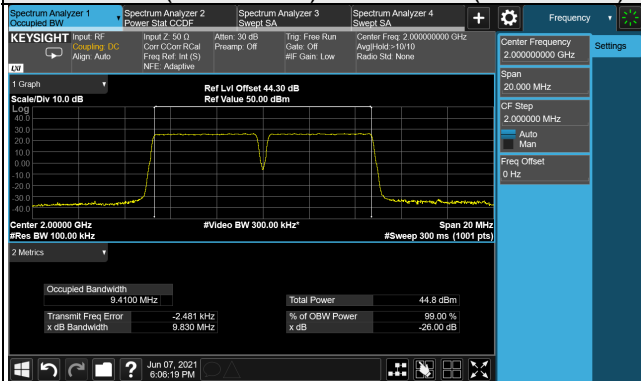
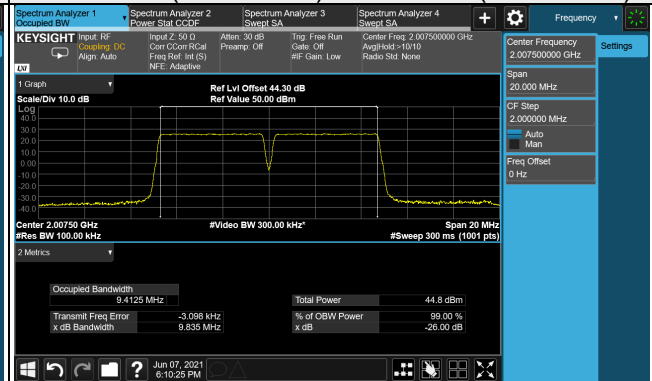


256QAM

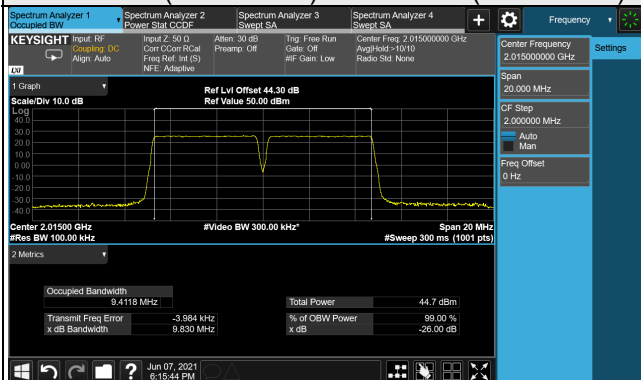
Ch 399500 (1997.5MHz)+Ch 400500 (2002.5MHz)



Ch 401000 (2005.0MHz)+Ch 402000 (2010.0MHz)



Ch 402500 (2012.5MHz)+Ch 403500 (2017.5MHz)



5MHz+20MHz

Channel Number	Freq. (MHz)	OCP 99 Bandwidth (MHz)															
		Ant. TX0				Ant. TX1				Ant. TX2				Ant. TX3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
399500+402000	1997.5+2010.0	24.13	24.13	24.06	24.06	24.13	24.13	24.06	24.06	24.13	24.13	24.06	24.06	24.13	24.13	24.06	24.06

Ant. TX 0



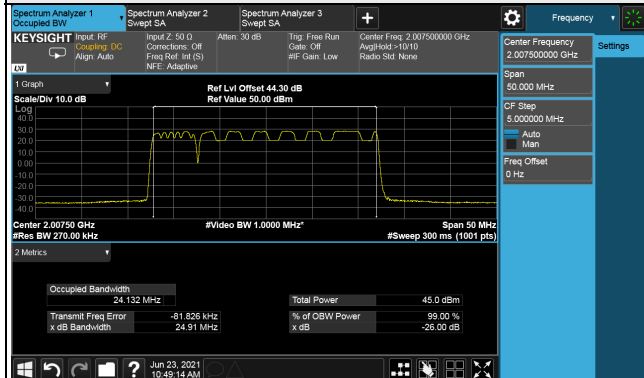
Ant. TX 1

Spectrum Plot of Worst Value

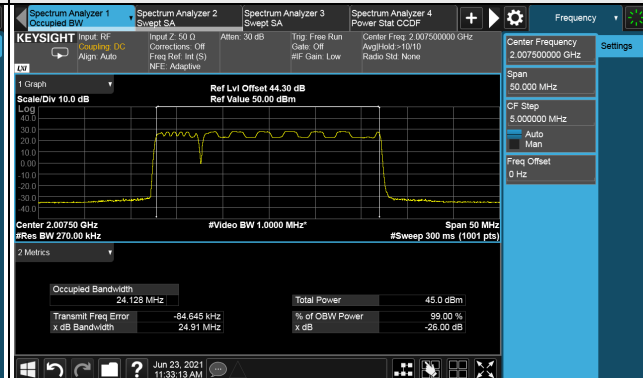
OCP 99 Bandwidth

Ch 399500 (1997.5MHz)+Ch 402000 (2010.0MHz)

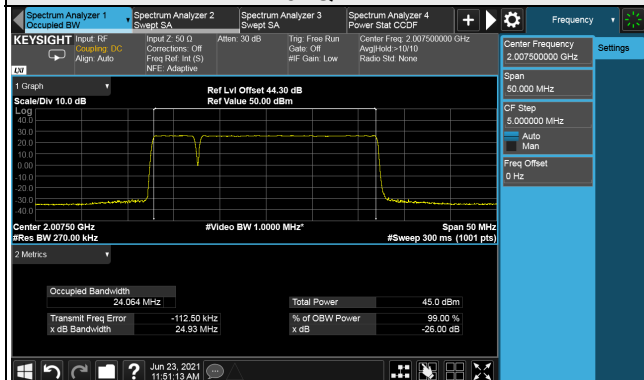
QPSK



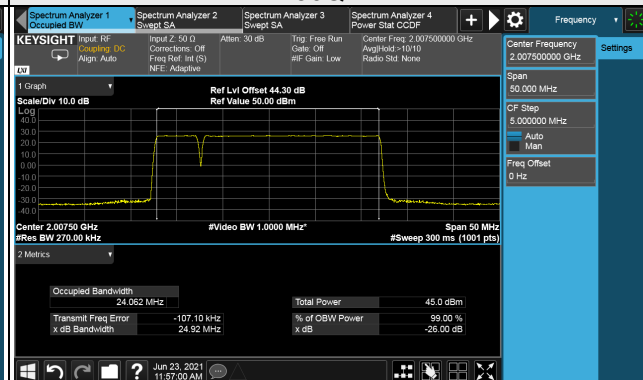
16QAM



64QAM



256QAM



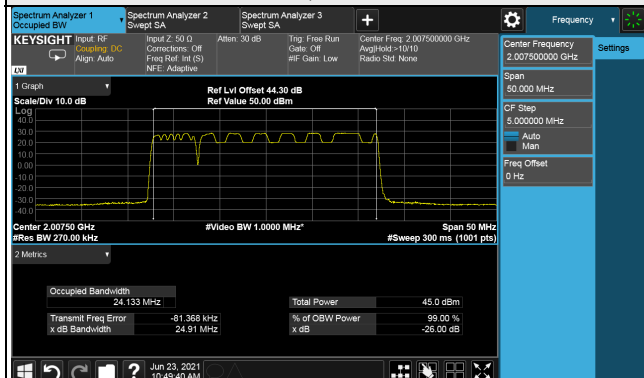
Ant. TX 2

Spectrum Plot of Worst Value

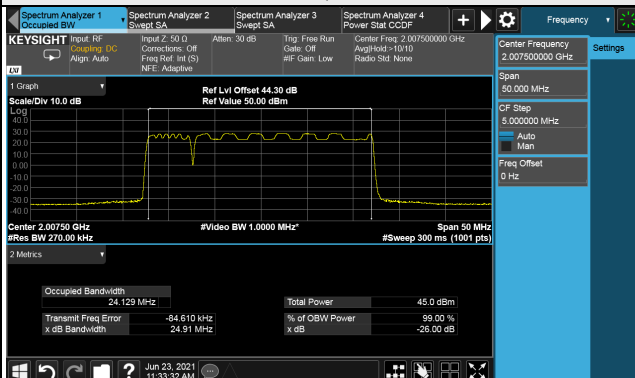
OCP 99 Bandwidth

Ch 399500 (1997.5MHz)+Ch 402000 (2010.0MHz)

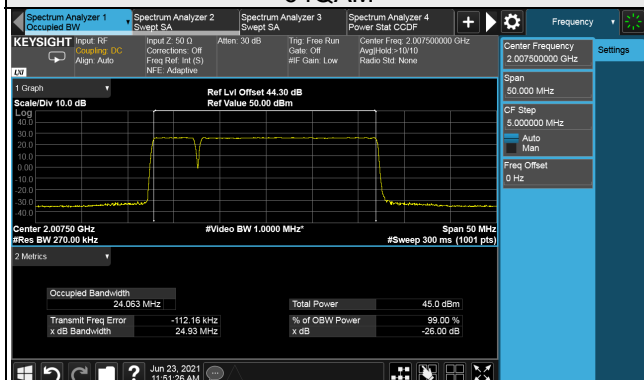
QPSK



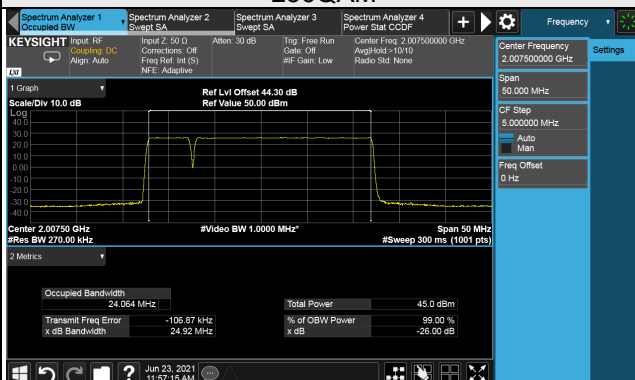
16QAM



64QAM



256QAM



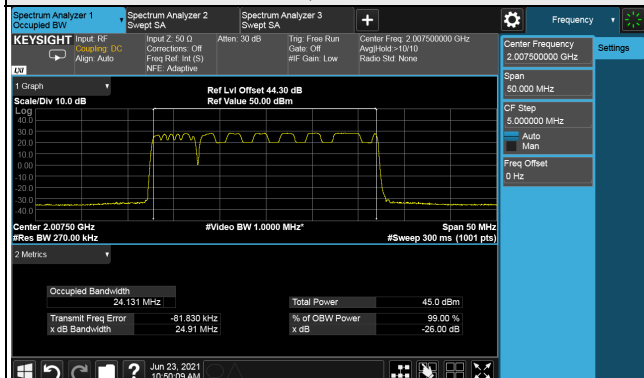
Ant. TX 3

Spectrum Plot of Worst Value

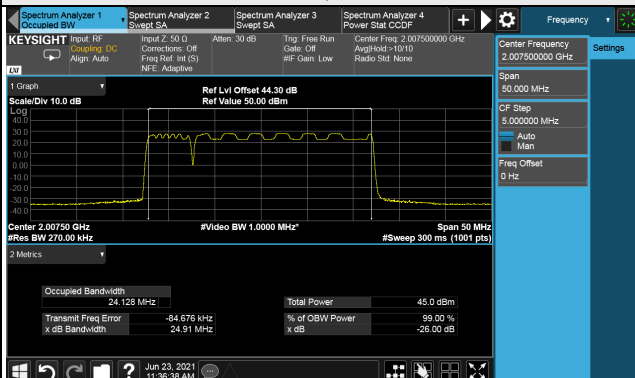
OCP 99 Bandwidth

Ch 399500 (1997.5MHz)+Ch 402000 (2010.0MHz)

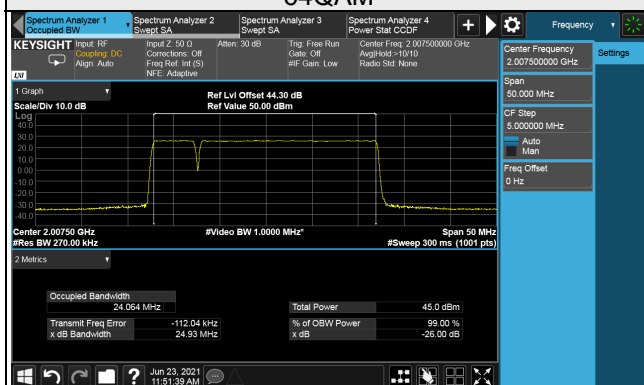
QPSK



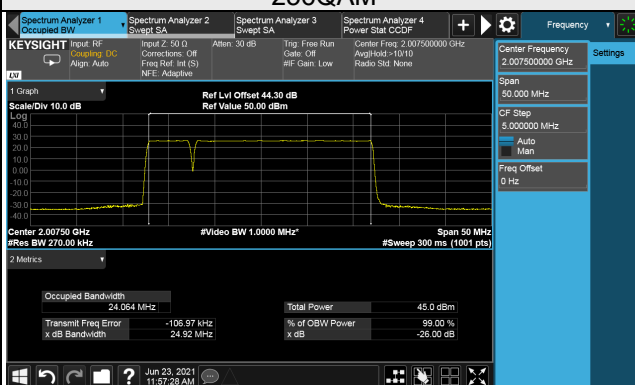
16QAM



64QAM



256QAM



20MHz+5MHz

Channel Number	Freq. (MHz)	OCP 99 Bandwidth (MHz)															
		Ant. TX0				Ant. TX1				Ant. TX2				Ant. TX3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
401000+403500	2005.0+2017.5	24.12	24.12	24.07	24.06	24.12	24.12	24.07	24.06	24.12	24.12	24.07	24.06	24.12	24.12	24.07	24.06

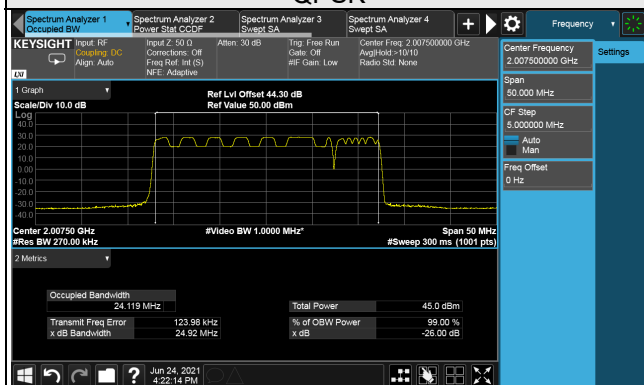
Ant. TX 0

Spectrum Plot of Worst Value

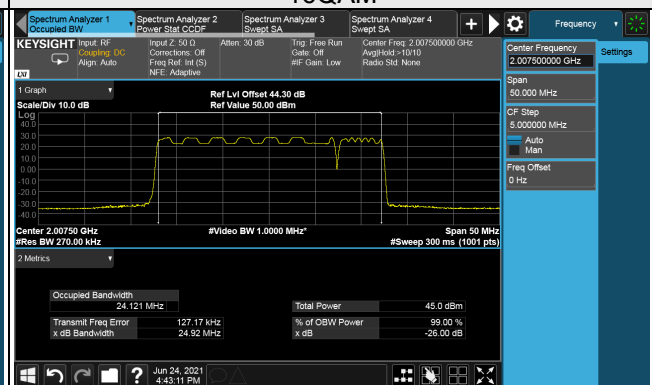
OCP 99 Bandwidth

Ch 401000 (2005.0MHz)+Ch 403500 (2017.5MHz)

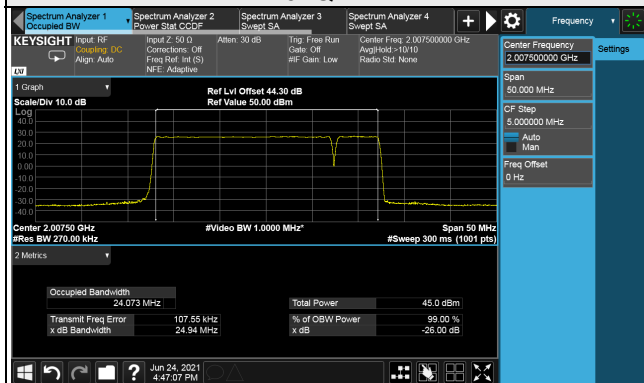
QPSK



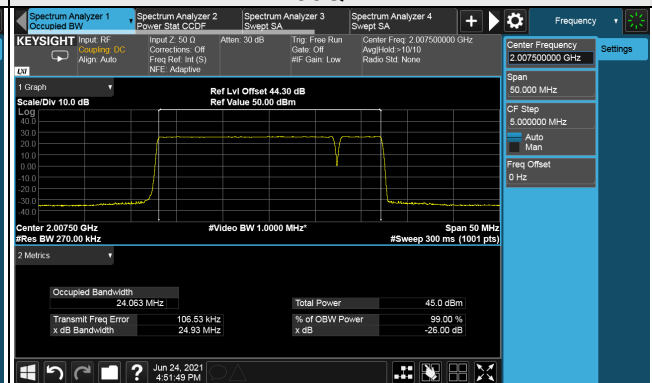
16QAM



64QAM



256QAM



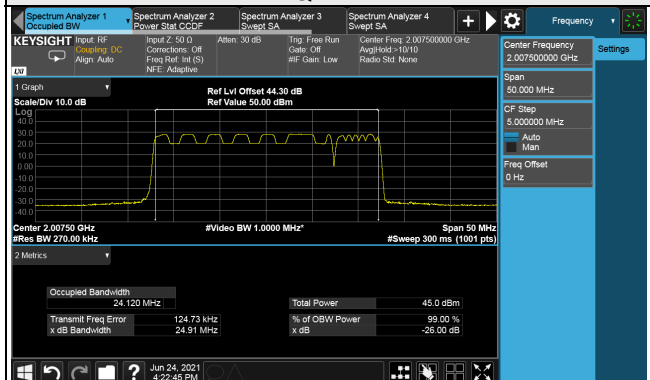
Ant. TX 1

Spectrum Plot of Worst Value

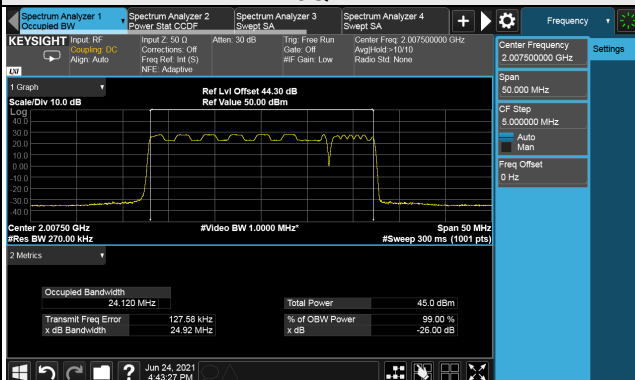
OCP 99 Bandwidth

Ch 401000 (2005.0MHz)+Ch 403500 (2017.5MHz)

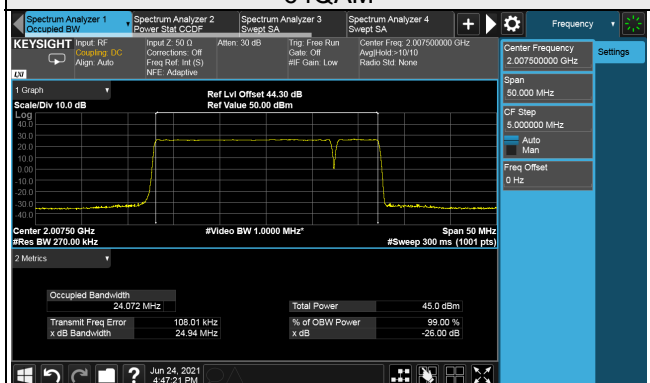
QPSK



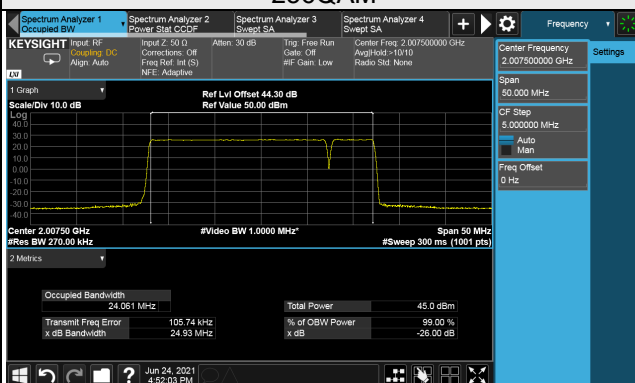
16QAM



64QAM



256QAM



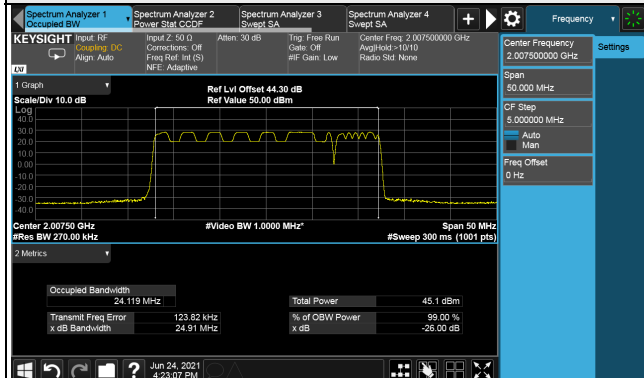
Ant. TX 2

Spectrum Plot of Worst Value

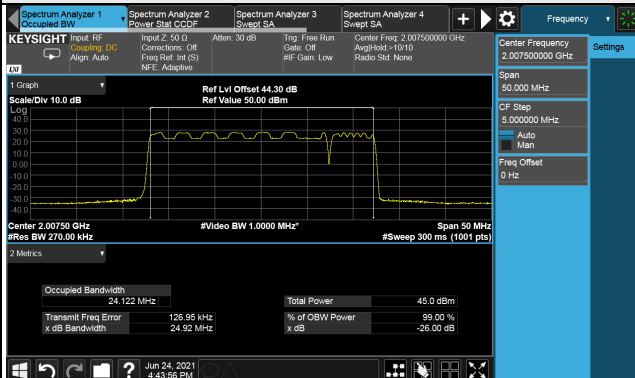
OCP 99 Bandwidth

Ch 401000 (2005.0MHz)+Ch 403500 (2017.5MHz)

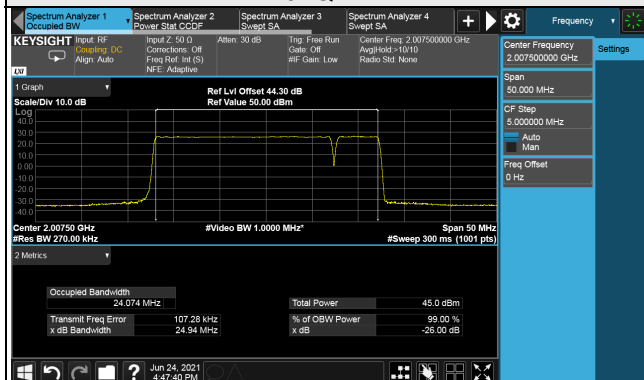
QPSK



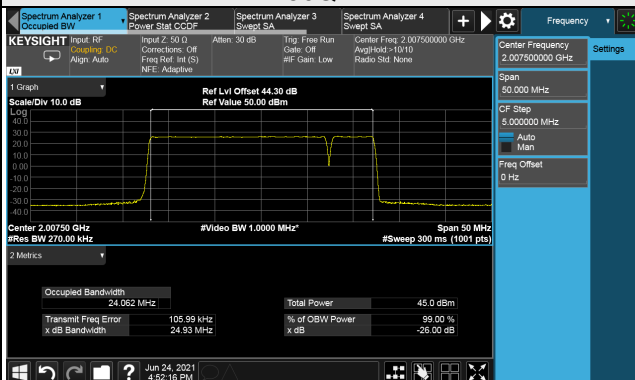
16QAM



64QAM



256QAM



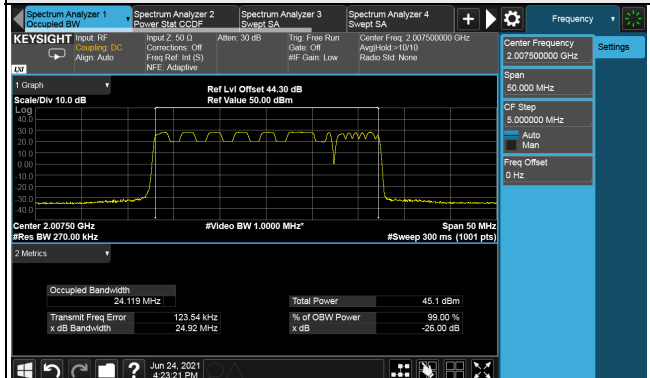
Ant. TX 3

Spectrum Plot of Worst Value

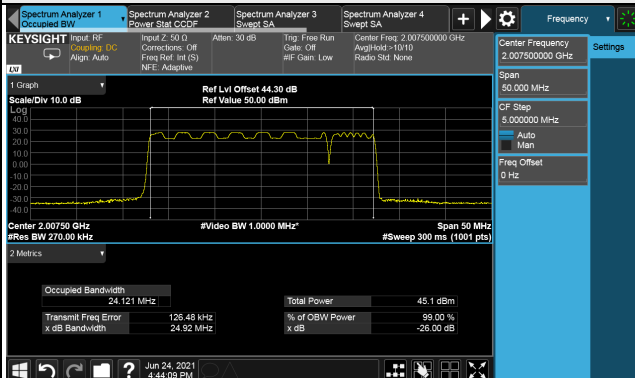
OCP 99 Bandwidth

Ch 401000 (2005.0MHz)+Ch 403500 (2017.5MHz)

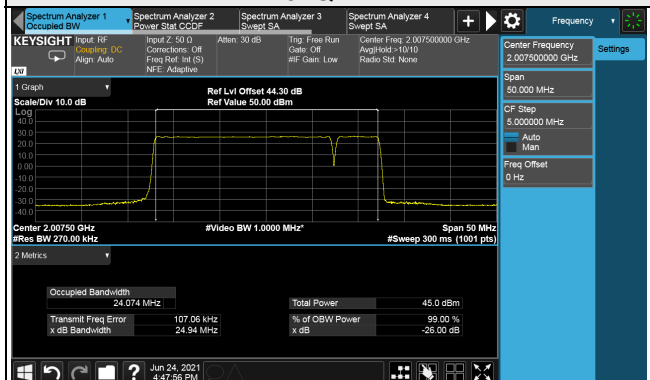
QPSK



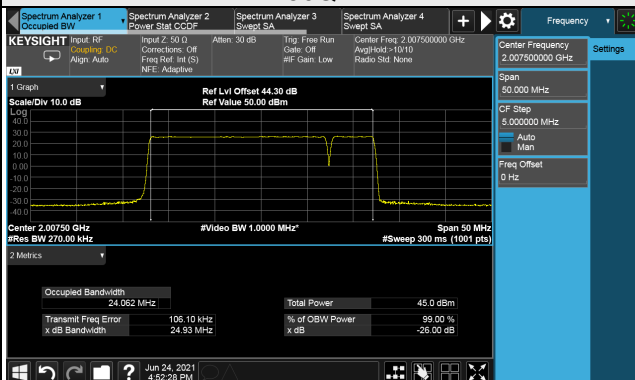
16QAM



64QAM



256QAM



CA-NC Non-Contiguous

5MHz+5MHz

Channel Number	Freq. (MHz)	OCP 99 Bandwidth (MHz)															
		Ant. TX0				Ant. TX1				Ant. TX2				Ant. TX3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
399500+403500	1997.5	4.48	4.48	4.46	4.46	4.48	4.48	4.46	4.46	4.48	4.48	4.47	4.46	4.48	4.48	4.47	4.46
	2017.5	4.48	4.48	4.46	4.46	4.48	4.48	4.46	4.46	4.48	4.48	4.47	4.46	4.48	4.48	4.46	4.46
	Total	8.96	8.96	8.92	8.92	8.96	8.96	8.92	8.92	8.96	8.96	8.94	8.92	8.96	8.96	8.93	8.92

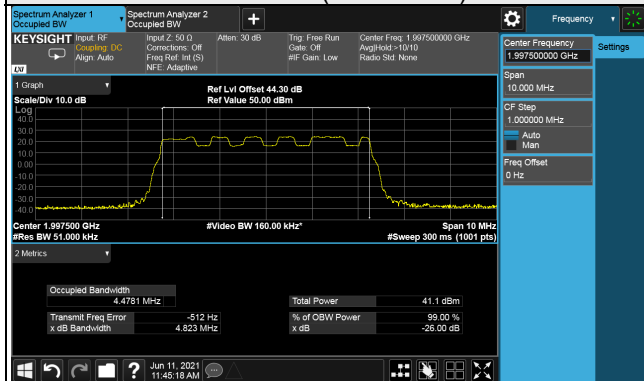
Ant. TX 0

Spectrum Plot of Worst Value

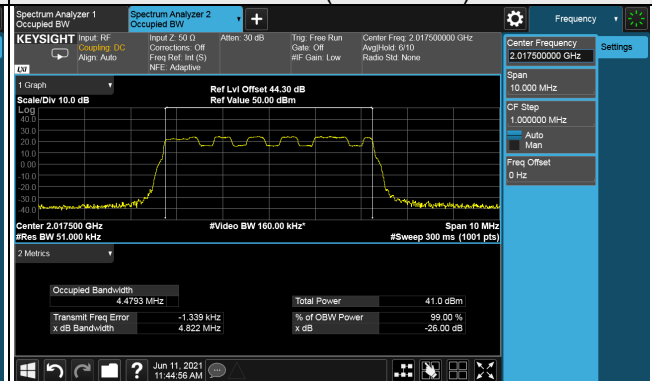
OCP 99 Bandwidth

QPSK

Ch 399500 (1997.5MHz)

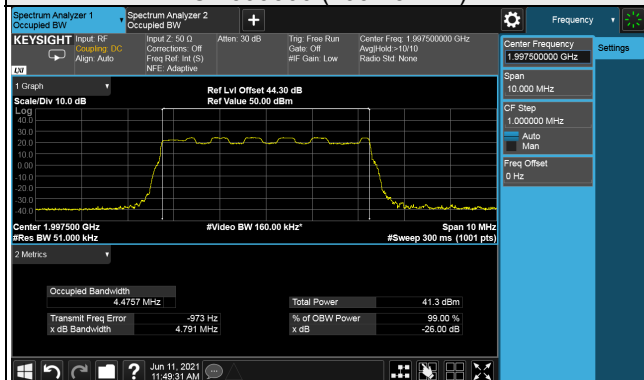


Ch 403500 (2017.5MHz)

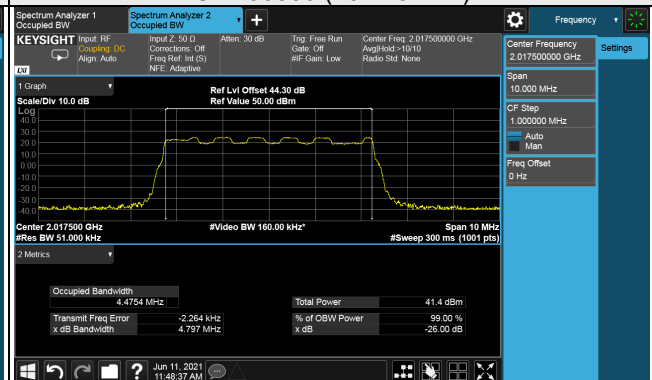


16QAM

Ch 399500 (1997.5MHz)

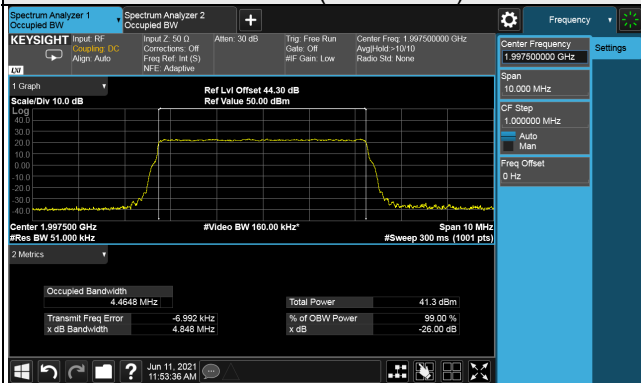


Ch 403500 (2017.5MHz)

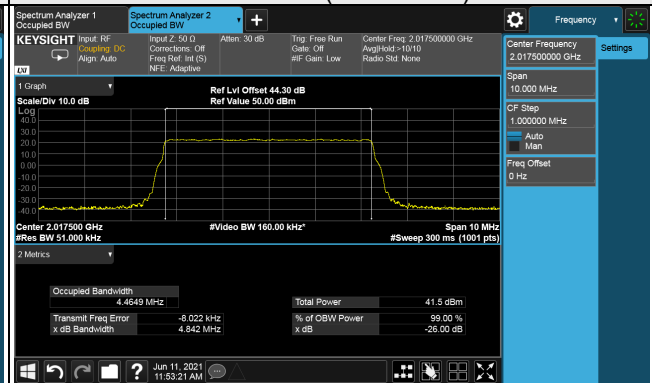


64QAM

Ch 399500 (1997.5MHz)

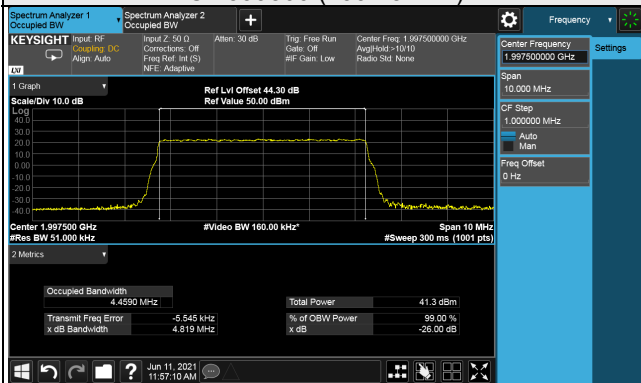


Ch 403500 (2017.5MHz)

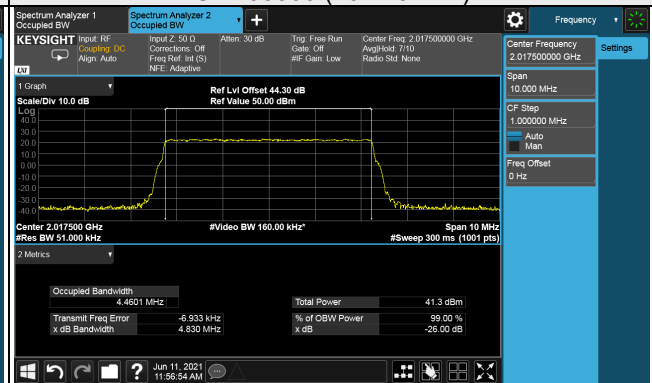


256QAM

Ch 399500 (1997.5MHz)



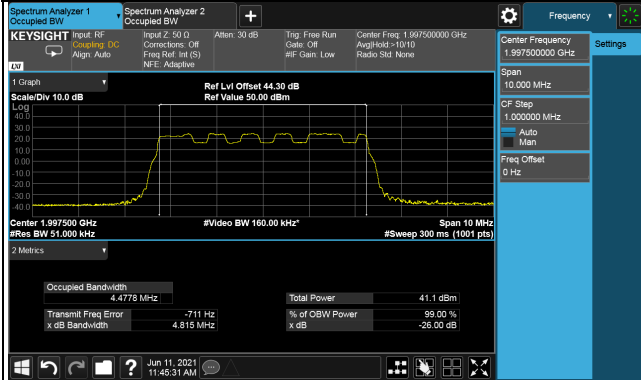
Ch 403500 (2017.5MHz)



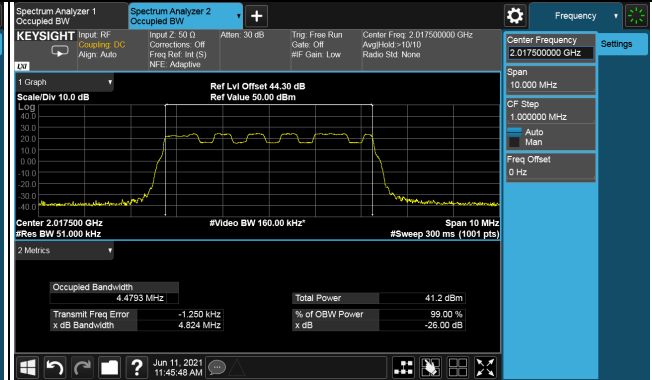
Ant. TX 1

Spectrum Plot of Worst Value
OCP 99 Bandwidth
QPSK

Ch 399500 (1997.5MHz)

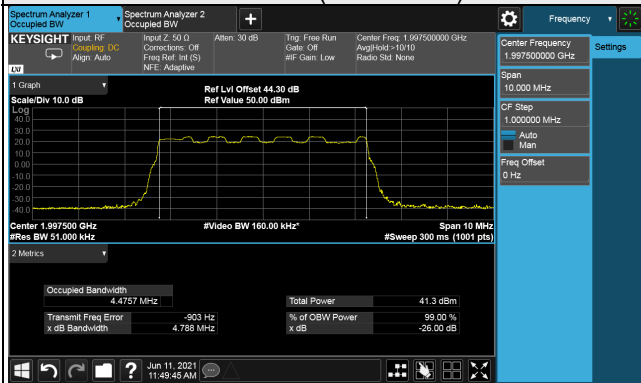


Ch 403500 (2017.5MHz)

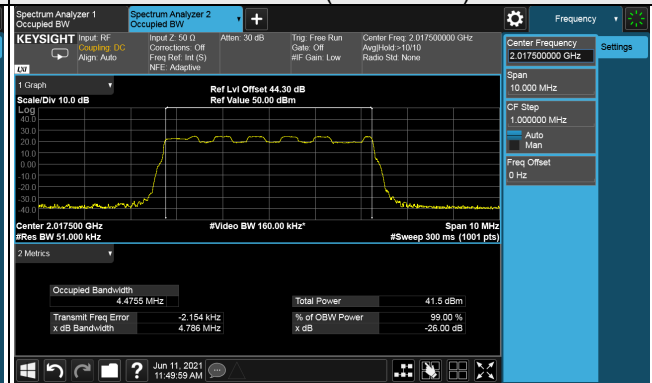


16QAM

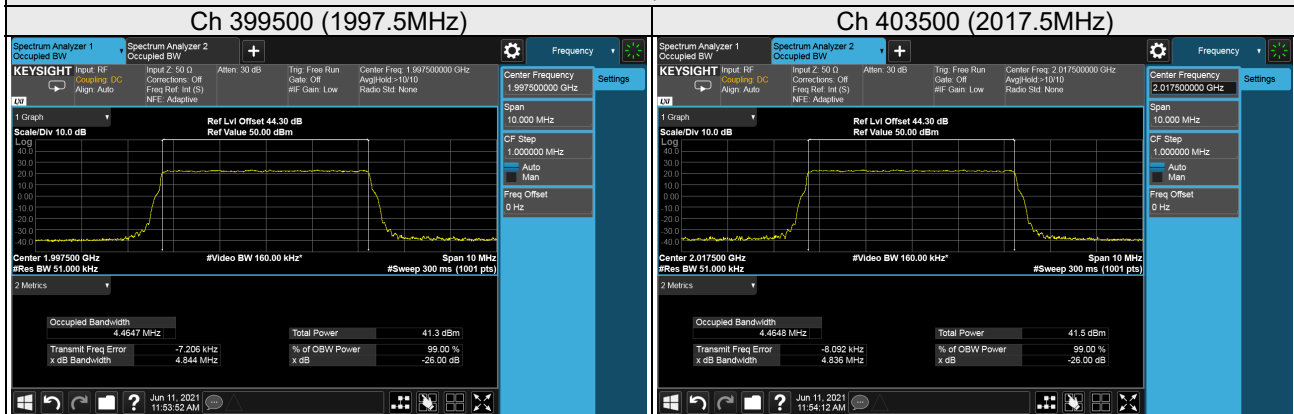
Ch 399500 (1997.5MHz)



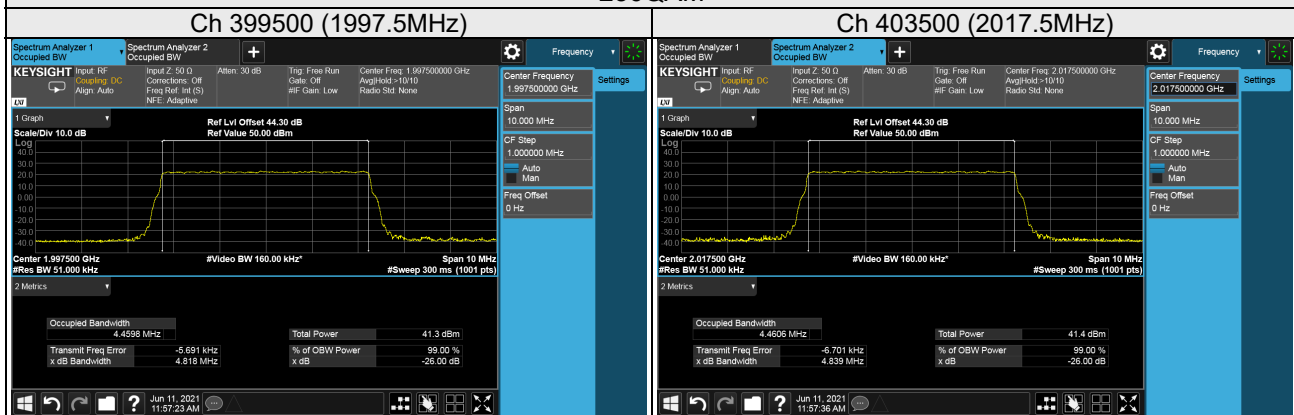
Ch 403500 (2017.5MHz)



64QAM



256QAM



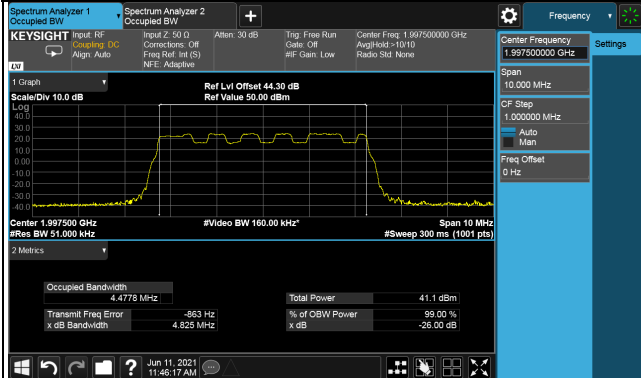
Ant. TX 2

Spectrum Plot of Worst Value

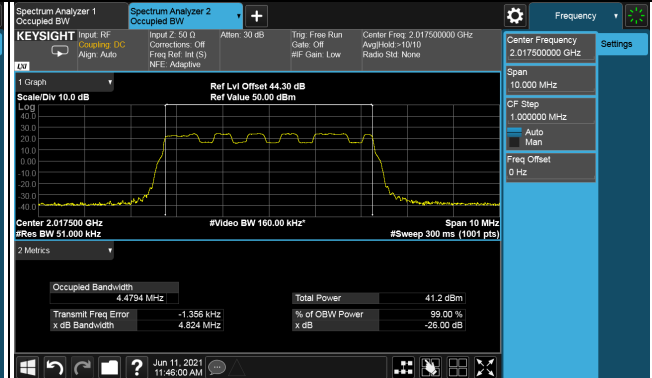
OCP 99 Bandwidth

QPSK

Ch 399500 (1997.5MHz)

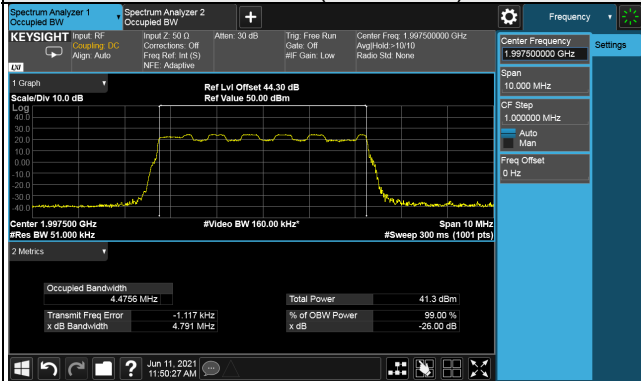


Ch 403500 (2017.5MHz)

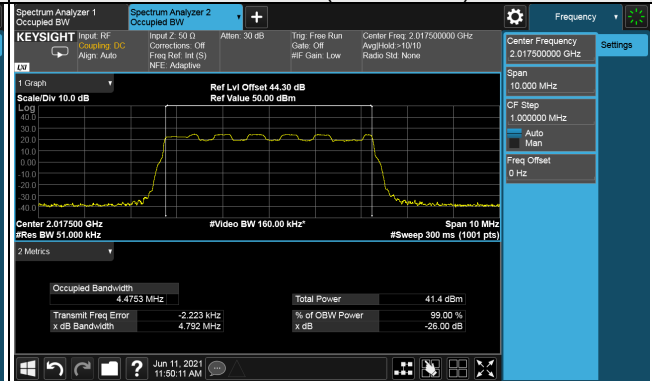


16QAM

Ch 399500 (1997.5MHz)

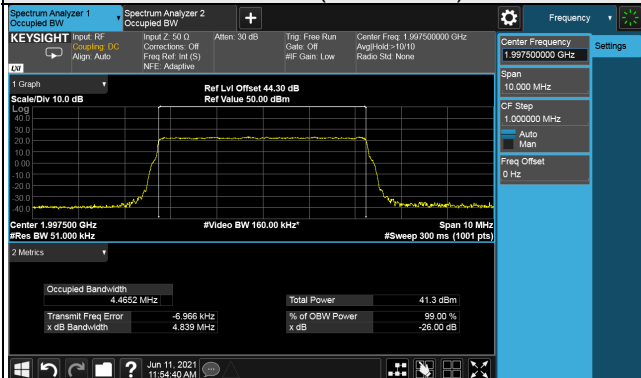


Ch 403500 (2017.5MHz)

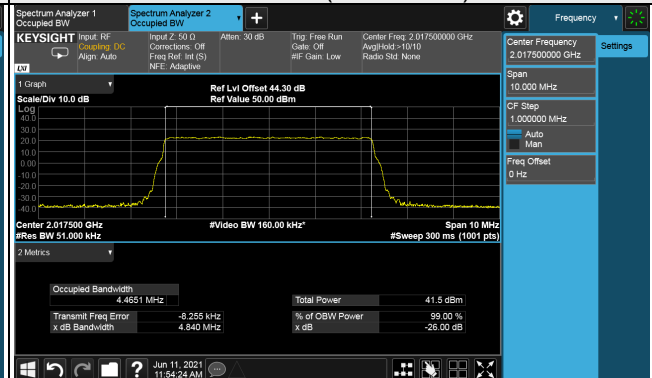


64QAM

Ch 399500 (1997.5MHz)

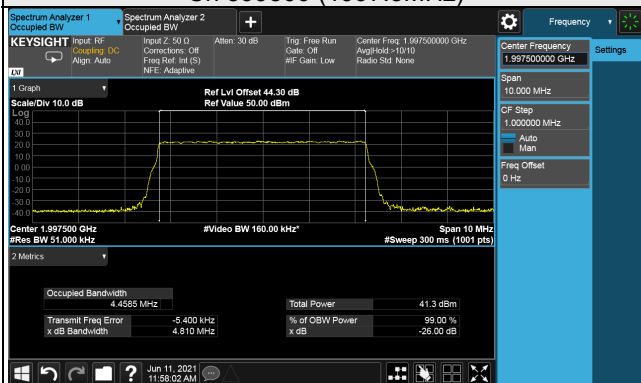


Ch 403500 (2017.5MHz)

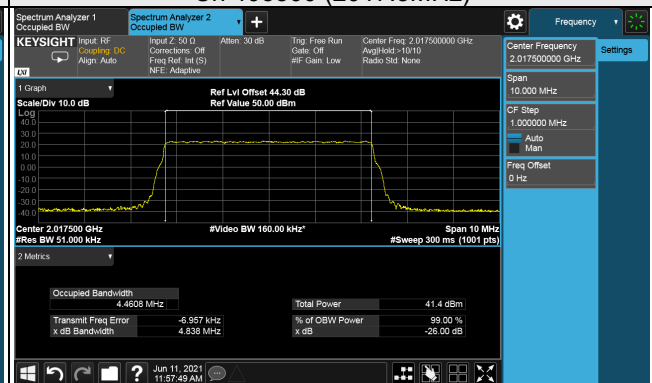


256QAM

Ch 399500 (1997.5MHz)



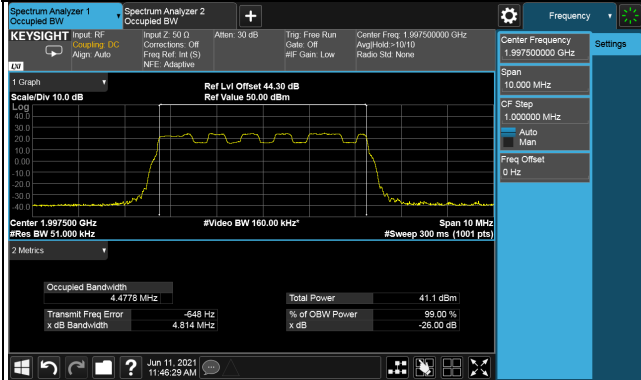
Ch 403500 (2017.5MHz)



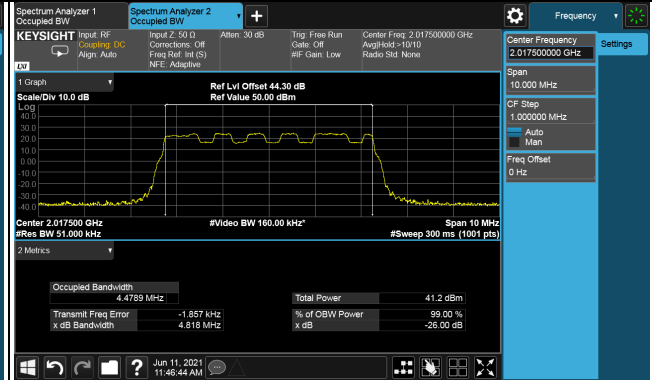
Ant. TX 3

Spectrum Plot of Worst Value OCP 99 Bandwidth QPSK

Ch 399500 (1997.5MHz)

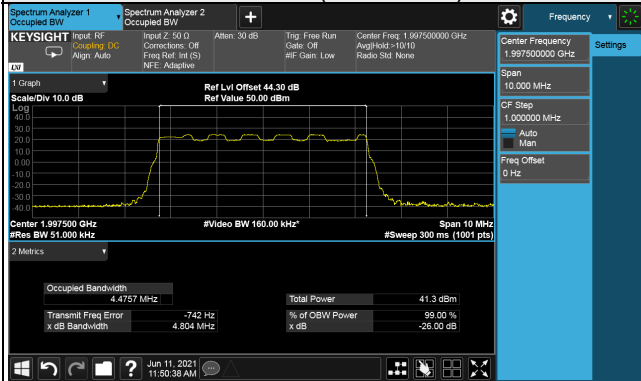


Ch 403500 (2017.5MHz)

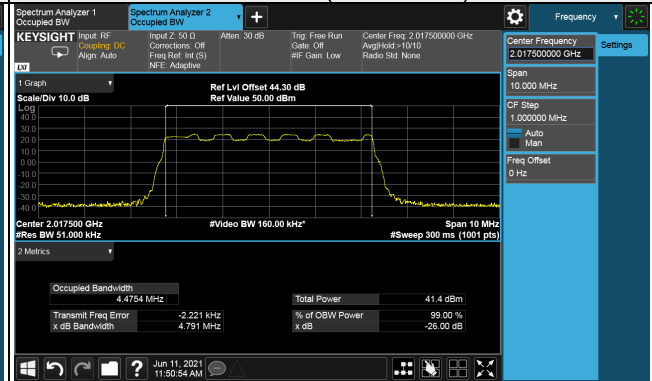


16QAM

Ch 399500 (1997.5MHz)

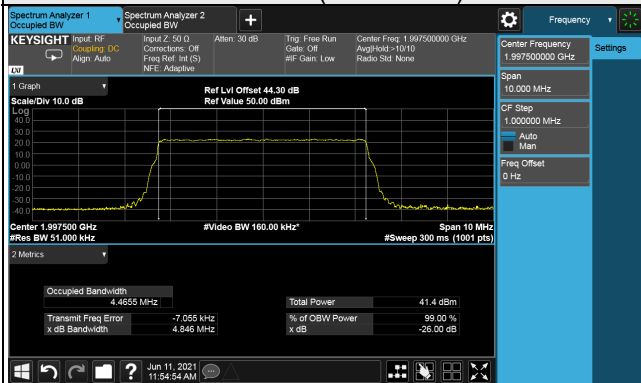


Ch 403500 (2017.5MHz)

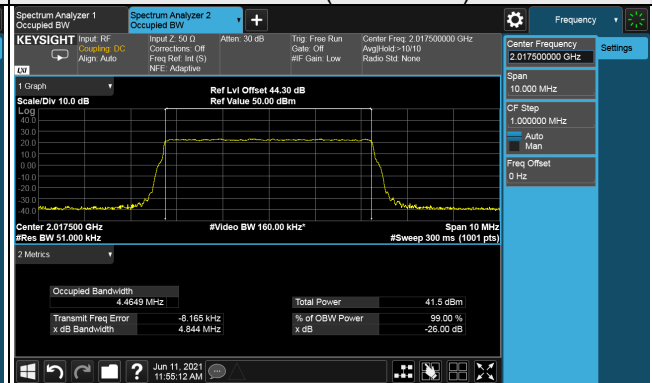


64QAM

Ch 399500 (1997.5MHz)

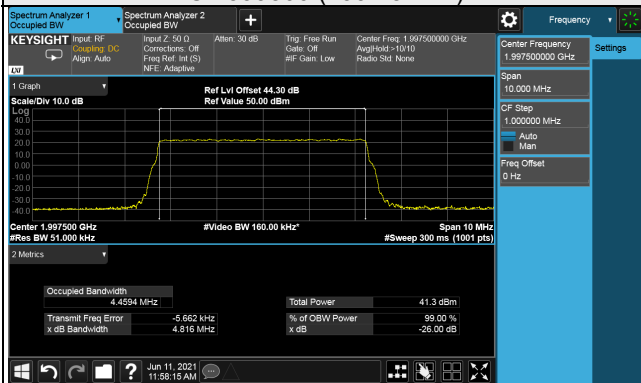


Ch 403500 (2017.5MHz)

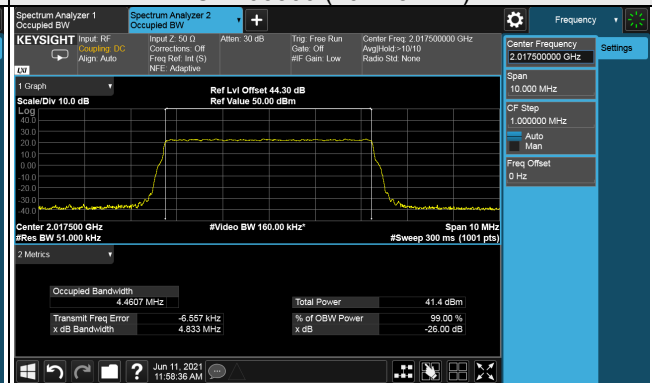


256QAM

Ch 399500 (1997.5MHz)



Ch 403500 (2017.5MHz)



4.5 Channel Edge Measurement

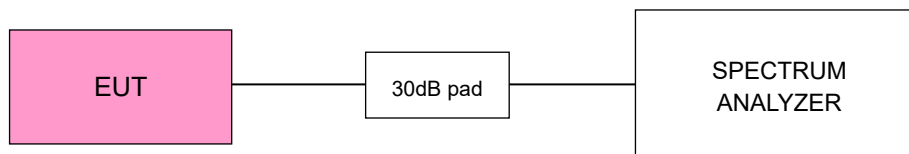
4.5.1 Limits of Band Edge Measurement

According to FCC 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 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 $43 + 10 \log_{10}(P)$ dB.

Note: This device can be implement MIMO function, so the limit of spurious emissions needs to be reduced by $10 \log_{10}(\text{Numbers}_{\text{Ant}})$ according to FCC KDB 662911 D01 guidance.

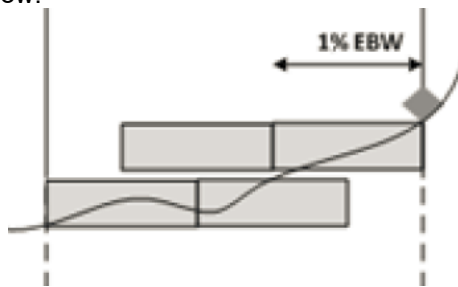
(4TX: The limit is adjusted to $-13\text{dBm} - 10 \cdot \log(4) = -19.02\text{dBm}$.)

4.5.2 Test Setup



4.5.3 Test Procedures

- All measurements were done at low and high operational frequency range.
- Use a measurement bandwidth less than required measurement bandwidth and integrate across the required bandwidth.
- Measurement multiple integrate bandwidth and across the 1 MHz adjacent to the block edge. For example below.



- Set spectrum analyzer RBW=10kHz/VBW=30kHz, integration 1% EBW of band-edge.
- Detector = RMS (Power average).
- Record the max trace plot into the test report.

Note: The band edge point/plot shown has already been evaluated to be the worst-case.

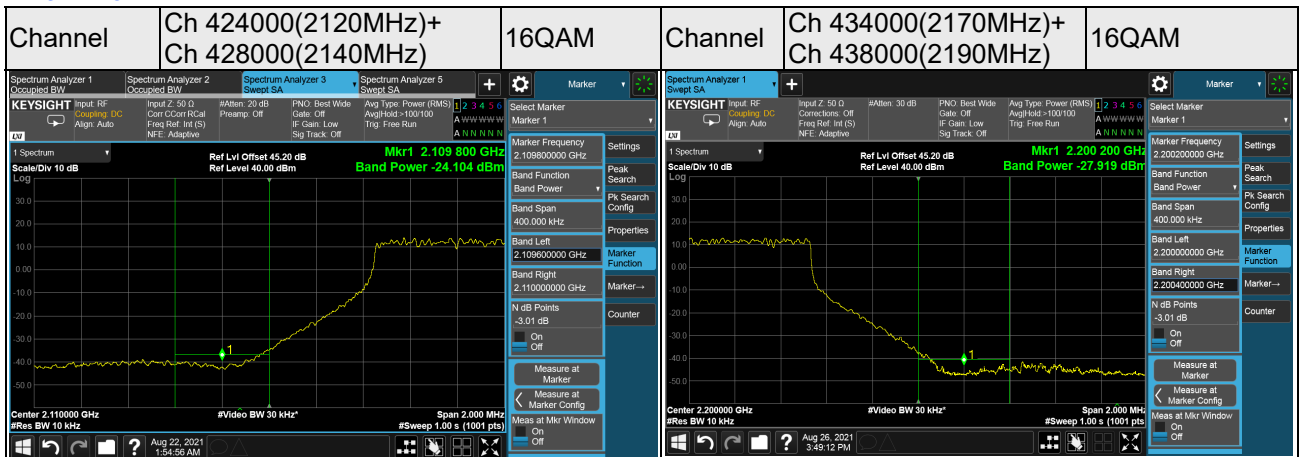
4.5.4 Test Results

Band n66

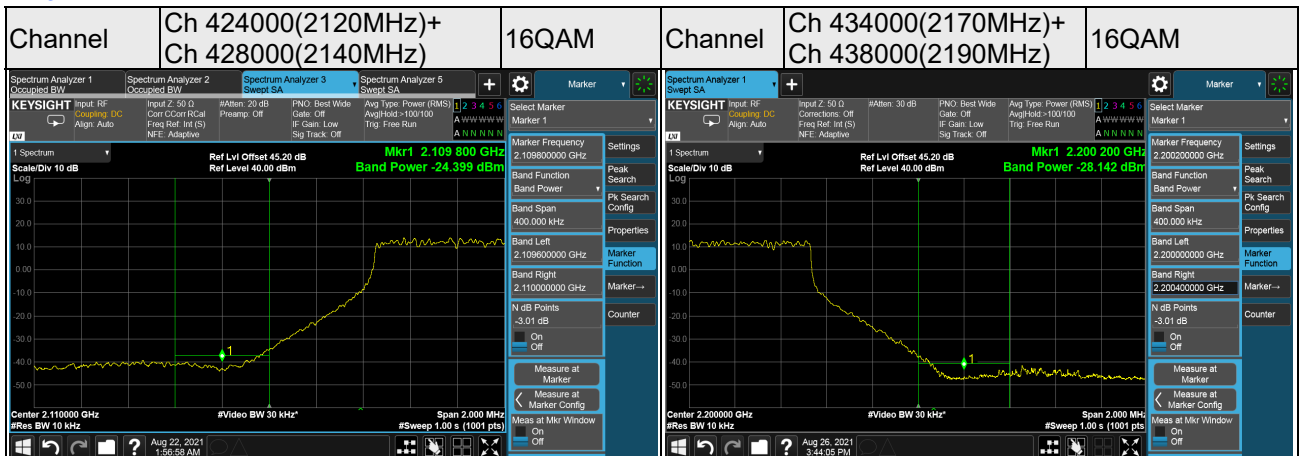
CA Contiguous

20MHz+20MHz

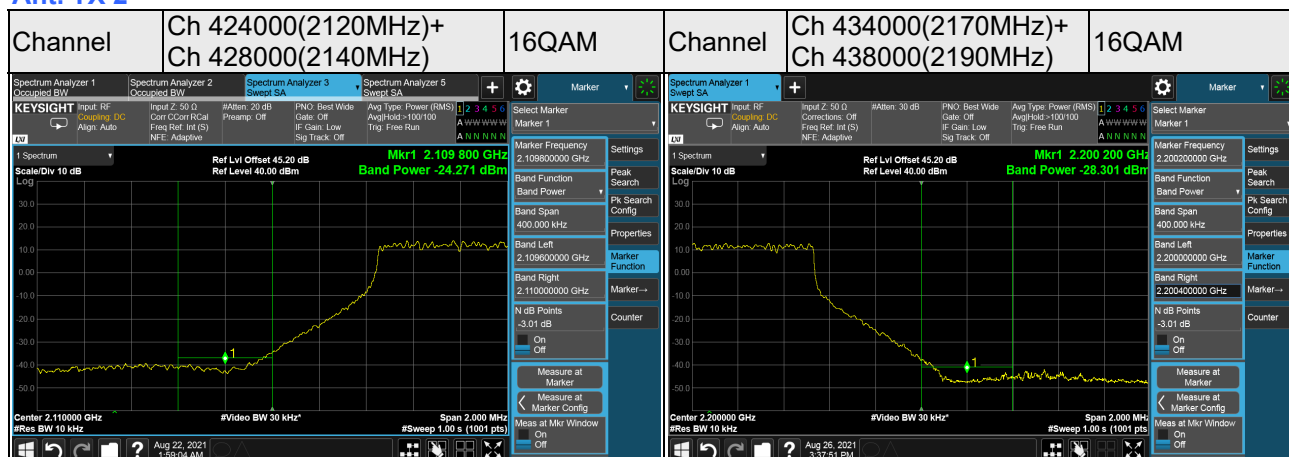
Ant. TX 0



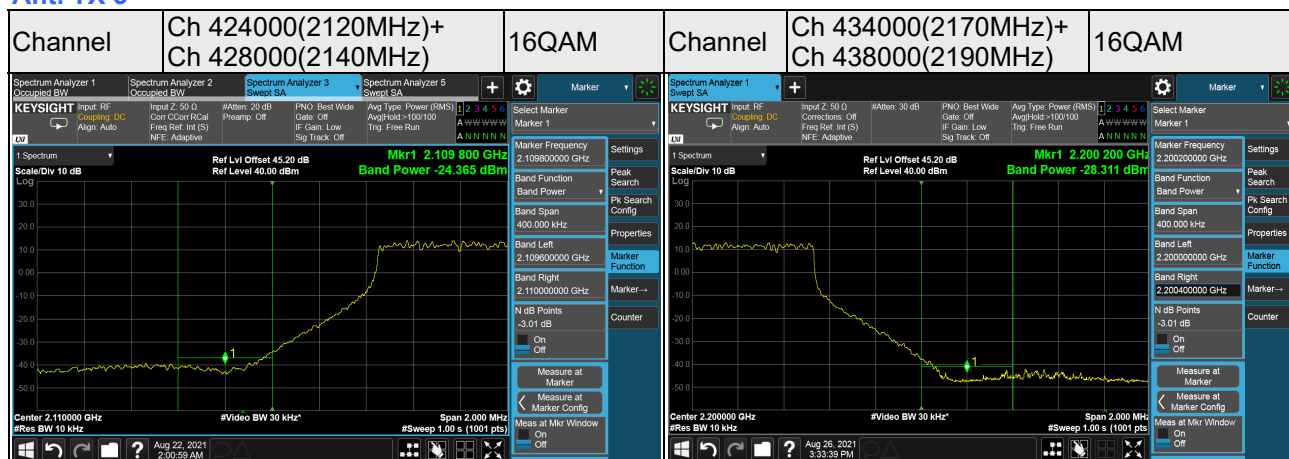
Ant. TX 1



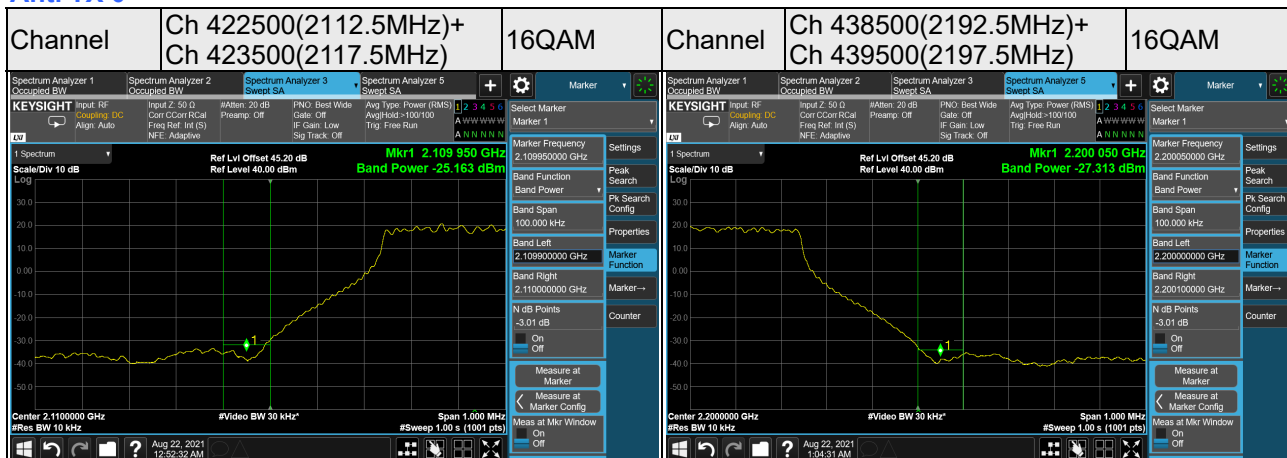
Ant. TX 2



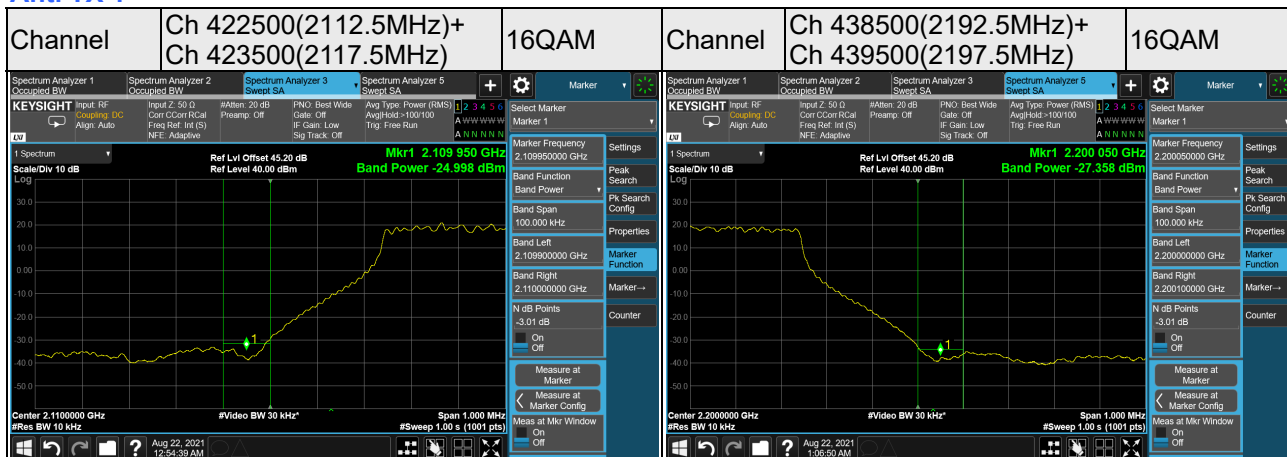
Ant. TX 3



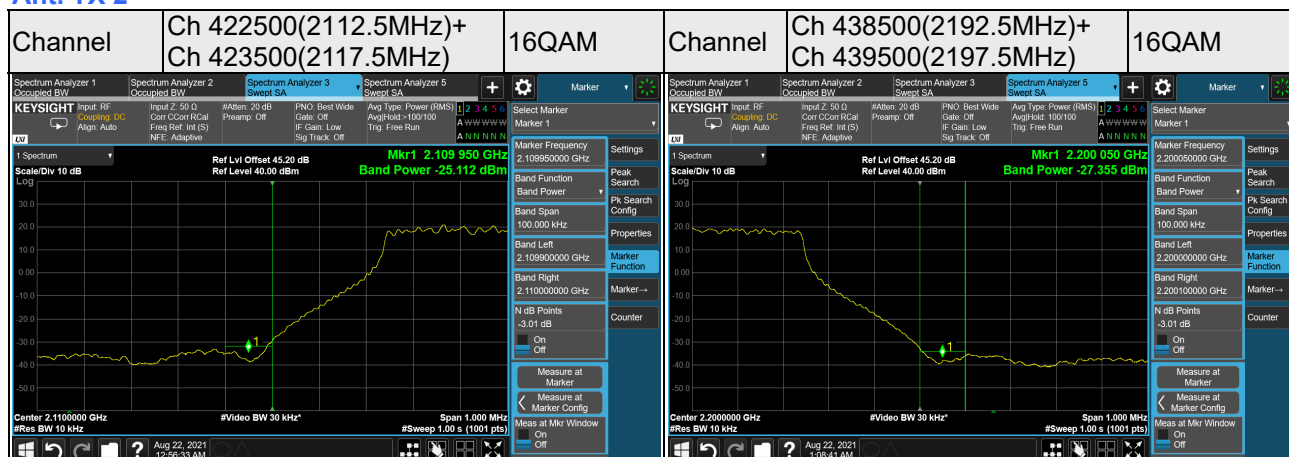
5MHz+5MHz Ant. TX 0



Ant. TX 1



Ant. TX 2



Ant. TX 3

