# 8 - 100 KHZ BANDWIDTH OF BAND EDGES

### 8.1 Standard Applicable

According to §15.247(c), in *any* 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) see §15.205(c)).

### 8.2 Measurement Procedure

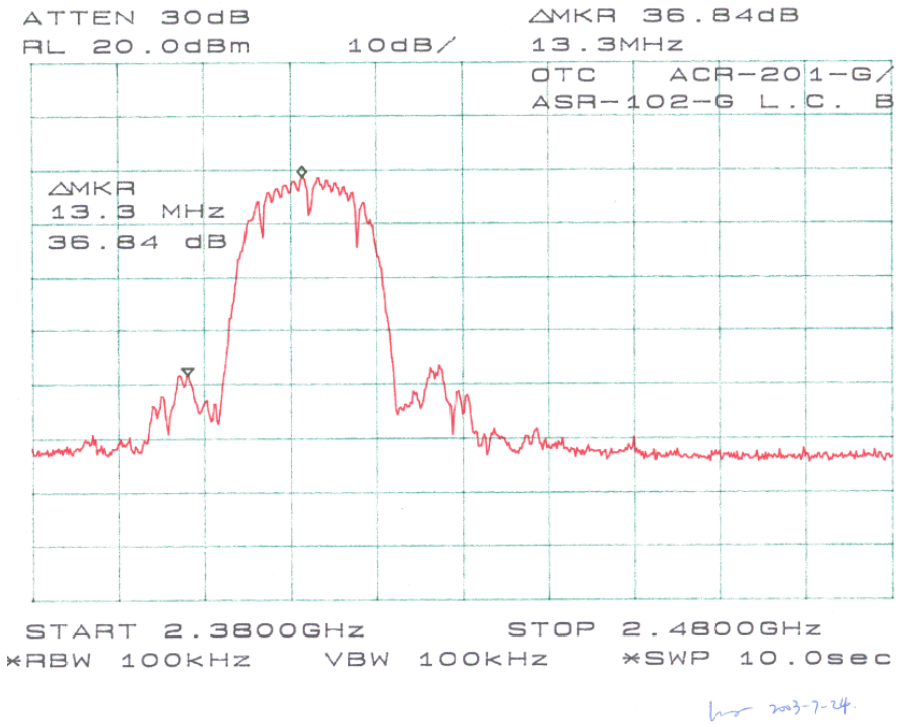
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

### 8.3 Test Equipment

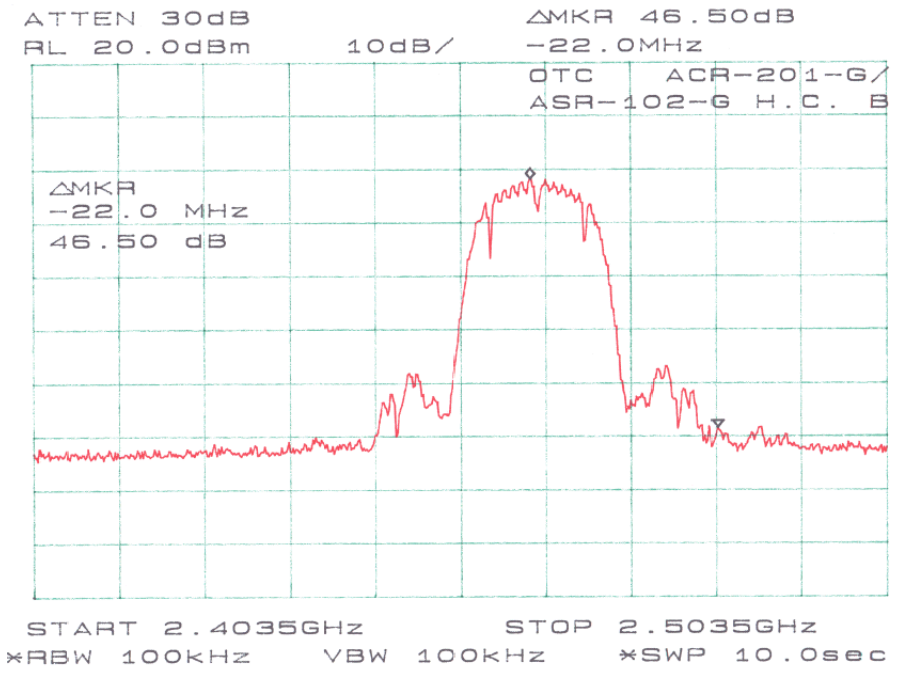
| Manufacturer | Model No. | Serial No. | Calibration Due Date |
|---|---|---|---|
| HP | 8564E | Spectrum Analyzer | 2003-12-06 |

### 8.4 Measure Results

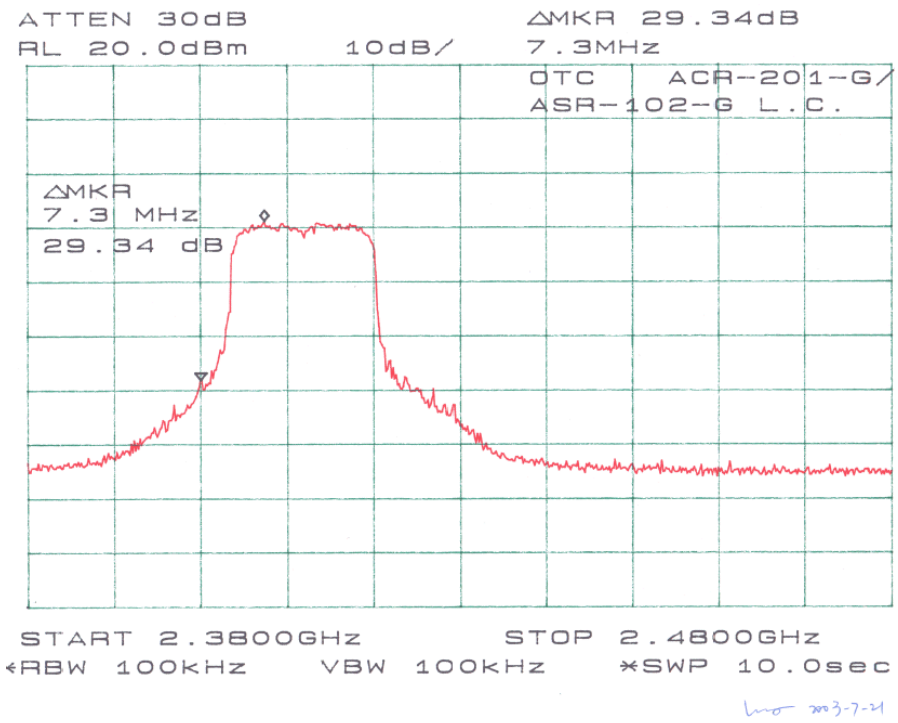
Please refer to following pages for plots of band edge.

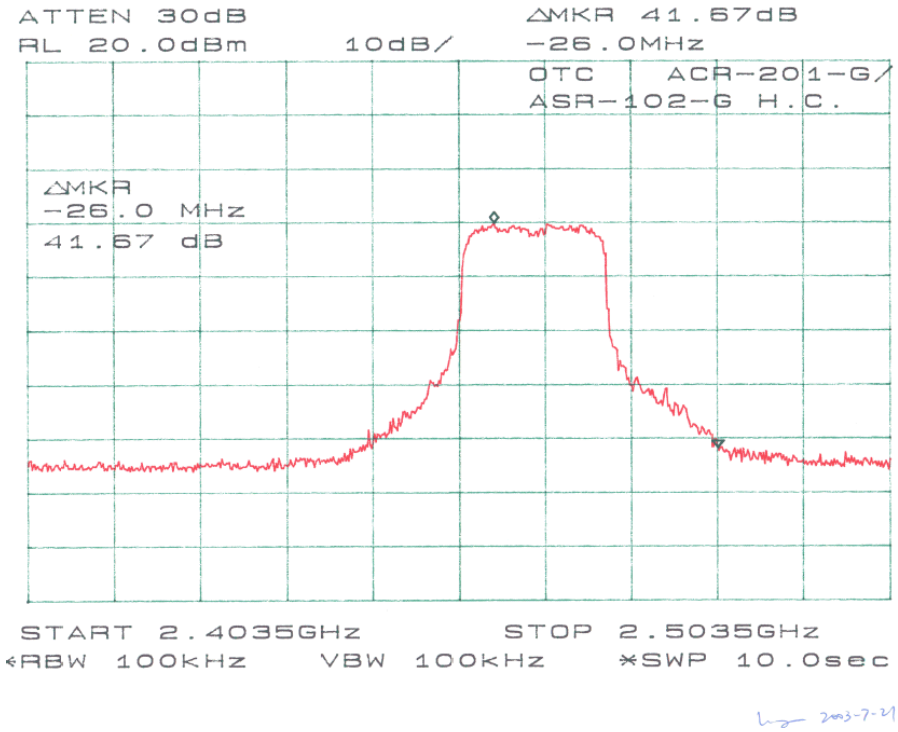



2003-7-24




2003-7-24


ATTEN 30dB
RL 20.0dBm
10dB/
ΔMKR 29.34dB
7.3MHz
OTC ACR-201-G/
ASR-102-G L.C.
ΔMKR
7.3 MHz
29.34 dB
START 2.3800GHz
STOP 2.4800GHz
#RBW 100kHz
VBW 100kHz
*SWP 10.0sec
2003-7-21


ATTEN 30dB
RL 20.0dBm
10dB/
ΔMKR 41.67dB
-26.0MHz
OTC ACR-201-G/
ASR-102-G H.C.
ΔMKR
-26.0 MHz
41.67 dB
START 2.4035GHz
STOP 2.5035GHz
#RBW 100kHz
VBW 100kHz
*SWP 10.0sec
2003-7-21

# 9 - ANTENNA REQUIREMENT

### 9.1 Standard Applicable

For intentional device, according to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to § 15.247 (1), if transmitting antennas of directional gain greater than 6 dBi are used the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### 9.2 Antenna Connected Construction

The gain of dipole antenna used for transmitting is 2 dBi, and the antenna connector is uniquely designed with no consideration of replacement.

# 10 - SPURIOUS RADIATED EMISSION

### 10.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at BACL is $\pm$4.0 dB.

### 10.2 EUT Setup

The radiated emission tests were performed in the open area 3-meter test site, using the setup in accordance with the ANSI C63.4-1992. The specification used was the FCC 15 Subpart C limits.

The spacing between the peripherals was 10 centimeters.

External I/O cables were draped along the edge of the test table and bundle when necessary.

The EUT was connected with 120Vac/60Hz power source.

### 10.3 Spectrum Analyzer Setup

According to FCC Rules, 47 CFR §15.33 (a) (1), the system was tested to 25GHz.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

| ***Frequency Range*** | ***RBW*** | ***Video B/W*** |
|---|---|---|
| Below 30MHz | 10kHz | 10kHz |
| 30 – 1000MHz | 100kHz | 100kHz |
| Above 1000MHz | 1MHz | 1MHz |

### 10.4 Test Procedure

For the radiated emissions test, the Host PC system power cord was connected to the AC floor outlet since the power supply used in the EUT did not provide an accessory power outlet.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dBµV of specification limits), and are distinguished with a "**Qp**" in the data table.

### 10.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dBμV means the emission is 7dBμV below the maximum limit for Subpart C. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – Subpart C Limit

### 10.6 Test Equipment

| Manufacturer | Model No. | Serial No. | Calibration Due Date |
|---|---|---|---|
| HP | 8564E | Spectrum Analyzer | 2003-12-06 |

### 10.7 Summary of Test Results

According to the data in section 10.8, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.207 and 15.247, and had the worst margin of:

*For802.11b:*

**-12.6 dB** at **7236.00 MHz** in the **Vertical** polarization, Low Channel

**-12.9 dB** at **7311.00 MHz** in the **Vertical** polarization, Middle Channel

**-13.1 dB** at **7386.00 MHz** in the **Vertical** polarization, High Channel

**-2.1 dB** at **480.02 MHz** in the **Vertical** polarization, Unintentional Emission

*For 802.11g:*

**-13.1 dB** at **7236.00 MHz** in the **Vertical** polarization, Low Channel

**-13.2 dB** at **7311.00 MHz** in the **Vertical** polarization, Middle Channel

**-13.1 dB** at **7386.00 MHz** in the **Horizontal** polarization, High Channel

**-3.4 dB** at **531.45 MHz** in the **Vertical** polarization, Unintentional Emission

### 10.8.1 Final test data for 802.11b, 1 – 25 GHz

| INDICATED | | | TABLE | ANTENNA | | CORRECTION FACTOR | | | CORRECTED AMPLITUDE | FCC 15 SUBPART C | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency MHz | Ampl. dBμV/m | Comments | Angle Degree | Height Meter | Polar H/ V | Antenna dBμV/m | Cable DB | Amp. DB | Corr. Ampl. dBμV/m | Limit dBμV/m | Margin dB |
| Low Channel | | | | | | | | | | | |
| 2412.00 | 99.8 | FUND/PEAK | 0 | 1.6 | V | 28.1 | 3.4 | 35.2 | 96.1 | | |
| 2412.00 | 97.5 | FUND/PEAK | 90 | 1.5 | H | 28.1 | 3.4 | 35.2 | 93.8 | | |
| 2412.00 | 95.5 | FUND/AVE | 0 | 1.6 | V | 28.1 | 3.4 | 35.2 | 91.8 | | |
| 2412.00 | 92.5 | FUND/AVE | 90 | 1.5 | H | 28.1 | 3.4 | 35.2 | 88.8 | | |
| 7236.00 | 34.2 | AVE | 30 | 1.8 | V | 35.1 | 5.6 | 33.5 | 41.4 | 54 | -12.6 |
| 7236.00 | 33.8 | AVE | 270 | 1.5 | H | 35.1 | 5.6 | 33.5 | 41.0 | 54 | -13.0 |
| 4824.00 | 31.5 | AVE | 0 | 1.5 | V | 32.5 | 4.9 | 33.0 | 35.9 | 54 | -18.1 |
| 4824.00 | 31.5 | AVE | 90 | 1.2 | H | 32.5 | 4.9 | 33.0 | 35.9 | 54 | -18.1 |
| 7236.00 | 46.3 | PEAK | 30 | 1.8 | V | 35.1 | 5.6 | 33.5 | 53.6 | 74 | -20.4 |
| 7236.00 | 46.2 | PEAK | 270 | 1.5 | H | 35.1 | 5.6 | 33.5 | 53.4 | 74 | -20.6 |
| 4824.00 | 43.5 | PEAK | 90 | 1.2 | H | 32.5 | 4.9 | 33.0 | 47.9 | 74 | -26.1 |
| 4824.00 | 43.3 | PEAK | 0 | 1.5 | V | 32.5 | 4.9 | 33.0 | 47.7 | 74 | -26.3 |
| Middle Channel | | | | | | | | | | | |
| 2437.00 | 98.5 | FUND/PEAK | 180 | 1.4 | V | 28.1 | 3.4 | 35.2 | 94.8 | | |
| 2437.00 | 99.8 | FUND/PEAK | 270 | 1.6 | H | 28.1 | 3.4 | 35.2 | 96.1 | | |
| 2437.00 | 93.5 | FUND/AVE | 180 | 1.4 | V | 28.1 | 3.4 | 35.2 | 89.8 | | |
| 2437.00 | 95.3 | FUND/AVE | 270 | 1.6 | H | 28.1 | 3.4 | 35.2 | 91.6 | | |
| 7311.00 | 33.8 | AVE | 15 | 1.5 | V | 35.1 | 5.6 | 33.5 | 41.1 | 54 | -12.9 |
| 7311.00 | 33.7 | AVE | 60 | 1.2 | H | 35.1 | 5.6 | 33.5 | 40.9 | 54 | -13.1 |
| 4874.00 | 31.7 | AVE | 300 | 1.8 | H | 32.5 | 4.9 | 33.0 | 36.1 | 54 | -17.9 |
| 4874.00 | 31.5 | AVE | 0 | 1.6 | V | 32.5 | 4.9 | 33.0 | 35.9 | 54 | -18.1 |
| 7311.00 | 45.2 | PEAK | 15 | 1.5 | V | 35.1 | 5.6 | 33.5 | 52.4 | 74 | -21.6 |
| 7311.00 | 45.0 | PEAK | 60 | 1.2 | H | 35.1 | 5.6 | 33.5 | 52.2 | 74 | -21.8 |
| 4874.00 | 43.7 | PEAK | 300 | 1.8 | H | 32.5 | 4.9 | 33.0 | 48.1 | 74 | -25.9 |
| 4874.00 | 43.5 | PEAK | 0 | 1.6 | V | 32.5 | 4.9 | 33.0 | 47.9 | 74 | -26.1 |
| High Channel | | | | | | | | | | | |
| 2462.00 | 99.5 | FUND/PEAK | 180 | 1.5 | V | 28.1 | 3.4 | 35.2 | 95.8 | | |
| 2462.00 | 98.2 | FUND/PEAK | 90 | 1.4 | H | 28.1 | 3.4 | 35.2 | 94.4 | | |
| 2462.00 | 95.2 | FUND/AVE | 180 | 1.5 | V | 28.1 | 3.4 | 35.2 | 91.4 | | |
| 2462.00 | 93.5 | FUND/AVE | 90 | 1.4 | H | 28.1 | 3.4 | 35.2 | 89.8 | | |
| 7386.00 | 33.7 | AVE | 0 | 1.2 | V | 35.1 | 5.6 | 33.5 | 40.9 | 54 | -13.1 |
| 7386.00 | 33.5 | AVE | 90 | 1.5 | H | 35.1 | 5.6 | 33.5 | 40.7 | 54 | -13.3 |
| 4924.00 | 31.5 | AVE | 30 | 1.6 | V | 32.5 | 4.9 | 33.0 | 35.9 | 54 | -18.1 |
| 4924.00 | 31.3 | AVE | 270 | 1.5 | H | 32.5 | 4.9 | 33.0 | 35.7 | 54 | -18.3 |
| 7386.00 | 45.5 | PEAK | 0 | 1.2 | V | 35.1 | 5.6 | 33.5 | 52.7 | 74 | -21.3 |
| 7386.00 | 45.0 | PEAK | 90 | 1.5 | H | 35.1 | 5.6 | 33.5 | 52.2 | 74 | -21.8 |
| 4924.00 | 44.0 | PEAK | 30 | 1.6 | V | 32.5 | 4.9 | 33.0 | 48.4 | 74 | -25.6 |
| 4924.00 | 43.8 | PEAK | 270 | 1.5 | H | 32.5 | 4.9 | 33.0 | 48.2 | 74 | -25.8 |

**Unintentional Emissions**

| Indicated | | | Table | Antenna | | Correction Factor | | | FCC 15 Subpart B | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | Ampl. | Direction | Height | Polar | Antenna | Cable Loss | Amp. | Corr. Ampl. | Limit | Margin |
| MHz | dBμV/m | Degree | Meter | H/V | dBμV/m | dBμV/m | dB | dBμV/m | dBμV/m | dB |
| 480.02 | 47.5 | 90 | 2.0 | V | 18.3 | 3.1 | 25.0 | 43.9 | 46 | -2.1 |
| 528.15 | 45.5 | 0 | 1.8 | V | 18.8 | 3.0 | 25.0 | 42.3 | 46 | -3.7 |
| 597.71 | 40.8 | 90 | 1.3 | V | 20.0 | 3.2 | 25.0 | 39.1 | 46 | -6.9 |
| 279.10 | 45.2 | 220 | 1.5 | V | 13.3 | 2.2 | 25.0 | 35.7 | 46 | -10.3 |
| 351.06 | 40.5 | 60 | 1.8 | H | 15.5 | 2.3 | 25.0 | 33.3 | 46 | -12.7 |
| 177.10 | 39.5 | 270 | 1.2 | H | 13.1 | 1.9 | 25.0 | 29.5 | 43.5 | -14.0 |

**Note:**

AVG = average

### 10.8.2 Final test data for 802.11b, 1 – 25 GHz

| INDICATED | | | TABLE | ANTENNA | | CORRECTION FACTOR | | | CORRECTED AMPLITUDE | FCC 15 SUBPART C | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency MHz | Ampl. dBμV/m | Comments | Angle Degree | Height Meter | Polar H/ V | Antenna dBμV/m | Cable DB | Amp. DB | Corr. Ampl. dBμV/m | Limit dBμV/m | Margin dB |
| Low Channel | | | | | | | | | | | |
| 2412.00 | 98.3 | FUND/PEAK | 180 | 1.5 | V | 28.1 | 3.4 | 35.2 | 94.6 | | |
| 2412.00 | 96.3 | FUND/PEAK | 300 | 1.5 | H | 28.1 | 3.4 | 35.2 | 92.6 | | |
| 2412.00 | 88.2 | FUND/AVE | 180 | 1.5 | V | 28.1 | 3.4 | 35.2 | 84.4 | | |
| 2412.00 | 86.3 | FUND/AVE | 300 | 1.5 | H | 28.1 | 3.4 | 35.2 | 82.6 | | |
| 7236.00 | 33.7 | AVE | 0 | 1.2 | V | 35.1 | 5.6 | 33.5 | 40.9 | 54 | -13.1 |
| 7236.00 | 33.6 | AVE | 270 | 1.4 | H | 35.1 | 5.6 | 33.5 | 40.8 | 54 | -13.2 |
| 4824.00 | 31.7 | AVE | 90 | 1.5 | H | 32.5 | 4.9 | 33.0 | 36.1 | 54 | -17.9 |
| 4824.00 | 31.5 | AVE | 150 | 1.8 | V | 32.5 | 4.9 | 33.0 | 35.9 | 54 | -18.1 |
| 7236.00 | 45.7 | PEAK | 0 | 1.2 | V | 35.1 | 5.6 | 33.5 | 52.9 | 74 | -21.1 |
| 7236.00 | 45.3 | PEAK | 270 | 1.4 | H | 35.1 | 5.6 | 33.5 | 52.6 | 74 | -21.4 |
| 4824.00 | 43.7 | PEAK | 150 | 1.8 | V | 32.5 | 4.9 | 33.0 | 48.1 | 74 | -25.9 |
| 4824.00 | 43.3 | PEAK | 90 | 1.5 | H | 32.5 | 4.9 | 33.0 | 47.7 | 74 | -26.3 |
| Middle Channel | | | | | | | | | | | |
| 2437.00 | 98.8 | FUND/PEAK | 0 | 1.5 | V | 28.1 | 3.4 | 35.2 | 95.1 | | |
| 2437.00 | 98.7 | FUND/PEAK | 90 | 1.8 | H | 28.1 | 3.4 | 35.2 | 94.9 | | |
| 2437.00 | 89.3 | FUND/AVE | 0 | 1.5 | V | 28.1 | 3.4 | 35.2 | 85.6 | | |
| 2437.00 | 87.7 | FUND/AVE | 90 | 1.8 | H | 28.1 | 3.4 | 35.2 | 83.9 | | |
| 7311.00 | 33.6 | AVE | 180 | 1.4 | V | 35.1 | 5.6 | 33.5 | 40.8 | 54 | -13.2 |
| 7311.00 | 33.3 | AVE | 90 | 1.8 | H | 35.1 | 5.6 | 33.5 | 40.5 | 54 | -13.5 |
| 4874.00 | 31.5 | AVE | 30 | 1.4 | V | 32.5 | 4.9 | 33.0 | 35.9 | 54 | -18.1 |
| 4874.00 | 31.3 | AVE | 270 | 1.6 | H | 32.5 | 4.9 | 33.0 | 35.7 | 54 | -18.3 |
| 7311.00 | 45.8 | PEAK | 180 | 1.4 | V | 35.1 | 5.6 | 33.5 | 53.1 | 74 | -20.9 |
| 7311.00 | 45.4 | PEAK | 90 | 1.8 | H | 35.1 | 5.6 | 33.5 | 52.6 | 74 | -21.4 |
| 4874.00 | 44.1 | PEAK | 30 | 1.4 | V | 32.5 | 4.9 | 33.0 | 48.5 | 74 | -25.5 |
| 4874.00 | 43.8 | PEAK | 270 | 1.6 | H | 32.5 | 4.9 | 33.0 | 48.2 | 74 | -25.8 |
| High Channel | | | | | | | | | | | |
| 2462.00 | 99.0 | FUND/PEAK | 330 | 1.5 | V | 28.1 | 3.4 | 35.2 | 95.3 | | |
| 2462.00 | 99.7 | FUND/PEAK | 90 | 2.0 | H | 28.1 | 3.4 | 35.2 | 95.9 | | |
| 2462.00 | 88.7 | FUND/AVE | 330 | 1.5 | V | 28.1 | 3.4 | 35.2 | 84.9 | | |
| 2462.00 | 90.3 | FUND/AVE | 90 | 2.0 | H | 28.1 | 3.4 | 35.2 | 86.6 | | |
| 7386.00 | 33.7 | AVE | 270 | 1.5 | H | 35.1 | 5.6 | 33.5 | 40.9 | 54 | -13.1 |
| 7386.00 | 33.5 | AVE | 30 | 1.3 | V | 35.1 | 5.6 | 33.5 | 40.7 | 54 | -13.3 |
| 4924.00 | 31.7 | AVE | 0 | 1.6 | V | 32.5 | 4.9 | 33.0 | 36.1 | 54 | -17.9 |
| 4924.00 | 31.6 | AVE | 90 | 1.8 | H | 32.5 | 4.9 | 33.0 | 36.0 | 54 | -18.0 |
| 7386.00 | 45.8 | PEAK | 270 | 1.5 | H | 35.1 | 5.6 | 33.5 | 53.0 | 74 | -21.0 |
| 7386.00 | 45.5 | PEAK | 30 | 1.3 | V | 35.1 | 5.6 | 33.5 | 52.7 | 74 | -21.3 |
| 4924.00 | 43.8 | PEAK | 0 | 1.6 | V | 32.5 | 4.9 | 33.0 | 48.2 | 74 | -25.8 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4924.00 | 43.5 | PEAK | 90 | 1.8 | H | 32.5 | 4.9 | 33.0 | 47.9 | 74 | -26.1 |

**Unintentional Emissions**

| Indicated | | | Table | Antenna | | Correction Factor | | | FCC 15 Subpart B | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | Ampl. | Direction | Height | Polar | Antenna | Cable Loss | Amp. | Corr. Ampl. | Limit | Margin |
| MHz | dBμV/m | Degree | Meter | H/V | dBμV/m | dBμV/m | dB | dBμV/m | dBμV/m | dB |
| 531.45 | 45.3 | 90 | 1.5 | V | 19.3 | 3.0 | 25.0 | 42.6 | 46 | -3.4 |
| 161.00 | 41.8 | 180 | 2.0 | H | 12.9 | 1.8 | 25.0 | 31.5 | 43.5 | -12.0 |
| 201.50 | 43.5 | 180 | 1.2 | V | 11.5 | 2.2 | 25.0 | 32.2 | 46 | -13.8 |
| 280.01 | 40.3 | 150 | 1.2 | V | 13.4 | 2.3 | 25.0 | 31.0 | 46 | -15.0 |
| 177.00 | 38.7 | 0 | 1.8 | H | 13.1 | 1.9 | 25.0 | 28.7 | 46 | -17.3 |

**Note:**

AVG = average

# 11 - CONDUCTED EMISSIONS

### 11.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at BACL is $\pm$2.4 dB.

### 11.2 EUT Setup

The measurement was performed in the shielded room, using the same setup per ANSI C63.4-1992 measurement procedure. The specification used was FCC 15 Subpart C limits.

The spacing between the peripherals was 10 centimeters.

External I/O cables were draped along the edge of the test table and bundle when necessary.

The EUT was connected with 120Vac/60Hz power source.

### 11.3 Spectrum Analyzer Setup

The spectrum analyzer was set with the following configurations during the conduction test:

Start Frequency..... 150 kHz
Stop Frequency..... 30 MHz
Sweep Speed..... Auto
IF Bandwidth..... 10 kHz
Video Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth..... 9 kHz
Quasi-Peak Adapter Mode..... Normal

### 11.4 Test Procedure

During the conducted emission test, the power cord of the host system was connected to the auxiliary outlet of the first LISN.

Maximizing procedure was performed on the six (6) highest emissions of each modes tested to ensure EUT is compliant with all installation combination.

All data was recorded in the peak detection mode. Quasi-peak readings were only performed when an emission was found to be marginal (within -4 dBµV of specification limits). Quasi-peak readings are distinguished with a "**Qp**".

### 11.5 Test Equipment

| Manufacturer | Model No. | Serial No. | Calibration Due Date |
|---|---|---|---|
| HP | 8564E | Spectrum Analyzer | 2003-12-06 |

### 11.6 Summary of Test Results

According to the data in section 11.7, the EUT complies with the FCC Conducted margin for a Class B device, with the *worst* margin reading of:

-8.7 dBμV at 0.225 MHz in the Line mode, AK II Power Supply

-14.0 dBμV at 1.72 MHz in the Neutral mode, DELTA Power Supply

### 11.7 Conducted Emissions Test Data

**AK II Power Supply**

| LINE CONDUCTED EMISSIONS | | | | FCC PART 15 CLASS B | |
|---|---|---|---|---|---|
| Frequency MHz | Amplitude dBμV | Detector Qp/Ave/Peak | Phase Line/Neutral | Limit dBμV | Margin dB |
| 0.225 | 43.3 | AVG | Line | 52 | -8.7 |
| 0.230 | 42.8 | AVG | Neutral | 52 | -9.2 |
| 0.685 | 36.6 | AVG | Neutral | 46 | -9.4 |
| 0.685 | 36.1 | AVG | Line | 46 | -9.9 |
| 0.910 | 34.5 | AVG | Line | 46 | -11.5 |
| 0.225 | 50.3 | QP | Line | 62 | -11.7 |
| 0.230 | 49.8 | QP | Neutral | 62 | -12.2 |
| 0.685 | 43.7 | QP | Neutral | 56 | -12.3 |
| 0.685 | 43.4 | QP | Line | 56 | -12.6 |
| 0.915 | 40.9 | QP | Neutral | 56 | -15.1 |
| 0.910 | 40.5 | QP | Line | 56 | -15.5 |
| 0.925 | 28.8 | AVG | Neutral | 46 | -17.2 |

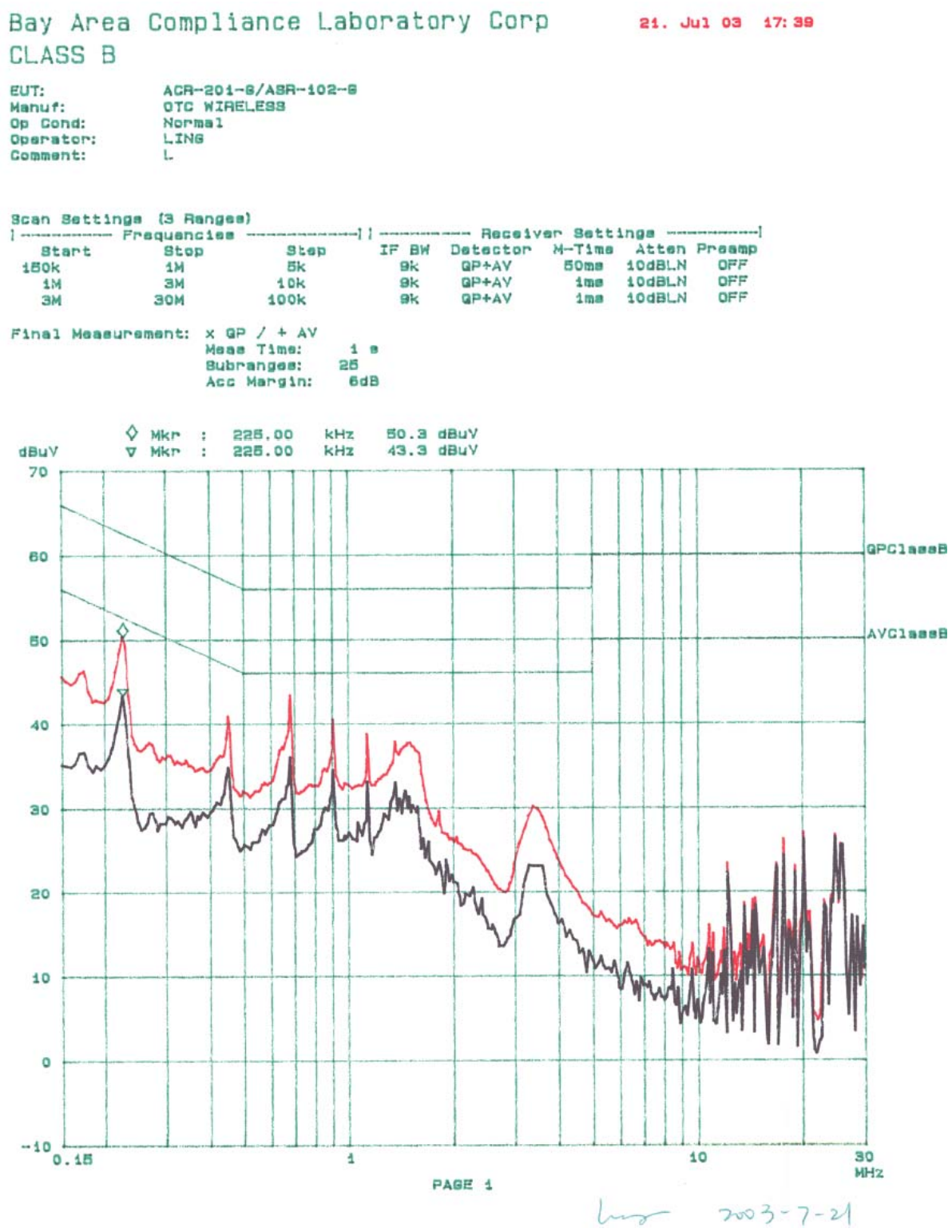
**DELTA Powe Supply**

| LINE CONDUCTED EMISSIONS | | | | FCC PART 15 CLASS B | |
|---|---|---|---|---|---|
| Frequency MHz | Amplitude dBμV | Detector Qp/Ave/Peak | Phase Line/Neutral | Limit dBμV | Margin dB |
| 1.720 | 32.0 | AVG | Neutral | 46 | -14.0 |
| 1.695 | 30.9 | AVG | Line | 46 | -15.1 |
| 1.720 | 40.6 | QP | Neutral | 56 | -15.4 |
| 1.710 | 40.1 | QP | Line | 56 | -15.9 |
| 23.130 | 33.5 | AVG | Line | 50 | -16.5 |
| 23.130 | 33.2 | AVG | Neutral | 50 | -16.8 |
| 0.265 | 32.7 | AVG | Line | 51 | -18.3 |
| 0.150 | 44.6 | QP | Neutral | 66 | -21.4 |
| 0.265 | 38.1 | QP | Line | 61 | -22.9 |
| 23.130 | 33.6 | QP | Line | 60 | -26.4 |
| 23.130 | 33.2 | QP | Neutral | 60 | -26.8 |
| 0.150 | 19.2 | AVG | Neutral | 56 | -36.8 |

### 11.8 Plot of Conducted Emissions Test Data

Plot(s) of Conducted Emissions Test Data is presented hereinafter as reference.

**Plots for AKII Power Supply**



Bay Area Compliance Laboratory Corp 21. Jul 03 17:12

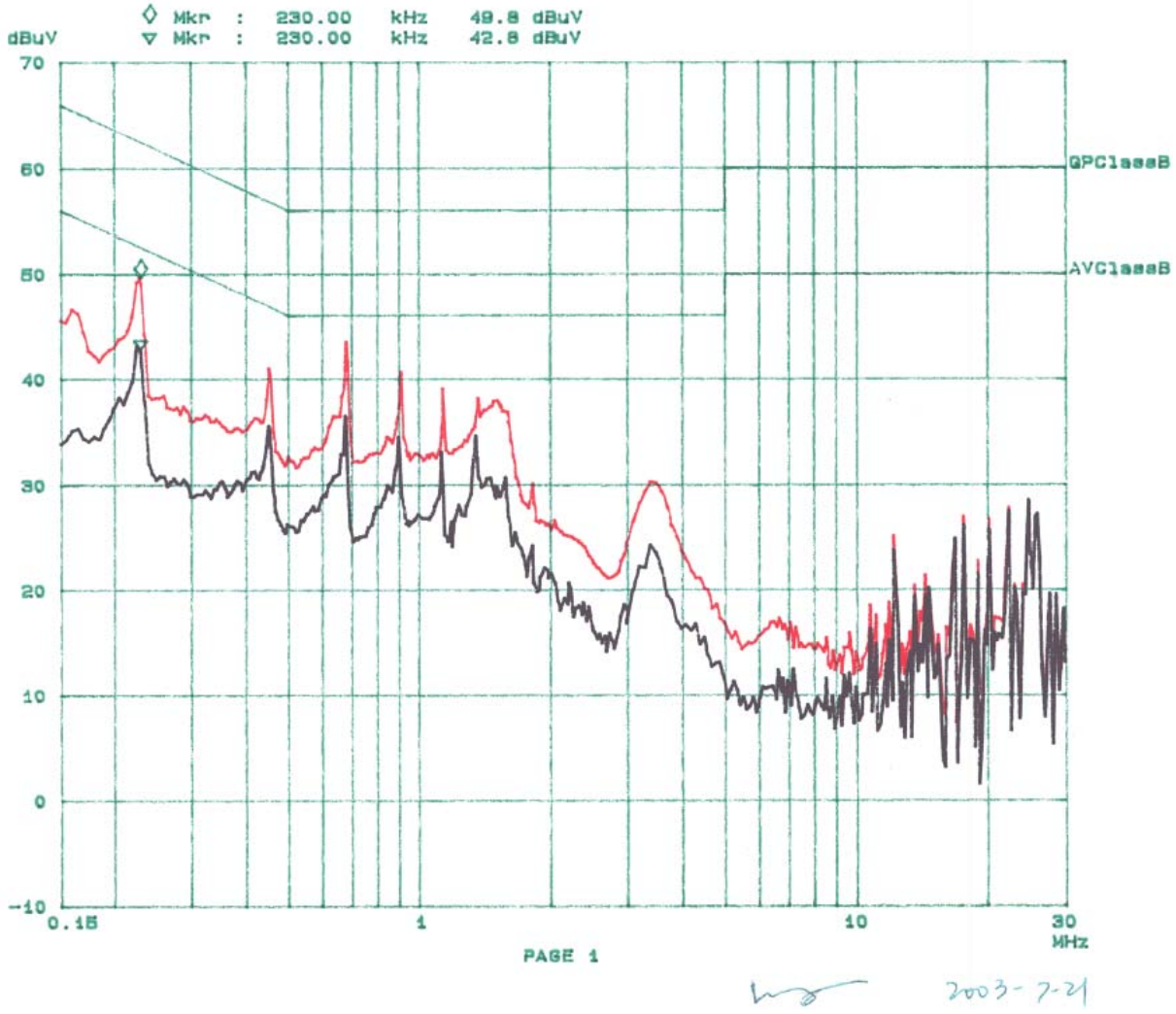
CLASS B

EUT: ACR-201-G/ASR-102-G
Manuf: OTC WIRELESS
Op Cond: Normal
Operator: LING
Comment: N

Scan Settings (3 Ranges)

| Frequencies | | | Receiver Settings | | | | |
|---|---|---|---|---|---|---|---|
| Start | Stop | Step | IF BW | Detector | M-Time | Atten | Preamp |
| 150k | 1M | 5k | 9k | QP+AV | 50ms | 10dBLN | OFF |
| 1M | 3M | 10k | 9k | QP+AV | 1ms | 10dBLN | OFF |
| 3M | 30M | 100k | 9k | QP+AV | 1ms | 10dBLN | OFF |

Final Measurement: x QP / + AV
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB

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**Plots for DELTA Powre Supply**

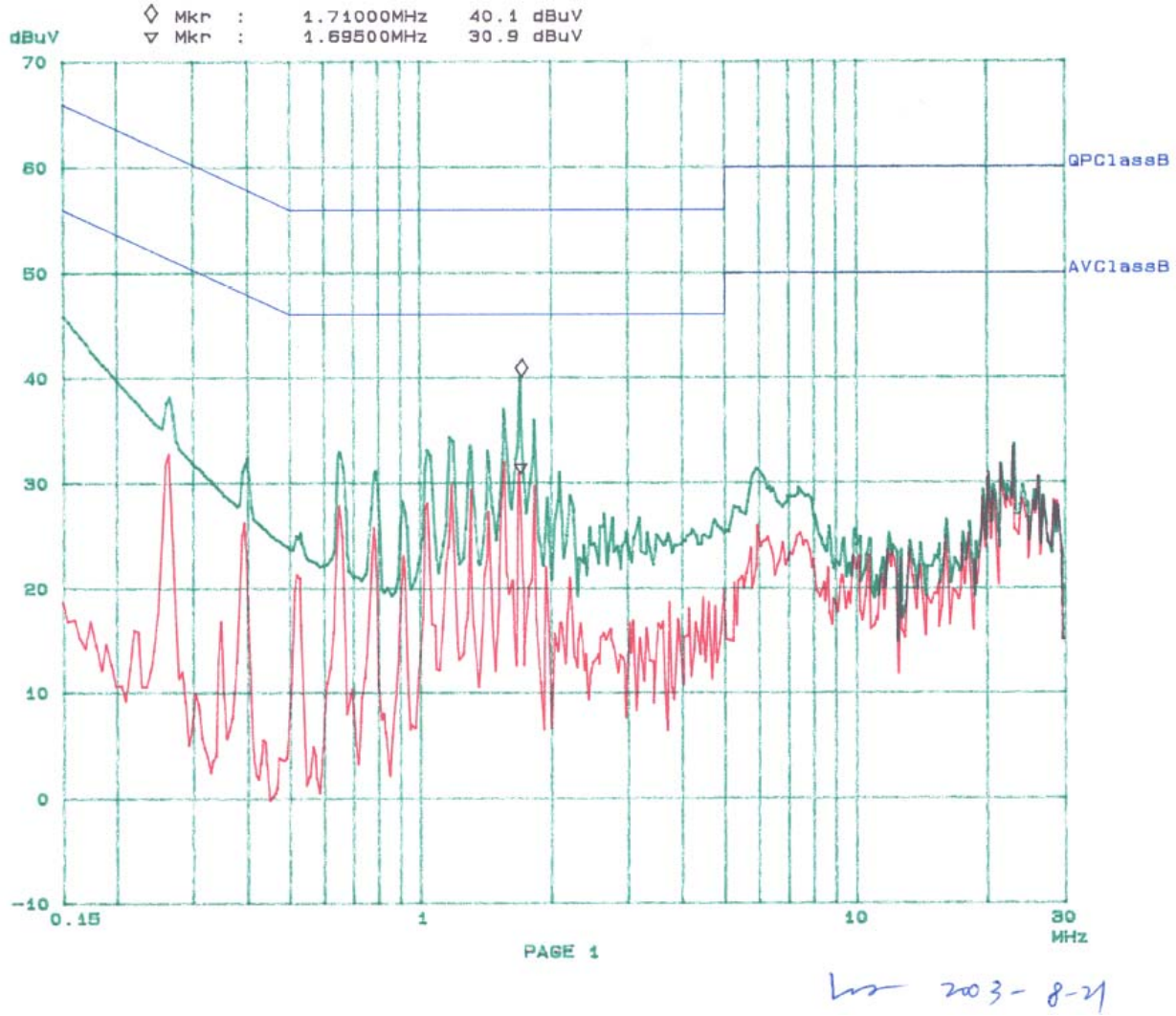
Bay Area Compliance Laboratory Corp 21. Aug 03 16:15
CLASS B

EUT: ACR-201-G/ASR-102-G
Manuf: OTC
Op Cond: Normal
Operator: LING
Comment: L

Scan Settings (3 Ranges)

| Frequencies | | | Receiver Settings | | | | |
|---|---|---|---|---|---|---|---|
| Start | Stop | Step | IF BW | Detector | M-Time | Atten | Preamp |
| 150k | 1M | 5k | 9k | QP+AV | 20ms | 10dBLN | OFF |
| 1M | 3M | 5k | 9k | QP+AV | 1ms | 10dBLN | OFF |
| 3M | 30M | 5k | 9k | QP+AV | 1ms | 10dBLN | OFF |

Final Measurement: x QP / + AV
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB

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Bay Area Compliance Laboratory Corp 21. Aug 03 15:06

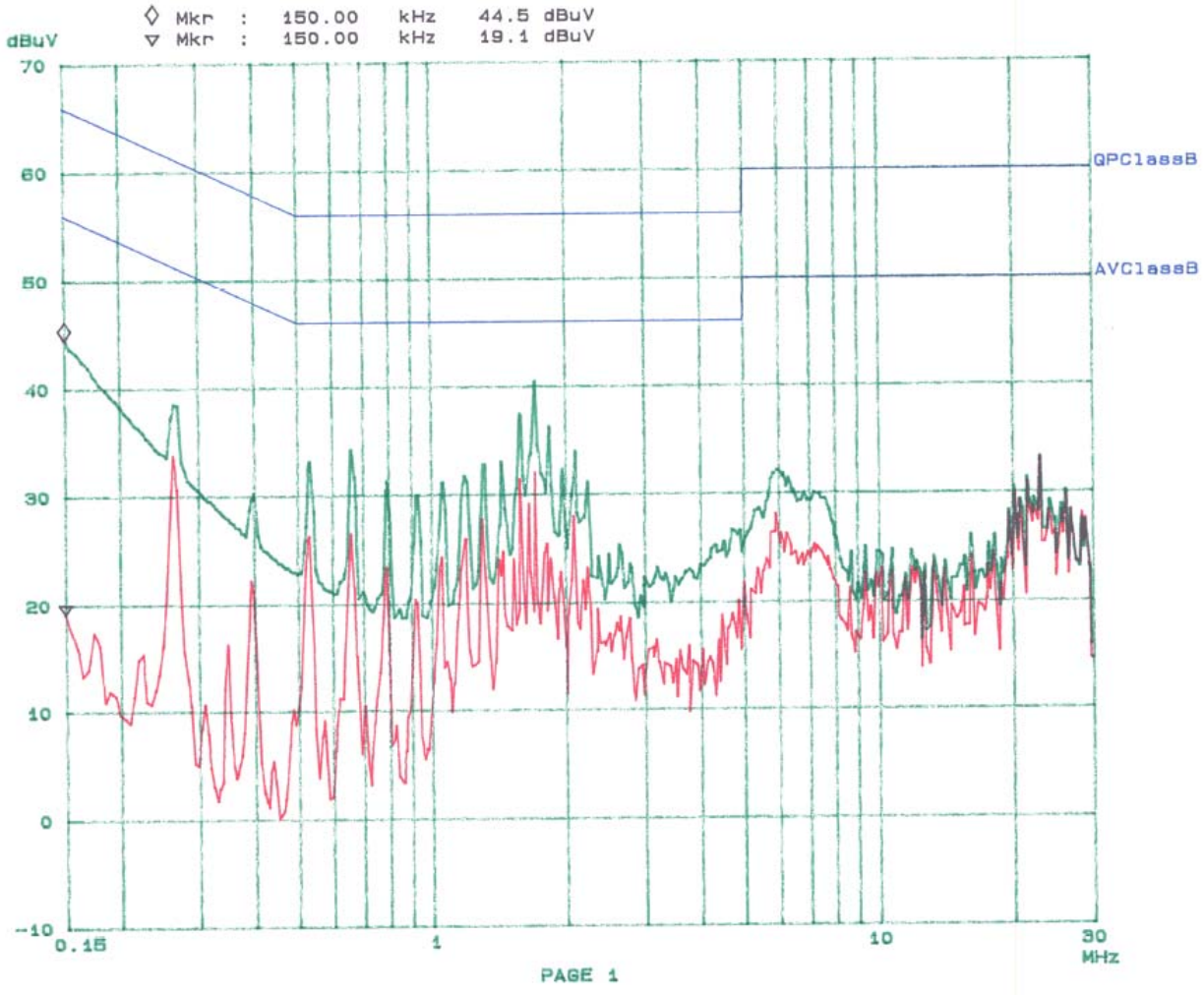
CLASS B

EUT: ACR-201-G/ASR-102-G
Manuf: OTC
Op Cond: Normal
Operator: LING
Comment: N

Scan Settings (3 Ranges)

| Frequencies | | | Receiver Settings | | | | |
|---|---|---|---|---|---|---|---|
| Start | Stop | Step | IF BW | Detector | M-Time | Atten | Preamp |
| 150k | 1M | 5k | 9k | QP+AV | 20ms | 10dBLN | OFF |
| 1M | 3M | 5k | 9k | QP+AV | 1ms | 10dBLN | OFF |
| 3M | 30M | 5k | 9k | QP+AV | 1ms | 10dBLN | OFF |

Final Measurement: x QP / + AV
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB

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