

Applicant: At Road, Incorporated
FCC ID: PDCILM-2500
Confirmation Number EA99345

Test: RF Power Output Radiated
Specification: 47 CFR 2.1046(a)
Guide: EIA/IS-19-B-1988
 TIA/EIA/IS-137-A-1996

Radiated Measurement Procedure

The EUT was placed on an open-field site and its radiated field strength at a known distance was measured by means of a spectrum analyzer. Using freshly charged batteries, data packets were transmitted numerous times, while the receiving antenna placed 3 meters from the transmit antenna captured the signal power. Equivalent loading was calculated from the equation. Only 3 data frequencies are used for ERP Calculation as represented in this report.

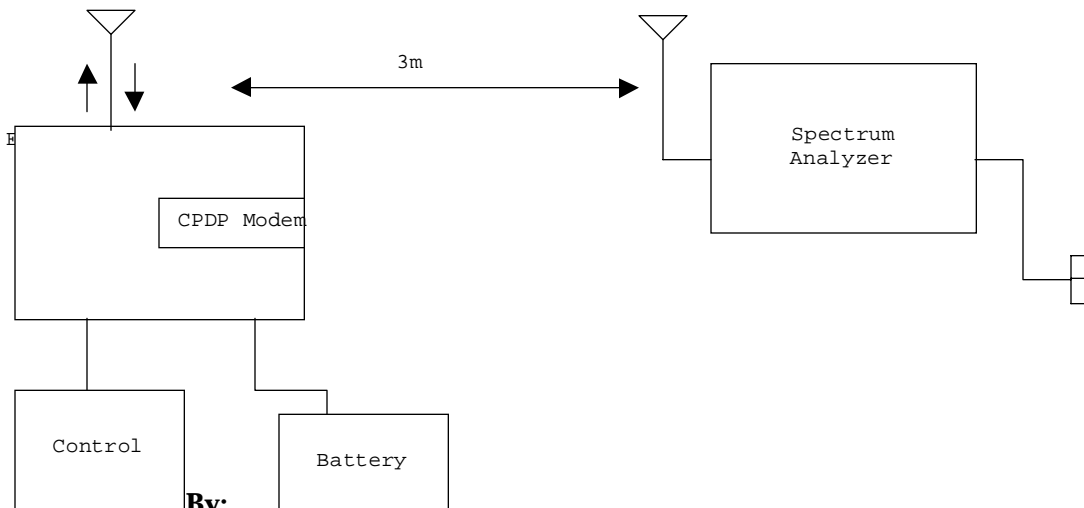
$P_t = ((E \times R)^2 / 49.2)$ watts, where $R = 3m$.

E = Signal amplitude in v/m
 Measurement accuracy is $\pm 1.5dB$

| Frequency MHz | dBuV/ m | Corr. Factor dBuV/m | Corr. Amp. dBuV/m | uV/m @ 3m | V/m @ 3m | ERP Watts |
|------------------|------------|---------------------------|-------------------------|--------------|-------------|--------------|
| 847.040000 | 72.72 | 25.66 | 98.38 | 82985 | 0.0829 | 0.005 |
| 845.403000 | 73.03 | 26.90 | 99.93 | 99197 | 0.0991 | 0.006 |
| 848.970000 | 72.15 | 25.61 | 97.76 | 77268 | 0.0772 | 0.005 |

$$20 \log X = Z \text{ uV/m} \quad \log X = \frac{Z \text{ uV/m}}{20}$$

$$X = 10^{(Z \text{ uV/m})/20}$$



By:
 International Technology Company
 9959 Calaveras Road, Box 543
 Sunol, CA 94586-0543
 Tel: 925-862-2944 Fax: 925-862-9013
 Email: itcemc@aol.com Web: www.itcemc.com

Prepared By:

International Technology Company

9959 Calaveras Road, Box 543

Sunol, CA 94586-0543

Tel: 925-862-2944

Fax: 925-862-9013

Email: itcemc@aol.com

Web: www.itcemc.com

RF Safety Exposure per FCC Requirement

The Maximum Permissible Exposure (MPE) distance per ANSI C95.1 table 2 for uncontrolled cellular phone environment is $f(\text{MHz})/1500$ [mW/cm²]. The numeric value of the gain for both antennas is 2(3dBi). Therefore the power density is

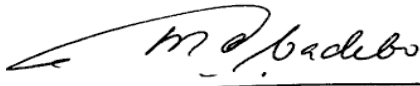
$$850\text{mW} \times 2.0 / (4\pi r^2) = 848 / 1500 [\text{mW}/\text{cm}^2]$$

$$r = [(848\text{MHz}/1500\text{mW}/\text{cm}^2) (4\pi) / 850\text{mW}]^{1/2}$$

$$r = 4.1\text{cm}$$

Therefore, the maximum calculated MPE distance r is 4.1cm. The installation instructions shall indicate that at least 6.1cm (4.1 + 2 margin) separation shall be provided between the antennas and the people.

Prepared By:



Michael Gbadebo, PE
Chief Engineer

Prepared By:

International Technology Company
9959 Calaveras Road, Box 543
Sunol, CA 94586-0543
Tel: 925-862-2944
Email: itcemc@aol.com

Fax: 925-862-9013
Web: www.itcemc.com