

POWER SPLITTERS/COMBINERS 50Ω

2 WAY-90° 380 MHz to 1460 MHz



HPO

MODEL NO. ◆	FREQ. RANGE MHz f_l - f_u	ISOLATION dB		INSERTION LOSS, dB Avg. of Coupled Outputs less 3 dB		PHASE UNBALANCE Degrees		AMPLITUDE UNBALANCE dB		VSWR (:1)		CASE STYLE Note B	OC CEN TION	PRICE \$ Qty. (10-49)
		Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	S Typ.	OUT Typ.			
HPO-05	410 - 455	25	20	0.17	0.35	0.5	3	0.5	1.0	1.12	1.12	AT577	km	6.95
HPO-05W	380 - 490	25	20	0.20	0.40	0.6	3	1.1	1.6	1.12	1.12	AT577	km	6.95
HPO-06	510 - 570	26	18	0.20	0.40	0.6	3	0.5	1.2	1.10	1.12	AT577	km	6.95
HPO-06W	480 - 600	26	18	0.20	0.40	0.6	3	0.9	1.6	1.10	1.12	AT577	km	6.95
HPO-07	580 - 690	24	18	0.20	0.40	0.5	3	0.8	1.6	1.17	1.17	AT577	km	6.95
HPO-08	680 - 790	24	18	0.25	0.40	0.8	3	0.6	1.6	1.10	1.20	AT577	km	6.95
HPO-09	730 - 800	25	20	0.20	0.40	0.6	3	0.6	1.2	1.14	1.14	AT577	km	6.95
HPO-09W	690 - 830	24	20	0.20	0.40	0.7	3	1.1	1.6	1.14	1.14	AT577	km	6.95
HPO-10	900 - 970	22	17	0.25	0.45	0.7	4	0.5	1.2	1.17	1.17	AT577	km	6.95
HPO-10W	880 - 1030	22	16	0.28	0.50	1.0	4	0.85	1.6	1.17	1.17	AT577	km	6.95
HPO-11	980 - 1070	23	18	0.25	0.50	0.5	3.5	0.4	1.2	1.17	1.17	AT577	km	6.95
HPO-12	990 - 1100	21	16	0.25	0.45	0.8	4	0.5	1.2	1.20	1.20	AT577	km	6.95
HPO-12W	940 - 1130	21	16	0.30	0.50	1.0	4	0.8	1.6	1.20	1.20	AT577	km	6.95
HPO-15	1320 - 1430	19	15	0.30	0.50	1.8	5	0.35	1.2	1.22	1.22	AT577	km	6.95
HPO-15W	1240 - 1460	19	15	0.30	0.60	1.8	5	0.8	1.6	1.22	1.22	AT577	km	6.95

features

- excellent amplitude and phase unbalance
- good insertion loss
- good isolation
- excellent input VSWR
- excellent output VSWR
- excellent unit-to-unit repeatability

applications

- image rejection mixer
- wideband amplifier matching
- I&Q modulator

NOTES:

- ◆ HPO models, aqueous washable.
- A. Environmental specifications and re-flow soldering information available in General Information Section.
- B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
- C. Prices and Specifications subject to change without notice.
- 1. Absolute maximum power, voltage and current ratings:
 - 1a. Matched power rating 1Watt

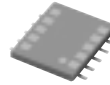
pin connections

see case style outline drawings

PORT	km
SUM PORT	3
PORT 1	6
PORT 2	4
GND EXT.	2,5
50 OHM TERM.	1
DEMO BOARD	TB-43

Surface Mount

800 MHz to 2400 MHz



QBA

MODEL NO. ◆	FREQ. RANGE MHz f_L - f_U	ISOLATION dB		◆ INSERTION LOSS, dB Avg. of Coupled Outputs less 3 dB			PHASE UNBALANCE Degrees Max.	AMPLITUDE UNBALANCE dB Max.	CASE STYLE Note B	CON- NEX- TION	PRICE \$ Qty. (10-49)
		Typ.	Min.	f_L \bar{x}	f_U \bar{x}	σ					
QBA-12N*	800-900	28	20	0.25	0.30	.02	3.0	1.0	SM33	If	6.95
QBA-12*	800-1200	23	14	0.25	0.44	.02	6.0	1.2	SM33	If	6.95
QBA-20*	1800-2000	23	18	0.47	0.54	.02	4.0	0.7	SM33	If	6.95
QBA-20W*	1500-2200	23	16	0.41	0.58	.02	5.0	1.2	SM33	If	6.95
QBA-24*	1900-2400	21	17	0.54	0.71	.02	6.0	0.8	SM33	If	6.95
QBA-24W*	1700-2400	21	15	0.49	0.71	.02	6.0	1.2	SM33	If	6.95

◆ Includes test fixture losses.

BLUE CELL

features

- low insertion loss, 0.25 dB typ. (QBA-12N)
- high power capability (50 watts for QBA-12N)
- high isolation, 28 dB typ. (QBA-12N)
- ceramic body, good for heat dissipation
- solder plated leads for excellent solderability

applications

- cellular
- instrumentation
- PCN



Incorporates multi-layer monolithic ceramic substrates for moderate bandwidth and low cost RF/Microwave products

NOTES:

- ◆ QBA models, aqueous washable.
- * BLUE CELL™ power splitters protected by U.S. Patents 5534830 & 5640699
- A. Environmental specifications and re-flow soldering information available in General Information Section.
- B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
- C. Prices and Specifications subject to change without notice.
- 1. Absolute maximum power, voltage and current ratings:
 - 1a. Matched power rating, as splitters
 - QBA-12N/-12, 50W max. below 25°C. Derate linearly to 10W at 85°C.
 - QBA-20/-20W, 25W max. below 25°C. Derate linearly to 5W at 85°C.
 - QBA-24/-24W, 20W max. below 25°C. Derate linearly to 4W at 85°C.

pin connections

see case style outline drawings

PORT	If
SUM PORT	1
PORT 1	10(0°)
PORT 2	6(-90°)
GND EXT.	2,3,4,7,8,9
50 OHM TERM.	5
NOT USED	—



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