

2 Way-90° Power Splitter/Combiner

QBA-24W+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C

FREQ. (MHz)	TOTAL LOSS ¹			AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB) 1-2	VSWR		
	S-1	S-2	AVG.				S	(:1) 1	2
1000	5.54	1.78	3.66	3.76	91.48	21.83	1.09	1.32	1.08
1100	5.08	1.99	3.53	3.10	91.32	22.50	1.09	1.30	1.07
1200	4.71	2.19	3.45	2.52	91.13	23.32	1.10	1.28	1.08
1300	4.40	2.39	3.39	2.00	90.97	24.30	1.10	1.25	1.08
1400	4.14	2.58	3.36	1.56	90.84	25.24	1.12	1.22	1.09
1500	3.93	2.75	3.34	1.18	90.74	25.97	1.13	1.18	1.11
1600	3.75	2.91	3.33	0.84	90.67	26.15	1.15	1.15	1.13
1625	3.72	2.95	3.34	0.77	90.66	26.07	1.16	1.15	1.13
1650	3.69	2.98	3.34	0.70	90.67	25.92	1.16	1.14	1.14
1675	3.65	3.02	3.34	0.63	90.65	25.71	1.17	1.14	1.15
1700	3.63	3.05	3.34	0.57	90.63	25.49	1.17	1.13	1.15
1725	3.60	3.09	3.34	0.51	90.63	25.23	1.18	1.13	1.16
1750	3.57	3.12	3.34	0.45	90.59	24.97	1.18	1.13	1.16
1775	3.55	3.16	3.36	0.40	90.60	24.65	1.19	1.13	1.17
1800	3.53	3.18	3.36	0.35	90.58	24.39	1.19	1.13	1.17
1825	3.51	3.21	3.36	0.30	90.56	24.07	1.20	1.13	1.18
1850	3.50	3.24	3.37	0.26	90.57	23.76	1.20	1.13	1.19
1875	3.48	3.26	3.37	0.22	90.56	23.41	1.21	1.13	1.19
1900	3.47	3.29	3.38	0.18	90.55	23.10	1.21	1.13	1.20
1925	3.46	3.31	3.39	0.15	90.52	22.74	1.22	1.14	1.20
1950	3.45	3.33	3.39	0.12	90.51	22.44	1.22	1.14	1.21
1975	3.44	3.35	3.40	0.09	90.47	22.11	1.23	1.15	1.21
2000	3.43	3.38	3.40	0.05	90.43	21.78	1.24	1.15	1.22
2025	3.43	3.40	3.42	0.03	90.44	21.45	1.24	1.16	1.23
2050	3.43	3.42	3.42	0.01	90.43	21.16	1.25	1.16	1.23
2075	3.42	3.43	3.43	0.01	90.42	20.87	1.25	1.17	1.24
2100	3.42	3.45	3.44	0.03	90.41	20.59	1.26	1.18	1.24
2125	3.42	3.46	3.44	0.04	90.39	20.30	1.26	1.19	1.25
2150	3.43	3.48	3.45	0.05	90.33	20.03	1.27	1.20	1.25
2175	3.43	3.49	3.46	0.06	90.33	19.76	1.27	1.21	1.26
2200	3.44	3.50	3.47	0.06	90.27	19.52	1.28	1.21	1.26
2225	3.44	3.52	3.48	0.08	90.28	19.25	1.28	1.22	1.27
2250	3.45	3.53	3.49	0.08	90.28	19.02	1.29	1.23	1.27
2275	3.46	3.54	3.50	0.08	90.28	18.78	1.29	1.24	1.28
2300	3.47	3.54	3.51	0.07	90.24	18.58	1.30	1.26	1.28
2325	3.49	3.56	3.52	0.07	90.25	18.32	1.30	1.27	1.28
2350	3.51	3.56	3.53	0.05	90.30	18.12	1.31	1.28	1.29
2375	3.52	3.55	3.54	0.03	90.24	17.90	1.31	1.29	1.29
2400	3.54	3.56	3.55	0.02	90.20	17.73	1.32	1.30	1.30
2425	3.56	3.56	3.56	0.00	90.19	17.55	1.32	1.31	1.30
2450	3.58	3.55	3.56	0.03	90.18	17.40	1.32	1.33	1.30
2475	3.60	3.55	3.58	0.05	90.18	17.22	1.33	1.34	1.31
2500	3.62	3.55	3.58	0.07	90.18	17.05	1.33	1.35	1.31
2600	3.73	3.51	3.62	0.22	90.14	16.45	1.34	1.40	1.31
2700	3.88	3.45	3.67	0.43	90.12	15.92	1.35	1.45	1.32
2800	4.07	3.37	3.72	0.70	89.99	15.43	1.35	1.50	1.32
2900	4.29	3.24	3.77	1.05	89.86	14.94	1.35	1.56	1.32
3000	4.59	3.09	3.84	1.50	89.55	14.43	1.35	1.62	1.32
3100	4.94	2.93	3.93	2.02	89.11	13.93	1.35	1.71	1.31
3200	5.41	2.74	4.07	2.67	88.39	13.31	1.34	1.82	1.31
3300	5.97	2.54	4.26	3.43	87.20	12.70	1.33	1.98	1.30
3400	6.66	2.34	4.50	4.32	85.18	12.07	1.32	2.19	1.30

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

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2 Way-90° Power Splitter/Combiner

QBA-24W+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = -55°C

FREQ. (MHz)	TOTAL LOSS ¹			AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB) 1-2	VSWR		
	S-1	S-2	AVG.				S	(:1) 1	2
1000	5.39	1.60	3.49	3.79	89.35	21.63	1.09	1.32	1.08
1100	4.94	1.80	3.37	3.13	89.55	22.17	1.10	1.31	1.08
1200	4.56	1.99	3.28	2.56	89.84	23.04	1.10	1.29	1.08
1300	4.23	2.17	3.20	2.05	90.12	24.24	1.10	1.26	1.08
1400	3.95	2.35	3.15	1.60	90.34	25.33	1.11	1.22	1.09
1500	3.73	2.52	3.12	1.22	90.54	26.33	1.12	1.18	1.11
1600	3.54	2.67	3.11	0.88	90.68	26.74	1.15	1.16	1.13
1625	3.51	2.70	3.11	0.81	90.71	26.70	1.15	1.15	1.13
1650	3.48	2.73	3.11	0.74	90.75	26.55	1.16	1.14	1.14
1675	3.43	2.77	3.10	0.66	90.79	26.26	1.17	1.13	1.15
1700	3.40	2.80	3.10	0.60	90.83	25.98	1.18	1.13	1.16
1725	3.37	2.83	3.10	0.54	90.86	25.67	1.18	1.12	1.17
1750	3.35	2.86	3.10	0.49	90.91	25.33	1.19	1.12	1.17
1775	3.33	2.90	3.11	0.43	90.93	24.91	1.20	1.12	1.19
1800	3.30	2.92	3.11	0.38	90.99	24.60	1.20	1.11	1.19
1825	3.28	2.96	3.12	0.32	91.03	24.25	1.21	1.12	1.20
1850	3.26	2.97	3.12	0.29	91.07	23.85	1.22	1.11	1.22
1875	3.25	3.00	3.13	0.24	91.09	23.35	1.23	1.12	1.23
1900	3.23	3.03	3.13	0.20	91.09	22.94	1.24	1.12	1.23
1925	3.21	3.04	3.13	0.17	91.14	22.59	1.24	1.13	1.24
1950	3.20	3.07	3.14	0.13	91.17	22.29	1.24	1.13	1.25
1975	3.19	3.09	3.14	0.10	91.22	21.84	1.25	1.14	1.26
2000	3.19	3.12	3.15	0.07	91.30	21.39	1.26	1.15	1.27
2025	3.18	3.13	3.16	0.05	91.35	21.03	1.27	1.16	1.27
2050	3.17	3.15	3.16	0.02	91.40	20.72	1.27	1.17	1.28
2075	3.16	3.17	3.17	0.01	91.42	20.44	1.28	1.18	1.28
2100	3.16	3.19	3.18	0.03	91.41	20.10	1.28	1.19	1.29
2125	3.16	3.20	3.18	0.04	91.45	19.78	1.29	1.20	1.29
2150	3.16	3.21	3.19	0.05	91.54	19.49	1.30	1.20	1.30
2175	3.16	3.23	3.19	0.07	91.58	19.21	1.30	1.21	1.31
2200	3.17	3.24	3.21	0.07	91.62	18.92	1.31	1.23	1.31
2225	3.18	3.25	3.21	0.07	91.62	18.66	1.31	1.24	1.31
2250	3.17	3.26	3.22	0.09	91.63	18.42	1.32	1.25	1.31
2275	3.19	3.27	3.23	0.08	91.68	18.15	1.33	1.27	1.32
2300	3.20	3.27	3.24	0.07	91.70	17.94	1.33	1.28	1.32
2325	3.21	3.29	3.25	0.08	91.73	17.73	1.34	1.30	1.32
2350	3.23	3.28	3.26	0.05	91.73	17.49	1.35	1.31	1.32
2375	3.24	3.29	3.26	0.05	91.76	17.23	1.36	1.32	1.32
2400	3.25	3.29	3.27	0.04	91.82	17.03	1.36	1.34	1.32
2425	3.26	3.28	3.27	0.02	91.87	16.88	1.37	1.36	1.31
2450	3.27	3.28	3.27	0.01	91.88	16.80	1.37	1.37	1.31
2475	3.29	3.28	3.28	0.01	91.89	16.66	1.37	1.38	1.32
2500	3.31	3.28	3.29	0.03	91.84	16.47	1.37	1.39	1.32
2600	3.41	3.23	3.32	0.18	91.85	15.96	1.38	1.43	1.31
2700	3.53	3.15	3.34	0.39	91.95	15.49	1.39	1.47	1.31
2800	3.69	3.05	3.37	0.64	92.02	15.11	1.39	1.52	1.30
2900	3.90	2.90	3.40	1.00	92.16	14.74	1.39	1.58	1.29
3000	4.16	2.74	3.45	1.42	92.37	14.36	1.37	1.63	1.29
3100	4.48	2.53	3.50	1.95	92.92	13.94	1.36	1.71	1.29
3200	4.94	2.34	3.64	2.59	93.35	13.29	1.32	1.83	1.31
3300	5.52	2.11	3.82	3.41	94.92	12.72	1.31	2.01	1.32
3400	6.17	1.92	4.05	4.25	97.18	12.06	1.32	2.25	1.35

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

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Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +100°C

FREQ. (MHz)	TOTAL LOSS ¹			AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB) 1-2	VSWR		
	S-1	S-2	AVG.				S	(:1) 1	2
1000	5.59	1.88	3.73	3.71	92.25	22.35	1.07	1.30	1.07
1100	5.14	2.11	3.62	3.04	92.16	22.96	1.09	1.28	1.08
1200	4.78	2.32	3.55	2.46	92.07	23.52	1.11	1.26	1.09
1300	4.48	2.53	3.50	1.94	92.04	24.07	1.12	1.24	1.11
1400	4.23	2.73	3.48	1.50	92.06	24.52	1.14	1.21	1.13
1500	4.04	2.92	3.48	1.13	92.08	24.72	1.16	1.20	1.14
1600	3.87	3.08	3.48	0.80	92.12	24.57	1.18	1.18	1.15
1625	3.85	3.11	3.48	0.74	92.14	24.46	1.18	1.18	1.15
1650	3.82	3.15	3.49	0.66	92.15	24.34	1.18	1.17	1.15
1675	3.78	3.19	3.49	0.59	92.17	24.20	1.18	1.17	1.15
1700	3.76	3.22	3.49	0.54	92.18	24.07	1.19	1.17	1.15
1725	3.73	3.26	3.50	0.47	92.20	23.92	1.19	1.17	1.15
1750	3.71	3.28	3.50	0.43	92.21	23.78	1.20	1.17	1.16
1775	3.69	3.32	3.50	0.37	92.21	23.62	1.20	1.16	1.16
1800	3.67	3.34	3.51	0.33	92.23	23.46	1.20	1.16	1.16
1825	3.65	3.38	3.52	0.28	92.23	23.23	1.20	1.16	1.16
1850	3.63	3.40	3.52	0.23	92.25	23.07	1.21	1.17	1.16
1875	3.62	3.43	3.52	0.19	92.29	22.84	1.21	1.17	1.16
1900	3.61	3.45	3.53	0.16	92.32	22.70	1.21	1.17	1.16
1925	3.60	3.47	3.54	0.13	92.35	22.49	1.21	1.17	1.16
1950	3.59	3.50	3.54	0.09	92.35	22.33	1.21	1.17	1.17
1975	3.59	3.52	3.56	0.07	92.41	22.06	1.21	1.17	1.17
2000	3.57	3.54	3.55	0.03	92.35	21.92	1.22	1.18	1.17
2025	3.57	3.55	3.56	0.02	92.39	21.71	1.22	1.18	1.17
2050	3.56	3.57	3.56	0.01	92.37	21.56	1.22	1.18	1.17
2075	3.56	3.58	3.57	0.02	92.39	21.35	1.22	1.19	1.17
2100	3.56	3.60	3.58	0.04	92.43	21.16	1.22	1.19	1.18
2125	3.57	3.61	3.59	0.04	92.42	20.96	1.23	1.20	1.18
2150	3.57	3.62	3.59	0.05	92.42	20.80	1.23	1.20	1.18
2175	3.57	3.63	3.60	0.06	92.45	20.63	1.23	1.20	1.18
2200	3.59	3.64	3.62	0.05	92.47	20.35	1.23	1.21	1.18
2225	3.59	3.65	3.62	0.06	92.51	20.16	1.24	1.21	1.19
2250	3.61	3.65	3.63	0.04	92.47	20.00	1.24	1.22	1.19
2275	3.62	3.65	3.63	0.03	92.46	19.83	1.24	1.22	1.20
2300	3.64	3.66	3.65	0.02	92.45	19.64	1.24	1.23	1.20
2325	3.65	3.67	3.66	0.02	92.44	19.46	1.25	1.24	1.21
2350	3.67	3.67	3.67	0.00	92.49	19.26	1.25	1.24	1.21
2375	3.70	3.66	3.68	0.04	92.46	19.11	1.25	1.25	1.21
2400	3.70	3.65	3.68	0.05	92.39	18.98	1.25	1.26	1.22
2425	3.72	3.65	3.69	0.07	92.36	18.86	1.25	1.27	1.23
2450	3.75	3.65	3.70	0.10	92.38	18.68	1.25	1.27	1.23
2475	3.77	3.65	3.71	0.12	92.38	18.52	1.25	1.28	1.24
2500	3.81	3.64	3.73	0.16	92.39	18.30	1.25	1.29	1.25
2600	3.95	3.61	3.78	0.35	92.38	17.54	1.26	1.33	1.27
2700	4.12	3.54	3.83	0.58	92.13	16.91	1.27	1.40	1.30
2800	4.34	3.48	3.91	0.86	91.93	16.20	1.28	1.46	1.33
2900	4.61	3.36	3.98	1.25	91.58	15.47	1.30	1.53	1.35
3000	4.95	3.24	4.10	1.71	91.07	14.73	1.32	1.62	1.36
3100	5.36	3.13	4.24	2.23	90.37	13.99	1.33	1.72	1.38
3200	5.84	3.00	4.42	2.84	89.62	13.17	1.34	1.84	1.37
3300	6.40	2.82	4.61	3.58	88.01	12.52	1.36	2.00	1.36
3400	7.07	2.68	4.87	4.39	85.99	11.82	1.37	2.20	1.33

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

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