

Power Divider, 2-way, 0.45-7.5 GHz, SMA Female

ESAT-2PD0045075S

Description

ESAT-2PD0045075S is a 2-way in-line power splitter covering the continuous bandwidth of 450 MHz to 7.5 GHz in an enclosure measuring 5.75 x 2.80 x 0.55 inches with versatile mounting options. The device is RoHS compliant. This part has versatile mounting options. Thru holes allow for mounting to chassis on the broad side. Threaded holes on the connector edges allow for through-panel mounting. Recessed cover design helps to mitigate RF leakage. Isolation 21dB typical. Return loss 17.7dB typical. Insertion Loss 0.9dB typical. Phase balance 2.5deg typical.



Photo is representative.

Specifications	Min.	Typ.	Max.	Units
Frequency	450	--	7500	MHz
Impedance	--	50	--	Ohm
Return Loss (Port S)	10.9	17.5	--	dB
Return Loss (Ports I-2)	12.7	17.7	--	dB
Insertion Loss (above theoretical 3dB)	--	0.9	1.3	dB
Isolation	450-550 MHz	14	18	dB
	550-7,500 MHz	18	21	
Amplitude Balance	--	0.1	0.6	dB
Phase Balance	--	2.5	8.0	Degrees
Input Power (CW) ¹	--	--	30	Watts (CW)

Mechanical

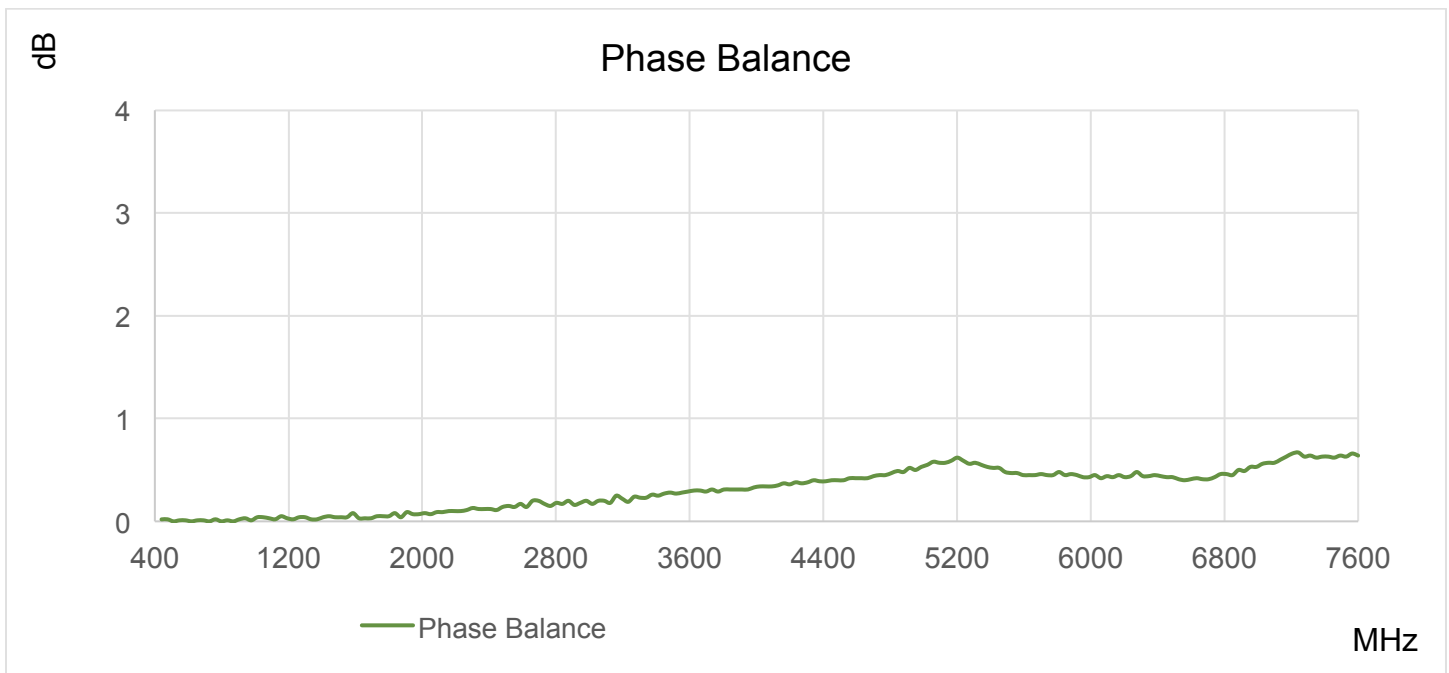
Connector Interface	SMA-Female
Operating Temperature ²	-40 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	3 oz (85 g)
Humidity	10-90% non-condensing
Environment	Indoor use only
CAGE Code	87MG8

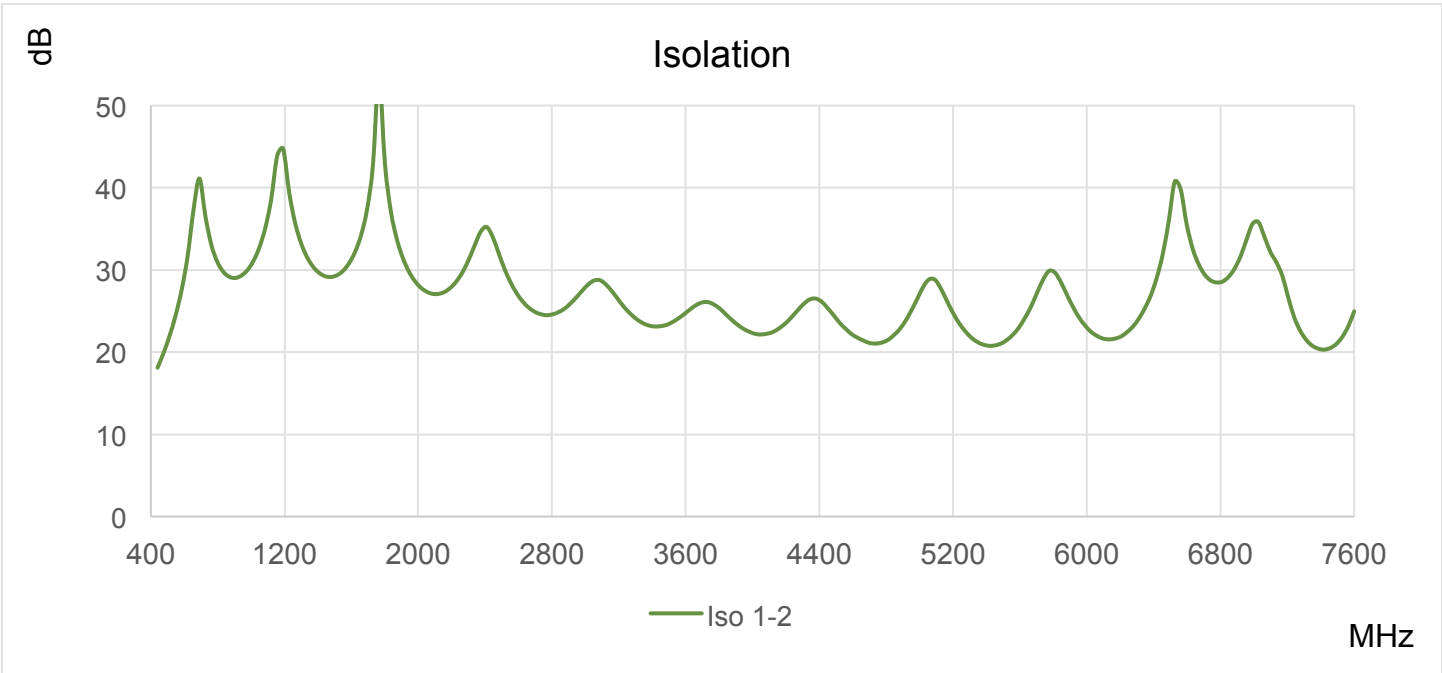
Materials

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

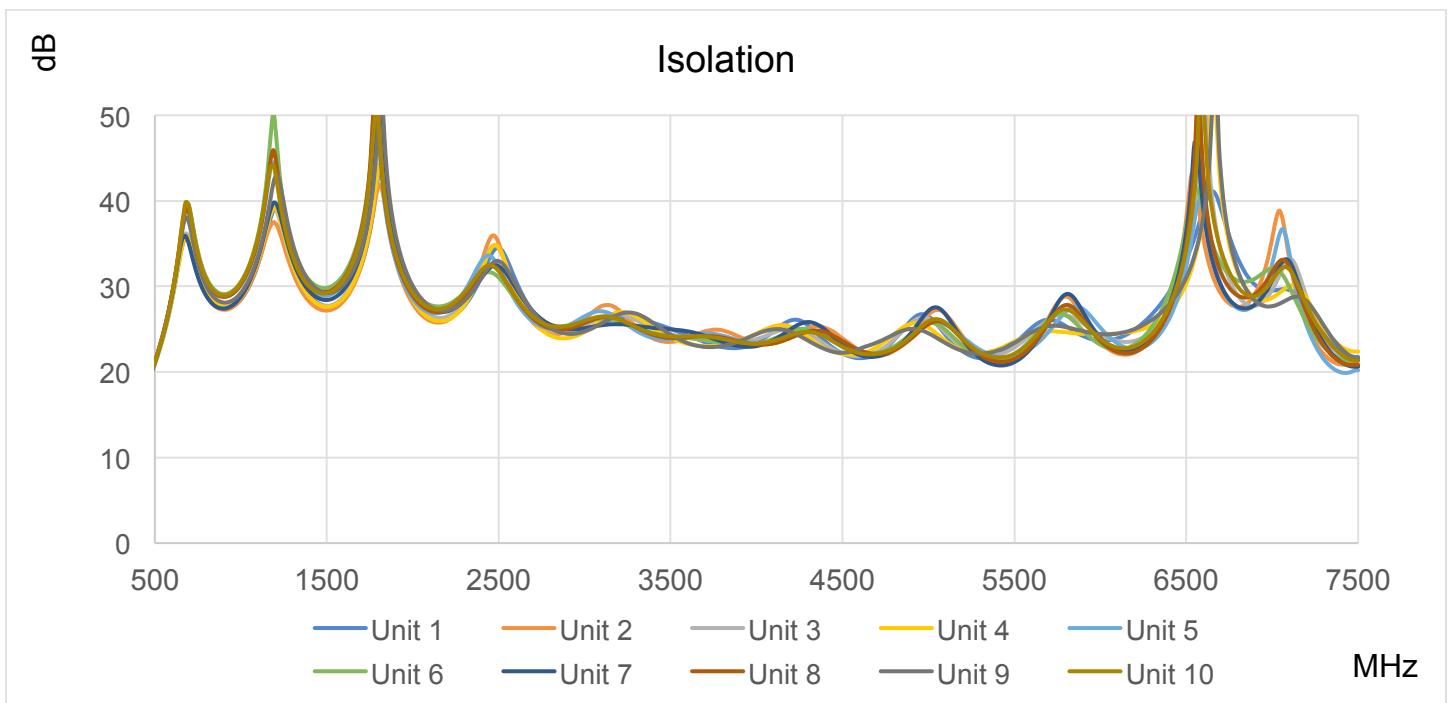
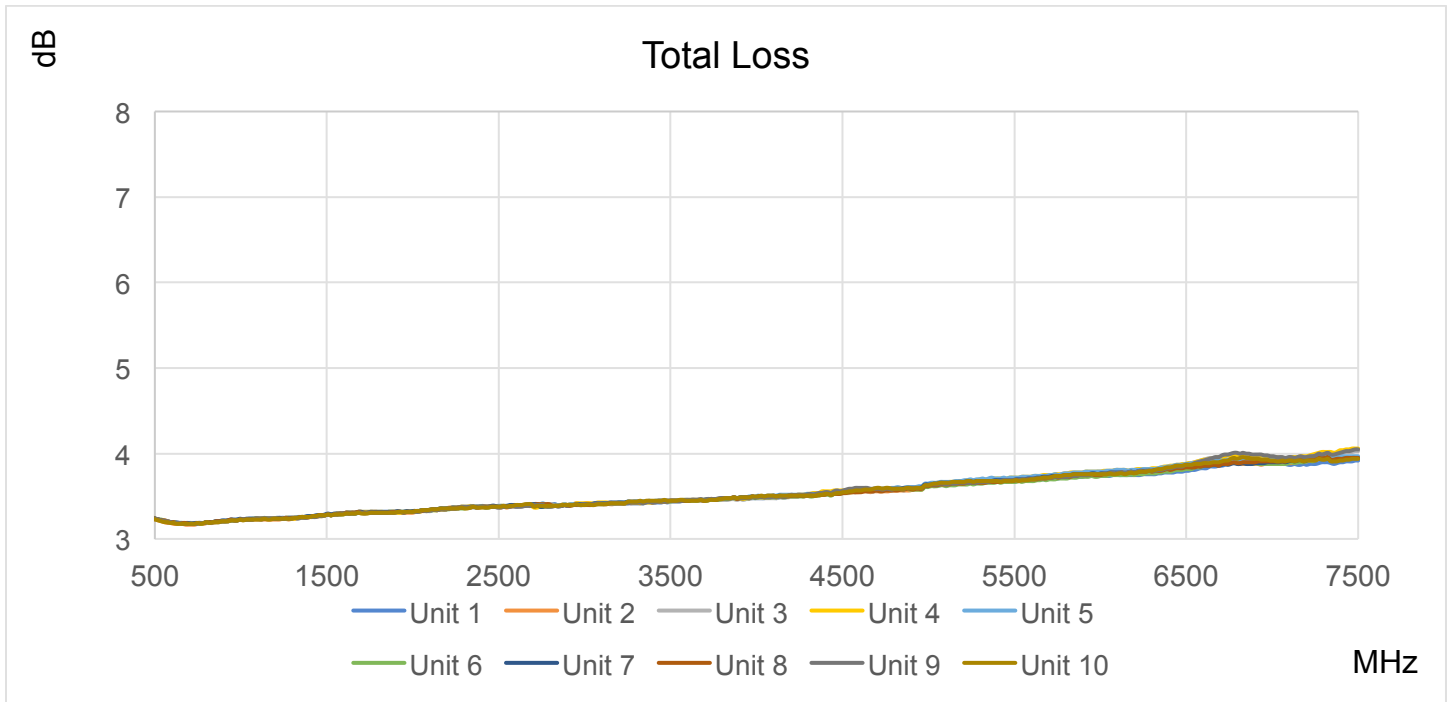
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specification at +25 °C only.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C





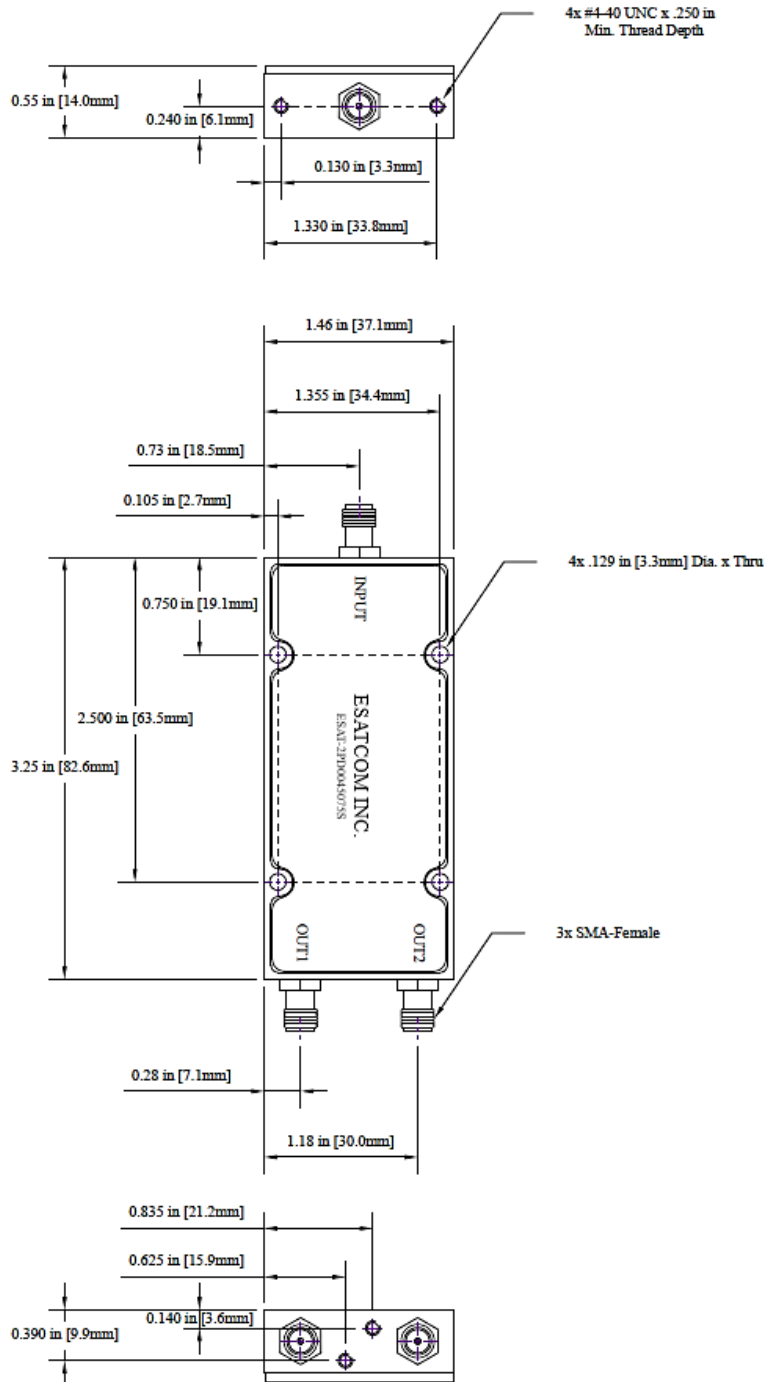
Repeatability in Production



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)
	Port S	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



Outline drawing: OL-2074
 Dimensions are in inches, [mm] shown for convenience.
 Tolerances on 2-pl decimals: ± 0.3 . 3-pl decimals: $\pm .015$.



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