

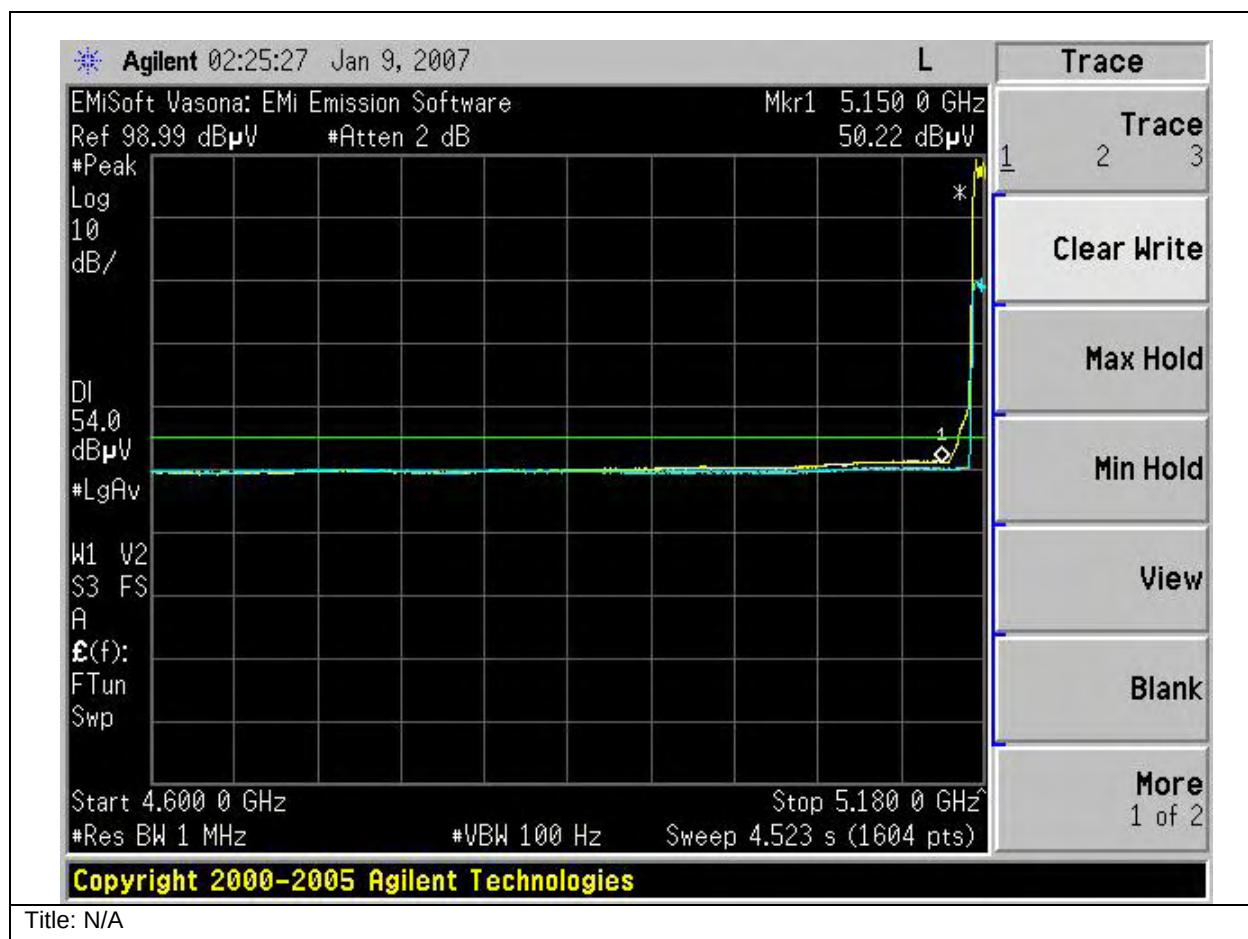
**Appendix B: Emission Test Results****Testing Laboratory:** Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134, USA**Radiated emissions**

Test Number: 24973 Spec ID: 648				
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
Restricted Bandedge Measurements	Enclosure	B	2.4GHz - 5.825GHz	CFR47 Part 15.205, CFR47 Part 15.209, LP002, RSS210
Operating Mode	Mode : 1, Continuous Transmitting			
Power Input	48, DC (+/-20%)			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

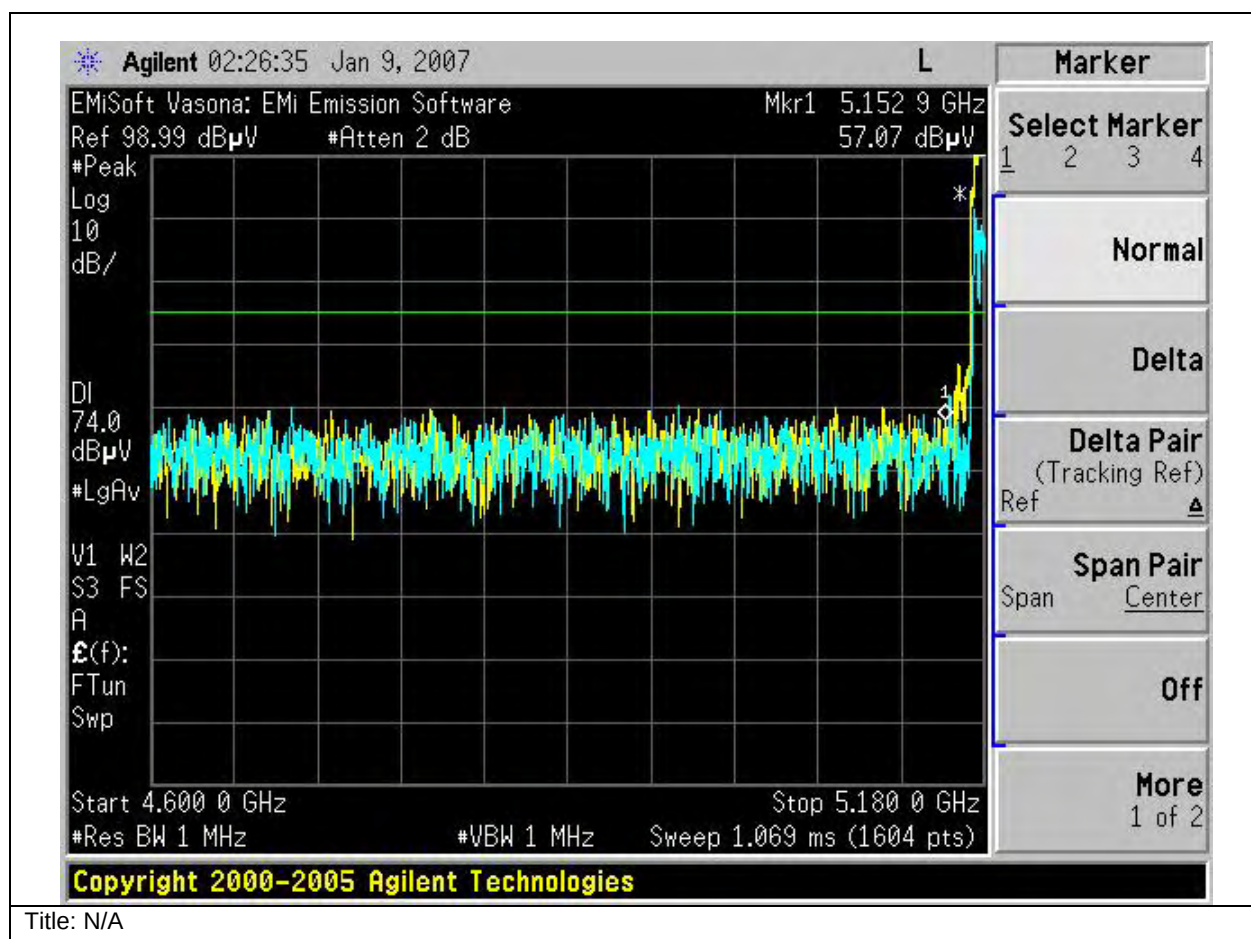
System Number	Description	Samples	System under test	Support equipment
1	EUT	S01, S02, S03 and S04	☒	☐

Frequency (MHz)	Mode	Data Rate (Mbps)	Radiated Band Edge Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
5180	Dual	54	50.2	54	3.8
5180	Duplicate	6	52.5	54	1.5
5320	Dual	54	52.8	54	1.2
5320	Duplicate	6	53.2	54	0.8
5500	Dual	54	51.4	54	2.6
5500	Duplicate	6	52.0	54	2.0
5680	Duplicate	6	52.0	54	2.0
5700	Dual	54	51.7	54	2.3
5745	Dual BF	54	52.4	54	1.6
5745	Duplicate	6	53.0	54	1.0
5805	Duplicate	6	53.0	54	1.0
5825	Dual BF	54	52.8	54	1.2

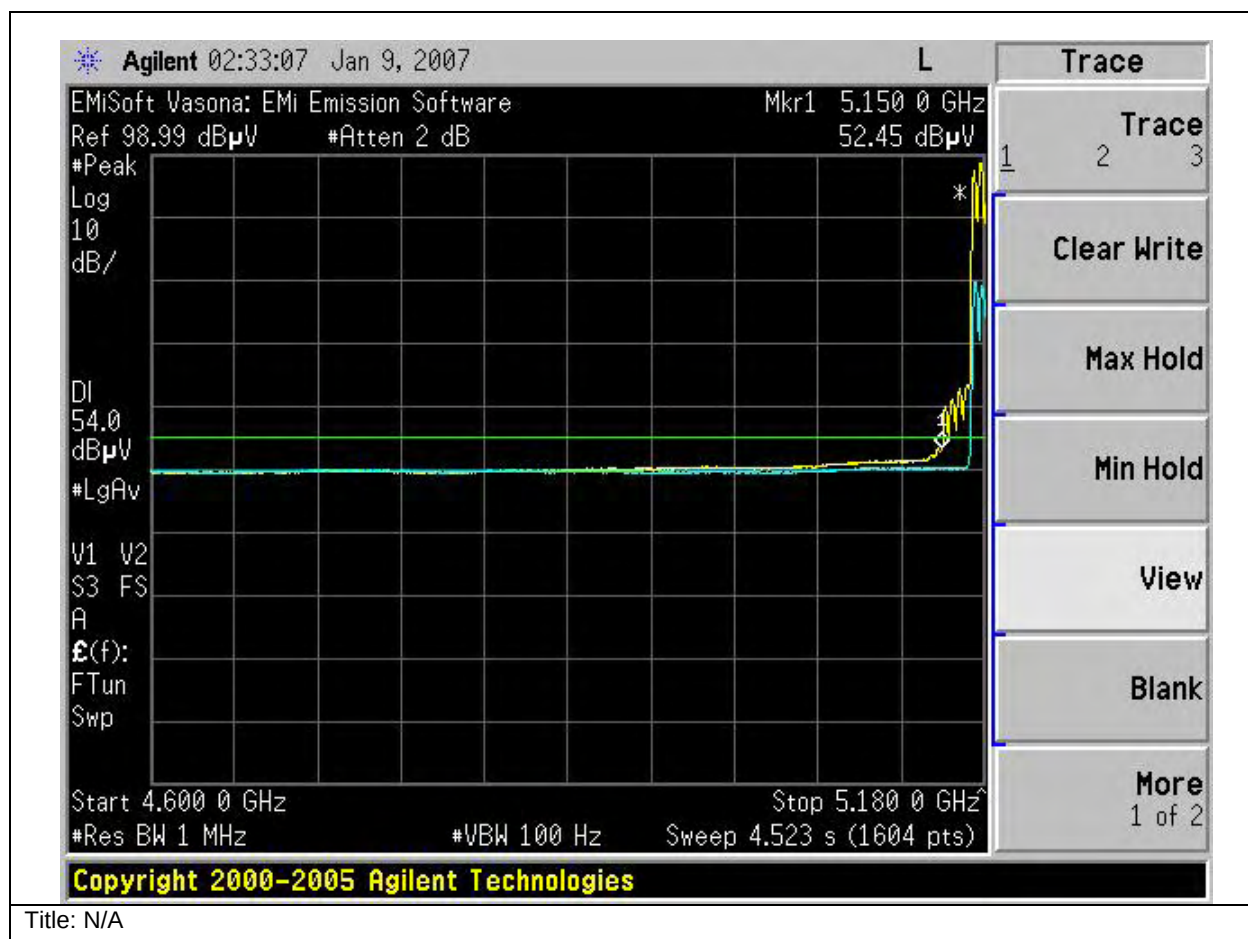
Subtest Number: 24973 - 23		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5180 MHz, 54 Mbps, 11 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



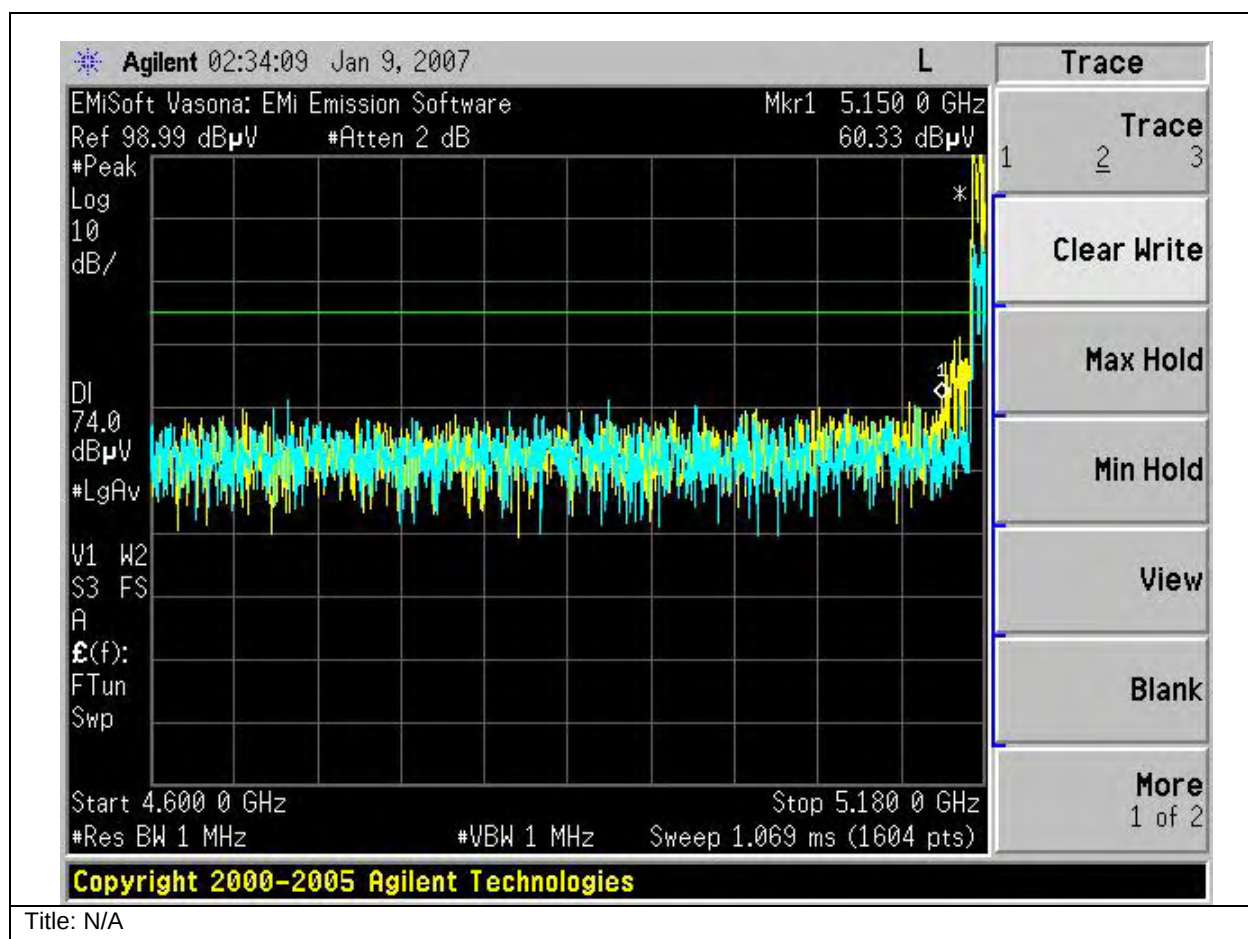
Subtest Number: 24973 - 24		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5180 MHz, 54 Mbps, 11 dBm, Dual Transmit Paths_PEAK	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



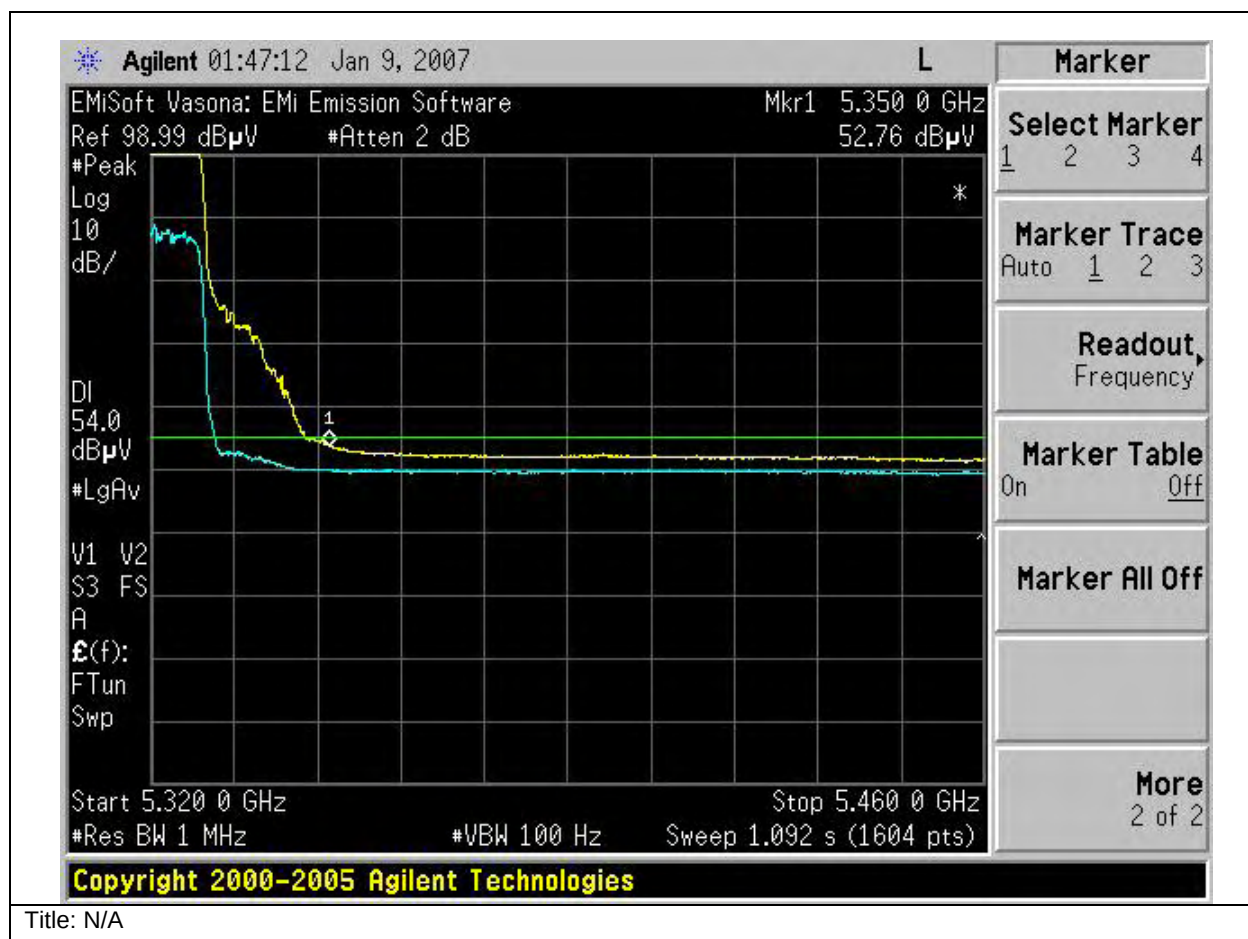
Subtest Number: 24973 - 21		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5180 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_AVERAGE	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



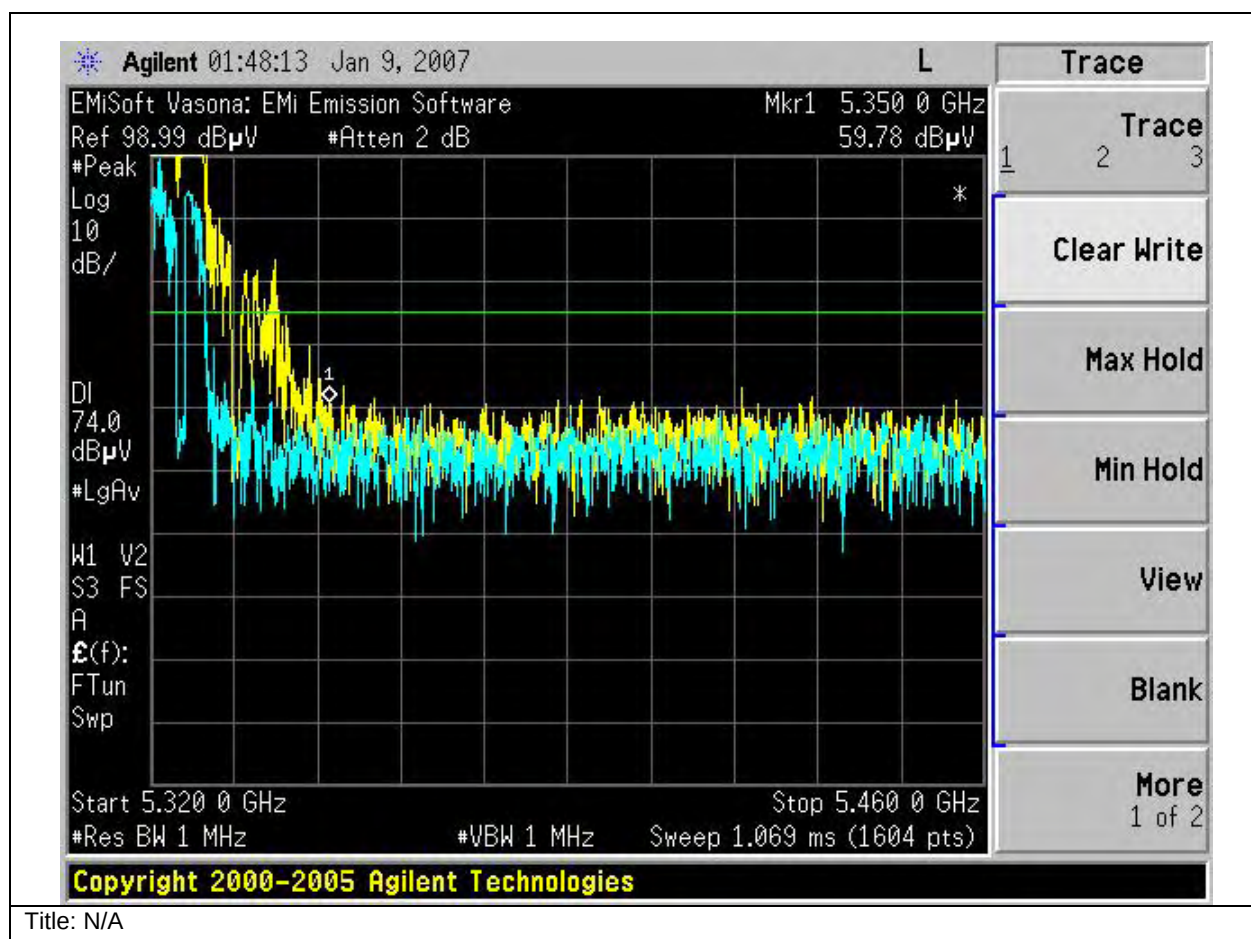
Subtest Number: 24973 - 22		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5180 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_PEAK	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



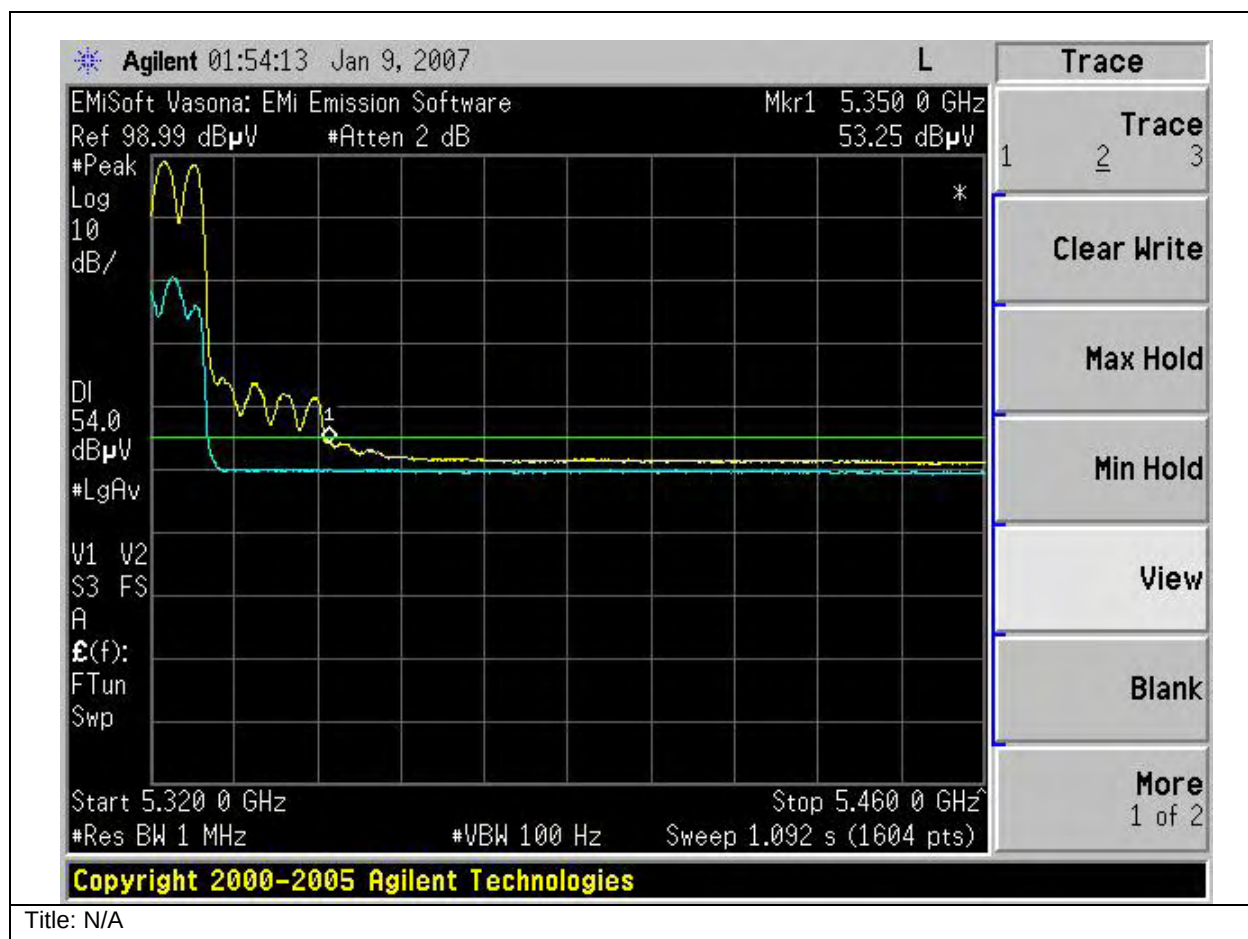
Subtest Number: 24973 - 17		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5320 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



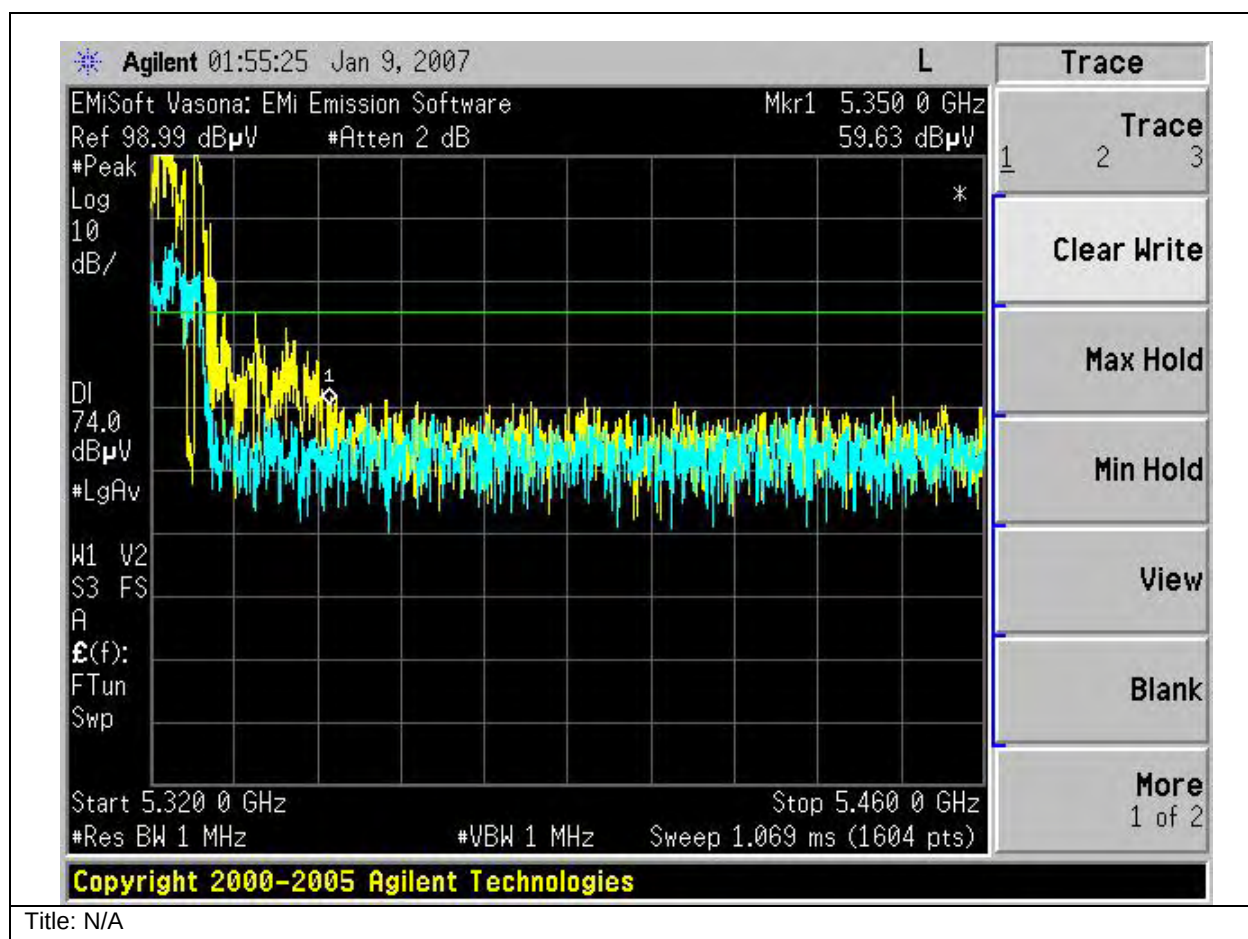
Subtest Number: 24973 - 18		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5320 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



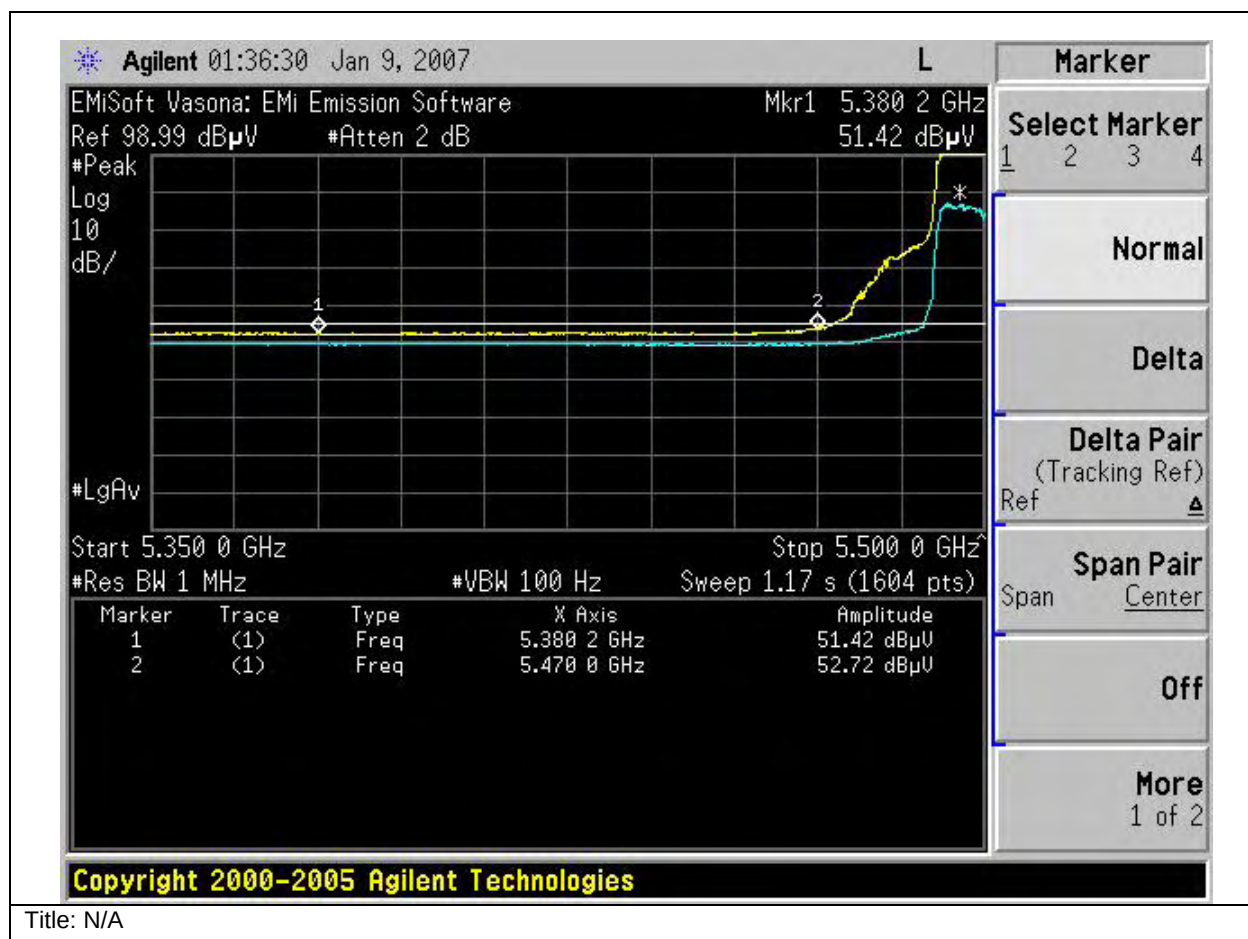
Subtest Number: 24973 - 19		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5320 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



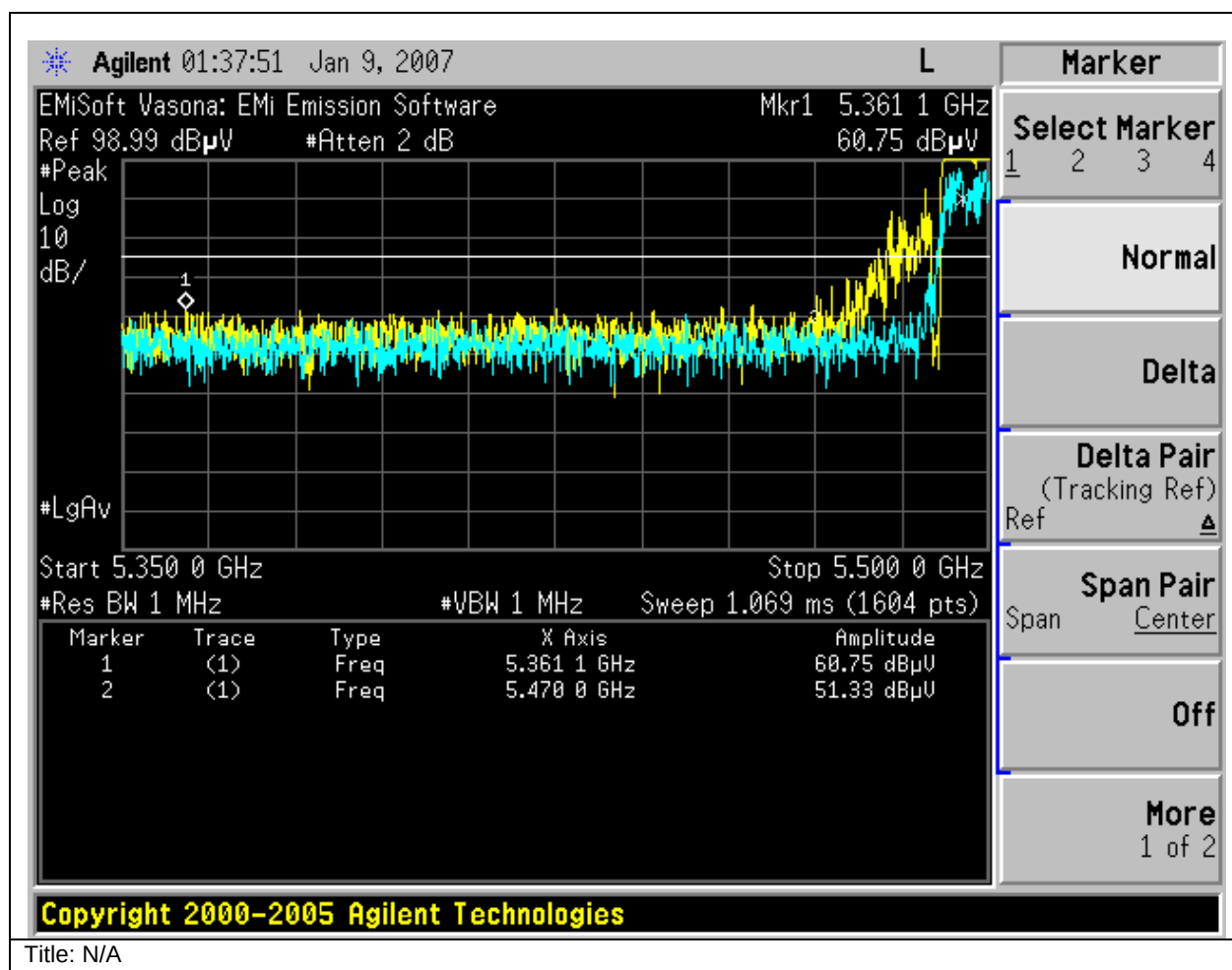
Subtest Number: 24973 - 20		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5320 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_PEAK	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



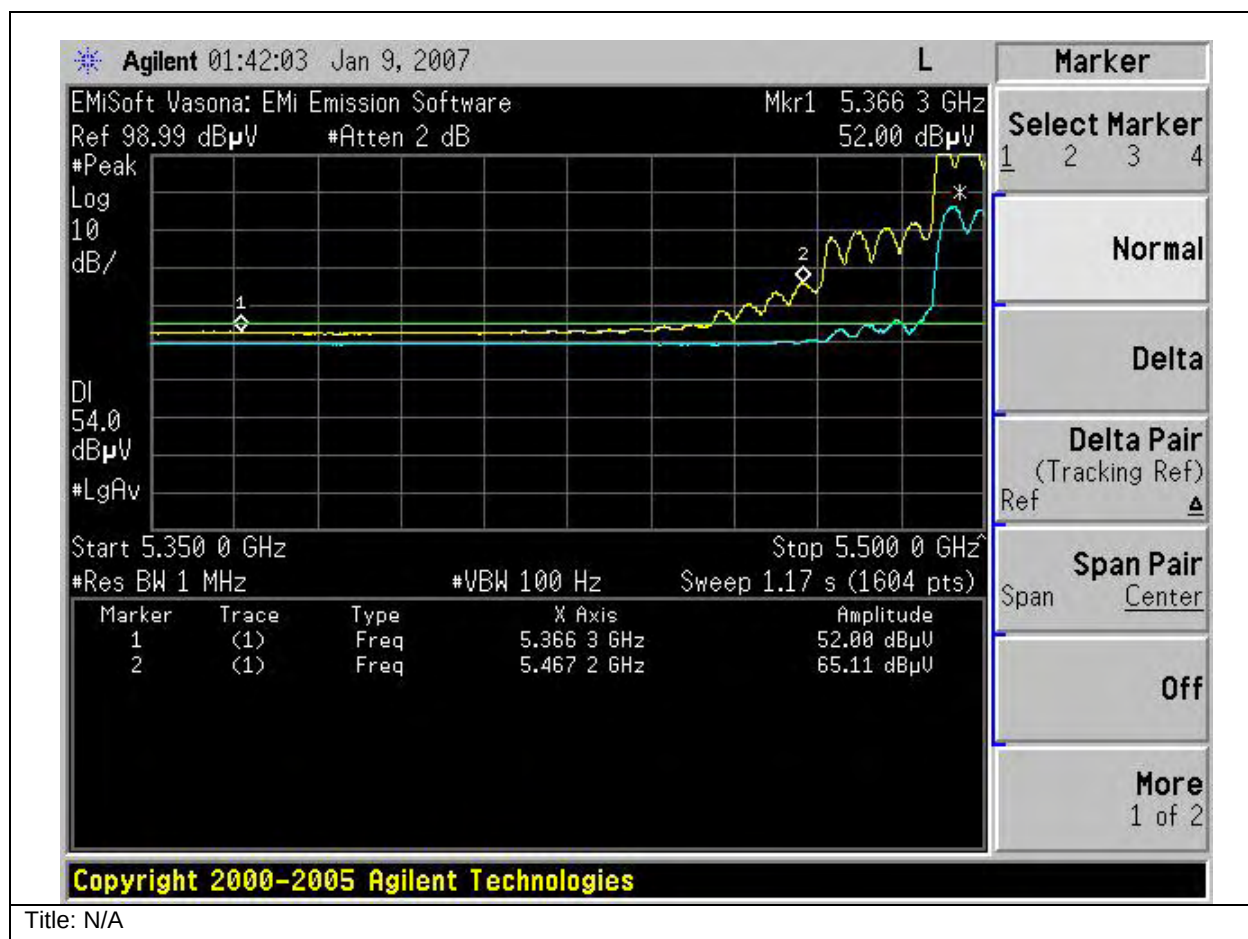
Subtest Number: 24973 - 12		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5500 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



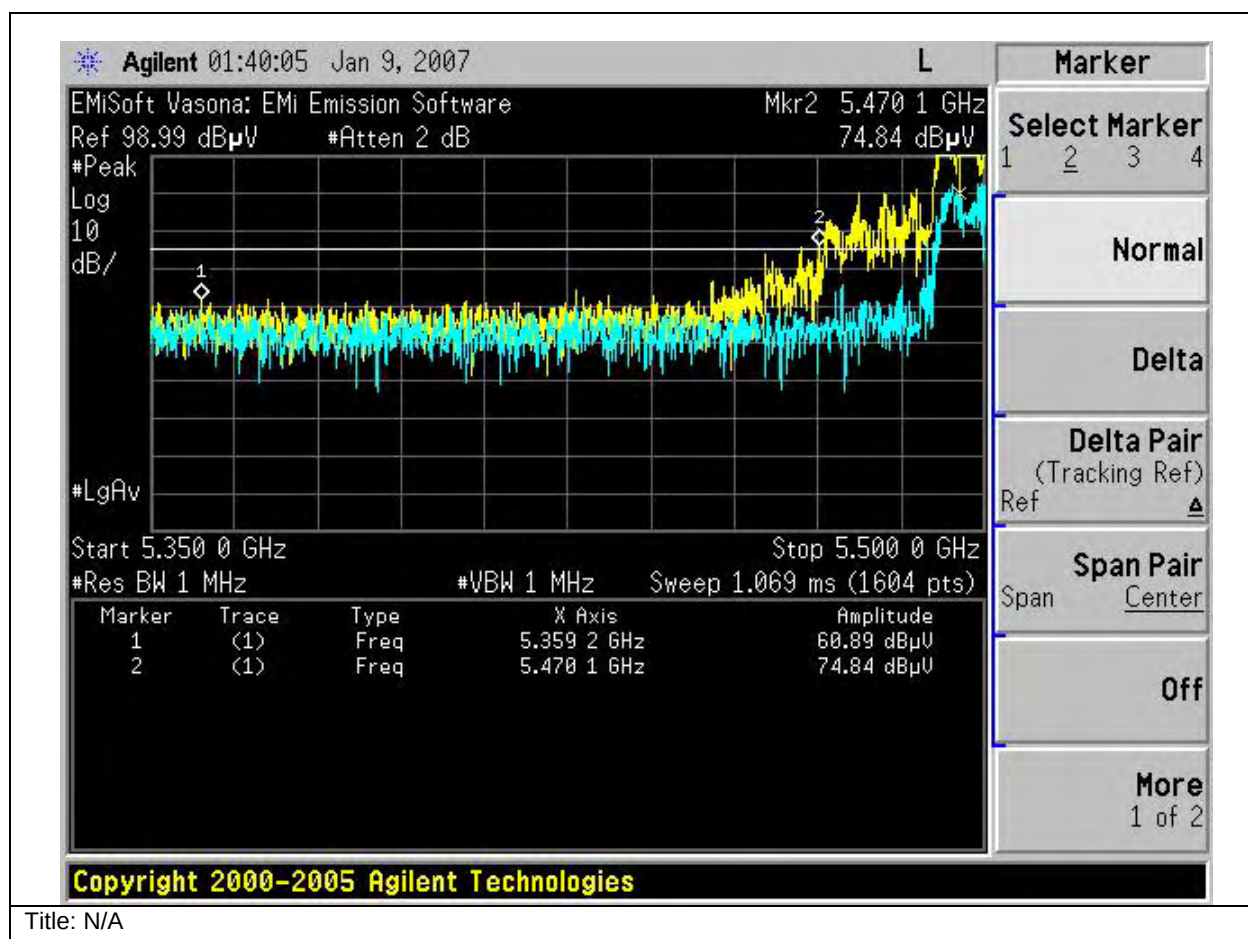
Subtest Number: 24973 - 11		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5500 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



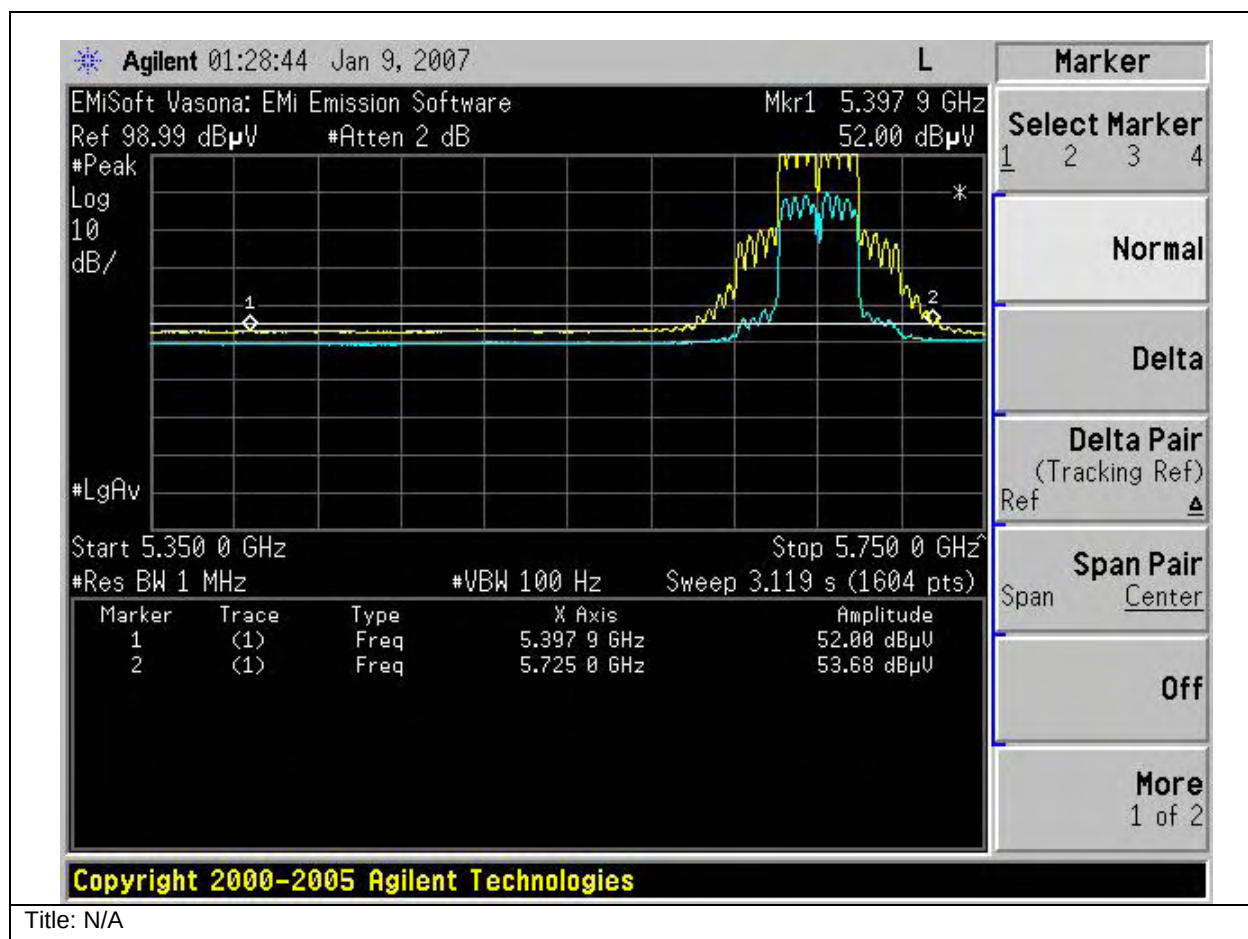
Subtest Number: 24973 - 13		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5500 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



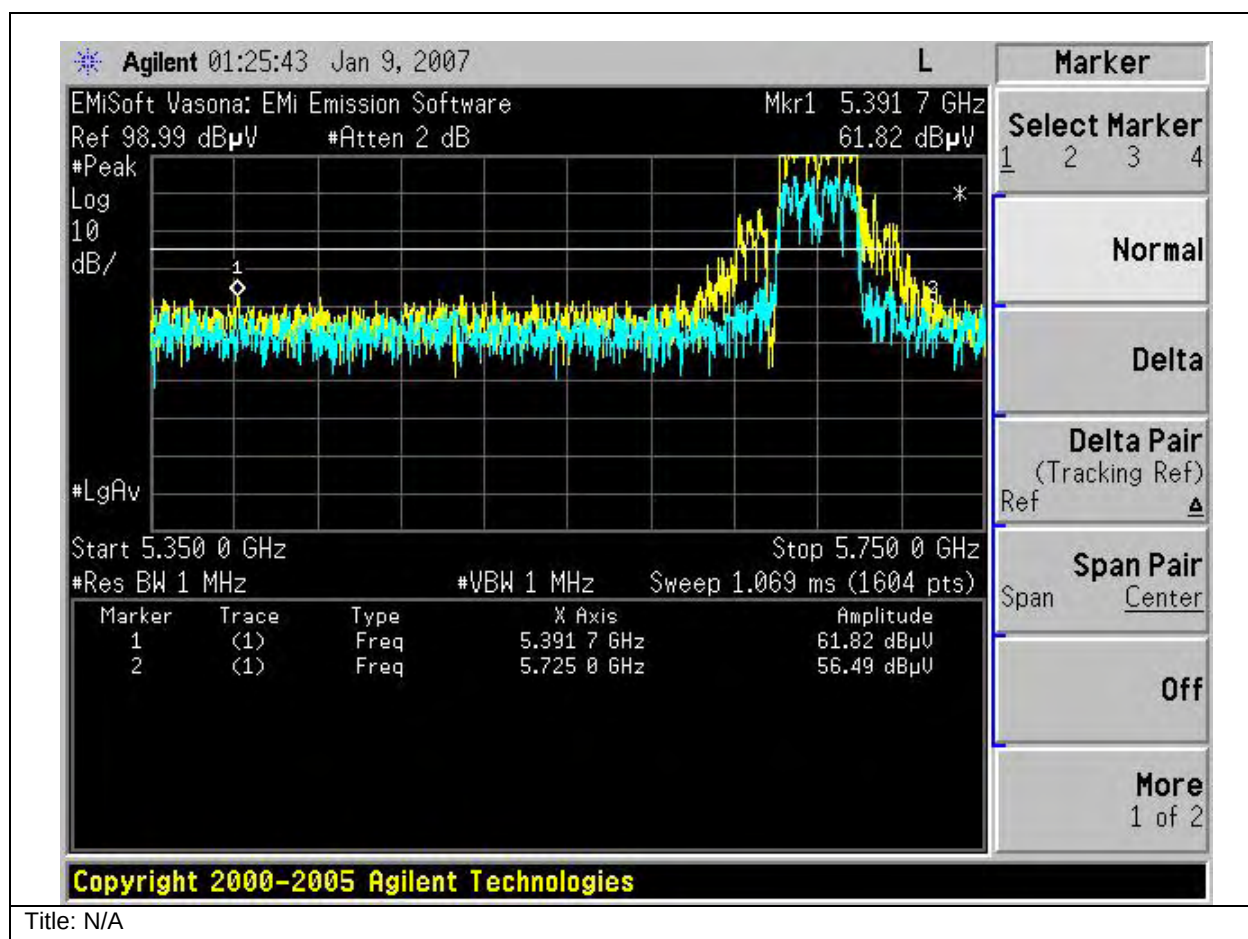
Subtest Number: 24973 - 14		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5500 MHz, 6 Mbps, 14 dBm, Duplicate 2x20 MHz_PEAK	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



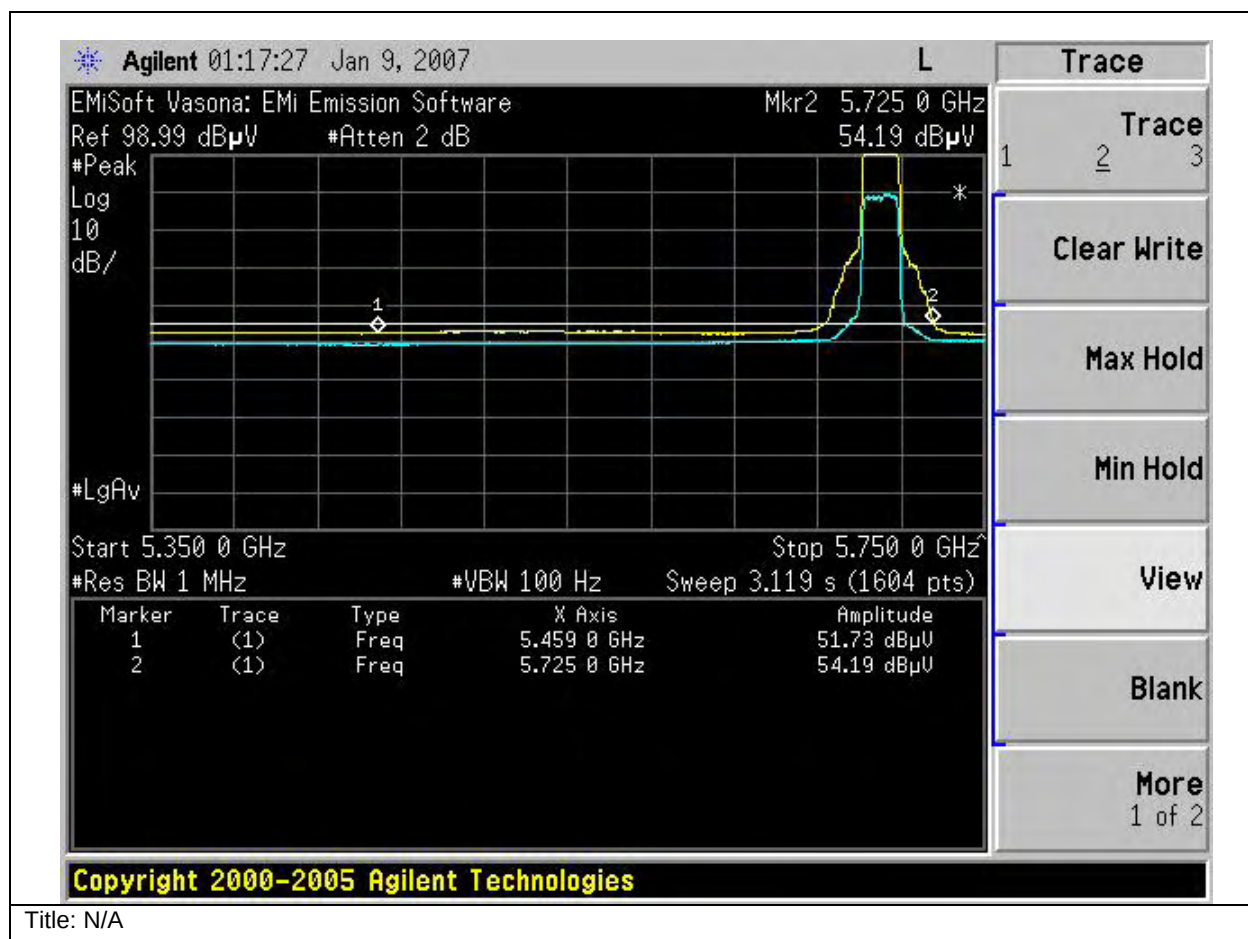
Subtest Number: 24973 - 7		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5680 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



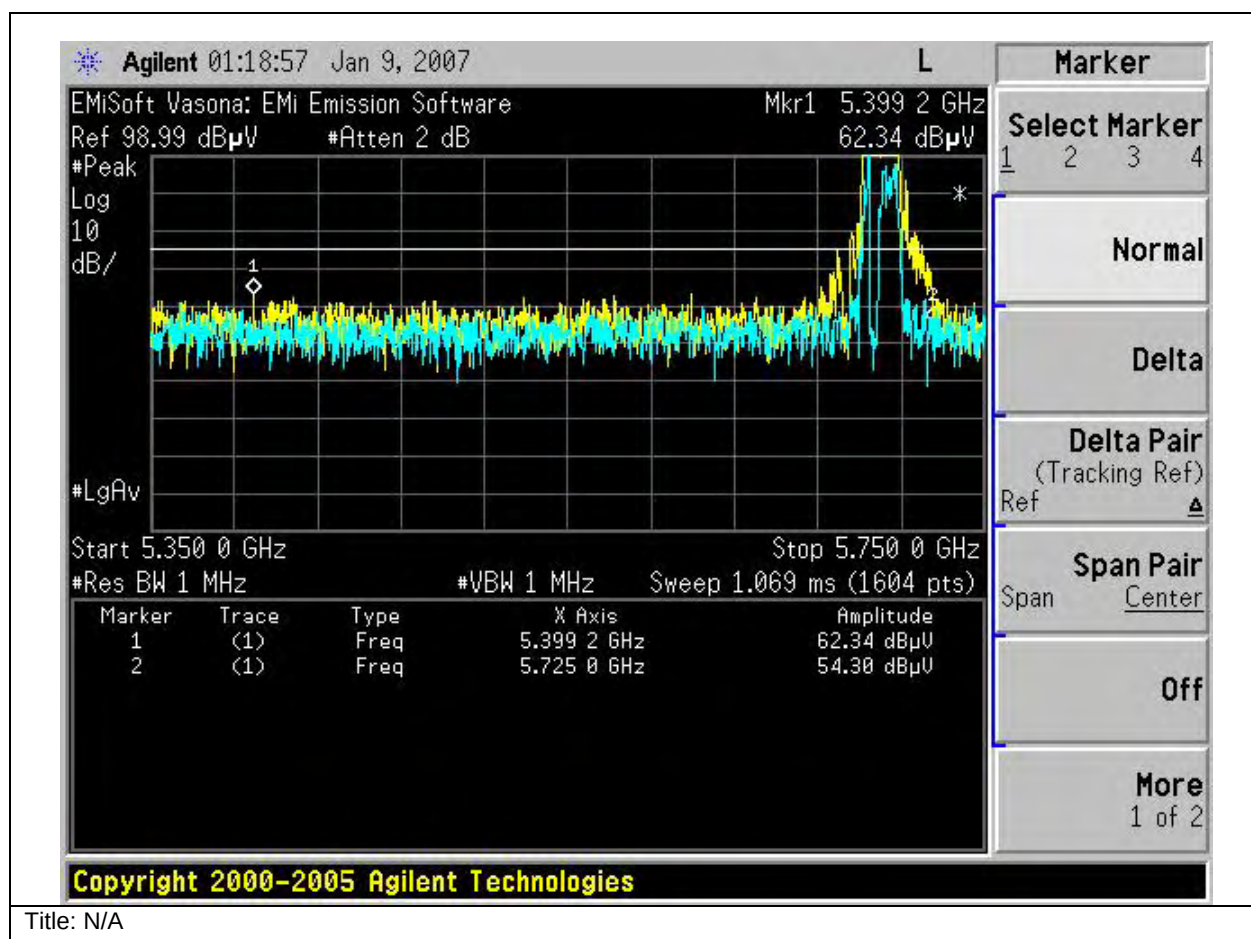
Subtest Number: 24973 - 8		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5680 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



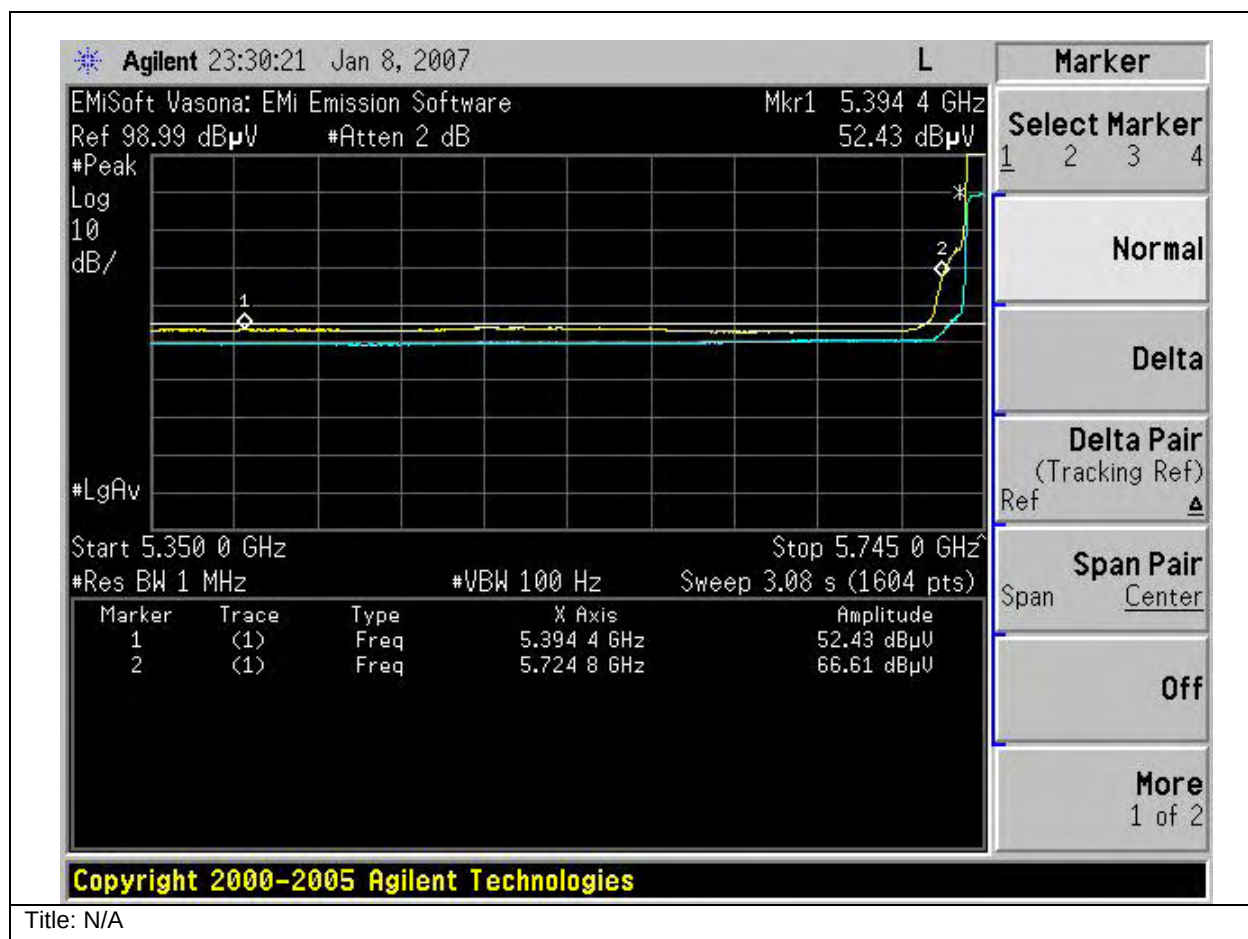
Subtest Number: 24973 - 9		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5700 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



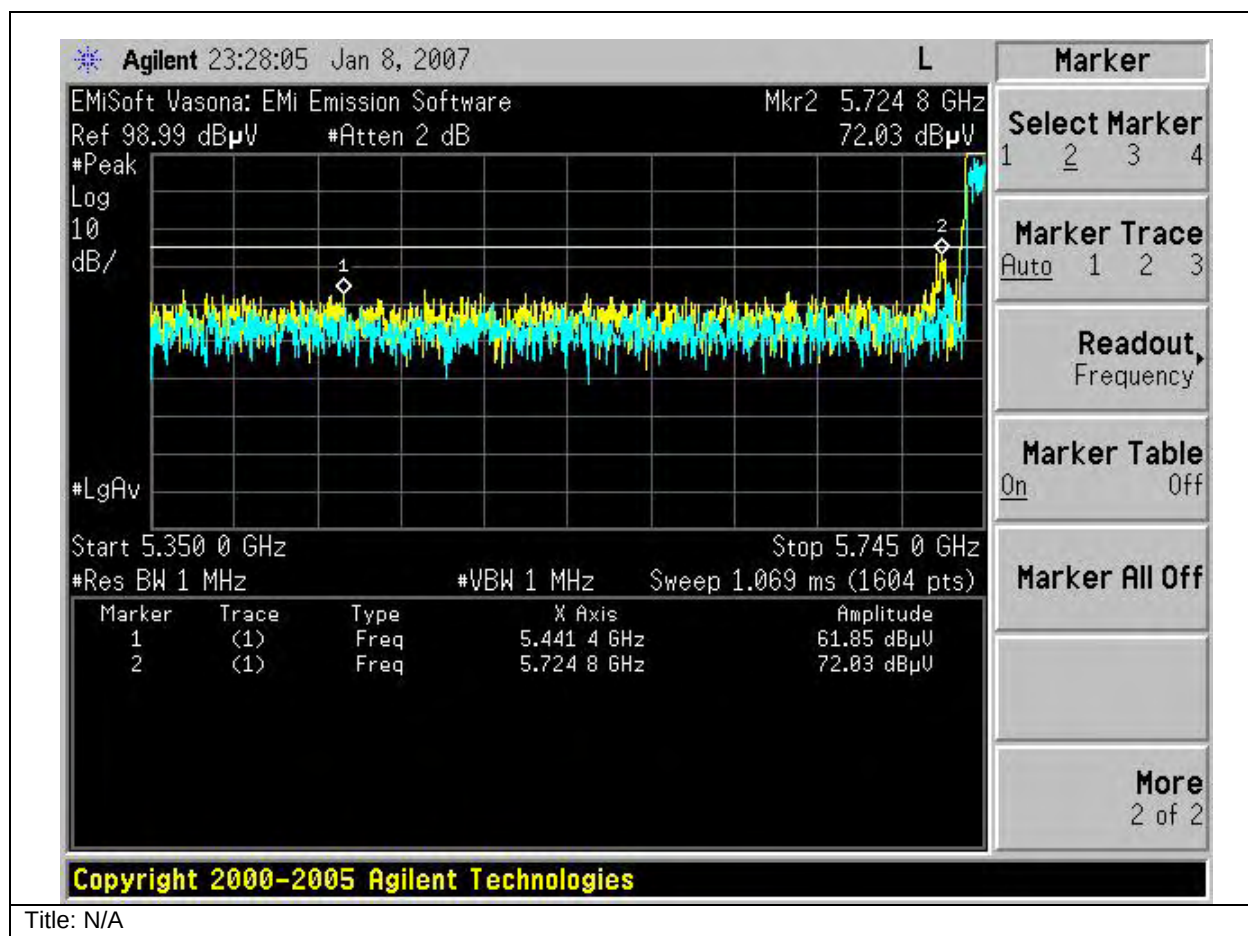
Subtest Number: 24973 - 10		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5700 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



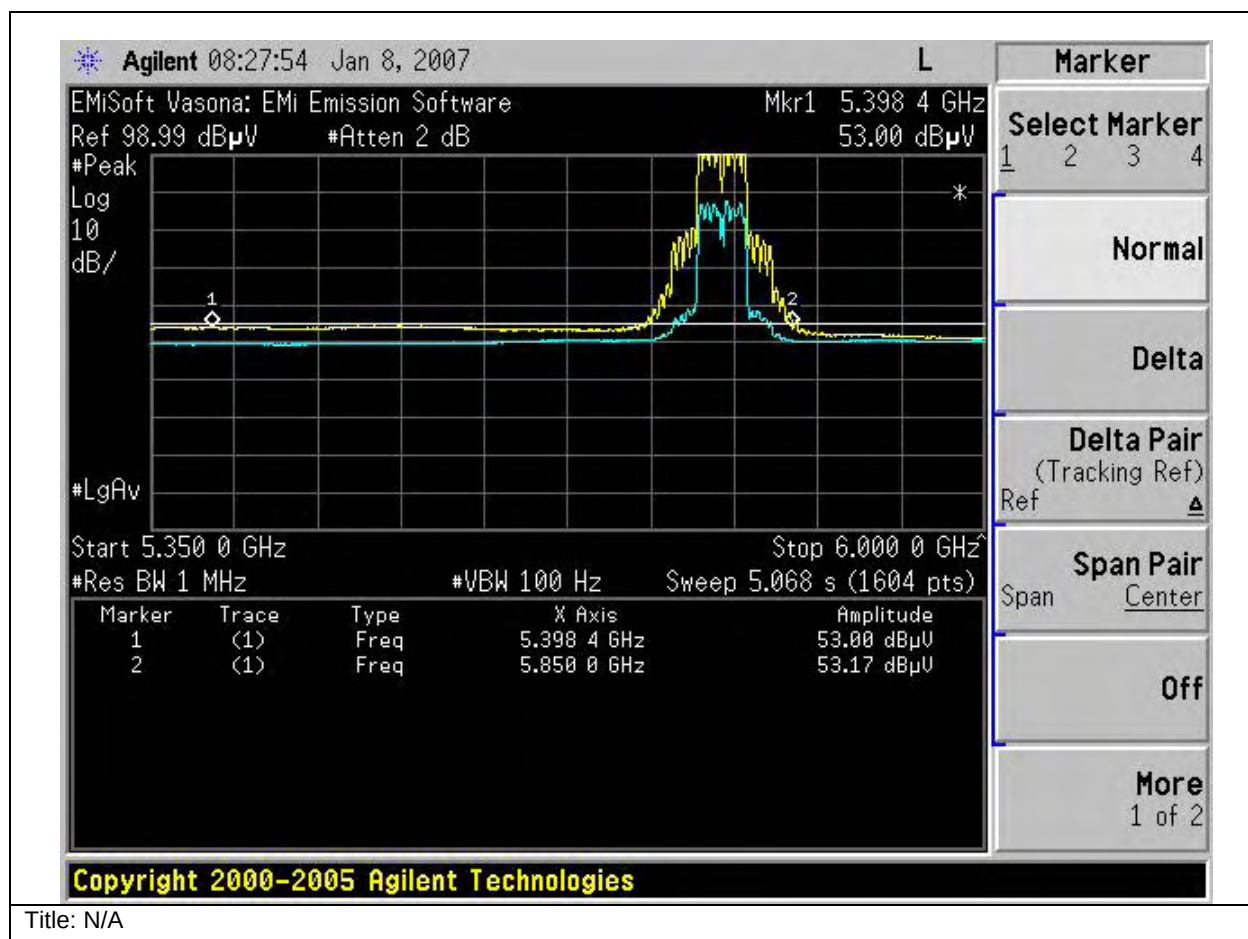
Subtest Number: 24973 - 1		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5745 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming, AVERAGE	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



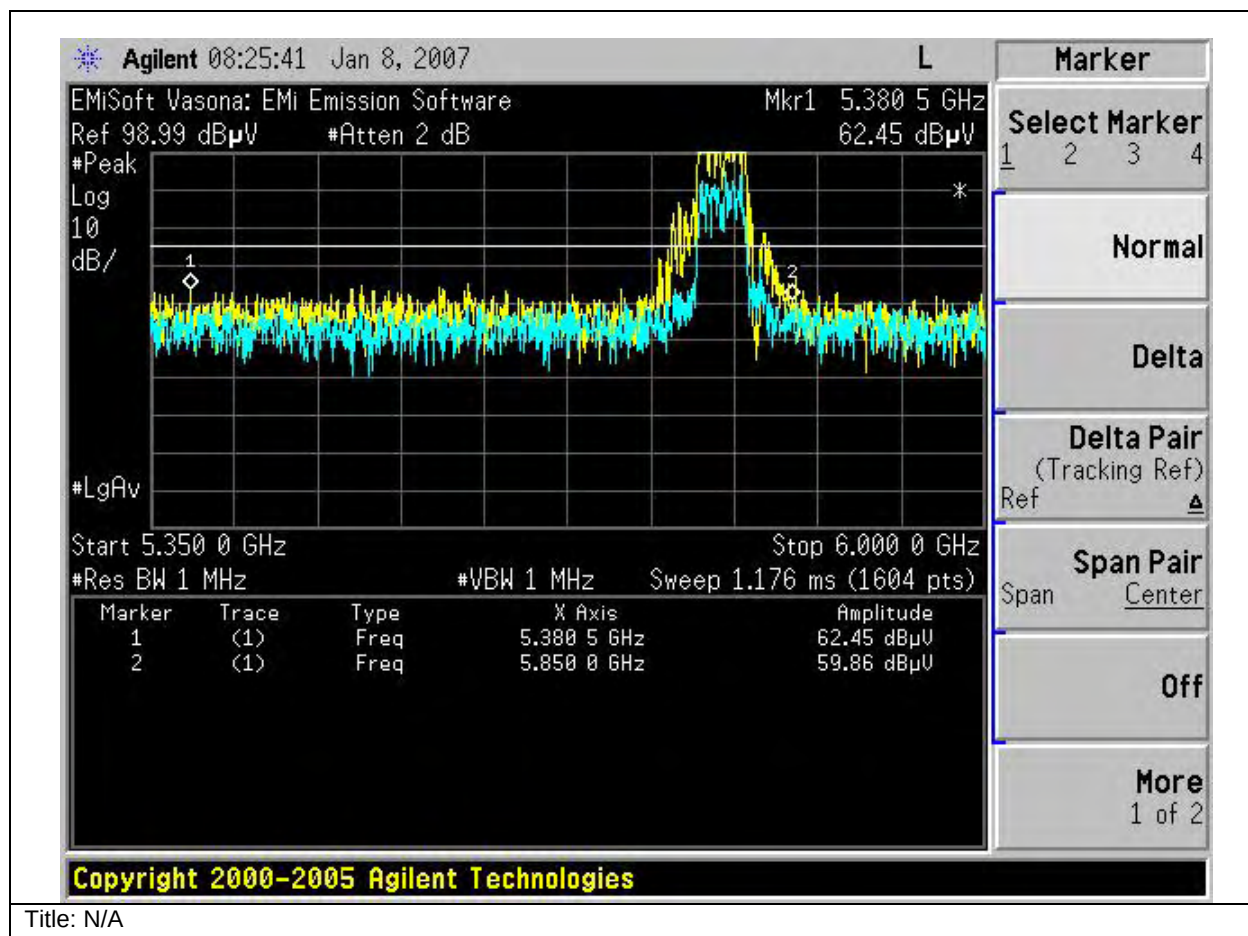
Subtest Number: 24973 - 2		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5745 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_PEAK		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



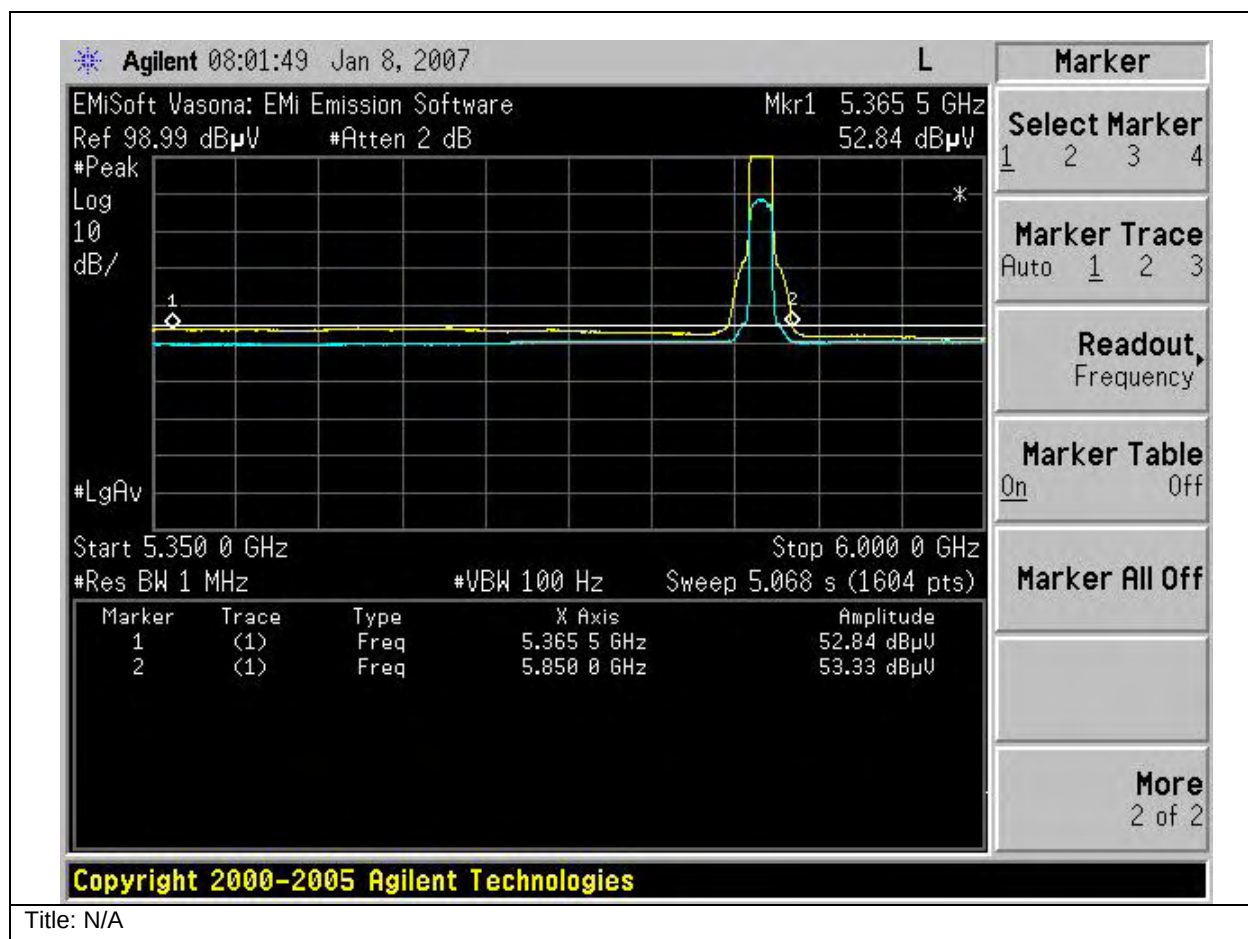
Subtest Number: 24973 - 3		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5805 MHz, 54 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



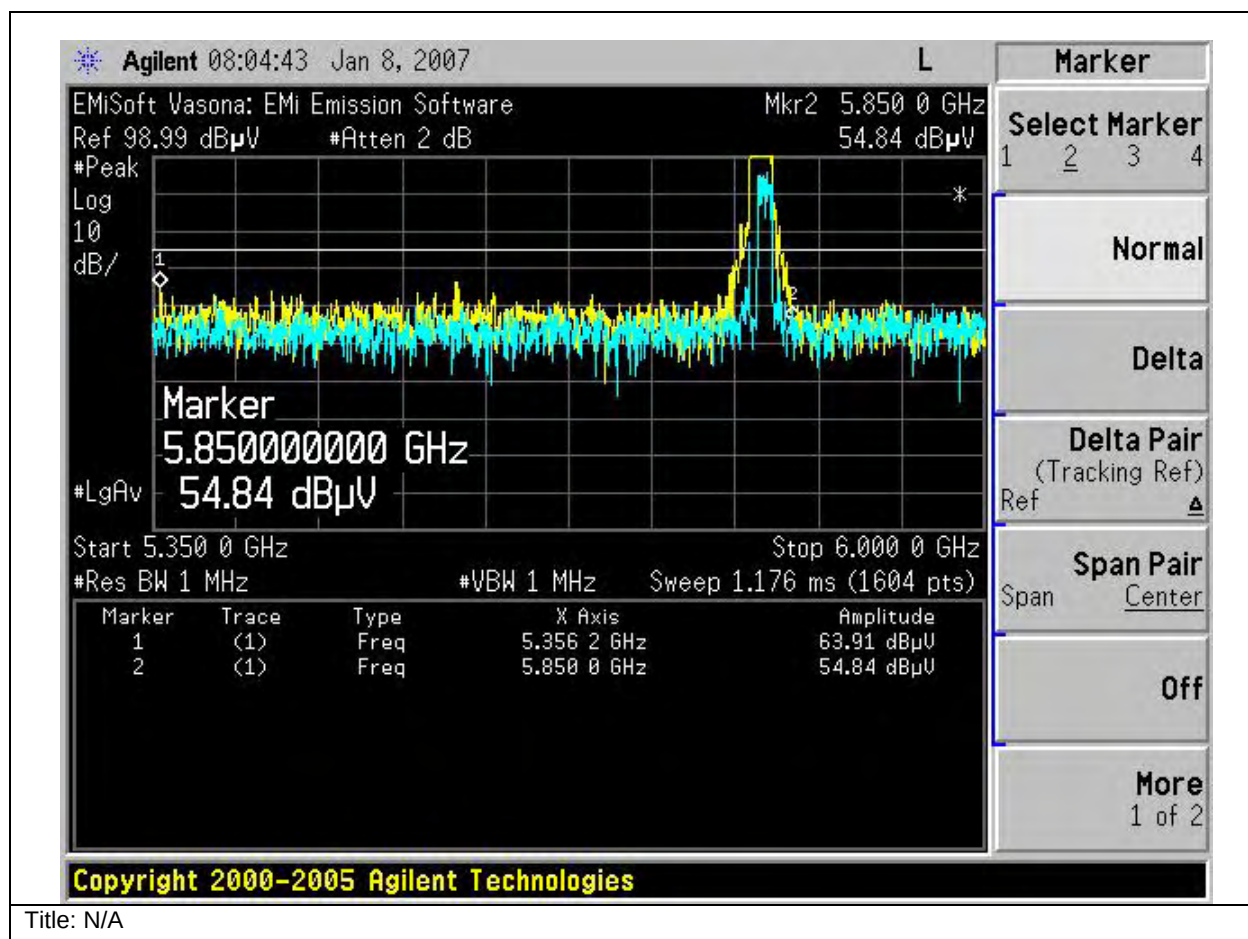
Subtest Number: 24973 - 4		Subtest Date: 08-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RESTRICTED BAND EDGE, 5805 MHz, 54 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	N/A		
Lowest Frequency	N/A		
Comments on the above Test Results	No further comments		



Subtest Number: 24973 - 5		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5825 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming, AVERAGE	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	



Subtest Number: 24973 - 6		Subtest Date: 08-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RESTRICTED BAND EDGE, 5825 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming <u>PEAK</u>	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	





Radiated emissions

Test Number: 25010		Spec ID: 647		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
Radiated Spurious Emissions	Enclosure	B	30MHz-1.0GHz	CFR47 Part 15.109CFR47 Part 15.247, CFR47 Part 15.407, RSS-210, LP0002
Operating Mode	Mode : 1, Continuous Transmitting			
Power Input	110, 60Hz (+/-20%)			
Overall Result	Pass			
Comments	There were no discernable emissions above 18GHz.			
Deviation	There were no deviations from the specification			

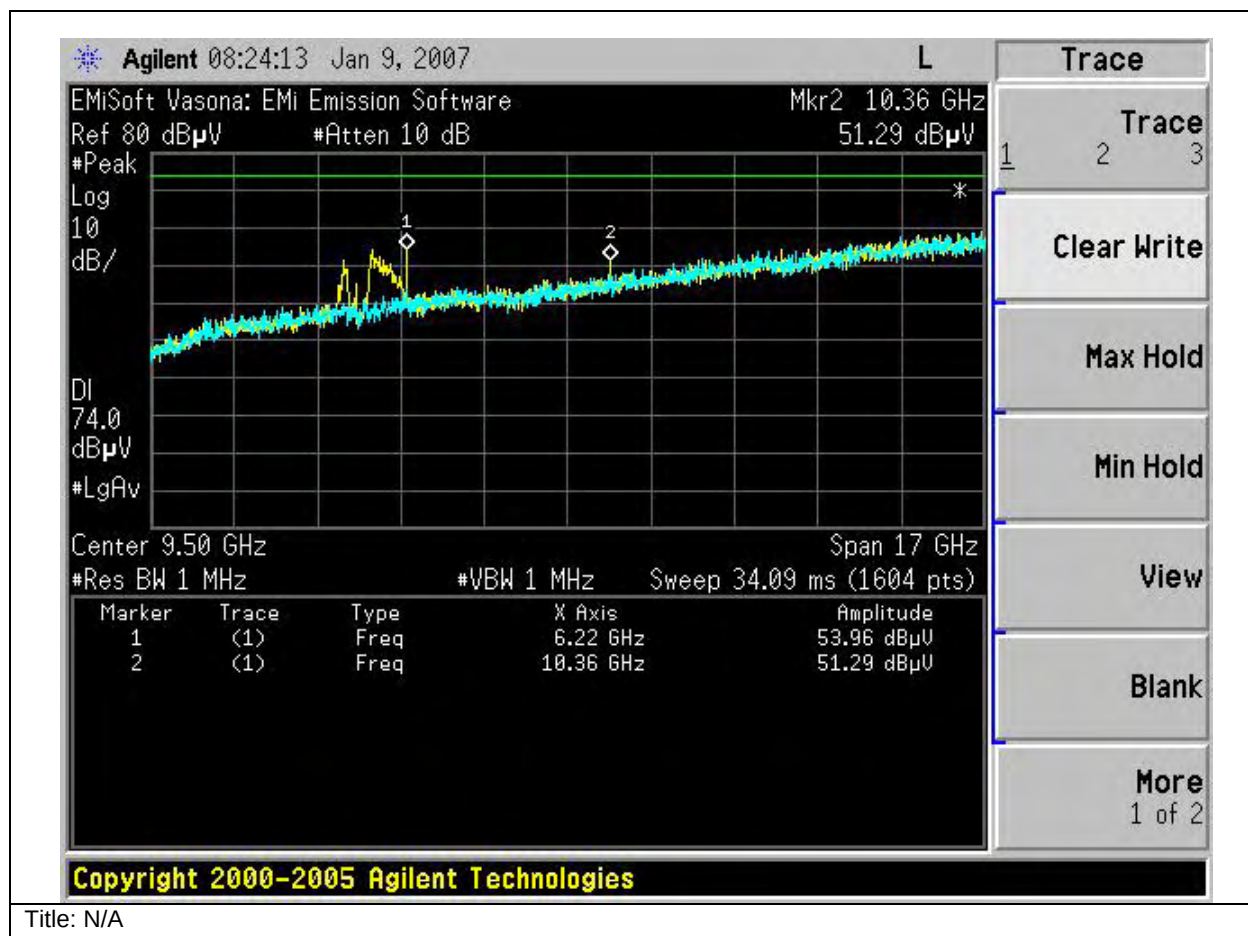
System Number	Description	Samples	System under test	Support equipment
1	EUT	S01, S02, S03 and S04	☒	☐

Frequency (MHz)	Mode	Data Rate (Mbps)	Radiated Spurious Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)
5180	Dual	54	51.3	54	2.7
5180	Duplicate	6	49.6	54	4.4
5260	Dual	54	49.0	54	5.0
5260	Duplicate	6	45.8	54	8.2
5320	Dual	54	46.5	54	7.5
5320	Duplicate	6	44.1	54	9.9
5500	Dual	54	49.1	54	4.9
5500	Duplicate	6	49.4	54	4.6
5600	Dual	54	48.9	54	5.1
5600	Duplicate	6	48.3	54	5.7
5680	Duplicate	6	44.3	54	9.7
5700	Dual	54	44.4	54	9.6
5745	Dual BF	54	44.9	54	9.1
5745	Duplicate	6	43.5	54	10.5
5785	Dual BF	54	44.8	54	9.2
5785	Duplicate	6	45.3	54	8.7
5805	Duplicate	6	44.5	54	9.5
5825	Dual BF	54	45.6	54	8.4

Subtest Number: 25010 - 3		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5180 MHz, 54 Mbps, 11 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



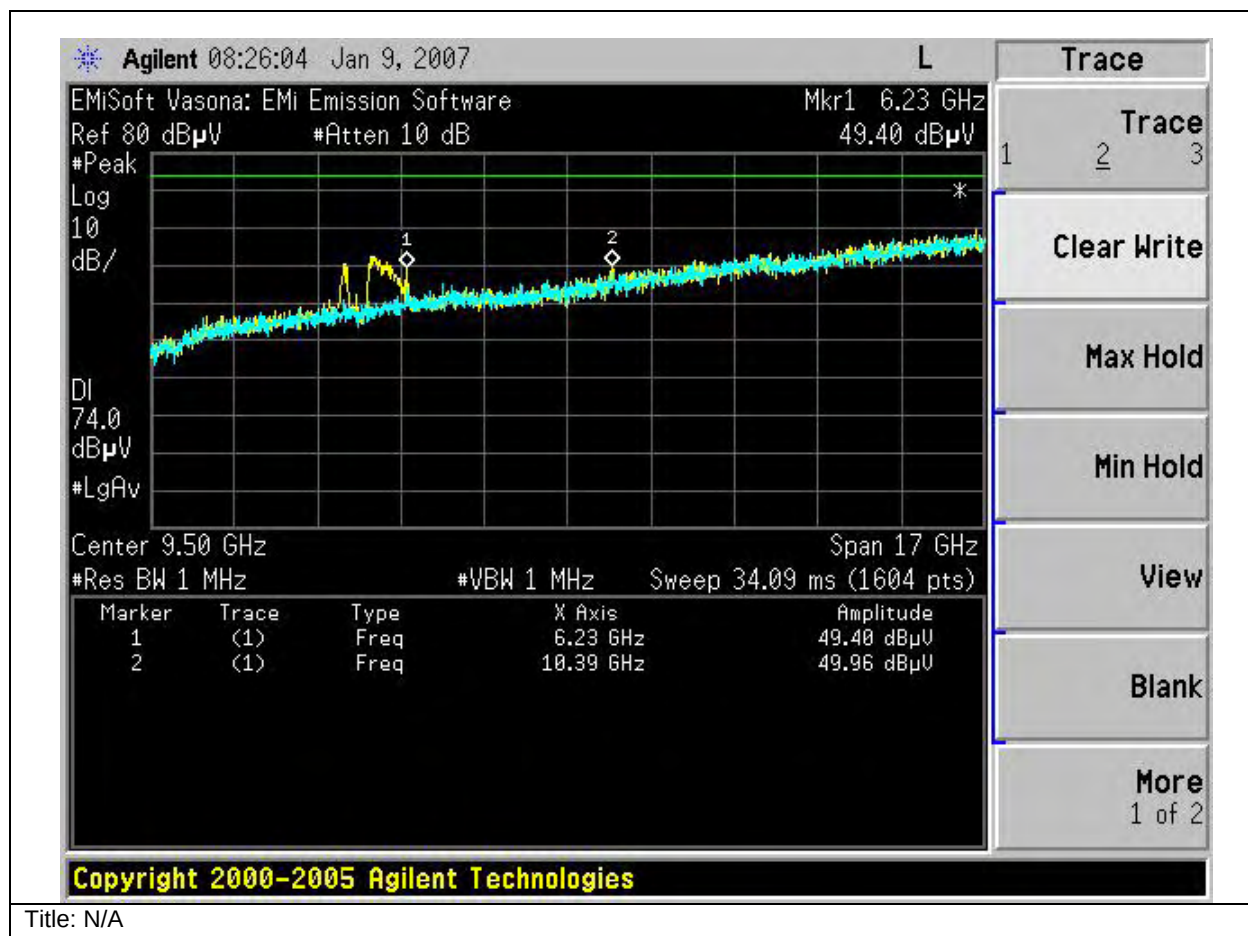
Subtest Number: 25010 - 4		Subtest Date: 09-Jan-2007
Engineer	James Nicholson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5180 MHz, 54 Mbps, 11 dBm, Dual Transmit Paths_PEAK	
Subtest Result	Pass	
Highest Frequency	18000.0	
Lowest Frequency	1000.0	
Comments on the above Test Results	No further comments	



Subtest Number: 25010 - 1		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5180 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



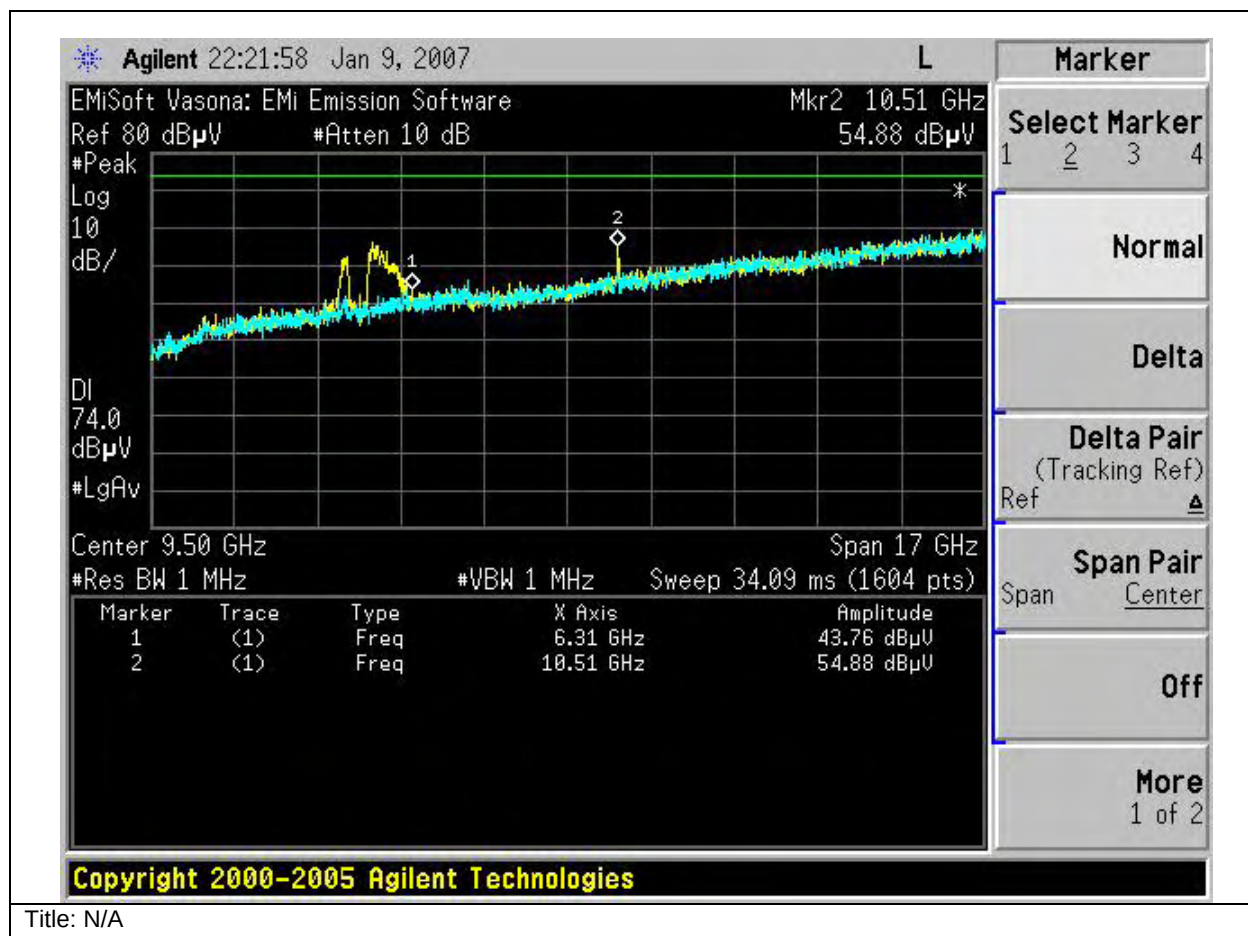
Subtest Number: 25010 - 2		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5180 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 7		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5260 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



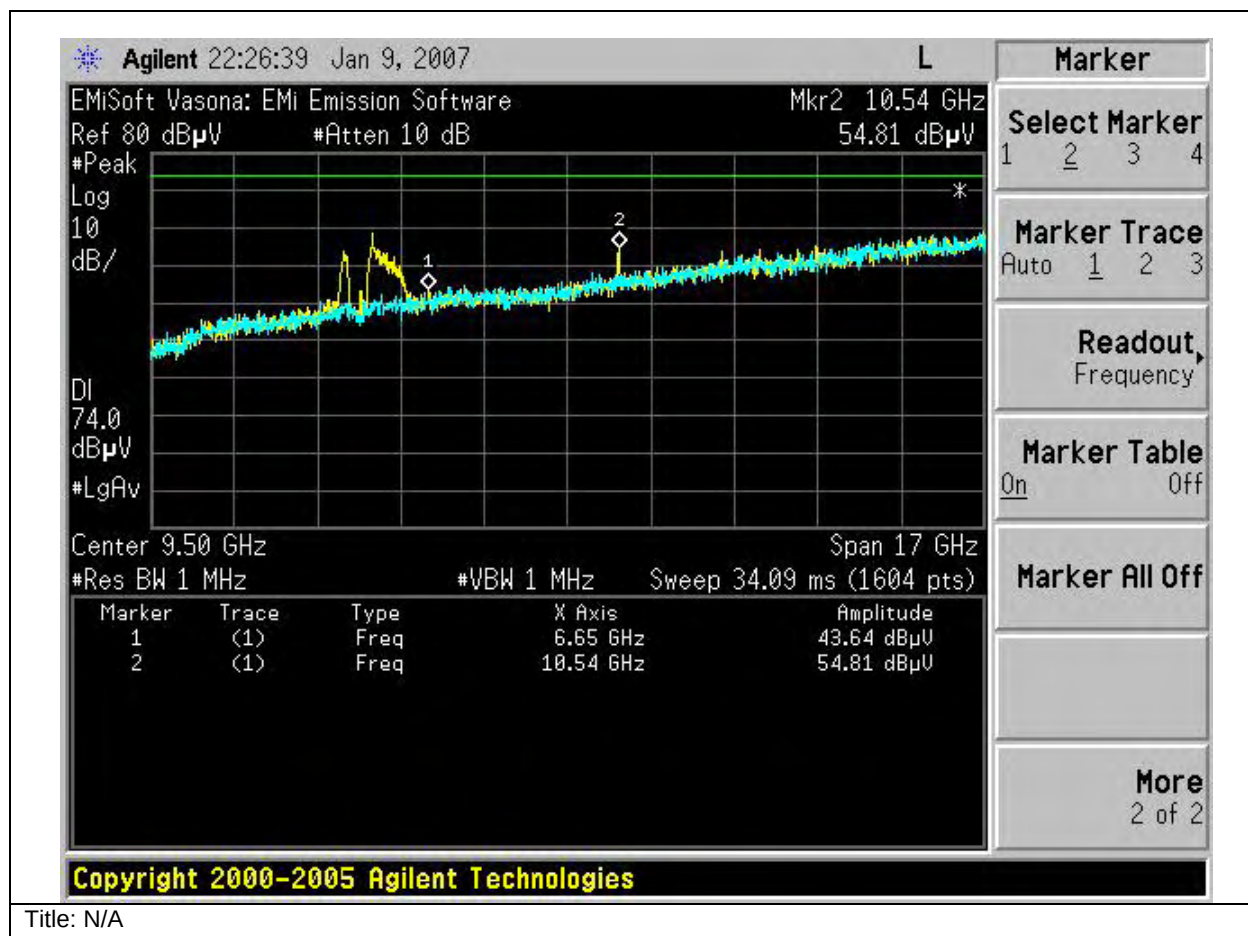
Subtest Number: 25010 - 8		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5260 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 5		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5260 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



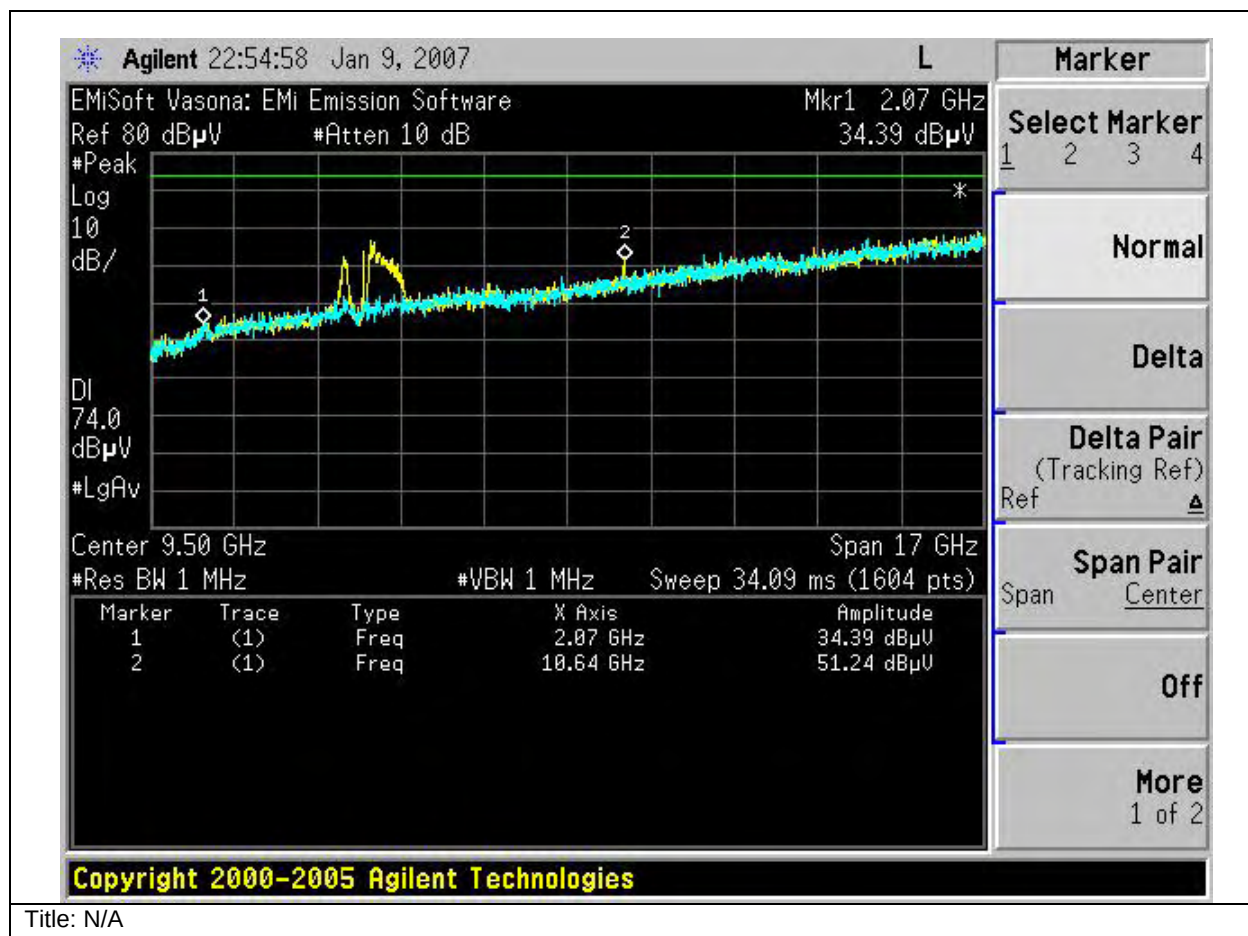
Subtest Number: 25010 - 6		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5260 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



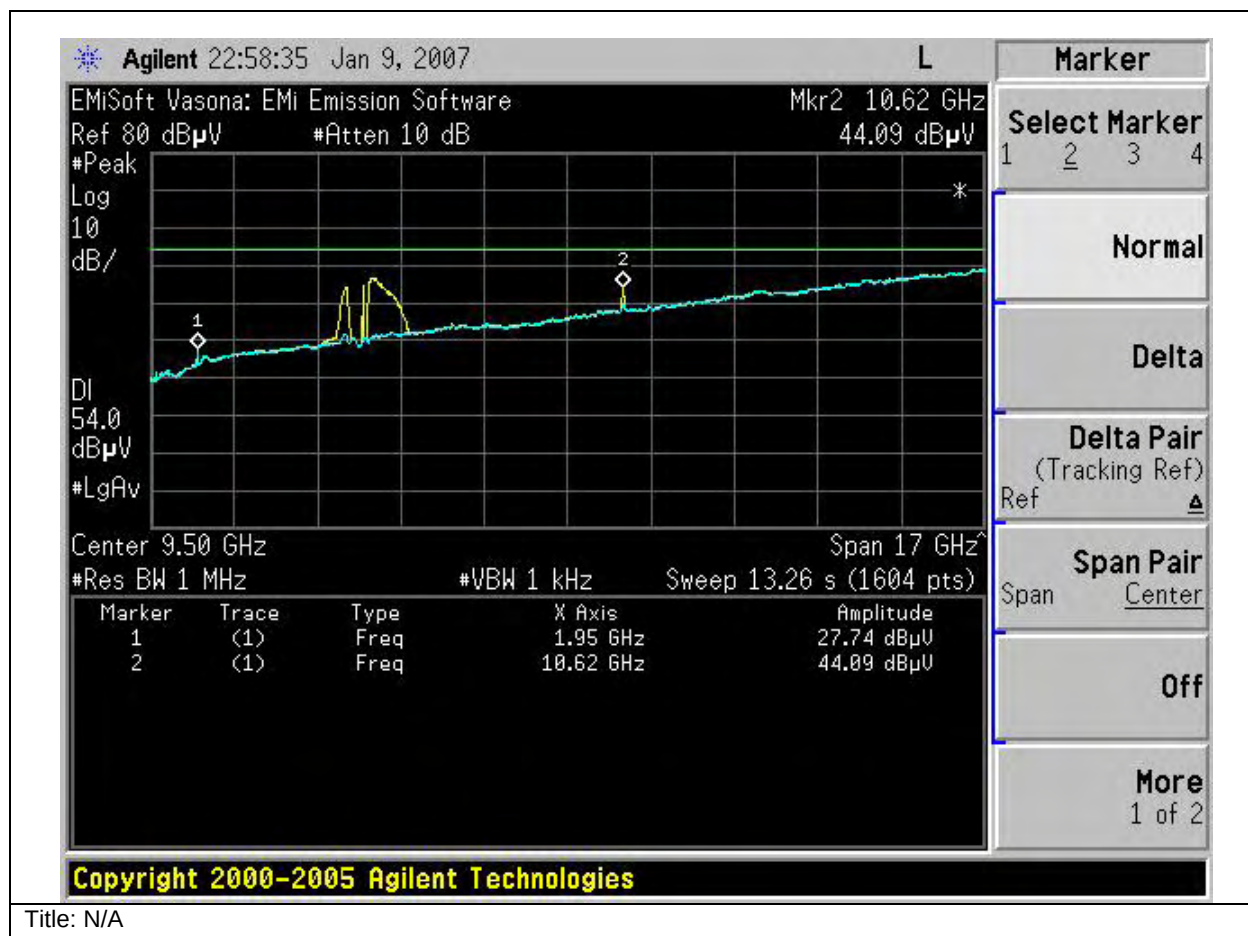
Subtest Number: 25010 - 15		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5320 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



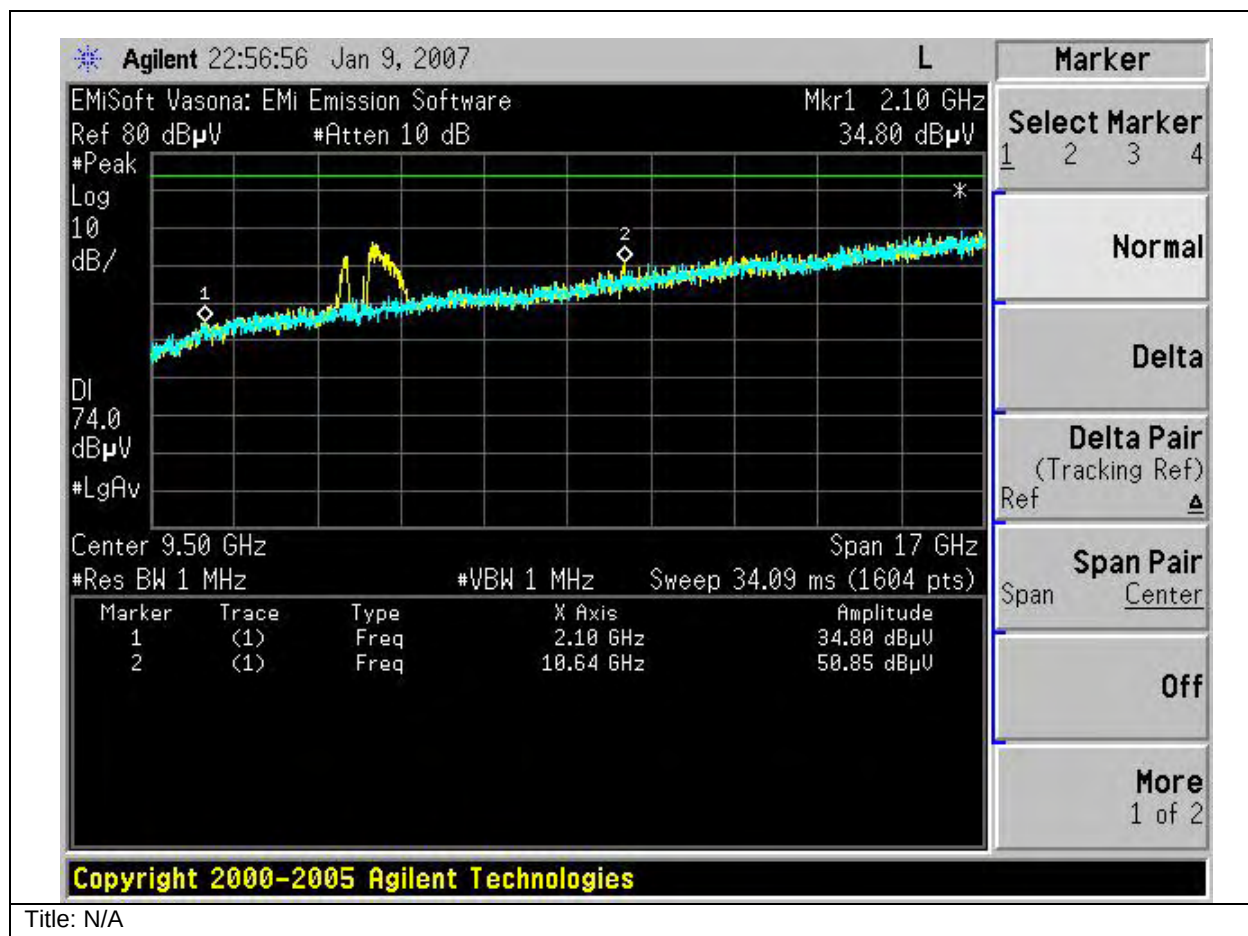
Subtest Number: 25010 - 16		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5320 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



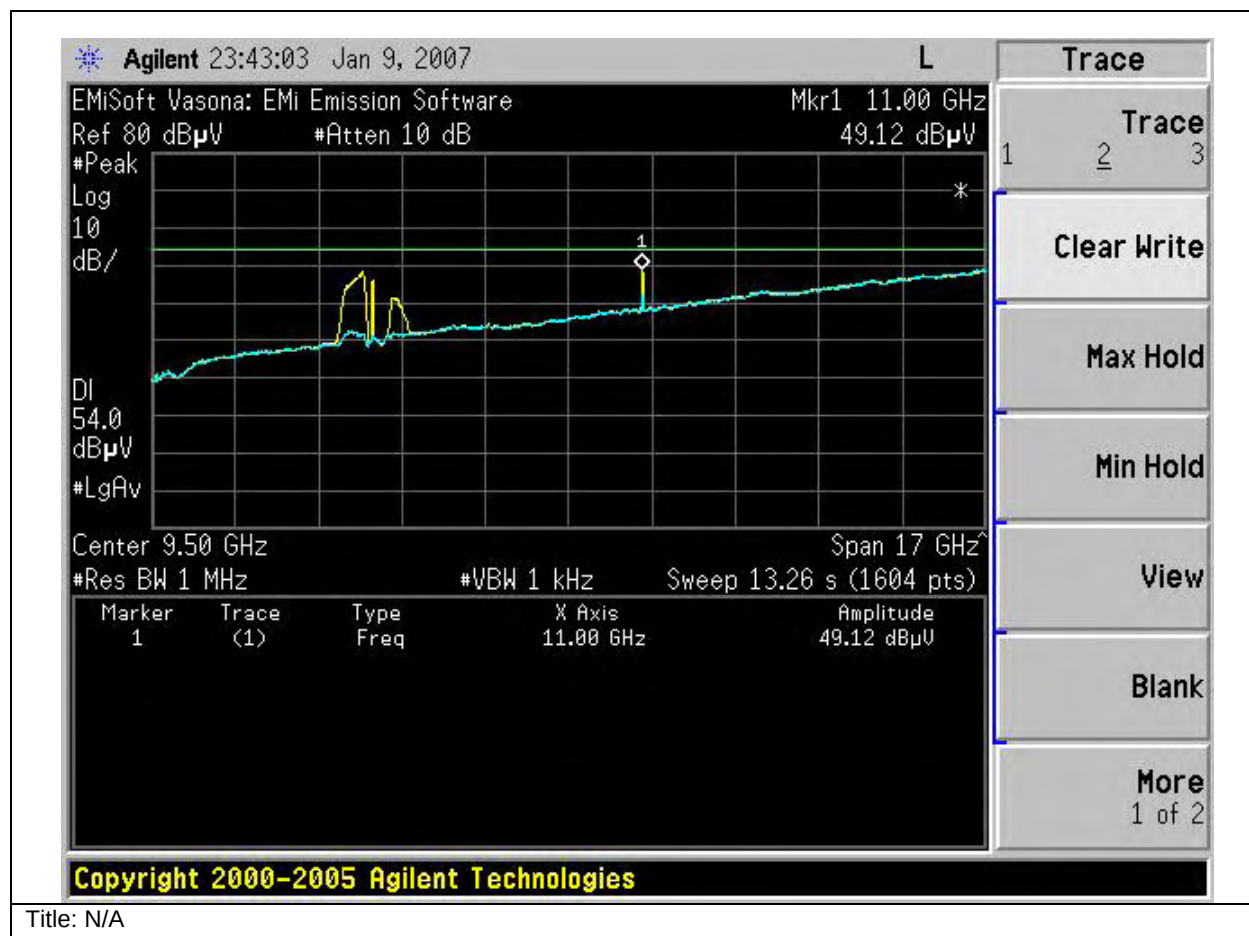
Subtest Number: 25010 - 13		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5320 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



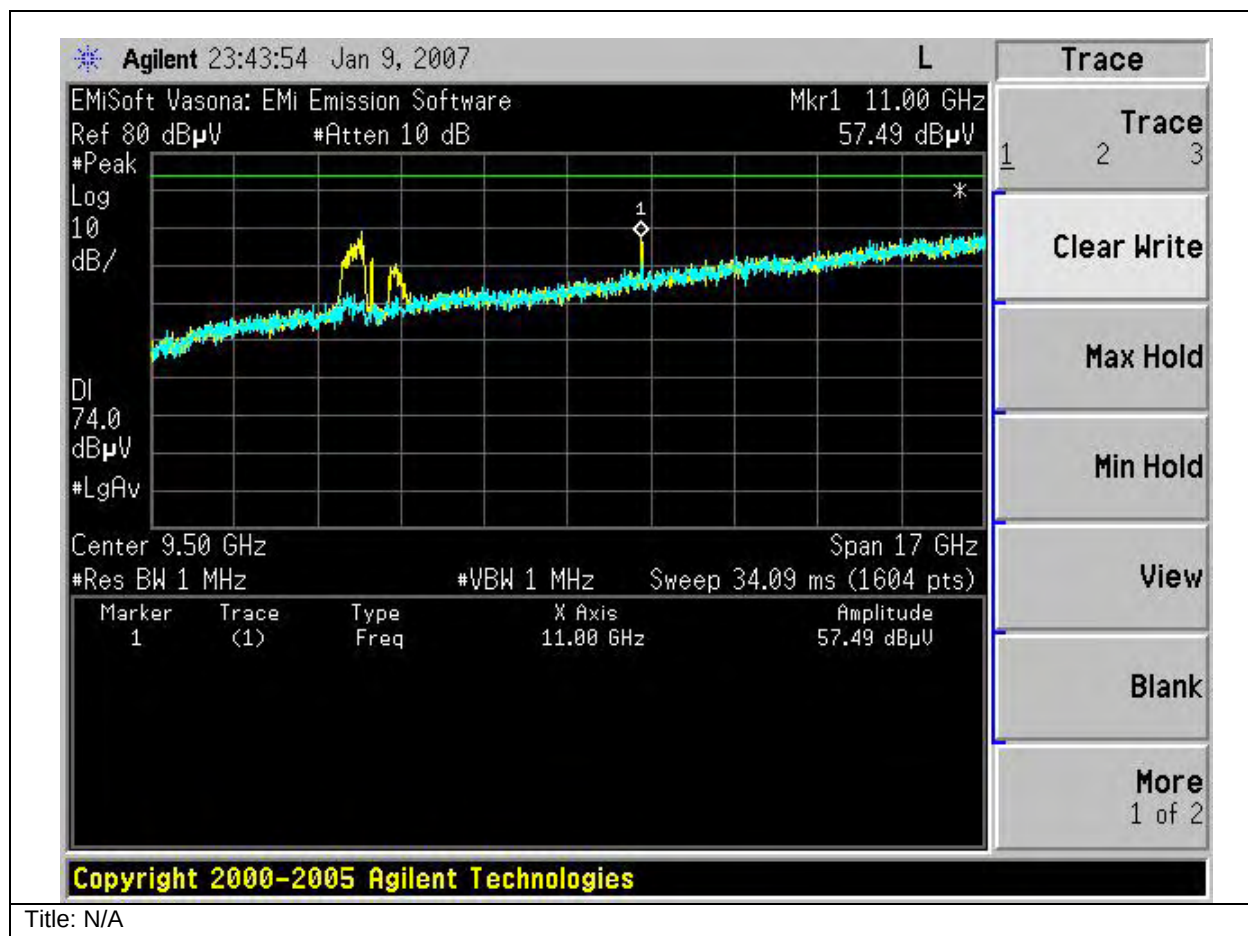
Subtest Number: 25010 - 14		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5320 MHz, 6 Mbps, 11 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 19		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5500 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



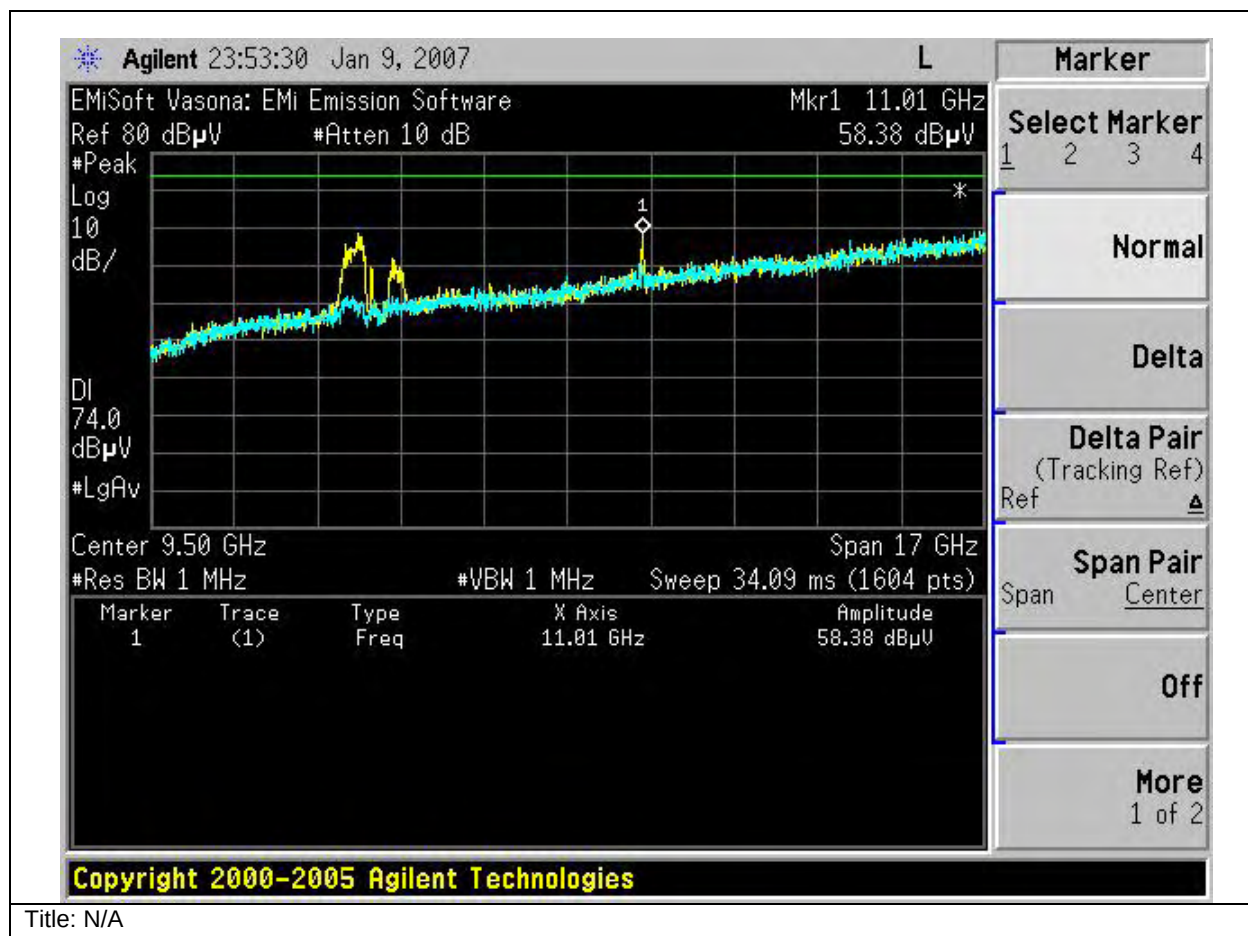
Subtest Number: 25010 - 20		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5500 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



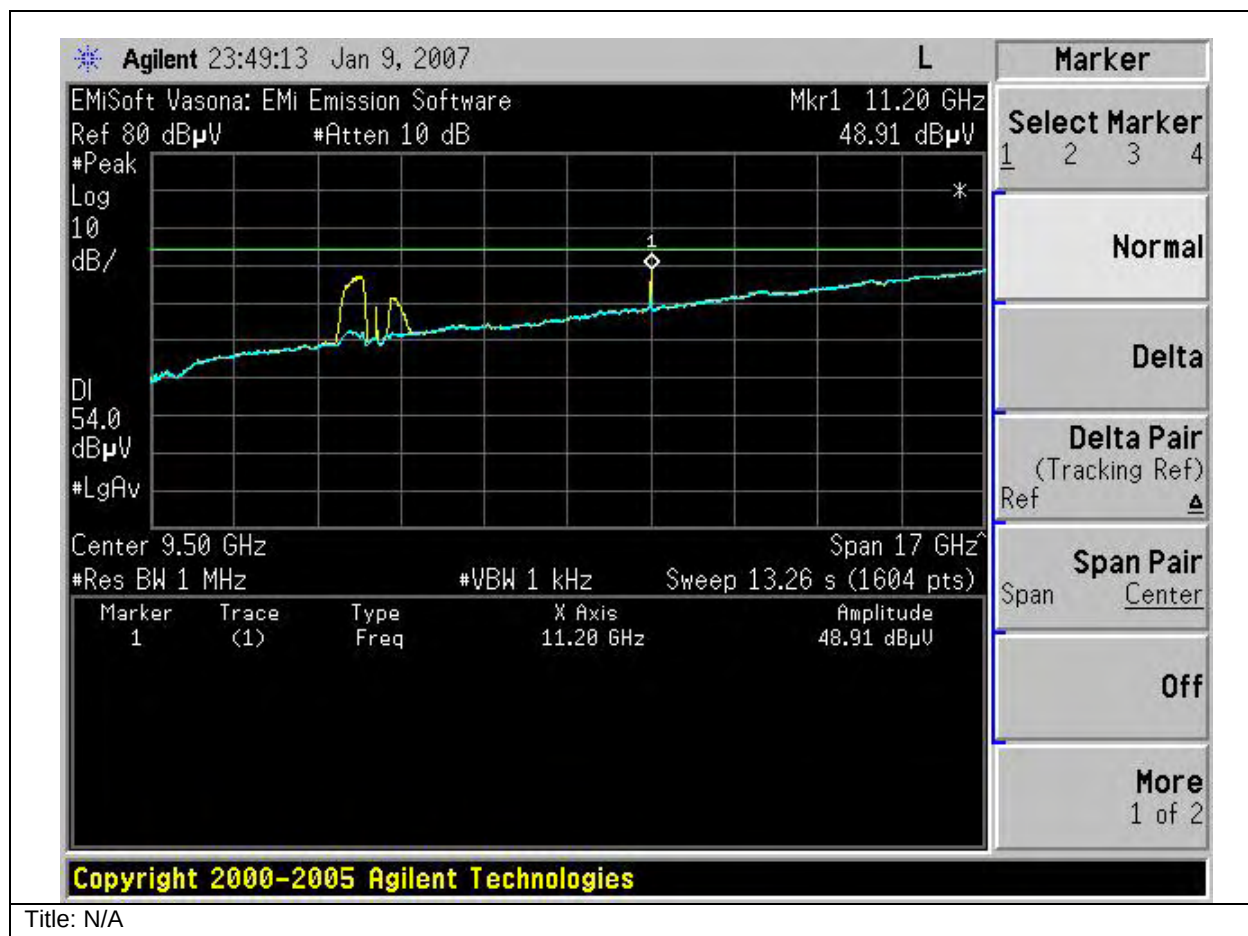
Subtest Number: 25010 - 17		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5500 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



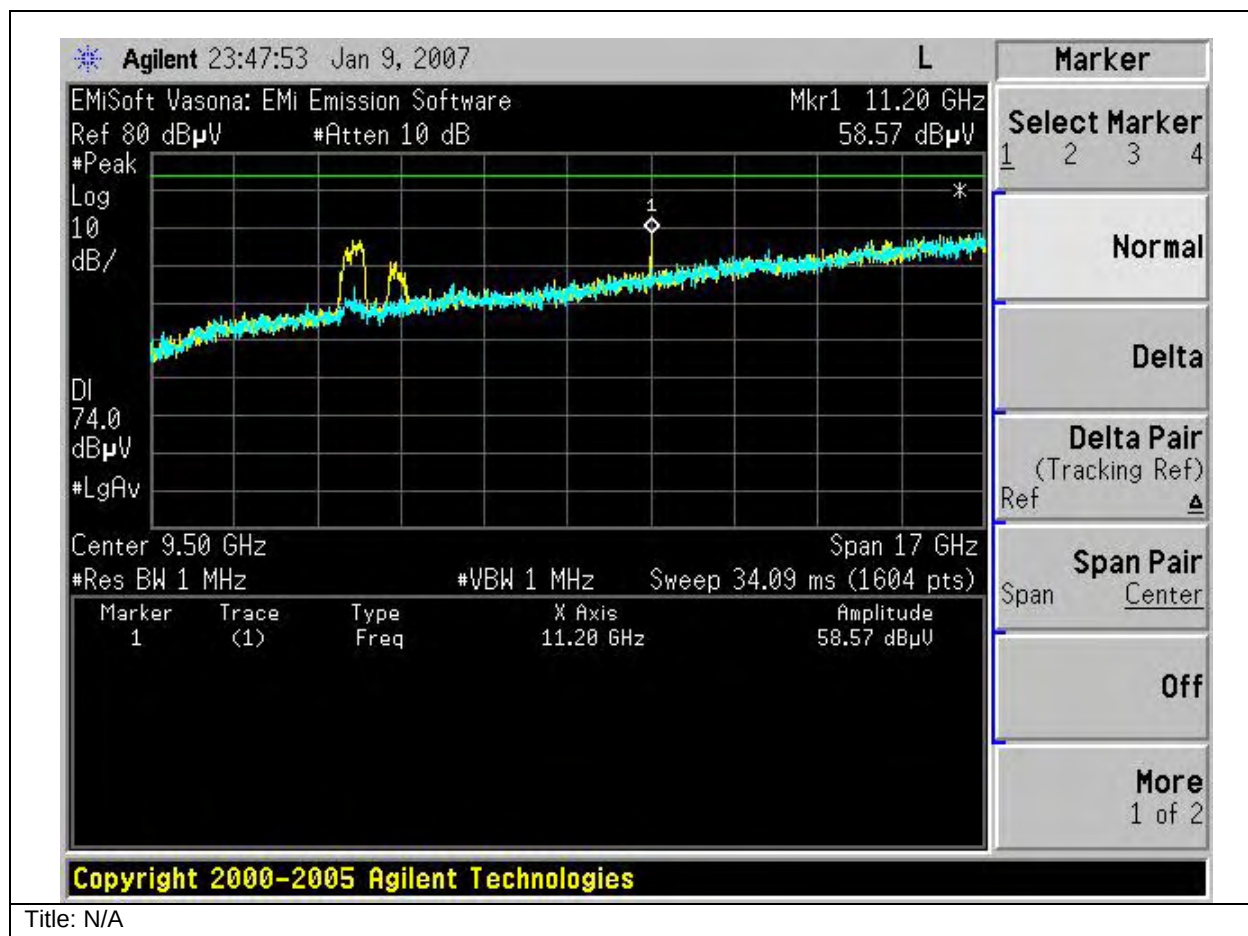
Subtest Number: 25010 - 18		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5500 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



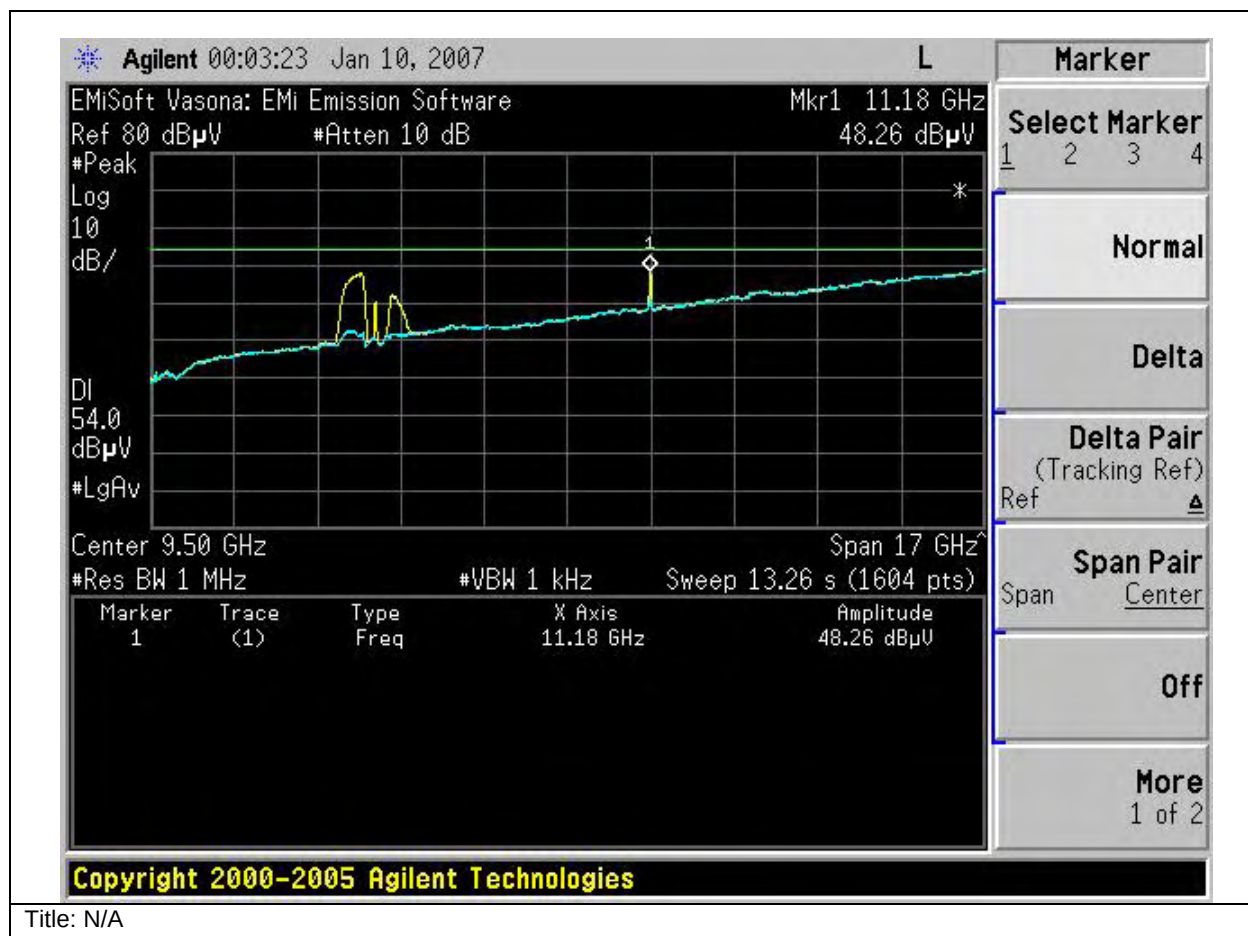
Subtest Number: 25010 - 23		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5600 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 24		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5600 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 21		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5600 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Agilent 00:04:11 Jan 10, 2007

EMiSoft Vasona: EMi Emission Software

Ref 80 dBμV #Atten 10 dB Mkr1 11.18 GHz 61.41 dBμV

#Peak Log 10 dB/

DI 74.0 dBμV #LgAv

Center 9.50 GHz Span 17 GHz

#Res BW 1 MHz #VBW 1 MHz Sweep 34.09 ms (1604 pts)

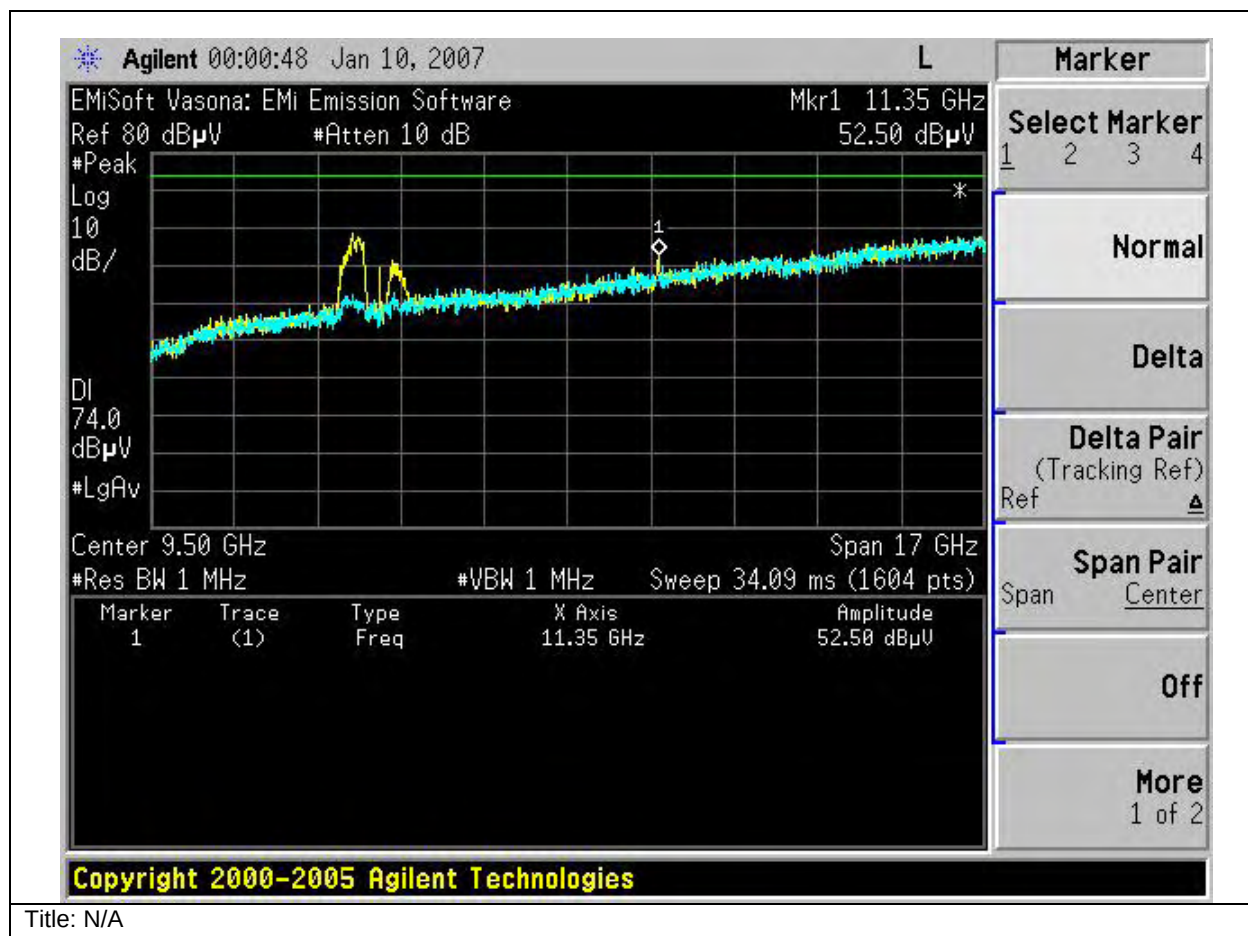
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	11.18 GHz	61.41 dBμV

Copyright 2000-2005 Agilent Technologies

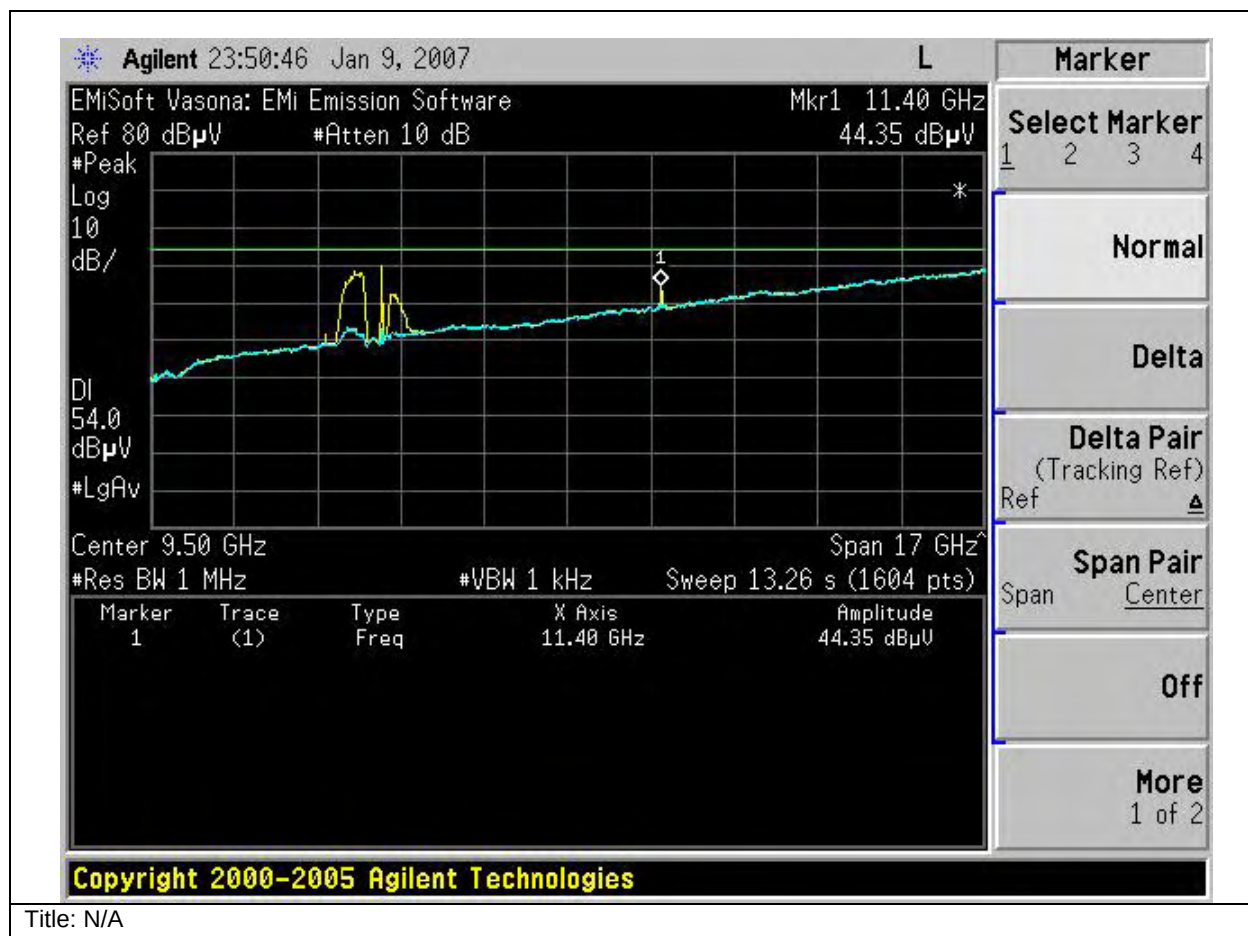
Subtest Number: 25010 - 25		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5680 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



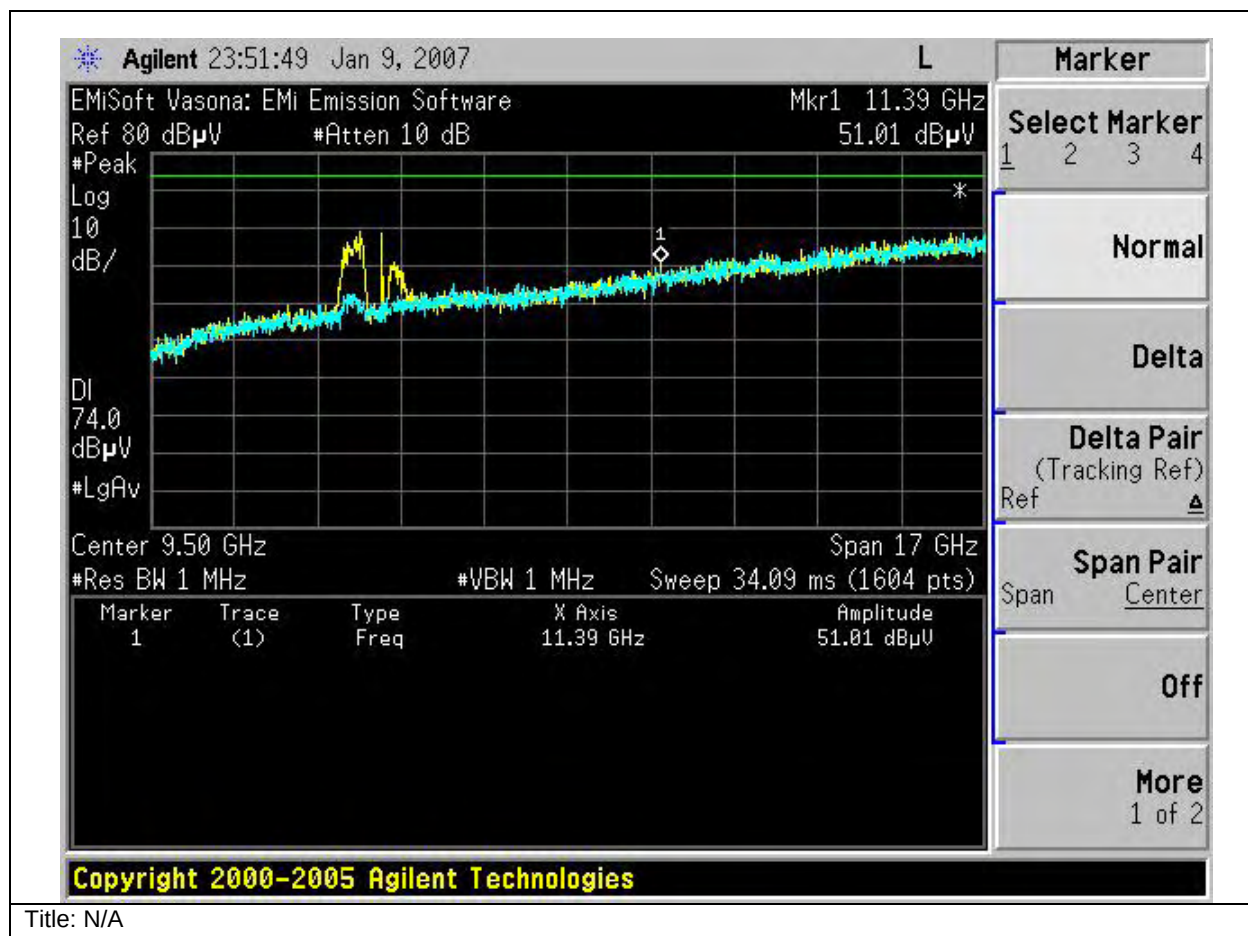
Subtest Number: 25010 - 26		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5680 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



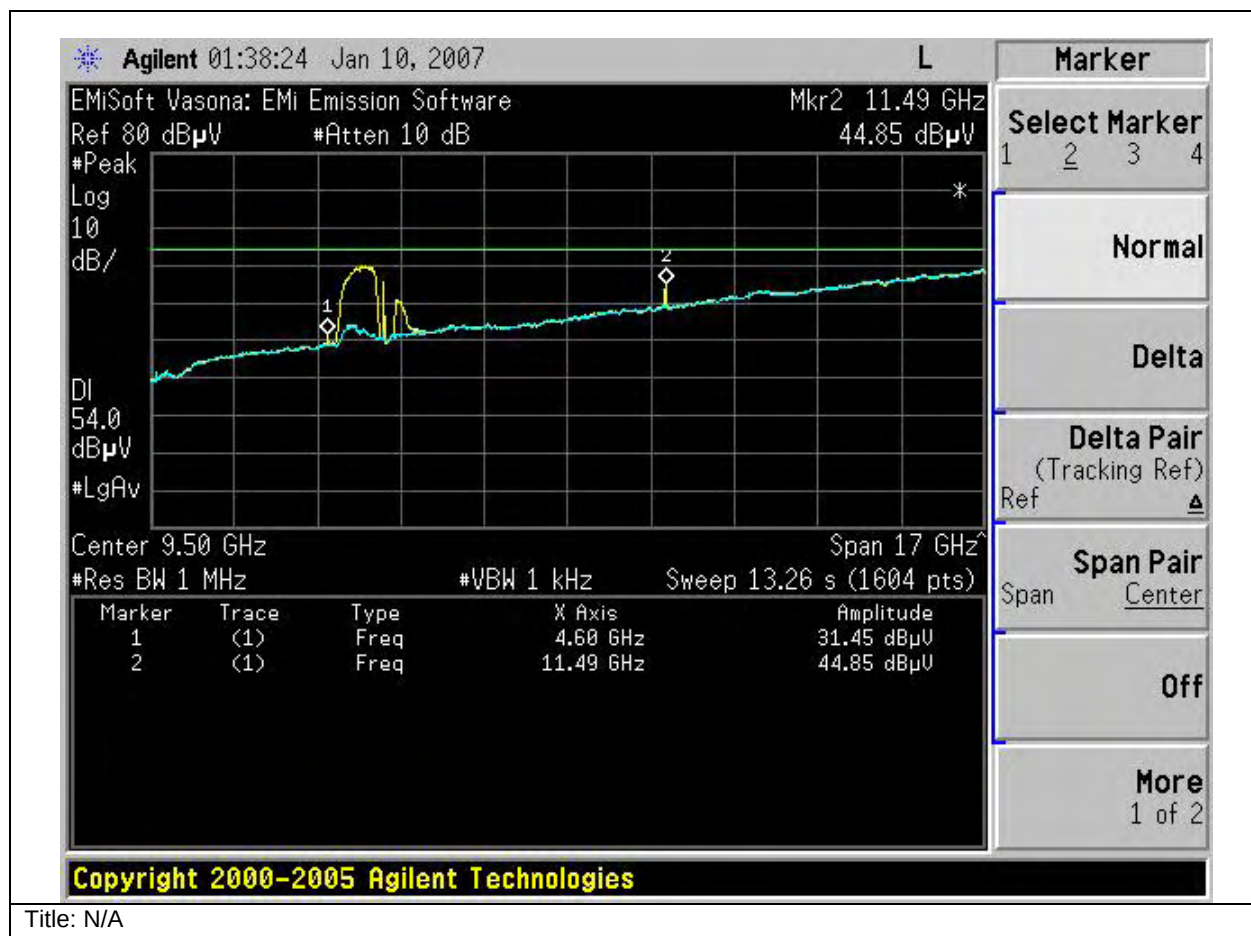
Subtest Number: 25010 - 27		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5700 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



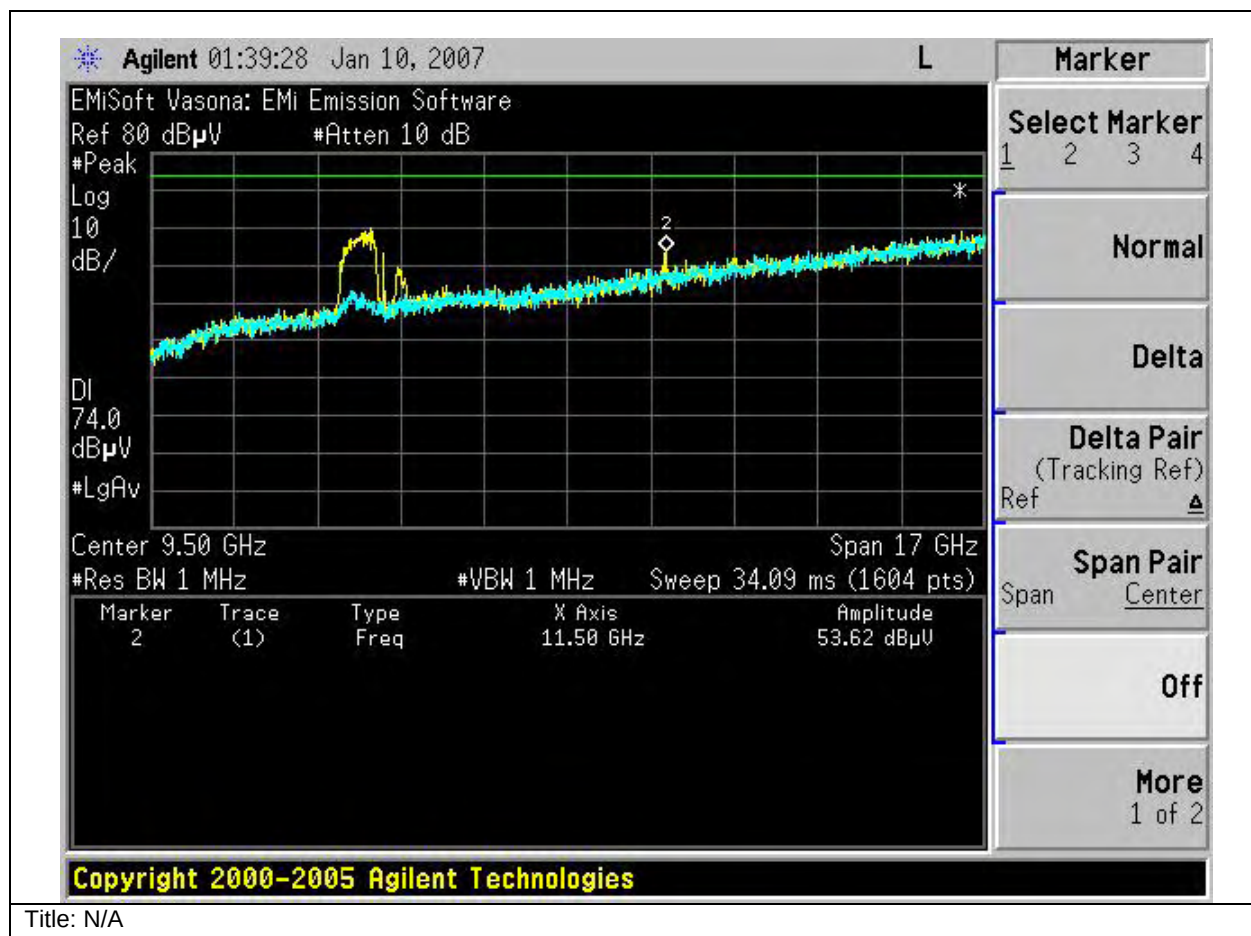
Subtest Number: 25010 - 28		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5700 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



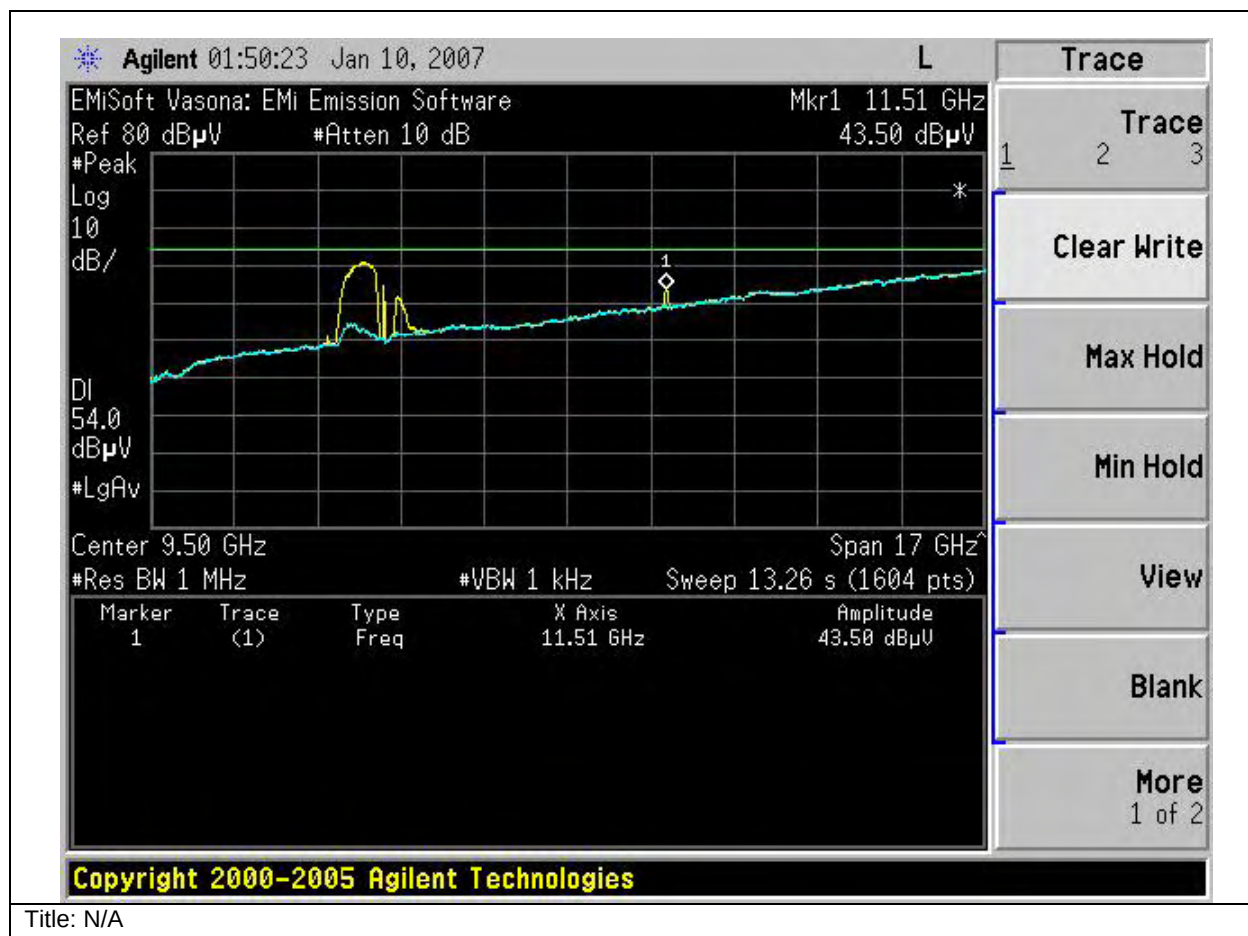
Subtest Number: 25010 - 29		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5745 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



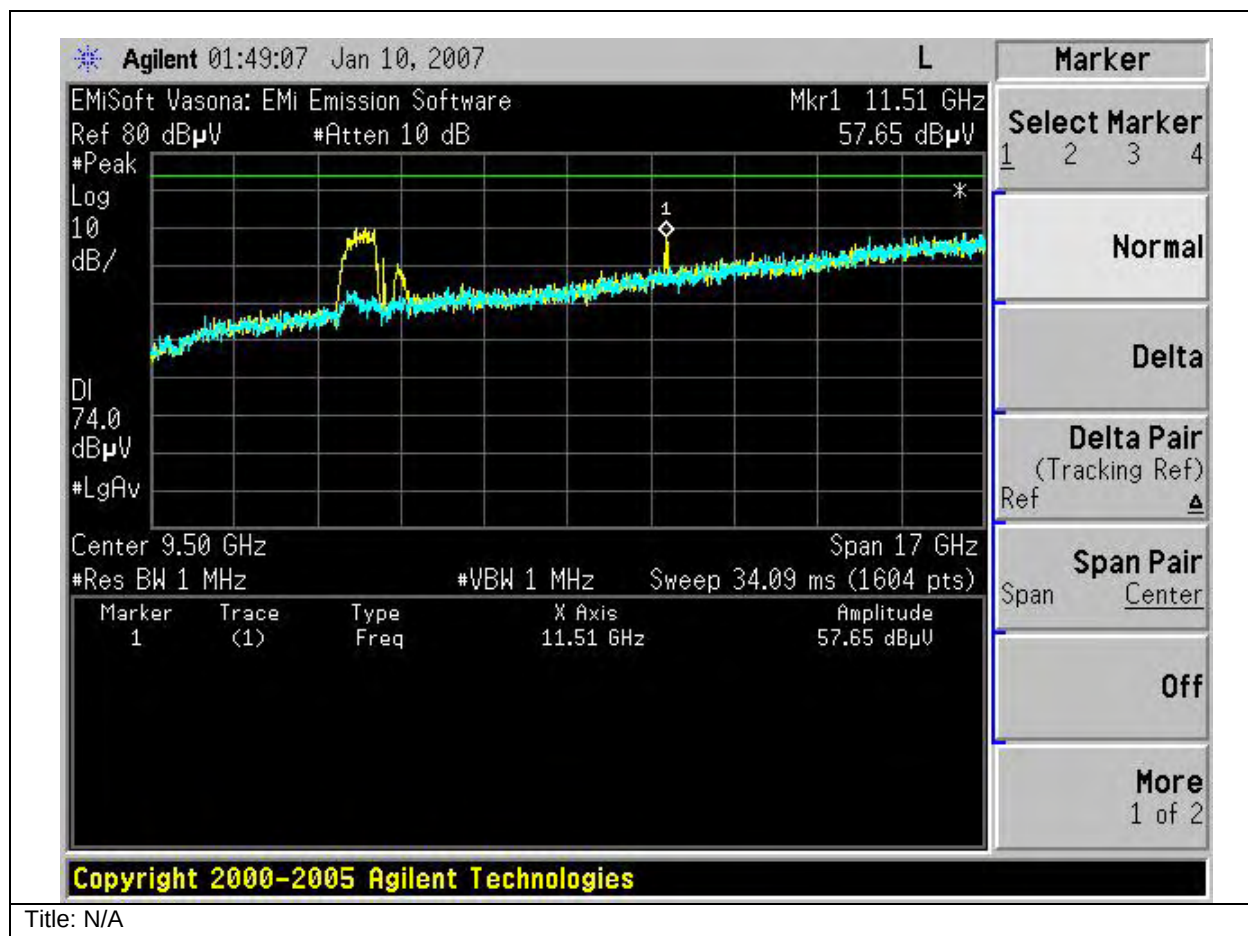
Subtest Number: 25010 - 30		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5745 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



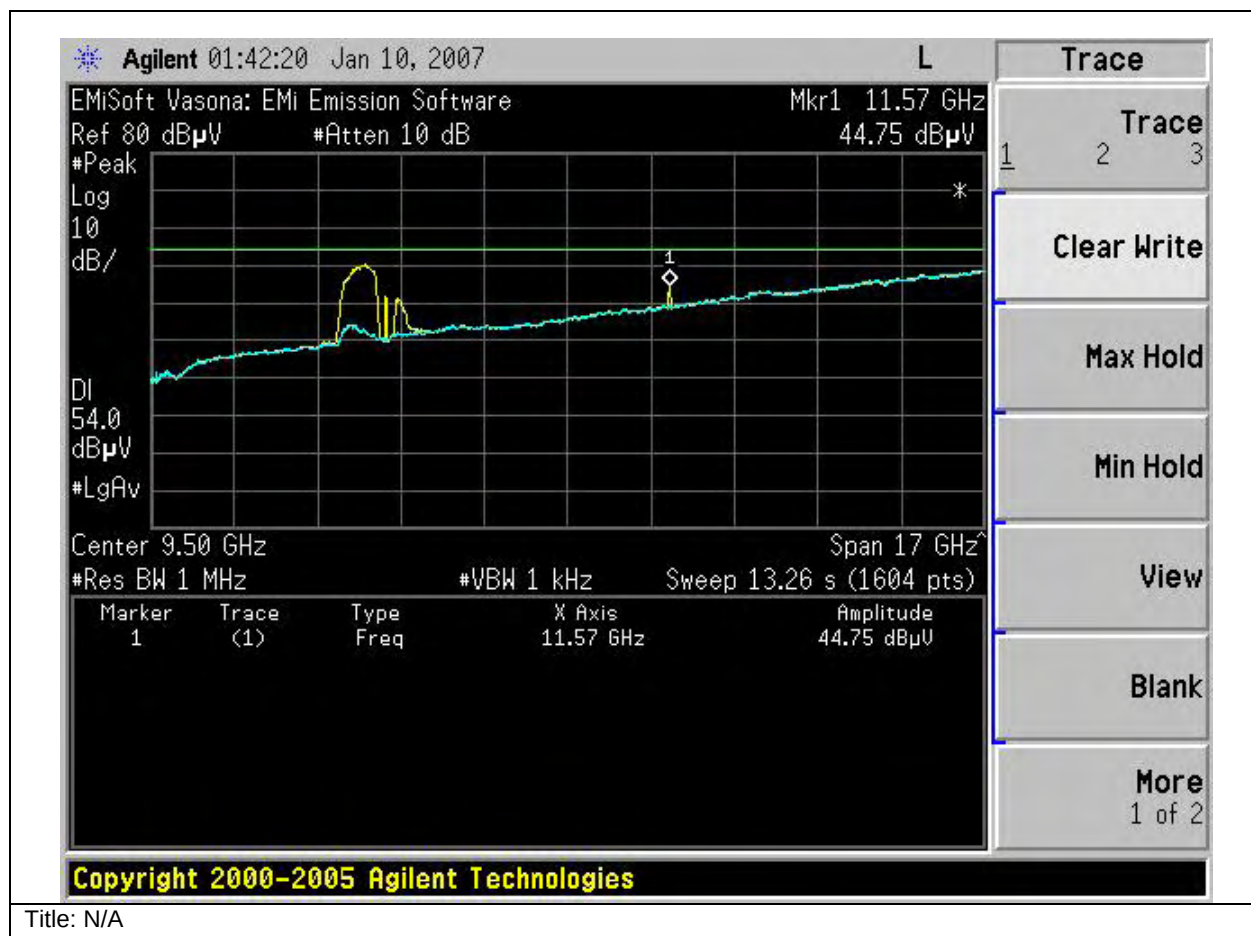
Subtest Number: 25010 - 31		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5745 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



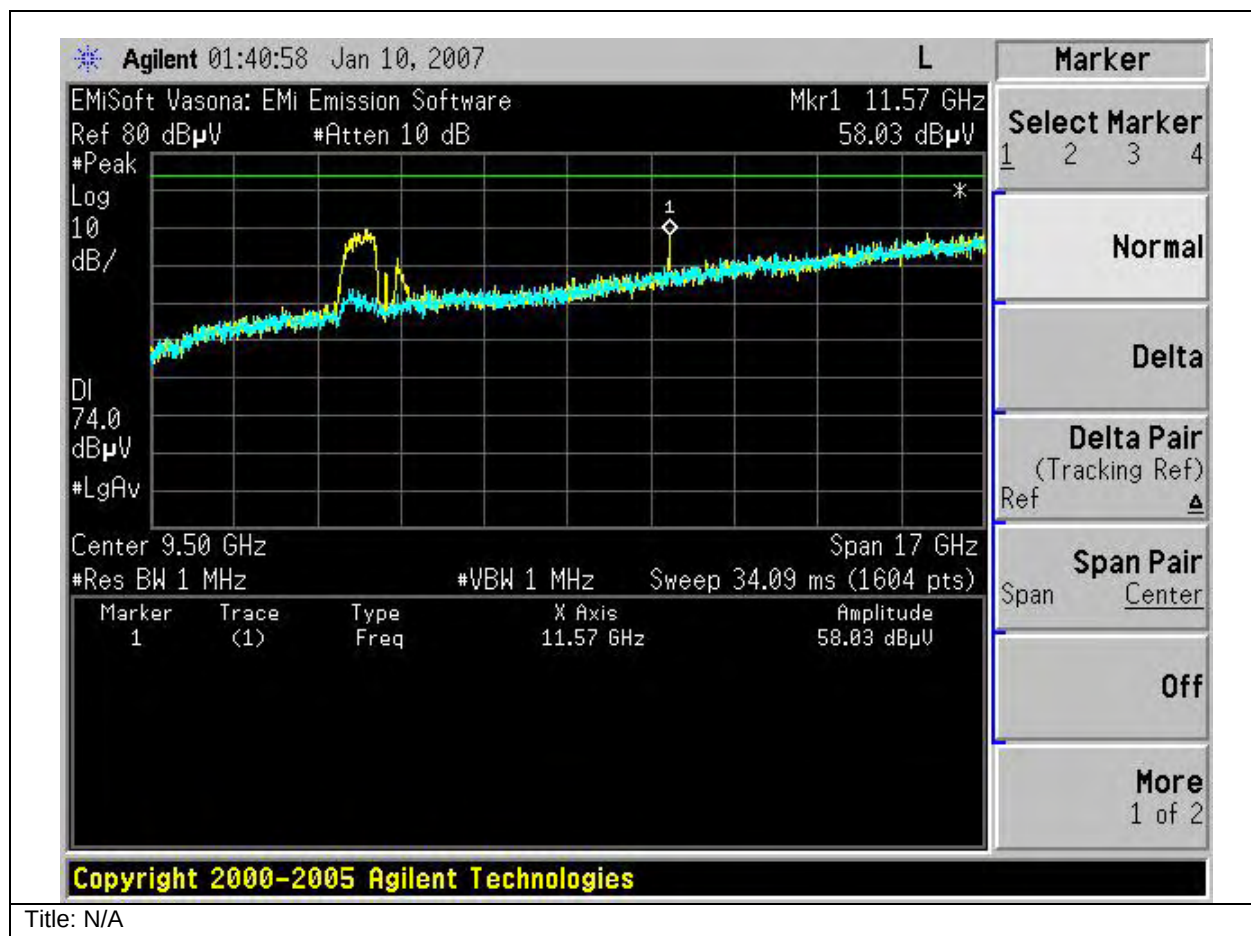
Subtest Number: 25010 - 32		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5745 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 35		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5785 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 36		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5785 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		

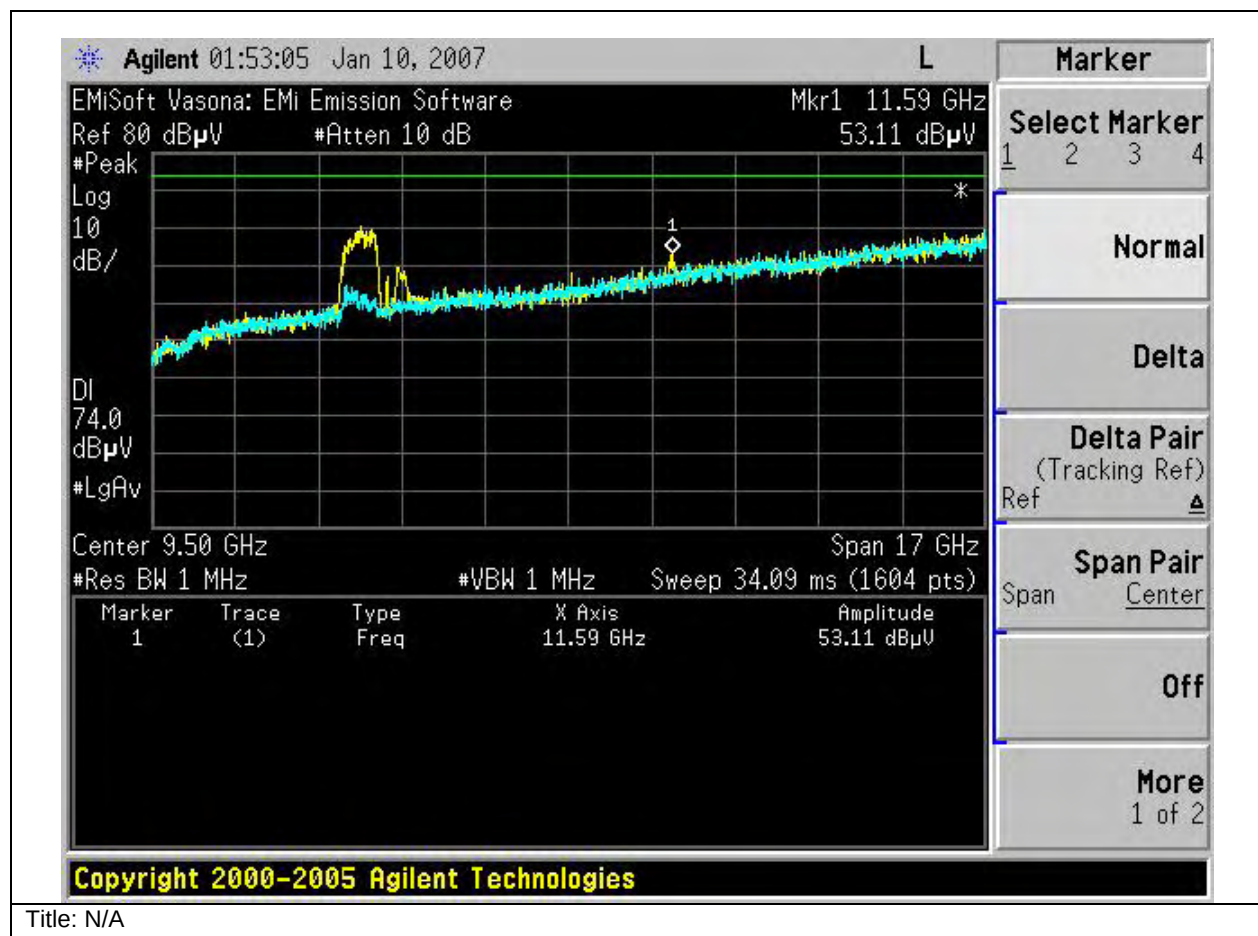


Subtest Number: 25010 - 33		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5785 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		





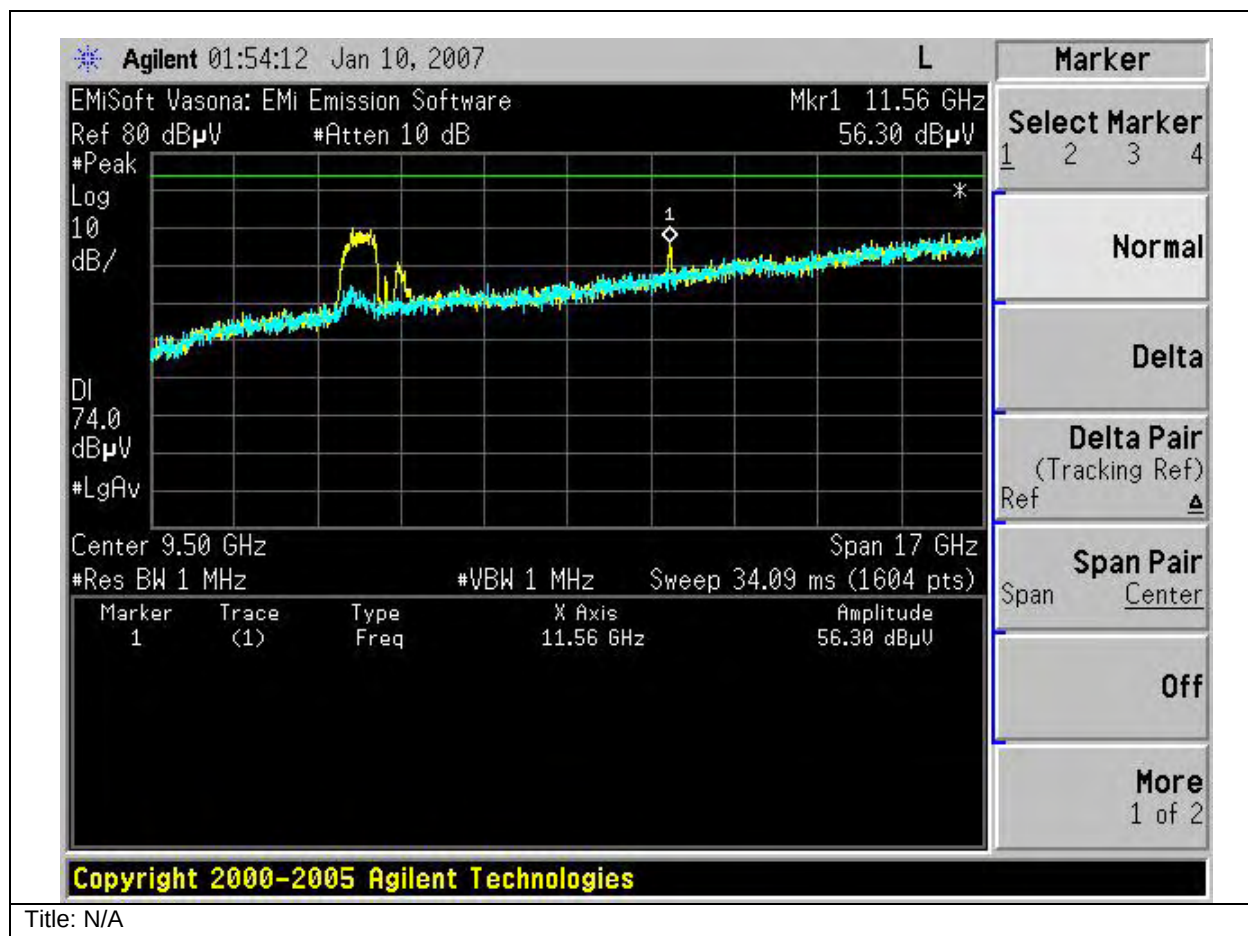
Subtest Number: 25010 - 34		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5785 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



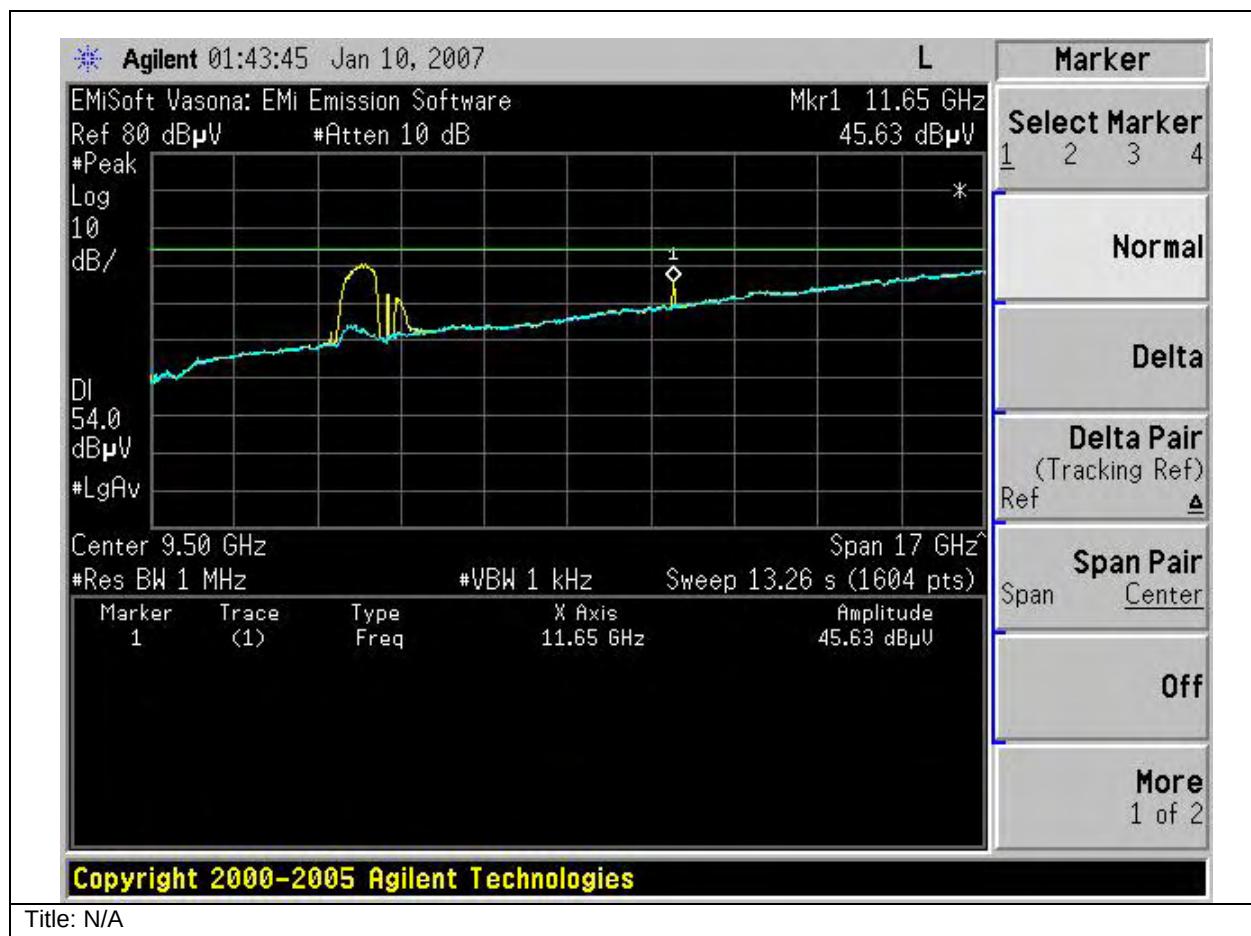
Subtest Number: 25010 - 37		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5805 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



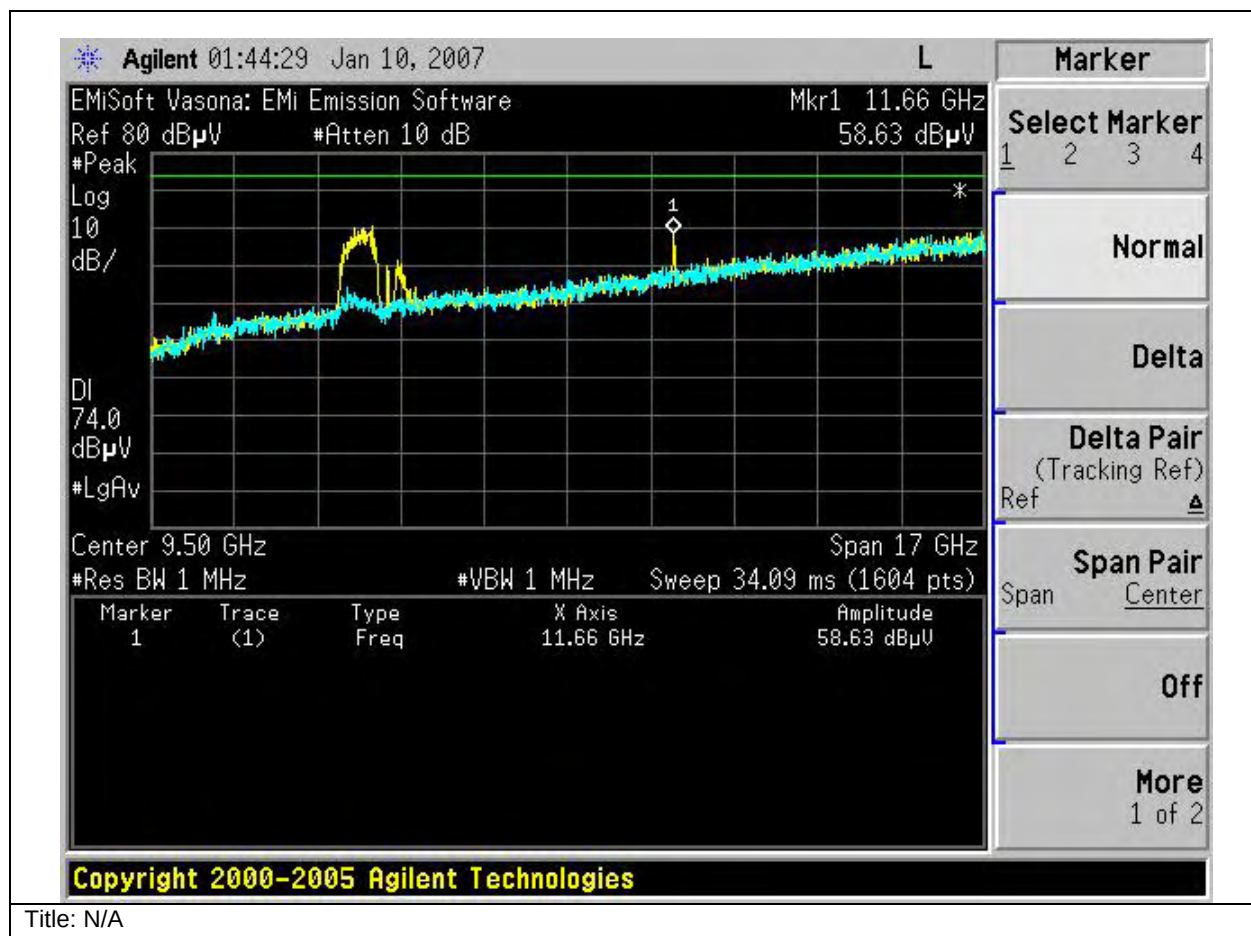
Subtest Number: 25010 - 38		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5805 MHz, 6 Mbps, 17 dBm, Duplicate 2x20 MHz_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



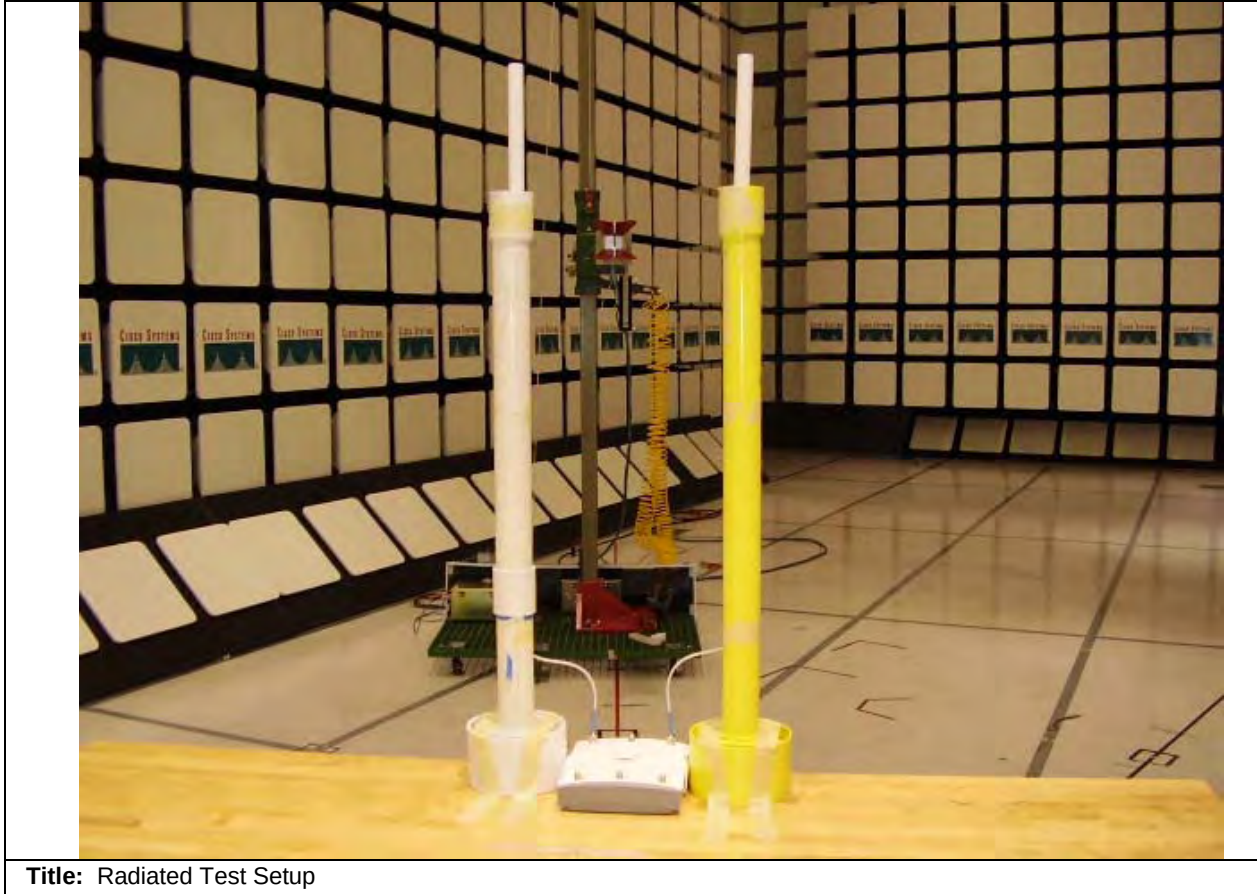
Subtest Number: 25010 - 39		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5825 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_AVERAGE		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Subtest Number: 25010 - 40		Subtest Date: 09-Jan-2007	
Engineer	James Nicholson		
Lab Information	Building P, 10m Anechoic		
Subtest Results			
Subtest Title	RADIATED SPURIOUS EMISSIONS, 5825 MHz, 54 Mbps, 17 dBm, Dual Transmit Paths with Beam Forming_PEAK		
Subtest Result	Pass		
Highest Frequency	18000.0		
Lowest Frequency	1000.0		
Comments on the above Test Results	No further comments		



Physical Test arrangement Photograph:



Title: Radiated Test Setup



Title: Radiated Test Setup

**Conducted emissions**

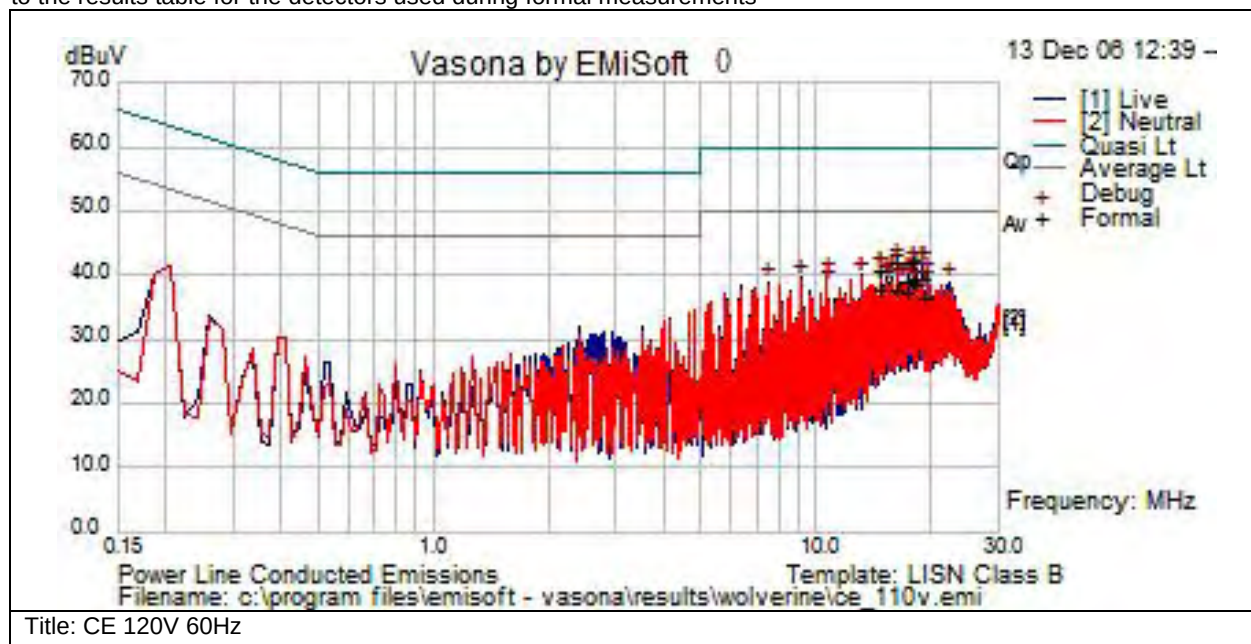
Test Number: 24621		Spec ID: 708		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
CFR47 Part 15: 2005 (CAN/CSA-CISPR 22-02)	AC Power Line	B	0.15- 30MHz	Test procedure must follow ANSI C63.4 and U.S line voltages must be used (e.g 110V 60Hz).
Operating Mode	Mode : 1, 2.4GHz & 5GHz			
Power Input	110, 60Hz (+/-20%)			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	EUT	S01, S02, S03, S04, S05, S06, S07 and S08	☒	☐
2	Support equipment	S09, S10 and S11	☐	☒

Subtest Number: 24621 - 1		Subtest Date: 13-Dec-2006
Engineer	David Wilson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Line Under Test	AC/DC Power Brick	
Transducer	LISN	
Subtest Result	Pass	
Highest Frequency	30.0	
Lowest Frequency	0.15	
Comments on the above Test Results	EUT powered from 120V/60Hz AC source	

Graphical Test Results

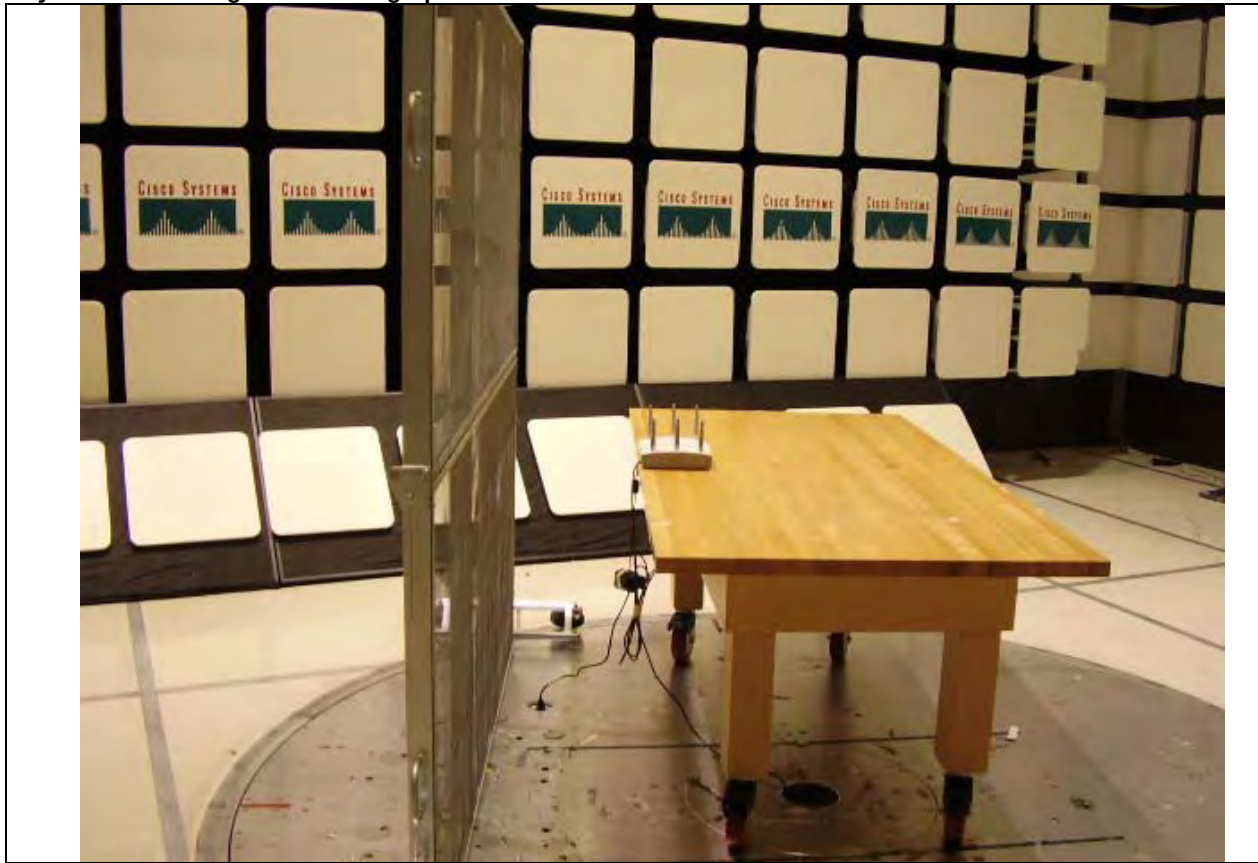
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measureme nt Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
17.935	15.9	20.5	0.3	36.8	Av	L	50	-13.2	Pass	
18.41	15.7	20.6	0.4	36.6	Av	N	50	-13.4	Pass	
16.328	15.1	20.5	0.2	35.8	Av	N	50	-14.2	Pass	
14.726	14.9	20.5	0.1	35.5	Av	L	50	-14.5	Pass	
17.452	14.4	20.5	0.3	35.2	Av	L	50	-14.8	Pass	
19.055	13.2	20.6	0.4	34.2	Av	L	50	-15.8	Pass	
16.328	19.4	20.5	0.2	40	Qp	N	60	-20	Pass	
17.935	18.9	20.5	0.3	39.8	Qp	L	60	-20.2	Pass	
14.726	18.1	20.5	0.1	38.7	Qp	L	60	-21.3	Pass	
18.41	16.5	20.6	0.4	37.4	Qp	N	60	-22.6	Pass	
19.055	16.2	20.6	0.4	37.2	Qp	L	60	-22.8	Pass	
17.452	16.2	20.5	0.3	37	Qp	L	60	-23	Pass	

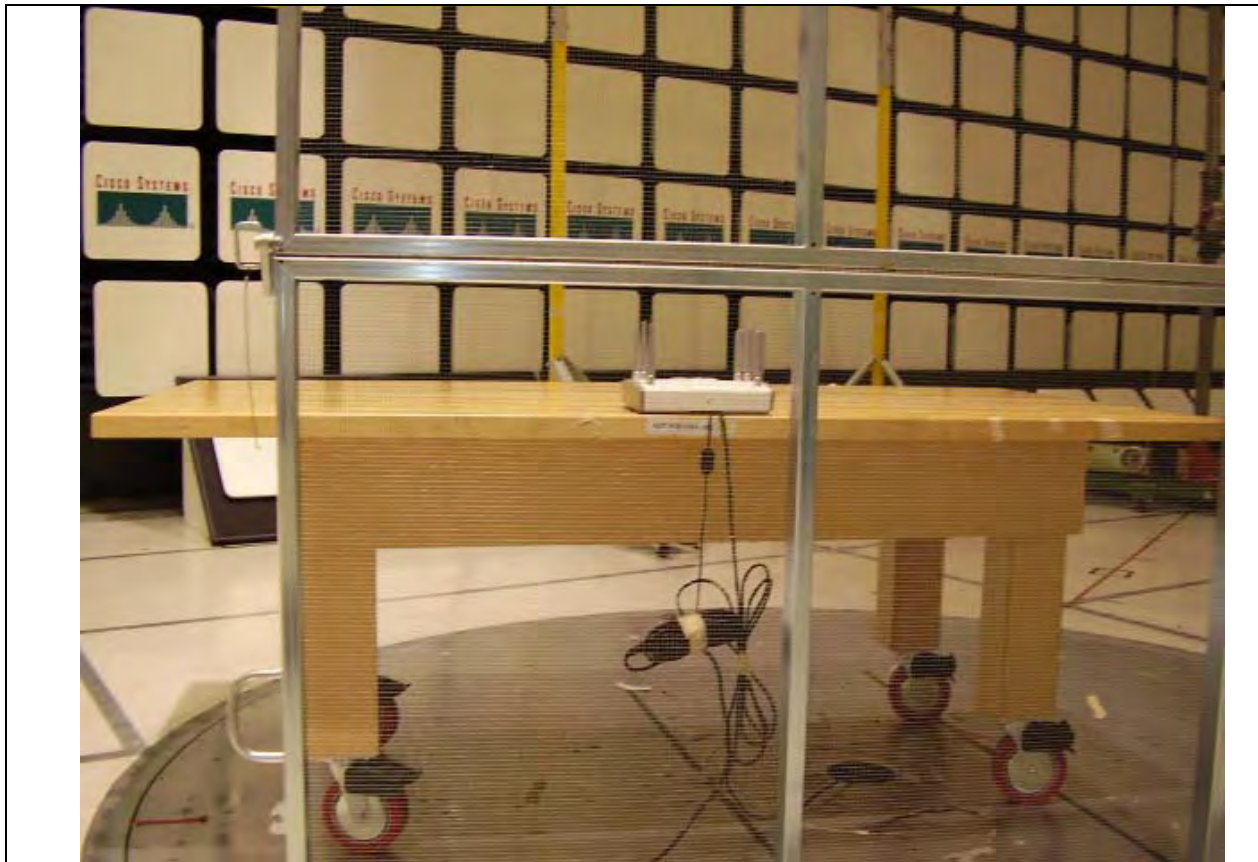
Physical Test arrangement Photograph:



Title: Conducted Power Line Emissions

Comments on the above Photograph:

Cable orientation



Title: Conducted Power Line Emissions

Comments on the above Photograph:

Showing VCP

**Radiated emissions**

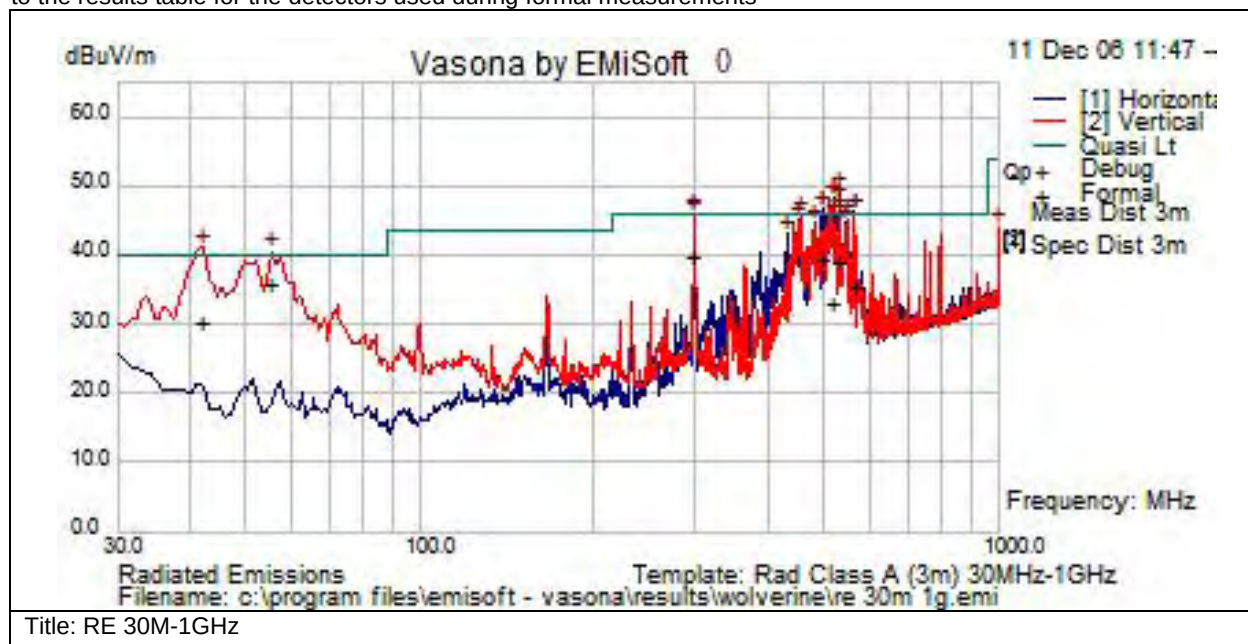
Test Number: 24538 Spec ID: 713				
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
CFR47 Part 15: 2005	Enclosure	B	30MHz- 1GHz	N/A
Operating Mode	Mode : 1, 2.4GHz & 5GHz			
Power Input	110, 60Hz (+/-20%)			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	EUT	S01, S02, S03, S04, S05, S06, S07 and S08	☒	☐
2	Support equipment	S09, S10 and S11	☐	☒

Subtest Number: 24538 - 1		Subtest Date: 11-Dec-2006
Engineer	David Wilson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	Radiated Emissions 30M-1GHz	
Subtest Result	Pass	
Highest Frequency	1000.0	
Lowest Frequency	30.0	
Comments on the above Test Results	No further comments	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
55.592	27.8	0.8	5.3	33.9	Qp	V	106	68	40	-6.1	Pass	
298.539	23.4	1.9	12.7	38	Qp	V	106	182	46	-8	Pass	
498.066	17.7	2.5	17.5	37.7	Qp	H	180	172	46	-8.3	Pass	
531.182	17	2.4	17.8	37.2	Qp	V	185	267	46	-8.8	Pass	
41.902	17.1	0.7	10.3	28.2	Qp	V	140	177	40	-11.8	Pass	
563.862	12.8	2.5	18.4	33.7	Qp	H	143	148	46	-12.3	Pass	
518.555	11.3	2.4	17.6	31.3	Qp	H	348	11	46	-14.7	Pass	

Physical Test arrangement Photograph:



Title: Radiated Emissions 30M-1GHz

Comments on the above Photograph:

EUT



Comments on the above Photograph:

Set-upRadiated emissions



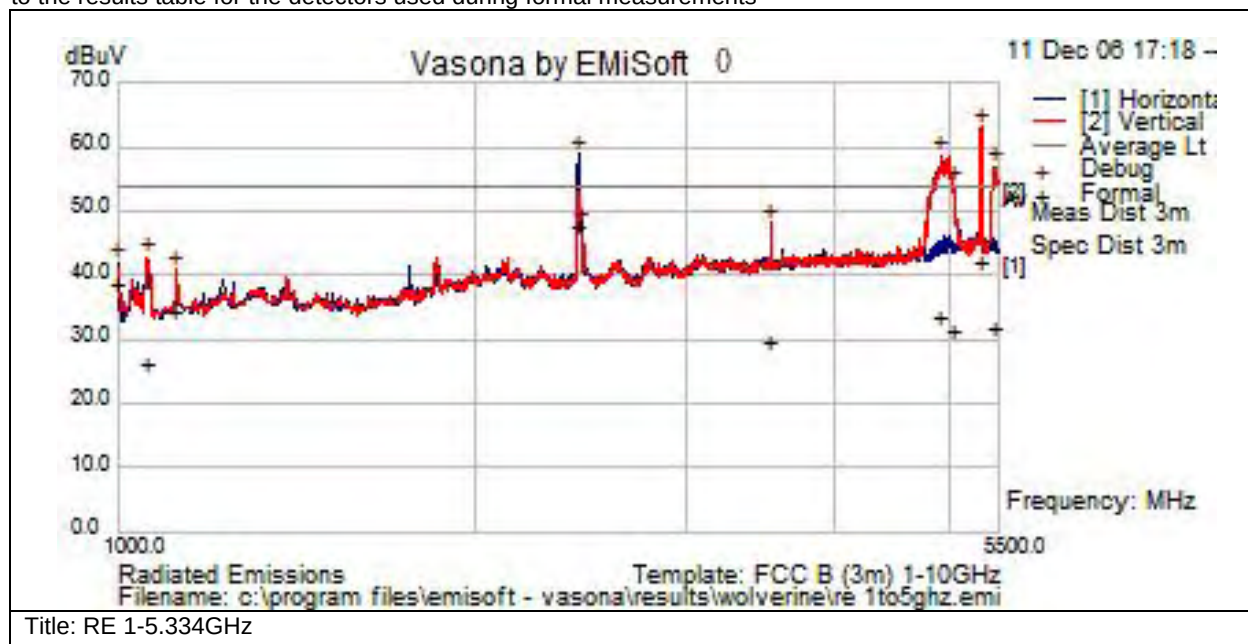
Test Number: 24558 Spec ID: 714				
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
CFR47 Part 15: 2005	Enclosure	B	1GHz-5.334GHz	N/A
Operating Mode	Mode : 1, 2.4GHz & 5GHz			
Power Input	110, 60Hz (+/-20%)			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	EUT	S01, S02, S03, S04, S05, S06, S07 and S08	☒	☐
2	Support equipment	S09, S10 and S11	☐	☒

Subtest Number: 24558 - 1		Subtest Date: 11-Dec-2006
Engineer	David Wilson	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	Radiated Emissions 1-5.334GHz	
Subtest Result	Pass	
Highest Frequency	5500.0	
Lowest Frequency	1000.0	
Comments on the above Test Results	No further comments	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV	Margin dB	Pass /Fail	Comments
2443.417	47.1	8.1	-9.5	45.7	Av	H	400	139	54	-8.3	Pass	Carrier
5321.469	35.5	11.4	-6.8	40.1	Av	V	128	338	54	-13.9	Pass	Carrier
1000	47.4	4	-14.8	36.6	Av	H	228	143	54	-17.4	Pass	
1119.971	42	4.3	-14.1	32.2	Av	V	146	130	54	-21.8	Pass	
4920.173	29.7	9	-7.5	31.2	Av	V	261	338	54	-22.8	Pass	Carrier sideba
5478.853	25.7	10.2	-6.3	29.6	Av	V	118	286	54	-24.4	Pass	Carrier sideba
5053.246	25.3	11.2	-7.2	29.3	Av	V	98	167	54	-24.7	Pass	
3546.414	27.7	7.5	-7.8	27.3	Av	V	336	51	54	-26.7	Pass	
1058.874	34.3	4.2	-14.5	24	Av	V	190	153	54	-30	Pass	

Physical Test arrangement Photograph:



Title: Radiated Emissions 1-5.334GHz

Comments on the above Photograph:

No further comments

Appendix C: Abbreviation Key and Definitions

The following table defines abbreviations used within this test report.

Abbreviation	Description	Abbreviation	Description
EMC	Electro Magnetic Compatibility	°F	Degrees Fahrenheit
EMI	Electro Magnetic Interference	°C	Degrees Celsius
EUT	Equipment Under Test	Temp	Temperature
ITE	Information Technology Equipment	S/N	Serial Number
TAP	Test Assessment Schedule	Qty	Quantity
ESD	Electro Static Discharge	emf	Electromotive force
EFT	Electric Fast Transient	RMS	Root mean square
EDCS	Engineering Document Control System	Qp	Quasi Peak
Config	Configuration	Av	Average
CIS#	Cisco Number (unique identification number for Cisco test equipment)	Pk	Peak
Cal	Calibration	kHz	Kilohertz (1×10^3)
EN	European Norm	MHz	Megahertz (1×10^6)
IEC	International Electro technical Commission	GHz	Gigahertz (1×10^9)
CISPR	International Special Committee on Radio Interference	H	Horizontal
CDN	Coupling/Decoupling Network	V	Vertical
LISN	Line Impedance Stabilization Network	dB	decibel
PE	Protective Earth	V	Volt
GND	Ground	kV	Kilovolt (1×10^3)
L1	Line 1	μ V	Microvolt (1×10^{-6})
L2	Line2	A	Amp
L3	Line 3	μ A	Micro Amp (1×10^{-6})
DC	Direct Current	mS	Milli Second (1×10^{-3})
RAW	Uncorrected measurement value, as indicated by the measuring device	μ S	Micro Second (1×10^{-6})
RF	Radio Frequency	μ S	Micro Second (1×10^{-6})
SLCE	Signal Line Conducted Emissions	m	Meter
Meas dist	Measurement distance	Spec dist	Specification distance
N/A or NA	Not Applicable	SL	Signal Line (or Telecom Line)
P	Power Line	L	Live Line
N	Neutral Line	R	Return
S	Supply	AC	Alternating Current

**Appendix D: Test Equipment/Software Used to perform the test**

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due	Test Number(s)
5568	HP/	PreAmplifier (1-26.5GHz)	8-Sep-06	8-Sep-07	[25010]
	8449B				
5691	Miteq/	Broadband Preamplifier (1-18GHz)	9-Oct-06	9-Oct-07	[25010]
	NSP1800-25-S1				
21117	Micro-Coax/	RF Coaxial Cable, to 18GHz, 248.4 in	19-Aug-06	19-Aug-07	[25010]
	UFB311A-0-2484-520520				
25657	Micro-Coax/	RF Coaxial Cable, to 18GHz, 84 in	19-Aug-06	19-Aug-07	[25010]
	UFB311A-1-0840-504504				
30495	Agilent/	SPDT RF Switch, to 18GHz	7-Apr-06	7-Apr-07	[25010]
	8761B				
30564	Micro-Coax/	RF Coaxial Cable, to 18GHz, 95 in	19-Aug-06	19-Aug-07	[25010]
	UFB311A-1-0950-504504				
32801	ETS-Lindgren/	Double Ridged Waveguide Horn Antenna	28-Jul-06	28-Jul-07	[25010]
	3117				
34974	Midwest Microwave/	Attenuator, 20dB, DC-40GHz	9-May-06	9-May-07	[24973], [25010]
	ATT-0640-20-29M-02				
35038	Micro-Tronics/	Notch Filter, SB:5.150-5.350GHz, to 11GHz	17-Jul-06	17-Jul-07	[25010]
	BRC50703-02				
35098	Micro-Coax/	RF Coaxial Cable, to 40 GHz, 18 in	26-Apr-06	26-Apr-07	[24973], [25010]
	UFA147A-0-0180-110200				
35285	ETS-Lindgren/	Double Ridged Waveguide Horn Antenna	25-May-06	25-May-07	[25010]
	3117				
35605	Micro-Tronics/	Notch Filter, SB:5.470-5.725GHz, to 12GHz	17-Jul-06	17-Jul-07	[25010]
	BRC50704-02				
37576	Micro-Coax/	RF Coaxial Cable, to 18GHz, 320 in	15-May-06	15-May-07	[25010]
	UFB293C-Q-3200-50U50U				
3325	HP/	EMI Receiver RF Section	30-Oct-06	30-Oct-07	[24538], [24621]
	85462A				
5558	Fischer Custom Communications/	Coupling/Decoupling Network	28-Mar-06	28-Mar-07	[24621]
	FCC-801-M2-32A				
5704	Fischer Custom Communications/	LISN	16-Mar-06	16-Mar-07	[24621]
	FCC-LISN-50-50				
6324	Lufft/	Thermo-Hydrometer	16-Oct-06	16-Oct-07	[24538], [24558], [24621]
	5063-33W				
7591	Agilent/	RF Filter Section	30-Oct-06	30-Oct-07	[24538], [24621]
	85460A				
8195	TTE/	Hi Pass Filter - 150KHz cutoff	4-Jan-06	4-Jan-07	[24621]



	H613-150K-50-21378				
8320	Times Microwave Systems/ RG-214	3 ft RG-214 Cable	16-Nov-06	16-Nov-07	[24538]
8366	Coleman/ RG-223	1.5 ft RG-223 Cable	7-Nov-06	7-Nov-07	[24621]
8375	Andrew/ F4A-PNMNM	49 ft Heliac Cable	16-Mar-06	16-Mar-07	[24621]
8588	Fischer Custom Communications/ FCC-RFM2F-520R	LISN AC Adaptor - Std 120V outlet	16-Mar-06	16-Mar-07	[24621]
18713	Fischer Custom Communications/ F-203I-DCN-32mm	Ferrite Decoupler	Cal Not Required	N/A	[24538], [24558]
18963	York/ CNE V	Comparison Noise Emitter, 30 - 1000MHz	22-May-06	22-May-07	[24621]
20767	Fischer Custom Communications/ FCC-450B-2.4-N	Instrumentation Limiter	10-Jul-06	10-Jul-07	[24621]
20975	Micro-Coax/ UFB311A-0-1344-520520	RF Coaxial Cable, to 18GHz, 134.4 in	16-Mar-06	16-Mar-07	[24538]
21116	Micro-Coax/ UFB311A-0-3540-520520	RF Coaxial Cable, to 18GHz, 354 in	16-Mar-06	16-Mar-07	[24538]
27233	York/ CNE V	Comparison Noise Emitter	22-May-06	22-May-07	[24538], [24558]
30442	Micro-Coax/ UFB311A-0-4800-520520	RF Coaxial Cable, to 18GHz, 480 in.	16-Mar-06	16-Mar-07	[24558]
30565	Micro-Coax/ UFB311A-1-3510-504504	Rf Coaxial Cable to 18GHz, 351 in	17-Mar-06	17-Mar-07	[24558]
30652	Sunol Sciences/ JB1	Combination Antenna, 30MHz-2GHz	6-Jul-06	6-Jul-07	[24538]
32455	Midwest Microwave/ CSY-MNMN-82-273001	RF Coaxial Cable to 18 GHz	11-Sep-06	11-Mar-07	[24621]
32544	ETS-Lindgren/ 3117	Double Ridged Waveguide Horn Antenna	5-Jul-06	5-Jul-07	[24558]
32671	Cisco/ TH0118	Mast Mount Preamplifier Array, 1-18GHz	21-Jun-06	21-Jun-07	[24558]
32840	Fluke/ 112	Digital Multimeter	16-Jun-06	16-Jun-07	[24621]
34188	Micro-Tronics/ BRC50703-02	Notch Filter, SB:5.150-5.350GHz, to 11GHz	17-Jul-06	17-Jul-07	[24558]
34304	Micro-Tronics/ BRM50702-02	Notch Filter, SB:2.4-2.5GHz, to 18GHz	17-Jul-06	17-Jul-07	[24558]



35097	Micro-Coax/	RF Coaxial Cable, to 40 GHz, 18 in	6-Mar-06	6-Mar-07	[24558]
	UFA147A-0-0180-110200				
35248	Stanley/	Tape Measure	9-May-06	9-May-07	[24621]
	33-696				
37241	Micro-Coax/	RF Coaxial Cable, to 18 GHz, 320 in	11-Sep-06	11-Mar-07	[24538]
	UFB293C-Q-3200-50U50U				
37533	Agilent/	Precision Spectrum Analyzer	24-Feb-06	24-Feb-07	[24538], [24558], [24621]
	E4440A				
513	Gigatronics/	Universal Power Meter	20-Dec-06	20-Dec-07	[25232], [25234], [25251], [25253], [25260], [25267]
	8542C				
514	Gigatronics/	Power Sensor, 0.01-18GHz	19-Dec-06	19-Dec-07	[25232], [25234], [25251], [25253], [25260], [25267]
	80420A				
590	Agilent/	Spectrum Analyzer	2-Feb-05	2-Feb-07	[25232], [25234], [25251], [25253], [25260], [25267]
	E4448A				