

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) IF Fixed @IF(OUT)=200MHz (dB)			RF (IN) (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) IF Fixed @IF(OUT)=200MHz (dB)			RF (IN) (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) IF Fixed @IF(OUT)=300MHz (dB)		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
		+17	+18	+19			+17	+18	+19			+17	+18	+19
6400.1	6200.1	15.17	15.14	15.07	8600.1	6600.1	26.66	25.94	25.12	10200.1	7200.1	25.68	26.67	27.64
6600.1	6400.1	18.34	17.59	16.86	8800.1	6800.1	28.37	28.05	27.49	10400.1	7400.1	27.26	28.08	29.08
6800.1	6600.1	24.45	23.62	22.48	9000.1	7000.1	27.86	27.80	27.62	10600.1	7600.1	28.76	29.46	30.11
7200.1	7000.1	25.63	24.75	23.71	9200.1	7200.1	29.23	29.71	29.95	10800.1	7800.1	29.61	29.84	30.10
7600.1	7400.1	25.71	25.34	24.83	9400.1	7400.1	26.71	26.64	26.87	11000.1	8000.1	33.87	34.38	33.51
8000.1	7800.1	29.16	28.86	28.47	9600.1	7600.1	29.71	29.52	28.74	11200.1	8200.1	30.86	29.53	28.52
8400.1	8200.1	29.75	28.95	28.21	9800.1	7800.1	29.44	30.57	31.12	11600.1	8600.1	27.81	27.28	26.76
8800.1	8600.1	28.25	27.97	27.61	10000.1	8000.1	29.54	31.04	31.98	12000.1	9000.1	27.31	26.79	26.03
9200.1	9000.1	25.78	26.22	26.83	10400.1	8400.1	27.76	28.80	29.61	12400.1	9400.1	23.99	23.83	23.80
9600.1	9400.1	28.14	27.22	26.48	10800.1	8800.1	31.91	32.35	32.68	12800.1	9800.1	26.49	25.69	25.01
10000.1	9800.1	30.36	30.89	30.73	11200.1	9200.1	35.67	35.14	34.74	13200.1	10200.1	27.77	26.47	25.24
10400.1	10200.1	30.15	31.64	32.36	11600.1	9600.1	33.19	32.43	31.96	13600.1	10600.1	27.64	26.66	25.68
10800.1	10600.1	30.02	32.01	33.04	12000.1	10000.1	38.32	36.84	35.52	14000.1	11000.1	27.93	27.08	26.24
11200.1	11000.1	31.56	33.61	34.07	12400.1	10400.1	34.96	35.37	34.78	14200.1	11200.1	27.23	26.36	25.54
11600.1	11400.1	30.07	32.26	34.65	12800.1	10800.1	34.11	35.75	35.93	14400.1	11400.1	28.37	27.34	26.34
12000.1	11800.1	29.66	30.20	30.73	13200.1	11200.1	34.03	35.10	35.07	14600.1	11600.1	27.58	26.85	26.11
12200.1	12000.1	29.46	28.90	29.03	13600.1	11600.1	34.47	34.99	34.03	14800.1	11800.1	26.89	26.29	25.33
12800.1	12600.1	31.73	29.52	27.56	14000.1	12000.1	33.88	33.94	33.30	15000.1	12000.1	26.48	26.55	25.70
13200.1	13000.1	31.48	29.98	28.88	14400.1	12400.1	32.70	33.04	32.86	15200.1	12200.1	26.00	26.22	25.64
13600.1	13400.1	35.82	35.69	34.30	14800.1	12800.1	31.44	31.83	31.85	15400.1	12400.1	24.62	24.79	24.52
14000.1	13800.1	34.64	33.66	32.47	15000.1	13000.1	29.70	30.66	31.35	15600.1	12600.1	24.98	25.23	24.91
14400.1	14200.1	32.52	32.06	31.04	15200.1	13200.1	28.33	29.49	30.45	15800.1	12800.1	24.98	25.22	24.78
14800.1	14600.1	31.25	31.23	30.55	15600.1	13600.1	27.40	28.26	29.28	16000.1	13000.1	25.07	25.32	24.81
15200.1	15000.1	30.19	30.58	30.47	16000.1	14000.1	27.79	28.44	29.22	16400.1	13400.1	24.58	25.14	24.94
15400.1	15200.1	29.01	29.58	29.85	16400.1	14400.1	28.38	29.03	29.71	16800.1	13800.1	24.32	25.10	24.90
15600.1	15400.1	28.27	28.50	28.72	16800.1	14800.1	28.85	29.60	30.26	17200.1	14200.1	24.44	25.29	25.20
16000.1	15800.1	27.06	27.47	27.66	17200.1	15200.1	29.18	30.02	30.85	17600.1	14600.1	24.75	25.93	25.90
16400.1	16200.1	26.68	27.43	27.99	17600.1	15600.1	29.64	30.81	31.79	18000.1	15000.1	23.84	25.23	25.63
16800.1	16600.1	26.43	27.27	28.12	18000.1	16000.1	31.23	33.17	34.52	18400.1	15400.1	23.46	24.85	25.24
17200.1	17000.1	25.76	26.62	27.43	18400.1	16400.1	29.65	32.39	34.86	18800.1	15800.1	23.40	24.49	24.32
17600.1	17400.1	24.87	25.71	26.55	18800.1	16800.1	28.26	30.21	32.53	19200.1	16200.1	23.51	24.52	24.58
18000.1	17800.1	25.42	26.60	27.76	19200.1	17200.1	30.27	31.77	33.36	19600.1	16600.1	24.05	25.34	25.40
18400.1	18200.1	26.41	28.02	29.68	19600.1	17600.1	33.19	34.01	34.51	20000.1	17000.1	24.20	25.38	25.52
18800.1	18600.1	26.94	28.58	30.33	20000.1	18000.1	33.69	33.98	33.93	20400.1	17400.1	25.73	26.63	26.59
19200.1	19000.1	27.55	29.12	30.89	20400.1	18400.1	34.44	34.10	33.81	20800.1	17800.1	27.07	27.71	27.53
19600.1	19400.1	28.79	30.41	31.98	20800.1	18800.1	35.19	34.61	34.58	21000.1	18000.1	27.03	27.38	27.31
20000.1	19800.1	30.07	31.21	31.83	21200.1	19200.1	30.60	30.94	31.09	21200.1	18200.1	26.87	27.19	27.46
20400.1	20200.1	30.96	31.64	32.46	21600.1	19600.1	27.43	28.03	28.45	21600.1	18600.1	26.29	26.56	26.86
20800.1	20600.1	31.65	32.32	33.28	22000.1	20000.1	26.94	27.99	28.97	22000.1	19000.1	26.68	26.99	27.09
21200.1	21000.1	34.60	34.51	34.77	22400.1	20400.1	26.44	27.45	28.41	22400.1	19400.1	27.07	27.17	27.53
21600.1	21400.1	37.66	36.78	36.89	22800.1	20800.1	25.67	26.62	27.53	22800.1	19800.1	27.82	27.87	28.00
22000.1	21800.1	35.58	37.10	37.64	23200.1	21200.1	26.69	27.62	28.53	23200.1	20200.1	30.17	30.00	29.84
22400.1	22200.1	36.47	38.71	40.33	23600.1	21600.1	31.38	32.19	33.19	23600.1	20600.1	29.70	29.98	29.97
22800.1	22600.1	28.79	29.97	30.91	24000.1	22000.1	33.35	34.04	34.83	24000.1	21000.1	29.62	30.01	30.04
23200.1	23000.1	25.44	26.56	27.57	25000.1	23000.1	34.67	34.84	35.00	25000.1	22000.1	30.31	30.46	31.00
23600.1	23400.1	25.40	26.39	27.57	26000.1	24000.1	37.06	37.76	37.84	26000.1	23000.1	29.33	29.67	30.11
24000.1	23800.1	26.38	27.61	29.03	27000.1	25000.1	37.79	37.85	38.71	27000.1	24000.1	26.08	28.07	28.87
24200.1	24000.1	26.32	27.43	28.73	28000.1	26000.1	33.86	35.30	36.62	28000.1	25000.1	22.78	25.14	27.36

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF Fixed @IF(OUT)=200MHz (dB)			RF (IN) (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF Fixed @IF(OUT)=2000MHz (dB)			RF (IN) (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF Fixed @IF(OUT)=3000MHz (dB)		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
		+17	+18	+19			+17	+18	+19			+17	+18	+19
6200.1	6000.1	19.90	21.00	22.44	8000.1	6000.1	21.97	21.62	21.66	9000.1	6000.1	22.56	21.62	21.14
6400.1	6200.1	22.76	24.69	27.70	8200.1	6200.1	24.67	24.55	24.69	9200.1	6200.1	26.70	25.69	25.13
6600.1	6400.1	30.21	27.66	27.88	8400.1	6400.1	24.57	23.83	23.34	9400.1	6400.1	25.60	23.79	22.81
7000.1	6800.1	28.64	31.92	36.58	8800.1	6800.1	29.44	31.52	34.33	9800.1	6800.1	38.64	35.30	31.99
7400.1	7200.1	28.93	31.07	33.27	9200.1	7200.1	27.96	29.19	30.06	10200.1	7200.1	34.53	32.64	30.29
7800.1	7600.1	30.86	33.10	35.42	9600.1	7600.1	26.84	27.71	28.25	10600.1	7600.1	32.49	30.88	29.27
8200.1	8000.1	33.79	35.91	38.48	10000.1	8000.1	28.46	29.89	30.90	11000.1	8000.1	35.46	32.11	29.62
8600.1	8400.1	36.57	38.03	41.00	10400.1	8400.1	27.76	29.06	30.13	11400.1	8400.1	32.33	30.54	29.36
9000.1	8800.1	37.18	37.99	37.63	10800.1	8800.1	29.28	30.05	30.59	11800.1	8800.1	32.35	31.14	29.92
9400.1	9200.1	31.95	35.24	40.26	11200.1	9200.1	30.61	33.02	33.86	12200.1	9200.1	42.26	42.56	36.53
9800.1	9600.1	33.89	35.67	38.02	11600.1	9600.1	31.60	33.56	35.30	12600.1	9600.1	40.47	39.80	38.01
10200.1	10000.1	35.82	39.06	39.81	12000.1	10000.1	32.31	32.18	32.03	13000.1	10000.1	30.80	33.51	35.74
10600.1	10400.1	36.27	38.27	37.65	12400.1	10400.1	36.04	35.50	34.77	13400.1	10400.1	39.79	45.62	42.11
11000.1	10800.1	36.84	36.83	35.04	12800.1	10800.1	28.51	28.22	27.96	13800.1	10800.1	37.26	41.80	39.56
11400.1	11200.1	41.25	41.32	37.30	13200.1	11200.1	32.22	30.57	29.36	14200.1	11200.1	44.04	44.61	37.62
11800.1	11600.1	34.27	32.91	31.68	13600.1	11600.1	30.18	29.02	27.96	14600.1	11600.1	33.44	31.94	30.65
12200.1	12000.1	30.87	29.33	28.19	14000.1	12000.1	26.65	26.57	26.50	15000.1	12000.1	31.70	31.57	31.45
12600.1	12400.1	34.77	31.91	30.25	14400.1	12400.1	28.89	27.37	26.65	15400.1	12400.1	27.79	26.57	26.18
13000.1	12800.1	30.55	28.32	26.55	14800.1	12800.1	26.76	25.32	24.13	15800.1	12800.1	30.81	29.37	27.90
13400.1	13200.1	36.23	32.65	30.36	15200.1	13200.1	26.32	25.28	24.50	16200.1	13200.1	30.05	29.42	28.70
13800.1	13600.1	30.17	28.60	27.59	15600.1	13600.1	26.20	25.48	24.88	16600.1	13600.1	28.30	28.32	28.25
14200.1	14000.1	30.12	28.78	27.72	16000.1	14000.1	25.82	25.32	24.85	17000.1	14000.1	25.87	26.41	26.61
14600.1	14400.1	28.24	27.27	26.32	16400.1	14400.1	24.61	24.29	23.84	17400.1	14400.1	25.65	26.74	26.90
15000.1	14800.1	26.39	25.66	24.87	16800.1	14800.1	24.73	24.62	24.27	17800.1	14800.1	25.00	26.60	27.21
15200.1	15000.1	24.98	24.61	24.06	17000.1	15000.1	24.14	24.46	24.50	18000.1	15000.1	23.52	25.14	26.01
15400.1	15200.1	23.81	23.82	23.57	17200.1	15200.1	22.86	23.62	23.83	18200.1	15200.1	22.43	24.19	25.25
15800.1	15600.1	21.84	22.64	23.11	17600.1	15600.1	20.59	21.35	21.90	18600.1	15600.1	20.94	22.81	24.26
16200.1	16000.1	20.60	21.59	22.36	18000.1	16000.1	19.75	20.66	21.36	19000.1	16000.1	18.79	20.18	21.57
16600.1	16400.1	19.63	20.40	21.25	18400.1	16400.1	18.45	19.06	19.80	19400.1	16400.1	18.86	19.73	20.77
17000.1	16800.1	19.95	20.64	21.42	18800.1	16800.1	18.66	19.19	19.78	19800.1	16800.1	19.85	20.79	21.79
17400.1	17200.1	19.02	19.64	20.36	19200.1	17200.1	19.56	20.11	20.70	20200.1	17200.1	20.79	21.57	22.55
17800.1	17600.1	19.02	19.65	20.26	19600.1	17600.1	20.83	21.33	21.84	20600.1	17600.1	21.55	22.36	23.24
18200.1	18000.1	20.05	20.82	21.55	20000.1	18000.1	21.65	22.18	22.67	21000.1	18000.1	21.07	22.06	23.08
18600.1	18400.1	21.23	22.10	22.98	20400.1	18400.1	22.22	22.89	23.56	21400.1	18400.1	21.00	22.00	23.14
19000.1	18800.1	21.78	22.63	23.58	20800.1	18800.1	21.99	22.84	23.71	21800.1	18800.1	21.81	22.64	23.67
19400.1	19200.1	22.69	23.42	24.34	21200.1	19200.1	21.79	22.53	23.35	22200.1	19200.1	23.17	24.07	25.19
19800.1	19600.1	23.44	23.86	24.36	21600.1	19600.1	22.01	22.64	23.29	22600.1	19600.1	23.23	24.12	25.02
20200.1	20000.1	24.54	24.66	25.00	22000.1	20000.1	22.07	22.53	22.90	23000.1	20000.1	22.57	23.46	24.15
20600.1	20400.1	24.85	25.20	25.68	22400.1	20400.1	22.56	23.22	23.90	23400.1	20400.1	21.32	22.82	24.12
21000.1	20800.1	25.73	26.28	26.77	22800.1	20800.1	23.19	23.74	24.18	23800.1	20800.1	19.85	23.14	25.16
21400.1	21200.1	26.54	26.88	27.06	23200.1	21200.1	24.32	24.73	24.96	24000.1	21000.1	19.26	22.74	25.19
21800.1	21600.1	28.42	28.25	27.96	23600.1	21600.1	24.50	24.74	24.82	24600.1	21600.1	22.38	24.13	26.63
22200.1	22000.1	29.79	29.15	28.51	24000.1	22000.1	25.66	25.67	25.70	25000.1	22000.1	23.71	25.17	26.10
22600.1	22400.1	28.80	28.44	27.88	24400.1	22400.1	26.11	26.09	25.98	25400.1	22400.1	13.19	16.20	22.25
23000.1	22800.1	29.53	29.11	28.39	24800.1	22800.1	23.86	25.08	25.64	25800.1	22800.1	7.97	8.57	10.35
23400.1	23200.1	29.53	28.84	28.17	25200.1	23200.1	19.84	22.25	24.28	26200.1	23200.1	10.79	12.60	16.30
23800.1	23600.1	30.20	29.51	28.67	25600.1	23600.1	20.99	21.92	23.93	26600.1	23600.1	8.45	12.83	22.30
24000.1	23800.1	30.10	29.66	29.07	26000.1	24000.1	27.31	26.30	25.68	27000.1	24000.1	1.59	5.00	12.51

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS VS. RF FREQUENCY @IF = 200 MHz			RF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. RF FREQUENCY @IF = 2000 MHz			RF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. RF FREQUENCY @IF = 3000 MHz		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
		+17	+18	+19			+17	+18	+19			+17	+18	+19
6000.1	6200.1	9.06	8.71	8.45	6000.1	8000.1	8.42	8.28	8.18	6000.1	9000.1	8.86	8.82	8.80
6200.1	6400.1	7.54	7.33	7.19	6200.1	8200.1	7.55	7.46	7.39	6200.1	9200.1	8.16	8.15	8.16
6400.1	6600.1	7.21	7.06	6.95	6400.1	8400.1	7.19	7.13	7.07	6400.1	9400.1	7.73	7.74	7.75
6800.1	7000.1	7.23	7.18	7.17	6800.1	8800.1	7.00	6.99	7.00	6800.1	9800.1	7.43	7.43	7.44
7200.1	7400.1	7.66	7.57	7.53	7200.1	9200.1	6.91	6.92	6.95	7200.1	10200.1	7.61	7.54	7.52
7600.1	7800.1	7.77	7.72	7.69	7600.1	9600.1	7.14	7.15	7.18	7600.1	10600.1	7.88	7.78	7.73
8000.1	8200.1	7.58	7.54	7.54	8000.1	10000.1	7.33	7.33	7.36	8000.1	11000.1	8.19	8.07	8.00
8400.1	8600.1	7.32	7.29	7.29	8400.1	10400.1	7.45	7.38	7.37	8400.1	11400.1	8.65	8.52	8.43
8800.1	9000.1	7.29	7.26	7.27	8800.1	10800.1	7.85	7.75	7.69	8800.1	11800.1	8.58	8.53	8.51
9200.1	9400.1	7.28	7.27	7.29	9200.1	11200.1	8.08	8.04	8.01	9200.1	12200.1	8.44	8.36	8.34
9600.1	9800.1	7.29	7.30	7.35	9600.1	11600.1	7.87	7.88	7.94	9600.1	12600.1	8.56	8.40	8.27
10000.1	10200.1	7.28	7.29	7.33	10000.1	12000.1	7.77	7.73	7.76	10000.1	13000.1	8.85	8.71	8.59
10400.1	10600.1	7.49	7.45	7.47	10400.1	12400.1	8.26	8.08	7.91	10400.1	13400.1	9.03	8.91	8.81
10800.1	11000.1	7.68	7.69	7.74	10800.1	12800.1	8.57	8.45	8.34	10800.1	13800.1	9.42	9.27	9.15
11200.1	11400.1	7.78	7.75	7.77	11200.1	13200.1	9.01	8.88	8.78	11200.1	14200.1	9.67	9.52	9.40
11600.1	11800.1	7.94	7.86	7.83	11600.1	13600.1	9.33	9.17	9.04	11600.1	14600.1	9.70	9.55	9.44
12000.1	12200.1	8.29	8.11	7.98	12000.1	14000.1	9.27	9.12	9.00	12000.1	15000.1	9.78	9.61	9.49
12400.1	12600.1	8.54	8.41	8.30	12400.1	14400.1	9.42	9.14	8.95	12400.1	15400.1	9.54	9.37	9.25
12800.1	13000.1	8.38	8.26	8.17	12800.1	14800.1	8.97	8.82	8.72	12800.1	15800.1	9.55	9.42	9.32
13200.1	13400.1	8.81	8.63	8.50	13200.1	15200.1	8.99	8.78	8.66	13200.1	16200.1	9.49	9.40	9.33
13600.1	13800.1	8.28	8.11	8.00	13600.1	15600.1	8.72	8.58	8.49	13600.1	16600.1	9.15	9.10	9.07
14000.1	14200.1	8.36	8.14	8.00	14000.1	16000.1	8.55	8.47	8.40	14000.1	17000.1	8.85	8.81	8.84
14400.1	14600.1	8.30	8.04	7.88	14400.1	16400.1	8.29	8.26	8.27	14400.1	17400.1	8.60	8.60	8.68
14800.1	15000.1	8.17	7.94	7.80	14800.1	16800.1	8.30	8.28	8.31	14800.1	17800.1	8.54	8.56	8.66
15000.1	15200.1	8.30	8.06	7.91	15000.1	17000.1	8.30	8.29	8.34	15000.1	18000.1	8.60	8.59	8.66
15200.1	15400.1	8.23	8.02	7.90	15200.1	17200.1	8.20	8.24	8.34	15200.1	18200.1	8.63	8.64	8.72
15600.1	15800.1	8.46	8.23	8.10	15600.1	17600.1	8.13	8.19	8.31	15600.1	18600.1	8.67	8.68	8.80
16000.1	16200.1	8.59	8.43	8.34	16000.1	18000.1	8.35	8.36	8.46	16000.1	19000.1	8.79	8.68	8.72
16400.1	16600.1	8.98	8.85	8.82	16400.1	18400.1	8.72	8.74	8.84	16400.1	19400.1	9.49	9.31	9.27
16800.1	17000.1	9.81	9.58	9.52	16800.1	18800.1	9.45	9.36	9.38	16800.1	19800.1	10.60	10.31	10.18
17200.1	17400.1	9.98	9.92	9.91	17200.1	19200.1	10.54	10.26	10.13	17200.1	20200.1	10.94	10.75	10.68
17600.1	17800.1	10.11	9.97	9.95	17600.1	19600.1	10.76	10.62	10.59	17600.1	20600.1	10.96	10.77	10.71
18000.1	18200.1	10.45	10.18	10.05	18000.1	20000.1	10.76	10.70	10.74	18000.1	21000.1	11.09	10.76	10.63
18400.1	18600.1	11.02	10.66	10.45	18400.1	20400.1	10.98	10.80	10.76	18400.1	21400.1	11.04	10.83	10.73
18800.1	19000.1	11.09	10.80	10.62	18800.1	20800.1	10.97	10.80	10.76	18800.1	21800.1	11.25	11.03	10.91
19200.1	19400.1	10.89	10.73	10.65	19200.1	21200.1	11.06	10.90	10.84	19200.1	22200.1	11.82	11.47	11.26
19600.1	19800.1	10.89	10.63	10.51	19600.1	21600.1	11.15	10.95	10.87	19600.1	22600.1	11.72	11.49	11.36
20000.1	20200.1	10.63	10.42	10.34	20000.1	22000.1	11.09	10.89	10.80	20000.1	23000.1	11.64	11.43	11.30
20400.1	20600.1	10.03	9.90	9.87	20400.1	22400.1	10.64	10.47	10.39	20400.1	23400.1	11.28	11.06	10.90
20800.1	21000.1	9.62	9.49	9.47	20800.1	22800.1	10.48	10.22	10.05	20800.1	23800.1	11.06	10.86	10.71
21200.1	21400.1	9.26	9.24	9.28	21200.1	23200.1	10.20	10.02	9.91	21000.1	24000.1	11.15	10.95	10.78
21600.1	21800.1	9.10	9.10	9.16	21600.1	23600.1	10.68	10.50	10.35	21600.1	24600.1	11.66	11.48	11.33
22000.1	22200.1	9.23	9.14	9.14	22000.1	24000.1	11.08	10.89	10.74	22000.1	25000.1	11.32	11.16	11.04
22400.1	22600.1	9.48	9.41	9.42	22400.1	24400.1	10.58	10.43	10.32	22400.1	25400.1	10.84	10.69	10.60
22800.1	23000.1	9.82	9.70	9.63	22800.1	24800.1	10.08	9.95	9.86	22800.1	25800.1	11.53	11.05	10.77
23200.1	23400.1	10.03	9.86	9.74	23200.1	25200.1	9.97	9.81	9.71	23200.1	26200.1	12.08	11.34	10.97
23600.1	23800.1	9.92	9.77	9.65	23600.1	25600.1	10.20	9.99	9.86	23600.1	26600.1	13.43	12.12	11.58
23800.1	24000.1	9.99	9.83	9.70	24000.1	26000.1	11.30	10.93	10.70	24000.1	27000.1	25.74	16.97	13.39

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

IF (MHz)	RF (IN) (MHz)	CONVERSION LOSS VS. IF FREQUENCY @ Fixed LO = 6.3 GHz			IF (MHz)	RF (IN) (MHz)	CONVERSION LOSS VS. IF FREQUENCY @ Fixed LO = 15.25 GHz			IF (MHz)	RF (IN) (MHz)	CONVERSION LOSS VS. IF FREQUENCY @ Fixed LO = 24.7GHz		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
		+17	+18	+19			+17	+18	+19			+17	+18	+19
10	6310.1	7.34	7.03	6.78	10	15260	7.98	7.68	7.63	10	24690.1	10.90	10.68	10.52
50	6350.1	7.20	6.88	6.63	50	15300	8.19	7.86	7.80	50	24650.1	10.84	10.63	10.46
100	6400.1	7.10	6.77	6.52	100	15350	8.00	7.69	7.69	100	24600.1	10.75	10.55	10.39
200	6500.1	6.90	6.58	6.31	200	15450	8.23	7.92	7.89	200	24500.1	10.51	10.31	10.16
300	6600.1	6.86	6.51	6.23	300	15550	8.51	8.22	8.20	300	24400.1	10.48	10.28	10.13
400	6700.1	6.87	6.51	6.22	400	15650	8.66	8.36	8.29	400	24300.1	10.38	10.19	10.03
500	6800.1	6.98	6.61	6.30	600	15850	8.84	8.56	8.49	500	24200.1	10.34	10.14	10.00
600	6900.1	7.11	6.73	6.41	800	16050	9.23	8.91	8.86	600	24100.1	10.25	10.06	9.91
700	7000.1	7.16	6.77	6.45	1000	16250	9.42	9.07	9.02	700	24000.1	10.19	10.00	9.86
800	7100.1	7.23	6.84	6.52	1200	16450	9.74	9.42	9.37	800	23900.1	10.17	9.97	9.82
900	7200.1	7.38	6.99	6.66	1400	16650	10.26	9.94	9.90	900	23800.1	10.18	9.99	9.84
1000	7300.1	7.42	7.03	6.71	1600	16850	10.36	10.05	10.03	1000	23700.1	10.09	9.90	9.75
1100	7400.1	7.46	7.09	6.77	1800	17050	10.49	10.23	10.24	1100	23600.1	10.08	9.89	9.75
1200	7500.1	7.61	7.24	6.93	2000	17250	10.65	10.38	10.39	1200	23500.1	10.06	9.87	9.73
1300	7600.1	7.69	7.33	7.04	2200	17450	11.34	11.03	11.05	1300	23400.1	10.03	9.84	9.71
1400	7700.1	7.76	7.41	7.13	2400	17650	11.55	11.22	11.19	1400	23300.1	10.02	9.84	9.71
1500	7800.1	7.68	7.34	7.07	2600	17850	11.66	11.33	11.29	1500	23200.1	10.01	9.84	9.71
1600	7900.1	7.71	7.37	7.11	2800	18050	11.54	11.18	11.10	1600	23100.1	10.05	9.88	9.75
1700	8000.1	7.73	7.41	7.15	3000	18250	12.13	11.75	11.68	1700	23000.1	10.09	9.92	9.80
1800	8100.1	7.76	7.44	7.19	3200	18450	11.96	11.53	11.46	1800	22900.1	10.20	10.04	9.92
1900	8200.1	7.83	7.50	7.25	3400	18650	11.96	11.50	11.40	1900	22800.1	10.24	10.09	9.97
2000	8300.1	7.71	7.40	7.28	3600	18850	12.38	11.90	11.80	2000	22700.1	10.21	10.06	9.95
2100	8400.1	7.78	7.48	7.37	3700	18950	12.53	12.01	11.90	2100	22600.1	10.43	10.29	10.18
2200	8500.1	7.91	7.62	7.54	3800	19050	12.95	12.39	12.27	2200	22500.1	10.58	10.44	10.32
2300	8600.1	7.91	7.66	7.57	3900	19150	12.70	12.18	12.08	2300	22400.1	10.70	10.56	10.44
2400	8700.1	7.98	7.72	7.64	4000	19250	13.00	12.41	12.27	2400	22300.1	10.83	10.69	10.57
2500	8800.1	8.05	7.85	7.76	4100	19350	13.07	12.48	12.29	2500	22200.1	11.03	10.88	10.76
2600	8900.1	8.27	8.05	7.95	4200	19450	12.95	12.36	12.19	2600	22100.1	11.24	11.09	10.97
2700	9000.1	8.30	8.15	8.05	4300	19550	13.30	12.68	12.52	2700	22000.1	11.27	11.12	10.99
2800	9100.1	8.37	8.09	7.99	4400	19650	13.28	12.69	12.49	2800	21900.1	11.39	11.23	11.09
2900	9200.1	8.47	8.19	8.06	4600	19850	13.39	12.72	12.54	2900	21800.1	11.52	11.35	11.21
3000	9300.1	8.62	8.34	8.24	4800	20050	13.45	12.78	12.55	3000	21700.1	11.72	11.53	11.39
3100	9400.1	8.68	8.39	8.24	5000	20250	13.61	12.85	12.58	3200	21500.1	11.74	11.55	11.39
3200	9500.1	8.67	8.39	8.28	5200	20450	13.86	13.11	12.81	3400	21300.1	11.92	11.70	11.53
3300	9600.1	8.61	8.35	8.26	5400	20650	14.25	13.44	13.11	3600	21100.1	11.88	11.67	11.49
3400	9700.1	8.67	8.46	8.37	5600	20850	14.25	13.38	13.06	3800	20900.1	12.02	11.79	11.60
3600	9900.1	8.71	8.55	8.48	5800	21050	14.61	13.75	13.43	4000	20700.1	12.30	12.07	11.87
3800	10100.1	8.74	8.62	8.57	6000	21250	14.89	14.07	13.74	4200	20500.1	12.47	12.23	12.04
4000	10300.1	8.84	8.75	8.73	6200	21450	15.07	14.28	13.96	4400	20300.1	12.55	12.30	12.10
4200	10500.1	8.92	8.85	8.85	6400	21650	15.10	14.31	13.99	4600	20100.1	12.62	12.37	12.17
4400	10700.1	9.28	9.24	9.26	6600	21850	15.29	14.48	14.20	4800	19900.1	12.67	12.41	12.20
4600	10900.1	9.28	9.24	9.28	6800	22050	15.17	14.39	14.06	5000	19700.1	12.80	12.52	12.31
4800	11100.1	9.76	9.72	9.76	7000	22250	15.10	14.28	13.98	5200	19500.1	12.98	12.69	12.46
5000	11300.1	9.62	9.59	9.65	7200	22450	15.67	14.83	14.45	5400	19300.1	13.02	12.72	12.48
5200	11500.1	9.97	9.92	9.99	7400	22650	15.74	14.84	14.47	5600	19100.1	13.19	12.89	12.66
5400	11700.1	9.78	9.75	9.83	7600	22850	16.31	15.36	14.95	5800	18900.1	13.30	13.01	12.77
5600	11900.1	9.92	9.90	10.00	7800	23050	16.56	15.60	15.21	6000	18700.1	13.35	13.07	12.85
5700	12000.1	10.02	9.99	10.10	8000	23250	17.05	16.11	15.72	6200	18500.1	13.33	13.07	12.87

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

LO (IN) (MHz)	LO-RF ISOLATION (dB)			LO-IF (I) ISOLATION (dB)			LO-IF (Q) ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19	+17	+18	+19
6000.1	46.37	46.55	46.63	37.11	37.02	36.99	38.27	38.26	38.26
6400.1	46.00	46.50	46.85	38.80	38.48	38.30	39.37	39.30	39.24
6800.1	45.25	46.14	46.84	39.72	39.20	38.84	42.21	41.82	41.45
7200.1	44.29	45.40	46.49	42.15	41.40	40.83	48.55	46.97	45.66
7600.1	44.74	45.92	47.01	44.18	43.22	42.45	51.00	49.08	47.40
8000.1	44.37	45.74	47.11	44.96	44.39	43.78	46.64	46.83	46.33
8400.1	42.32	43.48	44.70	44.64	45.21	45.38	44.22	45.12	45.43
8800.1	40.86	41.68	42.50	44.26	45.16	45.72	42.25	43.22	43.84
9200.1	40.22	40.92	41.59	43.38	43.78	44.05	41.90	42.47	42.72
9600.1	39.64	40.33	41.00	44.04	44.53	44.77	41.67	42.13	42.34
10000.1	38.72	39.42	40.14	44.14	44.83	45.27	40.99	41.41	41.62
10400.1	38.10	38.74	39.40	45.91	46.56	47.00	41.49	41.82	42.03
10800.1	37.73	38.34	38.97	49.45	50.10	50.57	43.30	43.58	43.77
11200.1	37.51	38.05	38.62	54.45	54.95	55.29	45.72	45.86	45.95
11600.1	37.30	37.87	38.47	60.86	62.63	63.39	47.51	47.66	47.74
12000.1	37.71	38.22	38.81	58.67	61.30	63.69	47.95	48.20	48.35
12400.1	38.34	38.87	39.36	60.58	61.90	63.13	48.92	49.21	49.35
12800.1	38.56	39.25	39.92	55.19	55.55	55.88	51.11	51.16	51.12
13200.1	38.97	39.81	40.65	50.77	51.30	51.82	51.39	51.54	51.69
13600.1	38.59	39.41	40.23	48.75	49.24	49.72	50.20	50.51	50.81
14000.1	38.78	39.77	40.79	48.39	48.87	49.34	48.57	48.93	49.28
14400.1	38.50	39.60	40.77	47.90	48.37	48.85	47.20	47.55	47.90
14800.1	38.29	39.45	40.66	48.02	48.55	49.07	46.92	47.19	47.47
15000.1	38.27	39.44	40.66	48.54	49.08	49.63	47.15	47.30	47.47
15200.1	38.37	39.66	41.00	51.10	51.65	52.24	47.31	47.34	47.39
15400.1	38.85	40.43	42.15	53.63	54.10	54.67	45.99	46.05	46.12
15600.1	39.25	41.12	43.25	62.52	63.22	64.15	44.75	44.82	44.90
16000.1	39.12	41.02	43.22	62.17	61.81	61.48	46.88	46.92	47.02
16400.1	40.02	42.63	46.30	61.12	61.89	62.76	49.60	49.64	49.70
16800.1	39.56	41.68	44.47	56.22	56.36	56.56	49.75	49.61	49.47
17200.1	38.84	40.19	41.81	51.16	50.94	50.74	48.54	48.42	48.28
17600.1	38.41	39.37	40.44	50.41	50.33	50.22	47.90	47.90	47.87
18000.1	38.34	39.25	40.23	51.19	51.36	51.50	49.07	49.20	49.32
18400.1	37.94	38.62	39.31	50.25	50.52	50.75	50.40	50.75	51.10
18800.1	38.50	39.24	40.00	48.64	48.96	49.24	50.44	50.92	51.38
19200.1	38.94	39.64	40.32	46.25	46.61	46.96	49.35	49.90	50.46
19600.1	38.91	39.60	40.30	42.46	42.77	43.06	47.12	47.60	48.09
20000.1	38.50	39.01	39.46	39.81	40.00	40.20	45.76	46.14	46.56
20400.1	38.52	39.12	39.71	39.71	39.76	39.84	44.17	44.34	44.55
20800.1	37.97	38.67	39.35	39.54	39.53	39.52	42.12	42.20	42.30
21200.1	37.58	38.25	38.87	39.39	39.21	39.03	41.41	41.32	41.19
21600.1	37.60	38.30	38.95	38.40	37.98	37.59	41.06	40.70	40.33
22000.1	37.59	38.25	38.85	35.60	34.95	34.40	39.39	38.73	38.10
22400.1	36.56	37.06	37.46	31.87	31.19	30.64	36.46	35.68	35.04
22800.1	36.05	36.64	37.15	31.29	30.61	30.02	35.68	34.90	34.20
23200.1	35.02	35.60	36.12	29.49	28.93	28.44	33.37	32.78	32.26
23600.1	34.58	35.20	35.78	28.87	28.43	28.00	33.01	32.61	32.21
24000.1	34.48	35.30	36.09	27.26	27.06	26.90	31.85	31.72	31.61

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF-IF (I) ISOLATION (dB)			RF-IF (Q) ISOLATION (dB)		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
6000.1	6200.1	23.83	24.02	24.13	23.22	23.33	23.46
6200.1	6400.1	22.42	22.57	22.64	22.48	22.64	22.83
6400.1	6600.1	21.89	22.03	22.10	22.32	22.45	22.61
6800.1	7000.1	22.00	22.03	22.00	22.94	23.06	23.22
7200.1	7400.1	23.19	23.15	23.05	24.53	24.51	24.52
7600.1	7800.1	24.94	24.84	24.69	26.77	26.63	26.51
8000.1	8200.1	26.68	26.53	26.32	28.45	28.33	28.19
8400.1	8600.1	28.55	28.42	28.21	29.36	29.24	29.14
8800.1	9000.1	29.53	29.45	29.33	31.36	31.27	31.14
9200.1	9400.1	29.59	29.37	29.15	31.96	31.95	31.92
9600.1	9800.1	29.16	28.94	28.71	32.40	32.33	32.26
10000.1	10200.1	28.10	27.88	27.66	32.14	32.11	32.08
10400.1	10600.1	28.05	27.90	27.75	32.65	32.59	32.54
10800.1	11000.1	28.92	28.73	28.61	33.39	33.37	33.39
11200.1	11400.1	30.66	30.44	30.28	36.05	35.89	35.76
11600.1	11800.1	31.17	30.99	30.83	38.28	37.90	37.57
12000.1	12200.1	30.66	30.61	30.59	39.70	39.41	39.15
12400.1	12600.1	30.07	29.98	29.91	36.52	36.47	36.44
12800.1	13000.1	30.13	30.03	29.95	33.60	33.57	33.55
13200.1	13400.1	31.33	31.25	31.21	31.85	31.82	31.80
13600.1	13800.1	33.24	33.16	33.10	30.52	30.49	30.49
14000.1	14200.1	37.75	37.69	37.64	30.26	30.27	30.28
14400.1	14600.1	47.69	49.42	50.95	30.37	30.42	30.45
14800.1	15000.1	37.20	37.67	38.03	31.29	31.33	31.36
15000.1	15200.1	33.72	34.11	34.37	32.51	32.58	32.63
15200.1	15400.1	32.20	32.54	32.77	34.02	34.20	34.32
15600.1	15800.1	28.52	28.83	29.06	34.08	34.53	34.86
16000.1	16200.1	27.35	27.68	27.94	32.04	32.28	32.49
16400.1	16600.1	26.65	26.96	27.23	31.52	31.72	31.89
16800.1	17000.1	25.38	25.66	25.90	30.36	30.53	30.67
17200.1	17400.1	25.59	25.81	26.01	29.92	30.02	30.11
17600.1	17800.1	27.70	27.87	28.02	30.67	30.72	30.77
18000.1	18200.1	29.45	29.58	29.71	32.49	32.53	32.56
18400.1	18600.1	30.44	30.53	30.63	34.45	34.49	34.52
18800.1	19000.1	30.52	30.61	30.67	35.33	35.34	35.37
19200.1	19400.1	29.51	29.58	29.65	35.32	35.34	35.35
19600.1	19800.1	28.19	28.25	28.29	35.41	35.43	35.45
20000.1	20200.1	28.21	28.25	28.27	39.26	39.24	39.24
20400.1	20600.1	28.92	28.96	28.96	48.73	48.31	48.01
20800.1	21000.1	29.93	30.00	30.02	40.63	40.65	40.74
21200.1	21400.1	30.74	30.77	30.79	37.50	37.59	37.66
21600.1	21800.1	31.02	31.07	31.09	35.56	35.74	35.92
22000.1	22200.1	30.73	30.85	30.93	33.17	33.44	33.68
22400.1	22600.1	30.26	30.39	30.49	30.60	30.81	31.03
22800.1	23000.1	31.21	31.47	31.72	28.29	28.48	28.68
23200.1	23400.1	33.93	34.27	34.55	28.22	28.40	28.60
23600.1	23800.1	35.01	35.20	35.22	28.79	28.93	29.07
23800.1	24000.1	34.86	35.21	35.46	28.97	29.12	29.27

Frequency Mixer Die SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 200 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 200 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
6000.1	6200.1	1.21	1.02	0.82	3.87	4.34	4.55
6200.1	6400.1	0.56	0.46	0.35	4.03	4.49	4.69
6400.1	6600.1	0.42	0.34	0.25	2.39	2.86	3.11
6800.1	7000.1	-0.03	-0.10	-0.20	1.75	1.03	0.70
7200.1	7400.1	-0.05	-0.14	-0.24	6.09	4.88	3.70
7600.1	7800.1	0.00	-0.08	-0.17	4.58	3.68	2.71
8000.1	8200.1	-0.08	-0.11	-0.17	0.52	0.51	0.44
8400.1	8600.1	-0.07	-0.11	-0.16	0.88	0.67	0.65
8800.1	9000.1	-0.01	-0.06	-0.12	3.10	2.11	1.21
9200.1	9400.1	0.01	-0.03	-0.08	3.19	2.73	2.17
9600.1	9800.1	-0.03	-0.06	-0.10	2.18	1.55	1.05
10000.1	10200.1	0.01	-0.05	-0.09	2.58	1.77	1.04
10400.1	10600.1	0.02	-0.03	-0.07	2.16	1.32	0.61
10800.1	11000.1	-0.01	-0.03	-0.05	1.82	0.88	0.19
11200.1	11400.1	-0.14	-0.15	-0.17	1.21	0.29	0.55
11600.1	11800.1	0.09	0.13	0.14	0.95	0.25	0.42
12000.1	12200.1	-0.18	-0.13	-0.07	1.56	2.19	2.58
12400.1	12600.1	-0.11	-0.11	-0.10	0.27	1.37	2.30
12800.1	13000.1	0.08	0.10	0.11	0.80	1.85	2.80
13200.1	13400.1	-0.39	-0.33	-0.29	1.01	1.81	2.48
13600.1	13800.1	-0.11	-0.05	-0.01	1.84	2.43	2.90
14000.1	14200.1	-0.28	-0.17	-0.11	2.27	2.68	3.15
14400.1	14600.1	-0.34	-0.20	-0.12	3.46	3.73	4.21
14800.1	15000.1	-0.18	-0.07	0.00	4.76	4.88	5.22
15000.1	15200.1	-0.20	-0.09	-0.02	6.23	5.76	5.86
15200.1	15400.1	-0.15	-0.06	0.00	7.51	6.66	6.39
15600.1	15800.1	-0.25	-0.14	-0.09	9.86	8.64	7.77
16000.1	16200.1	-0.11	-0.03	-0.01	10.61	9.56	8.41
16400.1	16600.1	-0.07	0.03	0.06	11.16	10.23	9.21
16800.1	17000.1	-0.13	0.00	0.07	11.52	10.61	9.60
17200.1	17400.1	0.06	0.18	0.25	11.65	10.51	9.34
17600.1	17800.1	-0.12	-0.03	0.04	11.54	10.49	9.45
18000.1	18200.1	-0.28	-0.20	-0.15	10.53	9.51	8.52
18400.1	18600.1	-0.20	-0.14	-0.11	9.20	8.18	7.21
18800.1	19000.1	-0.15	-0.13	-0.11	8.62	7.74	6.82
19200.1	19400.1	-0.07	-0.05	-0.04	7.00	6.32	5.61
19600.1	19800.1	-0.03	-0.02	0.00	6.12	5.68	5.28
20000.1	20200.1	0.05	0.06	0.07	4.94	4.67	4.35
20400.1	20600.1	0.12	0.09	0.08	4.47	4.05	3.64
20800.1	21000.1	0.17	0.12	0.10	3.67	3.28	2.94
21200.1	21400.1	0.18	0.17	0.17	2.12	2.13	2.12
21600.1	21800.1	0.18	0.17	0.18	1.01	1.27	1.49
22000.1	22200.1	0.18	0.15	0.15	0.21	0.33	0.71
22400.1	22600.1	0.27	0.26	0.26	0.60	0.24	0.56
22800.1	23000.1	0.27	0.26	0.25	0.25	0.60	1.08
23200.1	23400.1	0.34	0.31	0.28	0.34	0.89	1.46
23600.1	23800.1	0.31	0.27	0.24	0.49	0.94	1.40
23800.1	24000.1	0.27	0.22	0.17	0.78	1.29	1.71



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Frequency Mixer Die SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 2000 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 2000 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
6000.1	8000.1	0.71	0.57	0.44	4.10	3.09	2.39
6200.1	8200.1	0.53	0.44	0.33	3.51	2.66	2.00
6400.1	8400.1	0.39	0.31	0.23	2.00	1.52	1.16
6800.1	8800.1	0.21	0.16	0.10	0.69	0.64	0.58
7200.1	9200.1	0.05	0.04	0.00	1.85	1.50	1.08
7600.1	9600.1	0.10	0.08	0.05	2.89	2.64	2.47
8000.1	10000.1	0.19	0.16	0.13	3.21	2.49	1.97
8400.1	10400.1	0.24	0.19	0.14	2.93	2.05	1.33
8800.1	10800.1	0.37	0.32	0.28	2.64	1.63	0.78
9200.1	11200.1	0.34	0.33	0.30	2.66	1.76	0.93
9600.1	11600.1	0.30	0.29	0.28	2.05	1.24	0.46
10000.1	12000.1	0.21	0.25	0.29	0.32	0.38	0.45
10400.1	12400.1	-0.19	-0.17	-0.11	0.43	0.90	1.59
10800.1	12800.1	0.29	0.31	0.31	1.47	0.30	1.02
11200.1	13200.1	0.13	0.18	0.23	0.76	1.69	2.49
11600.1	13600.1	0.21	0.26	0.29	0.56	1.15	1.65
12000.1	14000.1	0.17	0.26	0.31	3.75	3.96	4.21
12400.1	14400.1	-0.24	-0.12	-0.04	2.00	2.25	2.60
12800.1	14800.1	-0.02	0.14	0.23	4.14	4.15	4.39
13200.1	15200.1	-0.04	0.09	0.19	5.31	4.81	4.66
13600.1	15600.1	0.11	0.17	0.22	5.83	5.38	5.17
14000.1	16000.1	0.36	0.44	0.44	7.32	6.58	5.92
14400.1	16400.1	0.38	0.49	0.54	8.32	7.70	6.93
14800.1	16800.1	0.32	0.42	0.46	8.37	7.75	6.99
15000.1	17000.1	0.39	0.47	0.50	8.58	8.01	7.28
15200.1	17200.1	0.47	0.52	0.54	8.71	8.02	7.20
15600.1	17600.1	0.44	0.49	0.49	9.37	8.50	7.55
16000.1	18000.1	0.43	0.49	0.50	9.60	8.41	7.31
16400.1	18400.1	0.37	0.43	0.47	9.99	8.83	7.72
16800.1	18800.1	0.15	0.19	0.23	8.51	7.70	6.88
17200.1	19200.1	0.11	0.14	0.18	6.97	6.22	5.50
17600.1	19600.1	0.26	0.27	0.30	5.64	4.92	4.27
18000.1	20000.1	0.26	0.27	0.29	5.00	4.60	4.22
18400.1	20400.1	0.33	0.32	0.32	4.32	4.05	3.61
18800.1	20800.1	0.38	0.35	0.34	3.47	3.08	2.71
19200.1	21200.1	0.36	0.33	0.31	1.97	1.83	1.73
19600.1	21600.1	0.38	0.33	0.33	0.38	0.47	0.54
20000.1	22000.1	0.40	0.37	0.37	0.74	0.43	0.35
20400.1	22400.1	0.43	0.40	0.40	1.11	0.60	0.37
20800.1	22800.1	0.49	0.44	0.41	1.87	1.30	0.85
21200.1	23200.1	0.43	0.41	0.40	1.92	1.36	0.90
21600.1	23600.1	0.66	0.62	0.59	2.15	1.59	1.06
22000.1	24000.1	0.66	0.63	0.59	1.71	1.10	0.64
22400.1	24400.1	0.66	0.61	0.57	1.06	0.56	0.36
22800.1	24800.1	0.88	0.83	0.78	0.49	0.33	0.47
23200.1	25200.1	1.00	0.94	0.89	2.09	2.33	2.40
23600.1	25600.1	0.57	0.51	0.48	3.48	3.35	3.05
24000.1	26000.1	0.73	0.57	0.49	1.96	1.97	1.72

Frequency Mixer Die SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 3000 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 3000 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
6000.1	9000.1	0.69	0.62	0.53	0.89	0.90	0.91
6200.1	9200.1	0.63	0.58	0.52	1.08	0.97	0.89
6400.1	9400.1	0.58	0.54	0.50	1.54	1.53	1.50
6800.1	9800.1	0.49	0.46	0.42	1.71	1.50	1.40
7200.1	10200.1	0.52	0.47	0.43	2.21	1.50	0.95
7600.1	10600.1	0.48	0.44	0.41	3.04	2.12	1.35
8000.1	11000.1	0.47	0.43	0.39	2.69	1.78	0.97
8400.1	11400.1	0.53	0.51	0.48	2.51	1.70	0.94
8800.1	11800.1	0.37	0.35	0.34	1.47	1.13	0.71
9200.1	12200.1	0.46	0.46	0.46	1.09	1.21	0.96
9600.1	12600.1	0.21	0.24	0.29	1.42	2.61	3.44
10000.1	13000.1	0.16	0.19	0.23	1.54	0.52	0.59
10400.1	13400.1	0.54	0.58	0.60	0.20	0.80	1.36
10800.1	13800.1	0.22	0.27	0.29	1.37	1.70	2.02
11200.1	14200.1	0.30	0.39	0.43	1.69	1.75	1.94
11600.1	14600.1	0.14	0.29	0.39	5.04	4.88	4.95
12000.1	15000.1	0.15	0.28	0.36	2.51	2.41	2.49
12400.1	15400.1	0.17	0.29	0.38	4.86	4.46	4.21
12800.1	15800.1	0.31	0.38	0.42	5.38	5.08	4.80
13200.1	16200.1	0.36	0.47	0.51	5.85	5.02	4.28
13600.1	16600.1	0.48	0.57	0.61	6.63	6.04	5.19
14000.1	17000.1	0.43	0.56	0.61	7.10	6.67	5.97
14400.1	17400.1	0.62	0.68	0.69	6.65	6.07	5.41
14800.1	17800.1	0.74	0.77	0.77	7.46	6.58	5.71
15000.1	18000.1	0.70	0.75	0.75	8.38	7.31	6.33
15200.1	18200.1	0.68	0.72	0.73	8.69	7.51	6.40
15600.1	18600.1	0.59	0.65	0.68	8.63	7.49	6.35
16000.1	19000.1	0.39	0.44	0.50	8.56	7.56	6.57
16400.1	19400.1	0.32	0.34	0.37	6.76	5.90	5.14
16800.1	19800.1	0.31	0.29	0.31	5.99	5.19	4.57
17200.1	20200.1	0.39	0.39	0.39	4.56	3.89	3.27
17600.1	20600.1	0.44	0.41	0.40	3.57	2.92	2.31
18000.1	21000.1	0.57	0.48	0.45	2.39	1.89	1.54
18400.1	21400.1	0.50	0.44	0.42	0.92	0.86	0.80
18800.1	21800.1	0.52	0.47	0.45	0.40	0.34	0.33
19200.1	22200.1	0.59	0.50	0.47	1.67	1.17	0.80
19600.1	22600.1	0.55	0.51	0.49	2.09	1.70	1.39
20000.1	23000.1	0.63	0.57	0.53	2.09	1.62	1.27
20400.1	23400.1	0.74	0.70	0.67	2.80	2.24	1.76
20800.1	23800.1	0.75	0.70	0.67	2.90	2.39	1.94
21000.1	24000.1	0.89	0.83	0.78	3.28	2.68	2.14
21600.1	24600.1	0.93	0.90	0.87	2.12	1.79	1.52
22000.1	25000.1	1.04	1.00	0.97	1.45	1.18	0.99
22400.1	25400.1	1.13	1.07	1.02	0.32	0.30	0.32
22800.1	25800.1	1.56	1.30	1.15	3.42	3.37	3.09
23200.1	26200.1	1.60	1.10	0.87	4.80	4.02	3.14
23600.1	26600.1	2.50	1.49	1.13	5.85	5.36	4.55
24000.1	27000.1	13.74	5.75	2.58	10.08	4.34	6.95

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)			GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)			GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)		
	IF = LO-RF = 200MHz						IF = LO-RF = 2000MHz						IF = LO-RF = 3000MHz					
	@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19
6000.1	0.53	0.51	0.48	0.20	0.29	0.34	0.02	0.01	0.00	0.05	0.05	0.05	0.18	0.15	0.13	0.20	0.16	0.14
6200.1	0.94	0.89	0.81	0.81	0.77	0.71	0.12	0.11	0.08	0.17	0.12	0.09	0.27	0.23	0.20	0.34	0.27	0.22
6400.1	0.90	0.84	0.78	0.88	0.80	0.72	0.24	0.23	0.19	0.39	0.31	0.26	0.42	0.37	0.33	0.55	0.45	0.39
6800.1	0.28	0.25	0.23	0.47	0.40	0.34	0.35	0.34	0.29	0.53	0.44	0.38	0.60	0.53	0.47	0.76	0.64	0.55
7200.1	0.16	0.16	0.15	0.09	0.07	0.05	0.29	0.28	0.24	0.48	0.40	0.34	0.53	0.48	0.42	0.60	0.53	0.46
7600.1	0.04	0.04	0.05	0.12	0.10	0.09	0.33	0.31	0.26	0.48	0.40	0.34	0.41	0.39	0.36	0.46	0.42	0.39
8000.1	0.07	0.08	0.09	0.21	0.18	0.17	0.38	0.36	0.30	0.47	0.40	0.35	0.28	0.26	0.24	0.27	0.26	0.25
8400.1	0.03	0.01	0.00	0.07	0.06	0.05	0.23	0.23	0.19	0.27	0.26	0.24	0.01	0.00	0.01	0.06	0.05	0.04
8800.1	0.08	0.09	0.10	0.16	0.15	0.14	0.18	0.21	0.19	0.16	0.17	0.19	0.07	0.07	0.07	0.09	0.09	0.08
9200.1	0.10	0.10	0.10	0.19	0.17	0.16	0.09	0.11	0.09	0.08	0.07	0.07	0.05	0.07	0.07	0.08	0.10	0.11
9600.1	0.17	0.17	0.17	0.25	0.23	0.22	0.24	0.25	0.22	0.25	0.23	0.22	0.14	0.07	0.00	0.01	0.07	0.12
10000.1	0.27	0.26	0.25	0.30	0.28	0.27	0.24	0.28	0.26	0.27	0.27	0.26	0.04	0.00	0.04	0.03	0.00	0.04
10400.1	0.17	0.18	0.18	0.18	0.19	0.19	0.09	0.00	0.04	0.04	0.09	0.13	0.05	0.04	0.02	0.08	0.07	0.05
10800.1	0.22	0.22	0.23	0.23	0.22	0.23	0.06	0.09	0.09	0.00	0.03	0.07	0.02	0.02	0.01	0.03	0.03	0.05
11200.1	0.14	0.14	0.15	0.14	0.14	0.15	0.06	0.02	0.03	0.08	0.07	0.05	0.01	0.01	0.01	0.02	0.01	0.01
11600.1	0.14	0.16	0.17	0.12	0.13	0.13	0.04	0.00	0.01	0.09	0.08	0.06	0.01	0.01	0.01	0.06	0.03	0.02
12000.1	0.16	0.19	0.22	0.22	0.24	0.25	0.09	0.13	0.12	0.07	0.08	0.09	0.15	0.17	0.18	0.25	0.23	0.22
12400.1	0.03	0.03	0.04	0.03	0.06	0.08	0.13	0.06	0.07	0.06	0.05	0.04	0.01	0.03	0.04	0.14	0.13	0.11
12800.1	0.22	0.22	0.21	0.15	0.16	0.17	0.07	0.14	0.13	0.08	0.09	0.09	0.19	0.15	0.14	0.20	0.19	0.19
13200.1	0.18	0.19	0.20	0.18	0.20	0.22	0.17	0.23	0.22	0.15	0.17	0.18	0.34	0.31	0.28	0.28	0.26	0.25
13600.1	0.16	0.16	0.16	0.12	0.13	0.14	0.08	0.10	0.09	0.03	0.05	0.07	0.27	0.23	0.21	0.21	0.17	0.15
14000.1	0.02	0.00	0.00	0.04	0.02	0.02	0.03	0.01	0.03	0.10	0.10	0.08	0.19	0.13	0.08	0.12	0.06	0.02
14400.1	0.11	0.14	0.15	0.09	0.10	0.10	0.19	0.17	0.12	0.09	0.07	0.06	0.43	0.35	0.29	0.29	0.24	0.21
14800.1	0.21	0.27	0.29	0.21	0.22	0.23	0.28	0.27	0.24	0.23	0.20	0.18	0.52	0.46	0.41	0.39	0.35	0.33
15000.1	0.24	0.22	0.21	0.17	0.18	0.18	0.43	0.34	0.25	0.29	0.24	0.21	0.59	0.46	0.38	0.38	0.32	0.29
15200.1	0.01	0.02	0.02	0.05	0.04	0.04	0.24	0.15	0.06	0.12	0.07	0.02	0.30	0.20	0.14	0.14	0.09	0.07
15600.1	0.19	0.18	0.18	0.16	0.17	0.18	0.52	0.43	0.33	0.38	0.32	0.27	0.47	0.41	0.36	0.37	0.32	0.29
16000.1	0.11	0.07	0.05	0.03	0.02	0.04	0.36	0.29	0.21	0.20	0.16	0.13	0.34	0.30	0.28	0.29	0.27	0.25
16400.1	0.17	0.14	0.12	0.13	0.11	0.09	0.33	0.30	0.23	0.23	0.19	0.18	0.21	0.26	0.28	0.20	0.26	0.29
16800.1	0.04	0.03	0.02	0.02	0.01	0.01	0.16	0.18	0.13	0.12	0.13	0.13	0.08	0.12	0.13	0.08	0.11	0.12
17200.1	0.14	0.11	0.10	0.13	0.10	0.09	0.10	0.18	0.17	0.07	0.12	0.16	0.17	0.18	0.16	0.17	0.17	0.16
17600.1	0.07	0.03	0.01	0.08	0.04	0.02	0.05	0.11	0.09	0.03	0.06	0.07	0.10	0.09	0.06	0.10	0.08	0.06
18000.1	0.17	0.16	0.15	0.21	0.20	0.19	0.24	0.27	0.22	0.22	0.22	0.22	0.28	0.25	0.22	0.28	0.25	0.22
18400.1	0.08	0.05	0.03	0.04	0.01	0.00	0.08	0.10	0.06	0.07	0.06	0.05	0.10	0.07	0.04	0.11	0.08	0.05
18800.1	0.06	0.08	0.10	0.10	0.12	0.13	0.23	0.25	0.19	0.20	0.19	0.17	0.17	0.16	0.15	0.18	0.17	0.15
19200.1	0.10	0.10	0.11	0.14	0.14	0.14	0.24	0.24	0.17	0.21	0.17	0.15	0.10	0.11	0.11	0.13	0.12	0.12
19600.1	0.21	0.22	0.22	0.25	0.25	0.24	0.28	0.28	0.23	0.28	0.23	0.21	0.14	0.16	0.16	0.17	0.18	0.18
20000.1	0.13	0.13	0.12	0.13	0.12	0.12	0.12	0.14	0.08	0.11	0.08	0.06	0.03	0.05	0.05	0.05	0.06	0.06
20400.1	0.24	0.21	0.19	0.21	0.19	0.18	0.17	0.19	0.13	0.13	0.11	0.09	0.14	0.13	0.12	0.16	0.14	0.13
20800.1	0.25	0.18	0.15	0.27	0.21	0.18	0.15	0.18	0.12	0.13	0.11	0.09	0.11	0.11	0.10	0.15	0.13	0.11
21200.1	0.16	0.09	0.05	0.17	0.09	0.06	0.05	0.08	0.02	0.02	0.00	0.02	0.03	0.02	0.02	0.03	0.03	0.03
21600.1	0.21	0.15	0.12	0.17	0.11	0.09	0.08	0.11	0.05	0.02	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00
22000.1	0.03	0.02	0.04	0.03	0.02	0.05	0.13	0.08	0.12	0.16	0.16	0.16	0.05	0.07	0.08	0.07	0.04	0.07
22400.1	0.14	0.10	0.07	0.12	0.08	0.05	0.01	0.05	0.00	0.04	0.04	0.04	0.20	0.12	0.08	0.58	0.24	0.11
22800.1	0.00	0.02	0.03	0.01	0.03	0.05	0.05	0.07	0.01	0.01	0.04	0.06	0.13	0.07	0.03	0.38	0.11	0.02
23200.1	0.01	0.01	0.02	0.04	0.04	0.05	0.24	0.20	0.10	0.29	0.10	0.03	0.14	0.08	0.05	0.59	0.21	0.05
23600.1	0.04	0.06	0.08	0.09	0.10	0.10	0.04	0.05	0.02	0.24	0.06	0.00	0.13	0.05	0.03	0.70	0.67	0.45
24000.1	0.01	0.02	0.03	0.02	0.03	0.04	0.00	0.04	0.02	0.08	0.03	0.06	0.15	0.12	0.02	11.19	3.25	0.22

Frequency Mixer Die

SMIQ-6243H-D+

Typical Performance Data

RF (IN) (MHz)	Input IP3 (I)			Input IP3 (Q)			Input IP3 (I)			Input IP3 (Q)			Input IP3 (I)			Input IP3 (Q)											
	IF = LO-RF = 200MHz									IF = LO-RF = 2000MHz									IF = LO-RF = 3000MHz								
	@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)											
	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19									
6000.1	20.09	20.73	21.09	16.91	17.83	18.82	19.95	20.32	20.72	16.97	17.62	18.27	20.98	21.61	22.24	19.51	19.80	20.21									
6200.1	18.86	19.35	19.65	16.41	17.04	17.66	19.70	20.11	20.53	16.95	17.64	18.33	19.70	20.11	20.53	16.95	17.64	18.33									
6400.1	17.84	18.31	18.66	17.48	17.93	18.20	19.88	20.33	20.60	17.17	17.65	18.22	19.88	20.33	20.60	17.17	17.65	18.22									
6800.1	18.60	19.04	19.43	17.09	17.81	18.32	21.45	21.66	21.92	19.27	19.68	20.14	21.45	21.66	21.92	19.27	19.68	20.14									
7200.1	19.87	20.44	20.89	16.62	17.34	18.08	22.33	22.86	23.24	21.35	21.56	21.67	22.33	22.86	23.24	21.35	21.56	21.67									
7600.1	20.99	21.48	21.96	17.70	18.23	18.93	23.91	24.03	23.88	22.28	22.89	23.13	23.91	24.03	23.88	22.28	22.89	23.13									
8000.1	21.82	22.14	22.46	19.73	20.05	20.63	23.38	24.34	24.86	22.36	23.41	23.99	23.38	24.34	24.86	22.36	23.41	23.99									
8400.1	22.51	22.93	23.46	20.84	21.30	22.02	23.16	23.61	23.80	22.49	22.73	23.04	23.16	23.61	23.80	22.49	22.73	23.04									
8800.1	24.09	24.63	25.23	25.06	23.88	23.64	22.65	22.99	23.40	22.45	22.75	23.05	22.65	22.99	23.40	22.45	22.75	23.05									
9200.1	25.60	24.85	24.51	26.17	25.75	25.27	21.92	22.32	22.86	21.64	22.16	22.44	21.92	22.32	22.86	21.64	22.16	22.44									
9600.1	28.67	28.74	28.09	26.36	27.44	27.37	21.00	21.07	21.46	20.68	20.82	21.01	21.00	21.07	21.46	20.68	20.82	21.01									
10000.1	26.41	26.92	26.97	27.58	27.93	28.09	24.15	22.74	22.24	21.70	21.57	21.72	24.15	22.74	22.24	21.70	21.57	21.72									
10400.1	26.15	26.99	27.65	26.00	26.97	28.31	23.65	23.72	23.01	24.25	22.96	22.62	23.65	23.72	23.01	24.25	22.96	22.62									
10800.1	24.33	24.71	25.38	24.24	24.56	24.88	23.33	23.97	23.88	26.02	26.27	25.42	23.33	23.97	23.88	26.02	26.27	25.42									
11200.1	25.86	25.25	25.35	25.63	25.09	24.86	23.83	24.67	25.35	24.71	24.99	25.48	23.83	24.67	25.35	24.71	24.99	25.48									
11600.1	25.75	25.05	24.86	26.03	25.53	25.58	23.11	23.93	24.55	24.35	24.74	24.85	23.11	23.93	24.55	24.35	24.74	24.85									
12000.1	25.62	24.87	24.20	24.22	23.87	23.82	23.02	24.28	24.87	24.12	24.39	24.61	23.02	24.28	24.87	24.12	24.39	24.61									
12400.1	26.40	25.83	24.87	27.03	25.83	25.14	21.91	23.05	23.90	24.20	24.86	25.50	21.91	23.05	23.90	24.20	24.86	25.50									
12800.1	25.34	25.97	26.21	26.59	27.33	27.23	23.47	24.71	24.37	25.20	25.40	25.40	21.74	23.47	24.71	24.37	25.20	25.40									
13200.1	24.42	24.84	25.36	25.14	25.28	25.57	22.09	23.52	24.17	24.25	25.34	25.54	22.09	23.52	24.17	24.25	25.34	25.54									
13600.1	22.26	22.94	23.47	23.01	23.25	23.58	22.23	22.72	23.43	23.59	24.17	24.45	22.23	22.72	23.43	23.59	24.17	24.45									
14000.1	22.11	23.44	24.16	23.79	24.71	25.30	26.02	25.39	25.12	25.34	25.34	25.36	26.02	25.39	25.12	25.34	25.34	25.36									
14400.1	21.20	22.62	23.65	23.34	24.08	24.74	26.09	26.02	25.65	25.50	25.45	25.56	26.09	26.02	25.65	25.50	25.45	25.56									
14800.1	20.81	21.97	22.71	22.37	23.13	23.26	23.06	23.49	23.52	23.06	23.31	23.42	23.06	23.49	23.52	23.06	23.31	23.42									
15000.1	22.04	23.92	24.81	24.35	25.10	25.24	23.44	23.83	24.27	23.80	23.98	24.37	23.44	23.83	24.27	23.80	23.98	24.37									
15200.1	21.21	22.33	23.36	22.56	23.55	23.97	26.00	27.62	26.41	26.24	26.11	25.84	26.00	27.62	26.41	26.24	26.11	25.84									
15600.1	21.84	21.61	21.90	21.72	21.86	22.19	21.49	21.94	22.14	21.58	21.81	21.84	21.49	21.94	22.14	21.58	21.81	21.84									
16000.1	25.38	24.15	23.54	24.11	23.66	23.69	23.83	24.86	25.06	23.67	24.09	24.20	23.83	24.86	25.06	23.67	24.09	24.20									
16400.1	24.44	24.54	24.45	24.35	24.30	24.51	22.77	22.93	23.31	22.91	22.98	22.98	22.77	22.93	23.31	22.91	22.98	22.98									
16800.1	29.51	27.51	26.77	27.59	26.43	26.47	27.69	26.08	25.46	25.47	24.74	24.42	27.69	26.08	25.46	25.47	24.74	24.42									
17200.1	28.10	27.74	28.18	26.82	27.92	27.56	26.17	25.98	25.73	25.48	24.90	24.73	26.17	25.98	25.73	25.48	24.90	24.73									
17600.1	28.82	29.04	29.51	28.09	28.16	28.82	24.69	24.99	24.75	24.47	24.26	24.61	24.69	24.99	24.75	24.47	24.26	24.61									
18000.1	26.92	28.25	28.45	27.65	29.13	30.14	26.11	26.49	28.08	25.24	26.02	28.09	26.11	26.49	28.08	25.24	26.02	28.09									
18400.1	29.69	29.31	29.43	29.04	29.64	29.00	26.13	27.03	27.33	25.07	26.49	26.69	26.13	27.03	27.33	25.07	26.49	26.69									
18800.1	28.15	29.51	29.87	29.03	29.59	29.40	26.92	28.23	28.54	25.95	26.88	28.11	26.92	28.23	28.54	25.95	26.88	28.11									
19200.1	28.33	28.56	28.97	29.14	28.36	28.43	29.89	31.01	31.35	27.38	29.18	30.56	29.89	31.01	31.35	27.38	29.18	30.56									
19600.1	28.43	28.09	29.07	28.42	28.31	28.91	28.06	28.86	29.93	26.74	28.21	28.66	28.06	28.86	29.93	26.74	28.21	28.66									
20000.1	25.88	27.26	28.70	26.51	27.96	29.37	26.75	27.14	27.36	26.61	27.02	27.90	26.75	27.14	27.36	26.61	27.02	27.90									
20400.1	26.51	27.83	28.34	27.15	28.25	28.71	26.52	26.42	26.99	26.55	27.03	26.85	26.52	26.42	26.99	26.55	27.03	26.85									
20800.1	26.98	28.04	27.97	27.18	27.61	28.16	27.60	27.92	28.11	26.98	27.89	28.74	27.60	27.92	28.11	26.98	27.89	28.74									
21200.1	26.38	26.89	27.27	26.04	26.86	27.40	25.66	26.42	26.59	25.87	26.21	27.03	25.66	26.42	26.59	25.87	26.21	27.03									
21600.1	30.01	31.61	31.77	30.53	30.93	30.54	27.26	27.95	28.77	27.92	28.36	29.37	27.26	27.95	28.77	27.92	28.36	29.37									
22000.1	29.55	30.33	30.45	29.71	30.91	30.61	28.38	29.60	29.02	28.49	29.29	30.09	28.38	29.60	29.02	28.49	29.29	30.09									
22400.1	28.77	28.74	28.48	29.39	29.85	29.63	29.67	30.05	31.11	30.25	30.78	30.72	29.67	30.05	31.11	30.25	30.78	30.72									
22800.1	30.09	30.99	31.49	30.46	31.57	32.10	30.65	30.90	32.03	31.39	31.23	29.76	30.65	30.90	32.03	31.39	31.23	29.76									
23200.1	29.47	28.85	28.89	30.08	29.31	27.84	26.50	27.31	27.14	26.48	27.33	28.24	26.50	27.31	27.14	26.48	27.33	28.24									
23600.1	32.59	32.40	32.35	33.80	32.75	30.95	30.35	32.18	32.55	28.09	30.16	31.57	30.35	32.18	32.55	28.09	30.16	31.57									
24000.1	31.59	32.82	32.76	32.52	35.56	33.01	31.94	31.06	31.85	30.41	32.83	33.56	31.94	31.06	31.85	30.41	32.83	33.56									