

2 Way-180° 75Ω

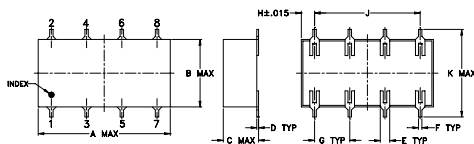
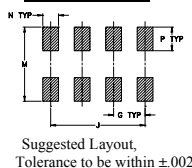
10 to 500 MHz

**Maximum Ratings**

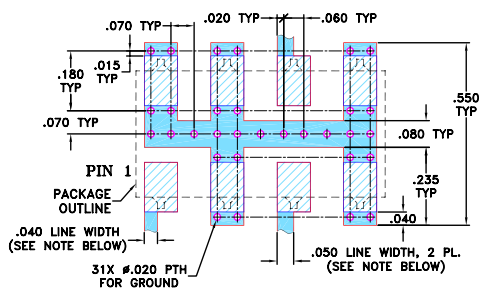
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

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

Outline Drawing**PCB Land Pattern****Outline Dimensions (inch mm)**

A	B	C	D	E	F	G	
0.75	0.38	0.28	0.01	0.05	0.02	0.2	
19.05	9.65	7.11	0.25	1.27	0.51	5.08	
H	J	K	M	N	P	wt	
0.075	0.6	0.45	0.47	0.1	0.15	grams	
1.91	15.24	11.43	11.94	2.54	3.81	1.60	

**Demo Board MCL P/N: TB-228
Suggested PCB Layout (PL-121)**

NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.060" ± 0.004", 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
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Features

- wideband, 10 to 500 MHz
- excellent isolation, 27dB typ.
- excellent amplitude unbalance, 0.5 dB typ.

Applications

- VHF/UHF
- catv
- communication systems
- transmitters/receivers

Electrical Specifications

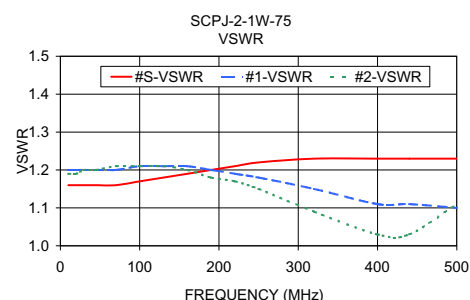
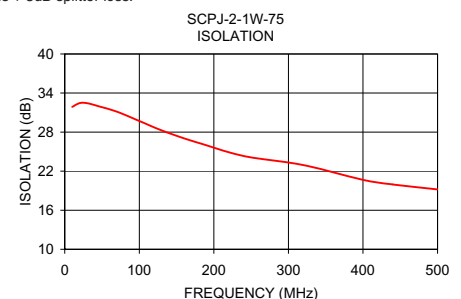
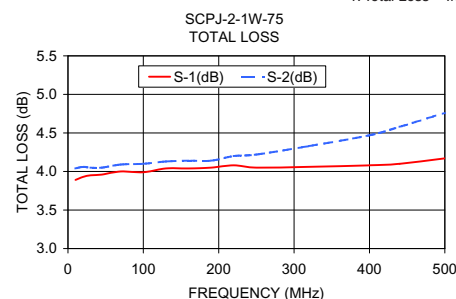
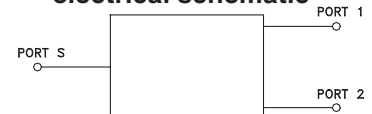
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	f _L -f _U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.
10-500	30	25	27	20	22	16	1.0	1.5	1.1	1.6	1.5	2.2	3	4	6	0.3	0.5	0.9

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	3.89	4.04	0.15	31.87	180.38	1.16	1.20	1.19
20.00	3.93	4.06	0.13	32.45	179.85	1.16	1.20	1.19
30.00	3.95	4.05	0.10	32.44	179.60	1.16	1.20	1.20
45.00	3.96	4.05	0.09	31.98	179.53	1.16	1.20	1.20
70.00	4.00	4.09	0.09	31.14	179.23	1.16	1.20	1.21
100.00	3.99	4.10	0.11	29.70	178.90	1.17	1.21	1.21
130.00	4.04	4.13	0.10	28.26	178.91	1.18	1.21	1.21
160.00	4.04	4.14	0.10	27.04	178.69	1.19	1.21	1.20
190.00	4.05	4.14	0.09	25.98	178.53	1.20	1.20	1.18
220.00	4.08	4.20	0.12	24.91	178.66	1.21	1.19	1.17
250.00	4.05	4.22	0.16	24.11	178.56	1.22	1.18	1.15
320.00	4.06	4.33	0.26	22.94	178.44	1.23	1.15	1.09
400.00	4.08	4.47	0.39	20.67	178.49	1.23	1.11	1.03
440.00	4.10	4.58	0.48	19.95	178.45	1.23	1.11	1.03
500.00	4.17	4.76	0.59	19.19	178.67	1.23	1.10	1.11

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

**electrical schematic**

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