

Frequency Mixer

ADE-ED12872/11

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=1880.1MHz (dB)			RF (IN) (MHz)	LO (MHz)	IP-3 INPUT (dBm)			RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=1dBm (dB)		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
		+4	+7	+10			+4	+7	+10			+4	+7	+10
1890.10	10.10	8.83	8.20	7.89	1890.10	10.10	9.85	10.83	11.35	1890.10	10.10	2.23	1.97	1.77
1915.10	35.10	8.81	8.02	7.72	1915.10	35.10	10.65	10.55	10.86	1915.10	35.10	2.40	2.07	1.83
1940.10	60.10	8.77	8.06	7.76	1940.10	60.10	10.45	9.72	9.55	1940.10	60.10	2.56	2.19	1.93
1965.10	85.10	8.63	8.03	7.78	1965.10	85.10	8.82	8.32	8.02	1965.10	85.10	2.62	2.29	2.07
1990.10	110.10	8.67	8.00	7.76	1990.10	110.10	7.67	7.16	7.55	1990.10	110.10	2.73	2.37	2.06
2015.10	135.10	8.66	7.96	7.77	2015.10	135.10	7.34	6.52	8.75	2015.10	135.10	2.73	2.36	2.01
2040.10	160.10	8.69	8.03	7.84	2040.10	160.10	6.57	6.15	9.35	2040.10	160.10	2.77	2.45	2.09
2065.10	185.10	8.71	8.11	7.92	2065.10	185.10	5.60	6.55	9.56	2065.10	185.10	2.77	2.39	2.04
2090.10	210.10	8.76	8.18	7.97	2090.10	210.10	5.69	7.33	9.48	2090.10	210.10	2.77	2.35	2.03
2115.10	235.10	8.76	8.16	7.95	2115.10	235.10	5.60	7.94	9.68	2115.10	235.10	2.71	2.29	1.98
2135.10	255.10	8.80	8.20	8.01	2135.10	255.10	5.70	8.67	9.76	2135.10	255.10	2.71	2.31	2.01
2160.10	280.10	8.86	8.29	8.12	2160.10	280.10	5.99	8.90	9.51	2160.10	280.10	2.65	2.23	1.96
2180.10	300.10	8.97	8.39	8.20	2180.10	300.10	6.45	8.97	9.77	2180.10	300.10	2.63	2.21	1.93
2205.10	325.10	8.97	8.39	8.21	2205.10	325.10	7.02	9.20	9.83	2205.10	325.10	2.49	2.09	1.85
2225.10	345.10	9.02	8.42	8.26	2225.10	345.10	7.30	9.23	10.06	2225.10	345.10	2.56	2.14	1.86
2250.10	370.10	9.09	8.54	8.38	2250.10	370.10	8.06	9.62	10.16	2250.10	370.10	2.46	2.06	1.78
2270.10	390.10	9.16	8.65	8.50	2270.10	390.10	8.27	9.82	10.20	2270.10	390.10	2.39	2.00	1.72
2295.10	415.10	9.23	8.69	8.52	2295.10	415.10	8.80	9.79	10.48	2295.10	415.10	2.27	1.90	1.63
2315.10	435.10	9.28	8.72	8.55	2315.10	435.10	9.11	9.86	10.57	2315.10	435.10	2.22	1.86	1.60
2340.10	460.10	9.25	8.73	8.56	2340.10	460.10	9.43	9.84	10.54	2340.10	460.10	2.11	1.81	1.59
2360.10	480.10	9.35	8.86	8.70	2360.10	480.10	9.79	10.53	10.94	2360.10	480.10	1.98	1.68	1.49
2385.10	505.10	9.42	8.92	8.75	2385.10	505.10	9.64	10.10	10.80	2385.10	505.10	1.82	1.60	1.41
2405.10	525.10	9.41	8.88	8.71	2405.10	525.10	10.31	10.30	10.82	2405.10	525.10	1.83	1.57	1.38
2430.10	550.10	9.38	8.88	8.72	2430.10	550.10	10.10	10.24	10.73	2430.10	550.10	1.81	1.55	1.40
2450.10	570.10	9.44	8.97	8.81	2450.10	570.10	10.29	10.27	10.67	2450.10	570.10	1.72	1.51	1.35
2475.10	595.10	9.59	9.08	8.90	2475.10	595.10	10.34	10.56	10.77	2475.10	595.10	1.67	1.49	1.35
2495.10	615.10	9.56	9.05	8.87	2495.10	615.10	10.31	10.36	10.83	2495.10	615.10	1.66	1.47	1.33
2520.10	640.10	9.58	9.10	8.95	2520.10	640.10	10.47	10.65	11.56	2520.10	640.10	1.63	1.43	1.29
2540.10	660.10	9.63	9.22	9.08	2540.10	660.10	9.92	10.51	11.29	2540.10	660.10	1.59	1.39	1.24
2565.10	685.10	9.79	9.41	9.29	2565.10	685.10	10.50	10.38	11.36	2565.10	685.10	1.51	1.31	1.20
2585.10	705.10	9.86	9.47	9.36	2585.10	705.10	10.44	10.52	11.19	2585.10	705.10	1.47	1.27	1.17
2610.10	730.10	9.83	9.44	9.35	2610.10	730.10	10.52	10.48	11.11	2610.10	730.10	1.44	1.26	1.15
2630.10	750.10	9.89	9.52	9.44	2630.10	750.10	10.64	10.50	10.72	2630.10	750.10	1.41	1.22	1.14
2655.10	775.10	10.03	9.68	9.60	2655.10	775.10	10.76	10.80	10.74	2655.10	775.10	1.33	1.17	1.10
2675.10	795.10	10.12	9.77	9.72	2675.10	795.10	11.24	11.28	11.24	2675.10	795.10	1.26	1.08	1.01
2700.10	820.10	10.14	9.81	9.77	2700.10	820.10	11.51	11.30	11.73	2700.10	820.10	1.24	1.06	0.97
2720.10	840.10	10.18	9.86	9.84	2720.10	840.10	11.31	11.55	12.39	2720.10	840.10	1.21	1.07	0.95
2745.10	865.10	10.36	10.05	10.03	2745.10	865.10	11.45	11.16	12.03	2745.10	865.10	1.14	1.03	0.94
2765.10	885.10	10.46	10.15	10.12	2765.10	885.10	11.87	11.43	12.37	2765.10	885.10	1.09	1.02	0.95
2790.10	910.10	10.52	10.22	10.17	2790.10	910.10	11.92	11.24	11.64	2790.10	910.10	1.09	1.00	0.95



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RF/MICROWAVE COMPONENTS



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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1960.1MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1940.1MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2000.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+7			+7			+7
1950.00	10.10	8.42	1930.10	10.00	8.33	1990.10	10.00	8.62
1910.00	50.10	8.24	1890.10	50.00	8.20	1930.10	70.00	8.31
1870.00	90.10	8.01	1850.10	90.00	7.96	1870.10	130.00	7.95
1810.00	150.10	7.70	1810.10	130.00	7.68	1810.10	190.00	7.72
1770.00	190.10	7.55	1770.10	170.00	7.54	1770.10	230.00	7.60
1710.00	250.10	7.38	1710.10	230.00	7.30	1710.10	290.00	7.38
1670.00	290.10	7.23	1670.10	270.00	7.19	1670.10	330.00	7.24
1610.00	350.10	7.17	1610.10	330.00	7.13	1610.10	390.00	7.20
1570.00	390.10	7.07	1570.10	370.00	7.01	1570.10	430.00	7.11
1510.00	450.10	6.99	1510.10	430.00	6.92	1510.10	490.00	7.03
1470.00	490.10	6.92	1470.10	470.00	6.82	1470.10	530.00	6.98
1410.00	550.10	6.91	1410.10	530.00	6.86	1410.10	590.00	6.99
1370.00	590.10	6.89	1370.10	570.00	6.80	1370.10	630.00	6.92
1310.00	650.10	6.81	1310.10	630.00	6.81	1310.10	690.00	6.83
1270.00	690.10	6.77	1270.10	670.00	6.70	1270.10	730.00	6.73
1210.00	750.10	6.65	1210.10	730.00	6.66	1210.10	790.00	6.61
1170.00	790.10	6.59	1170.10	770.00	6.54	1170.10	830.00	6.51
1110.00	850.10	6.44	1110.10	830.00	6.45	1110.10	890.00	6.34
1070.00	890.10	6.31	1070.10	870.00	6.28	1070.10	930.00	6.19
1010.00	950.10	6.05	1010.10	930.00	6.06	1010.10	990.00	5.97
970.00	990.10	5.96	970.10	970.00	5.91	970.10	1030.00	5.93
910.00	1050.10	5.97	910.10	1030.00	5.91	910.10	1090.00	5.98
870.00	1090.10	6.04	870.10	1070.00	5.93	870.10	1130.00	6.05
810.00	1150.10	6.10	810.10	1130.00	5.99	810.10	1190.00	6.11
770.00	1190.10	6.14	770.10	1170.00	6.04	770.10	1230.00	6.16
710.00	1250.10	6.17	710.10	1230.00	6.09	710.10	1290.00	6.24
670.00	1290.10	6.27	670.10	1270.00	6.16	670.10	1330.00	6.39
610.00	1350.10	6.43	610.10	1330.00	6.30	610.10	1390.00	6.57
570.00	1390.10	6.58	570.10	1370.00	6.44	570.10	1430.00	6.74
510.00	1450.10	6.82	510.10	1430.00	6.72	510.10	1490.00	6.99
470.00	1490.10	7.00	470.10	1470.00	6.85	470.10	1530.00	7.18
410.00	1550.10	7.24	410.10	1530.00	7.10	410.10	1590.00	7.54
370.00	1590.10	7.57	370.10	1570.00	7.31	370.10	1630.00	7.91
310.00	1650.10	8.07	310.10	1630.00	7.89	310.10	1690.00	8.46
270.00	1690.10	8.44	270.10	1670.00	8.16	270.10	1730.00	8.76
210.00	1750.10	8.74	210.10	1730.00	8.61	210.10	1790.00	8.93
170.00	1790.10	8.84	170.10	1770.00	8.72	170.10	1830.00	8.93
110.00	1850.10	8.79	110.10	1830.00	8.70	110.10	1890.00	8.81
70.00	1890.10	8.73	70.10	1870.00	8.65	70.10	1930.00	8.78
10.00	1950.10	8.78	10.10	1930.00	8.76	10.10	1990.00	8.76

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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+4	+7	+10	+4	+7	+10
10.10	60.25	69.64	66.54	59.77	65.43	70.95
35.10	79.21	90.00	78.80	47.89	55.04	63.84
60.10	71.40	75.79	72.46	43.33	50.02	58.93
85.10	75.68	72.01	72.23	40.74	47.18	54.74
110.10	65.77	65.30	64.50	38.62	45.46	50.34
135.10	66.22	63.78	62.33	36.45	43.67	46.16
160.10	62.40	60.94	59.19	35.18	41.86	43.47
185.10	60.01	58.01	56.58	34.42	41.58	41.50
210.10	58.21	55.99	54.64	33.37	40.82	39.84
235.10	56.61	54.41	53.41	32.20	39.67	38.75
255.10	55.72	53.07	52.34	31.64	38.35	38.19
280.10	53.59	51.15	50.62	31.43	37.27	37.20
300.10	52.52	50.57	50.18	30.93	36.55	36.31
325.10	51.32	49.17	48.80	30.33	35.47	35.63
345.10	50.38	48.55	48.33	29.78	34.52	35.24
370.10	48.79	47.30	46.86	29.41	33.64	34.28
390.10	48.70	47.60	47.44	29.04	33.20	33.86
415.10	47.66	46.53	46.32	28.22	32.33	33.15
435.10	46.95	45.81	45.70	27.76	31.68	32.48
460.10	45.83	45.05	45.02	27.29	30.96	31.89
480.10	45.41	44.70	44.71	26.93	30.62	31.63
505.10	44.91	44.24	44.27	26.22	29.96	31.08
525.10	44.54	43.82	43.67	25.91	29.52	30.49
550.10	44.03	43.33	43.33	25.47	29.03	30.09
570.10	43.68	43.01	42.89	25.16	28.62	29.56
595.10	42.95	42.32	42.28	24.68	28.13	28.95
615.10	42.93	42.24	42.29	24.33	27.63	28.34
640.10	42.66	42.03	41.99	23.98	27.17	27.86
660.10	42.33	42.02	42.22	23.70	26.73	27.38
685.10	42.07	41.69	41.88	23.32	26.22	26.95
705.10	42.32	42.06	42.26	22.84	25.70	26.51
730.10	42.54	42.34	42.45	22.55	25.37	26.28
750.10	42.85	42.61	42.57	22.37	25.18	26.17
775.10	42.72	42.62	42.70	22.10	24.93	25.88
795.10	43.10	42.73	42.55	21.83	24.80	25.91
820.10	42.87	42.43	42.32	21.67	24.70	25.83
840.10	42.73	42.12	41.72	21.62	24.72	25.78
865.10	42.58	41.86	41.42	21.53	24.64	25.63
885.10	42.49	41.77	41.39	21.35	24.39	25.52
910.10	42.15	41.43	41.08	21.29	24.22	25.39

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		+4	+7	+10
1890.10	10.10	14.57	15.70	16.57
1915.10	35.10	13.99	15.35	16.36
1940.10	60.10	13.55	14.77	15.68
1965.10	85.10	13.31	14.45	15.33
1990.10	110.10	12.87	14.11	15.08
2015.10	135.10	12.67	14.05	15.22
2040.10	160.10	12.27	13.62	14.71
2065.10	185.10	12.27	13.66	14.63
2090.10	210.10	12.18	13.62	14.45
2115.10	235.10	12.05	13.51	14.25
2135.10	255.10	12.05	13.43	14.07
2160.10	280.10	12.29	13.56	14.18
2180.10	300.10	12.18	13.36	13.86
2205.10	325.10	12.39	13.45	13.97
2225.10	345.10	12.23	13.28	13.70
2250.10	370.10	12.56	13.49	13.92
2270.10	390.10	12.59	13.42	13.81
2295.10	415.10	12.62	13.45	13.86
2315.10	435.10	12.72	13.51	13.97
2340.10	460.10	12.91	13.65	14.03
2360.10	480.10	13.31	13.96	14.30
2385.10	505.10	13.57	14.26	14.63
2405.10	525.10	14.00	14.75	15.12
2430.10	550.10	14.15	14.87	15.26
2450.10	570.10	14.58	15.24	15.64
2475.10	595.10	15.20	15.83	16.22
2495.10	615.10	15.76	16.40	16.75
2520.10	640.10	16.42	17.04	17.35
2540.10	660.10	16.76	17.35	17.67
2565.10	685.10	17.56	18.23	18.59
2585.10	705.10	18.15	18.85	19.26
2610.10	730.10	18.79	19.45	19.83
2630.10	750.10	19.37	19.89	20.32
2655.10	775.10	20.06	20.55	20.94
2675.10	795.10	21.09	21.63	21.96
2700.10	820.10	21.31	21.76	21.93
2720.10	840.10	21.95	22.26	22.39
2745.10	865.10	22.06	22.29	22.38
2765.10	885.10	22.65	22.72	22.78
2790.10	910.10	22.85	22.90	22.88

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RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+4	+7	+10		+4	+7	+10		+4	+7	+10
1890.10	10.10	1.79	1.95	2.08	10.10	1.56	1.17	1.41	10.00	1.67	1.18	1.20
1915.10	35.10	1.68	1.91	2.07	35.10	1.59	1.12	1.48	70.00	1.68	1.20	1.22
1940.10	60.10	1.60	1.82	1.98	60.10	1.56	1.15	1.45	110.00	1.71	1.23	1.23
1965.10	85.10	1.65	1.85	2.01	85.10	1.53	1.18	1.44	170.00	1.71	1.28	1.28
1990.10	110.10	1.69	1.94	2.14	110.10	1.57	1.23	1.50	210.00	1.72	1.32	1.32
2015.10	135.10	1.71	1.98	2.24	135.10	1.63	1.29	1.54	270.00	1.73	1.39	1.40
2040.10	160.10	1.67	1.93	2.17	160.10	1.63	1.33	1.54	310.00	1.74	1.42	1.43
2065.10	185.10	1.74	2.03	2.23	185.10	1.62	1.37	1.57	370.00	1.74	1.49	1.53
2090.10	210.10	1.87	2.19	2.37	210.10	1.64	1.40	1.62	410.00	1.75	1.55	1.60
2115.10	235.10	1.94	2.26	2.44	235.10	1.68	1.43	1.64	470.00	1.76	1.62	1.70
2135.10	255.10	1.92	2.21	2.33	255.10	1.70	1.45	1.64	510.00	1.74	1.65	1.76
2160.10	280.10	1.98	2.26	2.35	280.10	1.71	1.48	1.67	570.00	1.74	1.72	1.87
2180.10	300.10	2.09	2.36	2.46	300.10	1.72	1.49	1.71	610.00	1.74	1.76	1.94
2205.10	325.10	2.26	2.54	2.63	325.10	1.76	1.52	1.75	670.00	1.73	1.83	2.05
2225.10	345.10	2.30	2.53	2.61	345.10	1.78	1.54	1.77	710.00	1.71	1.85	2.12
2250.10	370.10	2.27	2.46	2.53	370.10	1.77	1.56	1.81	770.00	1.69	1.88	2.20
2270.10	390.10	2.35	2.53	2.59	390.10	1.77	1.58	1.85	810.00	1.68	1.91	2.26
2295.10	415.10	2.53	2.71	2.77	415.10	1.79	1.60	1.90	870.00	1.66	1.93	2.34
2315.10	435.10	2.64	2.81	2.88	435.10	1.80	1.62	1.92	910.00	1.63	1.95	2.41
2340.10	460.10	2.65	2.77	2.82	460.10	1.77	1.65	1.96	970.00	1.61	1.94	2.44
2360.10	480.10	2.68	2.79	2.84	480.10	1.77	1.67	2.01	1010.00	1.59	1.95	2.49
2385.10	505.10	2.89	3.01	3.06	505.10	1.78	1.71	2.06	1070.00	1.57	1.95	2.52
2405.10	525.10	3.10	3.22	3.27	525.10	1.79	1.73	2.09	1110.00	1.54	1.96	2.59
2430.10	550.10	3.17	3.26	3.31	550.10	1.78	1.76	2.13	1170.00	1.52	1.94	2.57
2450.10	570.10	3.13	3.20	3.24	570.10	1.77	1.80	2.18	1210.00	1.50	1.93	2.60
2475.10	595.10	3.26	3.34	3.38	595.10	1.77	1.83	2.24	1270.00	1.49	1.92	2.60
2495.10	615.10	3.54	3.63	3.67	615.10	1.78	1.85	2.27	1310.00	1.48	1.94	2.66
2520.10	640.10	3.86	3.93	3.97	640.10	1.78	1.89	2.31	1370.00	1.47	1.91	2.60
2540.10	660.10	3.91	3.98	4.01	660.10	1.79	1.93	2.36	1410.00	1.47	1.91	2.62
2565.10	685.10	3.93	3.99	4.03	685.10	1.80	1.98	2.43	1470.00	1.47	1.91	2.61
2585.10	705.10	4.17	4.26	4.32	705.10	1.81	2.01	2.46	1510.00	1.48	1.92	2.63
2610.10	730.10	4.55	4.63	4.70	730.10	1.83	2.04	2.51	1570.00	1.48	1.90	2.56
2630.10	750.10	4.68	4.74	4.79	750.10	1.84	2.08	2.56	1610.00	1.48	1.89	2.55
2655.10	775.10	4.60	4.64	4.69	775.10	1.86	2.14	2.63	1670.00	1.49	1.92	2.58
2675.10	795.10	4.73	4.79	4.86	795.10	1.87	2.17	2.67	1710.00	1.51	1.92	2.56
2700.10	820.10	5.17	5.25	5.33	820.10	1.89	2.20	2.71	1770.00	1.48	1.89	2.47
2720.10	840.10	5.42	5.47	5.56	840.10	1.91	2.24	2.75	1810.00	1.47	1.88	2.44
2745.10	865.10	5.30	5.33	5.39	865.10	1.95	2.31	2.82	1870.00	1.48	1.92	2.49
2765.10	885.10	5.28	5.31	5.38	885.10	1.97	2.35	2.88	1910.00	1.48	1.91	2.45
2790.10	910.10	5.66	5.70	5.75	910.10	2.00	2.40	2.92	1970.00	1.41	1.83	2.32



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