

Surface Mount Power Splitter/Combiner

QBA-24W+
QBA-24W

2 Way-90° 50Ω 1700 to 2400 MHz



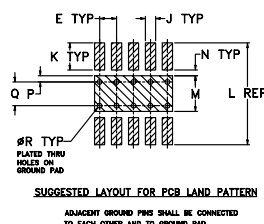
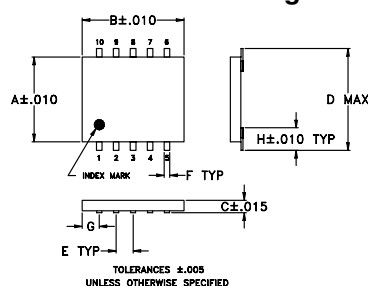
Maximum Ratings

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

Pin Connections

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

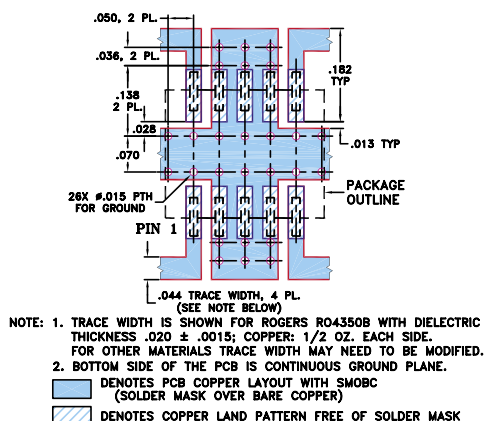
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
.250	.300	0.50	.310	.050	.015	.050	.066	
6.35	7.62	12.70	7.87	1.27	0.38	1.27	1.68	
J	K	L	M	N	P	Q	R	wt
.030	.095	.330	.100	.020	.015	.070	.014	grams
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)



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
- protected by U.S. Patent 5,534,830

Applications

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

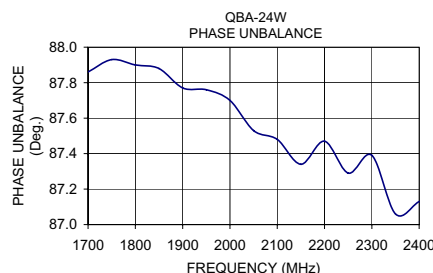
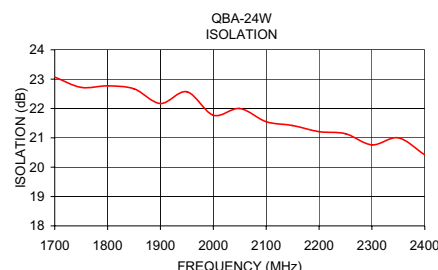
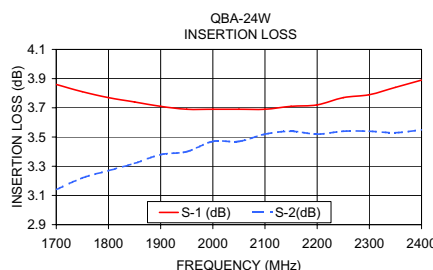
Splitter Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS ¹ (dB) Avg. of Coupled Outputs less 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	INPUT POWER (W)
f_L - f_U	Typ. Min.	\bar{f}_L \bar{f}_U σ	Max.	Max.	below 25°C
1700-2400	21 15	0.49 0.71 0.02	6.0	1.2	20 ²

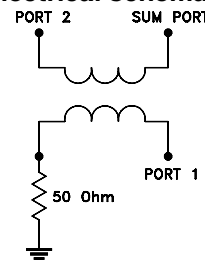
1. Includes test fixture losses.
2. Derate linearly to 4W at 100°C
Thermal compound may be applied to decrease body temperature. See application note AN-10-007

Typical Performance Data

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



electrical schematic



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