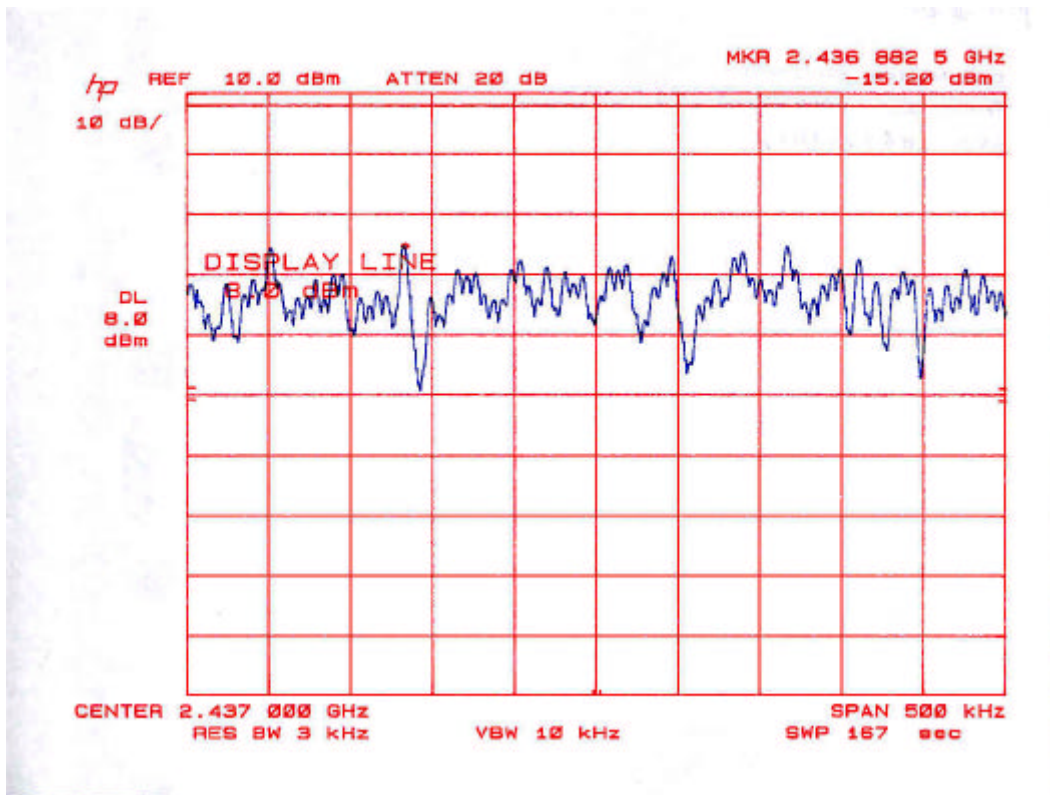
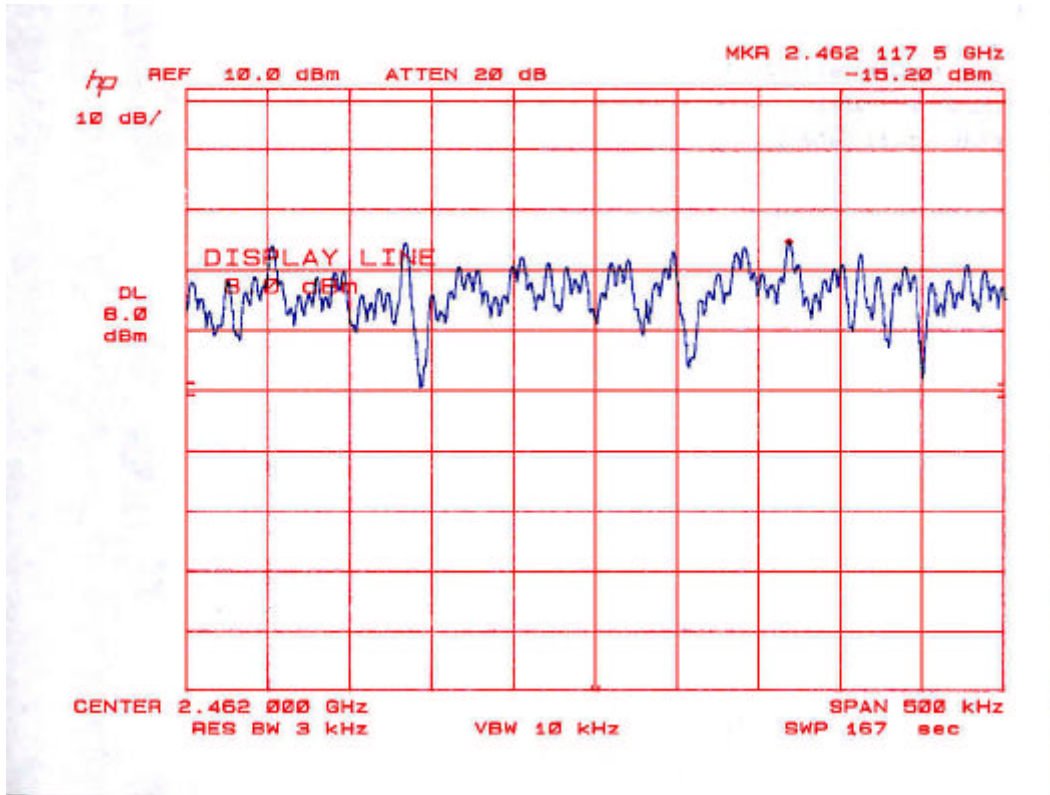


MIDDLE CHANNEL  
PSD CH6



HIGH CHANNEL  
PSD CH11



## 10.5. RADIATED EMISSION

### 10.5.1. RADIATED EMISSION, BANDEDGES & RESTRICTED BANDS

#### TEST SETUP

Detector Function Setting of Test Receiver

| Frequency Range (MHz) | Detector Function                              | Resolution Bandwidth                        | Video Bandwidth                             |
|-----------------------|--|---|---|
| 30 to 1000            | <input checked="" type="checkbox"/> Peak       | <input checked="" type="checkbox"/> 100 KHz | <input checked="" type="checkbox"/> 100 KHz |
|                       | <input checked="" type="checkbox"/> Quasi Peak | <input checked="" type="checkbox"/> 1 MHz   | <input checked="" type="checkbox"/> 1 MHz   |
| Above 1000            | <input checked="" type="checkbox"/> Peak       | <input checked="" type="checkbox"/> 1 MHz   | <input checked="" type="checkbox"/> 1 MHz   |
|                       | <input checked="" type="checkbox"/> Average    | <input checked="" type="checkbox"/> 1 MHz   | <input checked="" type="checkbox"/> 10 Hz   |

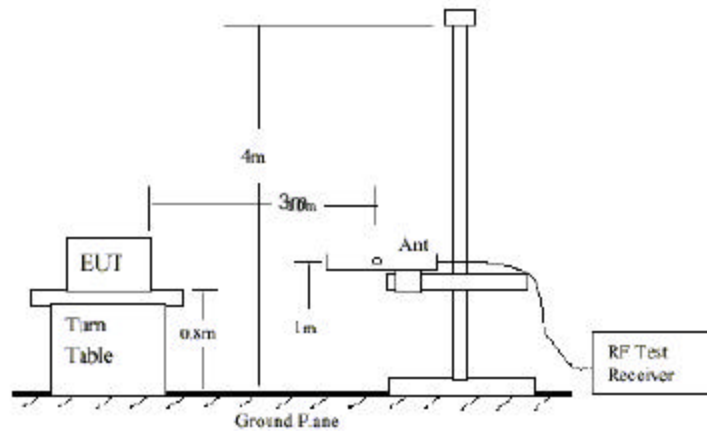


Fig 1: Radiated Emission Measurement 30 to 1000 MHz

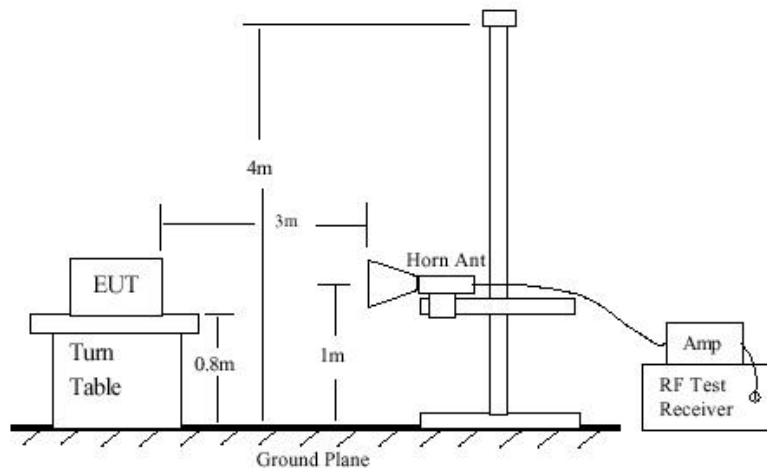


Fig 2: Radiated Emission Above 1000 MHz

### **TEST PROCEDURE**


1. The EUT was placed on the turntable 0.8 meter above ground in 3 meter open area test site.
2. Set the resolution bandwidth to 100KHz in the test receiver and select Peak function to scan the frequency below 1 GHz.
3. Shift the interference-receiving antenna located in antenna tower upwards and downwards between 1 and 4 meters above ground and find out the local peak emission on frequency domain.
4. Locate the interference-receiving antenna at the position where the local peak reach the maximum emission.
5. Rotate the turntable and stop at the angle where the measurement device has maximum reading.
6. Shift the interference-receiving antenna again to detect the maximum emission of the local peak.
7. If the reading of the local peak under Peak function is lower than limit by 6dB, then Quasi Peak detection is not needed and this reading should be recorded. And if it is

higher than Peak limit, then the test is fail. Others, switch the receiver to Quasi Peak function, set the resolution bandwidth to 100kHz and repeat the procedures (3)~(6). If the reading is lower than limit, this reading should be recorded, otherwise, the test is fail.

8. Set the resolution and video bandwidth of the spectrum analyzer to 1MHz and repeat procedures (3)~(6) for frequency band from 1 GHz to 10 times carrier frequency.

9. If the reading for the local peak is lower than the Average limit, no further testing is needed in this local peak and this reading should be recorded. If it is higher than Average limit but lower than Peak limit, then set the resolution bandwidth to 1MHz and video bandwidth to 10Hz. Repeat procedures (3)~(6). If the maximum reading is lower than Average limit, then this reading should be recorded. If it is higher, then the test is fail.

**RESULT**

|  |   |
|--|---|
|  <p>FCC, VCCI, CISPR, CE, AUSTEL, NZ<br/>UL, CSA, TUV, BSMI, DHHS, NVLAP</p> <p>561F MONTEREY ROAD, SAN JOSE, CA 95037-9001<br/>PHONE: (408) 463-0885 FAX: (408) 463-0888</p> | <p><i>Project #:</i> 02U1399-1</p> <p><i>Report #:</i> 020703C1</p> <p><i>Date &amp; Time:</i> 07/03/02 11:58 AM</p> <p><i>Test Engr:</i> Thanh Nguyen</p>  |
|  | <p><i>Company:</i> OTC WIRELESS&lt; INC.</p> <p><i>EUT Description:</i> 2.4GHz 802.11b Radio Outdoor Package. Model # AirEZY2411-BT-9</p> <p><i>Test Configuration:</i> EUT, DC Injector</p> <p><i>Type of Test:</i> FCC Part 15, Class B</p> <p><i>Mode of Operation:</i> Rx</p> |

[<< Main Sheet](#)

| Freq.  | Reading | AF    | Closs | Pre-amp | Level    | Limit | Margin | Pol   | Az     | Height  | Mark    |
|--------|---------|-------|-------|---------|----------|-------|--------|-------|--------|---------|---------|
| (MHz)  | (dBuV)  | (dB)  | (dB)  | (dB)    | (dBuV/m) | FCC_B | (dB)   | (H/V) | (Deg)  | (Meter) | (P/Q/A) |
| 440.00 | 51.40   | 16.50 | 3.18  | 27.59   | 43.49    | 46.00 | -2.51  | 3mV   | 180.00 | 1.00    | P       |
| 572.00 | 49.00   | 18.59 | 3.74  | 28.08   | 43.26    | 46.00 | -2.74  | 3mV   | 180.00 | 1.00    | P       |
| 616.00 | 48.00   | 19.24 | 3.92  | 28.10   | 43.05    | 46.00 | -2.95  | 3mV   | 180.00 | 1.00    | P       |
| 528.00 | 48.50   | 18.26 | 3.57  | 28.00   | 42.32    | 46.00 | -3.68  | 3mV   | 180.00 | 1.00    | P       |
| 748.50 | 43.60   | 21.32 | 4.40  | 27.93   | 41.40    | 46.00 | -4.60  | 3mV   | 180.00 | 1.00    | P       |
| 132.00 | 50.50   | 13.06 | 1.50  | 27.19   | 37.86    | 43.50 | -5.64  | 3mV   | 180.00 | 1.00    | P       |

No non-compliance noted. See data below.

07/31/02 **FCC Measurement**  
**Compliance Certification Services, Morgan Hill Open Field Site**

**Test Engr:** Frank Ibrahim  
**Project #:** 02U1433-1  
**Company:** OTC Wireless  
**EUT Descrip.:** 2.4 GHz 802.11b Transceiver Radio Outdoor Unit with External Antenna  
**EUT M/N:** AVCW-100/200  
**Test Target:** FCC 15.247

**Equipment for 1-22 GHz:**

HP8566B Analyzer  
 Miteq NSP2600-44 Preamp  
 EMCO 3115 Antenna  
 Cable: 17.0 feet

**Equipment for 22 - 58 GHz:**

HP8566B Analyzer  
 HP 11975A Amplifier (LO)  
 HP 11970K External mixer/antenna  
 Cable: IF Only (321 MHz)

**Peak Measurements:**

1 MHz Resolution Bandwidth  
 1MHz Video Bandwidth

**Average Measurements:**

1MHz Resolution Bandwidth  
 10Hz Video Bandwidth

CHI

| f GHz  | Dist feet             | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB                      | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB                    | Avg Mar dB | Notes          |  |
|--------|-----------------------|--------------|----------------|---------|-------|--------|--------------------------------|-----|-------------|------------|---------------|----------------|------------------------------|------------|----------------|--|
| 4.824  | 3.3                   | 30.3         | 22.0           | 32.6    | 6.5   | -36.1  | -9.5                           | 0.0 | 23.8        | 15.5       | 74.0          | 54.0           | -50.2                        | -38.5      | V, Noise Floor |  |
| 7.236  | 3.3                   | 31.8         | 21.0           | 36.6    | 8.2   | -36.3  | -9.5                           | 0.0 | 30.8        | 20.0       | 74.0          | 54.0           | -43.2                        | -34.0      | V, Noise Floor |  |
| 9.648  | 3.3                   | 28.5         | 20.9           | 37.3    | 9.7   | -35.4  | -9.5                           | 0.0 | 30.6        | 23.0       | 74.0          | 54.0           | -43.4                        | -31.0      | V, Noise Floor |  |
| 12.060 | 3.3                   | 27.3         | 20.9           | 39.0    | 10.7  | -36.3  | -9.5                           | 0.0 | 31.3        | 24.9       | 74.0          | 54.0           | -42.7                        | -29.1      | V, Noise Floor |  |
| 14.472 | 3.3                   | 35.0         | 25.5           | 40.4    | 12.2  | -38.1  | -9.5                           | 0.0 | 40.1        | 30.6       | 74.0          | 54.0           | -33.9                        | -23.4      | V, Noise Floor |  |
| 16.884 | 3.3                   | 34.5         | 25.1           | 42.1    | 13.9  | -38.8  | -9.5                           | 0.0 | 42.1        | 32.7       | 74.0          | 54.0           | -31.9                        | -21.3      | V, Noise Floor |  |
| 19.296 | 3.3                   | 33.4         | 25.9           | 32.0    | 15.3  | -39.1  | -9.5                           | 0.0 | 32.2        | 24.7       | 74.0          | 54.0           | -41.8                        | -29.3      | V, Noise Floor |  |
| 21.708 | 3.3                   | 33.3         | 25.2           | 32.2    | 16.7  | -38.8  | -9.5                           | 0.0 | 33.9        | 25.8       | 74.0          | 54.0           | -40.1                        | -28.2      | V, Noise Floor |  |
| 24.120 | 3.3                   | 33.2         | 25.3           | 33.0    | 18.6  | -39.4  | -9.5                           | 0.0 | 35.9        | 28.0       | 74.0          | 54.0           | -38.1                        | -26.0      | V, Noise Floor |  |
| 4.824  | 3.3                   | 31.5         | 22.3           | 32.6    | 6.5   | -36.1  | -9.5                           | 0.0 | 25.6        | 15.8       | 74.0          | 54.0           | -48.4                        | -38.2      | H, Noise Floor |  |
| 7.236  | 3.3                   | 32.1         | 21.5           | 36.6    | 8.2   | -36.3  | -9.5                           | 0.0 | 26.8        | 20.5       | 74.0          | 54.0           | -47.2                        | -33.5      | H, Noise Floor |  |
| 9.648  | 3.3                   | 27.8         | 21.1           | 37.3    | 9.7   | -35.4  | -9.5                           | 0.0 | 29.3        | 23.2       | 74.0          | 54.0           | -44.7                        | -30.8      | H, Noise Floor |  |
| 12.060 | 3.3                   | 27.2         | 21.3           | 39.0    | 10.7  | -36.3  | -9.5                           | 0.0 | 38.7        | 25.3       | 74.0          | 54.0           | -35.3                        | -28.7      | H, Noise Floor |  |
| 14.472 | 3.3                   | 34.7         | 25.6           | 40.4    | 12.2  | -38.1  | -9.5                           | 0.0 | 39.3        | 30.7       | 74.0          | 54.0           | -34.7                        | -23.3      | H, Noise Floor |  |
| 16.884 | 3.3                   | 34.2         | 25.1           | 42.1    | 13.9  | -38.8  | -9.5                           | 0.0 | 40.7        | 32.7       | 74.0          | 54.0           | -33.3                        | -21.3      | H, Noise Floor |  |
| 19.296 | 3.3                   | 33.1         | 24.8           | 32.0    | 15.3  | -39.1  | -9.5                           | 0.0 | 32.0        | 23.6       | 74.0          | 54.0           | -42.0                        | -30.4      | H, Noise Floor |  |
| 21.708 | 3.3                   | 33.2         | 25.1           | 32.2    | 16.7  | -38.8  | -9.5                           | 0.0 | 34.1        | 25.7       | 74.0          | 54.0           | -39.9                        | -28.3      | H, Noise Floor |  |
| 24.120 | 3.3                   | 33.5         | 25.1           | 33.0    | 18.6  | -39.4  | -9.5                           | 0.0 | 36.2        | 27.8       | 74.0          | 54.0           | -37.8                        | -26.2      | H, Noise Floor |  |
| f      | Measurement Frequency |              |                |         |       | Amp    | Preamp Gain                    |     |             |            |               | Avg Lim        | Average Field Strength Limit |            |                |  |
| Dist   | Distance to Antenna   |              |                |         |       | D Corr | Distance Correct to 3 meters   |     |             |            |               | Pk Lim         | Peak Field Strength Limit    |            |                |  |
| Read   | Analyzer Reading      |              |                |         |       | Avg    | Average Field Strength @ 3 m   |     |             |            |               | Avg Mar        | Margin vs. Average Limit     |            |                |  |
| AF     | Antenna Factor        |              |                |         |       | Peak   | Calculated Peak Field Strength |     |             |            |               | Pk Mar         | Margin vs. Peak Limit        |            |                |  |
| CL     | Cable Loss            |              |                |         |       | HPF    | High Pass Filter               |     |             |            |               |                |                              |            |                |  |

Note: All readings above are noise floor

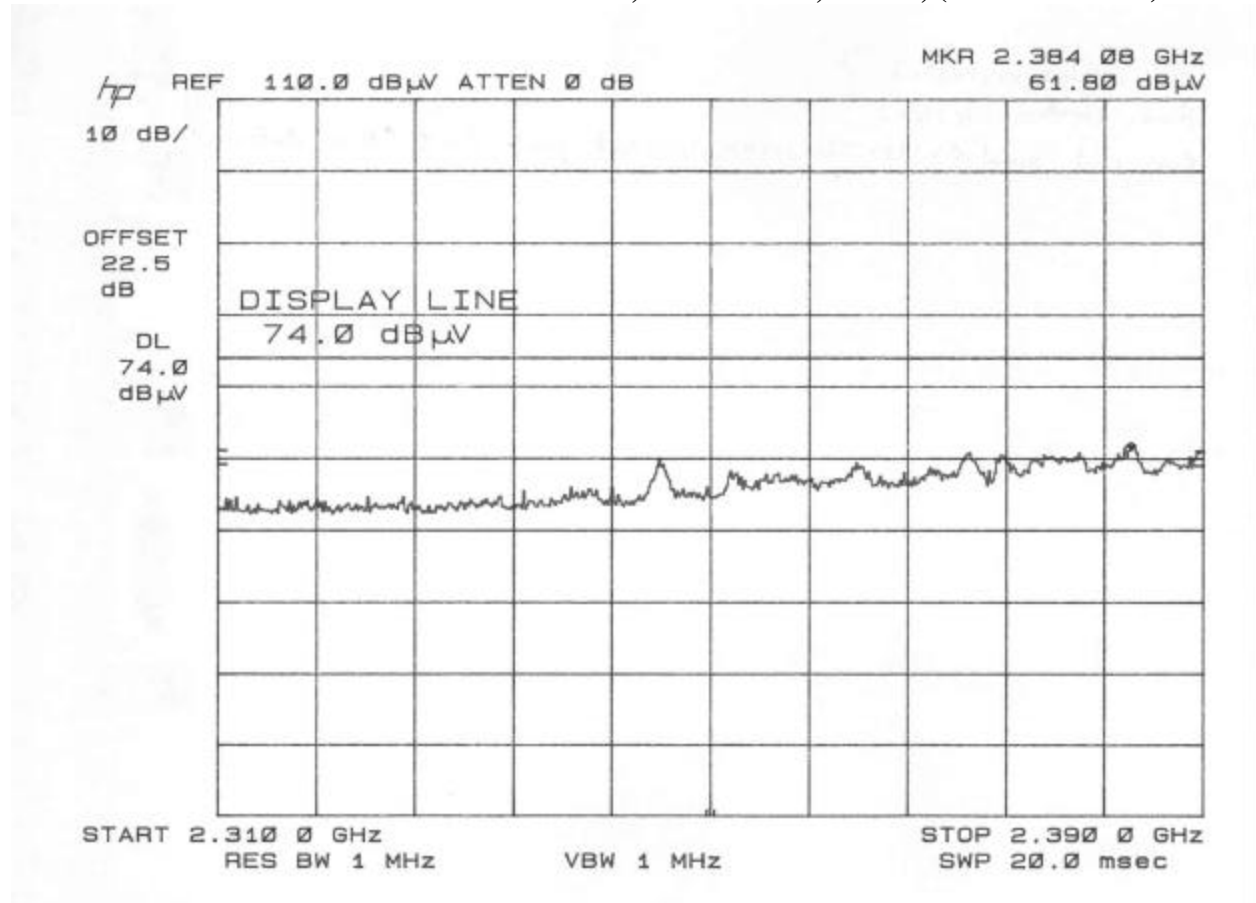
| 07/31/02 FCC Measurement                                       |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
|--|-----------------------|--|----------------|---------|-------|--------|--------------------------------|-----------------------------------|-------------|------------|---------------|----------------|------------------------------|------------|----------------|--|
| Compliance Certification Services, Morgan Hill Open Field Site |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>Test Engr:</b>  |                       | Frank Ibrahim  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>Project #:</b>  |                       | 02U1433-1  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>Company:</b>  |                       | OTC Wireless   |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>EUT Descrip.:</b>   |                       | 2.4 GHz 802.11b Transceiver Radio Outdoor Unit with External Antenna |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>EUT M/N:</b>  |                       | AVCW-100/200   |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>Test Target:</b>  |                       | FCC 15.247   |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| <b>Equipment for 1-22 GHz:</b>                                 |                       |  |                |         |       |        |                                | <b>Equipment for 22 - 58 GHz:</b> |             |            |               |                |                              |            |                |  |
| HP8566B Analyzer   |                       |  |                |         |       |        |                                | HP8566B Analyzer                  |             |            |               |                |                              |            |                |  |
| Miteq NSP2600-44 Preamp  |                       |  |                |         |       |        |                                | HP 11975A Amplifier (LO)          |             |            |               |                |                              |            |                |  |
| EMCO 3115 Antenna  |                       |  |                |         |       |        |                                | HP 11970K External mixer/antenna  |             |            |               |                |                              |            |                |  |
| Cable: 17.0 feet   |                       |  |                |         |       |        |                                | Cable: IF Only (321 MHz)          |             |            |               |                |                              |            |                |  |
| <b>Peak Measurements:</b>                                      |                       |  |                |         |       |        |                                | <b>Average Measurements:</b>      |             |            |               |                |                              |            |                |  |
| 1 MHz Resolution Bandwidth                                     |                       |  |                |         |       |        |                                | 1MHz Resolution Bandwidth         |             |            |               |                |                              |            |                |  |
| 1MHz Video Bandwidth   |                       |  |                |         |       |        |                                | 10Hz Video Bandwidth              |             |            |               |                |                              |            |                |  |
| CH6  |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |
| f GHz  | Dist feet             | Read Pk dBuV   | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB                      | HPF                               | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB                    | Avg Mar dB | Notes          |  |
| 4.874  | 3.3                   | 27.7   | 20.2           | 32.7    | 6.5   | -36.1  | -9.5                           | 0.0                               | 21.3        | 13.8       | 74.0          | 54.0           | -52.7                        | -40.2      | V, Noise Floor |  |
| 7.311  | 3.3                   | 28.1   | 20.4           | 36.7    | 8.3   | -36.3  | -9.5                           | 0.0                               | 27.3        | 19.6       | 74.0          | 54.0           | -46.7                        | -34.4      | V, Noise Floor |  |
| 9.748  | 3.3                   | 25.8   | 19.7           | 37.5    | 9.7   | -35.5  | -9.5                           | 0.0                               | 28.1        | 22.0       | 74.0          | 54.0           | -45.9                        | -32.0      | V, Noise Floor |  |
| 12.185   | 3.3                   | 27.9   | 20.6           | 39.1    | 10.8  | -36.4  | -9.5                           | 0.0                               | 32.0        | 24.7       | 74.0          | 54.0           | -42.0                        | -29.3      | V, Noise Floor |  |
| 14.622   | 3.3                   | 31.6   | 24.1           | 40.2    | 12.3  | -38.2  | -9.5                           | 0.0                               | 36.4        | 28.9       | 74.0          | 54.0           | -37.6                        | -25.1      | V, Noise Floor |  |
| 17.059   | 3.3                   | 33.0   | 23.7           | 42.9    | 14.0  | -38.8  | -9.5                           | 0.0                               | 41.6        | 32.3       | 74.0          | 54.0           | -32.4                        | -21.7      | V, Noise Floor |  |
| 19.496   | 3.3                   | 34.1   | 25.6           | 32.1    | 15.4  | -39.0  | -9.5                           | 0.0                               | 33.1        | 24.6       | 74.0          | 54.0           | -40.9                        | -29.4      | V, Noise Floor |  |
| 21.933   | 3.3                   | 32.3   | 25.2           | 32.0    | 16.8  | -38.8  | -9.5                           | 0.0                               | 32.8        | 25.7       | 74.0          | 54.0           | -41.2                        | -28.3      | V, Noise Floor |  |
| 24.370   | 3.3                   | 33.4   | 25.8           | 32.8    | 18.8  | -39.5  | -9.5                           | 0.0                               | 36.0        | 28.4       | 74.0          | 54.0           | -38.0                        | -25.6      | V, Noise Floor |  |
| 4.874  | 3.3                   | 29.2   | 19.9           | 32.7    | 6.5   | -36.1  | -9.5                           | 0.0                               | 22.8        | 13.5       | 74.0          | 54.0           | -51.2                        | -40.5      | H, Noise Floor |  |
| 7.311  | 3.3                   | 28.4   | 20.2           | 36.7    | 8.3   | -36.3  | -9.5                           | 0.0                               | 27.6        | 19.4       | 74.0          | 54.0           | -46.4                        | -34.6      | H, Noise Floor |  |
| 9.748  | 3.3                   | 26.6   | 19.5           | 37.5    | 9.7   | -35.5  | -9.5                           | 0.0                               | 28.9        | 21.8       | 74.0          | 54.0           | -45.1                        | -32.2      | H, Noise Floor |  |
| 12.185   | 3.3                   | 29.8   | 20.4           | 39.1    | 10.8  | -36.4  | -9.5                           | 0.0                               | 33.9        | 24.5       | 74.0          | 54.0           | -40.1                        | -29.5      | H, Noise Floor |  |
| 14.622   | 3.3                   | 32.0   | 24.0           | 40.2    | 12.3  | -38.2  | -9.5                           | 0.0                               | 36.8        | 28.8       | 74.0          | 54.0           | -37.2                        | -25.2      | H, Noise Floor |  |
| 17.059   | 3.3                   | 31.2   | 23.8           | 42.9    | 14.0  | -38.8  | -9.5                           | 0.0                               | 39.8        | 32.4       | 74.0          | 54.0           | -34.2                        | -21.6      | H, Noise Floor |  |
| 19.496   | 3.3                   | 34.6   | 25.6           | 32.1    | 15.4  | -39.0  | -9.5                           | 0.0                               | 33.6        | 24.6       | 74.0          | 54.0           | -40.4                        | -29.4      | H, Noise Floor |  |
| 21.933   | 3.3                   | 36.4   | 25.1           | 32.0    | 16.8  | -38.8  | -9.5                           | 0.0                               | 36.9        | 25.6       | 74.0          | 54.0           | -37.1                        | -28.4      | H, Noise Floor |  |
| 24.370   | 3.3                   | 34.5   | 25.9           | 32.8    | 18.8  | -39.5  | -9.5                           | 0.0                               | 37.1        | 28.5       | 74.0          | 54.0           | -36.9                        | -25.5      | H, Noise Floor |  |
| f  | Measurement Frequency |  |                |         |       | Amp    | Preamp Gain                    |                                   |             |            |               | Avg Lim        | Average Field Strength Limit |            |                |  |
| Dist   | Distance to Antenna   |  |                |         |       | D Corr | Distance Correct to 3 meters   |                                   |             |            |               | Pk Lim         | Peak Field Strength Limit    |            |                |  |
| Read   | Analyzer Reading      |  |                |         |       | Avg    | Average Field Strength @ 3 m   |                                   |             |            |               | Avg Mar        | Margin vs. Average Limit     |            |                |  |
| AF   | Antenna Factor        |  |                |         |       | Peak   | Calculated Peak Field Strength |                                   |             |            |               | Pk Mar         | Margin vs. Peak Limit        |            |                |  |
| CL   | Cable Loss            |  |                |         |       | HPF    | High Pass Filter               |                                   |             |            |               |                |                              |            |                |  |
| Note: All readings above are noise floor                       |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |

| 07/31/02 FCC Measurement                                       |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
|--|-----------------------|--|----------------|---------|-------|--------|--------------------------------|-----------------------------------|-------------|------------|---------------|----------------|------------------------------|------------|----------------|--|--|
| Compliance Certification Services, Morgan Hill Open Field Site |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| Test Engr:   |                       | Frank Ibrahim  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| Project #:   |                       | 02U1433-1  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| Company:   |                       | OTC Wireless   |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| EUT Descrip.:  |                       | 2.4 GHz 802.11b Transceiver Radio Outdoor Unit with External Antenna |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| EUT M/N:   |                       | AVCW-100/200   |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| Test Target:   |                       | FCC 15.247   |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| <b>Equipment for 1-22 GHz:</b>                                 |                       |  |                |         |       |        |                                | <b>Equipment for 22 - 58 GHz:</b> |             |            |               |                |                              |            |                |  |  |
| HP8566B Analyzer   |                       |  |                |         |       |        |                                | HP8566B Analyzer                  |             |            |               |                |                              |            |                |  |  |
| Miteq NSP2600-44 Preamp  |                       |  |                |         |       |        |                                | HP 11975A Amplifier (LO)          |             |            |               |                |                              |            |                |  |  |
| EMCO 3115 Antenna  |                       |  |                |         |       |        |                                | HP 11970K External mixer/antenna  |             |            |               |                |                              |            |                |  |  |
| Cable: 17.0 feet   |                       |  |                |         |       |        |                                | Cable: IF Only (321 MHz)          |             |            |               |                |                              |            |                |  |  |
| <b>Peak Measurements:</b>                                      |                       |  |                |         |       |        |                                | <b>Average Measurements:</b>      |             |            |               |                |                              |            |                |  |  |
| 1 MHz Resolution Bandwidth                                     |                       |  |                |         |       |        |                                | 1MHz Resolution Bandwidth         |             |            |               |                |                              |            |                |  |  |
| 1MHz Video Bandwidth   |                       |  |                |         |       |        |                                | 10Hz Video Bandwidth              |             |            |               |                |                              |            |                |  |  |
| CH12   |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |
| f GHz  | Dist feet             | Read Pk dBuV   | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB                      | HPF                               | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB                    | Avg Mar dB | Notes          |  |  |
| 4.934  | 3.3                   | 32.7   | 23.5           | 32.8    | 6.6   | -36.1  | -9.5                           | 0.0                               | 26.5        | 17.3       | 74.0          | 54.0           | -47.5                        | -36.7      | V, Noise Floor |  |  |
| 7.401  | 3.3                   | 31.4   | 21.5           | 36.9    | 8.3   | -36.2  | -9.5                           | 0.0                               | 30.9        | 21.0       | 74.0          | 54.0           | -43.1                        | -33.0      | V, Noise Floor |  |  |
| 9.868  | 3.3                   | 26.8   | 22.3           | 37.7    | 9.8   | -35.5  | -9.5                           | 0.0                               | 29.3        | 24.8       | 74.0          | 54.0           | -44.7                        | -29.2      | V, Noise Floor |  |  |
| 12.335   | 3.3                   | 31.0   | 20.6           | 39.2    | 10.9  | -36.5  | -9.5                           | 0.0                               | 35.2        | 24.8       | 74.0          | 54.0           | -38.8                        | -29.2      | V, Noise Floor |  |  |
| 14.802   | 3.3                   | 33.9   | 23.4           | 40.1    | 12.4  | -38.3  | -9.5                           | 0.0                               | 38.6        | 28.1       | 74.0          | 54.0           | -35.4                        | -25.9      | V, Noise Floor |  |  |
| 17.269   | 3.3                   | 32.2   | 24.5           | 44.5    | 14.1  | -38.9  | -9.5                           | 0.0                               | 42.5        | 34.8       | 74.0          | 54.0           | -31.5                        | -19.2      | V, Noise Floor |  |  |
| 19.736   | 3.3                   | 33.3   | 24.6           | 32.1    | 15.6  | -39.0  | -9.5                           | 0.0                               | 32.5        | 23.8       | 74.0          | 54.0           | -41.5                        | -30.2      | V, Noise Floor |  |  |
| 22.203   | 3.3                   | 34.0   | 24.2           | 32.3    | 17.0  | -38.9  | -9.5                           | 0.0                               | 34.9        | 25.1       | 74.0          | 54.0           | -39.1                        | -28.9      | V, Noise Floor |  |  |
| 24.670   | 3.3                   | 34.5   | 25.5           | 32.8    | 19.0  | -39.6  | -9.5                           | 0.0                               | 37.3        | 28.3       | 74.0          | 54.0           | -36.7                        | -25.7      | V, Noise Floor |  |  |
| 4.934  | 3.3                   | 28.7   | 22.4           | 32.8    | 6.6   | -36.1  | -9.5                           | 0.0                               | 22.5        | 16.2       | 74.0          | 54.0           | -51.5                        | -37.8      | H, Noise Floor |  |  |
| 7.401  | 3.3                   | 28.7   | 22.5           | 36.9    | 8.3   | -36.2  | -9.5                           | 0.0                               | 28.2        | 22.0       | 74.0          | 54.0           | -45.8                        | -32.0      | H, Noise Floor |  |  |
| 9.868  | 3.3                   | 27.4   | 21.6           | 37.7    | 9.8   | -35.5  | -9.5                           | 0.0                               | 29.9        | 24.1       | 74.0          | 54.0           | -44.1                        | -29.9      | H, Noise Floor |  |  |
| 12.335   | 3.3                   | 30.1   | 23.4           | 39.2    | 10.9  | -36.5  | -9.5                           | 0.0                               | 34.3        | 27.6       | 74.0          | 54.0           | -39.7                        | -26.4      | H, Noise Floor |  |  |
| 14.802   | 3.3                   | 32.6   | 24.2           | 40.1    | 12.4  | -38.3  | -9.5                           | 0.0                               | 37.3        | 28.9       | 74.0          | 54.0           | -36.7                        | -25.1      | H, Noise Floor |  |  |
| 17.269   | 3.3                   | 31.8   | 24.1           | 44.5    | 14.1  | -38.9  | -9.5                           | 0.0                               | 42.1        | 34.4       | 74.0          | 54.0           | -31.9                        | -19.6      | H, Noise Floor |  |  |
| 19.736   | 3.3                   | 34.2   | 23.5           | 32.1    | 15.6  | -39.0  | -9.5                           | 0.0                               | 33.4        | 22.7       | 74.0          | 54.0           | -40.6                        | -31.3      | H, Noise Floor |  |  |
| 22.203   | 3.3                   | 34.8   | 23.5           | 32.3    | 17.0  | -38.9  | -9.5                           | 0.0                               | 35.7        | 24.4       | 74.0          | 54.0           | -38.3                        | -29.6      | H, Noise Floor |  |  |
| 24.670   | 3.3                   | 34.5   | 25.4           | 32.8    | 19.0  | -39.6  | -9.5                           | 0.0                               | 37.3        | 28.2       | 74.0          | 54.0           | -36.7                        | -25.8      | H, Noise Floor |  |  |
| f  | Measurement Frequency |  |                |         |       | Amp    | Preamp Gain                    |                                   |             |            |               | Avg Lim        | Average Field Strength Limit |            |                |  |  |
| Dist   | Distance to Antenna   |  |                |         |       | D Corr | Distance Correct to 3 meters   |                                   |             |            |               | Pk Lim         | Peak Field Strength Limit    |            |                |  |  |
| Read   | Analyzer Reading      |  |                |         |       | Avg    | Average Field Strength @ 3 m   |                                   |             |            |               | Avg Mar        | Margin vs. Average Limit     |            |                |  |  |
| AF   | Antenna Factor        |  |                |         |       | Peak   | Calculated Peak Field Strength |                                   |             |            |               | Pk Mar         | Margin vs. Peak Limit        |            |                |  |  |
| CL   | Cable Loss            |  |                |         |       | HPF    | High Pass Filter               |                                   |             |            |               |                |                              |            |                |  |  |
| Note: All readings above are noise floor                       |                       |  |                |         |       |        |                                |                                   |             |            |               |                |                              |            |                |  |  |

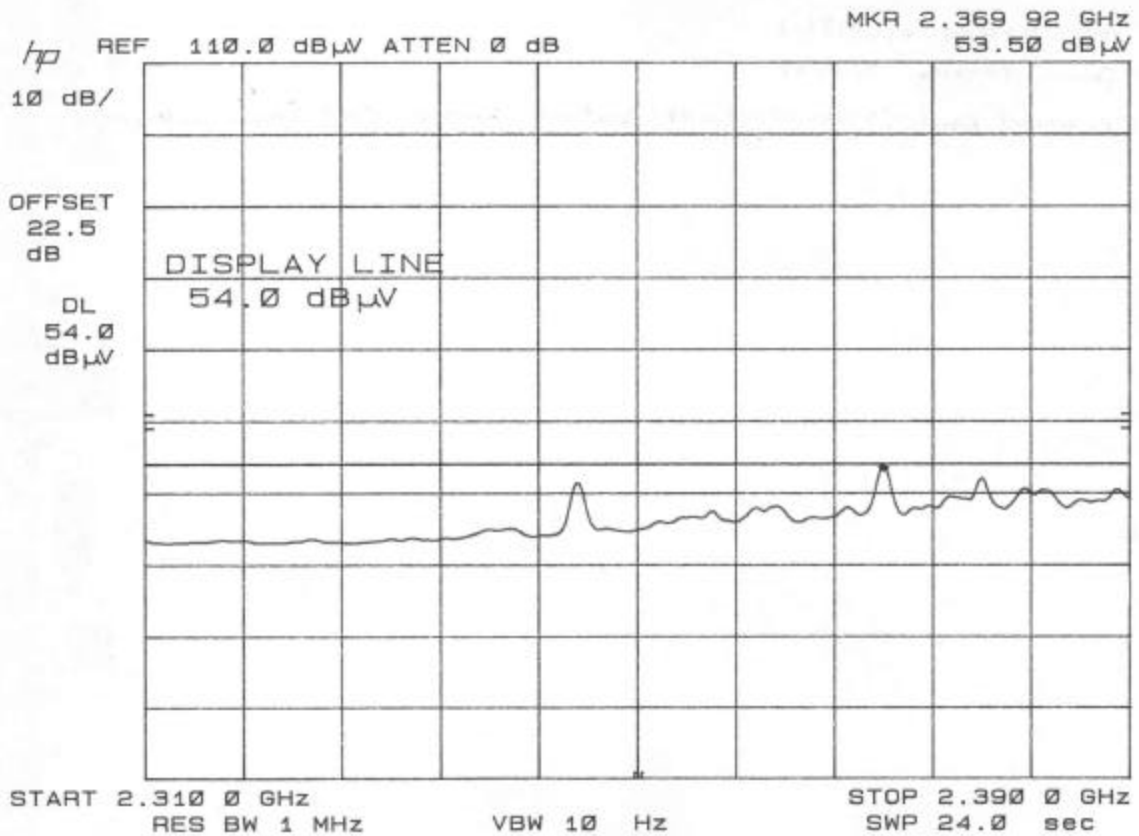


**RESTRICTED BANDS: 2310 – 2390 MHz and 2483.5 – 2500 MHz**

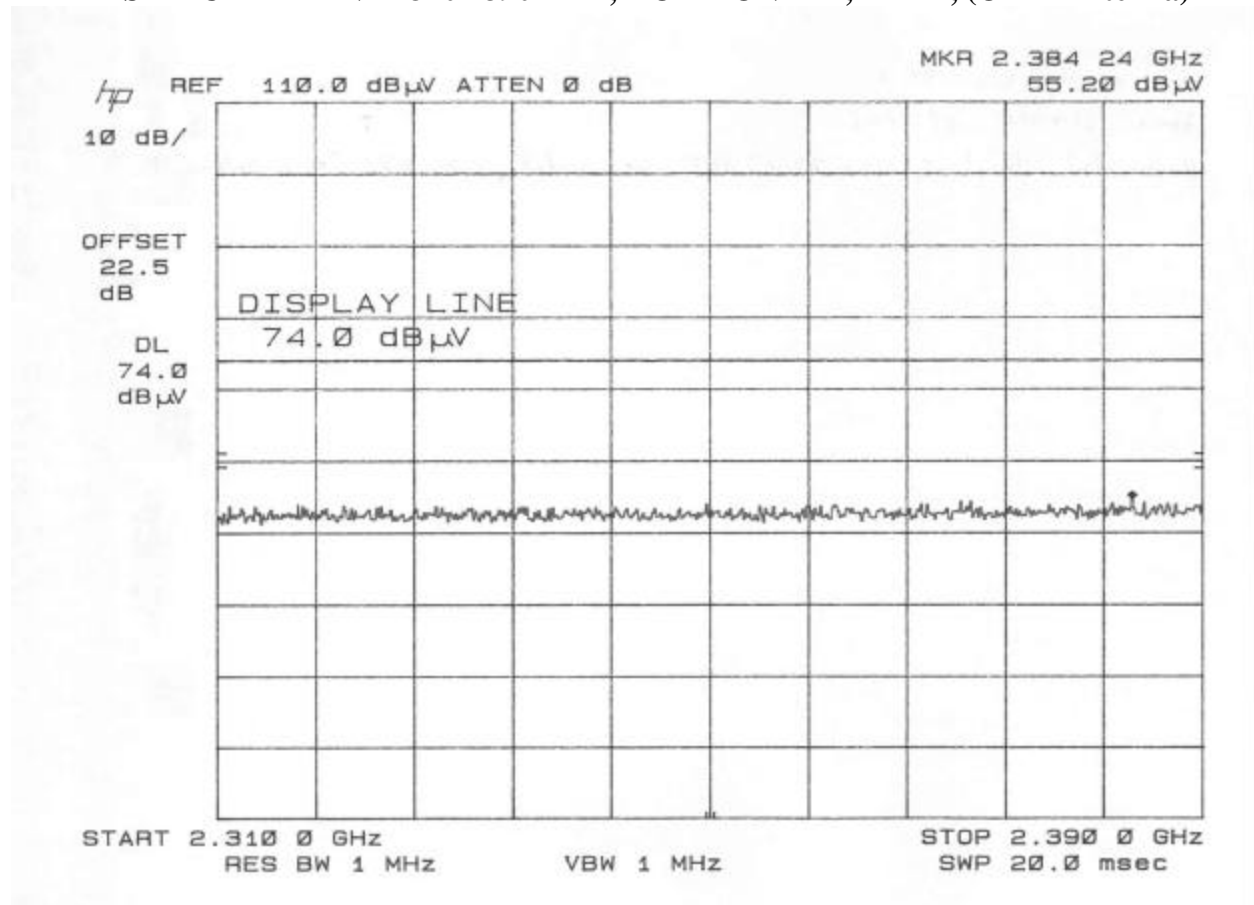
**RESTRICTED BAND 2310-2390MHz, VERTICAL, PEAK, (Omni Antenna)**



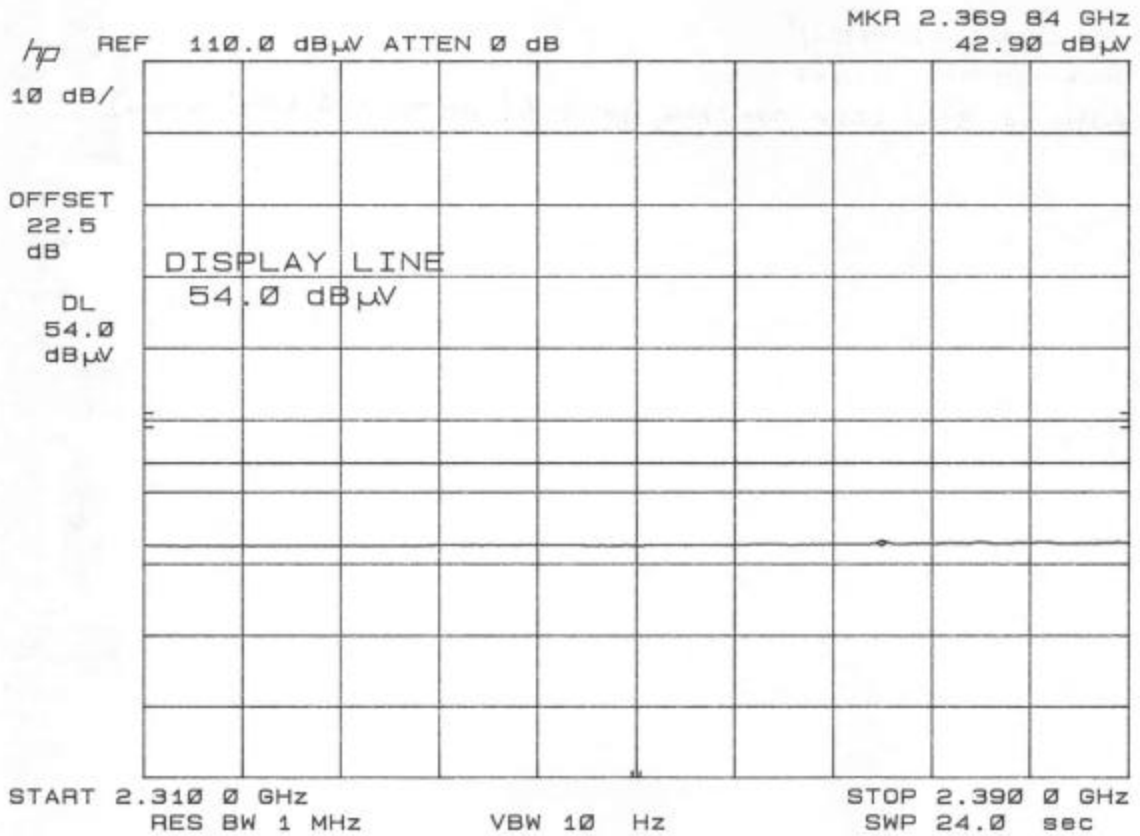
**RESTRICTED BAND 2310-2390MHz, VERTICAL, AVERAGE, (Omni Antenna)**



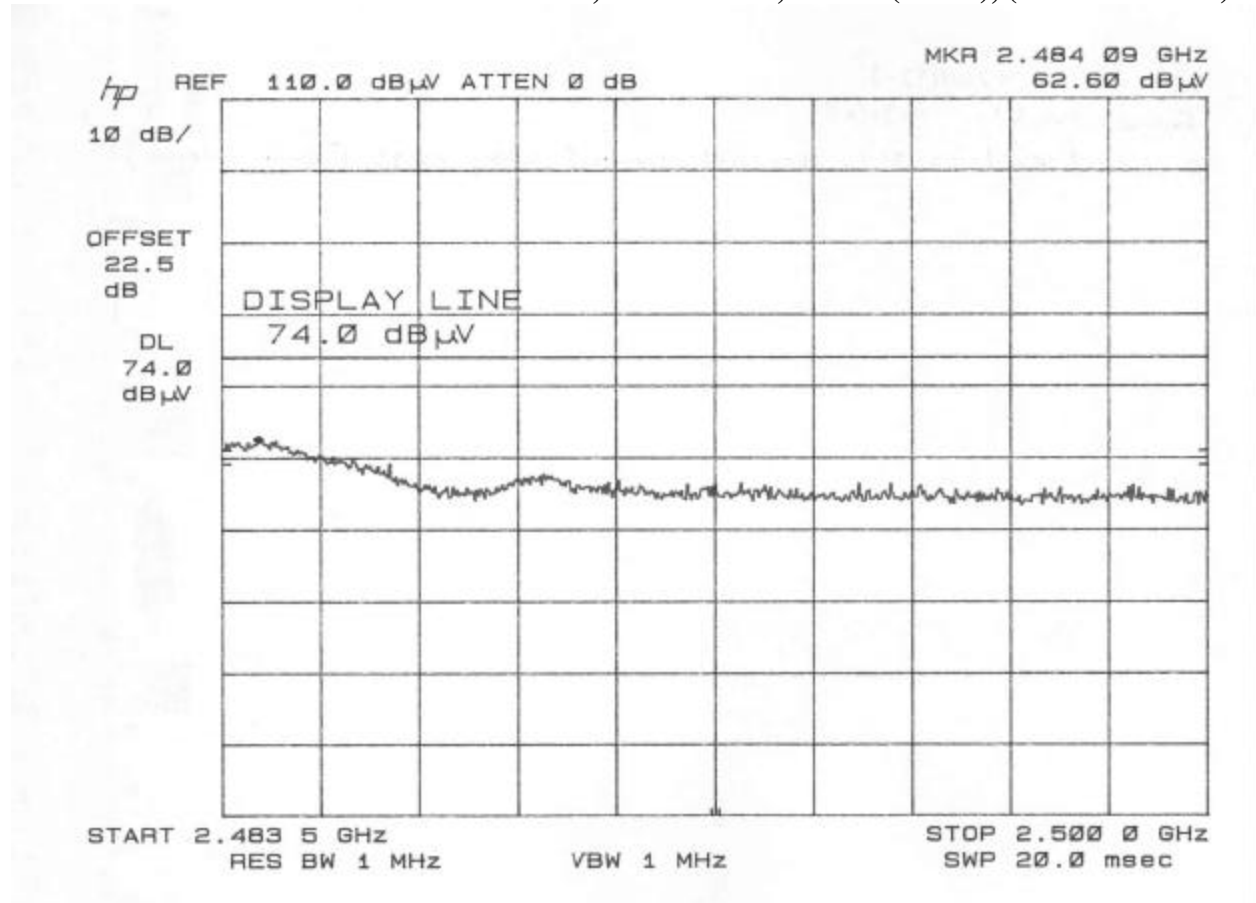
**RESTRICTED BAND 2310-2390MHZ, HORIZONTAL, PEAK, (Omni Antenna)**



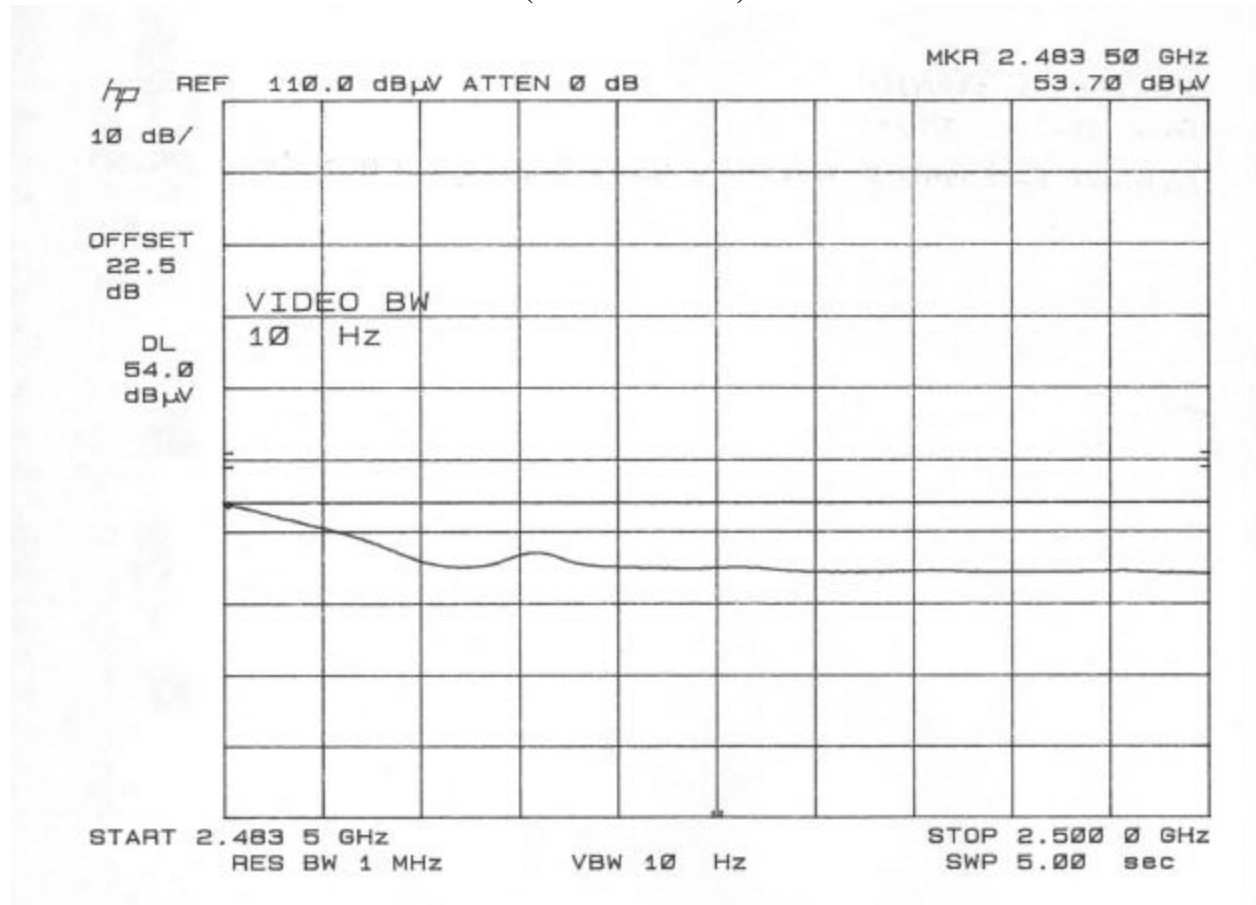
**RESTRICTED BAND 2310-2390MHZ, HORIZONTAL, AVERAGE, (Omni Antenna)**



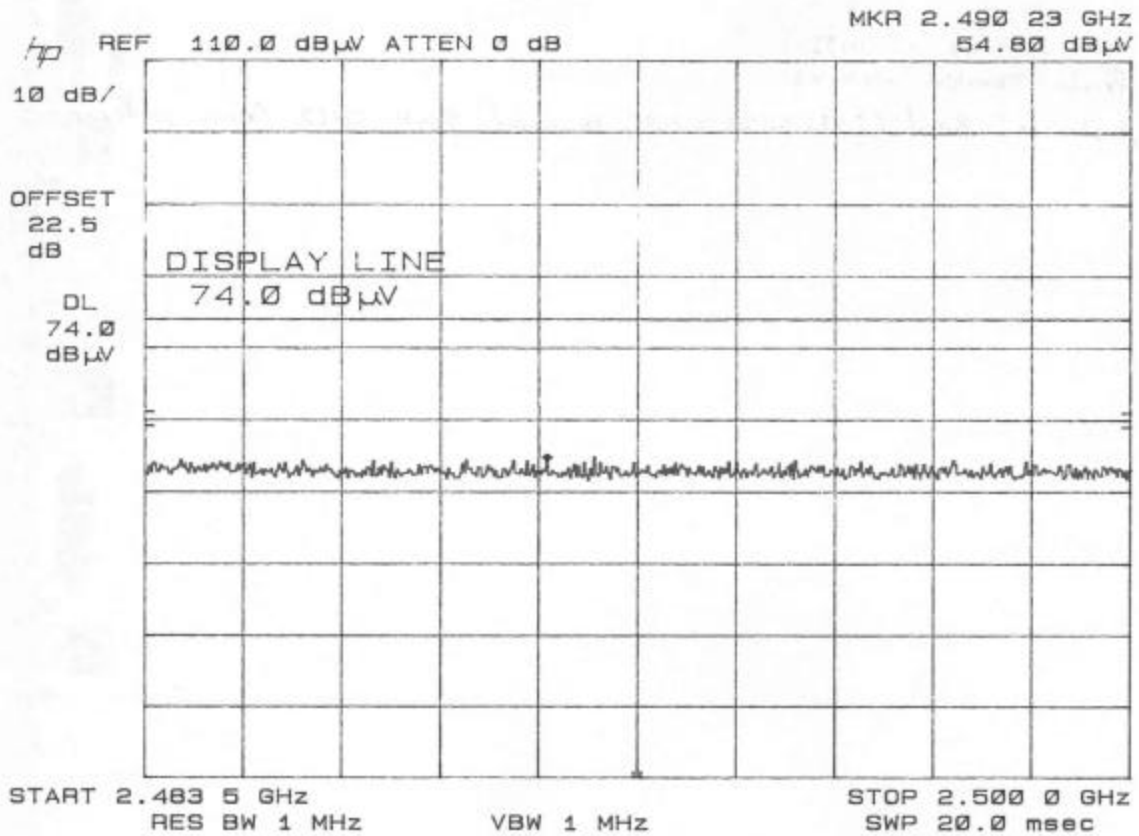
**RESTRICTED BAND 2483.5-2500MHZ, VERTICAL, PEAK (CH12), (Omni Antenna)**



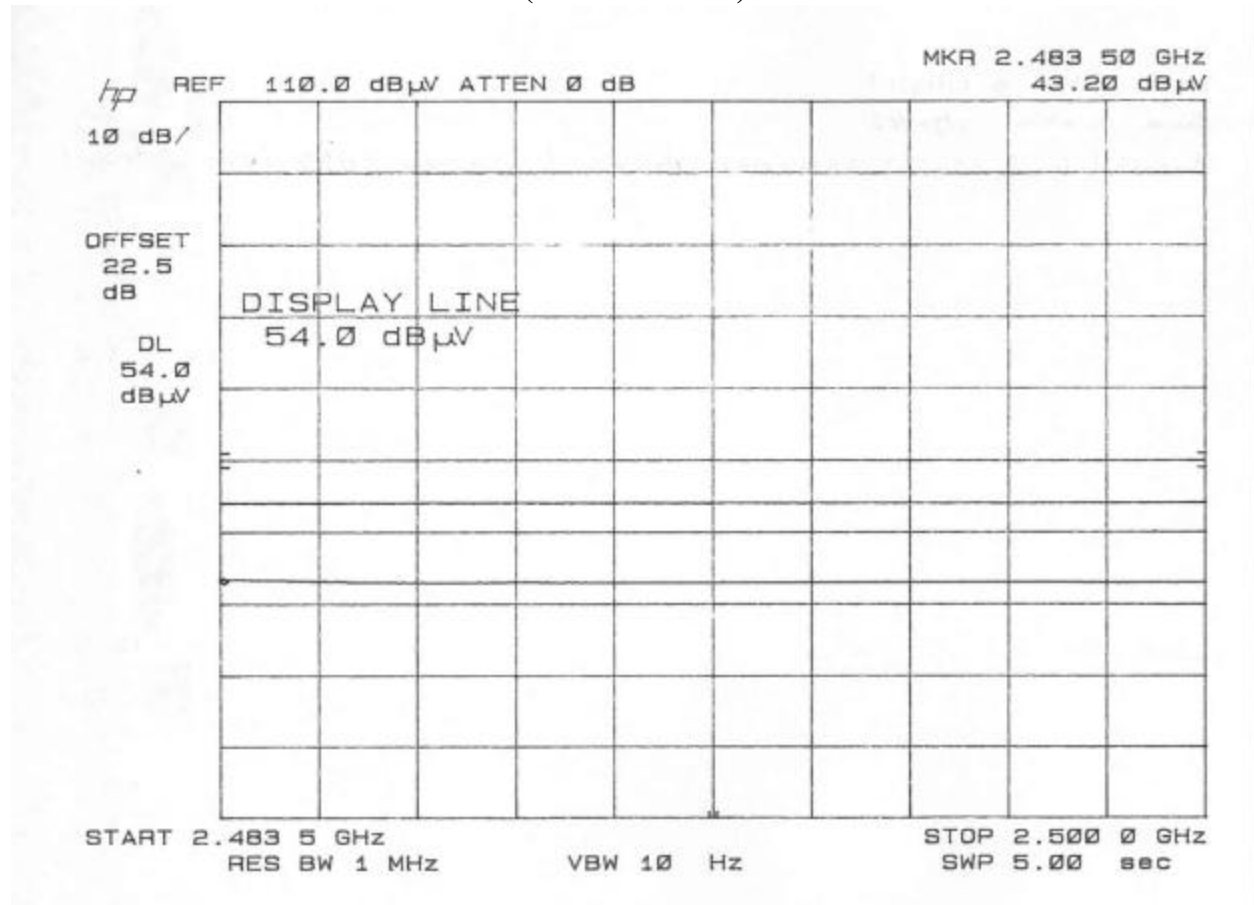
**RESTRICTED BAND 2483.5-2500MHZ, VERTICAL, AVERAGE (CH12),  
(Omni Antenna)**



**RESTRICTED BAND 2483.5-2500MHZ, HORIZONTAL, PEAK (CH12), (Omni Antenna)**

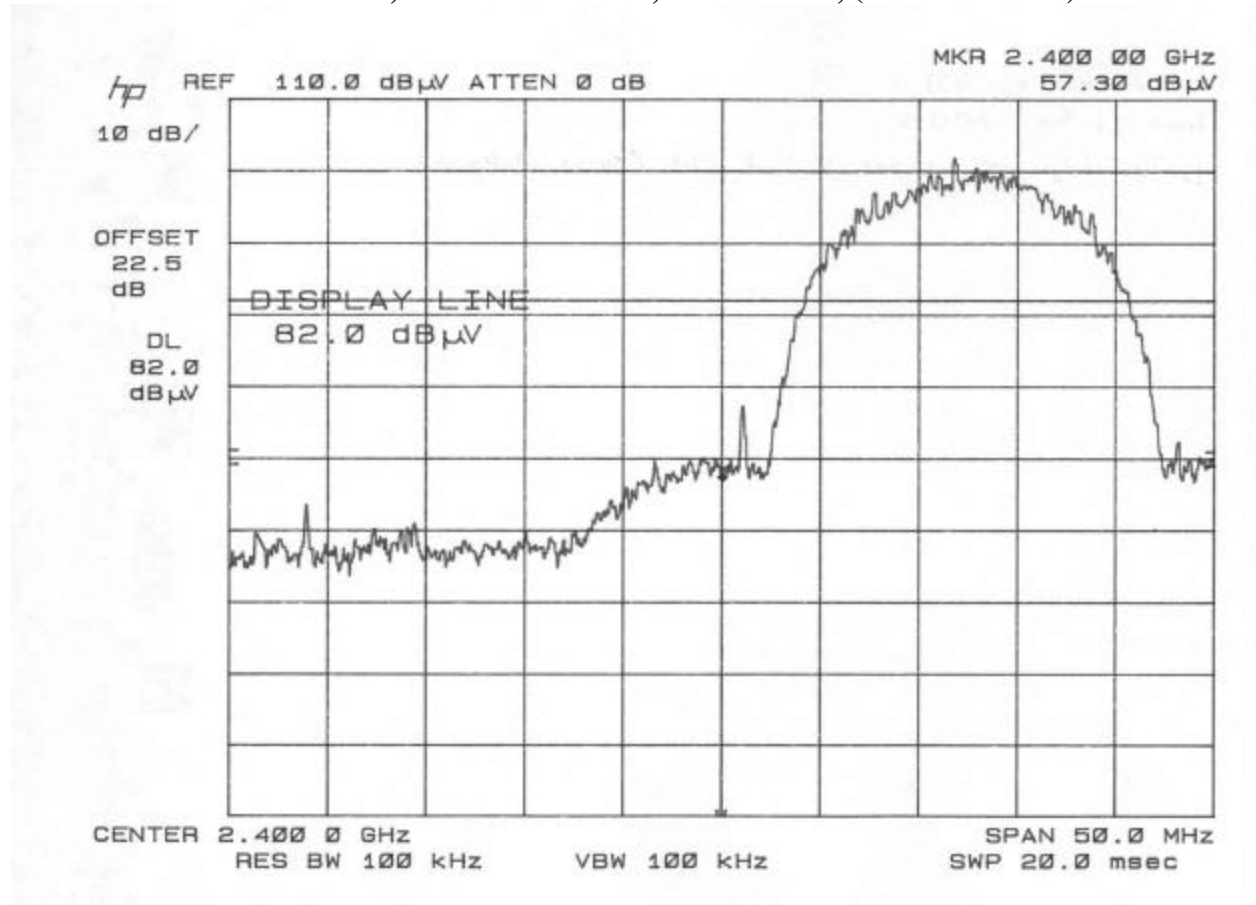


**RESTRICTED BAND 2483.5-2500MHZ, HORIZONTAL, AVERAGE (CH12),  
(Omni Antenna)**

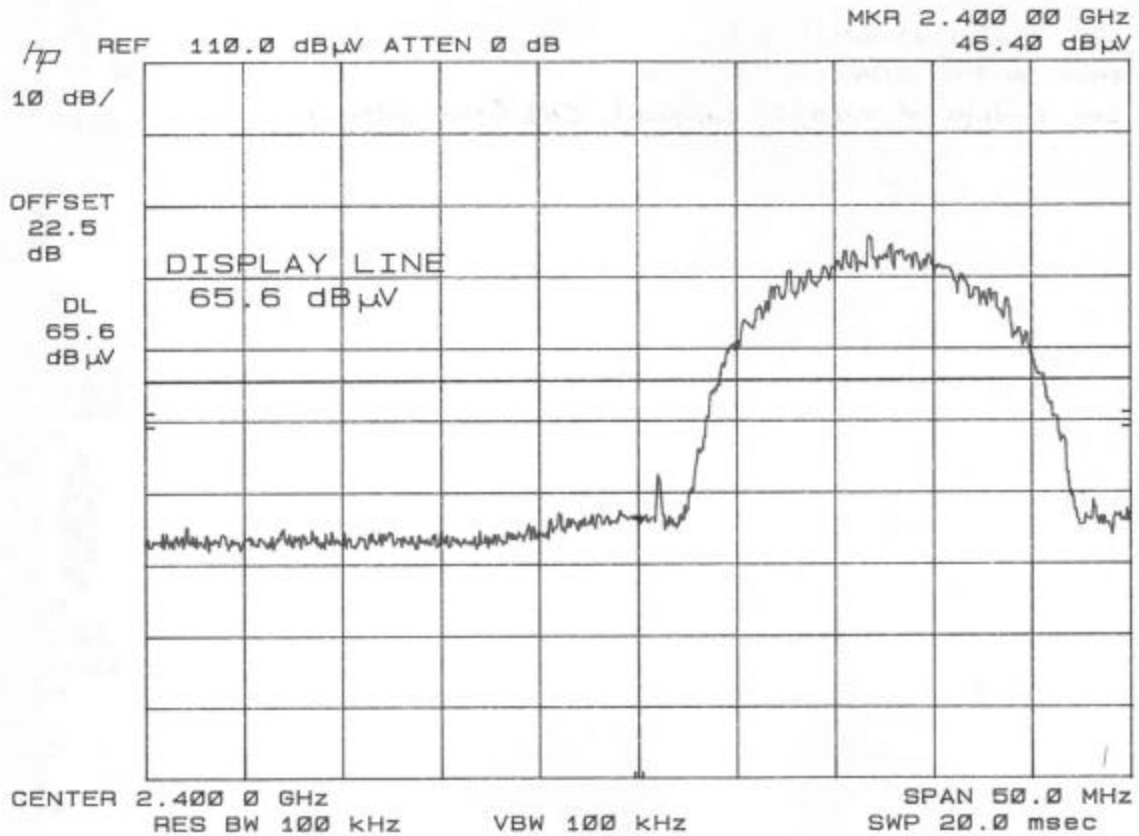




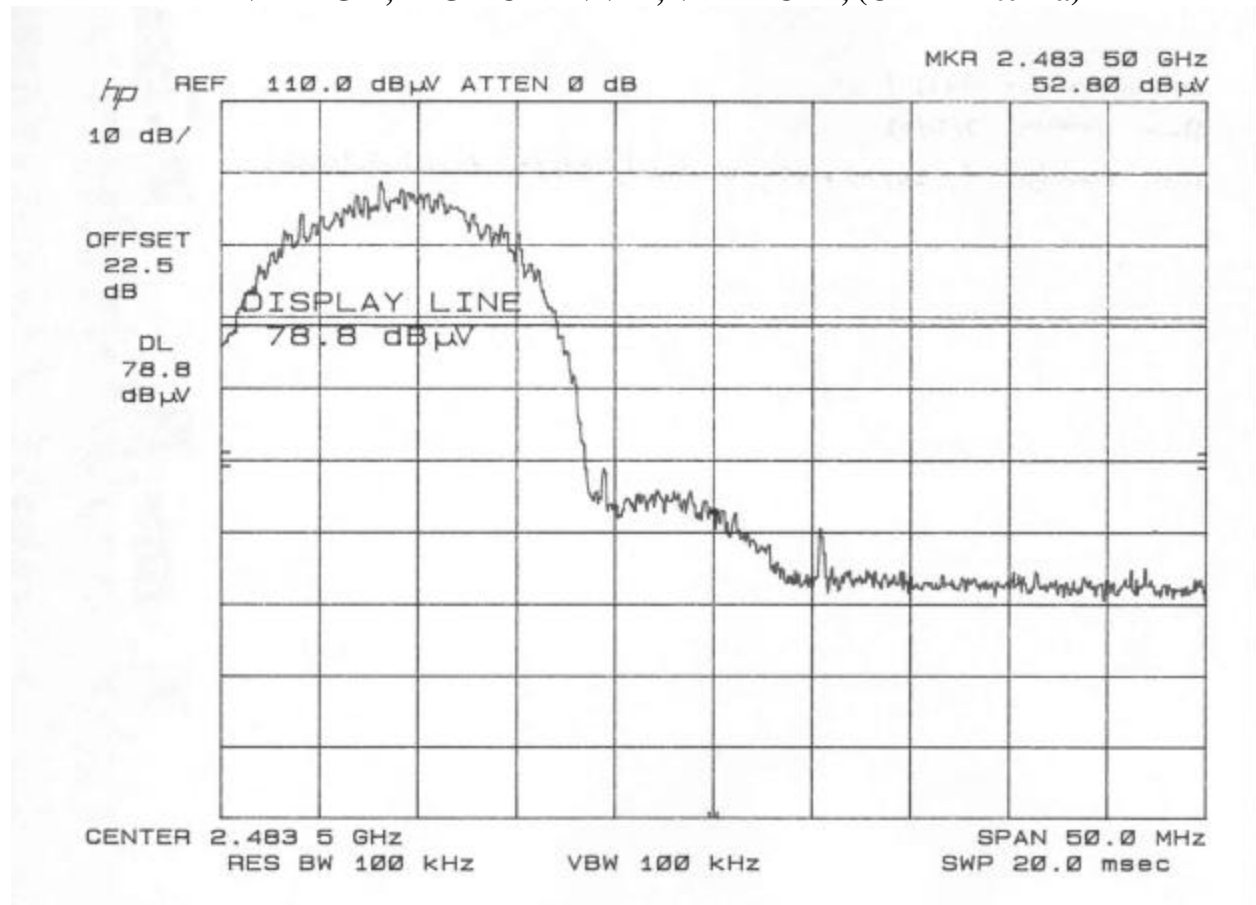
**BAND EDGE , LOW CHANNEL, VERTICAL, (Omni Antenna)**



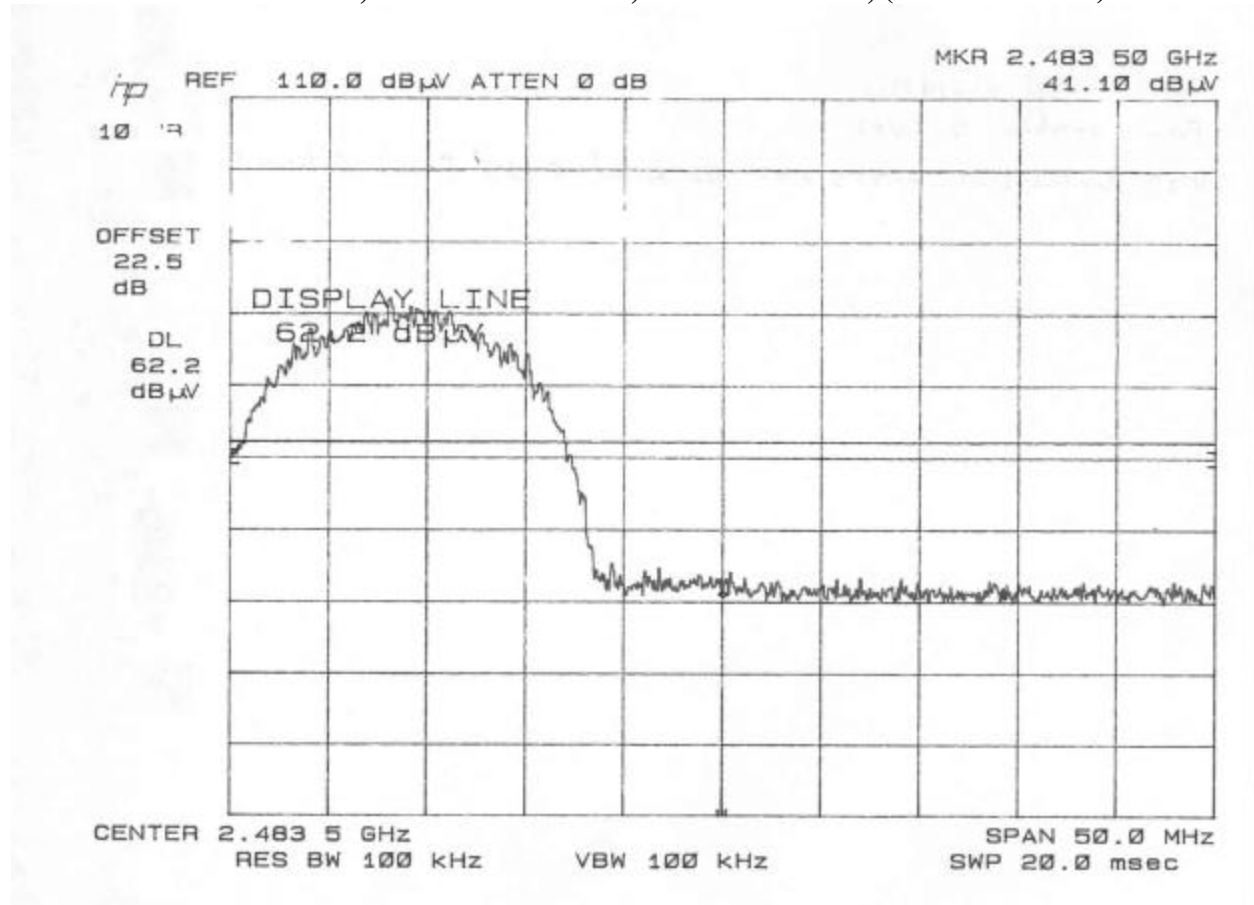
**BAND EDGE , LOW CHANNEL, HORIZONTAL, (Omni Antenna)**



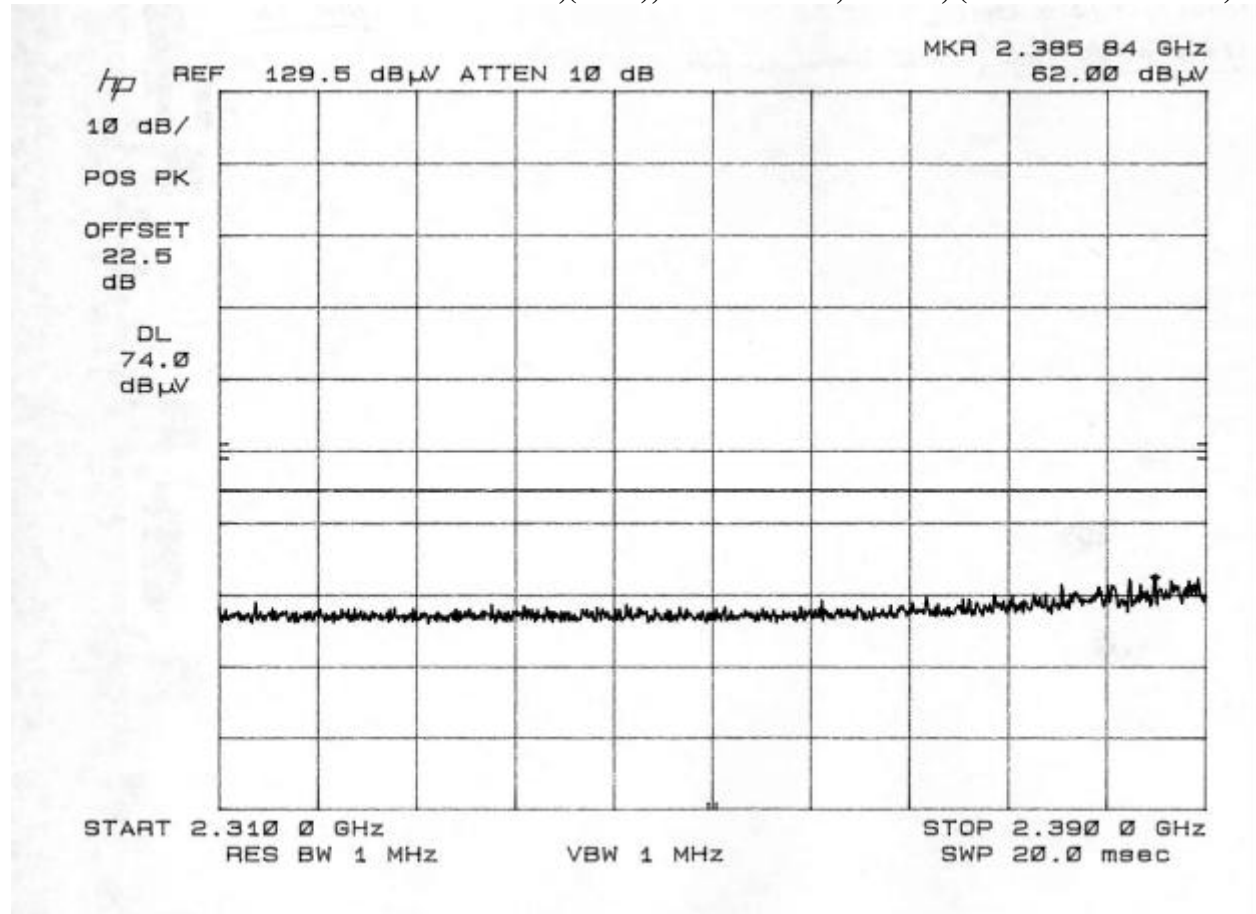
**BAND EDGE , HIGH CHANNEL, VERTICAL, (Omni Antenna)**



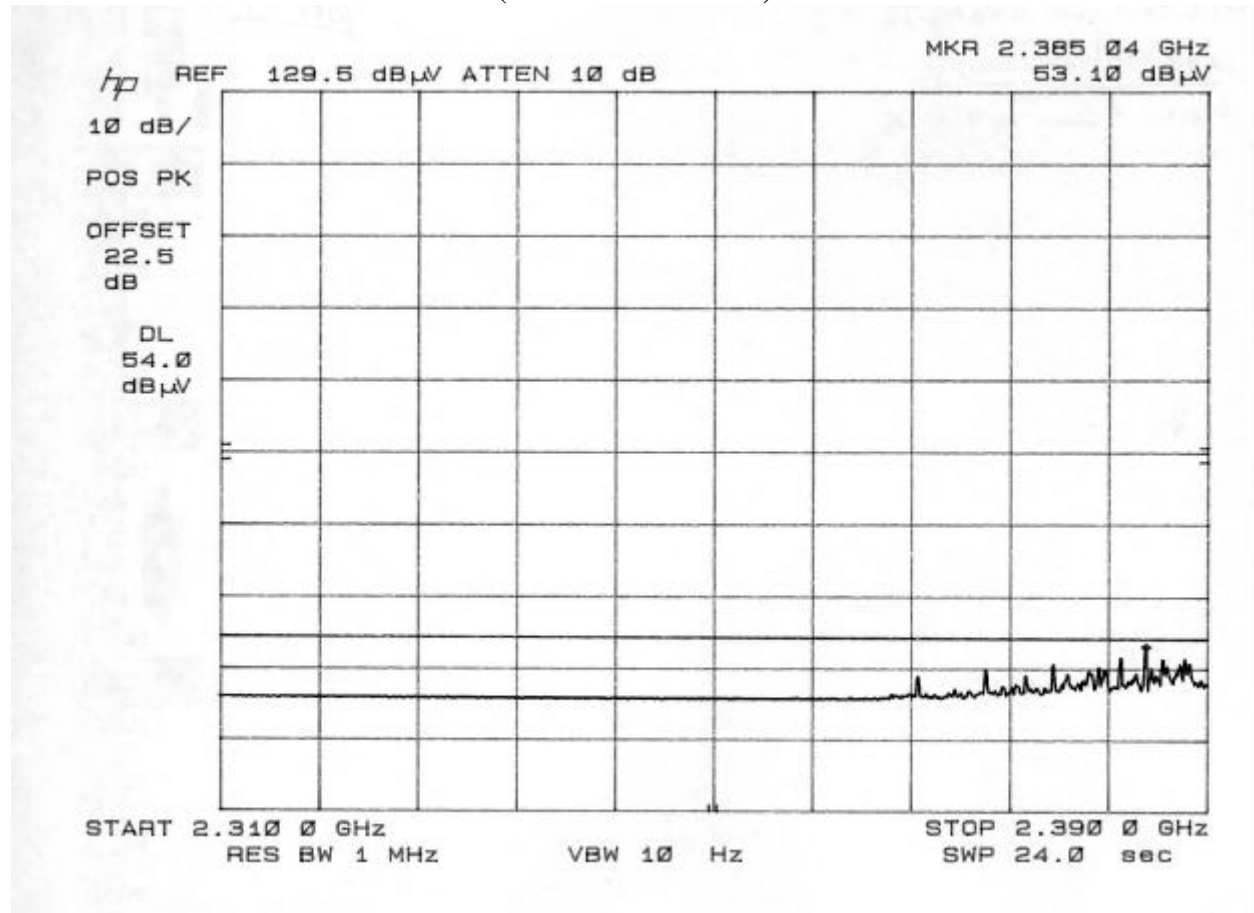
**BAND EDGE , HIGH CHANNEL, HORIZONTAL, (Omni Antenna)**



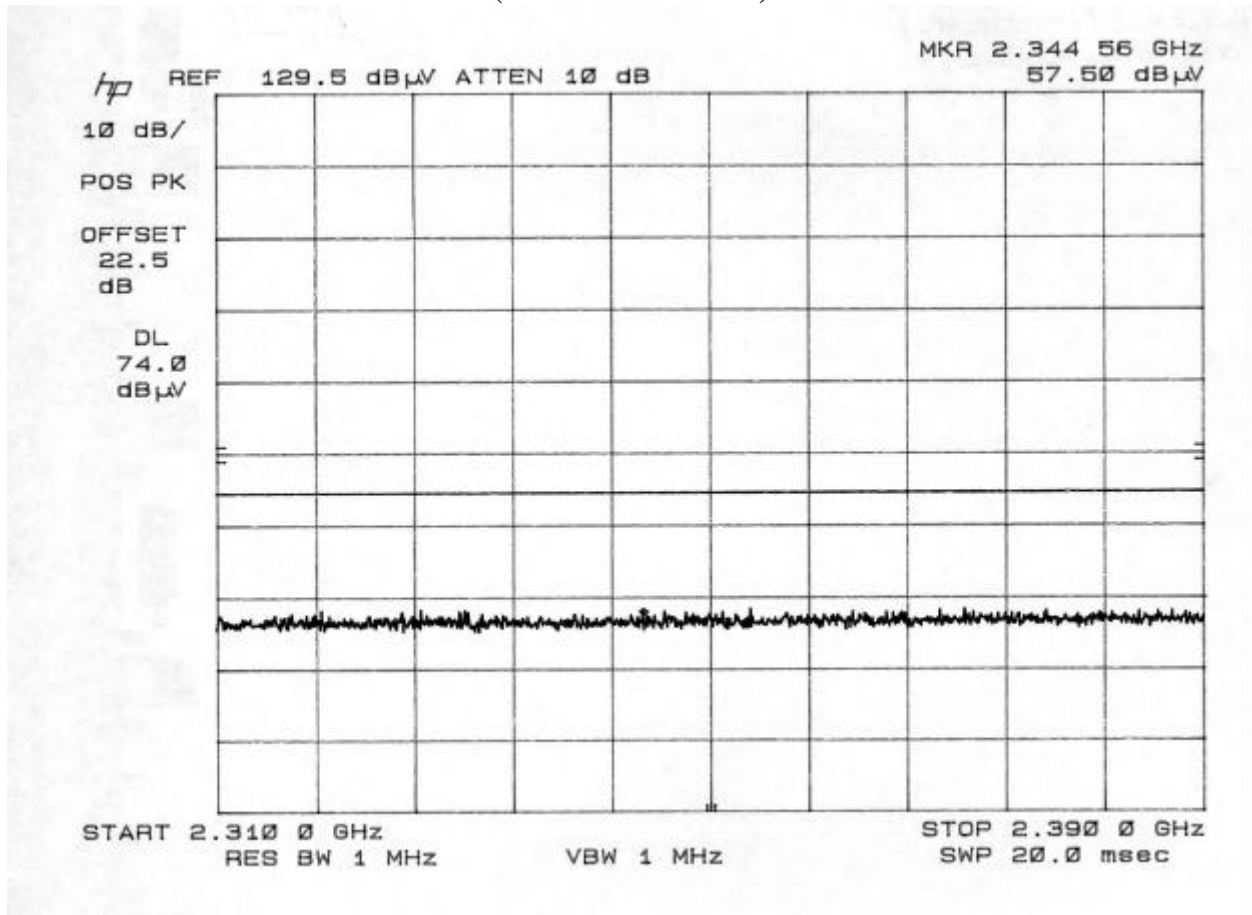
**RESTRICTED BAND 2310-2390MHz,(CH2), VERTICAL, PEAK, (Parabolic Antenna)**



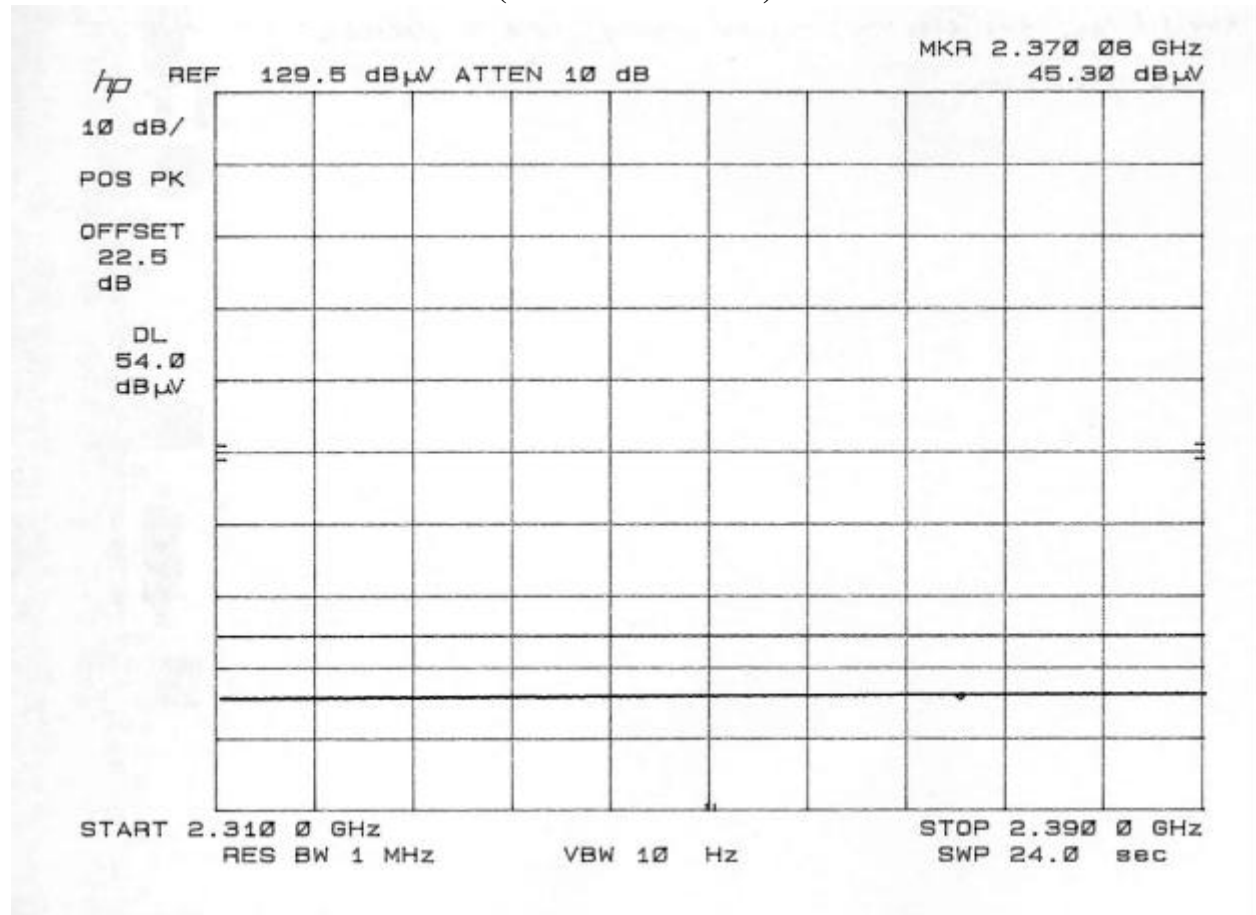
**RESTRICTED BAND 2310-2390MHz,(CH2) VERTICAL, AVERAGE,  
(Parabolic Antenna)**



**RESTRICTED BAND 2310-2390MHz, (CH2) ,HORIZONTAL, PEAK,  
(Parabolic Antenna)**

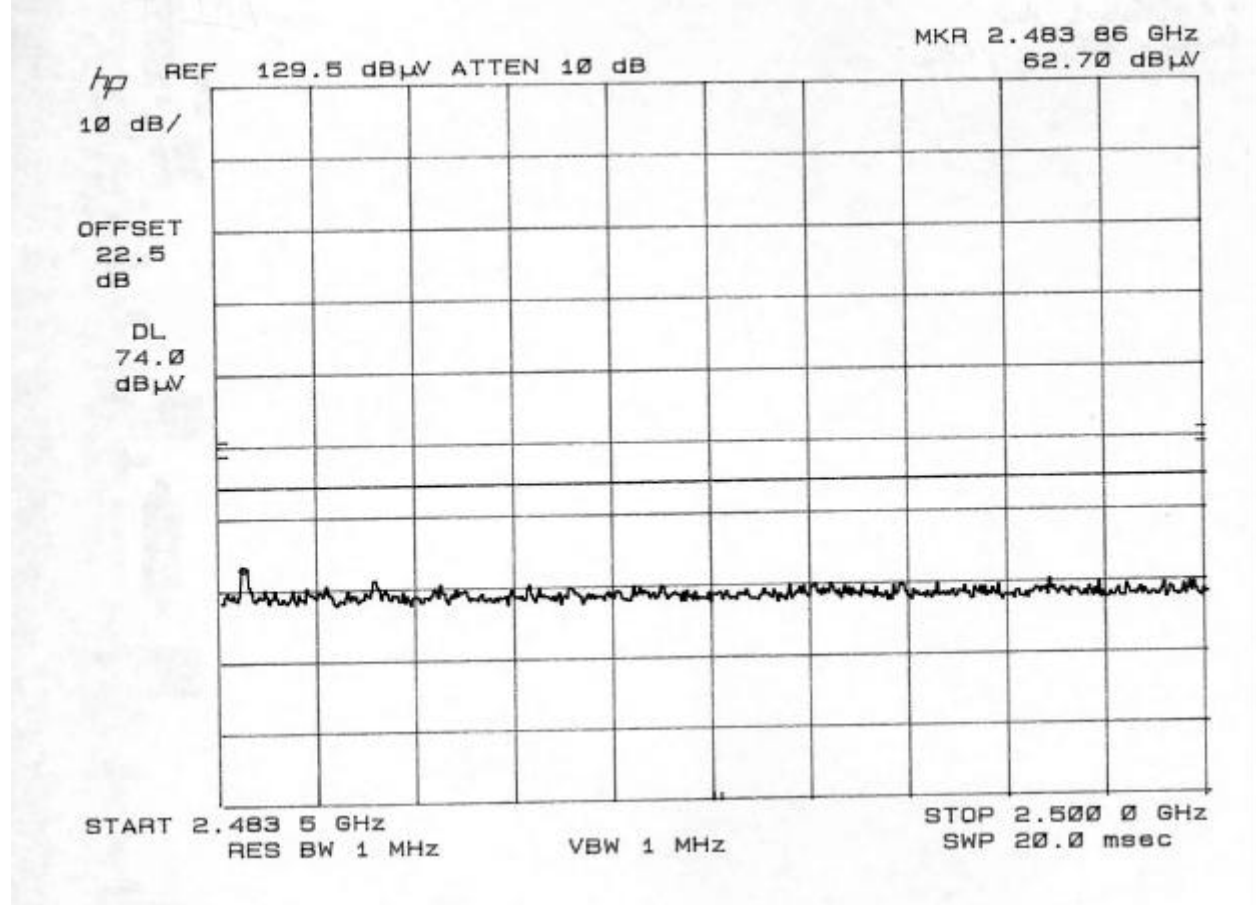


**RESTRICTED BAND 2310-2390MHz, (CH2), HORIZONTAL, AVERAGE,  
(Parabolic Antenna)**

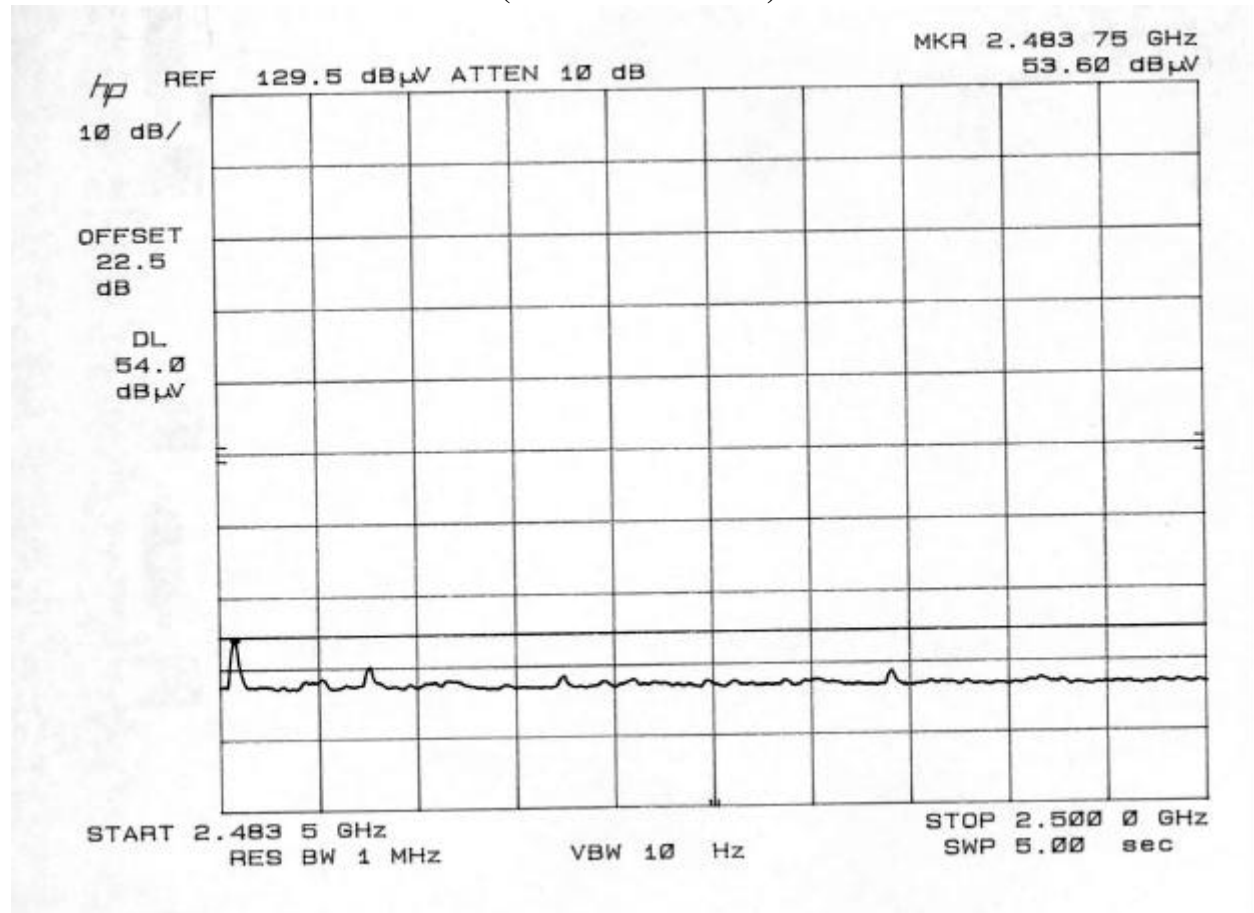




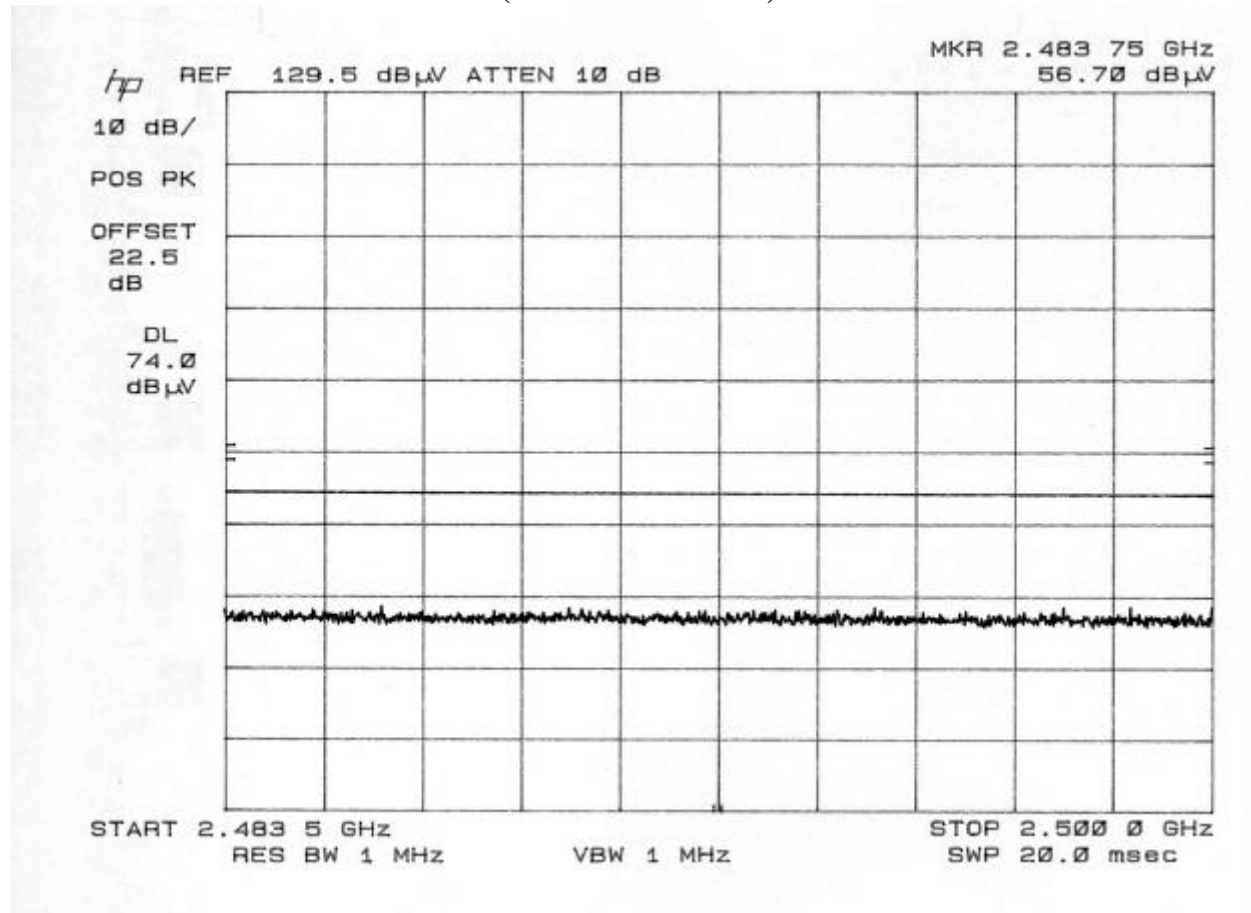
**RESTRICTED BAND 2483.5-2500MHZ, VERTICAL, PEAK (CH12), (Parabolic Antenna)**



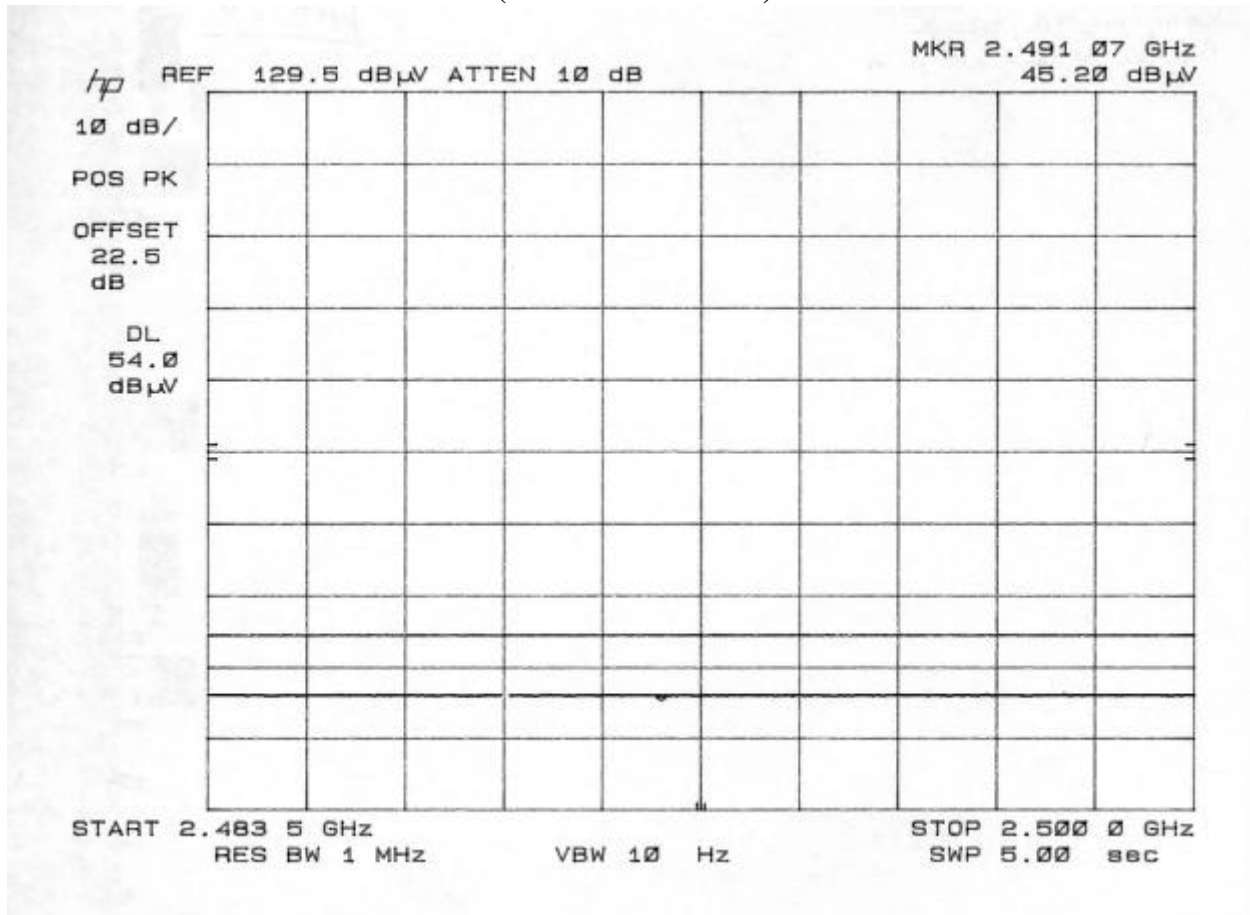
**RESTRICTED BAND 2483.5-2500MHZ, VERTICAL, AVERAGE (CH12),  
(Parabolic Antenna)**



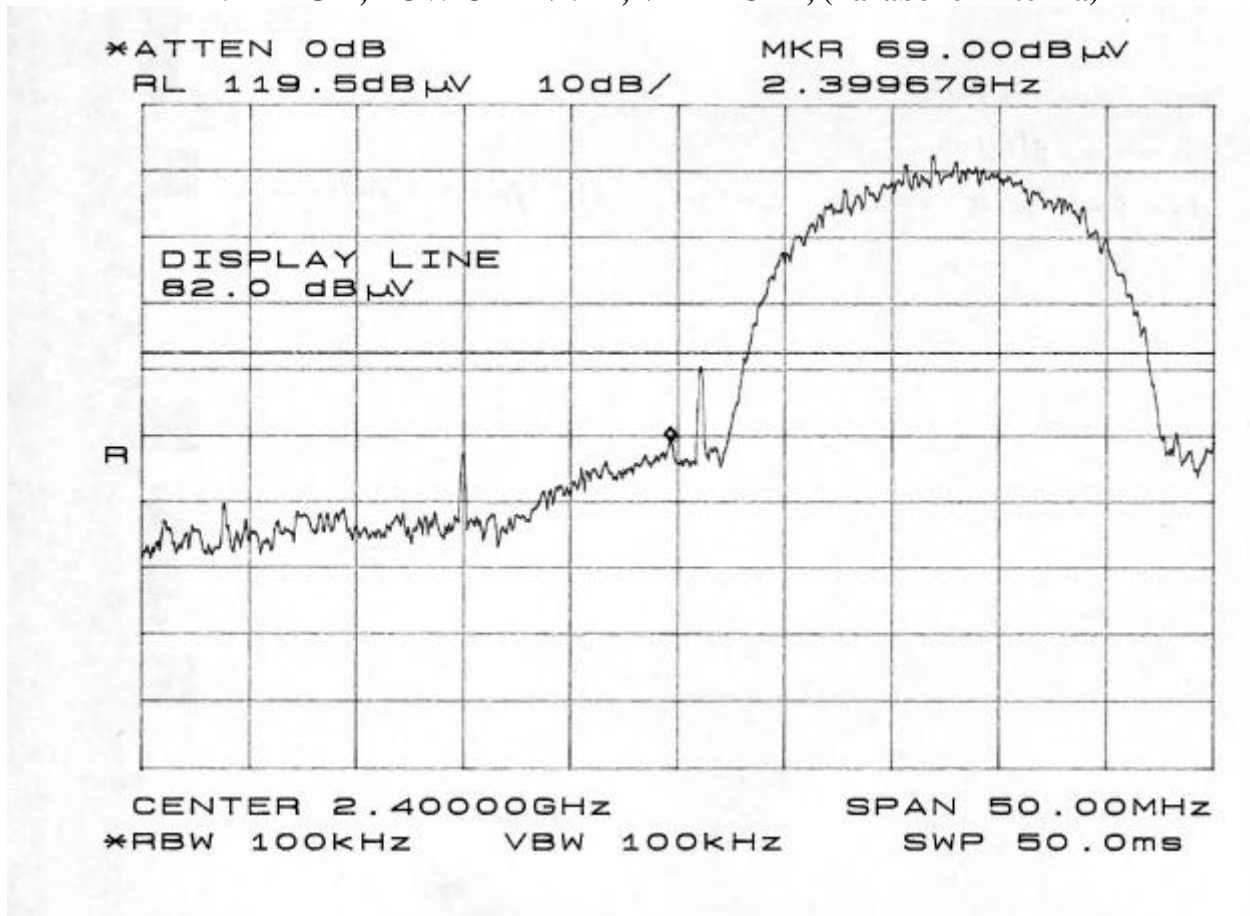
**RESTRICTED BAND 2483.5-2500MHZ, HORIZONTAL, PEAK (CH12),  
(Parabolic Antenna)**



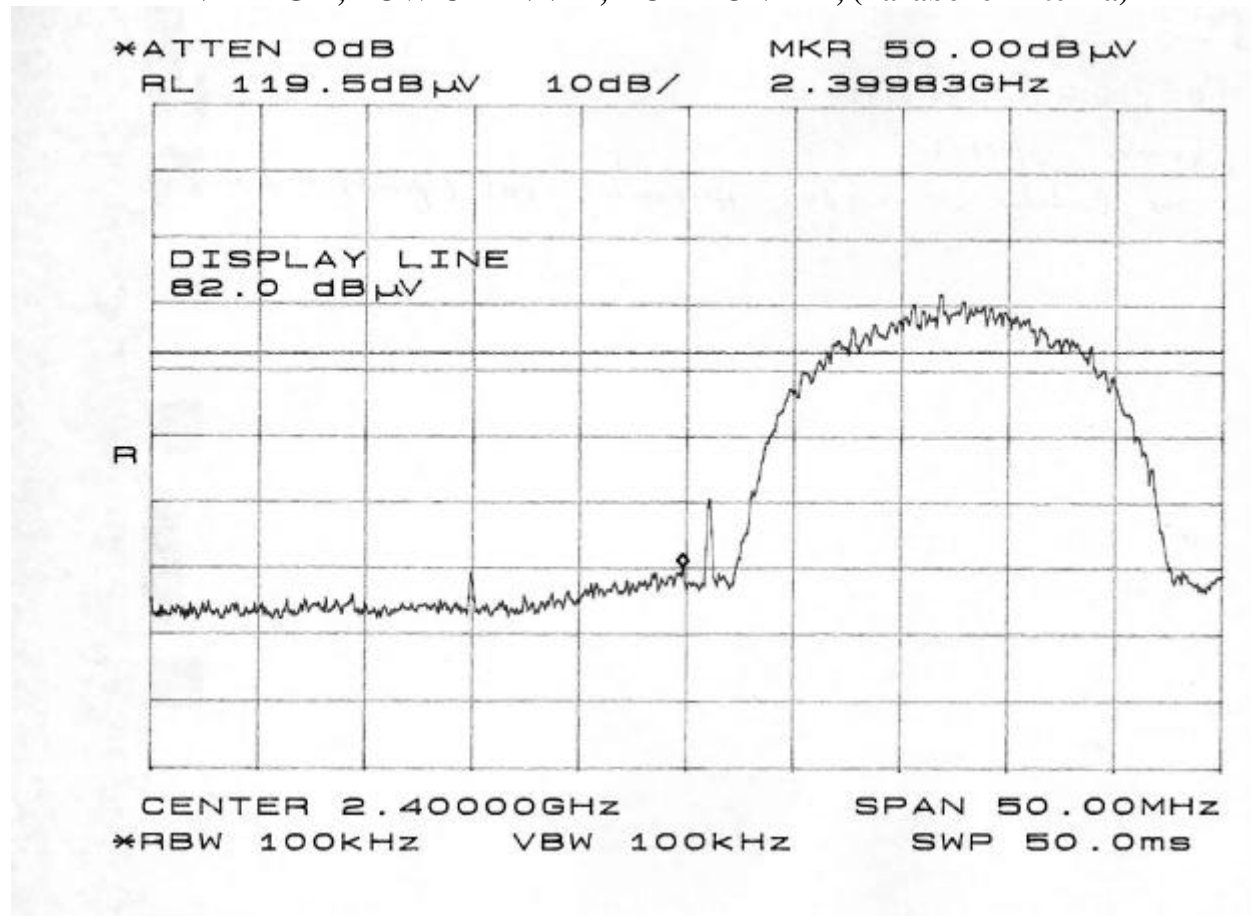
**RESTRICTED BAND 2483.5-2500MHZ, HORIZONTAL, AVERAGE (CH12),  
(Parabolic Antenna)**



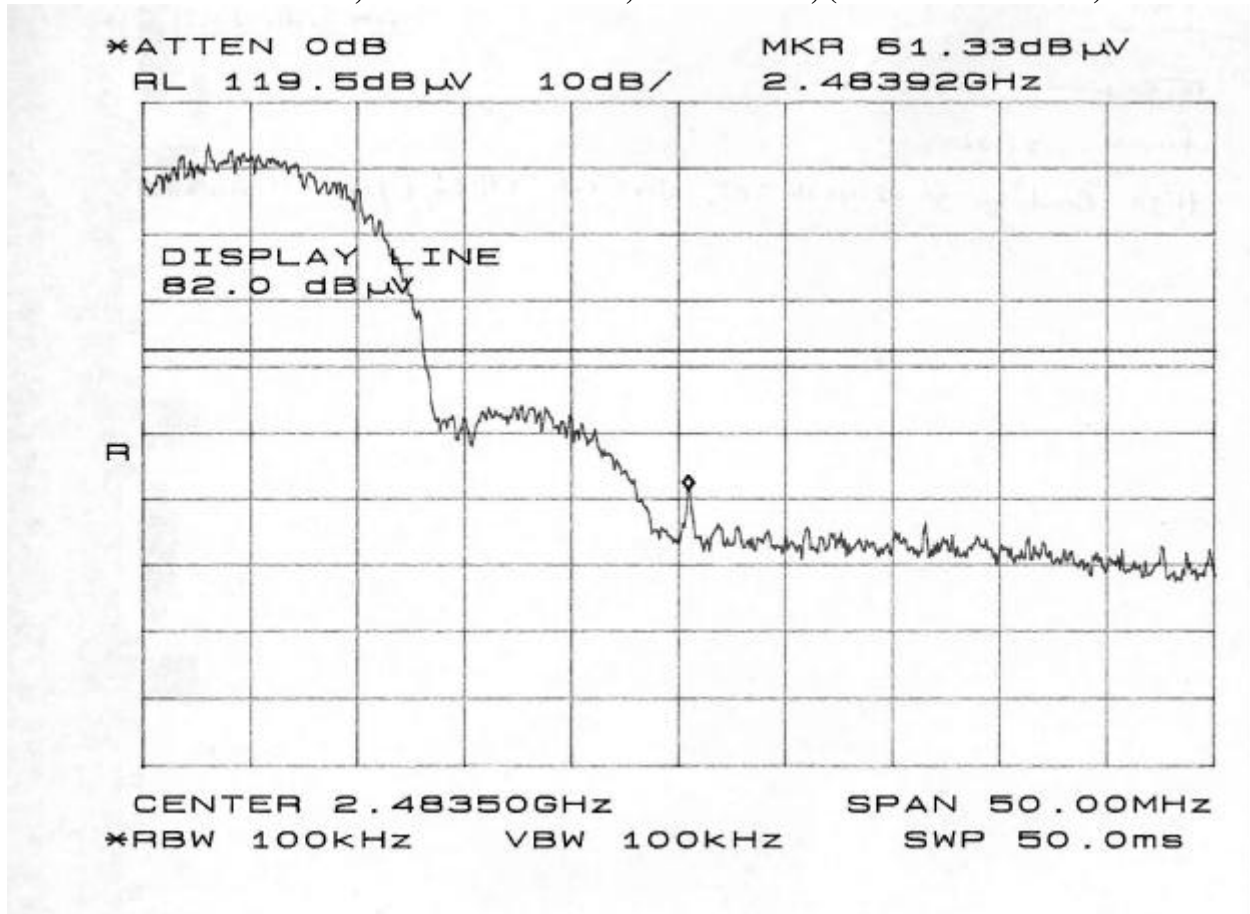
**BAND EDGE , LOW CHANNEL, VERTICAL, (Parabolic Antenna)**



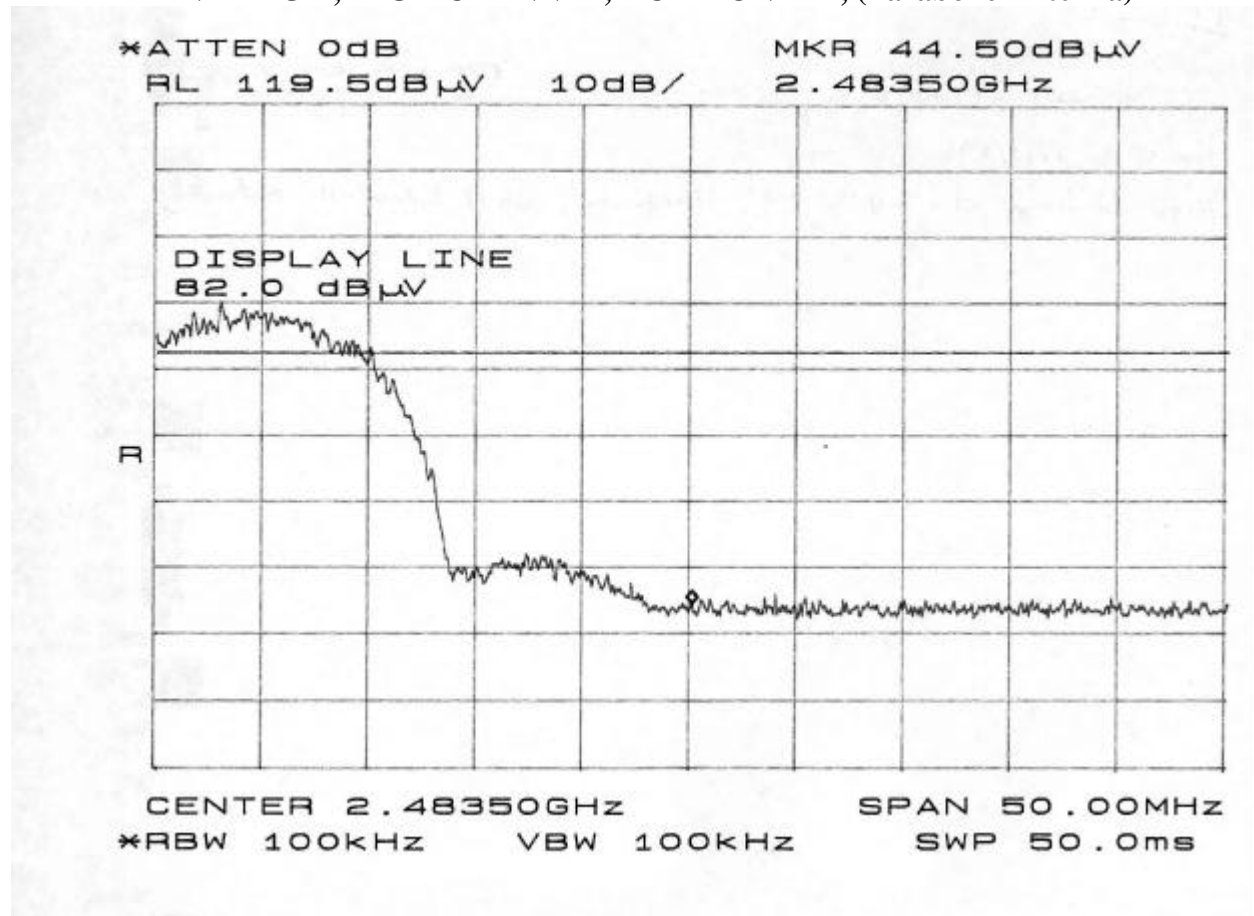
**BAND EDGE , LOW CHANNEL, HORIZONTAL, (Parabolic Antenna)**



**BAND EDGE , HIGH CHANNEL, VERTICAL, (Parabolic Antenna)**



**BAND EDGE , HIGH CHANNEL, HORIZONTAL, (Parabolic Antenna)**



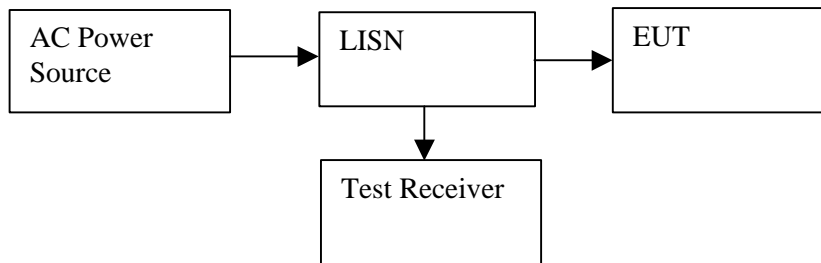


## 10.6. POWER LINE CONDUCTED EMISSION

### TEST SETUP

Detector Function Setting of Test Receiver

| Frequency Range (MHz) | Detector Function   | Resolution Bandwidth                       | Video Bandwidth                            |
|-----------------------|---|--|--|
| 450 KHz to 30 MHz     | <input type="checkbox"/> Peak<br><input checked="" type="checkbox"/> Quasi Peak | <input checked="" type="checkbox"/> 10 KHz | <input checked="" type="checkbox"/> 10 KHz |



### TEST PROCEDURE

1. The EUT was placed on a wooden table 80 cm above the horizontal ground plane and 40 cm away from the vertical ground plane. The EUT was set to transmit / receive in a continuous mode.
2. Conducted disturbance was measured between the phase lead and the ground, and between the neutral lead and the ground. The frequency 0.450 - 30 MHz was investigated.

### RESULT

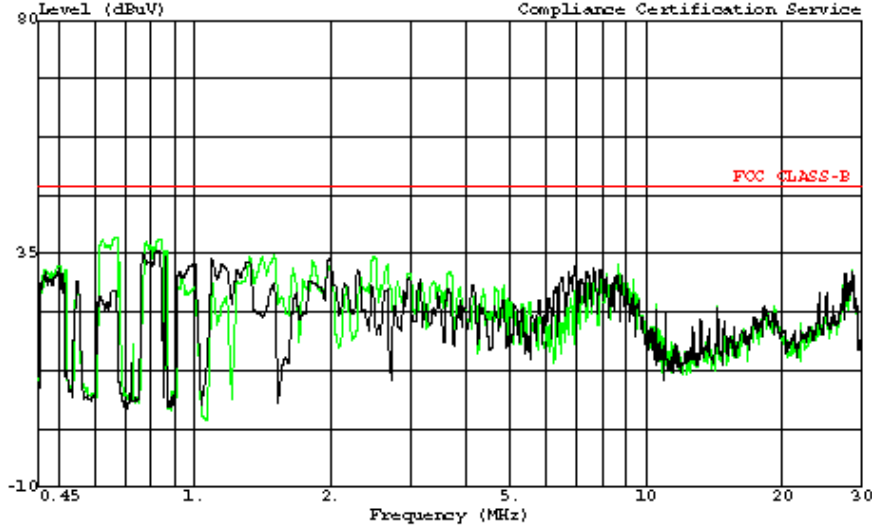
No non-compliance noted. See Line Conduction plot

| CONDUCTED EMISSIONS DATA (115VAC 60Hz) |           |           |           |               |             |       |         |         |    |                   |
|--|-----------|-----------|-----------|---------------|-------------|-------|---------|---------|----|-------------------|
| Freq.<br>(MHz)                         | Reading   |           |           | Class<br>(dB) | Limit<br>QP | FCC_B |         | Margin  |    | Remark<br>L1 / L2 |
|  | PK (dBuV) | QP (dBuV) | AV (dBuV) |               |             | AV    | QP (dB) | AV (dB) |    |                   |
| 0.45                                   | 34.83     | --        | --        | 0.00          | 48.00       | --    | -13.17  | --      | L1 |                   |
| 0.70                                   | 33.30     | --        | --        | 0.00          | 48.00       | --    | -14.70  | --      | L1 |                   |
| 0.92                                   | 30.95     | --        | --        | 0.00          | 48.00       | --    | -17.05  | --      | L1 |                   |
| 0.45                                   | 33.94     | --        | --        | 0.00          | 48.00       | --    | -14.06  | --      | L2 |                   |
| 0.69                                   | 32.51     | --        | --        | 0.00          | 48.00       | --    | -15.49  | --      | L2 |                   |
| 0.93                                   | 31.49     | --        | --        | 0.00          | 48.00       | --    | -16.51  | --      | L2 |                   |
| 6 Worst Data                           |           |           |           |               |             |       |         |         |    |                   |



561F Monterey Road,  
San Jose, CA 95037 USA  
Tel: (408) 463-0885  
Fax: (408) 463-0888

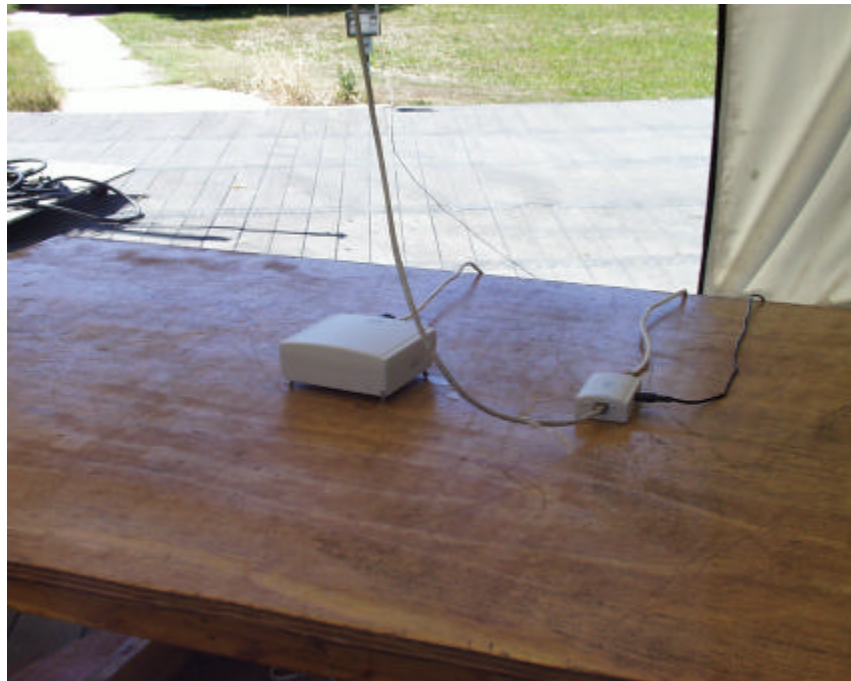
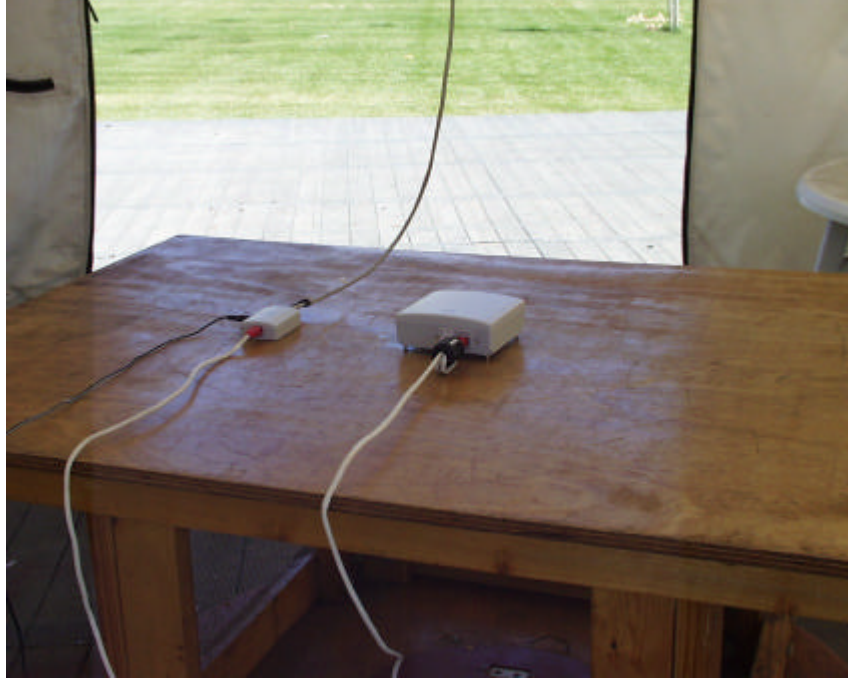
Data#: 7 File#: 020703M.EMI Date: 07-03-2002 Time: 11:05:36  
Compliance Certification Service



Trace: 3  
 Project # : 02U1399-1  
 Test Engineer: Thanh Nguyen  
 Company : OTC Wireless, INC.  
 EUT : 2.4GHz 802.11b Radio Outdoor Package  
 : Interface, Model: Air EZY2411-BT-9  
 Test Config : EUT, Laptop, Printer, USB Mouse  
 Type of Test : FCC Class B  
 Mode of Op. : EUT at RCV mode.  
 : L1: (Black), L2 : (Green)  
 : 115Vac, 60Hz

## 10.7. SETUP PHOTOS

### Radiated Emission below 1 GHz Measurement



### Conducted Emission Measurement



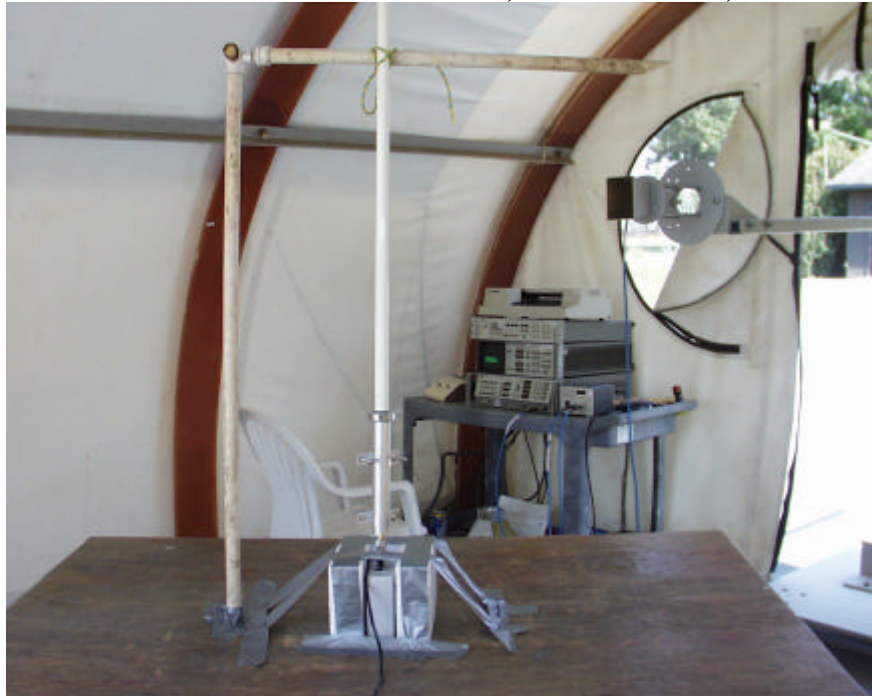
**Radiated Emission above 1 GHz Measurement, Omni Antenna, 1-18 GHz, Vertical**



**Radiated Emission above 1 GHz Measurement, Omni Antenna, 1-18 GHz, Horizontal**



**Radiated Emission above 1 GHz Measurement, Omni Antenna, 18-25 GHz, Vertical**



**Radiated Emission above 1 GHz Measurement, Omni Antenna, 18-25 GHz, Horizontal**



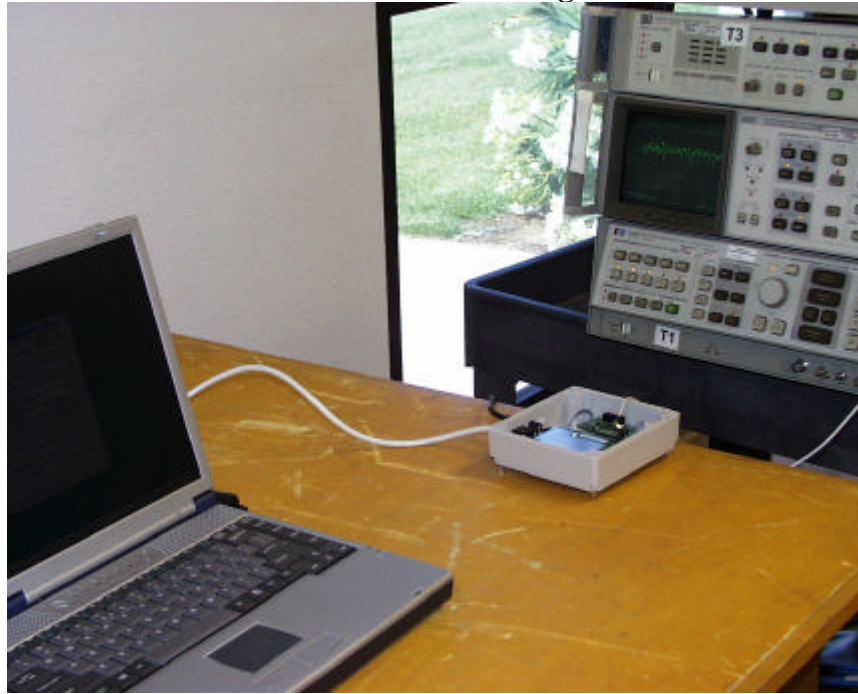
**Radiated Emission above 1 GHz Measurement, Parabolic Antenna, 1-18 GHz, Vertical**



**Radiated Emission above 1 GHz Measurement, Parabolic Antenna, 1-18 GHz, Horizontal**



### Antenna Port Terminal and Bandedges Measurements







**END OF REPORT**