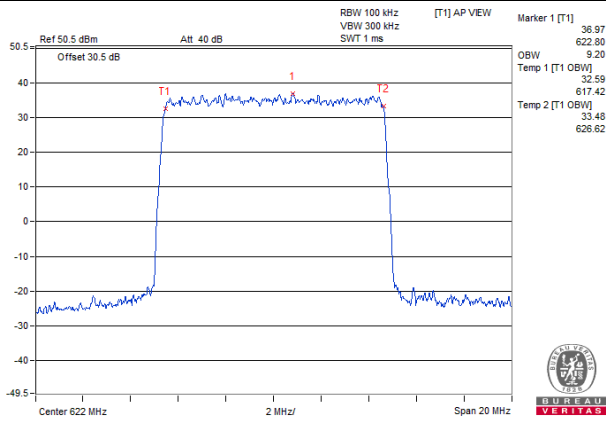
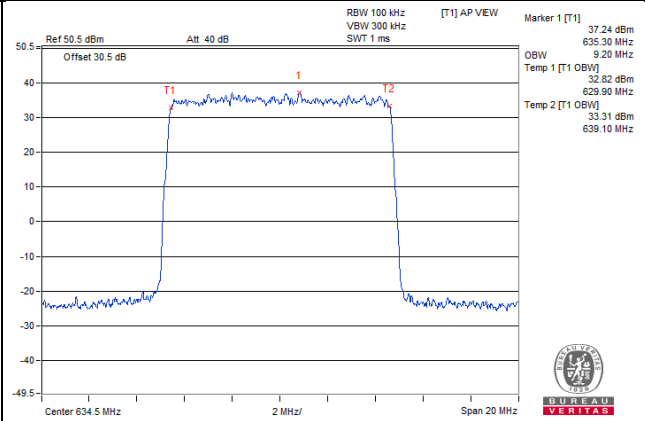


256QAM

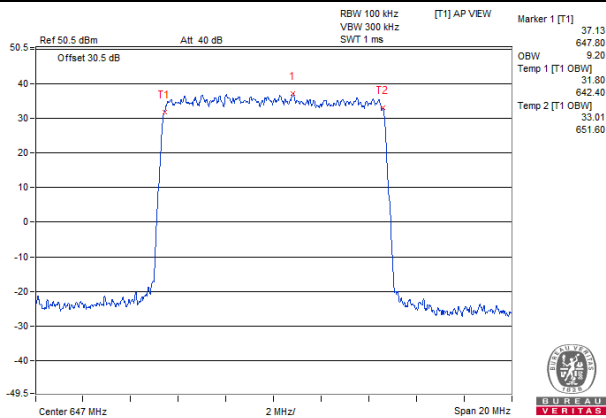
Channel: 124400



Channel: 126900



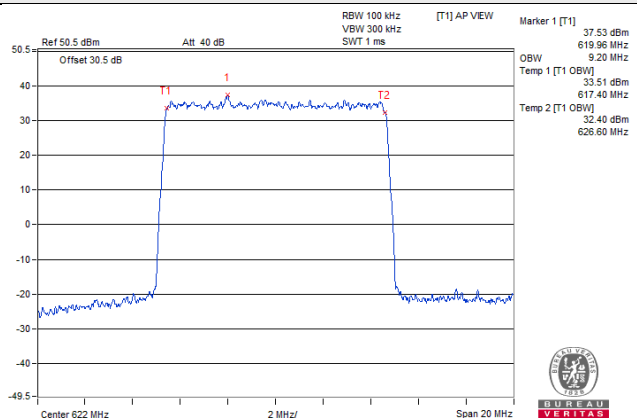
Channel: 129400



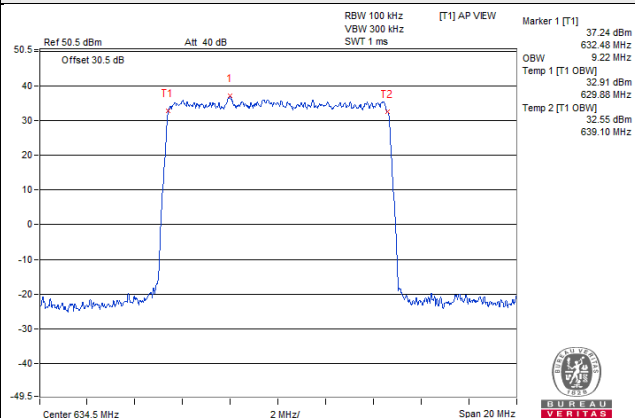
Chain 1

Spectrum Plot of Worst Value Occupied Bandwidth QPSK

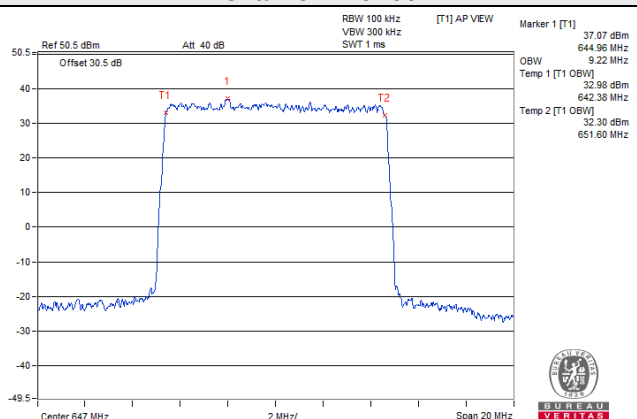
Channel: 124400



Channel: 126900

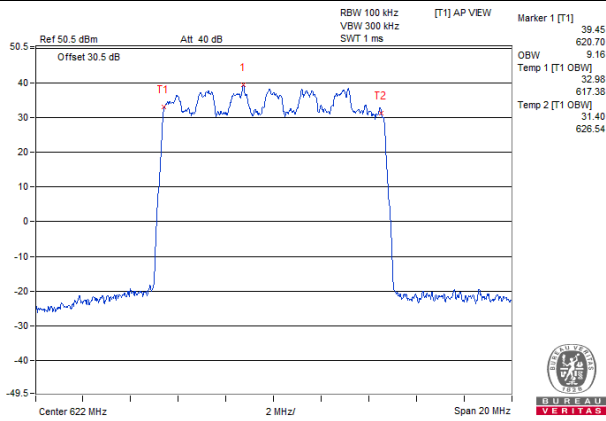


Channel: 129400

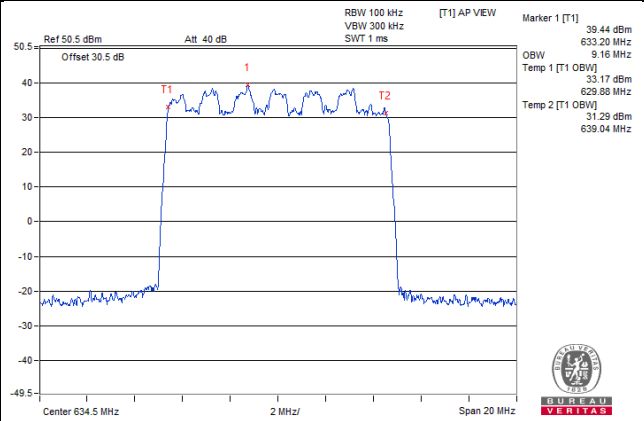


16QAM

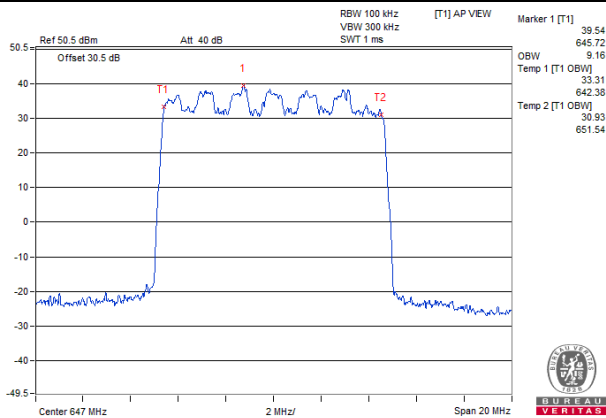
Channel: 124400



Channel: 126900

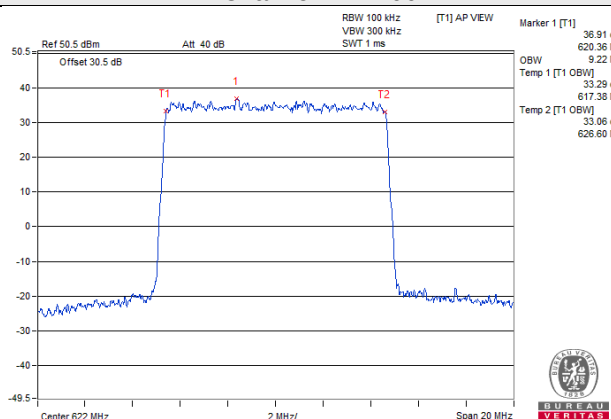


Channel: 129400

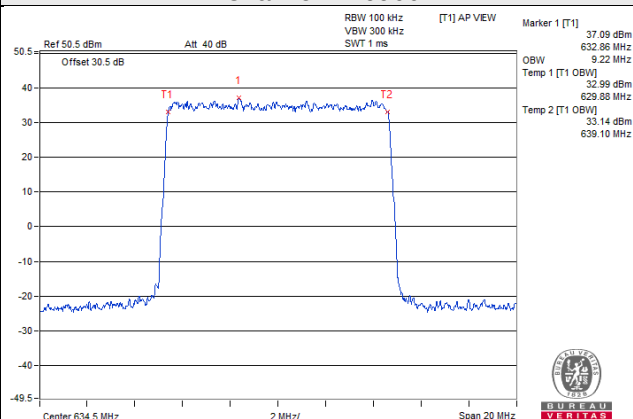


64QAM

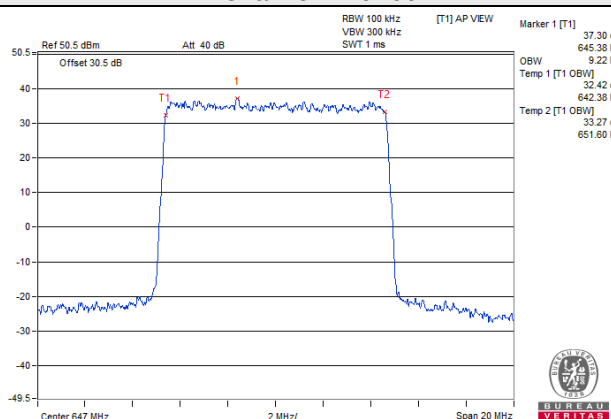
Channel: 124400



Channel: 126900

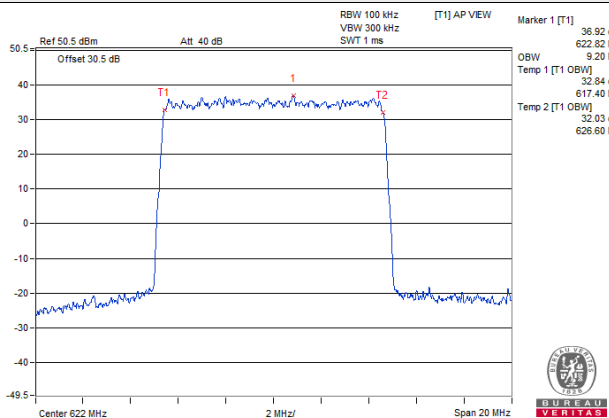


Channel: 129400

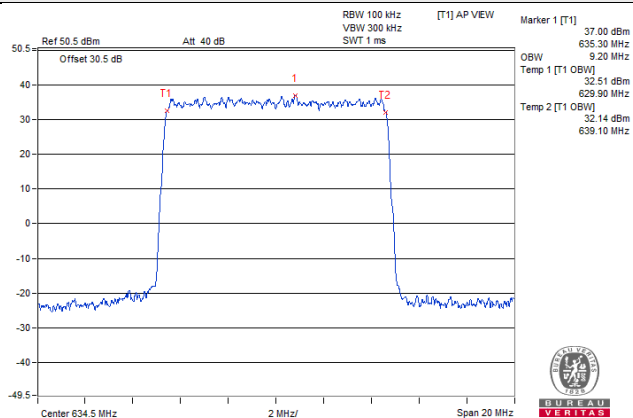


256QAM

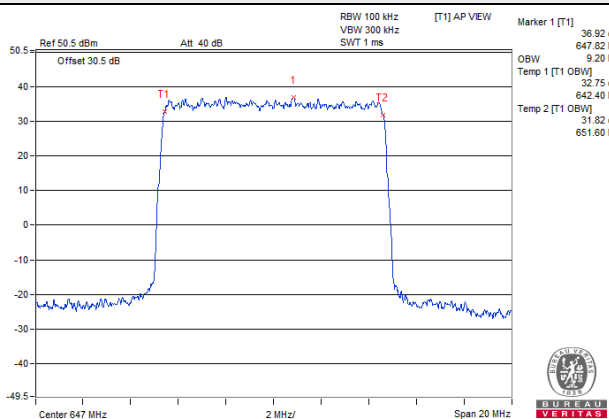
Channel: 124400



Channel: 126900



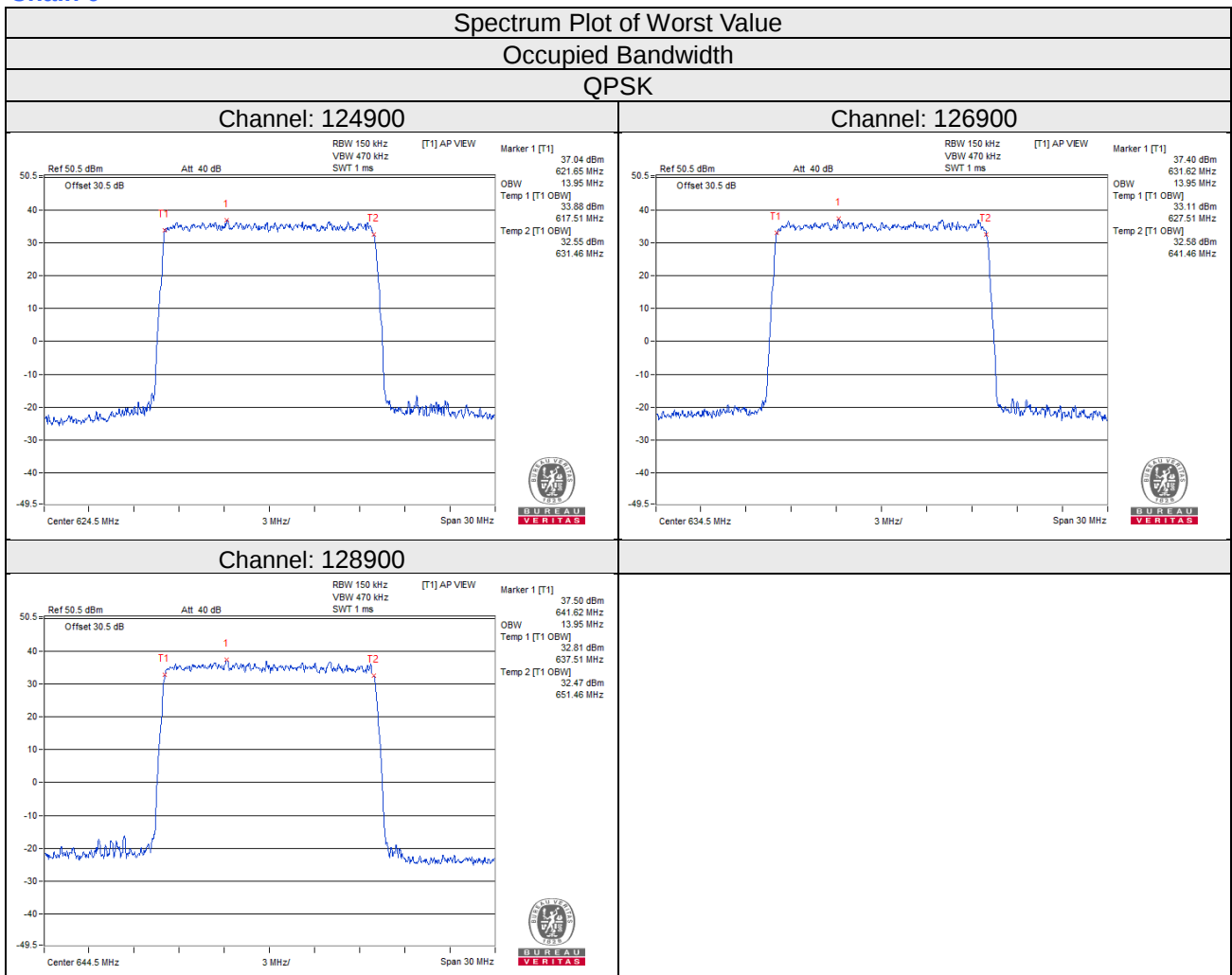
Channel: 129400



15MHz

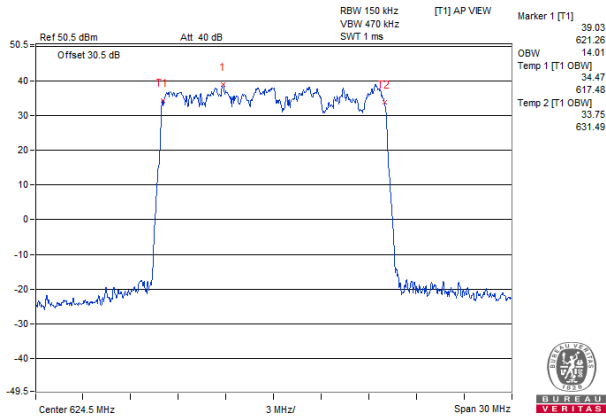
Channel Number	Freq. (MHz)	OCP 99 BAND WIDTH (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
124900	624.5	13.95	14.01	13.98	13.95	13.95	14.01	13.92	13.92
126900	634.5	13.95	13.98	13.92	13.92	13.95	13.98	13.92	13.95
128900	644.5	13.95	13.95	13.95	13.92	13.95	13.98	13.95	13.92

Chain 0

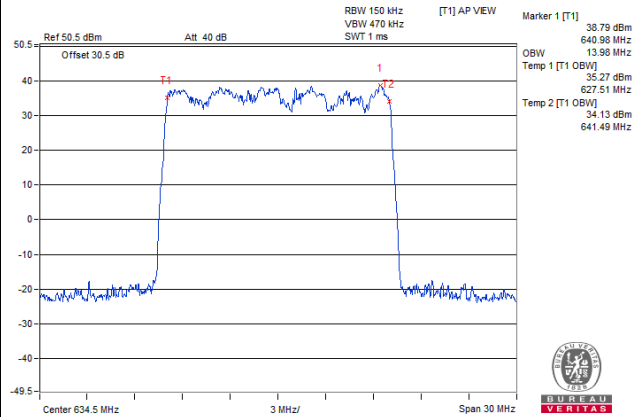


16QAM

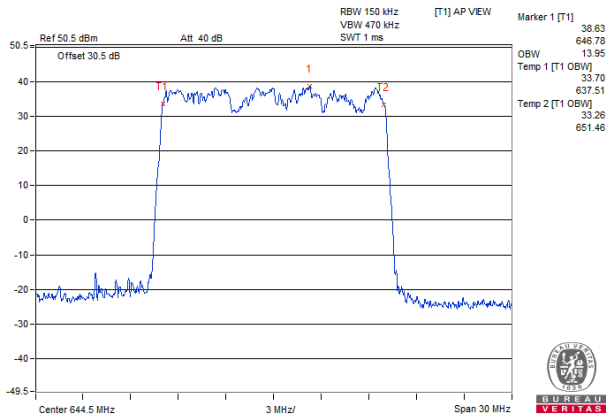
Channel: 124900



Channel: 126900

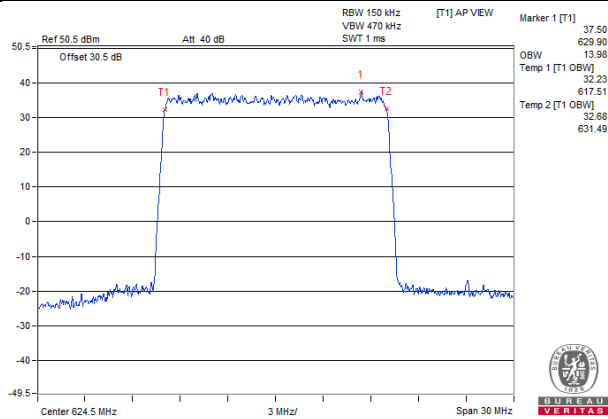


Channel: 128900

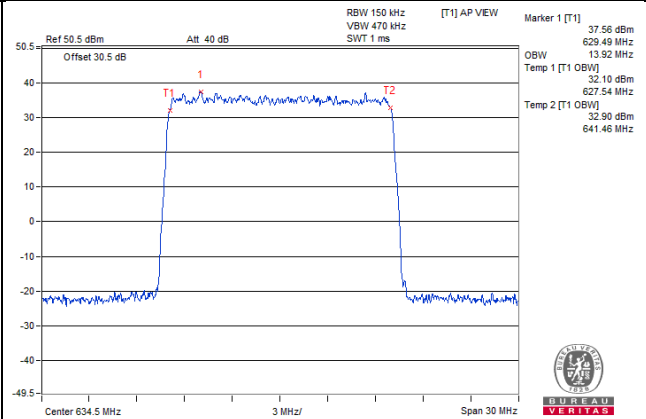


64QAM

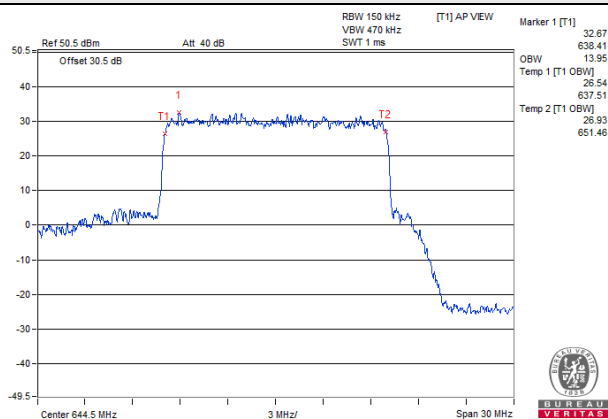
Channel: 124900



Channel: 126900

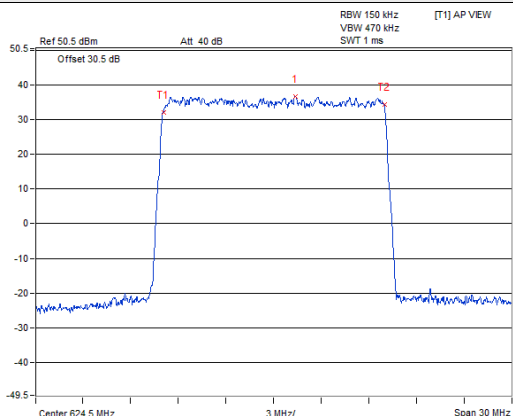


Channel: 128900

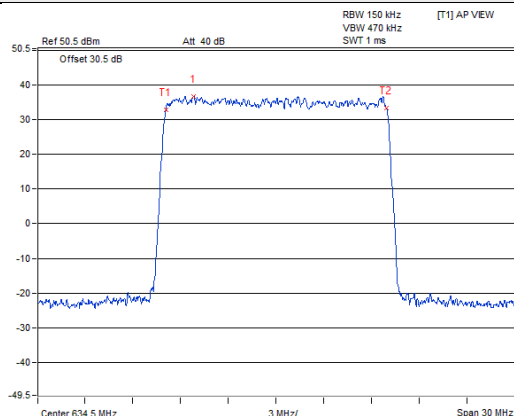


256QAM

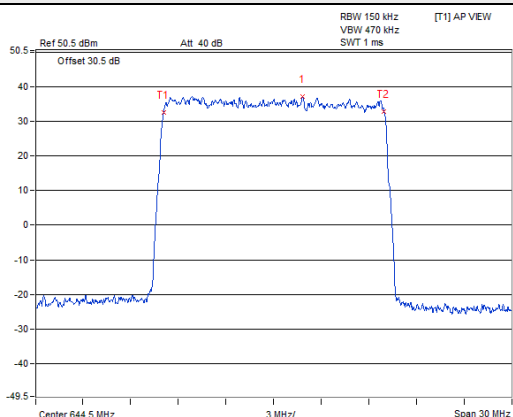
Channel: 124900



Channel: 126900



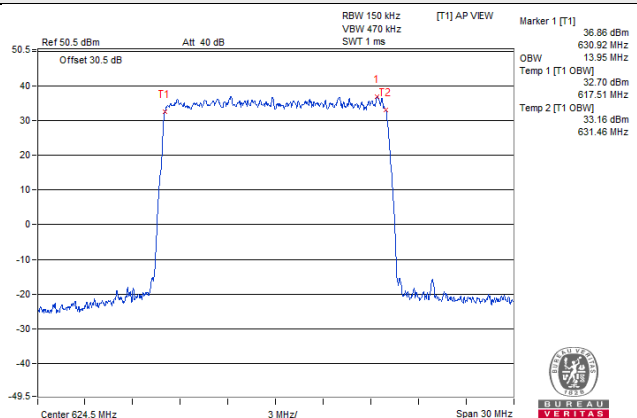
Channel: 128900



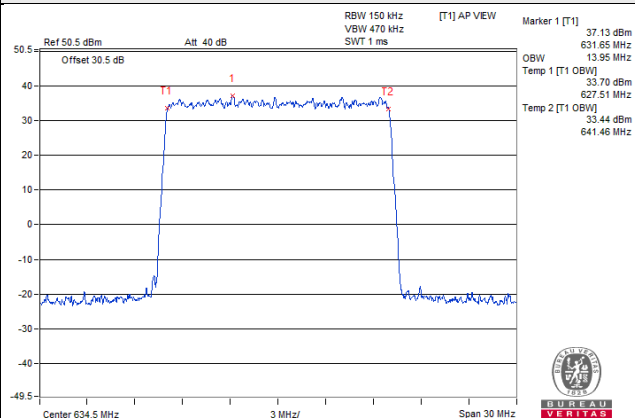
Chain 1

Spectrum Plot of Worst Value Occupied Bandwidth QPSK

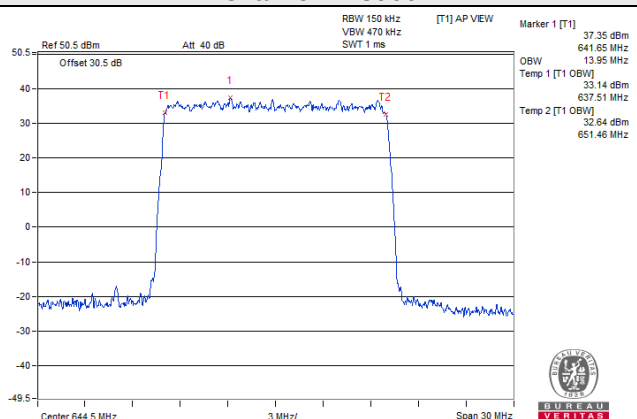
Channel: 124900



Channel: 126900

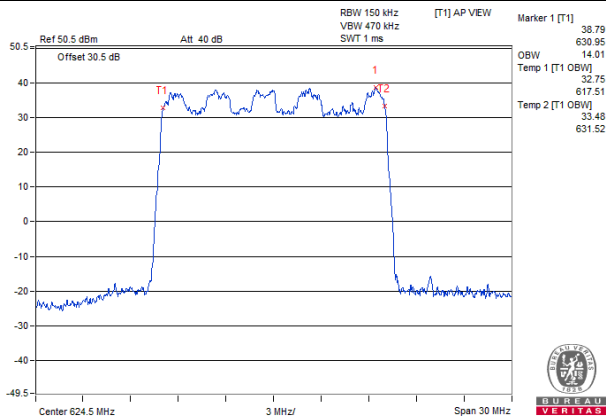


Channel: 128900

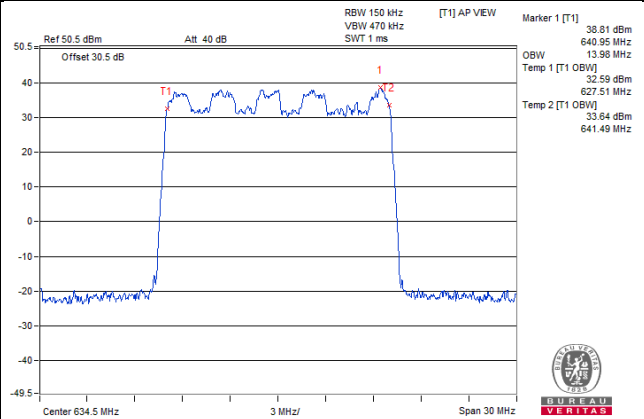


16QAM

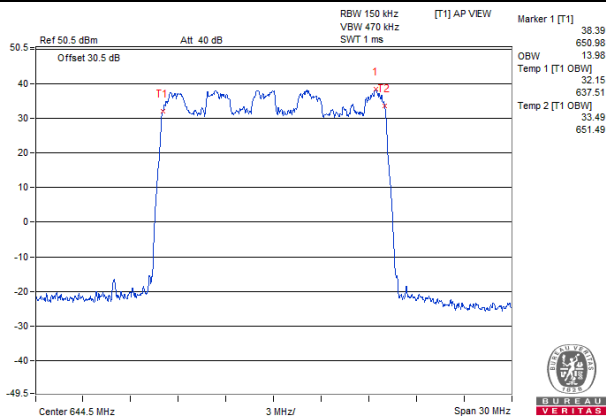
Channel: 124900



Channel: 126900

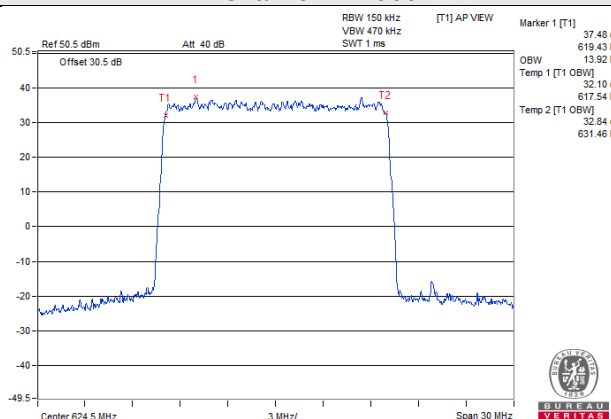


Channel: 128900

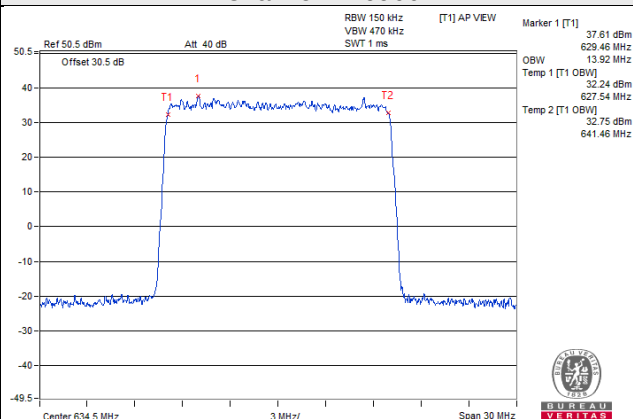


64QAM

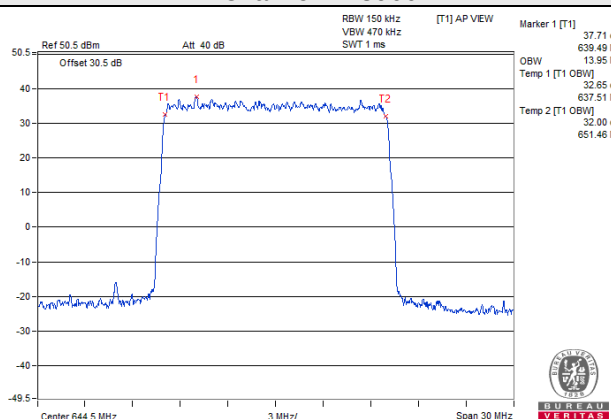
Channel: 124900



Channel: 126900

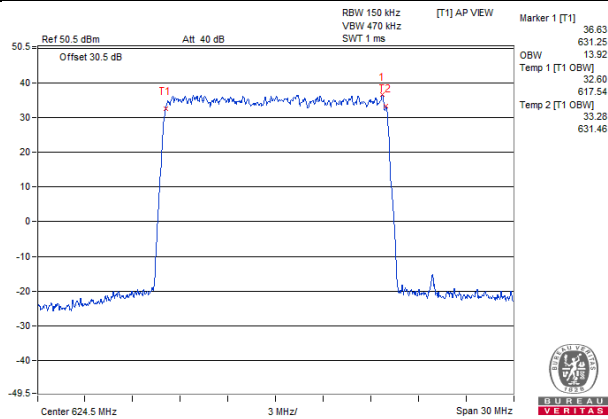


Channel: 128900

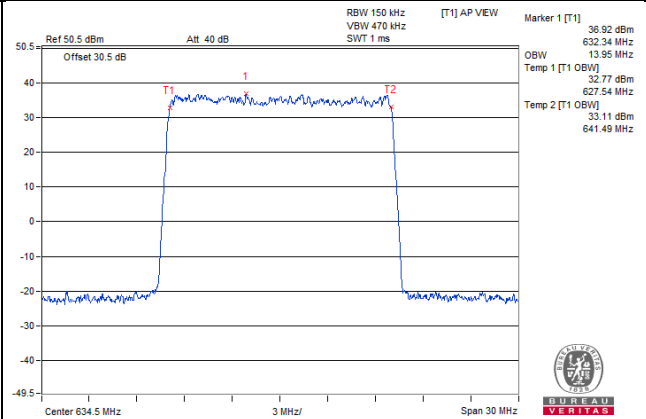


256QAM

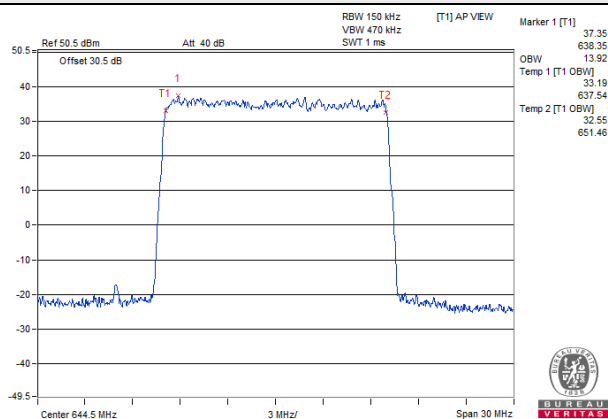
Channel: 124900



Channel: 126900



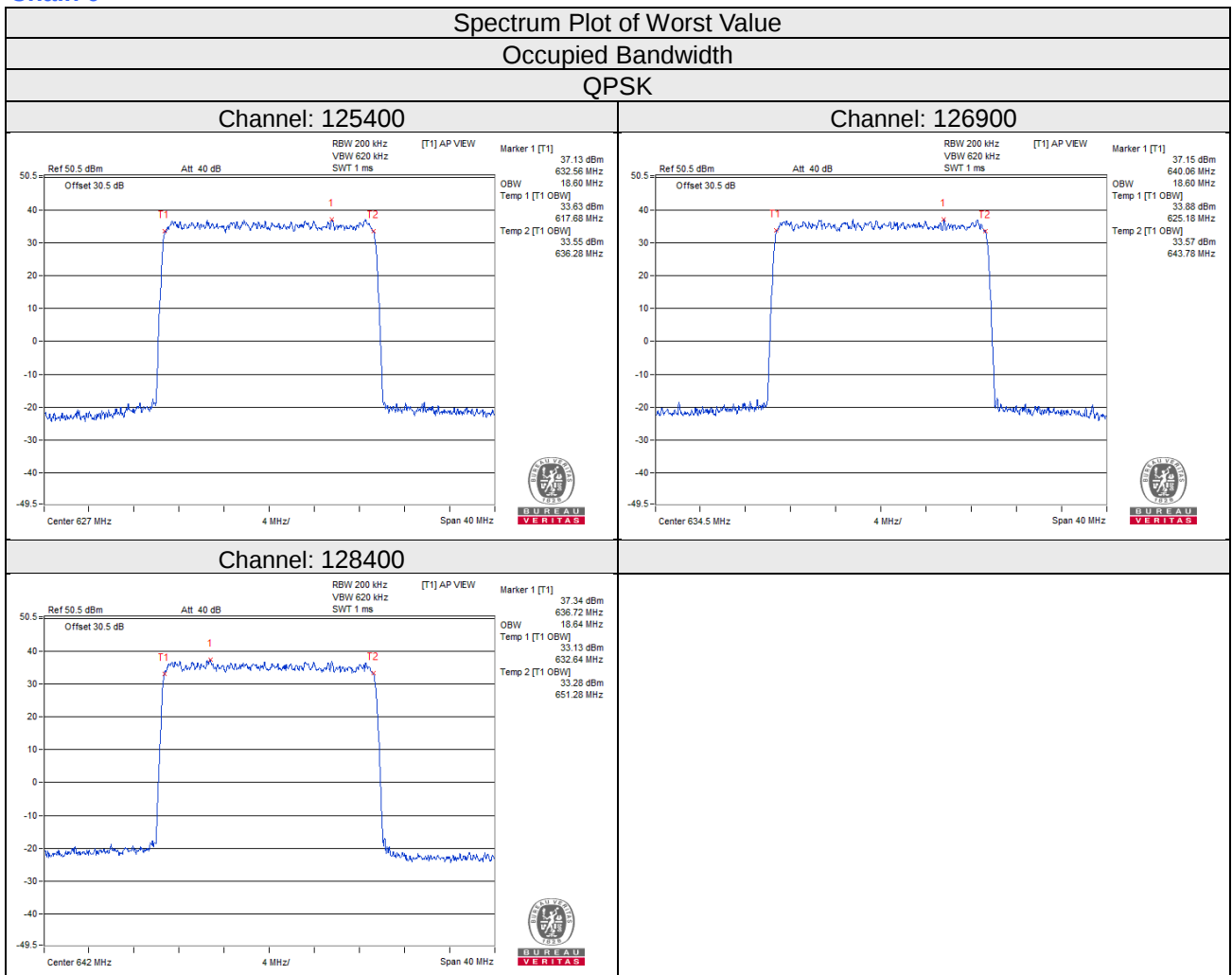
Channel: 128900



20MHz

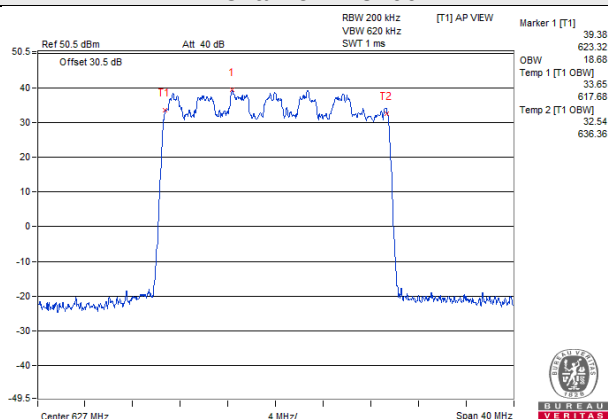
Channel Number	Freq. (MHz)	OCP 99 BAND WIDTH (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
125400	627	18.60	18.68	18.64	18.60	18.64	18.72	18.64	18.60
126900	634.5	18.60	18.72	18.64	18.64	18.60	18.68	18.64	18.60
128400	642	18.64	18.72	18.60	18.60	18.64	18.72	18.60	18.64

Chain 0

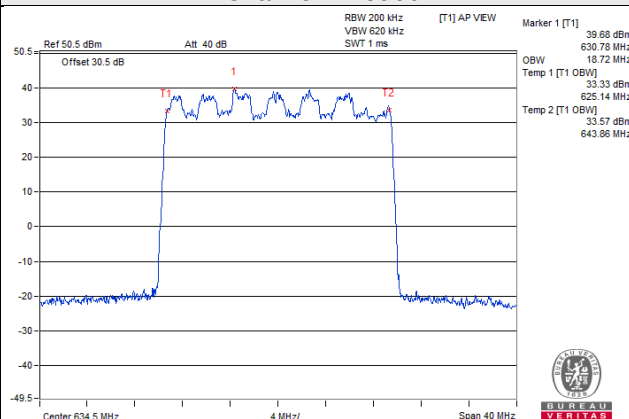


16QAM

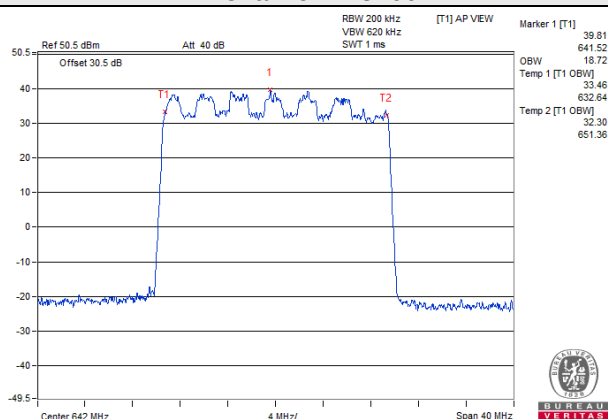
Channel: 125400



Channel: 126900

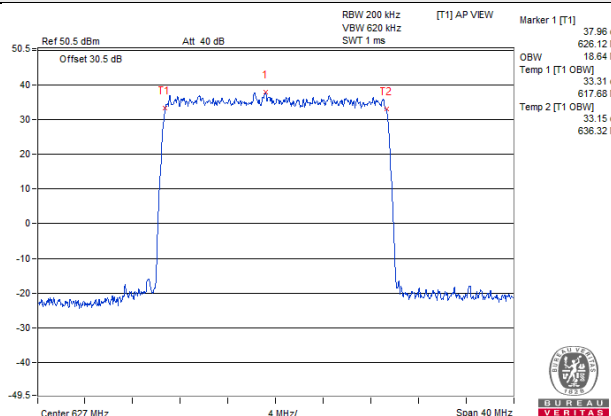


Channel: 128400

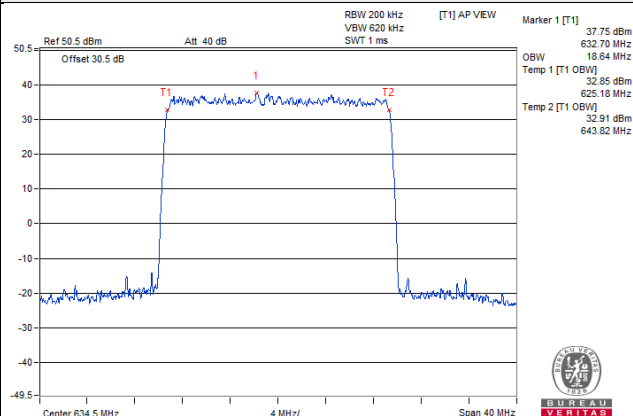


64QAM

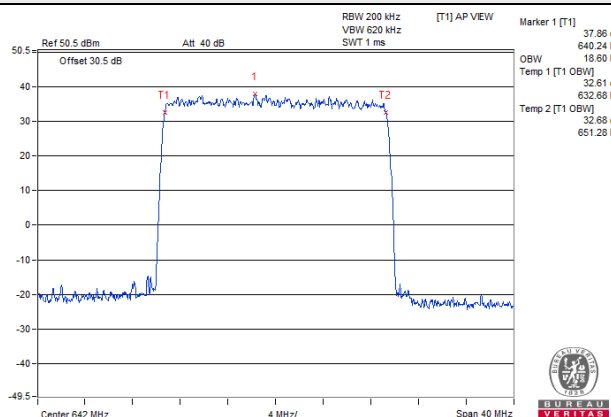
Channel: 125400



Channel: 126900

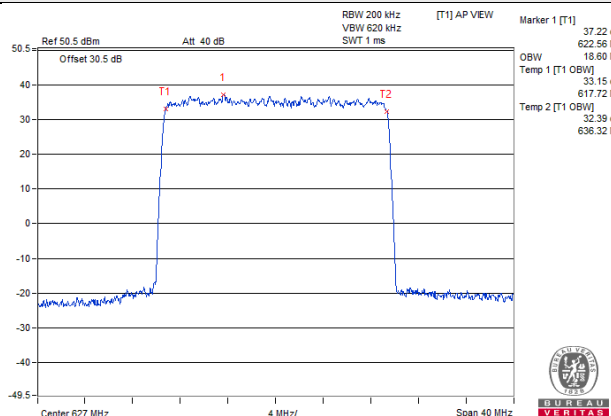


Channel: 128400

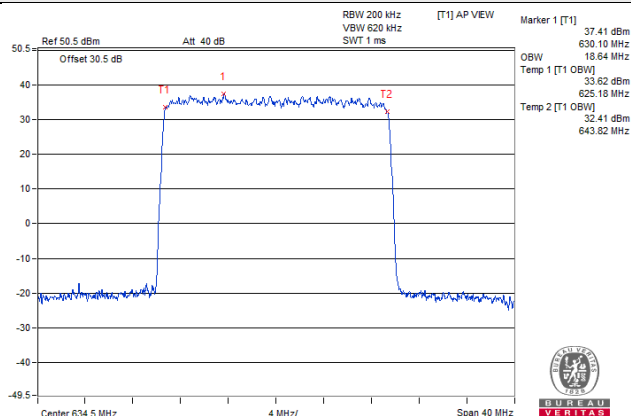


256QAM

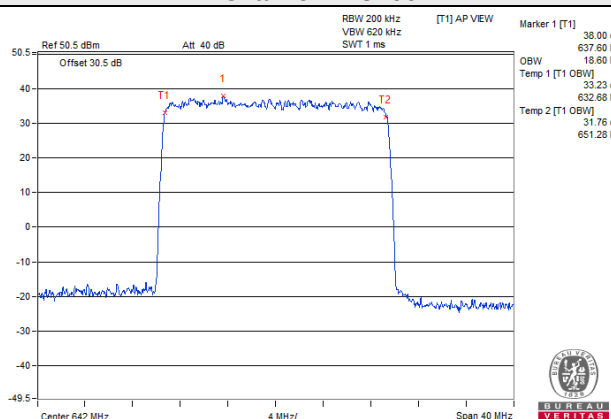
Channel: 125400



Channel: 126900



Channel: 128400



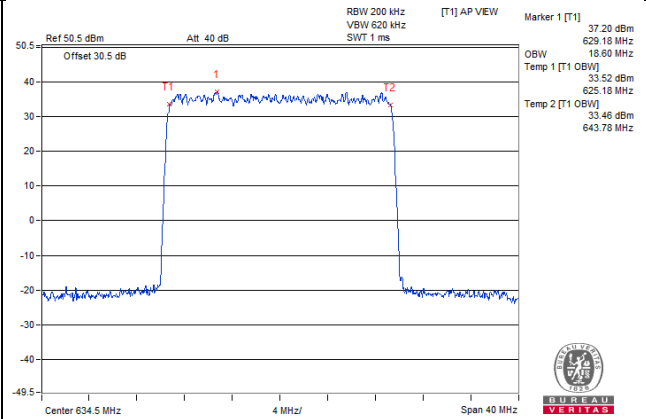
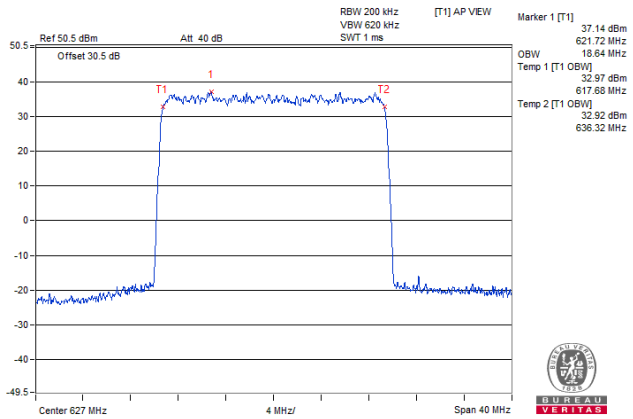
Chain 1

Spectrum Plot of Worst Value Occupied Bandwidth

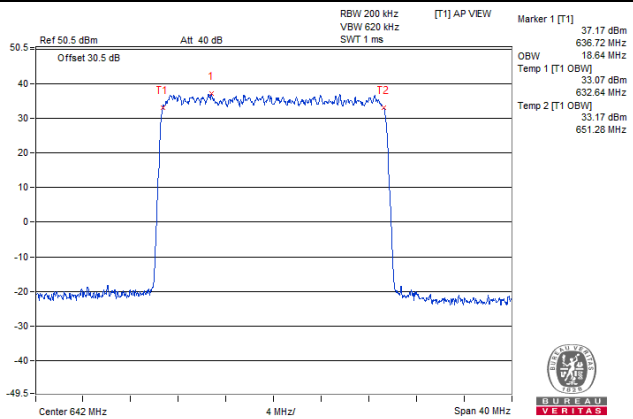
QPSK

Channel: 125400

Channel: 126900

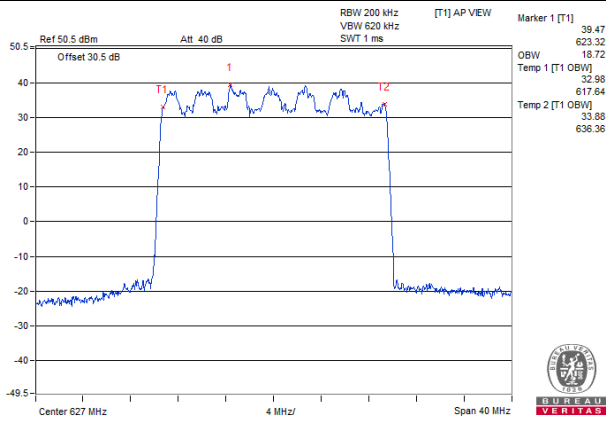


Channel: 128400

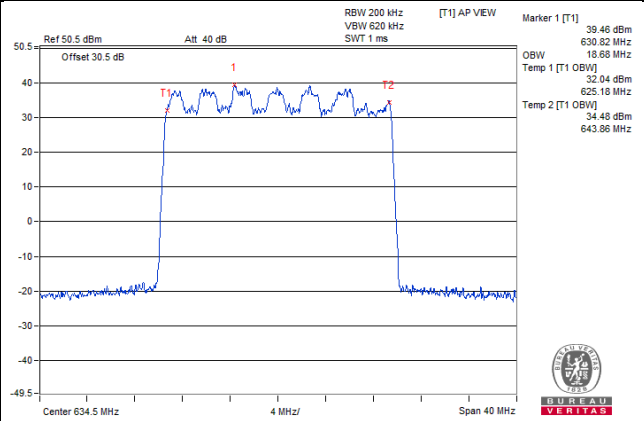


16QAM

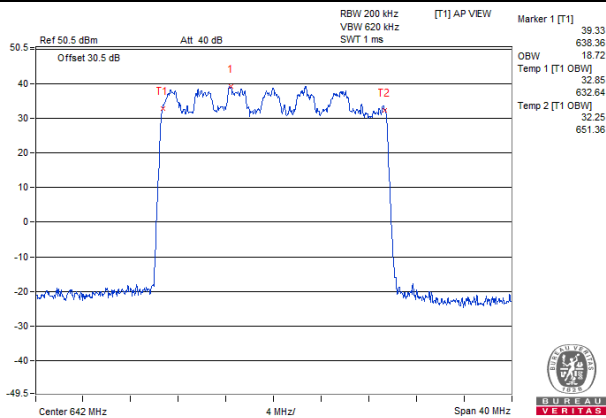
Channel: 125400



Channel: 126900

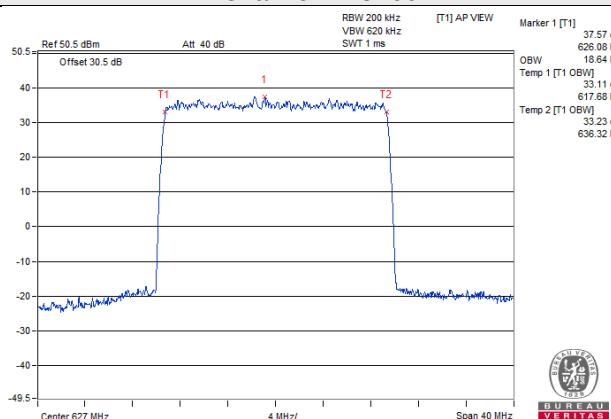


Channel: 128400

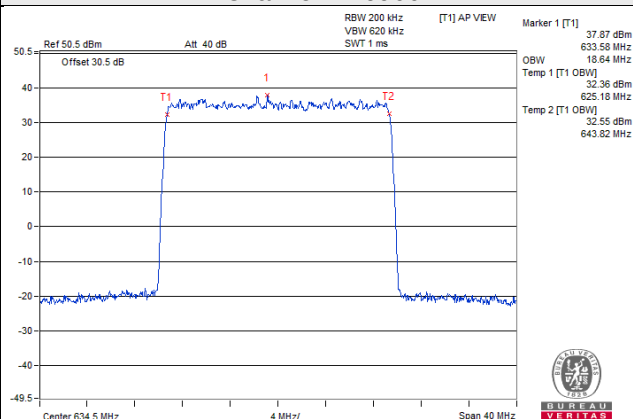


64QAM

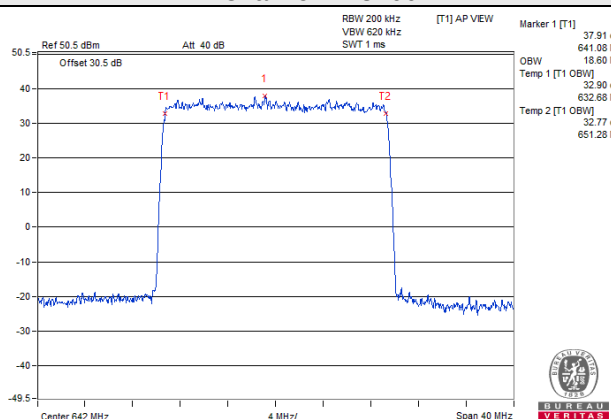
Channel: 125400



Channel: 126900

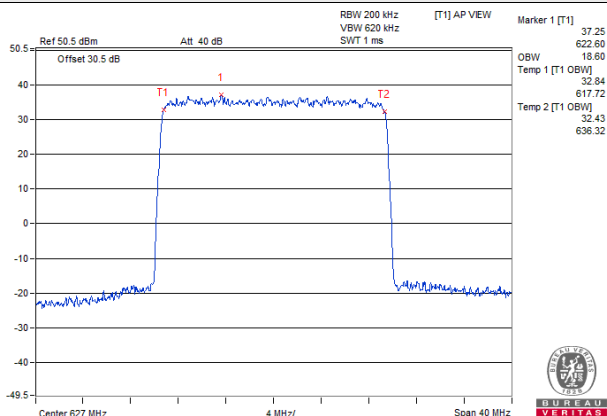


Channel: 128400

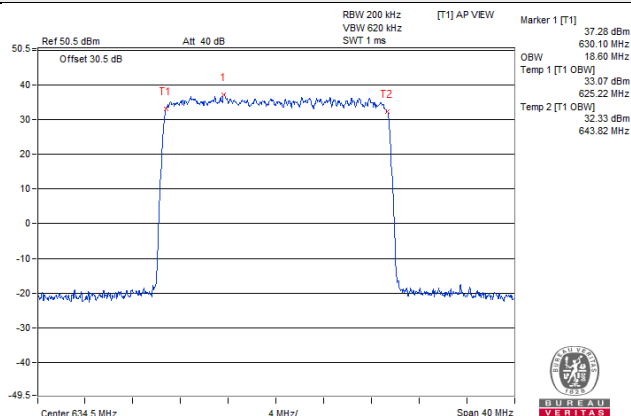


256QAM

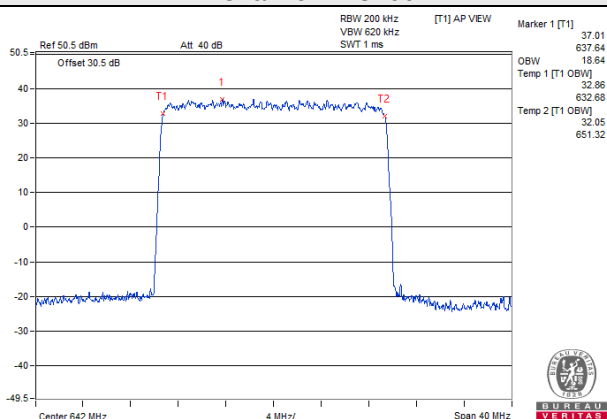
Channel: 125400



Channel: 126900



Channel: 128400

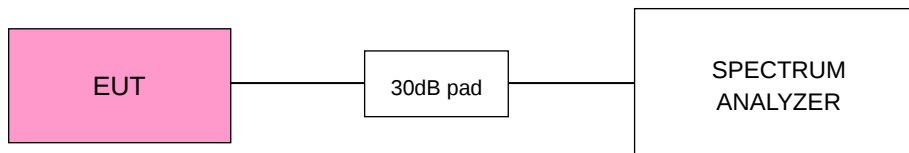


4.5 Channel Edge Measurement

4.5.1 Limits of Band Edge Measurement

According to FCC 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.

4.5.2 Test Setup



4.5.3 Test Procedures

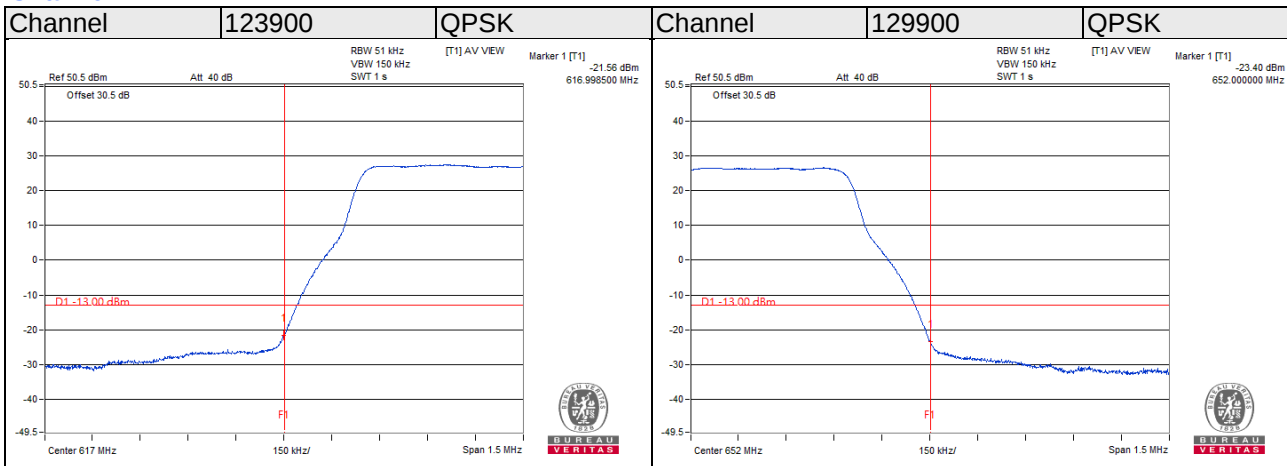
- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and s RB of the spectrum is $>1\%$ EMISSION BANDWIDTH and VB of the spectrum is $\geq 3*RB$, Detector= Average.
- c. Record the max trace plot into the test report.

4.5.4 Test Results

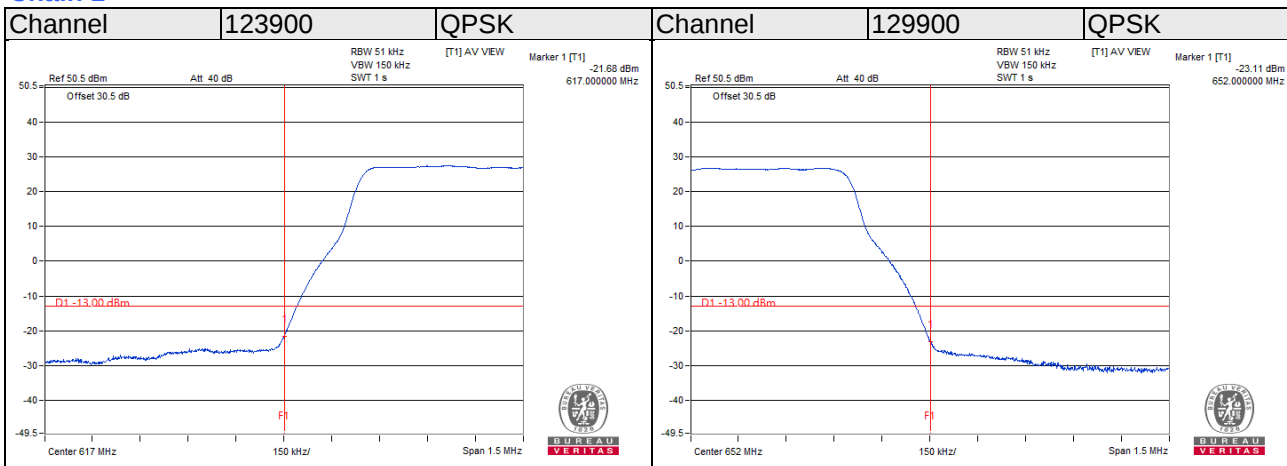
Single Carrier

5MHz

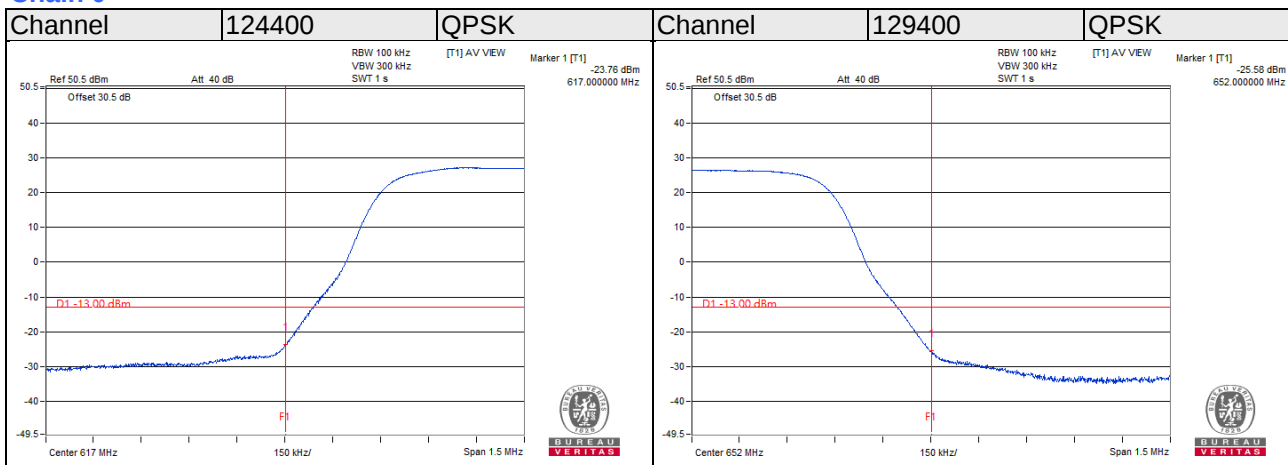
Chain 0



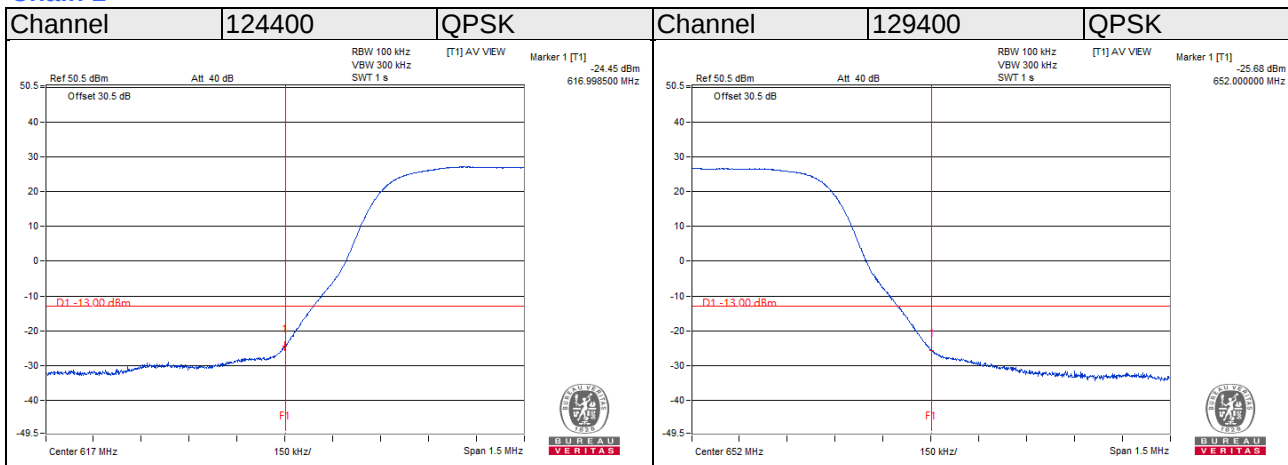
Chain 1



10MHz Chain 0

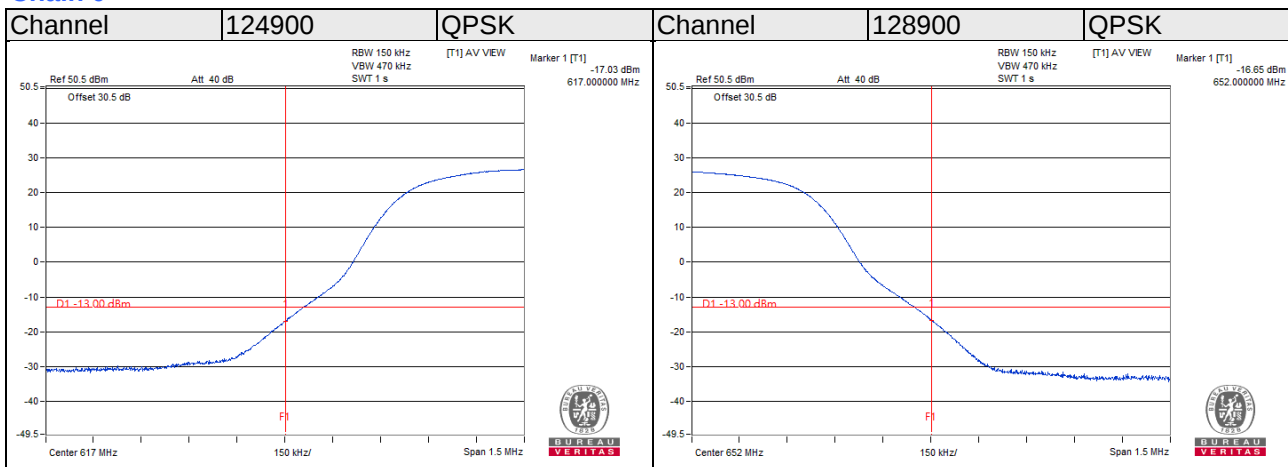


Chain 1

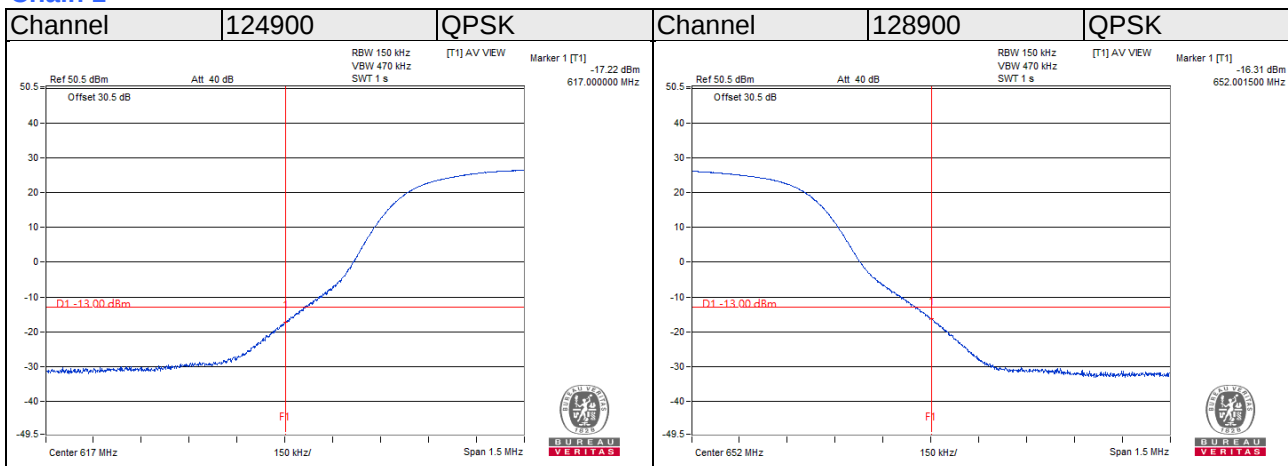


15MHz

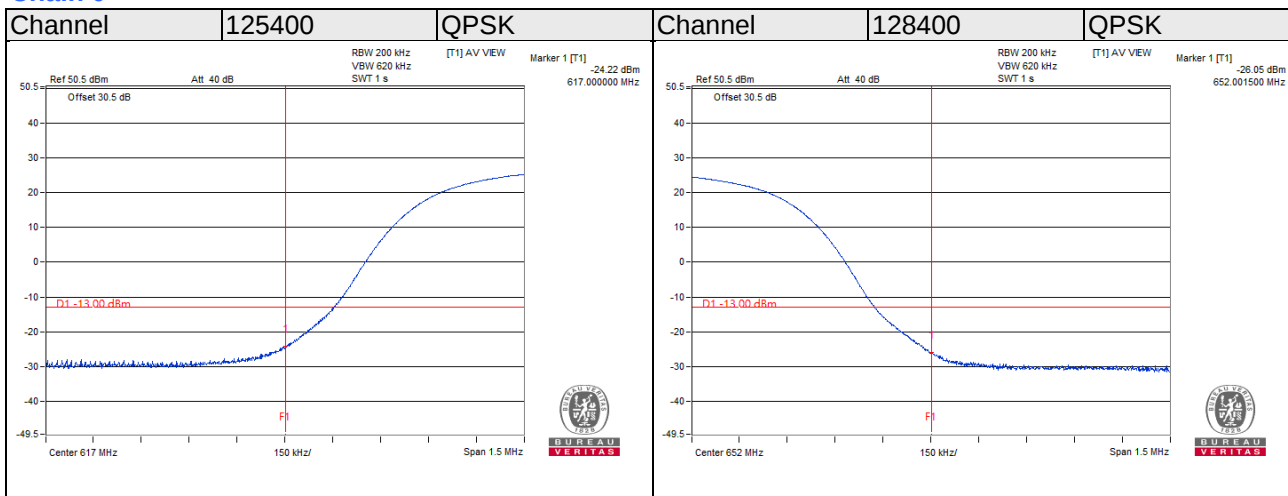
Chain 0



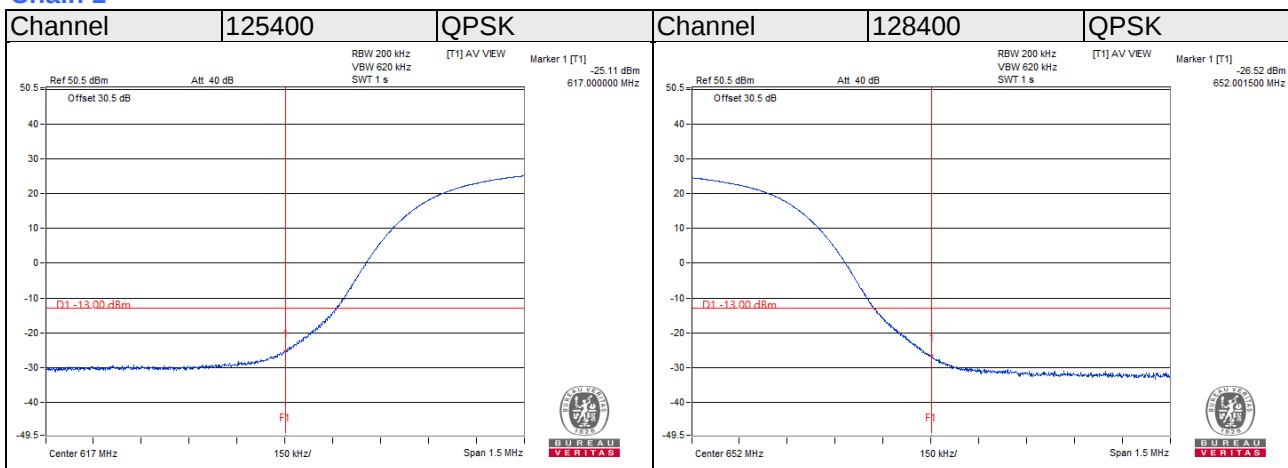
Chain 1



20MHz Chain 0



Chain 1

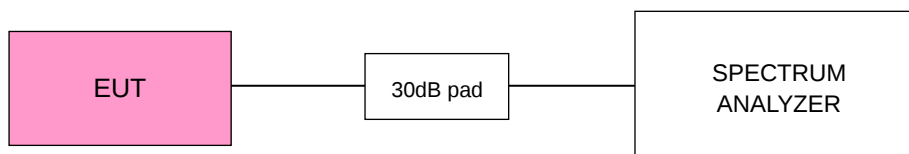


4.6 Peak to Average Ratio

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

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

4.6.4 Test Results

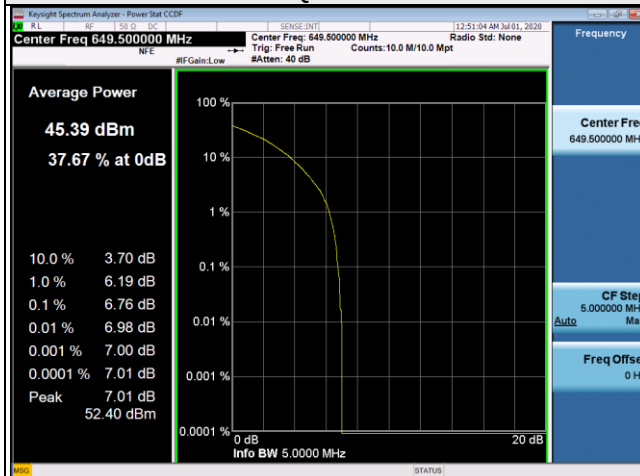
Single Carrier

5MHz

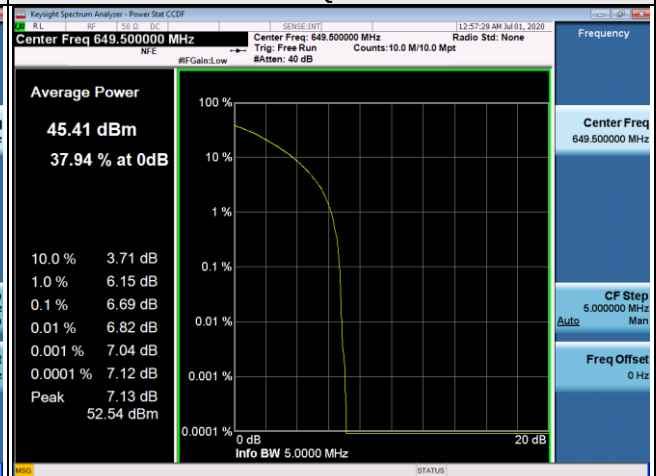
Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
123900	619.5	6.52	6.46	6.58	6.69	6.53	6.50	6.49	6.57
126900	634.5	6.51	6.47	6.58	6.68	6.50	6.49	6.49	6.57
129900	649.5	6.76	6.69	6.62	6.81	6.60	6.61	6.60	6.59

Spectrum Plot of Worst Value

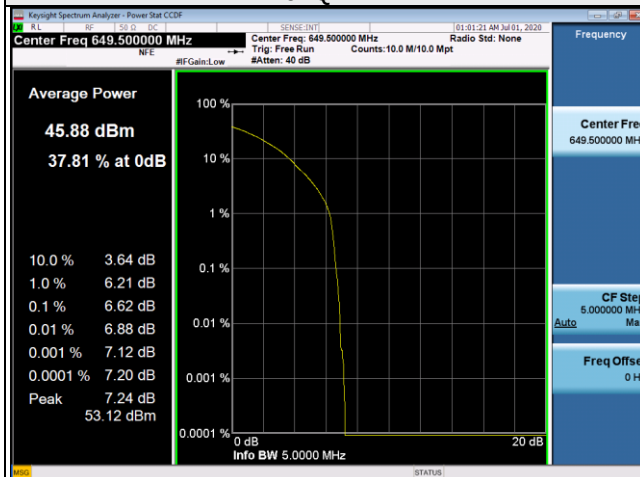
QPSK



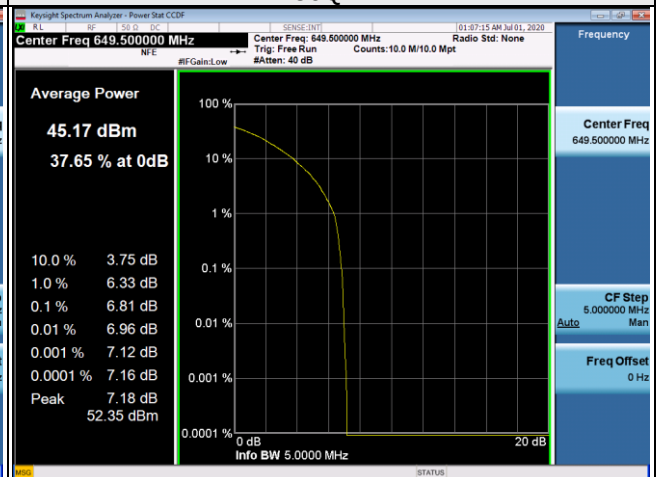
16QAM



64QAM



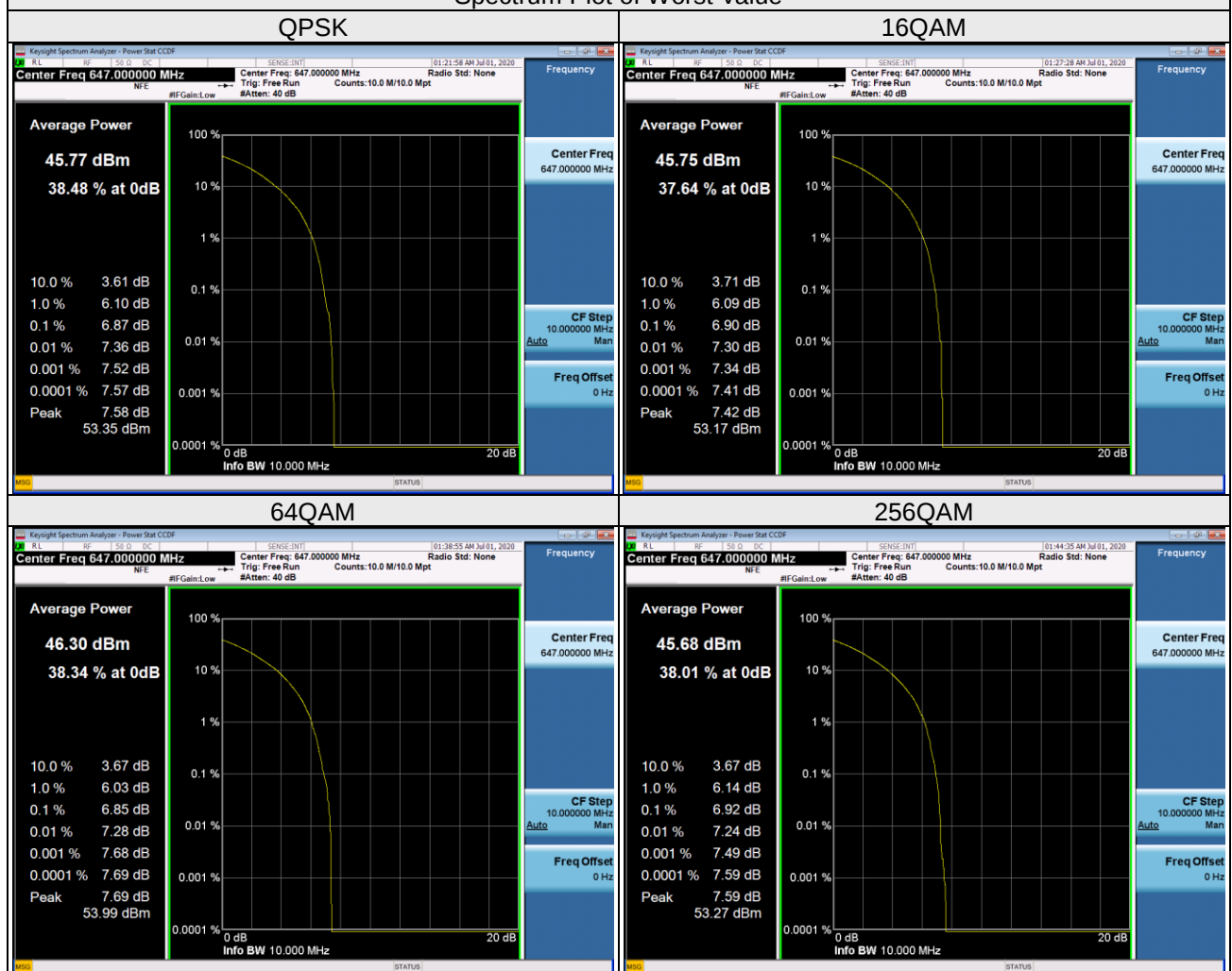
256QAM



10MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
124400	622	6.43	6.44	6.43	6.50	6.43	6.43	6.42	6.50
126900	634.5	6.39	6.41	6.38	6.48	6.38	6.39	6.37	6.47
129400	647	6.87	6.90	6.85	6.92	6.72	6.64	6.66	6.73

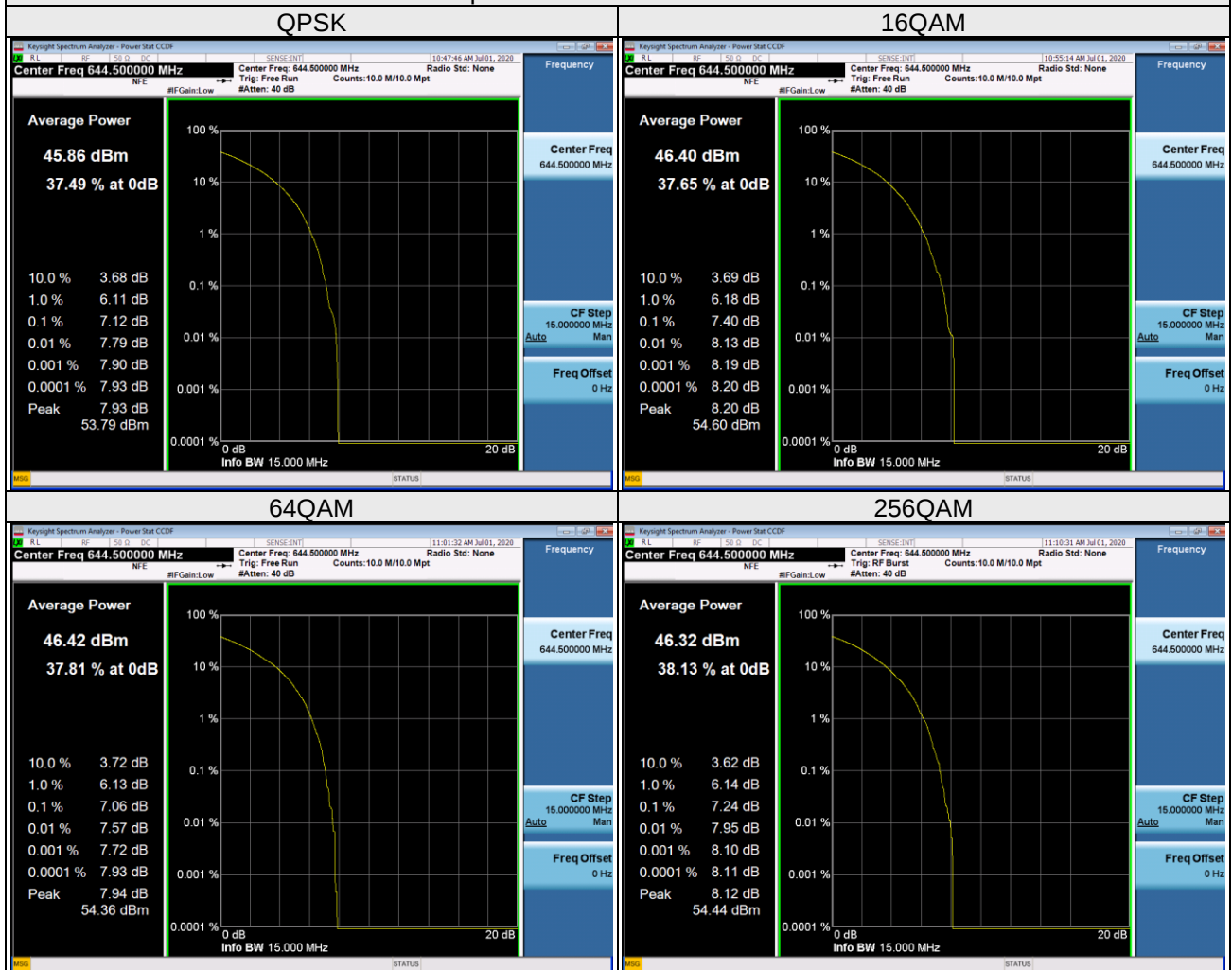
Spectrum Plot of Worst Value



15MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
124900	624.5	6.45	6.44	6.43	6.53	6.44	6.48	6.39	6.43
126900	634.5	6.46	6.47	6.48	6.59	6.42	6.47	6.41	6.45
128900	644.5	7.12	7.40	7.06	7.24	6.89	7.04	6.83	6.89

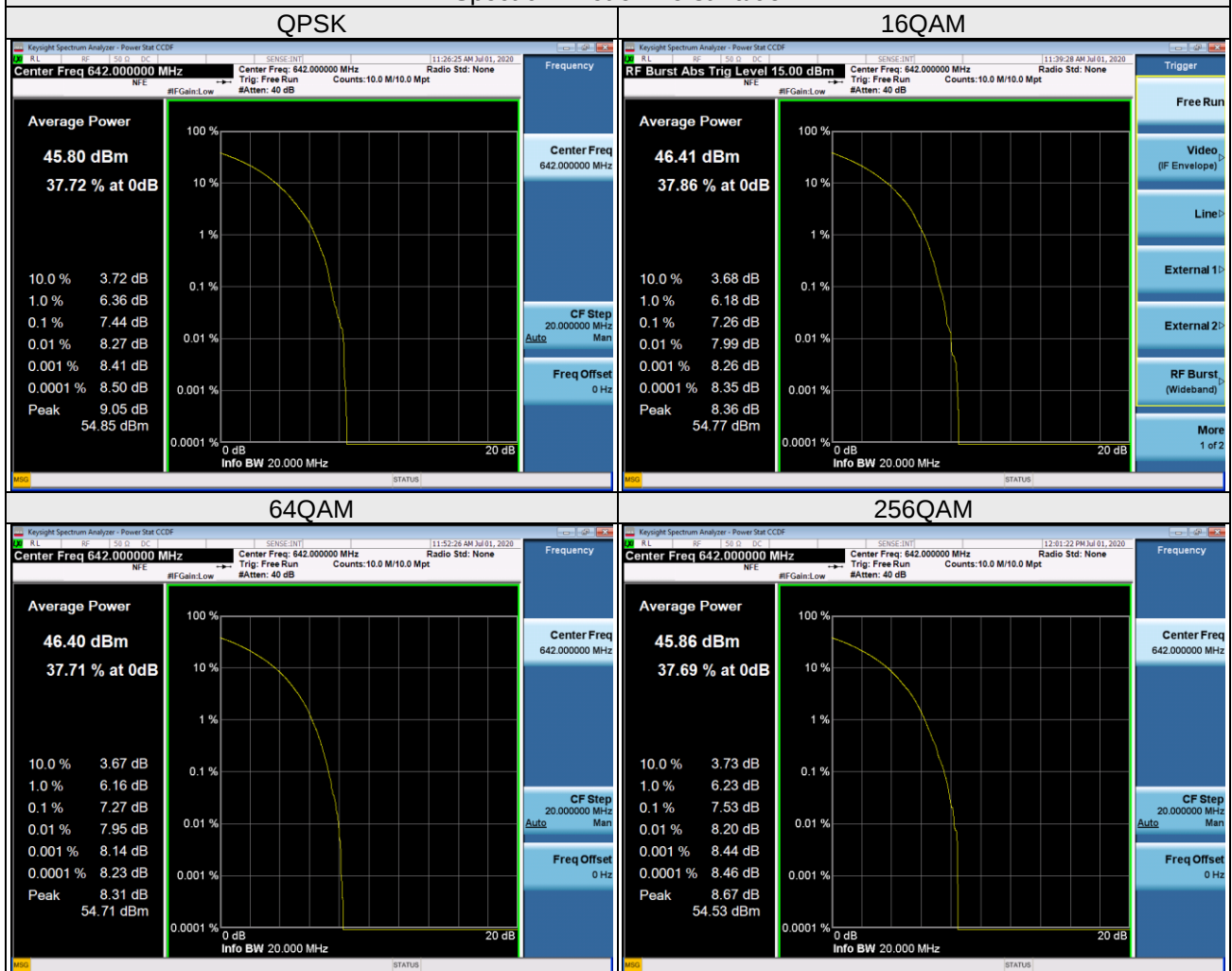
Spectrum Plot of Worst Value



20MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
125400	627	6.57	6.44	6.42	6.55	6.42	6.46	6.43	6.42
126900	634.5	6.76	6.63	6.59	6.80	6.55	6.53	6.56	6.50
128400	642	7.44	7.26	7.27	7.53	7.08	7.12	7.10	7.17

Spectrum Plot of Worst Value

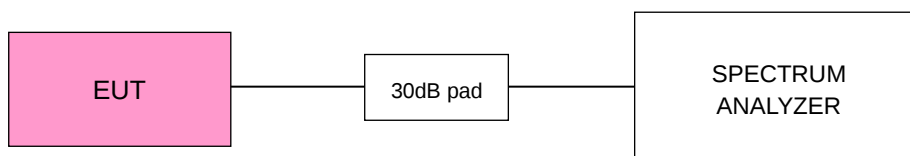


4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

According to FCC 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.

4.7.2 Test Setup



4.7.3 Test Procedure

- a. All measurements were done at 3 channels: low, middle and high operational frequency range.
- b. When the spectrum scanned from 9kHz to 10GHz, it shall be connected to the 30dB pad attenuated the carried frequency.
- c. S.A. setting: RBW=100kHz, VBW=300kHz, Detector=RMS (Power average)

4.7.4 Test Results

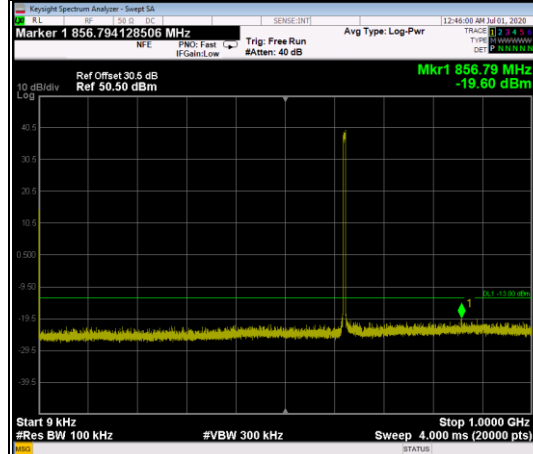
Single Carrier

5MHz-Chain 0

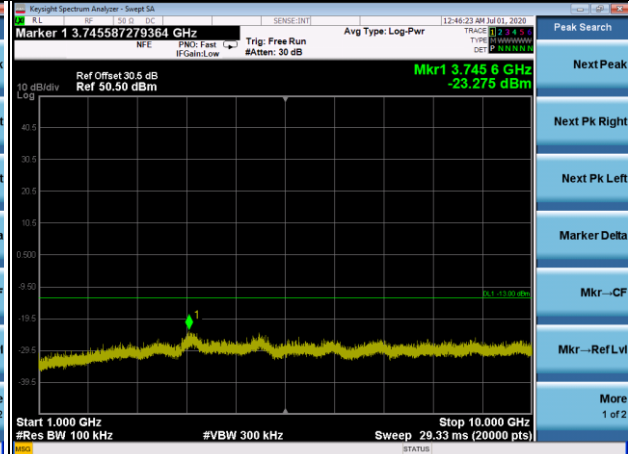
QPSK

Channel 123900

Frequency Range : 9kHz~1GHz

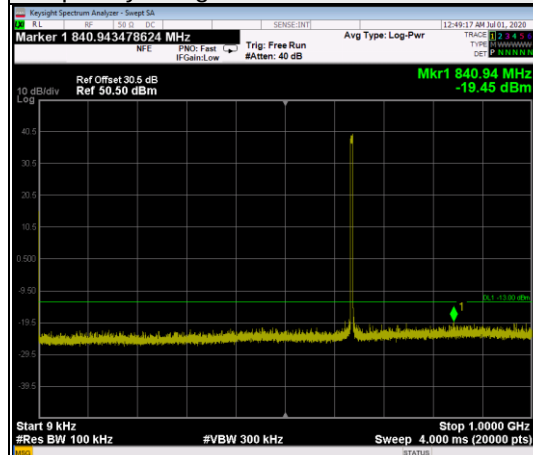


Frequency Range : 1GHz~10GHz

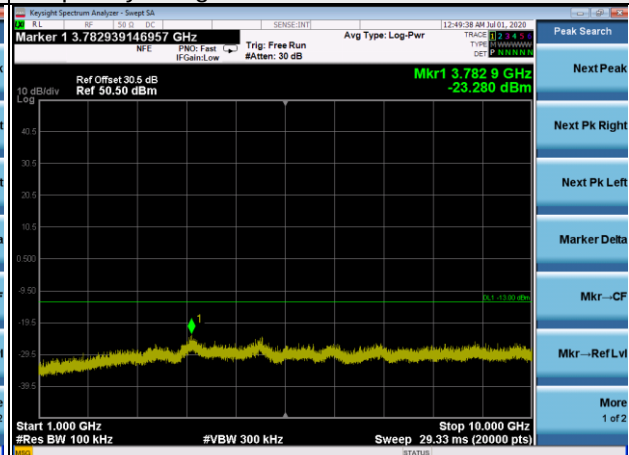


Channel 126900

Frequency Range : 9kHz~1GHz

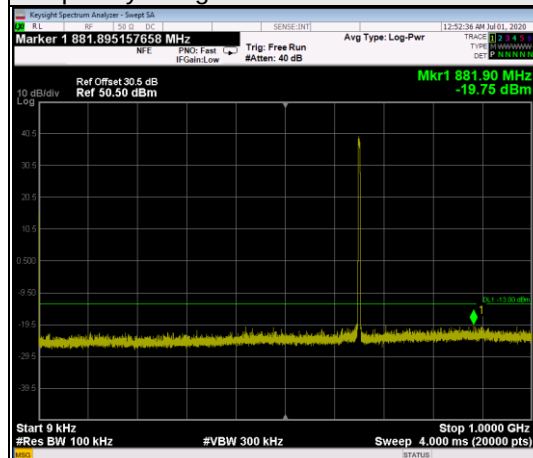


Frequency Range : 1GHz~10GHz

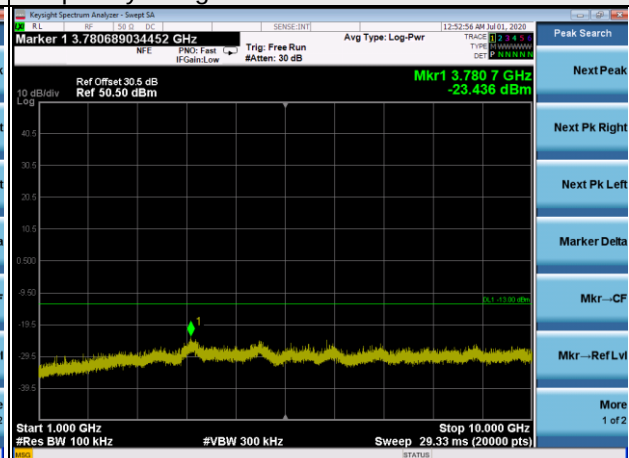


Channel 129900

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~10GHz

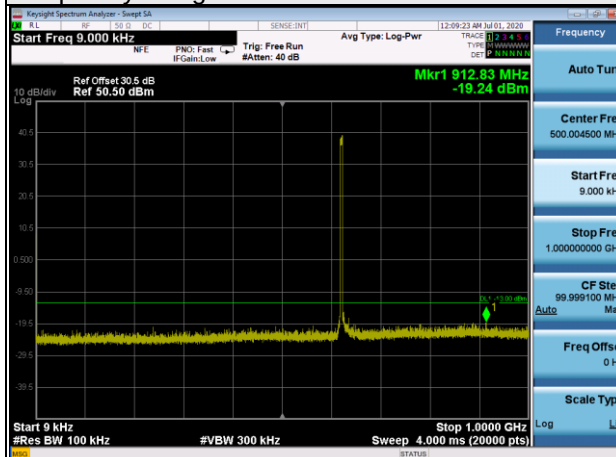


5MHz-Chain 1

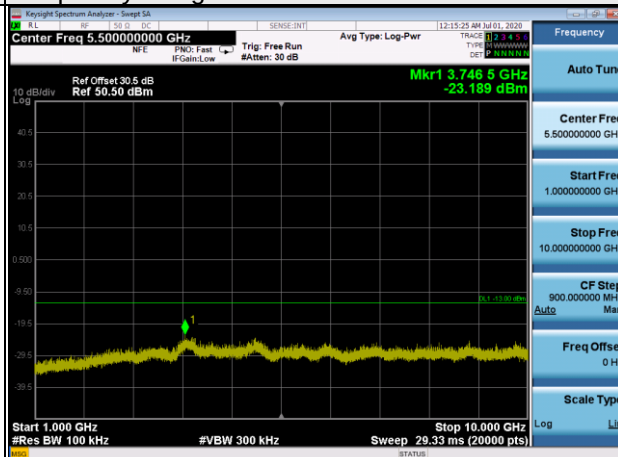
QPSK

Channel 123900

Frequency Range : 9kHz~1GHz

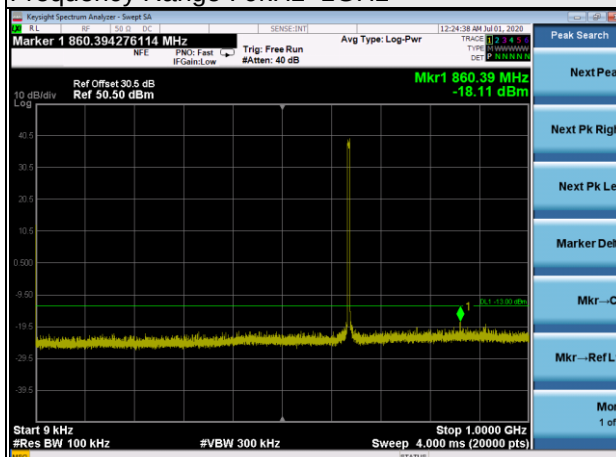


Frequency Range : 1GHz~10GHz

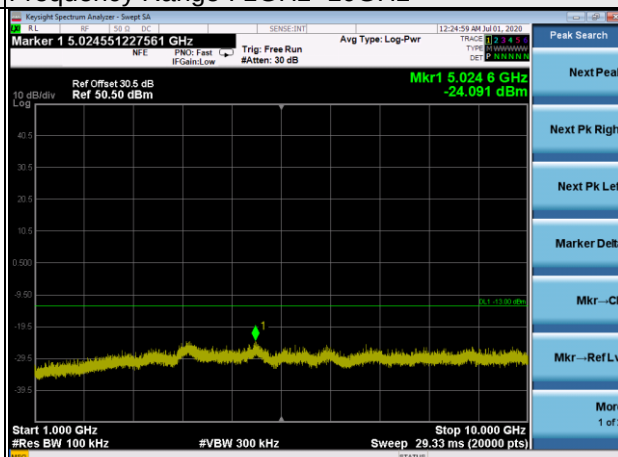


Channel 126900

Frequency Range : 9kHz~1GHz

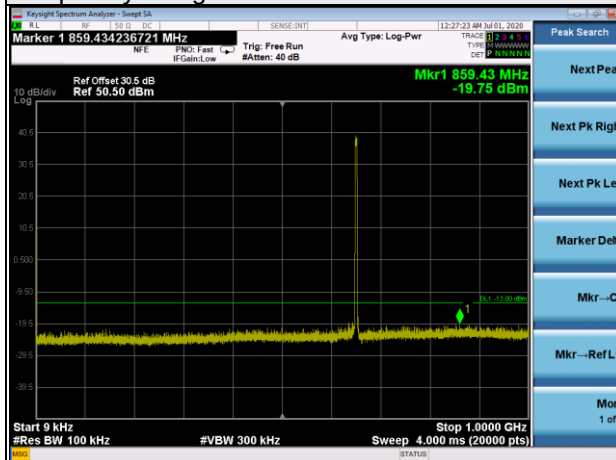


Frequency Range : 1GHz~10GHz



Channel 129900

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~10GHz

