



**Antenna Factors for Loop Antenna**  
**Manufactured by EMC Test Systems**

**Model Number: 6502    Serial Number: 00042963**

| Frequency<br>(MHz) | Magnetic Antenna<br>Factor (dBS/m) | Electric Antenna<br>Factor (dB) |
|--------------------|------------------------------------|---------------------------------|
| 0.009              | -31.6                              | 19.9                            |
| 0.010              | -32.5                              | 19.0                            |
| 0.020              | -36.9                              | 14.6                            |
| 0.050              | -39.4                              | 12.1                            |
| 0.075              | -39.8                              | 11.8                            |
| 0.100              | -39.6                              | 11.9                            |
| 0.150              | -39.8                              | 11.8                            |
| 0.250              | -39.8                              | 11.8                            |
| 0.500              | -39.8                              | 11.8                            |
| 0.750              | -39.8                              | 11.8                            |
| 1.000              | -39.7                              | 11.9                            |
| 2.000              | -39.6                              | 11.9                            |
| 3.000              | -39.9                              | 11.7                            |
| 4.000              | -40.0                              | 11.5                            |
| 5.000              | -40.1                              | 11.4                            |
| 10.000             | -40.7                              | 10.8                            |
| 15.000             | -41.1                              | 10.4                            |
| 20.000             | -41.5                              | 10.0                            |
| 25.000             | -42.3                              | 9.2                             |
| 30.000             | -43.5                              | 8.1                             |

Specification compliance testing factor to be added to receiver meter reading in dBV to convert to magnetic field intensity in dBA/meter or to equivalent electric field intensity in dBV/meter. Calibrated 14 Jan 05 (DD MM YY).  
 Calibrated per IEEE 291, Induction-Field Method. >



An ESCO Technologies Company

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ETS CALIBRATION

Track# J87635 Ltd Cal ☐

By DBN Date 14-Jan-05

Next Cal Due

Cert I.D.: 48764  
Lab Code 115844/1207.01

## Certificate of Calibration Conformance

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The instrument identified below has been individually calibrated in compliance with the following standard(s):

IEEE Std 291 - 1992, IEEE Standard Methods for Measuring Electromagnetic Field Strength of Sinusoidal Continuous Waves, 30 Hz to 30 GHz, Institute of Electrical and Electronics Engineers, Inc.

Environment: Laboratory MTE is maintained in a temperature controlled environment with ambient conditions from 18 to 28 C, relative humidity less than 90%. The instrument under test has been calibrated in environment which has no known influences on measurement quality.

|                          |                                  |                  |                 |
|--------------------------|----------------------------------|------------------|-----------------|
| Manufacturer:            | EMCO                             | Operating Range: | 10 kHz - 30 MHz |
| Model Number:            | 6502                             | Instrument Type: | Loop (Active)   |
| Serial Number / ID:      | 00042963                         |                  |                 |
| Tracking Number:         | J87635                           |                  |                 |
| Date Completed:          | 14-Jan-05                        |                  |                 |
| Test Type:               | Standard Loop, H - Field Gain/AF |                  |                 |
| Calibration Uncertainty: | SAM                              |                  | +/- 2.0 dB      |
| (95% Confidence Level)   |                                  |                  |                 |

Test Remarks: None

Calibration Traceability: All Measuring and Test Equipment (M/TE) identified below are traceable to the National Institute for Standards and Technology (NIST). Calibration Laboratory and Quality System controls are compliant with ISO/IEC 17025-1999.

### Standards and Equipment Used:

#### Make / Model / Name / S/N / Recall Date

|                 |       |                          |            |           |
|-----------------|-------|--------------------------|------------|-----------|
| Hewlett Packard | 8116A | Pulse/function Generator | 2516A01852 | 09-Mar-05 |
| Hewlett Packard | 3478A | Digital Multimeter       | 2301A18249 | 08-Jul-05 |
| Hewlett Packard | 8566B | Spectrum Analyzer        | 3014A18980 | 10-Mar-05 |

### Condition of Instrument

#### On Release:

In Tolerance to Internal Quality Standards

Calibration Completed By

David B. Nash, Cal Lab Technician

Attested and Issued on 14-Jan-05

Ronald W. Bethel, Calibration Lab Supervisor

This document provides traceability of measurements to recognized national standards using controlled processes at the ETS-Lindgren Calibration Laboratory. Uncertainties listed are derived from the methods described by NIST Tech Note 1297. This certificate and report may not be reproduced, except in full, without the written approval of ETS-Lindgren Calibration Laboratory in accordance with ISO/IEC 17025-1999. QAF 1107 (07/03)