

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

ESAT-2PD0218S

Description

ESAT-2PD0218S is a wideband 2-way in-line power splitter covering 2 to 18 GHz with excellent return loss, low insertion loss, and high isolation performance. Insertion loss is 0.5dB typical, with typical isolation of 18dB between outputs. The device covers many of the military letter bands and is RoHS compliant, but Sn/Pb solder is available on special order. The compact size enclosure measures 2.25 x 1.00 x 0.38 inches with four through-mounting holes. One product covers S, C, X and Ku bands in a compact enclosure. Designed, assembled, and tested in the USA.

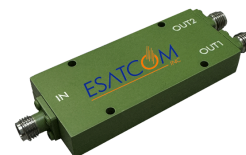


Photo is representative.

Specifications	Min.	Typ.	Max.	Units
Frequency	2	--	18	GHz
Impedance	--	50	--	Ohm
Return Loss (Port S)	13	16	--	dB
Return Loss (Port 1-2)	13	17	--	dB
Insertion Loss (Above theoretical 3.01 dB)	--	0.5	1.0	dB
Isolation	16	18	--	dB
Amplitude Unbalance	--	0.1	0.5	dB
Phase Unbalance	--	2	6	Degrees
Input Power (CW) ¹	--	--	30	Watts

Mechanical

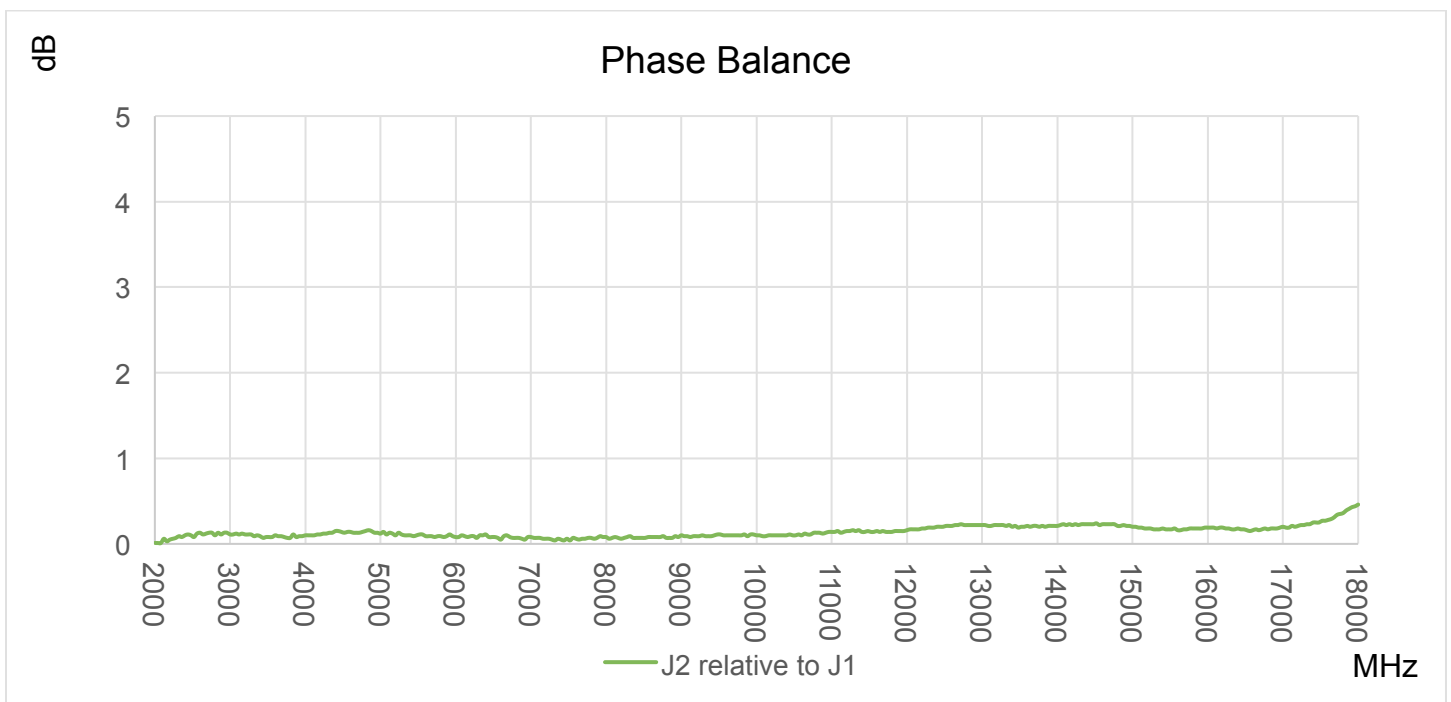
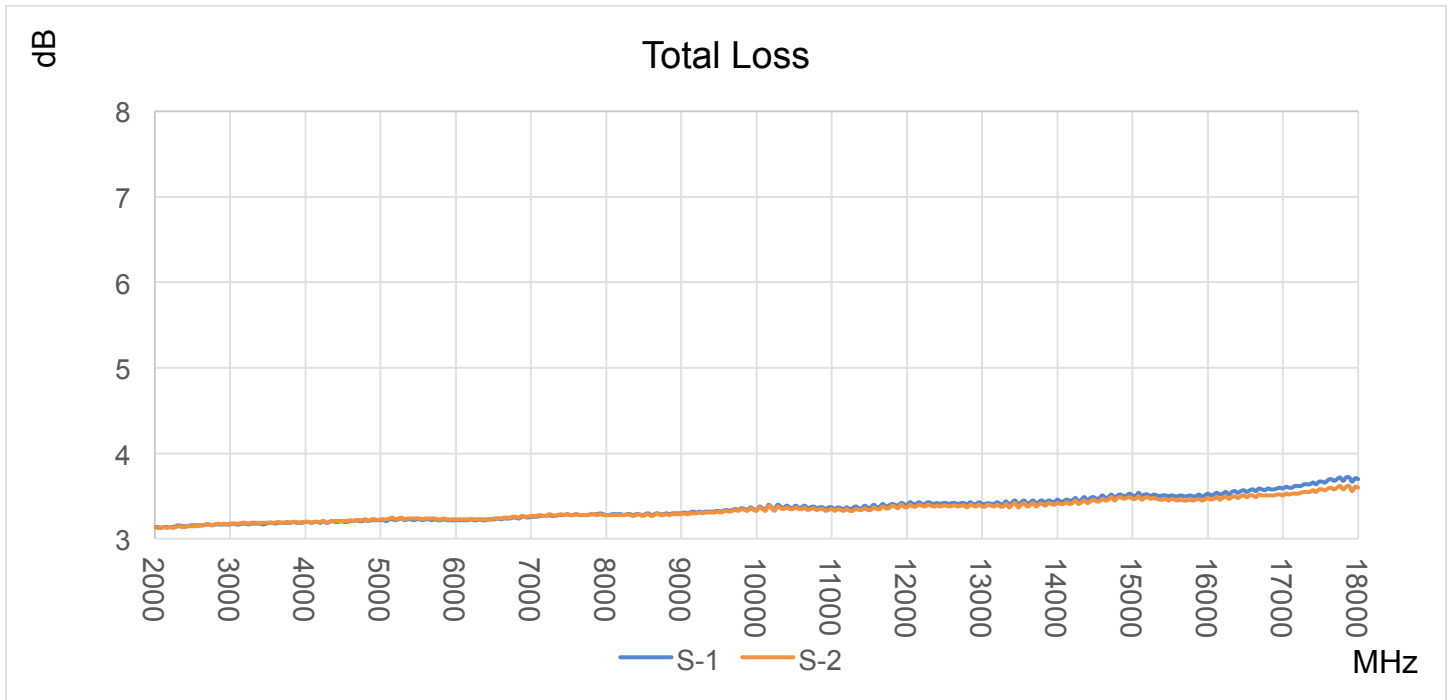
Connector Interface	SMA-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	1.5 oz (43 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

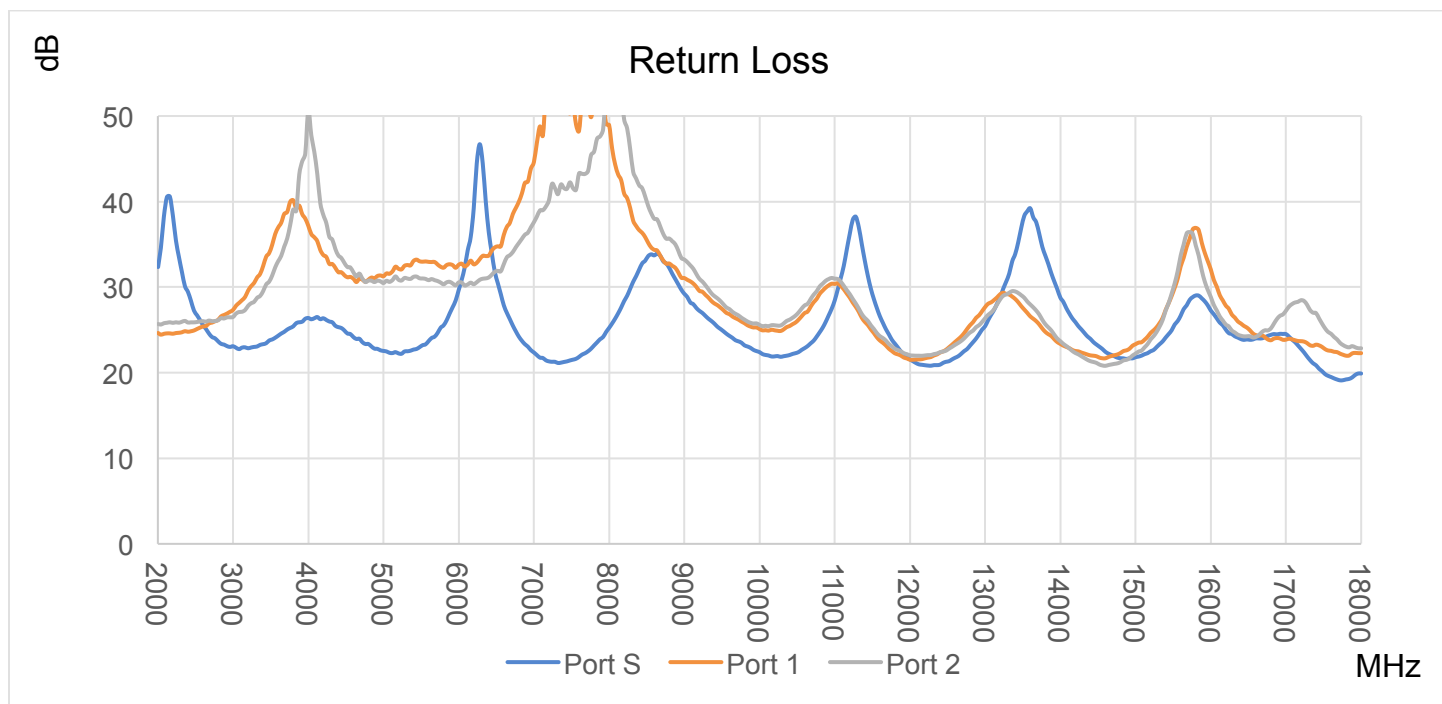
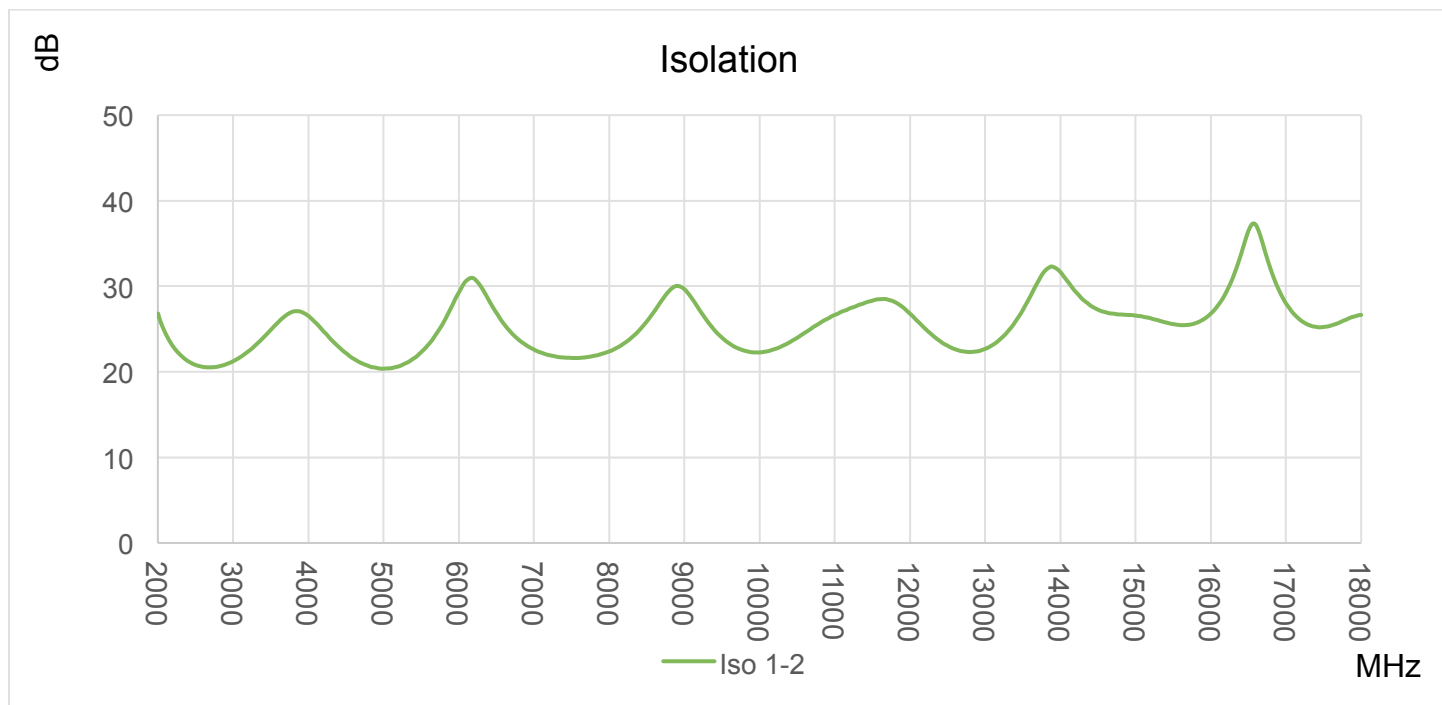
Materials

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

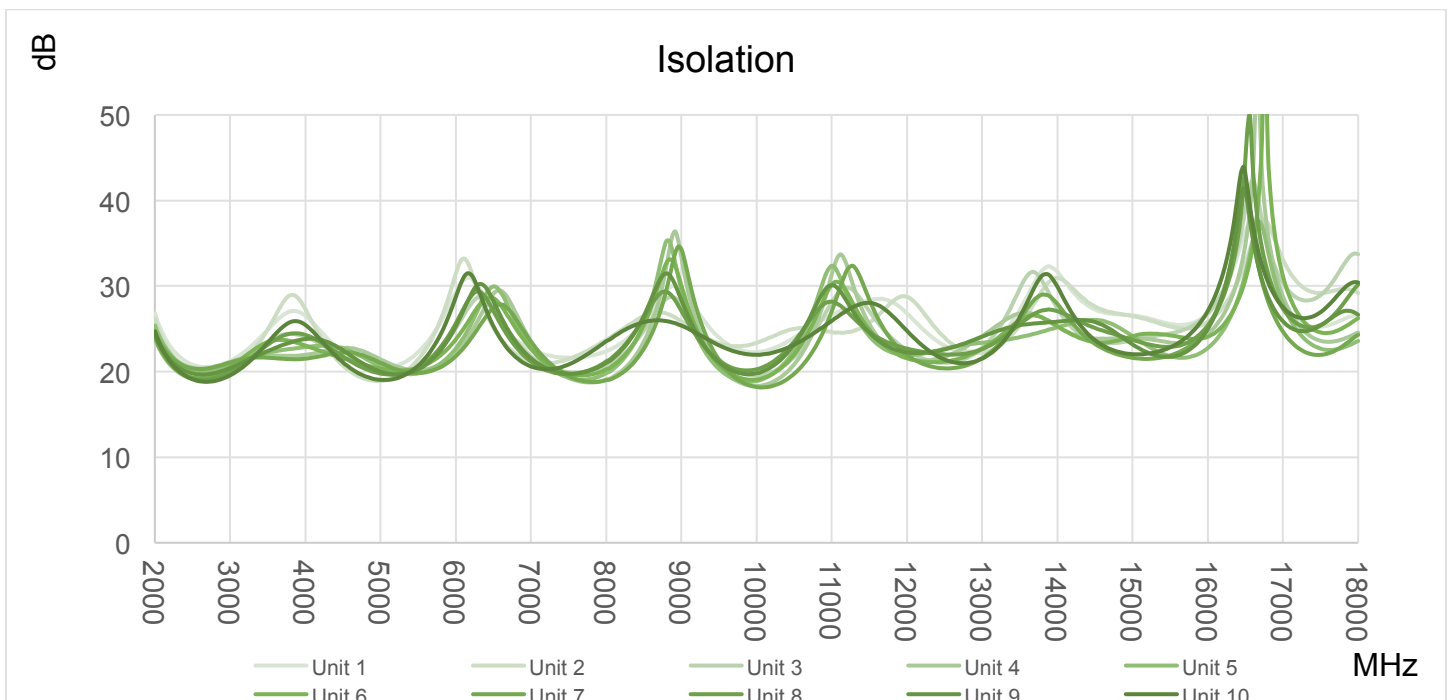
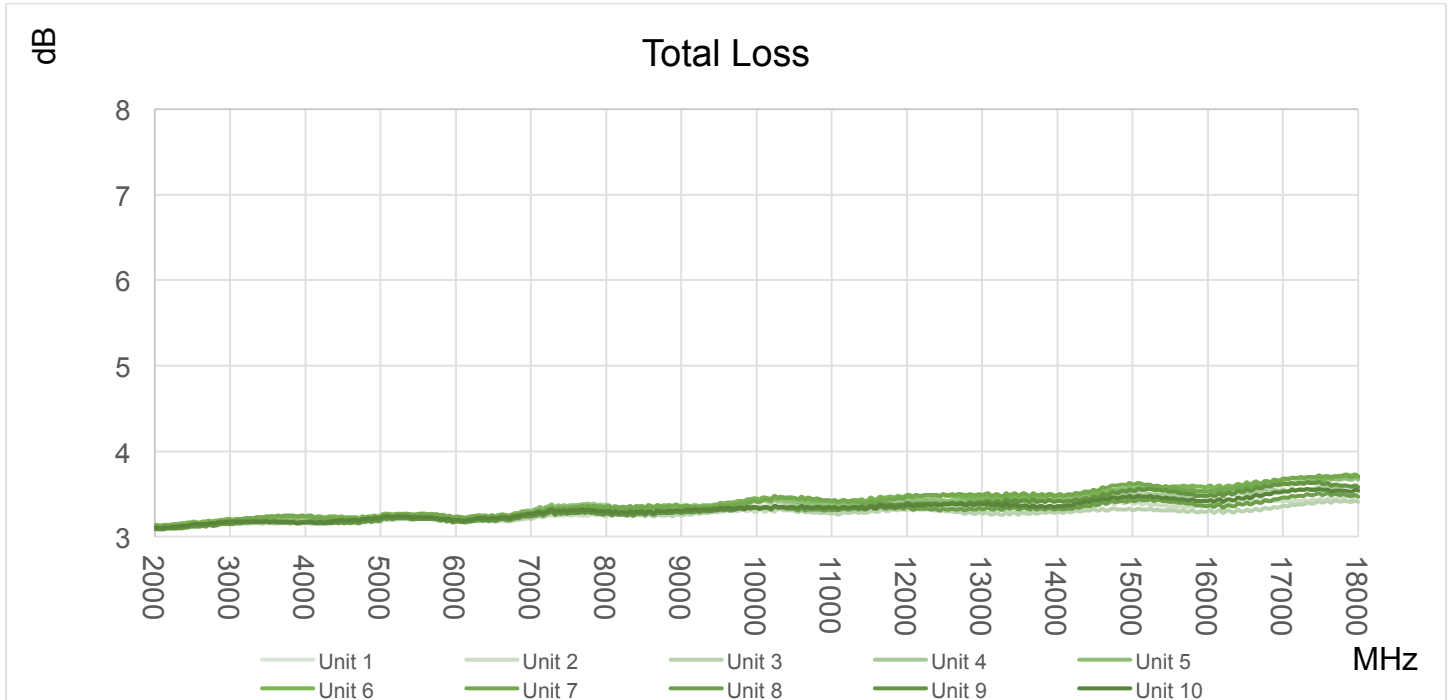
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specifications at +25 °C only.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C





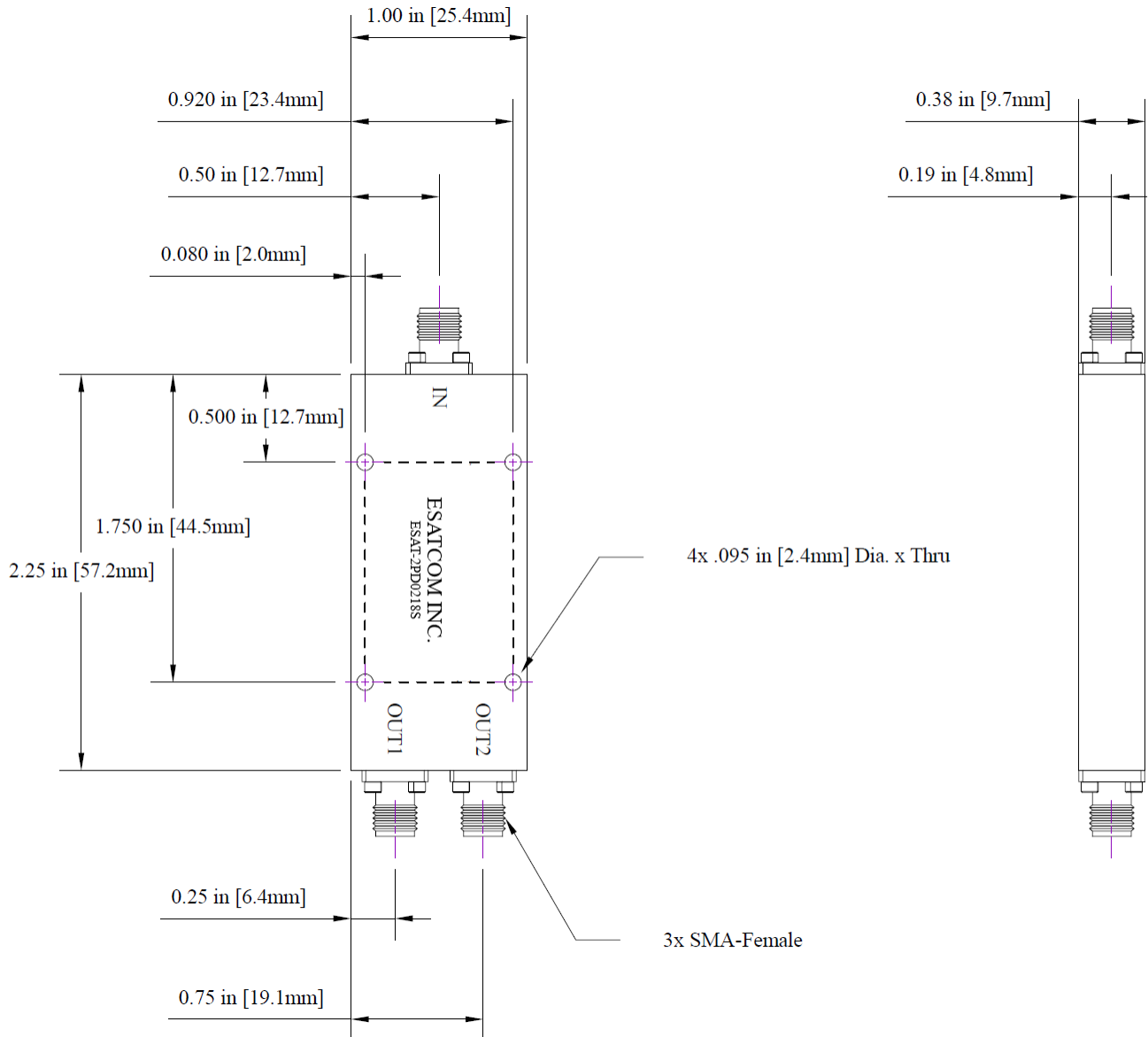
Repeatability in Production



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)
	Port S	Port 1	Port 2	S-1	S-2	
2000	34.3	25.2	24.7	3.1	3.1	25.9
2800	21.9	28.2	28.4	3.2	3.2	20.1
3600	23.5	34.1	35.1	3.2	3.2	25.3
4400	23.2	37.2	33.3	3.2	3.2	22.5
5200	21.3	34.1	37.1	3.2	3.2	19.6
6000	28.9	29.6	31.8	3.2	3.2	29.2
6800	22.8	29.9	32.4	3.3	3.2	22.1
7600	19.2	33.9	35.3	3.3	3.3	20.6
8400	39.1	34.9	35.6	3.2	3.2	26.6
9200	20.7	28.7	27.5	3.3	3.3	24.0
10000	27.5	28.9	28.5	3.3	3.3	22.7
10800	21.6	24.1	23.9	3.3	3.3	26.4
11600	33.2	24.5	24.1	3.3	3.3	23.8
12400	20.9	20.6	19.7	3.3	3.3	25.7
13200	23.8	28.7	26.2	3.3	3.3	22.1
14000	27.4	25.3	24.6	3.4	3.3	30.2
14800	20.4	23.2	23.4	3.4	3.4	27.0
15600	20.9	28.0	29.2	3.4	3.4	22.8
16400	23.4	26.8	29.3	3.5	3.4	28.1
17200	19.9	21.5	22.4	3.5	3.4	25.3
18000	18.6	22.1	21.0	3.5	3.4	25.9

Outline Dimensions



Outline drawing: OL-2182

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

Tolerances on 2-pl decimals: ± 0.3 . 3-pl decimals: $\pm .015$.

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