

Wideband Power Divider 3-way SMA Female 2 GHz to 18 GHz

3-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-3-02001800-SMA is a wideband 3-way in-line power divider that operates from 2 to 18 GHz in a compact enclosure measuring 2.25 x 1.00 x 0.38 inches. This device is “true” three-way split; not an internally terminated 4-way, with excellent insertion loss and amplitude balance, and is RoHS compliant

Specifications	Min	Typ	Max	Min
Frequency	2		18	GHz
Impedance		50		Ohm
Return Loss (Port 5)	10	13		dB
Return Loss (Port 1-3)	13	16		dB
Insertion Loss (Above 4.8 dB)		0.8	1.3	dB
Isolation	15	22		dB
Amplitude Balance		0.3	10	dB
Phase Balance		3	12	Degrees
Input Power (CW) ¹			25	Watts

Mechanical

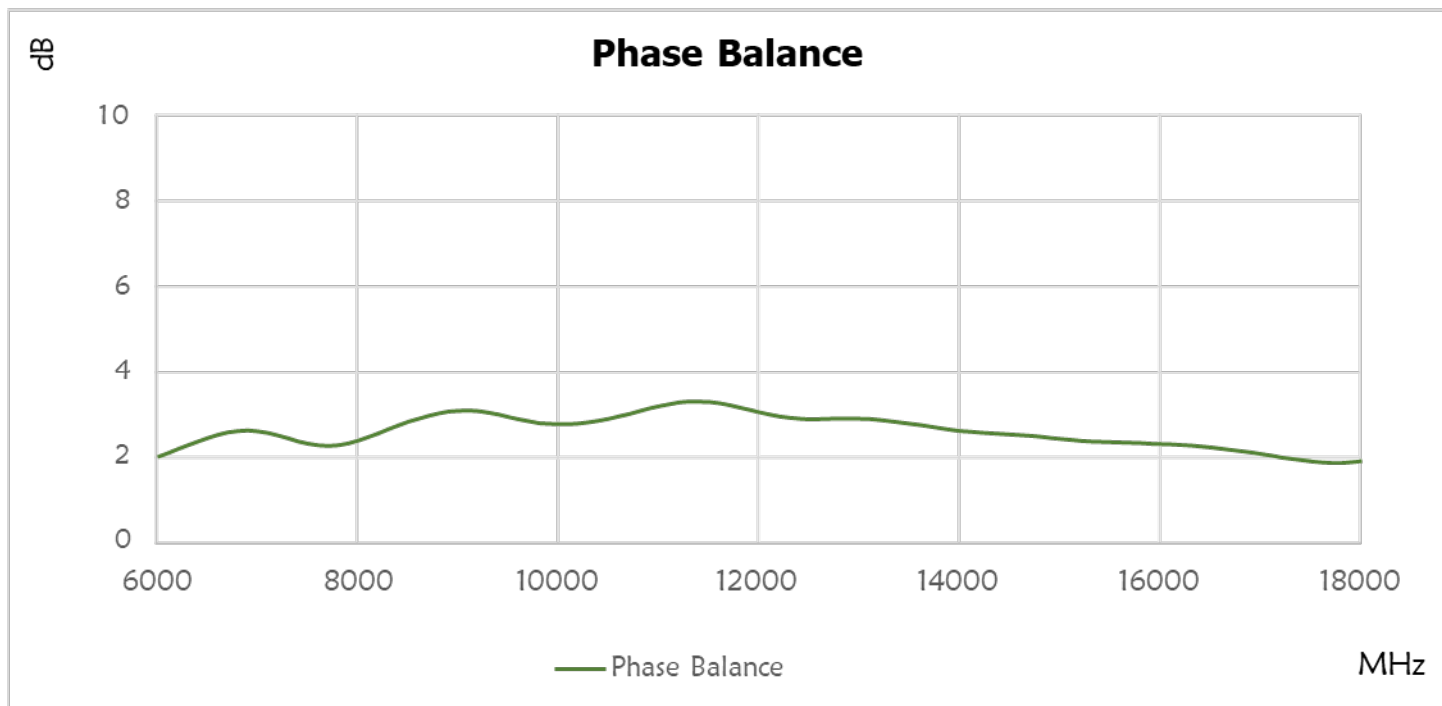
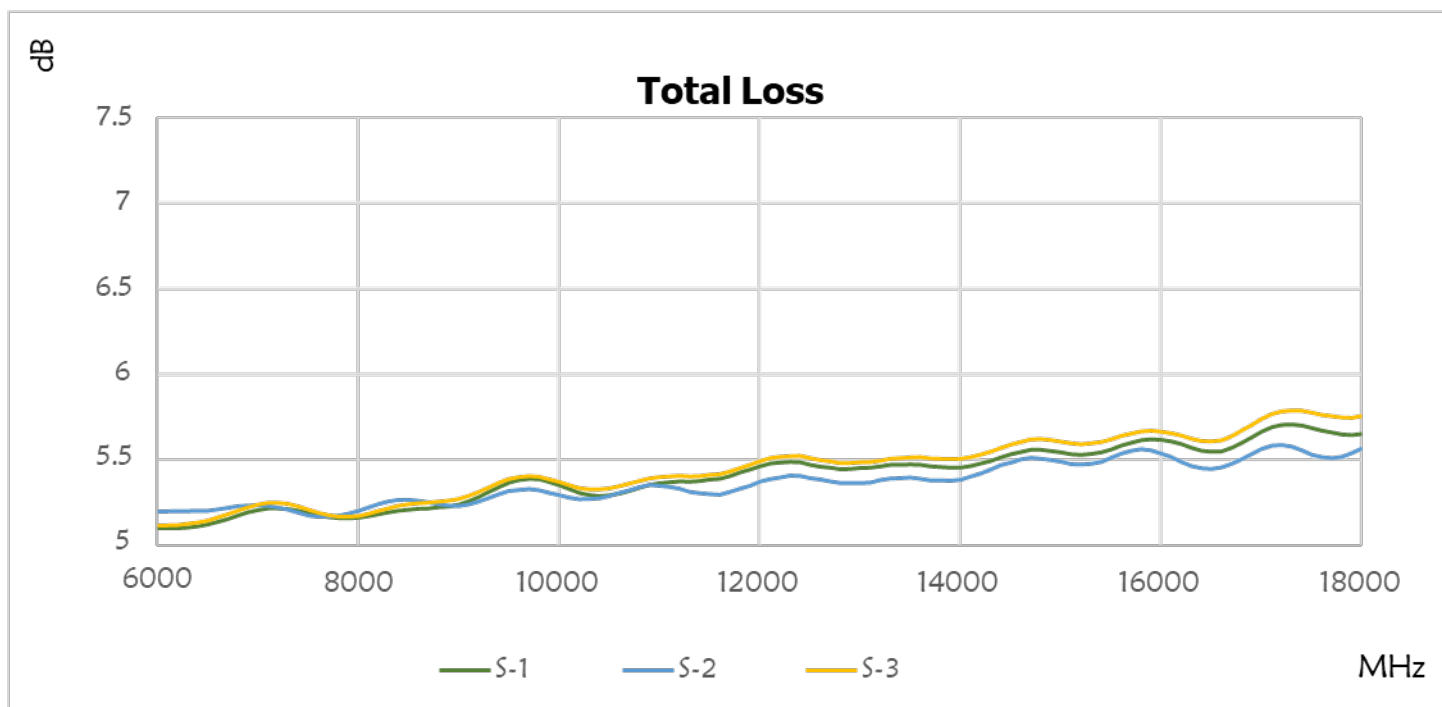
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	7 oz (200 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

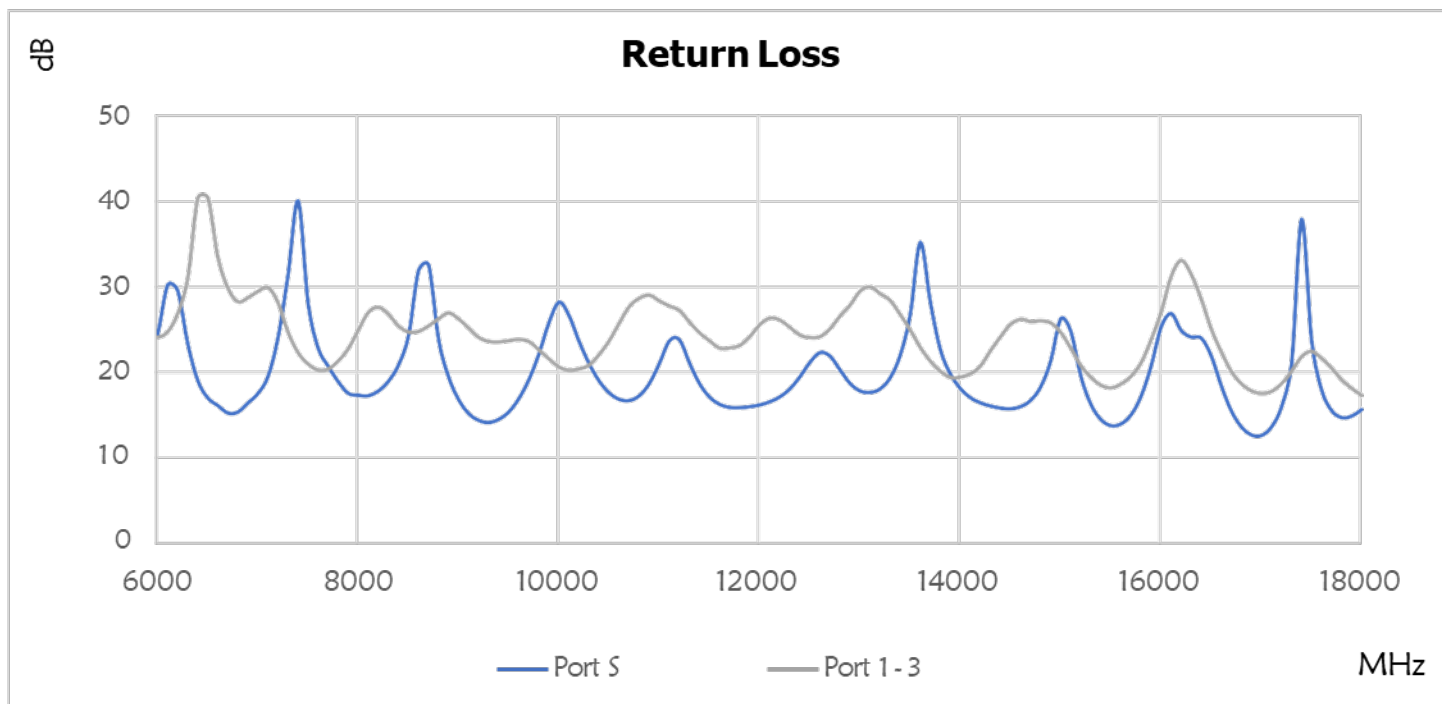
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

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 3	S-1	S-3	1-2	1-3
2000	19.5	27.5	28.3	5.0	5.0	22.2	23.8
2500	21.7	20.0	19.1	5.0	5.0	23.7	24.9
3000	20.6	21.3	21.4	5.0	5.0	22.3	25.9
3500	29.6	27.1	26.0	5.0	5.0	25.4	27.1
4000	20.1	27.0	25.0	5.0	5.0	22.6	27.3
4500	19.5	30.9	30.8	5.1	5.1	22.8	27.5
5000	23.8	21.2	20.5	5.1	5.1	25.0	31.1
5500	19.7	29.3	33.4	5.1	5.1	22.3	36.5
6000	24.6	32.7	27.2	5.1	5.1	26.0	31.3
6500	17.2	27.0	24.1	5.2	5.2	23.9	27.6
7000	17.7	24.8	22.7	5.2	5.3	21.4	25.2
7500	28.2	24.4	25.7	5.1	5.2	28.1	29.9
8000	17.5	25.6	23.2	5.2	5.2	22.7	40.5
8500	24.5	32.4	26.0	5.2	5.2	26.0	53.1
9000	17.0	20.4	19.1	5.3	5.4	25.1	32.2
9500	15.6	20.8	24.2	5.4	5.4	22.1	29.1
10000	28.4	27.8	25.2	5.3	5.3	26.4	32.3
10500	17.8	22.7	20.5	5.4	5.4	24.6	33.2
11000	21.2	24.0	24.6	5.3	5.4	26.4	34.7
11500	17.3	19.7	21.8	5.5	5.5	25.7	47.0
12000	16.4	24.0	22.6	5.5	5.6	22.2	37.8
12500	21.4	21.2	21.1	5.4	5.4	27.0	41.9
13000	18.0	21.5	23.2	5.5	5.5	25.4	33.1
13500	26.9	26.5	27.6	5.5	5.5	28.3	32.9
14000	18.3	24.7	26.1	5.5	5.6	28.3	37.8
14500	15.9	22.0	21.7	5.6	5.6	24.3	33.7
15000	26.5	24.4	25.6	5.5	5.5	33.6	40.0
15500	14.0	17.6	18.6	5.7	5.8	26.7	33.0
16000	25.5	29.0	30.8	5.5	5.6	26.9	25.6
16500	22.1	25.5	24.2	5.6	5.7	30.6	25.3
17000	12.8	17.4	17.3	5.8	5.9	27.8	24.3
17500	23.8	19.0	18.4	5.6	5.7	23.9	28.1
18000	15.8	17.8	16.5	5.7	5.8	24.9	38.6

Outline Dimensions

