

Power Divider, 4-way, 0.5-6 GHz, SMA Female

ESAT-4PD00506S

Description

ESAT-4PD00506S is a wideband 4-way in-line power splitter covering of 0.5 to 6 GHz with excellent return loss, low insertion loss, and high isolation performance. It is a very versatile product that covers the upper UHF band, cellular and PCS testing measurement applications as well as L, S, and the lower half of C band. The aluminum enclosure measures 5.75 x 2.80 x 0.55 inches. The multi-stage Wilkinson design provides wideband coverage with minimal ripple and low signal loss. Insertion loss 0.5dB typical. Isolation 25dB typical. Return loss 23dB typical. Amplitude balance 0.2dB typical. Phase balance 4 degrees typical.



Photo is representative.

Specifications		Min.	Typ.	Max.	Units
Frequency		500	--	6000	MHz
Impedance		--	50	--	Ohm
Return Loss (Port S)		12	17	--	dB
Return Loss (Ports 1-4)		14	23	--	dB
Insertion Loss (above 6.02dB)	500-3000MHz	--	0.5	0.7	dB
	3000-6000MHz	--	0.9	1.4	
Isolation		17	25	--	dB
Amplitude Balance		--	0.2	0.7	dB
Phase Balance		--	4	10	Degrees
Input Power (CW) ¹		--	--	30	Watts

Mechanical

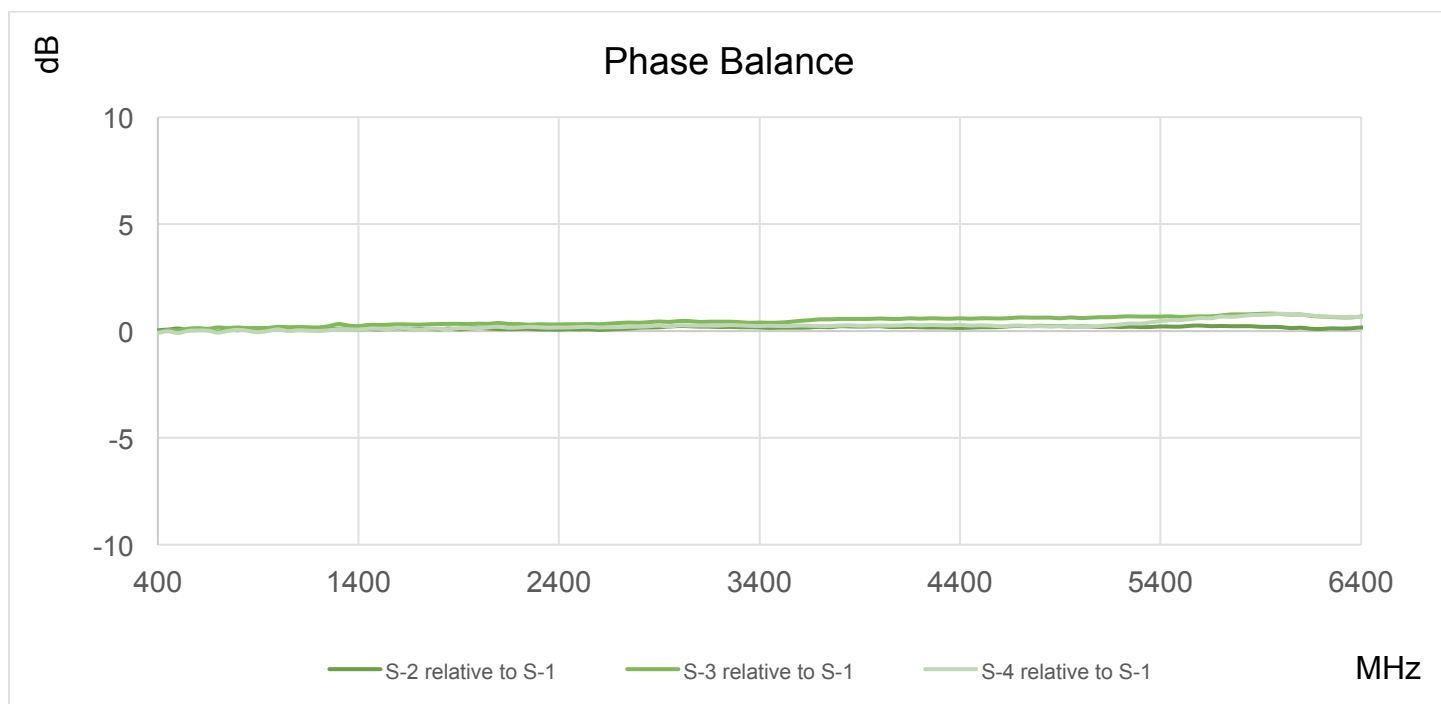
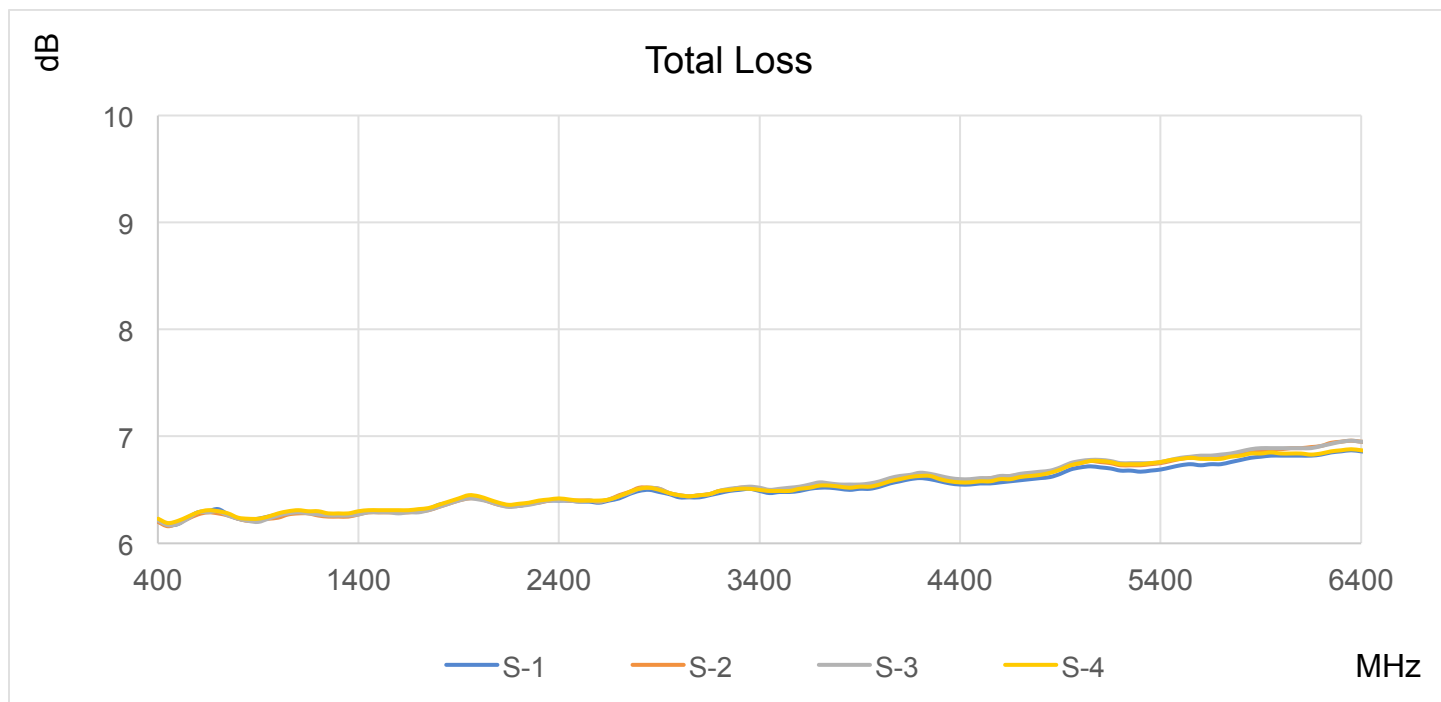
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	6 oz (170 g)
Humidity	10-90% non-condensing
Environment	Indoor use only
CAGE Code	87MG8

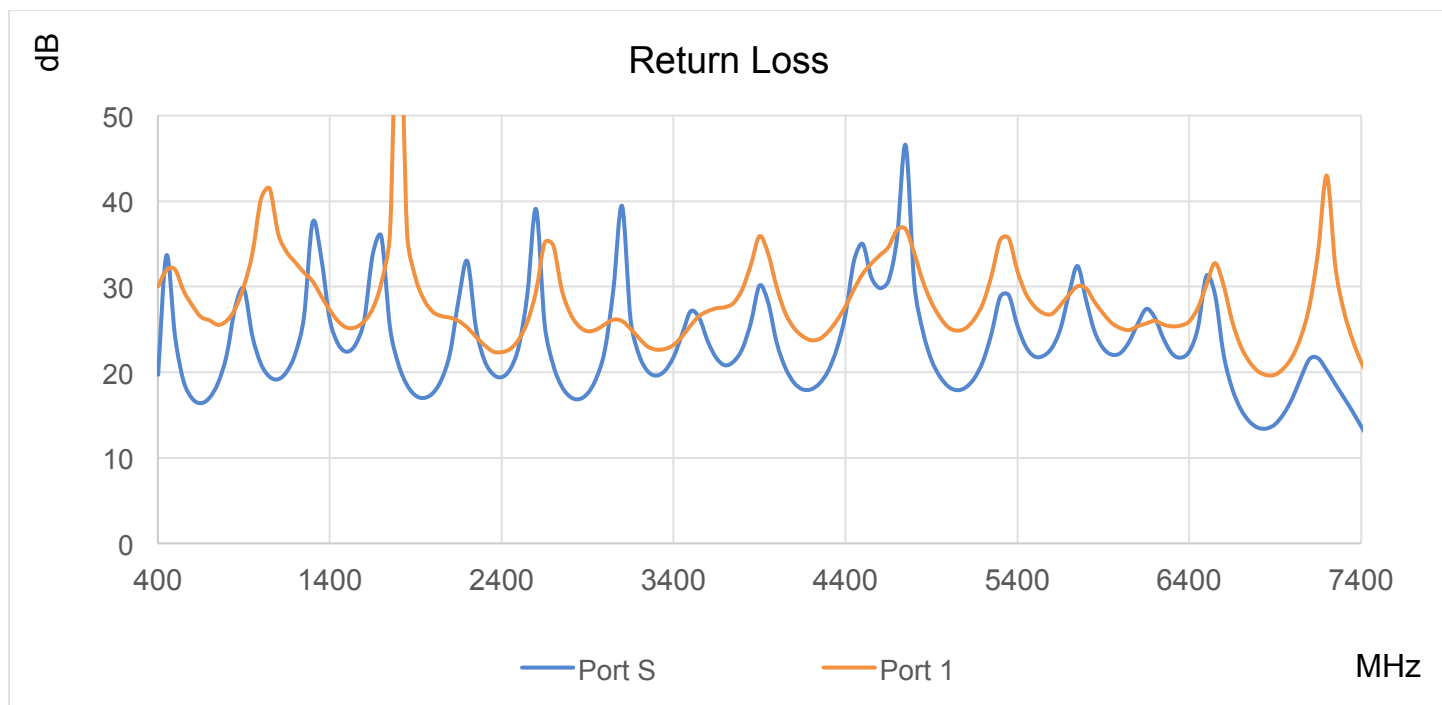
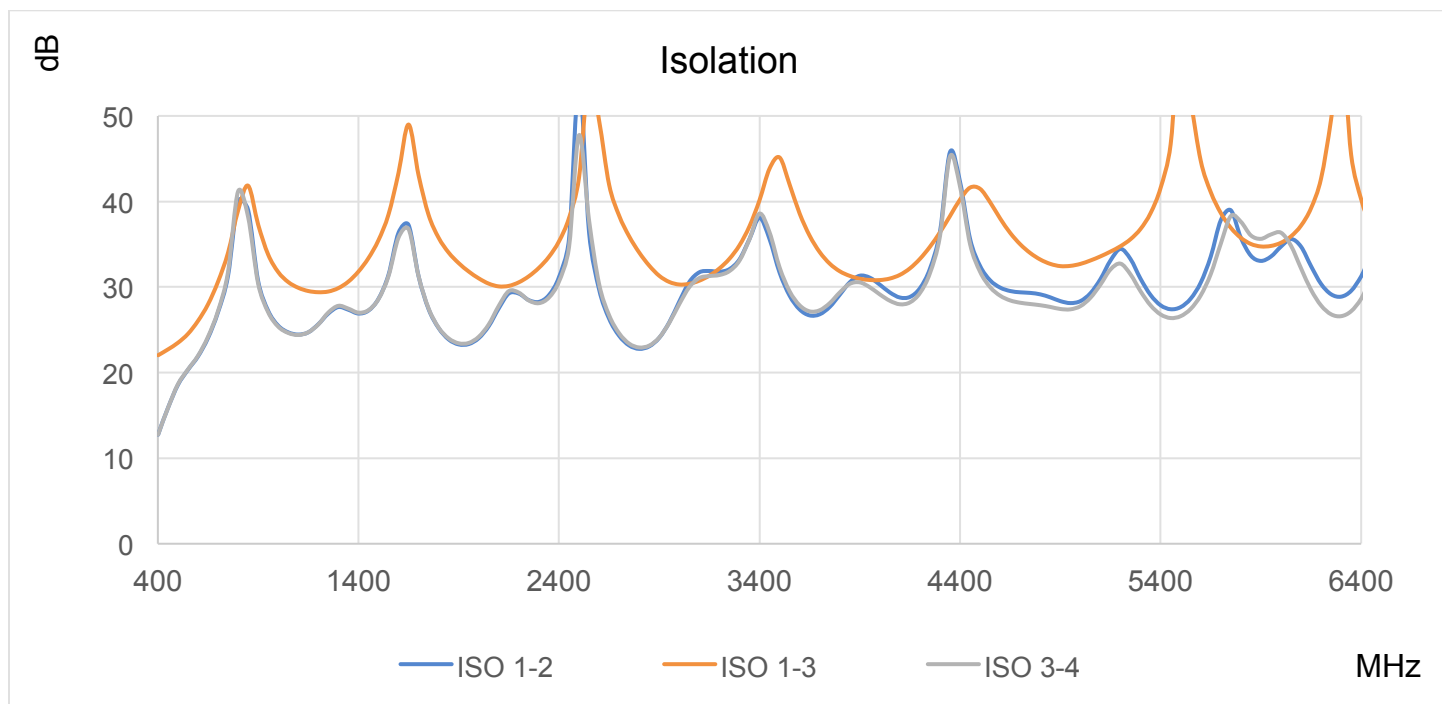
Materials

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

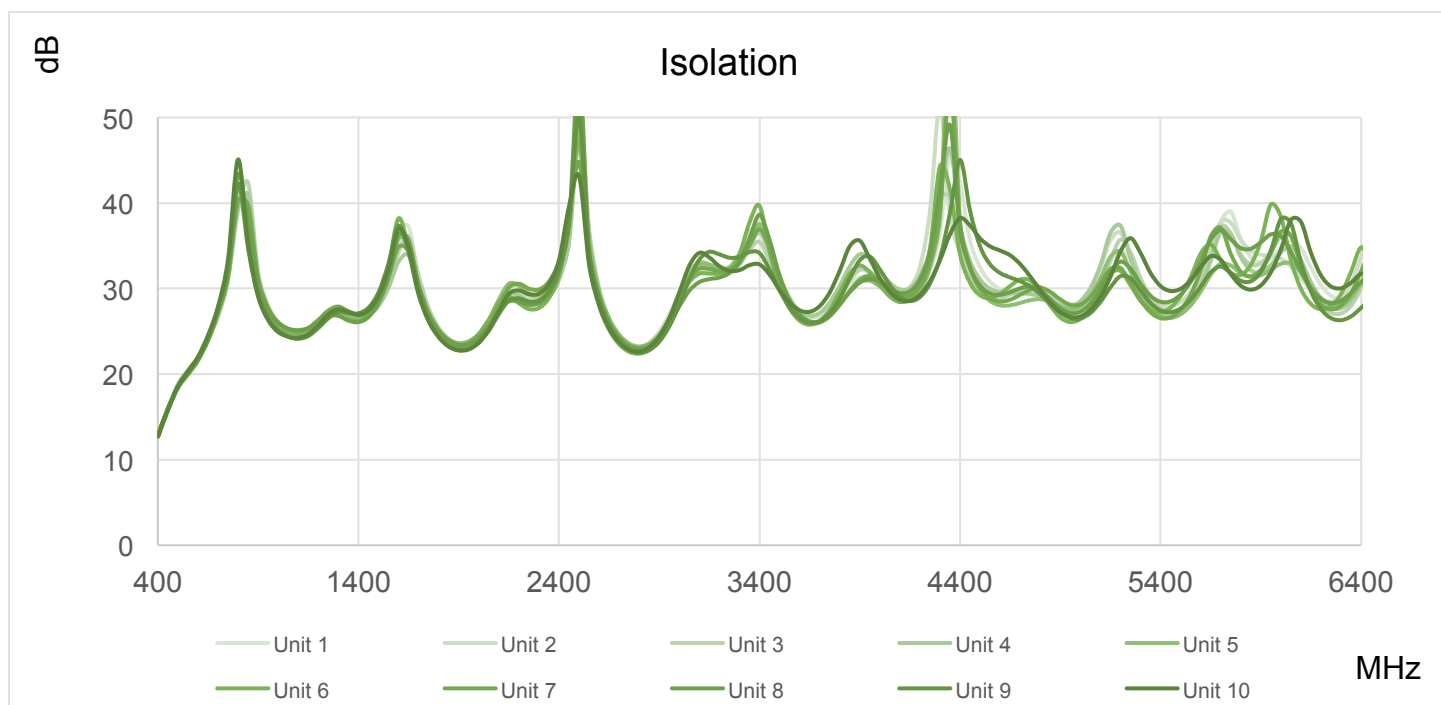
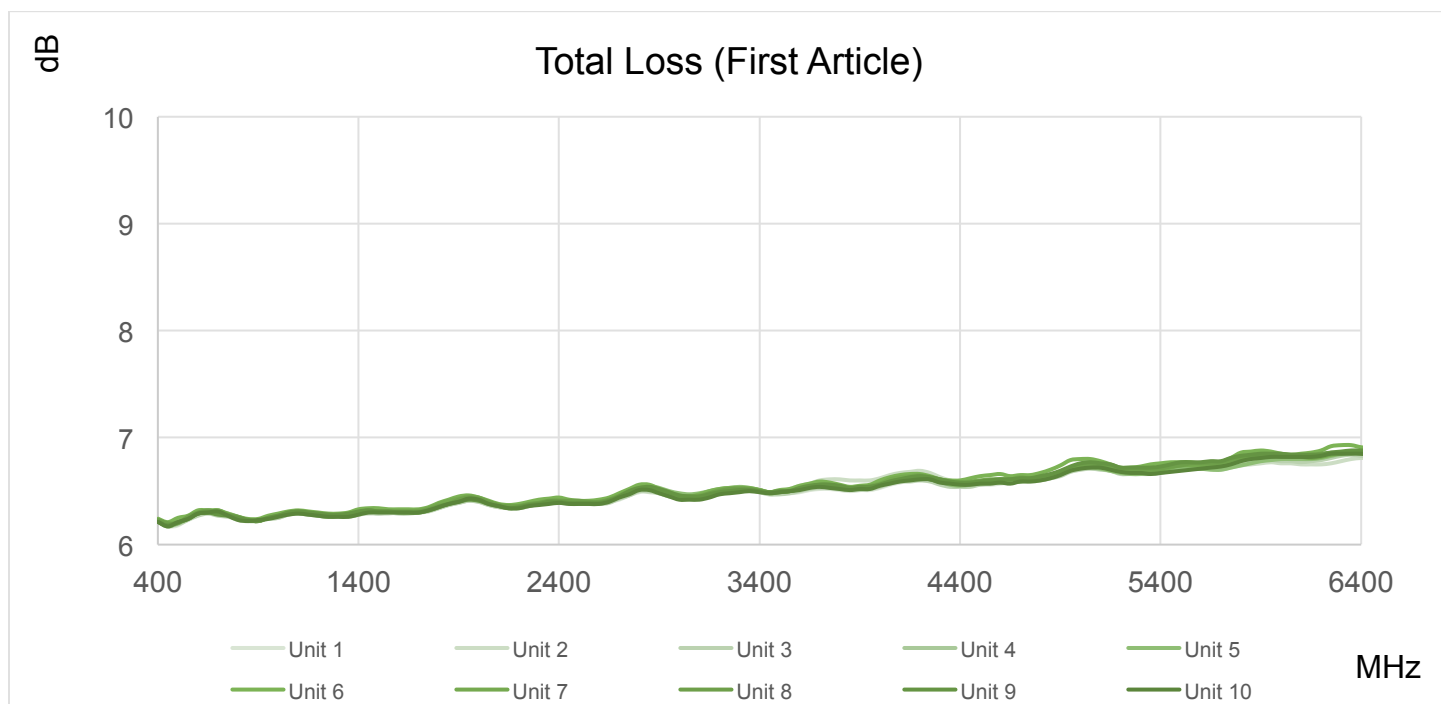
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specification at +25 °C only.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C





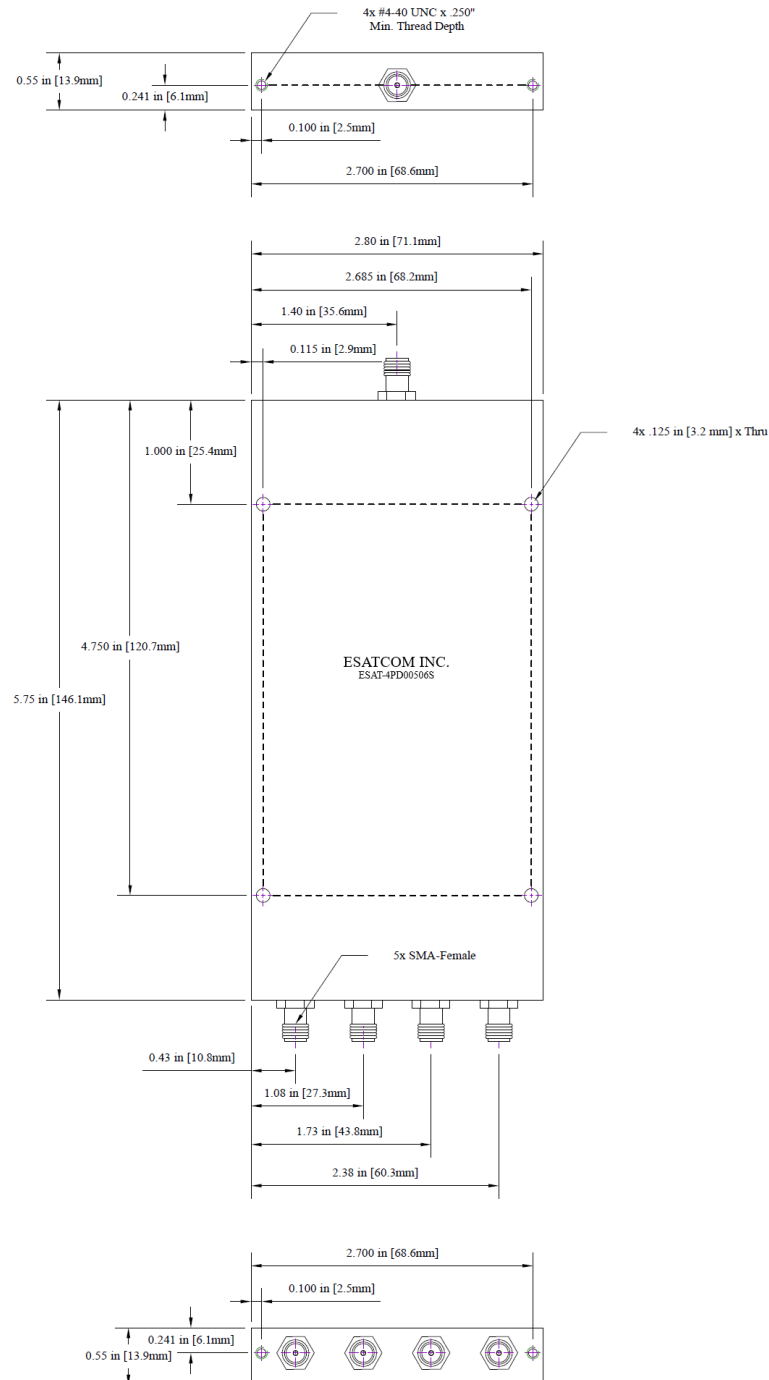
Repeatability in Production



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)	
	Port S	Port 1	Port 4	S-1	S-4	1-2	1-4
500	25.8	30.0	30.6	6.18	6.21	18.3	23.7
555	19.1	28.6	28.8	6.25	6.27	20.3	24.9
610	16.8	26.7	27.0	6.30	6.31	22.0	26.6
665	16.3	25.3	25.6	6.33	6.33	24.4	28.9
720	17.0	24.7	25.0	6.31	6.32	27.7	32.1
775	19.1	24.9	25.2	6.29	6.29	33.1	37.0
830	23.6	26.1	26.5	6.26	6.27	48.9	46.6
885	35.7	28.1	28.8	6.25	6.26	34.3	41.7
940	29.1	30.7	31.9	6.27	6.27	28.6	35.5
995	22.2	31.5	33.3	6.29	6.30	26.1	32.6
1050	19.5	30.3	32.1	6.32	6.33	24.7	31.0
1490	22.5	24.2	25.6	6.35	6.35	26.6	34.8
2040	17.1	23.3	24.0	6.46	6.48	26.0	31.2
2480	21.0	22.6	24.9	6.45	6.44	36.2	42.1
3030	23.3	22.3	25.3	6.49	6.47	32.3	30.8
3525	23.6	23.8	28.7	6.54	6.52	32.3	41.3
4020	21.6	24.1	29.0	6.60	6.57	28.2	30.8
4515	27.5	25.5	39.7	6.59	6.58	31.4	38.1
5010	17.1	21.5	29.6	6.72	6.69	27.1	30.3
5505	20.9	22.8	31.1	6.76	6.71	26.1	44.8
6000	20.1	25.1	34.8	6.81	6.79	28.4	32.5

Outline Dimensions



Outline drawing: OL-4066

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

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



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