

Surface Mount

Power Splitter/Combiner

SYPS-3-12W-75+

3 Way-0° 75Ω 20 to 1200 MHz



Maximum Ratings

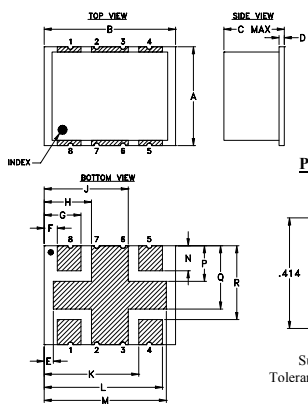
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.15W max.

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

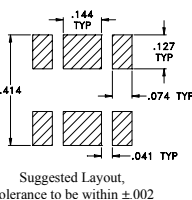
Pin Connections

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

Outline Drawing



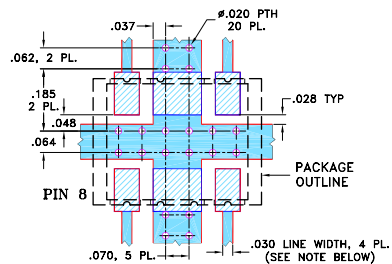
PCB Land Pattern



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	
							0.80

Demo Board MCL P/N: TB-361+ Suggested PCB Layout (PL-229)



NOTE:

- 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 0.7 dB typ.
- good isolation, 25 dB typ.
- wide frequency band, 20 to 1200 MHz, usable 5-1300 MHz
- low amplitude unbalance, 0.1 dB typ.
- low phase unbalance, 0.5 deg. typ.

Applications

- CATV

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.

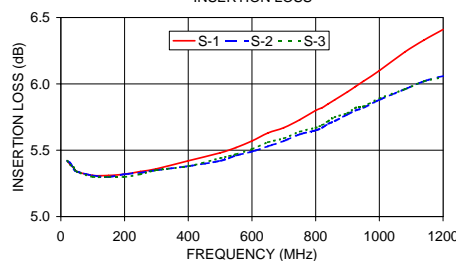
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 4.8 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
20-860	25	18	0.7	1.5	3.0	0.4
860-1200	20	17	1.2	2.2	5.0	0.8

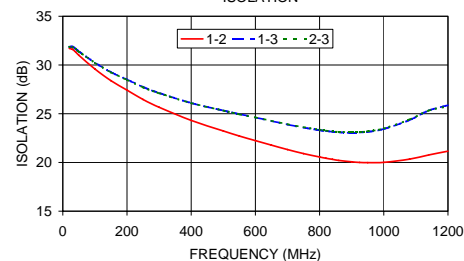
Typical Performance Data

Freq. (MHz)	Insertion Loss (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	5.42	5.42	5.42	0.01	31.70	31.86	31.88	0.11	1.18	1.25	1.24	1.25
50.00	5.34	5.34	5.34	0.00	31.00	31.40	31.37	0.04	1.12	1.23	1.22	1.22
100.00	5.31	5.31	5.30	0.01	29.59	30.25	30.23	0.12	1.09	1.21	1.20	1.20
200.00	5.32	5.32	5.30	0.02	27.42	28.52	28.48	0.23	1.06	1.18	1.17	1.18
300.00	5.36	5.35	5.35	0.02	25.66	27.13	27.11	0.22	1.03	1.16	1.15	1.16
400.00	5.42	5.38	5.38	0.04	24.31	26.11	26.09	0.36	1.03	1.13	1.13	1.14
500.00	5.48	5.42	5.44	0.06	23.23	25.33	25.33	0.27	1.03	1.11	1.12	1.13
600.00	5.57	5.49	5.51	0.07	22.24	24.62	24.63	0.34	1.03	1.10	1.11	1.12
700.00	5.67	5.57	5.59	0.10	21.32	23.89	23.93	0.23	1.05	1.12	1.11	1.11
800.00	5.80	5.65	5.67	0.14	20.56	23.31	23.36	0.17	1.09	1.14	1.13	1.11
900.00	5.94	5.77	5.78	0.17	20.07	23.04	23.12	0.12	1.13	1.19	1.15	1.12
1000.00	6.10	5.88	5.89	0.22	20.01	23.44	23.49	0.38	1.16	1.24	1.20	1.14
1080.00	6.24	5.96	5.96	0.28	20.34	24.35	24.41	0.72	1.17	1.27	1.24	1.16
1140.00	6.33	6.02	6.02	0.31	20.77	25.33	25.33	1.01	1.17	1.30	1.27	1.18
1200.00	6.41	6.06	6.05	0.36	21.16	25.88	25.76	1.60	1.17	1.32	1.29	1.19

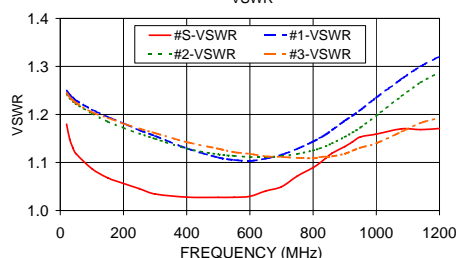
SYPS-3-12W-75+ INSERTION LOSS



SYPS-3-12W-75+ ISOLATION



SYPS-3-12W-75+ VSWR



electrical schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED
IFIRF MICROWAVE COMPONENTS

For detailed performance specs & shipping online see web site

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