

# Power Splitter/Combiner

SEPS-2-33+

2 Way-0° 50Ω 600 to 3000 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.
DC Current	1.5A (750 mA for each port)

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

## Pin Connections

SUM PORT	17
PORT 1	4
PORT 2	8
GROUND	all others

## Features

- wideband 600-3000 MHz
- good isolation, 22 dB typ.
- good output matching, VSWR 1.2 typ.
- shielded case
- aqueous washable
- excellent amplitude unbalance, 0.15 dB typ.

## Applications

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

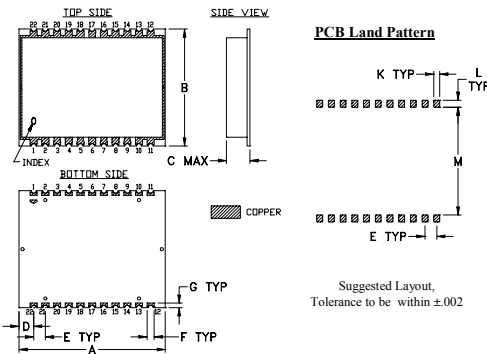


Generic photo used for illustration purposes only  
CASE STYLE: JF1258

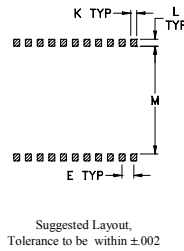
### +RoHS Compliant

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

## Outline Drawing



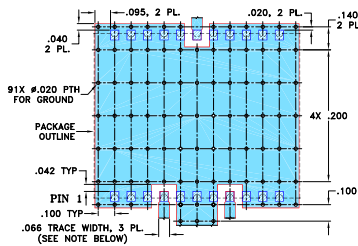
### PCB Land Pattern



## 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-760+ Suggested PCB Layout (PL-402)

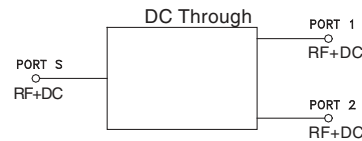


- NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		600		3000	MHz
Insertion Loss Above 3.0 dB	700 - 2200	—	0.6	1.2	dB
	600 - 3000	—	0.8	1.6	dB
Isolation	600 - 800	13	17.0	—	dB
	800 - 3000	17	24.0	—	dB
Phase Unbalance	600 - 3000	—	1.0	5.0	Degree
Amplitude Unbalance	600 - 3000	—	0.15	0.6	dB
VSWR (Port S)	600 - 800	—	1.45	1.75	:1
	800 - 3000	—	1.3	1.55	:1
VSWR (Port 1-2)	600-3000	—	1.2	1.4	:1

## Electrical Schematic



## Notes

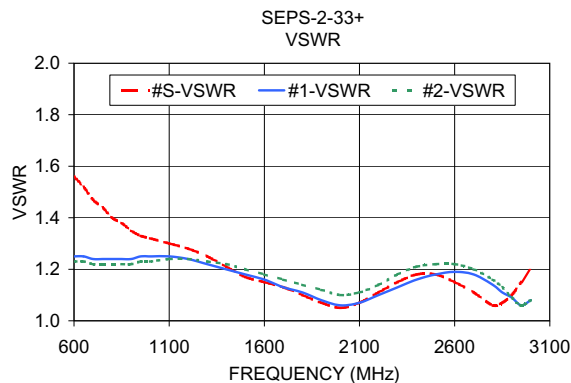
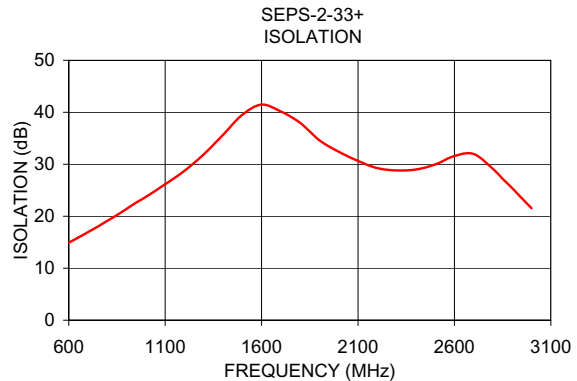
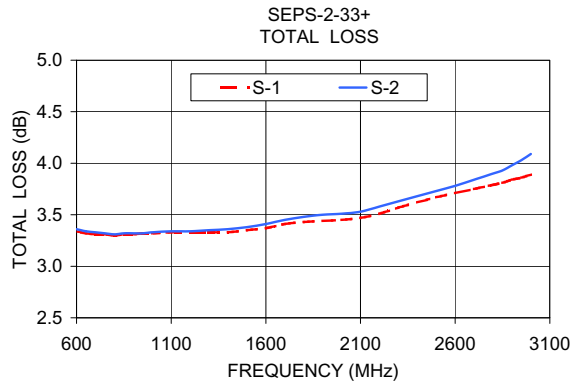
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.  
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## Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
600.00	3.34	3.36	0.02	14.94	0.07	1.56	1.25	1.23
700.00	3.31	3.33	0.02	16.96	0.06	1.47	1.24	1.22
800.00	3.30	3.31	0.01	19.13	0.02	1.40	1.24	1.22
900.00	3.31	3.32	0.01	21.42	0.05	1.35	1.24	1.22
1000.00	3.32	3.33	0.01	23.73	0.07	1.32	1.25	1.23
1200.00	3.33	3.34	0.01	28.74	0.14	1.28	1.24	1.24
1400.00	3.33	3.36	0.03	35.65	0.14	1.21	1.20	1.22
1500.00	3.35	3.38	0.03	39.52	0.14	1.17	1.18	1.20
1600.00	3.37	3.41	0.04	41.47	0.13	1.15	1.16	1.18
1800.00	3.43	3.48	0.05	37.98	0.18	1.10	1.11	1.14
2000.00	3.45	3.51	0.06	32.40	0.21	1.05	1.06	1.10
2200.00	3.51	3.58	0.07	29.26	0.32	1.11	1.10	1.14
2400.00	3.62	3.68	0.06	28.99	0.35	1.18	1.16	1.21
2600.00	3.71	3.78	0.06	31.59	0.46	1.15	1.19	1.22
3000.00	3.89	4.09	0.20	21.54	0.82	1.20	1.08	1.08

1. Total Loss = Insertion Loss + 3dB splitter theoretical loss.



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