

2 Way-90° Power Splitter/Combiner

HPQ-09W+

Typical Performance Data

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

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. From 90° (deg.)	ISOLATION (dB) 1-2	VSWR (:1)		
	S-1	S-2				S	1	2
300	0.73	8.95	8.22	0.56	28.14	1.02	1.02	1.01
350	0.93	7.83	6.90	0.60	27.43	1.03	1.03	1.03
400	1.16	6.91	5.75	0.61	26.98	1.04	1.04	1.04
450	1.40	6.15	4.75	0.59	26.72	1.05	1.05	1.05
500	1.66	5.50	3.84	0.56	26.58	1.06	1.06	1.07
550	1.91	4.95	3.04	0.55	26.55	1.07	1.07	1.08
600	2.18	4.47	2.30	0.54	26.57	1.08	1.08	1.10
650	2.45	4.06	1.60	0.51	26.54	1.09	1.09	1.11
660	2.50	3.99	1.49	0.50	26.54	1.09	1.09	1.11
670	2.56	3.92	1.36	0.50	26.52	1.10	1.09	1.11
680	2.62	3.85	1.23	0.49	26.52	1.10	1.09	1.12
690	2.67	3.78	1.11	0.48	26.53	1.10	1.10	1.12
700	2.73	3.71	0.98	0.47	26.53	1.10	1.10	1.12
710	2.78	3.65	0.87	0.48	26.51	1.10	1.10	1.12
720	2.84	3.58	0.74	0.48	26.49	1.11	1.10	1.12
730	2.89	3.52	0.63	0.47	26.47	1.11	1.10	1.13
740	2.95	3.46	0.52	0.45	26.44	1.11	1.11	1.13
750	3.00	3.40	0.41	0.45	26.40	1.11	1.11	1.13
760	3.05	3.34	0.29	0.46	26.36	1.11	1.11	1.13
770	3.11	3.29	0.19	0.45	26.33	1.12	1.11	1.14
780	3.16	3.24	0.07	0.45	26.28	1.12	1.11	1.14
790	3.21	3.19	0.03	0.42	26.21	1.12	1.11	1.14
800	3.27	3.13	0.14	0.42	26.16	1.12	1.11	1.14
810	3.32	3.09	0.23	0.40	26.10	1.12	1.12	1.15
820	3.38	3.04	0.34	0.38	26.03	1.13	1.12	1.15
830	3.44	2.99	0.44	0.36	25.98	1.13	1.12	1.15
840	3.49	2.95	0.54	0.37	25.90	1.13	1.12	1.15
850	3.54	2.91	0.63	0.35	25.82	1.13	1.12	1.15
860	3.60	2.85	0.75	0.37	25.73	1.13	1.12	1.16
870	3.65	2.82	0.83	0.34	25.65	1.14	1.13	1.16
880	3.71	2.77	0.93	0.30	25.54	1.14	1.13	1.16
890	3.76	2.74	1.02	0.31	25.47	1.14	1.13	1.16
900	3.82	2.69	1.12	0.29	25.37	1.14	1.13	1.16
950	4.08	2.51	1.56	0.26	24.83	1.15	1.14	1.17
1000	4.34	2.36	1.98	0.19	24.27	1.16	1.15	1.18
1050	4.59	2.21	2.39	0.11	23.66	1.17	1.16	1.19
1100	4.85	2.08	2.77	0.02	23.06	1.18	1.16	1.20
1150	5.10	1.97	3.13	0.11	22.44	1.19	1.17	1.21
1200	5.34	1.88	3.46	0.23	21.85	1.20	1.18	1.22
1250	5.58	1.79	3.79	0.37	21.30	1.21	1.20	1.23
1300	5.80	1.71	4.10	0.50	20.77	1.23	1.21	1.24
1350	6.03	1.64	4.39	0.68	20.25	1.24	1.22	1.25
1400	6.26	1.58	4.68	0.86	19.78	1.25	1.24	1.27
1450	6.47	1.53	4.94	1.08	19.33	1.26	1.25	1.28
1500	6.68	1.48	5.20	1.27	18.90	1.28	1.27	1.29
1600	7.09	1.41	5.68	1.79	18.14	1.31	1.31	1.32
1700	7.48	1.37	6.12	2.40	17.44	1.35	1.35	1.36
1800	7.86	1.34	6.53	3.12	16.84	1.39	1.39	1.40
1900	8.23	1.32	6.91	3.91	16.29	1.44	1.44	1.45
2000	8.58	1.33	7.25	4.74	15.79	1.49	1.49	1.50
2100	8.91	1.34	7.57	5.73	15.36	1.54	1.54	1.56

¹Total Loss = Insertion Loss + 3dB Splitter Loss



2 Way-90° Power Splitter/Combiner

HPQ-09W+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = -40°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. From 90° (deg.)	ISOLATION (dB) 1-2	VSWR (:1)		
	S-1	S-2				S	1	2
300	0.66	9.02	8.36	0.10	28.97	1.02	1.03	1.01
350	0.86	7.89	7.03	0.20	28.21	1.03	1.04	1.02
400	1.07	6.96	5.89	0.29	27.73	1.04	1.04	1.04
450	1.31	6.19	4.88	0.42	27.43	1.05	1.06	1.05
500	1.56	5.53	3.97	0.53	27.21	1.06	1.06	1.07
550	1.81	4.97	3.16	0.64	27.07	1.07	1.07	1.08
600	2.06	4.48	2.42	0.76	26.98	1.08	1.08	1.10
650	2.33	4.07	1.73	0.87	26.83	1.09	1.09	1.11
660	2.38	3.99	1.61	0.89	26.81	1.09	1.09	1.11
670	2.43	3.92	1.48	0.94	26.79	1.10	1.09	1.12
680	2.49	3.86	1.36	0.97	26.78	1.10	1.09	1.12
690	2.54	3.78	1.24	0.98	26.74	1.10	1.09	1.12
700	2.60	3.72	1.12	1.01	26.72	1.10	1.10	1.12
710	2.65	3.65	1.00	1.03	26.70	1.10	1.10	1.12
720	2.70	3.58	0.88	1.06	26.65	1.11	1.10	1.13
730	2.76	3.52	0.76	1.08	26.61	1.11	1.10	1.13
740	2.81	3.46	0.66	1.14	26.54	1.11	1.10	1.13
750	2.87	3.40	0.54	1.15	26.49	1.11	1.11	1.13
760	2.91	3.34	0.43	1.15	26.43	1.11	1.11	1.14
770	2.97	3.29	0.33	1.19	26.37	1.12	1.11	1.14
780	3.02	3.24	0.21	1.22	26.29	1.12	1.11	1.14
790	3.08	3.18	0.10	1.26	26.21	1.12	1.11	1.14
800	3.13	3.13	0.00	1.28	26.13	1.12	1.11	1.15
810	3.18	3.08	0.10	1.31	26.05	1.12	1.11	1.15
820	3.24	3.03	0.21	1.35	25.98	1.13	1.12	1.15
830	3.29	2.98	0.31	1.38	25.88	1.13	1.12	1.15
840	3.34	2.94	0.40	1.41	25.79	1.13	1.12	1.16
850	3.39	2.89	0.51	1.44	25.71	1.13	1.12	1.16
860	3.45	2.84	0.61	1.45	25.55	1.13	1.12	1.16
870	3.50	2.81	0.70	1.48	25.48	1.14	1.12	1.16
880	3.56	2.76	0.79	1.52	25.37	1.14	1.12	1.16
890	3.61	2.72	0.89	1.60	25.27	1.14	1.13	1.17
900	3.67	2.67	0.99	1.61	25.17	1.14	1.13	1.17
950	3.92	2.49	1.43	1.73	24.59	1.15	1.14	1.18
1000	4.18	2.33	1.85	1.91	24.01	1.16	1.14	1.19
1050	4.42	2.18	2.25	2.08	23.38	1.17	1.15	1.19
1100	4.68	2.05	2.63	2.26	22.78	1.18	1.16	1.20
1150	4.92	1.93	2.99	2.52	22.16	1.19	1.17	1.21
1200	5.16	1.83	3.33	2.72	21.56	1.20	1.18	1.22
1250	5.39	1.74	3.65	2.98	21.02	1.21	1.19	1.23
1300	5.61	1.66	3.96	3.22	20.48	1.22	1.21	1.24
1350	5.85	1.59	4.25	3.47	19.96	1.24	1.22	1.25
1400	6.06	1.53	4.53	3.76	19.50	1.25	1.23	1.26
1450	6.27	1.47	4.80	4.07	19.07	1.26	1.25	1.27
1500	6.48	1.42	5.05	4.38	18.66	1.28	1.27	1.29
1600	6.88	1.34	5.53	5.11	17.92	1.30	1.31	1.31
1700	7.26	1.29	5.97	5.91	17.23	1.34	1.35	1.35
1800	7.64	1.25	6.39	6.82	16.65	1.38	1.40	1.39
1900	8.01	1.24	6.77	7.69	16.06	1.42	1.44	1.43
2000	8.34	1.23	7.11	8.92	15.59	1.47	1.50	1.48
2100	8.67	1.24	7.43	9.99	15.11	1.53	1.54	1.54

¹Total Loss = Insertion Loss + 3dB Splitter Loss

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2 Way-90° Power Splitter/Combiner

HPQ-09W+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +85°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. From 90° (deg.)	ISOLATION (dB) 1-2	VSWR (:1)		
	S-1	S-2				S	1	2
300	0.74	9.05	8.31	0.69	29.08	1.02	1.02	1.01
350	0.95	7.93	6.98	0.70	28.44	1.03	1.03	1.02
400	1.17	7.01	5.84	0.68	28.03	1.04	1.04	1.04
450	1.41	6.24	4.83	0.67	27.80	1.05	1.05	1.05
500	1.66	5.59	3.93	0.66	27.66	1.06	1.06	1.06
550	1.92	5.03	3.11	0.68	27.62	1.07	1.07	1.07
600	2.18	4.55	2.37	0.66	27.63	1.07	1.08	1.09
650	2.45	4.15	1.69	0.60	27.52	1.08	1.08	1.10
660	2.50	4.07	1.57	0.62	27.50	1.09	1.09	1.10
670	2.56	4.00	1.44	0.62	27.47	1.09	1.09	1.11
680	2.61	3.93	1.32	0.61	27.45	1.09	1.09	1.11
690	2.67	3.86	1.19	0.58	27.43	1.09	1.09	1.11
700	2.73	3.79	1.06	0.60	27.39	1.09	1.09	1.11
710	2.78	3.73	0.95	0.62	27.32	1.10	1.09	1.11
720	2.84	3.66	0.82	0.60	27.28	1.10	1.10	1.12
730	2.89	3.60	0.71	0.62	27.22	1.10	1.10	1.12
740	2.95	3.54	0.60	0.58	27.15	1.10	1.10	1.12
750	3.00	3.48	0.49	0.59	27.08	1.10	1.10	1.12
760	3.05	3.43	0.37	0.61	27.00	1.11	1.10	1.13
770	3.11	3.37	0.27	0.60	26.93	1.11	1.10	1.13
780	3.15	3.32	0.16	0.60	26.86	1.11	1.11	1.13
790	3.21	3.27	0.05	0.57	26.75	1.11	1.11	1.13
800	3.27	3.22	0.06	0.58	26.65	1.11	1.11	1.13
810	3.32	3.17	0.15	0.56	26.56	1.12	1.11	1.14
820	3.38	3.12	0.26	0.53	26.46	1.12	1.11	1.14
830	3.43	3.07	0.36	0.53	26.37	1.12	1.11	1.14
840	3.49	3.03	0.46	0.54	26.26	1.12	1.11	1.14
850	3.54	2.98	0.56	0.53	26.15	1.12	1.12	1.15
860	3.60	2.93	0.67	0.53	26.02	1.13	1.12	1.15
870	3.65	2.90	0.75	0.52	25.89	1.13	1.12	1.15
880	3.70	2.85	0.85	0.48	25.77	1.13	1.12	1.15
890	3.75	2.81	0.94	0.48	25.65	1.13	1.12	1.15
900	3.81	2.77	1.03	0.46	25.53	1.13	1.12	1.16
950	4.07	2.59	1.48	0.44	24.85	1.14	1.13	1.17
1000	4.34	2.44	1.90	0.39	24.17	1.15	1.14	1.17
1050	4.59	2.29	2.31	0.32	23.50	1.16	1.15	1.18
1100	4.85	2.16	2.68	0.24	22.84	1.17	1.16	1.19
1150	5.10	2.05	3.05	0.09	22.18	1.19	1.17	1.21
1200	5.33	1.95	3.38	0.01	21.57	1.20	1.18	1.22
1250	5.57	1.87	3.70	0.15	21.02	1.21	1.19	1.23
1300	5.80	1.79	4.02	0.27	20.50	1.22	1.20	1.24
1350	6.04	1.72	4.31	0.45	19.98	1.23	1.22	1.25
1400	6.26	1.67	4.59	0.63	19.52	1.25	1.23	1.27
1450	6.47	1.62	4.86	0.84	19.10	1.26	1.25	1.28
1500	6.68	1.57	5.11	1.04	18.69	1.28	1.27	1.29
1600	7.10	1.50	5.60	1.54	17.97	1.31	1.30	1.32
1700	7.50	1.45	6.05	2.14	17.31	1.35	1.34	1.36
1800	7.89	1.42	6.47	2.88	16.74	1.39	1.39	1.40
1900	8.27	1.42	6.85	3.47	16.18	1.44	1.43	1.45
2000	8.63	1.41	7.22	4.45	15.74	1.49	1.48	1.51
2100	9.00	1.44	7.56	5.25	15.32	1.55	1.54	1.57

¹Total Loss = Insertion Loss + 3dB Splitter Loss

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