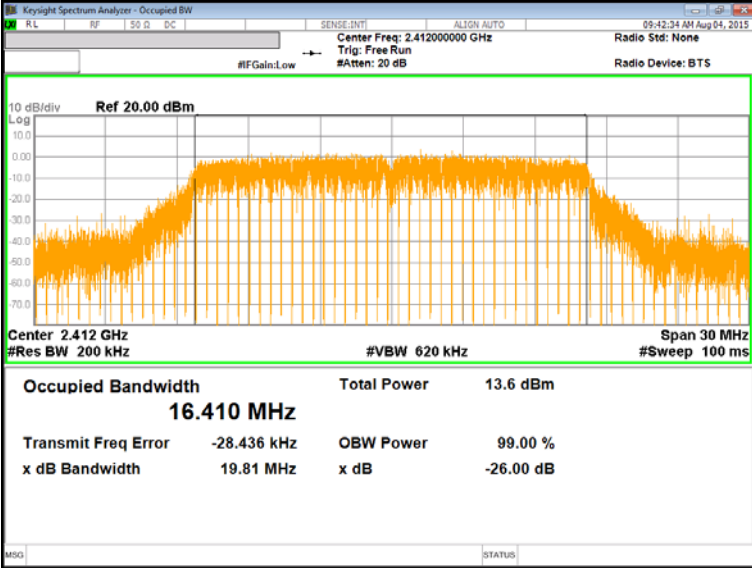
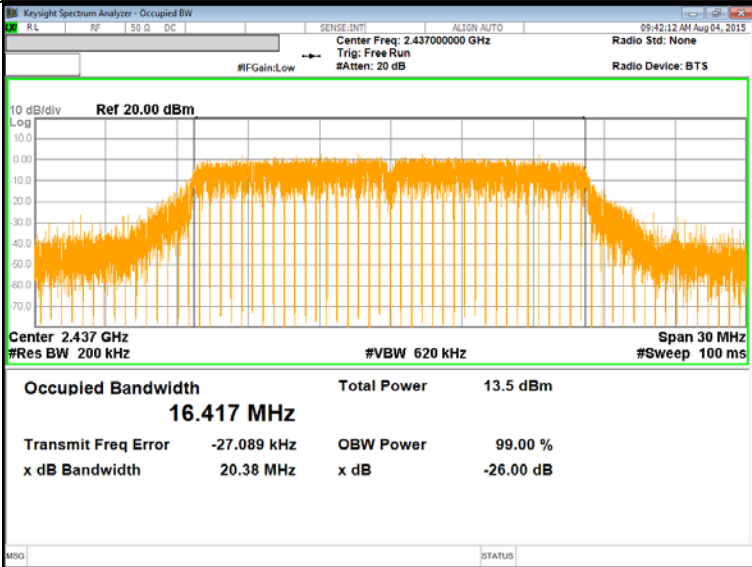
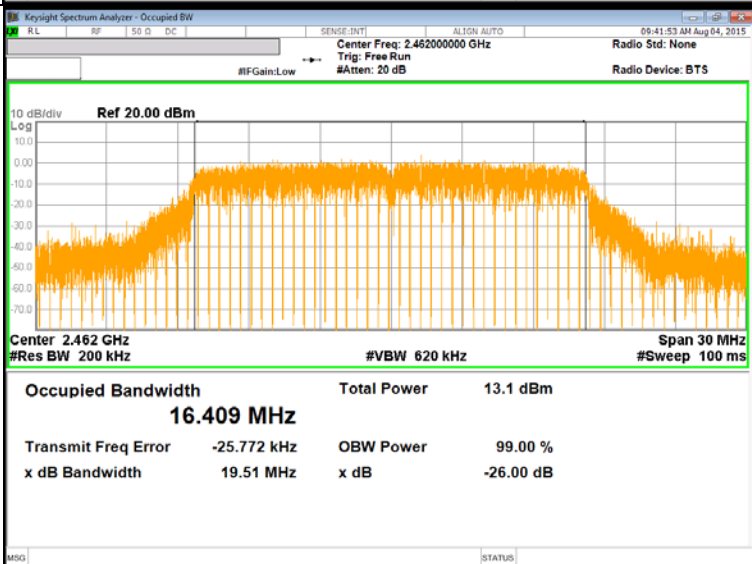
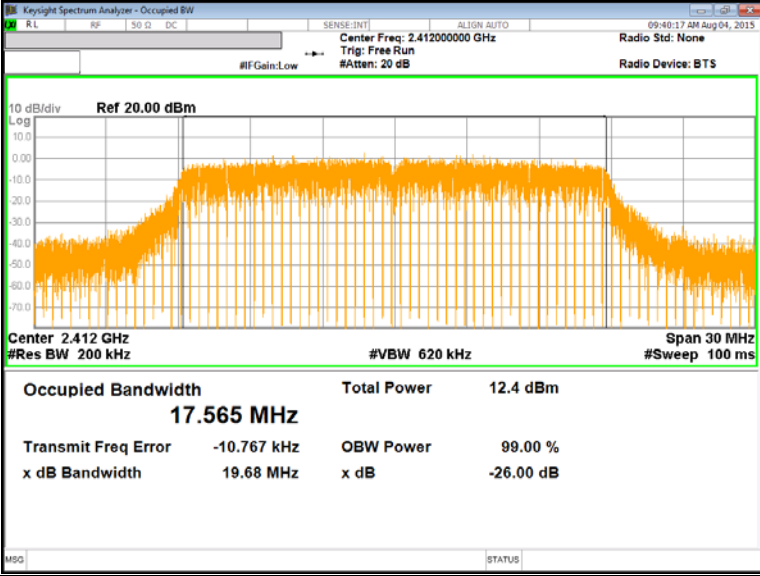
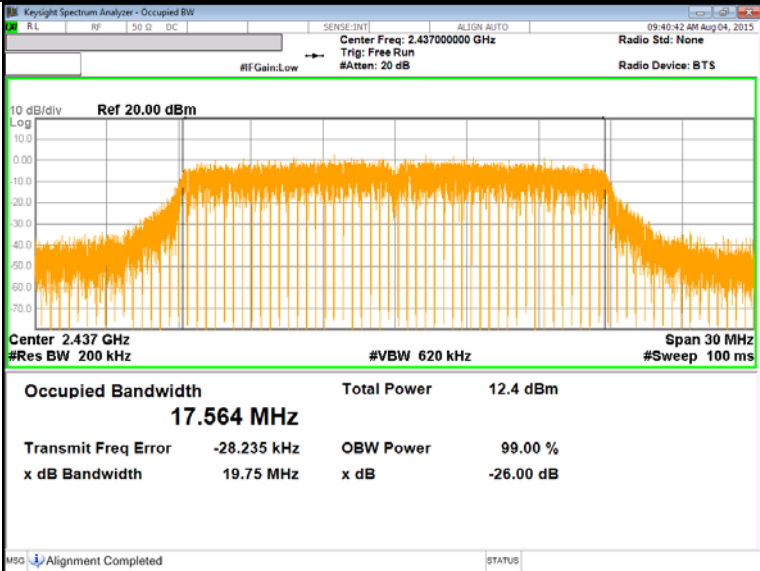
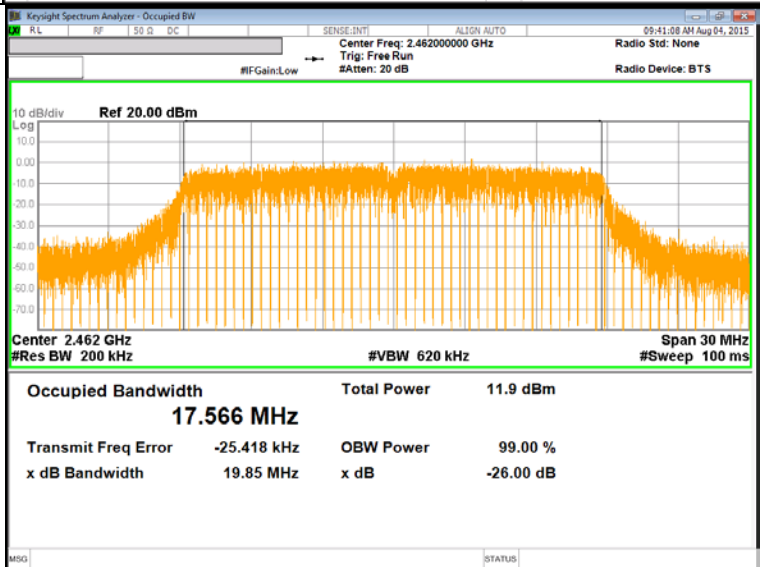


802.11g Mode Low CH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run #Gain: Low #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm 10 dB/div Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Center 2.412 GHz #Res BW 200 kHz #VBW 620 kHz Span 30 MHz #Sweep 100 ms Occupied Bandwidth 16.410 MHz Total Power 13.6 dBm Transmit Freq Error -28.436 kHz OBW Power 99.00 % x dB Bandwidth 19.81 MHz x dB -26.00 dB MSG STATUS
802.11g Mode Middle CH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.43700000 GHz Trig: Free Run #Gain: Low #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm 10 dB/div Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Center 2.437 GHz #Res BW 200 kHz #VBW 620 kHz Span 30 MHz #Sweep 100 ms Occupied Bandwidth 16.417 MHz Total Power 13.5 dBm Transmit Freq Error -27.089 kHz OBW Power 99.00 % x dB Bandwidth 20.38 MHz x dB -26.00 dB MSG STATUS
802.11g Mode High CH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.46200000 GHz Trig: Free Run #Gain: Low #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm 10 dB/div Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Center 2.462 GHz #Res BW 200 kHz #VBW 620 kHz Span 30 MHz #Sweep 100 ms Occupied Bandwidth 16.409 MHz Total Power 13.1 dBm Transmit Freq Error -25.772 kHz OBW Power 99.00 % x dB Bandwidth 19.51 MHz x dB -26.00 dB MSG STATUS

802.11n Mode Low CH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.412 GHz #Res BW 200 kHz #VBW 620 kHz Span 30 MHz #Sweep 100 ms Occupied Bandwidth 17.565 MHz Total Power 12.4 dBm Transmit Freq Error -10.767 kHz OBW Power 99.00 % x dB Bandwidth 19.68 MHz x dB -26.00 dB
802.11n Mode Middle CH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.43700000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.437 GHz #Res BW 200 kHz #VBW 620 kHz Span 30 MHz #Sweep 100 ms Occupied Bandwidth 17.564 MHz Total Power 12.4 dBm Transmit Freq Error -28.235 kHz OBW Power 99.00 % x dB Bandwidth 19.75 MHz x dB -26.00 dB Alignment Completed
802.11n Mode High CH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.46200000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.462 GHz #Res BW 200 kHz #VBW 620 kHz Span 30 MHz #Sweep 100 ms Occupied Bandwidth 17.566 MHz Total Power 11.9 dBm Transmit Freq Error -25.418 kHz OBW Power 99.00 % x dB Bandwidth 19.85 MHz x dB -26.00 dB

10.3. OUTPUT POWER

LIMITS

FCC §15.247

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, 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 by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10.1 dB (including 10 dB pad and 0.1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

10.3.1. 802.11b MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency [MHz]	Directional Gain Primary [dBi]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Max Power [dBm]
Low	2412	-1.50	30.00	30.00	36.00	30.00
Mid	2437	-1.50	30.00	30.00	36.00	30.00
High	2462	-1.50	30.00	30.00	36.00	30.00

Results

Channel	Frequency [MHz]	Primary Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Margin [dB]
Low	2412	16.92	16.92	36.00	-19.08
Mid	2437	16.82	16.82	36.00	-19.18
High	2462	16.47	16.47	36.00	-19.53
Worst			16.92	36.00	-19.08

10.3.2. 802.11g MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency [MHz]	Directional Gain Primary [dBi]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Max Power [dBm]
Low	2412	-1.50	30.00	30.00	36.00	30.00
Mid	2437	-1.50	30.00	30.00	36.00	30.00
High	2462	-1.50	30.00	30.00	36.00	30.00

Results

Channel	Frequency [MHz]	Primary Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Margin [dB]
Low	2412	14.15	14.15	36.00	-21.85
Mid	2437	14.09	14.09	36.00	-21.91
High	2462	13.65	13.65	36.00	-22.35
Worst			14.15	36.00	-21.85

10.3.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency [MHz]	Directional Gain Primary [dBi]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Max Power [dBm]
Low	2412	-1.50	30.00	30.00	36.00	30.00
Mid	2437	-1.50	30.00	30.00	36.00	30.00
High	2462	-1.50	30.00	30.00	36.00	30.00

Results

Channel	Frequency [MHz]	Primary Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Margin [dB]
Low	2412	13.02	13.02	36.00	-22.98
Mid	2437	12.85	12.85	36.00	-23.15
High	2462	12.46	12.46	36.00	-23.54
Worst			13.02	36.00	-22.98

10.4. PSD

LIMITS

FCC §15.247

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

Power Spectral Density was performed utilizing the "Method AVGPS-2" under KDB558074 D01 DTS Meas Guidance v03r03

RESULTS

10.4.1. 802.11b MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency [MHz]	PSD Meas [dBm]	Duty Factor [dB]	Final PSD [dBm]	Limit [dBm]	Margin [dB]
Low	2412	-12.765	0.00	-12.77	8.00	-20.77
Mid	2437	-10.061	0.00	-10.06	8.00	-18.06
High	2462	-9.605	0.00	-9.61	8.00	-17.61

10.4.2. 802.11g MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency [MHz]	PSD Meas [dBm]	Duty Factor [dB]	Final PSD [dBm]	Limit [dBm]	Margin [dB]
Low	2412	-16.856	0.29	-16.57	8.00	-24.86
Mid	2437	-16.222	0.29	-15.93	8.00	-24.22
High	2462	-16.858	0.29	-16.57	8.00	-24.86

10.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency [MHz]	PSD Meas [dBm]	Duty Factor [dB]	Final PSD [dBm]	Limit [dBm]	Margin [dB]
Low	2412	-18.235	0.34	-17.90	8.00	-26.24
Mid	2437	-18.392	0.34	-18.05	8.00	-26.39
High	2462	-18.372	0.34	-18.03	8.00	-26.37

10.4.4. PSD PLOTS

802.11b Mode Low CH	
802.11b Mode Middle CH	
802.11b Mode High CH	