

Power Divider, 6-way, 2-18 GHz, SMA Female

ESAT-6PD0218S

Description

ESAT-6PD0218S is a wideband 6-way in-line power splitter covering the continuous bandwidth of 2 to 18 GHz in an aluminum enclosure measuring 6.00 x 4.00 x 0.38 inches. The device is RoHS compliant. The product has been in regular production since 2016. This is a “true” six-way split meaning it is not an eight way with two of the ports terminated. This unique circuit provides lower insertion loss, saving a nominal 1.25dB and presents a more compact design, versus an 8-way with two ports terminated. As such, this method allows for higher power handling capacity and less heat dissipation within the system operation. The unique product covers S, C, X and Ku bands all in one package. Our unique design, which is assembled and tested in the USA.



Photo is representative.

Specifications	Min.	Typ.	Max.	Units
Frequency	2	--	18	GHz
Impedance	--	50	--	Ohm
Return Loss (Port S)	9.5	12.0	--	dB
Return Loss (Port 1-6)	13.0	18.3	--	dB
Insertion Loss (above 7.78dB)	--	1.4	3.4	dB
Isolation	15	18	--	dB
Amplitude Balance	--	0.3	1.1	dB
Phase Balance	--	4	14	Degrees
Input Power (CW) ¹	--	--	30	Watts

Mechanical

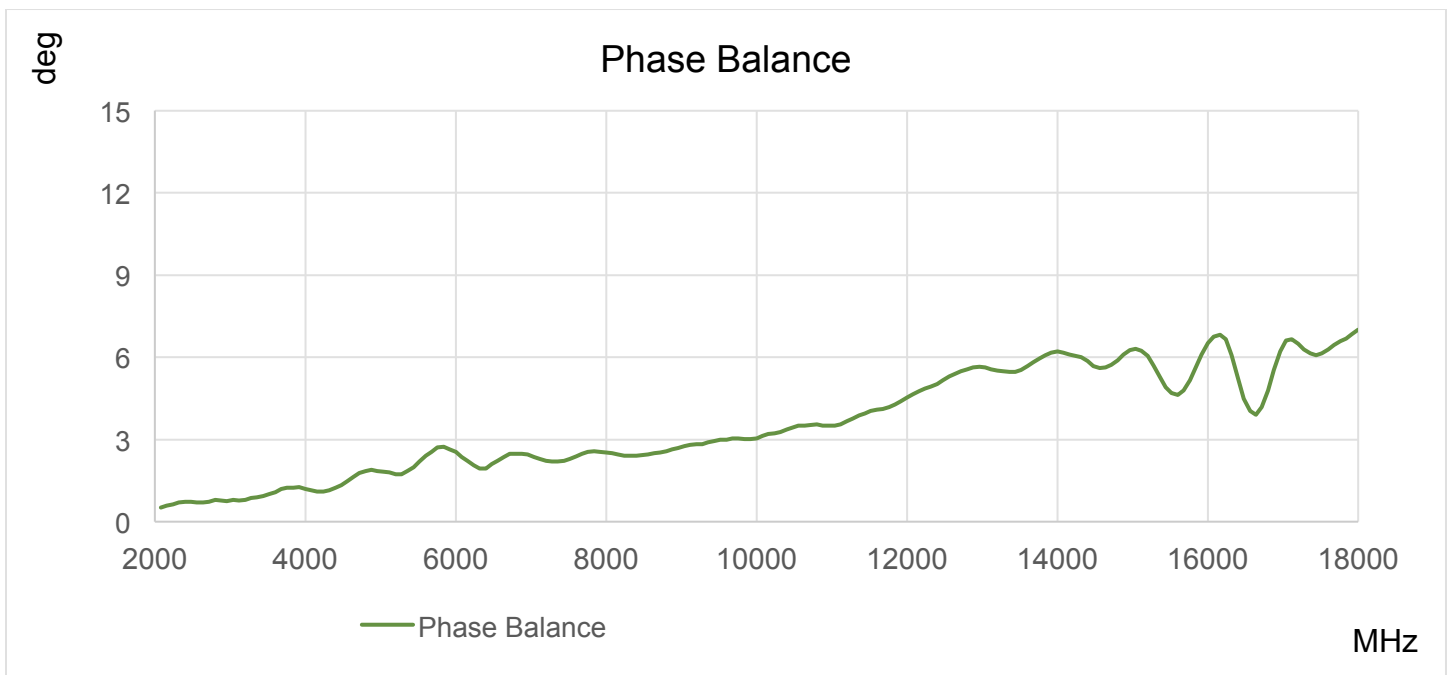
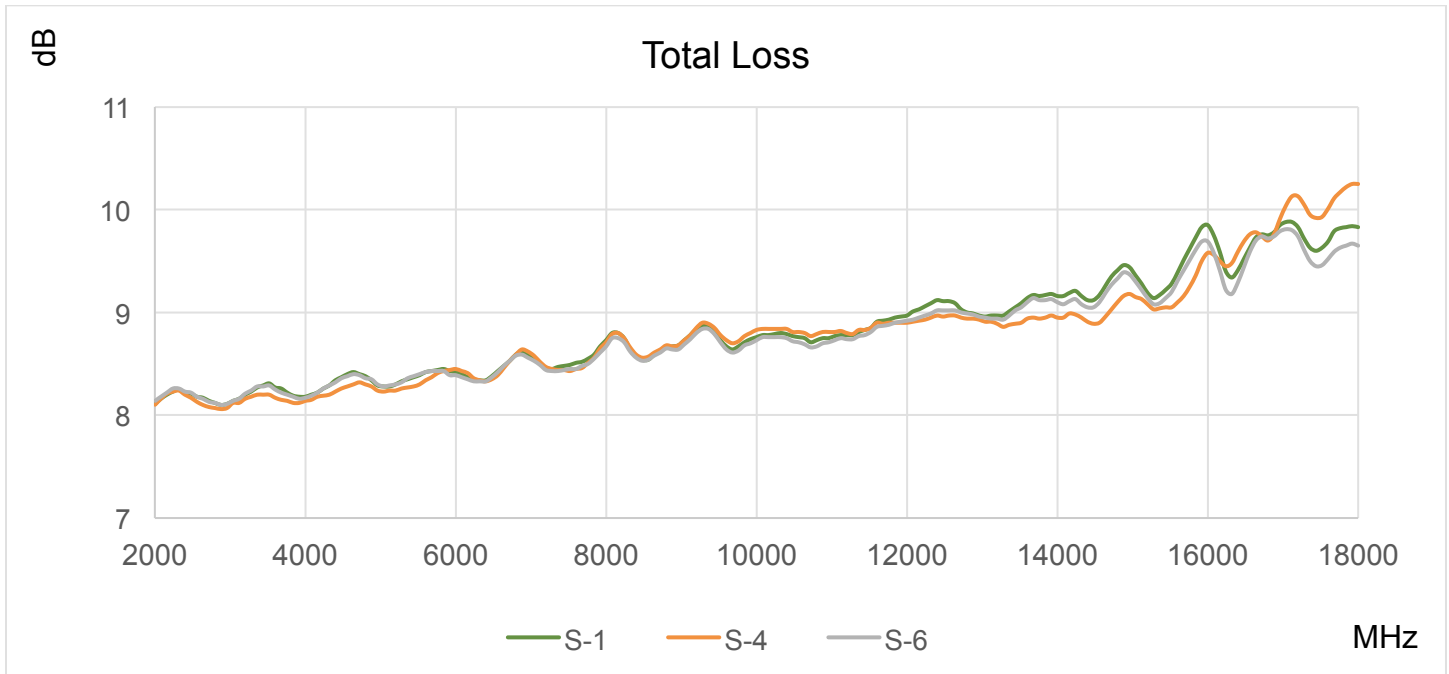
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	15 oz (425 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only
CAGE Code	87MG8

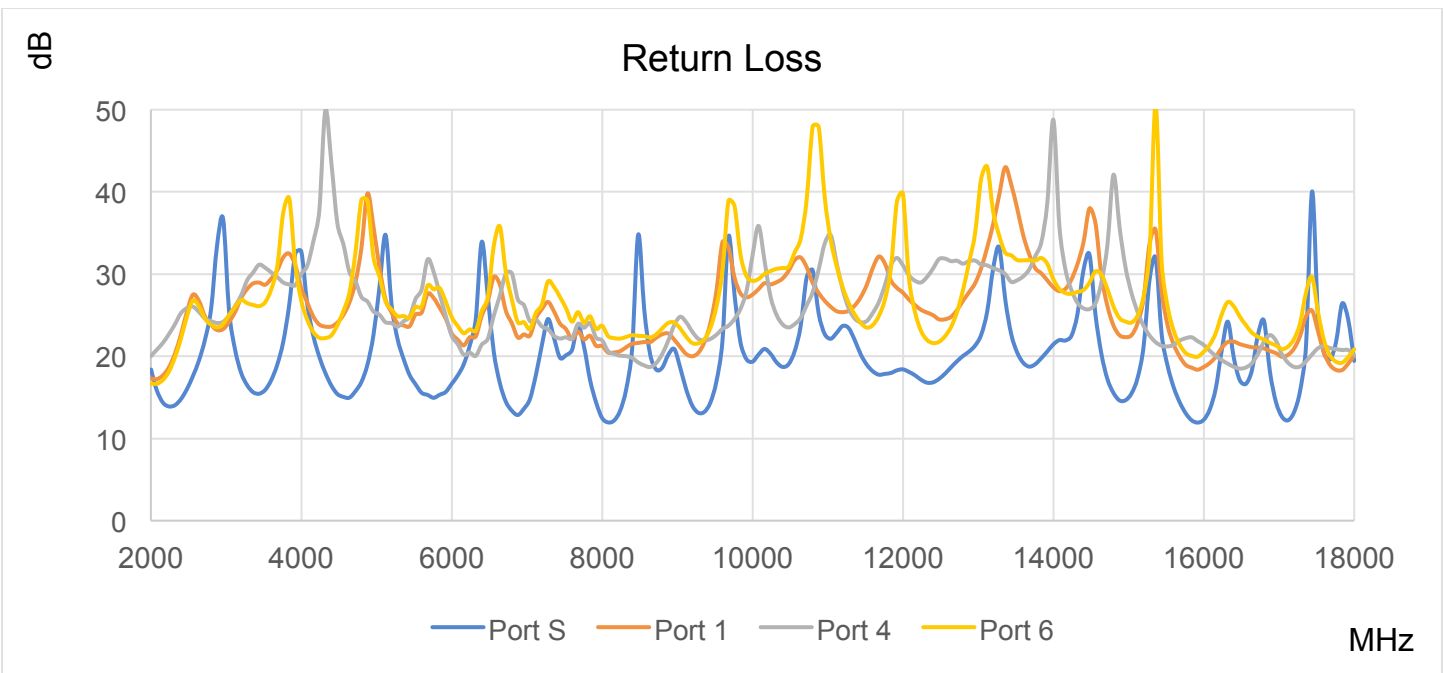
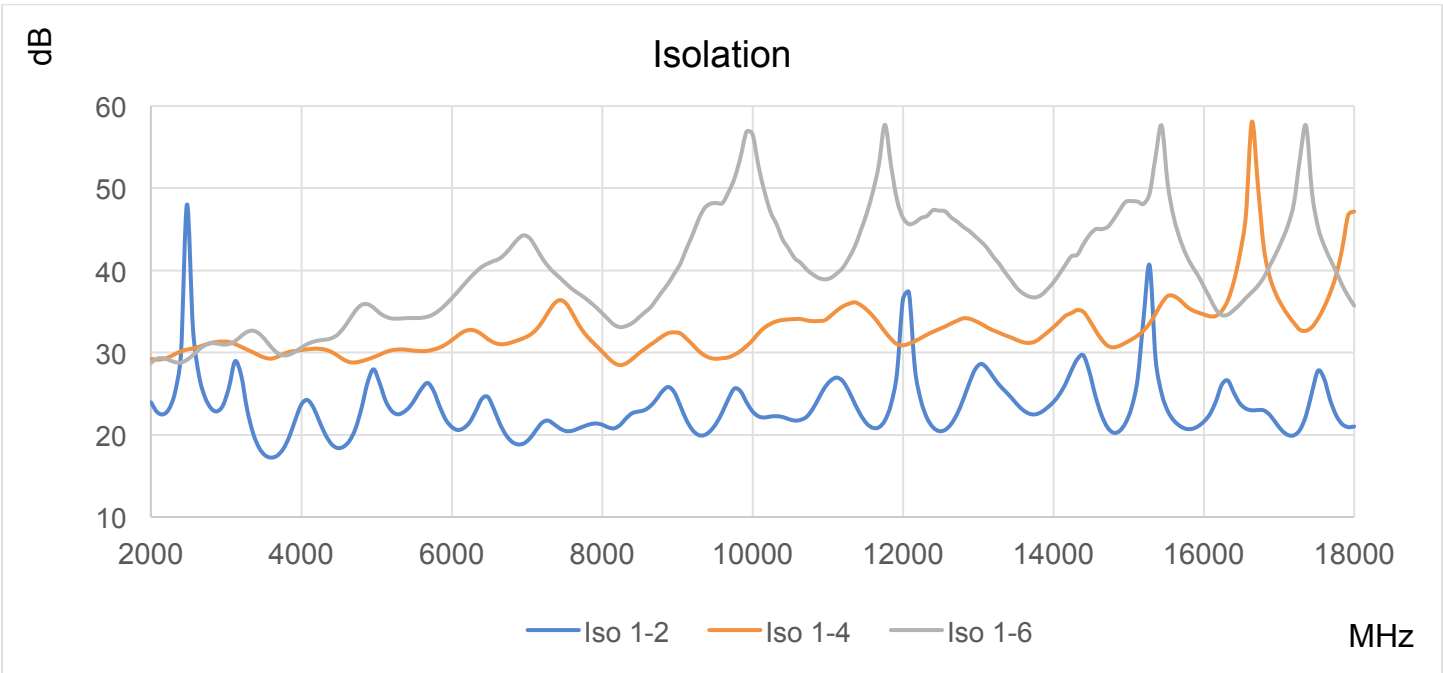
Materials

RoHS Compliant ³	Yes
REACH Compliant ³	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
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 specifications at +25 °C only.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C

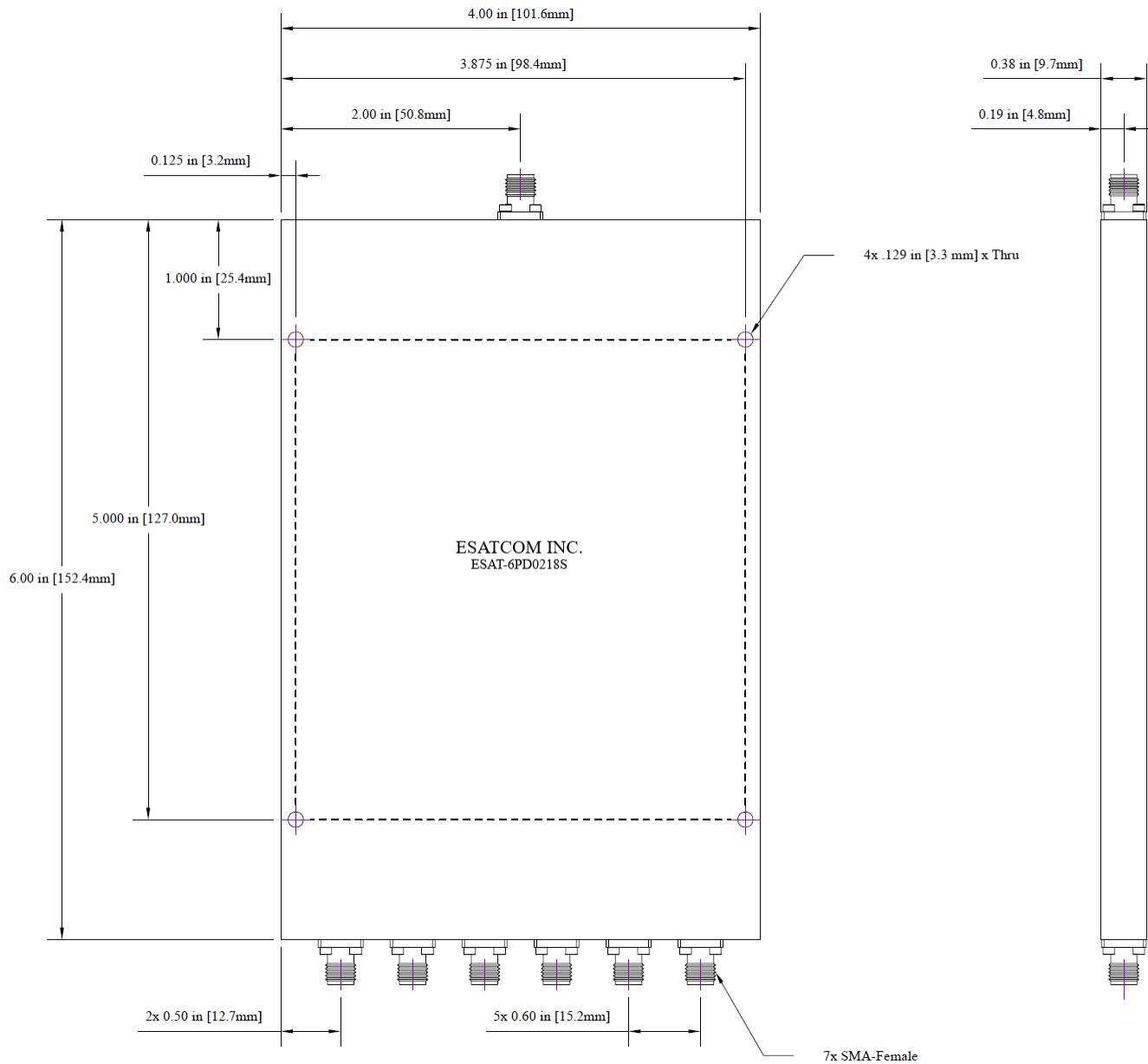




Typical Performance Data

Frequency (MHz)	Return Loss (dB)				Total Loss (dB)			Isolation (dB)		
	Port S	Port 1	Port 4	Port 6	S-1	S-2	S-4	1-2	1-4	1-6
2000	18.3	17.3	20.0	16.7	8.11	8.10	8.14	23.95	29.23	28.75
2480	16.0	25.4	25.9	24.8	8.21	8.17	8.22	47.99	30.36	29.11
2960	36.7	23.3	24.2	23.9	8.11	8.07	8.11	23.59	31.34	30.97
3520	15.9	28.7	30.8	26.6	8.31	8.20	8.29	17.49	29.36	31.56
4000	32.7	28.3	30.0	26.8	8.18	8.14	8.17	23.67	30.30	30.59
4480	15.4	24.1	36.2	23.8	8.37	8.26	8.36	18.39	29.64	32.15
4960	22.6	35.8	25.4	32.0	8.29	8.24	8.30	27.96	29.43	35.47
5520	16.6	25.1	27.0	26.0	8.39	8.30	8.40	24.45	30.21	34.19
6000	16.6	22.8	22.5	24.8	8.42	8.45	8.39	20.96	31.49	36.59
6480	27.3	26.7	22.1	27.2	8.38	8.35	8.37	24.60	31.65	40.82
6960	13.6	22.7	26.2	24.1	8.59	8.62	8.56	18.95	31.77	44.26
7520	20.1	23.3	22.3	25.8	8.49	8.43	8.45	20.45	35.97	38.39
8000	12.5	21.3	21.9	23.7	8.73	8.71	8.67	21.23	30.12	34.79
8480	34.8	21.6	19.2	22.5	8.54	8.56	8.53	22.82	29.84	34.18
8960	20.9	22.0	23.8	24.1	8.68	8.68	8.64	25.17	32.45	39.60
9520	16.9	27.9	22.6	26.0	8.73	8.78	8.71	21.41	29.24	48.19
10000	19.3	27.5	32.2	29.2	8.76	8.83	8.73	22.84	31.48	56.56
10480	19.0	30.4	23.5	30.9	8.77	8.81	8.72	21.91	34.03	42.65
10960	22.7	26.7	33.7	39.3	8.75	8.81	8.71	25.74	33.92	38.90
11520	19.0	28.7	24.3	23.5	8.85	8.85	8.81	21.35	35.19	46.97
12000	18.4	27.7	31.1	39.8	8.97	8.90	8.92	36.47	30.88	46.41
12480	17.2	24.5	31.8	21.8	9.11	8.96	9.02	20.45	32.84	47.25
12960	21.3	28.9	31.6	35.0	8.97	8.93	8.96	27.95	33.84	44.14
13520	20.4	37.9	29.2	31.7	9.09	8.90	9.05	23.68	31.51	37.79
14000	21.4	28.4	48.8	29.4	9.16	8.95	9.10	23.97	33.07	38.52
14480	32.4	38.0	25.7	28.9	9.12	8.89	9.05	27.62	33.93	44.29
14960	14.7	22.3	30.8	24.2	9.44	9.18	9.37	21.44	31.19	48.31
15520	18.8	23.7	21.2	26.0	9.28	9.05	9.20	22.91	36.87	50.54
16000	12.3	18.7	21.4	20.6	9.85	9.58	9.69	21.58	34.64	38.05
16480	17.1	21.5	18.5	24.8	9.52	9.69	9.44	23.81	41.95	35.85
16960	14.4	20.4	21.9	21.3	9.85	9.91	9.79	21.43	37.10	42.04
17520	24.7	23.0	21.0	25.3	9.63	9.93	9.46	27.79	34.14	45.23
18000	19.4	20.1	20.1	20.9	9.83	10.25	9.65	21.00	47.15	35.70

Outline Dimensions



Outline drawing: OL-6182

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

Tolerances on 2-pl decimals: ±.03. 3-pl decimals: ± .015.

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