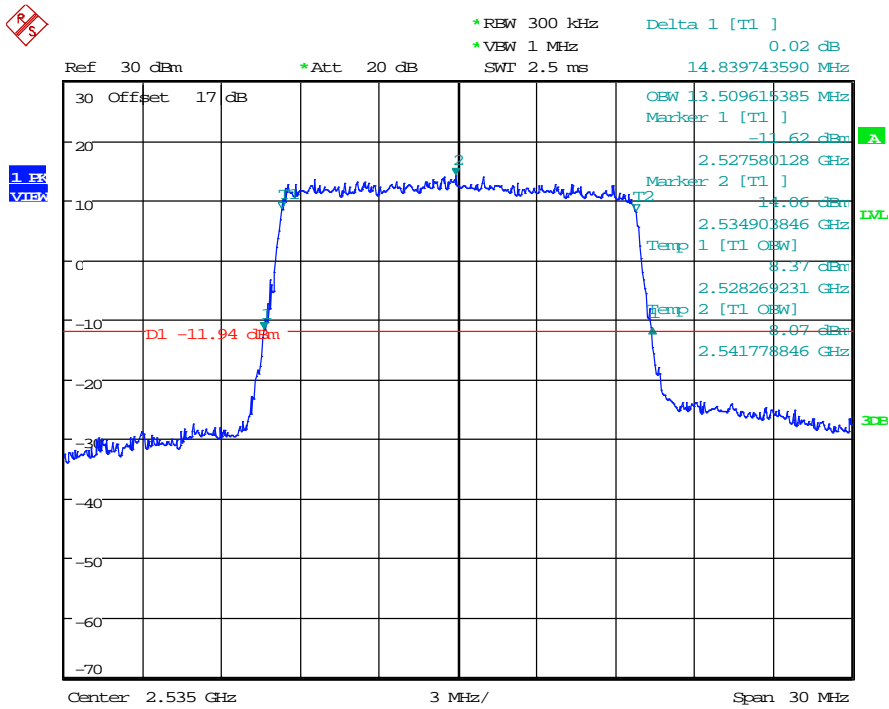


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919  
 10MHz



Date: 3.AUG.2020 09:49:32

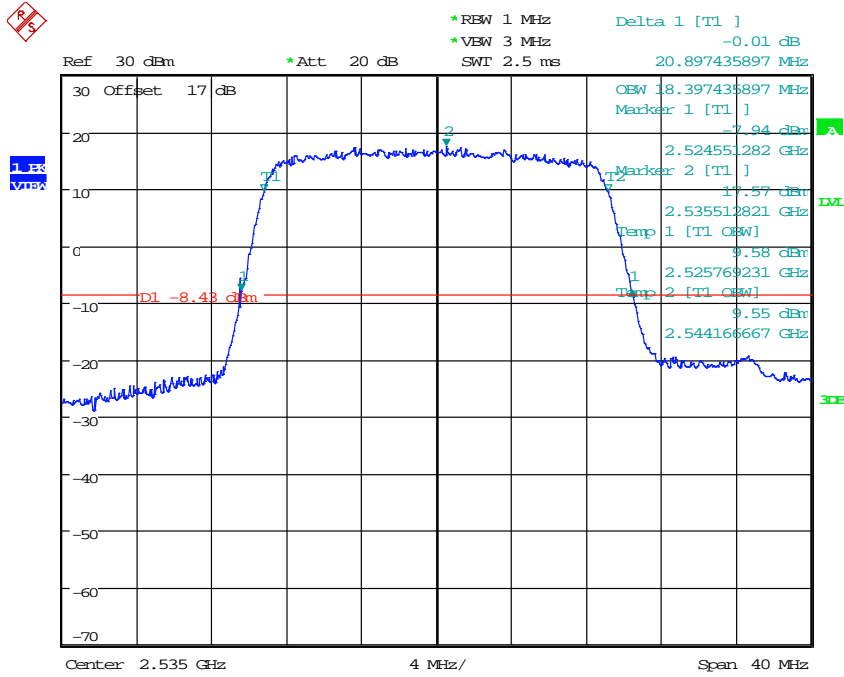
15MHz



Date: 3.AUG.2020 09:48:19

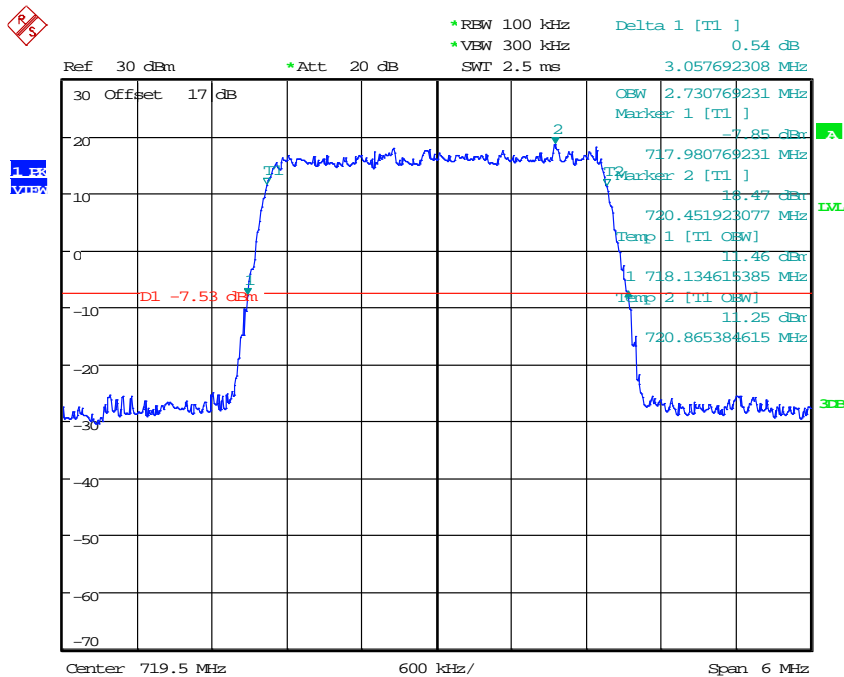


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919  
 20MHz



Date: 3.AUG.2020 09:45:49

Band XXVIII  
 QPSK  
 3MHz



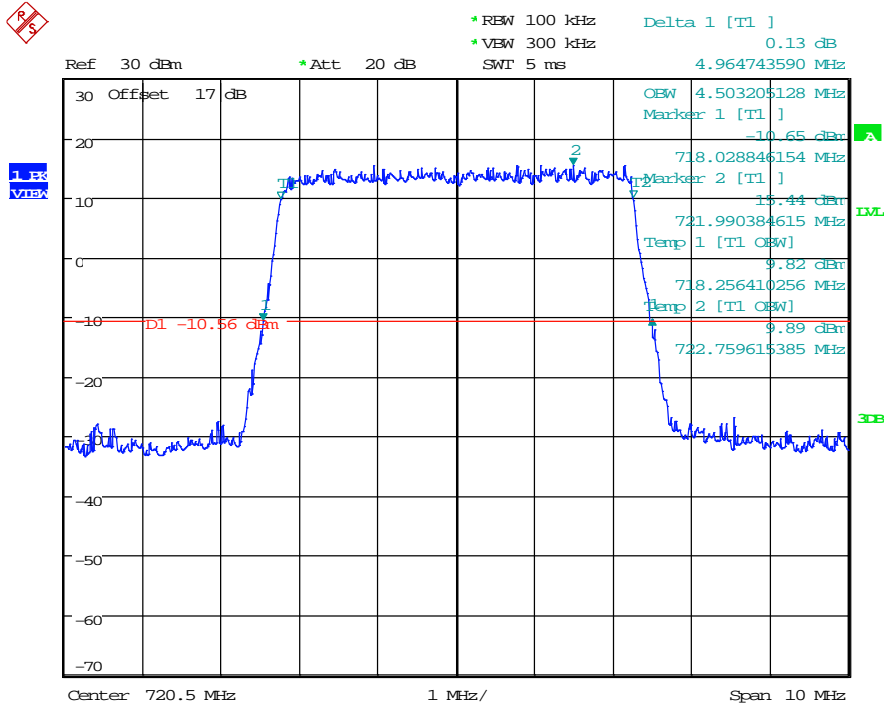
Date: 3.AUG.2020 10:06:55



Report Number: W6M22007-20039-P-247

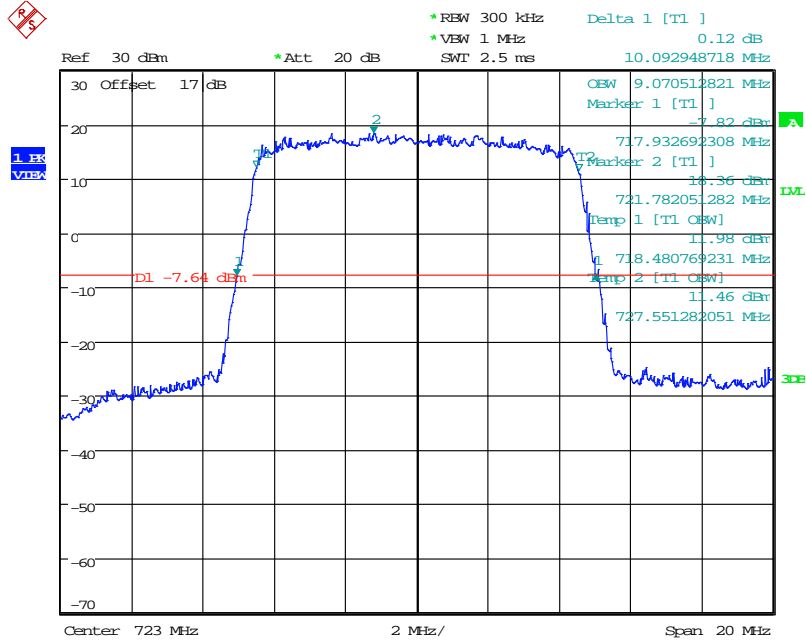
FCC ID: GX9HSGWF1919

5MHz



Date: 3.AUG.2020 10:08:15

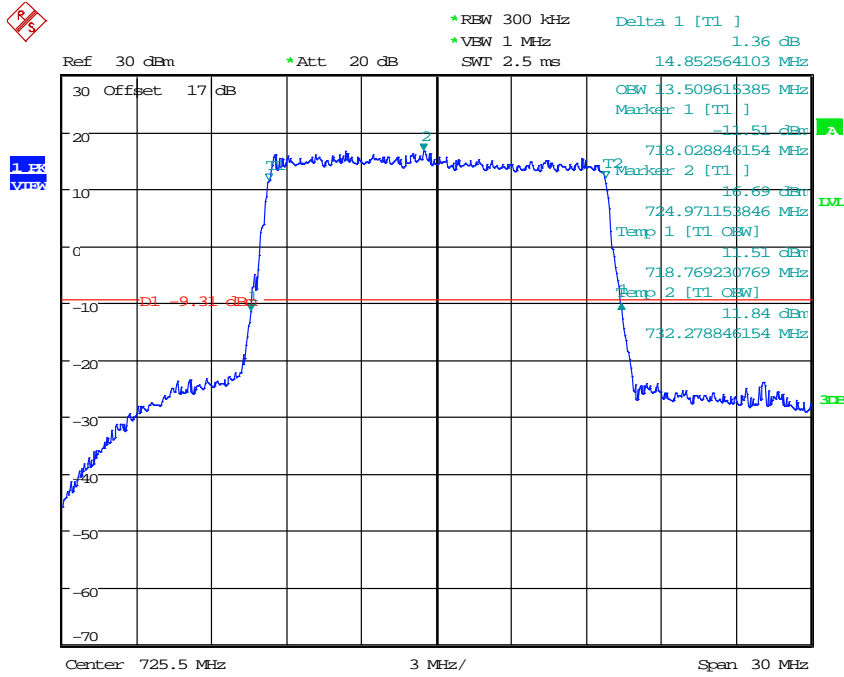
10MHz



Date: 3.AUG.2020 10:10:12

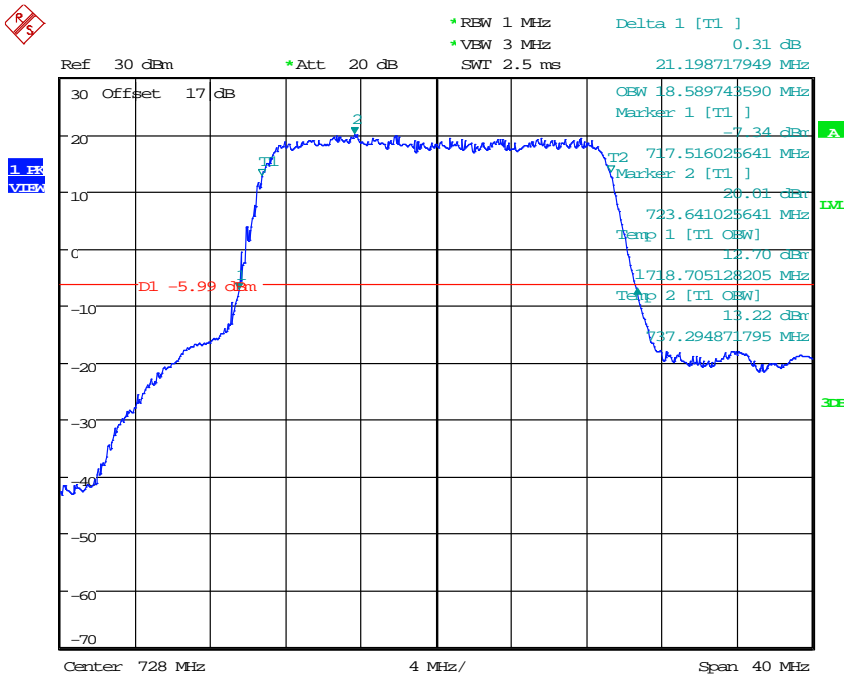


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919  
 15MHz



Date: 3.AUG.2020 10:12:00

20MHz



Date: 3.AUG.2020 10:13:24

Test equipment: ETSTW-RE 055, ETSTW-GSM 002, ETSTW-GSM 023, ETSTW-GSM 004

Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

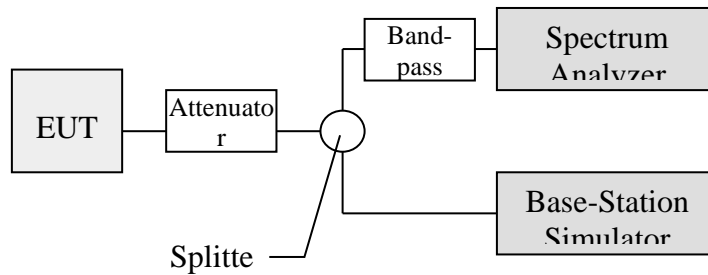
## 7. Spurious Emissions at Antenna Terminals

### 7.1 Test procedure

This transmitter output was connected to a calibrated coaxial attenuator, the other end of which was connected to a spectrum analyzer via a three-port splitter. Please refer to the following figure. Transmitter output was derived with the spectrum analyzer in dBm.

The Spurious Emissions at Antenna Terminals was measured by the spectrum analyzer with a suitable notch filter and/or Band-pass filter.

Tests were performed with an unmodulated carrier at three frequencies (low, middle and high channels ) and on all power levels , which can be set-up on the transmitters.



### 7.2 Test Results

Test date: August 02, 2020~August 03, 2020

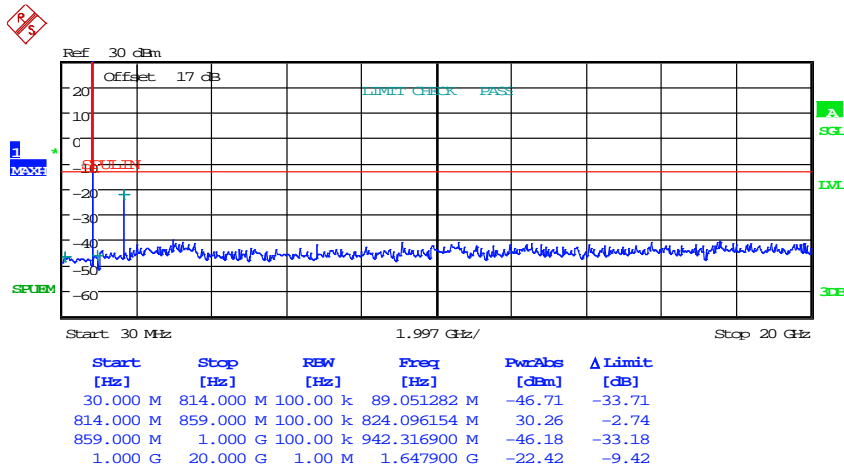
Temperature: 23.8 °C

Humidity: 53.4 %

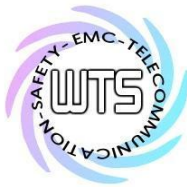
Tester: Sora

GSM

Band 850 MHz

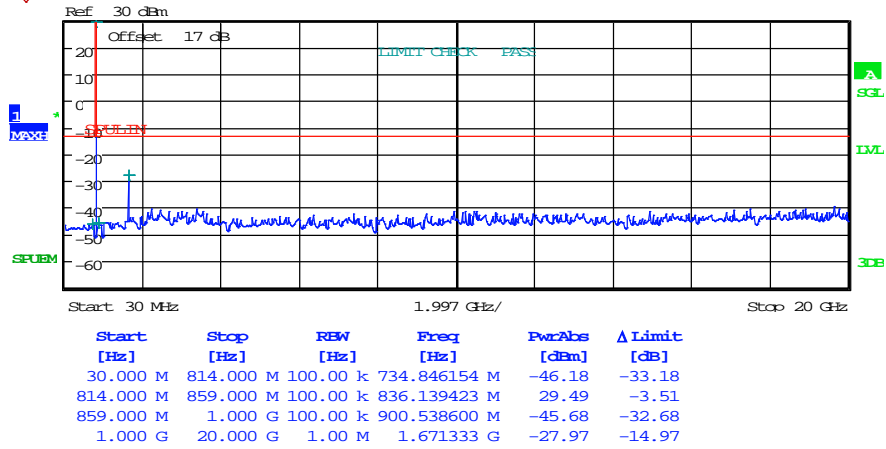


Date: 2.AUG.2020 15:56:25

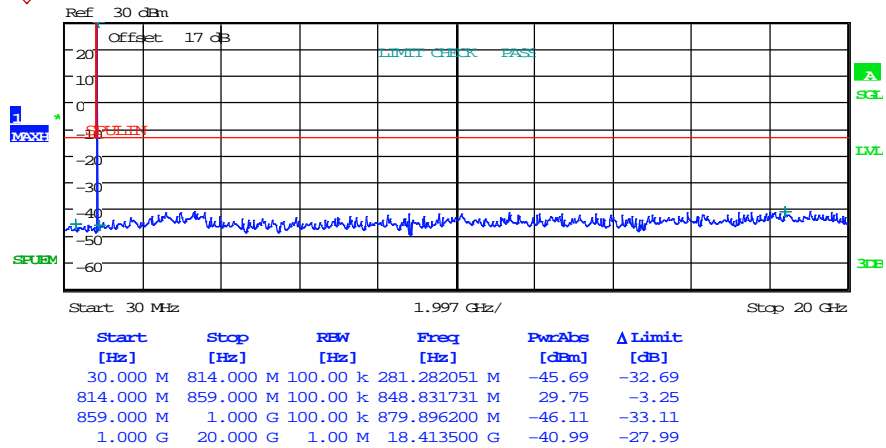


Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 2.AUG.2020 15:57:17



Date: 2.AUG.2020 16:03:34

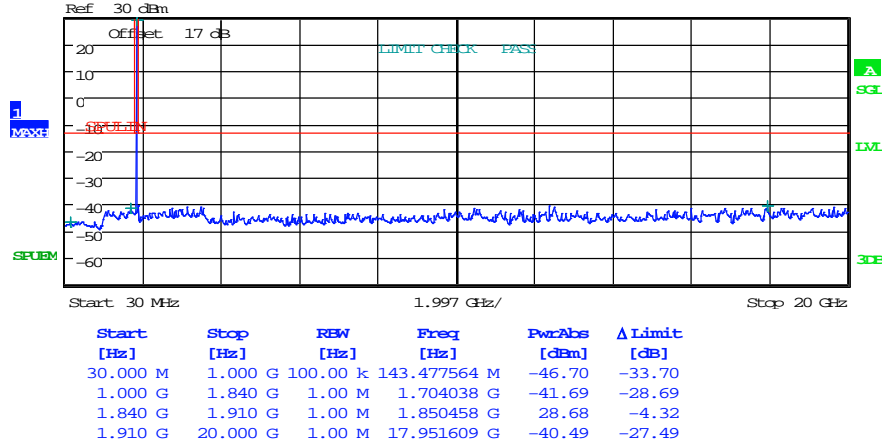


# Worldwide Testing Services(Taiwan) Co., Ltd.

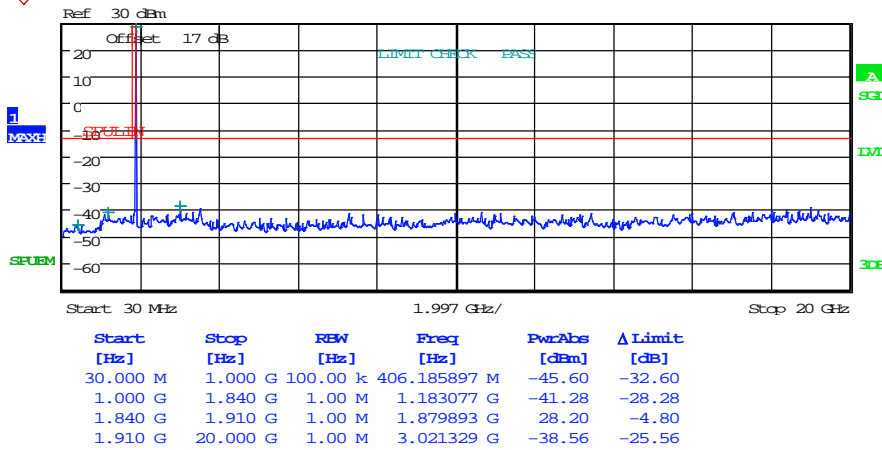
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

Band 1900 MHz



Date: 2.AUG.2020 15:35:33

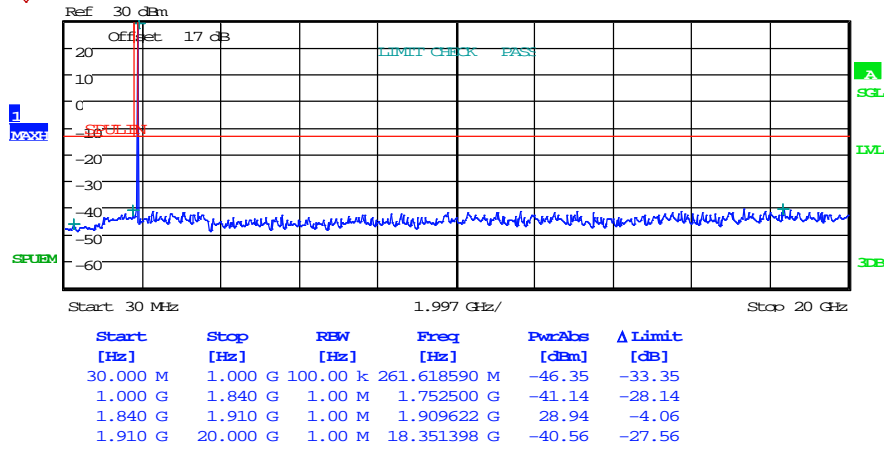


Date: 2.AUG.2020 15:36:04



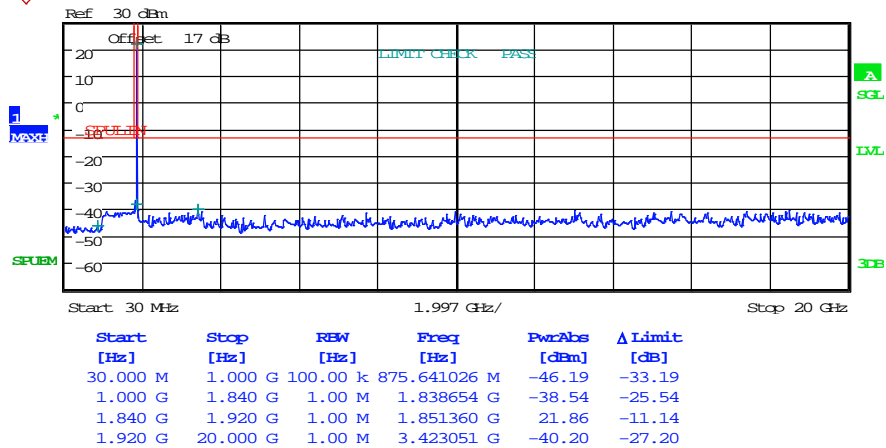


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

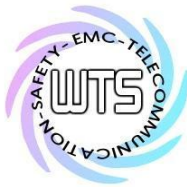


Date: 2.AUG.2020 15:36:37

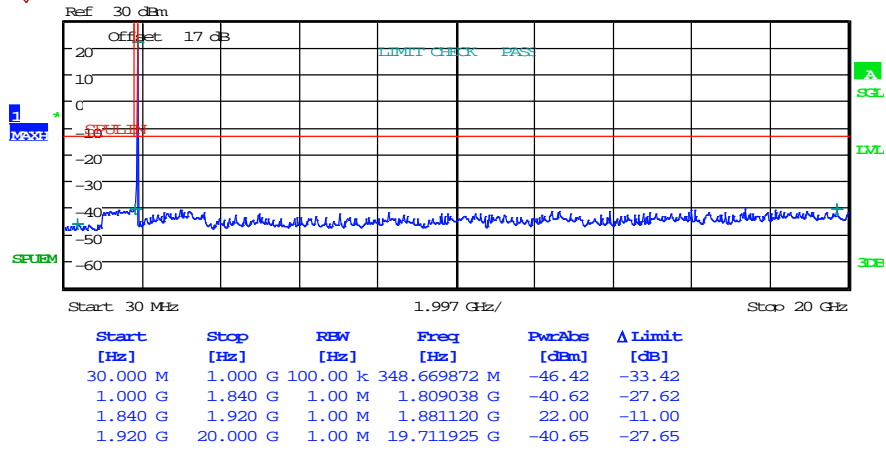
## WCDMA Band II



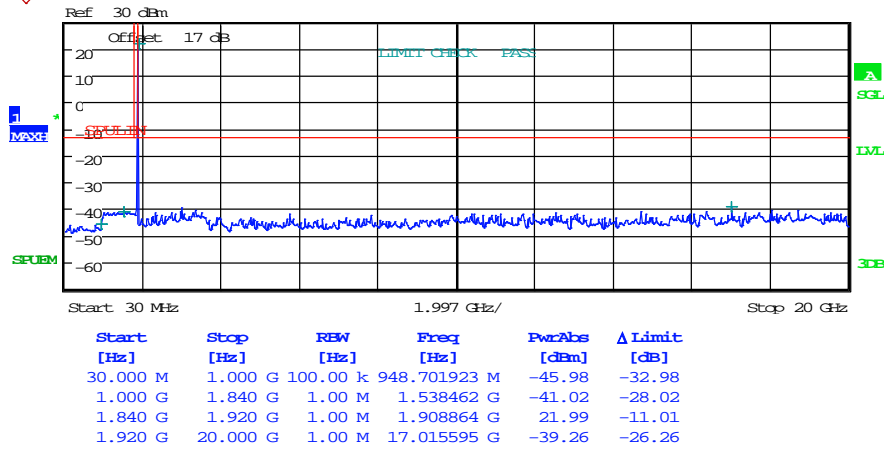
Date: 2.AUG.2020 16:19:13



Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 2.AUG.2020 16:18:33



Date: 2.AUG.2020 16:18:00

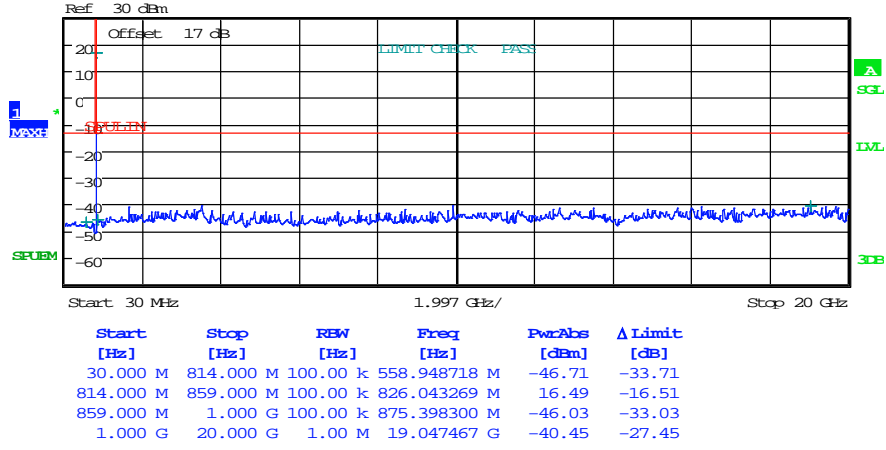


# Worldwide Testing Services(Taiwan) Co., Ltd.

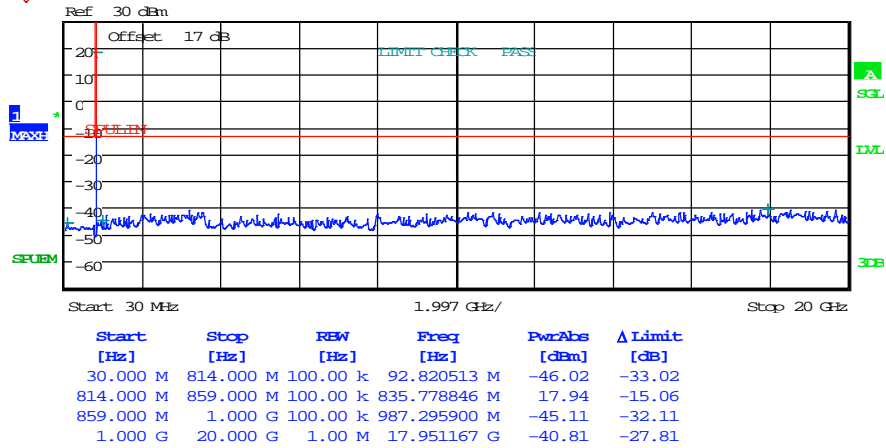
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

Band V



Date: 2.AUG.2020 16:16:06

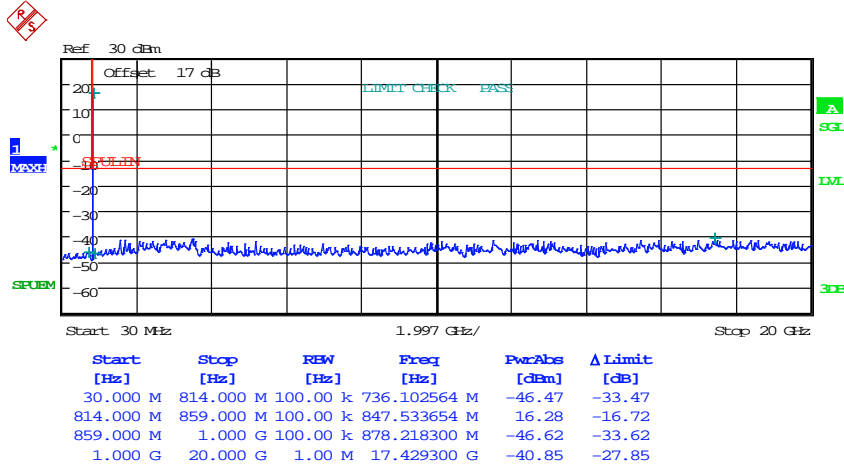


Date: 2.AUG.2020 16:15:16



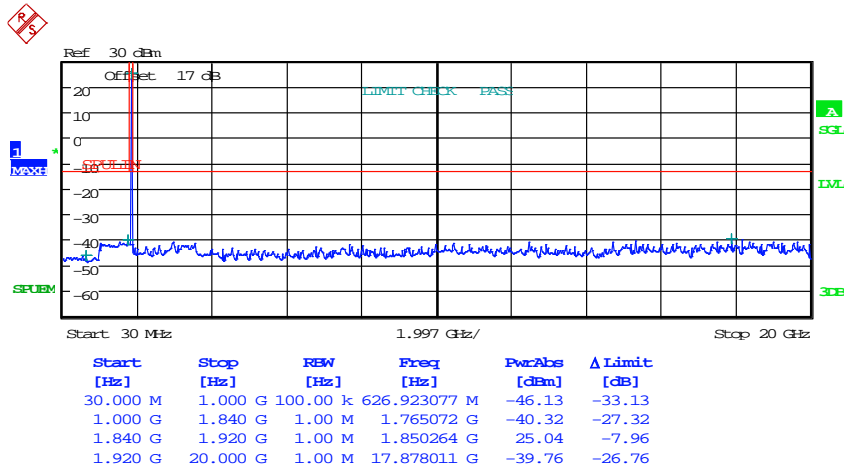
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

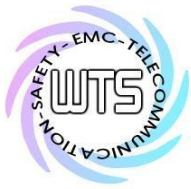


Date: 2.AUG.2020 16:14:33

LTE  
 Band II  
 16QAM  
 1.4MHz



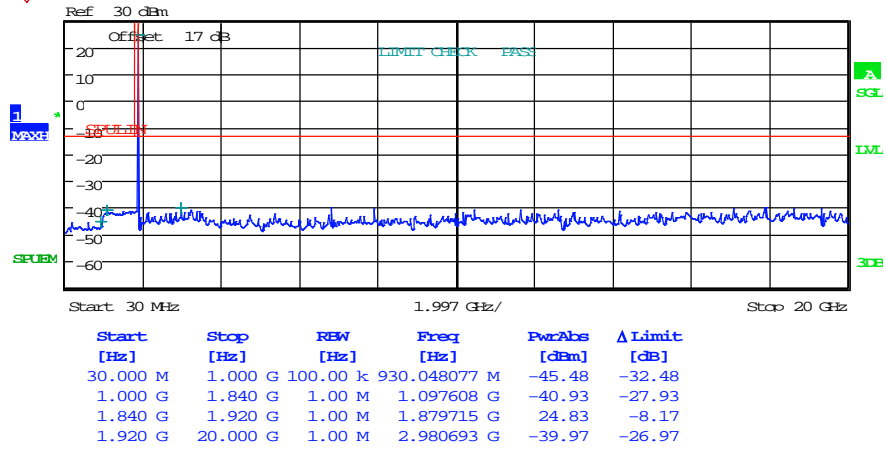
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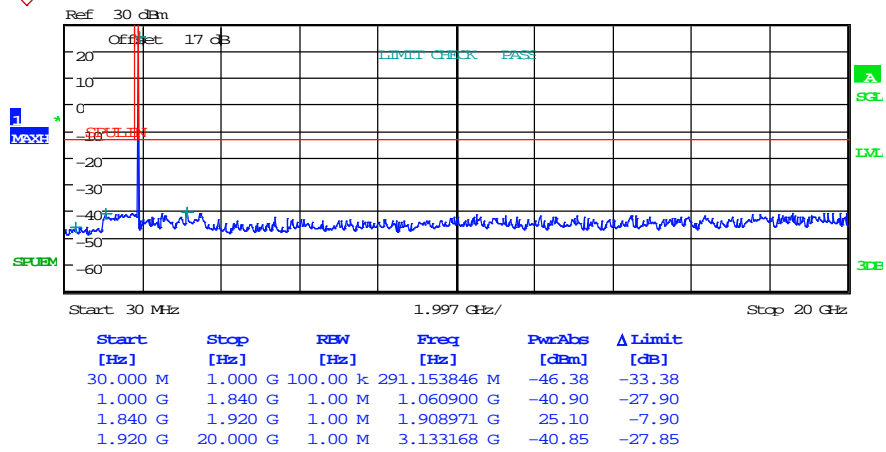
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:20:34



Date: 3.AUG.2020 14:17:21

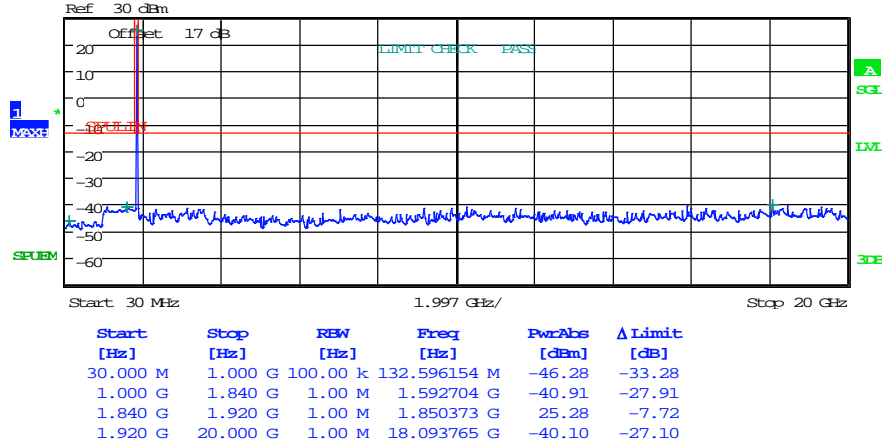


# Worldwide Testing Services(Taiwan) Co., Ltd.

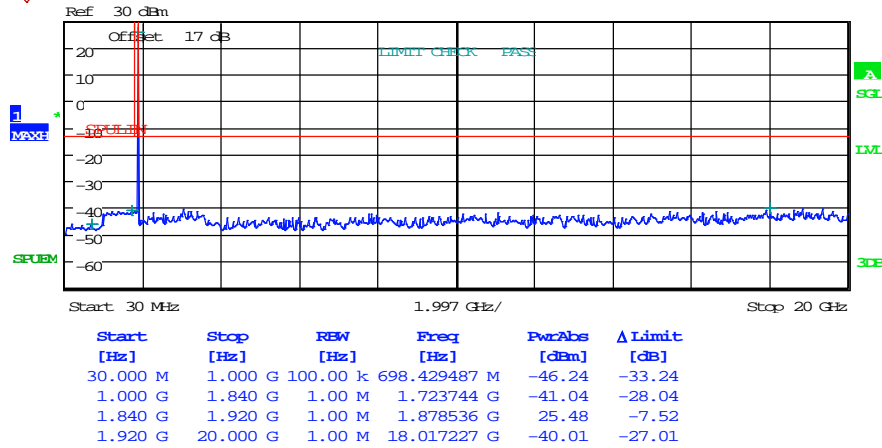
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

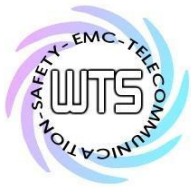
3MHz



Date: 3.AUG.2020 14:22:57

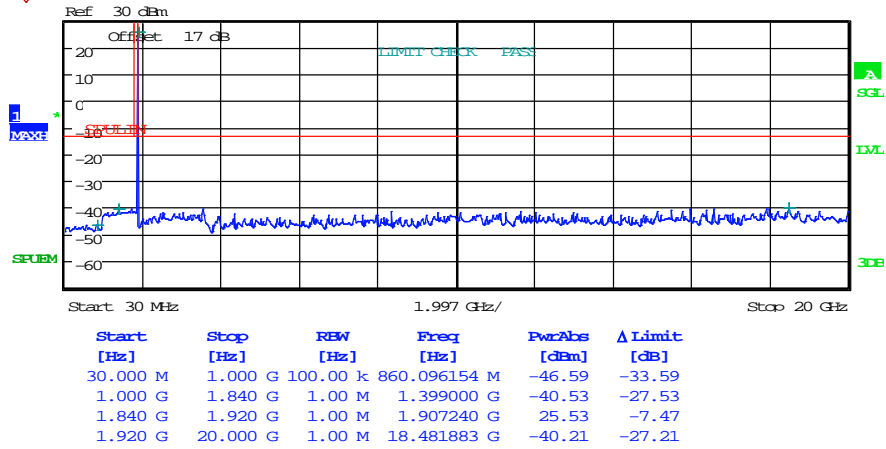


Date: 3.AUG.2020 14:22:29



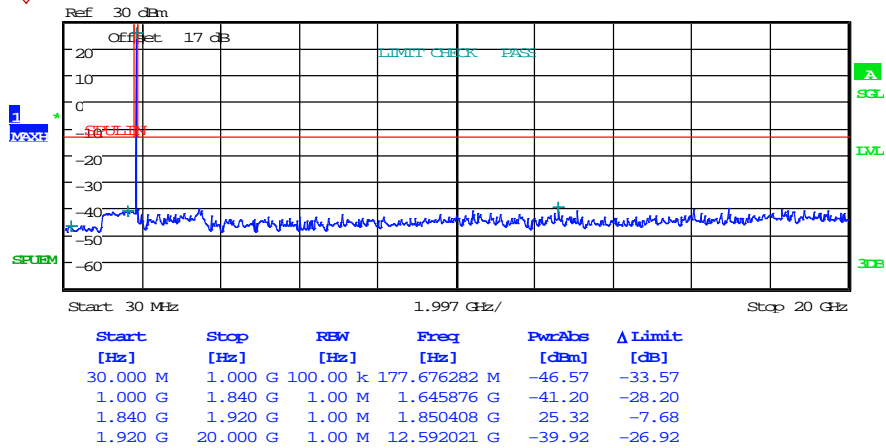
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:23:19

5MHz



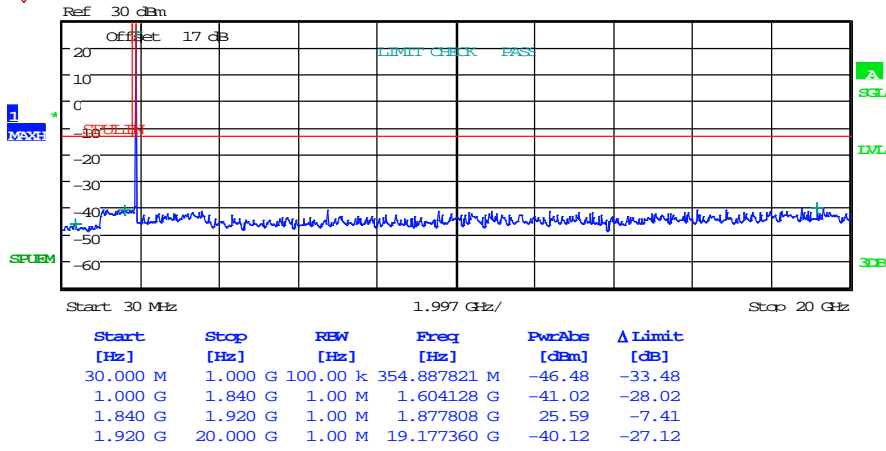
Date: 3.AUG.2020 14:41:34



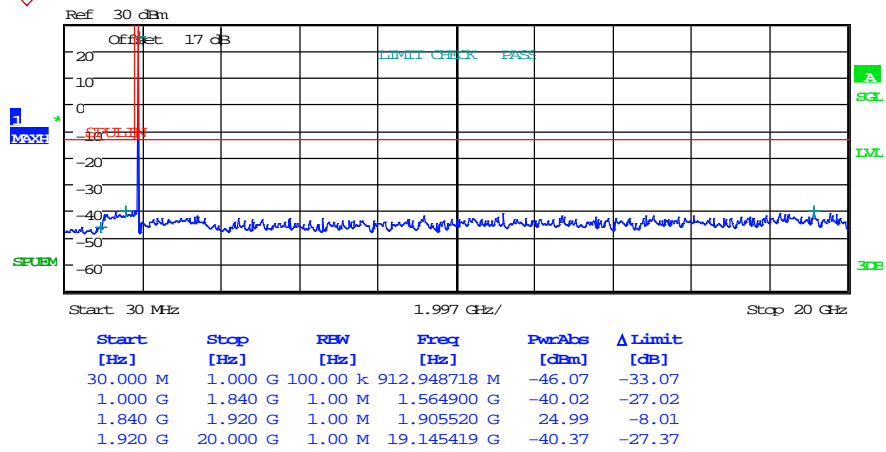
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:41:52



Date: 3.AUG.2020 14:40:47



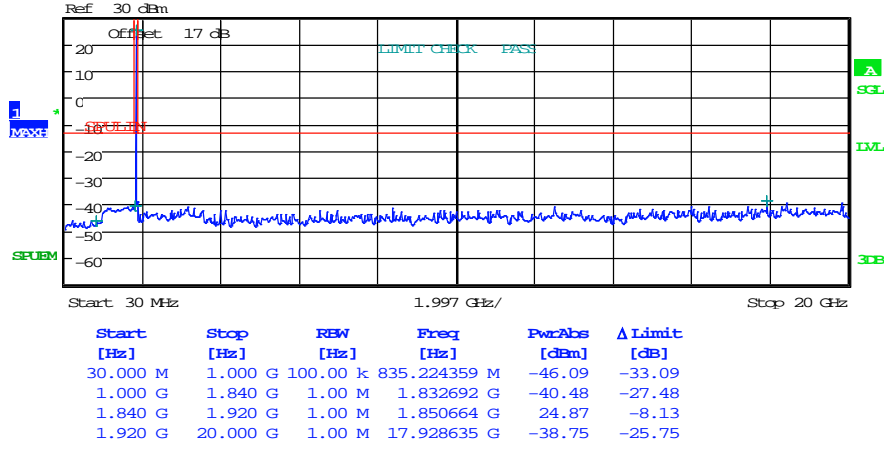


# Worldwide Testing Services(Taiwan) Co., Ltd.

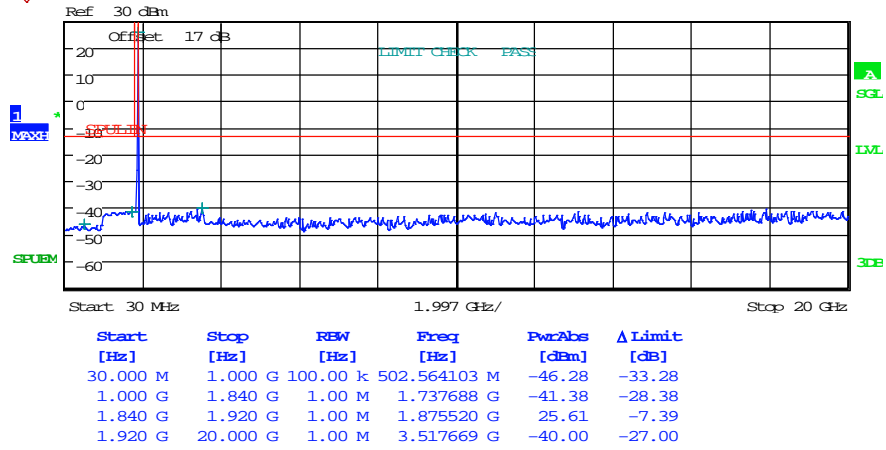
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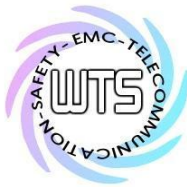
10MHz



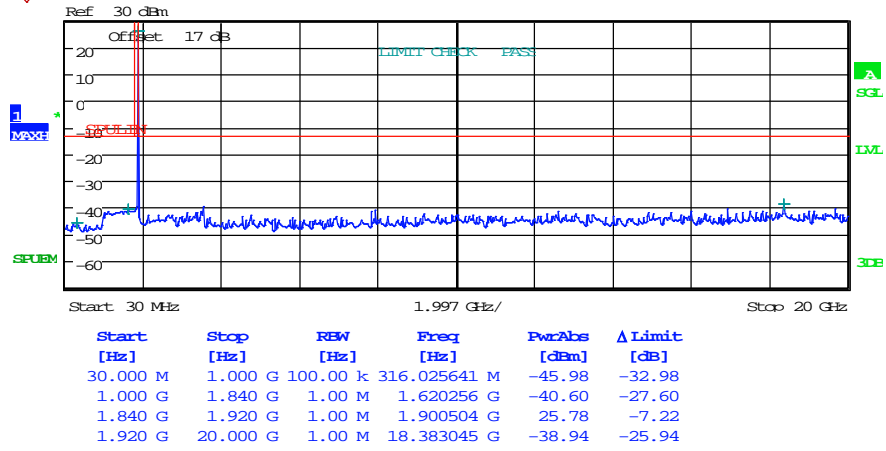
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Date: 3.AUG.2020 14:42:37

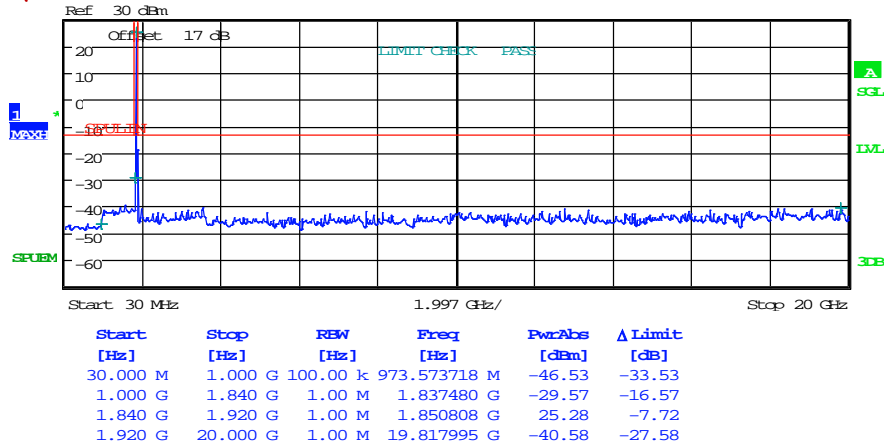


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

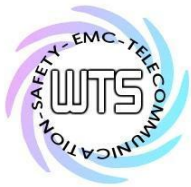


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15MHz



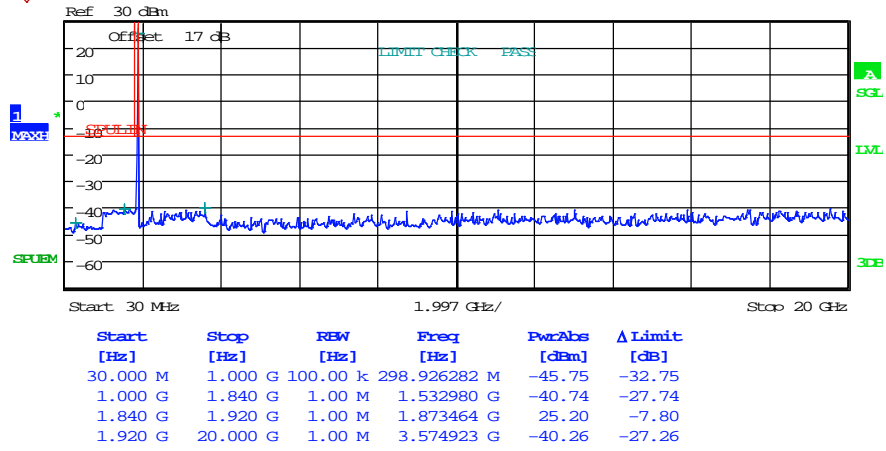
Date: 3.AUG.2020 14:46:53



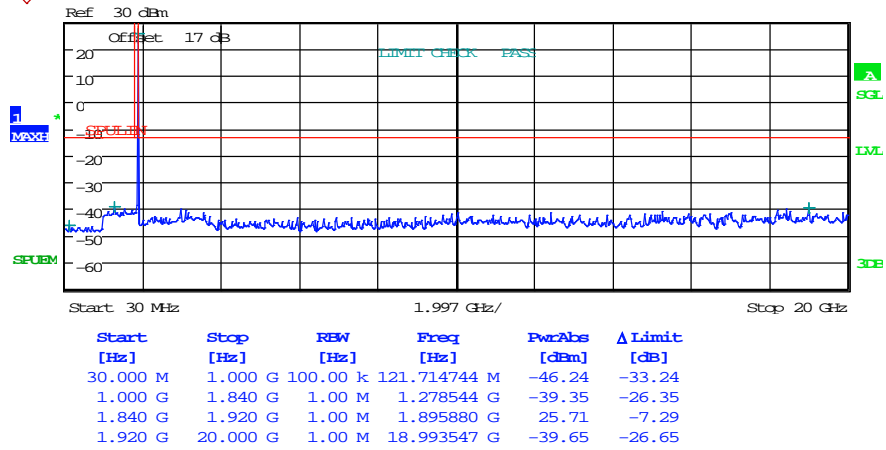
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:47:36



Date: 3.AUG.2020 14:47:18

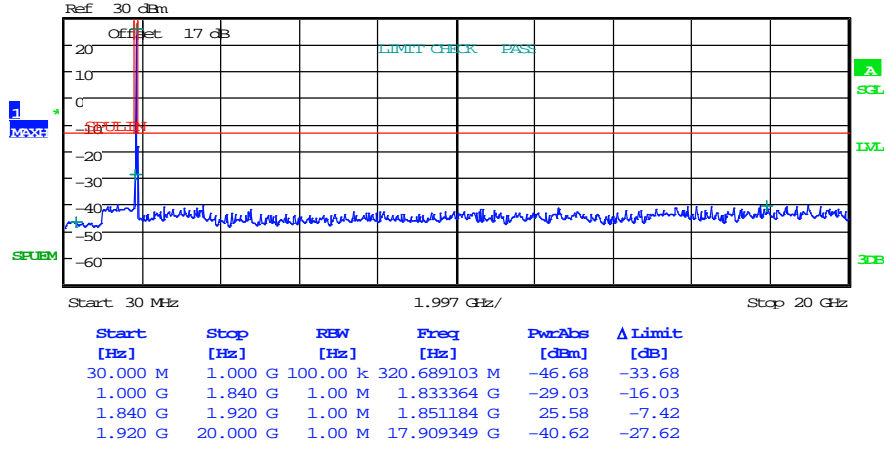


# Worldwide Testing Services(Taiwan) Co., Ltd.

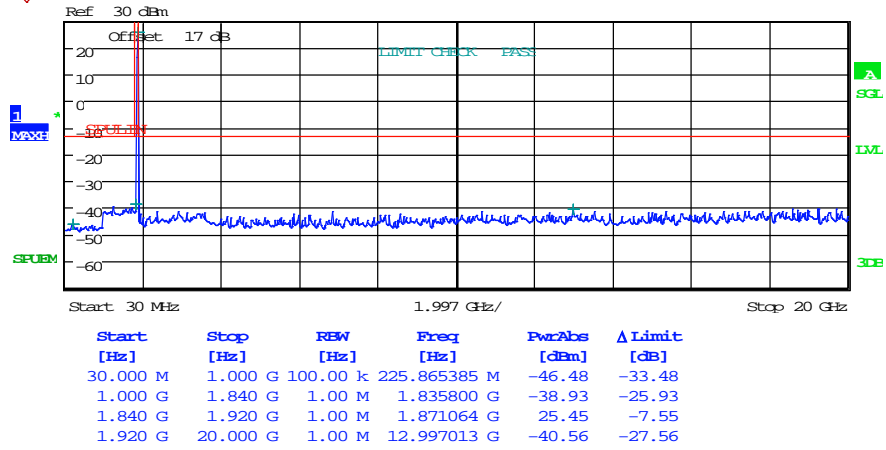
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

20MHz



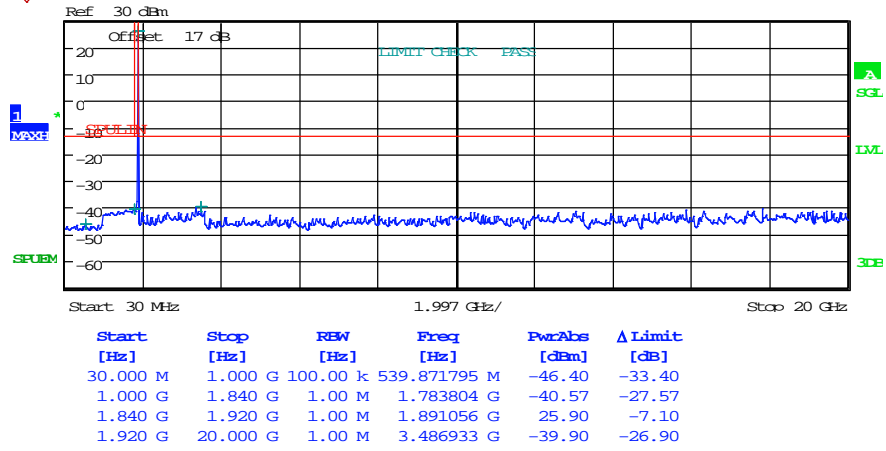
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Date: 3.AUG.2020 15:20:42

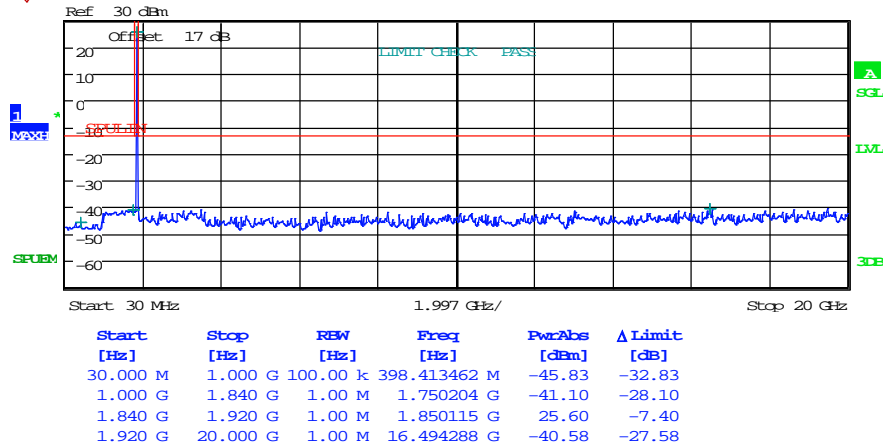


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:20:16

QPSK  
 1.4MHz

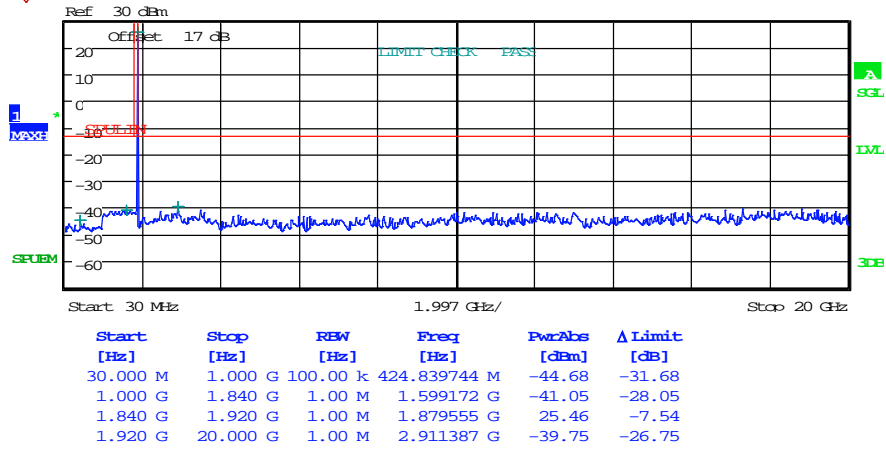


Date: 3.AUG.2020 14:15:56

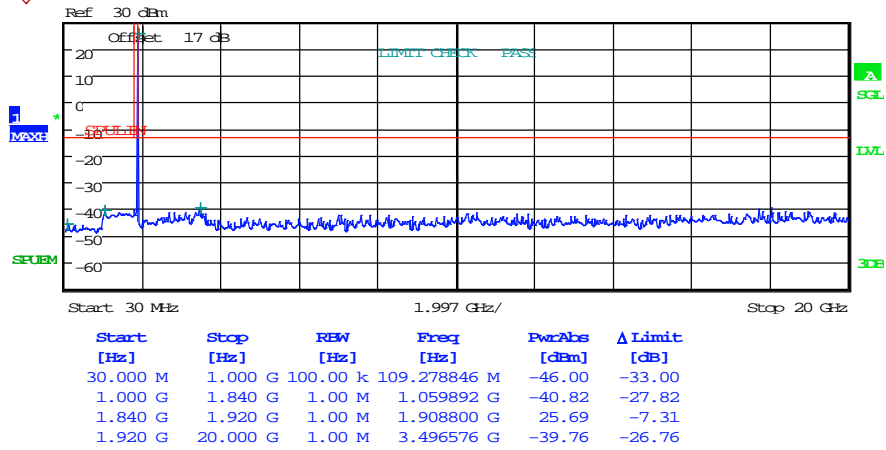


# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:16:19



Date: 3.AUG.2020 14:16:52

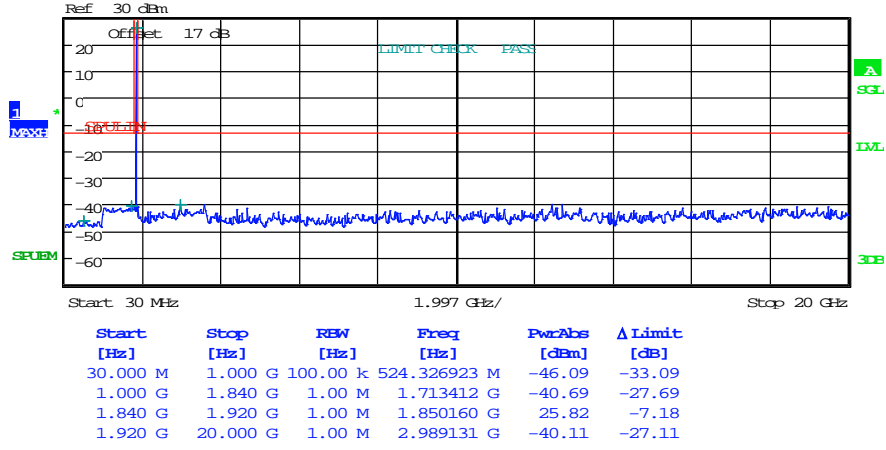


# Worldwide Testing Services(Taiwan) Co., Ltd.

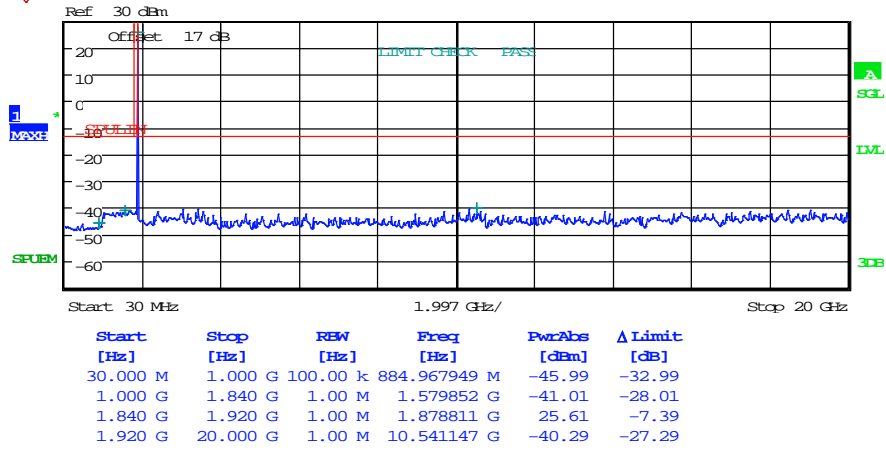
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

3MHz



Date: 3.AUG.2020 14:24:12

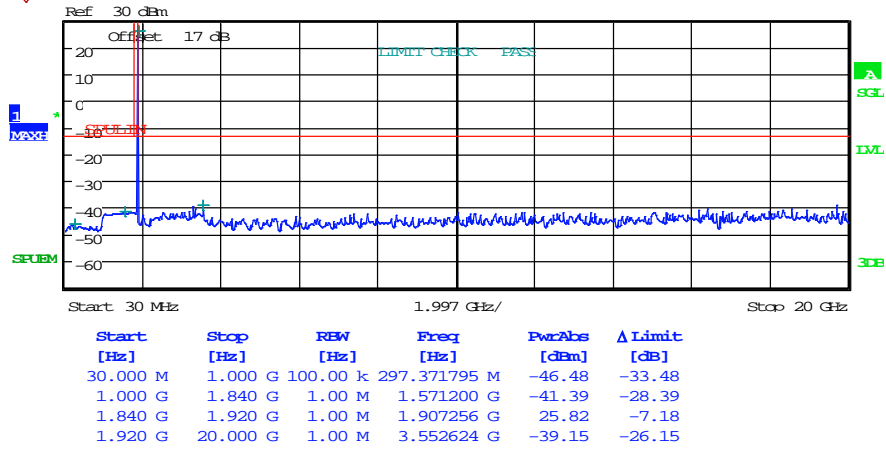


Date: 3.AUG.2020 14:24:40



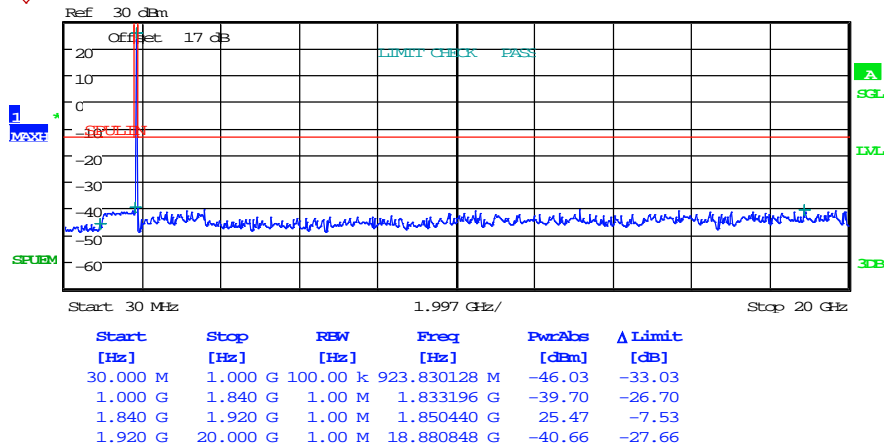
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



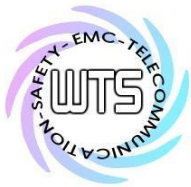
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5MHz



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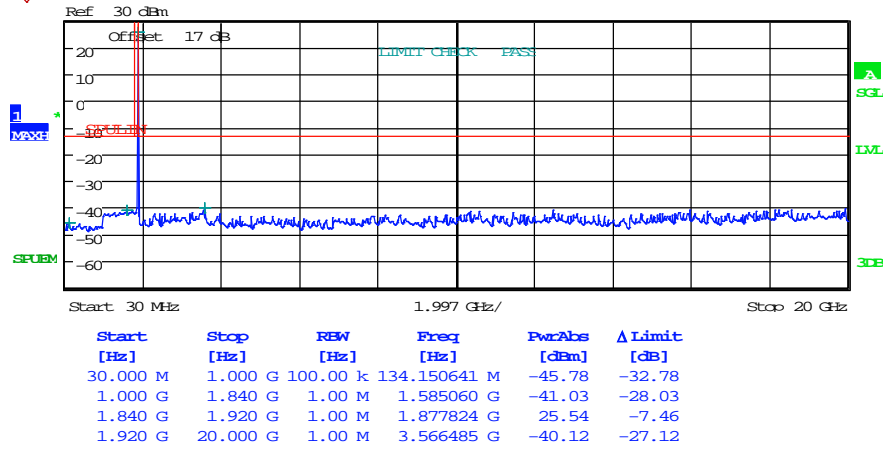




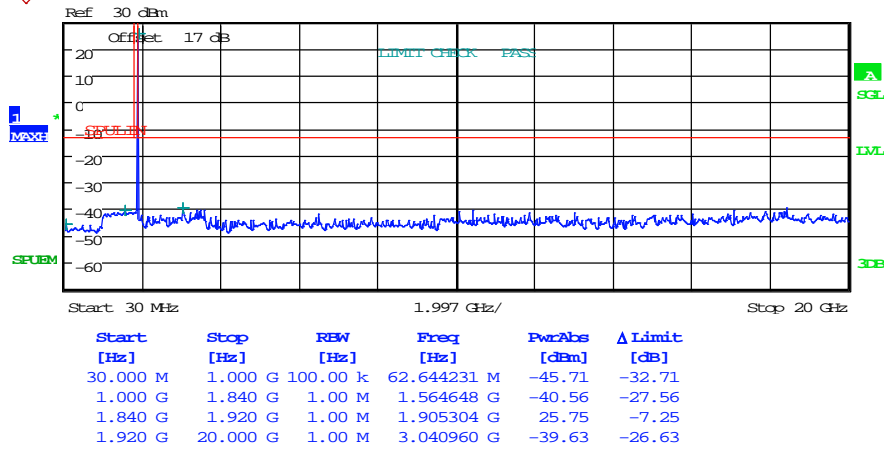
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:26:31



Date: 3.AUG.2020 14:39:58

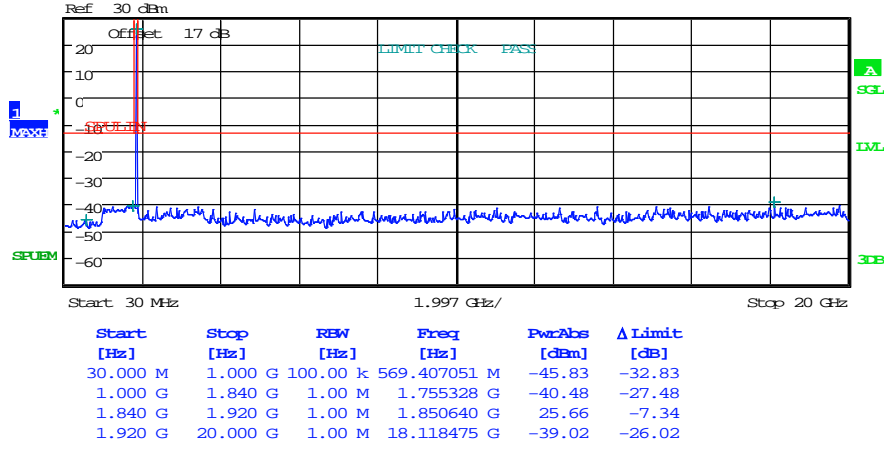


# Worldwide Testing Services(Taiwan) Co., Ltd.

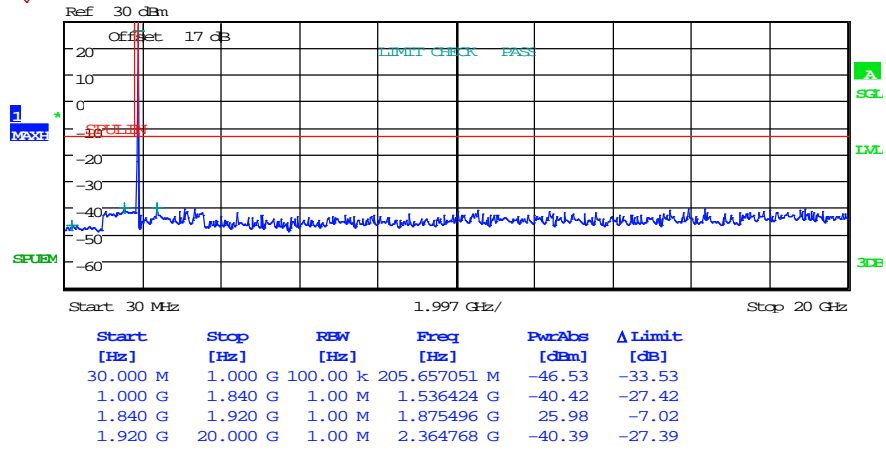
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

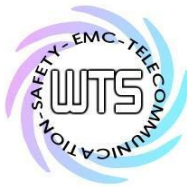
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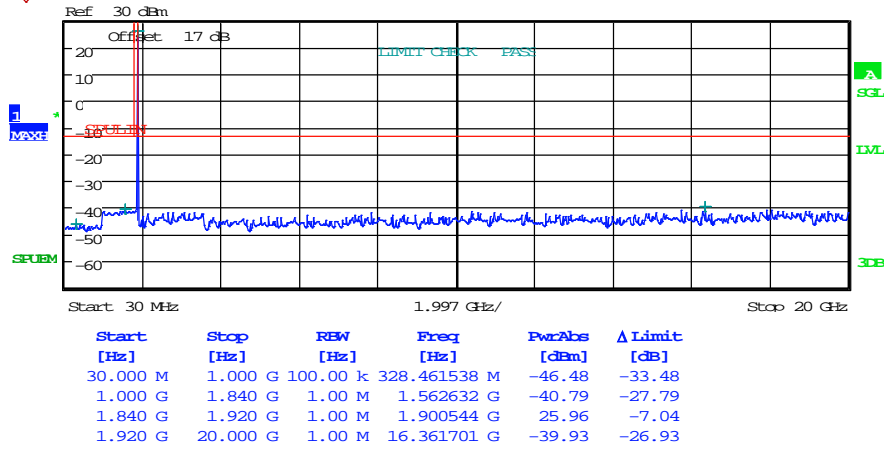
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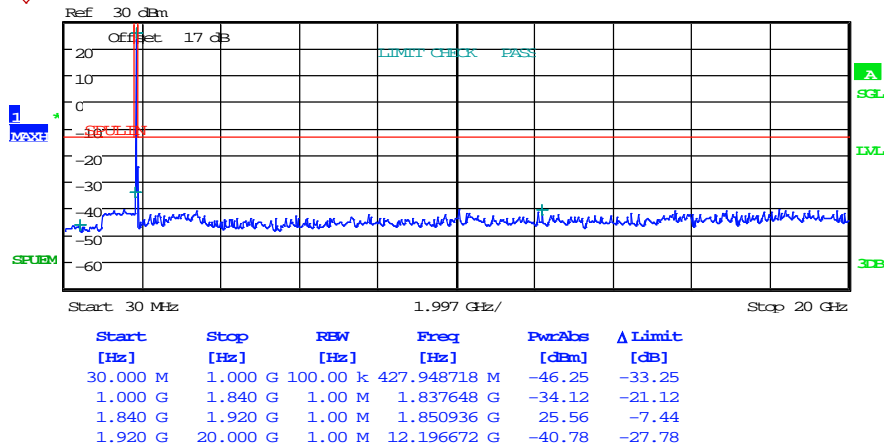


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919

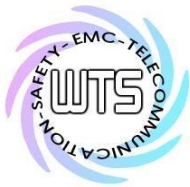


Date: 3.AUG.2020 14:43:57

15MHz



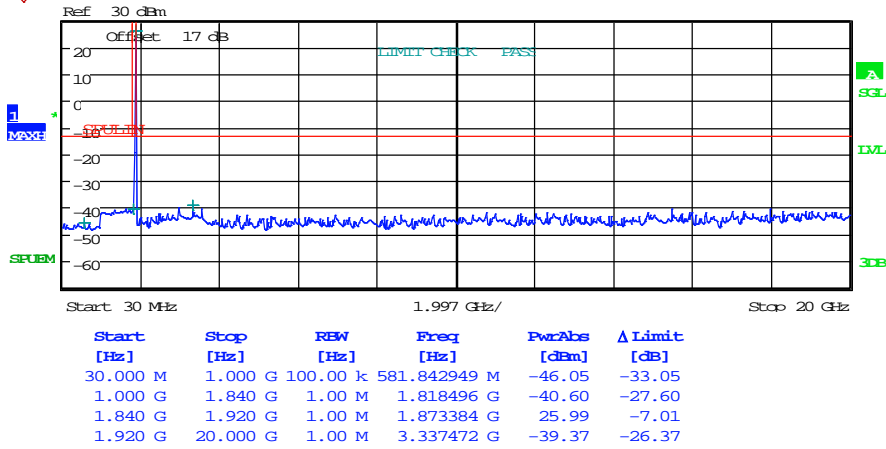
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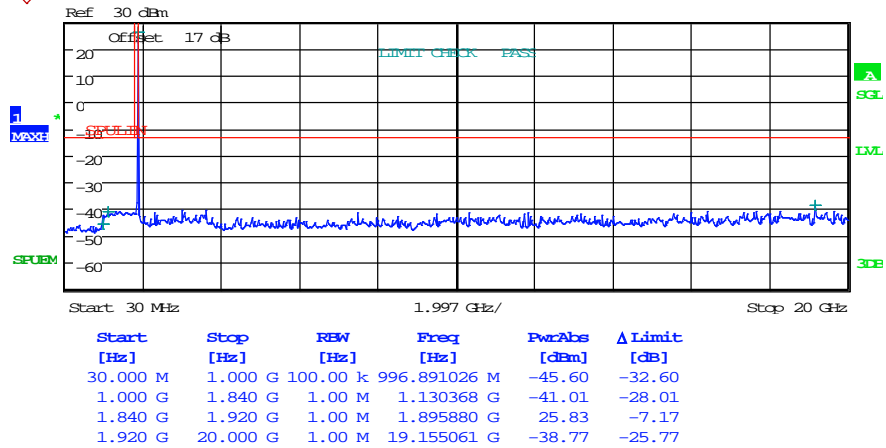
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 14:45:27



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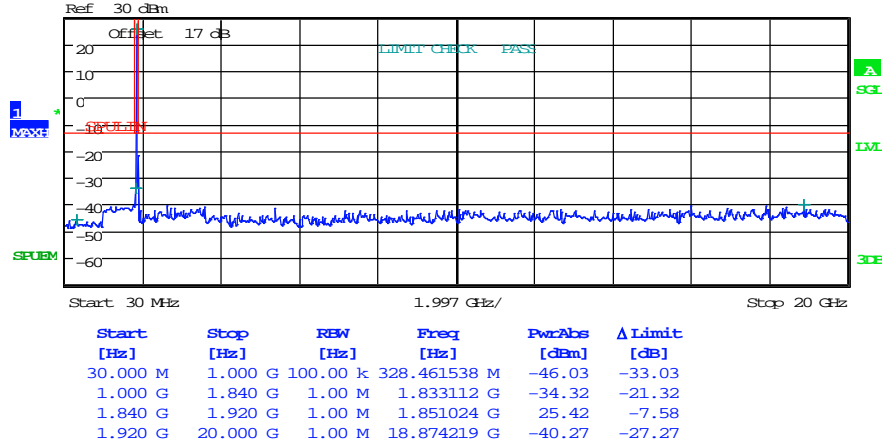


# Worldwide Testing Services(Taiwan) Co., Ltd.

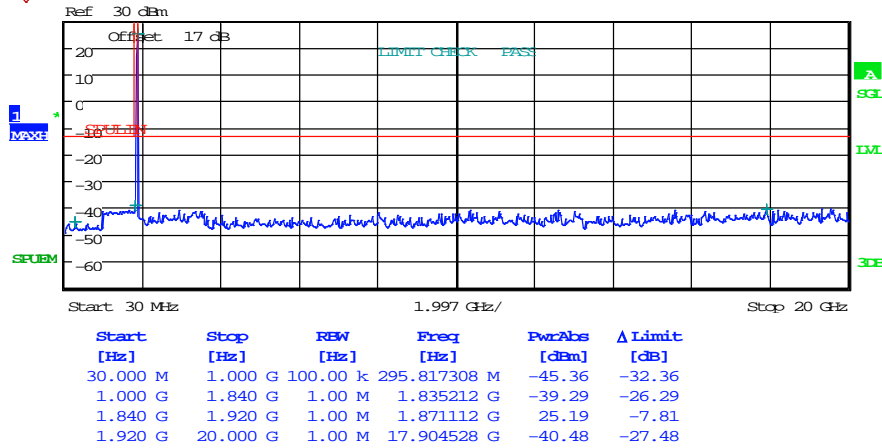
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

20MHz



Date: 3.AUG.2020 15:17:25

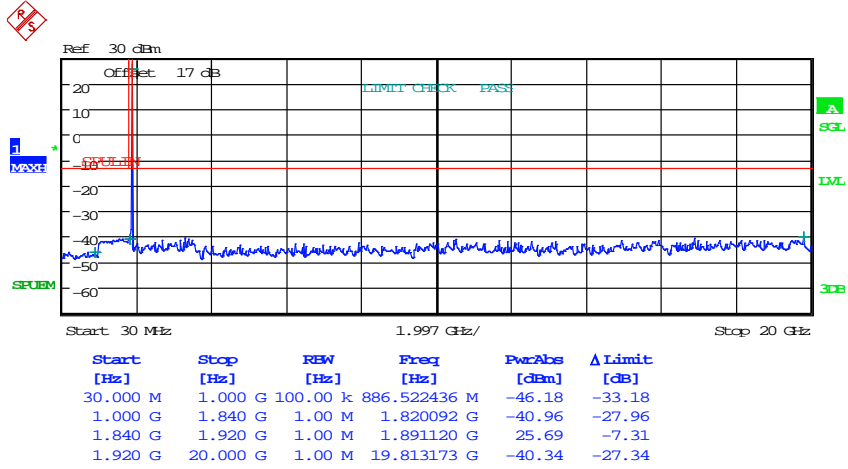


Date: 3.AUG.2020 15:16:39



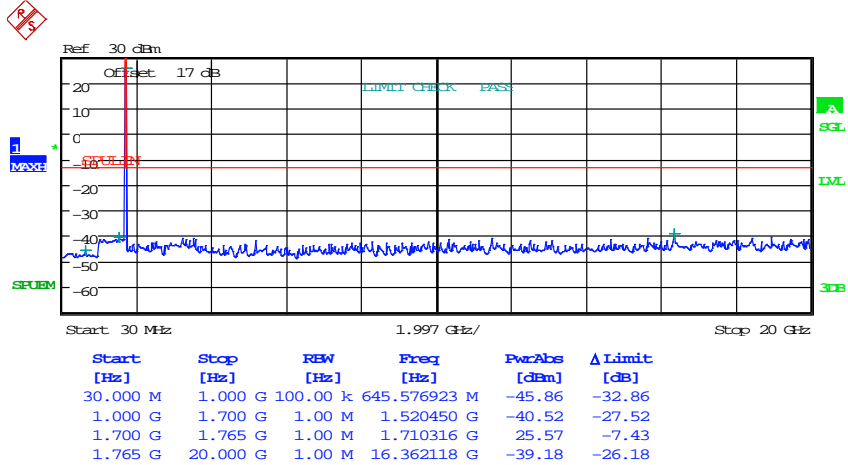
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:16:59

Band IV  
16QAM  
1.4MHz



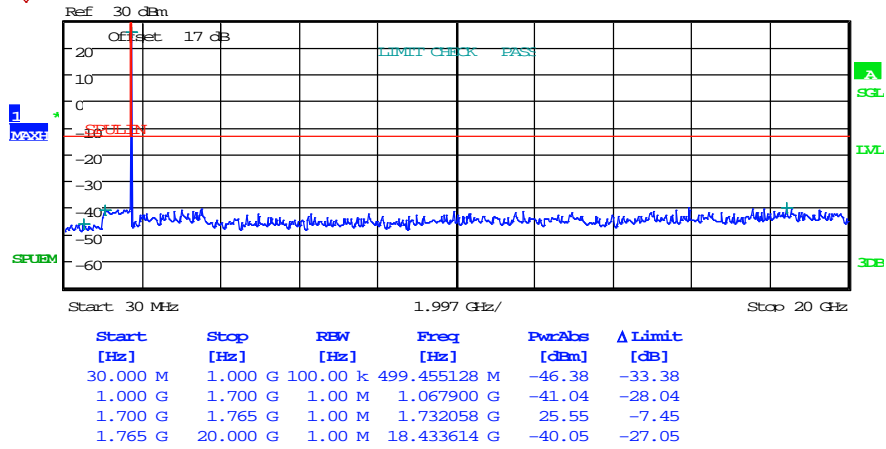
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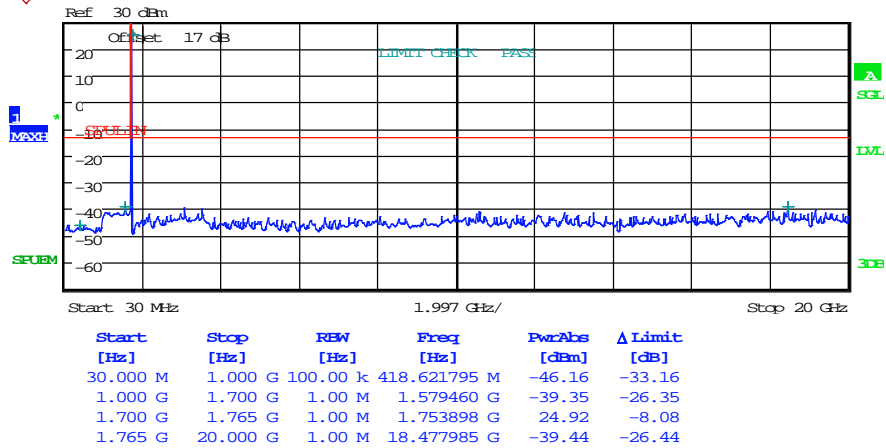
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:48:30



Date: 3.AUG.2020 15:48:11

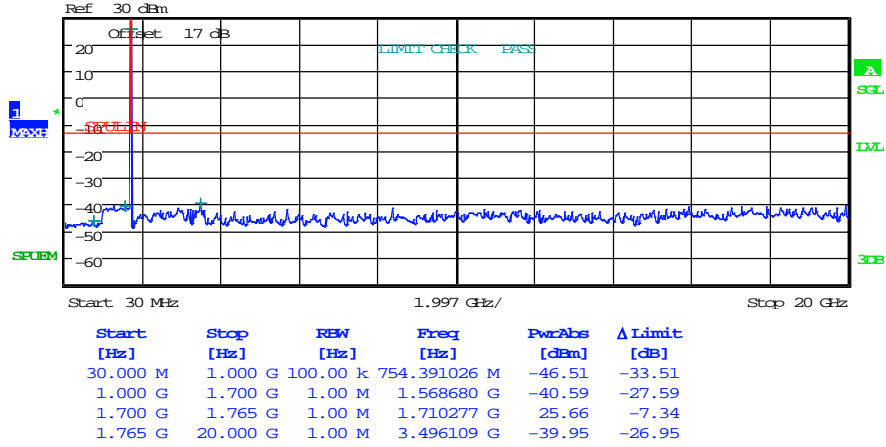


# Worldwide Testing Services(Taiwan) Co., Ltd.

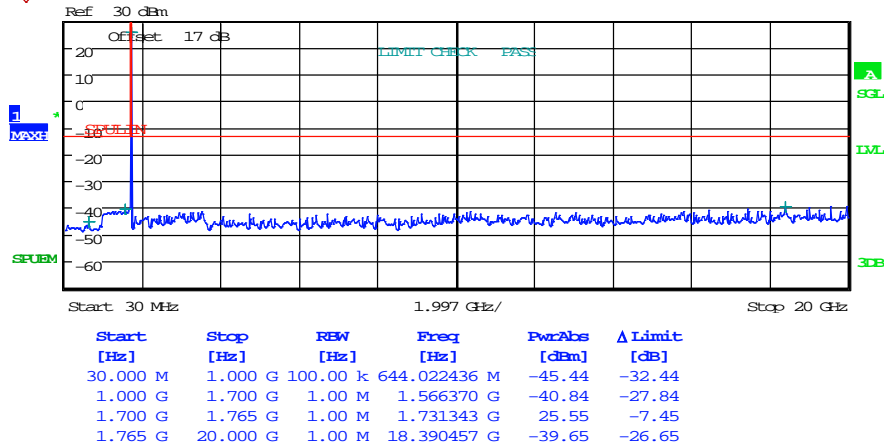
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

3MHz



Date: 3.AUG.2020 15:44:44

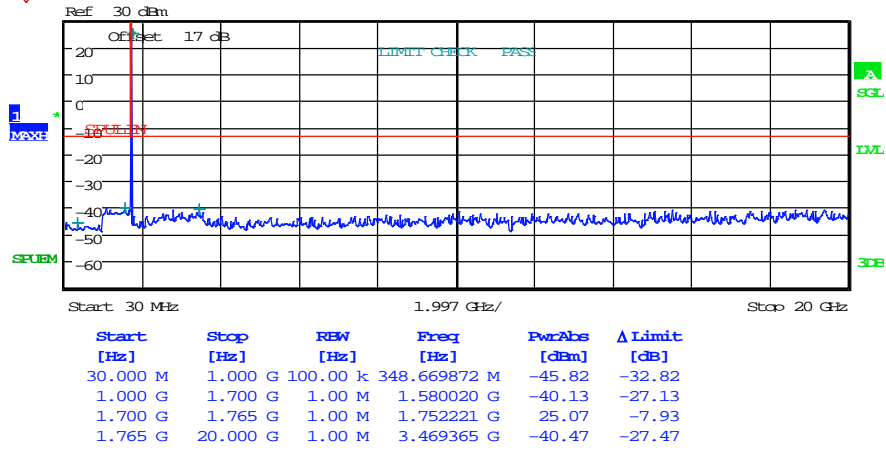


Date: 3.AUG.2020 15:43:56



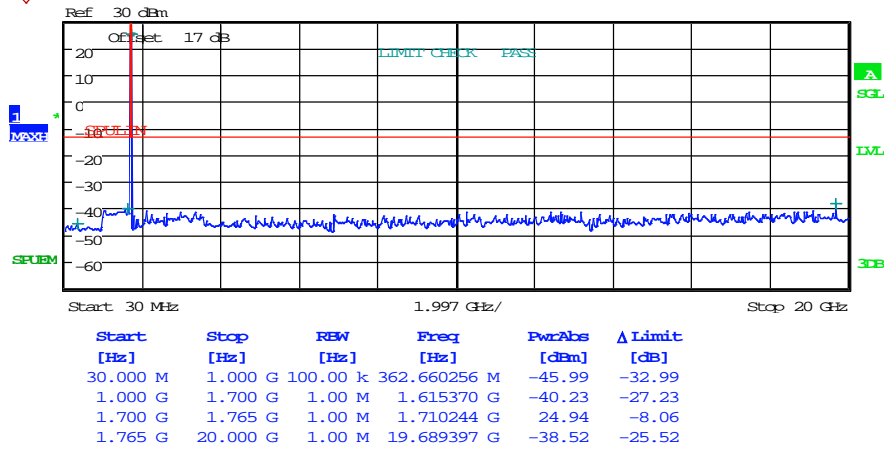


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:44:22

5MHz

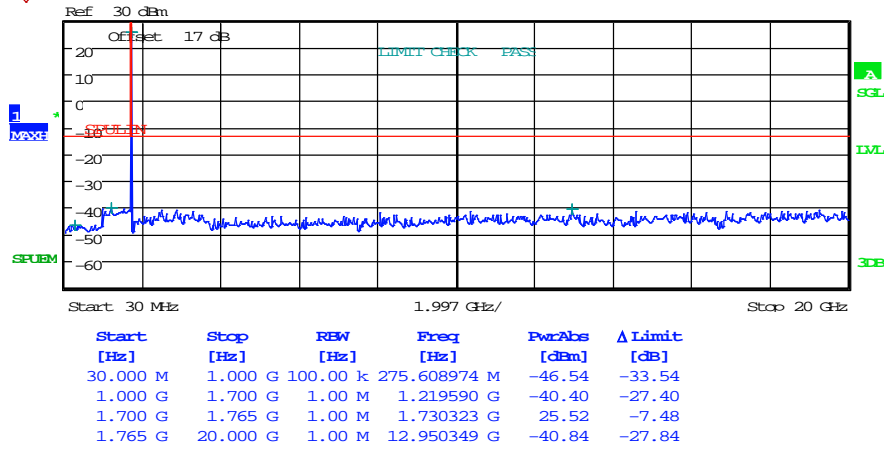


Date: 3.AUG.2020 15:42:27

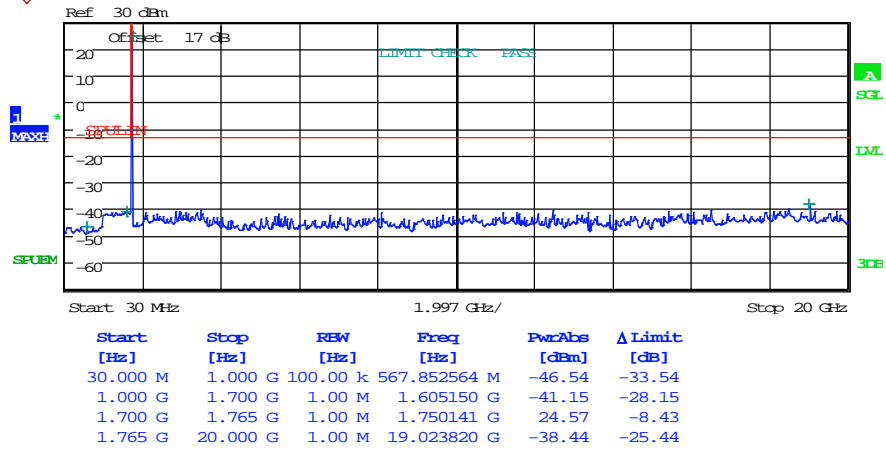


# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:43:13



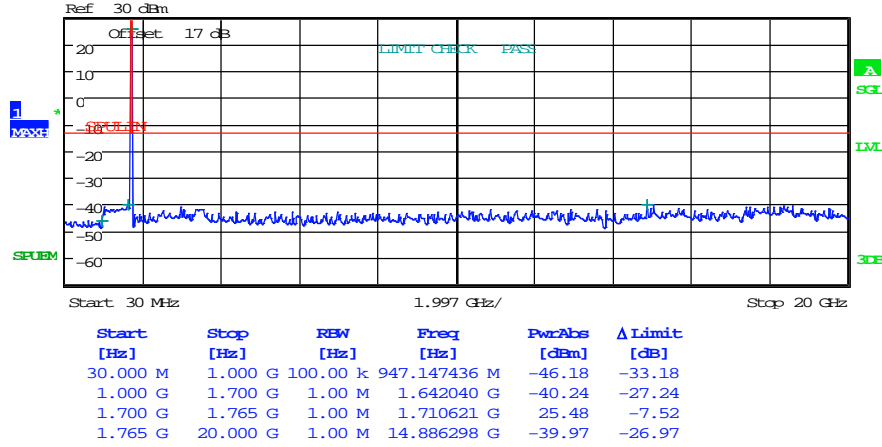
Date: 3.AUG.2020 15:42:52



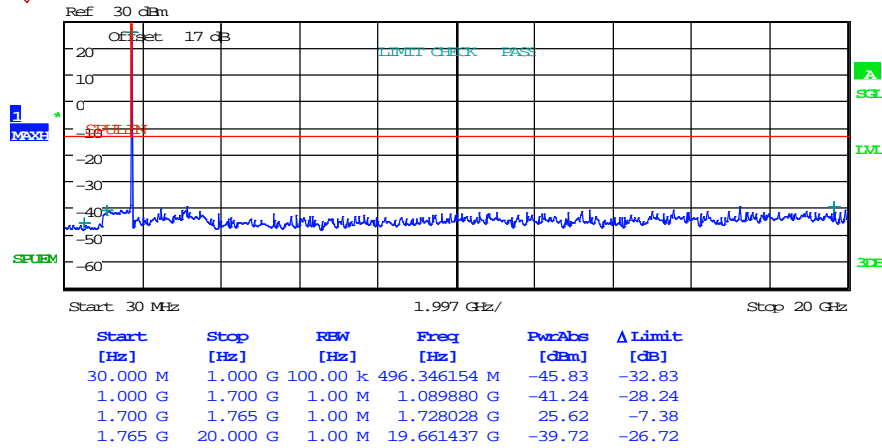
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

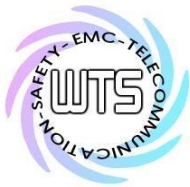
10MHz



Date: 3.AUG.2020 15:38:17

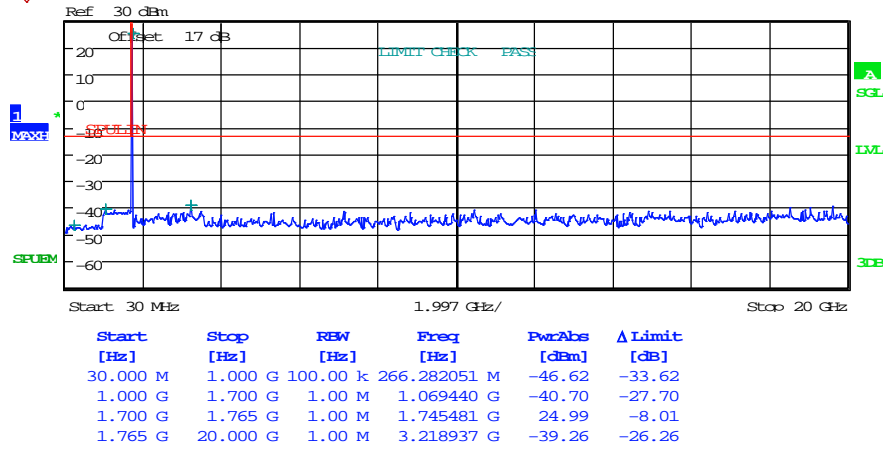


Date: 3.AUG.2020 15:38:34



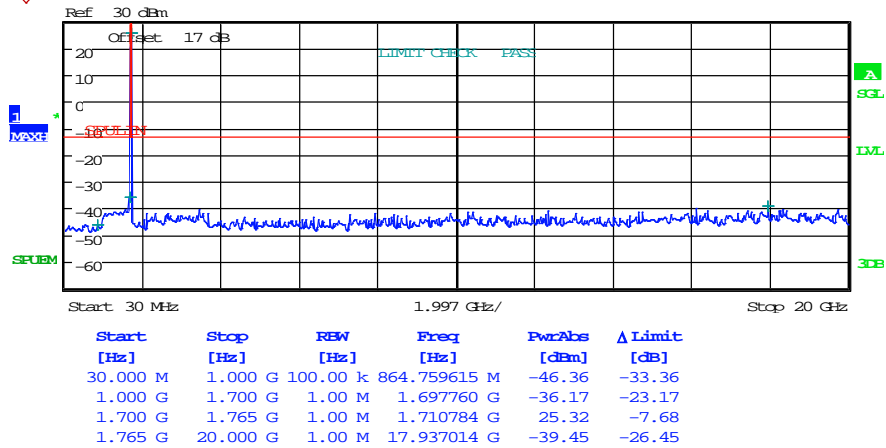
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

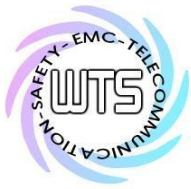


Date: 3.AUG.2020 15:37:57

15MHz

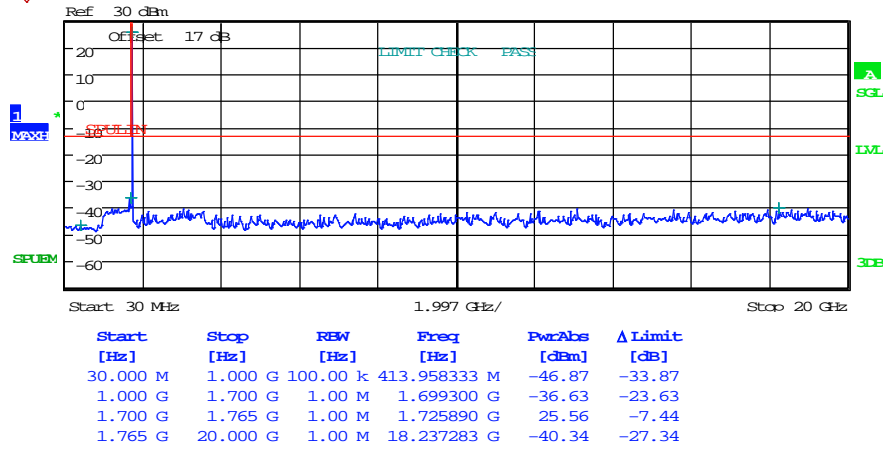


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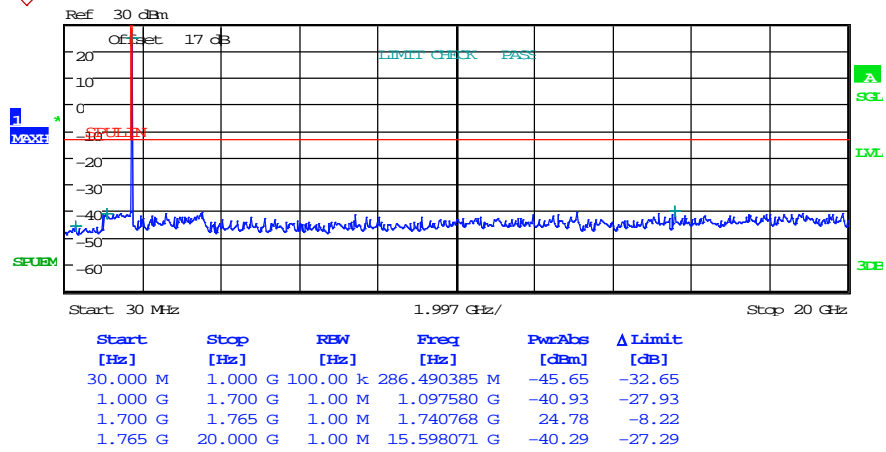


# Worldwide Testing Services(Taiwan) Co., Ltd.

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Date: 3.AUG.2020 15:33:26

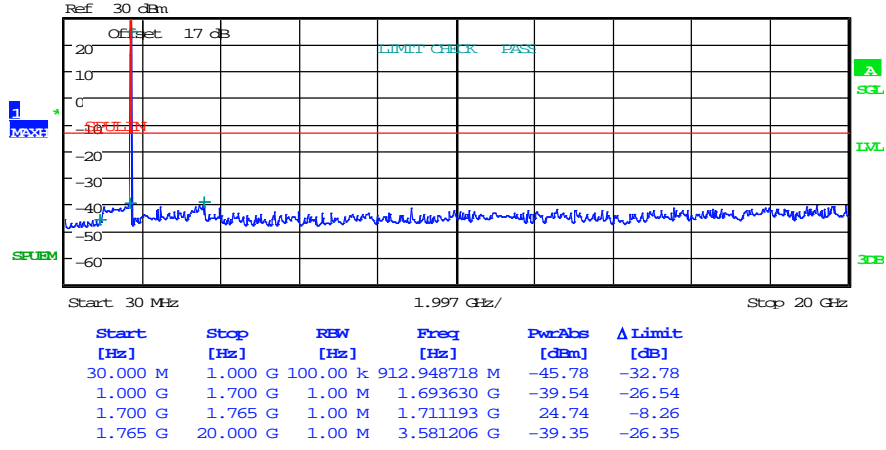


Date: 3.AUG.2020 15:33:47

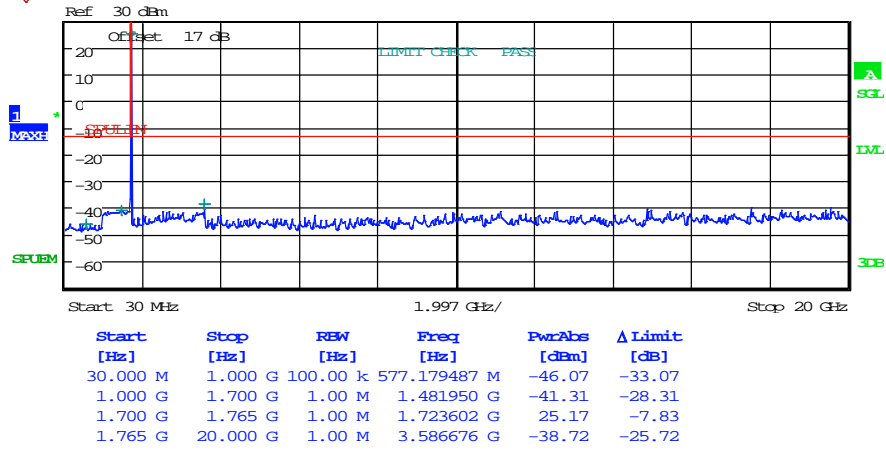


# Worldwide Testing Services(Taiwan) Co., Ltd.

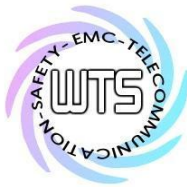
Report Number: W6M22007-20039-P-247  
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 20MHz



Date: 3.AUG.2020 15:30:14

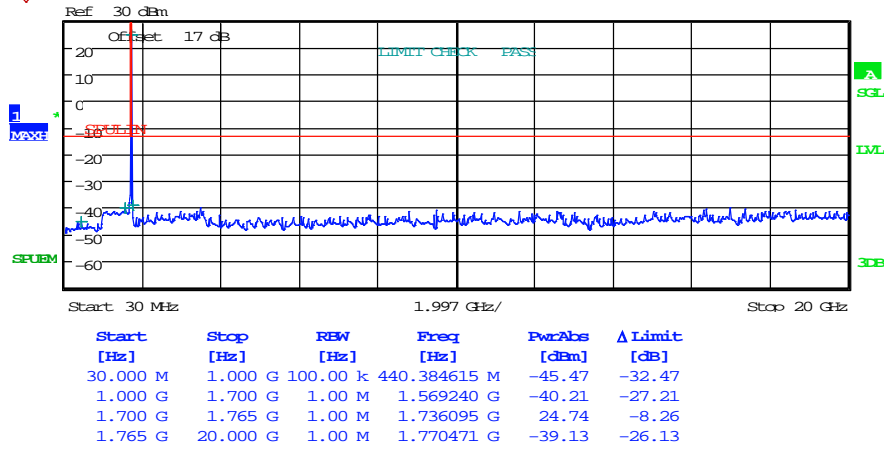


Date: 3.AUG.2020 15:30:36



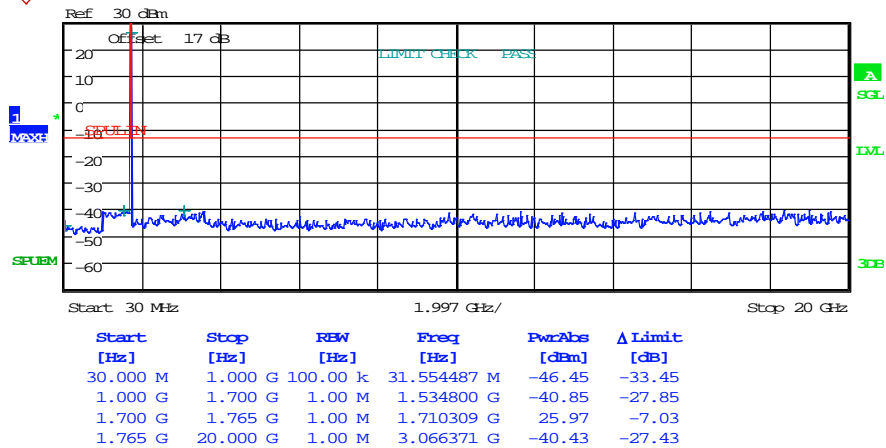
Report Number: W6M22007-20039-P-247

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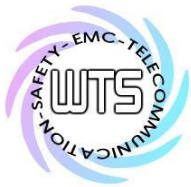


Date: 3.AUG.2020 15:29:53

QPSK  
1.4MHz

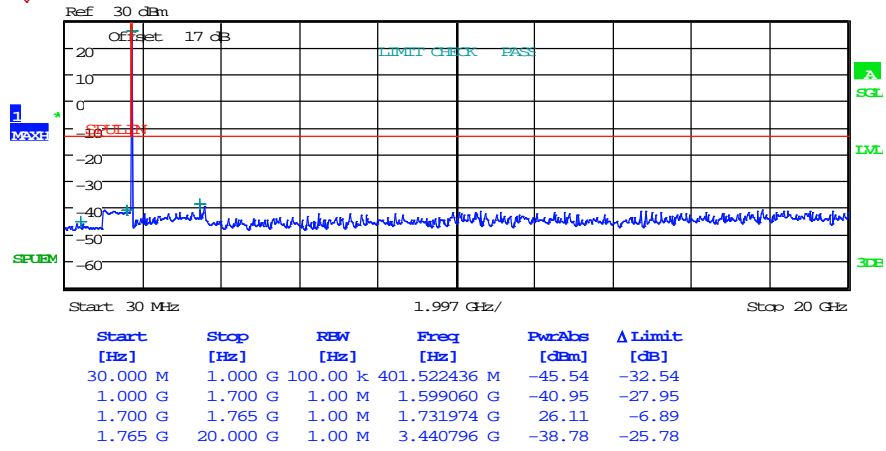


Date: 3.AUG.2020 15:47:23

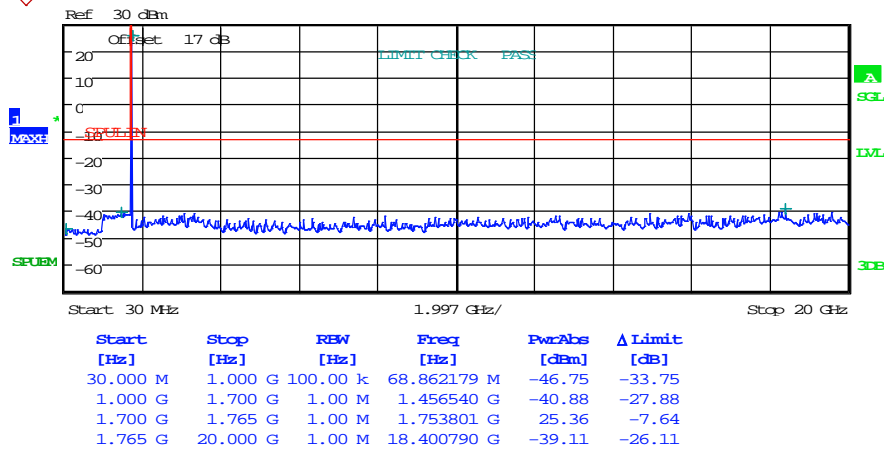


# Worldwide Testing Services(Taiwan) Co., Ltd.

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Date: 3.AUG.2020 15:46:39



Date: 3.AUG.2020 15:47:02



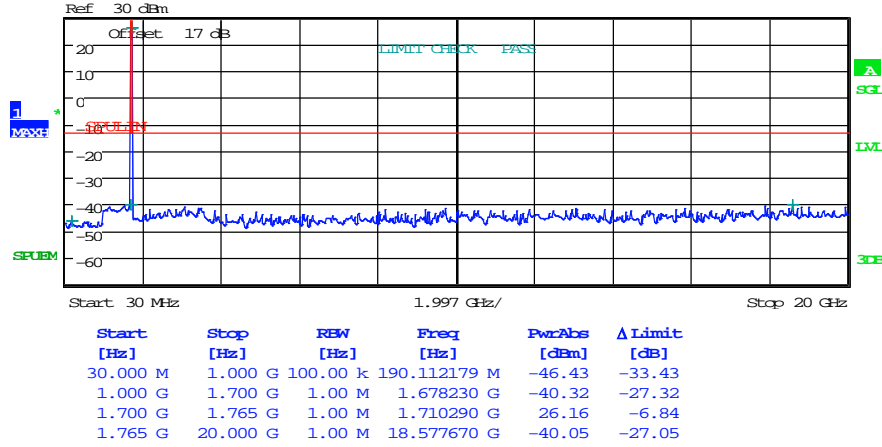


# Worldwide Testing Services(Taiwan) Co., Ltd.

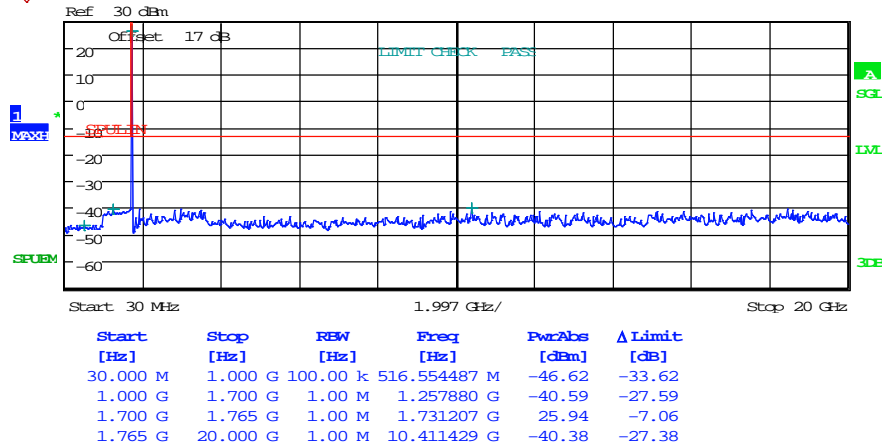
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

3MHz



Date: 3.AUG.2020 15:45:14

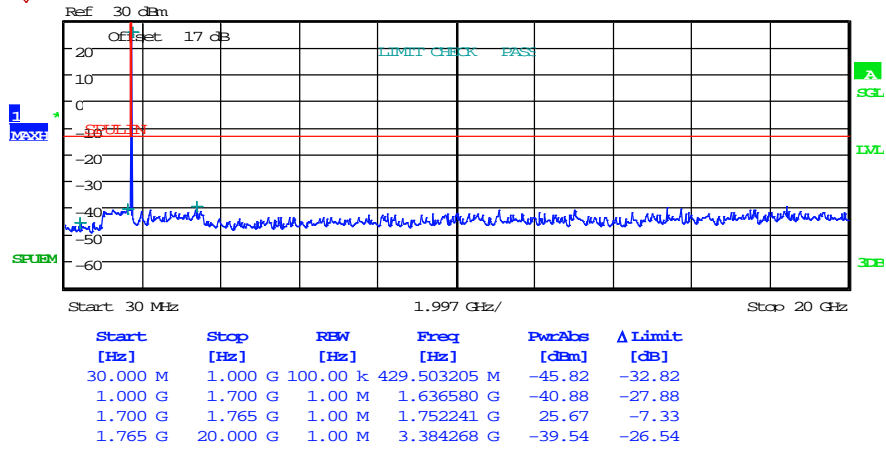


Date: 3.AUG.2020 15:45:49



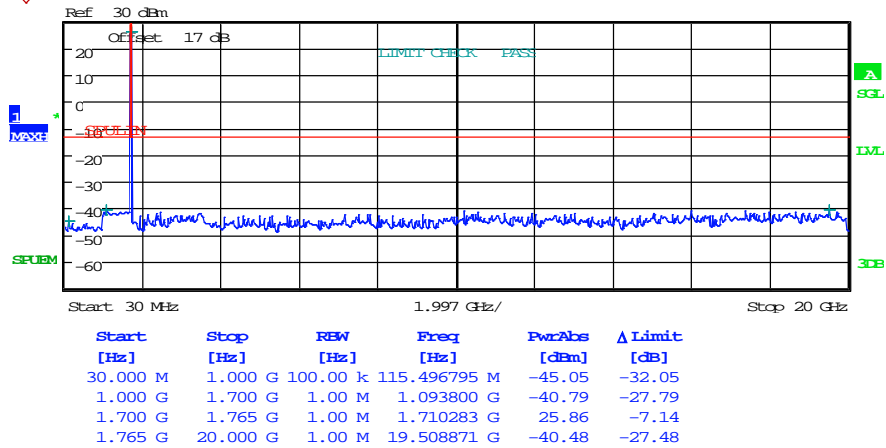
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:45:33

5MHz

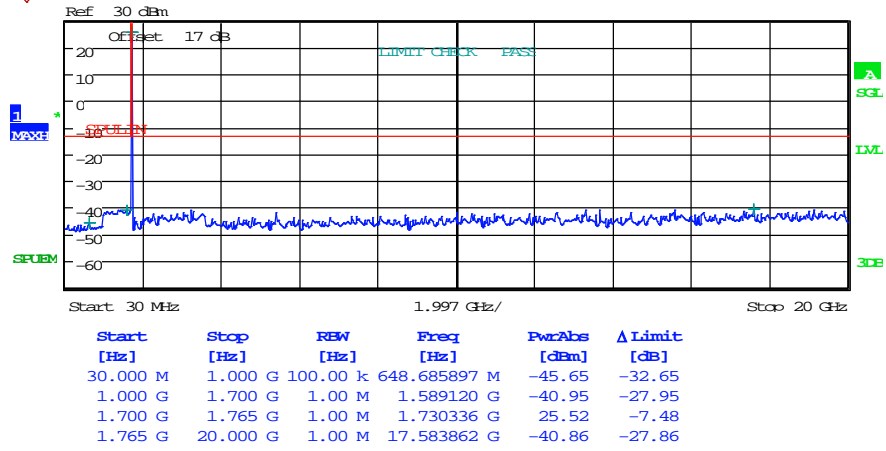


Date: 3.AUG.2020 15:41:52

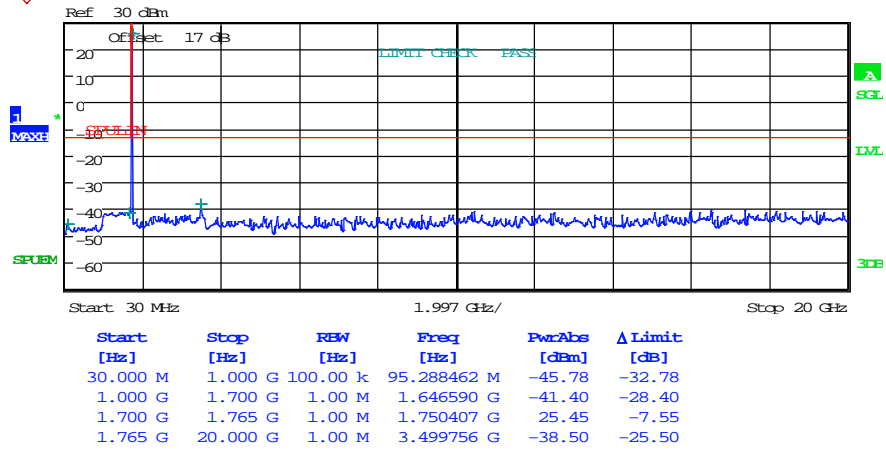


# Worldwide Testing Services(Taiwan) Co., Ltd.

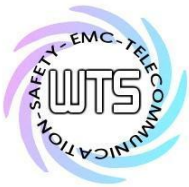
Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:41:15



Date: 3.AUG.2020 15:41:33

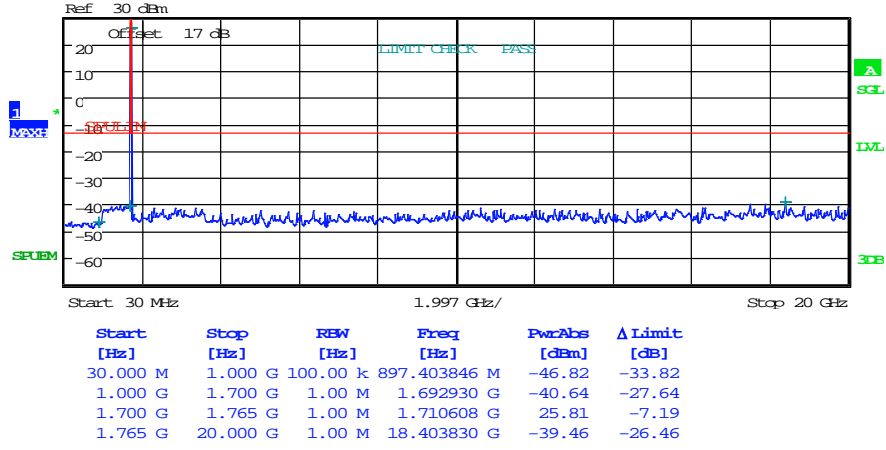


# Worldwide Testing Services(Taiwan) Co., Ltd.

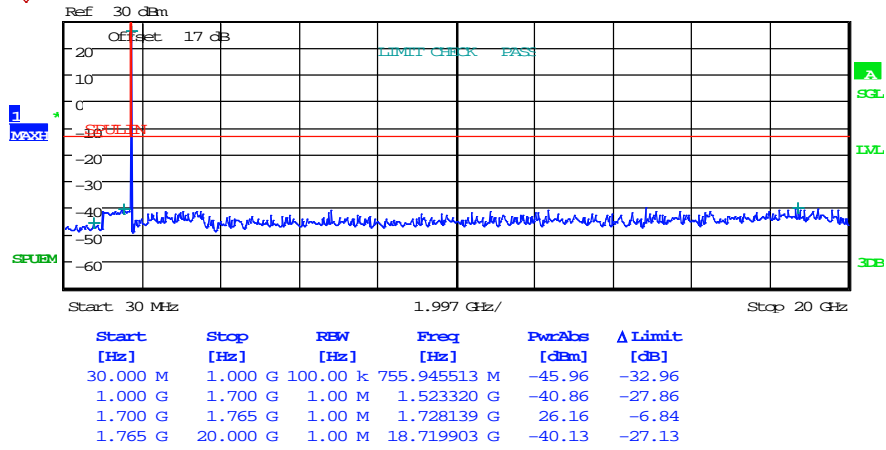
Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

10MHz



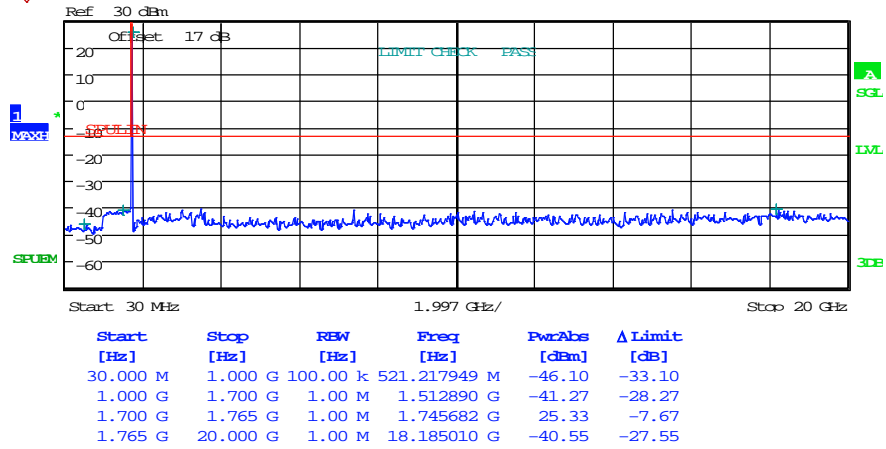
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Date: 3.AUG.2020 15:39:01

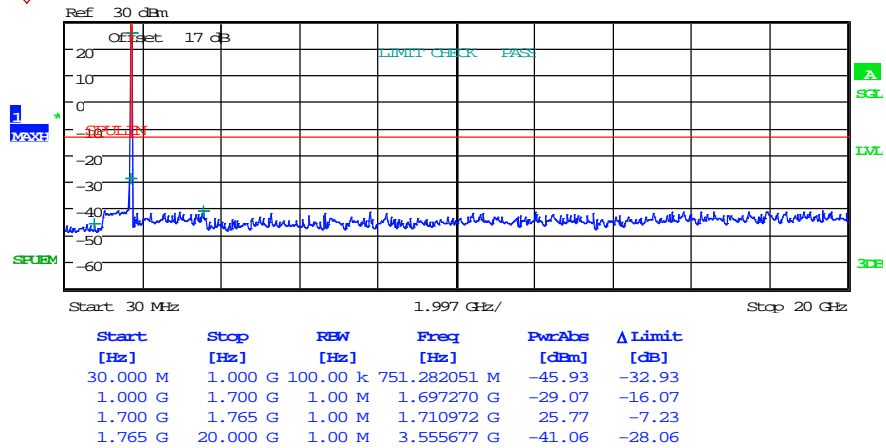


Report Number: W6M22007-20039-P-247  
 FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:39:41

15MHz



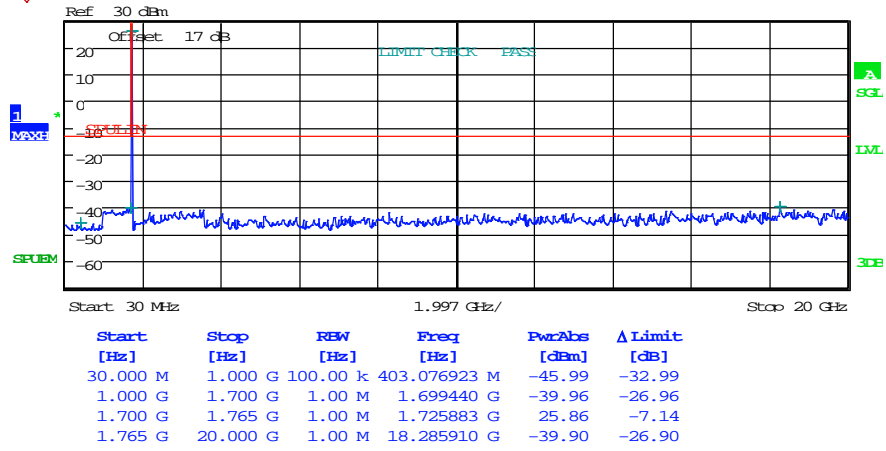
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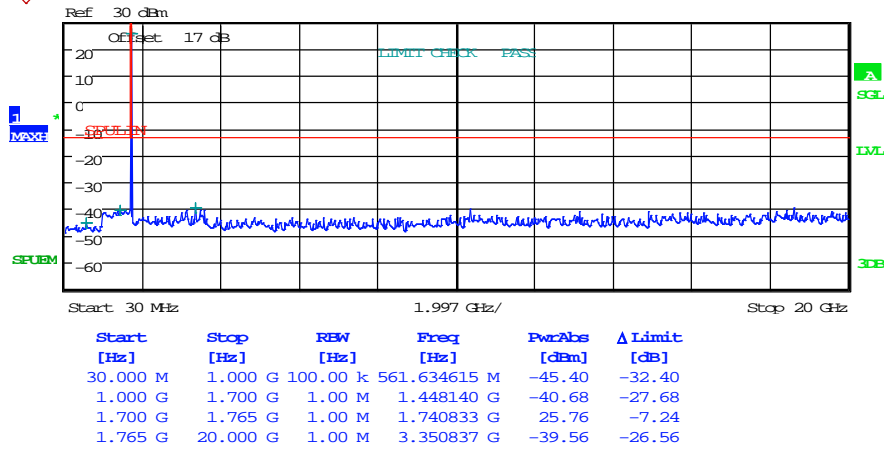
# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919



Date: 3.AUG.2020 15:35:19



Date: 3.AUG.2020 15:35:02