

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = -55°C, Configuration A.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.78	-3.33	-3.06	0.28	0.03	-27.76	-28.65	-28.82	-29.84	-29.56
2050	-2.85	-3.26	-3.06	0.21	0.00	-28.06	-29.14	-29.22	-30.32	-30.20
2100	-2.90	-3.20	-3.05	0.16	-0.02	-28.30	-29.56	-29.61	-30.40	-30.08
2150	-2.95	-3.14	-3.05	0.10	-0.03	-28.64	-30.38	-29.88	-30.48	-30.38
2200	-3.00	-3.08	-3.04	0.05	-0.05	-29.12	-31.17	-30.00	-30.52	-30.08
2250	-3.05	-3.03	-3.04	0.01	-0.04	-29.64	-31.88	-30.02	-30.74	-30.26
2300	-3.09	-2.99	-3.04	0.06	-0.09	-30.38	-32.37	-29.91	-30.88	-30.26
2350	-3.14	-2.95	-3.05	0.10	-0.08	-30.68	-32.48	-29.85	-31.44	-30.31
2400	-3.18	-2.91	-3.05	0.14	-0.16	-31.34	-32.06	-29.70	-31.26	-30.41
2450	-3.21	-2.88	-3.05	0.17	-0.19	-31.52	-31.98	-29.94	-31.39	-30.34
2500	-3.25	-2.85	-3.05	0.21	-0.26	-31.88	-31.41	-29.94	-31.02	-30.29
2550	-3.27	-2.83	-3.06	0.23	-0.29	-32.16	-31.82	-30.01	-31.16	-29.83
2600	-3.30	-2.80	-3.06	0.26	-0.34	-32.13	-31.68	-29.82	-31.43	-29.63
2650	-3.32	-2.79	-3.06	0.27	-0.39	-32.01	-32.27	-29.47	-31.60	-29.26
2700	-3.34	-2.77	-3.06	0.29	-0.36	-31.72	-32.15	-29.35	-32.05	-29.24
2750	-3.36	-2.76	-3.07	0.30	-0.43	-31.39	-32.15	-29.11	-31.92	-29.05
2800	-3.37	-2.75	-3.07	0.31	-0.43	-30.76	-32.03	-29.42	-32.12	-29.09
2850	-3.38	-2.75	-3.08	0.32	-0.46	-30.20	-31.54	-29.39	-31.28	-28.89
2900	-3.39	-2.75	-3.08	0.32	-0.42	-29.59	-31.28	-29.69	-31.14	-29.17
2950	-3.39	-2.75	-3.08	0.32	-0.43	-29.15	-30.62	-29.81	-30.77	-28.77
3000	-3.39	-2.75	-3.08	0.32	-0.39	-28.78	-30.45	-29.89	-30.21	-28.96
3050	-3.39	-2.76	-3.09	0.32	-0.39	-28.47	-29.54	-30.02	-29.93	-28.70
3100	-3.38	-2.76	-3.08	0.30	-0.35	-28.30	-29.51	-29.90	-28.90	-28.85
3150	-3.37	-2.77	-3.08	0.30	-0.27	-28.00	-28.94	-30.00	-28.61	-28.61
3200	-3.36	-2.79	-3.08	0.28	-0.24	-27.78	-28.96	-29.94	-28.01	-28.29
3250	-3.35	-2.80	-3.08	0.27	-0.16	-27.40	-28.15	-29.37	-27.64	-28.08
3300	-3.33	-2.82	-3.08	0.25	-0.17	-27.20	-28.03	-29.12	-27.36	-27.54
3350	-3.31	-2.84	-3.08	0.23	-0.10	-26.95	-27.36	-28.47	-26.81	-27.10
3400	-3.29	-2.86	-3.08	0.21	-0.05	-26.66	-27.13	-28.19	-26.62	-26.75
3450	-3.26	-2.89	-3.08	0.18	-0.03	-26.44	-26.52	-27.69	-26.12	-26.48
3500	-3.23	-2.91	-3.07	0.16	0.06	-26.31	-26.43	-27.49	-25.94	-26.23
3550	-3.20	-2.94	-3.07	0.13	0.04	-26.08	-26.00	-26.96	-25.59	-25.99
3600	-3.17	-2.98	-3.08	0.10	0.11	-25.77	-25.70	-26.50	-25.38	-25.79
3650	-3.13	-3.02	-3.08	0.06	0.13	-25.37	-25.08	-25.81	-25.18	-25.72
3700	-3.10	-3.06	-3.08	0.02	0.16	-25.01	-24.64	-25.19	-24.57	-25.41
3750	-3.06	-3.11	-3.09	0.02	0.17	-24.49	-24.21	-25.05	-24.32	-25.41
3800	-3.02	-3.16	-3.09	0.07	0.21	-24.05	-23.55	-24.42	-23.59	-25.11
3850	-2.98	-3.20	-3.09	0.11	0.19	-23.68	-23.35	-24.44	-23.18	-25.08
3900	-2.93	-3.27	-3.10	0.17	0.19	-23.17	-22.97	-24.03	-22.63	-24.56
3950	-2.89	-3.33	-3.12	0.22	0.19	-22.94	-23.15	-23.94	-22.54	-24.57
4000	-2.83	-3.40	-3.12	0.28	0.18	-22.53	-22.88	-23.47	-22.38	-24.09

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = -55°C, Configuration B.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.79	-3.32	-3.06	0.26	0.57	-27.76	-29.56	-29.84	-28.82	-28.65
2050	-2.85	-3.25	-3.05	0.20	0.56	-28.06	-30.20	-30.32	-29.22	-29.14
2100	-2.91	-3.19	-3.05	0.14	0.57	-28.14	-30.08	-30.40	-29.61	-29.56
2150	-2.96	-3.13	-3.05	0.08	0.57	-28.60	-30.38	-30.48	-29.88	-30.38
2200	-3.01	-3.07	-3.04	0.03	0.53	-29.06	-30.08	-30.52	-30.00	-31.17
2250	-3.07	-3.03	-3.05	0.03	0.53	-29.67	-30.26	-30.74	-30.02	-31.88
2300	-3.11	-2.98	-3.05	0.07	0.50	-30.30	-30.26	-30.88	-29.91	-32.37
2350	-3.15	-2.94	-3.05	0.11	0.53	-30.76	-30.31	-31.44	-29.85	-32.48
2400	-3.19	-2.90	-3.05	0.15	0.50	-31.38	-30.41	-31.26	-29.70	-32.06
2450	-3.23	-2.87	-3.05	0.18	0.52	-31.60	-30.34	-31.39	-29.94	-31.98
2500	-3.26	-2.84	-3.06	0.21	0.50	-31.95	-30.29	-31.02	-29.94	-31.41
2550	-3.29	-2.82	-3.06	0.24	0.50	-32.24	-29.83	-31.16	-30.01	-31.82
2600	-3.32	-2.79	-3.06	0.26	0.49	-32.26	-29.63	-31.43	-29.82	-31.68
2650	-3.34	-2.78	-3.07	0.28	0.48	-32.20	-29.26	-31.60	-29.47	-32.27
2700	-3.36	-2.76	-3.07	0.30	0.52	-31.92	-29.24	-32.05	-29.35	-32.15
2750	-3.38	-2.75	-3.08	0.32	0.50	-31.43	-29.05	-31.92	-29.11	-32.15
2800	-3.39	-2.74	-3.08	0.33	0.50	-30.81	-29.09	-32.12	-29.42	-32.03
2850	-3.40	-2.74	-3.08	0.33	0.52	-29.93	-28.89	-31.28	-29.39	-31.54
2900	-3.40	-2.74	-3.08	0.33	0.57	-29.32	-29.17	-31.14	-29.69	-31.28
2950	-3.40	-2.74	-3.08	0.34	0.59	-28.70	-28.77	-30.77	-29.81	-30.62
3000	-3.40	-2.75	-3.09	0.34	0.65	-28.29	-28.96	-30.21	-29.89	-30.45
3050	-3.41	-2.76	-3.10	0.33	0.67	-28.01	-28.70	-29.93	-30.02	-29.54
3100	-3.39	-2.76	-3.09	0.33	0.75	-27.81	-28.85	-28.90	-29.90	-29.51
3150	-3.39	-2.77	-3.09	0.32	0.77	-27.64	-28.61	-28.61	-30.00	-28.94
3200	-3.38	-2.78	-3.09	0.31	0.80	-27.45	-28.29	-28.01	-29.94	-28.96
3250	-3.36	-2.80	-3.09	0.29	0.85	-27.32	-28.08	-27.64	-29.37	-28.15
3300	-3.35	-2.82	-3.09	0.28	0.86	-27.10	-27.54	-27.36	-29.12	-28.03
3350	-3.32	-2.83	-3.08	0.26	0.90	-27.11	-27.10	-26.81	-28.47	-27.36
3400	-3.30	-2.85	-3.08	0.23	0.97	-26.85	-26.75	-26.62	-28.19	-27.13
3450	-3.28	-2.88	-3.08	0.20	0.99	-26.72	-26.48	-26.12	-27.69	-26.52
3500	-3.25	-2.90	-3.08	0.18	1.09	-26.56	-26.23	-25.94	-27.49	-26.43
3550	-3.22	-2.93	-3.08	0.15	1.09	-26.37	-25.99	-25.59	-26.96	-26.00
3600	-3.19	-2.97	-3.08	0.11	1.17	-25.98	-25.79	-25.38	-26.50	-25.70
3650	-3.15	-3.01	-3.08	0.07	1.19	-25.58	-25.72	-25.18	-25.81	-25.08
3700	-3.11	-3.05	-3.08	0.03	1.30	-25.13	-25.41	-24.57	-25.19	-24.64
3750	-3.07	-3.09	-3.08	0.02	1.36	-24.58	-25.41	-24.32	-25.05	-24.21
3800	-3.03	-3.14	-3.09	0.06	1.45	-24.06	-25.11	-23.59	-24.42	-23.55
3850	-2.99	-3.19	-3.09	0.11	1.51	-23.63	-25.08	-23.18	-24.44	-23.35
3900	-2.95	-3.25	-3.10	0.16	1.56	-23.12	-24.56	-22.63	-24.03	-22.97
3950	-2.89	-3.31	-3.11	0.21	1.60	-22.80	-24.57	-22.54	-23.94	-23.15
4000	-2.84	-3.38	-3.12	0.27	1.60	-22.40	-24.09	-22.38	-23.47	-22.88

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = -55°C, Configuration C.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.79	-3.31	-3.06	0.27	0.45	-27.88	-28.82	-28.65	-29.56	-29.84
2050	-2.86	-3.24	-3.05	0.21	0.43	-28.05	-29.22	-29.14	-30.20	-30.32
2100	-2.91	-3.18	-3.05	0.15	0.42	-28.23	-29.61	-29.56	-30.08	-30.40
2150	-2.97	-3.12	-3.05	0.09	0.42	-28.34	-29.88	-30.38	-30.38	-30.48
2200	-3.02	-3.07	-3.05	0.04	0.39	-28.62	-30.00	-31.17	-30.08	-30.52
2250	-3.07	-3.02	-3.05	0.02	0.41	-28.87	-30.02	-31.88	-30.26	-30.74
2300	-3.12	-2.98	-3.05	0.06	0.40	-29.32	-29.91	-32.37	-30.26	-30.88
2350	-3.17	-2.94	-3.06	0.10	0.42	-29.51	-29.85	-32.48	-30.31	-31.44
2400	-3.21	-2.90	-3.06	0.14	0.36	-29.97	-29.70	-32.06	-30.41	-31.26
2450	-3.24	-2.87	-3.06	0.18	0.35	-30.38	-29.94	-31.98	-30.34	-31.39
2500	-3.28	-2.84	-3.07	0.21	0.29	-30.73	-29.94	-31.41	-30.29	-31.02
2550	-3.30	-2.82	-3.07	0.23	0.30	-30.90	-30.01	-31.82	-29.83	-31.16
2600	-3.33	-2.79	-3.07	0.26	0.28	-31.46	-29.82	-31.68	-29.63	-31.43
2650	-3.35	-2.78	-3.07	0.27	0.27	-31.46	-29.47	-32.27	-29.26	-31.60
2700	-3.37	-2.76	-3.08	0.29	0.31	-31.62	-29.35	-32.15	-29.24	-32.05
2750	-3.39	-2.75	-3.08	0.31	0.27	-31.50	-29.11	-32.15	-29.05	-31.92
2800	-3.39	-2.74	-3.08	0.32	0.27	-31.24	-29.42	-32.03	-29.09	-32.12
2850	-3.40	-2.74	-3.08	0.32	0.26	-30.69	-29.39	-31.54	-28.89	-31.28
2900	-3.40	-2.73	-3.08	0.32	0.33	-30.30	-29.69	-31.28	-29.17	-31.14
2950	-3.40	-2.73	-3.08	0.33	0.32	-29.96	-29.81	-30.62	-28.77	-30.77
3000	-3.40	-2.73	-3.08	0.32	0.41	-29.24	-29.89	-30.45	-28.96	-30.21
3050	-3.40	-2.74	-3.08	0.32	0.40	-29.17	-30.02	-29.54	-28.70	-29.93
3100	-3.39	-2.74	-3.08	0.31	0.48	-28.33	-29.90	-29.51	-28.85	-28.90
3150	-3.38	-2.75	-3.08	0.30	0.50	-28.22	-30.00	-28.94	-28.61	-28.61
3200	-3.37	-2.76	-3.08	0.29	0.55	-27.92	-29.94	-28.96	-28.29	-28.01
3250	-3.36	-2.78	-3.08	0.28	0.59	-27.47	-29.37	-28.15	-28.08	-27.64
3300	-3.34	-2.80	-3.08	0.26	0.62	-27.26	-29.12	-28.03	-27.54	-27.36
3350	-3.32	-2.82	-3.08	0.24	0.65	-26.94	-28.47	-27.36	-27.10	-26.81
3400	-3.30	-2.84	-3.08	0.22	0.70	-26.77	-28.19	-27.13	-26.75	-26.62
3450	-3.27	-2.87	-3.07	0.19	0.75	-26.41	-27.69	-26.52	-26.48	-26.12
3500	-3.25	-2.90	-3.08	0.17	0.83	-26.29	-27.49	-26.43	-26.23	-25.94
3550	-3.22	-2.93	-3.08	0.14	0.82	-25.94	-26.96	-26.00	-25.99	-25.59
3600	-3.19	-2.97	-3.08	0.10	0.91	-25.60	-26.50	-25.70	-25.79	-25.38
3650	-3.16	-3.01	-3.09	0.06	0.94	-25.13	-25.81	-25.08	-25.72	-25.18
3700	-3.13	-3.06	-3.10	0.03	1.02	-24.61	-25.19	-24.64	-25.41	-24.57
3750	-3.09	-3.10	-3.10	0.02	1.04	-24.12	-25.05	-24.21	-25.41	-24.32
3800	-3.05	-3.15	-3.10	0.07	1.13	-23.61	-24.42	-23.55	-25.11	-23.59
3850	-3.01	-3.20	-3.11	0.11	1.11	-23.03	-24.44	-23.35	-25.08	-23.18
3900	-2.96	-3.26	-3.11	0.16	1.18	-22.52	-24.03	-22.97	-24.56	-22.63
3950	-2.92	-3.32	-3.12	0.21	1.16	-22.06	-23.94	-23.15	-24.57	-22.54
4000	-2.86	-3.39	-3.13	0.28	1.21	-21.68	-23.47	-22.88	-24.09	-22.38

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = -55°C, Configuration D.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.79	-3.35	-3.08	0.27	0.14	-27.88	-29.84	-29.56	-28.65	-28.82
2050	-2.85	-3.28	-3.07	0.21	0.13	-28.02	-30.32	-30.20	-29.14	-29.22
2100	-2.91	-3.22	-3.07	0.15	0.12	-28.19	-30.40	-30.08	-29.56	-29.61
2150	-2.97	-3.16	-3.07	0.09	0.11	-28.31	-30.48	-30.38	-30.38	-29.88
2200	-3.01	-3.11	-3.06	0.04	0.09	-28.67	-30.52	-30.08	-31.17	-30.00
2250	-3.07	-3.06	-3.07	0.02	0.07	-28.77	-30.74	-30.26	-31.88	-30.02
2300	-3.11	-3.01	-3.06	0.06	0.03	-29.15	-30.88	-30.26	-32.37	-29.91
2350	-3.15	-2.97	-3.06	0.11	0.02	-29.44	-31.44	-30.31	-32.48	-29.85
2400	-3.19	-2.93	-3.06	0.14	-0.03	-29.90	-31.26	-30.41	-32.06	-29.70
2450	-3.23	-2.90	-3.07	0.18	-0.03	-30.22	-31.39	-30.34	-31.98	-29.94
2500	-3.26	-2.87	-3.07	0.21	-0.07	-30.79	-31.02	-30.29	-31.41	-29.94
2550	-3.29	-2.85	-3.08	0.24	-0.08	-30.95	-31.16	-29.83	-31.82	-30.01
2600	-3.32	-2.82	-3.08	0.26	-0.14	-31.56	-31.43	-29.63	-31.68	-29.82
2650	-3.34	-2.81	-3.08	0.28	-0.16	-31.71	-31.60	-29.26	-32.27	-29.47
2700	-3.36	-2.79	-3.08	0.30	-0.16	-31.97	-32.05	-29.24	-32.15	-29.35
2750	-3.38	-2.78	-3.09	0.31	-0.18	-31.72	-31.92	-29.05	-32.15	-29.11
2800	-3.39	-2.77	-3.09	0.32	-0.20	-31.45	-32.12	-29.09	-32.03	-29.42
2850	-3.40	-2.77	-3.10	0.33	-0.20	-30.88	-31.28	-28.89	-31.54	-29.39
2900	-3.40	-2.77	-3.10	0.33	-0.16	-30.32	-31.14	-29.17	-31.28	-29.69
2950	-3.40	-2.77	-3.10	0.33	-0.15	-30.09	-30.77	-28.77	-30.62	-29.81
3000	-3.40	-2.77	-3.10	0.33	-0.10	-29.23	-30.21	-28.96	-30.45	-29.89
3050	-3.40	-2.78	-3.10	0.33	-0.12	-28.97	-29.93	-28.70	-29.54	-30.02
3100	-3.39	-2.79	-3.10	0.32	-0.05	-28.26	-28.90	-28.85	-29.51	-29.90
3150	-3.39	-2.80	-3.11	0.31	0.00	-28.07	-28.61	-28.61	-28.94	-30.00
3200	-3.38	-2.81	-3.10	0.30	0.03	-27.71	-28.01	-28.29	-28.96	-29.94
3250	-3.36	-2.82	-3.10	0.28	0.08	-27.36	-27.64	-28.08	-28.15	-29.37
3300	-3.35	-2.84	-3.10	0.27	0.10	-27.12	-27.36	-27.54	-28.03	-29.12
3350	-3.32	-2.87	-3.10	0.24	0.14	-26.81	-26.81	-27.10	-27.36	-28.47
3400	-3.30	-2.88	-3.10	0.23	0.19	-26.72	-26.62	-26.75	-27.13	-28.19
3450	-3.28	-2.91	-3.10	0.20	0.21	-26.38	-26.12	-26.48	-26.52	-27.69
3500	-3.25	-2.94	-3.10	0.17	0.29	-26.25	-25.94	-26.23	-26.43	-27.49
3550	-3.22	-2.97	-3.10	0.14	0.31	-25.93	-25.59	-25.99	-26.00	-26.96
3600	-3.19	-3.00	-3.10	0.11	0.34	-25.59	-25.38	-25.79	-25.70	-26.50
3650	-3.15	-3.05	-3.10	0.07	0.38	-25.10	-25.18	-25.72	-25.08	-25.81
3700	-3.12	-3.09	-3.11	0.03	0.43	-24.63	-24.57	-25.41	-24.64	-25.19
3750	-3.07	-3.13	-3.10	0.02	0.47	-24.10	-24.32	-25.41	-24.21	-25.05
3800	-3.03	-3.19	-3.11	0.07	0.54	-23.61	-23.59	-25.11	-23.55	-24.42
3850	-2.99	-3.23	-3.11	0.11	0.56	-23.07	-23.18	-25.08	-23.35	-24.44
3900	-2.95	-3.30	-3.13	0.16	0.59	-22.54	-22.63	-24.56	-22.97	-24.03
3950	-2.90	-3.36	-3.14	0.22	0.60	-22.09	-22.54	-24.57	-23.15	-23.94
4000	-2.85	-3.43	-3.15	0.28	0.63	-21.73	-22.38	-24.09	-22.88	-23.47

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +25°C, Configuration A.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.80	-3.34	-3.08	0.28	0.04	-29.49	-30.79	-29.68	-31.42	-30.84
2050	-2.86	-3.27	-3.07	0.21	0.01	-29.98	-31.80	-30.29	-32.49	-31.77
2100	-2.91	-3.21	-3.06	0.15	-0.02	-30.41	-32.05	-30.67	-32.89	-31.55
2150	-2.97	-3.15	-3.06	0.09	-0.02	-30.83	-33.12	-31.15	-33.61	-32.10
2200	-3.02	-3.09	-3.06	0.04	-0.04	-31.48	-33.52	-31.24	-34.03	-31.79
2250	-3.06	-3.05	-3.06	0.01	-0.02	-32.02	-34.16	-31.72	-34.70	-32.00
2300	-3.11	-3.00	-3.06	0.06	-0.07	-32.97	-34.53	-31.92	-35.00	-31.89
2350	-3.15	-2.96	-3.06	0.10	-0.06	-33.39	-35.03	-32.20	-35.70	-31.77
2400	-3.19	-2.92	-3.06	0.14	-0.11	-34.33	-35.21	-32.16	-35.67	-31.54
2450	-3.23	-2.89	-3.06	0.17	-0.15	-34.66	-35.49	-32.52	-35.91	-31.43
2500	-3.26	-2.86	-3.06	0.21	-0.20	-35.05	-35.22	-32.89	-36.17	-31.39
2550	-3.28	-2.84	-3.07	0.23	-0.23	-35.04	-35.42	-32.91	-35.69	-30.99
2600	-3.31	-2.81	-3.07	0.26	-0.21	-34.70	-35.32	-33.17	-36.10	-30.94
2650	-3.34	-2.80	-3.08	0.28	-0.28	-34.24	-35.20	-33.12	-35.16	-30.54
2700	-3.35	-2.78	-3.07	0.29	-0.25	-33.46	-35.00	-33.76	-35.24	-30.62
2750	-3.37	-2.77	-3.08	0.31	-0.31	-32.85	-34.15	-33.57	-34.37	-30.34
2800	-3.38	-2.77	-3.09	0.31	-0.28	-31.95	-34.29	-34.05	-33.87	-30.38
2850	-3.40	-2.76	-3.09	0.33	-0.30	-31.24	-33.30	-33.80	-33.01	-29.87
2900	-3.40	-2.76	-3.09	0.33	-0.30	-30.62	-32.96	-33.90	-32.43	-30.11
2950	-3.41	-2.76	-3.10	0.33	-0.30	-30.06	-31.91	-34.07	-32.01	-29.27
3000	-3.41	-2.76	-3.10	0.33	-0.27	-29.58	-31.57	-33.83	-31.09	-29.30
3050	-3.41	-2.77	-3.10	0.32	-0.28	-29.08	-30.59	-33.62	-30.87	-28.72
3100	-3.40	-2.77	-3.10	0.31	-0.21	-28.74	-30.14	-32.77	-29.78	-28.67
3150	-3.40	-2.78	-3.10	0.31	-0.15	-28.30	-29.44	-32.30	-29.51	-28.12
3200	-3.39	-2.79	-3.10	0.29	-0.16	-28.10	-28.96	-31.68	-28.73	-27.81
3250	-3.38	-2.81	-3.10	0.28	-0.06	-27.69	-28.13	-30.44	-28.25	-27.60
3300	-3.36	-2.83	-3.10	0.26	-0.05	-27.49	-27.60	-29.92	-27.90	-27.35
3350	-3.34	-2.85	-3.10	0.24	0.01	-27.14	-26.99	-28.95	-27.25	-26.88
3400	-3.31	-2.86	-3.09	0.22	0.10	-26.70	-26.45	-28.47	-26.95	-26.55
3450	-3.29	-2.89	-3.09	0.19	0.08	-26.28	-25.78	-27.68	-26.44	-26.11
3500	-3.26	-2.92	-3.09	0.17	0.20	-25.95	-25.38	-27.11	-26.13	-25.77
3550	-3.23	-2.95	-3.09	0.14	0.21	-25.53	-24.94	-26.60	-25.70	-25.40
3600	-3.20	-2.98	-3.09	0.11	0.29	-25.09	-24.46	-26.06	-25.25	-25.07
3650	-3.17	-3.02	-3.10	0.07	0.32	-24.65	-24.06	-25.68	-25.02	-25.00
3700	-3.14	-3.06	-3.10	0.04	0.35	-24.21	-23.56	-25.03	-24.41	-24.53
3750	-3.10	-3.11	-3.11	0.01	0.34	-23.78	-23.49	-25.03	-24.33	-24.59
3800	-3.05	-3.16	-3.11	0.05	0.37	-23.38	-22.84	-24.35	-23.86	-24.12
3850	-3.01	-3.20	-3.11	0.10	0.39	-23.09	-22.82	-24.35	-23.71	-24.35
3900	-2.97	-3.27	-3.12	0.15	0.33	-22.67	-22.34	-23.88	-23.35	-23.83
3950	-2.92	-3.32	-3.12	0.20	0.37	-22.48	-22.48	-23.90	-23.19	-24.06
4000	-2.87	-3.39	-3.14	0.26	0.30	-22.11	-22.03	-23.70	-23.01	-23.52

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +25°C, Configuration B.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.83	-3.35	-3.10	0.26	0.45	-29.42	-30.84	-31.42	-29.68	-30.79
2050	-2.89	-3.28	-3.09	0.20	0.43	-29.95	-31.77	-32.49	-30.29	-31.80
2100	-2.94	-3.22	-3.08	0.14	0.44	-30.17	-31.55	-32.89	-30.67	-32.05
2150	-3.00	-3.16	-3.08	0.08	0.44	-30.77	-32.10	-33.61	-31.15	-33.12
2200	-3.05	-3.11	-3.08	0.03	0.39	-31.38	-31.79	-34.03	-31.24	-33.52
2250	-3.10	-3.06	-3.08	0.02	0.40	-32.02	-32.00	-34.70	-31.72	-34.16
2300	-3.14	-3.02	-3.08	0.07	0.36	-32.93	-31.89	-35.00	-31.92	-34.53
2350	-3.18	-2.98	-3.08	0.10	0.39	-33.50	-31.77	-35.70	-32.20	-35.03
2400	-3.22	-2.94	-3.08	0.14	0.39	-34.47	-31.54	-35.67	-32.16	-35.21
2450	-3.26	-2.91	-3.09	0.17	0.39	-34.63	-31.43	-35.91	-32.52	-35.49
2500	-3.29	-2.88	-3.09	0.21	0.39	-35.16	-31.39	-36.17	-32.89	-35.22
2550	-3.32	-2.86	-3.10	0.23	0.44	-35.06	-30.99	-35.69	-32.91	-35.42
2600	-3.35	-2.83	-3.10	0.26	0.49	-34.83	-30.94	-36.10	-33.17	-35.32
2650	-3.37	-2.82	-3.10	0.28	0.48	-34.24	-30.54	-35.16	-33.12	-35.20
2700	-3.39	-2.80	-3.11	0.30	0.52	-33.47	-30.62	-35.24	-33.76	-35.00
2750	-3.41	-2.79	-3.11	0.31	0.51	-32.64	-30.34	-34.37	-33.57	-34.15
2800	-3.42	-2.78	-3.11	0.32	0.54	-31.79	-30.38	-33.87	-34.05	-34.29
2850	-3.44	-2.78	-3.12	0.33	0.57	-30.78	-29.87	-33.01	-33.80	-33.30
2900	-3.44	-2.77	-3.12	0.34	0.60	-30.10	-30.11	-32.43	-33.90	-32.96
2950	-3.45	-2.78	-3.13	0.34	0.62	-29.51	-29.27	-32.01	-34.07	-31.91
3000	-3.45	-2.78	-3.13	0.34	0.66	-29.00	-29.30	-31.09	-33.83	-31.57
3050	-3.45	-2.79	-3.13	0.33	0.71	-28.66	-28.72	-30.87	-33.62	-30.59
3100	-3.44	-2.79	-3.13	0.33	0.77	-28.33	-28.67	-29.78	-32.77	-30.14
3150	-3.44	-2.80	-3.13	0.33	0.79	-28.11	-28.12	-29.51	-32.30	-29.44
3200	-3.43	-2.82	-3.14	0.32	0.79	-27.94	-27.81	-28.73	-31.68	-28.96
3250	-3.41	-2.83	-3.13	0.30	0.86	-27.81	-27.60	-28.25	-30.44	-28.13
3300	-3.40	-2.85	-3.13	0.29	0.88	-27.58	-27.35	-27.90	-29.92	-27.60
3350	-3.38	-2.87	-3.13	0.27	0.91	-27.46	-26.88	-27.25	-28.95	-26.99
3400	-3.36	-2.89	-3.13	0.25	0.97	-26.96	-26.55	-26.95	-28.47	-26.45
3450	-3.33	-2.91	-3.13	0.21	0.95	-26.59	-26.11	-26.44	-27.68	-25.78
3500	-3.30	-2.94	-3.12	0.19	1.06	-26.22	-25.77	-26.13	-27.11	-25.38
3550	-3.27	-2.97	-3.12	0.16	1.07	-25.77	-25.40	-25.70	-26.60	-24.94
3600	-3.24	-3.01	-3.13	0.12	1.15	-25.27	-25.07	-25.25	-26.06	-24.46
3650	-3.21	-3.04	-3.13	0.08	1.17	-24.79	-25.00	-25.02	-25.68	-24.06
3700	-3.18	-3.08	-3.13	0.05	1.26	-24.28	-24.53	-24.41	-25.03	-23.56
3750	-3.13	-3.13	-3.13	0.01	1.31	-23.77	-24.59	-24.33	-25.03	-23.49
3800	-3.09	-3.18	-3.14	0.05	1.36	-23.34	-24.12	-23.86	-24.35	-22.84
3850	-3.05	-3.22	-3.14	0.09	1.42	-23.00	-24.35	-23.71	-24.35	-22.82
3900	-3.00	-3.29	-3.15	0.15	1.45	-22.60	-23.83	-23.35	-23.88	-22.34
3950	-2.95	-3.34	-3.15	0.20	1.53	-22.34	-24.06	-23.19	-23.90	-22.48
4000	-2.90	-3.42	-3.17	0.26	1.53	-22.00	-23.52	-23.01	-23.70	-22.03

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +25°C, Configuration C.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.82	-3.34	-3.09	0.28	0.13	-28.82	-29.68	-30.79	-30.84	-31.42
2050	-2.88	-3.27	-3.08	0.21	0.10	-29.26	-30.29	-31.80	-31.77	-32.49
2100	-2.94	-3.21	-3.08	0.16	0.08	-29.64	-30.67	-32.05	-31.55	-32.89
2150	-2.99	-3.15	-3.07	0.10	0.07	-30.13	-31.15	-33.12	-32.10	-33.61
2200	-3.04	-3.10	-3.07	0.05	0.03	-30.68	-31.24	-33.52	-31.79	-34.03
2250	-3.09	-3.06	-3.08	0.00	0.05	-31.45	-31.72	-34.16	-32.00	-34.70
2300	-3.14	-3.01	-3.08	0.05	0.03	-32.19	-31.92	-34.53	-31.89	-35.00
2350	-3.19	-2.98	-3.09	0.09	0.04	-32.95	-32.20	-35.03	-31.77	-35.70
2400	-3.23	-2.94	-3.09	0.13	0.01	-33.74	-32.16	-35.21	-31.54	-35.67
2450	-3.26	-2.91	-3.09	0.16	-0.02	-34.80	-32.52	-35.49	-31.43	-35.91
2500	-3.30	-2.88	-3.10	0.19	-0.07	-35.28	-32.89	-35.22	-31.39	-36.17
2550	-3.32	-2.86	-3.10	0.21	-0.05	-35.97	-32.91	-35.42	-30.99	-35.69
2600	-3.35	-2.83	-3.10	0.24	-0.01	-36.53	-33.17	-35.32	-30.94	-36.10
2650	-3.38	-2.82	-3.11	0.26	-0.03	-36.28	-33.12	-35.20	-30.54	-35.16
2700	-3.39	-2.80	-3.11	0.28	0.01	-35.58	-33.76	-35.00	-30.62	-35.24
2750	-3.41	-2.79	-3.11	0.30	-0.04	-35.30	-33.57	-34.15	-30.34	-34.37
2800	-3.42	-2.78	-3.11	0.30	0.00	-33.99	-34.05	-34.29	-30.38	-33.87
2850	-3.44	-2.77	-3.12	0.31	-0.03	-33.54	-33.80	-33.30	-29.87	-33.01
2900	-3.44	-2.77	-3.12	0.32	0.01	-32.28	-33.90	-32.96	-30.11	-32.43
2950	-3.44	-2.77	-3.12	0.32	-0.02	-32.11	-34.07	-31.91	-29.27	-32.01
3000	-3.44	-2.77	-3.12	0.32	0.06	-30.84	-33.83	-31.57	-29.30	-31.09
3050	-3.44	-2.77	-3.12	0.31	0.05	-30.76	-33.62	-30.59	-28.72	-30.87
3100	-3.42	-2.77	-3.11	0.31	0.13	-29.64	-32.77	-30.14	-28.67	-29.78
3150	-3.42	-2.78	-3.11	0.30	0.15	-29.50	-32.30	-29.44	-28.12	-29.51
3200	-3.41	-2.80	-3.12	0.29	0.17	-28.91	-31.68	-28.96	-27.81	-28.73
3250	-3.39	-2.81	-3.11	0.27	0.22	-28.38	-30.44	-28.13	-27.60	-28.25
3300	-3.38	-2.83	-3.11	0.26	0.24	-27.97	-29.92	-27.60	-27.35	-27.90
3350	-3.36	-2.84	-3.11	0.24	0.28	-27.58	-28.95	-26.99	-26.88	-27.25
3400	-3.34	-2.87	-3.11	0.22	0.32	-27.11	-28.47	-26.45	-26.55	-26.95
3450	-3.32	-2.90	-3.12	0.19	0.34	-26.74	-27.68	-25.78	-26.11	-26.44
3500	-3.29	-2.93	-3.11	0.16	0.41	-26.20	-27.11	-25.38	-25.77	-26.13
3550	-3.26	-2.96	-3.11	0.14	0.43	-25.84	-26.60	-24.94	-25.40	-25.70
3600	-3.23	-3.00	-3.12	0.10	0.50	-25.19	-26.06	-24.46	-25.07	-25.25
3650	-3.20	-3.04	-3.12	0.07	0.53	-24.87	-25.68	-24.06	-25.00	-25.02
3700	-3.17	-3.08	-3.13	0.03	0.58	-24.16	-25.03	-23.56	-24.53	-24.41
3750	-3.14	-3.13	-3.14	0.02	0.57	-23.86	-25.03	-23.49	-24.59	-24.33
3800	-3.10	-3.18	-3.14	0.06	0.62	-23.33	-24.35	-22.84	-24.12	-23.86
3850	-3.06	-3.23	-3.15	0.10	0.63	-22.97	-24.35	-22.82	-24.35	-23.71
3900	-3.01	-3.30	-3.16	0.16	0.62	-22.48	-23.88	-22.34	-23.83	-23.35
3950	-2.96	-3.35	-3.16	0.21	0.65	-22.17	-23.90	-22.48	-24.06	-23.19
4000	-2.91	-3.42	-3.17	0.28	0.65	-21.77	-23.70	-22.03	-23.52	-23.01

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +25°C, Configuration D.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	Sum-Port 1	Sum-Port 2	Average	(±dB) Half P-P	(deg) Rel. to 90°	(dB) Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.82	-3.37	-3.10	0.26	0.35	-28.80	-31.42	-30.84	-30.79	-29.68
2050	-2.88	-3.30	-3.10	0.20	0.33	-29.23	-32.49	-31.77	-31.80	-30.29
2100	-2.94	-3.24	-3.09	0.13	0.33	-29.62	-32.89	-31.55	-32.05	-30.67
2150	-2.99	-3.18	-3.09	0.08	0.33	-30.10	-33.61	-32.10	-33.12	-31.15
2200	-3.04	-3.13	-3.09	0.03	0.31	-30.74	-34.03	-31.79	-33.52	-31.24
2250	-3.09	-3.08	-3.09	0.02	0.31	-31.31	-34.70	-32.00	-34.16	-31.72
2300	-3.14	-3.03	-3.09	0.07	0.27	-32.06	-35.00	-31.89	-34.53	-31.92
2350	-3.18	-2.99	-3.09	0.11	0.27	-32.87	-35.70	-31.77	-35.03	-32.20
2400	-3.22	-2.95	-3.09	0.15	0.25	-33.68	-35.67	-31.54	-35.21	-32.16
2450	-3.25	-2.92	-3.09	0.18	0.25	-34.63	-35.91	-31.43	-35.49	-32.52
2500	-3.29	-2.89	-3.09	0.22	0.24	-35.54	-36.17	-31.39	-35.22	-32.89
2550	-3.32	-2.87	-3.10	0.24	0.26	-36.22	-35.69	-30.99	-35.42	-32.91
2600	-3.34	-2.84	-3.10	0.27	0.26	-36.81	-36.10	-30.94	-35.32	-33.17
2650	-3.37	-2.83	-3.11	0.29	0.23	-36.86	-35.16	-30.54	-35.20	-33.12
2700	-3.39	-2.82	-3.11	0.31	0.24	-36.03	-35.24	-30.62	-35.00	-33.76
2750	-3.41	-2.80	-3.12	0.31	0.24	-35.56	-34.37	-30.34	-34.15	-33.57
2800	-3.42	-2.80	-3.12	0.33	0.25	-34.03	-33.87	-30.38	-34.29	-34.05
2850	-3.44	-2.79	-3.13	0.34	0.27	-33.63	-33.01	-29.87	-33.30	-33.80
2900	-3.44	-2.79	-3.13	0.35	0.29	-32.19	-32.43	-30.11	-32.96	-33.90
2950	-3.45	-2.79	-3.13	0.35	0.31	-32.13	-32.01	-29.27	-31.91	-34.07
3000	-3.44	-2.79	-3.13	0.35	0.35	-30.74	-31.09	-29.30	-31.57	-33.83
3050	-3.44	-2.80	-3.13	0.34	0.36	-30.52	-30.87	-28.72	-30.59	-33.62
3100	-3.44	-2.80	-3.13	0.34	0.44	-29.54	-29.78	-28.67	-30.14	-32.77
3150	-3.44	-2.81	-3.14	0.33	0.47	-29.34	-29.51	-28.12	-29.44	-32.30
3200	-3.43	-2.83	-3.14	0.32	0.47	-28.68	-28.73	-27.81	-28.96	-31.68
3250	-3.41	-2.84	-3.13	0.30	0.54	-28.29	-28.25	-27.60	-28.13	-30.44
3300	-3.40	-2.86	-3.14	0.29	0.57	-27.85	-27.90	-27.35	-27.60	-29.92
3350	-3.37	-2.88	-3.13	0.27	0.63	-27.53	-27.25	-26.88	-26.99	-28.95
3400	-3.35	-2.90	-3.13	0.25	0.70	-27.14	-26.95	-26.55	-26.45	-28.47
3450	-3.33	-2.93	-3.13	0.22	0.69	-26.72	-26.44	-26.11	-25.78	-27.68
3500	-3.30	-2.96	-3.13	0.19	0.81	-26.20	-26.13	-25.77	-25.38	-27.11
3550	-3.27	-2.99	-3.13	0.16	0.84	-25.88	-25.70	-25.40	-24.94	-26.60
3600	-3.24	-3.03	-3.14	0.13	0.90	-25.24	-25.25	-25.07	-24.46	-26.06
3650	-3.21	-3.06	-3.14	0.09	0.94	-24.91	-25.02	-25.00	-24.06	-25.68
3700	-3.18	-3.10	-3.14	0.06	1.01	-24.24	-24.41	-24.53	-23.56	-25.03
3750	-3.14	-3.15	-3.15	0.01	1.04	-23.89	-24.33	-24.59	-23.49	-25.03
3800	-3.10	-3.20	-3.15	0.04	1.11	-23.36	-23.86	-24.12	-22.84	-24.35
3850	-3.05	-3.25	-3.15	0.08	1.15	-23.05	-23.71	-24.35	-22.82	-24.35
3900	-3.01	-3.31	-3.16	0.13	1.17	-22.52	-23.35	-23.83	-22.34	-23.88
3950	-2.96	-3.37	-3.17	0.19	1.22	-22.25	-23.19	-24.06	-22.48	-23.90
4000	-2.91	-3.44	-3.18	0.25	1.20	-21.85	-23.01	-23.52	-22.03	-23.70

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +105°C, Configuration A.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	(dB)			(±dB)	(deg)	(dB)	(dB)			
	Sum-Port 1	Sum-Port 2	Average	Half P-P	Rel. to 90°	Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.83	-3.36	-3.10	0.27	-0.03	-31.91	-33.93	-31.18	-35.18	-31.82
2050	-2.89	-3.29	-3.09	0.21	-0.05	-32.58	-35.35	-31.68	-36.61	-32.48
2100	-2.94	-3.23	-3.09	0.15	-0.08	-33.21	-35.84	-31.97	-37.65	-32.24
2150	-3.00	-3.17	-3.09	0.09	-0.07	-33.89	-37.08	-32.46	-38.82	-32.52
2200	-3.05	-3.12	-3.09	0.04	-0.11	-34.87	-37.76	-32.57	-39.91	-32.31
2250	-3.10	-3.07	-3.09	0.01	-0.08	-35.60	-37.87	-33.18	-40.28	-32.35
2300	-3.14	-3.02	-3.08	0.06	-0.12	-36.92	-38.24	-33.52	-40.19	-32.23
2350	-3.18	-2.99	-3.09	0.10	-0.11	-37.48	-38.02	-34.02	-40.00	-32.07
2400	-3.22	-2.95	-3.09	0.14	-0.14	-38.40	-38.21	-34.21	-39.39	-31.75
2450	-3.26	-2.92	-3.09	0.18	-0.19	-38.47	-37.78	-34.65	-38.19	-31.68
2500	-3.29	-2.89	-3.09	0.21	-0.21	-38.04	-37.30	-35.48	-37.87	-31.50
2550	-3.32	-2.87	-3.10	0.23	-0.24	-37.17	-36.89	-35.72	-36.27	-31.08
2600	-3.35	-2.84	-3.10	0.26	-0.22	-35.95	-36.57	-36.44	-35.80	-31.03
2650	-3.37	-2.83	-3.11	0.28	-0.29	-34.95	-35.87	-36.70	-34.54	-30.51
2700	-3.39	-2.81	-3.11	0.29	-0.26	-33.75	-35.46	-38.07	-33.93	-30.53
2750	-3.41	-2.80	-3.12	0.31	-0.30	-33.01	-34.15	-33.57	-34.37	-30.34
2800	-3.42	-2.79	-3.12	0.32	-0.28	-32.17	-33.95	-37.95	-32.61	-30.27
2850	-3.44	-2.79	-3.13	0.33	-0.28	-31.50	-33.06	-37.18	-32.17	-29.73
2900	-3.45	-2.78	-3.13	0.33	-0.27	-31.12	-32.54	-36.13	-31.45	-29.90
2950	-3.45	-2.78	-3.13	0.34	-0.27	-30.66	-31.90	-35.54	-31.27	-29.20
3000	-3.45	-2.78	-3.13	0.34	-0.27	-30.28	-31.32	-34.51	-30.51	-29.10
3050	-3.46	-2.79	-3.14	0.33	-0.28	-29.97	-30.77	-33.82	-30.39	-28.57
3100	-3.45	-2.80	-3.14	0.32	-0.22	-29.64	-30.22	-32.62	-29.67	-28.37
3150	-3.45	-2.80	-3.14	0.32	-0.17	-29.28	-29.81	-31.58	-29.34	-27.87
3200	-3.43	-2.82	-3.14	0.30	-0.17	-29.08	-29.20	-30.81	-28.94	-27.61
3250	-3.43	-2.83	-3.14	0.29	-0.11	-28.72	-28.57	-29.66	-28.43	-27.41
3300	-3.41	-2.85	-3.14	0.27	-0.11	-28.56	-27.93	-28.96	-28.28	-27.29
3350	-3.39	-2.87	-3.14	0.25	-0.06	-28.21	-27.56	-28.23	-27.69	-26.91
3400	-3.36	-2.89	-3.13	0.23	0.02	-27.77	-26.94	-27.72	-27.43	-26.59
3450	-3.34	-2.92	-3.14	0.21	0.01	-27.28	-26.39	-27.22	-27.05	-26.21
3500	-3.31	-2.95	-3.13	0.18	0.10	-26.87	-25.90	-26.60	-26.74	-25.80
3550	-3.28	-2.98	-3.13	0.15	0.10	-26.35	-25.57	-26.31	-26.43	-25.47
3600	-3.25	-3.02	-3.14	0.12	0.16	-25.83	-25.07	-25.73	-25.91	-25.05
3650	-3.22	-3.05	-3.14	0.08	0.19	-25.37	-24.62	-25.53	-25.72	-25.05
3700	-3.18	-3.10	-3.14	0.04	0.19	-24.85	-24.10	-24.92	-25.16	-24.56
3750	-3.15	-3.14	-3.15	0.00	0.20	-24.45	-23.96	-24.99	-25.01	-24.72
3800	-3.10	-3.20	-3.15	0.05	0.21	-24.02	-23.37	-24.53	-24.60	-24.32
3850	-3.06	-3.25	-3.16	0.09	0.25	-23.73	-23.19	-24.46	-24.36	-24.59
3900	-3.01	-3.31	-3.16	0.15	0.18	-23.35	-22.80	-24.20	-24.04	-24.19
3950	-2.96	-3.37	-3.17	0.20	0.25	-23.15	-22.68	-24.20	-23.79	-24.39
4000	-2.92	-3.44	-3.19	0.26	0.17	-22.74	-22.34	-24.15	-23.62	-23.95

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

NOTES:

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at <https://www.minicircuits.com/terms/viewterm.html>

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +105°C, Configuration B.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	(dB)			(±dB)	(deg)	(dB)	(dB)			
	Sum-Port 1	Sum-Port 2	Average	Half P-P	Rel. to 90°	Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.85	-3.37	-3.12	0.26	0.44	-31.74	-31.82	-35.18	-31.18	-33.93
2050	-2.92	-3.31	-3.12	0.19	0.44	-32.50	-32.48	-36.61	-31.68	-35.35
2100	-2.97	-3.24	-3.11	0.14	0.44	-32.85	-32.24	-37.65	-31.97	-35.84
2150	-3.03	-3.19	-3.11	0.08	0.45	-33.79	-32.52	-38.82	-32.46	-37.08
2200	-3.08	-3.13	-3.11	0.03	0.42	-34.68	-32.31	-39.91	-32.57	-37.76
2250	-3.13	-3.09	-3.11	0.02	0.45	-35.55	-32.35	-40.28	-33.18	-37.87
2300	-3.17	-3.04	-3.11	0.07	0.42	-36.97	-32.23	-40.19	-33.52	-38.24
2350	-3.22	-3.01	-3.12	0.11	0.45	-37.61	-32.07	-40.00	-34.02	-38.02
2400	-3.26	-2.97	-3.12	0.15	0.46	-38.72	-31.75	-39.39	-34.21	-38.21
2450	-3.30	-2.94	-3.12	0.18	0.45	-38.12	-31.68	-38.19	-34.65	-37.78
2500	-3.33	-2.91	-3.13	0.21	0.49	-38.14	-31.50	-37.87	-35.48	-37.30
2550	-3.36	-2.89	-3.13	0.23	0.52	-37.03	-31.08	-36.27	-35.72	-36.89
2600	-3.39	-2.86	-3.13	0.26	0.59	-35.96	-31.03	-35.80	-36.44	-36.57
2650	-3.42	-2.85	-3.14	0.28	0.58	-34.67	-30.51	-34.54	-36.70	-35.87
2700	-3.43	-2.83	-3.14	0.30	0.61	-33.49	-30.53	-33.93	-38.07	-35.46
2750	-3.46	-2.82	-3.15	0.31	0.62	-32.59	-30.34	-34.37	-33.57	-34.15
2800	-3.47	-2.82	-3.16	0.33	0.63	-31.80	-30.27	-32.61	-37.95	-33.95
2850	-3.48	-2.81	-3.16	0.33	0.70	-30.98	-29.73	-32.17	-37.18	-33.06
2900	-3.49	-2.81	-3.16	0.34	0.71	-30.44	-29.90	-31.45	-36.13	-32.54
2950	-3.50	-2.81	-3.17	0.35	0.74	-30.17	-29.20	-31.27	-35.54	-31.90
3000	-3.49	-2.81	-3.16	0.35	0.76	-29.76	-29.10	-30.51	-34.51	-31.32
3050	-3.50	-2.82	-3.17	0.34	0.82	-29.74	-28.57	-30.39	-33.82	-30.77
3100	-3.49	-2.82	-3.17	0.34	0.88	-29.45	-28.37	-29.67	-32.62	-30.22
3150	-3.48	-2.83	-3.17	0.34	0.89	-29.39	-27.87	-29.34	-31.58	-29.81
3200	-3.47	-2.84	-3.17	0.33	0.90	-29.19	-27.61	-28.94	-30.81	-29.20
3250	-3.46	-2.86	-3.17	0.31	0.94	-29.09	-27.41	-28.43	-29.66	-28.57
3300	-3.44	-2.87	-3.16	0.30	0.96	-28.90	-27.29	-28.28	-28.96	-27.93
3350	-3.42	-2.89	-3.16	0.28	0.97	-28.69	-26.91	-27.69	-28.23	-27.56
3400	-3.40	-2.91	-3.16	0.26	1.01	-28.10	-26.59	-27.43	-27.72	-26.94
3450	-3.37	-2.94	-3.16	0.22	1.01	-27.59	-26.21	-27.05	-27.22	-26.39
3500	-3.35	-2.97	-3.16	0.20	1.10	-27.13	-25.80	-26.74	-26.60	-25.90
3550	-3.32	-3.00	-3.16	0.17	1.11	-26.53	-25.47	-26.43	-26.31	-25.57
3600	-3.29	-3.04	-3.17	0.13	1.16	-25.98	-25.05	-25.91	-25.73	-25.07
3650	-3.25	-3.07	-3.16	0.09	1.21	-25.44	-25.05	-25.72	-25.53	-24.62
3700	-3.22	-3.12	-3.17	0.05	1.27	-24.86	-24.56	-25.16	-24.92	-24.10
3750	-3.18	-3.16	-3.17	0.01	1.34	-24.36	-24.72	-25.01	-24.99	-23.96
3800	-3.13	-3.21	-3.17	0.04	1.39	-23.94	-24.32	-24.60	-24.53	-23.37
3850	-3.09	-3.26	-3.18	0.09	1.48	-23.60	-24.59	-24.36	-24.46	-23.19
3900	-3.04	-3.33	-3.19	0.15	1.50	-23.27	-24.19	-24.04	-24.20	-22.80
3950	-2.99	-3.39	-3.19	0.20	1.62	-23.00	-24.39	-23.79	-24.20	-22.68
4000	-2.94	-3.45	-3.20	0.26	1.64	-22.66	-23.95	-23.62	-24.15	-22.34

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

NOTES:

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at <https://www.minicircuits.com/terms/viewterm.html>

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +105°C, Configuration C.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	(dB)			(±dB)	(deg)	(dB)	(dB)			
	Sum-Port 1	Sum-Port 2	Average	Half P-P	Rel. to 90°	Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.84	-3.36	-3.11	0.28	-0.08	-31.02	-31.18	-33.93	-31.82	-35.18
2050	-2.90	-3.29	-3.10	0.21	-0.10	-31.66	-31.68	-35.35	-32.48	-36.61
2100	-2.95	-3.23	-3.09	0.15	-0.12	-32.13	-31.97	-35.84	-32.24	-37.65
2150	-3.01	-3.18	-3.10	0.10	-0.13	-32.97	-32.46	-37.08	-32.52	-38.82
2200	-3.06	-3.13	-3.10	0.05	-0.16	-33.71	-32.57	-37.76	-32.31	-39.91
2250	-3.11	-3.08	-3.10	0.01	-0.15	-35.06	-33.18	-37.87	-32.35	-40.28
2300	-3.16	-3.04	-3.10	0.05	-0.15	-36.17	-33.52	-38.24	-32.23	-40.19
2350	-3.21	-3.01	-3.11	0.09	-0.16	-37.59	-34.02	-38.02	-32.07	-40.00
2400	-3.25	-2.97	-3.11	0.13	-0.17	-38.98	-34.21	-38.21	-31.75	-39.39
2450	-3.28	-2.94	-3.11	0.16	-0.19	-41.04	-34.65	-37.78	-31.68	-38.19
2500	-3.32	-2.91	-3.12	0.20	-0.21	-41.54	-35.48	-37.30	-31.50	-37.87
2550	-3.35	-2.89	-3.13	0.22	-0.21	-42.28	-35.72	-36.89	-31.08	-36.27
2600	-3.37	-2.87	-3.13	0.24	-0.17	-41.47	-36.44	-36.57	-31.03	-35.80
2650	-3.40	-2.85	-3.13	0.26	-0.19	-40.09	-36.70	-35.87	-30.51	-34.54
2700	-3.42	-2.83	-3.14	0.28	-0.14	-37.92	-38.07	-35.46	-30.53	-33.93
2750	-3.44	-2.82	-3.14	0.31	-0.18	-37.09	-33.57	-34.15	-30.34	-34.37
2800	-3.45	-2.82	-3.15	0.31	-0.15	-35.13	-37.95	-33.95	-30.27	-32.61
2850	-3.46	-2.81	-3.15	0.32	-0.14	-34.63	-37.18	-33.06	-29.73	-32.17
2900	-3.47	-2.80	-3.15	0.32	-0.10	-32.95	-36.13	-32.54	-29.90	-31.45
2950	-3.47	-2.80	-3.15	0.33	-0.12	-32.89	-35.54	-31.90	-29.20	-31.27
3000	-3.47	-2.80	-3.15	0.32	-0.06	-31.59	-34.51	-31.32	-29.10	-30.51
3050	-3.47	-2.80	-3.15	0.32	-0.08	-31.48	-33.82	-30.77	-28.57	-30.39
3100	-3.46	-2.80	-3.14	0.31	-0.02	-30.40	-32.62	-30.22	-28.37	-29.67
3150	-3.45	-2.81	-3.14	0.31	0.00	-30.22	-31.58	-29.81	-27.87	-29.34
3200	-3.44	-2.82	-3.14	0.30	0.02	-29.64	-30.81	-29.20	-27.61	-28.94
3250	-3.43	-2.83	-3.14	0.29	0.05	-29.08	-29.66	-28.57	-27.41	-28.43
3300	-3.42	-2.85	-3.14	0.27	0.05	-28.61	-28.96	-27.93	-27.29	-28.28
3350	-3.39	-2.87	-3.14	0.25	0.08	-28.21	-28.23	-27.56	-26.91	-27.69
3400	-3.37	-2.89	-3.14	0.23	0.10	-27.63	-27.72	-26.94	-26.59	-27.43
3450	-3.35	-2.92	-3.14	0.20	0.11	-27.41	-27.22	-26.39	-26.21	-27.05
3500	-3.33	-2.96	-3.15	0.18	0.16	-26.68	-26.60	-25.90	-25.80	-26.74
3550	-3.30	-2.98	-3.14	0.15	0.17	-26.38	-26.31	-25.57	-25.47	-26.43
3600	-3.27	-3.03	-3.15	0.11	0.22	-25.61	-25.73	-25.07	-25.05	-25.91
3650	-3.24	-3.07	-3.16	0.08	0.26	-25.37	-25.53	-24.62	-25.05	-25.72
3700	-3.21	-3.12	-3.17	0.04	0.27	-24.54	-24.92	-24.10	-24.56	-25.16
3750	-3.17	-3.16	-3.17	0.01	0.29	-24.34	-24.99	-23.96	-24.72	-25.01
3800	-3.13	-3.22	-3.18	0.06	0.33	-23.79	-24.53	-23.37	-24.32	-24.60
3850	-3.09	-3.27	-3.18	0.10	0.38	-23.45	-24.46	-23.19	-24.59	-24.36
3900	-3.05	-3.33	-3.19	0.16	0.34	-22.96	-24.20	-22.80	-24.19	-24.04
3950	-3.00	-3.40	-3.20	0.21	0.43	-22.73	-24.20	-22.68	-24.39	-23.79
4000	-2.95	-3.46	-3.21	0.27	0.40	-22.31	-24.15	-22.34	-23.95	-23.62

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

NOTES:

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at <https://www.minicircuits.com/terms/viewterm.html>

2-Way 90° Power Splitter/Combiner

QCH-43+

Typical Performance Data

Test Conditions: Input Power = +5 dbm, Temperature = +105°C, Configuration D.

Freq. (MHz)	Total Loss*			Amp. Unb.	Ph. Unb.	Isolation	Return Loss			
	(dB)			(±dB)	(deg)	(dB)	(dB)			
	Sum-Port 1	Sum-Port 2	Average	Half P-P	Rel. to 90°	Port1-Port2	Sum	Port 1	Port 2	Iso
2000	-2.85	-3.38	-3.12	0.25	0.47	-30.95	-35.18	-31.82	-33.93	-31.18
2050	-2.91	-3.31	-3.11	0.19	0.47	-31.57	-36.61	-32.48	-35.35	-31.68
2100	-2.97	-3.25	-3.11	0.13	0.47	-32.08	-37.65	-32.24	-35.84	-31.97
2150	-3.02	-3.19	-3.11	0.07	0.47	-32.90	-38.82	-32.52	-37.08	-32.46
2200	-3.07	-3.14	-3.11	0.02	0.47	-33.76	-39.91	-32.31	-37.76	-32.57
2250	-3.13	-3.09	-3.11	0.03	0.47	-34.80	-40.28	-32.35	-37.87	-33.18
2300	-3.17	-3.05	-3.11	0.08	0.46	-35.97	-40.19	-32.23	-38.24	-33.52
2350	-3.21	-3.01	-3.11	0.12	0.46	-37.41	-40.00	-32.07	-38.02	-34.02
2400	-3.26	-2.97	-3.12	0.16	0.45	-38.86	-39.39	-31.75	-38.21	-34.21
2450	-3.29	-2.94	-3.12	0.19	0.45	-40.76	-38.19	-31.68	-37.78	-34.65
2500	-3.33	-2.91	-3.13	0.22	0.45	-42.21	-37.87	-31.50	-37.30	-35.48
2550	-3.35	-2.89	-3.13	0.25	0.47	-43.01	-36.27	-31.08	-36.89	-35.72
2600	-3.38	-2.86	-3.13	0.28	0.49	-41.89	-35.80	-31.03	-36.57	-36.44
2650	-3.41	-2.85	-3.14	0.29	0.46	-40.68	-34.54	-30.51	-35.87	-36.70
2700	-3.43	-2.83	-3.14	0.31	0.47	-38.03	-33.93	-30.53	-35.46	-38.07
2750	-3.46	-2.82	-3.15	0.31	0.47	-37.14	-34.37	-30.34	-34.15	-33.57
2800	-3.46	-2.82	-3.15	0.34	0.48	-34.91	-32.61	-30.27	-33.95	-37.95
2850	-3.48	-2.81	-3.16	0.35	0.50	-34.50	-32.17	-29.73	-33.06	-37.18
2900	-3.48	-2.80	-3.15	0.36	0.53	-32.75	-31.45	-29.90	-32.54	-36.13
2950	-3.49	-2.80	-3.16	0.36	0.54	-32.72	-31.27	-29.20	-31.90	-35.54
3000	-3.49	-2.80	-3.16	0.36	0.56	-31.40	-30.51	-29.10	-31.32	-34.51
3050	-3.49	-2.81	-3.16	0.35	0.57	-31.27	-30.39	-28.57	-30.77	-33.82
3100	-3.48	-2.82	-3.16	0.35	0.66	-30.28	-29.67	-28.37	-30.22	-32.62
3150	-3.48	-2.83	-3.17	0.34	0.67	-30.07	-29.34	-27.87	-29.81	-31.58
3200	-3.47	-2.84	-3.17	0.33	0.69	-29.43	-28.94	-27.61	-29.20	-30.81
3250	-3.46	-2.86	-3.17	0.31	0.73	-29.01	-28.43	-27.41	-28.57	-29.66
3300	-3.44	-2.87	-3.16	0.30	0.76	-28.54	-28.28	-27.29	-27.93	-28.96
3350	-3.42	-2.90	-3.17	0.28	0.81	-28.25	-27.69	-26.91	-27.56	-28.23
3400	-3.40	-2.92	-3.17	0.26	0.86	-27.73	-27.43	-26.59	-26.94	-27.72
3450	-3.37	-2.94	-3.16	0.23	0.88	-27.37	-27.05	-26.21	-26.39	-27.22
3500	-3.35	-2.98	-3.17	0.20	0.98	-26.71	-26.74	-25.80	-25.90	-26.60
3550	-3.32	-3.00	-3.16	0.17	1.00	-26.46	-26.43	-25.47	-25.57	-26.31
3600	-3.29	-3.04	-3.17	0.14	1.05	-25.68	-25.91	-25.05	-25.07	-25.73
3650	-3.25	-3.08	-3.17	0.10	1.08	-25.45	-25.72	-25.05	-24.62	-25.53
3700	-3.22	-3.13	-3.18	0.06	1.15	-24.63	-25.16	-24.56	-24.10	-24.92
3750	-3.18	-3.17	-3.18	0.02	1.19	-24.38	-25.01	-24.72	-23.96	-24.99
3800	-3.14	-3.22	-3.18	0.03	1.25	-23.82	-24.60	-24.32	-23.37	-24.53
3850	-3.09	-3.27	-3.18	0.08	1.29	-23.54	-24.36	-24.59	-23.19	-24.46
3900	-3.05	-3.34	-3.20	0.14	1.32	-23.01	-24.04	-24.19	-22.80	-24.20
3950	-2.99	-3.40	-3.20	0.19	1.40	-22.81	-23.79	-24.39	-22.68	-24.20
4000	-2.95	-3.47	-3.22	0.25	1.37	-22.38	-23.62	-23.95	-22.34	-24.15

* Total loss is the loss from Sum to each coupled port including the 3 dB theoretical split.

NOTES:

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at <https://www.minicircuits.com/terms/viewterm.html>