

most widely used

查詢OSD代理商

49E D

8068811

捷多邦 专业PCB打样工厂

24小时加急出货

Frequency Mixers

LEVEL 7 (+7dBm LO, up to +1dBm RF)

Models

SAM-1
TSM-1

T-74-09-01

SCIENTIFIC/ MINI-CIRCUITS



computer-automated performance data

typical production unit / for data of other models consult factory

mixer conversion loss and isolation

RF MHz	LO MHz	Conversion Loss (dB)			Isolation L-R (dB)			Isolation L-I (dB)		
		LO +4dBm	LO +7dBm	LO +10dBm	LO +4dBm	LO +7dBm	LO +10dBm	LO +4dBm	LO +7dBm	LO +10dBm
1.000	31.00	7.31	7.00	6.81	> 64.00	> 67.00	> 70.00	> 64.00	> 67.00	67.13
5.000	35.00	6.05	5.81	5.66	> 64.00	> 67.00	> 70.00	> 64.00	> 67.00	66.56
20.000	50.00	6.07	5.82	5.64	> 64.00	> 67.00	66.62	> 64.00	63.03	61.96
39.646	69.65	6.07	5.79	5.62	60.97	60.82	59.98	57.56	57.34	57.16
58.969	88.97	5.98	5.75	5.61	56.54	56.81	56.53	53.47	53.89	53.57
97.615	67.62	5.96	5.72	5.60	52.03	52.49	52.27	48.48	49.40	49.96
136.260	106.26	5.89	5.69	5.59	49.25	49.36	49.21	45.55	46.66	47.34
174.910	144.91	5.94	5.77	5.66	46.93	47.07	46.75	43.44	44.47	44.96
200.000	170.00	6.07	5.87	5.76	45.75	45.71	45.58	42.49	43.53	43.81
232.880	202.88	6.02	5.82	5.70	44.60	44.45	44.37	41.04	41.92	42.15
271.520	241.52	5.83	5.63	5.53	42.79	42.63	42.54	39.79	40.43	40.58
310.170	280.17	5.87	5.69	5.61	41.77	41.76	41.87	38.52	39.12	39.29
348.810	318.81	6.00	5.81	5.69	41.09	40.89	40.94	36.88	37.24	38.02
387.460	357.46	5.91	5.71	5.60	40.89	40.87	40.96	36.05	36.52	36.78
426.110	396.11	6.18	5.99	5.85	38.94	38.89	39.15	34.63	35.09	35.82
464.750	434.75	6.16	5.95	5.81	37.11	37.39	37.70	34.34	34.88	36.03
500.000	470.00	6.16	5.94	5.83	36.74	37.14	37.86	33.99	34.65	35.23
522.720	492.72	6.26	6.05	5.92	36.70	37.11	37.56	33.29	33.82	34.12
561.370	531.37	6.53	6.32	6.16	36.72	37.22	37.70	31.85	32.34	32.73
600.000	570.00	6.87	6.59	6.30	35.24	35.63	36.68	30.17	30.55	31.20

mixer VSWR

freq. MHz	VSWR, RF port			VSWR, LO port			VSWR, IF port			freq. (MHz)	max. DC output mV	DC offset mV
	LO +4dBm	LO +7dBm	LO +10dBm	LO +4dBm	LO +7dBm	LO +10dBm	LO +4dBm	LO +7dBm	LO +10dBm			
5.002	1.24	1.34	1.30	1.91	2.92	4.23	1.37	1.22	1.13	1.000	-219.74	- .14
10.000	1.11	1.23	1.19	1.85	2.84	4.07	1.37	1.22	1.13	5.000	-228.96	- .13
20.000	1.04	1.20	1.15	1.79	2.70	3.92	1.38	1.22	1.14	20.000	-229.16	- .13
41.061	1.04	1.21	1.17	1.90	2.87	4.10	1.37	1.22	1.14	39.646	-226.03	- .13
59.091	1.05	1.21	1.18	1.84	2.73	3.94	1.38	1.23	1.15	58.969	-226.83	- .14
100.000	1.07	1.20	1.19	1.75	2.53	3.54	1.40	1.26	1.18	100.000	-229.55	- .13
149.240	1.09	1.18	1.20	1.74	2.46	3.35	1.46	1.31	1.23	136.260	-233.59	- .11
185.300	1.10	1.16	1.22	1.74	2.46	3.34	1.51	1.36	1.27	174.910	-231.58	- .12
203.330	1.11	1.15	1.22	1.72	2.42	3.26	1.54	1.39	1.30	200.000	-231.48	- .14
239.390	1.12	1.11	1.23	1.72	2.40	3.17	1.60	1.44	1.35	232.880	-233.79	- .23
275.450	1.13	1.21	1.25	1.73	2.40	3.12	1.69	1.54	1.44	271.520	-237.93	- .29
311.520	1.14	1.29	1.25	1.73	2.37	3.08	1.75	1.58	1.47	310.170	-230.08	- .36
347.580	1.15	1.27	1.26	1.75	2.37	3.02	1.82	1.65	1.53	348.810	-220.21	- .33
383.640	1.17	1.27	1.27	1.80	2.39	3.01	1.91	1.72	1.60	387.460	-210.92	- .43
437.730	1.19	1.29	1.28	1.84	2.40	2.99	2.05	1.84	1.72	426.110	-211.73	- .34
473.790	1.21	1.30	1.29	1.88	2.37	2.96	2.10	1.90	1.76	464.750	-213.09	- .36
500.000	1.23	1.31	1.31	1.88	2.41	2.98	2.17	1.97	1.81	500.000	-217.98	- .98
522.880	1.25	1.32	1.32	1.91	2.41	2.94	2.20	1.98	1.84	522.720	-218.31	- .95
563.940	1.28	1.33	1.34	1.92	2.42	2.96	2.27	2.05	1.91	561.370	-210.89	- .87
600.000	1.30	1.34	1.35	1.93	2.37	2.91	2.28	2.06	1.94	600.000	-201.93	- .50

Measurements at RF & LO Power +7 dBm



1 to 600 MHz



mixer harmonic intermodulation

(relative to desired IF output)

T-74-09-01

RF ORDER HARMONIC	RF CAL	0	1	2	3	4	5	6	7	8	9	10
0	-	-	20	38	33	46	33	39	28	44	46	66
1	-	22	-	33	11	37	33	49	37	44	55	57
2	75	57	58	56	50	56	48	67	52	>73	43	58
3	>95	52	48	57	45	58	42	65	56	62	57	55
4	>95	>84	81	74	68	68	66	65	64	80	72	76
5	>94	82	84	78	62	64	61	64	59	64	73	80
6	>95	>83	>83	>85	>85	>84	80	83	80	76	78	>85
7	>94	>84	>83	>82	>83	>85	83	84	81	82	76	79
8	>94	>85	>83	>85	>83	>85	>85	>84	>84	>85	>84	>83
9	>95	>83	>84	>83	>85	>84	>83	>85	>84	>85	>85	>84
10	>95	85	>83	>83	>83	>82	>82	>84	>84	>84	>85	>82
		0	1	2	3	4	5	6	7	8	9	10

Harmonic LO Order

test conditions: RF, IN: FREQ. 500.1 MHz DRIVE -4 DBM
 LO, IN: FREQ. 470.01 MHz DRIVE 7.05 DBM
 IF=MEASURED: FREQ. 30.09 MHz AMP. -10.58 DBM

RF ORDER HARMONIC	RF CAL	0	1	2	3	4	5	6	7	8	9	10
0	-	-	11	27	20	32	11	28	17	31	34	52
1	-	21	-	35	11	37	31	50	33	36	43	55
2	94	63	73	63	60	60	57	>74	59	68	52	63
3	>96	72	68	69	67	69	60	70	74	76	>73	70
4	>95	>74	>75	>75	>74	>75	>77	>76	>74	>75	>73	>73
5	>94	>74	>75	>73	>75	>75	>77	>76	>75	>75	>74	>76
6	>94	>73	>73	>75	>75	>76	>74	>75	>77	>76	>76	>75
7	>94	>74	>72	>73	>74	>75	>76	>74	>75	>75	>76	>75
8	>95	>74	>75	>75	>72	>74	>75	>75	>76	>76	>77	>75
9	>94	>73	>73	>75	>75	>74	>74	>75	>75	>76	>77	>75
10	>95	>74	>73	>74	>74	>75	>74	>75	>76	>76	76	>76
		0	1	2	3	4	5	6	7	8	9	10

Harmonic LO Order

test conditions: RF, IN: FREQ. 500.1 MHz DRIVE -13.95 DBM
 LO, IN: FREQ. 470.01 MHz DRIVE 6.99 DBM
 IF=MEASURED: FREQ. 30.09 MHz AMP. -20.5 DBM

typical performance curves

(production unit)

