

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 22
47 CFR FCC Part 24
47 CFR FCC Part 27
47 CFR FCC Part 90
47 CFR FCC Part 2

Report No.: RFBCKS-WTW-P25020597

FCC ID: NKR-DLSAWI13WW

Product: WNC LPWA Module

Brand: WNC

Model No.: DLSA-WI13-WW

Received Date: 2025/2/21

Test Date: 2025/2/26 ~ 2025/3/12

Issued Date: 2025/7/21

Applicant: WNC Corporation

Address: 20 Park Ave. II, Hsinchu Science Park, Hsinchu 300, Taiwan

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location (1): No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan

Test Location (2): No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

FCC Registration /

Designation Number (1): 788550 / TW0003

FCC Registration /

Designation Number (2): 281270 / TW0032

Approved by:

Jeremy Lin

Date:

2025/7/21

Jeremy Lin / Project Engineer

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Prepared by : Gina Liu / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCKS-WTW-P25020597	Original release.	2025/7/21

1 Certificate

Product: WNC LPWA Module

Brand: WNC

Test Model: DL5A-WI13-WW

Sample Status: Engineering sample

Applicant: WNC Corporation

Test Date: 2025/2/26 ~ 2025/3/12

Standard: 47 CFR FCC Part 22

47 CFR FCC Part 24

47 CFR FCC Part 27

47 CFR FCC Part 90

47 CFR FCC Part 2

Measurement ANSI/TIA/EIA-603-E 2016

procedure: ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 971168 D02 Misc Rev Approv License Devices v02r02

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 22 47 CFR FCC Part 24 47 CFR FCC Part 27 47 CFR FCC Part 90 47 CFR FCC Part 2			
Standard / Clause	Test Item	Result	Remark
FCC 47 CFR Part 2.1046 FCC 47 CFR Part 22.913 (a) FCC 47 CFR Part 24.232 (c) FCC 47 CFR Part 27.50(d) FCC 47 CFR Part 27.50(c) FCC 47 CFR Part 27.50(b) FCC 47 CFR Part 27.1507(a) FCC 47 CFR Part 90.542(a) FCC 47 CFR Part 90.635(b)	Effective Radiated Power and Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
FCC 47 CFR Part 2.1047	Modulation Characteristics	Pass	Meet the requirement of limit.
FCC 47 CFR Part 22.913 (d) FCC 47 CFR Part 24.232 (d) FCC 47 CFR Part 27.50(d)	Peak to Average Ratio	Pass	Meet the requirement of limit.
FCC 47 CFR Part 2.1049	Bandwidth	Pass	Meet the requirement of limit.
FCC 47 CFR Part 2.1051 FCC 47 CFR Part 22.917 FCC 47 CFR Part 24.238 FCC 47 CFR Part 27.53(h) FCC 47 CFR Part 27.53(g) FCC 47 CFR Part 27.53(c)(f) FCC 47 CFR Part 27.1509 FCC 47 CFR Part 90.543(c)(f) FCC 47 CFR Part 90.691	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
FCC 47 CFR Part 2.1053 FCC 47 CFR Part 22.917 FCC 47 CFR Part 24.238 FCC 47 CFR Part 27.53(h) FCC 47 CFR Part 27.53(g) FCC 47 CFR Part 27.53(c)(f) FCC 47 CFR Part 27.1509 FCC 47 CFR Part 90.543(c)(f) FCC 47 CFR Part 90.691	Radiated Spurious Emissions below 1GHz	Pass	Minimum passing margin is -34.30 dB at 142.52 MHz
FCC 47 CFR Part 2.1053 FCC 47 CFR Part 22.917 FCC 47 CFR Part 24.238 FCC 47 CFR Part 27.53(h) FCC 47 CFR Part 27.53(g) FCC 47 CFR Part 27.53(c)(f) FCC 47 CFR Part 27.1509 FCC 47 CFR Part 90.543(c)(f) FCC 47 CFR Part 90.691	Radiated Spurious Emissions above 1GHz	Pass	Minimum passing margin is -2.72 dB at 1415.00 MHz

47 CFR FCC Part 22
 47 CFR FCC Part 24
 47 CFR FCC Part 27
 47 CFR FCC Part 90
 47 CFR FCC Part 2

Standard / Clause	Test Item	Result	Remark
FCC 47 CFR Part 2.1055 FCC 47 CFR Part 22.355 FCC 47 CFR Part 24.235 FCC 47 CFR Part 27.54 FCC 47 CFR Part 90.213	Frequency Stability	Pass	Meet the requirement of limit.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Effective Radiated Power and Equivalent Isotropically Radiated Power	-	1.371 dB
Peak to Average Ratio	-	0.920 dB
Bandwidth	-	960 Hz
Conducted Spurious Emissions	-	2.12 dB
Radiated Spurious Emissions below 1GHz	9 kHz ~ 30 MHz	2.44 dB
	30 MHz ~ 1 GHz	2.02 dB
Radiated Spurious Emissions above 1GHz	1 GHz ~ 18 GHz	1.01 dB
	18 GHz ~ 40 GHz	1.15 dB
Frequency Stability	-	0.176 ppm

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	WNC LPWA Module
Brand	WNC
Test Model	DLSA-WI13-WW
Status of EUT	Engineering sample
Power Supply Rating	3.8Vdc

Note:

1. EUT Overview

Band / Bandwidth	TX Frequency Range (MHz)	Max. EIRP Power		Emission Designator	
		QPSK	16QAM	QPSK	16QAM
Cat-M1 Band 2 (Channel Bandwidth 1.4MHz)	1850.7-1909.3	347.536 mW (25.41dBm)	304.789 mW (24.84dBm)	1M08G7D	1M08D7W
Cat-M1 Band 2 (Channel Bandwidth 3MHz)	1851.5-1908.5	354.813 mW (25.5dBm)	302.691 mW (24.81dBm)	1M08G7D	1M08D7W
Cat-M1 Band 2 (Channel Bandwidth 5MHz)	1852.5-1907.5	386.367 mW (25.87dBm)	368.978 mW (25.67dBm)	1M08G7D	1M08D7W
Cat-M1 Band 2 (Channel Bandwidth 10MHz)	1855.0-1905.0	369.828 mW (25.68dBm)	375.837 mW (25.75dBm)	1M08G7D	1M08D7W
Cat-M1 Band 2 (Channel Bandwidth 15MHz)	1857.5-1902.5	380.189 mW (25.8dBm)	369.828 mW (25.68dBm)	1M08G7D	1M08D7W
Cat-M1 Band 2 (Channel Bandwidth 20MHz)	1860.0-1900.0	399.025 mW (26.01dBm)	385.478 mW (25.86dBm)	1M08G7D	1M08D7W
Cat-M1 Band 4 (Channel Bandwidth 1.4MHz)	1710.7-1754.3	383.707 mW (25.84dBm)	323.594 mW (25.1dBm)	1M08G7D	1M08D7W
Cat-M1 Band 4 (Channel Bandwidth 3MHz)	1711.5-1753.5	370.681 mW (25.69dBm)	279.254 mW (24.46dBm)	1M07G7D	1M08D7W
Cat-M1 Band 4 (Channel Bandwidth 5MHz)	1712.5-1752.5	378.443 mW (25.78dBm)	377.572 mW (25.77dBm)	1M08G7D	1M08D7W
Cat-M1 Band 4 (Channel Bandwidth 10MHz)	1715.0-1750.0	384.592 mW (25.85dBm)	372.392 mW (25.71dBm)	1M08G7D	1M08D7W
Cat-M1 Band 4 (Channel Bandwidth 15MHz)	1717.5-1747.5	379.315 mW (25.79dBm)	376.704 mW (25.76dBm)	1M08G7D	1M08D7W
Cat-M1 Band 4 (Channel Bandwidth 20MHz)	1720.0-1745.0	396.278 mW (25.98dBm)	374.973 mW (25.74dBm)	1M08G7D	1M08D7W
Cat-M1 Band 8 (Channel Bandwidth 1.4MHz)	898.2-899.8	251.189 mW (24.00dBm)	221.309 mW (23.45dBm)	1M08G7D	1M08D7W
Cat-M1 Band 8 (Channel Bandwidth 3MHz)	899.0	253.513 mW (24.04dBm)	224.905 mW (23.52dBm)	1M09G7D	1M10D7W
Cat-M1 Band 14 (Channel Bandwidth 5MHz)	790.0-795.5	206.538 mW (23.15dBm)	201.837 mW (23.05dBm)	1M08G7D	1M08D7W
Cat-M1 Band 14 (Channel Bandwidth 10MHz)	793.0	207.970 mW (23.18dBm)	201.837 mW (23.05dBm)	1M08G7D	1M08D7W
Cat-M1 Band 25 (Channel Bandwidth 1.4MHz)	1850.7-1914.3	365.595 mW (25.63dBm)	334.195 mW (25.24dBm)	1M08G7D	1M08D7W
Cat-M1 Band 25 (Channel Bandwidth 3MHz)	1851.5-1913.5	362.243 mW (25.59dBm)	318.420 mW (25.03dBm)	1M08G7D	1M08D7W
Cat-M1 Band 25 (Channel Bandwidth 5MHz)	1852.5-1912.5	373.250 mW (25.72dBm)	372.392 mW (25.71dBm)	1M08G7D	1M08D7W
Cat-M1 Band 25 (Channel Bandwidth 10MHz)	1855.0-1910.0	371.535 mW (25.70dBm)	368.978 mW (25.67dBm)	1M08G7D	1M08D7W
Cat-M1 Band 25 (Channel Bandwidth 15MHz)	1857.5-1907.5	379.315 mW (25.79dBm)	373.250 mW (25.72dBm)	1M08G7D	1M08D7W
Cat-M1 Band 25 (Channel Bandwidth 20MHz)	1860.0-1905.0	381.066 mW (25.81dBm)	369.828 mW (25.68dBm)	1M08G7D	1M08D7W

Band / Bandwidth		TX Frequency Range (MHz)	Max. EIRP Power		Emission Designator	
			QPSK	16QAM	QPSK	16QAM
For Part 22	Cat-M1 Band 26 (Channel Bandwidth 1.4MHz)	824.7-848.3	254.683 mW (24.06dBm)	232.809 mW (23.67dBm)	1M08G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 3MHz)	825.5-847.5	254.097 mW (24.05dBm)	235.505 mW (23.72dBm)	1M07G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 5MHz)	826.5-846.5	261.216 mW (24.17dBm)	230.675 mW (23.63dBm)	1M08G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 10MHz)	829.0-844.0	257.040 mW (24.1dBm)	226.986 mW (23.56dBm)	1M08G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 15MHz)	831.5-841.5	291.072 mW (24.64dBm)	260.016 mW (24.15dBm)	1M08G7D	1M08D7W
For Part 90	Cat-M1 Band 26 (Channel Bandwidth 1.4MHz)	814.7-823.3	257.040 mW (24.1dBm)	246.604 mW (23.92dBm)	1M08G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 3MHz)	815.5-822.5	252.348 mW (24.02dBm)	220.293 mW (23.43dBm)	1M08G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 5MHz)	816.5-821.5	253.513 mW (24.04dBm)	235.505 mW (23.72dBm)	1M08G7D	1M08D7W
	Cat-M1 Band 26 (Channel Bandwidth 10MHz)	819.0	263.027 mW (24.2dBm)	259.418 mW (24.14dBm)	1M08G7D	1M08D7W
Cat-M1 Band 66 (Channel Bandwidth 1.4 MHz)		1710.7-1779.3	365.595 mW (25.63dBm)	334.195 mW (25.24dBm)	1M08G7D	1M08D7W
Cat-M1 Band 66 (Channel Bandwidth 3MHz)		1711.5-1778.5	362.243 mW (25.59dBm)	318.420 mW (25.03dBm)	1M08G7D	1M08D7W
Cat-M1 Band 66 (Channel Bandwidth 5MHz)		1712.5-1777.5	373.250 mW (25.72dBm)	372.392 mW (25.71dBm)	1M08G7D	1M08D7W
Cat-M1 Band 66 (Channel Bandwidth 10MHz)		1715.0-1775.0	372.392 mW (25.71dBm)	368.978 mW (25.67dBm)	1M08G7D	1M08D7W
Cat-M1 Band 66 (Channel Bandwidth 15MHz)		1717.5-1772.5	379.315 mW (25.79dBm)	373.250 mW (25.72dBm)	1M08G7D	1M08D7W
Cat-M1 Band 66 (Channel Bandwidth 20MHz)		1720.0-1770.0	381.066 mW (25.81dBm)	369.828 mW (25.68dBm)	1M09G7D	1M08D7W

Band / Bandwidth		TX Frequency Range (MHz)	Max. ERP Power		Emission Designator	
			QPSK	16QAM	QPSK	16QAM
Cat-M1 Band 5 (Channel Bandwidth 1.4MHz)		824.7-848.3	253.513 mW (24.04dBm)	243.220 mW (23.86dBm)	1M08G7D	1M08D7W
Cat-M1 Band 5 (Channel Bandwidth 3MHz)		825.5-847.5	248.886 mW (23.96dBm)	224.388 mW (23.51dBm)	1M08G7D	1M08D7W
Cat-M1 Band 5 (Channel Bandwidth 5MHz)		826.5-846.5	256.448 mW (24.09dBm)	232.809 mW (23.67dBm)	1M08G7D	1M08D7W
Cat-M1 Band 5 (Channel Bandwidth 10MHz)		829.0-844.0	264.850 mW (24.23dBm)	233.884 mW (23.69dBm)	1M08G7D	1M08D7W
Cat-M1 Band 12 (Channel Bandwidth 1.4MHz)		699.7-715.3	207.491 mW (23.17dBm)	173.380 mW (22.39dBm)	1M08G7D	1M08D7W
Cat-M1 Band 12 (Channel Bandwidth 3MHz)		700.5-714.5	205.116 mW (23.12dBm)	171.002 mW (22.33dBm)	1M07G7D	1M08D7W
Cat-M1 Band 12 (Channel Bandwidth 5MHz)		701.5-713.5	201.837 mW (23.05dBm)	188.799 mW (22.76dBm)	1M08G7D	1M08D7W
Cat-M1 Band 12 (Channel Bandwidth 10MHz)		704.0-711.0	210.378 mW (23.23dBm)	185.780 mW (22.69dBm)	1M08G7D	1M08D7W
Cat-M1 Band 13 (Channel Bandwidth 5MHz)		779.5-784.5	203.704 mW (23.09dBm)	181.970 mW (22.6dBm)	1M08G7D	1M08D7W
Cat-M1 Band 13 (Channel Bandwidth 10MHz)		782.0	206.063 mW (23.14dBm)	201.372 mW (23.04dBm)	1M08G7D	1M08D7W
Cat-M1 Band 85 (Channel Bandwidth 5MHz)		700.5-713.5	203.236 mW (23.08dBm)	187.068 mW (22.72dBm)	1M08G7D	1M08D7W
Cat-M1 Band 85 (Channel Bandwidth 10MHz)		703.0-711.0	210.378 mW (23.23dBm)	189.234 mW (22.77dBm)	1M08G7D	1M08D7W

2. 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.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

The antenna information is listed as below:										
Type			Dipole							
Connector			RP-SMA							
Antenna gain (dBi)										
Cat-M1 Band										
2	4	5	8	12	13	14	25	26	66	85
2.03	2.03	2.63	2.63	1.63	1.63	1.63	2.03	2.63	2.03	1.63

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation. Therefore, only EIRP/ERP, modulation characteristics, bandwidth and peak to average ratio items had been tested under QPSK and 16QAM mode, the other items were performed under QPSK mode only. For radiated spurious emissions, choose the maximum EIRP/ERP power and 1RB offset worst case for final test.
Worst Case:	X-axis/ Y-axis/ Z-axis Worst Condition: Z-axis (90 angle)

For Cat-M1 Band 2

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	18607 (1850.70 MHz) 18900 (1880.00 MHz) 19193 (1909.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	18615 (1851.50 MHz) 18900 (1880.00 MHz) 19185 (1908.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	18625 (1852.50 MHz) 18900 (1880.00 MHz) 19175 (1907.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	18650 (1855.00 MHz) 18900 (1880.00 MHz) 19150 (1905.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	18675 (1857.50 MHz) 18900 (1880.00 MHz) 19125 (1902.50 MHz)	15 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	18700 (1860.00 MHz) 18900 (1880.00 MHz) 19100 (1900.00 MHz)	20 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	18900 (1880.00 MHz)	20 MHz	QPSK / 16QAM	Full RB
Frequency Stability	18607 (1850.70 MHz) 19193 (1909.30 MHz)	1.4 MHz	QPSK	Full RB
	18615 (1851.50 MHz) 19185 (1908.50 MHz)	3 MHz	QPSK	Full RB
	18625 (1852.50 MHz) 19175 (1907.50 MHz)	5 MHz	QPSK	Full RB
	18650 (1855.00 MHz) 19150 (1905.00 MHz)	10 MHz	QPSK	Full RB
	18675 (1857.50 MHz) 19125 (1902.50 MHz)	15 MHz	QPSK	Full RB
	18700 (1860.00 MHz) 19100 (1900.00 MHz)	20 MHz	QPSK	Full RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Occupied Bandwidth	18607 (1850.70 MHz) 18900 (1880.00 MHz) 19193 (1909.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	18615 (1851.50 MHz) 18900 (1880.00 MHz) 19185 (1908.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	18625 (1852.50 MHz) 18900 (1880.00 MHz) 19175 (1907.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	18650 (1855.00 MHz) 18900 (1880.00 MHz) 19150 (1905.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
	18675 (1857.50 MHz) 18900 (1880.00 MHz) 19125 (1902.50 MHz)	15 MHz	QPSK / 16QAM	Full RB
	18700 (1860.00 MHz) 18900 (1880.00 MHz) 19100 (1900.00 MHz)	20 MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	18607 (1850.70 MHz) 18900 (1880.00 MHz) 19193 (1909.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	18615 (1851.50 MHz) 18900 (1880.00 MHz) 19185 (1908.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	18625 (1852.50 MHz) 18900 (1880.00 MHz) 19175 (1907.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	18650 (1855.00 MHz) 18900 (1880.00 MHz) 19150 (1905.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
	18675 (1857.50 MHz) 18900 (1880.00 MHz) 19125 (1902.50 MHz)	15 MHz	QPSK / 16QAM	1 RB
	18700 (1860.00 MHz) 18900 (1880.00 MHz) 19100 (1900.00 MHz)	20 MHz	QPSK / 16QAM	1 RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Emission	18607 (1850.70 MHz) 18900 (1880.00 MHz) 19193 (1909.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	18615 (1851.50 MHz) 18900 (1880.00 MHz) 19185 (1908.50 MHz)	3 MHz	QPSK	1 RB Full RB
	18625 (1852.50 MHz) 18900 (1880.00 MHz) 19175 (1907.50 MHz)	5 MHz	QPSK	1 RB Full RB
	18650 (1855.00 MHz) 18900 (1880.00 MHz) 19150 (1905.00 MHz)	10 MHz	QPSK	1 RB Full RB
	18675 (1857.50 MHz) 18900 (1880.00 MHz) 19125 (1902.50 MHz)	15 MHz	QPSK	1 RB Full RB
	18700 (1860.00 MHz) 18900 (1880.00 MHz) 19100 (1900.00 MHz)	20 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	19100 (1900.00 MHz)	20 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	18607 (1850.70 MHz) 18900 (1880.00 MHz) 19193 (1909.30 MHz)	1.4 MHz	QPSK	1 RB
	18625 (1852.50 MHz) 18900 (1880.00 MHz) 19175 (1907.50 MHz)	5 MHz	QPSK	1 RB
	18700 (1860.00 MHz) 18900 (1880.00 MHz) 19100 (1900.00 MHz)	20 MHz	QPSK	1 RB

For Cat-M1 Band 4

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	19957 (1710.70 MHz) 20175 (1732.50 MHz) 20393 (1754.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	19965 (1711.50 MHz) 20175 (1732.50 MHz) 20385 (1753.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	19975 (1712.50 MHz) 20175 (1732.50 MHz) 20375 (1752.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	20000 (1715.00 MHz) 20175 (1732.50 MHz) 20350 (1750.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	20025 (1717.50 MHz) 20175 (1732.50 MHz) 20325 (1747.50 MHz)	15 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	20050 (1720.00 MHz) 20175 (1732.50 MHz) 20300 (1745.00 MHz)	20 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	20175 (1732.50 MHz)	20 MHz	QPSK / 16QAM	Full RB
Frequency Stability	19957 (1710.70 MHz) 20393 (1754.30 MHz)	1.4 MHz	QPSK	Full RB
	19965 (1711.50 MHz) 20385 (1753.50 MHz)	3 MHz	QPSK	Full RB
	19975 (1712.50 MHz) 20375 (1752.50 MHz)	5 MHz	QPSK	Full RB
	20000 (1715.00 MHz) 20350 (1750.00 MHz)	10 MHz	QPSK	Full RB
	20025 (1717.50 MHz) 20325 (1747.50 MHz)	15 MHz	QPSK	Full RB
	20050 (1720.00 MHz) 20300 (1745.00 MHz)	20 MHz	QPSK	Full RB
Occupied Bandwidth	19957 (1710.70 MHz) 20175 (1732.50 MHz) 20393 (1754.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	19965 (1711.50 MHz) 20175 (1732.50 MHz) 20385 (1753.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	19975 (1712.50 MHz) 20175 (1732.50 MHz) 20375 (1752.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	20000 (1715.00 MHz) 20175 (1732.50 MHz) 20350 (1750.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
	20025 (1717.50 MHz) 20175 (1732.50 MHz) 20325 (1747.50 MHz)	15 MHz	QPSK / 16QAM	Full RB
	20050 (1720.00 MHz) 20175 (1732.50 MHz) 20300 (1745.00 MHz)	20 MHz	QPSK / 16QAM	Full RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	19957 (1710.70 MHz) 20175 (1732.50 MHz) 20393 (1754.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	19965 (1711.50 MHz) 20175 (1732.50 MHz) 20385 (1753.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	19975 (1712.50 MHz) 20175 (1732.50 MHz) 20375 (1752.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	20000 (1715.00 MHz) 20175 (1732.50 MHz) 20350 (1750.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
	20025 (1717.50 MHz) 20175 (1732.50 MHz) 20325 (1747.50 MHz)	15 MHz	QPSK / 16QAM	1 RB
	20050 (1720.00 MHz) 20175 (1732.50 MHz) 20300 (1745.00 MHz)	20 MHz	QPSK / 16QAM	1 RB
Conducted Emission	19957 (1710.70 MHz) 20175 (1732.50 MHz) 20393 (1754.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	19965 (1711.50 MHz) 20175 (1732.50 MHz) 20385 (1753.50 MHz)	3 MHz	QPSK	1 RB Full RB
	19975 (1712.50 MHz) 20175 (1732.50 MHz) 20375 (1752.50 MHz)	5 MHz	QPSK	1 RB Full RB
	20000 (1715.00 MHz) 20175 (1732.50 MHz) 20350 (1750.00 MHz)	10 MHz	QPSK	1 RB Full RB
	20025 (1717.50 MHz) 20175 (1732.50 MHz) 20325 (1747.50 MHz)	15 MHz	QPSK	1 RB Full RB
	20050 (1720.00 MHz) 20175 (1732.50 MHz) 20300 (1745.00 MHz)	20 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	20393 (1754.30 MHz)	1.4 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	19957 (1710.70 MHz) 20175 (1732.50 MHz) 20393 (1754.30 MHz)	1.4 MHz	QPSK	1 RB
	19975 (1712.50 MHz) 20175 (1732.50 MHz) 20375 (1752.50 MHz)	5 MHz	QPSK	1 RB
	20050 (1720.00 MHz) 20175 (1732.50 MHz) 20300 (1745.00 MHz)	20 MHz	QPSK	1 RB

For Cat-M1 Band 5

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	20407 (824.70 MHz) 20525 (836.50 MHz) 20643 (848.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	20415 (825.50 MHz) 20525 (836.50 MHz) 20635 (847.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	20425 (826.50 MHz) 20525 (836.50 MHz) 20625 (846.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	20450 (829.00 MHz) 20525 (836.50 MHz) 20600 (844.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	20525 (836.50 MHz)	10 MHz	QPSK / 16QAM	Full RB
Frequency Stability	20407 (824.70 MHz) 20643 (848.30 MHz)	1.4 MHz	QPSK	Full RB
	20415 (825.50 MHz) 20635 (847.50 MHz)	3 MHz	QPSK	Full RB
	20425 (826.50 MHz) 20625 (846.50 MHz)	5 MHz	QPSK	Full RB
	20450 (829.00 MHz) 20600 (844.00 MHz)	10 MHz	QPSK	Full RB
Occupied Bandwidth	20407 (824.70 MHz) 20525 (836.50 MHz) 20643 (848.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	20415 (825.50 MHz) 20525 (836.50 MHz) 20635 (847.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	20425 (826.50 MHz) 20525 (836.50 MHz) 20625 (846.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	20450 (829.00 MHz) 20525 (836.50 MHz) 20600 (844.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	20407 (824.70 MHz) 20525 (836.50 MHz) 20643 (848.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	20415 (825.50 MHz) 20525 (836.50 MHz) 20635 (847.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	20425 (826.50 MHz) 20525 (836.50 MHz) 20625 (846.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	20450 (829.00 MHz) 20525 (836.50 MHz) 20600 (844.00 MHz)	10 MHz	QPSK / 16QAM	1 RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Emission	20407 (824.70 MHz) 20525 (836.50 MHz) 20643 (848.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	20415 (825.50 MHz) 20525 (836.50 MHz) 20635 (847.50 MHz)	3 MHz	QPSK	1 RB Full RB
	20425 (826.50 MHz) 20525 (836.50 MHz) 20625 (846.50 MHz)	5 MHz	QPSK	1 RB Full RB
	20450 (829.00 MHz) 20525 (836.50 MHz) 20600 (844.00 MHz)	10 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	20525 (836.50 MHz)	10 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	20407 (824.70 MHz) 20525 (836.50 MHz) 20643 (848.30 MHz)	1.4 MHz	QPSK	1 RB
	20425 (826.50 MHz) 20525 (836.50 MHz) 20625 (846.50 MHz)	5 MHz	QPSK	1 RB
	20450 (829.00 MHz) 20525 (836.50 MHz) 20600 (844.00 MHz)	10 MHz	QPSK	1 RB

For Cat-M1 Band 8

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	21632 (898.20 MHz) 21640 (899.00 MHz) 21648 (899.80 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	21640 (899.00 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	21640 (899.00 MHz)	3 MHz	QPSK / 16QAM	Full RB
Frequency Stability	21632 (898.20 MHz) 21648 (899.80 MHz)	1.4 MHz	QPSK	Full RB
	21640 (899.00 MHz)	3 MHz	QPSK	Full RB
Occupied Bandwidth	21632 (898.20 MHz) 21640 (899.00 MHz) 21648 (899.80 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	21640 (899.00 MHz)	3 MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	21632 (898.20 MHz) 21640 (899.00 MHz) 21648 (899.80 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	21640 (899.00 MHz)	3 MHz	QPSK / 16QAM	1 RB
Conducted Emission	21632 (898.20 MHz) 21640 (899.00 MHz) 21648 (899.80 MHz)	1.4 MHz	QPSK	1 RB Full RB
	21640 (899.00 MHz)	3 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	21640 (899.00 MHz)	3 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	21632 (898.20 MHz) 21640 (899.00 MHz) 21648 (899.80 MHz)	1.4 MHz	QPSK	1 RB
	21640 (899.00 MHz)	3 MHz	QPSK	1 RB

For Cat-M1 Band 12

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	23017 (699.70 MHz) 23095 (707.50 MHz) 23173 (715.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	23025 (700.50 MHz) 23095 (707.50 MHz) 23165 (714.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	23035 (701.50 MHz) 23095 (707.50 MHz) 23155 (713.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	23060 (704.00 MHz) 23095 (707.50 MHz) 23130 (711.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	23095 (707.50 MHz)	10 MHz	QPSK / 16QAM	Full RB
Frequency Stability	23017 (699.70 MHz) 23173 (715.30 MHz)	1.4 MHz	QPSK	Full RB
	23025 (700.50 MHz) 23165 (714.50 MHz)	3 MHz	QPSK	Full RB
	23035 (701.50 MHz) 23155 (713.50 MHz)	5 MHz	QPSK	Full RB
	23060 (704.00 MHz) 23130 (711.00 MHz)	10 MHz	QPSK	Full RB
Occupied Bandwidth	23017 (699.70 MHz) 23095 (707.50 MHz) 23173 (715.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	23025 (700.50 MHz) 23095 (707.50 MHz) 23165 (714.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	23035 (701.50 MHz) 23095 (707.50 MHz) 23155 (713.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	23060 (704.00 MHz) 23095 (707.50 MHz) 23130 (711.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	23017 (699.70 MHz) 23095 (707.50 MHz) 23173 (715.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	23025 (700.50 MHz) 23095 (707.50 MHz) 23165 (714.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	23035 (701.50 MHz) 23095 (707.50 MHz) 23155 (713.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	23060 (704.00 MHz) 23095 (707.50 MHz) 23130 (711.00 MHz)	10 MHz	QPSK / 16QAM	1 RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Emission	23017 (699.70 MHz) 23095 (707.50 MHz) 23173 (715.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	23025 (700.50 MHz) 23095 (707.50 MHz) 23165 (714.50 MHz)	3 MHz	QPSK	1 RB Full RB
	23035 (701.50 MHz) 23095 (707.50 MHz) 23155 (713.50 MHz)	5 MHz	QPSK	1 RB Full RB
	23060 (704.00 MHz) 23095 (707.50 MHz) 23130 (711.00 MHz)	10 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	23095 (707.50 MHz)	10 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	23017 (699.70 MHz) 23095 (707.50 MHz) 23173 (715.30 MHz)	1.4 MHz	QPSK	1 RB
	23035 (701.50 MHz) 23095 (707.50 MHz) 23155 (713.50 MHz)	5 MHz	QPSK	1 RB
	23060 (704.00 MHz) 23095 (707.50 MHz) 23130 (711.00 MHz)	10 MHz	QPSK	1 RB

For Cat-M1 Band 13

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	23205 (779.50 MHz) 23230 (782.00 MHz) 23255 (784.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	23230 (782.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	23230 (782.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Frequency Stability	23205 (779.50 MHz) 23255 (784.50 MHz)	5 MHz	QPSK	Full RB
	23230 (782.00 MHz)	10 MHz	QPSK	Full RB
Occupied Bandwidth	23205 (779.50 MHz) 23230 (782.00 MHz) 23255 (784.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	23230 (782.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	23205 (779.50 MHz) 23230 (782.00 MHz) 23255 (784.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	23230 (782.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
Conducted Emission	23205 (779.50 MHz) 23230 (782.00 MHz) 23255 (784.50 MHz)	5 MHz	QPSK	1 RB Full RB
	23230 (782.00 MHz)	10 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	23230 (782.00 MHz)	10 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	23205 (779.50 MHz) 23230 (782.00 MHz) 23255 (784.50 MHz)	5 MHz	QPSK	1 RB
	23230 (782.00 MHz)	10 MHz	QPSK	1 RB

For Cat-M1 Band 14

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	23305 (790.50 MHz) 23330 (793.00 MHz) 23355 (795.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	23330 (793.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	23330 (793.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Frequency Stability	23305 (790.50 MHz) 23355 (795.50 MHz)	5 MHz	QPSK	Full RB
	23330 (793.00 MHz)	10 MHz	QPSK	Full RB
Occupied Bandwidth	23305 (790.50 MHz) 23330 (793.00 MHz) 23355 (795.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	23330 (793.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	23305 (790.50 MHz) 23330 (793.00 MHz) 23355 (795.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	23330 (793.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
Conducted Emission	23305 (790.50 MHz) 23330 (793.00 MHz) 23355 (795.50 MHz)	5 MHz	QPSK	1 RB Full RB
	23330 (793.00 MHz)	10 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	23330 (793.00 MHz)	10 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	23305 (790.50 MHz) 23330 (793.00 MHz) 23355 (795.50 MHz)	5 MHz	QPSK	1 RB
	23330 (793.00 MHz)	10 MHz	QPSK	1 RB

For Cat-M1 Band 25

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	26047 (1850.70 MHz) 26365 (1882.50 MHz) 26683 (1914.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26055 (1851.50 MHz) 26365 (1882.50 MHz) 26675 (1913.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26065 (1852.50 MHz) 26365 (1882.50 MHz) 26665 (1912.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26090 (1855.00 MHz) 26365 (1882.50 MHz) 26640 (1910.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26115 (1857.50 MHz) 26365 (1882.50 MHz) 26615 (1907.50 MHz)	15 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26140 (1860.00 MHz) 26365 (1882.50 MHz) 26590 (1905.00 MHz)	20 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	26365 (1882.50 MHz)	20 MHz	QPSK / 16QAM	Full RB
Frequency Stability	26047 (1850.70 MHz) 26683 (1914.30 MHz)	1.4 MHz	QPSK	Full RB
	26055 (1851.50 MHz) 26675 (1913.50 MHz)	3 MHz	QPSK	Full RB
	26065 (1852.50 MHz) 26665 (1912.50 MHz)	5 MHz	QPSK	Full RB
	26090 (1855.00 MHz) 26640 (1910.00 MHz)	10 MHz	QPSK	Full RB
	26115 (1857.50 MHz) 26615 (1907.50 MHz)	15 MHz	QPSK	Full RB
	26140 (1860.00 MHz) 26590 (1905.00 MHz)	20 MHz	QPSK	Full RB
Occupied Bandwidth	26047 (1850.70 MHz) 26365 (1882.50 MHz) 26683 (1914.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	26055 (1851.50 MHz) 26365 (1882.50 MHz) 26675 (1913.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	26065 (1852.50 MHz) 26365 (1882.50 MHz) 26665 (1912.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	26090 (1855.00 MHz) 26365 (1882.50 MHz) 26640 (1910.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
	26115 (1857.50 MHz) 26365 (1882.50 MHz) 26615 (1907.50 MHz)	15 MHz	QPSK / 16QAM	Full RB
	26140 (1860.00 MHz) 26365 (1882.50 MHz) 26590 (1905.00 MHz)	20 MHz	QPSK / 16QAM	Full RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	26047 (1850.70 MHz) 26365 (1882.50 MHz) 26683 (1914.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	26055 (1851.50 MHz) 26365 (1882.50 MHz) 26675 (1913.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	26065 (1852.50 MHz) 26365 (1882.50 MHz) 26665 (1912.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	26090 (1855.00 MHz) 26365 (1882.50 MHz) 26640 (1910.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
	26115 (1857.50 MHz) 26365 (1882.50 MHz) 26615 (1907.50 MHz)	15 MHz	QPSK / 16QAM	1 RB
	26140 (1860.00 MHz) 26365 (1882.50 MHz) 26590 (1905.00 MHz)	20 MHz	QPSK / 16QAM	1 RB
Conducted Emission	26047 (1850.70 MHz) 26365 (1882.50 MHz) 26683 (1914.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	26055 (1851.50 MHz) 26365 (1882.50 MHz) 26675 (1913.50 MHz)	3 MHz	QPSK	1 RB Full RB
	26065 (1852.50 MHz) 26365 (1882.50 MHz) 26665 (1912.50 MHz)	5 MHz	QPSK	1 RB Full RB
	26090 (1855.00 MHz) 26365 (1882.50 MHz) 26640 (1910.00 MHz)	10 MHz	QPSK	1 RB Full RB
	26115 (1857.50 MHz) 26365 (1882.50 MHz) 26615 (1907.50 MHz)	15 MHz	QPSK	1 RB Full RB
	26140 (1860.00 MHz) 26365 (1882.50 MHz) 26590 (1905.00 MHz)	20 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	26365 (1882.50 MHz)	20 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	26047 (1850.70 MHz) 26365 (1882.50 MHz) 26683 (1914.30 MHz)	1.4 MHz	QPSK	1 RB
	26065 (1852.50 MHz) 26365 (1882.50 MHz) 26665 (1912.50 MHz)	5 MHz	QPSK	1 RB
	26140 (1860.00 MHz) 26365 (1882.50 MHz) 26590 (1905.00 MHz)	20 MHz	QPSK	1 RB

For Cat-M1 Band 26 (Part 22)

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	26797 (824.70 MHz) 26915 (836.50 MHz) 27033 (848.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26805 (825.50 MHz) 26915 (836.50 MHz) 27025 (847.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26815 (826.50 MHz) 26915 (836.50 MHz) 27015 (846.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26840 (829.00 MHz) 26915 (836.50 MHz) 26990 (844.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26865 (831.50 MHz) 26915 (836.50 MHz) 26965 (841.50 MHz)	15 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	26915 (836.50 MHz)	15 MHz	QPSK / 16QAM	Full RB
Frequency Stability	26797 (824.70 MHz) 27033 (848.30 MHz)	1.4 MHz	QPSK	Full RB
	26805 (825.50 MHz) 27025 (847.50 MHz)	3 MHz	QPSK	Full RB
	26815 (826.50 MHz) 27015 (846.50 MHz)	5 MHz	QPSK	Full RB
	26840 (829.00 MHz) 26990 (844.00 MHz)	10 MHz	QPSK	Full RB
	26865 (831.50 MHz) 26965 (841.50 MHz)	15 MHz	QPSK	Full RB
Occupied Bandwidth	26797 (824.70 MHz) 26915 (836.50 MHz) 27033 (848.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	26805 (825.50 MHz) 26915 (836.50 MHz) 27025 (847.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	26815 (826.50 MHz) 26915 (836.50 MHz) 27015 (846.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	26840 (829.00 MHz) 26915 (836.50 MHz) 26990 (844.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
	26865 (831.50 MHz) 26915 (836.50 MHz) 26965 (841.50 MHz)	15 MHz	QPSK / 16QAM	Full RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	26797 (824.70 MHz) 26915 (836.50 MHz) 27033 (848.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	26805 (825.50 MHz) 26915 (836.50 MHz) 27025 (847.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	26815 (826.50 MHz) 26915 (836.50 MHz) 27015 (846.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	26840 (829.00 MHz) 26915 (836.50 MHz) 26990 (844.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
	26865 (831.50 MHz) 26915 (836.50 MHz) 26965 (841.50 MHz)	15 MHz	QPSK / 16QAM	1 RB
Conducted Emission	26797 (824.70 MHz) 26915 (836.50 MHz) 27033 (848.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	26805 (825.50 MHz) 26915 (836.50 MHz) 27025 (847.50 MHz)	3 MHz	QPSK	1 RB Full RB
	26815 (826.50 MHz) 26915 (836.50 MHz) 27015 (846.50 MHz)	5 MHz	QPSK	1 RB Full RB
	26840 (829.00 MHz) 26915 (836.50 MHz) 26990 (844.00 MHz)	10 MHz	QPSK	1 RB Full RB
	26865 (831.50 MHz) 26915 (836.50 MHz) 26965 (841.50 MHz)	15 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	26915 (836.50 MHz)	15 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	26797 (824.70 MHz) 26915 (836.50 MHz) 27033 (848.30 MHz)	1.4 MHz	QPSK	1 RB
	26815 (826.50 MHz) 26915 (836.50 MHz) 27015 (846.50 MHz)	5 MHz	QPSK	1 RB
	26865 (831.50 MHz) 26915 (836.50 MHz) 26965 (841.50 MHz)	15 MHz	QPSK	1 RB

For Cat-M1 Band 26 (Part 90)

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	26697 (814.70 MHz) 26740 (819.00 MHz) 26783 (823.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26705 (815.50 MHz) 26740 (819.00 MHz) 26775 (822.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26715 (816.50 MHz) 26740 (819.00 MHz) 26765 (821.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	26740 (819.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	26740 (819.00 MHz)	10MHz	QPSK / 16QAM	Full RB
Frequency Stability	26697 (814.70 MHz) 26783 (823.30 MHz)	1.4 MHz	QPSK	Full RB
	26705 (815.50 MHz) 26775 (822.50 MHz)	3 MHz	QPSK	Full RB
	26715 (816.50 MHz) 26765 (821.50 MHz)	5 MHz	QPSK	Full RB
	26740 (819.00 MHz)	10 MHz	QPSK	Full RB
Occupied Bandwidth	26697 (814.70 MHz) 26740 (819.00 MHz) 26783 (823.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	26705 (815.50 MHz) 26740 (819.00 MHz) 26775 (822.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	26715 (816.50 MHz) 26740 (819.00 MHz) 26765 (821.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	26740 (819.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
Conducted Emission	26697 (814.70 MHz) 26740 (819.00 MHz) 26783 (823.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	26705 (815.50 MHz) 26740 (819.00 MHz) 26775 (822.50 MHz)	3 MHz	QPSK	1 RB Full RB
	26715 (816.50 MHz) 26740 (819.00 MHz) 26765 (821.50 MHz)	5 MHz	QPSK	1 RB Full RB
	26740 (819.00 MHz)	10 MHz	QPSK	1 RB Full RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Radiated Spurious Emissions below 1GHz	26740 (819.00 MHz)	10 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	26697 (814.70 MHz)	1.4 MHz	QPSK	1 RB
	26740 (819.00 MHz)			
	26783 (823.30 MHz)			
	26715 (816.50 MHz)	5 MHz	QPSK	1 RB
	26740 (819.00 MHz)			
	26765 (821.50 MHz)			
	26740 (819.00 MHz)	10 MHz	QPSK	1 RB

For Cat-M1 Band 66

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	131979 (1710.70 MHz) 132322 (1745.00 MHz) 132665 (1779.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	131987 (1711.50 MHz) 132322 (1745.00 MHz) 132657 (1778.50 MHz)	3 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	131997 (1712.50 MHz) 132322 (1745.00 MHz) 132647 (1777.50 MHz)	5 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	132022 (1715.00 MHz) 132322 (1745.00 MHz) 132622 (1775.00 MHz)	10 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	132047 (1717.50 MHz) 132322 (1745.00 MHz) 132597 (1772.50 MHz)	15 MHz	QPSK / 16QAM	1 RB Half RB Full RB
	132072 (1720.00 MHz) 132322 (1745.00 MHz) 132572 (1770.00 MHz)	20 MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	132322 (1745.00 MHz)	20 MHz	QPSK / 16QAM	Full RB
Frequency Stability	131979 (1710.70 MHz) 132665 (1779.30 MHz)	1.4 MHz	QPSK	Full RB
	131987 (1711.50 MHz) 132657 (1778.50 MHz)	3 MHz	QPSK	Full RB
	131997 (1712.50 MHz) 132647 (1777.50 MHz)	5 MHz	QPSK	Full RB
	132022 (1715.00 MHz) 132622 (1775.00 MHz)	10 MHz	QPSK	Full RB
	132047 (1717.50 MHz) 132597 (1772.50 MHz)	15 MHz	QPSK	Full RB
	132072 (1720.00 MHz) 132572 (1770.00 MHz)	20 MHz	QPSK	Full RB
Occupied Bandwidth	131979 (1710.70 MHz) 132322 (1745.00 MHz) 132665 (1779.30 MHz)	1.4 MHz	QPSK / 16QAM	Full RB
	131987 (1711.50 MHz) 132322 (1745.00 MHz) 132657 (1778.50 MHz)	3 MHz	QPSK / 16QAM	Full RB
	131997 (1712.50 MHz) 132322 (1745.00 MHz) 132647 (1777.50 MHz)	5 MHz	QPSK / 16QAM	Full RB
	132022 (1715.00 MHz) 132322 (1745.00 MHz) 132622 (1775.00 MHz)	10 MHz	QPSK / 16QAM	Full RB
	132047 (1717.50 MHz) 132322 (1745.00 MHz) 132597 (1772.50 MHz)	15 MHz	QPSK / 16QAM	Full RB
	132072 (1720.00 MHz) 132322 (1745.00 MHz) 132572 (1770.00 MHz)	20 MHz	QPSK / 16QAM	Full RB

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	131979 (1710.70 MHz) 132322 (1745.00 MHz) 132665 (1779.30 MHz)	1.4 MHz	QPSK / 16QAM	1 RB
	131987 (1711.50 MHz) 132322 (1745.00 MHz) 132657 (1778.50 MHz)	3 MHz	QPSK / 16QAM	1 RB
	131997 (1712.50 MHz) 132322 (1745.00 MHz) 132647 (1777.50 MHz)	5 MHz	QPSK / 16QAM	1 RB
	132022 (1715.00 MHz) 132322 (1745.00 MHz) 132622 (1775.00 MHz)	10 MHz	QPSK / 16QAM	1 RB
	132047 (1717.50 MHz) 132322 (1745.00 MHz) 132597 (1772.50 MHz)	15 MHz	QPSK / 16QAM	1 RB
	132072 (1720.00 MHz) 132322 (1745.00 MHz) 132572 (1770.00 MHz)	20 MHz	QPSK / 16QAM	1 RB
Conducted Emission	131979 (1710.70 MHz) 132322 (1745.00 MHz) 132665 (1779.30 MHz)	1.4 MHz	QPSK	1 RB Full RB
	131987 (1711.50 MHz) 132322 (1745.00 MHz) 132657 (1778.50 MHz)	3 MHz	QPSK	1 RB Full RB
	131997 (1712.50 MHz) 132322 (1745.00 MHz) 132647 (1777.50 MHz)	5 MHz	QPSK	1 RB Full RB
	132022 (1715.00 MHz) 132322 (1745.00 MHz) 132622 (1775.00 MHz)	10 MHz	QPSK	1 RB Full RB
	132047 (1717.50 MHz) 132322 (1745.00 MHz) 132597 (1772.50 MHz)	15 MHz	QPSK	1 RB Full RB
	132072 (1720.00 MHz) 132322 (1745.00 MHz) 132572 (1770.00 MHz)	20 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	132322 (1745.00 MHz)	20 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	131979 (1710.70 MHz) 132322 (1745.00 MHz) 132665 (1779.30 MHz)	1.4 MHz	QPSK	1 RB
	131997 (1712.50 MHz) 132322 (1745.00 MHz) 132647 (1777.50 MHz)	5 MHz	QPSK	1 RB
	132072 (1720.00 MHz) 132322 (1745.00 MHz) 132572 (1770.00 MHz)	20 MHz	QPSK	1 RB

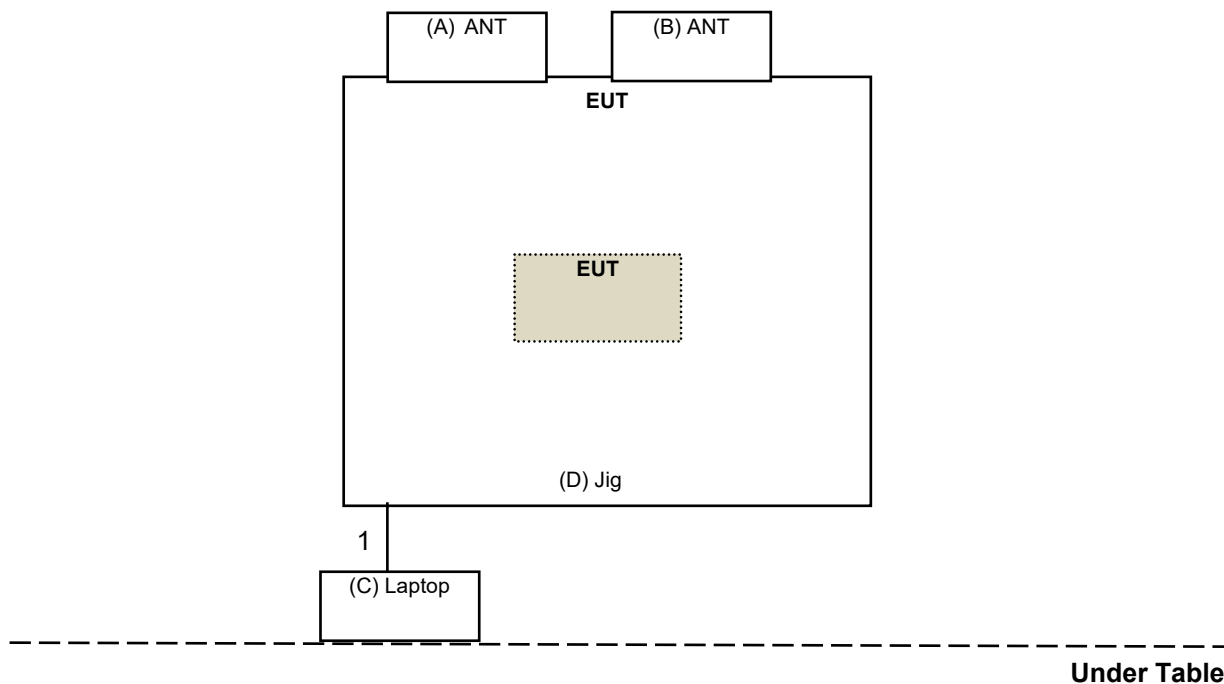
For Cat-M1 Band 85

Test Item	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	134027 (700.5MHz) 134092 (707.0MHz) 134157 (713.5MHz)	5MHz	QPSK / 16QAM	1 RB Half RB Full RB
	134052 (703.0MHz) 134092 (707.0MHz) 134132 (711.0MHz)	10MHz	QPSK / 16QAM	1 RB Half RB Full RB
Modulation Characteristics	134092 (707.0MHz)	10MHz	QPSK / 16QAM	Full RB
Frequency Stability	134027 (700.5MHz) 134157 (713.5MHz)	5MHz	QPSK	Full RB
	134052 (703.0MHz) 134132 (711.0MHz)	10MHz	QPSK	Full RB
Occupied Bandwidth	134027 (700.5MHz) 134092 (707.0MHz) 134157 (713.5MHz)	5MHz	QPSK / 16QAM	Full RB
	134052 (703.0MHz) 134092 (707.0MHz) 134132 (711.0MHz)	10MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	134027 (700.5MHz) 134092 (707.0MHz) 134157 (713.5MHz)	5MHz	QPSK / 16QAM	1 RB
	134052 (703.0MHz) 134092 (707.0MHz) 134132 (711.0MHz)	10MHz	QPSK / 16QAM	1 RB
Conducted Emission	134027 (700.5MHz) 134092 (707.0MHz) 134157 (713.5MHz)	5MHz	QPSK	1 RB Full RB
	134052 (703.0MHz) 134092 (707.0MHz) 134132 (711.0MHz)	10MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	134092 (707.0MHz)	10MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	134027 (700.5MHz) 134092 (707.0MHz) 134157 (713.5MHz)	5MHz	QPSK	1 RB
	134052 (703.0MHz) 134092 (707.0MHz) 134132 (711.0MHz)	10MHz	QPSK	1 RB

3.4 Test Program Used and Operation Descriptions

There is no need to controlling software during the test, and the EUT can be paired with the Radio Communication Analyzer to test the connection when it is powered on.

3.5 Connection Diagram of EUT and Peripheral Devices



3.6 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	ANT	RFLINK	RF21.S00940A	N/A	N/A	Supplied by applicant
B	ANT	RFLINK	RF21.S00940A	N/A	N/A	Supplied by applicant
C	Laptop	Lenovo	L440	R9-0GFJKK	N/A	Provided by Lab
D	Jig	N/A	N/A	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB typeC Cable	1	0.9	Yes	No	Supplied by applicant

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer KEYSIGHT	N9030B	MY57140488	2025/3/11	2026/3/10
Radio Communication Analyzer Anritsu	MT8821C	6201462755	2024/3/13	2025/3/12
Wideband Radio Communication Tester R&S	CMW500	152443	2024/8/7	2025/8/6
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2025/3/12

4.2 Modulation Characteristics

Refer to section 4.1 to get information of the instruments.

4.3 Peak to Average Ratio

Refer to section 4.1 to get information of the instruments.

4.4 Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Conducted Spurious Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer KEYSIGHT	N9030B	MY57140488	2025/3/11	2026/3/10
Radio Communication Analyzer Anritsu	MT8821C	6261806803	2025/2/19	2026/2/18
Wideband Radio Communication Tester R&S	CMW500	152443	2024/8/7	2025/8/6
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2025/3/12

4.6 Radiated Spurious Emissions below 1GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFT-151SS-0.5T	NA	NA	NA
Turn Table Max-Full	MF-7802BS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208674	NA	NA
EMI Test Receiver R&S	ESR3	102782	2024/12/10	2025/12/9
Signal & Spectrum Analyzer R&S	FSW43	101866	2024/3/26	2025/3/25
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
Loop Antenna Electro-Metrics	EM-6879	264	2025/3/6	2026/3/5
Preamplifier EMCI	EMC001340	980201	2024/9/24	2025/9/23
RF Coaxial Cable EMCI	5D-NM-BM	140901	2024/9/24	2025/9/23
Preamplifier EMCI	EMC330N	980782	2025/1/14	2026/1/13
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1213	2024/10/14	2025/10/13
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201233	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-3000	201235	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-9000	201236(with PAD)	2025/1/14	2026/1/13

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2025/3/3

4.7 Radiated Spurious Emissions above 1GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFT-151SS-0.5T	NA	NA	NA
Turn Table Max-Full	MF-7802BS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208674	NA	NA
EMI Test Receiver R&S	ESR3	102782	2024/12/10	2025/12/9
Signal & Spectrum Analyzer R&S	FSW43	101866	2024/3/26	2025/3/25
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
Loop Antenna Electro-Metrics	EM-6879	264	2025/3/6	2026/3/5
Preamplifier EMCI	EMC001340	980201	2024/9/24	2025/9/23
RF Coaxial Cable EMCI	5D-NM-BM	140901	2024/9/24	2025/9/23
Horn Antenna RFSPIN	DRH18-E	210103A18E	2024/12/26	2025/12/25
Preamplifier EMCI	EMC118A45SE	980808	2024/12/26	2025/12/25
RF Coaxial Cable EMCI	EMC104-SM-SM-1000	210102	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC104-SM-SM-3000	201231	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC104-SM-SM-9000	201243	2025/1/14	2026/1/13
Preamplifier EMCI	EMC184045SE	980788	2025/1/14	2026/1/13
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2024/11/10	2025/11/9
RF Coaxial Cable EMCI	EMC101G-KM-KM-5000	201261	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC101G-KM-KM-3000	201258	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2025/1/14	2026/1/13

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2025/2/26 ~ 2025/3/11

4.8 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
3-channel DC power supply JIN YIH Technology	ODP3033	ODP30332128138	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2024/7/5	2025/7/4
Signal and spectrum analyzer R&S	FSV3044	101105	2025/2/25	2026/2/24
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	2025/1/9	2026/1/8
Radio Communication Analyzer Anritsu	MT8821C	6201462755	2024/3/13	2025/3/12

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2025/3/12

5 Limits of Test Items

5.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

For Cat-M1 Band 2, Cat-M1 Band 25:

Mobile and portable stations are limited to 2 watts EIRP.

For Cat-M1 Band 4, Cat-M1 Band 66:

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

For Cat-M1 Band 5, Cat-M1 Band 26 (Part 22):

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

For Cat-M1 Band 8:

Mobile, control and auxiliary test stations must not exceed 10 watts ERP.

For Cat-M1 Band 12, Cat-M1 Band 85:

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

For Cat-M1 Band 13:

Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

For Cat-M1 Band 14:

Control stations and mobile stations transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 30 watts ERP.

For Cat-M1 Band 26 (Part 90):

The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw) ERP.

5.2 Modulation Characteristics

A curve or equivalent data which shows that the equipment will meet the modulation requirements of the rules under which the equipment is to be licensed.

5.3 Peak to Average Ratio

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.

5.4 Bandwidth

According to FCC 47 CFR part 2.1049, the occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission.

5.5 Conducted Spurious Emissions

For Cat-M1 Band 2, Cat-M1 Band 5, Cat-M1 Band 25, Cat-M1 Band 26 (Part 22):

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 -13 dBm.

For Cat-M1 Band 4:

According to FCC 47 CFR part 27.53(h), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

For Cat-M1 Band 8:

According to FCC 47 CFR part 27.1509(a), the power of any emission outside a licensee's frequency band of operation shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm. Compliance with the provisions of paragraphs (a) and (b) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the licensee's band, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

For Cat-M1 Band 12, Cat-M1 Band 85:

According to FCC 47 CFR part 27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

For Cat-M1 Band 13:

According to FCC 47 CFR part 27.53(c)(2), for on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC 47 CFR part 27.53(c)(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

For operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz (EIRP). The limit of emissions is equal to -40 dBm.

For Cat-M1 Band 14:

According to FCC 47 CFR part 90.543 (e), for operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

(2) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log(P)$ dB.

According to FCC 47 CFR part 90.543 (f), for operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

For Cat-M1 Band 26 (Part 90):

According to FCC 47 CFR part 90.691 shall be tested the emission masks. For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

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

For §90.691(a), RBW = 300 Hz for offset less than 37.5 kHz from channel edge and RBW = 100 kHz for offsets greater than 37.5 kHz is allowed.

For Cat-M1 Band 66:

According to FCC 47 CFR part 27.53(h), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

5.6 Radiated Spurious Emissions below 1GHz

For Cat-M1 Band 2, Cat-M1 Band 5, Cat-M1 Band 25, Cat-M1 Band 26 (Part 22):

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 -13 dBm.

For Cat-M1 Band 4:

According to FCC 47 CFR part 27.53(h), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm.

For Cat-M1 Band 8:

According to FCC 47 CFR part 27.1509(a), the power of any emission outside a licensee's frequency band of operation shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm.

For Cat-M1 Band 12, Cat-M1 Band 85:

According to FCC 47 CFR part 27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. The limit of emissions is equal to -13 dBm.

For Cat-M1 Band 13:

According to FCC 47 CFR part 27.53(c)(2), for on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The limit of emissions is equal to -13 dBm.

For operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz (EIRP). The limit of emissions is equal to -40 dBm.

For Cat-M1 Band 14:

According to FCC 47 CFR part 90.543 (e), for operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB.

For Cat-M1 Band 26 (Part 90):

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

For §90.691(a), RBW = 100 kHz for offset greater than 37.5 kHz from channel edge is allowed.

For Cat-M1 Band 66:

According to FCC 47 CFR part 27.53(h), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm.

5.7 Radiated Spurious Emissions above 1GHz

For Cat-M1 Band 2, Cat-M1 Band 5, Cat-M1 Band 25, Cat-M1 Band 26 (Part 22):

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 -13 dBm.

For Cat-M1 Band 4:

According to FCC 47 CFR part 27.53(h), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm.

For Cat-M1 Band 8:

According to FCC 47 CFR part 27.1509(a), the power of any emission outside a licensee's frequency band of operation shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm.

For Cat-M1 Band 12, Cat-M1 Band 85:

According to FCC 47 CFR part 27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. The limit of emissions is equal to -13 dBm.

For Cat-M1 Band 13:

According to FCC 47 CFR part 27.53(c)(2), for on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The limit of emissions is equal to -13 dBm.

For operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz (EIRP). The limit of emissions is equal to -40 dBm.

For Cat-M1 Band 14:

According to FCC 47 CFR part 90.543 (e), for operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB.

According to FCC 47 CFR part 90.543 (f), for operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

For Cat-M1 Band 26 (Part 90):

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

For §90.691(a), RBW = 100 kHz for offset greater than 37.5 kHz from channel edge is allowed.

For Cat-M1 Band 66:

According to FCC 47 CFR part 27.53(h), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB. The limit of emission is equal to -13 dBm.

5.8 Frequency Stability

For Cat-M1 Band 5, Cat-M1 Band 26 (Part 90):

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

For Cat-M1 Band 2, Cat-M1 Band 4, Cat-M1 Band 8, Cat-M1 Band 12, Cat-M1 Band 13, Cat-M1 Band 25, Cat-M1 Band 26 (Part 22), Cat-M1 Band 66, Cat-M1 Band 85:

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation (authorized frequency block).

Cat-M1 Band 14:

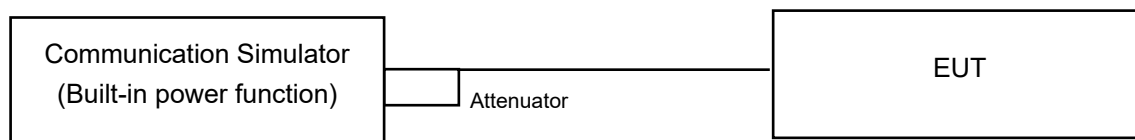
The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 parts per million or better when AFC is locked to a base station, and 5 parts per million or better when AFC is not locked.

6 Test Arrangements

6.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

6.1.1 Test Setup

Conducted Power Measurement:



6.1.2 Test Procedure

Conducted Power Measurement:

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology. The average (rms) power measurement was performed on emulator and power value was measured from power function on emulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

Maximum EIRP / ERP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\text{EIRP} = P_{\text{Meas}} + G_T$$

$$\text{ERP} = P_{\text{Meas}} + G_T - 2.15$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively

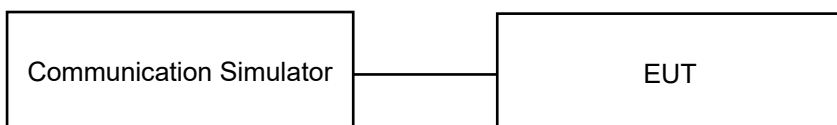
(expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

6.2 Modulation Characteristics

6.2.1 Test Setup

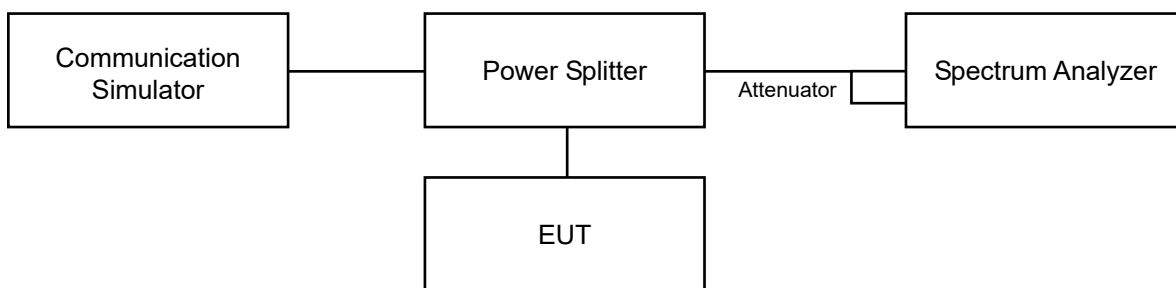


6.2.2 Test Procedure

Connect the EUT to Communication Simulator via the antenna connector, the frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

6.3 Peak to Average Ratio

6.3.1 Test Setup

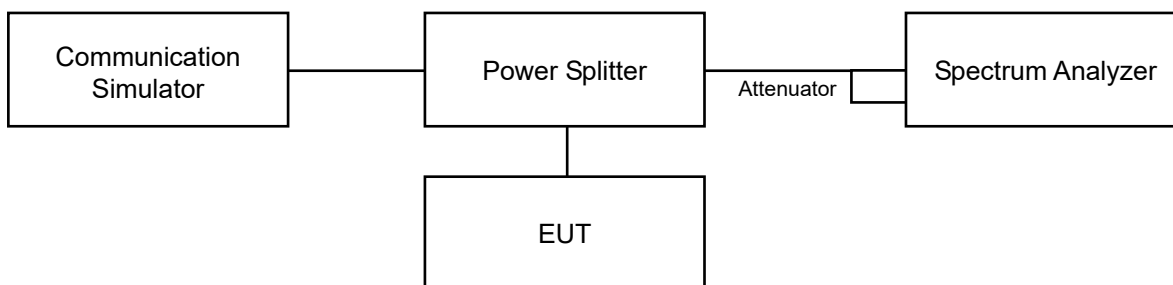


6.3.2 Test Procedure

- 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%.

6.4 Bandwidth

6.4.1 Test Setup



6.4.2 Test Procedure

For the 26 dBc bandwidth measurement method, please refer to section 5.4.3 of ANSI C63.26.

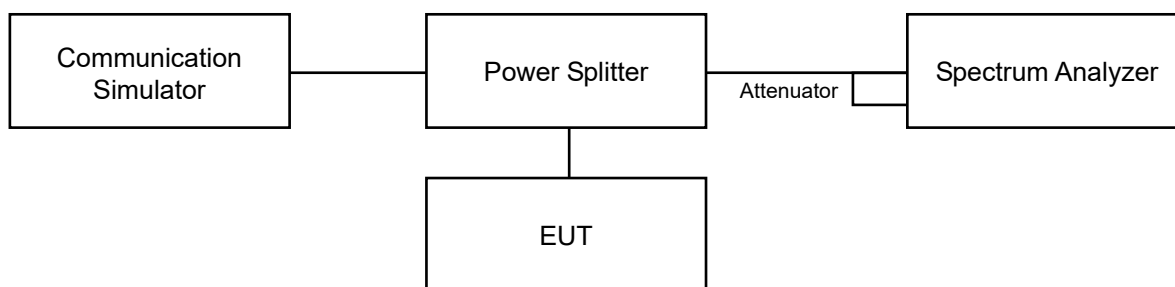
- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- Determine the following reference values: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
- Determine the “-X dB amplitude” as equal to (Reference Value - X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.
- Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in step f). If a marker is below this “-X dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers.
- The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

For the occupied bandwidth measurement method, please refer to section 5.4.4 of ANSI C63.26.

- a. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- b. The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c. Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- d. The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- e. Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- f. Determine the reference value by either of the following:
 - g. 1) Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
 - h. 2) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.
- i. Determine the “-X dB amplitude” as equal to (Reference Value - X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.
- j. If the reference value was determined using an unmodulated carrier, turn the EUT modulation on, then either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise the trace from step f) shall be used for step i).
- k. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in step f). If a marker is below this “-X dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers. The spectral envelope can cross the “-X dB amplitude” at multiple points. The lowest or highest frequency shall be selected as the frequencies that are the farthest away from the center frequency at which the spectral envelope crosses the “-X dB amplitude.”
- l. The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

6.5 Conducted Spurious Emissions

6.5.1 Test Setup



6.5.2 Test Procedure

- Measurement refer to ANSI C63.26 section 5.7.
- All measurements were done at 3 channels: low, middle and high operational frequency range.
- Measuring frequency range is from 9 kHz up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. 20 dB attenuation pad is connected with spectrum.
- The fundamental frequency above 1 GHz, the spectrum set RBW = 1 MHz, VBW = 3 MHz, Detector = Average.
- The fundamental frequency below 1 GHz, the spectrum set RBW ≥ 100 kHz, VBW $\geq 3 \times$ RBW, Detector = Average.
- Measuring frequency band edge, narrow RBW (no less than 1% of the OBW) is used for conducted emission measurement.

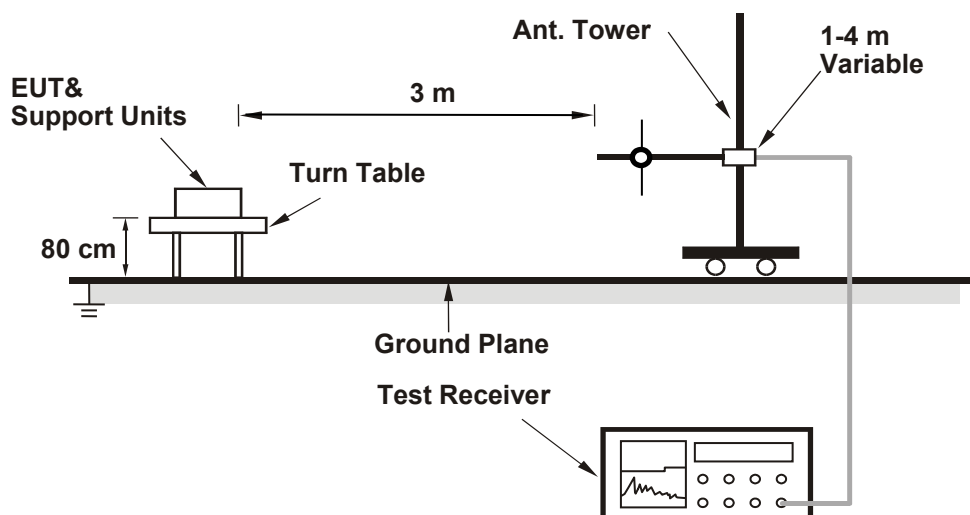
For Emission Mask:

- Measurement refer to ANSI C63.26 section 5.7.
- All measurements were done at 2 channels: low and high operational frequency range.
- According to FCC 47 CFR part 90.691(a), the spectrum set RBW = 300 Hz for offset less than 37.5 kHz from channel edge and RBW = 100 kHz for offsets greater than 37.5 kHz is allowed.
- Record the maximum power value test plot.

6.6 Radiated Spurious Emissions below 1GHz

6.6.1 Test Setup

For radiated emission 30 MHz to 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.6.2 Test Procedure

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology.

- In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) 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 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- Following C63.26 section 5.5 and 5.2.7
- $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

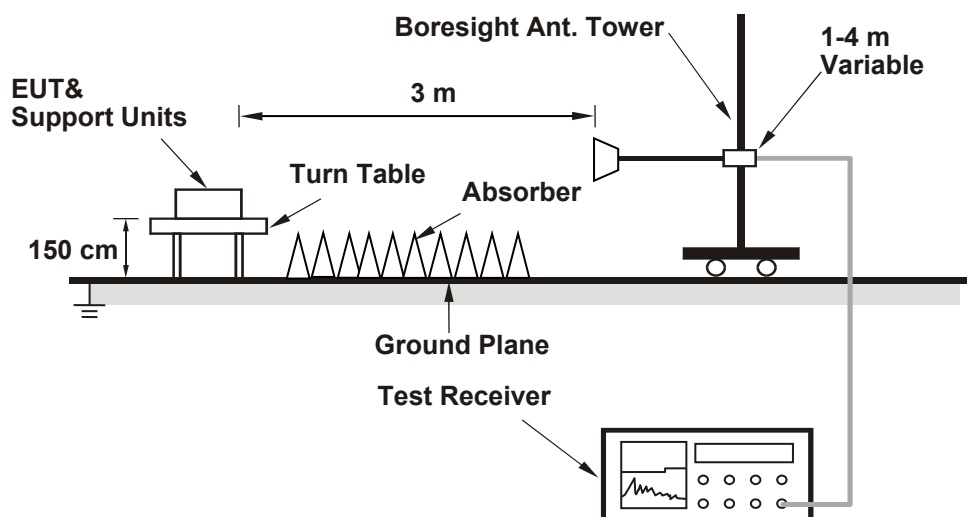
Note:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz.
- The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

6.7 Radiated Spurious Emissions above 1GHz

6.7.1 Test Setup

For radiated emission above 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.7.2 Test Procedure

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology.

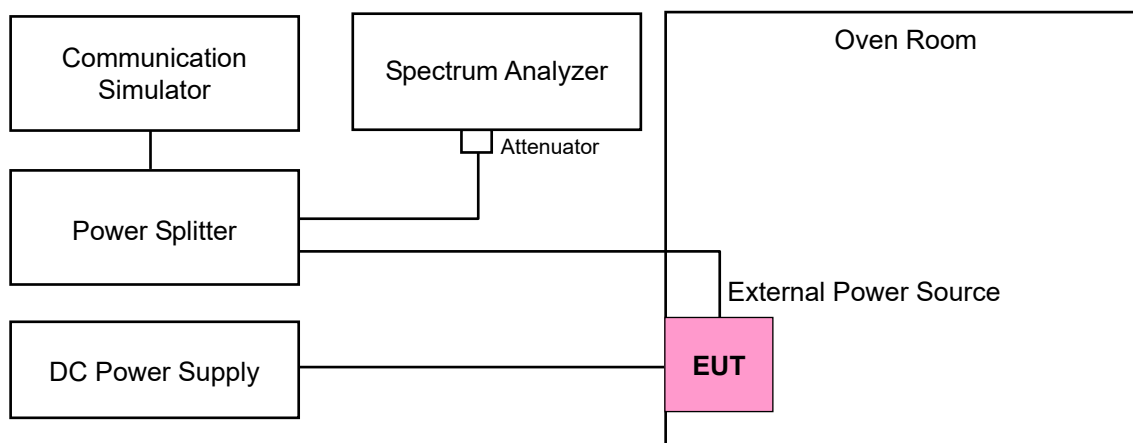
- In the semi-anechoic chamber, EUT placed on the 1.5 m height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- Following C63.26 section 5.5 and 5.2.7
- $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

Note:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.

6.8 Frequency Stability

6.8.1 Test Setup



6.8.2 Test Procedure

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology.

- 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.

Note: The frequency error was recorded frequency error from the communication simulator.

7 Test Results of Test Item

7.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 75% RH	Tested By:	Match Tsui
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7.1.1 Cat-M1 Band 2

CAT M1 Band 2 20M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 18700	CH 18900	CH 19100
			1860 MHz	1880 MHz	1900 MHz
QPSK	1	0	23.32	23.98	23.42
	1	5	23.09	23.66	23.25
	6	0	22.92	23.58	23.07
16QAM	1	0	22.69	23.83	22.84
	1	5	22.58	23.54	22.73
	6	0	22.36	23.11	22.58

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.92	23.98	24.95	26.01	33.01
16QAM	22.36	23.83	24.39	25.86	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT M1 Band 2 15M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 18675	CH 18900	CH 19125
			1857.5 MHz	1880 MHz	1902.5 MHz
QPSK	1	0	23.34	23.77	23.31
	1	5	23.11	23.62	23.08
	6	0	22.95	23.53	22.85
16QAM	1	0	22.75	23.65	22.72
	1	5	22.64	23.14	22.50
	6	0	22.53	23.17	22.34

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.85	23.77	24.88	25.8	33.01
16QAM	22.34	23.65	24.37	25.68	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 2 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 18650	CH 18900	CH 19150
			1855 MHz	1880 MHz	1905 MHz
QPSK	1	0	23.40	23.59	23.32
	1	5	23.15	23.65	23.20
	6	0	23.02	22.98	23.04
16QAM	1	0	22.91	23.72	22.85
	1	5	22.74	22.14	22.71
	6	0	21.62	21.99	21.57

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.98	23.65	25.01	25.68	33.01
16QAM	21.57	23.72	23.6	25.75	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 2 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 18625	CH 18900	CH 19175
			1852.5 MHz	1880 MHz	1907.5 MHz
QPSK	1	0	23.31	23.84	23.33
	1	5	23.11	23.14	23.19
	6	0	22.99	23.12	22.94
16QAM	1	0	22.81	23.64	22.69
	1	5	22.57	23.18	22.52
	6	0	22.36	22.12	22.33

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.94	23.84	24.97	25.87	33.01
16QAM	22.12	23.64	24.15	25.67	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 2 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 18615	CH 18900	CH 19185
			1851.5 MHz	1880 MHz	1908.5 MHz
QPSK	1	0	23.29	23.47	23.33
	1	5	23.11	22.34	23.11
	6	0	22.90	21.97	22.86
16QAM	1	0	22.78	22.44	22.68
	1	5	22.59	22.61	22.47
	6	0	22.13	22.10	22.16

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.97	23.47	24	25.5	33.01
16QAM	22.1	22.78	24.13	24.81	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 2 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 18607	CH 18900	CH 19193
			1850.7 MHz	1880 MHz	1909.3 MHz
QPSK	1	0	23.38	23.44	23.30
	1	5	23.22	22.41	23.07
	6	0	22.99	21.83	22.90
16QAM	1	0	22.81	22.64	22.73
	1	5	22.68	22.19	22.50
	6	0	22.11	22.14	22.19

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.83	23.38	23.86	25.41	33.01
16QAM	22.11	22.81	24.14	24.84	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

7.1.2 Cat-M1 Band 4

CAT-M1 Band 4 20M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20050	CH 20175	CH 20300
			1720 MHz	1732.5 MHz	1745 MHz
QPSK	1	0	23.84	23.95	23.83
	1	5	23.69	23.66	23.64
	6	0	23.48	23.73	23.40
16QAM	1	0	23.23	23.68	23.19
	1	5	23.03	23.71	22.97
	6	0	22.89	22.82	22.81

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.4	23.95	25.43	25.98	30.00
16QAM	22.81	23.71	24.84	25.74	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 4 15M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20025	CH 20175	CH 20325
			1717.5 MHz	1732.5 MHz	1747.5 MHz
QPSK	1	0	23.55	23.76	23.58
	1	5	23.44	23.69	23.45
	6	0	23.27	23.59	23.34
16QAM	1	0	23.06	23.73	23.11
	1	5	22.88	22.86	23.00
	6	0	22.76	22.79	22.87

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.27	23.76	25.3	25.79	30.00
16QAM	22.76	23.73	24.79	25.76	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 4 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20000	CH 20175	CH 20350
			1715 MHz	1732.5 MHz	1750 MHz
QPSK	1	0	23.51	23.77	23.56
	1	5	23.38	23.82	23.36
	6	0	23.14	23.18	23.13
16QAM	1	0	22.93	23.68	22.97
	1	5	22.73	22.76	22.74
	6	0	22.55	21.93	22.56

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.13	23.82	25.16	25.85	30.00
16QAM	21.93	23.68	23.96	25.71	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 4 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 19975	CH 20175	CH 20375
			1712.5 MHz	1732.5 MHz	1752.5 MHz
QPSK	1	0	23.59	23.75	23.65
	1	5	23.46	23.49	23.44
	6	0	23.21	23.08	23.26
16QAM	1	0	22.99	23.74	23.09
	1	5	22.82	23.77	22.88
	6	0	22.64	22.07	22.75

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.08	23.75	25.11	25.78	30.00
16QAM	22.07	23.74	24.1	25.77	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 4 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 19965	CH 20175	CH 20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz
QPSK	1	0	23.54	23.66	23.65
	1	5	23.35	23.62	23.42
	6	0	23.15	22.10	23.19
16QAM	1	0	23.04	22.43	23.09
	1	5	22.92	22.98	22.95
	6	0	22.69	21.92	22.82

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.1	23.66	24.13	25.69	30.00
16QAM	21.92	22.43	23.95	24.46	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 4 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 19957	CH 20175	CH 20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz
QPSK	1	0	23.56	23.81	23.57
	1	5	23.39	23.45	23.42
	6	0	23.15	22.03	23.29
16QAM	1	0	23.02	22.71	23.07
	1	5	22.81	22.85	22.83
	6	0	22.70	21.88	22.72

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.03	23.81	24.06	25.84	30.00
16QAM	21.88	23.07	23.91	25.1	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

7.1.3 Cat-M1 Band 5

CAT-M1 Band 5 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20450	CH 20525	CH 20600
			829 MHz	836.5 MHz	844 MHz
QPSK	1	0	23.32	23.75	23.41
	1	5	23.13	23.62	23.29
	6	0	22.94	23.05	23.10
16QAM	1	0	22.80	23.21	22.95
	1	5	22.65	23.19	22.79
	6	0	22.41	22.96	22.58

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.94	23.75	23.42	24.23	38.45
16QAM	22.41	23.21	22.89	23.69	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 5 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20425	CH 20525	CH 20625
			826.5 MHz	836.5 MHz	846.5 MHz
QPSK	1	0	23.53	23.61	23.45
	1	5	23.42	23.59	23.25
	6	0	23.18	23.02	23.10
16QAM	1	0	23.05	23.19	22.98
	1	5	22.85	22.89	22.80
	6	0	22.68	21.94	22.55

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	23.02	23.61	23.5	24.09	38.45
16QAM	21.94	23.19	22.42	23.67	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 5 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20415	CH 20525	CH 20635
			825.5 MHz	836.5 MHz	847.5 MHz
QPSK	1	0	23.45	23.48	23.46
	1	5	23.34	23.46	23.35
	6	0	23.19	21.91	23.10
16QAM	1	0	23.03	22.93	22.88
	1	6	22.89	22.93	22.68
	6	0	22.65	22.08	22.48

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	21.91	23.48	22.39	23.96	38.45
16QAM	22.08	23.03	22.56	23.51	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 5 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 20407	CH 20525	CH 20643
			824.7 MHz	836.5 MHz	848.3 MHz
QPSK	1	0	23.53	23.56	23.51
	1	5	23.37	23.41	23.31
	6	0	21.15	21.91	21.17
16QAM	1	0	22.94	23.04	23.04
	1	5	22.80	23.38	22.91
	6	0	22.62	22.12	22.71

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	21.15	23.56	21.63	24.04	38.45
16QAM	22.12	23.38	22.6	23.86	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.4 Cat-M1 Band 8

CAT-M1 Band 8 3M			
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)
			CH 21640
			899 MHz
QPSK	1	0	23.56
	1	5	23.36
	6	0	21.74
16QAM	1	0	23.04
	1	6	22.76
	6	0	21.94

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	21.74	23.56	22.22	24.04	40.00
16QAM	21.94	23.04	22.42	23.52	40.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 8 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 21632	CH 21640	CH 21648
			898.2 MHz	899 MHz	899.8 MHz
QPSK	1	0	23.52	23.46	23.48
	1	5	23.15	23.40	23.27
	6	0	22.94	22.85	23.05
16QAM	1	0	22.79	22.97	22.91
	1	5	22.65	22.74	22.81
	6	0	21.50	21.72	21.67

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.85	23.52	23.33	24.00	40.00
16QAM	21.5	22.97	21.98	23.45	40.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.5 Cat-M1 Band 12

CAT-M1 Band 12 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 23060	CH 23095	CH 23130
			704 MHz	707.5 MHz	711 MHz
QPSK	1	0	23.32	23.75	23.41
	1	5	23.13	23.62	23.29
	6	0	22.94	23.05	23.10
16QAM	1	0	22.80	23.21	22.95
	1	5	22.65	23.19	22.79
	6	0	22.41	22.96	22.58

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.94	23.75	22.42	23.23	44.77
16QAM	22.41	23.21	21.89	22.69	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 12 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 23035	CH 23095	CH 23155
			701.5 MHz	707.5 MHz	713.5 MHz
QPSK	1	0	23.40	23.57	23.41
	1	5	23.19	23.54	23.26
	6	0	23.07	22.93	23.14
16QAM	1	0	22.82	23.28	22.91
	1	5	22.57	22.69	22.67
	6	0	22.39	22.01	22.55

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.93	23.57	22.41	23.05	44.77
16QAM	22.01	23.28	21.49	22.76	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 12 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 23025	CH 23095	CH 23165
			700.5 MHz	707.5 MHz	714.5 MHz
QPSK	1	0	23.40	23.64	23.40
	1	5	23.19	23.64	23.19
	6	0	22.97	22.01	22.97
16QAM	1	0	22.83	22.85	22.83
	1	5	22.72	22.78	22.72
	6	0	21.52	21.97	21.52

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.01	23.64	21.49	23.12	44.77
16QAM	21.52	22.85	21	22.33	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 12 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 23017	CH 23095	CH 23173
			699.7 MHz	707.5 MHz	715.3 MHz
QPSK	1	0	23.39	23.69	23.44
	1	5	23.15	23.62	23.23
	6	0	22.97	22.08	23.01
16QAM	1	0	22.85	22.65	22.91
	1	5	22.68	22.61	22.77
	6	0	21.53	21.98	21.66

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.08	23.69	21.56	23.17	44.77
16QAM	21.53	22.91	21.01	22.39	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.6 Cat-M1 Band 13

CAT-M1 Band 13 10M			
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)
			CH 23230
			782 MHz
QPSK	1	0	23.66
	1	5	23.57
	6	0	22.98
16QAM	1	0	23.56
	1	5	23.41
	6	0	21.83

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.98	23.66	22.46	23.14	44.77
16QAM	21.83	23.56	21.31	23.04	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 13 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 23205	CH 23230	CH 23255
			779.5 MHz	782 MHz	784.5 MHz
QPSK	1	0	23.43	23.61	23.39
	1	5	23.32	23.60	23.25
	6	0	23.08	23.12	23.10
16QAM	1	0	22.87	23.12	22.96
	1	5	22.65	22.69	22.74
	6	0	21.53	21.93	21.55

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	23.08	23.61	22.56	23.09	44.77
16QAM	21.53	23.12	21.01	22.6	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.7 Cat-M1 Band 14

CAT-M1 Band 14 10M			
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)
			CH 23330
			793 MHz
QPSK	1	0	23.70
	1	5	23.69
	6	0	22.95
16QAM	1	0	23.57
	1	5	23.55
	6	0	23.56

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.95	23.7	22.43	23.18	44.77
16QAM	23.55	23.57	23.03	23.05	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 14 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 23305	CH 23330	CH 23355
			790.5 MHz	793 MHz	795.5 MHz
QPSK	1	0	23.38	23.67	23.38
	1	5	23.22	23.61	23.27
	6	0	23.02	23.07	23.08
16QAM	1	0	22.82	23.57	22.88
	1	5	22.66	22.74	22.64
	6	0	21.55	21.98	21.53

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	23.02	23.67	22.5	23.15	44.77
16QAM	21.53	23.57	21.01	23.05	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.8 Cat-M1 Band 25

CAT-M1 Band 25 20M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26140	CH 26365	CH 26590
			1860 MHz	1882.5 MHz	1905 MHz
QPSK	1	0	23.54	23.78	23.57
	1	5	23.36	23.67	23.46
	6	0	23.24	23.57	23.32
16QAM	1	0	23.09	23.65	23.17
	1	5	22.93	23.64	22.95
	6	0	22.74	23.08	22.81

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.24	23.78	25.27	25.81	33.01
16QAM	22.74	23.65	24.77	25.68	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 25 15M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26115	CH 26365	CH 26615
			1857.5 MHz	1882.5 MHz	1907.5 MHz
QPSK	1	0	23.58	23.76	23.63
	1	5	23.38	23.75	23.49
	6	0	23.22	23.59	23.35
16QAM	1	0	23.07	23.69	23.11
	1	5	22.93	22.96	22.95
	6	0	22.82	22.81	22.85

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.22	23.76	25.25	25.79	33.01
16QAM	22.81	23.69	24.84	25.72	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 25 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26090	CH 26365	CH 26640
			1855 MHz	1882.5 MHz	1910 MHz
QPSK	1	0	23.47	23.67	23.53
	1	5	23.28	23.68	23.32
	6	0	23.18	22.93	23.12
16QAM	1	0	23.00	23.64	23.00
	1	5	22.77	22.98	22.90
	6	0	22.55	21.15	22.77

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.93	23.67	24.96	25.7	33.01
16QAM	21.15	23.64	23.18	25.67	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 25 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26065	CH 26365	CH 26665
			1852.5 MHz	1882.5 MHz	1912.5 MHz
QPSK	1	0	23.53	23.69	23.46
	1	5	23.39	23.41	23.23
	6	0	23.24	22.97	23.03
16QAM	1	0	23.04	23.68	22.85
	1	5	22.86	23.39	22.62
	6	0	22.71	21.07	22.39

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.97	23.69	25	25.72	33.01
16QAM	21.07	23.68	23.1	25.71	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 25 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26055	CH 26365	CH 26675
			1851.5 MHz	1882.5 MHz	1913.5 MHz
QPSK	1	0	23.43	23.54	23.56
	1	5	23.25	23.35	23.31
	6	0	23.05	21.77	23.14
16QAM	1	0	22.91	22.78	23.00
	1	5	22.69	22.71	22.68
	6	0	22.99	21.04	22.98

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.77	23.56	23.8	25.59	33.01
16QAM	22.68	23	24.71	25.03	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 25 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26047	CH 26365	CH 26683
			1850.7 MHz	1882.5 MHz	1914.3 MHz
QPSK	1	0	23.51	23.60	23.43
	1	5	23.41	21.42	23.18
	6	0	23.31	21.82	23.07
16QAM	1	0	23.19	23.21	22.87
	1	5	23.08	23.11	22.98
	6	0	23.14	23.08	22.91

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.42	23.6	23.45	25.63	33.01
16QAM	22.87	23.21	24.9	25.24	33.01

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

7.1.9 Cat-M1 Band 26 (Part 22)

CAT-M1 Band 26 15M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26865	CH 26915	CH 26965
			831.5 MHz	836.5 MHz	841.5 MHz
QPSK	1	0	23.35	24.16	23.43
	1	5	23.15	23.74	23.33
	6	0	22.97	23.60	23.12
16QAM	1	0	22.77	23.67	22.87
	1	5	22.53	23.61	22.73
	6	0	22.41	23.57	22.51

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.97	24.16	23.45	24.64	38.45
16QAM	22.41	23.67	22.89	24.15	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 26 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26840	CH 26915	CH 26990
			829 MHz	836.5 MHz	844 MHz
QPSK	1	0	23.48	23.62	23.47
	1	5	23.33	23.74	23.22
	6	0	23.19	23.00	23.01
16QAM	1	0	22.96	23.08	22.85
	1	5	22.73	22.75	22.69
	6	0	22.63	21.90	22.50

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	23	23.62	23.48	24.1	38.45
16QAM	21.9	23.08	22.38	23.56	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 26 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26815	CH 26915	CH 27015
			826.5 MHz	836.5 MHz	846.5 MHz
QPSK	1	0	23.46	23.69	23.52
	1	5	23.35	23.62	23.40
	6	0	23.24	22.99	23.28
16QAM	1	0	23.07	23.07	23.15
	1	5	22.91	23.01	22.99
	6	0	22.70	22.01	22.82

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.99	23.69	23.47	24.17	38.45
16QAM	22.01	23.15	22.49	23.63	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)
ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 26 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26805	CH 26915	CH 27025
			825.5 MHz	836.5 MHz	847.5 MHz
QPSK	1	0	23.38	23.57	23.46
	1	5	23.23	23.41	23.23
	6	0	23.13	22.94	22.11
16QAM	1	0	23.02	23.06	22.91
	1	5	22.80	23.24	22.75
	6	0	22.59	21.99	22.56

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.11	23.57	22.59	24.05	38.45
16QAM	21.99	23.24	22.47	23.72	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 26 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26797	CH 26915	CH 27033
			824.7 MHz	836.5 MHz	848.3 MHz
QPSK	1	0	23.47	23.58	23.40
	1	5	23.27	23.31	23.28
	6	0	23.08	21.87	23.13
16QAM	1	0	22.93	23.19	22.98
	1	5	22.84	22.95	22.89
	6	0	22.11	22.09	22.04

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	21.87	23.58	22.35	24.06	38.45
16QAM	22.04	23.19	22.52	23.67	38.45

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.10 Cat-M1 Band 26 (Part 90)

Cat-M1 Band 26 (814-824 MHz) 10M			
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)
			CH 26740
			819 MHz
QPSK	1	0	23.72
	1	5	23.64
	6	0	23.08
16QAM	1	0	23.66
	1	5	23.53
	6	0	22.05

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	23.08	23.72	23.56	24.2	50.00
16QAM	22.05	23.66	22.53	24.14	50.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

Cat-M1 Band 26 (814-824 MHz) 5M

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26715	CH 26740	CH 26765
			816.5 MHz	819 MHz	821.5 MHz
QPSK	1	0	23.42	23.56	23.31
	1	5	23.30	23.69	23.12
	6	0	23.06	23.09	22.93
16QAM	1	0	22.82	23.24	22.71
	1	5	22.72	22.75	22.53
	6	0	22.50	22.01	22.42

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.93	23.56	23.41	24.04	50.00
16QAM	22.01	23.24	22.49	23.72	50.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

Cat-M1 Band 26 (814-824 MHz) 3M

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26705	CH 26740	CH 26775
			815.5 MHz	819 MHz	822.5 MHz
QPSK	1	0	23.39	23.54	23.42
	1	5	23.28	23.62	23.20
	6	0	23.06	21.92	22.98
16QAM	1	0	22.94	22.95	22.75
	1	5	22.73	22.78	22.60
	6	0	22.61	22.85	22.47

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	21.92	23.54	22.4	24.02	50.00
16QAM	22.47	22.95	22.95	23.43	50.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

Cat-M1 Band 26 (814-824 MHz) 1.4M

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 26697	CH 26740	CH 26783
			814.7 MHz	819 MHz	823.3 MHz
QPSK	1	0	23.34	23.62	23.32
	1	5	23.10	23.19	23.16
	6	0	22.99	21.97	22.94
16QAM	1	0	22.84	23.44	22.83
	1	5	22.67	22.90	22.69
	6	0	22.43	22.57	21.98

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	21.97	23.62	22.45	24.1	50.00
16QAM	21.98	23.44	22.46	23.92	50.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

7.1.11 Cat-M1 Band 66

CAT-M1 Band 66 20M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 132072	CH 132322	CH 132572
			1720 MHz	1745 MHz	1770 MHz
QPSK	1	0	23.54	23.78	23.57
	1	5	23.36	23.67	23.46
	6	0	23.24	23.57	23.32
16QAM	1	0	23.09	23.65	23.17
	1	5	22.93	23.64	22.95
	6	0	22.74	23.08	22.81

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.24	23.78	25.27	25.81	30.00
16QAM	22.74	23.65	24.77	25.68	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 66 15M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 132047	CH 132322	CH 132597
			1717.5 MHz	1745 MHz	1772.5 MHz
QPSK	1	0	23.58	23.76	23.63
	1	5	23.38	23.75	23.49
	6	0	23.22	23.59	23.35
16QAM	1	0	23.07	23.69	23.11
	1	5	22.93	22.96	22.95
	6	0	22.82	22.81	22.85

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	23.22	23.76	25.25	25.79	30.00
16QAM	22.81	23.69	24.84	25.72	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 66 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 132022	CH 132322	CH 132622
			1715 MHz	1745 MHz	1775 MHz
QPSK	1	0	23.47	23.68	23.53
	1	5	23.28	23.67	23.32
	6	0	23.18	22.93	23.12
16QAM	1	0	23.00	23.64	23.00
	1	5	22.77	22.98	22.90
	6	0	22.55	21.15	22.77

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.93	23.68	24.96	25.71	30.00
16QAM	21.15	23.64	23.18	25.67	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 66 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 131997	CH 132322	CH 132647
			1712.5 MHz	1745 MHz	1777.5 MHz
QPSK	1	0	23.53	23.69	23.46
	1	5	23.39	23.41	23.23
	6	0	23.24	22.97	23.03
16QAM	1	0	23.04	23.68	22.85
	1	5	22.86	23.39	22.62
	6	0	22.71	21.07	22.39

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	22.97	23.69	25	25.72	30.00
16QAM	21.07	23.68	23.1	25.71	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

CAT-M1 Band 66 3M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 131987	CH 132322	CH 132657
			1711.5 MHz	1745 MHz	1778.5 MHz
QPSK	1	0	23.43	23.54	23.56
	1	5	23.25	23.35	23.31
	6	0	23.05	21.77	23.14
16QAM	1	0	22.91	22.78	23.00
	1	5	22.69	22.71	22.68
	6	0	22.99	21.04	22.98

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.77	23.56	23.8	25.59	30.00
16QAM	21.04	23	23.07	25.03	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

Cat-M1 Band 66 1.4M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 131979	CH 132322	CH 132665
			1710.7 MHz	1745 MHz	1779.3 MHz
QPSK	1	0	23.51	23.60	23.43
	1	5	23.41	21.42	23.18
	6	0	23.31	21.82	23.07
16QAM	1	0	23.19	23.21	22.87
	1	5	23.08	23.11	22.98
	6	0	23.14	23.08	22.91

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.42	23.6	23.45	25.63	30.00
16QAM	22.87	23.21	24.9	25.24	30.00

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

7.1.12 Cat-M1 Band 85

CAT-M1 Band 66 10M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 134052	CH 134092	CH 134132
			703 MHz	707 MHz	711 MHz
QPSK	1	0	23.12	23.75	22.11
	1	5	22.89	23.31	21.88
	6	0	22.73	22.91	21.89
16QAM	1	0	22.54	23.29	21.68
	1	5	22.44	23.16	21.56
	6	0	22.34	22.19	21.44

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	21.88	23.75	21.36	23.23	44.77
16QAM	21.44	23.29	20.92	22.77	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

ERP (dBm) = EIRP (dBm) - 2.15

CAT-M1 Band 85 5M					
Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 134027	CH 134092	CH 134157
			700.5 MHz	707MHz	713.5 MHz
QPSK	1	0	22.95	23.60	22.94
	1	5	22.84	23.69	22.83
	6	0	22.59	22.96	22.62
16QAM	1	0	22.43	23.24	21.41
	1	5	22.26	22.31	21.25
	6	0	22.34	22.14	21.34

Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum ERP (dBm)	Maximum ERP (dBm)	ERP Limit (dBm)
QPSK	22.59	23.6	22.07	23.08	44.77
16QAM	22.14	23.24	21.62	22.72	44.77

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

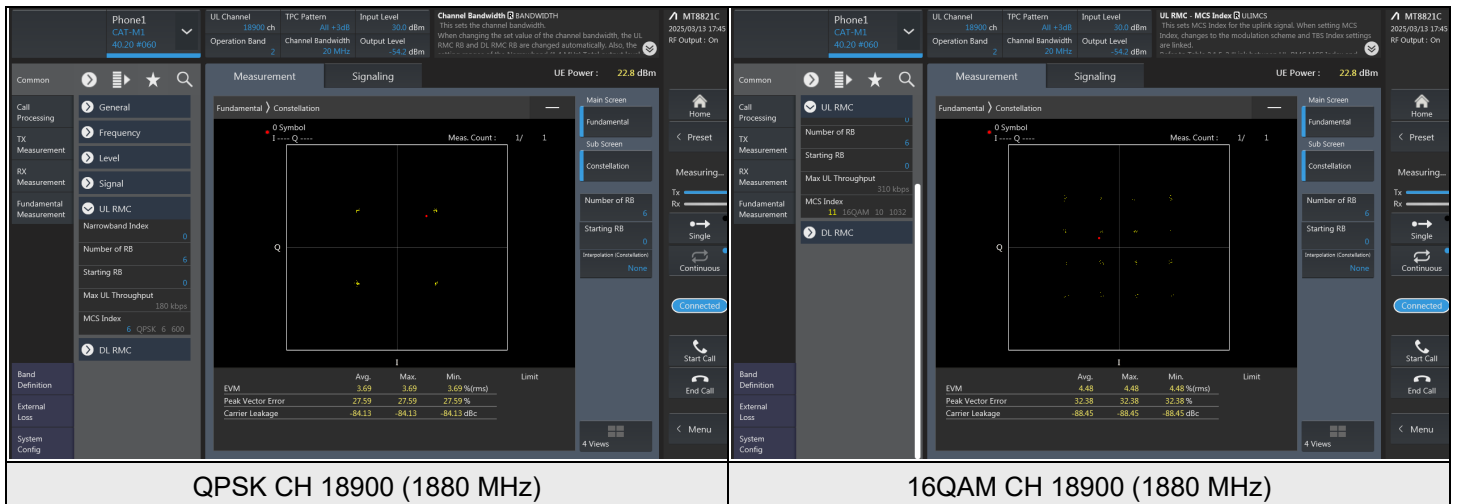
ERP (dBm) = EIRP (dBm) - 2.15

7.2 Modulation Characteristics

Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 75% RH	Tested By:	Match Tsui
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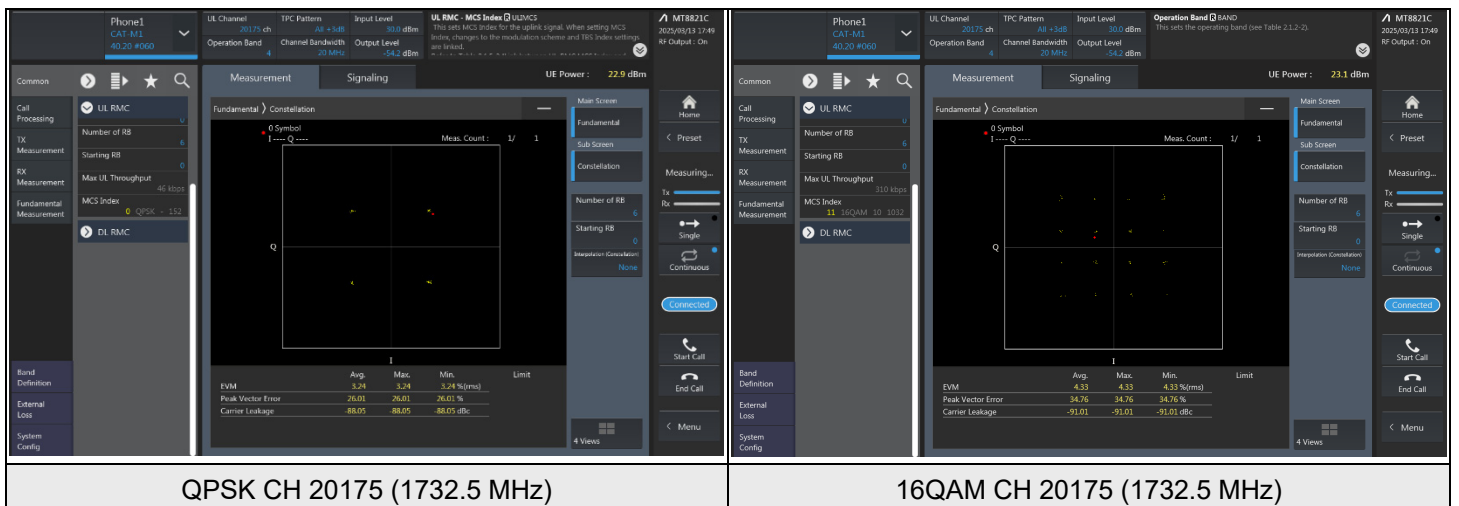
7.2.1 Cat-M1 Band 2

Cat-M1 Band 2, Channel Bandwidth: 20 MHz



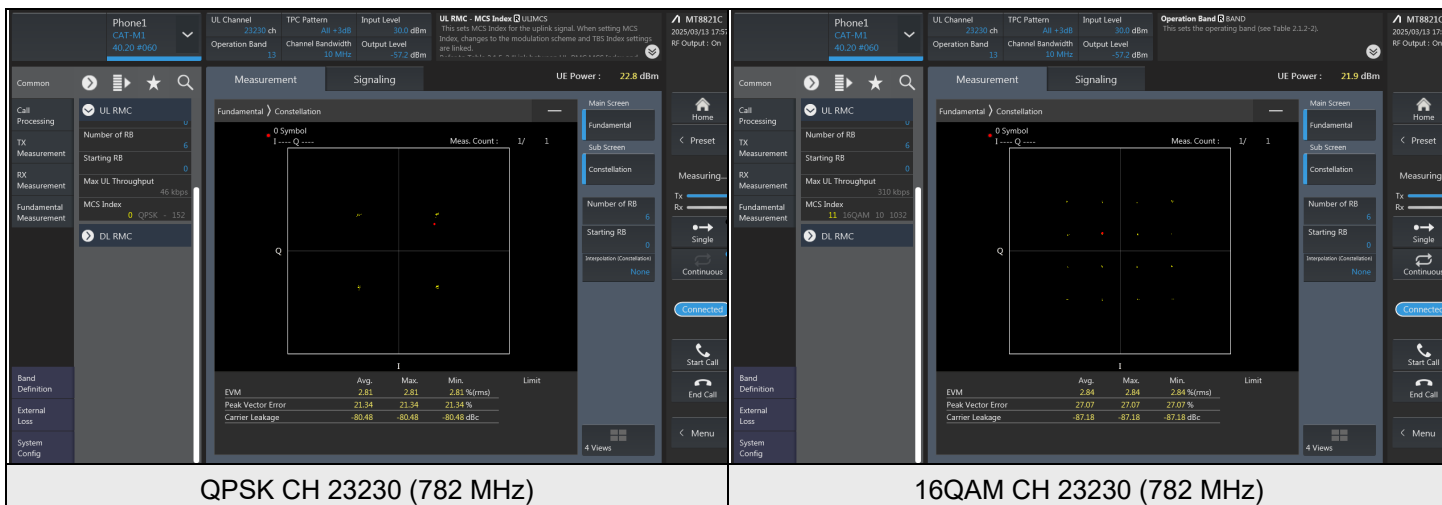
7.2.2 Cat-M1 Band 4

Cat-M1 Band 4, Channel Bandwidth: 20 MHz



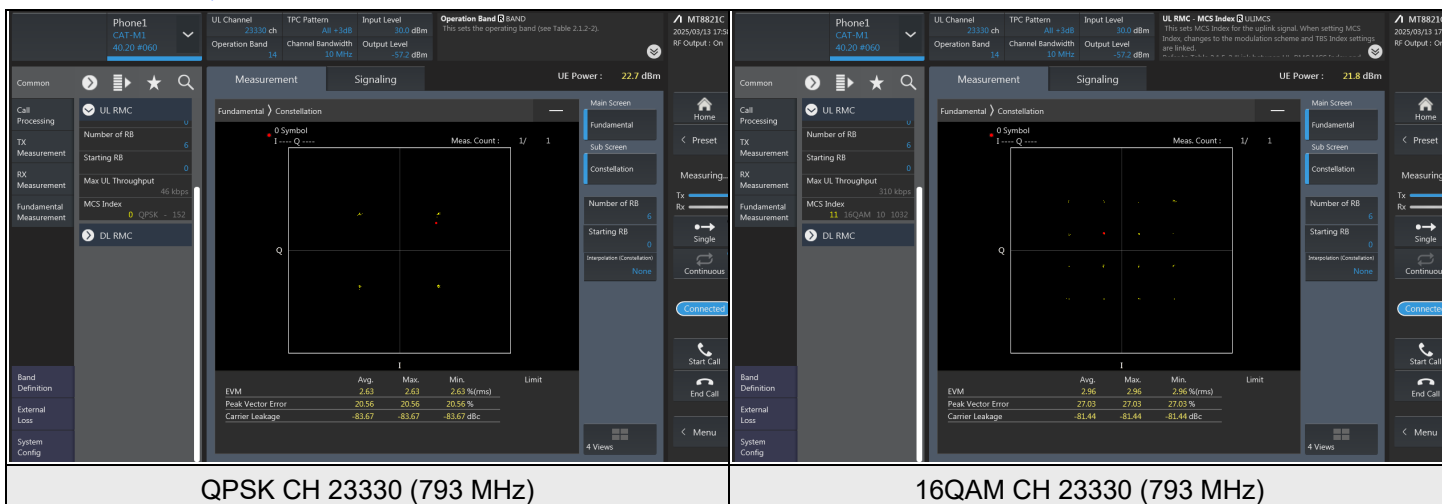
7.2.6 Cat-M1 Band 13

Cat-M1 Band 13, Channel Bandwidth: 10 MHz



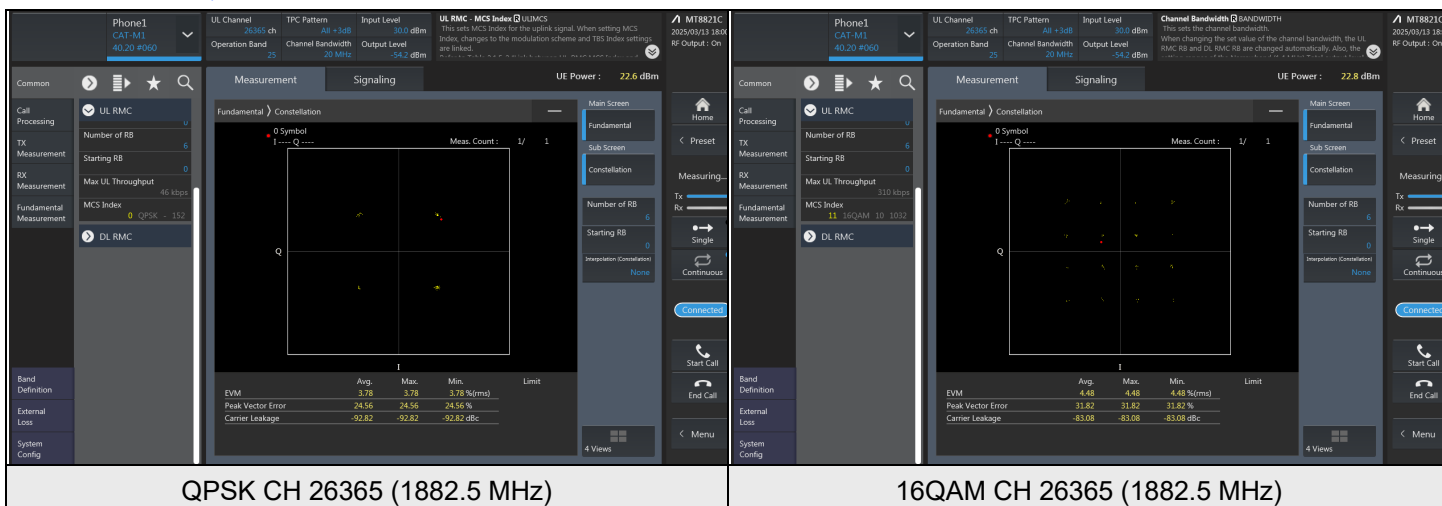
7.2.7 Cat-M1 Band 14

Cat-M1 Band 14, Channel Bandwidth: 10 MHz



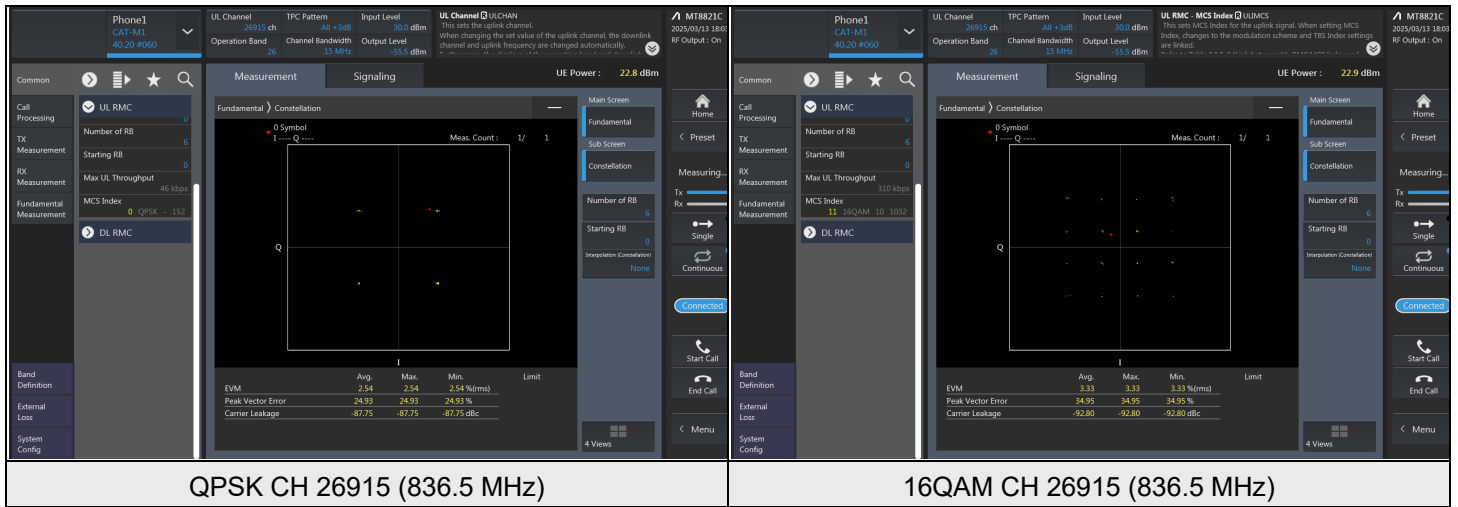
7.2.8 Cat-M1 Band 25

Cat-M1 Band 25, Channel Bandwidth: 20 MHz



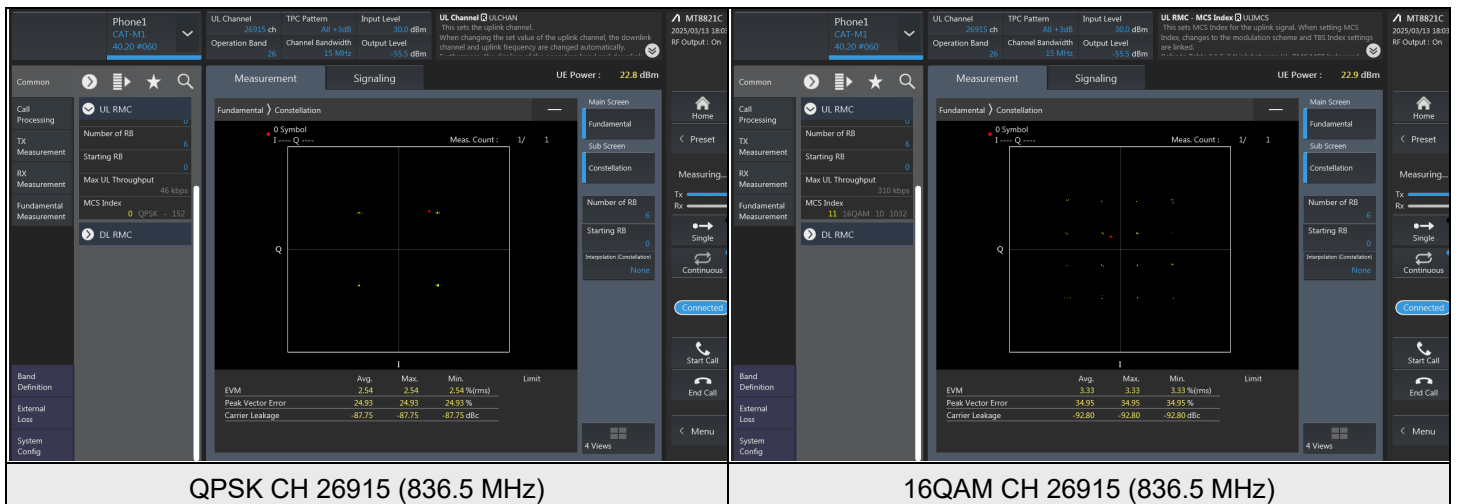
7.2.9 Cat-M1 Band 26 (Part 22)

Cat-M1 Band 26, Channel Bandwidth: 15 MHz



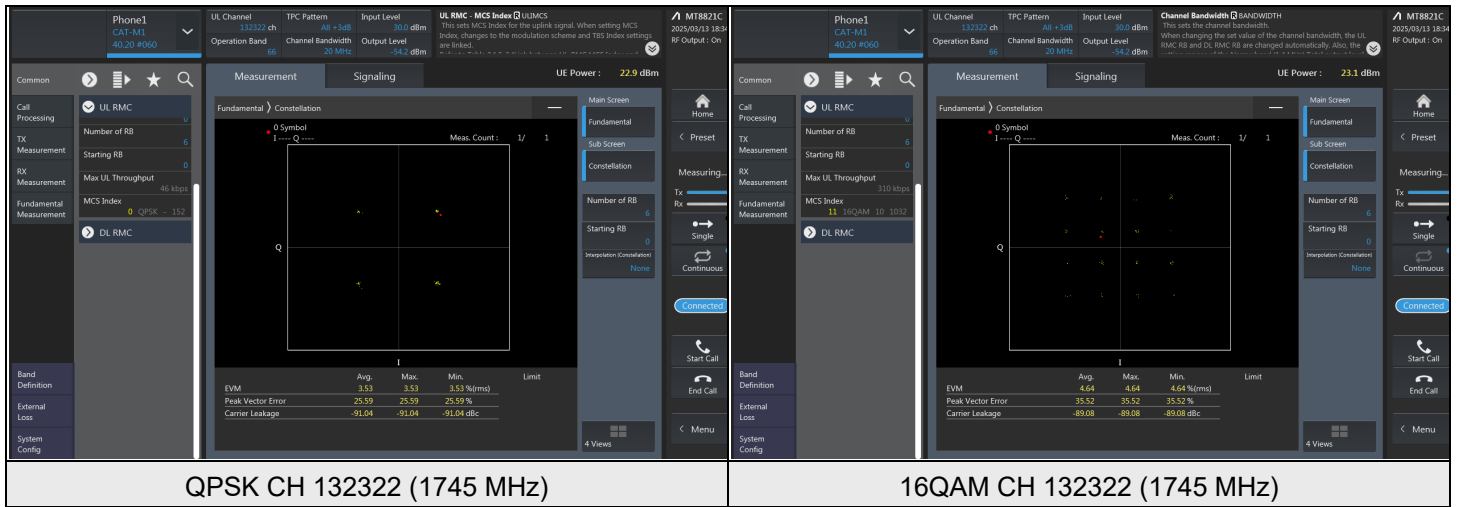
7.2.10 Cat-M1 Band 26 (Part 90)

Cat-M1 Band 26, Channel Bandwidth: 10 MHz



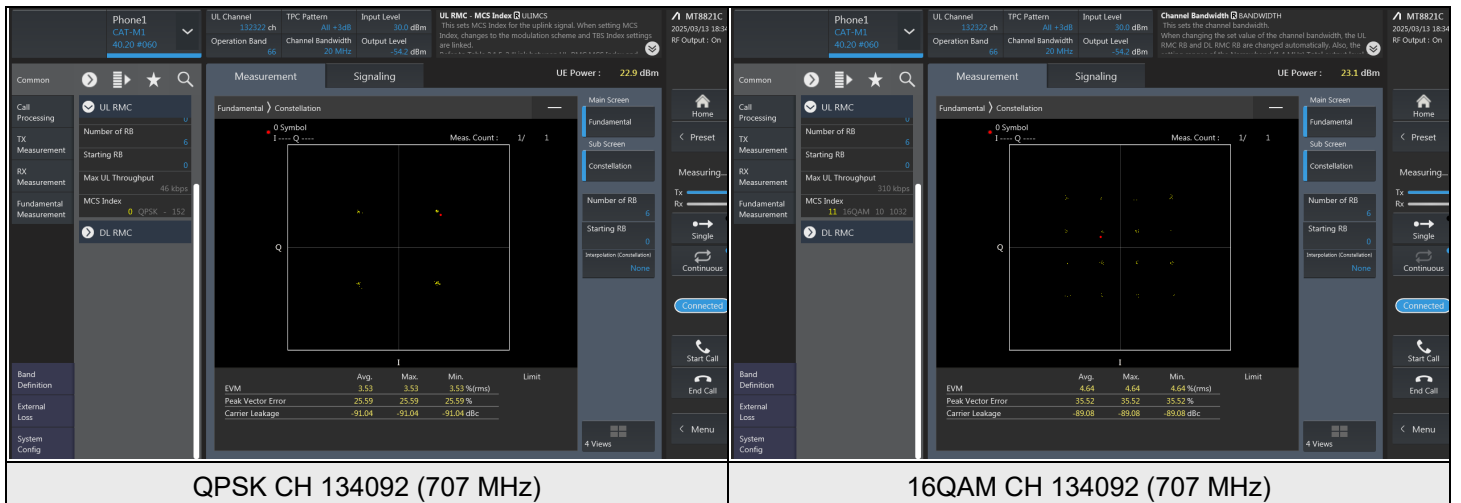
7.2.11 Cat-M1 Band 66

Cat-M1 Band 66, Channel Bandwidth: 20 MHz



7.2.12 Cat-M1 Band 85

Cat-M1 Band 85, Channel Bandwidth: 10 MHz



7.3 Peak to Average Ratio

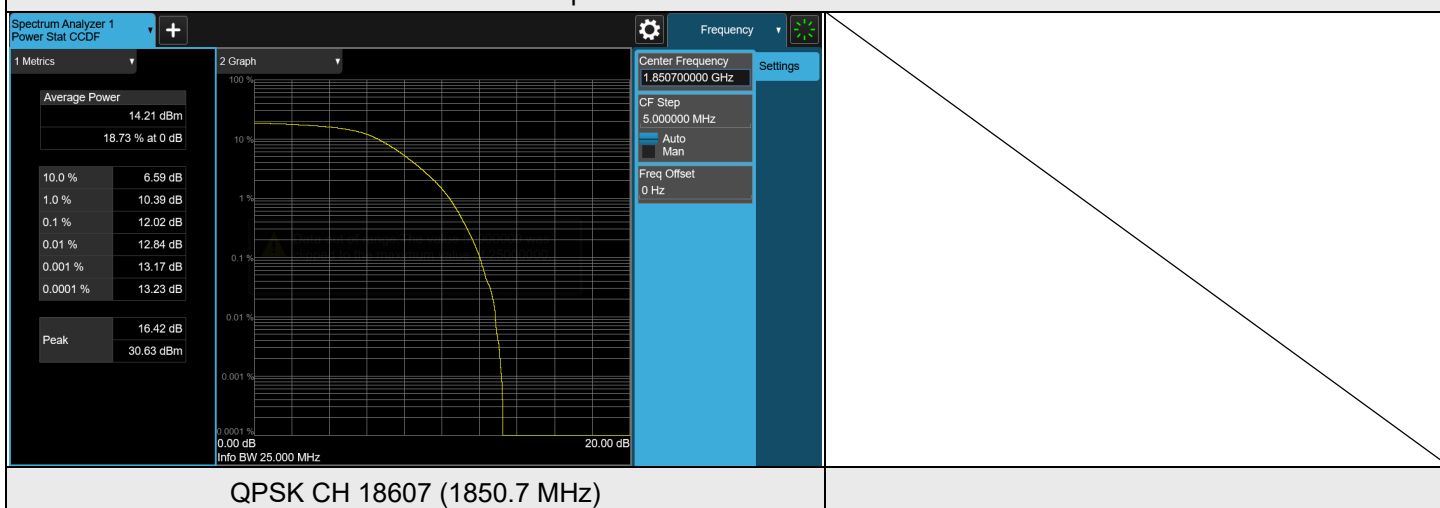
Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 75% RH	Tested By:	Match Tsui
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7.3.1 Cat-M1 Band 2

Cat-M1 Band 2, Channel Bandwidth: 1.4 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	18607	1850.7	12.02	13	PASS
QPSK	18900	1880	11.44	13	PASS
QPSK	19193	1909.3	5.05	13	PASS
16QAM	18607	1850.7	10.91	13	PASS
16QAM	18900	1880	5.79	13	PASS
16QAM	19193	1909.3	7.90	13	PASS

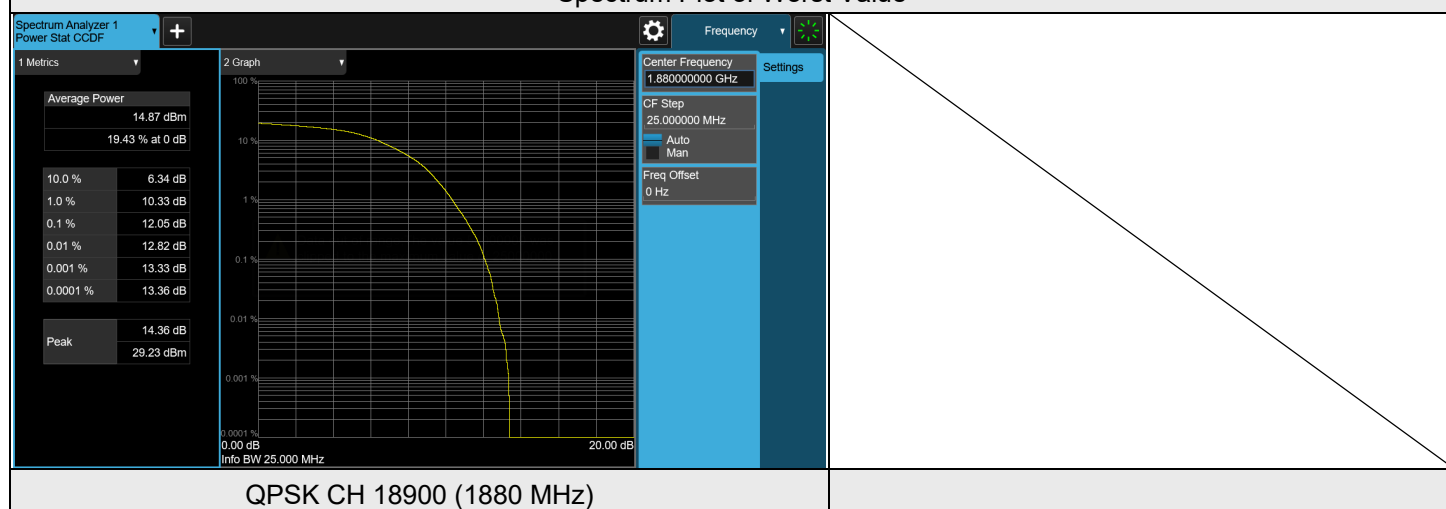
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	18615	1851.5	9.60	13	PASS
QPSK	18900	1880	12.05	13	PASS
QPSK	19185	1908.5	10.53	13	PASS
16QAM	18615	1851.5	11.32	13	PASS
16QAM	18900	1880	9.13	13	PASS
16QAM	19185	1908.5	6.79	13	PASS

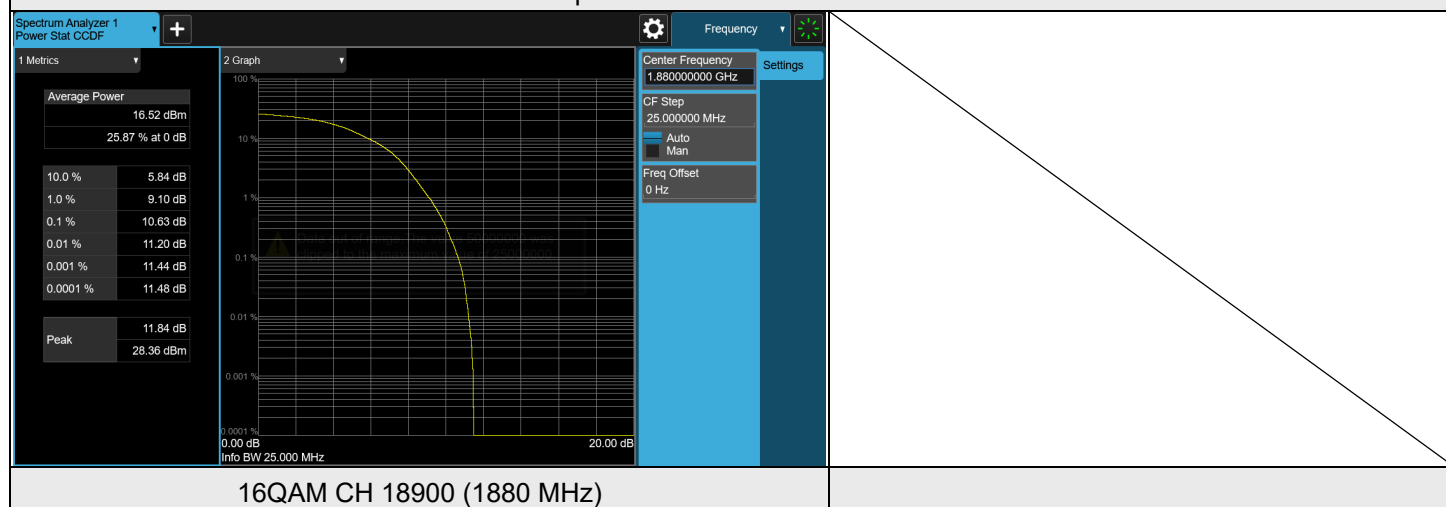
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	18625	1852.5	10.12	13	PASS
QPSK	18900	1880	8.85	13	PASS
QPSK	19175	1907.5	10.41	13	PASS
16QAM	18625	1852.5	6.79	13	PASS
16QAM	18900	1880	10.63	13	PASS
16QAM	19175	1907.5	9.20	13	PASS

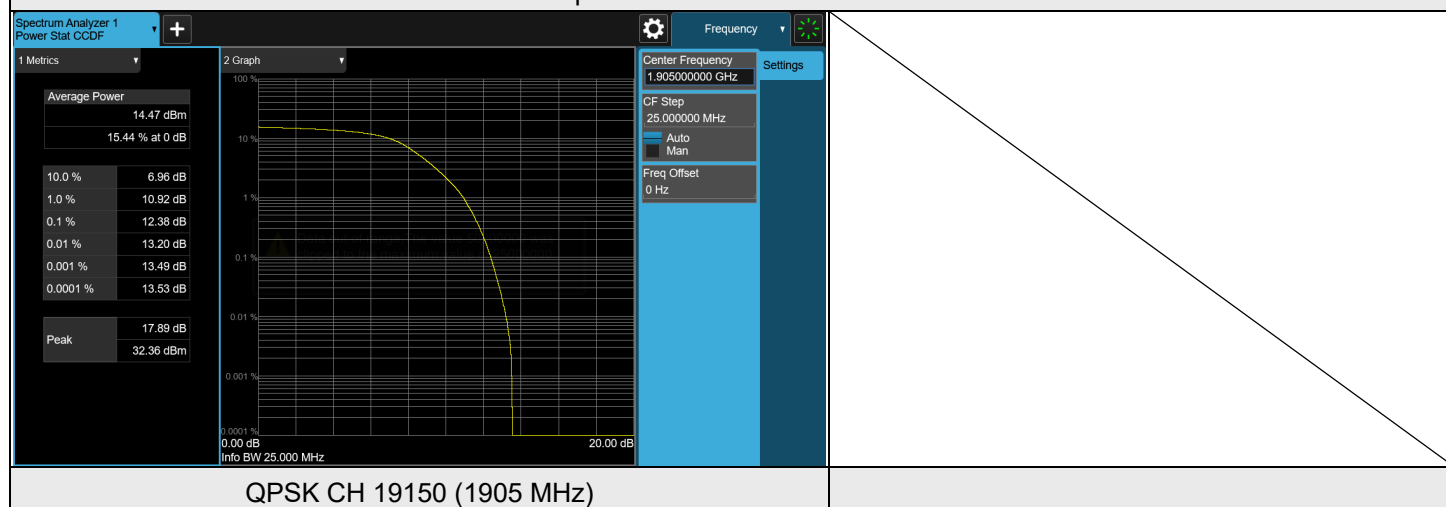
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	18650	1855	8.44	13	PASS
QPSK	18900	1880	10.00	13	PASS
QPSK	19150	1905	12.38	13	PASS
16QAM	18650	1855	8.04	13	PASS
16QAM	18900	1880	12.27	13	PASS
16QAM	19150	1905	12.05	13	PASS

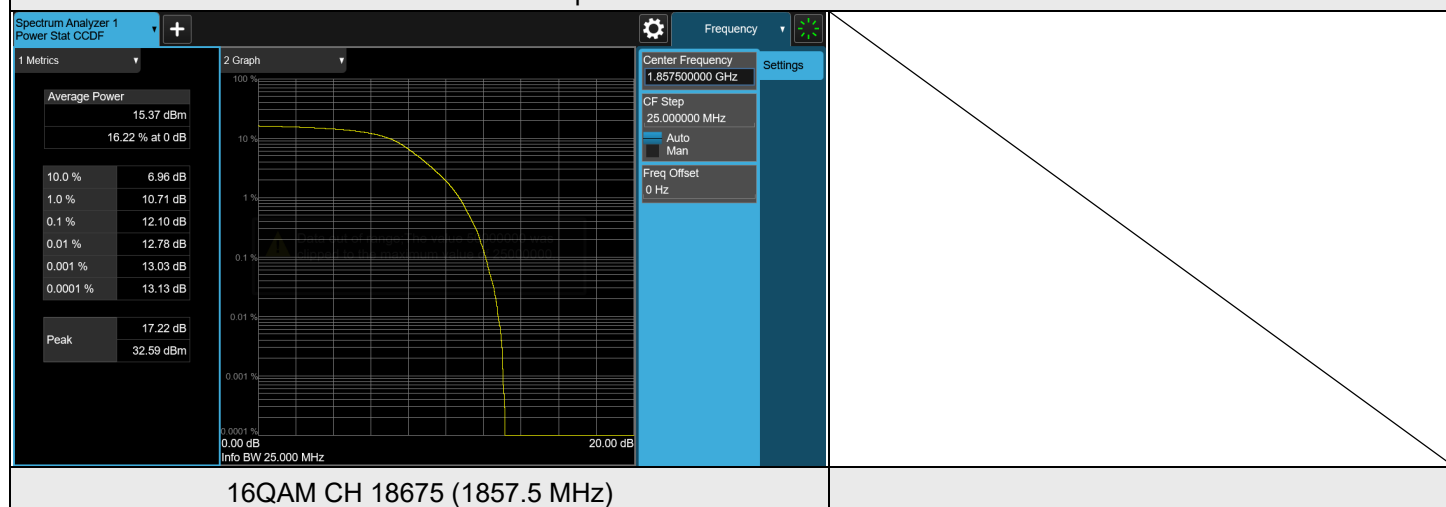
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	18675	1857.5	11.62	13	PASS
QPSK	18900	1880	11.77	13	PASS
QPSK	19125	1902.5	5.79	13	PASS
16QAM	18675	1857.5	12.10	13	PASS
16QAM	18900	1880	7.58	13	PASS
16QAM	19125	1902.5	10.03	13	PASS

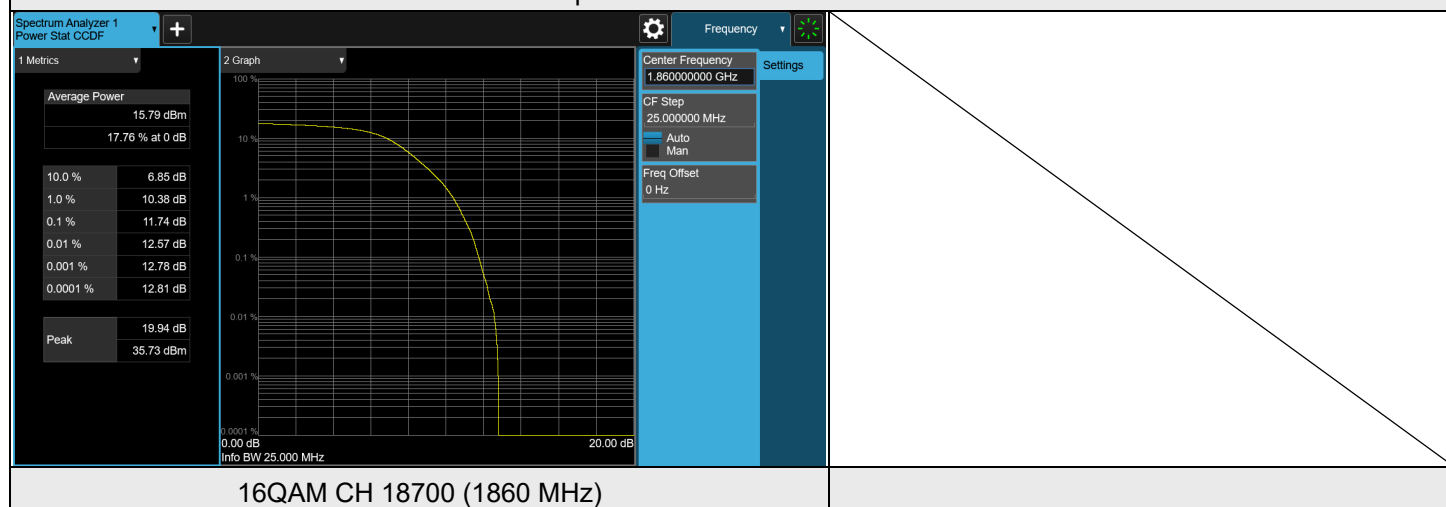
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	18700	1860	8.41	13	PASS
QPSK	18900	1880	8.80	13	PASS
QPSK	19100	1900	11.65	13	PASS
16QAM	18700	1860	11.74	13	PASS
16QAM	18900	1880	10.94	13	PASS
16QAM	19100	1900	7.08	13	PASS

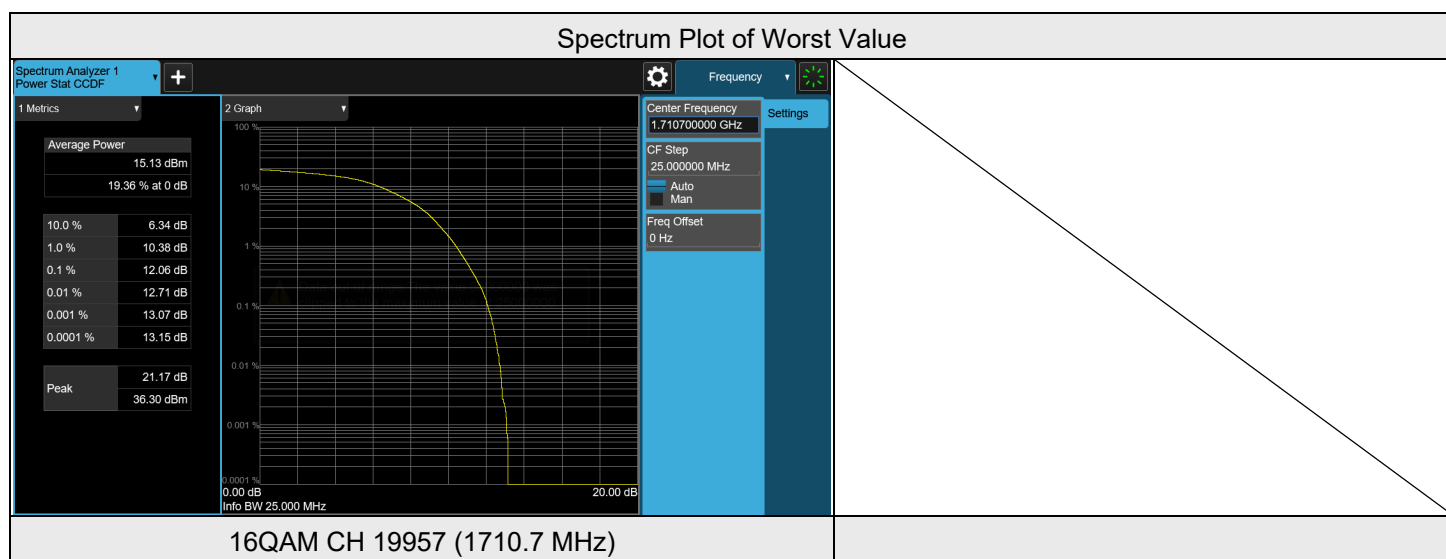
Spectrum Plot of Worst Value



7.3.2 Cat-M1 Band 4

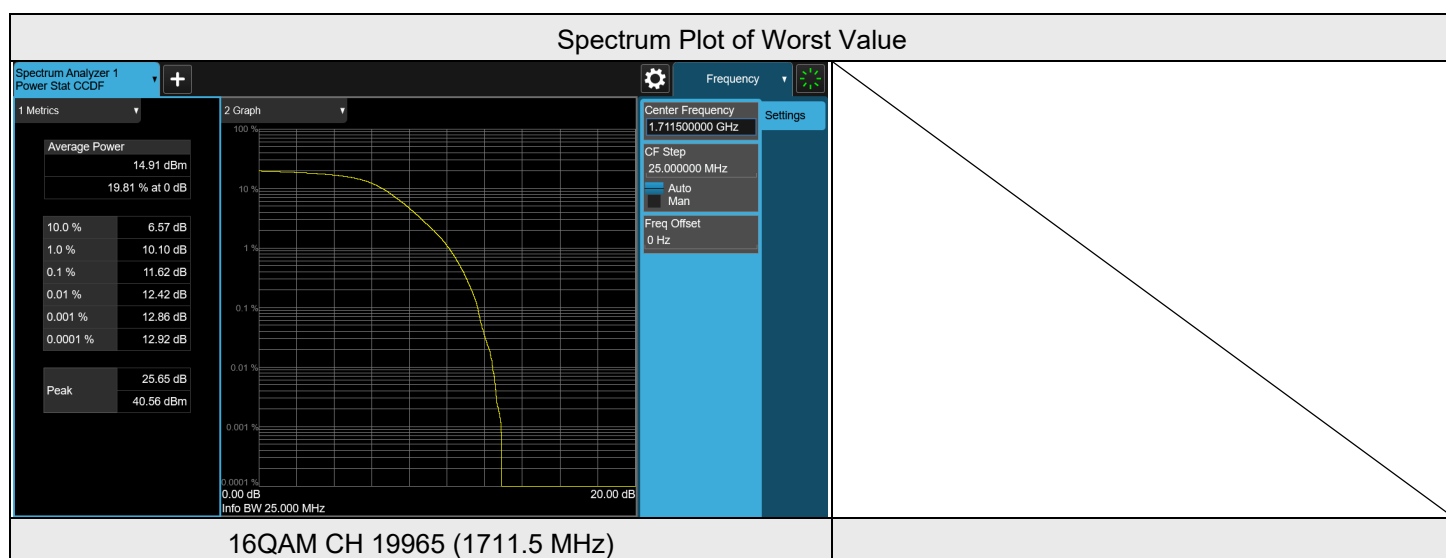
Cat-M1 Band 4, Channel Bandwidth: 1.4 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	19957	1710.7	8.46	13	PASS
QPSK	20175	1732.5	9.27	13	PASS
QPSK	20393	1754.3	8.10	13	PASS
16QAM	19957	1710.7	12.06	13	PASS
16QAM	20175	1732.5	11.53	13	PASS
16QAM	20393	1754.3	7.91	13	PASS



Cat-M1 Band 4, Channel Bandwidth: 3 MHz

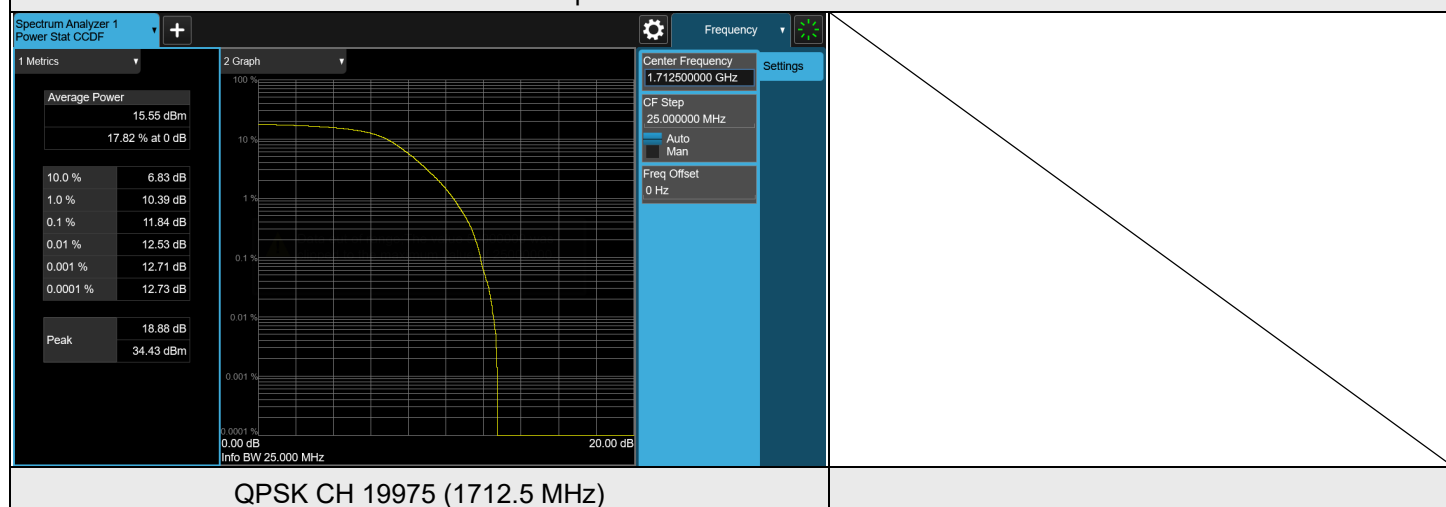
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	19965	1711.5	9.05	13	PASS
QPSK	20175	1732.5	10.23	13	PASS
QPSK	20385	1753.5	9.05	13	PASS
16QAM	19965	1711.5	11.62	13	PASS
16QAM	20175	1732.5	11.61	13	PASS
16QAM	20385	1753.5	10.60	13	PASS



Cat-M1 Band 4, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	19975	1712.5	11.84	13	PASS
QPSK	20175	1732.5	8.23	13	PASS
QPSK	20375	1752.5	7.58	13	PASS
16QAM	19975	1712.5	8.47	13	PASS
16QAM	20175	1732.5	8.36	13	PASS
16QAM	20375	1752.5	8.24	13	PASS

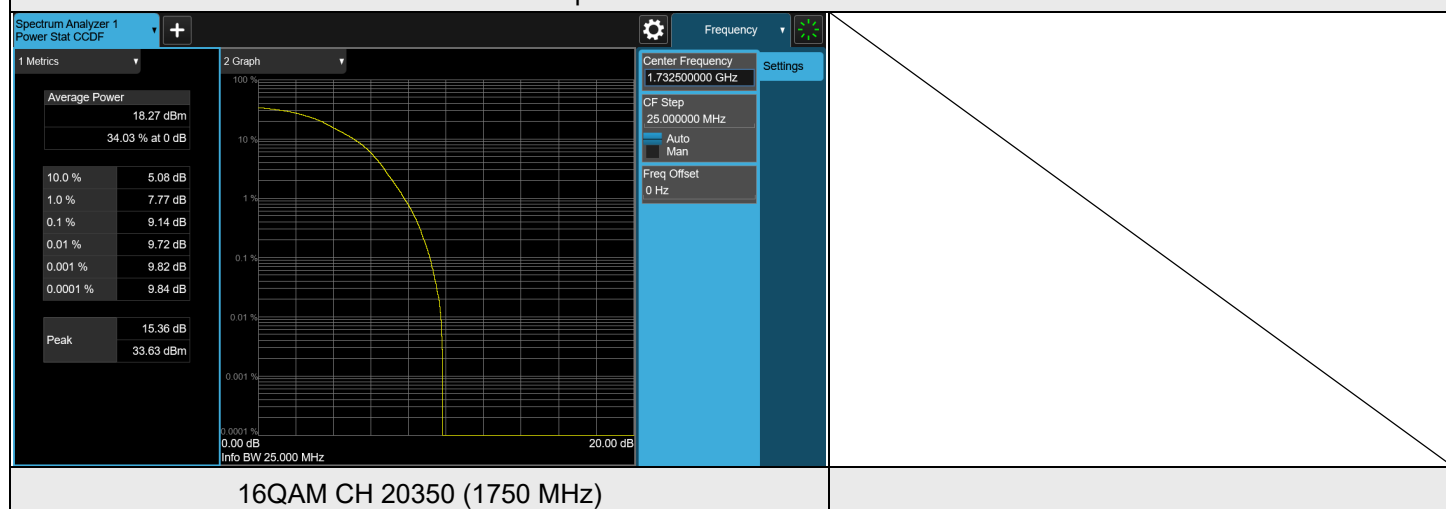
Spectrum Plot of Worst Value



Cat-M1 Band 4, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20000	1715	5.13	13	PASS
QPSK	20175	1732.5	7.87	13	PASS
QPSK	20350	1750	5.21	13	PASS
16QAM	20000	1715	8.47	13	PASS
16QAM	20175	1732.5	9.14	13	PASS
16QAM	20350	1750	8.85	13	PASS

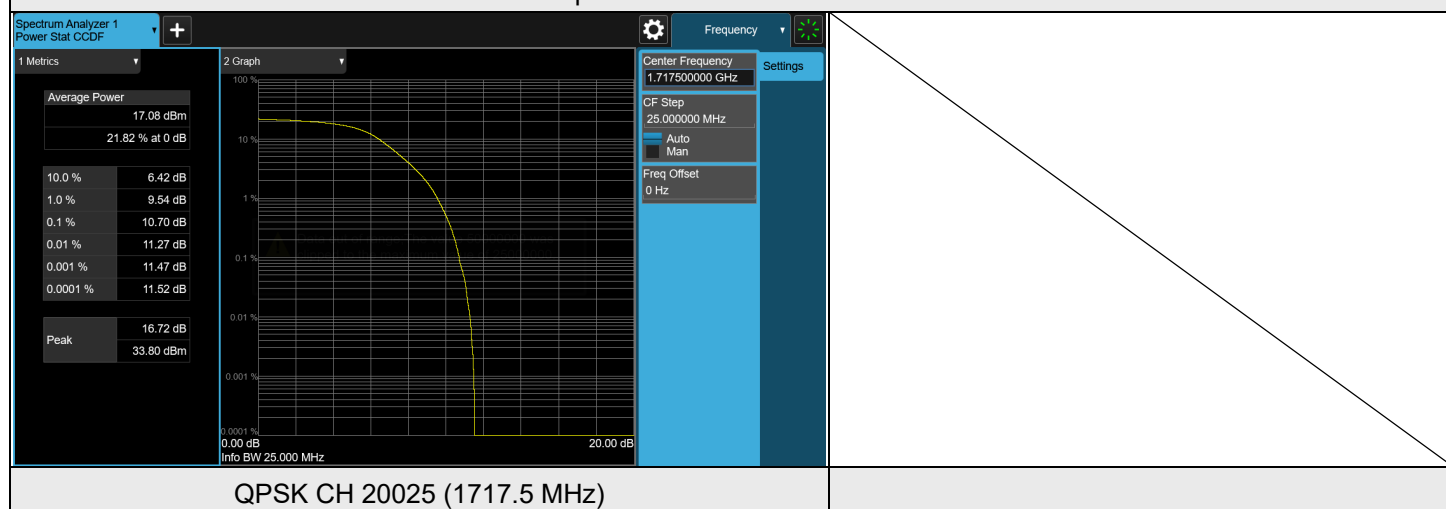
Spectrum Plot of Worst Value



Cat-M1 Band 4, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20025	1717.5	10.70	13	PASS
QPSK	20175	1732.5	8.43	13	PASS
QPSK	20325	1747.5	9.37	13	PASS
16QAM	20025	1717.5	9.46	13	PASS
16QAM	20175	1732.5	7.66	13	PASS
16QAM	20325	1747.5	7.82	13	PASS

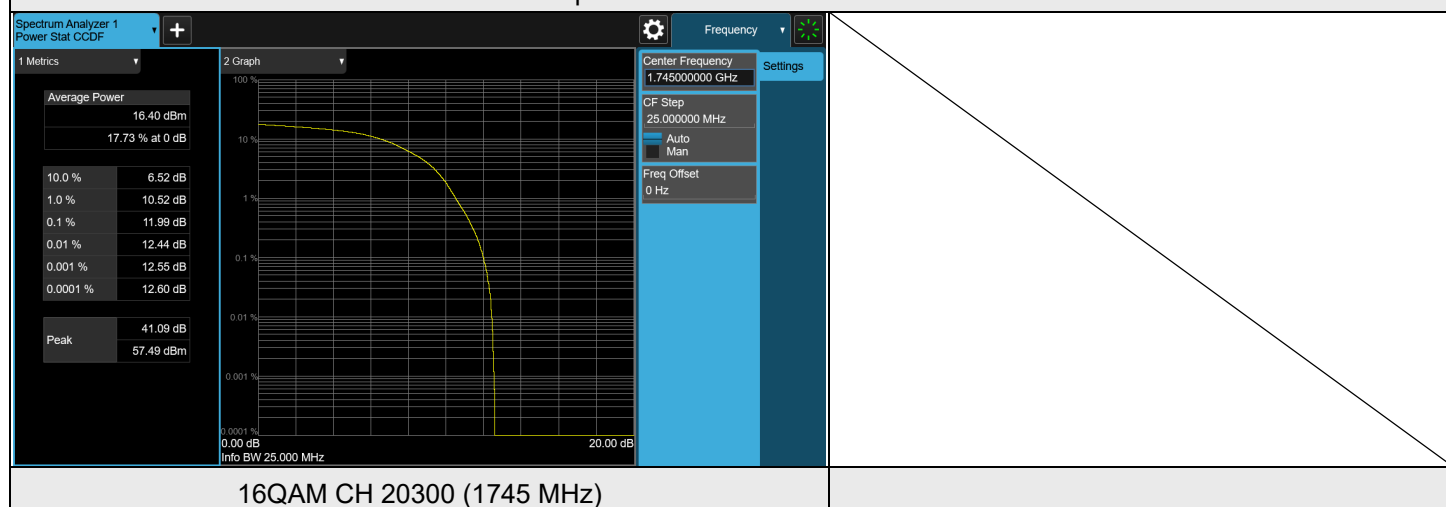
Spectrum Plot of Worst Value



Cat-M1 Band 4, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20050	1720	9.31	13	PASS
QPSK	20175	1732.5	11.68	13	PASS
QPSK	20300	1745	11.44	13	PASS
16QAM	20050	1720	5.96	13	PASS
16QAM	20175	1732.5	11.88	13	PASS
16QAM	20300	1745	11.99	13	PASS

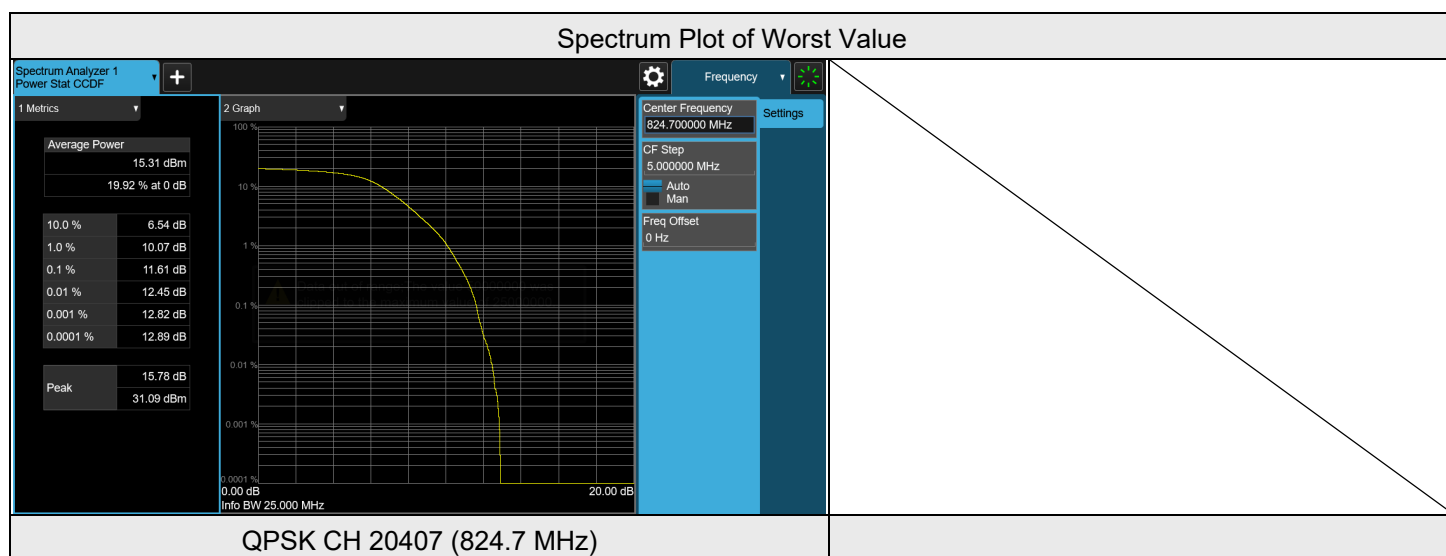
Spectrum Plot of Worst Value



7.3.3 Cat-M1 Band 5

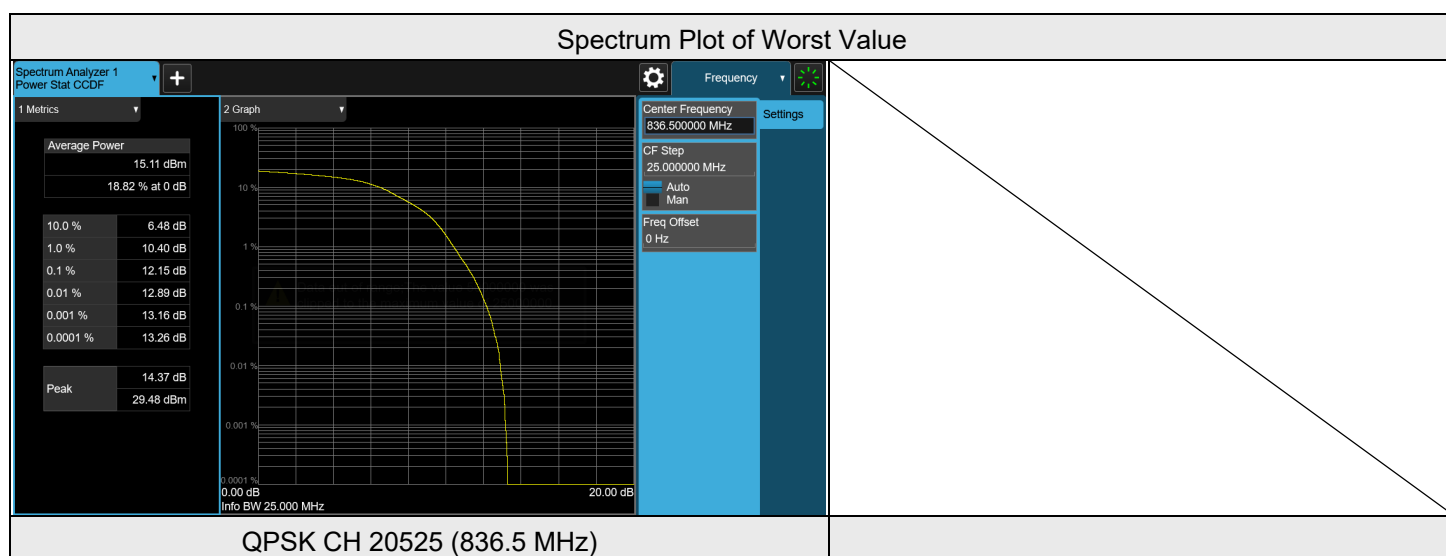
Cat-M1 Band 5, Channel Bandwidth: 1.4 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20407	824.7	11.61	13	PASS
QPSK	20525	836.5	11.60	13	PASS
QPSK	20643	848.3	9.72	13	PASS
16QAM	20407	824.7	5.05	13	PASS
16QAM	20525	836.5	11.60	13	PASS
16QAM	20643	848.3	11.82	13	PASS



Cat-M1 Band 5, Channel Bandwidth: 3 MHz

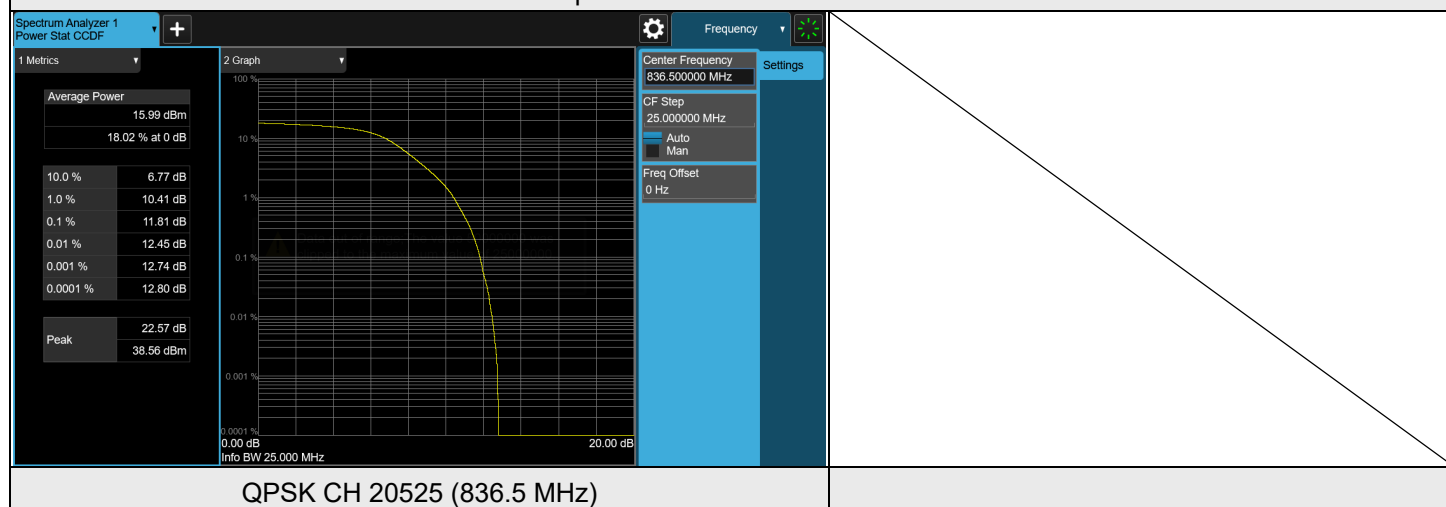
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20415	825.5	11.68	13	PASS
QPSK	20525	836.5	12.15	13	PASS
QPSK	20635	847.5	7.93	13	PASS
16QAM	20415	825.5	11.30	13	PASS
16QAM	20525	836.5	9.58	13	PASS
16QAM	20635	847.5	8.42	13	PASS



Cat-M1 Band 5, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20425	826.5	8.42	13	PASS
QPSK	20525	836.5	11.81	13	PASS
QPSK	20625	846.5	10.75	13	PASS
16QAM	20425	826.5	10.51	13	PASS
16QAM	20525	836.5	11.81	13	PASS
16QAM	20625	846.5	11.72	13	PASS

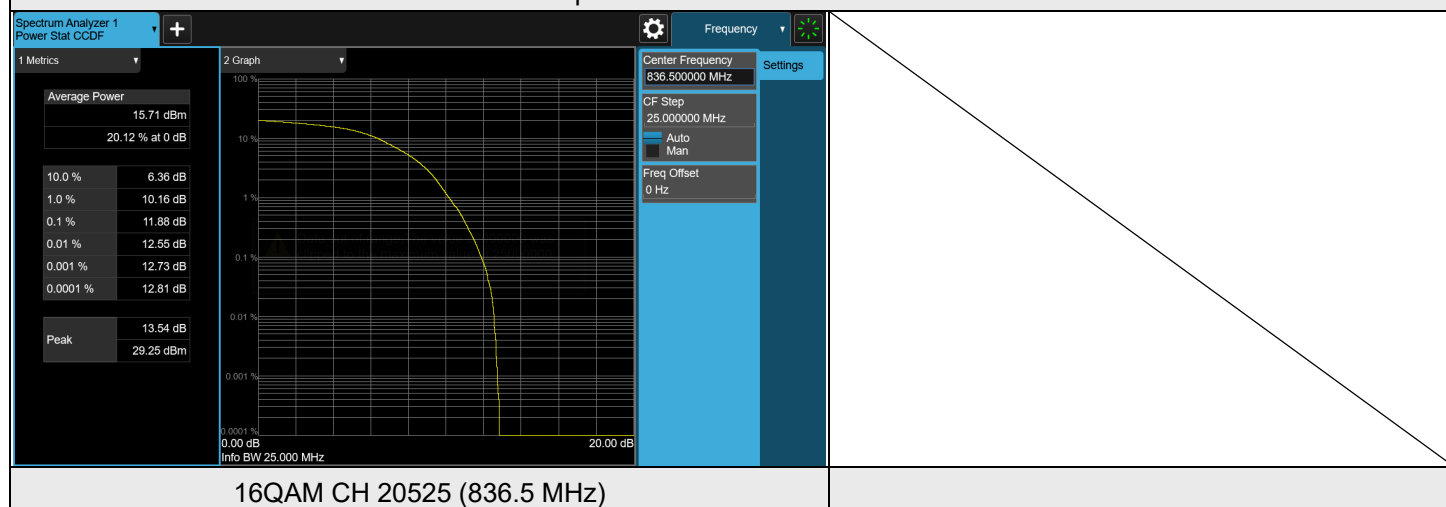
Spectrum Plot of Worst Value



Cat-M1 Band 5, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	20450	829	9.35	13	PASS
QPSK	20525	836.5	11.39	13	PASS
QPSK	20600	844	11.72	13	PASS
16QAM	20450	829	8.40	13	PASS
16QAM	20525	836.5	11.88	13	PASS
16QAM	20600	844	7.98	13	PASS

Spectrum Plot of Worst Value

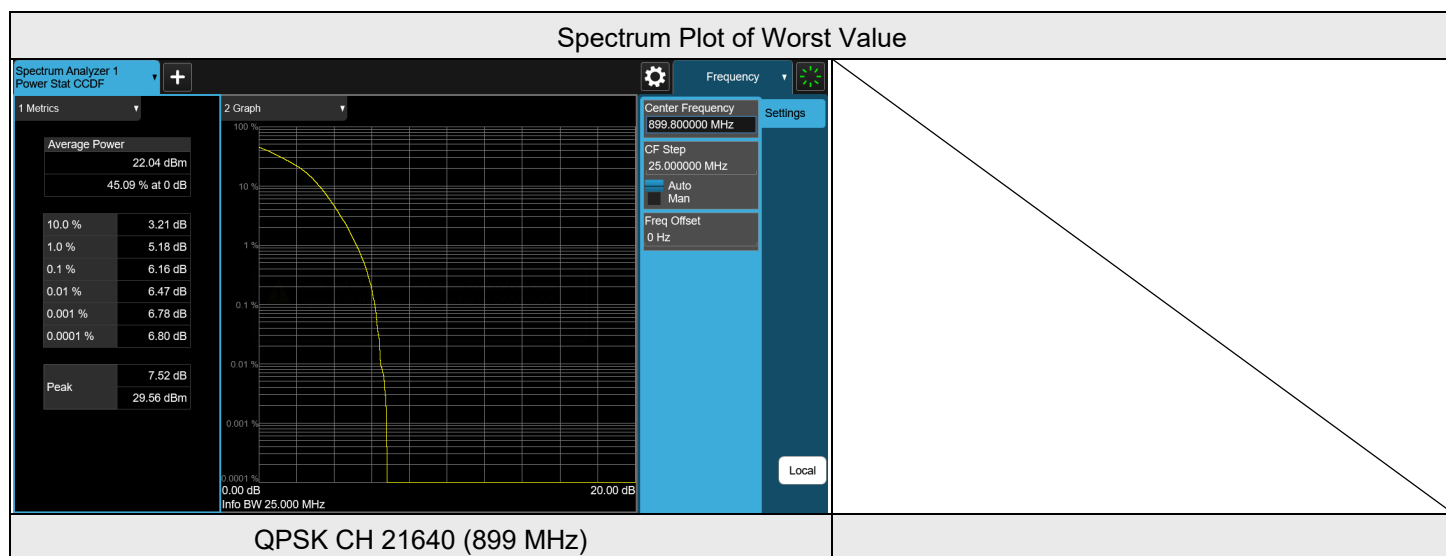


16QAM CH 20525 (836.5 MHz)

7.3.4 Cat-M1 Band 8

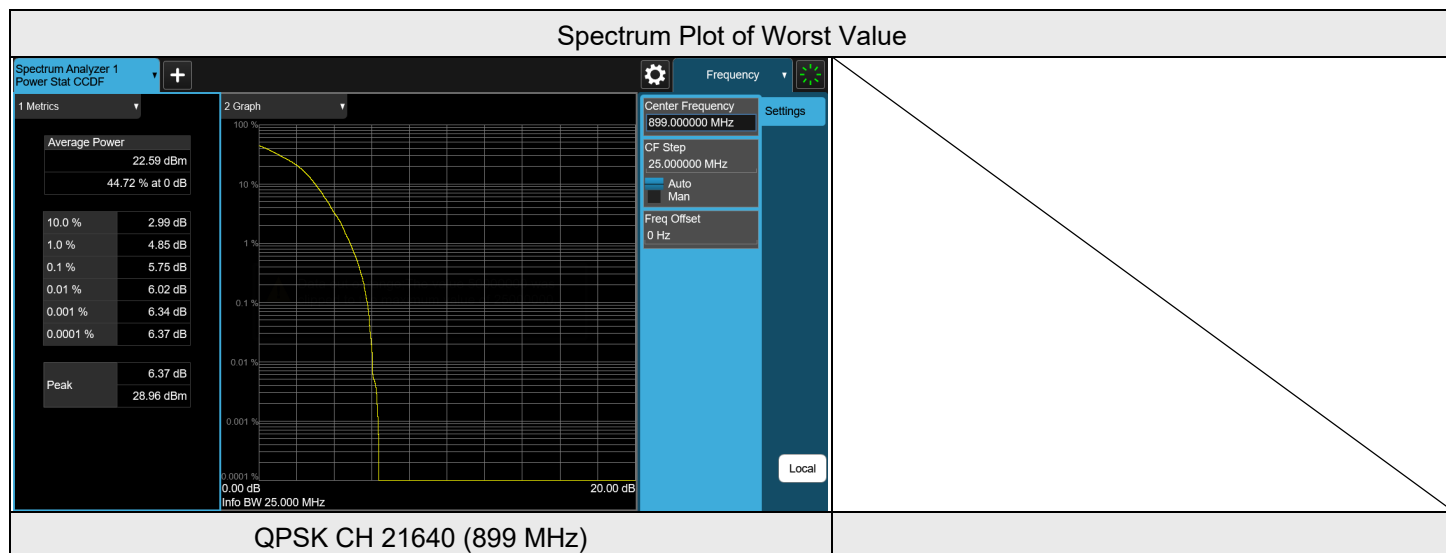
Cat-M1 Band 8, Channel Bandwidth: 1.4 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	21632	898.2	5.79	13	PASS
QPSK	21640	899	6.16	13	PASS
QPSK	21648	899.8	5.19	13	PASS
16QAM	21632	898.2	5.18	13	PASS
16QAM	21640	899	5.14	13	PASS
16QAM	21648	899.8	5.84	13	PASS



Cat-M1 Band 8, Channel Bandwidth: 3 MHz

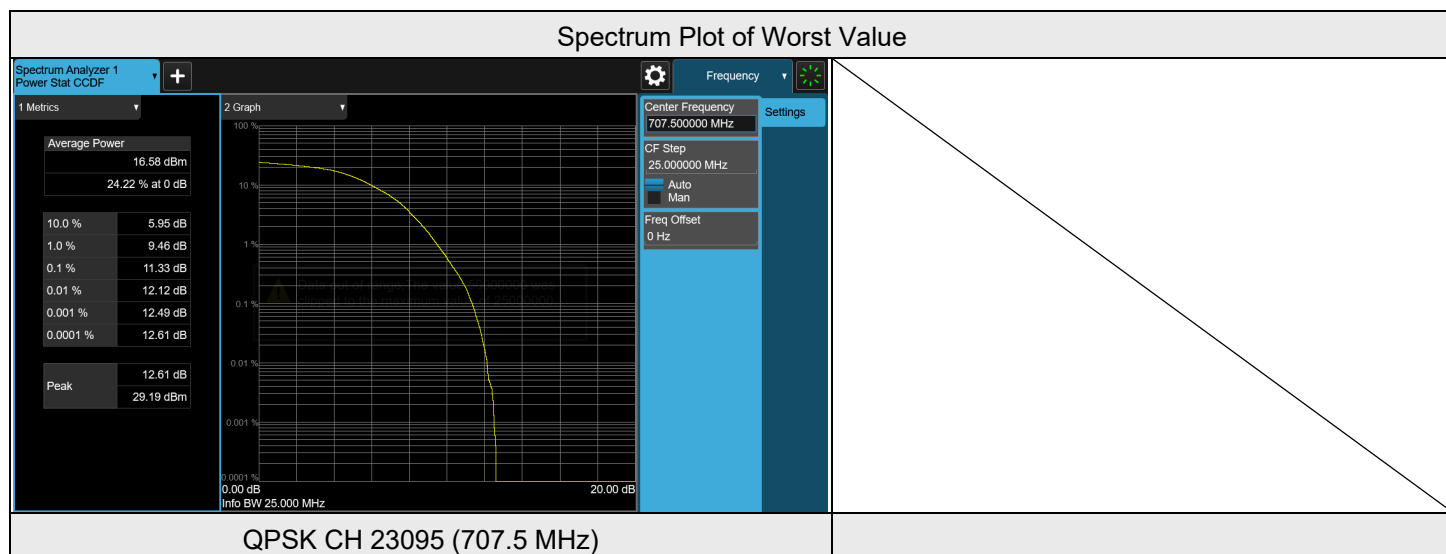
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	21640	899	5.75	13	PASS
16QAM	21640	899	5.39	13	PASS



7.3.5 Cat-M1 Band 12

Cat-M1 Band 12, Channel Bandwidth: 1.4 MHz

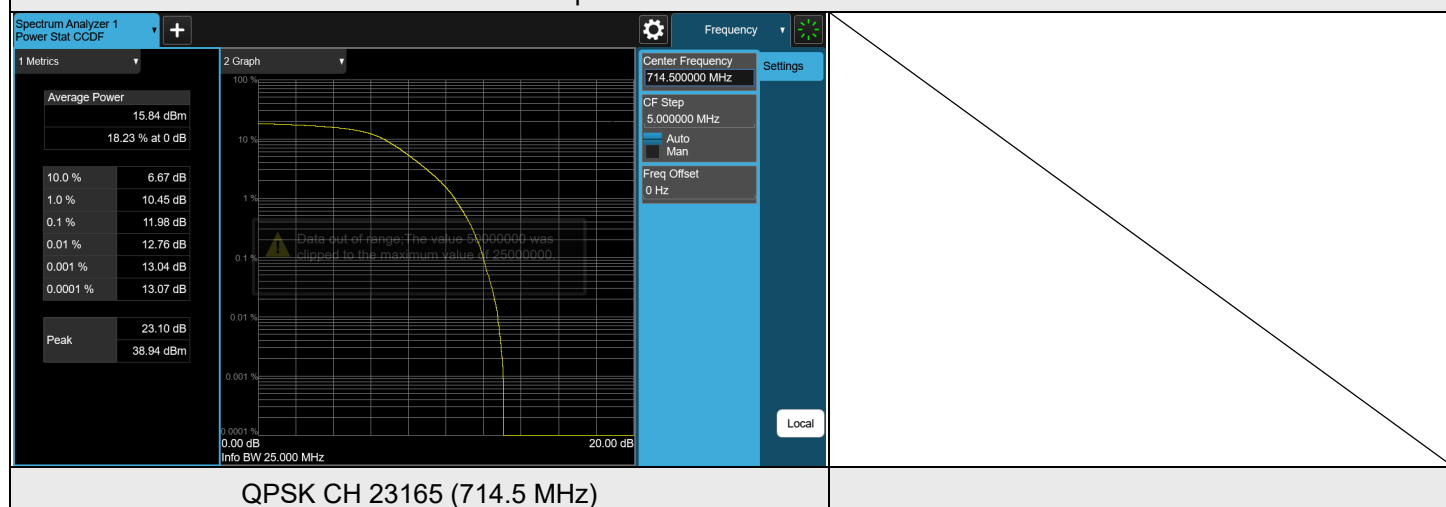
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23017	699.7	10.50	13	PASS
QPSK	23095	707.5	11.33	13	PASS
QPSK	23173	715.3	9.71	13	PASS
16QAM	23017	699.7	9.21	13	PASS
16QAM	23095	707.5	10.77	13	PASS
16QAM	23173	715.3	10.12	13	PASS



Cat-M1 Band 12, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23025	700.5	5.10	13	PASS
QPSK	23095	707.5	5.13	13	PASS
QPSK	23165	714.5	11.98	13	PASS
16QAM	23025	700.5	11.73	13	PASS
16QAM	23095	707.5	8.58	13	PASS
16QAM	23165	714.5	6.21	13	PASS

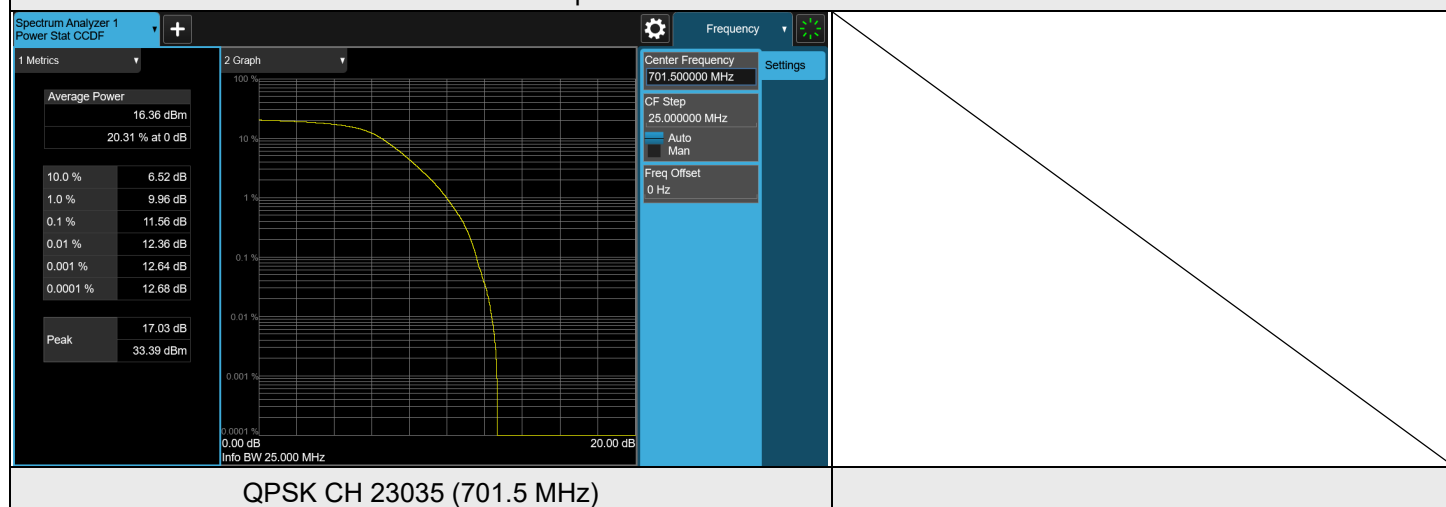
Spectrum Plot of Worst Value



Cat-M1 Band 12, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23035	701.5	11.56	13	PASS
QPSK	23095	707.5	7.45	13	PASS
QPSK	23155	713.5	8.28	13	PASS
16QAM	23035	701.5	11.43	13	PASS
16QAM	23095	707.5	6.83	13	PASS
16QAM	23155	713.5	8.69	13	PASS

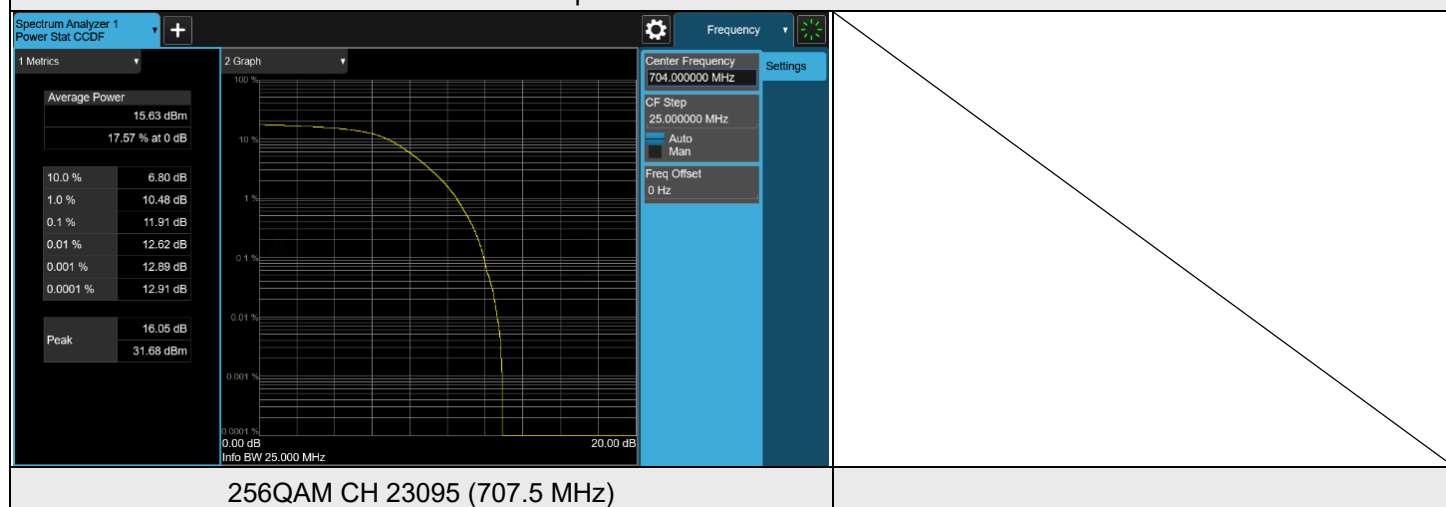
Spectrum Plot of Worst Value



Cat-M1 Band 12, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23060	704	10.89	13	PASS
QPSK	23095	707.5	11.69	13	PASS
QPSK	23130	711	11.12	13	PASS
16QAM	23060	704	11.91	13	PASS
16QAM	23095	707.5	10.87	13	PASS
16QAM	23130	711	11.02	13	PASS

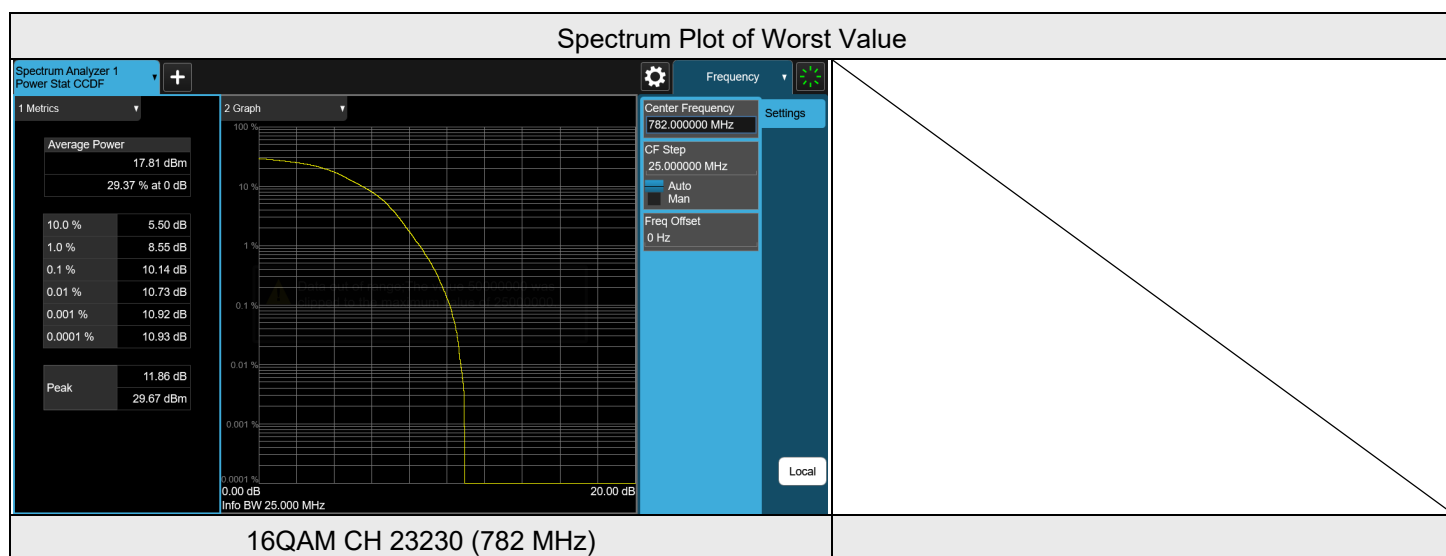
Spectrum Plot of Worst Value



7.3.6 Cat-M1 Band 13

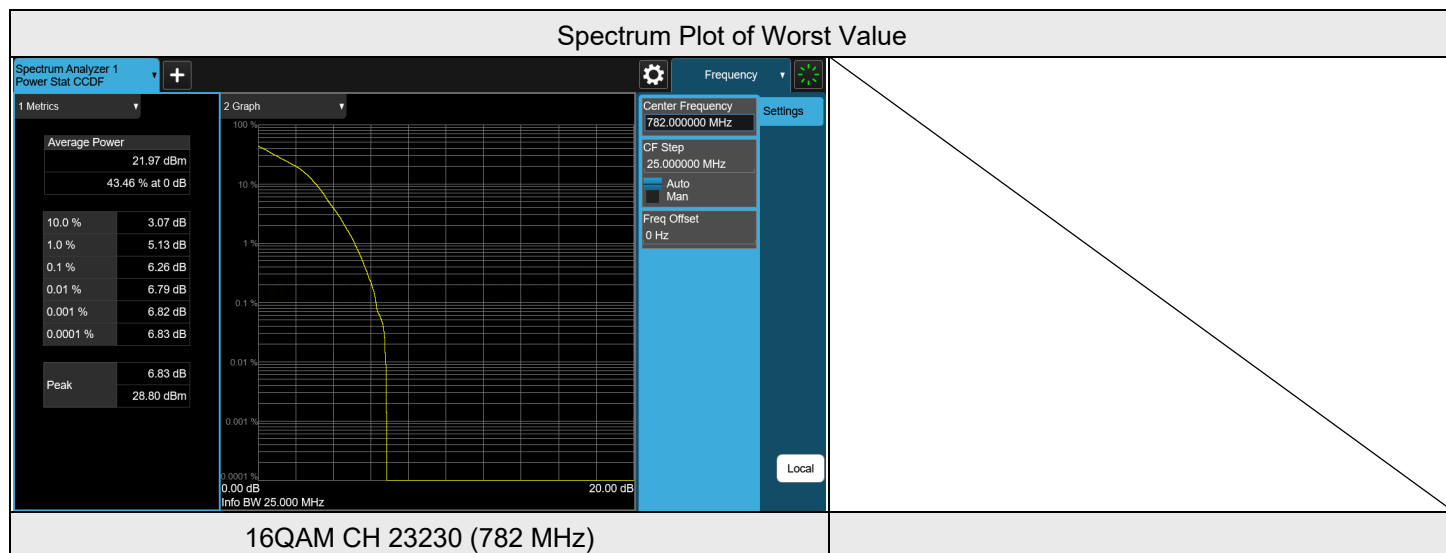
Cat-M1 Band 13, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23205	779.5	5.79	13	PASS
QPSK	23230	782	6.16	13	PASS
QPSK	23255	784.5	5.75	13	PASS
16QAM	23205	779.5	6.27	13	PASS
16QAM	23230	782	10.14	13	PASS
16QAM	23255	784.5	6.21	13	PASS



Cat-M1 Band 13, Channel Bandwidth: 10 MHz

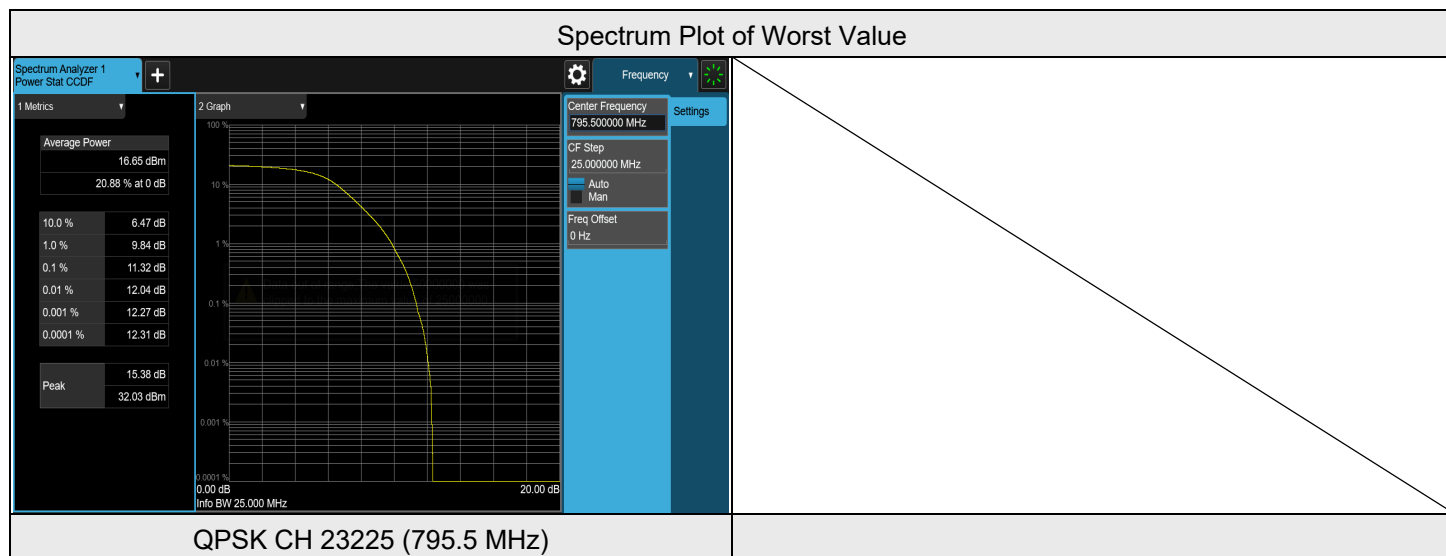
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23230	782	5.35	13	PASS
16QAM	23230	782	6.26	13	PASS



7.3.7 Cat-M1 Band 14

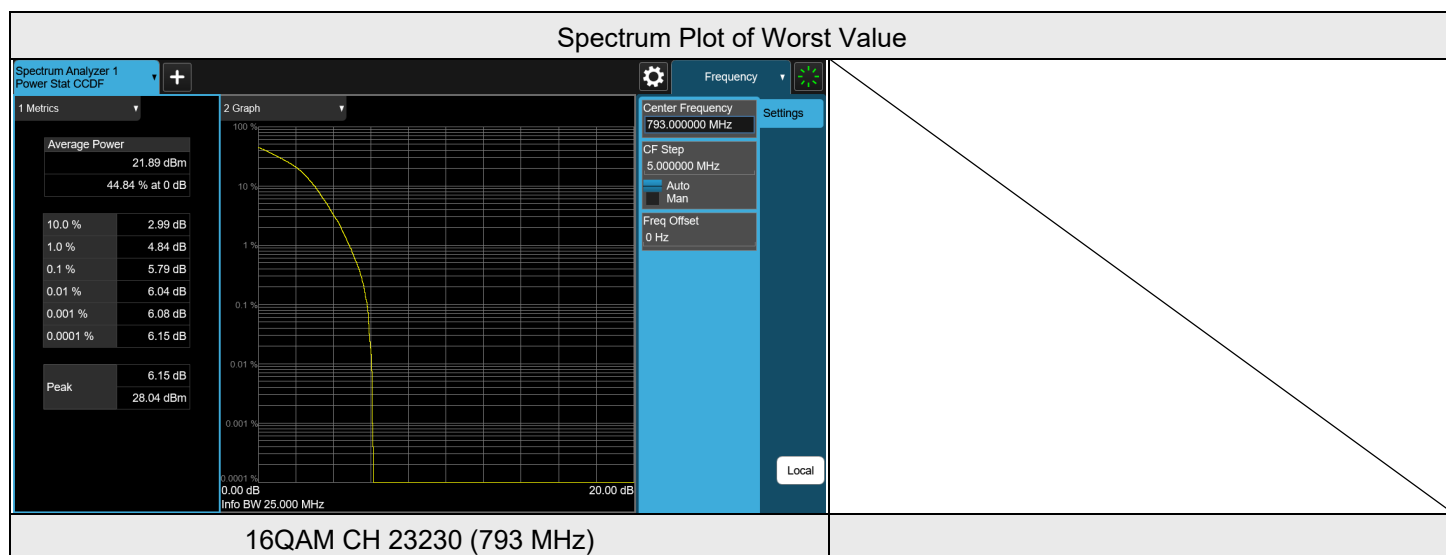
Cat-M1 Band 14, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23205	790.5	10.33	13	PASS
QPSK	23230	793	10.62	13	PASS
QPSK	23255	795.5	11.32	13	PASS
16QAM	23205	790.5	7.96	13	PASS
16QAM	23230	793	8.76	13	PASS
16QAM	23255	795.5	10.90	13	PASS



Cat-M1 Band 14, Channel Bandwidth: 10 MHz

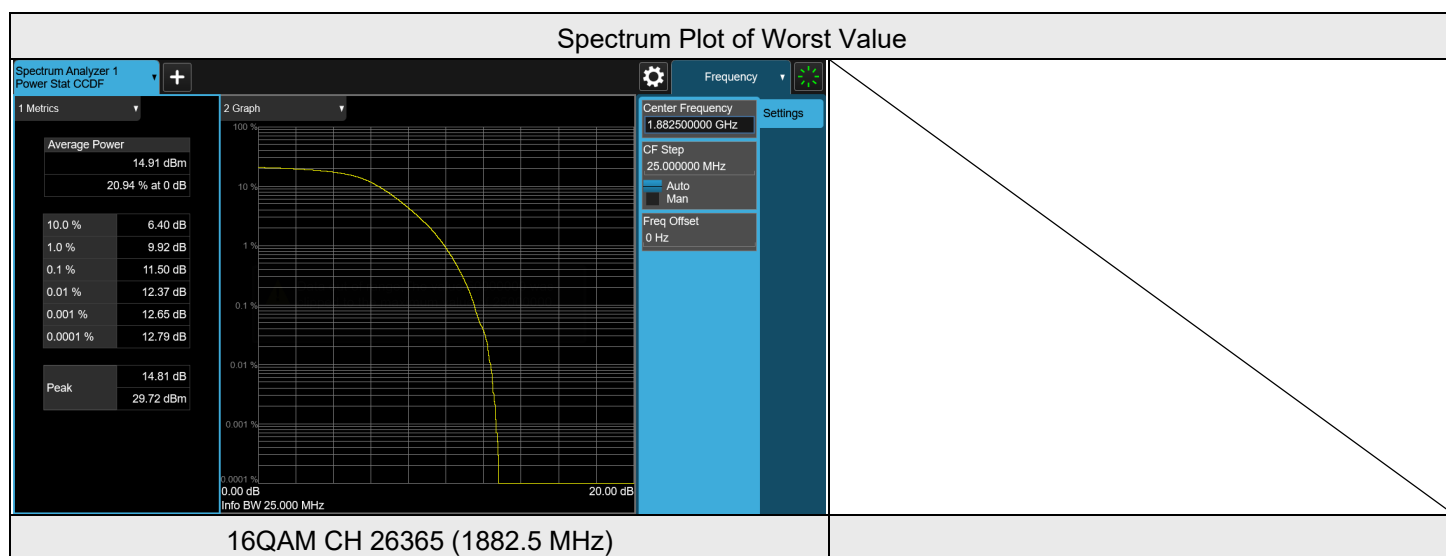
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	23230	793	5.21	13	PASS
16QAM	23230	793	5.79	13	PASS



7.3.8 Cat-M1 Band 25

Cat-M1 Band 25, Channel Bandwidth: 1.4 MHz

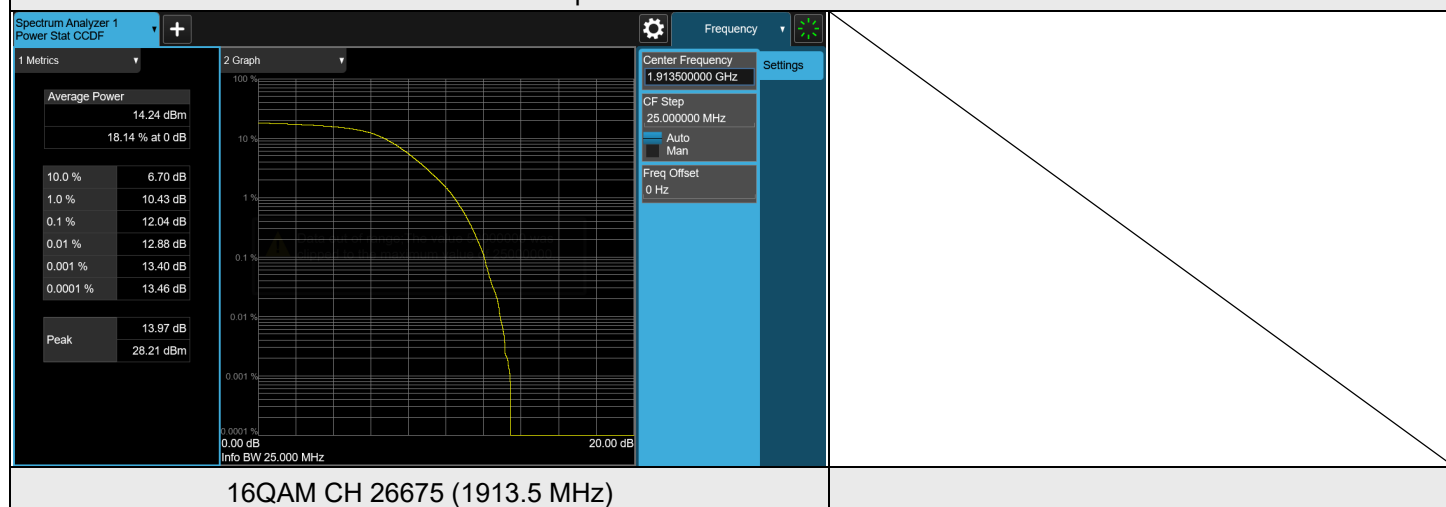
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26047	1850.7	9.92	13	PASS
QPSK	26365	1882.5	10.39	13	PASS
QPSK	26683	1914.3	9.79	13	PASS
16QAM	26047	1850.7	8.43	13	PASS
16QAM	26365	1882.5	11.50	13	PASS
16QAM	26683	1914.3	9.66	13	PASS



Cat-M1 Band 25, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26055	1851.5	9.25	13	PASS
QPSK	26365	1882.5	9.61	13	PASS
QPSK	26675	1913.5	5.79	13	PASS
16QAM	26055	1851.5	7.93	13	PASS
16QAM	26365	1882.5	11.07	13	PASS
16QAM	26675	1913.5	12.04	13	PASS

Spectrum Plot of Worst Value

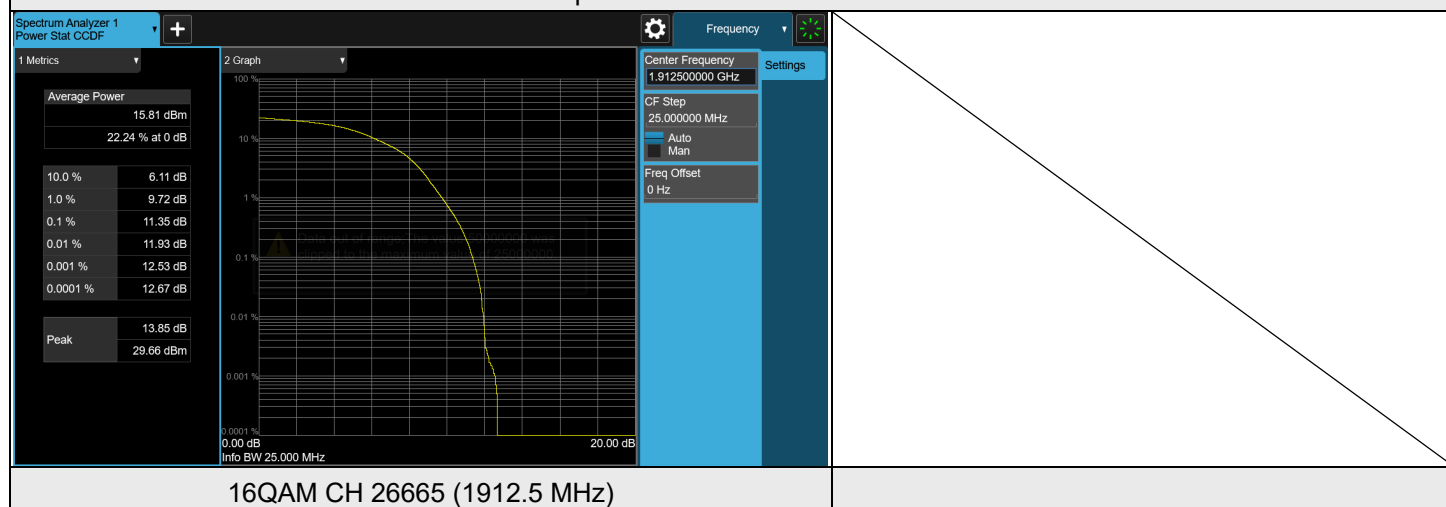


16QAM CH 26675 (1913.5 MHz)

Cat-M1 Band 25, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26065	1852.5	5.05	13	PASS
QPSK	26365	1882.5	10.23	13	PASS
QPSK	26665	1912.5	8.41	13	PASS
16QAM	26065	1852.5	10.75	13	PASS
16QAM	26365	1882.5	8.25	13	PASS
16QAM	26665	1912.5	11.35	13	PASS

Spectrum Plot of Worst Value

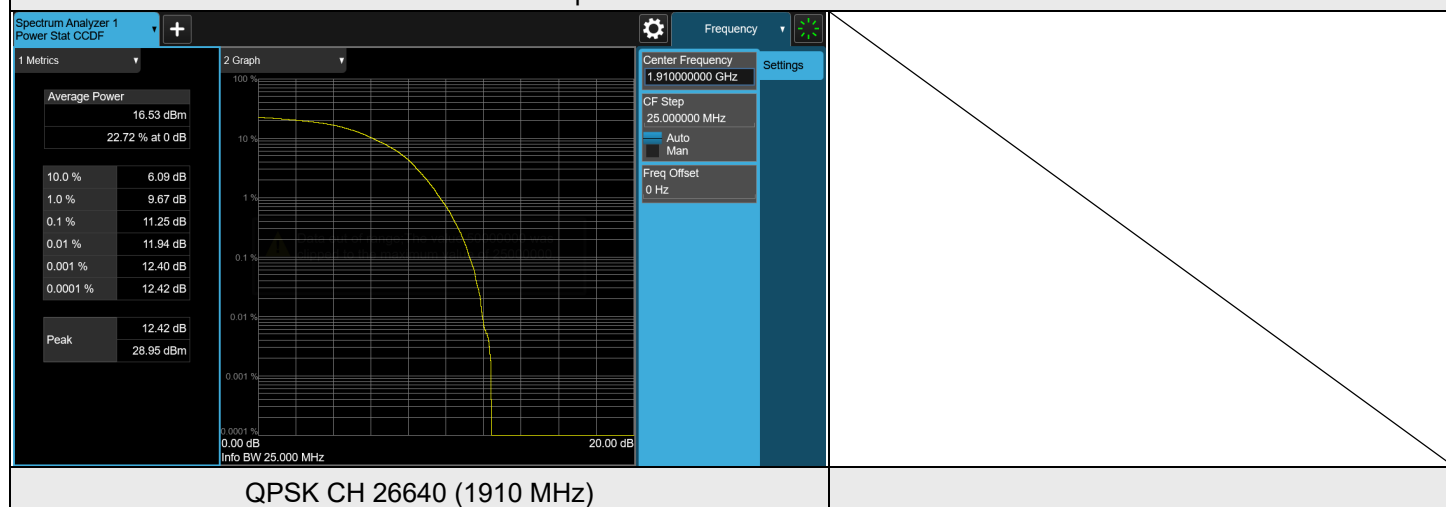


16QAM CH 26665 (1912.5 MHz)

Cat-M1 Band 25, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26090	1855	8.94	13	PASS
QPSK	26365	1882.5	7.65	13	PASS
QPSK	26640	1910	11.25	13	PASS
16QAM	26090	1855	5.79	13	PASS
16QAM	26365	1882.5	5.79	13	PASS
16QAM	26640	1910	10.90	13	PASS

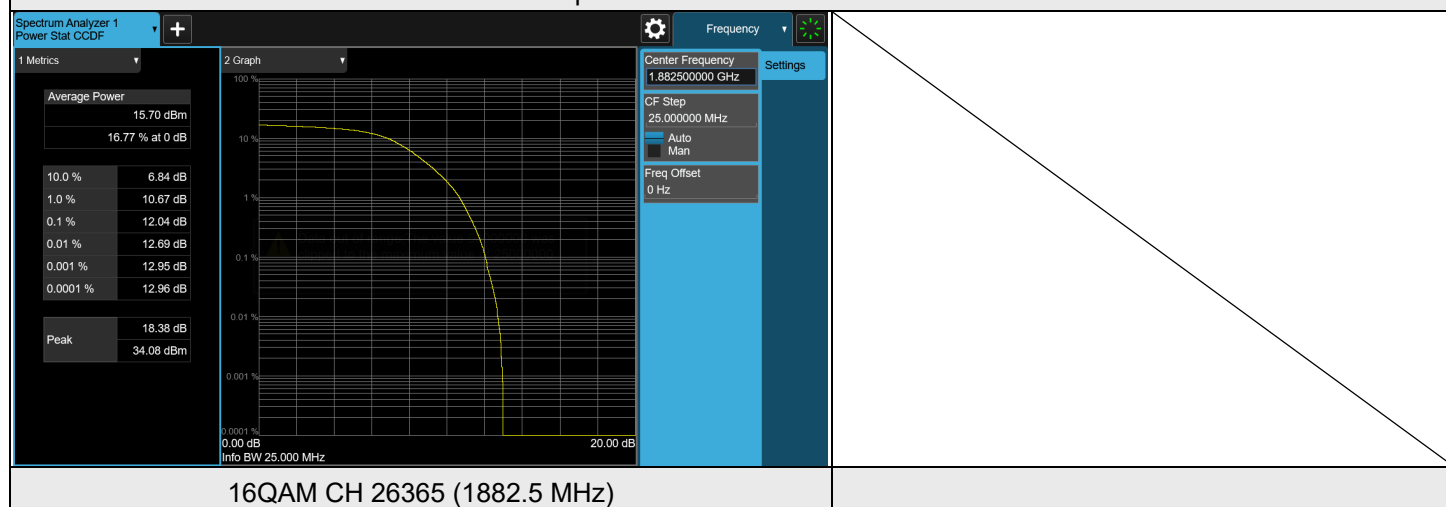
Spectrum Plot of Worst Value



Cat-M1 Band 25, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26115	1857.5	9.67	13	PASS
QPSK	26365	1882.5	11.12	13	PASS
QPSK	26615	1907.5	5.79	13	PASS
16QAM	26115	1857.5	8.43	13	PASS
16QAM	26365	1882.5	12.04	13	PASS
16QAM	26615	1907.5	10.40	13	PASS

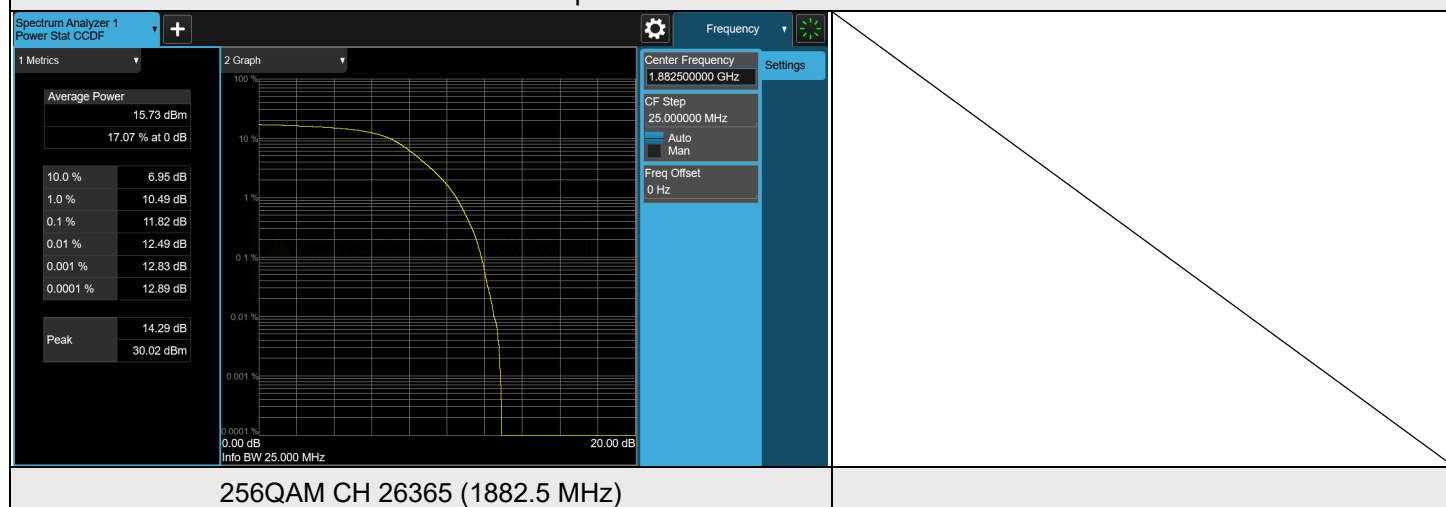
Spectrum Plot of Worst Value



Cat-M1 Band 25, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26140	1860	6.61	13	PASS
QPSK	26365	1882.5	11.12	13	PASS
QPSK	26590	1905	5.21	13	PASS
16QAM	26140	1860	5.30	13	PASS
16QAM	26365	1882.5	11.82	13	PASS
16QAM	26590	1905	10.34	13	PASS

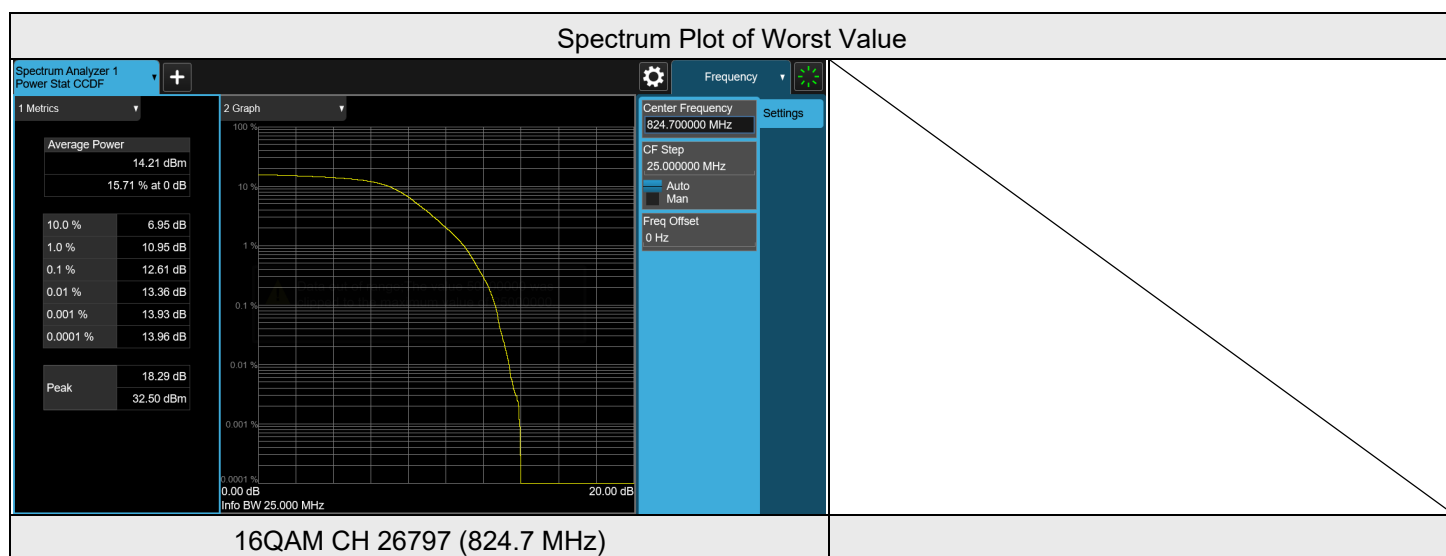
Spectrum Plot of Worst Value



7.3.9 Cat-M1 Band 26 (Part 22)

Cat-M1 Band 26, Channel Bandwidth: 1.4 MHz

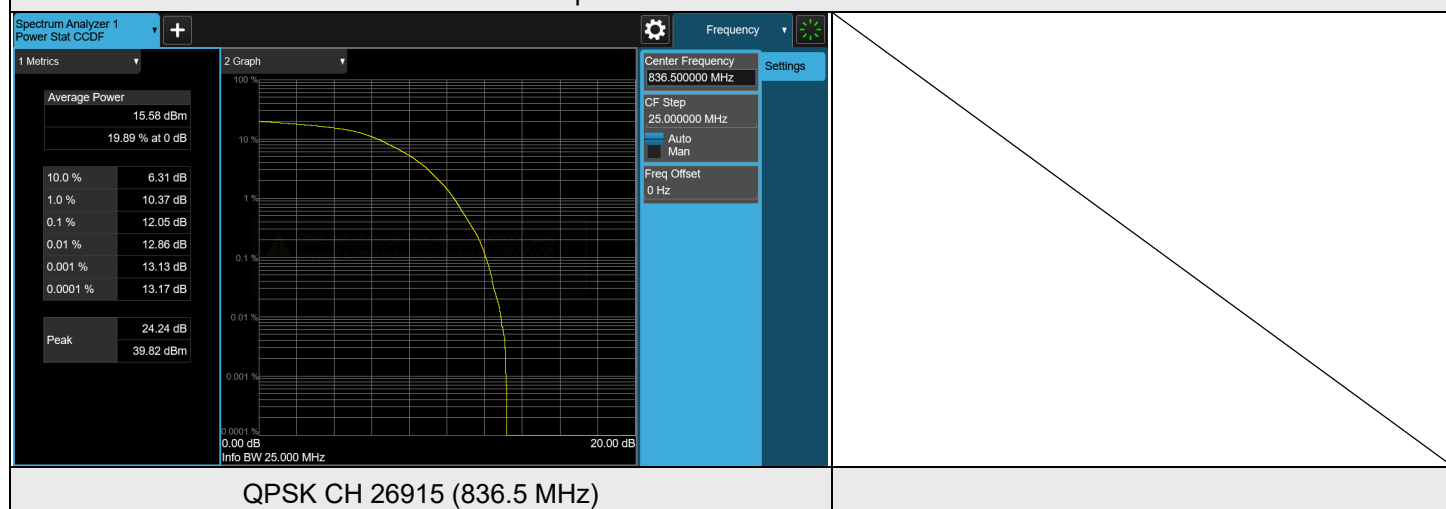
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26797	824.7	9.98	13	PASS
QPSK	26915	836.5	12.01	13	PASS
QPSK	27033	848.3	11.50	13	PASS
16QAM	26797	824.7	12.61	13	PASS
16QAM	26915	836.5	10.79	13	PASS
16QAM	27033	848.3	11.75	13	PASS



Cat-M1 Band 26, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26805	825.5	9.94	13	PASS
QPSK	26915	836.5	12.05	13	PASS
QPSK	27025	847.5	7.83	13	PASS
16QAM	26805	825.5	11.91	13	PASS
16QAM	26915	836.5	8.45	13	PASS
16QAM	27025	847.5	6.69	13	PASS

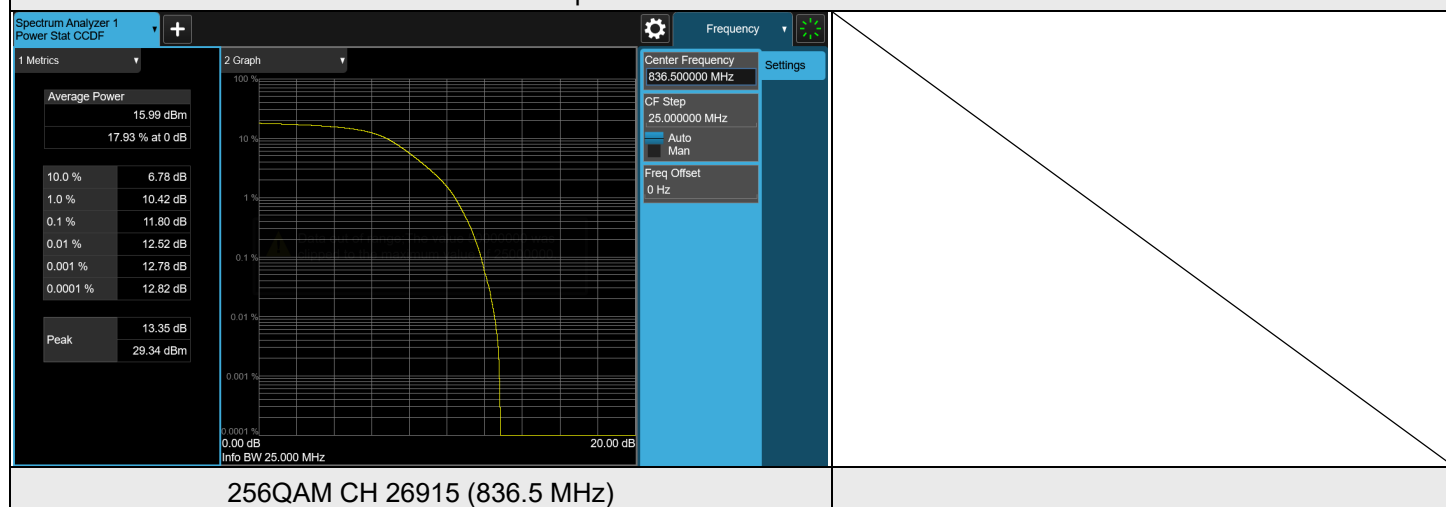
Spectrum Plot of Worst Value



Cat-M1 Band 26, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26815	826.5	7.81	13	PASS
QPSK	26915	836.5	11.80	13	PASS
QPSK	27015	846.5	10.99	13	PASS
16QAM	26815	826.5	10.91	13	PASS
16QAM	26915	836.5	9.93	13	PASS
16QAM	27015	846.5	5.10	13	PASS

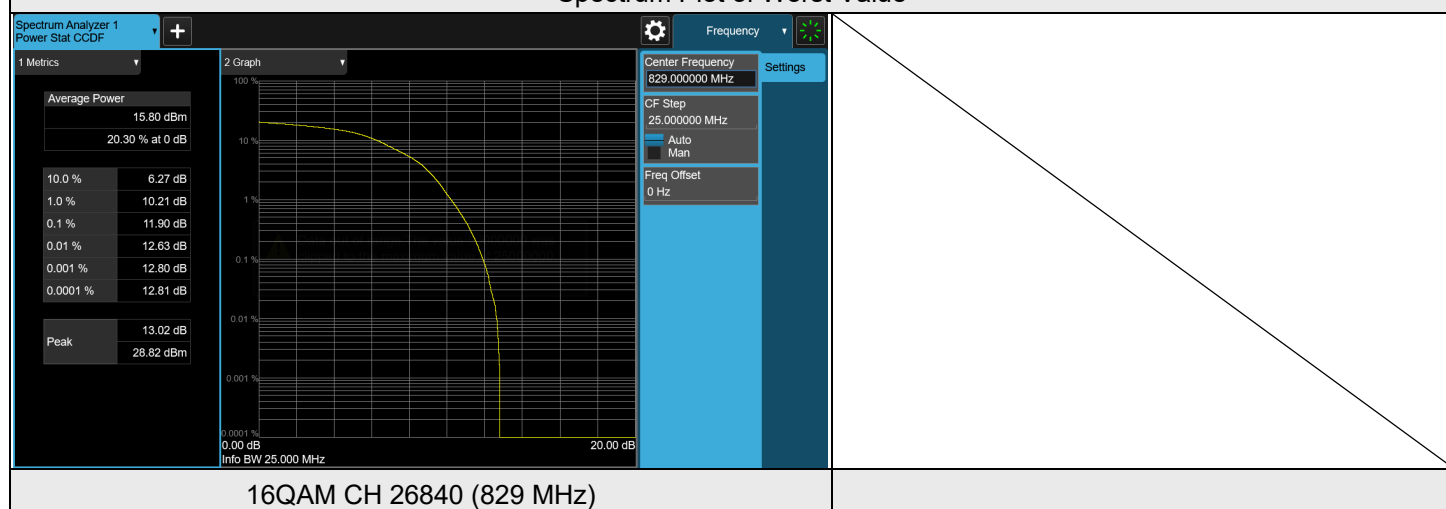
Spectrum Plot of Worst Value



Cat-M1 Band 26, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26840	829	8.52	13	PASS
QPSK	26915	836.5	9.34	13	PASS
QPSK	26990	844	11.57	13	PASS
16QAM	26840	829	11.90	13	PASS
16QAM	26915	836.5	9.66	13	PASS
16QAM	26990	844	7.98	13	PASS

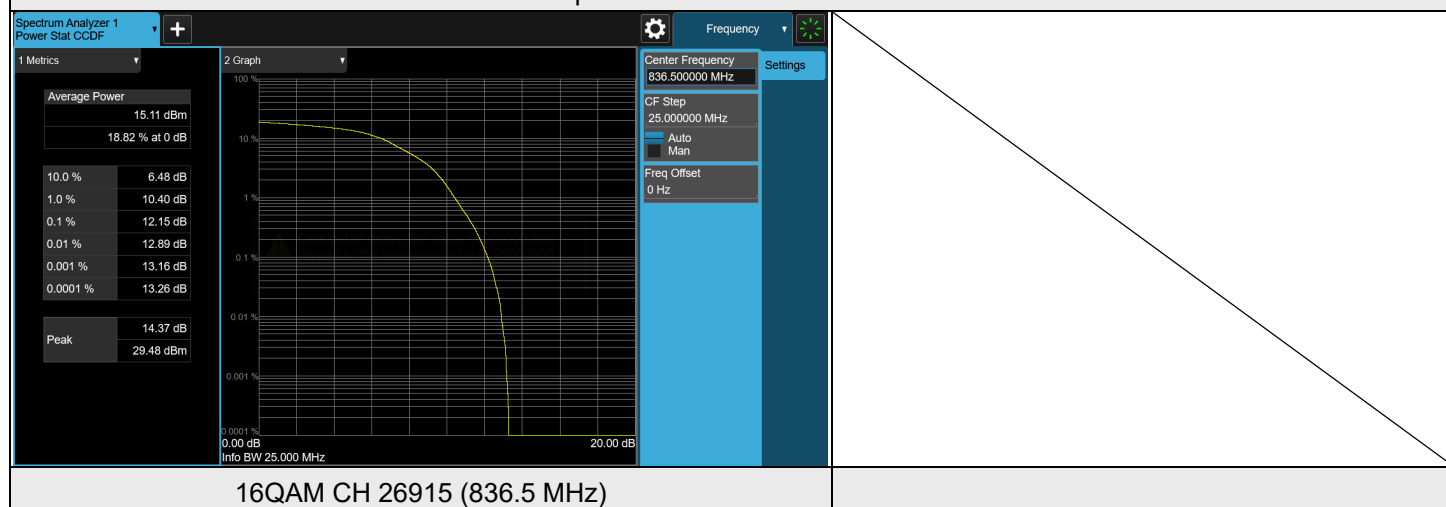
Spectrum Plot of Worst Value



Cat-M1 Band 26, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	26865	831.5	5.65	13	PASS
QPSK	26915	836.5	11.61	13	PASS
QPSK	26965	841.5	10.10	13	PASS
16QAM	26865	831.5	10.71	13	PASS
16QAM	26915	836.5	12.15	13	PASS
16QAM	26965	841.5	10.96	13	PASS

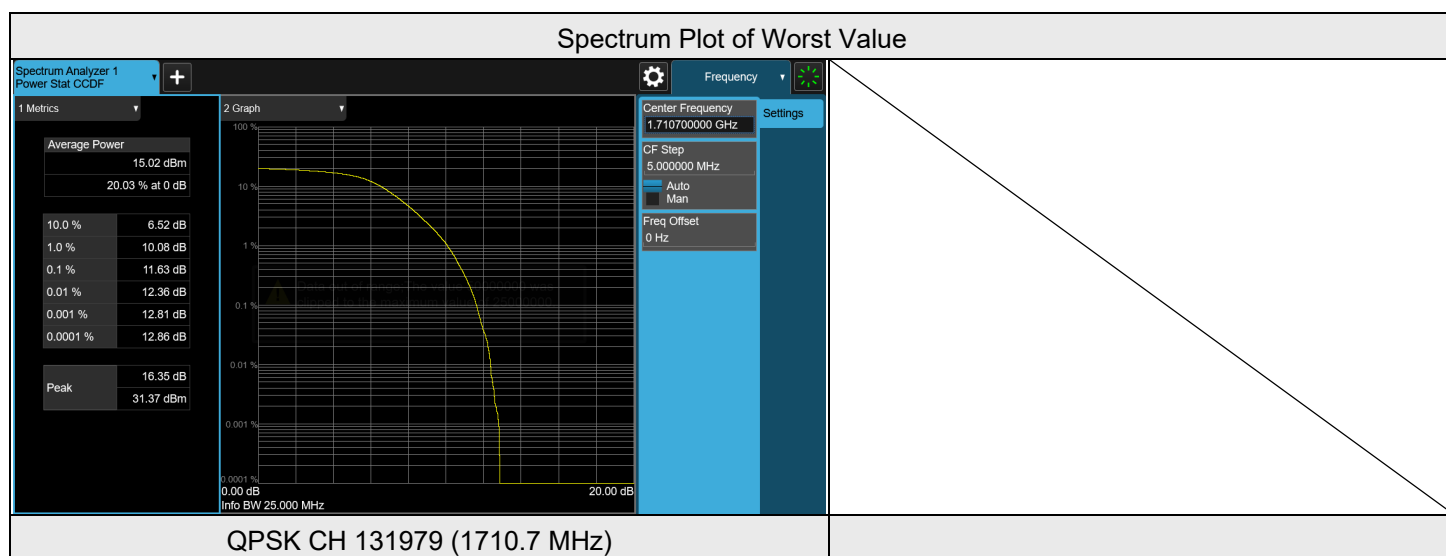
Spectrum Plot of Worst Value



7.3.10 Cat-M1 Band 66

Cat-M1 Band 66, Channel Bandwidth: 1.4 MHz

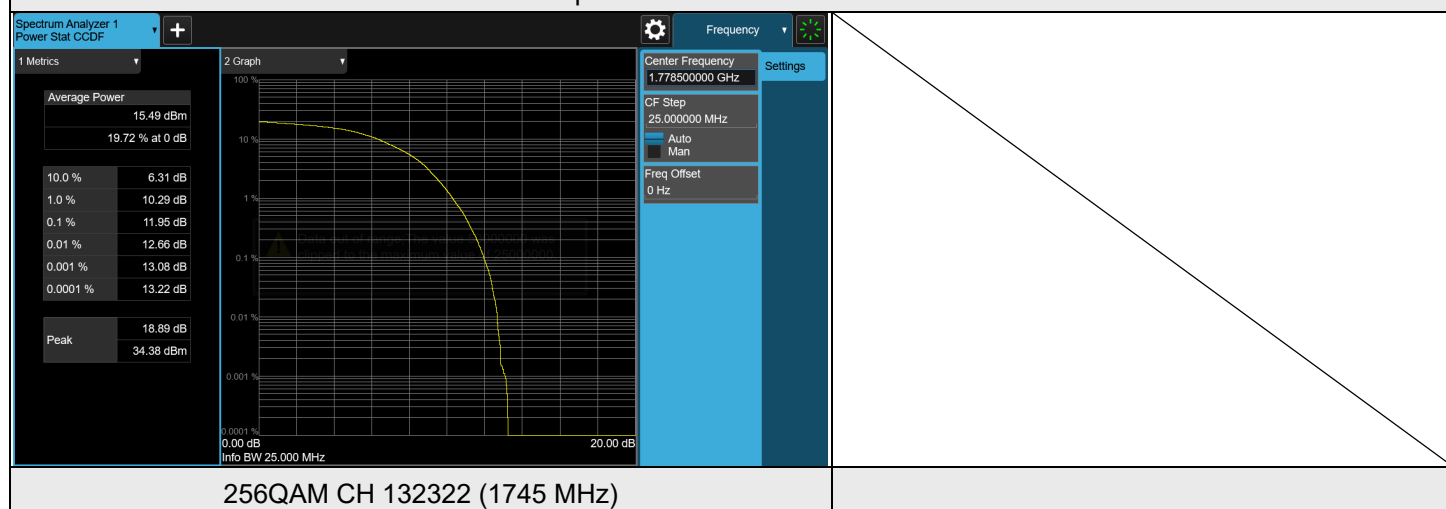
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	131979	1710.7	11.63	13	PASS
QPSK	132322	1745	10.65	13	PASS
QPSK	132665	1779.3	11.70	13	PASS
16QAM	131979	1710.7	10.89	13	PASS
16QAM	132322	1745	9.35	13	PASS
16QAM	132665	1779.3	11.54	13	PASS



Cat-M1 Band 66, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	131987	1711.5	11.65	13	PASS
QPSK	132322	1745	11.56	13	PASS
QPSK	132657	1778.5	11.83	13	PASS
16QAM	131987	1711.5	9.31	13	PASS
16QAM	132322	1745	9.35	13	PASS
16QAM	132657	1778.5	11.95	13	PASS

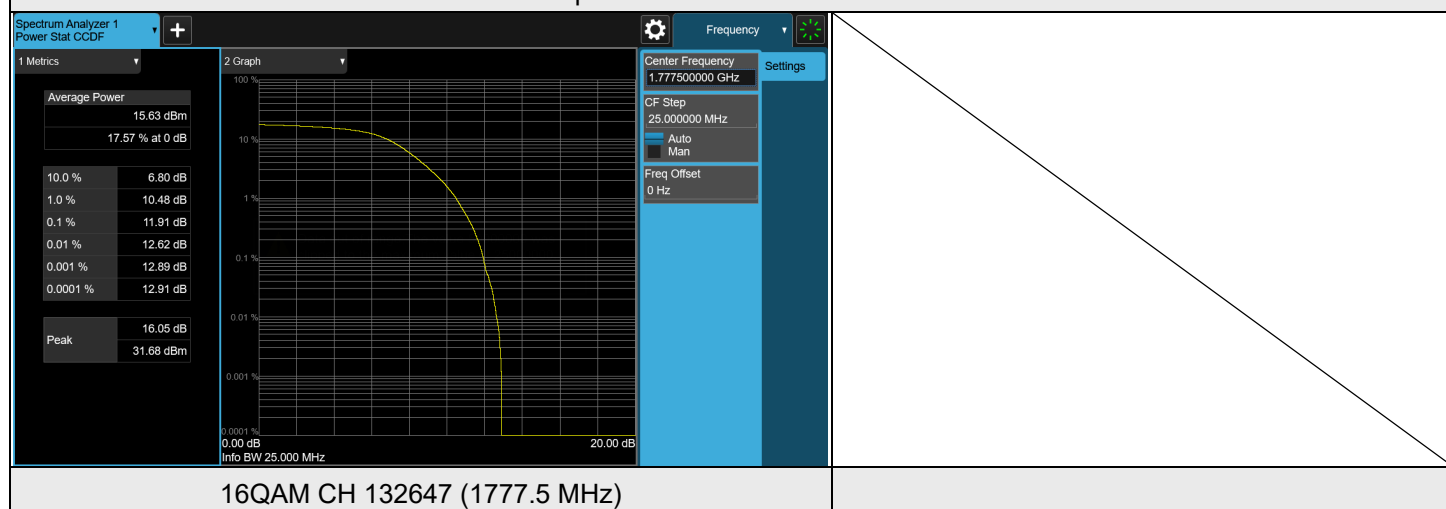
Spectrum Plot of Worst Value



Cat-M1 Band 66, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	131997	1712.5	8.46	13	PASS
QPSK	132322	1745	8.28	13	PASS
QPSK	132647	1777.5	10.22	13	PASS
16QAM	131997	1712.5	9.03	13	PASS
16QAM	132322	1745	5.19	13	PASS
16QAM	132647	1777.5	11.91	13	PASS

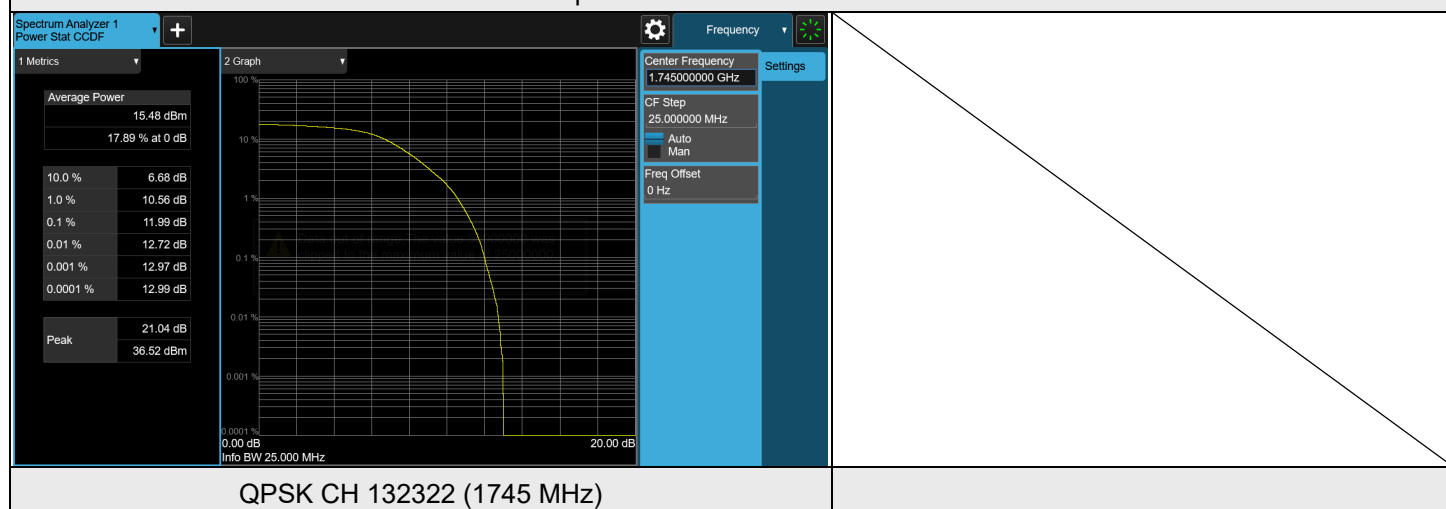
Spectrum Plot of Worst Value



Cat-M1 Band 66, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	132022	1715	11.77	13	PASS
QPSK	132322	1745	11.99	13	PASS
QPSK	132622	1775	9.74	13	PASS
16QAM	132022	1715	9.99	13	PASS
16QAM	132322	1745	9.35	13	PASS
16QAM	132622	1775	9.44	13	PASS

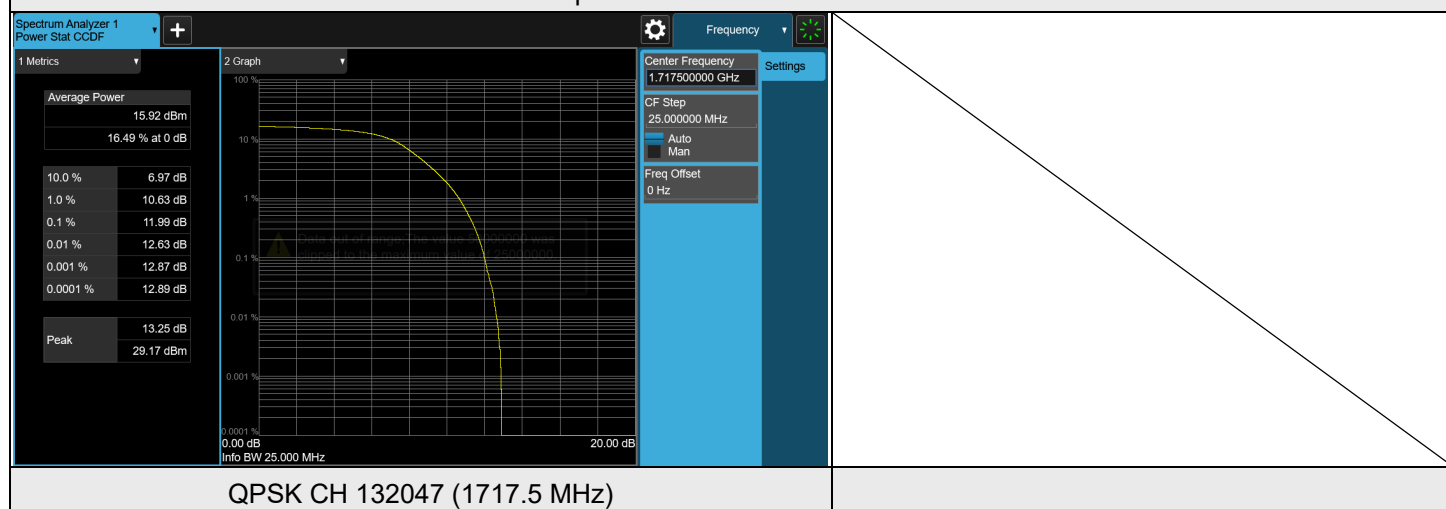
Spectrum Plot of Worst Value



Cat-M1 Band 66, Channel Bandwidth: 15 MHz

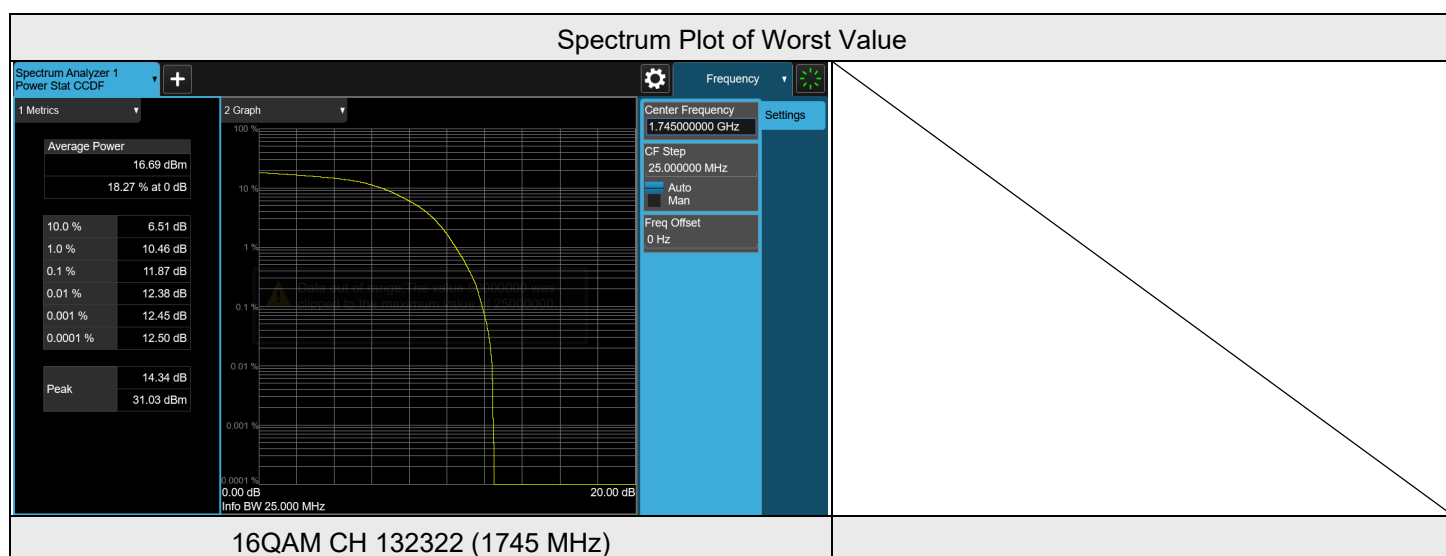
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	132047	1717.5	11.99	13	PASS
QPSK	132322	1745	10.28	13	PASS
QPSK	132597	1772.5	11.98	13	PASS
16QAM	132047	1717.5	9.84	13	PASS
16QAM	132322	1745	11.19	13	PASS
16QAM	132597	1772.5	8.68	13	PASS

Spectrum Plot of Worst Value



Cat-M1 Band 66, Channel Bandwidth: 20 MHz

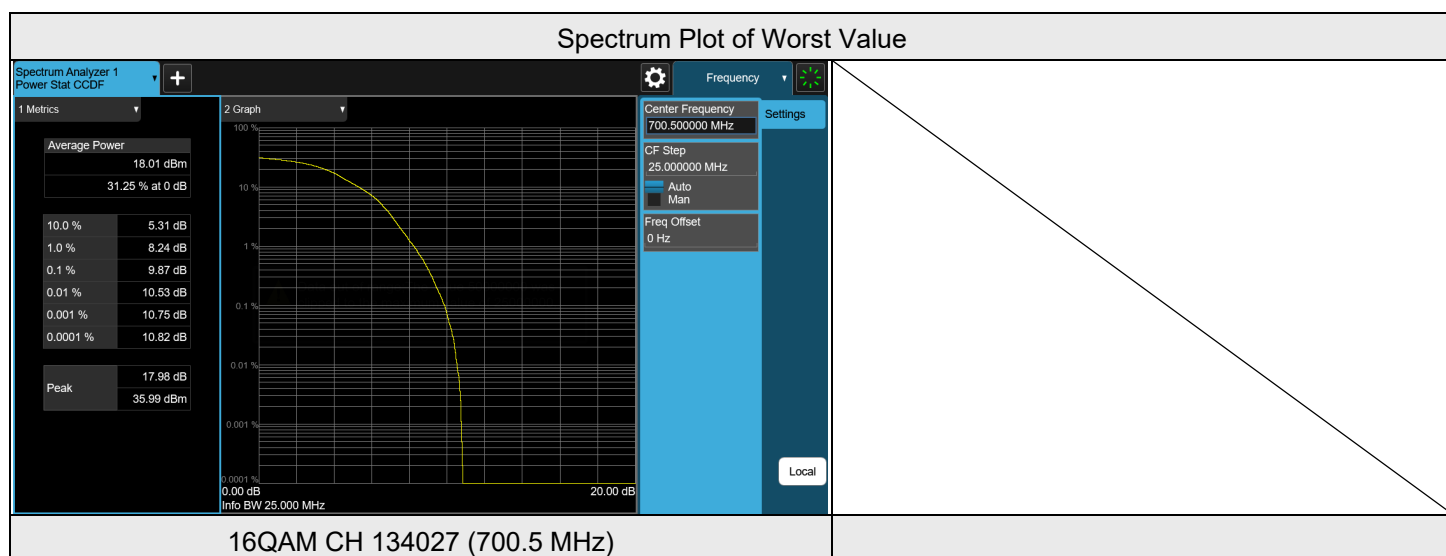
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	132072	1720	11.66	13	PASS
QPSK	132322	1745	8.93	13	PASS
QPSK	132572	1770	5.13	13	PASS
16QAM	132072	1720	8.42	13	PASS
16QAM	132322	1745	11.87	13	PASS
16QAM	132572	1770	7.88	13	PASS



7.3.11 Cat-M1 Band 85

Cat-M1 Band 85, Channel Bandwidth: 5 MHz

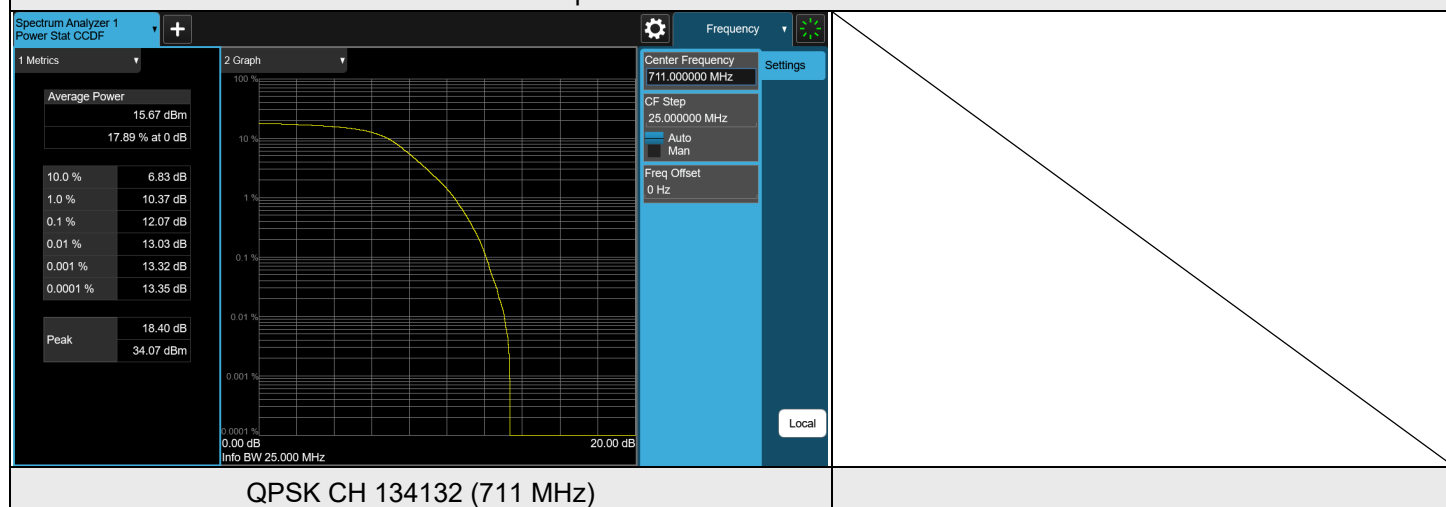
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	134027	700.5	8.35	13	PASS
QPSK	134092	707	9.18	13	PASS
QPSK	134157	713.5	9.72	13	PASS
16QAM	134027	700.5	9.87	13	PASS
16QAM	134092	707	5.18	13	PASS
16QAM	134157	713.5	5.14	13	PASS



Cat-M1 Band 85, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
QPSK	134052	703	8.51	13	PASS
QPSK	134092	707	10.30	13	PASS
QPSK	134132	711	12.07	13	PASS
16QAM	132022	703	11.60	13	PASS
16QAM	132322	707	9.89	13	PASS
16QAM	132622	711	11.68	13	PASS

Spectrum Plot of Worst Value



7.4 Bandwidth

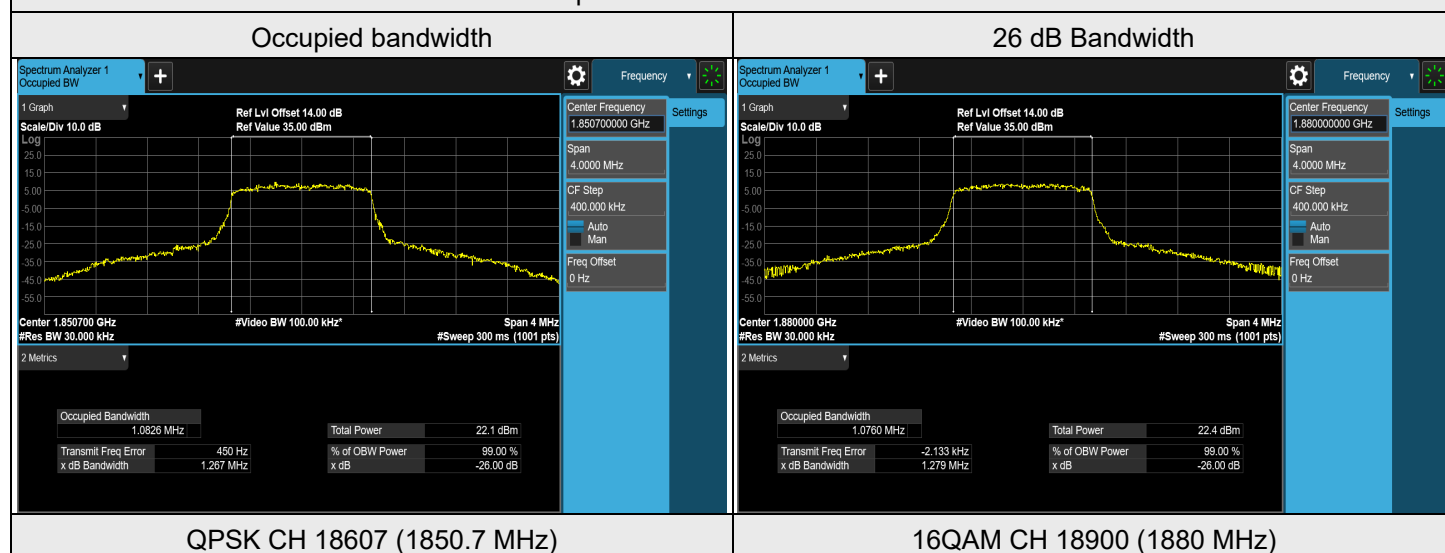
Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 75% RH	Tested By:	Match Tsui
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7.4.1 Cat-M1 Band 2

Cat-M1 Band 2, Channel Bandwidth: 1.4 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	18607	1850.7	1.0826	1.267
QPSK	18900	1880	1.0818	1.263
QPSK	19193	1909.3	1.0800	1.266
16QAM	18607	1850.7	1.0773	1.269
16QAM	18900	1880	1.0760	1.279
16QAM	19193	1909.3	1.0763	1.265

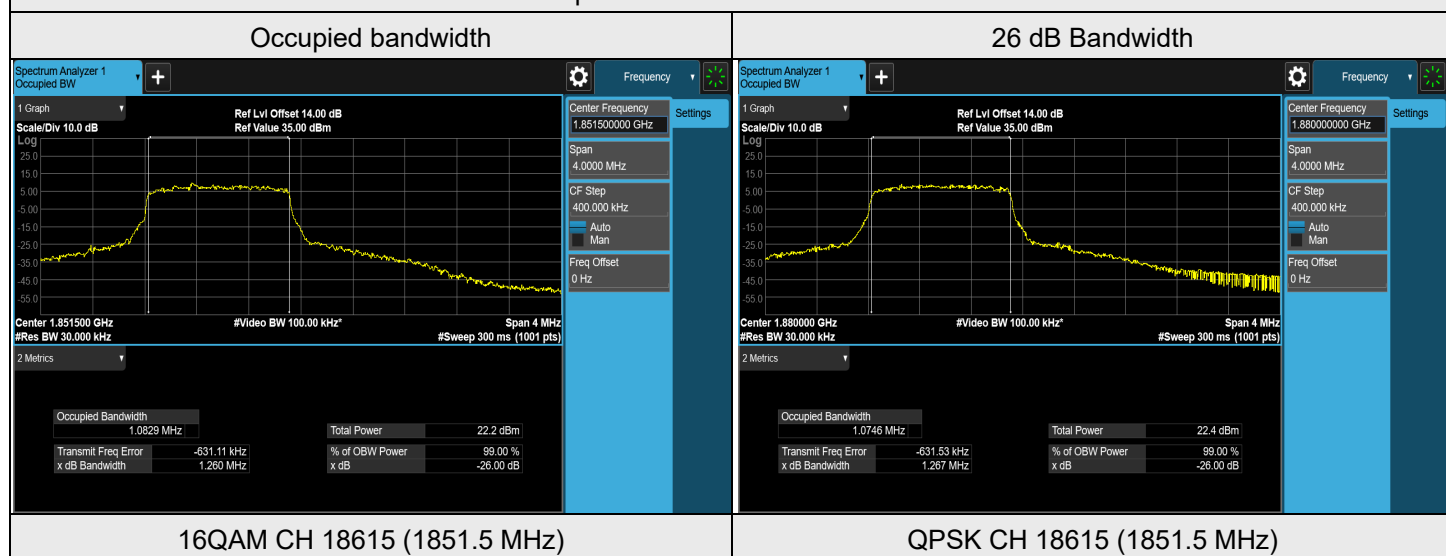
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	18615	1851.5	1.0750	1.265
QPSK	18900	1880	1.0746	1.267
QPSK	19185	1908.5	1.0737	1.265
16QAM	18615	1851.5	1.0829	1.260
16QAM	18900	1880	1.0810	1.258
16QAM	19185	1908.5	1.0806	1.262

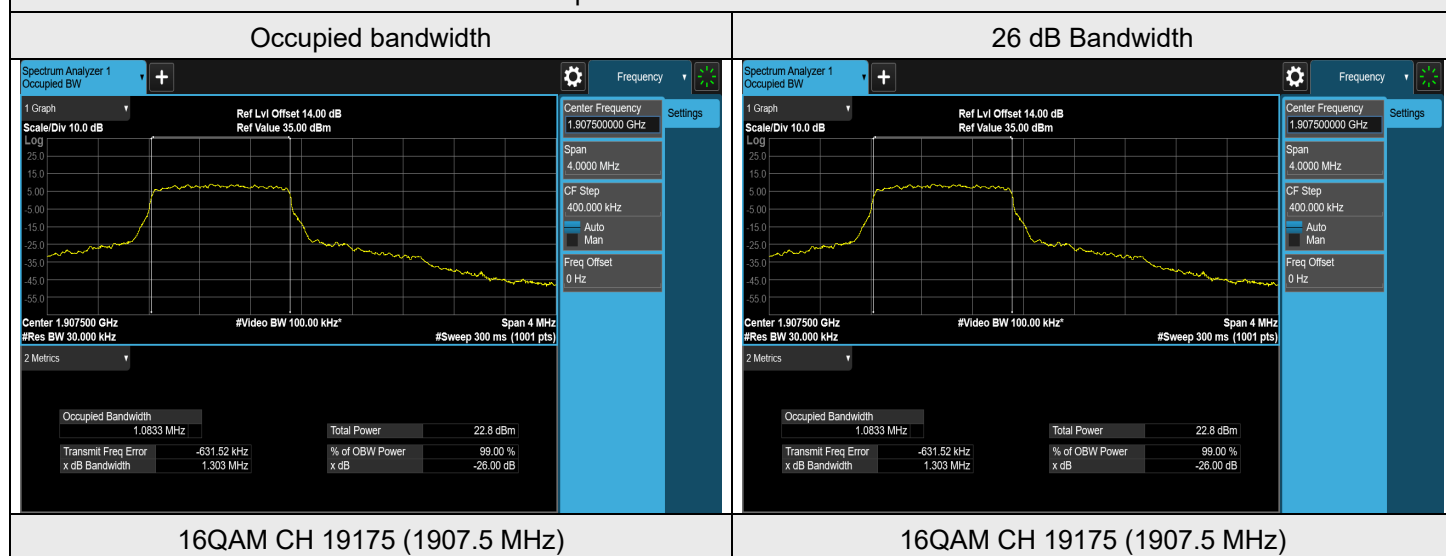
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	18625	1852.5	1.0822	1.270
QPSK	18900	1880	1.0816	1.255
QPSK	19175	1907.5	1.0796	1.263
16QAM	18625	1852.5	1.0799	1.293
16QAM	18900	1880	1.0815	1.286
16QAM	19175	1907.5	1.0833	1.303

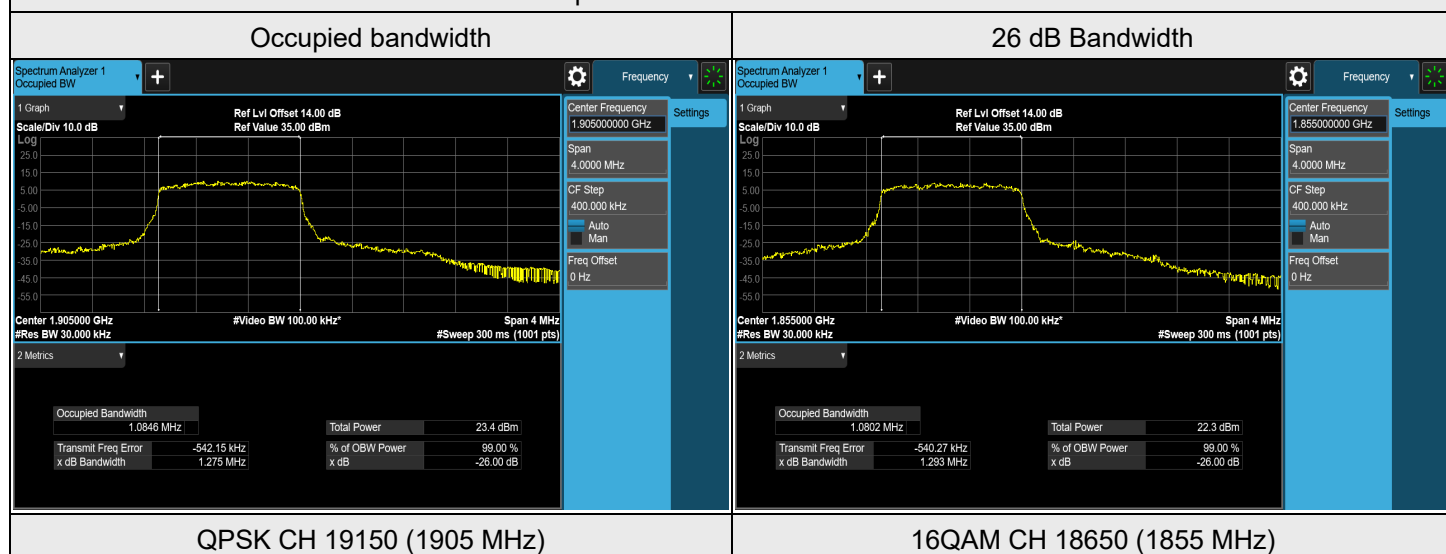
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	18650	1855	1.0823	1.271
QPSK	18900	1880	1.0829	1.268
QPSK	19150	1905	1.0846	1.275
16QAM	18650	1855	1.0802	1.293
16QAM	18900	1880	1.0813	1.286
16QAM	19150	1905	1.0813	1.290

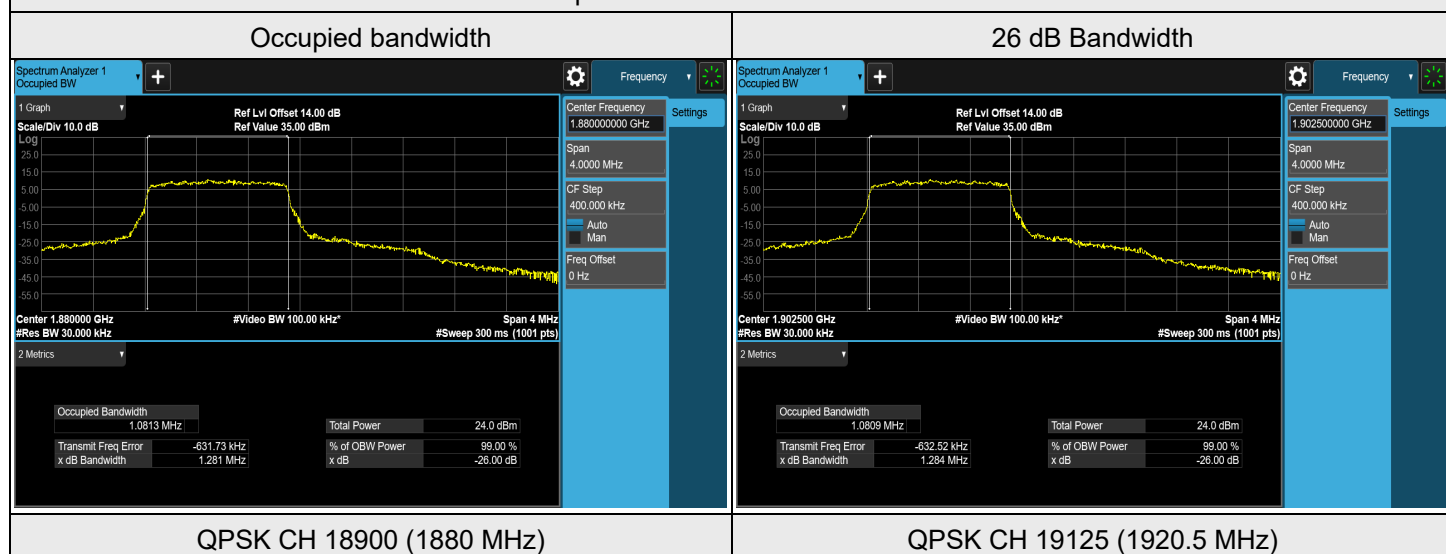
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	18675	1857.5	1.0810	1.282
QPSK	18900	1880	1.0813	1.281
QPSK	19125	1902.5	1.0809	1.284
16QAM	18675	1857.5	1.0809	1.256
16QAM	18900	1880	1.0798	1.268
16QAM	19125	1902.5	1.0810	1.266

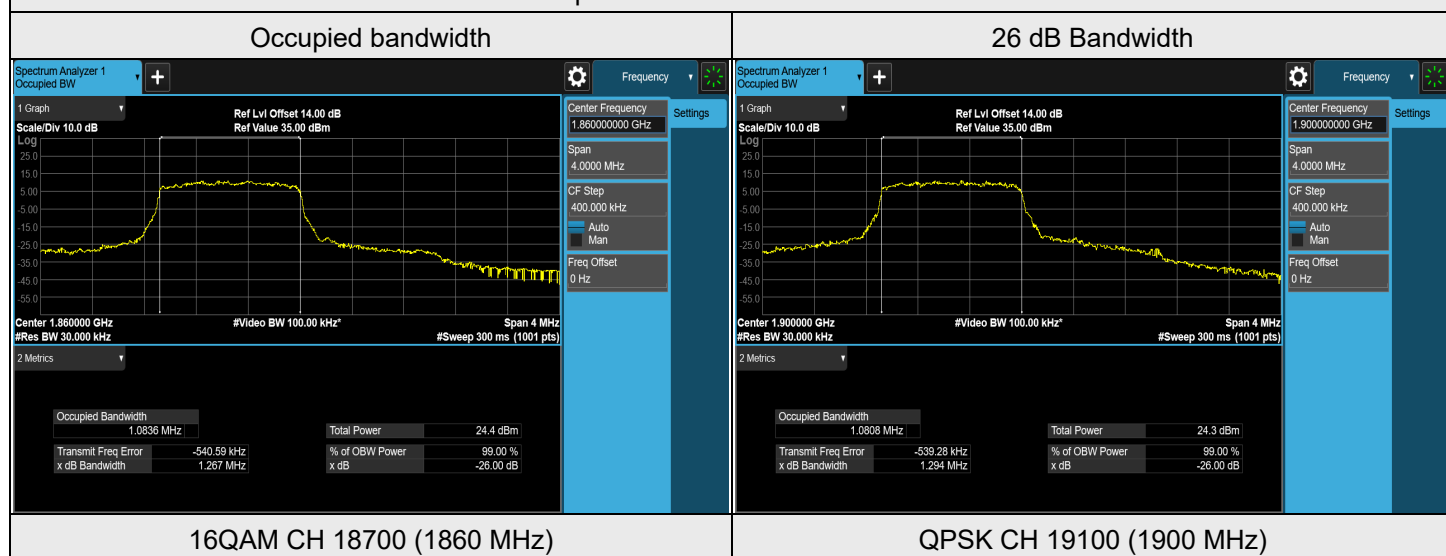
Spectrum Plot of Worst Value



Cat-M1 Band 2, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	18700	1860	1.0810	1.289
QPSK	18900	1880	1.0832	1.268
QPSK	19100	1900	1.0808	1.294
16QAM	18700	1860	1.0836	1.267
16QAM	18900	1880	1.0817	1.289
16QAM	19100	1900	1.0832	1.266

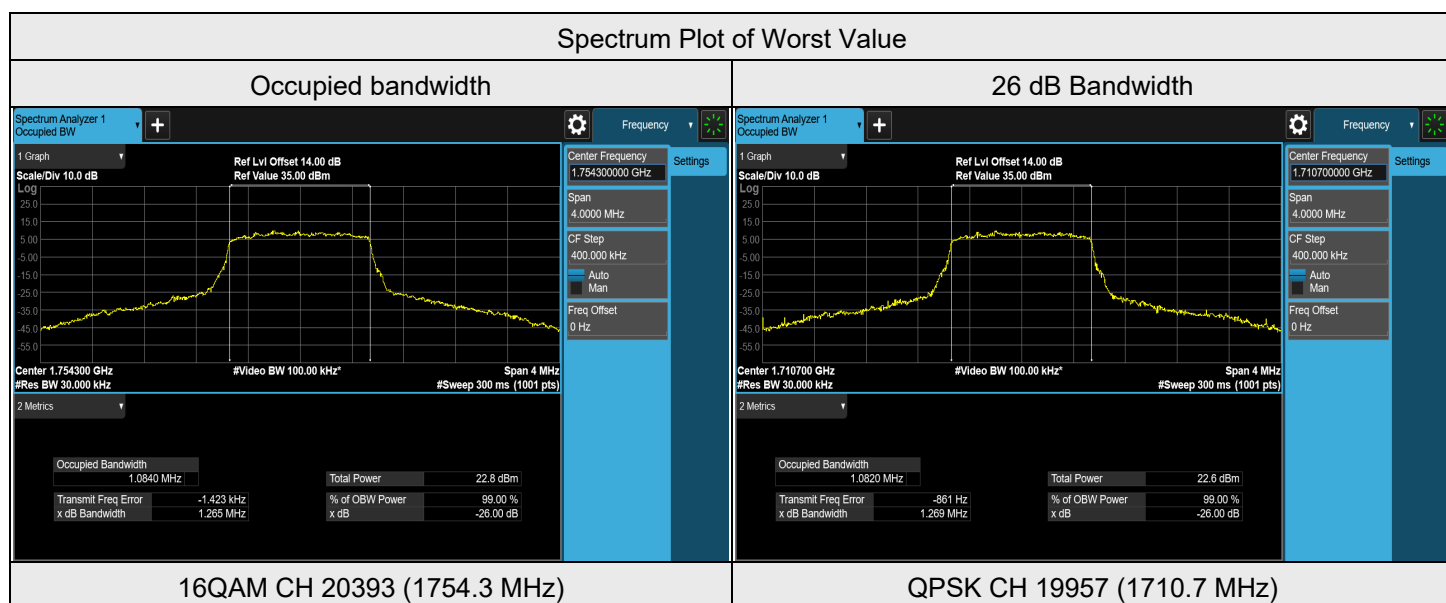
Spectrum Plot of Worst Value



7.4.2 Cat-M1 Band 4

Cat-M1 Band 4, Channel Bandwidth: 1.4 MHz

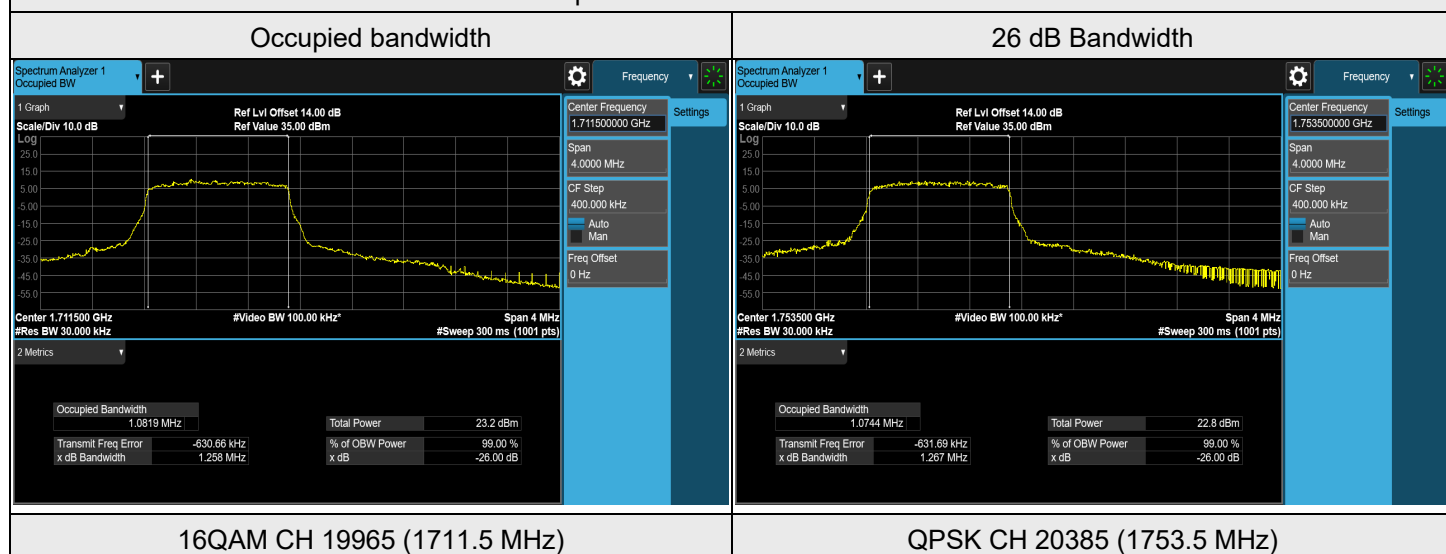
Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	19957	1710.7	1.0820	1.269
QPSK	20175	1732.5	1.0765	1.268
QPSK	20393	1754.3	1.0757	1.262
16QAM	19957	1710.7	1.0743	1.269
16QAM	20175	1732.5	1.0820	1.266
16QAM	20393	1754.3	1.0840	1.265



Cat-M1 Band 4, Channel Bandwidth: 3 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	19965	1711.5	1.0746	1.263
QPSK	20175	1732.5	1.0726	1.257
QPSK	20385	1753.5	1.0744	1.267
16QAM	19965	1711.5	1.0819	1.258
16QAM	20175	1732.5	1.0808	1.258
16QAM	20385	1753.5	1.0819	1.260

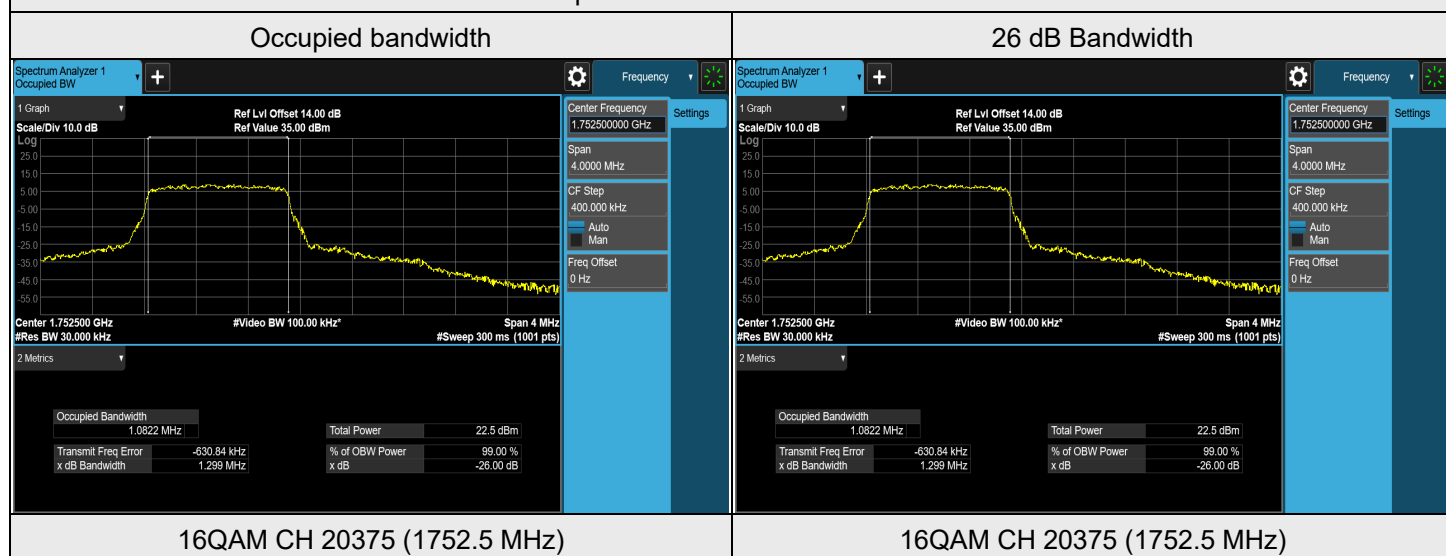
Spectrum Plot of Worst Value



Cat-M1 Band 4, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	19975	1712.5	1.0789	1.251
QPSK	20175	1732.5	1.0782	1.248
QPSK	20375	1752.5	1.0806	1.254
16QAM	19975	1712.5	1.0801	1.281
16QAM	20175	1732.5	1.0797	1.274
16QAM	20375	1752.5	1.0822	1.299

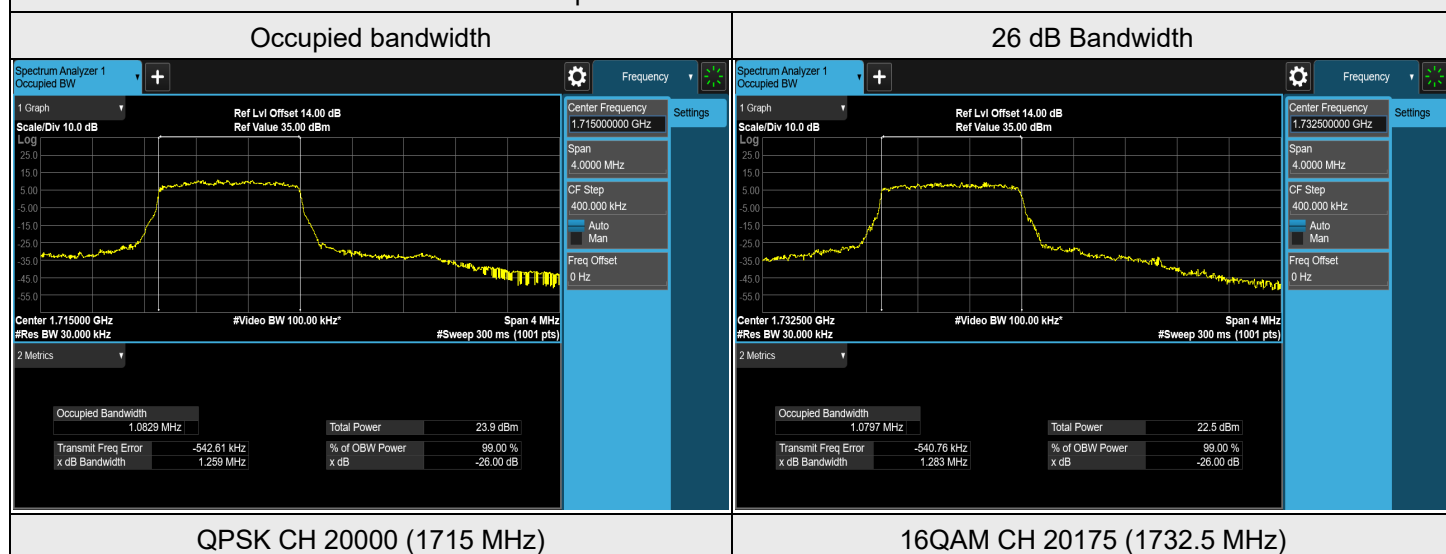
Spectrum Plot of Worst Value



Cat-M1 Band 4, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	20000	1715	1.0829	1.259
QPSK	20175	1732.5	1.0817	1.260
QPSK	20350	1750	1.0826	1.266
16QAM	20000	1715	1.0788	1.280
16QAM	20175	1732.5	1.0797	1.283
16QAM	20350	1750	1.0793	1.279

Spectrum Plot of Worst Value



Cat-M1 Band 4, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	20025	1717.5	1.0794	1.252
QPSK	20175	1732.5	1.0835	1.291
QPSK	20325	1747.5	1.0794	1.283
16QAM	20025	1717.5	1.0810	1.280
16QAM	20175	1732.5	1.0797	1.278
16QAM	20325	1747.5	1.0785	1.255

Spectrum Plot of Worst Value

