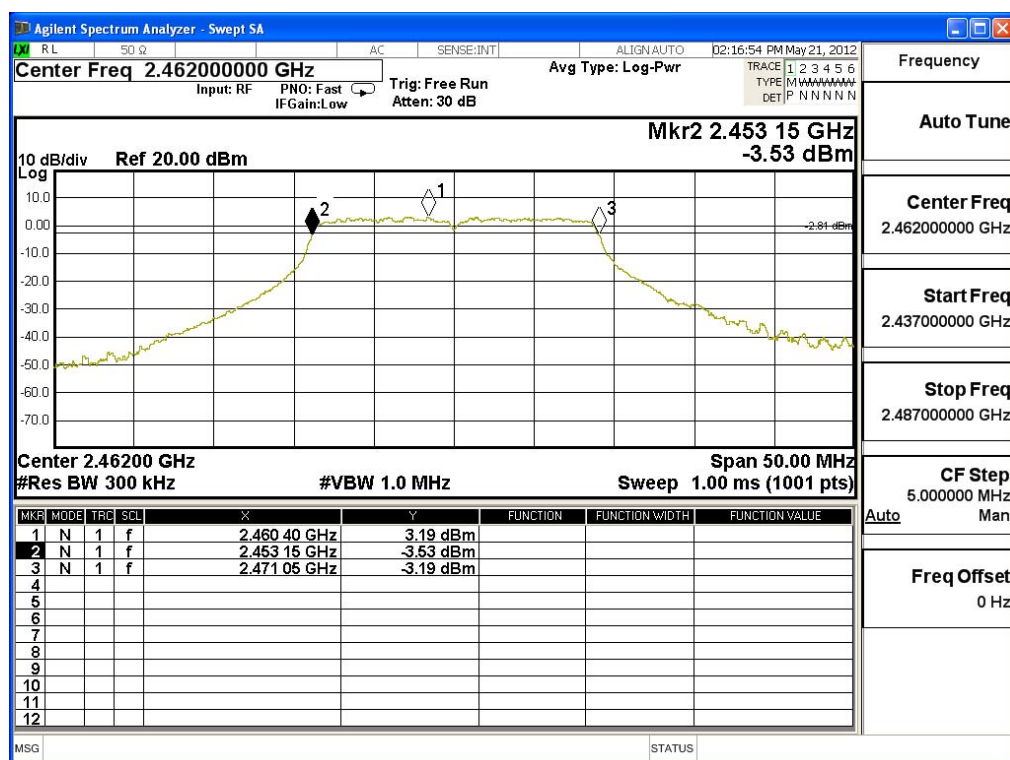


Product : 802.11bgn Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit - 802.11n-20BW_13Mbps(2.4G Band) (2462MHz)

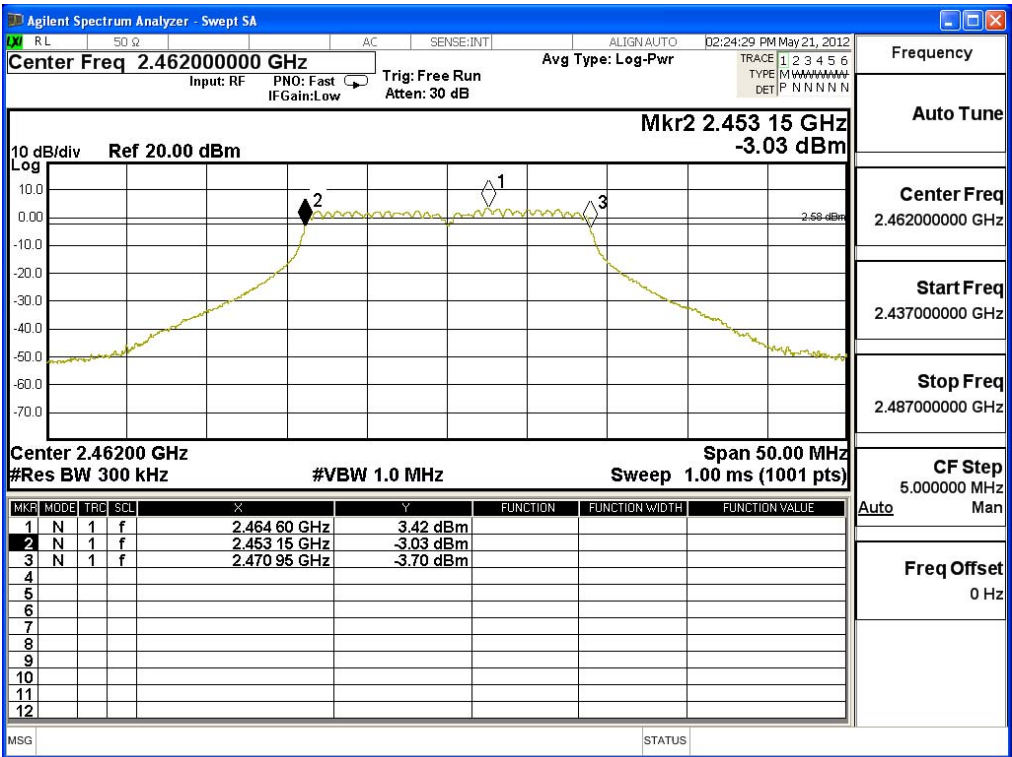
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	17900	>500	Pass

Figure Channel 11: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	17800	>500	Pass

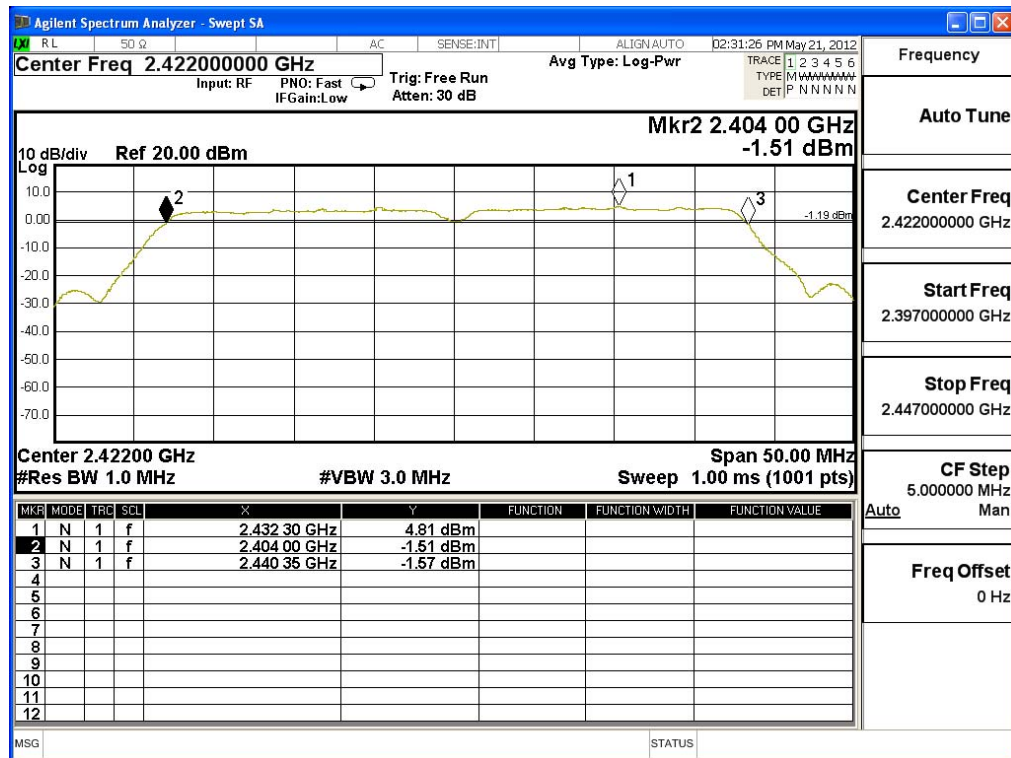
Figure Channel 11: (Chain B)



Product : 802.11bgn Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit - 802.11n-40BW_27Mbps(2.4G Band) (2422MHz)

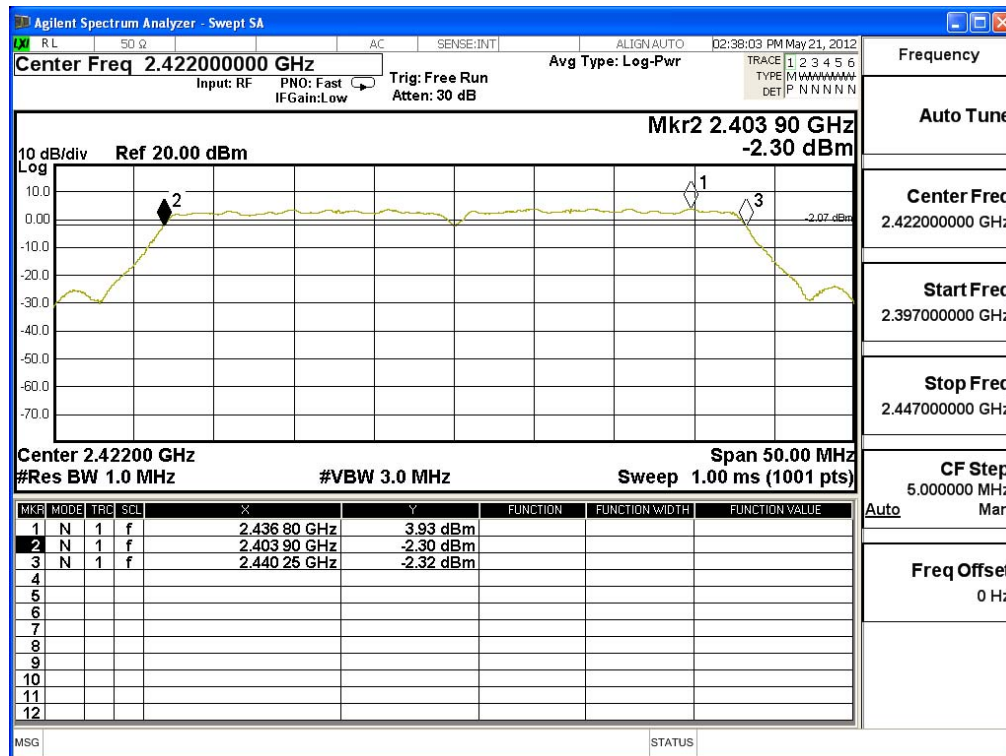
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2422.00	36350	>500	Pass

Figure Channel 1: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2422.00	36350	>500	Pass

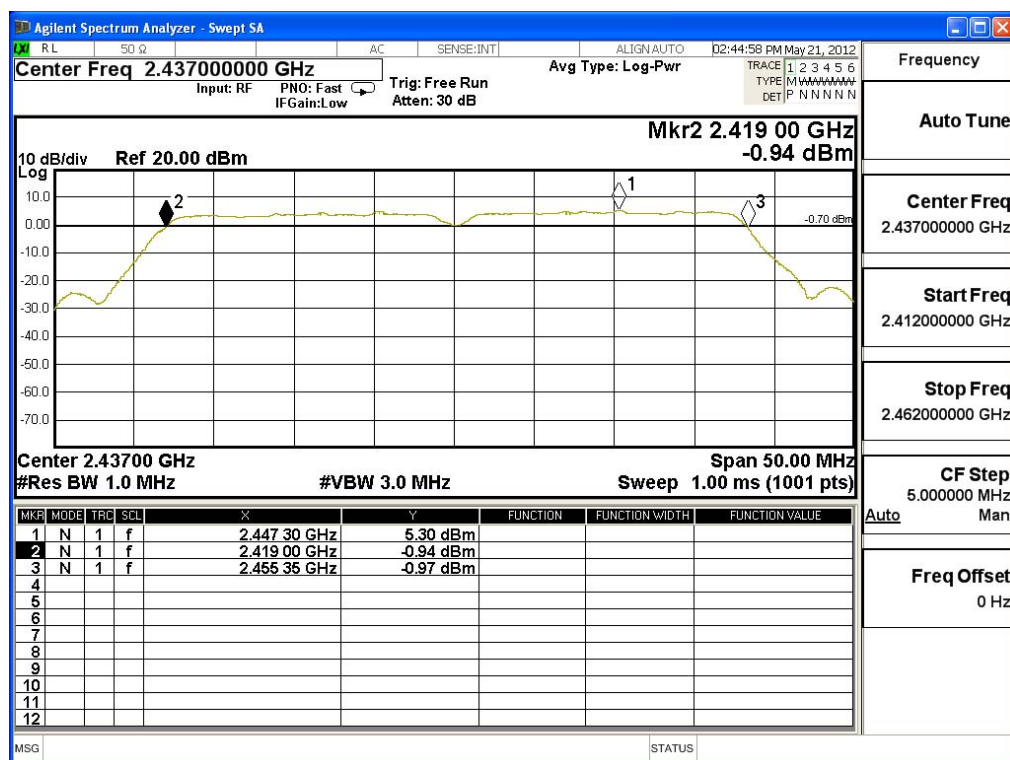
Figure Channel 1: (Chain B)



Product : 802.11bgn Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit - 802.11n-40BW_27Mbps(2.4G Band) (2437MHz)

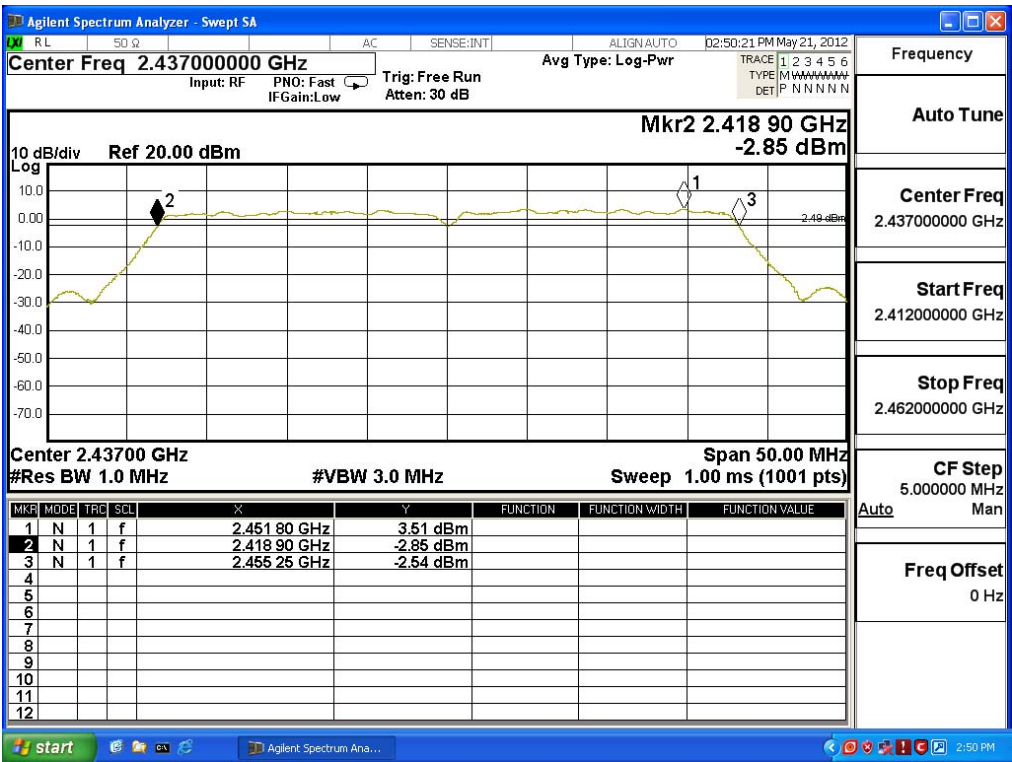
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
4	2437.00	36350	>500	Pass

Figure Channel 4: (Chain A)



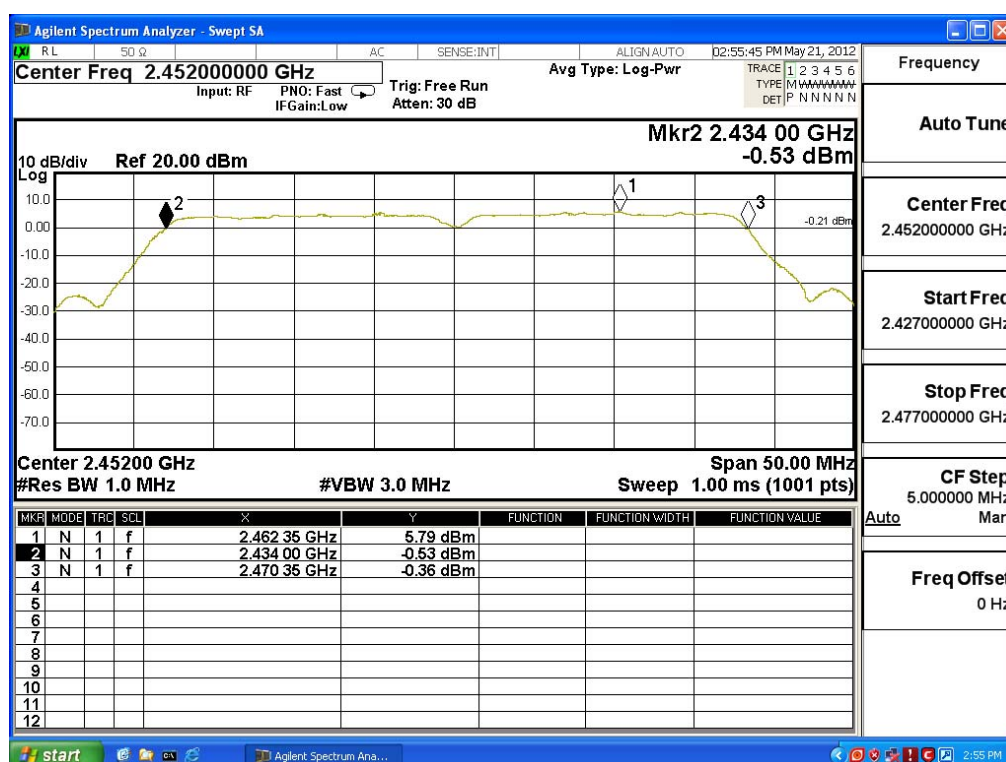
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
4	2437.00	36350	>500	Pass

Figure Channel 4: (Chain B)



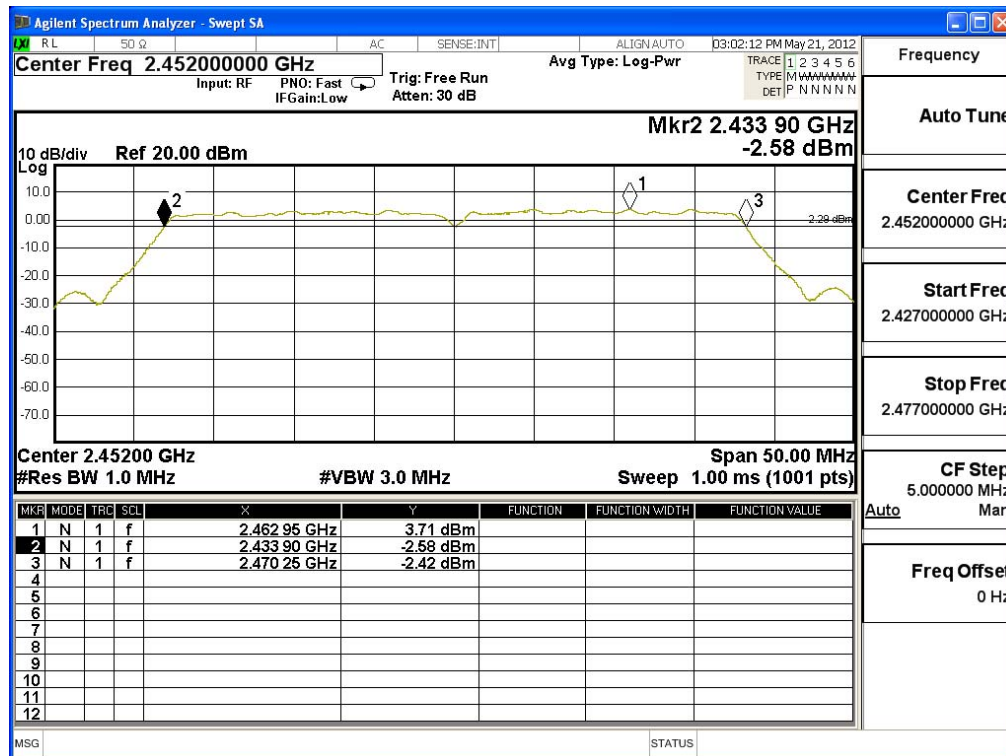
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
7	2452.00	36350	>500	Pass

Figure Channel 7: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
7	2452.00	36350	>500	Pass

Figure Channel 7: (Chain B)



8. Power Density

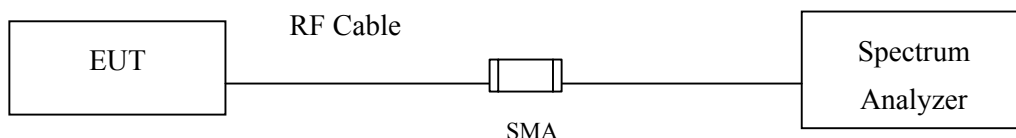
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

8.2. Test Setup



8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 100 kHz, VBW $\geq$ 300KHz, SPAN to 5-30 % greater than the EBW,

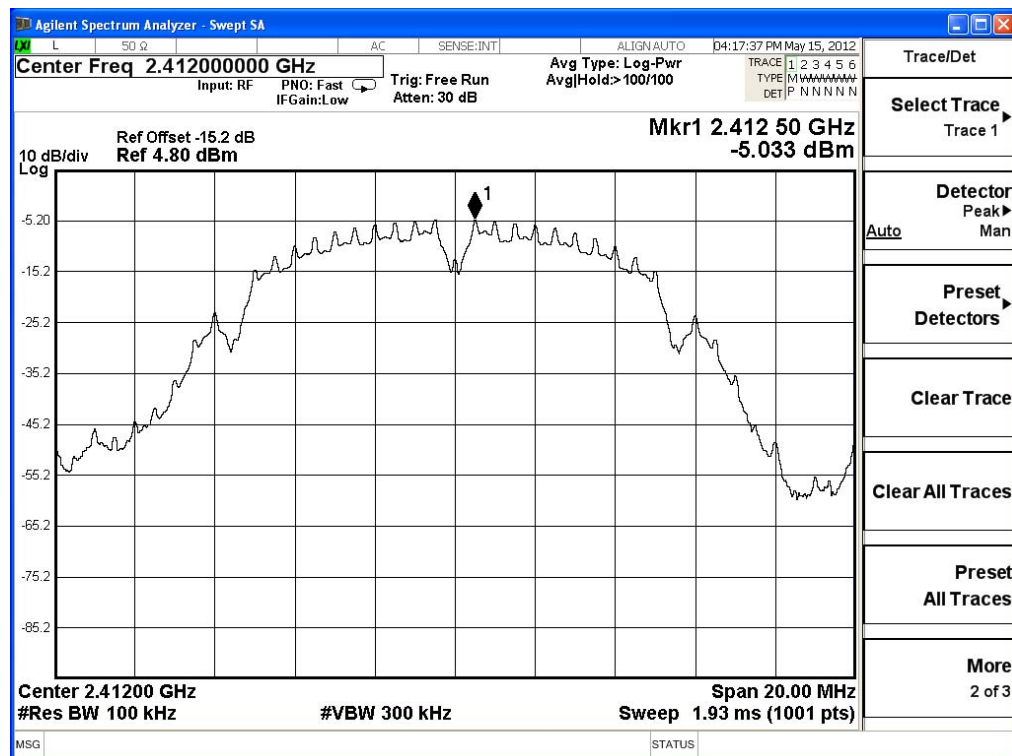
Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(3\text{ kHz}/100\text{ kHz}) = -15.2\text{ dB}$.

8.5. Uncertainty

$\pm 1.27\text{ dB}$

Product	:	802.11bgn Module
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

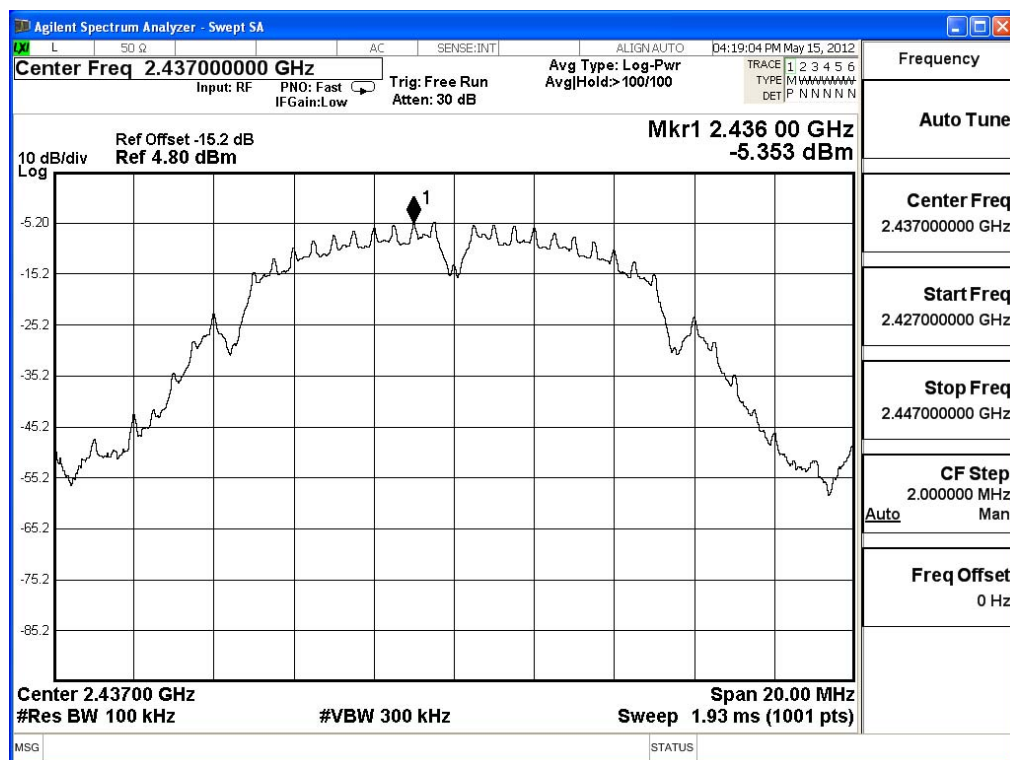
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	-5.033	< 8dBm	Pass



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437.000	-5.353	< 8dBm	Pass

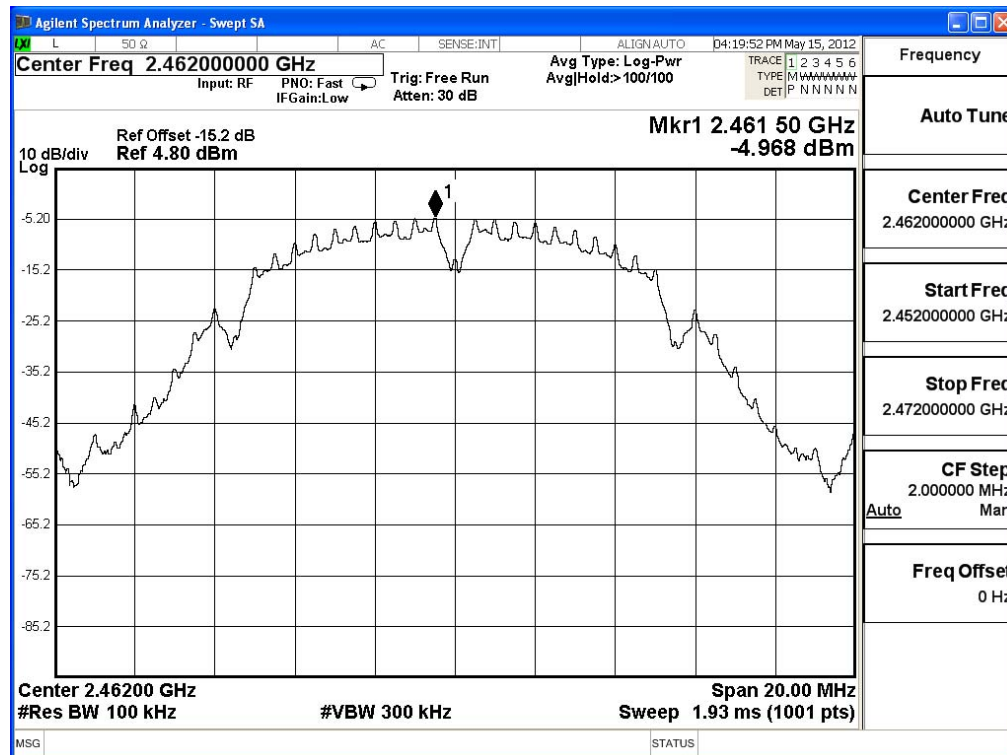
Figure Channel 6:



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462.00	-4.968	< 8dBm	Pass

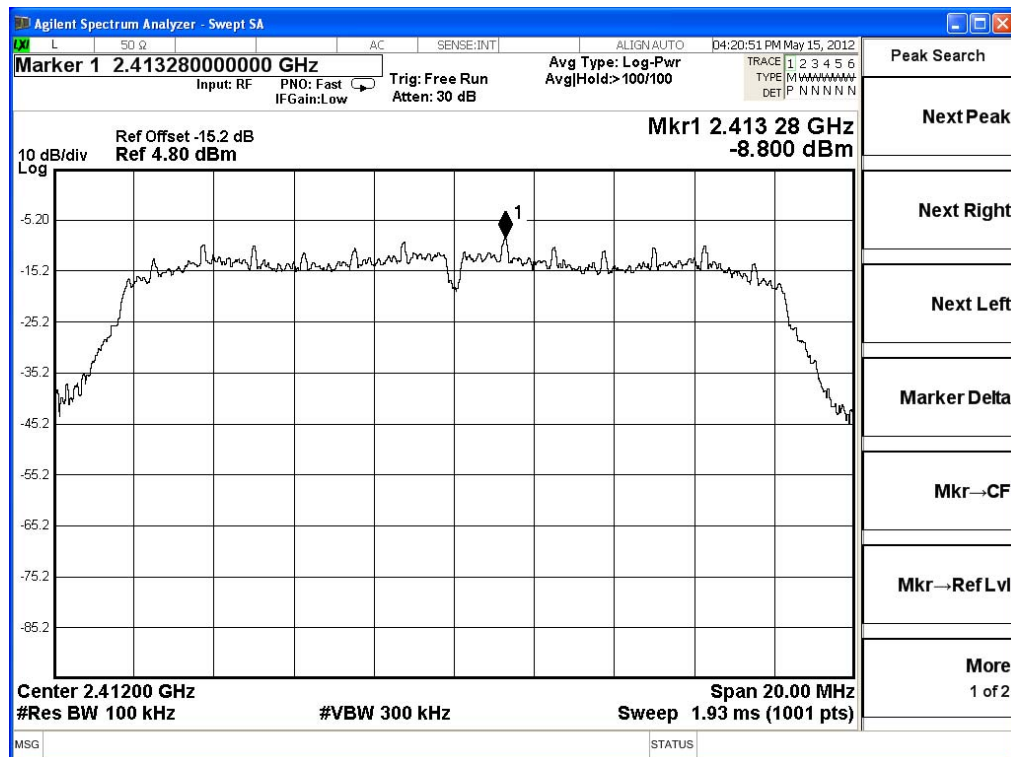
Figure Channel 11:



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	-8.800	< 8dBm	Pass

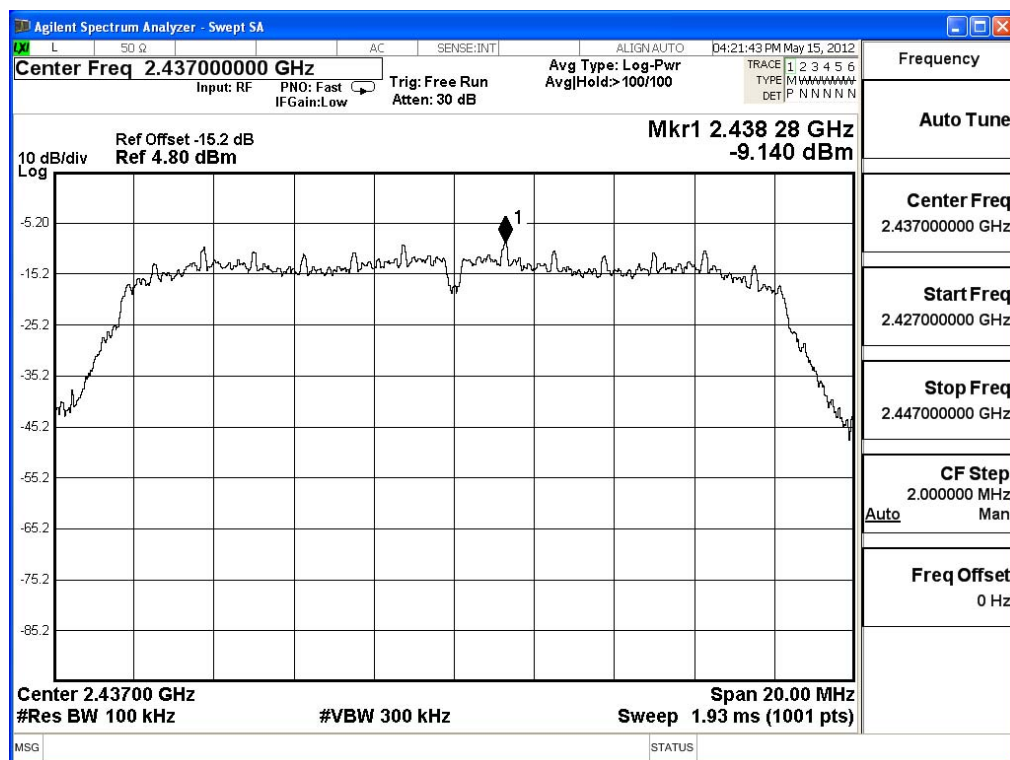
Figure Channel 1:



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437.000	-9.140	< 8dBm	Pass

Figure Channel 6:



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462.00	-9.262	< 8dBm	Pass

Figure Channel 11:

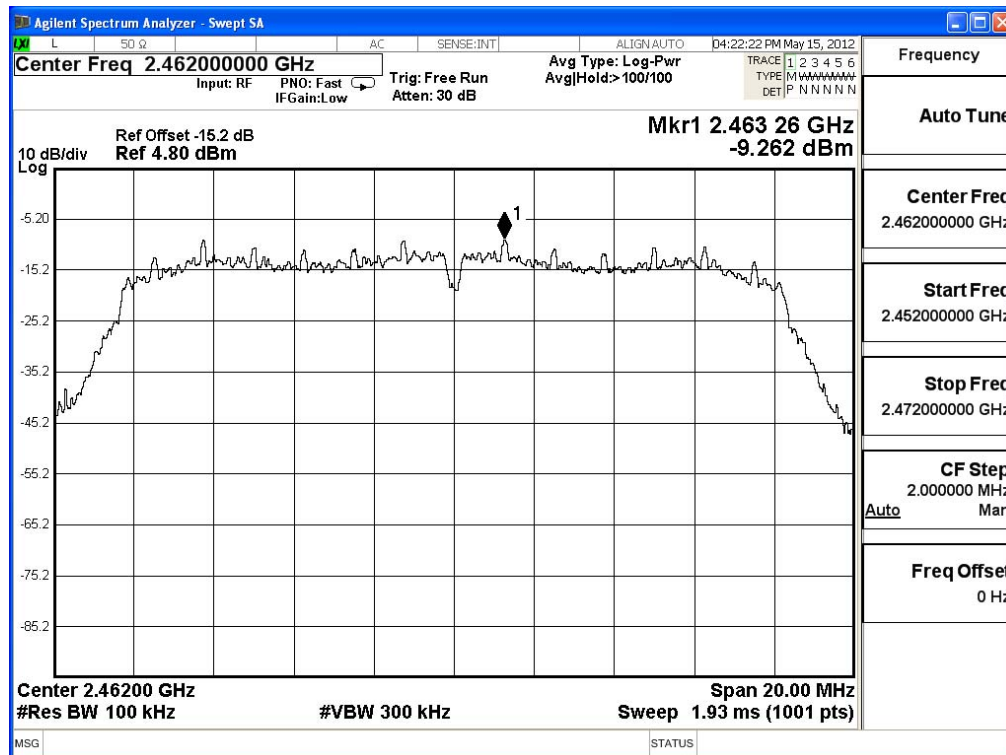


Figure Channel 1: (Chain B)

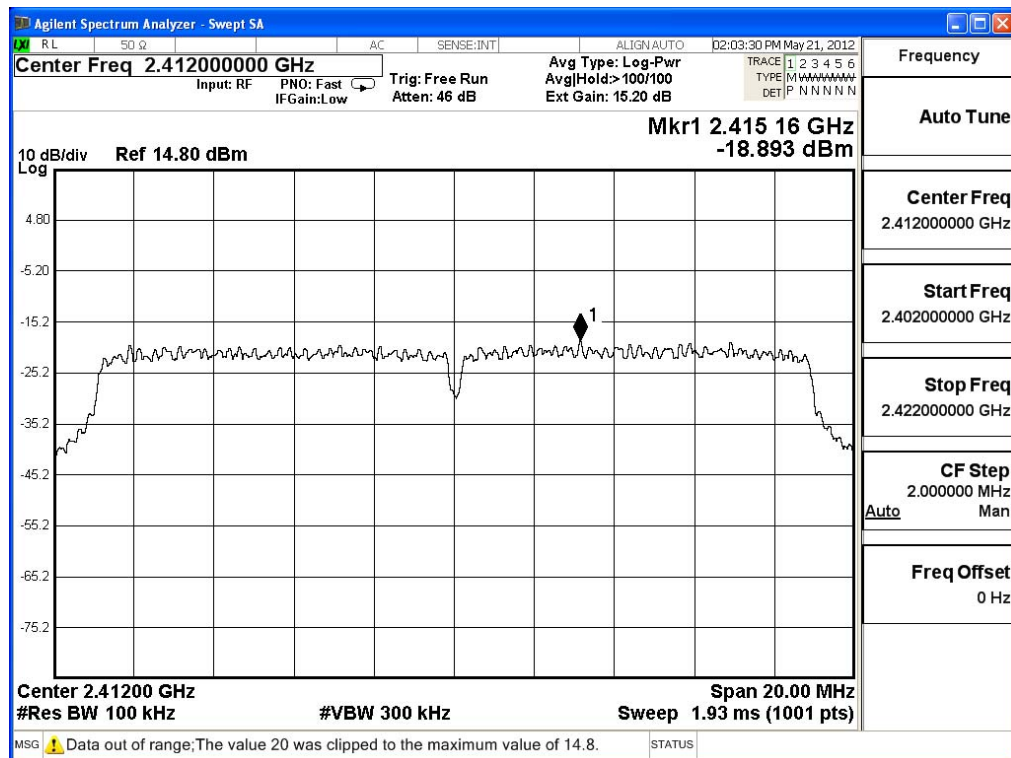
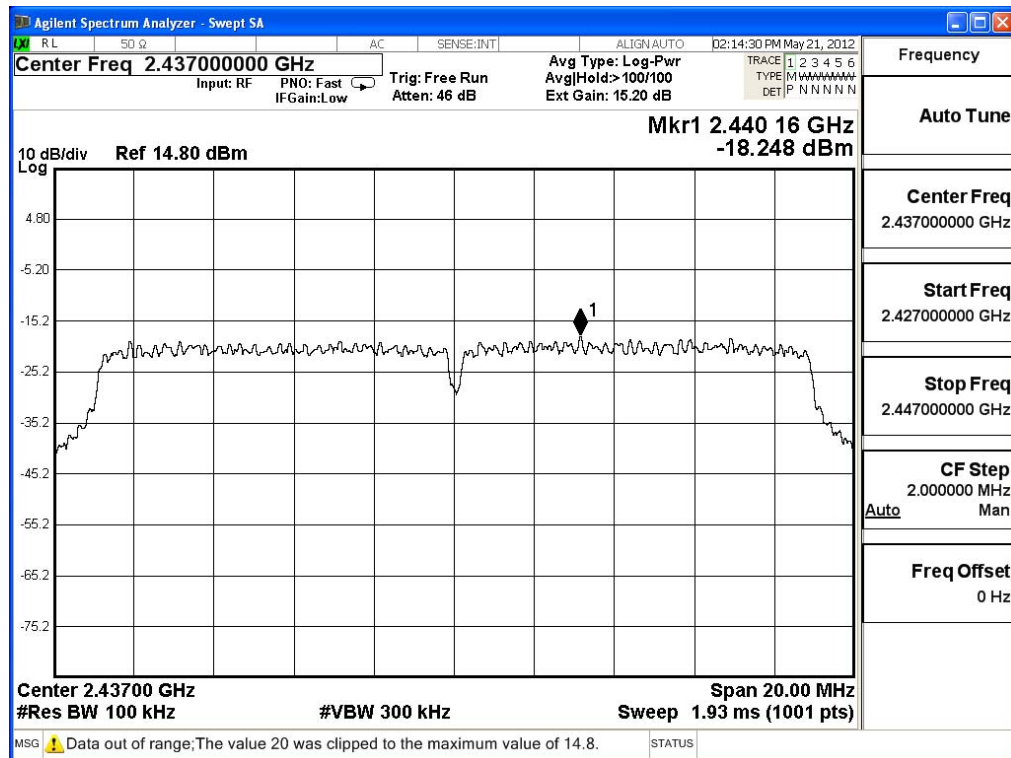


Figure Channel 6: (Chain B)



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit - 802.11n-20BW_13Mbps(2.4G Band) (2462MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
11	2462.00	-17.523	-17.764	-14.632	< 8dBm	Pass

Note: Power Density Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW))

Figure Channel 11: (Chain A)

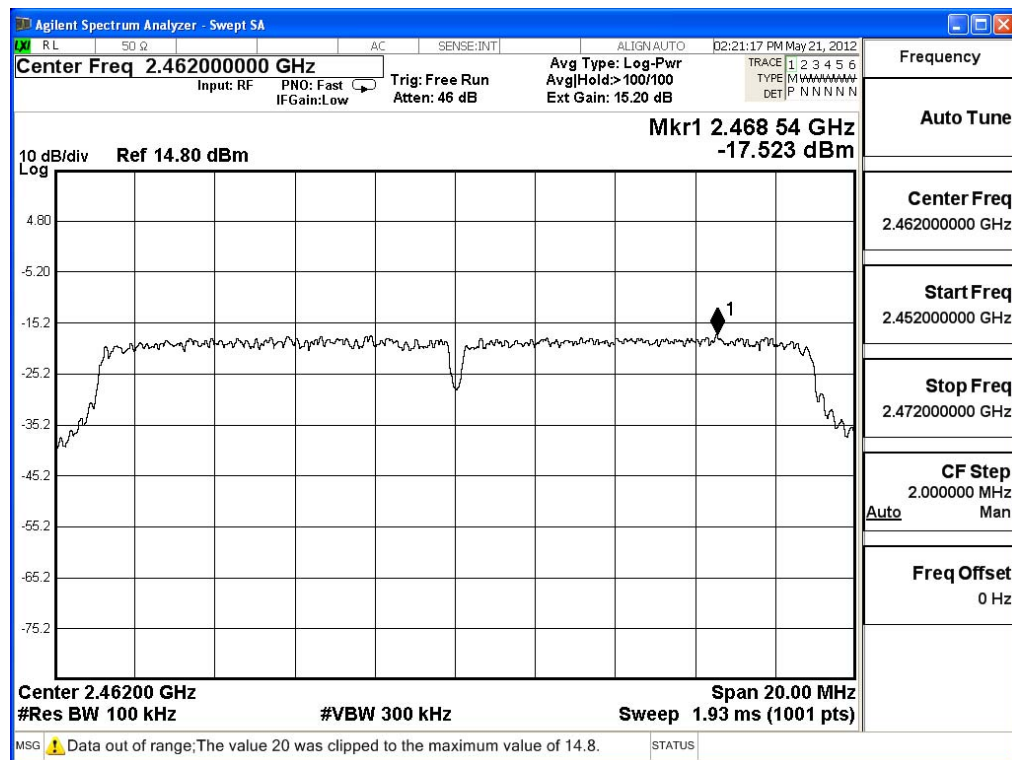
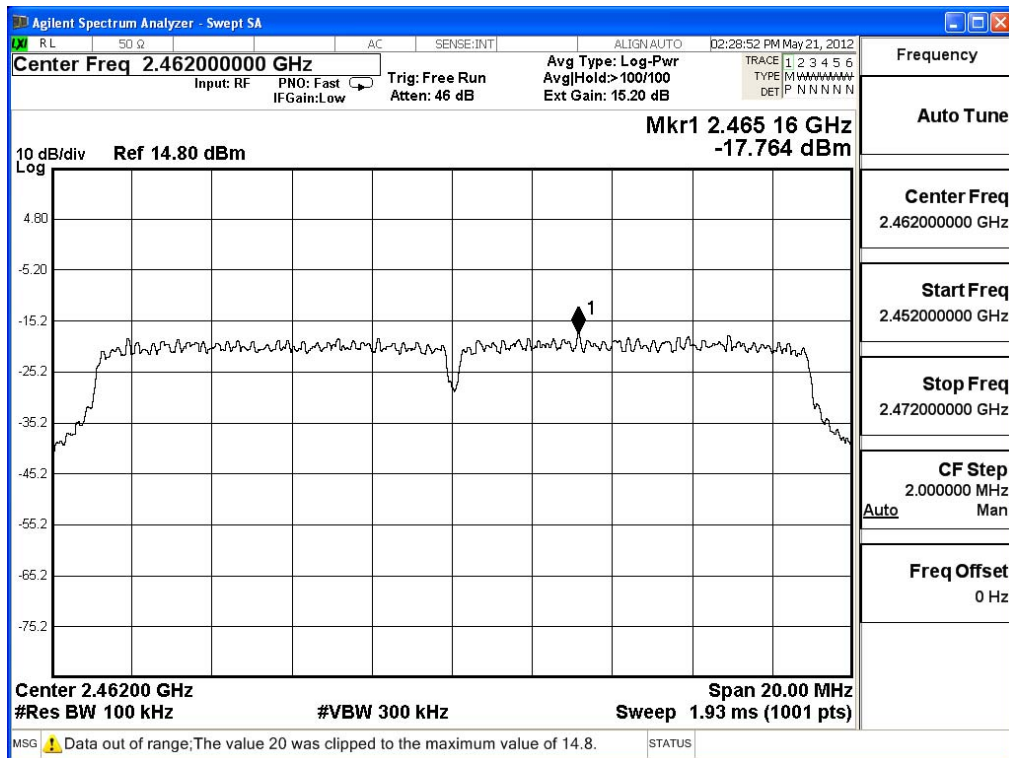


Figure Channel 11: (Chain B)



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit - 802.11n-40BW_27Mbps(2.4G Band) (2422MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2422.00	-21.996	-22.128	-19.051	< 8dBm	Pass

Note: Power Density Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW))

Figure Channel 1: (Chain A)

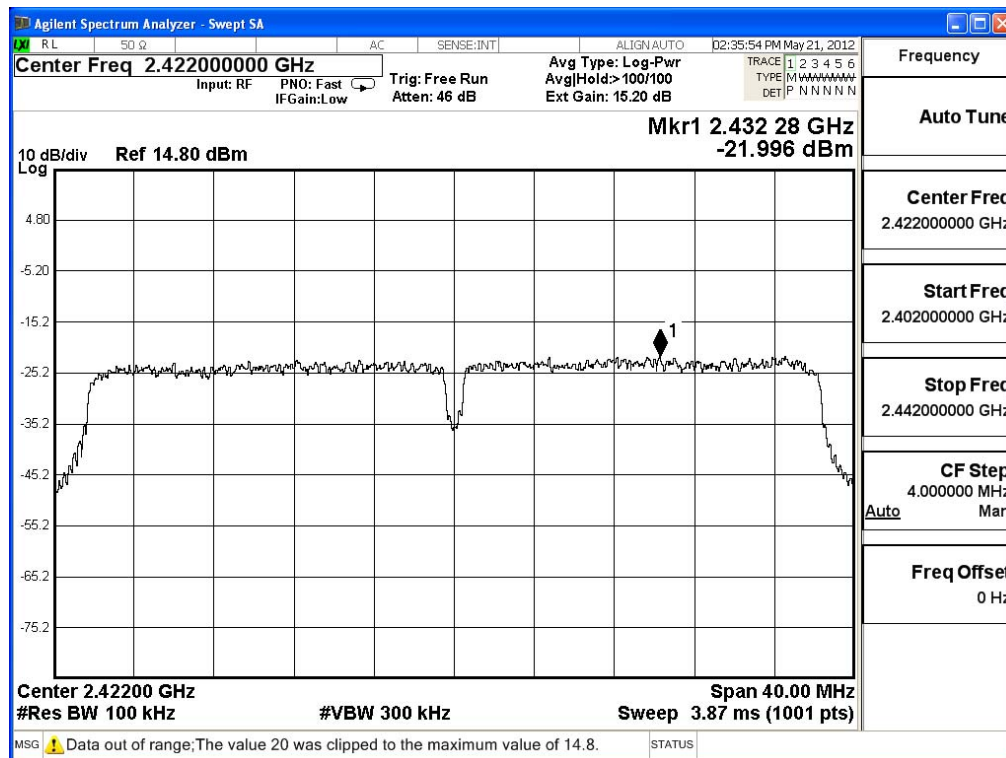


Figure Channel 1: (Chain B)

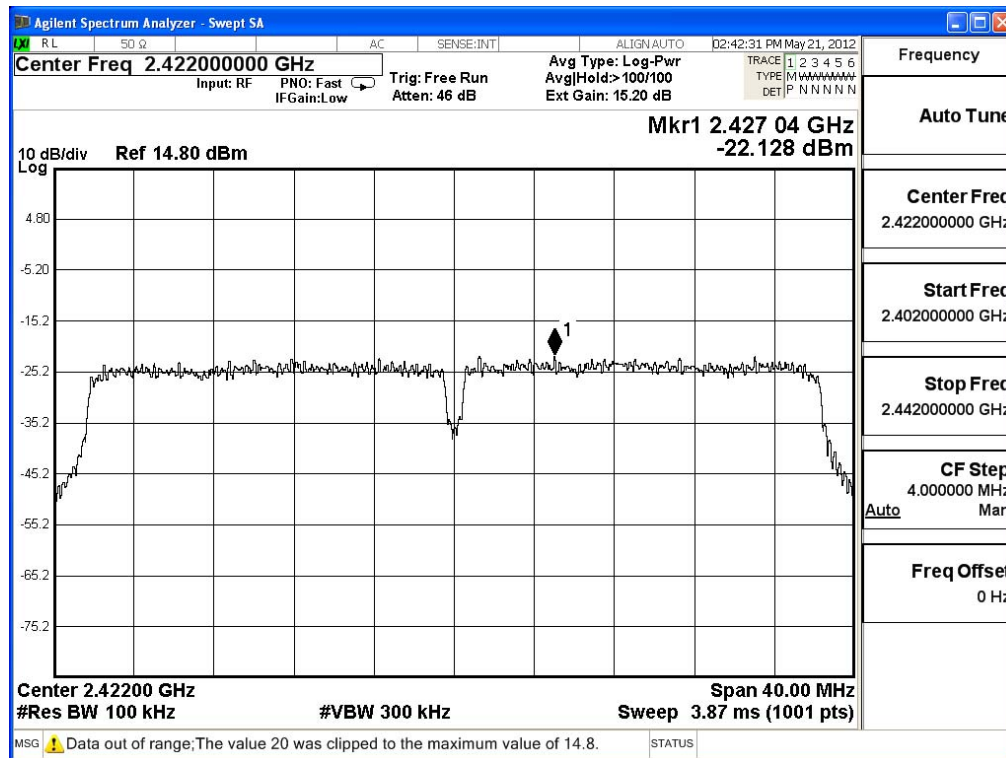
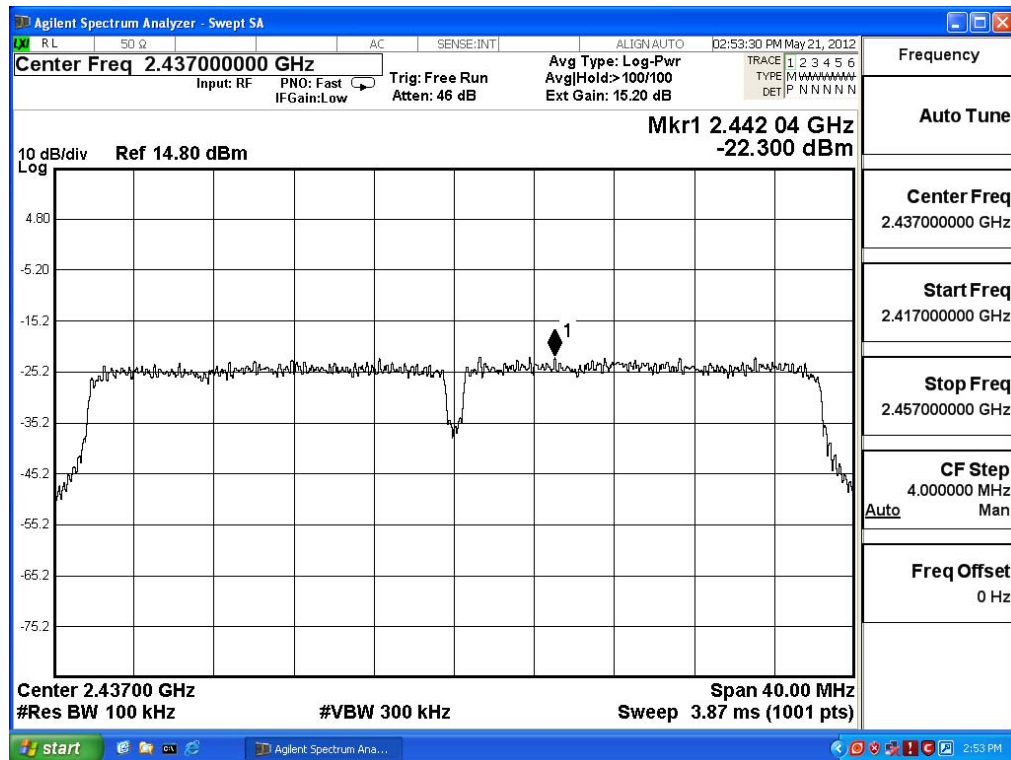


Figure Channel 4: (Chain B)



Product : 802.11bgn Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit - 802.11n-40BW_27Mbps(2.4G Band) (2452MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
7	2452.00	-21.291	-22.074	-18.655	< 8dBm	Pass

Note: Power Density Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW))

Figure Channel 7: (Chain A)

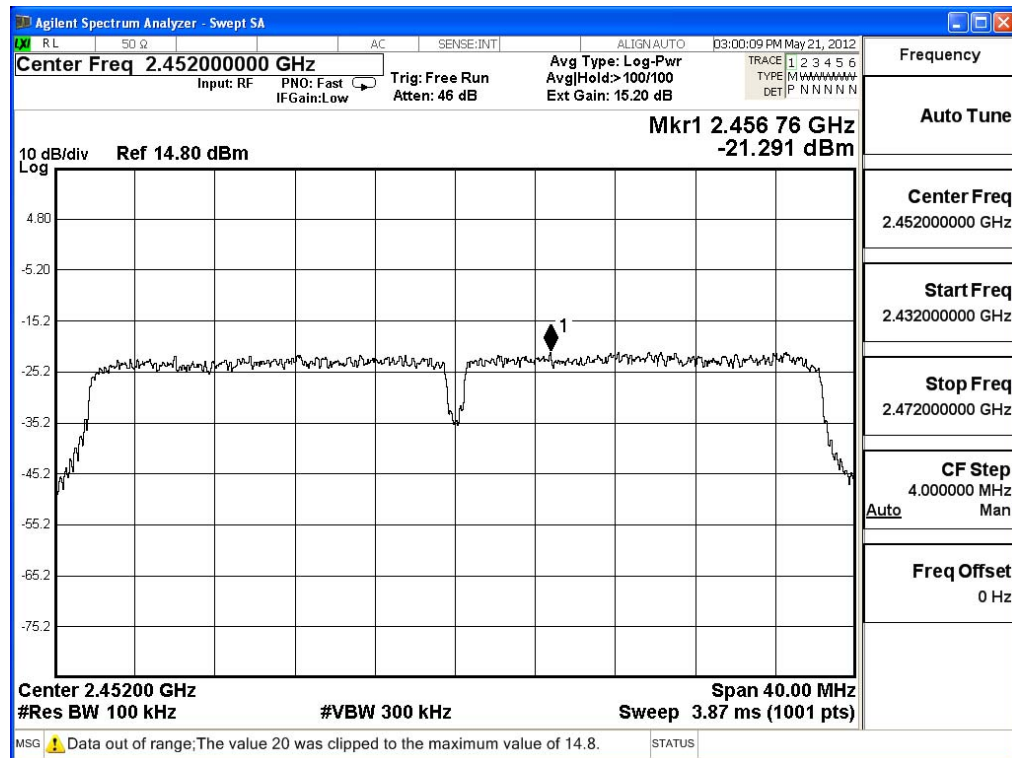
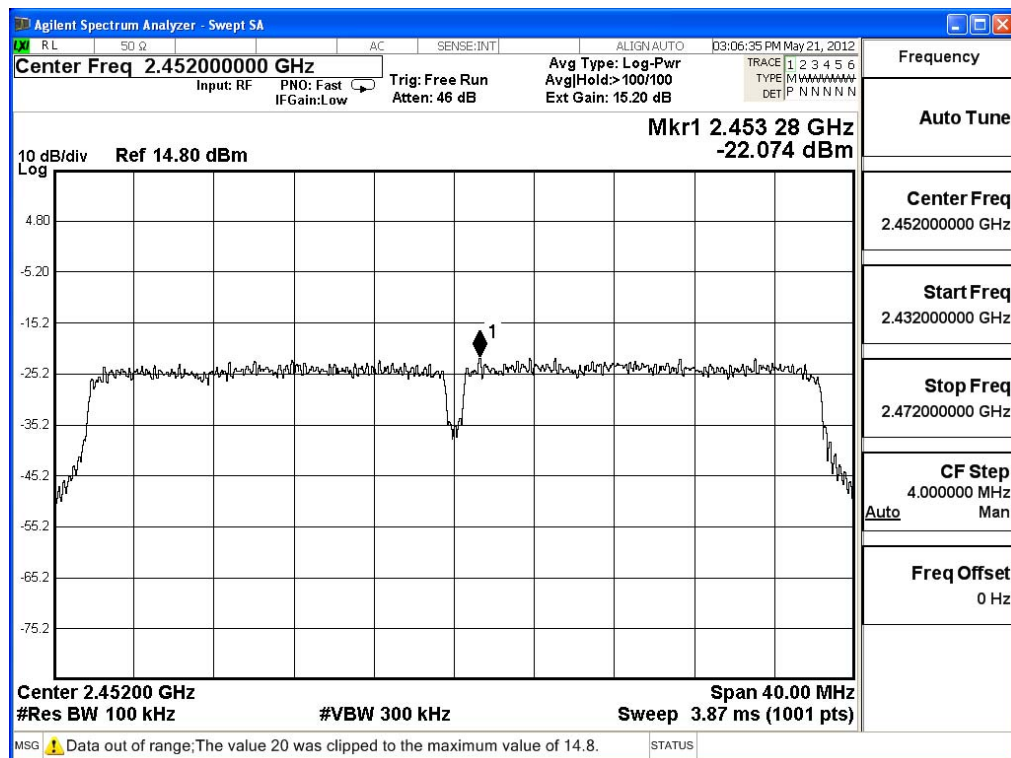


Figure Channel 7: (Chain B)



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.