

## SMA Directional Coupler 15 dB from 500 MHz to 20 GHz

### Directional Couplers Technical Data Sheet

**C-1205-15**

#### Description

Werbel Microwave model C-1205-15 is a wideband directional coupler that covers 500 MHz to 20 GHz with 15 dB coupling factor. Typical flatness is +/- 0.5 dB across the band. Typical directivity is 15 dB. Case measures 4.40 x 0.73 x 0.50 inches. Available with SMA female connectors. Made in USA.



Specification	Min	Typ.	Max	Units
Frequency	0.5		20	GHz
Impedance		50		Ohm
Coupling		15	±1.2	dB
Frequency Sensitivity (Flatness)		±0.68	±1.8	dB
Mainline Loss Measured (Includes loss due to coupling)		1.34	1.95	dB
Directivity	12	14.8		dB
Main Line VSWR		1.32	1.60	:1
Secondary Line VSWR		1.48	1.70	:1
Input Power (CW) into 1.2:1 max load VSWR			20	Watts
Reverse Power (CW) into 1.2:1 max load VSWR			10	Watts
Termination			1	Watt

#### Mechanical

Connector Interface	SMA-Female
Operating Temperature*	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight	3.5 oz (86 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

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

#### Materials

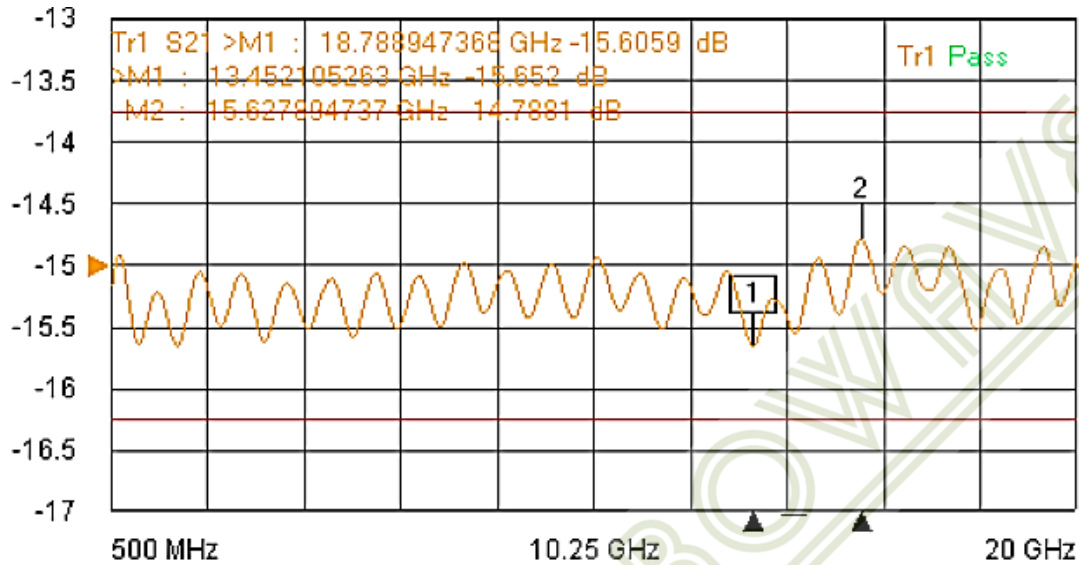
##### RoHS and REACH Compliant

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

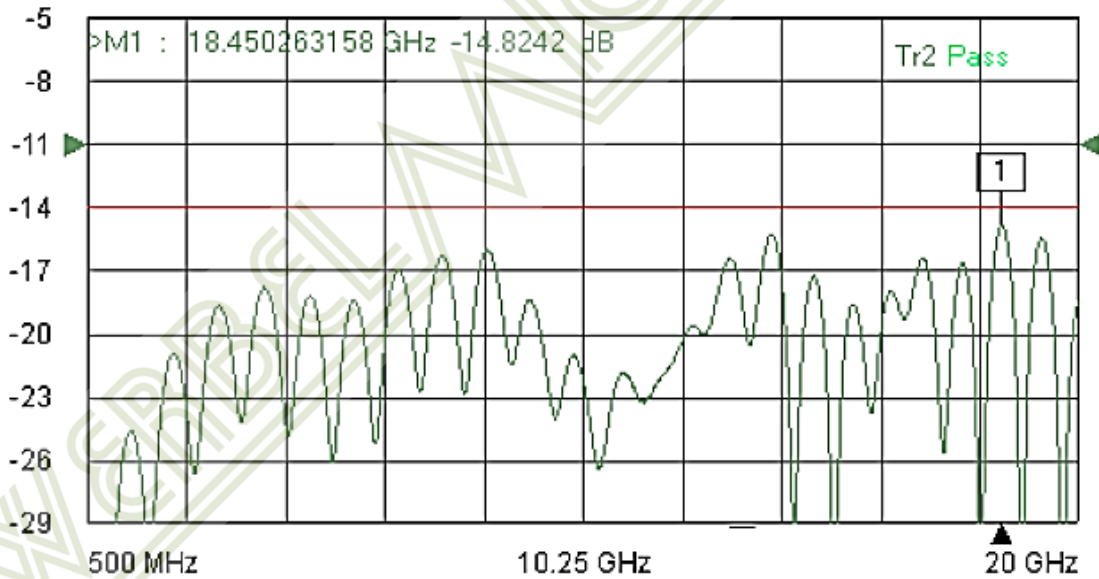


## Typical Performance at +25 °C

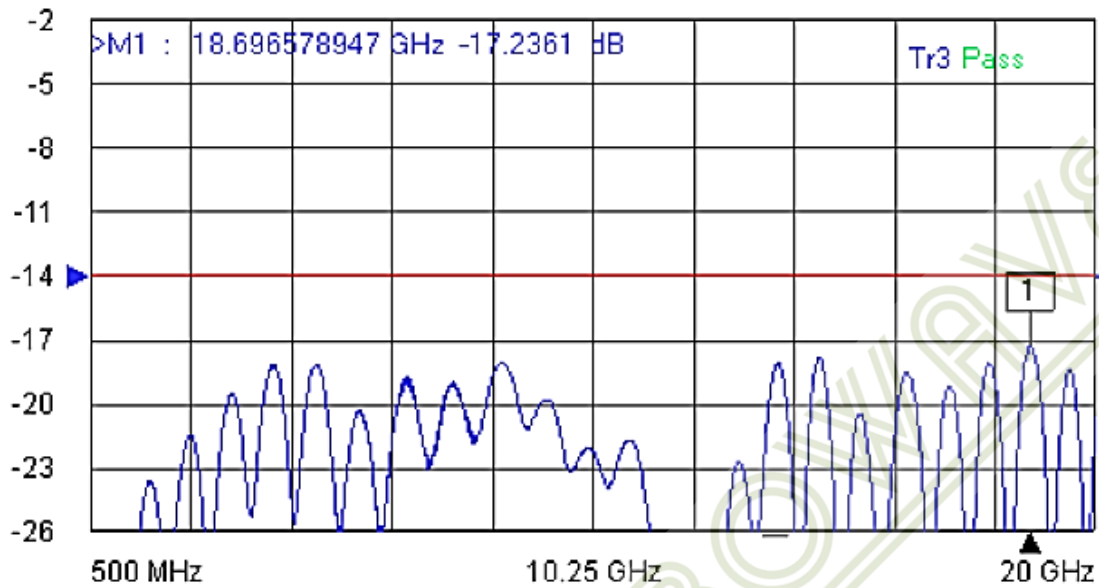
### Coupling Value and Flatness



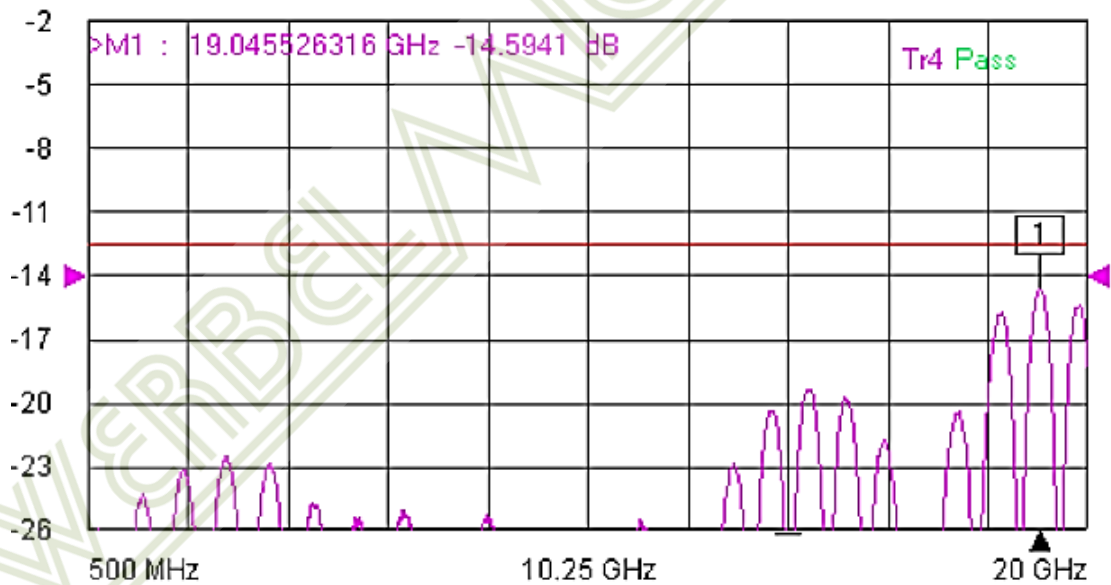
### Directionality



## Return Loss Mainline



## Return Loss Coupled Port



## Insertion Loss

