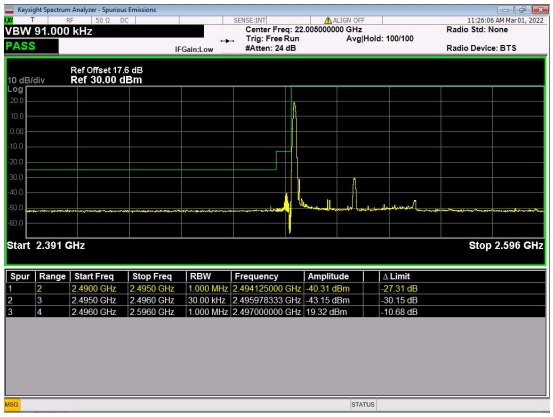
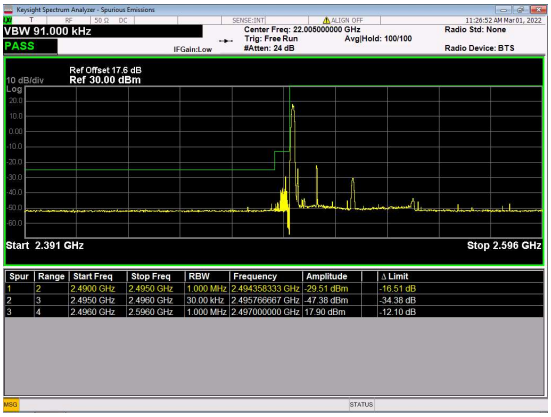
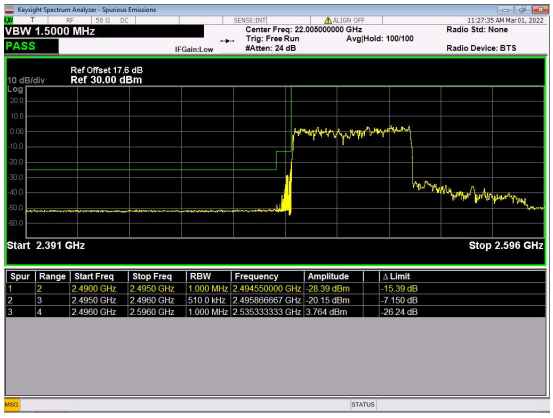
n41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



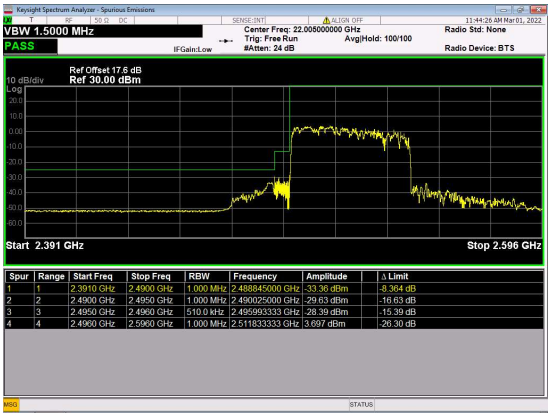
n41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



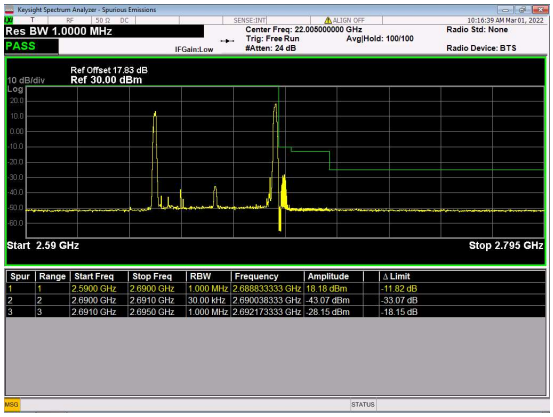
n41(50M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



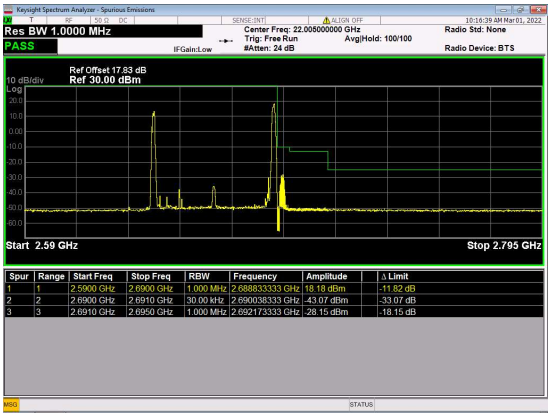
n41(50M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



n41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



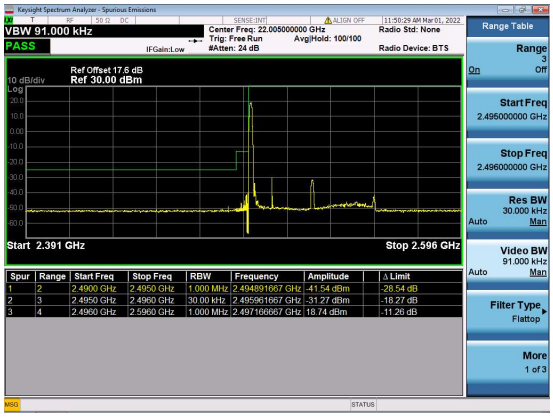
n41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



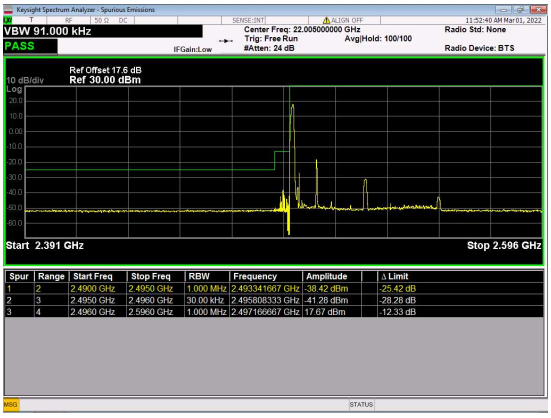
n41(50M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

n41(50M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

n41(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

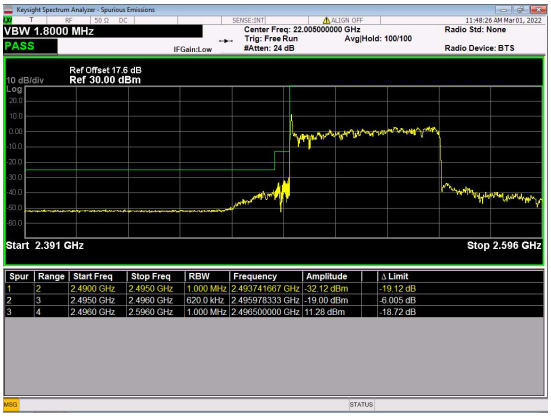


n41(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

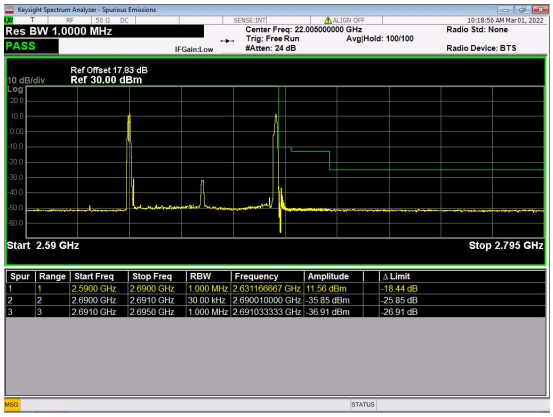


n41(60M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

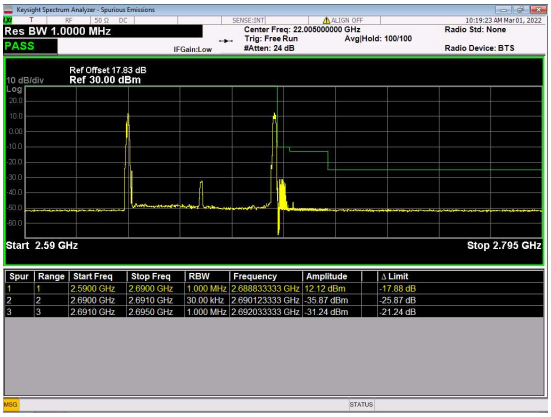
n41(60M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



n41(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

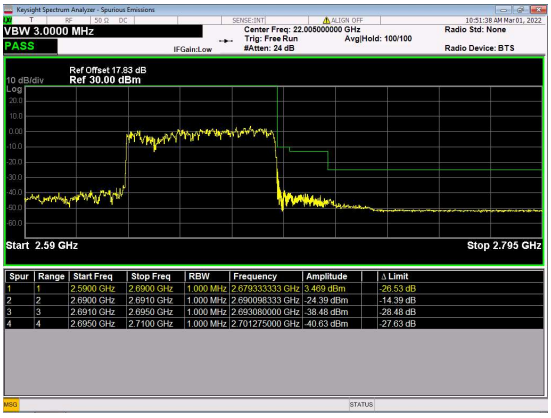


n41(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

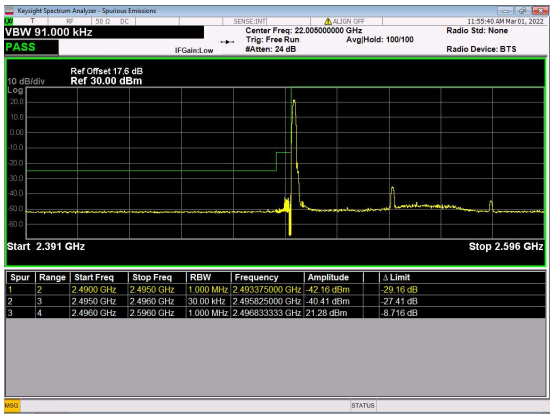


n41(60M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

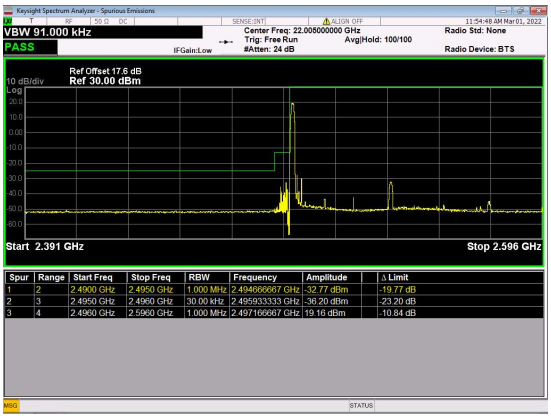
n41(60M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



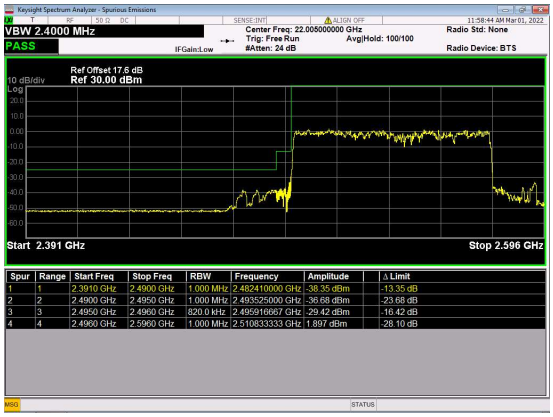
n41(80M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



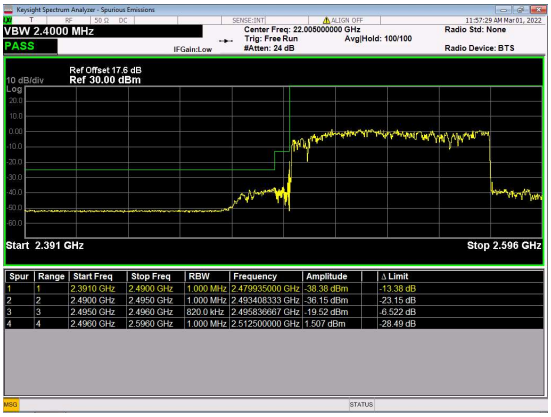
n41(80M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



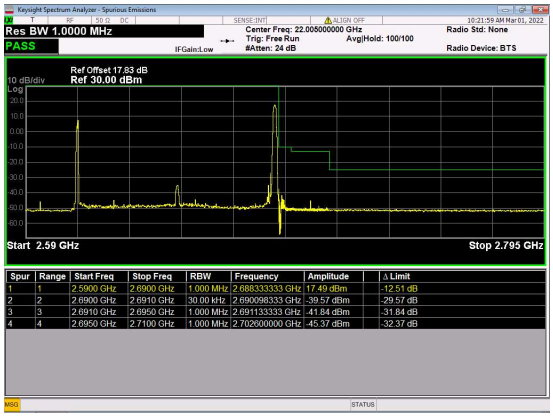
n41(80M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



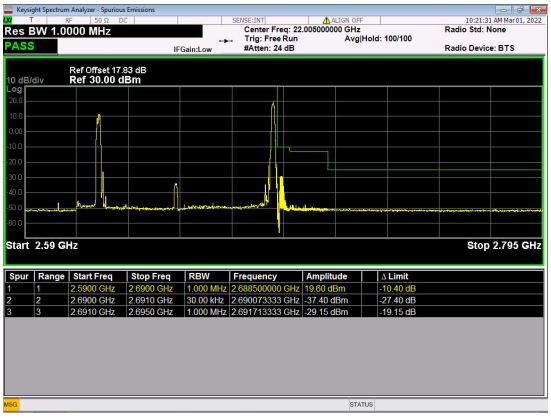
n41(80M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



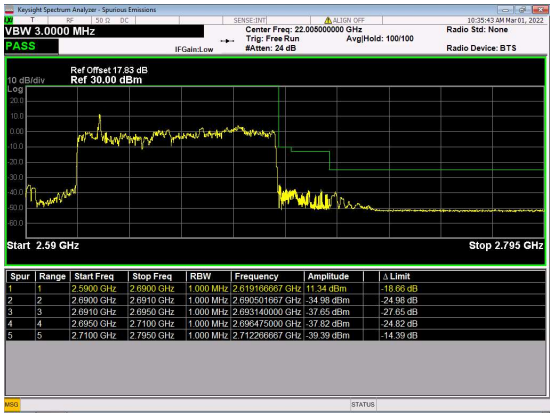
n41(80M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



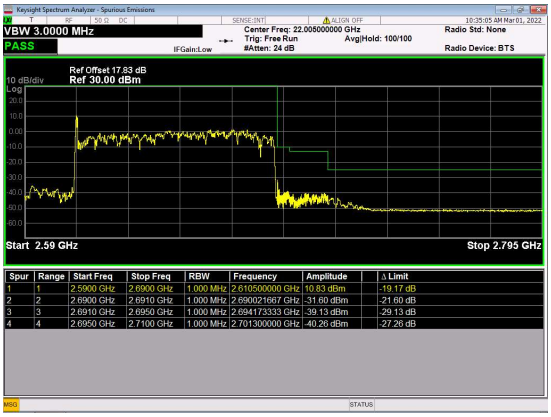
n41(80M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



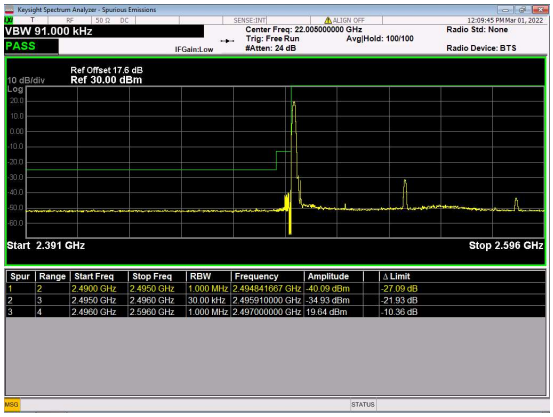
n41(80M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



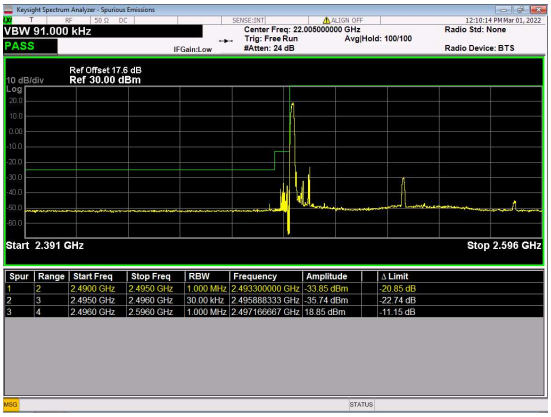
n41(80M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



n41(90M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

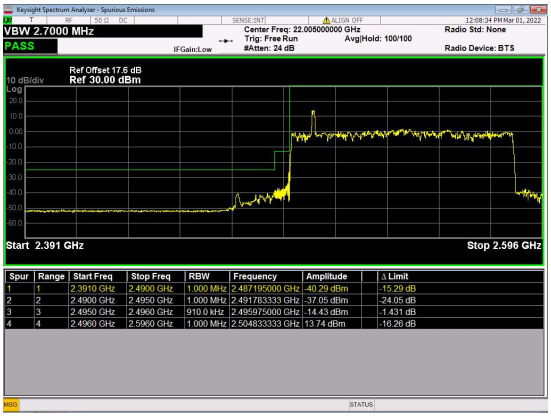


n41(90M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

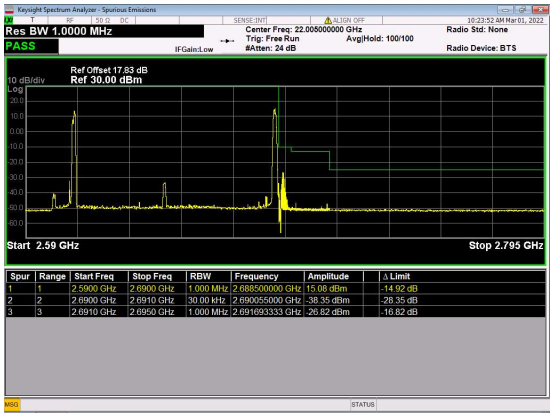


n41(90M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

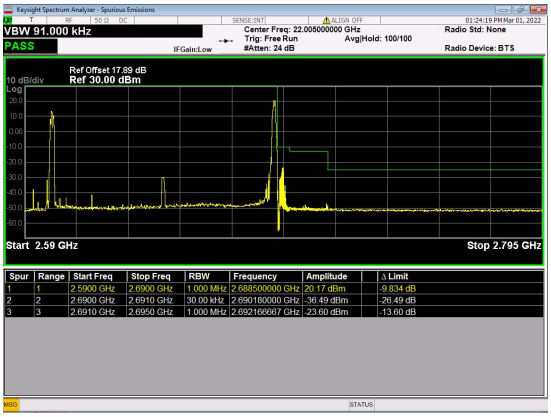
n41(90M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



n41(90M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



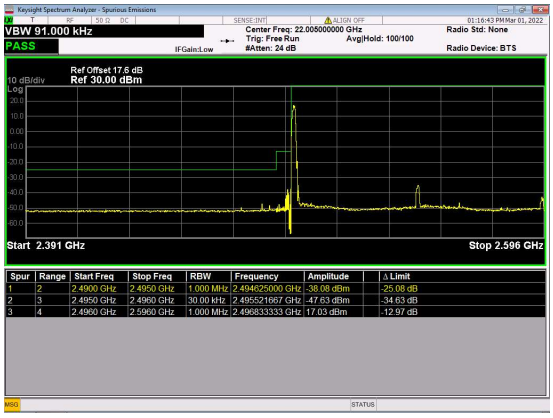
n41(90M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



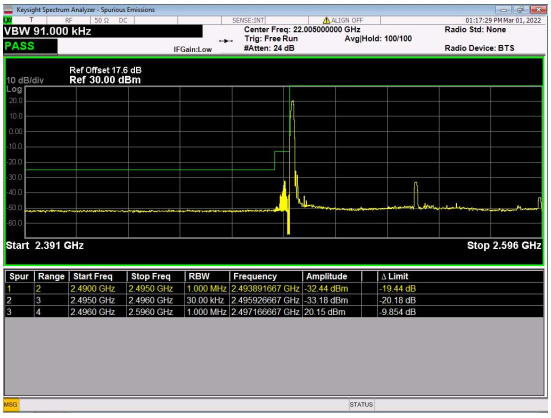
n41(90M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

n41(90M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

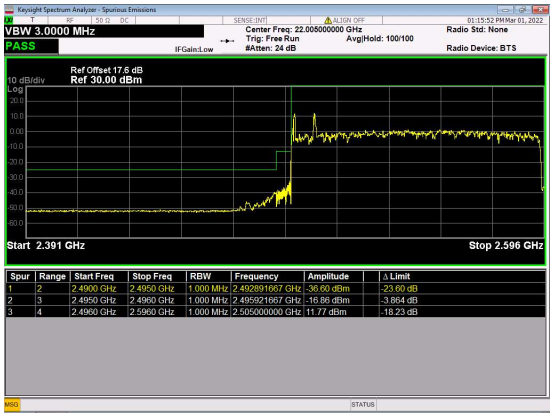
n41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



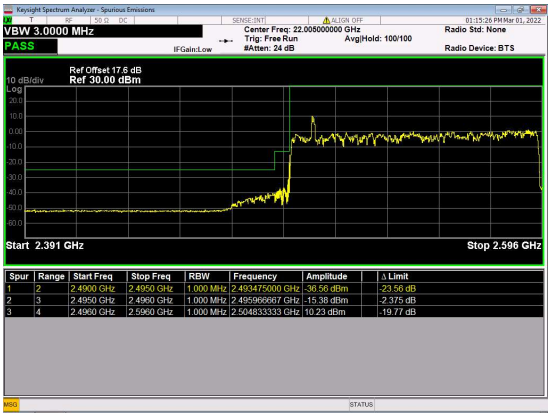
n41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



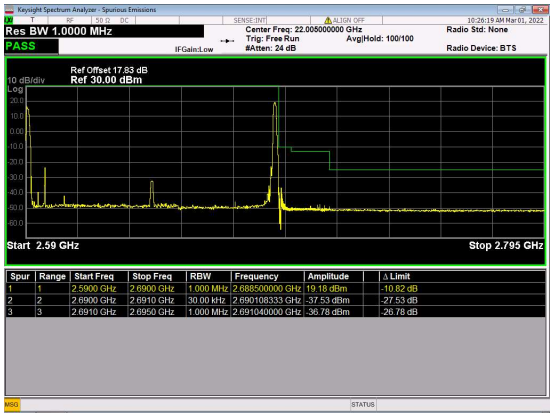
n41(100M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



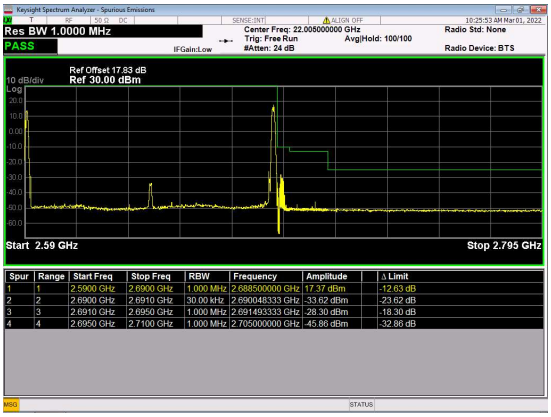
n41(100M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



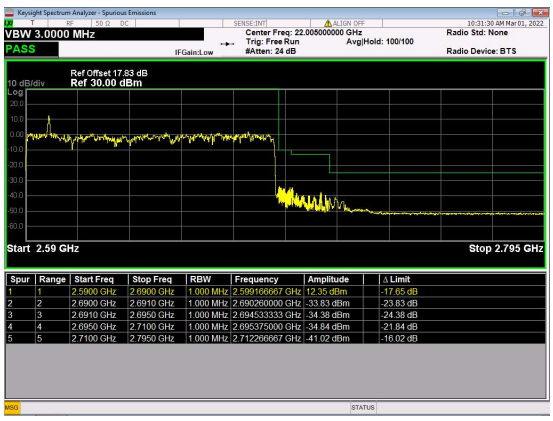
n41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



n41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



n41(100M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



n41(100M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

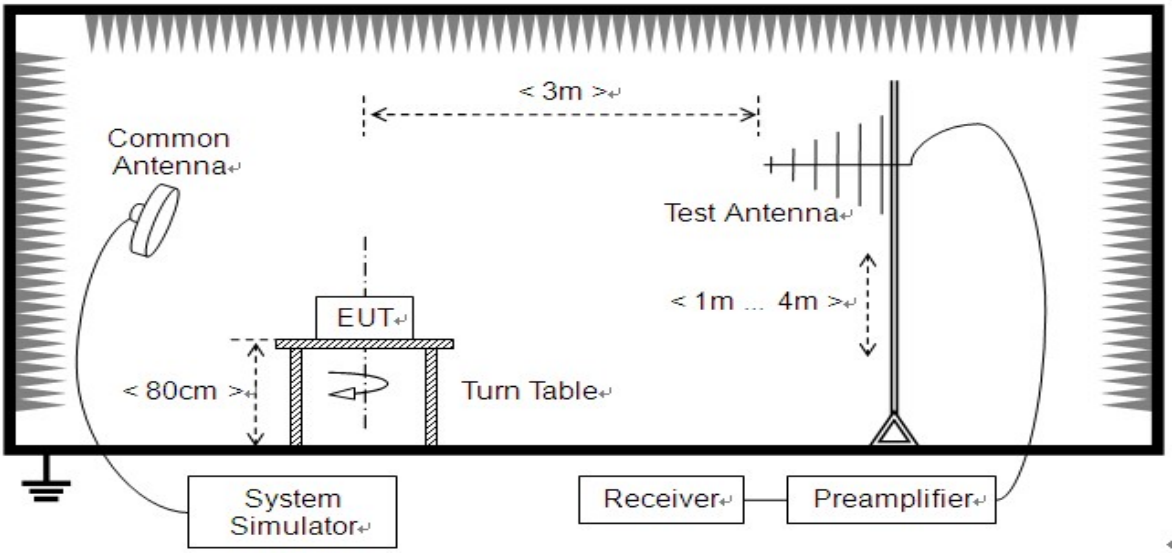
2.6. Radiated Spurious Emissions

2.6.1. Requirement

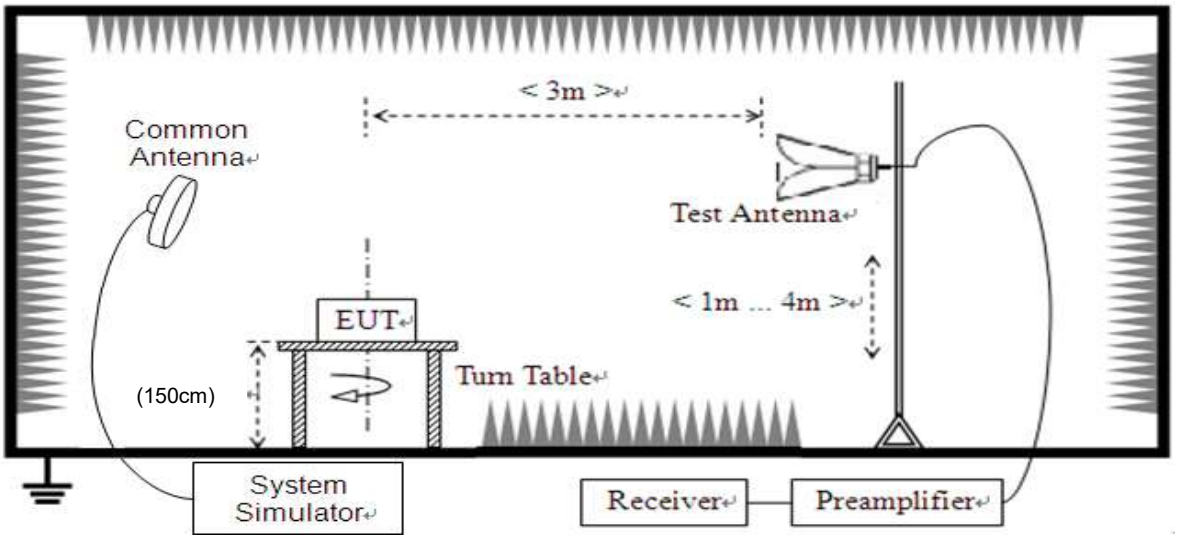
According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

According to FCC section 27.53(m)(4) for n41,The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB. This calculated to be -25dBm.

2.6.2. Test Description



(For the test frequency from 30MHz to 1GHz)



(For the test frequency above 1GHz)

The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.
A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.
In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360°to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

Note: When doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.6.3. Test procedure

KDB 971168 D01v03 Section 5.8 and ANSI/TIA-603-E-2016.

2.6.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. Test Antenna height is varied from 1m to 4m above the ground, and the Turn Table is actuated to turn from 0° to 360°, both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The substitution corrections are obtained as described below:

$A_{SUBST} = P_{SUBST_TX} - P_{SUBST_RX} - L_{SUBST_CABLES} + G_{SUBST_TX_ANT}$

$A_{TOT} = L_{CABLES} + A_{SUBST}$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

P_{SUBST_TX} is signal generator level,

P_{SUBST_RX} is receiver level,

L_{SUBST_CABLES} is cable losses including TX cable,

$G_{SUBST_TX_ANT}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

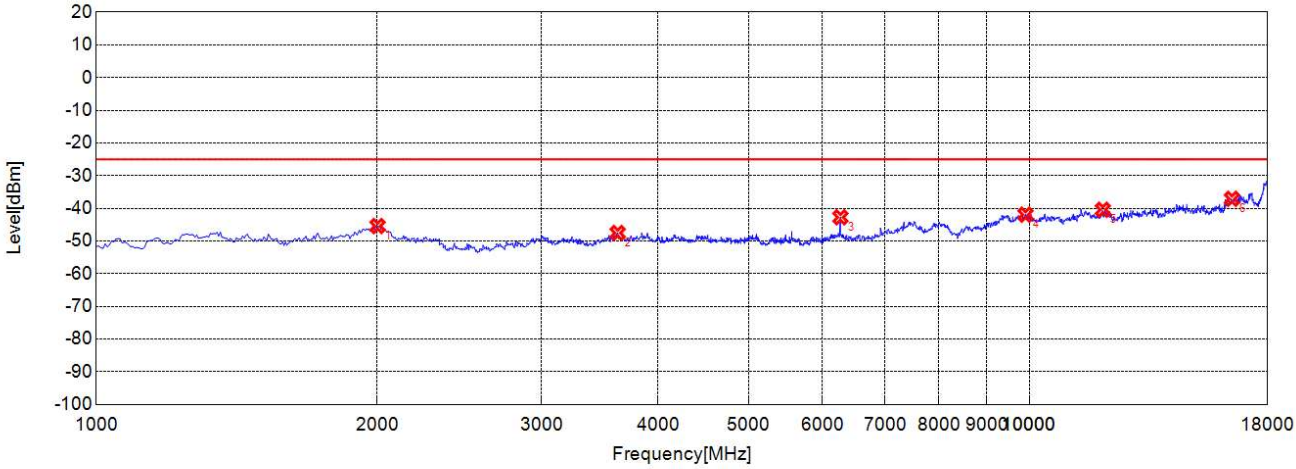
During the test, the data of A_{TOT} was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of A_{TOT}.

Note1: The power of the EUT transmitting frequency should be ignored.

Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band, only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.

Test Graph



Suspected List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Path [dB]	Air [dB]	Ant. Pol.
1	2002.0020	-45.42	-25.00	20.42	6.73	-35.2	41.9	Horiz
2	3620.6210	-47.54	-25.00	22.54	2.90	-36.3	39.2	Horiz
3	6274.2740	-42.74	-25.00	17.74	6.57	-35.4	42.0	Horiz
4	9907.4070	-41.94	-25.00	16.94	14.25	-34.0	48.3	Horiz
5	11990.991	-40.42	-25.00	15.42	16.81	-32.4	49.3	Horiz
6	16491.992	-37.1	-25.00	12.10	23.52	-27.9	51.4	Horiz

DC_2A_n41 509202 100M DFT-s-OFDM QPSK RB Size-1 RB Offset-1 SCS 30KHz 1G-18G H