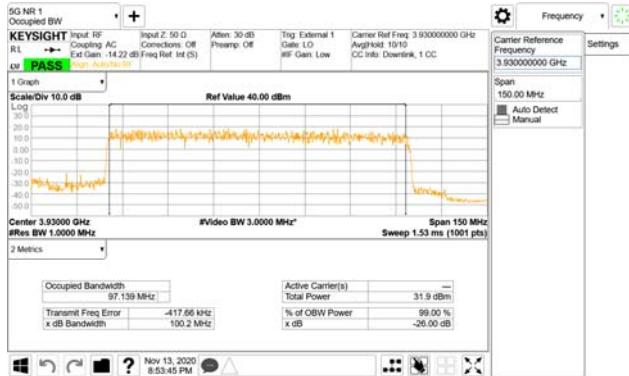
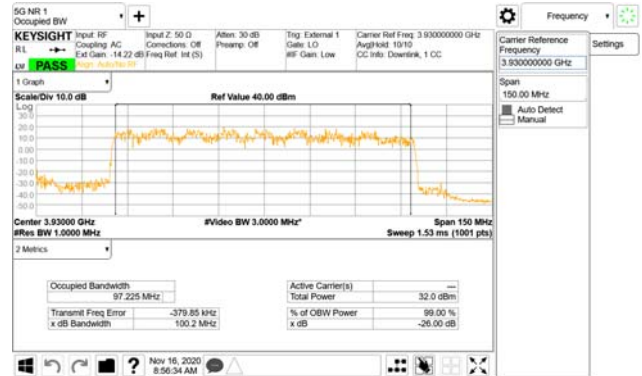


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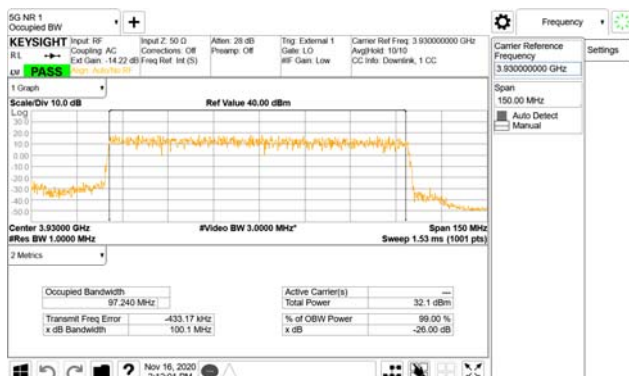
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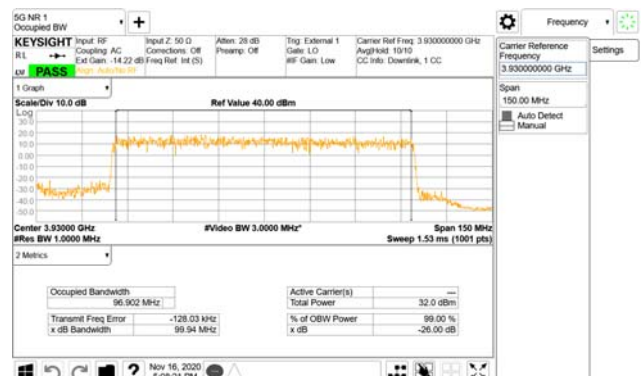
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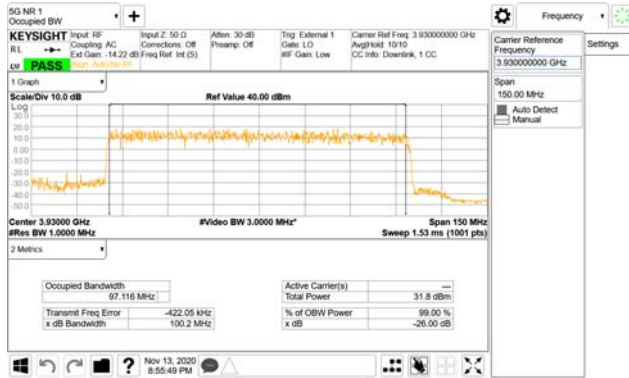


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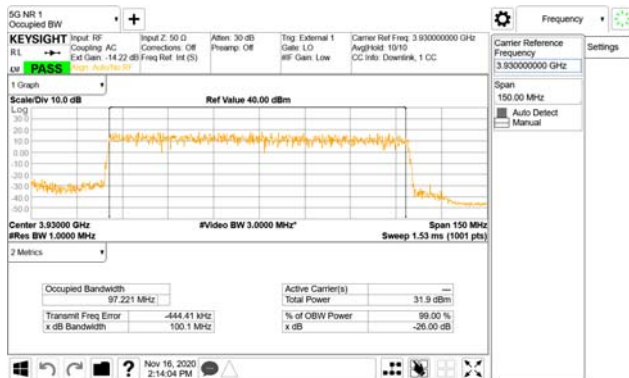
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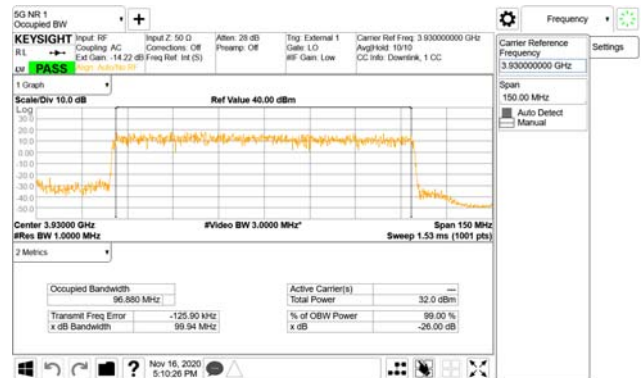
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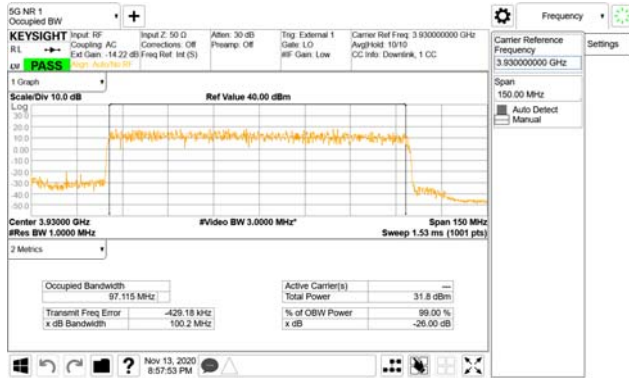


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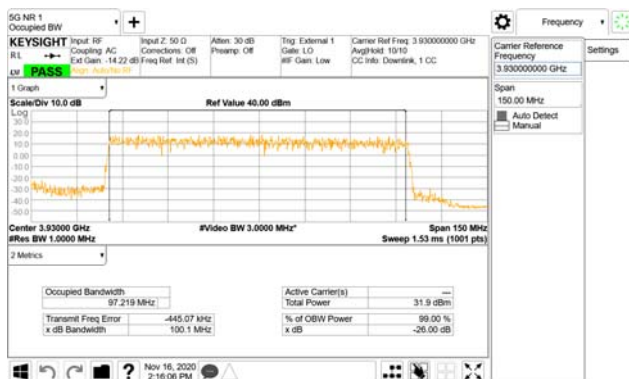
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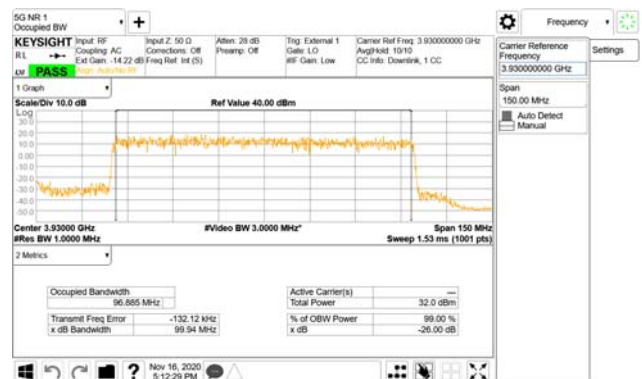
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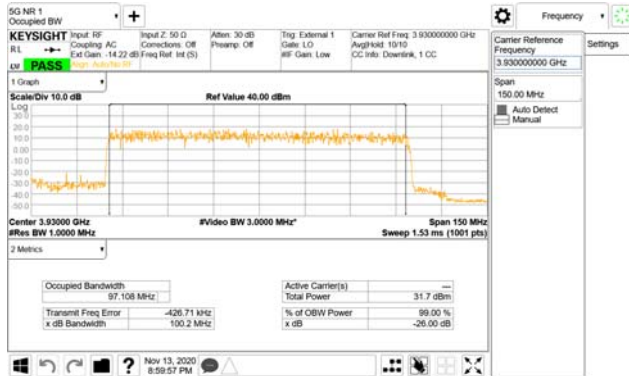


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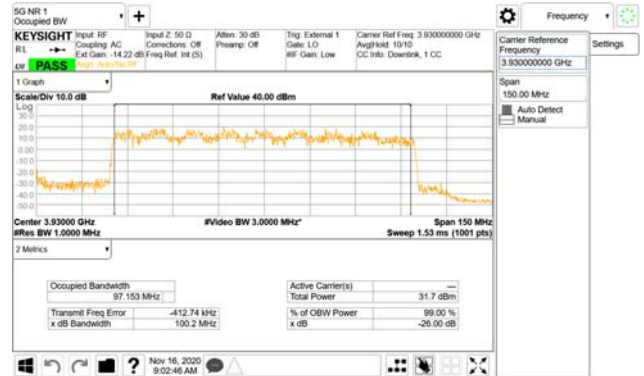


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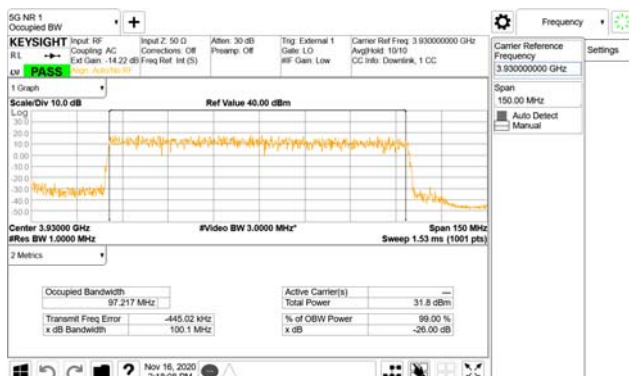
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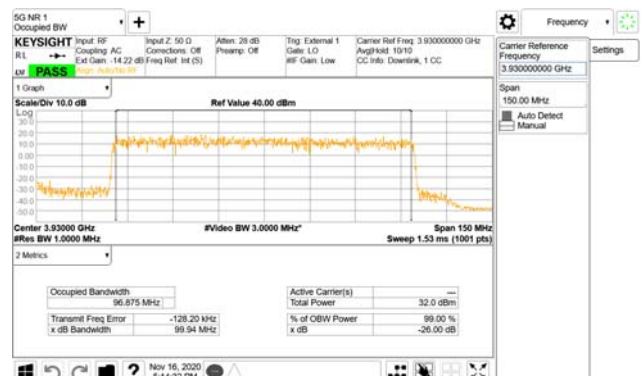
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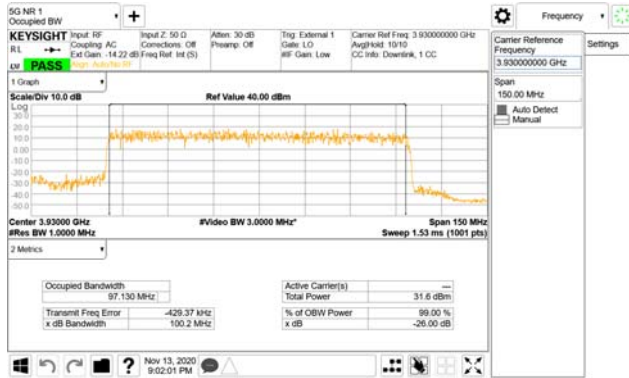


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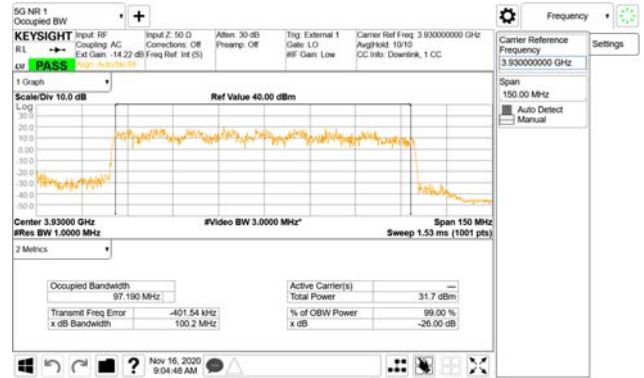


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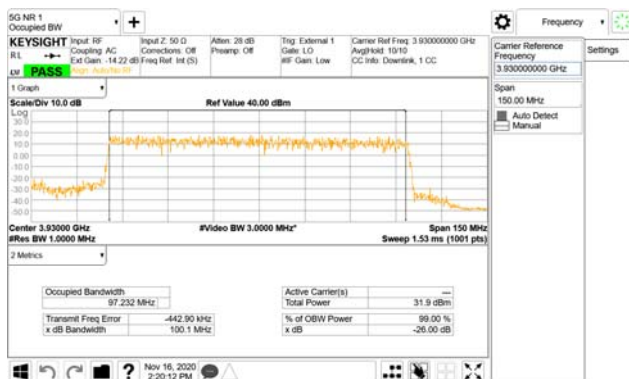
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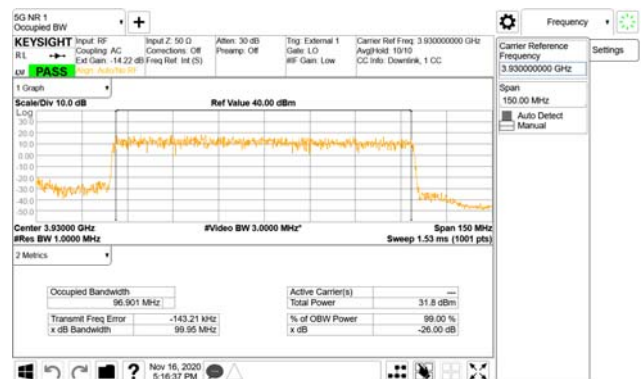
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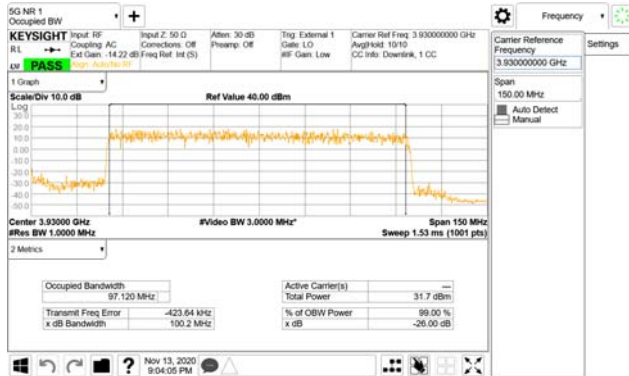


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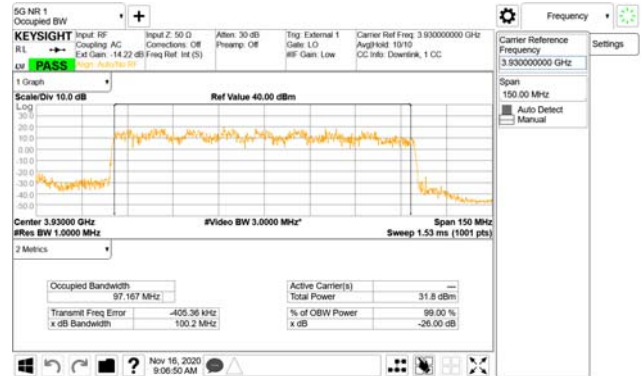


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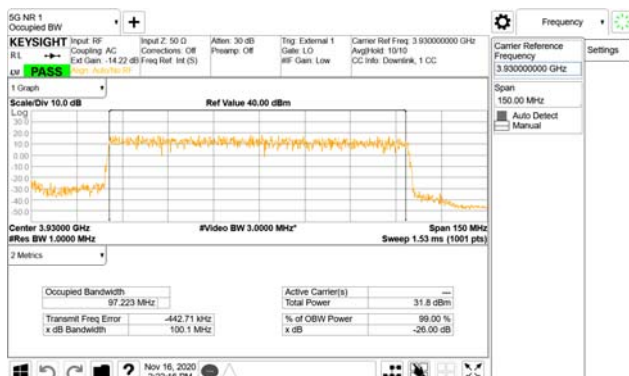
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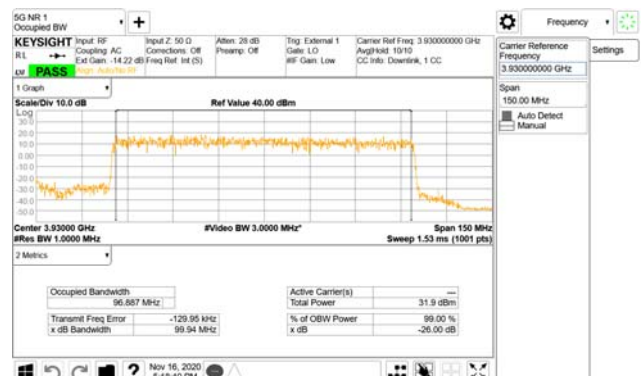
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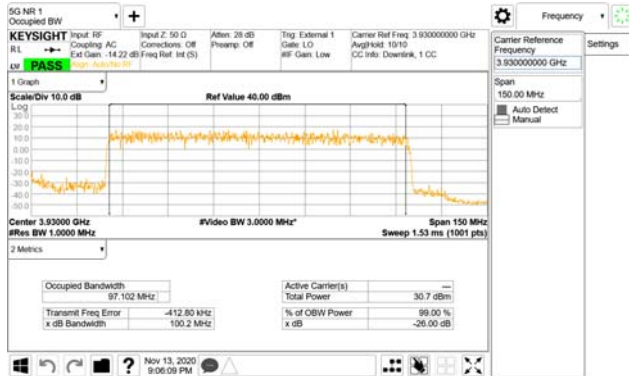


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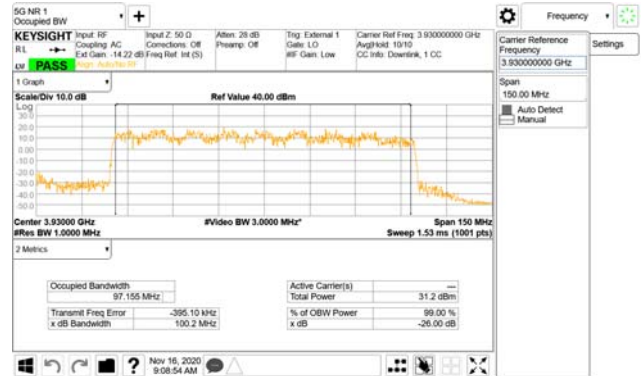


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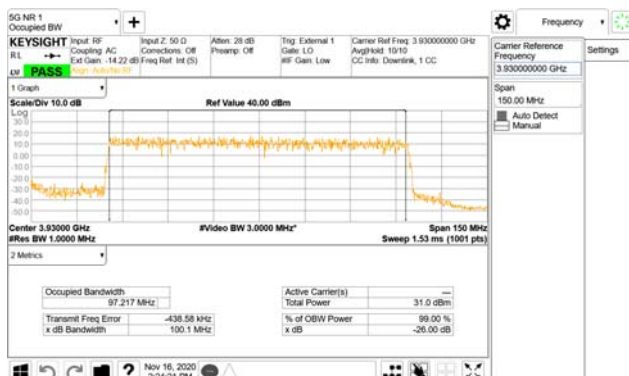
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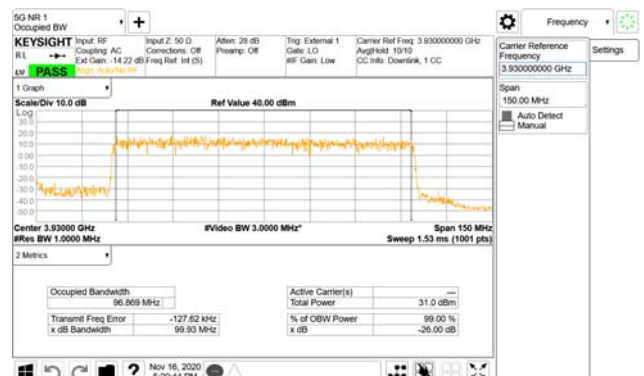
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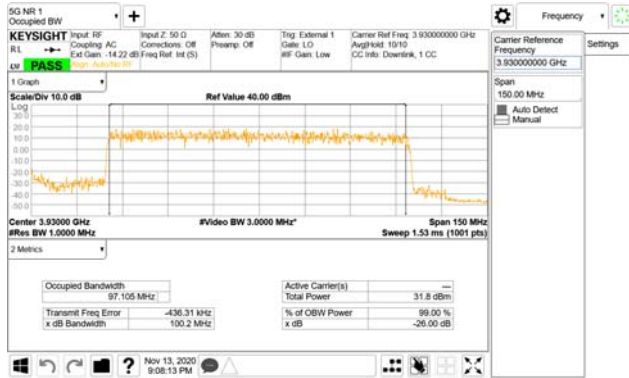


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ANT27

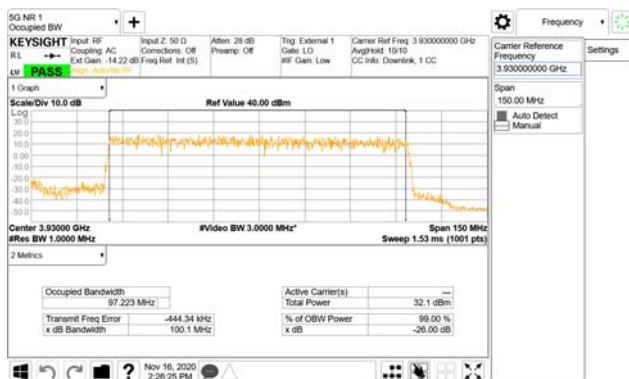
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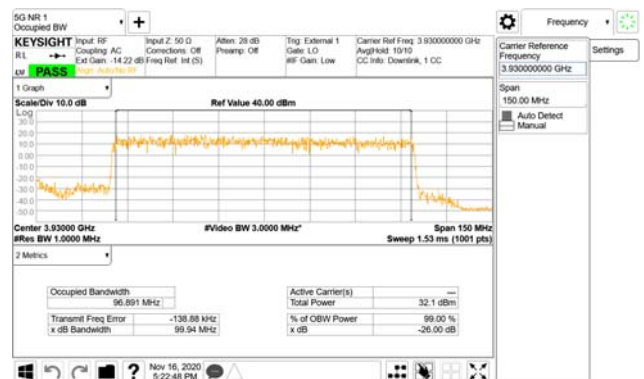
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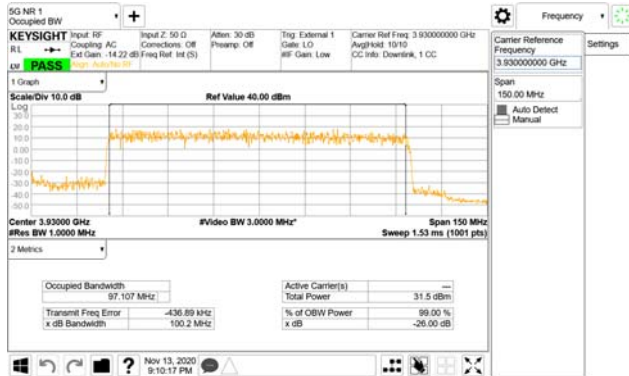


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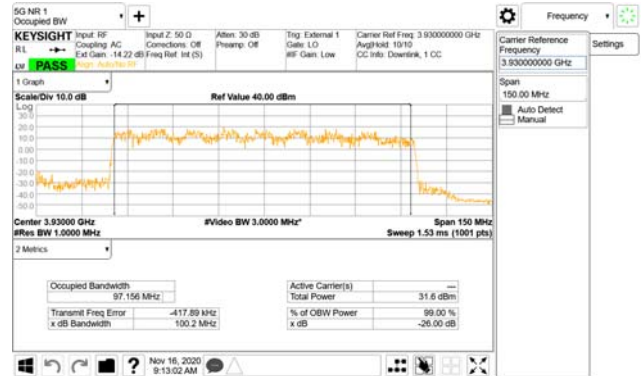


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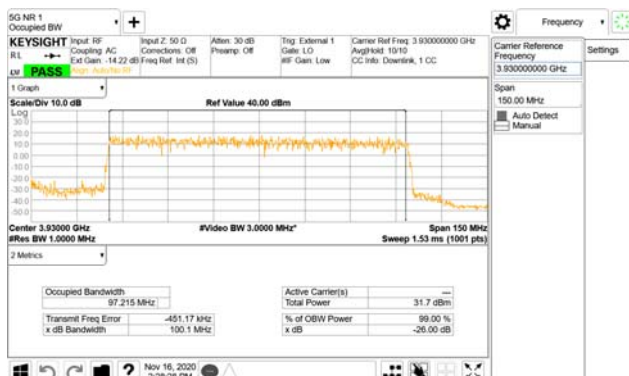
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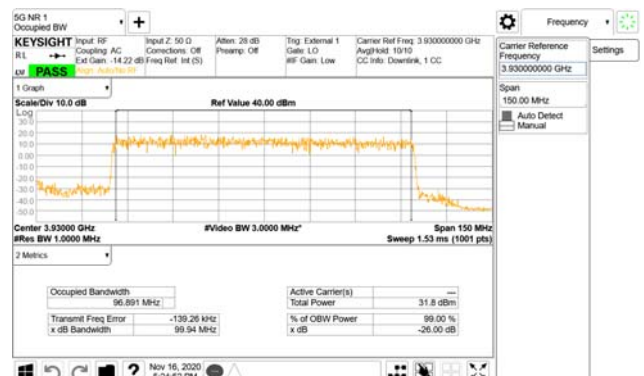
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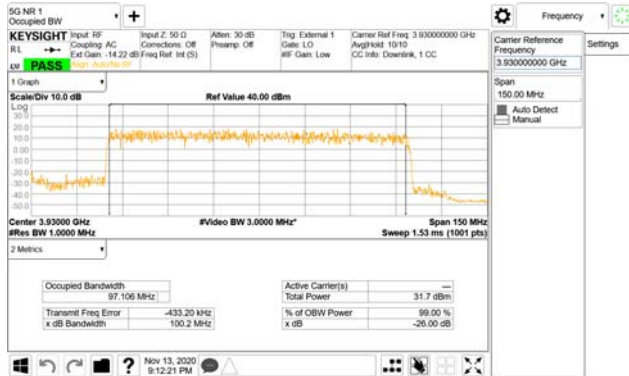


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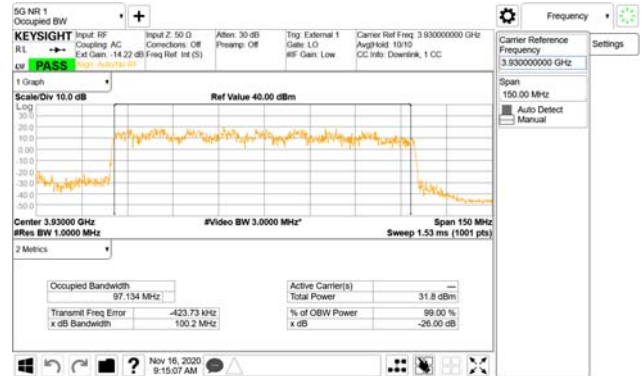


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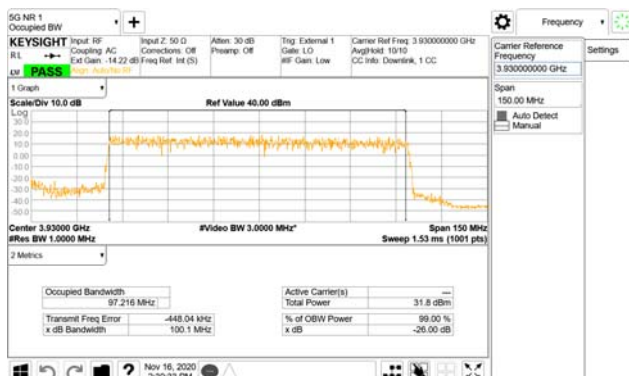
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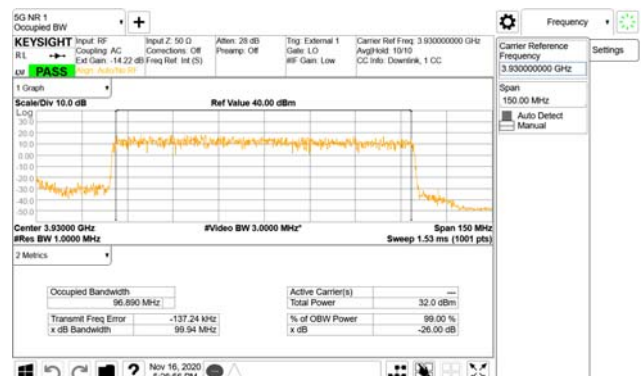
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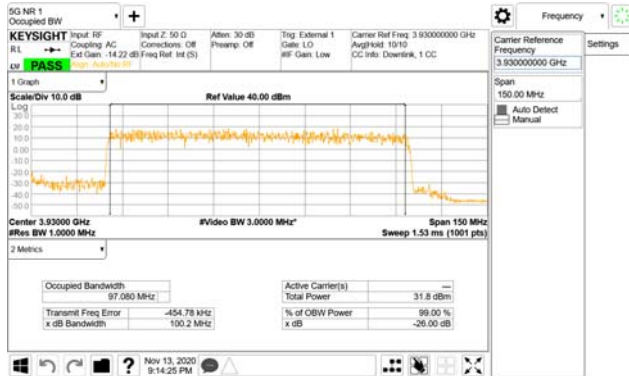


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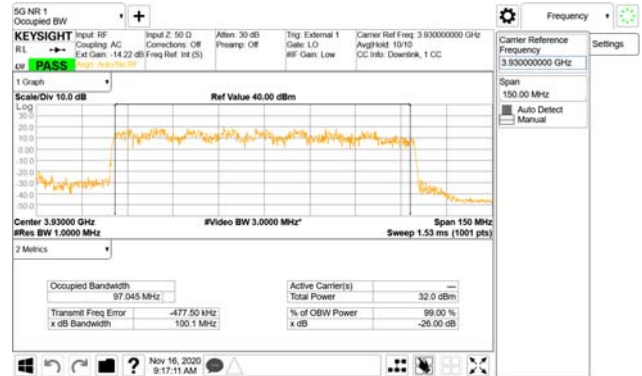


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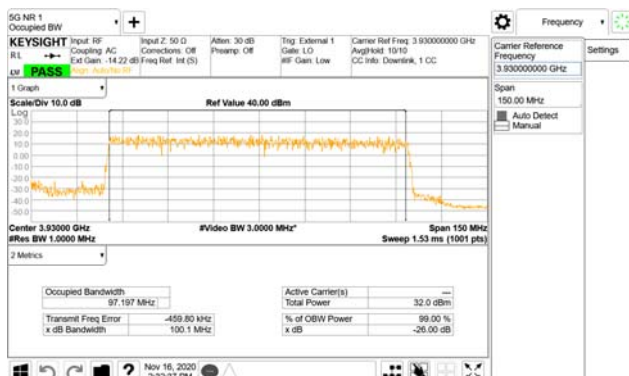
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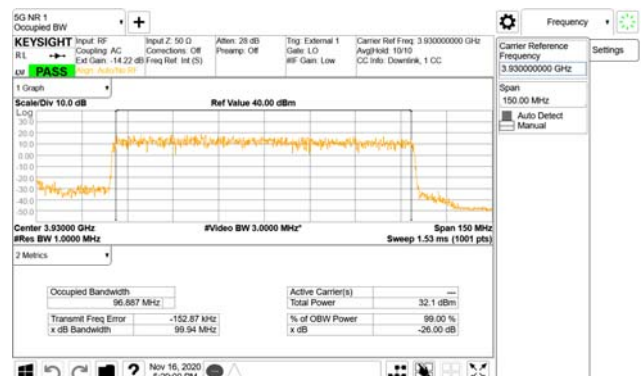
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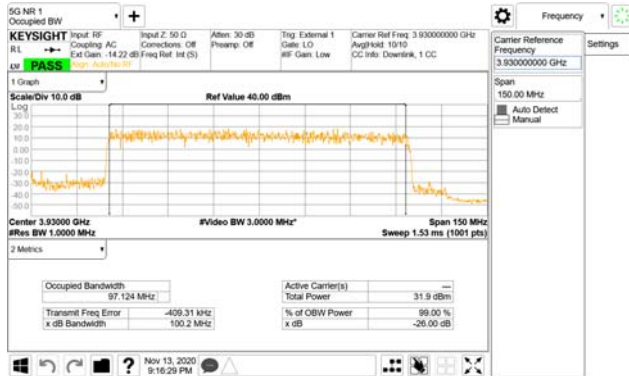


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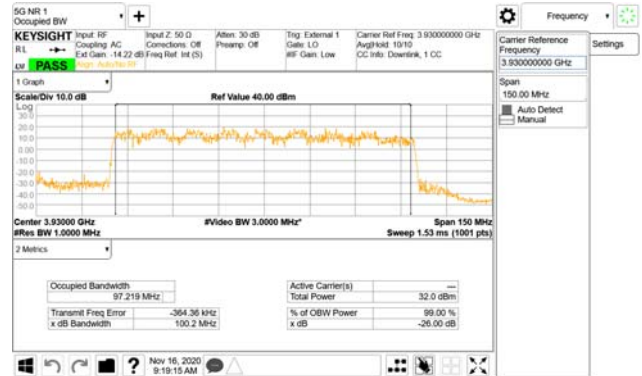


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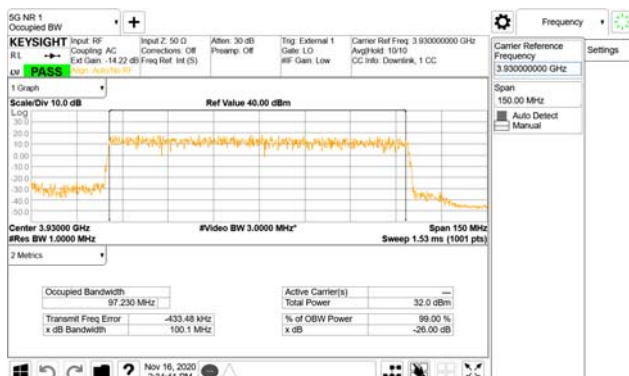
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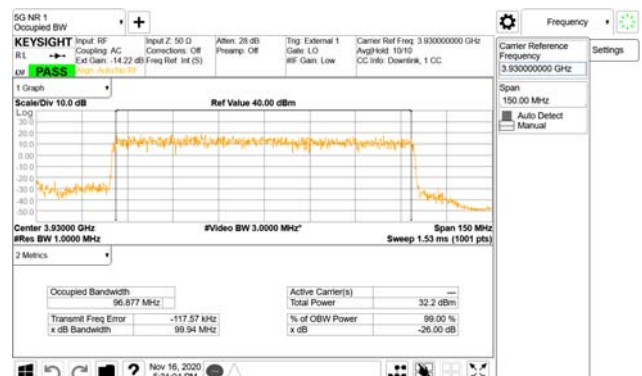
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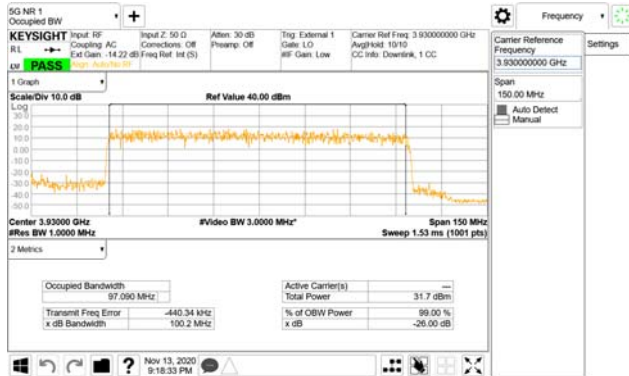


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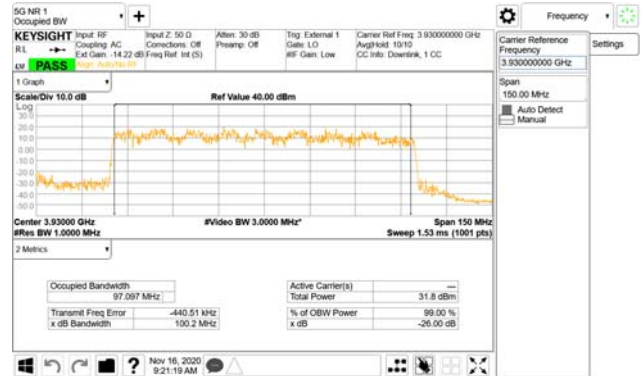


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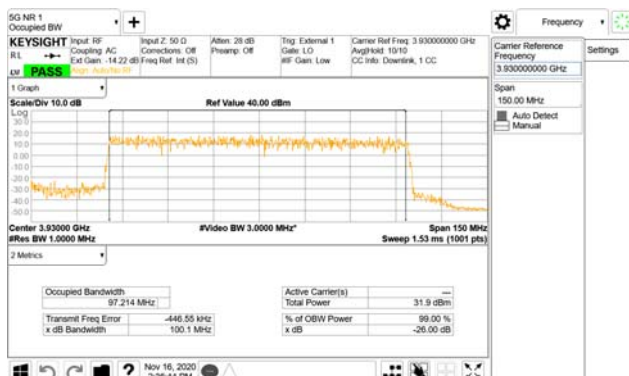
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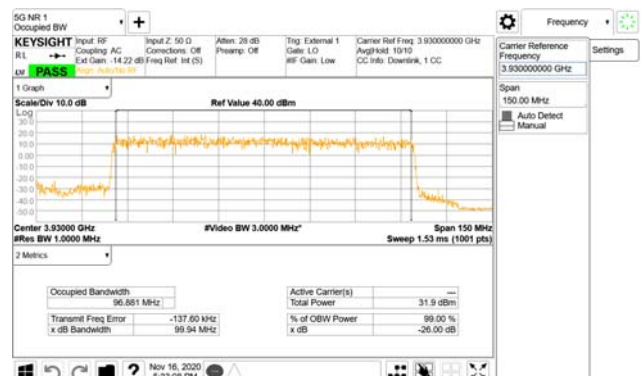
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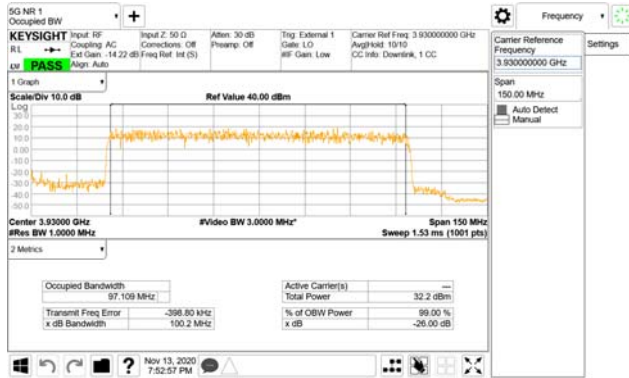


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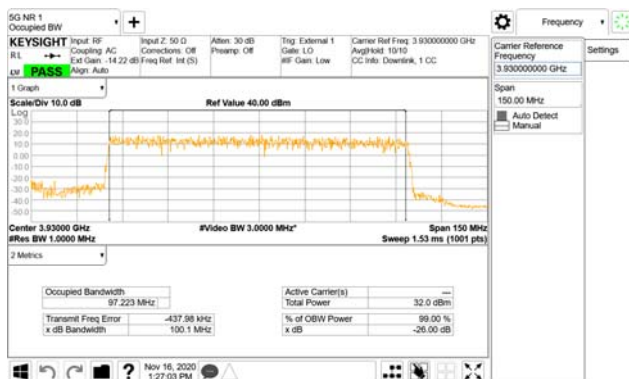
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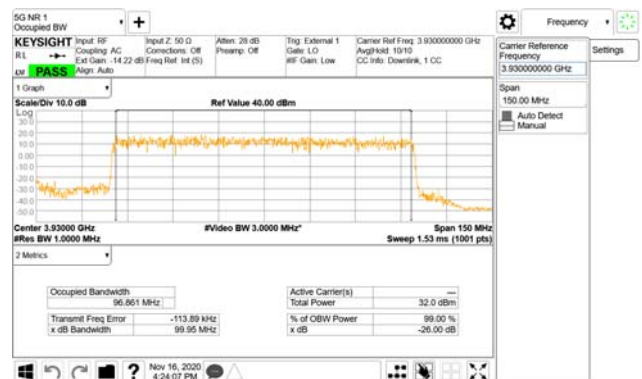
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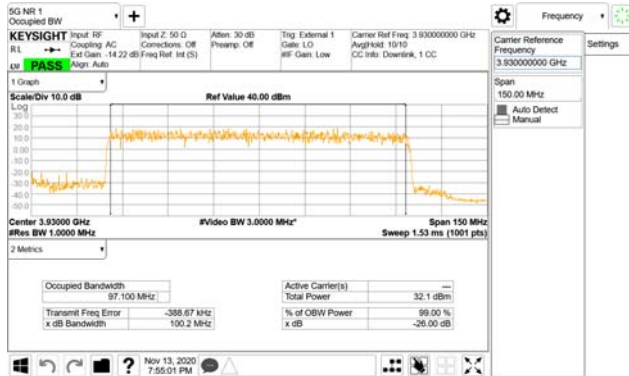


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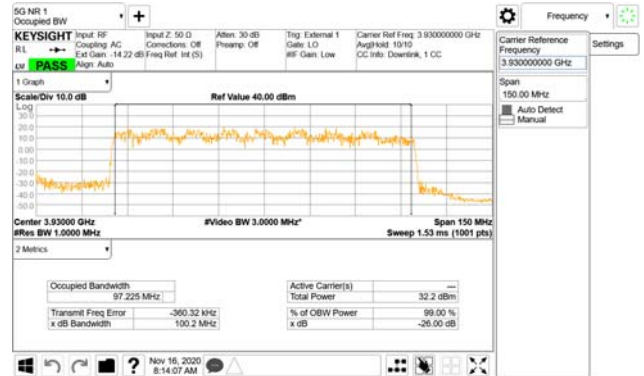


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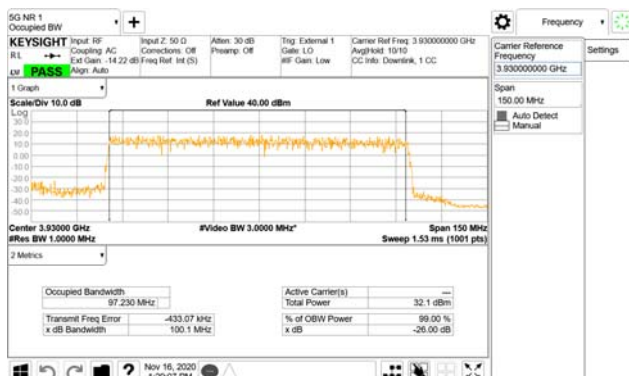
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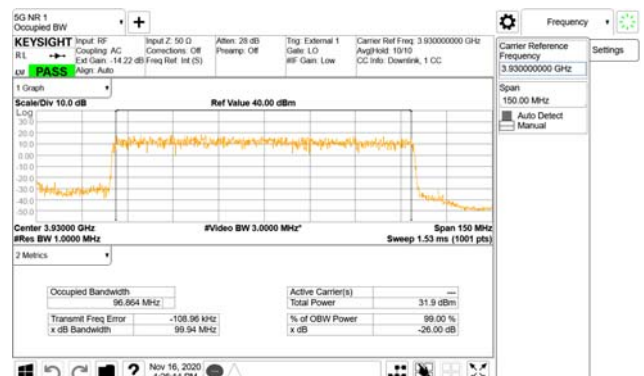
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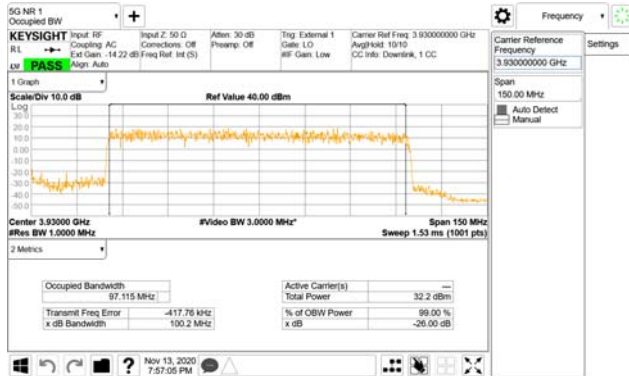


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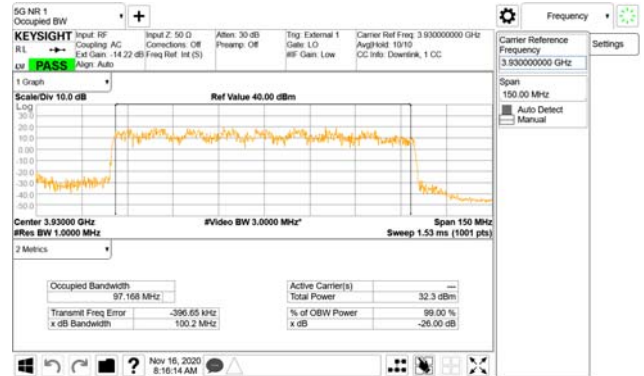


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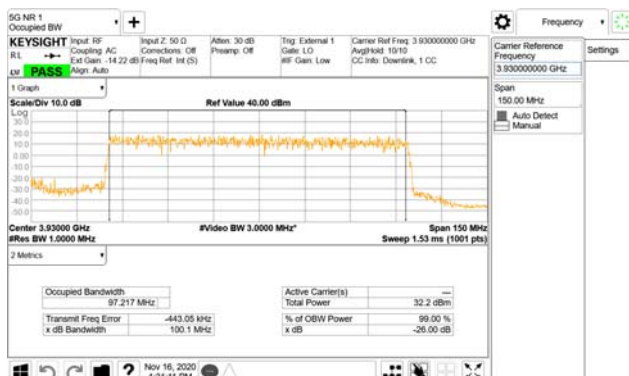
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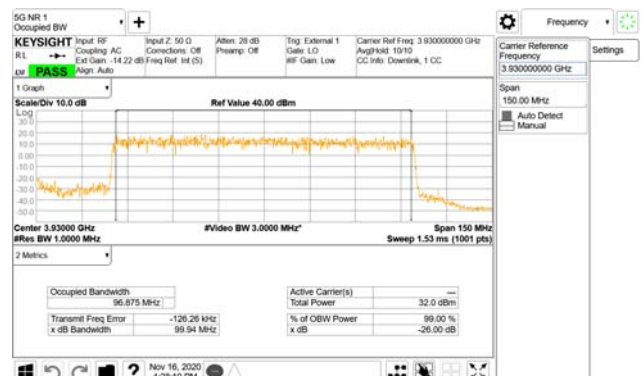
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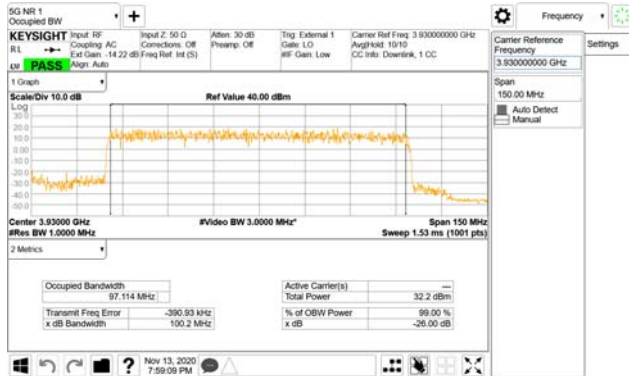


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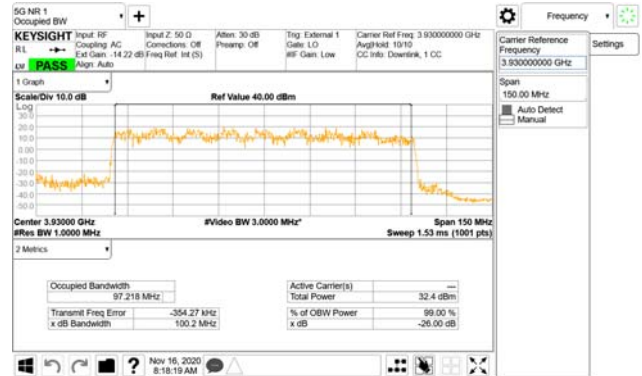


ANT36

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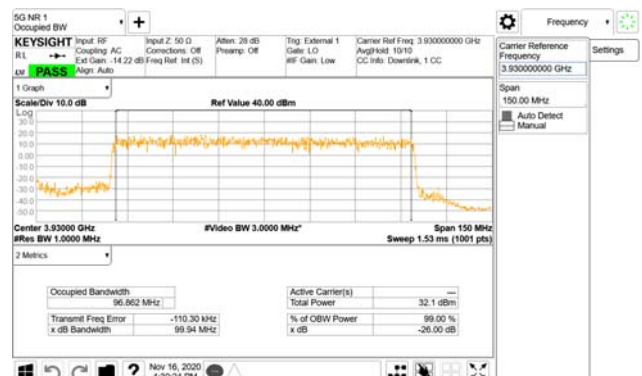
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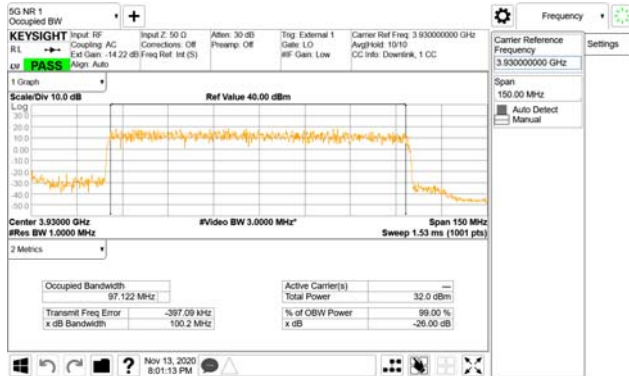


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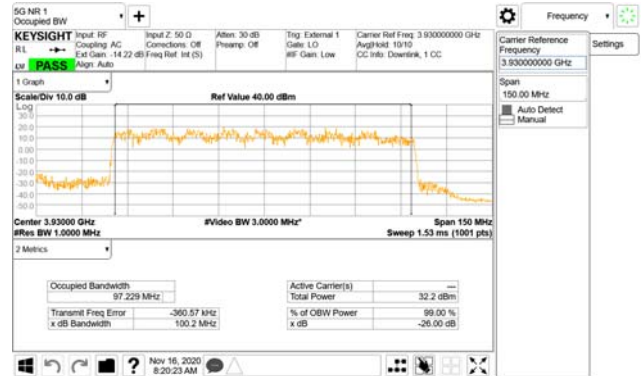


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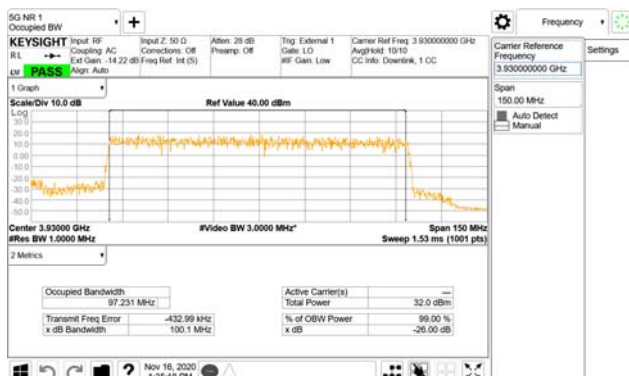
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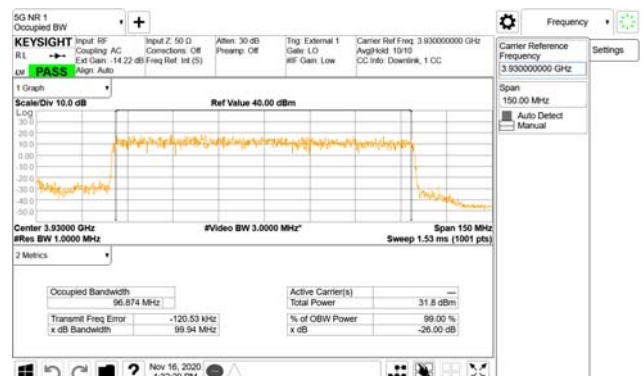
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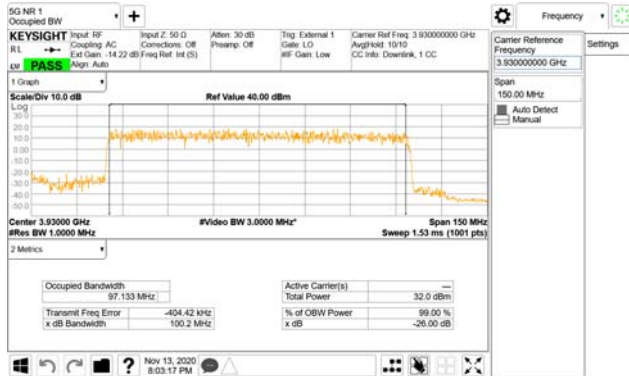


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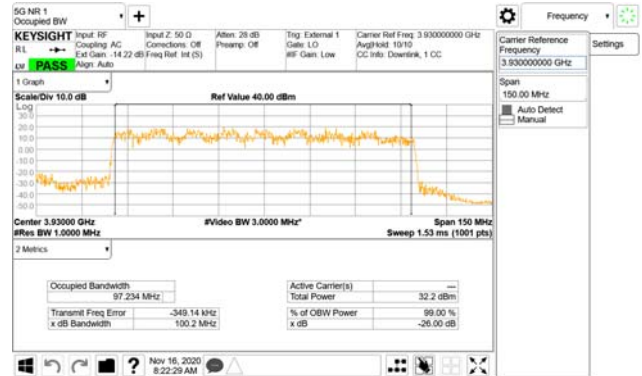


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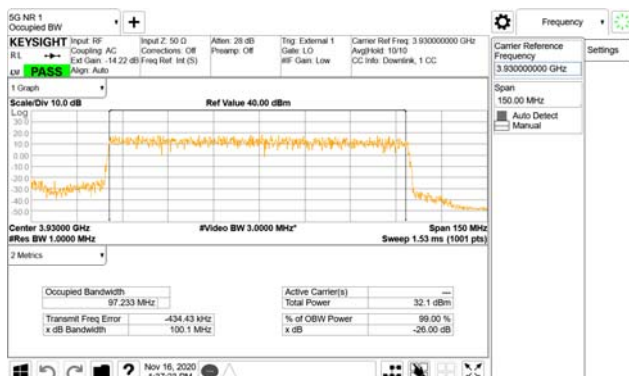
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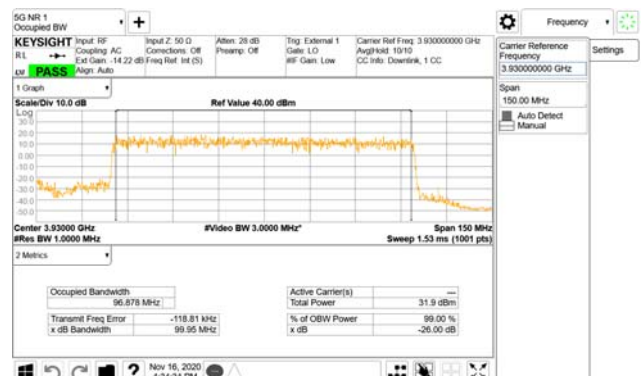
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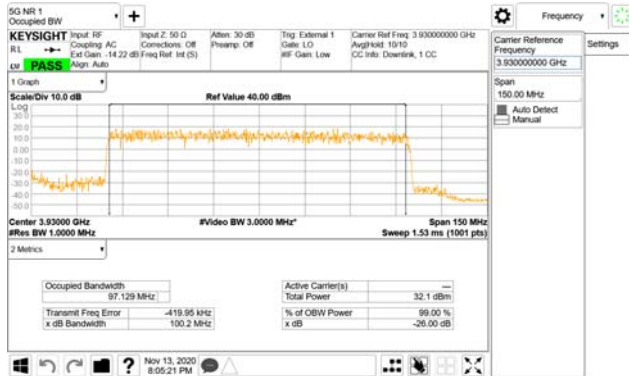


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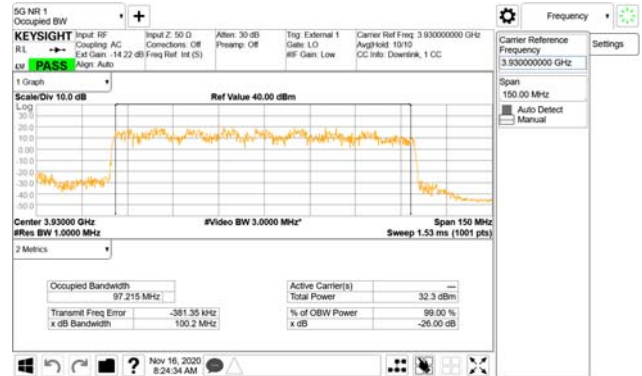


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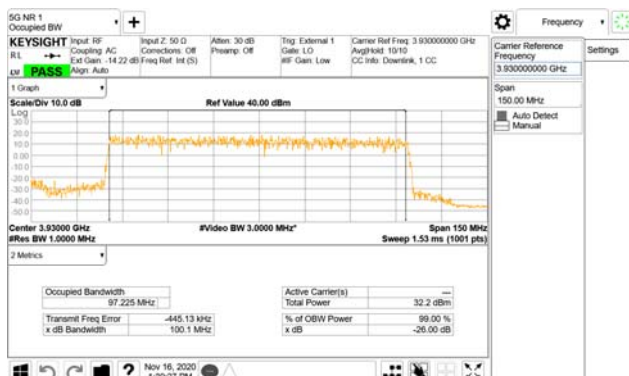
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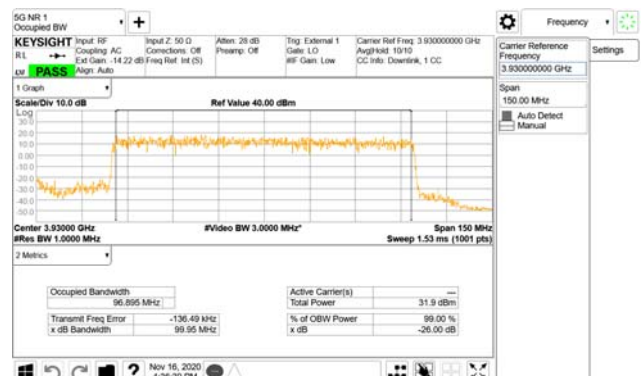
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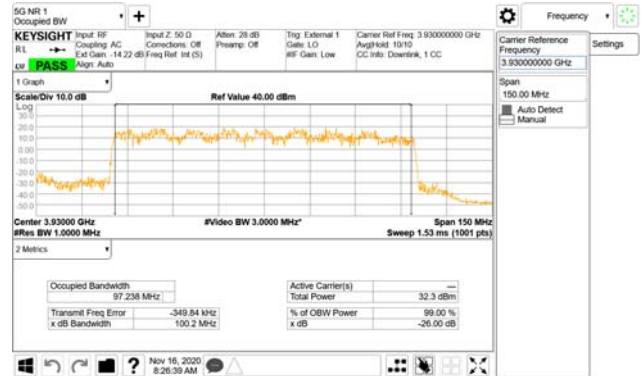


ANT40

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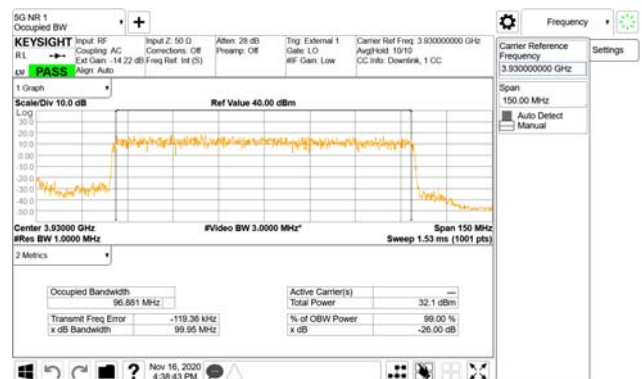
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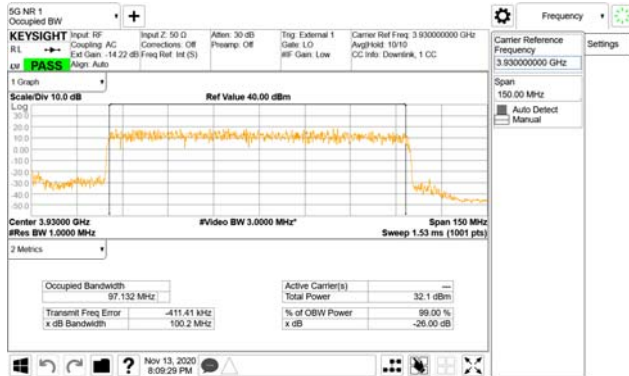


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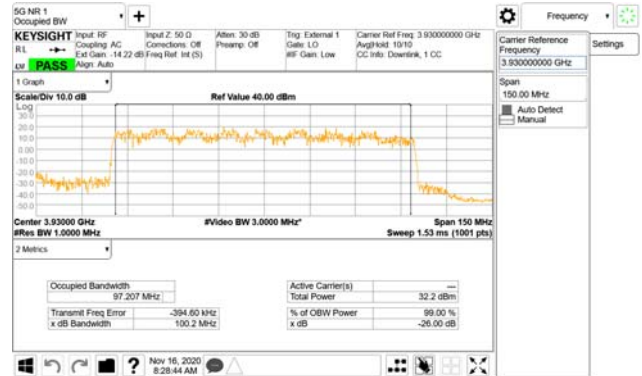


ANT41

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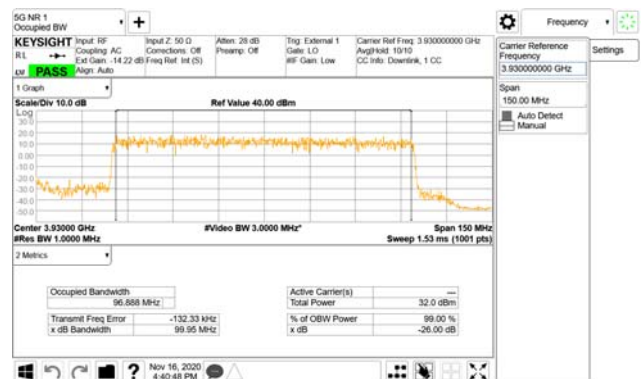
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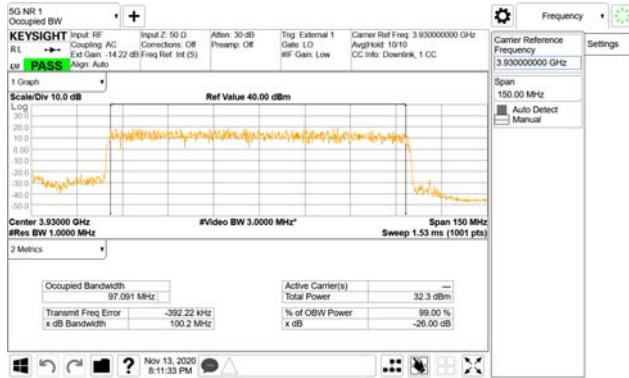


256QAM



ANT42

QPSK



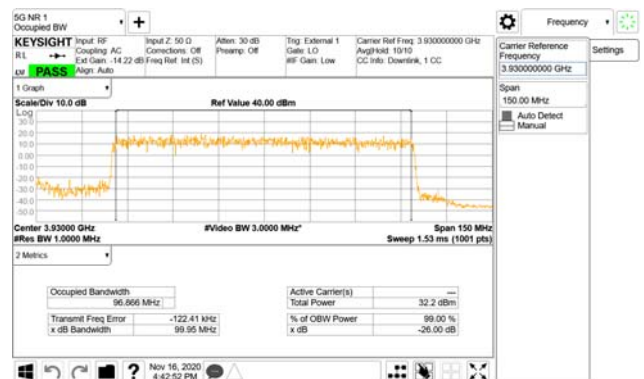
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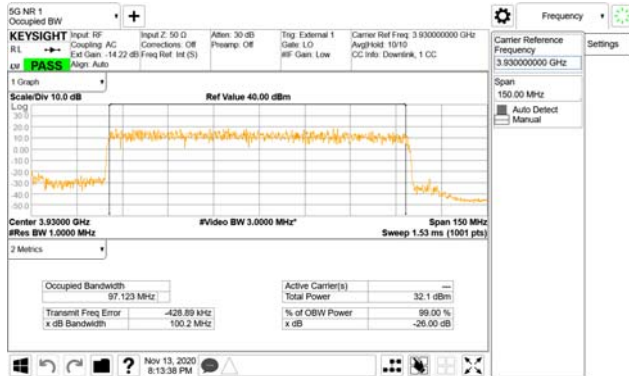


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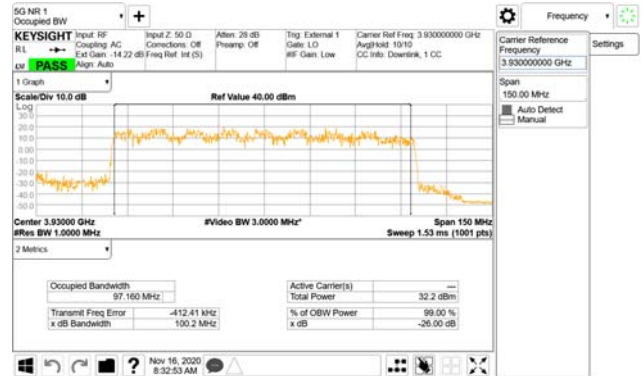


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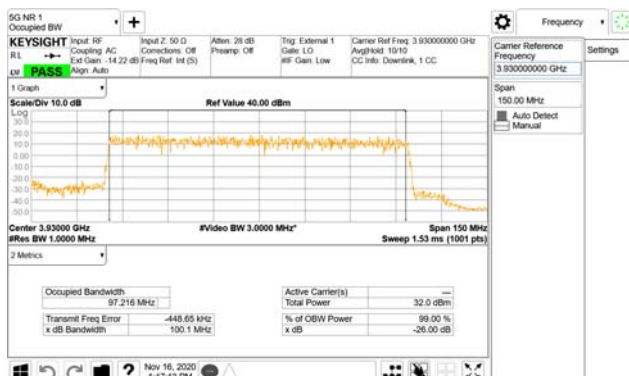
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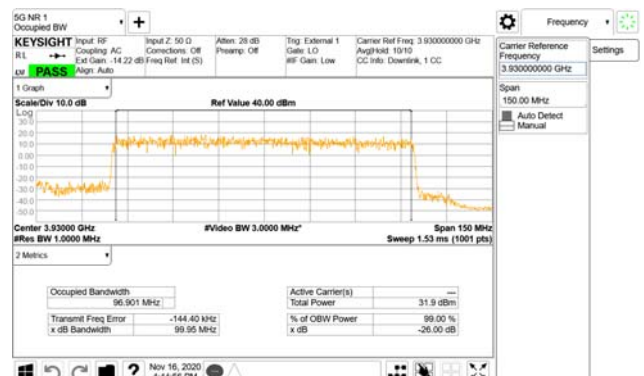
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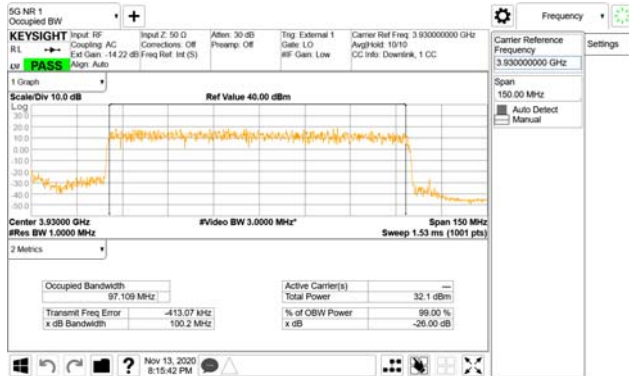


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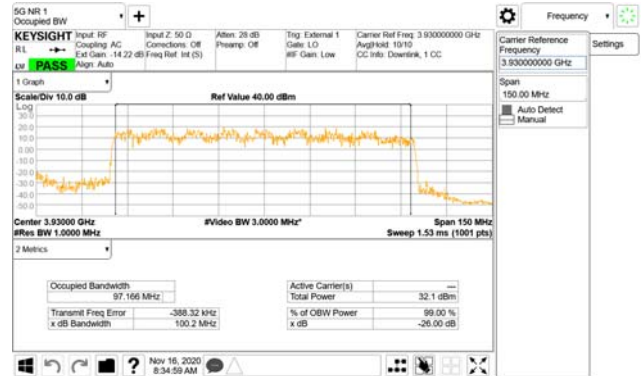


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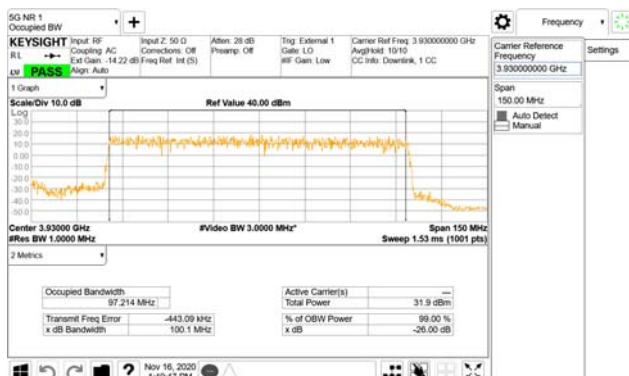
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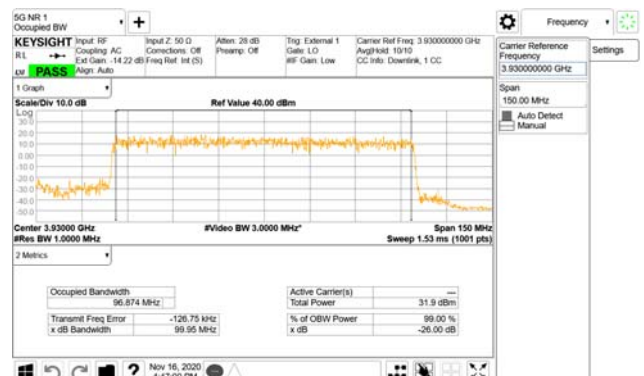
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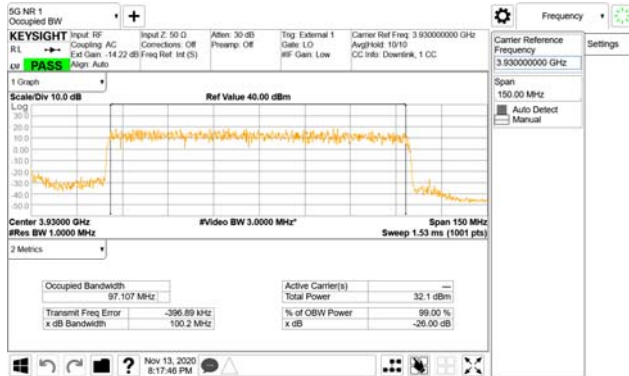


256QAM

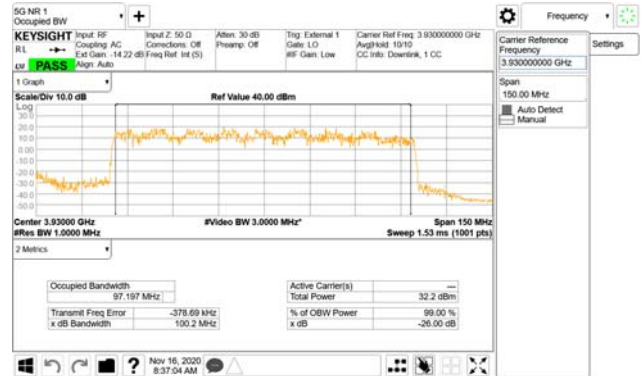


ANT45

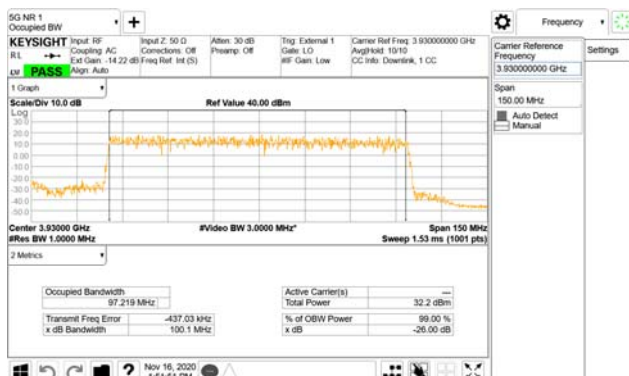
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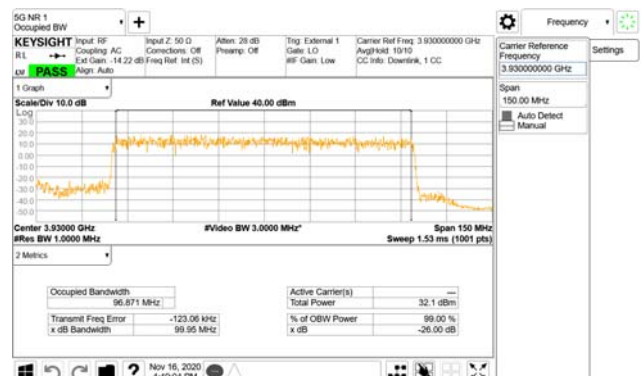
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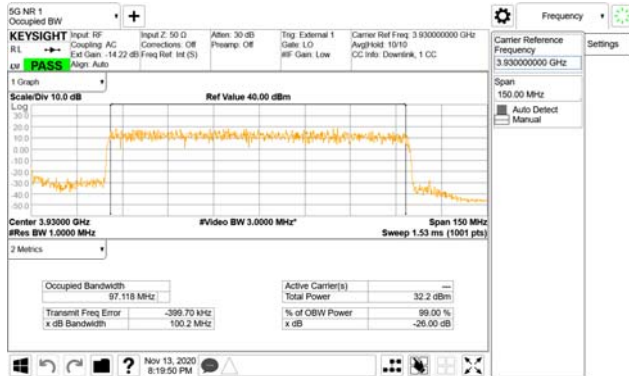


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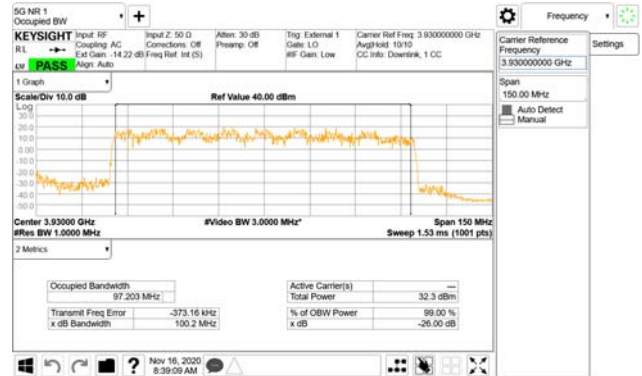


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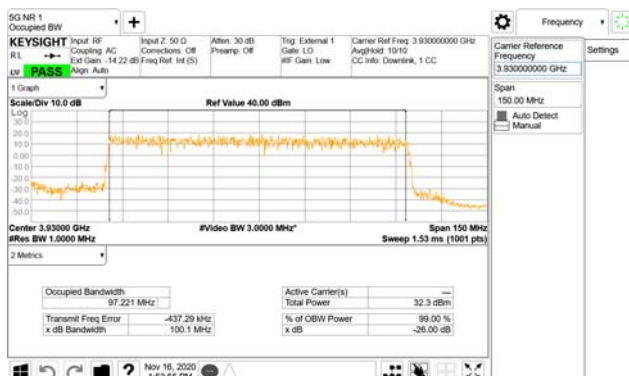
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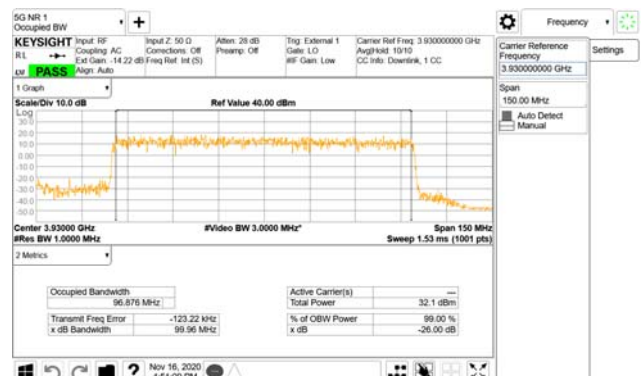
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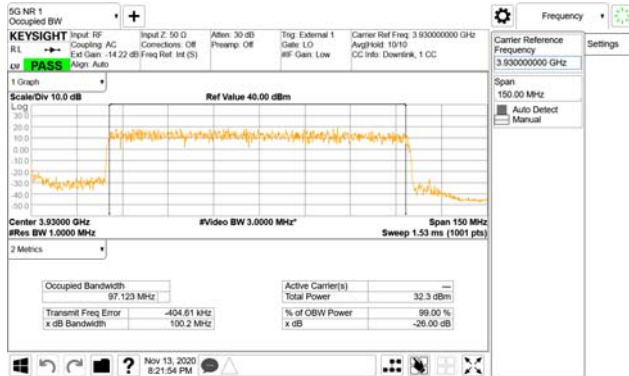


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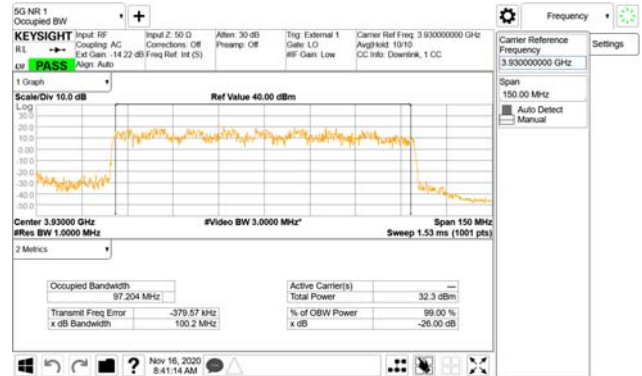


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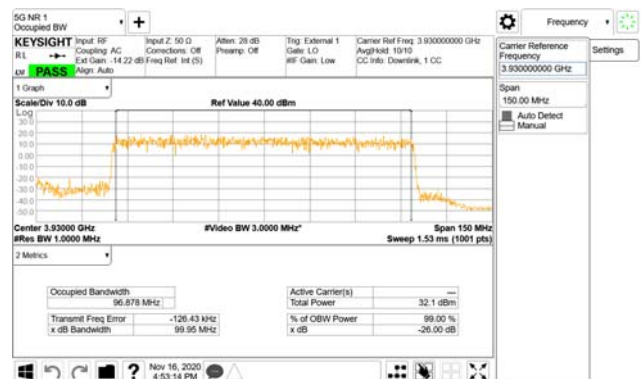
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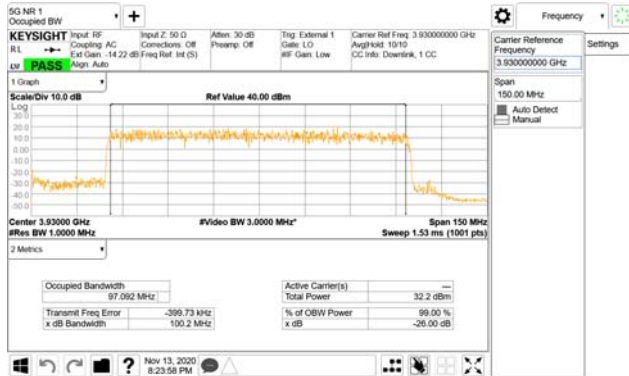


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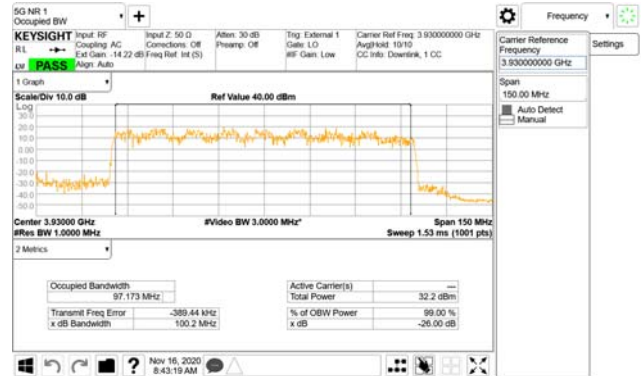


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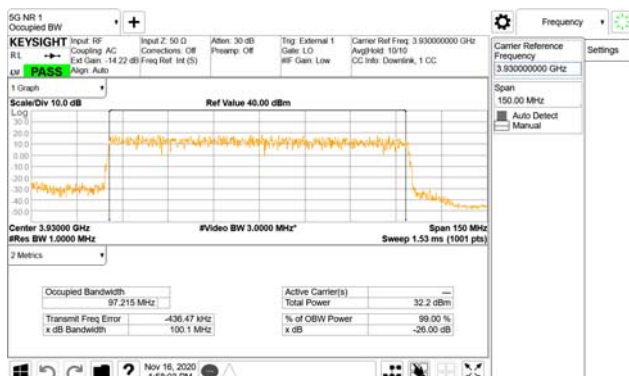
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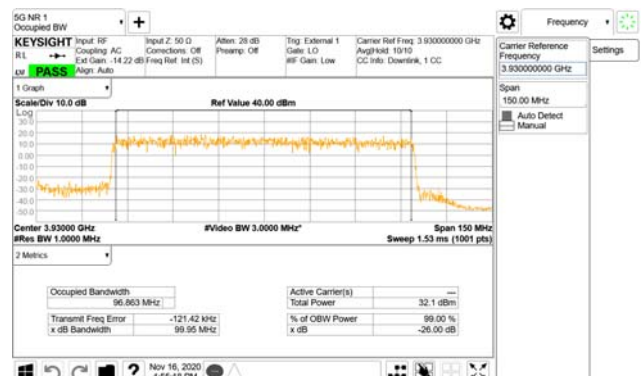
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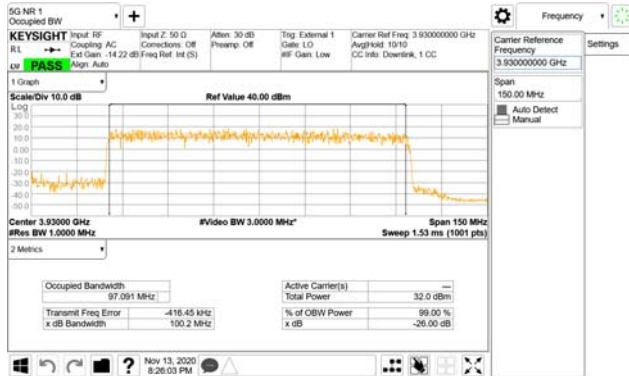


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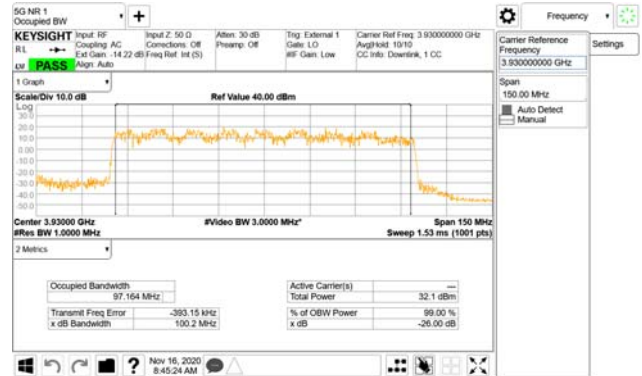


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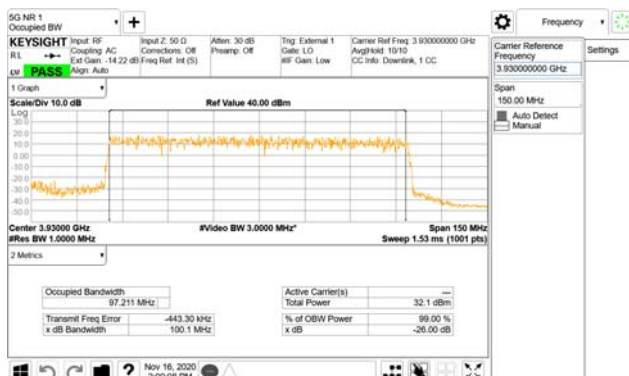
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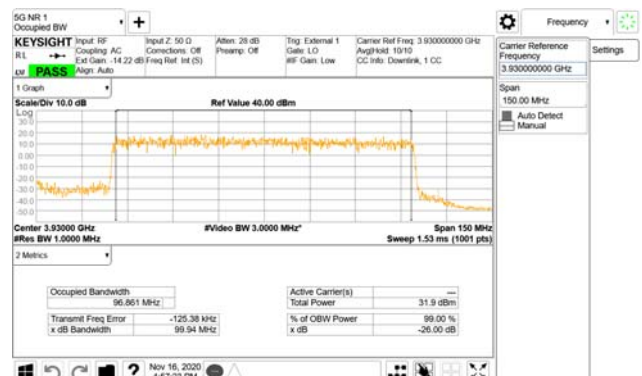
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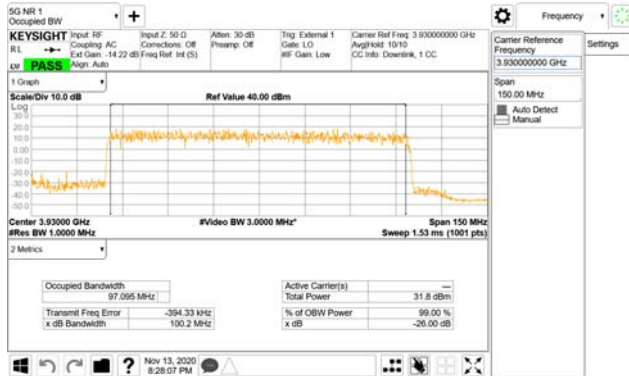


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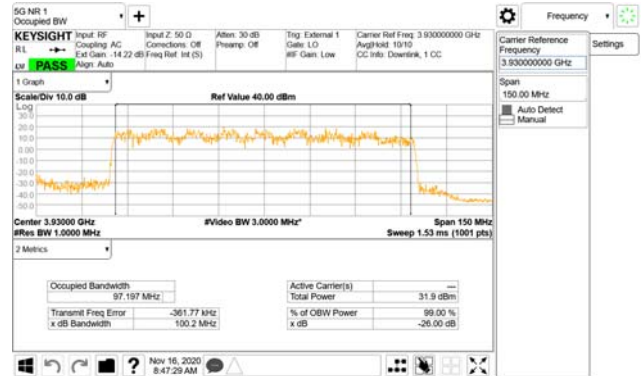


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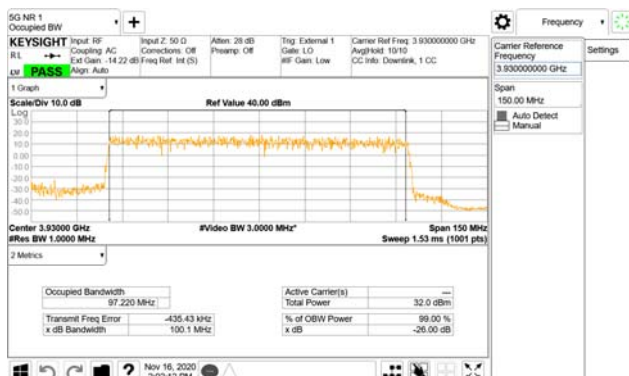
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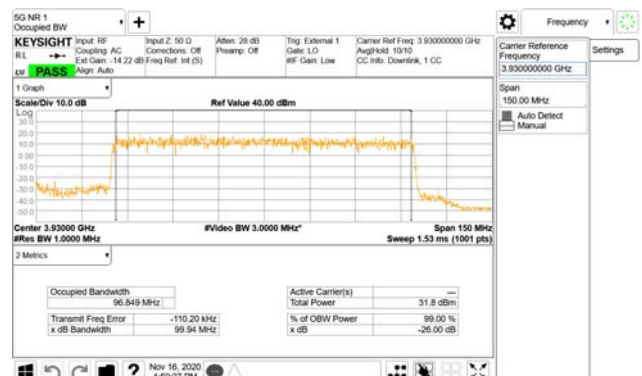
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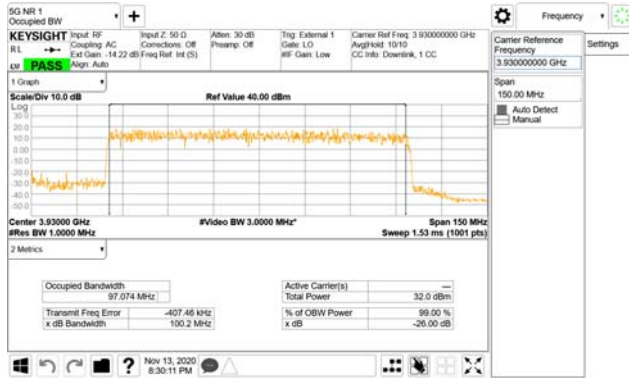


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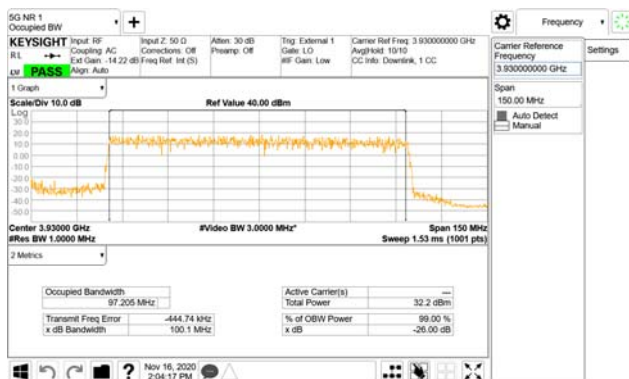
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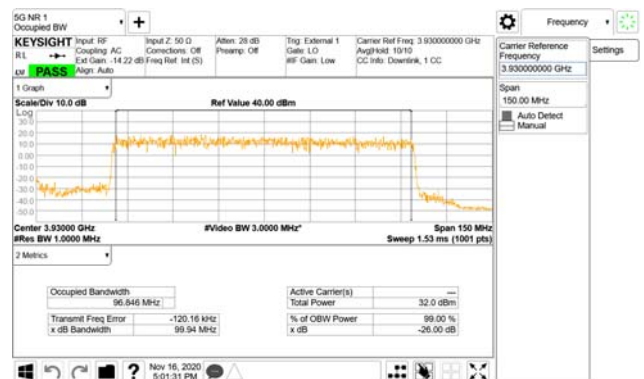
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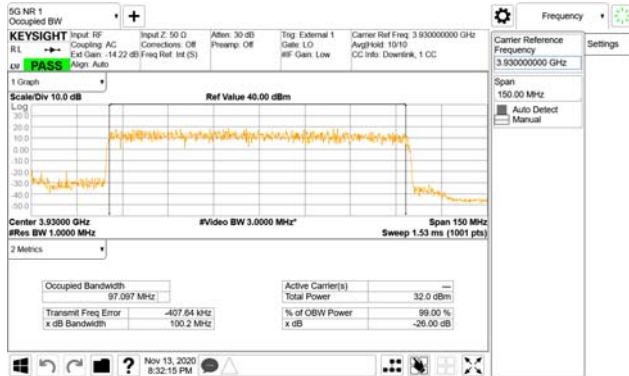


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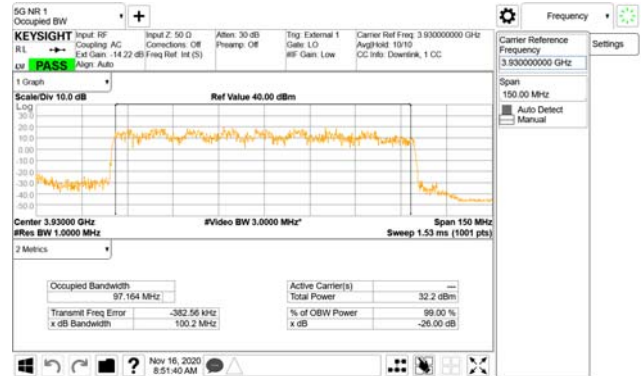


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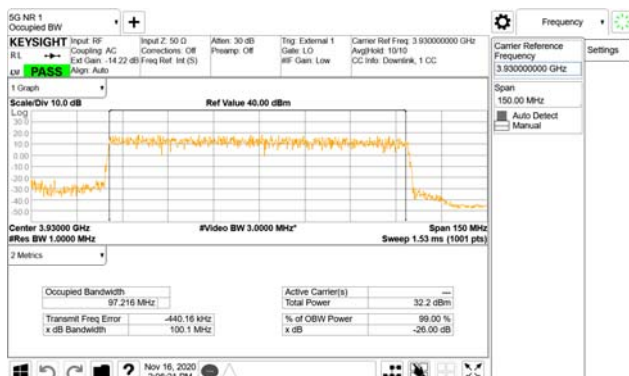
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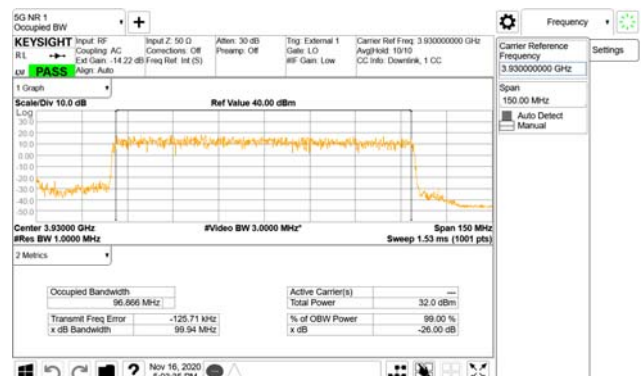
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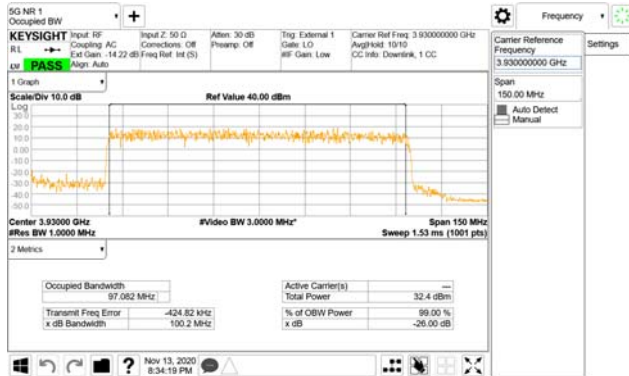


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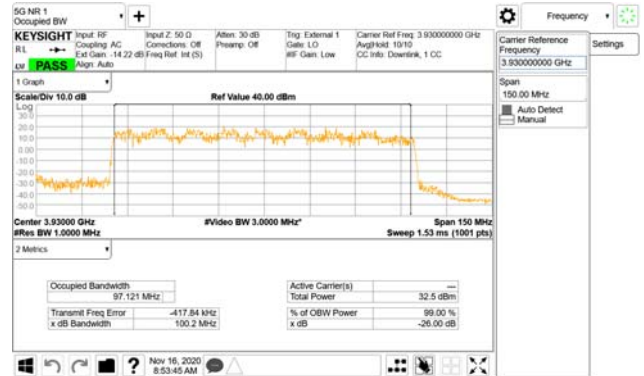


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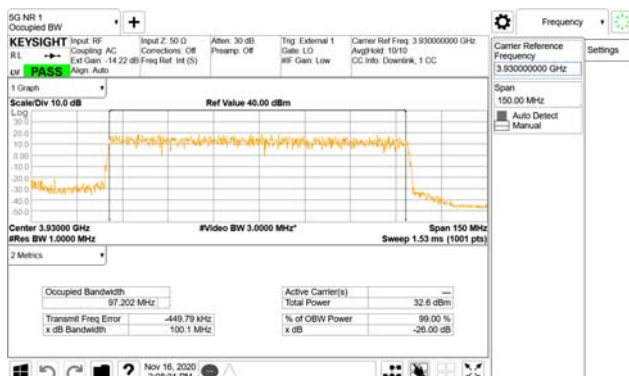
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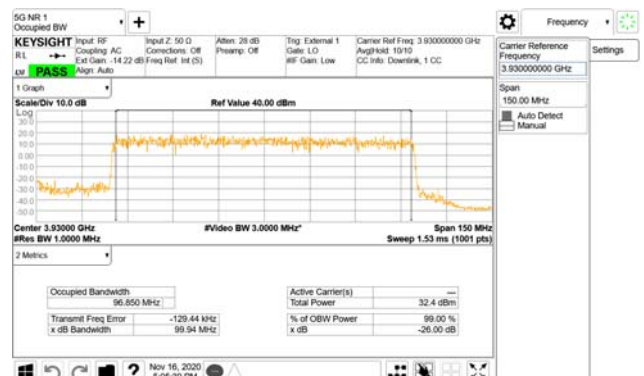
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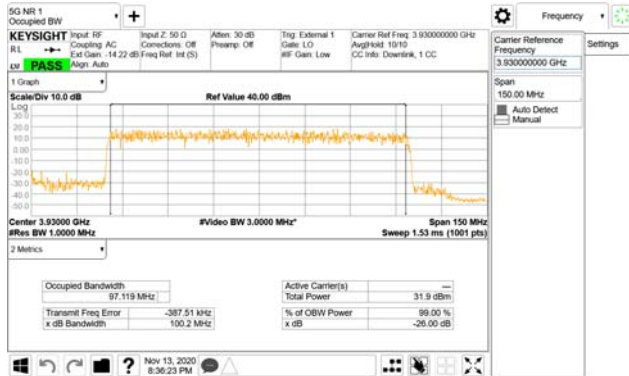


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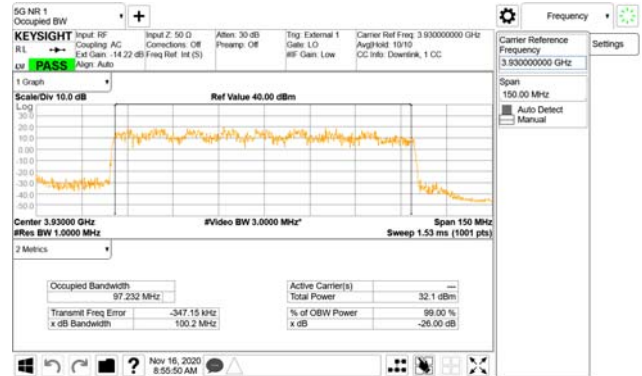


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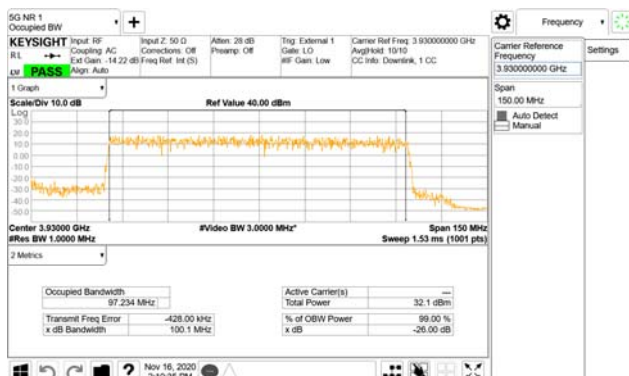
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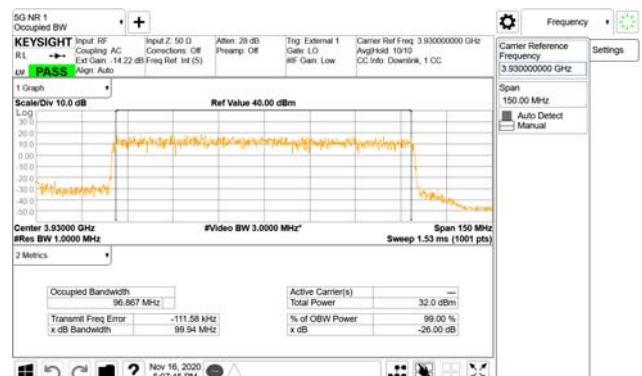
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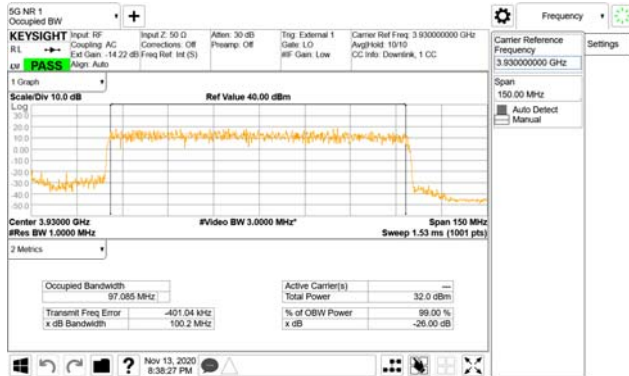


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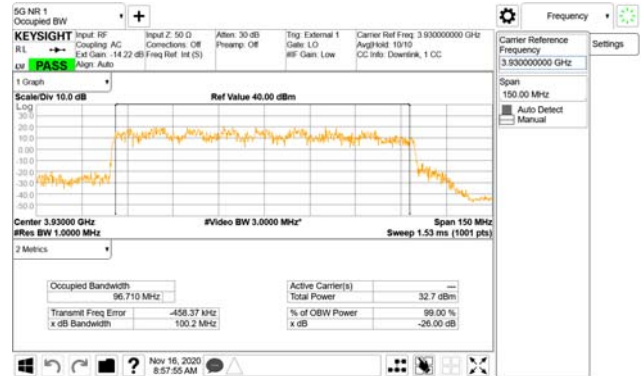


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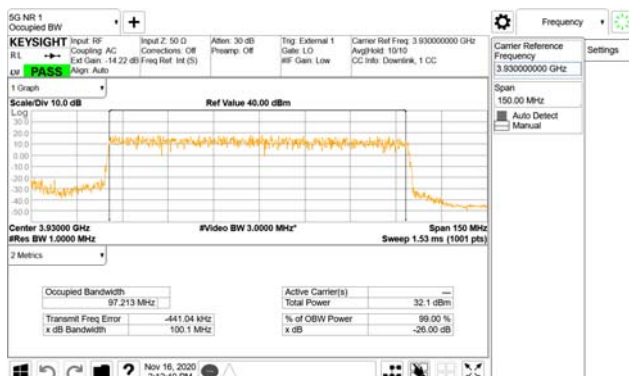
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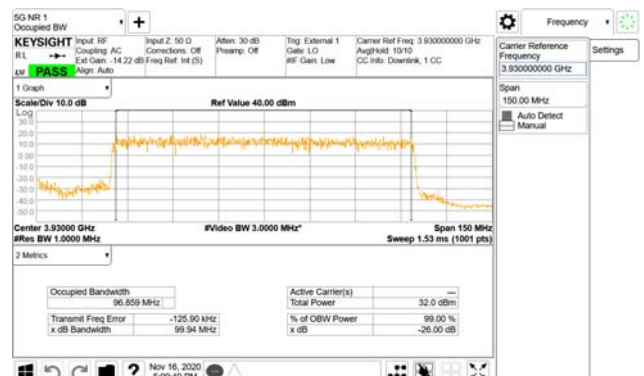
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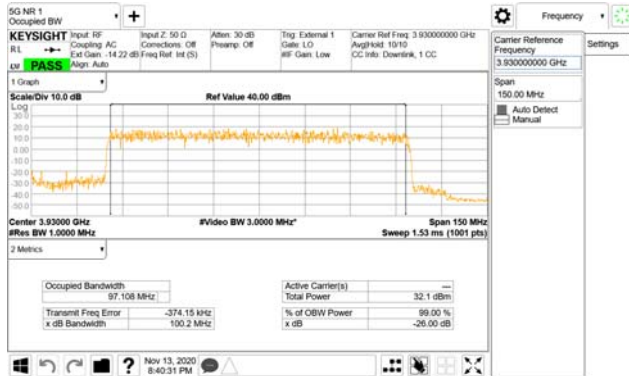


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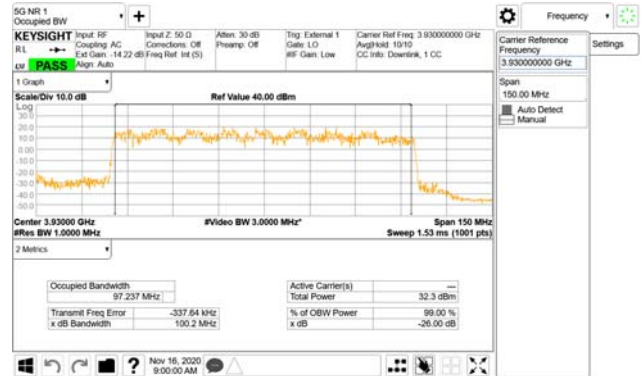


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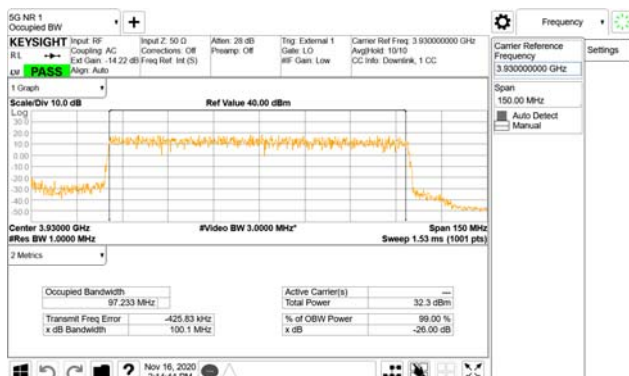
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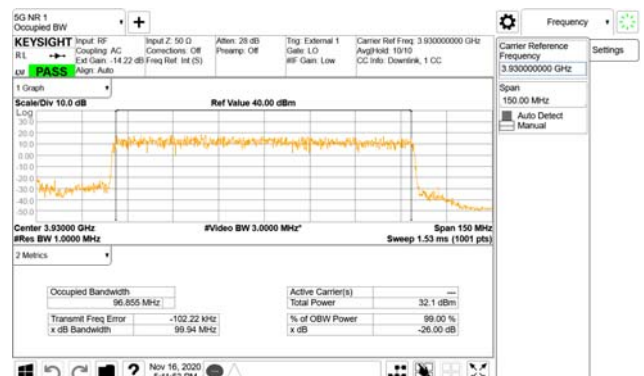
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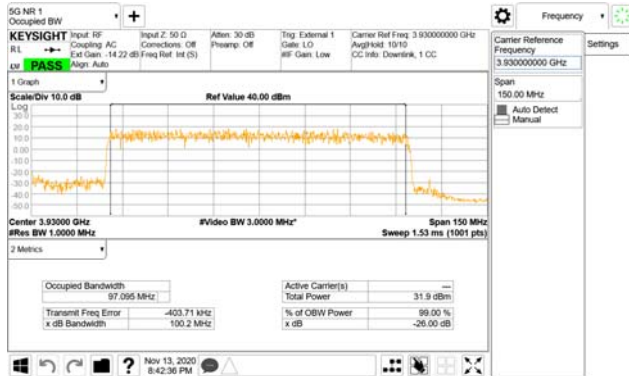


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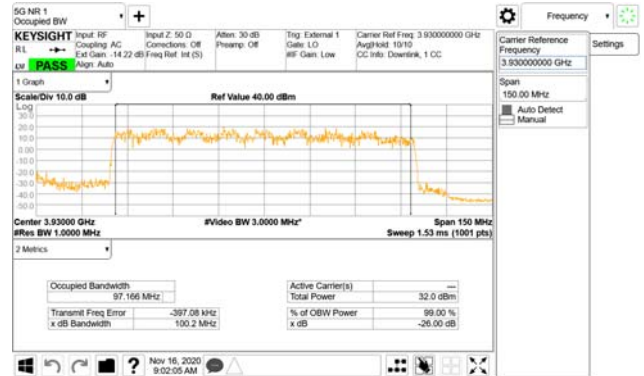


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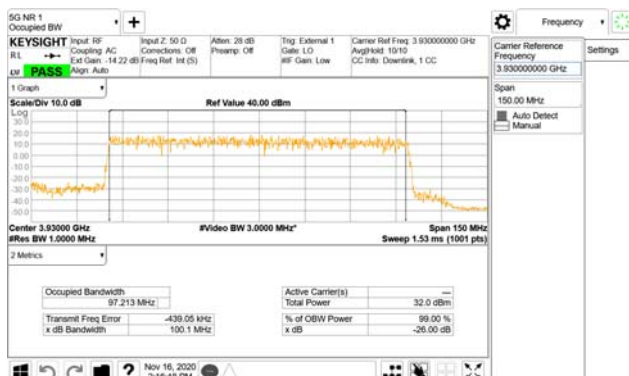
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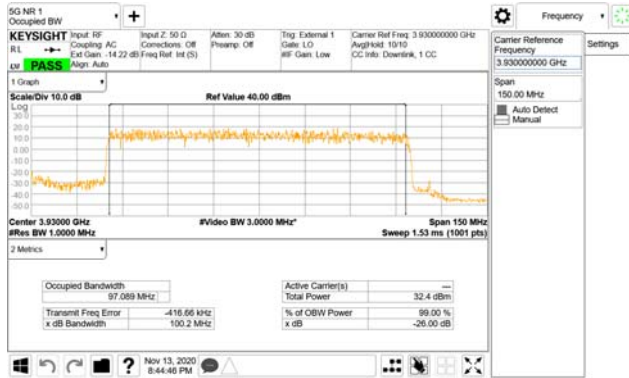


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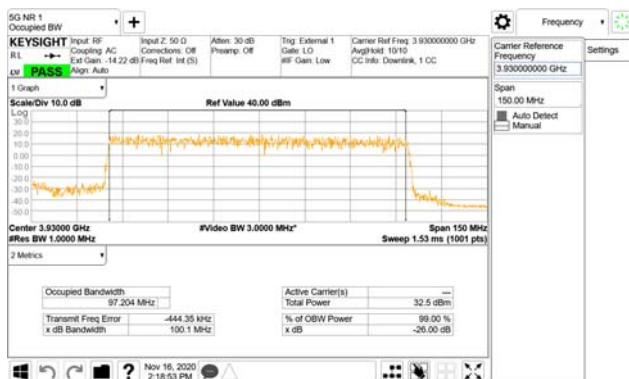
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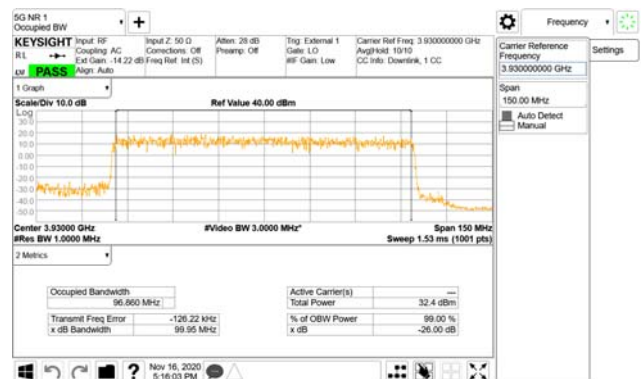
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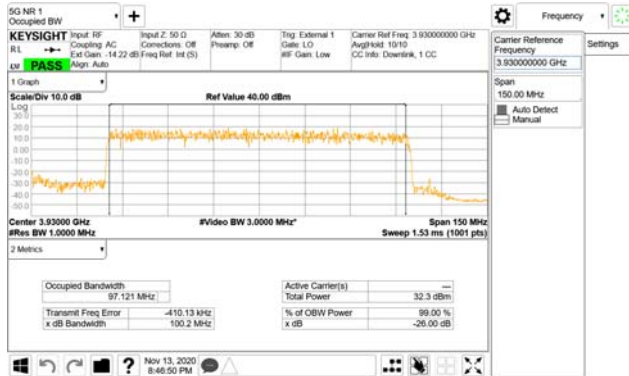


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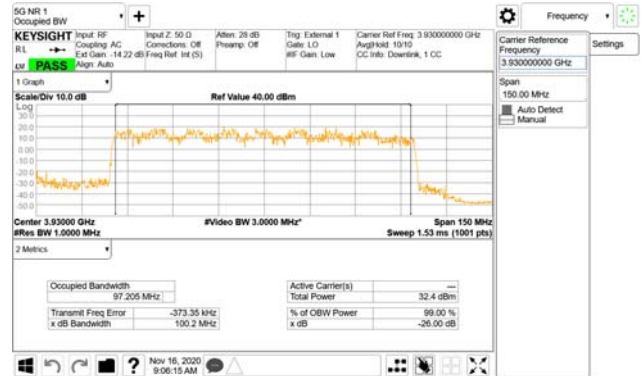


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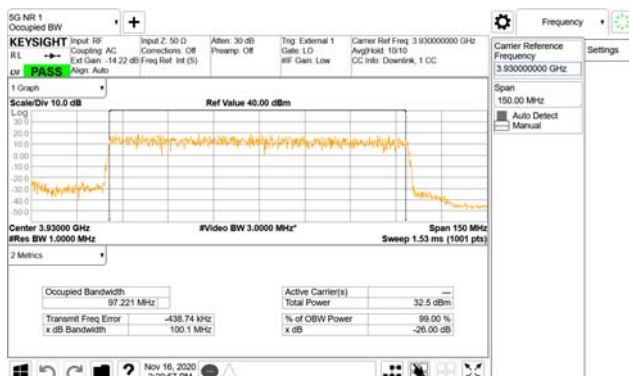
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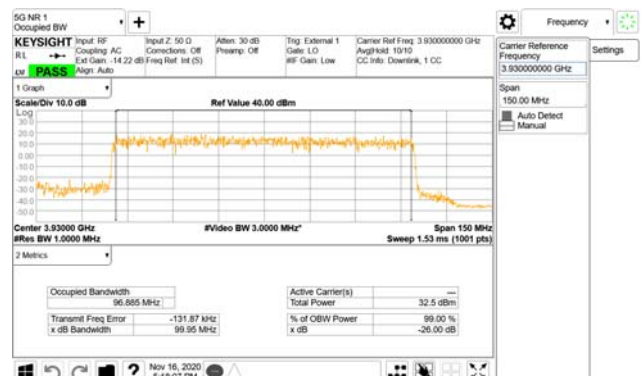
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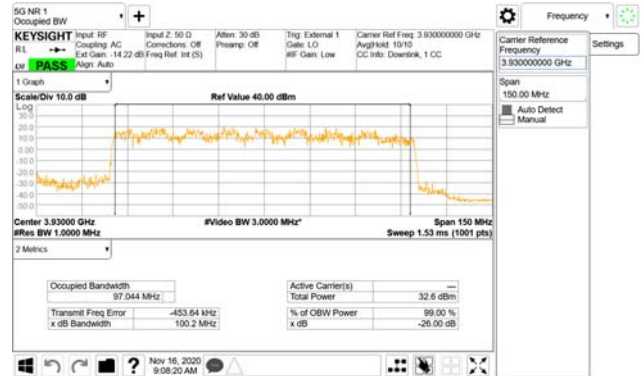


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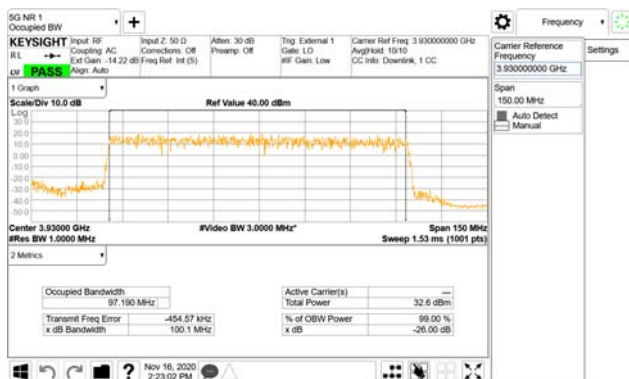
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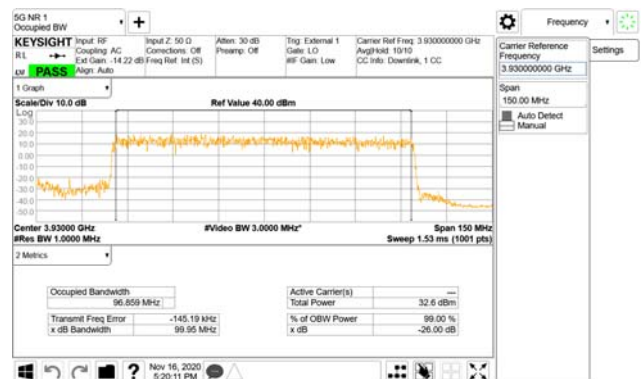
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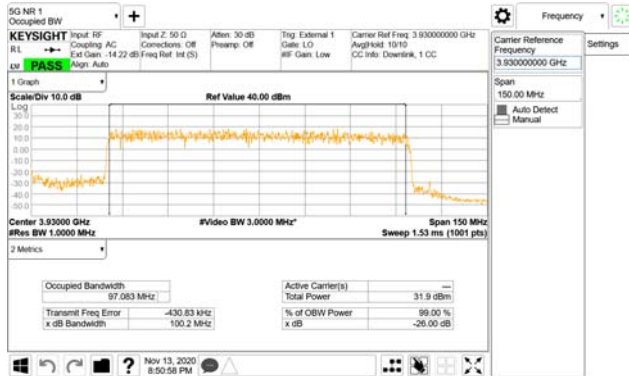


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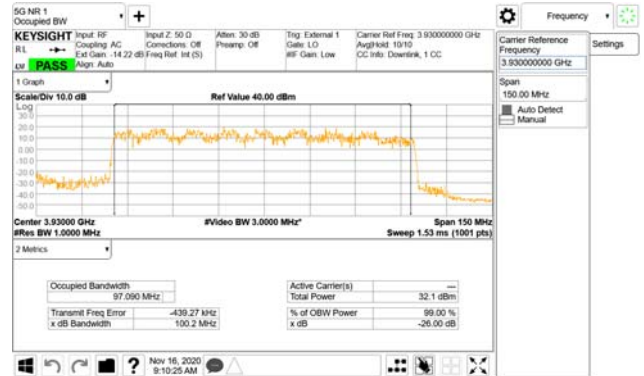


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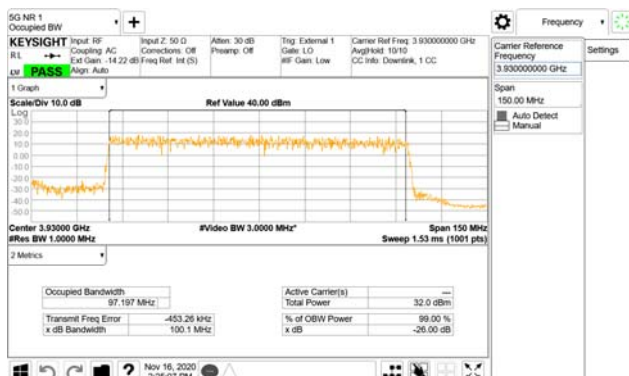
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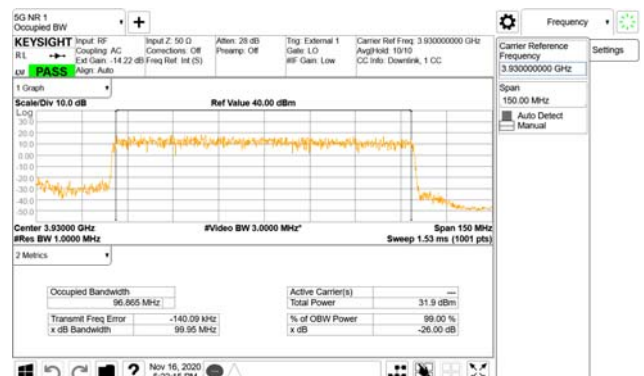
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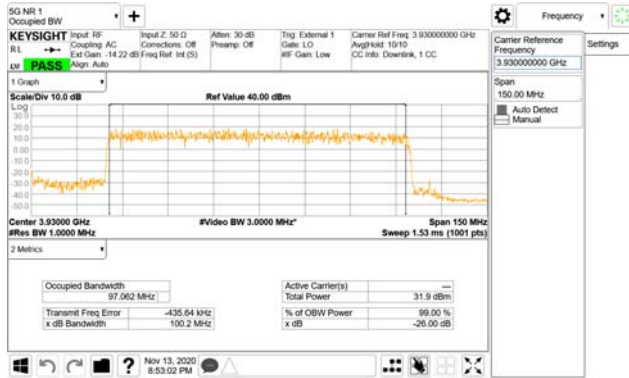


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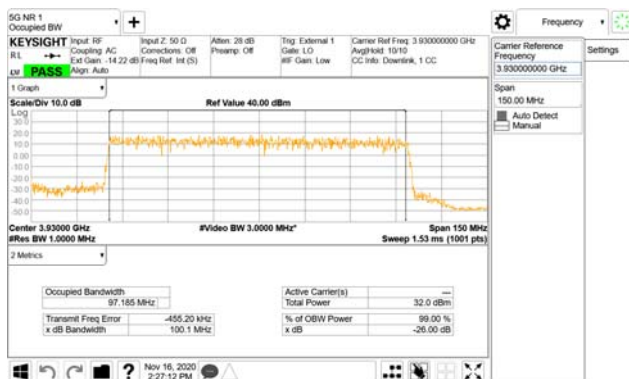
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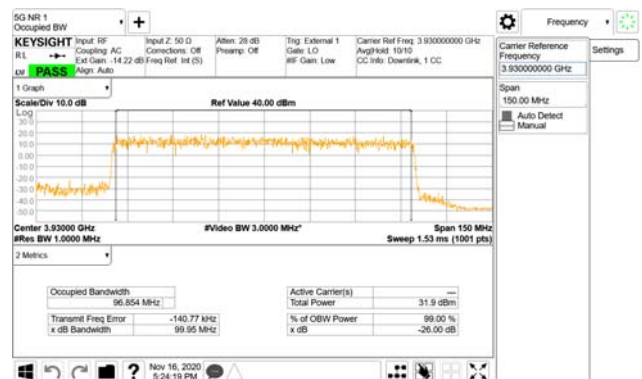
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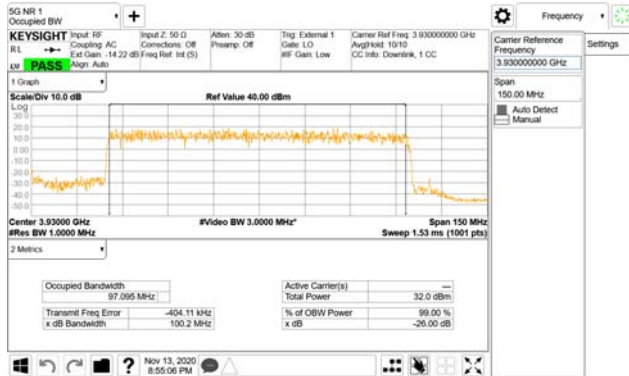


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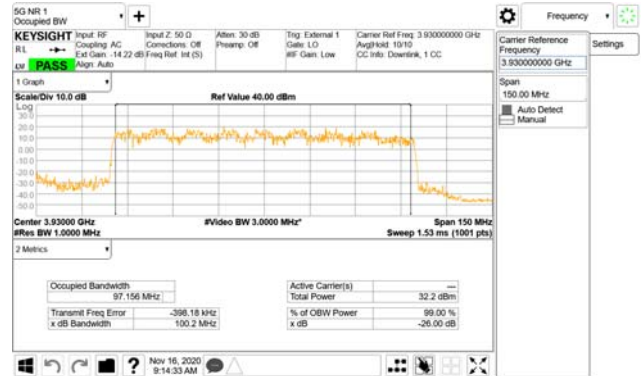


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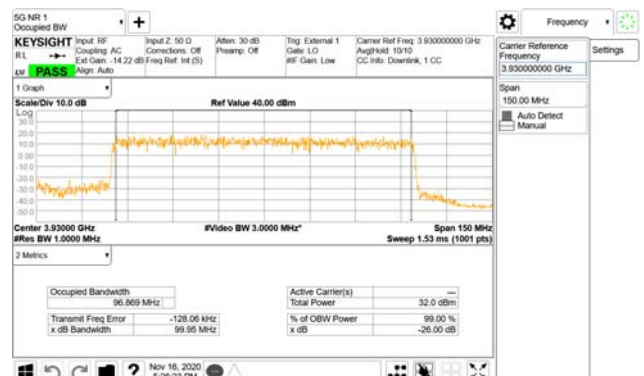
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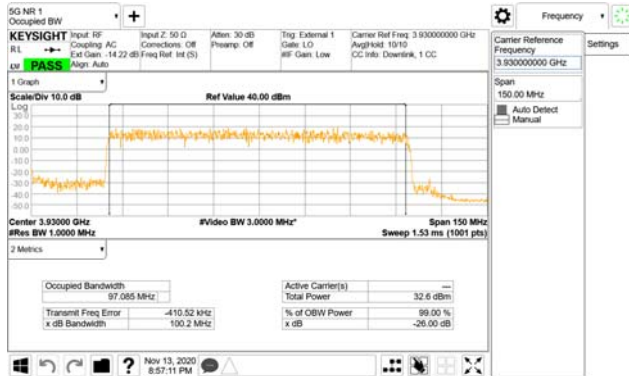


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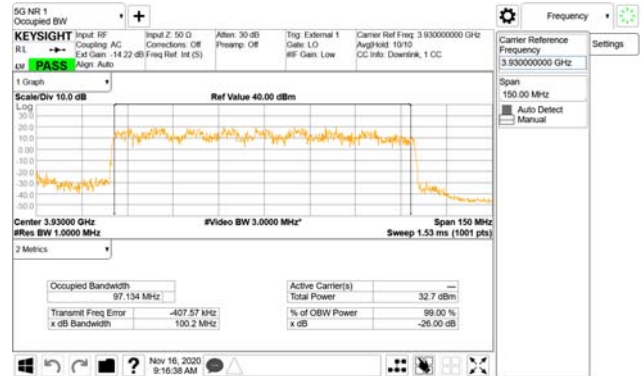


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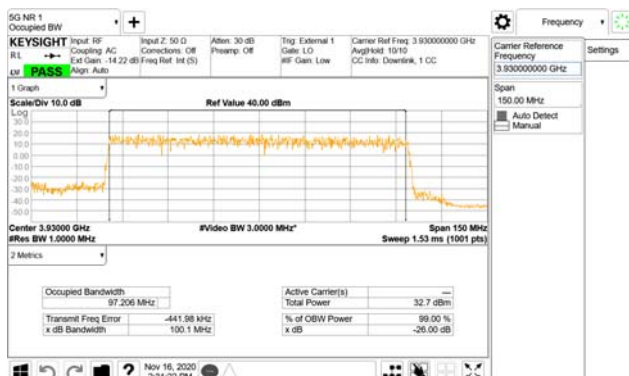
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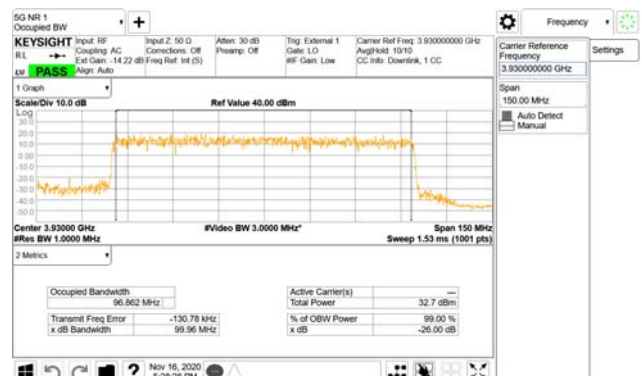
16QAM



64QAM



256QAM



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6. Spurious Emission at Antenna Terminal

§ 27.53 Emission limits

(I) 3.7 GHz Service. The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

(1) For base station operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (I)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. 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.

Test Procedures :

The RF Output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.

The resolution bandwidth of the spectrum analyzer was set at 100 kHz(below 1 GHz), 1 MHz(Above 1 GHz). Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

Notes :

1. In 9 kHz - 10 kHz and 150 kHz - 30 MHz bands, RBW was reduced to 1% and 10% of the reference bandwidth for measuring unwanted emission level(typically, 100 kHz if the authorized frequency band is below 1 GHz) and power was integrated.(1% = +20 dB, 10% = +10 dB)
2. Due to 64 x 64 MIMO operation, limit is **-31.06 dBm** (-13 dBm - 10*Log(64)) per KDB Publication 662911 D01 Multiple Transmitter Output v02r01.
3. The highest power level measured in a narrower RBW (relative to the specified reference bandwidth) can be scaled by applying a correction factor determined from: $10 \log [(reference\ bandwidth) / (resolution\ or\ measurement\ bandwidth)]$.

Band Edge correction factor: $10 \log(1MHz / 100kHz)$

Band edge correction factor value compensation to the result value.

4. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its at maximum power, and at the appropriate frequencies.

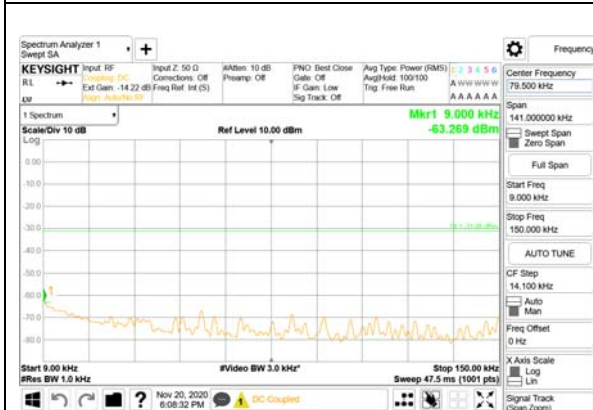
All modulation types were investigated to determine the worst case configuration.

All modulation types of operation were investigated and the worst case configuration results are reported in this section. (Worst case : QPSK, 16QAM)

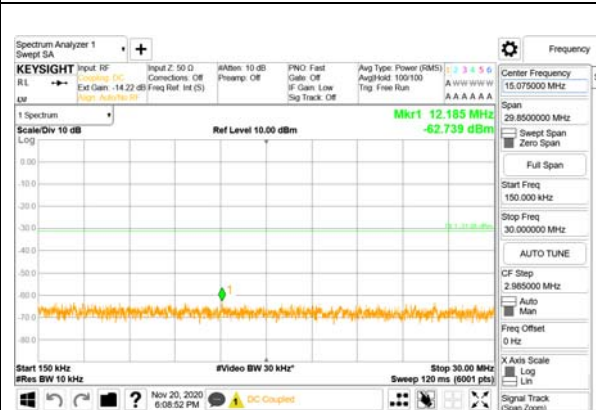
Test Plot at Spurious Emissions

BW 100MHz, Single carrier, Bottom, QPSK ANT1

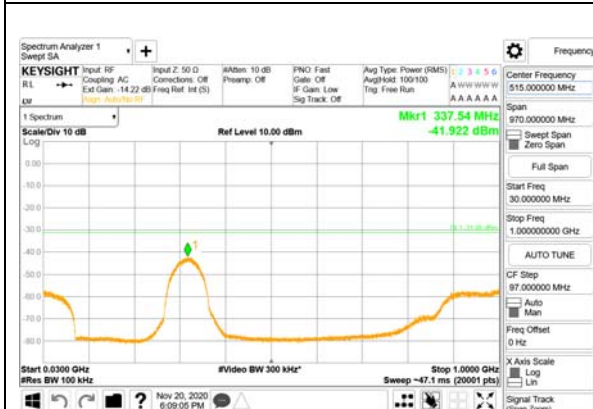
9 kHz - 150 kHz



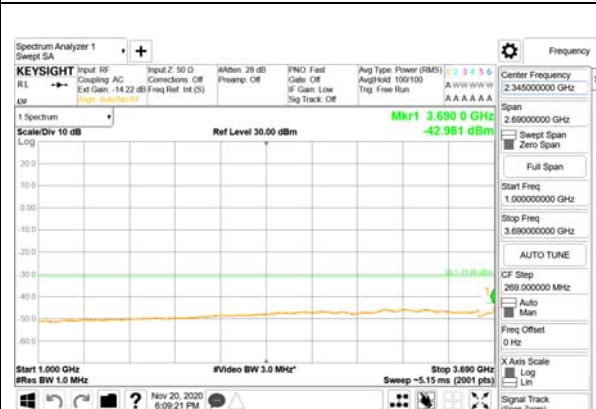
150 kHz - 30 MHz



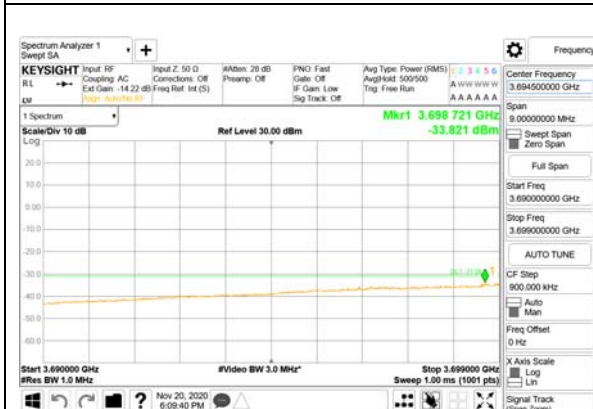
30 MHz - 1000 MHz



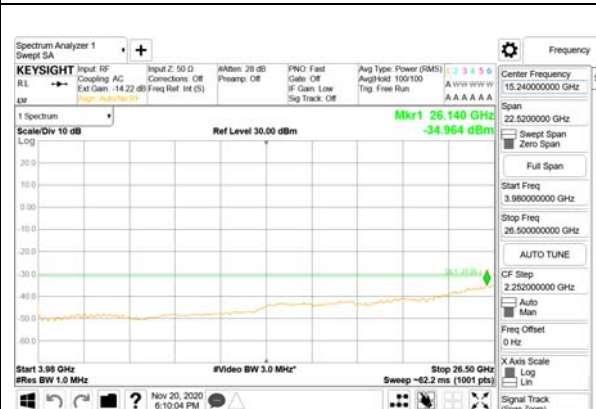
1000 MHz - 3690 MHz



3690 MHz - 3699 MHz

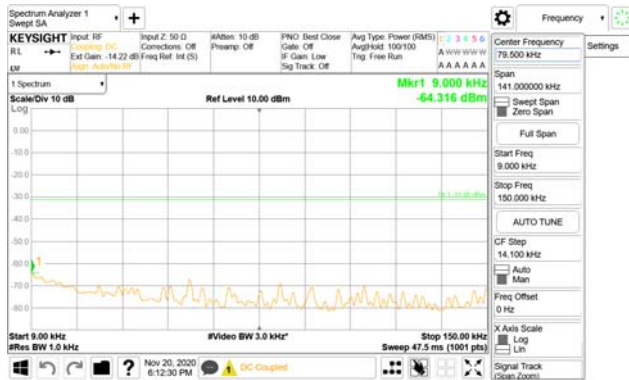


3980 MHz - 26.5 GHz

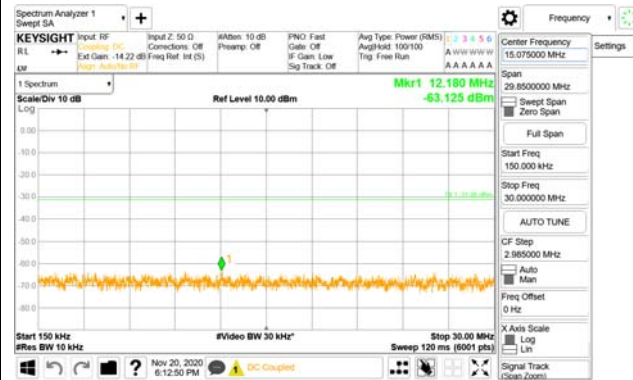


ANT2

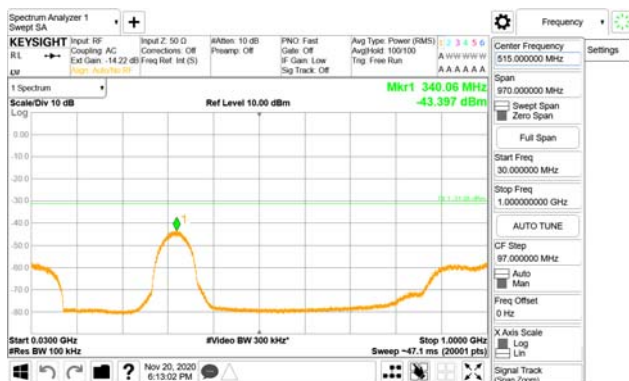
9 kHz - 150 kHz



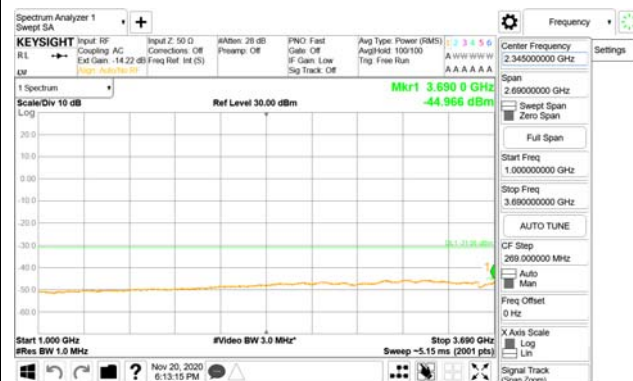
150 kHz - 30 MHz



30 MHz - 1000 MHz



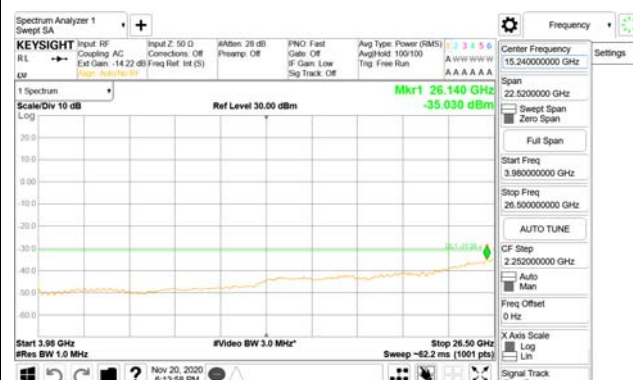
1000 MHz - 3690 MHz



3690 MHz - 3699 MHz

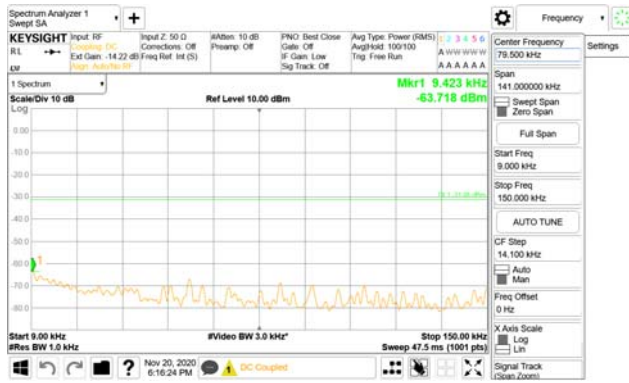


3980 MHz - 26.5 GHz

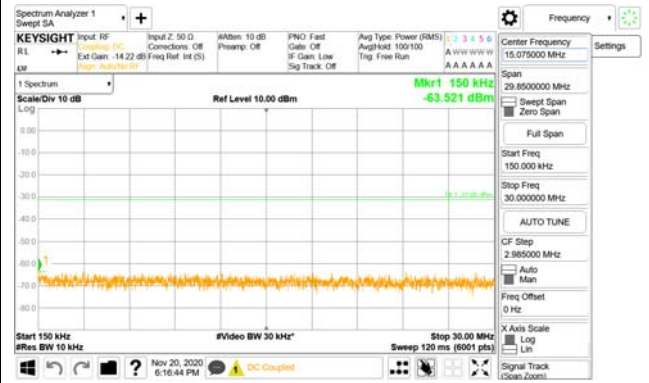


ANT3

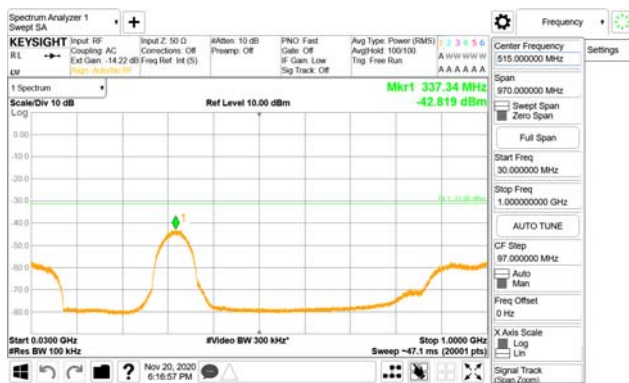
9 kHz - 150 kHz



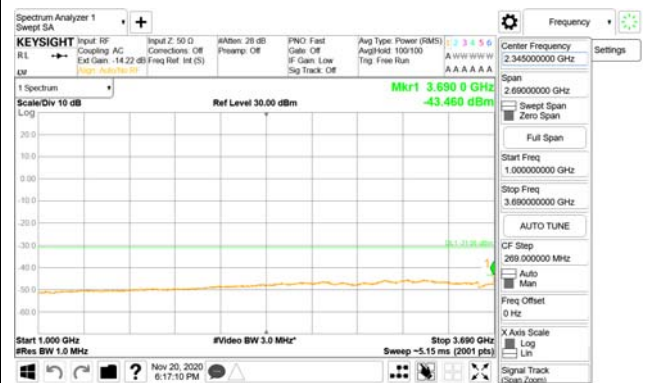
150 kHz - 30 MHz



30 MHz - 1000 MHz



1000 MHz - 3690 MHz



3690 MHz - 3699 MHz

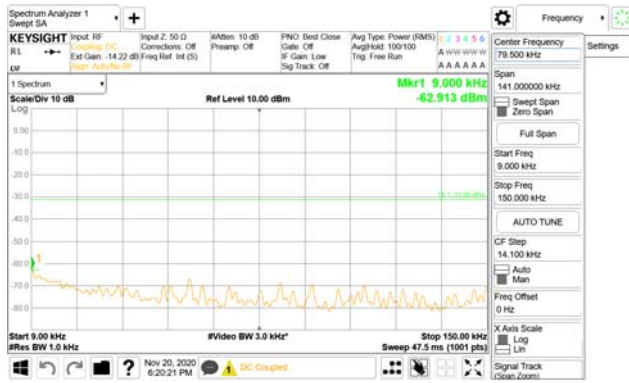


3980 MHz - 26.5 GHz

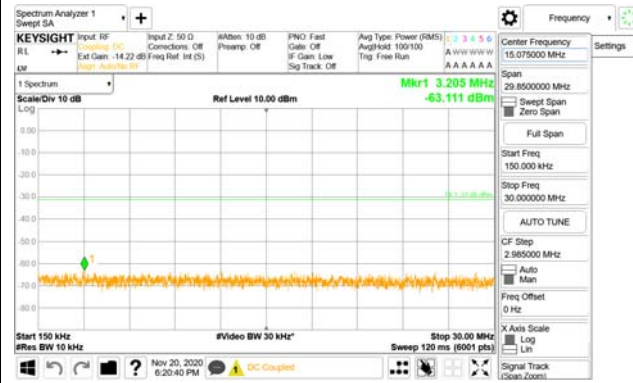


ANT4

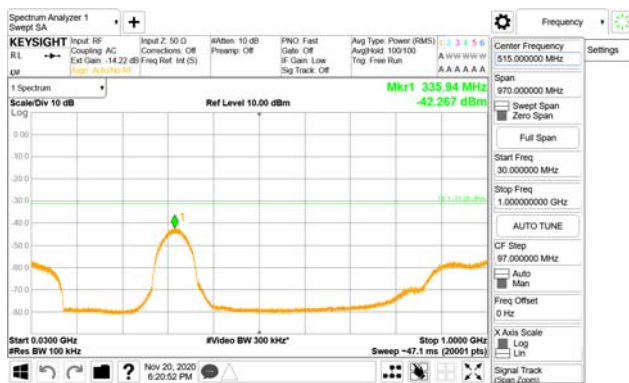
9 kHz - 150 kHz



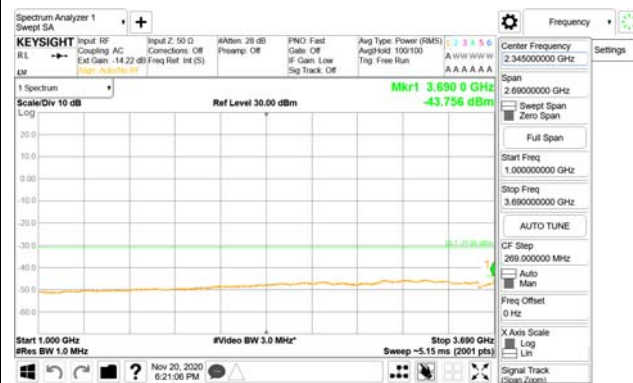
150 kHz - 30 MHz



30 MHz - 1000 MHz



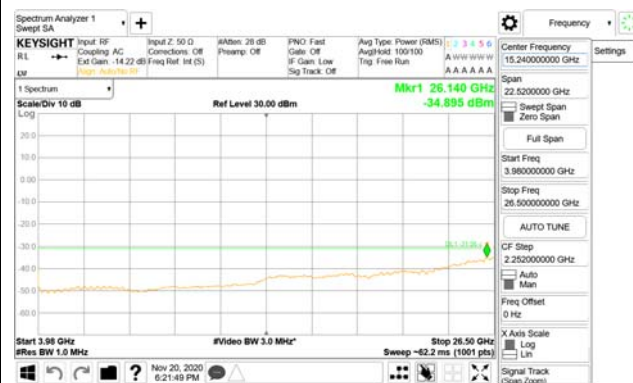
1000 MHz - 3690 MHz



3690 MHz - 3699 MHz

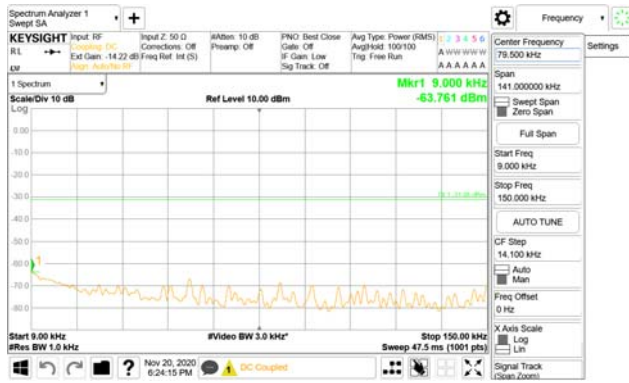


3980 MHz - 26.5 GHz

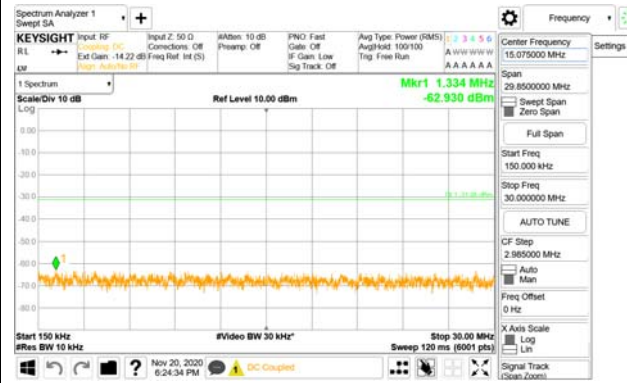


ANT5

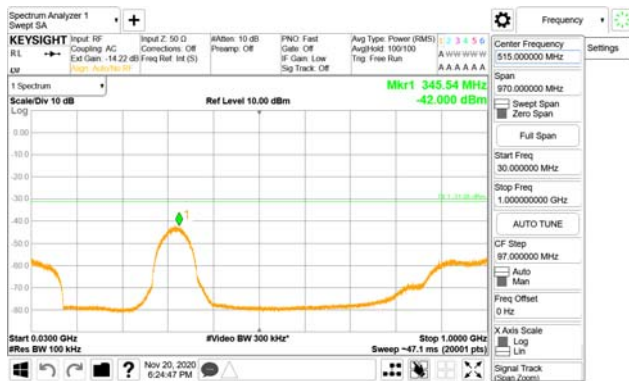
9 kHz - 150 kHz



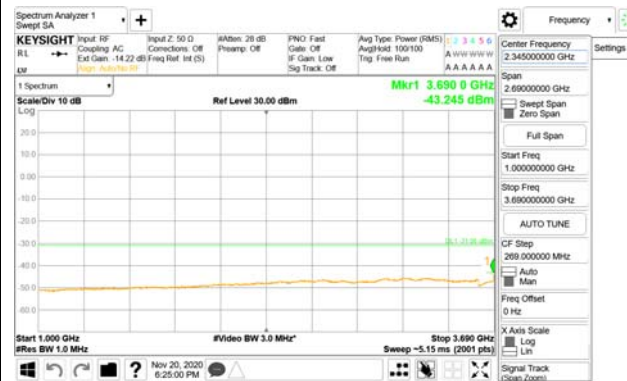
150 kHz - 30 MHz



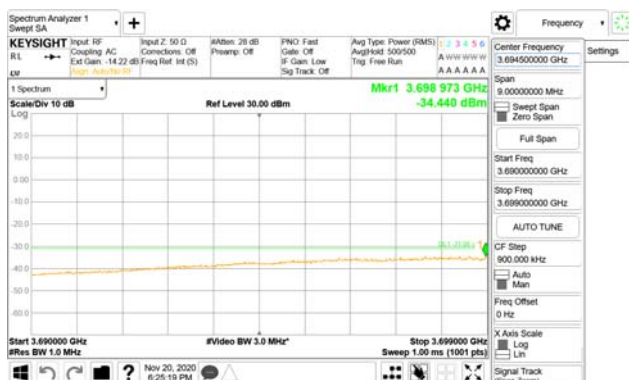
30 MHz - 1000 MHz



1000 MHz - 3690 MHz



3690 MHz - 3699 MHz



3980 MHz - 26.5 GHz

