

Wideband Power Divider 2-way SMA Female 2 to 18 GHz

2-way SMA Power Divider From 2 to 18 GHz

Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPD-2-02001800-SMA is a wideband 2-way in-line power divider that operates from 2 to 18 GHz, with excellent return loss, low insertion and high isolation performance.

Specifications	Min	Typ	Max	Min
Frequency	2		18	GHz
Impedance		50		Ohm
Return Loss (Port S)	13	16		dB
Return Loss (Ports 1-2)	13	17		dB
Insertion Loss (Above theoretical 3.01 dB)		0.5	1.0	dB
Isolation	16	18		dB
Amplitude Unbalance		0.1	0.5	dB
Phase Unbalance		2	6	Degrees
Input Power (CW) ¹			30	Watts

Mechanical

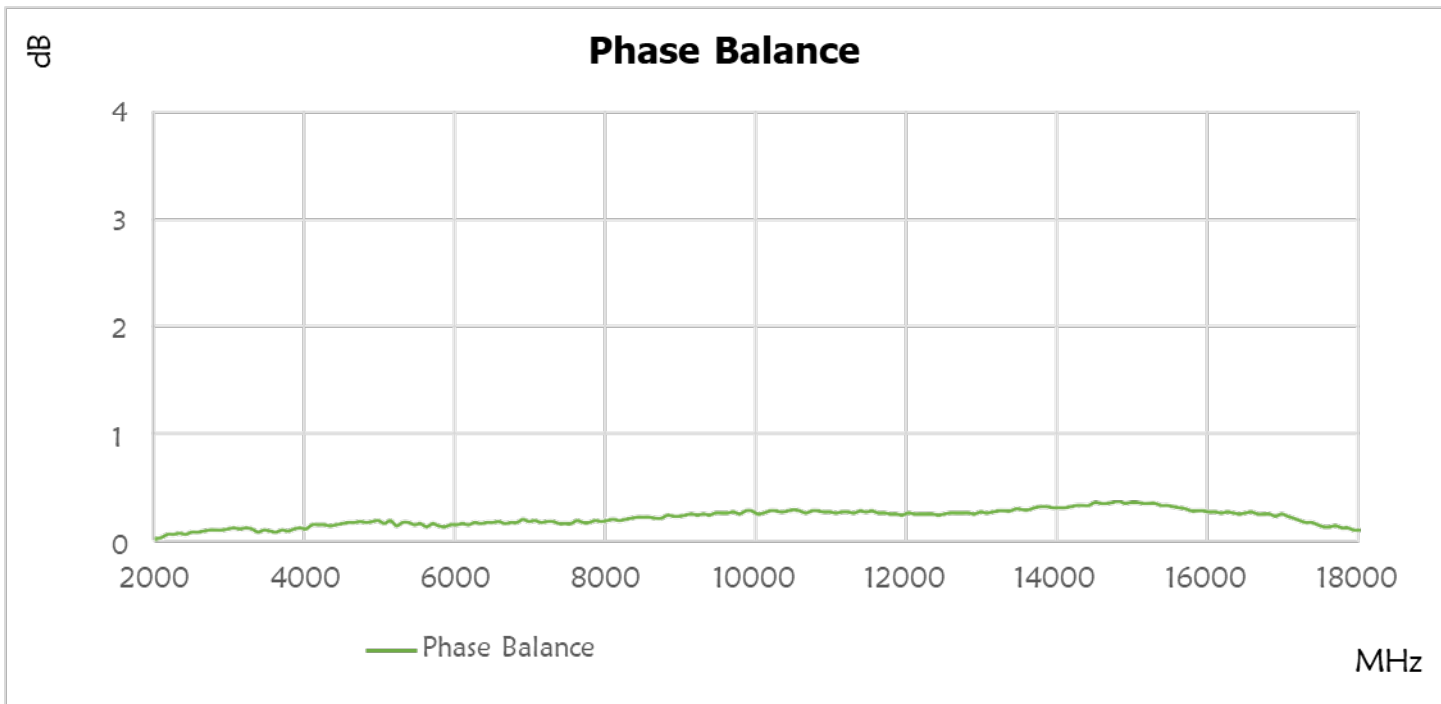
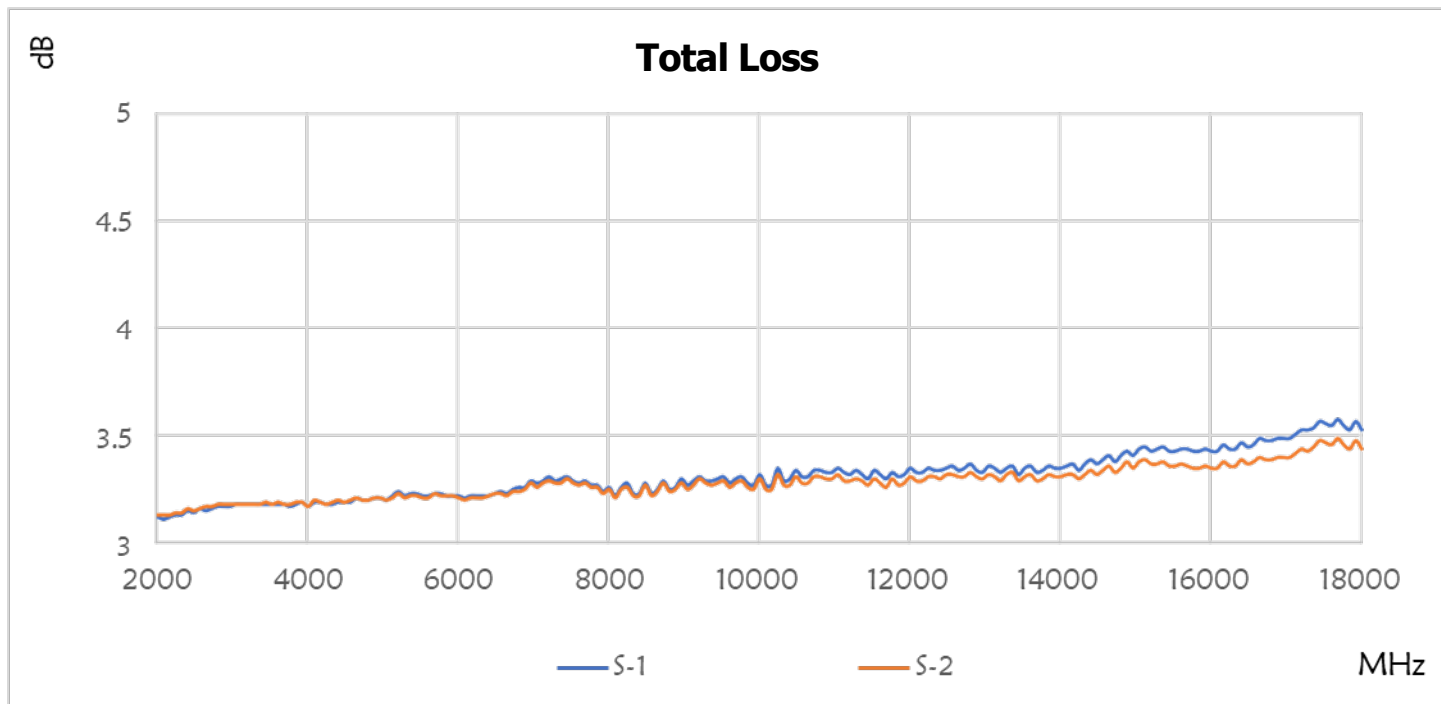
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	1.5 oz (43 g)
Humidity Environment	10-90% non-condensing Indoors Use Only

Materials

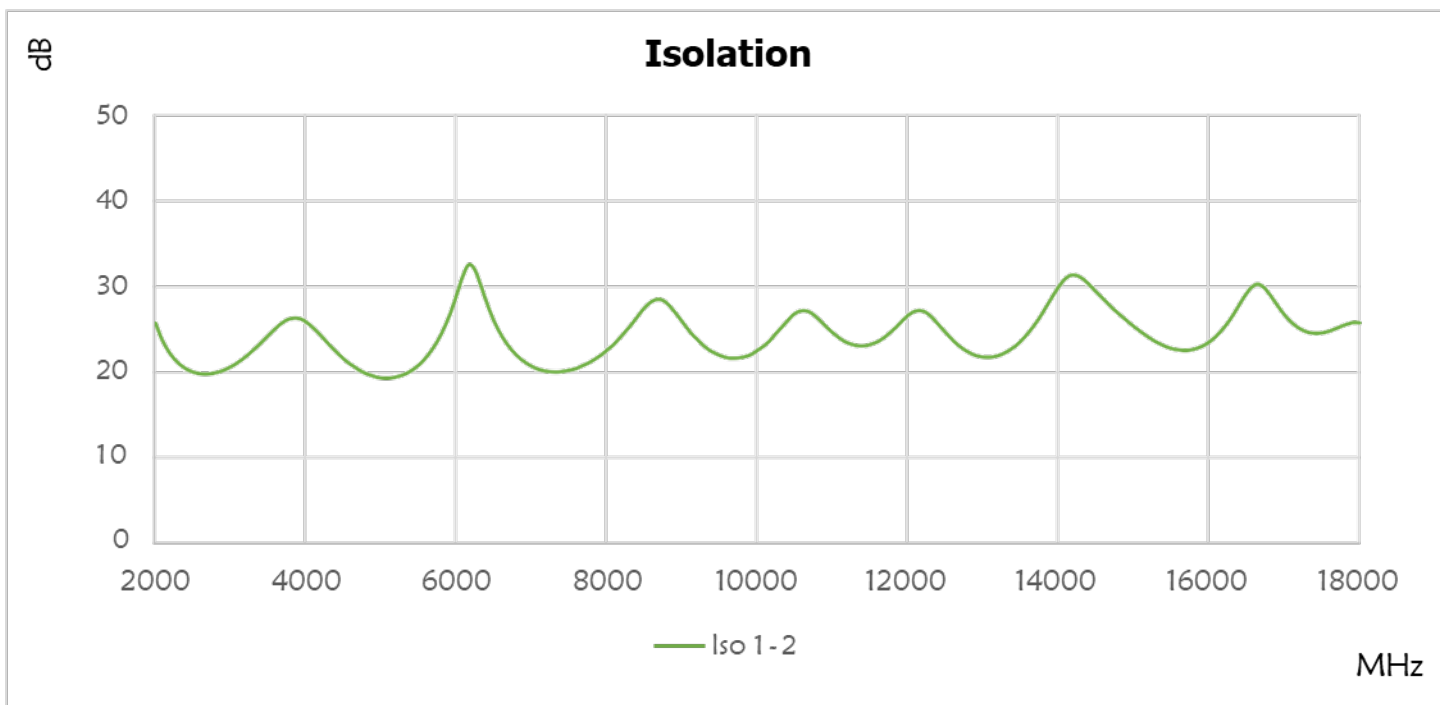
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specifications at +25 °C only.
3. To the best of our knowledge at the time of publication.
4. Non-RoHS solder is available upon request.

Typical Performance at +25 °C



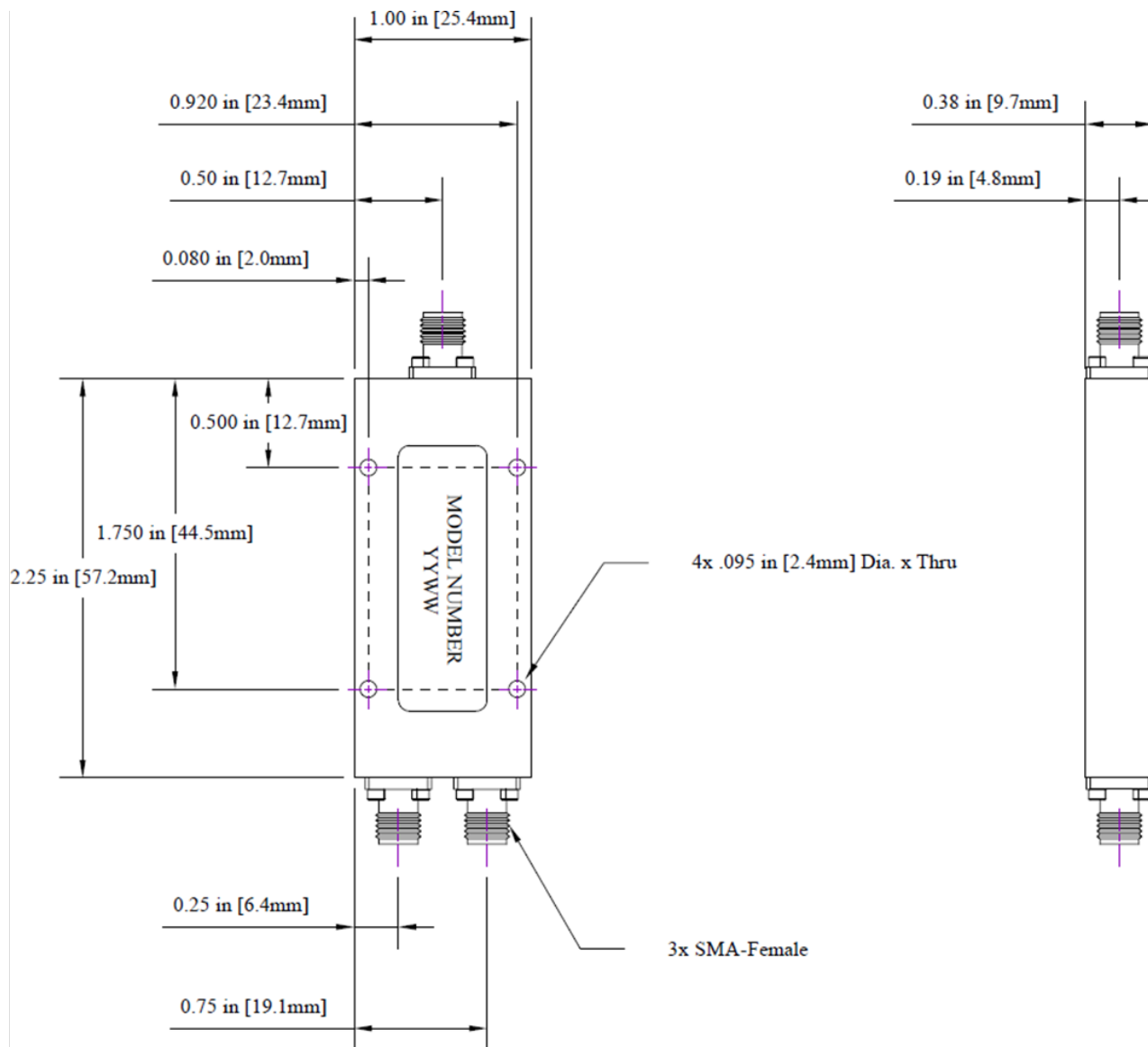
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB) 1-2
	Port 5	Port 1	Port 2	S-1	S-2	
2000	34.3	25.2	24.7	3.1	3.1	25.9
2800	21.9	28.2	28.4	3.2	3.2	20.1
3600	23.5	34.1	35.1	3.2	3.2	25.3
4400	23.2	37.2	33.3	3.2	3.2	22.5
5200	21.3	34.1	37.1	3.2	3.2	19.6
6000	28.9	29.6	31.8	3.2	3.2	29.2
6800	22.8	29.9	32.4	3.3	3.2	22.1
7600	19.2	33.9	35.3	3.3	3.3	20.6
8400	39.1	34.9	35.6	3.2	3.2	26.6
9200	20.7	28.7	27.5	3.3	3.3	24.0
10000	27.5	28.9	28.5	3.3	3.3	22.7
10800	21.6	24.1	23.9	3.3	3.3	26.4
11600	33.2	24.5	24.1	3.3	3.3	23.8
12400	20.9	20.6	19.7	3.3	3.3	25.7
13200	23.8	28.7	26.2	3.3	3.3	22.1
14000	27.4	25.3	24.6	3.4	3.3	30.2
14800	20.4	23.2	23.4	3.4	3.4	27.0
15600	20.9	28.0	29.2	3.4	3.4	22.8
16400	23.4	26.8	29.3	3.5	3.4	28.1
17200	19.9	21.5	22.4	3.5	3.4	25.3
18000	18.6	22.1	21.0	3.5	3.4	25.9

Outline Dimensions



Outline drawing: OL-2182

Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals: $\pm .03$. 3-pl decimals: $\pm .015$.

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or documentation of the part, in order to implement improvements. Werbel Microwave LLC reserves the right to make such changes as required without notice. Unless otherwise stated, all specifications and dimensions are nominal. Werbel Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Werbel Microwave LLC does not assume any liability arising out of the use of any part of documentation. This document gives only a description of the product(s) and shall not form part of any contract. Please contact a Werbel Microwave LLC Applications Engineer for the most current specification drawing.