**EM-2108 | Test Fixture, Shielding Effectiveness**

**Specifications**

**Electrical**

- **Frequency Range**: 1.5 GHz - 10 GHz
- **Fixture Impedance**: 50 ± 0.5 Ω
- **Measured SE of a Gold Specimen**: 32 ± 3 dB
- **Connector**: Type N

**Mechanical**

- **Length**: 14 cm (5.5”)
- **Height (Vertical)**: 16.9 cm (6.63”)
- **Height (Horizontal)**: 11.9 cm (4.7”)
- **Fixture Diameter**: 3.2 cm (1.26”)
- **Base Diameter**: 15.25 cm (6’’)

**Description**

The EM-2108 is a standard test fixture for evaluation of the electromagnetic shielding effectiveness (SE) of planar materials. The fixture is a section of coaxial transmission line broken to allow the insertion of planar test materials. Although ASTM D4935-10 is currently limited to an upper frequency of 1.5 GHz, the EM-2108 meets and complies fully with both the impedance and SE requirements called out in ASTM test method D4935-10 up to 10 GHz. These results are shown in Figures 1 & 2. The measured data relates to the shielding effectiveness due to a plane wave (far field EM wave) from which near field values for magnetic and electric fields may be inferred.

The EM-2108 is provided with a reference standard test specimen, a load standard test specimen, and a dynamic range specimen. Dynamic range of greater than 80 dB is achievable, although the cables and other test system components usually establish the limiting factors.

Ref: 130603
Figure 1: Typical Impedance Test Data

Figure 2: Typical Shielding Effectiveness (SE) Test Data for a 4.1 Ω Gold Test Sample