

Ultra-Wideband Power Divider 2-way N Female 500 MHz to 8 GHz



2-way N Power Divider 500 MHz to 6 GHz

Product Description

AmpliTech offers a wide selection of High-Quality RF power dividers, featuring Wilkinson design. Model APTPD-2-00500800-N is a 2-way power divider that operates from 500 MHz to 8 GHz covering Cellular, PCS, and Wi-Max bands. This product features low loss, high isolation and excellent VSWR and has tri-alloy plated brass N female connectors in a rugged aluminum case. This device is RoHS compliant.

Specifications	Min	Typ	Max	Min
Frequency	500		8000	MHz
Impedance		50		Ohm
Return Loss (Port S)	14	18		dB
Return Loss (Ports 1-2)	14	22		dB
Insertion Loss (Above theoretical 3.01 dB)			1.3	dB
Isolation	500-600 MHz	12.5	15	dB
	600-8000 MHz	16	21	
Amplitude Balance		0.4	0.6	dB
Phase Balance		2	8	Degrees
Input Power (CW) ¹			20	Watts (CW)
Input Power Dissipation			1.5	Watts (CW)

Mechanical

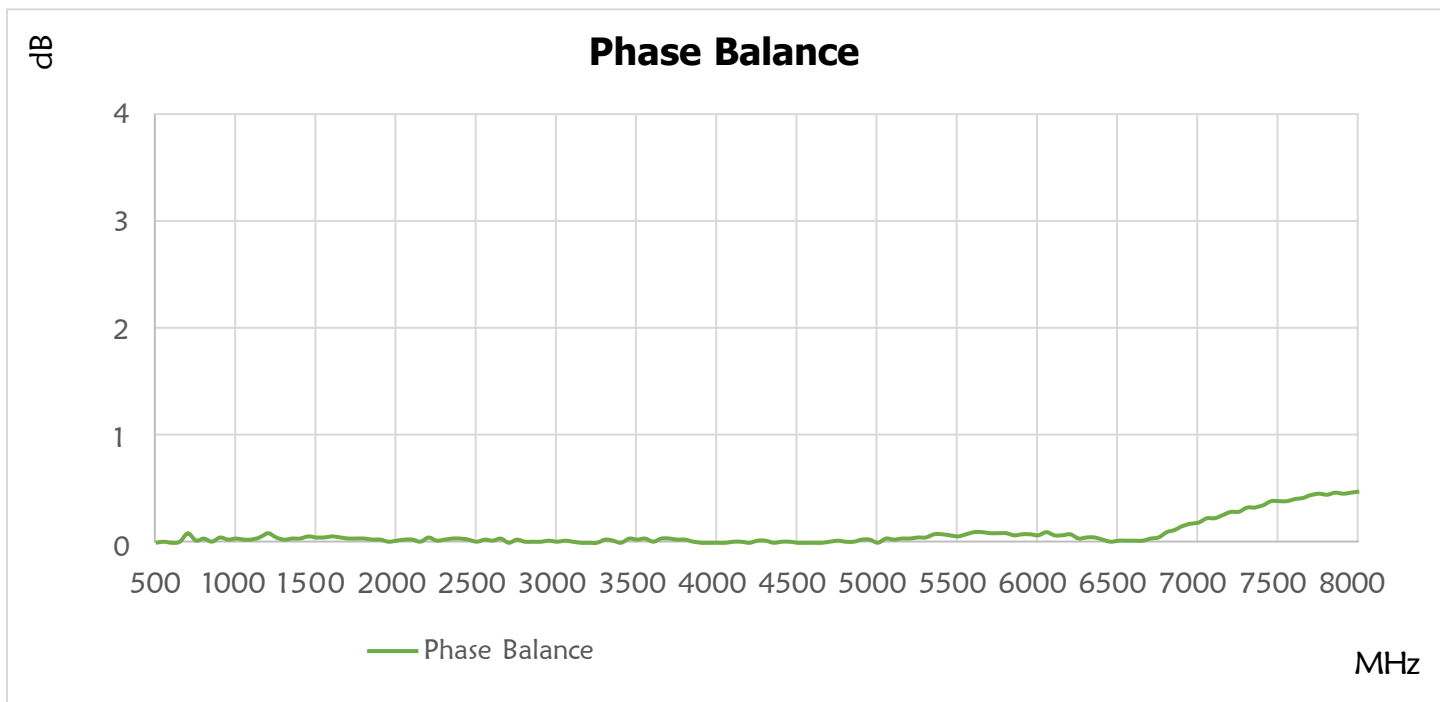
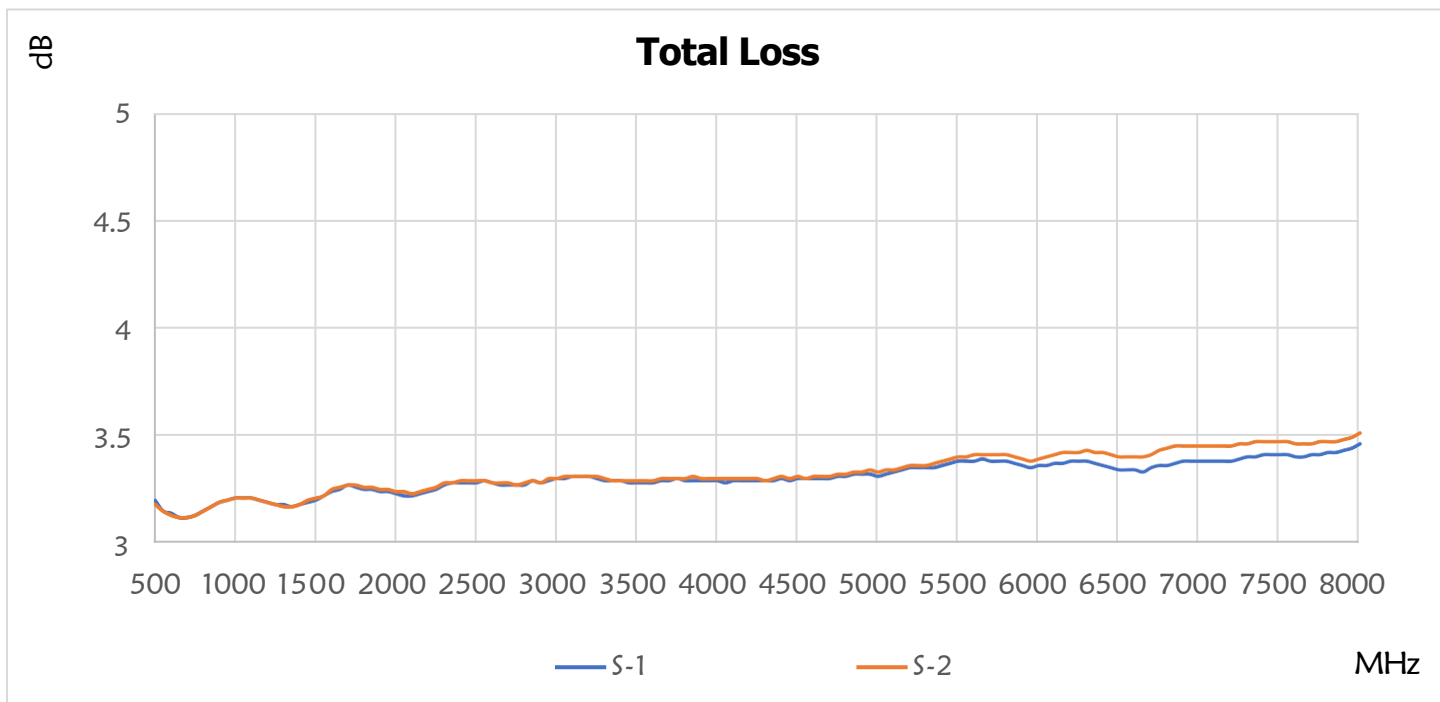
Connector Interface	N-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	12.8 oz (363 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

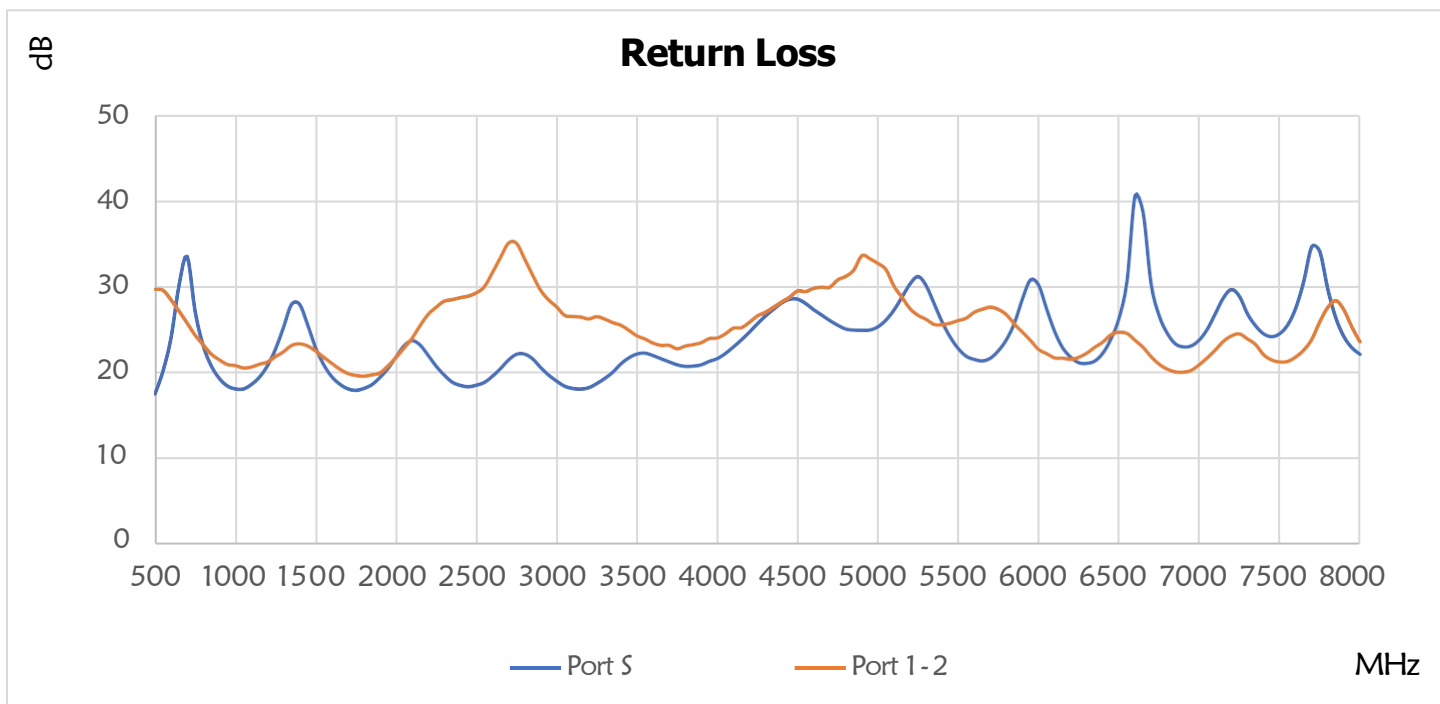
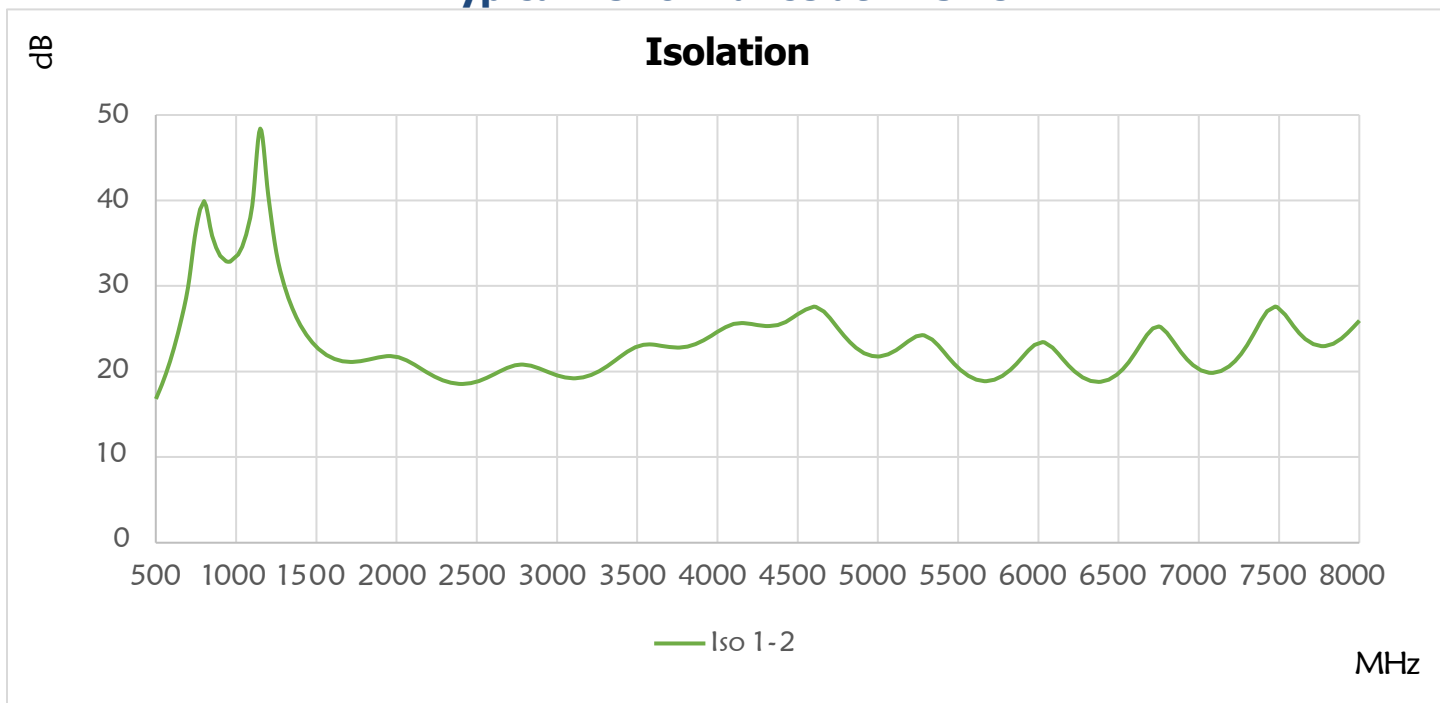
RoHS /REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Brass, Tri-Alloy
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Grey Paint

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



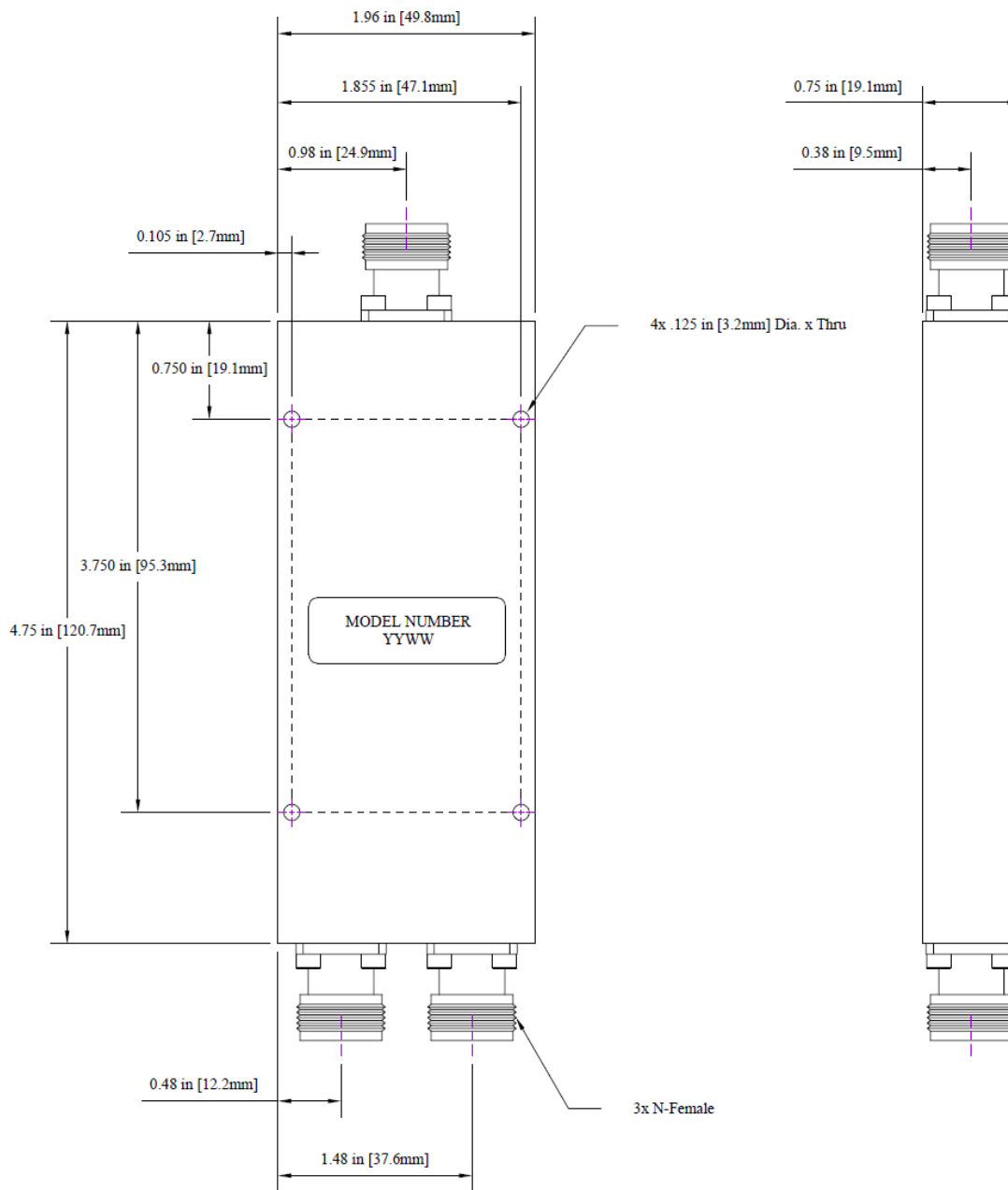
Typical Performance at +25 °C



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	17.6	29.7	29.5	3.2	3.2	16.8
550	20.3	29.6	29.8	3.2	3.2	19.1
600	24.1	28.5	28.8	3.1	3.1	22.0
650	30.2	27.2	27.5	3.1	3.1	25.5
700	33.6	25.8	26.4	3.1	3.1	29.9
750	27.1	24.4	24.8	3.1	3.1	36.7
800	23.2	23.3	23.7	3.2	3.2	40.0
850	20.9	22.2	22.7	3.2	3.2	35.9
900	19.4	21.6	21.9	3.2	3.2	33.6
950	18.5	21.0	21.4	3.2	3.2	32.9
1000	18.2	20.9	21.1	3.2	3.2	33.4
1500	23.0	22.6	22.5	3.2	3.2	22.9
2000	21.9	21.8	21.0	3.2	3.2	21.8
2500	18.6	29.3	28.1	3.3	3.3	18.8
3000	19.1	27.7	28.1	3.3	3.3	19.6
3500	22.2	24.3	23.9	3.3	3.3	23.0
4000	21.7	24.1	23.4	3.3	3.3	24.7
4500	28.6	29.5	28.7	3.3	3.3	26.7
5000	25.4	32.7	31.3	3.3	3.3	21.8
5500	22.8	26.1	24.8	3.4	3.4	20.5
6000	30.2	22.7	22.8	3.4	3.4	23.4
6500	26.4	24.7	23.7	3.3	3.4	19.9
7000	23.9	21.0	20.6	3.4	3.5	20.3
7500	24.6	21.3	20.6	3.4	3.5	27.4
8000	22.2	23.6	22.1	3.5	3.5	26.0

Outline Dimensions



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