

Wideband Single-Sided Power Divider 8-way SMA Female 500 MHz to 6 GHz

8-way SMA Power Divider 500 MHz to 6 GHz

Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPC-8-00500600-SMA is an 8-way power divider that operates from 500 MHz to 6 GHz in an enclosure measuring 6.50 x 4.97 x 0.55 inches with versatile mounting options. This device is RoHS compliant.

Specifications	Min	Typ	Max	Min
Frequency	500		6000	MHz
Impedance		50		Ohm
Return Loss (Port S)	9.5	12.7		dB
Return Loss (Ports 1-8)	13.7	16.3		dB
Insertion Loss (Above 9.03 dB)	500-3000 MHz	1.0	1.9	dB
	3000-6000 MHz		2.2	2.9
Isolation	17	20		dB
Amplitude Balance		0.4	0.8	dB
Phase Balance		6	12	Degrees
Input Power (CW) ¹			30	Watts

Mechanical

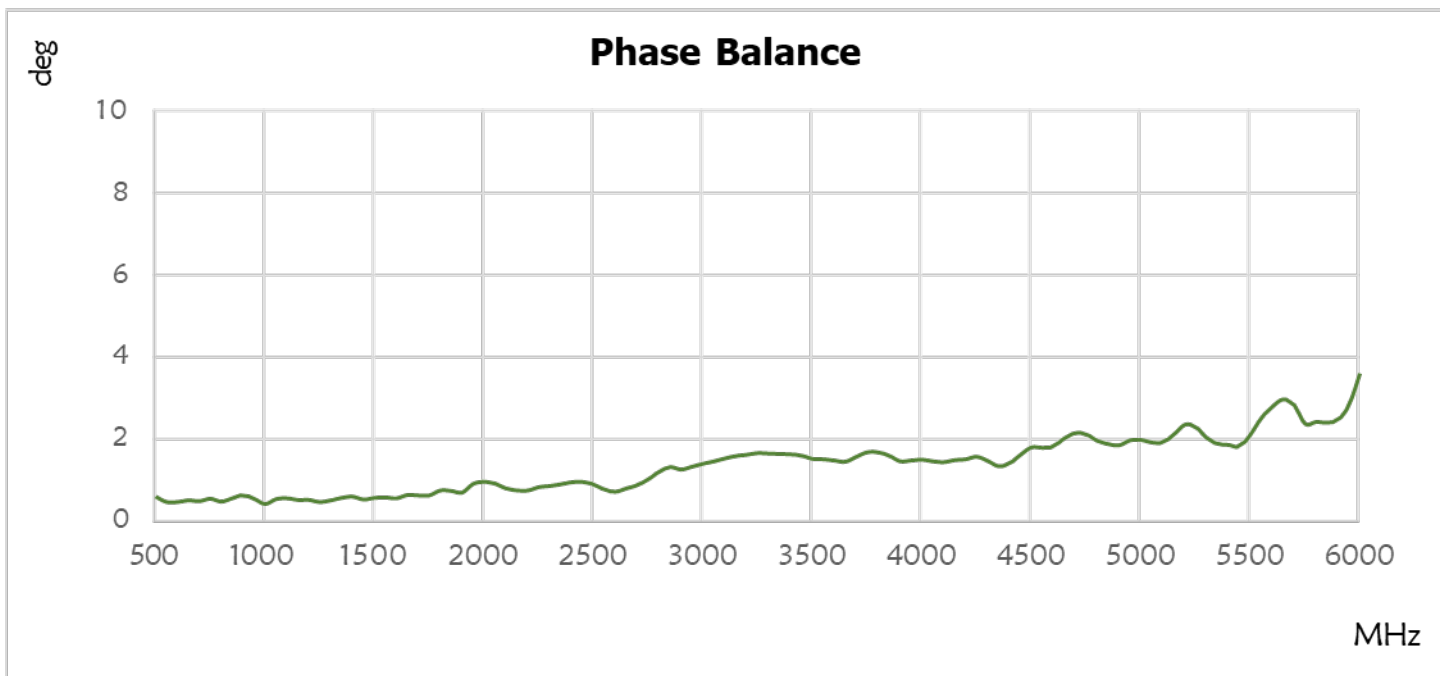
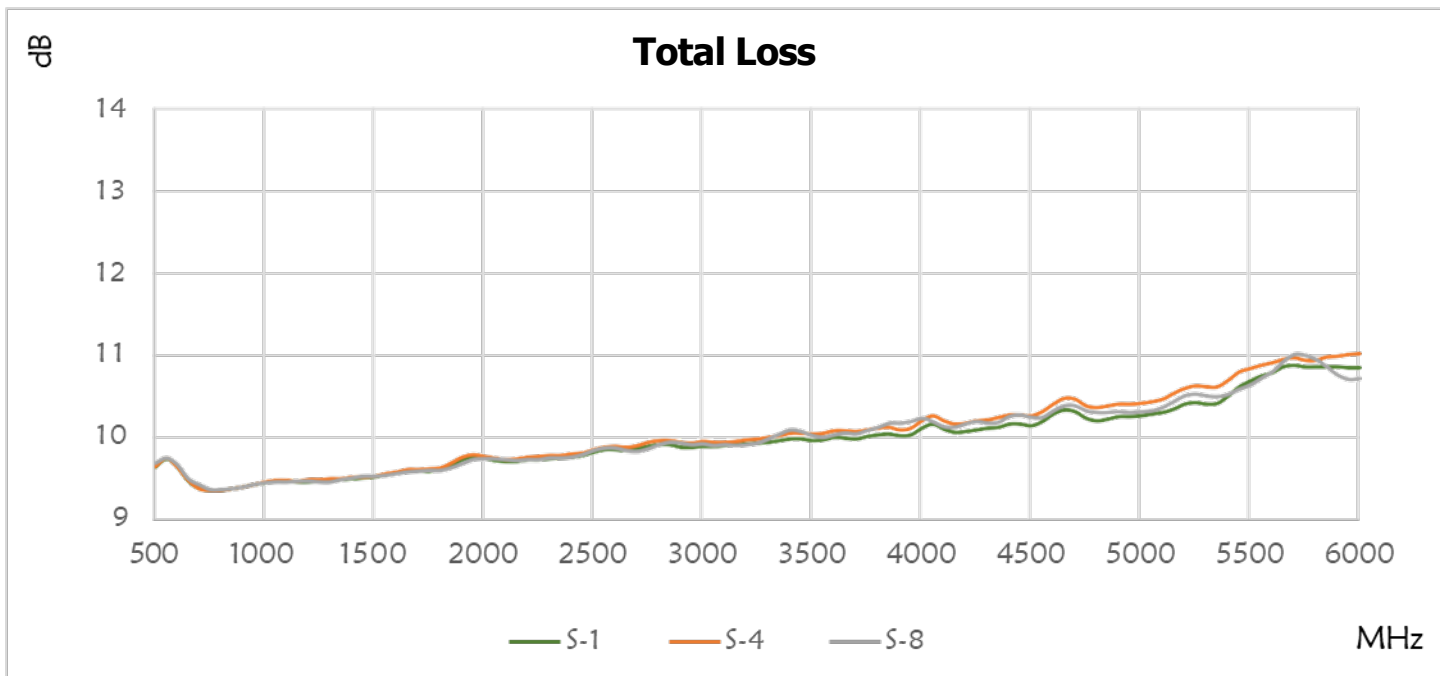
Connector Interface	SMA-Female
Operating Temperature ²	-40 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	19 oz (540 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

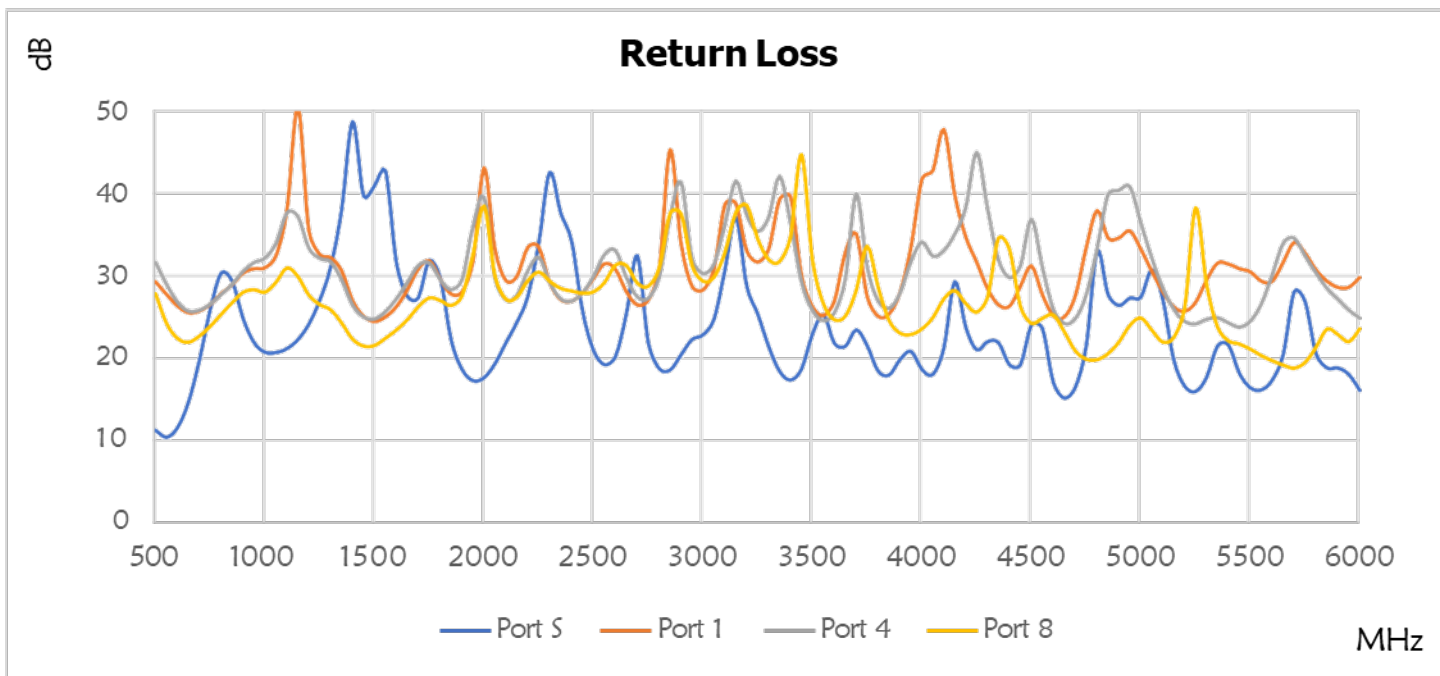
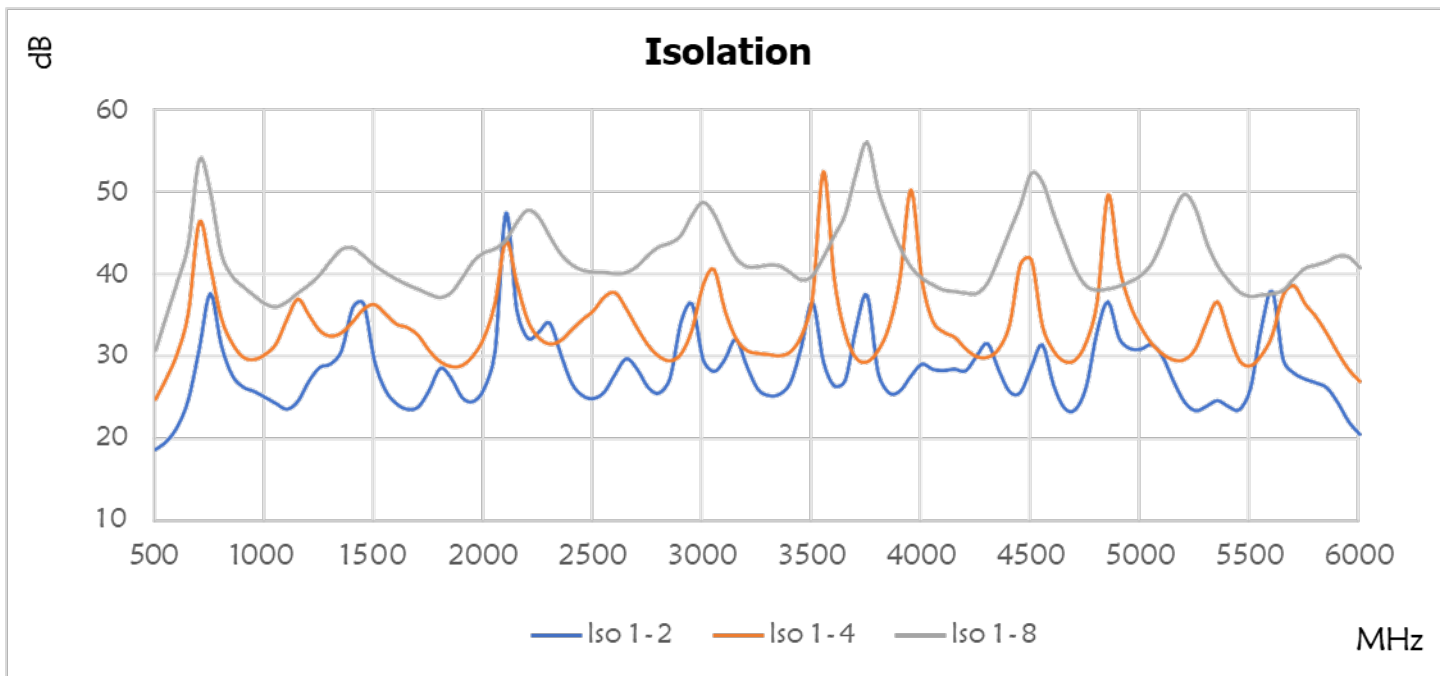
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Brass, Gold Plated
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Clear Chem Film

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



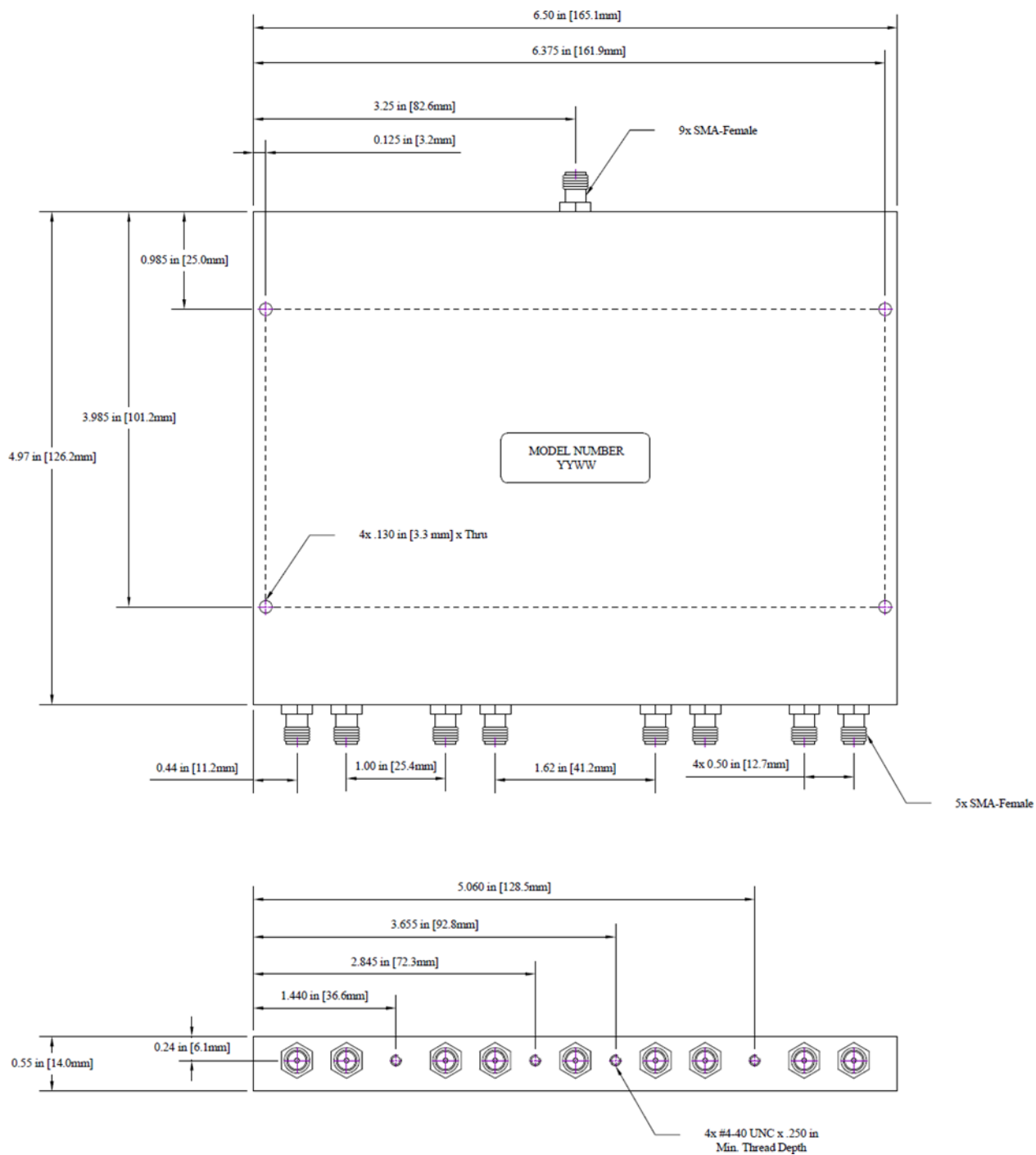
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)				Total Loss (dB)			Isolation (dB)		
	Port 5	Port 1	Port 4	Port 8	S-1	S-4	S-8	1-2	1-4	1-8
500	11.3	29.4	31.7	27.9	9.66	9.67	9.71	18.8	25.0	30.9
550	10.4	27.8	29.1	24.3	9.76	9.77	9.77	19.8	27.5	35.1
600	11.6	26.4	26.9	22.5	9.66	9.66	9.69	21.7	30.6	39.2
650	14.7	25.6	25.8	22.0	9.49	9.50	9.52	24.9	35.5	43.8
700	19.8	25.8	25.9	22.8	9.40	9.40	9.45	31.1	46.5	54.0
750	26.0	26.6	26.7	24.0	9.38	9.38	9.39	37.8	41.0	50.1
800	30.5	27.9	27.8	25.4	9.38	9.38	9.39	31.5	34.8	42.6
850	29.4	29.0	29.1	26.8	9.40	9.40	9.40	27.9	31.7	39.9
900	24.9	30.4	30.7	28.1	9.42	9.42	9.42	26.4	30.1	38.6
950	22.0	31.0	31.7	28.4	9.45	9.45	9.45	25.9	29.8	37.5
1000	20.8	31.1	32.3	28.1	9.47	9.48	9.47	25.2	30.4	36.5
1500	41.1	24.5	24.9	21.6	9.54	9.55	9.55	29.6	36.4	41.2
2000	17.7	43.2	39.7	38.6	9.77	9.79	9.76	26.2	32.4	42.7
2500	21.0	29.8	30.0	28.1	9.84	9.87	9.86	25.0	35.7	40.4
3000	22.9	28.4	30.4	29.4	9.91	9.97	9.94	29.8	38.7	48.8
3500	23.0	26.3	25.9	32.0	9.98	10.06	10.04	36.7	37.1	39.9
4000	18.7	41.9	34.2	23.6	10.13	10.22	10.25	29.2	39.4	39.6
4500	24.1	31.3	37.0	24.3	10.16	10.28	10.26	28.9	41.9	52.4
5000	27.5	33.3	36.5	25.0	10.28	10.43	10.33	31.0	33.7	40.0
5500	16.5	30.6	24.6	21.2	10.70	10.85	10.65	26.2	29.0	37.4
6000	16.1	29.9	24.9	23.7	10.86	11.03	10.73	20.7	27.1	40.9

Outline Dimensions



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