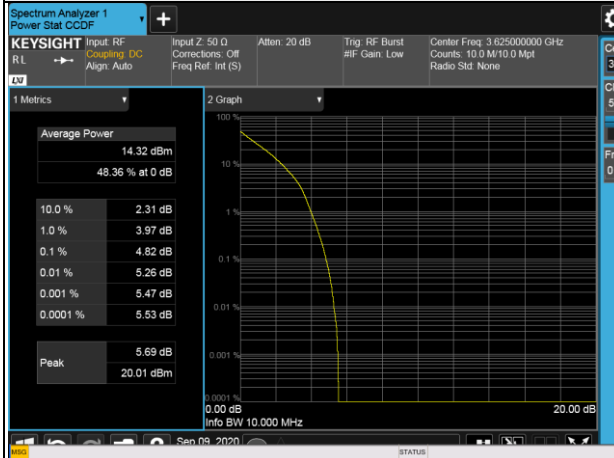
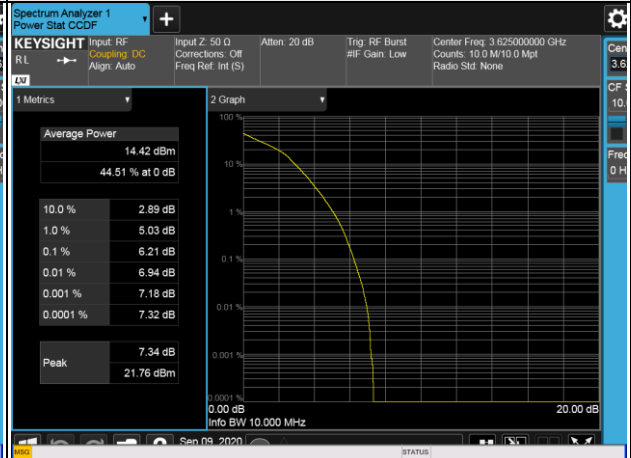


Middle

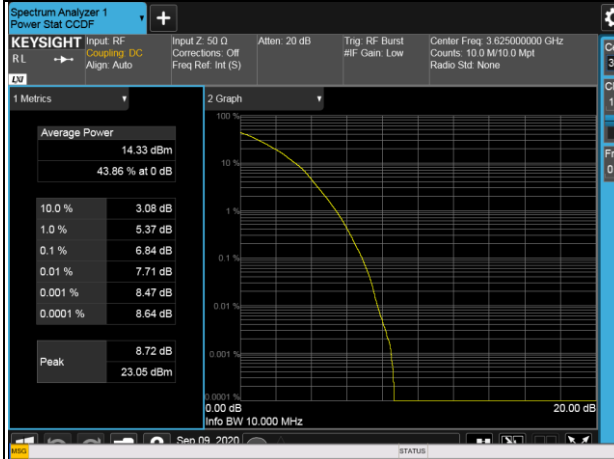
QPSK

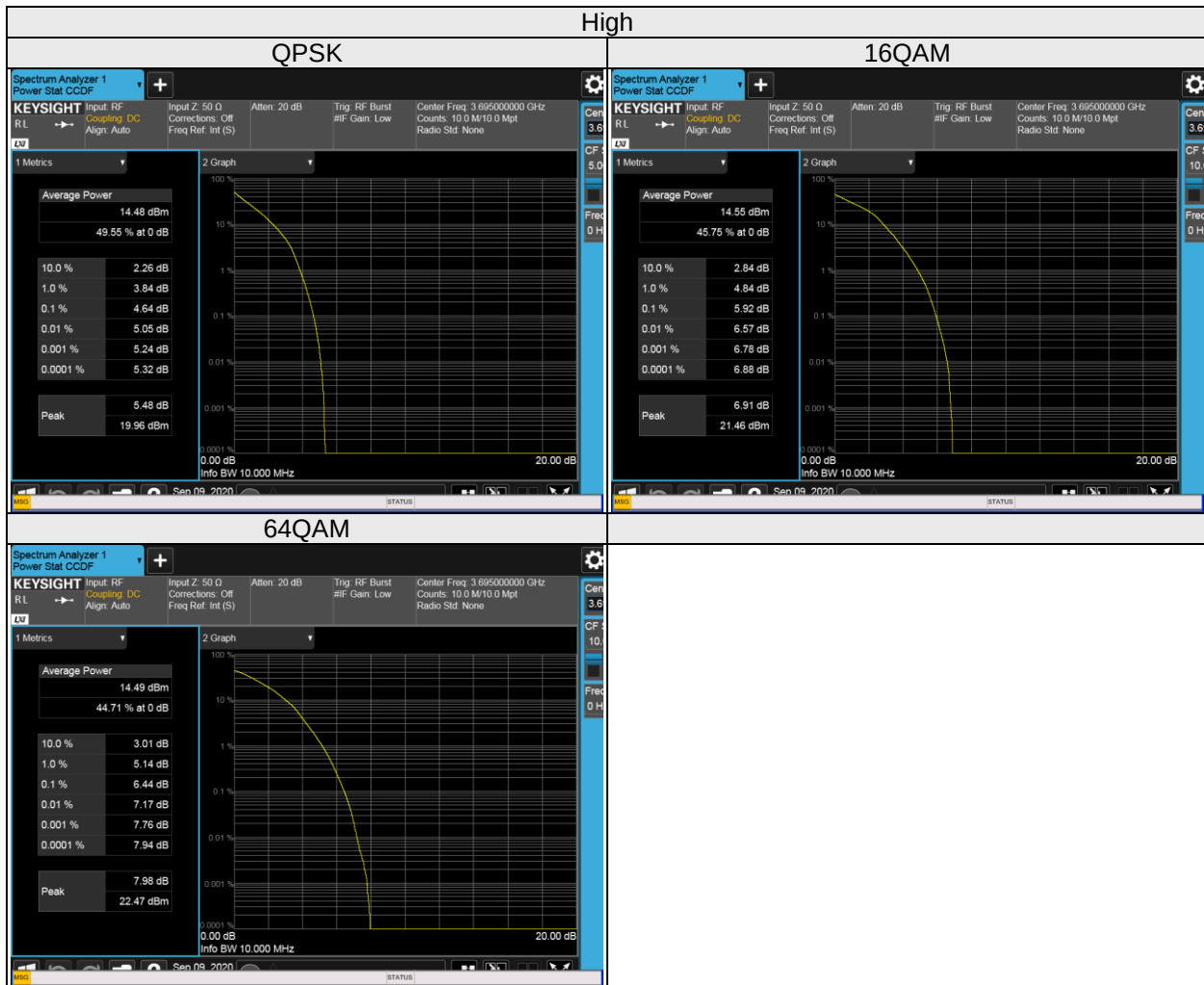


16QAM



64QAM





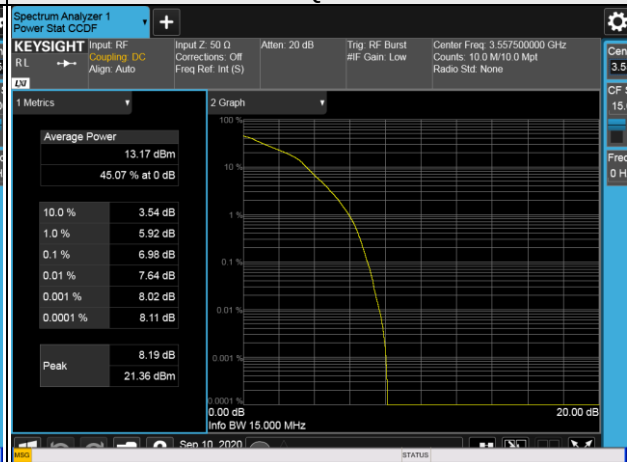
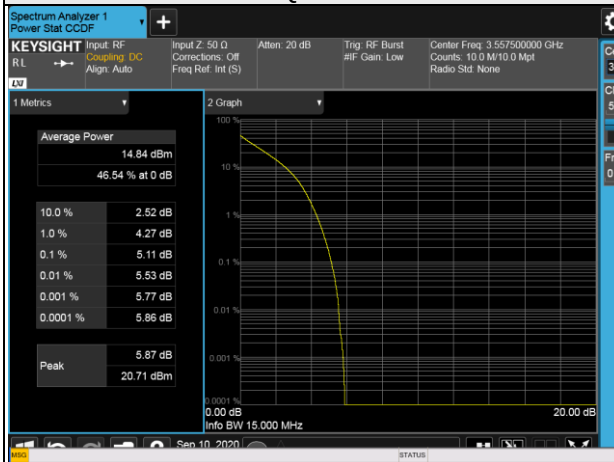
15MHz:

Spectrum Plot of Value

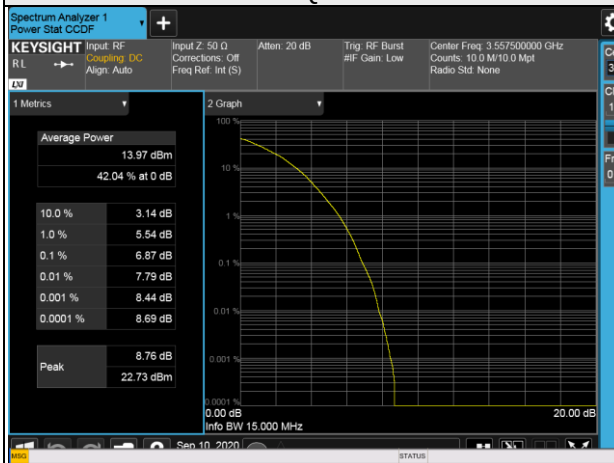
Low

QPSK

16QAM

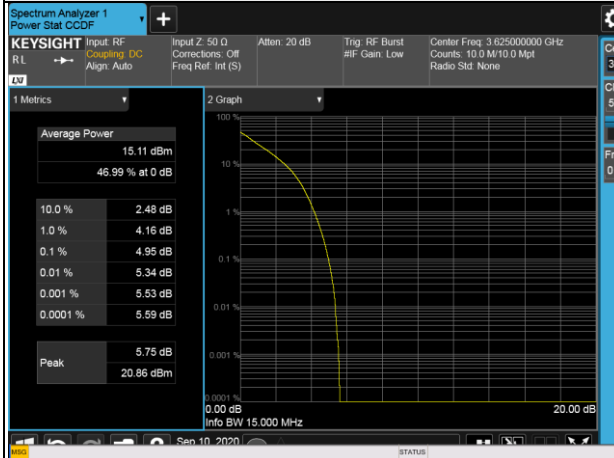


64QAM

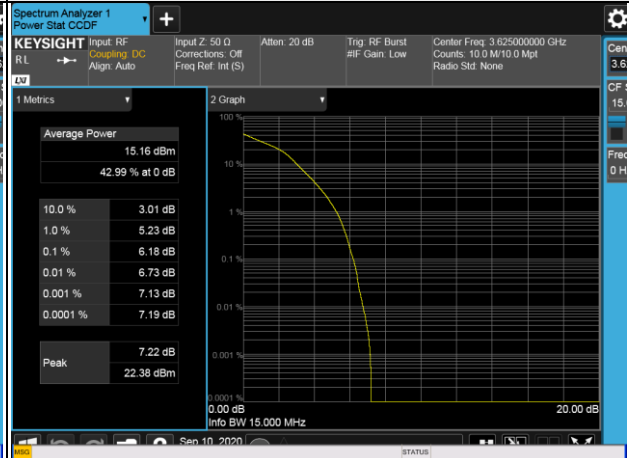


Middle

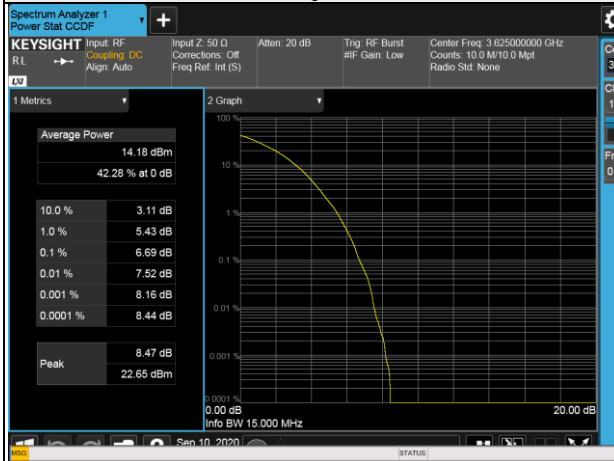
QPSK

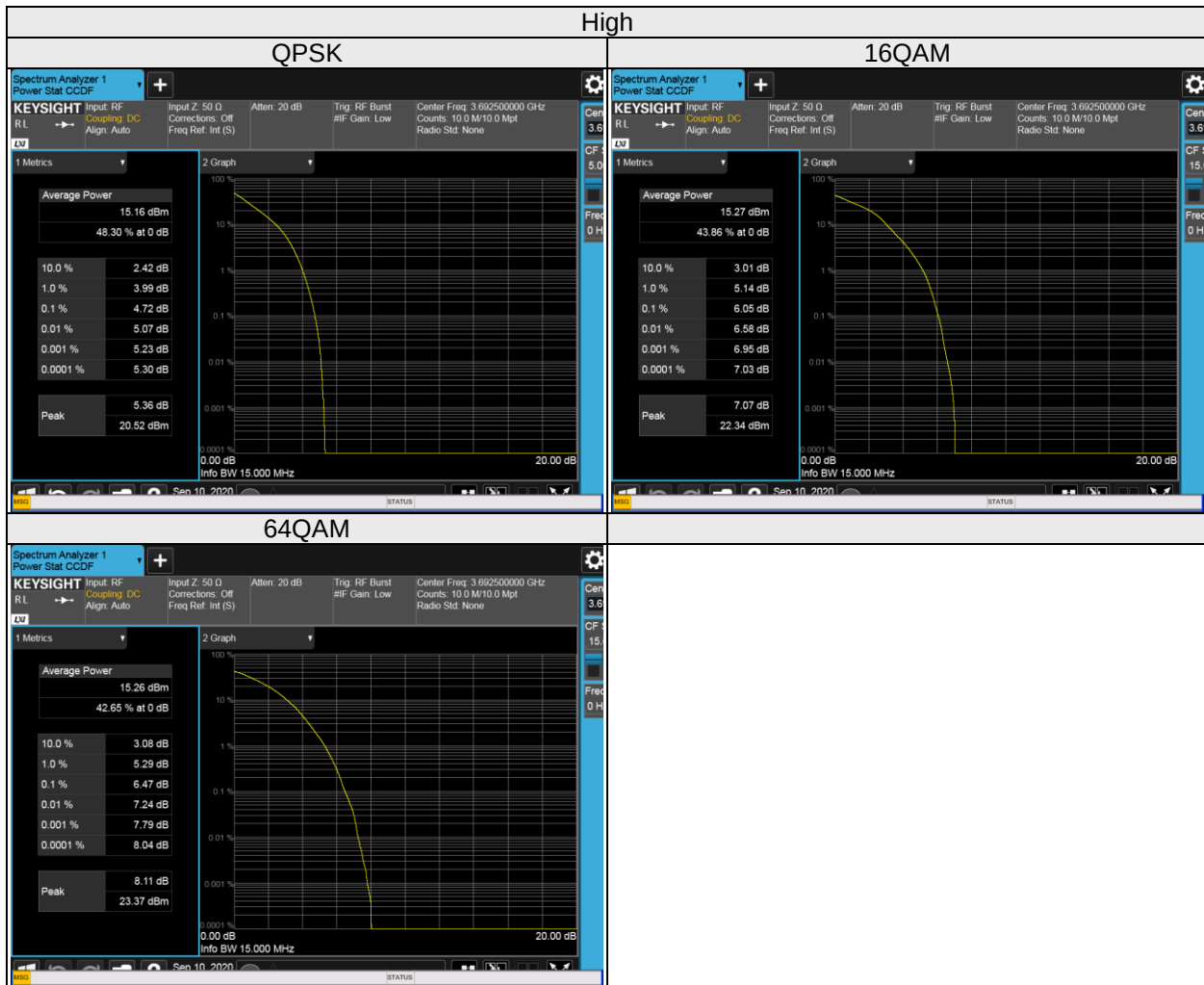


16QAM

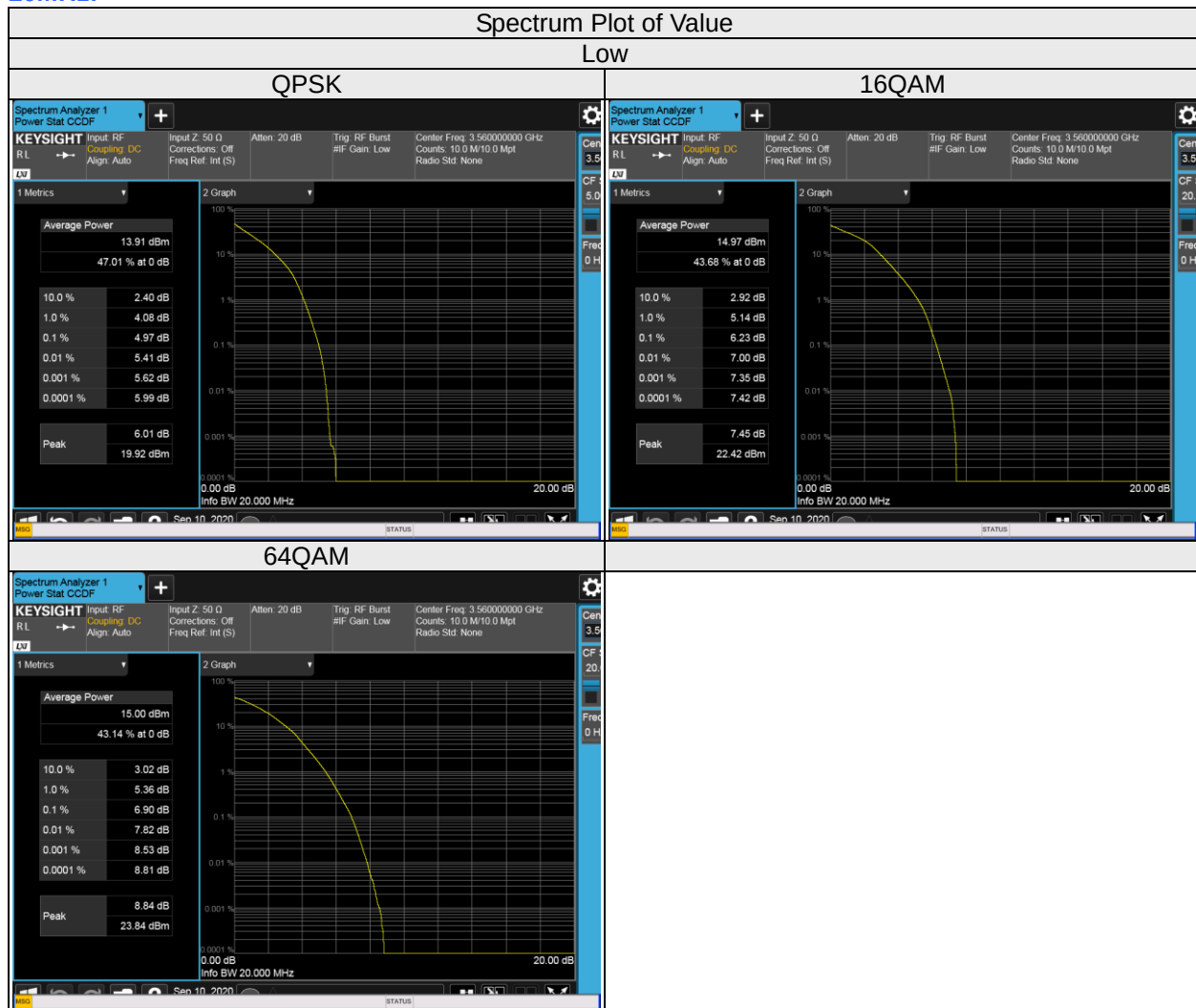


64QAM



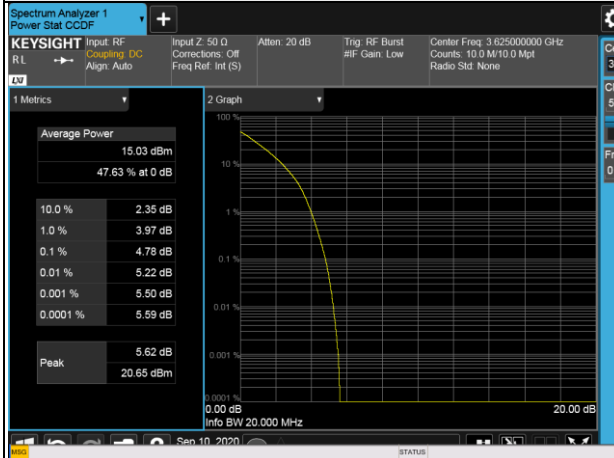


20MHz:

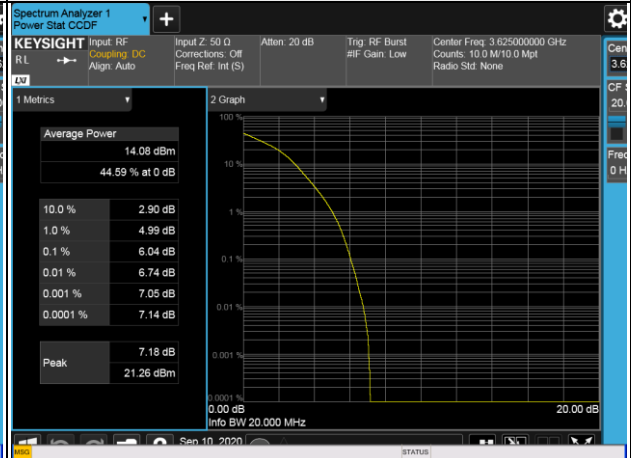


Middle

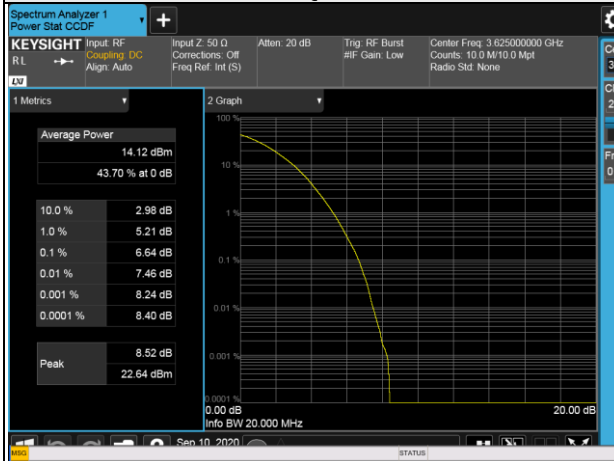
QPSK

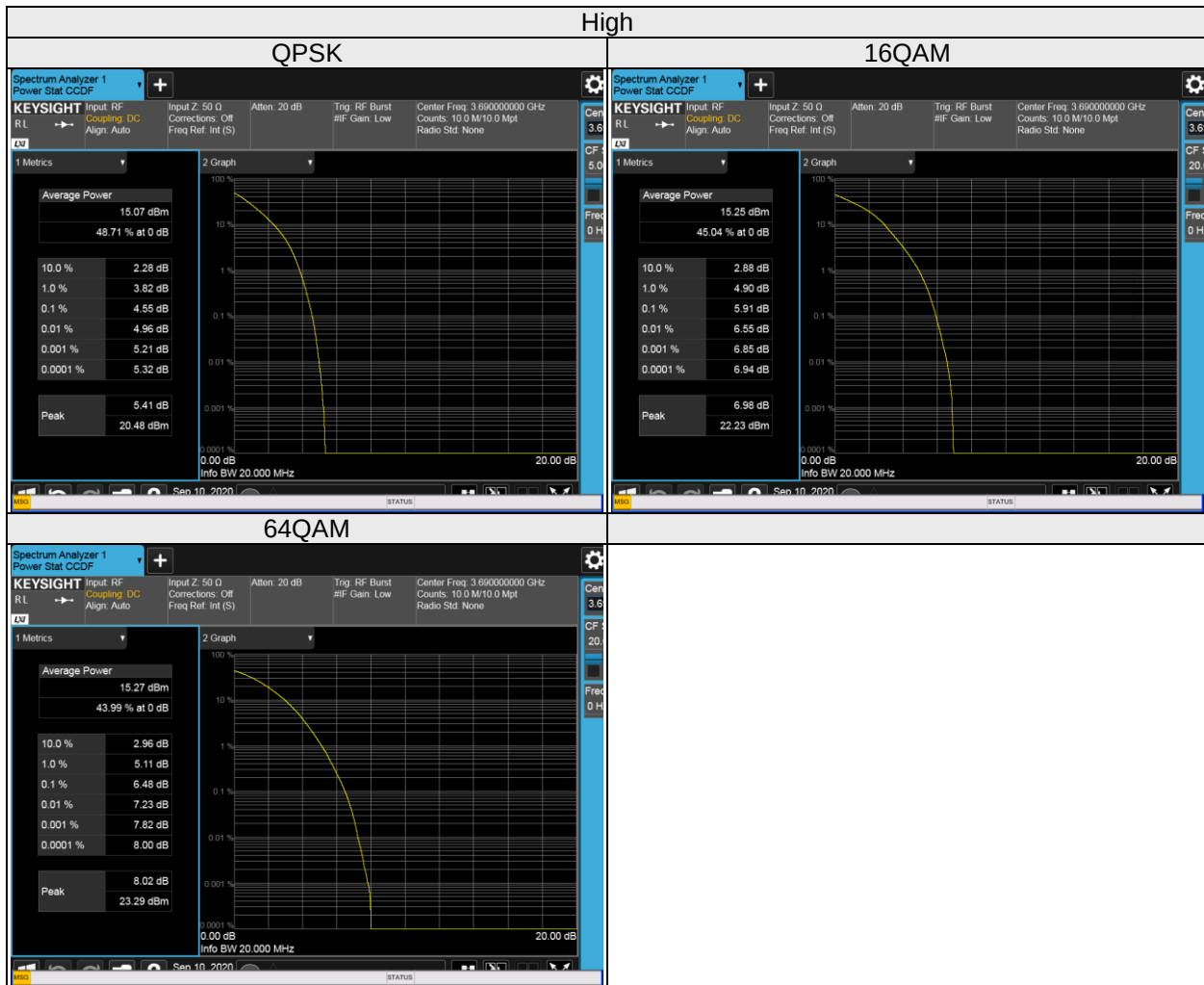


16QAM



64QAM





CA Contiguous

Spectrum Plot of Value

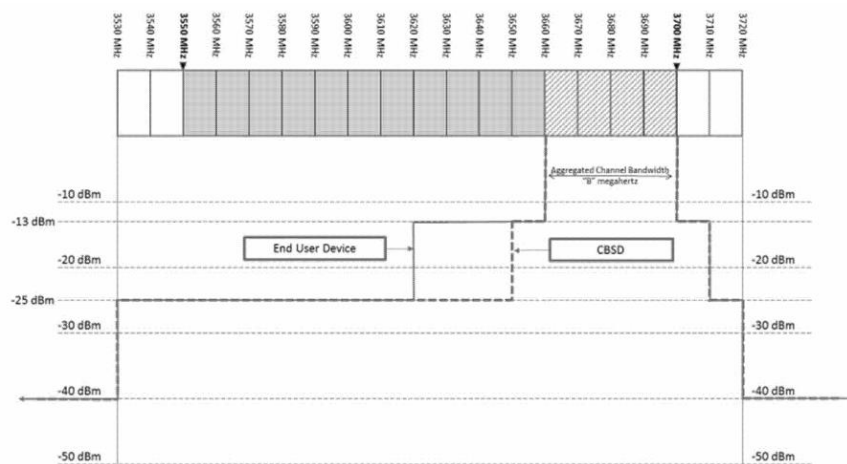
Worst case



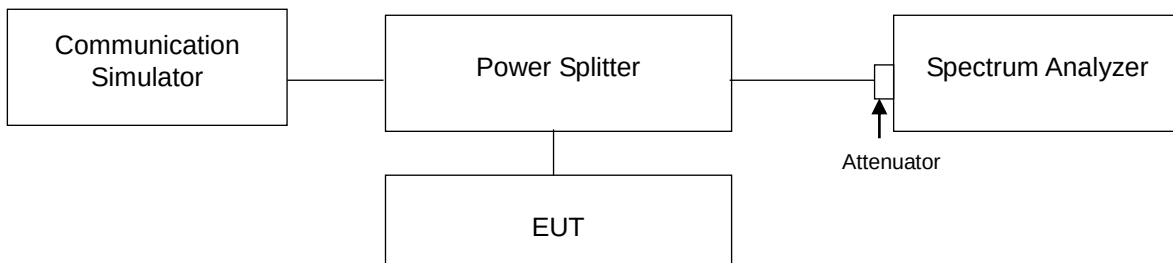
4.6 Conducted Spurious Emissions

4.6.1 Limits of Conducted Spurious Emissions Measurement

For CBSD power of any emissions outside the Fundamental	Limit
Within 0-10MHz above the Assigned Channel	-13 dBm/MHz
Within 0-10MHz below the Assigned Channel	
Greater than 10MHz above the Assigned Channel	-25 dBm/MHz
Greater than 10MHz below the Assigned Channel	
Power of any emission below 3530MHz	-40 dBm/MHz
Power of any emission above 3720MHz	



4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.6.4 Test Procedure

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 9 kHz to 40 GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.
- c. Measurement instrument be configured to measure only during active transmissions (gating function of spectrum is enabled to measure max output power of TX on burst).

4.6.5 Test Results

LTE Band 48

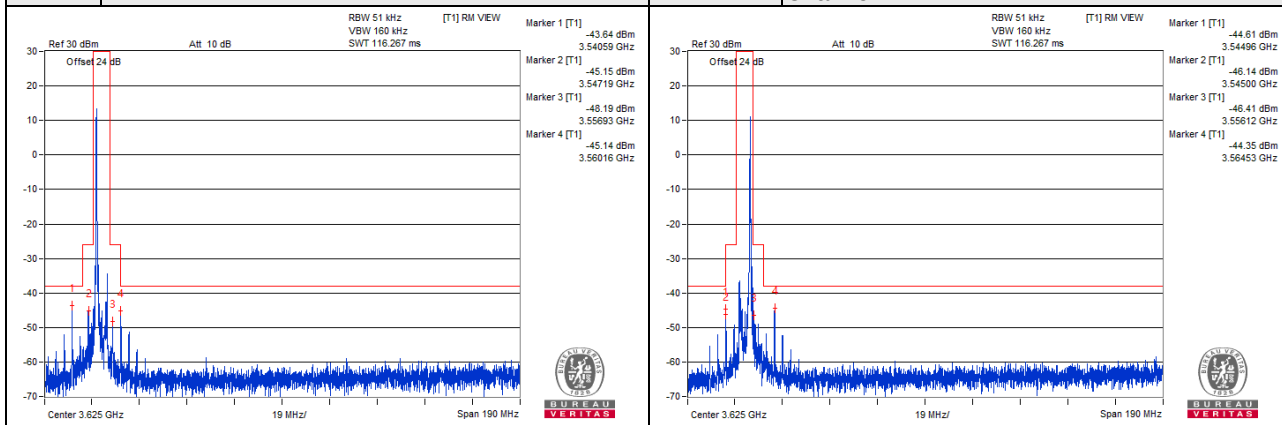
Channel Bandwidth 5MHz QPSK

Low Channel 3552.5MHz

1 RB-0 Within 1MHz outside the designated channel	1 RB-Max Within 1MHz outside the designated channel
--	--



1 RB-0 Greater than 1MHz outside the Assigned Channel	1 RB-Max Greater than 1MHz outside the Assigned Channel
--	--



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

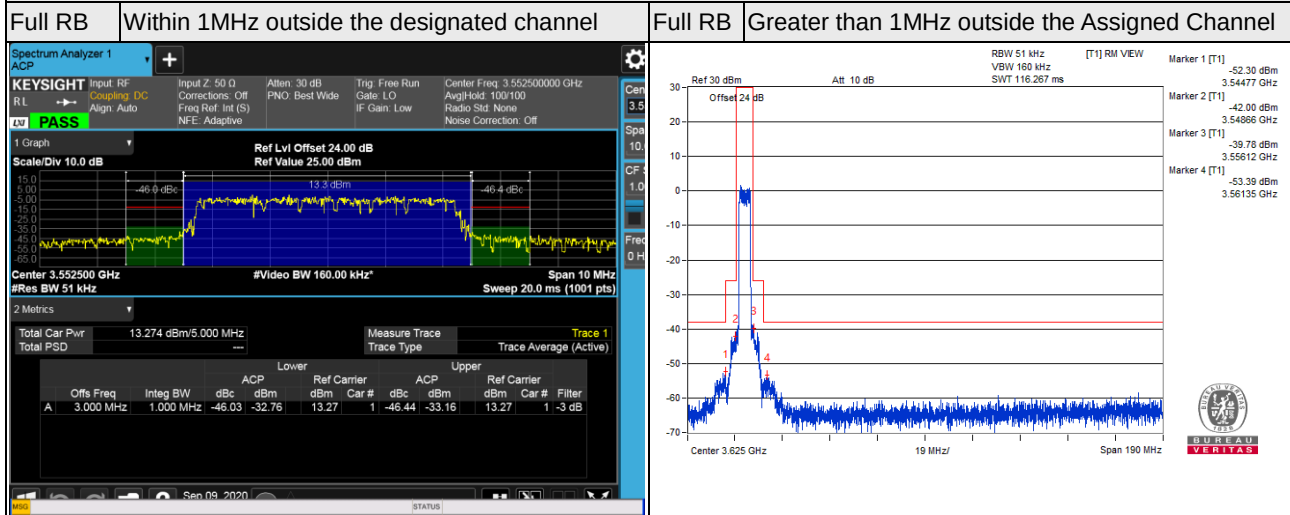
B MHz below the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

LTE Band 48

Channel Bandwidth 5MHz QPSK

Low Channel 3552.5MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

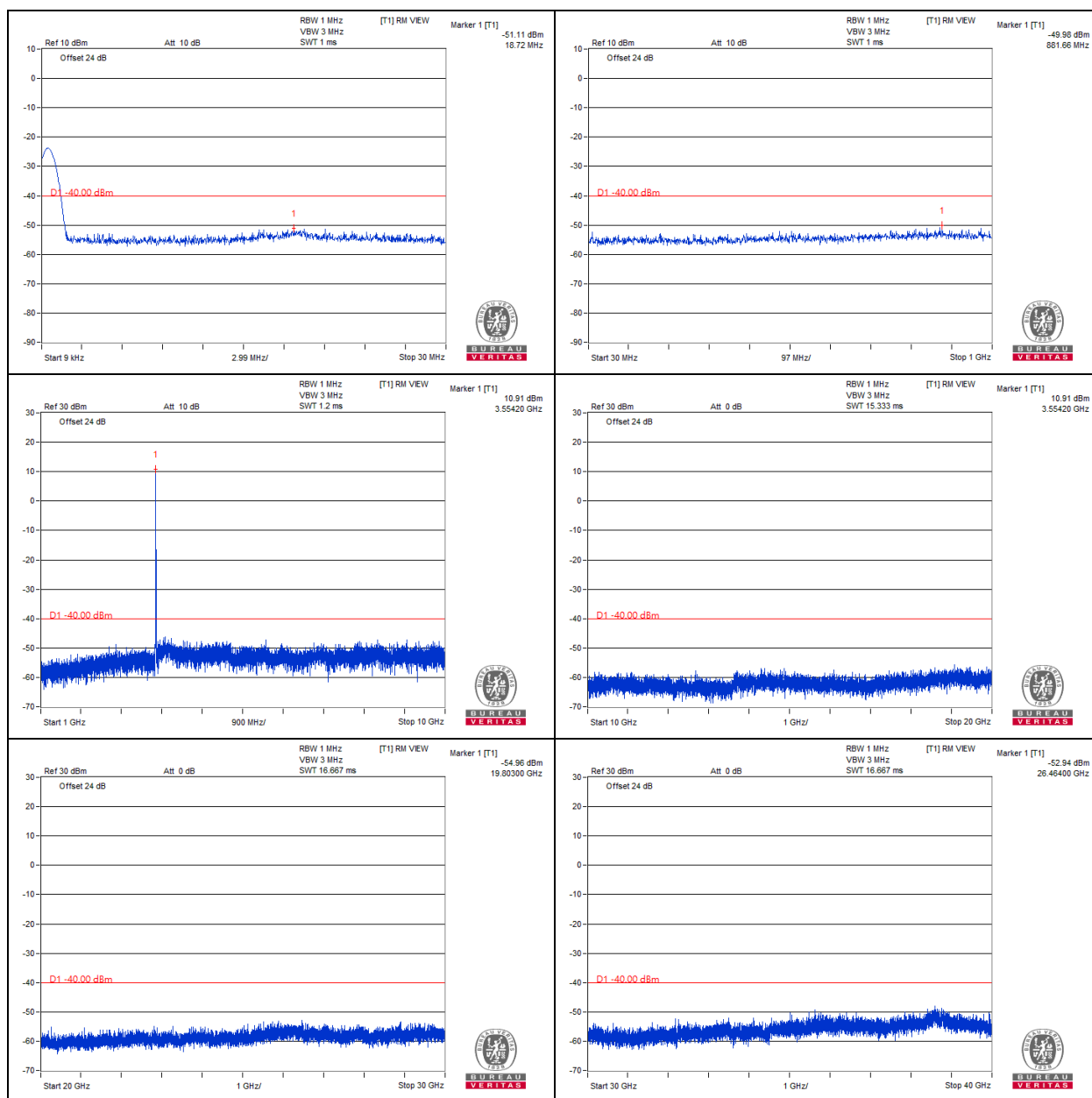
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.



Note: The signal of 9kHz is IF signal from test instrument.

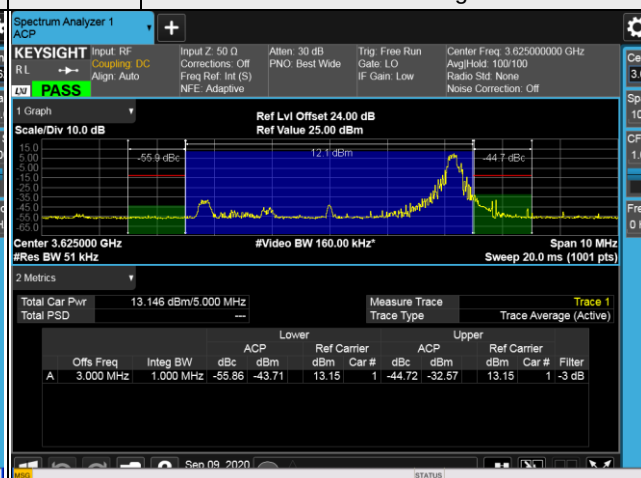
Channel Bandwidth 5MHz QPSK

Middle Channel 3625MHz

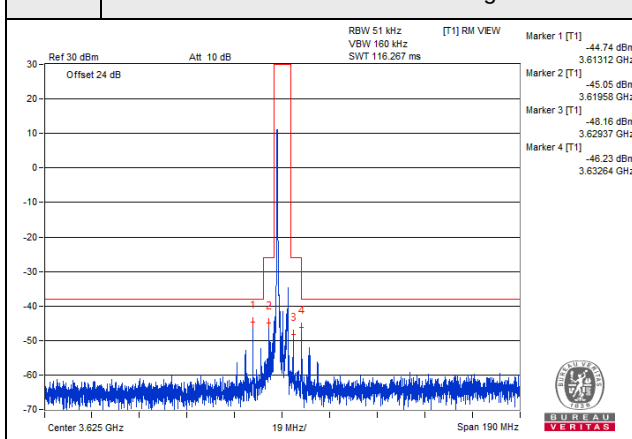
1 RB-0 Within 1MHz outside the designated channel



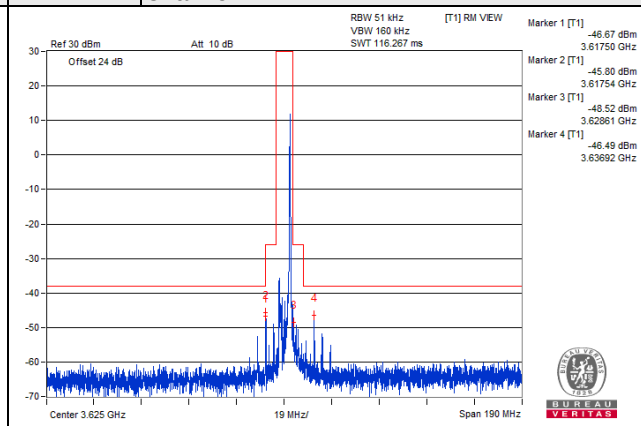
1 RB-Max Within 1MHz outside the designated channel



1 RB-0 Greater than 1MHz outside the Assigned Channel



1 RB-Max Greater than 1MHz outside the Assigned Channel



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

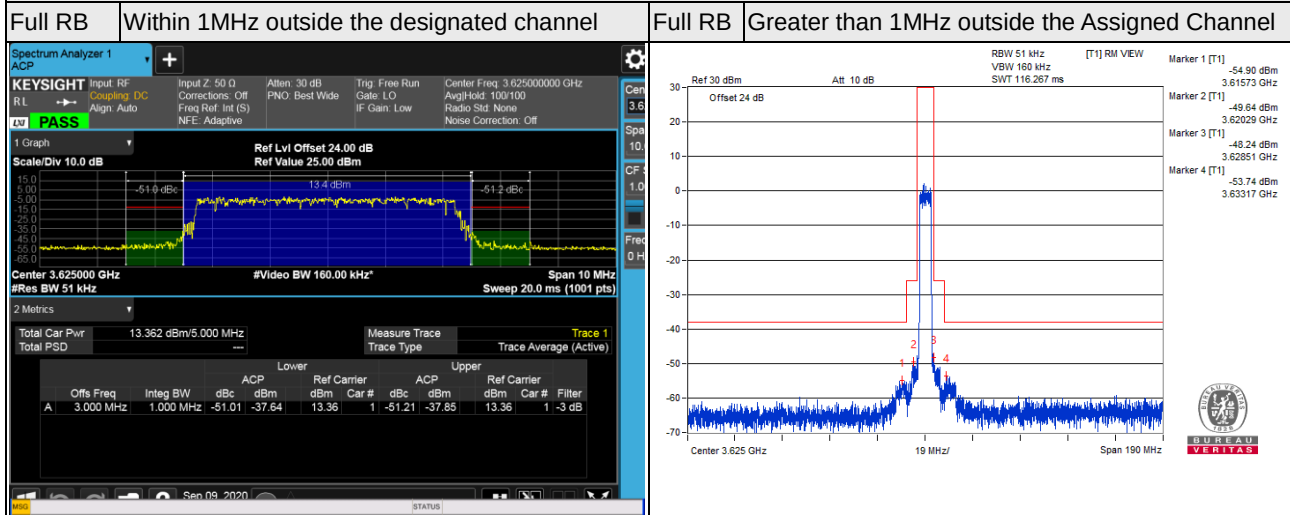
B MHz below the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

LTE Band 48

Middle Channel 3625MHz

Low Channel 3625MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

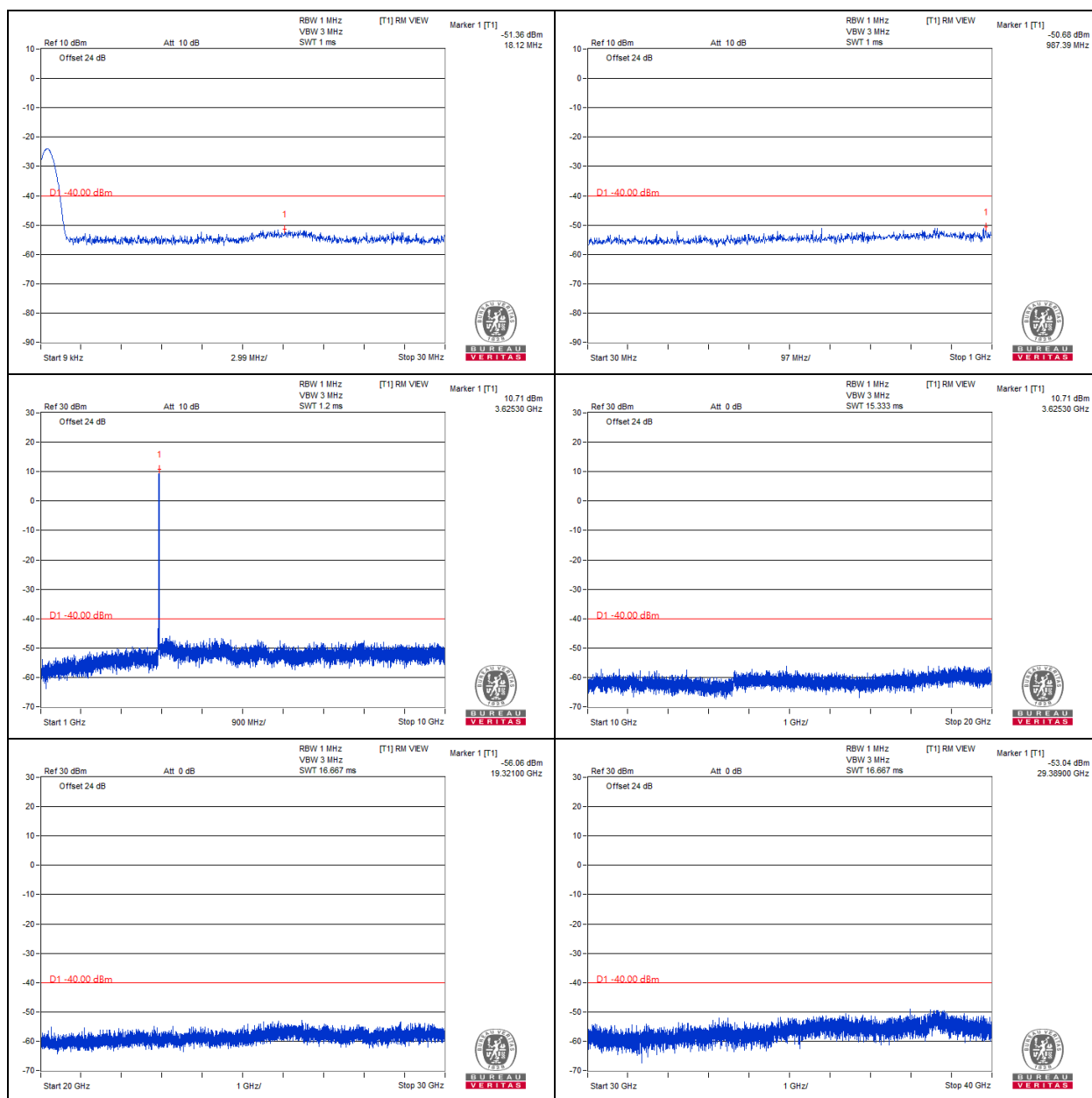
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

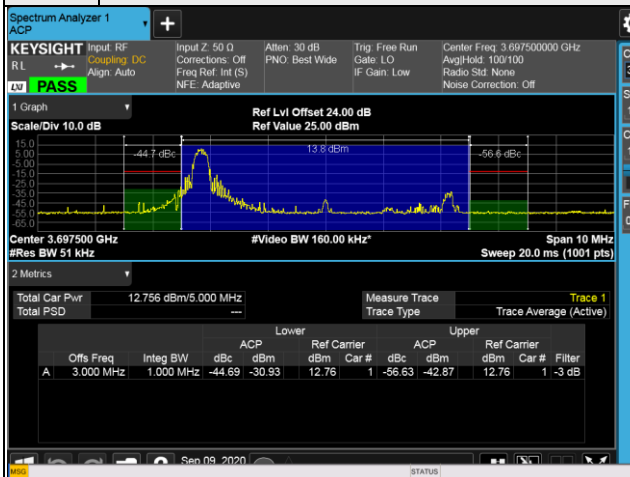


Note: The signal of 9kHz is IF signal from test instrument.

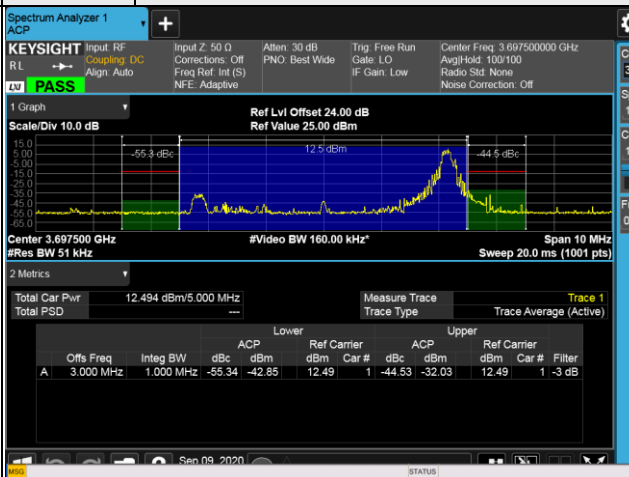
Channel Bandwidth 5MHz QPSK

High Channel 3697.5MHz

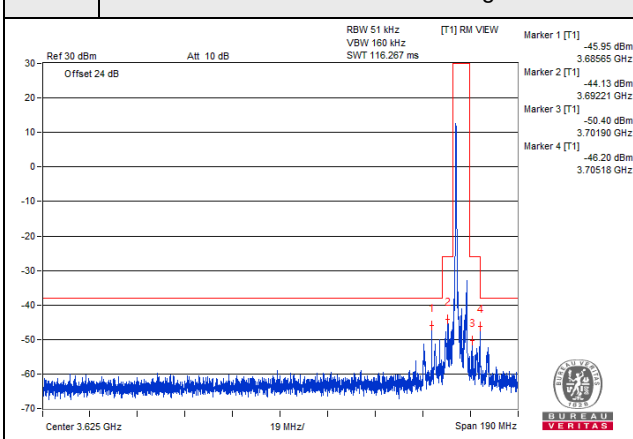
1 RB-0 Within 1MHz outside the designated channel



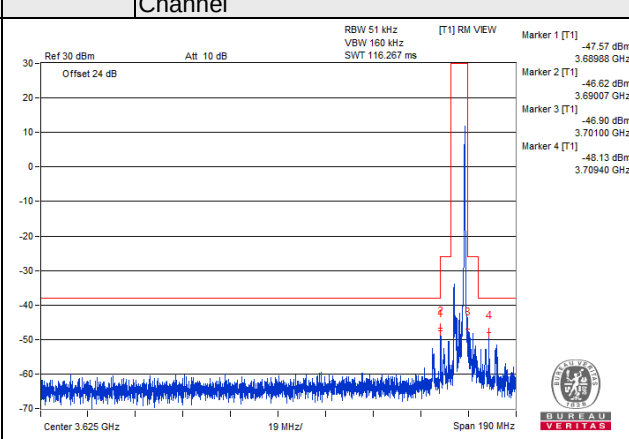
1 RB-Max Within 1MHz outside the designated channel



1 RB-0 Greater than 1MHz outside the Assigned Channel



1 RB-Max Greater than 1MHz outside the Assigned Channel



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

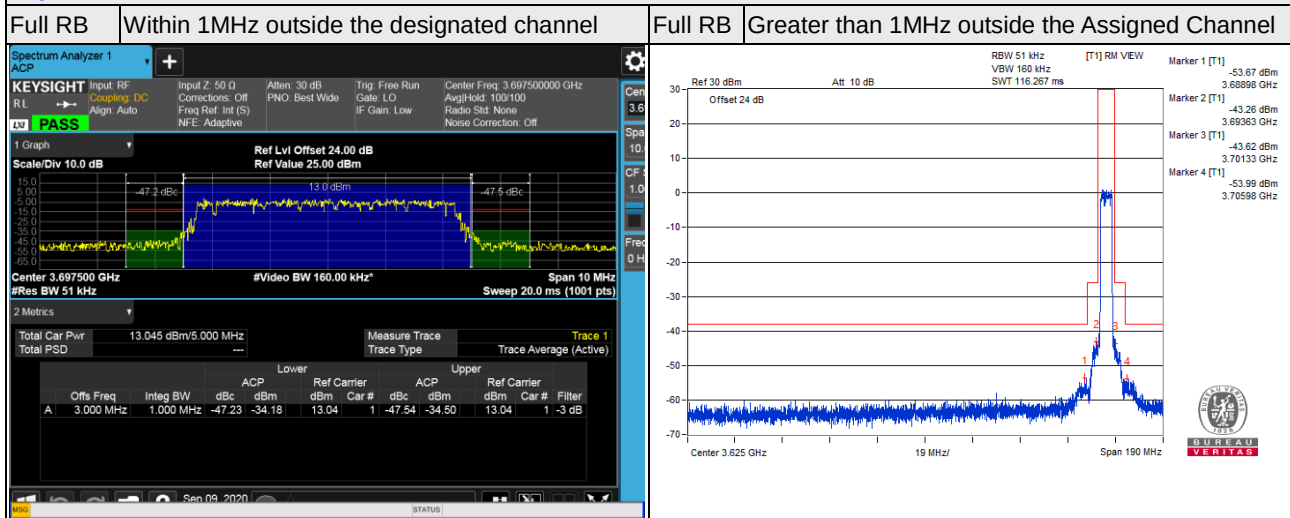
B MHz above the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

LTE Band 48

High Channel 3697.5MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

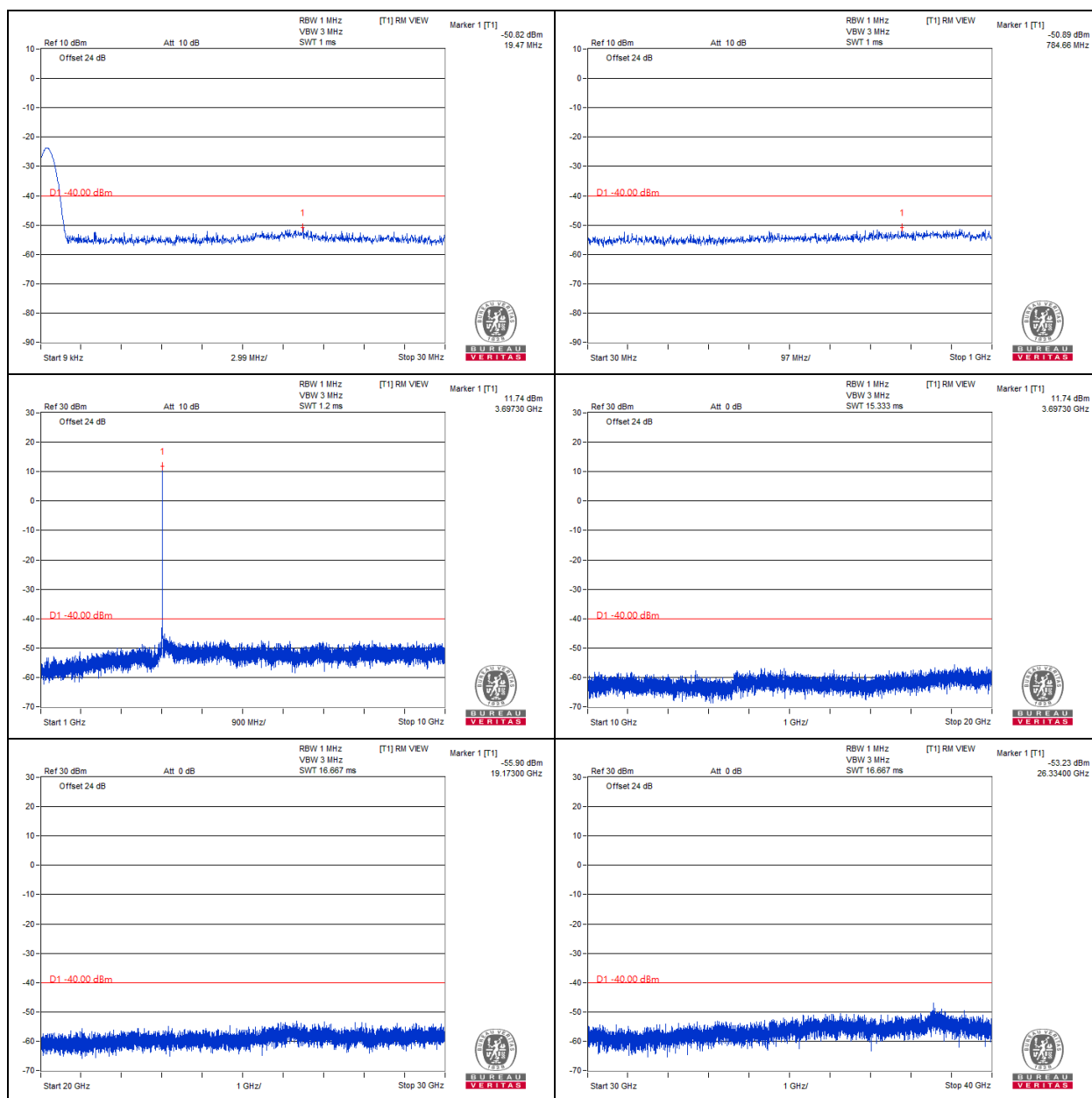
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -25.92 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(51\text{kHz}/1\text{MHz}) = -37.92 \text{ dBm}$

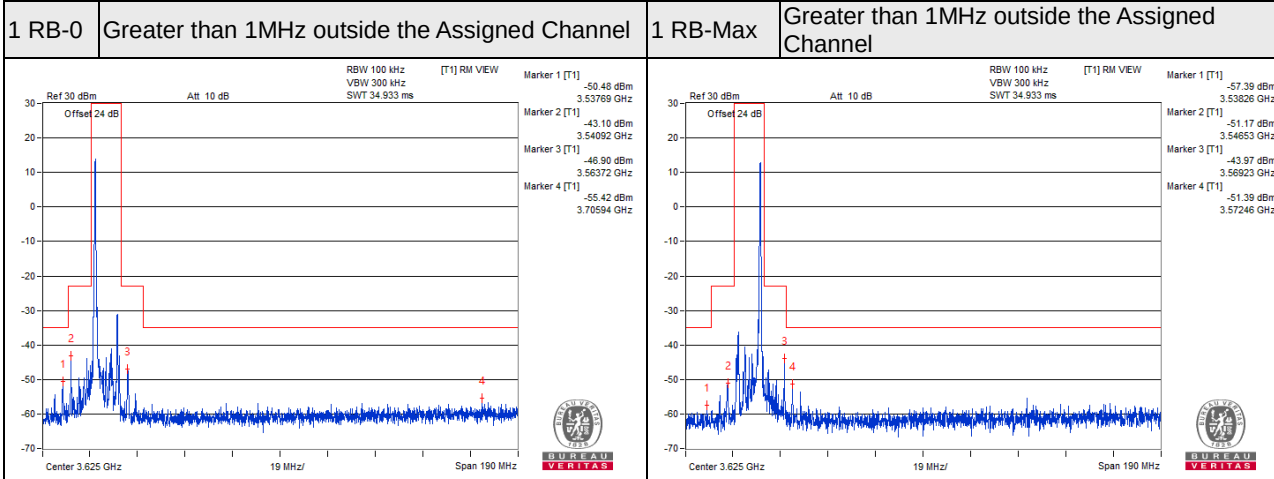
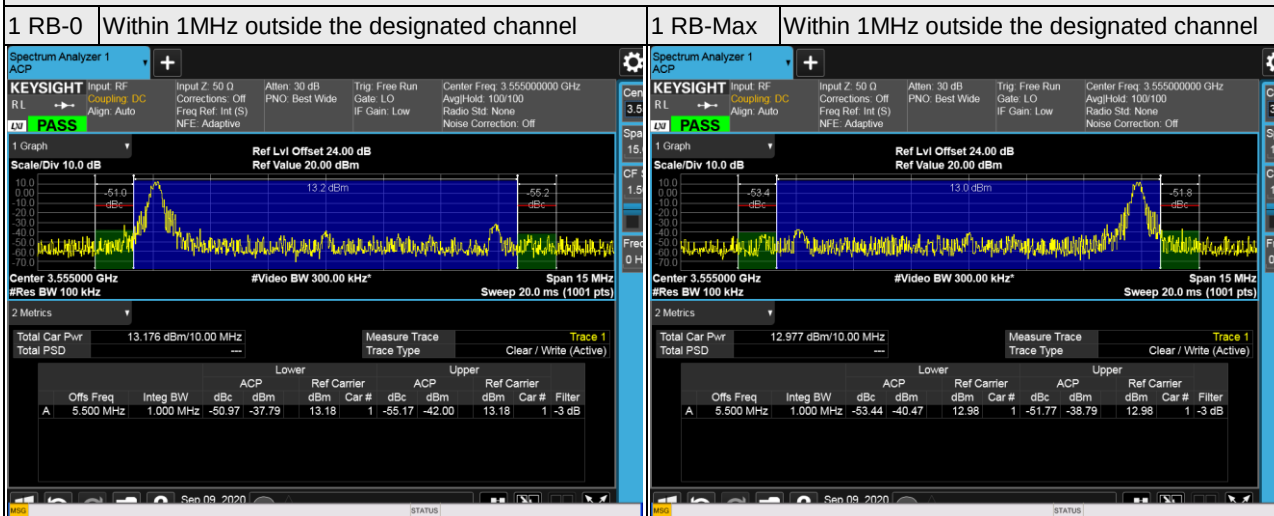
“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.



Note: The signal of 9kHz is IF signal from test instrument.

Channel Bandwidth 10MHz QPSK

Low Channel 3555MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

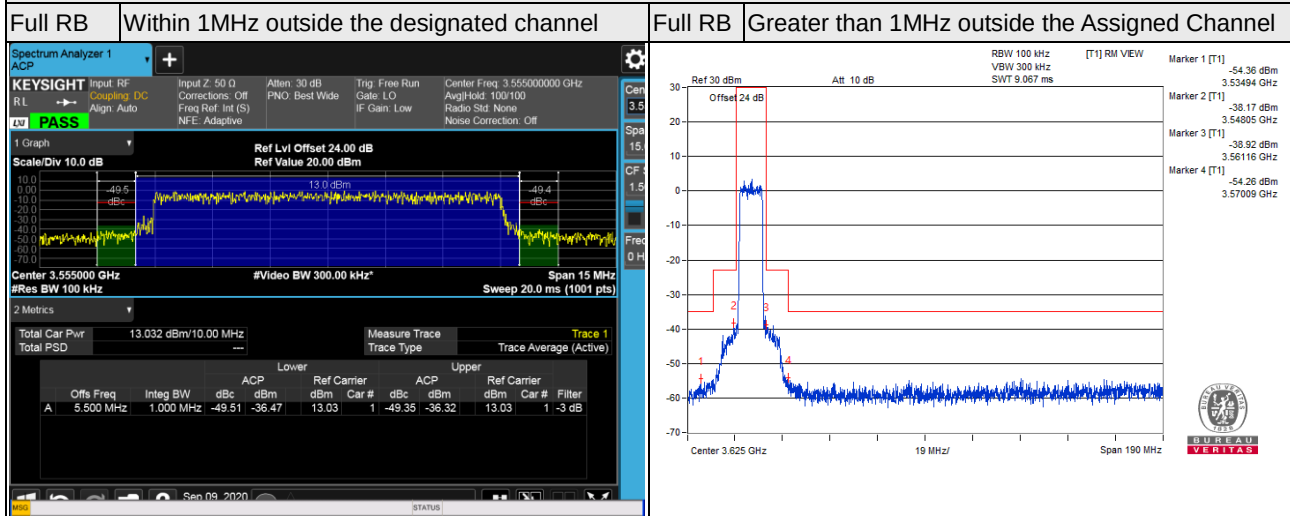
B MHz above the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

Channel Bandwidth 10MHz QPSK

Low Channel 3555MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

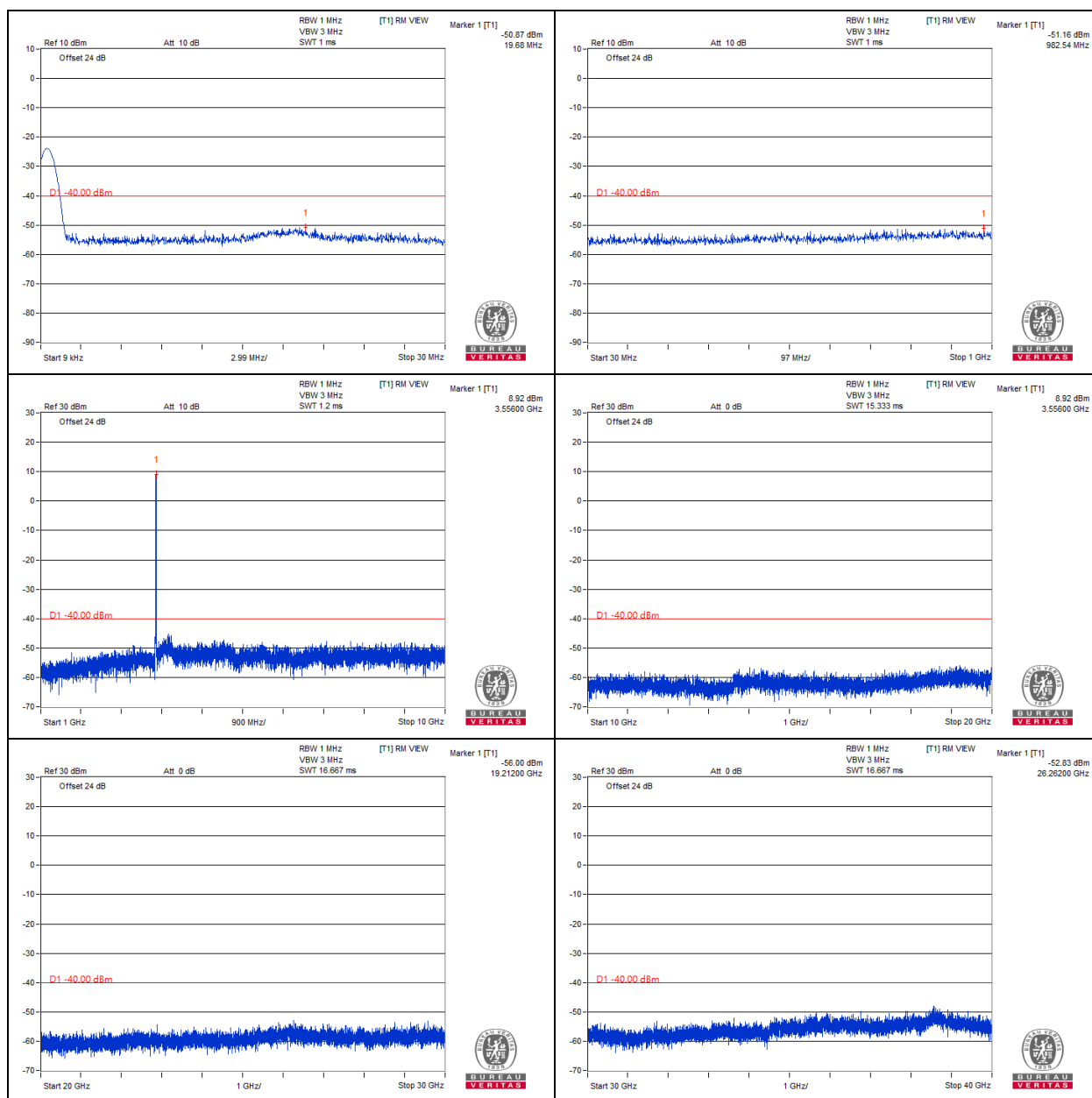
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.



Note: The signal of 9kHz is IF signal from test instrument.

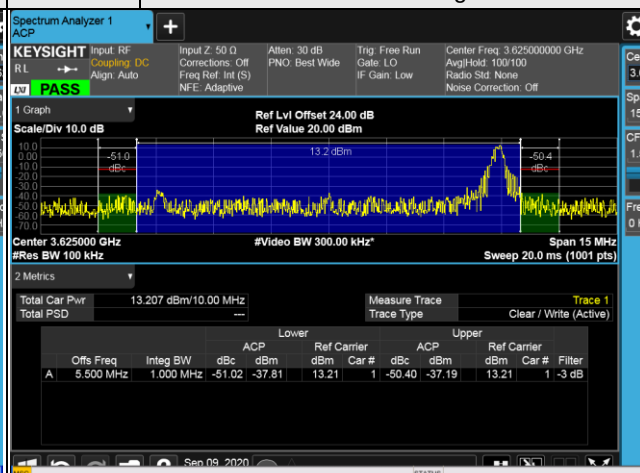
Channel Bandwidth 10MHz QPSK

Middle Channel 3625MHz

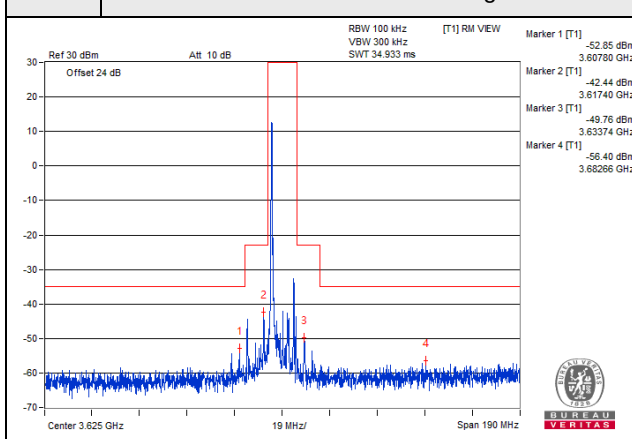
1 RB-0 Within 1MHz outside the designated channel



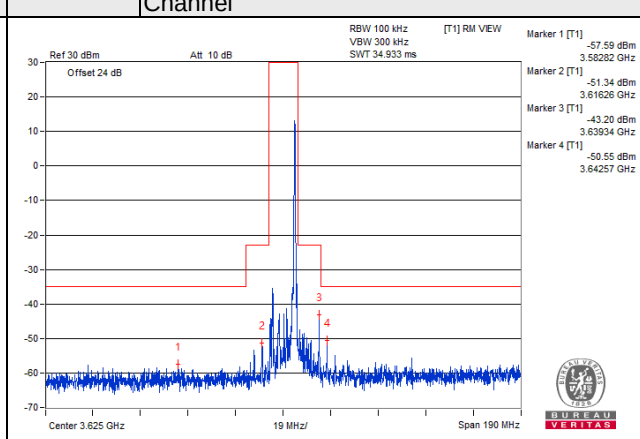
1 RB-Max Within 1MHz outside the designated channel



1 RB-0 Greater than 1MHz outside the Assigned Channel



1 RB-Max Greater than 1MHz outside the Assigned Channel



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

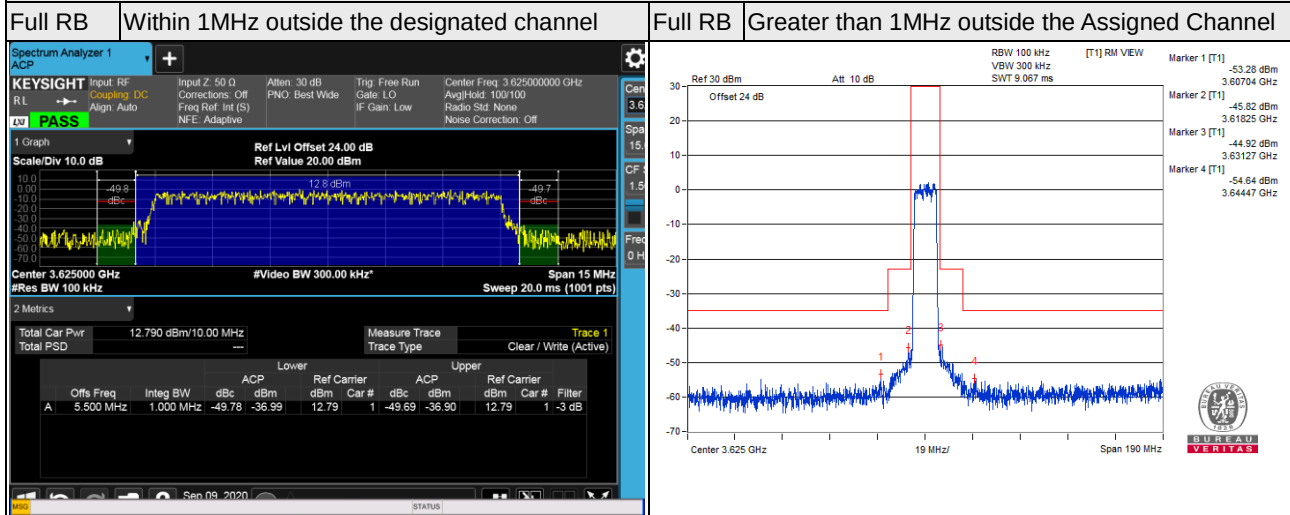
B MHz above the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

Channel Bandwidth 10MHz QPSK

Middle Channel 3625MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

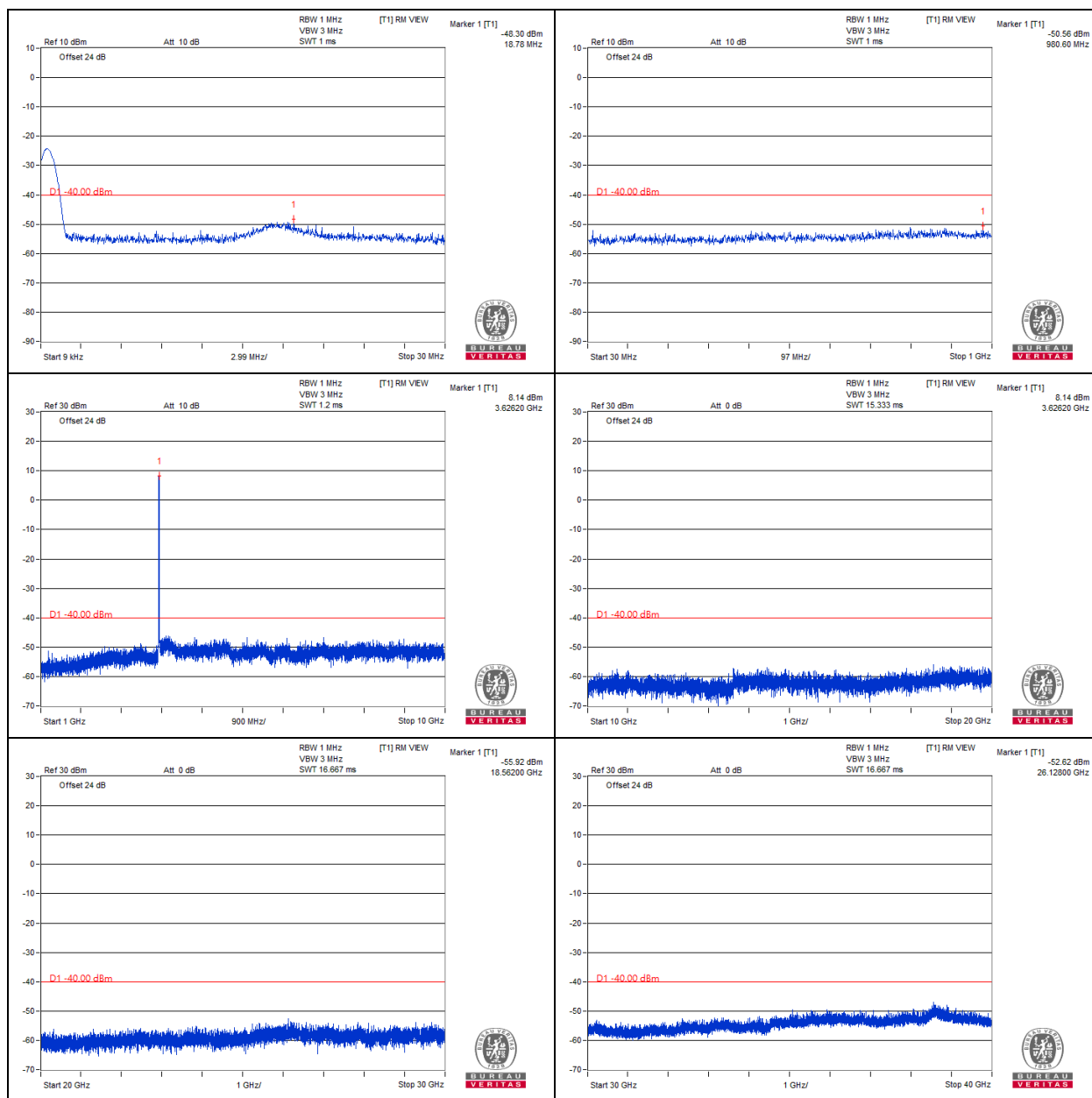
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

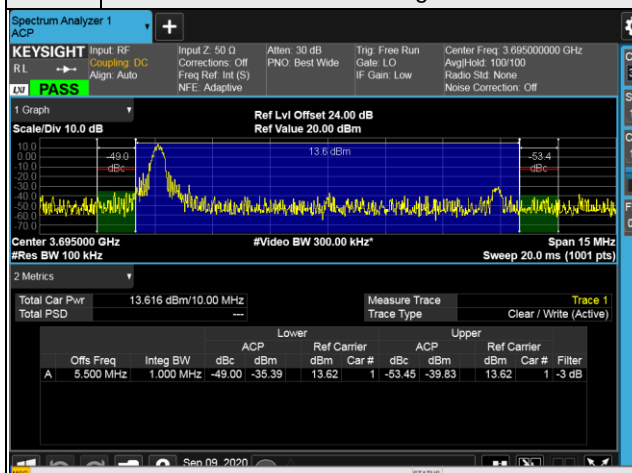


Note: The signal of 9kHz is IF signal from test instrument.

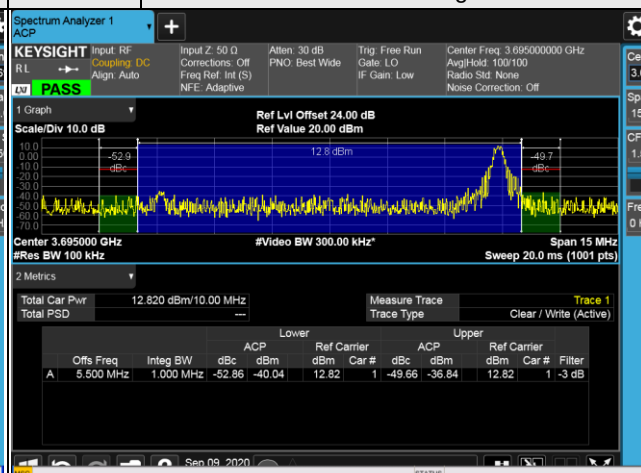
Channel Bandwidth 10MHz QPSK

High Channel 3695MHz

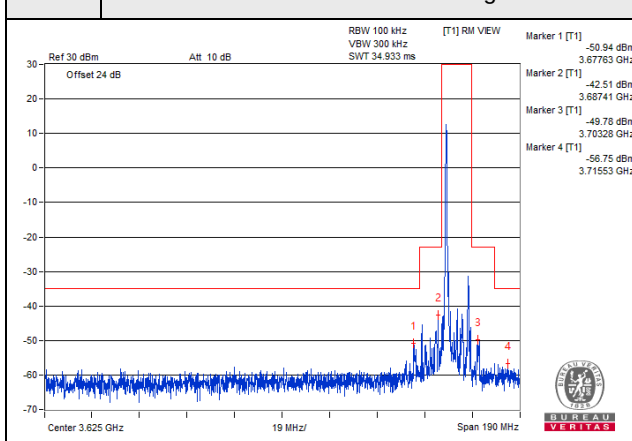
1 RB-0 Within 1MHz outside the designated channel



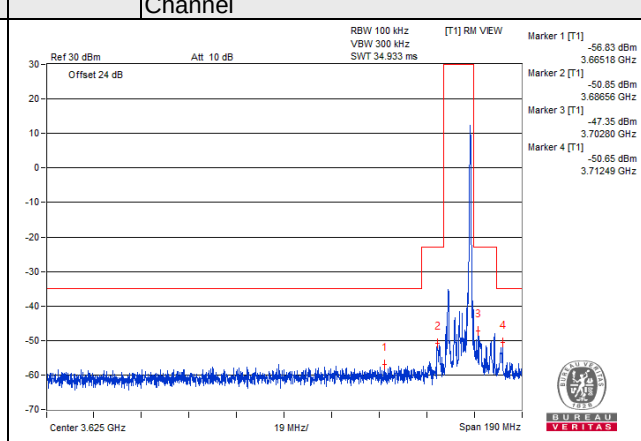
1 RB-Max Within 1MHz outside the designated channel



1 RB-0 Greater than 1MHz outside the Assigned Channel



1 RB-Max Greater than 1MHz outside the Assigned Channel



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

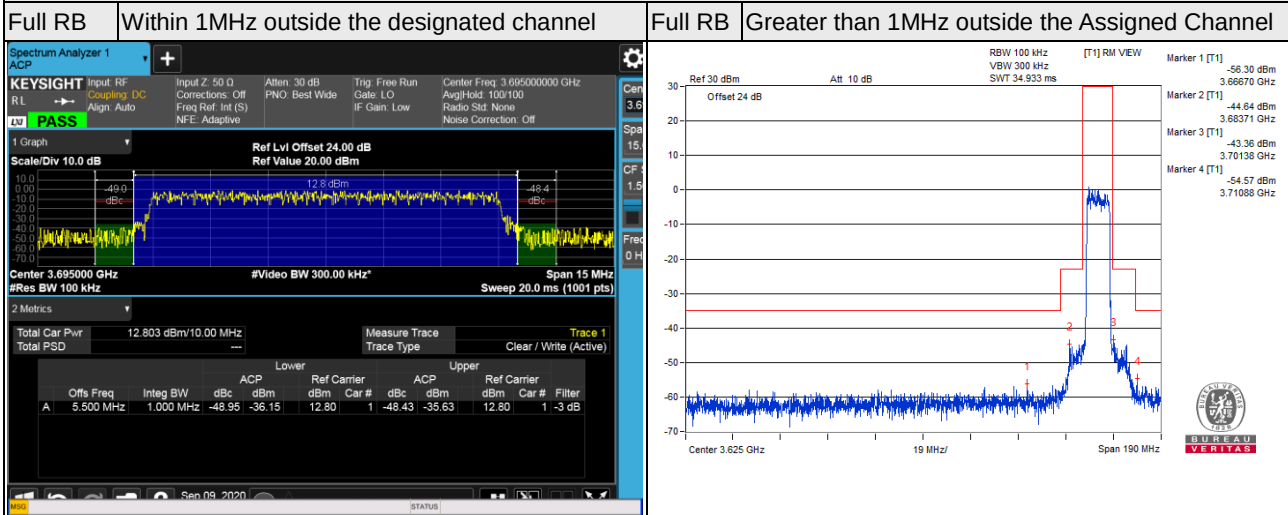
B MHz above the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

Channel Bandwidth 10MHz QPSK

High Channel 3695MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

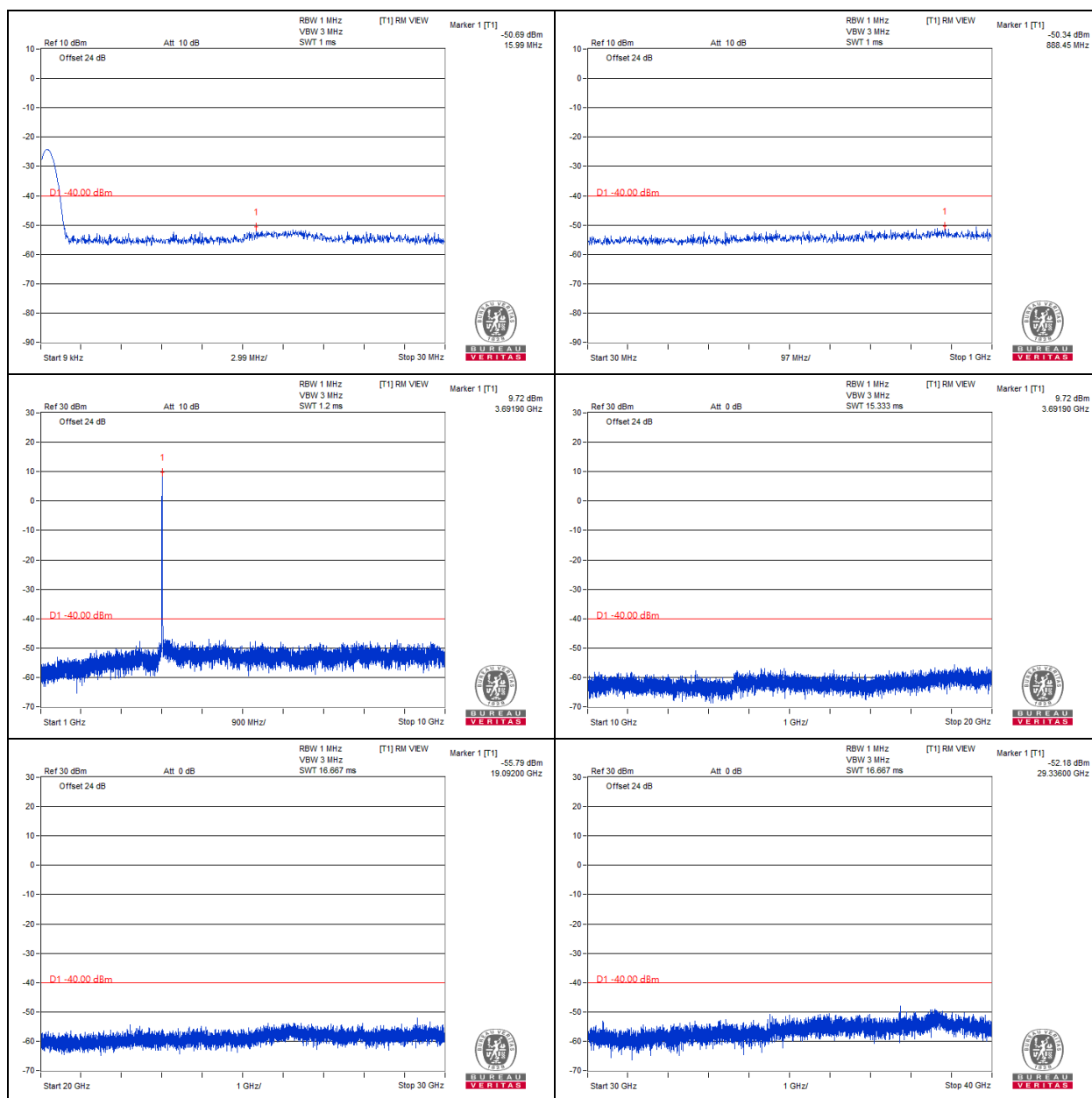
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -23 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(100\text{kHz}/1\text{MHz}) = -35 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

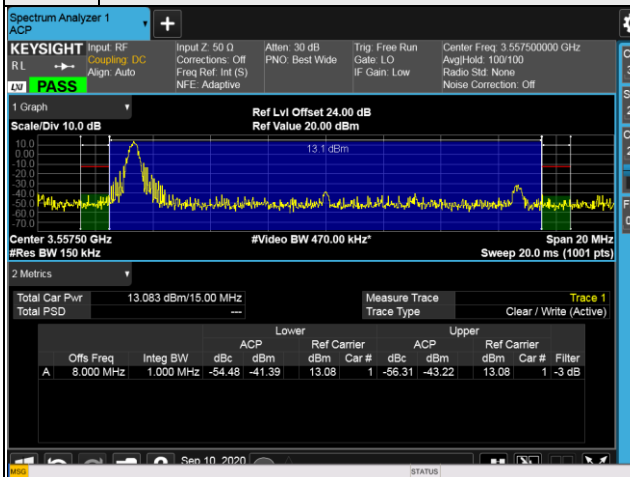


Note: The signal of 9kHz is IF signal from test instrument.

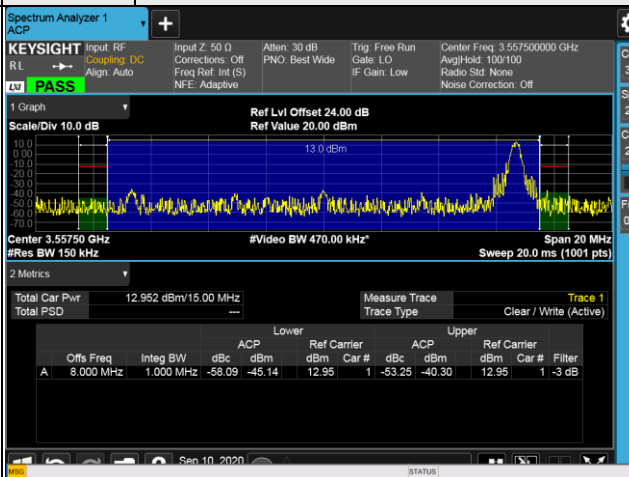
Channel Bandwidth 15MHz QPSK

Low Channel 3557.5MHz

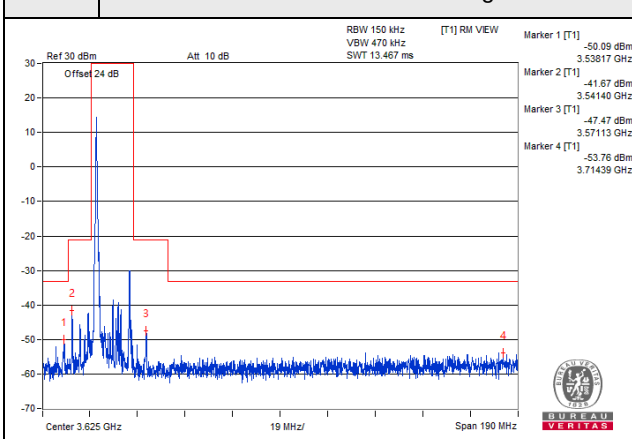
1 RB-0 Within 1MHz outside the designated channel



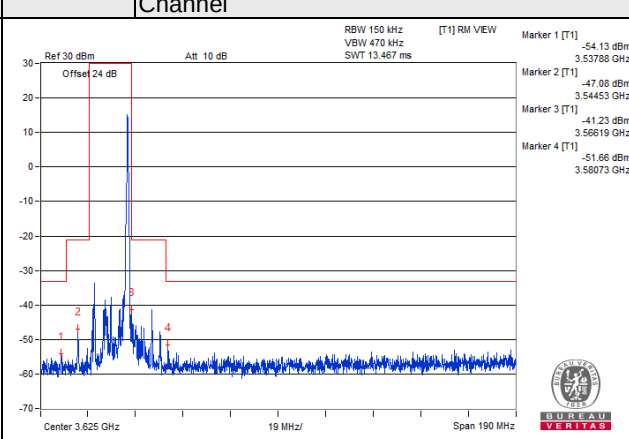
1 RB-Max Within 1MHz outside the designated channel



1 RB-0 Greater than 1MHz outside the Assigned Channel



1 RB-Max Greater than 1MHz outside the Assigned Channel



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

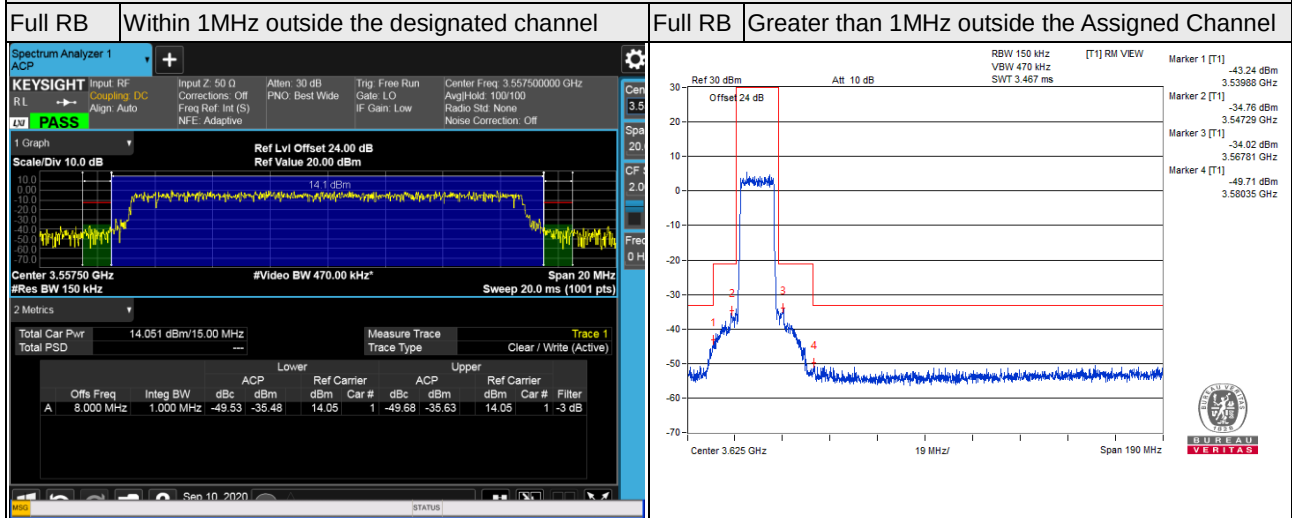
B MHz above the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

Channel Bandwidth 15MHz QPSK

Low Channel 3557.5MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

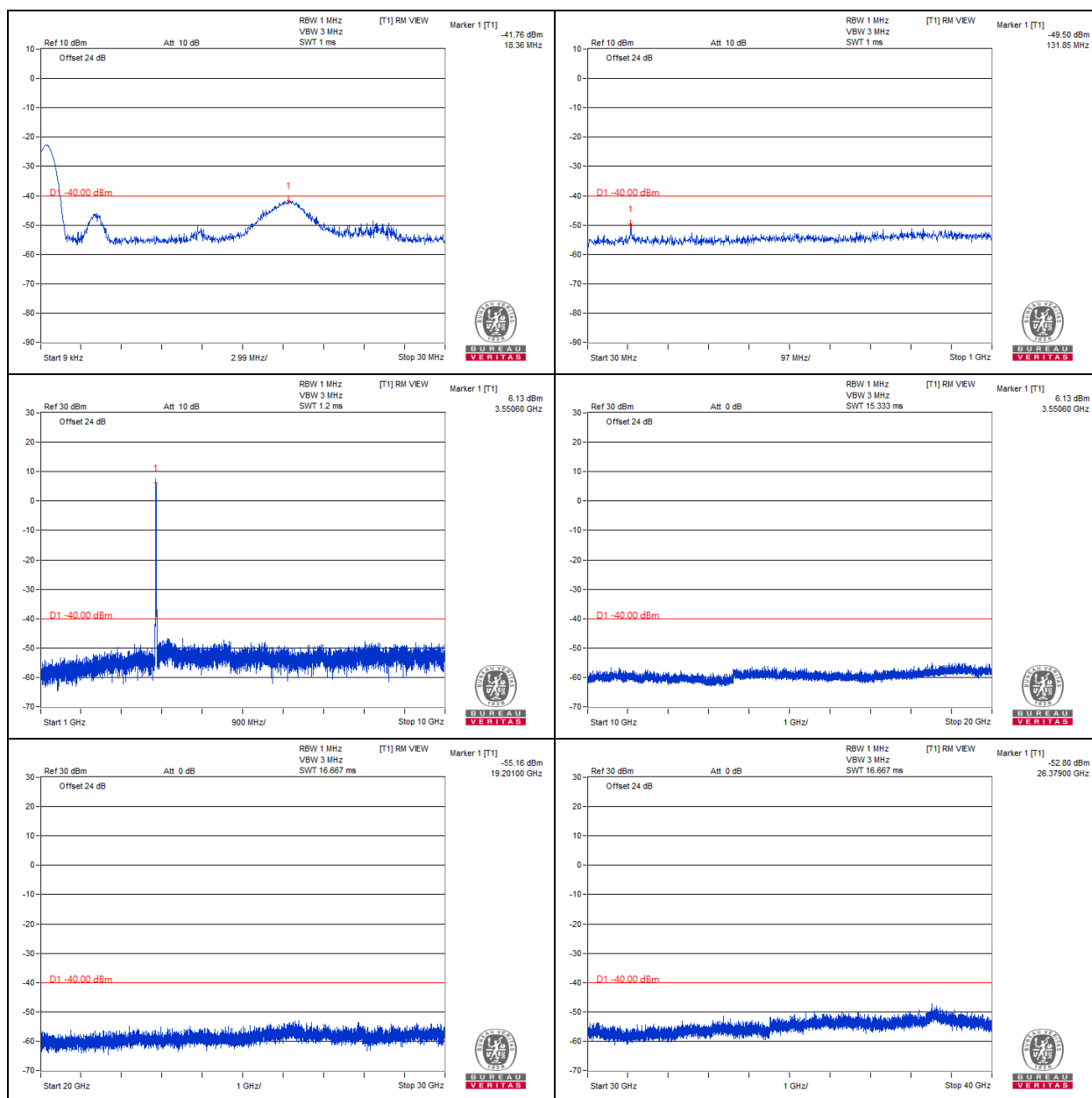
Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

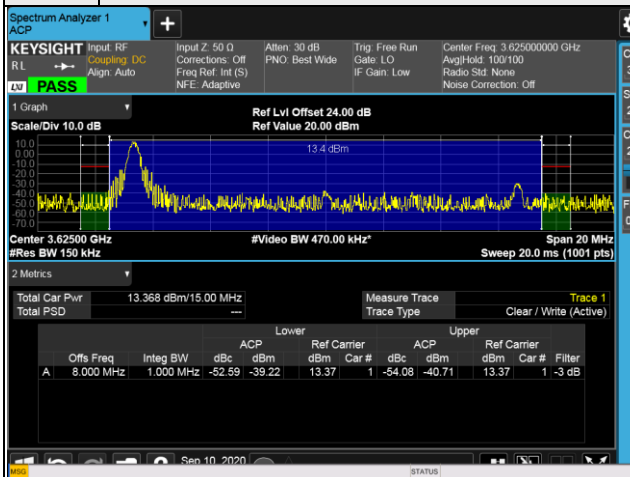


Note: The signal of 9kHz is IF signal from test instrument.

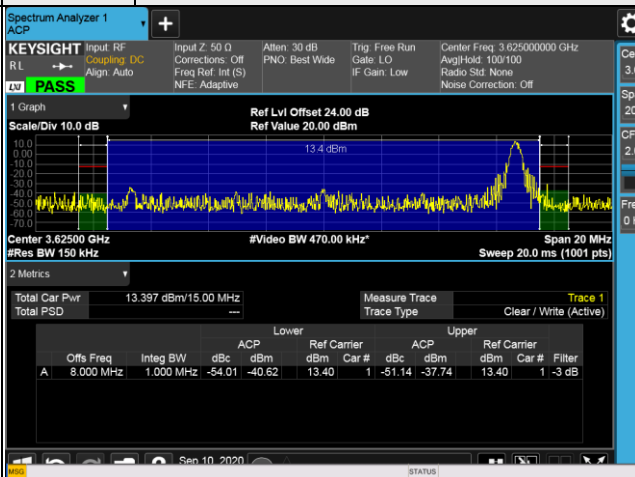
Channel Bandwidth 15MHz QPSK

Middle Channel 3625MHz

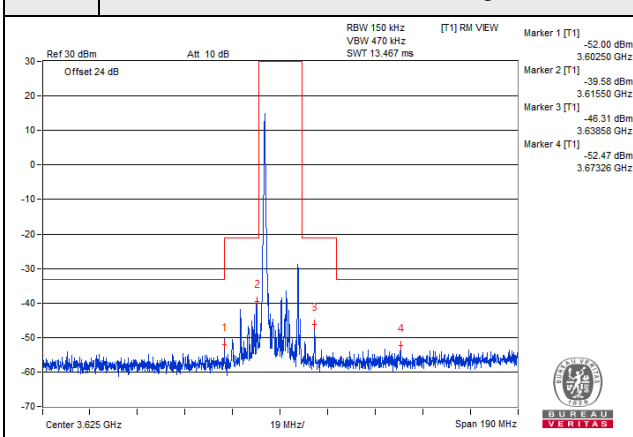
1 RB-0 Within 1MHz outside the designated channel



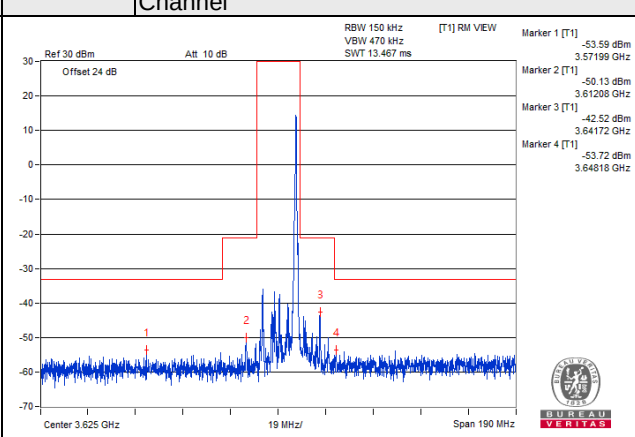
1 RB-Max Within 1MHz outside the designated channel



1 RB-0 Greater than 1MHz outside the Assigned Channel



1 RB-Max Greater than 1MHz outside the Assigned Channel



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

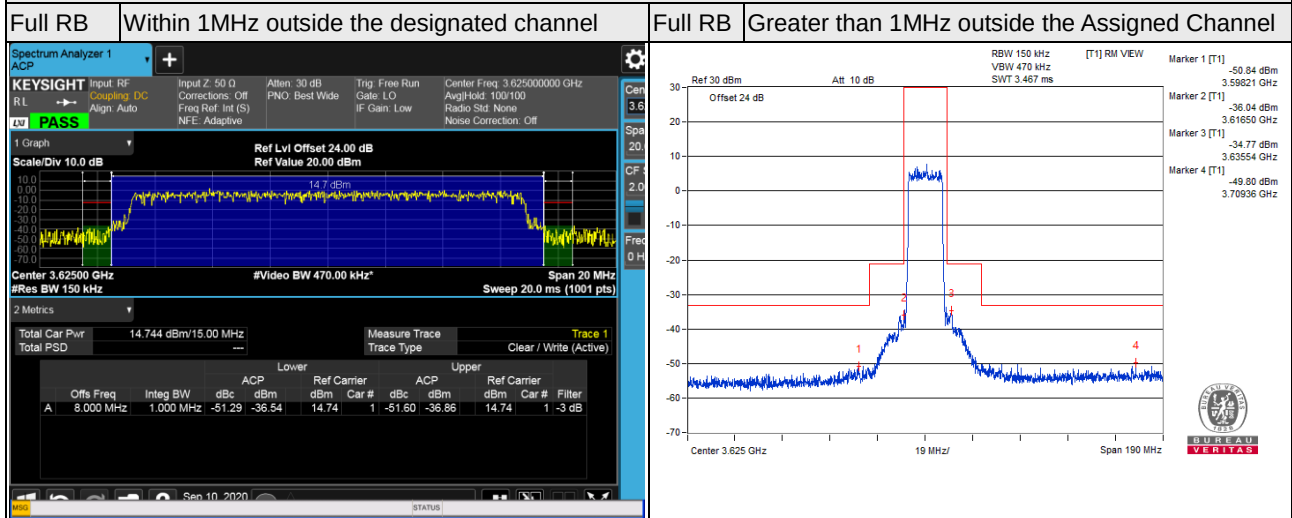
B MHz above the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.

Channel Bandwidth 15MHz QPSK

Middle Channel 3625MHz



NOTE:

1MHz outside of designated channel needs to reduce the limit, When measured RBW less than 1MHz.

Within 1- B MHz above the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

Within 1- B MHz below the Assigned channel Limit is $-13+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -21.24 \text{ dBm}$

B MHz above the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

B MHz below the Assigned channel Limit is $-25+10*\text{Log}(150\text{kHz}/1\text{MHz}) = -33.24 \text{ dBm}$

“B” is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device.