

RSS-247 5.4 (b) / FCC 15.247 (b) (1) [Pkcp] Maximum Peak Conducted output power

Limits

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 hopping channels: 1 watt (30 dBm).

The conducted output power limit is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Results

The maximum peak conducted output power level of the fundamental emission was measured according to clause 7.8.5 "Output power test procedure for frequency-hopping spread-spectrum (FHSS) devices" of ANSI C63.10-2013.

The EIRP power (dBm) is calculated by adding the maximum declared antenna gain to the measured conducted power.

Maximum Declared Antenna Gain: 1.57 dBi

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

Modulation: BT (GFSK 1-DH5)

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Peak Power (dBm)	Peak Power E.I.R.P (dBm)
2402.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	2	-3.30	-1.73
2441.00000		1	1	2	-1.70	-0.13
2480.00000		1	1	2	-2.00	-0.43

Modulation: BT (Pi/4 DQPSK 2-DH5)

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Peak Power (dBm)	Peak Power E.I.R.P (dBm)
2402.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	2	-3.10	-1.53
2441.00000		1	1	2	-1.50	0.07
2480.00000		1	1	2	-1.90	-0.33

Modulation: BT (8DPSK 3-DH5)

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Peak Power (dBm)	Peak Power E.I.R.P (dBm)
2402.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	2	-2.90	-1.33
2441.00000		1	1	2	-1.20	0.37
2480.00000		1	1	2	-1.50	0.07

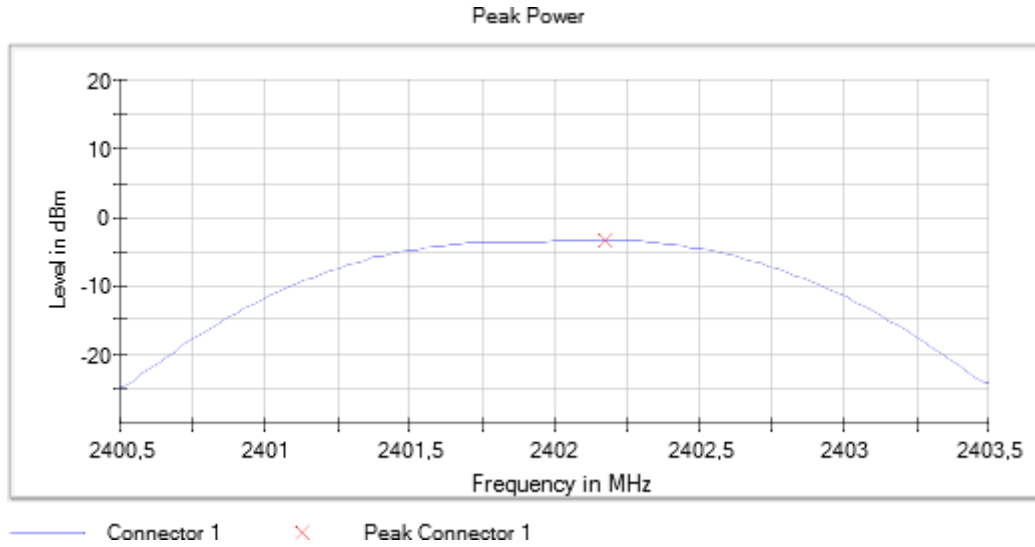
Verdict

Pass

Attachments

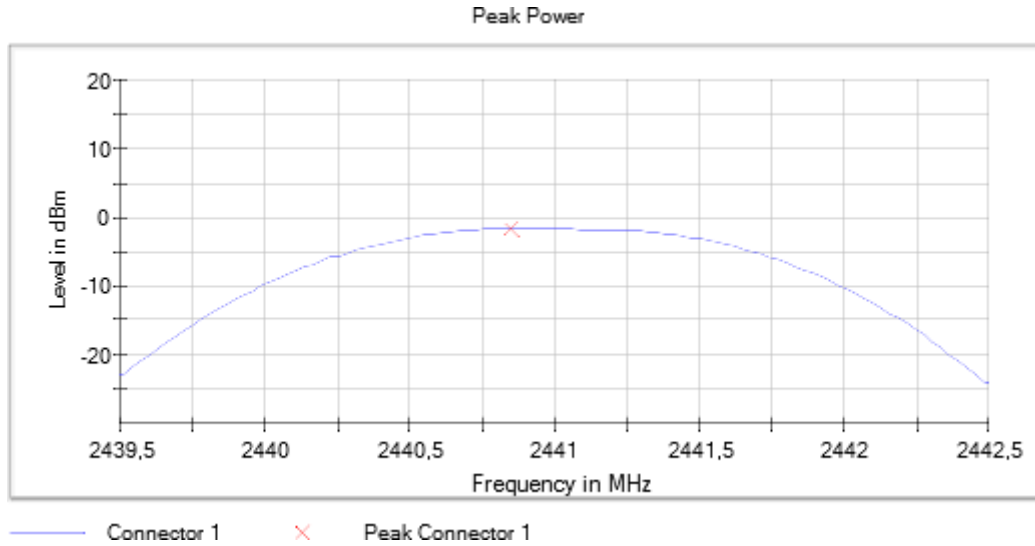
Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



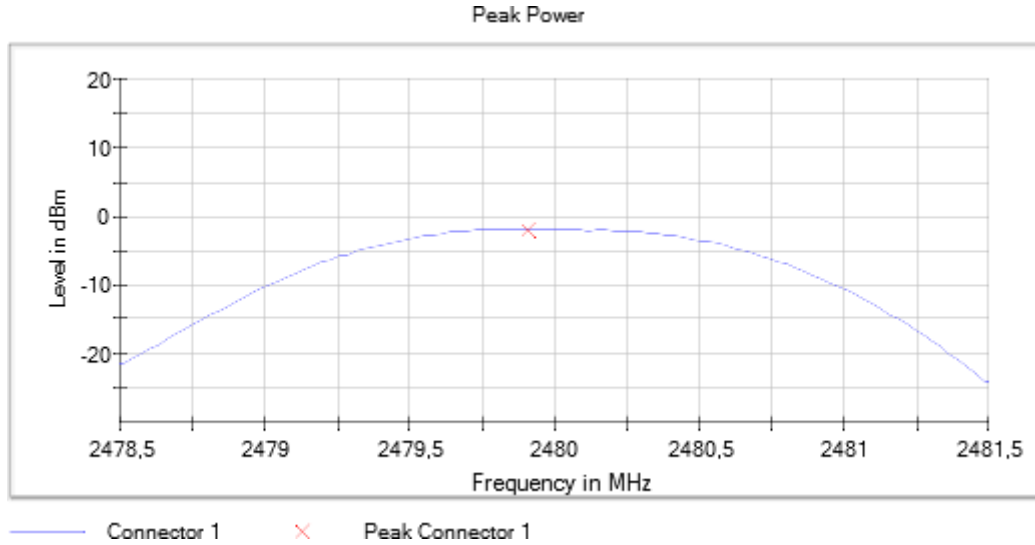
Frequency (MHz) = 2441.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



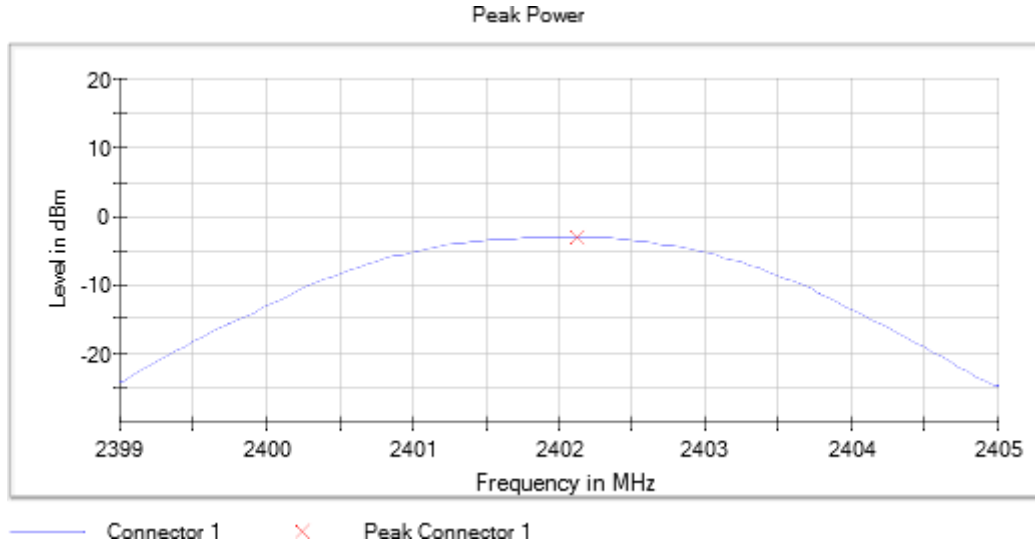
Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



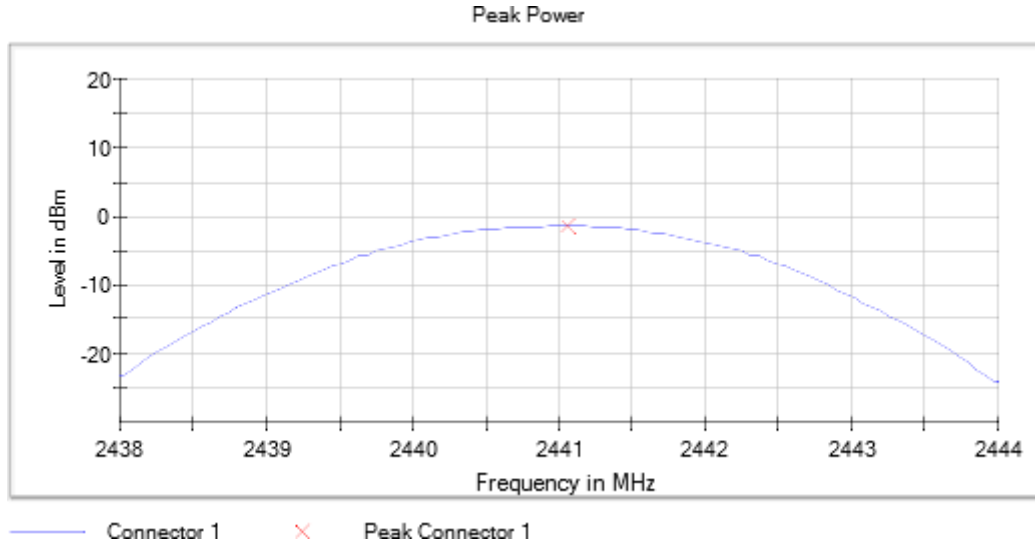
Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



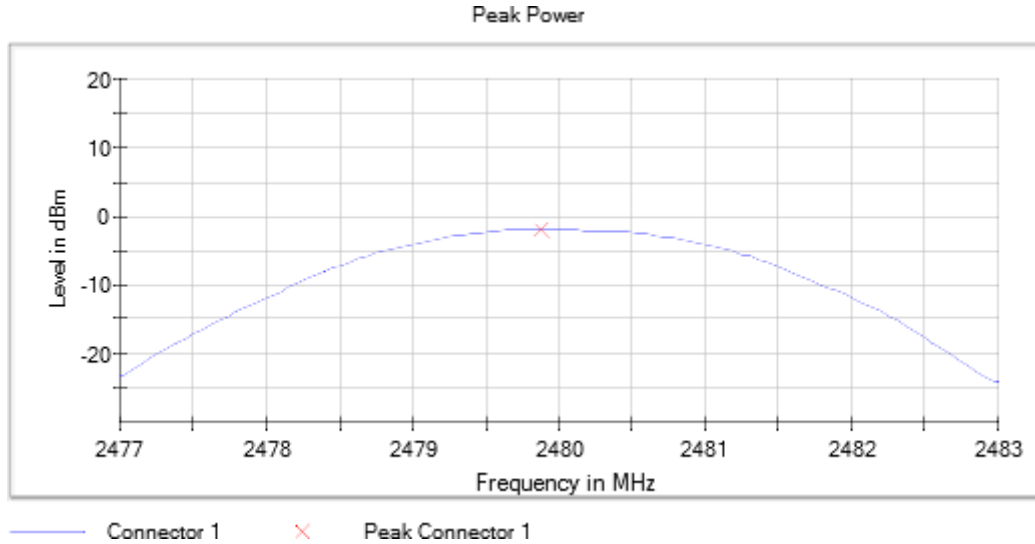
Frequency (MHz) = 2441.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



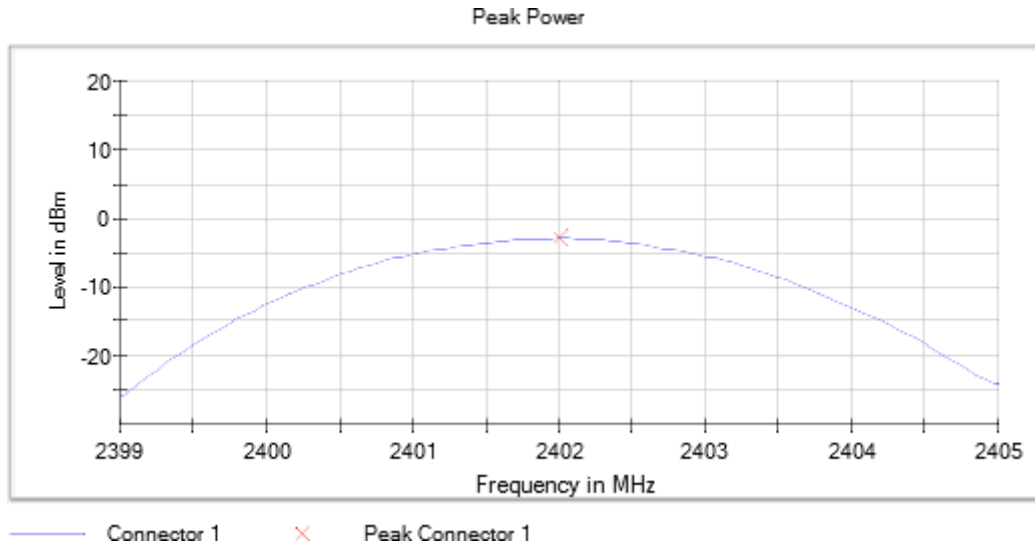
Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



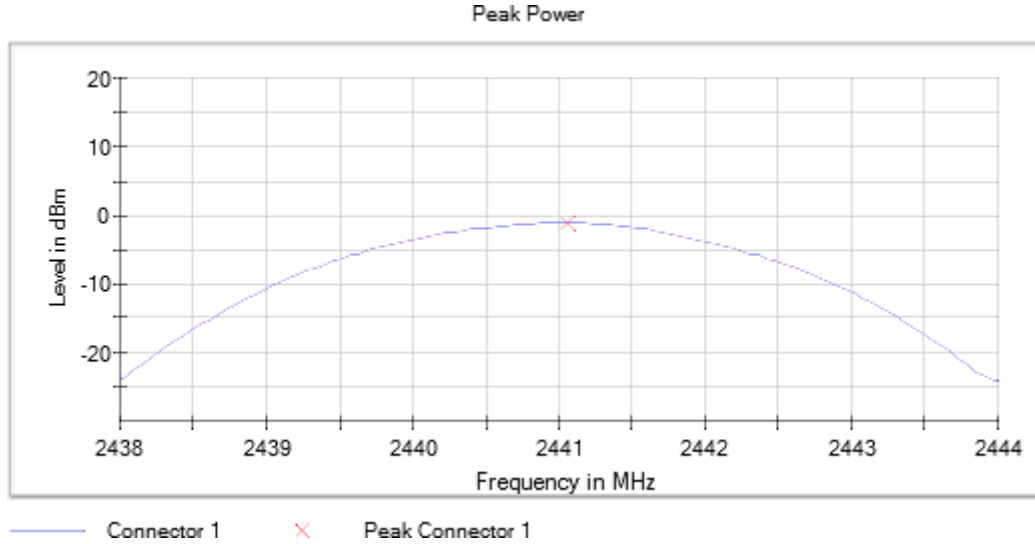
Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
 Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



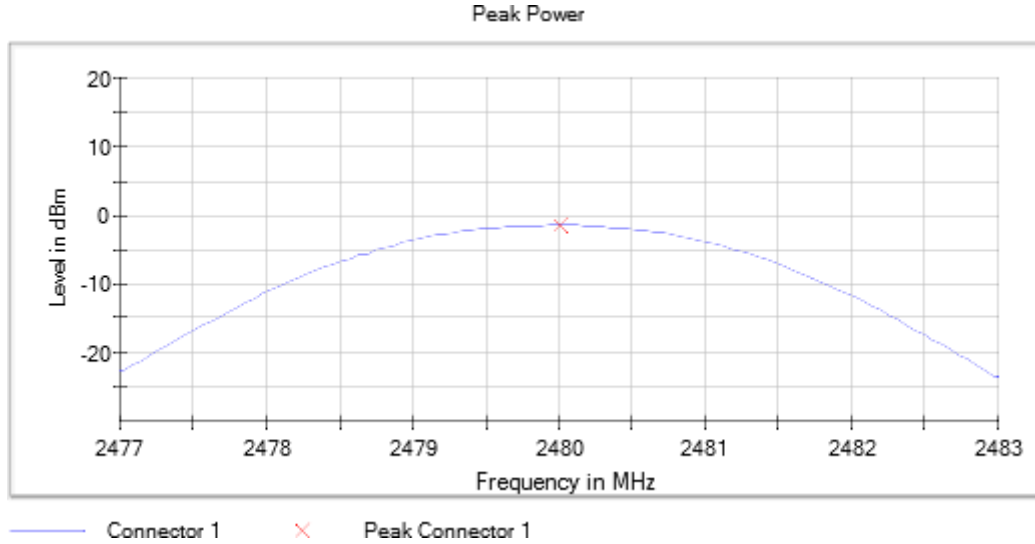
Frequency (MHz) = 2441.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
 Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:



RSS-247 5.5 / FCC 15.247 (d) [Bndedge] Band-edge emissions compliance (Transmitter)

Limits

In any 100 kHz bandwidths outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB instead of 20 dB.

Results

Radiated measurements were used to show compliance with the limits in the restricted bands 2.31-2.39 GHz and 2.4835-2.5 GHz.

Modulation: BT (GFSK 1-DH5)

- Hopping mode enabled:

Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-0.87	2312.925000	-52.081
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2390.125000	-52.144
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.825000	-52.459
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2390.175000	-52.478
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2312.875000	-52.507
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2386.925000	-52.507
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2313.325000	-52.558
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2386.875000	-52.630
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.875000	-52.662
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2386.525000	-52.695
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2386.475000	-52.758

Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-0.87	2387.925000	-52.779
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2316.975000	-52.898
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2365.725000	-52.904
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2358.575000	-52.963
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-0.91	2483.675000	-50.903
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.725000	-51.127
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.475000	-51.454
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.525000	-51.535
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2488.075000	-51.612
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.625000	-51.685
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.875000	-51.797
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2488.025000	-51.807
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.925000	-52.051
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2491.025000	-52.123
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.175000	-52.161
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2498.825000	-52.197
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2490.975000	-52.252
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.375000	-52.263
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2488.125000	-52.279

- Hopping mode disabled:

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
2402.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.24	2399.975000	-50.641
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.925000	-50.734
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.775000	-51.391
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.825000	-51.493
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.725000	-51.830
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2357.225000	-52.034
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2340.875000	-52.131
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.625000	-52.144
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.025000	-52.365
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.075000	-52.374
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2357.175000	-52.426
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.875000	-52.436
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2343.125000	-52.483
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2386.375000	-52.489
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2314.425000	-52.492
2480.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.55	2483.575000	-50.935
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.525000	-51.481
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.325000	-51.542

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
2480.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.55	2483.625000	-51.653
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.275000	-51.733
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.925000	-51.922
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.975000	-51.925
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.375000	-52.041
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.475000	-52.065
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2488.025000	-52.144
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.525000	-52.171
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.825000	-52.191
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.875000	-52.203
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.975000	-52.229
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.925000	-52.262

Modulation: BT (Pi/4 DQPSK 2-DH5)

- Hopping mode enabled:

Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-1.31	2399.975000	-45.874
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.925000	-47.982
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2311.175000	-51.838
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2311.125000	-51.940
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2310.725000	-52.211
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2312.725000	-52.449
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2358.025000	-52.542
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2342.925000	-52.591
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2310.775000	-52.632
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2358.075000	-52.661
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2342.975000	-52.706
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2311.225000	-52.717
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2387.225000	-52.745
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2370.975000	-52.755
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	2342.775000	-52.759	
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-1.46	2485.725000	-51.755
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.225000	-51.803

Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-1.46	2485.275000	-51.856
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2495.275000	-51.871
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2489.675000	-51.878
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2499.375000	-51.881
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2489.625000	-51.893
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2499.325000	-51.896
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.125000	-51.918
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2495.225000	-51.970
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.675000	-52.071
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.775000	-52.089
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2491.225000	-52.130
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2491.275000	-52.135
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.075000	-52.141

- Hopping mode disabled:

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
2402.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.87	2399.975000	-45.374
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.925000	-49.280
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.825000	-49.472
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.875000	-49.494
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.525000	-51.139
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2311.825000	-51.215
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.625000	-51.229
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.575000	-51.324
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.775000	-51.434
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2311.875000	-51.507
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.275000	-51.554
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.325000	-51.674
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.475000	-51.715
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2374.525000	-51.761
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2386.275000	-51.840
2480.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-4.13	2484.975000	-51.735
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.925000	-51.833
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.275000	-51.886

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
2480.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-4.13	2485.925000	-51.969
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.325000	-52.175
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.975000	-52.185
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.925000	-52.225
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2489.325000	-52.302
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.375000	-52.351
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.875000	-52.376
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.025000	-52.392
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.075000	-52.623
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.325000	-52.671
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2488.275000	-52.682
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.575000	-52.684

Modulation: BT (8DPSK 3-DH5)

- Hopping mode enabled:

Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-1.35	2371.275000	-50.835
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.225000	-51.089
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2344.175000	-51.723
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2344.225000	-51.776
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.325000	-51.908
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2385.925000	-52.357
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2344.375000	-52.378
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.425000	-52.460
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.375000	-52.472
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2373.075000	-52.576
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2385.875000	-52.604
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2327.375000	-52.672
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2370.925000	-52.683
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2344.425000	-52.690
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2344.275000	-52.693
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-1.36	2486.275000	-50.741
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.225000	-50.853

Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-1.36	2484.675000	-51.293
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.725000	-51.495
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.475000	-51.559
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.425000	-51.631
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.675000	-51.674
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.325000	-51.808
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.625000	-51.905
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.725000	-51.937
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2490.225000	-52.109
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2490.175000	-52.136
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2496.375000	-52.175
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2486.075000	-52.338
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.575000	-52.407

- Hopping mode disabled:

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
2402.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.58	2399.975000	-44.976
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.925000	-48.356
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.825000	-49.522
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.875000	-49.561
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.775000	-50.364
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.725000	-50.820
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.475000	-50.955
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.475000	-51.354
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2371.525000	-51.354
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.575000	-51.431
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.525000	-51.512
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.425000	-51.516
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.375000	-51.658
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2399.625000	-51.956
Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	2312.925000	-51.979		
2480.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.91	2484.325000	-51.026
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.275000	-51.562
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.375000	-52.040

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Inband Peak Lvl (dBm)	Measured Freq (MHz)	Lvl (dBm)
2480.00000	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1	-3.91	2483.775000	-52.188
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.325000	-52.425
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.825000	-52.454
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2489.975000	-52.491
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.575000	-52.547
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.475000	-52.570
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2484.725000	-52.572
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2490.025000	-52.621
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2483.725000	-52.626
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2487.275000	-52.690
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.675000	-52.714
	Frequency Hopping Spread Spectrum systems (FHSS)	1	1	1		2485.575000	-52.722

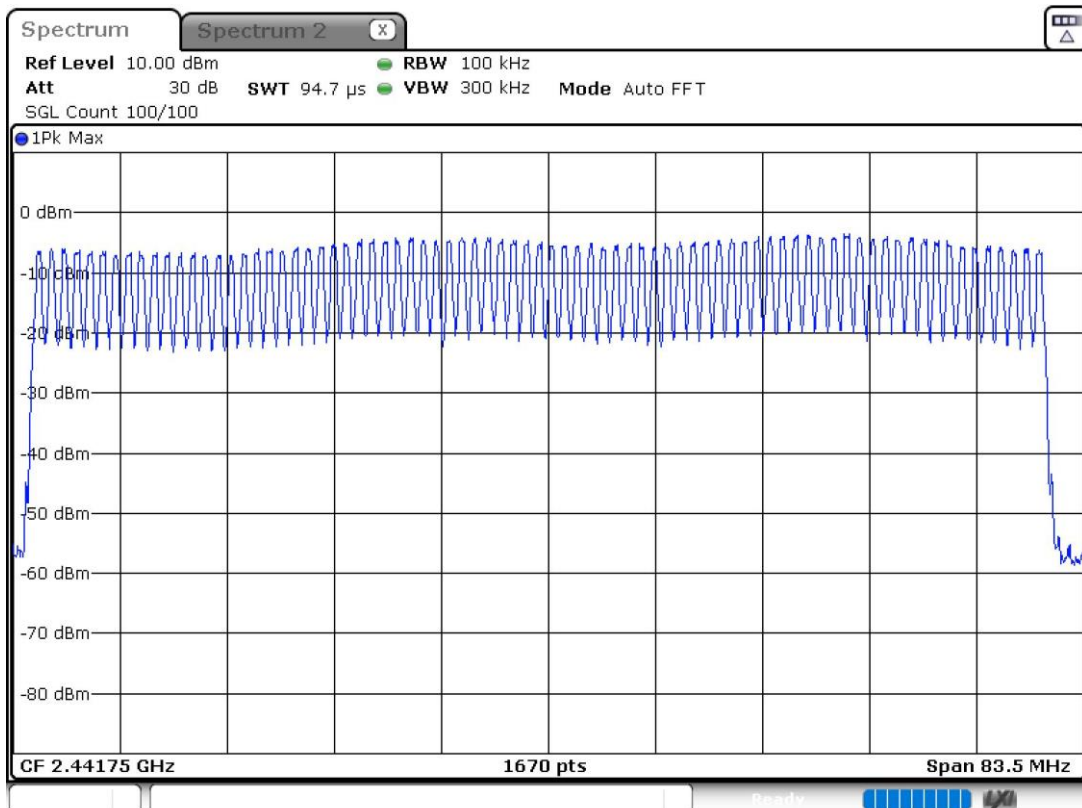
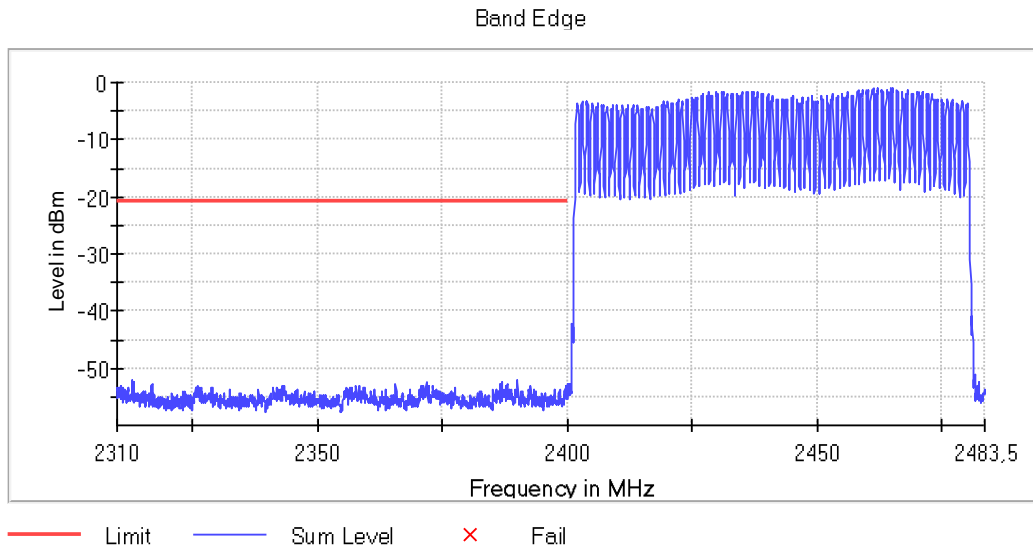
Verdict

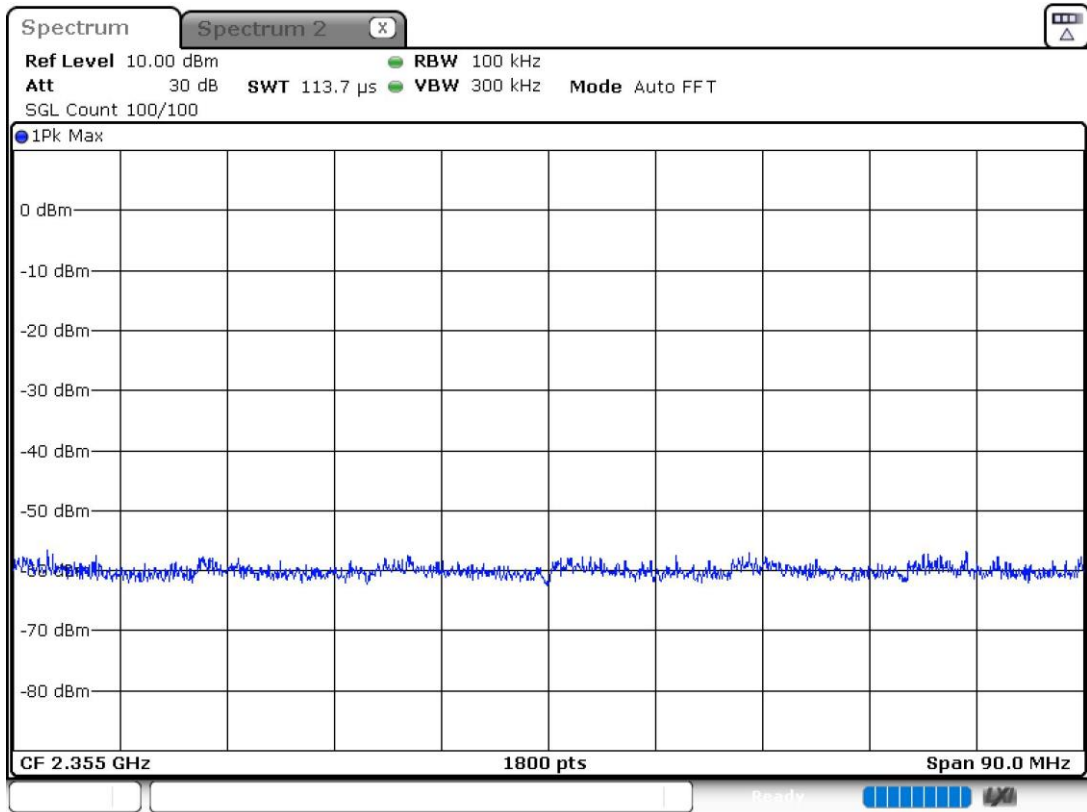
Pass

Attachments

**Hopping mode enabled, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2**

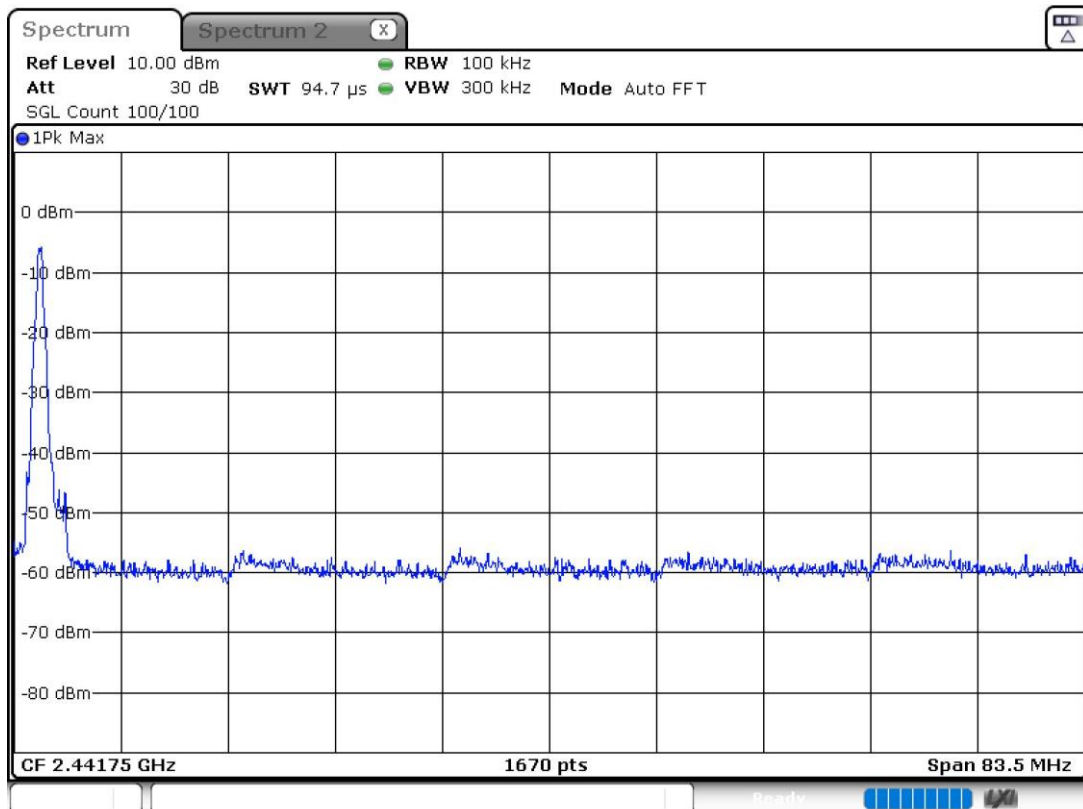
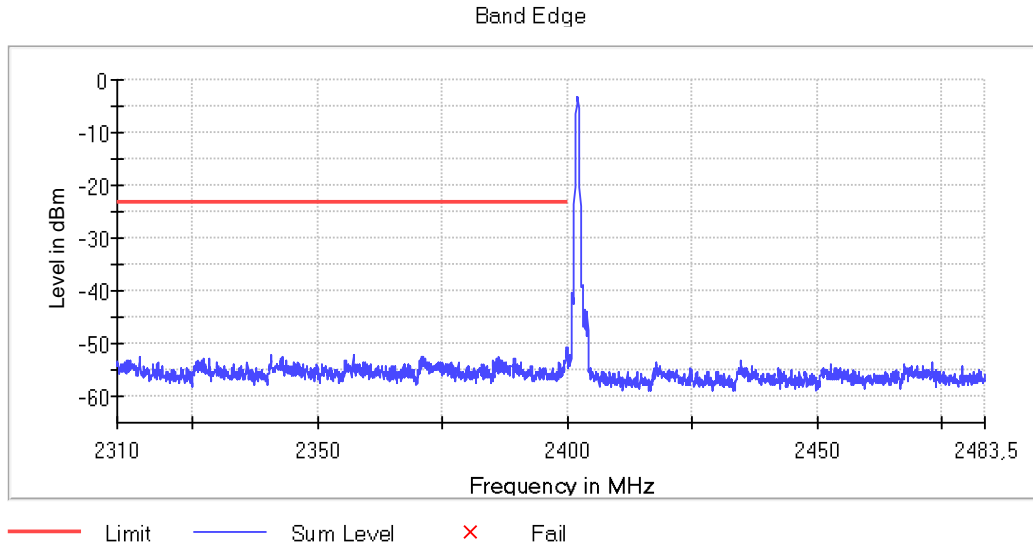
Plots:

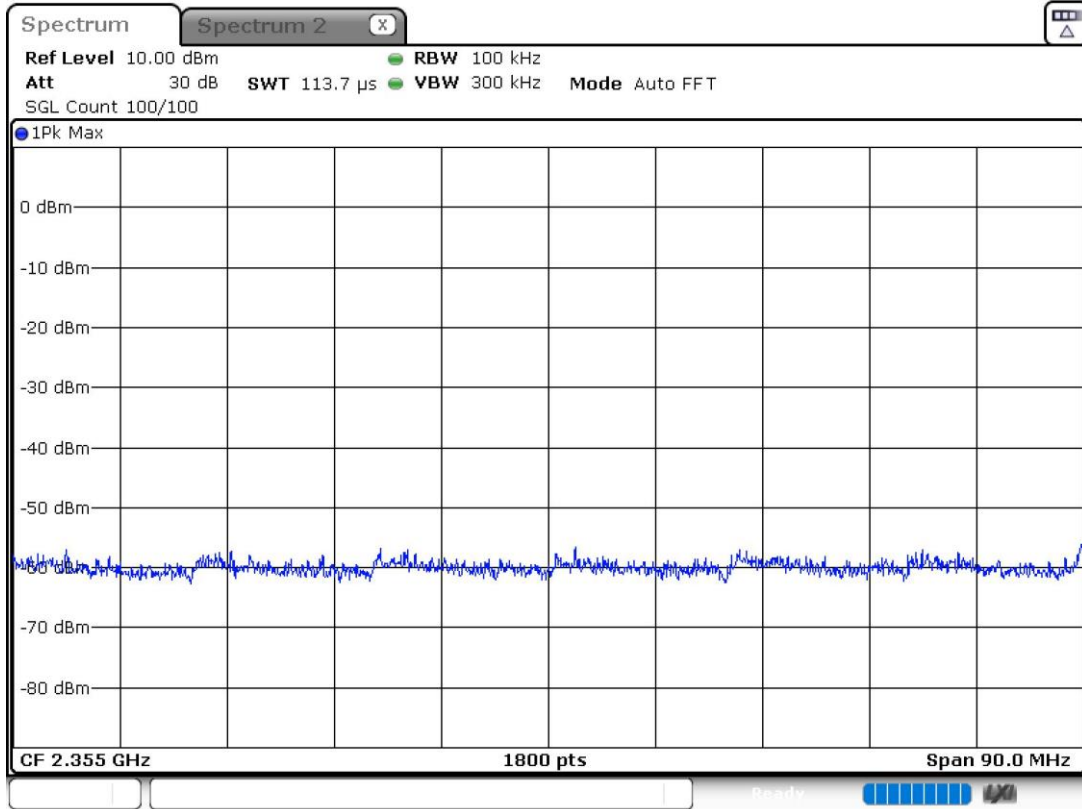




Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2

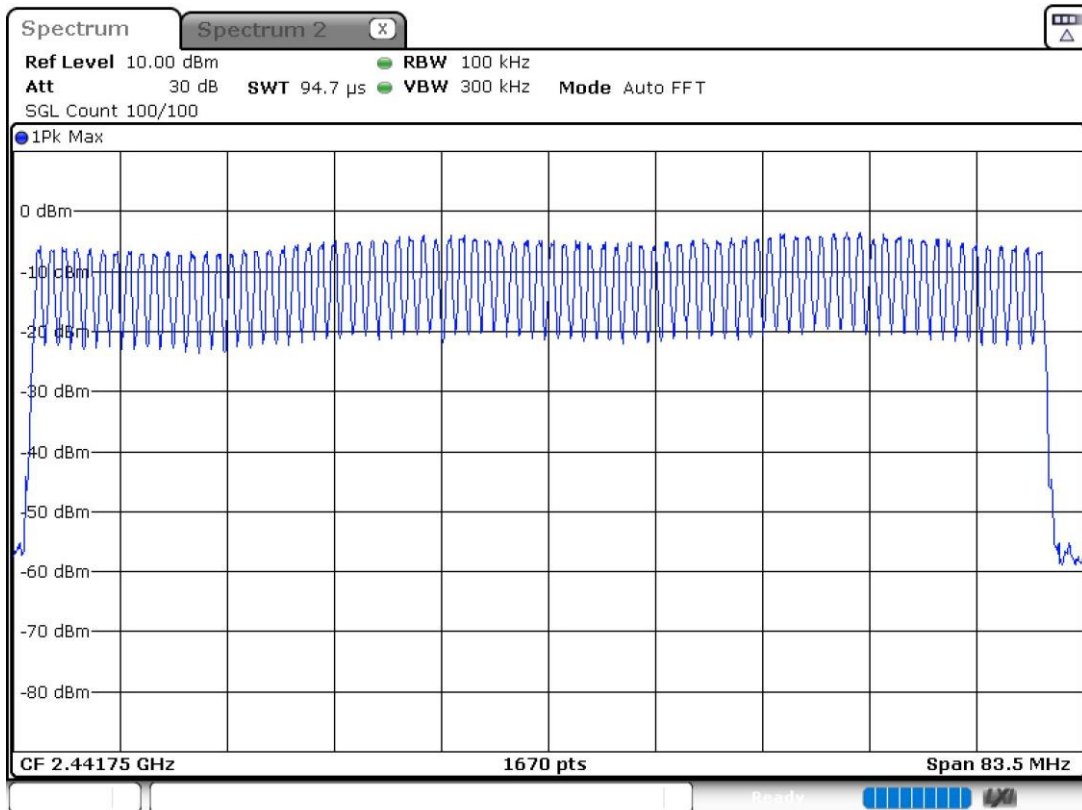
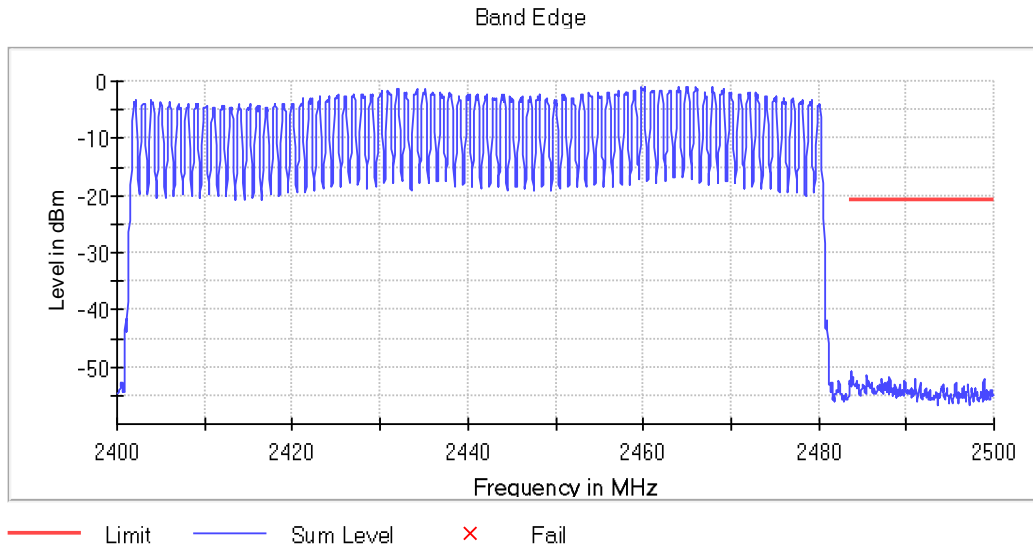
Plots:

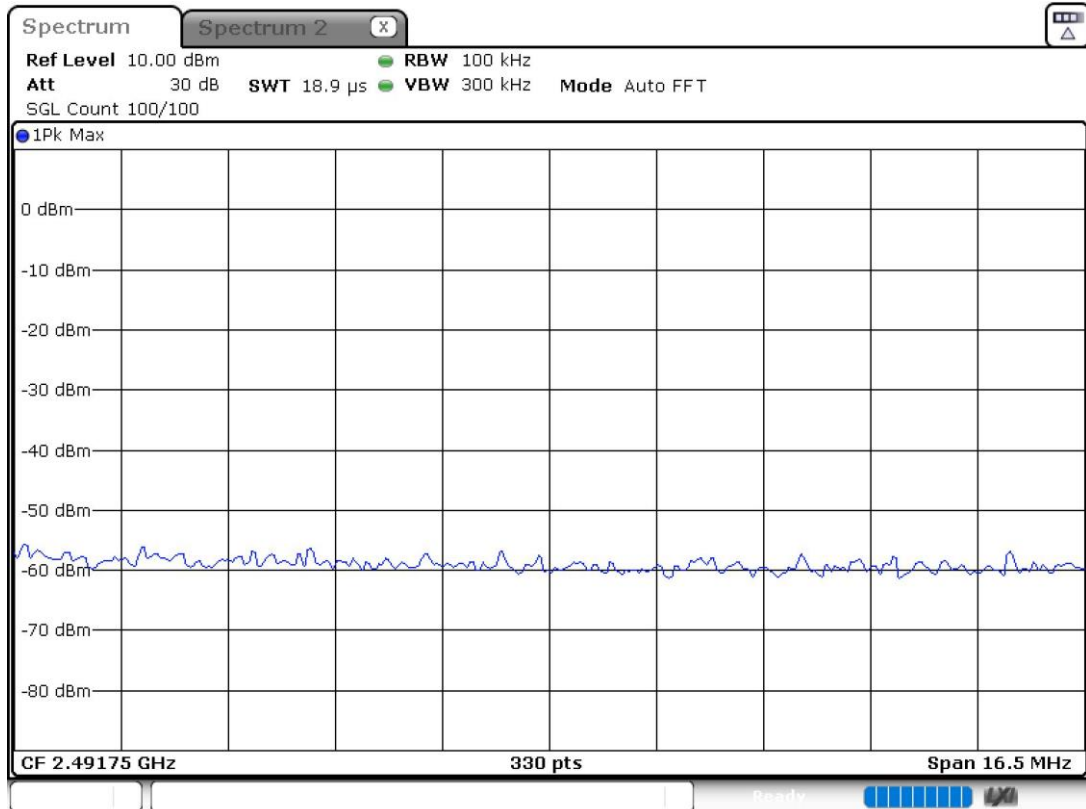




Hopping mode enabled, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2

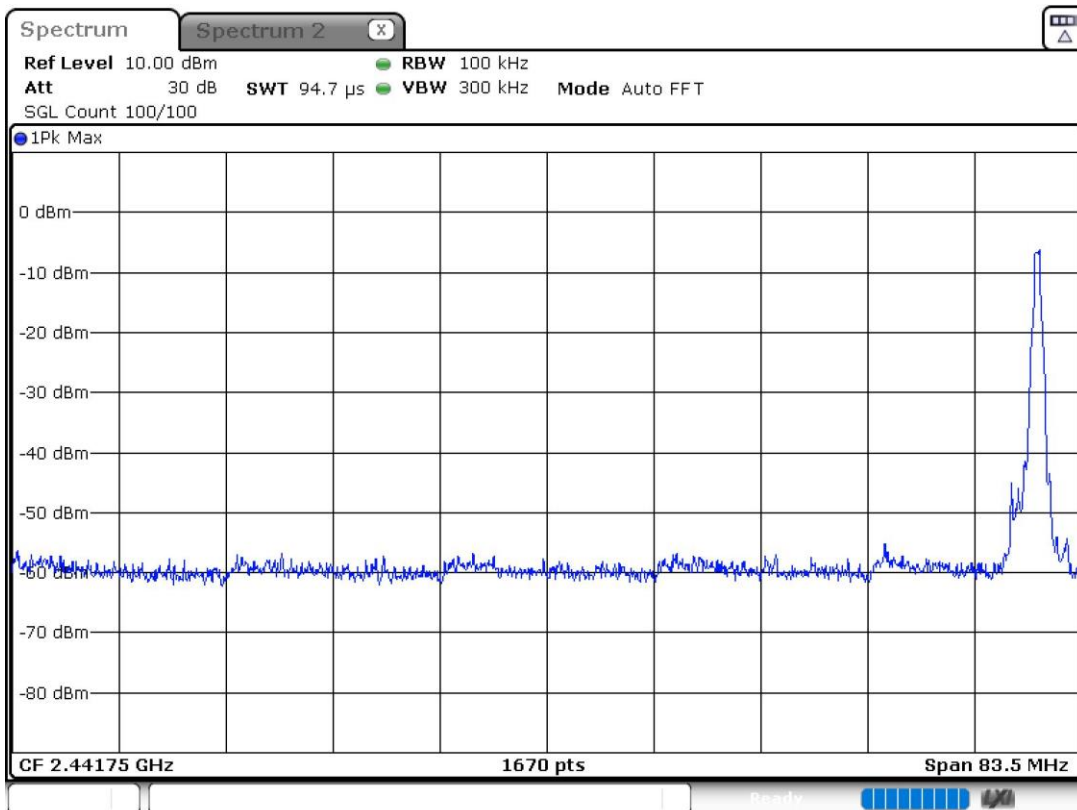
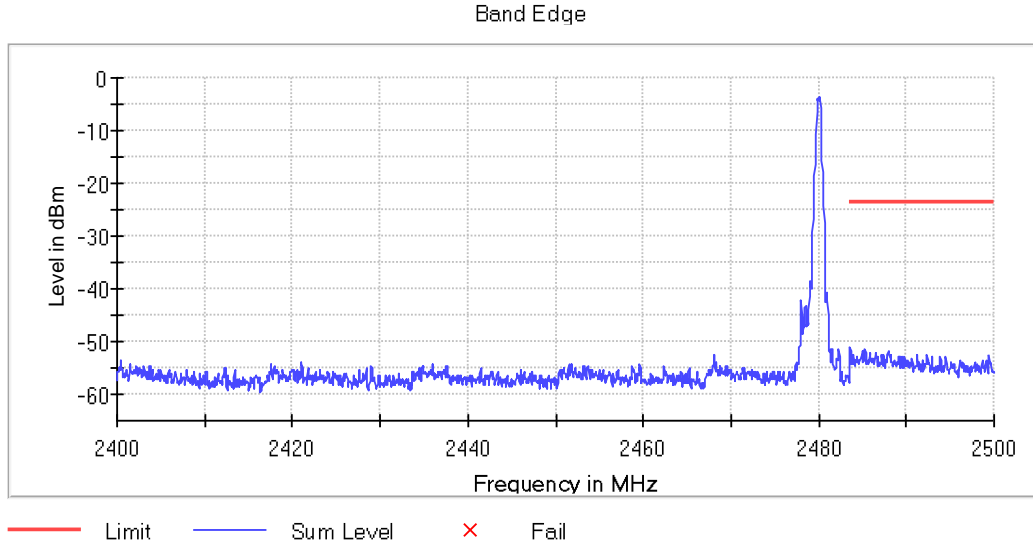
Plots:

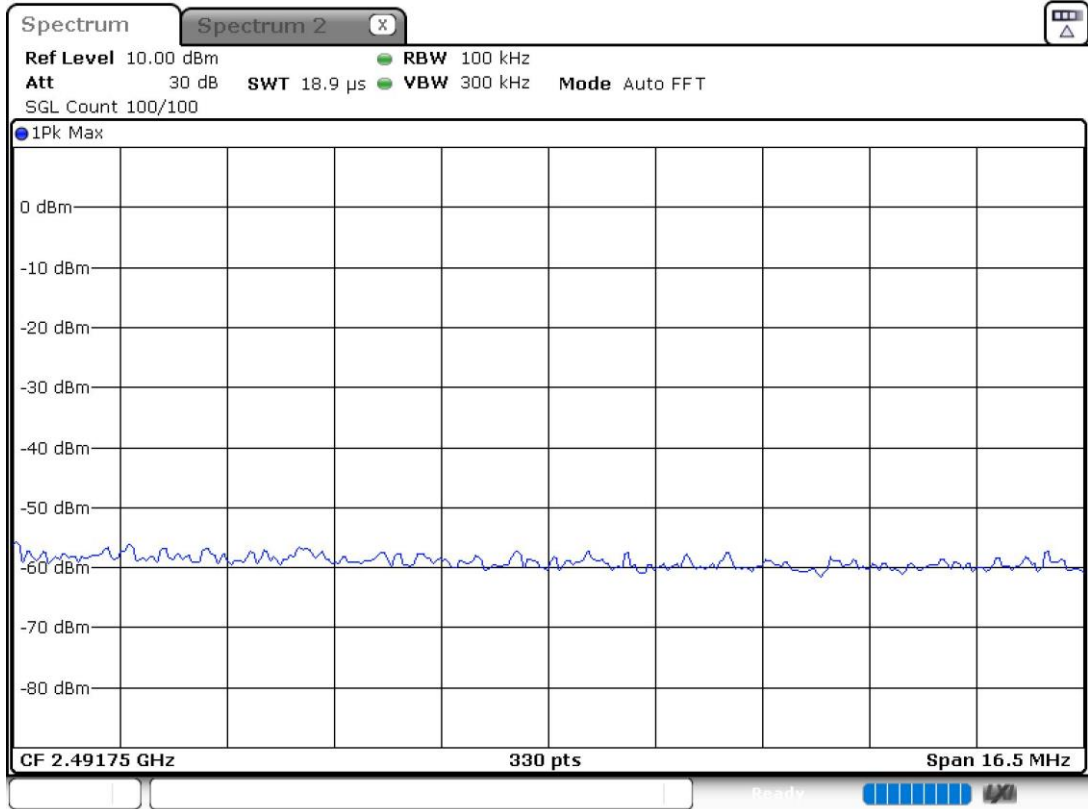




Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (GFSK 1-DH5), Number of Transmission Chains = 1, Active Port: 2

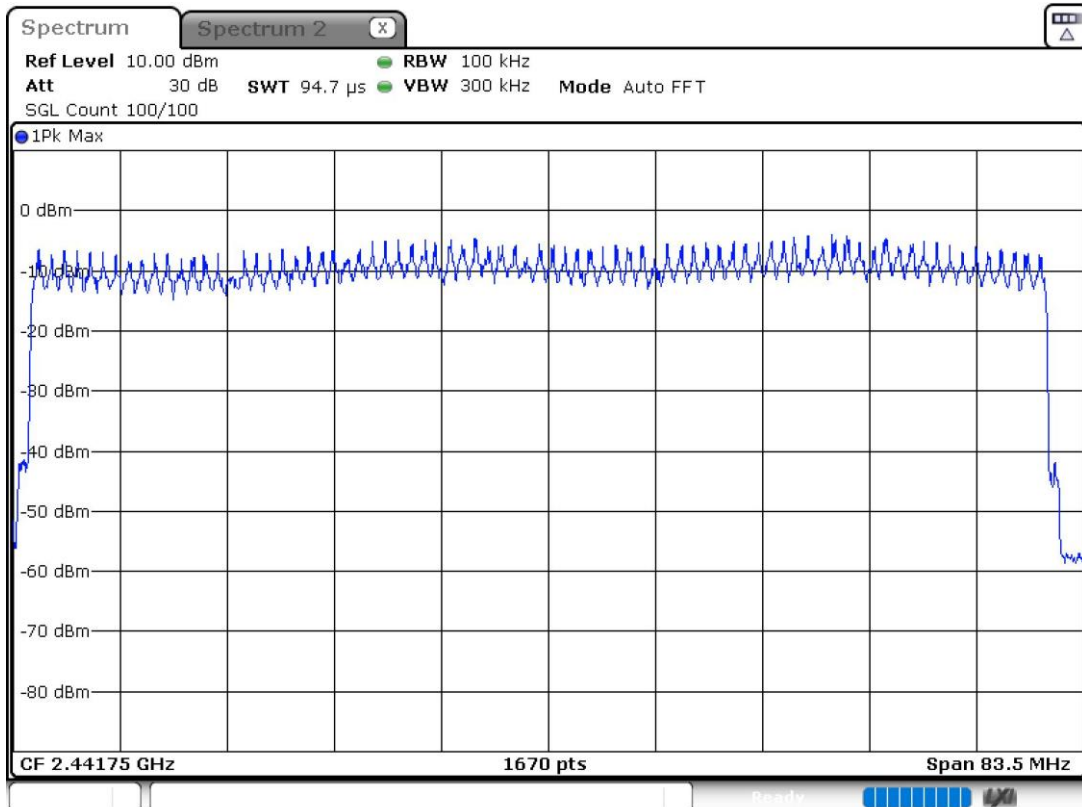
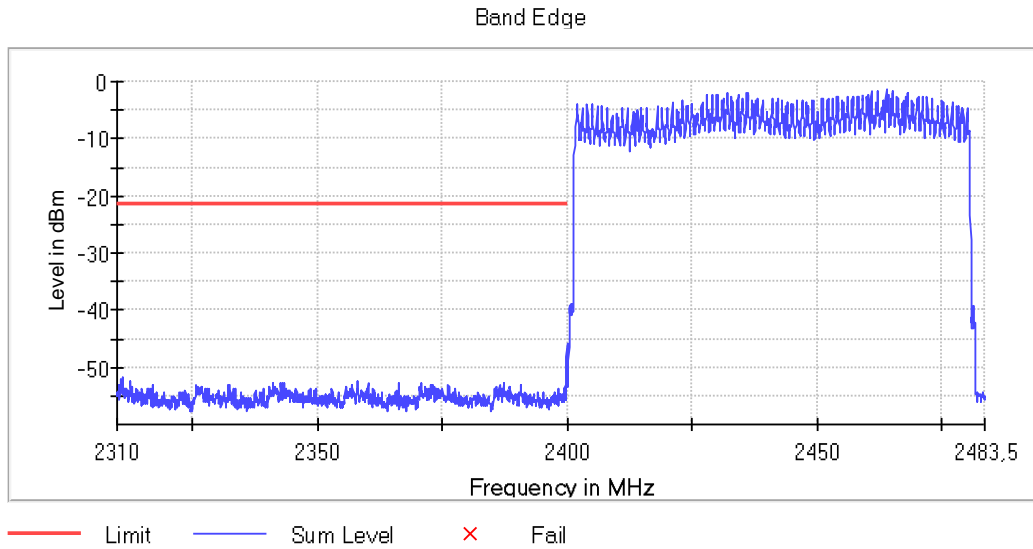
Plots:

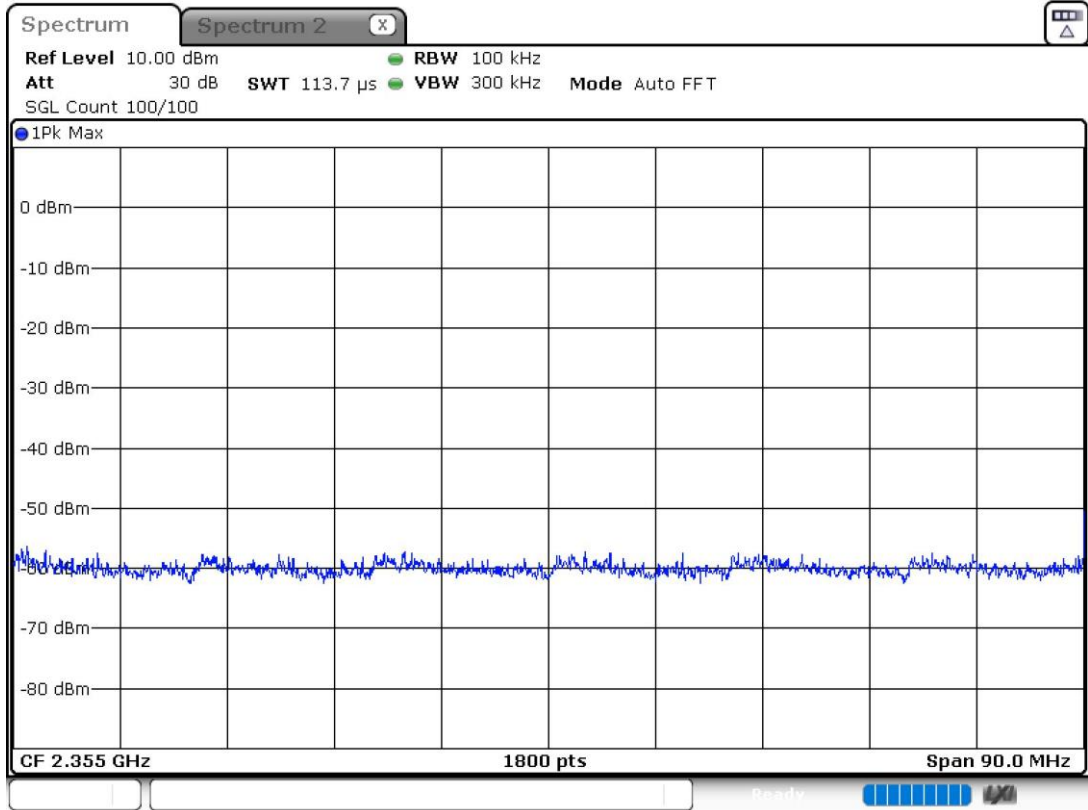




Hopping mode enabled, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

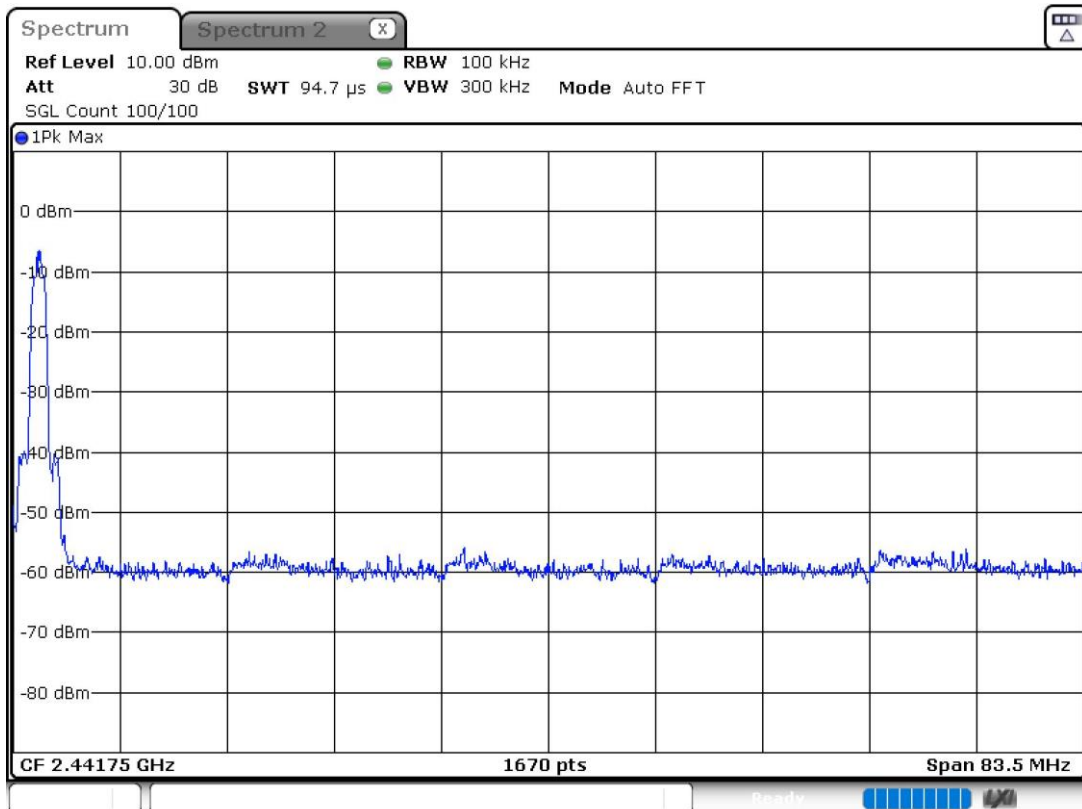
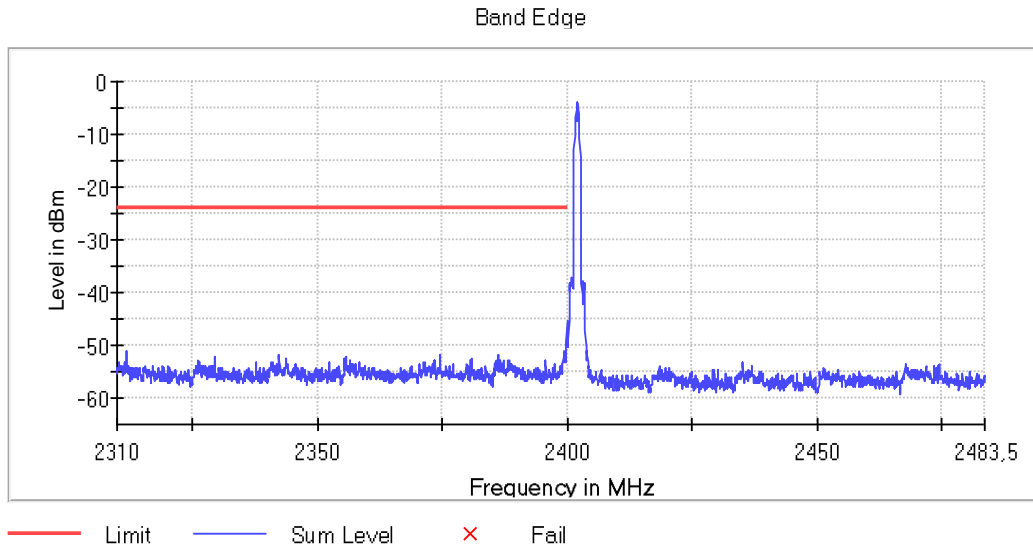
Plots:

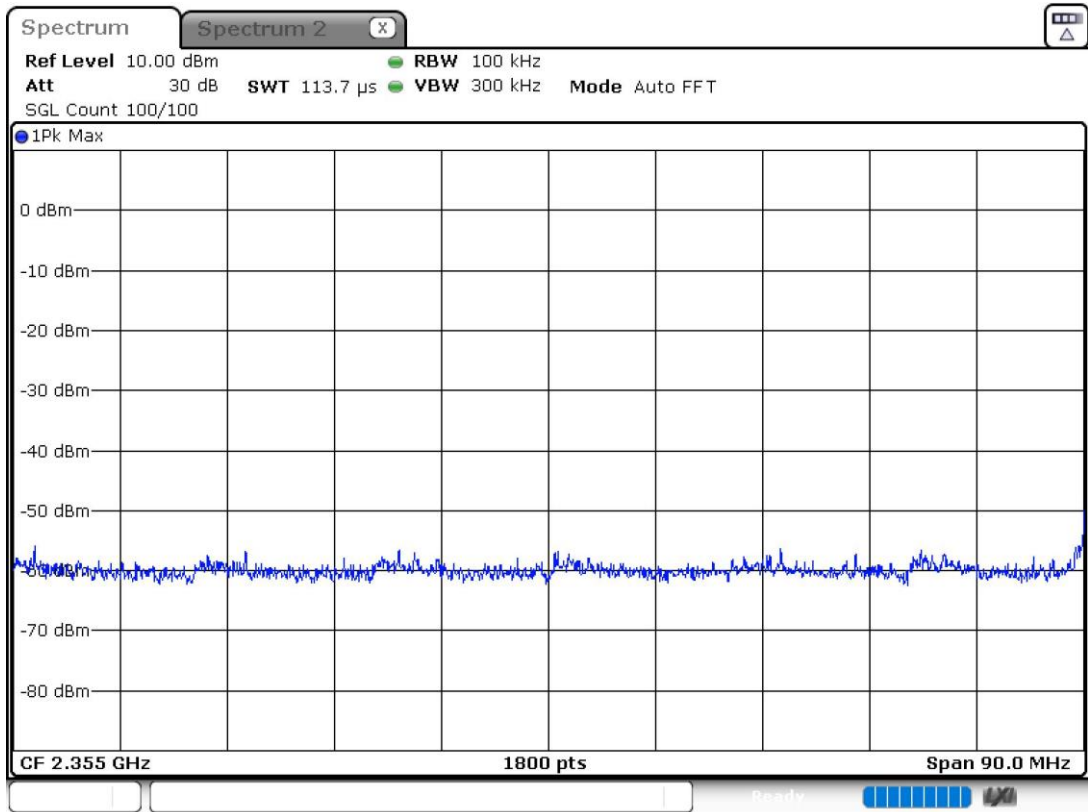




Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

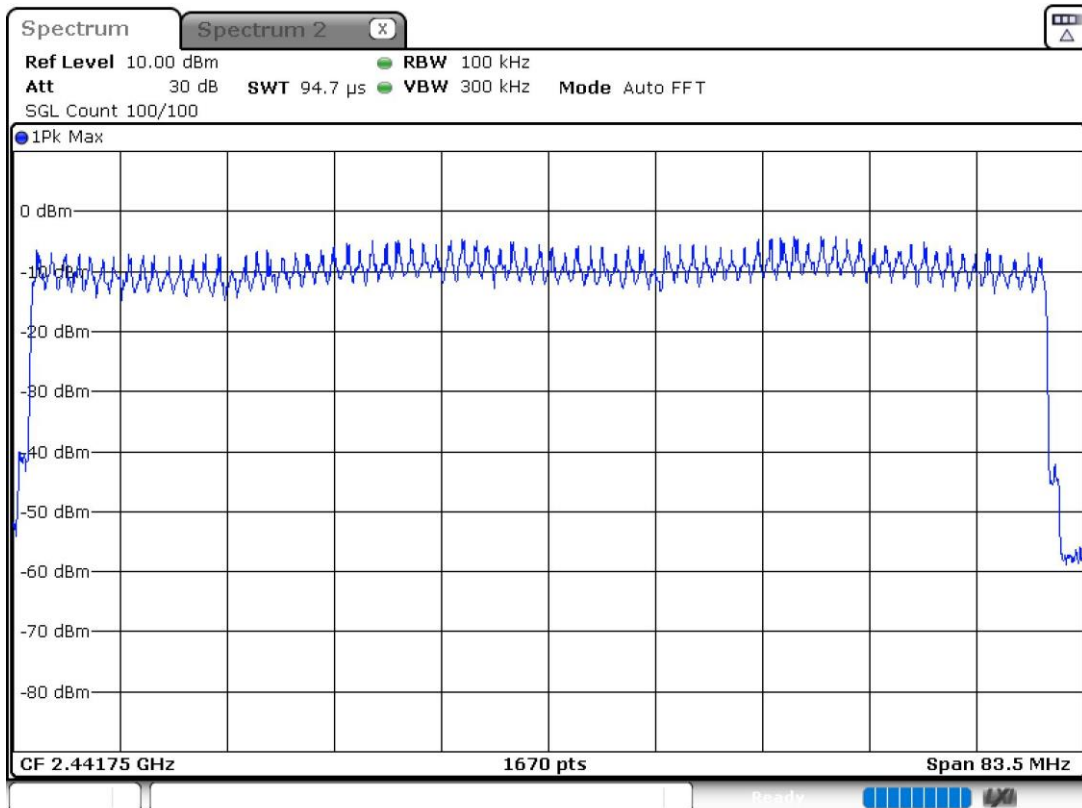
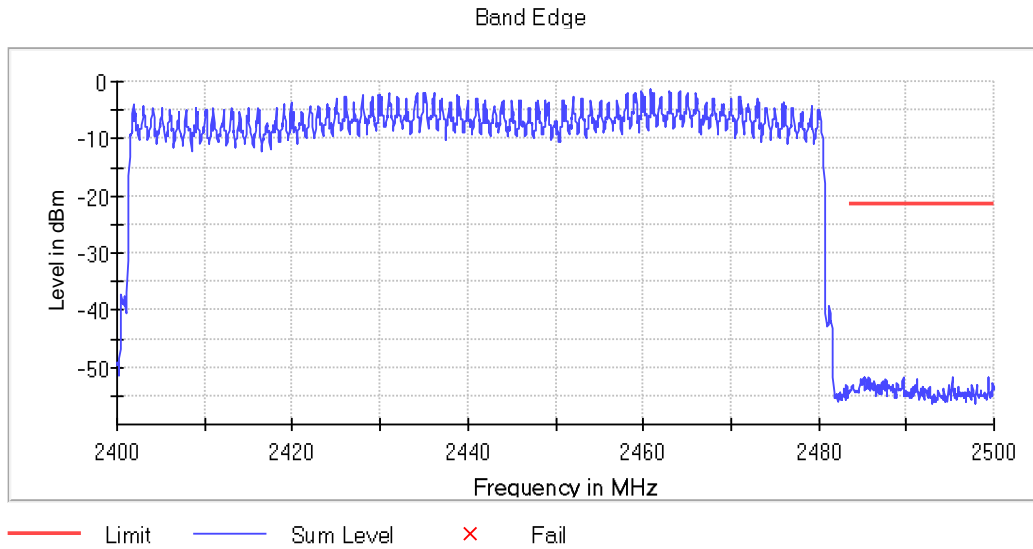
Plots:

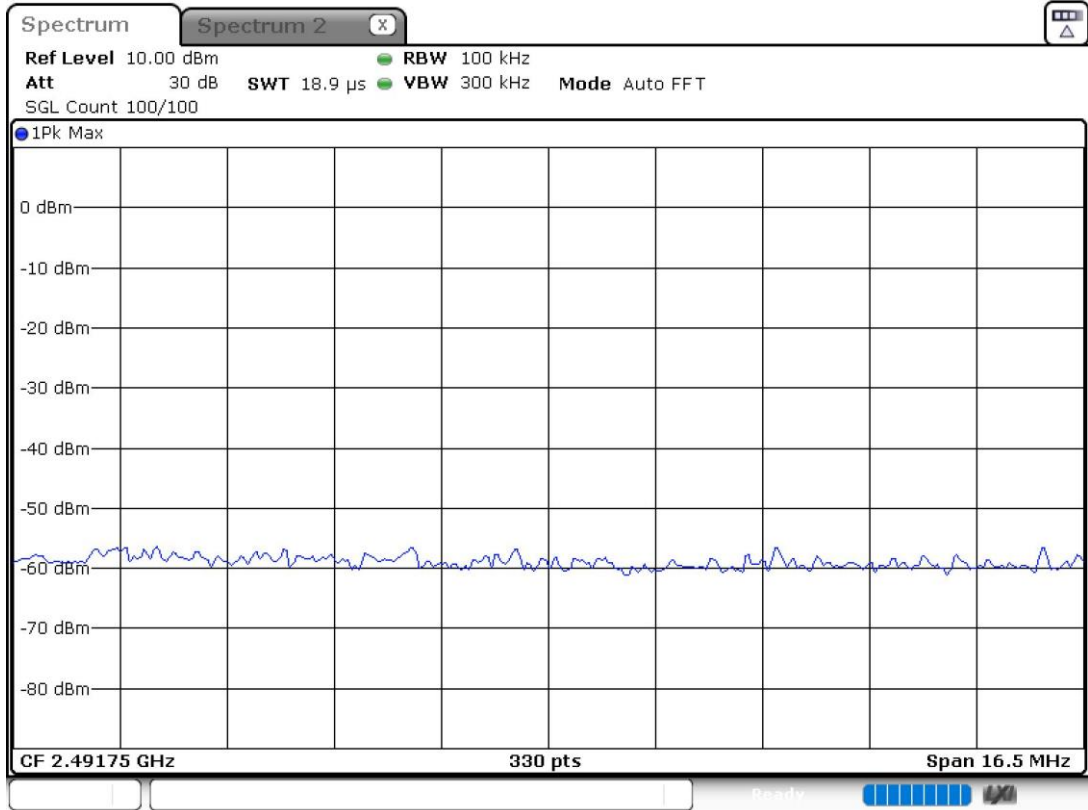




Hopping mode enabled, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

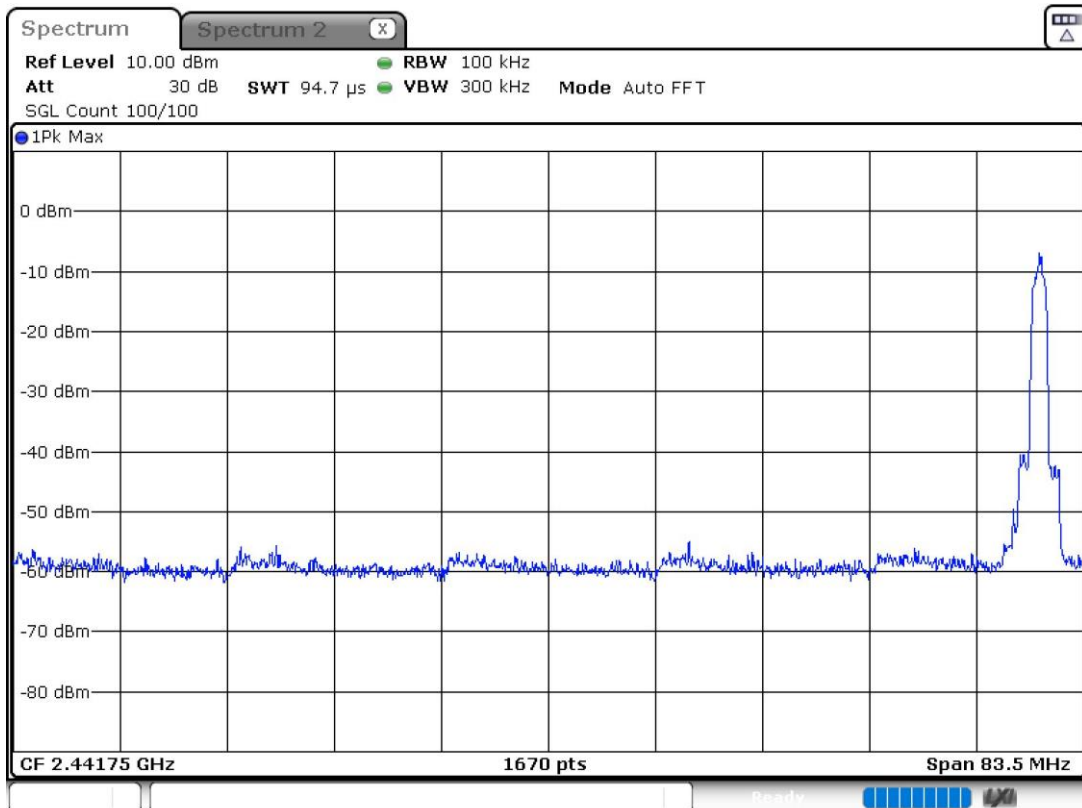
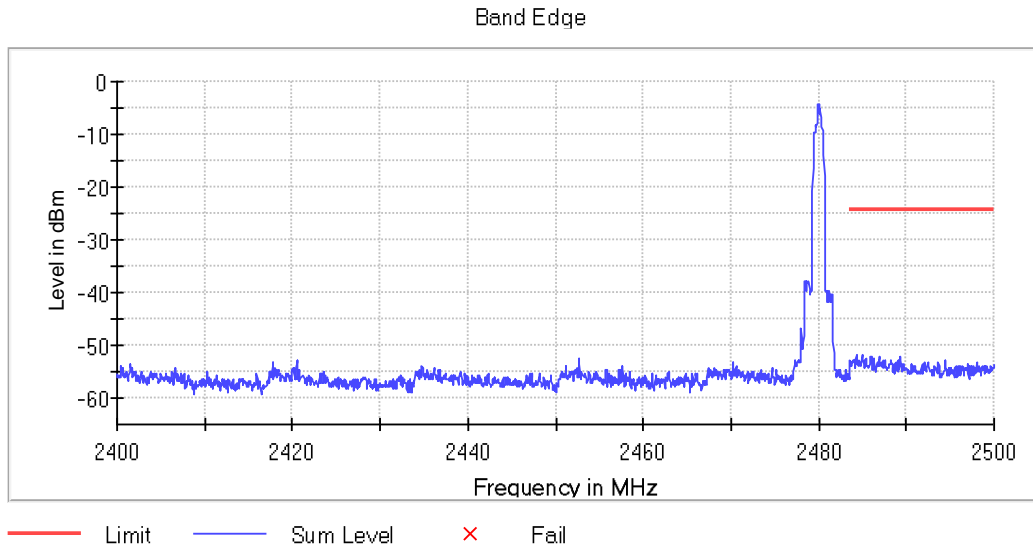
Plots:

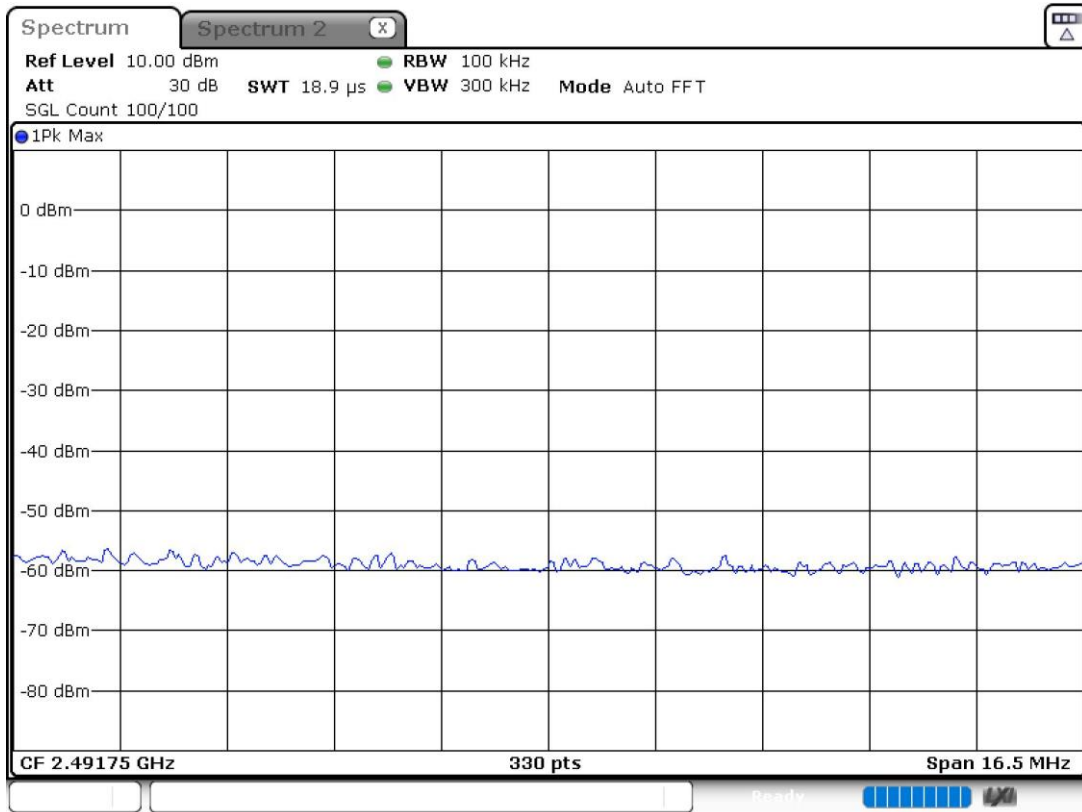




Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Bandwidth (MHz) = 1, Modulation: BT (Pi/4 DQPSK 2-DH5), Number of Transmission Chains = 1, Active Port: 2

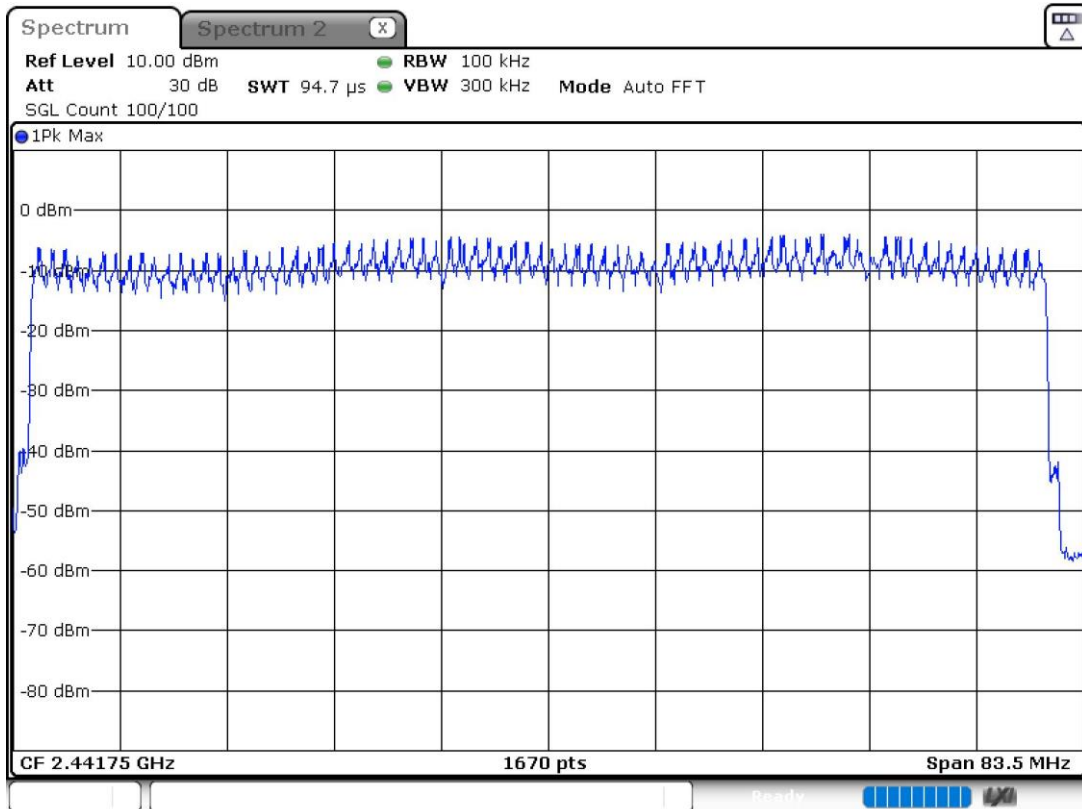
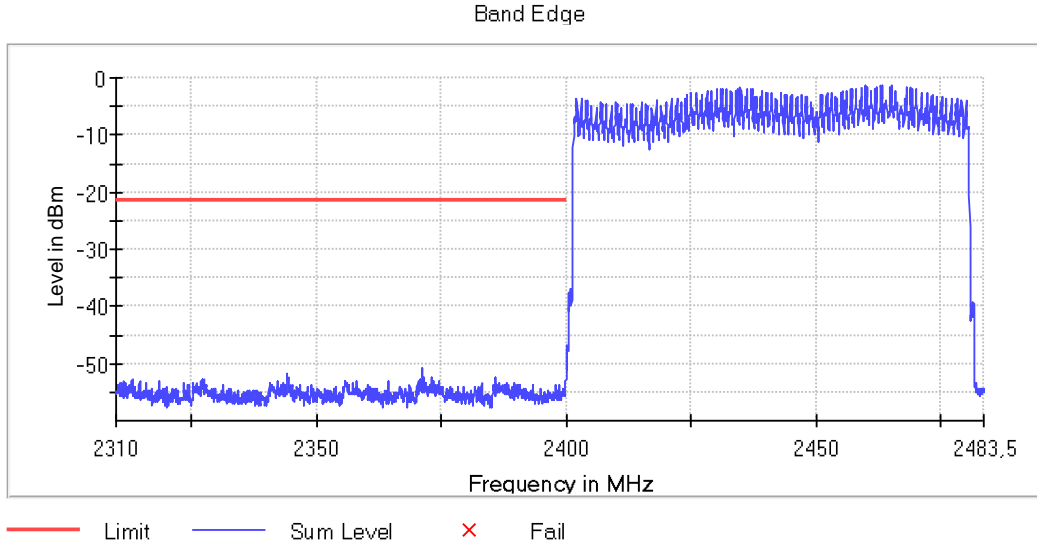
Plots:

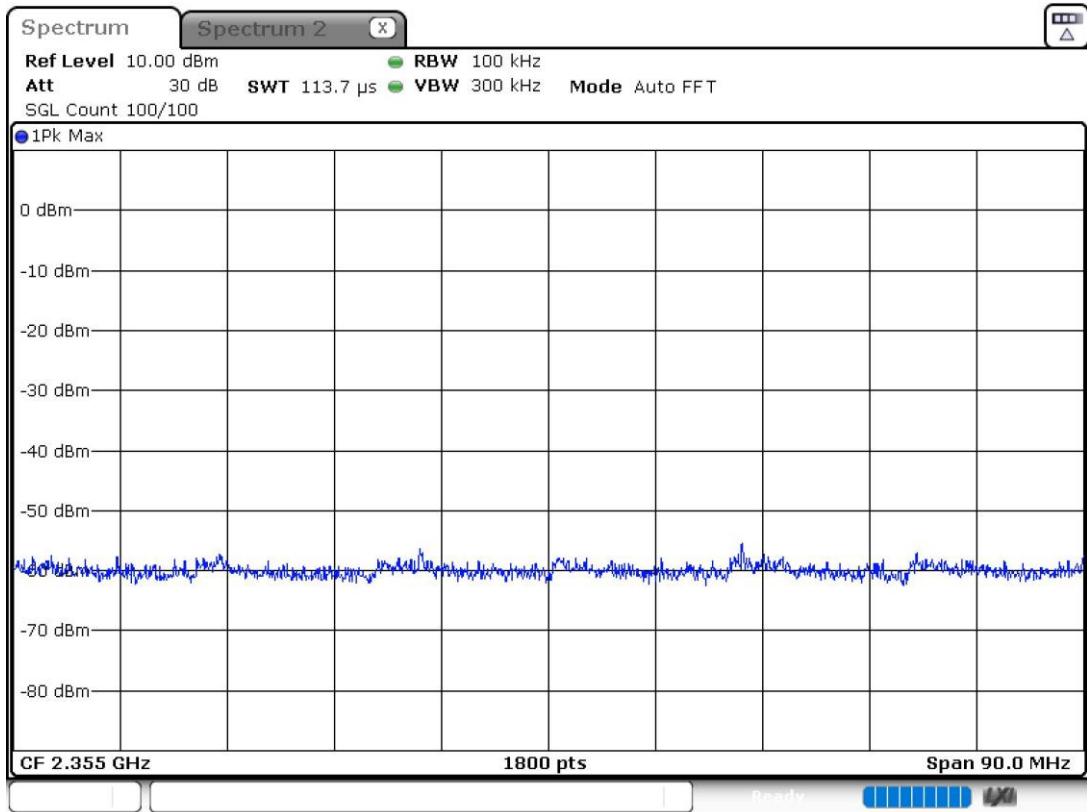




Hopping mode enabled, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

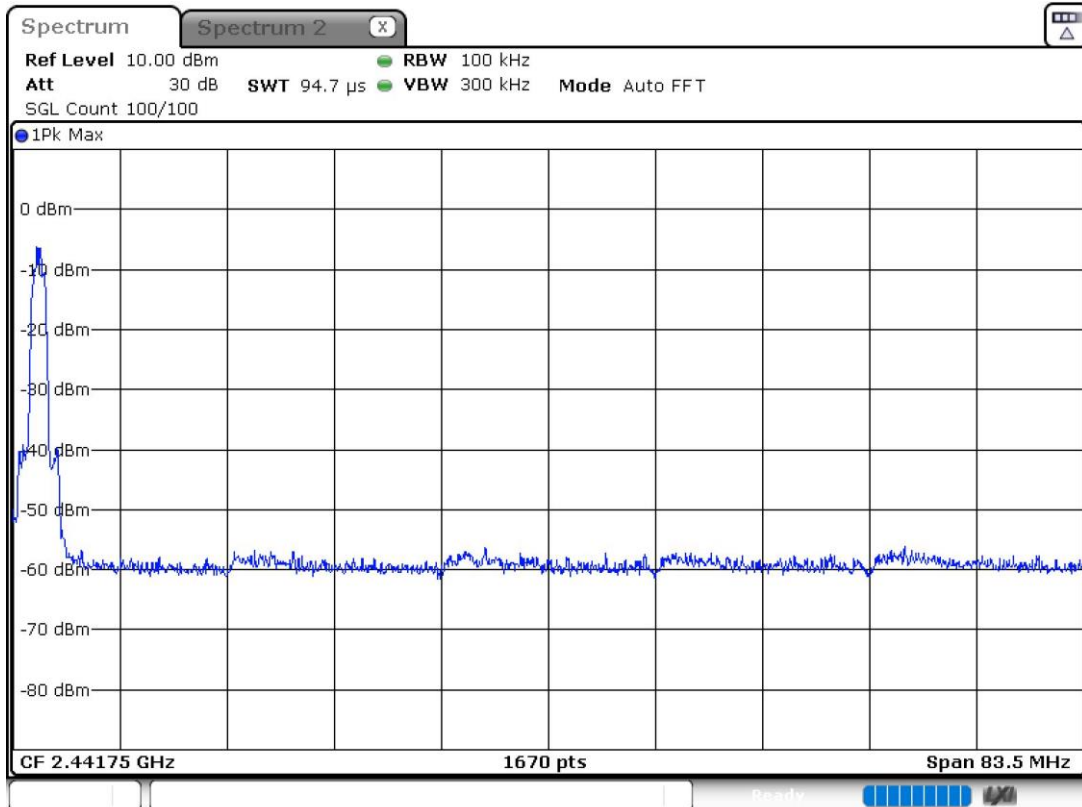
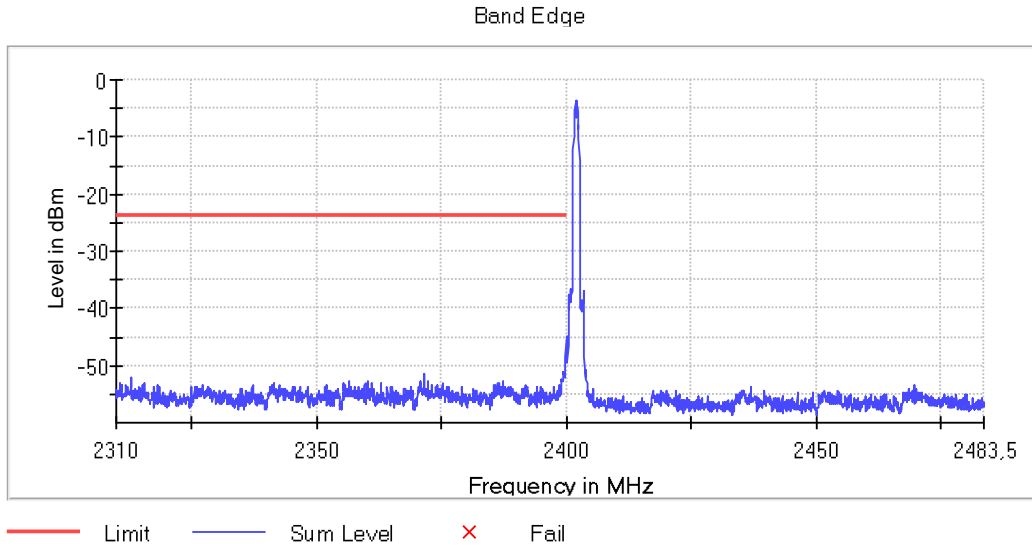
Plots:

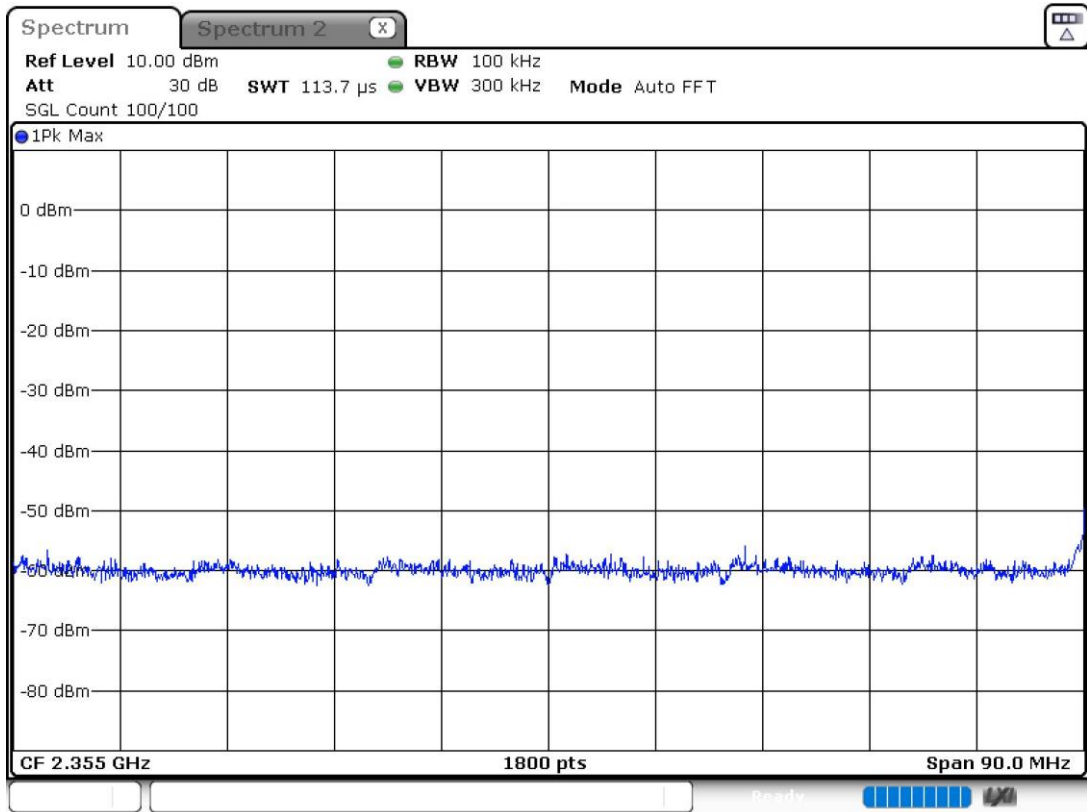




Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
 Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

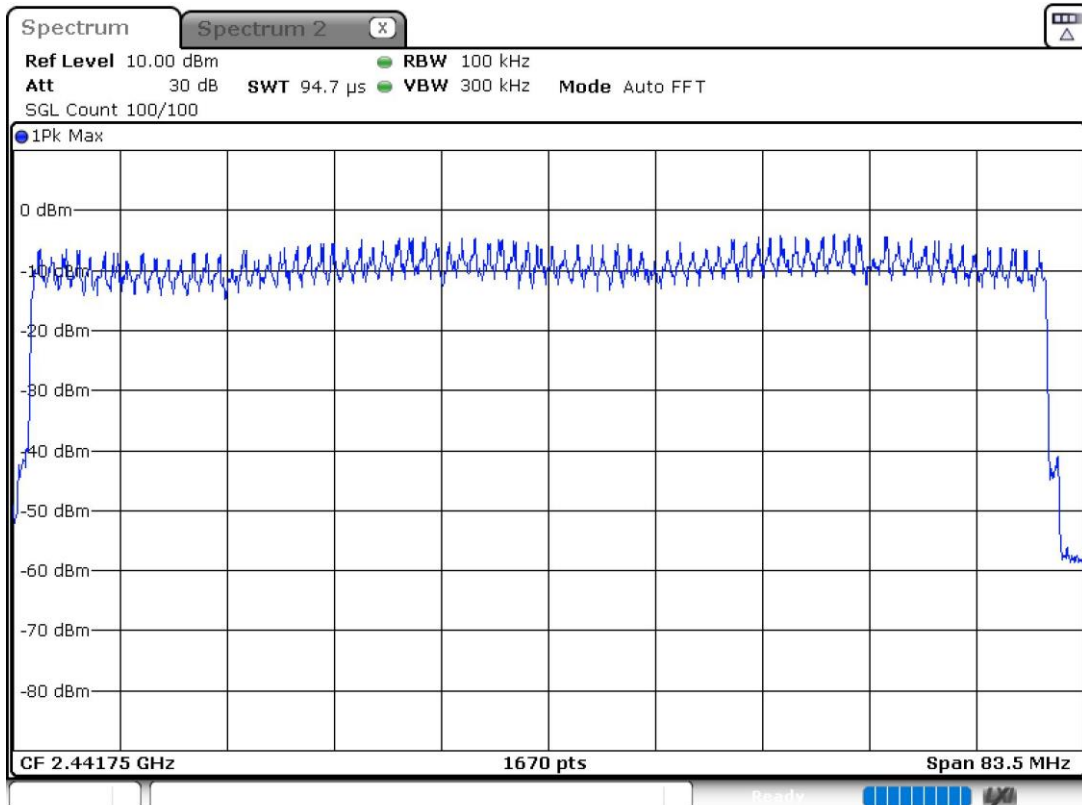
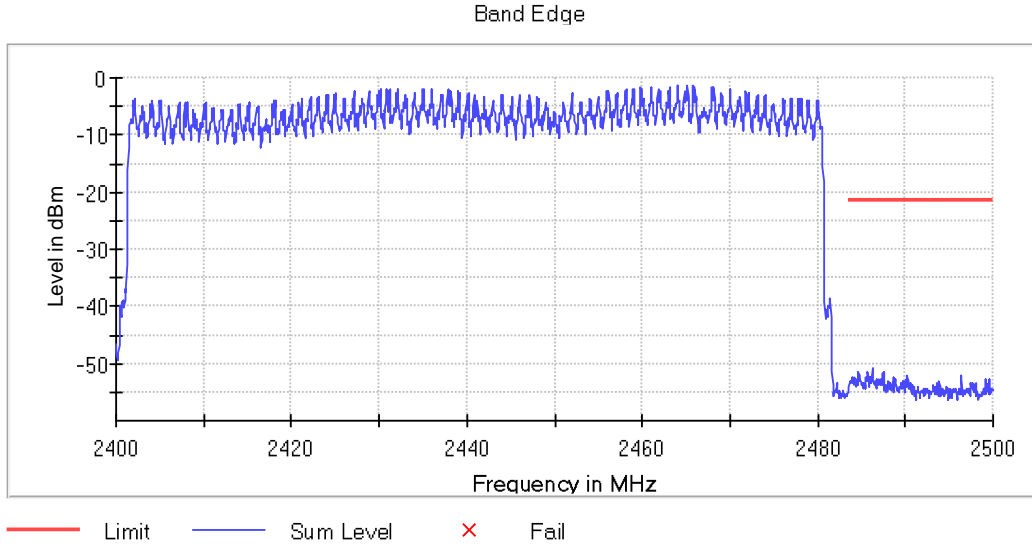
Plots:

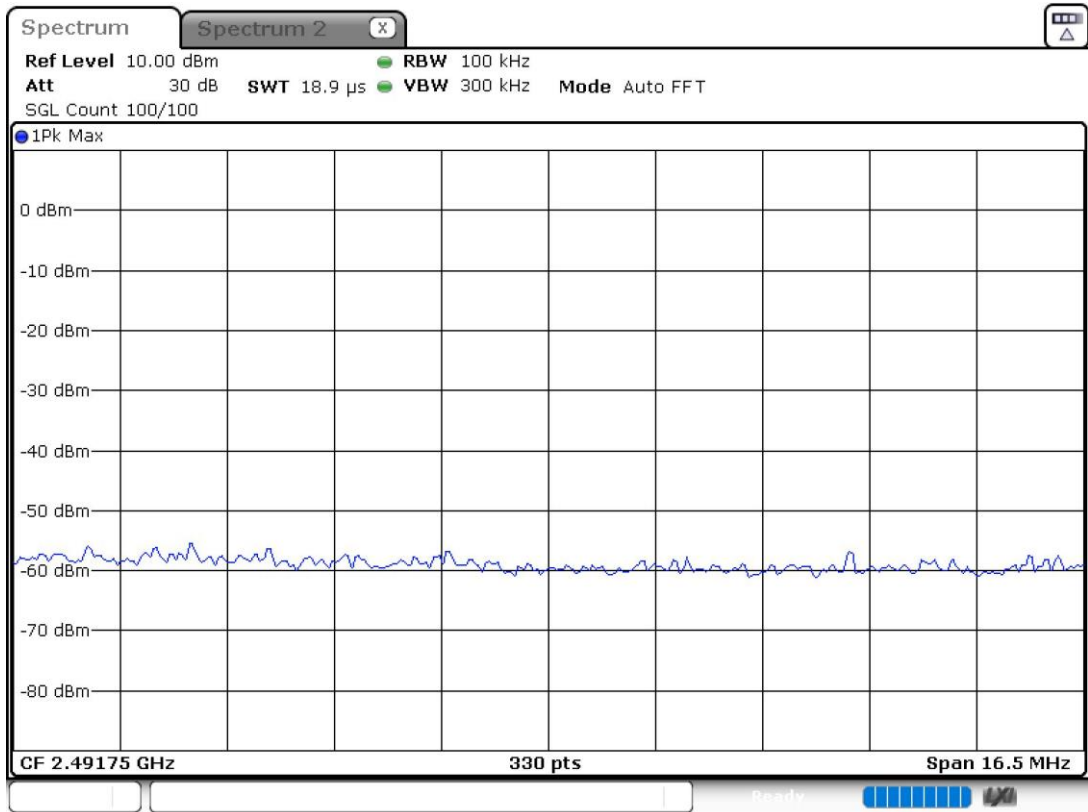




Hopping mode enabled, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
 Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

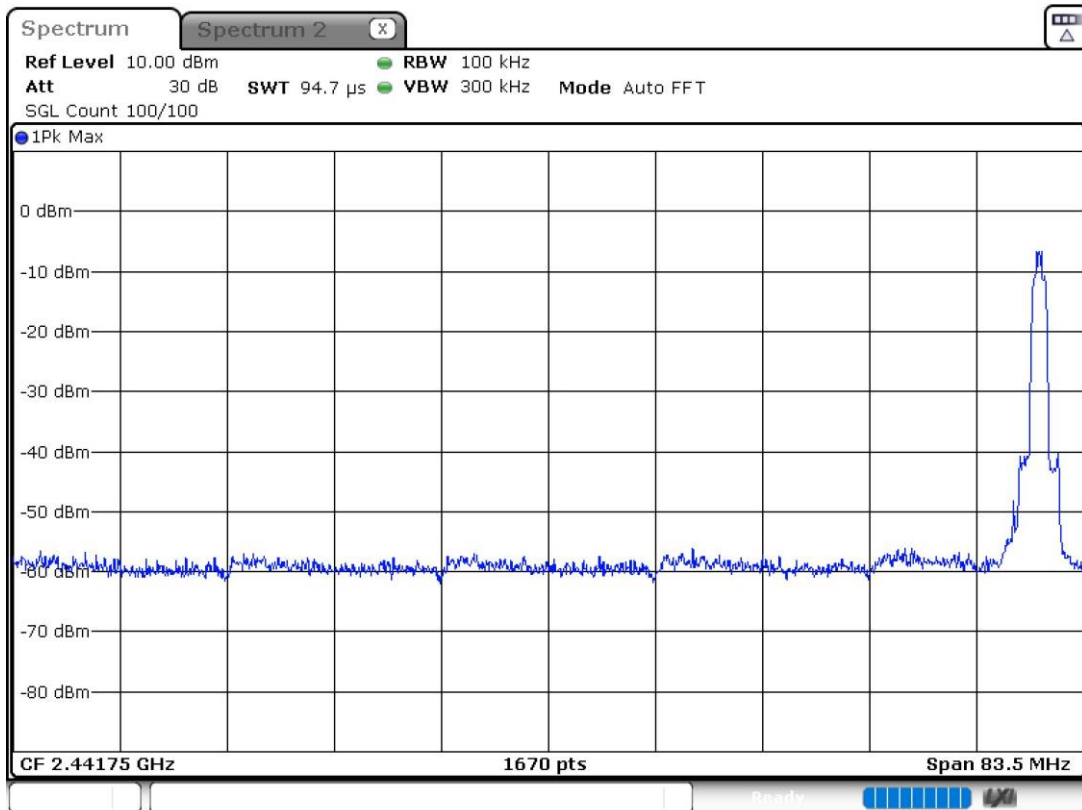
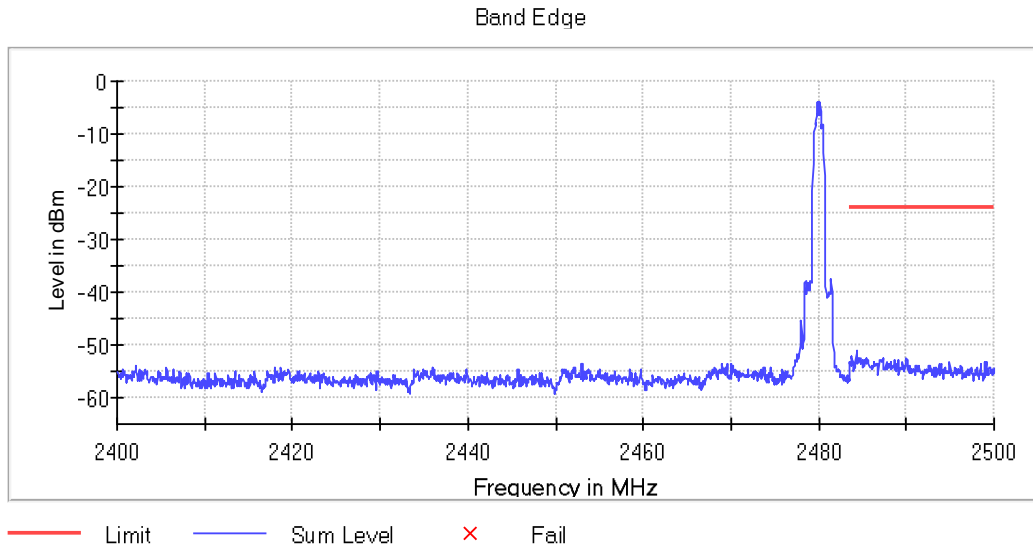
Plots:

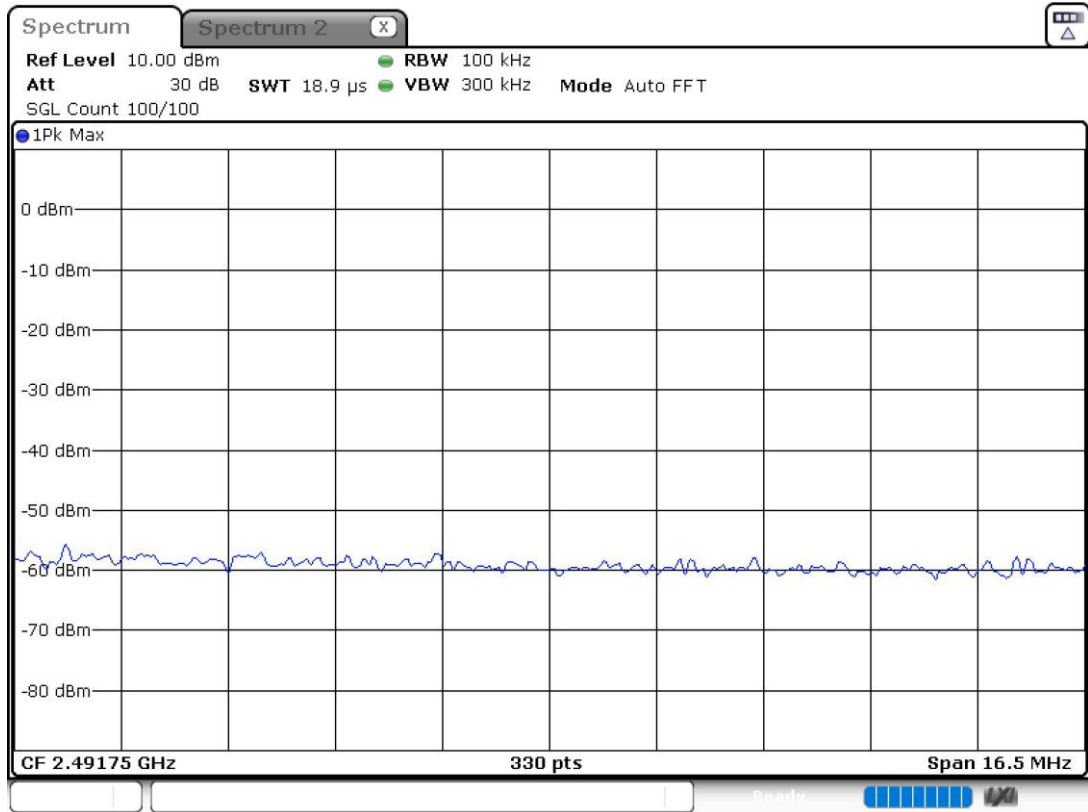




Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS),
 Bandwidth (MHz) = 1, Modulation: BT (8DPSK 3-DH5), Number of Transmission Chains = 1, Active Port: 2

Plots:





RSS-247 5.5 / FCC 15.247 (d) [RSE] Emission limitations radiated (Transmitter)

Limits

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)):

Frequency Range (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table specified when measuring with peak detector function.

RSS-247:

Attenuation below the general field strength limits specified in RSS-Gen is not required.

Results

Frequency range 30 MHz – 1 GHz:

The spurious frequencies detected do not depend on either the modulation or the operating channel.

Spurious frequencies detected at less than 20 dB below the limit:

Freq Rng (GHz)	Unwanted Freq (MHz)	Unwanted Lvl ($\text{dB}\mu\text{V/m}$)	Pol	Detector
[0.03, 1]	559.984	37.41	H	QP
	591.994	32.09	H	QP
	924.977	33.40	V	QP
	975.023	34.22	V	QP

Frequency range 1 GHz – 26 GHz:

Modulation: BT (GFSK 1-DH5)

No spurious frequencies found close to the limit.

Modulation: BT (Pi/4 DQPSK 2-DH5)

No spurious frequencies found close to the limit.

Modulation: BT (8DPSK 3-DH5)

No spurious frequencies found close to the limit.

Verdict

Pass

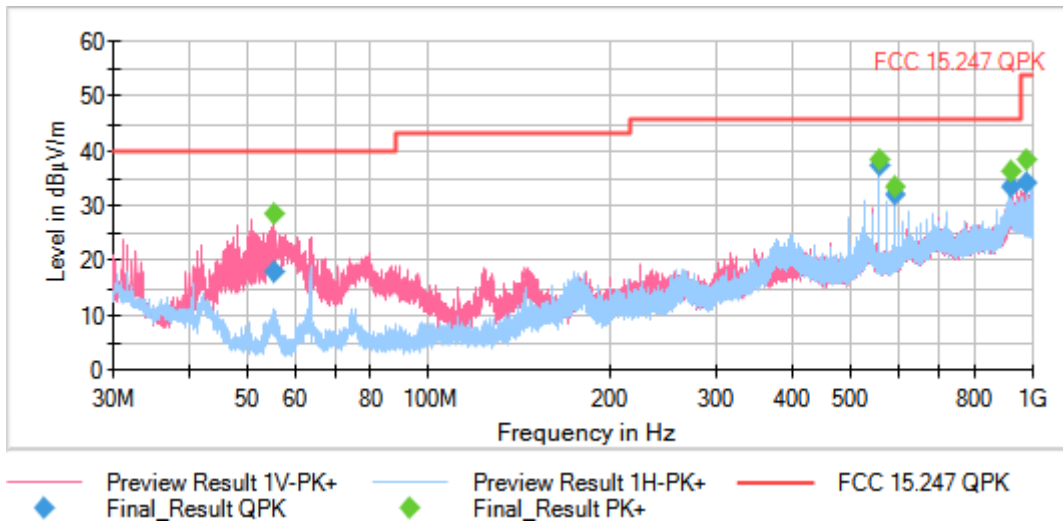
Attachments

Measurement settings:

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESR 7] 30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	0 dB
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [FSW 50] 1 GHz - 3 GHz	200 kHz	PK+ ; AVG	1 MHz	1 s	0 dB
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [FSW 50] 3 GHz - 17 GHz	140 kHz	PK+ ; AVG	1 MHz	1 s	0 dB
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [FSW 50] 17 GHz - 26 GHz	90 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Modulation: BT (GFSK 1-DH5),
 Frequency Range (GHz) = [0.03, 1], Number of Transmission Chains = 1

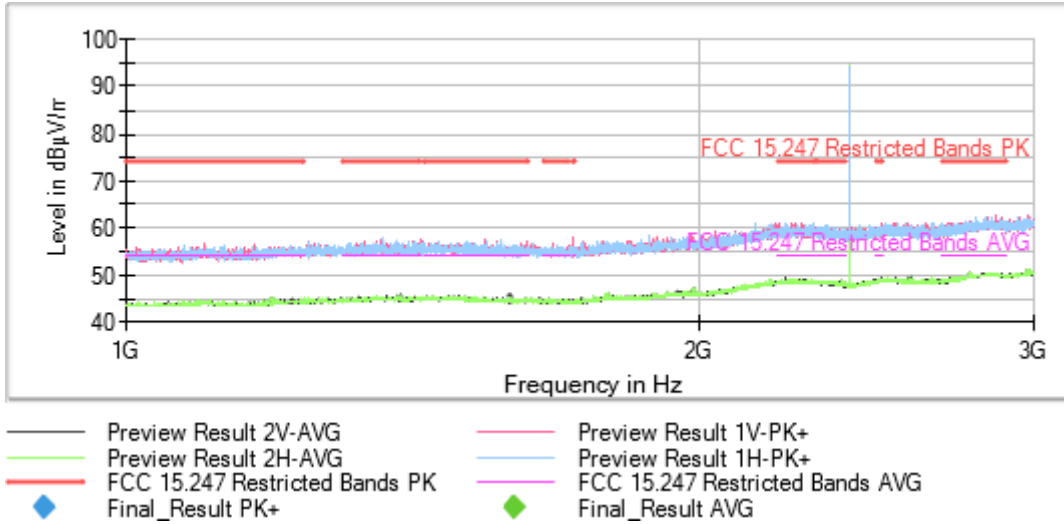
Plots:



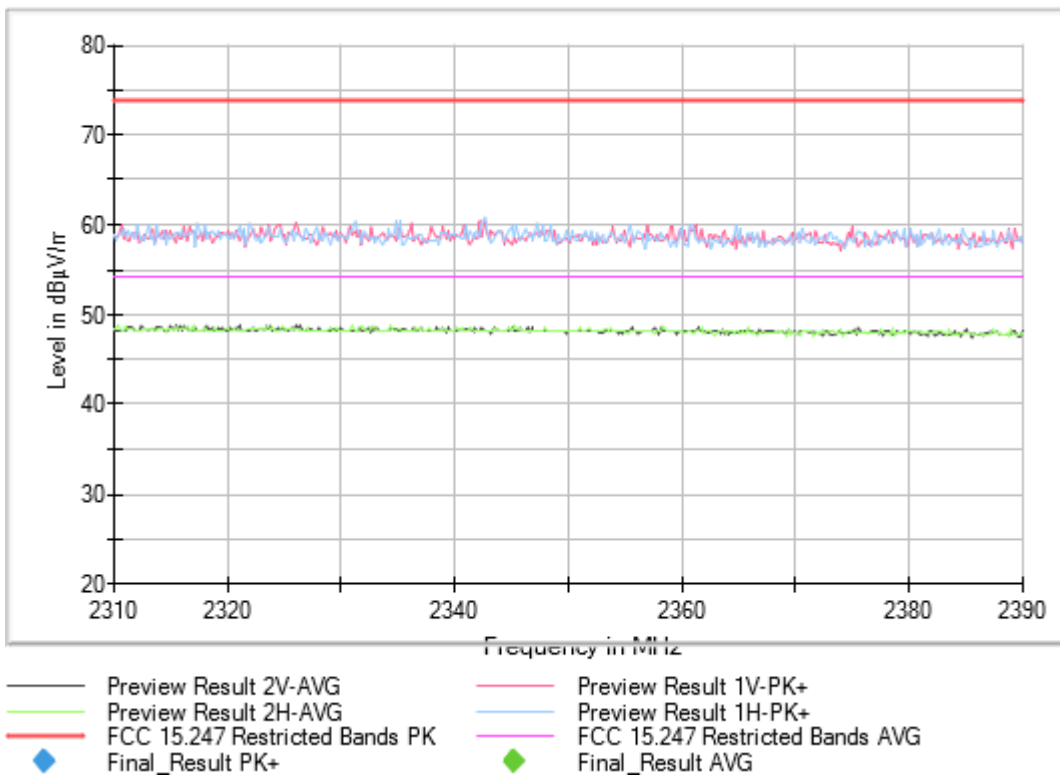
This plot is valid for Low, Middle and High Channels.

Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Modulation: BT (GFSK 1-DH5), Frequency Range (GHz) = [1, 3], Number of Transmission Chains = 1, Active Port: 2

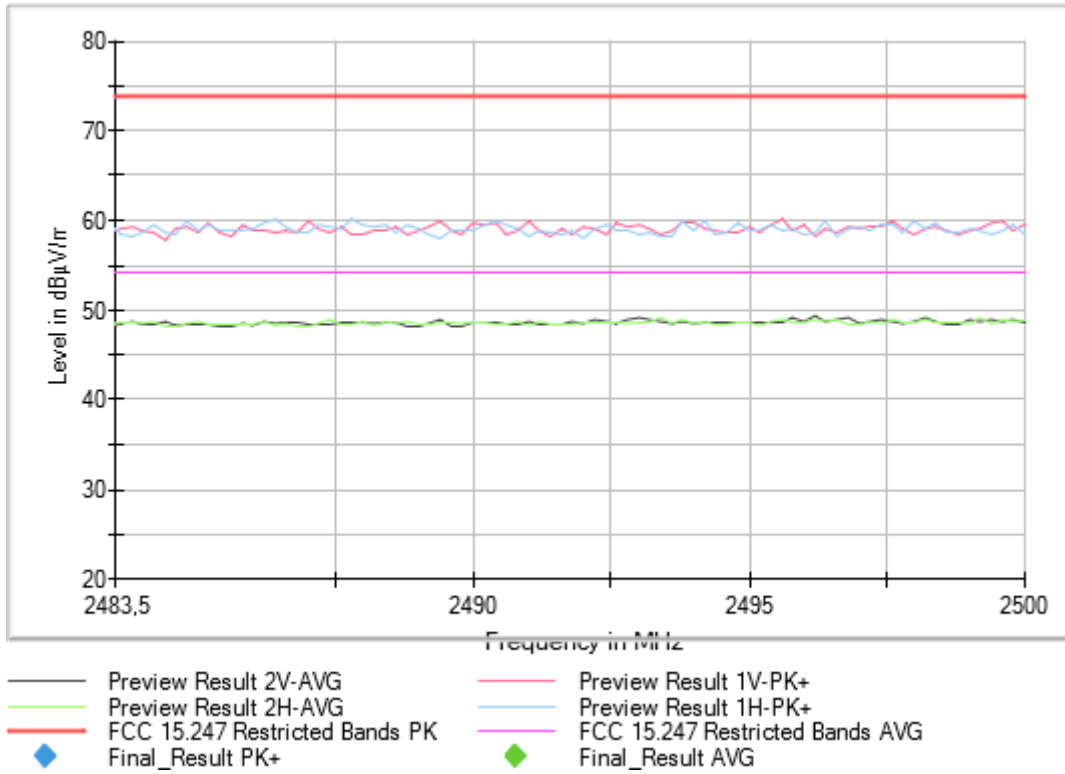
Plots:



Full Spectrum

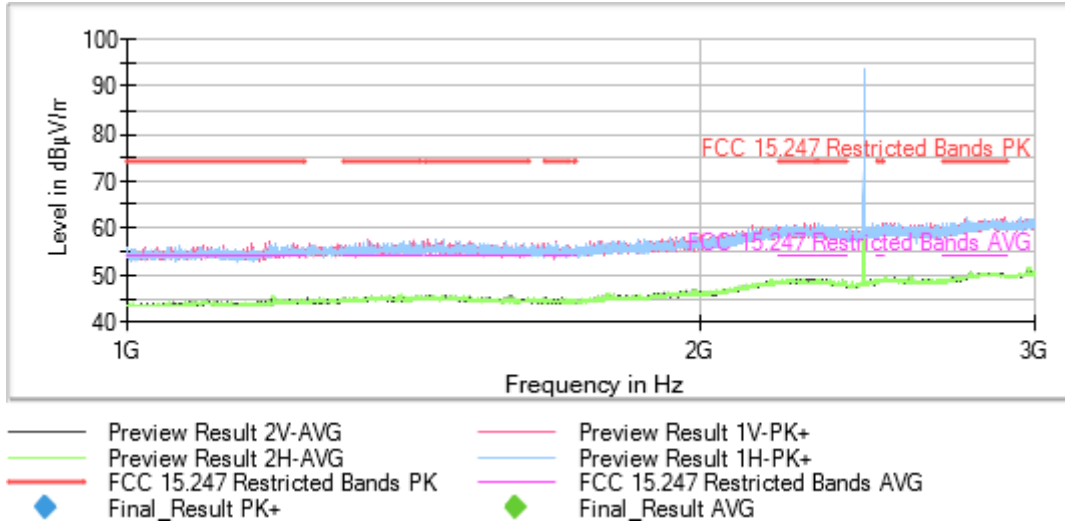


Full Spectrum

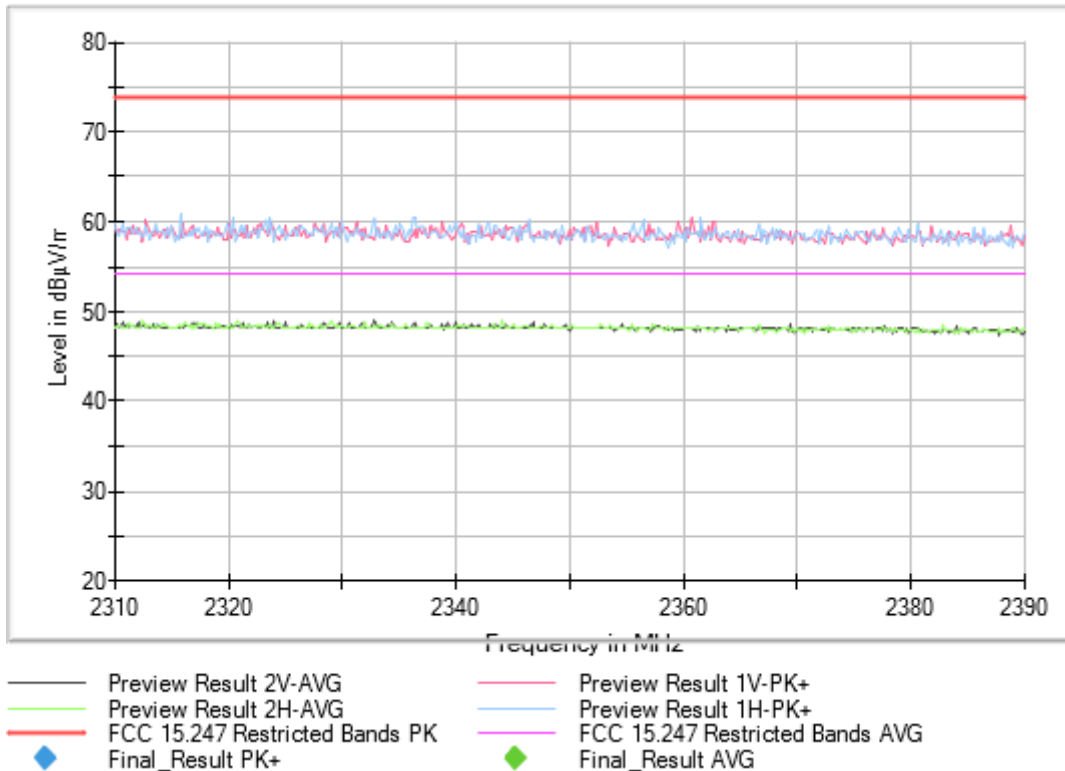


Frequency (MHz) = 2441.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Modulation: BT (GFSK 1-DH5), Frequency Range (GHz) = [1, 3], Number of Transmission Chains = 1, Active Port: 2

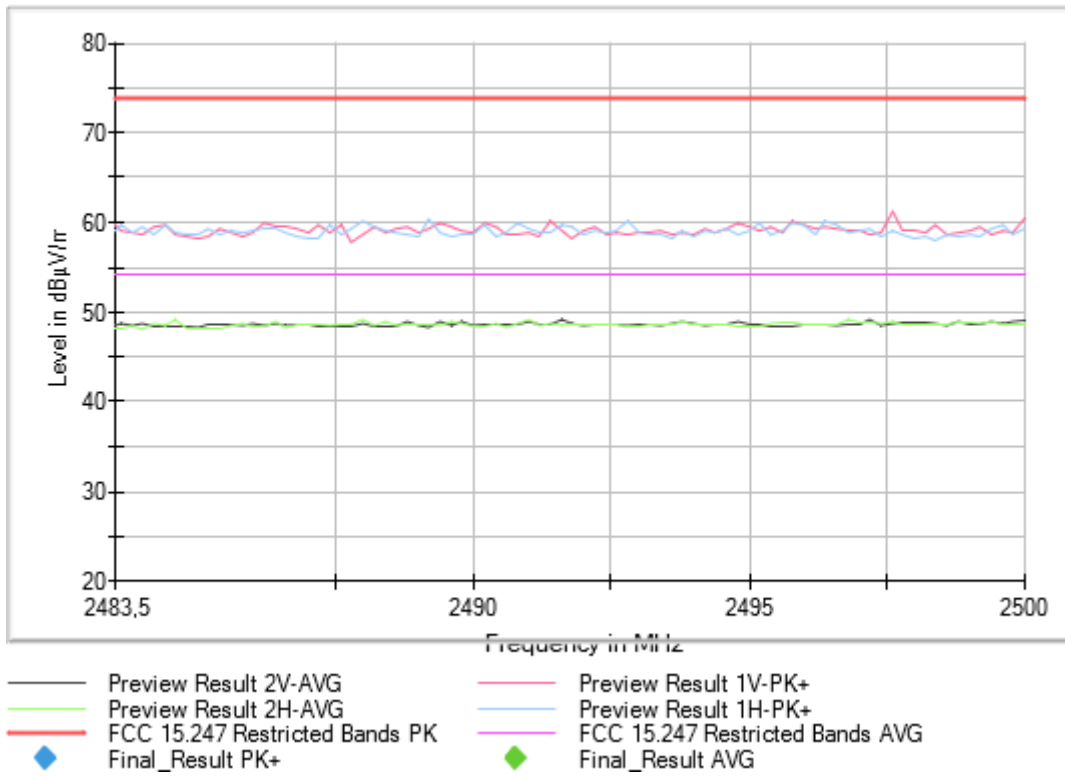
Plots:



Full Spectrum

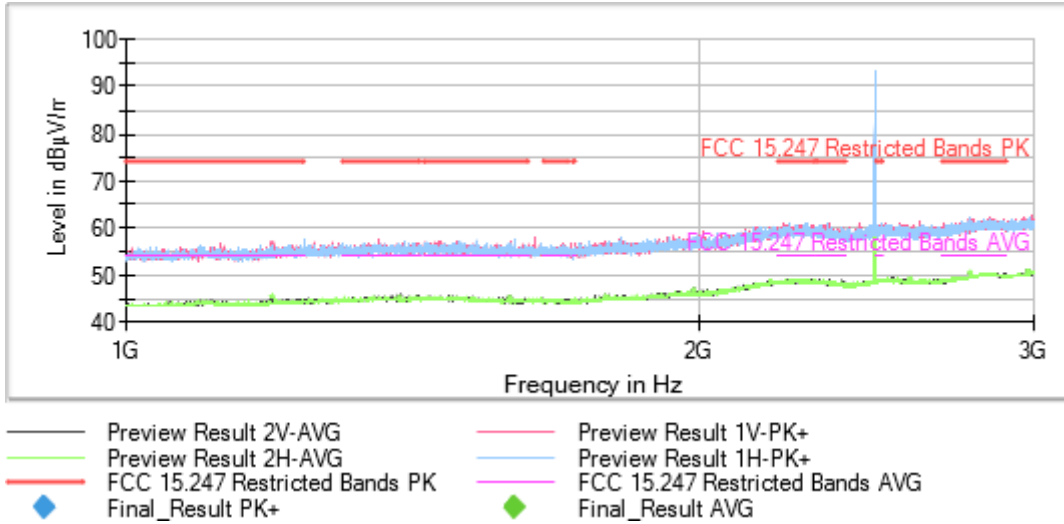


Full Spectrum

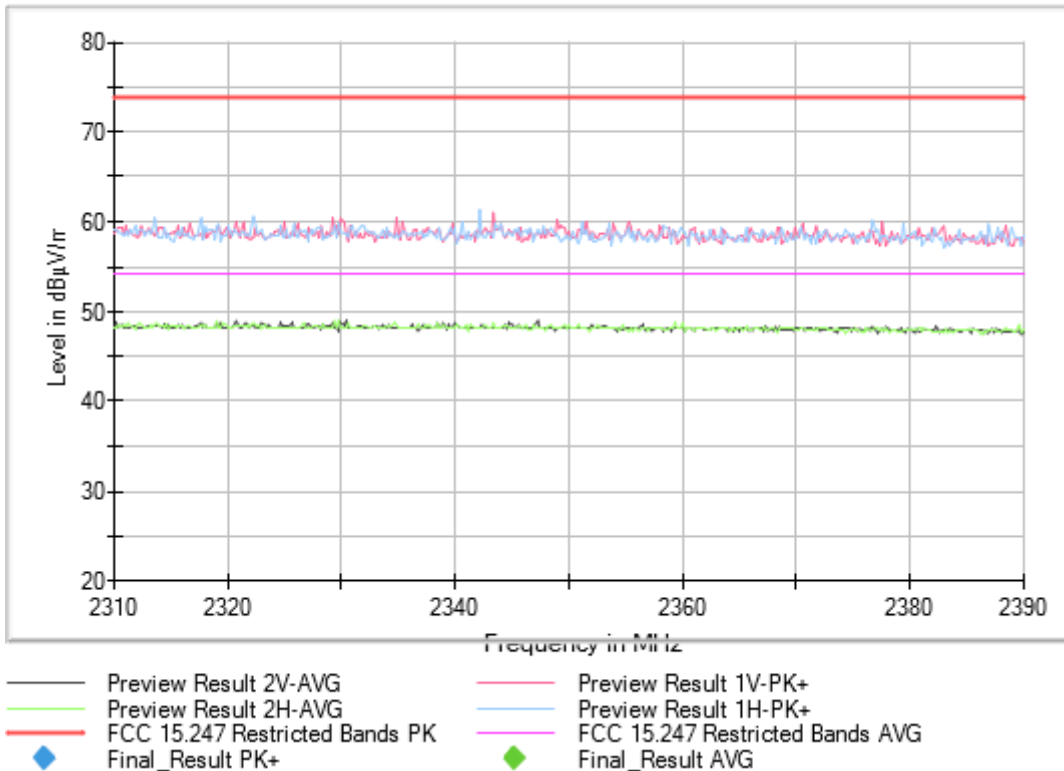


Frequency (MHz) = 2480.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Modulation: BT (GFSK 1-DH5), Frequency Range (GHz) = [1, 3], Number of Transmission Chains = 1, Active Port: 2

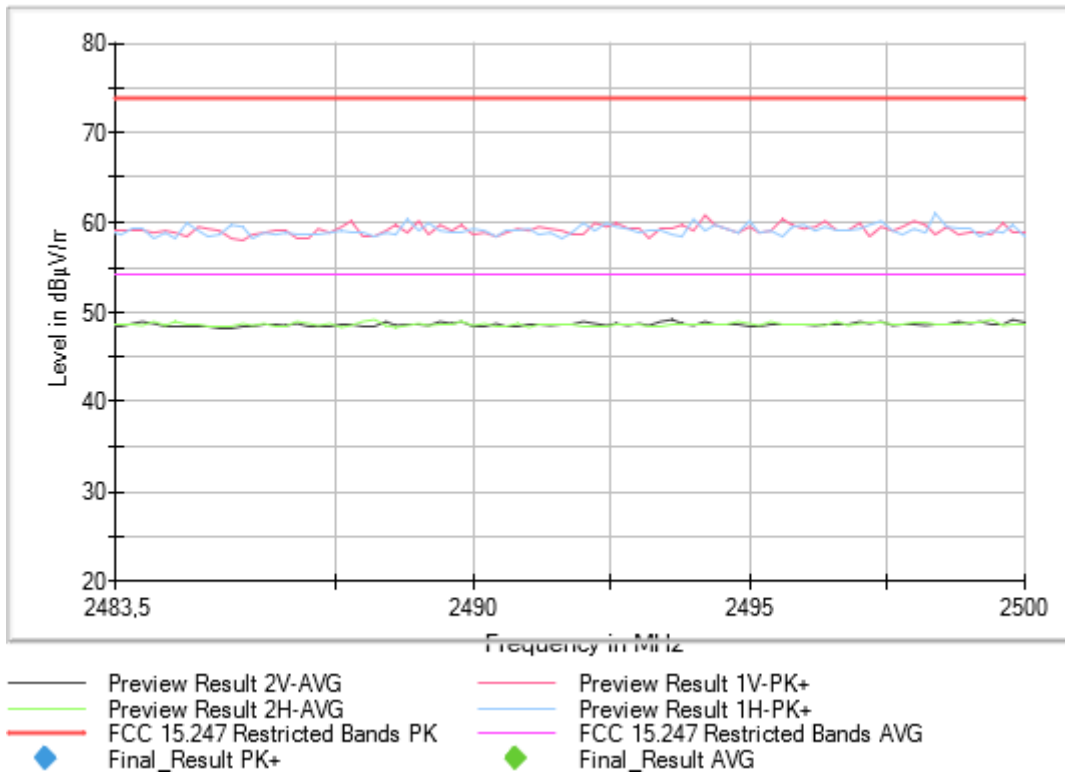
Plots:



Full Spectrum

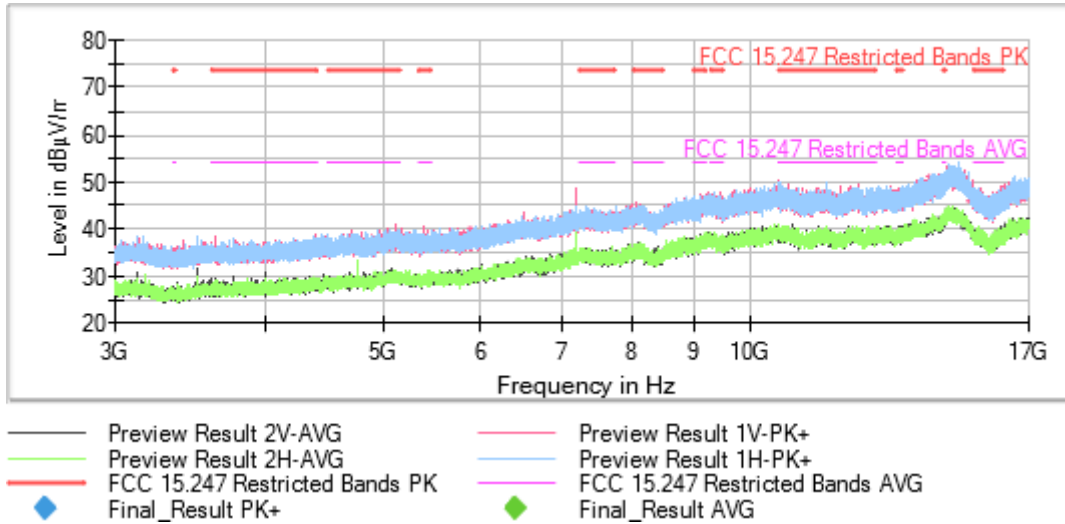


Full Spectrum



Frequency (MHz) = 2402.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Modulation: BT (GFSK 1-DH5), Frequency Range (GHz) = [3, 17], Number of Transmission Chains = 1, Active Port: 2

Plots:



Frequency (MHz) = 2441.00000, Equipment Type: Frequency Hopping Spread Spectrum systems (FHSS), Modulation: BT (GFSK 1-DH5), Frequency Range (GHz) = [3, 17], Number of Transmission Chains = 1, Active Port: 2

Plots:

