

Wideband Single-Sided Power Divider 4-way SMA Female 600 MHz to 7.4 GHz

## 4-way SMA Power Divider 600 MHz to 7.4 GHz

### Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPD-4-00600740-SMA-S is a 4-way power divider that operates from 600 MHz to 7.4 GHz. The configuration is unique in that the input and output ports are on the same side, which allows for front panel mounting in a rack system, and internally where space may be limited. The device is RoHS compliant.

Specifications	Min	Typ	Max	Min
Frequency	600		7400	MHz
Impedance		50		Ohm
Return Loss (Port S)	11	17		dB
Return Loss (Ports 1-4)	13	19		dB
Insertion Loss (Above 6.02 dB)		1.7	2.4	
Isolation	18	20		dB
Amplitude Balance		0.2	0.6	dB
Phase Balance		2.5	9.0	Degrees
Input Power (CW) <sup>1</sup>			30	Watts

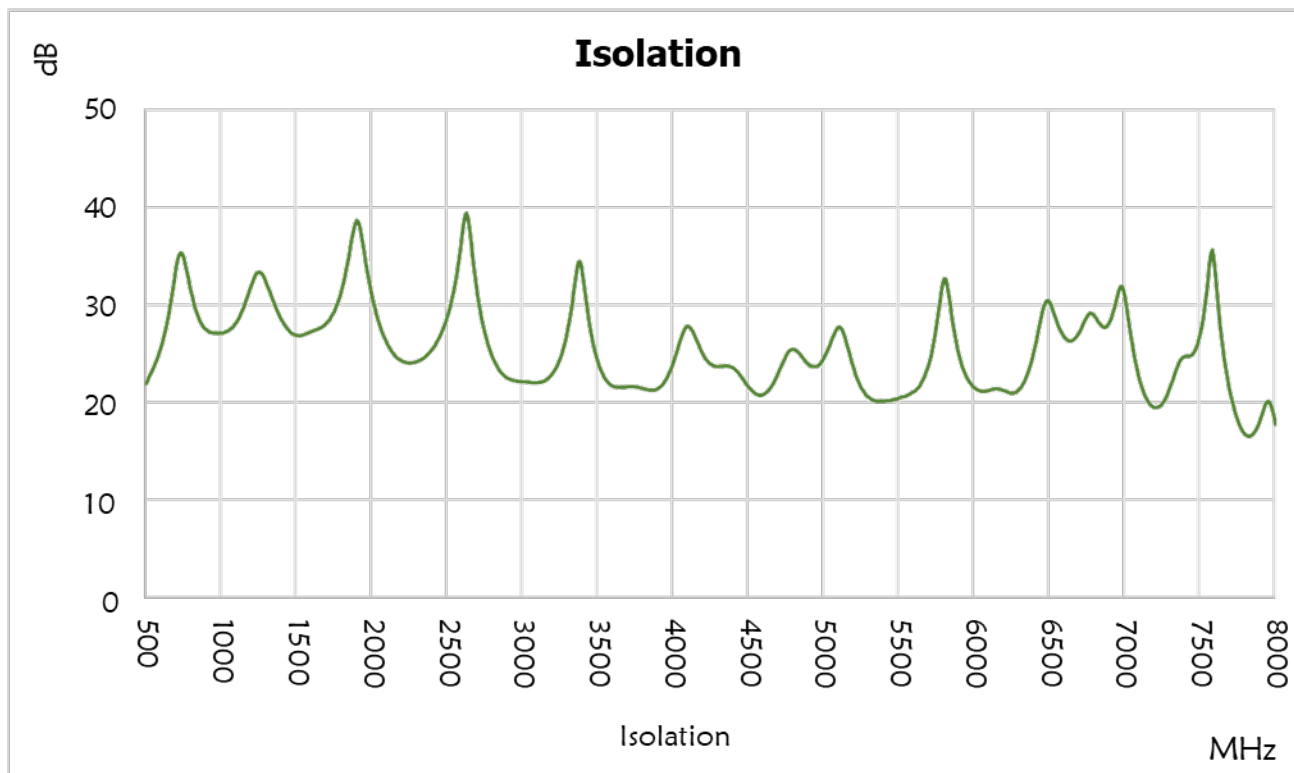
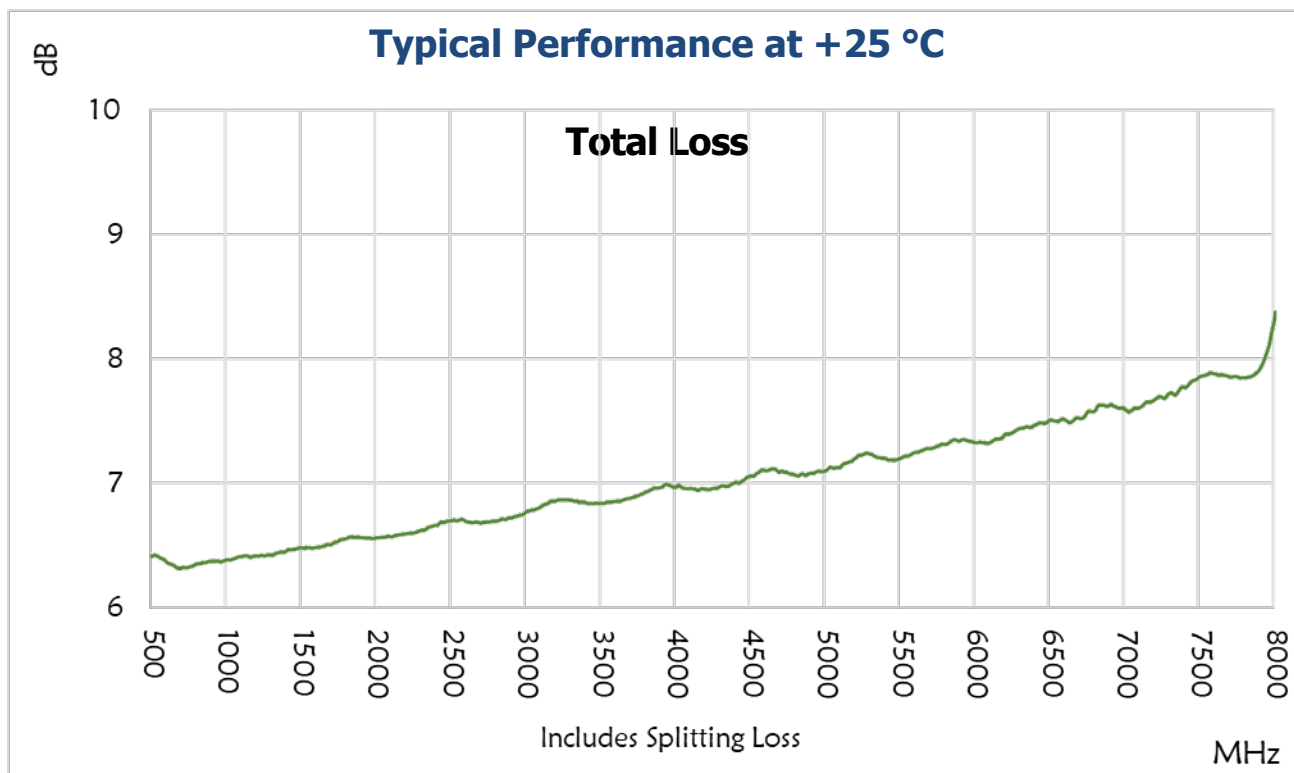
### Mechanical

Connector Interface	SMA-Female
Operating Temperature <sup>2</sup>	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	6 oz (170 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

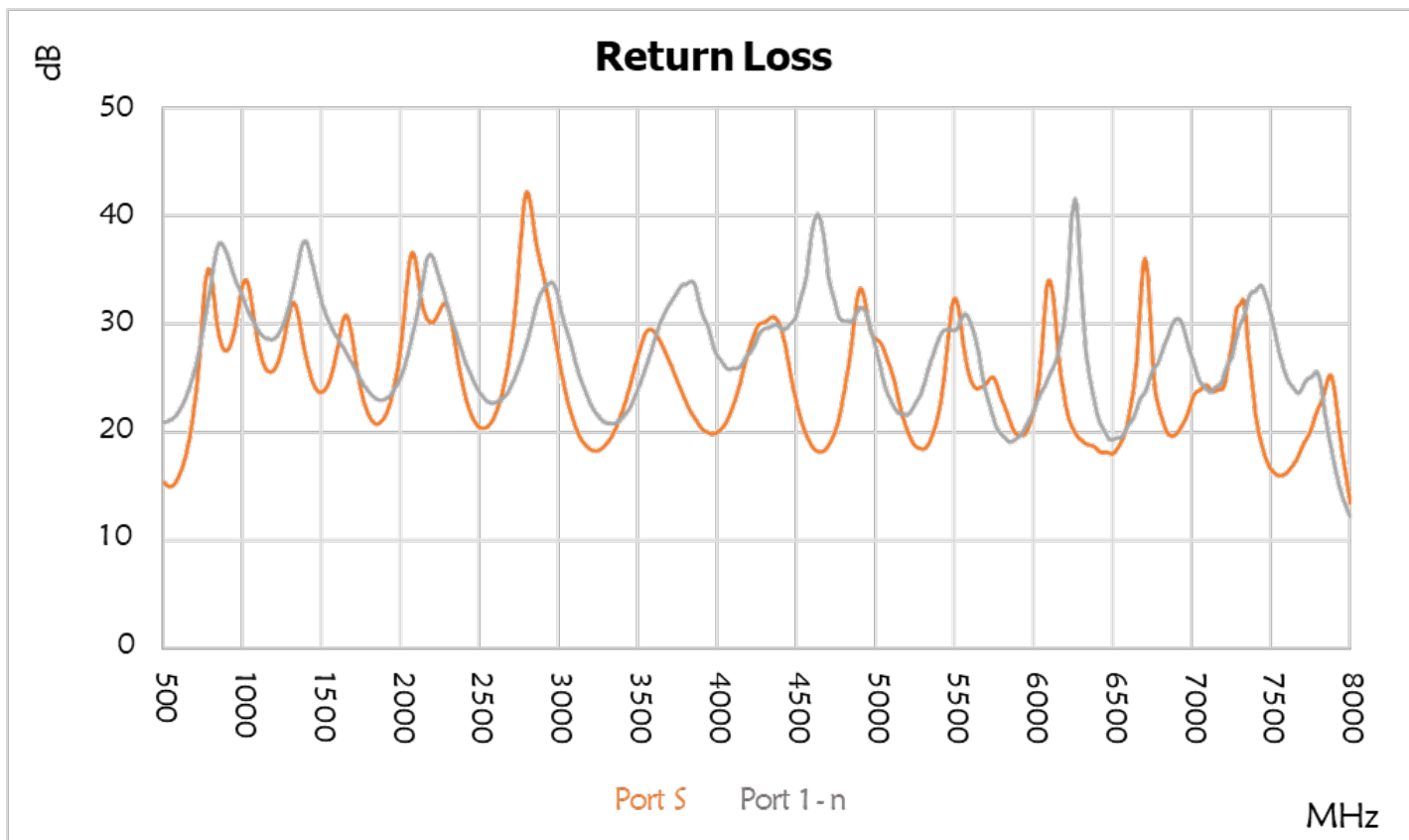
### Materials

RoHS /REACH Compliant <sup>3</sup>	Yes
Enclosure	Aluminum
Connectors	Brass, Gold Plated
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Clear Chem Film

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.



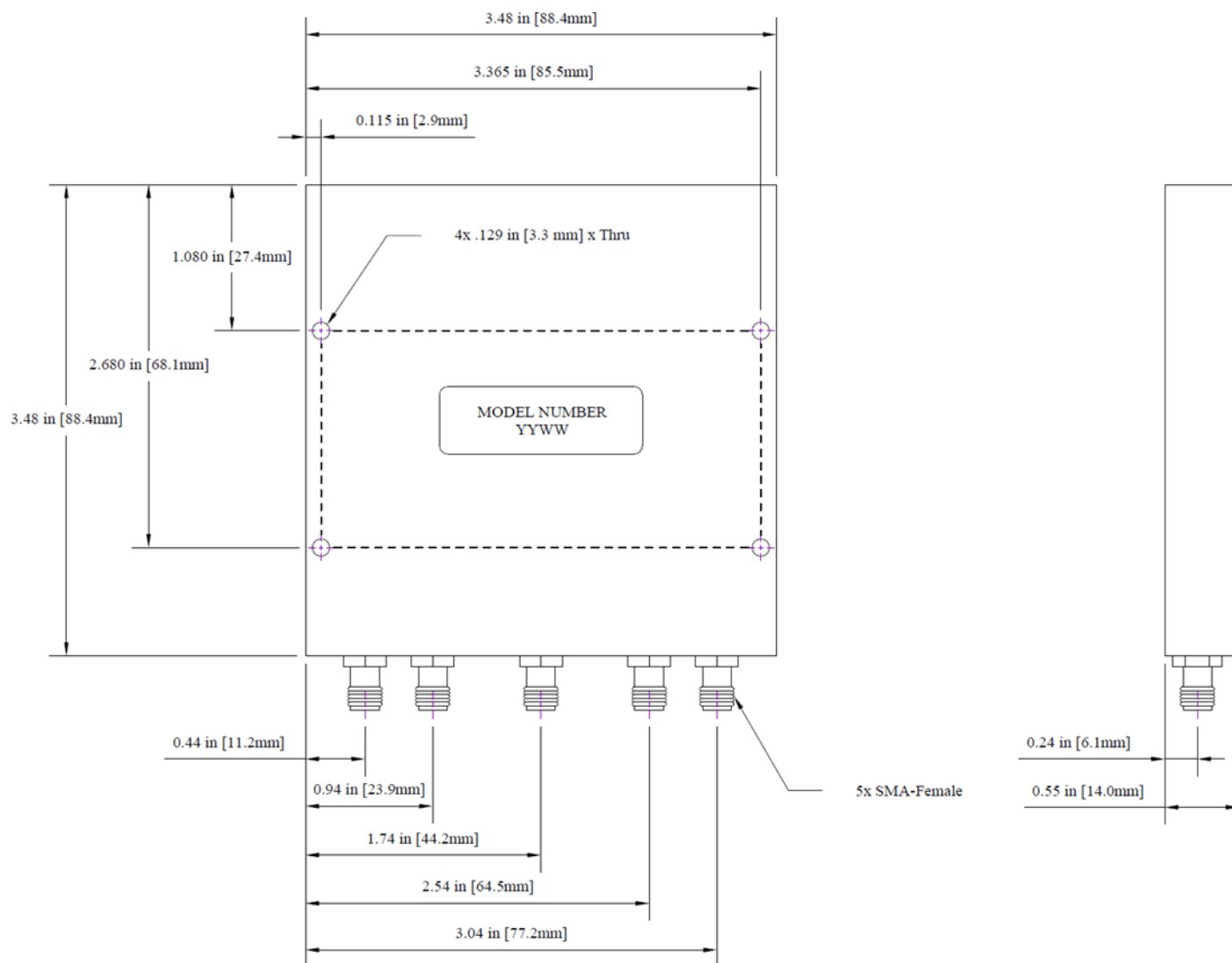
**Typical Performance at +25 °C**



### Typical Performance Data at +25 °C

Frequency (MHz)	Total Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-4				Port S	Port 1	Port 4
500	6.4	6.4	0.02	22.1	0.0	14.9	21.0	14.9
700	6.3	6.4	0.01	34.5	0.3	27.8	27.7	27.9
900	6.4	6.4	0.01	27.5	0.2	28.3	35.1	28.3
1100	6.4	6.4	0.02	28.3	0.1	26.1	28.8	26.1
1300	6.4	6.5	0.02	32.0	0.2	32.6	34.1	32.6
1500	6.5	6.5	0.02	26.9	0.1	24.3	30.9	24.2
1700	6.5	6.5	0.01	28.3	0.1	24.9	25.4	24.8
1900	6.6	6.6	0.00	38.7	0.2	22.7	23.3	22.8
2100	6.6	6.6	0.01	26.0	0.2	31.4	32.7	31.4
2300	6.6	6.7	0.02	24.3	0.2	28.8	30.2	28.8
2500	6.7	6.7	0.02	29.1	0.2	20.5	23.1	20.5
2700	6.7	6.7	0.02	30.7	0.2	32.3	25.3	32.4
2900	6.7	6.7	0.01	22.5	0.2	32.7	34.0	32.8
3100	6.8	6.8	0.01	22.1	0.4	19.4	25.3	19.4
3300	6.9	6.9	0.03	27.9	0.3	19.6	20.9	19.6
3500	6.8	6.9	0.02	24.0	0.3	29.0	25.2	29.0
3700	6.9	6.9	0.01	21.7	0.3	25.5	32.6	25.4
3900	7.0	7.0	0.02	21.5	0.4	20.2	30.5	20.2
4100	7.0	7.0	0.03	27.8	0.3	23.5	25.8	23.6
4300	7.0	7.0	0.03	23.7	0.3	30.8	29.9	30.7
4500	7.1	7.1	0.03	21.6	0.3	20.6	32.8	20.6
4700	7.1	7.1	0.03	23.3	0.5	19.8	33.7	19.8
4900	7.1	7.1	0.05	23.9	0.4	32.0	32.0	32.2
5100	7.1	7.2	0.05	27.8	0.5	24.0	22.0	23.9
5300	7.2	7.3	0.06	20.5	0.5	18.7	26.0	18.7
5500	7.2	7.3	0.06	20.5	0.6	30.5	29.7	30.5
5700	7.3	7.3	0.06	24.3	0.7	25.4	22.4	25.6
5900	7.4	7.4	0.06	24.5	0.8	19.6	19.8	19.7
6100	7.3	7.4	0.07	21.3	0.6	29.6	26.2	29.9
6300	7.4	7.5	0.08	21.5	0.4	18.9	27.2	18.9
6500	7.5	7.6	0.06	30.2	0.5	19.0	19.8	18.9
6700	7.5	7.6	0.06	27.5	0.3	30.5	24.6	30.7
6900	7.6	7.7	0.07	28.5	0.2	21.1	30.4	21.1
7100	7.6	7.7	0.05	21.9	0.3	22.6	23.5	22.7
7300	7.7	7.8	0.06	21.8	0.6	30.0	29.7	30.0
7500	7.9	7.9	0.05	27.4	0.7	15.8	29.1	15.8
7700	7.9	7.9	0.07	20.6	0.9	19.6	25.3	19.6
7900	7.9	8.0	0.06	18.6	0.7	19.8	15.2	19.8

## Outline Dimensions



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