

Wideband Antenna Coupler

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

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.

ENVIRONMENTAL

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

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

MECHANICAL

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

COUPLING RESPONSE

