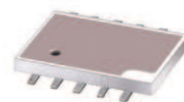


Surface Mount Power Splitter/Combiner

QBA-24W+ QBA-24W

2 Way-90° 50Ω 1700 to 2400 MHz



Maximum Ratings

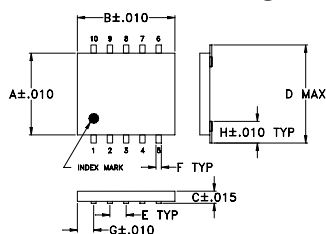
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

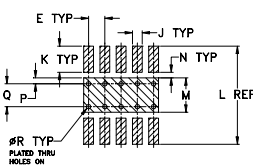
Pin Connections

SUM PORT	1
PORT 1 (+90°)	10
PORT 2 (0°)	6
GROUND	2,3,4,7,8,9
50 OHM TERM EXTERNAL	5

Outline Drawing



PCB Land Pattern

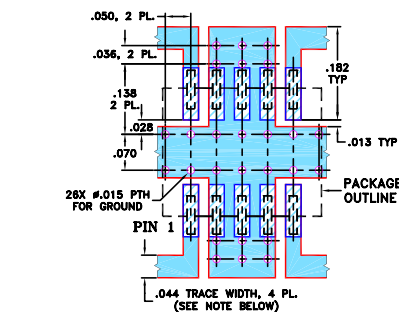


Suggested Layout,
Tolerance to be within ±.002
ADJACENT GROUND PINS SHALL BE CONNECTED TO EACH OTHER AND TO GROUND PAD

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	wt
.250	.300	.050	.310	.050	.015	.050	.066	.030	.095	.330	.100	.020	.015	.070	.014	grams
6.35	7.62	1.27	7.87	1.27	0.38	1.27	1.68	0.76	2.41	8.38	2.54	0.51	0.38	1.78	0.36	0.2

Demo Board MCL P/N: TB-115+ Suggested PCB Layout (PL-004)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020 ± .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 WITH SMOBC (SOLDER MASK OVER BARE COPPER)
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- insertion loss, 0.5 dB typ.
- high power capability, 20W
- good isolation, 21 dB typ.
- ceramic body, good for heat dissipation
- solder plated leads for excellent solderability
- aqueous washable
- protected by U.S. Patent 5,534,830

Applications

- PCS
- instrumentation
- DCS/GSM
- DECT/PHS

Electrical Specifications

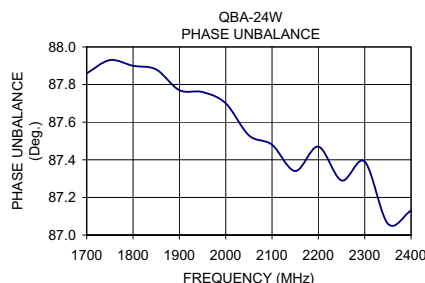
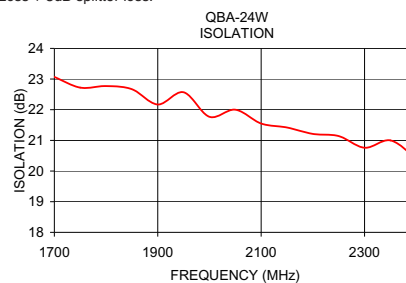
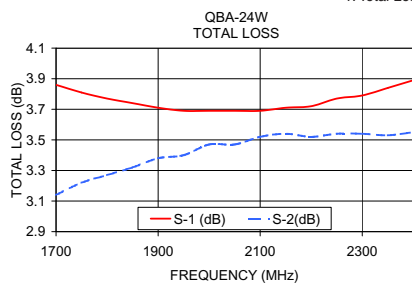
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS ¹ (dB) Avg. of Coupled Outputs ABOVE 3 dB			PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	INPUT POWER ² (W)
	f _L -f _U	Typ. Min.	f _L	f _U	σ			
1700-2400	21	15	0.49	0.71	0.02	6.0	1.2	20

1. Includes test fixture losses.
2. Derate linearly to 4W at 100°C
Thermal compound may be applied to decrease body temperature. See application note AN-10-007

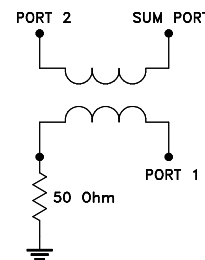
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1700.00	3.86	3.14	0.72	23.07	87.86	1.19	1.24	1.20
1750.00	3.81	3.22	0.59	22.72	87.93	1.19	1.24	1.21
1800.00	3.77	3.27	0.50	22.77	87.90	1.19	1.24	1.21
1850.00	3.74	3.32	0.43	22.67	87.88	1.19	1.23	1.21
1900.00	3.71	3.38	0.32	22.17	87.77	1.19	1.23	1.21
1950.00	3.69	3.40	0.29	22.57	87.76	1.19	1.23	1.22
2000.00	3.69	3.47	0.22	21.77	87.70	1.19	1.22	1.22
2050.00	3.69	3.47	0.23	22.00	87.53	1.20	1.22	1.22
2100.00	3.69	3.52	0.17	21.55	87.48	1.19	1.22	1.21
2150.00	3.71	3.54	0.18	21.42	87.34	1.19	1.21	1.21
2200.00	3.72	3.52	0.20	21.21	87.47	1.19	1.21	1.21
2250.00	3.77	3.54	0.22	21.14	87.29	1.19	1.21	1.20
2300.00	3.79	3.54	0.24	20.76	87.39	1.19	1.20	1.20
2350.00	3.84	3.53	0.31	21.00	87.06	1.18	1.19	1.20
2400.00	3.89	3.55	0.34	20.42	87.13	1.19	1.20	1.20

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



electrical schematic



For detailed performance specs & shopping online see web site

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