

## SMA 4-way Power Divider from 500MHz to 18 GHz

**D-4185**

### Description

Werbel Microwave designs and manufactures a wide selection of power dividers combiners splitters. These components are used in RF systems to combine multiple signals or split into multiple signals of equal magnitude and phase. Werbel Microwave offers designs of Wilkinson, resistive, ferrite and reactive technology and are among the highest performance in the industry.

The D-4185 is a 4-way Wilkinson divider that operates from 500 MHz to 18 GHz and can handle up to 20 watts CW as a splitter. It is part of Werbel Microwave's catalog of splitters that offer a wide range of port count and frequency ranges.



Specification	Min	Typ.	Max	Units
Frequency	0.5		18	GHz
Impedance		50		Ohm
VSWR (common port)		1.50	1.80	:1
VSWR (split ports)		1.20	1.60	:1
Insertion Loss (above theoretical at 5 GHz)		0.9	1.5	dB
Insertion Loss (above theoretical at 10 GHz)		1.4	2.2	dB
Insertion Loss (above theoretical at 15 GHz)		2.0	3.3	dB
Insertion Loss (above theoretical at 18 GHz)		2.5	3.9	dB
Isolation (500-698 MHz)	12	14		dB
Isolation (698 MHz-18GHz)	15	20		dB
Amplitude Balance		0.3	1.9	dB
Phase Balance		2	18	Degrees
Power Handling as Splitter into 1.2:1 max load VSWR			20	Watts (CW)

### Mechanical

Connector Interface	SMA-Female
Operating Temperature*	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	14 oz (410 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

### Materials

#### RoHS Compliant

Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

\* Design to meet based on materials. Production-tested at +25 °C. External heatsink and convection cooling recommended to maintain body temperature below +50 °C.



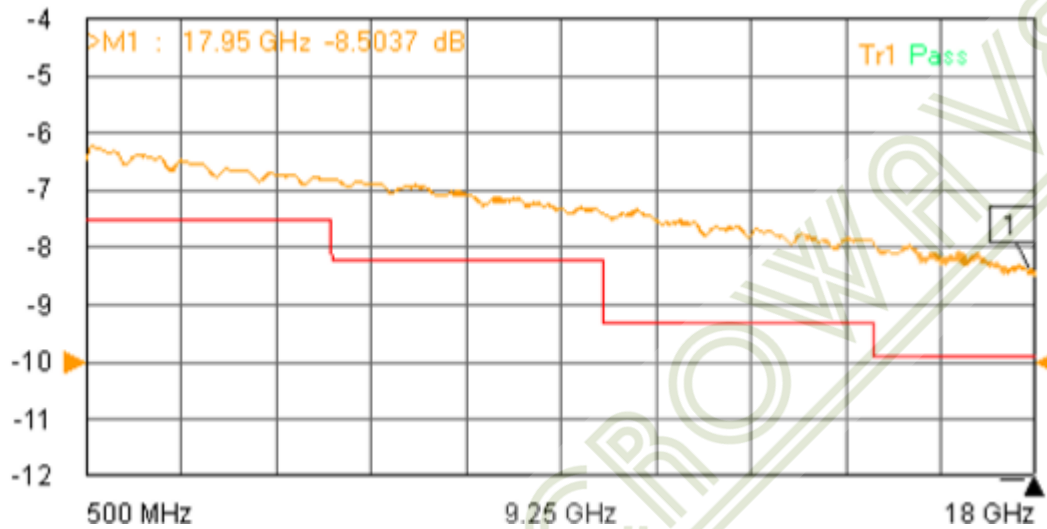
**MADE IN USA**

**ISO 9001:2015**

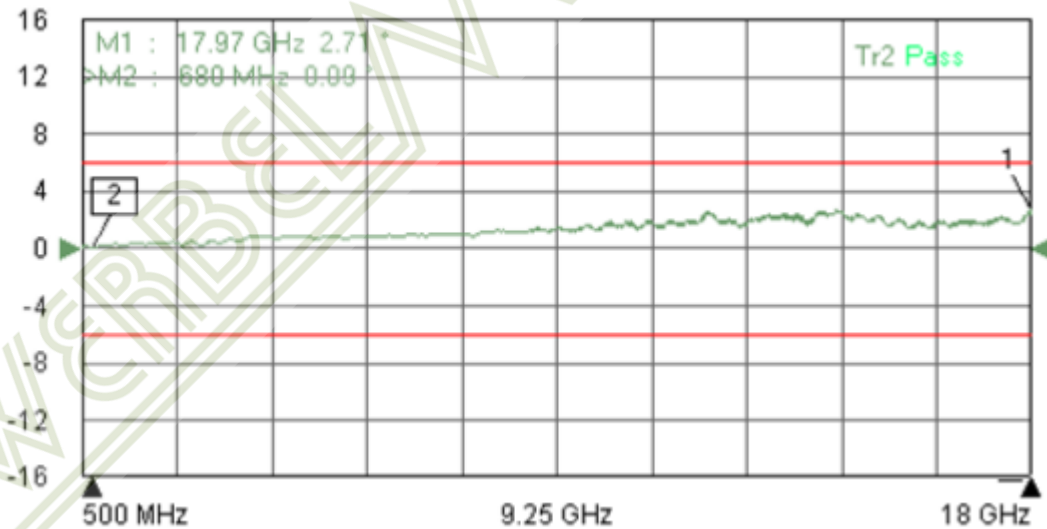
**Certified Company**

## Typical Performance at +25 °C

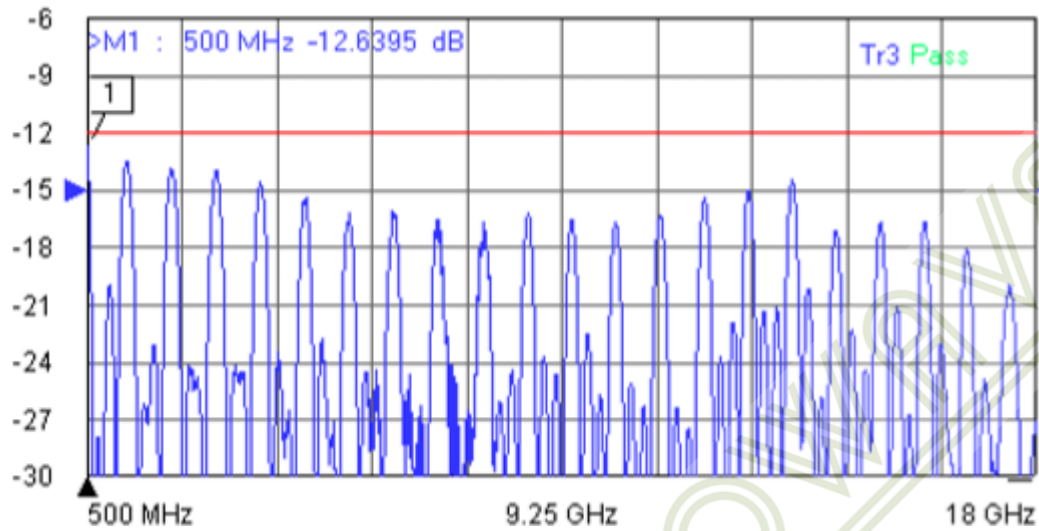
### Insertion Loss



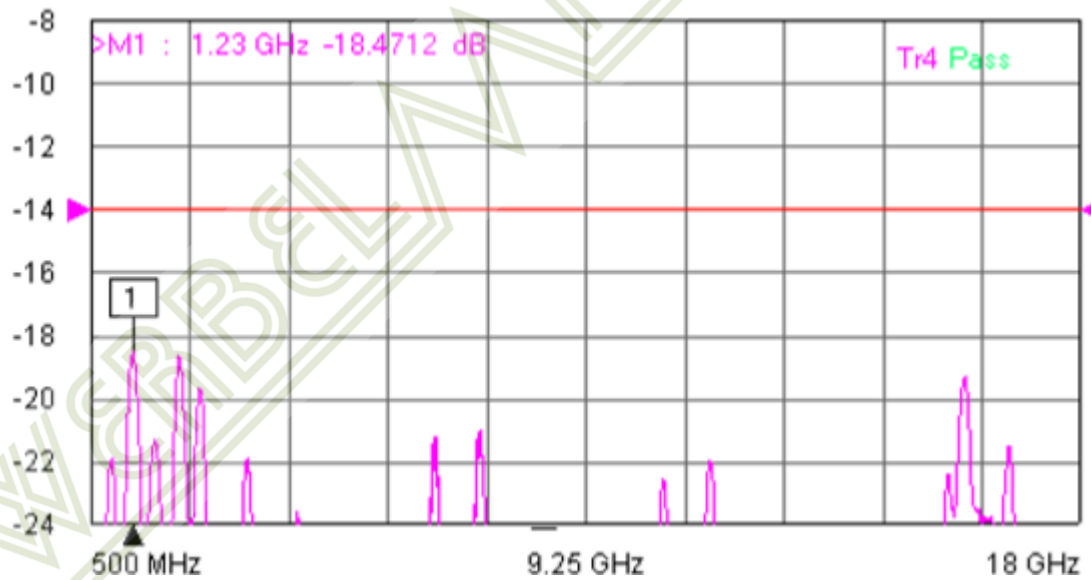
### Phase



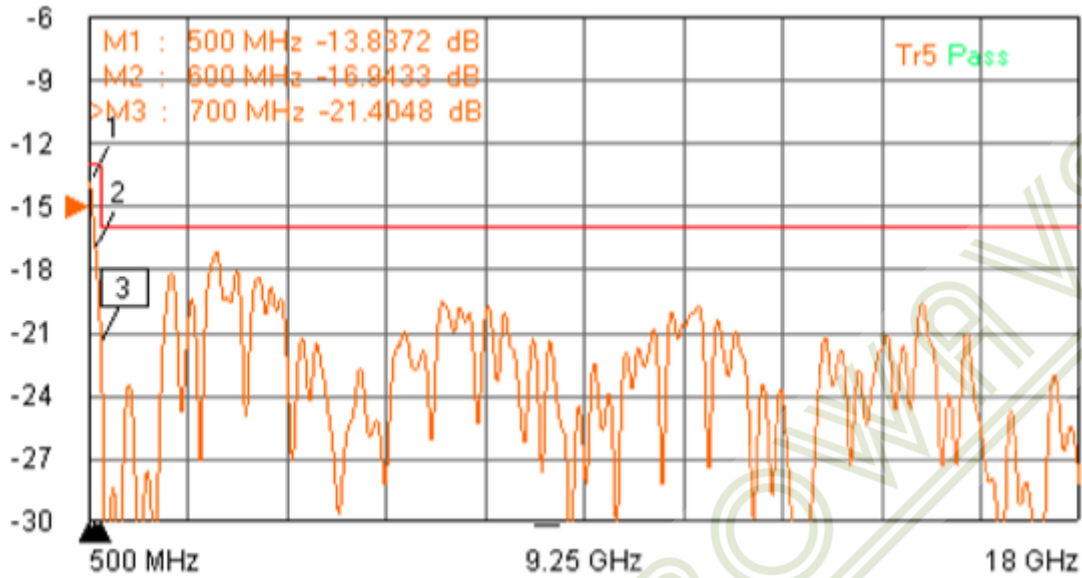
## Return Loss Input



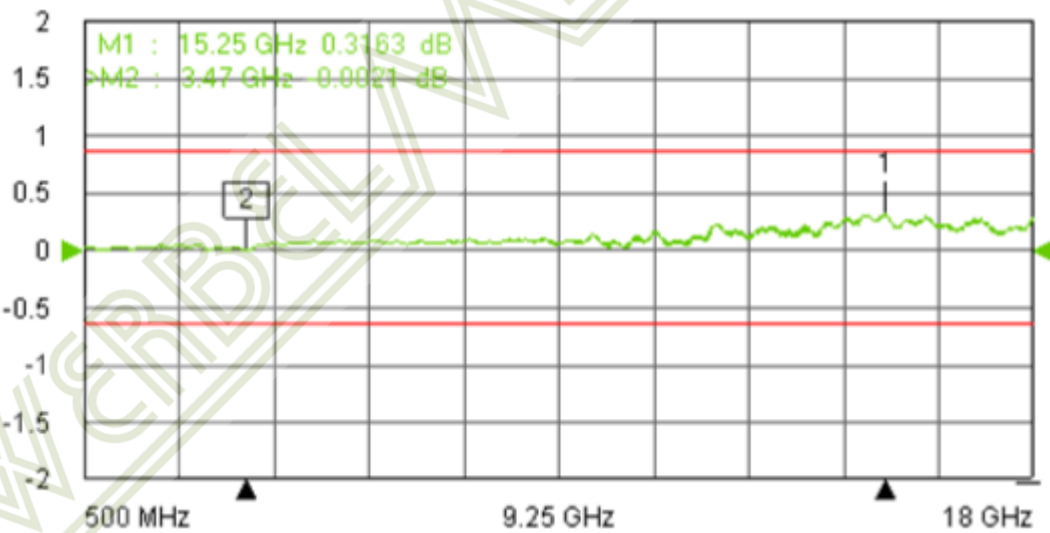
## Return Loss Output



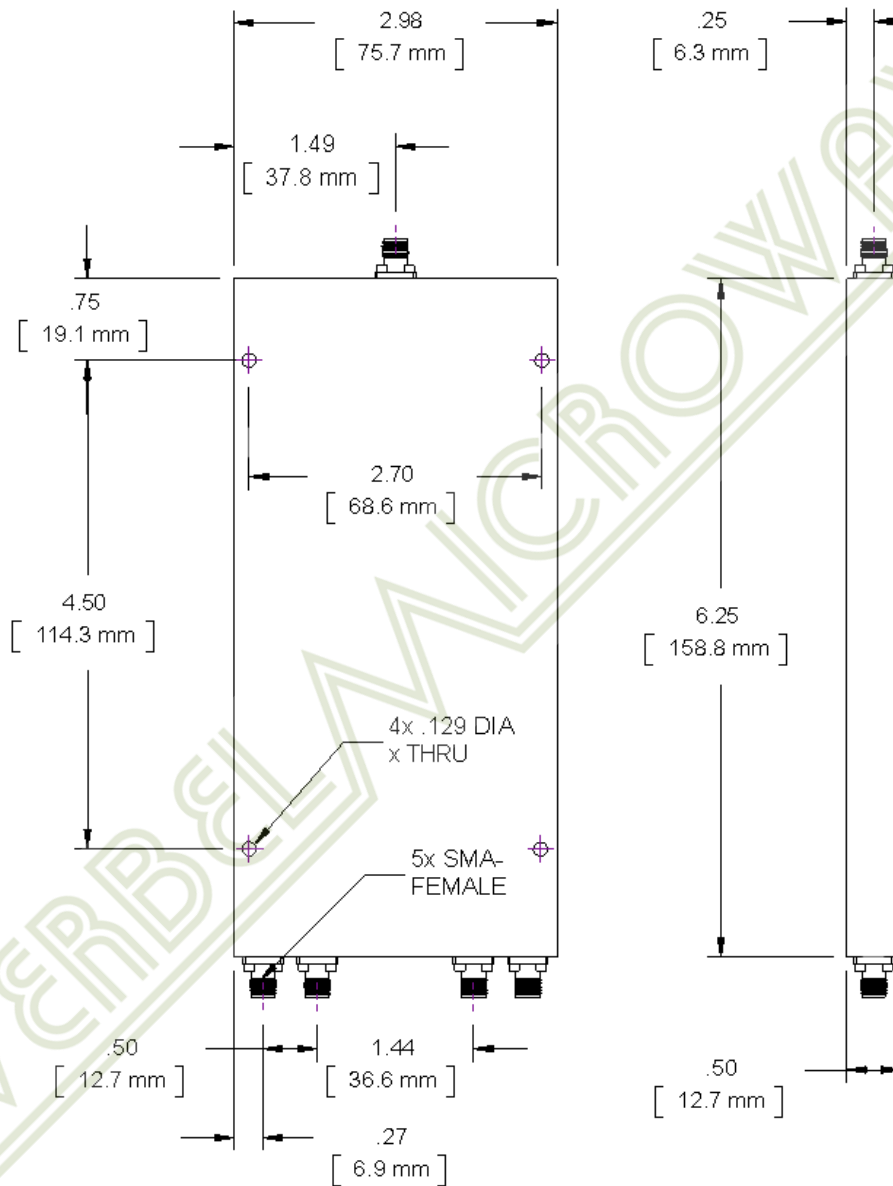
## Isolation



## Amplitude Balance



## Outline Dimensions



Outline # OL-4185

UNLESS OTHERWISE SPECIFIED: Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals:  $\pm .03$ . 3-pl decimals:  $\pm .015$ . Angles:  $\pm 1^\circ$ .

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