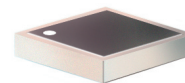


Surface Mount Power Splitter/Combiner

QCC-22+

2 Way-90° 50Ω 1500 to 2500 MHz



Maximum Ratings

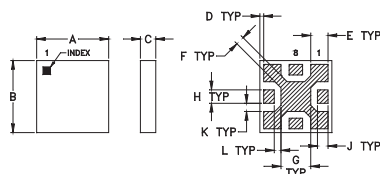
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	17.5W* max.

* Derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

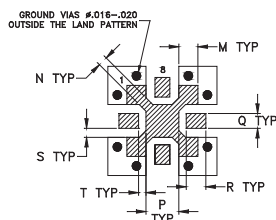
Pin Connections

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

Outline Drawing



PCB Land Pattern

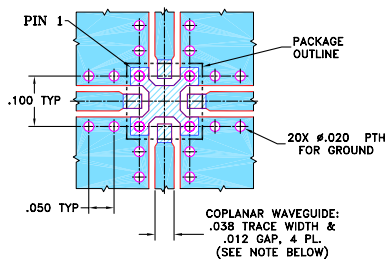


Suggested Layout,
Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

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	0.05	

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



- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP 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

Features

- low insertion loss, 0.4 dB typ.
- high isolation, 28 dB typ.
- LTCC construction
- excellent temperature stability
- small size, 0.15" X 0.15"
- aqueous washable
- protected by U.S. Patent 7,030,713

Applications

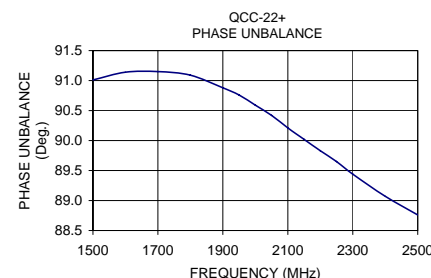
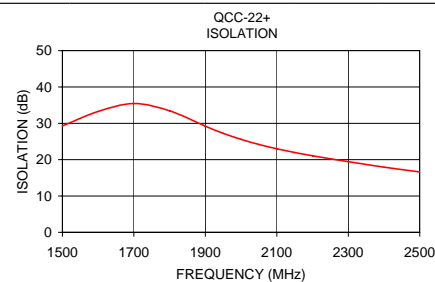
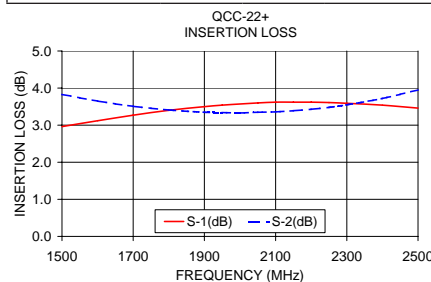
- PCS
- WLAN
- blue tooth
- space
- defense
- radar

Electrical Specifications

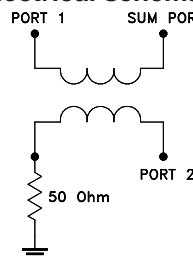
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs less 3 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
1500-2500								
1500-1700	28	23	0.4	0.6	2	3	0.6	1.3
1700-2200	28	19	0.4	0.7	2	4	0.2	0.5
2200-2500	20	15	0.5	0.8	2	4	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	0.53	33.27	91.14	1.07	1.23	1.16
1700.00	3.27	3.51	0.24	35.46	91.15	1.07	1.24	1.15
1800.00	3.40	3.41	0.01	33.44	91.09	1.08	1.26	1.15
1900.00	3.50	3.35	0.15	29.22	90.88	1.10	1.27	1.17
1950.00	3.54	3.34	0.20	27.24	90.76	1.12	1.28	1.18
2000.00	3.57	3.33	0.24	25.58	90.59	1.15	1.29	1.19
2050.00	3.60	3.35	0.25	24.18	90.42	1.17	1.31	1.20
2100.00	3.62	3.36	0.26	22.99	90.21	1.19	1.32	1.21
2150.00	3.62	3.39	0.23	21.96	90.02	1.21	1.33	1.22
2200.00	3.62	3.43	0.19	21.08	89.83	1.22	1.35	1.23
2250.00	3.61	3.48	0.13	20.24	89.65	1.24	1.36	1.25
2300.00	3.59	3.55	0.04	19.46	89.44	1.26	1.37	1.27
2400.00	3.54	3.72	0.18	17.93	89.07	1.33	1.39	1.31
2500.00	3.46	3.95	0.49	16.61	88.76	1.41	1.44	1.36



electrical schematic



For detailed performance specs & shopping online see web site

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IFIR MICROWAVE COMPONENTS

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