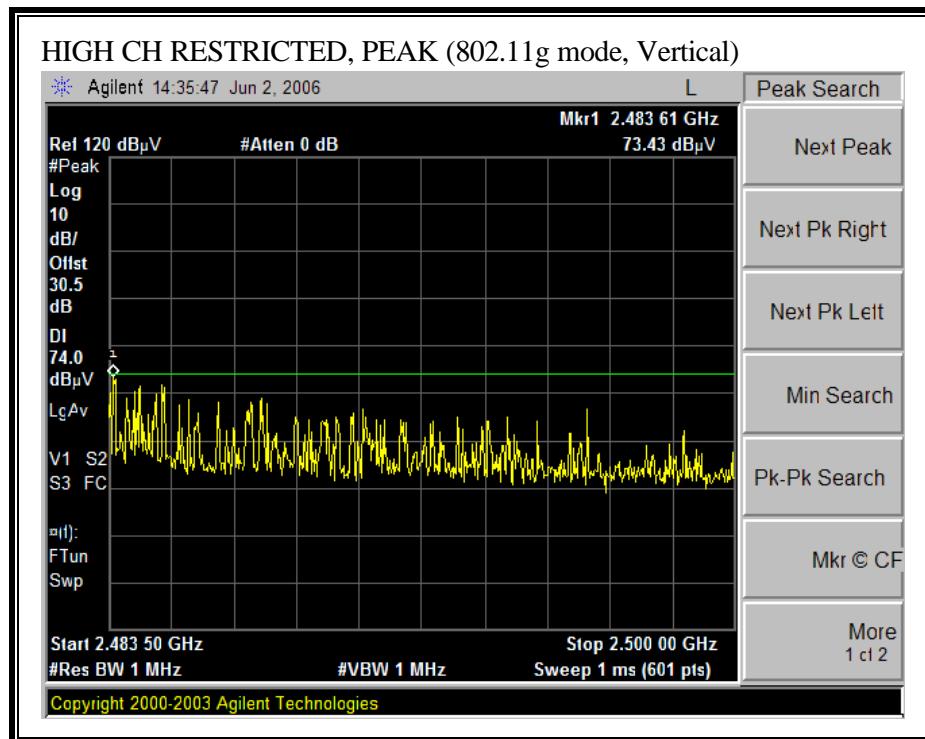
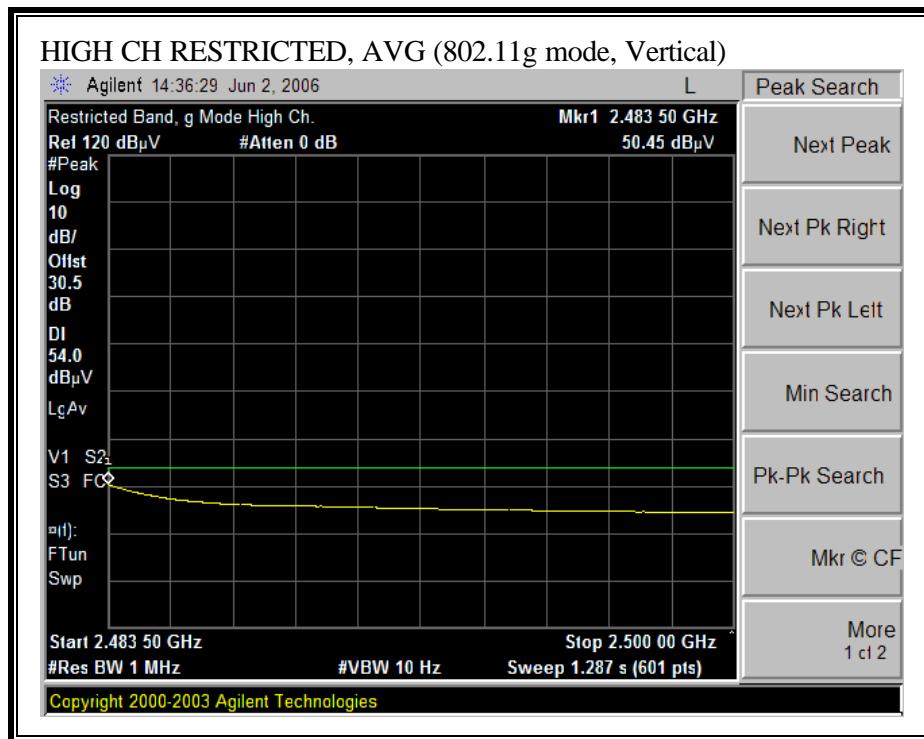


**RESTRICTED BANDEDGE (g MODE, HIGH CHANNEL, VERTICAL)**





**HARMONICS AND SPURIOUS EMISSIONS (g MODE)**

High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site															
Company: Tropos Project #: 06U10287 Date: 06/07/2006 Test Engineer: Vien Tran Configuration: EUT with 12dBi Sector antenna Mode: Tx 11g_2.4 GHZ Average Power: Low, Mid, & High channels = 24 dBm															
<b>Test Equipment:</b>															
Horn 1-18GHz			Pre-amplifier 1-26GHz			Pre-amplifier 26-40GHz			Horn > 18GHz			Limit			
T73; S/N: 6717 @3m			T144 Miteq 3008A00931									FCC 15.205			
Hi Frequency Cables 2 foot cable      3 foot cable      12 foot cable      HPF      Reject Filter															
Vien 177079005      Vien 197209005      HPF_4.0GHz      Reject Filter															
Peak Measurements RBW=VBW=1MHz Average Measurements RBW=1MHz ; VBW=10Hz															
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
<b>LOW CH, 2412 MHz</b>															
4.824	3.0	44.2	32.2	33.3	3.4	-36.5	0.0	0.6	45.0	33.0	74	54	-29.0	-21.0	V
4.824	3.0	43.0	31.9	33.3	3.4	-36.5	0.0	0.6	43.8	32.7	74	54	-30.2	-21.3	H
<b>MID CH, 2437 MHz</b>															
4.874	3.0	43.6	32.6	33.4	3.4	-36.5	0.0	0.6	44.5	33.5	74	54	-29.5	-20.5	V
7.311	3.0	44.3	32.5	35.0	3.9	-36.2	0.0	0.6	47.6	35.8	74	54	-26.4	-18.2	V
4.874	3.0	43.0	31.6	33.4	3.4	-36.5	0.0	0.6	43.9	32.5	74	54	-30.1	-21.5	H
7.311	3.0	43.9	32.2	35.0	3.9	-36.2	0.0	0.6	47.2	35.5	74	54	-26.8	-18.5	H
<b>HI CH, 2462 MHz</b>															
4.924	3.0	44.0	31.8	33.4	3.4	-36.5	0.0	0.6	45.0	32.8	74	54	-29.0	-21.2	V
7.386	3.0	44.3	32.5	35.0	3.9	-36.2	0.0	0.6	47.7	35.9	74	54	-26.3	-18.1	V
4.924	3.0	43.5	31.6	33.4	3.4	-36.5	0.0	0.6	44.5	32.6	74	54	-29.5	-21.4	H
7.386	3.0	44.5	32.3	35.0	3.9	-36.2	0.0	0.6	47.9	35.7	74	54	-26.1	-18.3	H
No other emissions were detected above system noise floor															
f      Measurement Frequency Dist      Distance to Antenna Read      Analyzer Reading AF      Antenna Factor CL      Cable Loss					Amp      Preamp Gain D Corr      Distance Correct to 3 meters Avg      Average Field Strength @ 3 m Peak      Calculated Peak Field Strength HPF      High Pass Filter					Avg Lim      Average Field Strength Limit Pk Lim      Peak Field Strength Limit Avg Mar      Margin vs. Average Limit Pk Mar      Margin vs. Peak Limit					

### 7.3.3. TRANSMITTER ABOVE 1 GHz FOR 5725 TO 5850 MHz BAND

#### HARMONICS AND SPURIOUS EMISSIONS (802.11a MODE)

##### 9.1 dBi MONOPOLE ANTENNA

High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site																																																																																																																																																																																																																																																						
<p>Company: Tropos  Project #: 06U10287  Date: 06/01/2006  Test Engineer: Vien Tran  Configuration: EUT with 9.1dBi Monopole antenna  Mode: Tx 11a 5.8 GHz  Average Power Meter: Low, Mid, &amp; High = 26.9 dBm</p> <p><u>Test Equipment:</u></p> <table border="1"> <tr> <td>Horn 1-18GHz</td> <td>Pre-amplifier 1-26GHz</td> <td>Pre-amplifier 26-40GHz</td> <td colspan="4">Horn &gt; 18GHz</td> <td>Limit</td> </tr> <tr> <td>T60; S/N: 2238 @3m</td> <td>T145 Agilent 3008A0056</td> <td></td> <td colspan="4"></td> <td>FCC 15.205</td> </tr> <tr> <td colspan="15">Hi Frequency Cables</td> </tr> <tr> <td colspan="2">2 foot cable</td> <td colspan="2">3 foot cable</td> <td colspan="2">12 foot cable</td> <td>HPF</td> <td>Reject Filter</td> <td colspan="6"> <b>Peak Measurements</b>  RBW=VBW=1MHz  <b>Average Measurements</b>  RBW=1MHz ; VBW=10Hz </td> </tr> <tr> <td>f GHz</td> <td>Dist (m)</td> <td>Read Pk dBuV</td> <td>Read Avg. dBuV</td> <td>AF dB/m</td> <td>CL dB</td> <td>Amp dB</td> <td>D Corr dB</td> <td>Fltr dB</td> <td>Peak dBuV/m</td> <td>Avg dBuV/m</td> <td>Pk Lim dBuV/m</td> <td>Avg Lim dBuV/m</td> <td>Pk Mar dB</td> <td>Avg Mar dB</td> <td>Notes (V/H)</td> </tr> <tr> <td colspan="15">LOW CH, 5745 MHz</td> </tr> <tr> <td>11.490</td> <td>3.0</td> <td>43.6</td> <td>31.2</td> <td>37.4</td> <td>4.8</td> <td>-33.1</td> <td>0.0</td> <td>0.7</td> <td>53.4</td> <td>41.0</td> <td>74</td> <td>54</td> <td>-20.6</td> <td>-13.0</td> <td>V</td> </tr> <tr> <td>11.490</td> <td>3.0</td> <td>42.0</td> <td>30.8</td> <td>37.4</td> <td>4.8</td> <td>-33.1</td> <td>0.0</td> <td>0.7</td> <td>51.8</td> <td>40.6</td> <td>74</td> <td>54</td> <td>-22.2</td> <td>-13.4</td> <td>H</td> </tr> <tr> <td colspan="15">MID CH, 5785 MHz</td> </tr> <tr> <td>11.570</td> <td>3.0</td> <td>42.7</td> <td>31.2</td> <td>37.4</td> <td>4.8</td> <td>-33.0</td> <td>0.0</td> <td>0.7</td> <td>52.6</td> <td>41.1</td> <td>74</td> <td>54</td> <td>-21.4</td> <td>-12.9</td> <td>V</td> </tr> <tr> <td>11.570</td> <td>3.0</td> <td>42.0</td> <td>30.7</td> <td>37.4</td> <td>4.8</td> <td>-33.0</td> <td>0.0</td> <td>0.7</td> <td>51.9</td> <td>40.6</td> <td>74</td> <td>54</td> <td>-22.1</td> <td>-13.4</td> <td>H</td> </tr> <tr> <td colspan="15">HI CH, 5825 MHz</td> </tr> <tr> <td>11.650</td> <td>3.0</td> <td>49.5</td> <td>37.9</td> <td>37.4</td> <td>4.8</td> <td>-32.9</td> <td>0.0</td> <td>0.7</td> <td>59.5</td> <td>47.9</td> <td>74</td> <td>54</td> <td>-14.5</td> <td>-6.1</td> <td>V</td> </tr> <tr> <td>11.650</td> <td>3.0</td> <td>44.0</td> <td>32.2</td> <td>37.4</td> <td>4.8</td> <td>-32.9</td> <td>0.0</td> <td>0.7</td> <td>54.0</td> <td>42.2</td> <td>74</td> <td>54</td> <td>-20.0</td> <td>-11.8</td> <td>H</td> </tr> <tr> <td colspan="15">No other emissions were detected above system noise floor</td> </tr> <tr> <td colspan="5"> f Measurement Frequency  Dist Distance to Antenna  Read Analyzer Reading  AF Antenna Factor  CL Cable Loss </td> <td colspan="5"> Amp Preamp Gain  D Corr Distance Correct to 3 meters  Avg Average Field Strength @ 3 m  Peak Calculated Peak Field Strength  HPF High Pass Filter </td> <td colspan="5"> Avg Lim Average Field Strength Limit  Pk Lim Peak Field Strength Limit  Avg Mar Margin vs. Average Limit  Pk Mar Margin vs. Peak Limit </td> </tr> </table>															Horn 1-18GHz	Pre-amplifier 1-26GHz	Pre-amplifier 26-40GHz	Horn > 18GHz				Limit	T60; S/N: 2238 @3m	T145 Agilent 3008A0056						FCC 15.205	Hi Frequency Cables															2 foot cable		3 foot cable		12 foot cable		HPF	Reject Filter	<b>Peak Measurements</b> RBW=VBW=1MHz <b>Average Measurements</b> RBW=1MHz ; VBW=10Hz						f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)	LOW CH, 5745 MHz															11.490	3.0	43.6	31.2	37.4	4.8	-33.1	0.0	0.7	53.4	41.0	74	54	-20.6	-13.0	V	11.490	3.0	42.0	30.8	37.4	4.8	-33.1	0.0	0.7	51.8	40.6	74	54	-22.2	-13.4	H	MID CH, 5785 MHz															11.570	3.0	42.7	31.2	37.4	4.8	-33.0	0.0	0.7	52.6	41.1	74	54	-21.4	-12.9	V	11.570	3.0	42.0	30.7	37.4	4.8	-33.0	0.0	0.7	51.9	40.6	74	54	-22.1	-13.4	H	HI CH, 5825 MHz															11.650	3.0	49.5	37.9	37.4	4.8	-32.9	0.0	0.7	59.5	47.9	74	54	-14.5	-6.1	V	11.650	3.0	44.0	32.2	37.4	4.8	-32.9	0.0	0.7	54.0	42.2	74	54	-20.0	-11.8	H	No other emissions were detected above system noise floor															f Measurement Frequency Dist Distance to Antenna Read Analyzer Reading AF Antenna Factor CL Cable Loss					Amp Preamp Gain D Corr Distance Correct to 3 meters Avg Average Field Strength @ 3 m Peak Calculated Peak Field Strength HPF High Pass Filter					Avg Lim Average Field Strength Limit Pk Lim Peak Field Strength Limit Avg Mar Margin vs. Average Limit Pk Mar Margin vs. Peak Limit				
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## 17 dBi SECTOR ANTENNA

High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site																																																																	
Company: Tropos Project #: 06U10287 Date: 06/01/2006 Test Engineer: Vien Tran Configuration: EUT with 17dBi Sector antenna Mode: Tx 11a 5.8 GHz Average Power: Low, Mid, & High = 26.9 dBm																																																																	
<b>Test Equipment:</b> <table border="1"> <tr> <td>Horn 1-18GHz</td> <td>Pre-amplifier 1-26GHz</td> <td>Pre-amplifier 26-40GHz</td> <td colspan="3">Horn &gt; 18GHz</td> <td>Limit</td> </tr> <tr> <td>T60; S/N: 2238 @3m</td> <td>T145 Agilent 3008A0056</td> <td></td> <td></td> <td></td> <td></td> <td>FCC 15.209</td> </tr> <tr> <td colspan="7">                     Hi Frequency Cables                     <table border="1"> <tr> <td>2 foot cable</td> <td>3 foot cable</td> <td>12 foot cable</td> <td>HPF</td> <td>Reject Filter</td> <td colspan="2"> <b>Peak Measurements</b>                      RBW=VBW=1MHz  <b>Average Measurements</b>                      RBW=1MHz, VEW=10Hz                 </td> </tr> <tr> <td>Vien 187215002</td> <td>Vien 197209005</td> <td></td> <td>HPF-7.6GHz</td> <td></td> <td colspan="2"></td> </tr> </table> </td> </tr> <tr> <td>f GHz</td> <td>Dist (m)</td> <td>Read Pk dBuV</td> <td>Read Avg. dBuV</td> <td>AF dB/m</td> <td>CL dB</td> <td>Amp dB</td> <td>D Corr dB</td> <td>Fltr dB</td> <td>Peak dBuV/m</td> <td>Avg dBuV/m</td> <td>Pk Lim dBuV/m</td> <td>Avg Lim dBuV/m</td> <td>Pk Mar dB</td> <td>Avg Mar dB</td> <td>Notes (V/H)</td> </tr> </table>															Horn 1-18GHz	Pre-amplifier 1-26GHz	Pre-amplifier 26-40GHz	Horn > 18GHz			Limit	T60; S/N: 2238 @3m	T145 Agilent 3008A0056					FCC 15.209	Hi Frequency Cables <table border="1"> <tr> <td>2 foot cable</td> <td>3 foot cable</td> <td>12 foot cable</td> <td>HPF</td> <td>Reject Filter</td> <td colspan="2"> <b>Peak Measurements</b>                      RBW=VBW=1MHz  <b>Average Measurements</b>                      RBW=1MHz, VEW=10Hz                 </td> </tr> <tr> <td>Vien 187215002</td> <td>Vien 197209005</td> <td></td> <td>HPF-7.6GHz</td> <td></td> <td colspan="2"></td> </tr> </table>							2 foot cable	3 foot cable	12 foot cable	HPF	Reject Filter	<b>Peak Measurements</b> RBW=VBW=1MHz <b>Average Measurements</b> RBW=1MHz, VEW=10Hz		Vien 187215002	Vien 197209005		HPF-7.6GHz				f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
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f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)																																																		
<b>LOW CH, 5745 MHz</b>																																																																	
11.490	3.0	43.7	32.6	37.4	4.8	-33.1	0.0	0.7	53.5	42.4	74	54	-20.5	-11.6	V																																																		
17.235	3.0	44.5	33.0	41.7	6.1	-32.0	0.0	0.6	60.9	49.4	74	54	-13.1	-4.6	V																																																		
11.490	3.0	43.5	31.4	37.4	4.8	-33.1	0.0	0.7	53.3	41.2	74	54	-20.7	-12.8	H																																																		
17.235	3.0	45.3	34.9	41.7	6.1	-32.0	0.0	0.6	61.7	51.3	74	54	-12.3	-2.7	H																																																		
<b>MID CH, 5785 MHz</b>																																																																	
11.570	3.0	44.7	33.6	37.4	4.8	-33.0	0.0	0.7	54.6	43.5	74	54	-19.4	-10.5	V																																																		
17.355	3.0	43.5	31.8	42.1	6.1	-32.0	0.0	0.6	60.4	48.7	74	54	-13.6	-5.3	V																																																		
11.570	3.0	45.8	34.7	37.4	4.8	-33.0	0.0	0.7	55.7	44.6	74	54	-18.3	-9.4	H																																																		
17.355	3.0	43.5	32.5	42.1	6.1	-32.0	0.0	0.6	60.4	49.4	74	54	-13.6	-4.6	H																																																		
<b>HIGH CH, 5825 MHz</b>																																																																	
11.650	3.0	50.0	39.2	37.4	4.8	-32.9	0.0	0.7	60.0	49.2	74	54	-14.0	-4.8	V																																																		
17.475	3.0	43.4	31.6	42.6	6.2	-32.0	0.0	0.6	60.7	48.9	74	54	-13.3	-5.1	V																																																		
11.650	3.0	46.8	36.8	37.4	4.8	-32.9	0.0	0.7	56.8	46.8	74	54	-17.2	-7.2	H																																																		
17.475	3.0	43.8	31.7	42.6	6.2	-32.0	0.0	0.6	61.1	49.0	74	54	-12.9	-5.0	H																																																		
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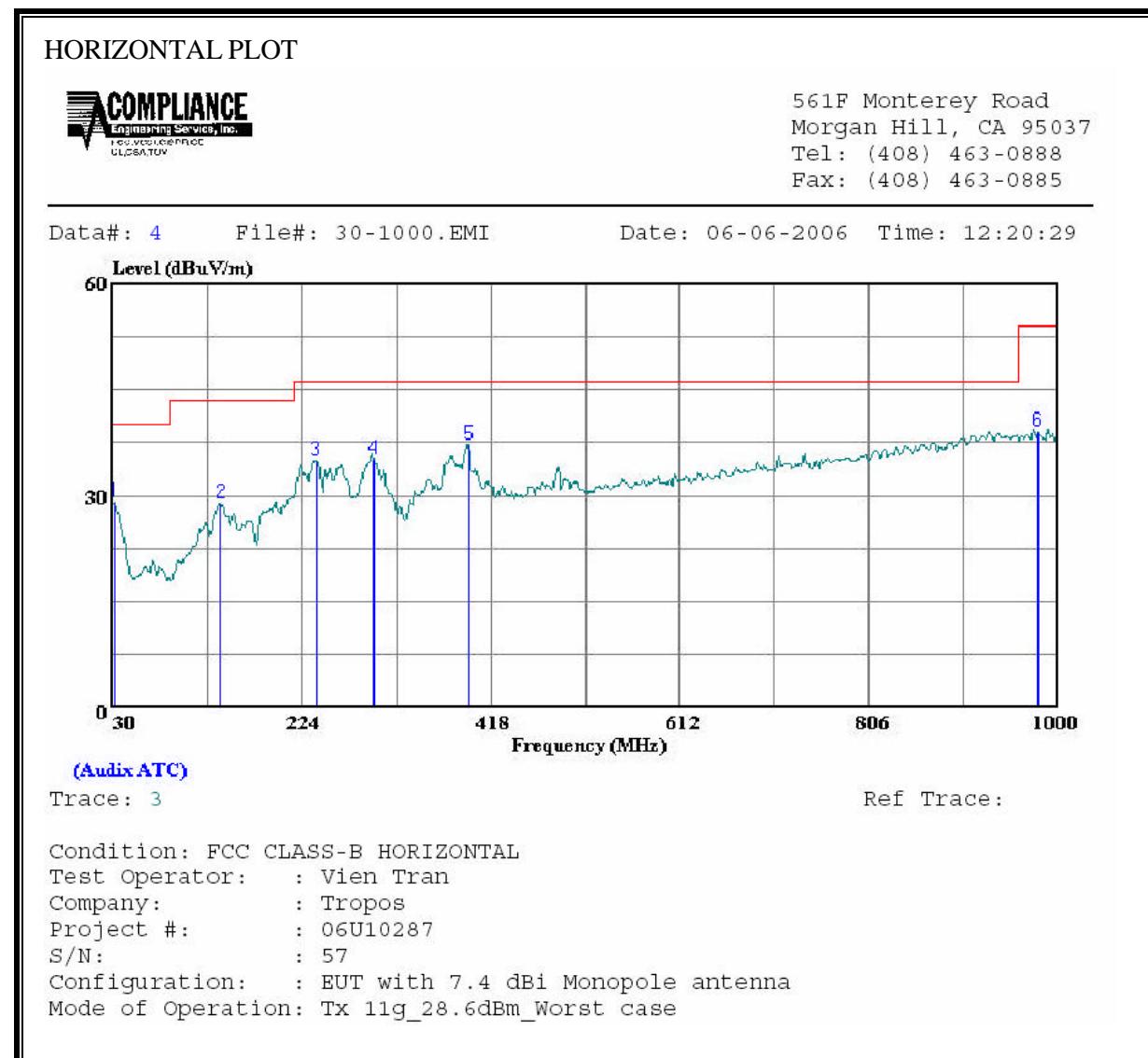
## 19 dBi PATCH ANTENNA

High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site																																																																																																																																																																																																																																																																																																																																												
<p>Company: Tropos  Project #: 06U10287  Date: 06/01/2006  Test Engineer: Vien Tran  Configuration: EUT with 19dBi Patch antenna  Mode: Tx 11a 5.8 GHz  Average Power: Low, Mid, &amp; High = 26.9 dBm</p> <p><b>Test Equipment:</b></p> <table border="1"> <tr> <td>Horn 1-18GHz</td> <td>Pre-amplifier 1-26GHz</td> <td>Pre-amplifier 26-40GHz</td> <td colspan="3">Horn &gt; 18GHz</td> <td>Limit</td> </tr> <tr> <td>T60; S/N: 2238 @3m</td> <td>T145 Agilent 3008A0056</td> <td></td> <td colspan="3"></td> <td>FCC 15.209</td> </tr> <tr> <td colspan="6">Hi Frequency Cables</td> <td>Peak Measurements RBW=VBW=1MHz</td> </tr> <tr> <td>2 foot cable</td> <td>3 foot cable</td> <td>12 foot cable</td> <td>HPF</td> <td>Reject Filter</td> <td></td> <td>Average Measurements RBW=1MHz, VBW=10Hz</td> </tr> <tr> <td>Vien 187215002</td> <td>Vien 197209005</td> <td></td> <td>HPF-7.6GHz</td> <td></td> <td></td> <td></td> </tr> </table> <p><b>Measurement Data:</b></p> <table border="1"> <thead> <tr> <th>f GHz</th> <th>Dist (m)</th> <th>Read Pk dBuV</th> <th>Read Avg. dBuV</th> <th>AF dB/m</th> <th>CL dB</th> <th>Amp dB</th> <th>D Corr dB</th> <th>Fltr dB</th> <th>Peak dBuV/m</th> <th>Avg dBuV/m</th> <th>Pk Lim dBuV/m</th> <th>Avg Lim dBuV/m</th> <th>Pk Mar dB</th> <th>Avg Mar dB</th> <th>Notes (V/H)</th> </tr> </thead> <tbody> <tr> <td colspan="15"><b>LOW CH, 5745 MHz</b></td> </tr> <tr> <td>11.490</td> <td>3.0</td> <td>45.0</td> <td>36.1</td> <td>37.4</td> <td>4.8</td> <td>-33.1</td> <td>0.0</td> <td>0.7</td> <td>54.8</td> <td>45.9</td> <td>74</td> <td>54</td> <td>-19.2</td> <td>-8.1</td> <td>V</td> </tr> <tr> <td>17.235</td> <td>3.0</td> <td>44.0</td> <td>32.9</td> <td>41.7</td> <td>6.1</td> <td>-32.0</td> <td>0.0</td> <td>0.6</td> <td>60.4</td> <td>49.3</td> <td>74</td> <td>54</td> <td>-13.6</td> <td>-4.7</td> <td>V</td> </tr> <tr> <td>11.490</td> <td>3.0</td> <td>47.7</td> <td>36.6</td> <td>37.4</td> <td>4.8</td> <td>-33.1</td> <td>0.0</td> <td>0.7</td> <td>57.5</td> <td>46.4</td> <td>74</td> <td>54</td> <td>-16.5</td> <td>-7.6</td> <td>H</td> </tr> <tr> <td>17.235</td> <td>3.0</td> <td>46.0</td> <td>35.5</td> <td>41.7</td> <td>6.1</td> <td>-32.0</td> <td>0.0</td> <td>0.6</td> <td>62.4</td> <td>51.9</td> <td>74</td> <td>54</td> <td>-11.6</td> <td>-2.1</td> <td>H</td> </tr> <tr> <td colspan="15"><b>MID CH, 5785 MHz</b></td> </tr> <tr> <td>11.570</td> <td>3.0</td> <td>48.5</td> <td>38.7</td> <td>37.4</td> <td>4.8</td> <td>-33.0</td> <td>0.0</td> <td>0.7</td> <td>58.4</td> <td>48.6</td> <td>74</td> <td>54</td> <td>-15.6</td> <td>-5.4</td> <td>V</td> </tr> <tr> <td>17.355</td> <td>3.0</td> <td>47.0</td> <td>35.4</td> <td>42.1</td> <td>6.1</td> <td>-32.0</td> <td>0.0</td> <td>0.6</td> <td>63.9</td> <td>52.3</td> <td>74</td> <td>54</td> <td>-10.1</td> <td>-1.7</td> <td>V</td> </tr> <tr> <td>11.570</td> <td>3.0</td> <td>48.4</td> <td>39.1</td> <td>37.4</td> <td>4.8</td> <td>-33.0</td> <td>0.0</td> <td>0.7</td> <td>58.3</td> <td>49.0</td> <td>74</td> <td>54</td> <td>-15.7</td> <td>-5.0</td> <td>H</td> </tr> <tr> <td>17.355</td> <td>3.0</td> <td>43.3</td> <td>33.2</td> <td>42.1</td> <td>6.1</td> <td>-32.0</td> <td>0.0</td> <td>0.6</td> <td>60.2</td> <td>50.1</td> <td>74</td> <td>54</td> <td>-13.8</td> <td>-3.9</td> <td>H</td> </tr> <tr> <td colspan="15"><b>HIGH CH, 5825 MHz</b></td> </tr> <tr> <td>11.650</td> <td>3.0</td> <td>50.8</td> <td>40.4</td> <td>37.4</td> <td>4.8</td> <td>-32.9</td> <td>0.0</td> <td>0.7</td> <td>60.8</td> <td>50.4</td> <td>74</td> <td>54</td> <td>-13.2</td> <td>-3.6</td> <td>V</td> </tr> <tr> <td>17.475</td> <td>3.0</td> <td>44.0</td> <td>32.3</td> <td>42.6</td> <td>6.2</td> <td>-32.0</td> <td>0.0</td> <td>0.6</td> <td>61.3</td> <td>49.6</td> <td>74</td> <td>54</td> <td>-12.7</td> <td>-4.4</td> <td>V</td> </tr> <tr> <td>11.650</td> <td>3.0</td> <td>50.0</td> <td>41.7</td> <td>37.4</td> <td>4.8</td> <td>-32.9</td> <td>0.0</td> <td>0.7</td> <td>60.0</td> <td>51.7</td> <td>74</td> <td>54</td> <td>-14.0</td> <td>-2.3</td> <td>H</td> </tr> <tr> <td>17.475</td> <td>3.0</td> <td>43.6</td> <td>31.9</td> <td>42.6</td> <td>6.2</td> <td>-32.0</td> <td>0.0</td> <td>0.6</td> <td>60.9</td> <td>49.2</td> <td>74</td> <td>54</td> <td>-13.1</td> <td>-4.8</td> <td>H</td> </tr> <tr> <td colspan="15">No other emissions were detected above system noise floor</td> </tr> <tr> <td colspan="5"> f Measurement Frequency  Dist Distance to Antenna  Read Analyzer Reading  AF Antenna Factor  CL Cable Loss </td> <td colspan="5"> Amp Preamp Gain  D Corr Distance Correct to 3 meters  Avg Average Field Strength @ 3 m  Peak Calculated Peak Field Strength  HPF High Pass Filter </td> <td colspan="5"> Avg Lim Average Field Strength Limit  Pk Lim Peak Field Strength Limit  Avg Mar Margin vs. Average Limit  Pk Mar Margin vs. Peak Limit </td> </tr> </tbody> </table>															Horn 1-18GHz	Pre-amplifier 1-26GHz	Pre-amplifier 26-40GHz	Horn > 18GHz			Limit	T60; 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### 7.3.4. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz

#### 2.4 GHz BAND: 7.4 dBi MONOPLE ANTENNA – WORST CASE

##### SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



HORIZONTAL DATA

Freq	Read		Level	Limit	Over	Line	Limit	Remark
	Level	Factor						
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	30.970	8.53	20.45	28.98	40.00	-11.02	Peak	
2	140.580	14.14	14.77	28.91	43.50	-14.59	Peak	
3	238.550	21.46	13.43	34.89	46.00	-11.11	Peak	
4	297.720	19.46	15.59	35.05	46.00	-10.95	Peak	
5	395.690	19.28	17.93	37.21	46.00	-8.79	Peak	
6	979.630	12.39	26.74	39.13	54.00	-14.87	Peak	

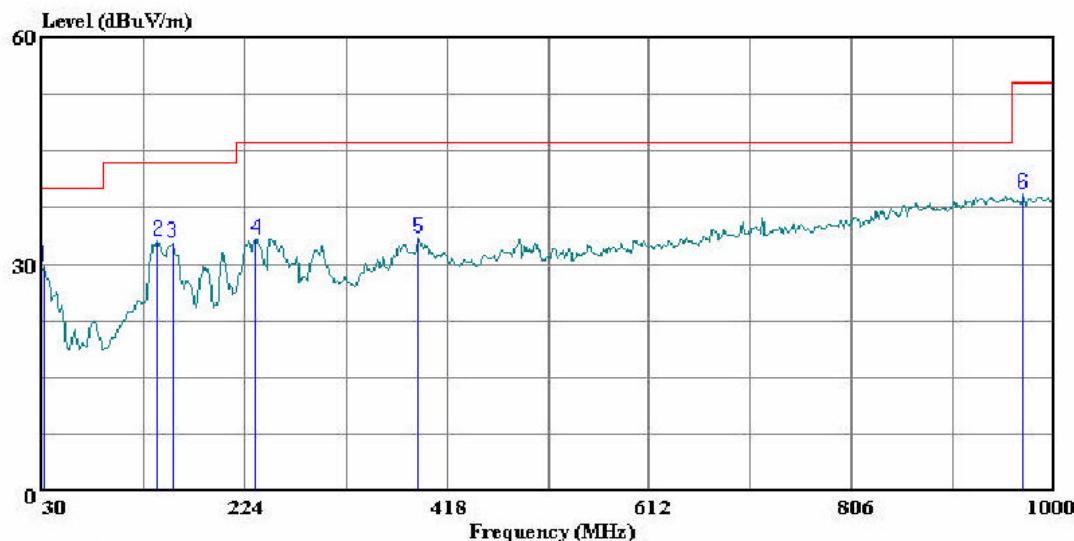
**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**

VERTICAL PLOT



561F Monterey Road  
Morgan Hill, CA 95037  
Tel: (408) 463-0888  
Fax: (408) 463-0885

Data#: 2 File#: 30-1000.EMI Date: 06-06-2006 Time: 12:14:38



(Audix ATC)

Trace: 1

Ref Trace:

Condition: FCC CLASS-B VERTICAL  
Test Operator: : Vien Tran  
Company: : Tropos  
Project #: : 06U10287  
S/N: : 57  
Configuration: : EUT with 7.4dBi Monopole antenna  
Mode of Operation: Tx 11g\_28.6dBm\_Worst case

VERTICAL DATA

Freq	Read		Level	Limit	Over	Limit	Remark
	Level	Factor					
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.970	9.18	20.45	29.63	40.00	-10.37	Peak
2	140.580	18.28	14.77	33.05	43.50	-10.45	Peak
3	155.130	18.80	13.95	32.75	43.50	-10.75	Peak
4	234.670	19.91	13.27	33.18	46.00	-12.82	Peak
5	390.840	15.65	17.83	33.48	46.00	-12.52	Peak
6	969.930	12.50	26.66	39.16	54.00	-14.84	Peak

**5.8 GHz BAND: 9.1 dBi MONPOLE ANTENNA – WORST CASE**

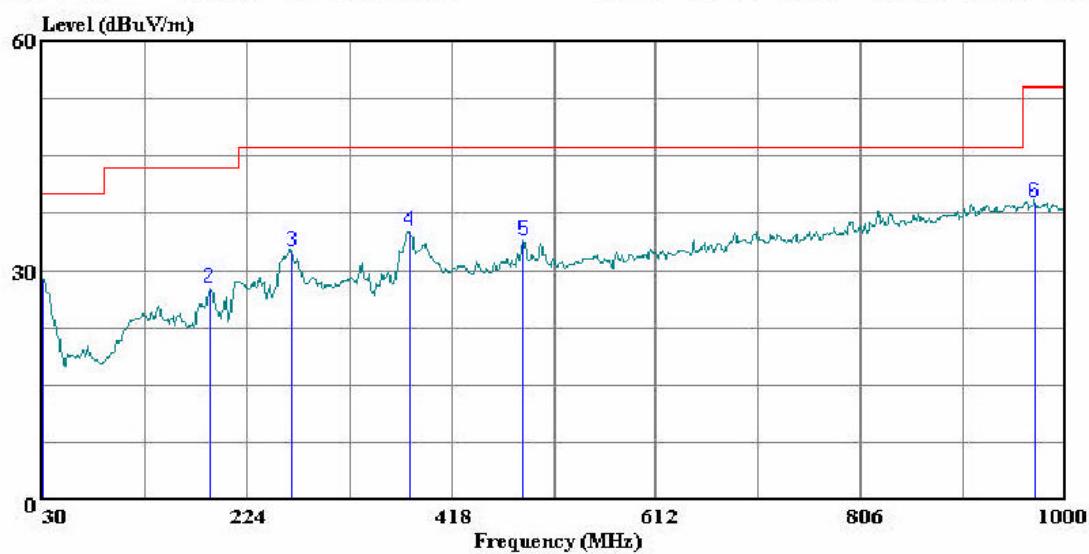
**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)**

HORIZONTAL PLOT



561F Monterey Road  
Morgan Hill, CA 95037  
Tel: (408) 463-0888  
Fax: (408) 463-0885

Data#: 14 File#: 30-1000.emi Date: 06-06-2006 Time: 13:19:40



(Audix ATC)

Trace: 13

Ref Trace:

Condition: FCC CLASS-B HORIZONTAL  
Test Operator: : Vien Tran  
Company: : Tropos  
Project #: : 06U10287  
S/N: : 57  
Configuration: : EUT with 9.1 Monopole antenna  
Mode of Operation: Tx 11a\_26.9dBm

HORIZONTAL DATA

Freq	Read		Level	Limit	Over	Limit	Remark
	Level	Factor					
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.000	8.39	20.45	28.84	40.00	-11.16	Peak
2	189.080	14.68	12.93	27.61	43.50	-15.89	Peak
3	266.680	18.03	14.45	32.48	46.00	-13.52	Peak
4	378.230	17.57	17.55	35.12	46.00	-10.88	Peak
5	485.900	13.95	19.95	33.90	46.00	-12.10	Peak
6	970.900	12.25	26.67	38.92	54.00	-15.08	Peak

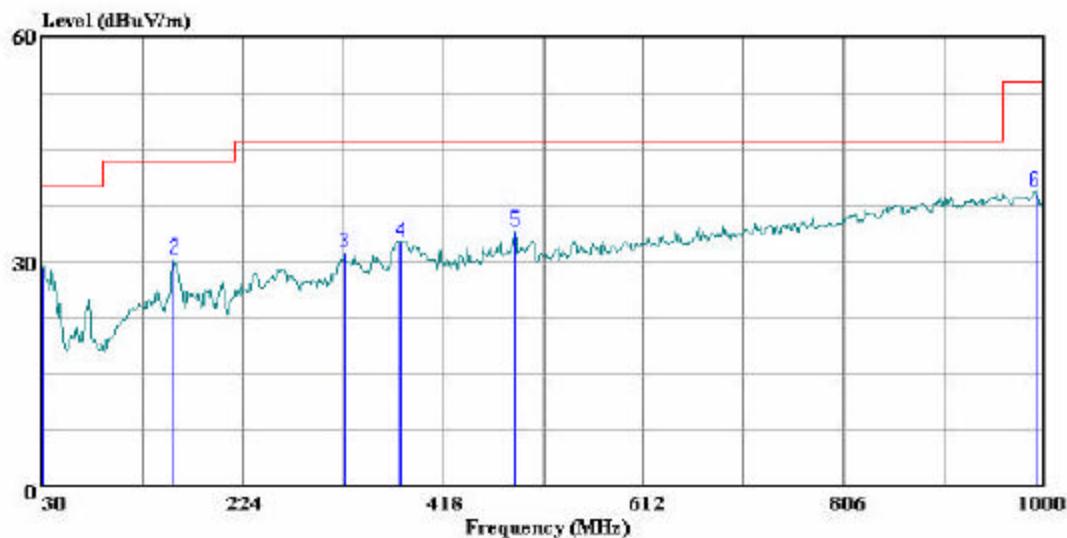
**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**

VERTICAL PLOT



561F Monterey Road  
Morgan Hill, CA 95037  
Tel: (408) 463-0888  
Fax: (408) 463-0885

Data#: 16 File#: 30-1000.emi Date: 06-06-2006 Time: 13:23:07



(Audix ATC)

Trace: 15

Ref Trace:

Condition: FCC CLASS-B VERTICAL  
Test Operator: : Vien Tran  
Company: : Tropos  
Project #: : 06U10287  
S/N: : 57  
Configuration: : EUT with 9.1 Monopole antenna  
Mode of Operation: TX 11a\_26.9dBm

VERTICAL DATA

Freq	Read		Level	Limit	Over	Limit	Remark
	Level	Factor					
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.000	8.92	20.45	29.37	40.00	-10.63	Peak
2	158.040	16.35	13.89	30.24	43.50	-13.26	Peak
3	322.940	14.80	16.27	31.07	46.00	-14.93	Peak
4	377.260	15.16	17.53	32.69	46.00	-13.31	Peak
5	487.840	14.05	20.00	34.05	46.00	-11.95	Peak
6	991.270	12.44	26.90	39.35	54.00	-14.65	Peak

## 7.4. POWERLINE CONDUCTED EMISSIONS

### LIMIT

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

\* Decreases with the logarithm of the frequency.

### TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

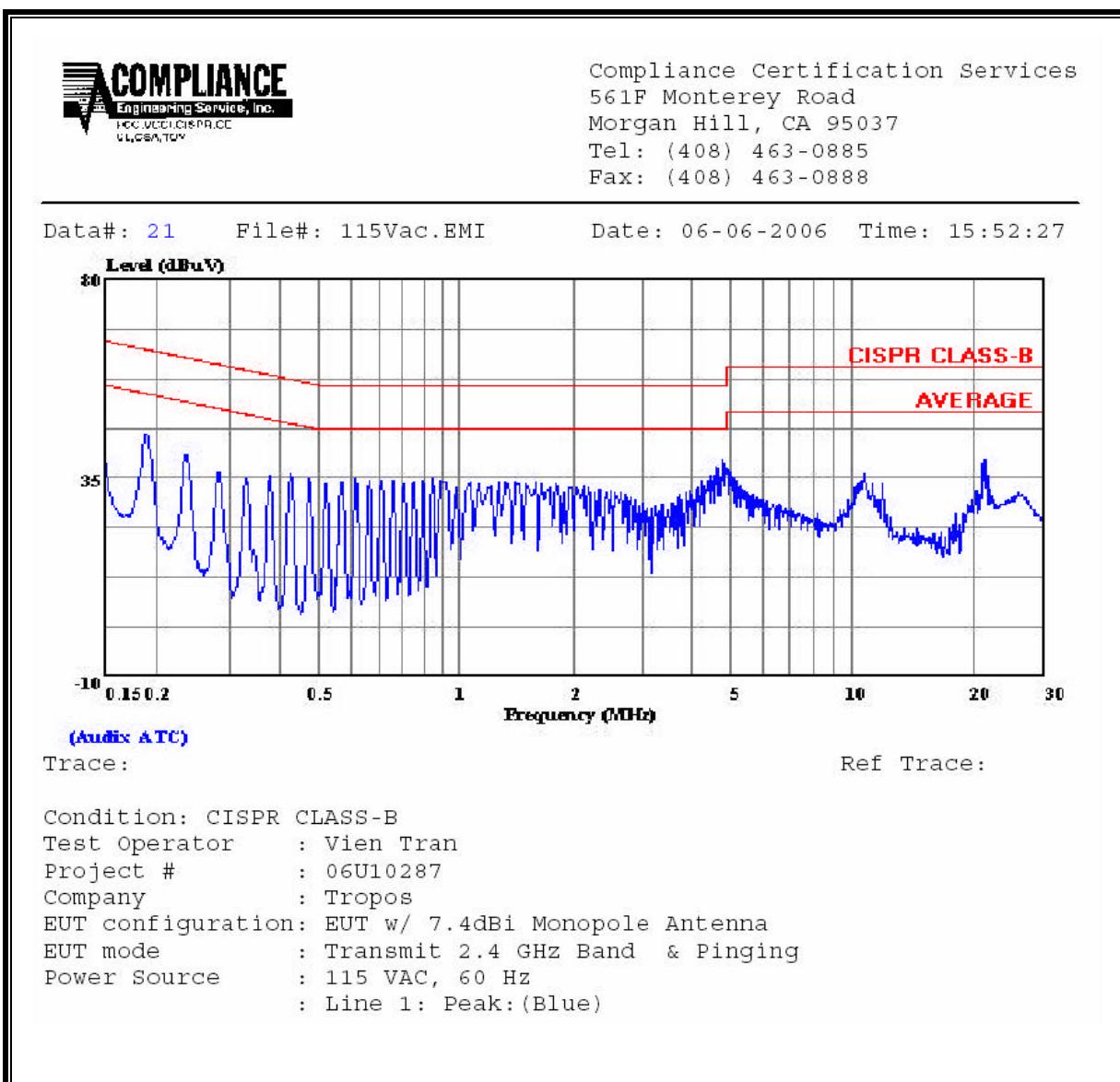
### RESULTS

No non-compliance noted:

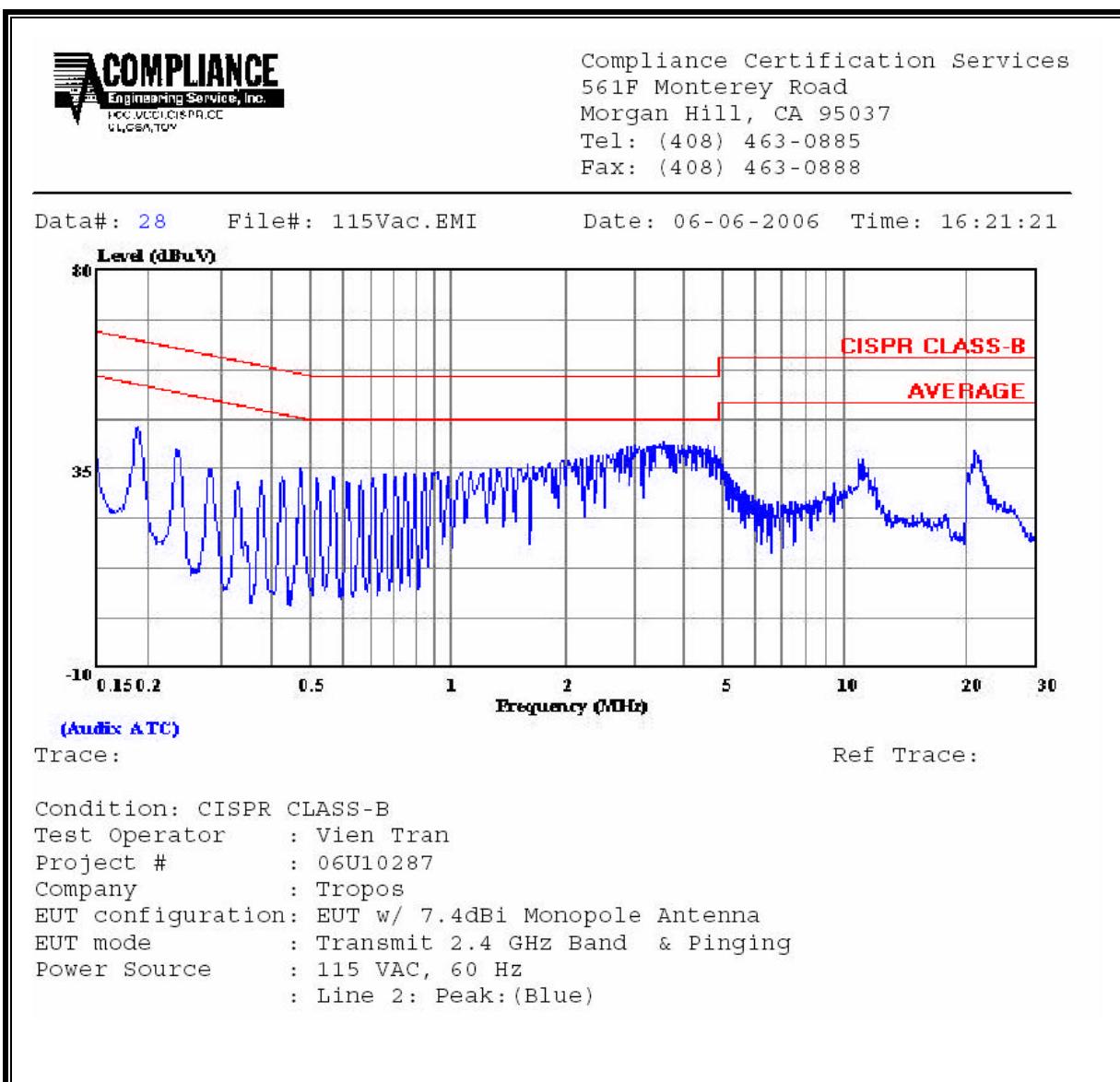
## 6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)										
Freq. (MHz)	Reading			Closs (dB)	Limit	FCC_B		Margin		Remark
	PK (dBuV)	QP (dBuV)	AV (dBuV)			QP	AV	QP (dB)	AV (dB)	
0.19	48.10	--	--	0.00	64.12	54.12	-16.02	-6.02	L1	
0.24	41.48	--	--	0.00	62.20	52.20	-20.72	-10.72	L1	
4.93	39.04	--	--	0.00	56.00	46.00	-16.96	-6.96	L1	
0.19	46.24	--	--	0.00	64.12	54.12	-17.88	-7.88	L2	
0.24	39.58	--	--	0.00	62.20	52.20	-22.62	-12.62	L2	
3.88	42.04	--	--	0.00	56.00	46.00	-13.96	-3.96	L2	
6 Worst Data										

**LINE 1 RESULTS**



**LINE 2 RESULTS**



## 8. SETUP PHOTOS

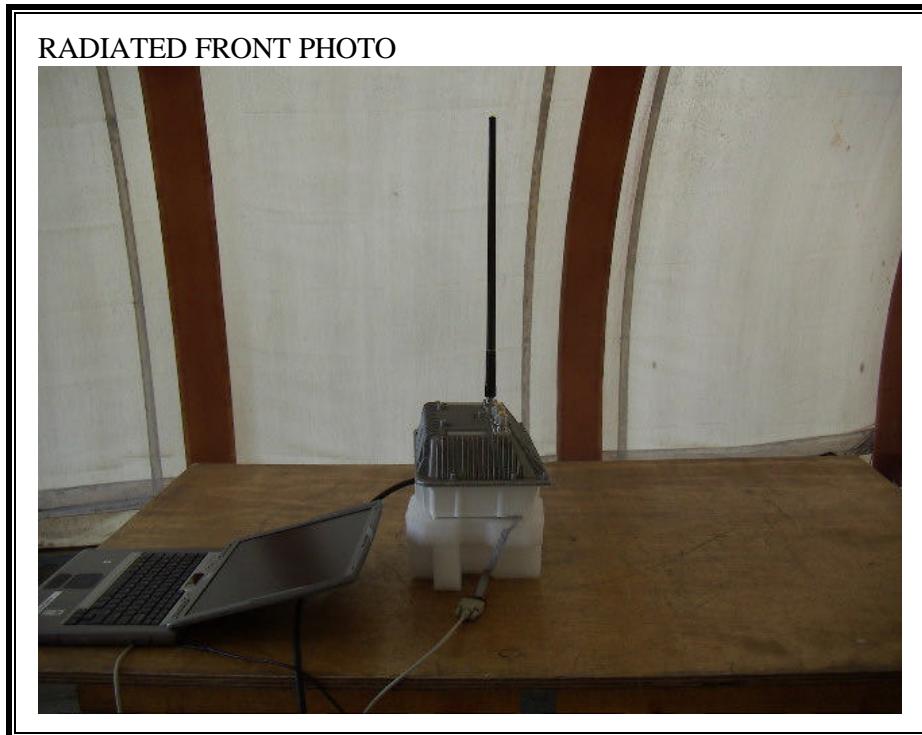
### ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP



**RADIATED RF MEASUREMENT SETUP**

**ANTENNA FOR 2.4 GHz BAND**

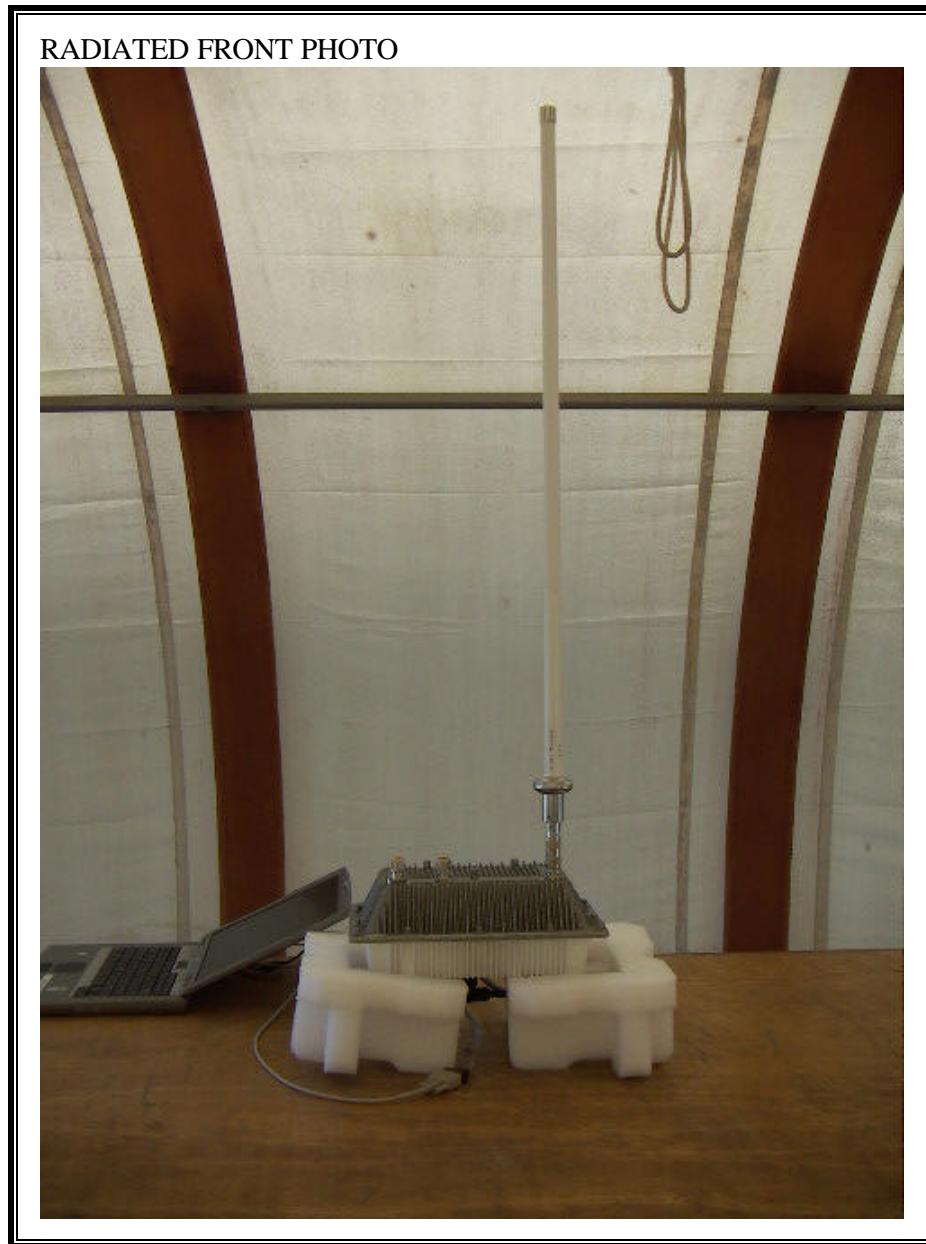
**7.4 dBi MONOPOLE ANTENNA**



RADIATED BACK PHOTO



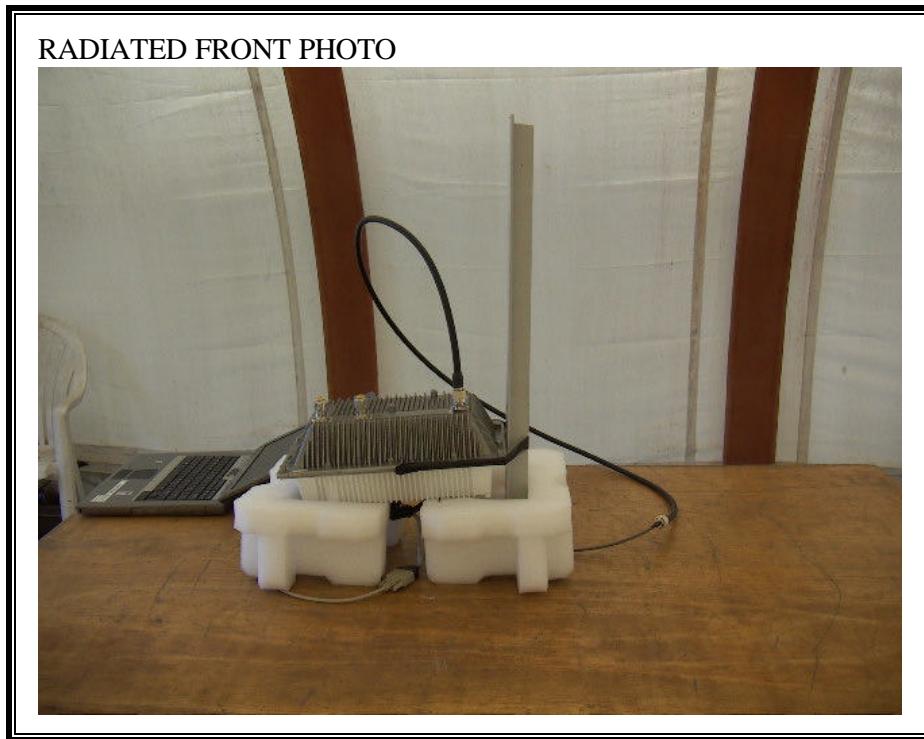
**10 dBi MONOPOLE ANTENNA**



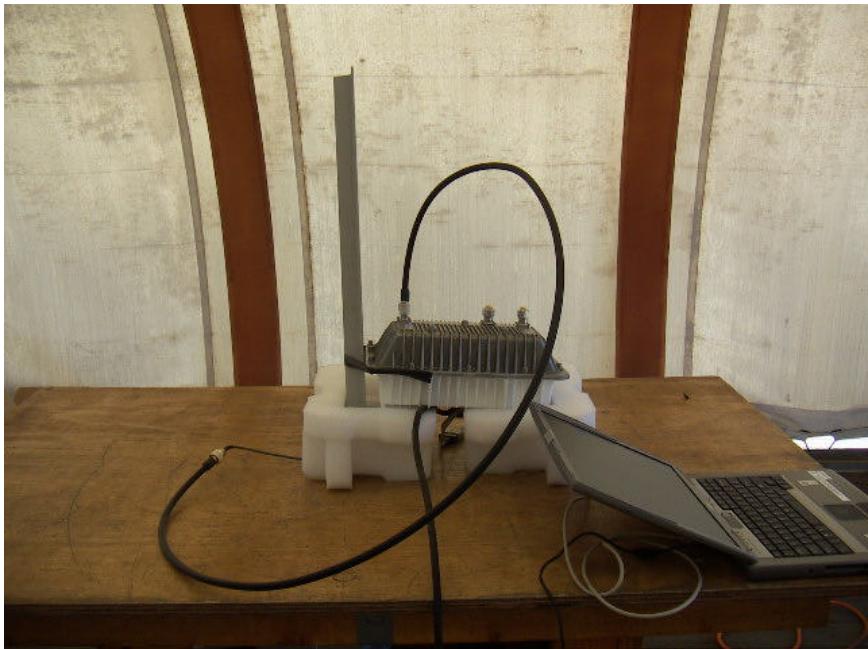
RADIATED BACK PHOTO



**12 dBi SECTOR ANTENNA**

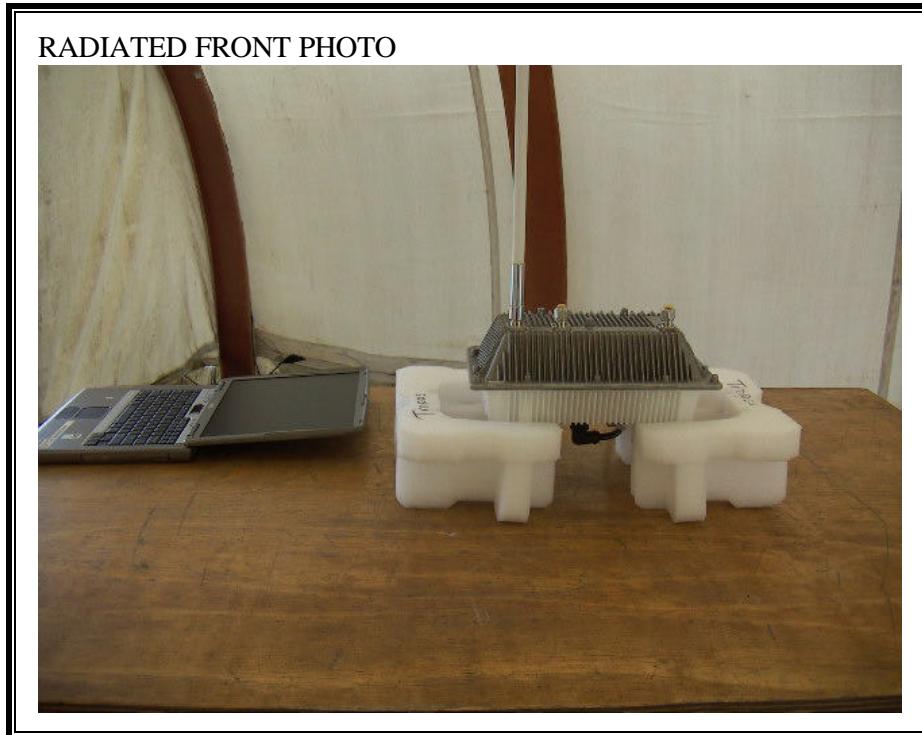


RADIATED BACK PHOTO

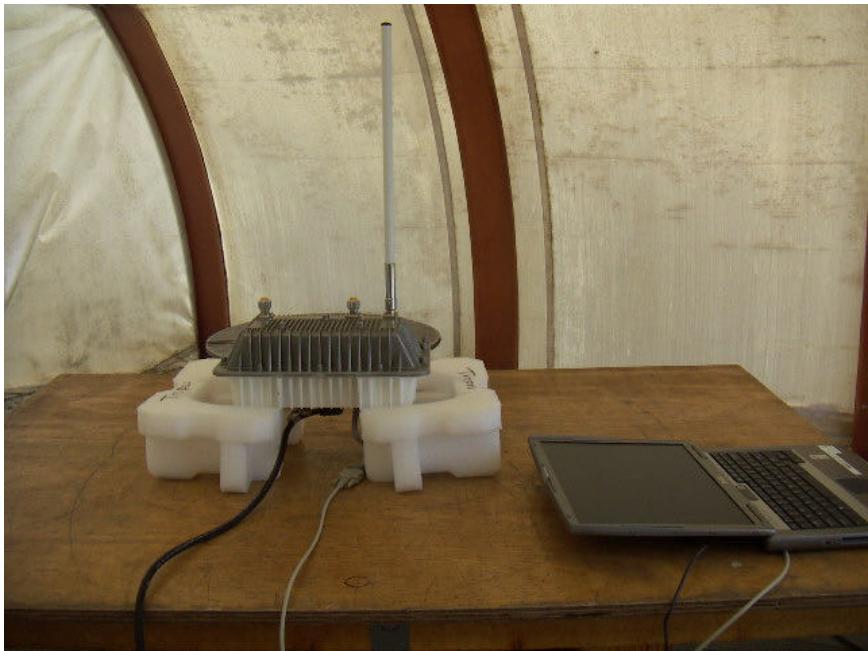


**ANTENNA FOR 5.8 GHz BAND**

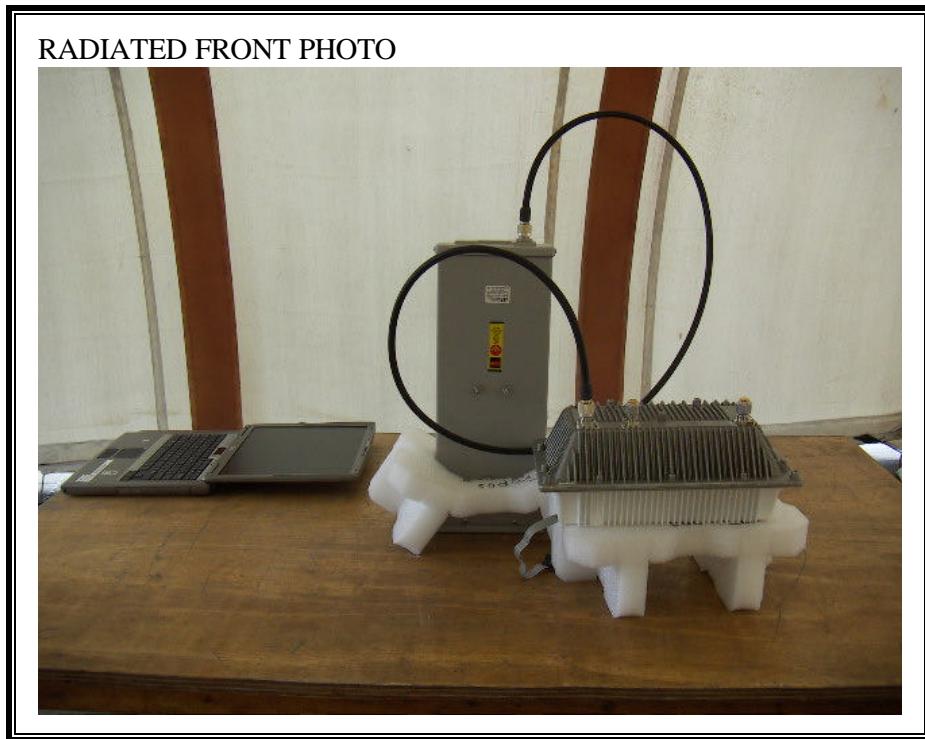
**9.1 dBi MONOPOLE ANTENNA**



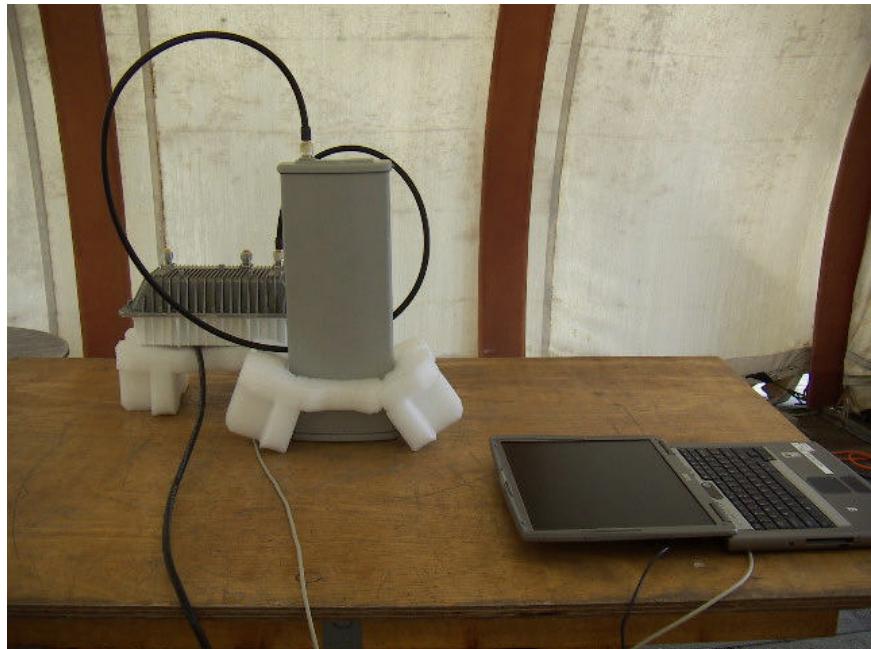
RADIATED BACK PHOTO



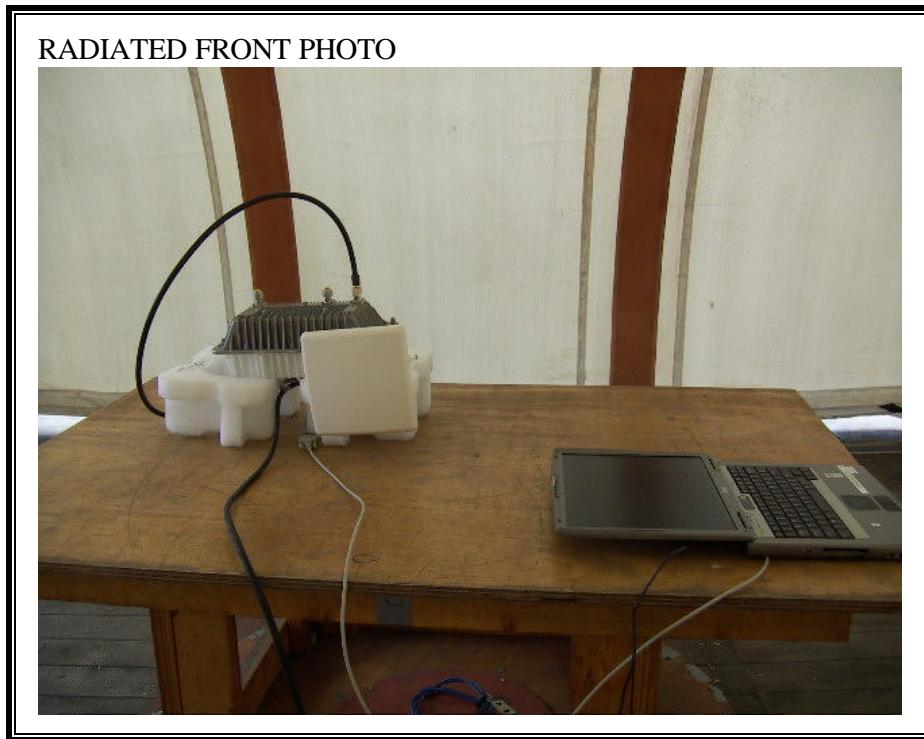
17 dBi SECTOR ANTENNA



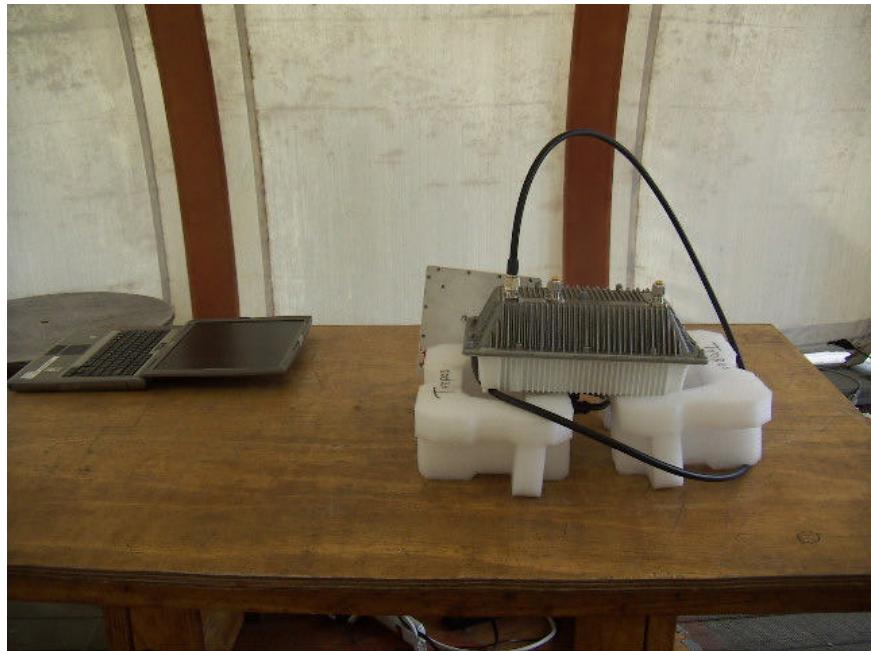
RADIATED BACK PHOTO



**19 dBi PATCH ANTENNA**

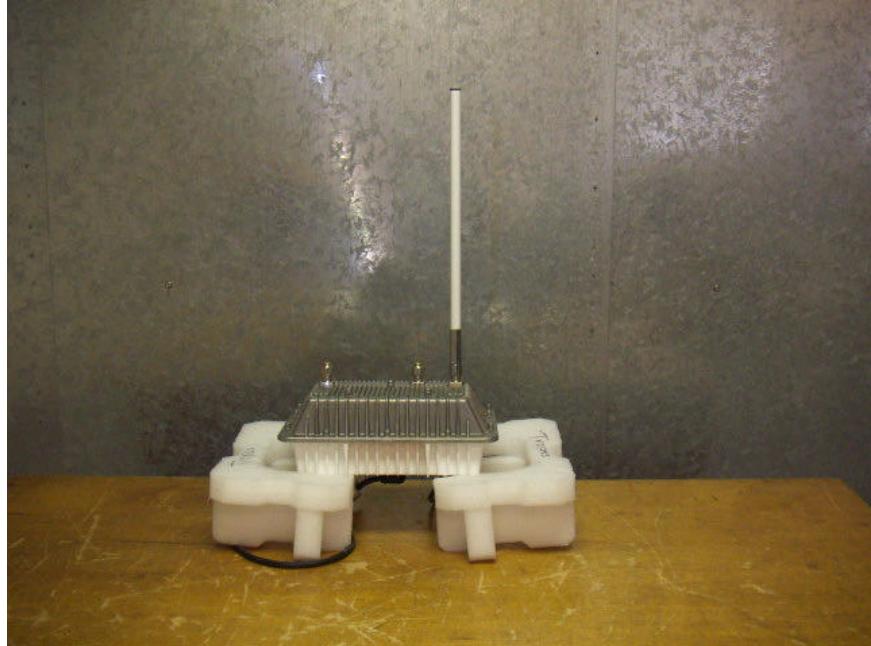


RADIATED BACK PHOTO

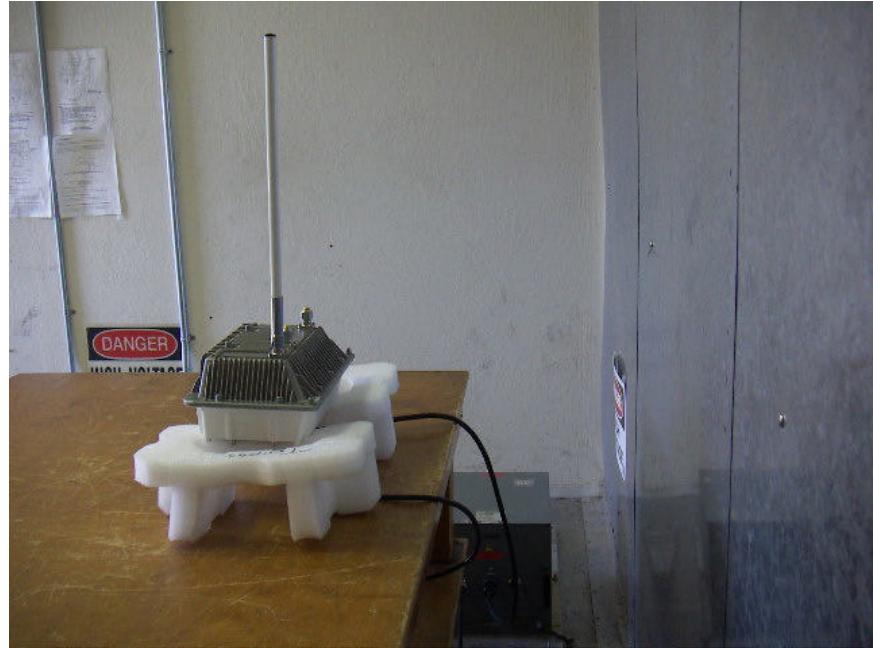


**POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP**

LINE CONDUCTED FRONT PHOTO



LINE CONDUCTED BACK PHOTO



**END OF REPORT**