

Power Splitter/Combiner

Features

- good isolation, 20 dB typ.
- good output matching, VSWR 1.35 typ.
- shielded case
- aqueous washable
- good coplanarity

Applications

- cellular
- ISM
- CATV
- GPS
- PCS
- wireless communication system

HT-SEPS-8-272+

8 Way-0° 50Ω 700 to 2500 MHz

Electrical Specifications at 25°C

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Units
Frequency Range	-	700	-	2700	MHz
Insertion Loss (above theoretical 9.0 dB)	900-2400	-	1.8	2.8	dB
	700-2500	-	2.8	4.9	
Isolation	900-2400	14	20	-	dB
	700-2500	10	14	-	
Phase Unbalance	900-2400	-	7.0	16	Degree
	700-2500	-	10	19	
Amplitude Unbalance	900-2400	-	0.6	1.2	dB
	700-2500	-	1.2	2.1	
VSWR (Port S)	900-2400	-	1.7	-	:1
	700-2500	-	1.7	-	
VSWR (Port 1-8)	900-2400	-	1.35	-	:1
	700-2500	-	1.35	-	

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	5W max.
Internal Dissipation	0.5W max.
Permanent damage may occur if any of these limits are exceeded.	

Pad Connections

SUM PORT	18
PORT 1	1
PORT 2	3
PORT 3	4
PORT 4	6
PORT 5	7
PORT 6	9
PORT 7	10
PORT 8	12
GROUND	all others

Typical Performance Data

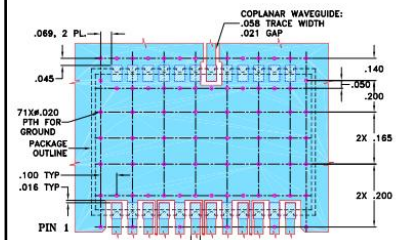
(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Freq. (MHz)	Total Loss1 (dB)				Amplitude Unbalance (dB)	Isolation (dB)				Phase Unbalance (deg.)	VSWR		
	S-1	S-2	S-3	S-4		1-2	2-3	3-4	5-6		S	1	8
700	9.81	9.85	9.82	9.85	0.08	15.23	24.31	14.78	14.44	2.83	1.76	1.35	1.35
800	9.62	9.66	9.64	9.69	0.09	17.37	23.87	16.70	16.28	3.30	1.39	1.26	1.27
900	9.63	9.68	9.65	9.71	0.09	19.67	23.63	18.97	18.45	3.80	1.30	1.20	1.22
1000	9.78	9.83	9.79	9.87	0.10	21.44	23.93	21.44	20.79	4.37	1.47	1.17	1.19
1200	10.29	10.34	10.25	10.35	0.13	20.99	27.25	24.01	23.62	5.37	1.93	1.20	1.24
1400	10.67	10.73	10.53	10.65	0.20	19.31	40.50	21.89	21.86	5.81	2.14	1.30	1.36
1600	10.53	10.60	10.38	10.52	0.25	19.40	27.02	21.11	21.14	5.55	1.80	1.36	1.43
1800	10.27	10.35	10.21	10.35	0.25	20.57	22.16	21.49	21.62	5.16	1.29	1.37	1.42
2000	10.45	10.50	10.42	10.54	0.28	22.47	21.42	23.62	23.69	4.93	1.41	1.34	1.36
2200	10.75	10.78	10.63	10.78	0.33	27.36	23.01	30.95	33.18	5.67	1.52	1.24	1.23
2300	10.82	10.83	10.69	10.87	0.36	26.73	24.76	26.46	28.78	6.07	1.45	1.19	1.18
2400	10.79	10.77	10.73	10.94	0.47	23.25	26.56	21.43	22.87	7.25	1.27	1.16	1.14
2500	10.79	10.75	10.90	11.13	0.68	20.22	25.34	17.94	19.08	8.51	1.14	1.16	1.15

Electrical Schematic

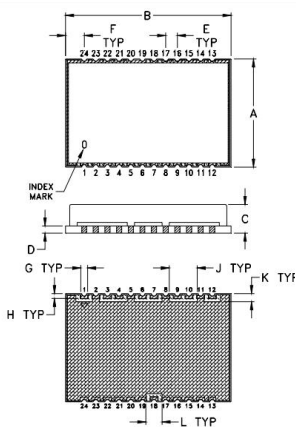


Suggested PCB Layout

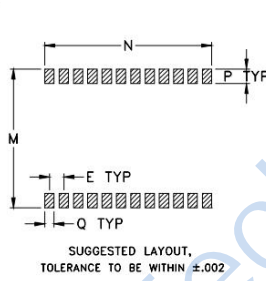


- NOTE:
1. TRACE WIDTH AND COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Outline Drawing



PCB Land Pattern



Outline Dimensions: Unit (mm)

A	23.62	H	1.02
B	36.07	J	6.10
C	6.35	K	1.78
D	1.60	L	3.56
E	2.54	M	24.64
F	4.06	N	29.59
G	1.52	P	2.54
Q	1.65	wt	6.5

- DENOTES METALLIZATION
- DENOTES SOLDER RESIST

