

Wireless

Wideband Antenna Coupler

AEROFLEX
A passion for performance.



A low cost easy to use test fixture solution for rapid testing of GSM mobile phones

- Simplify 'Off Air' Test of Mobile Radios
- Low RF coupling losses
- Wide Frequency Range
- Universal Clamp
- Compact Screened Box
- High shielding effectiveness

The Wideband Antenna Coupler test fixture is a low cost, easy to use solution for mobile phone repairers.

When used with Aeroflex's 2935 GSM Test Head and PhoneTest it enables repair technicians to perform fault diagnosis and final test without the need of a physical RF connection. With so many different phone types to support, many without accessible RF connection points, the Wideband Antenna Coupler allows 'off air' coupling between the radio test set and the mobile phone antenna. This also ensures that the antenna is included in the overall test evaluation, important when the antenna itself might be the cause of failure.



Designed to operate up to 3 GHz, the wideband Antenna Coupler provides support for all GSM mobile phone types, even those with Bluetooth radio interfaces. Coupling losses are typically 6 dB in the GSM 900 band rising to approximately 20 dB in higher bands. When used with the Aeroflex 2935, known coupling losses can be programmed as part of automatic test sequences to further simplify testing.



For test environments where local interference exists, e.g. in the vicinity of a base station or in proximity to another GSM test station, the Wideband Antenna Coupler can be used in conjunction with the compact Screened Box to screen interference. The level of screening, typically better than 70 dB is achieved through the use of precision RF gasketing.

EMI filtered interface ports are provided that can be used to extend the functionality of the Screened Box as the user requires. This may

For the very latest specifications visit www.aeroflex.com

include the provision of a DC inlet for powering the phone or the provision of audio transducers/couplers to further automate the test process.

The Wideband Antenna Coupler and the Screened Box are supplied with appropriate RF cable assemblies so that each can be used independently.

Specification - Wideband Antenna Coupler

Frequency Range

DC to 3 GHz

Coupling Loss

Typically 6 dB at 900 MHz, 20 dB at 1800 MHz

Dimensions: (W x L x D)

137 mm x 200 mm x 10 mm

Clamp Fixture

Universal, suitable for mobiles up to 55 mm wide

Output connection type

SMB

Specification - Screened Box

Shielding Effectiveness

>70 dB to 900 MHz, >65 dB to 1.8 GHz, >60 dB to 2.5 GHz

Internal Dimensions (W x D x H)

140 mm x 244 mm x 119 mm

External Dimensions (W x D x H)

205 mm x 418 mm (Including handle) x 152 mm

Weight

3.5 kg (5 kg with Wideband Antenna Coupler fitted)

Connectors

RF: 2 x type N

Data: DB9 and DB25

Data line capacity: 50 VDC, 3 A max

ORDERING INFORMATION

When ordering please quote the full ordering number information.

Ordering

Numbers

Versions

80007 Wideband Antenna Coupler TC-93030A

Supplied with

Cable assembly: N type (m) to SMB(m), 1 m

User documentation

Versions

80012 Screened Box IFR- 5910B

Supplied with

RF Cable Link assembly: SMB(m) to SMA(m) (for use with 80007)

RF Cable assembly N to N type (male connectors), 1 m

Data Cable DB-9P-9S, 1 m

Data Cable DB-25P-25S, 1 m

User documentaion + test report

CHINA

Tel: [+86] (21) 6282 8001
Fax: [+86] (21) 6282 8002

EUROPE

Tel: [+44] (0) 1438 742200
Fax: [+44] (0) 1438 727601

FRANCE

Tel: [+33] 1 60 79 96 00
Fax: [+33] 1 60 77 69 22

HONG KONG

Tel: [+852] 2832 7988
Fax: [+852] 2834 5364

SCANDINAVIA

Tel: [+45] 9614 0045
Fax: [+45] 9614 0047

SPAIN

Tel: [+34] (91) 640 11 34
Fax: [+34] (91) 640 06 40

UNITED KINGDOM

Tel: [+44] (0) 1438 742200
Toll Free: [+44] (0800) 282 388 (UK only)
Fax: [+44] (0) 1438 727601

USA

Tel: [+1] (316) 522 4981
Toll Free: [+1] (800) 835 2352 (US only)
Fax: [+1] (316) 522 1360



As we are always seeking to improve our products, the information in this document gives only a general indication of the product capacity, performance and suitability, none of which shall form part of any contract. We reserve the right to make design changes without notice. All trademarks are acknowledged. Parent company Aeroflex, Inc. ©Aeroflex 2004.

www.aeroflex.com
info-test@aeroflex.com



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.

Part No. 46891/150, Issue 2, 01/04