

# Power Splitter/Combiner

## SEPS-8-272+

8 Way-0° 50Ω 700 to 2700 MHz

### Maximum Ratings

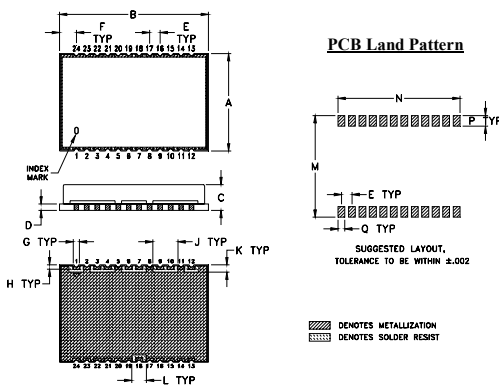
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	5W max.
Internal Dissipation	0.5W max.

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

SUM PORT	18
PORT 1	1
PORT 2	3
PORT 3	4
PORT 4	6
PORT 5	7
PORT 6	9
PORT 7	10
PORT 8	12
GROUND	all others

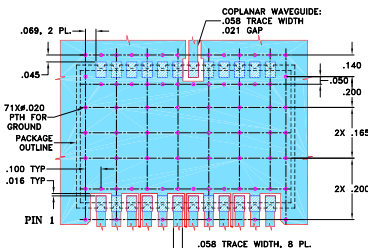
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.93	1.42	.25	.063	.100	.160	.060	.040
23.62	36.07	6.35	1.60	2.54	4.06	1.52	1.02
J	K	L	M	N	P	Q	wt
.240	.070	.140	.970	1.165	.100	.065	grams
6.10	1.78	3.56	24.64	29.59	2.54	1.65	6.5

### Demo Board MCL P/N: TB-583+ Suggested PCB Layout (PL-388)



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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### Features

- good isolation, 20 dB typ.
- good output matching, VSWR 1.35 typ.
- shielded case
- aqueous washable
- good coplanarity

### Applications

- cellular
- ISM
- CATV
- GPS
- PCS
- wireless communication system



CASE STYLE: BL1543

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
13"	100

### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		700		2700	MHz
<b>Insertion Loss</b> (above theoretical 9.0 dB)	900-2400 700-2700	— —	1.8 2.8	2.8 4.9	dB
<b>Isolation</b>	900-2400 700-2700	14 10	20 14	— —	dB
<b>Phase Unbalance</b>	900-2400 700-2700	— —	7.0 10	16 19	Degree
<b>Amplitude Unbalance</b>	900-2400 700-2700	— —	0.6 1.2	1.2 2.1	dB
<b>VSWR (Port S)</b>	900-2400 700-2700	— —	1.7 1.7	— —	:1
<b>VSWR (Port 1-8)</b>	900-2400 700-2700	— —	1.35 1.35	— —	:1

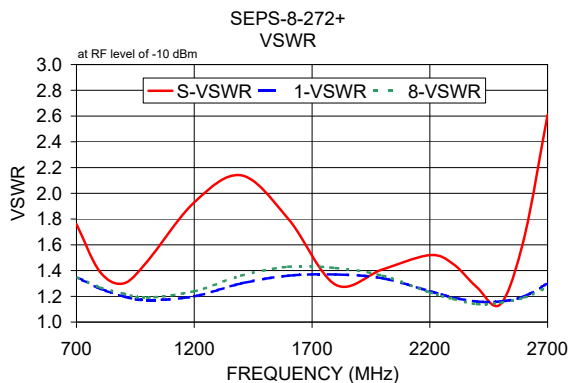
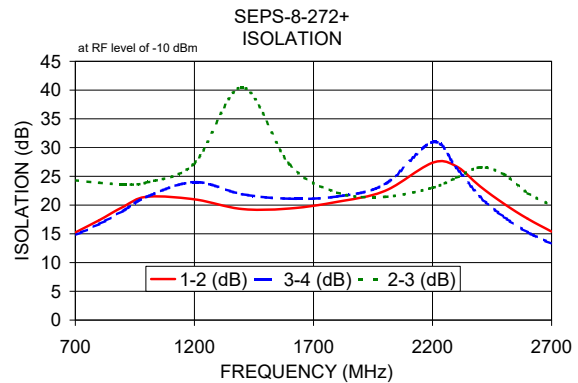
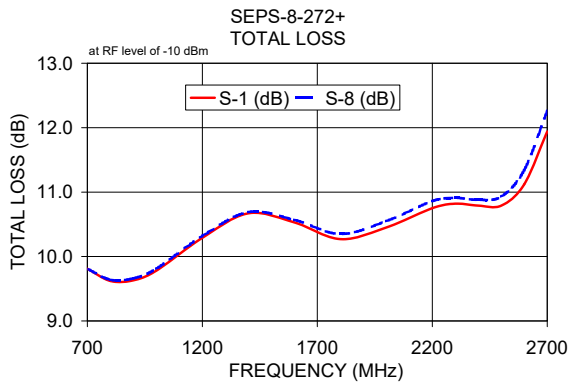
### Electrical Schematic



## Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)						Amplitude Unbalance (dB)	Isolation (dB)				Phase Unbalance (deg.)	S	VSWR	
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	2-3	3-4	5-6			1	8
700	9.81	9.85	9.82	9.85	9.77	9.81	0.08	15.23	24.31	14.78	14.44	2.83	1.76	1.35	1.35
800	9.62	9.66	9.64	9.69	9.60	9.64	0.09	17.37	23.87	16.70	16.28	3.30	1.39	1.26	1.27
900	9.63	9.68	9.65	9.71	9.62	9.66	0.09	19.67	23.63	18.97	18.45	3.80	1.30	1.20	1.22
1000	9.78	9.83	9.79	9.87	9.77	9.81	0.10	21.44	23.93	21.44	20.79	4.37	1.47	1.17	1.19
1200	10.29	10.34	10.25	10.35	10.23	10.32	0.13	20.99	27.25	24.01	23.62	5.37	1.93	1.20	1.24
1400	10.67	10.73	10.53	10.65	10.52	10.69	0.20	19.31	40.50	21.89	21.86	5.81	2.14	1.30	1.36
1600	10.53	10.60	10.38	10.52	10.35	10.57	0.25	19.40	27.02	21.11	21.14	5.55	1.80	1.36	1.43
1800	10.27	10.35	10.21	10.35	10.15	10.35	0.25	20.57	22.16	21.49	21.62	5.16	1.29	1.37	1.42
2000	10.45	10.50	10.42	10.54	10.34	10.55	0.28	22.47	21.42	23.62	23.69	4.93	1.41	1.34	1.36
2200	10.75	10.78	10.63	10.78	10.59	10.86	0.33	27.36	23.01	30.95	33.18	5.67	1.52	1.24	1.23
2300	10.82	10.83	10.69	10.87	10.66	10.91	0.36	26.73	24.76	26.46	28.78	6.07	1.45	1.19	1.18
2400	10.79	10.77	10.73	10.94	10.71	10.88	0.47	23.25	26.56	21.43	22.87	7.25	1.27	1.16	1.14
2500	10.79	10.75	10.90	11.13	10.91	10.93	0.68	20.22	25.34	17.94	19.08	8.51	1.14	1.16	1.15
2600	11.12	11.05	11.44	11.68	11.50	11.34	0.92	17.62	22.07	15.26	16.23	9.50	1.65	1.20	1.19
2700	11.94	11.83	12.47	12.70	12.61	12.26	1.22	15.38	19.96	13.28	14.14	10.63	2.61	1.30	1.27

1. Total Loss = Insertion Loss + 9dB splitter theoretical loss.



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