

FCC Radio Test Report

FCC ID: 2AQ68DG501

Report No. : BTL-FCCP-2-2511E011
Equipment : 5G Redcap Dongle
Model Name : DG501VZ
Brand Name : General Mobile
Applicant : HON LIN Technology Co., Ltd.
Address : 11F, No.32, Jihu Rd., Neihu Dist., Taipei City 114699, Taiwan
Manufacturer : HON LIN Technology Co., Ltd.
Address : 11F, No.32, Jihu Rd., Neihu Dist., Taipei City 114699, Taiwan
Factory : FUYU PRECISION COMPONENT CO., LTD
Address : Lot M1, Lot F and Lot T1, Quang Chau Industrial Zone, Nenh Ward, Bac Ninh Province, Vietnam

Radio Function : LTE Band 2 & 5G NR n2

FCC Rule Part(s) : FCC CFR Title 47, Part 24, Subpart E

Date of Receipt : 2025/12/9

Date of Test : 2026/1/5 ~ 2026/1/27

Issued Date : 2026/1/29

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the Customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-2-2511E011	R00	Original Report.	2026/1/29	Valid

1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

Standard(s) Section	Description	Test Result	Judgement	Remark
2.1046 24.232(c)	Conducted Output Power Effective Isotropic Radiated Power	APPENDIX A	Pass	-----
2.1049	Occupied Bandwidth	APPENDIX B	Pass	-----
2.1051 24.238(a)	Conducted Spurious Emissions	APPENDIX C	Pass	-----
2.1053 24.238(a)	Radiated Spurious Emissions	APPENDIX D	Pass	-----
24.238(a)	Band Edge Measurements	APPENDIX E	Pass	-----
24.232(d)	Peak To Average Ratio	APPENDIX F	Pass	-----
2.1055 24.235	Frequency Stability	APPENDIX G	Pass	-----

Statement of Conformity

The statement of conformity is based on the binary decision rule according to IEC Guide 115 and ILAC G8 "simple acceptance" principle. Without considering measurement uncertainty, its specific risk is less than 50% PFA. (PFA: Probability of False Accept)

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report.
- (2) The report format version is TP.1.1.1.

1.1 REFERENCE TEST GUIDANCE

ANSI C63.26-2015

ANSI/TIA-603-E-2016

FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

1.2 TEST FACILITY

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan
(FCC DN: TW0659)

☐ C05 ☐ CB08 ☐ CB11 ☒ SR10 ☐ SR11

No. 72, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan
(FCC DN: TW0659)

☐ C06 ☒ CB21 ☐ CB22

1.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k = 2$, providing a level of confidence of approximately **95 %**.

A. Effective Isotropic Radiated Power and Radiated emissions test :

Test Site	Measurement Frequency Range	U,(dB)
CB21	0.03 GHz ~ 0.2 GHz	4.17
	0.2 GHz ~ 1 GHz	4.72
	1 GHz ~ 6 GHz	5.21
	6 GHz ~ 18 GHz	5.51
	18 GHz ~ 26 GHz	3.69
	26 GHz ~ 40 GHz	4.23

NOTE:

Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.4 TEST ENVIRONMENT CONDITIONS

Test Item	Environment Condition	Test Voltage	Tested by
Conducted Output Power	23 °C, 45 %	DC 5V	Cai Hu
Effective Isotropic Radiated Power	23 °C, 45 %	DC 5V	Cai Hu
Occupied Bandwidth	23 °C, 45 %	DC 5V	Cai Hu
Conducted Spurious Emissions	23 °C, 45 %	DC 5V	Cai Hu
Radiated Spurious Emissions	Refer to data	DC 5V	Mark Wang
Band Edge	23 °C, 45 %	DC 5V	Cai Hu
Peak to Average Ratio	23 °C, 45 %	DC 5V	Cai Hu
Frequency Stability	Normal and Extreme		Cai Hu

2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

Equipment	5G Redcap Dongle				
Model Name	DG501VZ				
Brand Name	General Mobile				
Model Difference	N/A				
Power Source	Supplied from Type-C port.				
Power Rating	5V  2.5W				
IMEI No.	358267601500170				
Operation Frequency	Band	UL Frequency (MHz)		DL Frequency (MHz)	
	LTE 2	1850 ~ 1910		1930 ~ 1990	
	5G NR n2	1850 ~ 1915		1930 ~ 1995	
Maximum EIRP	Band	BW (MHz)	Mode		Power (W)
	LTE 2	1.4	QPSK		0.288
			16QAM		0.236
			64QAM		0.186
			256QAM		0.096
		3	QPSK		0.291
			16QAM		0.236
			64QAM		0.189
			256QAM		0.097
		5	QPSK		0.294
			16QAM		0.239
			64QAM		0.192
			256QAM		0.097
		10	QPSK		0.298
			16QAM		0.242
			64QAM		0.195
			256QAM		0.099
		15	QPSK		0.301
			16QAM		0.244
			64QAM		0.197
			256QAM		0.100
		20	QPSK		0.305
			16QAM		0.247
			64QAM		0.200
			256QAM		0.101

Maximum ERP	5G NR n2	5	DFT-s-OFDM QPSK	0.358
		10	DFT-s-OFDM QPSK	0.358
		15	DFT-s-OFDM QPSK	0.343
		20	DFT-s-OFDM PI/2 BPSK	0.356
			DFT-s-OFDM QPSK	0.356
			DFT-s-OFDM 16QAM	0.292
			DFT-s-OFDM 64QAM	0.196
			DFT-s-OFDM 256QAM	0.115
Test Model	DG501VZ			
Sample Status	Engineering Sample			
EUT Modification(s)	N/A			

NOTE:

(1) The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

(2) Channel List:

LTE Band 2					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	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	18675	1857.5	675	1937.5
	20	18700	1860	700	1940
Mid Range	1.4/3/5/10/15/20	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	19125	1902.5	1125	1982.5
	20	19100	1900	1100	1980

5G NR n2						
Bandwidth	Low Channel	Mid Channel	High Channel	Low Frequency	Mid Frequency	High Frequency
5	370500	376000	381500	1852.5	1880	1907.5
10	371000	376000	381000	1855	1880	1905
15	371500	376000	380500	1857.5	1880	1902.5
20	372000	376000	380000	1860	1880	1900

(3) Table for Filed Antenna:

Brand Name	Model Name	Type	Connector	Gain (dBi)	Note
	B01W033	FPC	N/A	1.71	LTE Band 2
				1.71	5G NR n2

- (4) The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

2.2 TEST MODES

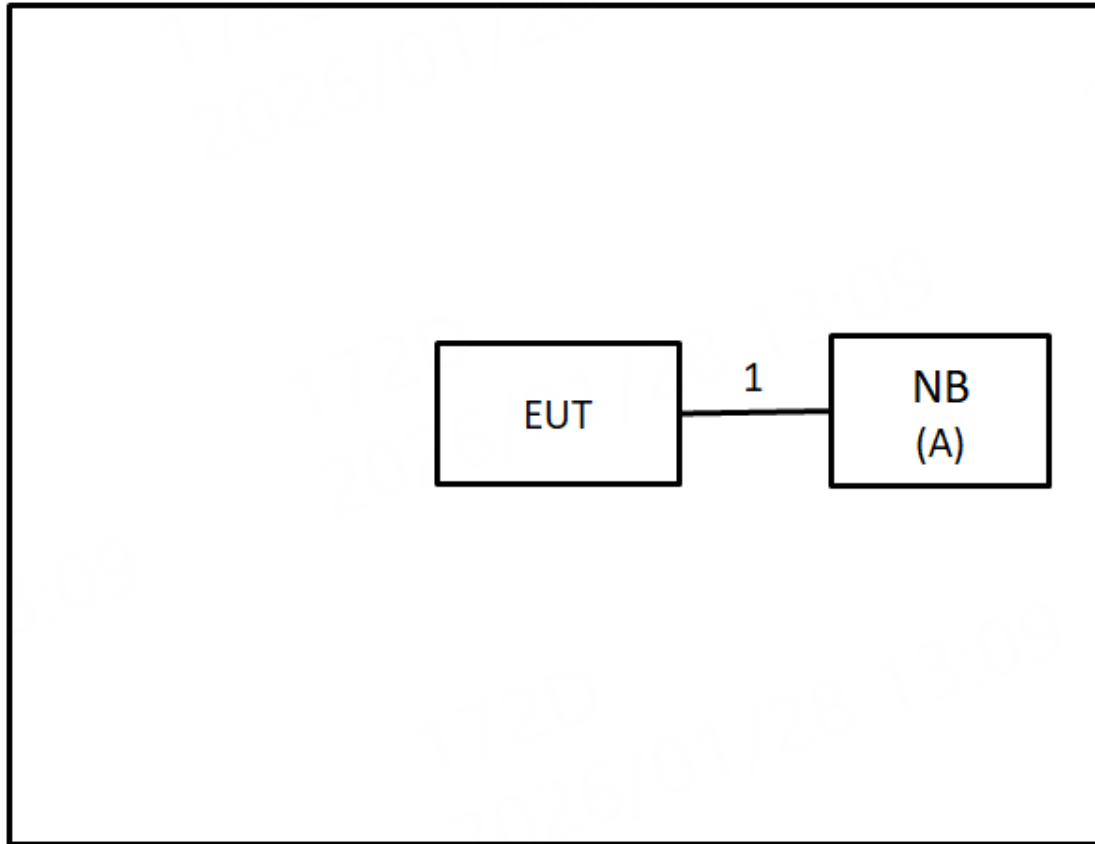
LTE BAND 2 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/3RB/6RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/8RB/15RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/12RB/25RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/25RB/50RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/36RB/75RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/50RB/100RB
Occupied Bandwidth	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	6RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM, 64QAM, 256QAM	15RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM, 64QAM, 256QAM	25RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM, 64QAM, 256QAM	50RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM, 64QAM, 256QAM	75 RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM, 64QAM, 256QAM	100RB

LTE BAND 2 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Spurious Emissions	18607 to 19193	18900	1.4MHz	QPSK	1RB
	18625 to 19175	18900	5MHz	QPSK	1RB
	18700 to 19100	18900	20MHz	QPSK	1RB
Radiated Spurious Emissions	18700 to 19100	18700, 18900, 19100	20MHz	QPSK	1RB
Band Edge	18607 to 19193	18607, 19193	1.4MHz	QPSK	1RB/6RB
	18615 to 19185	18615, 19185	3MHz	QPSK	1RB/15RB
	18625 to 19175	18625, 19175	5MHz	QPSK	1RB/25RB
	18650 to 19150	18650, 19150	10MHz	QPSK	1RB/50RB
	18675 to 19125	18675, 19125	15MHz	QPSK	1RB/75RB
	18700 to 19100	18700, 19100	20MHz	QPSK	1RB/100RB
Peak To Average Ratio	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB
Frequency Stability	18700 to 19100	18900	20MHz	QPSK	Full RB

NR n2				
Test Item	Tested Channel	Channel Bandwidth	Modulation	RB allocation
Conducted Output Power and EIRP	370500, 376000, 381500	5MHz	DFT-s-OFDM QPSK	Inner_Full Inner_1RB_Left Inner_1RB_Right Outer_Full Partial RB
	371000, 376000, 381000	10MHz		
	371500, 376000, 380500	15MHz		
	372000, 376000, 380000	20MHz	DFT-s-OFDM PI/2 BPSK, DFT-s-OFDM QPSK DFT-s-OFDM 16QAM DFT-s-OFDM 64QAM DFT-s-OFDM 256QAM	
Occupied Bandwidth	376000	5MHz	DFT-s-OFDM PI/2 BPSK, DFT-s-OFDM QPSK DFT-s-OFDM 16QAM DFT-s-OFDM 64QAM DFT-s-OFDM 256QAM CP-OFDM QPSK CP-OFDM 16QAM CP-OFDM 64QAM CP-OFDM 256QAM	Outer Full
		10MHz		
		15MHz		
		20MHz		
Conducted Spurious Emission	376000	5MHz	DFT-s-OFDM PI/2 BPSK, DFT-s-OFDM QPSK CP-OFDM QPSK	1RB # 0
		15MHz		
		20MHz		
Radiated Spurious Emission	372000, 376000, 380000	20MHz	DFT-s-OFDM QPSK	1RB # 0
Band Edge	370500, 381500	5MHz	DFT-s-OFDM PI/2 BPSK, DFT-s-OFDM QPSK CP-OFDM QPSK	Edge 1RB Left Edge 1RB Right Outer Full
	371000, 381000	10MHz		
	371500, 380500	15MHz		
	372000, 380000	20MHz		
Peak To Average Ratio	370500, 376000, 381500	5MHz	DFT-s-OFDM PI/2 BPSK, DFT-s-OFDM QPSK CP-OFDM QPSK	Edge 1RB Left Outer Full
	371000, 376000, 381000	10MHz		
	371500, 376000, 380500	15MHz		
	372000, 376000, 380000	20MHz		
Frequency Stability	376000	20MHz	DFT-s-OFDM QPSK	Outer Full

2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.



2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.	Remarks
A	NB	dyna	Satellite C40-H	N/A	Furnished by test lab.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	N/A	N/A	1m	VGA HD-15	Supplied by test requester.

3 CONDUCTED OUTPUT POWER AND EFFECTIVE ISOTROPIC RADIATED POWER MEASUREMENT

3.1 LIMIT

Mobile / Portable station are limited to 2 watts e.i.r.p.

3.2 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 5.

EIRP / ERP Power Measurement:

EIRP = Conducted Power + Antenna gain.

ERP power = EIPR power - 2.15 dBi.

Conducted Measurement:

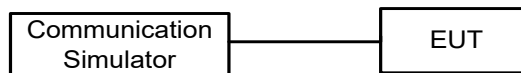
The EUT was set up for the maximum power with WCDMA and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP

Conducted Measurement:



3.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULT

Please refer to the APPENDIX A.

4 OCCUPIED BANDWIDTH MEASUREMENT

4.1 TEST PROCEDURE

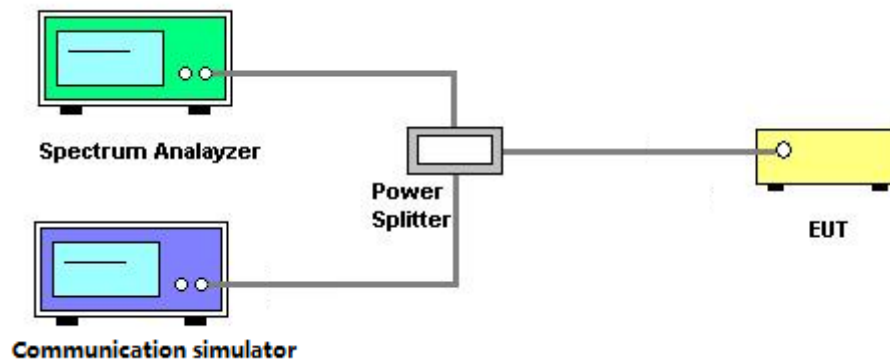
The testing follows FCC KDB 971168 v03r01 Section 4.

- The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.
- The EUT was connected to spectrum analyzer and system simulator via a power divider.
- $RBW = (1\% \sim 5\%) * EBW$
 $VBW \geq 3 * RBW$.
- Set spectrum analyzer with Peak detector.

4.2 DEVIATION FROM TEST STANDARD

No deviation.

4.3 TEST SETUP



4.4 TEST RESULT

Please refer to the APPENDIX B

5 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

5.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

5.2 TEST PROCEDURE

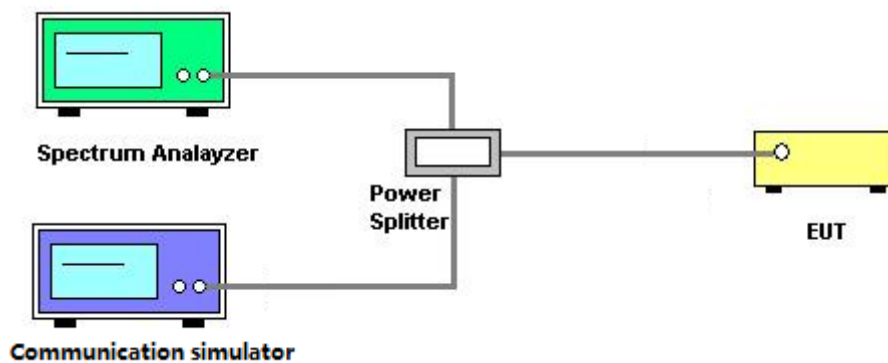
The testing follows FCC KDB 971168 v03r01 Section 6.

- The EUT was connected to spectrum analyzer and system simulator via a power divider.
- The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- Set spectrum analyzer with Peak detector.
- The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

5.3 DEVIATION FROM TEST STANDARD

No deviation.

5.4 TEST SETUP



5.5 TEST RESULT

Please refer to the APPENDIX C.

6 RADIATED SPURIOUS EMISSIONS MEASUREMENT

6.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

NOTE:

(1) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level (dBm)		Correct Factor (dB)		Measurement Value (dBm)
-50.43	+	-2.11	=	-52.54

Measurement Value (dBm)		Limit Value (dBm)		Margin Level (dB)
-52.54	-	-13	=	-39.54

6.2 TEST PROCEDURE

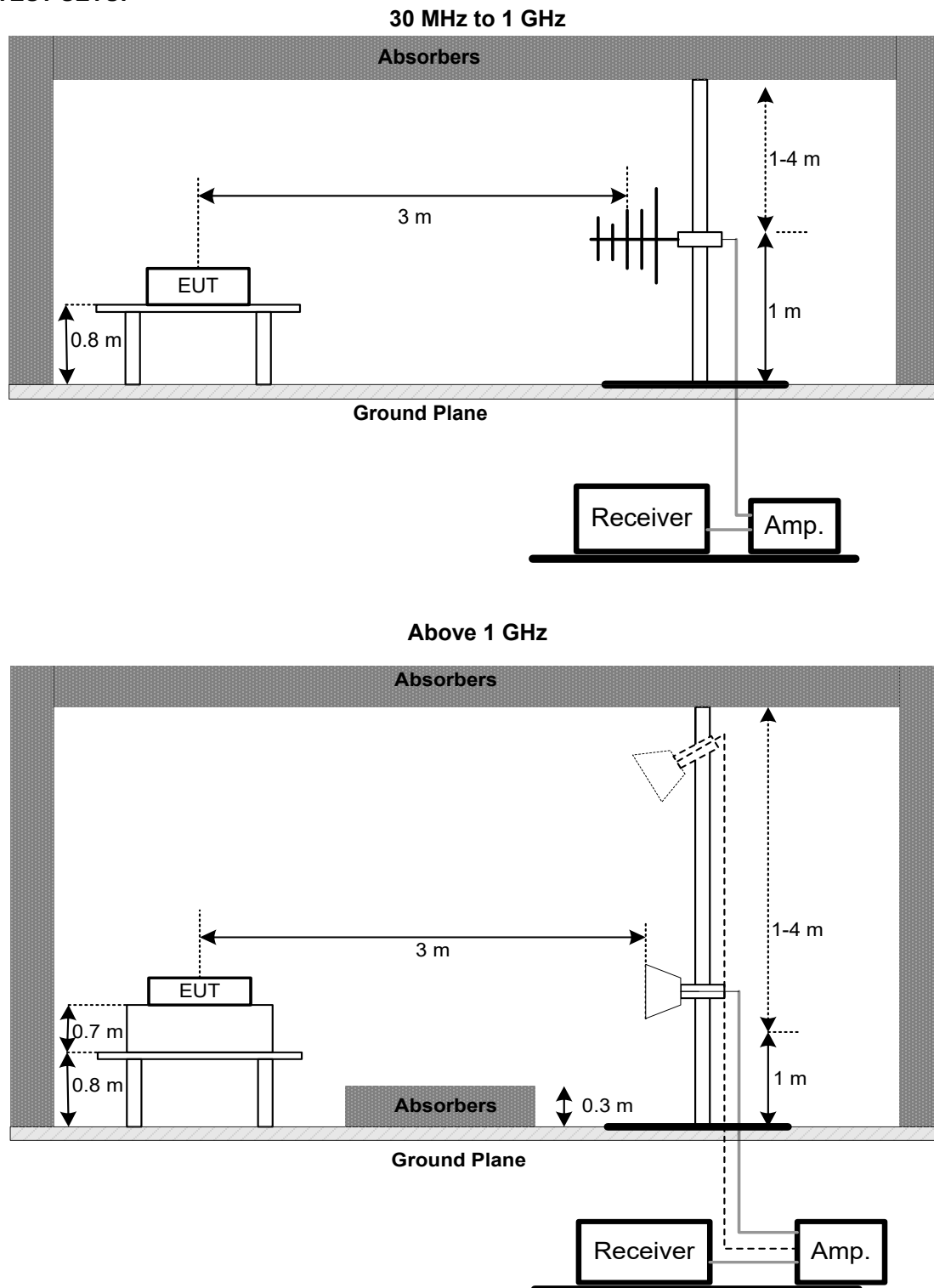
The testing follows FCC KDB 971168 v03r01 Section 6.2.

- In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G
- EIRP = Output power level of S.G - TX cable loss + Antenna gain of substitution horn.
- ERP power can be calculated form EIRP power by subtracting the gain of dipole,
ERP power = EIRP power - 2.15 dBi.
- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz / 3 MHz.

6.3 DEVIATION FROM TEST STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULT

Please refer to the APPENDIX D.

7 BAND EDGE MEASUREMENT

7.1 LIMIT

A Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

7.2 TEST PROCEDURE

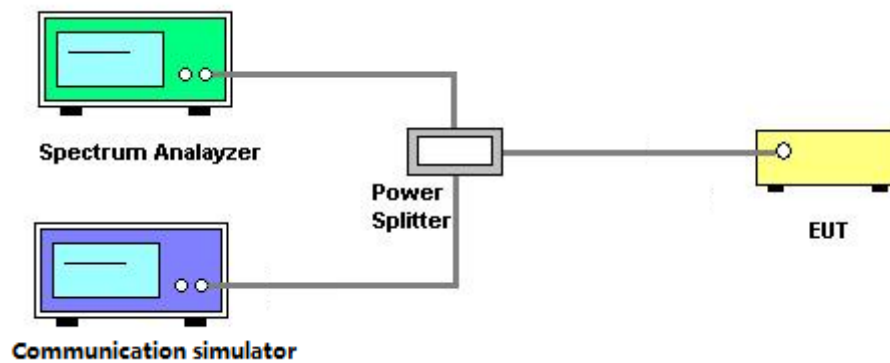
The testing follows FCC KDB 971168 v03r01 Section 6.

- All measurements were done at low and high operational frequency range.
- Record the max trace plot into the test report.

7.3 DEVIATION FROM TEST STANDARD

No deviation.

7.4 TEST SETUP



7.5 TEST RESULT

Please refer to the APPENDIX E

8 PEAK TO AVERAGE RATIO MEASUREMENT

8.1 LIMIT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

8.2 TEST PROCEDURE

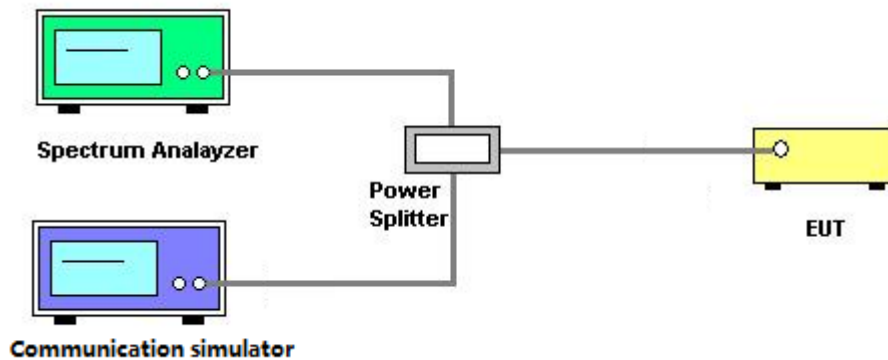
The testing follows FCC KDB 971168 v03r01 Section 5.7.

- Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth.
- Set the number of counts to a value that stabilizes the measured CCDF curve.
- Record the maximum PAPR level associated with a probability of 0.1%.

8.3 DEVIATION FROM TEST STANDARD

No deviation.

8.4 TEST SETUP



8.5 TEST RESULT

Please refer to the APPENDIX F.

9 FREQUENCY STABILITY MEASUREMENT

9.1 LIMIT

± 1.5 ppm is for base and fixed station. ± 2.5 ppm is for mobile station.

9.2 TEST PROCEDURE

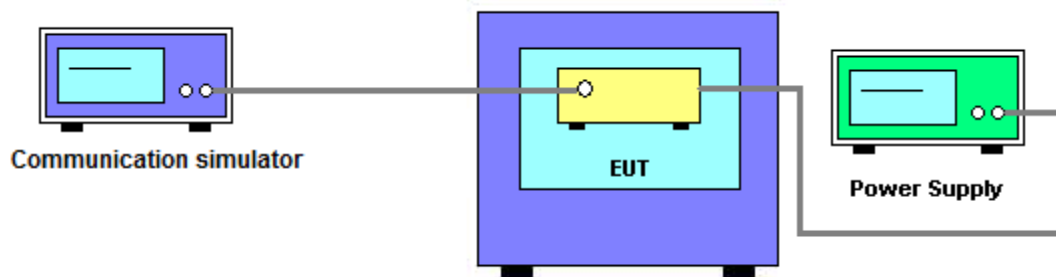
The testing follows FCC KDB 971168 v03r01 Section 9.

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
- The frequency error was recorded frequency error from the communication simulator.

9.3 DEVIATION FROM TEST STANDARD

No deviation.

9.4 TEST SETUP



9.5 TEST RESULT

Please refer to the APPENDIX G

10 LIST OF MEASURING EQUIPMENTS

Radiated Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Preamplifier	EMCI	EMC330N	980850	2025/9/3	2026/9/2
2	Preamplifier	EMCI	EMC118A45SE	980819	2025/3/5	2026/3/4
3	Pre-Amplifier	EMCI	EMC184045SE	980907	2025/9/3	2026/9/2
4	Preamplifier	EMCI	EMC001340	980579	2025/9/3	2026/9/2
5	Test Cable	EMCI	EMC104-SM-1000	180809	2025/3/5	2026/3/4
6	Test Cable	EMCI	EMC104-SM-SM-3000	220322	2025/3/5	2026/3/4
7	Test Cable	EMCI	EMC105-SM-SM-8000	220422	2025/10/15	2026/10/14
8	EXA Signal Analyzer	keysight	N9020B	MY57120120	2025/2/19	2026/2/18
9	Loop Ant	Electro-Metrics	EMCI-LPA600	291	2025/9/1	2026/8/31
10	Horn Antenna	RFSPIN	DRH18-E	211202A18EN	2025/5/9	2026/5/8
11	Horn Ant	Schwarzbeck	BBHA 9170D	1136	2025/5/15	2026/5/14
12	Log-bicon Antenna	Schwarzbeck	VULB9168	1369	2025/7/4	2026/7/3
13	6dB Attenuator	EMCI	EMCI-N-6-06	AT-06001	2025/7/4	2026/7/3
14	Test Cable	EMCI	EMC101G-KM-KM-3000	220329	2025/3/12	2026/3/11
15	Test Cable	EMCI	EMC102-KM-KM-1000	220327	2025/3/12	2026/3/11
16	Measurement Software	EZ	EZ EMC (Version NB-03A1-01)	N/A	N/A	N/A
17	Radio Communication Analyzer	Keysight	E7515B	MY59020217	2025/7/8	2026/7/7

Conducted Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	Keysight	N9010A	MY56480554	2025/9/22	2026/9/21
2	Over Tester	CF	CF-1BS-T	2024010205	2025/2/25	2026/2/24
3	Radio Communication Analyzer	ANRITSU	MT8820C	6201381608	2025/12/12	2026/12/11
4	Wideband Radio Communication Tester	R&S	CMW500	154121	2025/6/25	2026/6/24
5	Radio Communication Analyzer	Keysight	E7515B	MY59020217	2025/7/8	2026/7/7

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

11 EUT TEST PHOTO

Please refer to document Appendix No.: TP-2511E011-FCCP-1 (APPENDIX-TEST PHOTOS).

12 EUT PHOTOS

Please refer to document Appendix No.: EP-2511E011-1 (APPENDIX-EUT PHOTOS).

APPENDIX A EFFECTIVE ISOTROPIC RADIATED POWER

Conducted Output Power and Calculated EIRP:

LTE Band 2 Power:

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocati	UL RB Offset	MPR	Average power (dBm)	EIRP power (dBm)	EIRP power (W)		
2	1.4	18607	1850.7	QPSK	1	0	0	22.69	24.40	0.275		
					1	2	0	22.64	24.35	0.272		
					1	5	0	22.49	24.20	0.263		
					3	0	1	22.70	24.41	0.276		
					3	1	1	22.70	24.41	0.276		
					3	2	1	22.53	24.24	0.265		
				16QAM	6	0	1	21.80	23.51	0.224		
					1	0	1	21.78	23.49	0.223		
					1	2	1	21.74	23.45	0.221		
					1	5	1	21.60	23.31	0.214		
					3	0	2	21.64	23.35	0.216		
					3	1	2	21.60	23.31	0.214		
				64QAM	3	2	2	21.45	23.16	0.207		
					6	0	2	20.67	22.38	0.173		
					1	0	2	20.59	22.30	0.170		
					1	2	2	20.60	22.31	0.170		
					1	5	2	20.54	22.25	0.168		
					3	0	3	19.84	21.55	0.143		
				256QAM	3	1	3	19.89	21.60	0.145		
					3	2	3	19.76	21.47	0.140		
					6	0	3	19.75	21.46	0.140		
					1	0	5	17.89	19.60	0.091		
					1	2	5	17.71	19.42	0.087		
					1	5	5	17.54	19.25	0.084		
				18900	1880.0	QPSK	3	0	5	16.96	18.67	0.074
							3	1	5	16.92	18.63	0.073
							3	2	5	16.68	18.39	0.069
							6	0	5	17.03	18.74	0.075
							1	0	0	22.86	24.57	0.286
							1	2	0	22.81	24.52	0.283
						16QAM	1	5	0	22.69	24.40	0.275
							3	0	1	22.87	24.58	0.287
							3	1	1	22.87	24.58	0.287
							3	2	1	22.73	24.44	0.278
							6	0	1	21.92	23.63	0.231
							1	0	1	21.95	23.66	0.232
						64QAM	1	2	1	21.91	23.62	0.230
							1	5	1	21.80	23.51	0.224
							3	0	2	22.02	23.73	0.236
							3	1	2	21.98	23.69	0.234
							3	2	2	21.79	23.50	0.224
							6	0	2	20.95	22.66	0.185
						256QAM	1	0	2	20.94	22.65	0.184
							1	2	2	20.99	22.70	0.186
							1	5	2	20.89	22.60	0.182
							3	0	3	20.20	21.91	0.155
							3	1	3	20.31	22.02	0.159
							3	2	3	20.18	21.89	0.155
		19193	1909.3	QPSK	6	0	3	20.17	21.88	0.154		
					1	0	5	18.10	19.81	0.096		
					1	2	5	17.96	19.67	0.093		
					1	5	5	17.73	19.44	0.088		
					3	0	5	17.05	18.76	0.075		
					3	1	5	17.02	18.73	0.075		
				16QAM	3	2	5	16.86	18.57	0.072		
					6	0	5	17.11	18.82	0.076		
					1	0	0	22.88	24.59	0.288		
					1	2	0	22.63	24.34	0.272		
					1	5	0	22.79	24.50	0.282		
					3	0	1	22.89	24.60	0.288		
				64QAM	3	1	1	22.69	24.40	0.275		
					3	2	1	22.83	24.54	0.284		
					6	0	1	21.99	23.70	0.234		
					1	0	1	21.97	23.68	0.233		
					1	2	1	21.73	23.44	0.221		
					1	5	1	21.90	23.61	0.230		
				256QAM	3	0	2	21.74	23.45	0.221		
					3	1	2	21.64	23.35	0.216		
					3	2	2	21.59	23.30	0.214		
					6	0	2	20.66	22.37	0.173		
					1	0	2	20.62	22.33	0.171		
					1	2	2	20.69	22.40	0.174		

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

(3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
2	3	18615	1851.5	QPSK	1	0	0	22.74	24.45	0.279
					1	7	0	22.69	24.40	0.275
					1	14	0	22.54	24.25	0.266
					8	0	1	21.85	23.56	0.227
					8	4	1	21.85	23.56	0.227
					8	7	1	21.68	23.39	0.218
					15	0	1	21.85	23.56	0.227
					1	0	1	21.83	23.54	0.226
				16QAM	1	7	1	21.79	23.50	0.224
					1	14	1	21.65	23.36	0.217
					8	0	2	20.79	22.50	0.178
					8	4	2	20.80	22.51	0.178
					8	7	2	20.60	22.31	0.170
					15	0	2	20.72	22.43	0.175
				64QAM	1	0	2	20.66	22.37	0.173
					1	7	2	20.67	22.38	0.173
					1	14	2	20.58	22.29	0.169
					8	0	3	19.91	21.62	0.145
					8	4	3	19.97	21.68	0.147
					8	7	3	19.83	21.54	0.143
					15	0	3	19.76	21.47	0.140
				256QAM	1	0	5	17.94	19.65	0.092
					1	7	5	17.77	19.48	0.089
					1	14	5	17.59	19.30	0.085
					8	0	5	17.02	18.73	0.075
					8	4	5	16.96	18.67	0.074
					8	7	5	16.71	18.42	0.070
					15	0	5	17.04	18.75	0.075
		18900	1880.0	QPSK	1	0	0	22.91	24.62	0.290
					1	7	0	22.86	24.57	0.286
					1	14	0	22.74	24.45	0.279
					8	0	1	22.02	23.73	0.236
					8	4	1	22.02	23.73	0.236
					8	7	1	21.88	23.59	0.229
					15	0	1	21.97	23.68	0.233
				16QAM	1	0	1	22.00	23.71	0.235
					1	7	1	21.96	23.67	0.233
					1	14	1	21.85	23.56	0.227
					8	0	2	21.17	22.88	0.194
					8	4	2	21.13	22.84	0.192
					8	7	2	20.94	22.65	0.184
					15	0	2	21.00	22.71	0.187
				64QAM	1	0	2	20.99	22.70	0.186
					1	7	2	21.06	22.77	0.189
					1	14	2	20.97	22.68	0.185
					8	0	3	20.26	21.97	0.157
					8	4	3	20.35	22.06	0.161
					8	7	3	20.21	21.92	0.156
					15	0	3	20.19	21.90	0.155
				256QAM	1	0	5	18.14	19.85	0.097
					1	7	5	18.01	19.72	0.094
					1	14	5	17.77	19.48	0.089
					8	0	5	17.12	18.83	0.076
					8	4	5	17.10	18.81	0.076
					8	7	5	16.93	18.64	0.073
					15	0	5	17.14	18.85	0.077
		19185	1908.5	QPSK	1	0	0	22.93	24.64	0.291
					1	7	0	22.68	24.39	0.275
					1	14	0	22.84	24.55	0.285
					8	0	1	22.04	23.75	0.237
					8	4	1	21.84	23.55	0.226
					8	7	1	21.98	23.69	0.234
					15	0	1	22.04	23.75	0.237
				16QAM	1	0	1	22.02	23.73	0.236
					1	7	1	21.78	23.49	0.223
					1	14	1	21.95	23.66	0.232
					8	0	2	20.89	22.60	0.182
					8	4	2	20.79	22.50	0.178
					8	7	2	20.74	22.45	0.176
					15	0	2	20.72	22.43	0.175
				64QAM	1	0	2	20.70	22.41	0.174
					1	7	2	20.76	22.47	0.177
					1	14	2	20.68	22.39	0.173
					8	0	3	19.98	21.69	0.148
					8	4	3	20.02	21.73	0.149
					8	7	3	19.96	21.67	0.147
					15	0	3	19.93	21.64	0.146
				256QAM	1	0	5	18.11	19.82	0.096
					1	7	5	17.83	19.54	0.090
					1	14	5	17.91	19.62	0.092
					8	0	5	17.23	18.94	0.078
					8	4	5	16.95	18.66	0.073
					8	7	5	17.06	18.77	0.075
					15	0	5	17.25	18.96	0.079

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

(3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	EIRP power (dBm)	EIRP power (W)		
2	5	18625	1852.5	QPSK	1	0	0	22.79	24.50	0.282		
					1	12	0	22.74	24.45	0.279		
					1	24	0	22.59	24.30	0.269		
					12	0	1	21.90	23.61	0.230		
					12	6	1	21.90	23.61	0.230		
					12	11	1	21.73	23.44	0.221		
					25	0	1	21.90	23.61	0.230		
				16QAM	1	0	1	21.88	23.59	0.229		
					1	12	1	21.84	23.55	0.226		
					1	24	1	21.70	23.41	0.219		
					12	0	2	20.84	22.55	0.180		
					12	6	2	20.85	22.56	0.180		
					12	11	2	20.65	22.36	0.172		
					25	0	2	20.77	22.48	0.177		
				64QAM	1	0	2	20.70	22.41	0.174		
					1	12	2	20.73	22.44	0.175		
					1	24	2	20.65	22.36	0.172		
					12	0	3	19.93	21.64	0.146		
					12	6	3	20.04	21.75	0.150		
					12	11	3	19.89	21.60	0.145		
					25	0	3	19.83	21.54	0.143		
				256QAM	1	0	5	18.01	19.72	0.094		
					1	12	5	17.83	19.54	0.090		
					1	24	5	17.61	19.32	0.086		
					12	0	5	17.03	18.74	0.075		
					12	6	5	17.02	18.73	0.075		
					12	11	5	16.79	18.50	0.071		
					25	0	5	17.06	18.77	0.075		
				18900	1880.0	QPSK	1	0	0	22.96	24.67	0.293
							1	12	0	22.91	24.62	0.290
							1	24	0	22.79	24.50	0.282
							12	0	1	22.07	23.78	0.239
							12	6	1	22.07	23.78	0.239
							12	11	1	21.93	23.64	0.231
							25	0	1	22.02	23.73	0.236
						16QAM	1	0	1	22.05	23.76	0.238
							1	12	1	22.01	23.72	0.236
							1	24	1	21.90	23.61	0.230
							12	0	2	21.22	22.93	0.196
							12	6	2	21.18	22.89	0.195
		12	11				2	20.99	22.70	0.186		
		25	0				2	21.05	22.76	0.189		
		64QAM	1			0	2	21.07	22.78	0.190		
			1			12	2	21.13	22.84	0.192		
			1			24	2	21.03	22.74	0.188		
			12			0	3	20.28	21.99	0.158		
			12			6	3	20.42	22.13	0.163		
			12			11	3	20.29	22.00	0.158		
			25			0	3	20.21	21.92	0.156		
		256QAM	1			0	5	18.18	19.89	0.097		
			1			12	5	18.08	19.79	0.095		
			1			24	5	17.84	19.55	0.090		
			12			0	5	17.13	18.84	0.077		
			12			6	5	17.16	18.87	0.077		
			12			11	5	17.01	18.72	0.074		
			25			0	5	17.15	18.86	0.077		
		19175	1907.5			QPSK	1	0	0	22.98	24.69	0.294
							1	12	0	22.73	24.44	0.278
							1	24	0	22.89	24.60	0.288
							12	0	1	22.09	23.80	0.240
							12	6	1	21.89	23.60	0.229
							12	11	1	22.03	23.74	0.237
							25	0	1	22.09	23.80	0.240
						16QAM	1	0	1	22.07	23.78	0.239
							1	12	1	21.83	23.54	0.226
							1	24	1	22.00	23.71	0.235
							12	0	2	20.94	22.65	0.184
							12	6	2	20.84	22.55	0.180
				12	11		2	20.79	22.50	0.178		
				25	0		2	20.76	22.47	0.177		
				64QAM	1	0	2	20.78	22.49	0.177		
					1	12	2	20.84	22.55	0.180		
					1	24	2	20.75	22.46	0.176		
					12	0	3	20.00	21.71	0.148		
					12	6	3	20.09	21.80	0.151		
					12	11	3	20.02	21.73	0.149		
					25	0	3	19.95	21.66	0.147		
				256QAM	1	0	5	18.18	19.89	0.097		
					1	12	5	17.89	19.60	0.091		
					1	24	5	17.96	19.67	0.093		
					12	0	5	17.24	18.95	0.079		
					12	6	5	17.01	18.72	0.074		
					12	11	5	17.14	18.85	0.077		
					25	0	5	17.26	18.97	0.079		

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

(3) $P(W) = 1 W \cdot 10^{(P(dBm) / 10) / 1000}$

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
2	10	18650	1855.0	QPSK	1	0	0	22.84	24.55	0.285
					1	24	0	22.79	24.50	0.282
					1	49	0	22.64	24.35	0.272
					25	0	1	21.95	23.66	0.232
					25	12	1	21.95	23.66	0.232
					25	24	1	21.78	23.49	0.223
				16QAM	50	0	1	21.95	23.66	0.232
					1	0	1	21.93	23.64	0.231
					1	24	1	21.89	23.60	0.229
					1	49	1	21.75	23.46	0.222
					25	0	2	20.89	22.60	0.182
					25	12	2	20.90	22.61	0.182
					25	24	2	20.70	22.41	0.174
				64QAM	50	0	2	20.82	22.53	0.179
					1	0	2	20.75	22.46	0.176
					1	24	2	20.78	22.49	0.177
					1	49	2	20.73	22.44	0.175
					25	0	3	20.00	21.71	0.148
					25	12	3	20.09	21.80	0.151
					25	24	3	19.95	21.66	0.147
				256QAM	50	0	3	19.88	21.59	0.144
					1	0	5	18.05	19.76	0.095
					1	24	5	17.89	19.60	0.091
					1	49	5	17.68	19.39	0.087
					25	0	5	17.08	18.79	0.076
					25	12	5	17.08	18.79	0.076
		18900	1880.0	QPSK	25	24	5	16.86	18.57	0.072
					50	0	5	17.13	18.84	0.077
					1	0	0	23.01	24.72	0.296
					1	24	0	22.96	24.67	0.293
					1	49	0	22.84	24.55	0.285
					25	0	1	22.12	23.83	0.242
				16QAM	25	12	1	22.12	23.83	0.242
					25	24	1	21.98	23.69	0.234
					50	0	1	22.07	23.78	0.239
					1	0	1	22.10	23.81	0.240
					1	24	1	22.06	23.77	0.238
					1	49	1	21.95	23.66	0.232
				64QAM	25	0	2	21.27	22.98	0.199
					25	12	2	21.23	22.94	0.197
					25	24	2	21.04	22.75	0.188
					50	0	2	21.10	22.81	0.191
				256QAM	1	0	2	21.13	22.84	0.192
					1	24	2	21.19	22.90	0.195
					1	49	2	21.10	22.81	0.191
					25	0	3	20.35	22.06	0.161
					25	12	3	20.47	22.18	0.165
					25	24	3	20.35	22.06	0.161
		19150	1905.0	QPSK	50	0	3	20.28	21.99	0.158
					1	0	5	18.24	19.95	0.099
					1	24	5	18.12	19.83	0.096
					1	49	5	17.90	19.61	0.091
					25	0	5	17.18	18.89	0.077
				16QAM	25	12	5	17.22	18.93	0.078
					25	24	5	17.08	18.79	0.076
					50	0	5	17.19	18.90	0.078
				64QAM	1	0	0	23.03	24.74	0.298
					1	24	0	22.78	24.49	0.281
					1	49	0	22.94	24.65	0.292
					25	0	1	22.14	23.85	0.243
					25	12	1	21.94	23.65	0.232
				256QAM	25	24	1	22.08	23.79	0.239
					50	0	1	22.14	23.85	0.243
					1	0	1	22.12	23.83	0.242
					1	24	1	21.88	23.59	0.229
					1	49	1	22.05	23.76	0.238
					25	0	2	20.99	22.70	0.186
				64QAM	25	12	2	20.89	22.60	0.182
					25	24	2	20.84	22.55	0.180
					50	0	2	20.81	22.52	0.179
					1	0	2	20.85	22.56	0.180
					1	24	2	20.90	22.61	0.182
					1	49	2	20.82	22.53	0.179
				256QAM	25	0	3	20.06	21.77	0.150
					25	12	3	20.16	21.87	0.154
					25	24	3	20.09	21.80	0.151
					50	0	3	20.01	21.72	0.149
					1	0	5	18.22	19.93	0.098
					1	24	5	17.94	19.65	0.092
					1	49	5	18.01	19.72	0.094
					25	0	5	17.28	18.99	0.079
					25	12	5	17.07	18.78	0.076
					25	24	5	17.19	18.90	0.078
					50	0	5	17.30	19.01	0.080

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

(3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
2	15	18675	1857.5	QPSK	1	0	0	22.89	24.60	0.288
					1	38	0	22.84	24.55	0.285
					1	74	0	22.69	24.40	0.275
					36	0	1	22.00	23.71	0.235
					36	18	1	22.00	23.71	0.235
					36	35	1	21.83	23.54	0.226
					75	0	1	22.00	23.71	0.235
				16QAM	1	0	1	21.98	23.69	0.234
					1	38	1	21.94	23.65	0.232
					1	74	1	21.80	23.51	0.224
					36	0	2	20.94	22.65	0.184
					36	18	2	20.95	22.66	0.185
					36	35	2	20.75	22.46	0.176
					75	0	2	20.87	22.58	0.181
				64QAM	1	0	2	20.81	22.52	0.179
					1	38	2	20.84	22.55	0.180
					1	74	2	20.77	22.48	0.177
					36	0	3	20.04	21.75	0.150
					36	18	3	20.13	21.84	0.153
					36	35	3	19.99	21.70	0.148
					75	0	3	19.95	21.66	0.147
				256QAM	1	0	5	18.10	19.81	0.096
					1	38	5	17.96	19.67	0.093
					1	74	5	17.76	19.47	0.089
					36	0	5	17.12	18.83	0.076
					36	18	5	17.12	18.83	0.076
					36	35	5	16.90	18.61	0.073
					75	0	5	17.16	18.87	0.077
		18900	1880.0	QPSK	1	0	0	23.06	24.77	0.300
					1	38	0	23.01	24.72	0.296
					1	74	0	22.89	24.60	0.288
					36	0	1	22.17	23.88	0.244
					36	18	1	22.17	23.88	0.244
					36	35	1	22.03	23.74	0.237
					75	0	1	22.12	23.83	0.242
				16QAM	1	0	1	22.15	23.86	0.243
					1	38	1	22.11	23.82	0.241
					1	74	1	22.00	23.71	0.235
					36	0	2	21.32	23.03	0.201
					36	18	2	21.28	22.99	0.199
					36	35	2	21.09	22.80	0.191
					75	0	2	21.15	22.86	0.193
				64QAM	1	0	2	21.19	22.90	0.195
					1	38	2	21.24	22.95	0.197
					1	74	2	21.17	22.88	0.194
					36	0	3	20.39	22.10	0.162
					36	18	3	20.51	22.22	0.167
					36	35	3	20.39	22.10	0.162
					75	0	3	20.35	22.06	0.161
				256QAM	1	0	5	18.28	19.99	0.100
					1	38	5	18.16	19.87	0.097
					1	74	5	17.96	19.67	0.093
					36	0	5	17.26	18.97	0.079
					36	18	5	17.29	19.00	0.079
					36	35	5	17.12	18.83	0.076
					75	0	5	17.27	18.98	0.079
		19125	1902.5	QPSK	1	0	0	23.08	24.79	0.301
					1	38	0	22.83	24.54	0.284
					1	74	0	22.99	24.70	0.295
					36	0	1	22.19	23.90	0.245
					36	18	1	21.99	23.70	0.234
					36	35	1	22.13	23.84	0.242
					75	0	1	22.19	23.90	0.245
				16QAM	1	0	1	22.17	23.88	0.244
					1	38	1	21.93	23.64	0.231
					1	74	1	22.10	23.81	0.240
					36	0	2	21.04	22.75	0.188
					36	18	2	20.94	22.65	0.184
					36	35	2	20.89	22.60	0.182
					75	0	2	20.86	22.57	0.181
				64QAM	1	0	2	20.93	22.64	0.184
					1	38	2	20.95	22.66	0.185
					1	74	2	20.88	22.59	0.182
					36	0	3	20.14	21.85	0.153
					36	18	3	20.23	21.94	0.156
					36	35	3	20.13	21.84	0.153
					75	0	3	20.07	21.78	0.151
				256QAM	1	0	5	18.30	20.01	0.100
					1	38	5	17.98	19.69	0.093
					1	74	5	18.06	19.77	0.095
					36	0	5	17.32	19.03	0.080
					36	18	5	17.11	18.82	0.076
					36	35	5	17.23	18.94	0.078
					75	0	5	17.34	19.05	0.080

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

(3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
2	20	18700	1860.0	QPSK	1	0	0	22.94	24.65	0.292
					1	49	0	22.89	24.60	0.288
					1	99	0	22.74	24.45	0.279
					50	0	1	22.05	23.76	0.238
					50	24	1	22.05	23.76	0.238
					50	49	1	21.88	23.59	0.229
					100	0	1	22.05	23.76	0.238
				16QAM	1	0	1	22.03	23.74	0.237
					1	49	1	21.99	23.70	0.234
					1	99	1	21.85	23.56	0.227
					50	0	2	20.99	22.70	0.186
					50	24	2	21.00	22.71	0.187
					50	49	2	20.80	22.51	0.178
					100	0	2	20.92	22.63	0.183
				64QAM	1	0	2	20.86	22.57	0.181
					1	49	2	20.91	22.62	0.183
					1	99	2	20.84	22.55	0.180
					50	0	3	20.09	21.80	0.151
					50	24	3	20.17	21.88	0.154
					50	49	3	20.07	21.78	0.151
					100	0	3	20.02	21.73	0.149
				256QAM	1	0	5	18.16	19.87	0.097
					1	49	5	18.04	19.75	0.094
					1	99	5	17.81	19.52	0.090
					50	0	5	17.17	18.88	0.077
					50	24	5	17.16	18.87	0.077
					50	49	5	16.98	18.69	0.074
					100	0	5	17.20	18.91	0.078
		18900	1880.0	QPSK	1	0	0	23.11	24.82	0.303
					1	49	0	23.06	24.77	0.300
					1	99	0	22.94	24.65	0.292
					50	0	1	22.22	23.93	0.247
					50	24	1	22.22	23.93	0.247
					50	49	1	22.08	23.79	0.239
					100	0	1	22.17	23.88	0.244
				16QAM	1	0	1	22.20	23.91	0.246
					1	49	1	22.16	23.87	0.244
					1	99	1	22.05	23.76	0.238
					50	0	2	21.37	23.08	0.203
					50	24	2	21.33	23.04	0.201
					50	49	2	21.14	22.85	0.193
					100	0	2	21.20	22.91	0.195
				64QAM	1	0	2	21.24	22.95	0.197
					1	49	2	21.29	23.00	0.200
					1	99	2	21.22	22.93	0.196
					50	0	3	20.47	22.18	0.165
					50	24	3	20.55	22.26	0.168
					50	49	3	20.45	22.16	0.164
					100	0	3	20.40	22.11	0.163
				256QAM	1	0	5	18.33	20.04	0.101
					1	49	5	18.21	19.92	0.098
					1	99	5	18.01	19.72	0.094
					50	0	5	17.34	19.05	0.080
					50	24	5	17.33	19.04	0.080
					50	49	5	17.18	18.89	0.077
					100	0	5	17.32	19.03	0.080
		19100	1900.0	QPSK	1	0	0	23.13	24.84	0.305
					1	49	0	22.88	24.59	0.288
					1	99	0	23.04	24.75	0.299
					50	0	1	22.24	23.95	0.248
					50	24	1	22.04	23.75	0.237
					50	49	1	22.18	23.89	0.245
					100	0	1	22.24	23.95	0.248
				16QAM	1	0	1	22.22	23.93	0.247
					1	49	1	21.98	23.69	0.234
					1	99	1	22.15	23.86	0.243
					50	0	2	21.09	22.80	0.191
					50	24	2	20.99	22.70	0.186
					50	49	2	20.94	22.65	0.184
					100	0	2	20.91	22.62	0.183
				64QAM	1	0	2	20.96	22.67	0.185
					1	49	2	21.01	22.72	0.187
					1	99	2	20.94	22.65	0.184
					50	0	3	20.19	21.90	0.155
					50	24	3	20.27	21.98	0.158
					50	49	3	20.17	21.88	0.154
					100	0	3	20.12	21.83	0.152
				256QAM	1	0	5	18.35	20.06	0.101
					1	49	5	18.03	19.74	0.094
					1	99	5	18.11	19.82	0.096
					50	0	5	17.36	19.07	0.081
					50	24	5	17.15	18.86	0.077
					50	49	5	17.28	18.99	0.079
					100	0	5	17.39	19.10	0.081

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

(3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

5G NR n2 Power:

Band	SCS	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
n2	15	5	370500	1852.5	DFT-s-OFDM QPSK	50	28	23.24	24.95	0.313
			376000	1880.0	DFT-s-OFDM QPSK	50	28	23.62	25.33	0.341
			381500	1907.5	DFT-s-OFDM QPSK	50	28	23.83	25.54	0.358
Band	SCS	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
n2	15	10	371000	1855.0	DFT-s-OFDM QPSK	50	28	23.24	24.95	0.313
			376000	1880.0	DFT-s-OFDM QPSK	50	28	23.62	25.33	0.341
			381000	1905.0	DFT-s-OFDM QPSK	50	28	23.83	25.54	0.358
Band	SCS	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
n2	15	15	371500	1857.5	DFT-s-OFDM QPSK	50	28	23.55	25.26	0.336
			376000	1880.0	DFT-s-OFDM QPSK	50	28	23.49	25.20	0.331
			380500	1902.5	DFT-s-OFDM QPSK	50	28	23.64	25.35	0.343
Band	SCS	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	Average power (dBm)	EIRP power (dBm)	EIRP power (W)
					DFT-s-OFDM PI/2 BPSK	1	1	23.21	24.92	0.310
						1	53	23.51	25.22	0.333
						1	104	23.48	25.19	0.330
						50	0	22.81	24.52	0.283
						50	28	23.35	25.06	0.321
						50	56	22.96	24.67	0.293
						100	0	22.78	24.49	0.281
					DFT-s-OFDM QPSK	1	1	23.34	25.05	0.320
						1	53	23.52	25.23	0.333
						1	104	23.64	25.35	0.343
						50	0	22.37	24.08	0.256
						50	28	23.38	25.09	0.323
						50	56	22.56	24.27	0.267
						100	0	22.32	24.03	0.253
					DFT-s-OFDM 16QAM	1	1	22.31	24.02	0.252
					DFT-s-OFDM 64QAM	1	1	21.01	22.72	0.187
					DFT-s-OFDM 256QAM	1	1	18.90	20.61	0.115
			376000	1880.0	DFT-s-OFDM PI/2 BPSK	1	1	23.46	25.17	0.329
						1	53	23.60	25.31	0.340
						1	104	23.59	25.30	0.339
						50	0	23.16	24.87	0.307
						50	28	23.69	25.40	0.347
						50	56	23.23	24.94	0.312
						100	0	23.18	24.89	0.308
					DFT-s-OFDM QPSK	1	1	23.73	25.44	0.350
						1	53	23.68	25.39	0.346
						1	104	23.50	25.21	0.332
						50	0	22.69	24.40	0.275
						50	28	22.72	24.43	0.277
						50	56	22.67	24.38	0.274
						100	0	22.72	24.43	0.277
					DFT-s-OFDM 16QAM	1	1	22.60	24.31	0.270
					DFT-s-OFDM 64QAM	1	1	21.21	22.92	0.196
					DFT-s-OFDM 256QAM	1	1	18.70	20.41	0.110
			380000	1900.0	DFT-s-OFDM PI/2 BPSK	1	1	23.70	25.41	0.348
						1	53	23.74	25.45	0.351
						1	104	23.66	25.37	0.344
						50	0	23.29	25.00	0.316
						50	28	23.80	25.51	0.356
						50	56	23.24	24.95	0.313
						100	0	23.27	24.98	0.315
					DFT-s-OFDM QPSK	1	1	23.60	25.31	0.340
						1	53	23.63	25.34	0.342
						1	104	23.50	25.21	0.332
						50	0	22.76	24.47	0.280
						50	28	23.81	25.52	0.356
						50	56	22.76	24.47	0.280
						100	0	22.69	24.40	0.275
					DFT-s-OFDM 16QAM	1	1	22.94	24.65	0.292
					DFT-s-OFDM 64QAM	1	1	21.01	22.72	0.187
					DFT-s-OFDM 256QAM	1	1	18.87	20.58	0.114

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

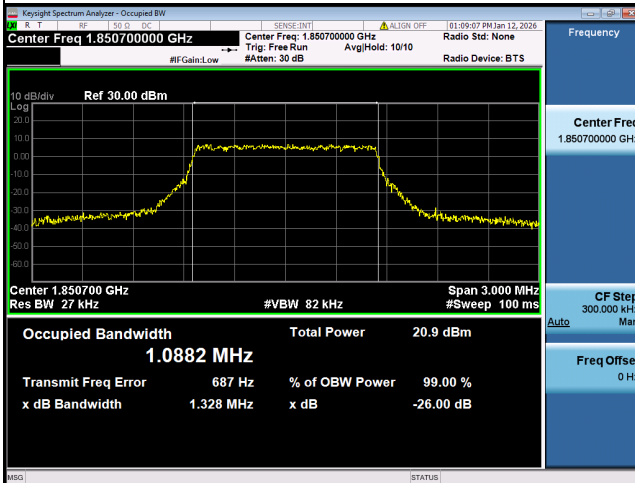
(3) $P(W) = 1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

APPENDIX B OCCUPIED BANDWIDTH

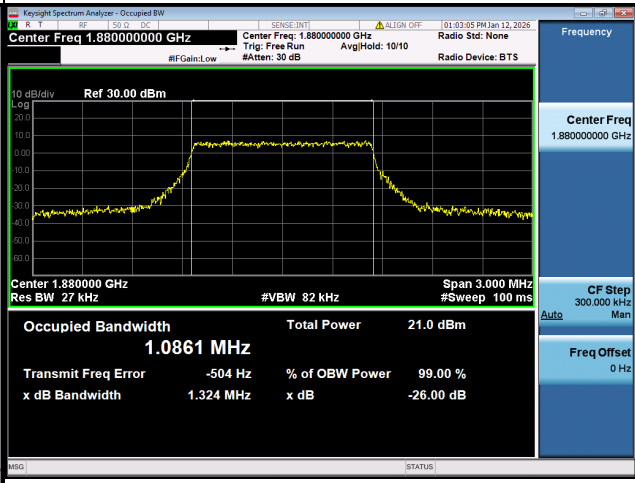
LTE Band 2_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0882	18607	1850.7	1.328
18900	1880	1.0861	18900	1880	1.324
19193	1909.3	1.0846	19193	1909.3	1.325
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0876	18607	1850.7	1.342
18900	1880	1.0891	18900	1880	1.337
19193	1909.3	1.0921	19193	1909.3	1.340
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0849	18607	1850.7	1.298
18900	1880	1.0837	18900	1880	1.370
19193	1909.3	1.0882	19193	1909.3	1.351
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0879	18607	1850.7	1.330
18900	1880	1.0889	18900	1880	1.333
19193	1909.3	1.0885	19193	1909.3	1.336

Spectrum Plot

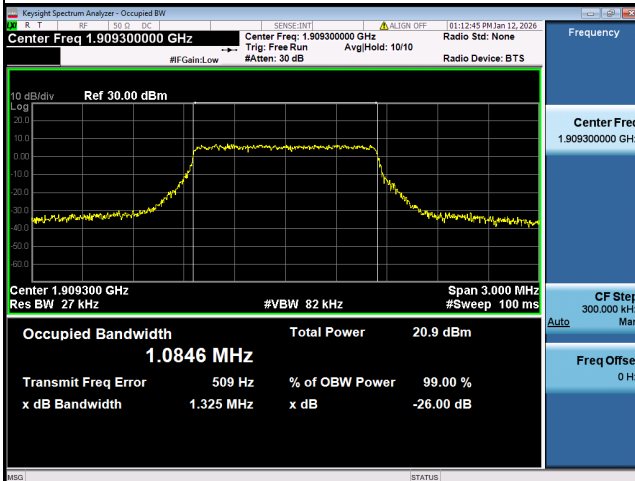
QPSK-18607



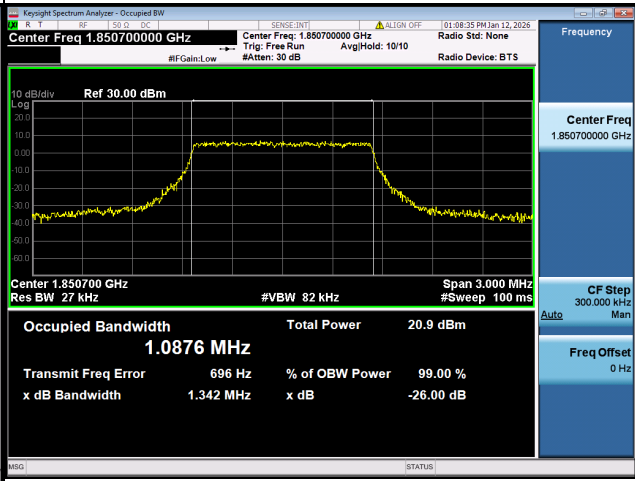
QPSK-18900



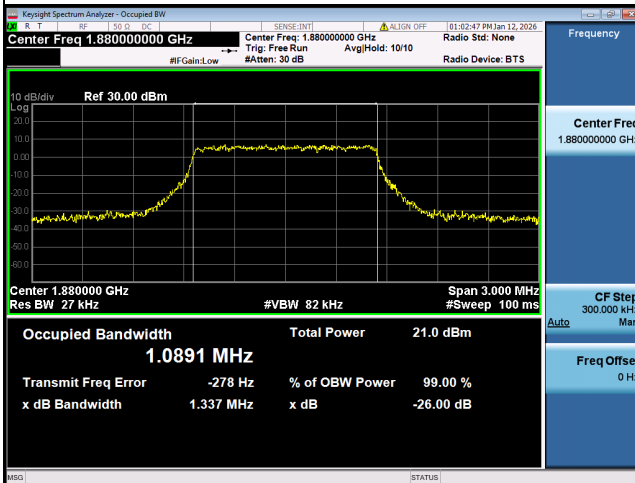
QPSK-19193



16QAM-18607

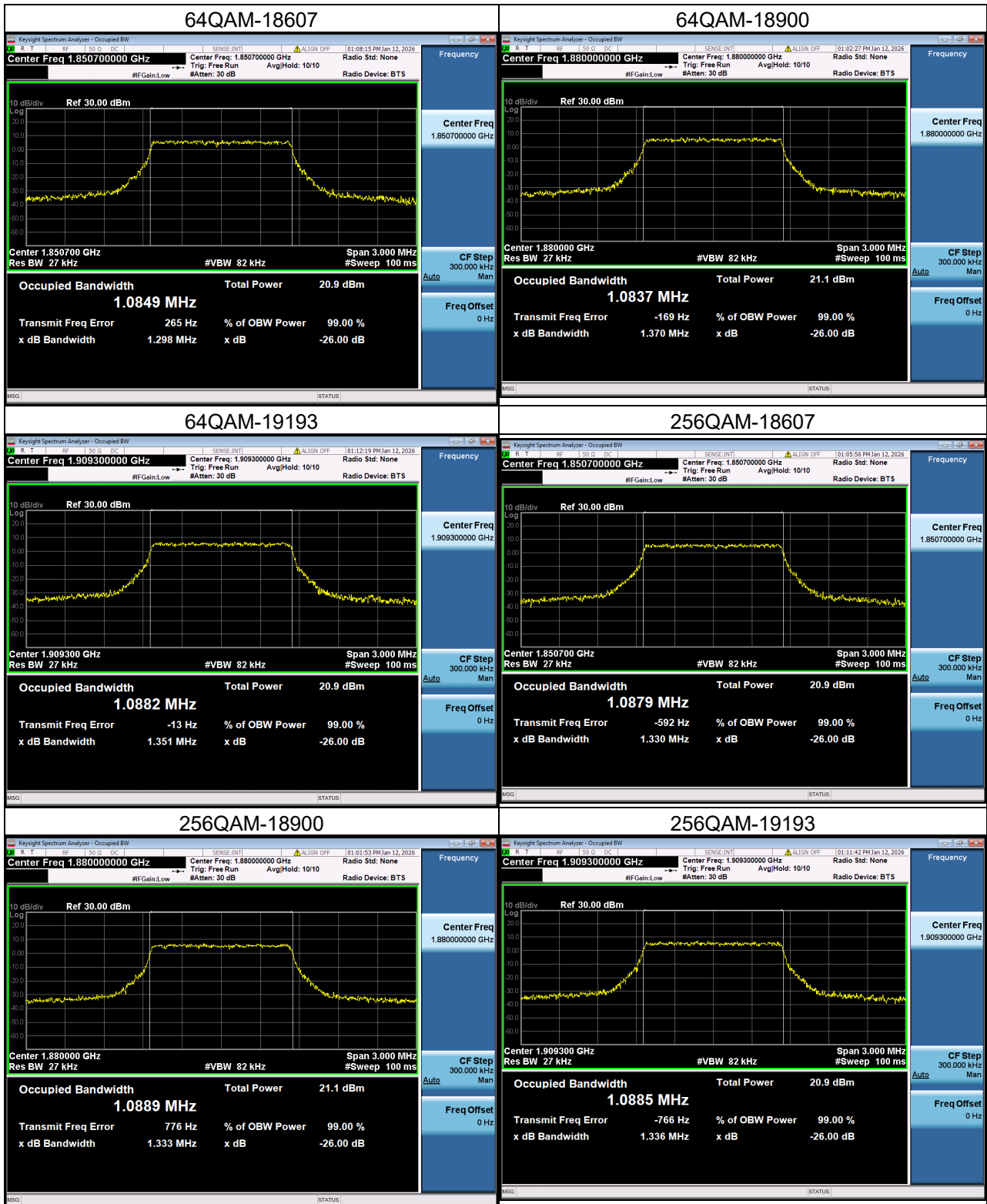


16QAM-18900



16QAM-19193

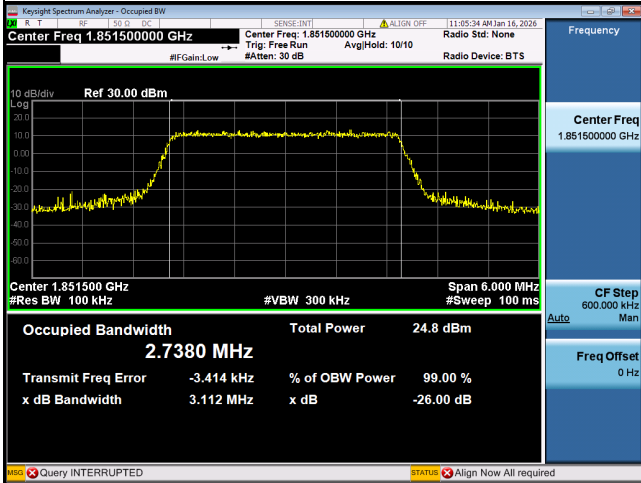




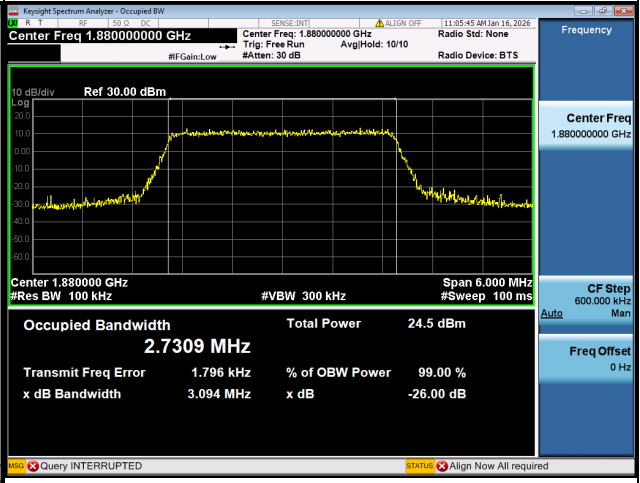
LTE Band 2_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.7380	18615	1851.5	3.112
18900	1880	2.7309	18900	1880	3.094
19185	1908.5	2.7259	19185	1908.5	3.123
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.7328	18615	1851.5	3.116
18900	1880	2.7352	18900	1880	3.128
19185	1908.5	2.7280	19185	1908.5	3.077
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.7266	18615	1851.5	3.068
18900	1880	2.7314	18900	1880	3.140
19185	1908.5	2.7254	19185	1908.5	3.141
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.6946	18615	1851.5	2.996
18900	1880	2.6892	18900	1880	3.027
19185	1908.5	2.6895	19185	1908.5	2.951

Spectrum Plot

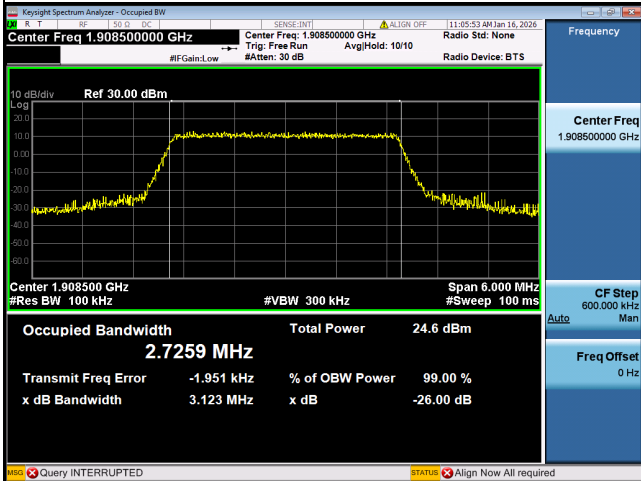
QPSK-18615



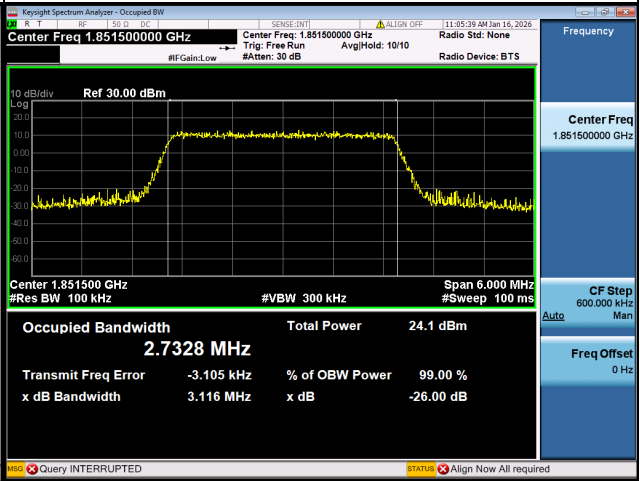
QPSK-18900



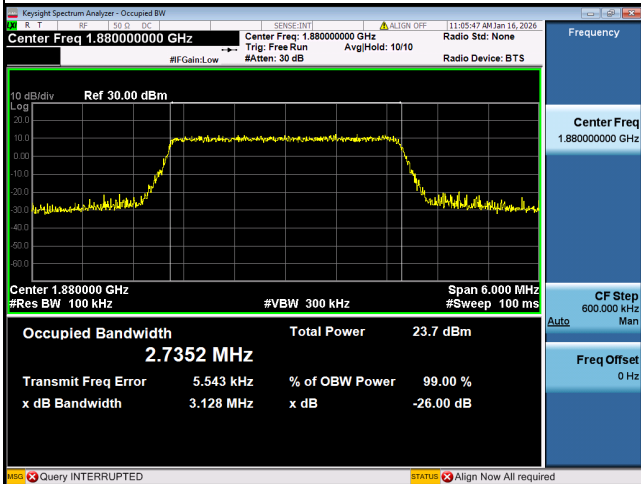
QPSK-19185



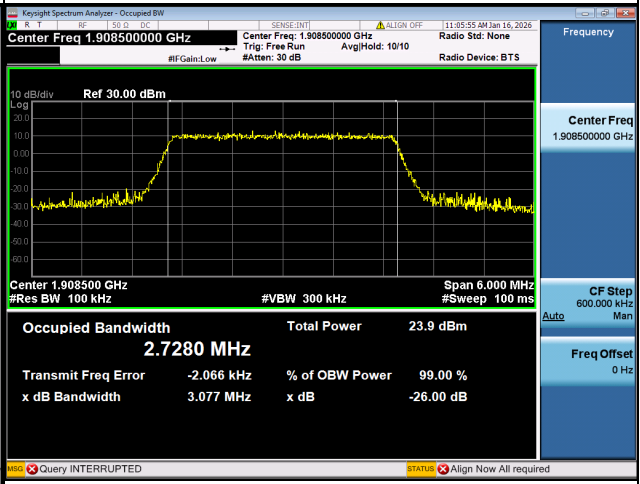
16QAM-18615

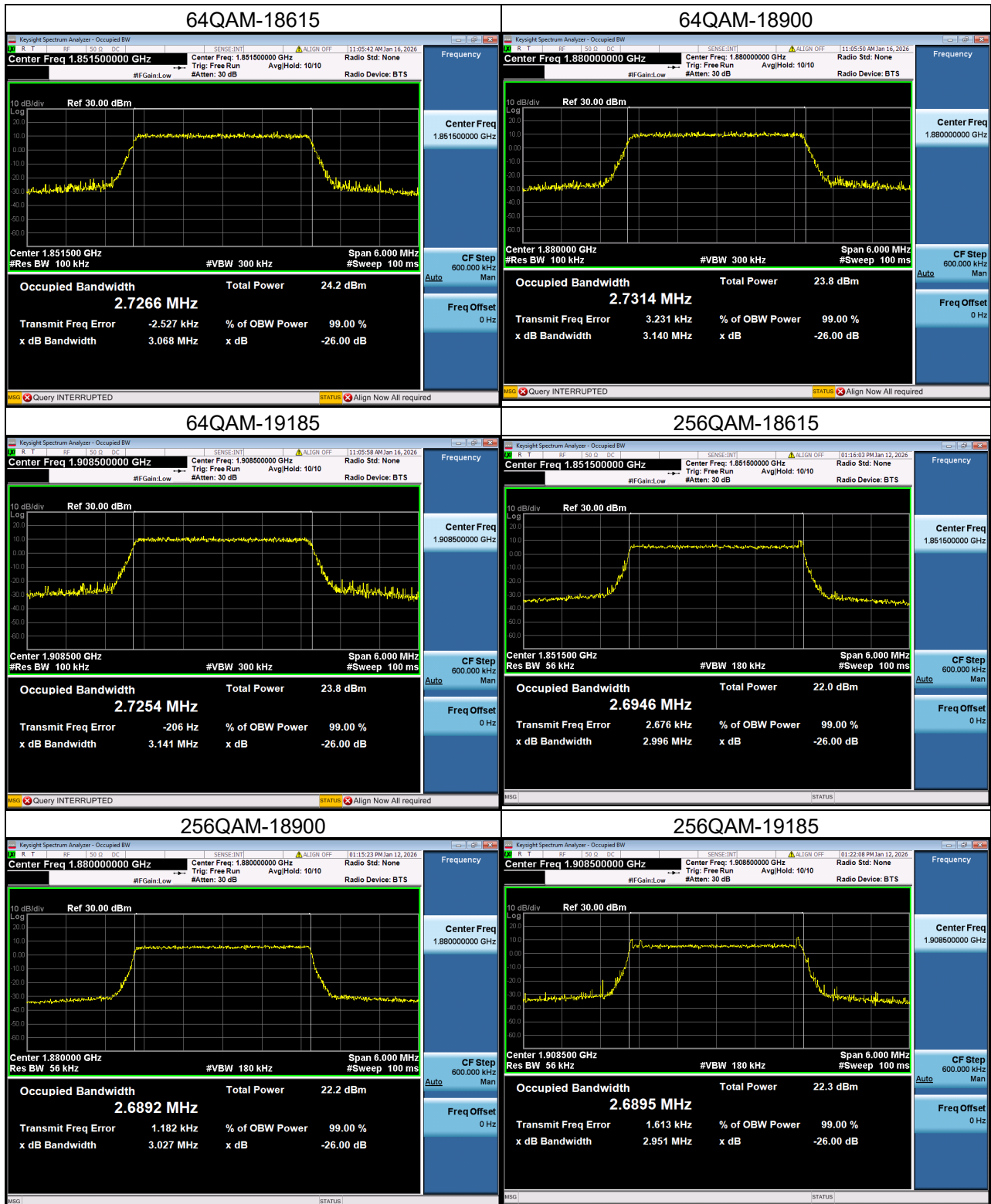


16QAM-18900



16QAM-19185

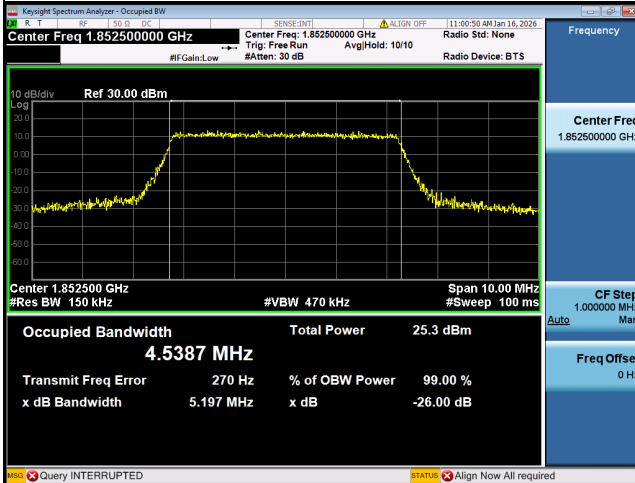




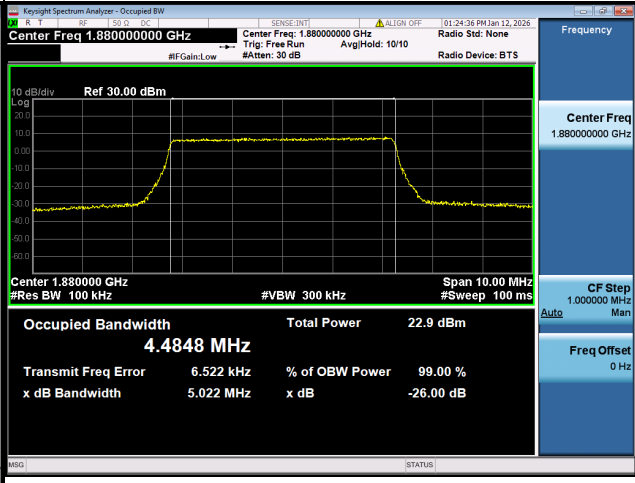
LTE Band 2_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5387	18625	1852.5	5.197
18900	1880	4.4848	18900	1880	5.022
19175	1907.5	4.5294	19175	1907.5	5.172
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5484	18625	1852.5	5.161
18900	1880	4.5387	18900	1880	5.179
19175	1907.5	4.5205	19175	1907.5	5.175
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5348	18625	1852.5	5.254
18900	1880	4.5342	18900	1880	5.204
19175	1907.5	4.5298	19175	1907.5	5.247
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.4846	18625	1852.5	5.067
18900	1880	4.4848	18900	1880	5.022
19175	1907.5	4.4763	19175	1907.5	5.036

Spectrum Plot

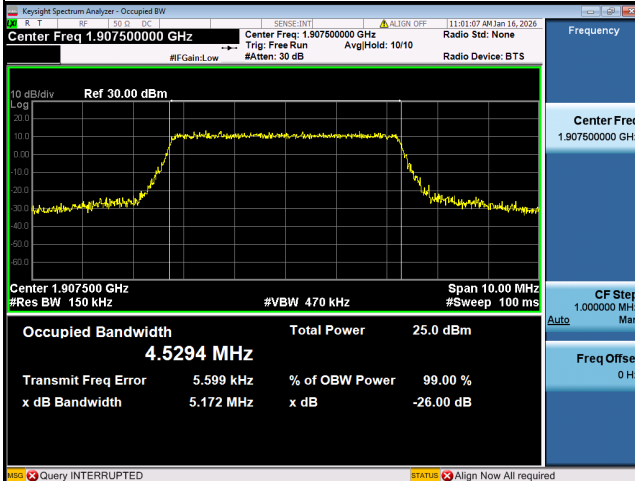
QPSK-18625



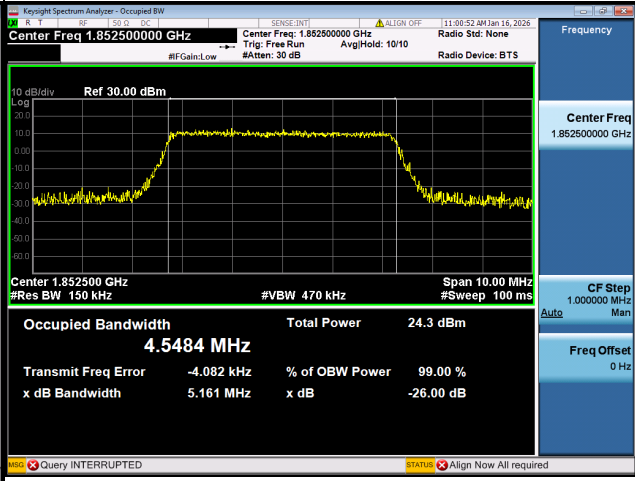
QPSK-18900



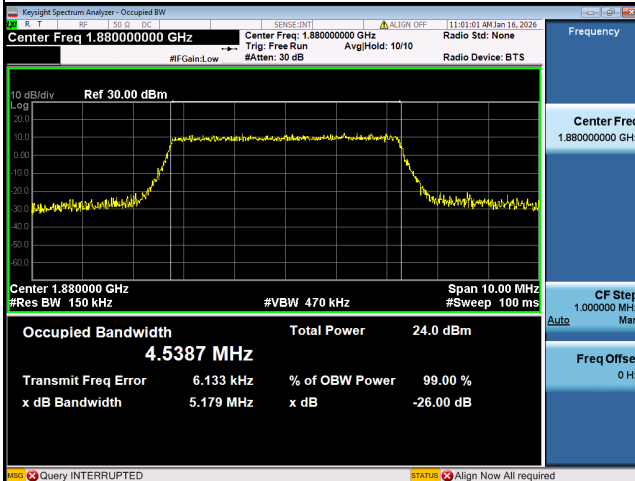
QPSK-19175



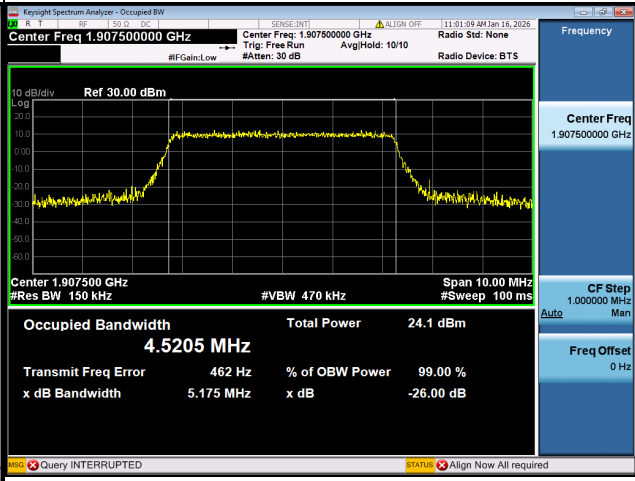
16QAM-18625

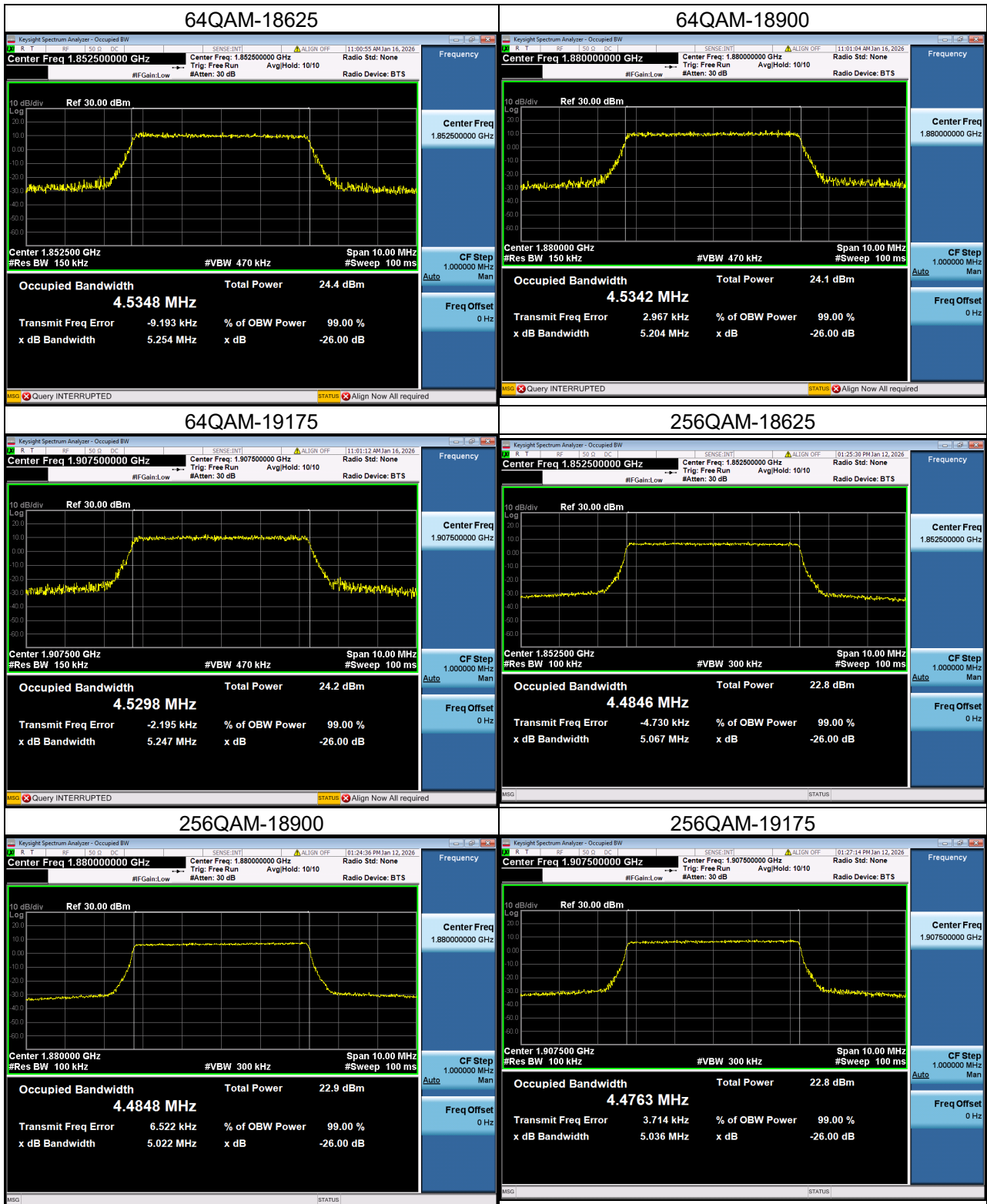


16QAM-18900



16QAM-19175

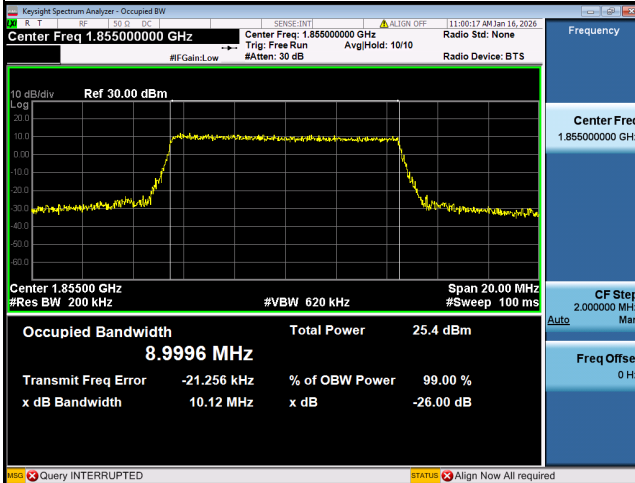




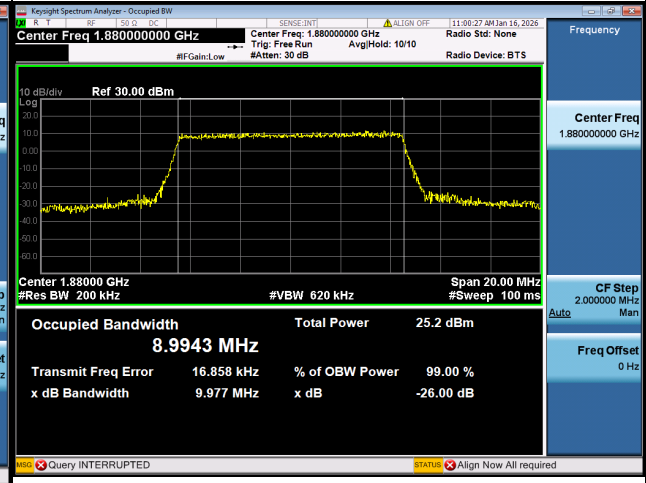
LTE Band 2_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	8.9996	18650	1855	10.12
18900	1880	8.9943	18900	1880	9.977
19150	1905	8.9744	19150	1905	9.980
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	8.9870	18650	1855	10.04
18900	1880	8.9792	18900	1880	9.944
19150	1905	8.9690	19150	1905	9.989
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	9.0022	18650	1855	10.01
18900	1880	8.9772	18900	1880	9.897
19150	1905	8.9697	19150	1905	9.936
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	8.9794	18650	1855	9.912
18900	1880	8.9664	18900	1880	9.844
19150	1905	8.9669	19150	1905	9.844

Spectrum Plot

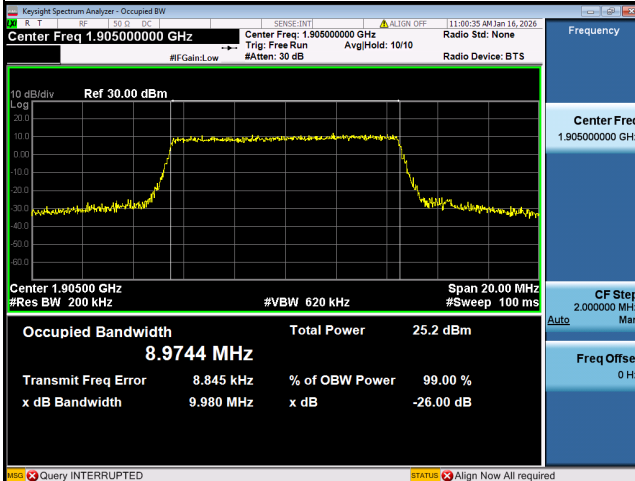
QPSK-18650



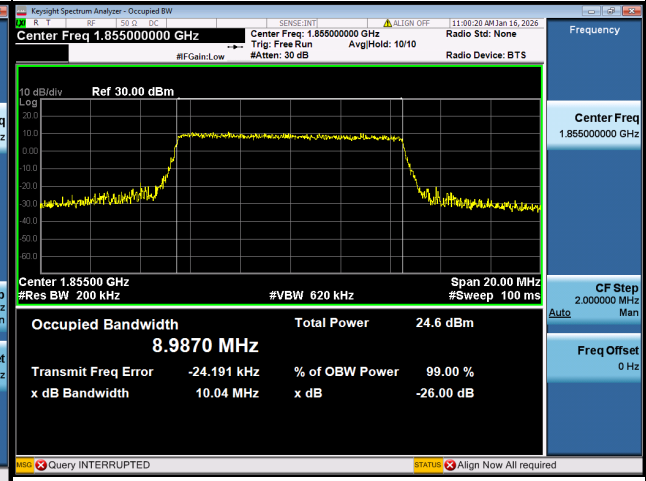
QPSK-18900



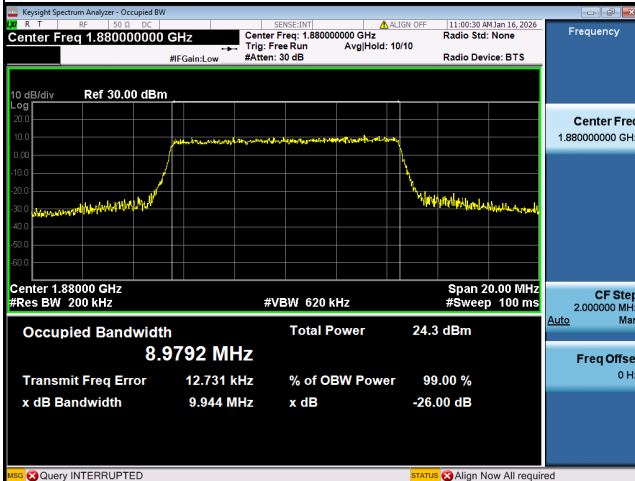
QPSK-19150



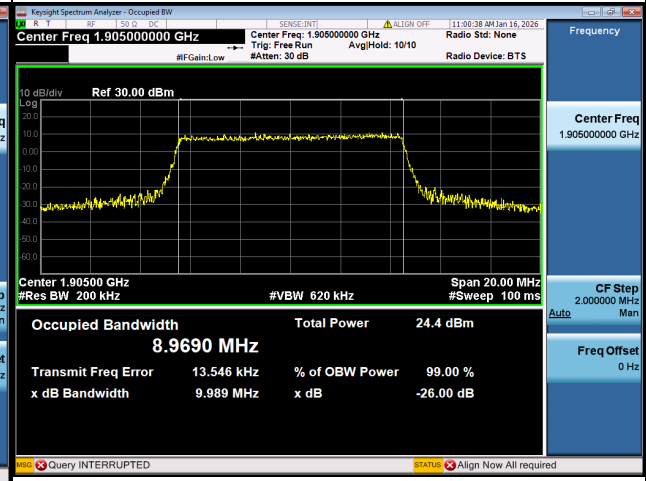
16QAM-18650

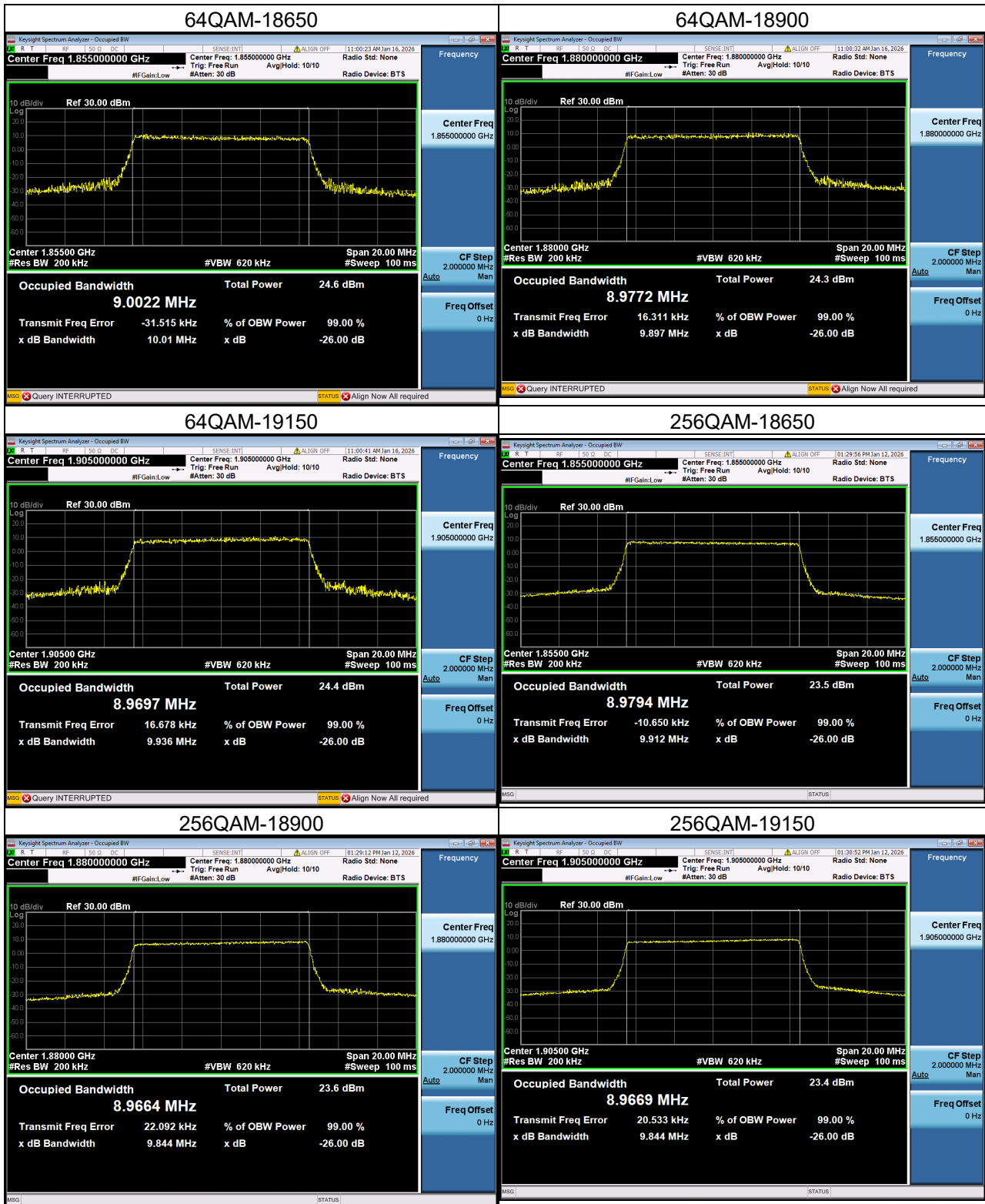


16QAM-18900



16QAM-19150

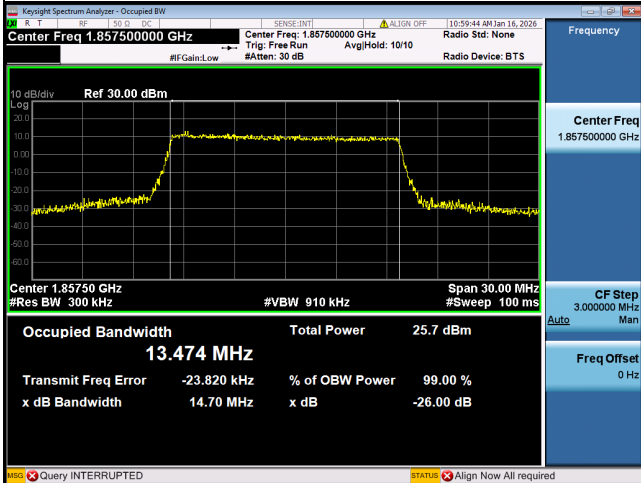




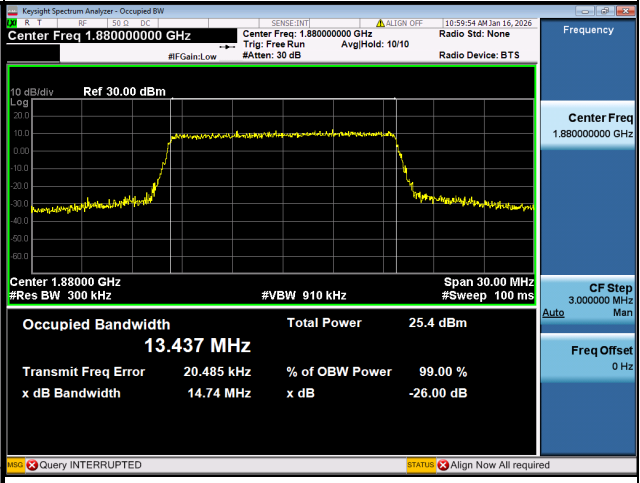
LTE Band 2_15M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.474	18675	1857.5	14.70
18900	1880	13.437	18900	1880	14.74
19125	1902.5	13.471	19125	1902.5	14.86
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.504	18675	1857.5	14.90
18900	1880	13.450	18675	1857.5	14.88
19125	1902.5	13.482	18900	1880	14.91
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.506	18675	1857.5	14.78
18900	1880	13.449	18900	1880	14.85
19125	1902.5	13.499	19125	1902.5	14.77
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.447	18675	1857.5	14.68
18900	1880	13.423	18900	1880	14.62
19125	1902.5	13.454	19125	1902.5	14.60

Spectrum Plot

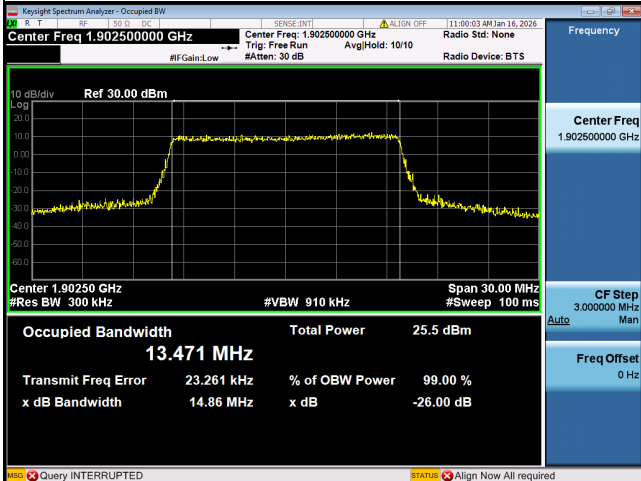
QPSK-18675



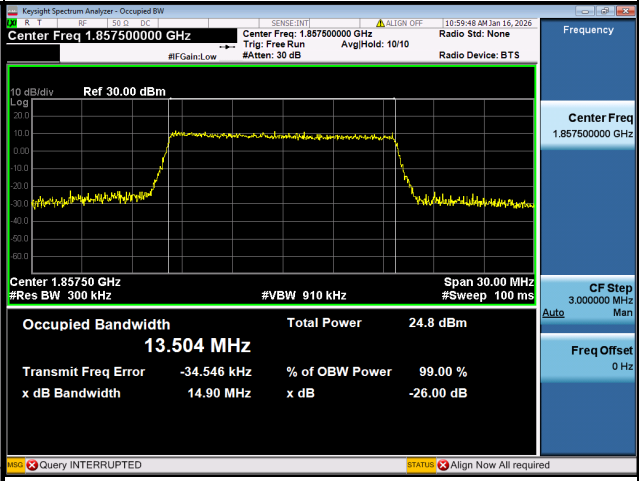
QPSK-18900



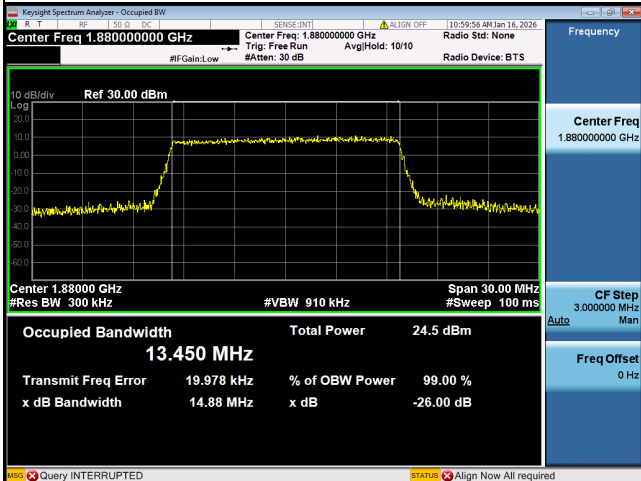
QPSK-19125



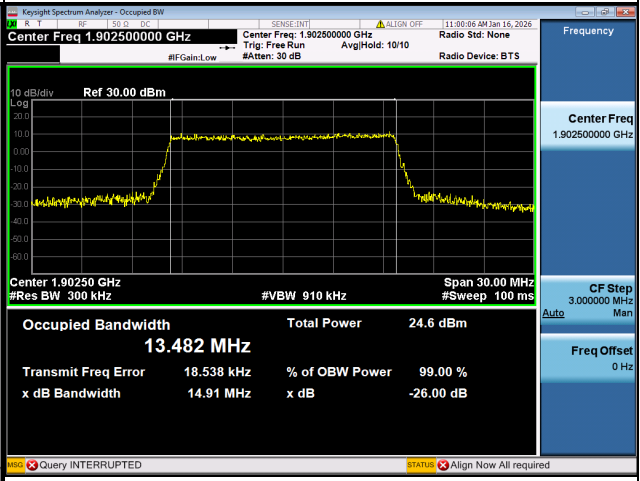
16QAM-18675

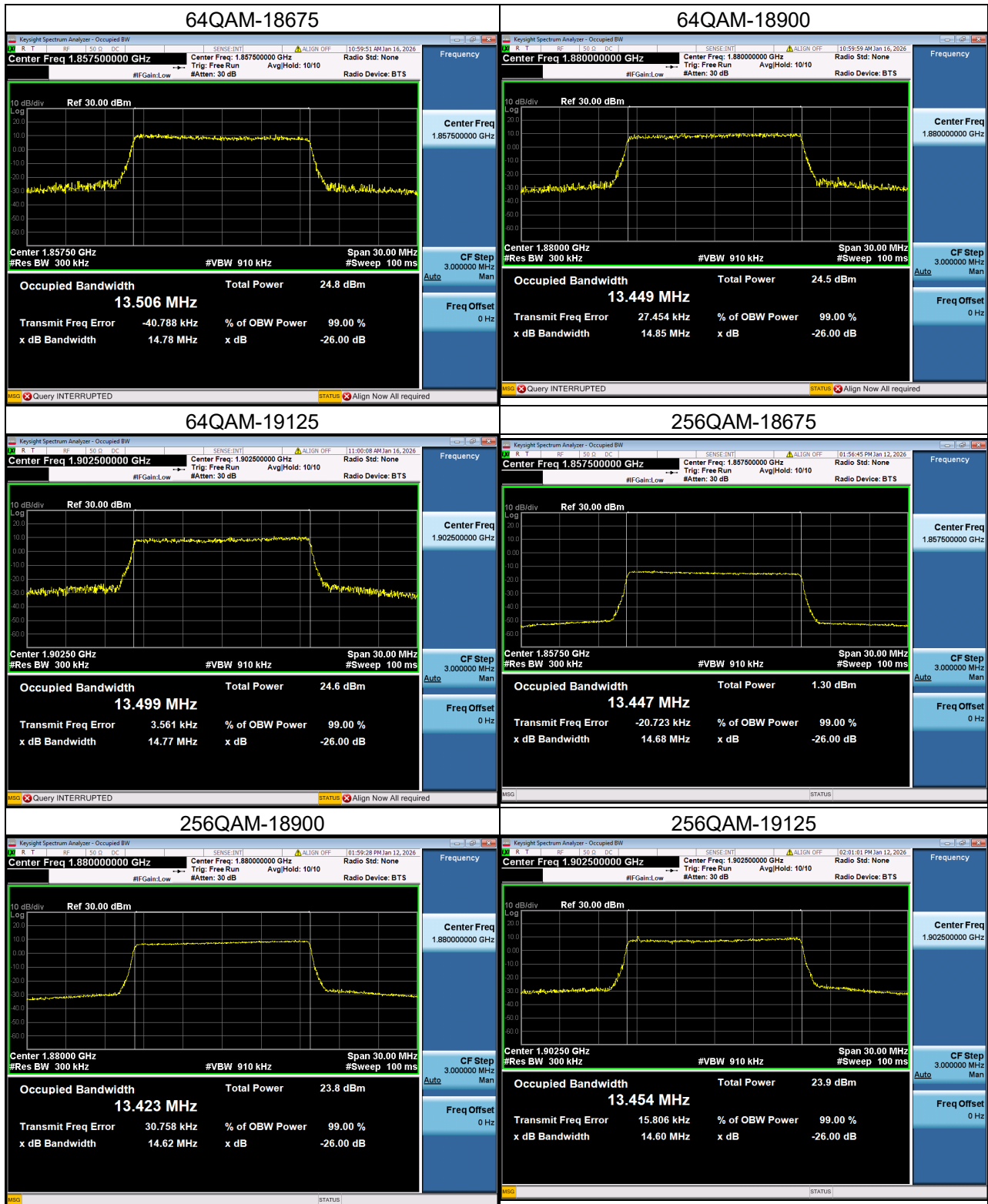


16QAM-18900



16QAM-19125

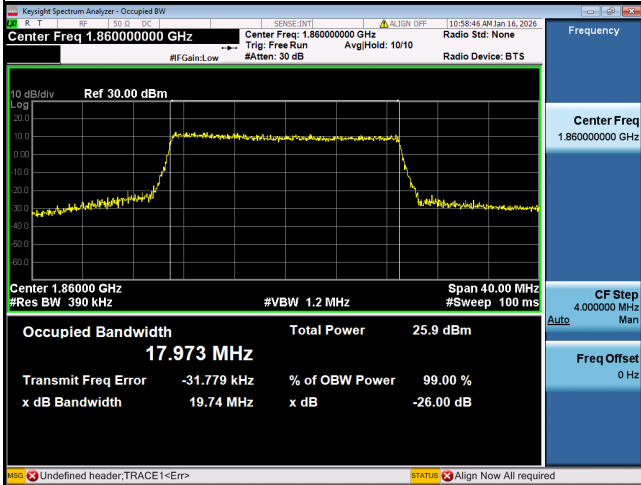




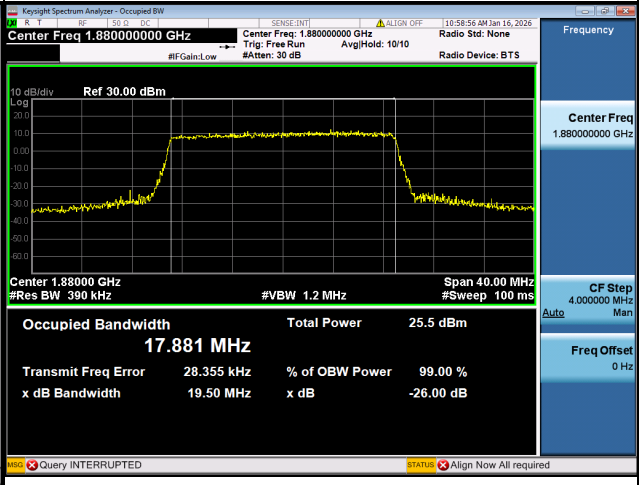
LTE Band 2_20M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	17.973	18700	1860	17.881
18900	1880	17.881	18900	1880	19.50
19100	1900	17.965	19100	1900	19.72
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	17.987	18700	1860	19.86
18900	1880	17.890	18900	1880	19.78
19100	1900	18.014	19100	1900	19.70
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	18.005	18700	1860	19.64
18900	1880	17.883	18900	1880	19.42
19100	1900	18.001	19100	1900	19.68
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	17.948	18700	1860	19.50
18900	1880	17.881	18900	1880	19.43
19100	1900	17.963	19100	1900	19.57

Spectrum Plot

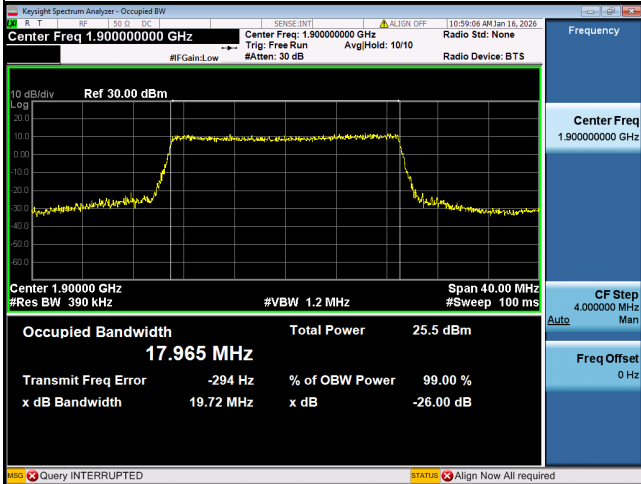
QPSK-18700



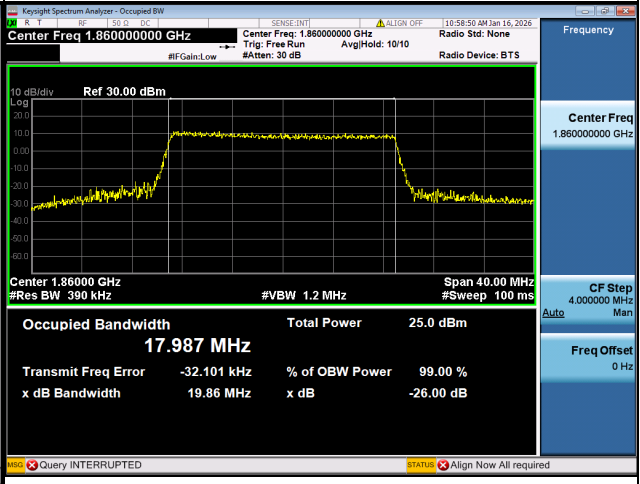
QPSK-18900



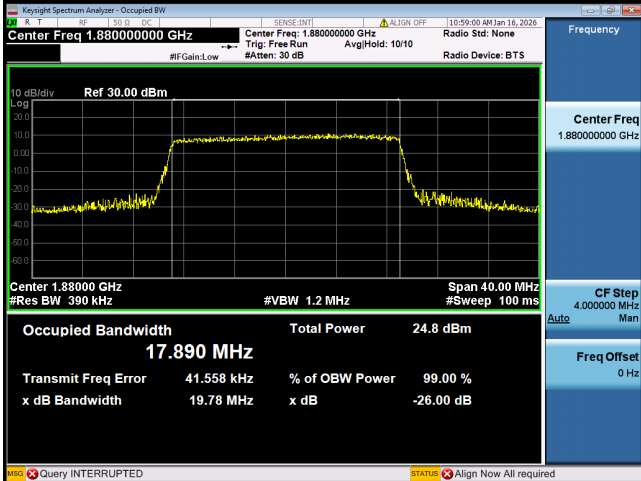
QPSK-19100



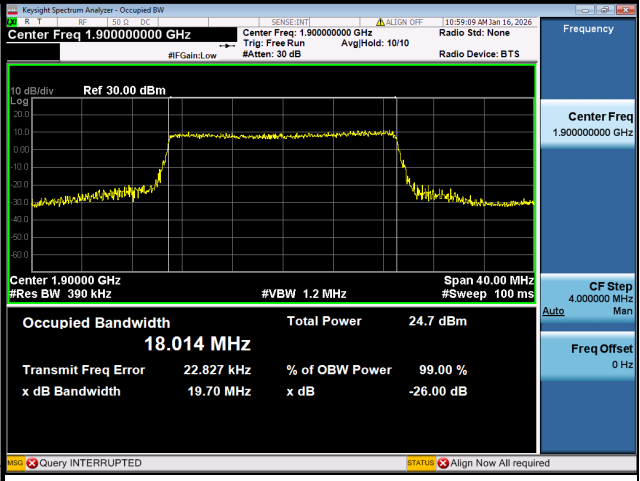
16QAM-18700

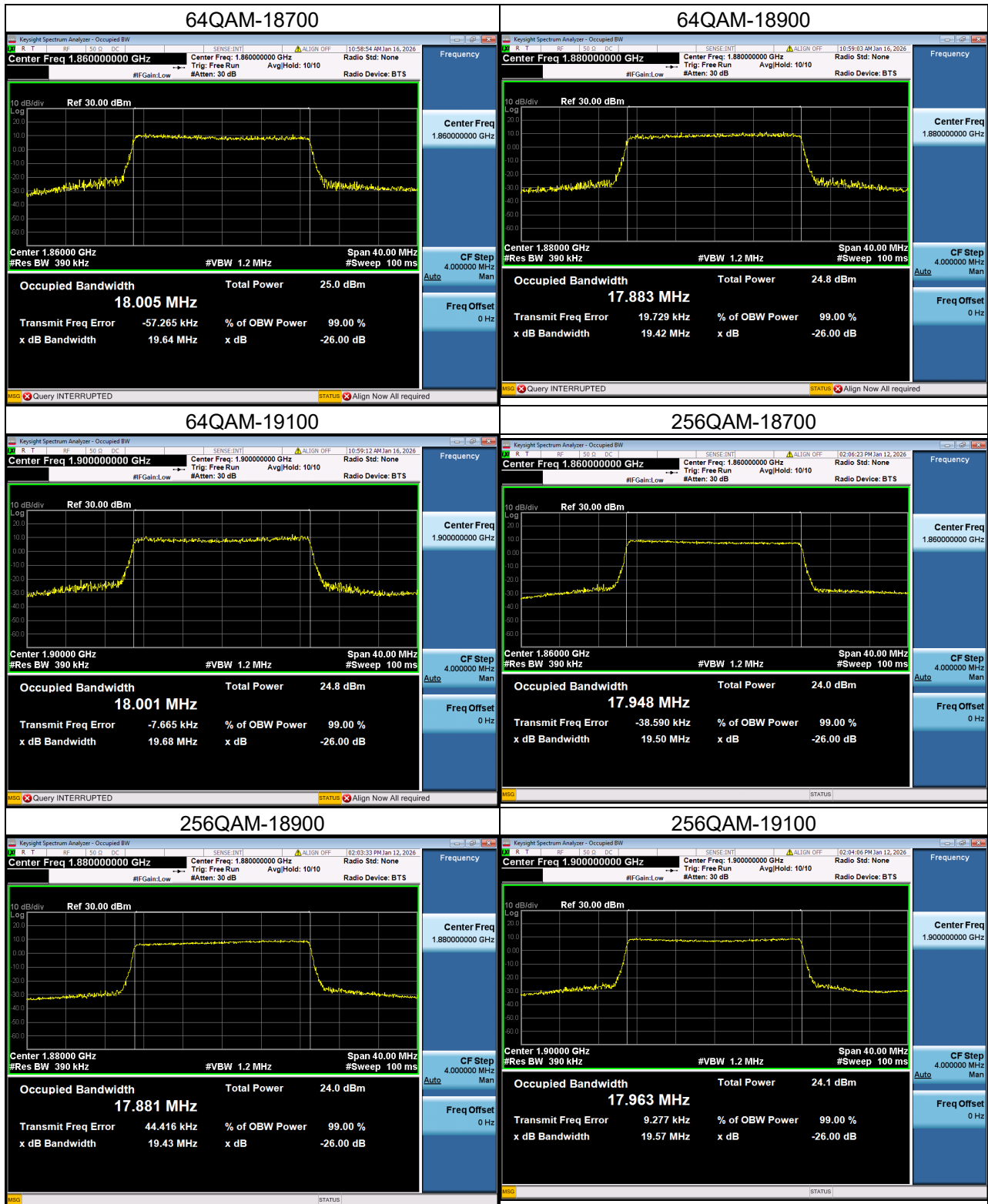


16QAM-18900



16QAM-19100





5G NR n2_5M					
DFT-s-OFDM PI/2 BPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.4999	376000	1880	5.144
DFT-s-OFDM QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.5224	376000	1880	5.340
DFT-s-OFDM 16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.5200	376000	1880	5.284
DFT-s-OFDM 64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.5086	376000	1880	5.240
DFT-s-OFDM 256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.5375	376000	1880	5.137

CP-OFDM QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.5052	376000	1880	5.364
CP-OFDM 16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.4960	376000	1880	5.233
CP-OFDM 64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.4961	376000	1880	5.197
CP-OFDM 256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
376000	1880	4.5106	376000	1880	5.242