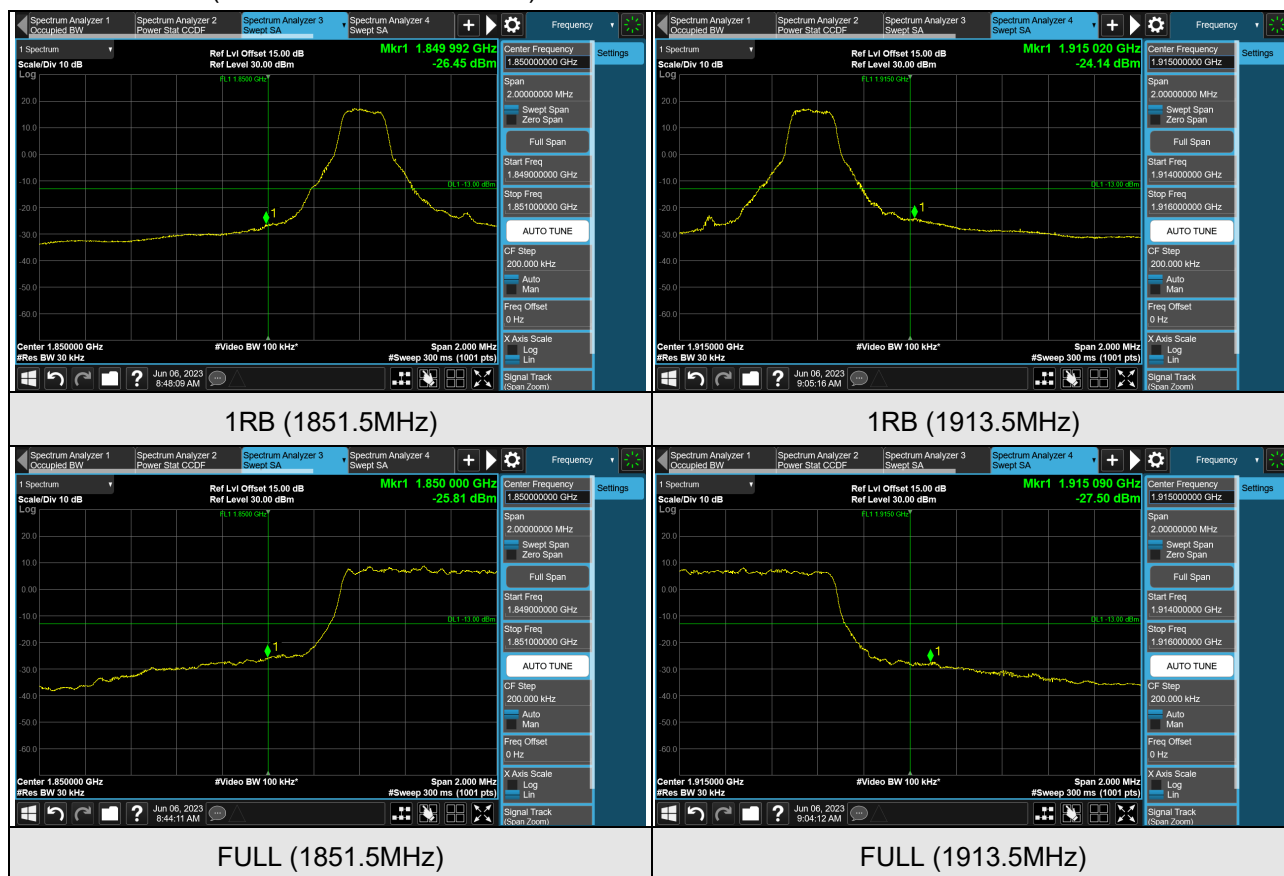
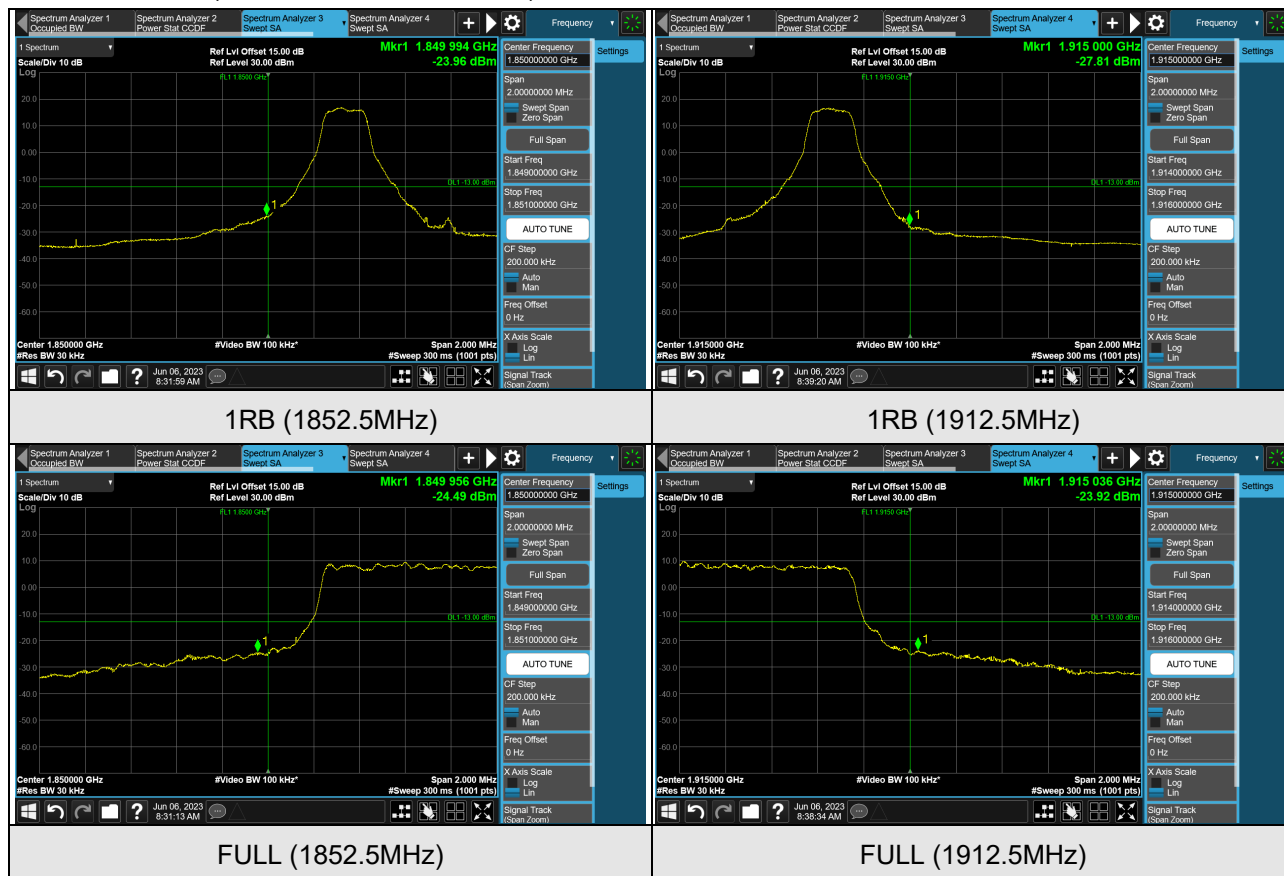


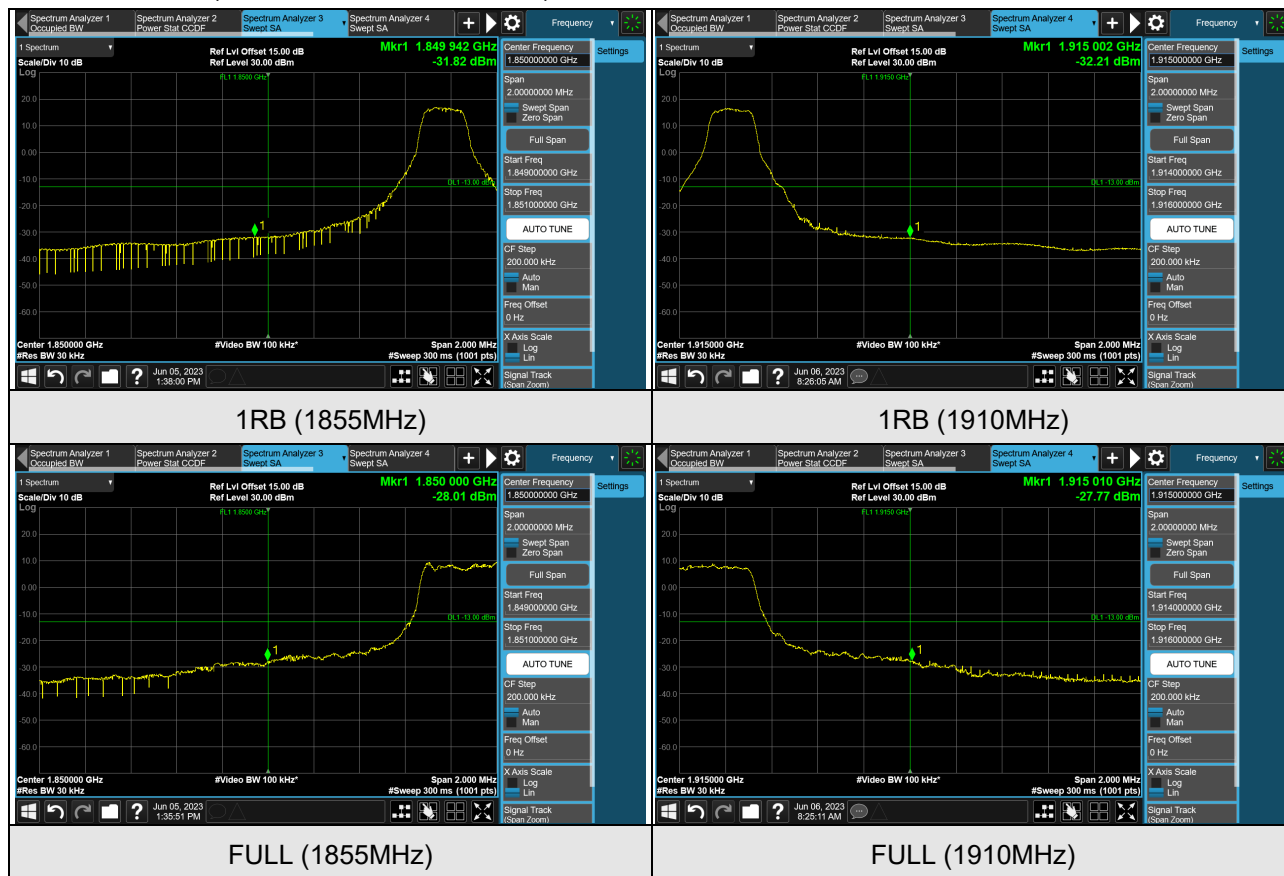
Cat-M1 Band 25 (Channel Bandwidth 3MHz)



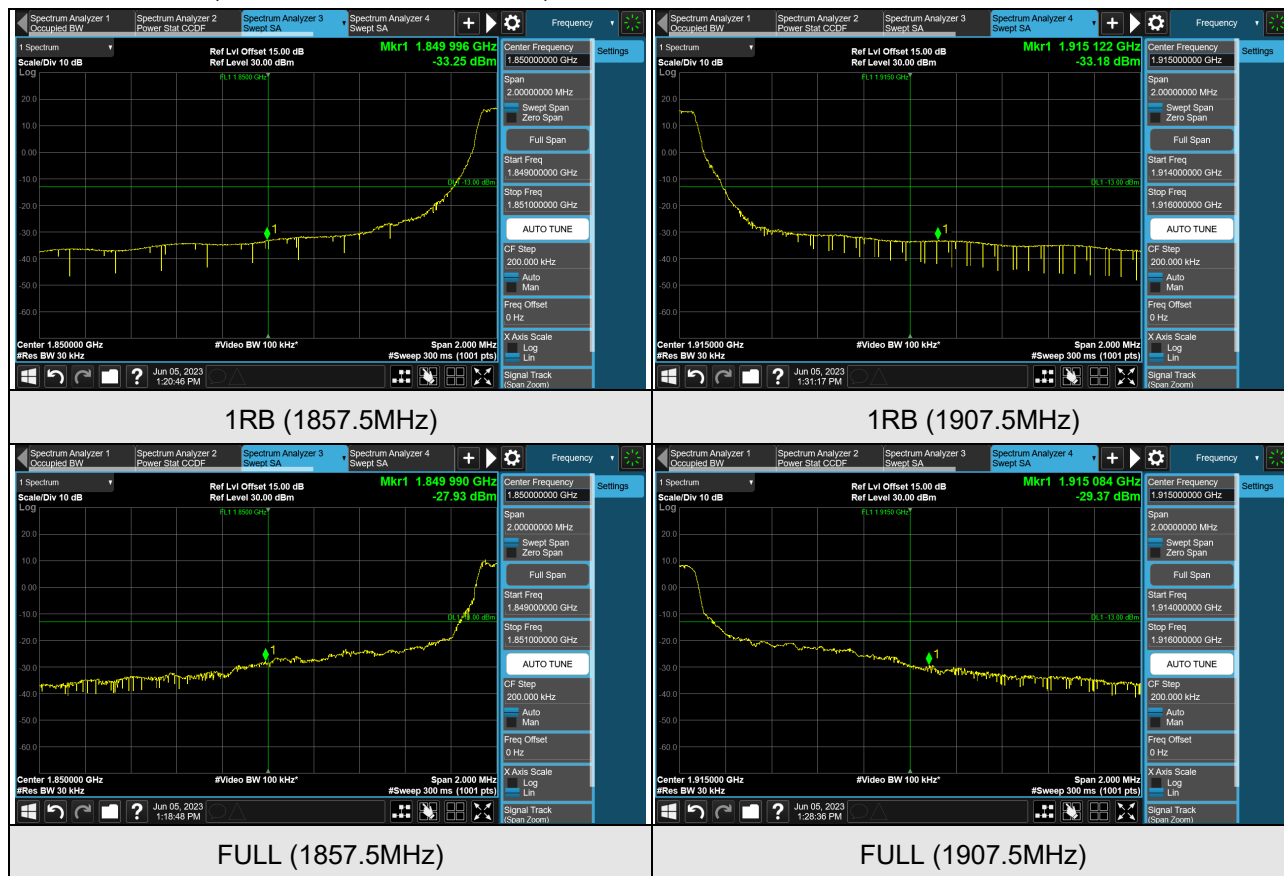
Cat-M1 Band 25 (Channel Bandwidth 5MHz)



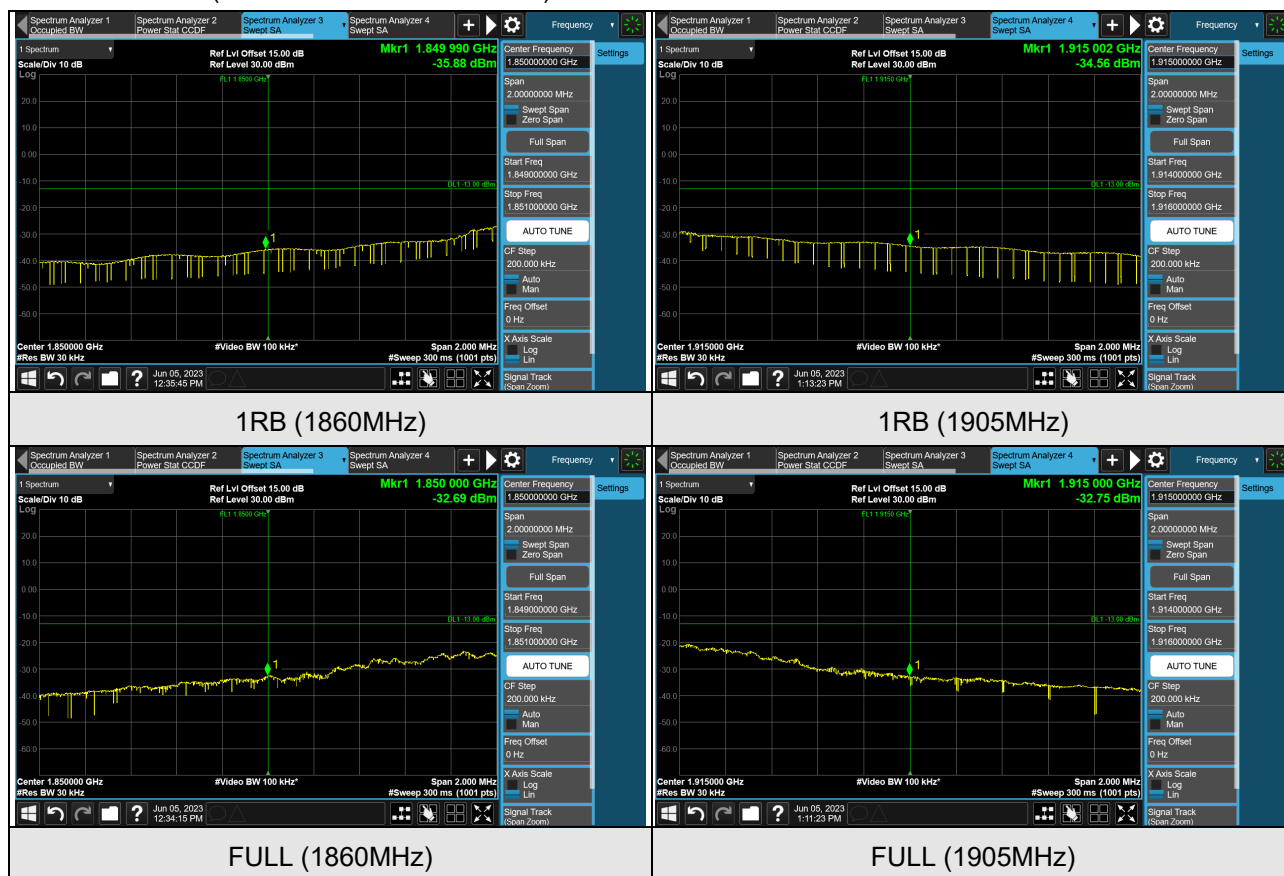
Cat-M1 Band 25 (Channel Bandwidth 10MHz)



Cat-M1 Band 25 (Channel Bandwidth 15MHz)



Cat-M1 Band 25 (Channel Bandwidth 20MHz)

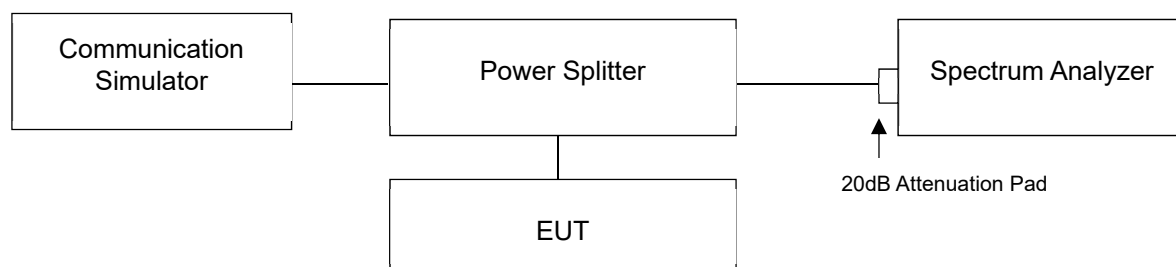


4.6 Peak to Average Ratio

4.6.1 Limits of Peak to Average Ratio Measurement

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

4.6.2 Test Setup



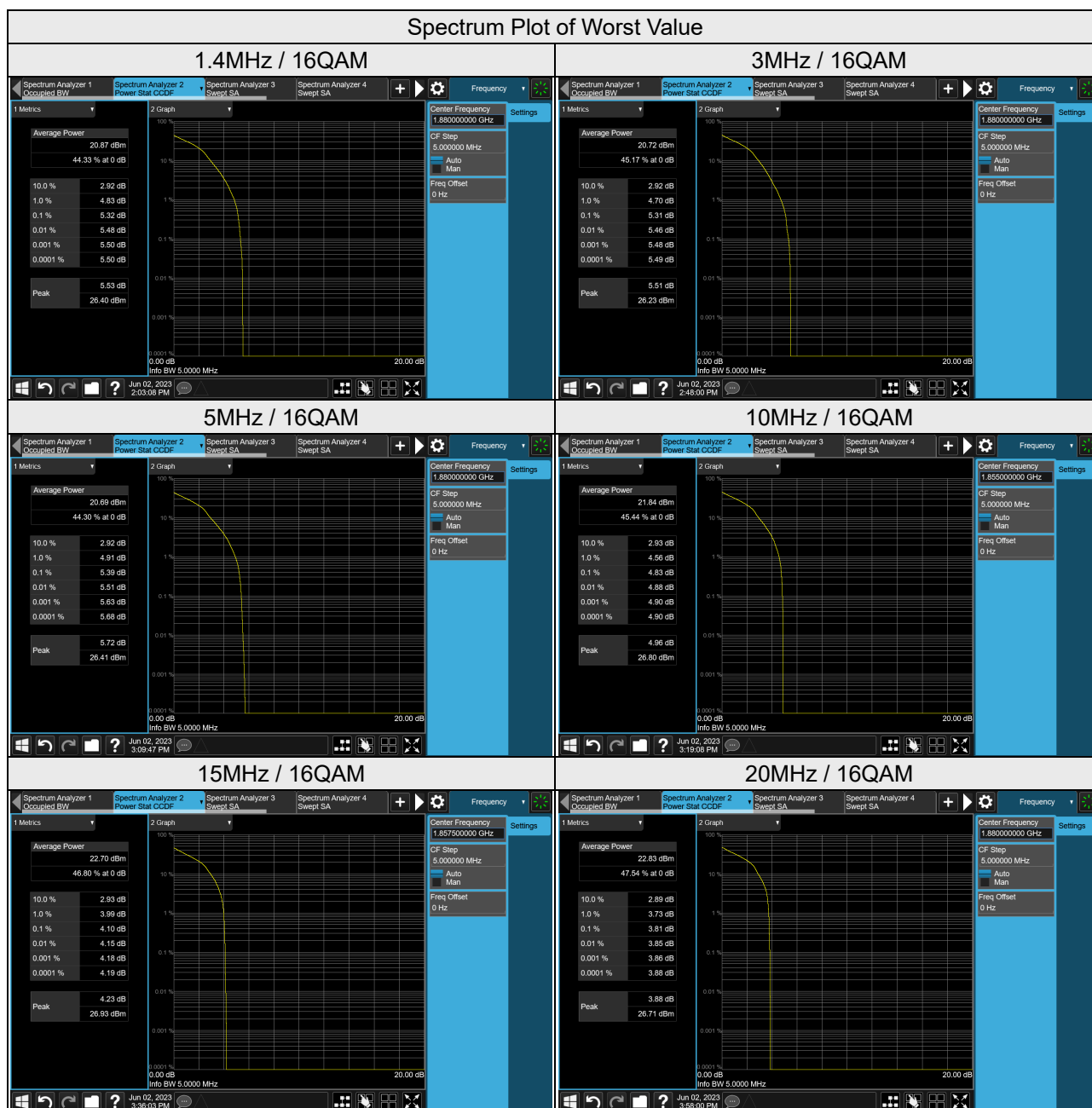
4.6.3 Test Procedures

- 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%.

4.6.4 Test Results

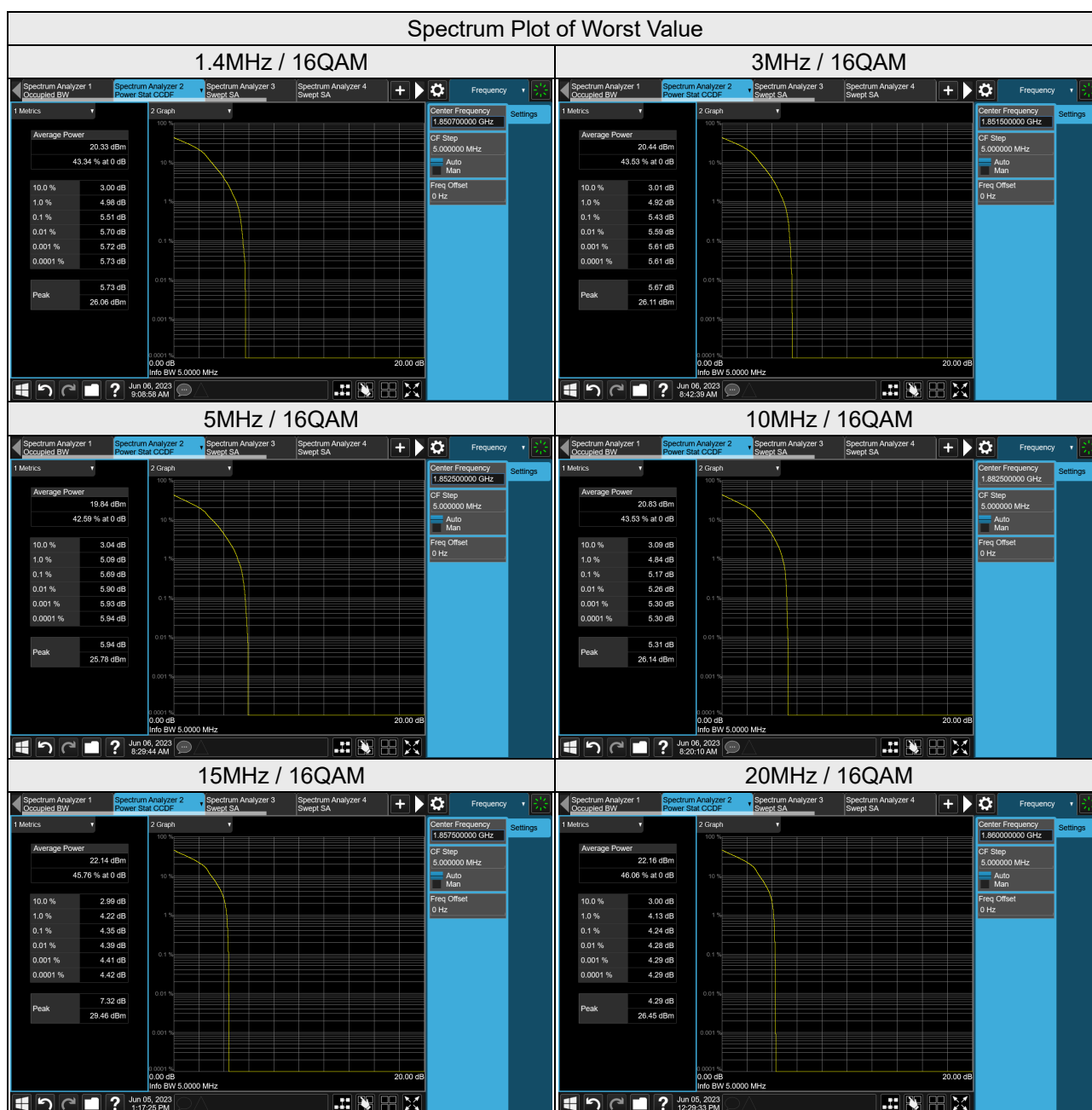
Cat-M1 Band 2, Channel Bandwidth 1.4MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
18607	1850.7	4.30	5.19
18900	1880.0	4.35	5.32
19193	1909.3	4.29	5.18
Cat-M1 Band 2, Channel Bandwidth 3MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
18615	1851.5	4.30	5.22
18900	1880.0	4.35	5.31
19185	1908.5	4.32	5.25
Cat-M1 Band 2, Channel Bandwidth 5MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
18625	1852.5	4.37	5.38
18900	1880.0	4.42	5.39
19175	1907.5	4.33	5.35
Cat-M1 Band 2, Channel Bandwidth 10MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
18650	1855.0	4.39	4.83
18900	1880.0	4.43	4.74
19150	1905.0	4.39	4.70
Cat-M1 Band 2, Channel Bandwidth 15MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
18675	1857.5	3.70	4.10
18900	1880.0	3.67	3.81
19125	1902.5	3.61	3.81

Cat-M1 Band 2, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	
18700	1860.0	3.72	3.79	
18900	1880.0	3.72	3.81	
19100	1900.0	3.64	3.76	



Cat-M1 Band 25, Channel Bandwidth 1.4MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
26047	1850.7	4.60	5.51
26365	1882.5	4.47	5.39
26683	1914.3	4.43	5.27
Cat-M1 Band 25, Channel Bandwidth 3MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
26055	1851.5	4.51	5.43
26365	1882.5	4.44	5.36
26675	1913.5	4.39	5.28
Cat-M1 Band 25, Channel Bandwidth 5MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
26065	1852.5	4.61	5.69
26365	1882.5	4.49	5.62
26665	1912.5	4.47	5.50
Cat-M1 Band 25, Channel Bandwidth 10MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
26090	1855.0	4.62	5.15
26365	1882.5	4.54	5.17
26640	1910.0	4.51	4.76
Cat-M1 Band 25, Channel Bandwidth 15MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM
26115	1857.5	4.08	4.35
26365	1882.5	3.90	4.20
26615	1907.5	3.75	4.01

Cat-M1 Band 25, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	
26140	1860.0	4.07	4.24	
26365	1882.5	3.96	4.20	
26590	1905.0	3.81	3.92	

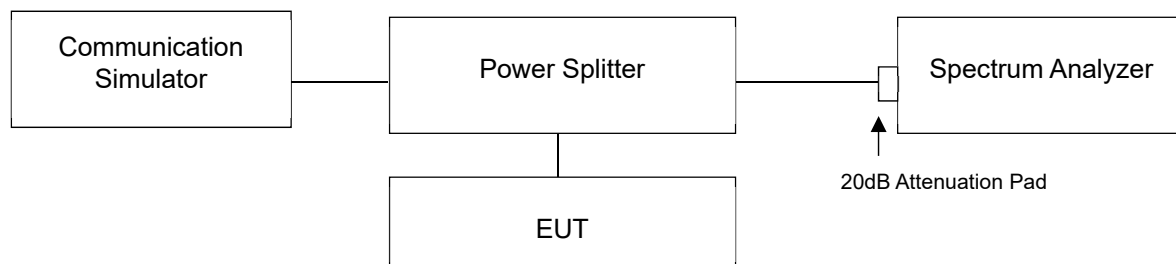


4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

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

4.7.2 Test Setup



4.7.3 Test Procedure

- All measurements were done at low, middle and high channels operational frequency range.
- Measurement refer to ANSI C63.26 section 5.7.
- Measuring frequency range is from 9kHz to 20GHz. 20dB attenuation pad is connected with spectrum.
Detector = Average, RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

4.7.4 Test Results

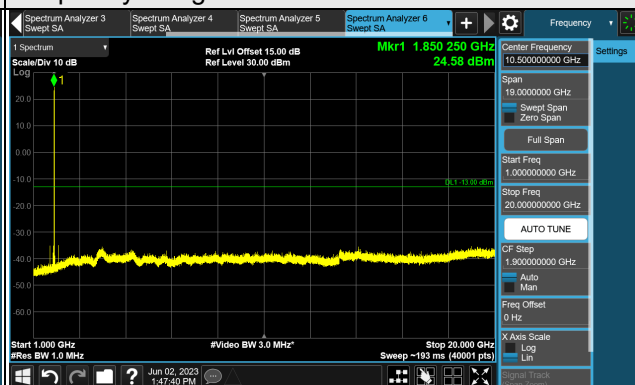
Cat-M1 Band 2, Channel Bandwidth 1.4MHz

Channel 18607 (1850.7MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

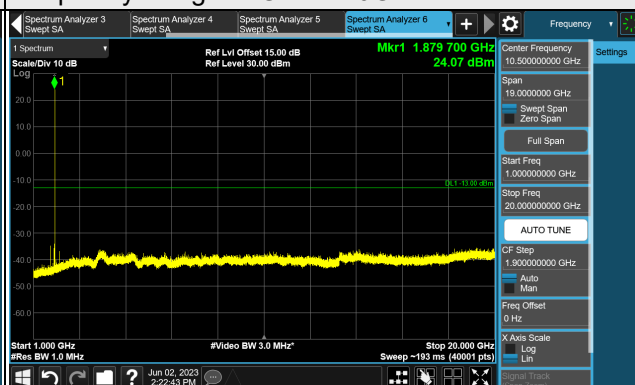


Channel 18900 (1880.0MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

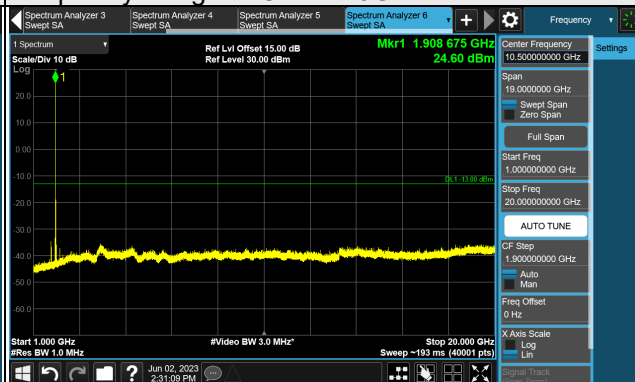


Channel 19193 (1909.3MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

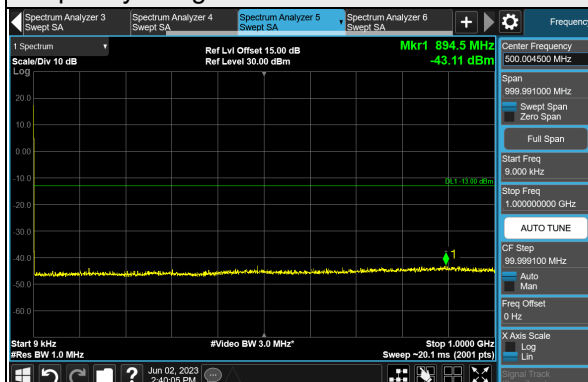


*The 9kHz signal over the limit is from Spectrum.

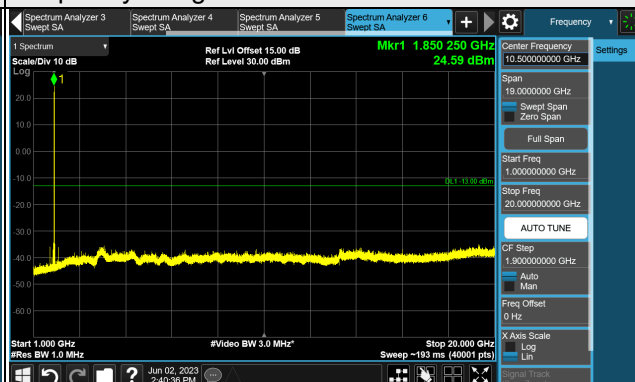
Cat-M1 Band 2, Channel Bandwidth 3MHz

Channel 18615 (1851.5MHz)

Frequency Range : 9kHz ~ 1GHz

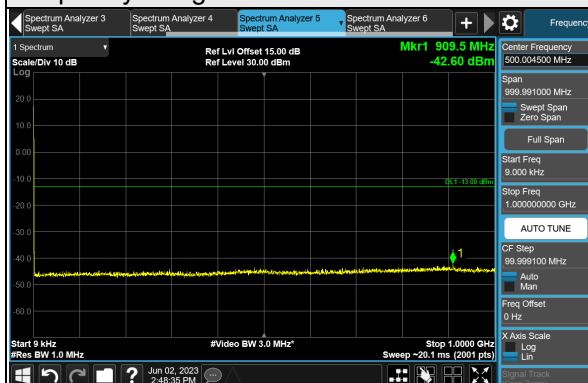


Frequency Range : 1GHz ~ 20GHz

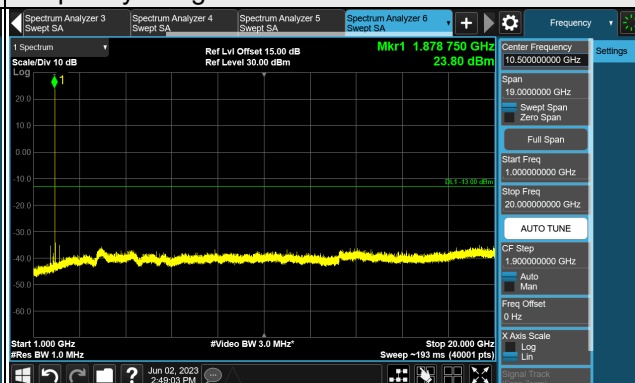


Channel 18900 (1880.0MHz)

Frequency Range : 9kHz ~ 1GHz

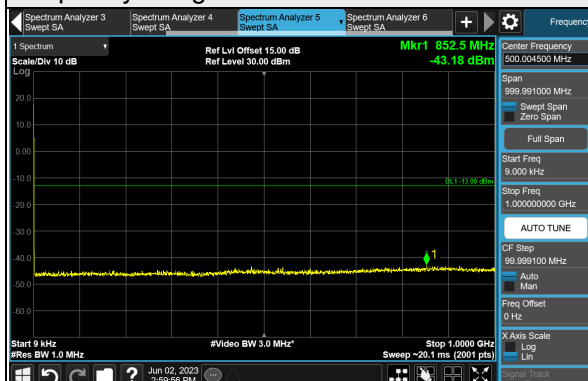


Frequency Range : 1GHz ~ 20GHz

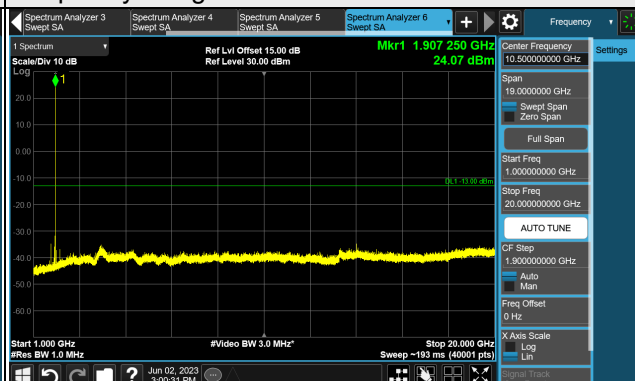


Channel 19185 (1908.5MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

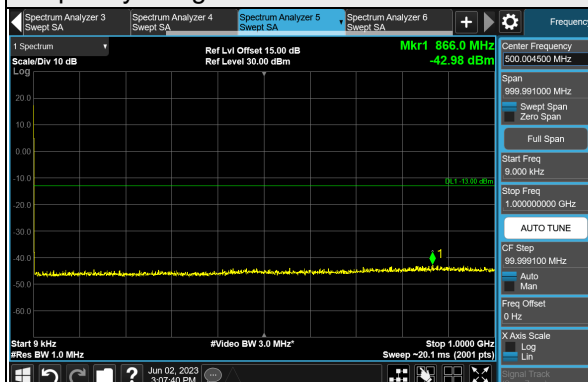


*The 9kHz signal over the limit is from Spectrum.

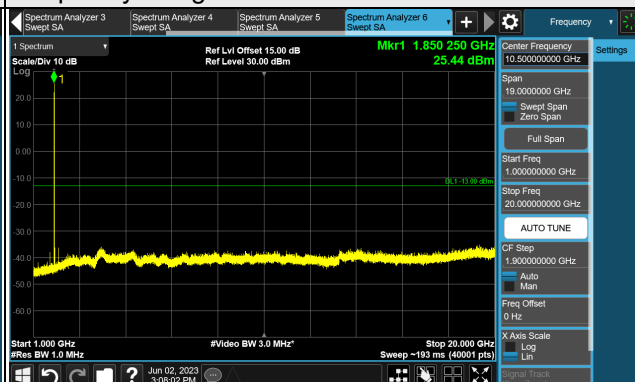
Cat-M1 Band 2, Channel Bandwidth 5MHz

Channel 18625 (1852.5MHz)

Frequency Range : 9kHz ~ 1GHz

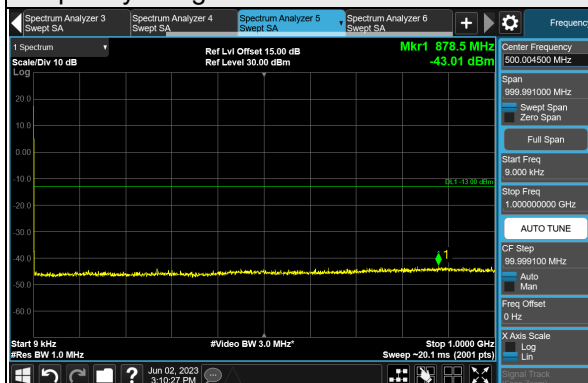


Frequency Range : 1GHz ~ 20GHz

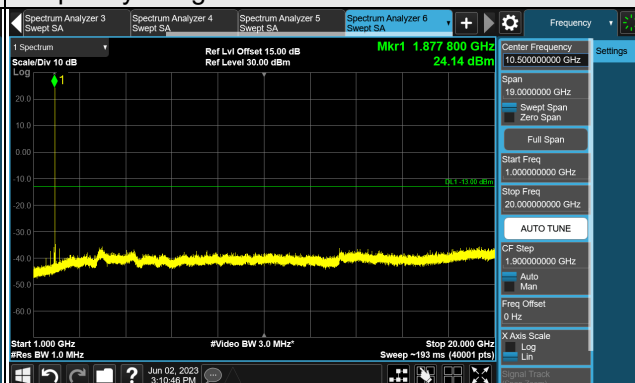


Channel 18900 (1880.0MHz)

Frequency Range : 9kHz ~ 1GHz

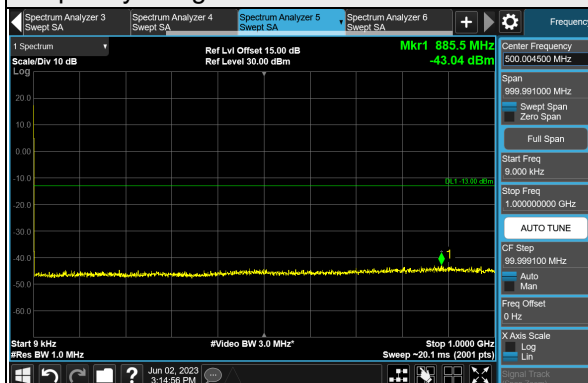


Frequency Range : 1GHz ~ 20GHz

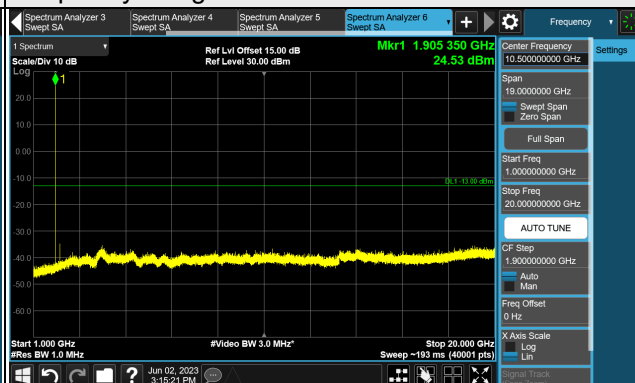


Channel 19175 (1907.5MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

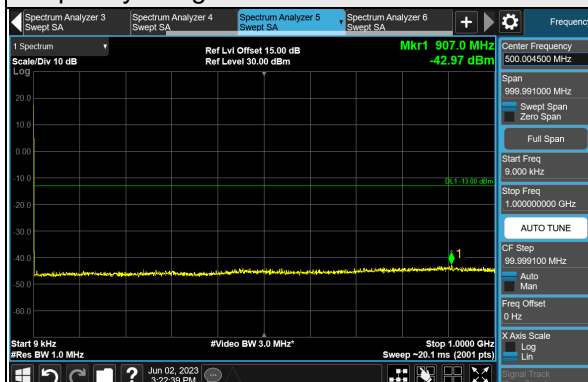


*The 9kHz signal over the limit is from Spectrum.

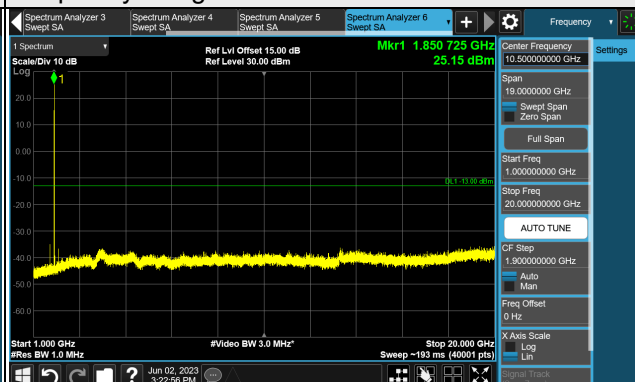
Cat-M1 Band 2, Channel Bandwidth 10MHz

Channel 18650 (1855.0MHz)

Frequency Range : 9kHz ~ 1GHz

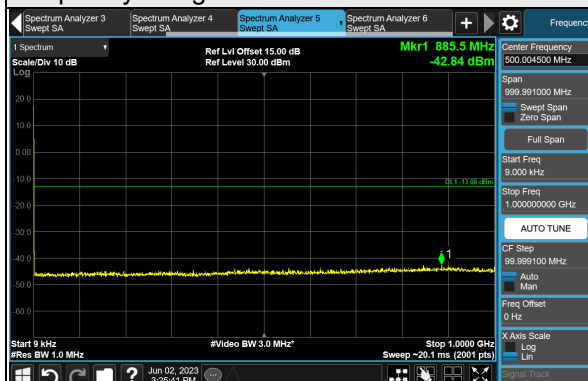


Frequency Range : 1GHz ~ 20GHz

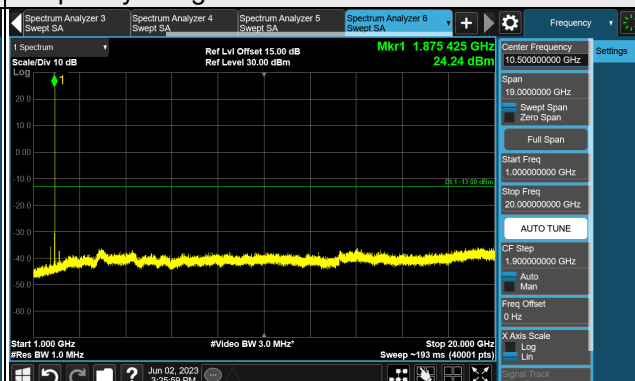


Channel 18900 (1880.0MHz)

Frequency Range : 9kHz ~ 1GHz

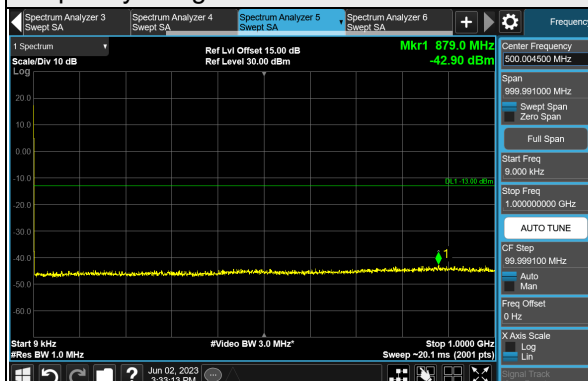


Frequency Range : 1GHz ~ 20GHz

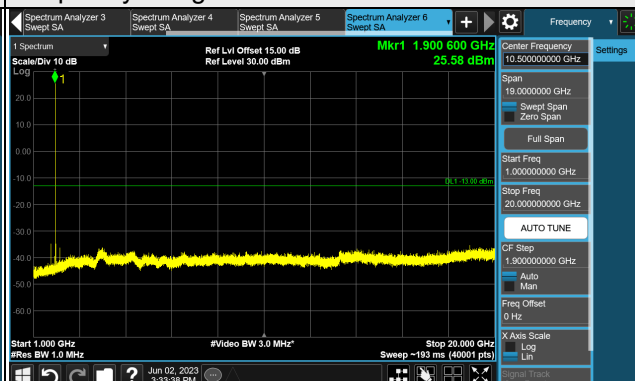


Channel 19150 (1905.0MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

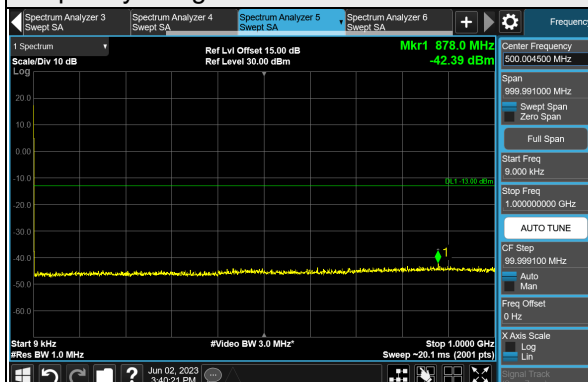


*The 9kHz signal over the limit is from Spectrum.

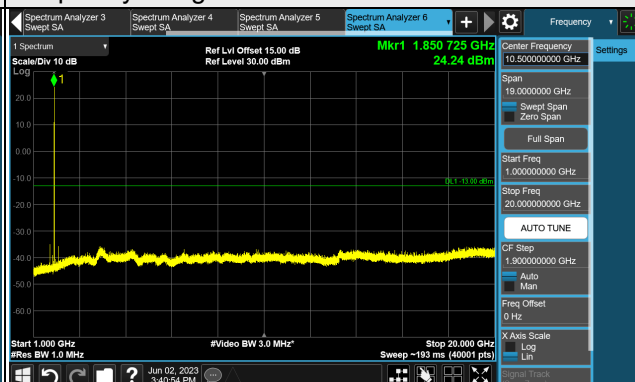
Cat-M1 Band 2, Channel Bandwidth 15MHz

Channel 18675 (1857.5MHz)

Frequency Range : 9kHz ~ 1GHz

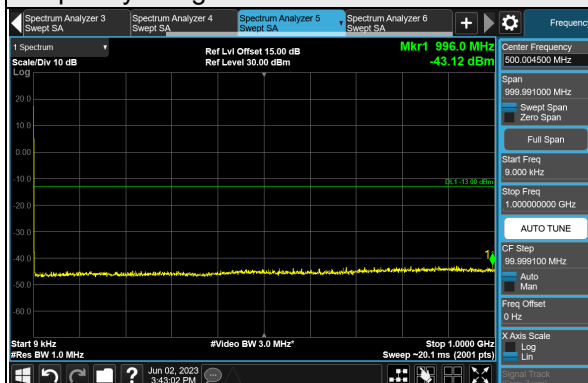


Frequency Range : 1GHz ~ 20GHz

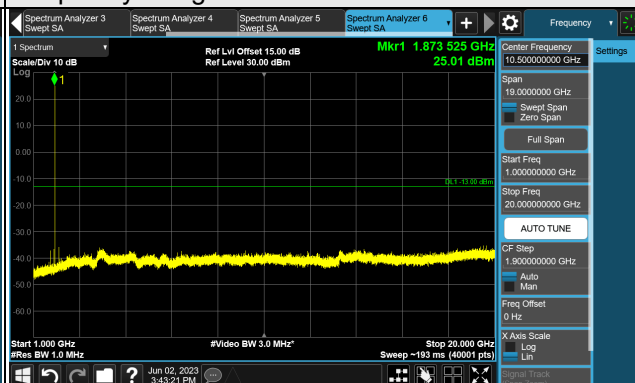


Channel 18900 (1880.0MHz)

Frequency Range : 9kHz ~ 1GHz

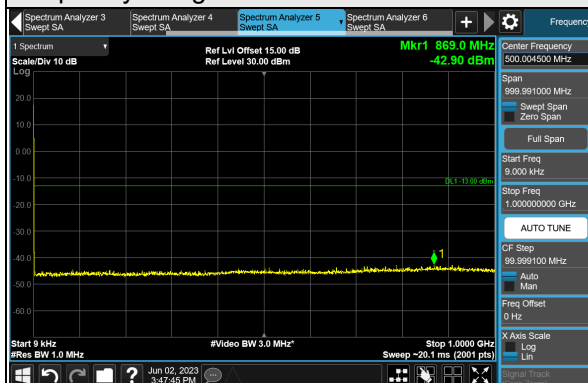


Frequency Range : 1GHz ~ 20GHz

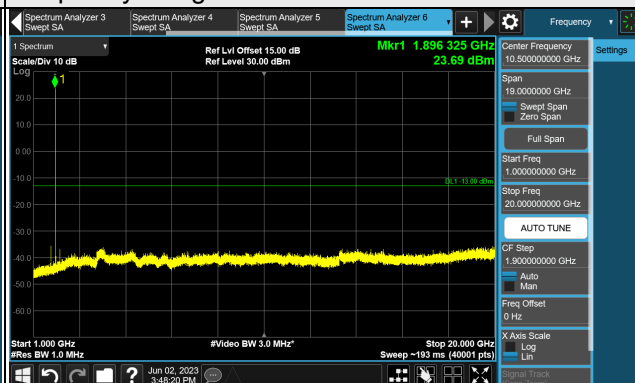


Channel 19125 (1902.5MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

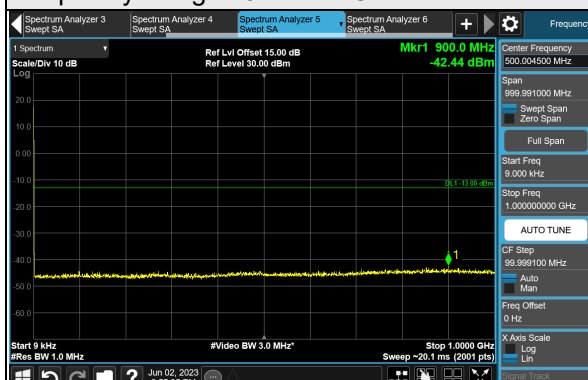


*The 9kHz signal over the limit is from Spectrum.

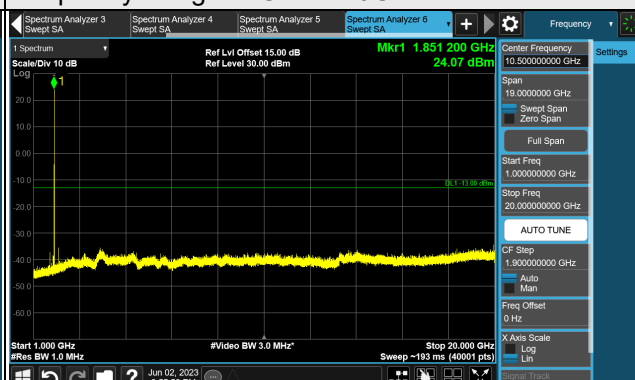
Cat-M1 Band 2, Channel Bandwidth 20MHz

Channel 18700 (1860.0MHz)

Frequency Range : 9kHz ~ 1GHz

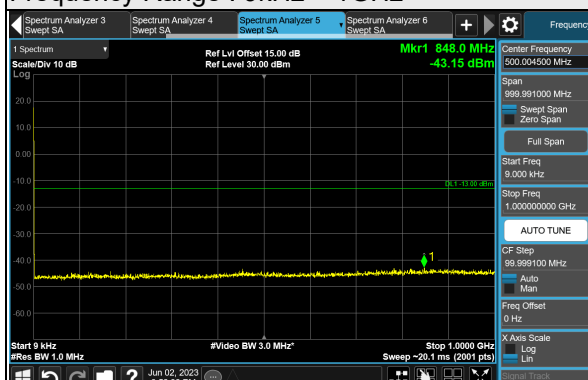


Frequency Range : 1GHz ~ 20GHz

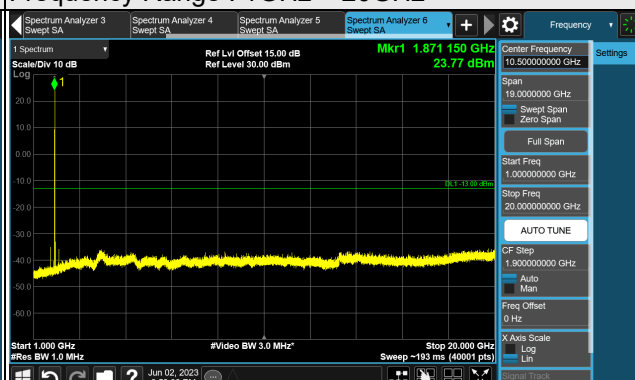


Channel 18900 (1880.0MHz)

Frequency Range : 9kHz ~ 1GHz

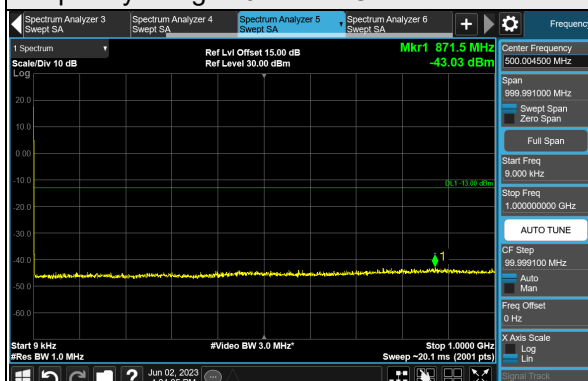


Frequency Range : 1GHz ~ 20GHz

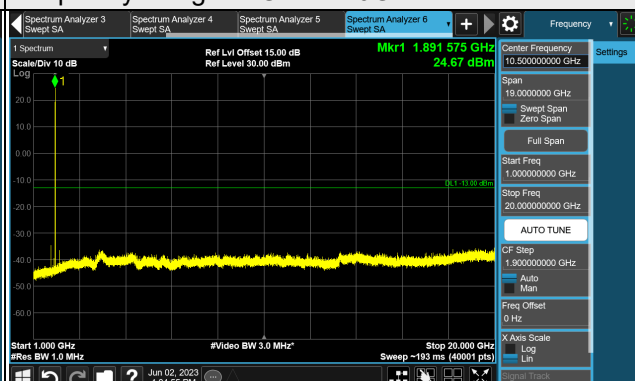


Channel 19100 (1900.0MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz

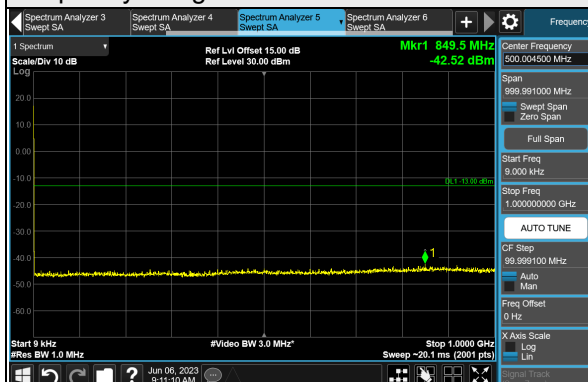


*The 9kHz signal below the limit is from Spectrum.

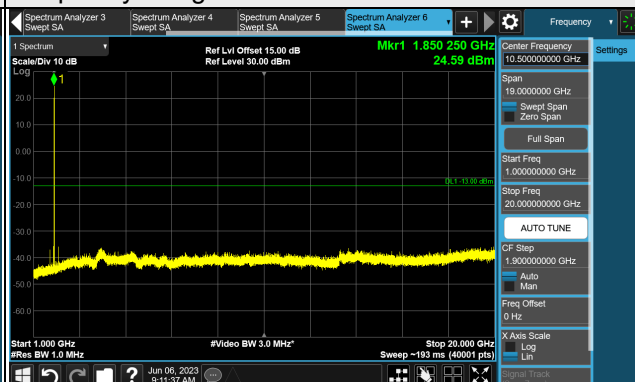
Cat-M1 Band 25, Channel Bandwidth 1.4MHz

Channel 26047 (1850.7MHz)

Frequency Range : 9kHz ~ 1GHz

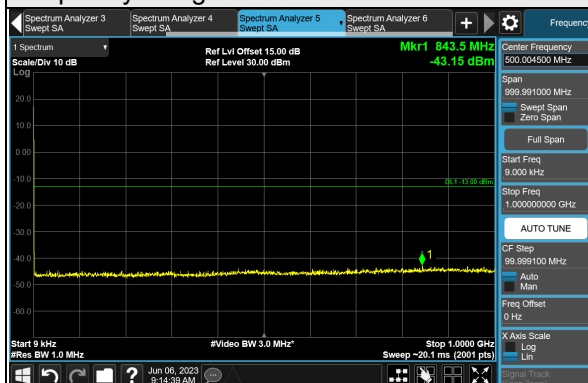


Frequency Range : 1GHz ~ 20GHz

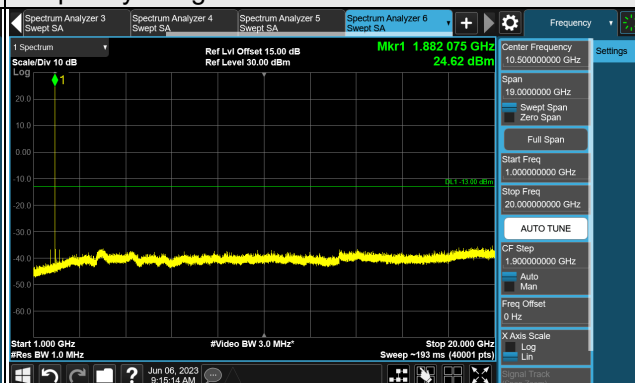


Channel 26365 (1882.5MHz)

Frequency Range : 9kHz ~ 1GHz

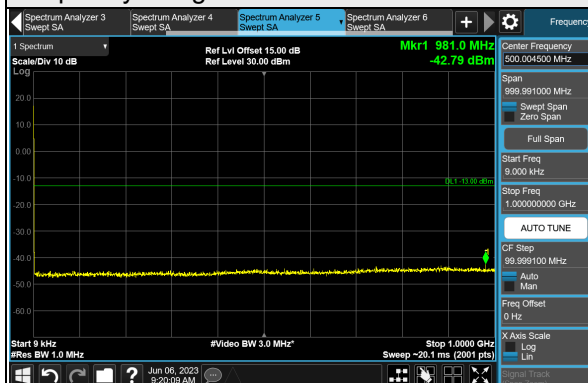


Frequency Range : 1GHz ~ 20GHz

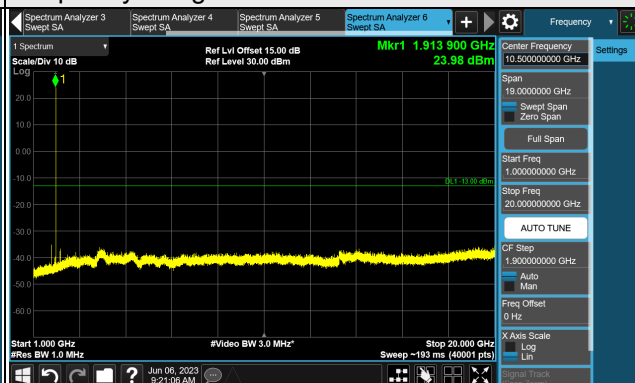


Channel 26683 (1914.3MHz)

Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz



*The 9kHz signal over the limit is from Spectrum.