

Surface Mount

Power Splitter/Combiner

SYPS-3-12W+

3 Way-0° 50Ω 20 to 1200 MHz



Maximum Ratings

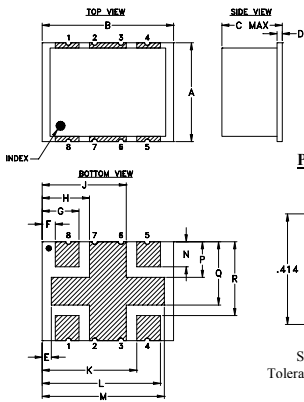
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.15W max.

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

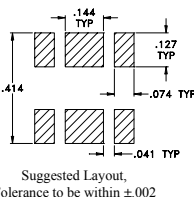
Pin Connections

SUM PORT	8
PORT 1	1
PORT 2	4
PORT 3	5
GROUND	2,3,6,7

Outline Drawing



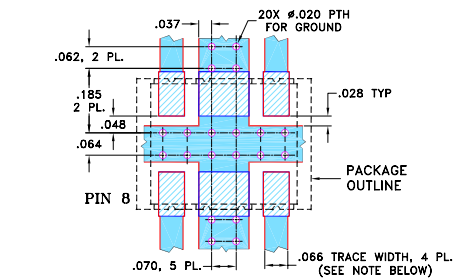
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.38	.50	.25	.020	.035	.050	.140	.180
9.65	12.70	6.35	0.51	0.89	1.27	3.56	4.57
J	K	L	M	N	P	Q	R
.320	.360	.450	.465	.095	.135	.240	.280
8.13	9.14	11.43	11.81	2.41	3.43	6.10	7.11
							wt
							grams
							0.80

Demo Board MCL P/N: TB-364 Suggested PCB Layout (PL-231)



NOTES:

- 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.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
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Features

- low insertion loss 1.0 dB typ.
- wide frequency band, 20 to 1200 MHz, usable 5 to 1250 MHz
- low amplitude unbalance, 0.1 dB typ.

Applications

- VHF/UHF CATV
- cellular

CASE STYLE: AH202
PRICE: \$9.95 ea. QTY. (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

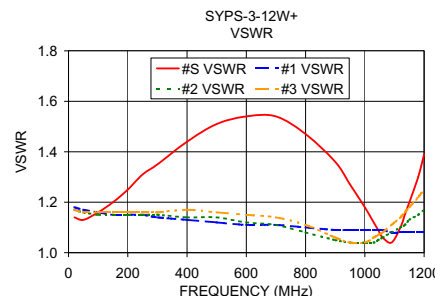
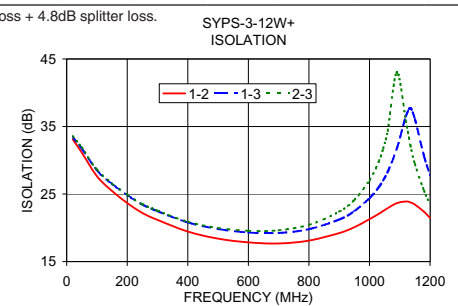
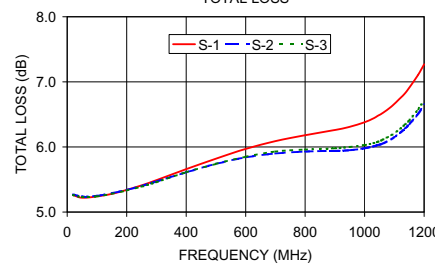
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 4.8 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
$f_c - f_u$						
20-500	24	16	0.7	1.4	2.0	0.3
500-1000	20	15	1.2	2.0	4.0	0.7
1000-1200	24	16	1.7	2.9	6.0	0.9

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
20.00	5.26	5.27	5.26	0.01	33.11	33.43	33.56	0.08	1.14	1.18	1.17	1.17
50.00	5.22	5.24	5.23	0.01	31.13	31.72	31.88	0.10	1.13	1.17	1.16	1.16
100.00	5.24	5.25	5.24	0.01	27.63	28.50	28.60	0.18	1.16	1.16	1.15	1.16
200.00	5.34	5.34	5.33	0.01	23.67	24.84	24.91	0.32	1.25	1.15	1.15	1.16
300.00	5.49	5.47	5.46	0.03	21.17	22.46	22.54	0.44	1.35	1.14	1.15	1.16
400.00	5.66	5.61	5.61	0.05	19.44	20.80	20.90	0.52	1.44	1.13	1.14	1.17
500.00	5.82	5.74	5.74	0.09	18.40	19.82	19.98	0.56	1.51	1.12	1.14	1.16
600.00	5.97	5.84	5.85	0.13	17.84	19.31	19.56	0.52	1.54	1.11	1.12	1.15
700.00	6.09	5.90	5.93	0.18	17.68	19.24	19.63	0.40	1.54	1.11	1.11	1.14
800.00	6.18	5.93	5.96	0.25	18.11	19.80	20.45	0.19	1.47	1.10	1.08	1.11
900.00	6.26	5.94	5.98	0.32	19.22	21.23	22.40	0.19	1.36	1.09	1.05	1.06
1000.00	6.38	5.98	6.03	0.41	21.28	24.38	27.02	0.71	1.18	1.09	1.04	1.04
1090.00	6.62	6.12	6.18	0.50	23.65	31.70	42.96	1.40	1.04	1.08	1.08	1.11
1150.00	6.91	6.35	6.41	0.56	23.44	36.09	29.45	1.96	1.20	1.08	1.13	1.18
1200.00	7.27	6.65	6.72	0.62	21.47	27.81	23.54	2.56	1.39	1.08	1.17	1.25

1. Total Loss = Insertion Loss + 4.8dB splitter loss.



electrical schematic



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

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