

Power Splitter/Combiner

2 Way-0° 50Ω 1000 to 3000 MHz

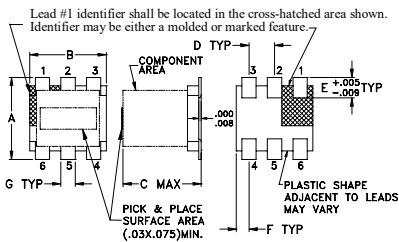
Maximum Ratings

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

Pin Connections

SUM PORT	2,5,6
PORT 1	3
PORT 2	4
GROUND	1
EXT. RESISTOR 200Ω	3,4

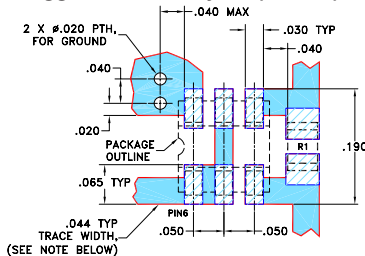
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.160	.150	.160	.050	.040	.025
4.06	3.81	4.06	1.27	1.02	0.64
G	H	J	K	L	M
.028	.065	.190	.030		
0.71	1.65	4.83	0.76		
N	O	P	Q	R	S
.025	.025	.025	.025	.025	.025
0.64	0.64	0.64	0.64	0.64	0.64
T	U	V	W	X	Y
.025	.025	.025	.025	.025	.025
0.64	0.64	0.64	0.64	0.64	0.64
Z					
.025					
0.64					

Demo Board MCL P/N: TB-464+ Suggested PCB Layout (PL-357)



RESISTOR R1: 200 ± 1% Ohm, 0805 SIZE

NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .0020" ± 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

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

Features

- low insertion, 0.8 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- very good phase unbalance, 1.0 deg. typ.
- external resistor required
- aqueous washable
- leads for excellent solderability
- low cost

Applications

- cellular
- PCN
- GPS

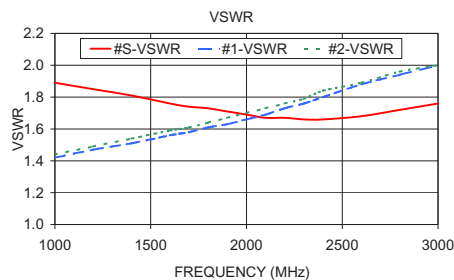
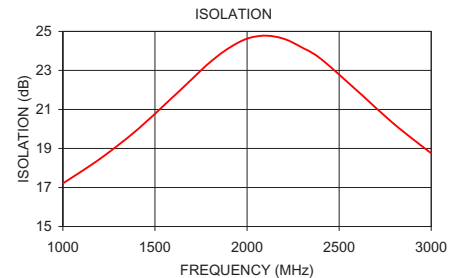
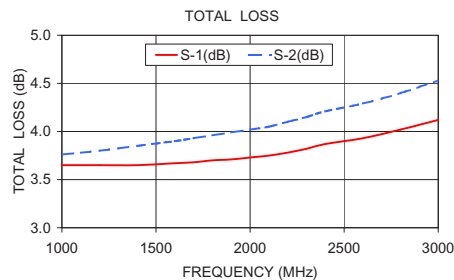
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 3.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min	Typ. Max.	Max.	Max.
1000-3000	18 15	0.8 1.9	5.0	0.9

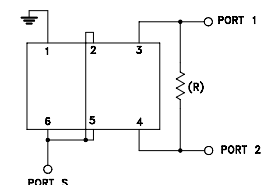
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2					
1000.00	3.65	3.76	0.11	17.21	0.35	1.89	1.44
1200.00	3.65	3.80	0.15	18.46	0.37	1.85	1.47
1400.00	3.65	3.85	0.20	19.93	0.41	1.81	1.51
1600.00	3.67	3.90	0.23	21.66	0.50	1.76	1.59
1700.00	3.68	3.93	0.25	22.55	0.53	1.74	1.61
1800.00	3.70	3.96	0.26	23.43	0.59	1.73	1.64
1900.00	3.71	3.99	0.28	24.14	0.65	1.71	1.63
2000.00	3.73	4.02	0.29	24.63	0.74	1.69	1.66
2100.00	3.75	4.05	0.30	24.78	0.82	1.67	1.69
2200.00	3.78	4.10	0.31	24.62	0.91	1.67	1.73
2300.00	3.82	4.15	0.32	24.17	0.97	1.66	1.79
2400.00	3.87	4.21	0.34	23.60	1.16	1.66	1.80
2600.00	3.93	4.29	0.35	21.94	1.27	1.68	1.88
2800.00	4.02	4.40	0.38	20.24	1.45	1.72	1.94
3000.00	4.12	4.53	0.41	18.75	1.73	1.76	2.00

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



electrical schematic



Generic photo used for illustration purposes only

CASE STYLE: DB714

+RoHS Compliant

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

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

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