

Frequency Mixer

SIM-ED13229/1

Level 13 (LO Power + 13 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.



Please click "Back", and then click "Contact Us" for Applications support.

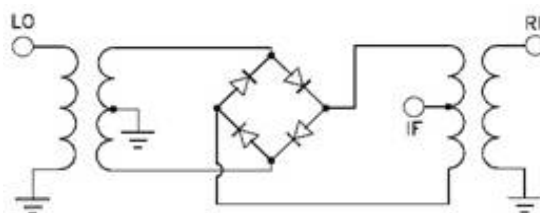
CASE STYLE : HV1195

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (f _L to f _U)	7180		20000	MHz
	RF (f _L to f _U)	7180		20000	MHz
	IF	10		7500	MHz
Conversion Loss	Total Range		7.2		dB
LO-RF Isolation			34		dB
LO-IF Isolation			25		dB
Input IP3			+19		dBm
1 dB Compression			+9		dBm

MAXIMUM RATINGS	
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

PIN CONNECTIONS	
LO	8
RF	4
IF	2
GROUND	1,3,5,6,7

Electrical Schematics



Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+10	+13	+16
7020.0	7050.0	11.26	7.15	6.57
7080.0	7110.0	8.25	6.70	6.39
7140.0	7170.0	8.54	6.70	6.36
7180.0	7210.0	7.70	6.68	6.43
7540.0	7570.0	6.78	6.36	6.18
7900.0	7930.0	6.88	6.49	6.27
8260.0	8290.0	7.85	7.34	6.94
8620.0	8650.0	8.38	7.61	7.13
8980.0	9010.0	8.58	8.00	7.63
9340.0	9370.0	7.67	7.13	6.84
9700.0	9730.0	7.08	6.50	6.26
10060.0	10090.0	6.96	6.29	6.03
10420.0	10450.0	6.78	6.15	5.86
10780.0	10810.0	6.52	5.95	5.67
11140.0	11170.0	6.52	5.83	5.55
11500.0	11530.0	6.61	5.83	5.46
11860.0	11890.0	6.31	5.62	5.36
12220.0	12250.0	6.42	5.67	5.34
12580.0	12610.0	6.40	5.68	5.37
12940.0	12970.0	6.67	5.99	5.66
13300.0	13330.0	6.46	5.83	5.55
13660.0	13690.0	6.75	6.03	5.77
14020.0	14050.0	7.37	6.43	6.14
14380.0	14410.0	7.57	6.75	6.51
14740.0	14770.0	8.08	6.86	6.58
15100.0	15130.0	9.05	7.26	6.95
15460.0	15490.0	9.52	8.21	7.91
15800.0	15830.0	10.23	8.50	8.15
16160.0	16190.0	10.25	8.49	8.01
16500.0	16530.0	10.34	8.40	7.69
16860.0	16890.0	8.76	8.24	7.98
17200.0	17230.0	8.31	7.88	7.68
17560.0	17590.0	8.64	8.18	7.96
17900.0	17930.0	8.41	7.78	7.55
18260.0	18290.0	8.37	7.85	7.59
18600.0	18630.0	8.97	8.36	8.10
18960.0	18990.0	8.49	8.10	7.88
19300.0	19330.0	8.98	8.65	8.41
19660.0	19690.0	9.88	9.59	9.37
20000.0	20030.0	10.42	10.12	9.90

RF (IN) (MHz)	LO (MHz)	IP-3 INPUT (dBm)		
		@LO (dBm)		
		+10	+13	+16
7020.0	7050.0	7.42	12.10	15.54
7080.0	7110.0	9.68	13.38	16.26
7140.0	7170.0	9.30	13.16	15.85
7180.0	7210.0	10.65	14.29	16.80
7540.0	7570.0	12.87	15.06	16.98
7900.0	7930.0	13.58	14.96	16.26
8260.0	8290.0	19.00	20.08	20.55
8620.0	8650.0	19.70	21.66	23.15
8980.0	9010.0	17.20	17.69	18.67
9340.0	9370.0	19.50	19.64	19.55
9700.0	9730.0	19.14	19.60	19.85
10060.0	10090.0	18.58	18.72	19.41
10420.0	10450.0	17.30	17.71	18.55
10780.0	10810.0	16.38	16.87	17.51
11140.0	11170.0	15.43	16.13	16.58
11500.0	11530.0	14.88	15.42	16.37
11860.0	11890.0	14.63	15.15	16.22
12220.0	12250.0	14.51	14.92	16.34
12580.0	12610.0	13.56	14.23	15.76
12940.0	12970.0	14.09	14.26	16.38
13300.0	13330.0	14.28	14.62	16.10
13660.0	13690.0	13.31	14.59	16.19
14020.0	14050.0	12.81	15.32	17.11
14380.0	14410.0	14.66	17.14	18.04
14740.0	14770.0	14.76	17.69	18.12
15100.0	15130.0	14.76	17.20	18.07
15460.0	15490.0	14.09	16.90	20.46
15800.0	15830.0	12.54	19.01	22.55
16160.0	16190.0	14.14	21.84	24.29
16500.0	16530.0	14.89	26.50	23.01
16860.0	16890.0	17.60	23.02	22.62
17200.0	17230.0	20.98	23.69	25.73
17560.0	17590.0	22.12	23.46	23.01
17900.0	17930.0	18.26	23.18	22.06
18260.0	18290.0	20.40	24.83	23.61
18600.0	18630.0	19.04	25.79	26.98
18960.0	18990.0	22.72	23.65	24.02
19300.0	19330.0	24.75	26.38	27.32
19660.0	19690.0	23.75	24.51	24.18
20000.0	20030.0	30.79	30.94	31.05

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+9dBm (dB)		
		@LO (dBm)		
		+10	+13	+16
7020.0	7050.0	0.04	2.01	0.92
7080.0	7110.0	2.26	1.81	0.85
7140.0	7170.0	2.70	1.56	0.74
7180.0	7210.0	2.70	1.56	0.74
7540.0	7570.0	2.97	1.35	0.62
7900.0	7930.0	2.15	0.94	0.52
8260.0	8290.0	1.48	0.95	0.69
8620.0	8650.0	0.94	0.64	0.48
8980.0	9010.0	0.69	0.59	0.46
9340.0	9370.0	0.64	0.48	0.40
9700.0	9730.0	0.82	0.56	0.46
10060.0	10090.0	0.79	0.56	0.45
10420.0	10450.0	0.91	0.58	0.45
10780.0	10810.0	0.97	0.61	0.45
11140.0	11170.0	1.21	0.59	0.43
11500.0	11530.0	1.14	0.57	0.39
11860.0	11890.0	1.18	0.67	0.48
12220.0	12250.0	1.24	0.68	0.45
12580.0	12610.0	1.51	0.80	0.55
12940.0	12970.0	0.98	0.52	0.38
13300.0	13330.0	1.19	0.59	0.44
13660.0	13690.0	1.30	0.52	0.37
14020.0	14050.0	1.22	0.50	0.38
14380.0	14410.0	1.06	0.45	0.32
14740.0	14770.0	0.94	0.49	0.41
15100.0	15130.0	0.61	0.55	0.47
15460.0	15490.0	0.78	0.52	0.42
15800.0	15830.0	0.68	0.57	0.35
16160.0	16190.0	0.63	0.54	0.26
16500.0	16530.0	0.41	0.28	0.24
16860.0	16890.0	1.17	0.43	0.37
17200.0	17230.0	0.98	0.39	0.27
17560.0	17590.0	0.57	0.24	0.17
17900.0	17930.0	0.82	0.26	0.19
18260.0	18290.0	0.47	0.20	0.17
18600.0	18630.0	0.86	0.24	0.20
18960.0	18990.0	0.41	0.21	0.19
19300.0	19330.0	0.36	0.23	0.19
19660.0	19690.0	0.27	0.19	0.16
20000.0	20030.0	0.37	0.16	0.14

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=13649.99MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=7299.9902MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=19999.99MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+13			+13			+13
7150.0	6500.0	13.22	10.0	7310.0	6.65	9310.0	10690.0	17.12
6789.8	6860.2	7.29	250.0	7550.0	6.40	9070.0	10930.0	16.63
6429.6	7220.3	5.95	490.0	7790.0	6.05	8830.0	11170.0	15.95
6069.5	7580.5	6.23	710.0	8010.0	5.75	8590.0	11410.0	14.79
5709.3	7940.7	6.62	950.0	8250.0	5.63	8350.0	11650.0	13.61
5349.1	8300.9	6.55	1170.0	8470.0	5.84	8110.0	11890.0	12.48
4988.9	8661.1	6.79	1410.0	8710.0	6.27	7870.0	12130.0	11.45
4628.8	9021.2	7.45	1630.0	8930.0	6.91	7630.0	12370.0	11.42
4268.6	9381.4	8.13	1870.0	9170.0	7.98	7390.0	12610.0	11.67
3908.4	9741.6	8.26	2090.0	9390.0	8.75	7150.0	12850.0	11.70
3548.2	10101.8	7.52	2330.0	9630.0	9.46	6910.0	13090.0	11.64
3188.0	10461.9	7.38	2550.0	9850.0	10.22	6670.0	13330.0	11.53
2827.9	10822.1	6.98	2790.0	10090.0	10.66	6430.0	13570.0	11.30
2467.7	11182.3	6.63	3010.0	10310.0	10.61	6190.0	13810.0	11.21
2107.5	11542.5	6.39	3250.0	10550.0	11.18	5950.0	14050.0	11.41
1747.3	11902.7	6.11	3470.0	10770.0	10.92	5710.0	14290.0	11.71
1366.0	12284.0	6.18	3710.0	11010.0	10.81	5470.0	14530.0	12.62
1005.8	12644.2	6.13	3930.0	11230.0	10.74	5230.0	14770.0	12.62
624.4	13025.6	6.11	4170.0	11470.0	10.90	4990.0	15010.0	12.45
264.2	13385.7	5.88	4390.0	11690.0	10.56	4750.0	15250.0	12.45
104.1	13754.1	6.02	4630.0	11930.0	10.47	4510.0	15490.0	12.53
423.9	14073.9	5.92	4850.0	12150.0	10.76	4270.0	15730.0	13.09
762.5	14412.5	6.40	5090.0	12390.0	10.41	4030.0	15970.0	13.07
1082.3	14732.3	6.63	5310.0	12610.0	10.19	3790.0	16210.0	13.03
1421.0	15071.0	6.59	5550.0	12850.0	10.03	3550.0	16450.0	13.02
1740.8	15390.8	6.87	5770.0	13070.0	9.40	3310.0	16690.0	12.39
2079.4	15729.4	7.15	6010.0	13310.0	8.91	3070.0	16930.0	12.49
2399.3	16049.2	7.29	6230.0	13530.0	8.52	2830.0	17170.0	12.08
2737.9	16387.9	7.43	6470.0	13770.0	8.46	2590.0	17410.0	11.84
3057.7	16707.7	7.32	6690.0	13990.0	8.56	2350.0	17650.0	11.79
3396.4	17046.3	6.90	6930.0	14230.0	8.62	2110.0	17890.0	11.38
3716.2	17366.2	6.94	7150.0	14450.0	8.61	1870.0	18130.0	11.41
4054.8	17704.8	6.67	7390.0	14690.0	8.87	1630.0	18370.0	11.20
4374.6	18024.6	6.96	7610.0	14910.0	9.29	1390.0	18610.0	11.08
4713.3	18363.3	7.12	7850.0	15150.0	9.62	1150.0	18850.0	10.94
5033.1	18683.1	7.45	8070.0	15370.0	10.38	930.0	19070.0	10.76
5371.7	19021.7	7.53	8310.0	15610.0	10.86	690.0	19310.0	10.45
5691.5	19341.5	7.45	8530.0	15830.0	11.64	470.0	19530.0	10.29
6030.2	19680.2	7.36	8770.0	16070.0	12.29	230.0	19770.0	10.18
6350.0	20000.0	7.89	8990.0	16290.0	13.24	10.0	19990.0	10.03

Typical Performance Data

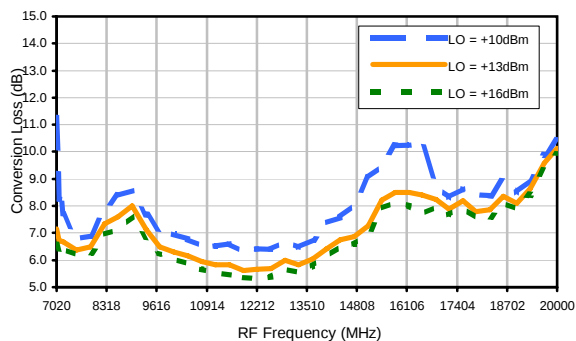
LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)					@LO (dBm)		
	+10	+13	+16	+10	+13	+16			+10	+13	+16
7050.0	39.78	45.43	46.03	22.2	23.94	26.28	7020.0	7050.0	19.06	21.69	22.07
7110.0	43.04	45.42	45.73	20.26	22.56	24.81	7080.0	7110.0	20.33	20.97	21.05
7170.0	42.03	44.81	45.46	22.51	24.7	27.02	7140.0	7170.0	20.03	20.58	20.74
7210.0	42.20	44.12	44.62	21.06	23.53	25.70	7180.0	7210.0	20.56	20.80	20.74
7570.0	37.12	38.31	38.95	23.00	25.05	26.30	7540.0	7570.0	21.21	20.80	20.02
7930.0	34.42	34.98	34.81	25.00	26.20	26.36	7900.0	7930.0	18.73	18.25	17.74
8290.0	37.22	39.49	42.06	25.30	25.84	25.50	8260.0	8290.0	17.51	17.80	18.13
8650.0	38.70	39.37	39.99	26.66	25.43	24.69	8620.0	8650.0	22.18	22.42	22.52
9010.0	54.16	55.30	51.29	27.07	25.34	24.03	8980.0	9010.0	26.07	26.13	25.95
9370.0	46.23	45.96	44.65	26.98	25.04	23.59	9340.0	9370.0	26.69	26.50	26.18
9730.0	48.40	48.30	46.87	25.30	22.88	21.79	9700.0	9730.0	28.21	27.71	27.34
10090.0	59.20	50.53	45.87	23.90	21.67	20.58	10060.0	10090.0	30.09	29.23	28.66
10450.0	53.99	51.67	45.35	23.79	22.27	21.26	10420.0	10450.0	32.28	31.30	30.55
10810.0	44.84	46.78	44.33	24.28	23.46	22.42	10780.0	10810.0	34.68	33.69	32.52
11170.0	37.76	40.71	41.98	25.19	24.16	23.63	11140.0	11170.0	34.62	34.13	33.18
11530.0	33.69	36.26	38.26	25.56	25.12	24.38	11500.0	11530.0	33.70	34.06	33.58
11890.0	31.59	34.22	36.17	23.72	23.22	22.61	11860.0	11890.0	31.32	31.88	31.74
12250.0	30.54	33.29	35.43	20.85	20.51	19.74	12220.0	12250.0	29.16	29.68	29.70
12610.0	29.95	33.07	36.40	19.05	19.13	18.87	12580.0	12610.0	27.72	28.57	28.78
12970.0	29.51	32.60	35.53	20.40	20.87	20.74	12940.0	12970.0	26.84	27.54	27.53
13330.0	29.54	32.53	35.08	21.15	21.63	21.80	13300.0	13330.0	25.57	26.35	26.59
13690.0	31.77	33.92	34.74	22.12	22.80	23.31	13660.0	13690.0	27.13	29.28	30.00
14050.0	36.72	35.32	33.61	25.07	26.80	28.45	14020.0	14050.0	33.29	40.51	40.14
14410.0	39.17	32.62	29.33	28.09	29.12	29.73	14380.0	14410.0	44.72	37.73	32.77
14770.0	33.33	29.57	27.12	30.34	29.45	28.84	14740.0	14770.0	43.57	34.69	30.90
15130.0	27.46	26.70	25.07	27.50	25.85	24.95	15100.0	15130.0	39.19	36.39	29.71
15490.0	23.40	23.56	22.52	21.54	21.37	21.00	15460.0	15490.0	31.29	32.10	27.65
15830.0	20.23	21.75	21.31	22.25	22.05	22.20	15800.0	15830.0	27.01	26.55	25.05
16190.0	22.05	22.79	21.68	19.99	19.93	19.86	16160.0	16190.0	25.02	26.09	27.20
16530.0	27.46	24.54	22.87	22.25	21.37	20.71	16500.0	16530.0	28.33	30.20	33.15
16890.0	25.82	25.18	24.65	23.36	21.37	20.04	16860.0	16890.0	27.33	27.27	27.15
17230.0	23.75	24.50	24.48	24.61	21.56	19.11	17200.0	17230.0	26.64	26.82	27.02
17590.0	23.94	24.85	25.19	29.38	27.11	25.06	17560.0	17590.0	25.02	24.99	24.75
17930.0	23.80	24.45	25.43	31.34	29.07	27.19	17900.0	17930.0	26.16	26.28	26.57
18290.0	23.95	25.01	25.95	33.54	32.26	30.49	18260.0	18290.0	20.51	20.50	20.84
18630.0	24.32	24.76	25.20	40.21	39.87	38.44	18600.0	18630.0	22.37	22.41	23.53
18990.0	25.28	26.31	26.97	32.18	31.49	30.21	18960.0	18990.0	19.35	19.32	20.21
19330.0	27.73	30.11	31.56	32.59	31.76	30.37	19300.0	19330.0	18.23	18.36	18.68
19690.0	32.77	36.85	37.84	33.33	32.90	31.94	19660.0	19690.0	18.22	18.41	18.47
20030.0	31.50	30.84	29.44	39.69	39.35	38.90	20000.0	20030.0	18.46	18.68	19.23

Typical Performance Data

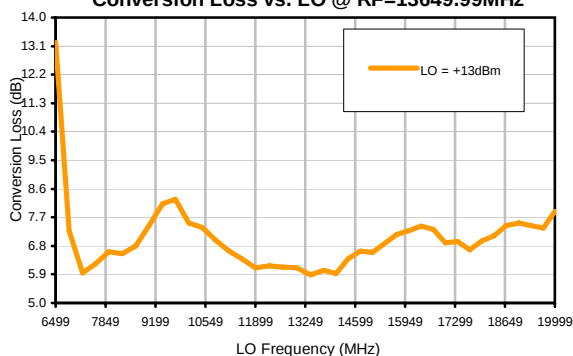
RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=20029.99MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+10	+13	+16		+10	+13	+16		+10	+13	+16
7020.0	7050.0	5.66	3.65	3.21	7050.0	12.35	8.16	8.31	10.0	1.42	1.24	1.08
7080.0	7110.0	4.25	3.34	3.05	7110.0	9.04	7.44	8.05	230.0	1.48	1.30	1.15
7140.0	7170.0	4.38	3.43	3.09	7170.0	8.51	7.00	7.56	450.0	1.65	1.45	1.28
7180.0	7210.0	3.86	3.26	3.00	7210.0	7.14	6.73	7.56	670.0	1.87	1.66	1.48
7540.0	7570.0	3.47	3.11	2.94	7570.0	4.28	4.96	5.93	890.0	2.04	1.81	1.62
7900.0	7930.0	3.41	3.06	2.87	7930.0	3.18	4.00	4.86	1110.0	2.20	1.95	1.73
8260.0	8290.0	3.62	3.45	3.30	8290.0	2.54	3.31	4.13	1330.0	2.36	2.09	1.85
8620.0	8650.0	4.56	4.28	3.94	8650.0	2.38	3.03	3.74	1550.0	2.45	2.16	1.91
8980.0	9010.0	5.83	5.36	5.20	9010.0	2.31	2.74	3.25	1770.0	2.46	2.16	1.90
9340.0	9370.0	4.82	4.39	4.07	9370.0	2.17	2.39	2.72	1990.0	2.46	2.15	1.88
9700.0	9730.0	4.22	3.78	3.42	9730.0	2.13	2.27	2.56	2210.0	2.54	2.21	1.94
10060.0	10090.0	4.99	4.30	3.99	10090.0	2.22	2.36	2.69	2430.0	2.59	2.26	1.99
10420.0	10450.0	4.36	3.68	3.34	10450.0	2.42	2.48	2.74	2650.0	2.65	2.31	2.04
10780.0	10810.0	2.74	2.44	2.01	10810.0	2.57	2.55	2.75	2870.0	2.76	2.40	2.12
11140.0	11170.0	3.27	2.71	2.46	11170.0	2.83	2.65	2.82	3090.0	2.92	2.54	2.24
11500.0	11530.0	3.10	2.57	2.29	11530.0	3.19	2.84	2.91	3310.0	3.02	2.62	2.32
11860.0	11890.0	2.13	1.79	1.55	11890.0	3.42	2.94	2.92	3530.0	3.12	2.71	2.39
12220.0	12250.0	2.13	1.79	1.57	12250.0	3.40	2.80	2.67	3750.0	3.29	2.84	2.52
12580.0	12610.0	1.93	1.62	1.41	12610.0	3.33	2.64	2.47	3970.0	3.45	2.98	2.66
12940.0	12970.0	1.52	1.39	1.36	12970.0	3.38	2.66	2.50	4190.0	3.58	3.11	2.78
13300.0	13330.0	1.99	1.80	1.87	13330.0	3.58	2.71	2.48	4410.0	3.60	3.15	2.83
13660.0	13690.0	1.74	1.52	1.39	13690.0	3.70	2.71	2.43	4630.0	3.56	3.15	2.85
14020.0	14050.0	1.57	1.62	1.65	14050.0	4.45	2.95	2.47	4830.0	3.56	3.16	2.89
14380.0	14410.0	2.39	2.39	2.86	14410.0	5.13	3.30	2.67	5050.0	3.42	3.05	2.84
14740.0	14770.0	2.97	2.64	2.58	14770.0	5.74	3.45	2.60	5250.0	3.19	2.86	2.72
15100.0	15130.0	2.70	2.45	2.22	15130.0	5.14	3.27	2.39	5470.0	3.03	2.76	2.67
15460.0	15490.0	3.30	3.12	3.45	15490.0	3.76	2.65	1.99	5670.0	3.00	2.77	2.74
15800.0	15830.0	4.89	4.12	3.69	15830.0	3.62	2.63	1.97	5890.0	2.85	2.68	2.68
16160.0	16190.0	2.42	2.07	1.90	16190.0	3.20	2.31	1.70	6090.0	2.69	2.56	2.55
16500.0	16530.0	3.13	3.20	3.26	16530.0	2.82	2.16	1.58	6310.0	2.63	2.50	2.47
16860.0	16890.0	5.14	5.00	5.63	16890.0	1.95	1.55	1.36	6510.0	2.51	2.37	2.31
17200.0	17230.0	3.49	3.29	2.84	17230.0	1.98	1.58	1.45	6730.0	2.48	2.34	2.29
17560.0	17590.0	3.00	3.00	2.59	17590.0	2.05	1.71	1.72	6930.0	2.69	2.55	2.47
17900.0	17930.0	4.24	3.94	4.26	17930.0	2.87	2.20	2.03	7150.0	2.72	2.55	2.44
18260.0	18290.0	3.86	3.54	3.23	18290.0	2.89	2.16	1.91	7350.0	2.55	2.40	2.34
18600.0	18630.0	2.75	2.52	2.35	18630.0	3.25	2.18	1.71	7570.0	2.30	2.23	2.24
18960.0	18990.0	3.47	3.37	2.95	18990.0	2.28	1.60	1.24	7770.0	2.15	2.18	2.32
19300.0	19330.0	3.00	2.83	2.84	19330.0	1.76	1.25	1.08	7990.0	2.18	2.32	2.54
19660.0	19690.0	2.90	2.89	2.75	19690.0	1.14	1.20	1.54	8190.0	2.53	2.76	3.06
20000.0	20030.0	5.17	4.68	6.13	20030.0	1.43	1.56	1.87	8410.0	3.16	3.49	3.86

Typical Performance Curves

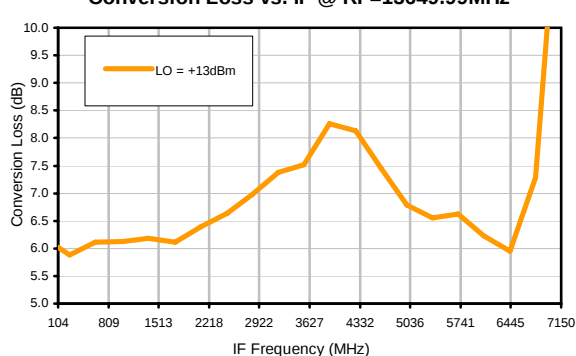
Conversion Loss @ IF=30MHz



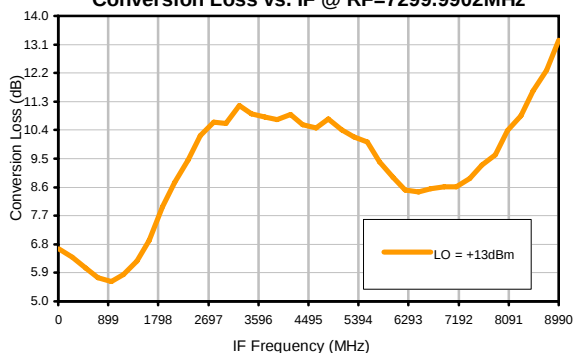
Conversion Loss vs. LO @ RF=13649.99MHz



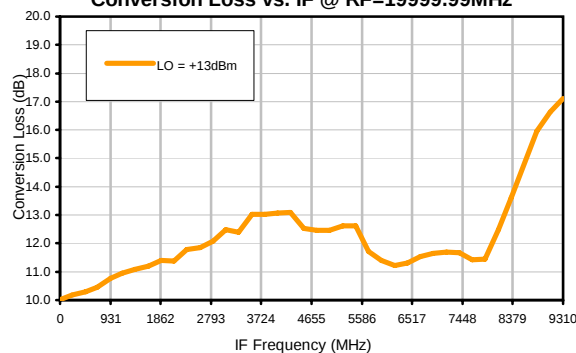
Conversion Loss vs. IF @ RF=13649.99MHz



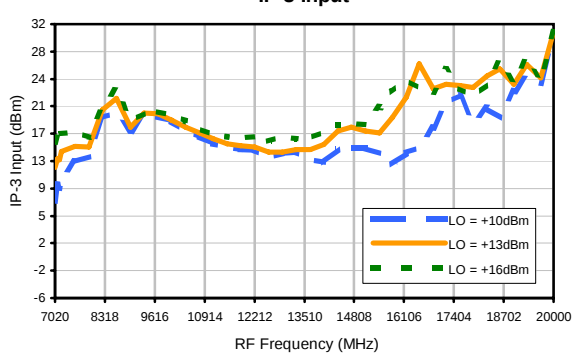
Conversion Loss vs. IF @ RF=7299.9902MHz



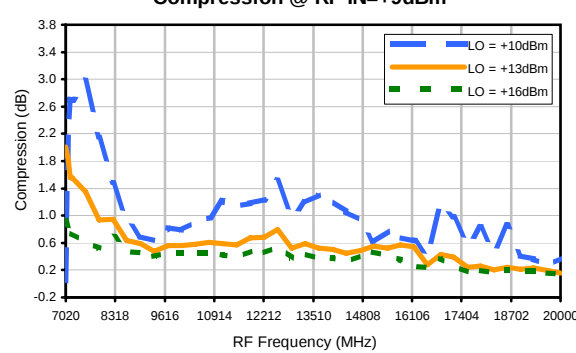
Conversion Loss vs. IF @ RF=19999.99MHz



IP-3 Input

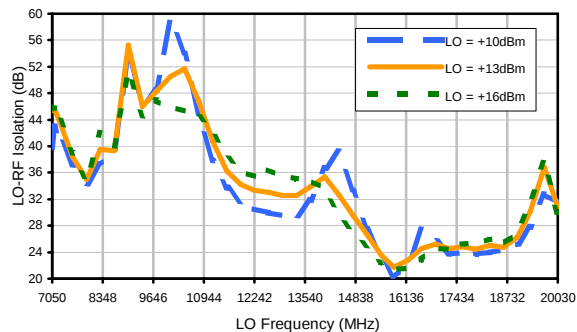


Compression @ RF IN=+9dBm

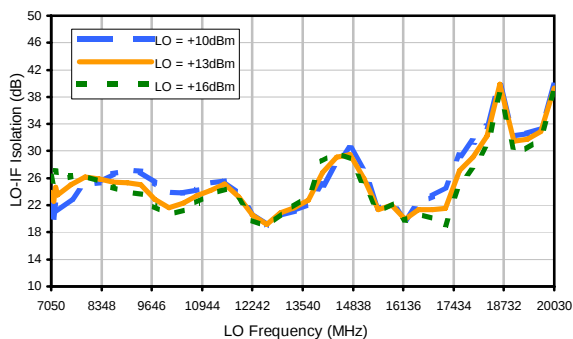


Typical Performance Curves

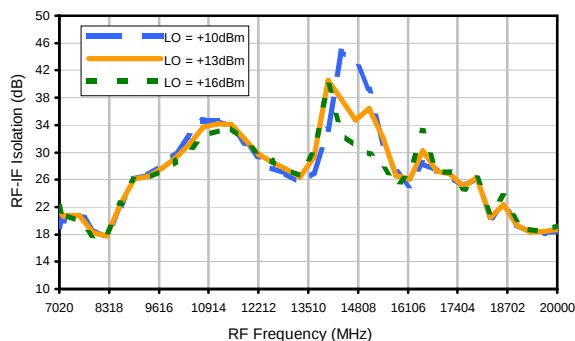
LO-RF Isolation



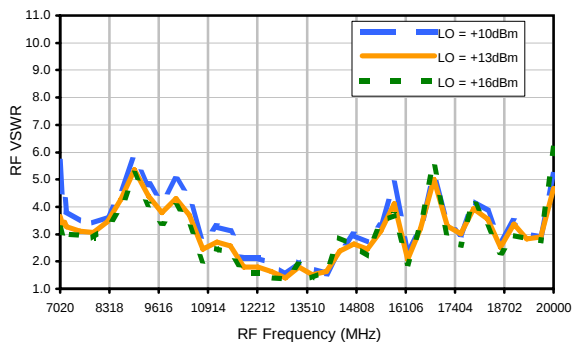
LO-IF Isolation



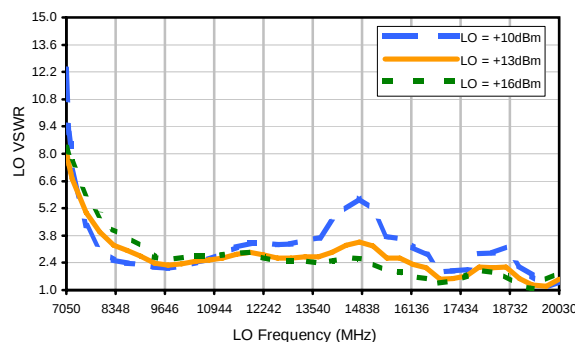
RF-IF Isolation



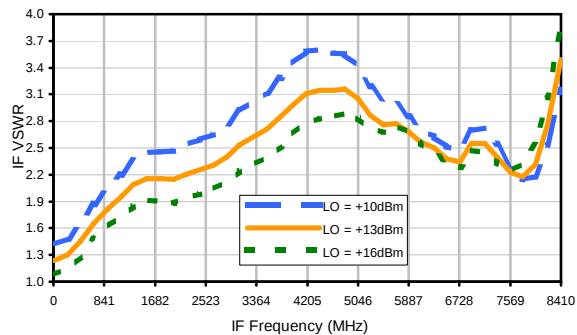
RF VSWR



LO VSWR

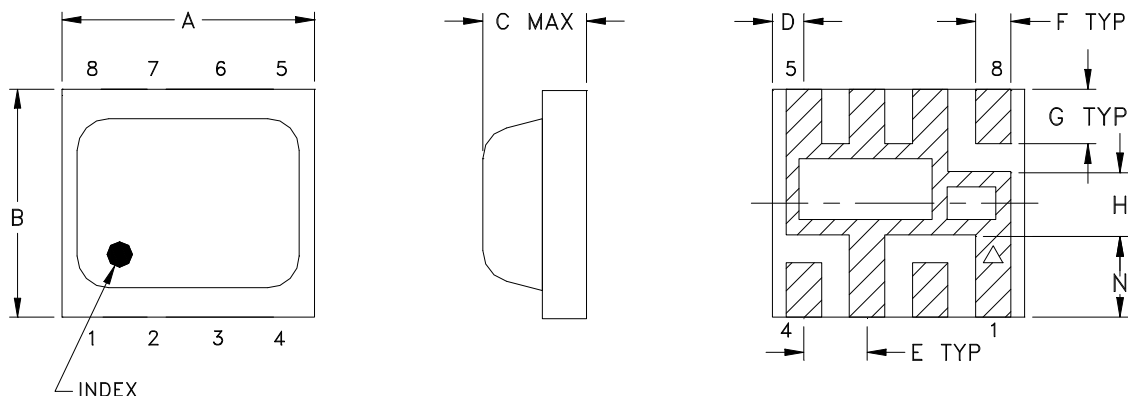


IF VSWR

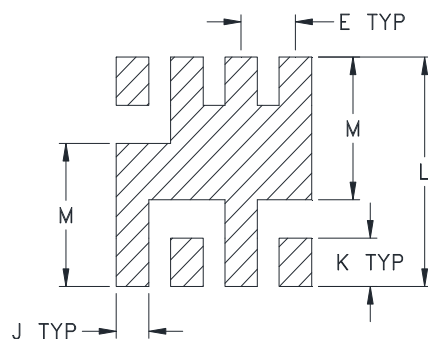


Outline Dimensions

HV1195



PCB Metal Land Pattern



Suggested Layout,
Tolerance to be within $\pm.002$

CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
HV1195	0.200 (5.08)	0.180 (4.57)	0.087 (2.21)	0.025 (0.64)	0.050 (1.27)	0.028 (0.71)	0.043 (1.09)	0.050 (1.27)	0.030 (0.76)	0.043 (1.09)	0.204 (5.18)	0.127 (3.23)	0.065 (1.65)

CASE#	WT, GRAM
HV1195	.08

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

Notes:

1. Case material: Plastic encapsulation on Ceramic base.
2. Termination finish: Palladium Silver.



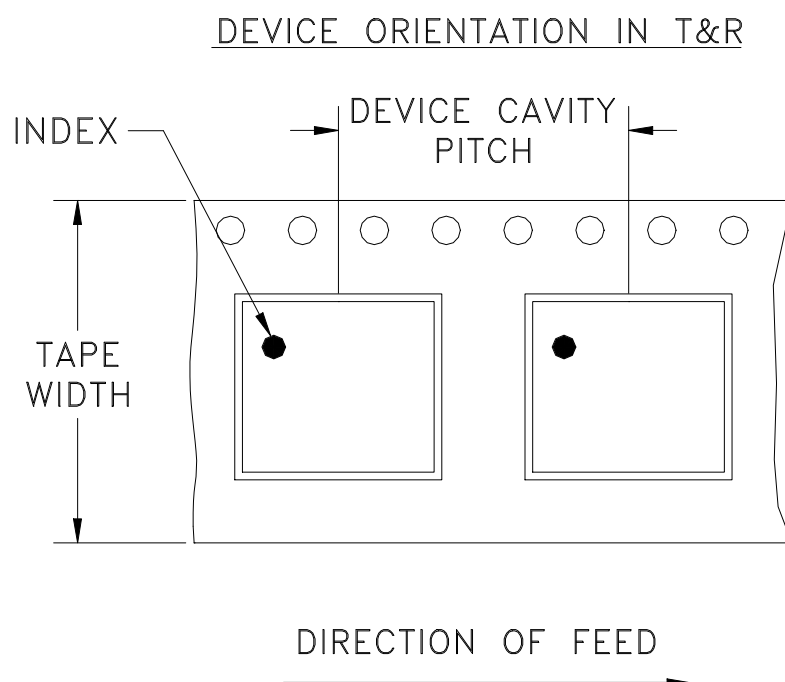
P.O. Box 350186, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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

RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F82



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
12	8	7	500

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

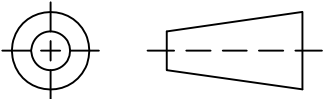


INTERNET <http://www.minicircuits.com>

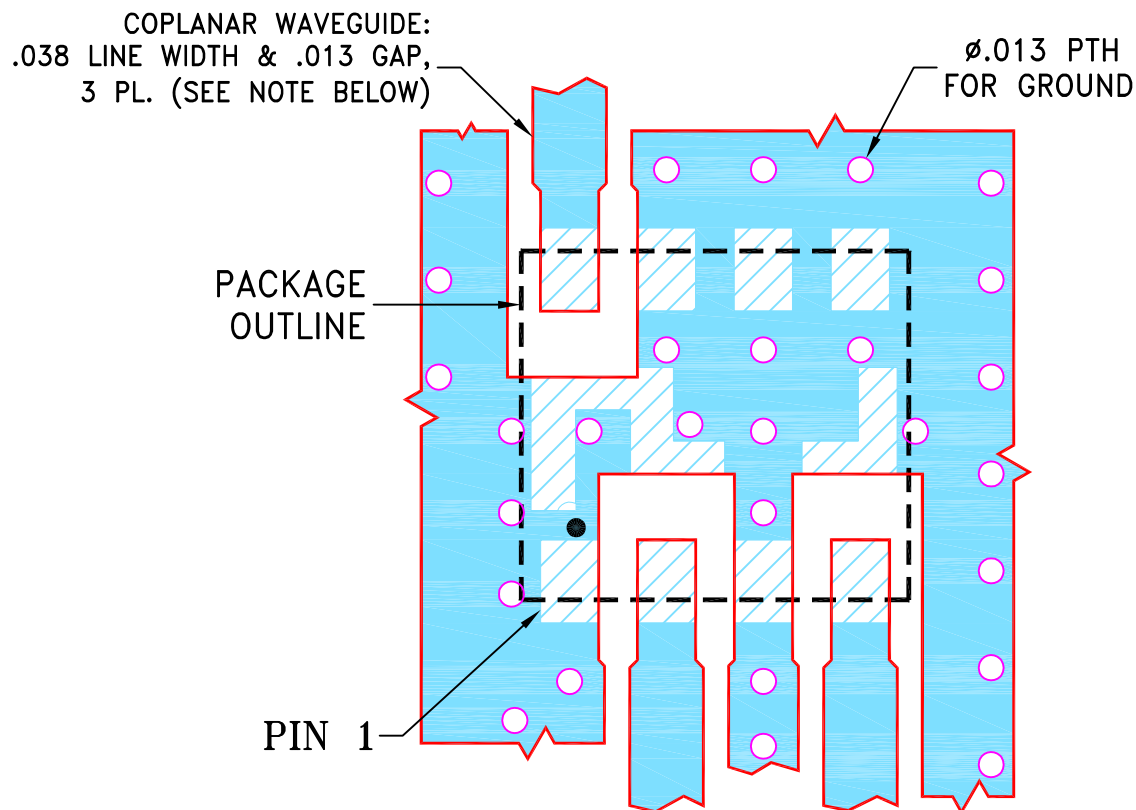
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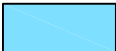
THIRD ANGLE PROJECTION		REVISIONS				
	REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
	OR	M116031	NEW RELEASE	02/14/08	MMG	DJ
	A	ECO-000060	MODIFIED CASE STYLE	10/16/19	ITG	RB

**SUGGESTED MOUNTING CONFIGURATION FOR
HV1195 CASE STYLE, "08MX05" PIN CODE**

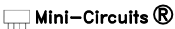


NOTES:

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

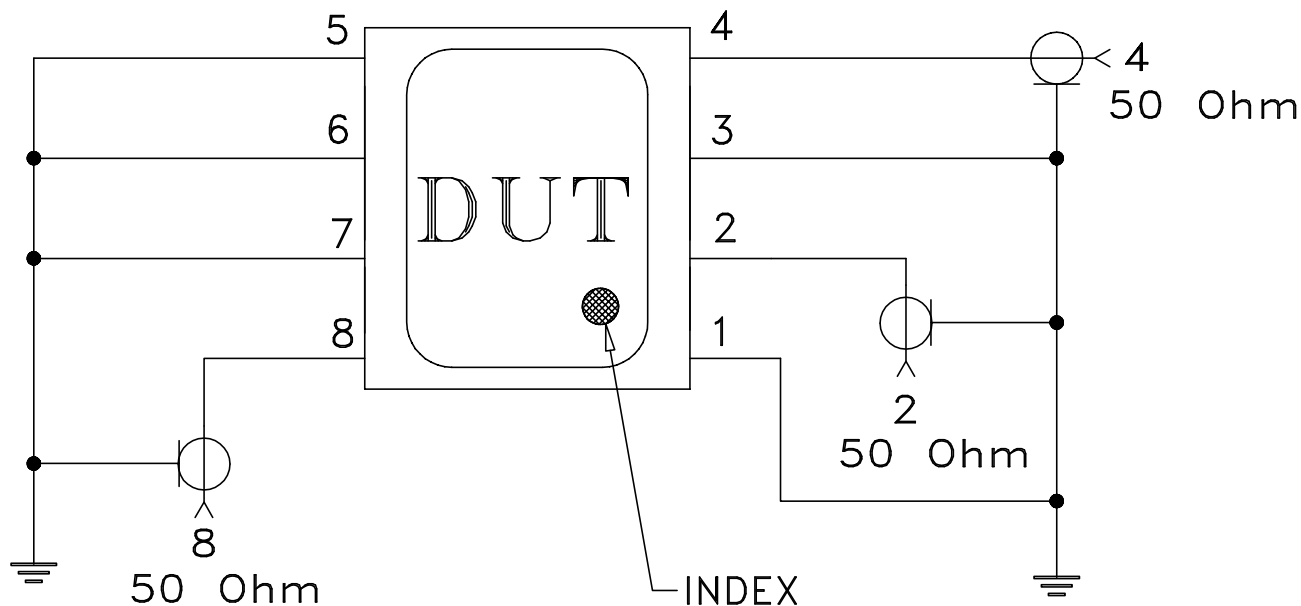
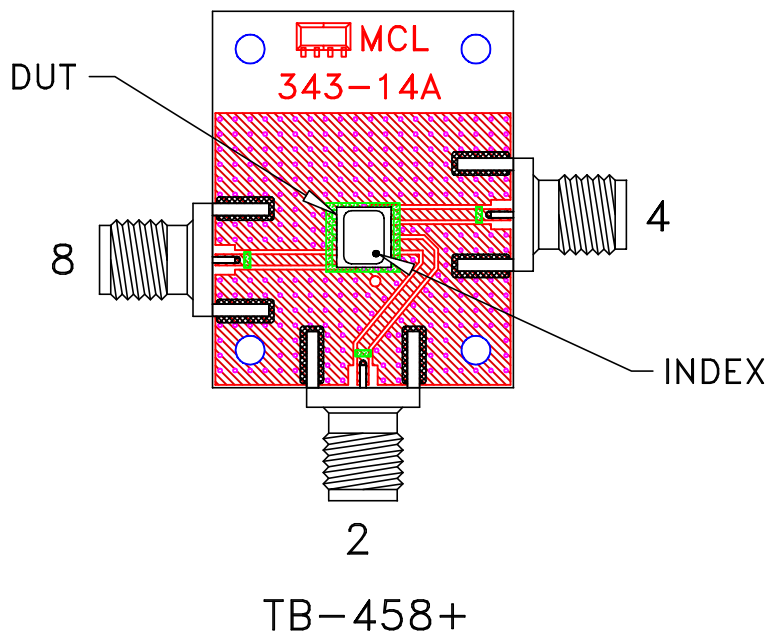
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

UNLESS OTHERWISE SPECIFIED		INITIALS	DATE	 Mini-Circuits® 13 Neptune Avenue Brooklyn NY 11235		
DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± .005 ANGLES ± FRACTIONS ±	DRAWN	MMG	02/13/08			
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	APPROVED	DJ	02/14/08			
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		SIZE	CODE IDENT	DRAWING NO:	REV:	
		A	15542	98-PL-284	A	
		FILE:	98PL284	SCALE:	10:1	SHEET: 1 OF 1
ASHEETA1.DWG REV:A DATE:01/12/95						

Evaluation Board and Circuit

For Pin Connections refer to Data Sheet of the DUT



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.020 inch.

 **Mini-Circuits®**



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C Case Temperature	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102-C, Condition C
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutectic Process: 225°C peak Pb-Free Process: 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Solderability	10X Magnification	J-STD-002, Para 4.2.5, Test S, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215