

Power Divider 2-way SMA Female 450 MHz to 7500 MHz



2-way SMA Power Divider 450 MHz to 7.5 GHz

Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPD-2-00450750-SMA is a 2-way in-line power divider that operates from 450 MHz to 7.5 GHz. This part has versatile mounting options. Thru holes allow for mounting to chassis the broad surface, while threaded holes on the connector edges allow for through-panel mounting. Recessed cover design helps to mitigate RF leakage.

Specifications	Min	Typ	Max	Min
Frequency	450		7500	MHz
Impedance		50		Ohm
Return Loss (Port S)	10.9	17.5		dB
Return Loss (Ports 1-2)	12.7	17.7		dB
Insertion Loss (Above Theoretical 3 dB)		0.9	1.3	dB
Isolation	450-550 MHz	14	18	dB
	550-7500 MHz	18	21	
Amplitude Balance		0.1	0.6	dB
Phase Balance		2.5	8.0	Degrees
Input Power (CW) ¹			30	Watts

Mechanical

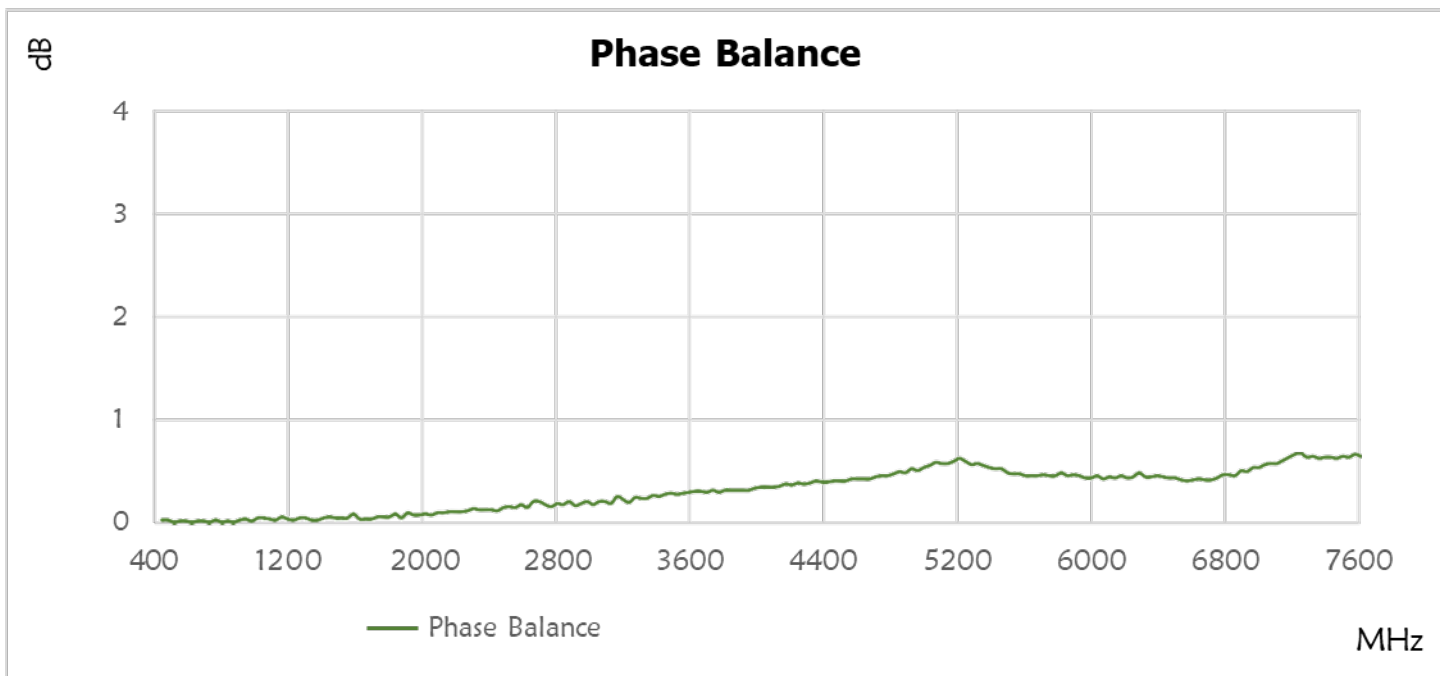
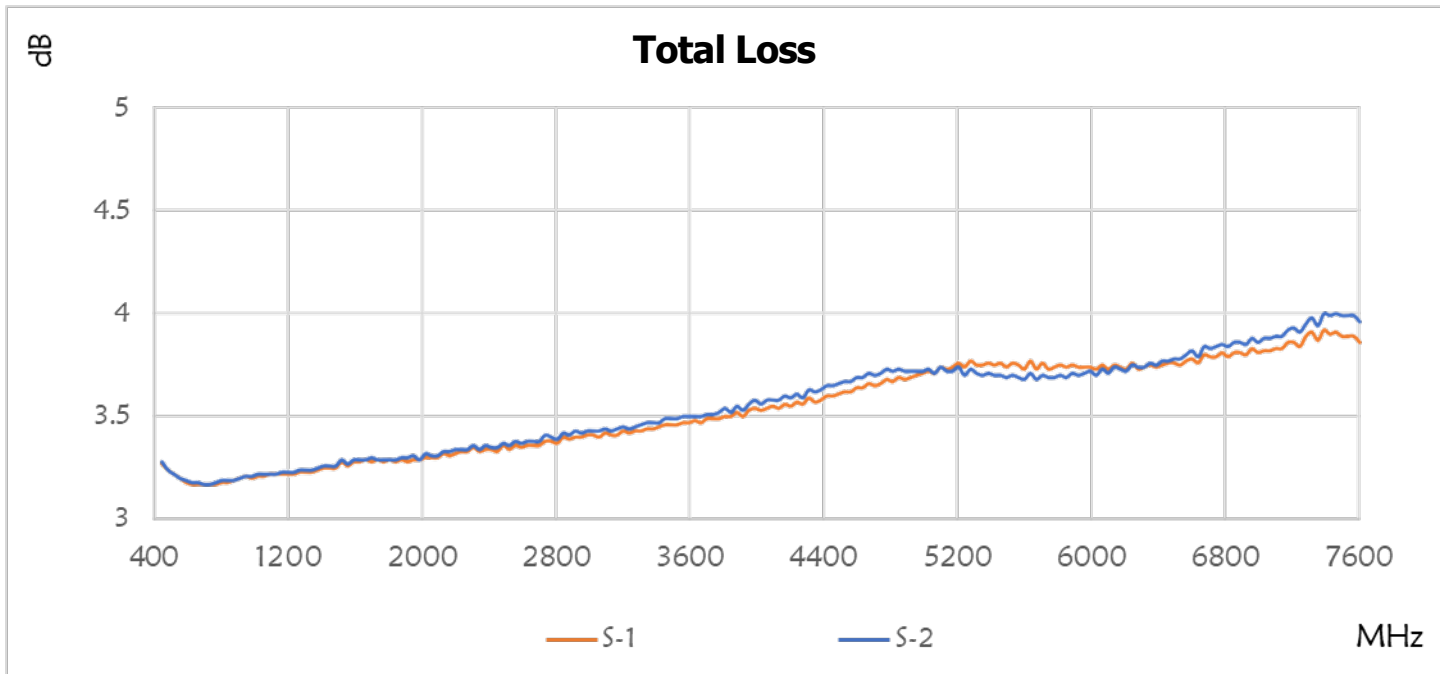
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	3 oz (85 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

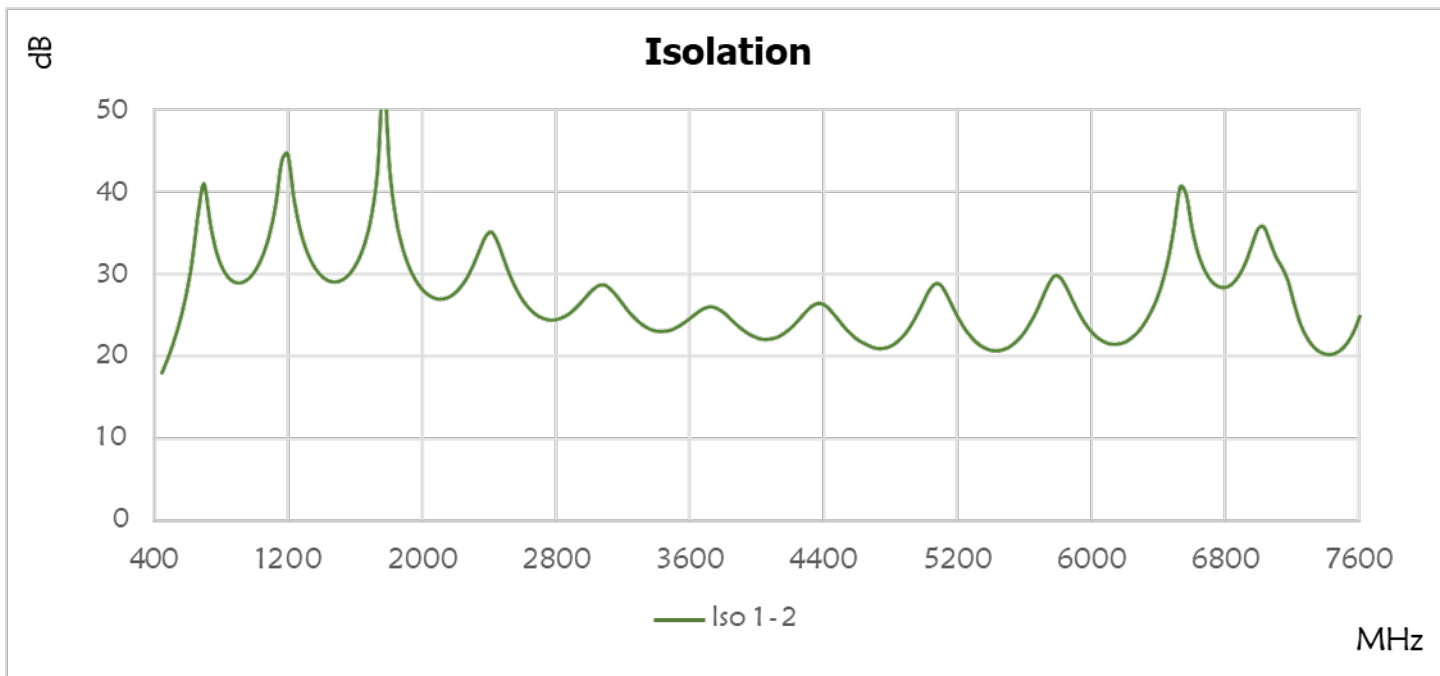
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Brass, Gold Plated
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Clear Chemical Film

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



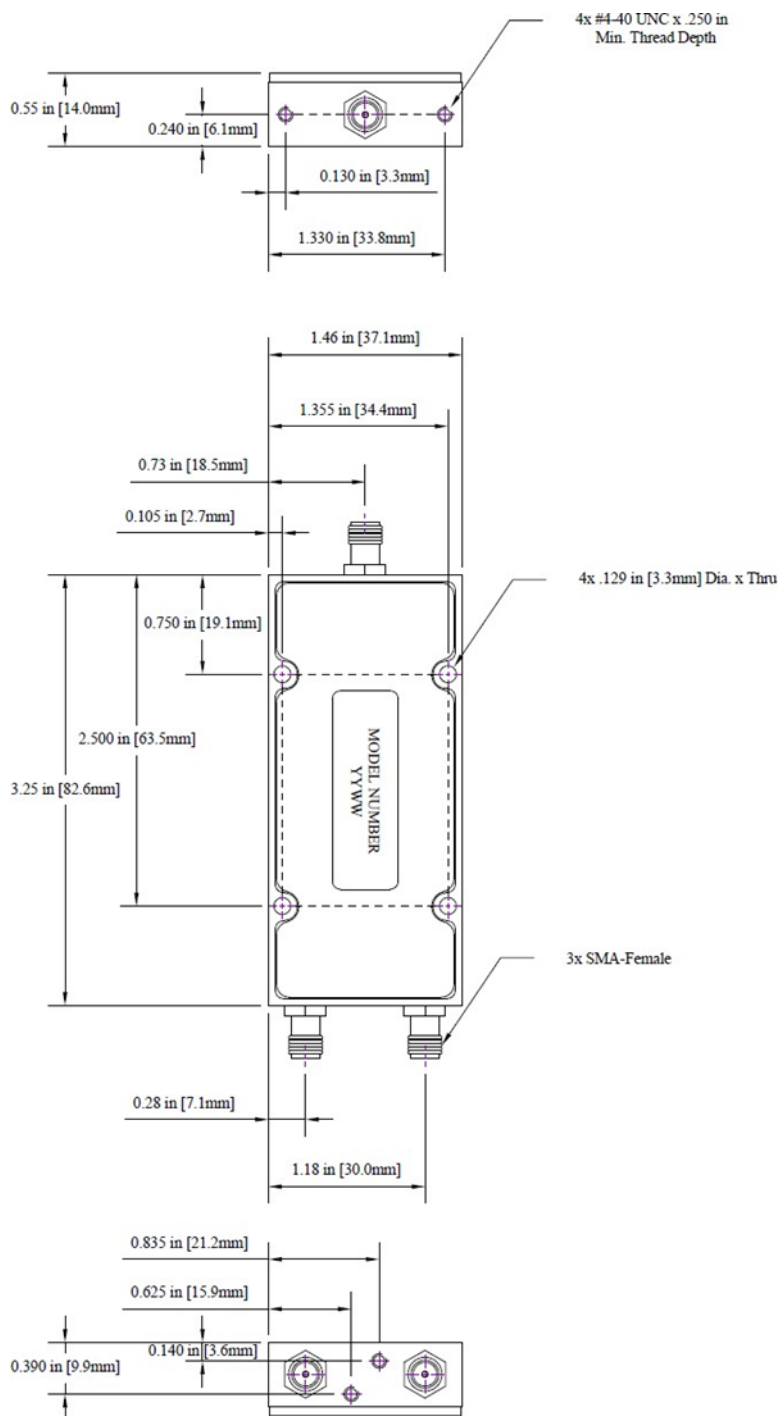
Typical Performance at +25 °C



Typical Performance Data at +25 °C

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB) 1-2
	Port 5	Port 1	Port 2	S-1	S-2	
440	15.5	21.4	21.3	3.3	3.3	18.1
798	33.4	32.1	31.9	3.2	3.2	30.0
1156	31.7	34.6	34.5	3.2	3.2	42.7
1514	24.5	30.7	31.4	3.3	3.3	28.7
1872	30.7	26.9	27.2	3.3	3.3	36.1
2230	25.2	28.1	28.6	3.3	3.3	28.3
2588	33.7	28.2	28.0	3.4	3.4	28.5
2946	25.6	30.2	28.6	3.4	3.4	26.1
3304	28.8	31.7	28.7	3.4	3.5	24.7
3662	41.4	26.3	25.1	3.5	3.5	24.9
4020	26.3	29.4	28.5	3.5	3.6	22.8
4378	30.8	21.1	21.0	3.6	3.6	25.5
4736	24.1	25.1	25.5	3.7	3.7	21.7
5094	22.9	18.0	18.2	3.7	3.7	26.9
5452	24.9	24.6	26.4	3.8	3.7	21.4
5810	23.8	20.4	20.9	3.8	3.7	28.0
6168	23.6	31.4	39.0	3.7	3.7	23.0
6526	22.5	23.2	22.5	3.8	3.8	43.0
6884	30.8	33.9	30.5	3.8	3.9	29.8
7242	22.5	25.2	24.2	3.8	3.9	24.8
7600	24.4	29.7	31.8	3.9	4.0	22.3

Outline Dimensions



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