

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: $V_{DD} = +4.75\text{ V}$, $I_{DD} = 47\text{ mA}$ @ Temperature = $+25^{\circ}\text{C}$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		Noise Figure	FREQ	IP-3 Output		1dB Comp. Output
					K	Measure			POUT = 0 dBm/Tone	POUT = +5 dBm/Tone	
(GHz)	(dB)	(dB)	(dB)	(dB)			(dB)	(GHz)	(dBm)	(dBm)	(dBm)
0.05	20.9	24.4	14.8	22.7	1.05	0.58	1.76	0.01	25.2	26.6	15.9
0.1	21.1	24.2	16.0	26.2	1.04	0.52	1.33	0.05	28.3	29.0	19.1
0.3	21.2	24.0	16.5	29.7	1.04	0.50	1.08	0.10	28.5	28.9	20.3
0.5	21.2	24.1	16.3	29.3	1.04	0.50	1.03	0.40	28.8	29.1	20.6
0.7	21.2	24.1	16.0	27.7	1.05	0.51	1.08	0.50	29.6	30.2	20.8
1.0	21.1	24.2	15.3	25.4	1.05	0.53	0.99	1.00	28.3	28.6	21.3
1.2	21.1	24.3	14.9	23.8	1.06	0.54	1.10	1.50	29.0	29.4	20.9
1.4	21.1	24.3	14.4	22.5	1.06	0.55	1.12	2.00	28.5	28.9	21.1
1.6	21.1	24.4	13.8	21.1	1.06	0.56	1.07	2.50	27.6	27.9	21.3
1.8	21.0	24.5	13.3	20.0	1.07	0.57	1.08	3.00	27.5	27.6	20.7
2.0	21.0	24.6	12.8	18.9	1.07	0.58	1.01	3.50	27.1	27.0	20.4
2.2	21.0	24.7	12.3	18.0	1.07	0.59	1.01	4.00	26.2	25.9	20.1
2.4	20.9	24.8	11.9	17.4	1.08	0.60	1.06	4.50	25.9	25.5	20.5
2.6	20.9	24.9	11.5	16.7	1.08	0.61	1.09	5.00	25.2	24.7	20.1
2.8	20.9	24.9	11.2	16.3	1.08	0.62	1.13	5.50	26.3	25.9	19.3
3.0	20.9	25.0	10.9	15.9	1.09	0.63	1.12	6.00	25.9	25.6	19.4
3.2	20.9	25.1	10.7	15.6	1.09	0.64	1.07	6.50	27.1	26.8	19.2
3.4	20.9	25.2	10.5	15.4	1.09	0.65	1.12	7.00	27.9	27.6	19.1
3.6	20.9	25.3	10.4	15.4	1.10	0.65	1.15	7.50	28.5	28.1	18.8
3.8	20.9	25.3	10.4	15.4	1.10	0.66	1.15	8.00	28.2	28.0	18.2
4.0	20.9	25.4	10.4	15.6	1.10	0.67	1.21	8.50	28.8	28.4	17.2
4.2	21.0	25.5	10.5	16.0	1.11	0.68	1.19	9.00	28.1	28.0	16.1
4.4	21.0	25.5	10.7	16.5	1.11	0.69	1.20	9.50	28.2	28.1	15.6
4.6	21.0	25.6	10.9	17.2	1.11	0.69	1.18	10.00	27.7	28.2	14.7
4.8	21.1	25.6	11.2	18.1	1.12	0.70	1.20				
5.0	21.2	25.7	11.5	19.2	1.12	0.70	1.22				
5.2	21.2	25.7	11.8	20.8	1.12	0.70	1.25				
5.4	21.3	25.8	12.3	22.6	1.12	0.71	1.21				
5.6	21.4	25.8	12.8	25.5	1.12	0.71	1.21				
5.8	21.5	25.8	13.5	31.4	1.13	0.71	1.23				
6.0	21.6	25.9	14.2	34.9	1.13	0.70	1.21				
6.2	21.7	25.9	15.1	33.0	1.13	0.70	1.23				
6.4	21.8	26.0	16.2	28.8	1.13	0.70	1.21				
6.6	21.9	26.1	17.5	24.5	1.14	0.70	1.20				
6.8	21.9	26.1	19.1	21.7	1.14	0.69	1.17				
7.0	22.0	26.2	21.0	19.7	1.15	0.69	1.21				
7.2	22.0	26.3	22.9	18.1	1.16	0.69	1.25				
7.4	22.0	26.4	24.5	17.1	1.17	0.70	1.25				
7.6	22.0	26.6	24.7	16.4	1.18	0.70	1.30				
7.8	22.0	26.8	23.5	15.9	1.20	0.72	1.34				
8.0	22.0	26.9	21.9	15.7	1.22	0.73	1.37				
8.2	21.9	27.1	20.3	15.6	1.24	0.75	1.42				
8.4	21.8	27.4	18.9	15.9	1.28	0.77	1.50				
8.6	21.7	27.6	17.9	16.4	1.31	0.80	1.59				
8.8	21.6	27.9	16.9	17.2	1.36	0.82	1.66				
9.0	21.5	28.1	16.1	18.3	1.41	0.85	1.73				
9.2	21.3	28.4	15.5	20.2	1.47	0.87	1.83				
9.4	21.1	28.8	14.8	22.7	1.54	0.90	1.91				
9.6	20.9	29.1	14.1	23.3	1.62	0.92	2.05				
9.8	20.6	29.5	13.3	21.2	1.71	0.94	2.18				
10.0	20.3	30.0	12.5	20.0	1.83	0.96	2.27				

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: $V_{DD} = +5\text{ V}$, $I_{DD} = 55\text{ mA}$ @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		Noise Figure	FREQ	IP-3 Output		1dB Comp. Output
					K	Measure			POUT = 0 dBm/Tone	POUT = +5 dBm/Tone	
(GHz)	(dB)	(dB)	(dB)	(dB)			(dB)	(GHz)	(dBm)	(dBm)	(dBm)
0.1	21.4	24.9	17.2	20.9	1.05	0.56	1.75	0.01	27.1	27.6	16.6
0.1	21.6	24.6	18.9	24.4	1.04	0.51	1.31	0.05	29.0	29.8	19.7
0.3	21.7	24.5	19.6	29.0	1.04	0.49	1.07	0.10	29.7	30.0	20.8
0.5	21.7	24.5	19.4	29.9	1.04	0.49	1.02	0.40	29.7	30.1	21.1
0.7	21.7	24.6	18.9	30.6	1.05	0.50	1.04	0.50	31.2	31.3	21.2
1.0	21.7	24.7	17.9	29.9	1.05	0.52	0.97	1.00	29.3	29.7	21.6
1.2	21.7	24.7	17.3	28.3	1.05	0.53	1.03	1.50	30.5	30.6	21.3
1.4	21.7	24.8	16.6	26.5	1.06	0.54	1.04	2.00	29.7	30.0	21.5
1.6	21.6	24.9	15.9	24.7	1.06	0.55	1.02	2.50	28.9	28.9	21.6
1.8	21.6	24.9	15.2	23.2	1.06	0.56	1.02	3.00	29.0	28.9	21.0
2.0	21.6	25.0	14.5	21.8	1.07	0.57	1.01	3.50	28.9	28.6	20.5
2.2	21.6	25.1	13.9	20.7	1.07	0.58	0.99	4.00	27.9	27.7	20.3
2.4	21.5	25.2	13.4	19.8	1.07	0.59	1.05	4.50	27.8	27.5	20.6
2.6	21.5	25.3	12.9	18.9	1.08	0.60	1.05	5.00	27.0	26.7	20.2
2.8	21.5	25.4	12.5	18.3	1.08	0.61	1.12	5.50	27.9	27.7	19.8
3.0	21.5	25.4	12.2	17.8	1.09	0.62	1.09	6.00	27.7	27.3	19.8
3.2	21.5	25.5	11.9	17.4	1.09	0.63	1.09	6.50	28.5	28.2	19.6
3.4	21.5	25.6	11.7	17.1	1.09	0.64	1.06	7.00	29.2	28.8	19.6
3.6	21.5	25.7	11.6	17.0	1.10	0.65	1.15	7.50	29.3	29.0	19.2
3.8	21.5	25.7	11.6	17.0	1.10	0.65	1.14	8.00	28.9	28.7	18.6
4.0	21.5	25.8	11.6	17.2	1.10	0.66	1.14	8.50	29.1	28.6	17.6
4.2	21.5	25.9	11.7	17.5	1.11	0.67	1.17	9.00	28.2	28.0	16.5
4.4	21.5	25.9	11.9	18.0	1.11	0.68	1.18	9.50	28.0	28.0	16.0
4.6	21.6	26.0	12.1	18.6	1.12	0.68	1.16	10.00	27.4	28.1	15.2
4.8	21.6	26.0	12.5	19.5	1.12	0.69	1.19				
5.0	21.7	26.1	12.9	20.4	1.12	0.69	1.21				
5.2	21.7	26.1	13.3	21.8	1.12	0.70	1.29				
5.4	21.8	26.2	13.9	23.2	1.13	0.70	1.17				
5.6	21.9	26.3	14.4	24.9	1.13	0.70	1.19				
5.8	21.9	26.3	15.2	26.8	1.13	0.70	1.18				
6.0	22.0	26.3	16.2	28.6	1.14	0.70	1.18				
6.2	22.1	26.4	17.2	27.3	1.14	0.70	1.20				
6.4	22.2	26.5	18.6	24.7	1.15	0.70	1.21				
6.6	22.2	26.6	20.3	22.0	1.15	0.70	1.17				
6.8	22.3	26.6	22.6	20.1	1.16	0.70	1.17				
7.0	22.3	26.8	25.6	18.6	1.17	0.70	1.24				
7.2	22.3	26.9	29.3	17.4	1.18	0.70	1.24				
7.4	22.3	27.0	31.9	16.5	1.19	0.70	1.25				
7.6	22.3	27.2	28.9	15.8	1.21	0.71	1.31				
7.8	22.3	27.3	24.8	15.4	1.23	0.72	1.32				
8.0	22.2	27.5	22.3	15.2	1.25	0.74	1.37				
8.2	22.1	27.7	20.4	15.2	1.28	0.76	1.43				
8.4	22.0	27.9	18.9	15.4	1.32	0.78	1.53				
8.6	21.9	28.2	17.9	15.8	1.36	0.80	1.59				
8.8	21.8	28.4	17.0	16.5	1.40	0.83	1.66				
9.0	21.7	28.7	16.3	17.6	1.45	0.85	1.75				
9.2	21.6	29.0	15.8	19.3	1.52	0.87	1.85				
9.4	21.4	29.3	15.1	21.9	1.58	0.89	1.95				
9.6	21.2	29.6	14.6	24.4	1.67	0.92	2.06				
9.8	20.9	30.0	13.9	21.2	1.75	0.94	2.21				
10.0	20.7	30.4	13.0	19.8	1.87	0.96	2.27				

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: $V_{DD} = +5.25\text{ V}$, $I_{DD} = 62\text{ mA}$ @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		Noise Figure	FREQ	IP-3 Output		1dB Comp. Output
					K	Measure			POUT = 0 dBm/Tone	POUT = +5 dBm/Tone	
(GHz)	(dB)	(dB)	(dB)	(dB)			(dB)	(GHz)	(dBm)	(dBm)	(dBm)
0.05	21.8	25.3	19.8	18.5	1.05	0.55	1.75	0.01	27.9	29.3	17.3
0.1	22.1	25.0	22.3	20.7	1.04	0.49	1.31	0.05	30.7	31.0	20.3
0.3	22.1	24.9	23.4	22.8	1.04	0.48	1.06	0.10	31.0	31.4	21.3
0.5	22.1	24.9	22.9	23.2	1.04	0.48	1.02	0.40	31.1	31.5	21.6
0.7	22.1	25.0	22.2	23.9	1.05	0.49	1.04	0.50	31.9	32.8	21.7
1.0	22.1	25.0	20.7	24.8	1.05	0.51	0.98	1.00	30.9	31.0	21.9
1.2	22.1	25.1	19.8	25.3	1.05	0.52	1.07	1.50	32.0	32.0	21.7
1.4	22.1	25.2	18.8	25.2	1.06	0.53	1.05	2.00	31.1	31.4	21.8
1.6	22.1	25.2	17.9	24.6	1.06	0.54	0.99	2.50	30.3	30.2	21.8
1.8	22.1	25.3	17.0	23.6	1.06	0.55	0.97	3.00	30.6	30.3	21.2
2.0	22.0	25.4	16.2	22.5	1.07	0.56	0.99	3.50	30.3	30.1	20.7
2.2	22.0	25.4	15.5	21.7	1.07	0.57	0.96	4.00	29.6	29.3	20.7
2.4	22.0	25.5	14.8	20.9	1.07	0.58	1.05	4.50	29.3	29.0	21.0
2.6	22.0	25.6	14.3	20.0	1.08	0.59	1.05	5.00	28.8	28.3	20.6
2.8	22.0	25.7	13.8	19.4	1.08	0.60	1.10	5.50	29.3	28.9	20.3
3.0	22.0	25.8	13.4	18.8	1.08	0.61	1.09	6.00	28.8	28.6	20.2
3.2	21.9	25.8	13.1	18.4	1.09	0.62	1.07	6.50	29.5	29.2	20.0
3.4	22.0	25.9	12.9	18.1	1.09	0.63	1.10	7.00	29.6	29.4	20.0
3.6	21.9	26.0	12.7	17.9	1.09	0.63	1.11	7.50	29.6	29.4	19.6
3.8	21.9	26.1	12.7	17.8	1.10	0.64	1.13	8.00	29.2	29.1	19.1
4.0	21.9	26.1	12.7	17.9	1.10	0.65	1.16	8.50	28.6	28.6	18.0
4.2	21.9	26.2	12.8	18.1	1.11	0.66	1.17	9.00	27.7	27.9	16.9
4.4	22.0	26.3	13.1	18.4	1.11	0.67	1.16	9.50	27.3	27.7	16.4
4.6	22.0	26.3	13.3	18.9	1.12	0.68	1.15	10.00	26.8	27.6	15.6
4.8	22.0	26.4	13.7	19.5	1.12	0.68	1.18				
5.0	22.1	26.5	14.1	20.1	1.12	0.69	1.18				
5.2	22.1	26.5	14.6	20.9	1.13	0.69	1.25				
5.4	22.2	26.6	15.3	21.6	1.13	0.69	1.17				
5.6	22.2	26.6	15.9	22.4	1.13	0.70	1.17				
5.8	22.3	26.7	16.8	23.1	1.14	0.70	1.16				
6.0	22.3	26.7	17.9	23.1	1.14	0.70	1.19				
6.2	22.4	26.8	19.1	22.3	1.15	0.70	1.19				
6.4	22.4	26.9	20.7	21.2	1.15	0.70	1.19				
6.6	22.5	27.0	22.8	19.8	1.16	0.70	1.16				
6.8	22.5	27.1	25.8	18.5	1.17	0.70	1.17				
7.0	22.5	27.1	30.1	17.5	1.18	0.70	1.19				
7.2	22.5	27.3	31.8	16.5	1.19	0.70	1.23				
7.4	22.5	27.4	31.8	15.8	1.21	0.71	1.26				
7.6	22.5	27.6	27.1	15.3	1.23	0.72	1.30				
7.8	22.4	27.8	23.7	14.9	1.25	0.73	1.31				
8.0	22.4	27.9	21.5	14.8	1.28	0.74	1.37				
8.2	22.3	28.1	19.9	14.7	1.30	0.76	1.43				
8.4	22.2	28.4	18.6	15.0	1.34	0.78	1.52				
8.6	22.1	28.6	17.7	15.3	1.38	0.80	1.61				
8.8	22.0	28.8	16.9	16.0	1.43	0.83	1.68				
9.0	21.9	29.1	16.3	16.9	1.48	0.85	1.75				
9.2	21.8	29.4	15.8	18.5	1.54	0.87	1.86				
9.4	21.6	29.6	15.2	21.0	1.60	0.89	1.95				
9.6	21.4	30.0	14.8	27.0	1.69	0.91	2.09				
9.8	21.2	30.3	14.2	21.2	1.77	0.93	2.22				
10.0	20.9	30.7	13.4	19.5	1.88	0.95	2.31				

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: $V_{DD} = +5\text{ V}$, $I_{DD} = 58\text{ mA}$ @ Temperature = +105°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		Noise Figure	FREQ	IP-3 Output		1dB Comp. Output
					K	Measure			POUT = 0 dBm/Tone	POUT = +5 dBm/Tone	
(GHz)	(dB)	(dB)	(dB)	(dB)			(dB)	(GHz)	(dBm)	(dBm)	(dBm)
0.05	21.1	24.6	17.1	21.9	1.06	0.57	2.36	0.01	27.3	27.3	15.5
0.1	21.3	24.4	18.6	25.6	1.05	0.52	1.80	0.05	29.5	29.8	18.6
0.3	21.3	24.4	19.1	30.2	1.05	0.52	1.52	0.10	30.3	30.1	19.7
0.5	21.3	24.4	18.6	31.9	1.05	0.52	1.47	0.40	29.9	30.4	20.3
0.7	21.3	24.4	18.0	32.5	1.06	0.54	1.54	0.50	31.6	31.6	20.4
1.0	21.2	24.5	16.8	29.5	1.06	0.55	1.44	1.00	30.0	30.0	20.0
1.2	21.2	24.6	16.1	26.6	1.07	0.57	1.58	1.50	30.7	30.7	20.2
1.4	21.1	24.7	15.3	24.2	1.07	0.58	1.55	2.00	29.6	30.1	19.9
1.6	21.1	24.8	14.6	22.3	1.08	0.59	1.53	2.50	29.0	29.7	19.7
1.8	21.1	24.9	14.0	20.5	1.08	0.60	1.52	3.00	29.6	29.3	19.3
2.0	21.0	25.0	13.4	19.3	1.09	0.61	1.52	3.50	29.3	29.3	19.0
2.2	21.0	25.0	13.1	18.2	1.09	0.62	1.56	4.00	28.8	28.5	18.9
2.4	21.0	25.1	12.8	17.5	1.10	0.63	1.56	4.50	28.8	28.4	19.0
2.6	21.0	25.2	12.5	16.9	1.10	0.64	1.59	5.00	28.1	27.7	18.6
2.8	20.9	25.3	12.4	16.4	1.11	0.64	1.64	5.50	29.0	28.6	18.6
3.0	20.9	25.4	12.2	16.3	1.11	0.65	1.65	6.00	28.8	28.2	18.6
3.2	20.9	25.5	12.2	16.2	1.12	0.66	1.65	6.50	29.2	29.0	18.6
3.4	20.9	25.6	12.2	16.2	1.13	0.67	1.65	7.00	29.9	29.6	18.8
3.6	20.9	25.6	12.2	16.5	1.13	0.68	1.72	7.50	29.6	29.7	18.7
3.8	20.9	25.7	12.4	16.7	1.14	0.68	1.68	8.00	30.1	29.7	18.6
4.0	21.0	25.8	12.6	17.2	1.14	0.69	1.66	8.50	29.6	29.5	17.8
4.2	21.0	25.8	12.8	17.8	1.15	0.70	1.75	9.00	28.9	28.9	16.6
4.4	21.0	25.9	13.1	18.7	1.15	0.71	1.72	9.50	29.2	28.9	15.9
4.6	21.0	26.0	13.3	19.7	1.16	0.72	1.74	10.00	28.7	29.2	15.1
4.8	21.0	26.0	13.6	20.8	1.16	0.73	1.76				
5.0	21.1	26.1	13.9	22.1	1.17	0.74	1.77				
5.2	21.1	26.1	14.0	24.0	1.17	0.74	1.85				
5.4	21.1	26.2	14.4	26.1	1.18	0.75	1.80				
5.6	21.2	26.3	14.5	28.4	1.19	0.76	1.81				
5.8	21.2	26.4	14.9	32.0	1.20	0.77	1.88				
6.0	21.2	26.5	15.4	34.4	1.20	0.77	1.84				
6.2	21.2	26.6	15.6	35.7	1.21	0.78	1.89				
6.4	21.3	26.7	16.2	36.0	1.23	0.78	1.95				
6.6	21.3	26.8	16.6	34.6	1.25	0.79	1.93				
6.8	21.3	27.0	17.2	33.3	1.27	0.80	1.95				
7.0	21.3	27.1	18.0	32.7	1.28	0.80	2.00				
7.2	21.3	27.2	18.7	31.2	1.29	0.80	2.03				
7.4	21.3	27.3	20.3	29.4	1.32	0.81	2.05				
7.6	21.3	27.4	20.9	27.2	1.34	0.82	2.11				
7.8	21.3	27.6	20.8	25.3	1.36	0.82	2.09				
8.0	21.3	27.7	20.3	24.1	1.38	0.83	2.14				
8.2	21.2	27.9	19.5	21.9	1.41	0.84	2.19				
8.4	21.1	28.1	18.2	21.0	1.45	0.85	2.31				
8.6	20.9	28.3	17.2	20.6	1.51	0.87	2.37				
8.8	20.8	28.6	16.2	20.6	1.57	0.89	2.47				
9.0	20.6	28.8	15.3	21.3	1.62	0.90	2.54				
9.2	20.5	29.1	14.6	22.7	1.69	0.92	2.64				
9.4	20.3	29.4	13.7	24.6	1.75	0.94	2.71				
9.6	20.1	29.7	12.9	26.2	1.84	0.97	2.84				
9.8	19.9	30.1	12.2	26.3	1.94	0.99	2.94				
10.0	19.6	30.5	11.2	23.3	2.06	1.01	3.03				

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: $V_{DD} = +5\text{ V}$, $I_{DD} = 55\text{ mA}$ @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		Noise Figure	FREQ	IP-3 Output		1dB Comp. Output
					K	Measure			POUT = 0 dBm/Tone	POUT = +5 dBm/Tone	
(GHz)	(dB)	(dB)	(dB)	(dB)			(dB)	(GHz)	(dBm)	(dBm)	(dBm)
0.05	21.8	25.3	20.6	17.5	1.05	0.55	1.16	0.01	27.3	26.6	16.5
0.1	22.0	25.0	23.3	19.6	1.04	0.49	0.96	0.05	29.0	30.9	19.3
0.3	22.1	24.8	25.2	21.8	1.04	0.46	0.78	0.10	29.8	30.3	20.4
0.5	22.2	24.8	24.8	22.4	1.04	0.46	0.76	0.40	29.7	29.9	20.7
0.7	22.2	24.9	23.9	23.1	1.04	0.47	0.83	0.50	30.8	31.3	20.8
1.0	22.1	24.9	22.1	24.6	1.04	0.49	0.69	1.00	29.1	29.4	21.2
1.2	22.1	25.0	21.0	25.2	1.05	0.49	0.79	1.50	30.1	30.3	20.9
1.4	22.1	25.0	19.8	25.5	1.05	0.50	0.87	2.00	29.1	29.5	21.1
1.6	22.1	25.1	18.6	25.2	1.05	0.51	0.84	2.50	28.6	28.4	21.3
1.8	22.1	25.1	17.6	23.7	1.05	0.52	0.84	3.00	28.5	28.5	20.5
2.0	22.1	25.2	16.6	22.5	1.06	0.53	0.78	3.50	28.3	28.3	19.5
2.2	22.1	25.3	15.8	21.3	1.06	0.54	0.72	4.00	27.5	27.5	19.4
2.4	22.1	25.3	15.1	20.2	1.06	0.55	0.79	4.50	27.5	27.3	19.7
2.6	22.1	25.4	14.5	19.3	1.07	0.56	0.79	5.00	26.0	26.1	19.4
2.8	22.1	25.5	14.2	18.5	1.07	0.56	0.84	5.50	26.8	26.6	19.4
3.0	22.1	25.6	13.8	18.1	1.07	0.57	0.88	6.00	26.6	26.7	19.5
3.2	22.1	25.6	13.6	17.7	1.07	0.57	0.77	6.50	27.7	27.8	19.5
3.4	22.1	25.7	13.6	17.5	1.07	0.58	0.77	7.00	27.8	28.1	19.6
3.6	22.1	25.7	13.5	17.5	1.07	0.59	0.80	7.50	27.9	28.2	19.3
3.8	22.2	25.8	13.7	17.6	1.08	0.59	0.78	8.00	27.6	27.9	18.7
4.0	22.2	25.9	13.8	17.8	1.08	0.60	0.81	8.50	27.5	28.0	17.9
4.2	22.2	25.9	14.1	18.2	1.08	0.61	0.80	9.00	26.6	27.5	16.9
4.4	22.2	26.0	14.5	18.6	1.09	0.62	0.79	9.50	26.3	27.3	16.4
4.6	22.3	26.0	14.7	19.2	1.09	0.62	0.75	10.00	25.4	26.9	15.4
4.8	22.3	26.1	15.2	19.8	1.09	0.62	0.74				
5.0	22.4	26.1	15.5	20.2	1.08	0.63	0.79				
5.2	22.5	26.2	15.8	20.9	1.08	0.63	0.80				
5.4	22.6	26.2	16.2	21.4	1.09	0.64	0.74				
5.6	22.7	26.3	16.4	21.6	1.08	0.64	0.74				
5.8	22.7	26.3	17.2	21.5	1.08	0.63	0.69				
6.0	22.9	26.4	17.6	21.0	1.08	0.63	0.77				
6.2	23.0	26.4	18.1	20.0	1.08	0.63	0.73				
6.4	23.0	26.5	18.9	18.9	1.08	0.62	0.71				
6.6	23.1	26.5	19.3	17.7	1.08	0.62	0.70				
6.8	23.2	26.6	20.2	16.6	1.08	0.61	0.65				
7.0	23.3	26.7	20.6	15.7	1.08	0.61	0.72				
7.2	23.4	26.7	21.0	14.8	1.09	0.60	0.67				
7.4	23.5	26.9	21.1	14.1	1.09	0.59	0.65				
7.6	23.5	26.9	20.9	13.7	1.09	0.59	0.71				
7.8	23.6	27.0	21.0	13.3	1.10	0.59	0.72				
8.0	23.6	27.1	20.6	13.0	1.11	0.59	0.71				
8.2	23.7	27.2	20.4	12.7	1.11	0.59	0.71				
8.4	23.7	27.3	20.2	12.6	1.12	0.60	0.82				
8.6	23.8	27.5	19.9	12.5	1.13	0.61	0.86				
8.8	23.8	27.7	19.7	12.5	1.15	0.62	0.93				
9.0	23.8	27.9	19.2	12.4	1.16	0.64	0.96				
9.2	23.8	28.0	18.9	12.5	1.17	0.65	1.04				
9.4	23.8	28.2	18.3	12.3	1.19	0.66	1.10				
9.6	23.8	28.5	17.8	12.4	1.22	0.69	1.22				
9.8	23.7	28.7	17.7	12.8	1.24	0.71	1.38				
10.0	23.6	28.9	17.3	13.3	1.28	0.73	1.49				