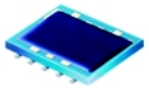
Surface Mount

Power Splitter/Combiner

NEW!

SCA-4-20

4 Way-0° 50Ω 1000 to 2000 MHz



BLUE CELL™

CASE STYLE: DZ944
PRICE: $7.95 ea. QTY (10-49)

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	0.25W max.

Pin Connections

SUM PORT	3
PORT 1	6
PORT 2	7
PORT 3	9
PORT 4	10
GROUND	1,2,4,5,8

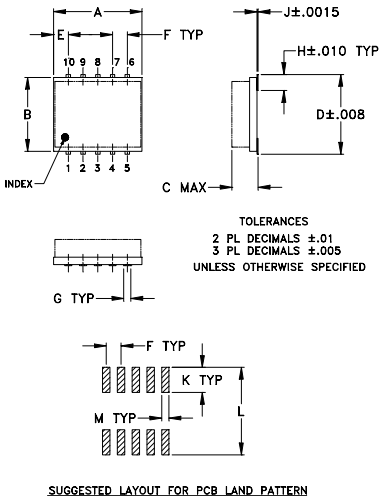
Features

- wideband, 1000-2000 MHz
- high isolation, 20 dB typ.
- small surface mount package (0.25"x0.3")
- low profile (0.045")
- welded leads

Applications

- PCS
- GPS

Outline Drawing



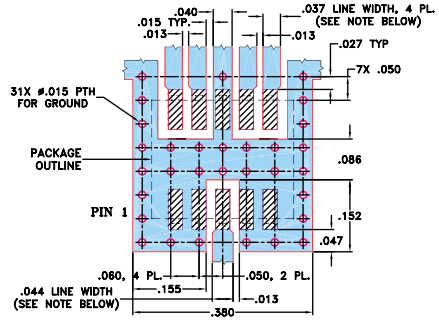
SUGGESTED LAYOUT FOR PCB LAND PATTERN

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.30	.250	.052	.274	.050	.050	.012
7.62	6.35	1.32	6.96	1.27	1.27	0.30

H	J	K	L	M	wt
.057	.004	.085	.296	.030	grams
1.45	0.10	2.16	7.52	0.76	0.25

Demo Board MCL P/N: TB-241
Suggested PCB Layout (PL-125)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015", 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

Splitter Electrical Specifications

FREQ. RANGE (MHz) f_L-f_U	ISOLATION (dB) Typ.	ISOLATION (dB) Min.	INSERTION LOSS (dB) ABOVE 6 dB Typ.	INSERTION LOSS (dB) ABOVE 6 dB Max.	PHASE UNBALANCE (Degrees) Max.	AMPLITUDE UNBALANCE (dB) Max.
1000-2000	**15**	**8**	**1.0**	**1.8**	**5**	**0.9**
1500-1700	20	17	1.0	1.2	5	0.8
1700-2000	20	17	1.5	1.8	5	0.9

Typical Performance Data

Freq. (MHz)	Insertion Loss (dB) S-1	S-2	S-3	S-4	Amp. Unbal. (dB)	Isolation (dB) 1-2	1-3	2-3	Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
1000.00	7.13	6.97	6.94	7.29	0.35	10.70	17.43	18.86	0.86	2.15	1.42	1.29	1.27	1.44
1050.00	7.15	6.96	6.89	7.25	0.36	11.34	17.57	19.08	0.31	1.98	1.40	1.27	1.25	1.41
1100.00	7.01	6.85	6.78	7.11	0.33	12.12	18.22	20.08	0.48	1.88	1.39	1.25	1.23	1.39
1180.00	6.94	6.73	6.62	7.00	0.38	13.40	18.71	20.81	0.93	1.66	1.36	1.25	1.21	1.37
1260.00	6.87	6.68	6.58	6.94	0.36	14.79	19.24	21.60	1.09	1.47	1.38	1.25	1.20	1.35
1340.00	6.86	6.63	6.52	6.92	0.39	16.34	20.06	22.68	0.82	1.33	1.38	1.25	1.21	1.36
1420.00	6.87	6.58	6.47	6.91	0.44	18.17	20.82	23.55	1.04	1.21	1.41	1.27	1.22	1.37
1500.00	6.83	6.44	6.33	6.84	0.51	20.24	21.46	24.01	0.89	1.15	1.42	1.29	1.24	1.38
1540.00	6.82	6.46	6.36	6.88	0.52	21.12	22.28	24.97	1.65	1.16	1.46	1.31	1.26	1.39
1580.00	6.79	6.45	6.43	6.86	0.43	22.50	22.05	24.74	0.95	1.11	1.46	1.29	1.26	1.39
1660.00	6.88	6.47	6.46	7.00	0.54	25.31	22.91	25.80	1.54	1.15	1.47	1.29	1.27	1.41
1700.00	6.99	6.52	6.46	7.06	0.60	27.50	23.57	26.06	2.23	1.17	1.51	1.30	1.28	1.42
1820.00	7.09	6.56	6.52	7.14	0.62	37.89	23.68	26.33	1.50	1.11	1.50	1.28	1.26	1.42
1940.00	7.20	6.67	6.63	7.27	0.64	27.96	23.34	25.78	1.94	1.05	1.51	1.24	1.24	1.42
2000.00	7.31	6.76	6.75	7.38	0.63	22.79	21.89	23.53	1.31	1.20	1.48	1.21	1.21	1.41