

# Power Splitter/Combiner

## Features

- wideband, 5 to 2500 MHz. useable 0.5 to 2800MHz
- low amplitude unbalance, 0.1 dB typ.
- low phase unbalance, 1 deg. typ.

## Applications

- VHF/UHF
- communications systems
- receivers & transmitters
- instrumentation
- CATV
- cellular, GPS, PCS

### HT-SYPS-2-252+



2 Way-0° 50Ω 5 to 2500 MHz

## Transformer Electrical Specifications

Freq. range (MHz)	Isolation(dB)		Insertion Loss (dB) Above 3.0 dB.		Phase Unbalance (Degrees)	Amplitude Unbalance (dB)
	min	max	min	max		
5-2500	14	24	0.4	2.4	1.0-5.0	0.1-0.5

## Typical Performance Data (TEST CONDITIONS: INPUT POWER = 0dBm @ Temperature = +25°C)

Freq. (MHz)	Total Loss (dB)		Amp. Unbal. (dB)	Isolation(dB)	Phase Unbal. (deg.)	VSWRS		
	S-1	S-2				S	1	2
5	3.34	3.35	0.01	22.24	0.00	1.07	1.38	1.38
60	3.37	3.38	0.01	28.39	0.05	1.08	1.27	1.27
100	3.40	3.40	0.01	28.04	0.06	1.10	1.27	1.27
200	3.45	3.43	0.01	26.77	0.12	1.14	1.26	1.27
400	3.53	3.51	0.03	23.93	0.25	1.22	1.27	1.28
600	3.63	3.60	0.04	21.49	0.42	1.31	1.28	1.29
800	3.74	3.71	0.04	19.78	0.59	1.38	1.30	1.31
1000	3.85	3.84	0.01	18.61	0.61	1.46	1.30	1.29
1200	3.97	3.99	0.02	17.78	0.62	1.53	1.31	1.29
1400	4.10	4.20	0.02	17.19	0.55	1.60	1.31	1.29
1800	4.50	4.38	0.03	16.65	0.09	1.73	1.34	1.30
2000	4.54	4.47	0.07	16.74	0.07	1.77	1.36	1.29
2200	4.68	4.56	0.13	17.06	0.27	1.78	1.37	1.28
2400	4.85	4.65	0.18	17.59	0.28	1.79	1.35	1.25
2500	5.00	4.70	0.23	17.98	0.30	1.75	1.34	1.24

## electrical schematic



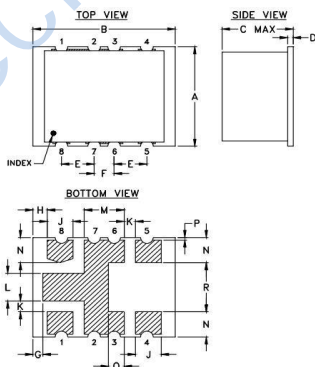
## Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5 W max.
Internal Dissipation	0.05W max.
Permanent damage may occur if any of these limits are exceeded.	

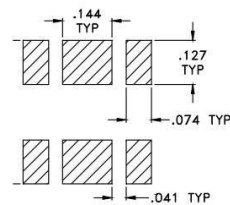
## Pin Connections

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

## Outline Drawing

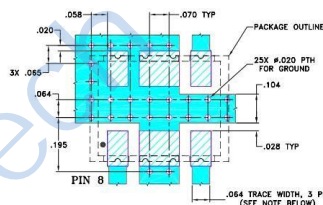


## PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±0.2

## Suggested PCB Layout



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .0307 ± .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.  
■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
□ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Outline Dimensions: Unit (mm)

A	9.65	K	1.02
B	12.70	L	2.67
C	6.35	M	3.56
D	0.51	N	2.41
E	2.92	P	0.25
F	1.78	Q	1.40
G	0.89	R	4.70
H	1.27	WT	0.52
J	2.29	-	-

