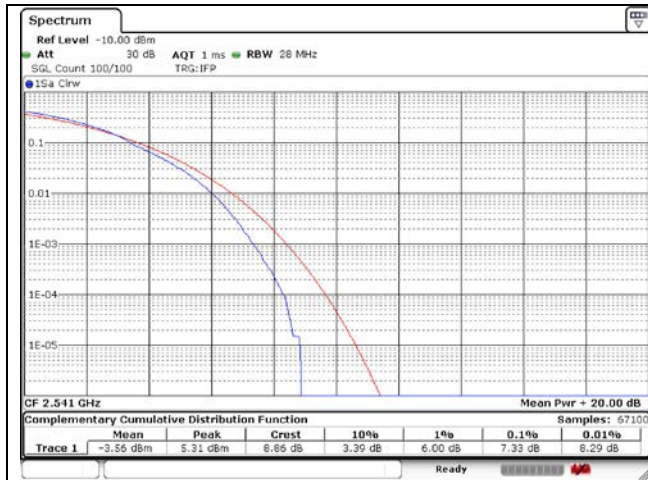
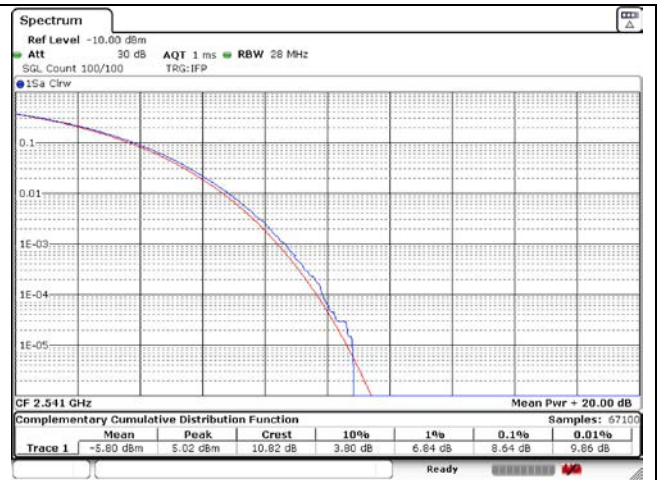
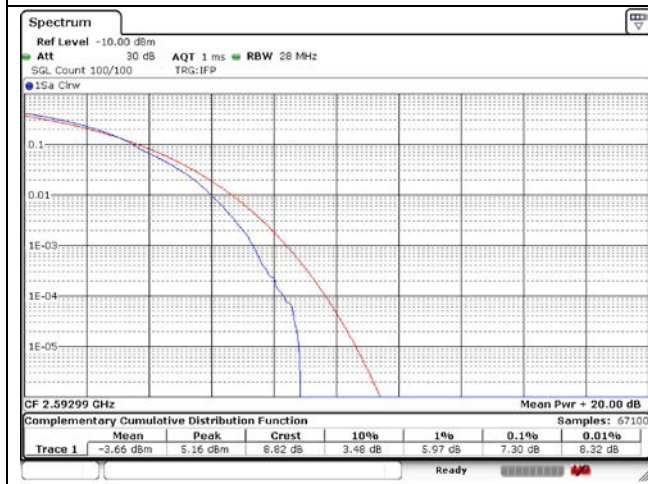




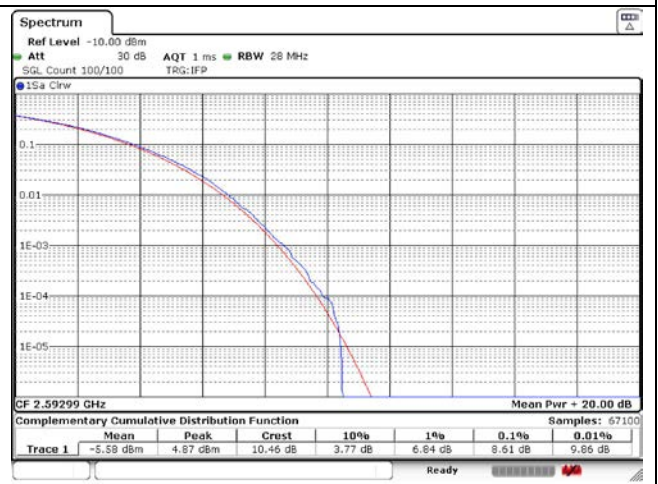
90 MHz Low Channel - Full RB - DFT-S-OFDM



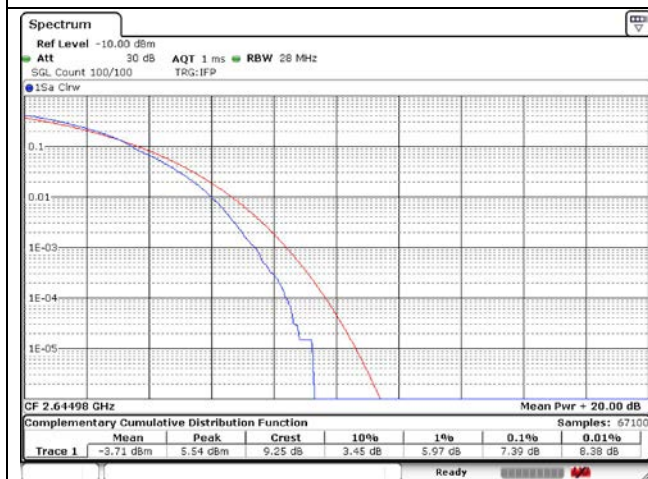
90 MHz Low Channel - Full RB - CP-OFDM



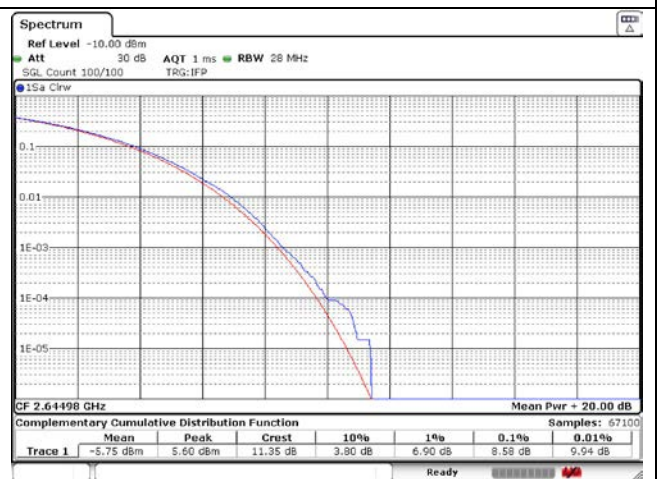
90 MHz Middle Channel - Full RB - DFT-S-OFDM



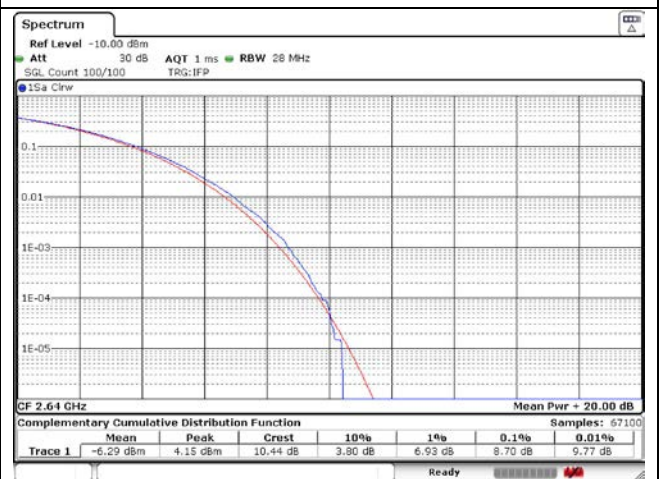
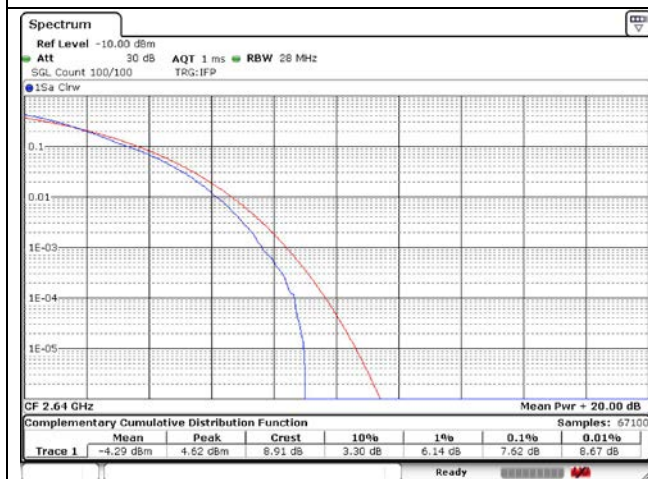
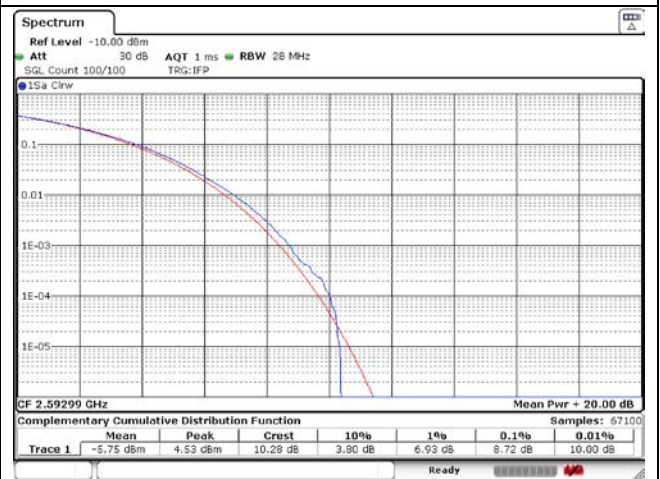
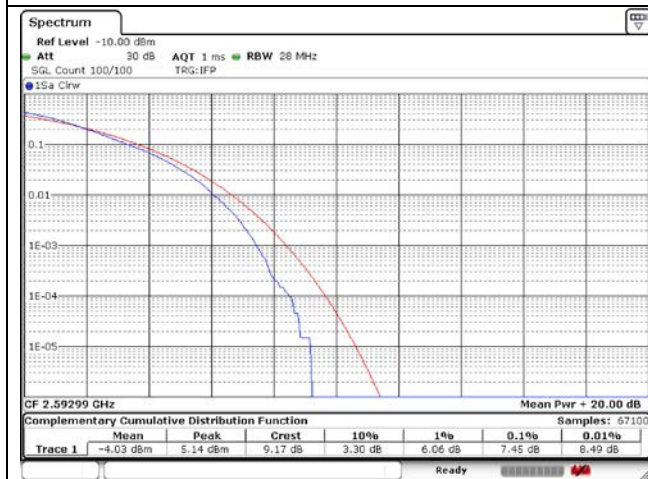
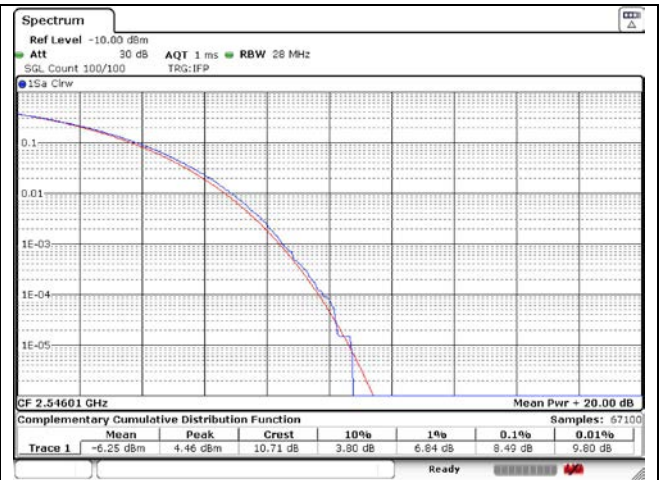
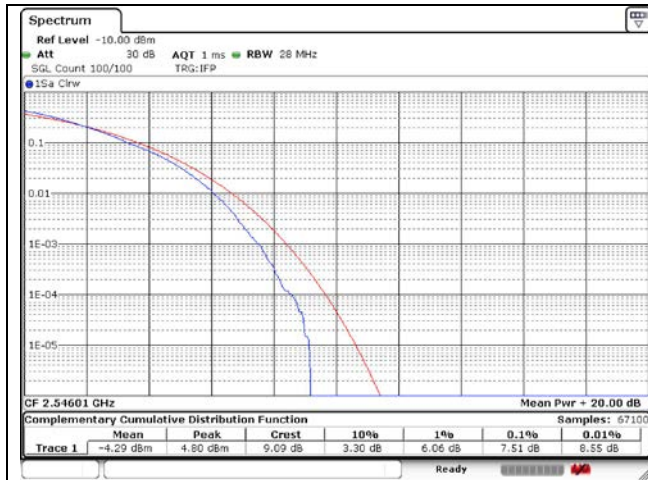
90 MHz Middle Channel - Full RB - CP-OFDM



90 MHz High Channel - Full RB - DFT-S-OFDM



90 MHz High Channel - Full RB - CP-OFDM



6. Spurious Emissions at Antenna Terminal

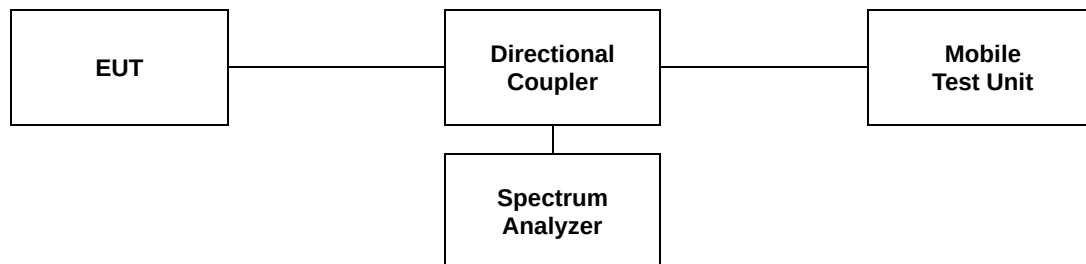
6.1. Limit

- §27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log_{10} (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log_{10} (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log_{10} (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log_{10} (P)$ dB on all frequencies between 2 490.5 MHz and 2 496 MHz and $55 + 10 \log_{10} (P)$ dB at or below 2 490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

6.2. Test Procedure

The test follows section 5.7 of ANSI C63.26-2015.

1. Start frequency was set to 9 kHz and stop frequency was set to at least 10* the fundamental frequency.
2. Detector = Peak.
3. Trace mode = Max hold.
4. Sweep time = Auto couple.
5. The trace was allowed to stabilize.
6. Please see notes below for RBW and VBW settings.
7. For plots showing conducted spurious emissions from 9 kHz to 27 GHz, all path loss of wide frequency range was investigated and compensated to spectrum analyzer as TDF function.



Note;

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the 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 point, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

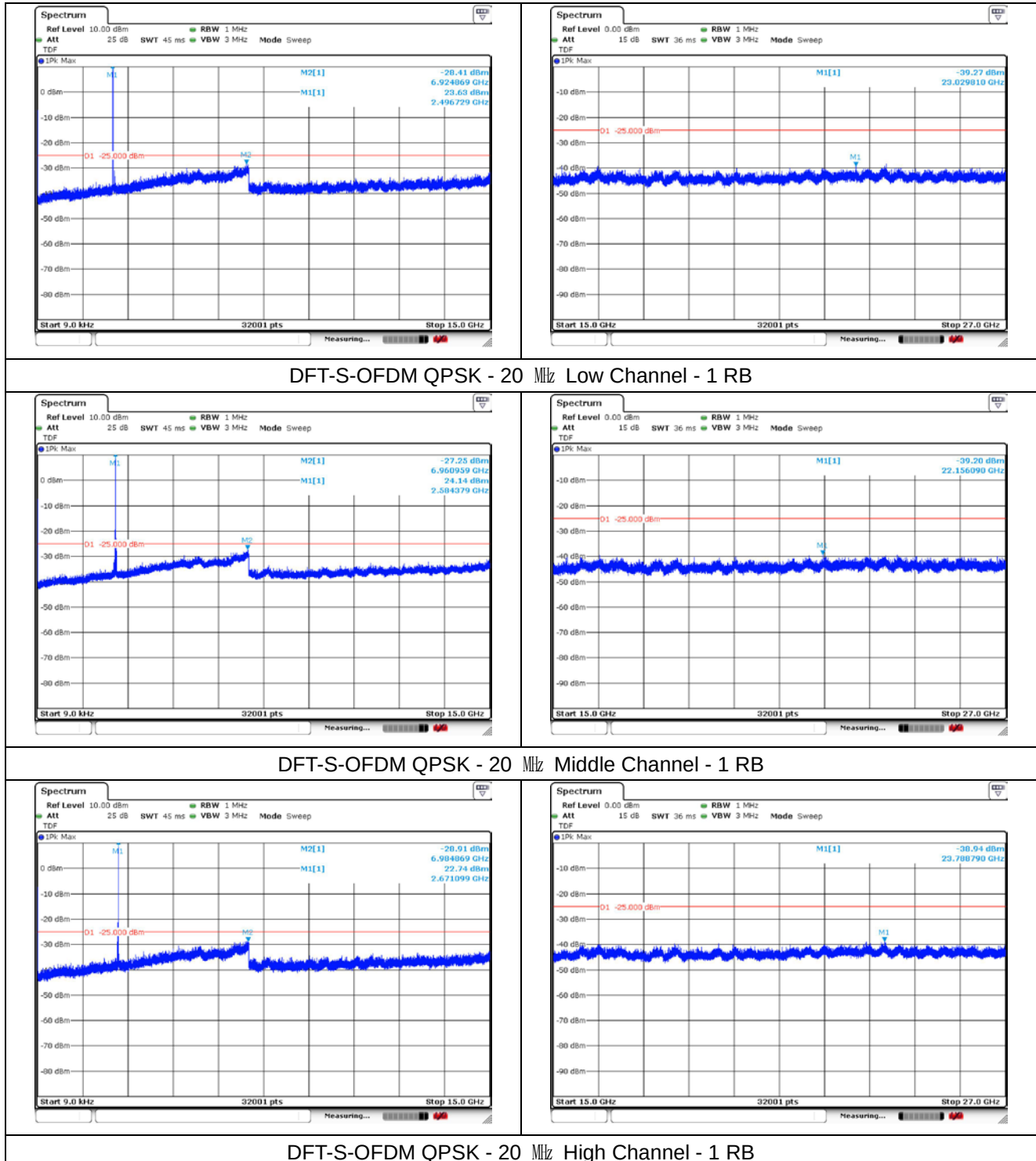
6.3. Test Results

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

- Test plots

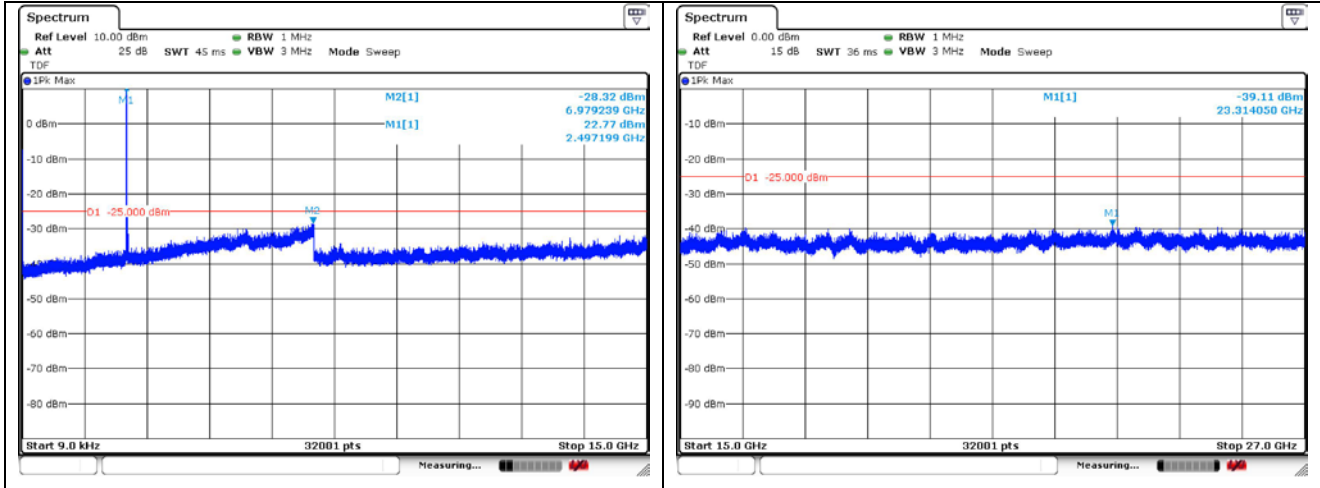
SIM 1

NR Band 41

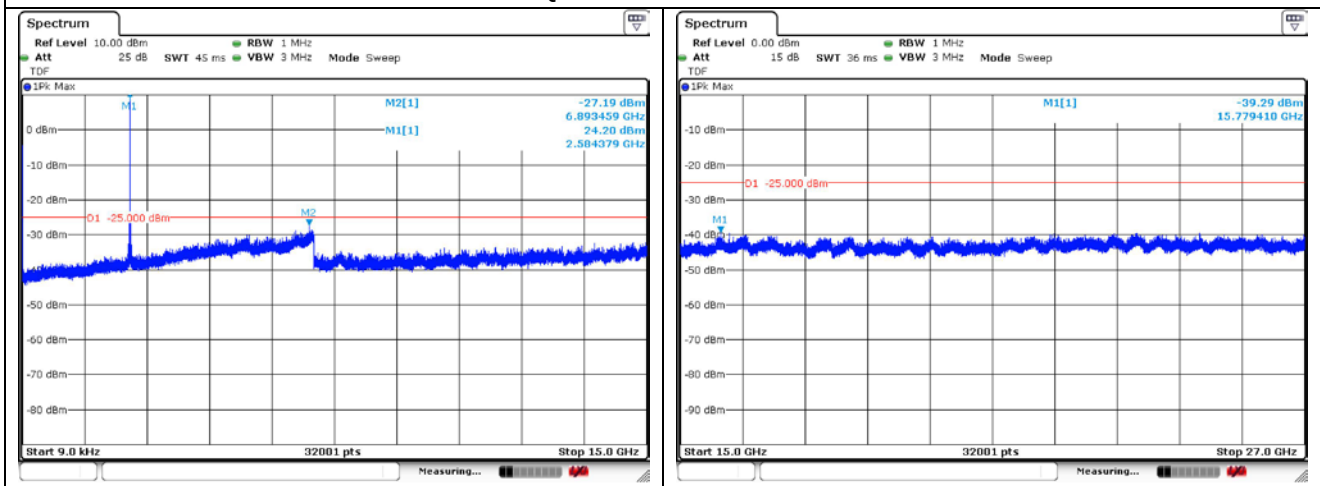


SIM 2

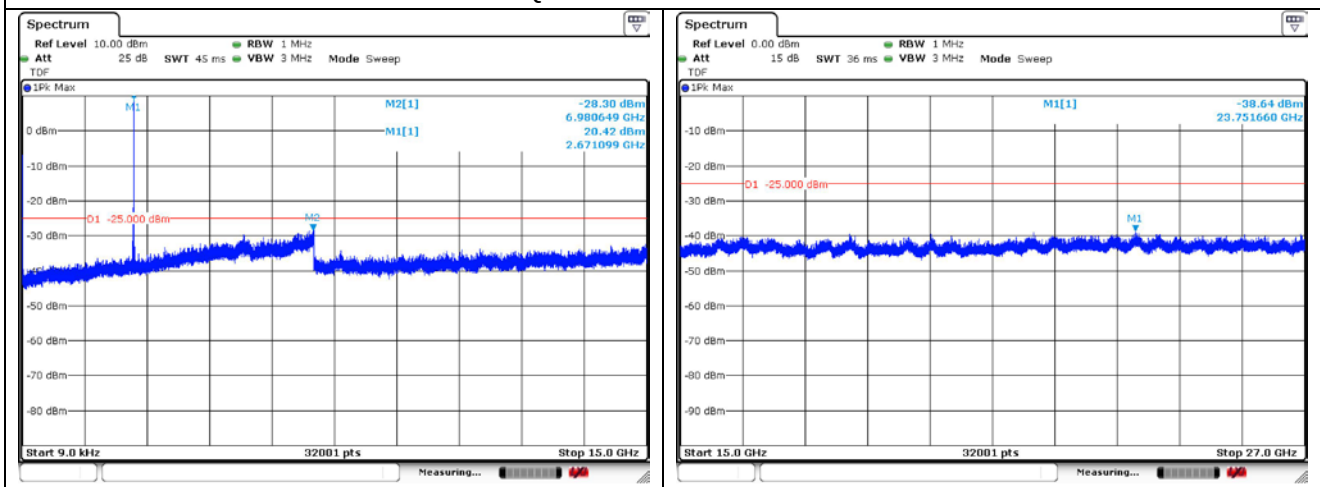
NR Band 41



DFT-S-OFDM QPSK - 20 MHz Low Channel - 1 RB



DFT-S-OFDM QPSK - 20 MHz Middle Channel - 1 RB



DFT-S-OFDM QPSK - 20 MHz High Channel - 1 RB

7. Band Edge and Emission Mask

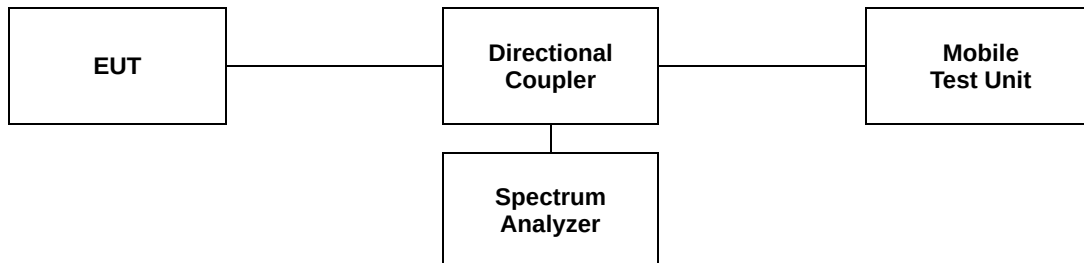
7.1. Limit

- §27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log_{10} (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log_{10} (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log_{10} (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log_{10} (P)$ dB on all frequencies between 2 490.5 MHz and 2 496 MHz and $55 + 10 \log_{10} (P)$ dB at or below 2 490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

7.2. Test Procedure

The test follows section 5.7 of ANSI C63.26-2015.

- Span was set large enough so as to capture all out of band emissions near the band edge.
- $RBW \geq 1\%$ of OBW
- $VBW \geq 3 \times RBW$.
- Detector = RMS.
- Trace mode = Average.
- Sweep time = Auto.
- The trace was allowed to stabilize.
- All path loss of frequency range was investigated and compensated to spectrum analyzer as TDF function.



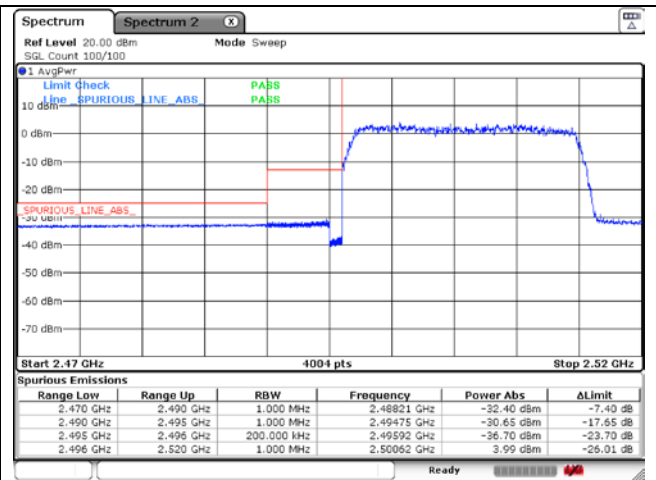
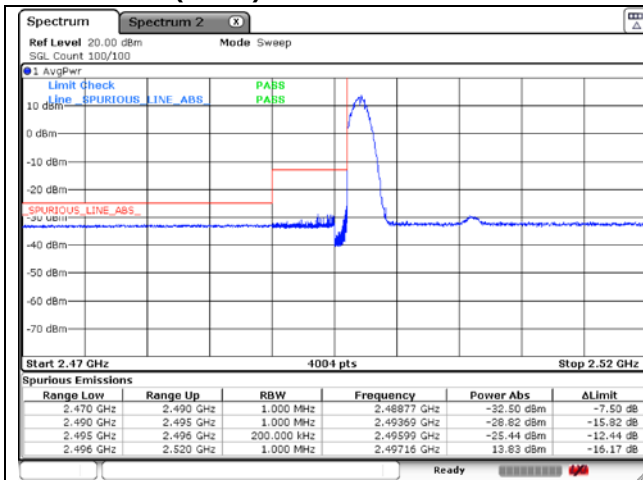
7.3. Test Results

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

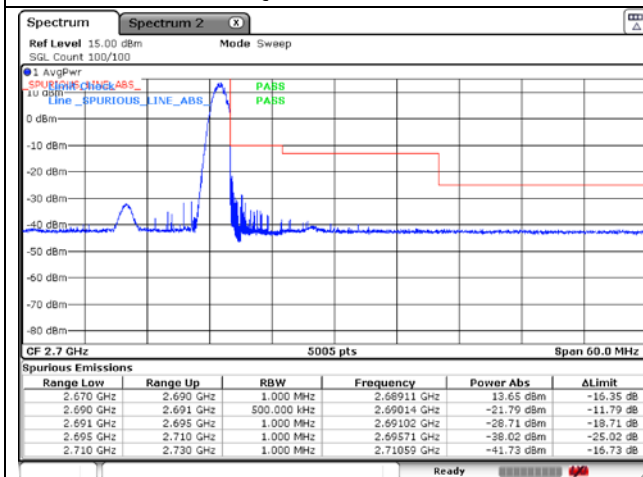
- Test plots

SIM 1

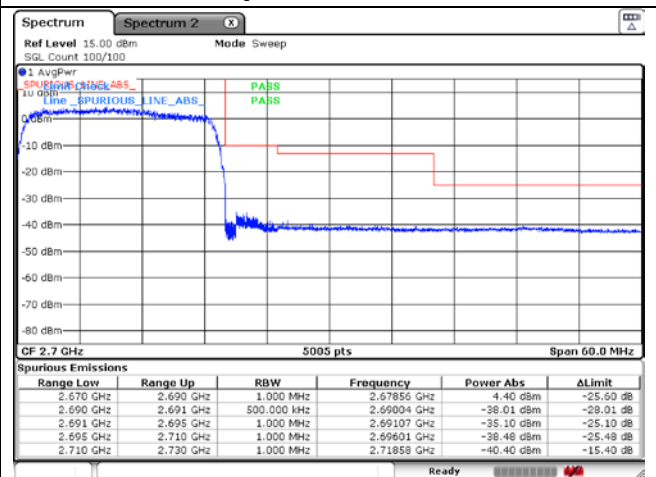
NR band 41 (20 MHz)



DFT-S-OFDM QPSK - Low Channel - 1 RB



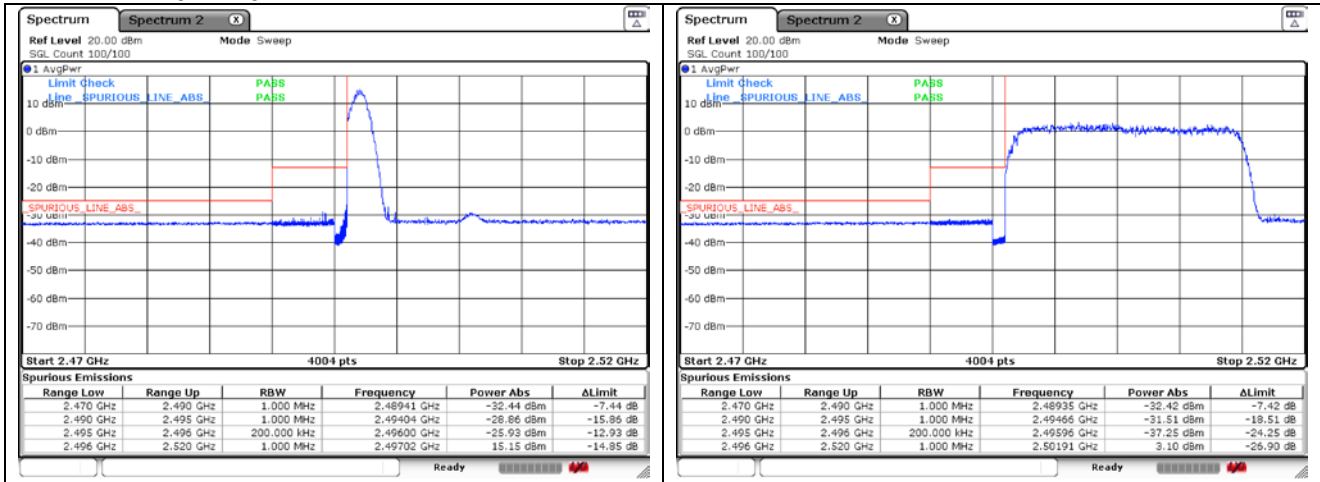
DFT-S-OFDM QPSK - Low Channel - Full RB



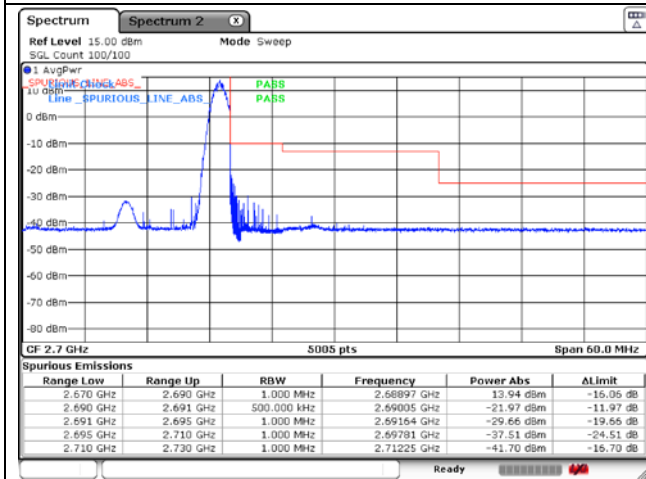
DFT-S-OFDM QPSK - High Channel - 1 RB

DFT-S-OFDM QPSK - High Channel - Full RB

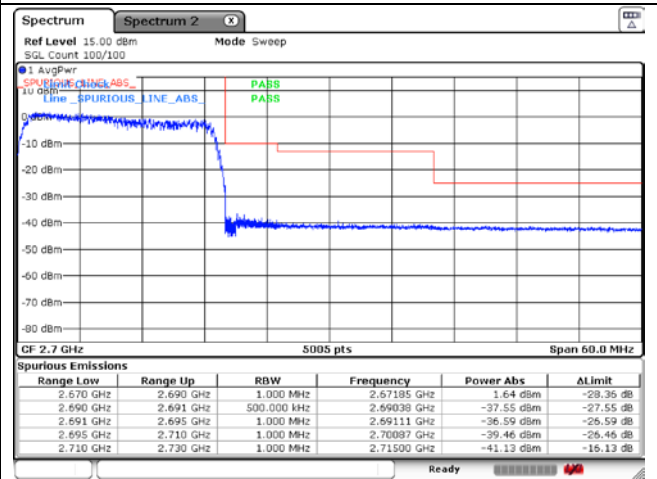
NR band 41 (20 MHz)



DFT-S-OFDM 16QAM - Low Channel - 1 RB



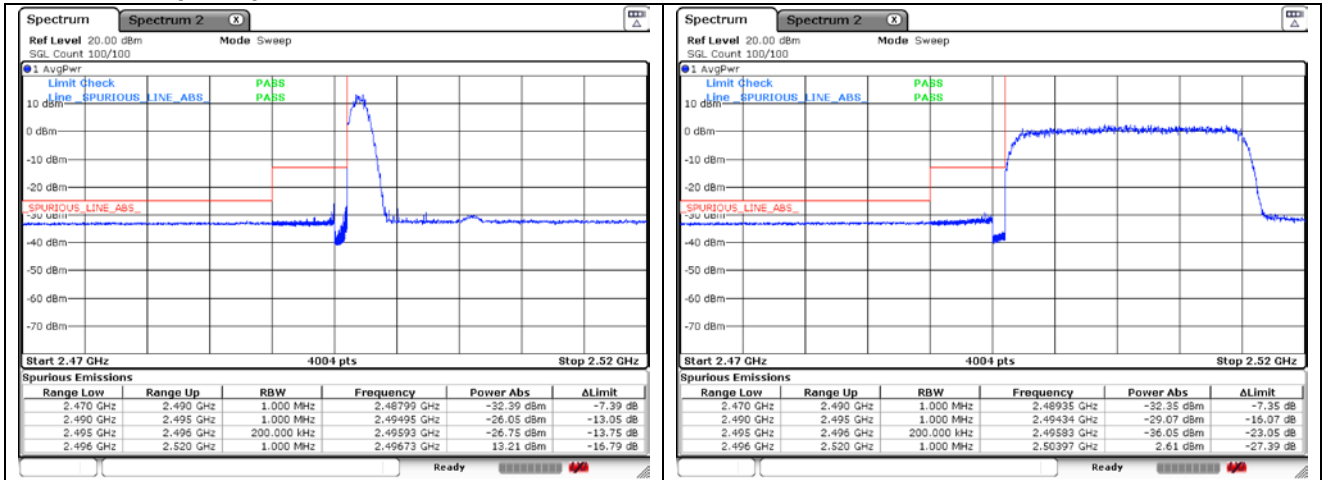
DFT-S-OFDM 16QAM - Low Channel - Full RB



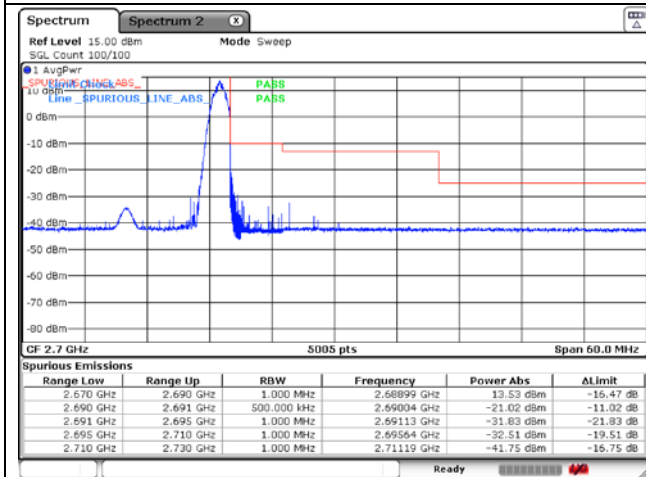
DFT-S-OFDM 16QAM - High Channel - 1 RB

DFT-S-OFDM 16QAM - High Channel - Full RB

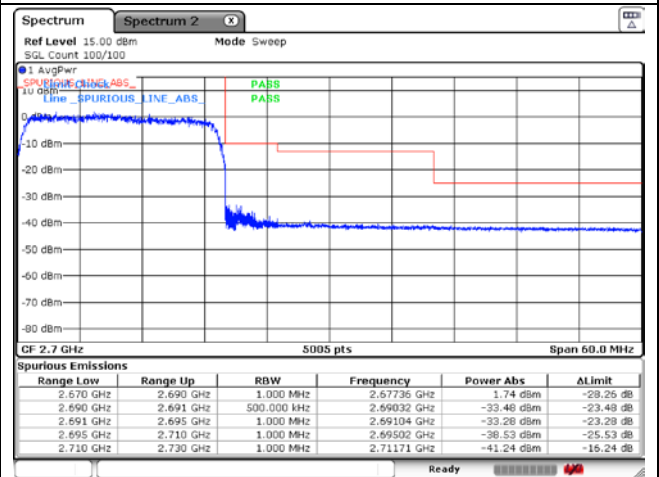
NR band 41 (20 MHz)



CP-OFDM QPSK - Low Channel - 1 RB



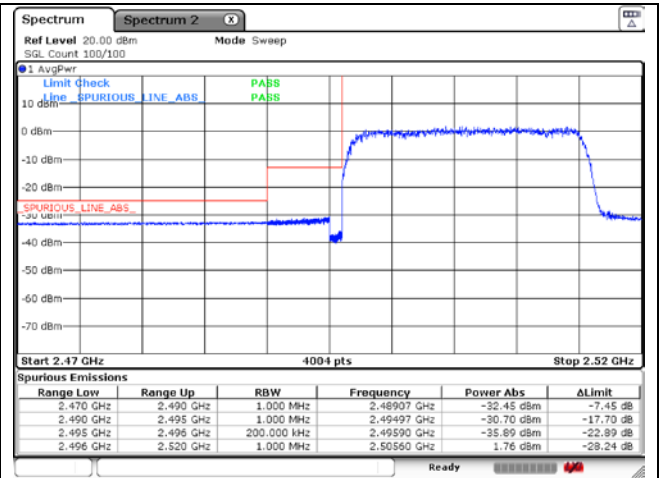
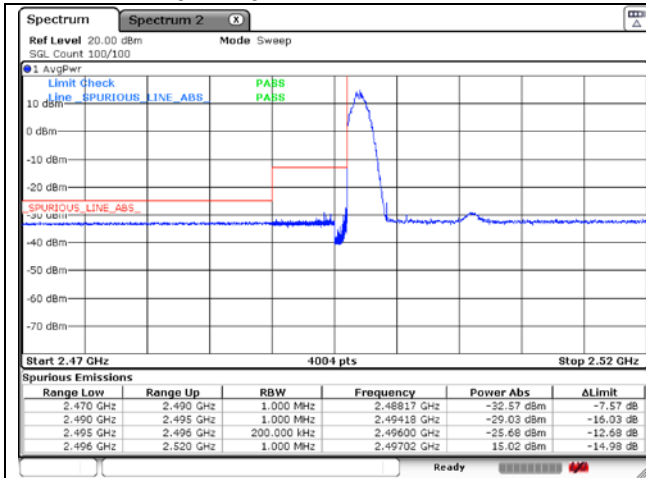
CP-OFDM QPSK Low - Channel - Full RB



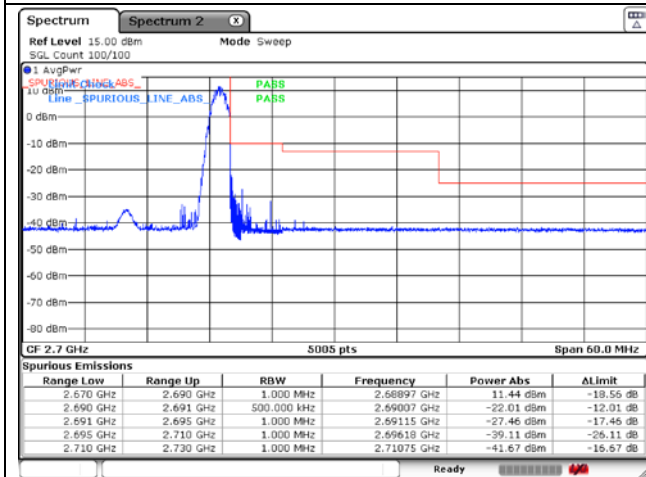
CP-OFDM QPSK - High Channel - 1 RB

CP-OFDM QPSK - High Channel - Full RB

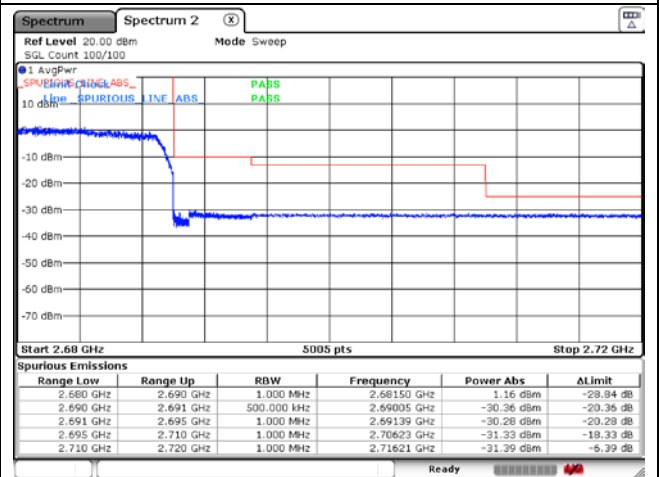
NR band 41 (20 MHz)



CP-OFDM 16QAM - Low Channel - 1 RB



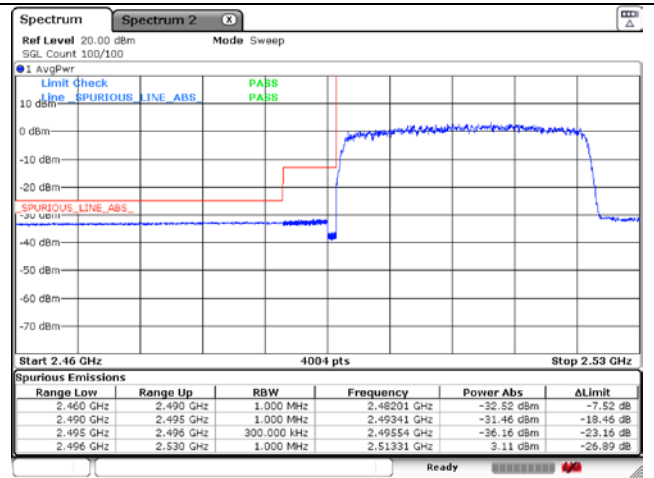
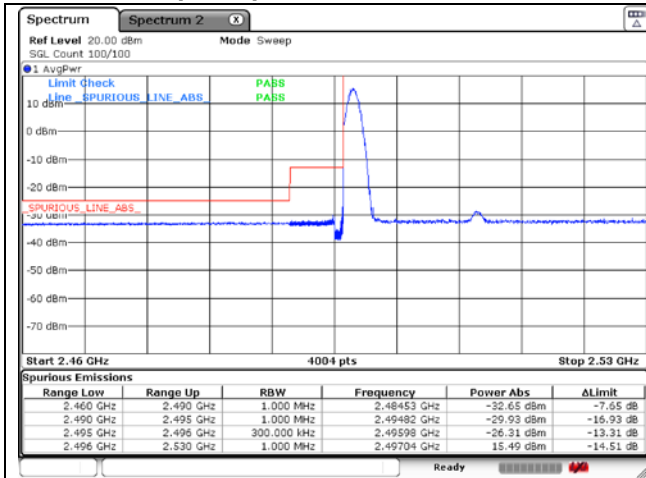
CP-OFDM 16QAM - Low Channel - Full RB



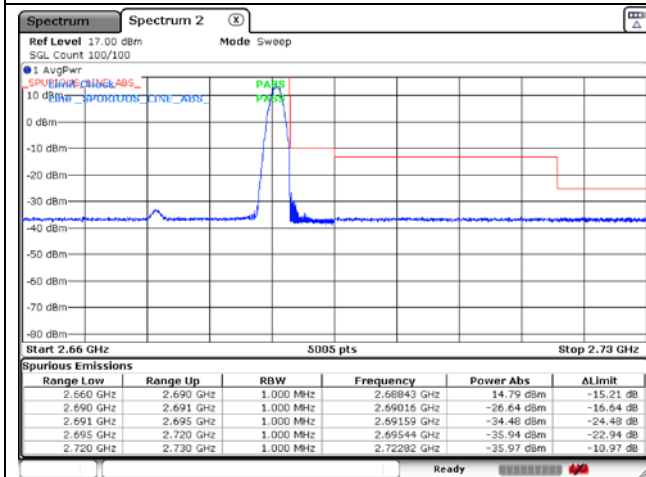
CP-OFDM 16QAM - High Channel - 1 RB

CP-OFDM 16QAM - High Channel - Full RB

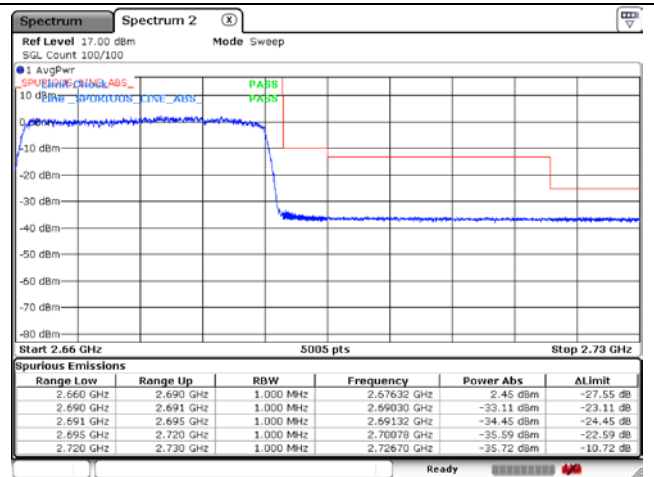
NR band 41 (30 MHz)



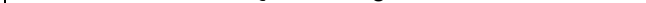
DFT-S-OFDM QPSK - Low Channel - 1 RB



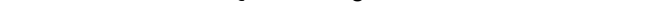
DFT-S-OFDM QPSK - Low Channel - Full RB



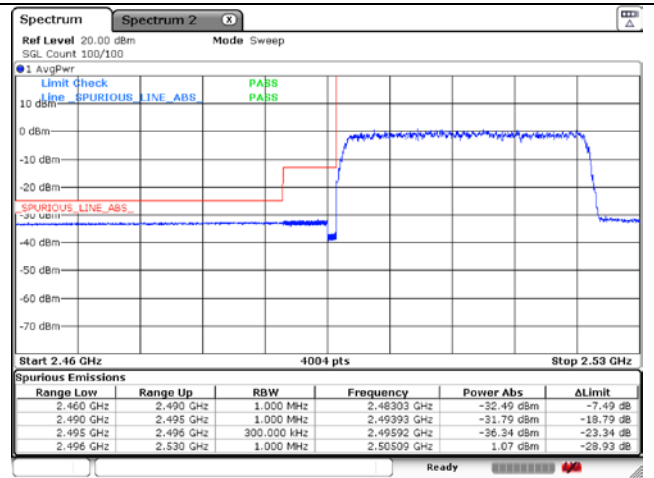
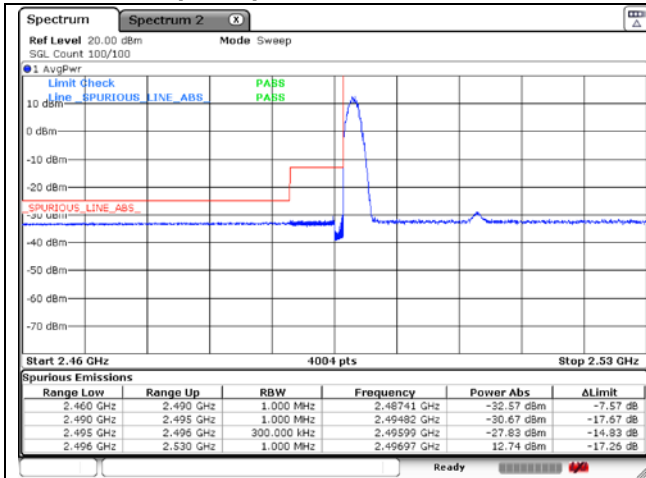
DFT-S-OFDM QPSK - High Channel - 1 RB



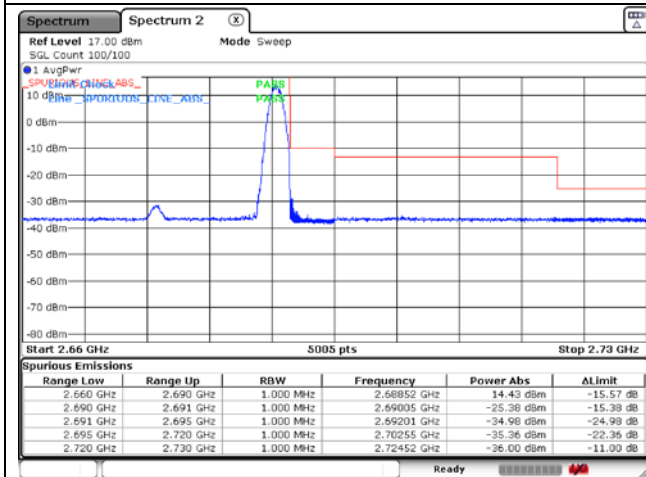
DFT-S-OFDM QPSK - High Channel - Full RB



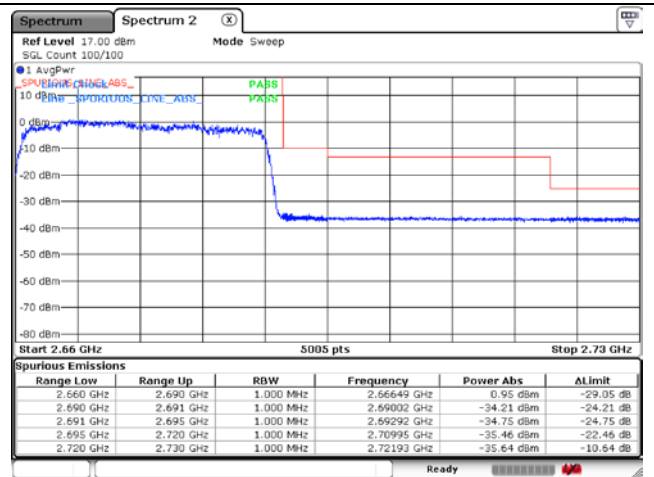
NR band 41 (30 MHz)



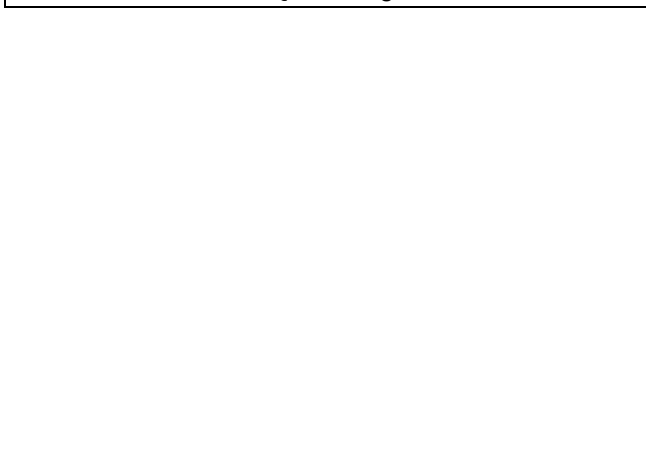
DFT-S-OFDM 16QAM - Low Channel - 1 RB



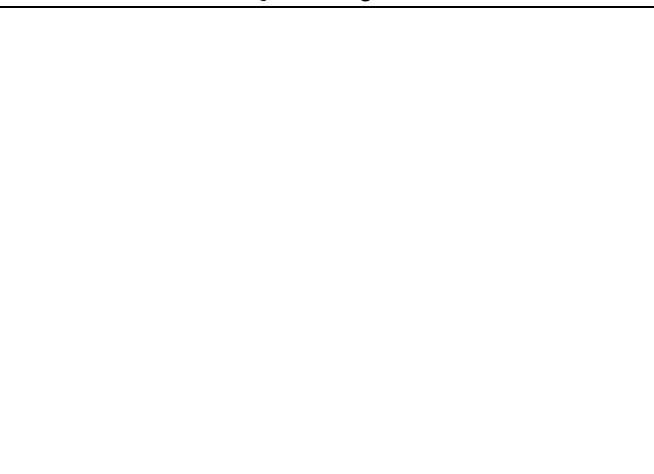
DFT-S-OFDM 16QAM - Low Channel - Full RB



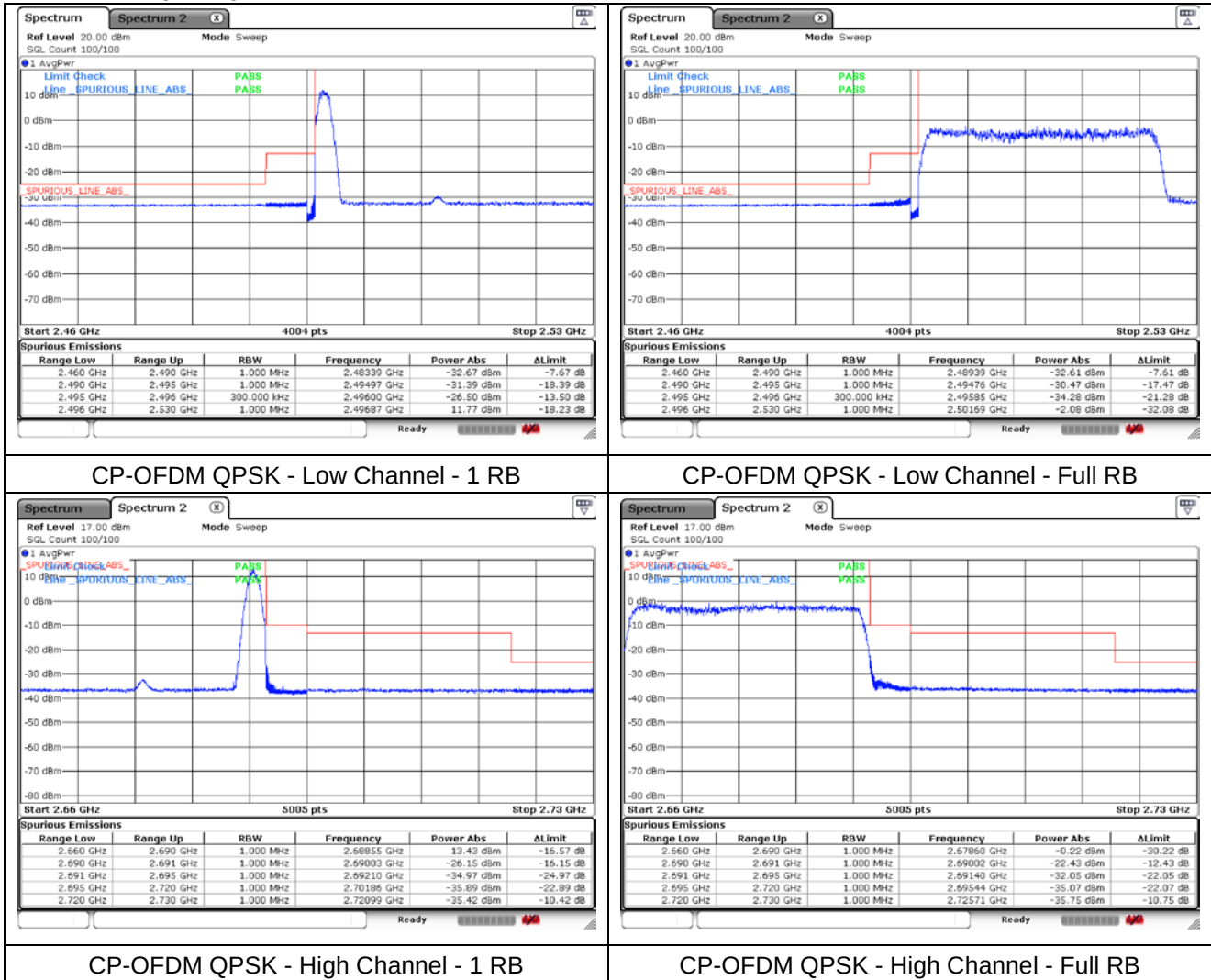
DFT-S-OFDM 16QAM - High Channel - 1 RB



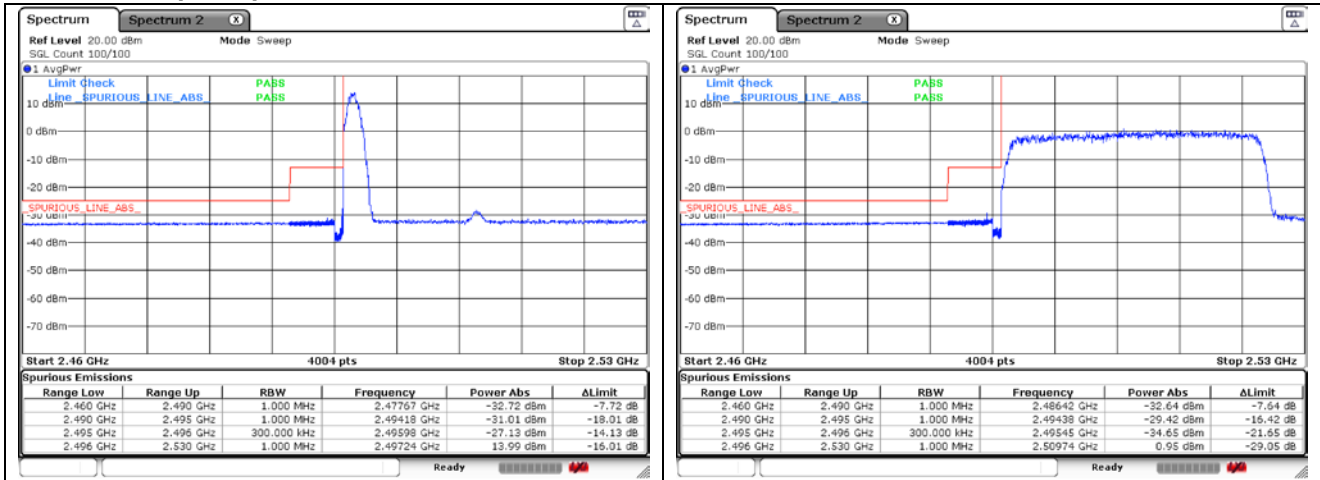
DFT-S-OFDM 16QAM - High Channel - Full RB



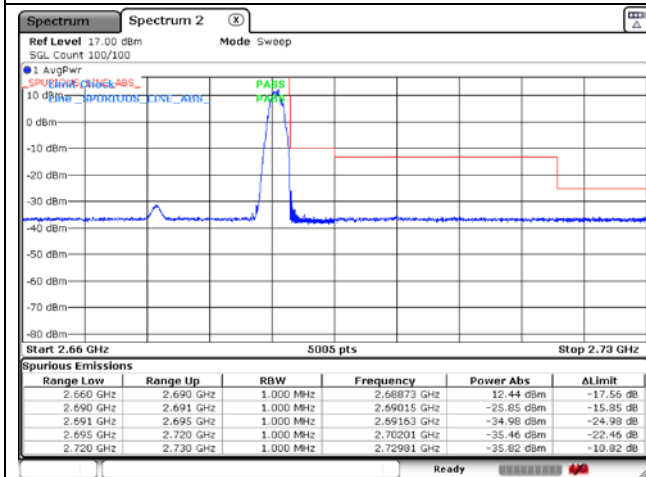
NR band 41 (30 MHz)



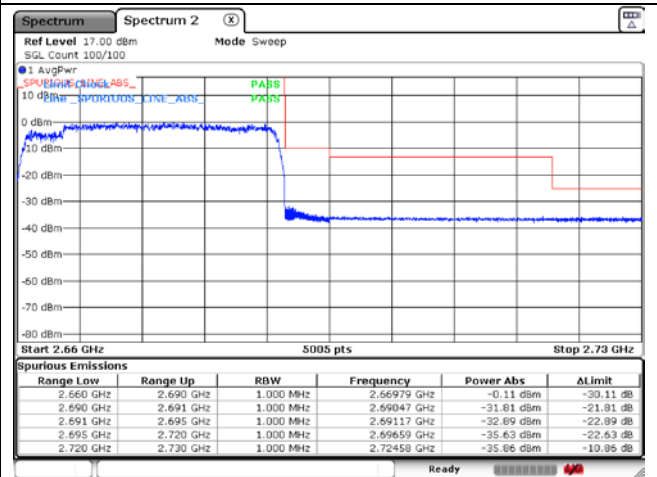
NR band 41 (30 MHz)



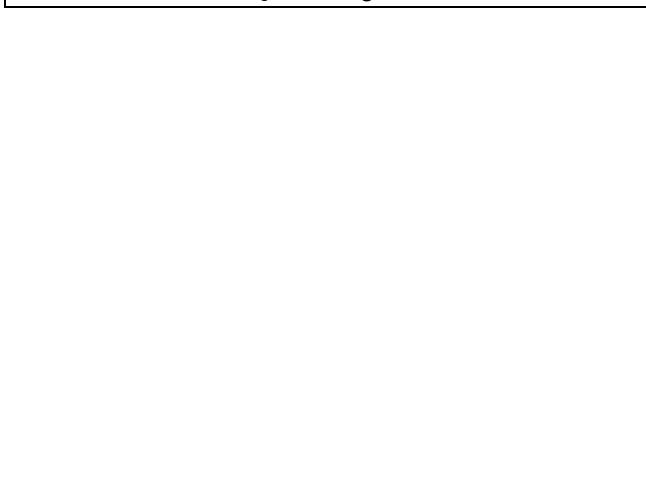
CP-OFDM 16QAM - Low Channel - 1 RB



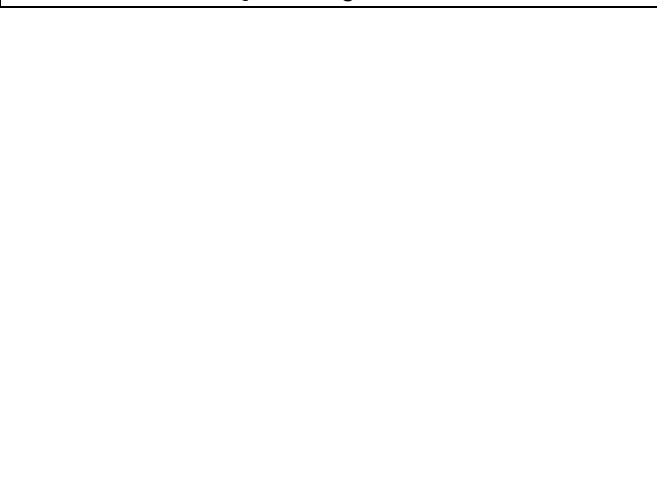
CP-OFDM 16QAM - Low Channel - Full RB



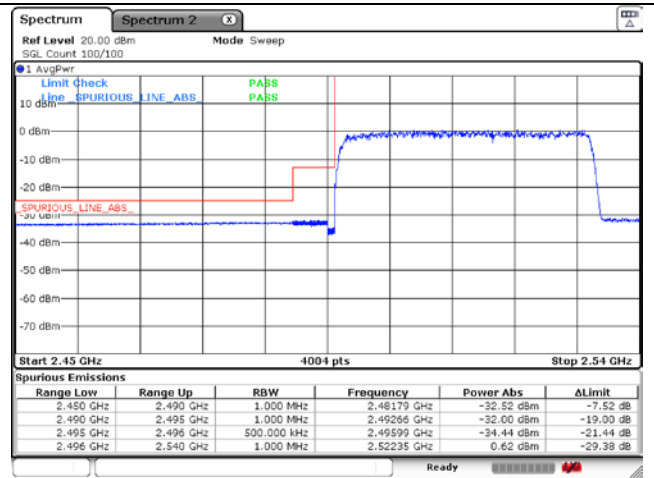
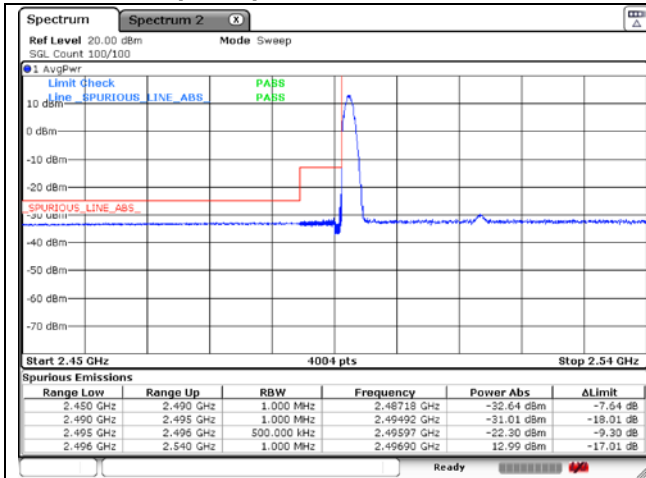
CP-OFDM 16QAM - High Channel - 1 RB



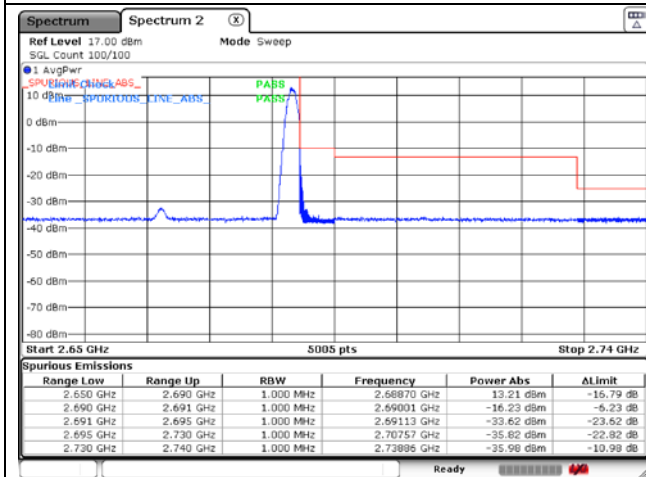
CP-OFDM 16QAM - High Channel - Full RB



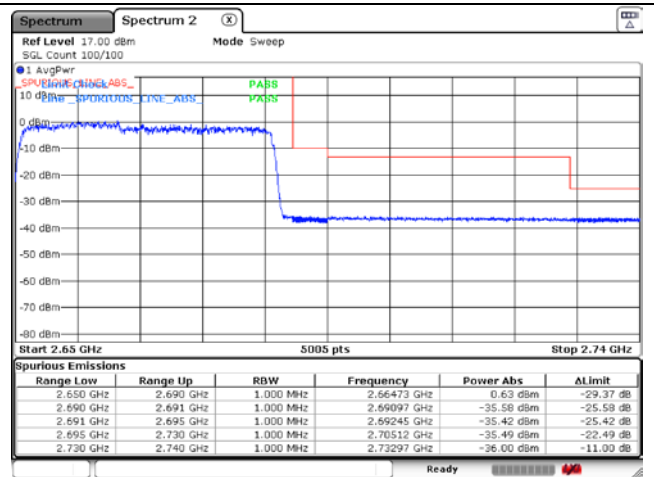
NR band 41 (40 MHz)



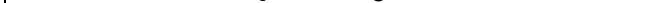
DFT-S-OFDM QPSK - Low Channel - 1 RB



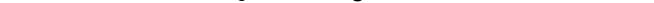
DFT-S-OFDM QPSK - Low Channel - Full RB



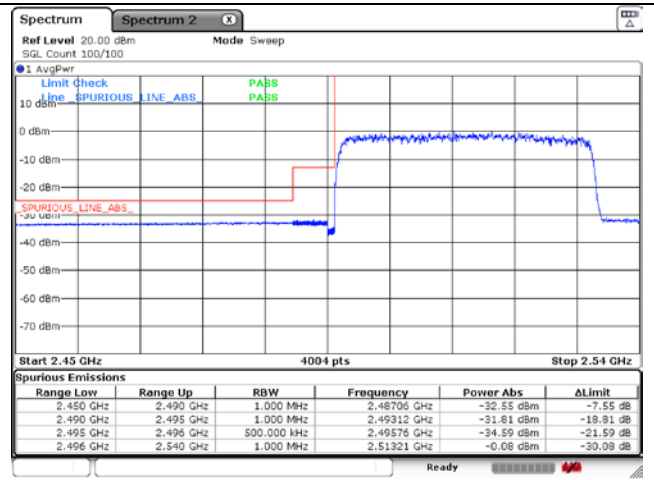
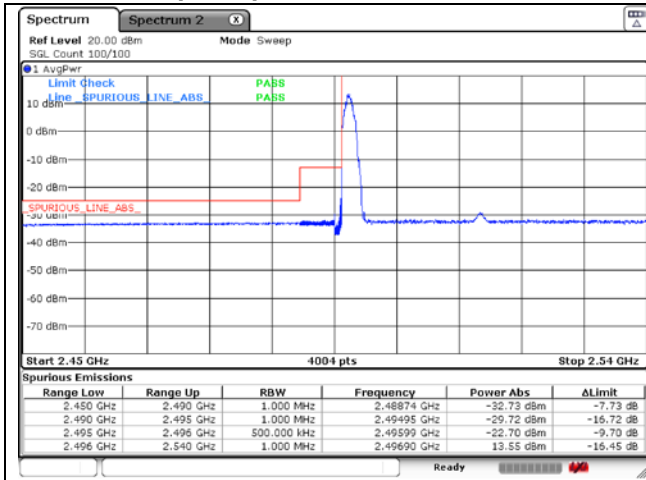
DFT-S-OFDM QPSK - High Channel - 1 RB



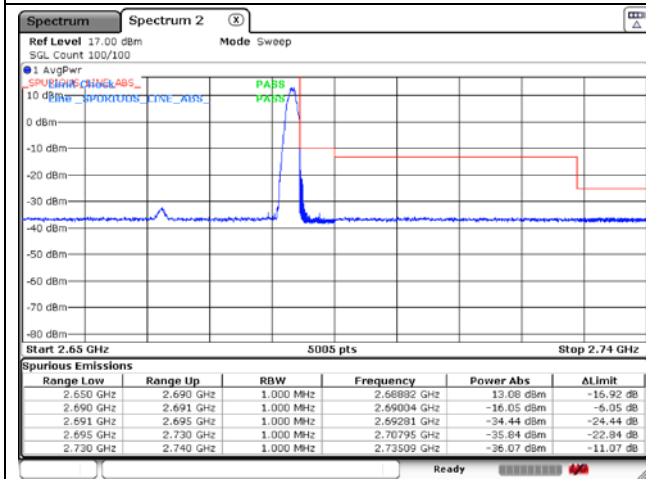
DFT-S-OFDM QPSK - High Channel - Full RB



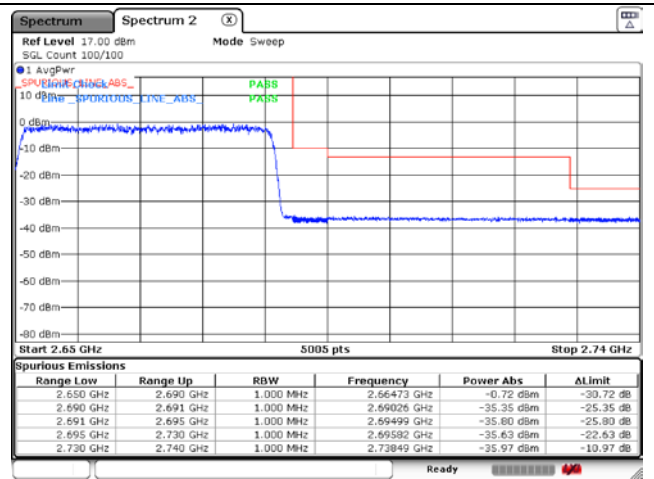
NR band 41 (40 MHz)



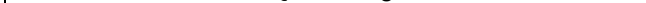
DFT-S-OFDM 16QAM - Low Channel - 1 RB



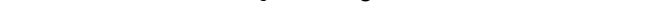
DFT-S-OFDM 16QAM - Low Channel - Full RB



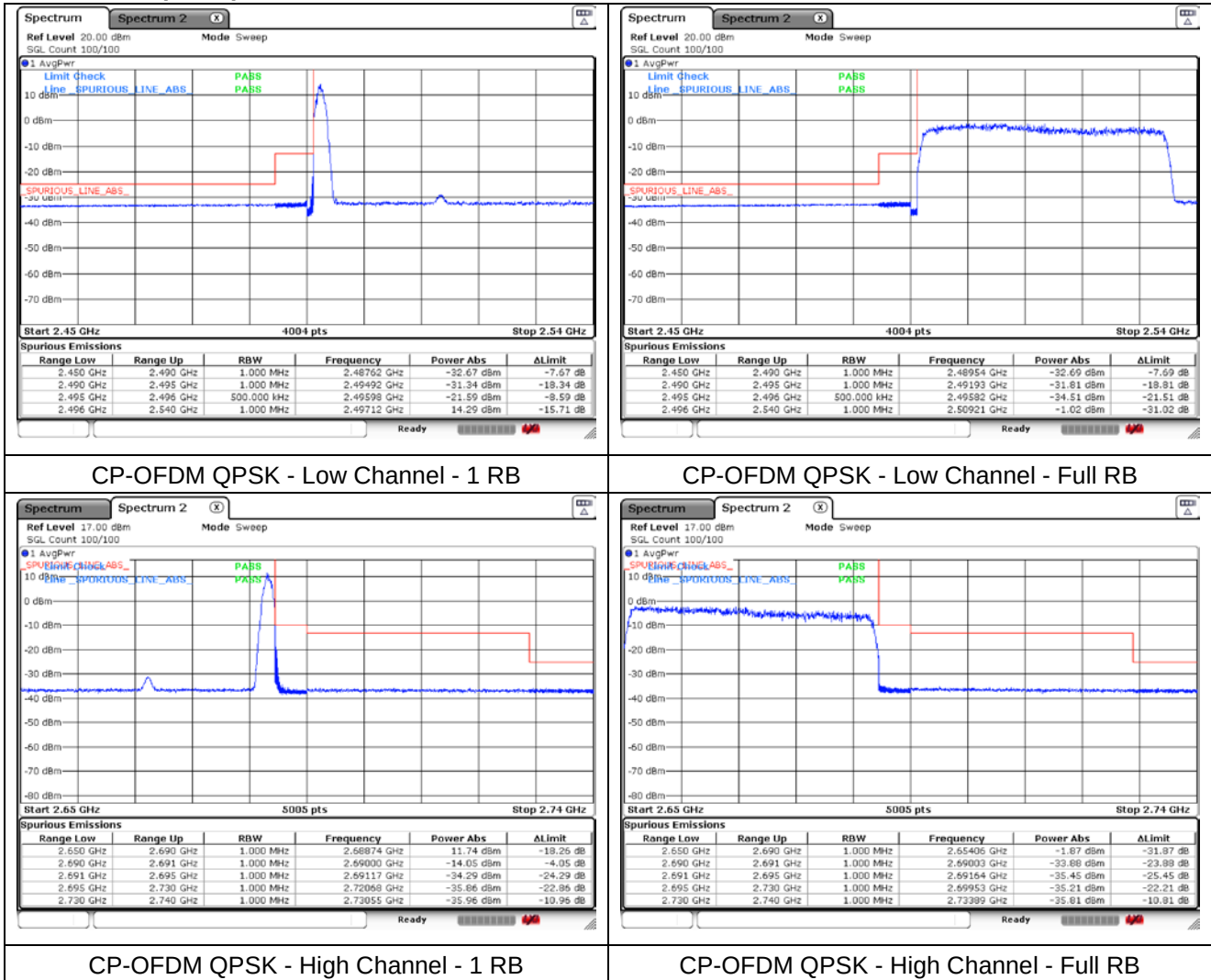
DFT-S-OFDM 16QAM - High Channel - 1 RB



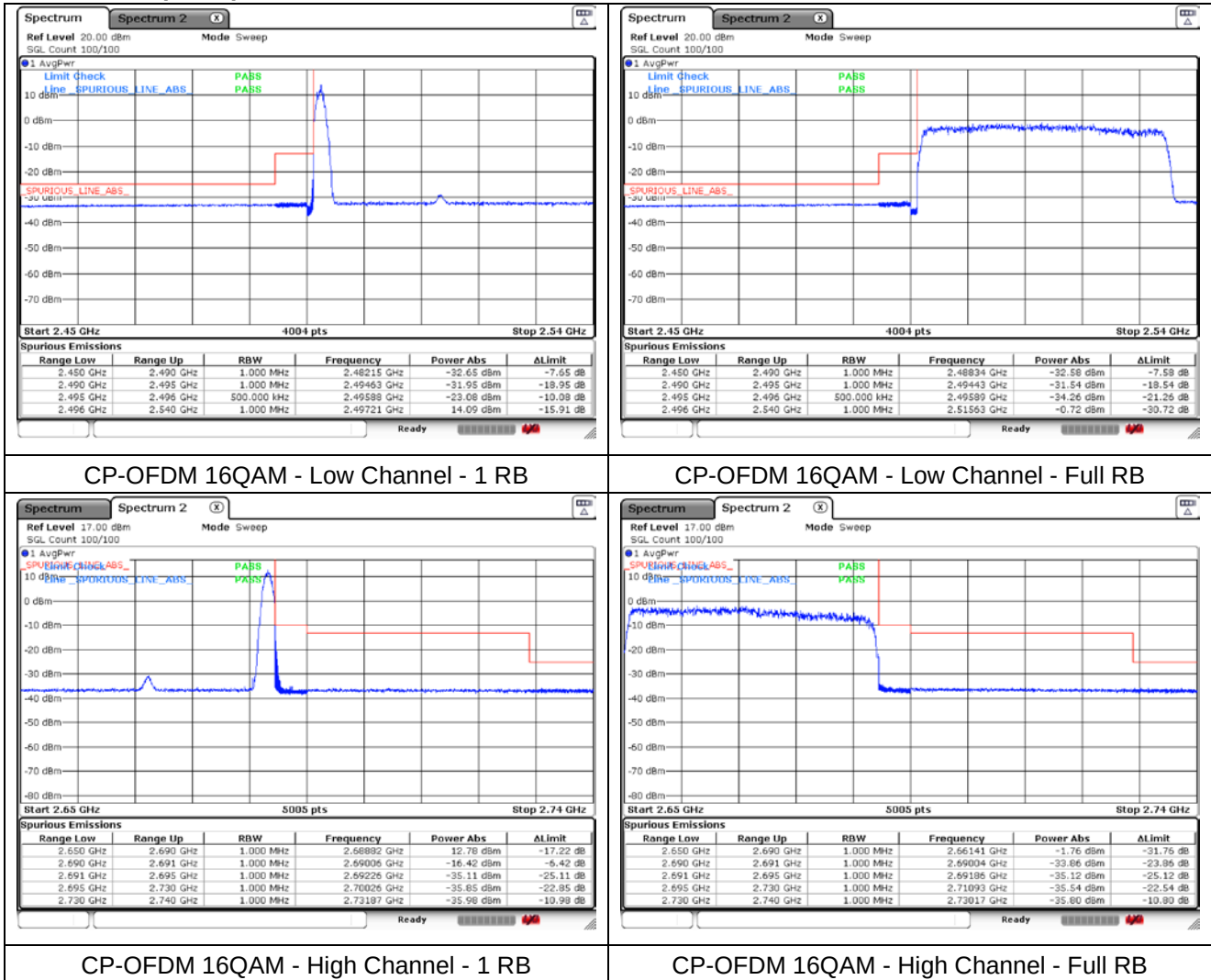
DFT-S-OFDM 16QAM - High Channel - Full RB



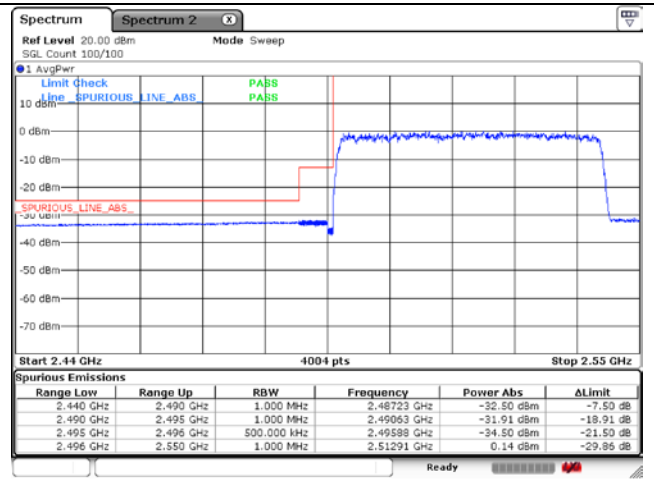
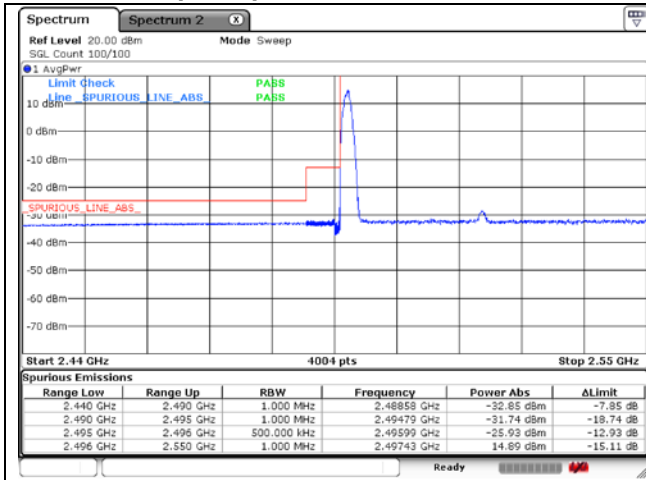
NR band 41 (40 MHz)



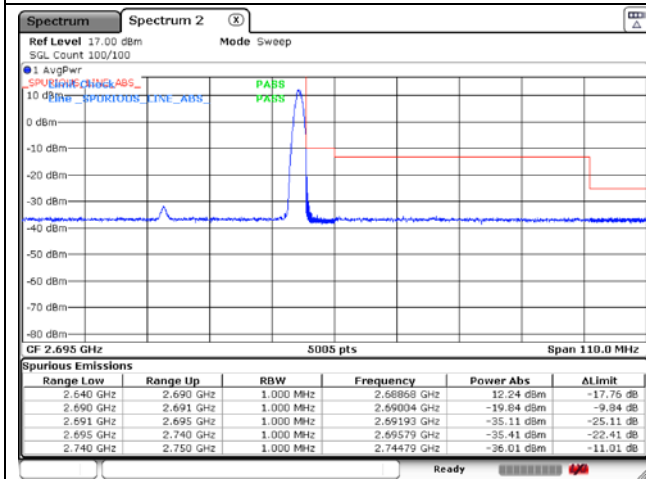
NR band 41 (40 MHz)



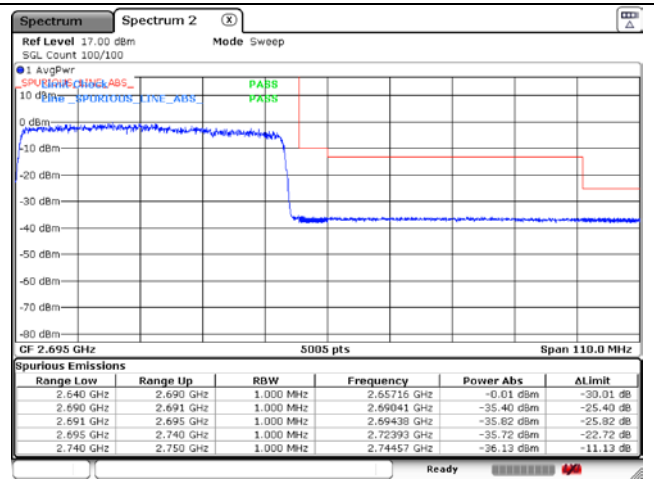
NR band 41 (50 MHz)



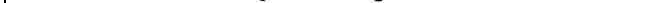
DFT-S-OFDM QPSK - Low Channel - 1 RB



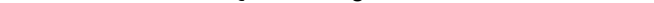
DFT-S-OFDM QPSK - Low Channel - Full RB



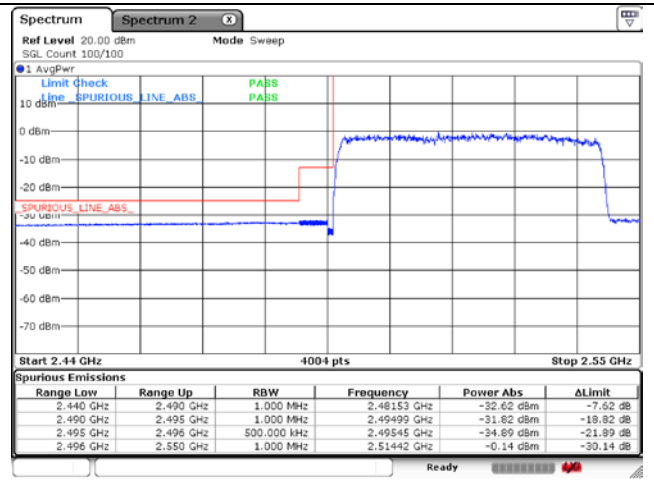
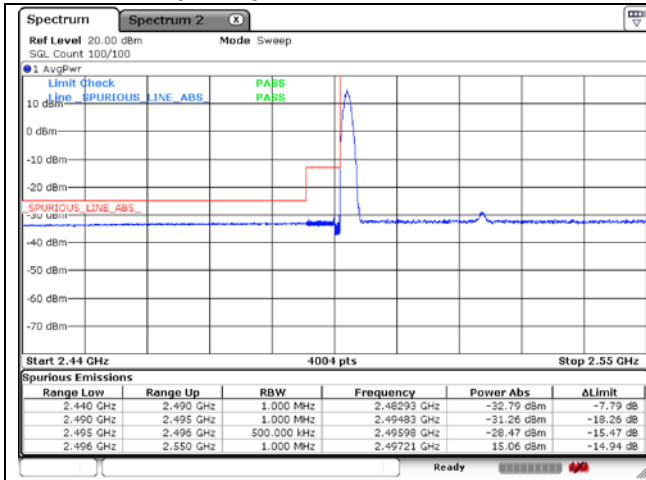
DFT-S-OFDM QPSK - High Channel - 1 RB



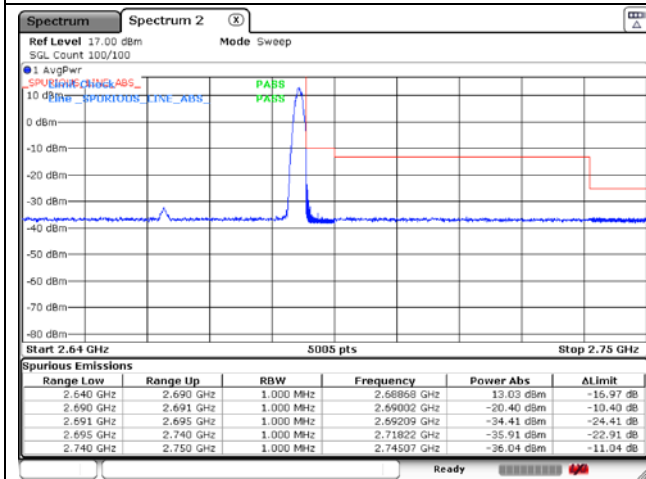
DFT-S-OFDM QPSK - High Channel - Full RB



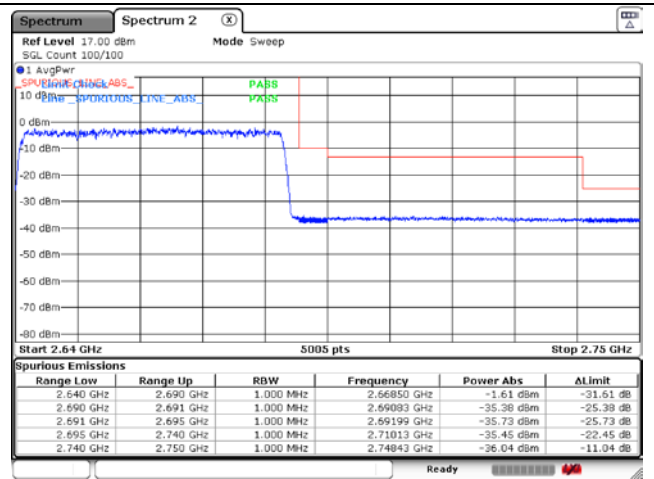
NR band 41 (50 MHz)



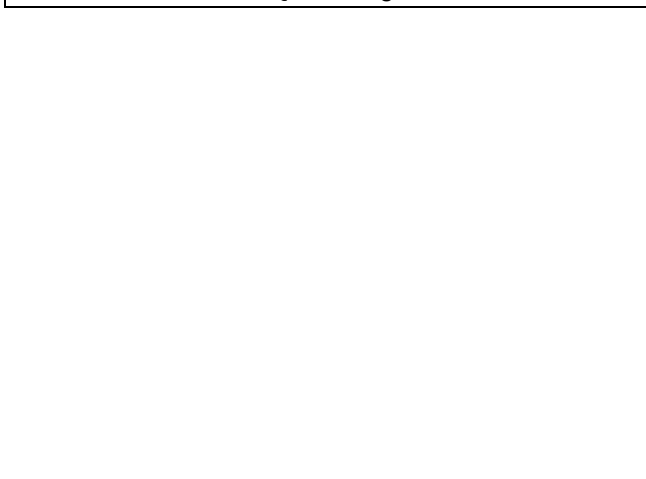
DFT-S-OFDM 16QAM - Low Channel - 1 RB



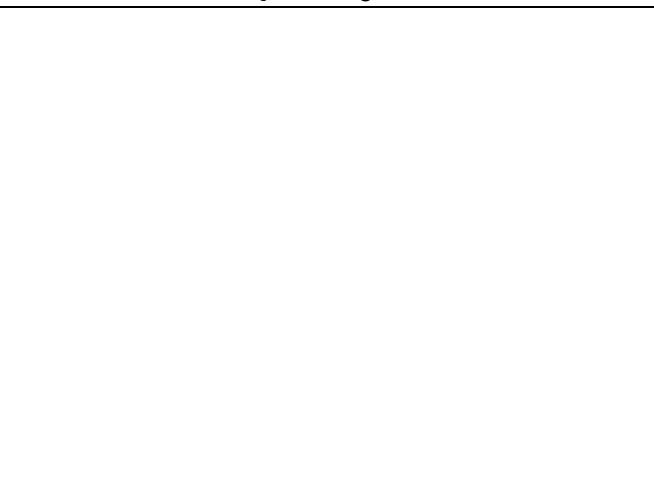
DFT-S-OFDM 16QAM - Low Channel - Full RB



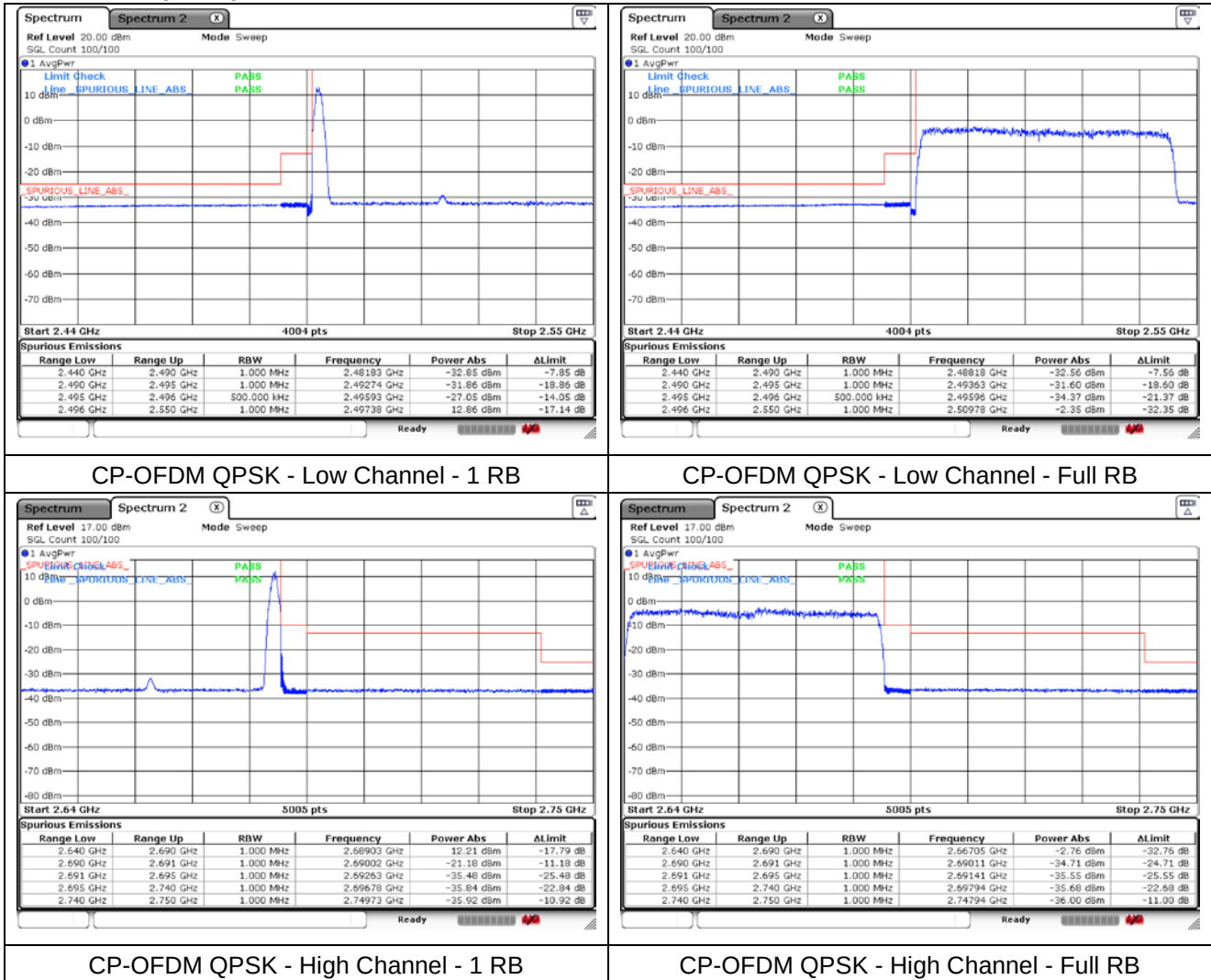
DFT-S-OFDM 16QAM - High Channel - 1 RB



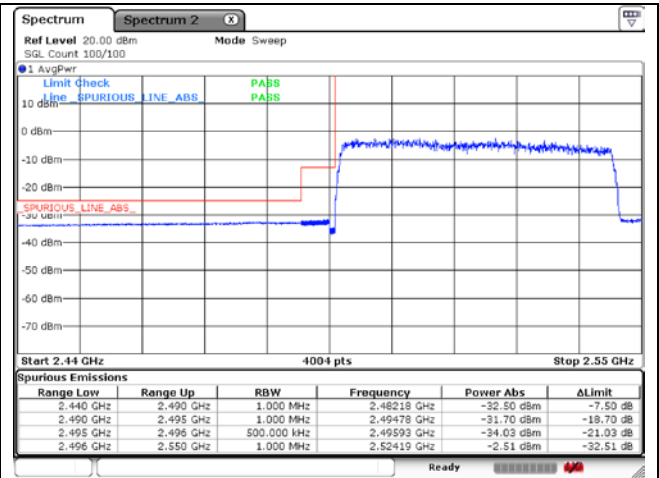
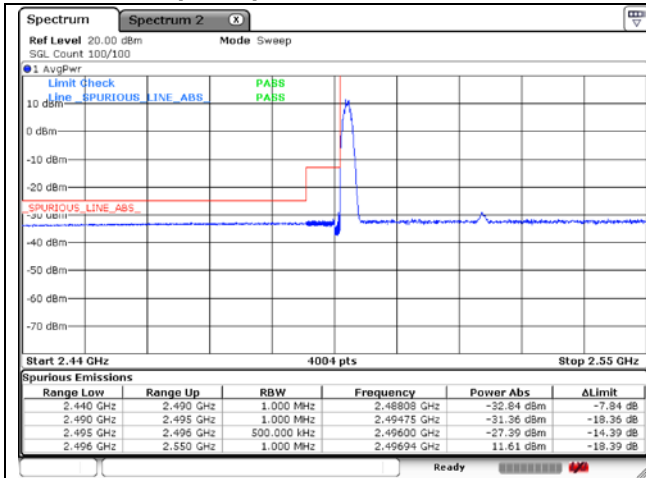
DFT-S-OFDM 16QAM - High Channel - Full RB



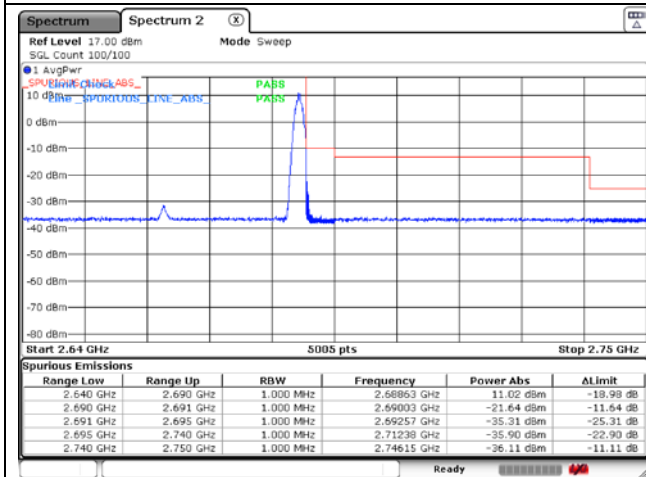
NR band 41 (50 MHz)



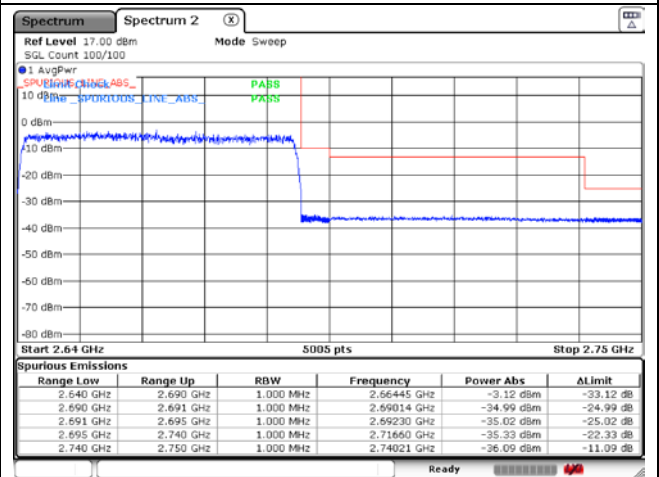
NR band 41 (50 MHz)



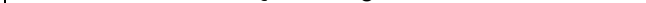
CP-OFDM 16QAM - Low Channel - 1 RB



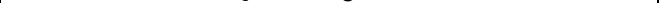
CP-OFDM 16QAM - Low Channel - Full RB



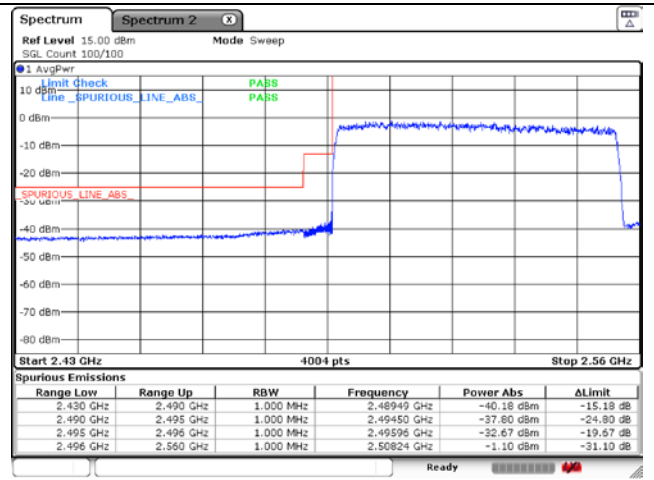
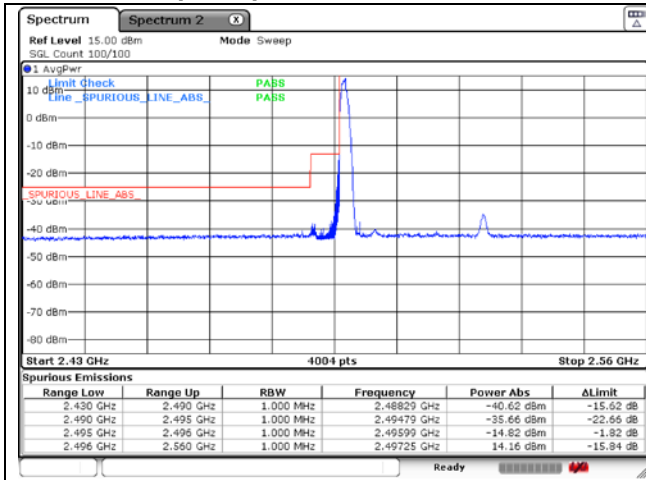
CP-OFDM 16QAM - High Channel - 1 RB



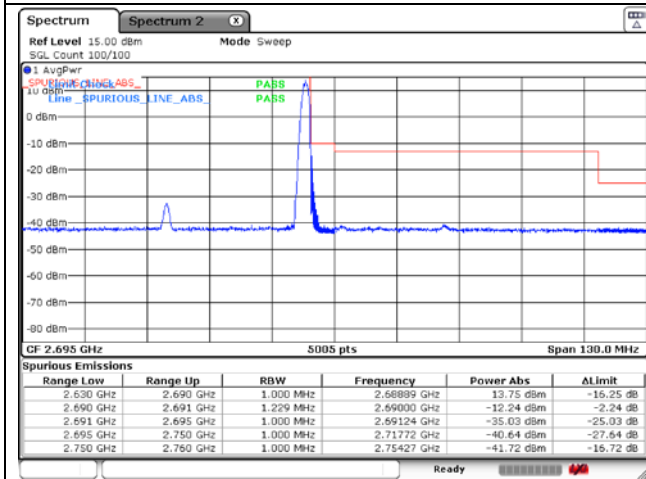
CP-OFDM 16QAM - High Channel - Full RB



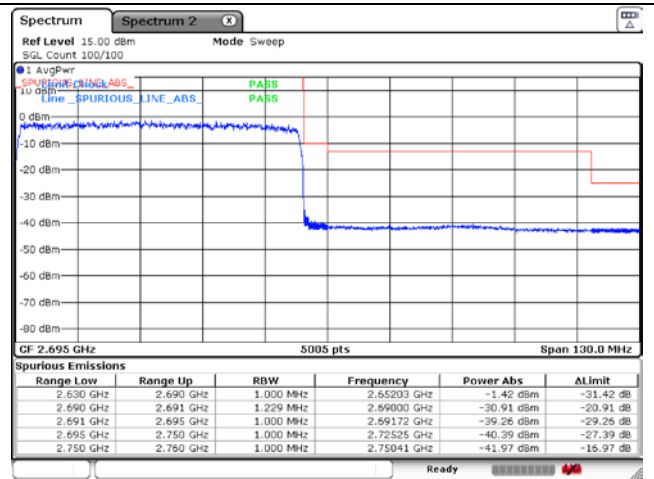
NR band 41 (60 MHz)



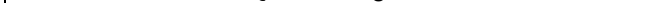
DFT-S-OFDM QPSK - Low Channel - 1 RB



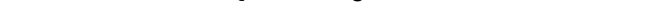
DFT-S-QFDM BPSK - Low Channel - Full RB



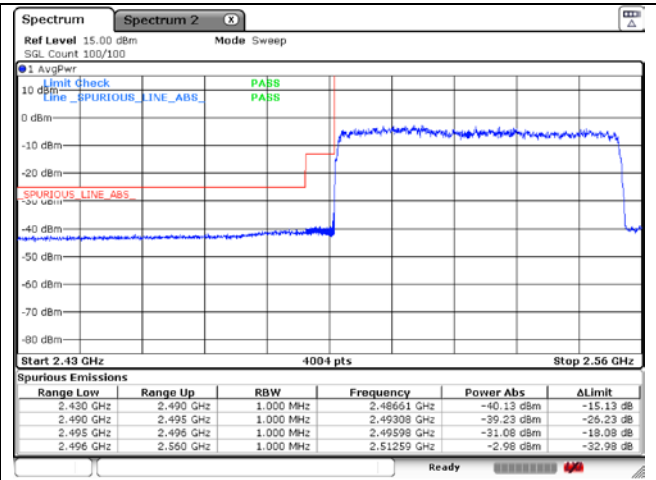
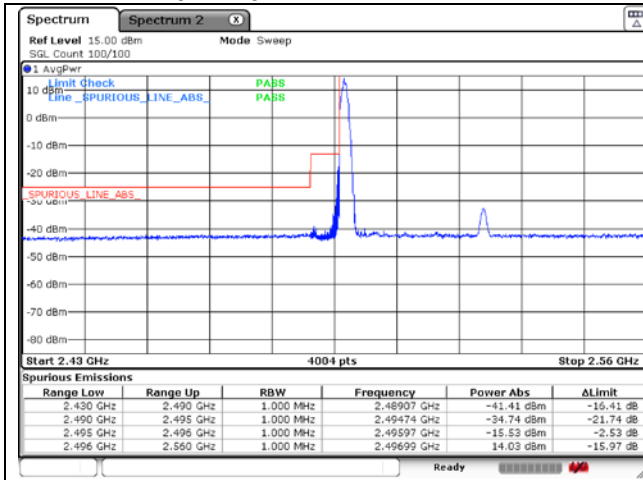
DFT-S-OFDM QPSK - High Channel - 1 RB



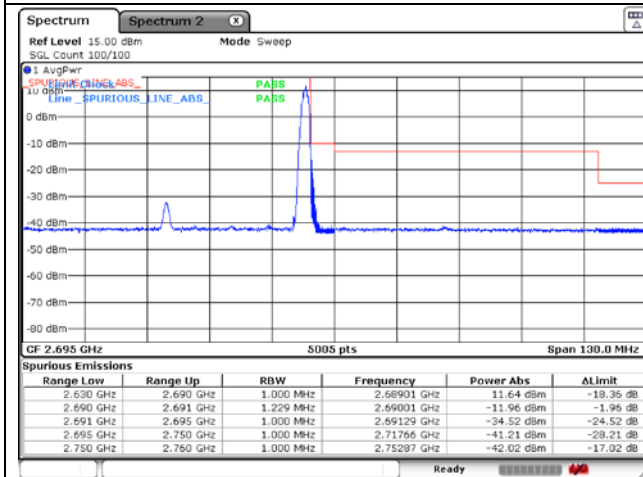
DFT-S-OFDM QPSK - High Channel - Full RB



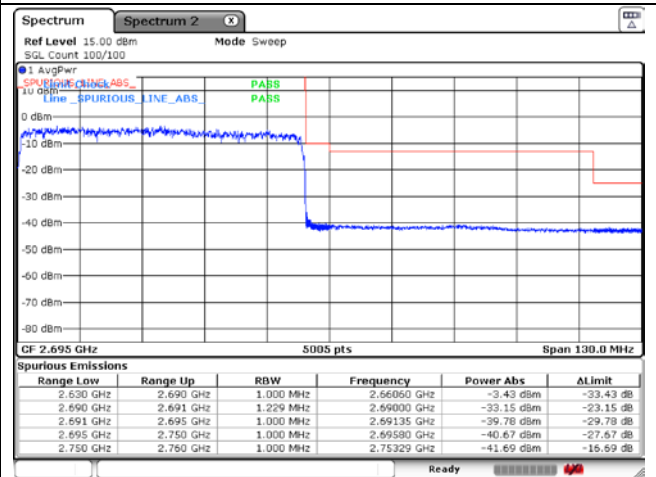
NR band 41 (60 MHz)



DFT-S-OFDM 16QAM - Low Channel - 1 RB



DFT-S-OFDM 16QAM - Low Channel - Full RB



DFT-S-OFDM 16QAM - High Channel - 1 RB

DFT-S-OFDM 16QAM - High Channel - Full RB

NR band 41 (60 MHz)

