

Frequency Mixer

ADE-ED12872/3

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+4	+7	+10
50.00	80.00	13.11	11.59	10.91
90.21	120.21	9.37	8.82	8.43
130.41	160.41	7.82	7.30	7.10
190.72	220.72	7.04	6.76	6.60
230.93	260.93	6.75	6.45	6.25
291.24	321.24	6.42	6.20	6.04
331.44	361.44	6.35	6.11	5.95
391.75	421.75	6.17	5.94	5.80
431.96	461.96	6.12	5.87	5.71
492.27	522.27	6.02	5.81	5.67
532.47	562.47	6.10	5.84	5.67
592.78	622.78	6.08	5.83	5.68
632.99	662.99	6.13	5.87	5.72
693.30	723.30	6.15	5.84	5.67
733.51	763.51	6.22	5.88	5.67
793.81	823.81	6.24	5.89	5.64
834.02	864.02	6.23	5.90	5.65
894.33	924.33	6.27	5.96	5.71
934.54	964.54	6.16	5.85	5.63
994.85	1024.85	6.11	5.78	5.59
1035.05	1065.05	6.08	5.75	5.57
1095.36	1125.36	6.15	5.78	5.58
1135.57	1165.5			

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @IF(OUT)=789.9MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=189.9MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1210.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+7			+7			+7
10.10	800.00	5.97	10.10	200.00	6.84	1010.10	200.00	6.18
15.10	805.00	5.96	30.10	220.00	6.75	990.10	220.00	6.25
20.10	810.00	5.90	50.10	240.00	6.80	970.10	240.00	6.24
25.10	815.00	5.93	70.10	260.00	6.66	950.10	260.00	6.26
30.10	820.00	5.89	90.10	280.00	6.81	930.10	280.00	6.20
35.10	825.00	5.92	110.10	300.00	6.84	910.10	300.00	6.09
40.10	830.00	5.97	130.10	320.00	6.82	890.10	320.00	6.19
45.10	835.00	5.96	150.10	340.00	6.86	870.10	340.00	6.22
50.10	840.00	5.93	170.10	360.00	6.85	850.10	360.00	6.28
55.10	845.00	5.89	190.10	380.00	6.84	830.10	380.00	6.26
60.10	850.00	5.94	210.10	400.00	6.90	810.10		

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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+4	+7	+10	+4	+7	+10
80.00	60.22	65.29	63.31	59.00	54.52	51.71
120.21	59.84	58.07	57.78	51.00	48.59	46.80
160.41	55.04	54.73	54.34	47.37	45.46	44.20
220.72	51.29	51.21	51.16	45.39	43.55	42.21
260.93	49.63	49.50	49.28	44.55	42.58	40.95
321.24	47.76	47.77	47.68	43.72	41.40	39.62
361.44	46.77	46.70	46.57	42.83	40.45	38.73
421.75	45.73	45.70	45.68	41.17	38.98	37.46
461.96	44.91	44.86	44.70	40.07	38.09	36.55
522.27	43.98	43.80	43.69	37.91	36.31	35.10
562.47	43.62	43.52	43.20	36.67	35.60	34.35
622.78	42.81	42.64	42.58	34.86	34.24	33.66
662.99	42.36	42.11	41.94	33.70	33.30	32.82
723.30	41.71	41.41	41.16	32.39	32.25	31.95
763.51	41.33	40				

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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=1000MHz (:1)				
		@LO (dBm)				@LO (dBm)				@LO (dBm)				
		+4	+7	+10		+4	+7	+10		+4	+7	+10		
50.00	80.00	12.89	11.77	10.43	80.00	14.26	9.79	7.28	10.00	1.56	1.40	1.28		
90.21	120.21	4.77	4.72	4.67	120.21	4.99	4.42	4.66	14.75	1.53	1.37	1.26		
130.41	160.41	3.30	3.15	3.12	160.41	3.33	3.57	4.25	19.50	1.52	1.36	1.25		
190.72	220.72	2.28	2.27	2.25	220.72	2.62	3.13	3.95	24.25	1.54	1.38	1.26		
230.93	260.93	2.00	1.98	1.98	260.93	2.45	3.09	4.02	29.00	1.57	1.41	1.29		
291.24	321.24	1.74	1.73	1.73	321.24	2.25	2.96	3.95	33.75	1.62	1.45	1.33		
331.44	361.44	1.61	1.62	1.63	361.44									

Harmonics Tables

RF HARMONICS ORDER	(-dBm)		(-dBc)									
	0	1	2	3	4	5	6	7	8	9	10	
0	-	-	5	18	11	37	26	34	18	44	42	66
1	-	31	+0	27	11	38	20	46	42	41	55	56
2	88	61	46	66	45	61	44	67	56	> 70	55	> 70
3	> 90	68	> 70	69	> 70	> 70	65	> 70	> 70	> 70	> 70	> 70
4	> 90	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70
5	> 90	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70
6	> 90	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70
7	> 90	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70
8	> 90	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70
9	> 90	> 70	> 70	> 70	> 70							