

Surface Mount Power Splitter/Combiner

NEW!**QCC-22****2 Way-90° 50Ω****1500 to 2500 MHz**

CASE STYLE: GF981

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

Maximum Ratings

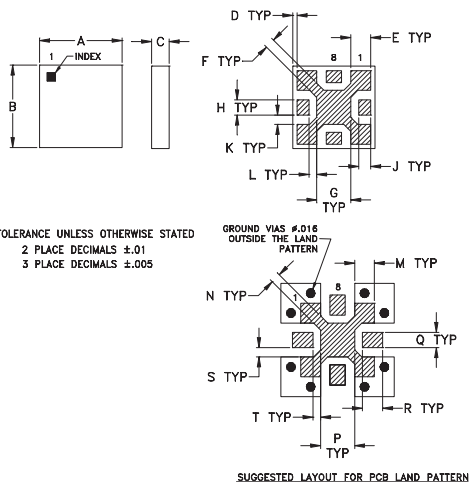
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input	17.5W* max.

*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

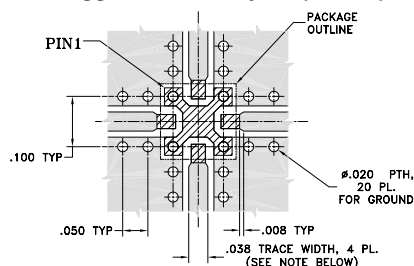
Outline Drawing

TOLERANCE UNLESS OTHERWISE STATED
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	
.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	
K	L	M	N	P	Q	R	S	T	wt.
.017	.014	.036	.018	.062	.028	.037	.017	.014	grams
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-250 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

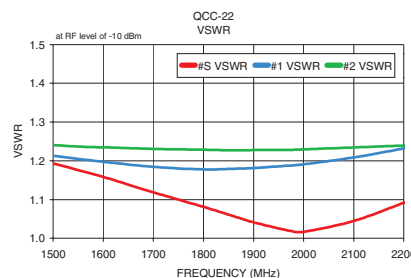
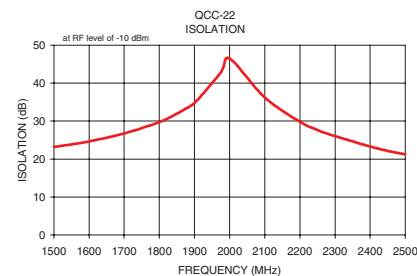
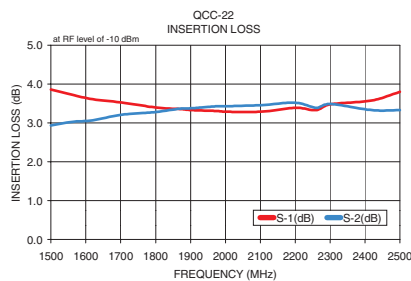
- PCS
- defense
- space
- radar
- blue tooth
- WLAN

Splitter Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of coupled outputs less 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.
1500-2500				
1500-1700	25 20	0.4 0.6	2 3	0.6 1.3
1700-2200	28 23	0.4 0.7	2 4	0.2 0.5
2200-2500	23 17	0.5 0.8	2 4	0.3 0.8

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) S-1	Insertion Loss (dB) S-2	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
1500.00	3.86	2.94	0.93	23.15	90.02	1.19	1.21	1.24
1560.00	3.73	3.03	0.69	24.00	90.05	1.17	1.20	1.24
1620.00	3.61	3.07	0.54	25.00	90.07	1.15	1.19	1.23
1700.00	3.53	3.21	0.32	26.77	90.27	1.12	1.18	1.23
1800.00	3.40	3.28	0.12	29.74	90.17	1.08	1.18	1.23
1870.00	3.36	3.37	0.01	33.00	90.11	1.05	1.18	1.23
1905.00	3.33	3.38	0.05	35.26	89.99	1.04	1.18	1.23
1975.00	3.31	3.43	0.12	42.83	89.87	1.02	1.19	1.23
2000.00	3.29	3.43	0.14	46.47	89.79	1.02	1.19	1.23
2100.00	3.29	3.46	0.17	36.22	89.38	1.04	1.21	1.23
2200.00	3.39	3.52	0.13	29.83	88.96	1.09	1.23	1.24
2260.00	3.33	3.39	0.07	27.27	88.63	1.12	1.25	1.24
2300.00	3.48	3.49	0.01	26.03	88.50	1.14	1.26	1.25
2420.00	3.58	3.33	0.24	22.80	87.77	1.20	1.30	1.26
2500.00	3.80	3.33	0.47	21.24	87.52	1.24	1.33	1.28

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