

TEST ENCLOSURES 5211 Wireless Interface Test System

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With this Common Air Interface (CAI) the operator performs the test faster and simulates a real-world environment. In contrast, the direct connection method bypasses the antenna and adds up to several dB of loss to the measurement. The CAI method provides a shorter signal path and readily detects a faulty antenna. A connector is provided for testing with a direct connection if desired. Each enclosure is lined with ETS-Lindgren RF absorber to improve test repeatability and eliminate nulls and hot spots. Compressible RF gasketing is used to seal the lid on closure. Nominal shielding effectiveness >80 dB, although higher values are possible.

Consistent orientation of the phone in the enclosure is important for test repeatability. To help the operator position the phone correctly, a sliding clamp and alignment post are built into the bottom of the enclosure. The base is also marked with an illustration of a typical phone position. The enclosure includes one external Type N connector, which links the antenna coupler to the test set, one Type N connector feed through for traditional direct connection testing, and a 9-pin filtered D-sub connector for more advanced test procedures.

Key Features

- Works with Mobile/Cellular Radio Test Sets
- >80 dB Typical RF Isolation
- On-The-Air Test TX, RX Functionality Without Direct Cable connection to Cell Phone Data

Port

- Flat Coupling Response over 700 MHz to 2 GHz
- Custom Configurations Available

Specifications

Electrical Specifications

Frequency Minimum: 700 MHz

Frequency Maximum: 2 GHz

Coupling Factor:¹ 1850 MHz to 1990 MHz <11 dB; 824 MHz to 894 MHz <8dB

Typical Coupling Factor Repeatability: ±1 dB

Typical Internal RF Absorption: 1800 to 2000 MHz Q<2; 800 to 1000 MHz Q<2

Typical RF Isolation: 1 MHz to 2 GHz >80 dB

¹Typical, to Resonant Dipole 1 in. from Coupler Surface

Physical Specifications

External Height: 22.8 cm (8.98 in)

External Length: 49.5 cm (19.49 in)

External Width: 35.5 cm (13.98 in)

Internal Height: 8.25 cm (3.25 in)

Internal Length: 37.46 cm (14.75 in)

Internal Weight: 20.32 cm (8.00 in)

Maximum Phone Body Size Height: 8.2 cm (3.23 in)

Maximum Phone Body Size Length: 19.0 cm (7.48 in)

Maximum Phone Body Size Width: 7.6 cm (2.99 in)

Maximum Phone Weight: 6.8 kg (14.99 lb)

Antenna Coupler: Type N Female, External

Calibration and Repair Coupler: Type N Female, Internal and External

DC/Audio Coupler: Filtered dB9, Internal and External