ANTENNA COUPLER · DATASHEET

Wideband Antenna Coupler

BLUELEC
Part of JOT Automation

EM078432-0 | 698 – 2700 MHz | 50 Ω · SMA (f)

Bluelec EM078432-0 is a compact wideband near-field antenna coupler for RF testing of mobile-device antennas and wireless modules across 698 MHz to 2700 MHz. It provides repeatable coupling for cellular 2G, 3G, and 4G antenna systems, as well as selected complementary BT, WLAN, and GPS test applications.

- Wideband near-field coupling from 698 MHz to 2700 MHz.
- Supports cellular 2G/3G/4G antenna and radio testing.
- Suitable for selected BT/WLAN/GPS test applications.
- Nominally linear coupling field with broad angular near-field response.
- Compact package with 50 Ω SMA interface.

The coupler features a standard 50 Ω SMA interface and is designed for easy integration into automated handlers, shield boxes, R&D benches, service-center fixtures, and production test systems. Its nominally linear coupling field and broad angular near-field response support stable measurements across a range of device positions without requiring direct RF connection to the device under test.



ELECTRICAL

Frequency range	**698 – 2700 MHz**
Terminal impedance	**50 Ω**
Nominal polarization	**Linear**
Near-field coupling	**Broad angular response**
Max input power	**5 W**

MECHANICAL

Dimensions	**45 × 24 × 11 mm (1.77 × 0.94 × 0.43 in)**
RF connector	**SMA (female)**
Mounting	**M3 plastic screws**
Compliance	**RoHS**

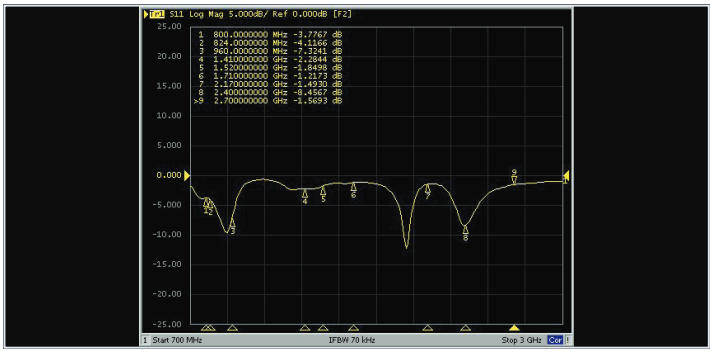
RETURN LOSS

reference, no DUT

Band	Return loss
698 – 800 MHz	< −2 dB
824 – 960 MHz	< −4 dB
1410 – 1520 MHz	< −2 dB
1710 – 2170 MHz	< −2 dB
2400 – 2700 MHz	< −2 dB

Reference measurement without DUT or surrounding mechanics.

COUPLING RESPONSE



ENVIRONMENTAL

Operating temperature	**0 – +60 °C**
Relative humidity	**15 – 95 % non-condensing**
Storage temperature	**−20 … +70 °C**

3D CAD models available on request via **sales@bluelec.com**

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Specifications subject to change without notice.