

# Power Splitter/Combiner

## SEPS-4-272+

4 Way-0° 50Ω 690 to 2700 MHz



CASE STYLE: JF1258

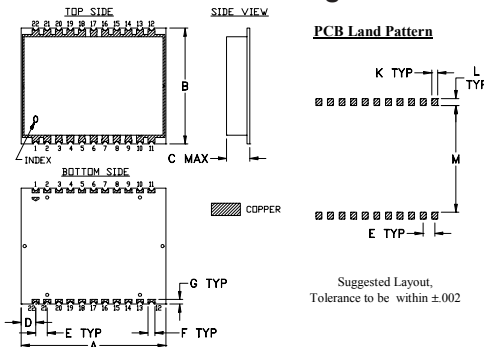
### Maximum Ratings

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.
DC Current	1A (250 mA for each port)
Permanent damage may occur if any of these limits are exceeded.	

### Pin Connections

SUM PORT	17
PORT 1	3
PORT 2	5
PORT 3	7
PORT 4	9
GROUND	all others

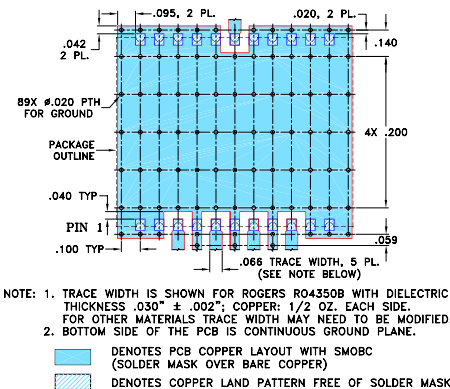
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	
1.250	1.000	.200	.125	.100	.060	.040	
31.75	25.40	5.08	3.18	2.54	1.52	1.02	
H	J	K	L	M		wt	
--	--	.050	.060	.920		grams	
--	--	1.27	1.52	23.37		4.4	

### Demo Board MCL P/N: TB-441+ Suggested PCB Layout (PL-273)



### 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 performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)

### Features

- good isolation, 20 dB typ.
- good output matching, VSWR 1.1 typ.
- shielded case
- aqueous washable
- good coplanarity

### Applications

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

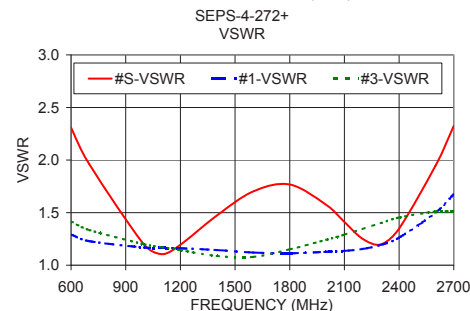
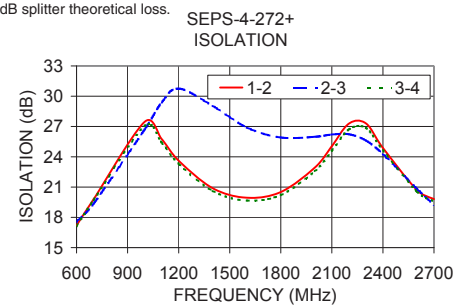
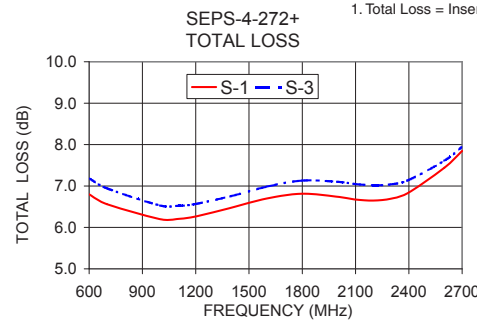
### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		690		2700	MHz
<b>Insertion Loss Above 6.0 dB</b>	800-2200 690-2700		1.0 1.5	1.6 2.6	dB
<b>Isolation</b>	690-2700	15	20		dB
<b>Phase Unbalance</b>	690-2700		4	7	Degree
<b>Amplitude Unbalance</b>	690-2700		0.4	0.8	dB
<b>VSWR (Port S)</b>	690-2700		1.5		:1
<b>VSWR (Port 1-4)</b>	690-2700		1.2		:1

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
600	6.80	7.23	7.19	6.77	0.46	17.21	17.55	17.13	0.63	2.31	1.29	1.41	1.42	1.30
700	6.56	6.99	6.94	6.54	0.45	19.79	19.35	19.70	0.49	1.96	1.23	1.33	1.33	1.25
1000	6.20	6.58	6.53	6.18	0.39	27.46	26.70	27.06	0.53	1.20	1.17	1.19	1.20	1.19
1100	6.21	6.56	6.52	6.18	0.38	25.76	29.38	25.39	0.67	1.10	1.16	1.16	1.17	1.18
1200	6.27	6.61	6.57	6.24	0.37	23.61	30.76	23.29	0.87	1.19	1.16	1.13	1.14	1.17
1400	6.48	6.79	6.76	6.44	0.35	20.89	29.04	20.61	1.34	1.47	1.14	1.08	1.09	1.15
1600	6.70	7.02	6.98	6.65	0.36	19.94	26.90	19.67	1.89	1.70	1.12	1.07	1.08	1.12
1800	6.81	7.17	7.13	6.77	0.40	20.51	25.91	20.21	2.36	1.77	1.11	1.14	1.15	1.12
2000	6.74	7.15	7.10	6.71	0.43	22.93	25.98	22.57	2.61	1.57	1.13	1.24	1.24	1.14
2100	6.67	7.09	7.05	6.65	0.44	25.05	26.20	24.59	2.67	1.41	1.14	1.29	1.29	1.15
2200	6.65	7.06	7.02	6.62	0.44	27.28	26.23	26.70	2.73	1.25	1.15	1.34	1.34	1.17
2300	6.70	7.09	7.04	6.67	0.42	27.31	25.62	26.86	2.79	1.20	1.19	1.40	1.40	1.20
2400	6.85	7.19	7.15	6.80	0.39	24.87	24.27	24.63	2.89	1.35	1.26	1.45	1.45	1.26
2600	7.44	7.67	7.61	7.37	0.30	20.70	20.83	20.54	3.55	1.95	1.50	1.50	1.51	1.48
2700	7.84	8.01	7.95	7.75	0.26	19.81	19.24	19.58	4.16	2.32	1.67	1.50	1.51	1.64

1. Total Loss = Insertion Loss + 6dB splitter theoretical loss.



### Electrical Schematic

