Surface Mount

Power Splitter/Combiner

RPS-2-30+

2 Way-0° 50Ω 10 to 3000 MHz



Generic photo used for illustration purposes only

CASE STYLE: TT1413

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500

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

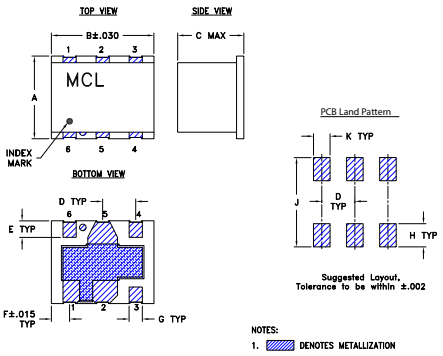
Features

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

Applications

- instrumentation
- catv
- cellular
- PCS
- GSM

Outline Drawing



Outline Dimensions (inch / mm)

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

Electrical Specifications

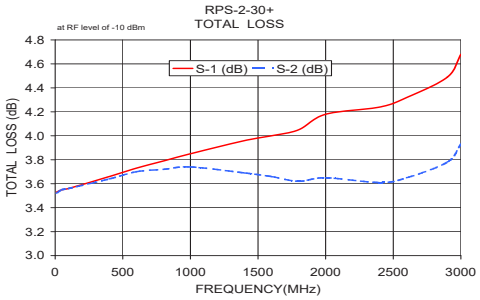
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.		Typ.		Typ.		Max.	Max.	Max.	Max.	Max.	Max.
10-3000	19	12	22	15	15	9	0.6	1.0	0.9	1.5	1.2	2.5	2.0	4.0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

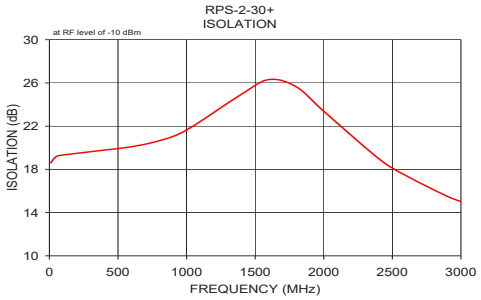
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range

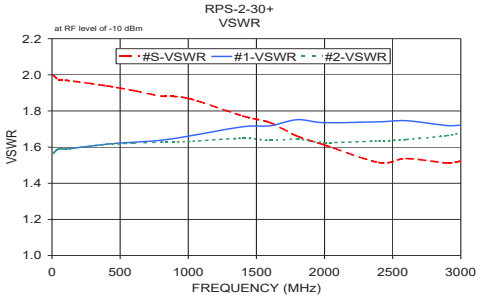
Typical Performance Data

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

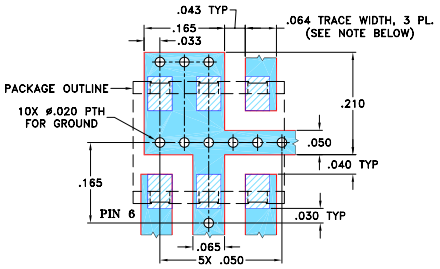
1. Total Loss = Insertion Loss + 3dB splitter loss.







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

electrical schematic



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.
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