

Wideband Power Divider 4-way SMA Female 500 MHz to 6 GHz

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Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPD-4-00500600-SMA is a wideband 4-way in-line power divider that operates from 0.5 to 6 GHz, with excellent return loss, low insertion loss, and high isolation performance.

Specifications	Min	Typ	Max	Min
Frequency	500		6000	MHz
Impedance		50		Ohm
Return Loss (Port 5)	12	17		dB
Return Loss (Ports 1-4)	14	23		dB
Insertion Loss (Above 6.02 dB)	500-3000 MHz	0.5	0.7	dB
	3000-6000 MHz		0.9	1.4
Isolation	17	25		dB
Amplitude Balance		0.2	0.7	dB
Phase Balance		4	10	Degrees
Input Power (CW) ¹			30	Watts

Mechanical

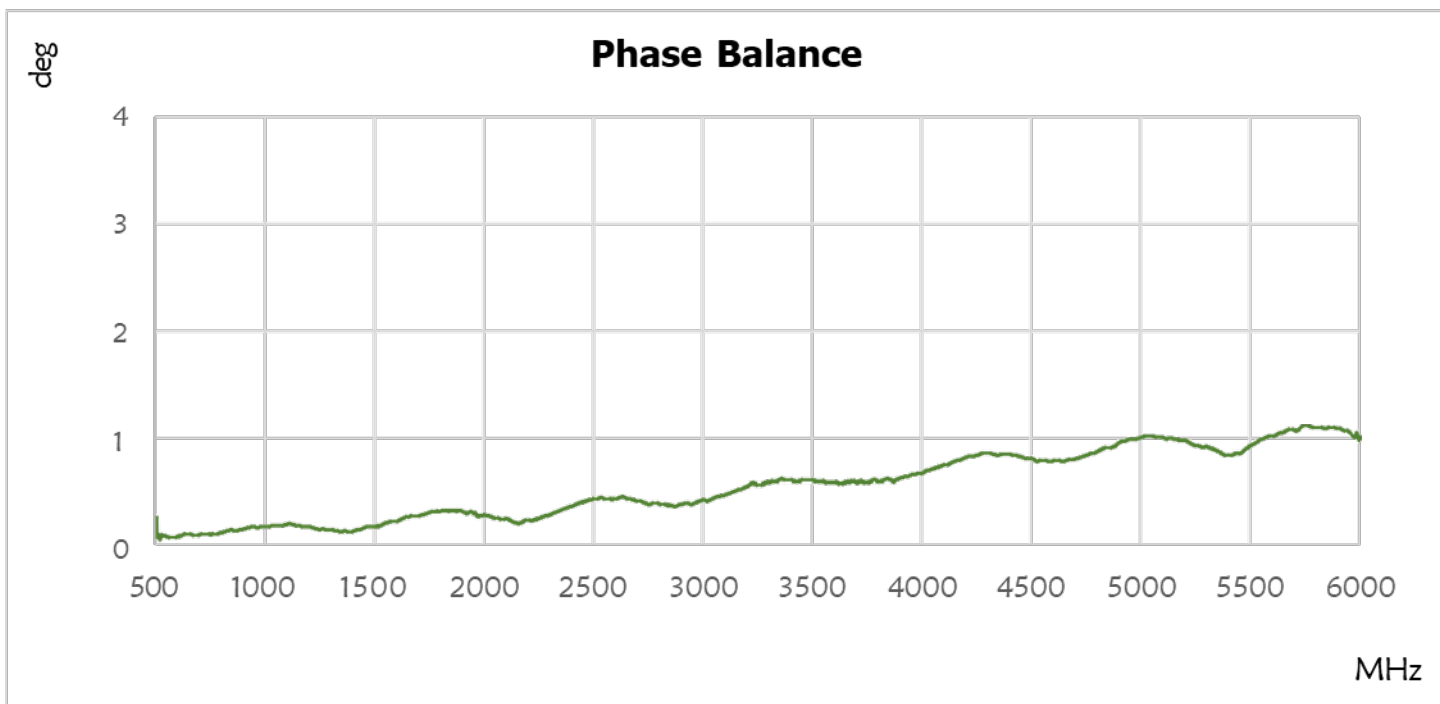
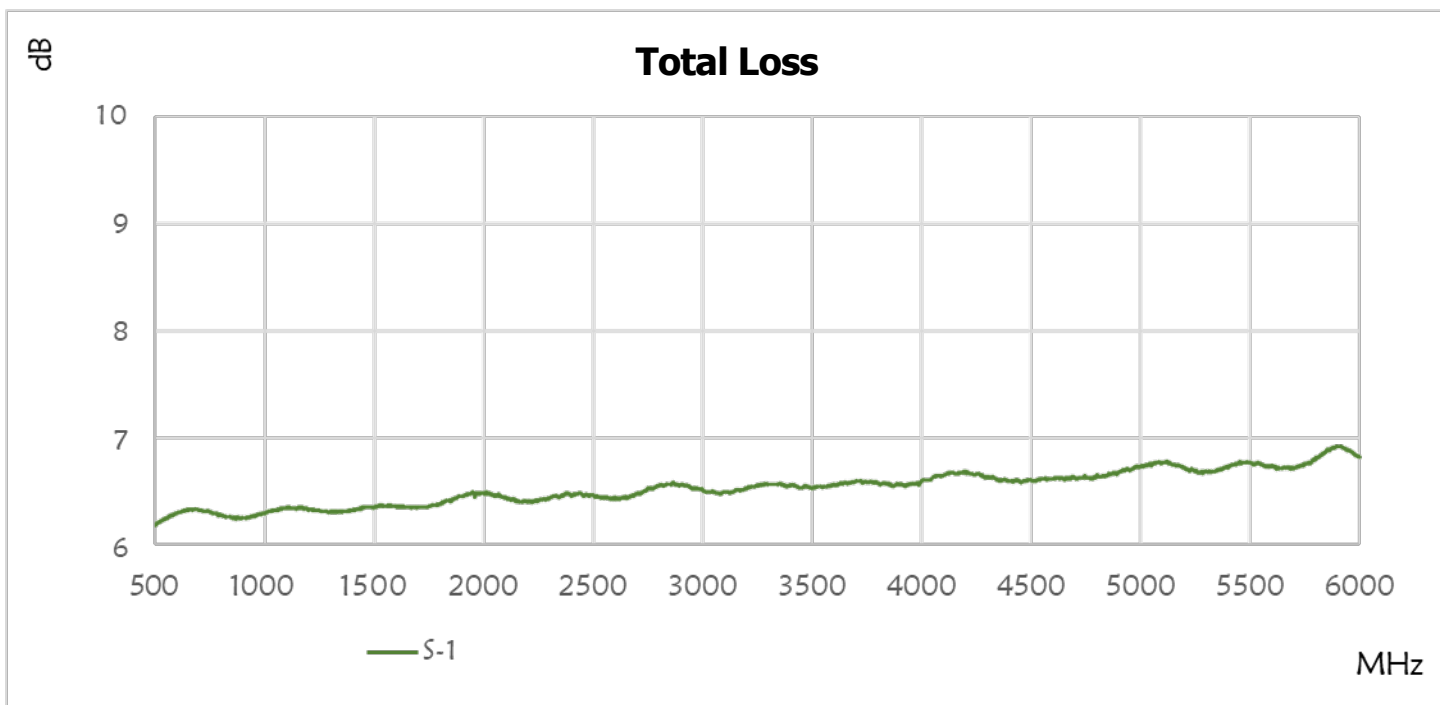
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	6 oz (170 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

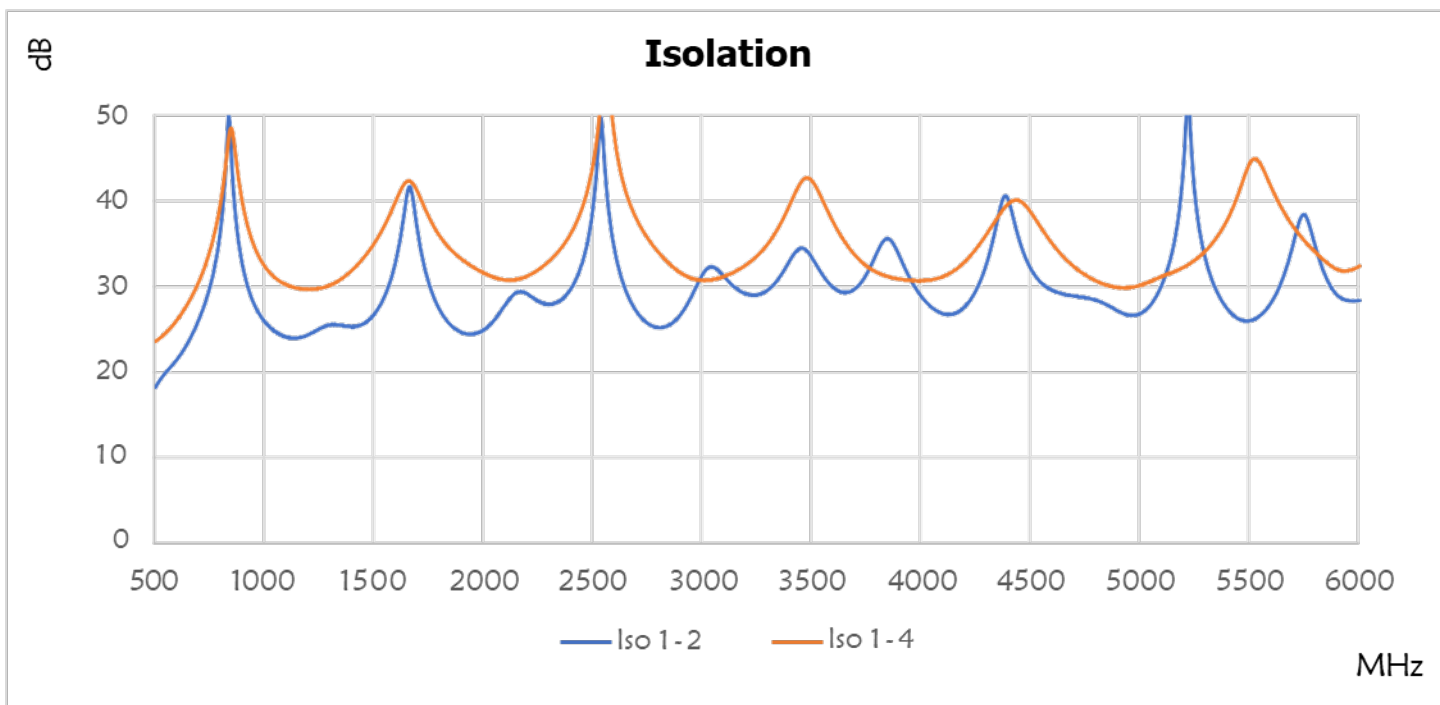
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Brass, Gold Plated
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Clear Chem Film

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



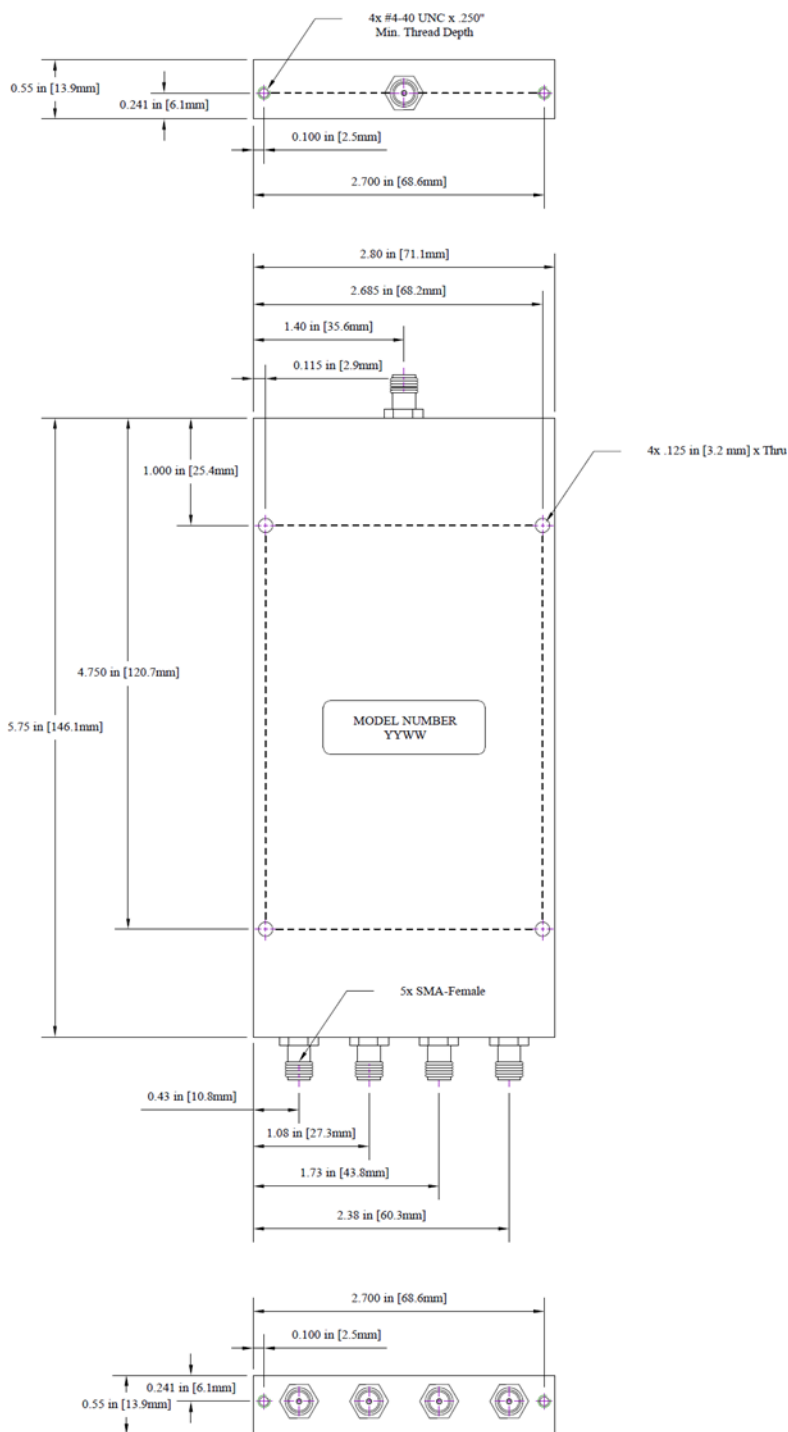
Typical Performance at +25 °C



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
500	25.8	30.0	30.6	6.18	6.21	18.3	23.7
555	19.1	28.6	28.8	6.25	6.27	20.3	24.9
610	16.8	26.7	27.0	6.30	6.31	22.0	26.6
665	16.3	25.3	25.6	6.33	6.33	24.4	28.9
720	17.0	24.7	25.0	6.31	6.32	27.7	32.1
775	19.1	24.9	25.2	6.29	6.29	33.1	37.0
830	23.6	26.1	26.5	6.26	6.27	48.9	46.6
885	35.7	28.1	28.8	6.25	6.26	34.3	41.7
940	29.1	30.7	31.9	6.27	6.27	28.6	35.5
995	22.2	31.5	33.3	6.29	6.30	26.1	32.6
1050	19.5	30.3	32.1	6.32	6.33	24.7	31.0
1490	22.5	24.2	25.6	6.35	6.35	26.6	34.8
2040	17.1	23.3	24.0	6.46	6.48	26.0	31.2
2480	21.0	22.6	24.9	6.45	6.44	36.2	42.1
3030	23.3	22.3	25.3	6.49	6.47	32.3	30.8
3525	23.6	23.8	28.7	6.54	6.52	32.3	41.3
4020	21.6	24.1	29.0	6.60	6.57	28.2	30.8
4515	27.5	25.5	39.7	6.59	6.58	31.4	38.1
5010	17.1	21.5	29.6	6.72	6.69	27.1	30.3
5505	20.9	22.8	31.1	6.76	6.71	26.1	44.8
6000	20.1	25.1	34.8	6.81	6.79	28.4	32.5

Outline Dimensions



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