



### 3.2. OUTPUT POWER TEST EQUIPMENT

| EQUIPMENT         | MANUFACTURE       | MODEL NO. | CAL. DUE DATE |
|-------------------|-------------------|-----------|---------------|
| Spectrum Analyzer | HP                | 8593EM    | 6/11/03       |
| LP Antenna        | EMCO              | 3146      | 8/22/03       |
| Dipole Antenna    | COMPLIANCE DESIGN | ROBERTS   | 5/8/03        |
| Signal Generator  | R & S             | SMP04     | 5/25/03       |

### 3.3. MEASUREMENT RESULT

| Freq.<br>(MHz)                  | SA<br>Reading<br>(dBuV) | SG<br>Setting<br>(dBm) | Antenna<br>Gain<br>(dBd) | Cable<br>Loss<br>(dB) | ERP<br>Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dBm) | Pol<br>(H/V) |
|---------------------------------|-------------------------|------------------------|--------------------------|-----------------------|------------------------|----------------|-----------------|--------------|
| <b>Fundamental measurement:</b> |                         |                        |                          |                       |                        |                |                 |              |
| 216.53                          | 86.80                   | 0.00                   | 0.00                     | 0.30                  | -0.30                  | 20.00          | -20.30          | 3mH          |
| 216.53                          | 84.60                   | 5.00                   | 0.00                     | 0.30                  | 4.70                   | 20.00          | -15.30          | 3mV          |

**Maximum Output Power (ERP): 4.7dBm = 0.00295 W**



#### 4.3. MEASUREMENT INSTRUMENT

| EQUIPMENT              | MANUFACTURE   | MODEL NO.    | CAL. DUE DATE |
|------------------------|---------------|--------------|---------------|
| Modulation Analyzer    | HP            | 8901b        | 5/30/02       |
| Attenuator             | MINI CIRCUITS | MCL BW-S10W2 | N/A           |
| Audio Signal Generator | HP            | 3325A        | 2/1/03        |

#### 4.4. MEASUREMENT RESULT



### 9.3. MEASUREMENT RESULT

|                                                                                                                                                                |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                                                                               |  |  |  |  |  | <b>Project #:</b> 02U1683-1<br><b>Report #:</b> 021218C1<br><b>Date &amp; Time:</b> 12/18/02 1:51 PM<br><b>Test Engr:</b> William Zhuang |  |  |  |  |  |
| FCC, VCCI, CISPR, CE, AUSTEL,<br>UL, CSA, TUV, BSMI, DHHS, NVLAI<br><br>561F MONTEREY ROAD, SAN JOSE, CA 95037-90<br>PHONE: (408) 463-0888 FAX: (408) 463-0888 |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |
| <b>Company:</b> Phonic Ear Inc.                                                                                                                                |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |
| <b>EUT Description:</b> Wireless Directional Microphone Array (216 - 217MHz)                                                                                   |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |
| <b>Test Configuration :</b> EUT/Support Peripherals                                                                                                            |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |
| <b>Type of Test:</b> FCC Class B                                                                                                                               |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |
| <b>Mode of Operation:</b> Transmitting                                                                                                                         |  |  |  |  |  |                                                                                                                                          |  |  |  |  |  |

A-Site

B-Site

C-Site

F-Site

6 Worst Data

Descending

| 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) |
| 100.00          | 51.00   | 10.15 | 2.40  | 28.45   | 35.10    | 43.50 | -8.40  | 3mH   | 0.00  | 1.50    | P       |
| 300.00          | 45.00   | 12.96 | 4.21  | 27.90   | 34.27    | 46.00 | -11.73 | 3mH   | 0.00  | 1.20    | P       |
| 140.00          | 49.00   | 11.01 | 2.84  | 28.31   | 34.54    | 43.50 | -8.96  | 3mV   | 0.00  | 1.00    | P       |
| 100.00          | 51.00   | 10.15 | 2.40  | 28.45   | 35.10    | 43.50 | -8.40  | 3mV   | 0.00  | 1.00    | P       |
| 300.00          | 43.00   | 12.96 | 4.21  | 27.90   | 32.27    | 46.00 | -13.73 | 3mV   | 0.00  | 1.00    | P       |
| 400.00          | 42.00   | 15.85 | 4.96  | 28.53   | 34.28    | 46.00 | -11.72 | 3mV   | 0.00  | 1.00    | P       |
| Total data #: 6 |         |       |       |         |          |       |        |       |       |         |         |
| V.2b            |         |       |       |         |          |       |        |       |       |         |         |



| CONDUCTED EMISSIONS DATA (115VAC 60Hz) |           |           |           |       |       |       |         |         |         |
|----------------------------------------|-----------|-----------|-----------|-------|-------|-------|---------|---------|---------|
| Freq.                                  | Reading   |           |           | Closs | Limit | EN_B  | Margin  |         | Remark  |
| (MHz)                                  | PK (dBuV) | QP (dBuV) | AV (dBuV) | (dB)  | QP    | AV    | QP (dB) | AV (dB) | L1 / L2 |
| 0.30                                   | 46.12     | --        | --        | 0.00  | 61.71 | 51.71 | -15.59  | -5.59   | L1      |
| 0.99                                   | 40.68     | --        | --        | 0.00  | 56.00 | 46.00 | -15.32  | -5.32   | L1      |
| 1.21                                   | 41.06     | --        | --        | 0.00  | 56.00 | 46.00 | -14.94  | -4.94   | L1      |
| 0.30                                   | 50.40     | --        | 48.77     | 0.00  | 61.71 | 51.71 | -11.31  | -2.94   | L2      |
| 1.17                                   | 40.32     | --        | --        | 0.00  | 56.00 | 46.00 | -15.68  | -5.68   | L2      |
| 3.29                                   | 39.52     | --        | --        | 0.00  | 56.00 | 46.00 | -16.48  | -6.48   | L2      |
| 6 Worst Data                           |           |           |           |       |       |       |         |         |         |

