

Frequency Mixer

SYM-ED9174B/1

Typical Performance Data

RF (MHz)	LO (MHz)	CONVERSION LOSS (dB)			LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
		@LO (dBm)				@LO (dBm)			@LO (dBm)		
		+14	+17	+20		+14	+17	+20	+14	+17	+20
20.0	21.0	9.29	8.12	7.60	21.0	21.7	24.3	27.1	42.0	46.4	50.7
40.0	53.3	8.10	7.33	6.94	53.3	24.6	27.6	30.5	42.5	47.0	51.1
60.0	85.5	7.76	7.06	6.72	85.5	26.3	29.2	32.3	42.9	47.2	50.8
80.0	117.8	7.62	6.97	6.63	117.8	27.2	30.3	33.3	42.9	47.3	50.0
100.0	150.0	7.50	6.89	6.57	150.0	27.9	30.9	34.1	43.3	47.2	49.4
280.0	340.0	7.66	7.04	6.65	340.0	29.3	32.3	34.8	45.4	45.0	43.9
640.0	720.0	8.22	7.27	6.79	720.0	32.4	35.0	34.0	43.6	39.0	36.7
820.0	910.0	8.13	7.23	6.75	910.0	35.4	37.1	33.4	39.4	36.6	34.6
1000.0	1100.0	7.71	6.99	6.65	1100.0	40.5	37.9	32.5	36.5	34.8	33.2
1049.0	1137.0	7.63	6.99	6.68	1137.0	41.5	38.5	33.4	35.9	34.9	33.6
1069.3	1165.3	7.63	6.98	6.68	1165.3	42.2	38.5	33.1	35.8	34.5	33.3
1089.5	1193.5	7.55	6.93	6.64	1193.5	43.6	38.0	32.4	35.5	34.0	32.8
1109.8	1221.8	7.47	6.94	6.67	1221.8	45.2	38.4	32.8	35.2	34.1	32.9
1130.0	1250.0	7.47	6.98	6.73	1250.0	47.0	38.8	33.0	35.2	34.1	33.1
1137.0	1251.0	7.47	6.96	6.71	1251.0	47.1	38.8	33.0	35.2	34.1	33.1
1138.3	1288.8	7.40	6.90	6.67	1288.8	49.6	37.6	32.1	35.1	33.8	32.6
1139.6	1326.6	7.36	6.92	6.69	1326.6	58.0	37.3	32.1	34.6	33.9	32.9
1140.9	1364.4	7.37	6.92	6.68	1364.4	55.7	36.6	31.5	34.5	33.8	32.9
1142.2	1402.2	7.28	6.86	6.62	1402.2	52.1	35.4	30.6	34.0	33.4	32.4
1143.5	1440.0	7.25	6.87	6.64	1440.0	48.0	35.3	30.9	33.6	33.5	32.9
1144.8	1477.8	7.17	6.81	6.57	1477.8	46.0	35.0	30.3	33.4	33.4	32.7
1146.1	1515.6	7.09	6.89	6.69	1515.6	44.8	34.6	30.0	32.9	33.2	32.8
1147.4	1553.4	7.02	6.99	6.80	1553.4	43.4	35.3	30.6	32.8	33.3	33.2
1148.7	1591.2	6.82	7.63	6.64	1591.2	42.2	35.0	30.0	32.5	33.1	32.8
1150.0	1629.0	6.75	7.71	6.34	1629.0	40.9	35.7	30.7	32.2	33.0	33.2
1151.3	1666.8	6.65	6.61	6.12	1666.8	39.3	36.6	31.0	32.0	32.8	33.0
1152.6	1704.6	6.58	6.34	6.06	1704.6	38.4	36.2	31.0	31.4	32.3	32.6
1153.9	1742.4	6.46	6.07	5.92	1742.4	37.4	37.3	32.1	31.2	32.4	33.0
1155.2	1780.2	6.39	5.99	5.89	1780.2	36.7	36.9	31.9	31.3	32.6	33.0
1156.5	1818.0	6.47	6.09	6.01	1818.0	36.3	36.9	32.5	31.1	32.5	33.2
1157.8	1855.8	6.49	6.07	6.03	1855.8	35.4	36.9	32.4	30.8	32.1	32.7
1159.1	1893.6	6.55	6.17	6.17	1893.6	34.7	36.0	31.8	30.1	31.5	32.1
1160.4	1931.4	6.59	6.17	6.17	1931.4	33.7	35.5	32.2	29.8	31.2	31.9
1161.7	1969.2	6.76	6.33	6.33	1969.2	32.8	34.2	31.3	29.3	30.6	31.3
1163.0	2007.0	6.83	6.39	6.39	2007.0	32.0	33.3	31.0	28.8	30.1	30.8
1170.0	2010.0	6.87	6.44	6.43	2010.0	32.0	33.3	31.0	28.7	30.1	30.9
1175.0	2132.5	7.19	6.81	6.76	2132.5	30.2	32.2	30.6	28.0	29.0	29.9
1180.0	2255.0	7.56	7.15	7.14	2255.0	28.9	31.1	30.3	27.6	28.0	28.7
1185.0	2377.5	8.12	7.69	7.55	2377.5	28.2	30.3	29.7	27.7	28.3	28.7
1195.0	2625.0	9.24	8.55	8.09	2625.0	28.2	31.2	29.9	29.4	30.7	31.1
1200.0	2750.0	9.94	9.03	8.43	2750.0	28.5	32.2	30.3	30.2	31.3	32.7
1220.0	2875.0	10.59	9.54	8.93	2875.0	28.8	34.1	31.9	29.8	30.8	33.9
1240.0	3000.0	10.90	9.78	9.06	3000.0	28.8	35.0	34.8	30.6	32.2	35.0
1260.0	3125.0	10.73	9.47	8.78	3125.0	29.6	39.5	36.1	31.0	31.8	33.1
1280.0	3250.0	10.07	9.00	8.59	3250.0	31.5	51.2	34.9	30.2	30.8	31.8
1300.0	3375.0	9.46	8.77	8.49	3375.0	32.3	59.3	34.8	30.1	30.8	31.5
1320.0	3500.0	9.52	8.82	8.56	3500.0	32.4	52.5	35.0	31.1	31.0	30.6
1340.0	3625.0	9.46	8.88	8.61	3625.0	34.3	49.8	34.3	30.6	29.8	29.3
1360.0	3750.0	9.19	8.79	8.65	3750.0	34.4	45.9	33.3	30.1	29.6	29.0
1380.0	3875.0	9.24	8.77	8.67	3875.0	38.8	41.2	32.6	29.9	29.3	28.4
1400.0	4000.0	9.27	8.81	8.61	4000.0	43.1	36.7	31.4	29.7	28.9	27.9

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Typical Performance Data

RF/LO (MHz)	RF VSWR (:1)			LO VSWR (:1)			IF (MHz)	IF VSWR (:1)		
	@LO (dBm)			@LO (dBm)				@LO (dBm)		
	+14	+17	+20	+14	+17	+20		+14	+17	+20
21.0	1.68	1.67	1.67	1.68	1.89	2.47	0.3	1.41	1.23	1.39
53.3	1.44	1.40	1.40	1.36	1.72	2.43	0.6	1.55	1.15	1.25
85.5	1.37	1.30	1.29	1.23	1.65	2.32	0.9	1.61	1.14	1.21
117.8	1.34	1.25	1.23	1.18	1.61	2.26	1.0	1.50	1.15	1.14
150.0	1.32	1.22	1.19	1.15	1.63	2.39	13.3	1.49	1.18	1.01
340.0	1.30	1.15	1.08	1.02	1.61	2.36	25.5	1.47	1.19	1.04
720.0	1.42	1.22	1.13	1.21	1.53	2.10	37.8	1.49	1.23	1.07
910.0	1.42	1.24	1.14	1.24	1.49	1.99	50.0	1.53	1.25	1.09
1100.0	1.45	1.26	1.16	1.26	1.45	1.92	56.0	1.62	1.33	1.17
1137.0	1.47	1.27	1.17	1.26	1.48	2.00	68.0	1.74	1.41	1.22
1165.3	1.48	1.28	1.18	1.29	1.49	2.01	74.0	1.87	1.49	1.29
1193.5	1.47	1.27	1.18	1.29	1.44	1.92	80.0	1.84	1.50	1.32
1221.8	1.48	1.29	1.19	1.29	1.46	1.93	88.0	1.82	1.51	1.34
1250.0	1.48	1.29	1.20	1.35	1.49	1.96	91.3	1.81	1.50	1.34
1251.0	1.49	1.29	1.20	1.35	1.49	1.96	94.5	1.79	1.48	1.33
1288.8	1.49	1.29	1.20	1.34	1.45	1.87	97.8	1.76	1.48	1.34
1326.6	1.48	1.29	1.20	1.37	1.47	1.89	101.0	1.74	1.49	1.36
1364.4	1.48	1.29	1.20	1.42	1.47	1.90	104.3	1.74	1.48	1.36
1402.2	1.48	1.29	1.20	1.43	1.48	1.85	107.5	1.74	1.48	1.36
1440.0	1.48	1.29	1.20	1.52	1.53	1.93	110.8	1.71	1.49	1.37
1477.8	1.48	1.29	1.20	1.50	1.51	1.88	114.0	1.71	1.48	1.37
1515.6	1.49	1.29	1.20	1.57	1.56	1.92	150.5	1.67	1.47	1.36
1553.4	1.48	1.29	1.20	1.58	1.57	1.95	187.0	1.67	1.48	1.37
1591.2	1.48	1.29	1.20	1.60	1.55	1.88	223.5	1.66	1.47	1.36
1629.0	1.48	1.29	1.20	1.68	1.62	1.99	260.0	1.64	1.47	1.36
1666.8	1.48	1.29	1.20	1.65	1.58	1.88	296.5	1.63	1.46	1.35
1704.6	1.48	1.29	1.20	1.74	1.65	1.98	333.0	1.60	1.42	1.31
1742.4	1.48	1.29	1.20	1.69	1.62	1.90	369.5	1.59	1.42	1.31
1780.2	1.48	1.29	1.20	1.79	1.62	1.88	406.0	1.60	1.41	1.29
1818.0	1.49	1.29	1.20	1.81	1.64	1.93	442.5	1.56	1.38	1.27
1855.8	1.29	1.20	1.20	1.78	1.58	1.78	479.0	1.55	1.36	1.25
1893.6	1.29	1.20	1.20	1.91	1.64	1.88	515.5	1.52	1.31	1.21
1931.4	1.29	1.20	1.20	1.87	1.60	1.73	552.0	1.45	1.27	1.16
1969.2	1.30	1.20	1.20	2.00	1.68	1.80	588.5	1.43	1.21	1.11
2007.0	1.29	1.20	1.20	1.98	1.68	1.75	625.0	1.35	1.15	1.07
2010.0	1.30	1.21	1.21	1.97	1.67	1.74	661.5	1.31	1.10	1.06
2132.5	1.30	1.21	1.21	1.99	1.65	1.66	698.0	1.27	1.08	1.11
2255.0	1.30	1.21	1.21	2.05	1.66	1.64	734.5	1.23	1.09	1.14
2377.5	1.30	1.21	1.21	1.99	1.60	1.57	771.0	1.20	1.09	1.16
2625.0	1.30	1.21	1.21	2.01	1.55	1.54	807.5	1.23	1.15	1.23
2750.0	1.30	1.21	1.21	1.93	1.49	1.47	844.0	1.28	1.22	1.33
2875.0	1.31	1.22	1.22	2.14	1.53	1.41	850.5	1.34	1.30	1.44
3000.0	1.31	1.22	1.22	2.19	1.47	1.26	863.5	1.55	1.49	1.56
3125.0	1.31	1.23	1.23	2.22	1.45	1.08	870.0	1.66	1.59	1.63
3250.0	1.49	1.31	1.23	2.24	1.42	1.03	1043.0	1.76	1.66	1.61
3375.0	1.49	1.32	1.23	1.94	1.28	1.09	1216.0	1.74	1.51	1.39
3500.0	1.50	1.32	1.24	1.79	1.19	1.17	1389.0	1.62	1.31	1.14
3625.0	1.50	1.33	1.24	1.63	1.13	1.19	1562.0	1.62	1.43	1.35
3750.0	1.50	1.33	1.25	1.61	1.17	1.24	1735.0	1.91	1.81	1.78
3875.0	1.51	1.34	1.26	1.56	1.21	1.35	1908.0	2.08	2.00	1.97
4000.0	1.51	1.34	1.26	1.36	1.28	1.49	2081.0	2.15	2.09	2.08