

Wideband Power Divider 6-way N Female 2 to 18 GHz

6-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-6-02001800-N is a wideband 6-way in-line power divider that operates from 2 to 18 GHz, in a compact enclosure measuring 6.00 x 6.00 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 5)	9.5	13.7		dB
Return Loss (Ports 1-6)	12.7	23.9		dB
Insertion Loss (Above 7.8 dB)		1.7	3.6	dB
Isolation	15	18		dB
Amplitude Balance		0.5	1.1	dB
Phase Balance		4	16	Degrees
Input Power (CW) ¹			30	Watts

Mechanical

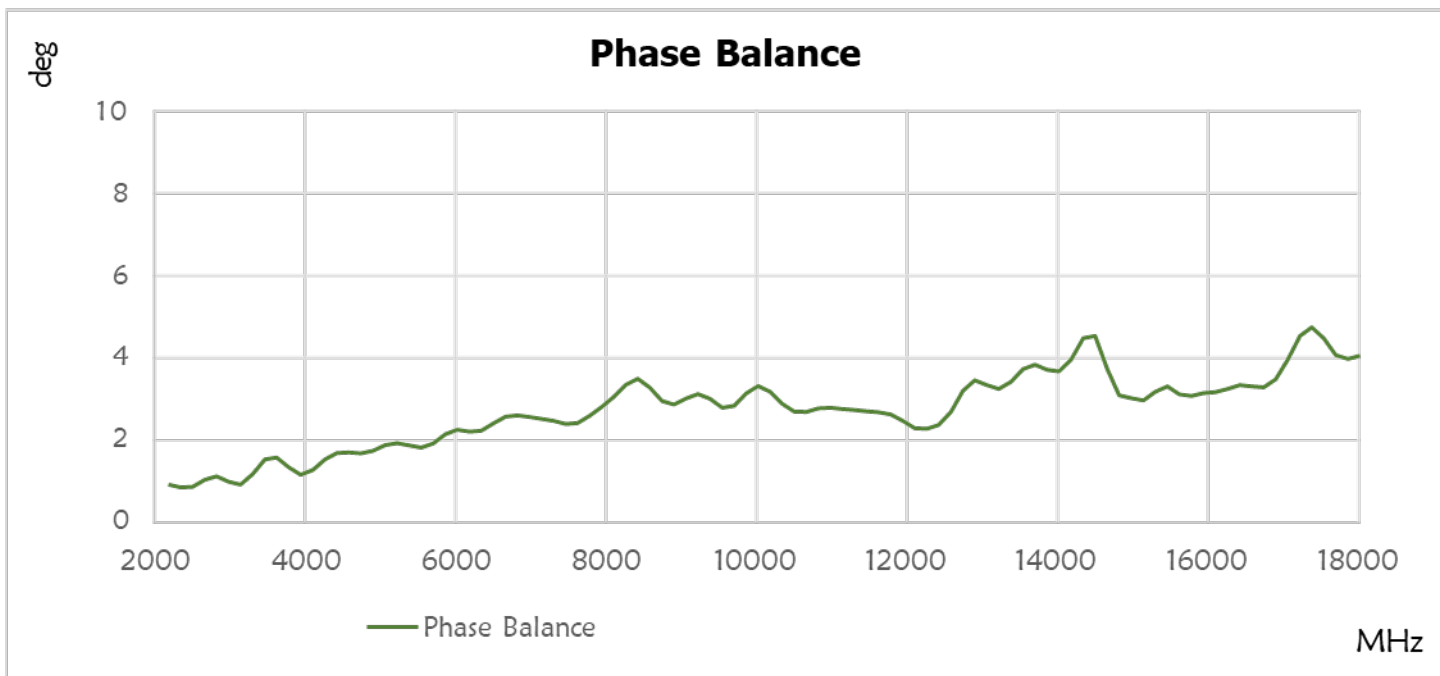
Connector Interface	N-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	1.5 oz (630 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

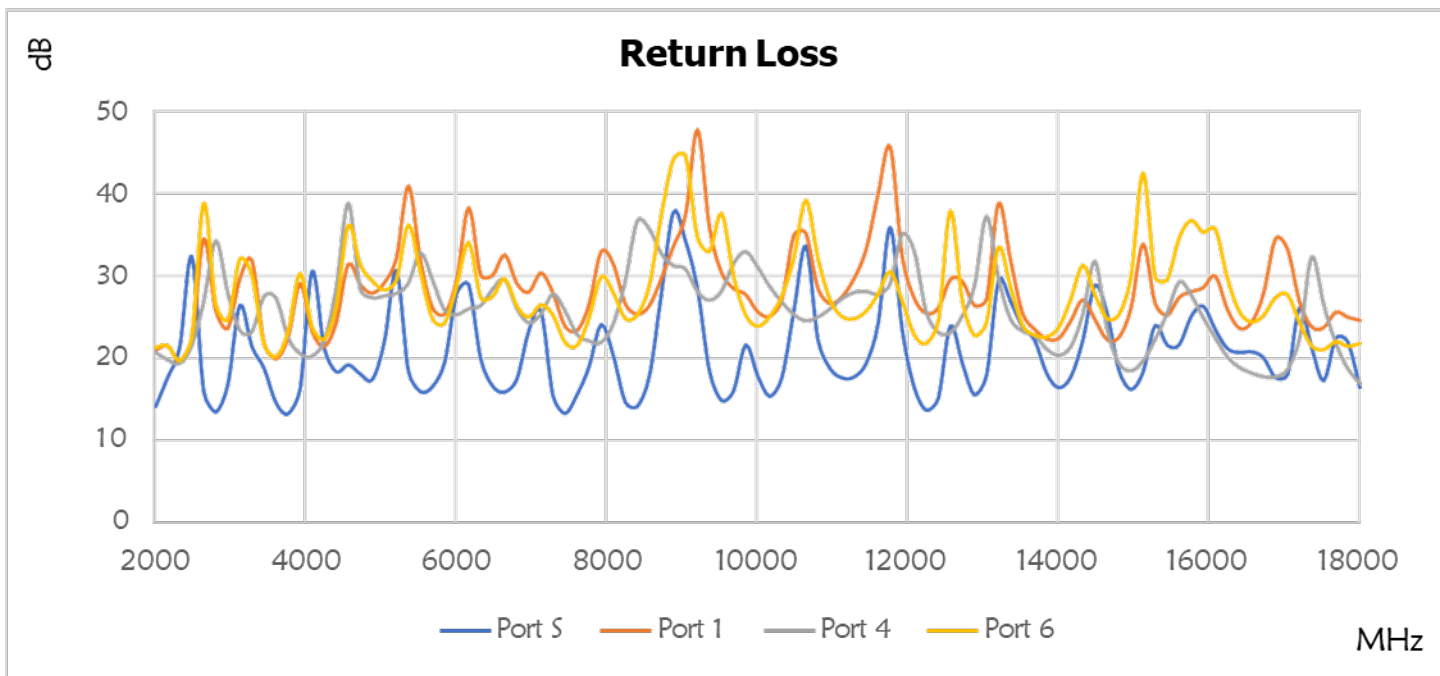
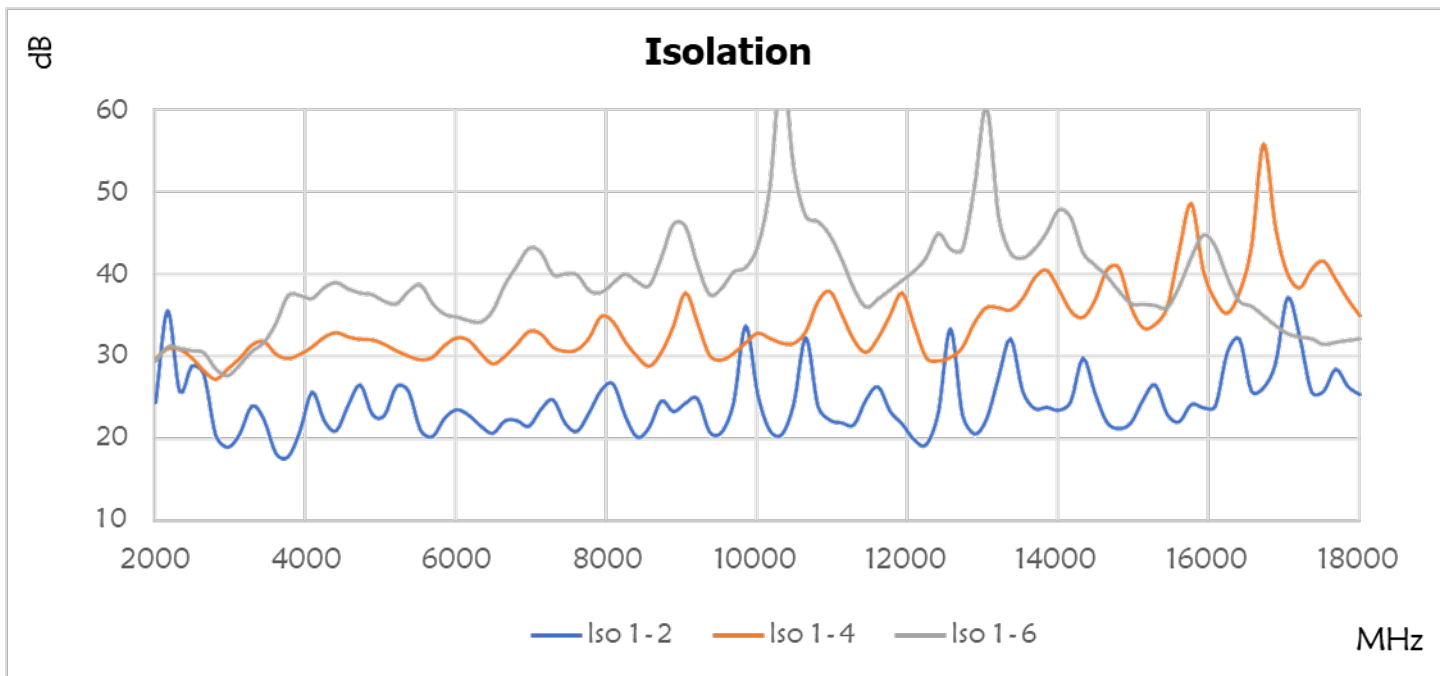
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

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



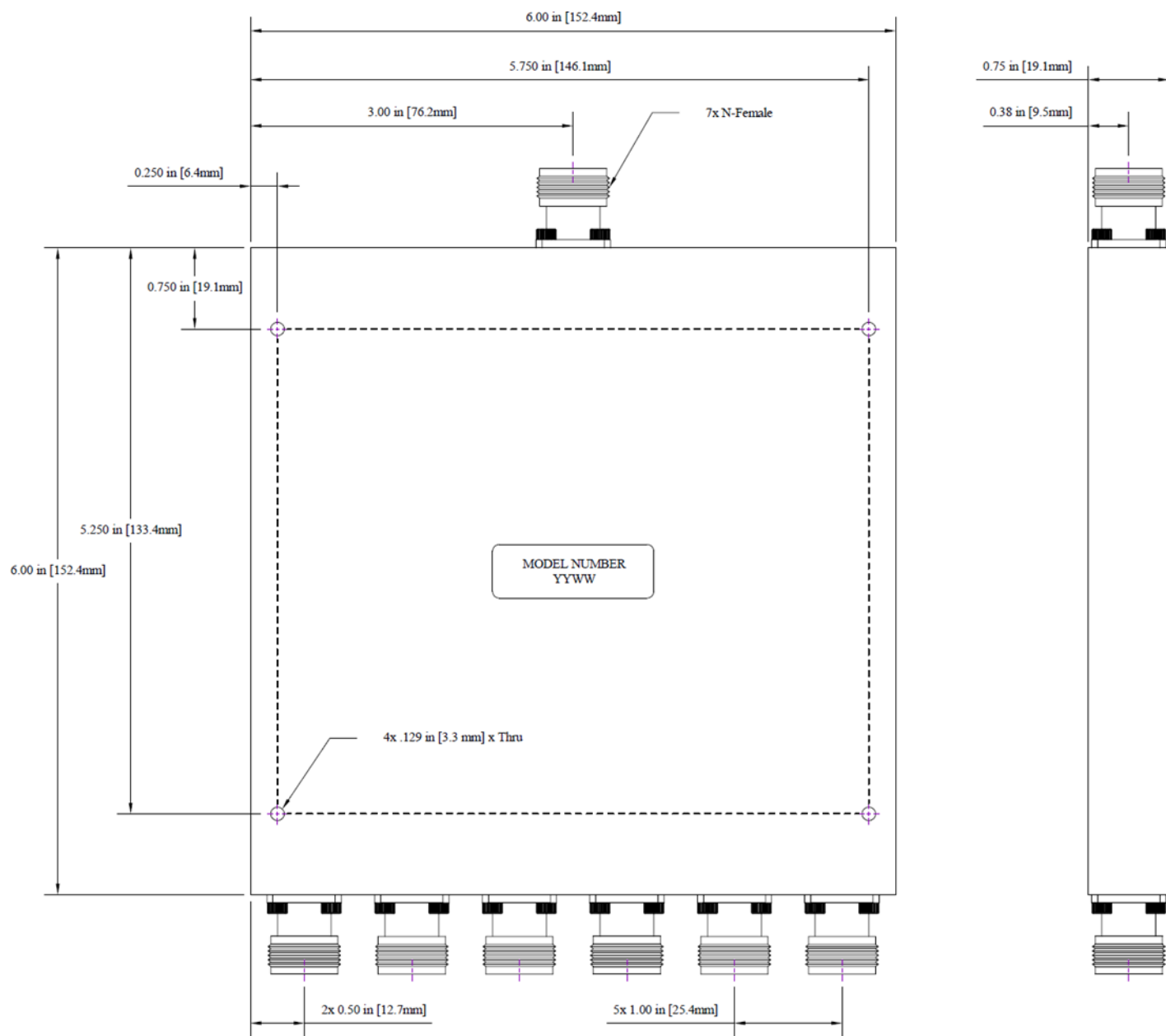
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)				Total Loss (dB)			Isolation (dB)		
	Port 5	Port 1	Port 4	Port 6	S-1	S-4	S-6	1-2	1-4	1-6
2000	14.1	21.0	20.8	21.4	8.24	8.24	8.21	24.5	29.8	29.6
2480	32.5	22.3	21.6	22.6	8.09	8.11	8.09	29.0	30.0	30.8
2960	16.8	23.7	28.0	24.7	8.24	8.21	8.22	19.1	28.6	27.8
3440	18.8	21.9	27.6	21.7	8.23	8.22	8.22	22.5	31.9	31.8
4080	30.7	23.3	20.3	23.8	8.22	8.24	8.20	25.8	31.3	37.2
4560	19.2	31.5	39.0	36.3	8.31	8.29	8.30	24.2	32.5	38.3
5040	22.1	29.3	27.7	28.4	8.33	8.34	8.33	23.0	31.6	36.8
5520	16.0	31.9	32.9	30.5	8.46	8.49	8.45	21.2	29.7	38.8
6000	27.9	29.6	25.4	28.9	8.35	8.38	8.33	23.7	32.4	34.9
6480	16.6	30.2	28.5	27.6	8.46	8.51	8.47	20.8	29.2	35.7
6960	23.4	28.1	24.4	25.1	8.47	8.46	8.49	21.7	33.2	43.3
7440	13.3	24.0	25.8	22.0	8.73	8.74	8.75	22.1	30.8	40.2
8080	20.4	31.6	24.2	28.1	8.55	8.57	8.52	26.8	34.3	39.1
8560	17.9	26.5	35.8	28.9	8.67	8.54	8.65	21.5	29.0	38.7
9040	34.4	37.5	30.9	44.7	8.64	8.59	8.65	24.5	37.9	45.9
9520	14.9	30.5	28.2	37.7	8.85	8.84	8.87	20.9	29.7	38.4
10000	17.9	25.7	31.2	24.0	8.88	8.89	8.91	25.5	33.0	43.5
10480	25.8	35.1	25.4	32.3	8.75	8.84	8.79	24.4	31.7	52.9
10960	18.8	26.7	26.1	27.2	8.88	9.02	8.95	22.4	38.0	44.8
11440	19.4	33.3	28.2	25.8	8.82	8.92	8.91	24.9	30.6	36.1
12080	16.5	27.3	33.1	22.9	9.06	9.05	9.16	20.0	33.9	40.5
12560	24.0	29.7	23.2	38.0	8.89	9.03	9.00	33.5	30.0	43.2
13040	18.0	27.2	37.4	24.4	9.05	9.02	9.18	22.5	36.1	60.4
13520	23.9	25.5	23.3	24.1	9.07	9.11	9.21	25.9	37.2	42.1
14000	16.5	22.5	20.4	23.8	9.25	9.44	9.40	23.6	38.3	47.9
14480	28.9	24.8	31.9	27.8	9.17	9.32	9.31	25.7	36.9	41.2
15120	18.4	34.0	19.7	42.6	9.24	9.86	9.36	24.9	33.6	36.5
15600	21.7	27.5	29.4	34.7	9.26	9.68	9.42	22.2	43.0	38.6
16080	23.5	30.1	22.5	35.8	9.31	9.62	9.50	24.1	36.9	43.5
16560	20.8	24.4	18.3	24.5	9.44	9.71	9.65	25.9	43.4	36.2
17040	18.1	33.3	18.7	27.8	9.53	9.79	9.76	37.3	40.2	32.9
17520	17.3	23.8	26.6	21.1	9.67	9.61	9.95	25.9	41.7	31.6
18000	16.5	24.7	17.0	21.9	9.81	10.15	10.06	25.5	35.1	32.3

Outline Dimensions



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