

Broadband Baluns – up to 110 GHz

1:2 Broadband Balun · 10 MHz to 110 GHz · Single-Ended to Differential · Product Datasheet



TYPICAL SPECIFICATIONS

- **Frequency Range**
10 MHz to 110 GHz (on request)
- **Topology**
1:2 Broadband Balun (Single-Ended to Differential)
- **Impedance**
50 Ω (Common) to 100 Ω (Differential)
- **Nominal Insertion Loss**
3 dB typ. (up to approx. 67 GHz)
- **Phase Shift**
180° nominal
- **Amplitude Balance**
 ± 0.8 dB typ., ± 2 dB max
- **Phase Balance**
 $\pm 5^\circ$ typ., $\pm 12^\circ$ max
- **Return Loss**
-10 dB typ.
- **Isolation between Output Ports**
15 dB typ.
- **Common Mode Rejection**
28 dB typ. (mmWave models)
- **Power Handling**
1 W (+30 dBm)
- **Operating Temperature**
-40 °C to +85 °C

AVAILABLE CONNECTOR OPTIONS

Connector	Frequency Range	Typical Application
SMA Female	up to 26.5 GHz	5G FR1, WiFi, general test applications
2.92 mm Female (K)	up to 40 GHz	5G FR2, Ka-Band, Automotive Radar
2.4 mm Female	up to 50 GHz	Q-Band, Satcom, Defense
1.85 mm Female (V)	up to 67 GHz	V-Band, mmWave-Radar, 6G FR3
1 mm Female (W)	up to 110 GHz	W-Band, Optical PHY Test, Research

APPLICATIONS

ADC & DAC Driving Single-Ended to Differential conversion for high-speed converters with high linearity	Differential Receivers Symmetric input stages with low Common-Mode sensitivity	5G/6G Test & Measurement Beamforming, MIMO and Phased Array validation across FR1, FR2 and FR3
Radar Systems Differential input stages for automotive, defense and weather satellite radar receivers	Optical PHY Validation 100G/400G/800G Ethernet PHY test, PAM4 and NRZ Signal Integrity	VNA Differential Test Extend 2-port VNAs to differential measurements and S-parameter characterization