

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

ESAT-2PD02265S

Description

Model ESAT-2PD02265S is a wideband 2-way in-line power splitter covering of 2 to 26.5 GHz with excellent return loss, low insertion loss, and high isolation performance. Insertion loss is only 0.6dB typical above 3dB split loss, with high isolation of 20dB typical. Amplitude balance is typically .07dB, while input and output return losses are typically 16 and 20dB, respectively. We are launching the new 26.5GHz product line, this is one of several models to be introduced. Designed, assembled, and tested in the USA.



Photo is representative.

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range	--	2000	--	26500	MHz
Impedance	--	--	50	--	Ω
Return Loss (Port S)	2000-8000	16	19	--	dB
	8000-18000	13	16		
	18000-26500	12	16		
Return Loss (Port 1-2)	2000-8000	17	20	--	dB
	8000-18000	16	20		
	18000-26500	15	20		
Insertion Loss Above 3.0dB	2000-8000	--	0.3	0.6	dB
	8000-18000		0.6	0.9	
	18000-26500		0.7	1.2	
Isolation	2000-8000	16	20	--	dB
	8000-18000	14	20		
	18000-26500	14	18		
Amplitude Unbalance ($\pm$) ¹	2000-8000	--	0.05	0.20	dB
	8000-18000		0.07	0.30	
	18000-26500		0.11	0.45	
Phase Unbalance ($\pm$) ¹	2000-8000	--	1.3	2.0	Degree
	8000-18000		1.5	4.0	
	18000-26500		2.4	5.0	
Input Power (CW) ²	--	--	--	10	W

Mechanical

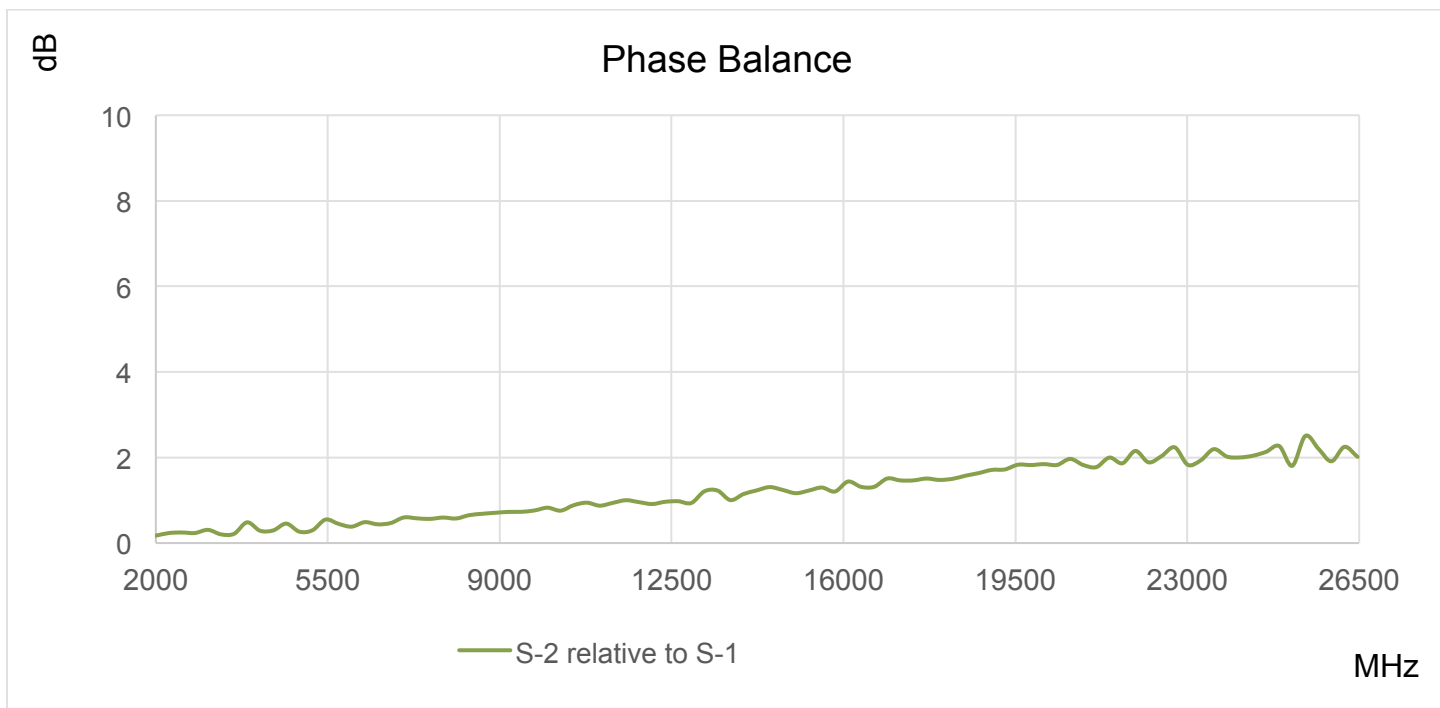
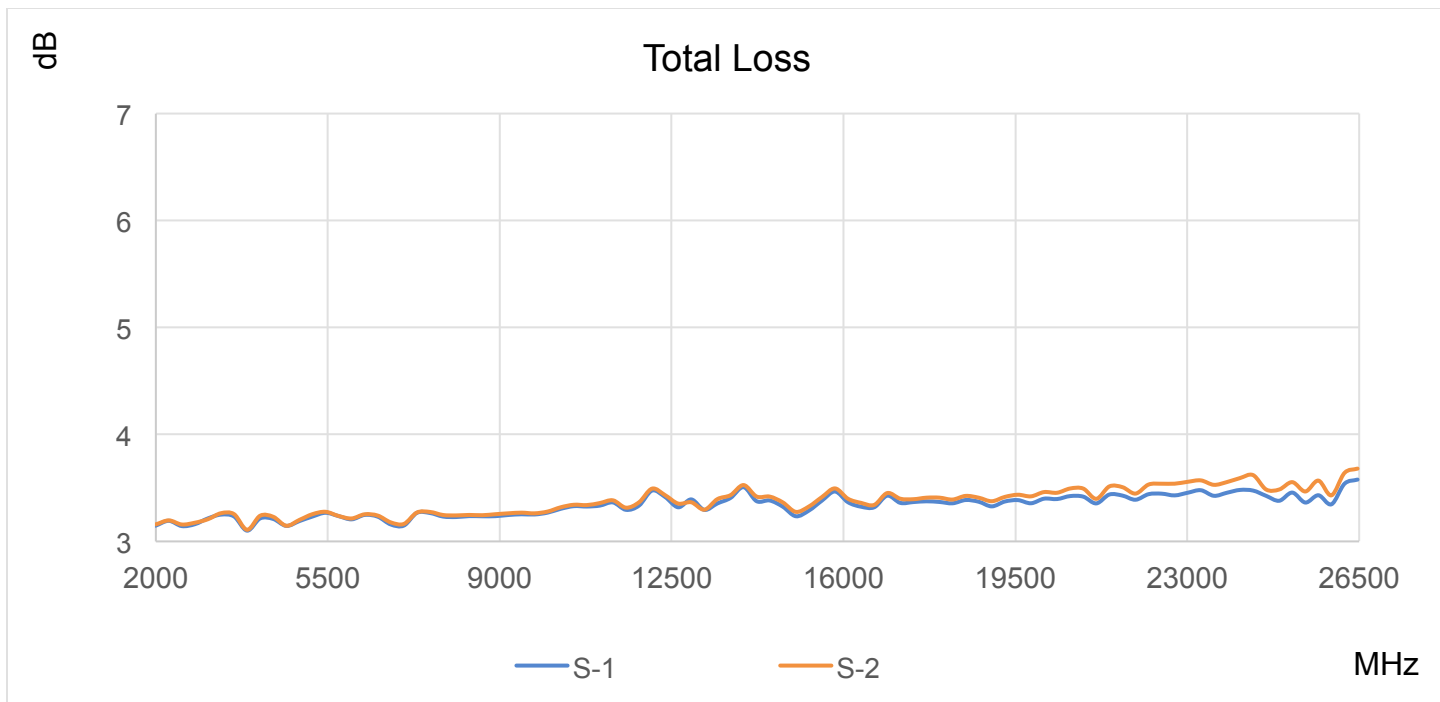
Connector Interface	SMA-Female
Operating Temperature ³	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Nominal Weight	47.6 g (1.68 oz)
Humidity	10-90% non-condensing
Environment	Indoors Use Only
CAGE Code	87MG8

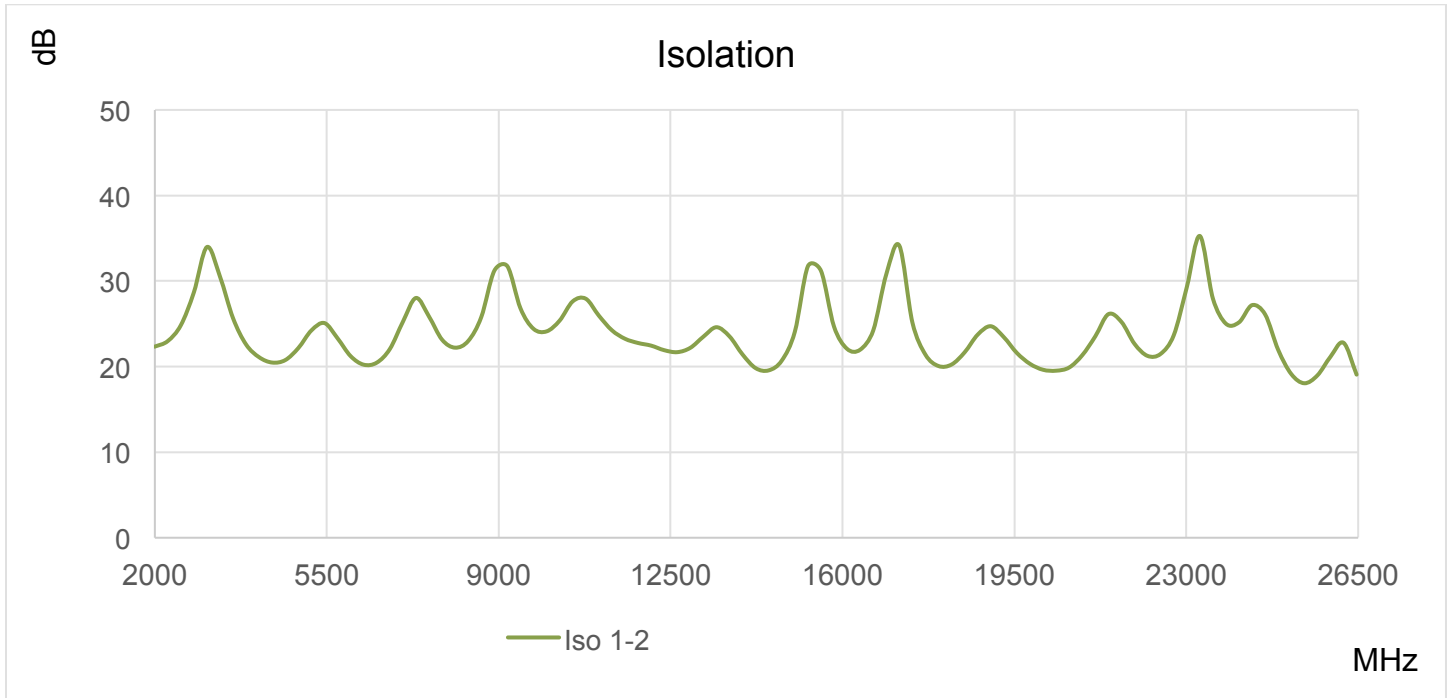
Materials

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

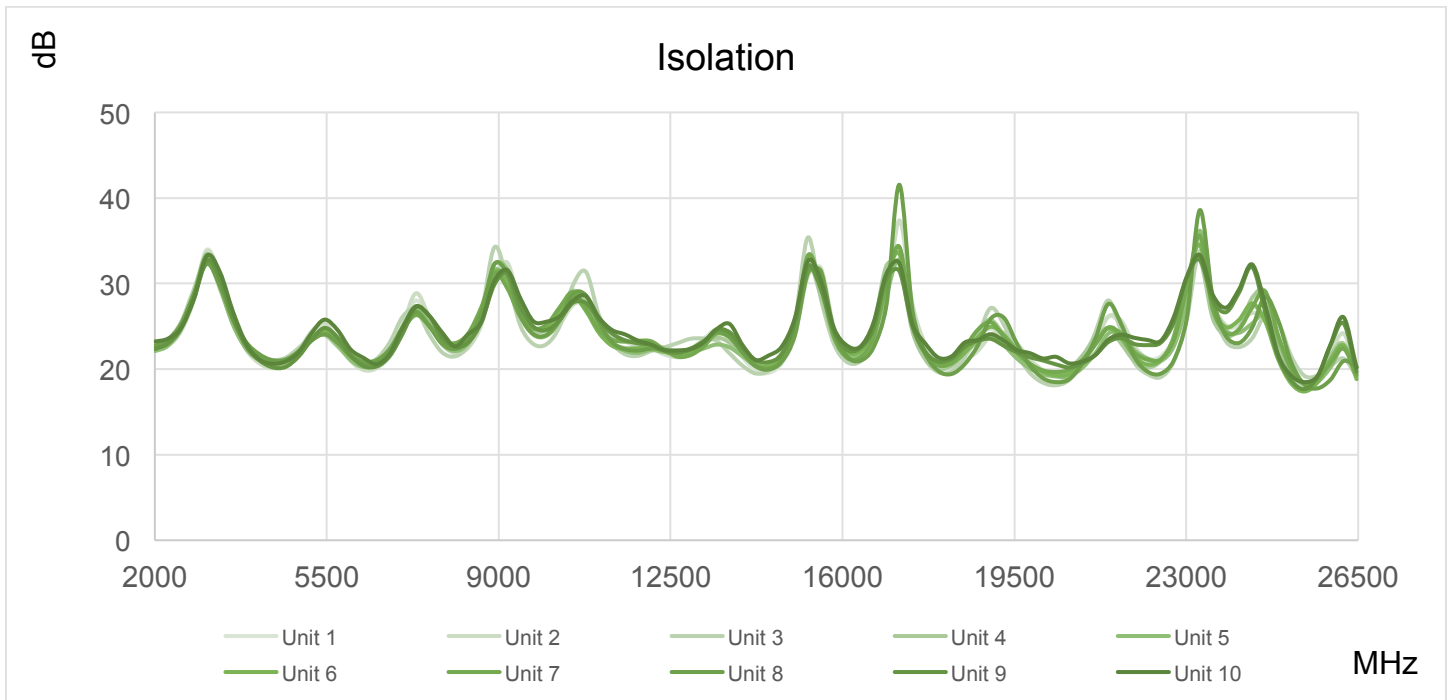
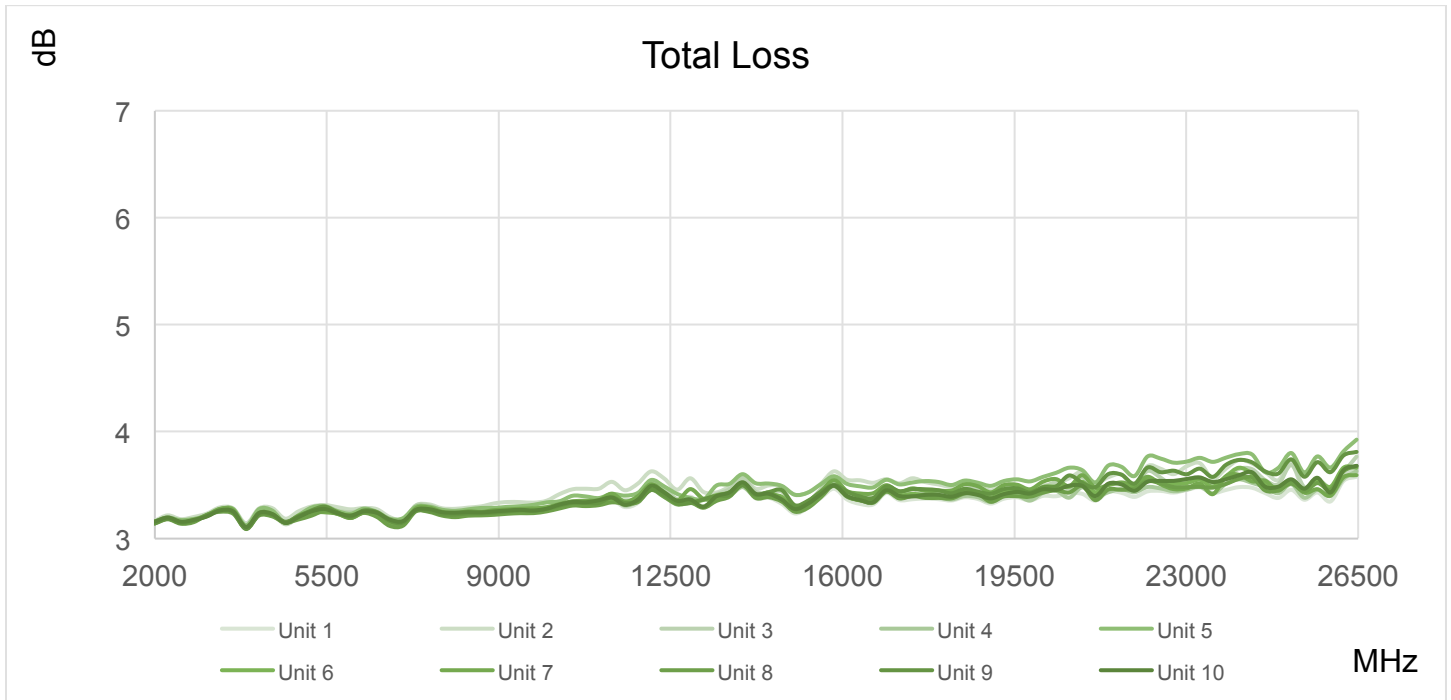
1. With reference to average.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
3. Electrical specifications at +25 °C.
4. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C





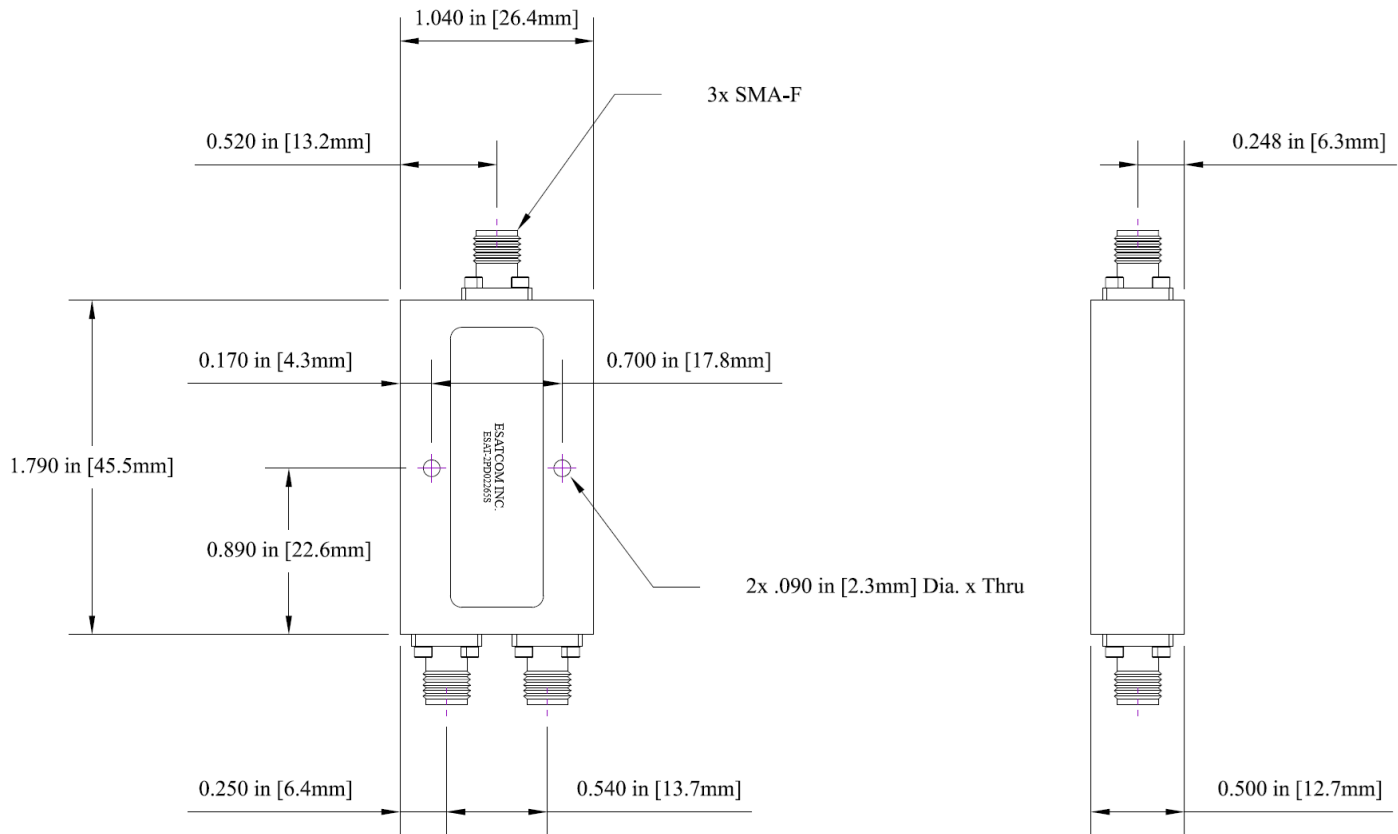
Repeatability in Production



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)
	Port S	Port 1	Port 2	S-1	S-2	
2000	27.45	23.51	23.65	3.17	3.17	21.45
2500	19.26	25.40	25.70	3.23	3.22	23.38
3000	19.86	22.62	22.26	3.07	3.06	34.78
3500	25.26	22.99	21.93	3.14	3.15	25.20
4000	23.89	26.02	24.53	3.19	3.20	20.85
4500	21.99	31.31	30.12	3.16	3.16	20.84
5000	23.38	34.21	34.99	3.17	3.18	22.64
5500	25.68	31.78	36.25	3.15	3.17	22.88
6000	24.54	30.49	32.27	3.25	3.26	21.64
6500	25.17	28.47	27.89	3.19	3.19	21.39
7000	26.20	27.25	25.67	3.20	3.23	23.89
7500	25.05	28.00	26.02	3.26	3.28	26.35
8000	25.06	31.28	28.89	3.25	3.28	23.48
8500	33.46	33.98	30.90	3.22	3.25	23.81
9000	32.19	27.34	26.23	3.24	3.28	31.25
9500	35.76	29.58	28.99	3.24	3.27	27.10
10500	21.12	22.16	21.81	3.31	3.35	26.38
11000	25.46	20.97	21.41	3.28	3.32	27.33
11500	26.80	25.75	26.20	3.26	3.31	22.10
12000	18.94	23.68	23.32	3.34	3.39	21.14
12500	18.43	21.19	21.28	3.49	3.54	22.37
13000	27.60	27.08	26.80	3.19	3.24	22.99
13500	21.71	27.54	27.84	3.41	3.47	23.35
14000	16.60	23.31	24.54	3.38	3.44	21.38
14500	18.74	30.04	33.17	3.36	3.43	20.23
15000	32.46	23.78	24.91	3.32	3.39	23.84
15500	17.49	19.93	20.97	3.34	3.43	35.06
16000	17.01	24.56	25.02	3.45	3.53	22.07
16500	25.97	39.85	39.59	3.37	3.45	21.95
17000	28.07	26.13	28.76	3.31	3.41	37.01
17500	24.31	29.13	30.95	3.31	3.43	23.06
18000	22.78	30.59	33.68	3.31	3.43	19.19
18500	19.92	23.34	25.25	3.43	3.56	22.62
19000	25.76	23.92	24.11	3.32	3.46	26.25
19500	29.03	27.78	26.05	3.32	3.47	20.56
20000	19.62	35.43	30.33	3.40	3.58	19.69
20500	22.42	29.77	24.96	3.42	3.63	20.63
21000	29.64	24.90	22.44	3.26	3.41	20.85
21500	27.30	23.05	22.31	3.36	3.53	24.92
22000	26.38	26.98	28.84	3.34	3.52	24.84
22500	19.54	41.60	34.56	3.39	3.56	20.67
23000	20.15	29.24	27.14	3.43	3.63	23.84
23500	26.19	26.37	25.96	3.51	3.75	36.44
24000	24.08	30.07	26.70	3.43	3.69	22.84
24500	18.04	21.35	19.62	3.52	3.80	23.45
25000	21.19	20.85	19.63	3.28	3.53	25.88
25500	28.98	24.75	23.50	3.32	3.55	19.21
26000	24.91	32.24	30.90	3.30	3.60	19.32
26500	15.12	27.02	24.68	3.36	3.61	20.14

Outline Dimensions



Outline drawing: OL-2262

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

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

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or documentation of the part, in order to implement improvements. Esatcom Inc. reserves the right to make such changes as required without notice. Unless otherwise stated, all specifications and dimensions are nominal. Esatcom Inc. does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Esatcom Inc. does not assume any liability arising out of the use of any part of documentation. This document gives only a description of the product(s) and shall not form part of any contract. Please contact a Esatcom Inc. Applications Engineer for the most current specification drawing