

Power Divider, 8-way, 0.5-6 GHz, SMA Female

ESAT-8PD00506S

Description

ESAT-8PD00506S is an 8-way in-line power splitter covering the continuous bandwidth of 500 MHz to 6 GHz in an enclosure measuring 6.50 x 4.97 x 0.55 inches with versatile mounting options. The device is RoHS compliant. Wide spacing between the output pairs of connectors allows for ease of the technician to access connection points using a torque wrench. Consequently, the device saves space in rack mounting applications. Return loss 16dB typical. Insertion loss 1.0dB typical. Isolation 20dB typical. Amplitude balance 0.4dB typical. Phase balance 6 degrees typically. Designed, assembled and produced in USA.

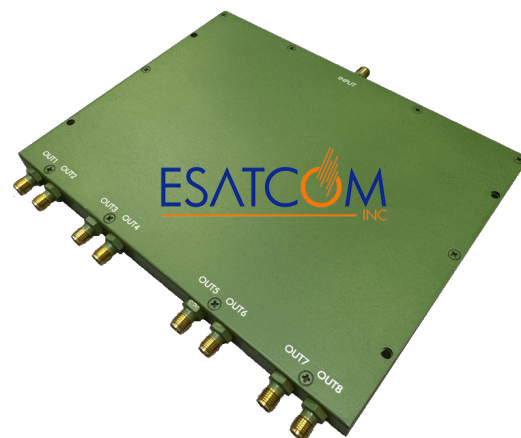


Photo is representative.

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

Mechanical

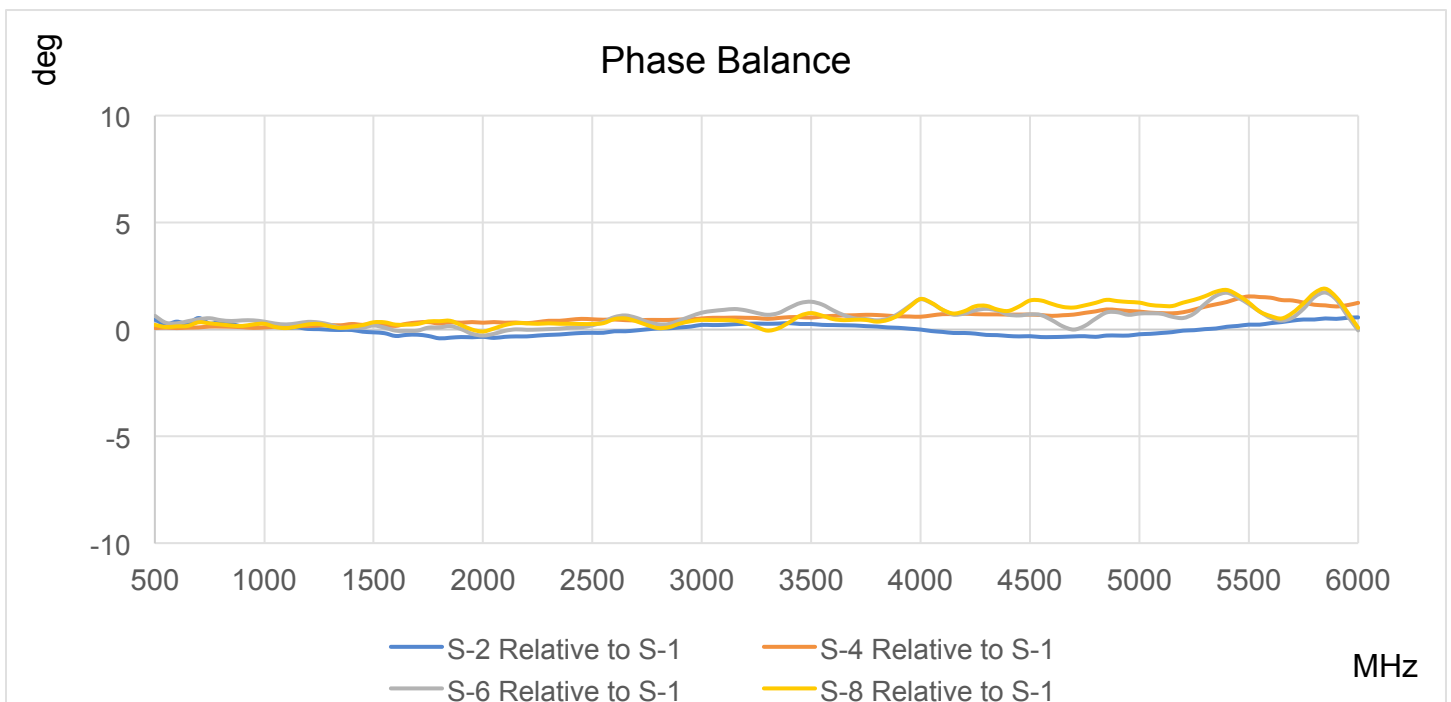
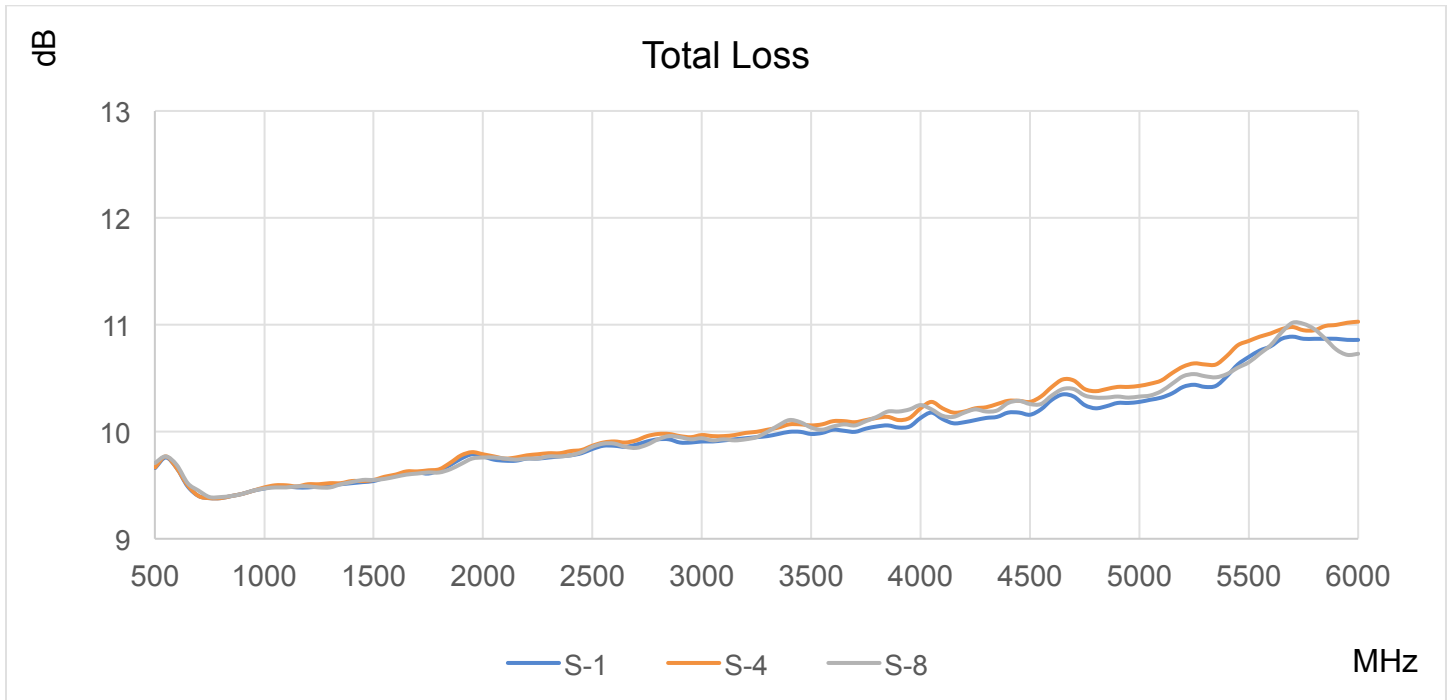
Connector Interface	SMA-Female
Operating Temperature ²	-40 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	19 oz (540 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only
CAGE Code	87MG8

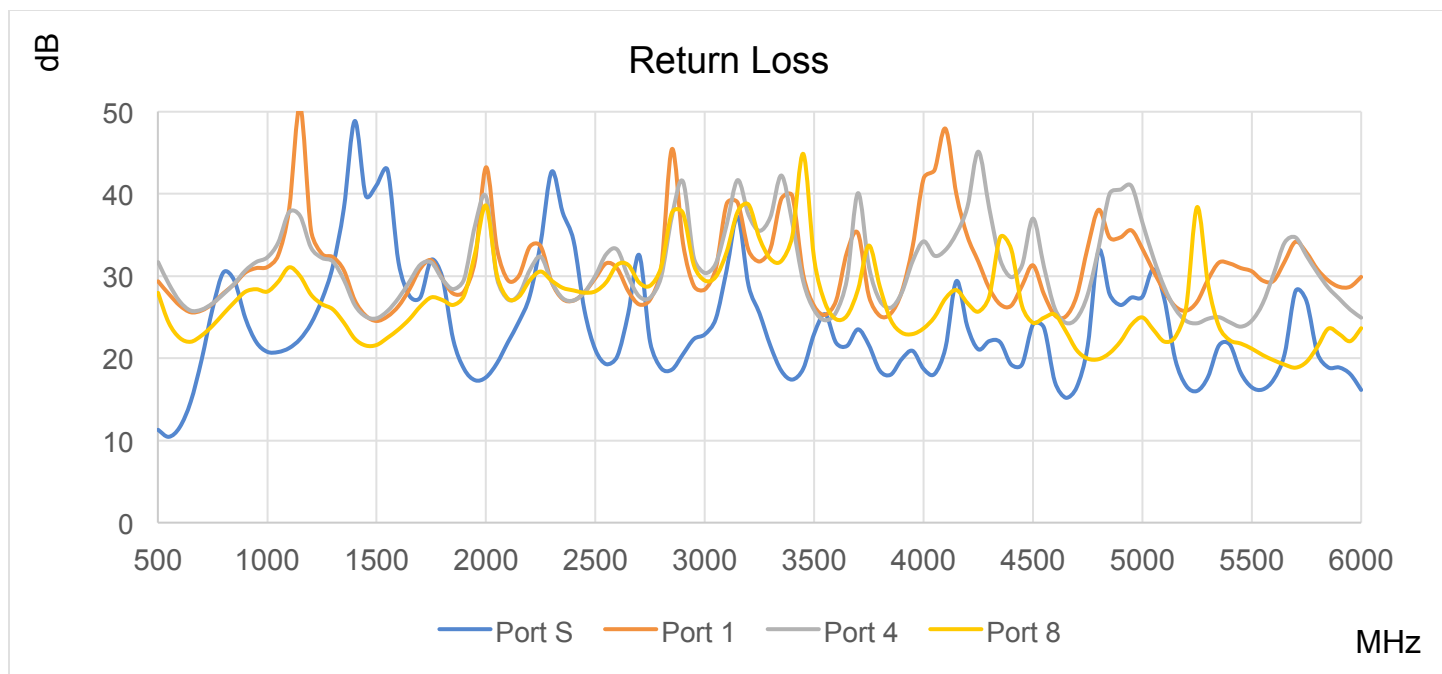
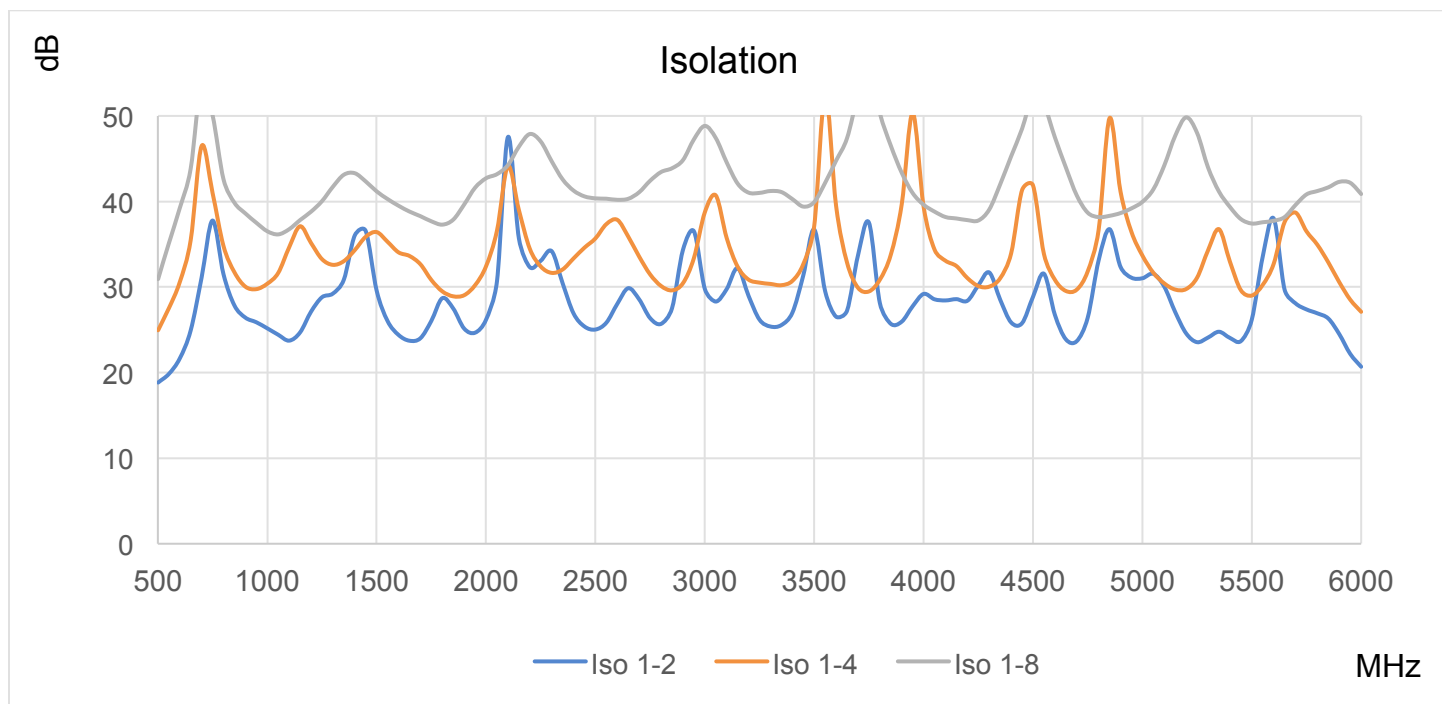
Materials

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

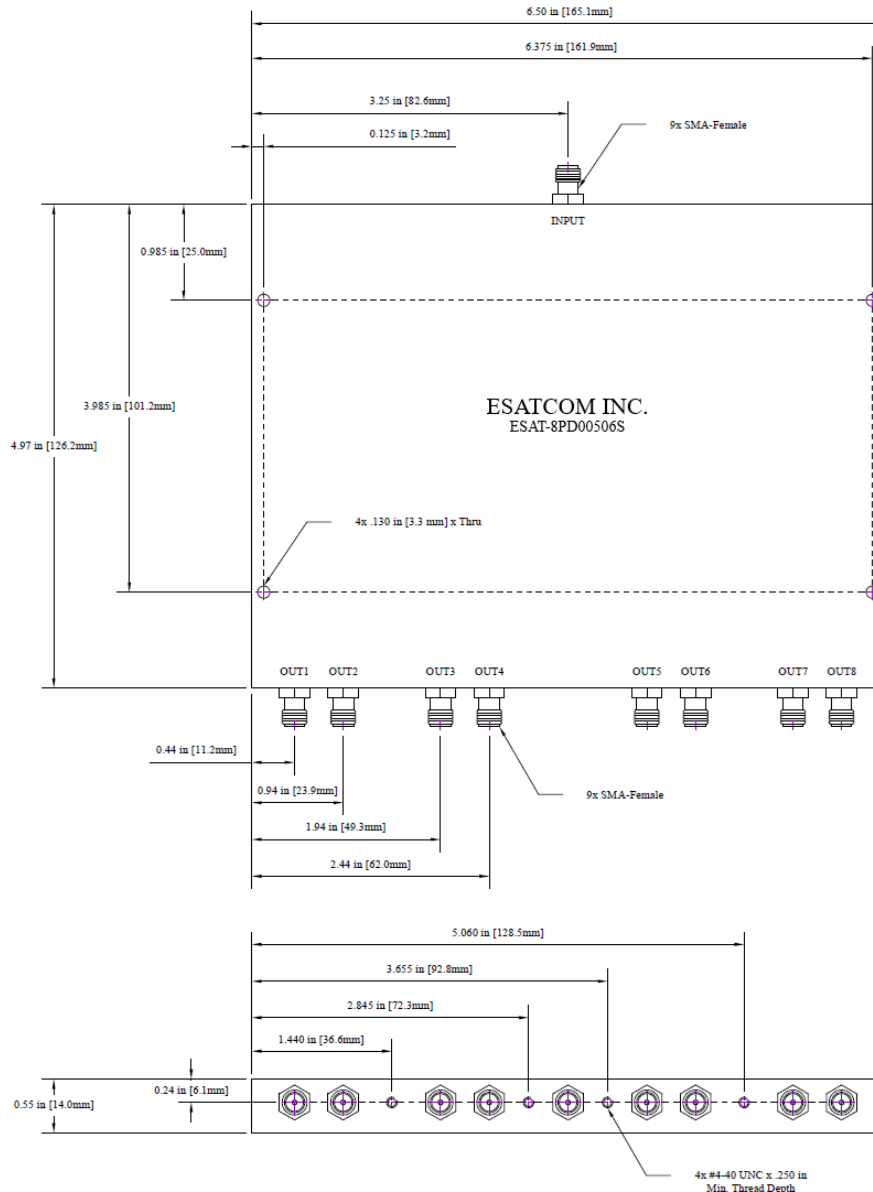




Typical Performance Data

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



Outline drawing: OL-8066

Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals: ± 0.03 . 3-pl decimals: ± 0.015 .

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