

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = +25degC

FREQ	GAIN @ 0dB Step	STEP ATTENUATION @							Output IP3 @ 0dB Step	Pout at 1dB Comp @ 0dB Step	Noise Figure @ 0dB Step
		0.5 dB	1.0 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB			
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)	(dB)
400.0	28.73	0.49	0.96	1.94	3.90	7.78	15.74	30.89	38.71	22.08	2.52
500.0	28.99	0.49	0.98	2.01	4.03	7.93	15.90	31.08	38.46	23.05	2.60
600.0	29.44	0.50	0.99	2.02	4.05	7.97	15.97	31.10	37.63	23.05	2.54
700.0	29.49	0.51	1.00	2.01	4.03	7.97	16.01	31.05	37.31	23.04	2.49
800.0	29.59	0.50	0.99	1.97	3.97	7.93	16.01	30.96	37.48	23.00	2.43
900.0	29.69	0.49	0.98	1.93	3.91	7.87	15.97	30.83	37.65	22.98	2.51
1000.0	29.70	0.49	0.98	1.89	3.85	7.81	15.91	30.69	37.69	22.93	2.69
1200.0	29.49	0.46	0.93	1.84	3.76	7.66	15.65	30.36	38.23	23.01	2.74
1400.0	28.59	0.44	0.90	1.86	3.76	7.57	15.37	30.06	38.90	23.07	2.72
1600.0	27.22	0.45	0.90	1.93	3.85	7.61	15.26	29.91	39.72	23.41	2.89
1800.0	25.74	0.47	0.94	2.04	4.01	7.78	15.44	29.95	40.65	23.53	2.91
2000.0	24.28	0.51	1.02	2.16	4.19	8.04	15.78	30.12	40.80	23.91	3.22
2200.0	22.75	0.55	1.08	2.26	4.35	8.27	16.12	30.32	40.88	24.00	3.15
2400.0	21.00	0.57	1.10	2.28	4.37	8.32	16.24	30.14	40.33	23.82	3.39

Digital Variable Gain Amplifier

DVGA1-242+

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = -40degC

FREQ (MHz)	GAIN @ 0dB Step (dB)	STEP ATTENUATION @							Output IP3 @ 0dB Step (dBm)	Pout at 1dB Comp @ 0dB Step (dBm)	Noise Figure @ 0dB Step (dB)
		0.5 dB (dB)	1.0 dB (dB)	2 dB (dB)	4 dB (dB)	8 dB (dB)	16 dB (dB)	31.5 dB (dB)			
400.0	29.17	0.50	0.99	1.97	3.95	7.86	15.85	31.10	41.70	22.75	1.98
500.0	29.56	0.52	1.03	2.07	4.12	8.05	16.05	31.33	40.73	23.51	2.02
600.0	30.30	0.52	1.04	2.10	4.16	8.13	16.16	31.45	39.49	23.30	1.93
700.0	30.45	0.52	1.05	2.09	4.15	8.13	16.19	31.40	39.21	23.21	1.83
800.0	30.62	0.53	1.05	2.06	4.10	8.10	16.19	31.28	39.00	23.20	1.77
900.0	30.76	0.52	1.04	2.01	4.02	8.02	16.14	31.13	39.23	23.18	1.81
1000.0	30.80	0.50	1.01	1.95	3.94	7.93	16.04	30.96	39.56	23.21	2.00
1200.0	30.65	0.48	0.98	1.91	3.86	7.79	15.81	30.61	40.35	23.29	2.00
1400.0	29.82	0.47	0.96	1.94	3.90	7.76	15.59	30.33	41.51	23.40	1.94
1600.0	28.45	0.48	0.97	2.04	4.03	7.85	15.55	30.22	42.06	23.79	2.14
1800.0	27.02	0.51	1.03	2.18	4.24	8.09	15.80	30.33	43.30	23.90	2.13
2000.0	25.51	0.57	1.11	2.31	4.42	8.34	16.12	30.47	43.71	24.33	2.38
2200.0	24.00	0.60	1.18	2.42	4.59	8.58	16.48	30.57	44.11	24.50	2.27
2400.0	22.26	0.61	1.19	2.43	4.59	8.60	16.56	30.38	43.29	24.43	2.49



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Digital Variable Gain Amplifier

DVGA1-242+

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = +85degC

FREQ (MHz)	GAIN @ 0dB Step (dB)	STEP ATTENUATION @							Output IP3 @ 0dB Step (dBm)	Pout at 1dB Comp @ 0dB Step (dBm)	Noise Figure @ 0dB Step (dB)
		0.5 dB (dB)	1.0 dB (dB)	2 dB (dB)	4 dB (dB)	8 dB (dB)	16 dB (dB)	31.5 dB (dB)			
400.0	28.29	0.50	0.97	1.96	3.90	7.75	15.68	30.73	35.51	21.01	3.06
500.0	28.40	0.50	0.99	2.02	4.00	7.88	15.81	30.87	36.53	22.29	3.13
600.0	28.65	0.51	1.00	2.03	4.01	7.91	15.87	30.86	36.18	22.46	3.20
700.0	28.62	0.52	1.02	2.02	4.00	7.92	15.93	30.82	36.20	22.55	3.12
800.0	28.67	0.52	1.02	1.99	3.96	7.90	15.95	30.75	36.39	22.62	3.06
900.0	28.74	0.52	1.02	1.96	3.91	7.86	15.94	30.65	36.62	22.68	3.16
1000.0	28.72	0.52	1.01	1.92	3.86	7.80	15.88	30.53	36.39	22.60	3.32
1200.0	28.48	0.48	0.96	1.87	3.77	7.66	15.62	30.21	37.22	22.72	3.41
1400.0	27.54	0.46	0.92	1.87	3.73	7.51	15.27	29.89	37.66	22.76	3.38
1600.0	26.21	0.46	0.91	1.92	3.80	7.51	15.12	29.72	38.57	23.08	3.59
1800.0	24.73	0.47	0.94	2.00	3.92	7.65	15.25	29.74	39.16	23.23	3.58
2000.0	23.26	0.50	1.00	2.11	4.08	7.87	15.56	29.89	39.20	23.46	3.92
2200.0	21.71	0.54	1.06	2.21	4.23	8.10	15.89	30.06	38.61	23.41	3.85
2400.0	19.94	0.58	1.10	2.25	4.28	8.17	16.05	29.98	38.12	23.14	4.16



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IF/RF MICROWAVE COMPONENTS

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Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = +25degC

FREQ	INPUT RETURN LOSS @							
	0 dB	0.5 dB	1 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
400.0	16.42	17.67	19.35	18.95	21.51	26.19	38.11	29.58
500.0	13.78	15.10	16.60	16.67	19.65	25.32	37.28	28.61
600.0	13.80	15.19	16.67	16.81	20.13	26.35	34.96	27.48
700.0	14.28	15.43	17.00	17.65	21.38	28.75	33.48	26.94
800.0	15.44	16.55	17.95	19.43	23.88	35.39	30.43	25.48
900.0	16.77	17.37	18.55	21.96	27.57	40.74	27.45	24.33
1000.0	16.43	16.53	16.99	21.44	25.37	29.53	25.27	23.05
1200.0	12.95	13.31	13.55	16.52	18.80	21.73	22.57	21.32
1400.0	10.36	11.02	11.38	13.47	15.73	18.45	20.34	19.72
1600.0	9.68	10.59	11.00	12.80	15.10	17.68	19.06	18.30
1800.0	10.28	11.42	11.94	13.83	16.05	17.90	17.63	16.62
2000.0	11.56	13.21	13.62	15.73	18.04	18.36	16.47	15.23
2200.0	14.50	16.88	17.71	20.59	22.29	18.92	15.58	14.39
2400.0	19.73	23.79	24.52	30.16	23.58	17.71	14.33	13.21

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = -40degC

FREQ	INPUT RETURN LOSS @							
	0 dB	0.5 dB	1 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
400.0	20.13	21.80	23.26	23.65	28.92	45.90	25.87	22.02
500.0	16.00	17.57	19.56	19.77	24.78	40.06	25.30	21.72
600.0	15.76	17.43	19.37	19.74	25.47	47.61	24.17	21.08
700.0	15.89	17.28	19.08	20.30	26.20	37.48	22.99	20.54
800.0	16.66	17.45	18.68	21.20	26.89	29.51	21.83	19.60
900.0	16.61	16.55	17.12	20.66	23.49	24.48	20.53	18.78
1000.0	15.31	15.08	15.21	18.30	20.30	21.48	19.62	18.31
1200.0	11.59	11.84	11.95	14.27	15.96	17.87	17.88	17.34
1400.0	9.48	10.13	10.46	12.46	14.38	16.45	16.94	16.41
1600.0	9.01	9.96	10.45	12.31	14.43	16.36	16.12	15.44
1800.0	9.83	11.14	11.80	13.67	15.97	16.80	15.42	14.41
2000.0	11.33	13.06	13.96	16.25	18.33	17.00	14.35	13.34
2200.0	14.09	16.70	18.41	21.59	22.71	17.31	13.71	12.68
2400.0	19.25	23.86	28.22	35.77	21.82	16.02	12.78	11.74

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = +85degC

FREQ	INPUT RETURN LOSS @							
	0 dB	0.5 dB	1 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
400.0	14.13	15.30	16.47	15.95	17.86	20.58	26.50	33.20
500.0	12.26	13.39	14.58	14.41	16.64	19.89	26.73	31.34
600.0	12.41	13.49	14.74	14.73	17.05	20.45	27.56	31.17
700.0	12.99	14.03	15.30	15.58	18.18	21.55	27.68	30.90
800.0	14.54	15.59	17.02	17.50	20.46	23.60	28.16	29.05
900.0	16.78	17.67	18.94	21.14	25.15	26.56	28.00	27.52
1000.0	17.83	18.38	19.19	24.98	36.03	29.58	28.05	26.38
1200.0	14.58	15.03	15.17	19.11	22.29	24.40	26.11	25.01
1400.0	11.17	11.95	12.18	14.42	16.60	19.19	22.63	22.21
1600.0	10.19	11.02	11.31	13.14	15.25	17.87	20.95	20.51
1800.0	10.60	11.56	11.98	13.66	15.79	17.83	19.53	18.57
2000.0	11.83	13.18	13.42	15.38	17.37	18.61	18.20	17.01
2200.0	14.69	16.59	17.05	19.51	21.20	19.88	17.31	15.75
2400.0	19.41	22.76	21.98	26.53	23.75	19.32	15.89	14.57

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = +25degC

FREQ	OUTPUT RETURN LOSS @							
	0 dB	0.5 dB	1 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
400.0	18.55	19.09	18.83	19.17	19.25	18.94	18.47	18.66
500.0	21.26	21.58	21.65	22.01	22.27	22.38	21.98	22.25
600.0	17.25	17.28	17.55	17.45	17.59	18.05	18.20	17.96
700.0	15.87	15.99	16.15	16.10	16.24	16.57	17.06	17.00
800.0	14.79	15.04	15.11	15.04	15.08	15.54	16.19	15.95
900.0	14.08	13.95	13.97	13.97	13.93	14.67	15.17	14.82
1000.0	13.05	13.03	13.22	13.04	13.14	13.56	14.27	13.95
1200.0	11.29	11.32	11.38	11.27	11.19	11.56	12.04	11.93
1400.0	10.02	10.06	10.04	9.97	9.98	10.14	10.21	10.31
1600.0	10.07	10.10	10.05	9.98	9.99	9.98	9.66	9.94
1800.0	10.14	10.12	10.10	10.20	10.19	10.08	9.76	10.13
2000.0	10.91	10.85	10.82	11.07	11.05	10.94	10.55	10.99
2200.0	12.07	12.13	12.10	12.33	12.39	12.32	11.89	12.28
2400.0	12.06	12.10	12.17	12.39	12.53	12.55	12.23	12.53

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = -40degC

FREQ	OUTPUT RETURN LOSS @							
	0 dB	0.5 dB	1 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
400.0	17.33	18.08	17.97	18.13	18.12	17.95	17.52	17.76
500.0	19.60	20.02	20.13	20.48	20.92	20.92	20.38	20.66
600.0	16.13	16.38	16.48	16.40	16.72	16.80	16.96	16.84
700.0	14.59	14.88	14.94	14.88	15.07	15.35	15.61	15.59
800.0	13.26	13.47	13.63	13.48	13.59	13.91	14.45	14.24
900.0	12.10	12.60	12.73	12.58	12.55	12.71	13.57	12.99
1000.0	11.66	11.69	11.77	11.56	11.61	11.86	12.51	12.24
1200.0	10.02	10.00	10.00	9.81	9.79	10.06	10.48	10.31
1400.0	9.05	9.11	9.13	8.99	8.94	9.03	9.18	9.22
1600.0	9.30	9.36	9.30	9.27	9.22	9.18	8.96	9.08
1800.0	9.49	9.47	9.53	9.44	9.43	9.54	9.24	9.54
2000.0	10.04	10.12	10.15	10.27	10.36	10.32	9.94	10.23
2200.0	11.01	11.13	11.17	11.35	11.43	11.43	11.06	11.38
2400.0	11.09	11.20	11.27	11.45	11.62	11.72	11.38	11.80

Typical Performance Data

TEST CONDITIONS: Vd1 = +3V, Vd2 = +5V @ Temperature = +85degC

FREQ	OUTPUT RETURN LOSS @							
	0 dB	0.5 dB	1 dB	2 dB	4 dB	8 dB	16 dB	31.5 dB
(MHz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
400.0	20.52	20.36	20.30	20.59	20.62	20.35	20.09	20.31
500.0	23.84	23.73	24.12	24.68	24.67	24.78	24.69	24.83
600.0	18.85	18.88	19.09	19.09	19.33	19.74	20.04	19.89
700.0	17.64	17.90	17.87	17.85	18.10	18.50	19.16	18.85
800.0	16.71	16.85	16.94	16.93	17.12	17.49	18.37	18.07
900.0	15.79	15.84	16.06	15.78	16.15	16.72	17.39	17.13
1000.0	14.78	14.89	15.02	14.95	14.96	15.55	16.27	16.04
1200.0	12.63	12.64	12.78	12.59	12.70	13.17	13.66	13.54
1400.0	10.98	10.96	11.01	10.97	10.91	11.11	11.16	11.36
1600.0	10.78	10.77	10.74	10.75	10.75	10.65	10.30	10.61
1800.0	10.80	10.79	10.79	10.90	10.92	10.81	10.34	10.76
2000.0	11.66	11.68	11.72	11.87	11.89	11.73	11.28	11.72
2200.0	13.12	13.14	13.10	13.41	13.41	13.34	12.78	13.26
2400.0	12.84	12.86	12.85	13.19	13.42	13.20	12.82	13.32