

Power Divider, 2-way, 18-26.5 GHz, SMA Female

ESAT-2PD18265S

Description

The model WM2PD-18-26.5-S is a 2-way splitter that covers 18000-26500MHz in a compact aluminum enclosure with stainless steel SMA-F connectors. The unit is designed to operate in 50-ohm systems. High isolation between outputs measuring 21.5dB typical. Tight amplitude balance of 0.17dB typical. Precision phase balance typically within 2.4 degrees. Return losses at all ports are typically 17dB or better. Insertion loss above 3.0dB is 0.75dB typ. Esatcom Inc. designs and manufactures its splitter product line in Whippany New Jersey, USA.



Photo is representative.

Parameter	Min.	Typ.	Max.	Unit
Frequency Range	18000	--	26500	MHz
Impedance	--	50	--	Ω
Return Loss (Port S)	15.0	17.3	--	dB
Return Loss (Port 1-2)	15.0	17.1	--	dB
Insertion Loss Above 3.0dB	--	0.75	1.10	dB
Isolation	18.0	21.5	--	dB
Amplitude Unbalance ($\pm$) ¹	--	0.17	0.40	dB
Phase Unbalance ($\pm$) ¹	--	2.4	3	Degree
Input Power (CW) ²	--	--	10	W

Mechanical

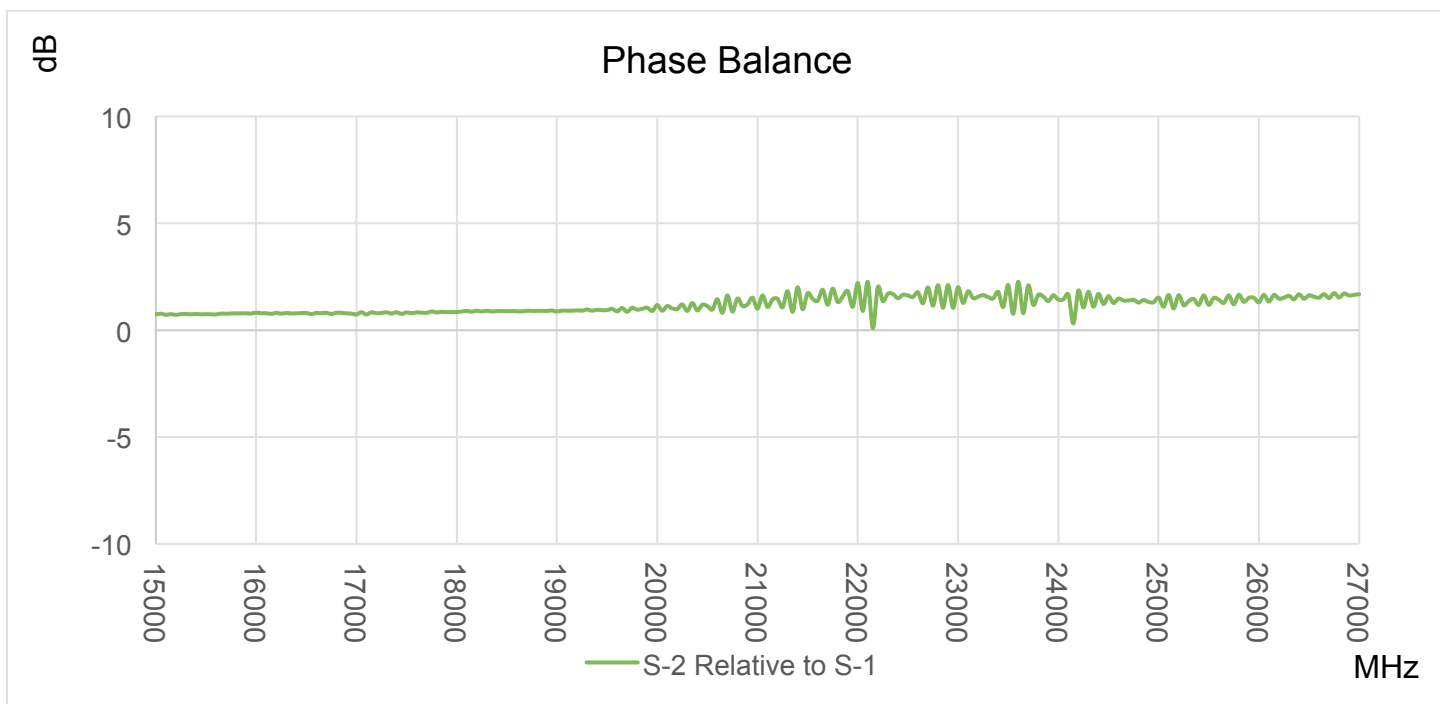
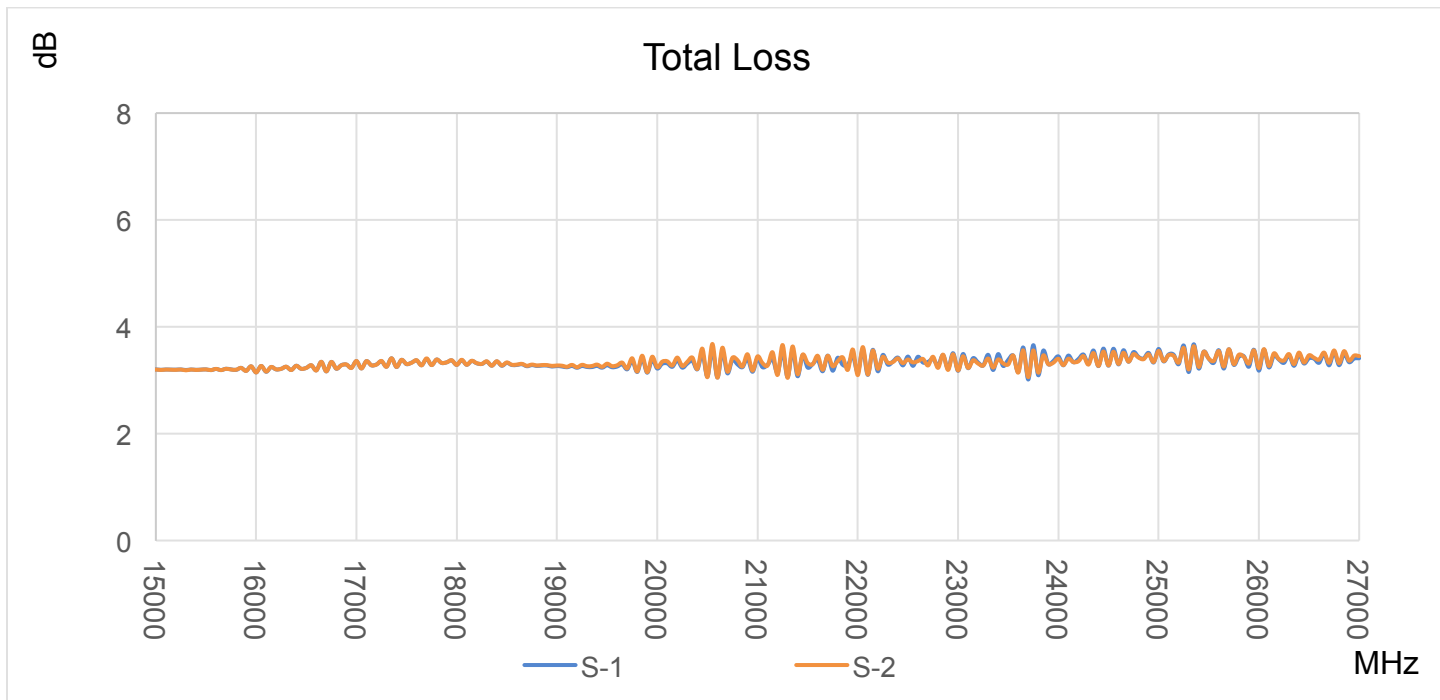
Connector Interface	SMA-Female
Operating Temperature ³	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Nominal Weight	27.5 g (0.97 oz)
Humidity	10-90% non-condensing
Environment	Indoors Use Only
CAGE Code	87MG8

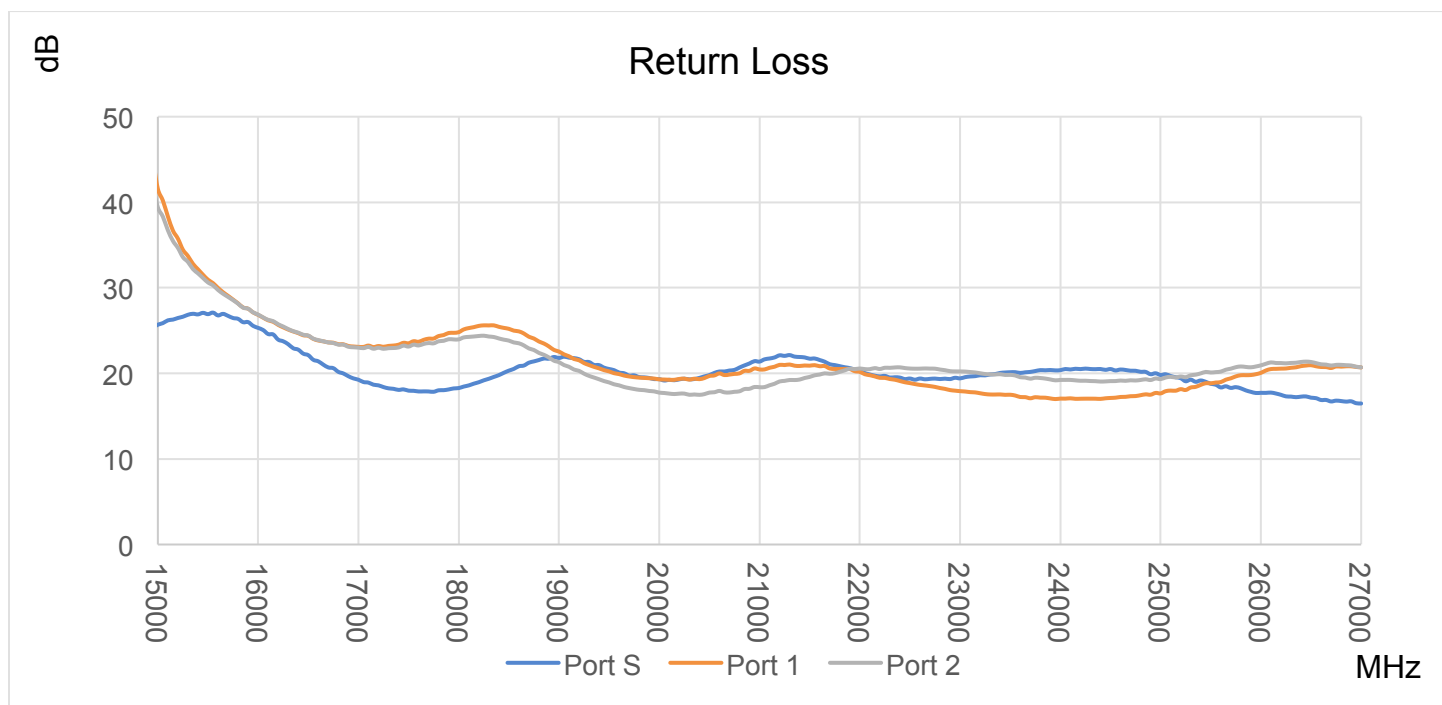
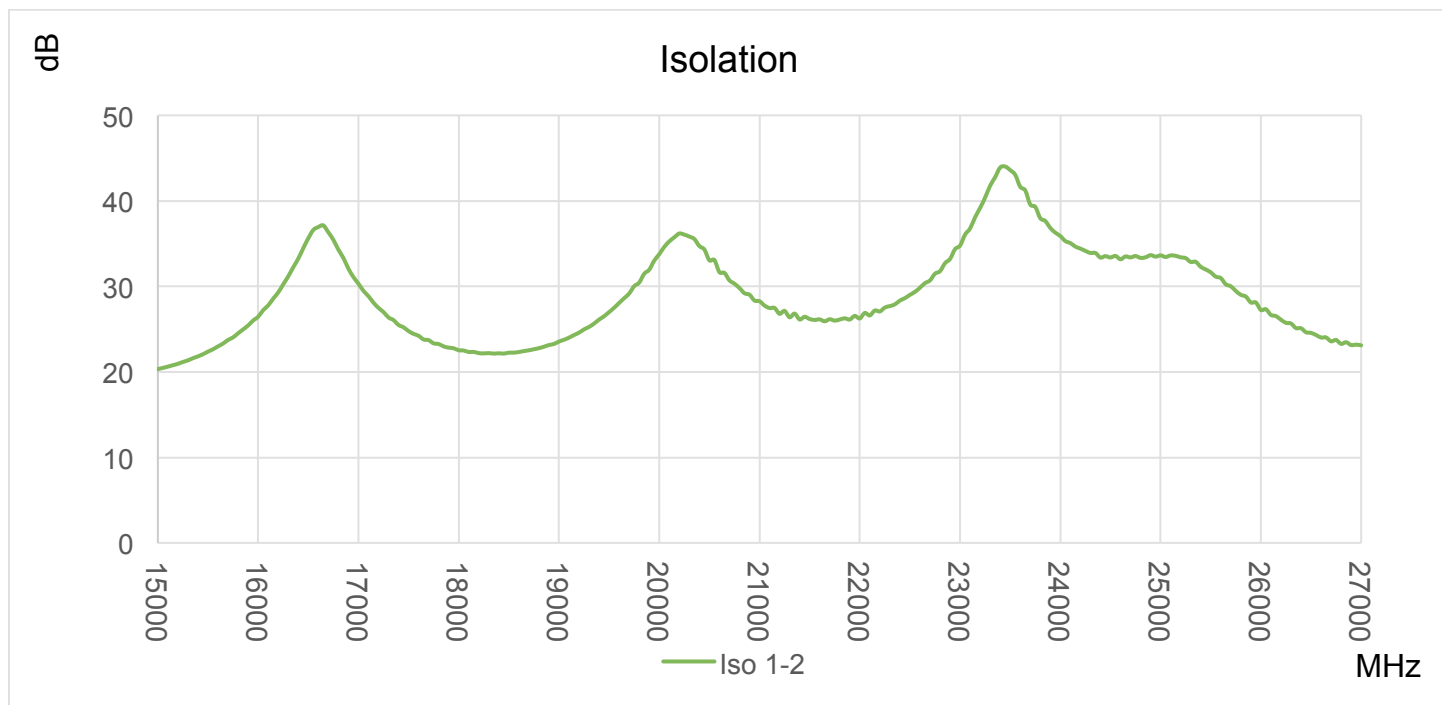
Materials

RoHS Compliant ⁴	Yes
REACH Compliant ⁴	Yes
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Green Paint

1. With reference to average.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
3. Electrical specifications at +25 °C.
4. 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) 1-2
	Port S	Port 1	Port 2	S-1	S-2	
1000	9.93	10.60	10.66	3.57	3.56	4.64
2000	10.11	11.47	11.47	3.44	3.44	7.29
3000	10.74	12.15	11.99	3.08	3.09	11.27
4000	11.70	12.72	12.72	3.24	3.25	17.35
5000	13.11	13.73	14.18	3.00	3.00	25.71
6000	15.26	15.98	16.57	3.41	3.41	30.61
7000	18.38	21.00	20.21	3.24	3.31	21.55
8000	24.38	25.29	23.14	3.21	3.22	18.02
9000	29.32	18.74	19.74	3.18	3.14	17.19
10000	24.11	17.01	17.82	3.16	3.12	16.65
11000	17.85	17.31	16.87	3.07	3.06	15.72
12000	15.89	16.88	16.30	3.44	3.49	16.52
13000	17.10	18.11	18.17	3.51	3.52	18.30
14000	20.08	24.58	25.47	3.24	3.25	19.11
15000	25.70	41.56	39.40	3.21	3.20	20.35
16000	25.32	26.84	26.88	3.15	3.15	26.47
17000	19.26	23.11	23.02	3.36	3.36	30.34
18000	18.29	24.82	23.98	3.29	3.29	22.55
19000	21.80	22.56	21.32	3.27	3.28	23.57
20000	19.33	19.30	17.76	3.22	3.25	33.78
21000	21.38	20.47	18.39	3.41	3.45	28.28
22000	20.30	20.18	20.57	3.15	3.10	26.27
23000	19.42	17.93	20.23	3.18	3.19	34.79
24000	20.38	17.05	19.24	3.45	3.41	35.90
25000	19.81	17.66	19.34	3.59	3.55	33.64
26000	17.73	20.06	20.94	3.18	3.23	27.25
27000	16.48	20.70	20.71	3.42	3.46	23.13

The drawing shows the front and side views of the ESATCOM INC. ESAT-2PD18265S device. The front view includes the following dimensions and features:

- Top Dimensions:**
 - 0.910 in [23.1mm] (Total width)
 - 0.53 in [13.5mm] (Distance from left edge to center of IN connector)
 - 0.150 in [3.8mm] (Distance from left edge to center of OUT1 connector)
- Bottom Dimensions:**
 - 0.425 in [10.8mm] (Distance from top of device to center of OUT1 connector)
 - 0.85 in [21.6mm] (Distance from top of device to center of OUT2 connector)
 - 0.25 in [6.4mm] (Distance from bottom edge to center of OUT1 connector)
 - 0.81 in [20.6mm] (Distance from bottom edge to center of OUT2 connector)
 - 1.06 in [26.9mm] (Total width)
- Connectors:**
 - IN:** SMA-Female connector at the top center.
 - OUT1:** SMA-Female connector at the bottom left.
 - OUT2:** SMA-Female connector at the bottom right.
- Part Identification:**
 - ESATCOM INC.
 - ESAT-2PD18265S
- Mounting Features:**
 - 4x .104 in [2.6mm] Dia. x Thru (Four mounting holes)
 - 3x SMA-Female (Three SMA-Female connectors)

The side view shows the profile of the device with a total height of 0.50 in [12.7mm] and a distance of 0.25 in [6.4mm] from the bottom edge to the center of the IN connector.

Dimensions are in inches, [mm] shown for convenience.
Tolerances on 2-pl decimals: $\pm .03$. 3-pl decimals: $\pm .015$.

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