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: V_{DD} = +5 V, I_{DD} = 54 mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = 0 dBm/ Tone	IP-3 Output P_{OUT} = +5 dBm/ Tone	1dB Comp. Output	Noise Figure
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10.0	19.47	52.30	14.67	4.73	17.75	0.74	20.28	20.42	11.99	1.77
10.2	19.75	52.71	15.39	5.22	19.10	0.76	20.77	21.07	12.66	1.80
10.4	19.89	52.79	15.62	5.60	21.30	0.79	20.81	21.28	13.04	1.72
10.6	19.95	53.66	15.57	5.99	22.31	0.81	21.48	21.75	13.05	1.71
10.8	20.00	54.24	14.85	6.56	25.09	0.83	21.51	21.96	13.30	1.67
11.0	20.04	54.89	14.40	7.11	27.70	0.85	21.34	21.20	13.64	1.60
11.2	20.07	56.48	14.17	7.65	33.46	0.88	22.42	22.31	13.85	1.56
11.4	20.16	57.78	13.65	8.35	36.99	0.90	22.81	22.49	14.16	1.54
11.6	20.24	57.96	13.39	9.10	36.78	0.93	23.08	22.97	14.46	1.48
11.8	20.35	58.52	13.42	9.93	40.84	0.96	22.39	22.32	14.46	1.43
12.0	20.48	58.79	13.33	11.25	51.30	0.98	22.94	22.82	14.73	1.43
12.2	20.63	58.77	13.25	12.98	49.98	1.00	23.34	23.34	14.94	1.37
12.4	20.77	59.01	13.22	15.23	50.90	1.03	23.55	23.51	15.14	1.37
12.5	20.83	58.98	13.14	16.85	52.85	1.04	23.22	23.37	15.16	1.39
12.6	20.88	58.59	12.99	18.99	53.43	1.04	23.57	23.32	15.28	1.37
12.8	20.98	58.31	12.49	25.65	38.72	1.06	23.55	23.41	15.34	1.39
13.0	21.03	57.55	11.94	33.86	39.87	1.07	24.21	24.24	15.60	1.35
13.2	21.07	56.86	11.33	24.38	36.94	1.08	24.46	24.39	15.52	1.33
13.4	21.13	55.93	10.72	19.92	31.52	1.08	24.89	24.51	15.72	1.35
13.6	21.19	54.93	10.13	17.74	26.42	1.09	24.81	24.86	15.71	1.34
13.8	21.28	53.86	9.63	16.31	22.56	1.09	24.63	24.96	15.76	1.32
14.0	21.36	53.13	9.29	15.26	19.14	1.10	25.07	25.17	15.74	1.34
14.2	21.48	52.05	8.94	14.48	17.22	1.11	24.99	24.80	15.87	1.33
14.4	21.57	51.12	8.64	13.65	15.45	1.11	25.38	25.37	15.79	1.31
14.6	21.65	50.16	8.44	12.83	13.59	1.12	25.47	25.15	15.76	1.33
14.8	21.74	49.35	8.19	12.18	11.50	1.12	25.13	25.02	15.84	1.33
15.0	21.81	48.57	7.89	11.59	10.49	1.11	25.91	26.11	15.69	1.36
15.2	21.89	47.72	7.74	11.35	9.21	1.10	25.26	25.36	15.75	1.36
15.4	21.98	46.99	7.57	11.29	8.42	1.10	25.22	25.48	15.71	1.37
15.6	22.05	46.20	7.41	11.35	7.57	1.09	24.98	25.30	15.74	1.36
15.8	22.11	45.50	7.48	11.61	6.82	1.09	25.19	25.72	15.89	1.43
16.0	22.18	44.86	7.56	11.88	6.49	1.10	24.75	25.29	15.90	1.42
16.2	22.20	44.27	7.64	12.13	6.14	1.10	24.00	25.18	16.00	1.45
16.4	22.16	43.73	7.83	12.40	5.83	1.11	24.50	25.28	16.18	1.47
16.6	22.12	43.44	7.95	12.90	5.67	1.12	24.40	24.82	16.04	1.48
16.8	22.00	43.16	7.94	13.33	5.66	1.12	24.01	24.60	16.24	1.49
17.0	21.84	42.93	7.91	14.24	5.62	1.13	23.52	24.43	16.38	1.48
17.2	21.71	42.76	7.87	15.35	5.70	1.14	24.09	24.71	16.32	1.49
17.4	21.51	42.61	7.79	16.57	5.78	1.14	24.18	24.63	16.39	1.54
17.6	21.31	42.51	7.82	18.17	5.99	1.14	22.89	24.00	16.45	1.56
17.8	21.11	42.35	7.99	19.53	6.27	1.14	23.71	24.51	16.32	1.63
18.0	20.90	42.17	8.26	21.30	6.28	1.14	23.43	24.09	16.53	1.62
18.2	20.74	41.98	8.59	22.86	6.25	1.13	23.69	24.03	16.39	1.63
18.4	20.54	41.94	8.87	22.79	6.53	1.13	22.77	23.95	16.49	1.64
18.6	20.35	41.93	9.23	20.32	6.55	1.12	23.63	23.78	16.65	1.65
18.8	20.14	41.97	9.49	17.72	6.93	1.12	23.44	24.07	16.66	1.74
19.0	19.92	42.02	9.57	16.72	6.95	1.11	23.90	24.29	16.48	1.80
19.2	19.67	42.19	9.68	14.82	7.21	1.11	23.41	23.78	16.69	1.86
19.4	19.49	42.37	9.56	14.62	7.64	1.11	23.42	24.08	16.63	1.93
19.6	19.31	42.64	9.23	15.00	7.73	1.10	23.74	23.91	16.00	2.02
19.8	19.18	42.81	9.00	15.68	8.14	1.09	22.04	23.22	15.28	2.08
20.0	18.99	43.19	8.73	16.09	8.57	1.08	22.69	23.60	15.82	2.15
20.5	18.32	44.54	8.30	11.38	10.75	1.03	21.73	23.23	14.74	2.38
21.0	16.82	46.05	8.39	7.22	12.82	0.90	21.61	23.65	14.67	2.62
21.5	14.82	47.16	8.87	5.27	15.83	0.78	23.53	23.69	15.32	2.88
22.0	12.65	47.66	9.54	4.09	19.41	0.69	23.23	21.53	14.90	2.98

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: V_{DD} = +5 V, I_{DD} = 60 mA @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = 0 dBm/ Tone	IP-3 Output P_{OUT} = +5 dBm/ Tone	1dB Comp. Output	Noise Figure
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10.0	21.08	52.1	16.00	4.44	12.19	0.66	21.37	22.69	12.15	1.21
10.2	21.34	52.1	17.21	4.90	12.64	0.69	21.59	23.47	12.76	1.15
10.4	21.44	52.6	17.50	5.24	13.65	0.72	21.91	23.53	13.11	1.13
10.6	21.45	53.4	17.22	5.52	15.33	0.74	22.57	23.85	13.16	1.09
10.8	21.44	53.8	16.05	5.93	16.57	0.77	22.91	23.87	13.44	1.06
11.0	21.43	54.5	15.28	6.33	18.65	0.79	22.38	23.14	13.81	1.05
11.2	21.44	55.9	14.83	6.75	22.27	0.82	23.61	23.90	14.05	0.96
11.4	21.54	57.5	14.15	7.40	27.65	0.85	24.08	24.19	14.44	0.96
11.6	21.65	57.9	13.80	8.15	29.13	0.88	24.27	24.65	14.78	0.92
11.8	21.78	58.3	13.81	8.96	31.04	0.91	23.78	23.92	14.79	0.91
12.0	21.93	58.4	13.65	10.10	32.10	0.94	24.40	24.24	15.08	0.90
12.2	22.09	59.1	13.45	11.50	35.09	0.97	24.34	24.74	15.27	0.84
12.4	22.22	59.3	13.32	13.02	35.90	0.99	25.15	24.90	15.45	0.84
12.5	22.29	59.2	13.18	13.94	35.59	1.00	24.63	24.94	15.52	0.89
12.6	22.34	59.1	12.97	15.07	35.45	1.02	24.80	24.92	15.57	0.85
12.8	22.45	58.6	12.43	18.00	33.23	1.04	24.39	24.98	15.61	0.83
13.0	22.53	58.4	11.93	22.17	32.22	1.06	25.07	25.57	15.88	0.84
13.2	22.61	57.7	11.47	32.52	29.35	1.07	25.55	26.01	15.91	0.86
13.4	22.70	56.7	11.04	25.14	25.83	1.08	25.66	26.17	16.20	0.81
13.6	22.78	55.6	10.56	20.16	22.12	1.08	26.22	26.43	16.17	0.81
13.8	22.87	54.6	10.14	17.15	19.21	1.08	25.81	26.48	16.29	0.80
14.0	22.95	53.6	9.83	15.41	16.65	1.07	26.14	26.66	16.34	0.79
14.2	23.06	52.7	9.44	14.45	14.60	1.07	26.09	26.49	16.38	0.79
14.4	23.15	51.6	9.02	13.85	12.45	1.08	26.54	26.90	16.40	0.79
14.6	23.23	50.7	8.70	13.44	10.99	1.08	26.16	26.62	16.35	0.81
14.8	23.33	49.9	8.39	13.00	9.71	1.09	26.21	26.89	16.43	0.81
15.0	23.40	49.0	8.04	12.34	8.49	1.09	26.93	27.56	16.37	0.88
15.2	23.45	48.1	7.83	11.76	7.50	1.09	26.33	27.06	16.37	0.87
15.4	23.51	47.2	7.63	11.20	6.60	1.09	26.37	27.06	16.28	0.86
15.6	23.55	46.5	7.42	10.84	5.97	1.08	26.34	27.19	16.39	0.88
15.8	23.58	45.9	7.35	10.86	5.54	1.08	26.51	27.40	16.55	0.89
16.0	23.65	45.2	7.30	11.21	5.10	1.09	26.12	26.72	16.50	0.88
16.2	23.66	44.6	7.21	11.74	4.78	1.10	25.89	27.30	16.44	0.92
16.4	23.64	44.0	7.26	12.49	4.58	1.10	27.00	26.84	16.69	0.89
16.6	23.64	43.6	7.34	13.53	4.45	1.11	26.57	26.85	16.46	0.96
16.8	23.54	43.2	7.34	14.31	4.38	1.12	25.80	26.59	16.73	0.94
17.0	23.41	43.0	7.38	15.33	4.40	1.12	25.74	26.34	16.80	0.96
17.2	23.30	42.7	7.44	16.20	4.36	1.13	26.03	26.27	16.49	0.94
17.4	23.11	42.7	7.43	16.76	4.43	1.13	26.19	26.59	16.54	0.97
17.6	22.93	42.4	7.48	17.23	4.45	1.13	24.77	26.03	16.52	1.00
17.8	22.72	42.3	7.62	17.34	4.52	1.13	24.74	26.71	16.38	1.00
18.0	22.49	42.1	7.84	17.35	4.56	1.12	24.11	25.97	16.48	1.04
18.2	22.32	41.9	8.16	17.67	4.63	1.11	24.81	26.37	16.30	1.06
18.4	22.13	41.8	8.45	18.56	4.73	1.11	24.54	25.84	16.18	1.08
18.6	21.97	41.8	8.91	19.55	4.89	1.10	24.46	26.07	16.35	1.10
18.8	21.83	41.7	9.36	19.03	5.03	1.09	24.71	25.97	16.35	1.13
19.0	21.67	41.7	9.64	18.46	5.14	1.08	24.47	26.01	16.22	1.19
19.2	21.47	41.8	9.95	15.47	5.32	1.06	24.05	25.92	16.29	1.21
19.4	21.31	42.0	10.08	13.74	5.47	1.04	24.37	25.84	16.34	1.25
19.6	21.15	42.1	9.87	12.63	5.58	1.03	24.29	25.85	15.75	1.31
19.8	21.05	42.4	9.63	11.98	5.73	1.03	23.04	25.33	15.11	1.36
20.0	20.94	42.7	9.34	12.28	5.96	1.04	23.69	25.08	15.58	1.47
20.5	20.90	43.8	8.37	14.55	6.75	1.09	22.18	24.47	14.23	1.68
21.0	19.66	45.6	7.95	7.38	8.13	0.93	22.29	25.31	13.99	1.90
21.5	17.38	47.2	8.55	4.46	10.28	0.72	23.65	26.41	14.79	2.05
22.0	15.40	47.6	9.82	3.93	13.03	0.65	24.99	25.28	14.89	2.17

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: V_{DD} = +5 V, I_{DD} = 49 mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = 0 dBm/ Tone	IP-3 Output P_{OUT} = +5 dBm/ Tone	1dB Comp. Output	Noise Figure
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10.0	18.12	52.5	13.50	5.02	18.98	0.72	19.08	17.50	10.39	2.41
10.2	18.41	52.8	13.98	5.53	20.25	0.75	19.64	18.56	11.11	2.39
10.4	18.56	53.1	14.13	5.95	21.37	0.78	19.63	18.72	11.46	2.35
10.6	18.65	54.0	14.17	6.36	24.21	0.80	20.34	19.54	11.47	2.25
10.8	18.73	54.2	13.65	6.96	25.50	0.84	20.66	19.76	11.70	2.22
11.0	18.78	55.1	13.31	7.55	29.08	0.86	20.12	18.87	12.01	2.17
11.2	18.84	56.1	13.20	8.15	33.30	0.89	21.29	20.47	12.05	2.11
11.4	18.94	57.9	12.85	8.96	41.45	0.92	21.64	20.56	12.18	2.07
11.6	19.04	57.6	12.70	9.86	40.98	0.94	22.00	21.15	12.49	2.05
11.8	19.16	58.4	12.83	10.89	45.18	0.97	21.33	20.28	12.52	1.96
12.0	19.29	58.4	12.86	12.53	45.91	0.99	22.08	20.97	12.75	1.98
12.2	19.43	58.0	12.87	14.76	44.42	1.01	22.44	21.49	12.93	1.93
12.4	19.55	57.8	12.88	17.77	43.53	1.03	22.56	21.69	13.11	1.95
12.5	19.60	58.0	12.82	20.07	44.73	1.04	22.49	21.31	13.16	1.96
12.6	19.64	57.7	12.69	23.47	43.11	1.05	22.50	21.47	13.27	1.91
12.8	19.71	57.1	12.21	34.45	39.81	1.06	22.52	21.56	13.45	1.89
13.0	19.74	56.3	11.64	26.53	35.82	1.07	23.13	22.25	13.52	1.86
13.2	19.76	55.7	11.05	20.67	33.07	1.07	23.12	22.53	13.47	1.90
13.4	19.80	54.7	10.45	17.81	28.73	1.07	23.35	22.62	13.62	1.85
13.6	19.86	53.9	9.87	16.32	25.37	1.08	23.99	23.22	13.58	1.89
13.8	19.94	53.0	9.40	15.26	22.32	1.08	23.94	23.26	13.59	1.83
14.0	20.02	52.2	9.08	14.42	19.88	1.08	23.92	23.29	13.63	1.88
14.2	20.13	51.4	8.77	13.82	17.52	1.09	23.64	22.75	13.75	1.83
14.4	20.22	50.5	8.49	13.16	15.42	1.09	24.22	23.74	13.74	1.85
14.6	20.30	49.7	8.31	12.50	13.73	1.08	24.04	23.19	13.74	1.85
14.8	20.38	48.8	8.09	12.01	12.04	1.08	23.86	23.18	13.81	1.87
15.0	20.47	48.1	7.84	11.54	10.85	1.08	24.74	24.26	13.74	1.91
15.2	20.55	47.2	7.74	11.36	9.71	1.08	24.02	23.45	13.73	1.90
15.4	20.65	46.5	7.62	11.32	8.78	1.09	23.81	23.50	13.77	1.90
15.6	20.72	45.7	7.53	11.33	7.96	1.09	23.75	23.40	13.84	1.98
15.8	20.78	45.2	7.66	11.50	7.46	1.08	24.44	24.04	14.02	1.94
16.0	20.85	44.5	7.81	11.71	6.96	1.08	23.82	23.38	13.97	1.96
16.2	20.87	44.0	7.96	11.88	6.63	1.07	23.94	23.55	14.04	2.01
16.4	20.85	43.5	8.19	12.12	6.38	1.07	23.33	23.57	14.26	2.01
16.6	20.83	43.1	8.35	12.65	6.22	1.07	23.12	23.16	14.15	2.03
16.8	20.71	42.9	8.36	13.16	6.22	1.07	22.82	22.65	14.38	2.04
17.0	20.57	42.7	8.32	14.17	6.24	1.09	22.87	22.66	14.54	2.04
17.2	20.44	42.6	8.27	15.47	6.34	1.10	23.02	22.98	14.63	2.04
17.4	20.24	42.5	8.18	16.92	6.42	1.11	23.30	23.24	14.84	2.10
17.6	20.04	42.4	8.19	18.72	6.52	1.12	22.40	22.44	15.10	2.14
17.8	19.85	42.2	8.34	20.60	6.63	1.12	23.14	23.27	15.15	2.16
18.0	19.63	42.0	8.57	22.59	6.71	1.12	22.96	22.94	15.43	2.20
18.2	19.45	42.0	8.84	23.22	6.91	1.12	22.94	23.05	15.56	2.22
18.4	19.23	42.0	9.06	22.17	7.16	1.11	22.72	22.53	15.60	2.27
18.6	19.02	42.0	9.38	19.63	7.40	1.10	22.76	22.71	15.76	2.31
18.8	18.79	42.1	9.59	17.61	7.68	1.08	22.94	22.82	15.86	2.37
19.0	18.56	42.2	9.60	17.12	8.00	1.08	23.19	23.18	15.89	2.42
19.2	18.30	42.3	9.66	15.54	8.27	1.07	22.36	22.55	15.86	2.49
19.4	18.09	42.5	9.50	15.49	8.69	1.07	22.65	22.84	15.92	2.55
19.6	17.87	42.8	9.14	16.07	9.10	1.09	23.03	23.05	15.50	2.66
19.8	17.66	43.1	8.91	16.58	9.63	1.10	21.74	22.45	14.98	2.75
20.0	17.38	43.6	8.66	15.70	10.38	1.10	22.30	22.79	15.30	2.87
20.5	16.40	44.9	8.29	10.38	12.56	1.04	22.33	22.65	14.74	3.14
21.0	14.78	46.5	8.40	6.90	16.07	0.90	22.35	22.14	14.50	3.39
21.5	12.80	47.3	8.87	5.21	19.87	0.78	22.61	20.61	14.06	3.70
22.0	10.78	47.8	9.57	4.24	24.16	0.69	20.71	17.30	12.05	3.79

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: V_{DD} = +5 V, I_{DD} = 47 mA @ Temperature = +105°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = 0 dBm/ Tone	IP-3 Output P_{OUT} = +5 dBm/ Tone	1dB Comp. Output	Noise Figure
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10.0	17.59	52.4	13.09	5.14	20.18	0.73	18.48	16.38	9.55	2.62
10.2	17.89	52.9	13.53	5.66	21.97	0.76	19.04	17.43	10.33	2.61
10.4	18.05	53.2	13.69	6.10	23.15	0.79	19.17	17.56	10.63	2.52
10.6	18.15	53.8	13.75	6.53	25.34	0.81	19.87	18.27	10.69	2.43
10.8	18.24	54.3	13.30	7.15	27.63	0.85	19.99	18.54	10.93	2.42
11.0	18.30	54.7	13.00	7.75	29.62	0.87	19.50	17.65	11.17	2.32
11.2	18.36	56.0	12.92	8.36	35.01	0.90	20.72	19.41	11.17	2.29
11.4	18.47	57.4	12.61	9.20	42.03	0.93	21.05	19.53	11.28	2.26
11.6	18.58	57.7	12.47	10.16	43.66	0.95	21.29	20.34	11.66	2.24
11.8	18.71	58.3	12.64	11.27	47.42	0.98	20.76	19.18	11.68	2.16
12.0	18.84	58.1	12.70	13.04	47.25	1.00	21.15	19.82	11.84	2.16
12.2	18.97	57.9	12.73	15.49	46.64	1.02	21.60	20.57	12.03	2.14
12.4	19.08	57.7	12.77	18.85	45.66	1.04	22.01	20.75	12.28	2.09
12.5	19.13	57.4	12.72	21.48	44.41	1.05	21.87	20.25	12.25	2.10
12.6	19.17	57.2	12.58	25.58	43.11	1.05	21.77	20.45	12.36	2.08
12.8	19.23	56.7	12.10	31.93	40.32	1.06	21.68	20.54	12.55	2.08
13.0	19.26	56.0	11.53	24.60	36.59	1.07	22.54	21.29	12.69	2.05
13.2	19.27	55.5	10.92	19.74	33.83	1.07	22.66	21.46	12.56	2.03
13.4	19.31	54.5	10.32	17.23	29.67	1.07	22.66	21.63	12.76	1.98
13.6	19.36	53.7	9.76	15.88	26.09	1.08	23.62	22.35	12.77	2.07
13.8	19.43	52.9	9.30	14.91	23.42	1.08	23.35	22.31	12.76	2.03
14.0	19.51	51.9	9.00	14.11	20.37	1.08	23.42	22.48	12.83	2.04
14.2	19.63	51.1	8.71	13.57	17.94	1.09	22.87	21.83	12.95	2.00
14.4	19.72	50.2	8.44	12.98	15.85	1.09	23.48	22.97	13.00	2.03
14.6	19.80	49.5	8.28	12.41	14.17	1.08	23.41	22.38	12.95	2.05
14.8	19.90	48.6	8.07	12.01	12.57	1.08	23.36	22.30	13.15	2.02
15.0	19.98	48.0	7.83	11.61	11.35	1.09	24.24	23.45	13.01	2.10
15.2	20.06	47.2	7.74	11.47	10.22	1.09	23.34	22.73	12.95	2.10
15.4	20.16	46.4	7.64	11.41	9.19	1.09	23.35	22.72	13.07	2.13
15.6	20.24	45.7	7.58	11.39	8.42	1.09	23.10	22.68	13.07	2.13
15.8	20.30	45.0	7.74	11.48	7.83	1.08	23.81	23.40	13.31	2.15
16.0	20.38	44.4	7.92	11.64	7.33	1.08	22.65	22.70	13.34	2.16
16.2	20.40	43.9	8.11	11.76	6.96	1.07	23.43	23.01	13.40	2.16
16.4	20.38	43.5	8.38	12.00	6.75	1.06	23.45	23.05	13.55	2.16
16.6	20.37	43.2	8.57	12.57	6.64	1.06	22.91	22.56	13.39	2.21
16.8	20.25	42.9	8.59	13.13	6.61	1.07	22.34	22.02	13.59	2.19
17.0	20.11	42.8	8.54	14.17	6.71	1.08	22.27	22.10	13.74	2.24
17.2	19.99	42.6	8.48	15.48	6.70	1.09	22.73	22.33	13.92	2.26
17.4	19.78	42.5	8.36	16.94	6.86	1.11	22.79	22.66	14.12	2.31
17.6	19.58	42.4	8.37	18.60	6.95	1.12	21.81	21.98	14.32	2.34
17.8	19.39	42.2	8.50	20.45	7.04	1.12	22.67	22.88	14.38	2.34
18.0	19.17	42.1	8.71	22.00	7.18	1.12	22.55	22.47	14.78	2.39
18.2	18.97	42.0	8.96	22.35	7.41	1.11	22.67	22.48	14.85	2.46
18.4	18.76	42.0	9.17	21.62	7.62	1.11	22.28	22.16	14.86	2.47
18.6	18.53	42.1	9.47	19.35	7.93	1.09	22.28	22.16	14.93	2.55
18.8	18.30	42.2	9.66	17.61	8.26	1.08	22.59	22.35	15.05	2.56
19.0	18.07	42.3	9.64	17.24	8.61	1.08	23.01	22.83	15.08	2.66
19.2	17.81	42.4	9.66	15.75	8.95	1.07	21.87	22.21	14.93	2.71
19.4	17.58	42.7	9.47	15.66	9.44	1.08	22.50	22.49	15.02	2.79
19.6	17.35	42.9	9.10	16.19	9.83	1.09	23.03	22.89	14.82	2.89
19.8	17.12	43.3	8.85	16.49	10.48	1.10	21.46	22.16	14.41	3.01
20.0	16.81	43.8	8.61	15.28	11.35	1.10	22.04	22.59	14.68	3.07
20.5	15.75	45.2	8.25	10.10	14.01	1.03	21.82	22.66	14.27	3.39
21.0	14.05	46.7	8.36	6.72	17.80	0.90	22.33	21.30	13.70	3.67
21.5	12.07	47.5	8.84	5.12	22.01	0.78	22.09	18.89	12.15	4.01
22.0	10.15	47.8	9.61	4.31	26.56	0.70	19.41	15.32	9.85	4.07