

Power Divider, 2-way, 0.5-6 GHz, N Female

ESAT-2PD00506N

Description

Model ESAT-2PD00606N from Esatcom Inc. is a 2-way power splitter covering the continuous bandwidth of 500 MHz to 6 GHz. The product features low insertion loss, high isolation and excellent VSWR performance. Tight phase matching and amplitude balance between outputs. Aluminum body with stainless steel N female connectors. Ready for 5G and 6G deployment. The device is RoHS compliant. Typical phase balance of 2 degrees and insertion loss of 0.8dB.



Photo is representative.

Specifications		Min.	Typ.	Max.	Units
Frequency		500	--	6,000	MHz
Impedance		--	50	--	Ohm
Return Loss (Port S)		11.7	16.5	--	dB
Return Loss (Port 1-2)		13.3	19.8	--	dB
Insertion Loss (above theoretical 3.01 dB)		--	0.8	0.9	dB
Isolation	500-600 MHz	15.0	17.5	--	dB
	600-6000 MHz	17.0	22.5		
Amplitude Balance		--	0.2	0.5	dB
Phase Balance		--	2	6	Degrees
Input Power (CW) ¹	500-2700 MHz	--	--	50	Watts
	2700-6000 MHz			30	

Mechanical

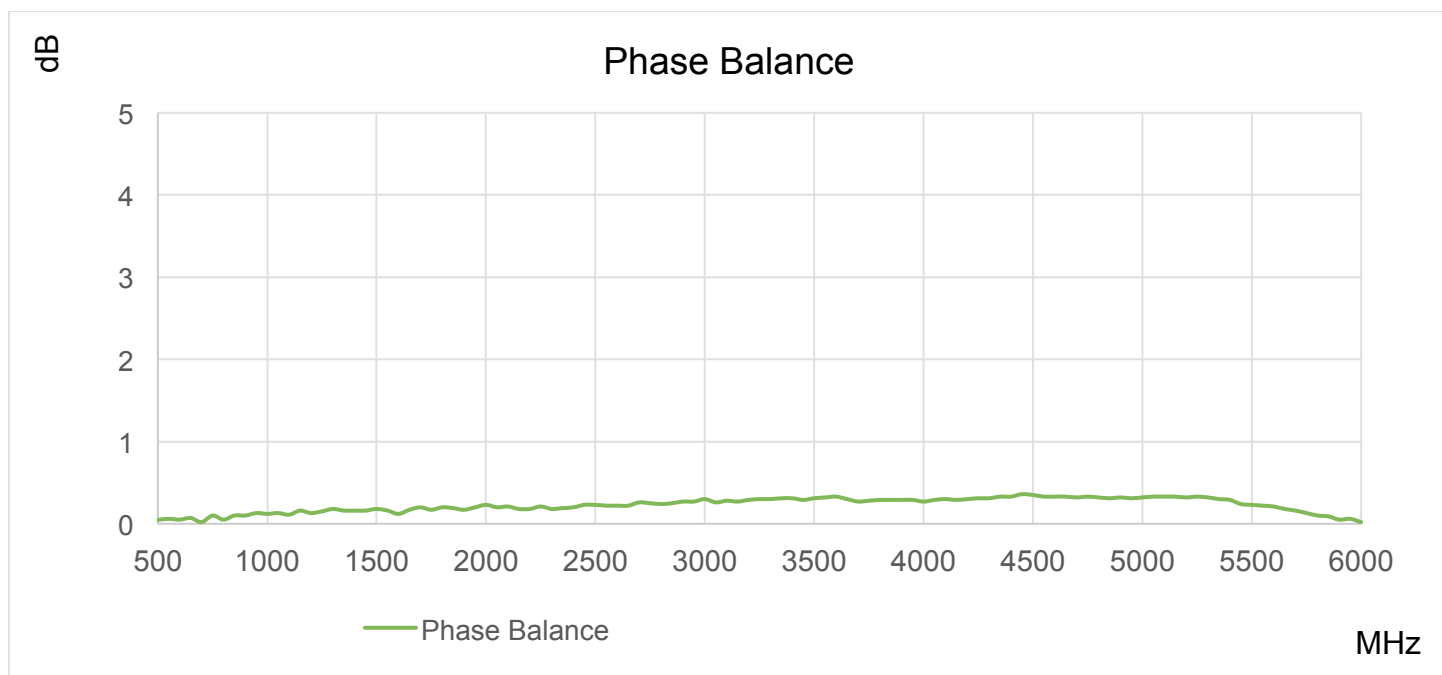
Connector Interface	N-Female
Operating Temperature ²	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	10 oz (284 g)
Humidity	10-90% non-condensing
Environment	Indoor Use Only
CAGE Code	87MG8

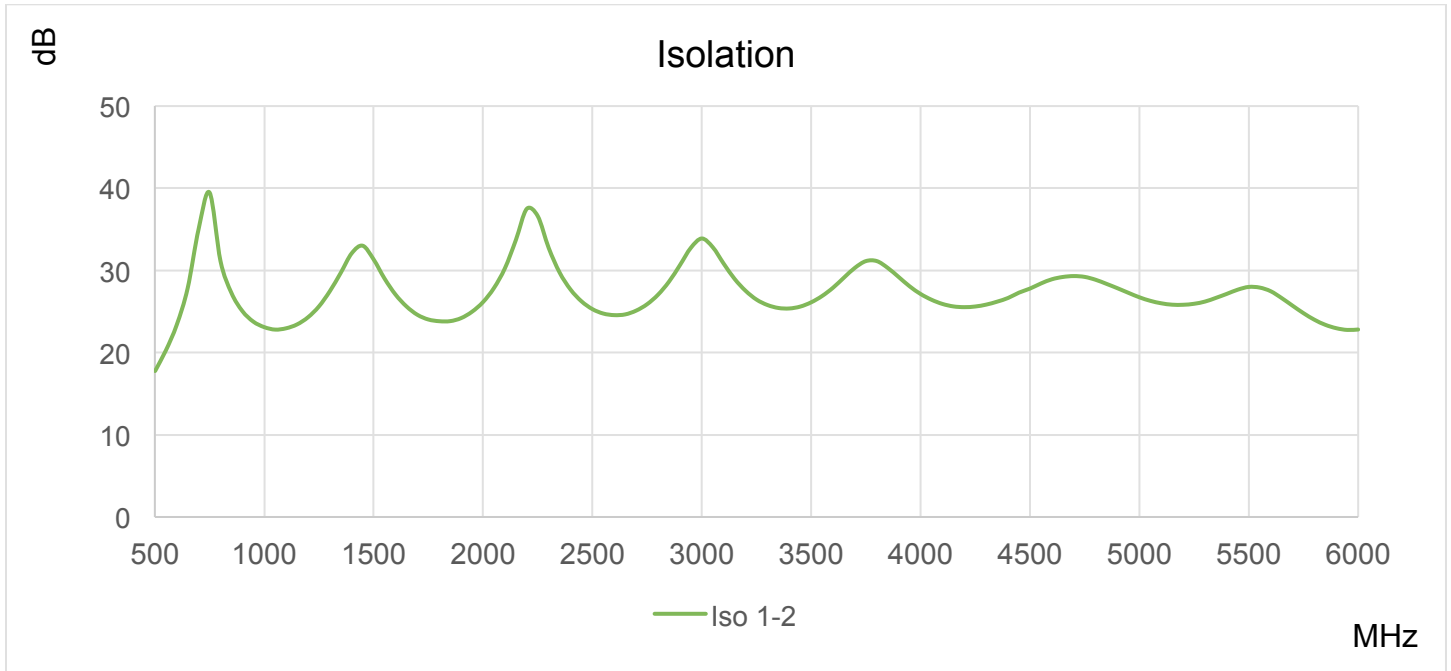
Materials

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

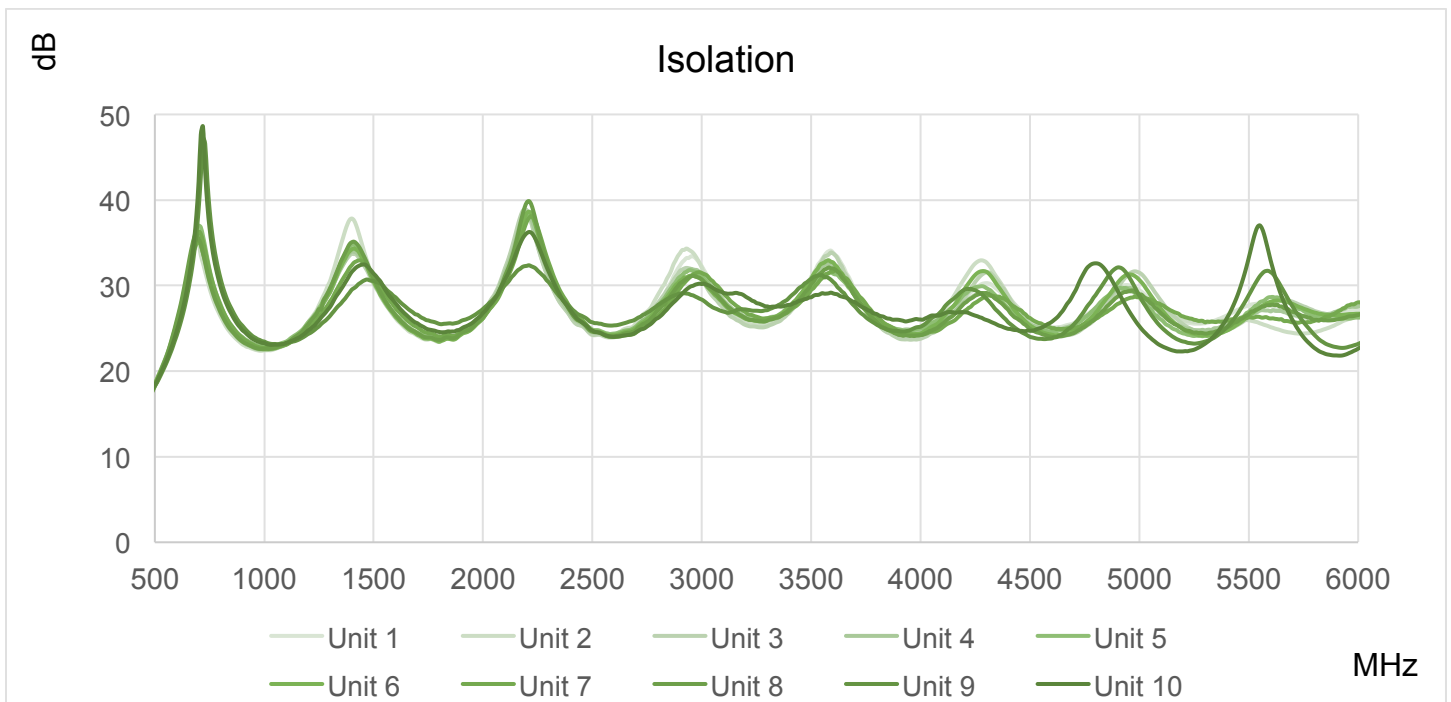
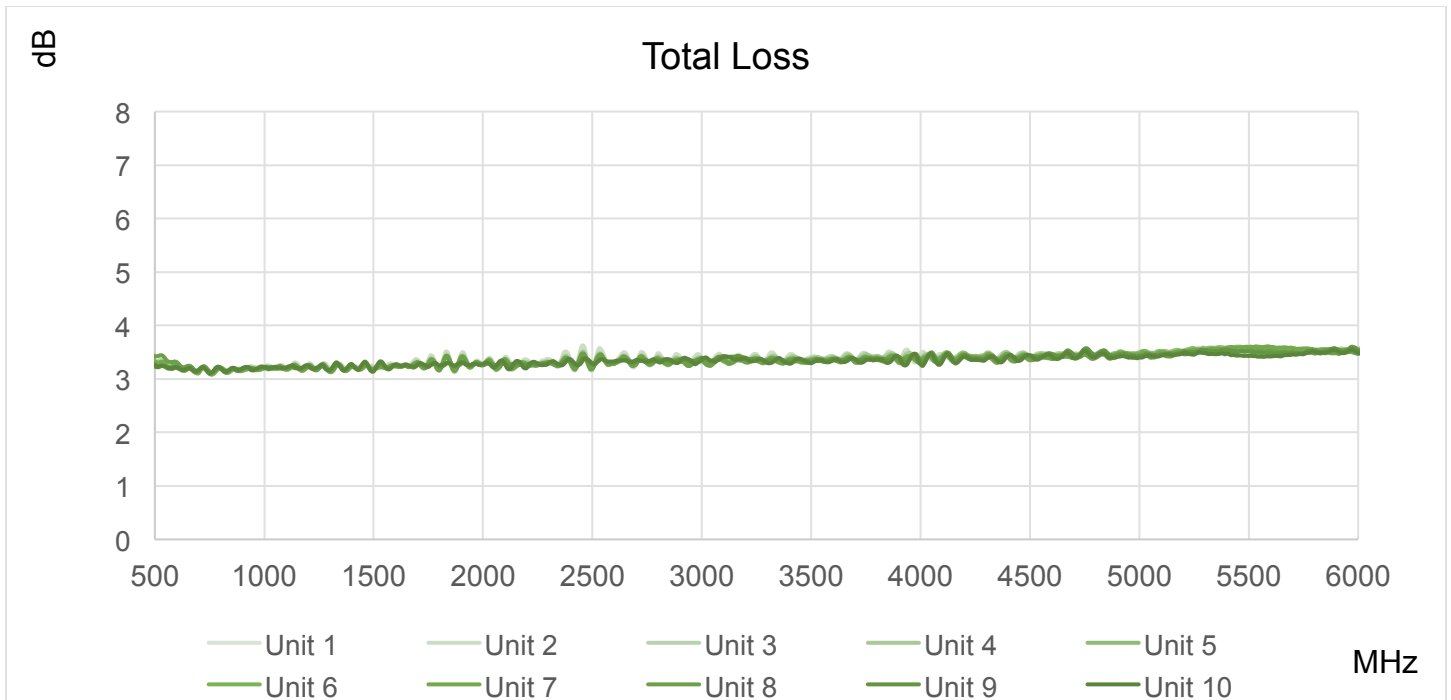
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specification at +25 °C only.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C





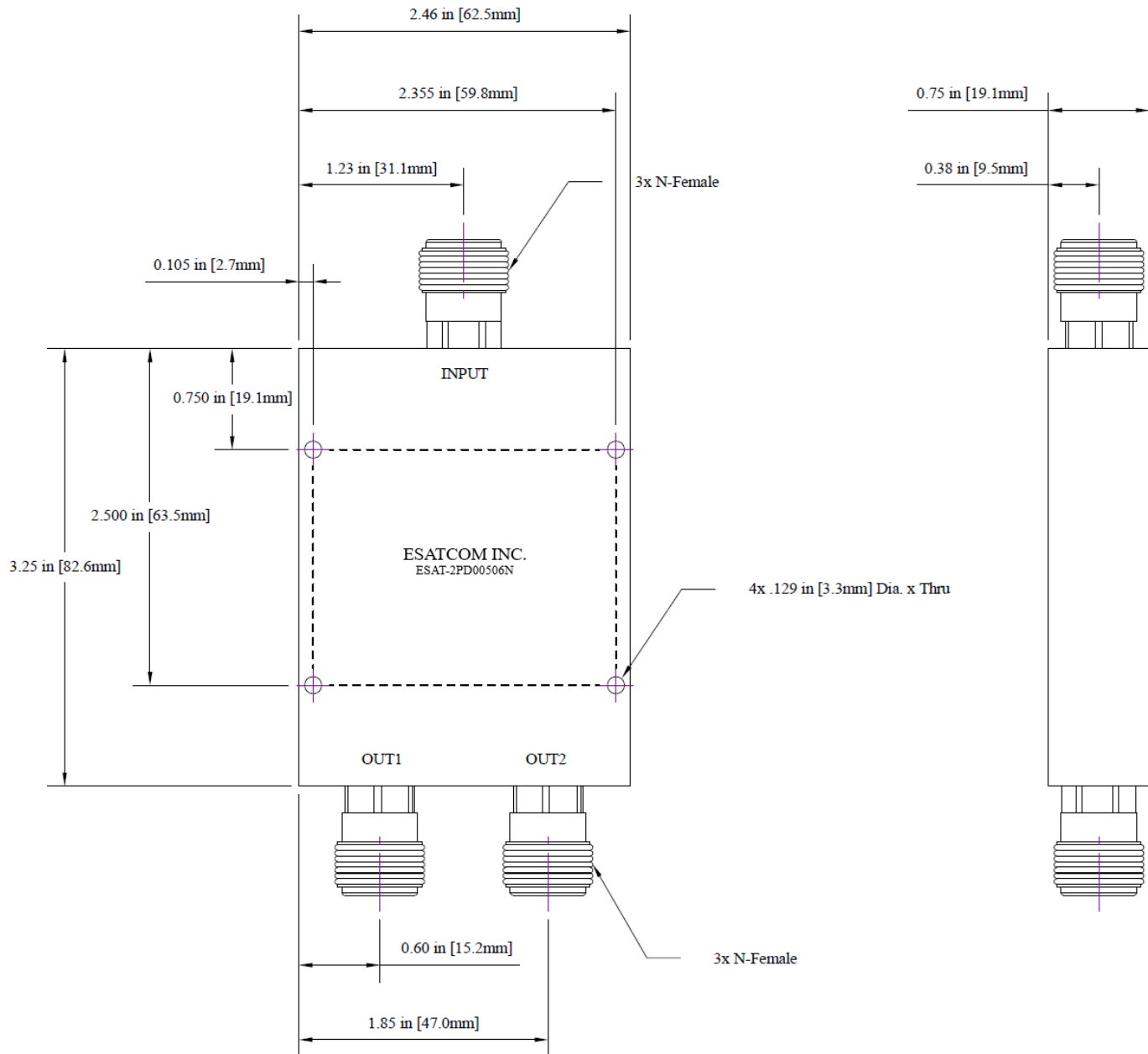
Repeatability in Production



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)
	Port S	Port 1	Port 2	S-1	S-2	
500	16.6	30.1	29.8	3.2	3.2	17.7
550	18.4	31.3	31.0	3.2	3.2	20.2
600	20.7	32.4	32.0	3.2	3.2	23.4
650	23.6	32.4	32.0	3.2	3.2	27.8
700	27.3	32.8	32.5	3.1	3.1	35.0
750	31.8	33.4	32.8	3.1	3.2	39.5
800	32.5	33.5	32.6	3.1	3.2	31.1
850	29.6	34.8	33.8	3.2	3.2	27.3
900	27.0	36.5	35.0	3.2	3.2	25.0
950	25.4	38.7	36.8	3.2	3.2	23.8
1000	24.3	43.2	39.6	3.2	3.2	23.1
1500	31.7	32.6	33.1	3.2	3.2	31.3
2000	23.1	34.6	34.2	3.3	3.3	26.1
2500	22.0	31.9	30.3	3.3	3.3	25.3
3000	33.2	37.3	47.7	3.3	3.3	33.9
3500	21.8	30.2	29.7	3.3	3.4	26.1
4000	25.9	38.4	39.8	3.4	3.4	27.1
4500	27.4	29.9	31.5	3.4	3.5	27.8
5000	23.8	30.3	45.6	3.4	3.5	26.7
5500	27.0	30.6	29.4	3.5	3.6	28.0
6000	22.4	28.9	24.6	3.5	3.7	22.8

Outline Dimensions



Outline drawing: OL-2065-N

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

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

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