

Engineering Development Model

Active Mixer

DACY-ED12515/1

Level 0 (LO Power + 0 dBm)

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



CASE STYLE : DV874

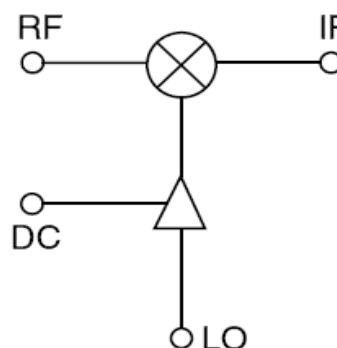
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ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (f _L to f _U)	600		2500	MHz
	RF (f _L to f _U)	600		2500	MHz
	IF	50		1200	MHz
Conversion Loss	Total Range		9.8		dB
LO-RF Isolation	Total Range		20		dB
LO-IF Isolation	Total Range		7		dB
DC Voltage			5		V
DC Current				130	mA
Input IP3			+31		dBm
1 dB Compression			+17		dBm

MAXIMUM RATINGS	
Operating Temperature	-40°C to +65°C
Storage Temperature	-55°C to +100°C

PIN CONNECTIONS	
LO	10
RF	2
IF	14
DC	6
GROUND	1,3,4,5,7,8,9,11,12,13,15,16

Electrical Schematic



P.O. Box 350188, Brooklyn, New York 11235-0000 (718) 934-4500 Fax (718) 332-4851 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINICIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS



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Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=250MHz (dB)		
		@LO (dBm)		
		-3	0	+3
450.1	700.1	10.95	13.23	15.94
510.1	760.1	9.74	11.71	16.86
570.1	820.1	8.70	8.95	8.92
630.1	880.1	7.98	8.27	8.57
690.1	940.1	7.49	7.76	8.11
750.1	1000.1	7.60	8.04	7.82
810.1	1060.1	7.92	7.99	7.87
870.1	1120.1	7.83	7.90	7.88
930.1	1180.1	7.85	7.85	8.02
990.1	1240.1	7.93	7.98	8.07
1050.1	1300.1	8.05	8.09	8.16
1110.1	1360.1	8.16	8.19	8.24
1170.1	1420.1	8.34	8.33	8.34
1230.1	1480.1	8.47	8.43	8.42
1290.1	1540.1	8.62	8.56	8.54
1350.1	1600.1	8.43	8.37	8.33
1410.1	1660.1	8.19	8.11	8.07
1470.1	1720.1	8.12	8.04	7.99
1530.1	1780.1	8.11	8.04	8.00
1590.1	1840.1	7.99	7.95	7.92
1650.1	1900.1	7.98	8.03	8.00
1710.1	1960.1	7.99	8.23	8.14
1770.1	2020.1	7.94	8.14	7.91
1830.1	2080.1	7.94	7.89	7.88
1890.1	2140.1	7.95	7.88	7.86
1950.1	2200.1	7.95	7.87	7.82
2010.1	2260.1	8.07	7.98	7.92
2070.1	2320.1	8.08	7.99	7.92
2130.1	2380.1	8.02	7.93	7.85
2190.1	2440.1	7.97	7.85	7.77
2250.1	2500.1	7.94	7.82	7.74
2310.1	2560.1	8.06	7.91	7.83
2370.1	2620.1	8.34	8.11	8.01
2430.1	2680.1	8.84	8.53	8.38
2490.1	2740.1	9.47	9.04	8.81
2550.1	2800.1	10.37	9.74	9.38
2610.1	2860.1	11.38	10.54	10.05
2670.1	2920.1	12.30	11.24	10.53
2730.1	2980.1	13.39	12.14	11.20
2790.1	3040.1	14.42	12.96	11.90

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		-3	0	+3
450.1	700.1	20.38	28.66	22.69
510.1	760.1	19.94	21.23	20.77
570.1	820.1	20.56	19.31	19.74
630.1	880.1	24.80	29.24	30.26
690.1	940.1	26.05	29.27	31.88
750.1	1000.1	28.17	31.25	30.97
810.1	1060.1	29.67	31.77	32.18
870.1	1120.1	30.43	31.37	32.04
930.1	1180.1	29.99	31.95	32.11
990.1	1240.1	29.70	31.90	32.52
1050.1	1300.1	28.67	31.46	32.58
1110.1	1360.1	27.04	29.67	30.98
1170.1	1420.1	27.56	29.86	31.24
1230.1	1480.1	28.26	30.36	32.14
1290.1	1540.1	28.82	30.71	31.92
1350.1	1600.1	29.15	30.45	30.32
1410.1	1660.1	28.98	29.91	29.88
1470.1	1720.1	28.94	30.00	29.97
1530.1	1780.1	28.84	30.10	30.14
1590.1	1840.1	28.56	29.64	29.91
1650.1	1900.1	29.91	30.31	31.30
1710.1	1960.1	29.52	32.52	33.66
1770.1	2020.1	29.17	31.33	32.63
1830.1	2080.1	29.31	31.58	33.33
1890.1	2140.1	28.96	30.83	33.27
1950.1	2200.1	28.89	30.48	33.10
2010.1	2260.1	29.01	30.58	32.33
2070.1	2320.1	28.43	29.62	30.87
2130.1	2380.1	28.07	29.22	30.34
2190.1	2440.1	28.13	29.04	29.84
2250.1	2500.1	27.68	28.94	28.99
2310.1	2560.1	27.15	28.48	28.66
2370.1	2620.1	26.05	27.99	28.62
2430.1	2680.1	24.61	27.04	28.10
2490.1	2740.1	23.01	25.52	27.03
2550.1	2800.1	21.80	24.45	26.38
2610.1	2860.1	21.17	23.81	26.05
2670.1	2920.1	20.50	22.96	25.52
2730.1	2980.1	20.25	22.38	25.22
2790.1	3040.1	19.90	21.77	24.44

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+17dBm (dB)		
		@LO (dBm)		
		-3	0	+3
450.1	700.1	2.40	0.79	0.21
510.1	760.1	2.40	1.05	-0.74
570.1	820.1	2.10	1.74	2.11
630.1	880.1	1.24	0.74	0.54
690.1	940.1	0.59	0.33	0.21
750.1	1000.1	0.38	0.24	0.24
810.1	1060.1	0.28	0.20	0.19
870.1	1120.1	0.25	0.19	0.17
930.1	1180.1	0.26	0.18	0.17
990.1	1240.1	0.28	0.20	0.18
1050.1	1300.1	0.28	0.19	0.15
1110.1	1360.1	0.25	0.16	0.11
1170.1	1420.1	0.23	0.15	0.10
1230.1	1480.1	0.22	0.14	0.10
1290.1	1540.1	0.18	0.11	0.15
1350.1	1600.1	0.20	0.14	0.12
1410.1	1660.1	0.26	0.19	0.16
1470.1	1720.1	0.27	0.20	0.17
1530.1	1780.1	0.26	0.21	0.17
1590.1	1840.1	0.27	0.24	0.21
1650.1	1900.1	0.28	0.27	0.23
1710.1	1960.1	0.32	0.30	0.24
1770.1	2020.1	0.36	0.32	0.18
1830.1	2080.1	0.37	0.44	0.15
1890.1	2140.1	0.42	0.36	0.17
1950.1	2200.1	0.47	0.32	0.20
2010.1	2260.1	0.51	0.35	0.21
2070.1	2320.1	0.56	0.41	0.24
2130.1	2380.1	0.57	0.53	0.27
2190.1	2440.1	0.57	0.55	0.47
2250.1	2500.1	0.64	0.60	0.47
2310.1	2560.1	0.71	0.66	0.51
2370.1	2620.1	0.92	0.56	0.35
2430.1	2680.1	1.20	0.68	0.40
2490.1	2740.1	1.49	0.91	0.55
2550.1	2800.1	1.71	1.11	0.67
2610.1	2860.1	1.78	1.17	0.76
2670.1	2920.1	1.82	1.29	0.89
2730.1	2980.1	1.77	1.29	0.95
2790.1	3040.1	1.66	1.29	0.98

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1625.1MHz (dB)
		@LO (dBm)
		0
905.0	720.1	13.68
863.7	761.4	12.13
822.4	802.7	10.06
781.1	844.0	9.66
739.8	885.3	9.05
698.5	926.6	8.09
657.2	967.9	7.82
615.8	1009.3	7.48
574.5	1050.6	7.45
533.2	1091.9	7.32
491.9	1133.2	7.43
450.6	1174.5	7.40
395.5	1229.6	7.59
354.2	1270.9	7.72
299.2	1325.9	7.81
257.8	1367.3	7.96
202.8	1422.3	8.06
161.5	1463.6	8.12
106.4	1518.7	8.26
65.1	1560.0	8.31
10.0	1615.1	12.06
62.5	1687.6	8.51
167.4	1792.5	8.17
246.1	1871.2	8.06
351.0	1976.1	8.05
429.7	2054.8	7.80
534.6	2159.7	7.82
613.3	2238.4	7.95
718.2	2343.3	8.11
796.9	2422.0	8.12
901.8	2526.9	8.23
980.5	2605.6	8.25
1085.5	2710.6	8.36
1164.2	2789.3	8.72
1269.1	2894.2	9.28
1347.8	2972.9	9.73
1452.7	3077.8	10.38
1531.4	3156.5	11.04
1636.3	3261.4	12.19
1715.0	3340.1	12.90

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=750.1MHz (dB)
		@LO (dBm)
		0
10.0	760.1	17.09
70.0	820.1	9.29
130.0	880.1	8.35
190.0	940.1	7.73
250.0	1000.1	8.03
310.0	1060.1	7.93
370.0	1120.1	7.94
430.0	1180.1	7.72
490.0	1240.1	7.65
550.0	1300.1	7.53
610.0	1360.1	7.36
670.0	1420.1	7.27
730.0	1480.1	7.13
790.0	1540.1	7.13
850.0	1600.1	7.21
910.0	1660.1	7.40
970.0	1720.1	7.53
1030.0	1780.1	7.62
1090.0	1840.1	7.73
1150.0	1900.1	7.91
1210.0	1960.1	7.96
1270.0	2020.1	8.03
1330.0	2080.1	7.91
1390.0	2140.1	7.90
1470.0	2220.1	8.02
1530.0	2280.1	8.17
1610.0	2360.1	8.25
1670.0	2420.1	8.24
1750.0	2500.1	8.38
1810.0	2560.1	8.48
1890.0	2640.1	8.73
1950.0	2700.1	9.06
2030.0	2780.1	9.58
2090.0	2840.1	9.81
2170.0	2920.1	10.46
2230.0	2980.1	10.90
2310.0	3060.1	11.42
2370.0	3120.1	11.85
2450.0	3200.1	12.80
2510.0	3260.1	13.34

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2500.1001MHz (dB)
		@LO (dBm)
		0
1730.0	770.1	12.70
1690.0	810.1	10.83
1650.0	850.1	10.07
1610.0	890.1	9.54
1570.0	930.1	9.03
1530.0	970.1	9.03
1490.0	1010.1	8.90
1450.0	1050.1	8.88
1410.0	1090.1	8.81
1370.0	1130.1	8.81
1330.0	1170.1	8.78
1290.0	1210.1	8.84
1250.0	1250.1	10.34
1210.0	1290.1	9.15
1170.0	1330.1	9.24
1130.0	1370.1	9.29
1090.0	1410.1	9.11
1050.0	1450.1	9.01
1010.0	1490.1	8.92
970.0	1530.1	8.89
930.0	1570.1	8.95
890.0	1610.1	8.75
850.0	1650.1	8.76
810.0	1690.1	8.77
770.0	1730.1	8.76
710.0	1790.1	8.72
670.0	1830.1	8.69
610.0	1890.1	8.86
570.0	1930.1	8.97
510.0	1990.1	9.19
470.0	2030.1	9.25
410.0	2090.1	9.00
370.0	2130.1	8.97
310.0	2190.1	8.91
270.0	2230.1	8.85
210.0	2290.1	8.73
170.0	2330.1	8.65
110.0	2390.1	8.58
70.0	2430.1	8.59
10.0	2490.1	14.00

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The Design Engineers Search Engine finds the model you need, instantly • For detailed performance specs & shopping online see



Frequency Mixer

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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	-3	0	+3	-3	0	+3
700.1	26.13	25.93	23.59	21.77	22.72	26.57
760.1	23.64	23.42	21.96	18.64	18.15	19.37
820.1	25.62	25.98	24.79	16.13	16.31	17.27
880.1	27.26	32.02	30.87	12.92	13.15	13.96
940.1	24.80	27.88	31.73	9.79	10.18	11.43
1000.1	28.73	32.16	28.26	6.91	7.39	10.54
1060.1	21.71	19.16	21.67	3.62	4.97	7.91
1120.1	19.38	17.63	18.96	2.14	3.38	5.74
1180.1	17.95	17.36	16.48	1.72	2.38	4.27
1240.1	17.05	16.08	15.65	2.20	2.92	4.84
1300.1	18.97	17.70	18.10	3.59	4.79	6.87
1360.1	26.98	26.20	26.35	4.04	5.31	7.33
1420.1	35.10	34.71	32.29	3.57	4.62	6.47
1480.1	29.11	32.93	45.13	3.03	3.80	5.35
1540.1	25.04	26.36	31.34	3.79	4.29	5.78
1600.1	24.44	25.53	28.10	4.17	5.06	7.16
1660.1	23.62	25.61	28.45	3.37	4.68	7.04
1720.1	23.16	25.74	29.42	3.04	4.46	6.84
1780.1	22.05	24.52	27.29	3.10	4.58	7.00
1840.1	20.13	22.32	24.16	3.27	4.71	7.12
1900.1	17.44	20.50	22.02	3.23	4.29	6.57
1960.1	15.07	18.16	19.57	2.78	3.56	5.84
2020.1	12.37	13.65	14.98	2.12	2.85	4.90
2080.1	9.20	9.95	11.24	1.42	2.35	3.81
2140.1	7.15	7.81	8.82	1.17	2.08	3.22
2200.1	5.79	6.43	7.31	0.88	1.75	2.75
2260.1	4.90	5.67	6.55	0.59	1.55	2.54
2320.1	3.78	4.58	5.56	0.56	1.48	2.57
2380.1	3.01	3.98	4.97	0.03	1.09	2.19
2440.1	2.45	3.55	4.96	0.41	0.71	2.13
2500.1	1.66	2.75	4.35	0.43	0.61	2.18
2560.1	1.55	2.55	4.07	0.30	0.63	2.06
2620.1	2.31	2.86	4.15	0.68	1.19	2.41
2680.1	3.25	3.41	4.40	2.03	2.18	3.21
2740.1	4.79	4.81	5.50	3.53	3.63	4.49
2800.1	6.63	6.37	6.74	5.30	5.24	5.85
2860.1	8.05	7.66	7.85	6.79	6.62	7.18
2920.1	9.41	9.14	9.00	8.18	8.10	8.58
2980.1	10.80	10.65	10.33	9.59	9.46	9.84
3040.1	12.38	12.25	11.88	10.81	10.73	10.97

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		-3	0	+3
450.1	700.1	34.14	36.84	29.45
510.1	760.1	21.26	22.90	34.38
570.1	820.1	16.92	14.21	12.90
630.1	880.1	17.46	13.84	11.85
690.1	940.1	22.49	17.59	14.25
750.1	1000.1	25.53	18.91	22.05
810.1	1060.1	25.07	22.73	26.62
870.1	1120.1	36.54	33.17	34.35
930.1	1180.1	36.39	30.97	32.60
990.1	1240.1	28.19	26.41	25.34
1050.1	1300.1	24.03	22.19	20.45
1110.1	1360.1	23.17	20.87	18.32
1170.1	1420.1	26.85	23.67	20.35
1230.1	1480.1	31.65	27.20	23.76
1290.1	1540.1	31.21	27.40	24.89
1350.1	1600.1	31.76	28.46	26.37
1410.1	1660.1	34.16	29.96	28.57
1470.1	1720.1	35.92	31.47	29.69
1530.1	1780.1	36.07	32.89	31.20
1590.1	1840.1	35.92	35.02	33.46
1650.1	1900.1	34.73	38.15	37.61
1710.1	1960.1	32.71	32.47	33.50
1770.1	2020.1	36.15	36.88	36.42
1830.1	2080.1	37.79	38.10	37.66
1890.1	2140.1	37.37	37.63	37.59
1950.1	2200.1	35.76	35.58	35.68
2010.1	2260.1	34.43	33.93	33.56
2070.1	2320.1	34.50	33.83	32.98
2130.1	2380.1	35.21	34.67	33.30
2190.1	2440.1	35.75	35.28	33.70
2250.1	2500.1	35.81	35.61	33.88
2310.1	2560.1	35.74	35.61	33.99
2370.1	2620.1	35.84	35.81	34.62
2430.1	2680.1	35.14	34.92	34.31
2490.1	2740.1	32.95	34.04	33.76
2550.1	2800.1	30.95	33.37	33.99
2610.1	2860.1	30.44	33.01	34.57
2670.1	2920.1	30.84	33.11	35.19
2730.1	2980.1	32.09	33.83	34.87
2790.1	3040.1	33.21	34.26	33.60

Frequency Mixer

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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=2500.1001MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		-3	0	+3		-3	0	+3		-3	0	+3
450.1	700.1	1.82	1.97	2.11	700.1	1.72	1.73	1.74	10.1	10.31	10.02	9.74
510.1	760.1	1.94	2.10	2.19	760.1	1.50	1.51	1.52	70.1	1.75	1.83	1.90
570.1	820.1	2.01	2.11	2.13	820.1	1.33	1.34	1.37	130.1	1.64	1.73	1.82
630.1	880.1	2.02	2.17	2.27	880.1	1.19	1.21	1.25	190.1	1.73	1.83	1.91
690.1	940.1	2.00	2.11	2.24	940.1	1.19	1.20	1.20	250.1	1.91	1.99	2.07
750.1	1000.1	2.07	2.20	2.13	1000.1	1.33	1.36	1.34	310.1	2.09	2.17	2.24
810.1	1060.1	2.22	2.25	2.23	1060.1	1.43	1.42	1.41	370.1	2.26	2.33	2.39
870.1	1120.1	2.25	2.28	2.28	1120.1	1.40	1.39	1.37	430.1	2.38	2.44	2.50
930.1	1180.1	2.32	2.32	2.34	1180.1	1.27	1.27	1.26	490.1	2.51	2.57	2.62
990.1	1240.1	2.41	2.41	2.42	1240.1	1.14	1.14	1.16	550.1	2.56	2.61	2.66
1050.1	1300.1	2.46	2.45	2.44	1300.1	1.01	1.03	1.08	610.1	2.56	2.59	2.63
1110.1	1360.1	2.55	2.52	2.52	1360.1	1.10	1.08	1.05	670.1	2.48	2.50	2.52
1170.1	1420.1	2.55	2.52	2.52	1420.1	1.22	1.20	1.14	730.1	2.35	2.35	2.36
1230.1	1480.1	2.51	2.50	2.50	1480.1	1.39	1.38	1.32	790.1	2.28	2.27	2.26
1290.1	1540.1	2.40	2.40	2.40	1540.1	1.54	1.59	1.58	850.1	2.21	2.18	2.16
1350.1	1600.1	2.27	2.27	2.28	1600.1	1.64	1.70	1.69	910.1	2.12	2.09	2.07
1410.1	1660.1	2.24	2.24	2.24	1660.1	1.65	1.68	1.65	970.1	2.03	1.99	1.96
1470.1	1720.1	2.21	2.21	2.21	1720.1	1.61	1.62	1.60	1030.1	1.91	1.86	1.83
1530.1	1780.1	2.11	2.11	2.11	1780.1	1.52	1.52	1.51	1090.1	1.76	1.71	1.68
1590.1	1840.1	2.01	1.99	1.99	1840.1	1.42	1.41	1.41	1150.1	1.66	1.61	1.58
1650.1	1900.1	1.92	1.87	1.87	1900.1	1.32	1.30	1.31	1210.1	1.55	1.50	1.47
1710.1	1960.1	1.79	1.68	1.68	1960.1	1.20	1.17	1.20	1270.1	1.42	1.36	1.33
1770.1	2020.1	1.69	1.61	1.62	2020.1	1.10	1.08	1.11	1330.1	1.33	1.28	1.25
1830.1	2080.1	1.60	1.54	1.51	2080.1	1.12	1.11	1.09	1390.1	1.26	1.22	1.19
1890.1	2140.1	1.53	1.46	1.41	2140.1	1.22	1.23	1.21	1450.1	1.18	1.15	1.14
1950.1	2200.1	1.48	1.41	1.35	2200.1	1.35	1.36	1.35	1510.1	1.16	1.14	1.14
2010.1	2260.1	1.42	1.36	1.30	2260.1	1.50	1.50	1.48	1590.1	1.14	1.16	1.19
2070.1	2320.1	1.40	1.34	1.28	2320.1	1.62	1.60	1.57	1650.1	1.17	1.21	1.26
2130.1	2380.1	1.36	1.30	1.25	2380.1	1.70	1.66	1.60	1730.1	1.25	1.31	1.35
2190.1	2440.1	1.27	1.22	1.18	2440.1	1.71	1.64	1.51	1790.1	1.36	1.42	1.47
2250.1	2500.1	1.21	1.16	1.12	2500.1	1.66	1.56	1.39	1870.1	1.48	1.54	1.60
2310.1	2560.1	1.11	1.06	1.03	2560.1	1.59	1.49	1.30	1930.1	1.60	1.67	1.73
2370.1	2620.1	1.04	1.07	1.11	2620.1	1.51	1.44	1.27	2010.1	1.77	1.84	1.90
2430.1	2680.1	1.14	1.19	1.23	2680.1	1.49	1.44	1.34	2070.1	1.93	2.00	2.06
2490.1	2740.1	1.30	1.34	1.38	2740.1	1.51	1.48	1.42	2150.1	2.18	2.25	2.31
2550.1	2800.1	1.48	1.51	1.54	2800.1	1.57	1.56	1.53	2210.1	2.36	2.43	2.48
2610.1	2860.1	1.64	1.67	1.68	2860.1	1.68	1.67	1.64	2290.1	2.67	2.73	2.79
2670.1	2920.1	1.82	1.85	1.85	2920.1	1.79	1.79	1.76	2350.1	2.87	2.93	2.99
2730.1	2980.1	1.97	2.00	1.98	2980.1	1.93	1.93	1.90	2430.1	3.33	3.40	3.47
2790.1	3040.1	2.07	2.09	2.07	3040.1	2.07	2.06	2.03	2490.1	3.67	3.89	4.06

REV. X2

DACY-ED12515/1

101012

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Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	+4	8	18	27	39	47	43	59	48	67
1	-	29	+0	37	18	39	34	57	56	54	67	76
2	57	63	55	58	60	63	61	70	76	79	>82	>82
3	>90	82	68	>82	62	>82	70	>82	>82	>82	>82	>82
4	>90	>82	82	>82	>82	>82	>82	>82	>82	>82	>82	>82
5	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
6	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
7	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
8	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
9	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
10	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:

RF IN: 1625.1 MHz; 0.00 dBm.
LO IN: 1875.5 MHz; +0.00 dBm
IF OUT: 250.4 MHz; -8.06 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	6	18	28	38	50	55	54	73	60	80
1	-	28	+0	36	19	40	35	58	57	56	68	82
2	37	50	45	48	53	55	53	60	70	69	76	81
3	71	69	45	65	41	71	51	70	63	80	76	78
4	89	80	74	76	70	74	72	73	81	87	88	>92
5	>90	>92	78	82	70	77	65	84	72	>92	85	>92
6	>90	>92	91	91	83	85	82	89	90	>92	>92	>92
7	>90	>92	>92	>92	81	>92	77	90	79	>92	87	>92
8	>90	>92	>92	>92	>92	>92	87	91	85	>92	>92	>92
9	>90	>92	>92	>92	>92	>92	91	>92	88	>92	>92	>92
10	>90	>92	>92	>92	>92	>92	>92	>92	>92	>92	>92	>92
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

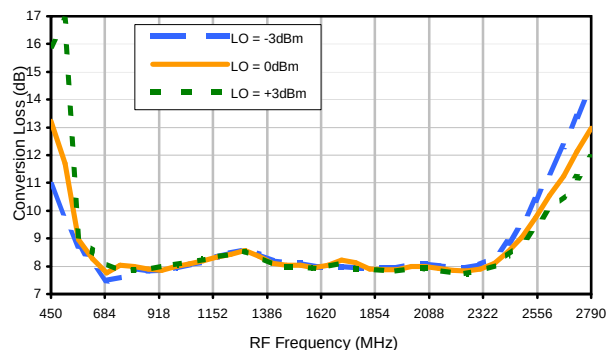
Test conditions:

RF IN: 1625.1 MHz; 10.00 dBm.
LO IN: 1875.5 MHz; +0.00 dBm
IF OUT: 250.4 MHz; 1.88 dBm

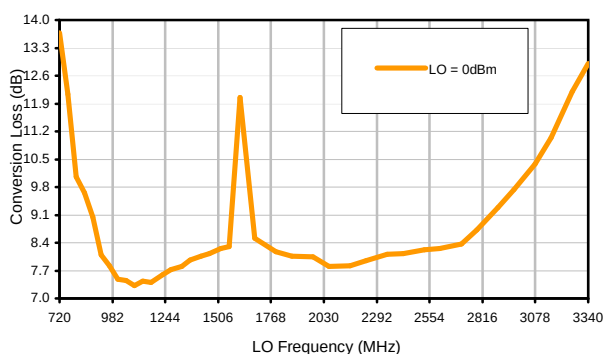
- Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.
2. + entry denotes harmonics are in (dBc) above IF OUTPUT.
3. RF Cal represent the Harmonics level of the RF input signal to the mixer.

Typical Performance Curves

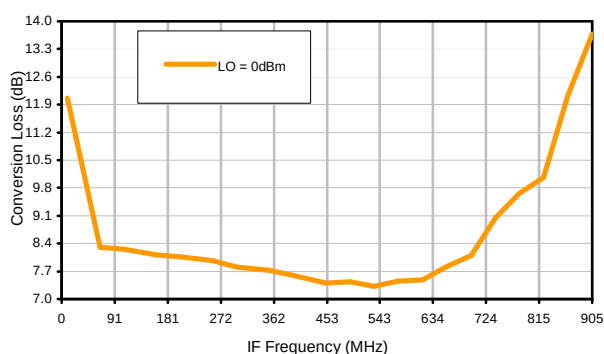
Conversion Loss @ IF=250MHz



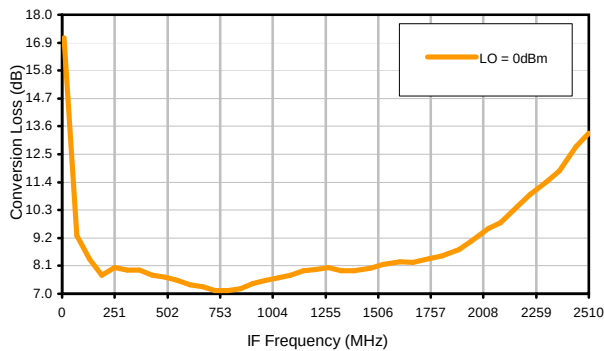
Conversion Loss vs. LO @ RF=1625.1MHz



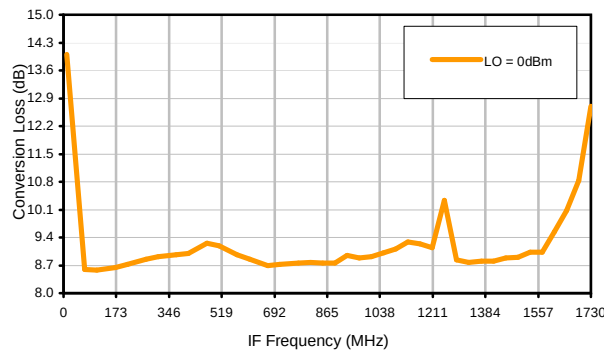
Conversion Loss vs. IF @ RF=1625.1MHz



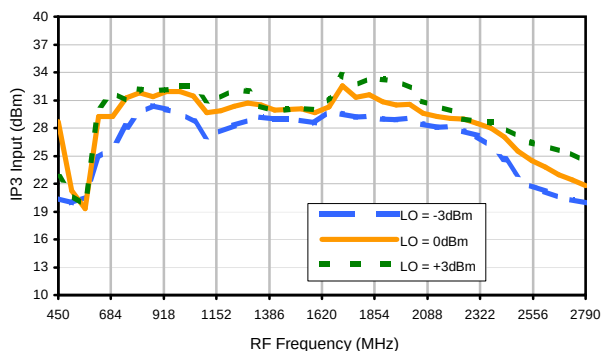
Conversion Loss vs. IF @ RF=750.1MHz



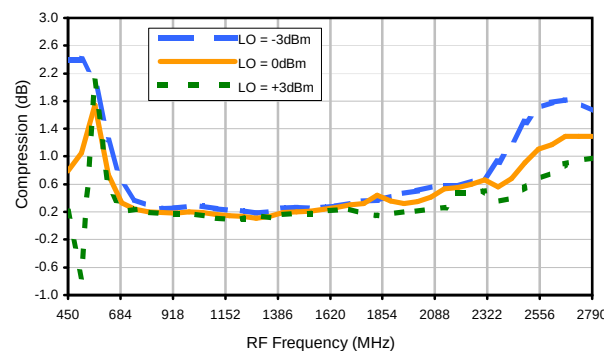
Conversion Loss vs. IF @ RF=2500.1001MHz



IP3 Input

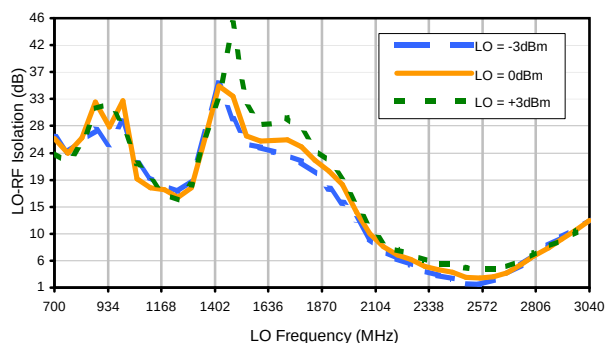


Compression @ RF IN=+17dBm

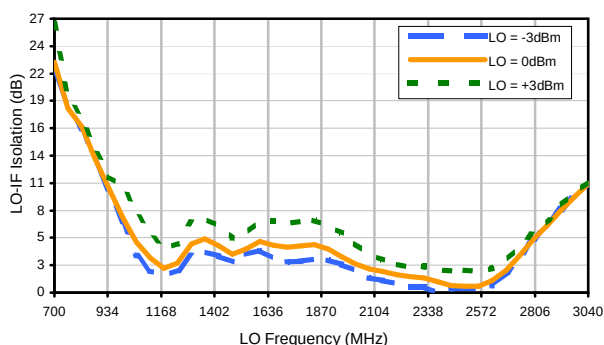


Typical Performance Curves

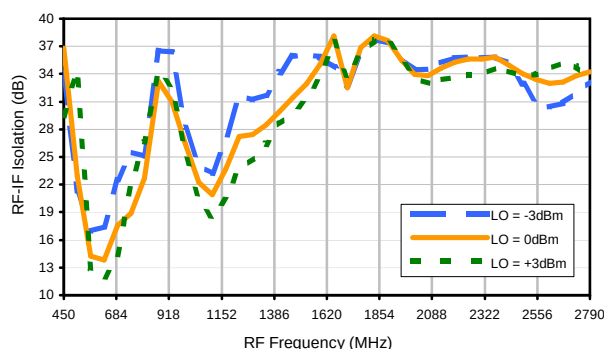
LO-RF Isolation



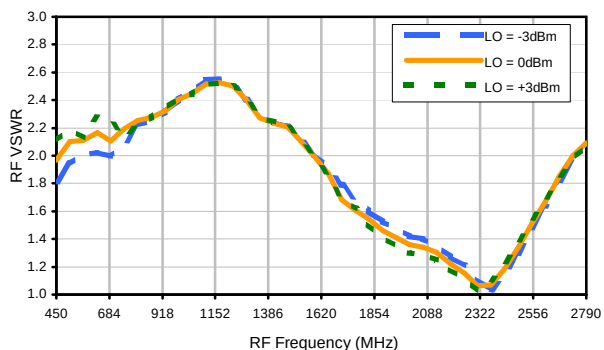
LO-IF Isolation



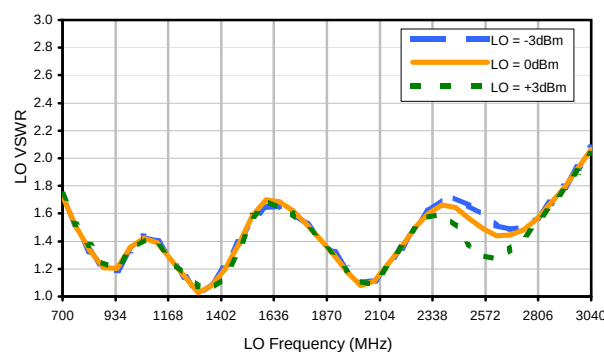
RF-IF Isolation



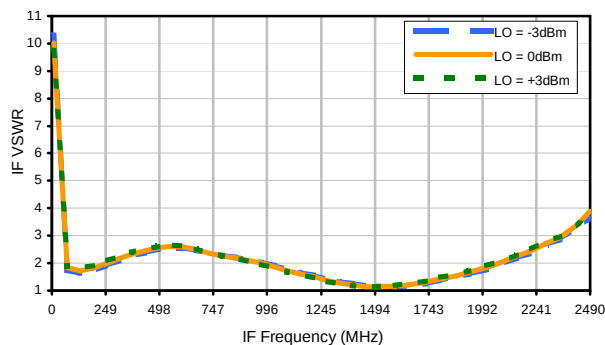
RF VSWR



LO VSWR



IF VSWR



Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	+4	8	18	27	39	47	43	59	48	67
1	-	29	+0	37	18	39	34	57	56	54	67	76
2	57	63	55	58	60	63	61	70	76	79	>82	>82
3	>90	82	68	>82	62	>82	70	>82	>82	>82	>82	>82
4	>90	>82	82	>82	>82	>82	>82	>82	>82	>82	>82	>82
5	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
6	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
7	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
8	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
9	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
10	>90	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82	>82
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 1625.1 MHz; 0.00 dBm.
LO IN: 1875.5 MHz; +0.00 dBm
IF OUT: 250.4 MHz; -8.06 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	6	18	28	38	50	55	54	73	60	80
1	-	28	+0	36	19	40	35	58	57	56	68	82
2	37	50	45	48	53	55	53	60	70	69	76	81
3	71	69	45	65	41	71	51	70	63	80	76	78
4	89	80	74	76	70	74	72	73	81	87	88	>92
5	>90	>92	78	82	70	77	65	84	72	>92	85	>92
6	>90	>92	91	91	83	85	82	89	90	>92	>92	>92
7	>90	>92	>92	>92	81	>92	77	90	79	>92	87	>92
8	>90	>92	>92	>92	>92	>92	87	91	85	>92	>92	>92
9	>90	>92	>92	>92	>92	>92	91	>92	88	>92	>92	>92
10	>90	>92	>92	>92	>92	>92	>92	>92	>92	>92	>92	>92
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

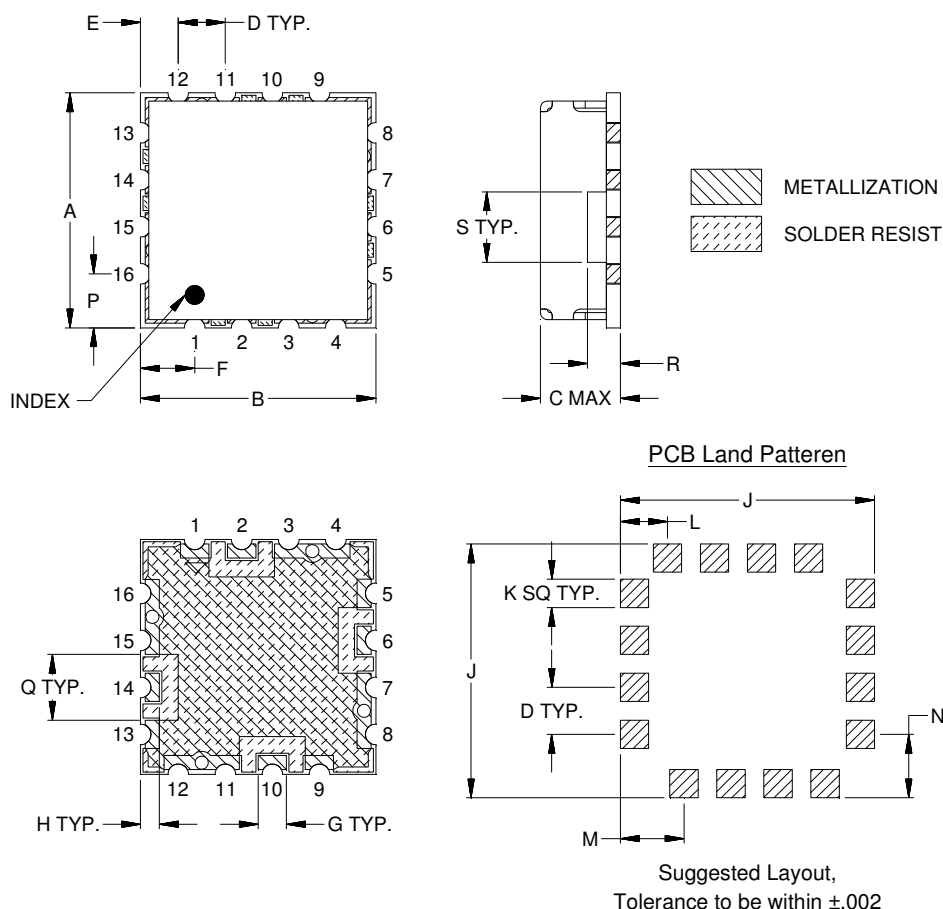
LO HARMONICS ORDER

Test conditions: RF IN: 1625.1 MHz; 10.00 dBm.
LO IN: 1875.5 MHz; +0.00 dBm
IF OUT: 250.4 MHz; 1.88 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.

Outline Dimensions

DV874



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
DV874	.500 (12.70)	.500 (12.70)	.195 (4.95)	.100 (2.54)	.080 (2.03)	.115 (2.92)	.060 (1.52)	.040 (1.02)	.540 (13.72)	.060 (1.52)	.100 (2.54)	.135 (3.43)

CASE#	N	P	Q	R	S	WT.GRAM
DV874	.135 (3.43)	.115 (2.92)	.140 (3.56)	.070 (1.78)	.150 (3.81)	1.0

Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .03$; 3Pl. $\pm .015$

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
 - For RoHS Case Styles: 3-5 μ inch (.08-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
 - For RoHS-5 Case Styles: Tin-Lead plate.

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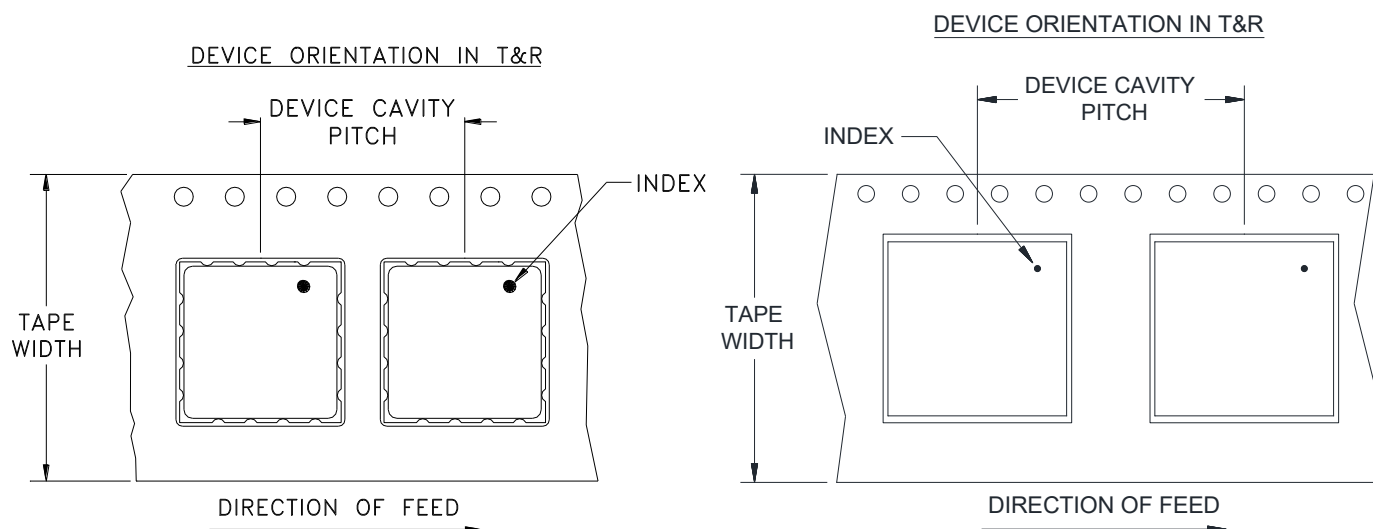
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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F37



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel	
24	16	7	Small quantity standards (see note)	10
				20
				50
				100
		13	Standard	200
				500

Note: Please consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf

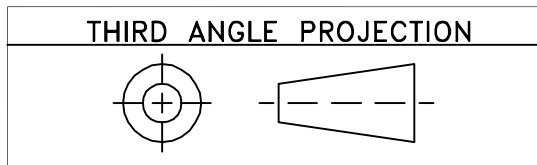


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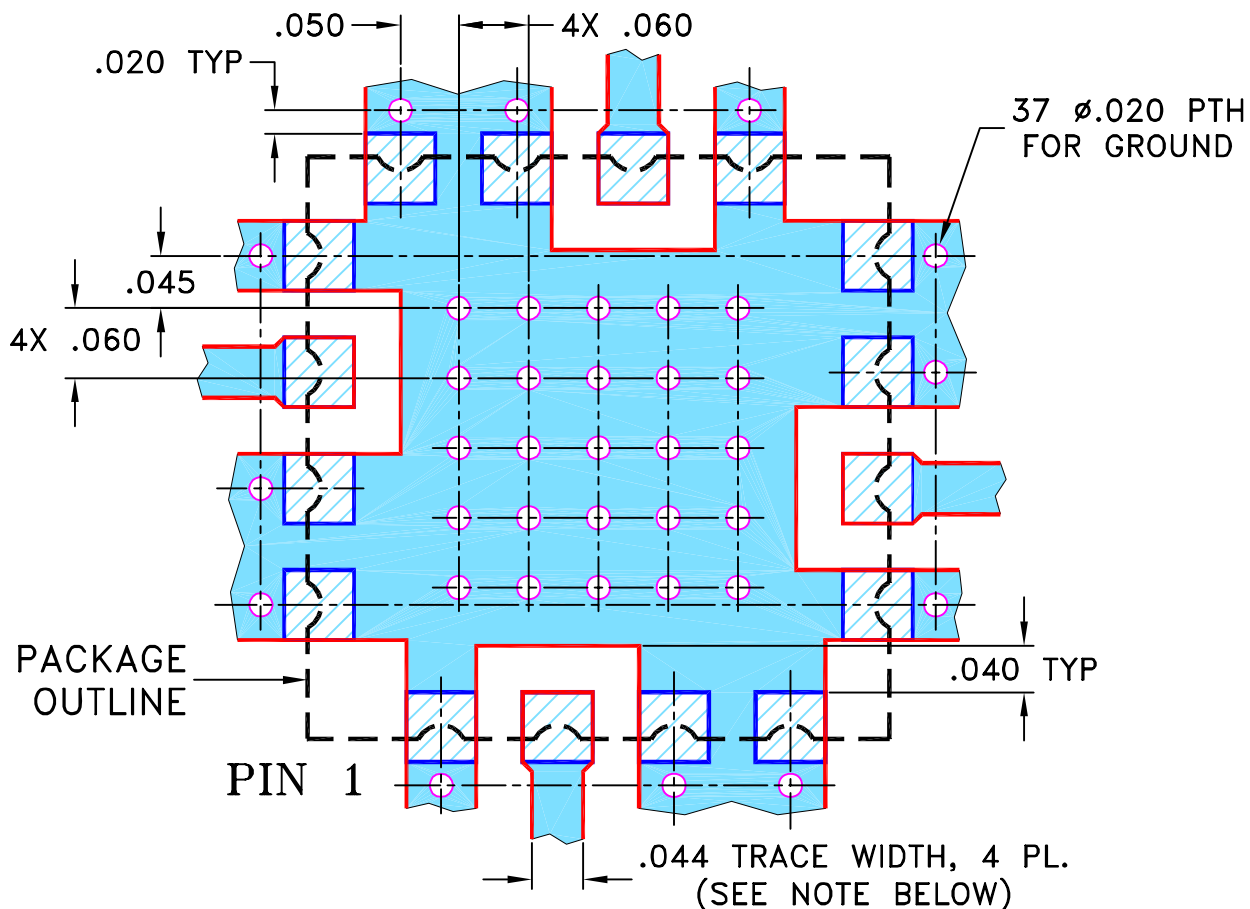
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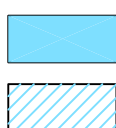


REVISIONS					
REV OR	ECN No.	DESCRIPTION	DATE	DR	AUTH
	M108586	NEW RELEASE	11/22/06	MMG	DJ

SUGGESTED MOUNTING CONFIGURATION FOR DV874 CASE STYLE, "rt" PIN CONNECTION



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .020" $\pm$.0015"; COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.



DENOTES PCB COPPER LAYOUT WITH SMOBC
(SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED	INITIALS		DATE
DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS $\pm$ 3 PL DECIMALS $\pm$.005 ANGLES $\pm$ FRACTIONS $\pm$	DRAWN	MMG	11/21/06
	CHECKED	AY	11/22/06
	APPROVED	DJ	11/22/06



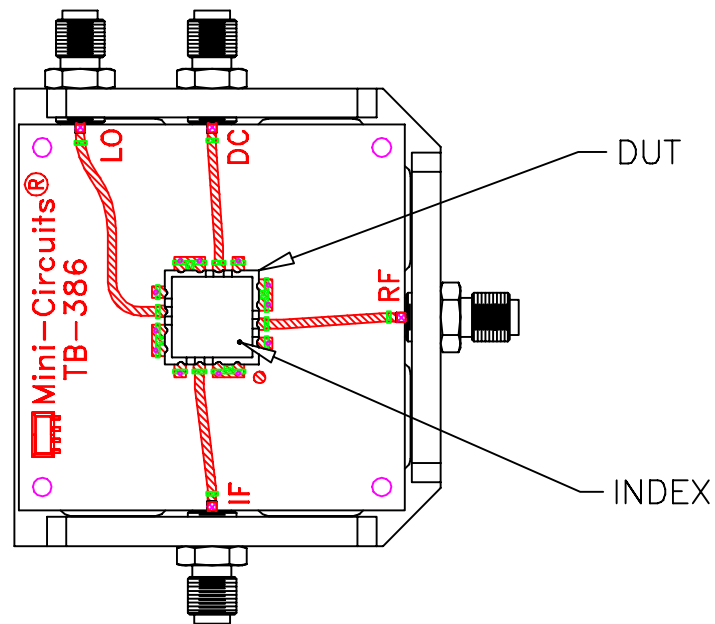
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Brooklyn NY 11235

PL, rt, DV874, DACY, TB-386

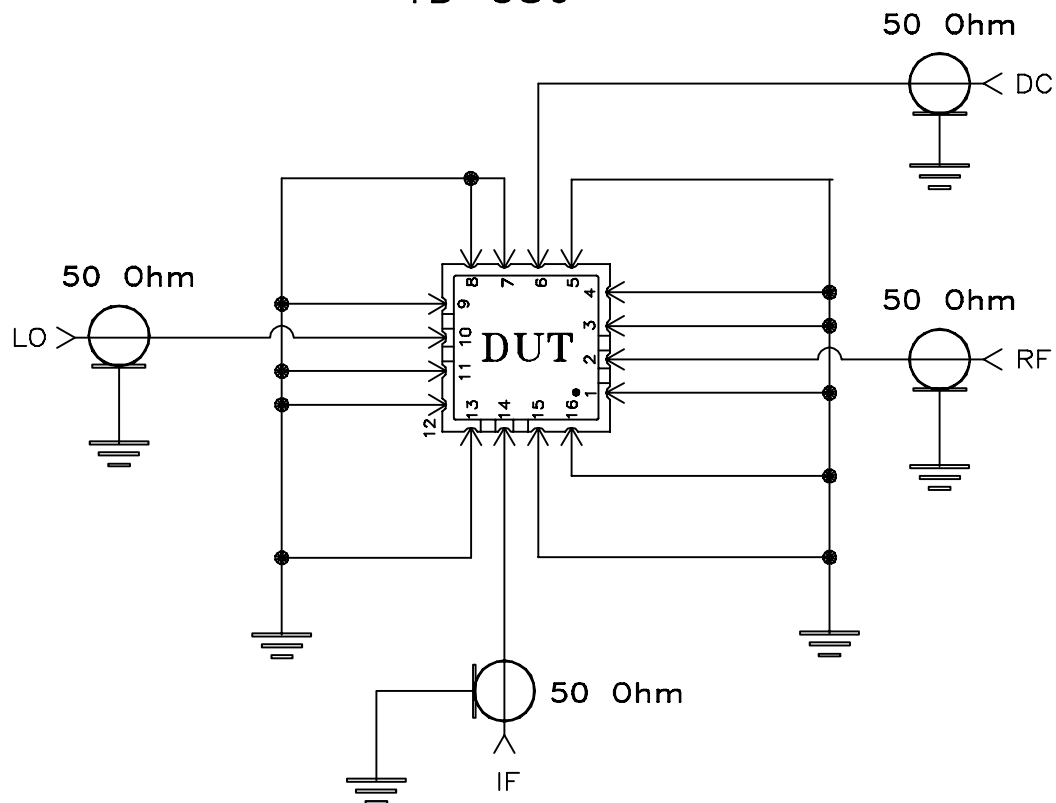
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ASHEETA1.DWG REV:A	DATE:01/12/95

SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-256	OR
FILE:	98PL256	SCALE:	SHEET:
		6:1	1 OF 1

Evaluation Board and Circuit



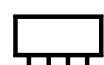
TB-386



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.030 inch.

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