



FCC Radio Test Report

FCC ID: M82-SCN100

Report No. : BTL-FCCP-5-2212T004
Equipment : Computer
Model Name : SCN-100-9, SCN-100-9xxxxxxxxxxxxxxxx (where "x" may be any alphanumeric character, "-" or blank for marketing purpose and no impact safety related critical components and constructions)
Brand Name :
 (1) ADVANTECH or 
 (2) 
Applicant : Advantech Co., Ltd.
Address : No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 11491, Taiwan.
Radio Function : WCDMA Band V & LTE Band 5, 26
FCC Rule Part(s) : FCC CFR Title 47, Part 22, Subpart H
Date of Receipt : 2022/12/9
Date of Test : 2023/2/24 ~ 2023/11/17
Issued Date : 2023/11/20

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

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**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** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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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-5-2212T004	R00	Original Report.	2023/9/4	Invalid
BTL-FCCP-5-2212T004	R01	Added others conducted test items.	2023/11/7	Invalid
BTL-FCCP-5-2212T004	R02	Revised report to address TCB's comments.	2023/11/20	Valid

1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

Standard(s) Section	Description	Test Result	Judgement	Remark
2.1046 22.913(a)(5)	Conducted Output Power Effective Radiated Power	APPENDIX A	Pass	-----
2.1049	Occupied Bandwidth	APPENDIX B	Pass	-----
2.1051 22.917(a)	Conducted Spurious Emissions	APPENDIX C	Pass	-----
2.1053 22.917(a)	Radiated Spurious Emissions	APPENDIX D	Pass	-----
22.917(a)	Band Edge Measurements	APPENDIX E	Pass	-----
-	Peak To Average Ratio	APPENDIX F	Pass	Record Only
2.1055 22.355	Frequency Stability	APPENDIX G	Pass	-----

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

The test locations stated below are under the TAF Accreditation Number 0659.

The test location(s) used to collect the test data in this report are:

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

C05 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 %**.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

A. Effective 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	23.4 °C, 59 %	AC 120V	Cora Lin
Effective Radiated Power	Refer to data	AC 120V	Mark Wang
Occupied Bandwidth	25.4 °C, 54 %	AC 120V	Cora Lin
Conducted Spurious Emissions	25.4 °C, 54 %	AC 120V	Cora Lin
Radiated Spurious Emissions	Refer to data	AC 120V	Mark Wang
Band Edge	25.4 °C, 54 %	AC 120V	Cora Lin
Peak to Average Ratio	25.4 °C, 54 %	AC 120V	Cora Lin
Frequency Stability	Normal and Extreme		Cora Lin

2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

Equipment	Computer			
Model Name	SCN-100-9, SCN-100-9xxxxxxxxxxxxxxxx (where "x" may be any alphanumeric character, "-" or blank for marketing purpose and no impact safety related critical components and constructions)			
Brand Name	(1) ADVANTECH or (2)			
Model Difference	Different model distribute to different area.			
Power Source	DC voltage supplied from AC/DC Adapter.			
Power Rating	EUT: 12-32Vdc, 10-3.75A For Adapter: I/P: 100-240V~2.3A, 50-60Hz O/P: 24.0V---7.5A 180.0W			
Products Covered	1 * Adapter: FSP / FSP180-AAAN3			
WWAN Module	AirPrime / EM7565			
IMEI No.				
Operation Frequency	Band	UL Frequency (MHz)	DL Frequency (MHz)	
	WCDMA V	824 ~ 849	869 ~ 894	
	LTE 5 LTE 26	824 ~ 849	869 ~ 894	
Maximum ERP	Band	BW (MHz)	Mode	Power (W)
	WCDMA V	-	-	0.280
		LTE 5	1.4	QPSK
	16QAM			0.181
	3		QPSK	0.225
			16QAM	0.183
	5		QPSK	0.228
			16QAM	0.185
	LTE 26	10	QPSK	0.231
			16QAM	0.187
		1.4	QPSK	0.199
			16QAM	0.161
		3	QPSK	0.201
			16QAM	0.163
	5	QPSK	0.203	
16QAM		0.165		
10	QPSK	0.206		
	16QAM	0.167		
15	QPSK	0.208		
	16QAM	0.169		

Test Model	SCN-100-9
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:

WCDMA Band V				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	4132	826.4	4357	871.4
Mid Range	4183	836.6	4408	881.5
High Range	4233	846.6	4458	891.6

LTE Band 5					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	20407	824.7	2407	869.7
	3	20415	825.5	2415	870.5
	5	20425	826.5	2425	871.5
	10	20450	829	2450	874
Mid Range	1.4/3/5/10	20525	836.5	2525	881.5
High Range	1.4	20643	848.3	2643	893.3
	3	20635	847.5	2635	892.5
	5	20625	846.5	2625	891.5
	10	20600	844	2600	889

LTE Band 26					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	26797	824.7	8797	869.7
	3	26805	825.5	8805	870.5
	5	26815	826.5	8815	871.5
	10	26840	829	8840	874
	15	26915	836.5	8865	876.5
Mid Range	1.4/3/5/10/15	26915	836.5	8915	881.5
High Range	1.4	27033	848.3	9033	893.3
	3	27025	847.5	9025	892.5
	5	27015	846.5	9015	891.5
	10	26990	844	8990	889
	15	26965	841.5	8965	886.5

(3) Table for Filed Antenna:

Antenna	Manufacture	Part Number	Type	Connector	Gain (dBi)	Note
Main		PCUB77.A.07.A.001	PCB	I-PEX MFH4L	2.65	WCDMA Band V
						LTE Band 5
						LTE Band 26
Aux		PCUB77.A.07.A.001	PCB	I-PEX MFH4L	2.35	WCDMA Band V
						LTE Band 5
						LTE Band 26

(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

WCDMA BAND V MODE			
Test Item	Available Channel	Tested Channel	Mode
Conducted Output Power and Effective Radiated Power	4132 to 4233	4132, 4183, 4233	WCDMA, HSDPA, HSUPA, HSPA+
Occupied Bandwidth	4132 to 4233	4132, 4183, 4233	WCDMA
Conducted Spurious Emissions	4132 to 4233	4183	WCDMA
Radiated Spurious Emissions	4132 to 4233	4183	WCDMA
Band Edge	4132 to 4233	4132, 4233	WCDMA
Peak to Average Ratio	4132 to 4233	4132, 4183, 4233	WCDMA
Frequency Stability	4132 to 4233	4183	WCDMA

LTE BAND 5 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM,64QAM	1RB/3RB/6RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM,64QAM	1RB/8RB/15RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM,64QAM	1RB/12RB/25RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM,64QAM	1RB/25RB/50RB
Effective Radiated Power	20450 to 20600	20450, 20525, 20600	10MHz	QPSK	1RB/25RB/50RB
Occupied Bandwidth	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM,64QAM	6RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM,64QAM	15RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM,64QAM	25RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM,64QAM	50RB
Conducted Spurious Emissions	20407 to 20643	20525	1.4MHz	QPSK	1RB
	20425 to 20625	20525	5MHz	QPSK	1RB
	20450 to 20600	20525	10MHz	QPSK	1RB
Radiated Spurious Emissions	20407 to 20643	20525	1.4MHz	QPSK	1RB
	20425 to 20625	20525	5MHz	QPSK	1RB
	20450 to 20600	20525	10MHz	QPSK	1RB
Band Edge	20407 to 20643	20407, 20643	1.4MHz	QPSK	1RB/6RB
	20415 to 20635	20415, 20635	3MHz	QPSK	1RB/15RB
	20425 to 20625	20425, 20625	5MHz	QPSK	1RB/25RB
	20450 to 20600	20450, 20600	10MHz	QPSK	1RB/50RB
Peak To Average Ratio	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM,64QAM	1RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM,64QAM	1RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM,64QAM	1RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM,64QAM	1RB
Frequency Stability	20407 to 20643	20525	1.4MHz	QPSK	1RB
	20415 to 20635	20525	3MHz	QPSK	1RB
	20425 to 20625	20525	5MHz	QPSK	1RB
	20450 to 20600	20525	10MHz	QPSK	1RB

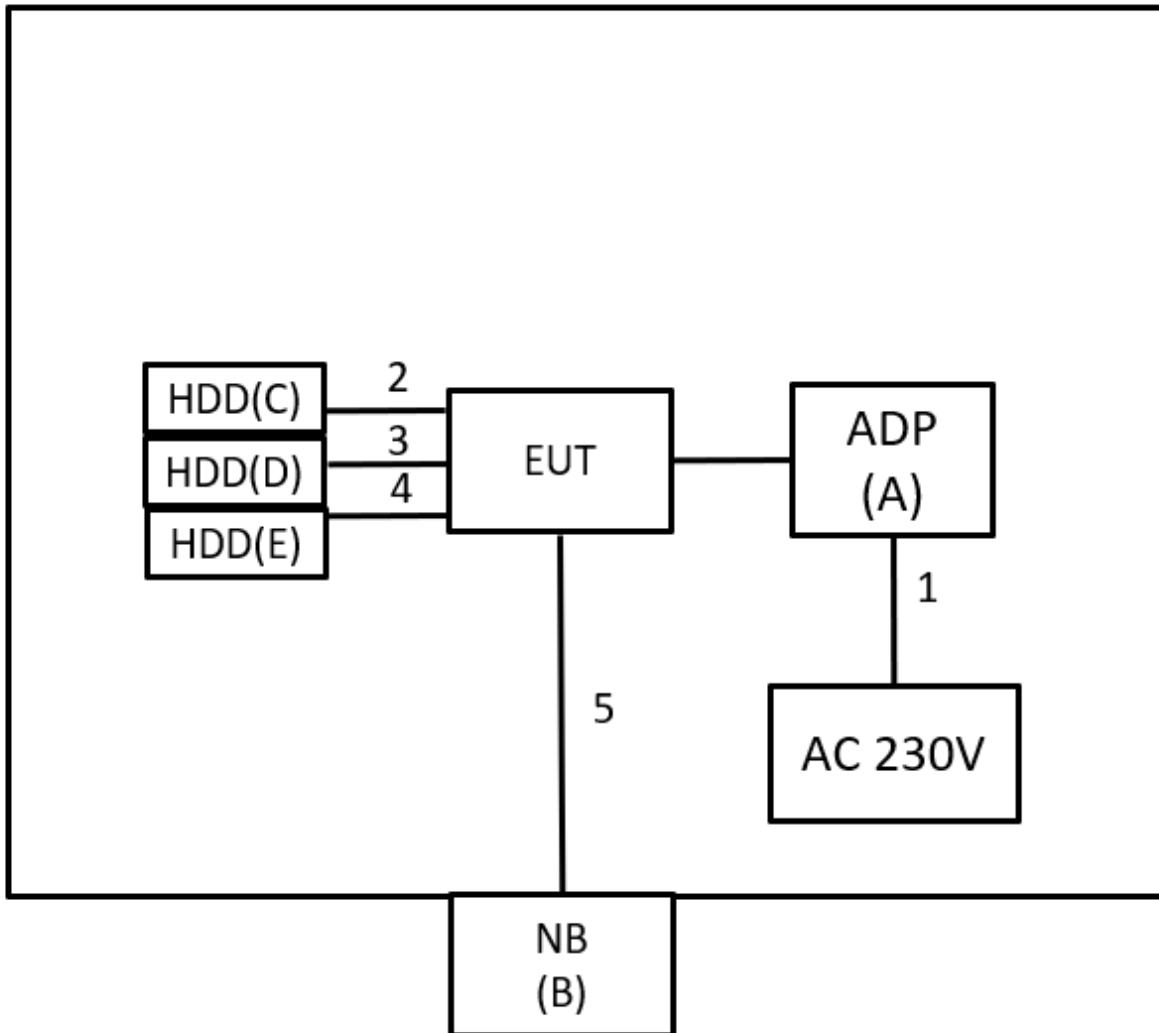
LTE BAND 26 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & ERP	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	26915 to 26965	26915, 26915, 26965	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
Occupied Bandwidth	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM, 64QAM	15RB
	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM, 64QAM	25RB
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM, 64QAM	50RB
	26915 to 26965	26915, 26915, 26965	15MHz	QPSK, 16QAM, 64QAM	75RB
Conducted Spurious Emissions	26815 to 27015	226915	1.4MHz	QPSK	1RB
	26815 to 27015	226915	5MHz	QPSK	1RB
	26915 to 26965	226915	15MHz	QPSK	1RB
Radiated Spurious Emissions	26815 to 27015	226915	1.4MHz	QPSK	1RB
	26815 to 27015	226915	5MHz	QPSK	1RB
	26915 to 26965	226915	15MHz	QPSK	1RB
Band Edge	26797 to 27033	26797, 27033	1.4MHz	QPSK	1RB 6RB
	26805 to 27025	26805, 27025	3MHz	QPSK	1RB 15RB
	26815 to 27015	26815, 27015	5MHz	QPSK	1RB 25RB
	26840 to 26990	26840, 26990	10MHz	QPSK	1RB 50RB
	26915 to 26965	26915, 26965	15MHz	QPSK	1RB 75RB
Peak To Average Ratio	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM, 64QAM	1RB
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM, 64QAM	1RB
	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM, 64QAM	1RB
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM, 64QAM	1RB
	26915 to 26965	26915, 26915, 26965	15MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	26915 to 26965	226915	15MHz	QPSK	1RB

NOTE:

- (1) For Radiated Spurious Emissions both QPSK and 16QAM are evaluated, but only the worst case (QPSK) is recorded.

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	ADP	FSP GROUP	FSP180-AAAN3	N/A	Supplied by test requester.
B	NB	HP	TPN-C125	N/A	Furnished by test lab.
C	USB 2.5" HDD	AKITIO	Neutrino U3.1	SK21D1621D003 F	Furnished by test lab.
D	USB 2.5" HDD	AKITIO	Neutrino U3.1	SK21D1621D003 F	Furnished by test lab.
E	USB 3.0 HDD	WD	WD3C3C0010B SL-0B	WX81A88ALJUC	Furnished by test lab.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	N/A	N/A	1m	Power Cable	Supplied by test requester.
2	N/A	N/A	0.6m	TypeC to TypeC Cable	Furnished by test lab.
3	N/A	N/A	1m	TypeC to TypeC Cable	Furnished by test lab.
4	N/A	N/A	0.3m	TypeC to TypeC Cable	Furnished by test lab.
5	N/A	N/A	12m	RJ45 Cable	Furnished by test lab.

3 CONDUCTED OUTPUT POWER AND EFFECTIVE RADIATED POWER MEASUREMENT

3.1 LIMIT

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts (38.45 dBm).

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)
-29.66	+	34.26	=	4.60

Measurement Value (dBm)		Limit Value (dBm)		Margin Level (dB)
4.60	-	38.45	=	-33.85

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.

Radiated Measurement:

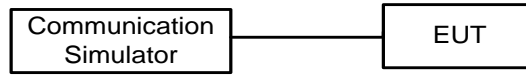
- Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 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 can be calculated form EIRP by subtracting the gain of dipole, ERP = EIPR - 2.15dBi..
- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

3.3 DEVIATION FROM TEST STANDARD

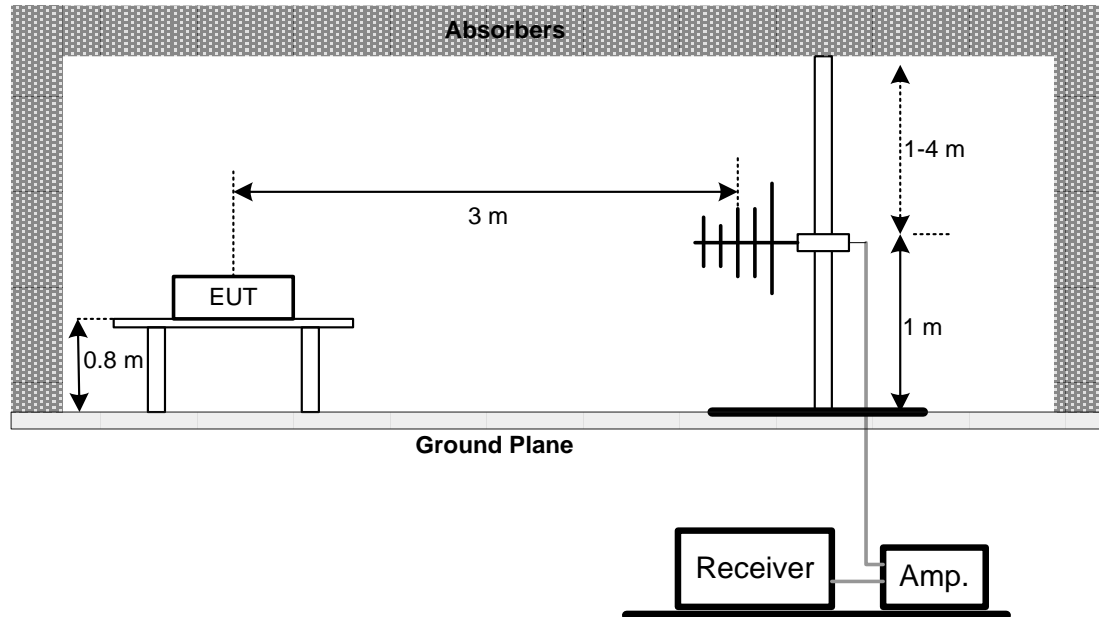
No deviation.

3.4 TEST SETUP

Conducted Measurement:



Radiated 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

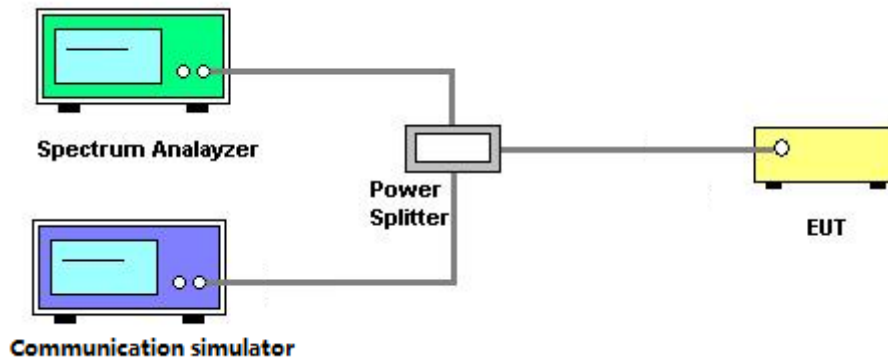
The testing follows FCC KDB 971168 v03r01 Section 4.

- 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

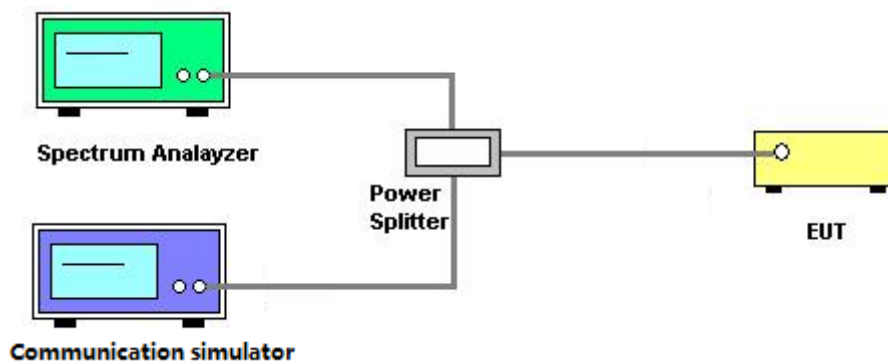
The testing follows FCC KDB 971168 v03r01 Section 6.

- 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>=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

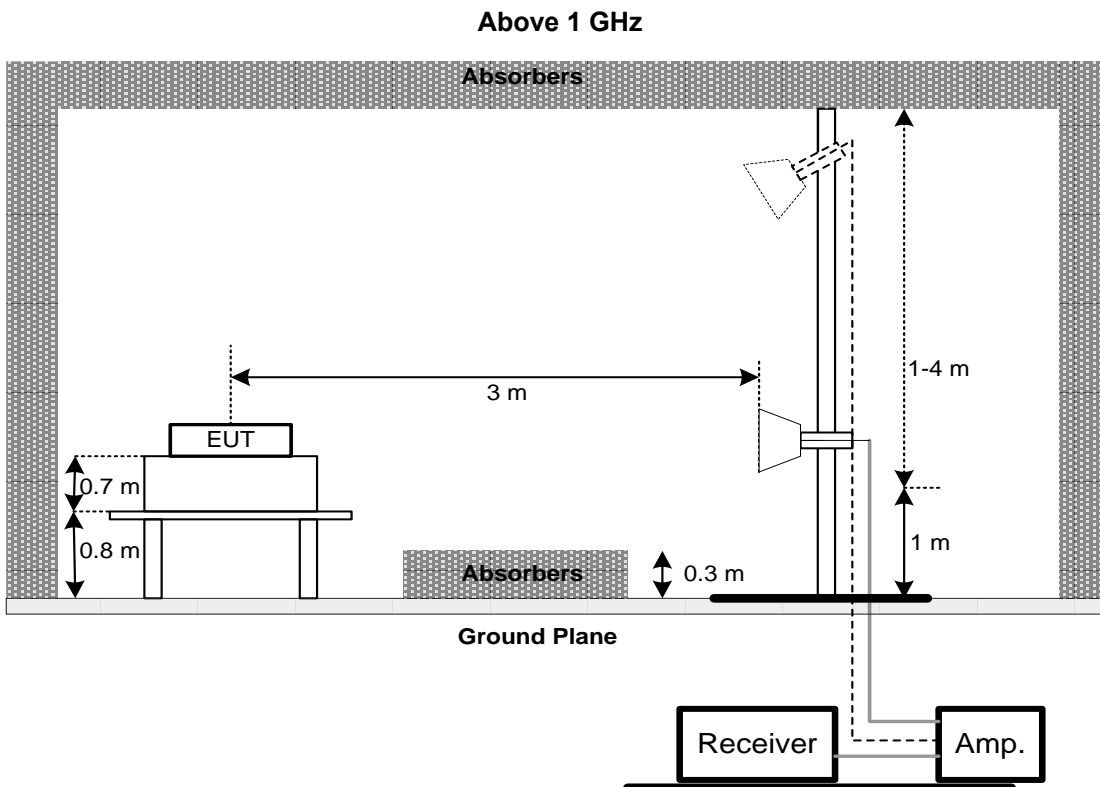
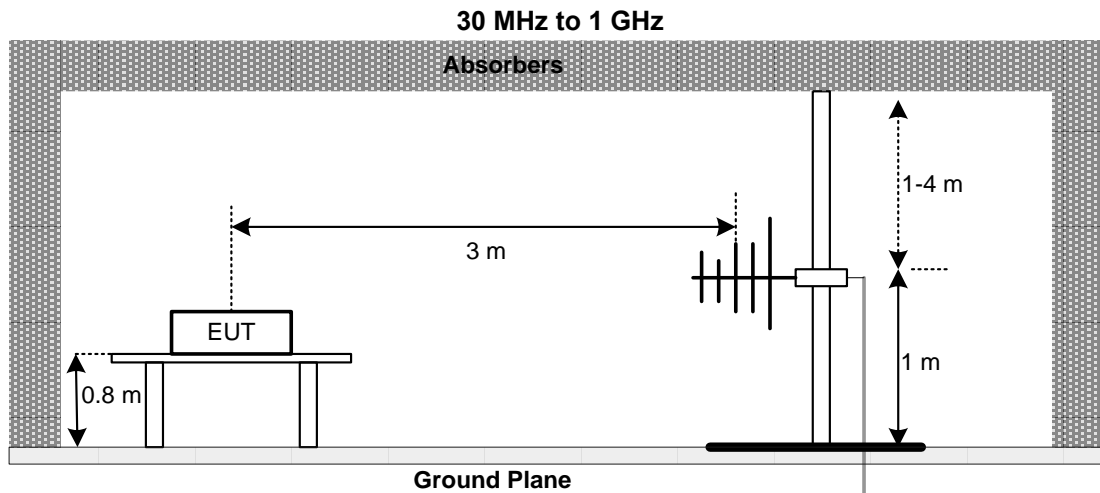
The testing follows FCC KDB 971168 v03r01 Section 6.2.

- a. Substitution method is used for E.I.R.P measurement. 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.
- b. 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
- c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
- d. ERP can be calculated form EIRP by subtracting the gain of dipole, $ERP = EIPR - 2.15\text{dBi}$.
- e. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

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

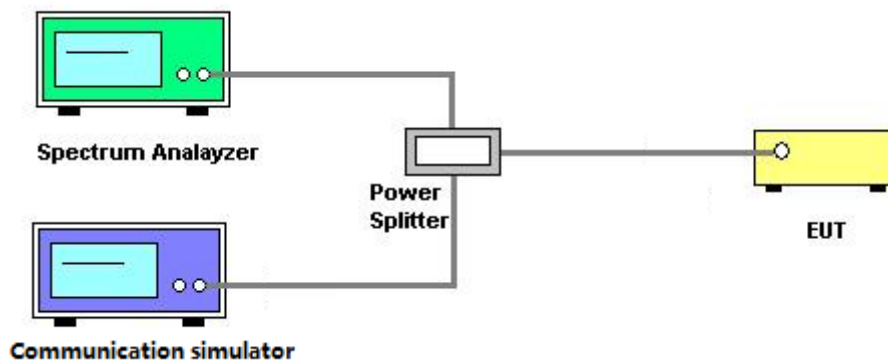
The testing follows FCC KDB 971168 v03r01 Section 6.

- a. All measurements were done at low and high operational frequency range.
- b. 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

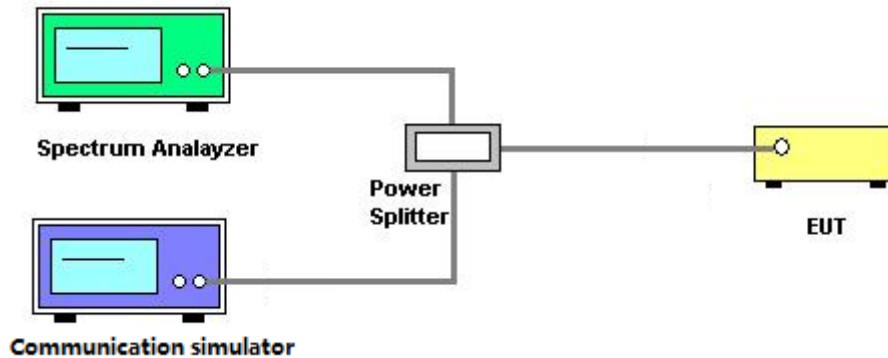
The testing follows FCC KDB 971168 v03r01 Section 5.7.

- 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

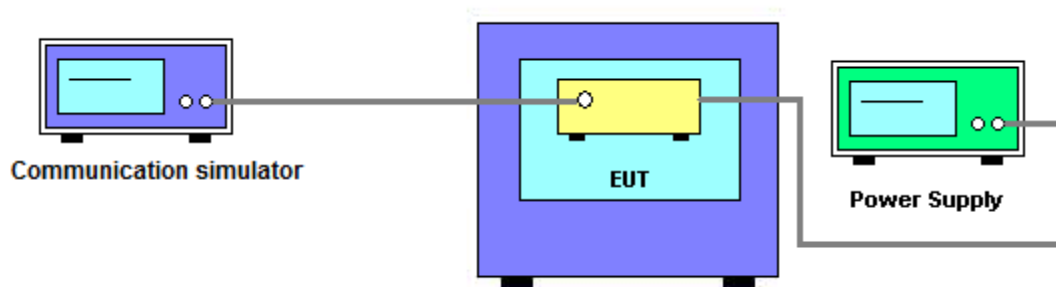
The testing follows FCC KDB 971168 v03r01 Section 9.

- 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

Conducted Output Power						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	Keysight	N9010A	MY56480489	2022/10/19	2023/10/18
2	WIRELESS COMMUNICATION TEST SET	Agilent	E5515C	GB47390193	2023/7/4	2024/7/3
3	Radio Communication Test Station	ANRITSU	MT8821C	6262044728	2022/11/25	2023/11/24

Effective Radiated Power and Radiated Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Preamplifier	EMCI	EMC330N	980850	2022/9/19	2023/9/18
2	Preamplifier	EMCI	EMC118A45SE	980819	2023/3/7	2024/3/6
3	Pre-Amplifier	EMCI	EMC184045SE	980907	2022/9/28	2023/9/27
4	Test Cable	EMCI	EMC104-SM-SM-1000	220319	2023/3/14	2024/3/13
5	Test Cable	EMCI	EMC104-SM-SM-3000	220322	2023/3/14	2024/3/13
6	Test Cable	EMCI	EMC104-SM-SM-7000	220324	2023/3/14	2024/3/13
7	EXA Signal Analyzer	keysight	N9020B	MY57120120	2023/2/24	2024/2/23
8	Horn Antenna	RFSPIN	DRH18-E	211202A18EN	2022/5/18	2023/5/17
9	Horn Ant	Schwarzbeck	BBHA 9170D	1136	2022/5/18	2023/5/17
10	Log-bicon Antenna	Schwarzbeck	VULB9168	1369	2022/5/20	2023/5/19
11	6dB Attenuator	EMCI	EMCI-N-6-06	AT-06001	2022/5/20	2023/5/19
12	Test Cable	EMCI	EMC101G-KM-KM-3000	220329	2023/3/14	2024/3/13
13	Test Cable	EMCI	EMC102-KM-KM-1000	220327	2023/3/14	2024/3/13
14	WIRELESS COMMUNICATION TEST SET	Agilent	E5515C	GB47390193	2022/7/7	2023/7/6
15	Radio Communication Analyzer	ANRITSU	MT8820C	6201381608	2022/12/22	2023/12/21
16	Radio Communication Test Station	ANRITSU	MT8821C	6262044728	2022/11/25	2023/11/24
17	Radio Communication Analyzer	ANRITSU	MT8000A	6262036844	2022/11/24	2023/11/23
18	Wideband Radio Communication Tester	R&S	CMW500	154121	2023/1/12	2024/1/11
19	Radio Communication Analyzer	Keysight	E7515B	MY59020217	2022/7/8	2023/7/7
20	Measurement Software	EZ	EZ_EMCI (Version NB-03A1-01)	N/A	N/A	N/A

Others Conducted Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSV7	103032	2023/8/10	2024/8/9
2	Spectrum Analyzer	Keysight	N9010A	MY54200240	2023/6/26	2024/6/25
3	Spectrum Analyzer	Keysight	N9010A	MY56480489	2022/10/19	2023/10/18
4	Thermal Chamber	HOLINK	H-TH-2SP-B	EK04101902	2023/7/3	2024/7/2
5	WIRELESS COMMUNICATION TEST SET	Agilent	E5515C	GB47390193	2023/7/4	2024/7/3
6	Radio Communication Analyzer	ANRITSU	MT8820C	6201381608	2022/12/22	2023/12/21
7	Radio Communication Test Station	ANRITSU	MT8821C	6262044728	2022/11/25	2023/11/24

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-2212T004-FCCP-1 (APPENDIX-TEST PHOTOS).

12 EUT PHOTOS

Please refer to document Appendix No.: EP-2212T004-1 (APPENDIX-EUT PHOTOS).

APPENDIX A CONDUCTED OUTPUT POWER AND EFFECTIVE RADIATED POWER

Conducted Output Power and calculated ERP:
WCDMA Band V Power:

Band	Mode	UL/DL Channel No.	Frequency(MHz)	Average power(dBm)	ERP Power (dBm)	ERP Power (W)
WCDMA Band V	Rel 99	4132/4357	826.4	23.80	24.30	0.269
		4183/4408	836.6	23.85	24.35	0.272
		4233/4458	846.6	23.84	24.34	0.272

Band	Sub-test	UL/DL Channel No.	Frequency(MHz)	Average power(dBm)	ERP Power (dBm)	ERP Power (W)
HSDPA V	1	4132/4357	826.4	23.89	24.39	0.275
		4183/4408	836.6	23.96	24.46	0.279
		4233/4458	846.6	23.97	24.47	0.280
	2	4132/4357	826.4	23.39	23.89	0.245
		4183/4408	836.6	23.48	23.98	0.250
		4233/4458	846.6	23.47	23.97	0.249
	3	4132/4357	826.4	22.90	23.40	0.219
		4183/4408	836.6	22.99	23.49	0.223
		4233/4458	846.6	23.02	23.52	0.225
	4	4132/4357	826.4	22.94	23.44	0.221
		4183/4408	836.6	23.03	23.53	0.225
		4233/4458	846.6	22.99	23.49	0.223

Band	Sub-test	UL/DL Channel No.	Frequency(MHz)	Average power(dBm)	ERP Power (dBm)	ERP Power (W)
HSUPA V	1	4132/4357	826.4	23.76	24.26	0.267
		4183/4408	836.6	23.88	24.38	0.274
		4233/4458	846.6	23.88	24.38	0.274
	2	4132/4357	826.4	21.78	22.28	0.169
		4183/4408	836.6	21.93	22.43	0.175
		4233/4458	846.6	21.89	22.39	0.173
	3	4132/4357	826.4	22.81	23.31	0.214
		4183/4408	836.6	22.92	23.42	0.220
		4233/4458	846.6	22.89	23.39	0.218
	4	4132/4357	826.4	21.81	22.31	0.170
		4183/4408	836.6	21.89	22.39	0.173
		4233/4458	846.6	21.91	22.41	0.174
	5	4132/4357	826.4	23.71	24.21	0.264
		4183/4408	836.6	23.81	24.31	0.270
		4233/4458	846.6	23.79	24.29	0.269

LTE Band 5 Power:

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	ERP power (dBm)	ERP power (W)		
5	1.4	20407	824.7	QPSK	1	0	0	22.69	23.19	0.208		
					1	2	0	22.86	23.36	0.217		
					1	5	0	22.72	23.22	0.210		
					3	0	0	22.69	23.19	0.208		
					3	1	0	22.86	23.36	0.217		
					3	2	0	22.72	23.22	0.210		
				16QAM	6	0	1	21.80	22.30	0.170		
					1	0	1	21.78	22.28	0.169		
					1	2	1	21.96	22.46	0.176		
					1	5	1	21.83	22.33	0.171		
					3	0	1	21.78	22.28	0.169		
					3	1	1	21.96	22.46	0.176		
		20525	836.5	QPSK	836.5	QPSK	3	2	1	21.83	22.33	0.171
							6	0	2	20.89	21.39	0.138
							1	0	0	22.82	23.32	0.215
							1	2	0	22.98	23.48	0.223
							1	5	0	22.80	23.30	0.214
							3	0	0	22.82	23.32	0.215
				16QAM	3	1	0	22.98	23.48	0.223		
					3	2	0	22.80	23.30	0.214		
					6	0	1	21.93	22.43	0.175		
					1	0	1	21.91	22.41	0.174		
					1	2	1	22.08	22.58	0.181		
					1	5	1	21.91	22.41	0.174		
		20643	848.3	QPSK	848.3	QPSK	3	0	1	21.91	22.41	0.174
							3	1	1	22.08	22.58	0.181
							3	2	1	21.91	22.41	0.174
							6	0	2	20.85	21.35	0.136
							1	0	0	22.96	23.46	0.222
							1	2	0	22.97	23.47	0.222
				16QAM	1	5	0	22.95	23.45	0.221		
					3	0	0	22.96	23.46	0.222		
					3	1	0	22.97	23.47	0.222		
					3	2	0	22.95	23.45	0.221		
					6	0	1	22.07	22.57	0.181		
					1	0	1	22.05	22.55	0.180		
		16QAM	1	2	1	22.07	22.57	0.181				
			1	5	1	22.06	22.56	0.180				
			3	0	1	22.05	22.55	0.180				
			3	1	1	22.07	22.57	0.181				
			3	2	1	22.06	22.56	0.180				
			6	0	2	21.00	21.50	0.141				

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)	ERP power (dBm)	ERP power (W)	
5	3	20415	825.5	QPSK	1	0	0	22.74	23.24	0.211	
					1	7	0	22.91	23.41	0.219	
					1	14	0	22.77	23.27	0.212	
					8	0	1	21.85	22.35	0.172	
					8	4	1	22.07	22.57	0.181	
					8	7	1	21.91	22.41	0.174	
				15	0	1	21.85	22.35	0.172		
				16QAM	1	0	1	21.83	22.33	0.171	
					1	7	1	22.01	22.51	0.178	
					1	14	1	21.88	22.38	0.173	
					8	0	2	20.82	21.32	0.136	
					8	4	2	21.02	21.52	0.142	
					8	7	2	20.97	21.47	0.140	
					15	0	2	20.94	21.44	0.139	
					20525	836.5	QPSK	1	0	0	22.87
		1	7					0	23.03	23.53	0.225
		1	14	0				22.85	23.35	0.216	
		8	0	1				21.98	22.48	0.177	
		8	4	1				22.19	22.69	0.186	
		8	7	1				21.99	22.49	0.177	
		15	0	1			21.98	22.48	0.177		
		16QAM	1	0			1	21.96	22.46	0.176	
			1	7			1	22.13	22.63	0.183	
			1	14			1	21.96	22.46	0.176	
			8	0			2	20.90	21.40	0.138	
			8	4			2	21.14	21.64	0.146	
			8	7			2	21.09	21.59	0.144	
			15	0			2	21.06	21.56	0.143	
			20635	847.5			QPSK	1	0	0	23.01
					1	7		0	23.02	23.52	0.225
		1			14	0		23.00	23.50	0.224	
		8			0	1		22.12	22.62	0.183	
		8			4	1		22.18	22.68	0.185	
		8			7	1		22.14	22.64	0.184	
		15			0	1	22.12	22.62	0.183		
		16QAM			1	0	1	22.10	22.60	0.182	
					1	7	1	22.12	22.62	0.183	
					1	14	1	22.11	22.61	0.182	
					8	0	2	21.05	21.55	0.143	
					8	4	2	21.13	21.63	0.146	
					8	7	2	21.08	21.58	0.144	
					15	0	2	21.05	21.55	0.143	

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)	ERP power (dBm)	ERP power (W)	
5	5	20425	826.5	QPSK	1	0	0	22.79	23.29	0.213	
					1	12	0	22.96	23.46	0.222	
					1	24	0	22.82	23.32	0.215	
					12	0	1	21.90	22.40	0.174	
					12	6	1	22.12	22.62	0.183	
					12	11	1	21.96	22.46	0.176	
				25	0	1	21.90	22.40	0.174		
				16QAM	1	0	1	21.88	22.38	0.173	
					1	12	1	22.06	22.56	0.180	
					1	24	1	21.93	22.43	0.175	
					12	0	2	20.87	21.37	0.137	
					12	6	2	21.07	21.57	0.144	
					12	11	2	21.02	21.52	0.142	
					25	0	2	20.99	21.49	0.141	
					20525	836.5	QPSK	1	0	0	22.92
		1	12					0	23.08	23.58	0.228
		1	24	0				22.90	23.40	0.219	
		12	0	1				22.03	22.53	0.179	
		12	6	1				22.24	22.74	0.188	
		12	11	1				22.04	22.54	0.179	
		25	0	1			22.03	22.53	0.179		
		16QAM	1	0			1	22.01	22.51	0.178	
			1	12			1	22.18	22.68	0.185	
			1	24			1	22.01	22.51	0.178	
			12	0			2	20.95	21.45	0.140	
			12	6			2	21.19	21.69	0.148	
			12	11			2	21.14	21.64	0.146	
			25	0			2	21.11	21.61	0.145	
			20625	846.5			QPSK	1	0	0	23.06
					1	12		0	23.07	23.57	0.228
		1			24	0		23.05	23.55	0.226	
		12			0	1		22.17	22.67	0.185	
		12			6	1		22.23	22.73	0.187	
		12			11	1		22.19	22.69	0.186	
		25			0	1	22.17	22.67	0.185		
		16QAM			1	0	1	22.15	22.65	0.184	
					1	12	1	22.17	22.67	0.185	
					1	24	1	22.16	22.66	0.185	
					12	0	2	21.10	21.60	0.145	
					12	6	2	21.18	21.68	0.147	
					12	11	2	21.13	21.63	0.146	
					25	0	2	21.10	21.60	0.145	

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)	ERP power (dBm)	ERP power (W)		
5	10	20450	829.0	QPSK	1	0	0	22.84	23.34	0.216		
					1	24	0	23.01	23.51	0.224		
					1	49	0	22.87	23.37	0.217		
					25	0	1	21.95	22.45	0.176		
					25	12	1	22.17	22.67	0.185		
					25	24	1	22.01	22.51	0.178		
				16QAM	50	0	1	21.95	22.45	0.176		
					1	0	1	21.93	22.43	0.175		
					1	24	1	22.11	22.61	0.182		
					1	49	1	21.98	22.48	0.177		
					25	0	2	20.92	21.42	0.139		
					25	12	2	21.12	21.62	0.145		
				20525	836.5	QPSK	25	24	2	21.07	21.57	0.144
							50	0	2	21.04	21.54	0.143
							1	0	0	22.97	23.47	0.222
		1	24				0	23.13	23.63	0.231		
		1	49				0	22.95	23.45	0.221		
		25	0				1	22.08	22.58	0.181		
		16QAM	25			12	1	22.29	22.79	0.190		
			25			24	1	22.09	22.59	0.182		
			50			0	1	22.08	22.58	0.181		
			1			0	1	22.06	22.56	0.180		
			1			24	1	22.23	22.73	0.187		
			1			49	1	22.06	22.56	0.180		
		20600	844.0			QPSK	25	0	2	21.00	21.50	0.141
							25	12	2	21.24	21.74	0.149
							25	24	2	21.19	21.69	0.148
				50	0		2	21.16	21.66	0.147		
				1	0		0	23.11	23.61	0.230		
				1	24		0	23.12	23.62	0.230		
				16QAM	1	49	0	23.10	23.60	0.229		
					25	0	1	22.22	22.72	0.187		
					25	12	1	22.28	22.78	0.190		
					25	24	1	22.24	22.74	0.188		
					50	0	1	22.22	22.72	0.187		
					1	0	1	22.20	22.70	0.186		
				16QAM	1	24	1	22.22	22.72	0.187		
					1	49	1	22.21	22.71	0.187		
					25	0	2	21.15	21.65	0.146		
		25	12		2	21.23	21.73	0.149				
		25	24		2	21.18	21.68	0.147				
		50	0		2	21.15	21.65	0.146				

NOTE:

(1) EIRP = Average power + Antenna gain.

(2) ERP = EIRP - 2.15.

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

LTE Band 26 Power:

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power (dBm)	ERP power (dBm)	ERP power (W)			
Band 26	1.4M	26797	824.7	QPSK	1	0	0	22.48	22.98	0.199			
					1	2	0	22.34	22.84	0.192			
					1	5	0	22.16	22.66	0.185			
					3	0	0	22.48	22.98	0.199			
					3	1	0	22.34	22.84	0.192			
					3	2	0	22.16	22.66	0.185			
		16QAM	6	0	1	21.59	22.09	0.162					
			1	0	1	21.57	22.07	0.161					
			1	2	1	21.44	21.94	0.156					
			1	5	1	21.27	21.77	0.150					
			3	0	1	21.57	22.07	0.161					
			3	1	1	21.44	21.94	0.156					
		26915	836.5	QPSK	836.5	QPSK	3	2	1	21.27	21.77	0.150	
							6	0	2	20.37	20.87	0.122	
							1	0	0	22.41	22.91	0.195	
							1	2	0	22.32	22.82	0.191	
							1	5	0	22.29	22.79	0.190	
							3	0	0	22.41	22.91	0.195	
		16QAM	836.5	16QAM	836.5	16QAM	3	1	0	22.32	22.82	0.191	
							3	2	0	22.29	22.79	0.190	
							6	0	1	21.52	22.02	0.159	
	1						0	1	21.50	22.00	0.158		
	1						2	1	21.42	21.92	0.156		
	1						5	1	21.40	21.90	0.155		
	27033	848.3	QPSK	848.3	QPSK	3	0	1	21.50	22.00	0.158		
						3	1	1	21.42	21.92	0.156		
						3	2	1	21.40	21.90	0.155		
						6	0	2	20.34	20.84	0.121		
						1	0	0	22.46	22.96	0.198		
						1	2	0	22.38	22.88	0.194		
			16QAM	848.3	16QAM	848.3	16QAM	1	5	0	22.31	22.81	0.191
								3	0	0	22.46	22.96	0.198
								3	1	0	22.38	22.88	0.194
								3	2	0	22.31	22.81	0.191
								6	0	1	21.57	22.07	0.161
								1	0	1	21.55	22.05	0.160
	QPSK	848.3	QPSK	848.3	QPSK	1	2	1	21.48	21.98	0.158		
						1	5	1	21.42	21.92	0.156		
						3	0	1	21.55	22.05	0.160		
						3	1	1	21.48	21.98	0.158		
						3	2	1	21.42	21.92	0.156		
						6	0	2	20.36	20.86	0.122		

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 Start	MPR	Average power (dBm)	ERP power (dBm)	ERP power (W)		
Band 26	3M	26805	825.5	QPSK	1	0	0	22.53	23.03	0.201		
					1	7	0	22.39	22.89	0.195		
					1	14	0	22.21	22.71	0.187		
					8	0	1	21.64	22.14	0.164		
					8	4	1	21.55	22.05	0.160		
					8	7	1	21.35	21.85	0.153		
				15	0	1	21.64	22.14	0.164			
				16QAM	1	0	1	21.62	22.12	0.163		
					1	7	1	21.49	21.99	0.158		
					1	14	1	21.32	21.82	0.152		
					8	0	2	20.26	20.76	0.119		
					8	4	2	20.50	21.00	0.126		
					8	7	2	20.45	20.95	0.124		
				26915	836.5	QPSK	15	0	2	20.42	20.92	0.124
							1	0	0	22.46	22.96	0.198
		1	7				0	22.37	22.87	0.194		
		1	14				0	22.34	22.84	0.192		
		8	0				1	21.57	22.07	0.161		
		8	4				1	21.53	22.03	0.160		
		8	7			1	21.48	21.98	0.158			
		15	0			1	21.57	22.07	0.161			
		16QAM	1			0	1	21.55	22.05	0.160		
			1			7	1	21.47	21.97	0.157		
			1			14	1	21.45	21.95	0.157		
			8			0	2	20.39	20.89	0.123		
			8			4	2	20.48	20.98	0.125		
			8			7	2	20.43	20.93	0.124		
		27025	847.5			QPSK	15	0	2	20.40	20.90	0.123
				1	0		0	22.51	23.01	0.200		
				1	7		0	22.43	22.93	0.196		
				1	14		0	22.36	22.86	0.193		
				8	0		1	21.62	22.12	0.163		
				8	4		1	21.59	22.09	0.162		
				8	7	1	21.50	22.00	0.158			
				15	0	1	21.62	22.12	0.163			
				16QAM	1	0	1	21.60	22.10	0.162		
					1	7	1	21.53	22.03	0.160		
					1	14	1	21.47	21.97	0.157		
					8	0	2	20.41	20.91	0.123		
					8	4	2	20.54	21.04	0.127		
					8	7	2	20.49	20.99	0.126		
				15	0	2	20.46	20.96	0.125			

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 Start	MPR	Average power (dBm)	ERP power (dBm)	ERP power (W)
Band 26	5M	26815	826.5	QPSK	1	0	0	22.58	23.08	0.203
					1	12	0	22.44	22.94	0.197
					1	24	0	22.26	22.76	0.189
					12	0	1	21.69	22.19	0.166
					12	6	1	21.60	22.10	0.162
				12	11	1	21.40	21.90	0.155	
				25	0	1	21.69	22.19	0.166	
				16QAM	1	0	1	21.67	22.17	0.165
					1	12	1	21.54	22.04	0.160
					1	24	1	21.37	21.87	0.154
					12	0	2	20.31	20.81	0.121
					12	6	2	20.55	21.05	0.127
				12	11	2	20.50	21.00	0.126	
				25	0	2	20.47	20.97	0.125	
				26915	836.5	QPSK	1	0	0	22.51
		1	12				0	22.42	22.92	0.196
		1	24				0	22.39	22.89	0.195
		12	0				1	21.62	22.12	0.163
		12	6				1	21.58	22.08	0.161
		12	11			1	21.53	22.03	0.160	
		25	0			1	21.62	22.12	0.163	
		16QAM	1			0	1	21.60	22.10	0.162
			1			12	1	21.52	22.02	0.159
			1			24	1	21.50	22.00	0.158
			12			0	2	20.44	20.94	0.124
			12			6	2	20.53	21.03	0.127
		12	11			2	20.48	20.98	0.125	
		25	0			2	20.45	20.95	0.124	
		27015	846.5			QPSK	1	0	0	22.56
				1	12		0	22.48	22.98	0.199
				1	24		0	22.41	22.91	0.195
				12	0		1	21.67	22.17	0.165
				12	6		1	21.64	22.14	0.164
				12	11	1	21.55	22.05	0.160	
				25	0	1	21.67	22.17	0.165	
				16QAM	1	0	1	21.65	22.15	0.164
					1	12	1	21.58	22.08	0.161
					1	24	1	21.52	22.02	0.159
					12	0	2	20.46	20.96	0.125
					12	6	2	20.59	21.09	0.129
				12	11	2	20.54	21.04	0.127	
				25	0	2	20.51	21.01	0.126	

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 Start	MPR	Average power (dBm)	ERP power (dBm)	ERP power (W)				
Band 26	10M	26840	829.0	QPSK	1	0	0	22.63	23.13	0.206				
					1	24	0	22.49	22.99	0.199				
					1	49	0	22.31	22.81	0.191				
					25	0	1	21.74	22.24	0.167				
					25	12	1	21.65	22.15	0.164				
					25	24	1	21.45	21.95	0.157				
				16QAM	50	0	1	21.74	22.24	0.167				
					1	0	1	21.72	22.22	0.167				
					1	24	1	21.59	22.09	0.162				
					1	49	1	21.42	21.92	0.156				
					25	0	2	20.36	20.86	0.122				
					25	12	2	20.60	21.10	0.129				
				26915	836.5	QPSK	836.5	QPSK	25	24	2	20.55	21.05	0.127
									50	0	2	20.52	21.02	0.126
									1	0	0	22.56	23.06	0.202
		1	24						0	22.47	22.97	0.198		
		1	49						0	22.44	22.94	0.197		
		25	0						1	21.67	22.17	0.165		
		16QAM	16QAM			16QAM	16QAM	25	12	1	21.63	22.13	0.163	
								25	24	1	21.58	22.08	0.161	
								50	0	1	21.67	22.17	0.165	
								1	0	1	21.65	22.15	0.164	
								1	24	1	21.57	22.07	0.161	
								1	49	1	21.55	22.05	0.160	
		26990	844.0			QPSK	844.0	QPSK	25	0	2	20.49	20.99	0.126
									25	12	2	20.58	21.08	0.128
									25	24	2	20.53	21.03	0.127
				50	0				2	20.50	21.00	0.126		
				1	0				0	22.61	23.11	0.205		
				1	24				0	22.53	23.03	0.201		
				16QAM	16QAM	16QAM	16QAM	1	49	0	22.46	22.96	0.198	
								25	0	1	21.72	22.22	0.167	
								25	12	1	21.69	22.19	0.166	
								25	24	1	21.60	22.10	0.162	
								50	0	1	21.72	22.22	0.167	
								1	0	1	21.70	22.20	0.166	
				16QAM	16QAM	16QAM	16QAM	16QAM	1	24	1	21.63	22.13	0.163
									1	49	1	21.57	22.07	0.161
									25	0	2	20.51	21.01	0.126
		25	12						2	20.64	21.14	0.130		
		25	24						2	20.59	21.09	0.129		
		50	0						2	20.56	21.06	0.128		

NOTE:

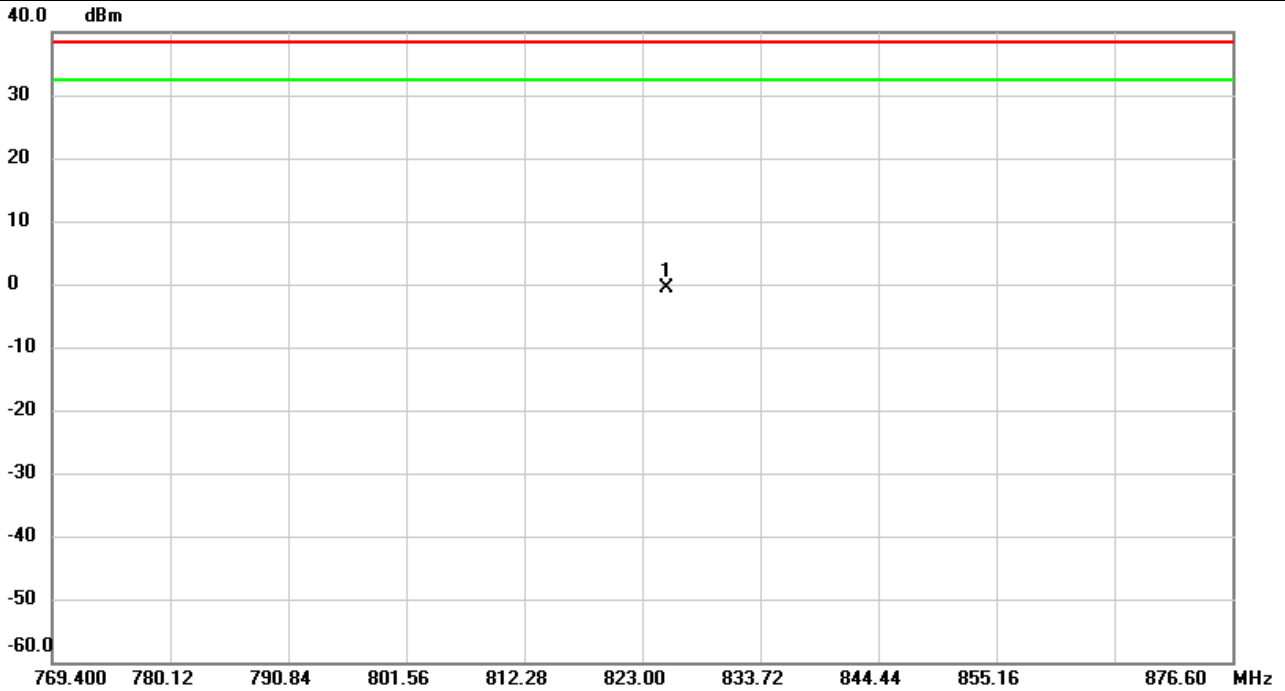
- (1) EIRP = Average power + Antenna gain.
- (2) ERP = EIRP - 2.15.
- (3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power (dBm)	ERP power (dBm)	ERP power (W)
Band 26	15M	26865	831.5	QPSK	1	0	0	22.68	23.18	0.208
					1	37	0	22.54	23.04	0.201
					1	74	0	22.36	22.86	0.193
					36	0	1	21.79	22.29	0.169
					36	18	1	21.70	22.20	0.166
				36	35	1	21.50	22.00	0.158	
				75	0	1	21.79	22.29	0.169	
				16QAM	1	0	1	21.77	22.27	0.169
					1	37	1	21.64	22.14	0.164
					1	74	1	21.47	21.97	0.157
					36	0	2	20.41	20.91	0.123
					36	18	2	20.65	21.15	0.130
				36	35	2	20.60	21.10	0.129	
				75	0	2	20.57	21.07	0.128	
				26915	836.5	QPSK	1	0	0	22.61
		1	37				0	22.52	23.02	0.200
		1	74				0	22.49	22.99	0.199
		36	0				1	21.72	22.22	0.167
		36	18				1	21.68	22.18	0.165
		36	35			1	21.63	22.13	0.163	
		75	0			1	21.72	22.22	0.167	
		16QAM	1			0	1	21.70	22.20	0.166
			1			37	1	21.62	22.12	0.163
			1			74	1	21.60	22.10	0.162
			36			0	2	20.54	21.04	0.127
			36			18	2	20.63	21.13	0.130
		36	35			2	20.58	21.08	0.128	
		75	0			2	20.55	21.05	0.127	
		26965	841.5			QPSK	1	0	0	22.66
				1	37		0	22.58	23.08	0.203
				1	74		0	22.51	23.01	0.200
				36	0		1	21.77	22.27	0.169
				36	18		1	21.74	22.24	0.167
				36	35	1	21.65	22.15	0.164	
				75	0	1	21.77	22.27	0.169	
				16QAM	1	0	1	21.75	22.25	0.168
					1	37	1	21.68	22.18	0.165
					1	74	1	21.62	22.12	0.163
					36	0	2	20.56	21.06	0.128
					36	18	2	20.69	21.19	0.132
				36	35	2	20.64	21.14	0.130	
				75	0	2	20.61	21.11	0.129	

- NOTE:
- (1) EIRP = Average power + Antenna gain.
 - (2) ERP = EIRP - 2.15.
 - (3) P(W) = $1 \text{ W} \cdot 10^{(P(\text{dBm}) / 10)} / 1000$

Radiated ERP Power:

Test Mode	WCDMA Band V	Test Date	2023/5/3
Test Channel	CH4132	Polarization	Vertical
Temp	24°C	Hum.	58%

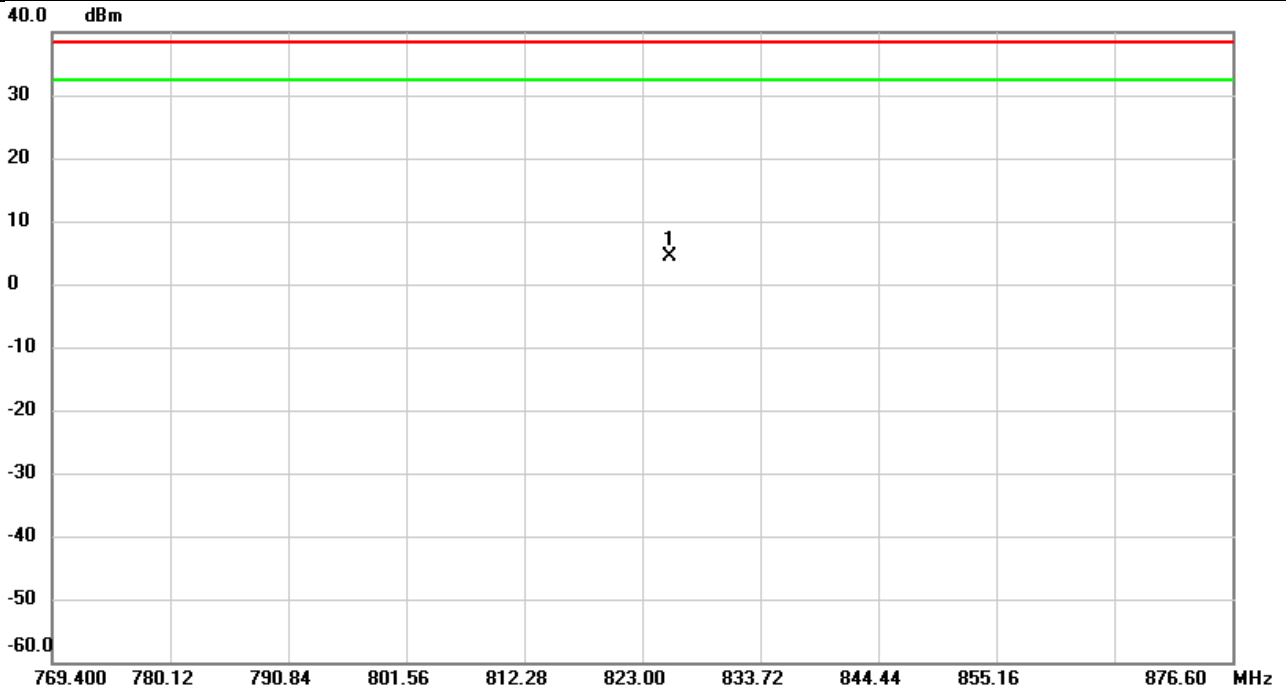


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	*	825.1976	1.56	-2.15	-0.59	38.45	-39.04	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	WCDMA Band V	Test Date	2023/5/3
Test Channel	CH4132	Polarization	Horizontal
Temp	24°C	Hum.	58%

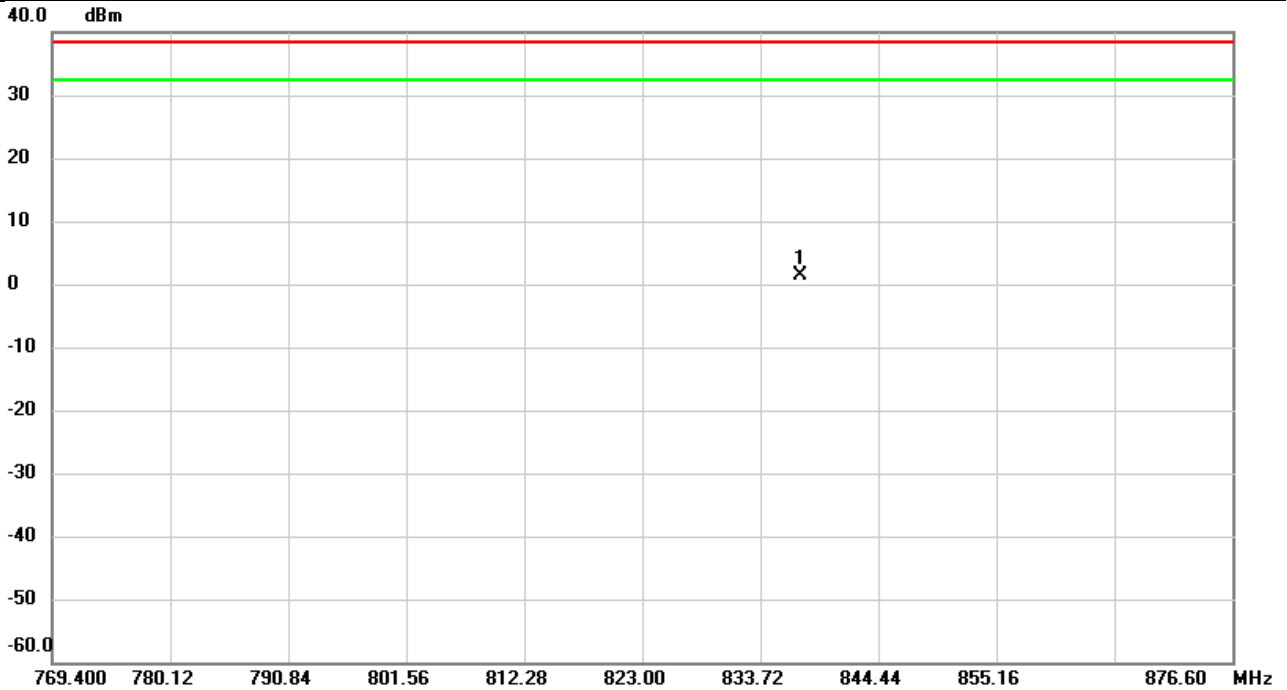


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	825.4442	6.57	-2.15	4.42	38.45	-34.03	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	WCDMA Band V	Test Date	2023/5/3
Test Channel	CH4183	Polarization	Vertical
Temp	24°C	Hum.	58%

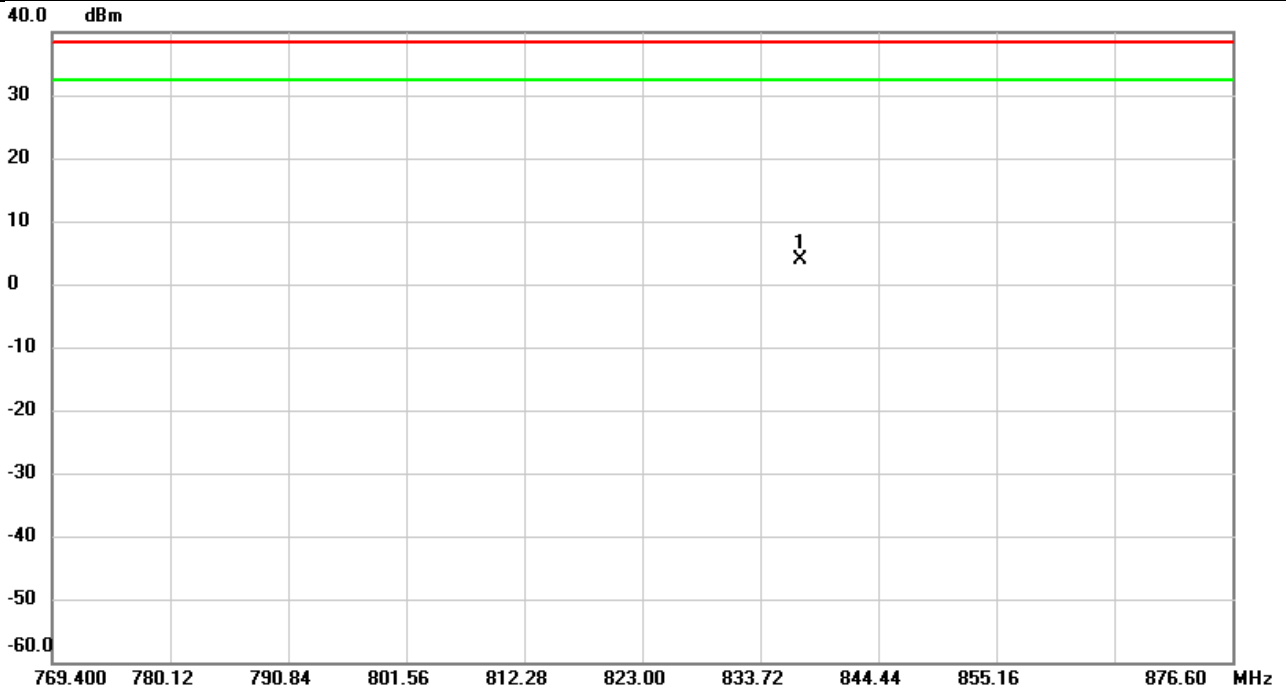


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	837.4077	3.57	-2.15	1.42	38.45	-37.03	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	WCDMA Band V	Test Date	2023/5/3
Test Channel	CH4183	Polarization	Horizontal
Temp	24°C	Hum.	58%

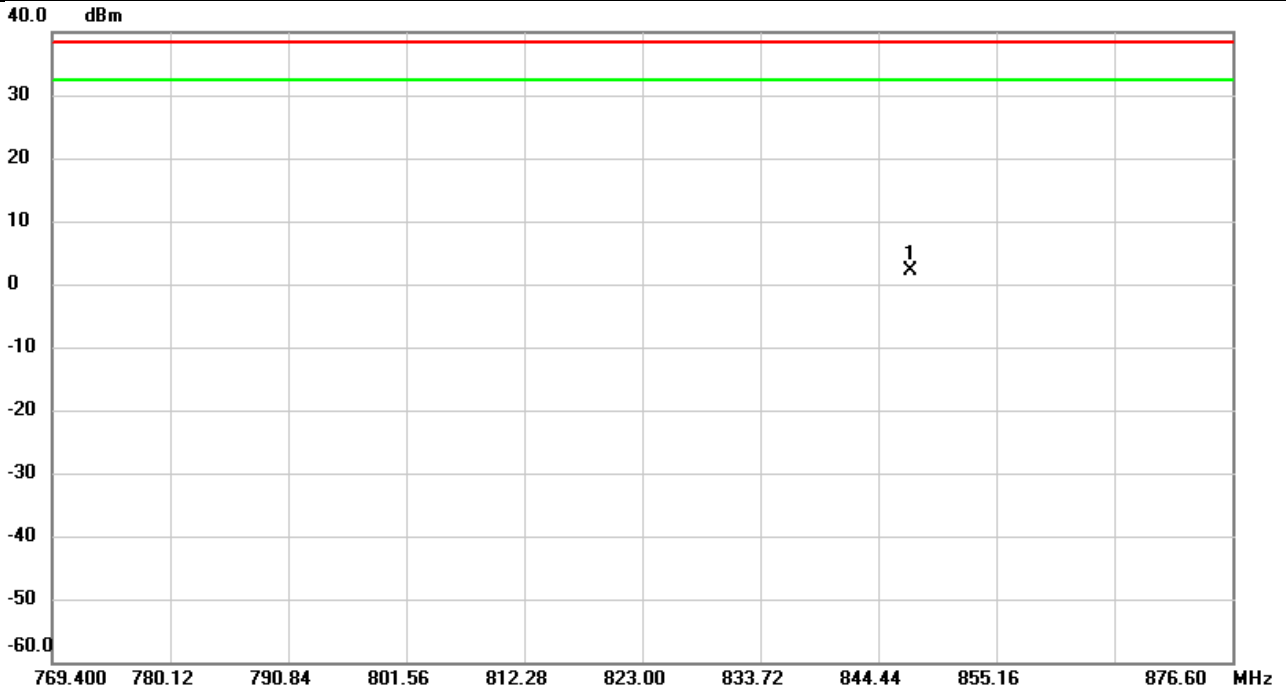


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	837.3362	6.08	-2.15	3.93	38.45	-34.52	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	WCDMA Band V	Test Date	2023/5/3
Test Channel	CH4233	Polarization	Vertical
Temp	24°C	Hum.	58%

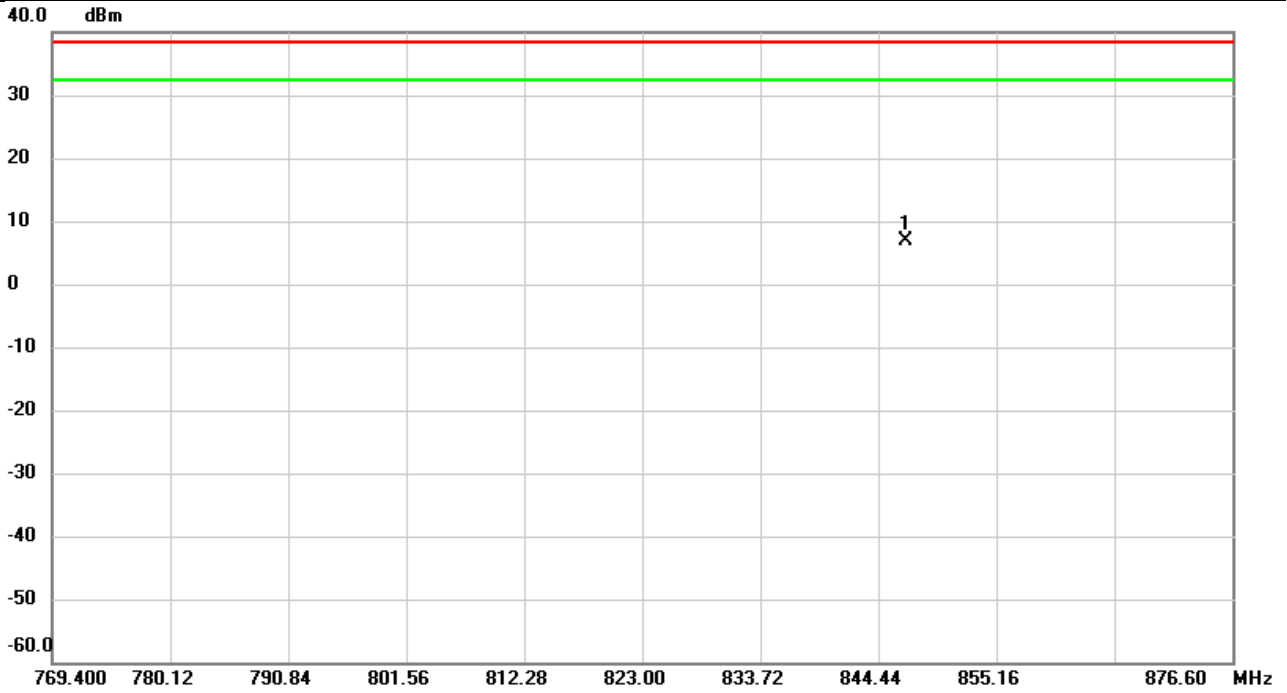


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	847.3058	4.29	-2.15	2.14	38.45	-36.31	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	WCDMA Band V	Test Date	2023/5/3
Test Channel	CH4233	Polarization	Horizontal
Temp	24°C	Hum.	58%

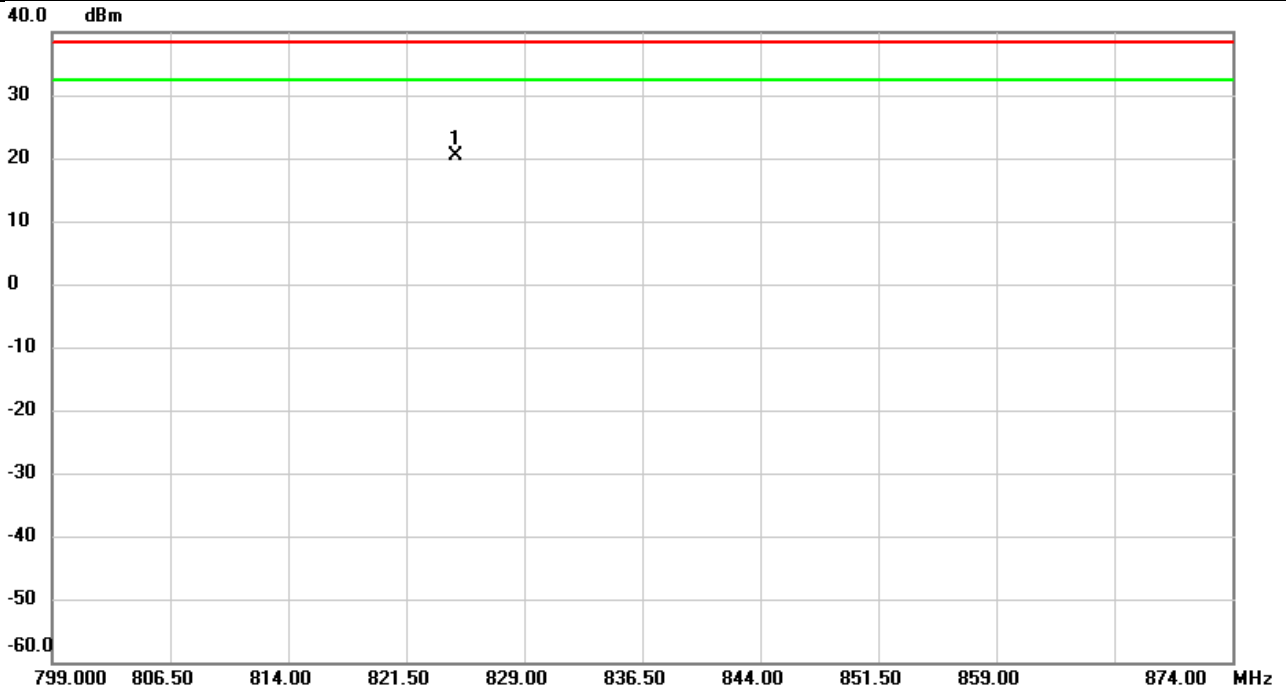


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	846.8877	8.92	-2.15	6.77	38.45	-31.68	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 5	Test Date	2023/3/27
Test Channel	CH20450	Polarization	Vertical
Temp	22°C	Hum.	66%

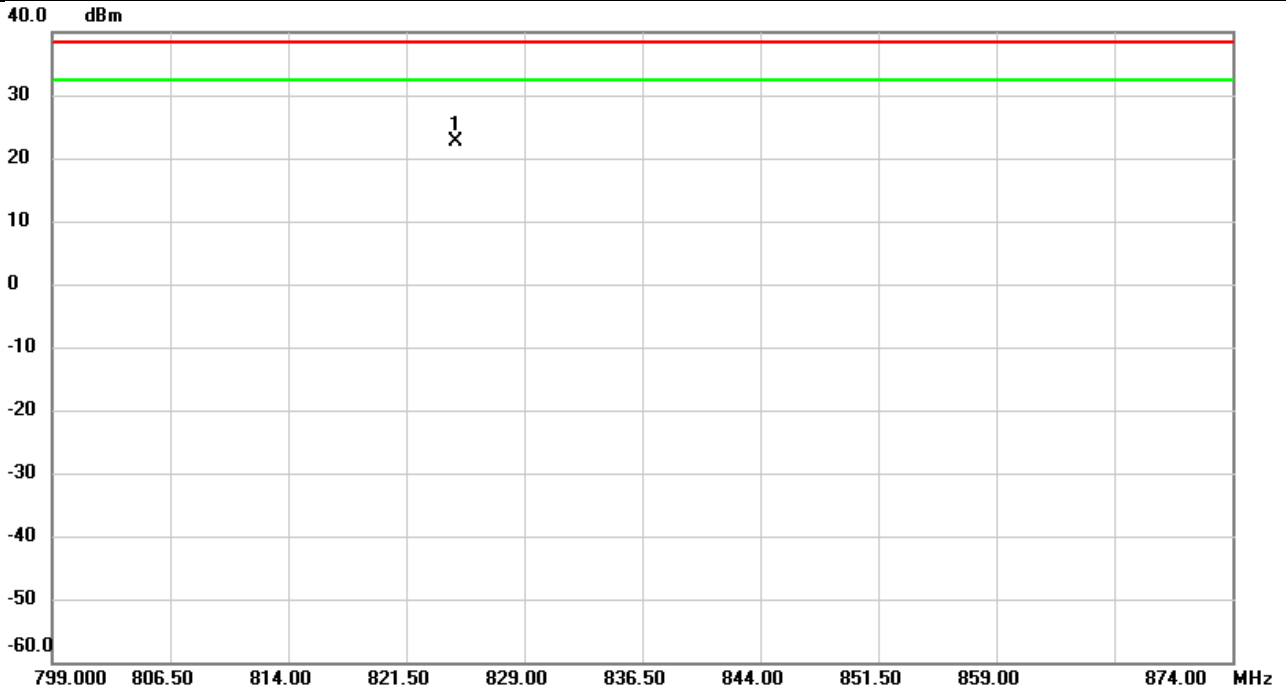


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	824.6500	10.46	9.80	20.26	38.45	-18.19	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 5	Test Date	2023/3/27
Test Channel	CH20450	Polarization	Horizontal
Temp	22°C	Hum.	66%

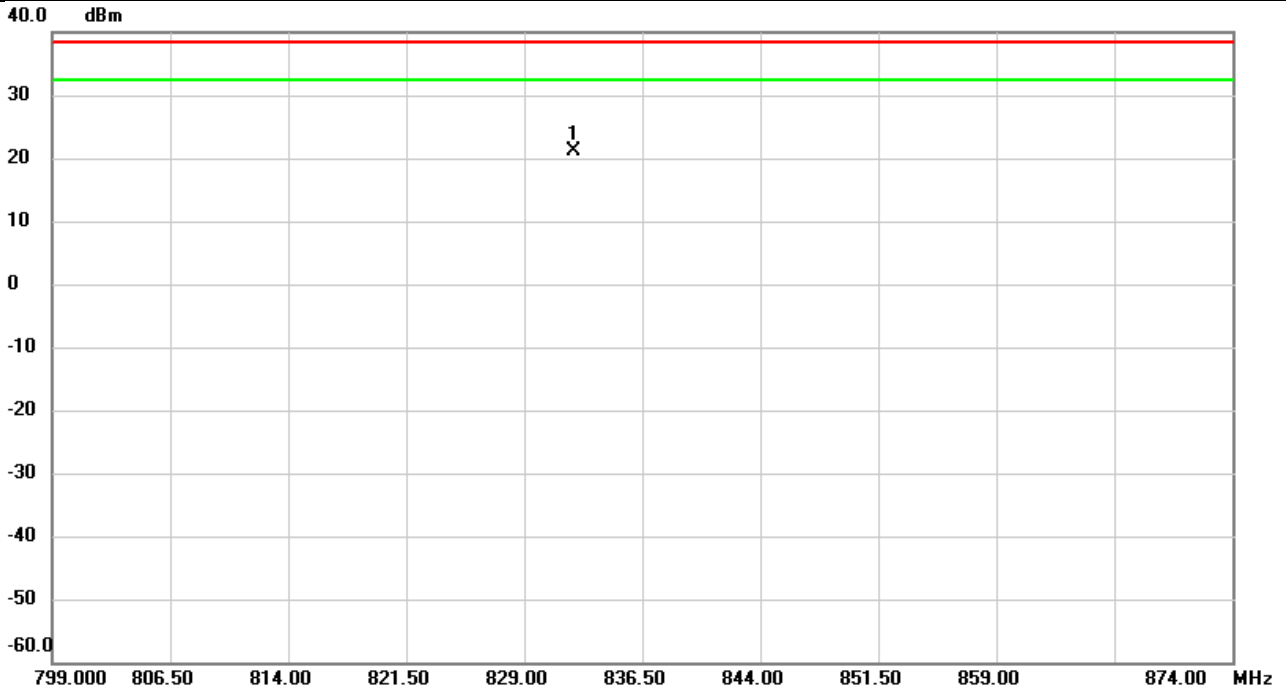


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	824.6125	12.58	9.96	22.54	38.45	-15.91	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 5	Test Date	2023/3/27
Test Channel	CH20525	Polarization	Vertical
Temp	22°C	Hum.	66%

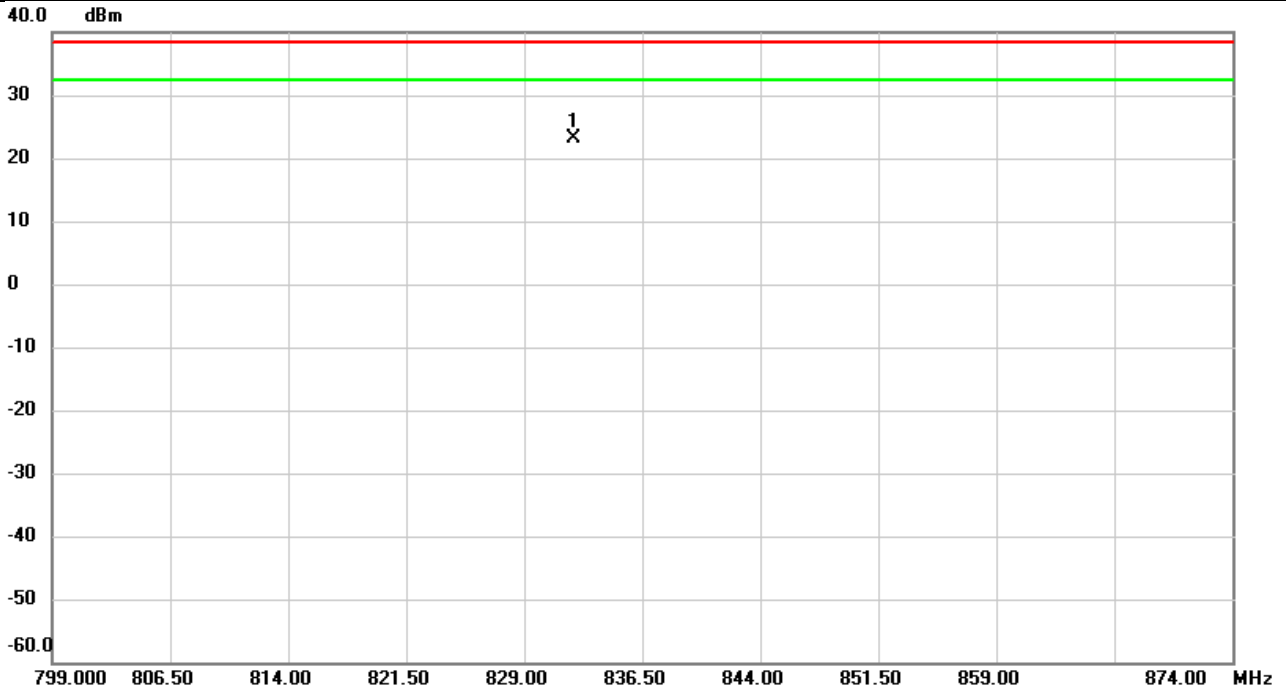


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	832.1175	11.31	9.85	21.16	38.45	-17.29	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 5	Test Date	2023/3/27
Test Channel	CH20525	Polarization	Horizontal
Temp	22°C	Hum.	66%

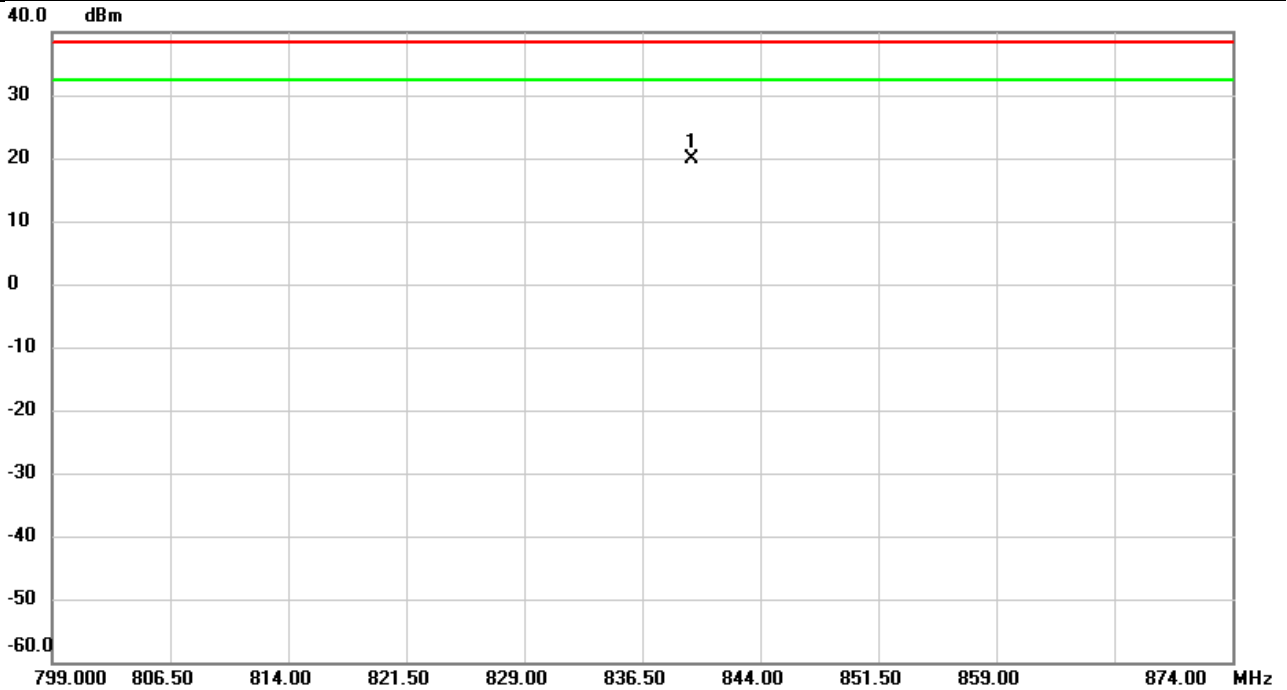


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	832.1525	13.46	9.78	23.24	38.45	-15.21	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 5	Test Date	2023/3/27
Test Channel	CH20600	Polarization	Vertical
Temp	22°C	Hum.	66%

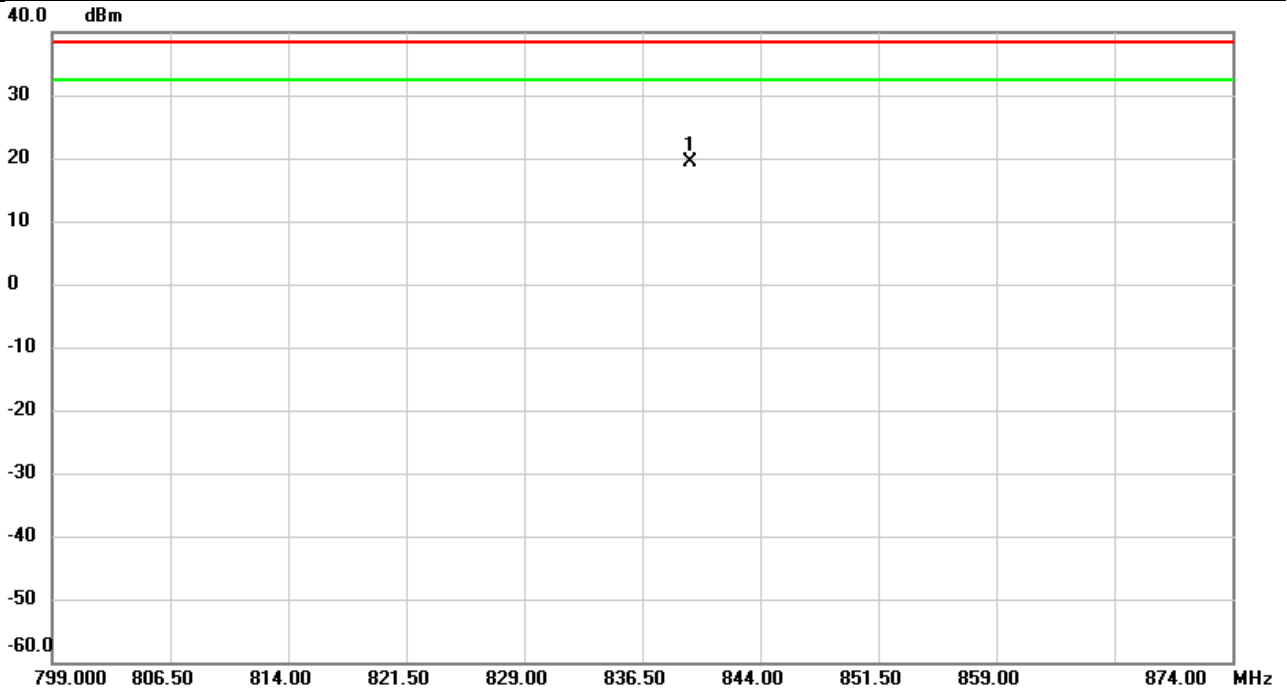


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	839.6150	9.90	9.90	19.80	38.45	-18.65	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 5	Test Date	2023/3/27
Test Channel	CH20600	Polarization	Horizontal
Temp	22°C	Hum.	66%

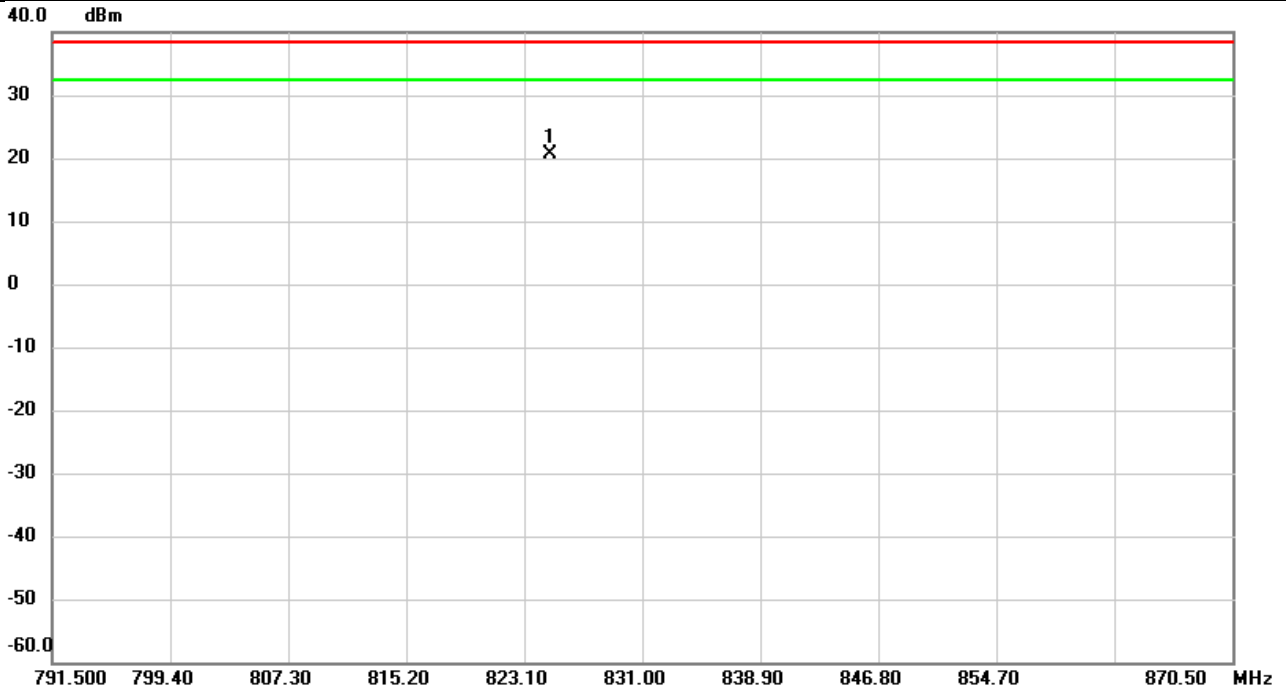


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	839.5850	9.87	9.59	19.46	38.45	-18.99	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 26	Test Date	2023/3/27
Test Channel	CH26915	Polarization	Vertical
Temp	22°C	Hum.	66%

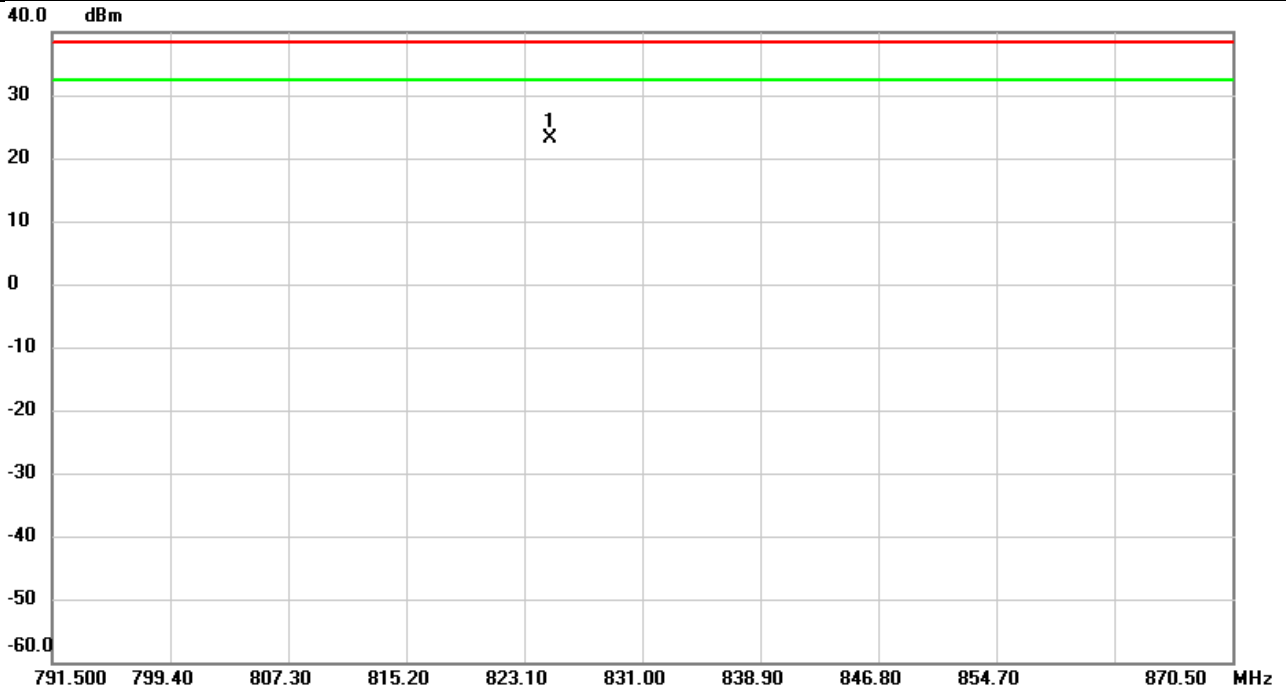


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	824.7880	10.90	9.80	20.70	38.45	-17.75	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 26	Test Date	2023/3/27
Test Channel	CH26915	Polarization	Horizontal
Temp	22°C	Hum.	66%

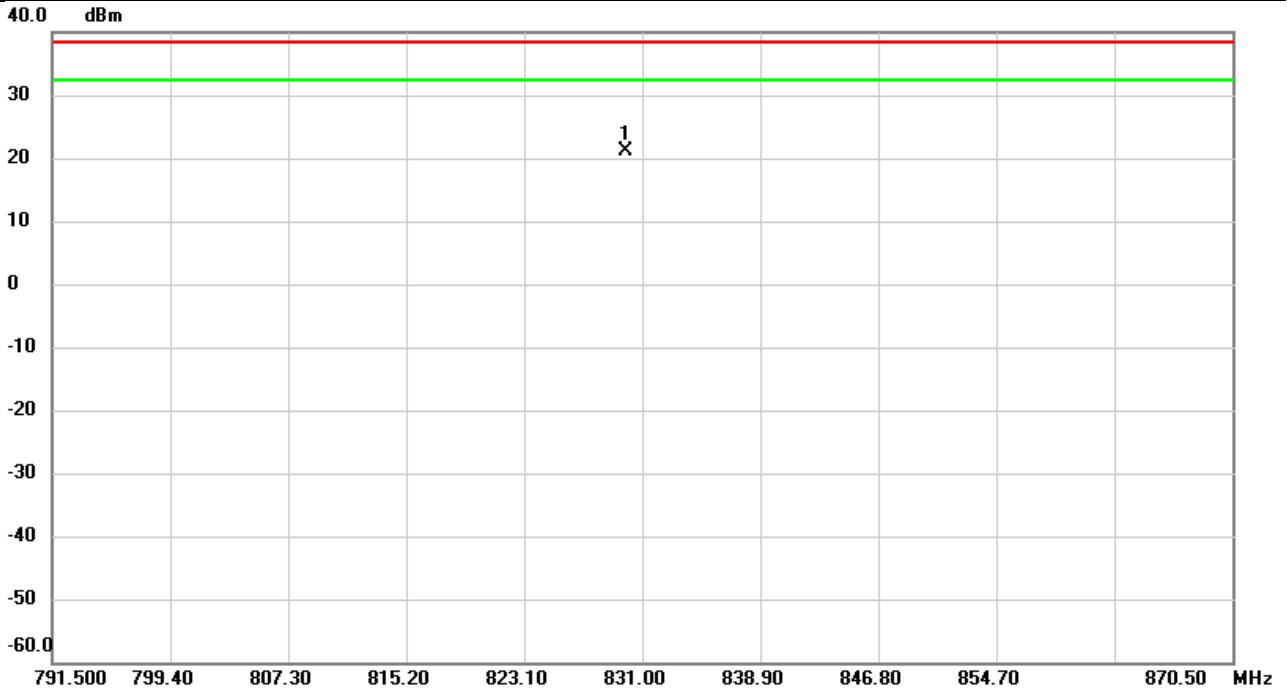


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	*	824.7880	13.11	9.96	23.07	38.45	-15.38	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 26	Test Date	2023/3/27
Test Channel	CH26915	Polarization	Vertical
Temp	22°C	Hum.	66%

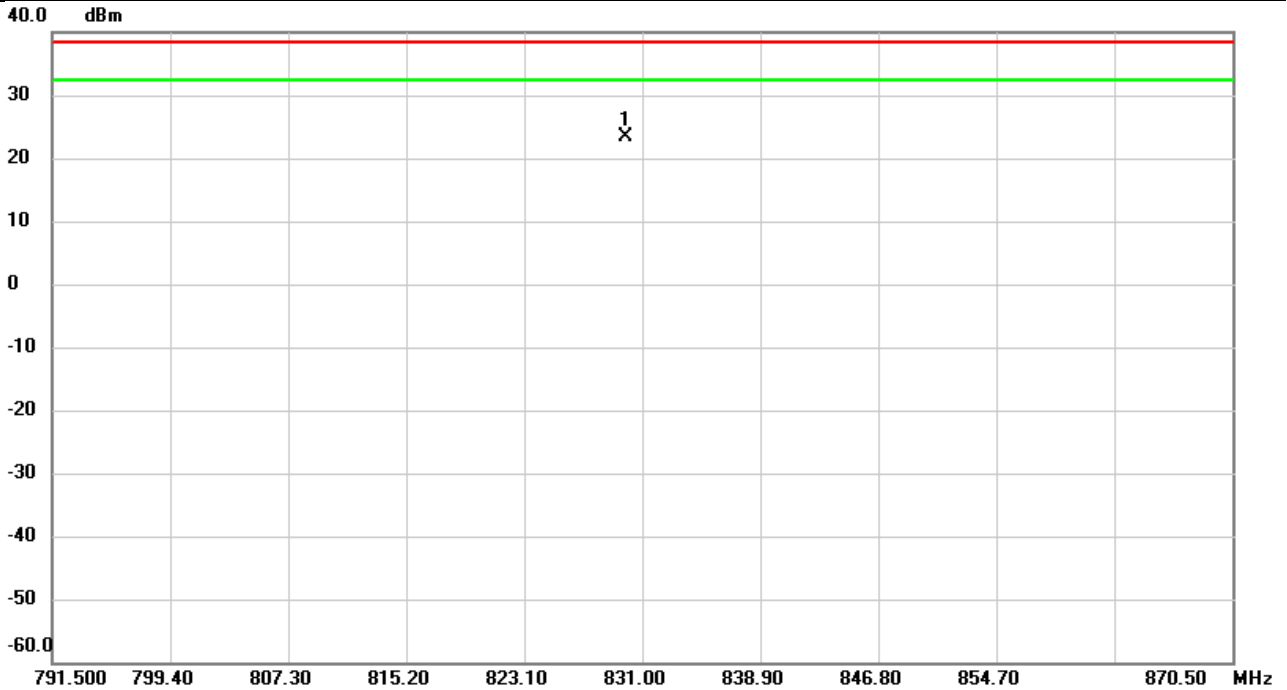


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	829.9177	11.34	9.84	21.18	38.45	-17.27	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 26	Test Date	2023/3/27
Test Channel	CH26915	Polarization	Horizontal
Temp	22°C	Hum.	66%

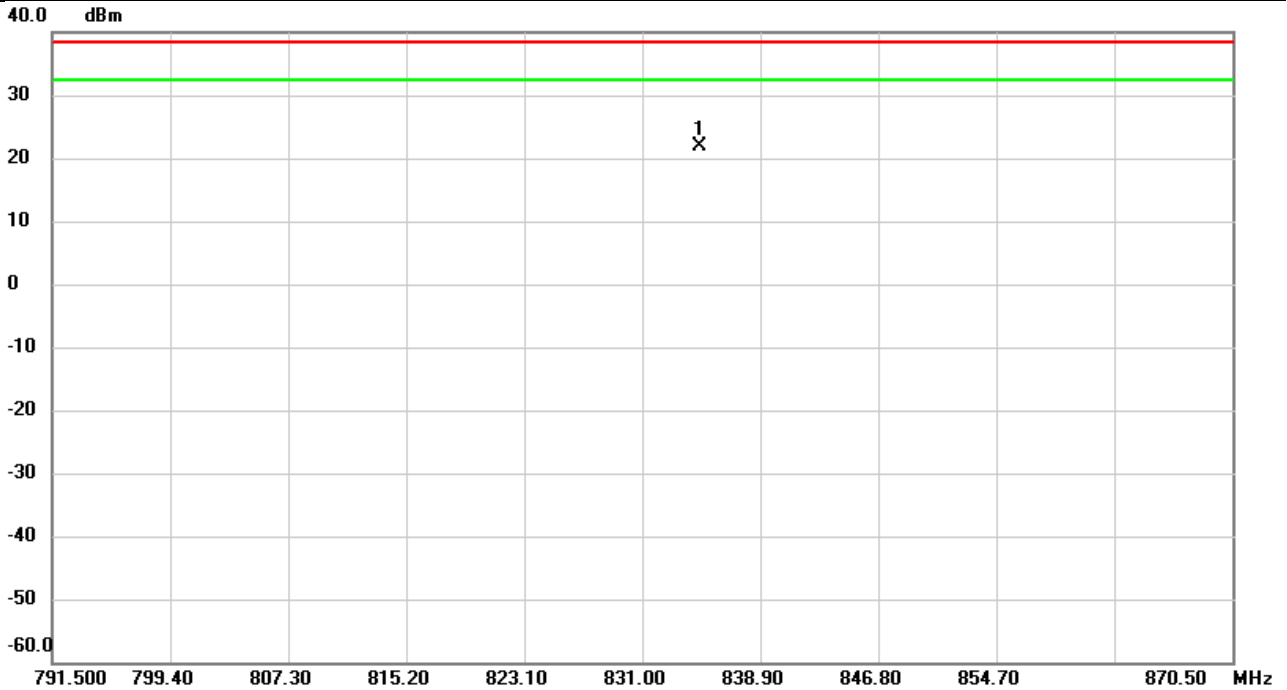


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	829.8756	13.46	9.83	23.29	38.45	-15.16	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 26	Test Date	2023/3/27
Test Channel	CH26965	Polarization	Vertical
Temp	22°C	Hum.	66%

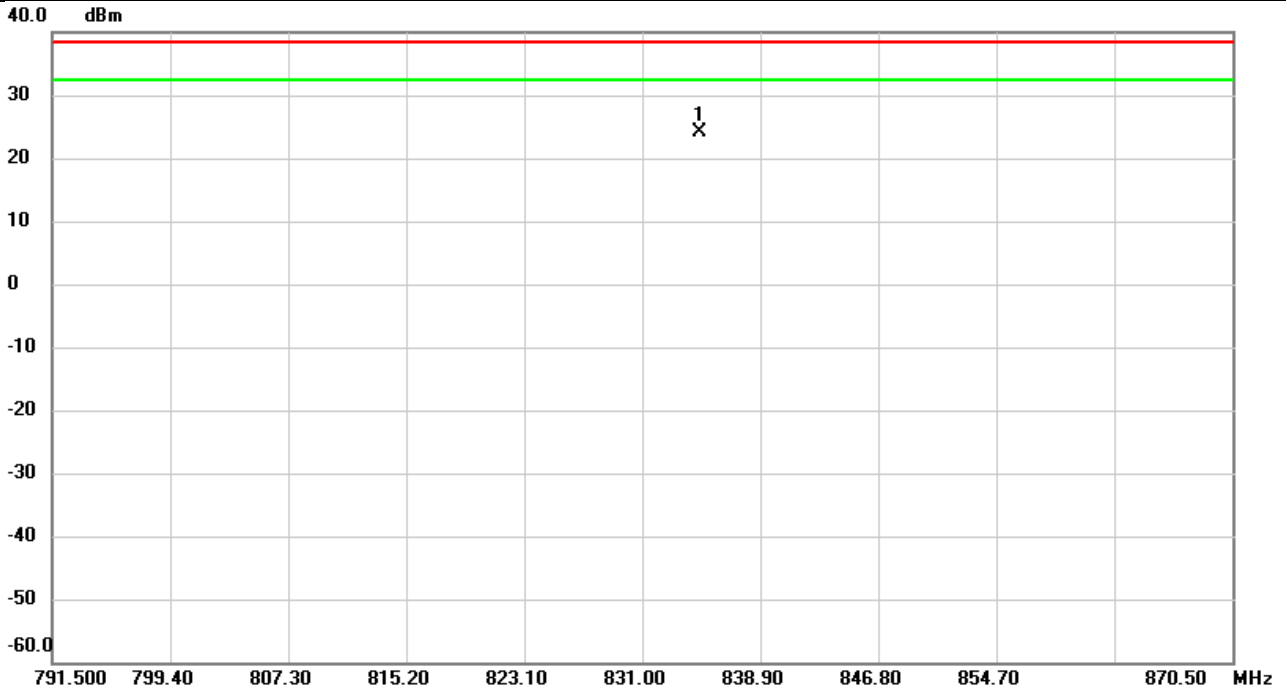


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	834.8736	11.92	9.87	21.79	38.45	-16.66	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 26	Test Date	2023/3/27
Test Channel	CH26965	Polarization	Horizontal
Temp	22°C	Hum.	66%



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	834.8526	14.32	9.71	24.03	38.45	-14.42	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

APPENDIX B OCCUPIED BANDWIDTH

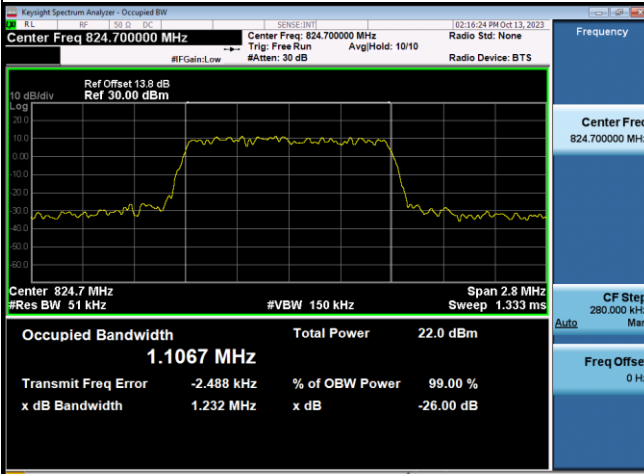
WCDMA Band V_WCDMA					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
4132	826.4	4.1248	4132	826.4	4.682
4183	836.6	4.1173	4183	836.3	4.701
4233	846.6	4.1835	4233	846.6	4.710



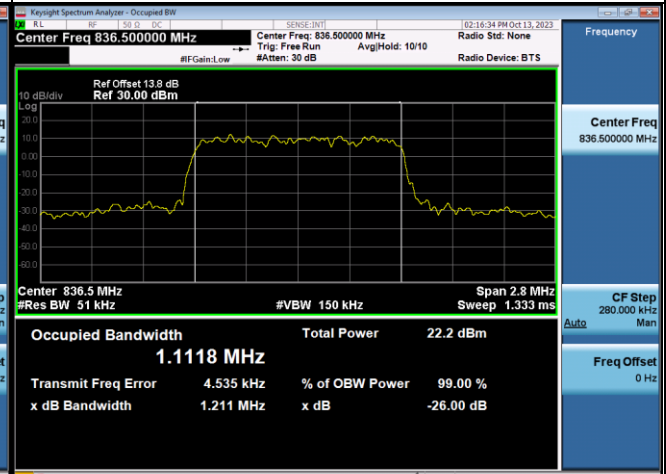
LTE Band 5_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20407	824.7	1.1067	20407	824.7	1.232
20525	836.5	1.1118	20525	836.5	1.211
20643	848.3	1.0955	20643	848.3	1.203
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20407	824.7	1.0905	20407	824.7	1.204
20525	836.5	1.1061	20525	836.5	1.220
20643	848.3	1.0929	20643	848.3	1.199
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20407	824.7	1.0902	20407	824.7	1.206
20525	836.5	1.1080	20525	836.5	1.217
20643	848.3	1.0988	20643	848.3	1.214

Spectrum Plot

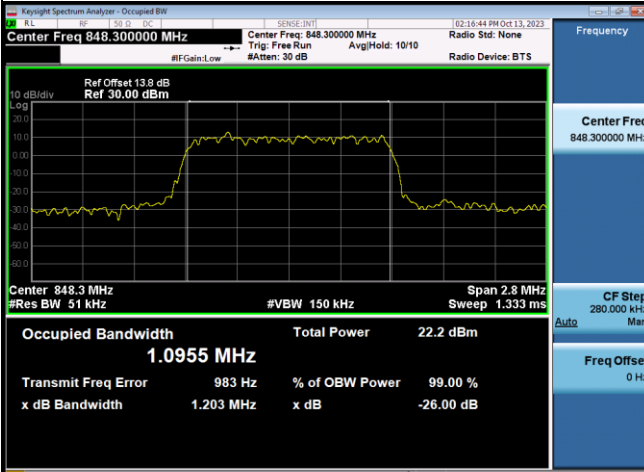
QPSK-20407



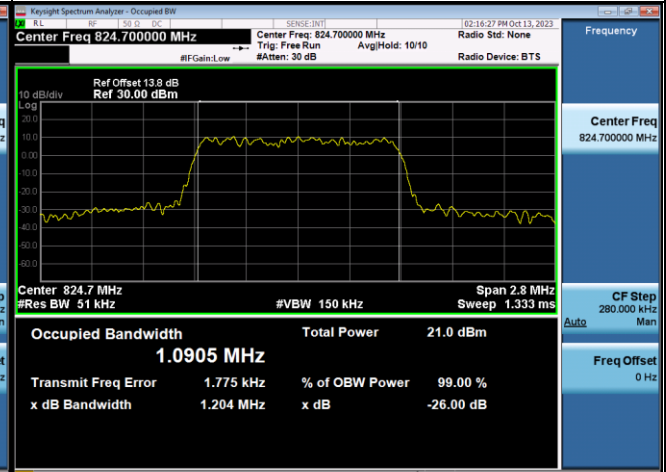
QPSK-20525



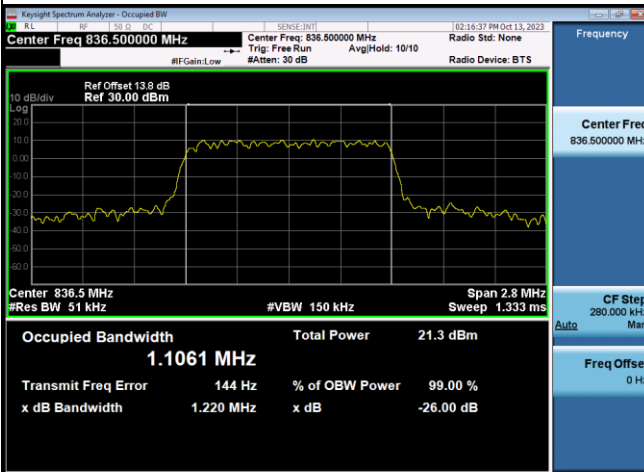
QPSK-20643



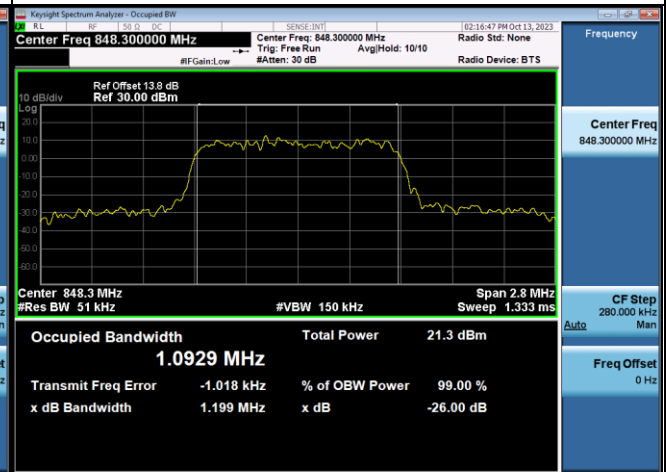
16QAM-20407



16QAM-20525



16QAM-20643

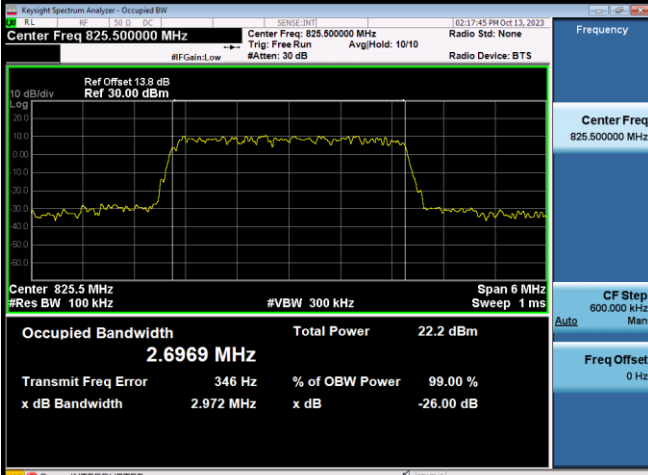




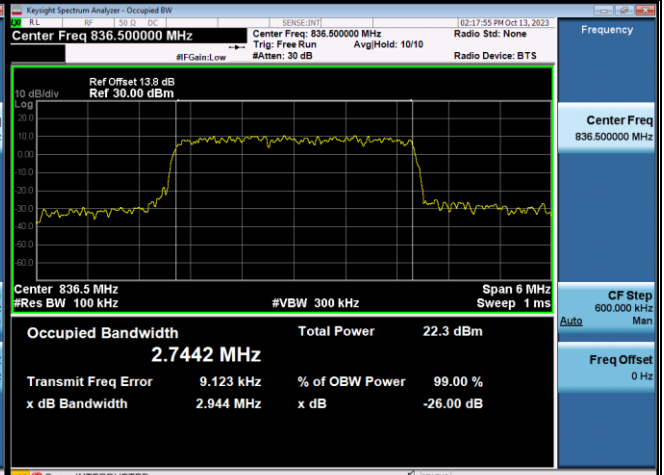
LTE Band 5_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20415	825.5	2.6969	20415	825.5	2.972
20525	836.5	2.7442	20525	836.5	2.944
20635	847.5	2.7209	20635	847.5	2.932
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20415	825.5	2.7164	20415	825.5	2.960
20525	836.5	2.7281	20525	836.5	2.947
20635	847.5	2.7174	20635	847.5	2.936
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20415	825.5	2.7123	20415	825.5	2.909
20525	836.5	2.7216	20525	836.5	2.928
20635	847.5	2.6955	20635	847.5	2.921

Spectrum Plot

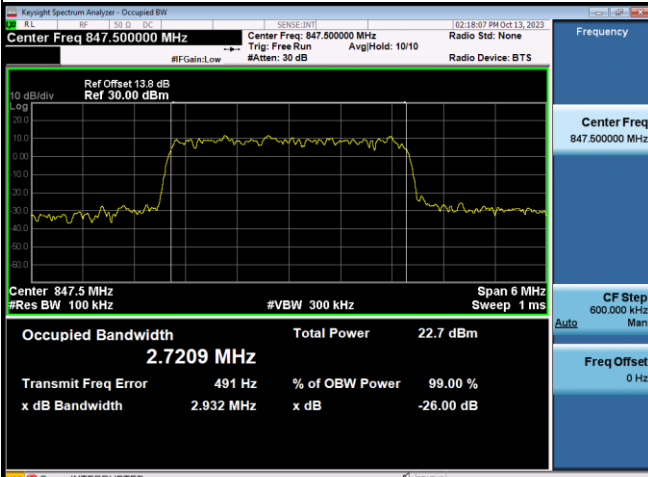
QPSK-20415



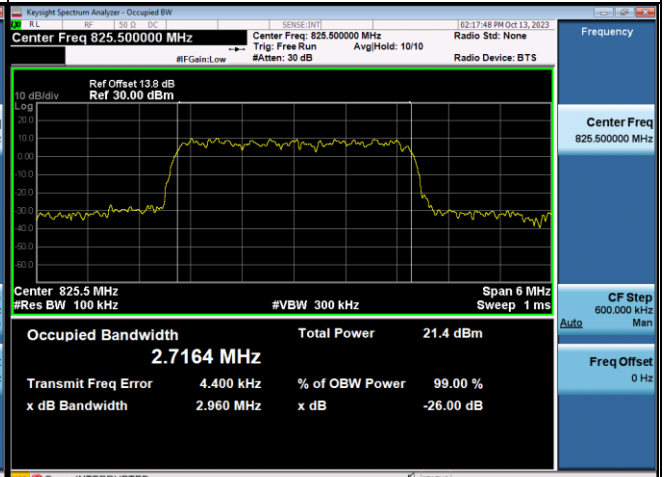
QPSK-20525



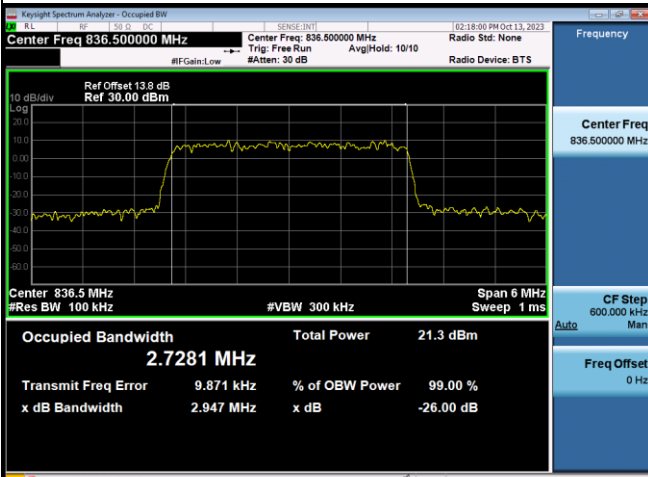
QPSK-20635



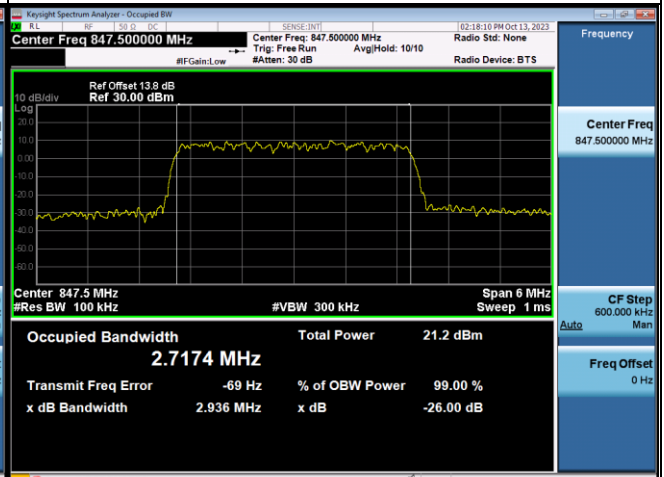
16QAM-20415



16QAM-20525



16QAM-20635

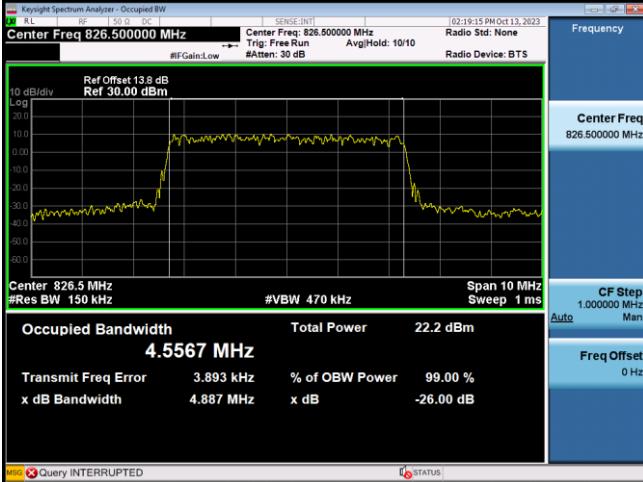




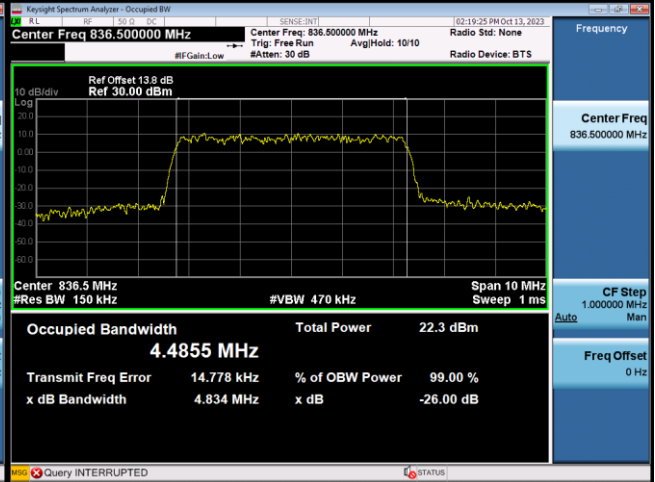
LTE Band 5_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20425	826.5	4.5567	20425	826.5	4.887
20525	836.5	4.4855	20525	836.5	4.834
20625	846.5	4.5486	20625	846.5	4.826
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20425	826.5	4.5191	20425	826.5	4.882
20525	836.5	4.5221	20525	836.5	4.886
20625	846.5	4.5140	20625	846.5	4.830
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20425	826.5	4.5173	20425	826.5	4.891
20525	836.5	4.5156	20525	836.5	4.811
20625	846.5	4.5114	20625	846.5	4.833

Spectrum Plot

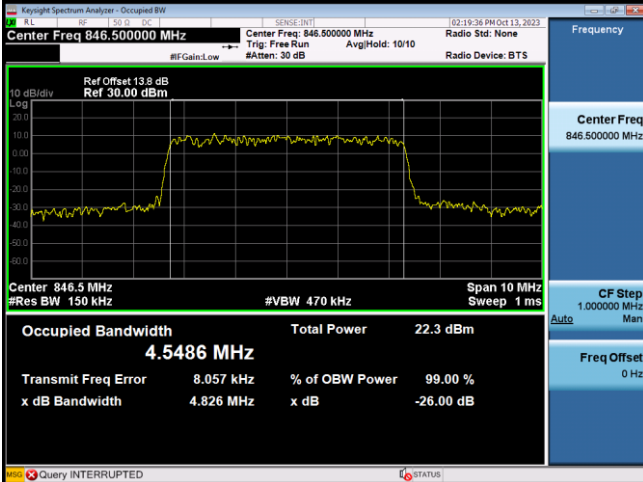
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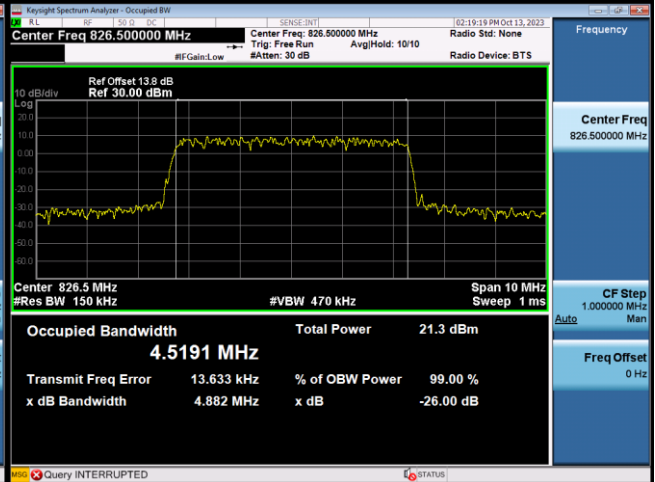
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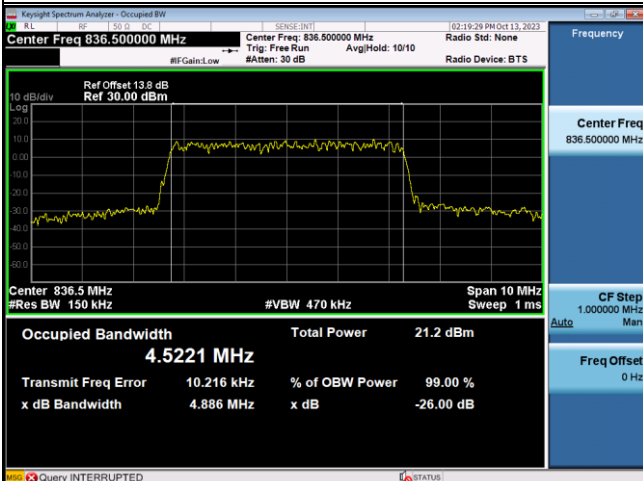
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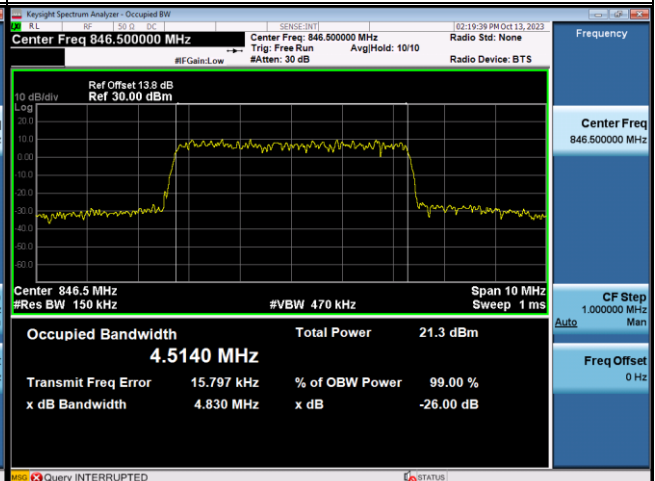
16QAM-20425



16QAM-20525



16QAM-20625

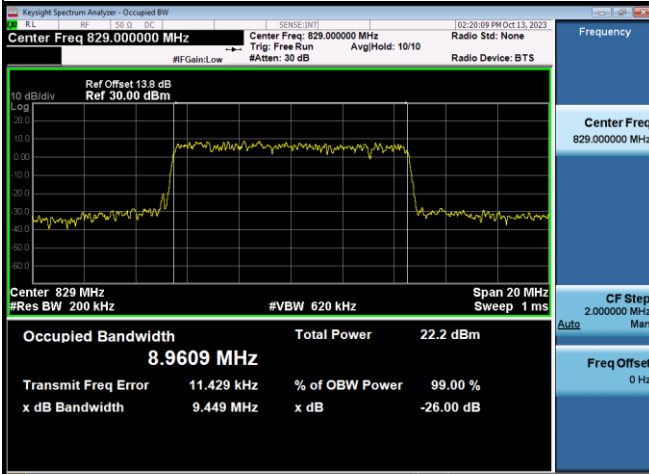




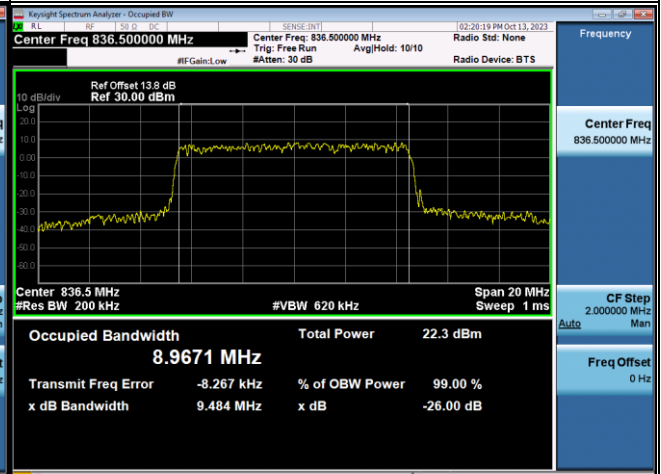
LTE Band 5_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20450	829.0	8.9609	20450	829.0	9.449
20525	836.5	8.9671	20525	836.5	9.484
20600	844.0	8.9862	20600	844.0	9.481
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20450	829.0	9.0029	20450	829.0	9.534
20525	836.5	8.9665	20525	836.5	9.443
20600	844.0	8.9417	20600	844.0	9.478
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20450	829.0	8.9406	20450	829.0	9.454
20525	836.5	8.9276	20525	836.5	9.465
20600	844.0	8.9882	20600	844.0	9.563

Spectrum Plot

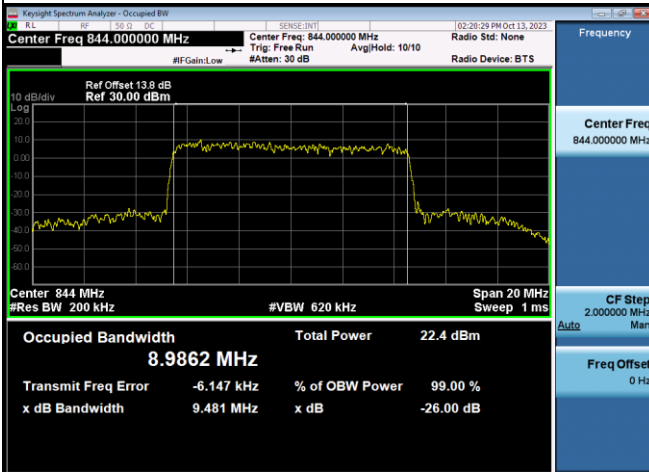
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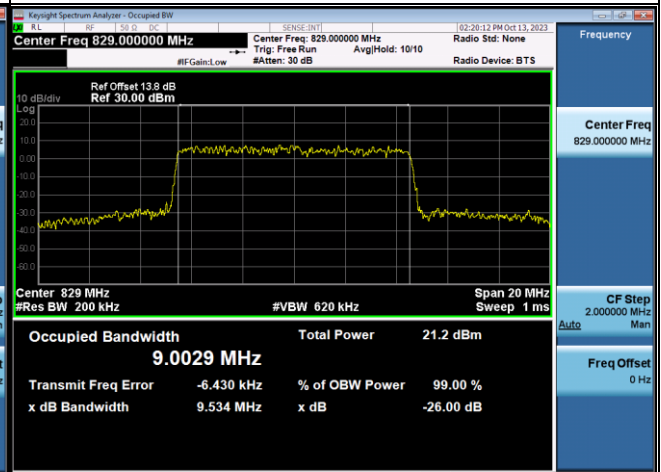
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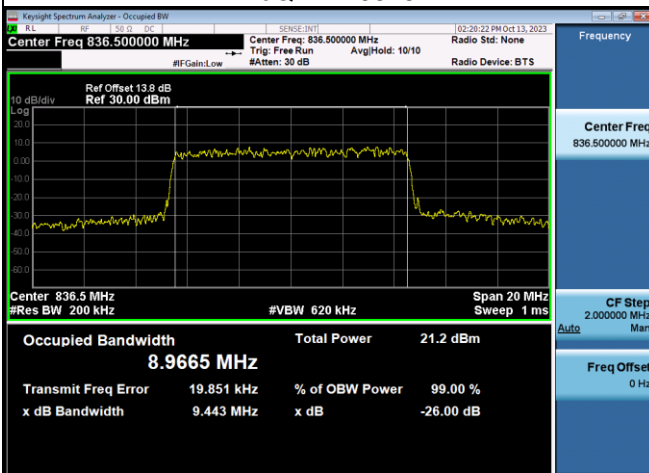
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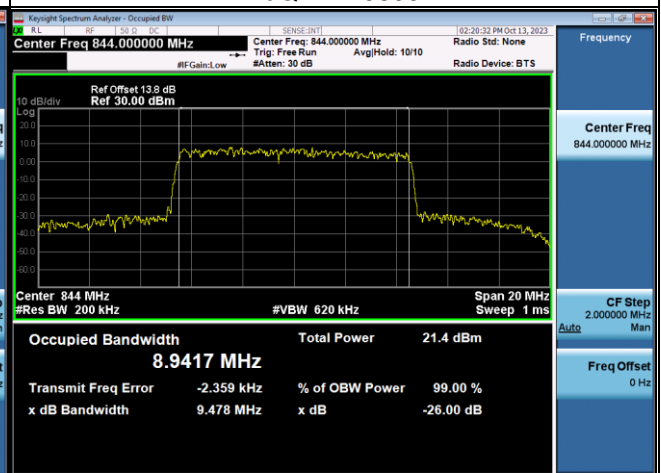
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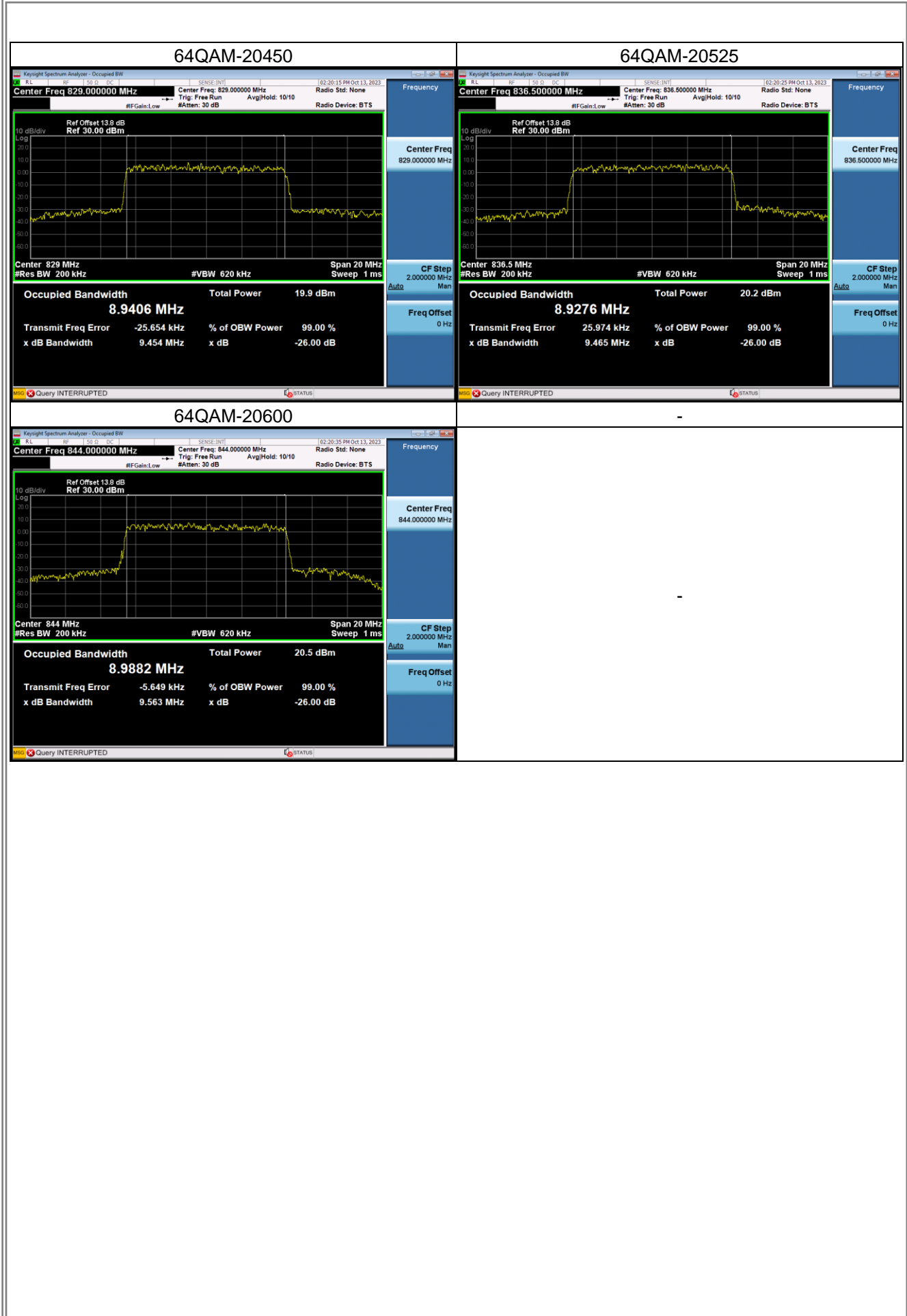


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16QAM-20600

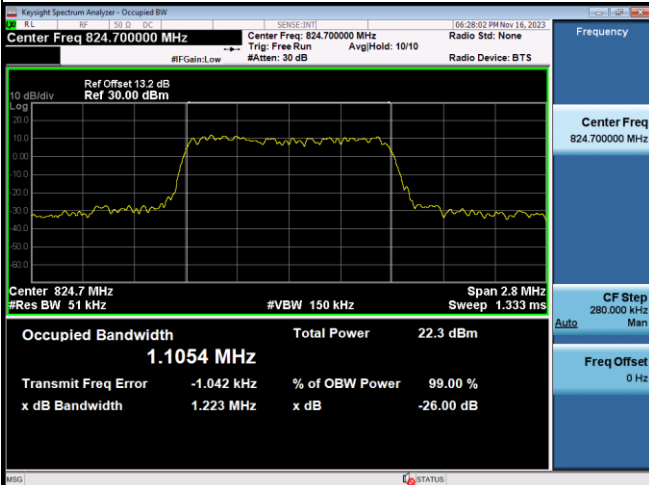




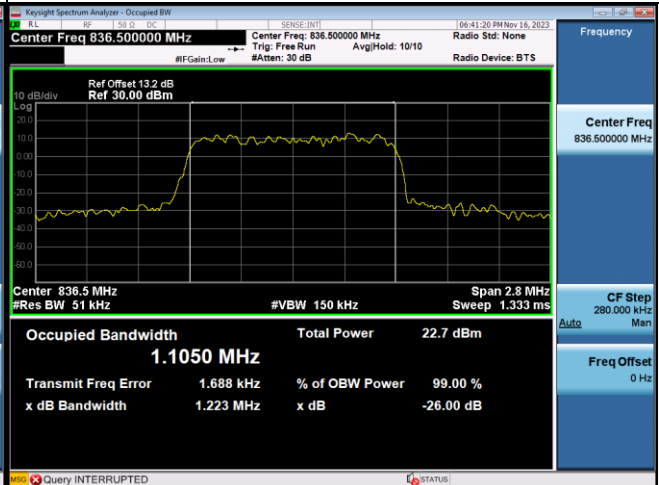
LTE Band 26_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26797	824.7	1.1054	26797	824.7	1.223
26915	836.5	1.1050	26915	836.5	1.223
27033	848.3	1.1076	27033	848.3	1.199
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26797	824.7	1.1049	26797	824.7	1.212
26915	836.5	1.1114	26915	836.5	1.212
27033	848.3	1.1037	27033	848.3	1.244
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26797	824.7	1.1007	26797	824.7	1.211
26915	836.5	1.0948	26915	836.5	1.229
27033	848.3	1.0992	27033	848.3	1.230

Spectrum Plot

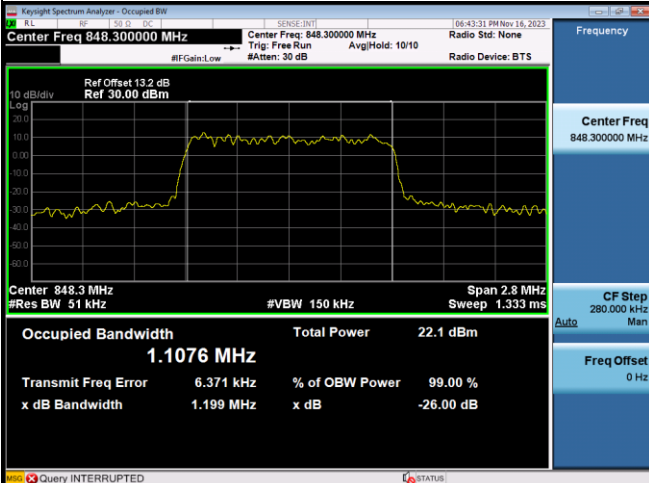
QPSK-26797



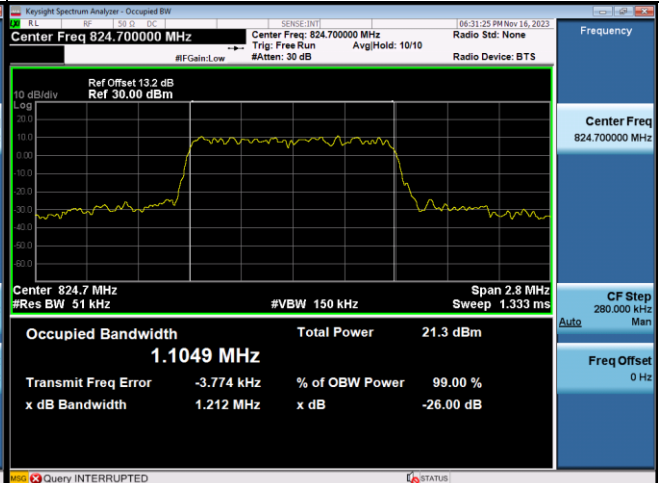
QPSK-26915



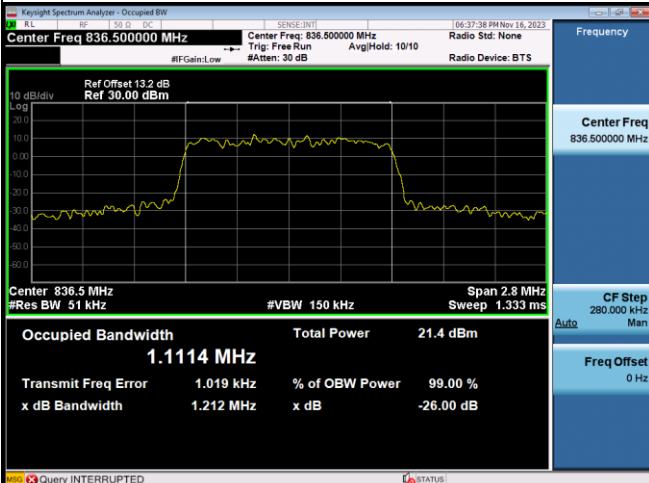
QPSK-27033



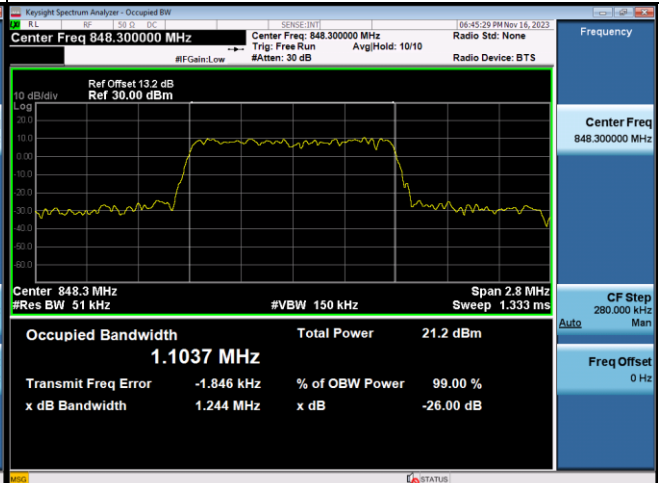
16QAM-26797



16QAM-26915



16QAM-27033





LTE Band 26_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26805	825.5	2.7016	26805	825.5	2.926
26915	836.5	2.7017	26915	836.5	2.959
27025	847.5	2.7144	27025	847.5	2.924
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26805	825.5	2.7137	26805	825.5	2.960
26915	836.5	2.7368	26915	836.5	2.951
27025	847.5	2.7091	27025	847.5	2.935
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26805	825.5	2.7204	26805	825.5	2.924
26915	836.5	2.7422	26915	836.5	2.964
27025	847.5	2.7243	27025	847.5	2.928