

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

## 2-way N 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-N is a wideband 2-way in-line power divider that operates from 2 to 18 GHz in a compact enclosure measuring 2.25 x 1.96 x 0.75 inches with type N female connectors. This device is RoHS compliant.

Specifications	Min	Typ	Max	Min
Frequency	2		18	GHz
Impedance		50		Ohm
Return Loss (Port S)	12	17		dB
Return Loss (Ports 1-2)	13	18		dB
Insertion Loss (Above 3.0 dB)		0.5	1.5	dB
Isolation	16	18		dB
Amplitude Balance ( $\pm$ )		0.32	0.75	dB
Phase Balance ( $\pm$ )		4	8	Degrees
Input Power (CW) <sup>1</sup>			30	Watts

### Mechanical

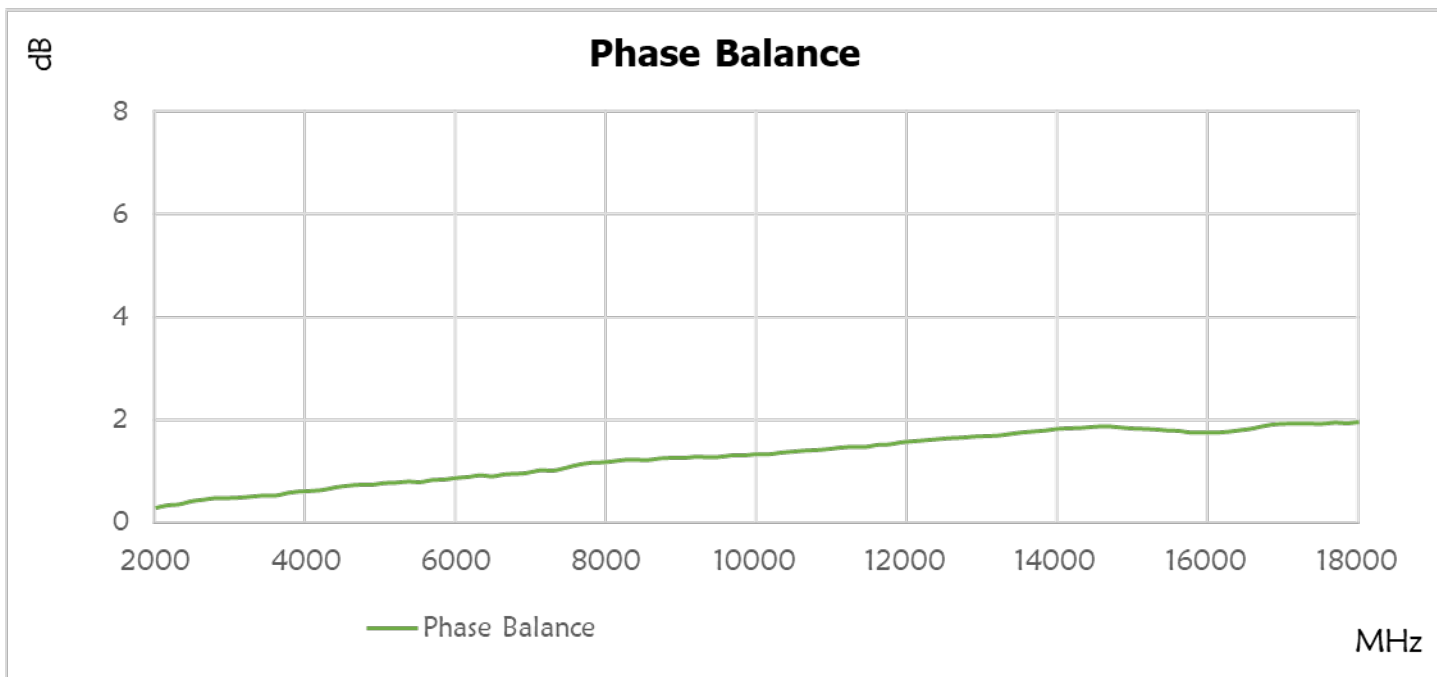
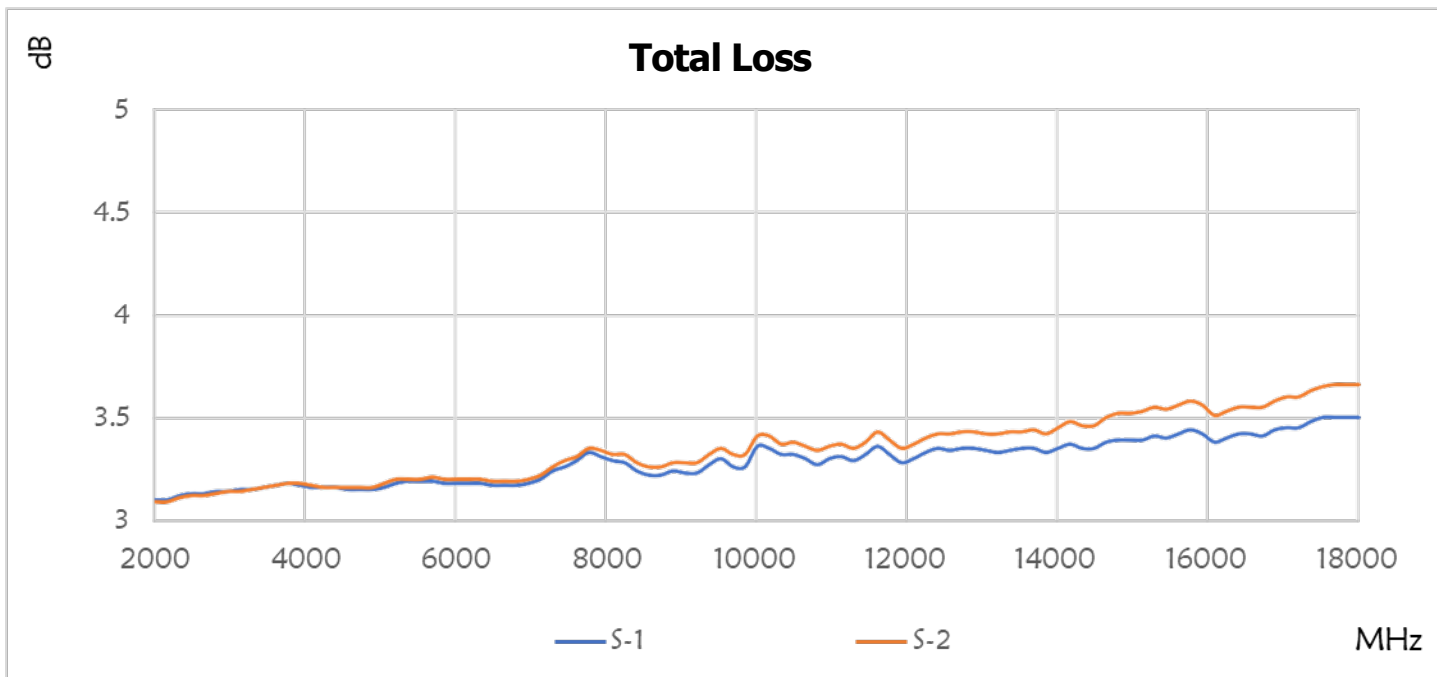
Connector Interface	N-Female
Operating Temperature <sup>2</sup>	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	7.2 oz (204 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

### Materials

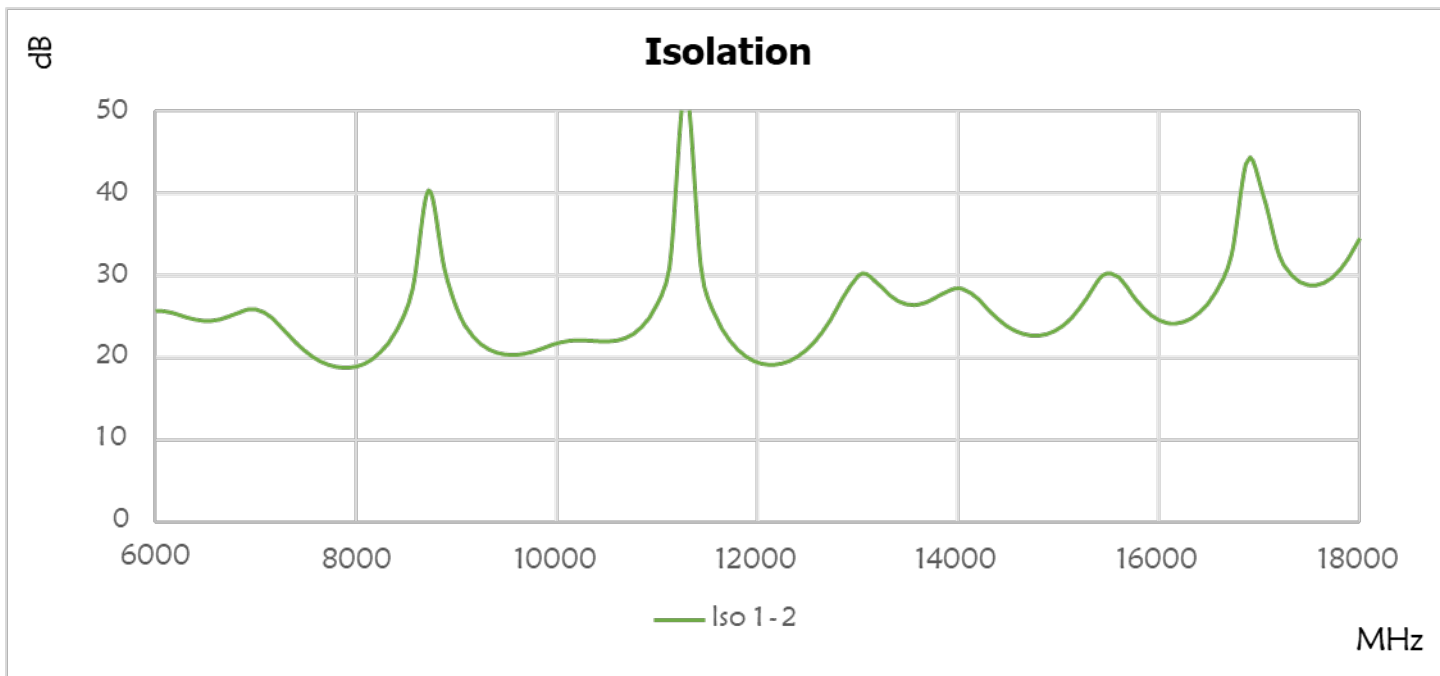
RoHS /REACH Compliant <sup>3</sup>	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

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**



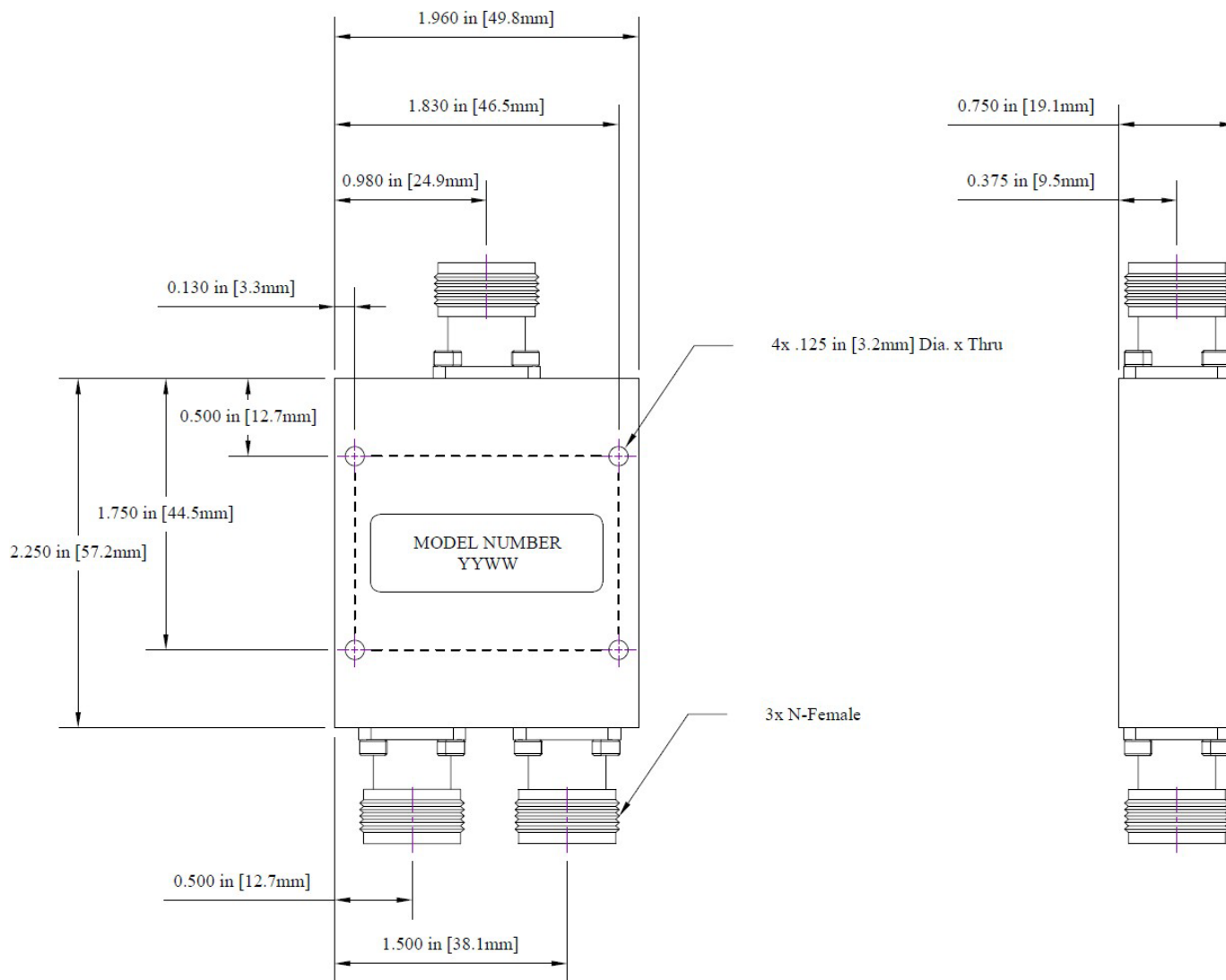
**Typical Performance at +25 °C**



### 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	27.9	24.5	24.9	3.1	3.1	24.8
2800	21.9	32.1	31.2	3.2	3.1	20.3
3600	19.8	24.6	23.8	3.2	3.2	24.3
4400	23.6	39.4	39.2	3.2	3.2	22.4
5200	29.7	25.4	24.7	3.2	3.2	21.3
6000	25.8	32.6	28.6	3.2	3.2	25.7
6800	41.3	31.5	27.3	3.2	3.2	25.4
7600	17.3	29.2	30.0	3.3	3.3	19.9
8400	24.3	52.4	40.6	3.3	3.3	23.4
9200	20.1	23.4	22.6	3.2	3.3	22.2
10000	18.5	25.5	25.4	3.4	3.4	21.8
10800	36.1	26.1	27.2	3.3	3.4	23.3
11600	19.9	23.9	26.1	3.4	3.4	24.6
12400	22.5	34.9	38.1	3.4	3.4	20.2
13200	33.6	35.9	30.9	3.3	3.4	29.0
14000	24.3	32.5	28.0	3.4	3.5	28.5
14800	26.4	28.5	26.5	3.4	3.5	22.7
15600	18.7	23.4	24.7	3.4	3.6	29.8
16400	40.8	24.7	26.5	3.4	3.6	25.5
17200	19.2	19.2	19.6	3.5	3.6	32.3
18000	20.6	22.9	23.5	3.5	3.7	34.5

## Outline Dimensions



Dimensions are in inches, [mm] shown for convenience.  
Tolerances on 2-pl decimals:  $\pm .03$ . 3-pl decimals:  $\pm .015$ .