Surface Mount

Power Splitter/Combiner

JCPS-8-850+

8 Way-0° 50Ω 10 to 850 MHz

Generic photo used for illustration purposes only

CASE STYLE: BG291

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

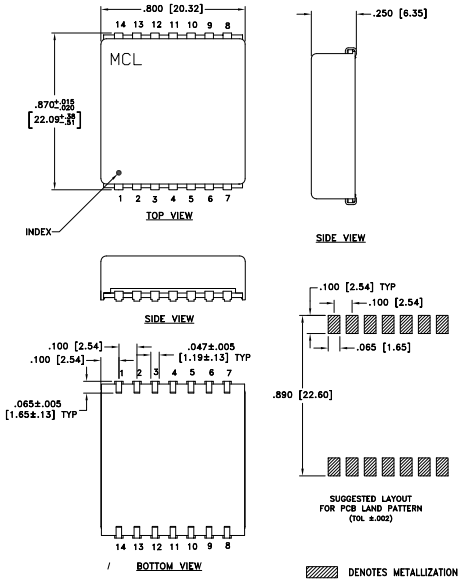
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.875W max.

Pin Connections

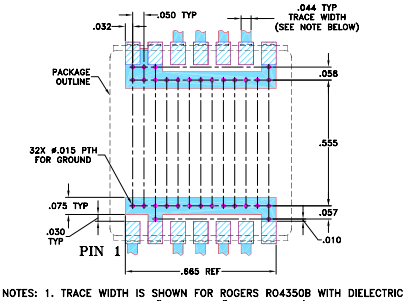
SUM PORT	1
PORT 1	3
PORT 2	4
PORT 3	5
PORT 4	6
PORT 5	9
PORT 6	10
PORT 7	11
PORT 8	12
GROUND	2,7,8,13,14

Outline Drawing



Weight: 4 grams
Dimensions are in inches [mm].
Tolerances: 2 Pl.±.03 [0.76]; 3Pl.±.015 [0.381] inches

Demo Board MCL P/N: TB-134
Suggested PCB Layout (PL-037)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; 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

Features

- wideband, 10 to 850 MHz
- aqueous washable
- shielded metal case
- J-leads for good solderability & strain relief

Applications

- VHF/UHF
- cellular
- instrumentation
- communication systems

Electrical Specifications

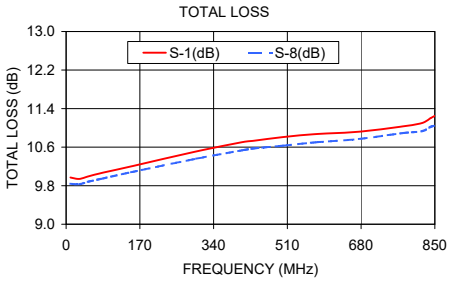
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 9.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
10-850	34	20	25	17	20	15	0.8	1.5	1.0	2.5	1.8	3.0	5	10	20	0.6	0.7	1.0

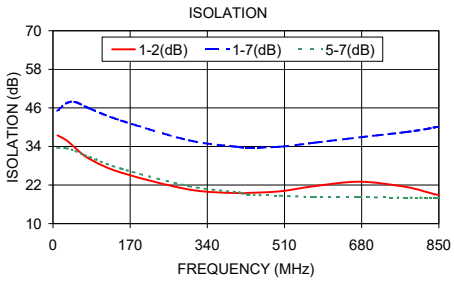
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

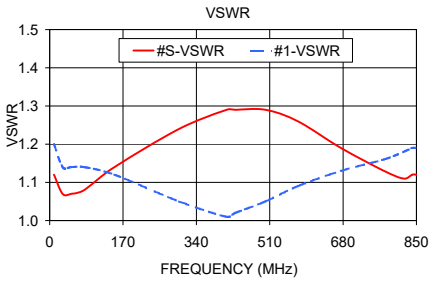
Typical Performance Data

Freq. (MHz)	Total Loss[1] (dB)						Amplitude Unbalance (dB)	Isolation (dB)				VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	5-7			
10.00	9.97	9.88	9.85	9.85	9.83	9.84	0.14	37.47	45.11	36.73	33.59	1.12	1.20	1.24
30.00	9.94	9.85	9.82	9.83	9.81	9.83	0.13	35.88	47.49	35.30	33.43	1.07	1.14	1.18
50.00	9.99	9.90	9.85	9.87	9.87	9.88	0.14	33.43	47.78	33.03	32.56	1.07	1.14	1.18
80.00	10.06	9.96	9.92	9.93	9.94	9.94	0.14	30.18	45.86	29.90	30.72	1.08	1.14	1.17
150.00	10.20	10.08	10.05	10.05	10.08	10.08	0.15	25.88	42.07	25.65	27.12	1.14	1.12	1.15
300.00	10.51	10.35	10.32	10.32	10.39	10.36	0.19	20.60	35.90	20.40	21.65	1.24	1.05	1.08
410.00	10.71	10.51	10.48	10.47	10.61	10.54	0.24	19.46	33.82	19.25	19.70	1.29	1.01	1.02
430.00	10.73	10.54	10.50	10.48	10.64	10.57	0.25	19.55	33.59	19.32	19.00	1.29	1.02	1.02
500.00	10.81	10.59	10.56	10.55	10.75	10.63	0.26	20.04	33.93	19.84	18.67	1.29	1.05	1.05
575.00	10.87	10.66	10.61	10.63	10.88	10.70	0.30	21.63	35.15	21.98	18.29	1.26	1.09	1.10
675.00	10.92	10.76	10.66	10.70	11.05	10.77	0.43	23.04	36.83	26.33	18.19	1.19	1.13	1.16
775.00	11.03	10.95	10.77	10.86	11.32	10.89	0.62	21.47	38.45	25.87	18.10	1.13	1.16	1.21
820.00	11.10	11.05	10.81	10.91	11.44	10.93	0.71	19.95	39.36	22.83	18.03	1.11	1.18	1.24
840.00	11.20	11.16	10.90	11.02	11.59	11.02	0.78	19.15	39.94	21.31	18.03	1.12	1.19	1.25
850.00	11.25	11.23	10.94	11.08	11.67	11.05	0.82	18.91	40.13	20.89	18.03	1.12	1.19	1.26

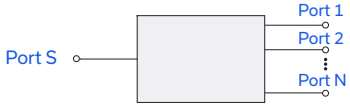
1. Total Loss = Insertion Loss + 9dB splitter loss.







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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. 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