Industry Canada Addendum to EMC Test Report: EDCS - 449635

For

AIR-AP1242AG-A-K9

Cisco Aironet 1242AG Series IEEE 802.11a/b/g Access Point

Canada: 2461B-102055

Against the following Specifications :

RSS-210

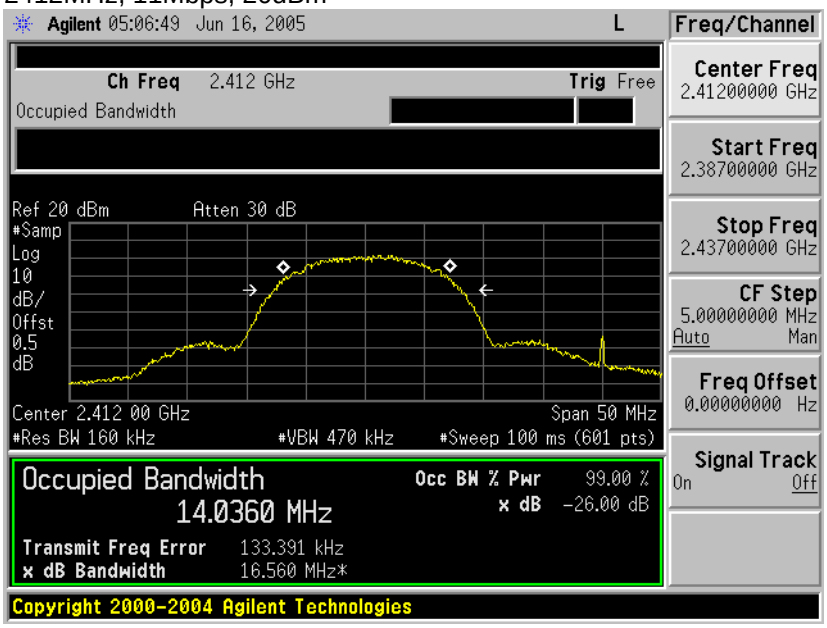
Cisco Systems

EMC Laboratory

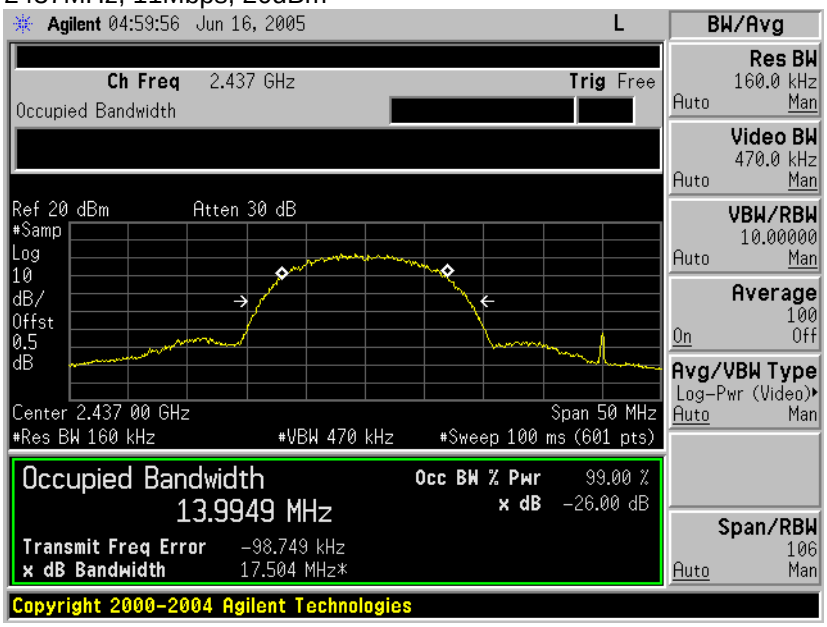
170 West Tasman Drive

San Jose, CA 95134

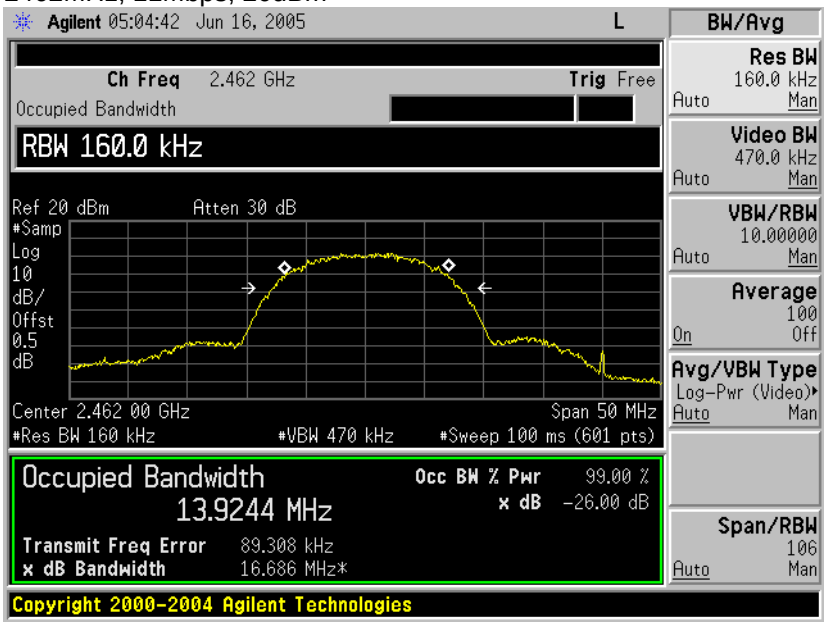
99% Bandwidth
2412MHz, 11Mbps, 20dBm



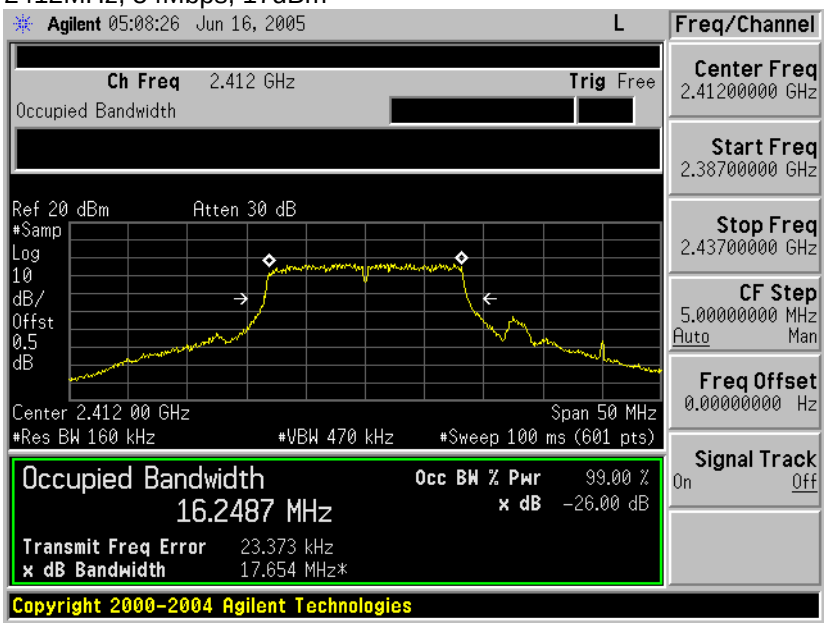
99% Bandwidth
2437MHz, 11Mbps, 20dBm



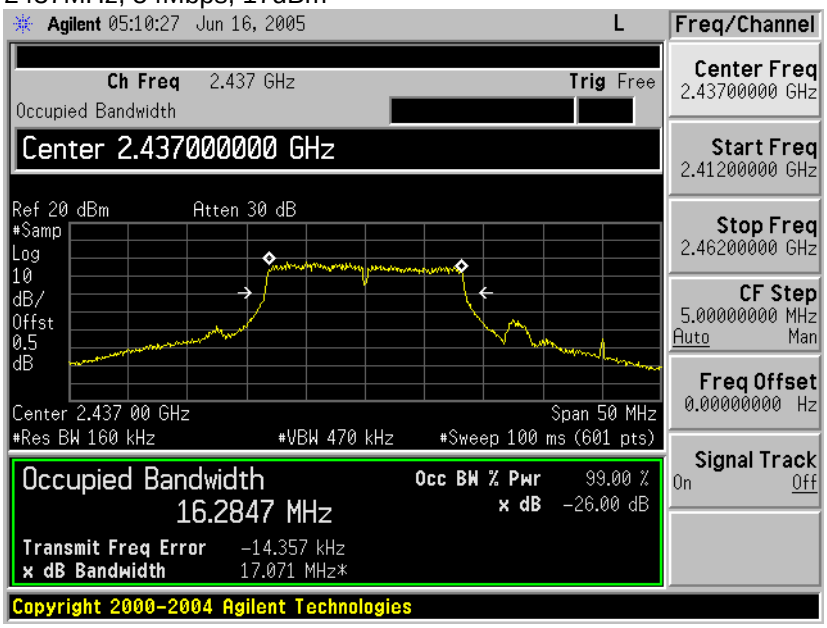
99% Bandwidth
2462MHz, 11Mbps, 20dBm



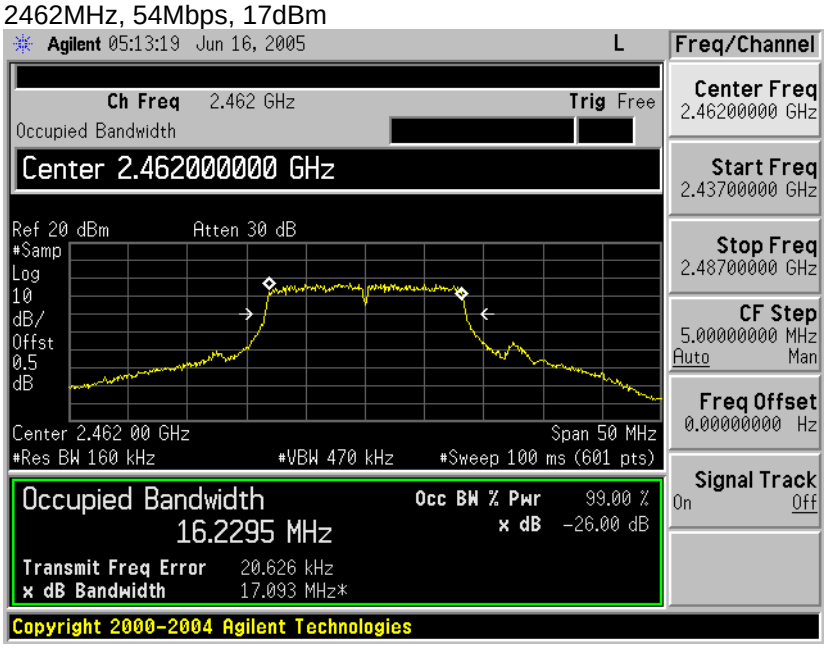
99% Bandwidth
2412MHz, 54Mbps, 17dBm



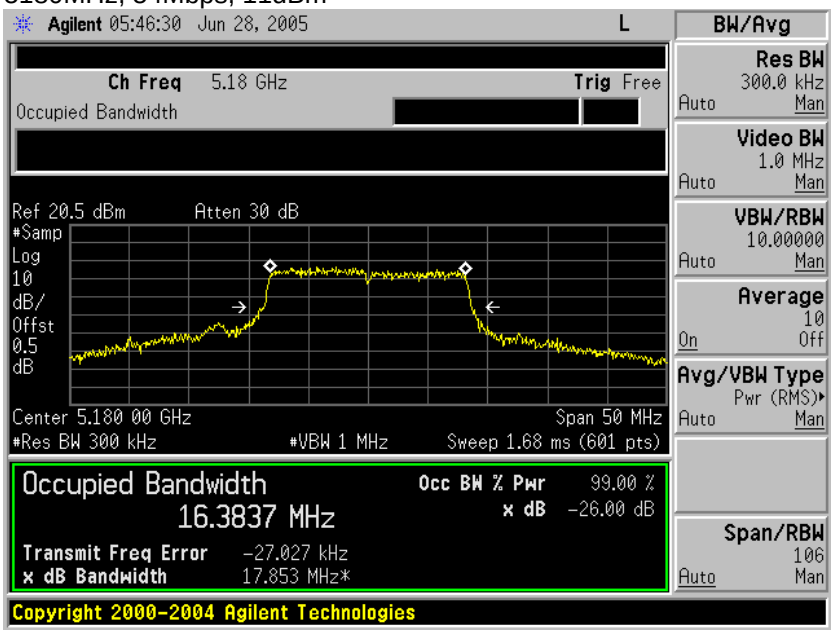
99% Bandwidth
2437MHz, 54Mbps, 17dBm



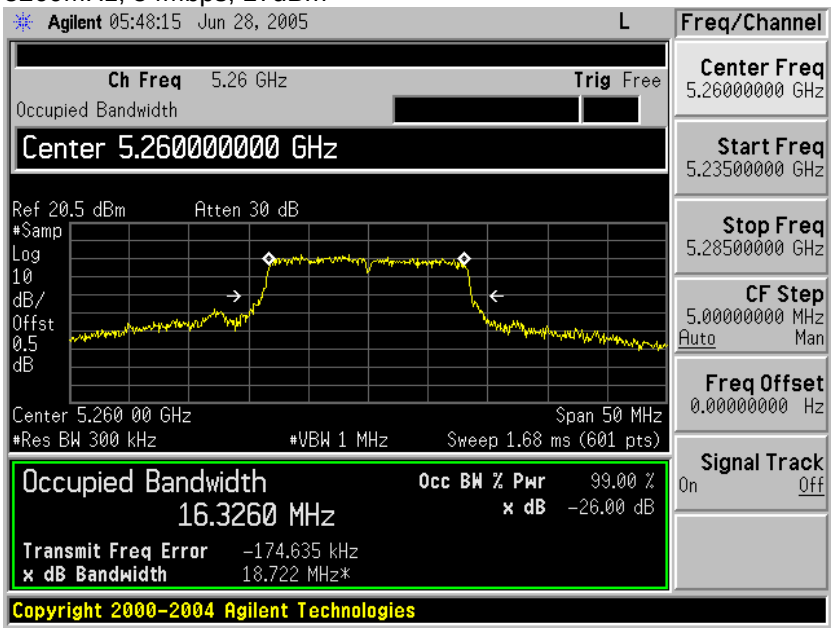
99% Bandwidth
2462MHz, 54Mbps, 17dBm



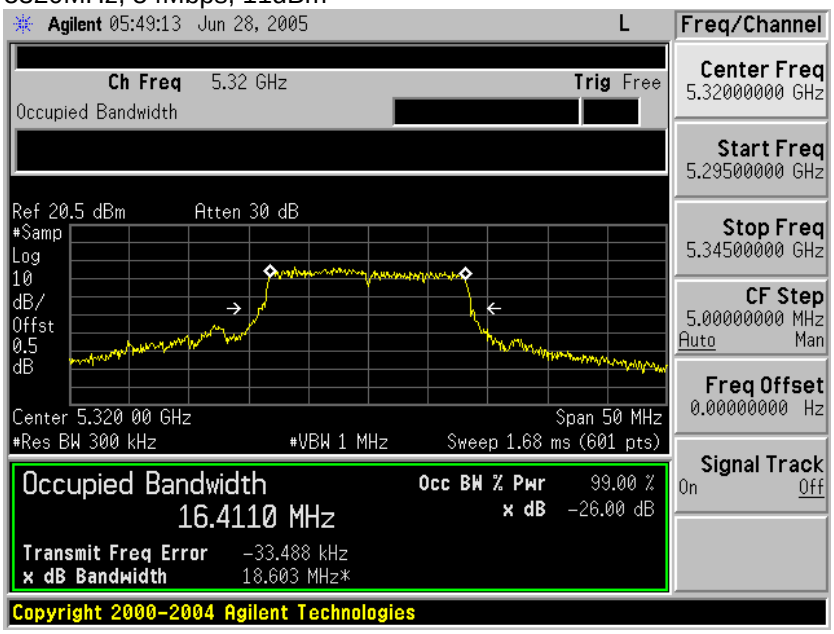
99% Bandwidth
5180MHz, 54Mbps, 11dBm



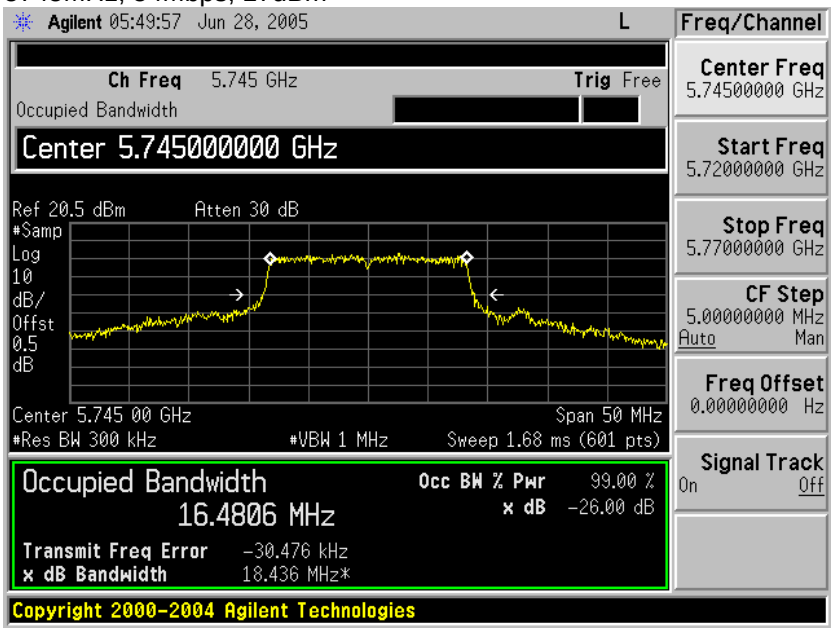
99% Bandwidth
5260MHz, 54Mbps, 17dBm



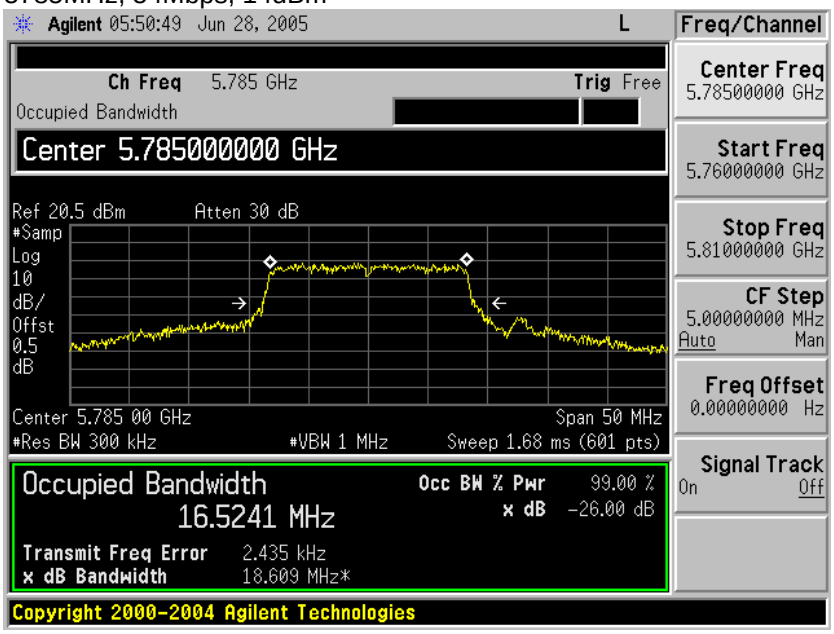
99% Bandwidth
5320MHz, 54Mbps, 11dBm



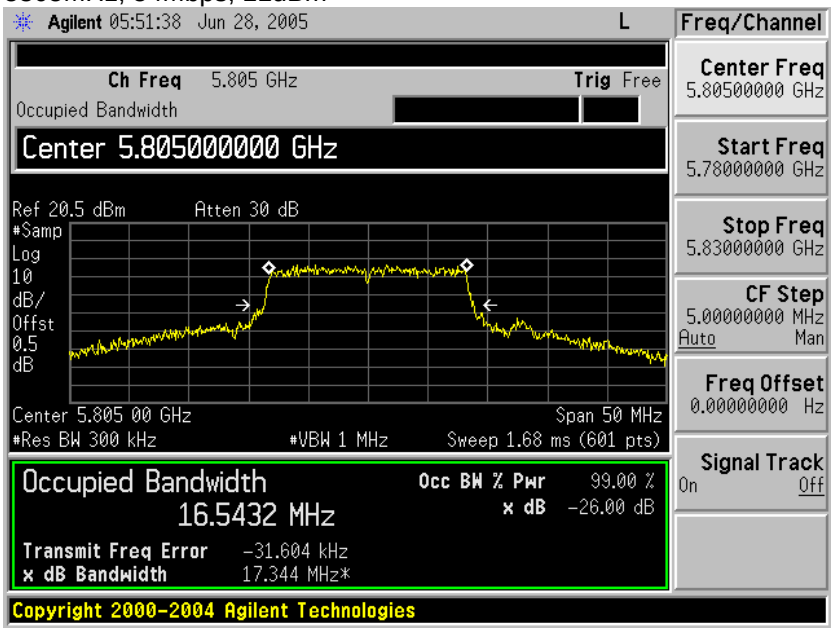
99% Bandwidth
5745MHz, 54Mbps, 17dBm



99% Bandwidth
5785MHz, 54Mbps, 14dBm



99% Bandwidth
5805MHz, 54Mbps, 11dBm



Receiver Spurious Emissions

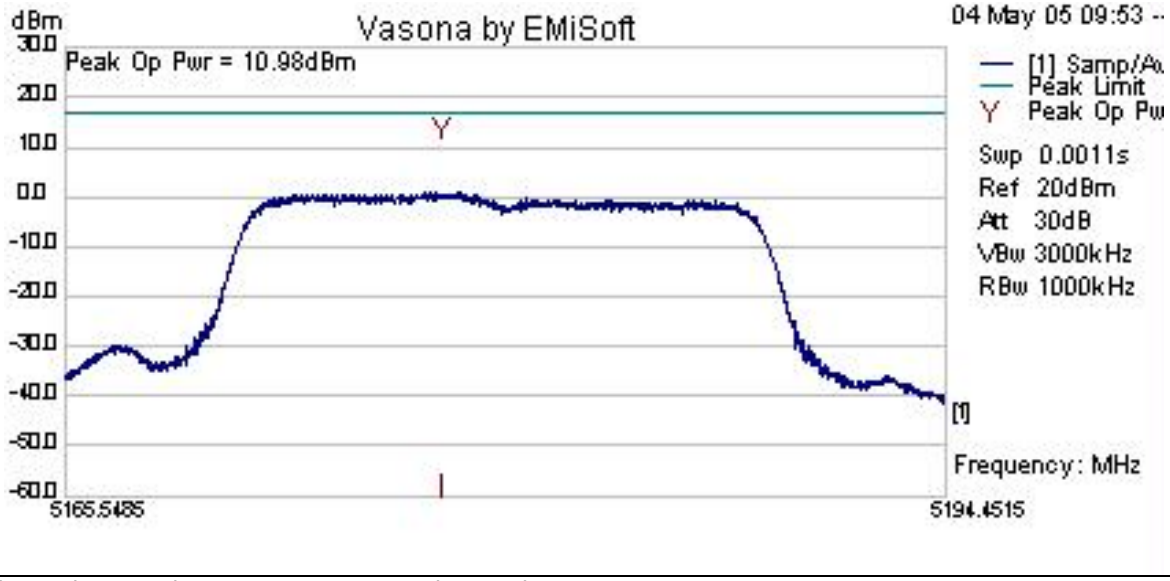
There were no measurable receiver emissions above the noise floor above 1GHz.

5GHz Peak Transmit Power

Test Number: 16435				
Basic Standard	**Applied to**	**Class**	**Freq Range**	**Test Details / Comments**
CFR47 Part 15.407	RF Ports	N/A	5150-5350MHz 5725-5825MHz	For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the 5.25-5.35 GHz band, the peak transmit power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the band 5.725-5.825 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
Operating Mode	**Mode :** 6, Conducted Tests			
Power Input	110v (+/-10%), 60Hz			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

System Number	**Description**	**Samples**	**System under test**	**Support equipment**
7	AIR-AP1242AG-A-K9	S01 and S07	☑	☐

Subtest Number: 16435 - 1	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Transmit Power, 5180MHz, 54Mbps, 11dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5194.452
Lowest Frequency	5165.549
Comments on the above Test Results	Peak Radiated Power Limit =10dBm+10*log(19MHz)=22.8 dBm eirp Peak Conducted Power Limit=22.8dBm eirp-9.5dBi=13.3dBm

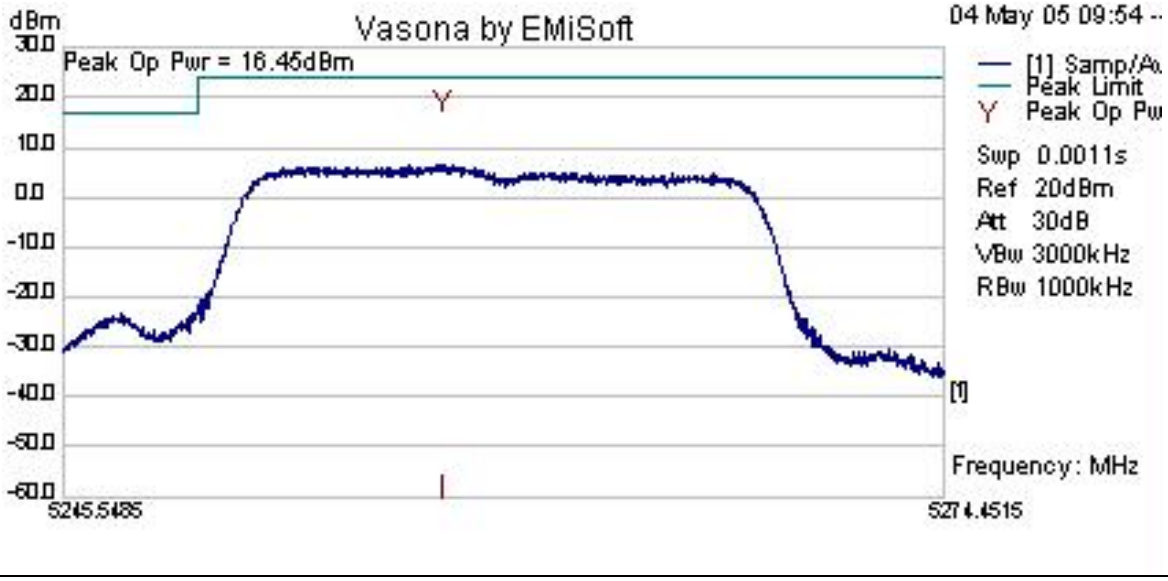


Title: Peak Transmit Power, 5180MHz, 54Mbps, 11dBm

Test Results Table

Frequency MHz	Peak Op Pwr dBm	Measurement Type	26dB Bw kHz	Line	Limit dBm	Margin dBm	Pass /Fail	Comments
5177.89	10.98	Peak Op	18903	RF	17	-6	Pass	at 5180.`

Subtest Number: 16435 - 2	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Transmit Power, 5260MHz, 54Mbps, 17dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5274.452
Lowest Frequency	5245.549
Comments on the above Test Results	Peak Radiated Power Limit =17dBm+10*log(19MHz)=29.8 dBm eirp Peak Conducted Power Limit=29.8dBm eirp-9.5dBi=20.3dBm

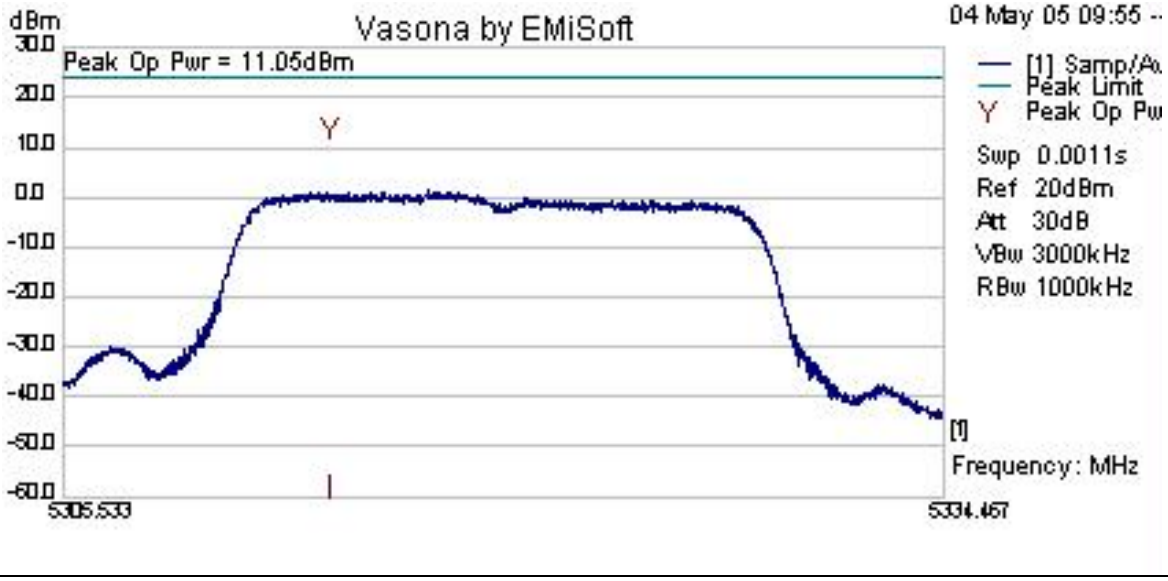


Title: Peak Transmit Power, 5260MHz, 54Mbps, 17dBm

Test Results Table

Frequency MHz	Peak Op Pwr dBm	Measurement Type	26dB Bw kHz	Line	Limit dBm	Margin dBm	Pass /Fail	Comments
5257.96	16.45	Peak Op	18903	RF	24	-7.6	Pass	at 5260.`

Subtest Number: 16435 - 3	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Transmit Power, 5320MHz, 54Mbps, 11dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5334.467
Lowest Frequency	5305.533
Comments on the above Test Results	Peak Radiated Power Limit =17dBm+10*log(19MHz)=29.8 dBm eirp Peak Conducted Power Limit=29.8dBm eirp-9.5dBi=20.3dBm

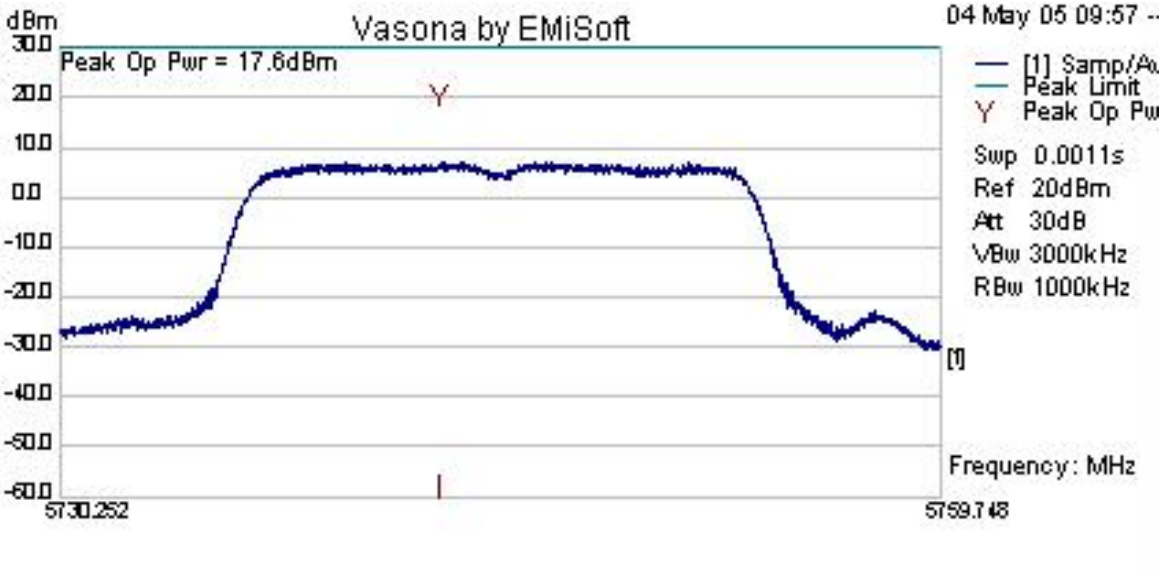


Title: Peak Transmit Power, 5320MHz, 54Mbps, 11dBm

Test Results Table

Frequency MHz	Peak Op Pwr dBm	Measurement Type	26dB Bw kHz	Line	Limit dBm	Margin dBm	Pass /Fail	Comments
5314.25	11.05	Peak Op	18934	RF	24	-13	Pass	at 5320.`

Subtest Number: 16435 - 4	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Transmit Power, 5745MHz, 54Mbps, 17dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5759.748
Lowest Frequency	5730.252
Comments on the above Test Results	Peak Radiated Power Limit =23dBm+10*log(19MHz)=35.8 dBm eirp Peak Conducted Power Limit=35.8dBm eirp-9.5dBi=26.3dBm

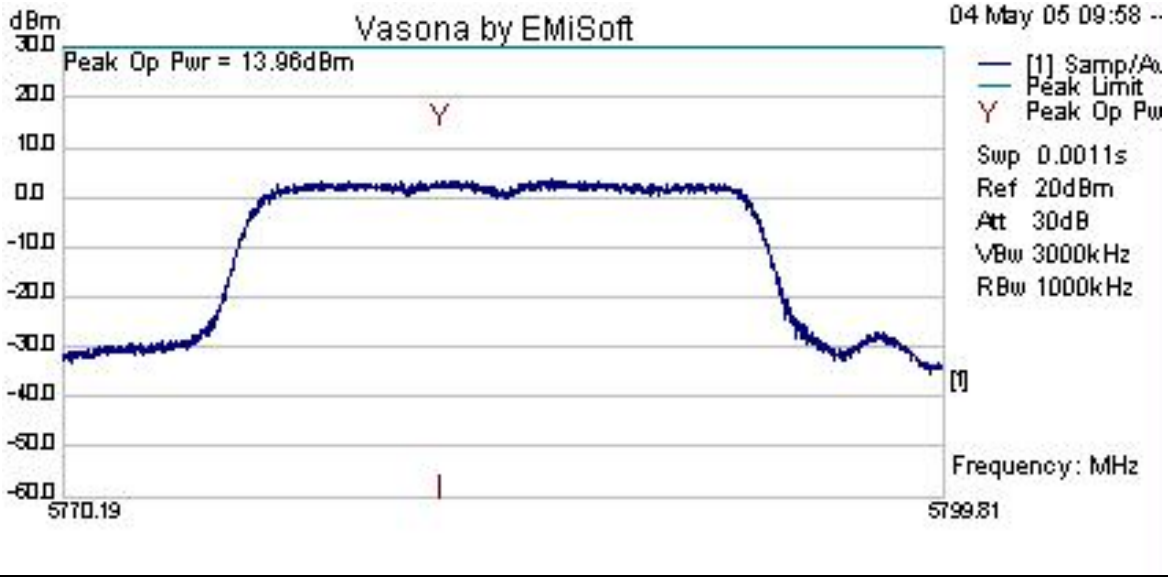


Title: Peak Transmit Power, 5745MHz, 54Mbps, 17dBm

Test Results Table

Frequency MHz	Peak Op Pwr dBm	Measurement Type	26dB Bw kHz	Line	Limit dBm	Margin dBm	Pass /Fail	Comments
5742.96	17.60	Peak Op	19496	RF	30	-12.4	Pass	at 5745.`

Subtest Number: 16435 - 5	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Transmit Power, 5785MHz, 54Mbps, 14dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5799.81
Lowest Frequency	5770.19
Comments on the above Test Results	Peak Radiated Power Limit =23dBm+10*log(19MHz)=35.8 dBm eirp Peak Conducted Power Limit=35.8dBm eirp-9.5dBi=26.3dBm

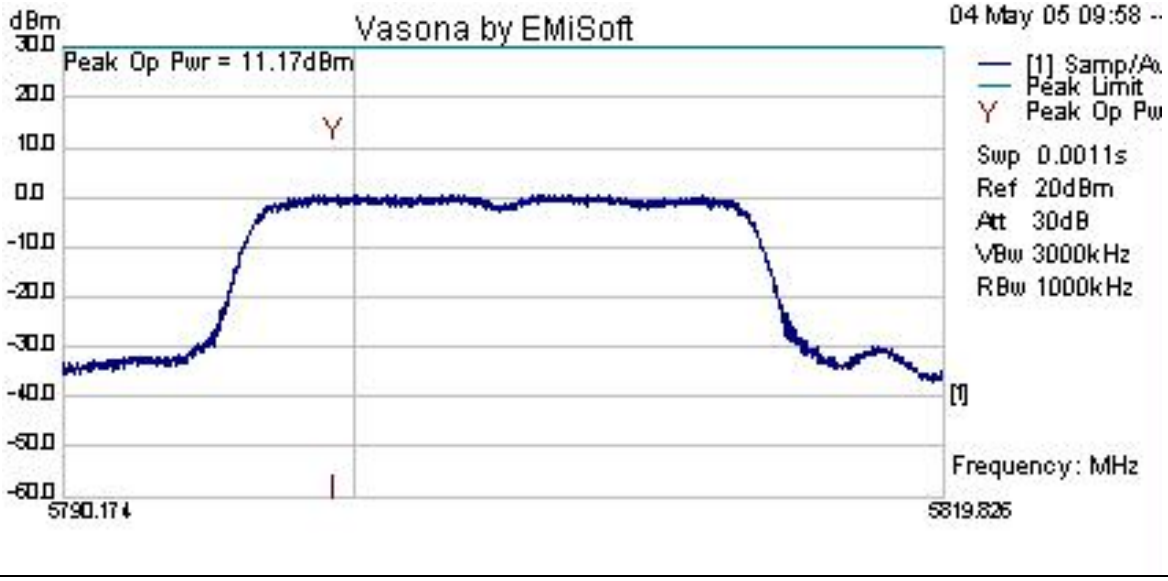


Title: Peak Transmit Power, 5785MHz, 54Mbps, 14dBm

Test Results Table

Frequency MHz	Peak Op Pwr dBm	Measurement Type	26dB Bw kHz	Line	Limit dBm	Margin dBm	Pass /Fail	Comments
5782.86	13.96	Peak Op	19620	RF	30	-16	Pass	at 5785.`

Subtest Number: 16435 - 6	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Transmit Power, 5805MHz, 54Mbps, 11dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5819.826
Lowest Frequency	5790.174
Comments on the above Test Results	Peak Radiated Power Limit =23dBm+10*log(19MHz)=35.8 dBm eirp Peak Conducted Power Limit=35.8dBm eirp-9.5dBi=26.3dBm

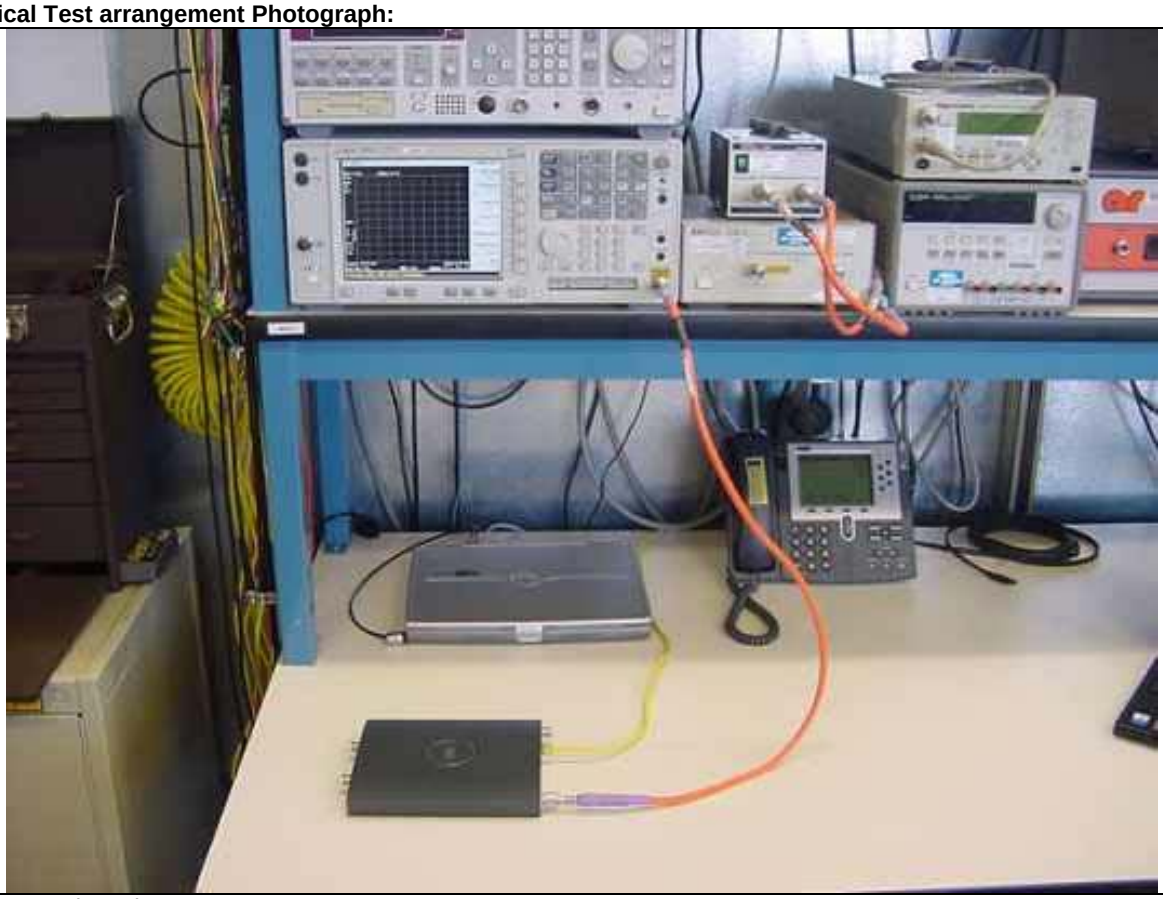


Title: Peak Transmit Power, 5805MHz, 54Mbps, 11dBm

Test Results Table

Frequency MHz	Peak Op Pwr dBm	Measurement Type	26dB Bw kHz	Line	Limit dBm	Margin dBm	Pass /Fail	Comments
5799.21	11.17	Peak Op	19652	RF	30	-18.8	Pass	at 5805.`

Physical Test arrangement Photograph:



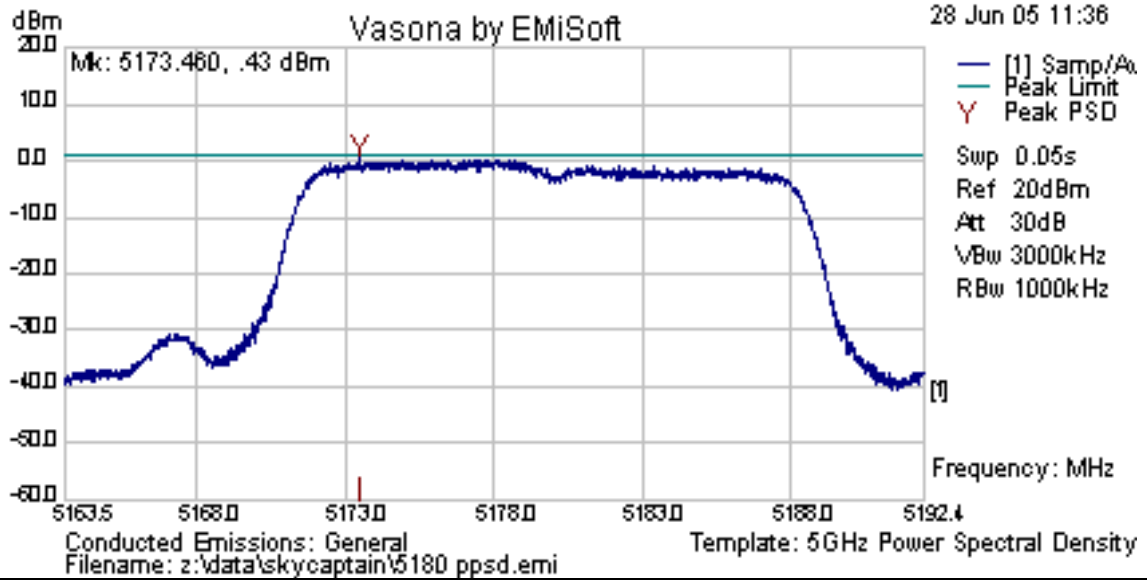
Title: Conducted Test Setup

5GHz Peak Power Spectral Density

Test Number: 16436				
Basic Standard	**Applied to**	**Class**	**Freq Range**	**Test Details / Comments**
CFR47 Part 15.407	RF Ports	N/A	5150-5350MHz 5725-5825MHz	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 antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. 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 antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
Operating Mode	**Mode :** 6, Conducted Tests			
Power Input	110v (+/-10%), 60Hz			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
7	AIR-AP1242AG-A-K9	S01 and S07	☑	☐

Subtest Number: 16436 - 1	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Power Spectral Density, 5180MHz, 54Mbps, 11dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5192.396
Lowest Frequency	5163.524
Comments on the above Test Results	PPSD Limit =10dBm eirp=10dBm-9.5dBi=.5dBm

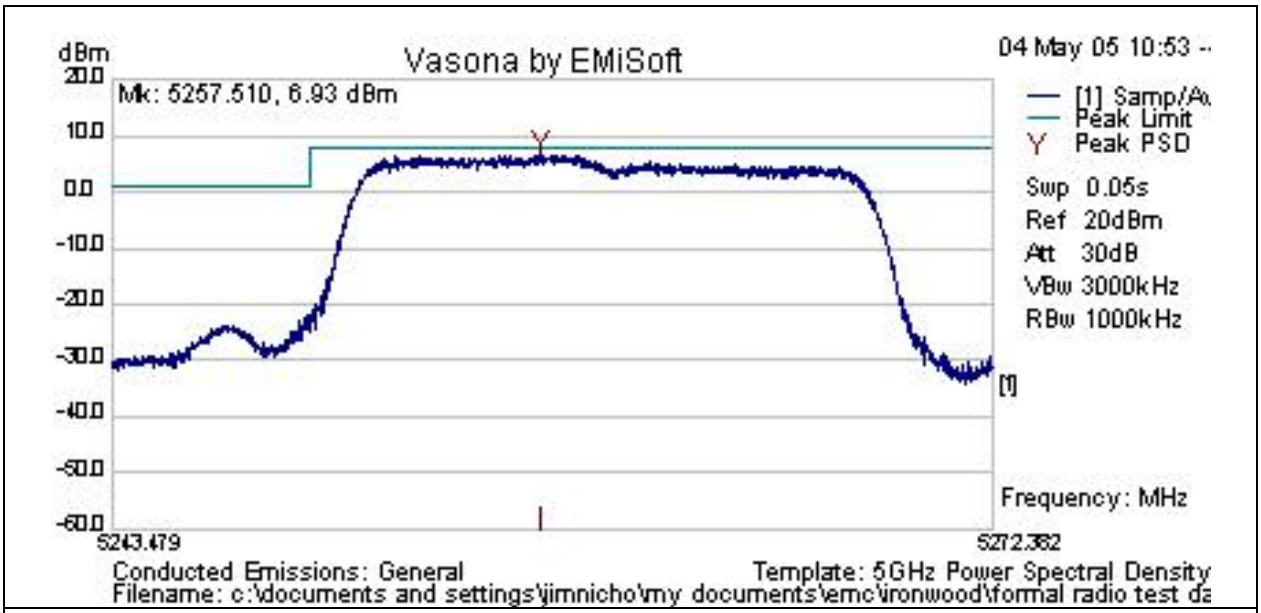


Title: Peak Power Spectral Density, 5180MHz, 54Mbps, 11dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5177.68	-0.4	0.8	0	0.4	Peak PSD	RF	0.5	-0.1	Pass	at 5180.`

Subtest Number: 16436 - 2	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Power Spectral Density, 5260MHz, 54Mbps, 17dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5272.382
Lowest Frequency	5243.479
Comments on the above Test Results	PPSD Limit =11dBm

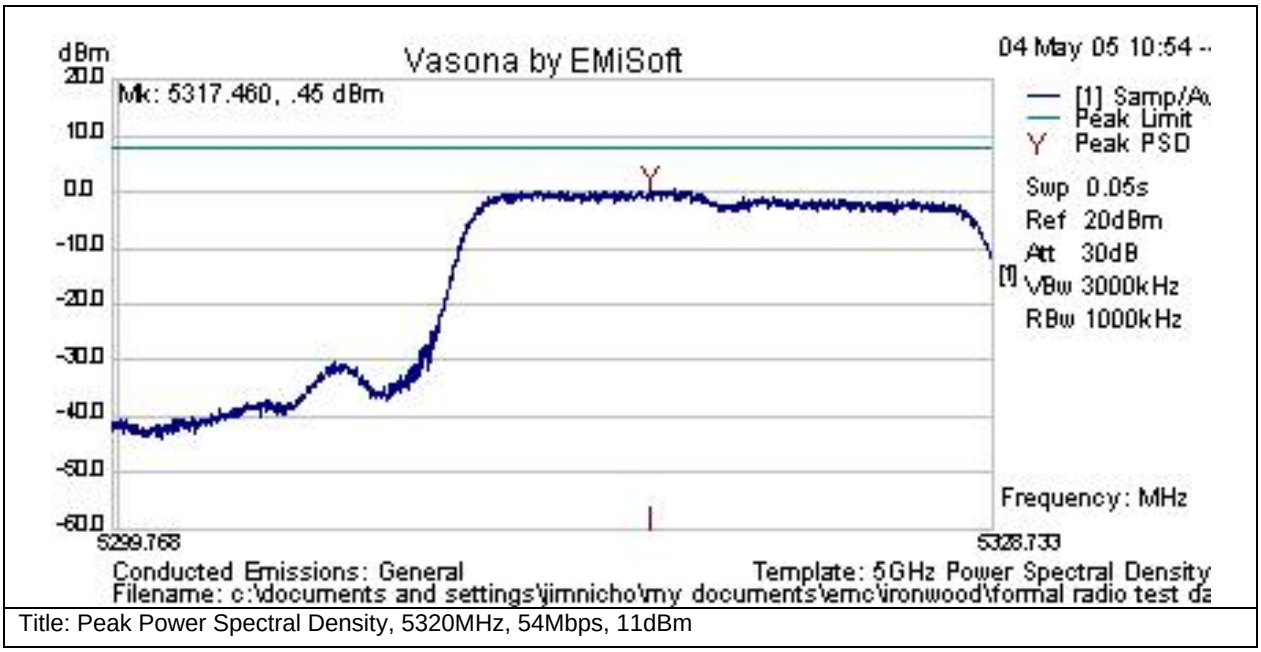


Title: Peak Power Spectral Density, 5260MHz, 54Mbps, 17dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5257.51	6.1	0.9	0	6.9	Peak PSD	RF	8	-1.1	Pass	at 5260.`

Subtest Number: 16436 - 3	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Power Spectral Density, 5320MHz, 54Mbps, 11dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5328.733
Lowest Frequency	5299.768
Comments on the above Test Results	PPSD Limit =11dBm

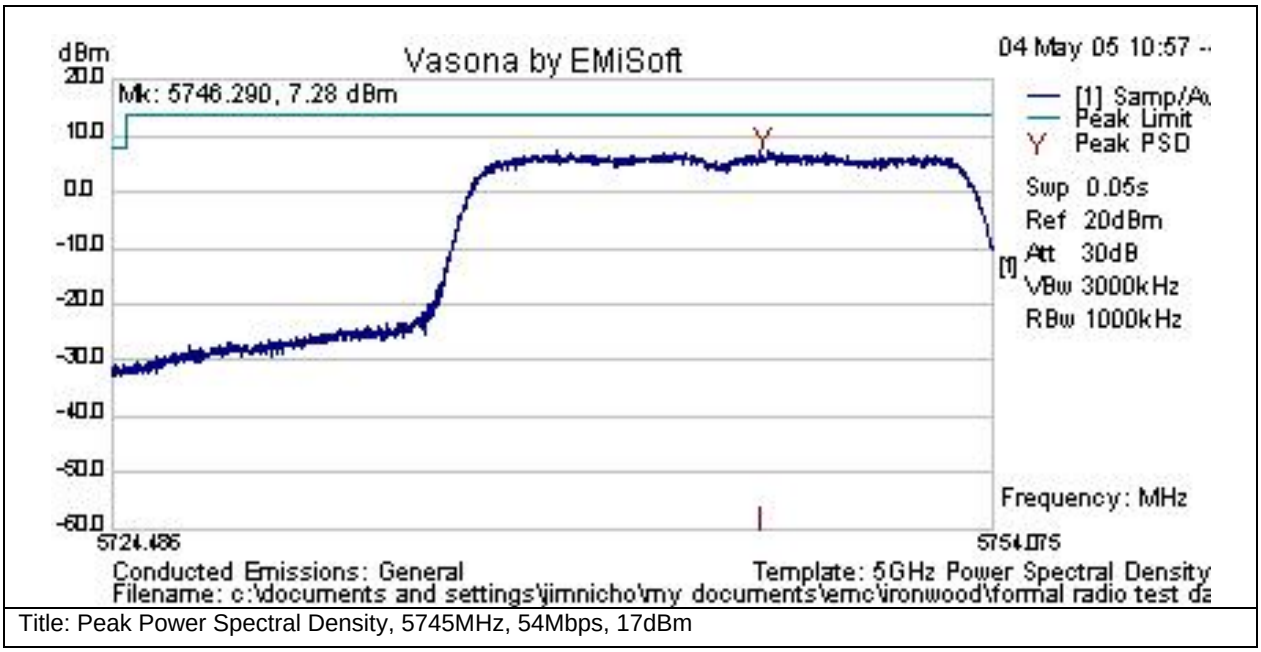


Title: Peak Power Spectral Density, 5320MHz, 54Mbps, 11dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5317.46	-0.4	0.9	0	0.4	Peak PSD	RF	8	-7.6	Pass	at 5320.`

Subtest Number: 16436 - 4	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Power Spectral Density, 5745MHz, 54Mbps, 17dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5754.075
Lowest Frequency	5724.486
Comments on the above Test Results	PPSD Limit =17dBm

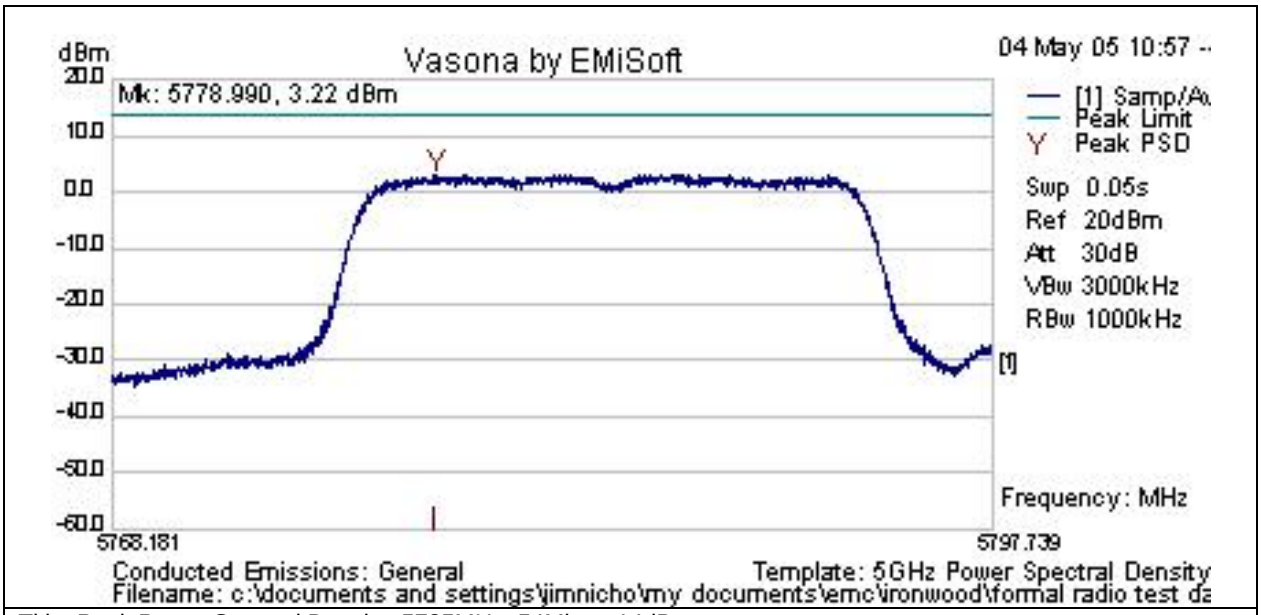


Title: Peak Power Spectral Density, 5745MHz, 54Mbps, 17dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5746.29	6.4	0.9	0	7.3	Peak PSD	RF	14	-6.7	Pass	at 5745.`

Subtest Number: 16436 - 5	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Power Spectral Density, 5785MHz, 54Mbps, 14dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5797.739
Lowest Frequency	5768.181
Comments on the above Test Results	PPSD Limit =17dBm

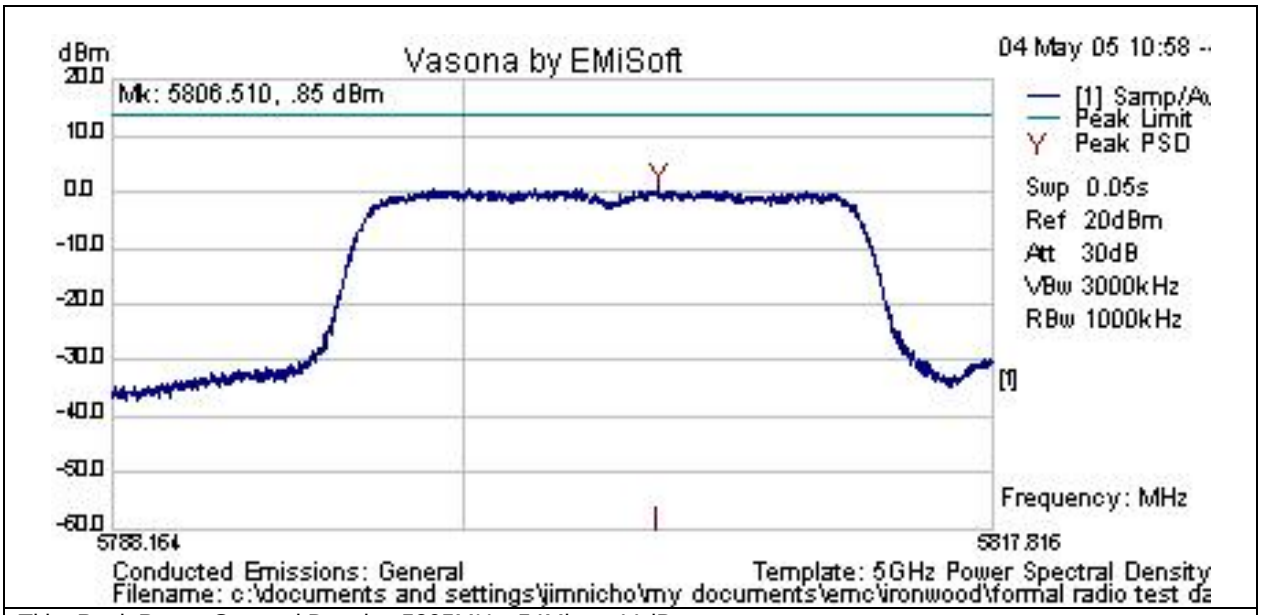


Title: Peak Power Spectral Density, 5785MHz, 54Mbps, 14dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5778.99	2.3	0.9	0	3.2	Peak PSD	RF	14	-10.8	Pass	at 5785.`

Subtest Number: 16436 - 6	**Subtest Date:** 13-May-2005
Engineer	James Nicholson
Lab Information	Building P, Shield Room 1
Subtest Results	
Line Under Test	Peak Power Spectral Density, 5805MHz, 54Mbps, 11dBm
Transducer	Direct
Subtest Result	Pass
Highest Frequency	5817.816
Lowest Frequency	5788.164
Comments on the above Test Results	PPSD Limit =17dBm-(9dBi-6dBi)=14dBm

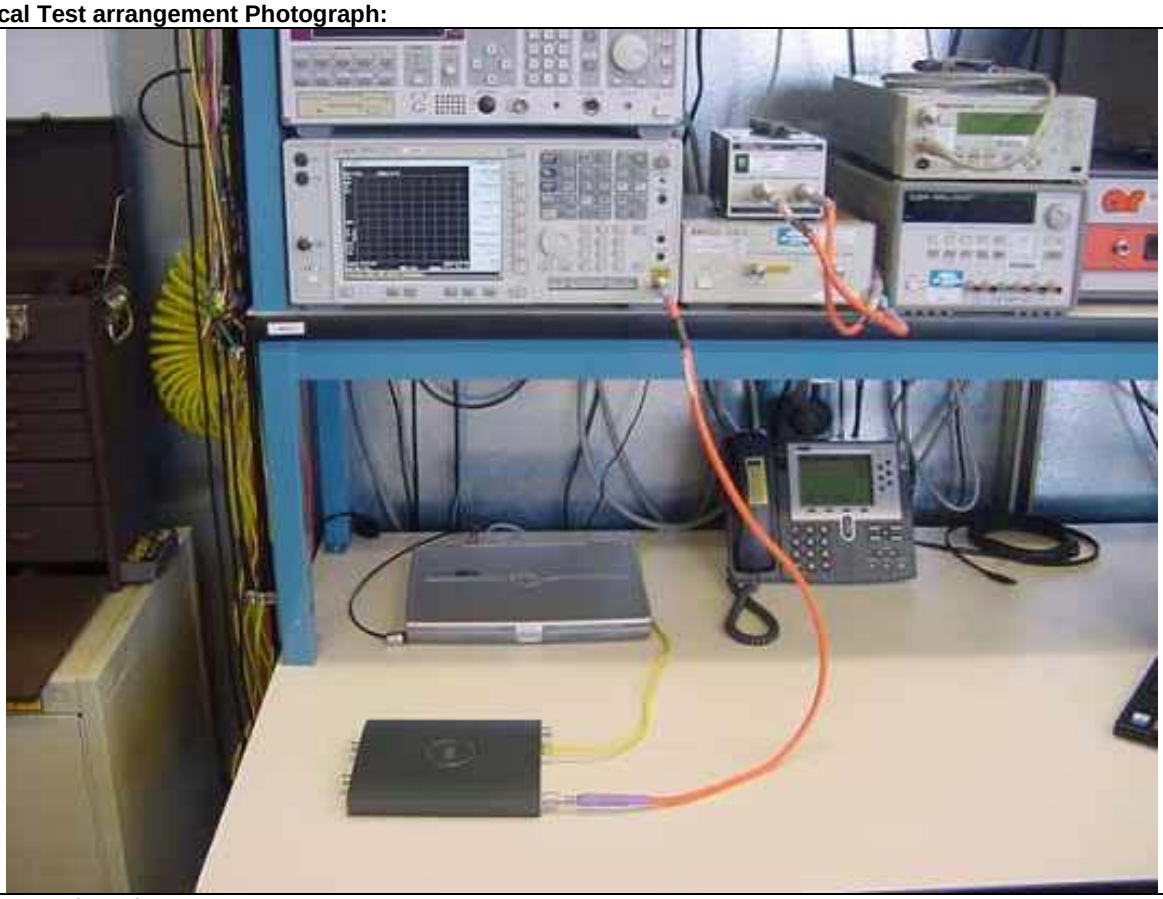


Title: Peak Power Spectral Density, 5805MHz, 54Mbps, 11dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5806.51	-0.1	0.9	0	0.8	Peak PSD	RF	14	-13.2	Pass	at 5805.`

Physical Test arrangement Photograph:



Title: Conducted Test Setup