MSiP Flat Gain Amplifer YSF-122+

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 5.00V, Id=122.35mA @ Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.46	33.20	9.54	14.16	1.97	1.02	37.74	20.83	3.46
810.0	20.49	33.19	9.71	14.25	1.97	1.01	36.97	20.90	3.42
820.0	20.52	32.96	9.87	14.35	1.92	1.01	37.11	20.91	3.43
830.0	20.54	33.05	10.03	14.43	1.95	1.01	37.43	20.83	3.55
840.0	20.56	32.97	10.20	14.51	1.93	1.00	37.32	20.84	3.45
850.0	20.59	32.86	10.36	14.64	1.92	1.00	37.45	20.90	3.44
860.0	20.60	32.84	10.53	14.75	1.92	1.00	36.97	20.84	3.40
870.0	20.62	32.76	10.69	14.88	1.91	0.99	37.33	20.83	3.51
880.0	20.63	32.66	10.85	15.00	1.89	0.99	37.43	20.88	3.44
890.0	20.65	32.65	10.99	15.14	1.89	0.99	37.54	20.92	3.35
900.0	20.65	32.53	11.13	15.25	1.87	0.99	37.57	20.86	3.44
910.0	20.67	32.47	11.27	15.37	1.87	0.98	37.31	20.79	3.41
920.0	20.68	32.47	11.41	15.51	1.87	0.98	37.54	20.81	3.55
930.0	20.68	32.36	11.54	15.64	1.85	0.98	37.53	20.79	3.43
940.0	20.69	32.49	11.67	15.79	1.88	0.98	37.30	20.84	3.37
950.0	20.69	32.33	11.79	15.95	1.86	0.98	37.25	20.89	3.36
960.0	20.69	32.32	11.92	16.08	1.86	0.98	37.72	20.92	3.35
970.0	20.69	32.21	12.01	16.23	1.84	0.98	37.76	20.79	3.35
980.0	20.69	32.14	12.11	16.36	1.83	0.97	37.93	20.70	3.37
990.0	20.69	32.18	12.19	16.49	1.84	0.97	36.93	20.81	3.44
1000.0	20.69	32.13	12.25	16.66	1.83	0.97	37.35	20.92	3.41
1050.0	20.66	31.75	12.60	17.39	1.78	0.97	37.10	20.90	3.39
1100.0	20.62	31.71	12.70	18.03	1.79	0.97	37.18	20.87	3.36
1150.0	20.55	31.53	12.69	18.54	1.77	0.97	36.97	20.90	3.32
1200.0	20.49	31.46	12.59	19.02	1.77	0.97	36.81	20.81	3.31

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 4.75V, Id=121.67mA @ Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.50	33.21	9.56	14.21	1.96	1.02	37.48	20.55	3.44
810.0	20.53	33.28	9.74	14.31	1.98	1.01	36.88	20.62	3.40
820.0	20.55	33.10	9.91	14.41	1.95	1.01	37.12	20.63	3.44
830.0	20.58	33.04	10.07	14.48	1.94	1.00	37.56	20.56	3.56
840.0	20.60	32.99	10.24	14.57	1.93	1.00	37.30	20.56	3.44
850.0	20.62	32.86	10.40	14.70	1.91	1.00	37.15	20.62	3.43
860.0	20.64	32.83	10.58	14.81	1.91	0.99	36.94	20.56	3.51
870.0	20.66	32.78	10.74	14.94	1.91	0.99	37.46	20.55	3.39
880.0	20.67	32.67	10.89	15.05	1.89	0.99	37.11	20.59	3.42
890.0	20.68	32.62	11.03	15.19	1.88	0.99	37.03	20.65	3.41
900.0	20.69	32.53	11.17	15.31	1.87	0.98	37.23	20.59	3.37
910.0	20.70	32.62	11.33	15.46	1.89	0.98	36.81	20.51	3.38
920.0	20.71	32.37	11.46	15.60	1.85	0.98	37.36	20.53	3.70
930.0	20.72	32.43	11.60	15.73	1.87	0.98	37.11	20.50	3.37
940.0	20.72	32.38	11.72	15.87	1.86	0.98	36.96	20.55	3.35
950.0	20.73	32.34	11.84	16.03	1.85	0.98	37.16	20.61	3.37
960.0	20.73	32.19	11.98	16.16	1.83	0.97	36.85	20.65	3.35
970.0	20.73	32.12	12.07	16.33	1.82	0.97	37.11	20.50	3.34
980.0	20.72	32.16	12.18	16.48	1.83	0.97	37.42	20.40	3.34
990.0	20.73	32.15	12.25	16.61	1.83	0.97	36.87	20.52	3.38
1000.0	20.72	32.01	12.33	16.79	1.81	0.97	36.93	20.64	3.34
1050.0	20.69	31.90	12.65	17.52	1.81	0.97	36.73	20.62	3.38
1100.0	20.65	31.62	12.76	18.19	1.77	0.97	36.98	20.59	3.33
1150.0	20.58	31.54	12.75	18.72	1.77	0.97	36.74	20.62	3.34
1200.0	20.52	31.44	12.63	19.24	1.76	0.97	36.58	20.52	3.30

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 5.25V, Id=122.70mA @ Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.43	33.20	9.51	14.13	1.97	1.02	37.36	21.11	3.48
810.0	20.47	33.20	9.68	14.21	1.97	1.01	37.60	21.18	3.43
820.0	20.49	33.12	9.85	14.29	1.96	1.01	37.34	21.17	3.46
830.0	20.52	33.14	10.01	14.38	1.97	1.01	37.24	21.10	3.57
840.0	20.54	32.94	10.16	14.46	1.93	1.00	37.51	21.11	3.44
850.0	20.56	32.91	10.33	14.59	1.93	1.00	37.43	21.17	3.41
860.0	20.58	32.82	10.50	14.69	1.91	1.00	37.96	21.11	3.46
870.0	20.60	32.79	10.65	14.84	1.91	0.99	37.61	21.10	3.45
880.0	20.61	32.75	10.81	14.94	1.91	0.99	37.40	21.15	3.43
890.0	20.63	32.71	10.95	15.08	1.90	0.99	37.52	21.19	3.41
900.0	20.63	32.63	11.09	15.19	1.89	0.99	37.61	21.13	3.43
910.0	20.65	32.41	11.22	15.31	1.86	0.98	38.35	21.06	3.41
920.0	20.66	32.45	11.36	15.47	1.87	0.98	37.43	21.08	3.49
930.0	20.66	32.44	11.49	15.57	1.87	0.98	37.71	21.07	3.44
940.0	20.67	32.24	11.63	15.74	1.84	0.98	37.58	21.11	3.39
950.0	20.67	32.28	11.74	15.89	1.85	0.98	37.55	21.16	3.34
960.0	20.67	32.30	11.87	16.00	1.85	0.98	37.59	21.19	3.37
970.0	20.67	32.19	11.97	16.14	1.84	0.98	37.75	21.06	3.36
980.0	20.67	32.21	12.06	16.27	1.84	0.98	37.85	20.98	3.39
990.0	20.67	32.08	12.14	16.41	1.82	0.97	37.29	21.08	3.34
1000.0	20.67	32.21	12.20	16.58	1.85	0.98	37.51	21.19	3.40
1050.0	20.64	31.95	12.54	17.24	1.82	0.97	36.93	21.16	3.36
1100.0	20.59	31.82	12.66	17.87	1.81	0.97	36.97	21.14	3.33
1150.0	20.54	31.53	12.64	18.37	1.77	0.97	37.16	21.16	3.31
1200.0	20.47	31.53	12.54	18.83	1.78	0.98	37.25	21.08	3.33

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 5.00V, Id=120.34mA @ Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.89	33.41	9.41	13.88	1.91	1.02	38.21	20.91	2.93
810.0	20.92	33.28	9.60	13.96	1.89	1.01	38.06	20.99	2.85
820.0	20.95	33.22	9.78	14.05	1.88	1.01	38.05	20.99	2.87
830.0	20.98	33.21	9.96	14.12	1.88	1.00	38.23	20.92	3.00
840.0	21.01	33.15	10.13	14.19	1.87	1.00	38.09	20.93	2.85
850.0	21.03	33.05	10.30	14.31	1.86	0.99	38.13	20.99	2.83
860.0	21.05	33.07	10.49	14.40	1.87	0.99	37.93	20.94	2.87
870.0	21.07	32.96	10.67	14.55	1.85	0.99	38.34	20.93	2.86
880.0	21.09	32.81	10.84	14.68	1.83	0.98	38.24	20.97	2.84
890.0	21.10	32.83	11.01	14.83	1.84	0.98	37.93	21.02	2.84
900.0	21.11	32.74	11.16	14.97	1.82	0.98	37.97	20.96	2.84
910.0	21.13	32.65	11.33	15.11	1.81	0.98	38.02	20.90	3.06
920.0	21.14	32.67	11.49	15.26	1.82	0.98	38.79	20.92	2.88
930.0	21.15	32.63	11.64	15.40	1.82	0.97	38.28	20.90	2.85
940.0	21.15	32.57	11.77	15.55	1.81	0.97	38.31	20.94	2.76
950.0	21.16	32.42	11.91	15.69	1.79	0.97	38.15	21.00	2.75
960.0	21.16	32.44	12.04	15.82	1.79	0.97	38.53	21.03	2.78
970.0	21.17	32.40	12.17	15.97	1.79	0.97	38.34	20.90	2.74
980.0	21.17	32.42	12.27	16.09	1.80	0.97	39.04	20.81	2.78
990.0	21.17	32.29	12.35	16.23	1.78	0.97	38.26	20.91	2.84
1000.0	21.17	32.31	12.44	16.37	1.78	0.97	38.35	21.03	2.80
1050.0	21.15	32.14	12.86	16.97	1.77	0.96	38.24	21.01	2.77
1100.0	21.11	31.82	13.06	17.57	1.73	0.96	38.34	20.98	2.78
1150.0	21.06	31.68	13.11	18.07	1.72	0.96	38.23	21.00	2.79
1200.0	21.01	31.55	13.05	18.65	1.70	0.96	38.44	20.91	2.74

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 4.75V, Id=120.40mA @ Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.87	33.37	9.40	13.91	1.90	1.02	38.13	20.63	2.89
810.0	20.90	33.36	9.59	13.99	1.91	1.01	37.92	20.71	2.85
820.0	20.93	33.29	9.77	14.08	1.90	1.01	37.85	20.71	2.87
830.0	20.96	33.24	9.96	14.14	1.89	1.00	38.24	20.64	3.01
840.0	20.98	33.18	10.12	14.22	1.88	1.00	38.11	20.65	2.85
850.0	21.01	33.14	10.30	14.35	1.88	1.00	38.51	20.71	2.85
860.0	21.03	33.12	10.49	14.44	1.88	0.99	38.88	20.66	2.85
870.0	21.05	33.04	10.67	14.59	1.87	0.99	37.89	20.64	2.83
880.0	21.07	32.90	10.85	14.73	1.85	0.99	38.15	20.69	2.86
890.0	21.08	32.77	11.01	14.87	1.83	0.98	38.42	20.74	2.82
900.0	21.09	32.84	11.16	15.01	1.85	0.98	38.52	20.68	2.84
910.0	21.11	32.75	11.34	15.15	1.84	0.98	39.43	20.61	3.00
920.0	21.12	32.64	11.49	15.30	1.82	0.98	38.53	20.63	2.82
930.0	21.13	32.62	11.64	15.45	1.82	0.97	38.69	20.61	2.88
940.0	21.13	32.50	11.77	15.61	1.80	0.97	38.36	20.65	2.77
950.0	21.14	32.53	11.90	15.77	1.81	0.97	38.47	20.72	2.80
960.0	21.14	32.43	12.04	15.86	1.79	0.97	39.16	20.75	2.79
970.0	21.15	32.34	12.16	16.02	1.78	0.97	38.75	20.61	2.76
980.0	21.15	32.25	12.25	16.16	1.77	0.97	39.19	20.51	2.79
990.0	21.15	32.30	12.37	16.29	1.78	0.97	38.34	20.62	2.80
1000.0	21.15	32.28	12.44	16.42	1.78	0.97	38.46	20.74	2.81
1050.0	21.13	32.08	12.83	17.04	1.76	0.96	38.32	20.73	2.78
1100.0	21.09	31.83	13.04	17.65	1.73	0.96	38.34	20.70	2.79
1150.0	21.03	31.68	13.10	18.20	1.72	0.96	38.17	20.72	2.77
1200.0	20.99	31.49	13.04	18.76	1.70	0.96	38.56	20.62	2.77

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 5.25V, Id=120.94mA @ Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.90	33.39	9.42	13.85	1.90	1.02	38.22	21.18	2.92
810.0	20.93	33.38	9.60	13.93	1.90	1.01	37.83	21.25	2.86
820.0	20.96	33.31	9.78	14.02	1.89	1.01	37.66	21.25	2.85
830.0	20.99	33.22	9.95	14.09	1.88	1.00	37.92	21.18	3.00
840.0	21.02	33.13	10.14	14.15	1.87	1.00	37.99	21.19	2.85
850.0	21.04	33.14	10.30	14.27	1.87	1.00	37.99	21.25	2.87
860.0	21.06	33.07	10.49	14.38	1.86	0.99	37.52	21.20	2.88
870.0	21.09	32.89	10.67	14.52	1.83	0.99	37.96	21.19	2.83
880.0	21.10	32.87	10.84	14.65	1.83	0.98	38.01	21.24	2.87
890.0	21.12	32.82	11.01	14.80	1.83	0.98	38.20	21.28	2.86
900.0	21.13	32.77	11.17	14.93	1.83	0.98	38.19	21.22	2.85
910.0	21.14	32.62	11.33	15.07	1.80	0.98	37.24	21.16	3.03
920.0	21.15	32.58	11.49	15.23	1.80	0.97	38.49	21.18	2.84
930.0	21.16	32.65	11.64	15.35	1.82	0.97	38.25	21.17	2.83
940.0	21.17	32.54	11.78	15.50	1.80	0.97	38.18	21.20	2.75
950.0	21.17	32.44	11.91	15.66	1.79	0.97	37.98	21.26	2.74
960.0	21.18	32.42	12.05	15.77	1.78	0.97	37.38	21.29	2.78
970.0	21.18	32.42	12.17	15.90	1.79	0.97	38.52	21.17	2.77
980.0	21.18	32.43	12.26	16.04	1.79	0.97	38.50	21.09	2.78
990.0	21.19	32.30	12.37	16.18	1.77	0.96	38.36	21.19	2.80
1000.0	21.19	32.33	12.46	16.31	1.78	0.97	38.60	21.29	2.82
1050.0	21.16	32.12	12.86	16.94	1.76	0.96	38.14	21.27	2.79
1100.0	21.13	31.98	13.06	17.50	1.75	0.96	38.24	21.24	2.77
1150.0	21.07	31.68	13.13	18.00	1.71	0.96	38.36	21.26	2.76
1200.0	21.03	31.55	13.05	18.55	1.70	0.96	38.51	21.17	2.77

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 5.00V, Id=121.83mA @ Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.00	33.03	9.42	14.21	2.02	1.02	37.32	20.68	4.03
810.0	20.03	33.05	9.59	14.33	2.03	1.02	36.94	20.75	3.97
820.0	20.05	32.89	9.73	14.41	2.00	1.02	37.05	20.75	3.98
830.0	20.08	32.85	9.87	14.52	1.99	1.01	37.25	20.68	4.14
840.0	20.10	32.87	10.03	14.61	2.00	1.01	37.16	20.69	4.00
850.0	20.12	32.78	10.18	14.75	1.99	1.01	37.27	20.74	3.98
860.0	20.14	32.56	10.33	14.84	1.95	1.00	36.70	20.68	3.97
870.0	20.15	32.61	10.46	14.99	1.96	1.00	37.17	20.67	3.97
880.0	20.16	32.50	10.59	15.09	1.94	1.00	36.96	20.71	3.97
890.0	20.18	32.44	10.71	15.21	1.93	1.00	37.07	20.76	3.98
900.0	20.18	32.41	10.83	15.30	1.93	1.00	37.10	20.70	3.96
910.0	20.19	32.33	10.95	15.43	1.92	0.99	36.63	20.63	4.31
920.0	20.20	32.34	11.08	15.56	1.92	0.99	37.30	20.65	3.99
930.0	20.20	32.35	11.19	15.67	1.93	0.99	37.09	20.63	3.96
940.0	20.21	32.29	11.30	15.82	1.92	0.99	37.13	20.67	3.89
950.0	20.21	32.26	11.40	15.97	1.92	0.99	37.02	20.73	3.92
960.0	20.21	32.08	11.51	16.09	1.89	0.99	36.59	20.76	3.93
970.0	20.21	32.09	11.61	16.25	1.90	0.99	37.30	20.62	3.92
980.0	20.20	32.00	11.68	16.37	1.88	0.99	37.18	20.54	3.91
990.0	20.20	31.94	11.75	16.54	1.87	0.99	37.04	20.64	3.95
1000.0	20.20	31.98	11.82	16.68	1.88	0.99	36.85	20.75	3.96
1050.0	20.16	31.70	12.10	17.45	1.85	0.98	36.81	20.73	3.94
1100.0	20.11	31.65	12.18	18.15	1.86	0.99	36.56	20.71	3.91
1150.0	20.04	31.48	12.11	18.76	1.84	0.99	36.71	20.73	3.88
1200.0	19.97	31.32	11.97	19.21	1.82	0.99	36.51	20.65	3.89

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 4.75V, Id=120.86mA @ Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	20.03	32.96	9.47	14.27	2.00	1.02	37.06	20.38	3.98
810.0	20.06	32.85	9.65	14.39	1.99	1.02	36.68	20.45	3.95
820.0	20.09	32.87	9.78	14.47	1.99	1.01	36.68	20.46	3.96
830.0	20.11	32.81	9.93	14.59	1.99	1.01	36.86	20.38	4.07
840.0	20.13	32.69	10.07	14.68	1.96	1.01	36.57	20.39	3.91
850.0	20.15	32.73	10.23	14.80	1.97	1.01	36.93	20.44	3.95
860.0	20.17	32.66	10.38	14.91	1.97	1.00	37.21	20.39	3.95
870.0	20.18	32.63	10.52	15.05	1.96	1.00	36.75	20.38	3.95
880.0	20.19	32.42	10.66	15.15	1.93	1.00	36.65	20.42	3.91
890.0	20.20	32.47	10.78	15.29	1.94	1.00	36.82	20.47	3.95
900.0	20.21	32.42	10.91	15.38	1.94	0.99	36.71	20.41	3.94
910.0	20.22	32.37	11.02	15.51	1.93	0.99	37.48	20.33	4.23
920.0	20.23	32.31	11.15	15.65	1.92	0.99	36.76	20.36	3.97
930.0	20.23	32.18	11.26	15.77	1.90	0.99	36.86	20.33	4.01
940.0	20.23	32.22	11.38	15.92	1.91	0.99	36.76	20.38	3.94
950.0	20.23	32.11	11.47	16.07	1.89	0.99	36.69	20.44	3.91
960.0	20.23	32.09	11.59	16.19	1.89	0.99	36.84	20.47	3.89
970.0	20.23	31.97	11.67	16.35	1.88	0.98	36.84	20.33	3.87
980.0	20.23	31.93	11.75	16.50	1.87	0.98	36.67	20.23	3.85
990.0	20.22	31.93	11.82	16.66	1.87	0.98	36.44	20.35	3.91
1000.0	20.22	31.87	11.89	16.82	1.87	0.98	36.42	20.46	3.93
1050.0	20.18	31.70	12.16	17.62	1.85	0.98	36.16	20.44	3.87
1100.0	20.13	31.55	12.23	18.37	1.84	0.98	36.14	20.42	3.86
1150.0	20.05	31.38	12.17	19.01	1.82	0.98	36.01	20.44	3.88
1200.0	19.98	31.15	12.02	19.50	1.79	0.99	35.95	20.35	3.85

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 5.25V, Id=122.63mA @ Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
800.0	19.99	33.08	9.39	14.17	2.03	1.03	37.62	20.97	4.08
810.0	20.02	32.94	9.56	14.29	2.00	1.02	37.08	21.04	4.01
820.0	20.04	33.01	9.69	14.39	2.02	1.02	37.47	21.04	4.04
830.0	20.07	32.87	9.85	14.49	2.00	1.01	37.33	20.96	4.17
840.0	20.09	32.79	9.99	14.56	1.98	1.01	37.30	20.97	4.04
850.0	20.11	32.66	10.13	14.69	1.96	1.01	37.35	21.03	4.04
860.0	20.13	32.70	10.29	14.79	1.97	1.01	36.90	20.97	4.00
870.0	20.15	32.56	10.42	14.93	1.95	1.00	37.52	20.96	4.04
880.0	20.15	32.63	10.56	15.04	1.97	1.00	37.16	21.00	4.02
890.0	20.17	32.51	10.68	15.18	1.94	1.00	37.32	21.04	4.02
900.0	20.17	32.37	10.79	15.25	1.92	1.00	37.40	20.98	4.03
910.0	20.18	32.40	10.93	15.38	1.93	1.00	36.80	20.91	4.33
920.0	20.19	32.32	11.03	15.51	1.92	0.99	37.64	20.94	4.08
930.0	20.19	32.29	11.16	15.62	1.92	0.99	37.33	20.92	4.03
940.0	20.20	32.35	11.27	15.74	1.93	0.99	37.44	20.96	3.96
950.0	20.20	32.16	11.36	15.91	1.90	0.99	36.96	21.02	3.95
960.0	20.20	32.11	11.47	16.01	1.89	0.99	36.69	21.04	3.97
970.0	20.20	32.23	11.58	16.18	1.92	0.99	37.63	20.91	3.95
980.0	20.19	32.11	11.64	16.30	1.90	0.99	37.52	20.83	3.98
990.0	20.20	31.99	11.72	16.43	1.88	0.99	36.95	20.93	4.02
1000.0	20.19	32.03	11.77	16.59	1.89	0.99	37.37	21.04	3.96
1050.0	20.16	31.77	12.08	17.32	1.86	0.99	37.02	21.02	3.94
1100.0	20.11	31.61	12.15	18.01	1.85	0.99	36.74	20.99	3.95
1150.0	20.03	31.43	12.08	18.60	1.83	0.99	36.86	21.02	3.90
1200.0	19.97	31.32	11.94	19.01	1.82	0.99	36.88	20.94	3.94