

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

4-way SMA 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-SMA is a wideband 4-way in-line power divider that operates from 2 to 18 GHz in an aluminum enclosure measuring 4.00 x 2.50 x 0.38 inches. The device has excellent return loss, insertion loss, and is RoHS compliant.

Specifications	Min	Typ	Max	Min
Frequency	2		18	GHz
Impedance		50		Ohm
Return Loss (Port 5)	11	13		dB
Return Loss (Port 1-4)	14	17		dB
Insertion Loss (Above theoretical 6.02 dB)		0.8	1.8	dB
Isolation	16	18		dB
Amplitude Balance		0.3	1.0	dB
Phase Balance		3	12	Degrees
Input Power (CW) ¹			30	Watts

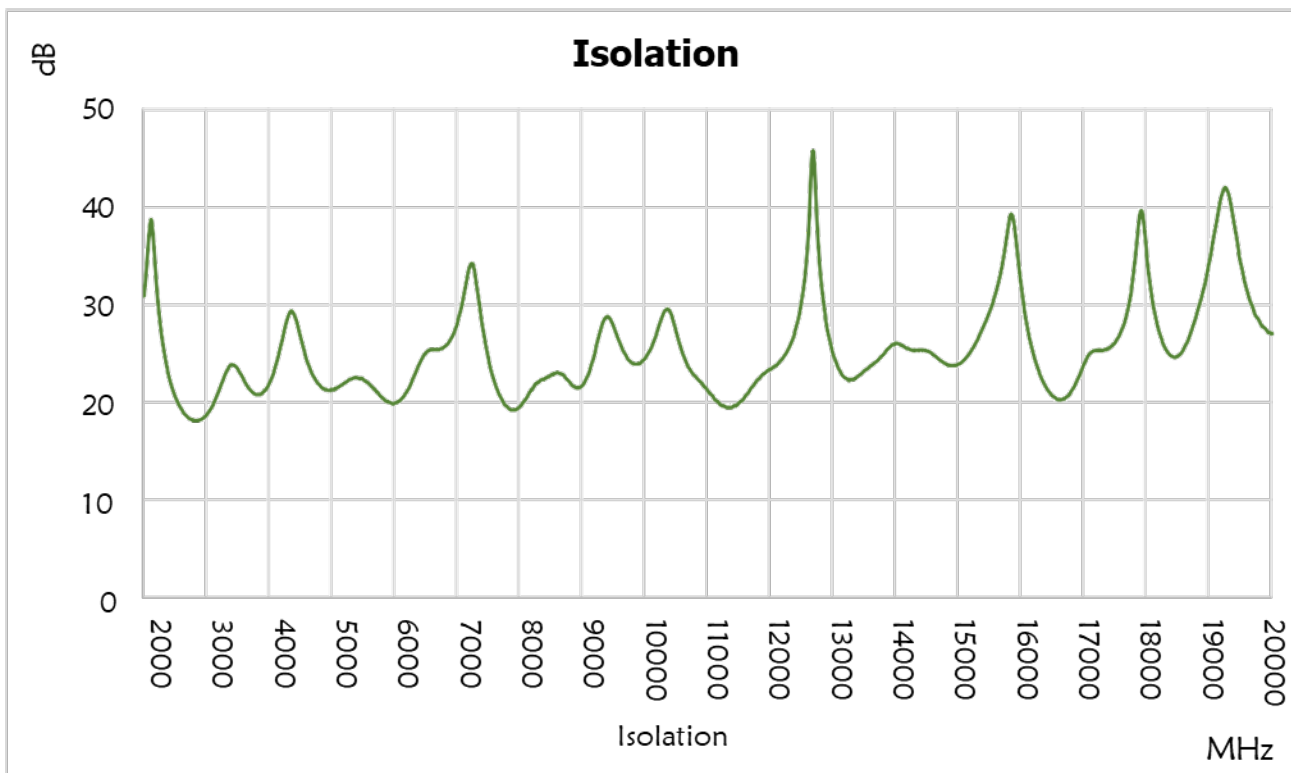
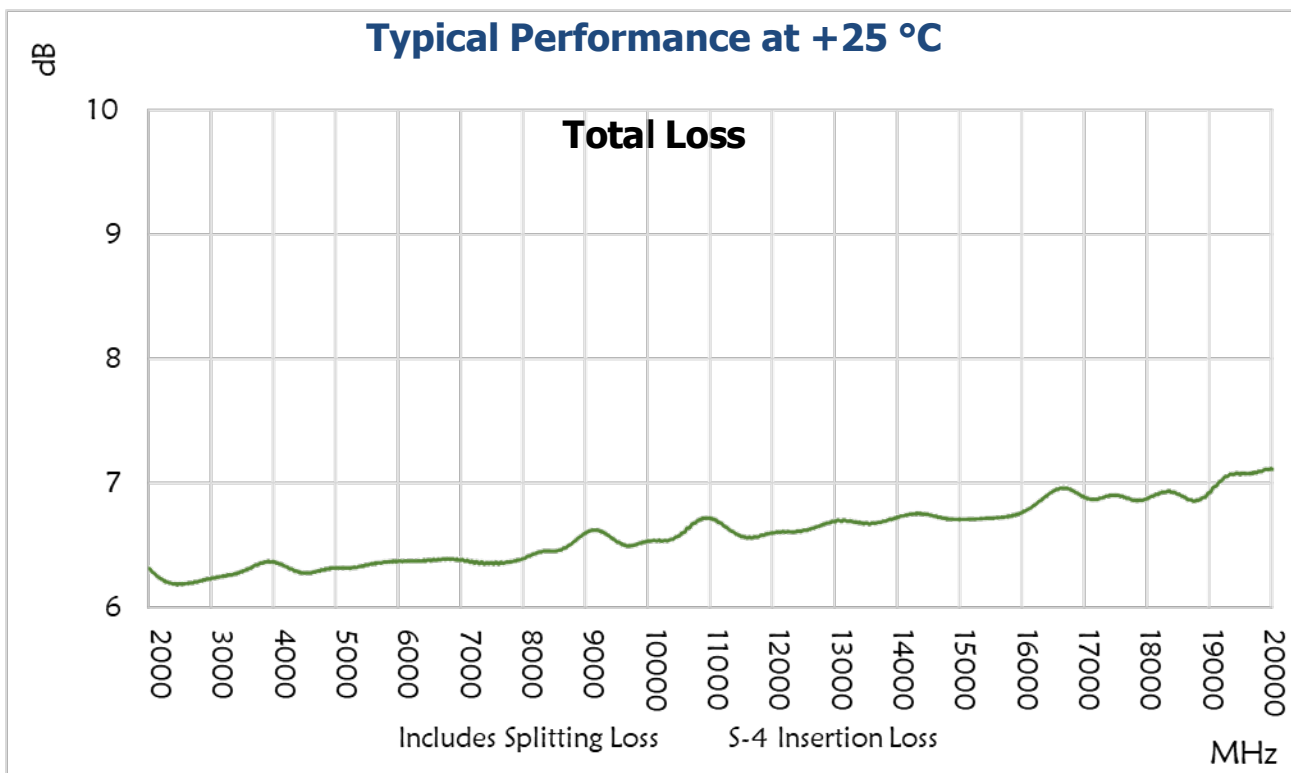
Mechanical

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

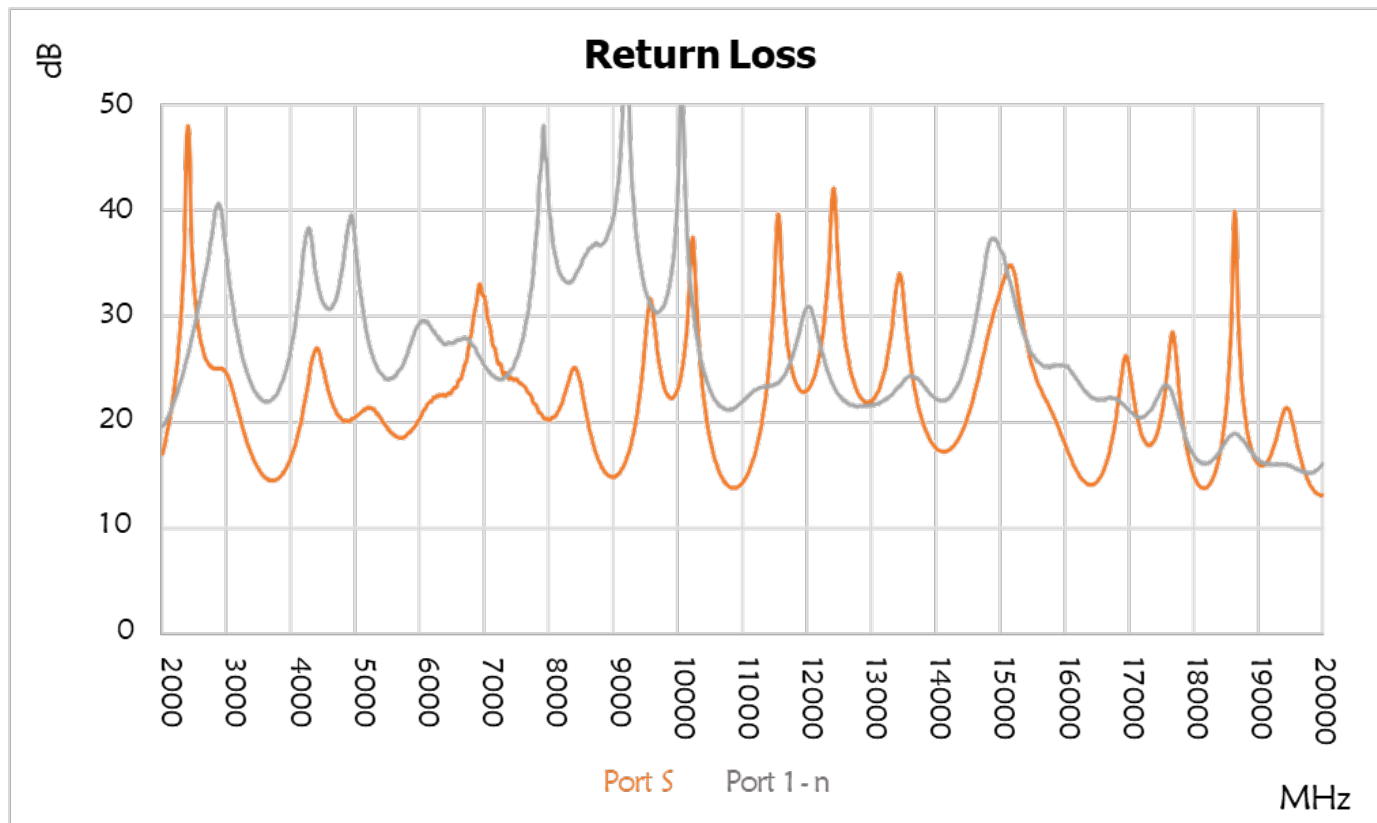
Materials

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.



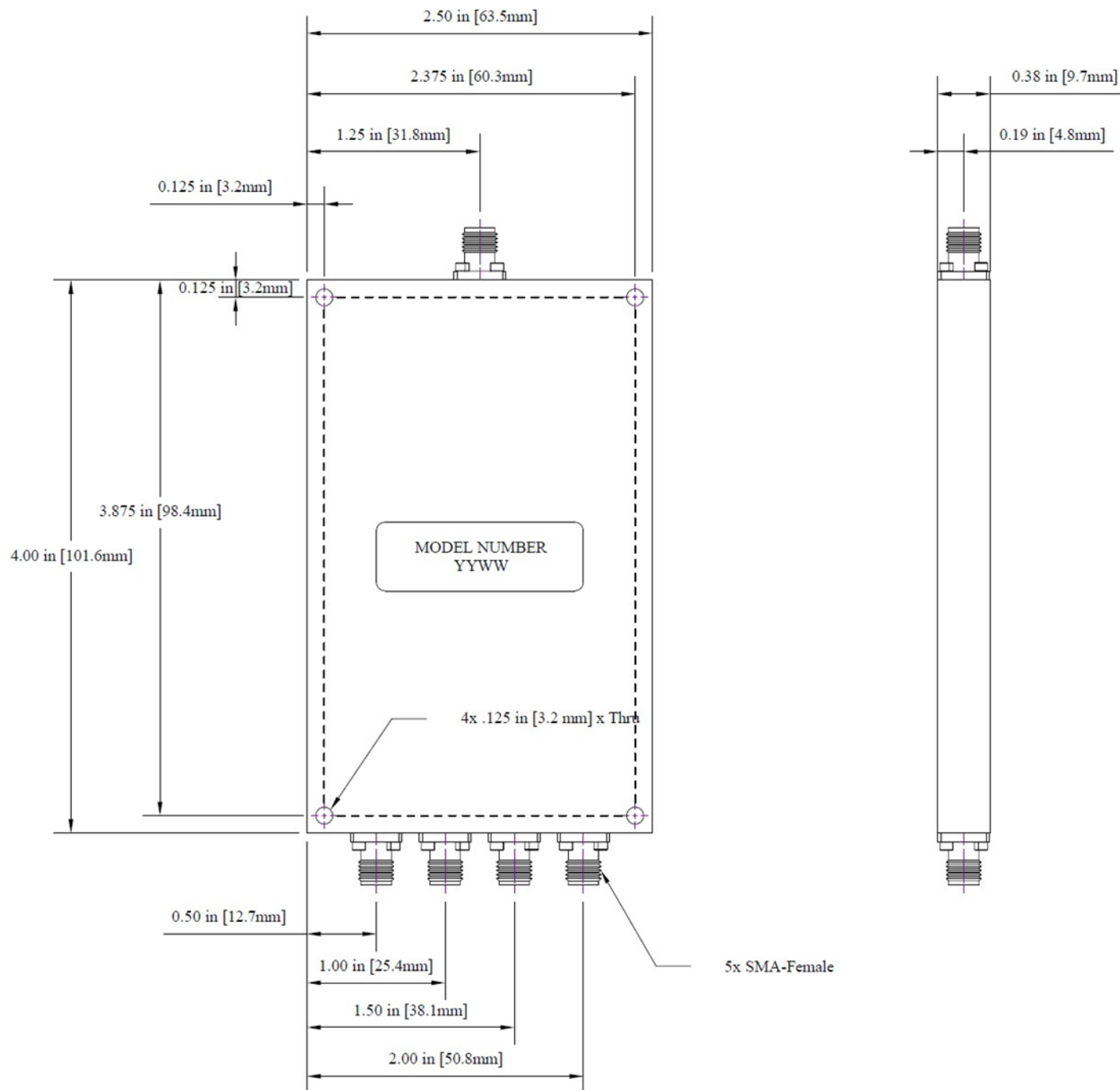
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB) 1-2
	Port 5	Port 1	Port 4	S-1	S-4	
2000	18.0	20.1	18.1	6.3	6.3	32.8
2500	30.2	30.5	30.1	6.2	6.2	20.1
3000	24.4	32.8	24.5	6.2	6.2	19.1
3500	15.2	22.2	15.2	6.3	6.3	23.0
4000	17.5	28.5	17.5	6.3	6.2	22.4
4500	24.1	30.3	24.1	6.3	6.3	26.0
5000	20.9	33.4	21.0	6.3	6.4	21.4
5500	19.3	24.2	19.2	6.3	6.3	22.2
6000	21.2	29.6	21.2	6.4	6.4	20.1
6500	23.4	27.0	23.4	6.3	6.4	25.3
7000	28.9	25.6	29.0	6.5	6.5	29.1
7500	23.5	26.7	23.5	6.4	6.4	23.4
8000	20.7	37.2	20.8	6.4	6.4	19.8
8500	22.2	35.7	22.3	6.4	6.5	22.9
9000	14.9	40.6	14.8	6.6	6.7	22.2
9500	31.0	32.0	30.9	6.6	6.5	27.1
10000	24.1	52.7	24.2	6.5	6.6	25.0
10500	17.5	22.6	17.5	6.8	6.8	26.3
11000	14.7	22.5	14.8	6.5	6.5	20.8
11500	39.6	23.7	39.8	6.6	6.6	20.2
12000	23.3	31.3	23.4	6.7	6.7	23.7
12500	31.0	22.4	31.1	6.6	6.6	32.2
13000	22.2	21.7	22.3	6.9	6.9	24.3
13500	29.3	24.4	29.6	6.6	6.6	23.4
14000	17.5	22.2	17.5	6.8	6.9	26.1
14500	21.4	27.6	21.4	6.7	6.8	25.2
15000	33.4	36.0	33.6	6.7	6.8	24.1
15500	24.7	26.1	24.8	6.7	6.8	30.2
16000	17.5	25.5	17.5	6.8	6.9	29.8
16500	14.8	22.2	14.8	7.1	7.2	20.6
17000	24.0	21.1	24.2	6.8	6.9	24.5
17500	22.0	23.6	22.0	6.8	6.9	26.6
18000	14.6	16.6	14.6	7.1	7.2	32.8
18500	23.6	18.7	23.5	6.8	6.9	25.0
19000	16.0	16.4	16.1	7.0	7.1	35.9
19500	20.0	15.9	20.1	7.1	7.2	33.0
20000	13.3	16.5	13.3	7.2	7.3	27.1

Outline Dimensions



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