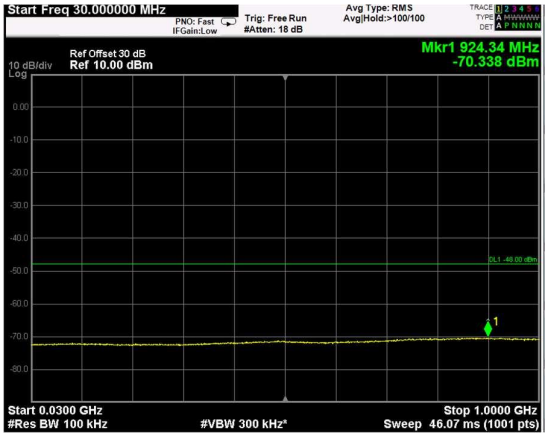
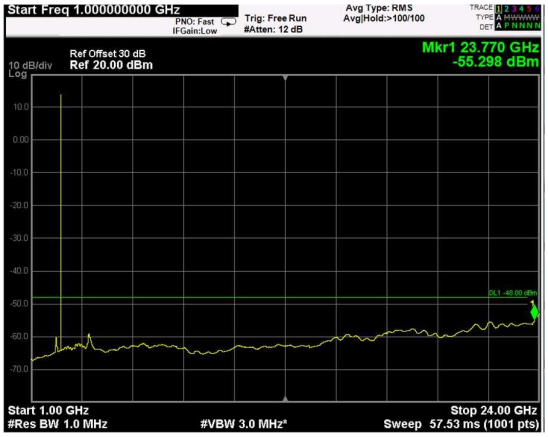
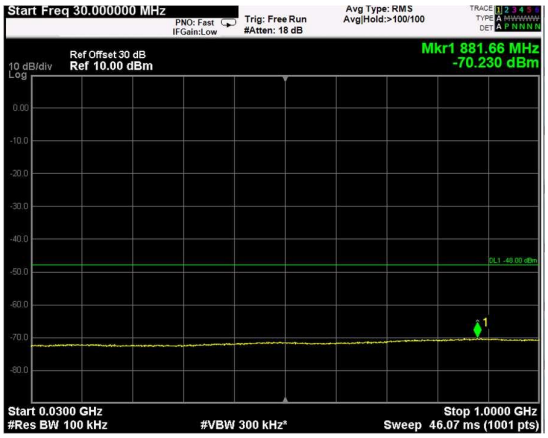
RF PORT 2



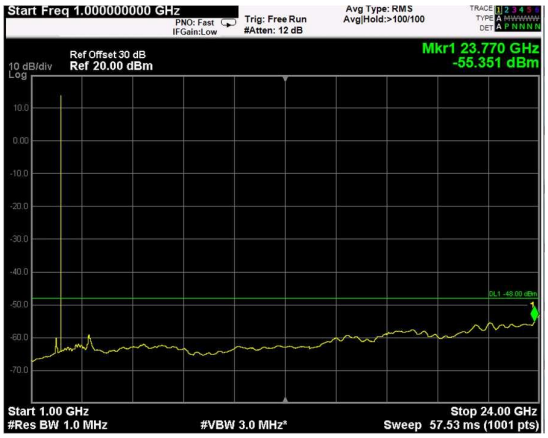
Channel: BOTTOM, Modulation: QPSK, BW=5MHz, Range: Lower



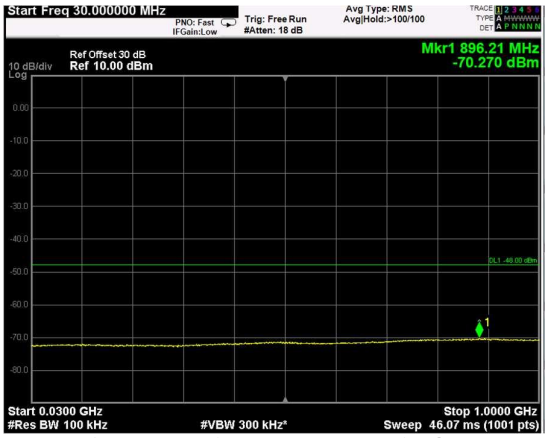
Channel: BOTTOM, Modulation: QPSK, BW=5MHz, Range: Upper



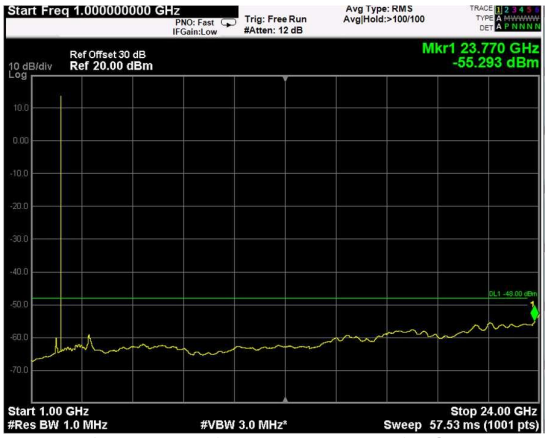
Channel: MIDDLE, Modulation: QPSK, BW=5MHz, Range: Lower



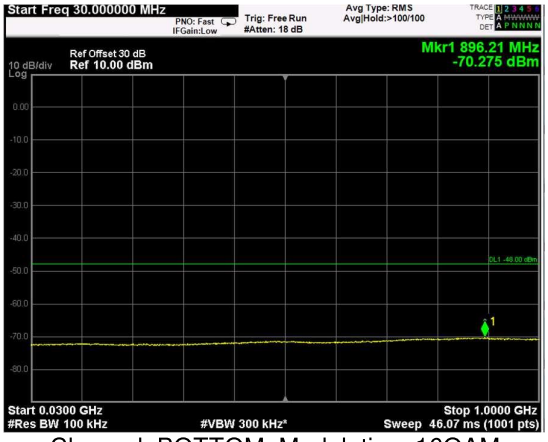
Channel: MIDDLE, Modulation: QPSK, BW=5MHz, Range: Upper



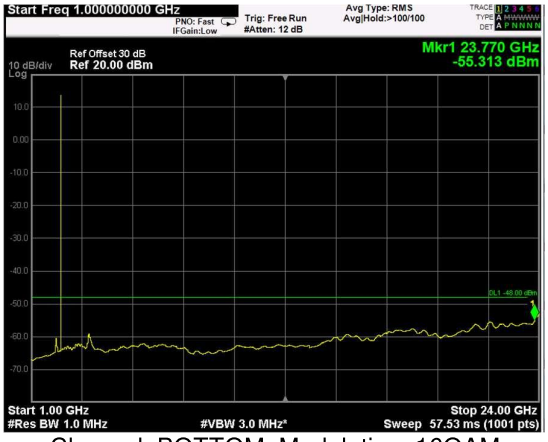
Channel: TOP, Modulation: QPSK, BW=5MHz, Range: Lower



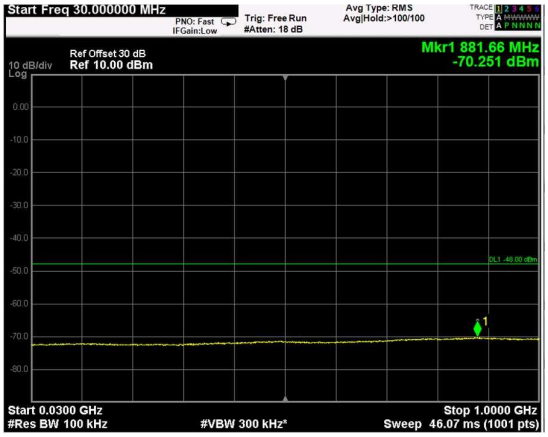
Channel: TOP, Modulation: QPSK, BW=5MHz, Range: Upper



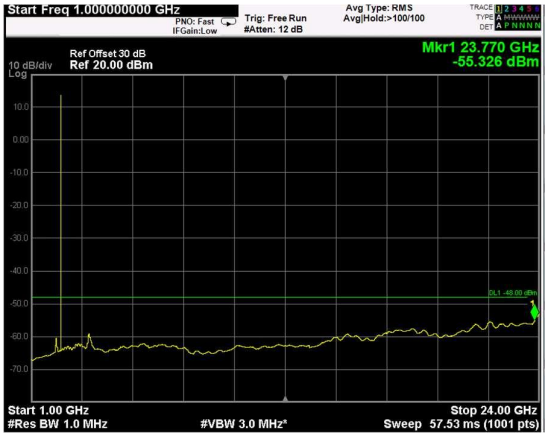
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz, Range: Lower



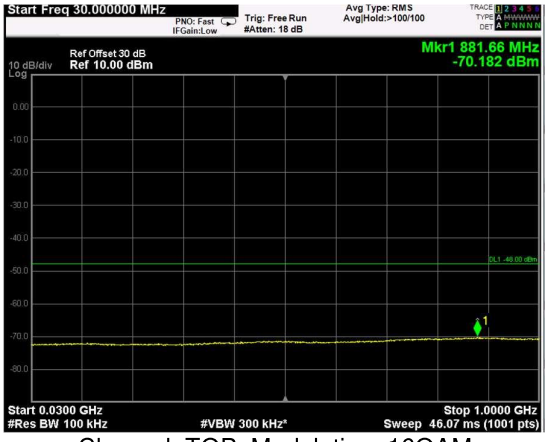
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz, Range: Upper



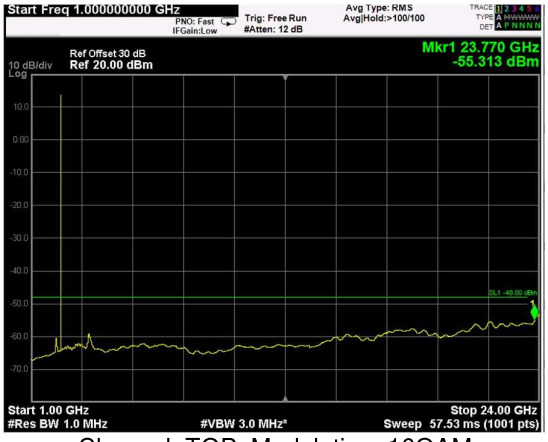
Channel: MIDDLE, Modulation: 16QAM, BW=5MHz, Range: Lower



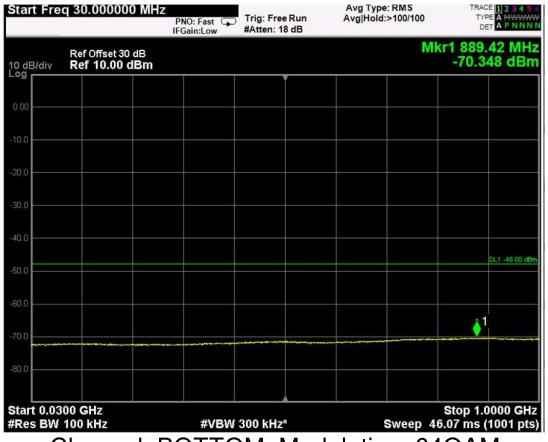
Channel: MIDDLE, Modulation: 16QAM, BW=5MHz, Range: Upper



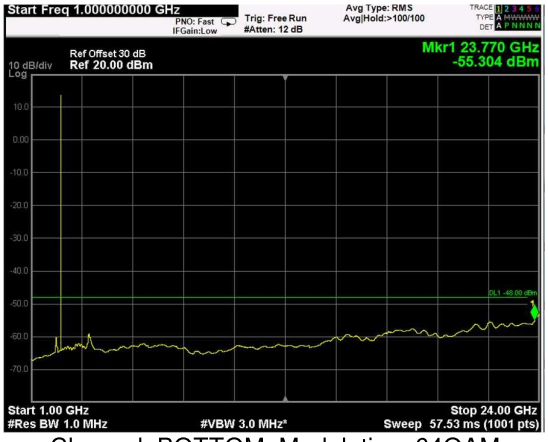
Channel: TOP, Modulation: 16QAM, BW=5MHz, Range: Lower



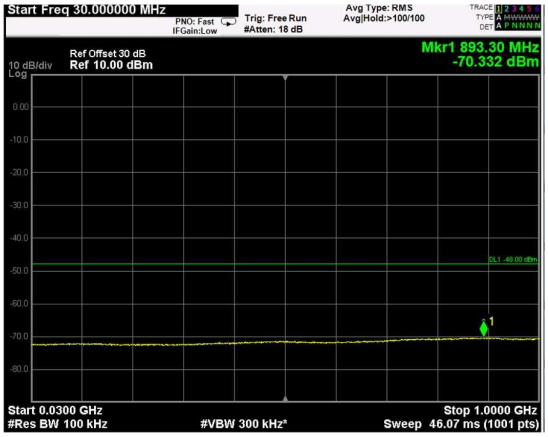
Channel: TOP, Modulation: 16QAM, BW=5MHz, Range: Upper



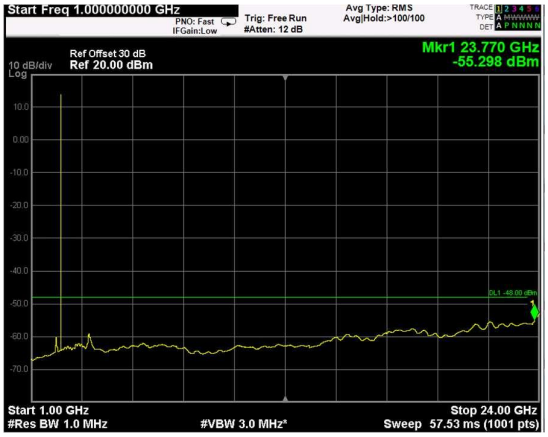
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz, Range: Lower



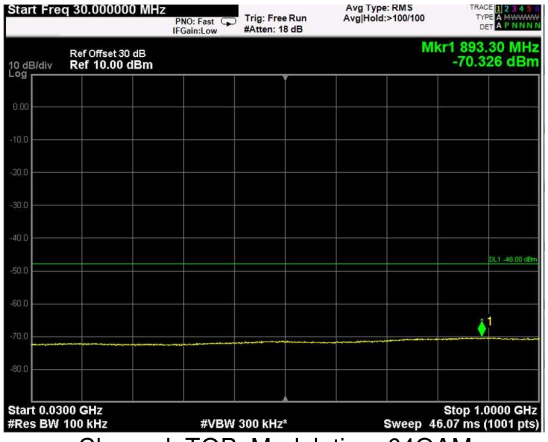
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz, Range: Upper



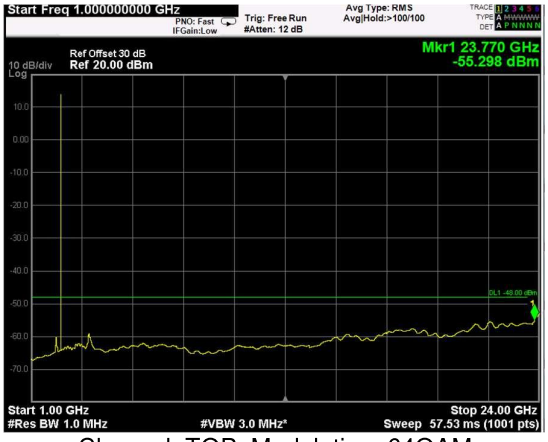
Channel: MIDDLE, Modulation: 64QAM, BW=5MHz, Range: Lower



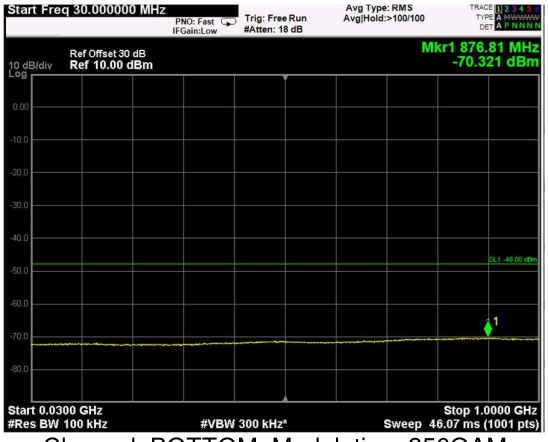
Channel: MIDDLE, Modulation: 64QAM, BW=5MHz, Range: Upper



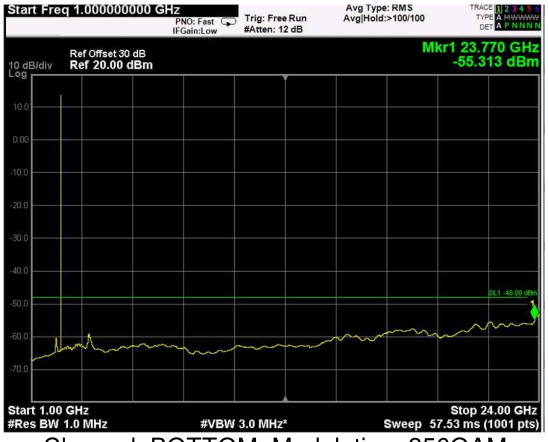
Channel: TOP, Modulation: 64QAM, BW=5MHz, Range: Lower



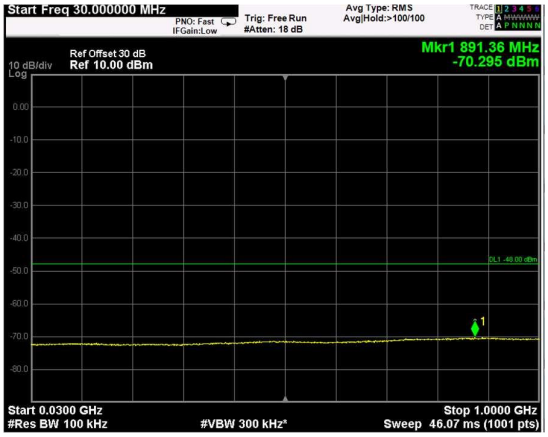
Channel: TOP, Modulation: 64QAM, BW=5MHz, Range: Upper



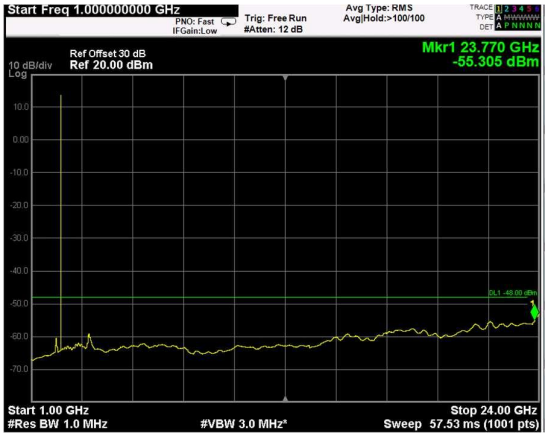
Channel: BOTTOM, Modulation: 256QAM, BW=5MHz, Range: Lower



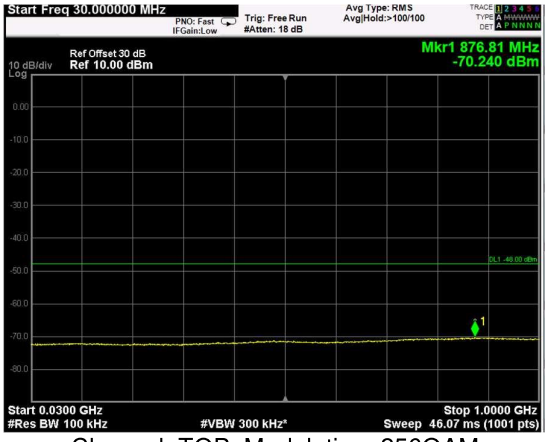
Channel: BOTTOM, Modulation: 256QAM, BW=5MHz, Range: Upper



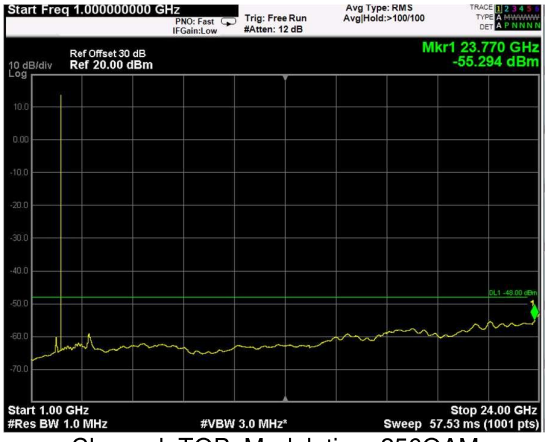
Channel: MIDDLE, Modulation: 256QAM, BW=5MHz, Range: Lower



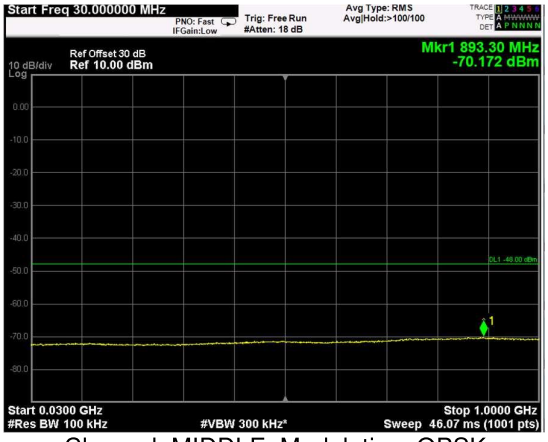
Channel: MIDDLE, Modulation: 256QAM, BW=5MHz, Range: Upper



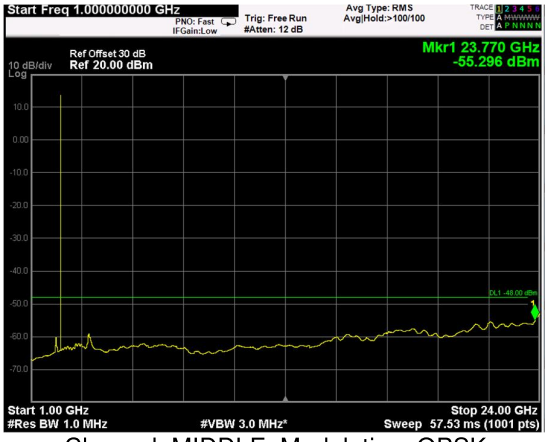
Channel: TOP, Modulation: 256QAM, BW=5MHz, Range: Lower



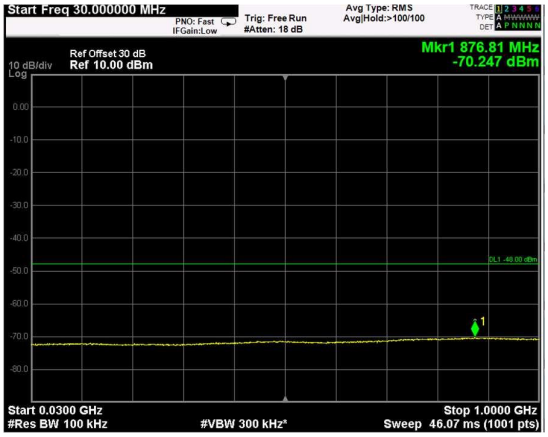
Channel: TOP, Modulation: 256QAM, BW=5MHz, Range: Upper



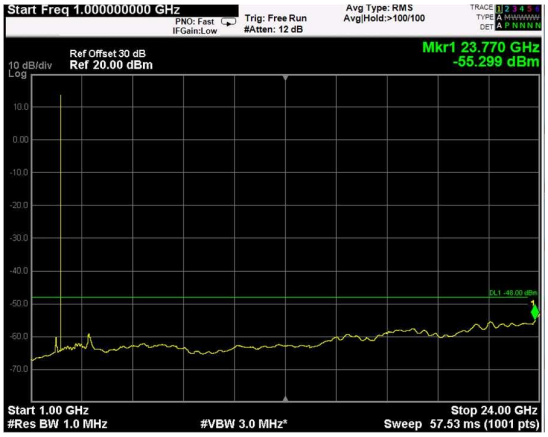
Channel: MIDDLE, Modulation: QPSK, BW=10MHz, Range: Lower



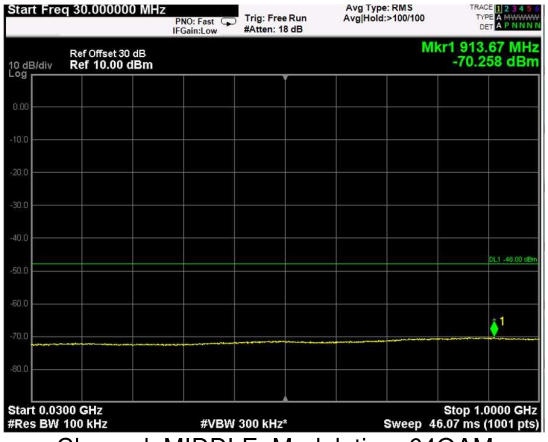
Channel: MIDDLE, Modulation: QPSK, BW=10MHz, Range: Upper



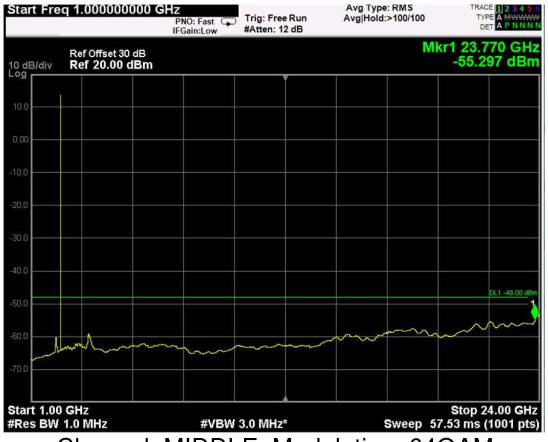
Channel: MIDDLE, Modulation: 16QAM, BW=10MHz, Range: Lower



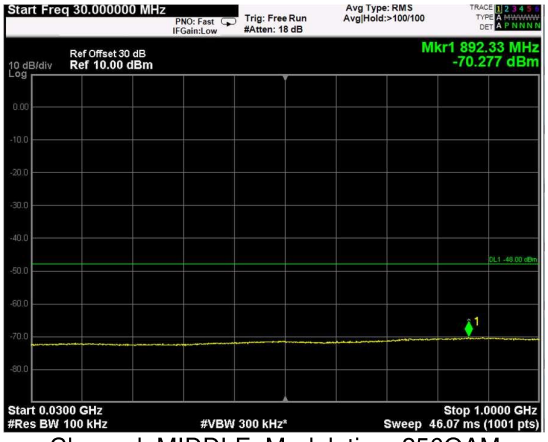
Channel: MIDDLE, Modulation: 16QAM, BW=10MHz, Range: Upper



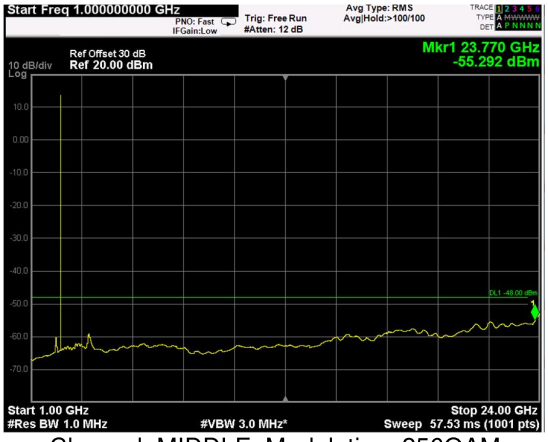
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, Range: Lower



Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, Range: Upper



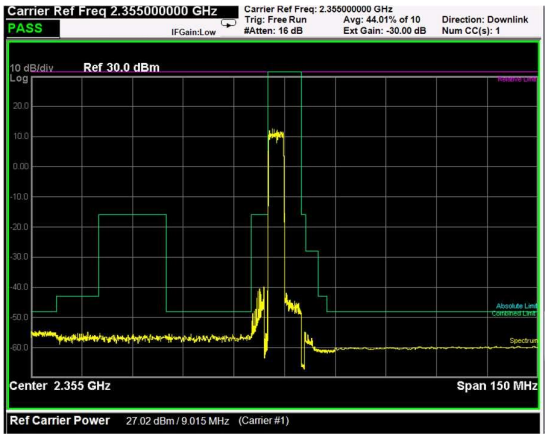
Channel: MIDDLE, Modulation: 256QAM, BW=10MHz, Range: Lower



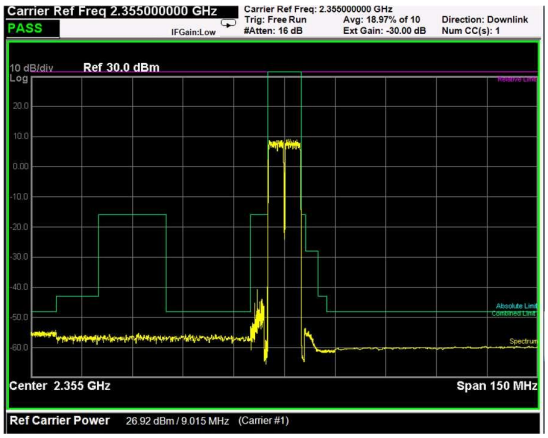
Channel: MIDDLE, Modulation: 256QAM, BW=10MHz, Range: Upper

Test data, continued: band edges Inter modulation

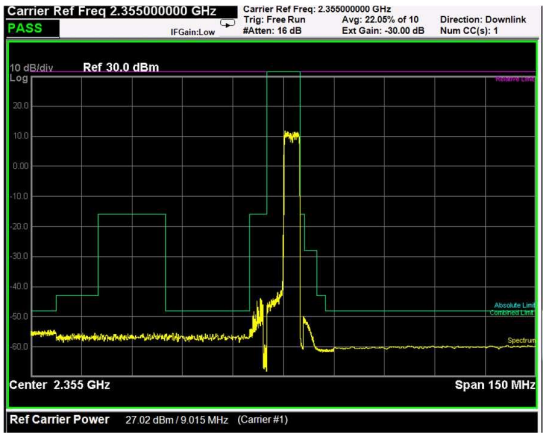
RF PORT 1



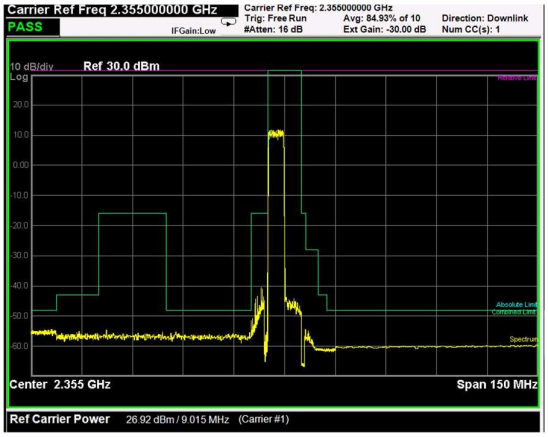
Channel: BOTTOM, Modulation: QPSK, BW=5MHz



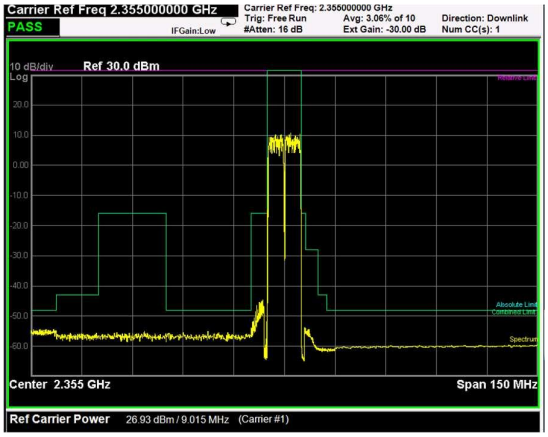
Channel: BOTTOM+TOP, Modulation: QPSK, BW=5MHz



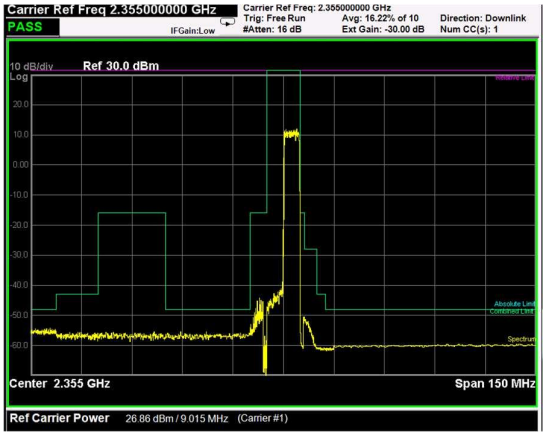
Channel: TOP, Modulation: QPSK, BW=5MHz



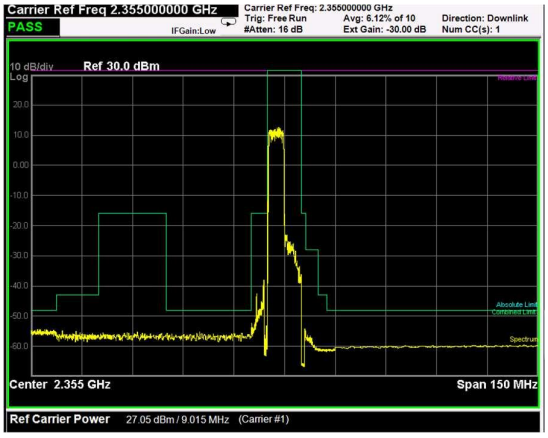
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz



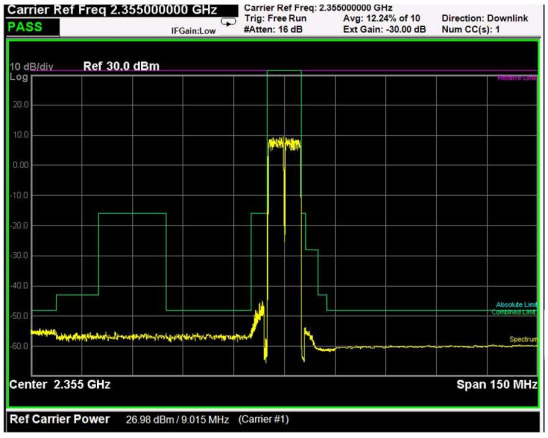
Channel: BOTTOM+TOP, Modulation: 16QAM, BW=5MHz



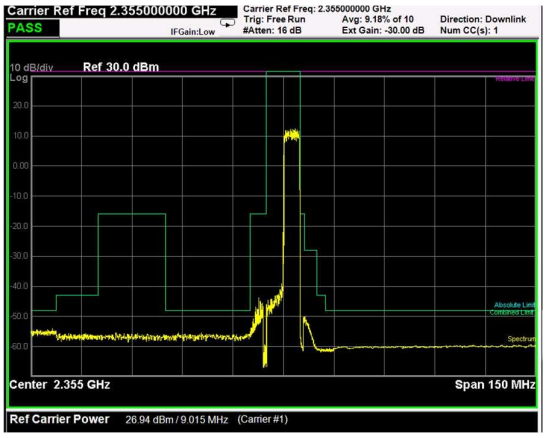
Channel: TOP, Modulation: 16QAM, BW=5MHz



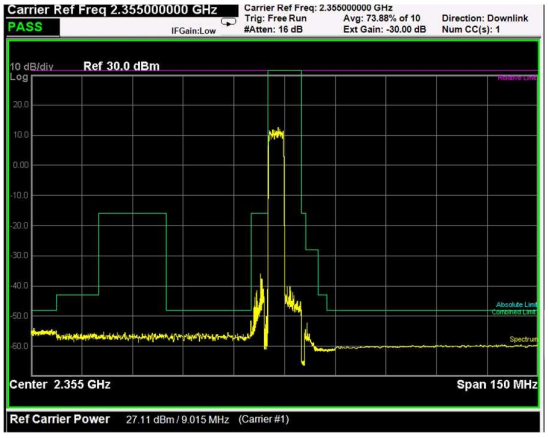
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz



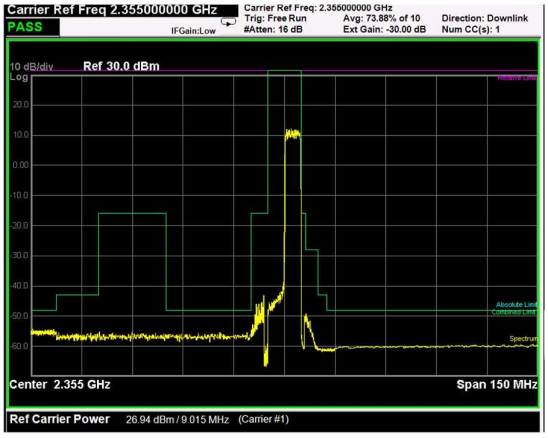
Channel: BOTTOM+TOP, Modulation: 64QAM, BW=5MHz



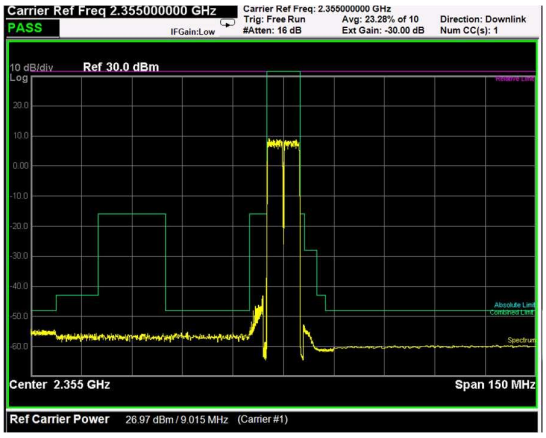
Channel: TOP, Modulation: 64QAM, BW=5MHz



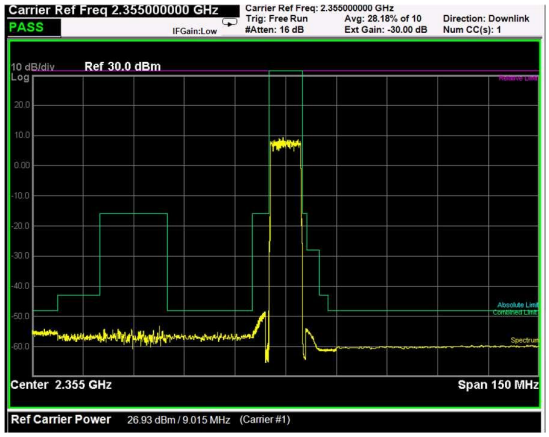
Channel: BOTTOM, Modulation: 256QAM, BW=5MHz



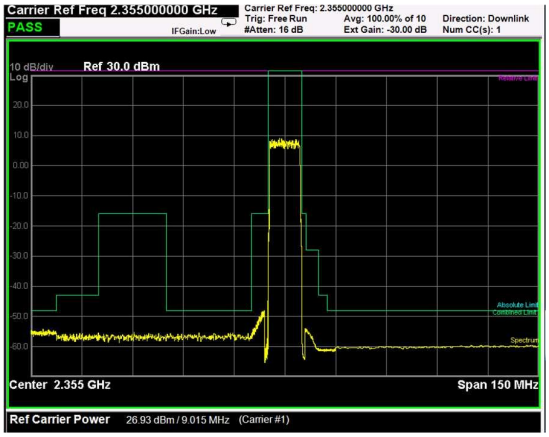
Channel: BOTTOM+TOP, Modulation: 256QAM, BW=5MHz



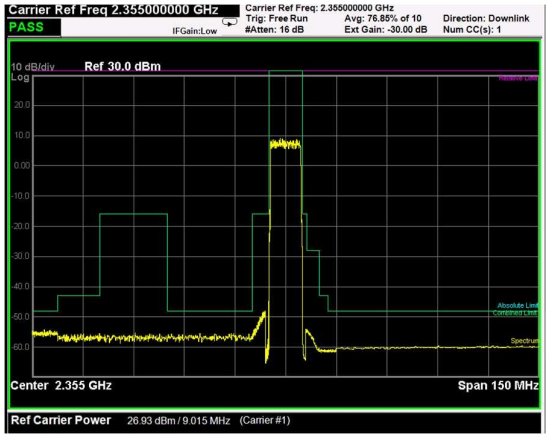
Channel: TOP, Modulation: 256QAM, BW=5MHz



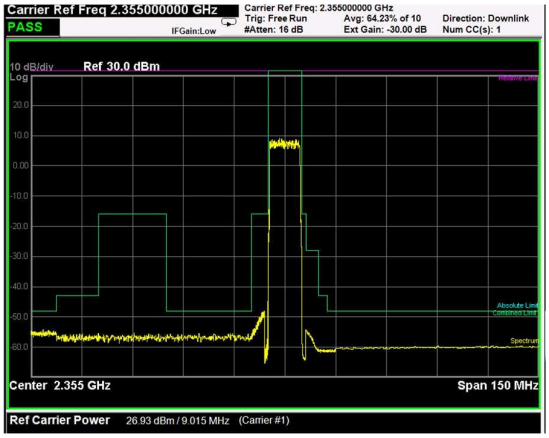
1 Carrier,
Modulation: QPSK, BW=10MHz



1 Carrier,
Modulation: 16QAM, BW=10MHz

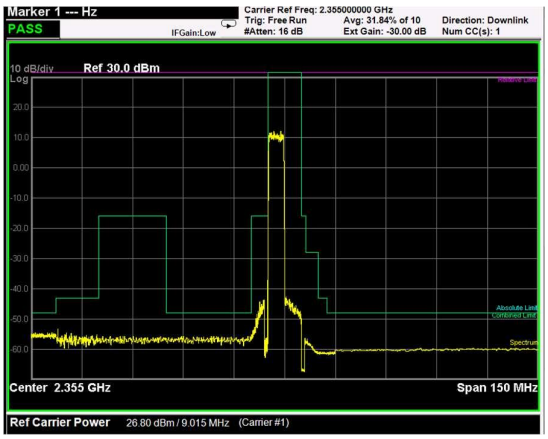


1 Carrier,
Modulation: 64QAM, BW=10MHz

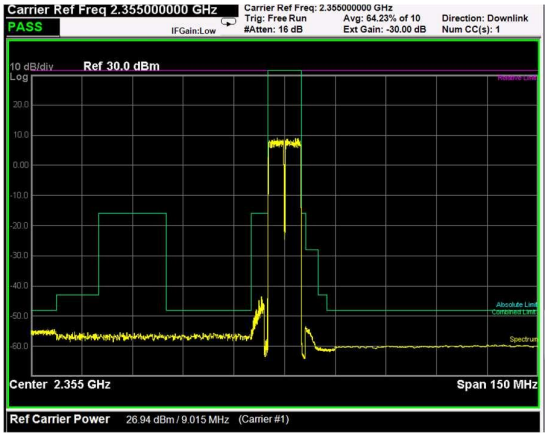


1 Carrier,
Modulation: 256QAM, BW=10MHz

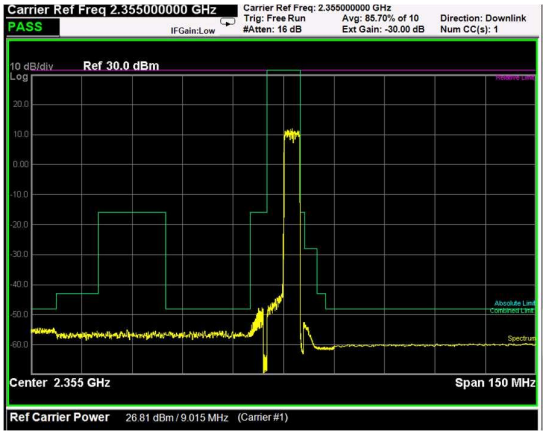
RF PORT 2



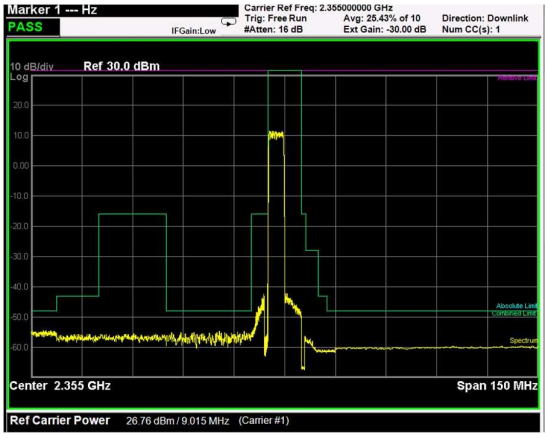
Channel: BOTTOM, Modulation: QPSK, BW=5MHz



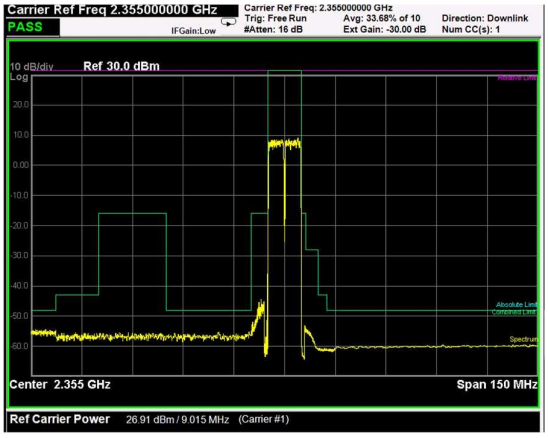
Channel: BOTTOM+TOP, Modulation: QPSK, BW=5MHz



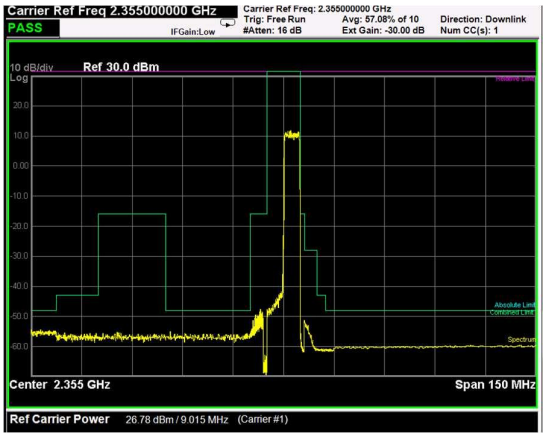
Channel: TOP, Modulation: QPSK, BW=5MHz



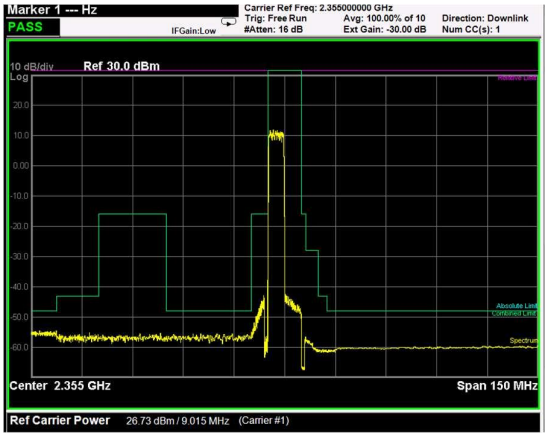
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz



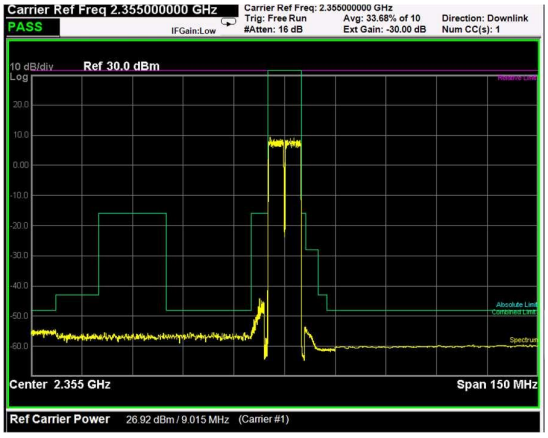
Channel: BOTTOM+TOP, Modulation: 16QAM, BW=5MHz



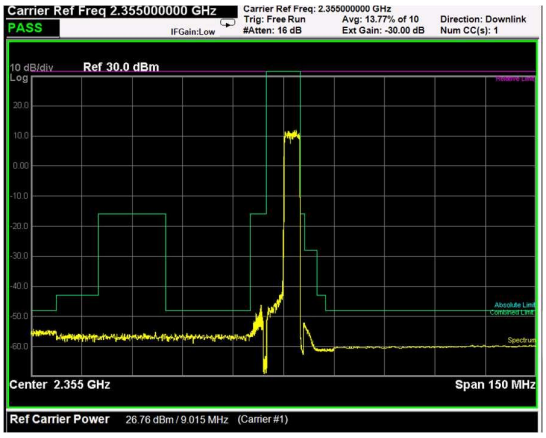
Channel: TOP, Modulation: 16QAM, BW=5MHz



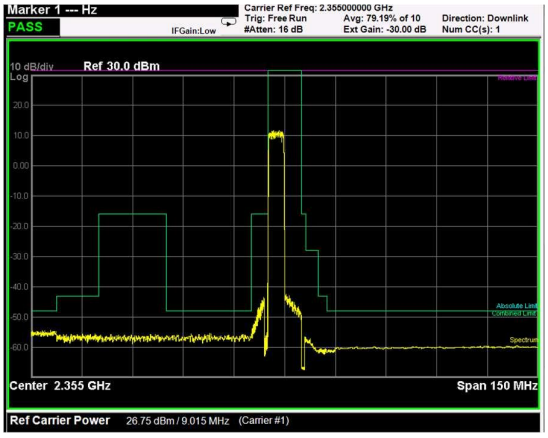
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz



Channel: BOTTOM+TOP, Modulation: 64QAM, BW=5MHz

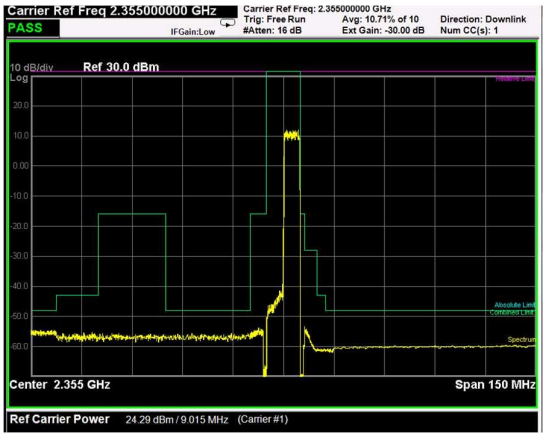


Channel: TOP, Modulation: 64QAM, BW=5MHz

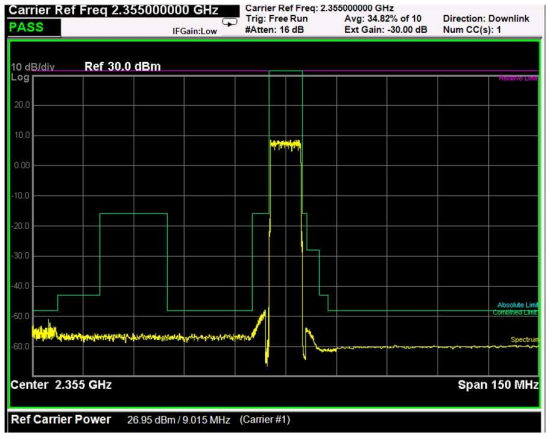


Channel: BOTTOM, Modulation: 256QAM, BW=5MHz

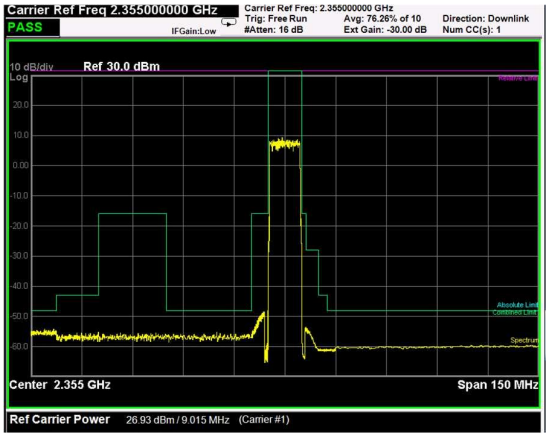
Channel: BOTTOM+TOP, Modulation: 256QAM, BW=5MHz



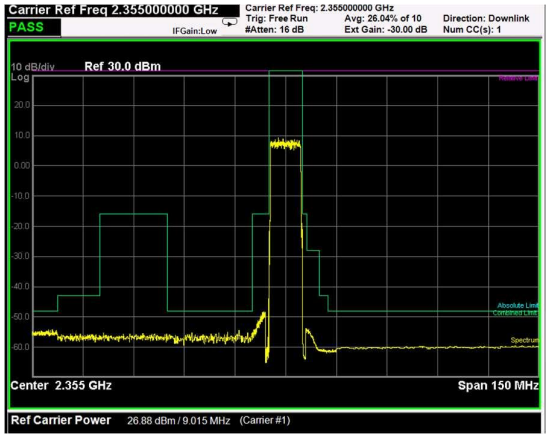
Channel: TOP, Modulation: 256QAM, BW=5MHz



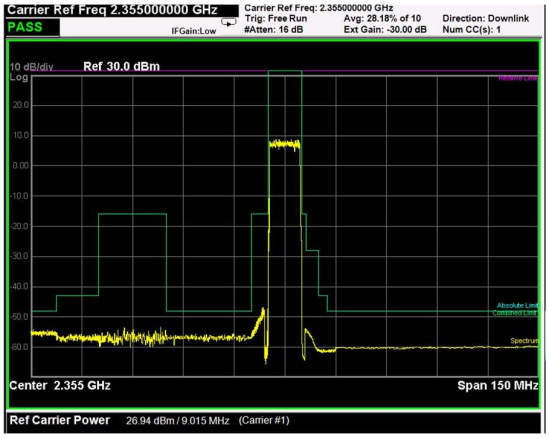
1 Carrier,
Modulation: QPSK, BW=10MHz



1 Carrier,
Modulation: 16QAM, BW=10MHz



1 Carrier,
Modulation: 64QAM, BW=10MHz



1 Carrier,
Modulation: 256QAM, BW=10MHz

Clause 27.53(a) Radiated Spurious emissions

(a) **For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:**

(1) For base and fixed stations' operations in the 2305-2320 MHz band and the 2345-2360 MHz band:
(i) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, and not less than 75 + 10 log (P) dB on all frequencies between 2320 and 2345 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 70 + 10 log (P) dB on all frequencies between 2287.5 and 2300 MHz, 72 + 10 log (P) dB on all frequencies between 2285 and 2287.5 MHz, and 75 + 10 log (P) dB below 2285 MHz;
(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2362.5 MHz, 55 + 10 log (P) dB on all frequencies between 2362.5 and 2365 MHz, 70 + 10 log (P) dB on all frequencies between 2365 and 2367.5 MHz, 72 + 10 log (P) dB on all frequencies between 2367.5 and 2370 MHz, and 75 + 10 log (P) dB above 2370 MHz.

(5) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(7) The measurements of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power;

Test date: 10/21/2019 to 12/13/2019

Test results: Pass

Special notes

Clause 27.53(a) Radiated spurious emissions, continued

Test data

The D.U.T. was positioned according to the radiated emissions set-up

The D.U.T. antenna connector was terminated by a 50 Ω shielded dummy load.

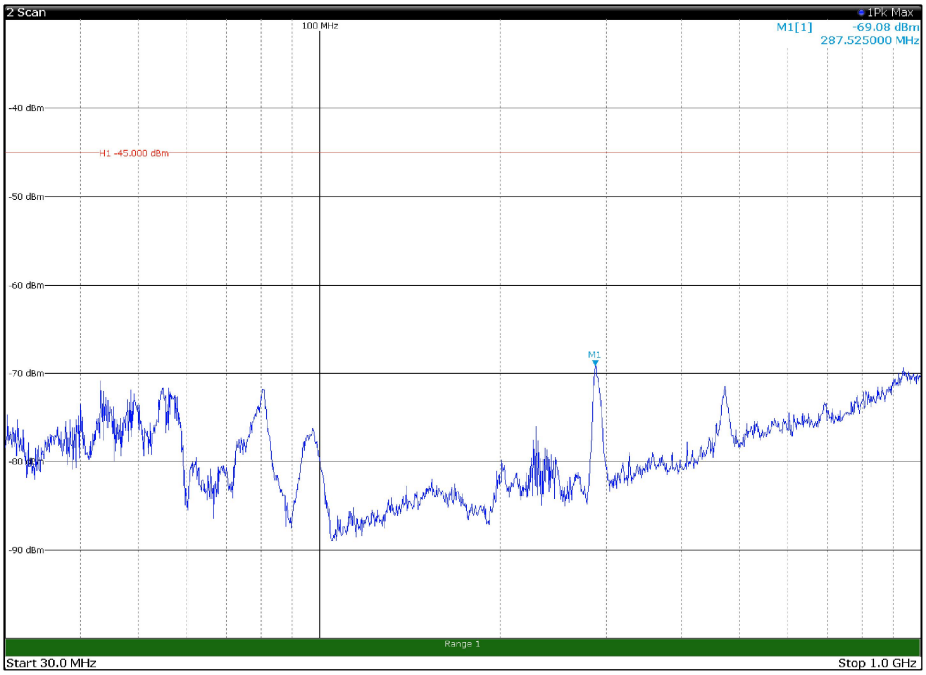
The spectrum was searched from 30 MHz to 1 GHz (RBW 100 kHz) & 1 GHz (RBW 1 MHz) to the tenth harmonic of the carrier.

There were no emissions detected above the noise floor which was at least 20 dB below the specification limit.

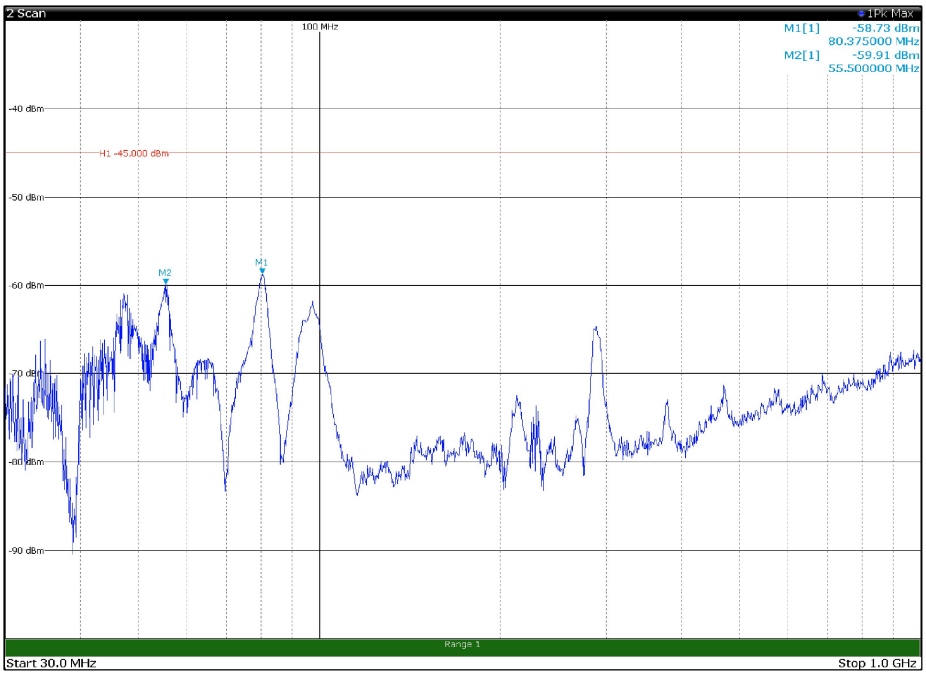
Spurious emissions measurement results:

Frequency (MHz)	Polarization. V/H	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Low channel				
First channel	Negligible	-45		
Mid channel				
2355 MHz	Negligible	-45		
High channel				
Last channel	Negligible	-45		

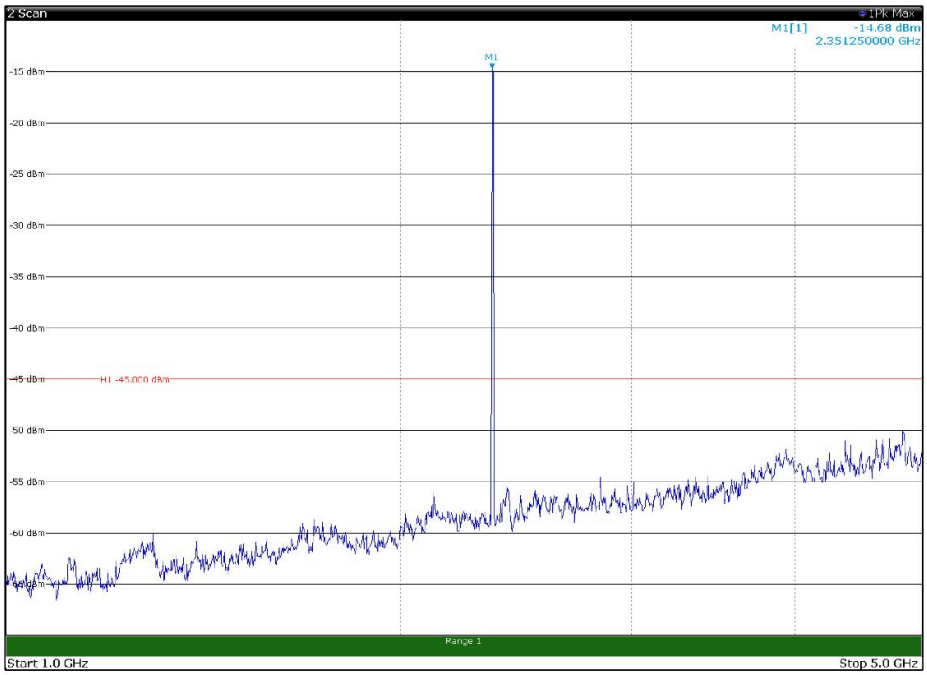
Note: Field strength includes correction factor of antenna, cable loss, amplifier, and attenuators where applicable.



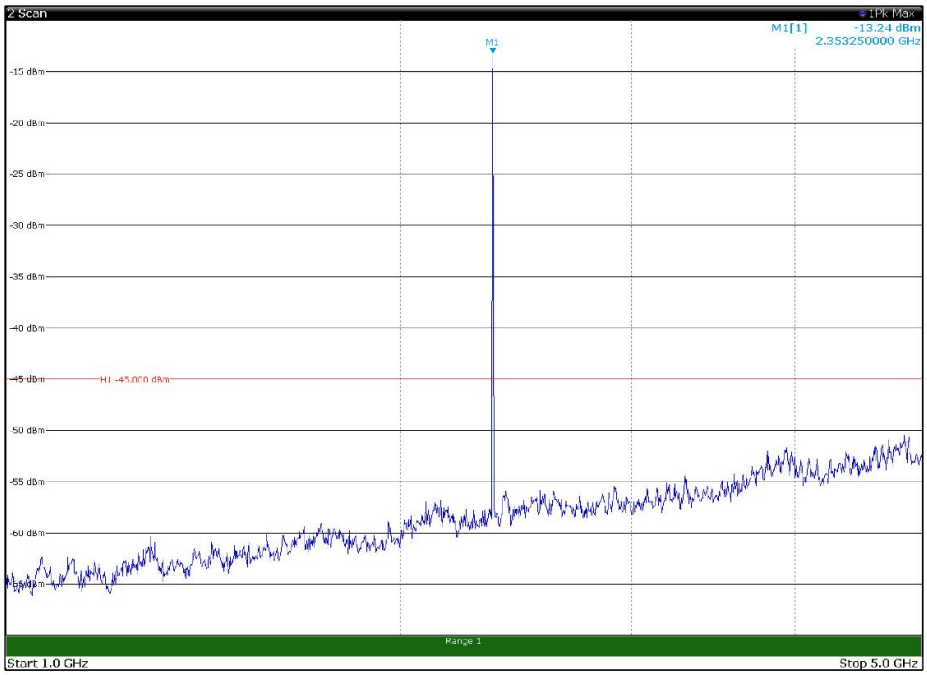
Channel: BOTTOM, Modulation: QPSK,
BW=5MHz, Range: 30MHz - 1GHz, Polarization: Horizontal



Channel: BOTTOM, Modulation: QPSK,
BW=5MHz, Range: 30MHz - 1GHz, Polarization: Vertical



Channel: BOTTOM, Modulation: QPSK,
BW=5MHz, Range: 1GHz - 5GHz, Polarization: Horizontal



Channel: BOTTOM, Modulation: QPSK,
BW=5MHz, Range: 1GHz - 5GHz, Polarization: Vertical