

Model 1870A
Broadband Resistive Power Splitter (Matching)

dc to 18.0 GHz
1 Watt

Type N Connectors



Features

These resistive power splitters are intended for RF and wireless applications in which one of the two outputs is included in a leveling loop or is used as a reference in a ratio system, for the purpose of providing an output signal whose source impedance is essentially matched to 50Ω. Some examples are:

- /// A dual channel insertion loss measuring system (ratio).
- /// A parallel IF substitution insertion loss measuring system (ratio or ALC loop).
- /// A precision power source (ratio or ALC loop).

Specifications

NOMINAL IMPEDANCE: 50 Ω
FREQUENCY RANGE: dc to 18.0 GHz
INSERTION LOSS: 6 dB nominal, 7.5 dB maximum
 (Between Input and either output).
MAXIMUM INPUT POWER: 1 watt average, 1 kilowatt peak
 (Input connector only)

OUTPUT TRACKING (Between Ports):

Frequency (GHz)	Tracking (maximum dB)
dc - 8	0.15
8 -18	0.20

PHASE TRACKING: ±2° nominal between output ports
POWER COEFFICIENT: < 0.005 dB/dB/watt
TEMPERATURE COEFFICIENT: <0.0004 dB/dB/°C
TEMPERATURE RANGE: -55°C to +85°C
CONSTRUCTION: Nickel plated brass body; stainless steel connectors; gold plated beryllium copper contacts.

MAXIMUM INPUT SWR:

Frequency (GHz)	Maximum SWR
dc - 18	1.30

EQUIVALENT OUTPUT SWR (Port 2 & 3):

Frequency (GHz)	Maximum SWR
dc - 2	1.05
2 - 4	1.07
4 - 8	1.10
8 - 18	1.15

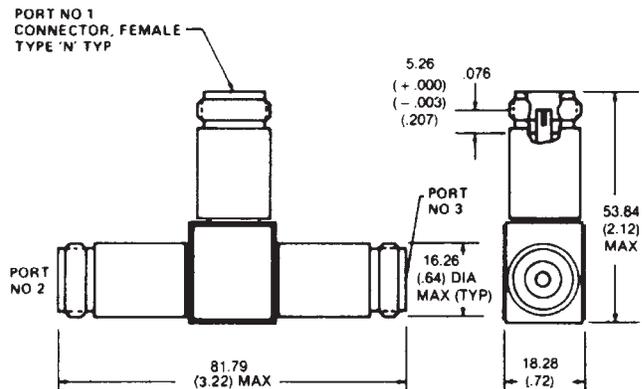
* When used in a leveling or ratio system.

CALIBRATION: Insertion Loss, SWR, and Tracking measurements performed across the frequency band. Test data available at additional cost.

CONNECTORS: Type N female connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors.

WEIGHT: Net 170 g (6 oz)

PHYSICAL DIMENSIONS:



NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.