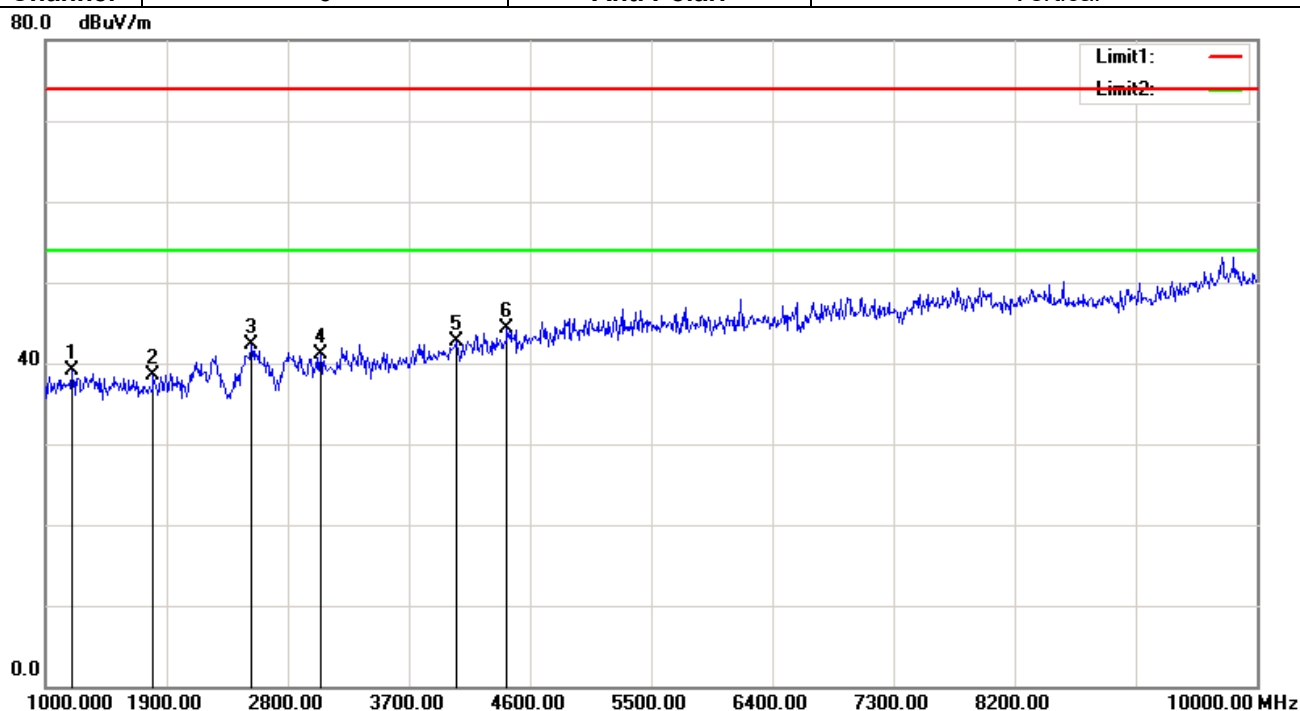
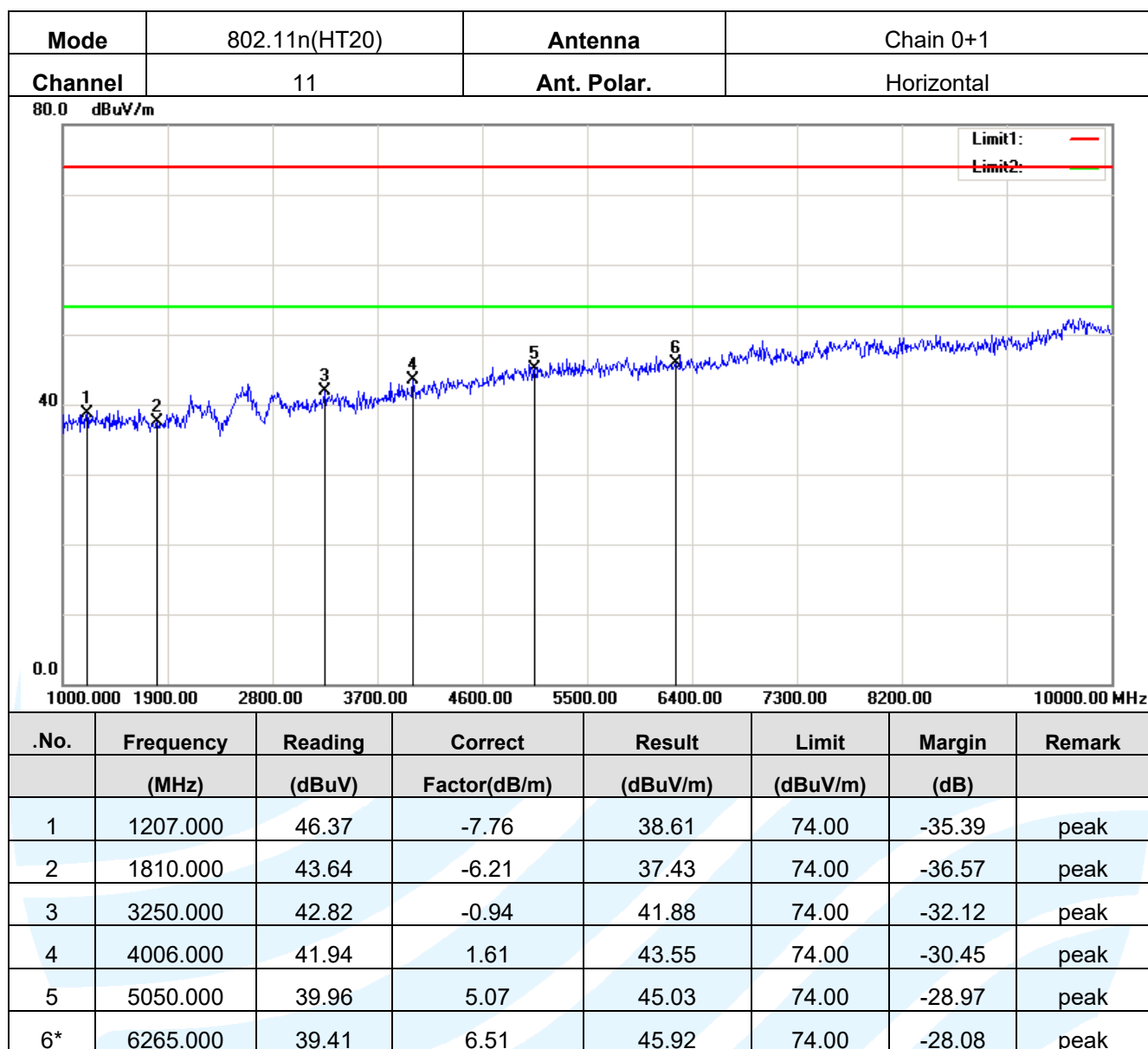
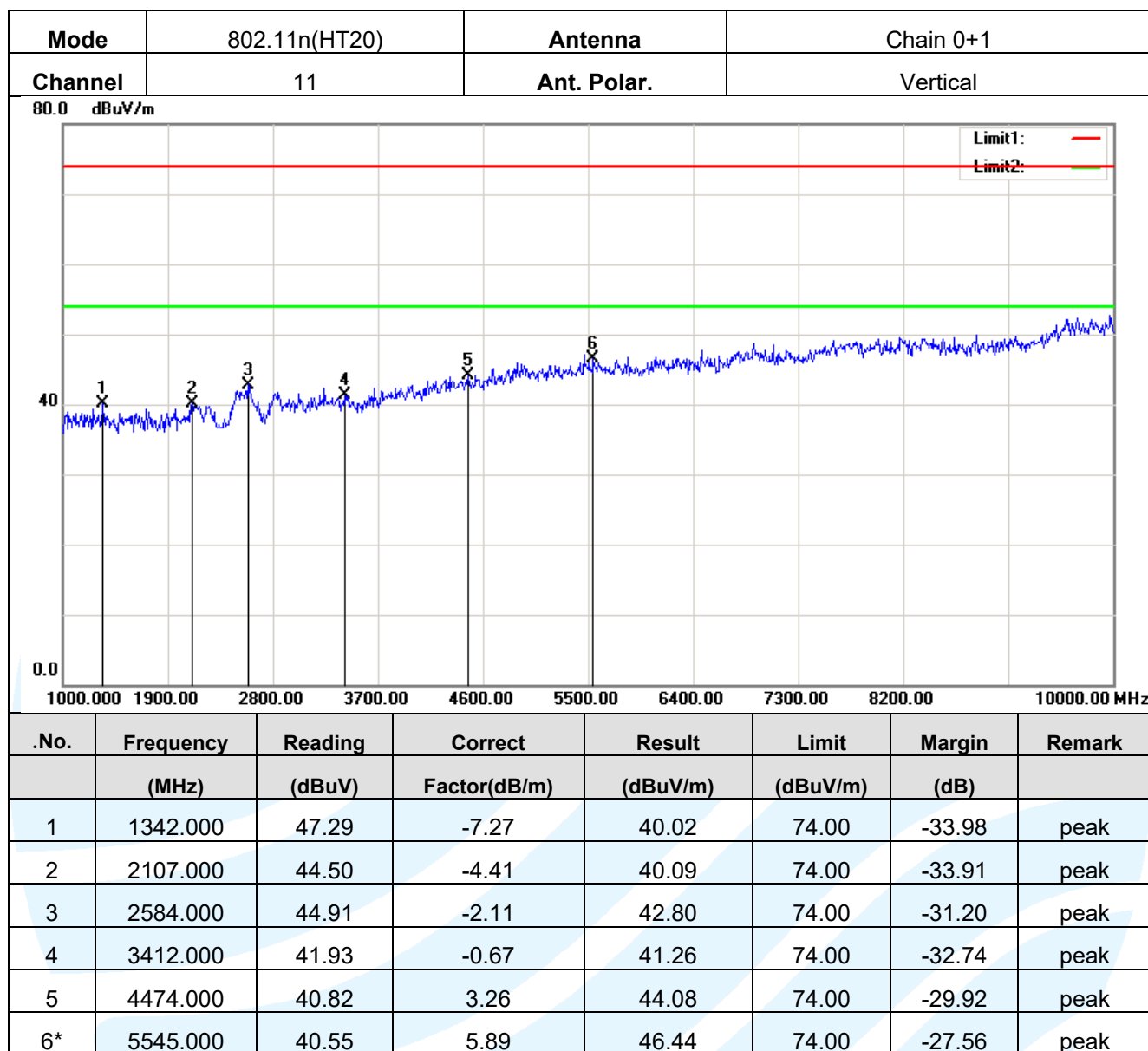


Mode	802.11n(HT20)	Antenna	Chain 0+1
Channel	6	Ant. Polar.	Vertical



.No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1198.000	46.83	-7.80	39.03	74.00	-34.97	peak
2	1801.000	44.73	-6.26	38.47	74.00	-35.53	peak
3	2530.000	44.58	-2.21	42.37	74.00	-31.63	peak
4	3043.000	42.43	-1.29	41.14	74.00	-32.86	peak
5	4051.000	40.93	1.77	42.70	74.00	-31.30	peak
6*	4429.000	41.14	3.10	44.24	74.00	-29.76	peak





Note:

- 1) Through Pre-scan transmitting mode with all kind of modulation and data rate, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; MCS 3 of rate is the worst case of 802.11n(HT20), and then Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} - \text{Correct Factor}$$

$$\text{Correct Factor} = \text{Preamplifier Factor} - \text{Antenna Factor} - \text{Cable Factor}$$
- 3) Scan from 9kHz to 25GHz, the disturbance above 10GHz and below 30MHz was very low, the amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4) Since peak data above 1GHz are lower the average limit, so the average data are pass, no need for testing.

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5.7 Band Edge Measurements (Radiated)

Test Requirement:

47 CFR Part 15 Subpart C Section 15.205/15.209

Test Method:

KDB 558074 D01 v03r05 Section 12.1

Limit:

Frequency	Limit (dBμV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

Test Procedure:

Radiated band edge measurements at 2390MHz and 2483MHz were made with the unit transmitting in the low end of the channel range and the high end closest to the restricted bands respectively. The emissions were made on the 966 Semi-Chamber. Use (resolution bandwidth (RBW) = 1 MHz, video bandwidth (VBW) = 3 MHz for peak levels and RBW = 1 MHz and VBW = 10 Hz or 1/T for average levels).

1. Use radiated spurious emission test procedure described in 5.6 clause. The transmitter output (antenna port) was connected to the test receiver.
2. Set the PK and AV limit line.
3. Record the fundamental emission and emissions out of the band-edge.
4. Determine band-edge compliance as required.

Test Setup:

Refer to section 4.1.2 for details.

Instruments Used:

Refer to section 3 for details

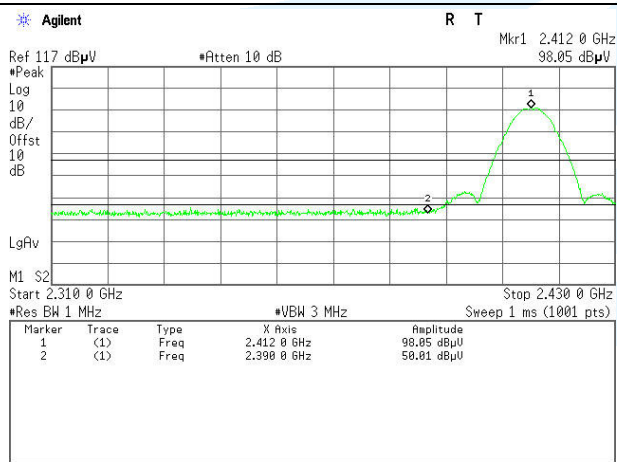
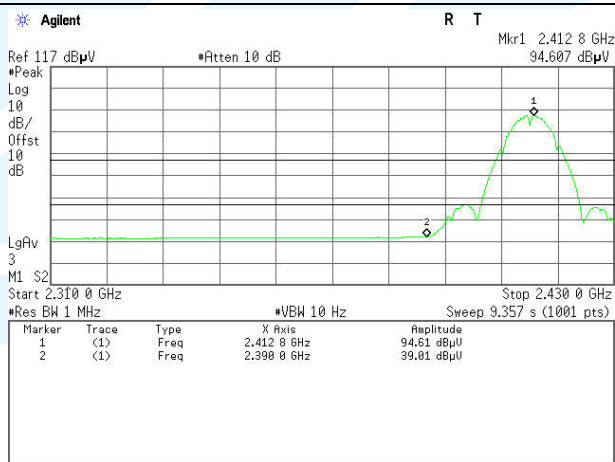
Test Mode:

Transmitter mode

Test Results:

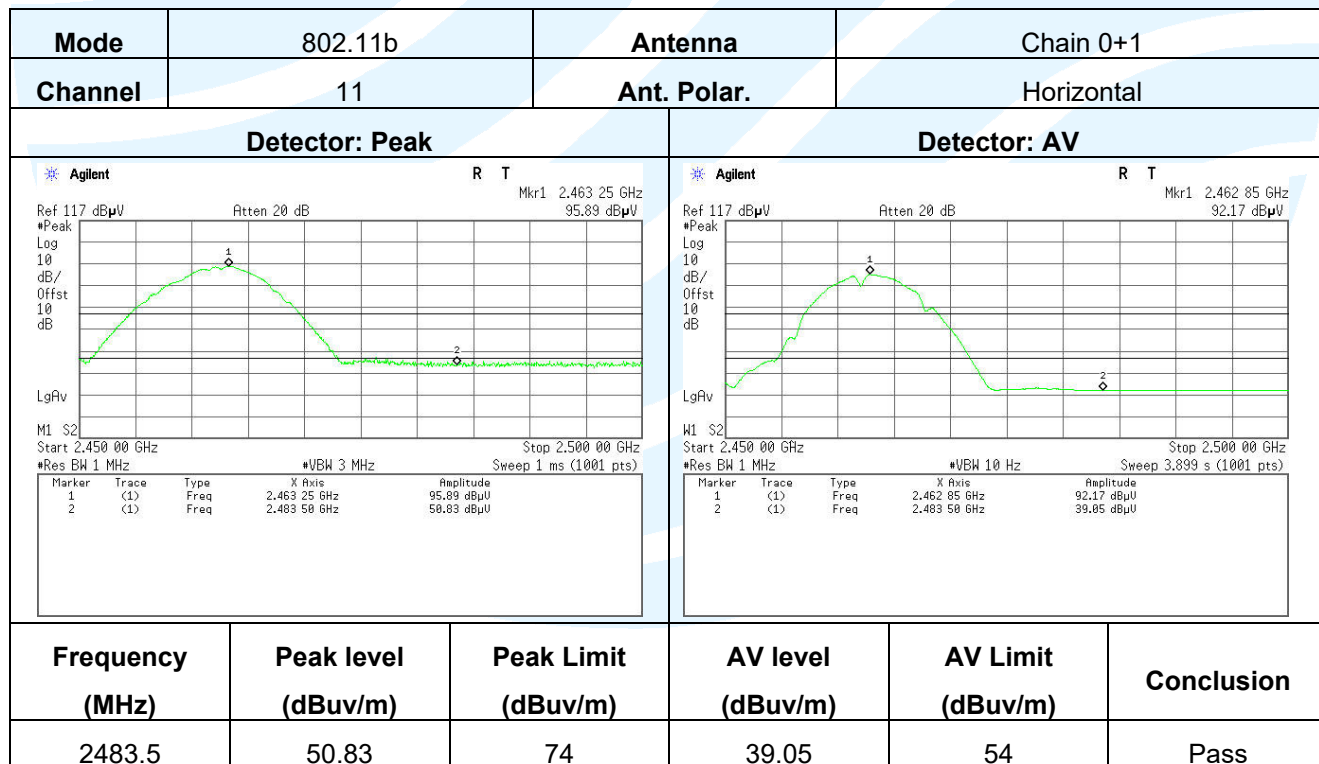
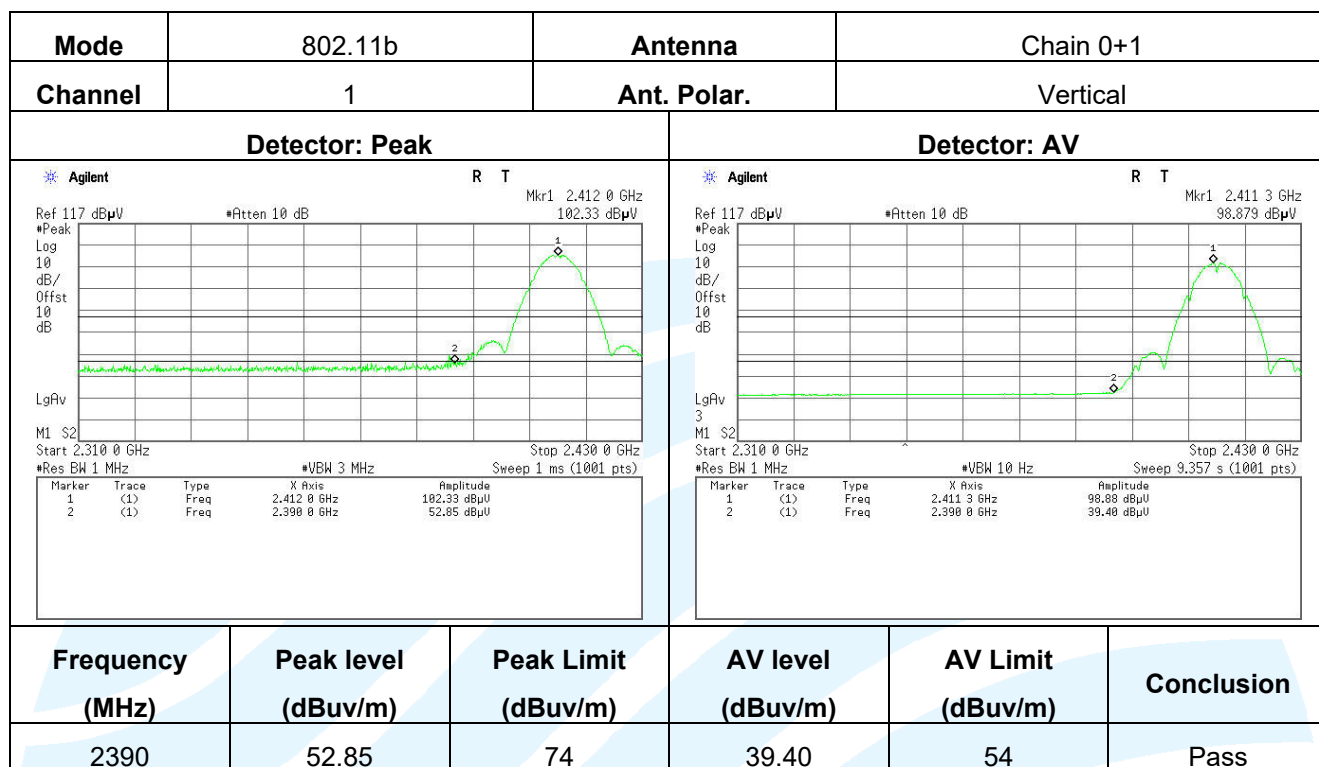
Pass

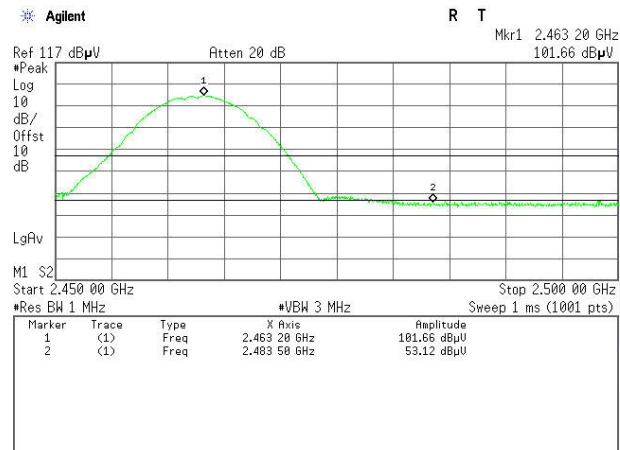
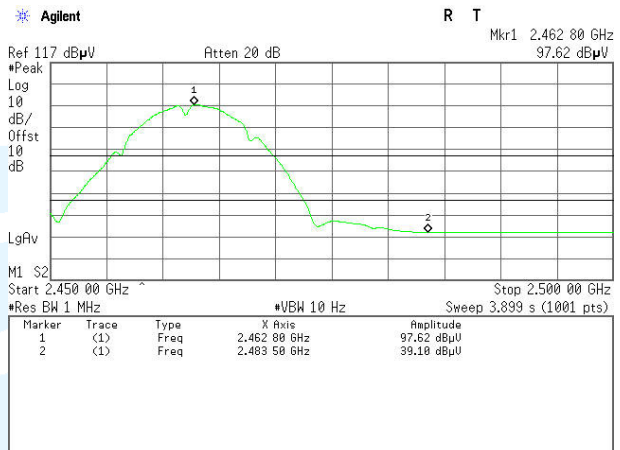
Test Data:

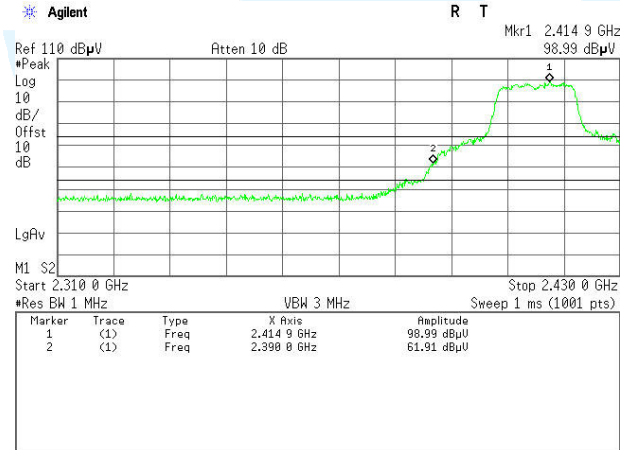
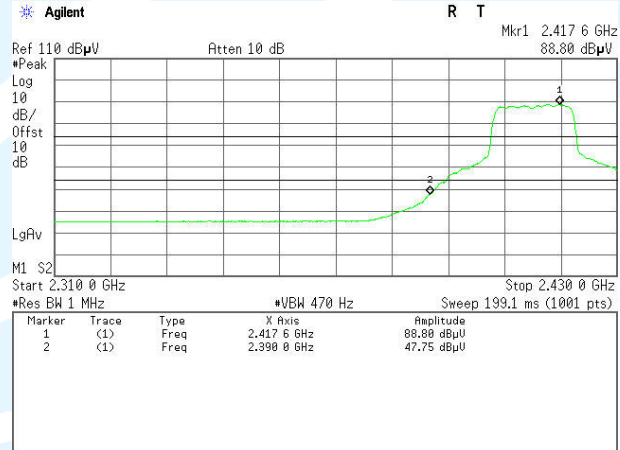
Mode	802.11b	Antenna	Chain 0+1																														
Channel	1	Ant. Polar.	Horizontal																														
Detector: Peak		Detector: AV																															
 Agilent R T Mkr1 2.412 0 GHz 98.05 dBμV Ref 117 dBμV *Atten 10 dB Log 10 dB/Offst 10 dB LgAv M1 S2 Start 2.310 0 GHz Stop 2.430 0 GHz *Res BW 1 MHz *VBW 3 MHz Sweep 1 ms (1001 pts) <table><tr><th>Marker</th><th>Trace</th><th>Type</th><th>X Axis</th><th>Amplitude</th></tr><tr><td>1</td><td>(1)</td><td>Freq</td><td>2.412 0 GHz</td><td>98.05 dBμV</td></tr><tr><td>2</td><td>(1)</td><td>Freq</td><td>2.390 0 GHz</td><td>50.01 dBμV</td></tr></table>		Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.412 0 GHz	98.05 dBμV	2	(1)	Freq	2.390 0 GHz	50.01 dBμV	 Agilent R T Mkr1 2.412 8 GHz 94.607 dBμV Ref 117 dBμV *Atten 10 dB Log 10 dB/Offst 10 dB LgAv 3 M1 S2 Start 2.310 0 GHz Stop 2.430 0 GHz *Res BW 1 MHz *VBW 10 Hz Sweep 9.357 s (1001 pts) <table><tr><th>Marker</th><th>Trace</th><th>Type</th><th>X Axis</th><th>Amplitude</th></tr><tr><td>1</td><td>(1)</td><td>Freq</td><td>2.412 8 GHz</td><td>94.61 dBμV</td></tr><tr><td>2</td><td>(1)</td><td>Freq</td><td>2.390 0 GHz</td><td>39.01 dBμV</td></tr></table>		Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.412 8 GHz	94.61 dBμV	2	(1)	Freq	2.390 0 GHz	39.01 dBμV
Marker	Trace	Type	X Axis	Amplitude																													
1	(1)	Freq	2.412 0 GHz	98.05 dBμV																													
2	(1)	Freq	2.390 0 GHz	50.01 dBμV																													
Marker	Trace	Type	X Axis	Amplitude																													
1	(1)	Freq	2.412 8 GHz	94.61 dBμV																													
2	(1)	Freq	2.390 0 GHz	39.01 dBμV																													
Frequency (MHz)	Peak level (dBuv/m)	Peak Limit (dBuv/m)	AV level (dBuv/m)	AV Limit (dBuv/m)	Conclusion																												
2390	50.01	74	39.01	54	Pass																												

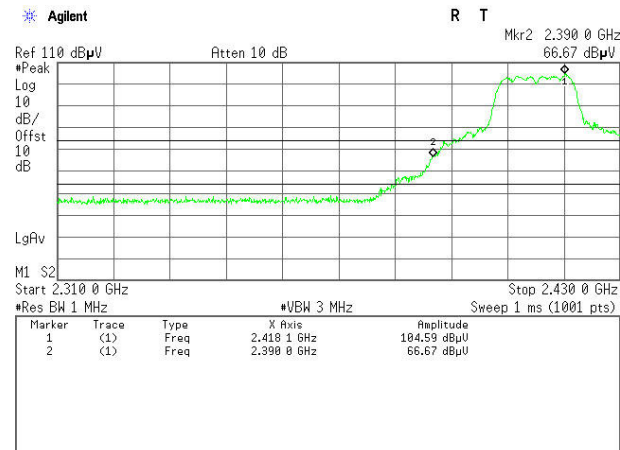
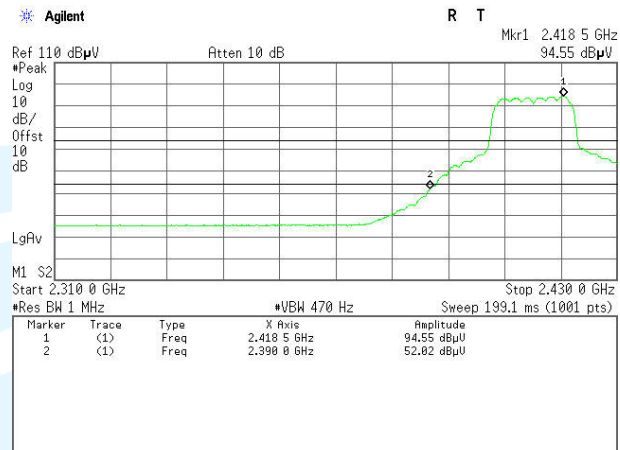
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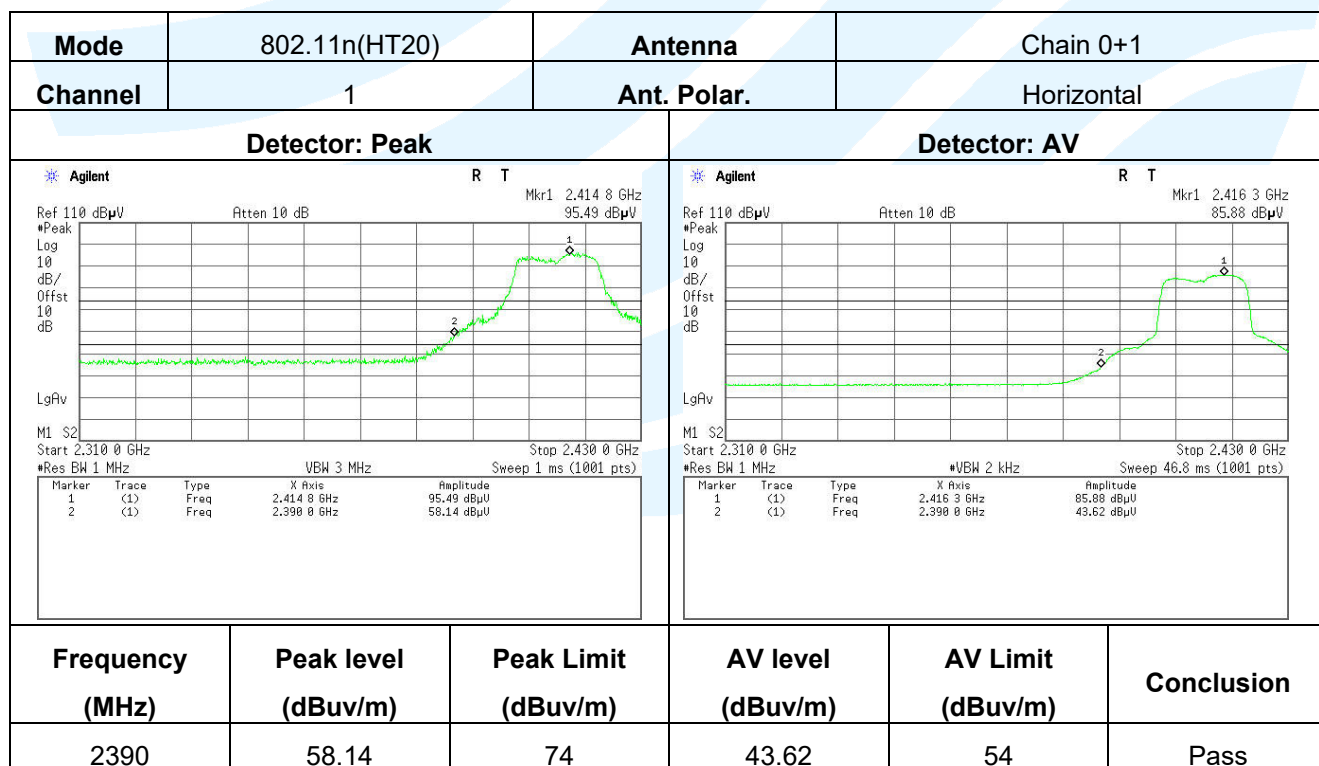
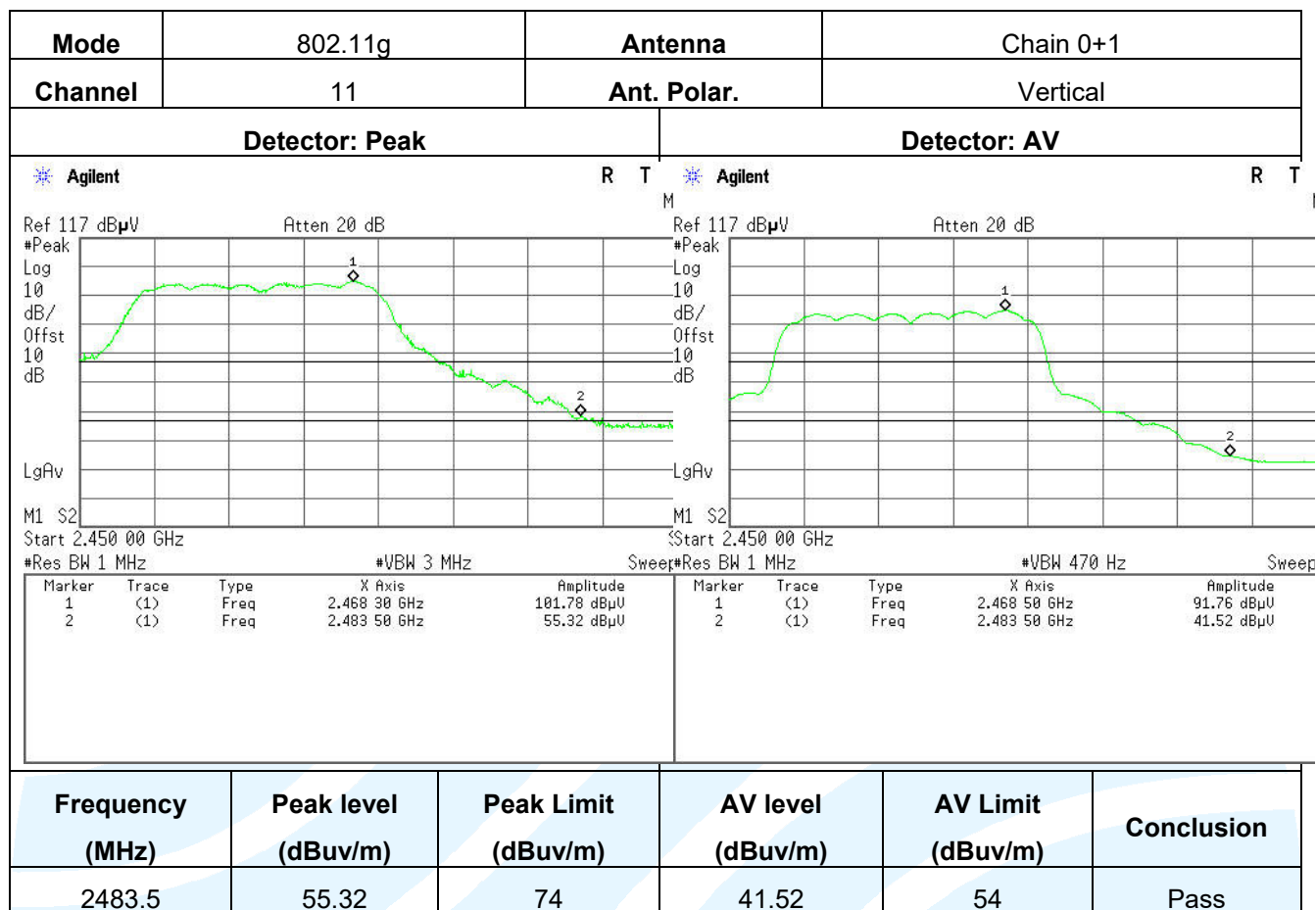
Mode	802.11b	Antenna	Chain 0+1		
Channel	11	Ant. Polar.	Vertical		
Detector: Peak		Detector: AV			
					
Frequency (MHz)	Peak level (dBuv/m)	Peak Limit (dBuv/m)	AV level (dBuv/m)	AV Limit (dBuv/m)	Conclusion
2483.5	53.12	74	39.10	54	Pass

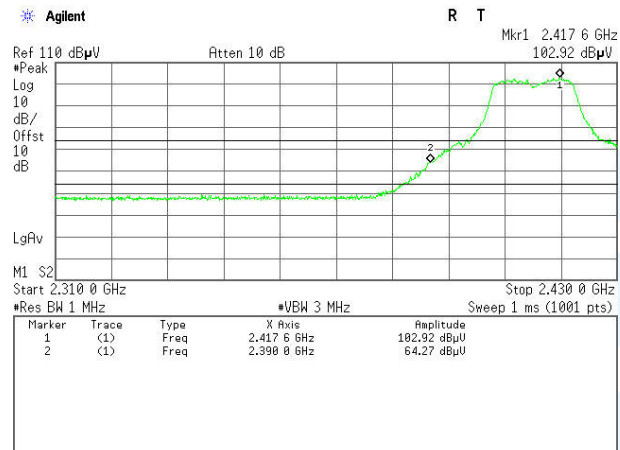
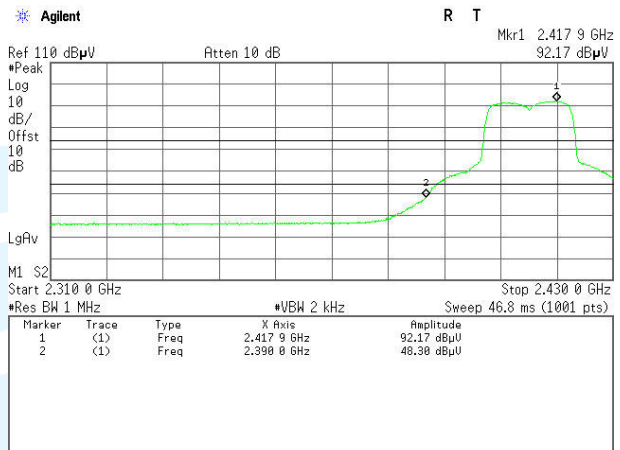
Mode	802.11g	Antenna	Chain 0+1		
Channel	1	Ant. Polar.	Horizontal		
Detector: Peak		Detector: AV			
					
Frequency (MHz)	Peak level (dBuv/m)	Peak Limit (dBuv/m)	AV level (dBuv/m)	AV Limit (dBuv/m)	Conclusion
2390	61.91	74	47.75	54	Pass

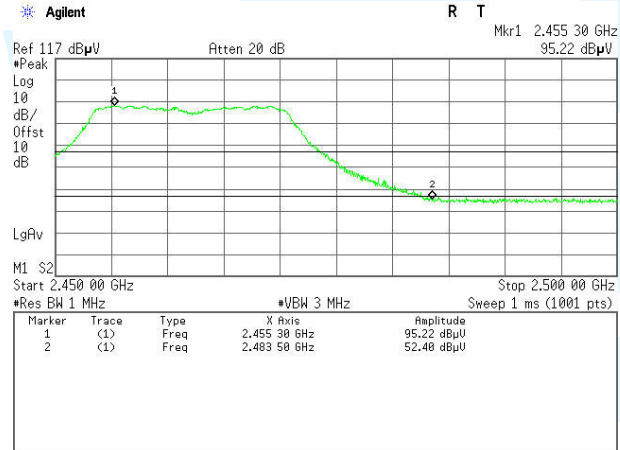
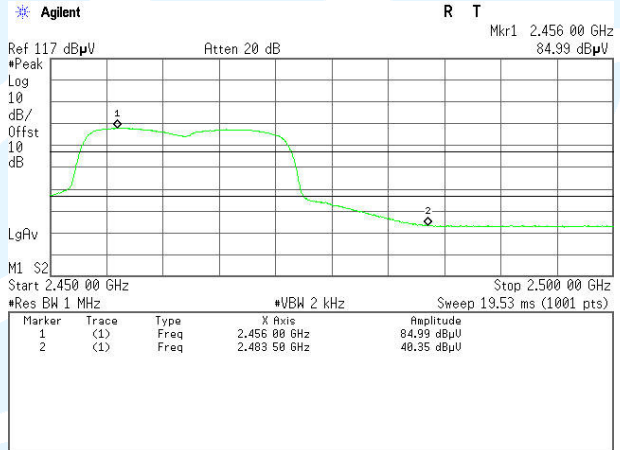
Mode	802.11g	Antenna	Chain 0+1		
Channel	1	Ant. Polar.	Vertical		
Detector: Peak		Detector: AV			
					
Frequency (MHz)	Peak level (dBuv/m)	Peak Limit (dBuv/m)	AV level (dBuv/m)	AV Limit (dBuv/m)	Conclusion
2390	66.67	74	52.02	54	Pass

Mode	802.11g	Antenna	Chain 0+1		
Channel	11	Ant. Polar.	Horizontal		
Detector: Peak		Detector: AV			
Agilent		R	T	Agilent	
M		R	T	M	
Ref 117 dBμV		Atten 20 dB		Ref 117 dBμV	
Atten 20 dB				Atten 20 dB	
#Peak				#Peak	
Log				Log	
10				10	
dB/				dB/	
Offst				Offst	
10				10	
dB				dB	
LgAv				LgAv	
M1 S2				M1 S2	
Start 2.450 00 GHz				Start 2.450 00 GHz	
#Res BW 1 MHz		#VBW 3 MHz		#Res BW 1 MHz	
				#VBW 470 Hz	
				Sweep	
Marker	Trace	Type	X Axis	Amplitude	
1	(1)	Freq	2.466 40 GHz	95.34 dBμV	
2	(1)	Freq	2.483 50 GHz	51.75 dBμV	
Marker	Trace	Type	X Axis	Amplitude	
1	(1)	Freq	2.468 80 GHz	85.47 dBμV	
2	(1)	Freq	2.483 50 GHz	40.00 dBμV	

Frequency (MHz)	Peak level (dBuv/m)	Peak Limit (dBuv/m)	AV level (dBuv/m)	AV Limit (dBuv/m)	Conclusion
2483.5	51.75	74	40.00	54	Pass



Mode	802.11n(HT20)	Antenna	Chain 0+1		
Channel	1	Ant. Polar.	Vertical		
Detector: Peak		Detector: AV			
 Agilent Peak Detector Spectrum Plot. Frequency range: 2.310 GHz to 2.430 GHz. Peak 1 at 2.4176 GHz (102.92 dBuV), Peak 2 at 2.390 GHz (64.27 dBuV).		 Agilent AV Detector Spectrum Plot. Frequency range: 2.310 GHz to 2.430 GHz. Peak 1 at 2.4179 GHz (92.17 dBuV), Peak 2 at 2.390 GHz (48.30 dBuV).			
Frequency (MHz)	Peak level (dBuV/m)	Peak Limit (dBuV/m)	AV level (dBuV/m)	AV Limit (dBuV/m)	Conclusion
2390	64.27	74	48.30	54	Pass

Mode	802.11n(HT20)	Antenna	Chain 0+1		
Channel	11	Ant. Polar.	Horizontal		
Detector: Peak		Detector: AV			
					
Frequency (MHz)	Peak level (dBuv/m)	Peak Limit (dBuv/m)	AV level (dBuv/m)	AV Limit (dBuv/m)	Conclusion
2483.5	52.40	74	40.35	54	Pass

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

See test photographs attached in Appendix 1 for the actual connections between Product and support equipment.

APPENDIX 2 PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photographs.

*** End of Report ***

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