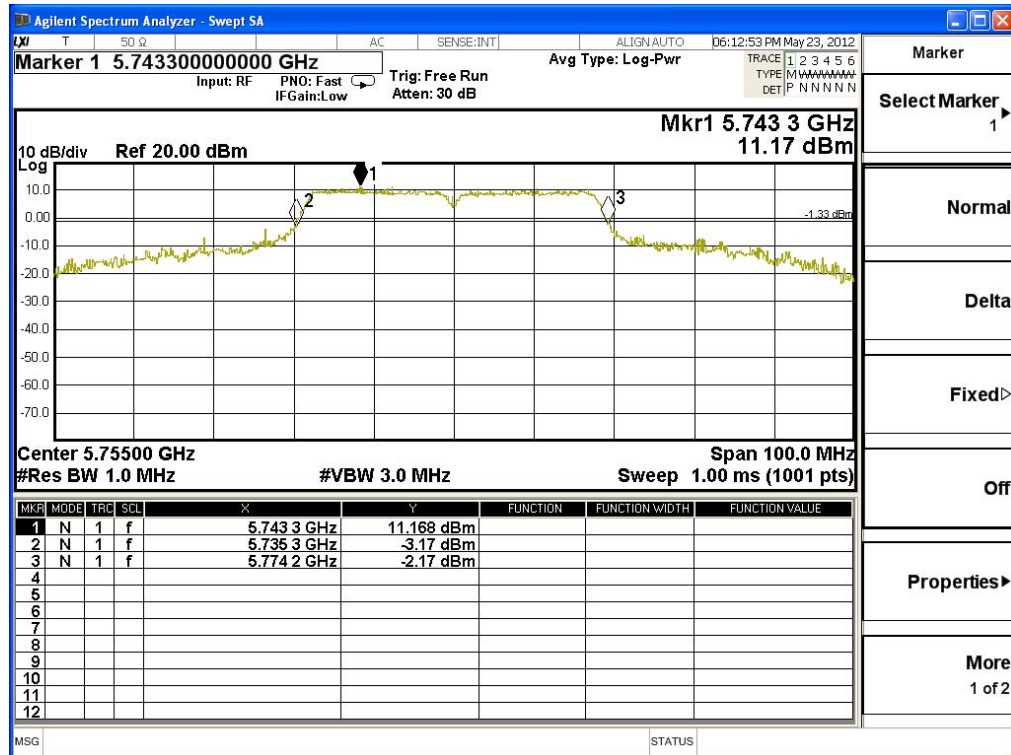


Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	38900	>500	Pass

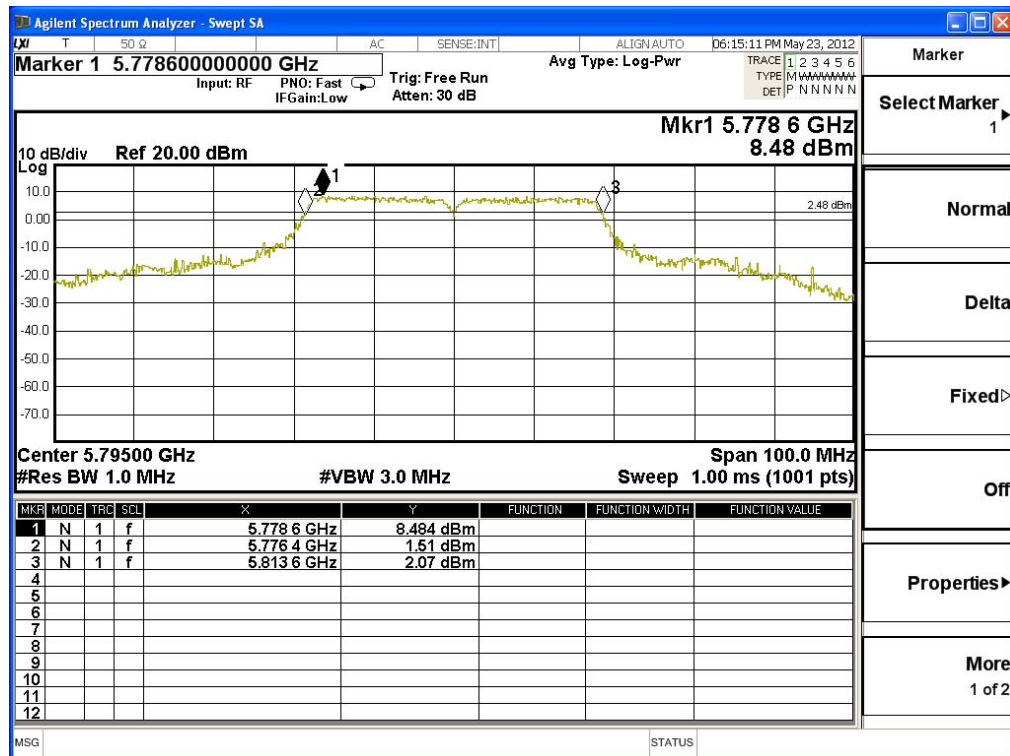
Figure Channel 151: (Chain C)



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band) (5795MHz)

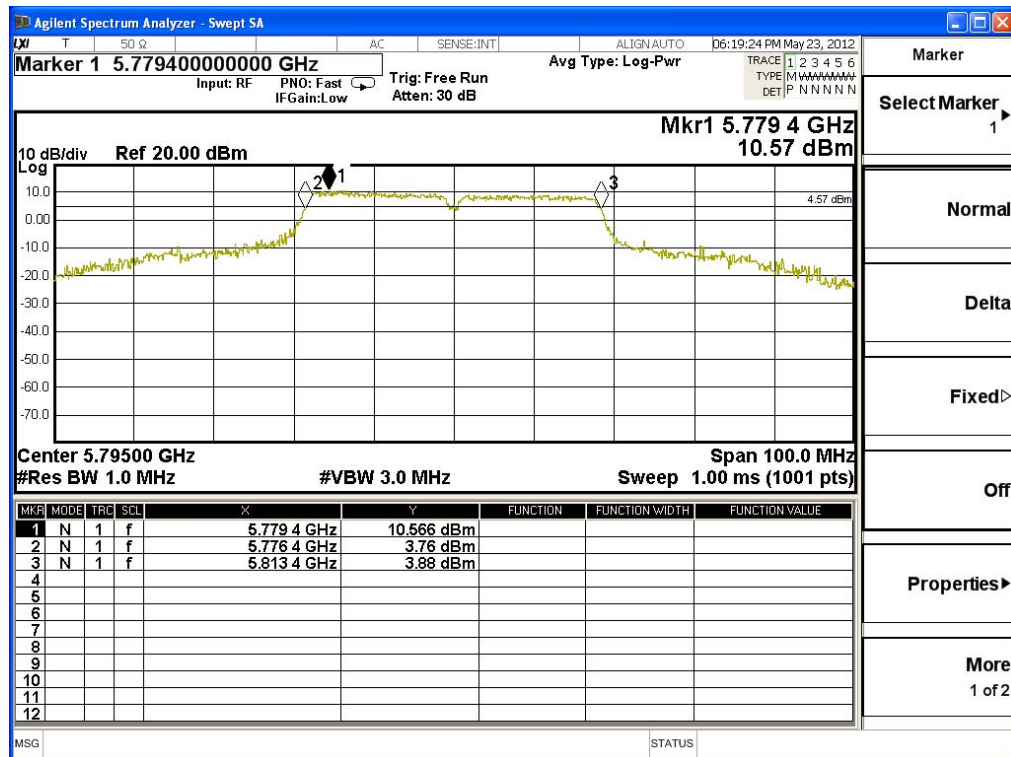
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	37200	>500	Pass

Figure Channel 159: (Chain A)



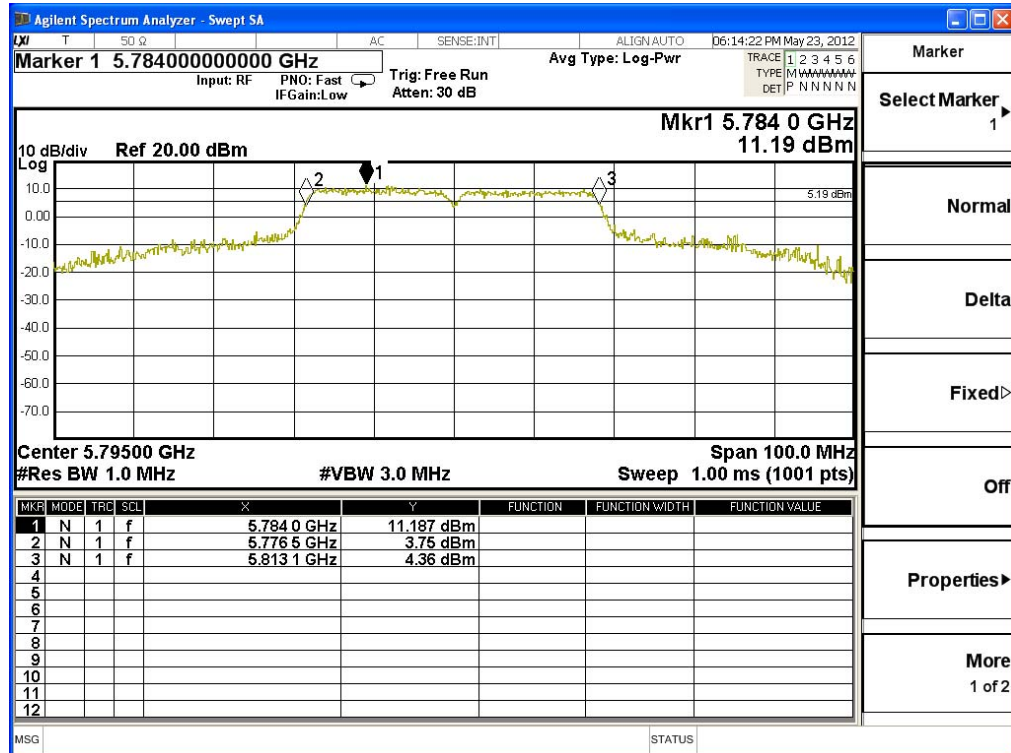
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	37000	>500	Pass

Figure Channel 159: (Chain B)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36600	>500	Pass

Figure Channel 159: (Chain C)



8. Power Density

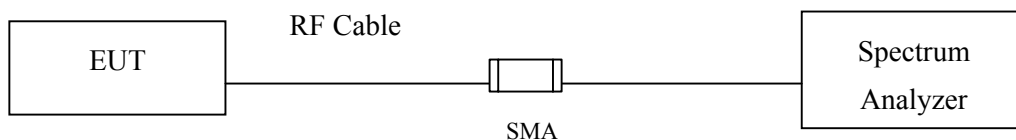
8.1. Test Equipment

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

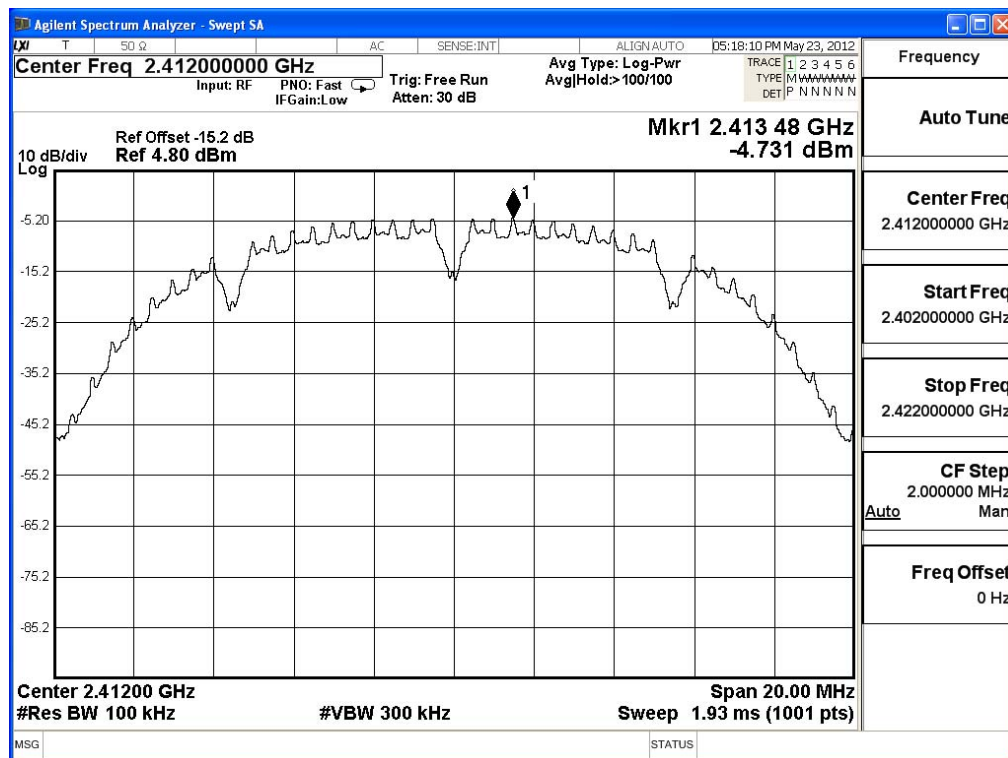
$\pm 1.27\text{ dB}$

8.6. Test Result of Power Density

Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless 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	-4.731	< 8dBm	Pass

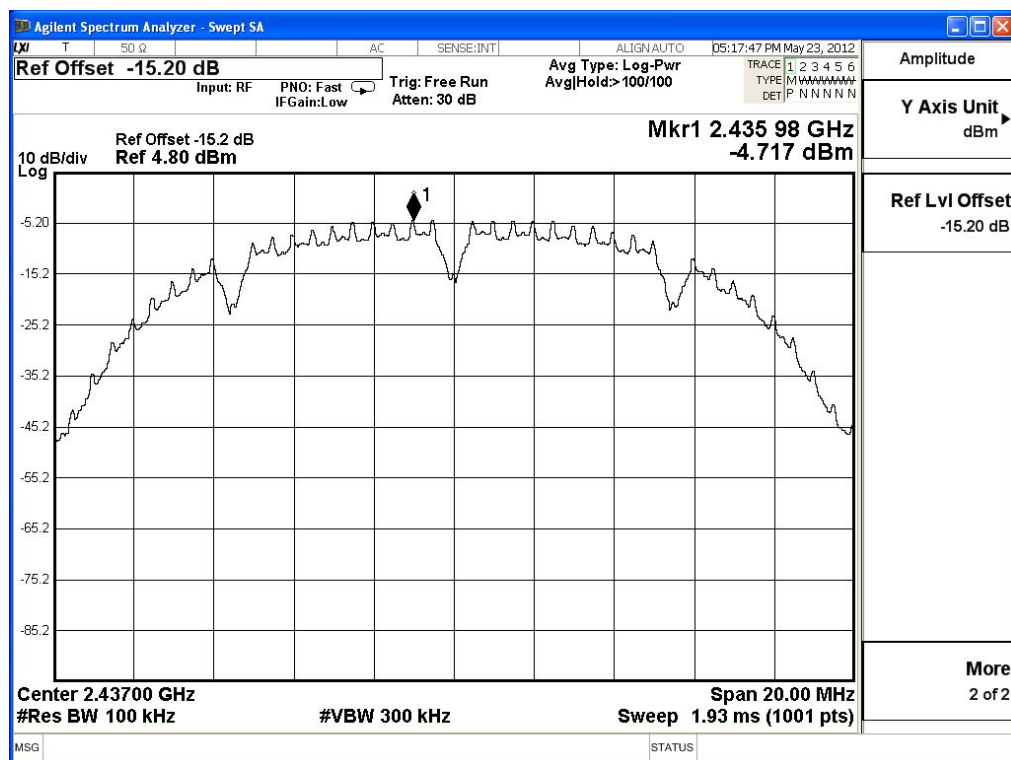
Figure Channel 1:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless 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	-4.717	< 8dBm	Pass

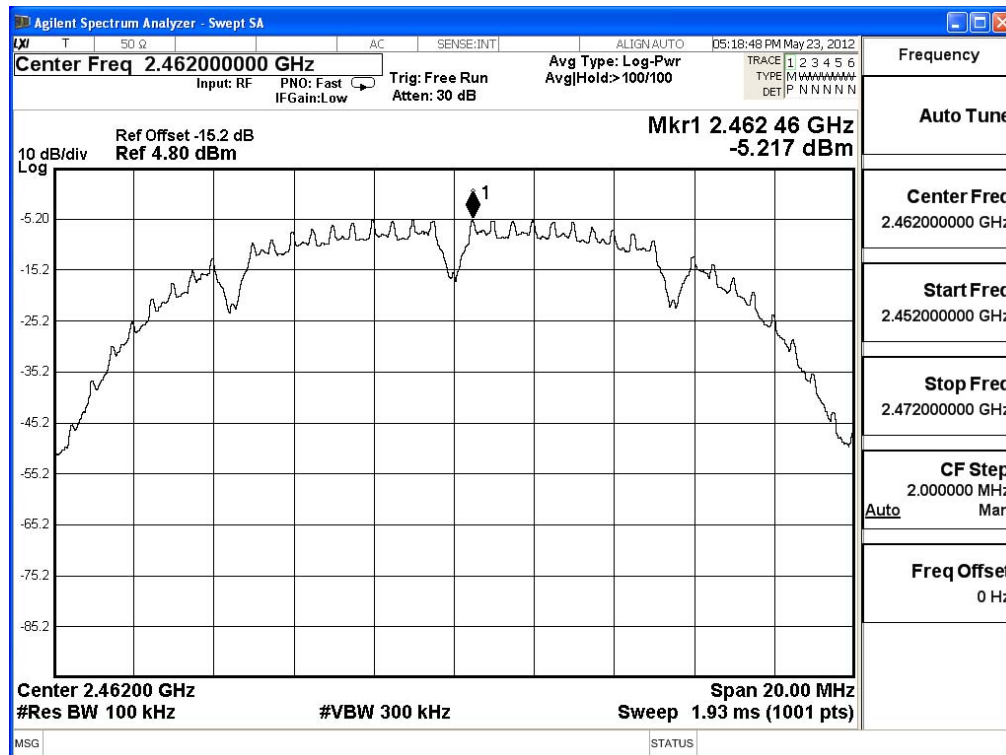
Figure Channel 6:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless 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	-5.217	< 8dBm	Pass

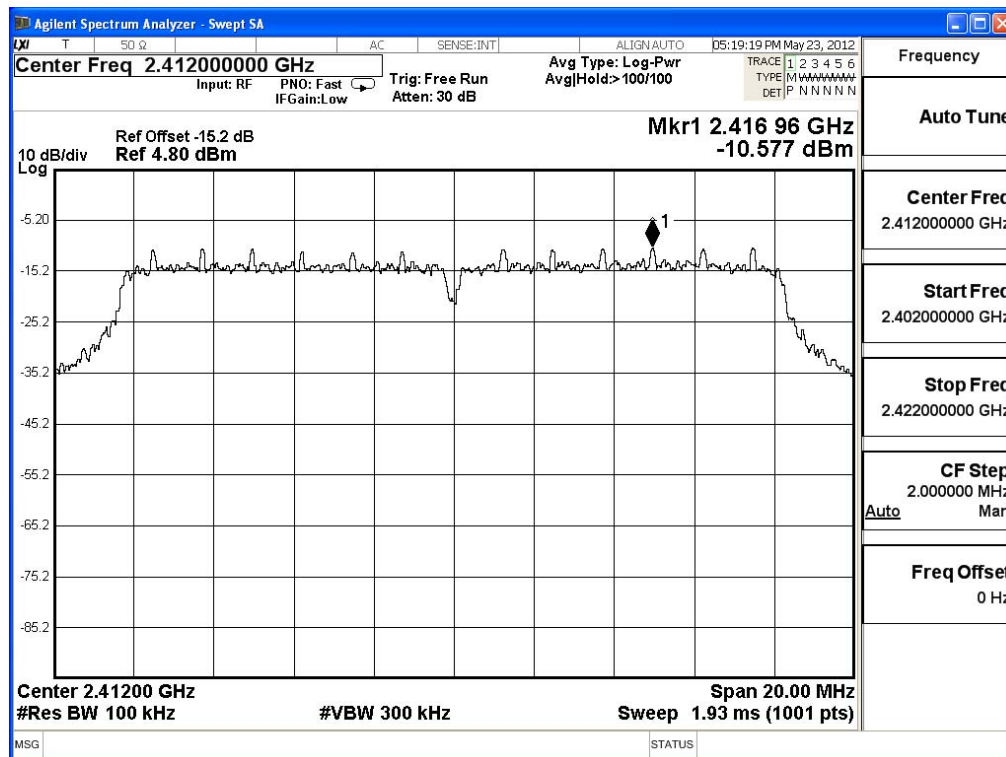
Figure Channel 11:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless 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	-10.577	< 8dBm	Pass

Figure Channel 1:



Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437.000	-8.408	< 8dBm	Pass

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.43700000 GHz

Input: RF PNO: Fast IF Gain: Low Trig: Free Run Atten: 30 dB

Avg Type: Log-Pwr Avg/Hold: > 100/100

Ref Offset: -15.2 dB Ref 4.80 dBm

Mkr1 2.441 96 GHz -8.408 dBm

10 dB/div Log

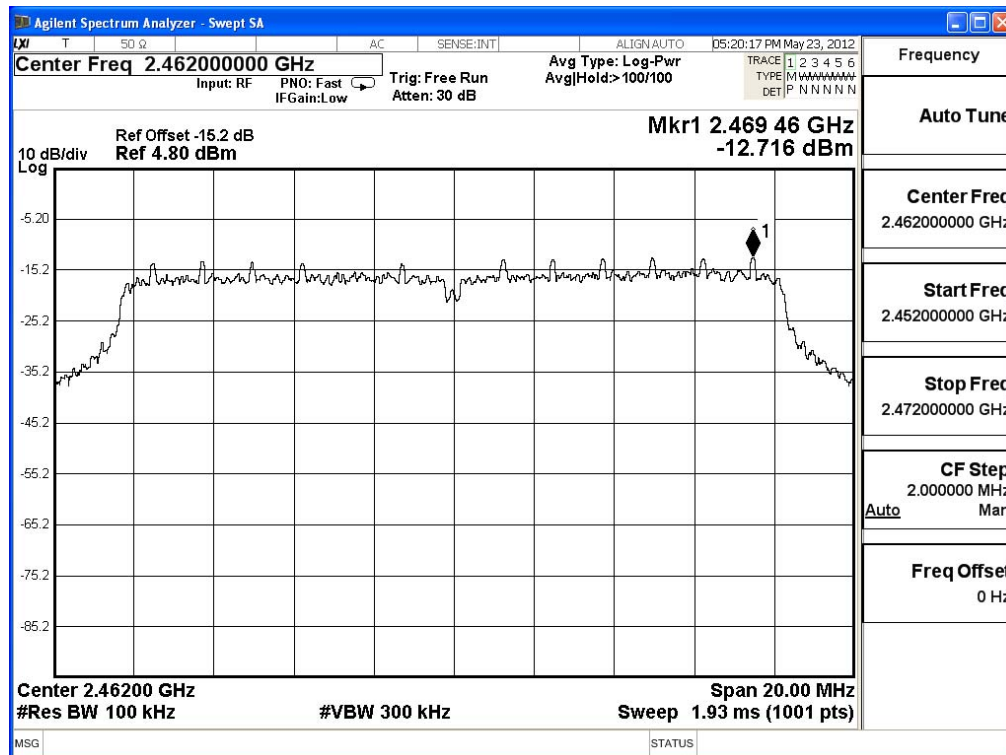
Center 2.43700 GHz #Res BW 100 kHz #VBW 300 kHz Span 20.00 MHz Sweep 1.93 ms (1001 pts)

The display shows a noisy signal with a peak at 2.43700000 GHz. The peak is marked with a diamond and the number 1. The signal level is approximately -15.2 dBm. The display includes various settings such as Input: RF, PNO: Fast, IF Gain: Low, Trig: Free Run, Atten: 30 dB, Avg Type: Log-Pwr, and Avg/Hold: > 100/100. The reference offset is -15.2 dB and the reference level is 4.80 dBm. The marker Mkr1 is at 2.441 96 GHz with a level of -8.408 dBm. The center frequency is 2.43700 GHz, the resolution bandwidth is 100 kHz, the video bandwidth is 300 kHz, the span is 20.00 MHz, and the sweep time is 1.93 ms (1001 pts).

Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless 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	-12.716	< 8dBm	Pass

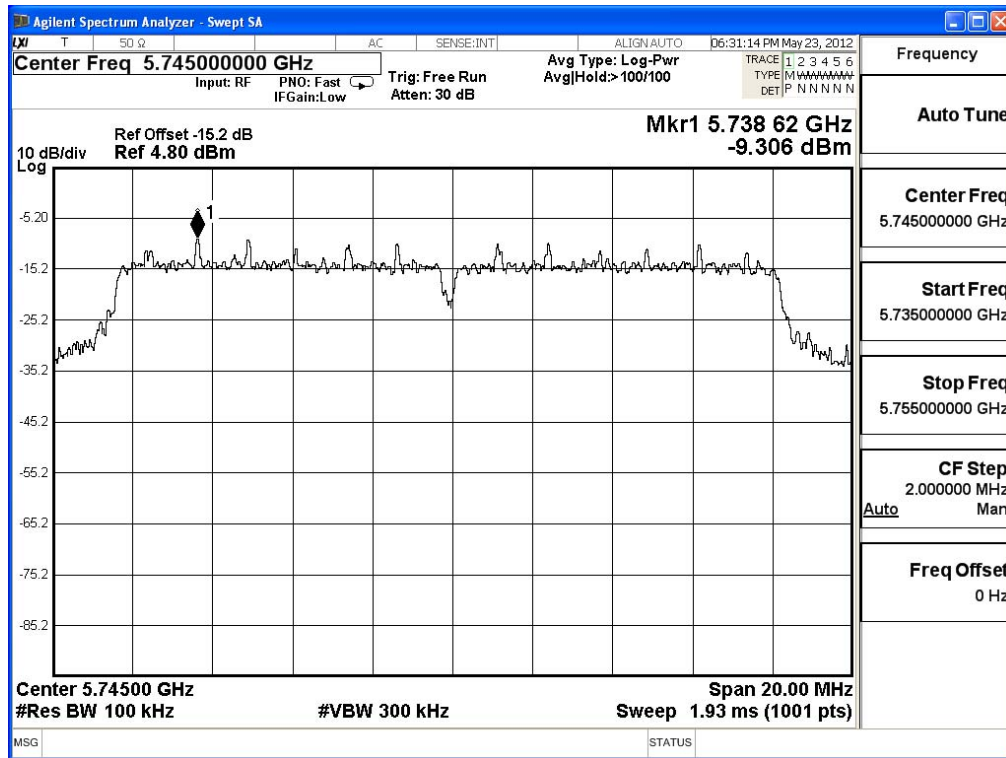
Figure Channel 11:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5745MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745.000	-9.306	< 8dBm	Pass

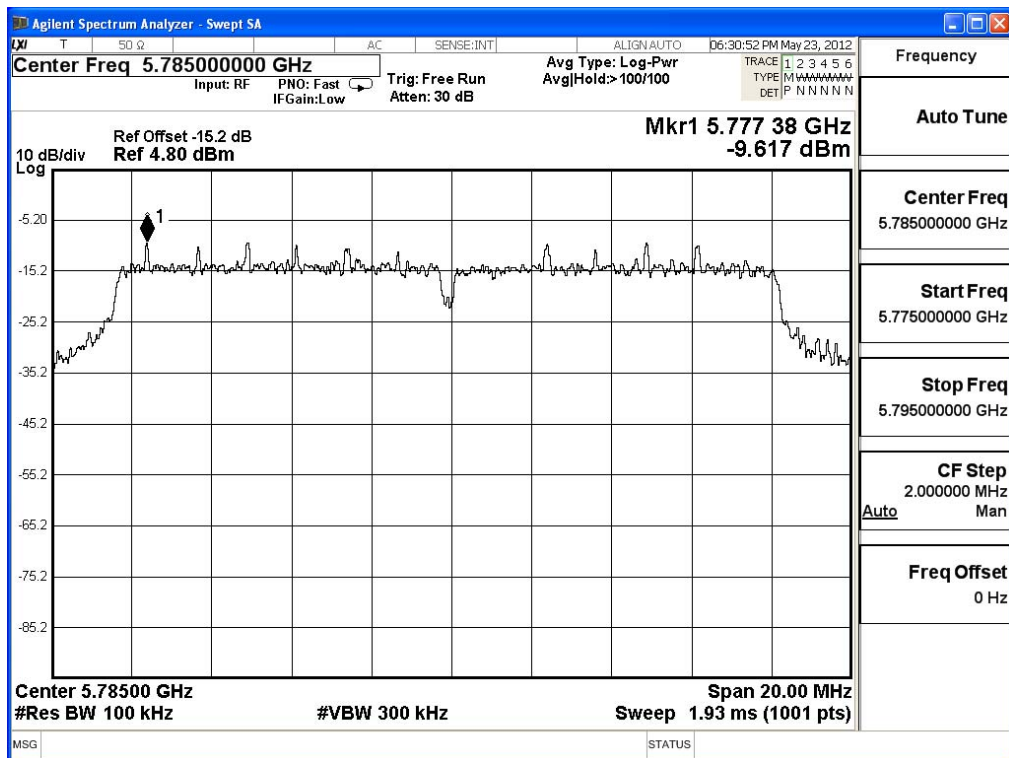
Figure Channel 149:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5785MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
157	5785.000	-9.617	< 8dBm	Pass

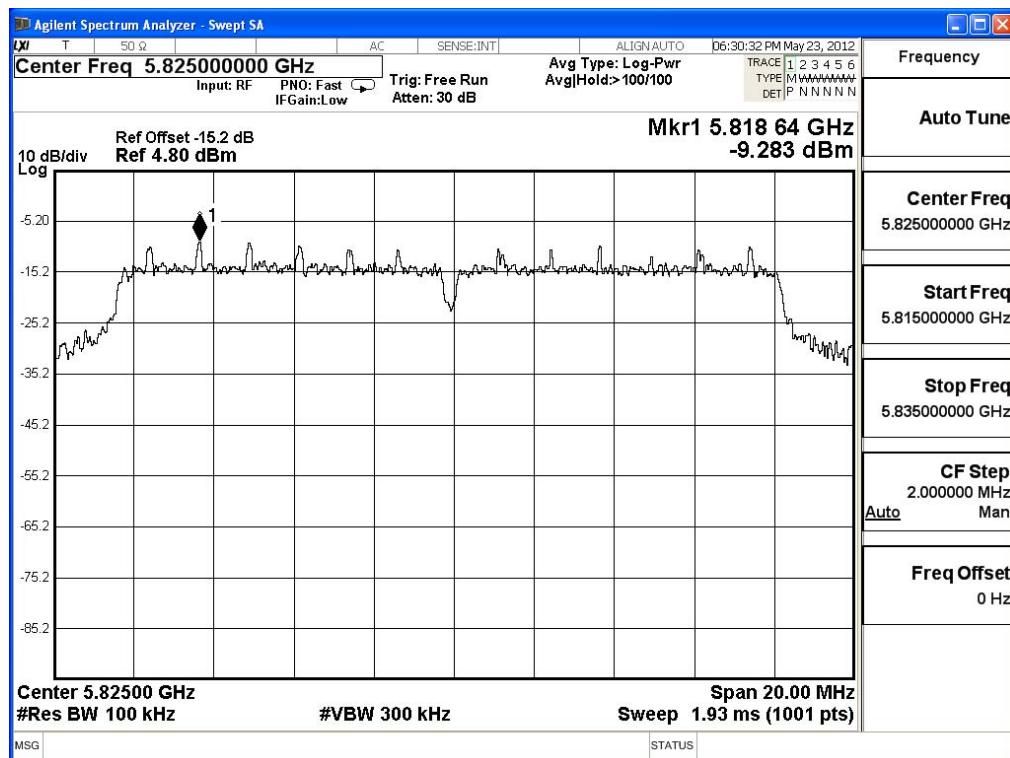
Figure Channel 157:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5825MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
165	5825.000	-9.283	< 8dBm	Pass

Figure Channel 165:



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band) (2412MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2412.00	-13.253	-13.226	-12.874	-8.343	< 8dBm	Pass

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

Figure Channel 1: (Chain A)

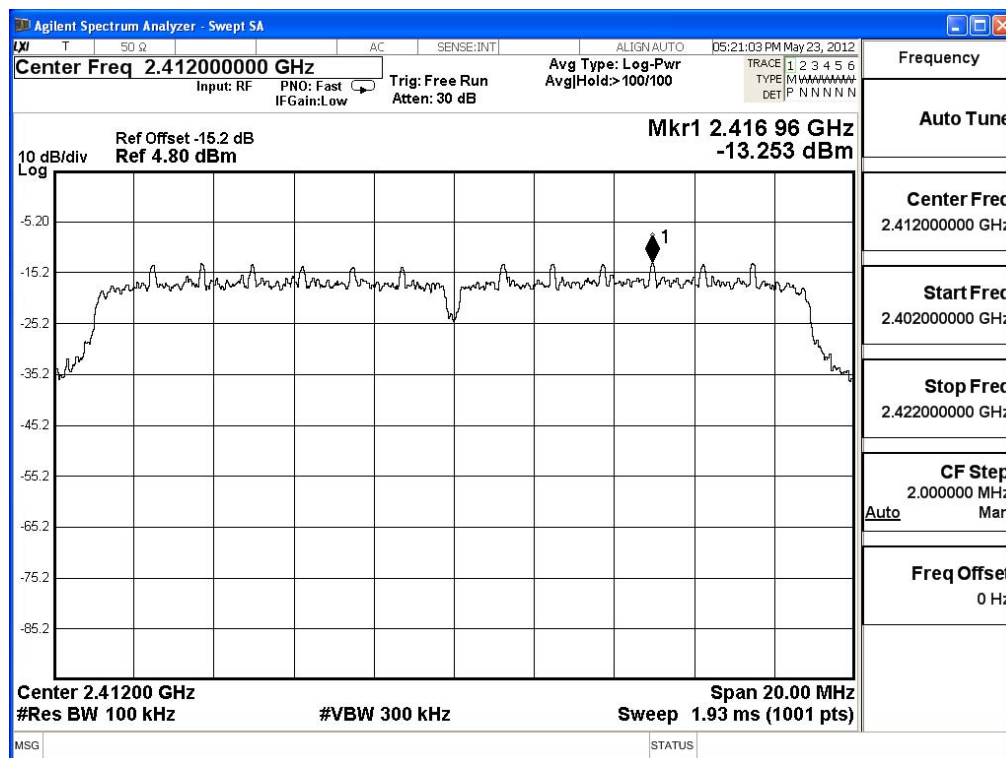


Figure Channel 1: (Chain B)

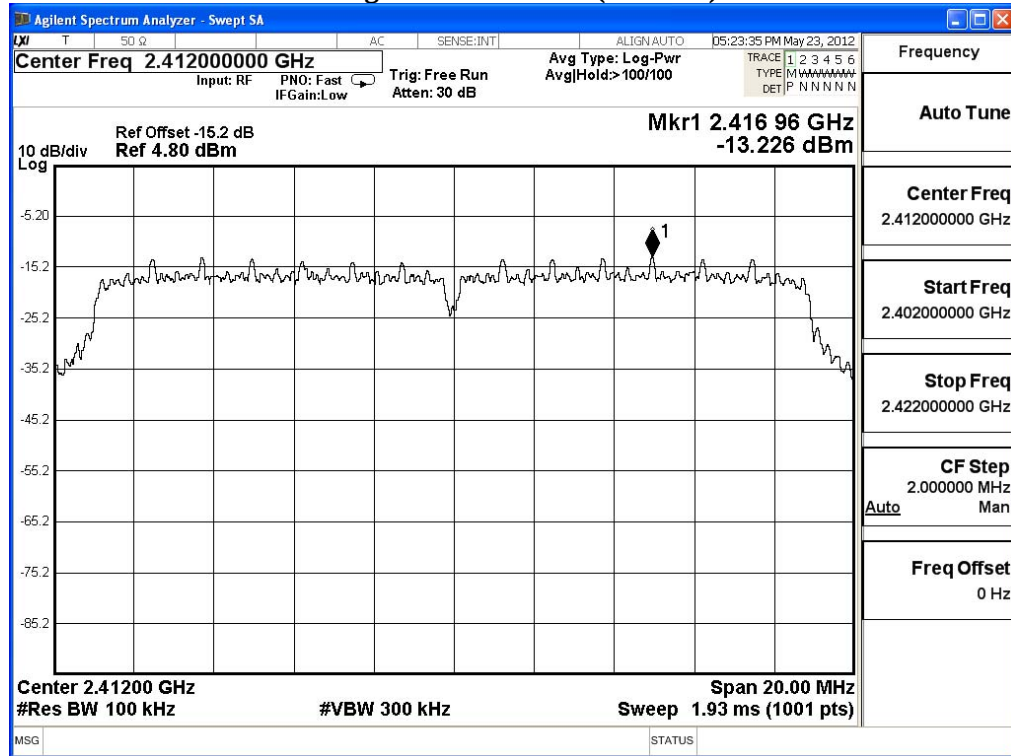
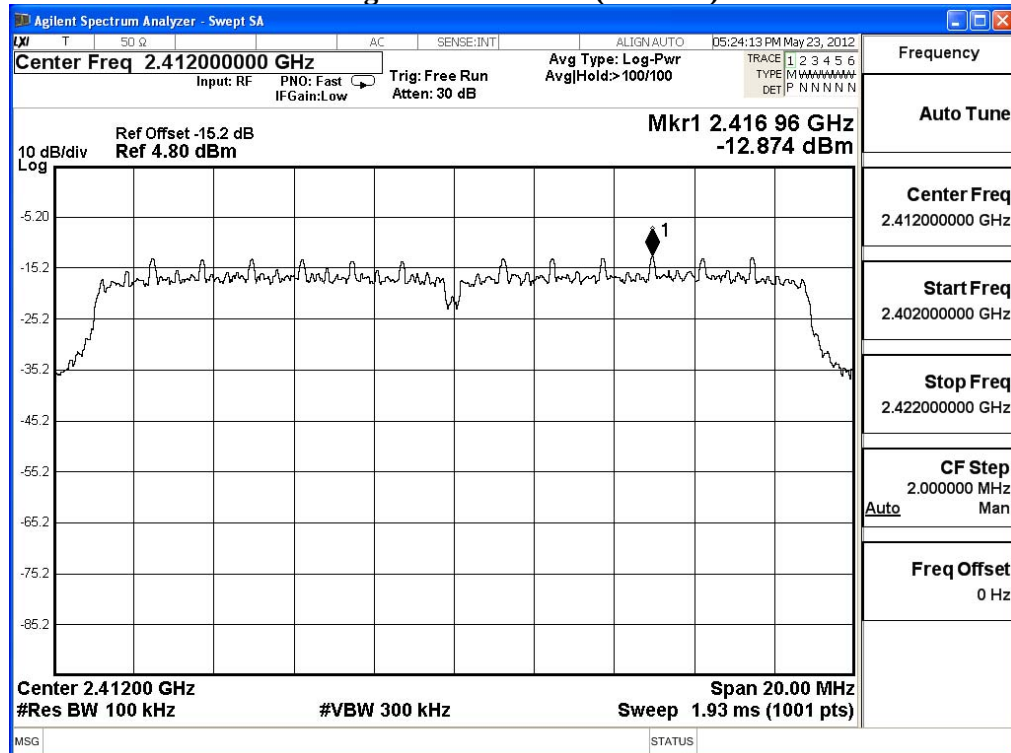


Figure Channel 1: (Chain C)



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3OATS
 Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band) (2437MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
6	2437.00	-11.089	-12.496	-11.949	-7.034	< 8dBm	Pass

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

Figure Channel 6: (Chain A)

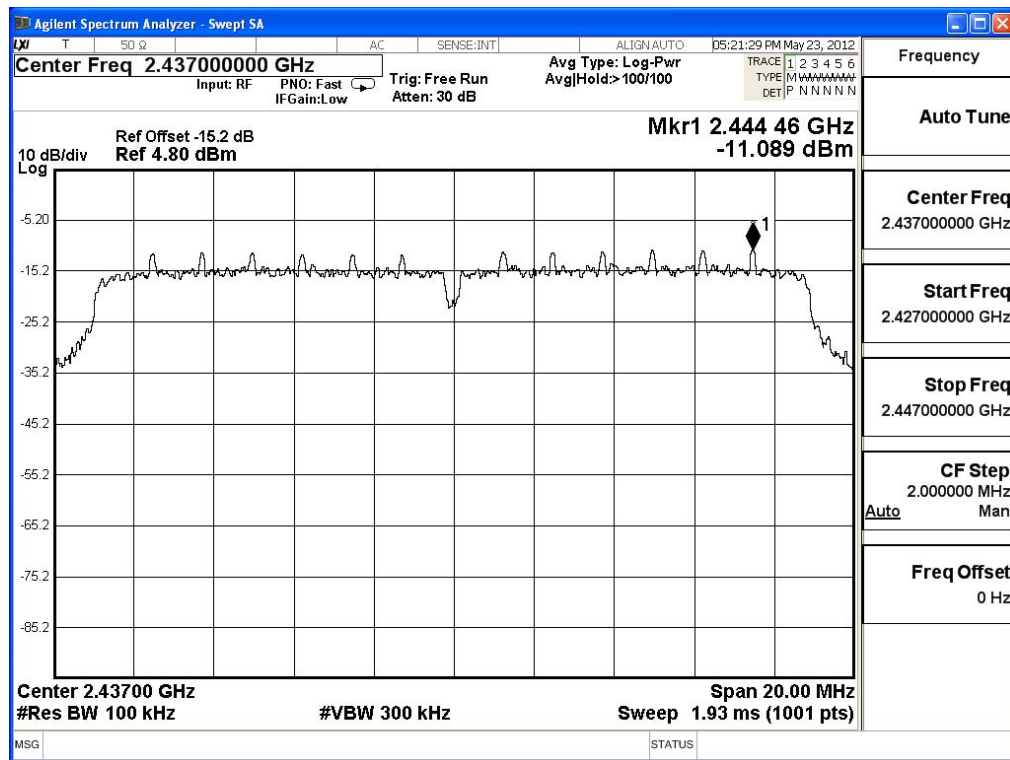


Figure Channel 6: (Chain B)

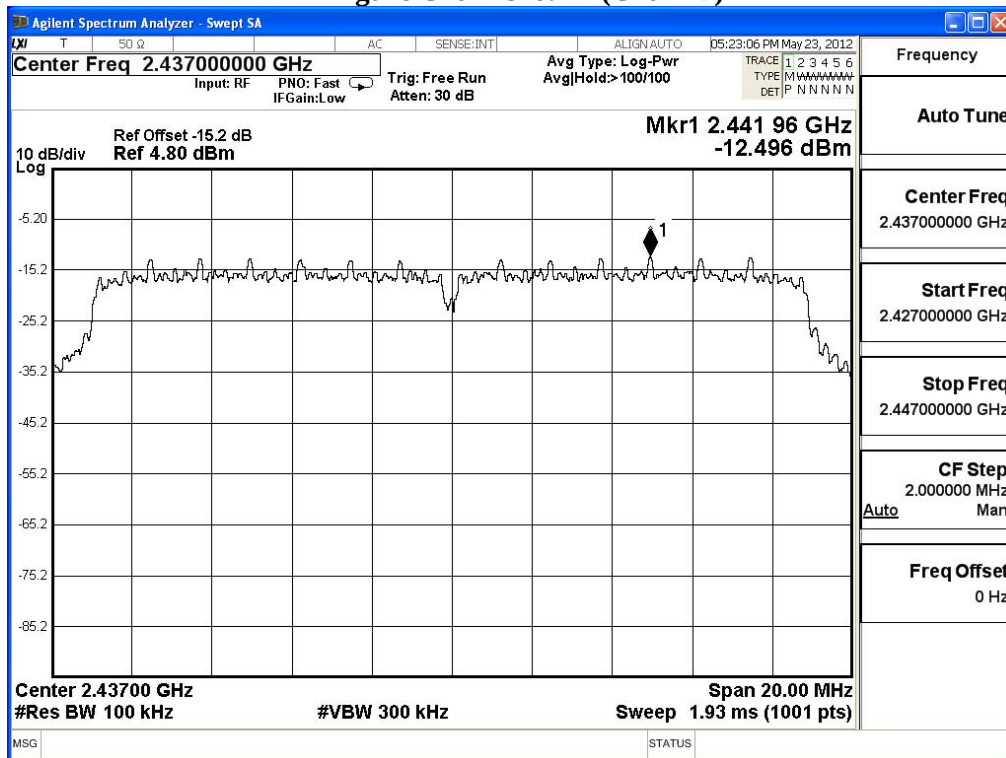
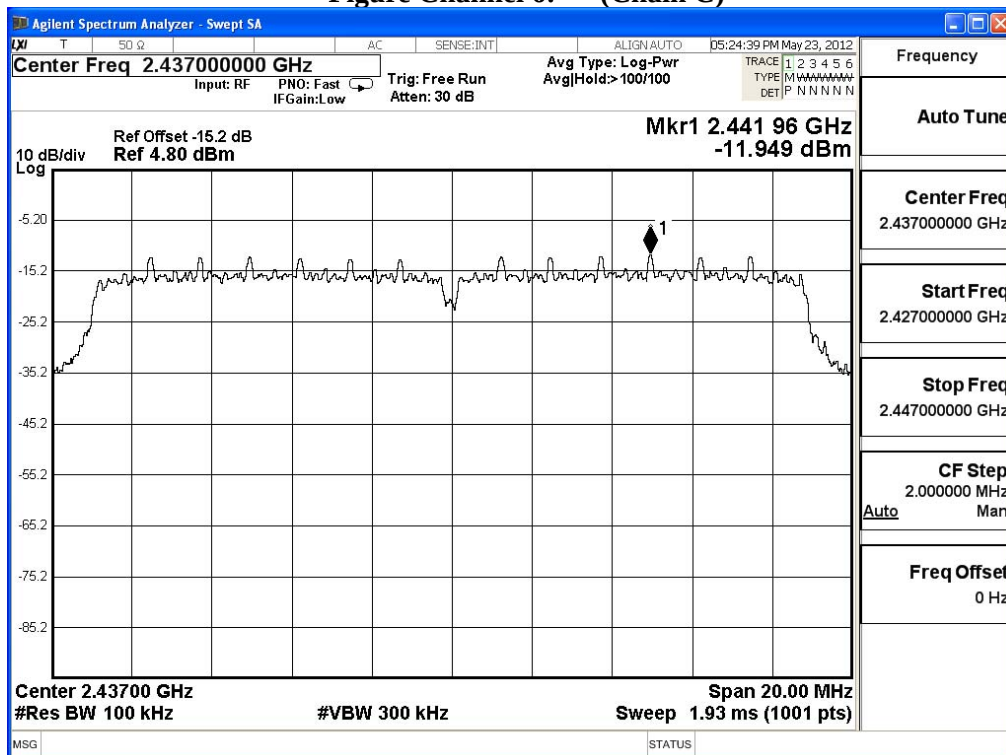


Figure Channel 6: (Chain C)



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band) (2462MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
11	2462.00	-12.528	-14.661	-13.940	-8.846	< 8dBm	Pass

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

Figure Channel 11: (Chain A)

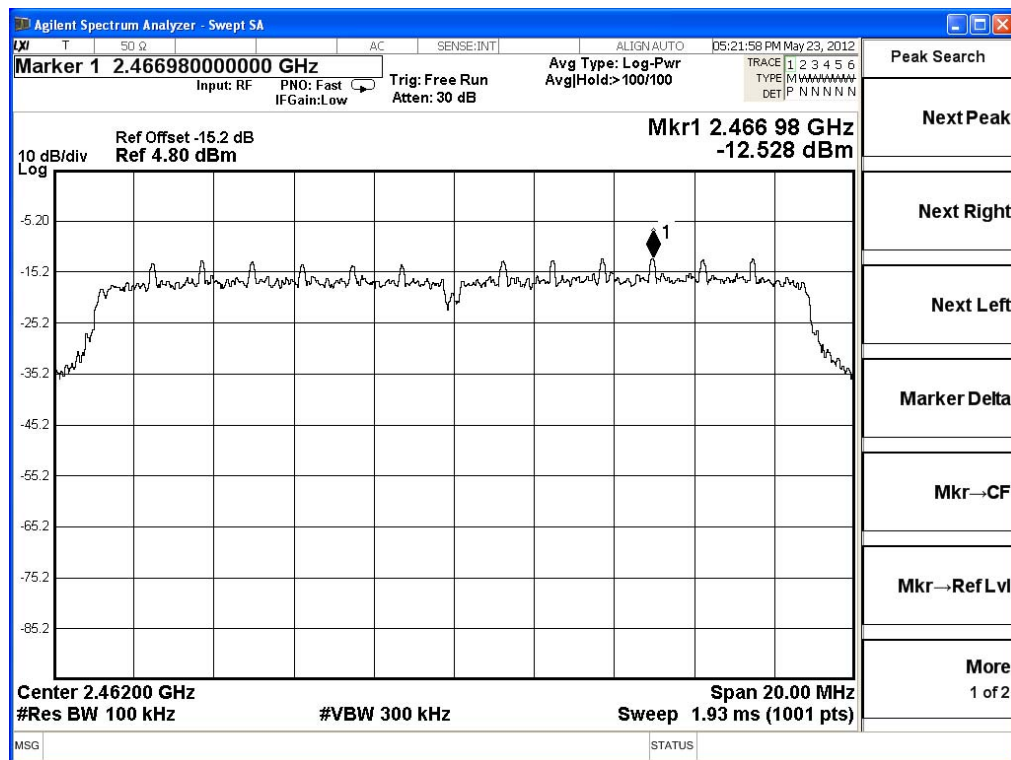


Figure Channel 11: (Chain B)

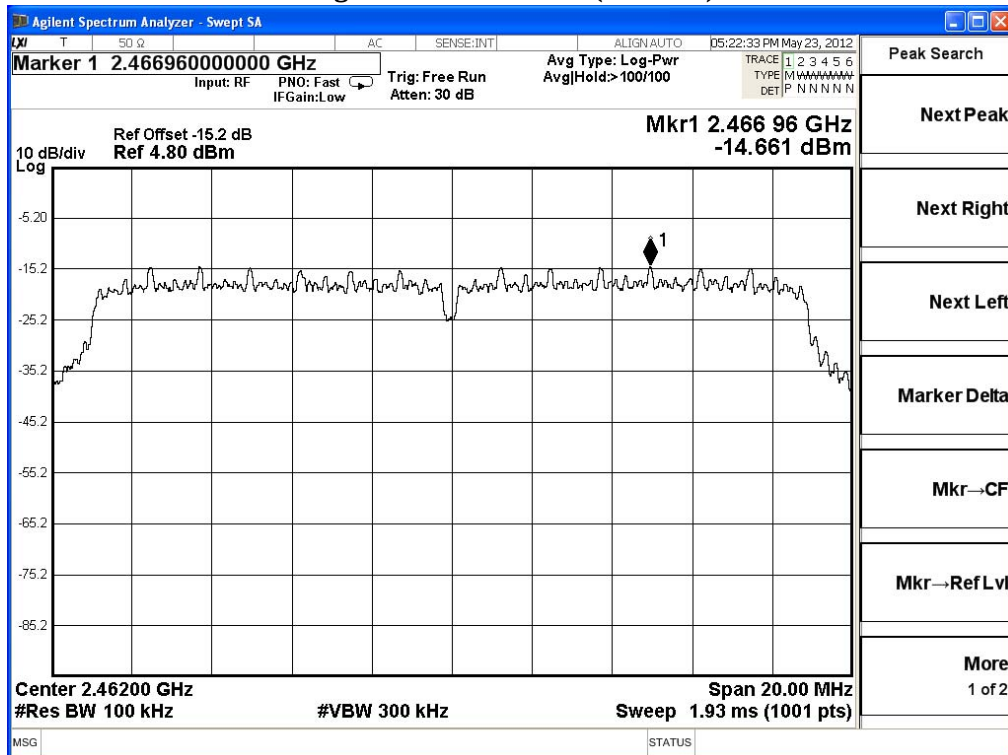
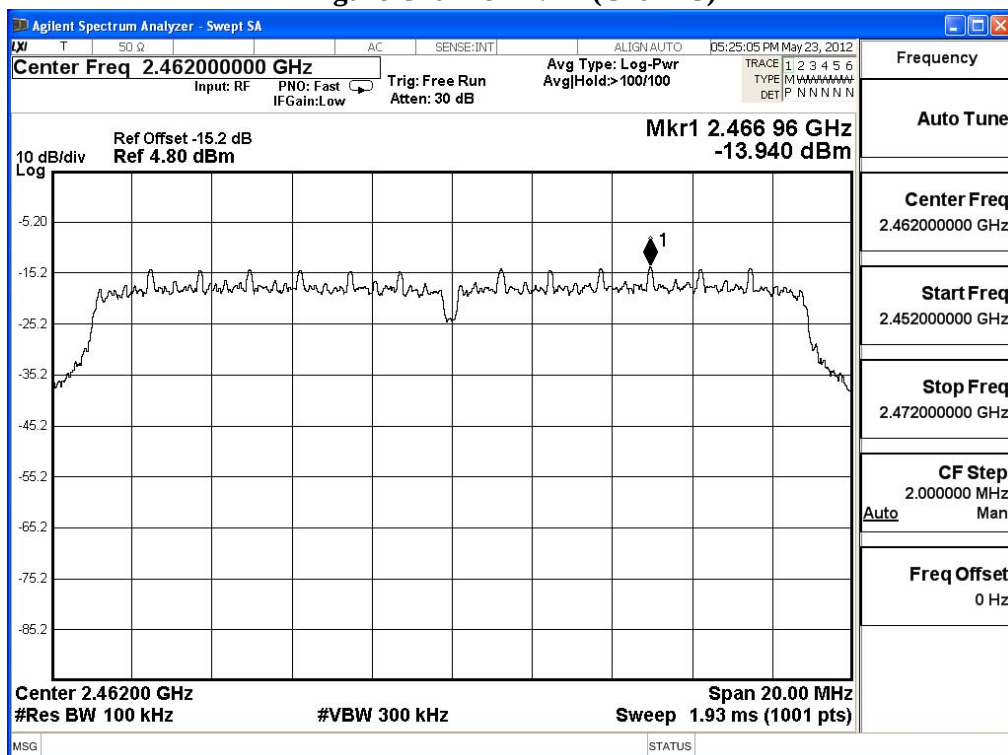


Figure Channel 11: (Chain C)



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band) (2422MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2422.00	-15.595	-17.092	-16.023	-11.421	< 8dBm	Pass

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

Figure Channel 1: (Chain A)

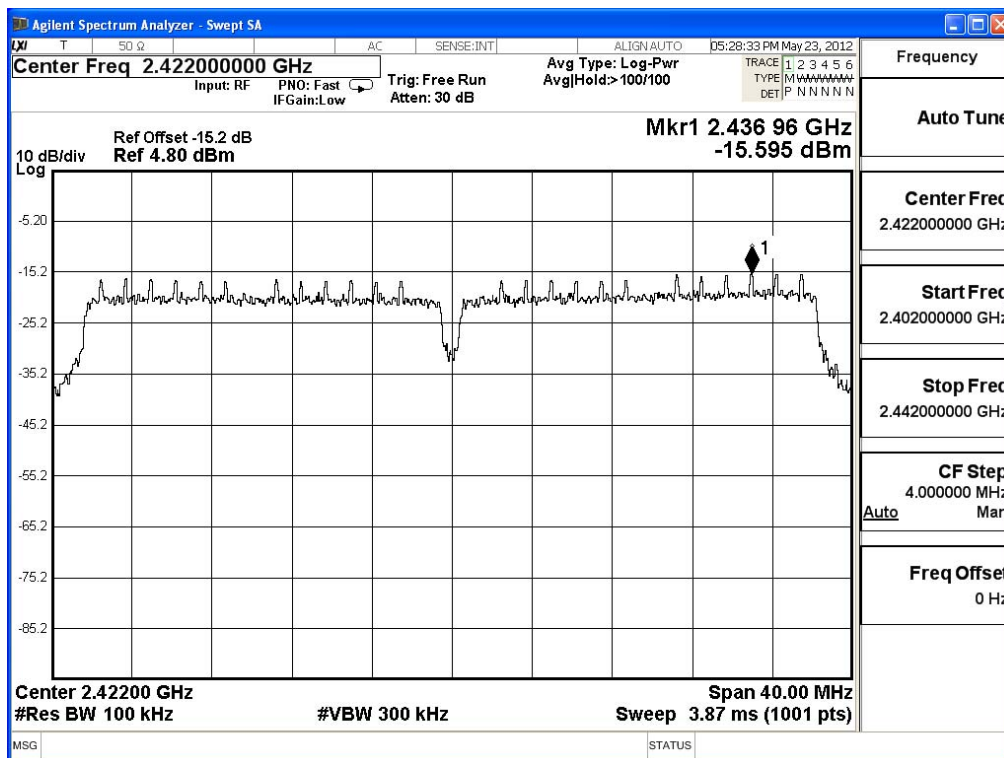


Figure Channel 1: (Chain B)

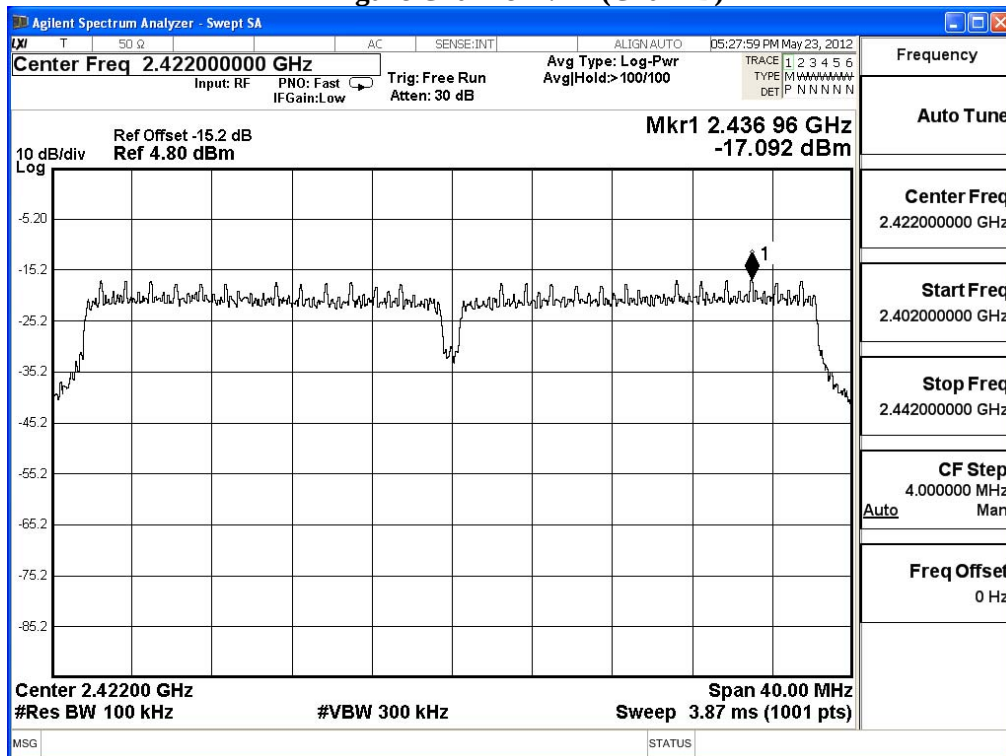
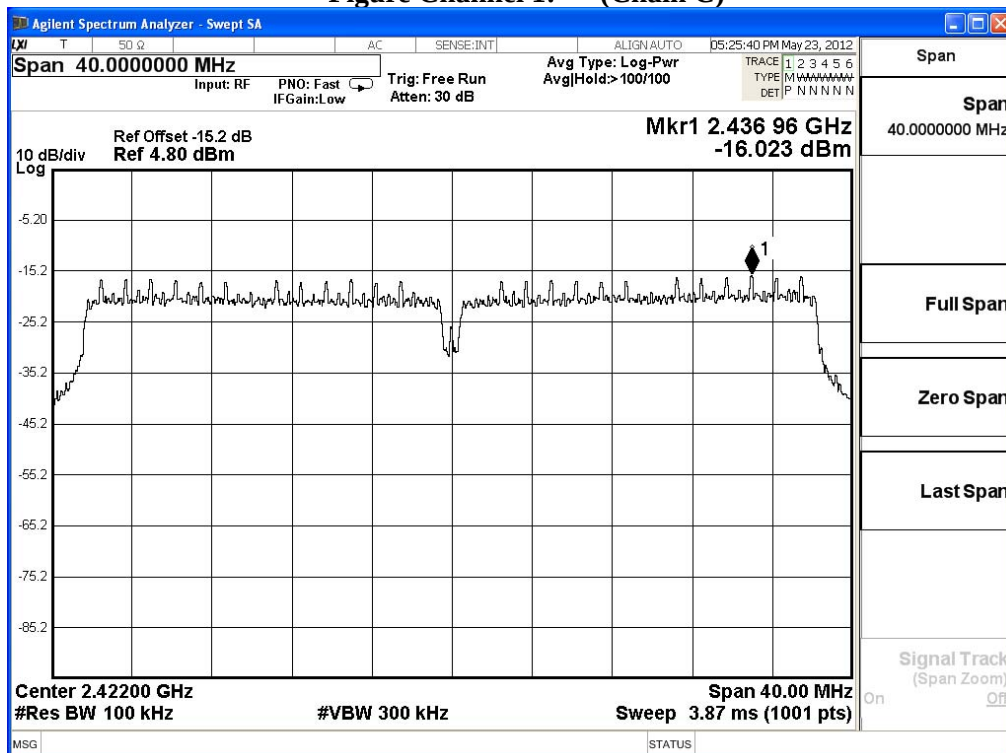


Figure Channel 1: (Chain C)



Product : 802.11 a/b/g/n, 2.4G/5G 3T3R Wireless Module
 Test Item : Power Density Data
 Test Site : No.3OATS
 Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band) (2437MHz)

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
4	2437.00	-12.742	-15.150	-13.932	-9.060	< 8dBm	Pass

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

Figure Channel 4: (Chain A)

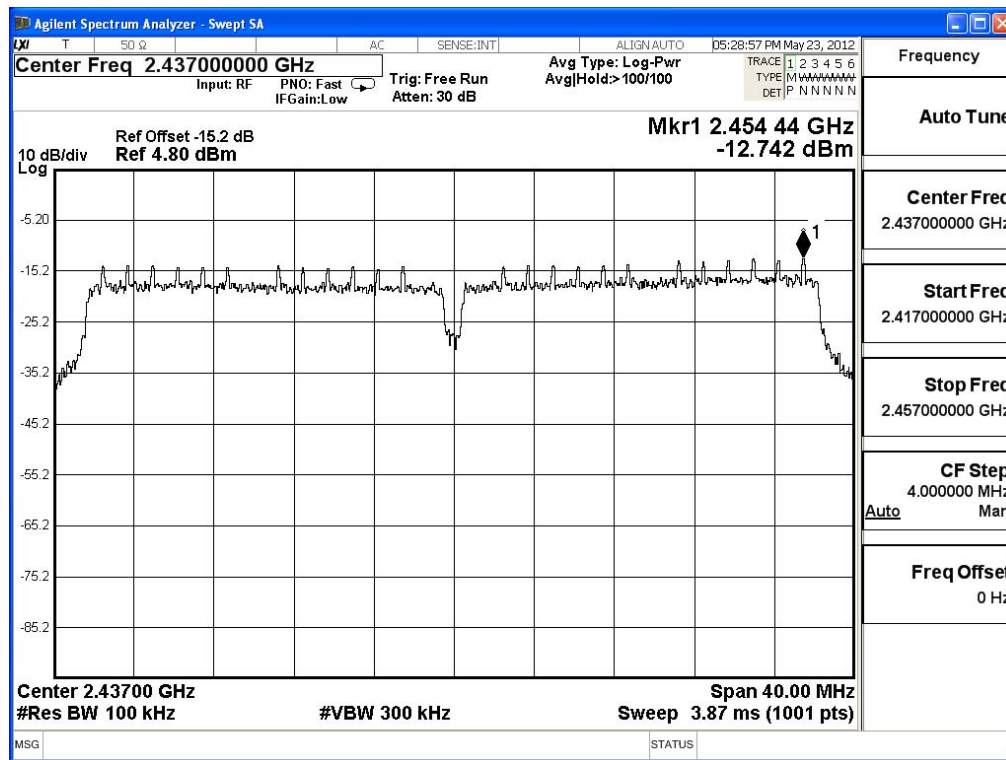


Figure Channel 4: (Chain B)

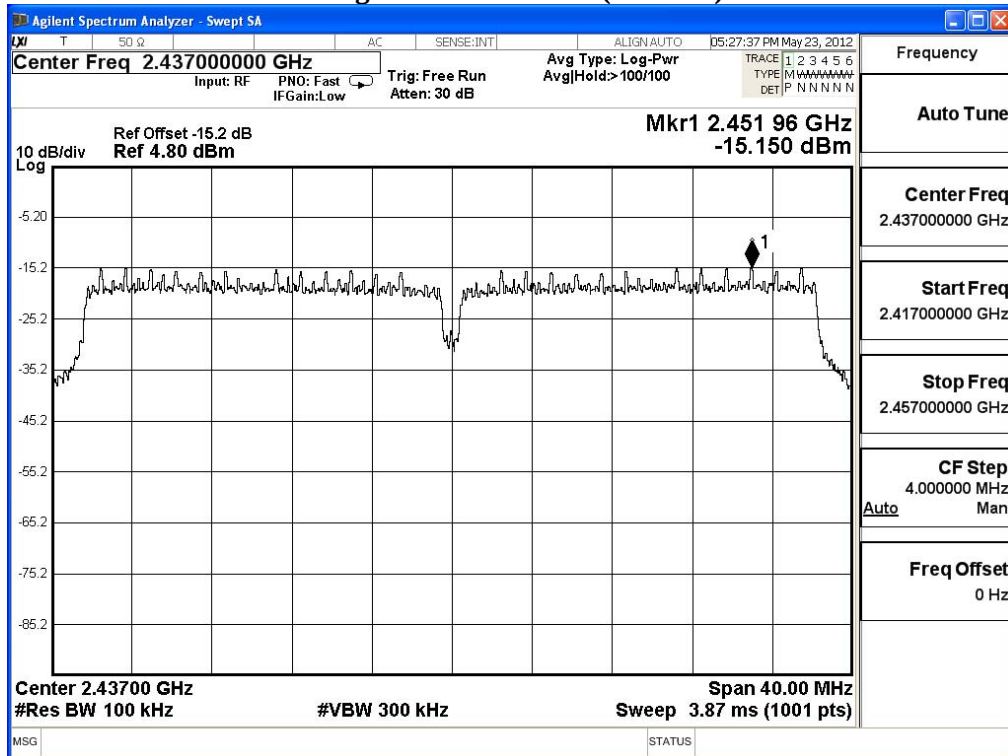


Figure Channel 4: (Chain C)

