

Surface Mount Power Splitter/Combiner

16 Way-0° 50Ω 5 to 1000 MHz

JEPS-16-1W+

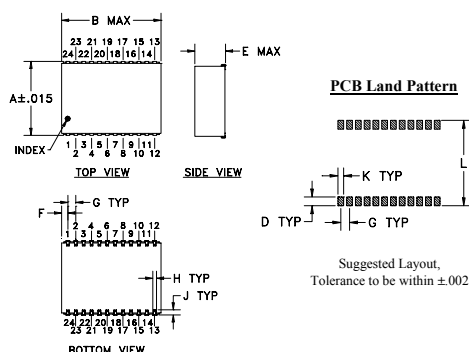
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	1.875W max.
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

SUM PORT	18	PORT 9	13
PORT 1	2	PORT 10	14
PORT 2	3	PORT 11	15
PORT 3	4	PORT 12	16
PORT 4	5	PORT 13	20
PORT 5	9	PORT 14	21
PORT 6	10	PORT 15	22
PORT 7	11	PORT 16	23
PORT 8	12	GROUND	1,6,7,8,17,19,24

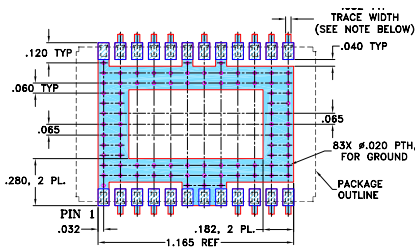
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.940	1.426	--	.100	.250	.163
23.88	36.22	--	2.54	6.35	4.14
G	H	J	K	L	wt
.100	.047	.065	.065	.970	grams
2.54	1.19	1.65	1.65	24.64	6.4

Demo Board MCL P/N: TB-135 Suggested PCB Layout (PL-090)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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.
- 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/MCLStore/terms.jsp

Features

- wideband, 5 to 1000 MHz
- good VSWR, 1.2 typ.
- good isolation, 23 dB typ.
- shielded metal case
- J-leads for good solderability and strain relief
- aqueous washable
- protected by U.S. Patent 6,963,255

Applications

- clock distribution
- cellular

Electrical Specifications

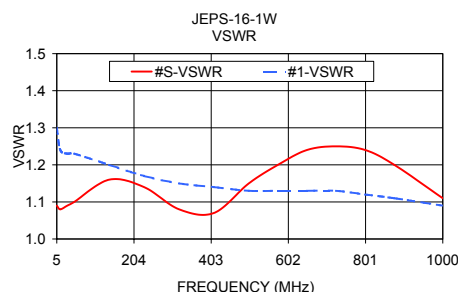
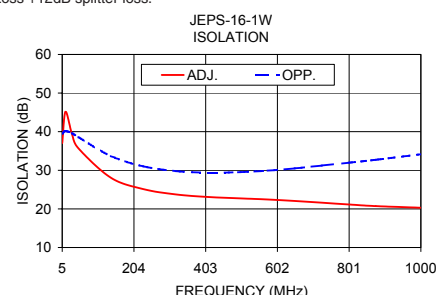
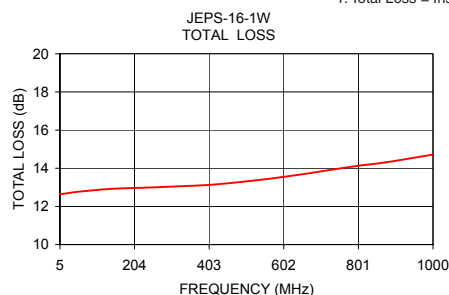
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 12 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)			VSWR (:1)	
	L		M		U		L		M		U		L	M	U	L	M	U	S	OUT
f_L - f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Typ.	Typ.
5-1000	36	23	23	17	20	15	0.8	2.0	1.5	2.5	3.0	4.2	8	13	20	1.5	1.2	1.8	1.2	1.2

L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR OUT
			Adjacent	Opposite			
5.00	12.65	0.71	37.04	39.47	1.56	1.09	1.30
14.00	12.66	0.66	45.14	40.14	0.51	1.08	1.24
32.00	12.71	0.63	39.39	39.61	0.34	1.09	1.23
50.00	12.76	0.64	35.69	38.58	0.71	1.10	1.23
140.00	12.92	0.64	28.07	33.68	2.06	1.16	1.20
230.00	12.98	0.70	25.13	31.03	2.97	1.14	1.17
320.00	13.05	0.77	23.75	29.80	3.41	1.08	1.15
410.00	13.14	0.74	23.08	29.39	4.59	1.07	1.14
500.00	13.31	0.58	22.73	29.52	5.75	1.15	1.13
575.00	13.48	0.37	22.43	29.92	6.57	1.20	1.13
650.00	13.68	0.42	22.06	30.50	7.25	1.24	1.13
725.00	13.91	0.54	21.62	31.22	7.63	1.25	1.13
800.00	14.13	0.61	21.14	31.98	7.58	1.24	1.12
875.00	14.31	0.63	20.72	32.72	9.11	1.20	1.11
1000.00	14.72	0.55	20.30	34.16	11.29	1.11	1.09

1. Total Loss = Insertion Loss + 12dB splitter loss.



electrical schematic

