

Surface Mount

Power Splitter/Combiner

RPS-2-30+

2 Way-0° 50Ω 10 to 3000 MHz



CASE STYLE: TT1413

Maximum Ratings

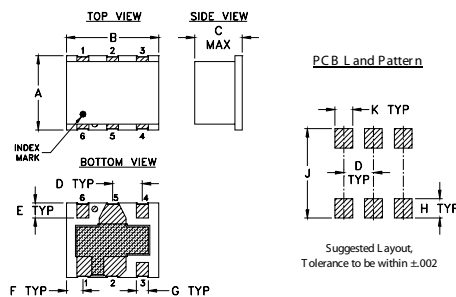
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.

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

Pin Connections

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

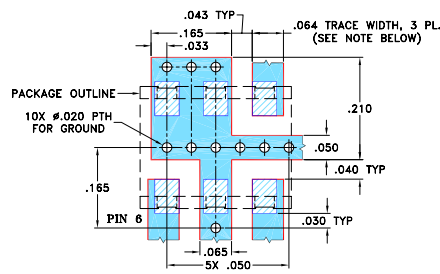
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	wt. grams
.250	.310	.20	.100	.050	.055	.040	.070	.270	.050	0.5
6.35	7.87	5.08	2.54	1.27	1.40	1.02	1.78	6.86	1.27	

Demo Board MCL P/N: TB-155 Suggested PCB Layout (PL-110)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; 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

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- wideband, 10 to 3000 MHz
- good isolation, 22 dB typ.
- small size

Applications

- instrumentation
- catv
- cellular
- PCS
- GSM

Electrical Specifications

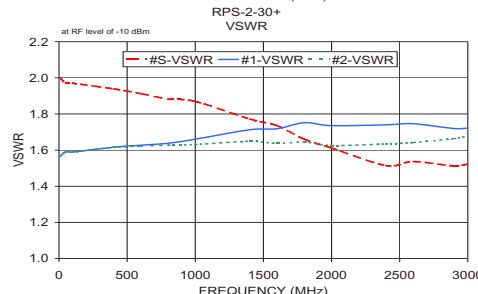
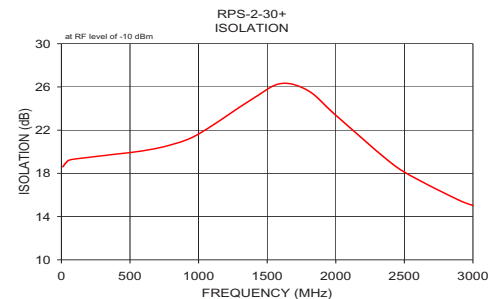
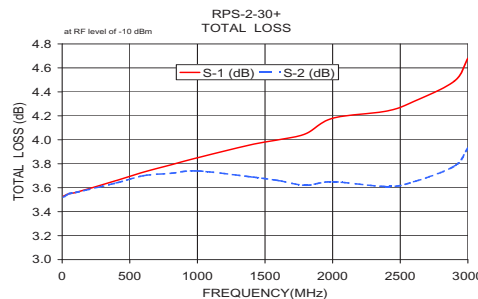
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
$f_L - f_U$	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
10-3000	19	12	22	15	15	9	0.6	1.0	0.9	1.5	1.2	2.5	2.0	4.0	8.0	0.3	0.6	1.2

L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
10.00	3.53	3.52	0.01	18.61	0.01	2.00	1.57	1.57
50.00	3.55	3.55	0.01	19.19	0.04	1.97	1.59	1.59
100.00	3.56	3.56	0.00	19.33	0.06	1.97	1.59	1.59
400.00	3.66	3.64	0.02	19.78	0.09	1.94	1.62	1.62
600.00	3.73	3.70	0.03	20.10	0.14	1.91	1.63	1.62
800.00	3.79	3.72	0.07	20.65	0.09	1.88	1.64	1.63
1000.00	3.85	3.74	0.11	21.64	0.02	1.87	1.66	1.63
1400.00	3.96	3.69	0.27	24.95	0.59	1.77	1.71	1.65
1600.00	4.00	3.66	0.34	26.31	0.88	1.74	1.72	1.64
1800.00	4.05	3.62	0.43	25.64	1.27	1.66	1.75	1.64
2000.00	4.18	3.65	0.52	23.38	1.59	1.61	1.74	1.63
2400.00	4.24	3.61	0.63	19.00	2.43	1.51	1.74	1.63
2600.00	4.32	3.65	0.67	17.42	2.83	1.54	1.75	1.64
2900.00	4.49	3.78	0.71	15.51	3.65	1.51	1.72	1.66
3000.00	4.68	3.93	0.75	15.02	4.13	1.52	1.72	1.68

1. Total Loss = Insertion Loss + 3dB splitter loss.



electrical schematic

