

Frequency Mixer

ADE-ED12873/2

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+7	+10	+13
1370.00	1400.00	13.48	12.37	11.66
1450.00	1480.00	11.14	10.48	10.09
1530.00	1560.00	9.53	9.10	8.91
1610.00	1640.00	8.56	8.25	8.10
1690.00	1720.00	7.78	7.55	7.47
1770.00	1800.00	7.18	7.01	6.96
1850.00	1880.00	6.77	6.63	6.59
1930.00	1960.00	6.53	6.40	6.33
2010.00	2040.00	6.37	6.24	6.20
2090.00	2120.00	6.33	6.18	6.12
2170.00	2200.00	6.44	6.30	6.27
2250.00	2280.00	6.41	6.26	6.25
2330.00	2360.00	6.64	6.45	6.42
2410.00	2440.00	6.71	6.53	6.54
2490.00	2520.00	6.88	6.72	6.76
2570.00	2600.00	7.32	6.95	6.79
2650.00	2680.00	7.46	6.64	6.21
2730.00	2760.00	7.60	6.51	6.04
2810.00	2840.00	7.45	6.45	6.01
2890.00	2920.00	7.41	6.49	5.93
2970.00	3000.00	7.33	6.47	5.96
3050.00	3080.00	7.25	6.57	6.06
3130.00	3160.00	7.24	6.56	6.11
3210.00	3240.00	7.32	6.59	6.20
3290.00	3320.00	7.28	6.60	6.24
3370.00	3400.00	7.17	6.51	6.17
3450.00	3480.00	7.10	6.47	6.13
3530.00	3560.00	7.06	6.55	6.25
3610.00	3640.00	6.93	6.69	6.54
3670.00	3700.00	6.70	6.60	6.58
3750.00	3780.00	6.33	6.12	6.13
3810.00	3840.00	6.32	5.95	5.90
3890.00	3920.00	6.45	5.96	5.85
3950.00	3980.00	6.49	6.00	5.88
4030.00	4060.00	6.52	6.03	5.89
4090.00	4120.00	6.53	6.04	5.90
4170.00	4200.00	6.60	6.10	5.93
4230.00	4260.00	6.70	6.23	6.07
4310.00	4340.00	6.79	6.41	6.25
4370.00	4400.00	6.92	6.56	6.43

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		+7	+10	+13
1370.00	1400.00	11.06	13.15	15.03
1450.00	1480.00	13.30	14.12	14.75
1530.00	1560.00	14.45	14.92	14.73
1610.00	1640.00	10.81	11.74	12.50
1690.00	1720.00	9.25	9.88	10.60
1770.00	1800.00	8.18	8.64	9.19
1850.00	1880.00	8.19	8.62	9.12
1930.00	1960.00	8.71	9.46	10.07
2010.00	2040.00	9.50	10.45	11.01
2090.00	2120.00	10.74	13.31	14.22
2170.00	2200.00	10.42	13.43	14.94
2250.00	2280.00	12.00	14.40	16.32
2330.00	2360.00	13.42	15.23	16.52
2410.00	2440.00	15.35	17.64	19.67
2490.00	2520.00	11.66	14.54	17.42
2570.00	2600.00	8.73	12.87	21.08
2650.00	2680.00	13.11	11.69	9.11
2730.00	2760.00	13.15	9.98	8.72
2810.00	2840.00	13.75	13.35	10.99
2890.00	2920.00	11.02	11.61	11.90
2970.00	3000.00	9.83	11.07	11.99
3050.00	3080.00	8.91	9.90	11.26
3130.00	3160.00	8.96	9.61	10.80
3210.00	3240.00	9.19	10.18	11.58
3290.00	3320.00	9.34	10.85	12.45
3370.00	3400.00	9.49	11.05	12.68
3450.00	3480.00	10.55	11.26	12.26
3530.00	3560.00	10.06	11.46	12.24
3610.00	3640.00	10.50	12.15	12.76
3670.00	3700.00	10.99	12.06	12.69
3750.00	3780.00	12.20	12.65	12.48
3810.00	3840.00	11.76	12.67	13.33
3890.00	3920.00	11.02	12.46	13.80
3950.00	3980.00	10.85	12.57	14.17
4030.00	4060.00	10.85	12.35	14.15
4090.00	4120.00	11.44	12.42	13.92
4170.00	4200.00	11.42	12.70	14.15
4230.00	4260.00	11.60	13.01	14.70
4310.00	4340.00	12.47	13.83	16.28
4370.00	4400.00	14.29	15.18	17.54

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+5dBm (dB)		
		@LO (dBm)		
		+7	+10	+13
1370.00	1400.00	0.85	0.40	0.11
1450.00	1480.00	-0.24	-0.30	-0.36
1530.00	1560.00	-1.01	-0.90	-0.80
1610.00	1640.00	-1.41	-1.19	-1.03
1690.00	1720.00	-1.65	-1.41	-1.24
1770.00	1800.00	-1.80	-1.47	-1.26
1850.00	1880.00	-1.97	-1.58	-1.28
1930.00	1960.00	-2.10	-1.72	-1.41
2010.00	2040.00	-2.12	-1.75	-1.47
2090.00	2120.00	-1.87	-1.60	-1.42
2170.00	2200.00	-1.41	-1.12	-1.03
2250.00	2280.00	-1.28	-0.90	-0.74
2330.00	2360.00	-1.04	-0.67	-0.55
2410.00	2440.00	-0.99	-0.55	-0.33
2490.00	2520.00	-1.23	-0.81	-0.52
2570.00	2600.00	-2.08	-1.73	-1.35
2650.00	2680.00	-2.19	-2.13	-1.88
2730.00	2760.00	-2.02	-2.06	-1.83
2810.00	2840.00	-1.84	-1.77	-1.50
2890.00	2920.00	-1.71	-1.55	-1.39
2970.00	3000.00	-1.58	-1.37	-1.21
3050.00	3080.00	-1.58	-1.32	-1.16
3130.00	3160.00	-1.53	-1.30	-1.12
3210.00	3240.00	-1.49	-1.22	-1.05
3290.00	3320.00	-1.49	-1.17	-0.95
3370.00	3400.00	-1.47	-1.12	-0.87
3450.00	3480.00	-1.57	-1.14	-0.91
3530.00	3560.00	-1.56	-1.17	-0.98
3610.00	3640.00	-1.41	-1.06	-0.88
3670.00	3700.00	-1.29	-0.95	-0.79
3750.00	3780.00	-1.21	-0.93	-0.81
3810.00	3840.00	-1.05	-0.82	-0.76
3890.00	3920.00	-0.98	-0.73	-0.67
3950.00	3980.00	-0.96	-0.71	-0.63
4030.00	4060.00	-0.91	-0.65	-0.56
4090.00	4120.00	-0.95	-0.66	-0.55
4170.00	4200.00	-0.89	-0.63	-0.52
4230.00	4260.00	-0.92	-0.65	-0.52
4310.00	4340.00	-0.82	-0.57	-0.44
4370.00	4400.00	-0.85	-0.56	-0.43

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Frequency Mixer

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1739.9MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1589.9MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=3510.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+10			+10			+10
10.10	1750.00	7.16	10.10	1600.00	8.41	1910.10	1600.00	7.64
49.83	1789.73	7.35	50.10	1640.00	8.49	1870.10	1640.00	7.57
89.55	1829.45	7.41	90.10	1680.00	8.59	1830.10	1680.00	7.08
129.28	1869.18	7.52	130.10	1720.00	8.82	1790.10	1720.00	6.77
169.00	1908.90	7.49	170.10	1760.00	8.94	1750.10	1760.00	6.84
208.73	1948.63	7.38	210.10	1800.00	8.91	1710.10	1800.00	6.91
248.46	1988.36	7.26	250.10	1840.00	8.87	1670.10	1840.00	6.91
288.18	2028.08	7.15	310.10	1900.00	8.64	1610.10	1900.00	6.64
327.91	2067.81	7.15	350.10	1940.00	8.51	1570.10	1940.00	6.50
367.63	2107.53	7.07	410.10	2000.00	8.37	1510.10	2000.00	6.17
407.36	2147.26	7.07	450.10	2040.00	8.36	1470.10	2040.00	6.10
447.09	2186.99	7.18	510.10	2100.00	8.34	1410.10	2100.00	5.90
486.81	2226.71	7.25	550.10	2140.00	8.35	1370.10	2140.00	5.88
526.54	2266.44	7.17	610.10	2200.00	8.38	1310.10	2200.00	5.77
566.26	2306.16	7.14	650.10	2240.00	8.23	1270.10	2240.00	5.76
605.99	2345.89	7.34	710.10	2300.00	8.21	1210.10	2300.00	5.72
645.72	2385.62	7.45	750.10	2340.00	8.33	1170.10	2340.00	5.85
685.44	2425.34	7.50	810.10	2400.00	8.39	1110.10	2400.00	5.93
725.17	2465.07	7.52	850.10	2440.00	8.35	1070.10	2440.00	6.02
764.89	2504.79	7.46	910.10	2500.00	8.22	1010.10	2500.00	6.14
804.62	2544.52	7.45	950.10	2540.00	8.15	970.10	2540.00	6.27
844.35	2584.25	7.46	1010.10	2600.00	8.09	910.10	2600.00	6.46
884.07	2623.97	7.51	1050.10	2640.00	8.11	870.10	2640.00	6.62
923.80	2663.70	7.50	1110.10	2700.00	8.15	810.10	2700.00	6.93
963.52	2703.42	7.49	1150.10	2740.00	8.15	770.10	2740.00	7.03
1003.25	2743.15	7.54	1210.10	2800.00	8.19	710.10	2800.00	7.18
1042.98	2782.88	7.53	1250.10	2840.00	8.23	670.10	2840.00	7.18
1082.70	2822.60	7.59	1310.10	2900.00	8.20	610.10	2900.00	7.12
1122.43	2862.33	7.63	1350.10	2940.00	8.23	570.10	2940.00	7.23
1162.15	2902.05	7.66	1410.10	3000.00	8.15	510.10	3000.00	7.32
1201.88	2941.78	7.75	1450.10	3040.00	8.20	470.10	3040.00	7.29
1221.74	2961.64	7.77	1510.10	3100.00	8.26	410.10	3100.00	7.18
1261.47	3001.37	7.85	1550.10	3140.00	8.43	370.10	3140.00	7.04
1281.33	3021.23	7.88	1610.10	3200.00	8.58	310.10	3200.00	6.91
1321.06	3060.96	7.94	1650.10	3240.00	8.73	270.10	3240.00	6.85
1340.92	3080.82	7.99	1710.10	3300.00	9.16	210.10	3300.00	6.73
1380.65	3120.55	8.11	1750.10	3340.00	9.64	170.10	3340.00	6.72
1400.51	3140.41	8.20	1810.10	3400.00	10.49	110.10	3400.00	6.61
1440.24	3180.14	8.49	1850.10	3440.00	11.21	70.10	3440.00	6.60
1460.10	3200.00	8.68	1910.10	3500.00	12.18	10.10	3500.00	6.63

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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+7	+10	+13	+7	+10	+13
1400.00	29.57	29.96	30.05	27.43	28.70	29.42
1480.00	28.52	29.22	29.45	25.88	27.29	28.26
1560.00	27.30	28.26	28.79	24.53	26.14	27.37
1640.00	25.93	27.07	27.85	23.14	24.74	26.14
1720.00	24.99	26.21	27.19	22.19	23.80	25.24
1800.00	24.08	25.33	26.41	21.34	22.88	24.32
1880.00	23.49	24.78	25.76	20.70	22.41	23.91
1960.00	23.16	24.29	25.20	20.29	22.08	23.71
2040.00	23.37	24.22	25.00	19.85	21.70	23.48
2120.00	23.46	23.95	24.38	19.52	21.47	23.33
2200.00	23.75	24.20	24.35	19.37	21.45	23.43
2280.00	23.16	23.90	24.22	19.52	21.76	23.81
2360.00	23.23	23.63	23.84	19.96	22.34	24.47
2440.00	23.25	23.66	23.65	20.73	23.15	25.13
2520.00	23.70	24.22	24.32	21.62	23.84	25.46
2600.00	27.69	28.38	28.63	21.69	23.53	24.72
2680.00	34.81	33.32	32.62	22.14	23.86	25.17
2760.00	31.28	30.55	30.24	23.61	25.03	26.16
2840.00	29.07	28.46	28.22	25.19	26.55	27.44
2920.00	27.73	27.21	27.08	26.43	27.51	28.14
3000.00	26.89	26.33	26.26	27.77	28.41	28.60
3080.00	26.04	25.77	25.54	28.82	29.10	28.57
3160.00	25.49	25.03	24.76	29.62	29.10	28.09
3240.00	25.01	24.27	24.17	29.72	28.34	27.34
3320.00	25.35	24.20	23.97	29.50	27.66	26.52
3400.00	26.52	24.79	24.30	29.57	27.19	25.90
3480.00	27.18	25.44	24.94	30.34	27.42	25.98
3560.00	27.43	25.28	24.48	30.52	27.40	25.64
3640.00	28.86	26.36	25.10	31.54	27.87	25.83
3700.00	29.44	27.20	25.58	32.51	28.36	25.92
3780.00	29.12	27.57	26.28	33.50	28.80	26.33
3840.00	29.33	27.84	26.48	34.37	29.09	26.35
3920.00	29.44	27.94	26.76	33.87	28.80	26.32
3980.00	29.44	27.87	26.63	33.56	28.79	26.32
4060.00	29.65	27.91	26.72	33.61	28.90	26.62
4120.00	29.93	28.40	27.01	34.42	29.50	26.95
4200.00	30.04	28.48	27.28	34.51	29.99	27.58
4260.00	30.27	28.66	27.45	34.75	30.53	28.28
4340.00	30.28	28.98	27.96	34.82	31.44	29.41
4400.00	30.49	29.25	28.12	35.64	32.30	30.20

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		+7	+10	+13
1370.00	1400.00	11.05	11.48	11.82
1450.00	1480.00	10.66	10.93	11.16
1530.00	1560.00	10.16	10.23	10.30
1610.00	1640.00	9.69	9.73	9.77
1690.00	1720.00	9.42	9.33	9.21
1770.00	1800.00	8.97	8.78	8.64
1850.00	1880.00	8.40	8.33	8.22
1930.00	1960.00	7.95	7.81	7.67
2010.00	2040.00	7.65	7.52	7.36
2090.00	2120.00	7.29	7.05	6.91
2170.00	2200.00	6.94	6.42	6.18
2250.00	2280.00	6.89	6.27	5.94
2330.00	2360.00	6.77	6.03	5.66
2410.00	2440.00	6.56	5.91	5.50
2490.00	2520.00	6.63	6.08	5.72
2570.00	2600.00	8.13	7.80	7.60
2650.00	2680.00	10.20	9.77	9.48
2730.00	2760.00	9.88	9.34	8.99
2810.00	2840.00	8.70	8.60	8.37
2890.00	2920.00	7.88	7.95	7.95
2970.00	3000.00	7.53	7.66	7.74
3050.00	3080.00	7.20	7.34	7.46
3130.00	3160.00	7.14	7.26	7.41
3210.00	3240.00	7.22	7.40	7.54
3290.00	3320.00	7.33	7.54	7.68
3370.00	3400.00	7.46	7.71	7.88
3450.00	3480.00	7.66	7.94	8.04
3530.00	3560.00	8.11	8.34	8.43
3610.00	3640.00	8.76	9.01	9.04
3670.00	3700.00	9.43	9.75	9.82
3750.00	3780.00	9.88	10.42	10.69
3810.00	3840.00	10.11	10.74	11.09
3890.00	3920.00	10.80	11.49	11.81
3950.00	3980.00	11.44	12.15	12.49
4030.00	4060.00	12.43	13.13	13.46
4090.00	4120.00	13.14	14.07	14.48
4170.00	4200.00	14.38	15.24	15.66
4230.00	4260.00	15.54	16.33	16.74
4310.00	4340.00	17.18	17.77	18.09
4370.00	4400.00	18.42	18.90	19.12

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Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=500MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+7	+10	+13		+7	+10	+13		+7	+10	+13
1370.00	1400.00	9.48	9.33	9.18	1400.00	1.66	2.35	3.18	10.00	1.60	1.21	1.02
1450.00	1480.00	7.44	7.25	7.11	1480.00	1.67	2.36	3.20	70.25	1.59	1.21	1.03
1530.00	1560.00	5.72	5.49	5.31	1560.00	1.70	2.41	3.25	130.50	1.61	1.23	1.04
1610.00	1640.00	4.59	4.50	4.40	1640.00	1.80	2.50	3.34	190.76	1.64	1.25	1.06
1690.00	1720.00	3.70	3.61	3.57	1720.00	1.92	2.61	3.45	251.01	1.63	1.25	1.06
1770.00	1800.00	2.95	2.86	2.83	1800.00	2.04	2.69	3.53	311.26	1.71	1.32	1.13
1850.00	1880.00	2.32	2.27	2.25	1880.00	2.15	2.73	3.54	371.51	1.68	1.31	1.13
1930.00	1960.00	1.77	1.74	1.74	1960.00	2.25	2.74	3.47	431.76	1.76	1.39	1.21
2010.00	2040.00	1.44	1.45	1.47	2040.00	2.40	2.79	3.47	492.02	1.77	1.41	1.24
2090.00	2120.00	1.43	1.51	1.54	2120.00	2.60	2.91	3.54	552.27	1.77	1.43	1.26
2170.00	2200.00	1.42	1.58	1.67	2200.00	2.82	3.03	3.61	612.52	1.86	1.53	1.36
2250.00	2280.00	1.33	1.47	1.57	2280.00	2.96	3.09	3.57	672.77	1.85	1.53	1.37
2330.00	2360.00	1.21	1.37	1.48	2360.00	3.05	3.11	3.49	733.03	1.89	1.57	1.43
2410.00	2440.00	1.19	1.35	1.46	2440.00	3.19	3.11	3.42	793.28	1.93	1.61	1.47
2490.00	2520.00	1.12	1.26	1.36	2520.00	3.27	3.10	3.35	853.53	1.92	1.61	1.47
2570.00	2600.00	1.36	1.32	1.30	2600.00	3.30	3.03	3.21	913.78	1.92	1.62	1.49
2650.00	2680.00	1.79	1.62	1.50	2680.00	3.37	3.00	3.11	974.03	1.92	1.63	1.50
2730.00	2760.00	1.97	1.68	1.51	2760.00	3.37	2.95	2.98	1034.29	1.87	1.60	1.48
2810.00	2840.00	1.91	1.70	1.51	2840.00	3.25	2.78	2.80	1094.54	1.87	1.61	1.50
2890.00	2920.00	1.85	1.66	1.50	2920.00	3.15	2.61	2.59	1154.79	1.80	1.59	1.50
2970.00	3000.00	1.84	1.68	1.54	3000.00	3.07	2.46	2.42	1215.04	1.72	1.54	1.48
3050.00	3080.00	1.77	1.66	1.55	3080.00	2.96	2.31	2.26	1275.29	1.67	1.55	1.52
3130.00	3160.00	1.65	1.56	1.49	3160.00	2.85	2.14	2.07	1335.55	1.57	1.50	1.51
3210.00	3240.00	1.58	1.51	1.46	3240.00	2.78	1.99	1.90	1395.80	1.56	1.53	1.57
3290.00	3320.00	1.65	1.57	1.52	3320.00	2.72	1.90	1.77	1456.05	1.50	1.55	1.64
3370.00	3400.00	1.80	1.72	1.66	3400.00	2.69	1.85	1.69	1516.30	1.47	1.54	1.65
3450.00	3480.00	1.90	1.84	1.78	3480.00	2.66	1.79	1.61	1576.55	1.51	1.62	1.76
3530.00	3560.00	1.95	1.94	1.88	3560.00	2.75	1.80	1.56	1636.81	1.46	1.58	1.74
3610.00	3640.00	1.97	2.04	2.02	3640.00	2.93	1.84	1.52	1697.06	1.49	1.57	1.71
3670.00	3700.00	1.86	1.98	2.01	3700.00	2.98	1.85	1.49	1757.31	1.48	1.55	1.69
3750.00	3780.00	1.78	1.85	1.91	3780.00	3.04	1.86	1.42	1817.56	1.44	1.44	1.55
3810.00	3840.00	1.99	1.97	2.00	3840.00	3.20	1.90	1.38	1877.82	1.43	1.41	1.48
3890.00	3920.00	2.06	2.02	2.04	3920.00	3.25	1.90	1.31	1938.07	1.32	1.33	1.40
3950.00	3980.00	1.94	1.90	1.91	3980.00	3.22	1.89	1.28	1998.32	1.24	1.26	1.33
4030.00	4060.00	2.01	1.96	1.95	4060.00	3.26	1.92	1.32	2058.57	1.16	1.29	1.37
4090.00	4120.00	2.18	2.18	2.19	4120.00	3.29	1.94	1.37	2118.82	1.24	1.42	1.52
4170.00	4200.00	2.16	2.19	2.22	4200.00	3.29	2.00	1.51	2199.16	1.56	1.74	1.83
4230.00	4260.00	2.14	2.16	2.17	4260.00	3.32	2.10	1.70	2259.41	1.97	2.15	2.23
4310.00	4340.00	2.40	2.45	2.47	4340.00	3.36	2.26	1.96	2339.75	2.76	2.94	3.00
4370.00	4400.00	2.63	2.75	2.80	4400.00	3.42	2.40	2.18	2400.00	3.37	3.52	3.52

