Conducted Output Power (802.11a-CH 157) 48 Mbps

Conducted Output Power (802.11a-CH 157) 54 Mbps

Conducted Output Power (802.11a-CH 165) 6 Mbps

Conducted Output Power (802.11a-CH 165) 9 Mbps

Conducted Output Power (802.11a-CH 165) 12 Mbps

Conducted Output Power (802.11a-CH 165) 18 Mbps

Conducted Output Power (802.11a-CH 165) 24 Mbps

Conducted Output Power (802.11a-CH 165) 36 Mbps

Conducted Output Power (802.11a-CH 165) 48 Mbps

Conducted Output Power (802.11a-CH 165) 54 Mbps

5745 MHz ~ 5825 MHz

Conducted Output Power (802.11n-CH 149) 6.5 Mbps

Conducted Output Power (802.11n-CH 149) 13 Mbps

Conducted Output Power (802.11n-CH 149) 19.5 Mbps

Conducted Output Power (802.11n-CH 149) 26 Mbps

Conducted Output Power (802.11n-CH 149) 39 Mbps

Conducted Output Power (802.11n-CH 149) 52 Mbps

Conducted Output Power (802.11n-CH 149) 58.5 Mbps

Conducted Output Power (802.11n-CH 149) 65 Mbps

Conducted Output Power (802.11n-CH 157) 6.5 Mbps

Conducted Output Power (802.11n-CH 157) 13 Mbps

Conducted Output Power (802.11n-CH 157) 19.5 Mbps

Conducted Output Power (802.11n-CH 157) 26 Mbps

Conducted Output Power (802.11n-CH 157) 39 Mbps

Conducted Output Power (802.11n-CH 157) 52 Mbps

Conducted Output Power (802.11n-CH 157) 58.5 Mbps

Conducted Output Power (802.11n-CH 157) 65 Mbps

Conducted Output Power (802.11n-CH 165) 6.5 Mbps

Conducted Output Power (802.11n-CH 165) 13 Mbps

Conducted Output Power (802.11n-CH 165) 19.5 Mbps

Conducted Output Power (802.11n-CH 165) 26 Mbps

Conducted Output Power (802.11n-CH 165) 39 Mbps

Conducted Output Power (802.11n-CH 165) 52 Mbps

Conducted Output Power (802.11n-CH 165) 58.5 Mbps

Conducted Output Power (802.11n-CH 165) 65 Mbps

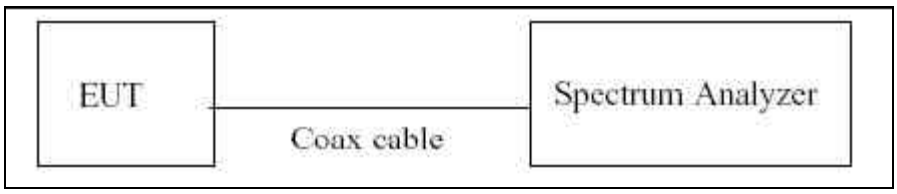
7.3 POWER SPECTRAL DENSITY (802.11a/b/g/n)

Test Requirements and limit, §15.247(e)

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

Minimum Standard – The transmitter power density average over 1-second interval shall not be greater than 8dBm in any 3kHz BW.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The spectrum analyzer is set to :

1. Span = 300 kHz
2. RBW = 3 kHz
3. VBW = 3 kHz
4. Sweep = 100 sec
5. Detector Mode = Peak

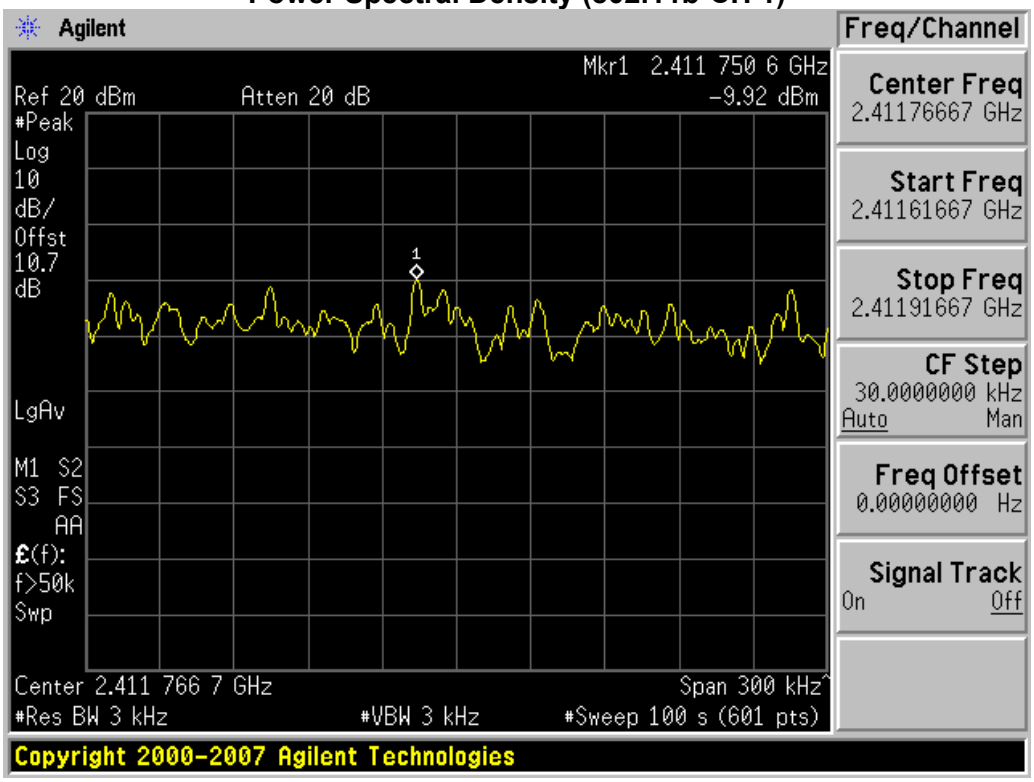
▣ TEST RESULTS

Conducted Power Density Measurements

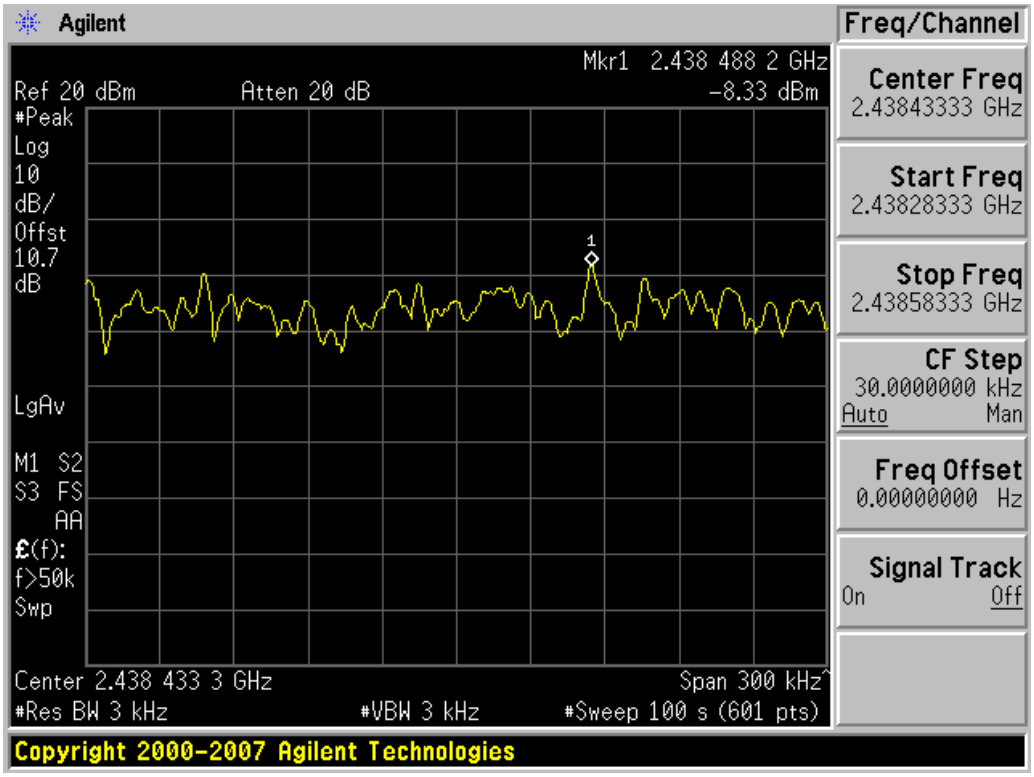
Frequency (MHz)	Channel No.	Mode	Test Result	
			Power Density (dBm)	Pass/Fail
2412	1	802.11b	-9.92	Pass
2437	6		-8.33	Pass
2462	11		-8.93	Pass
2412	1	802.11g	-12.55	Pass
2437	6		-11.88	Pass
2462	11		-13.23	Pass
2412	1	802.11n 2.4 GHz Band	-14.85	Pass
2437	6		-14.41	Pass
2462	11		-14.95	Pass
5745	149	802.11a	-12.883	Pass
5785	157		-13.261	Pass
5825	165		-13.382	Pass
5745	149	802.11n 5.8 GHz Band	-14.995	Pass
5785	157		-14.784	Pass
5825	165		-14.639	Pass

▣ RESULT PLOTS

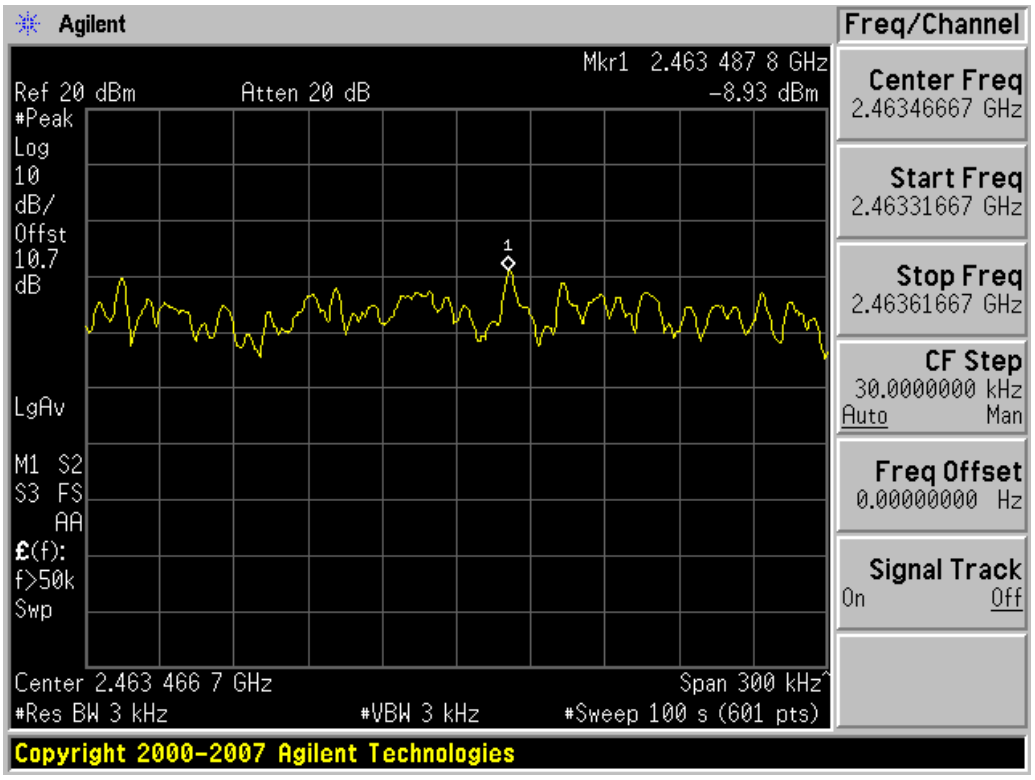
Power Spectral Density (802.11b-CH 1)



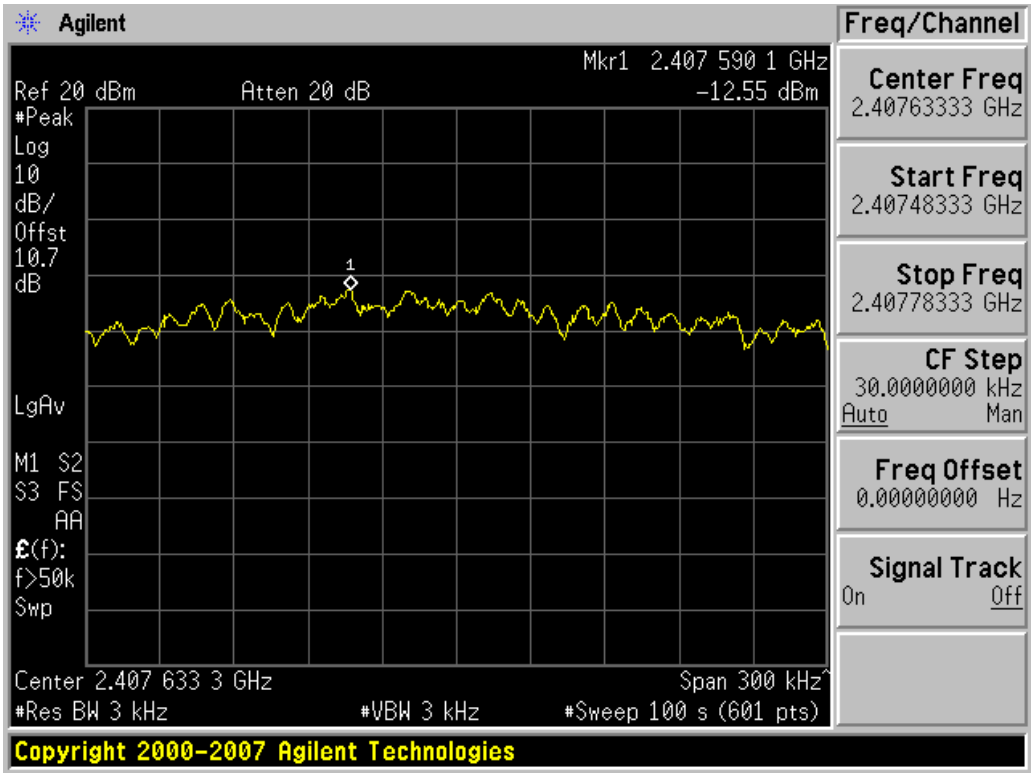
Power Spectral Density (802.11b-CH 6)



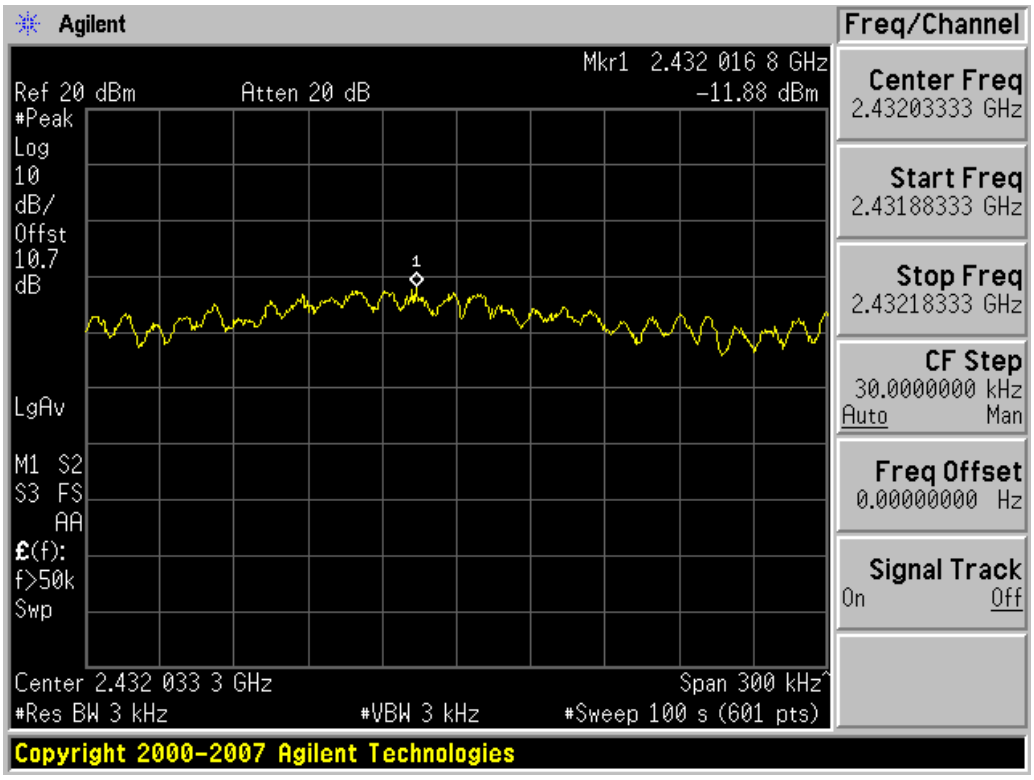
Power Spectral Density (802.11b-CH 11)



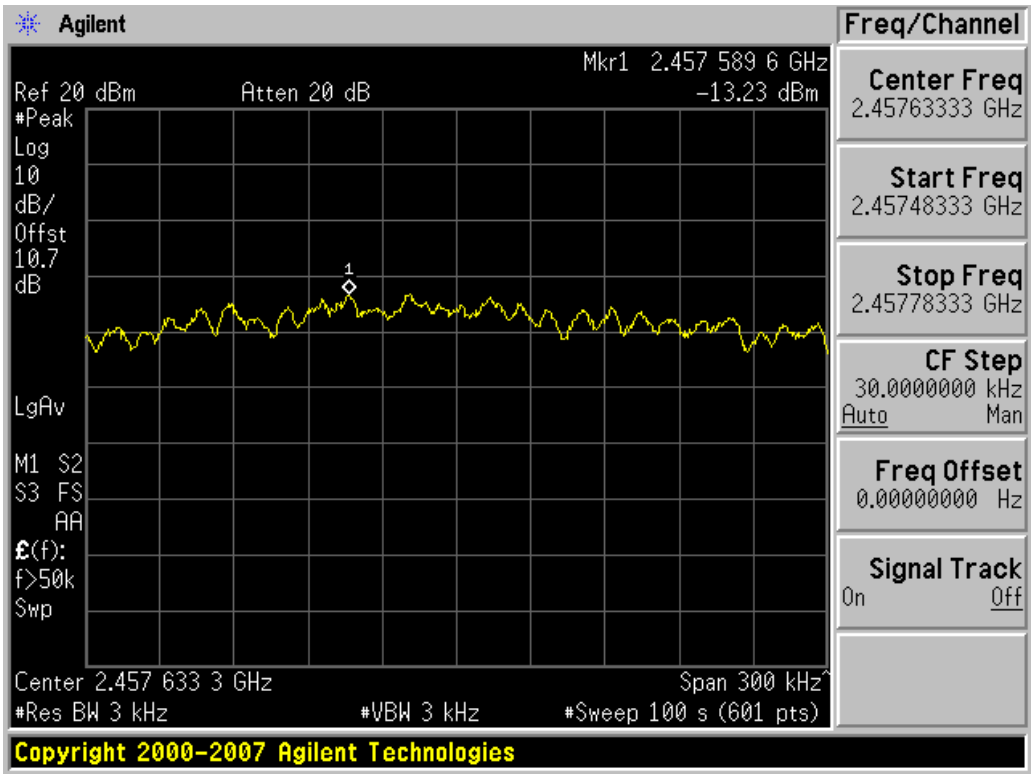
Power Spectral Density (802.11g-CH 1)



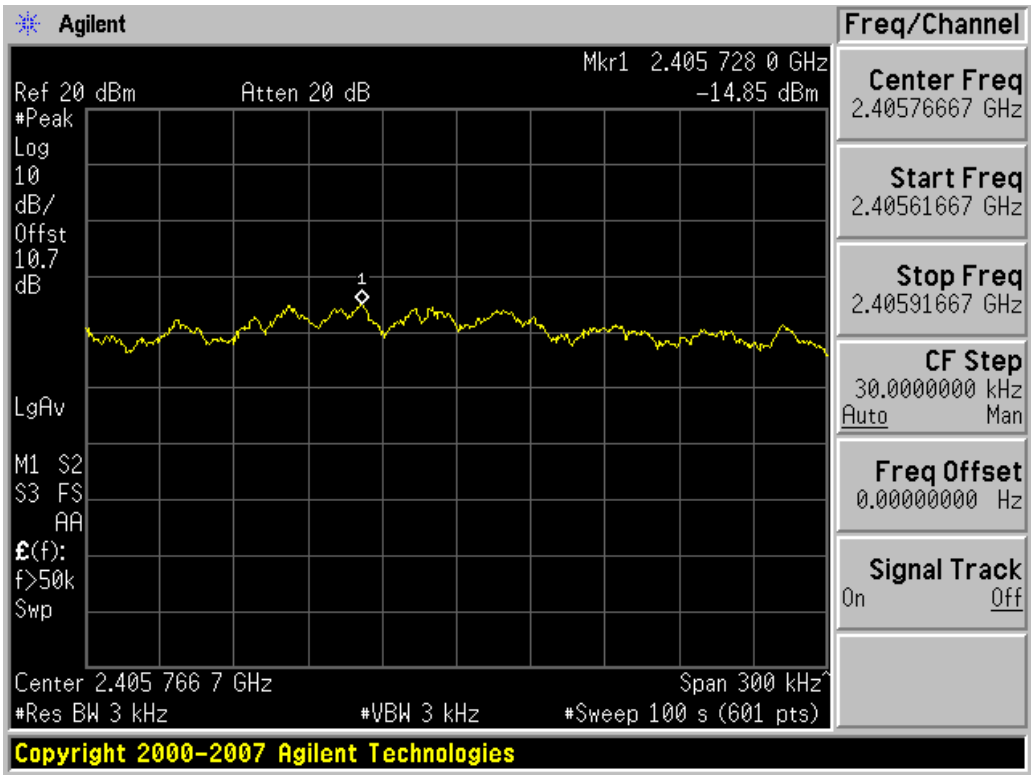
Power Spectral Density (802.11g-CH 6)



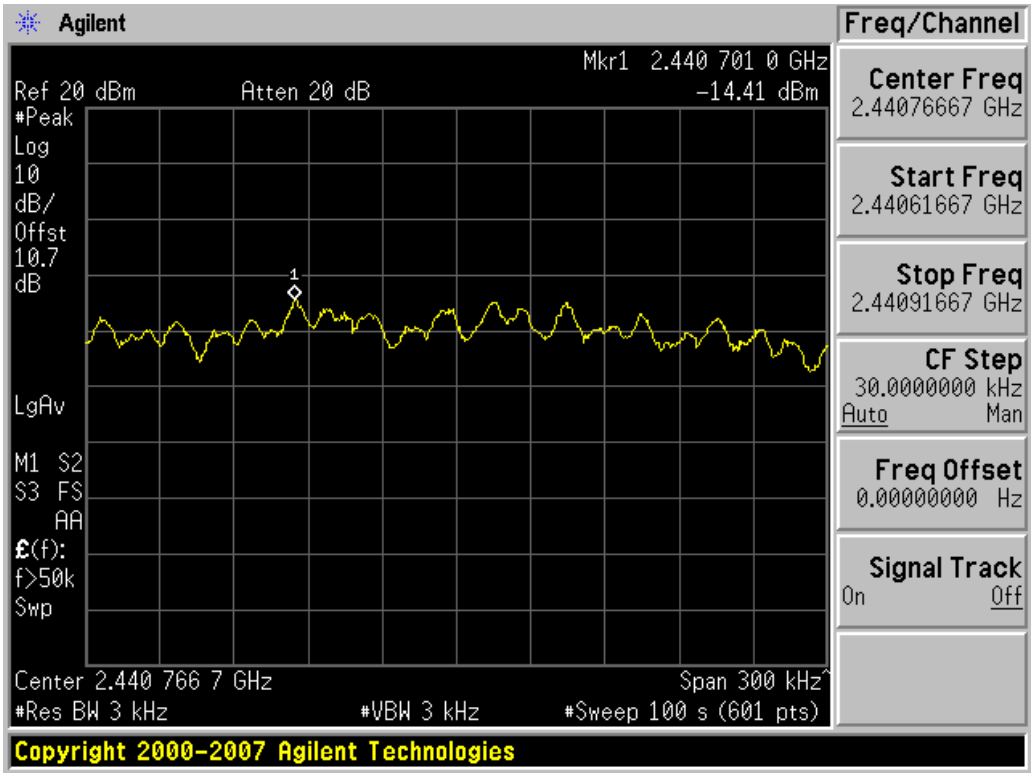
Power Spectral Density (802.11g-CH11)



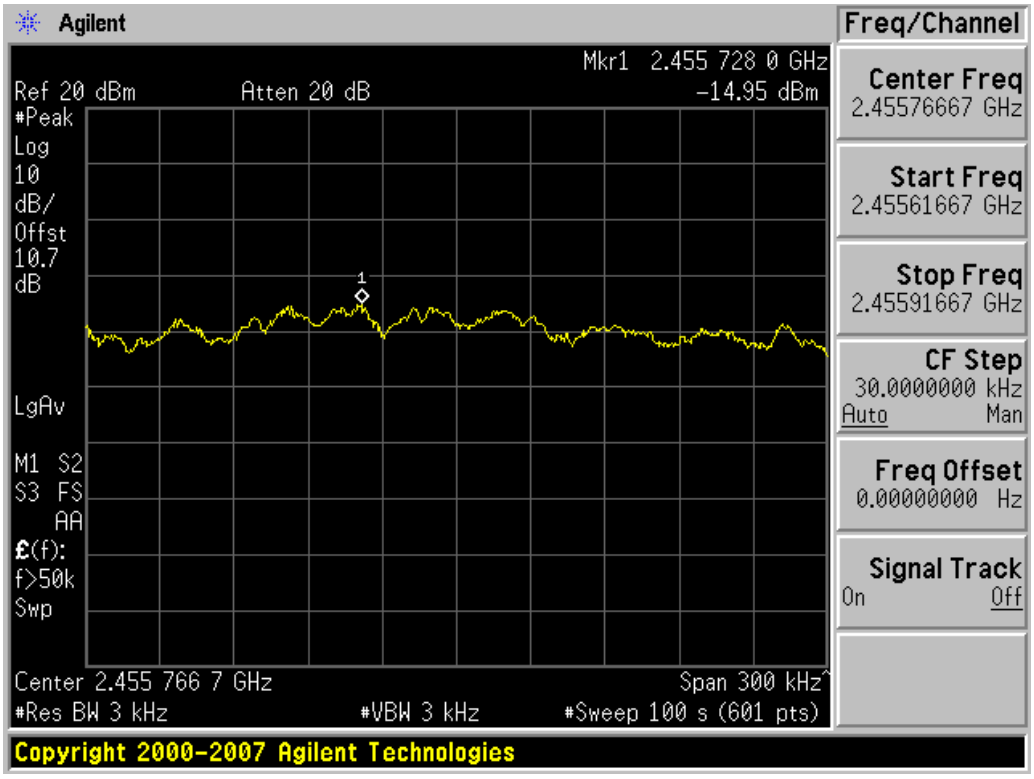
Power Spectral Density (802.11n-CH 1)



Power Spectral Density (802.11n-CH 6)

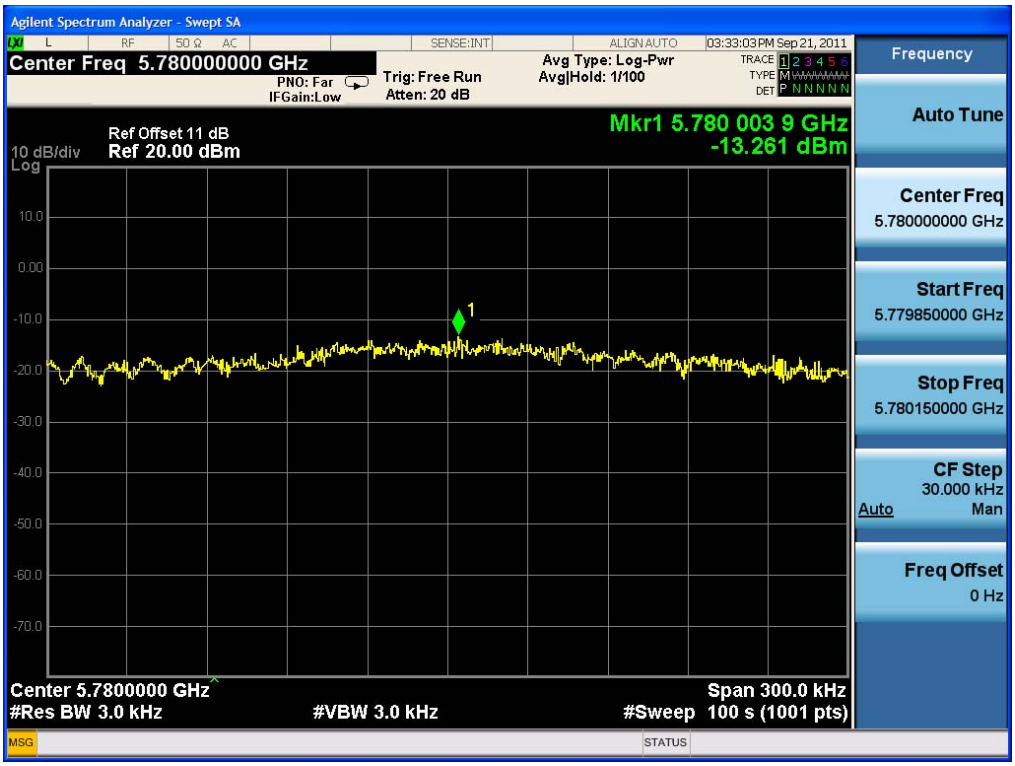


Power Spectral Density (802.11n-CH11)



Power Spectral Density (802.11a-CH 149)

Power Spectral Density (802.11a-CH 157)



Power Spectral Density (802.11a-CH 165)

Power Spectral Density (802.11n-CH 149)

Power Spectral Density (802.11n-CH 157)

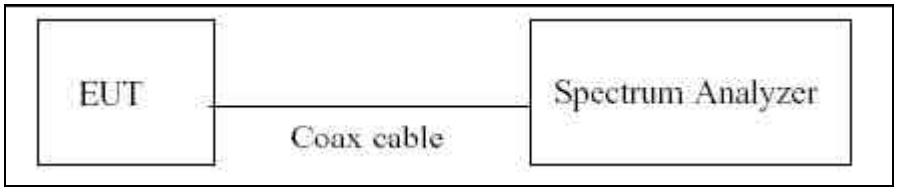
Power Spectral Density (802.11n-CH 165)

7.4 OUT OF BAND EMISSIONS AT THE BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS

Test Requirements and limit, §15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in§ 15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

▣ TEST CONFIGURATION



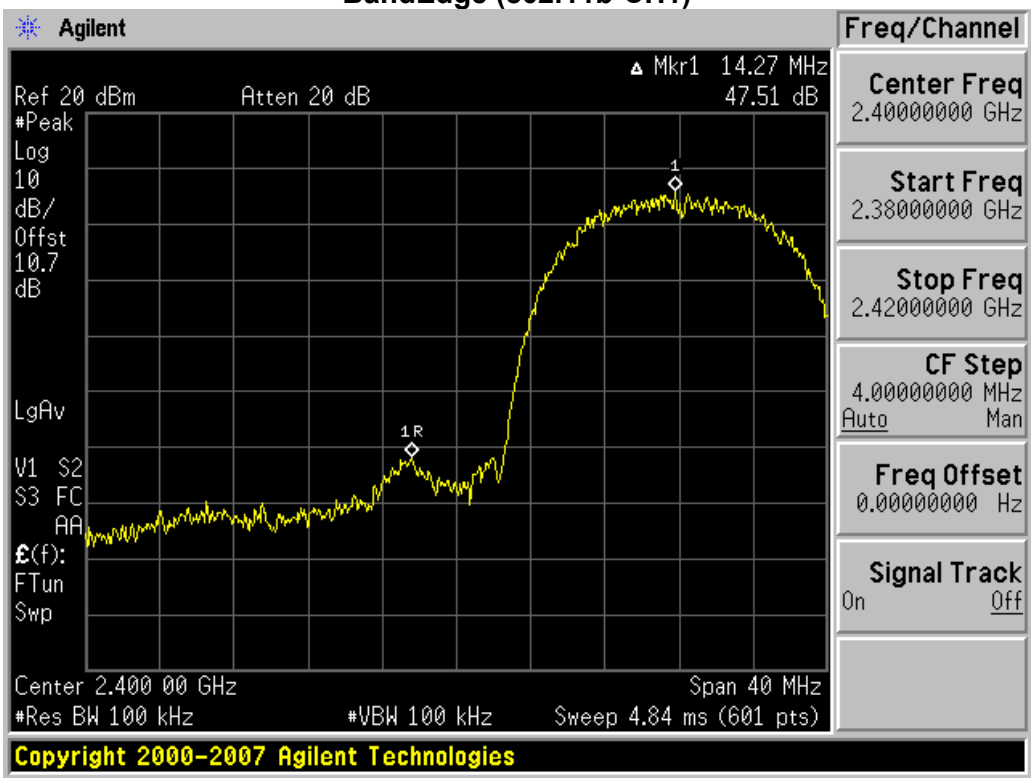
▣ TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.
Detector Mode is set to a peak detector Mode.

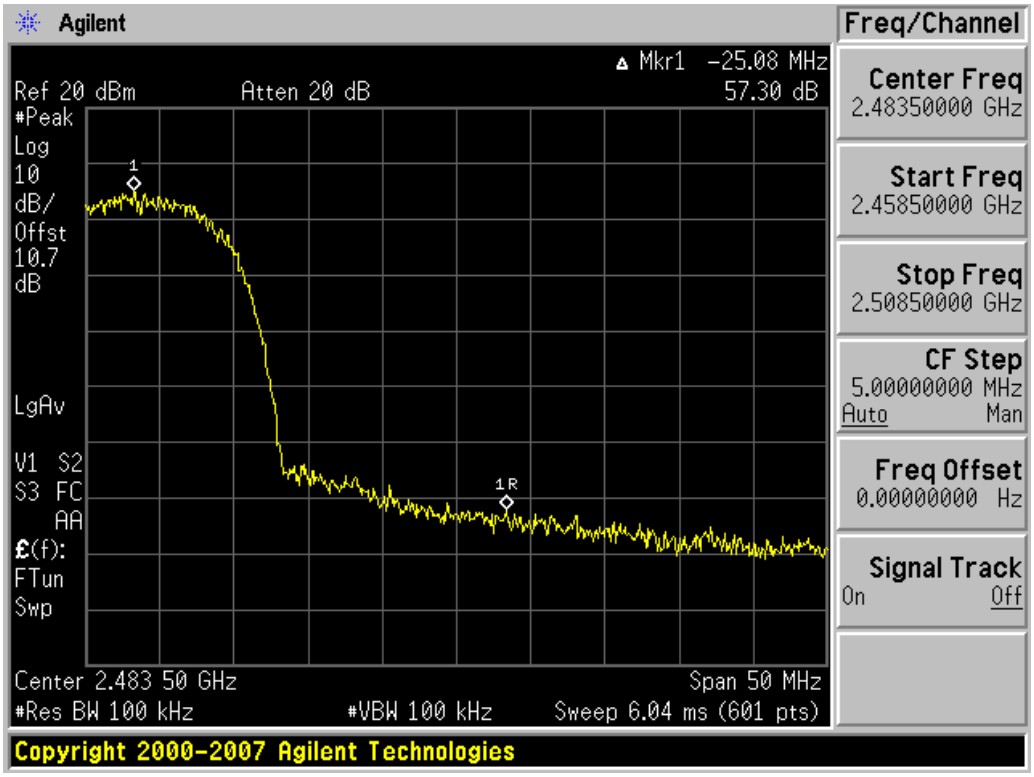
Measurements are made over the 30 MHz to 26 GHz range with the transmitter set to the lowest, middle, and highest channels.

▣ RESULT PLOTS

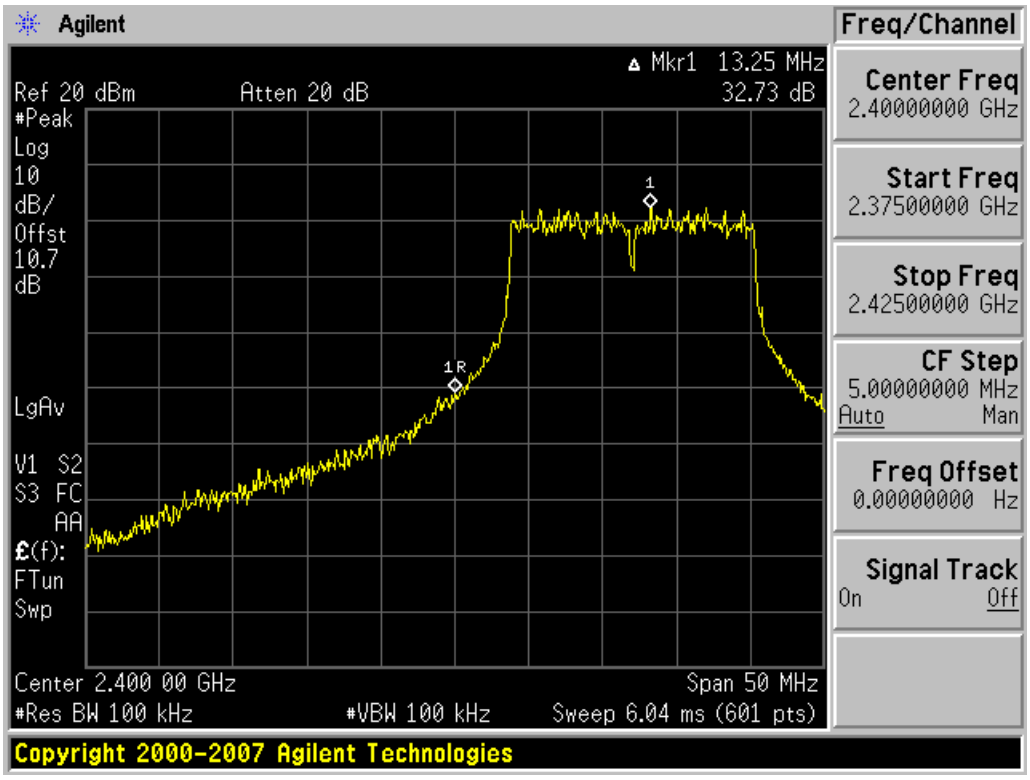
BandEdge (802.11b-CH1)



BandEdge (802.11b-CH11)



BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)