

4. Peak Power Spectral Density

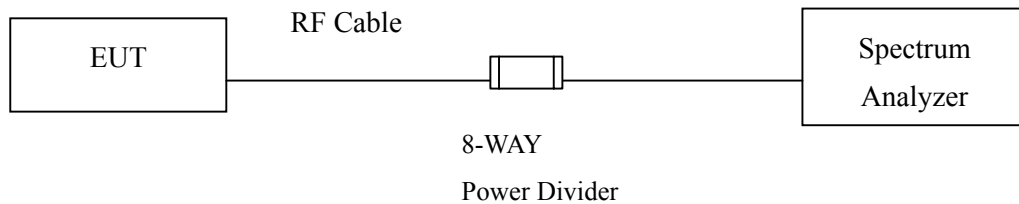
4.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2010
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2010
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010
X	8-WAY Power Divider	JFW	50PD-647 / 526770 0916	Apr., 2010

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.
3. The power combiner is used for measure 11n mode.

4.2. Test Setup



4.3. Limits

- (4) For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (5) For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (6) For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

4.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements.

4.5. Uncertainty

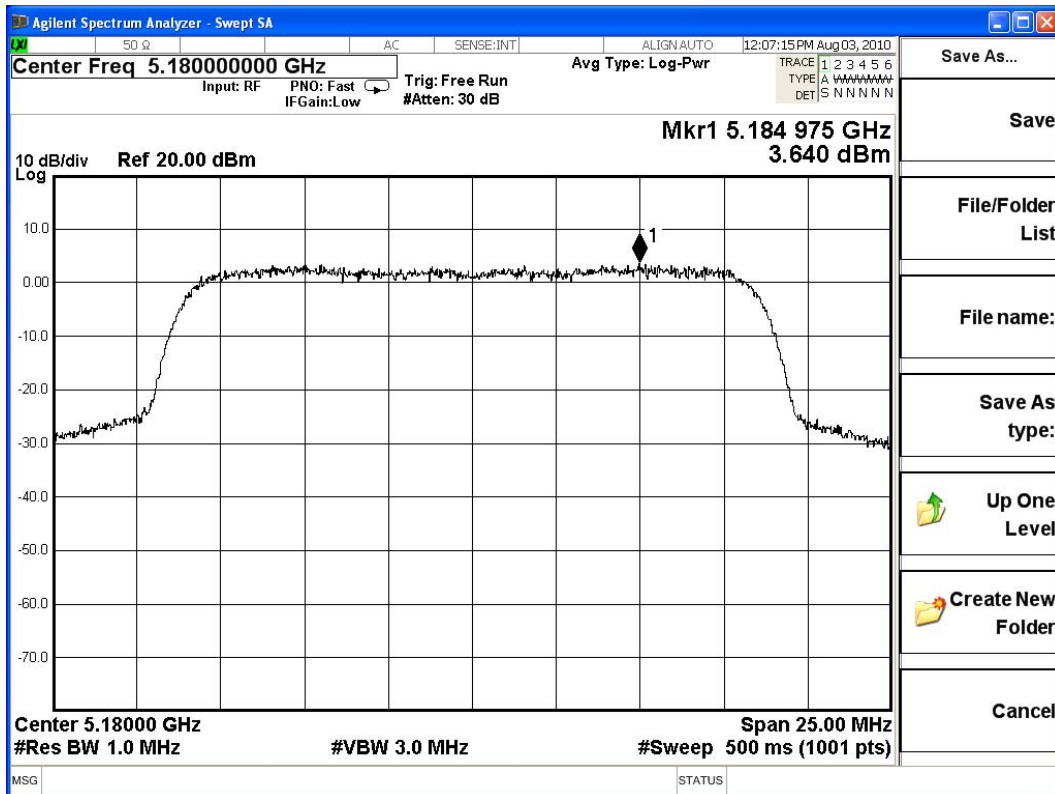
± 1.27 dB

4.6. Test Result of Peak Power Spectral Density

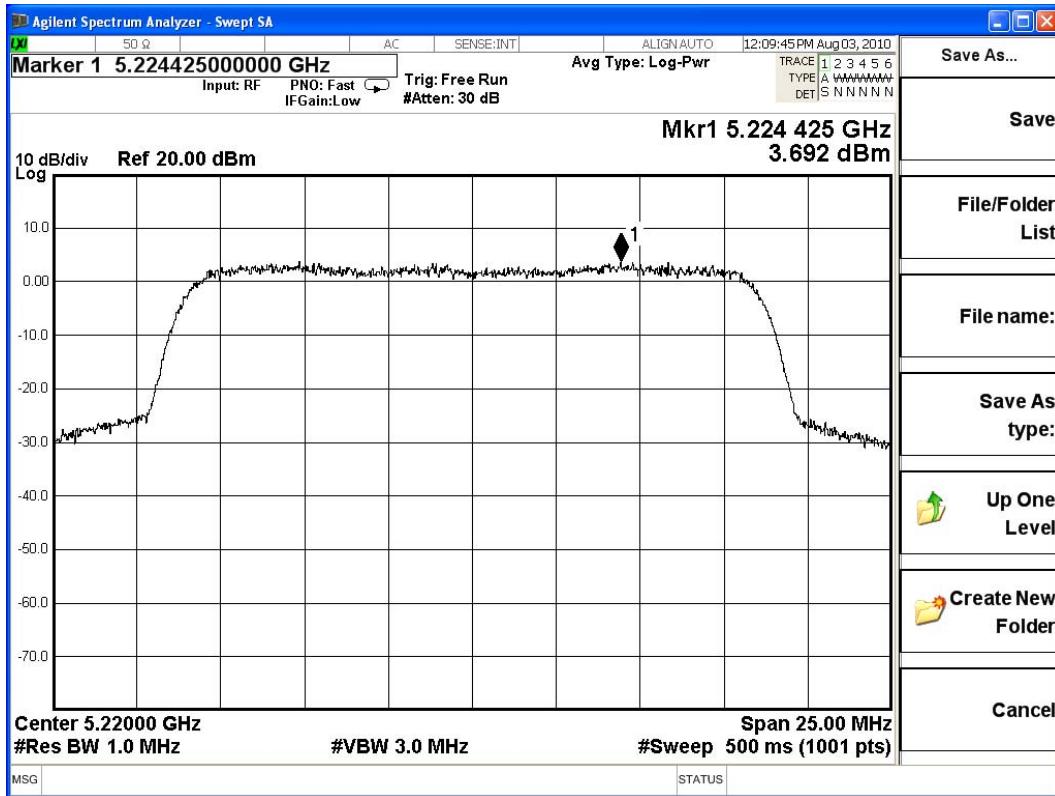
Product : Moxa IEEE 802.11a/b/g/n MiniPCI Module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	3.640	<4	Pass
44	5220	3.692	<4	Pass
48	5240	3.900	<4	Pass
52	5260	3.740	<11	Pass
60	5300	5.210	<11	Pass
64	5320	5.553	<11	Pass
100	5500	3.434	<11	Pass
120	5600	1.972	<11	Pass
140	5700	3.890	<11	Pass

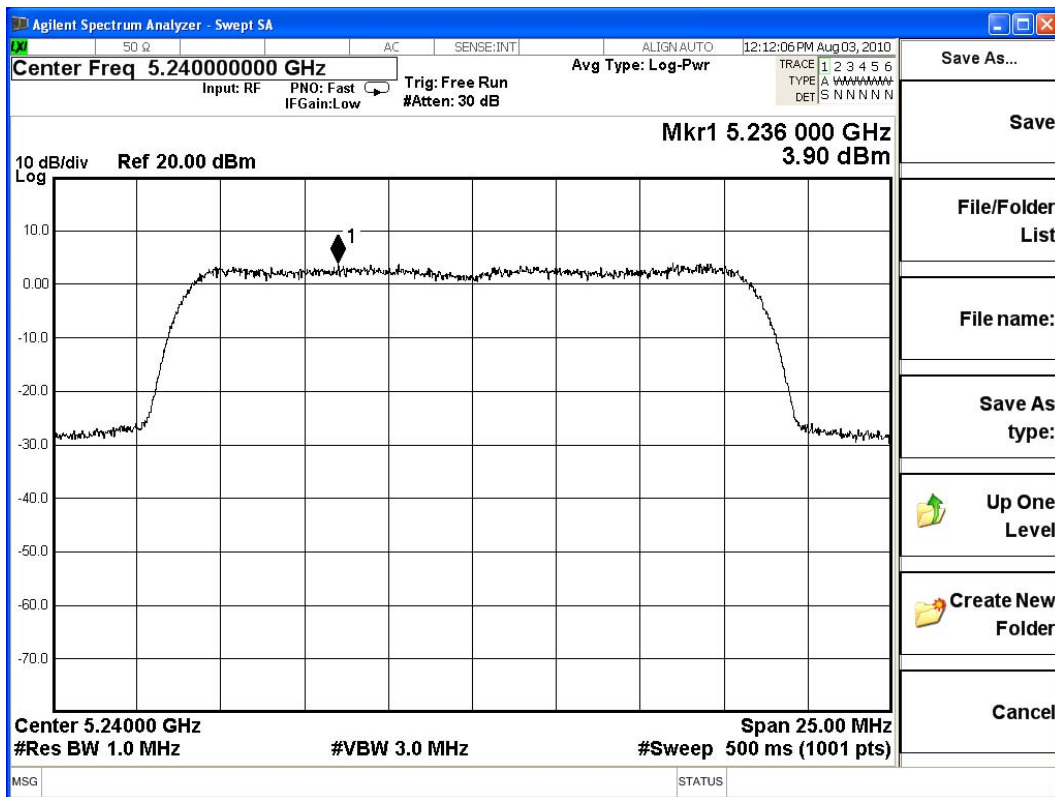
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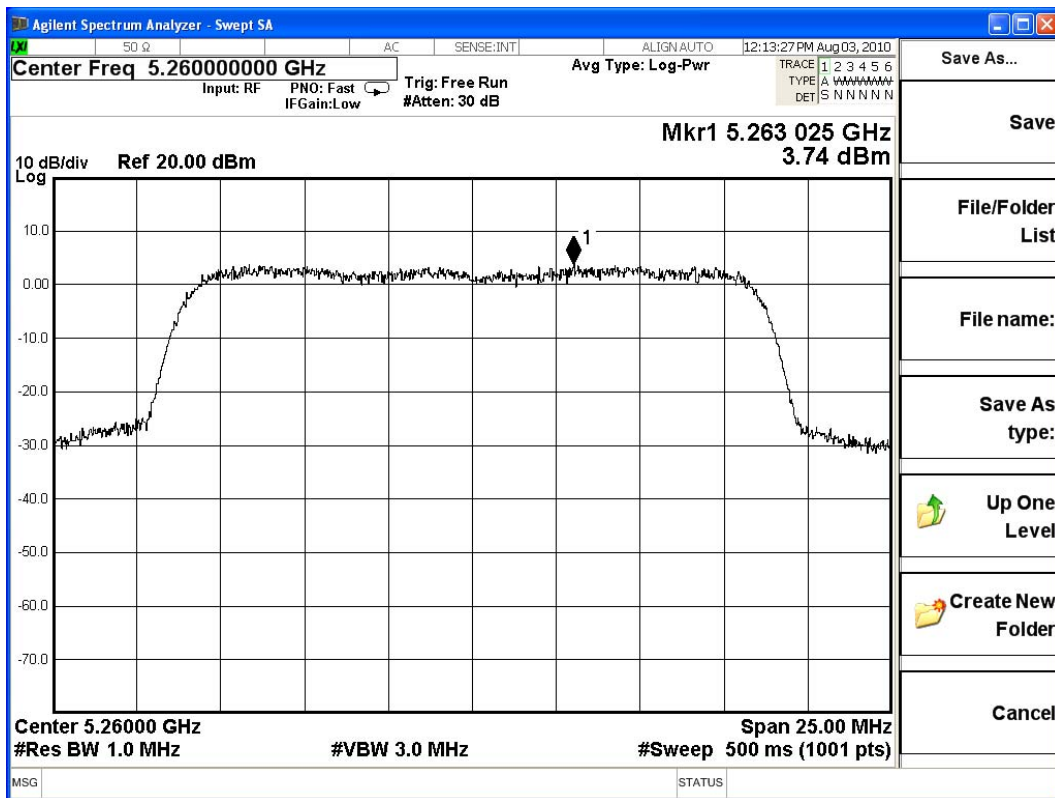
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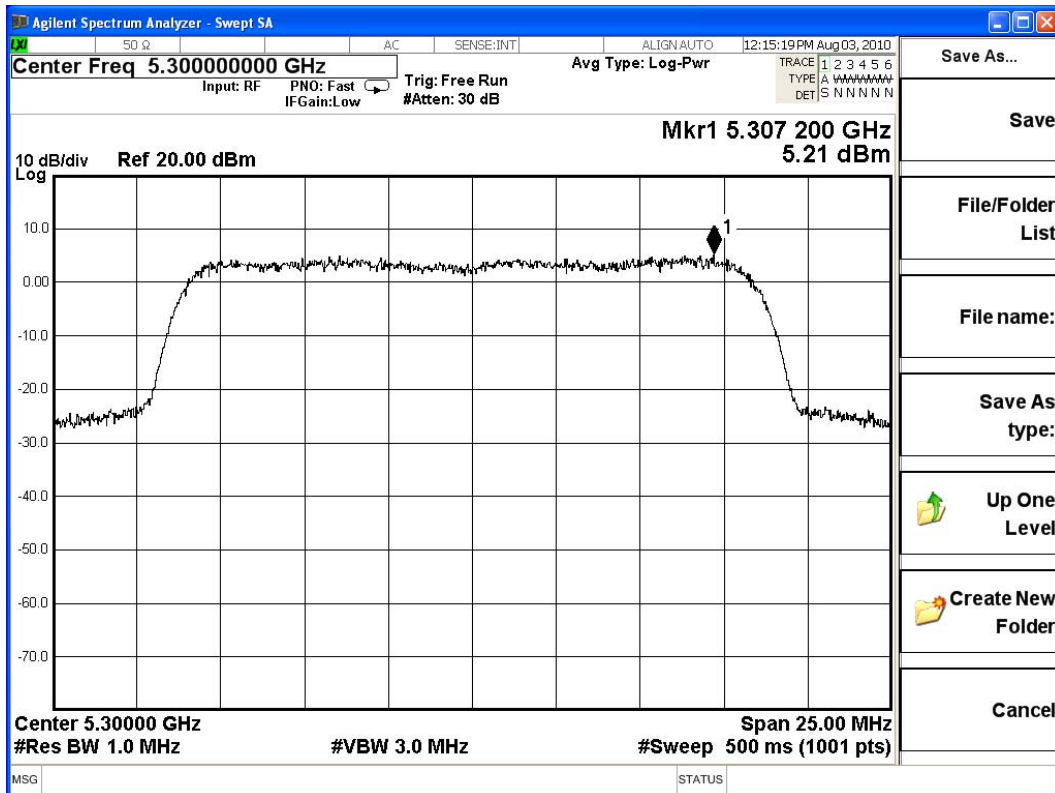
Channel 48:



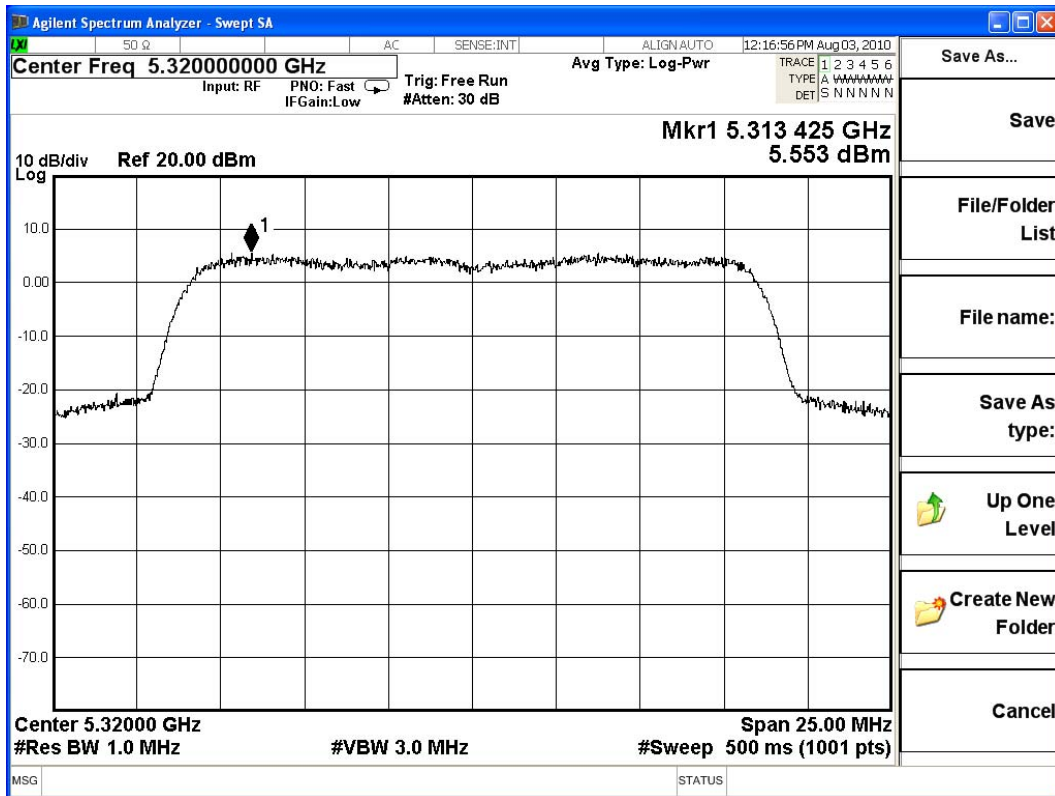
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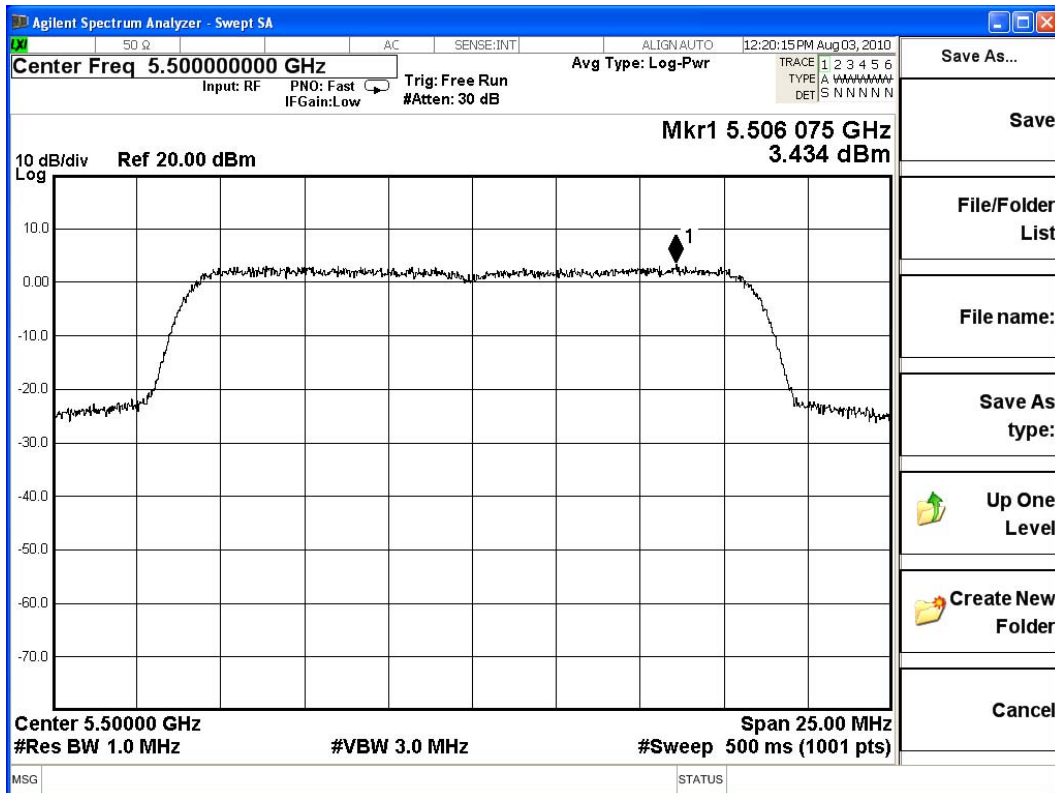
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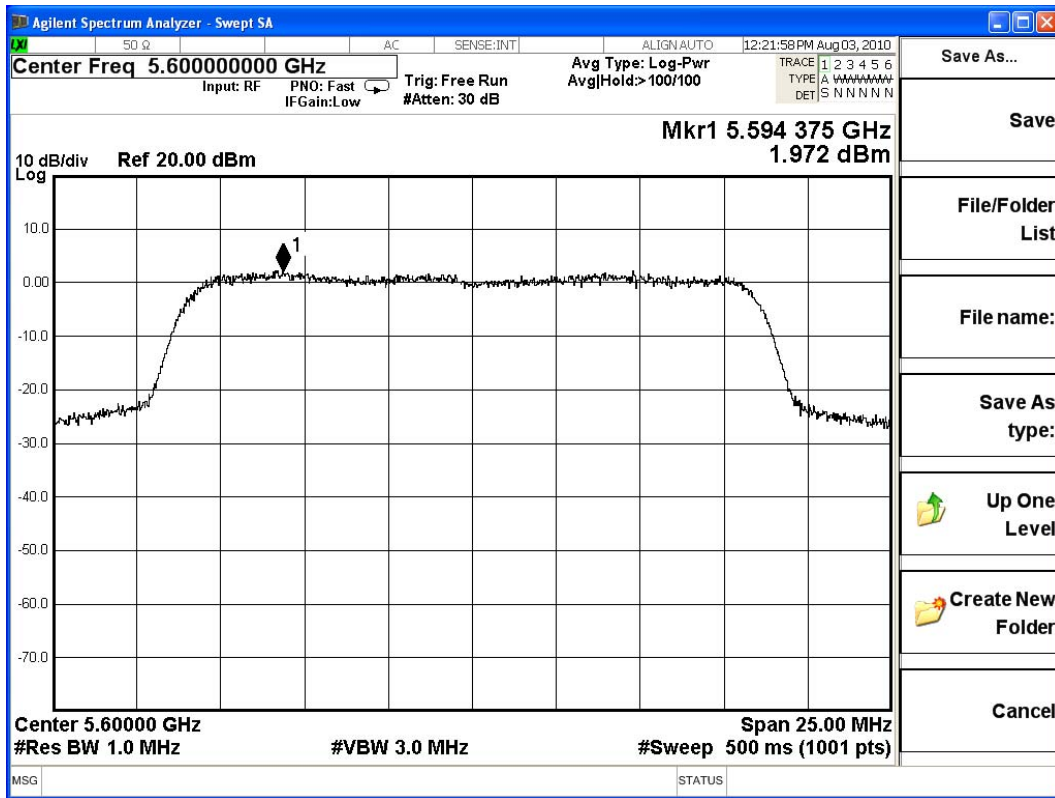
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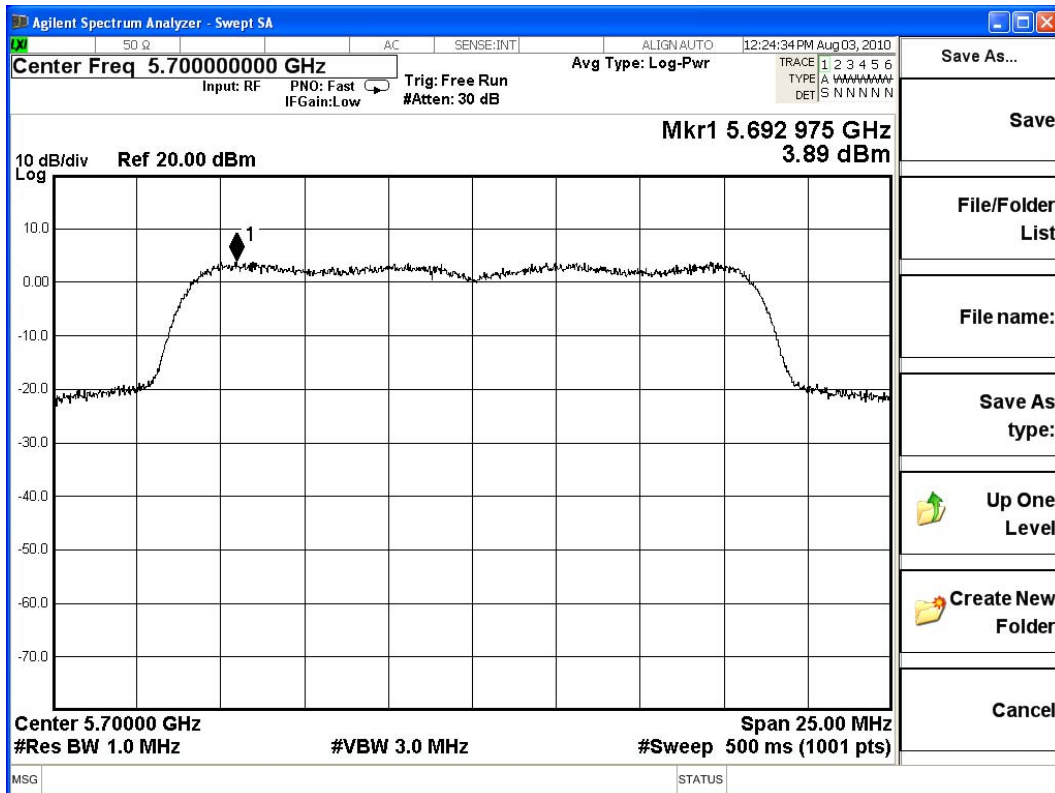
Channel 100:



Channel 120:



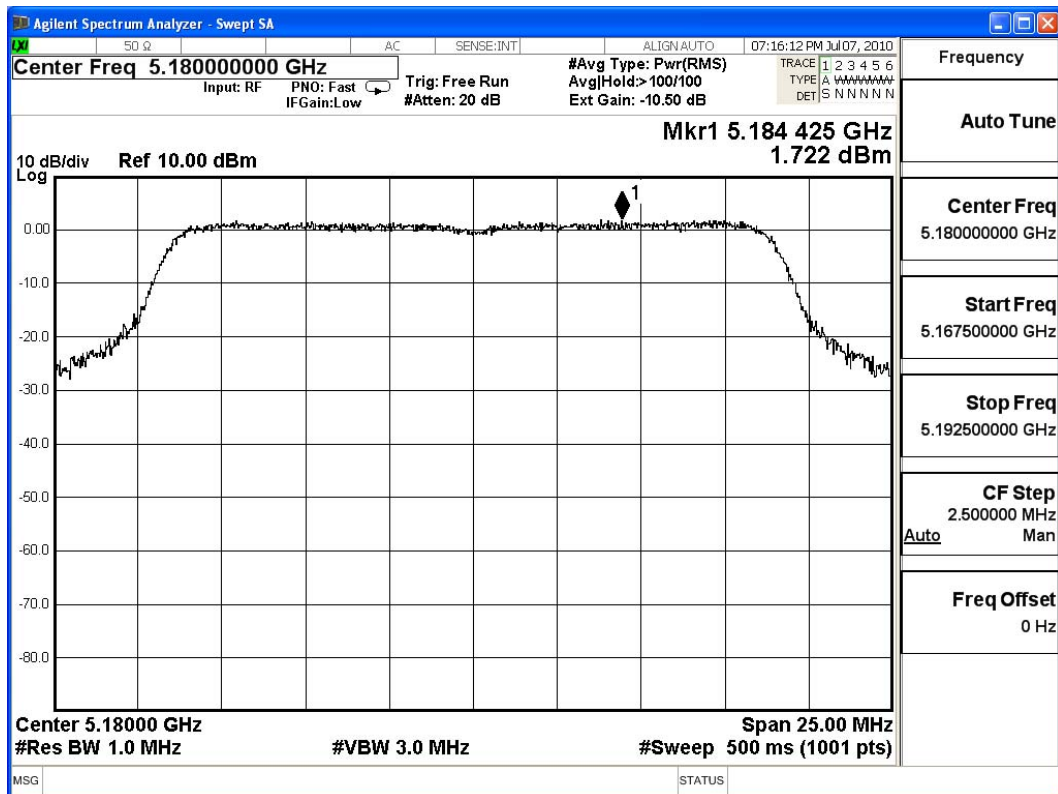
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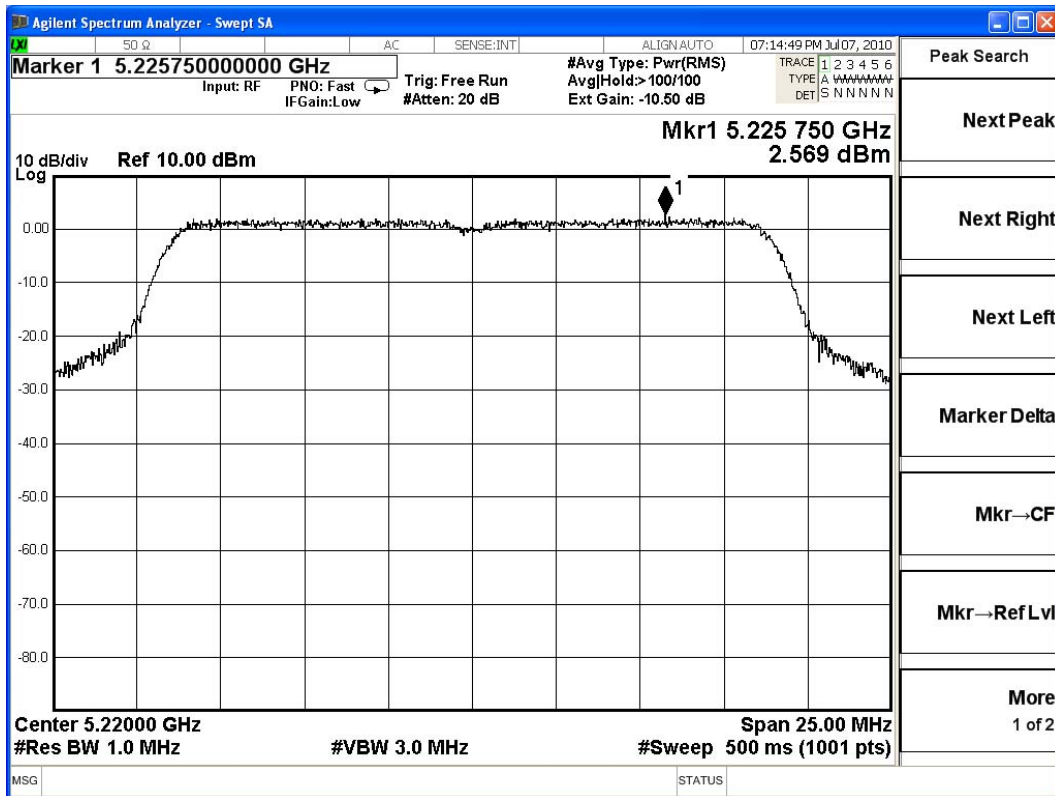
Product : Moxa IEEE 802.11a/b/g/n MiniPCI Module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	1.722	<4	Pass
44	5220	2.569	<4	Pass
48	5240	1.676	<4	Pass
52	5260	1.870	<11	Pass
60	5300	2.273	<11	Pass
64	5320	2.620	<11	Pass
100	5500	1.054	<11	Pass
120	5600	0.950	<11	Pass
140	5700	1.686	<11	Pass

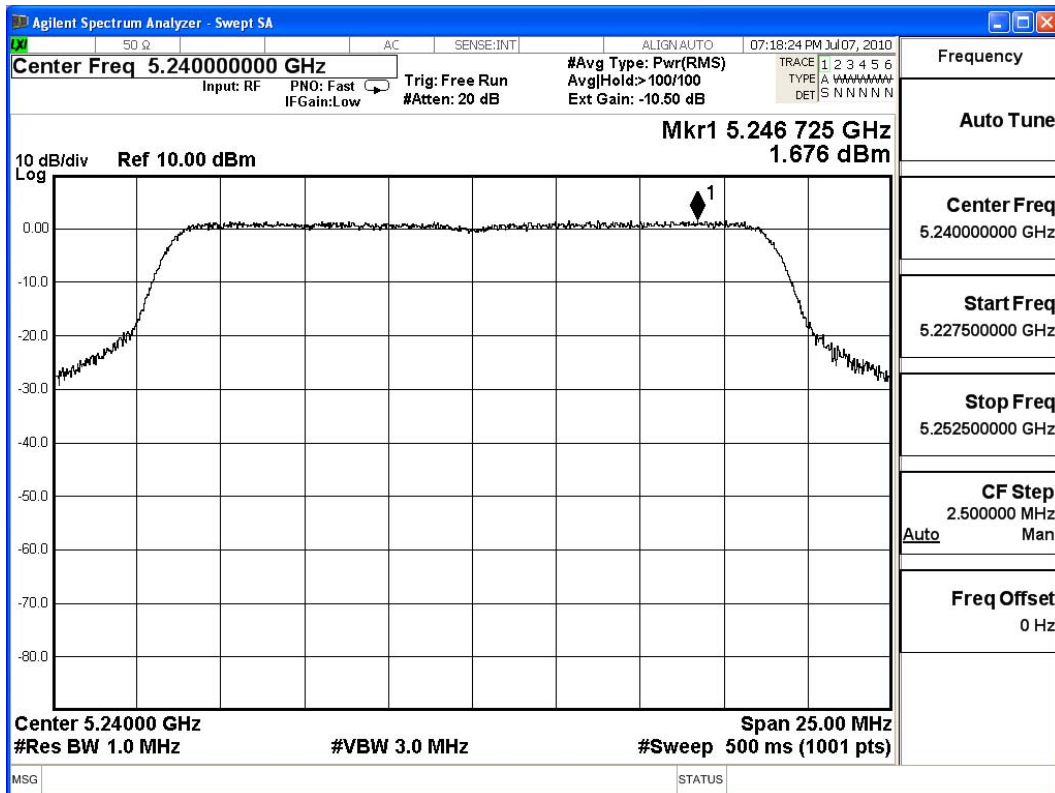
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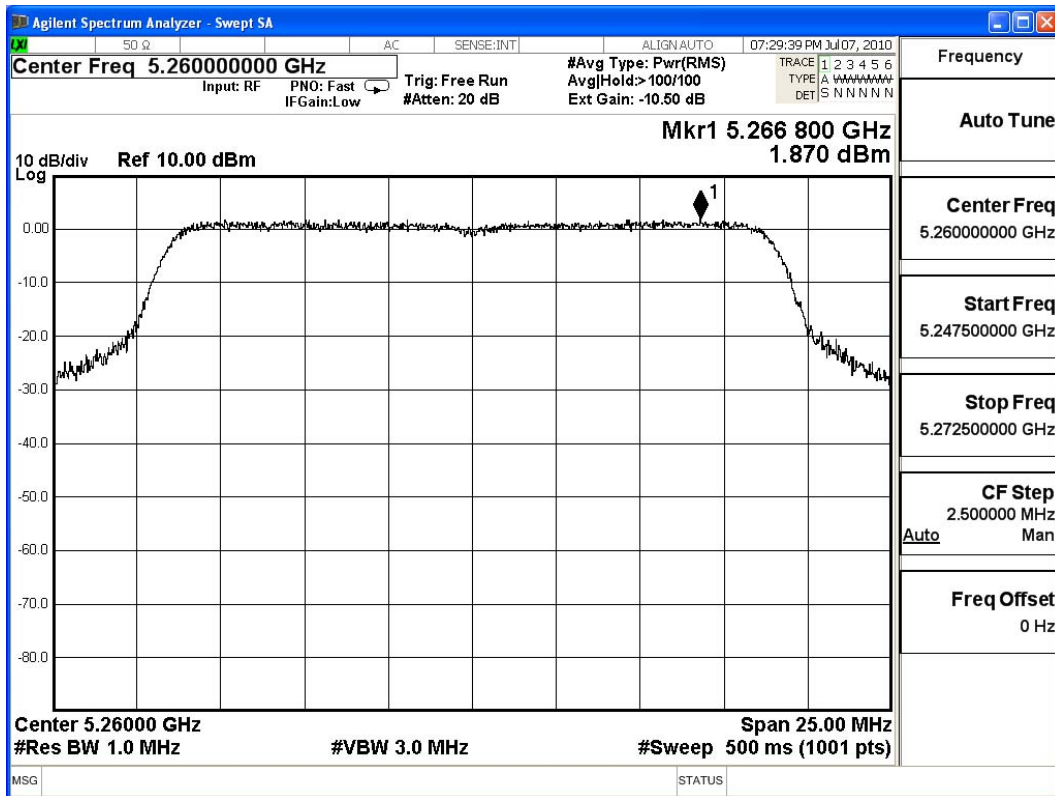
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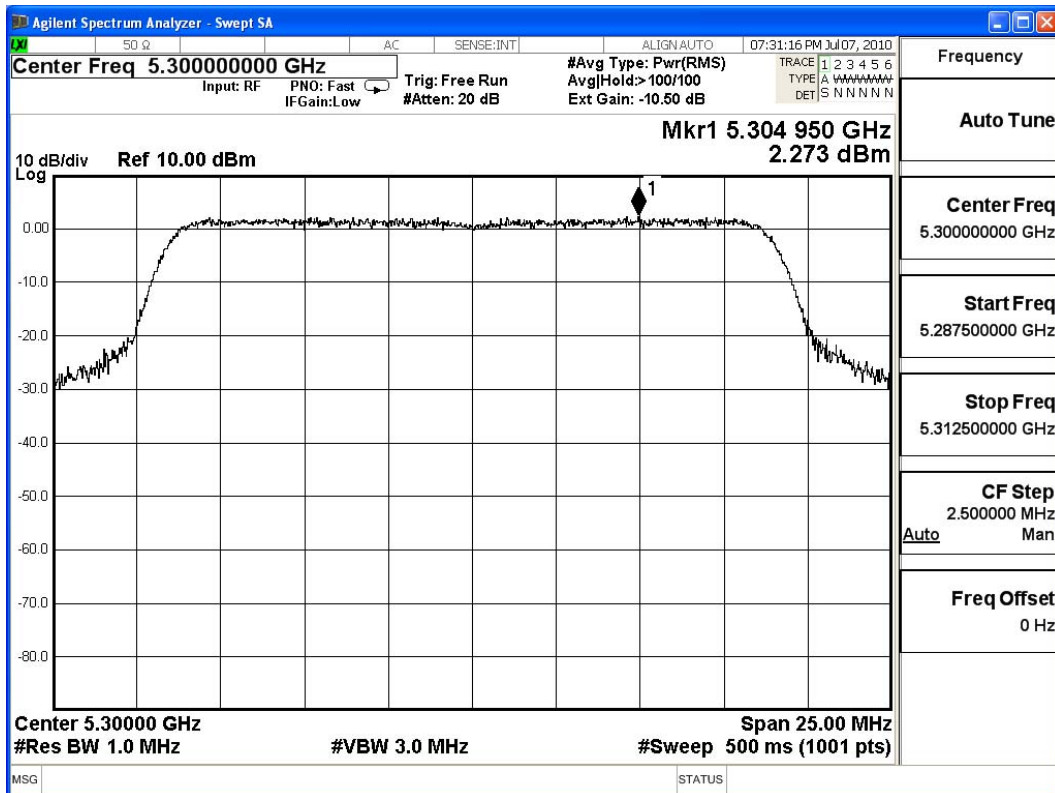
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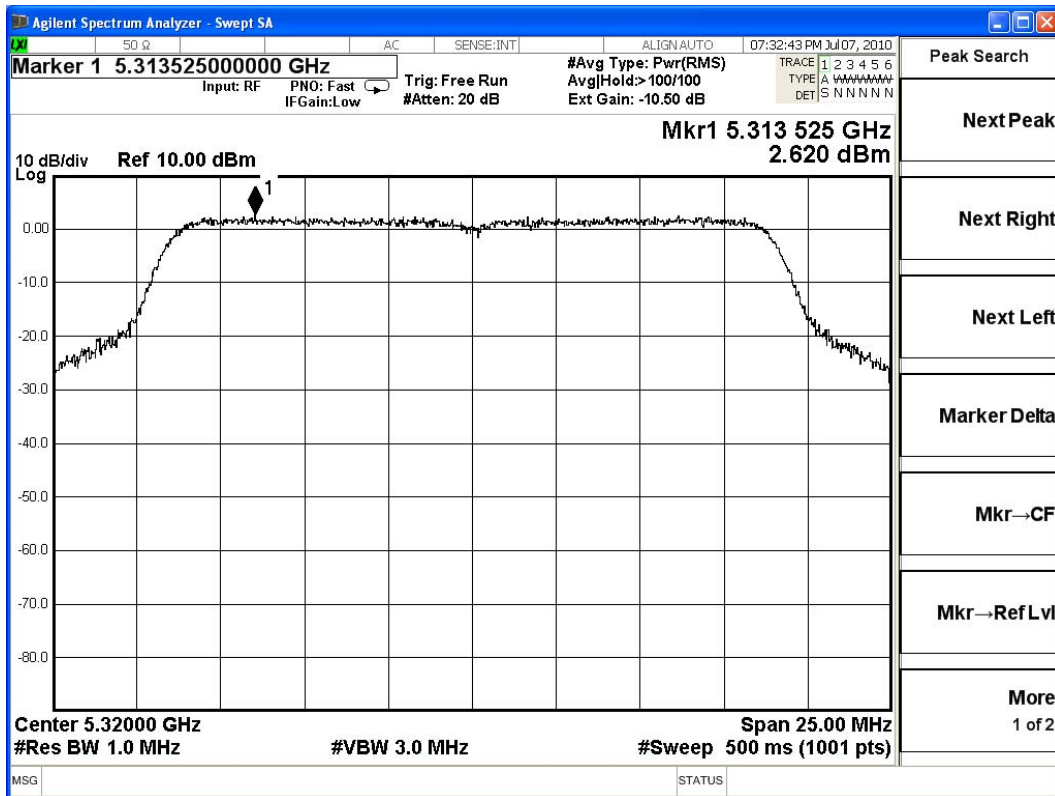
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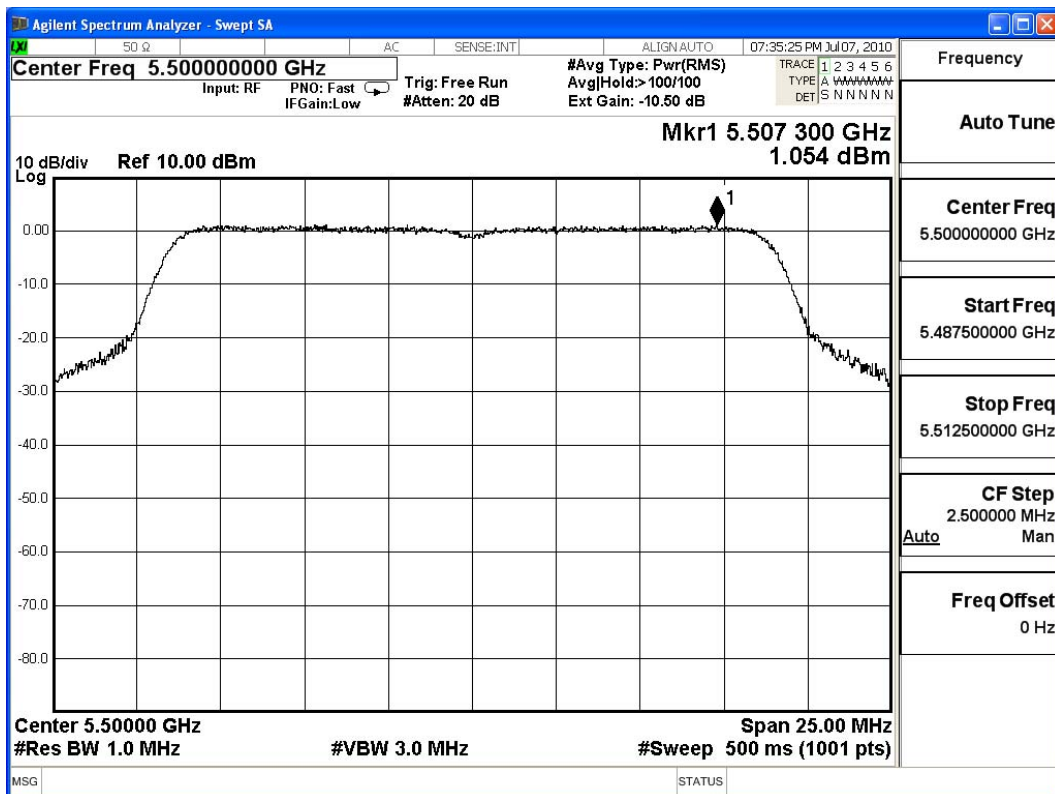
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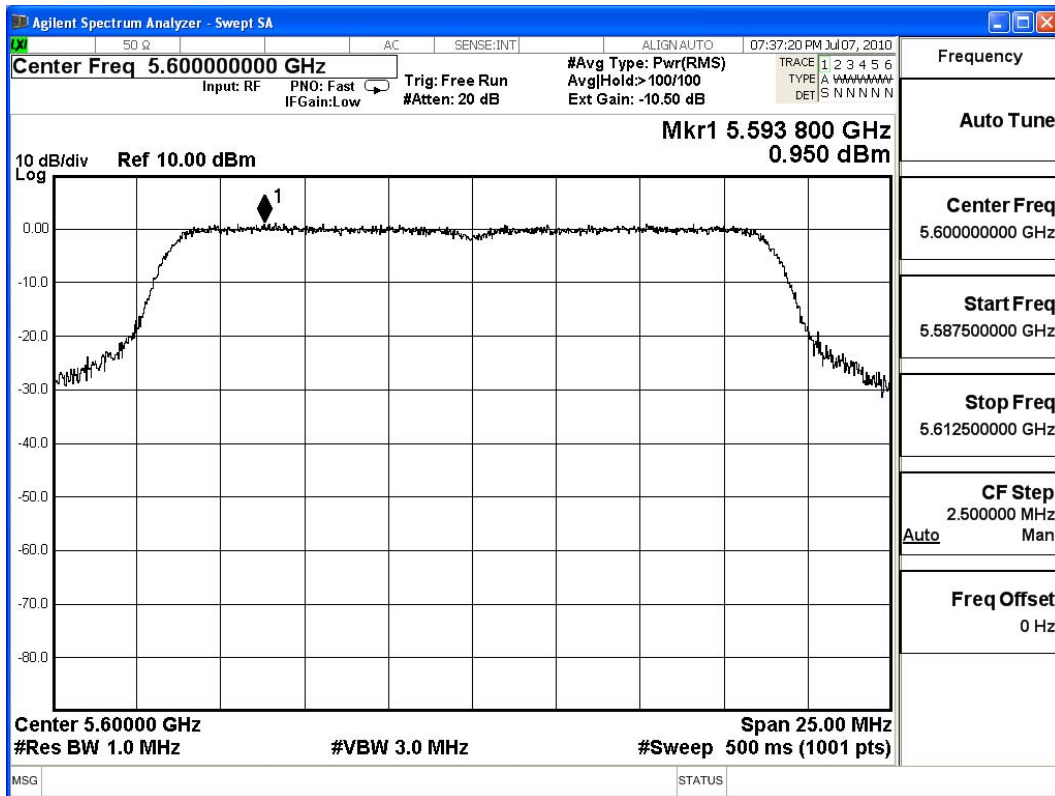
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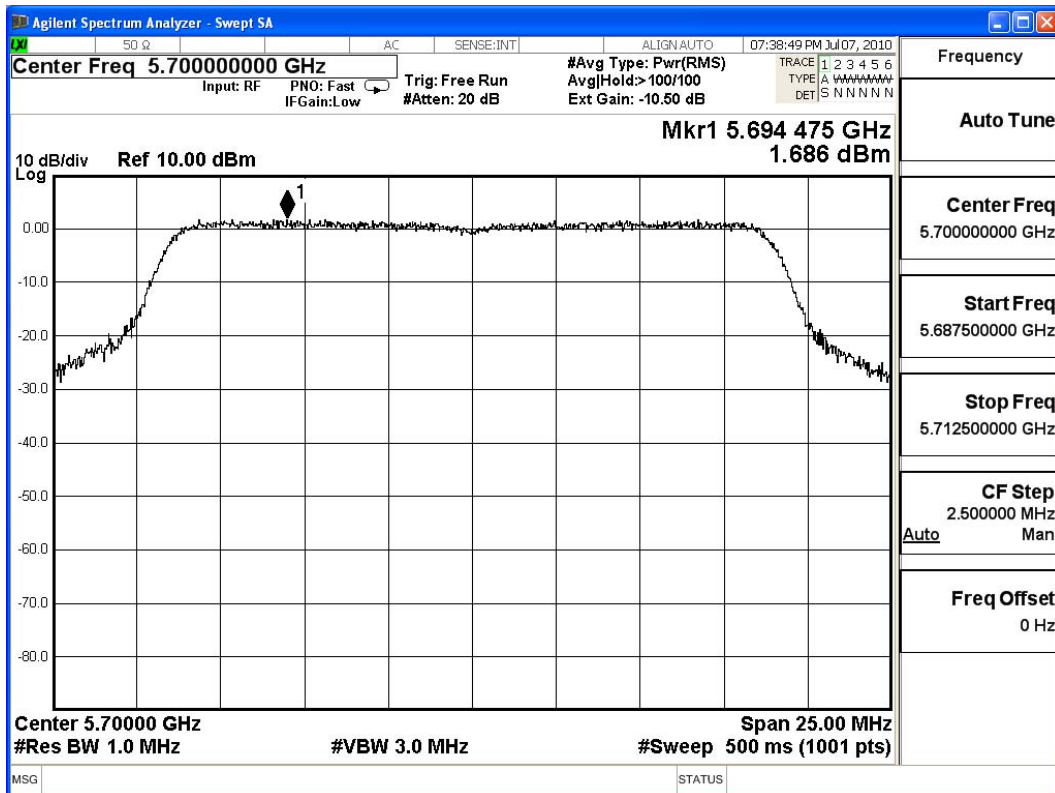
Channel 120:



Channel 120:



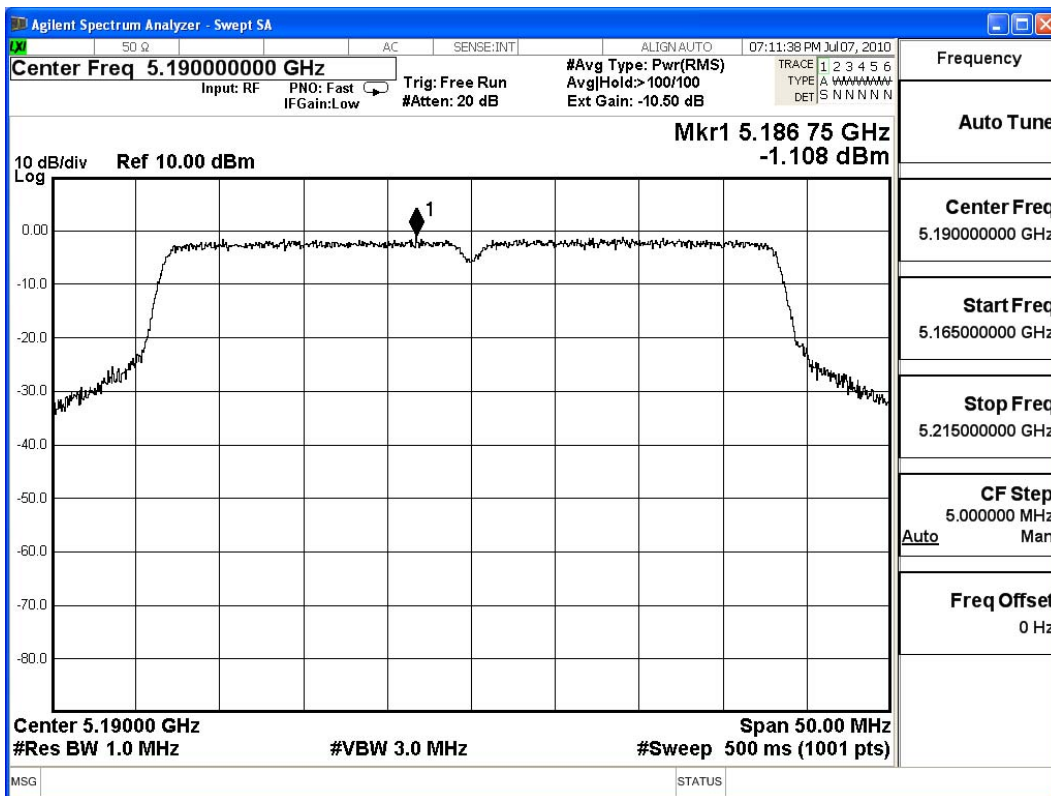
Channel 140:



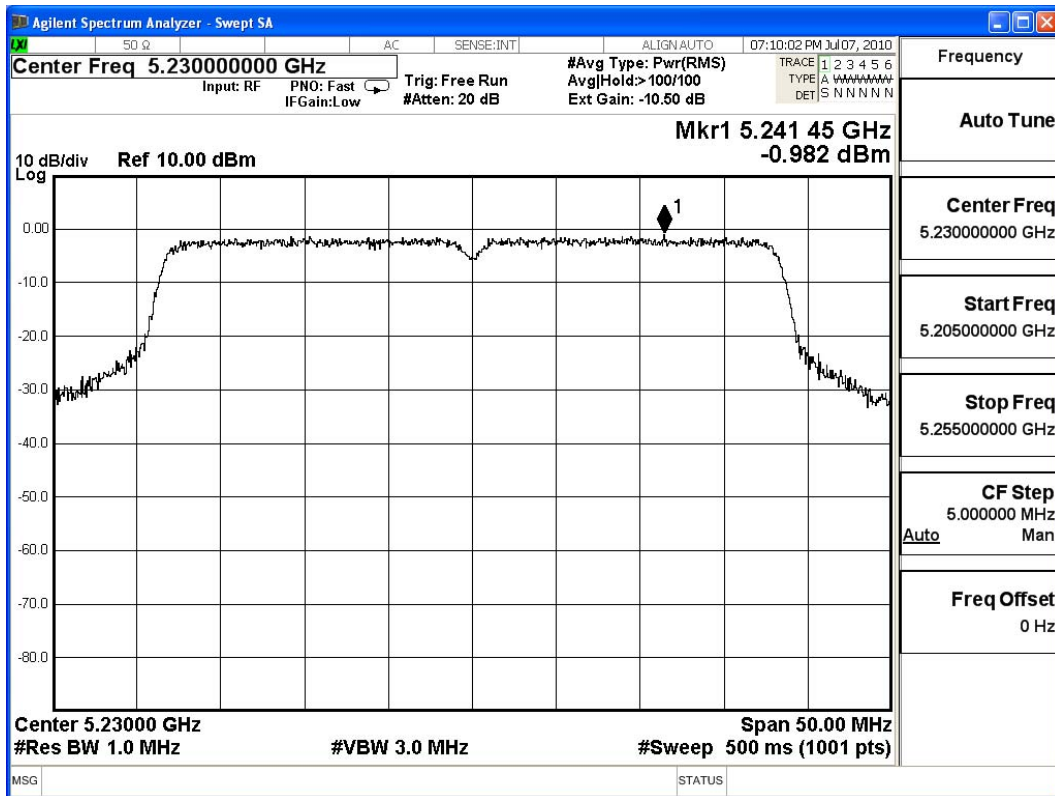
Product : Moxa IEEE 802.11a/b/g/n MiniPCI Module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
38	5190	-1.108	<4	Pass
46	5230	-0.982	<4	Pass
54	5270	-2.177	<11	Pass
62	5310	-1.251	<11	Pass
102	5510	-1.303	<11	Pass
118	5590	-2.186	<11	Pass
134	5670	-2.183	<11	Pass

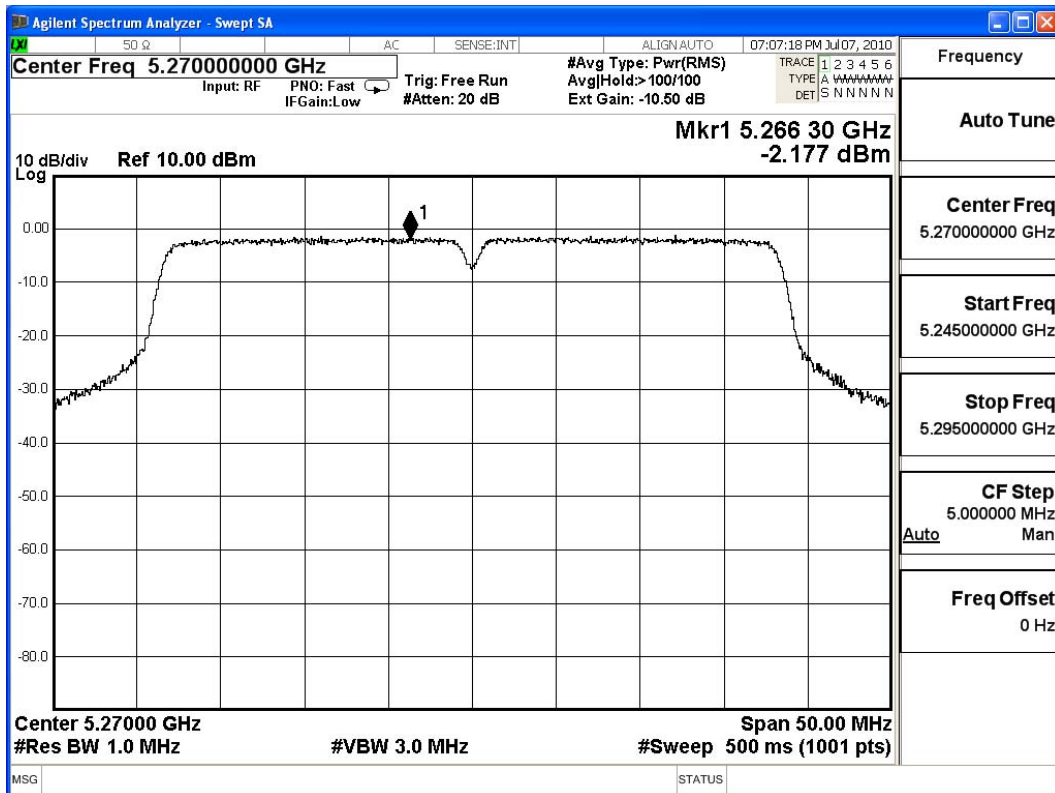
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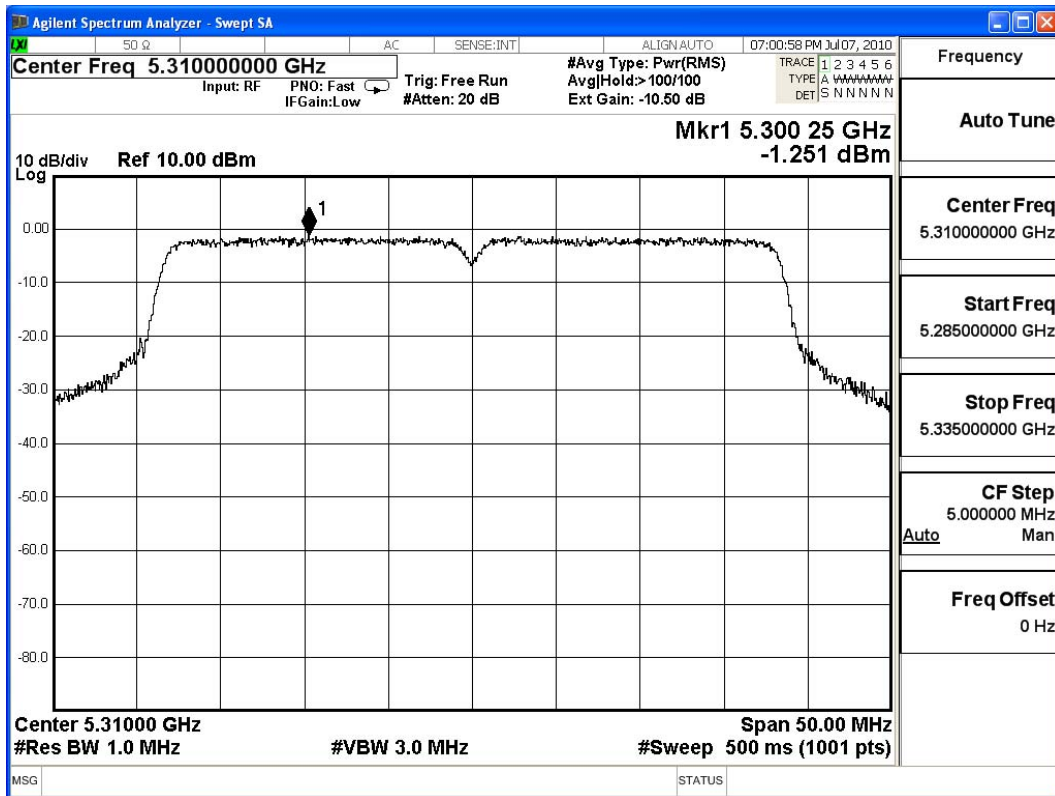
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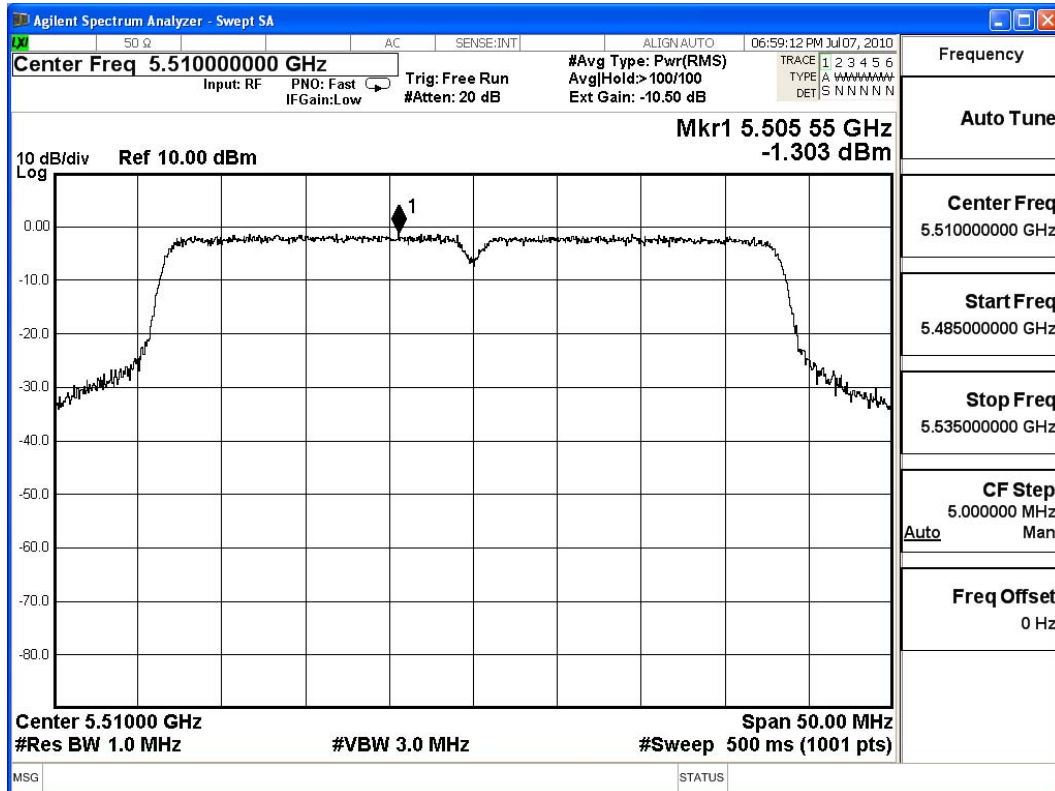
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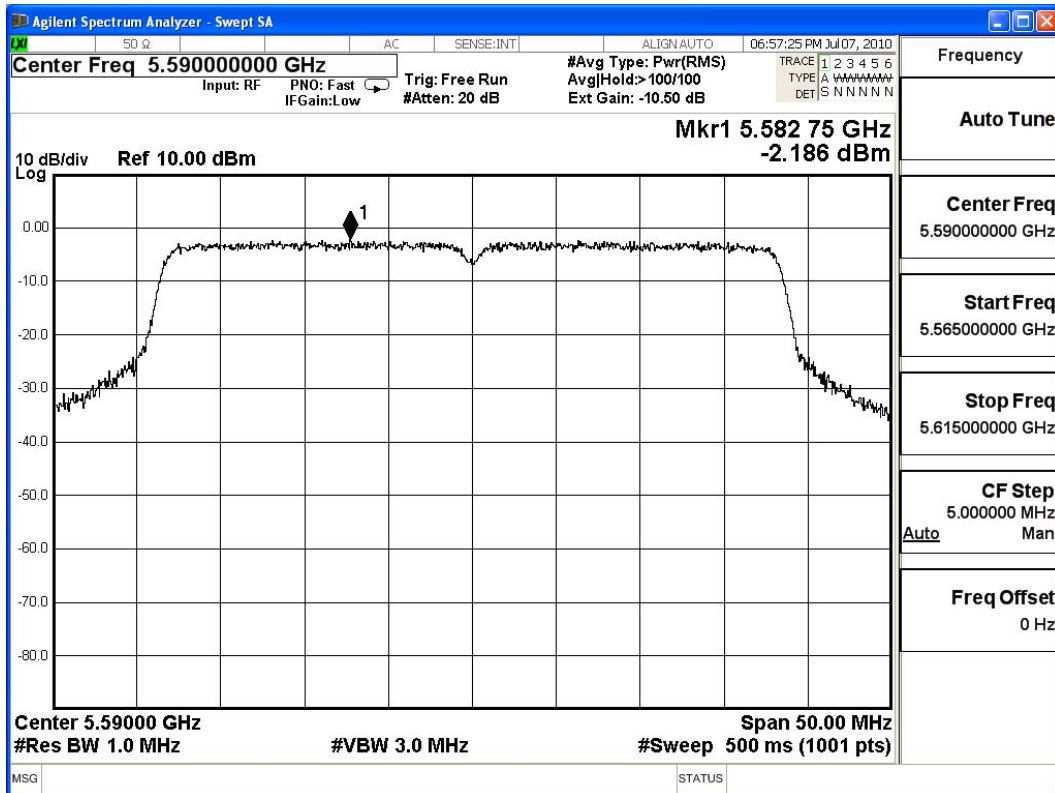
Channel 62:



Channel 102:



Channel 118:



Channel 134:

