

Surface Mount

Power Splitter/Combiner

NEW!

QCC-22

2 Way-90° 50Ω

1500 to 2500 MHz

Maximum Ratings

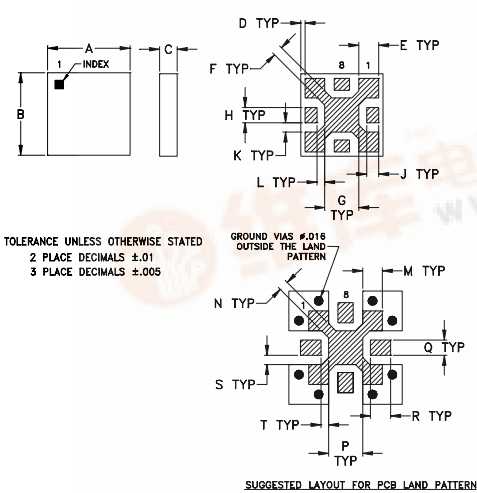
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input	17.5W* max.

*derate linearly to 3.5W at 100°C ambient.

Pin Connections

SUM PORT	2
PORT 1	8 (0°)
PORT 2	4 (90°)
GROUND	1,3,5,7
50 OHM TERM (EXTERNAL)	6

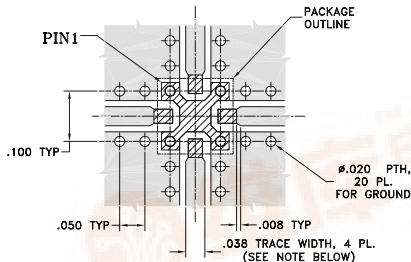
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt.
.150	.150	.032	.008	.036	.018	.062	.028	.022	3.81	3.81	0.81	0.20	0.91	0.46	1.57	0.71	0.56	
.017	.014	.036	.018	.062	.028	.037	.017	.014	0.43	0.36	0.91	0.46	1.57	0.71	0.94	0.43	0.36	.05

Demo Board MCL P/N: TB-302 Suggested PCB Layout (PL-128)



NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS .020" ± .0025". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- IF YOUR PCB DESIGN RULES ALLOW, GROUND VIAS SHOULD BE PLACED UNDER THE LAND PATTERN FOR BETTER RF PERFORMANCE.

DENOTES PCB COPPER LAYOUT

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion loss, 0.4 dB typ.
- high isolation, 28 dB typ.
- LTCC construction
- excellent temperature stability
- small size, 0.15"X0.15"
- patent pending

Applications

- PCS
- defense
- space
- radar
- blue tooth
- WLAN



BLUE CELL™

CASE STYLE: GF981

PRICE: \$ 4.95 ea. QTY (10-49)

Splitter Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of coupled outputs less 3 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
f_L - f_U								
1500-2500								
1500-1700	28	23	0.4	0.6	2	3	0.6	1.3
1700-2200	28	19	0.4	0.7	2	4	0.2	0.5
2200-2500	20	15	0.5	0.8	2	4	0.3	0.8

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1500.00	2.96	3.83	0.87	29.29	91.01	1.10	1.23	1.17
1600.00	3.12	3.65	0.87	33.27	91.14	1.07	1.23	1.16
1700.00	3.27	3.51	0.87	35.46	91.15	1.07	1.24	1.15
1800.00	3.40	3.41	0.87	33.44	91.09	1.08	1.26	1.15
1900.00	3.50	3.35	0.87	29.22	90.88	1.10	1.27	1.17
1950.00	3.54	3.34	0.87	27.24	90.76	1.12	1.28	1.18
2000.00	3.57	3.33	0.87	25.58	90.59	1.15	1.29	1.19
2050.00	3.60	3.35	0.87	24.18	90.42	1.17	1.31	1.20
2100.00	3.62	3.36	0.87	22.99	90.21	1.19	1.32	1.21
2150.00	3.62	3.39	0.87	21.96	90.02	1.21	1.33	1.22
2200.00	3.62	3.43	0.87	21.08	89.83	1.22	1.35	1.23
2250.00	3.61	3.48	0.87	20.24	89.65	1.24	1.36	1.25
2300.00	3.59	3.55	0.87	19.46	89.44	1.26	1.37	1.27
2400.00	3.54	3.72	0.87	17.93	89.07	1.33	1.39	1.31
2500.00	3.46	3.95	0.87	16.61	88.76	1.41	1.44	1.36

