

Wideband Power Divider 4-way N Female 2 to 18 GHz

4-way N Power Divider 2 to 18 GHz

Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPD-4-02001800-N is a wideband 4-way in-line power divider that operates from 2 to 18 GHz in compact enclosure measuring 4.00 x 4.00 x 0.75 inches with type N female connectors and is RoHS compliant.

Specifications	Min	Typ	Max	Min
Frequency	2		18	GHz
Impedance		50		Ohm
Return Loss (Port S)	10.9	20		dB
Return Loss (Port 1-4)	12.7	22.7		dB
Insertion Loss (Above 6.0 dB)		1.1	1.9	dB
Isolation	16	18		dB
Amplitude Balance		0.3	1.0	dB
Phase Balance		3	12	Degrees
Input Power (CW) ¹			30	Watts

Mechanical

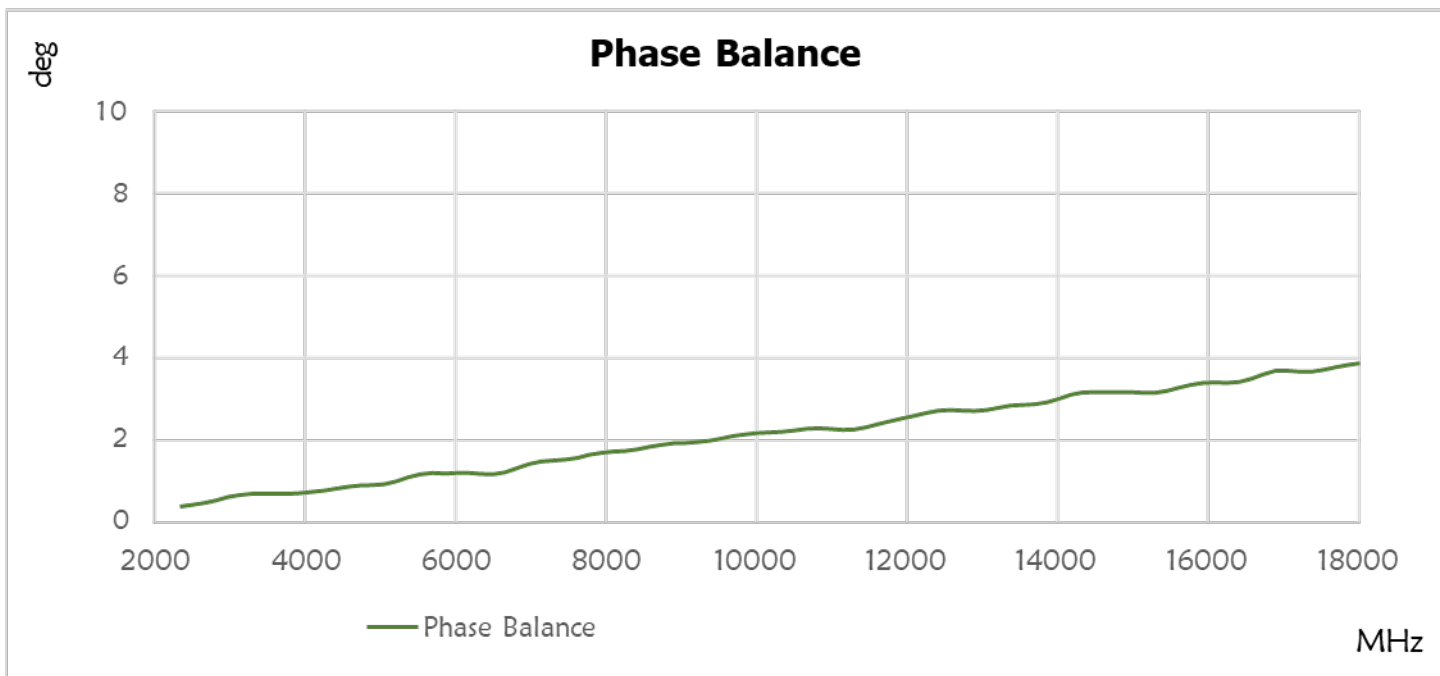
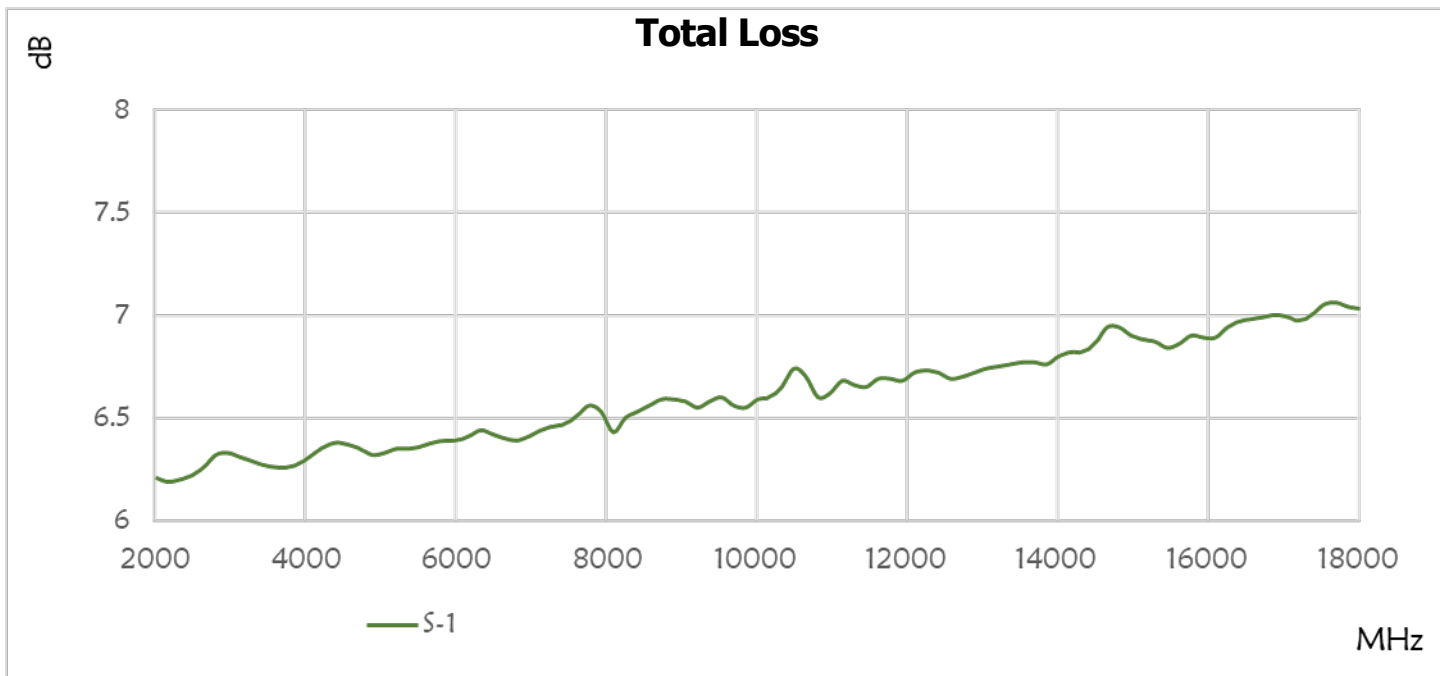
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	11 oz (312 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

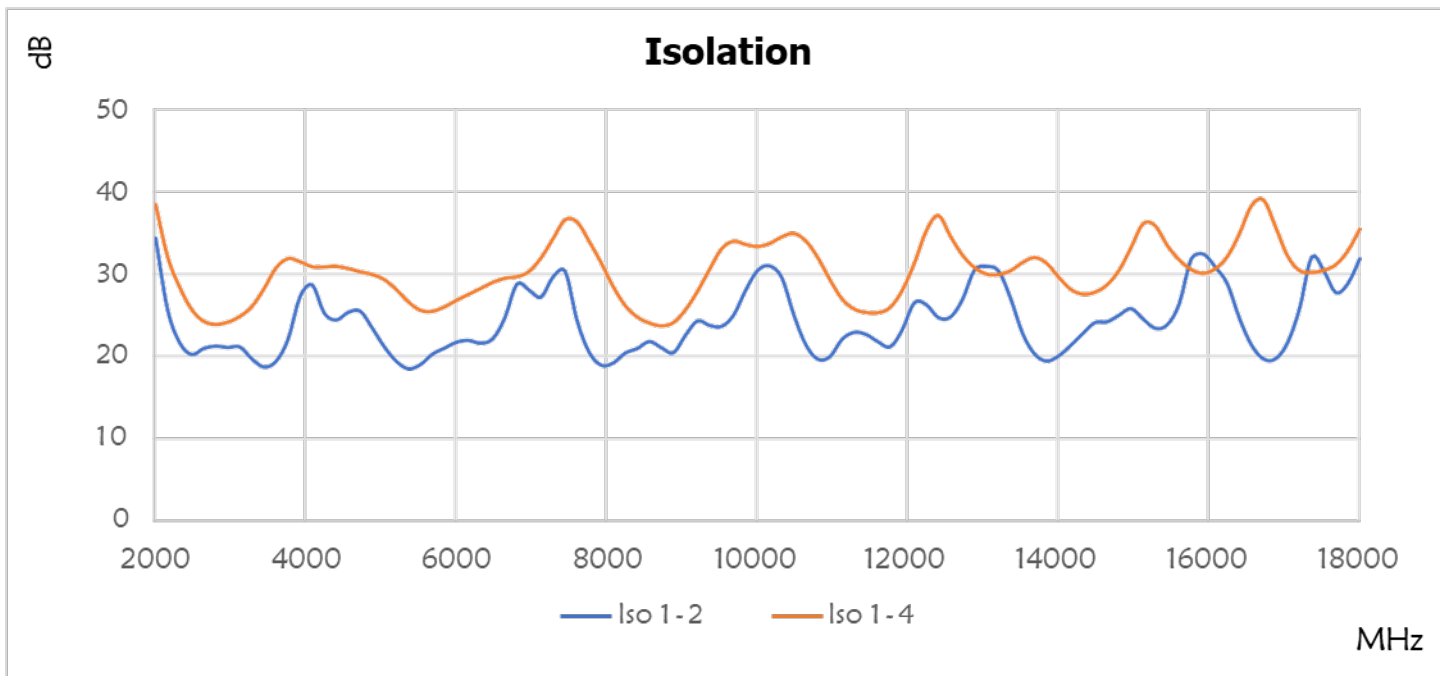
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

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



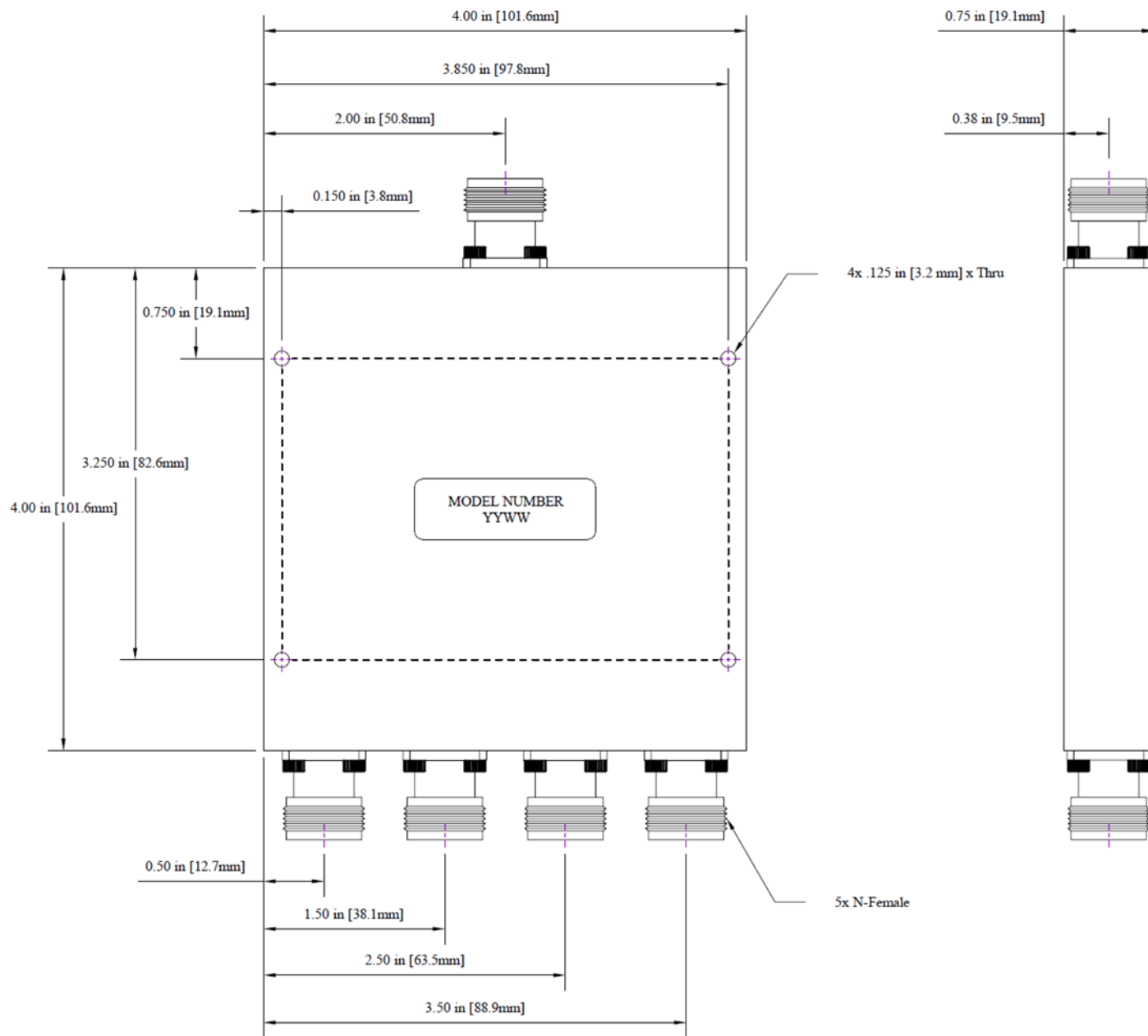
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)	
	Port 5	Port 1	Port 4	S-1	S-4	1-2	1-4
2000	21.9	22.1	21.8	6.22	6.21	34.6	38.6
2960	16.4	28.0	26.3	6.34	6.35	21.2	24.3
4080	20.2	26.3	26.7	6.33	6.34	28.9	31.1
5040	38.9	30.4	29.5	6.34	6.33	21.3	29.5
6000	18.1	30.4	30.7	6.40	6.43	21.9	27.0
6960	26.9	35.3	38.4	6.42	6.43	28.2	30.5
8080	24.4	50.7	39.2	6.44	6.47	19.3	28.6
9040	18.8	37.5	31.2	6.59	6.62	22.7	25.8
10000	42.1	30.3	27.2	6.60	6.65	30.6	33.5
10960	32.6	31.0	32.1	6.63	6.69	20.1	29.5
12080	20.4	31.6	34.0	6.73	6.77	26.7	31.5
13040	23.8	25.7	26.0	6.75	6.81	31.1	30.2
14000	27.5	29.4	29.7	6.81	6.87	20.2	29.8
14960	18.2	25.6	25.5	6.91	7.01	26.0	33.4
16080	19.3	19.9	20.0	6.90	7.00	31.0	30.8
17040	23.6	31.1	33.3	7.00	7.12	21.8	32.4
18000	35.8	31.3	27.6	7.04	7.17	32.0	35.6

Outline Dimensions



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