

Wideband Power Divider 2-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-2-00500600-SMA is a wideband 2-way power divider that operates from 0.5 to 6 GHz. This part has versatile mounting options. Standard through holes mount the part from the broad surface, while threaded holes allow for bulkhead rack-mountable mounting.

Specifications		Min	Typ	Max	Min
Frequency		500		6000	MHz
Impedance			50		Ohm
Return Loss (Port S)		12.7	17.3		dB
Return Loss (Ports 1-2)		15.6	19.1		dB
Insertion Loss (Above 3.01 dB)				0.9	dB
Isolation	500-600 MHz	15	21		dB
	600-6000 MHz	18	23		
Amplitude Balance			0.2	0.5	dB
Phase Balance			2	6	Degrees
Input Power (CW) ¹	500-2700 MHz			50	Watts (CW)
	2700-6000 MHz			30	

Mechanical

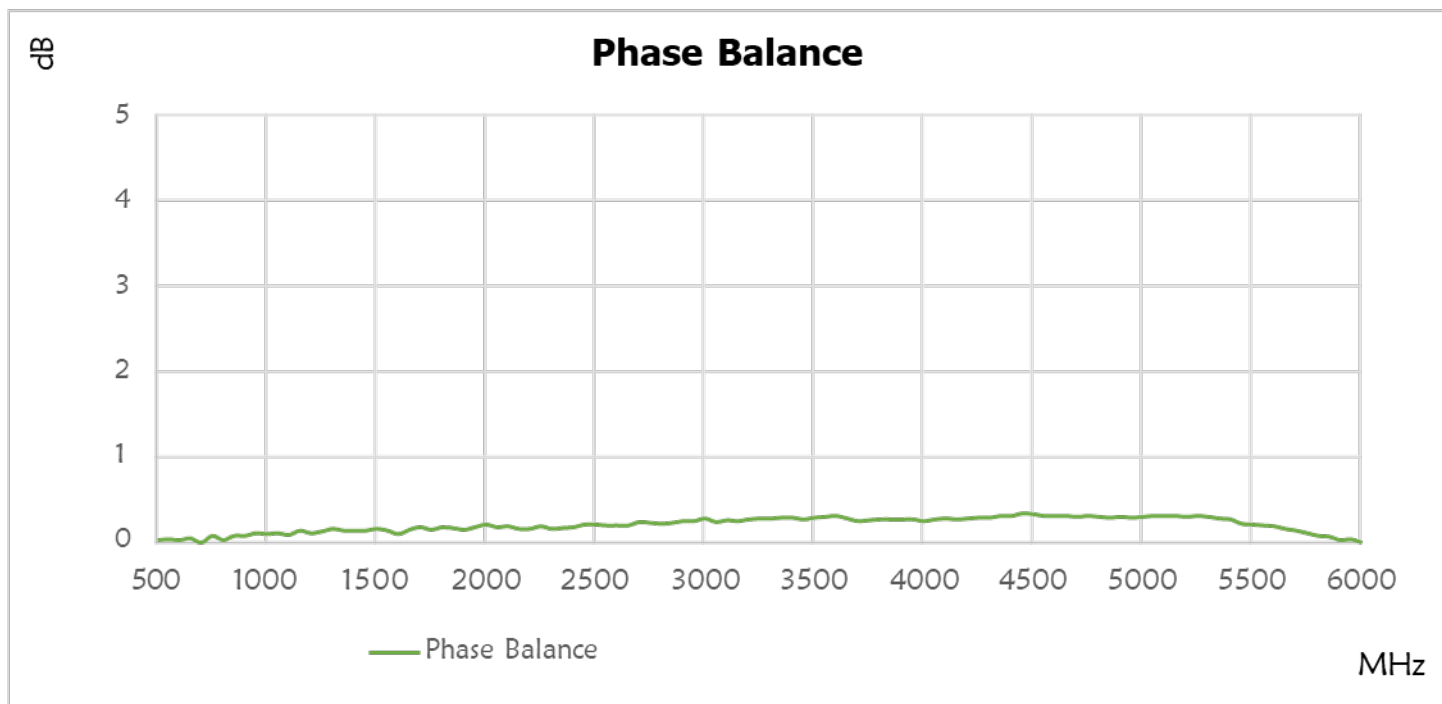
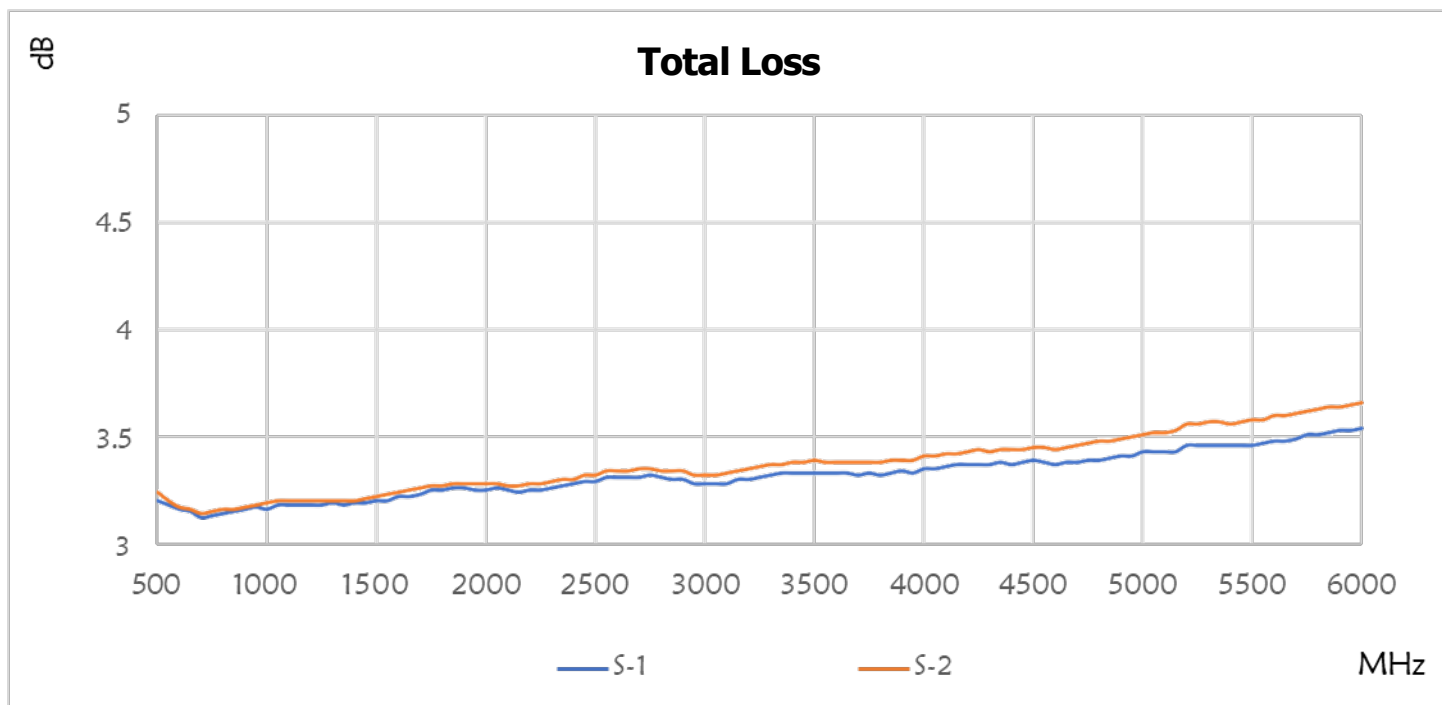
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	3 oz (85 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

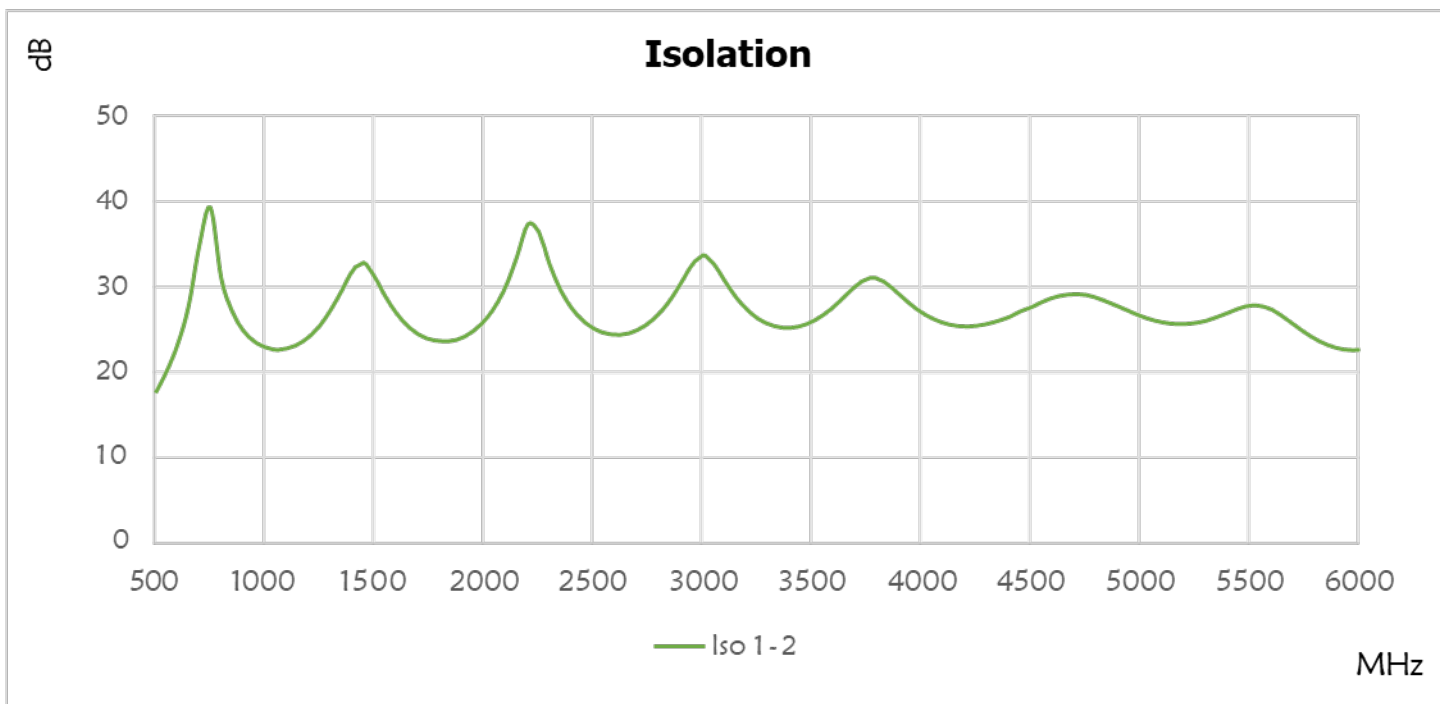
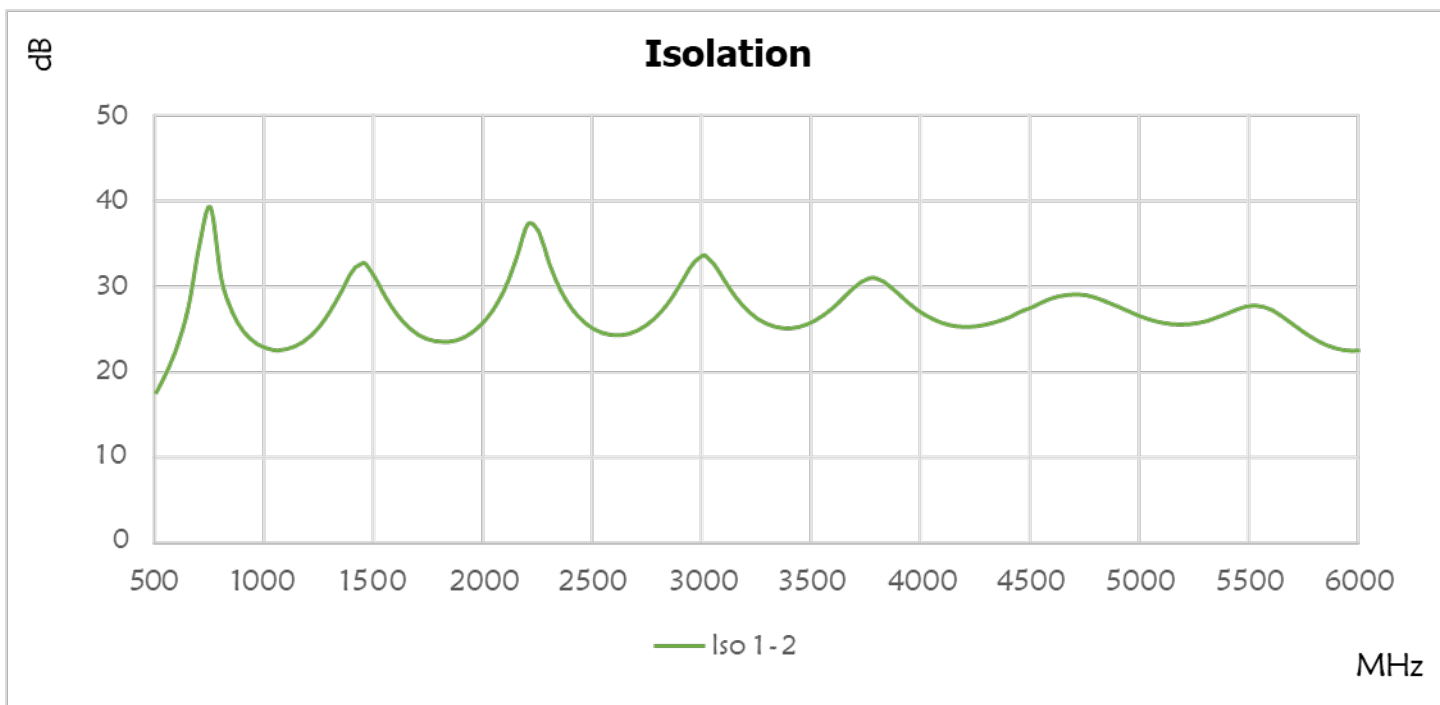
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Brass, Gold Plated
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

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



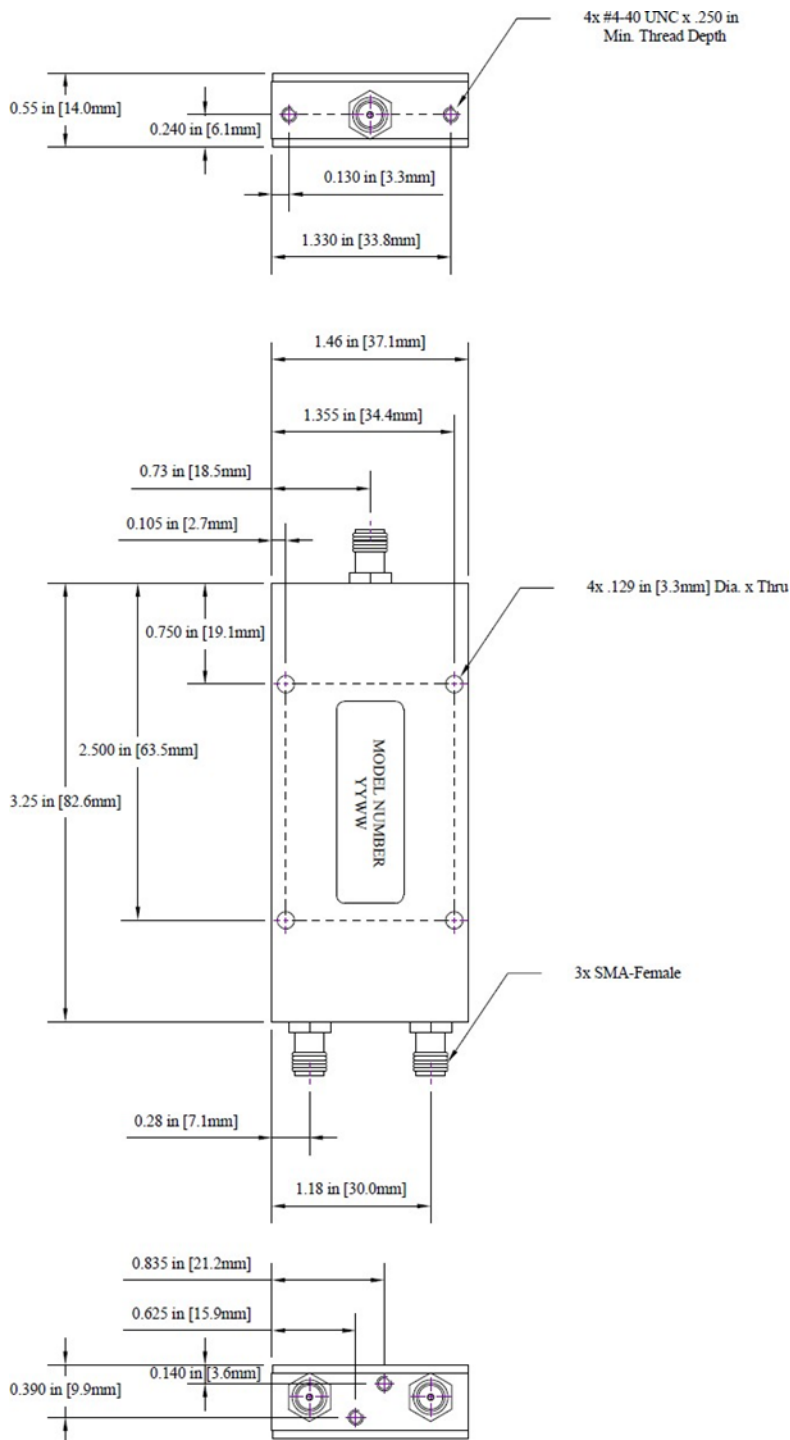
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB) 1-2
	Port 5	Port 1	Port 2	S-1	S-2	
500	16.6	30.1	29.8	3.2	3.2	17.7
550	18.4	31.3	31.0	3.2	3.2	20.2
600	20.7	32.4	32.0	3.2	3.2	23.4
650	23.6	32.4	32.0	3.2	3.2	27.8
700	27.3	32.8	32.5	3.1	3.1	35.0
750	31.8	33.4	32.8	3.1	3.2	39.5
800	32.5	33.5	32.6	3.1	3.2	31.1
850	29.6	34.8	33.8	3.2	3.2	27.3
900	27.0	36.5	35.0	3.2	3.2	25.0
950	25.4	38.7	36.8	3.2	3.2	23.8
1000	24.3	43.2	39.6	3.2	3.2	23.1
1500	31.7	32.6	33.1	3.2	3.2	31.3
2000	23.1	34.6	34.2	3.3	3.3	26.1
2500	22.0	31.9	30.3	3.3	3.3	25.3
3000	33.2	37.3	47.7	3.3	3.3	33.9
3500	21.8	30.2	29.7	3.3	3.4	26.1
4000	25.9	38.4	39.8	3.4	3.4	27.1
4500	27.4	29.9	31.5	3.4	3.5	27.8
5000	23.8	30.3	45.6	3.4	3.5	26.7
5500	27.0	30.6	29.4	3.5	3.6	28.0
6000	22.4	28.9	24.6	3.5	3.7	22.8

Outline Dimensions



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