

Power Splitter/Combner

Features

- wideband, 400 to 3000 MHz
- low amplitude unbalance, 0.1 dB typ.
- low phase unbalance, 1.0 deg. typ.
- low insertion loss, 0.7 dB typ.

Applications

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

HT-SYPS-2-33+



2 Ways- 0° 50Ω 400 to 3000 MHz

Electrical Specifications at 25°C

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Frequency		400		3000	MHz
Insertion Loss (above theoretical 3.0 dB)	700-2700	-	0.6	1.6	dB
	400-3000	-	1.0	2.1	
Isolation	400-3000	14	21	-	dB
Phase Unbalance	700-2700	-	1.0	6	Degree
	400-3000	-	2.0	7	
Amplitude Unbalance	700-2700	-	0.1	0.6	dB
	400-3000	-	0.3	0.9	
VSWR (Port S)	700-2700	-	1.4	1.75	:1
	400-3000	-	1.4	1.85	
VSWR (Port 1-2)	700-2700	-	1.2	1.5	:1
	400-3000	-	1.25	1.6	

Maximum Ratings

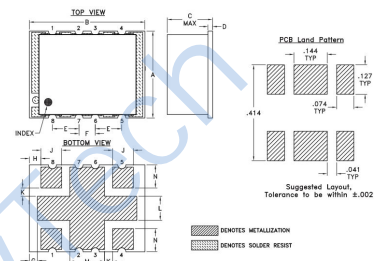
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input*	0.5W max @ 25°C
Internal Dissipatio	0.05W max

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

Pin Connections

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

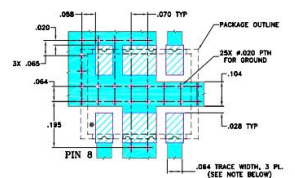
Outline Drawing



Outline Dimensions: Unit (mm)

A	9.65	G	0.89
B	12.70	H	1.27
C	6.35	J	2.29
D	0.51	K	1.02
E	2.92	L	2.67
F	1.78	M	3.56
N	2.41	WT	0.8g

Suggested PCB Layout

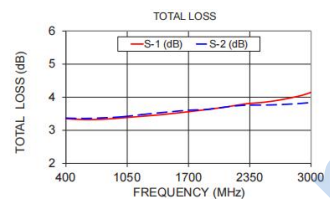
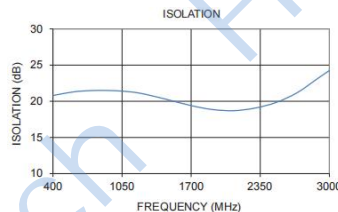
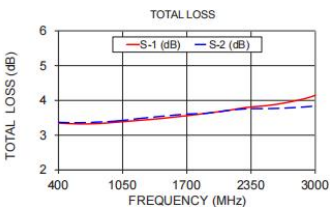


1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .003" ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SOLDER (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Typical Performance Data at 25°C

Frequency (MHz)	Total Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSMR S	VSMR 1	VSMR2
	S-1	S-2						
400	3.35	3.37	0.02	20.79	0.32	1.43	1.35	1.34
600	3.32	3.36	0.03	21.31	0.46	1.31	1.25	1.25
800	3.33	3.38	0.04	21.49	0.67	1.25	1.21	1.19
1000	3.38	3.41	0.03	21.45	0.45	1.24	1.18	1.17
1200	3.42	3.47	0.05	21.16	0.46	1.25	1.15	1.15
1400	3.47	3.53	0.06	20.51	0.32	1.27	1.13	1.13
1500	3.50	3.56	0.06	20.14	0.26	1.29	1.11	1.12
1700	3.56	3.61	0.05	19.40	0.18	1.32	1.10	1.09
1900	3.63	3.63	0.00	18.86	0.20	1.37	1.10	1.10
2100	3.70	3.71	0.00	18.70	0.65	1.38	1.11	1.10
2300	3.80	3.76	0.04	19.06	0.74	1.35	1.12	1.07
2500	3.85	3.76	0.08	19.84	1.00	1.30	1.11	1.04
2700	3.93	3.78	0.15	21.21	1.25	1.19	1.09	1.03
2900	4.05	3.81	0.24	23.24	1.39	1.05	1.08	1.10
3000	4.15	3.84	0.31	24.25	1.46	1.04	1.09	1.15



Electrical Schematic

