

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 7.75\text{ V}$, $I_{DD} = 481\text{ mA}$ @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Noise Figure	FREQ	IP-3 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)	(MHz)	(dBm)
1.0	23.84	-30.36	-12.90	-12.90	1.21	0.69	27.65	28.33	6.31	1.0	48.0
10.0	24.31	-28.56	-16.30	-16.30	1.10	0.65	29.32	29.76	2.41	10.0	47.8
20.0	23.78	-27.62	-16.87	-16.87	1.07	0.61	29.53	29.66	1.60	50.0	48.5
30.0	23.36	-27.13	-17.01	-17.01	1.07	0.59	29.96	30.02	1.61	100.0	48.9
40.0	23.10	-26.84	-17.08	-17.08	1.07	0.57	30.00	30.05	1.48	500.0	50.4
50.0	22.93	-26.74	-16.97	-16.97	1.08	0.57	30.11	30.13	1.53	800.0	35.1
60.0	22.81	-26.70	-16.71	-16.71	1.08	0.57	30.09	30.10	1.60		
70.0	22.72	-26.66	-16.36	-16.36	1.09	0.57	30.07	30.06	1.51		
80.0	22.65	-26.66	-15.99	-15.99	1.09	0.57	30.04	29.99	1.57		
90.0	22.58	-26.67	-15.58	-15.58	1.09	0.57	30.03	29.94	1.65		
100.0	22.53	-26.68	-15.12	-15.12	1.10	0.57	29.99	29.86	1.58		
110.0	22.47	-26.72	-14.64	-14.64	1.10	0.57	30.05	29.88	1.63		
120.0	22.41	-26.75	-14.14	-14.14	1.10	0.58	29.98	29.77	1.62		
130.0	22.35	-26.80	-13.68	-13.68	1.10	0.58	30.00	29.78	1.67		
140.0	22.29	-26.84	-13.20	-13.20	1.11	0.58	29.98	29.75	1.73		
150.0	22.23	-26.89	-12.71	-12.71	1.11	0.58	29.98	29.76	1.68		
160.0	22.16	-26.94	-12.26	-12.26	1.11	0.58	29.95	29.74	1.64		
170.0	22.09	-26.99	-11.79	-11.79	1.11	0.59	29.97	29.83	1.69		
180.0	22.02	-27.06	-11.36	-11.36	1.12	0.59	29.95	29.88	1.69		
190.0	21.95	-27.12	-10.92	-10.92	1.12	0.59	29.86	29.88	1.72		
200.0	21.87	-27.20	-10.51	-10.51	1.12	0.59	29.97	30.05	1.77		
210.0	21.79	-27.24	-10.11	-10.11	1.13	0.59	29.89	30.01	1.72		
220.0	21.70	-27.39	-9.74	-9.74	1.13	0.60	29.79	29.92	1.78		
230.0	21.61	-27.43	-9.37	-9.37	1.13	0.60	29.77	29.91	1.86		
240.0	21.52	-27.52	-9.03	-9.03	1.14	0.60	29.79	29.94	1.79		
250.0	21.43	-27.61	-8.70	-8.70	1.14	0.60	29.73	29.93	1.81		
260.0	21.32	-27.72	-8.39	-8.39	1.15	0.61	29.68	29.96	1.89		
270.0	21.23	-27.82	-8.10	-8.10	1.15	0.61	29.61	29.91	1.86		
280.0	21.13	-27.90	-7.82	-7.82	1.15	0.61	29.57	29.93	1.91		
290.0	21.02	-28.00	-7.58	-7.58	1.16	0.61	29.43	29.80	1.95		
300.0	20.92	-28.09	-7.32	-7.32	1.16	0.61	29.42	29.84	1.89		
310.0	20.81	-28.19	-7.09	-7.09	1.17	0.61	29.31	29.73	1.97		
320.0	20.70	-28.30	-6.87	-6.87	1.17	0.62	29.28	29.69	2.07		
330.0	20.59	-28.42	-6.68	-6.68	1.18	0.62	29.23	29.64	2.03		
340.0	20.49	-28.53	-6.48	-6.48	1.18	0.62	29.12	29.60	2.05		
350.0	20.37	-28.63	-6.32	-6.32	1.19	0.63	29.19	29.61	2.10		
360.0	20.27	-28.73	-6.15	-6.15	1.19	0.63	29.09	29.53	2.16		
370.0	20.17	-28.84	-6.00	-6.00	1.20	0.63	29.05	29.46	2.25		
380.0	20.06	-28.96	-5.87	-5.87	1.21	0.64	29.05	29.34	2.17		
390.0	19.96	-29.05	-5.75	-5.75	1.22	0.64	28.99	29.24	2.15		
400.0	19.86	-29.14	-5.63	-5.63	1.22	0.65	29.03	29.35	2.32		
410.0	19.76	-29.26	-5.54	-5.54	1.23	0.65	28.90	29.10	2.31		
420.0	19.66	-29.33	-5.44	-5.44	1.24	0.66	28.82	29.01	2.34		
430.0	19.57	-29.42	-5.37	-5.37	1.24	0.67	28.67	28.95	2.51		
440.0	19.48	-29.53	-5.31	-5.31	1.25	0.67	28.53	28.88	2.33		
450.0	19.39	-29.60	-5.24	-5.24	1.26	0.68	28.40	28.79	2.45		
460.0	19.31	-29.67	-5.20	-5.20	1.27	0.69	28.22	28.68	2.61		
470.0	19.22	-29.75	-5.16	-5.16	1.28	0.70	28.08	28.59	2.73		
480.0	19.15	-29.83	-5.14	-5.14	1.29	0.71	27.80	28.38	2.60		
490.0	19.08	-29.86	-5.13	-5.13	1.30	0.71	27.57	28.20	2.72		
500.0	19.01	-29.96	-5.14	-5.14	1.31	0.73	27.33	28.01	2.76		
600.0	18.33	-30.64	-5.93	-5.93	1.52	0.90	25.68	27.12	3.37		
700.0	17.13	-31.80	-6.94	-6.94	2.00	1.09	24.24	26.25	4.26		
800.0	13.70	-35.15	-7.08	-7.08	4.11	1.03	22.13	24.21	5.98		
900.0	4.30	-43.98	-6.13	-6.13	26.84	0.90	15.14	16.49	12.33		

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$, $I_{DD} = 497\text{ mA}$ @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Noise Figure	FREQ	IP-2 Output	IP-3 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)
1.0	23.85	-30.36	-12.93	-12.93	1.21	0.69	28.03	28.59	6.51	1.0	97.1	52.7
10.0	24.31	-28.67	-16.44	-16.44	1.10	0.66	29.62	30.03	2.45	10.0	93.2	46.6
20.0	23.77	-27.57	-16.90	-16.90	1.07	0.61	29.81	29.90	1.63	50.0	99.5	47.8
30.0	23.35	-27.10	-17.03	-17.03	1.07	0.59	30.21	30.25	1.62	100.0	94.3	48.4
40.0	23.09	-26.86	-17.06	-17.06	1.07	0.57	30.26	30.28	1.50	500.0	72.3	46.2
50.0	22.92	-26.75	-16.96	-16.96	1.08	0.57	30.36	30.36	1.55	800.0	45.2	29.5
60.0	22.80	-26.71	-16.68	-16.68	1.08	0.57	30.35	30.33	1.61			
70.0	22.71	-26.66	-16.35	-16.35	1.09	0.57	30.33	30.29	1.53			
80.0	22.64	-26.66	-15.97	-15.97	1.09	0.57	30.30	30.23	1.60			
90.0	22.57	-26.67	-15.56	-15.56	1.09	0.57	30.29	30.18	1.66			
100.0	22.52	-26.68	-15.10	-15.10	1.10	0.57	30.25	30.10	1.59			
110.0	22.46	-26.71	-14.62	-14.62	1.10	0.57	30.31	30.11	1.64			
120.0	22.40	-26.75	-14.12	-14.12	1.10	0.58	30.24	30.01	1.64			
130.0	22.34	-26.80	-13.65	-13.65	1.11	0.58	30.26	30.02	1.69			
140.0	22.28	-26.84	-13.18	-13.18	1.11	0.58	30.25	29.98	1.76			
150.0	22.22	-26.88	-12.70	-12.70	1.11	0.58	30.25	30.00	1.69			
160.0	22.15	-26.95	-12.25	-12.25	1.11	0.59	30.21	29.98	1.67			
170.0	22.08	-27.00	-11.78	-11.78	1.12	0.59	30.24	30.06	1.71			
180.0	22.01	-27.07	-11.34	-11.34	1.12	0.59	30.22	30.11	1.70			
190.0	21.94	-27.13	-10.91	-10.91	1.12	0.59	30.12	30.12	1.73			
200.0	21.86	-27.18	-10.50	-10.50	1.12	0.59	30.24	30.29	1.78			
210.0	21.77	-27.31	-10.10	-10.10	1.13	0.60	30.16	30.25	1.73			
220.0	21.69	-27.35	-9.73	-9.73	1.13	0.60	30.06	30.16	1.82			
230.0	21.59	-27.45	-9.36	-9.36	1.14	0.60	30.05	30.15	1.90			
240.0	21.50	-27.52	-9.02	-9.02	1.14	0.60	30.07	30.18	1.82			
250.0	21.42	-27.61	-8.69	-8.69	1.14	0.60	30.01	30.16	1.83			
260.0	21.31	-27.70	-8.38	-8.38	1.15	0.61	29.96	30.20	1.91			
270.0	21.22	-27.80	-8.08	-8.08	1.15	0.61	29.89	30.14	1.86			
280.0	21.11	-27.93	-7.82	-7.82	1.16	0.61	29.85	30.16	1.93			
290.0	21.00	-27.97	-7.57	-7.57	1.16	0.61	29.71	30.03	1.98			
300.0	20.90	-28.12	-7.31	-7.31	1.17	0.62	29.71	30.06	1.90			
310.0	20.79	-28.23	-7.08	-7.08	1.17	0.62	29.57	29.94	2.00			
320.0	20.69	-28.31	-6.86	-6.86	1.17	0.62	29.54	29.93	2.08			
330.0	20.58	-28.39	-6.67	-6.67	1.18	0.62	29.50	29.89	2.06			
340.0	20.48	-28.52	-6.48	-6.48	1.18	0.63	29.42	29.84	2.07			
350.0	20.36	-28.65	-6.31	-6.31	1.19	0.63	29.45	29.84	2.12			
360.0	20.26	-28.74	-6.15	-6.15	1.20	0.63	29.38	29.76	2.20			
370.0	20.15	-28.83	-6.00	-6.00	1.20	0.63	29.34	29.67	2.26			
380.0	20.05	-28.94	-5.87	-5.87	1.21	0.64	29.31	29.51	2.19			
390.0	19.95	-29.05	-5.75	-5.75	1.22	0.64	29.25	29.39	2.18			
400.0	19.85	-29.14	-5.63	-5.63	1.22	0.65	29.30	29.56	2.35			
410.0	19.75	-29.26	-5.53	-5.53	1.23	0.66	29.17	29.31	2.32			
420.0	19.65	-29.31	-5.44	-5.44	1.24	0.66	29.07	29.22	2.36			
430.0	19.56	-29.44	-5.36	-5.36	1.25	0.67	28.93	29.17	2.53			
440.0	19.47	-29.51	-5.30	-5.30	1.25	0.67	28.81	29.10	2.37			
450.0	19.38	-29.58	-5.24	-5.24	1.26	0.68	28.66	29.01	2.48			
460.0	19.30	-29.67	-5.20	-5.20	1.27	0.69	28.48	28.91	2.63			
470.0	19.22	-29.74	-5.15	-5.15	1.28	0.70	28.35	28.82	2.78			
480.0	19.14	-29.82	-5.13	-5.13	1.29	0.71	27.98	28.62	2.62			
490.0	19.07	-29.89	-5.13	-5.13	1.30	0.72	27.87	28.45	2.76			
500.0	19.00	-29.95	-5.13	-5.13	1.31	0.73	27.63	28.26	2.79			
600.0	18.34	-30.61	-5.93	-5.93	1.51	0.90	26.01	27.39	3.39			
700.0	17.14	-31.85	-6.92	-6.92	2.02	1.09	24.63	26.53	4.27			
800.0	13.73	-35.13	-7.06	-7.06	4.08	1.03	22.53	24.51	5.99			
900.0	4.37	-43.94	-6.10	-6.10	26.45	0.90	15.56	16.73	17.37			

Typical Performance Data

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Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8.25\text{ V}$, $I_{DD} = 513\text{ mA}$ @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Noise Figure	FREQ	IP-3 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)	(MHz)	(dBm)
1.0	23.84	-30.35	-12.97	-12.97	1.21	0.69	28.38	28.85	6.83	1.0	47.8
10.0	24.30	-28.54	-16.39	-16.39	1.10	0.65	29.94	30.29	2.49	10.0	47.3
20.0	23.77	-27.57	-16.88	-16.88	1.07	0.61	30.06	30.13	1.66	50.0	47.9
30.0	23.34	-27.14	-17.02	-17.02	1.07	0.59	30.46	30.48	1.65	100.0	48.3
40.0	23.09	-26.85	-17.06	-17.06	1.07	0.57	30.50	30.51	1.52	500.0	47.4
50.0	22.91	-26.75	-16.93	-16.93	1.08	0.57	30.60	30.59	1.57	800.0	38.5
60.0	22.80	-26.71	-16.66	-16.66	1.08	0.57	30.59	30.56	1.64		
70.0	22.71	-26.68	-16.31	-16.31	1.09	0.57	30.57	30.52	1.54		
80.0	22.64	-26.67	-15.93	-15.93	1.09	0.57	30.54	30.46	1.62		
90.0	22.57	-26.68	-15.52	-15.52	1.09	0.57	30.53	30.40	1.68		
100.0	22.51	-26.71	-15.07	-15.07	1.10	0.57	30.49	30.33	1.61		
110.0	22.46	-26.72	-14.59	-14.59	1.10	0.58	30.55	30.34	1.67		
120.0	22.40	-26.75	-14.09	-14.09	1.10	0.58	30.48	30.23	1.67		
130.0	22.33	-26.81	-13.63	-13.63	1.11	0.58	30.51	30.24	1.70		
140.0	22.27	-26.85	-13.15	-13.15	1.11	0.58	30.49	30.21	1.78		
150.0	22.22	-26.88	-12.68	-12.68	1.11	0.58	30.50	30.23	1.72		
160.0	22.15	-26.95	-12.22	-12.22	1.11	0.59	30.47	30.20	1.68		
170.0	22.08	-27.00	-11.76	-11.76	1.12	0.59	30.50	30.29	1.74		
180.0	22.01	-27.05	-11.32	-11.32	1.12	0.59	30.47	30.34	1.73		
190.0	21.93	-27.14	-10.88	-10.88	1.12	0.59	30.39	30.35	1.76		
200.0	21.85	-27.21	-10.48	-10.48	1.13	0.60	30.50	30.52	1.81		
210.0	21.77	-27.28	-10.08	-10.08	1.13	0.60	30.42	30.48	1.75		
220.0	21.69	-27.35	-9.70	-9.70	1.13	0.60	30.32	30.39	1.84		
230.0	21.59	-27.44	-9.34	-9.34	1.14	0.60	30.30	30.38	1.92		
240.0	21.50	-27.57	-9.00	-9.00	1.14	0.61	30.32	30.41	1.83		
250.0	21.41	-27.61	-8.67	-8.67	1.14	0.60	30.27	30.39	1.85		
260.0	21.31	-27.73	-8.36	-8.36	1.15	0.61	30.21	30.43	1.93		
270.0	21.21	-27.80	-8.06	-8.06	1.15	0.61	30.15	30.36	1.91		
280.0	21.11	-27.89	-7.80	-7.80	1.15	0.61	30.11	30.37	1.95		
290.0	21.00	-28.02	-7.55	-7.55	1.16	0.61	29.96	30.25	2.01		
300.0	20.90	-28.14	-7.30	-7.30	1.17	0.62	29.97	30.25	1.94		
310.0	20.79	-28.24	-7.07	-7.07	1.17	0.62	29.84	30.17	2.04		
320.0	20.68	-28.33	-6.85	-6.85	1.18	0.62	29.80	30.17	2.13		
330.0	20.58	-28.43	-6.65	-6.65	1.18	0.62	29.71	30.12	2.09		
340.0	20.47	-28.50	-6.46	-6.46	1.18	0.62	29.63	30.07	2.10		
350.0	20.36	-28.64	-6.30	-6.30	1.19	0.63	29.70	30.06	2.15		
360.0	20.26	-28.74	-6.13	-6.13	1.20	0.63	29.61	29.97	2.21		
370.0	20.15	-28.84	-5.99	-5.99	1.20	0.64	29.57	29.85	2.31		
380.0	20.05	-28.95	-5.85	-5.85	1.21	0.64	29.57	29.66	2.22		
390.0	19.94	-29.06	-5.73	-5.73	1.22	0.65	29.51	29.51	2.22		
400.0	19.85	-29.12	-5.61	-5.61	1.22	0.65	29.53	29.77	2.38		
410.0	19.75	-29.22	-5.51	-5.51	1.23	0.65	29.34	29.51	2.36		
420.0	19.65	-29.32	-5.42	-5.42	1.24	0.66	29.33	29.42	2.40		
430.0	19.56	-29.44	-5.35	-5.35	1.25	0.67	29.18	29.37	2.56		
440.0	19.47	-29.50	-5.29	-5.29	1.25	0.67	29.06	29.31	2.40		
450.0	19.38	-29.58	-5.22	-5.22	1.26	0.68	28.92	29.23	2.50		
460.0	19.30	-29.71	-5.18	-5.18	1.27	0.69	28.59	29.13	2.68		
470.0	19.22	-29.77	-5.14	-5.14	1.28	0.70	28.61	29.05	2.81		
480.0	19.15	-29.83	-5.12	-5.12	1.29	0.71	28.35	28.85	2.66		
490.0	19.08	-29.91	-5.12	-5.12	1.30	0.72	28.13	28.68	2.81		
500.0	19.01	-29.95	-5.12	-5.12	1.31	0.73	27.90	28.50	2.82		
600.0	18.35	-30.64	-5.91	-5.91	1.52	0.91	26.32	27.65	3.43		
700.0	17.15	-31.83	-6.89	-6.89	2.01	1.09	24.98	26.79	4.30		
800.0	13.76	-35.09	-7.03	-7.03	4.05	1.03	22.86	24.78	6.00		
900.0	4.43	-43.79	-6.07	-6.07	25.75	0.90	15.89	16.88	12.33		

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$, $I_{DD} = 498\text{ mA}$ @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1.0	23.60	-30.57	-12.51	-12.51	1.22	0.70	27.76	28.54	7.08
10.0	24.38	-28.85	-16.85	-16.85	1.11	0.67	29.62	30.15	2.72
20.0	23.98	-27.47	-17.13	-17.13	1.05	0.57	30.06	30.16	1.49
30.0	23.58	-27.00	-17.15	-17.15	1.05	0.55	30.56	30.56	1.35
40.0	23.33	-26.76	-17.18	-17.18	1.06	0.54	30.62	30.59	1.19
50.0	23.17	-26.60	-17.09	-17.09	1.06	0.53	30.72	30.67	1.20
60.0	23.07	-26.55	-16.82	-16.82	1.06	0.53	30.69	30.63	1.23
70.0	22.98	-26.52	-16.51	-16.51	1.07	0.53	30.66	30.60	1.12
80.0	22.92	-26.53	-16.13	-16.13	1.07	0.53	30.63	30.56	1.17
90.0	22.86	-26.52	-15.71	-15.71	1.07	0.53	30.62	30.52	1.23
100.0	22.81	-26.54	-15.25	-15.25	1.08	0.53	30.57	30.46	1.15
110.0	22.76	-26.55	-14.76	-14.76	1.08	0.53	30.62	30.48	1.20
120.0	22.70	-26.58	-14.24	-14.24	1.08	0.53	30.56	30.39	1.19
130.0	22.64	-26.61	-13.75	-13.75	1.08	0.53	30.58	30.41	1.24
140.0	22.59	-26.67	-13.25	-13.25	1.08	0.54	30.56	30.40	1.28
150.0	22.53	-26.69	-12.74	-12.74	1.08	0.54	30.54	30.40	1.21
160.0	22.47	-26.78	-12.25	-12.25	1.09	0.54	30.50	30.39	1.18
170.0	22.40	-26.82	-11.76	-11.76	1.09	0.54	30.51	30.46	1.25
180.0	22.33	-26.88	-11.30	-11.30	1.09	0.54	30.47	30.49	1.22
190.0	22.26	-26.96	-10.84	-10.84	1.09	0.55	30.36	30.48	1.25
200.0	22.18	-27.00	-10.41	-10.41	1.10	0.55	30.46	30.62	1.29
210.0	22.10	-27.07	-9.99	-9.99	1.10	0.55	30.38	30.56	1.22
220.0	22.02	-27.14	-9.60	-9.60	1.10	0.55	30.27	30.45	1.29
230.0	21.93	-27.23	-9.22	-9.22	1.10	0.55	30.25	30.44	1.36
240.0	21.84	-27.32	-8.87	-8.87	1.10	0.55	30.26	30.47	1.28
250.0	21.75	-27.40	-8.53	-8.53	1.11	0.55	30.20	30.46	1.29
260.0	21.65	-27.51	-8.21	-8.21	1.11	0.56	30.14	30.50	1.35
270.0	21.56	-27.55	-7.91	-7.91	1.11	0.55	30.08	30.47	1.32
280.0	21.46	-27.67	-7.63	-7.63	1.12	0.56	30.04	30.49	1.38
290.0	21.36	-27.78	-7.38	-7.38	1.12	0.56	29.88	30.37	1.39
300.0	21.26	-27.90	-7.12	-7.12	1.12	0.56	29.89	30.40	1.32
310.0	21.15	-27.98	-6.88	-6.88	1.13	0.56	29.74	30.30	1.42
320.0	21.05	-28.09	-6.66	-6.66	1.13	0.57	29.73	30.32	1.49
330.0	20.94	-28.16	-6.46	-6.46	1.13	0.57	29.69	30.29	1.45
340.0	20.84	-28.28	-6.26	-6.26	1.14	0.57	29.62	30.23	1.46
350.0	20.73	-28.37	-6.09	-6.09	1.14	0.57	29.63	30.24	1.50
360.0	20.63	-28.48	-5.93	-5.93	1.14	0.57	29.57	30.17	1.55
370.0	20.53	-28.60	-5.77	-5.77	1.15	0.58	29.53	30.08	1.63
380.0	20.43	-28.67	-5.63	-5.63	1.15	0.58	29.55	29.90	1.53
390.0	20.33	-28.80	-5.51	-5.51	1.16	0.58	29.50	29.73	1.52
400.0	20.23	-28.89	-5.38	-5.38	1.16	0.59	29.57	29.96	1.66
410.0	20.13	-28.98	-5.28	-5.28	1.17	0.59	29.24	29.71	1.64
420.0	20.04	-29.04	-5.19	-5.19	1.17	0.60	29.37	29.61	1.67
430.0	19.95	-29.14	-5.10	-5.10	1.18	0.60	29.20	29.55	1.85
440.0	19.86	-29.24	-5.04	-5.04	1.18	0.61	29.10	29.49	1.64
450.0	19.78	-29.32	-4.97	-4.97	1.19	0.62	28.98	29.41	1.75
460.0	19.70	-29.40	-4.91	-4.91	1.20	0.62	28.80	29.30	1.89
470.0	19.62	-29.48	-4.87	-4.87	1.20	0.63	28.69	29.22	2.05
480.0	19.55	-29.56	-4.84	-4.84	1.21	0.64	28.40	29.01	1.86
490.0	19.49	-29.60	-4.83	-4.83	1.22	0.65	28.18	28.82	1.99
500.0	19.42	-29.64	-4.82	-4.82	1.22	0.66	27.94	28.60	1.99
600.0	18.96	-30.12	-5.56	-5.56	1.35	0.83	26.27	27.68	2.47
700.0	17.85	-31.26	-6.72	-6.72	1.73	1.06	25.01	26.97	3.19
800.0	15.31	-33.68	-7.37	-7.37	2.99	1.03	23.23	25.63	4.34
900.0	7.07	-41.46	-6.31	-6.31	14.90	0.89	17.80	19.18	9.04

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$, $I_{DD} = 476\text{ mA}$ @ Temperature = +105°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Noise Figure
					K	Measure			
(MHz)	(dB)	(dB)	(dB)	(dB)			(dBm)	(dBm)	(dB)
1.0	23.25	-30.66	-13.77	-13.77	1.29	0.73	27.41	27.34	7.42
10.0	23.43	-28.96	-17.51	-17.51	1.19	0.74	28.40	28.85	3.15
20.0	22.97	-27.91	-17.61	-17.61	1.14	0.70	28.63	28.81	2.38
30.0	22.58	-27.49	-17.43	-17.43	1.14	0.69	29.22	29.25	2.38
40.0	22.35	-27.17	-17.32	-17.32	1.13	0.67	29.34	29.38	2.21
50.0	22.19	-27.09	-17.12	-17.12	1.14	0.67	29.48	29.54	2.25
60.0	22.09	-27.02	-16.78	-16.78	1.15	0.66	29.51	29.58	2.32
70.0	22.00	-26.98	-16.41	-16.41	1.15	0.66	29.52	29.58	2.30
80.0	21.93	-26.95	-16.01	-16.01	1.15	0.66	29.49	29.51	2.36
90.0	21.87	-26.96	-15.58	-15.58	1.15	0.66	29.48	29.45	2.40
100.0	21.81	-26.98	-15.13	-15.13	1.16	0.66	29.44	29.35	2.33
110.0	21.76	-27.02	-14.66	-14.66	1.16	0.67	29.49	29.34	2.39
120.0	21.70	-27.05	-14.16	-14.16	1.16	0.67	29.41	29.20	2.44
130.0	21.63	-27.10	-13.71	-13.71	1.17	0.67	29.43	29.19	2.39
140.0	21.57	-27.15	-13.25	-13.25	1.17	0.67	29.42	29.10	2.47
150.0	21.52	-27.18	-12.78	-12.78	1.18	0.67	29.45	29.10	2.49
160.0	21.45	-27.24	-12.34	-12.34	1.18	0.68	29.44	29.04	2.47
170.0	21.37	-27.30	-11.90	-11.90	1.18	0.68	29.50	29.14	2.52
180.0	21.30	-27.38	-11.48	-11.48	1.19	0.68	29.52	29.21	2.54
190.0	21.22	-27.44	-11.06	-11.06	1.19	0.68	29.47	29.28	2.60
200.0	21.14	-27.52	-10.67	-10.67	1.20	0.68	29.59	29.52	2.65
210.0	21.06	-27.60	-10.29	-10.29	1.20	0.69	29.52	29.55	2.59
220.0	20.97	-27.67	-9.92	-9.92	1.21	0.69	29.43	29.50	2.69
230.0	20.87	-27.75	-9.58	-9.58	1.21	0.69	29.41	29.51	2.77
240.0	20.78	-27.88	-9.24	-9.24	1.22	0.70	29.42	29.54	2.69
250.0	20.68	-27.94	-8.93	-8.93	1.23	0.70	29.36	29.50	2.72
260.0	20.58	-28.04	-8.63	-8.63	1.23	0.70	29.31	29.50	2.83
270.0	20.47	-28.13	-8.35	-8.35	1.24	0.70	29.22	29.41	2.80
280.0	20.36	-28.26	-8.09	-8.09	1.25	0.70	29.19	29.40	2.87
290.0	20.25	-28.37	-7.85	-7.85	1.26	0.71	29.03	29.27	2.95
300.0	20.14	-28.47	-7.60	-7.60	1.26	0.71	29.03	29.26	2.88
310.0	20.02	-28.59	-7.38	-7.38	1.27	0.71	28.88	29.14	2.98
320.0	19.91	-28.67	-7.16	-7.16	1.28	0.71	28.83	29.12	3.11
330.0	19.79	-28.81	-6.97	-6.97	1.29	0.72	28.76	29.06	3.09
340.0	19.68	-28.92	-6.78	-6.78	1.30	0.72	28.68	29.00	3.12
350.0	19.56	-29.02	-6.62	-6.62	1.31	0.72	28.67	28.98	3.18
360.0	19.45	-29.14	-6.46	-6.46	1.32	0.73	28.57	28.87	3.27
370.0	19.33	-29.26	-6.31	-6.31	1.33	0.73	28.50	28.75	3.36
380.0	19.22	-29.38	-6.18	-6.18	1.34	0.74	28.45	28.57	3.29
390.0	19.11	-29.48	-6.07	-6.07	1.35	0.74	28.34	28.45	3.31
400.0	19.00	-29.60	-5.95	-5.95	1.36	0.75	28.40	28.68	3.49
410.0	18.89	-29.69	-5.86	-5.86	1.38	0.75	28.26	28.49	3.47
420.0	18.78	-29.80	-5.77	-5.77	1.39	0.76	28.16	28.39	3.54
430.0	18.68	-29.91	-5.70	-5.70	1.40	0.77	28.04	28.33	3.72
440.0	18.58	-30.01	-5.64	-5.64	1.42	0.77	27.93	28.27	3.57
450.0	18.48	-30.10	-5.58	-5.58	1.43	0.78	27.80	28.18	3.67
460.0	18.38	-30.19	-5.53	-5.53	1.45	0.79	27.67	28.10	3.86
470.0	18.29	-30.32	-5.50	-5.50	1.47	0.80	27.55	28.03	4.01
480.0	18.19	-30.38	-5.48	-5.48	1.48	0.81	27.33	27.87	3.89
490.0	18.11	-30.51	-5.47	-5.47	1.51	0.82	27.14	27.72	4.05
500.0	18.02	-30.56	-5.47	-5.47	1.52	0.83	26.93	27.56	4.08
600.0	17.06	-31.51	-6.03	-6.03	1.86	0.98	25.36	26.60	4.84
700.0	15.57	-33.04	-6.63	-6.63	2.64	1.11	23.95	25.47	5.89
800.0	11.99	-36.53	-6.61	-6.61	5.62	1.06	21.54	23.01	7.99
900.0	3.08	-45.10	-5.81	-5.81	34.73	0.93	14.60	15.45	14.97

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required

Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$ @ Temperature = +25°C

P _{IN}	Gain	P _{IN}	Gain	P _{IN}	Gain	P _{IN}	Gain
dBm	dB	dBm	dB	dBm	dB	dBm	dB
10MHz		50MHz		100MHz		500MHz	
-10.9	25.2	-9.4	22.4	-9.6	22.0	-10.1	17.8
-10.0	25.2	-8.3	22.2	-8.5	21.9	-9.0	17.7
-8.9	25.1	-7.2	22.2	-7.4	21.8	-8.0	17.7
-7.7	24.9	-6.1	22.1	-6.4	21.8	-6.8	17.6
-6.6	24.9	-5.3	22.1	-5.4	21.8	-5.7	17.5
-5.6	24.9	-4.2	22.1	-4.4	21.8	-4.9	17.6
-4.7	24.9	-3.2	22.1	-3.3	21.7	-3.8	17.5
-3.6	24.9	-2.1	22.1	-2.3	21.7	-2.8	17.6
-2.6	24.9	-1.1	22.1	-1.3	21.7	-1.8	17.6
-1.6	24.9	-0.2	22.1	-0.4	21.7	-0.7	17.5
-0.5	24.8	0.8	22.1	0.6	21.7	0.1	17.5
-0.1	24.8	1.3	22.1	1.2	21.7	0.7	17.6
0.4	24.8	1.9	22.1	1.7	21.7	1.2	17.5
0.9	24.8	2.4	22.1	2.2	21.7	1.7	17.5
1.4	24.8	2.9	22.1	2.7	21.7	2.2	17.5
1.9	24.8	3.4	22.1	3.2	21.7	2.7	17.6
2.4	24.8	3.9	22.1	3.7	21.7	3.2	17.6
2.9	24.7	4.4	22.1	4.1	21.7	3.7	17.6
3.4	24.6	4.8	22.1	4.6	21.7	4.3	17.6
3.8	24.4	5.3	22.2	5.1	21.8	4.8	17.6
4.3	24.2	5.7	22.2	5.5	21.8	5.0	17.6
4.6	24.1	6.3	22.1	6.1	21.8	5.5	17.6
5.1	23.8	6.8	22.0	6.6	21.7	6.0	17.6
5.5	23.6	7.3	21.9	7.2	21.6	6.5	17.5
5.9	23.2	7.8	21.8	7.7	21.5	7.1	17.4
6.3	22.9	8.2	21.6	8.2	21.3	7.6	17.4
6.6	22.5	8.7	21.3	8.7	21.0	8.1	17.4
7.0	22.1	9.1	21.0	9.0	20.8	8.6	17.3
7.3	21.7	9.4	20.7	9.6	20.4	9.1	17.1
7.7	21.3	9.7	20.2	10.0	20.0	9.6	16.9
8.0	20.9	10.0	19.9	10.4	19.5	9.8	16.9
8.3	20.6	10.3	19.5	10.8	19.0	10.2	16.8
8.7	20.1	10.6	19.1	11.2	18.5	10.7	16.6
9.1	19.7	11.0	18.7	11.6	17.9	11.2	16.4
9.5	19.2	11.3	18.3	12.0	17.4	11.6	16.1
9.9	18.8	11.7	17.8	12.4	16.9	12.1	15.7
		12.1	17.4	12.8	16.5	12.6	15.3
		12.4	17.0	13.1	16.1	13.0	14.9
		12.7	16.8	13.5	15.6	13.4	14.4
		13.0	16.4			13.9	14.0
		13.4	16.0			14.7	13.1
						15.1	12.7
						15.5	12.3
						16.0	11.8
						16.4	11.4

*Typical Performance Data***NOTE: Use PDF Bookmarks to view DATA at required****Definitions:**

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$ @ Temperature = +25°C

P_{IN}	I_{DD}	P_{IN}	I_{DD}	P_{IN}	I_{DD}	P_{IN}	I_{DD}
dBm	mA	dBm	mA	dBm	mA	dBm	mA
10MHz		50MHz		100MHz		500MHz	
-10.9	485.6	-9.4	488.1	-9.6	488.9	-10.1	489.7
-10.0	484.8	-8.3	487.6	-8.5	488.4	-9.0	489.5
-8.9	483.6	-7.2	487.0	-7.4	488.0	-8.0	489.2
-7.7	482.2	-6.1	486.3	-6.4	487.5	-6.8	489.0
-6.6	480.6	-5.3	485.7	-5.4	486.9	-5.7	488.6
-5.6	478.6	-4.2	484.8	-4.4	486.2	-4.9	488.3
-4.7	476.6	-3.2	483.8	-3.3	485.5	-3.8	487.9
-3.6	473.8	-2.1	482.5	-2.3	484.5	-2.8	487.4
-2.6	470.4	-1.1	480.9	-1.3	483.4	-1.8	487.0
-1.6	466.4	-0.2	479.1	-0.4	482.2	-0.7	486.4
-0.5	461.6	0.8	476.5	0.6	480.3	0.1	485.8
-0.1	459.8	1.3	475.1	1.2	479.2	0.7	485.4
0.4	457.2	1.9	473.4	1.7	478.0	1.2	485.0
0.9	455.2	2.4	471.7	2.2	476.7	1.7	484.6
1.4	453.8	2.9	470.0	2.7	475.4	2.2	484.1
1.9	452.1	3.4	468.7	3.2	474.1	2.7	483.7
2.4	448.9	3.9	468.4	3.7	473.2	3.2	483.3
2.9	441.8	4.4	468.7	4.1	473.0	3.7	482.9
3.4	430.2	4.8	469.3	4.6	472.8	4.3	482.6
3.8	413.1	5.3	470.0	5.1	473.0	4.8	482.3
4.3	392.6	5.7	470.3	5.5	473.7	5.0	482.1
4.6	375.6	6.3	469.9	6.1	474.6	5.5	481.8
5.1	351.0	6.8	466.8	6.6	474.8	6.0	481.6
5.5	326.8	7.3	457.6	7.2	472.5	6.5	481.4
5.9	308.3	7.8	439.2	7.7	464.1	7.1	481.3
6.3	292.8	8.2	414.2	8.2	446.0	7.6	481.3
6.6	280.0	8.7	384.0	8.7	420.0	8.1	481.5
7.0	268.5	9.1	356.5	9.0	397.8	8.6	481.3
7.3	258.8	9.4	339.6	9.6	365.5	9.1	479.6
7.7	250.1	9.7	319.9	10.0	340.0	9.6	475.1
8.0	242.8	10.0	303.6	10.4	316.8	9.8	472.6
8.3	238.2	10.3	289.3	10.8	298.9	10.2	462.3
8.7	232.2	10.6	277.9	11.2	283.6	10.7	447.2
9.1	227.3	11.0	268.3	11.6	270.6	11.2	427.0
9.5	222.9	11.3	260.9	12.0	258.5	11.6	405.2
9.9	219.2	11.7	254.8	12.4	248.3	12.1	384.6
		12.1	250.0	12.8	239.2	12.6	368.0
		12.4	245.7	13.1	234.1	13.0	349.4
		12.7	243.1	13.5	227.3	13.4	327.7
		13.0	239.7			13.9	302.8
		13.4	237.0			14.7	263.4
						15.1	247.7
						15.5	235.4
						16.0	226.4
						16.4	220.7

MMIC Amplifier PHA2-13HLN+

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA

Definitions:

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$ @ Temperature = +25°C

P _{OUT}	Output IP3	P _{OUT}	Output IP3	P _{OUT}	Output IP3
dBm	dBm	dBm	dBm	dBm	dBm
10MHz		50MHz		100MHz	
8	46.3	8.0	47.0	8.0	47.1
9	46.3	9.0	47.1	9.0	47.2
10	46.5	10.0	47.1	10.0	47.4
11	46.5	11.0	47.2	11.0	47.3
12	46.5	12.0	47.3	12.0	47.4
13	46.5	13.0	47.3	13.0	47.4
14	46.6	14.0	47.3	14.0	47.4
15	46.5	15.0	47.3	15.0	47.5
16	46.5	16.0	47.4	16.0	47.5
17	46.4	17.0	47.4	17.0	47.6

*Typical Performance Data***NOTE: Use PDF Bookmarks to view DATA at required****Definitions:**

Input Return Loss = S11 (dB)

Gain = S21 (dB)

Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD1} = V_{DD2} = 8\text{ V}$ @ Temperature = +25°C

P _{IN}	P _{OUT}	P _{IN}	P _{OUT}	P _{IN}	P _{OUT}	P _{IN}	P _{OUT}
dBm	dBm	dBm	dBm	dBm	dBm	dBm	dBm
10MHz		50MHz		100MHz		500MHz	
-10.9	14.3	-9.4	12.9	-9.6	12.3	-10.1	7.7
-10.0	15.2	-8.3	13.9	-8.5	13.4	-9.0	8.7
-8.9	16.2	-7.2	15.0	-7.4	14.4	-8.0	9.7
-7.7	17.2	-6.1	16.0	-6.4	15.5	-6.8	10.8
-6.6	18.3	-5.3	16.9	-5.4	16.3	-5.7	11.8
-5.6	19.3	-4.2	17.9	-4.4	17.4	-4.9	12.7
-4.7	20.2	-3.2	18.9	-3.3	18.4	-3.8	13.7
-3.6	21.2	-2.1	20.0	-2.3	19.4	-2.8	14.7
-2.6	22.3	-1.1	21.0	-1.3	20.5	-1.8	15.8
-1.6	23.3	-0.2	21.9	-0.4	21.3	-0.7	16.8
-0.5	24.3	0.8	22.9	0.6	22.4	0.1	17.7
-0.1	24.7	1.3	23.4	1.2	22.9	0.7	18.2
0.4	25.2	1.9	23.9	1.7	23.4	1.2	18.7
0.9	25.7	2.4	24.4	2.2	23.9	1.7	19.2
1.4	26.2	2.9	25.0	2.7	24.4	2.2	19.7
1.9	26.7	3.4	25.5	3.2	24.9	2.7	20.3
2.4	27.2	3.9	26.0	3.7	25.4	3.2	20.8
2.9	27.6	4.4	26.5	4.1	25.8	3.7	21.3
3.4	27.9	4.8	26.9	4.6	26.3	4.3	21.8
3.8	28.3	5.3	27.4	5.1	26.8	4.8	22.3
4.3	28.5	5.7	27.9	5.5	27.3	5.0	22.6
4.6	28.7	6.3	28.4	6.1	27.8	5.5	23.1
5.1	28.9	6.8	28.9	6.6	28.3	6.0	23.6
5.5	29.1	7.3	29.2	7.2	28.8	6.5	24.1
5.9	29.1	7.8	29.5	7.7	29.1	7.1	24.5
6.3	29.1	8.2	29.8	8.2	29.5	7.6	25.0
6.6	29.1	8.7	30.0	8.7	29.7	8.1	25.4
7.0	29.1	9.1	30.0	9.0	29.9	8.6	25.8
7.3	29.0	9.4	30.0	9.6	30.0	9.1	26.2
7.7	28.9	9.7	29.9	10.0	29.9	9.6	26.6
8.0	28.9	10.0	29.9	10.4	29.9	9.8	26.7
8.3	28.9	10.3	29.8	10.8	29.8	10.2	27.0
8.7	28.8	10.6	29.7	11.2	29.6	10.7	27.3
9.1	28.8	11.0	29.6	11.6	29.5	11.2	27.6
9.5	28.7	11.3	29.6	12.0	29.4	11.6	27.8
9.9	28.7	11.7	29.5	12.4	29.3	12.1	27.9
		12.1	29.5	12.8	29.2	12.6	27.9
		12.4	29.5	13.1	29.2	13.0	27.9
		12.7	29.4	13.5	29.1	13.4	27.9
		13.0	29.4			13.9	27.9
		13.4	29.4			14.7	27.8
						15.1	27.8
						15.5	27.8
						16.0	27.8
						16.4	27.8