



**Model DC7420, M1**  
**Dual Directional Coupler**  
**50 Watts CW**  
**0.8GHz–18GHz**

The Model DC7420 is a wide-band dual directional coupler intended for use with the 10ST1G18, 20ST1G18 and other "T" Series microwave TWT amplifiers. The wide frequency range assures flexibility in coupling high power amplifiers to power meters, spectrum analyzers, receivers, and other measuring instruments. The dual directional design allows the user to monitor both forward and reflected power, a much needed characteristic in RF susceptibility testing for amplifier overdrive protection, field control, and load protection. Low insertion loss allows efficient coupling to the load.

The Model DC7420 is uniquely suited for use with our "ST" series power amplifiers, other amplifiers operating within this frequency and power range, and our PM2000 Series power meters.

**SPECIFICATIONS**

- FREQUENCY RANGE.....0.8- 18 GHz
- POWER maximum .....50 watts CW; 300 watts peak
- COUPLING FACTOR.....20 ± 1.3 dB (includes flatness)
- COUPLING FLATNESS.....±1.2 dB
- DIRECTIVITY.....15 dB typical  
12 dB minimum
- INSERTION LOSS .....1.6 dB maximum
- IMPEDANCE (Main Line) .....50 ohms, VSWR 1.5:1 maximum
- CONNECTORS
  - Mainline .....SMA (precision) female
  - Coupled .....SMA (precision) female
- WEIGHT.....0.128 kg (4.5 oz)
- SIZE (W x H x D).....19.6 x 2.74 x 1.3 cm (7.7 x 1.08 x 0.5 in)

Model Number	Connector
DC7420	SMA (precision) female
DC7420M1*	SMA (precision) female

\*The M1 option includes A2LA calibration.