

*Typical Performance Data*

OUTPUT VOLTAGE VS INPUT POWER @ +25°C											
POWER IN (dBm)	@0.1 GHz (V)	@0.5 GHz (V)	@1 GHz (V)	@5 GHz (V)	@10 GHz (V)	@20 GHz (V)	@30 GHz (V)	@40 GHz (V)	@50 GHz (V)	@60 GHz (V)	@67 GHz (V)
-35	0.09	0.17	0.14	0.14	0.13	0.09	0.08	0.09	0.11	0.11	0.08
-30	0.22	0.30	0.28	0.28	0.27	0.23	0.22	0.23	0.26	0.26	0.23
-25	0.37	0.45	0.42	0.42	0.41	0.38	0.38	0.38	0.40	0.40	0.37
-20	0.51	0.59	0.56	0.56	0.56	0.52	0.52	0.52	0.55	0.54	0.52
-15	0.65	0.72	0.70	0.70	0.69	0.66	0.65	0.66	0.68	0.68	0.65
-10	0.78	0.85	0.83	0.83	0.83	0.80	0.79	0.80	0.82	0.82	0.79
-5	0.92	0.97	0.96	0.97	0.96	0.93	0.92	0.93	0.95	0.95	0.92
0	1.06	1.14	1.13	1.13	1.13	1.09	1.08	1.09	1.11	1.08	1.04

OUTPUT VOLTAGE (V) VS FREQUENCY OVER TEMPERATURE									
FREQ (GHz)	@ INPUT POWER = -35 dBm			@ INPUT POWER = -20 dBm			@ INPUT POWER = 0 dBm		
	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C
0.1	0.10	0.09	0.08	0.50	0.51	0.51	1.05	1.06	1.06
0.5	0.18	0.17	0.16	0.58	0.59	0.58	1.15	1.14	1.13
1	0.15	0.14	0.13	0.55	0.56	0.56	1.13	1.13	1.12
4	0.15	0.14	0.13	0.56	0.57	0.56	1.14	1.14	1.13
7	0.14	0.13	0.12	0.55	0.56	0.56	1.13	1.13	1.12
10	0.13	0.13	0.12	0.55	0.56	0.55	1.13	1.13	1.12
13	0.14	0.13	0.12	0.56	0.57	0.57	1.13	1.13	1.12
16	0.13	0.12	0.11	0.55	0.56	0.55	1.13	1.12	1.11
19	0.12	0.11	0.10	0.54	0.55	0.54	1.10	1.11	1.10
22	0.11	0.10	0.09	0.53	0.54	0.53	1.09	1.10	1.10
25	0.09	0.08	0.07	0.51	0.52	0.52	1.07	1.09	1.08
28	0.09	0.08	0.07	0.52	0.52	0.52	1.07	1.08	1.08
31	0.08	0.08	0.06	0.51	0.52	0.52	1.06	1.08	1.08
34	0.07	0.06	0.05	0.50	0.51	0.51	1.04	1.07	1.07
37	0.08	0.07	0.06	0.50	0.51	0.51	1.05	1.07	1.08
40	0.09	0.09	0.08	0.51	0.52	0.52	1.07	1.09	1.09
43	0.09	0.08	0.08	0.52	0.53	0.53	1.06	1.09	1.09
46	0.09	0.09	0.08	0.51	0.52	0.53	1.07	1.09	1.09
49	0.11	0.11	0.10	0.54	0.54	0.55	1.10	1.11	1.09
52	0.11	0.11	0.10	0.54	0.55	0.55	1.10	1.10	1.08
55	0.12	0.12	0.10	0.54	0.55	0.55	1.11	1.10	1.08
58	0.12	0.11	0.09	0.55	0.55	0.53	1.10	1.09	1.06
61	0.13	0.11	0.08	0.55	0.55	0.53	1.09	1.08	1.05
64	0.12	0.10	0.05	0.53	0.52	0.49	1.08	1.06	1.03
67	0.11	0.08	0.03	0.53	0.52	0.48	1.05	1.04	1.01
70	0.08	0.04	0.00	0.51	0.49	0.44	1.02	1.01	0.97

Typical Performance Data

INPUT POWER DEVIATION FROM IDEAL VS INPUT POWER @ +25°C								
@ 1 GHz					@ 10 GHz			
Pin MEASURED	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)
-35	0.14	0.14	-35.00	0.00	0.13	0.13	-34.97	0.03
-30	0.28	0.28	-29.97	0.03	0.27	0.27	-30.00	0.00
-25	0.42	0.42	-24.95	0.05	0.41	0.41	-25.04	-0.04
-20	0.56	0.56	-19.92	0.08	0.56	0.55	-19.72	0.28
-15	0.70	0.70	-14.90	0.10	0.69	0.69	-15.11	-0.11
-10	0.83	0.84	-10.23	-0.23	0.83	0.83	-10.14	-0.14
-5	0.96	0.98	-5.56	-0.56	0.96	0.97	-5.53	-0.53
0	1.13	1.12	0.54	0.54	1.13	1.12	0.50	0.50

INPUT POWER DEVIATION FROM IDEAL VS INPUT POWER @ +25°C								
@ 20 GHz					@ 30 GHz			
Pin MEASURED	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)
-35	0.09	0.09	-35.06	-0.06	0.08	0.09	-35.21	-0.21
-30	0.23	0.23	-30.12	-0.12	0.22	0.23	-30.25	-0.25
-25	0.38	0.38	-24.82	0.18	0.38	0.37	-24.58	0.42
-20	0.52	0.52	-19.88	0.12	0.52	0.51	-19.62	0.38
-15	0.66	0.66	-14.94	0.06	0.65	0.65	-15.02	-0.02
-10	0.80	0.80	-10.00	0.00	0.79	0.79	-10.06	-0.06
-5	0.93	0.94	-5.41	-0.41	0.92	0.93	-5.46	-0.46
0	1.09	1.08	0.24	0.24	1.08	1.07	0.21	0.21

INPUT POWER DEVIATION FROM IDEAL VS INPUT POWER @ +25°C								
@ 40 GHz					@ 50 GHz			
Pin MEASURED	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)
-35	0.09	0.09	-35.06	-0.06	0.11	0.12	-35.24	-0.24
-30	0.23	0.23	-30.12	-0.12	0.26	0.26	-29.92	0.08
-25	0.38	0.38	-24.82	0.18	0.40	0.40	-24.95	0.05
-20	0.52	0.52	-19.88	0.12	0.55	0.54	-19.63	0.37
-15	0.66	0.66	-14.94	0.06	0.68	0.68	-15.02	-0.02
-10	0.80	0.80	-10.00	0.00	0.82	0.82	-10.05	-0.05
-5	0.93	0.94	-5.41	-0.41	0.95	0.96	-5.44	-0.44
0	1.09	1.08	0.24	0.24	1.11	1.10	0.24	0.24

INPUT POWER DEVIATION FROM IDEA VS INPUT POWER @ +25°C								
@ 60 GHz					@ 67 GHz			
Pin MEASURED	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)	Vout, MEASURED (V)	Vout, IDEAL (V)	Pin, IDEAL (dBm)	DEVIATION FROM IDEAL (dB)
-35	0.11	0.12	-35.36	-0.36	0.08	0.09	-35.48	-0.48
-30	0.26	0.26	-29.95	0.05	0.23	0.23	-30.03	-0.03
-25	0.40	0.40	-24.90	0.10	0.37	0.37	-24.95	0.05
-20	0.54	0.54	-19.85	0.15	0.52	0.51	-19.50	0.50
-15	0.68	0.67	-14.79	0.21	0.65	0.64	-14.78	0.22
-10	0.82	0.81	-9.74	0.26	0.79	0.78	-9.69	0.31
-5	0.95	0.95	-5.05	-0.05	0.92	0.92	-4.97	0.03
0	1.08	1.09	-0.36	-0.36	1.04	1.06	-0.61	-0.61

*Typical Performance Data*

Pin (dBm)	SLOPE (mV/dB) VS INPUT POWER OVER TEMPERATURE								
	RANGE @ FREQUENCY 0.1 GHz			RANGE @ FREQUENCY 30 GHz			RANGE @ FREQUENCY 67 GHz		
	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C
-30	26.56	27.26	28.28	28.97	29.94	30.83	28.43	29.48	30.63
-25	27.66	28.54	29.12	28.59	29.42	30.04	28.01	28.97	29.67
-20	27.26	28.12	28.67	26.79	27.59	28.13	27.30	28.14	28.92
-15	26.57	27.27	27.72	26.35	27.03	27.46	26.82	27.47	28.02
-10	26.55	26.89	27.09	26.64	27.14	27.40	26.46	26.88	26.96
-5	28.20	28.12	27.26	28.16	28.77	28.61	25.71	25.32	24.71

FREQUENCY (GHz)	SLOPE (mV/dB) VS FREQUENCY OVER TEMPERATURE								
	@ INPUT POWER = -30 dBm			@ INPUT POWER = -20 dBm			@ INPUT POWER = -5 dBm		
	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C
0.1	26.56	27.26	28.28	27.26	28.12	28.67	28.20	28.12	27.26
0.5	26.69	27.38	28.17	26.19	27.11	27.72	32.01	29.16	27.60
1	26.99	27.72	28.51	26.71	27.60	28.18	31.87	29.84	28.44
4	27.25	28.06	28.79	26.90	27.77	28.32	32.40	30.21	28.77
7	27.84	28.67	29.41	26.62	27.46	28.01	31.53	29.97	28.66
10	27.82	28.69	29.41	27.09	27.93	28.53	31.63	30.01	28.67
13	28.57	29.47	30.22	26.18	26.98	27.51	31.49	29.85	28.53
16	28.66	29.57	30.32	26.87	27.70	28.26	31.21	29.72	28.51
19	28.47	29.40	30.15	26.89	27.69	28.25	30.08	29.42	28.50
22	28.58	29.51	30.30	27.08	27.87	28.42	29.54	29.30	28.58
25	28.82	29.79	30.65	26.86	27.67	28.23	29.26	29.54	29.13
28	28.56	29.50	30.38	27.12	27.91	28.44	28.47	28.86	28.57
31	29.09	30.07	30.98	26.48	27.24	27.76	28.27	28.90	28.71
34	28.89	29.89	30.80	27.08	27.86	28.40	27.84	28.61	28.58
37	28.55	29.50	30.43	27.43	28.21	28.75	28.03	28.86	28.78
40	28.18	29.08	29.90	27.57	28.33	28.87	28.76	29.32	28.64
43	28.93	29.94	30.69	26.84	27.63	28.11	28.42	29.14	28.41
46	28.05	29.03	29.74	27.56	28.37	28.87	28.38	29.08	28.00
49	28.34	29.33	29.97	27.22	27.99	28.49	30.08	29.03	26.86
52	28.69	29.67	30.36	26.88	27.64	28.13	29.53	28.42	26.21
55	28.13	29.10	29.75	27.35	28.11	28.64	29.64	27.64	25.15
58	28.55	29.55	30.30	26.92	27.68	28.27	28.74	27.00	24.98
61	28.54	29.54	30.33	26.80	27.55	28.18	27.60	25.90	24.18
64	27.40	28.41	29.32	28.06	28.91	29.70	26.65	25.64	24.59
67	28.43	29.48	30.63	27.30	28.14	28.92	25.71	25.32	24.71
70	28.56	29.72	28.91	27.08	27.96	28.79	24.59	24.83	24.76

*Typical Performance Data*

OUTPUT VOLTAGE DEVIATION (mV) VS INPUT POWER AT FREQUENCY = 0.1 GHz			
POWER IN (dBm)	TEMP = +25C	OUTPUT VOLTAGE DEVIATION @-40°C RELATIVE TO +25°C	OUTPUT VOLTAGE DEVIATION @+85°C RELATIVE TO +25°C
-35	0	3.19	-15.19
-30	0	0.67	-7.77
-25	0	-3.83	-5.01
-20	0	-8.20	-1.98
-15	0	-12.38	0.49
-10	0	-15.18	2.59
-5	0	-15.69	2.58
0	0	-14.35	-5.98

OUTPUT VOLTAGE DEVIATION (mV) VS INPUT POWER AT FREQUENCY = 30 GHz			
POWER IN (dBm)	Temp = +25C	OUTPUT VOLTAGE DEVIATION @-40°C RELATIVE TO +25°C	OUTPUT VOLTAGE DEVIATION @+85°C RELATIVE TO +25°C
-35	0	6.47	-12.33
-30	0	1.05	-6.58
-25	0	-3.26	-3.44
-20	0	-7.26	-0.35
-15	0	-11.28	1.93
-10	0	-14.08	3.93
-5	0	-16.25	4.63
0	0	-20.23	2.25

OUTPUT VOLTAGE DEVIATION (mV) VS INPUT POWER AT FREQUENCY = 67 GHz			
POWER IN (dBm)	Temp = +25C	OUTPUT VOLTAGE DEVIATION @-40°C RELATIVE TO +25°C	OUTPUT VOLTAGE DEVIATION @+85°C RELATIVE TO +25°C
-35	0	28.38	-52.28
-30	0	22.85	-43.80
-25	0	17.88	-40.76
-20	0	13.27	-36.73
-15	0	9.43	-33.02
-10	0	6.81	-31.27
-5	0	5.18	-32.19
0	0	10.77	-37.36

RL vs. FREQUENCY OVER TEMPERATURE			
FREQ	-40°C	+25°C	+85°C
(GHz)	(dB)	(dB)	(dB)
0.1	-28.94	-28.52	-28.48
0.5	-29.24	-28.80	-28.78
1	-28.28	-27.85	-27.72
4	-17.38	-17.13	-16.81
7	-12.26	-12.12	-11.92
10	-9.71	-9.74	-9.67
13	-12.63	-12.72	-12.66
16	-9.60	-9.52	-9.37
19	-7.40	-7.50	-7.48
22	-8.04	-8.23	-8.27
25	-8.64	-8.71	-8.64
28	-9.03	-9.14	-9.19
31	-9.56	-9.92	-10.08
34	-7.77	-8.01	-8.05
37	-9.46	-9.63	-9.76
40	-18.54	-20.04	-21.57
43	-10.28	-10.45	-10.52
46	-9.61	-10.14	-10.60
49	-53.56	-30.98	-24.91
52	-11.67	-11.80	-12.10
55	-17.09	-19.68	-24.62
58	-13.93	-13.76	-13.48
61	-13.89	-14.80	-15.54
64	-27.44	-21.96	-18.30
67	-16.05	-18.28	-20.43
70	-8.75	-8.53	-8.09