Frequency Mixer LAVI-252VH+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=70MHz (dB) @LO (dBm)		
		+17	+20	+23
80.1	150.1	11.21	10.70	10.30
160.1	230.1	8.24	8.00	7.76
240.1	310.1	7.23	7.06	6.80
320.1	390.1	6.61	6.47	6.36
400.1	470.1	6.47	6.36	6.28
480.1	550.1	6.53	6.42	6.37
560.1	630.1	6.69	6.59	6.55
640.1	710.1	6.77	6.65	6.59
720.1	790.1	6.89	6.73	6.65
800.1	870.1	7.07	6.90	6.79
880.1	950.1	7.17	6.98	6.86
960.1	1030.1	7.35	7.14	7.02
1040.1	1110.1	7.61	7.37	7.22
1120.1	1190.1	7.75	7.50	7.31
1200.1	1270.1	7.91	7.62	7.42
1280.1	1350.1	7.95	7.64	7.43
1360.1	1430.1	7.91	7.59	7.36
1440.1	1510.1	7.81	7.51	7.27
1520.1	1590.1	7.67	7.37	7.14
1600.1	1670.1	7.52	7.24	7.02
1680.1	1750.1	7.36	7.10	6.91
1760.1	1830.1	7.24	7.00	6.83
1840.1	1910.1	7.18	6.97	6.84
1920.1	1990.1	7.16	6.95	6.83
2000.1	2070.1	7.18	7.02	6.92
2080.1	2150.1	7.25	7.11	7.03
2160.1	2230.1	7.41	7.29	7.24
2240.1	2310.1	7.57	7.48	7.44
2320.1	2390.1	7.71	7.62	7.58
2400.1	2470.1	7.78	7.69	7.69
2480.1	2550.1	7.79	7.67	7.59
2560.1	2630.1	7.92	7.80	7.74
2640.1	2710.1	8.21	8.09	8.05
2720.1	2790.1	8.74	8.64	8.59
2800.1	2870.1	9.22	9.07	8.98
2880.1	2950.1	9.39	9.24	9.16
2960.1	3030.1	9.67	9.55	9.50
3030.1	3100.1	9.96	9.84	9.79
3110.1	3180.1	10.42	10.28	10.23
3180.1	3250.1	10.93	10.79	10.73

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+17	+20	+23
80.1	150.1	16.99	19.33	21.53
160.1	230.1	21.25	23.72	25.98
240.1	310.1	24.49	27.55	30.76
320.1	390.1	26.48	29.27	31.65
400.1	470.1	28.21	31.15	34.61
480.1	550.1	28.34	30.84	33.26
560.1	630.1	27.65	30.11	33.68
640.1	710.1	26.66	29.64	32.70
720.1	790.1	26.25	29.07	31.95
800.1	870.1	26.06	29.53	33.64
880.1	950.1	25.95	29.78	33.77
960.1	1030.1	26.08	30.13	34.20
1040.1	1110.1	25.23	29.75	34.06
1120.1	1190.1	26.41	29.35	33.70
1200.1	1270.1	26.29	28.79	32.47
1280.1	1350.1	25.86	28.21	31.81
1360.1	1430.1	25.86	27.90	30.86
1440.1	1510.1	26.29	28.78	31.47
1520.1	1590.1	26.34	28.96	31.71
1600.1	1670.1	26.24	28.86	31.82
1680.1	1750.1	26.23	28.93	32.28
1760.1	1830.1	26.54	29.39	33.13
1840.1	1910.1	27.36	30.81	35.04
1920.1	1990.1	28.46	33.38	40.02
2000.1	2070.1	28.83	33.99	41.54
2080.1	2150.1	29.55	35.37	41.49
2160.1	2230.1	29.62	36.22	39.49
2240.1	2310.1	29.53	36.30	40.40
2320.1	2390.1	29.93	34.84	41.10
2400.1	2470.1	29.64	34.20	41.16
2480.1	2550.1	29.31	33.05	38.83
2560.1	2630.1	28.92	32.80	38.19
2640.1	2710.1	28.51	32.73	37.82
2720.1	2790.1	27.67	31.78	37.75
2800.1	2870.1	26.41	30.20	34.62
2880.1	2950.1	24.87	28.52	32.89
2960.1	3030.1	24.60	28.49	33.24
3030.1	3100.1	24.55	28.45	33.56
3110.1	3180.1	24.52	28.36	33.19
3180.1	3250.1	24.55	28.23	32.43

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+20dBm (dB) @LO (dBm)		
		+17	+20	+23
80.1	150.1	2.72	2.32	1.92
160.1	230.1	2.20	1.38	0.86
240.1	310.1	1.37	0.79	0.50
320.1	390.1	1.29	0.70	0.38
400.1	470.1	1.01	0.52	0.25
480.1	550.1	1.00	0.49	0.24
560.1	630.1	1.11	0.54	0.26
640.1	710.1	1.33	0.67	0.32
720.1	790.1	1.54	0.77	0.38
800.1	870.1	1.79	0.92	0.44
880.1	950.1	1.90	0.99	0.47
960.1	1030.1	1.97	1.00	0.46
1040.1	1110.1	2.11	1.05	0.48
1120.1	1190.1	1.91	0.94	0.40
1200.1	1270.1	1.79	0.82	0.38
1280.1	1350.1	1.64	0.73	0.32
1360.1	1430.1	1.58	0.71	0.31
1440.1	1510.1	1.62	0.74	0.31
1520.1	1590.1	1.68	0.77	0.32
1600.1	1670.1	1.62	0.73	0.31
1680.1	1750.1	1.44	0.63	0.27
1760.1	1830.1	1.30	0.57	0.27
1840.1	1910.1	1.10	0.50	0.24
1920.1	1990.1	1.02	0.45	0.22
2000.1	2070.1	0.97	0.46	0.22
2080.1	2150.1	0.96	0.43	0.20
2160.1	2230.1	1.00	0.45	0.22
2240.1	2310.1	1.01	0.43	0.20
2320.1	2390.1	1.00	0.46	0.20
2400.1	2470.1	1.02	0.46	0.21
2480.1	2550.1	1.04	0.47	0.21
2560.1	2630.1	1.05	0.46	0.22
2640.1	2710.1	1.14	0.49	0.22
2720.1	2790.1	1.28	0.56	0.25
2800.1	2870.1	1.65	0.70	0.30
2880.1	2950.1	2.02	0.96	0.39
2960.1	3030.1	1.79	0.80	0.37
3030.1	3100.1	1.81	0.84	0.38
3110.1	3180.1	1.75	0.83	0.39
3180.1	3250.1	1.81	0.86	0.43

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2175.1001MHz (dB) @LO (dBm) +20
1965.1	210.0	11.27
1861.1	314.0	10.39
1757.1	418.0	8.89
1653.1	522.0	8.32
1549.1	626.0	8.17
1445.1	730.0	8.25
1341.1	834.0	8.34
1237.1	938.0	8.29
1133.1	1042.0	8.20
1029.1	1146.0	8.16
925.2	1249.9	7.94
821.2	1353.9	7.86
717.2	1457.9	7.74
613.2	1561.9	7.75
509.2	1665.9	7.72
405.2	1769.9	7.65
301.2	1873.9	7.59
197.2	1977.9	7.50
93.2	2081.9	7.30
10.0	2185.1	7.43
106.0	2281.1	7.29
202.0	2377.1	7.40
298.0	2473.1	7.51
394.0	2569.1	7.74
490.0	2665.1	8.01
586.0	2761.1	8.12
682.0	2857.1	8.09
778.0	2953.1	8.25
854.8	3029.9	8.43
950.9	3126.0	8.63
1027.7	3202.8	8.71
1123.7	3298.8	8.81
1200.5	3375.6	8.94
1296.5	3471.6	9.04
1373.3	3548.4	9.16
1469.3	3644.4	9.34
1546.1	3721.2	9.44
1642.1	3817.2	9.64
1718.9	3894.0	9.75
1814.9	3990.0	9.94

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1850.1MHz (dB) @LO (dBm) +20
10.0	1860.1	7.17
70.0	1920.1	6.94
130.0	1980.1	6.93
190.0	2040.1	6.99
250.0	2100.1	7.05
310.0	2160.1	7.11
370.0	2220.1	7.16
430.0	2280.1	7.30
490.0	2340.1	7.42
550.0	2400.1	7.53
610.0	2460.1	7.59
670.0	2520.1	7.80
730.0	2580.1	7.89
790.0	2640.1	7.96
850.0	2700.1	8.15
910.0	2760.1	8.17
970.0	2820.1	8.33
1030.0	2880.1	8.46
1090.0	2940.1	8.53
1150.0	3000.1	8.54
1210.0	3060.1	8.68
1270.0	3120.1	8.66
1330.0	3180.1	8.76
1390.0	3240.1	8.79
1450.0	3300.1	8.85
1510.0	3360.1	8.95
1570.0	3420.1	8.96
1630.0	3480.1	9.00
1690.0	3540.1	9.08
1750.0	3600.1	9.13
1810.0	3660.1	9.08
1870.0	3720.1	9.41
1930.0	3780.1	9.36
1990.0	3840.1	9.46
2050.0	3900.1	9.70
2110.0	3960.1	9.70
2150.0	4000.1	9.84
2210.0	4060.1	10.10
2250.0	4100.1	10.16
2310.0	4160.1	10.46

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2500.1001MHz (dB) @LO (dBm) +20
2270.0	230.1	11.99
2210.0	290.1	11.58
2150.0	350.1	10.71
2090.0	410.1	9.97
2030.0	470.1	9.54
1970.0	530.1	9.27
1910.0	590.1	9.20
1850.0	650.1	8.91
1790.0	710.1	8.95
1730.0	770.1	8.90
1670.0	830.1	8.87
1610.0	890.1	9.03
1550.0	950.1	9.01
1490.0	1010.1	9.16
1430.0	1070.1	9.39
1370.0	1130.1	9.26
1310.0	1190.1	9.25
1250.0	1250.1	8.98
1190.0	1310.1	9.10
1130.0	1370.1	9.07
1070.0	1430.1	9.11
1010.0	1490.1	9.02
950.0	1550.1	8.96
890.0	1610.1	8.84
830.0	1670.1	8.70
770.0	1730.1	8.68
710.0	1790.1	8.67
650.0	1850.1	8.63
590.0	1910.1	8.60
530.0	1970.1	8.61
470.0	2030.1	8.56
410.0	2090.1	8.51
370.0	2130.1	8.42
310.0	2190.1	8.34
270.0	2230.1	8.23
210.0	2290.1	8.20
170.0	2330.1	8.10
110.0	2390.1	7.98
70.0	2430.1	7.84
10.0	2490.1	7.96

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+17	+20	+23	+17	+20	+23
150.1	38.17	38.40	38.61	39.64	40.12	40.57
230.1	32.85	33.13	34.23	33.63	33.95	35.03
310.1	33.11	33.56	34.88	32.40	32.74	33.90
390.1	35.91	36.27	36.61	34.95	35.21	35.52
470.1	37.72	37.81	38.02	39.79	40.02	40.47
550.1	40.59	40.51	40.71	44.89	45.07	45.52
630.1	43.27	43.25	43.21	46.56	46.94	47.16
710.1	45.75	45.69	45.56	44.13	44.35	44.44
790.1	48.12	47.95	47.77	42.37	42.44	42.53
870.1	48.95	48.73	48.49	41.49	41.48	41.49
950.1	50.07	49.79	49.52	41.31	41.44	41.55
1030.1	51.41	51.36	51.27	43.23	43.73	44.16
1110.1	60.23	59.12	57.83	38.74	38.83	38.74
1190.1	59.27	57.73	56.53	38.18	38.35	38.23
1270.1	56.92	55.63	54.90	38.25	38.26	38.29
1350.1	52.10	51.64	51.31	38.27	38.01	37.89
1430.1	47.06	46.51	46.08	38.48	38.16	38.20
1510.1	44.09	43.81	43.49	39.07	38.74	38.52
1590.1	42.86	42.85	42.19	39.59	39.22	38.93
1670.1	41.65	41.87	41.54	40.58	40.16	39.42
1750.1	39.58	39.81	39.83	42.61	42.01	41.12
1830.1	38.88	39.04	39.28	44.67	44.05	43.49
1910.1	38.75	38.91	39.17	46.58	47.02	47.24
1990.1	39.28	39.53	39.71	47.66	50.43	55.57
2070.1	39.62	39.85	39.71	44.11	44.74	44.95
2150.1	39.61	39.48	38.94	39.65	39.31	38.61
2230.1	38.77	38.06	37.58	36.91	36.08	35.57
2310.1	36.69	35.90	35.52	35.55	34.76	34.39
2390.1	34.63	34.28	33.77	34.69	34.42	33.87
2470.1	33.42	33.34	32.99	35.12	34.58	34.14
2550.1	32.67	32.51	32.23	35.29	35.04	34.66
2630.1	32.42	32.30	32.36	36.38	36.05	35.73
2710.1	32.42	32.37	32.94	38.92	38.70	38.65
2790.1	31.88	31.70	31.77	42.67	43.22	44.09
2870.1	30.99	30.90	30.95	37.63	37.70	37.89
2950.1	31.56	31.78	31.78	34.14	34.37	34.45
3030.1	33.33	33.42	33.69	33.22	33.27	33.51
3100.1	35.23	35.37	35.50	32.75	32.76	32.78
3180.1	37.24	37.53	37.75	31.19	31.13	31.11
3250.1	37.83	38.18	38.47	29.18	29.03	28.97

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+17	+20	+23
80.1	150.1	25.34	25.44	25.31
160.1	230.1	22.72	22.42	21.89
240.1	310.1	21.52	21.20	21.41
320.1	390.1	24.08	24.25	24.35
400.1	470.1	32.24	33.18	32.61
480.1	550.1	37.75	38.61	38.84
560.1	630.1	39.74	40.47	40.69
640.1	710.1	39.15	39.48	40.02
720.1	790.1	39.73	39.87	40.07
800.1	870.1	40.90	40.85	40.87
880.1	950.1	41.63	41.24	41.00
960.1	1030.1	42.55	42.25	42.07
1040.1	1110.1	42.21	42.08	41.83
1120.1	1190.1	42.42	41.87	39.39
1200.1	1270.1	41.15	39.67	35.39
1280.1	1350.1	38.81	36.52	32.02
1360.1	1430.1	38.60	36.16	31.27
1440.1	1510.1	37.10	34.73	29.58
1520.1	1590.1	35.65	34.04	28.64
1600.1	1670.1	34.34	33.35	30.17
1680.1	1750.1	33.81	33.05	30.89
1760.1	1830.1	33.52	32.89	31.32
1840.1	1910.1	33.52	32.91	31.74
1920.1	1990.1	33.56	32.98	32.00
2000.1	2070.1	33.60	32.90	31.95
2080.1	2150.1	33.61	32.91	32.17
2160.1	2230.1	33.59	32.98	32.41
2240.1	2310.1	34.82	34.27	33.84
2320.1	2390.1	37.36	36.85	36.38
2400.1	2470.1	36.99	37.43	37.12
2480.1	2550.1	39.53	38.42	38.17
2560.1	2630.1	39.65	39.10	38.63
2640.1	2710.1	39.39	38.86	38.58
2720.1	2790.1	39.14	38.71	38.26
2800.1	2870.1	38.00	37.37	36.96
2880.1	2950.1	37.64	37.27	36.50
2960.1	3030.1	38.61	38.12	37.37
3030.1	3100.1	38.61	38.31	37.86
3110.1	3180.1	38.20	37.90	38.24
3180.1	3250.1	38.17	37.70	38.26

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+17	+20	+23
80.1	150.1	3.19	3.05	2.93
160.1	230.1	1.37	1.38	1.40
240.1	310.1	1.26	1.33	1.41
320.1	390.1	1.35	1.43	1.49
400.1	470.1	1.49	1.55	1.61
480.1	550.1	1.59	1.63	1.67
560.1	630.1	1.66	1.68	1.70
640.1	710.1	1.76	1.73	1.73
720.1	790.1	1.86	1.80	1.76
800.1	870.1	1.95	1.84	1.77
880.1	950.1	1.99	1.86	1.75
960.1	1030.1	2.10	1.94	1.80
1040.1	1110.1	2.31	2.15	2.01
1120.1	1190.1	2.72	2.55	2.38
1200.1	1270.1	2.91	2.71	2.53
1280.1	1350.1	2.82	2.61	2.44
1360.1	1430.1	2.64	2.44	2.26
1440.1	1510.1	2.48	2.30	2.13
1520.1	1590.1	2.30	2.15	2.00
1600.1	1670.1	2.08	1.95	1.83
1680.1	1750.1	1.81	1.69	1.60
1760.1	1830.1	1.54	1.44	1.37
1840.1	1910.1	1.32	1.26	1.22
1920.1	1990.1	1.22	1.21	1.23
2000.1	2070.1	1.24	1.28	1.34
2080.1	2150.1	1.29	1.36	1.43
2160.1	2230.1	1.33	1.41	1.49
2240.1	2310.1	1.35	1.45	1.53
2320.1	2390.1	1.42	1.51	1.61
2400.1	2470.1	1.47	1.59	1.70
2480.1	2550.1	1.58	1.68	1.78
2560.1	2630.1	1.69	1.80	1.91
2640.1	2710.1	1.78	1.90	2.02
2720.1	2790.1	1.94	2.06	2.17
2800.1	2870.1	2.11	2.21	2.31
2880.1	2950.1	2.26	2.36	2.46
2960.1	3030.1	2.47	2.57	2.67
3030.1	3100.1	2.70	2.81	2.92
3110.1	3180.1	2.84	2.94	3.05
3180.1	3250.1	2.84	2.93	3.01

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+17	+20	+23
150.1	20.45	20.22	19.76
230.1	9.28	9.23	8.55
310.1	5.33	5.31	5.20
390.1	5.14	5.14	5.13
470.1	6.71	6.68	6.63
550.1	9.63	9.58	9.38
630.1	13.19	12.99	12.71
710.1	16.11	15.81	15.26
790.1	18.11	17.75	16.89
870.1	19.54	18.90	18.30
950.1	20.45	20.22	19.54
1030.1	19.54	19.11	18.50
1110.1	17.57	17.39	16.56
1190.1	16.11	15.53	14.15
1270.1	14.87	14.26	12.89
1350.1	14.03	13.60	12.80
1430.1	12.80	12.61	12.09
1510.1	11.38	11.17	10.69
1590.1	9.79	9.48	8.95
1670.1	8.47	8.16	7.56
1750.1	7.41	7.14	6.76
1830.1	6.49	6.30	6.11
1910.1	5.70	5.58	5.49
1990.1	4.96	4.89	4.87
2070.1	4.32	4.28	4.25
2150.1	3.81	3.78	3.73
2230.1	3.49	3.45	3.38
2310.1	3.39	3.36	3.29
2390.1	3.46	3.44	3.40
2470.1	3.63	3.62	3.65
2550.1	3.80	3.81	3.86
2630.1	3.88	3.89	3.92
2710.1	3.81	3.80	3.82
2790.1	3.67	3.66	3.62
2870.1	3.74	3.76	3.70
2950.1	3.92	3.93	3.82
3030.1	3.92	3.91	3.82
3100.1	3.84	3.84	3.79
3180.1	3.58	3.54	3.48
3250.1	3.27	3.19	3.07

IF (OUT) (MHz)	IF VSWR @LO=2600MHz (:1) @LO (dBm)		
	+17	+20	+23
10.1	1.02	1.07	1.14
70.1	1.12	1.15	1.21
130.1	1.26	1.28	1.32
190.1	1.39	1.39	1.41
250.1	1.48	1.48	1.49
310.1	1.63	1.62	1.63
370.1	1.78	1.75	1.74
430.1	1.86	1.83	1.81
490.1	2.03	1.98	1.96
550.1	2.13	2.08	2.04
610.1	2.17	2.11	2.08
670.1	2.25	2.18	2.13
730.1	2.22	2.15	2.09
790.1	2.16	2.08	2.03
850.1	2.14	2.05	1.99
910.1	2.06	1.96	1.90
970.1	1.92	1.83	1.76
1030.1	1.81	1.72	1.64
1090.1	1.70	1.61	1.54
1150.1	1.59	1.50	1.43
1210.1	1.54	1.44	1.37
1270.1	1.46	1.36	1.28
1330.1	1.38	1.28	1.21
1390.1	1.36	1.26	1.18
1470.1	1.34	1.24	1.16
1530.1	1.32	1.22	1.15
1610.1	1.35	1.26	1.20
1670.1	1.39	1.31	1.26
1750.1	1.41	1.35	1.32
1810.1	1.42	1.38	1.36
1890.1	1.43	1.40	1.39
1950.1	1.44	1.42	1.42
2030.1	1.44	1.44	1.45
2090.1	1.39	1.40	1.42
2170.1	1.38	1.40	1.42
2230.1	1.32	1.35	1.38
2310.1	1.25	1.30	1.34
2370.1	1.27	1.33	1.39
2450.1	1.31	1.42	1.49
2510.1	1.44	1.52	1.60

Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	14	19	36	30	38	47	38	60	50	68
1	-	27	+0	37	21	46	47	55	62	62	62	76
2	49	47	64	49	60	48	73	69	76	74	73	81
3	82	>88	68	78	70	81	77	86	84	>88	>88	>88
4	>90	>88	>88	85	>88	86	>88	>88	>88	>88	>88	>88
5	>90	>88	>88	>88	>88	>88	84	>88	>88	>88	>88	>88
6	>90	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88
7	>90	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88
8	>90	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88
9	>90	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88
10	>90	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88	>88
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 2175 MHz; 5.00 dBm.
LO IN: 2245 MHz; +20.00 dBm
IF OUT: 70 MHz; -2.41 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	24	32	48	46	49	60	50	62	67	75
1	-	27	+0	37	21	48	52	57	67	67	67	78
2	29	35	53	38	50	37	61	58	68	66	67	92
3	53	75	45	59	43	58	49	66	61	73	76	91
4	73	70	94	59	83	56	75	59	79	>97	>97	84
5	>90	>97	82	>97	69	87	65	86	69	83	83	85
6	>90	>97	>97	96	>97	72	90	71	89	73	89	89
7	>90	>97	>97	>97	93	>97	80	90	74	92	77	>97
8	>90	>97	>97	>97	>97	>97	>97	87	96	83	92	83
9	>90	>97	>97	>97	>97	>97	>97	>97	83	96	78	92
10	>90	>97	>97	>97	>97	>97	>97	>97	>97	93	>97	87
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 2175 MHz; 15.00 dBm.
LO IN: 2245 MHz; +20.00 dBm
IF OUT: 70 MHz; 7.45 dBm

Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.
2. + entry denotes harmonics are in (dBc) above IF OUTPUT.
3. RF Cal represent the Harmonics level of the RF input signal to the mixer.