RESISTIVE POWER SPLITTERS AND DIVIDERS

DC – 40.0 GHz **1 WATTS**

Resistive Power Splitters

Usage: Use in RF and wireless applications where one of the two outputs are included in a leveling loop or used as a reference in a ratio system providing an output signal whose source impedance is matched to 50 ohms.

Features: Excellent amplitude tracking, low equivalent output SWR, unidirectional

Resistive Power Splitters							
Model Number	Frequency Range DC - (GHz)	Average Power (W)	Maximum Insertion Loss (dB)	Amplitude Tracking (dB, max)	Phase Tracking (± deg)	Connectors	Page No.
WA1507R	4	1	6.5	0.15	4	SMA	130
WA1593	26.5	1	8.5	0.25	4	3.5 mm	131
WA1534	40	1	10.5	0.50	4	2.92 mm	132
PS-018	18	1	7.5	0.2	2	N	128
7PS-018	18	1	7.5	0.2	2	N (input), 7 mm	129

Resistive Power Dividers

Usage: Use in general RF and wireless applications where RF signals are to be either divided or combined.

Features: Excellent amplitude and phase tracking, bi-directional, isolated outputs

Resistive Power Dividers							
Model Number	Frequency Range DC - (GHz)	Average Power (W)	Maximum Insertion Loss (dB)	Amplitude Tracking (dB, max)	Phase Tracking (± deg)	Connectors	Page No.
WA1549R	4	1	6.5	0.15	4	SMA	125
WA1506A	18	1	7.5	0.50	0	N	123
WA1515	18	1	7.5	0.50	0	SMA	124
WA1574	26.5	1	8.5	1.0	2	3.5 mm	126
WA1575	40	1	8.5	0.25	2	2.92 mm	127

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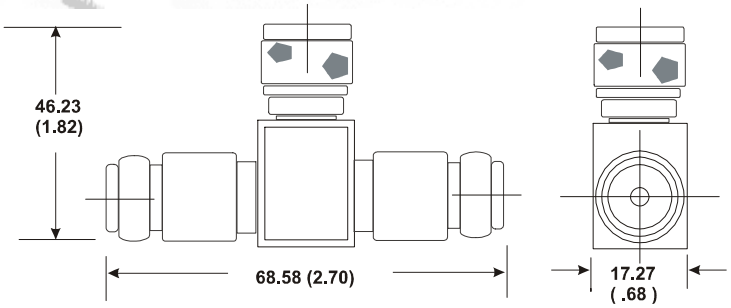
Broadband Resistive Power Divider
MODEL WA1506A

DC-18.0 GHz **1 Watt**



Features

►Accurate Division and Low Frequency Sensitivity- The symmetry of output power between the two arms is excellent across the frequency range.

►High Stability- Low temperature and power coefficients ensure attenuator stability

►Calibration Data – Each divider is calibrated at four frequencies. Calibration data provided at additional cost.

►Matched Ports- Symmetrical 6 dB division permits any port to be used as input.

Specifications

Nominal Impedance: 50Ω

Frequency Range: DC to 18.0 GHz

AMPLITUDE & PHASE TRACKING (MAX.)	
Frequency (GHz)	**Tracking**
DC – 4.0	0.2 dB
4.0 – 10.0	0.4 dB
10.0 - 18.0	0.5 dB

MAXIMUM VSWR	
Frequency (GHz)	**VSWR**
DC – 10.0	1.25
10.0 - 18.0	1.35

Insertion Loss: (Between input & either output arm): 6 dB nominal, -0.2, +1.2 dB maximum to 10.0 GHz; +1.5 dB maximum to 18 GHz.

Maximum Input Power: 1.0 watt CW, 1 kilowatt peak (5μsec pulse width, 0.05 duty cycle)

Phase Tracking: ±2° nominal between output ports (with male connector as input and female connectors as outputs)

Number of Ports: 3 interchangeable for input and output

Power Coefficient: <0.005 dB/dB/W

Temperature Coefficient: <0.005 dB/dB/°C

Temperature Range: -55°c TO +125 °C

Construction: Nickel plated brass body; stainless steel connectors; gold plated beryllium copper contacts.

Connectors: Type N connectors per MIL-STD-348 interface nondestructively with MIL-PRF-39012 connectors.

Weight: .14kg (5 oz) maximum

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

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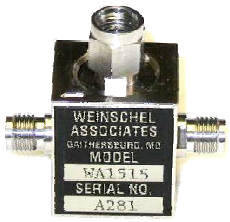
Broadband Resistive Power Divider
MODEL WA1515

DC – 18.0 GHz **1 WATT**



AMPLITUDE & PHASE TRACKING (MAX.)	
Frequency (GHz)	**Tracking**
DC – 4.0	0 .2 dB
4.0 – 10.0	0.4 dB
10.0 – 18.0	0.5 dB

MAXIMUM VSWR		
Frequency (GHz)	**Output**	**Input**
DC – 10.0	1.25	1.25
10.0 – 18.0	1.35	1.35

Features

Lightweight Miniature package: High power capability

Close Tracking: Division is 6dB from matched ports

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 18.0 GHz

INSERTION LOSS: 6 dB nominal, -0.2 dB, +1.2 to 10.0 GHz, 1.5 to 18.0 GHz

MAXIMUM INPUT POWER: 1.0 watt CW, 1kw peak (5 µsec pulse width, 0.05 % duty cycle)

PHASE TRACKING: ±2° nominal between male input and female outputs.

TEMPERATURE RANGE: -55°C to +125 °C

TEMPERATURE COEFFICIENT: < 0.004 dB/dB/°C

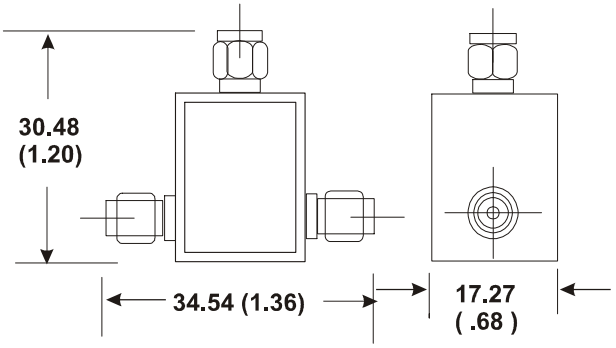
POWER COEFFICIENT: < 0.005 dB/dB/watt

CONTRUCTION: Nickel plated brass body; stainless steel connectors.

CONNECTORS: Male SMA port 1, (2) Female SMA ports 2 and 3; all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional female SMA connectors are available on all ports. Reference P/N WA1515-1.

WEIGHT: 30 g (1 oz) maximum

PHYSICAL DIMENSIONS:



Broadband Resistive Power Divider
MODEL WA1549R

DC – 4.0 GHz **1 WATT**

Features

These resistive power dividers are intended for RF and wireless applications in which one of the 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 (ration or ALC loop)

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 4.0 GHz

INSERTION LOSS: 6 dB nominal, 6.5 dB maximum (Between input and either output)

MAXIMUM INPUT POWER: 1.0 watt CW (Input connector only)

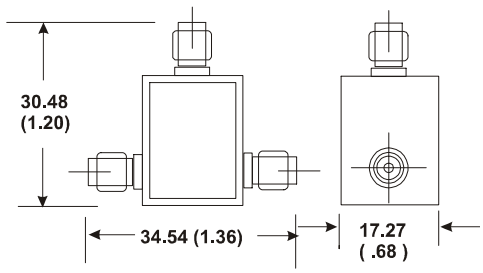
AMPLITUDE & PHASE TRACKING (MAX.)		
Frequency (GHz)	**Tracking**	
	Amplitude	Phase
DC – 4.0	< 0.15	< 4°

TEMPERATURE RANGE: -55°C to +125 °C

CONNECTORS: Female SMA connectors all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional male SMA connectors are available.

WEIGHT: 25 g (0.9 oz) maximum

PHYSICAL DIMENSIONS:



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

MAXIMUM VSWR:

Frequency (GHz)	Output	Input
DC – 4.0	1.25	1.25

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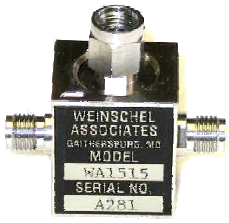
Broadband Resistive Power Divider
MODEL WA1574

DC – 26.5 GHz **1 WATT**



AMPLITUDE & PHASE TRACKING (MAX.)		
Frequency (GHz)	**Tracking**	
	Amplitude	Phase
DC – 26.5	< 1.0	< 2 °

MAXIMUM VSWR	
Frequency (GHz)	**VSWR**
DC – 26.5	1.70

Features

Lightweight Miniature package: High power capability. These resistive power dividers are intended for RF and wireless applications in which the signal must be divided or combined.

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 26.5 GHz

INSERTION LOSS: 6 dB nominal, 8.5 dB maximum (between input and either output).

MAXIMUM INPUT POWER: 1.0 watt CW, 1kw peak (5 µsec pulse width, 0.05 % duty cycle, input connector only).

TEMPERATURE RANGE: -55°C to +125 °C

TEMPERATURE COEFFICIENT: < 0.004 dB/dB/°C

POWER COEFFICIENT: < 0.005 dB/dB/watt

CONTRUCTION: Nickel plated brass body; stainless steel connectors.

CONNECTORS: Male 3.5mm port 1, (2) Female 3.5mm ports 2 and 3; all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional female 3.5mm connectors are available on all ports.

WEIGHT: 25 g (0.9 oz) maximum

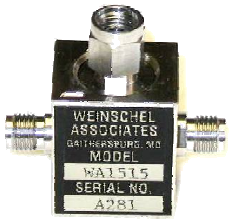
PHYSICAL DIMENSIONS:

Body Width: 10.2 (0.40)
Body Height: 15.2 (0.60) Square

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

Broadband Resistive Power Divider
MODEL WA1575

DC – 40.0 GHz **1 WATT**



AMPLITUDE & PHASE TRACKING (MAX.)		
Frequency (GHz)	**Tracking**	
	Amplitude	Phase
DC – 40.0	< 0.25	< 2 °

MAXIMUM VSWR	
Frequency (GHz)	**VSWR**
DC – 40.0	1.70

Features

Lightweight Miniature package: High power capability. These resistive power dividers are intended for RF and wireless applications in which the signal must be divided or combined.

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 40.0 GHz

INSERTION LOSS: 6 dB nominal, 10.5 dB maximum (between input and either output).

MAXIMUM INPUT POWER: 1.0 watt CW, 1kw peak (5 µsec pulse width, 0.05 % duty cycle, input connector only).

TEMPERATURE RANGE: -55°C to +125 °C

TEMPERATURE COEFFICIENT: < 0.004 dB/dB/°C

POWER COEFFICIENT: < 0.005 dB/dB/watt

CONTRUCTION: Nickel plated brass body; stainless steel connectors.

CONNECTORS: Male 2.92mm port 1, (2) Female 2.92mm ports 2 and 3; all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional female 2.92mm connectors are available on all ports.

WEIGHT: 25 g (0.9 oz) maximum

PHYSICAL DIMENSIONS:

Body Width: 10.2 (0.40)
Body Height: 15.2 (0.60) Square

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

Broadband Resistive Power Splitter
MODEL PS-018

DC – 18.0 GHz **1 WATT**

Features

These resistive power splitters are intended for use with RF and wireless applications where one of the two outputs are included in a leveling loop or used as a reference in a ratio system providing an output signal whose source impedance is matched to 50 ohms.

MAXIMUM VSWR	
Frequency (GHz)	VSWR
DC – 18.0	1.30
Max if both output ports are terminated in 50 ohms.	

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC TO 18.0 GHz

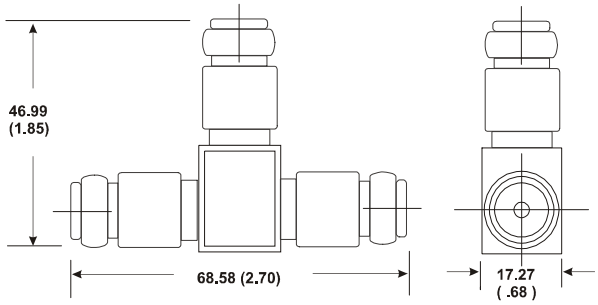
INSERTION LOSS: (Between input & either output arm): 6 dB nominal, 7.5 dB maximum.

MAXIMUM INPUT POWER: 1.0 watt CW, 1 kilowatt peak (5μsec pulse width, 0.05 duty cycle) maximum (input connector only).

MAXIMUM BALANCE OF POWER DIVISION:

DC – 18.0 GHz 0.15 dB
8.0 – 18.0 GHz 0.20 dB
Typical 0.1 dB

PHYSICAL DIMENSIONS:



PHASE TRAKING: ±2° nominal between output ports

EQUIVALENT OUTPUT SWR: (Port 2 & 3 when in a leveling or ratio system)

DC – 2.0 GHz 1.05
2.0 – 4.0 GHz 1.07
4.0 – 8.0 GHz 1.10
8.0 – 18.0 GHz 1.15

POWER COEFFICIENT: <0.005 dB/dB x W

TEMPERATURE COEFFICIENT: <0.0004 dB/dB x °C

TEMPERATURE RANGE: -55°c to +85 °C

CONSTRUCTION: Nickel plated brass body; stainless steel connectors; gold plated beryllium copper contacts.

CONNECTORS: Type N connectors per MIL-STD-348 interface nondestructively with MIL-PRF-39012 connectors.

WEIGHT: .17 kg (6 oz) maximum

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

Broadband Resistive Power Splitter
MODEL 7PS-018

DC – 18.0 GHz **1 WATT**

Features

These resistive power splitters are intended for use with RF and wireless applications where one of the two outputs are included in a leveling loop or used as a reference in a ratio system providing an output signal whose source impedance is matched to 50 ohms.

MAXIMUM VSWR	
Frequency (GHz)	VSWR
DC – 18.0	1.30
Max if both output ports are terminated in 50 ohms.	

Specifications

NOMINAL IMPEDANCE: 50Ω

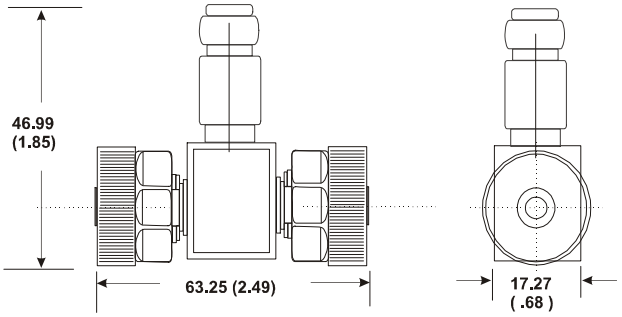
FREQUENCY RANGE: DC TO 18.0 GHz

INSERTION LOSS: (Between input & either output arm): 6 dB nominal, 7.5 dB maximum.

MAXIMUM INPUT POWER: 1.0 watt CW, 1 kilowatt peak (5µsec pulse width, 0.05 duty cycle) maximum (input connector only).

MAXIMUM BALANCE OF POWER DIVISION:

DC – 18.0 GHz	0.15 dB
8.0 – 18.0 GHz	0.20 dB
Typical	0.1 dB



PHYSICAL DIMENSIONS:

PHASE TRAKING: ±2° nominal between output ports

EQUIVALENT OUTPUT SWR: (Port 2 & 3 when in a leveling or ratio system)

DC – 2.0 GHz	1.05
2.0 – 4.0 GHz	1.07
4.0 – 8.0 GHz	1.10
8.0 – 18.0 GHz	1.15

POWER COEFFICIENT: <0.005 dB/dB x W

TEMPERATURE COEFFICIENT: <0.0004 dB/dB x °C

TEMPERATURE RANGE: -55°c to +85 °C

CONSTRUCTION: Nickel plated brass body; stainless steel connectors; gold plated beryllium copper contacts.

CONNECTORS: Type N stainless steel female (input) connector per MIL-STD-348A, interface nondestructively with MIL-PRF-39012 connectors. Precision 7mm (output). Meets or exceeds requirements of IEEE STD 287 and mates with all connectors conforming to design 2 of that standard.

WEIGHT: .17 kg (6 oz) maximum

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

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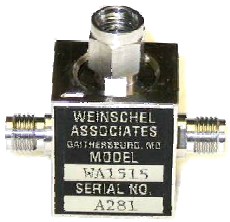
Broadband Resistive Power Splitter
MODEL WA1507R

DC – 4.0 GHz **1 WATT**



Features

Lightweight Miniature package: High power capability. These resistive power splitters are intended for RF and wireless applications in which one of the outputs is included in a leveling loop or is used as a reference in a radio system, for the purpose of providing an output signal whose source impedance is essentially matched to 50 ohms.

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 4.0.0 GHz

INSERTION LOSS: 6 dB nominal, 6.5 dB maximum (between input and either output).

MAXIMUM INPUT POWER: 1.0 watt CW, 1kw peak (5 µsec pulse width, 0.05 % duty cycle, input connector only).

TEMPERATURE RANGE: -55°C to +125 °C

TEMPERATURE COEFFICIENT: < 0.004 dB/dB/°C

POWER COEFFICIENT: < 0.005 dB/dB/watt

CONTRUCTION: Nickel plated brass body; stainless steel connectors.

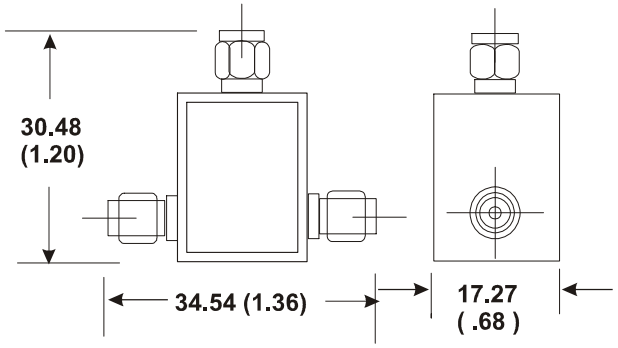
AMPLITUDE & PHASE TRACKING (MAX.)		
Frequency (GHz)	**Tracking**	
	Amplitude	Phase
DC – 4.0	< 0.15	< 4 °

MAXIMUM VSWR		
Frequency (GHz)	**Output**	**Input**
DC – 4.0	1.15	1.20

CONNECTORS: Male SMA port 1, (2) Female SMA ports 2 and 3; all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional female SMA connectors are available on all ports. Reference P/N WA1515-1.

WEIGHT: 30 g (1 oz) maximum

PHYSICAL DIMENSIONS:



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

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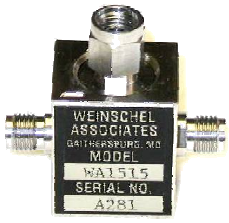
Broadband Resistive Power Splitter (Matching)
MODEL WA1593

DC – 26.5 GHz **1 WATT**



AMPLITUDE & PHASE TRACKING (MAX.)		
Frequency (GHz)	**Tracking**	
	Amplitude	Phase
DC – 26.5	< 0.25	< 4 °

MAXIMUM VSWR		
Frequency (GHz)	**Output**	**Input**
DC – 26.5	1.35	1.25

Features

Lightweight Miniature package: High power capability. These resistive power splitters are intended for RF and wireless applications in which one of the outputs is included in a leveling loop or is used as a reference in a radio system, for the purpose of providing an output signal whose source impedance is essentially matched to 50 ohms.

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 26.5 GHz

INSERTION LOSS: 6 dB nominal, 8.5 dB maximum (between input and either output).

MAXIMUM INPUT POWER: 1.0 watt CW, 1kw peak (5 µsec pulse width, 0.05 % duty cycle, input connector only).

TEMPERATURE RANGE: -55°C to +125 °C

TEMPERATURE COEFFICIENT: < 0.004 dB/dB/°C

POWER COEFFICIENT: < 0.005 dB/dB/watt

CONTRUCTION: Nickel plated brass body; stainless steel connectors.

CONNECTORS: Male 3.5mm port 1, (2) Female 3.5mm ports 2 and 3; all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional female 3.5mm connectors are available on all ports.

WEIGHT: 25 g (0.9 oz) maximum

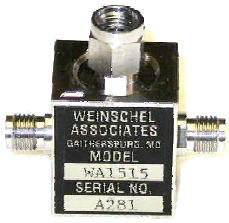
PHYSICAL DIMENSIONS:

Body Width: 10.2 (0.40)
Body Height: 15.2 (0.60) Square

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

Broadband Resistive Power Splitter (Matching)
MODEL WA1534

DC – 40.0 GHz **1 WATT**



AMPLITUDE & PHASE TRACKING (MAX.)		
Frequency (GHz)	**Tracking**	
	Amplitude	Phase
DC – 40.0	< 0.50	< 4 °

MAXIMUM VSWR		
Frequency (GHz)	**Output**	**Input**
DC – 40.0	1.70	1.60

Features

Lightweight Miniature package: High power capability. These resistive power splitters are intended for RF and wireless applications in which one of the outputs is included in a leveling loop or is used as a reference in a radio system, for the purpose of providing an output signal whose source impedance is essentially matched to 50 ohms.

Specifications

NOMINAL IMPEDANCE: 50Ω

FREQUENCY RANGE: DC - 40.0 GHz

INSERTION LOSS: 6 dB nominal, 10.5 dB maximum (between input and either output).

MAXIMUM INPUT POWER: 1.0 watt CW, 1kw peak (5 µsec pulse width, 0.05 % duty cycle, input connector only).

TEMPERATURE RANGE: -55°C to +125 °C

TEMPERATURE COEFFICIENT: < 0.004 dB/dB/°C

POWER COEFFICIENT: < 0.005 dB/dB/watt

CONTRUCTION: Nickel plated brass body; stainless steel connectors.

CONNECTORS: Male 2.92mm port 1, (2) Female 2.92mm ports 2 and 3; all ports-mate nondestructively with other SMA, 2.92mm and 3.5mm connectors. Optional female 2.92mm connectors are available on all ports.

WEIGHT: 25 g (0.9 oz) maximum

PHYSICAL DIMENSIONS:

Body Width: 10.2 (0.40)
Body Height: 15.2 (0.60) Square

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