Frequency Mixer LAVI-22VH+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=100MHz (dB) @LO (dBm)		
		+18	+21	+24
160.1	260.1	11.20	10.96	10.79
240.1	340.1	8.44	8.25	8.12
320.1	420.1	7.34	7.21	7.11
400.1	500.1	6.81	6.69	6.61
480.1	580.1	6.48	6.38	6.31
560.1	660.1	6.37	6.27	6.17
640.1	740.1	6.39	6.28	6.21
720.1	820.1	6.55	6.44	6.37
800.1	900.1	6.83	6.71	6.63
880.1	980.1	7.20	7.06	6.99
960.1	1060.1	7.56	7.43	7.34
1040.1	1140.1	7.89	7.77	7.69
1120.1	1220.1	8.14	8.01	7.94
1180.1	1280.1	8.29	8.16	8.08
1260.1	1360.1	8.42	8.30	8.23
1320.1	1420.1	8.43	8.31	8.24
1400.1	1500.1	8.49	8.37	8.32
1460.1	1560.1	8.61	8.49	8.43
1540.1	1640.1	8.61	8.50	8.45
1600.1	1700.1	8.42	8.32	8.26
1680.1	1780.1	8.38	8.26	8.20
1740.1	1840.1	8.51	8.39	8.32
1820.1	1920.1	8.46	8.34	8.26
1880.1	1980.1	8.27	8.13	8.05
1960.1	2060.1	8.24	8.09	7.98
2020.1	2120.1	8.40	8.23	8.11
2100.1	2200.1	8.37	8.20	8.07
2160.1	2260.1	8.21	8.02	7.91
2240.1	2340.1	8.20	7.99	7.86
2300.1	2400.1	8.35	8.12	7.97
2380.1	2480.1	8.36	8.14	7.98
2440.1	2540.1	8.32	8.09	7.93
2520.1	2620.1	8.48	8.23	8.05
2580.1	2680.1	8.68	8.38	8.23
2660.1	2760.1	8.92	8.60	8.42
2720.1	2820.1	9.10	8.79	8.62
2800.1	2900.1	9.46	9.12	8.96
2860.1	2960.1	9.73	9.36	9.13
2940.1	3040.1	10.21	9.86	9.69
3000.1	3100.1	10.74	10.41	10.29

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+18	+21	+24
160.1	260.1	31.43	32.29	34.26
240.1	340.1	30.71	32.96	34.78
320.1	420.1	29.74	31.71	33.26
400.1	500.1	29.16	32.41	36.11
480.1	580.1	28.80	31.75	34.28
560.1	660.1	28.13	31.31	35.27
640.1	740.1	28.25	31.75	35.56
720.1	820.1	28.08	31.84	35.66
800.1	900.1	28.49	32.57	36.77
880.1	980.1	27.72	31.08	34.29
960.1	1060.1	27.53	30.59	33.78
1040.1	1140.1	26.87	29.89	32.68
1120.1	1220.1	26.81	29.78	32.75
1180.1	1280.1	26.95	30.31	34.49
1260.1	1360.1	27.42	31.07	35.56
1320.1	1420.1	27.32	30.68	34.43
1400.1	1500.1	27.20	30.41	33.76
1460.1	1560.1	27.62	30.86	34.62
1540.1	1640.1	28.30	31.65	35.41
1600.1	1700.1	29.46	33.02	37.84
1680.1	1780.1	29.67	32.70	37.12
1740.1	1840.1	30.02	32.94	36.51
1820.1	1920.1	29.82	32.51	35.65
1880.1	1980.1	30.33	34.44	39.83
1960.1	2060.1	29.96	33.65	38.21
2020.1	2120.1	28.93	31.91	36.10
2100.1	2200.1	28.19	31.03	34.50
2160.1	2260.1	27.75	31.03	34.35
2240.1	2340.1	27.02	30.38	34.20
2300.1	2400.1	26.11	29.35	32.71
2380.1	2480.1	25.19	28.49	32.53
2440.1	2540.1	24.33	27.08	29.92
2520.1	2620.1	23.59	26.58	29.59
2580.1	2680.1	22.78	26.28	29.41
2660.1	2760.1	21.95	25.61	29.17
2720.1	2820.1	21.26	24.71	27.51
2800.1	2900.1	20.85	24.45	27.68
2860.1	2960.1	19.99	23.52	26.74
2940.1	3040.1	19.80	23.13	26.69
3000.1	3100.1	20.21	23.69	26.67

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1312.5MHz (dB)
		@LO (dBm)
		+21
1292.4	20.1	10.34
1234.1	78.4	9.05
1175.8	136.7	8.63
1117.5	195.0	8.34
1059.2	253.3	8.05
1000.9	311.6	7.96
923.2	389.3	7.97
864.9	447.6	7.87
787.2	525.3	8.07
728.9	583.6	8.20
651.2	661.3	8.53
592.9	719.6	8.24
515.2	797.3	7.83
456.9	855.6	7.73
379.2	933.3	7.72
320.9	991.6	7.65
243.2	1069.3	7.61
184.9	1127.6	7.69
107.2	1205.3	7.95
48.9	1263.6	8.44
30.6	1343.1	9.31
92.2	1404.7	8.28
174.5	1487.0	8.23
236.2	1548.7	8.15
318.4	1630.9	8.13
380.1	1692.6	8.10
462.3	1774.8	7.87
524.0	1836.5	7.73
606.3	1918.8	7.77
668.0	1980.5	7.80
750.2	2062.7	7.83
811.9	2124.4	8.01
894.1	2206.6	8.20
955.8	2268.3	8.29
1038.1	2350.6	8.52
1099.7	2412.2	8.79
1182.0	2494.5	9.09
1243.7	2556.2	9.36
1325.9	2638.4	9.77
1387.6	2700.1	10.06

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=425MHz (dB)
		@LO (dBm)
		+21
10.1	435.1	15.26
50.2	475.2	7.25
90.3	515.3	6.63
130.4	555.4	6.54
170.6	595.6	6.63
210.7	635.7	6.67
250.8	675.8	6.77
290.9	715.9	6.87
331.0	756.0	6.99
371.1	796.1	7.09
411.2	836.2	7.04
451.4	876.4	7.09
491.5	916.5	7.09
531.6	956.6	7.14
571.7	996.7	7.24
611.8	1036.8	7.31
651.9	1076.9	7.37
692.0	1117.0	7.33
732.1	1157.1	7.35
772.3	1197.3	7.39
812.4	1237.4	7.47
872.5	1297.5	7.53
912.7	1337.7	7.51
972.8	1397.8	7.43
1012.9	1437.9	7.47
1073.1	1498.1	7.60
1113.2	1538.2	7.70
1173.4	1598.4	7.74
1213.5	1638.5	7.78
1273.7	1698.7	7.83
1313.8	1738.8	7.96
1374.0	1799.0	8.16
1414.1	1839.1	8.30
1474.2	1899.2	8.57
1514.4	1939.4	8.81
1574.5	1999.5	9.27
1614.6	2039.6	9.50
1674.8	2099.8	9.96
1714.9	2139.9	10.26
1775.1	2200.1	10.81

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2200.1MHz (dB)
		@LO (dBm)
		+21
1200.0	1000.1	9.45
1159.7	1040.4	9.86
1119.3	1080.8	10.03
1099.2	1100.9	9.83
1058.8	1141.3	9.16
1038.6	1161.5	8.85
998.3	1201.8	8.38
978.1	1222.0	8.18
937.8	1262.3	8.00
917.6	1282.5	7.98
877.3	1322.8	7.90
857.1	1343.0	7.85
816.8	1383.3	7.79
796.6	1403.5	7.74
756.3	1443.8	7.65
736.1	1464.0	7.65
695.8	1504.3	7.60
675.6	1524.5	7.60
635.3	1564.8	7.62
615.1	1585.0	7.60
574.7	1625.4	7.56
554.6	1645.5	7.54
514.2	1685.9	7.52
494.1	1706.0	7.55
453.7	1746.4	7.68
433.6	1766.5	7.75
393.2	1806.9	7.88
373.1	1827.0	7.93
332.7	1867.4	7.92
312.5	1887.6	7.98
272.2	1927.9	7.99
252.0	1948.1	7.99
211.7	1988.4	8.08
191.5	2008.6	8.14
151.2	2048.9	8.18
131.0	2069.1	8.23
90.7	2109.4	8.32
70.5	2129.6	8.35
30.2	2169.9	9.35
10.0	2190.1	14.31

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+18	+21	+24	+18	+21	+24
260.1	49.39	49.27	49.28	45.23	45.05	45.10
340.1	51.16	51.28	51.42	46.62	46.49	46.43
420.1	55.43	55.74	56.06	49.48	49.28	49.29
500.1	61.77	63.10	63.85	51.88	51.39	51.01
580.1	59.04	59.92	61.02	56.51	55.58	55.13
660.1	55.34	55.79	55.89	61.97	61.09	60.82
740.1	52.85	53.14	53.24	61.05	60.87	60.20
820.1	51.04	51.27	51.38	58.67	59.77	60.67
900.1	49.70	49.88	49.99	54.44	55.29	56.08
980.1	48.59	48.47	48.46	51.31	51.73	52.32
1060.1	47.66	47.84	47.59	49.25	49.63	49.75
1140.1	47.12	47.28	47.14	47.93	48.18	48.21
1220.1	47.21	47.46	47.33	49.69	50.04	49.97
1280.1	46.88	46.95	46.87	50.03	49.80	49.44
1360.1	45.74	45.75	45.85	46.81	46.61	46.64
1420.1	46.80	46.69	46.76	47.06	47.02	46.74
1500.1	46.02	45.93	46.10	45.10	45.06	45.29
1560.1	45.32	45.19	45.41	44.45	44.47	44.71
1640.1	45.34	45.21	45.42	44.88	44.98	45.29
1700.1	45.66	45.48	45.47	47.24	47.38	47.69
1780.1	47.00	46.99	46.59	56.22	57.11	57.82
1840.1	49.17	49.38	48.92	52.72	52.58	52.30
1920.1	53.04	53.47	53.01	44.95	44.68	44.34
1980.1	55.61	56.40	57.04	42.39	41.90	41.74
2060.1	55.62	55.35	55.03	40.48	40.38	40.20
2120.1	52.86	51.74	51.04	39.84	39.75	39.50
2200.1	48.39	47.78	47.26	39.37	39.40	39.24
2260.1	45.66	45.24	44.78	39.27	39.33	39.16
2340.1	43.47	42.96	42.83	39.24	39.15	39.23
2400.1	42.50	42.08	41.88	39.42	39.36	39.39
2480.1	42.14	41.68	41.32	39.92	39.81	39.64
2540.1	42.16	42.02	41.60	40.08	40.23	40.00
2620.1	42.22	42.17	41.83	40.71	40.83	40.64
2680.1	42.10	42.01	41.61	41.51	41.66	41.41
2760.1	42.14	41.80	41.54	42.90	42.81	42.80
2820.1	42.12	41.85	41.57	44.10	44.05	44.16
2900.1	41.82	41.72	41.50	46.25	46.39	46.64
2960.1	41.59	41.39	41.39	49.03	49.23	49.13
3040.1	41.48	41.65	41.57	53.30	54.18	54.85
3100.1	41.85	42.10	42.06	59.05	60.20	62.24

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+18	+21	+24
160.1	260.1	41.48	41.97	36.48
240.1	340.1	39.91	40.13	39.96
320.1	420.1	40.78	40.73	40.22
400.1	500.1	42.59	42.43	41.91
480.1	580.1	51.63	47.83	43.71
560.1	660.1	44.28	44.28	41.29
640.1	740.1	41.76	41.26	39.43
720.1	820.1	39.24	37.23	33.75
800.1	900.1	42.46	42.60	41.93
880.1	980.1	44.78	44.02	35.58
960.1	1060.1	42.44	45.85	45.33
1040.1	1140.1	38.64	40.55	50.26
1120.1	1220.1	37.48	39.68	51.34
1180.1	1280.1	35.82	37.32	47.62
1260.1	1360.1	34.36	35.25	37.32
1320.1	1420.1	33.93	35.04	38.77
1400.1	1500.1	32.72	33.19	34.41
1460.1	1560.1	32.65	33.32	34.61
1540.1	1640.1	31.93	32.61	33.80
1600.1	1700.1	31.55	32.11	33.11
1680.1	1780.1	30.86	31.36	32.34
1740.1	1840.1	30.45	30.87	31.54
1820.1	1920.1	30.04	30.33	30.86
1880.1	1980.1	29.98	30.21	30.50
1960.1	2060.1	30.19	30.30	30.39
2020.1	2120.1	30.26	30.39	30.44
2100.1	2200.1	30.58	30.63	30.66
2160.1	2260.1	30.82	30.85	30.81
2240.1	2340.1	31.28	31.24	31.19
2300.1	2400.1	31.66	31.62	31.59
2380.1	2480.1	32.02	32.01	31.95
2440.1	2540.1	32.31	32.31	32.30
2520.1	2620.1	32.49	32.56	32.71
2580.1	2680.1	32.31	32.29	32.49
2660.1	2760.1	31.92	31.99	32.59
2720.1	2820.1	31.80	31.80	32.02
2800.1	2900.1	32.35	32.31	32.09
2860.1	2960.1	33.14	33.08	33.20
2940.1	3040.1	33.94	33.84	33.00
3000.1	3100.1	34.68	34.48	34.00

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+18	+21	+24
160.1	260.1	7.73	7.60	7.50
240.1	340.1	4.33	4.30	4.29
320.1	420.1	3.08	3.12	3.15
400.1	500.1	2.47	2.54	2.59
480.1	580.1	2.09	2.16	2.22
560.1	660.1	1.95	2.02	2.08
640.1	740.1	2.00	2.07	2.14
720.1	820.1	2.15	2.20	2.25
800.1	900.1	2.41	2.45	2.48
880.1	980.1	2.67	2.70	2.72
960.1	1060.1	2.89	2.91	2.92
1040.1	1140.1	3.01	3.03	3.04
1120.1	1220.1	3.05	3.06	3.06
1180.1	1280.1	3.04	3.04	3.04
1260.1	1360.1	2.95	2.94	2.93
1320.1	1420.1	2.88	2.86	2.85
1400.1	1500.1	2.74	2.71	2.69
1460.1	1560.1	2.59	2.55	2.52
1540.1	1640.1	2.42	2.37	2.34
1600.1	1700.1	2.30	2.25	2.20
1680.1	1780.1	2.16	2.10	2.04
1740.1	1840.1	2.06	2.00	1.94
1820.1	1920.1	1.97	1.90	1.84
1880.1	1980.1	1.93	1.85	1.79
1960.1	2060.1	1.86	1.78	1.71
2020.1	2120.1	1.80	1.73	1.66
2100.1	2200.1	1.71	1.64	1.57
2160.1	2260.1	1.65	1.57	1.51
2240.1	2340.1	1.56	1.48	1.42
2300.1	2400.1	1.48	1.41	1.35
2380.1	2480.1	1.40	1.33	1.28
2440.1	2540.1	1.35	1.29	1.25
2520.1	2620.1	1.28	1.24	1.22
2580.1	2680.1	1.27	1.26	1.27
2660.1	2760.1	1.31	1.33	1.37
2720.1	2820.1	1.37	1.40	1.46
2800.1	2900.1	1.48	1.54	1.61
2860.1	2960.1	1.59	1.66	1.72
2940.1	3040.1	1.74	1.81	1.90
3000.1	3100.1	1.87	1.95	2.04

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+18	+21	+24
260.1	4.05	4.05	4.03
340.1	4.18	4.18	4.17
420.1	4.18	4.17	4.16
500.1	4.09	4.09	4.09
580.1	4.01	4.01	4.00
660.1	3.91	3.90	3.90
740.1	3.79	3.79	3.78
820.1	3.67	3.67	3.65
900.1	3.54	3.53	3.51
980.1	3.40	3.40	3.38
1060.1	3.28	3.28	3.27
1140.1	3.16	3.16	3.15
1220.1	3.02	3.02	3.02
1280.1	2.92	2.91	2.88
1360.1	2.81	2.81	2.79
1420.1	2.75	2.75	2.75
1500.1	2.69	2.70	2.70
1560.1	2.67	2.66	2.65
1640.1	2.67	2.67	2.66
1700.1	2.71	2.71	2.72
1780.1	2.75	2.75	2.77
1840.1	2.75	2.75	2.75
1920.1	2.71	2.70	2.68
1980.1	2.66	2.67	2.67
2060.1	2.56	2.56	2.57
2120.1	2.45	2.45	2.44
2200.1	2.36	2.35	2.33
2260.1	2.33	2.34	2.34
2340.1	2.32	2.33	2.33
2400.1	2.33	2.33	2.32
2480.1	2.37	2.36	2.35
2540.1	2.42	2.42	2.42
2620.1	2.49	2.49	2.48
2680.1	2.54	2.52	2.48
2760.1	2.58	2.56	2.50
2820.1	2.63	2.62	2.61
2900.1	2.68	2.68	2.67
2960.1	2.67	2.66	2.62
3040.1	2.67	2.65	2.61
3100.1	2.70	2.69	2.68

IF (OUT) (MHz)	IF VSWR @LO=2400MHz (:1) @LO (dBm)		
	+18	+21	+24
10.0	10.96	10.62	10.43
70.0	1.82	1.88	1.95
130.0	1.51	1.60	1.68
190.0	1.41	1.51	1.60
250.0	1.33	1.42	1.50
310.0	1.27	1.36	1.44
370.0	1.25	1.32	1.39
430.0	1.21	1.26	1.31
490.0	1.17	1.19	1.23
550.0	1.16	1.16	1.18
610.0	1.18	1.15	1.14
670.0	1.18	1.11	1.07
730.0	1.18	1.10	1.04
790.0	1.23	1.16	1.11
850.0	1.26	1.21	1.18
910.0	1.31	1.28	1.26
970.0	1.39	1.37	1.36
1030.0	1.46	1.45	1.46
1090.0	1.57	1.58	1.59
1150.0	1.62	1.64	1.66
1210.0	1.70	1.74	1.77
1270.0	1.80	1.84	1.88
1330.0	1.85	1.90	1.95
1390.0	1.93	1.99	2.04
1450.0	1.98	2.05	2.11
1510.0	2.08	2.15	2.22
1570.0	2.09	2.16	2.23
1630.0	2.18	2.26	2.33
1690.0	2.22	2.31	2.38
1750.0	2.31	2.40	2.47
1810.0	2.38	2.46	2.54
1870.0	2.45	2.53	2.60
1930.0	2.55	2.62	2.69
1990.0	2.66	2.73	2.80
2050.0	2.82	2.89	2.96
2110.0	3.00	3.09	3.16
2190.0	3.14	3.23	3.31
2250.0	3.32	3.43	3.52
2330.0	3.44	3.58	3.70
2390.0	3.29	3.41	3.53

Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	22	23	30	35	55	45	53	61	55	58
1	-	24	+0	34	17	47	36	42	44	48	44	61
2	66	62	65	46	65	53	72	61	77	68	85	65
3	>90	>87	66	76	60	>87	66	>87	76	>87	75	84
4	>90	>87	>87	86	84	>87	>87	78	>87	>87	87	>87
5	88	>87	84	>87	>87	>87	>87	82	>87	>87	>87	>87
6	>90	>87	>87	84	>87	>87	>87	>87	>87	>87	>87	>87
7	>90	81	>87	>87	>87	>87	83	>87	>87	86	>87	>87
8	>90	>87	>87	83	85	>87	>87	86	83	>87	>87	>87
9	87	85	>87	>87	82	86	>87	84	>87	>87	>87	87
10	>90	86	>87	84	86	85	>87	>87	>87	>87	>87	>87
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: **RF IN: 1312.5 MHz; 5.00 dBm.**
LO IN: 1412.5 MHz; +21.00 dBm
IF OUT: 100 MHz; -3.27 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	33	33	40	46	71	52	61	54	65	66
1	-	24	+0	34	18	47	39	44	47	50	45	67
2	46	49	53	34	51	42	60	52	66	62	76	58
3	>90	69	44	59	39	65	45	67	54	69	58	68
4	>90	71	73	66	76	55	67	60	74	67	79	74
5	89	87	76	85	69	86	66	76	69	74	78	89
6	>90	87	90	81	83	79	76	70	77	73	83	86
7	>90	92	92	94	85	90	86	81	78	81	80	84
8	>90	>97	95	92	>97	90	94	89	85	85	89	89
9	>90	93	>97	>97	>97	>97	92	94	88	86	93	90
10	89	96	89	94	93	>97	>97	94	94	90	93	92
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: **RF IN: 1312.5 MHz; 15.00 dBm.**
LO IN: 1412.5 MHz; +21.00 dBm
IF OUT: 100 MHz; 6.55 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.