

# Power Splitter/Combiner

## Features

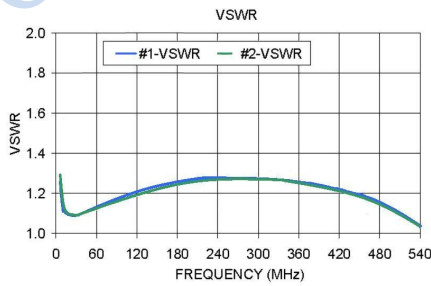
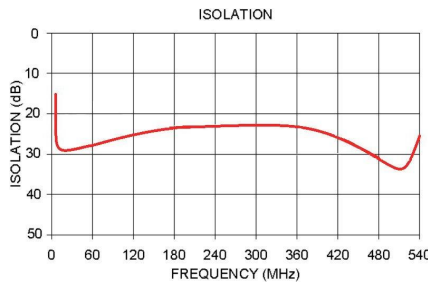
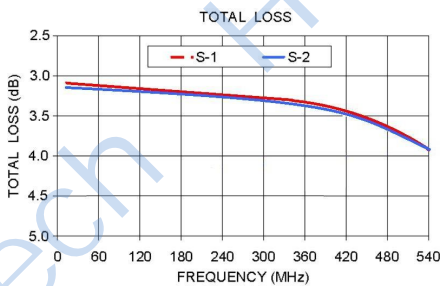
- wideband, 10 to 540 MHz
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.1dB typ.
- high power input, 15 Watt
- high power combiner, 3 Watt each port
- good isolation, 20 dB typ.

## Applications

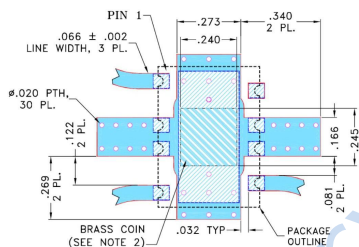
- VHF/UHF
- communications systems
- receivers & transmitters
- instrumentation
- military mobile

## Typical Performance Data

FREQUENCY (MHz)	Total Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR 1	VSWR 2
	S-1	S-2					
10.0	3.16	3.18	0.19	27.3	0.40	1.11	1.11
50.0	3.18	3.28	0.05	27.5	0.20	1.15	1.14
100.0	3.24	3.33	0.07	25.8	0.09	1.21	1.20
200.0	3.37	3.45	0.06	23.3	0.49	1.33	1.30
300.0	3.48	3.55	0.05	22.6	0.76	1.35	1.34
400.0	3.54	3.59	0.03	25.2	0.96	1.24	1.23
500.0	3.70	3.69	0.02	32.3	1.16	1.14	1.12
540.0	3.92	3.86	0.05	24.8	1.22	1.31	1.30



## PCB Layout

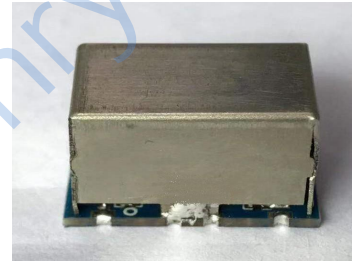


### NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .050" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. SUGGEST TO PROVIDE BRASS COIN FOR BETTER HEAT TRANSFER FROM THE UNIT. OTHERWISE PROVIDE ARRAY OF THERMAL VIAS ADEQUATE TO LIMIT TEMPERATURE OF GROUND CONNECTIONS UNDER THE UNIT TO 65°C.
3. 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
- DENOTES BRASS COIN.

## HT-SYPS-2-52HP+

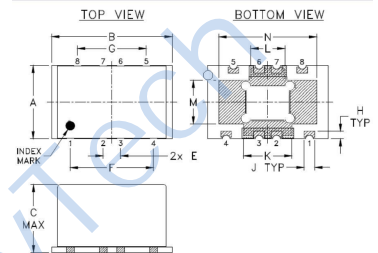


## electrical schematic

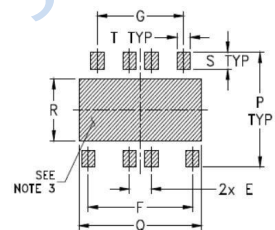


## Outline Drawing

Pin Connections	
SUM PORT	1 (input)
PORT 1	5 (output1)
PORT 2	4 (output2)
GROUND	2,3,6,7
CASE GROUND	Not Used



## PCB Land Pattern



Dimensions are in metric ( mm )						
A	B	C	E	F	G	
11.0	17.53	10.54	2.54	12.09	10.01	
H	J	K	L	M	N	
1.14	1.52	7.01	4.93	6.53	14.22	
P	Q	R	S	T		
12.07	14.25	6.55	1.75	1.55		