

# Power Splitter/Combiner

## SEPS-4-222+

4 Way-0° 50Ω 800 to 2200 MHz



Generic photo used for illustration purposes only

CASE STYLE: JF1258

**+RoHS Compliant**

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

### 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

### Features

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

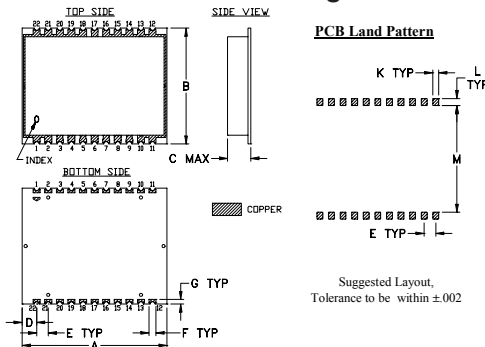
### Applications

- cellular
- GPS
- PCS

### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 6.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
$f_L$ - $f_U$	20	17	1.0	1.4	6	0.6

### Outline Drawing



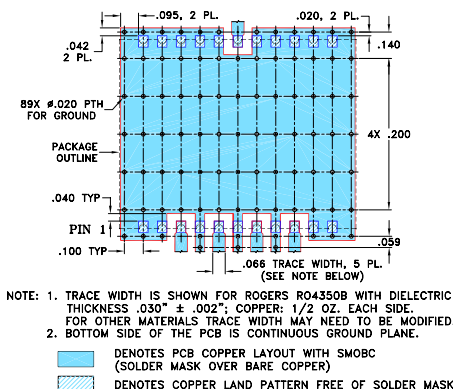
### Outline Dimensions (inch/mm)

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)



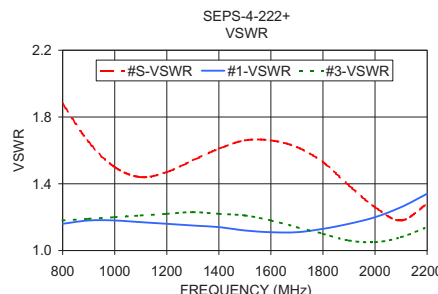
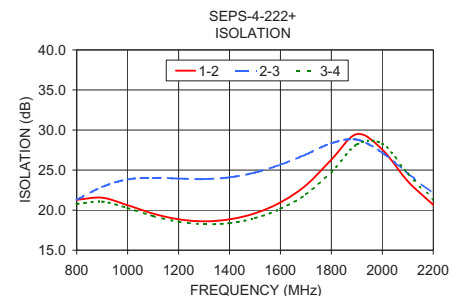
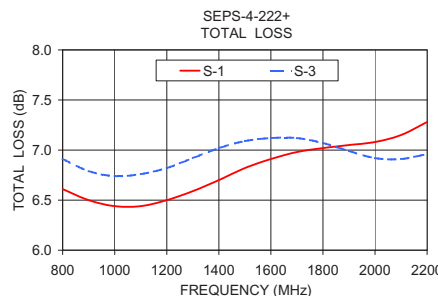
### Notes

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### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR	VSWR	VSWR	VSWR	VSWR
	S-1	S-2	S-3	S-4		1-2	2-3	3-4		S	1	2	3	4
800.00	6.61	6.91	6.91	6.50	0.40	21.30	21.30	20.76	1.79	1.88	1.16	1.18	1.18	1.16
900.00	6.50	6.79	6.79	6.38	0.41	21.55	22.90	21.06	2.04	1.65	1.18	1.19	1.19	1.17
1000.00	6.44	6.75	6.74	6.32	0.43	20.62	23.84	20.26	2.32	1.50	1.18	1.21	1.20	1.17
1100.00	6.44	6.77	6.76	6.31	0.45	19.57	24.04	19.26	2.55	1.44	1.17	1.23	1.21	1.17
1200.00	6.50	6.84	6.82	6.36	0.48	18.86	23.94	18.55	2.80	1.47	1.16	1.24	1.22	1.16
1300.00	6.59	6.94	6.92	6.44	0.50	18.61	23.88	18.25	3.08	1.54	1.15	1.24	1.23	1.16
1400.00	6.70	7.04	7.02	6.53	0.51	18.85	24.09	18.38	3.41	1.61	1.14	1.24	1.22	1.15
1500.00	6.82	7.11	7.09	6.63	0.49	19.61	24.69	19.01	3.75	1.66	1.12	1.22	1.21	1.15
1600.00	6.91	7.14	7.12	6.69	0.45	20.97	25.67	20.17	4.04	1.66	1.11	1.19	1.18	1.15
1700.00	6.98	7.13	7.12	6.75	0.38	23.09	26.94	21.98	4.21	1.62	1.11	1.14	1.14	1.16
1800.00	7.02	7.08	7.07	6.77	0.31	26.29	28.35	24.74	4.26	1.53	1.13	1.09	1.10	1.18
1900.00	7.05	7.00	6.99	6.78	0.27	29.49	28.80	28.19	4.16	1.39	1.16	1.05	1.06	1.21
2000.00	7.08	6.94	6.92	6.80	0.28	27.55	27.17	28.28	3.85	1.26	1.20	1.03	1.05	1.25
2100.00	7.15	6.93	6.91	6.84	0.31	23.61	24.59	24.55	3.40	1.18	1.26	1.08	1.08	1.31
2200.00	7.28	7.00	6.96	6.94	0.34	20.67	22.10	21.33	2.71	1.28	1.34	1.15	1.14	1.39

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



### electrical schematic



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