

# 2 Way-90° Power Splitter/Combiner

QCU-55+

## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS <sup>1</sup> (dB)						RETURN LOSS (dB)					
	(S, 1)			(S, 2)			OUTPUT 1			OUTPUT 2		
	@-55°C	@+25°C	@+125°C	@-55°C	@+25°C	@+125°C	@-55°C	@+25°C	@+125°C	@-55°C	@+25°C	@+125°C
40.0	4.82	4.74	4.63	3.35	3.46	3.61	12.22	12.59	13.19	16.07	16.44	17.05
40.5	4.63	4.56	4.46	3.39	3.50	3.65	12.46	12.84	13.46	16.30	16.69	17.31
41.0	4.45	4.40	4.30	3.43	3.54	3.69	12.73	13.11	13.76	16.55	16.96	17.60
41.5	4.28	4.24	4.16	3.47	3.59	3.73	13.01	13.42	14.08	16.81	17.22	17.90
42.0	4.13	4.09	4.03	3.52	3.63	3.78	13.31	13.74	14.43	17.09	17.51	18.18
42.5	3.99	3.96	3.91	3.56	3.67	3.82	13.63	14.07	14.79	17.40	17.82	18.56
43.0	3.86	3.84	3.80	3.61	3.72	3.86	13.97	14.43	15.19	17.74	18.18	18.90
43.5	3.74	3.73	3.70	3.64	3.75	3.90	14.33	14.81	15.59	18.07	18.53	19.28
44.0	3.63	3.62	3.61	3.69	3.79	3.94	14.71	15.22	16.05	18.44	18.90	19.69
44.5	3.53	3.53	3.53	3.73	3.83	3.98	15.11	15.65	16.52	18.86	19.35	20.15
45.0	3.44	3.45	3.46	3.77	3.87	4.01	15.57	16.14	17.06	19.24	19.76	20.63
45.5	3.36	3.37	3.40	3.80	3.91	4.05	16.04	16.64	17.63	19.68	20.22	21.15
46.0	3.28	3.31	3.35	3.84	3.94	4.08	16.55	17.19	18.23	20.18	20.76	21.71
46.5	3.22	3.26	3.30	3.87	3.97	4.11	17.13	17.83	18.94	20.68	21.28	22.32
47.0	3.17	3.21	3.27	3.90	4.00	4.13	17.77	18.48	19.67	21.23	21.89	22.98
47.5	3.12	3.17	3.25	3.92	4.02	4.16	18.44	19.22	20.49	21.88	22.58	23.70
48.0	3.08	3.15	3.24	3.94	4.04	4.18	19.20	20.04	21.38	22.55	23.33	24.53
48.5	3.05	3.13	3.24	3.96	4.05	4.19	20.04	20.94	22.32	23.34	24.14	25.41
49.0	3.04	3.12	3.25	3.97	4.06	4.20	20.99	21.94	23.25	24.17	25.02	26.26
49.5	3.03	3.13	3.28	3.98	4.07	4.21	22.03	22.98	24.12	25.12	25.97	27.19
50.0	3.03	3.15	3.33	3.98	4.08	4.22	23.20	24.07	24.61	26.15	26.96	27.91
50.5	3.05	3.18	3.39	3.98	4.08	4.22	24.43	24.93	24.58	27.22	27.88	28.26
51.0	3.08	3.24	3.47	3.97	4.07	4.22	25.47	25.30	23.91	28.30	28.58	28.15
51.5	3.13	3.31	3.58	3.96	4.06	4.23	26.04	25.01	22.77	29.08	28.66	27.35
52.0	3.20	3.40	3.72	3.95	4.06	4.23	25.68	23.90	21.31	29.27	28.10	26.17
52.5	3.29	3.52	3.88	3.93	4.05	4.25	24.45	22.37	19.82	28.65	27.05	24.80
53.0	3.41	3.67	4.08	3.91	4.04	4.26	22.77	20.76	18.37	27.33	25.54	23.35
53.5	3.56	3.86	4.33	3.90	4.04	4.29	21.01	19.15	17.00	25.67	23.92	21.93
54.0	3.74	4.09	4.61	3.88	4.05	4.35	19.28	17.63	15.71	23.94	22.40	20.56
54.5	3.97	4.36	4.94	3.87	4.06	4.42	17.65	16.19	14.51	22.34	20.96	19.30
55.0	4.25	4.69	5.32	3.87	4.10	4.53	16.17	14.88	13.41	20.83	19.58	18.16
55.5	4.59	5.08	5.72	3.89	4.17	4.68	14.77	13.66	12.41	19.41	18.30	17.12
56.0	5.00	5.53	6.13	3.93	4.27	4.88	13.49	12.53	11.50	18.08	17.15	16.16
56.5	5.48	6.00	6.49	4.01	4.42	5.14	12.34	11.54	10.71	16.89	16.11	15.34
57.0	6.02	6.50	6.77	4.14	4.63	5.46	11.27	10.65	10.04	15.78	15.17	14.62
57.5	6.59	6.94	6.89	4.32	4.90	5.86	10.34	9.87	9.48	14.83	14.37	14.02
58.0	7.13	7.25	6.82	4.58	5.26	6.33	9.52	9.21	9.03	13.97	13.69	13.56
58.5	7.55	7.35	6.58	4.92	5.69	6.87	8.83	8.68	8.69	13.26	13.14	13.20
59.0	7.74	7.21	6.20	5.36	6.20	7.44	8.27	8.27	8.46	12.67	12.70	12.94
59.5	7.64	6.86	5.75	5.87	6.79	8.06	7.83	7.97	8.32	12.23	12.38	12.78
60.0	7.25	6.36	5.27	6.47	7.42	8.68	7.53	7.78	8.26	11.91	12.18	12.70

1. Total Loss = Insertion Loss + 3dB Splitter Loss

# 2 Way-90° Power Splitter/Combiner

# QCU-55+

## Typical Performance Data

FREQUENCY (MHz)	RETURN LOSS (dB)					
	SUM PORT			ISOLATED PORT		
	@-55°C	@+25°C	@+125°C	@-55°C	@+25°C	@+125°C
40.0	12.36	12.76	13.35	16.27	16.66	17.29
40.5	12.60	13.01	13.62	16.49	16.90	17.55
41.0	12.85	13.28	13.92	16.75	17.16	17.83
41.5	13.14	13.58	14.24	16.99	17.41	18.10
42.0	13.44	13.89	14.58	17.27	17.71	18.40
42.5	13.75	14.22	14.94	17.55	18.00	18.73
43.0	14.08	14.58	15.33	17.87	18.34	19.10
43.5	14.43	14.95	15.74	18.21	18.68	19.48
44.0	14.81	15.35	16.18	18.55	19.08	19.88
44.5	15.23	15.78	16.67	18.94	19.46	20.31
45.0	15.66	16.27	17.21	19.36	19.90	20.79
45.5	16.15	16.80	17.79	19.77	20.34	21.29
46.0	16.67	17.35	18.44	20.30	20.89	21.84
46.5	17.24	17.97	19.14	20.77	21.43	22.49
47.0	17.86	18.66	19.91	21.36	22.01	23.14
47.5	18.56	19.43	20.81	21.96	22.67	23.86
48.0	19.36	20.30	21.79	22.64	23.43	24.70
48.5	20.24	21.31	22.90	23.36	24.22	25.53
49.0	21.26	22.40	24.09	24.20	25.07	26.43
49.5	22.42	23.64	25.24	25.15	26.06	27.33
50.0	23.78	25.06	26.22	26.24	27.09	28.07
50.5	25.36	26.43	26.50	27.30	27.94	28.42
51.0	26.99	27.35	25.83	28.39	28.65	28.19
51.5	28.29	27.21	24.44	29.17	28.71	27.34
52.0	28.27	25.95	22.74	29.36	28.16	26.16
52.5	26.77	24.06	20.98	28.70	26.91	24.71
53.0	24.60	22.06	19.32	27.26	25.36	23.21
53.5	22.35	20.19	17.78	25.67	23.84	21.79
54.0	20.34	18.46	16.36	23.99	22.29	20.44
54.5	18.50	16.89	15.08	22.28	20.80	19.16
55.0	16.87	15.48	13.92	20.71	19.41	18.00
55.5	15.37	14.19	12.85	19.31	18.19	16.97
56.0	14.05	13.03	11.91	17.96	16.99	15.99
56.5	12.79	11.95	11.08	16.74	15.96	15.17
57.0	11.69	11.02	10.37	15.66	15.01	14.45
57.5	10.71	10.21	9.78	14.67	14.21	13.84
58.0	9.85	9.52	9.31	13.81	13.52	13.35
58.5	9.14	8.96	8.95	13.09	12.95	13.00
59.0	8.55	8.54	8.71	12.50	12.51	12.73
59.5	8.09	8.22	8.55	12.04	12.19	12.57
60.0	7.78	8.02	8.47	11.70	11.98	12.46

1. Total Loss = Insertion Loss + 3dB Splitter Loss

# 2 Way-90° Power Splitter/Combiner

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## Typical Performance Data

FREQUENCY (MHz)	PHASE UNBALANCE (Degree)			AMPLITUDE UNBALANCE (dB)		
	@-55°C	@+25°C	@+125°C	@-55°C	@+25°C	@+125°C
40.0	0.03	0.47	0.99	1.47	1.29	1.02
40.5	0.27	0.21	0.76	1.24	1.06	0.81
41.0	0.52	0.03	0.52	1.02	0.85	0.61
41.5	0.69	0.22	0.33	0.81	0.65	0.43
42.0	0.86	0.40	0.18	0.61	0.47	0.25
42.5	0.95	0.48	0.07	0.43	0.28	0.09
43.0	1.03	0.58	0.03	0.25	0.12	0.06
43.5	1.10	0.63	0.10	0.10	0.02	0.20
44.0	1.10	0.72	0.19	0.06	0.17	0.33
44.5	1.12	0.70	0.20	0.20	0.30	0.45
45.0	1.09	0.72	0.28	0.33	0.43	0.56
45.5	1.06	0.68	0.32	0.45	0.53	0.65
46.0	1.04	0.71	0.34	0.56	0.63	0.74
46.5	1.00	0.71	0.40	0.65	0.71	0.80
47.0	0.97	0.69	0.44	0.73	0.79	0.86
47.5	0.89	0.68	0.47	0.80	0.85	0.91
48.0	0.87	0.65	0.56	0.86	0.89	0.94
48.5	0.83	0.68	0.65	0.91	0.93	0.95
49.0	0.78	0.67	0.79	0.93	0.94	0.95
49.5	0.75	0.71	0.94	0.95	0.94	0.93
50.0	0.74	0.83	1.20	0.95	0.93	0.89
50.5	0.76	0.95	1.49	0.93	0.89	0.83
51.0	0.83	1.10	1.88	0.89	0.83	0.75
51.5	0.93	1.35	2.41	0.83	0.75	0.65
52.0	1.09	1.69	3.04	0.75	0.66	0.51
52.5	1.35	2.14	3.88	0.64	0.53	0.37
53.0	1.66	2.73	4.97	0.51	0.37	0.18
53.5	2.15	3.56	6.36	0.34	0.18	0.03
54.0	2.85	4.60	8.10	0.14	0.05	0.27
54.5	3.71	6.00	10.41	0.10	0.30	0.52
55.0	4.92	7.80	13.29	0.38	0.59	0.79
55.5	6.58	10.18	16.93	0.70	0.92	1.04
56.0	8.74	13.33	21.51	1.07	1.25	1.25
56.5	11.69	17.37	26.96	1.46	1.59	1.35
57.0	15.61	22.56	33.32	1.88	1.87	1.30
57.5	20.76	28.96	40.12	2.27	2.04	1.02
58.0	27.36	36.36	46.83	2.55	1.99	0.49
58.5	35.40	44.39	52.93	2.63	1.66	0.29
59.0	44.30	52.10	57.78	2.39	1.01	1.24
59.5	53.22	58.77	61.09	1.77	0.07	2.31
60.0	61.02	63.81	63.06	0.78	1.06	3.41

1. Total Loss = Insertion Loss + 3dB Splitter Loss



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