

Power Divider, 4-way, 2-18.5GHz, SMA Female

ESAT-4PD02185S

Description

ESAT-4PD02185S is a 4-way zero-degrees ultra-wideband splitter and combiner supporting a wide range of applications. Low insertion loss, good power handling 30W as a splitter.

Connectors are stainless steel for durability. Our own unique design maximizes bandwidth in a small size. Assembled and tested in USA.



Photo is representative.

Specifications	L		H	Units
Frequency	2,000-18,000	--	18,000-18,500	MHz
Impedance	--	50	--	Ohm
Return Loss (Port S)	11.7 (1.70)	--	10.9 (1.80)	dB, min (:1, max)
Return Loss (Port 1-4)	11.7 (1.70)	--	10.9 (1.80)	dB, min (:1, max)
Insertion Loss (above theoretical 6.02 dB)	0.70 1.80	--	0.90 2.00	dB, typ. dB, max
Isolation	14 20	--	10 31	dB, min dB, typ.
Amplitude Balance	--	0.5 0.8	--	dB, typ. dB, max
Phase Balance	--	3 12	--	Degrees, typ. Degrees, max
Input Power (CW) ¹	--	--	30	Watts, max

Mechanical

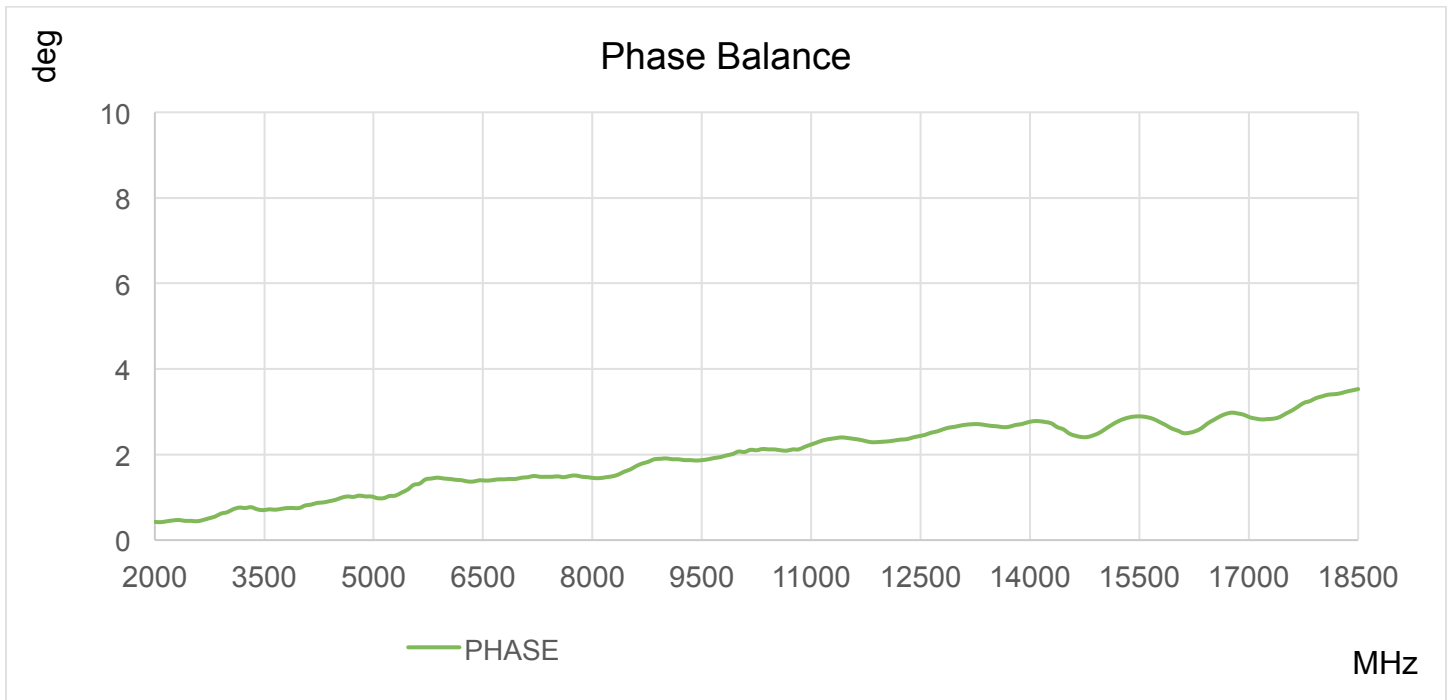
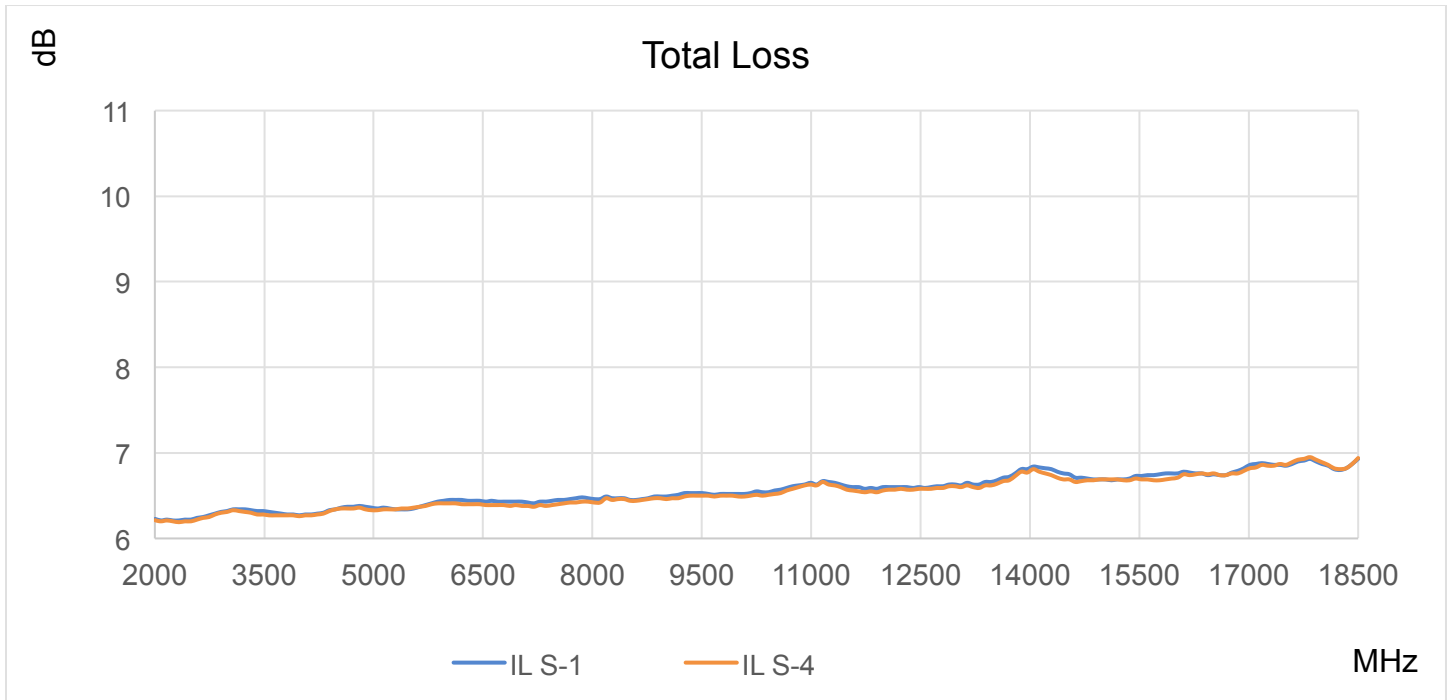
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	4 oz (115 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only
CAGE Code	87MG8

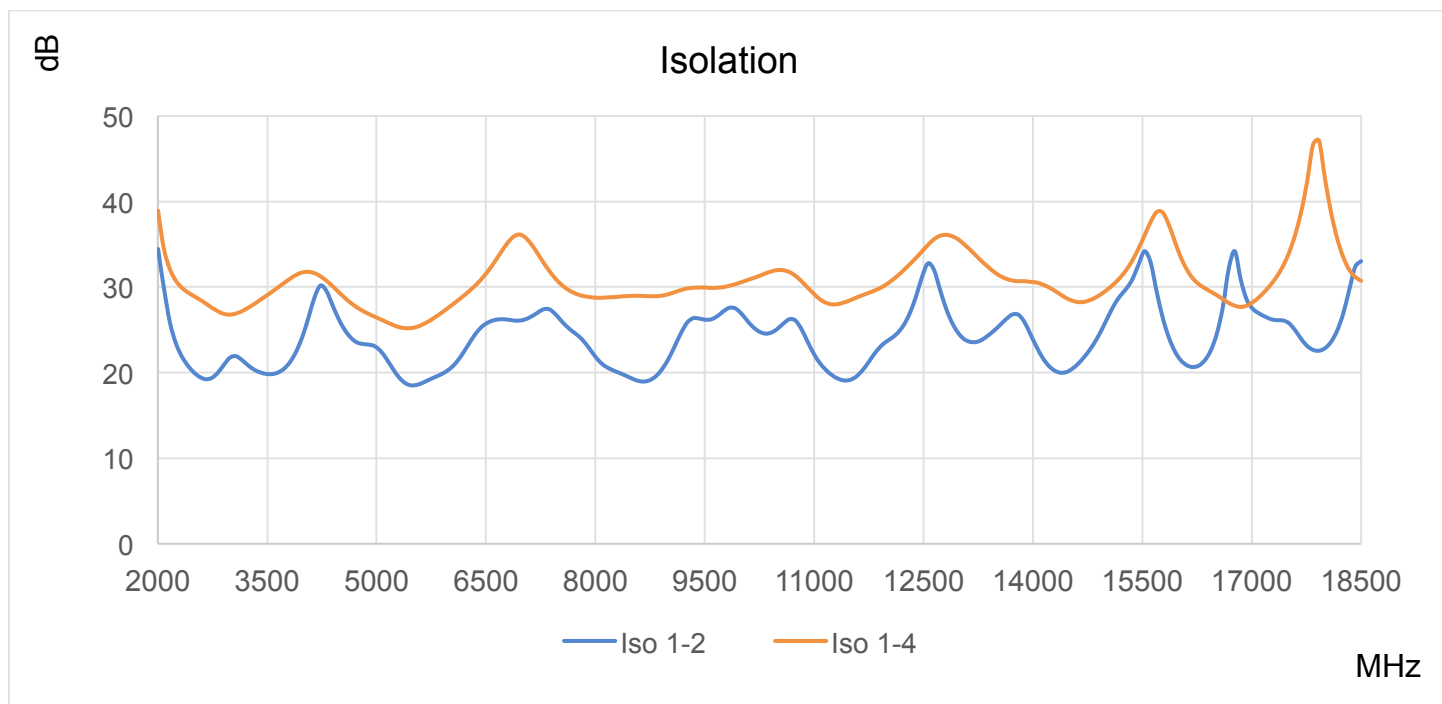
Materials

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

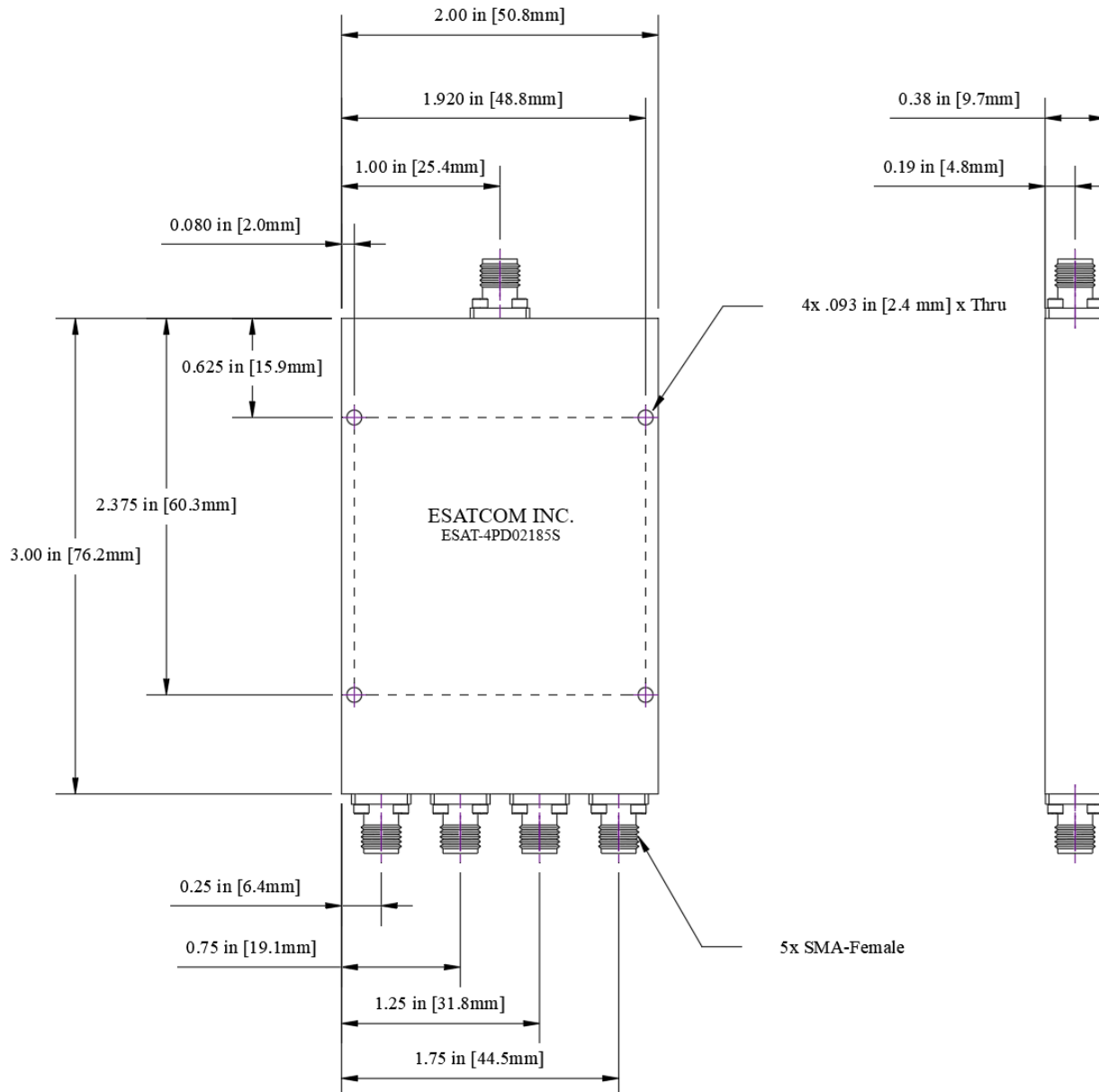




Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)	
	Port S	Port 1	Port 4	S-1	S-4	1-2	1-3
2000	21.97	24.24	23.53	6.23	6.21	34.48	38.90
2500	30.60	33.96	30.12	6.22	6.20	20.02	28.94
3000	17.58	25.10	24.64	6.32	6.31	21.76	26.78
3500	19.50	23.71	25.99	6.32	6.28	19.85	28.97
4000	37.10	35.16	40.03	6.27	6.26	24.16	31.71
4500	19.96	35.21	48.12	6.34	6.34	26.34	29.45
5000	19.71	31.06	31.73	6.36	6.33	23.10	26.55
5500	34.24	30.92	39.09	6.34	6.35	18.52	25.20
6000	19.74	27.52	29.54	6.44	6.41	20.18	27.44
6500	23.09	27.14	31.68	6.43	6.39	25.90	31.98
7000	32.04	29.79	34.99	6.43	6.38	26.21	35.84
7500	23.10	26.80	30.16	6.45	6.40	26.10	30.33
8000	19.90	27.13	27.75	6.46	6.42	21.62	28.75
8500	29.85	45.52	30.32	6.45	6.44	19.25	28.98
9000	23.61	32.68	39.73	6.49	6.46	21.78	29.20
9500	23.44	33.50	29.38	6.53	6.50	26.18	29.95
10000	42.05	36.41	28.61	6.52	6.49	26.89	30.58
10500	23.78	32.56	27.05	6.56	6.52	25.13	31.99
11000	16.64	24.10	21.47	6.65	6.63	22.24	29.24
11500	21.18	26.72	26.47	6.61	6.57	19.14	28.44
12000	28.54	32.39	28.31	6.60	6.56	23.59	30.28
12500	42.59	24.06	22.06	6.59	6.58	32.78	34.93
13000	27.72	22.21	21.70	6.62	6.60	23.92	35.00
13500	23.45	21.62	21.19	6.68	6.64	25.58	31.30
14000	15.45	18.90	19.83	6.84	6.81	23.08	30.54
14500	21.06	26.34	29.81	6.75	6.69	20.46	28.41
15000	28.64	23.69	23.05	6.69	6.69	26.63	29.82
15500	26.32	20.40	22.00	6.73	6.69	34.19	36.04
16000	22.71	28.42	34.88	6.76	6.71	21.46	33.52
16500	23.07	29.05	28.72	6.75	6.76	24.53	29.06
17000	18.50	26.93	27.69	6.86	6.82	27.45	28.24
17500	17.93	20.75	18.93	6.85	6.86	25.78	33.99
18000	17.18	22.08	19.13	6.87	6.89	22.86	42.62
18500	16.58	21.05	18.92	6.93	6.94	33.03	30.74

Outline Dimensions



Outline drawing: OL-4181

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

Tolerances on 2-pl decimals: $\pm .03$. 3-pl decimals: $\pm .015$.

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