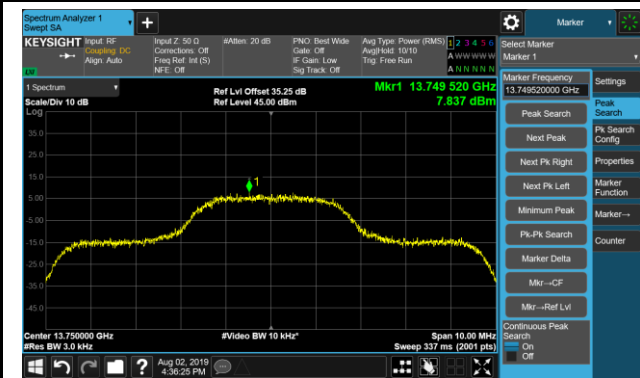
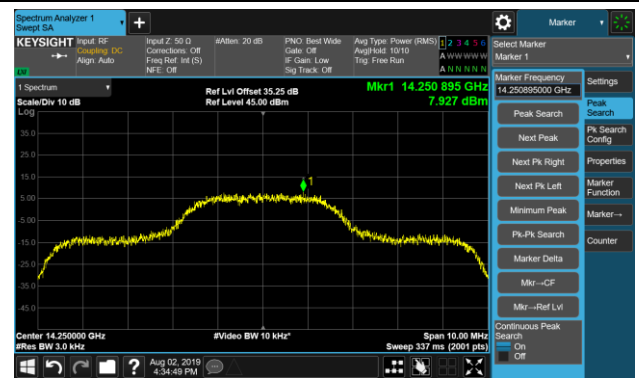


21/44 QPSK (2863.636kbps) - Average PSD

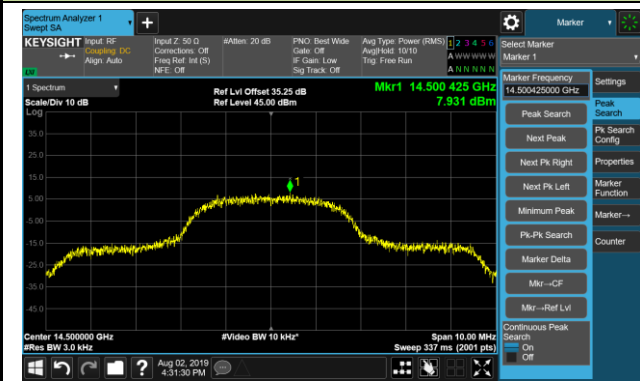
Low Channel (13750MHz)



Mid Channel (14250MHz)

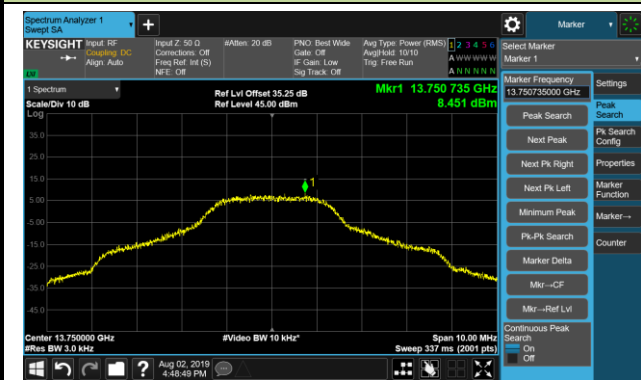


High Channel (14500MHz)



OQPSK (5000kbps) - Average PSD

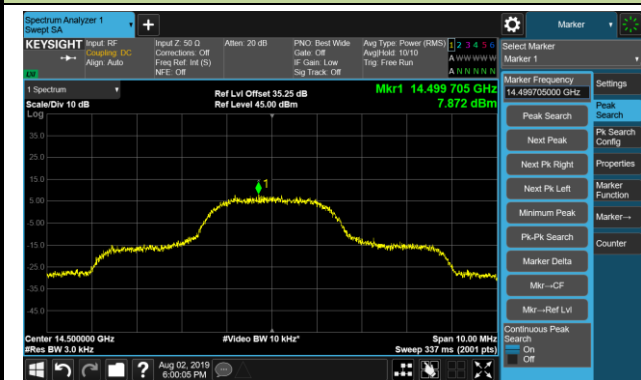
Low Channel (13750MHz)



Mid Channel (14250MHz)

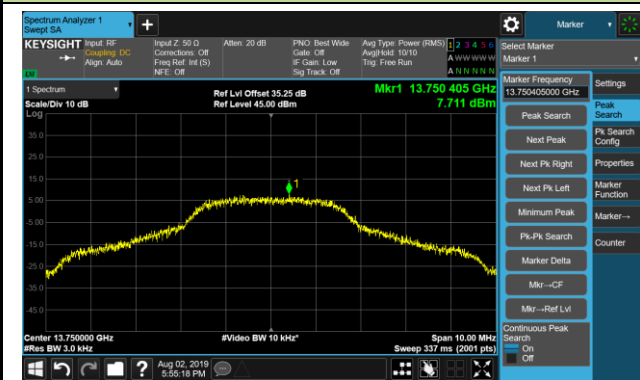


High Channel (14500MHz)



1/2 OQPSK (3000kbps) - Average PSD

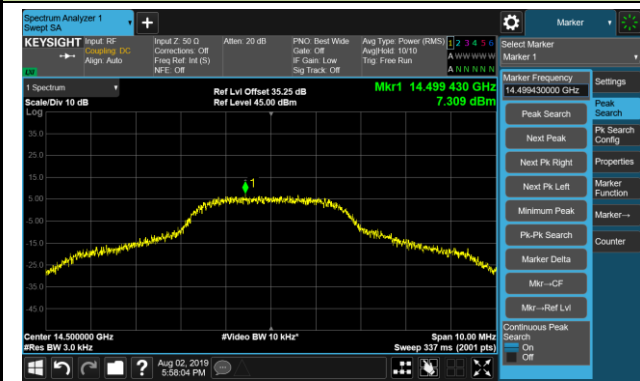
Low Channel (13750MHz)



Mid Channel (14250MHz)

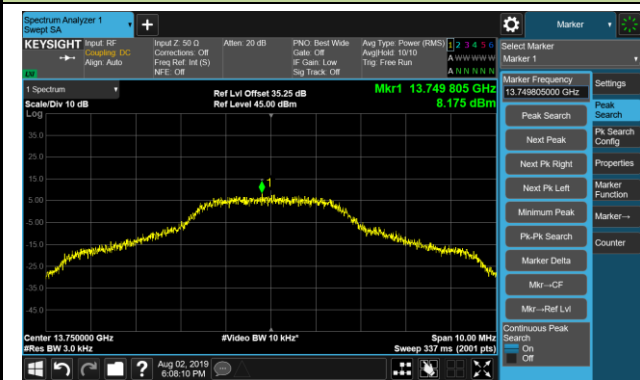


High Channel (14500MHz)

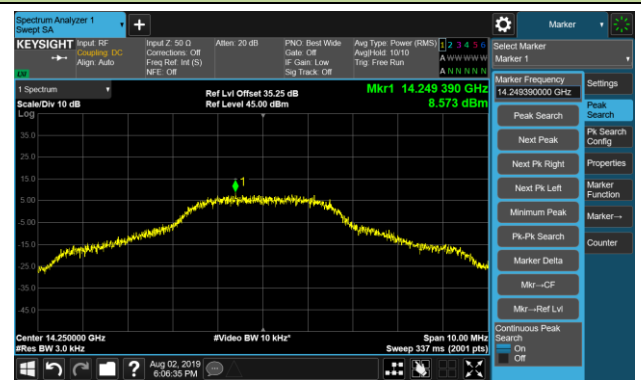


3/4 OQPSK (4500kbps) - Average PSD

Low Channel (13750MHz)



Mid Channel (14250MHz)

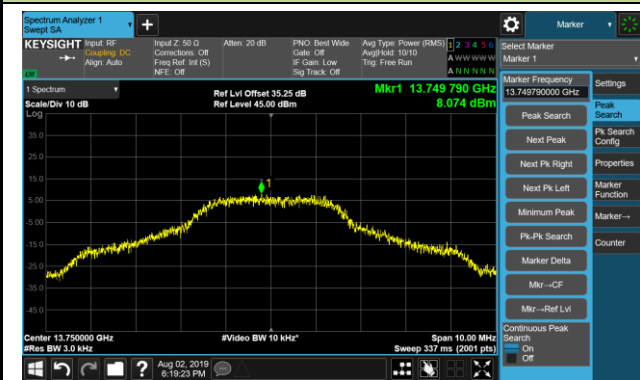


High Channel (14500MHz)



7/8 OQPSK (5000kbps) - Average PSD

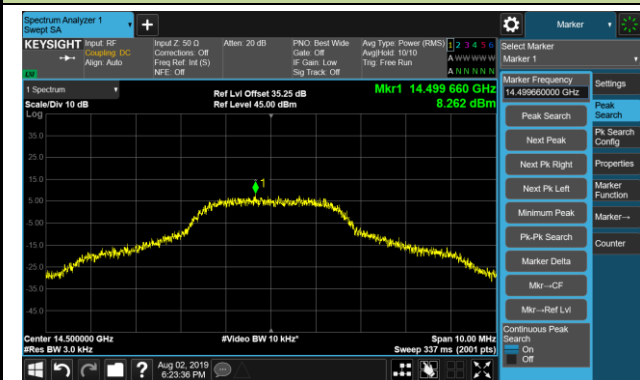
Low Channel (13750MHz)



Mid Channel (14250MHz)

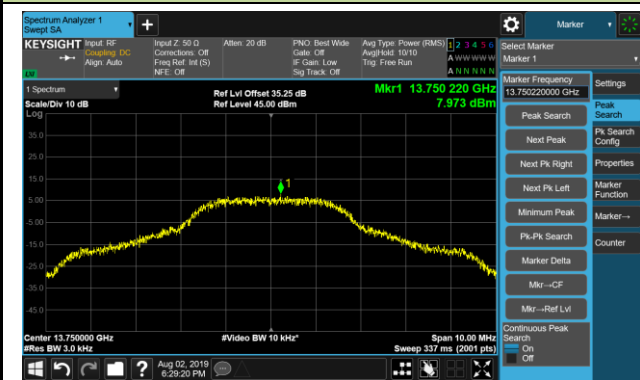


High Channel (14500MHz)



21/44 OQPSK (2863.636kbps) - Average PSD

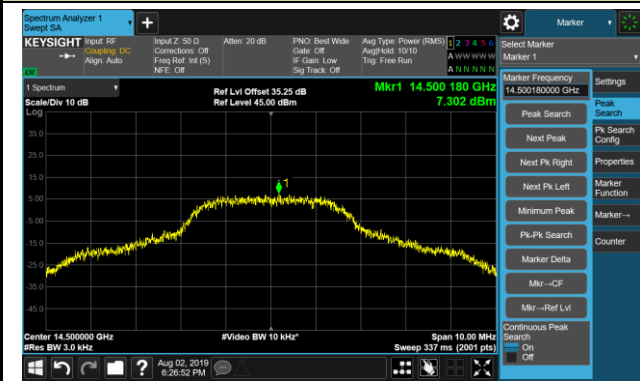
Low Channel (13750MHz)



Mid Channel (14250MHz)



High Channel (14500MHz)



6.4. Unwanted Emission at Antenna Terminal Measurement

6.4.1. Test Limit

FCC Part 25.202(f)

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the schedule:

- (1) In any 4kHz band, the center frequency of which is removed from the assigned frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: 25dB;
- (2) In any 4kHz band, the center frequency of which is removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: 35dB;
- (3) In any 4kHz band, the center frequency of which is removed from the assigned frequency by more than 250 percent of the authorized bandwidth: An amount equal to 43dB plus 10 times the logarithm (to the base 10) of the transmitter power in watts.

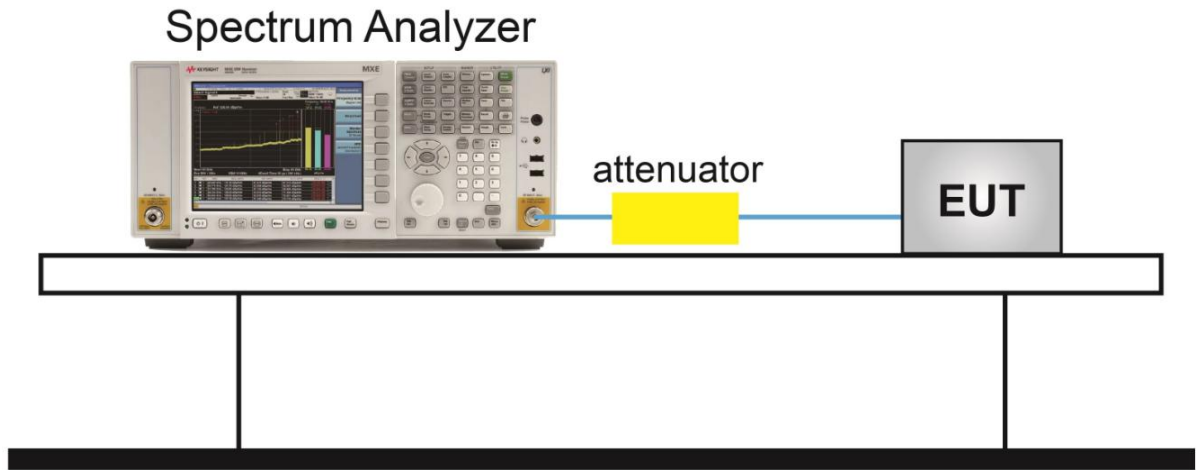
6.4.2. Test Procedure Used

ANSI C63.26-2015 - Section 5.7

6.4.3. Test Setting

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 3kHz for in-band mask or 10kHz for below 30MHz or 100kHz for below 1GHz or 1MHz for above 1GHz, Set the RBW greater than 4kHz in order to increase the measurement speed
3. $VBW \geq 3 \times RBW$
4. Detect = power averaging (RMS)
5. Sweep time = Auto couple
6. Trace mode = Trace average
7. Trace was allowed to stabilize
8. $10 \cdot \log(4\text{kHz}/3\text{kHz}) = 1.25\text{dB}$ was added to the reference offset for in-band mask measurement to correct the result relative to any 4kHz band as per the requirement in 25.202(f)(1).

6.4.4. Test Setup



6.4.5. Test Result

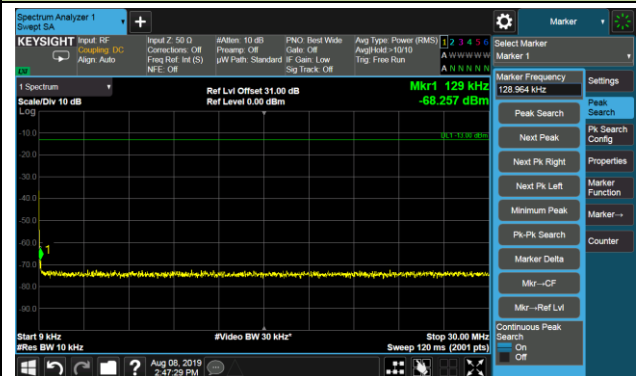
Product	Flat Panel Integrated Satellite Communication Terminal	Temperature	25°C
Test Engineer	Bruce Wang	Relative Humidity	52%
Test Site	TR3	Test Date	2019/08/06 ~ 2019/08/12

BPSK (256kpbs) - 13750MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



30MHz - 1GHz



1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 1MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = 34.46 - 25 = 9.46dBm;

For 100% - 250% of Authorization Bandwidth = 34.46 - 35 = -0.54dBm;

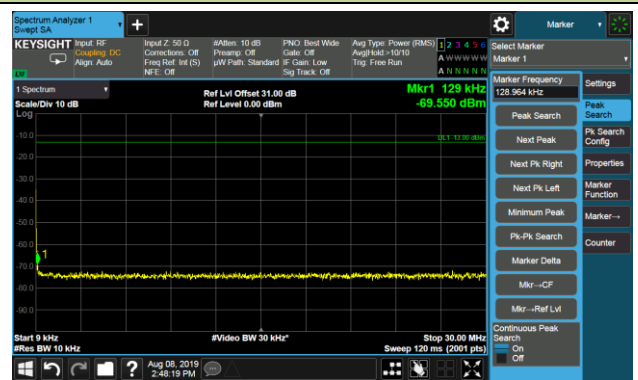
For above 250% of Authorization Bandwidth = 34.46 - [43 + 10 log₁₀ (2.793)] = -13dBm.

BPSK (256kbps) - 14250MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



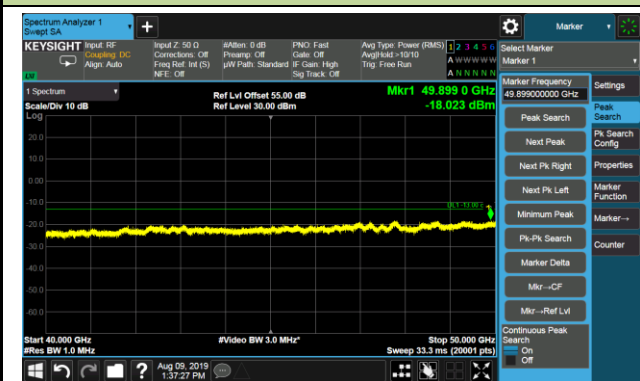
30MHz - 1GHz



1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 1MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $34.87 - 25 = 9.87\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $34.87 - 35 = -0.13\text{dBm}$;

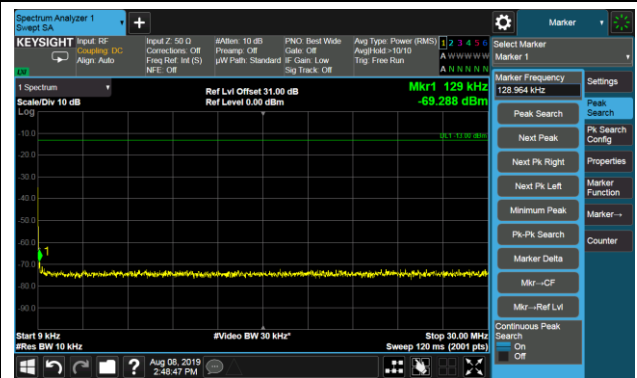
For above 250% of Authorization Bandwidth = $34.87 - [43 + 10 \log_{10}(3.069)] = -13\text{dBm}$.

BPSK (256kbps) - 14500MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



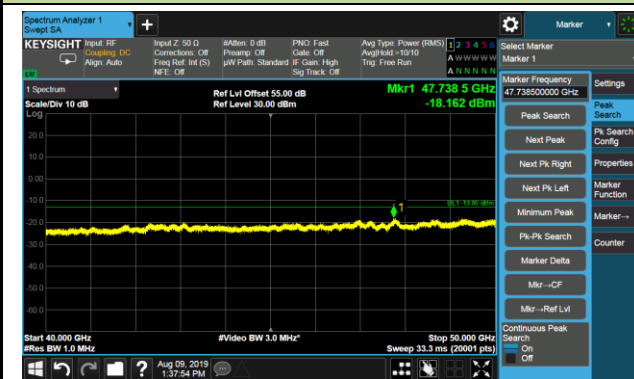
30MHz - 1GHz



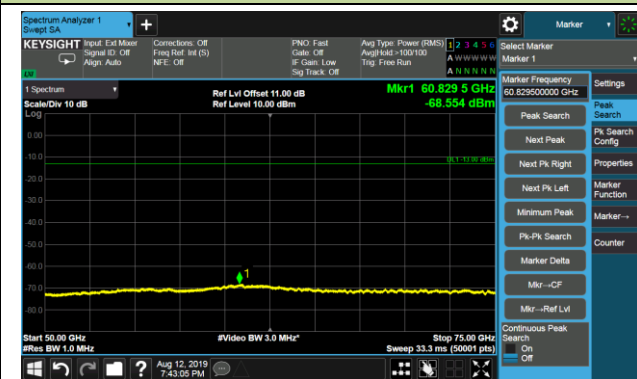
1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 1MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $33.89 - 25 = 8.89\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $33.89 - 35 = -1.11\text{dBm}$;

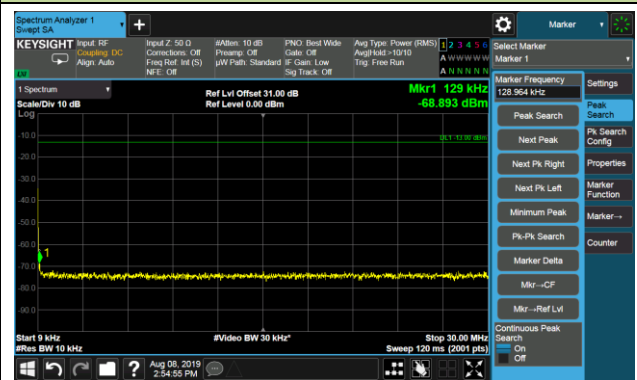
For above 250% of Authorization Bandwidth = $33.89 - [43 + 10 \log_{10}(2.449)] = -13\text{dBm}$.

1/2 BPSK (256kbps) - 13750MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



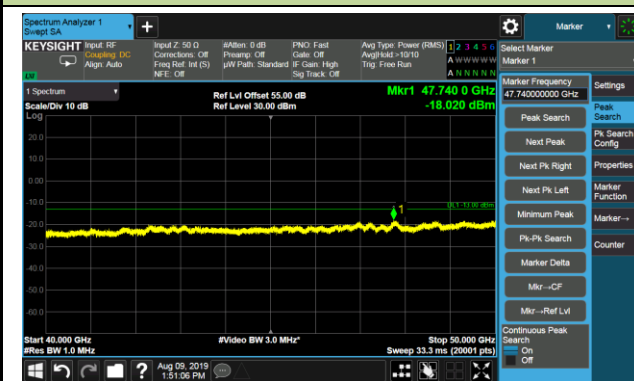
30MHz - 1GHz



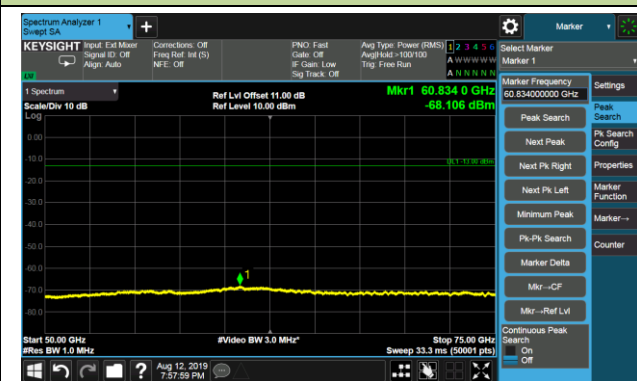
1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 2MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $34.33 - 25 = 9.33\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $34.33 - 35 = -0.67\text{dBm}$;

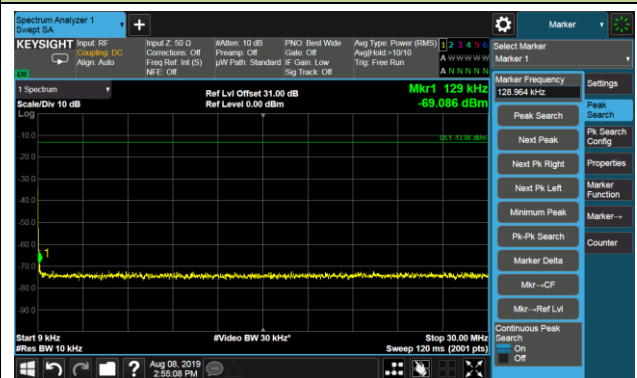
For above 250% of Authorization Bandwidth = $34.33 - [43 + 10 \log_{10}(2.710)] = -13\text{dBm}$.

1/2 BPSK (256kbps) - 14250MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



30MHz - 1GHz



1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 2MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $34.87 - 25 = 9.87\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $34.87 - 35 = -0.13\text{dBm}$;

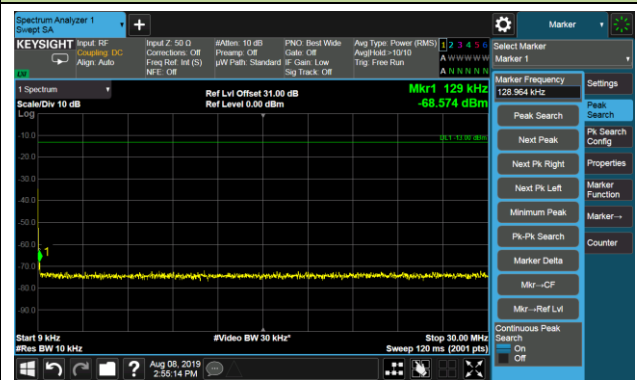
For above 250% of Authorization Bandwidth = $34.87 - [43 + 10 \log_{10}(3.069)] = -13\text{dBm}$.

1/2 BPSK (256kbps) - 14500MHz - Unwanted Emission at Antenna Terminal

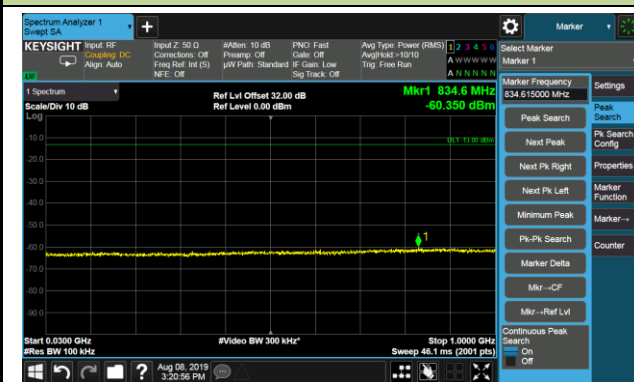
In-band Mask



9kHz - 30MHz



30MHz - 1GHz



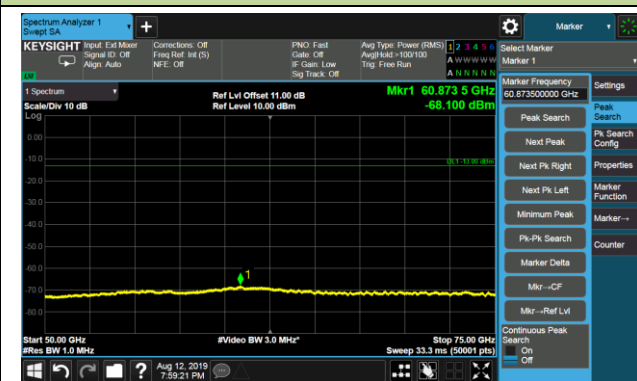
1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 2MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $33.83 - 25 = 8.83\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $33.83 - 35 = -1.17\text{dBm}$;

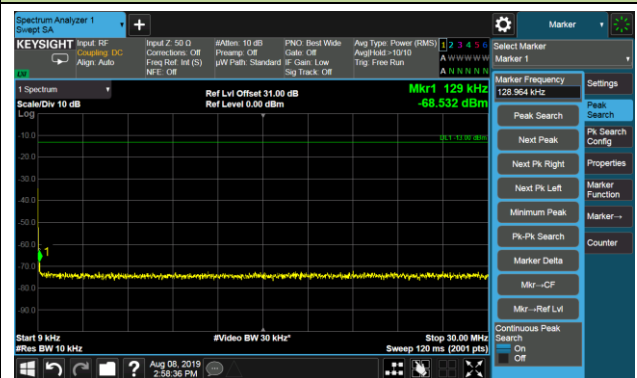
For above 250% of Authorization Bandwidth = $33.83 - [43 + 10 \log_{10}(2.415)] = -13\text{dBm}$.

5/16 BPSK (256kbps) - 13750MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



30MHz - 1GHz



1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 3MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $34.35 - 25 = 9.35\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $34.35 - 35 = -0.65\text{dBm}$;

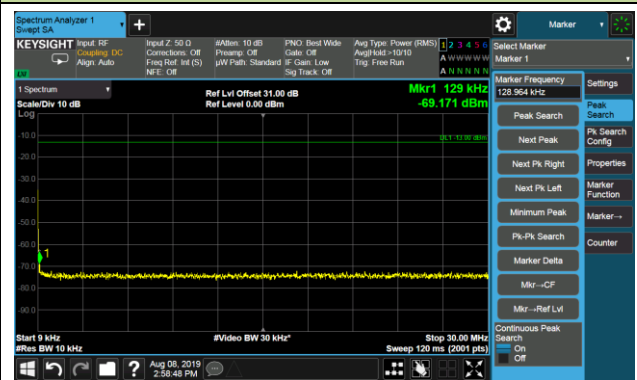
For above 250% of Authorization Bandwidth = $34.35 - [43 + 10 \log_{10}(2.723)] = -13\text{dBm}$.

5/16 BPSK (256kbps) - 14250MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



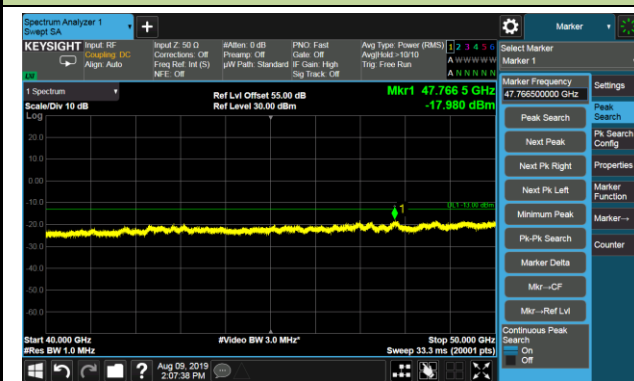
30MHz - 1GHz



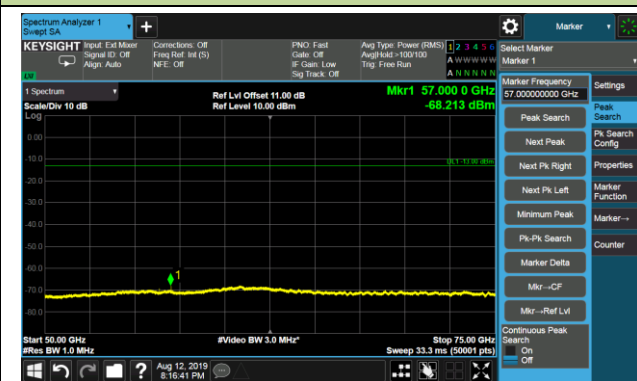
1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 3MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $34.83 - 25 = 9.83\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $34.83 - 35 = -0.17\text{dBm}$;

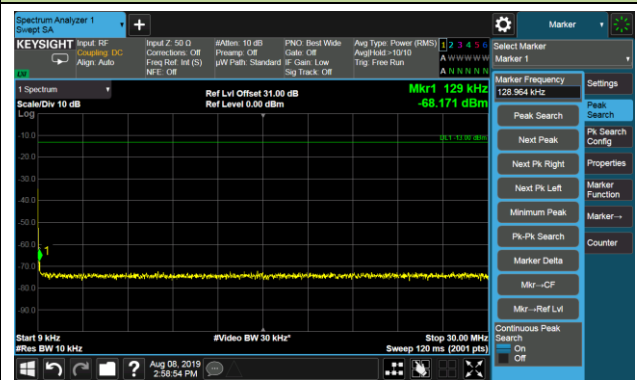
For above 250% of Authorization Bandwidth = $34.83 - [43 + 10 \log_{10} (3.041)] = -13\text{dBm}$.

5/16 BPSK (256kbps) - 14500MHz - Unwanted Emission at Antenna Terminal

In-band Mask



9kHz - 30MHz



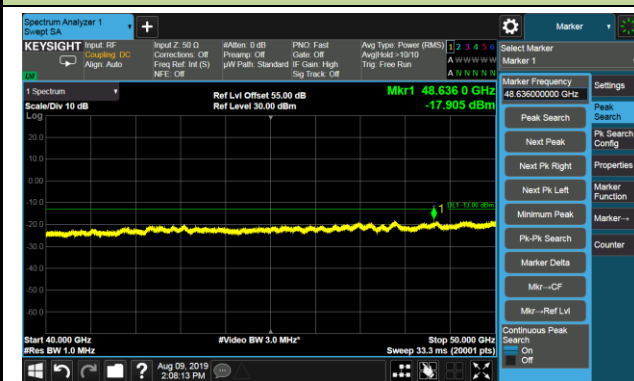
30MHz - 1GHz



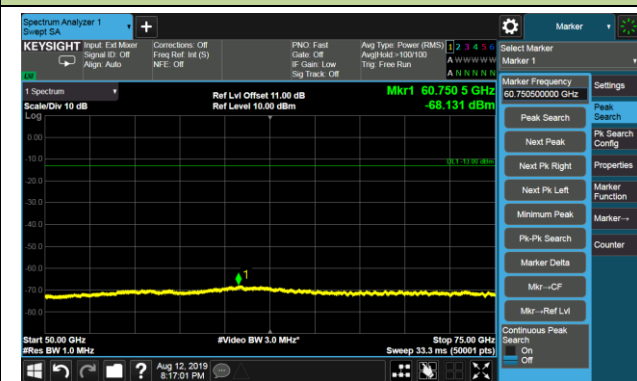
1GHz - 40GHz



40GHz - 50GHz



50GHz - 75GHz



Note 1: Authorization Bandwidth = 3MHz.

Note 2: Emission limits are calculated based on following:

For 50% - 100% of Authorization Bandwidth = $33.84 - 25 = 8.84\text{dBm}$;

For 100% - 250% of Authorization Bandwidth = $33.84 - 35 = -1.16\text{dBm}$;

For above 250% of Authorization Bandwidth = $33.84 - [43 + 10 \log_{10} (2.421)] = -13\text{dBm}$.