

## Typical Performance Data

**NOTE: Use PDF Bookmarks to view DATA at required conditions  
or to view GRAPHS.**

**Definitions:**

Input Return Loss = -S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = -S12 (dB)

Output Return Loss = -S22 (dB)

TEST CONDITIONS: I<sub>cc</sub> = 65mA, V<sub>d</sub>=4.83V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.76	24.16	21.91	30.20	1.07	0.68	20	35.67	18.55	2.97
30	20.76	24.44	21.35	30.36	1.09	0.66	30	35.34	18.39	2.96
50	20.76	24.16	21.45	30.78	1.07	0.68	50	35.12	18.44	3.00
100	20.72	24.19	21.80	30.60	1.08	0.67	100	35.25	18.40	3.01
200	20.67	24.11	22.12	29.85	1.08	0.67	200	35.55	18.70	2.95
400	20.60	24.17	22.72	26.41	1.08	0.66	300	35.14	18.49	3.06
600	20.51	24.08	24.35	23.07	1.08	0.66	400	34.91	18.41	3.06
800	20.40	23.92	25.52	20.10	1.07	0.66	500	34.61	18.40	3.08
1000	20.27	23.76	25.52	17.64	1.06	0.66	600	34.47	18.17	3.04
1200	20.10	23.59	23.94	15.49	1.05	0.66	700	34.23	18.27	3.07
1400	19.92	23.44	21.52	13.66	1.04	0.66	800	34.08	17.95	2.96
1600	19.71	23.25	19.14	12.07	1.03	0.66	900	33.94	17.95	3.01
1800	19.46	23.07	16.96	10.69	1.02	0.67	1000	33.54	17.83	3.00
2000	19.19	22.90	15.03	9.46	1.00	0.67	1100	33.26	17.64	3.04
2200	18.85	22.83	13.49	8.41	0.99	0.67	1200	33.13	17.69	3.05
2400	18.47	22.72	11.90	7.48	0.98	0.67	1300	32.80	17.56	3.10
2600	18.05	22.68	10.65	6.68	0.98	0.67	1400	32.54	17.74	3.19
2800	17.56	22.64	9.54	5.94	0.97	0.67	1500	32.22	17.41	3.16
3000	17.03	22.71	8.46	5.28	0.97	0.67	1600	32.40	17.34	3.25
3200	16.43	22.81	7.62	4.71	0.97	0.66	1700	31.85	17.06	3.12
3400	15.82	22.94	6.82	4.19	0.97	0.66	1800	31.28	16.90	3.25
3600	15.12	23.01	6.03	3.71	0.96	0.67	1900	30.83	16.83	3.12
3800	14.43	23.37	5.42	3.32	0.97	0.67	2000	30.27	16.20	3.21
4000	13.67	23.66	4.88	3.04	0.98	0.66	2100	29.68	16.34	3.00
4200	12.91	23.91	4.43	2.78	0.98	0.67	2200	29.20	15.80	3.21
4400	12.15	24.20	4.08	2.57	0.99	0.66	2300	28.94	15.57	2.98
4600	11.42	24.49	3.74	2.41	1.01	0.67	2400	28.79	15.49	3.18
4800	10.68	24.79	3.50	2.25	1.02	0.67	2500	28.47	14.89	3.09
5000	9.96	25.10	3.28	2.14	1.03	0.67	2600	28.17	15.04	3.26
5200	9.20	25.42	3.07	2.06	1.06	0.67	2700	27.62	14.25	3.14
5500	8.12	25.84	2.83	1.95	1.10	0.67	2800	27.01	14.38	3.25
6000	6.31	26.68	2.54	1.85	1.22	0.67	2900	26.73	14.26	3.04
6500	4.47	27.45	2.32	1.80	1.40	0.67	3000	26.53	13.06	3.15
7000	2.74	27.75	2.17	1.80	1.58	0.67	3100	26.38	13.56	3.09
7500	1.18	27.97	2.05	1.81	1.77	0.67	3200	25.99	12.55	3.29
8000	-0.14	27.65	1.97	1.82	1.88	0.67	3300	25.64	12.91	3.30
8500	-1.18	27.35	1.96	1.84	2.00	0.66	3400	25.31	12.38	3.53
9000	-2.04	26.63	1.94	1.85	1.95	0.66	3600	24.78	12.19	3.64
9500	-2.64	25.60	1.97	1.89	1.81	0.65	3800	24.30	11.70	3.59
10000	-3.10	25.67	2.01	1.97	1.91	0.64	4000	23.76	10.15	3.61

REV. X1

MERA-556+

120125

Page 1 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



## 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: Icc = 52mA, Vd=4.75V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.56	24.24	19.85	26.26	1.09	0.66	20	32.10	16.83	2.93
30	20.55	24.19	19.95	26.19	1.08	0.66	30	31.85	16.67	2.92
50	20.56	23.99	19.82	26.37	1.07	0.68	50	31.65	16.60	2.94
100	20.52	24.00	20.17	26.38	1.08	0.67	100	31.76	16.56	2.95
200	20.48	24.00	20.45	26.38	1.08	0.67	200	32.01	17.02	2.93
400	20.41	23.95	20.92	25.00	1.08	0.67	300	31.78	16.77	3.03
600	20.31	23.86	22.38	23.00	1.07	0.66	400	31.68	16.55	3.01
800	20.22	23.70	23.63	20.46	1.07	0.66	500	31.49	16.75	3.01
1000	20.09	23.58	24.22	18.15	1.06	0.66	600	31.45	16.35	3.00
1200	19.94	23.42	23.67	16.00	1.05	0.66	700	31.31	16.71	3.03
1400	19.77	23.22	21.82	14.09	1.04	0.66	800	31.32	16.25	2.91
1600	19.58	23.02	19.56	12.47	1.02	0.67	900	31.49	16.21	2.96
1800	19.34	22.87	17.35	11.04	1.01	0.67	1000	31.51	16.16	2.94
2000	19.06	22.73	15.37	9.72	1.00	0.67	1100	31.59	15.88	2.97
2200	18.73	22.61	13.76	8.67	0.99	0.67	1200	31.61	16.02	3.00
2400	18.36	22.51	12.14	7.69	0.98	0.67	1300	31.35	15.95	3.03
2600	17.94	22.47	10.84	6.87	0.97	0.67	1400	31.06	16.22	3.15
2800	17.45	22.44	9.68	6.09	0.97	0.67	1500	31.03	16.13	3.10
3000	16.92	22.46	8.59	5.41	0.96	0.67	1600	31.44	16.08	3.18
3200	16.33	22.55	7.69	4.84	0.96	0.66	1700	31.38	16.14	3.08
3400	15.71	22.73	6.90	4.30	0.96	0.66	1800	30.92	16.01	3.20
3600	15.01	22.79	6.08	3.82	0.95	0.66	1900	30.51	16.15	3.08
3800	14.32	23.07	5.47	3.43	0.96	0.66	2000	29.99	15.62	3.14
4000	13.56	23.37	4.92	3.13	0.97	0.66	2100	29.43	15.79	2.94
4200	12.79	23.71	4.46	2.88	0.98	0.66	2200	28.96	15.31	3.15
4400	12.04	23.98	4.11	2.67	0.99	0.66	2300	28.73	15.01	2.93
4600	11.30	24.24	3.78	2.49	1.01	0.66	2400	28.62	15.00	3.11
4800	10.55	24.57	3.52	2.36	1.02	0.66	2500	28.27	14.35	3.00
5000	9.83	24.80	3.30	2.24	1.04	0.66	2600	27.97	14.53	3.19
5200	9.09	25.17	3.10	2.16	1.07	0.66	2700	27.40	13.75	3.07
5500	8.00	25.61	2.85	2.06	1.11	0.66	2800	26.75	13.85	3.18
6000	6.19	26.45	2.56	1.95	1.24	0.66	2900	26.49	13.77	2.96
6500	4.36	27.27	2.34	1.91	1.43	0.66	3000	26.29	12.44	3.04
7000	2.64	27.51	2.19	1.90	1.60	0.66	3100	26.15	13.05	3.02
7500	1.09	27.82	2.07	1.90	1.79	0.66	3200	25.76	12.03	3.18
8000	-0.24	27.52	2.00	1.91	1.92	0.66	3300	25.38	12.39	3.21
8500	-1.29	27.28	1.97	1.93	2.04	0.65	3400	25.01	11.90	3.43
9000	-2.15	26.62	1.96	1.97	2.04	0.65	3600	24.49	11.68	3.55
9500	-2.75	25.51	1.99	1.98	1.86	0.64	3800	24.01	11.19	3.50
10000	-3.21	25.73	2.02	2.07	2.00	0.63	4000	23.46	9.71	3.50

REV. X1

MERA-556+

120125

Page 2 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



## 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: Icc = 78mA, Vd=4.91V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.88	24.35	22.13	33.45	1.08	0.67	20	38.55	19.28	3.02
30	20.88	24.12	22.78	34.24	1.07	0.69	30	38.14	19.50	3.03
50	20.88	24.21	22.67	35.54	1.07	0.68	50	37.97	19.52	3.06
100	20.84	24.26	22.95	34.58	1.08	0.68	100	38.22	19.56	3.07
200	20.80	24.36	23.44	31.75	1.08	0.66	200	38.33	19.77	3.02
400	20.72	24.26	23.94	26.67	1.08	0.66	300	37.42	19.55	3.13
600	20.61	24.23	25.67	22.87	1.08	0.66	400	36.92	19.57	3.12
800	20.50	24.00	26.81	19.75	1.07	0.66	500	36.33	19.40	3.15
1000	20.37	23.85	26.10	17.25	1.06	0.66	600	35.96	19.25	3.08
1200	20.20	23.72	23.81	15.18	1.05	0.66	700	35.49	19.26	3.15
1400	20.03	23.57	21.19	13.37	1.04	0.66	800	35.06	18.86	3.02
1600	19.81	23.40	18.83	11.84	1.03	0.66	900	34.57	18.93	3.08
1800	19.56	23.24	16.67	10.49	1.02	0.67	1000	33.92	18.70	3.04
2000	19.27	23.13	14.77	9.26	1.01	0.67	1100	33.40	18.54	3.13
2200	18.92	23.02	13.28	8.28	1.00	0.67	1200	33.15	18.47	3.14
2400	18.56	22.94	11.74	7.36	0.99	0.67	1300	32.78	18.21	3.16
2600	18.12	22.78	10.55	6.57	0.98	0.67	1400	32.56	18.33	3.25
2800	17.64	22.83	9.43	5.83	0.97	0.67	1500	32.16	17.79	3.24
3000	17.11	22.89	8.39	5.19	0.97	0.67	1600	32.08	17.76	3.31
3200	16.52	22.97	7.56	4.63	0.97	0.67	1700	31.47	17.36	3.20
3400	15.90	23.09	6.77	4.10	0.97	0.67	1800	30.95	17.22	3.32
3600	15.20	23.24	5.98	3.63	0.96	0.67	1900	30.54	17.14	3.19
3800	14.52	23.51	5.39	3.25	0.97	0.67	2000	30.04	16.49	3.27
4000	13.76	23.77	4.85	2.96	0.97	0.67	2100	29.49	16.66	3.07
4200	13.00	24.04	4.39	2.71	0.98	0.67	2200	29.03	16.06	3.30
4400	12.25	24.36	4.04	2.50	0.99	0.67	2300	28.73	15.91	3.08
4600	11.51	24.66	3.71	2.33	1.00	0.67	2400	28.62	15.81	3.27
4800	10.77	24.96	3.47	2.18	1.01	0.67	2500	28.30	15.23	3.14
5000	10.05	25.20	3.25	2.07	1.03	0.67	2600	28.05	15.40	3.34
5200	9.31	25.53	3.05	1.99	1.05	0.67	2700	27.58	14.61	3.22
5500	8.23	26.00	2.80	1.87	1.10	0.68	2800	27.00	14.77	3.35
6000	6.40	26.80	2.52	1.78	1.21	0.67	2900	26.72	14.64	3.14
6500	4.56	27.53	2.31	1.73	1.38	0.67	3000	26.50	13.43	3.23
7000	2.83	27.84	2.16	1.73	1.55	0.67	3100	26.35	13.95	3.19
7500	1.27	28.16	2.04	1.72	1.73	0.68	3200	25.99	12.92	3.38
8000	-0.07	27.75	1.97	1.75	1.85	0.67	3300	25.67	13.30	3.42
8500	-1.10	27.43	1.94	1.76	1.95	0.67	3400	25.36	12.79	3.60
9000	-1.96	26.69	1.94	1.79	1.93	0.67	3600	24.85	12.59	3.77
9500	-2.55	25.64	1.96	1.82	1.77	0.66	3800	24.34	12.13	3.71
10000	-3.01	25.75	2.00	1.89	1.87	0.64	4000	23.84	10.61	3.71

REV. X1

MERA-556+

120125

Page 3 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



## 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: Icc = 65mA, Vd=5.07V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.93	24.53	22.29	31.98	1.08	0.66	20	36.61	18.86	2.43
30	20.93	24.36	22.17	34.47	1.08	0.68	30	36.24	18.90	2.43
50	20.93	24.27	21.94	34.28	1.07	0.68	50	36.13	18.94	2.45
100	20.89	24.28	21.97	32.53	1.07	0.68	100	36.33	18.82	2.46
200	20.84	24.30	22.31	30.04	1.08	0.67	200	36.75	19.13	2.45
400	20.79	24.20	23.03	26.77	1.07	0.67	300	36.49	18.94	2.48
600	20.70	24.08	24.81	23.09	1.07	0.67	400	36.46	18.86	2.53
800	20.60	23.94	25.98	20.02	1.06	0.68	500	36.29	18.85	2.52
1000	20.48	23.83	25.58	17.38	1.05	0.67	600	36.35	18.63	2.46
1200	20.32	23.66	23.42	15.29	1.04	0.68	700	36.19	18.76	2.52
1400	20.16	23.49	20.68	13.52	1.03	0.68	800	36.12	18.43	2.41
1600	19.98	23.30	18.53	11.97	1.02	0.68	900	36.13	18.41	2.45
1800	19.73	23.14	16.31	10.62	1.01	0.69	1000	35.76	18.27	2.42
2000	19.48	23.01	14.48	9.28	0.99	0.69	1100	35.55	18.11	2.46
2200	19.14	22.93	13.17	8.35	0.99	0.69	1200	35.50	18.14	2.49
2400	18.81	22.78	11.51	7.36	0.97	0.70	1300	35.09	18.10	2.54
2600	18.42	22.74	10.41	6.63	0.96	0.69	1400	34.81	18.28	2.60
2800	17.95	22.72	9.26	5.85	0.96	0.70	1500	34.33	18.11	2.60
3000	17.46	22.72	8.16	5.12	0.94	0.70	1600	34.44	18.11	2.67
3200	16.86	22.84	7.34	4.55	0.95	0.70	1700	33.71	17.92	2.54
3400	16.27	22.95	6.49	3.99	0.94	0.70	1800	33.13	17.79	2.70
3600	15.56	23.06	5.70	3.52	0.93	0.71	1900	32.66	17.71	2.55
3800	14.89	23.34	5.12	3.14	0.93	0.70	2000	32.06	17.17	2.63
4000	14.16	23.60	4.59	2.84	0.93	0.71	2100	31.40	17.26	2.42
4200	13.41	23.91	4.15	2.59	0.94	0.70	2200	30.84	16.76	2.62
4400	12.68	24.22	3.81	2.37	0.94	0.70	2300	30.52	16.58	2.43
4600	11.98	24.49	3.50	2.19	0.95	0.71	2400	30.39	16.43	2.59
4800	11.28	24.71	3.28	2.06	0.95	0.71	2500	30.05	15.95	2.47
5000	10.59	25.03	3.05	1.93	0.96	0.71	2600	29.63	16.02	2.67
5200	9.88	25.32	2.86	1.86	0.98	0.71	2700	29.11	15.32	2.56
5500	8.82	25.87	2.58	1.70	0.99	0.71	2800	28.46	15.39	2.67
6000	6.99	26.71	2.26	1.58	1.09	0.72	2900	28.09	15.23	2.45
6500	5.10	27.52	1.98	1.49	1.16	0.72	3000	27.87	14.21	2.58
7000	3.29	27.93	1.87	1.48	1.31	0.72	3100	27.66	14.52	2.47
7500	1.78	27.94	1.74	1.49	1.38	0.72	3200	27.31	13.59	2.72
8000	0.54	27.51	1.73	1.57	1.51	0.71	3300	27.00	13.90	2.72
8500	-0.39	27.02	1.75	1.59	1.55	0.70	3400	26.64	13.35	2.96
9000	-1.27	26.77	1.74	1.69	1.73	0.70	3600	26.11	13.09	3.07
9500	-1.95	26.05	1.74	1.60	1.50	0.69	3800	25.55	12.65	3.05
10000	-2.53	25.98	1.69	1.57	1.45	0.70	4000	25.06	11.41	2.98

REV. X1

MERA-556+

120125

Page 4 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# MMIC Amplifier

# MERA-556+

## 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: I<sub>cc</sub> = 52mA, V<sub>d</sub> = 4.99V @ Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.77	24.17	20.99	27.98	1.07	0.68	20	32.82	17.23	2.40
30	20.77	24.26	20.69	29.02	1.08	0.67	30	32.59	16.94	2.40
50	20.76	24.21	20.62	28.87	1.08	0.68	50	32.44	16.99	2.40
100	20.72	24.23	20.63	28.23	1.08	0.67	100	32.55	16.91	2.41
200	20.68	24.33	20.92	27.56	1.08	0.66	200	32.81	17.36	2.41
400	20.64	24.12	21.58	26.09	1.07	0.67	300	32.68	17.12	2.43
600	20.55	23.98	23.08	23.28	1.07	0.67	400	32.67	16.90	2.47
800	20.46	23.86	24.38	20.48	1.06	0.67	500	32.57	17.09	2.46
1000	20.34	23.64	24.71	17.86	1.05	0.68	600	32.60	16.67	2.44
1200	20.18	23.46	23.45	15.73	1.04	0.68	700	32.51	17.07	2.44
1400	20.03	23.33	20.95	13.91	1.03	0.68	800	32.55	16.59	2.38
1600	19.85	23.13	18.88	12.32	1.02	0.68	900	32.83	16.53	2.40
1800	19.62	23.00	16.63	10.91	1.01	0.68	1000	32.99	16.44	2.39
2000	19.37	22.80	14.75	9.53	0.99	0.69	1100	33.23	16.14	2.41
2200	19.04	22.71	13.42	8.58	0.98	0.69	1200	33.35	16.30	2.43
2400	18.71	22.58	11.69	7.54	0.97	0.70	1300	33.10	16.28	2.48
2600	18.33	22.53	10.55	6.78	0.96	0.69	1400	32.78	16.58	2.56
2800	17.86	22.48	9.37	5.99	0.95	0.70	1500	32.74	16.53	2.53
3000	17.37	22.47	8.24	5.24	0.94	0.70	1600	33.20	16.49	2.59
3200	16.78	22.64	7.40	4.68	0.94	0.69	1700	33.16	16.61	2.50
3400	16.18	22.68	6.54	4.09	0.93	0.70	1800	32.73	16.55	2.63
3600	15.47	22.83	5.74	3.62	0.93	0.70	1900	32.35	16.78	2.48
3800	14.80	23.12	5.14	3.23	0.93	0.70	2000	31.79	16.45	2.57
4000	14.07	23.39	4.62	2.93	0.93	0.70	2100	31.11	16.62	2.37
4200	13.31	23.73	4.18	2.67	0.94	0.70	2200	30.58	16.23	2.55
4400	12.57	23.99	3.83	2.46	0.94	0.70	2300	30.28	15.96	2.35
4600	11.88	24.27	3.52	2.29	0.95	0.70	2400	30.16	15.92	2.53
4800	11.17	24.53	3.30	2.15	0.95	0.70	2500	29.84	15.37	2.42
5000	10.49	24.81	3.08	2.03	0.96	0.70	2600	29.42	15.51	2.60
5200	9.78	25.06	2.87	1.95	0.98	0.70	2700	28.83	14.78	2.49
5500	8.71	25.64	2.60	1.79	1.00	0.70	2800	28.13	14.85	2.60
6000	6.89	26.52	2.28	1.66	1.09	0.71	2900	27.78	14.72	2.38
6500	4.99	27.31	2.00	1.58	1.17	0.71	3000	27.55	13.64	2.50
7000	3.19	27.77	1.88	1.58	1.33	0.71	3100	27.38	14.00	2.41
7500	1.70	27.79	1.75	1.57	1.39	0.71	3200	27.01	13.07	2.62
8000	0.43	27.38	1.74	1.66	1.54	0.70	3300	26.66	13.39	2.65
8500	-0.48	26.89	1.76	1.68	1.58	0.69	3400	26.29	12.85	2.86
9000	-1.37	26.79	1.74	1.79	1.79	0.69	3600	25.74	12.59	3.01
9500	-2.05	25.97	1.73	1.69	1.52	0.69	3800	25.23	12.15	2.98
10000	-2.64	25.93	1.70	1.66	1.49	0.69	4000	24.70	10.96	2.91

REV. X1  
MERA-556+  
120125  
Page 5 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# MMIC Amplifier

# MERA-556+

## 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: Icc = 78mA, Vd=5.10V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	21.01	24.15	22.99	36.85	1.06	0.70	20	39.77	20.12	2.50
30	21.01	24.35	22.72	36.38	1.07	0.68	30	39.29	20.10	2.48
50	21.00	24.46	22.46	38.06	1.08	0.67	50	39.24	20.14	2.51
100	20.97	24.40	22.65	35.19	1.08	0.67	100	39.54	20.11	2.52
200	20.92	24.50	22.91	31.24	1.08	0.66	200	39.90	20.32	2.49
400	20.85	24.41	23.70	26.75	1.08	0.66	300	39.33	20.09	2.55
600	20.76	24.21	25.63	22.86	1.07	0.67	400	39.16	20.08	2.56
800	20.66	24.06	26.74	19.73	1.06	0.67	500	38.75	19.93	2.58
1000	20.54	23.88	25.79	17.14	1.05	0.68	600	38.54	19.76	2.53
1200	20.38	23.74	23.34	15.06	1.04	0.67	700	38.11	19.78	2.55
1400	20.22	23.56	20.46	13.33	1.03	0.68	800	37.67	19.49	2.45
1600	20.03	23.39	18.31	11.82	1.02	0.68	900	37.06	19.51	2.50
1800	19.78	23.26	16.16	10.49	1.01	0.68	1000	36.28	19.32	2.47
2000	19.52	23.07	14.35	9.16	0.99	0.69	1100	35.67	19.21	2.52
2200	19.18	22.99	13.08	8.27	0.99	0.69	1200	35.43	19.19	2.54
2400	18.86	22.86	11.42	7.26	0.97	0.70	1300	35.02	19.00	2.61
2600	18.47	22.80	10.34	6.56	0.96	0.70	1400	34.82	19.12	2.65
2800	18.00	22.81	9.23	5.80	0.96	0.70	1500	34.28	18.68	2.65
3000	17.51	22.77	8.14	5.06	0.95	0.71	1600	34.11	18.65	2.73
3200	16.92	22.91	7.30	4.51	0.95	0.70	1700	33.39	18.28	2.61
3400	16.32	23.04	6.47	3.94	0.94	0.70	1800	32.83	18.16	2.74
3600	15.62	23.18	5.67	3.48	0.93	0.71	1900	32.42	18.04	2.60
3800	14.95	23.41	5.09	3.09	0.93	0.71	2000	31.89	17.49	2.69
4000	14.23	23.71	4.57	2.80	0.93	0.71	2100	31.26	17.60	2.48
4200	13.48	24.01	4.13	2.54	0.94	0.71	2200	30.76	17.07	2.67
4400	12.75	24.30	3.79	2.33	0.94	0.71	2300	30.45	16.94	2.49
4600	12.05	24.54	3.48	2.15	0.95	0.71	2400	30.30	16.78	2.67
4800	11.35	24.82	3.26	2.01	0.95	0.71	2500	30.01	16.30	2.56
5000	10.67	25.12	3.04	1.88	0.96	0.71	2600	29.64	16.39	2.74
5200	9.95	25.37	2.84	1.81	0.97	0.71	2700	29.15	15.68	2.60
5500	8.90	25.96	2.57	1.65	0.99	0.72	2800	28.54	15.80	2.75
6000	7.07	26.83	2.25	1.52	1.08	0.72	2900	28.17	15.62	2.52
6500	5.16	27.62	1.97	1.44	1.14	0.73	3000	27.94	14.63	2.65
7000	3.35	27.99	1.86	1.44	1.29	0.72	3100	27.77	14.95	2.55
7500	1.85	28.11	1.73	1.44	1.36	0.72	3200	27.39	13.98	2.79
8000	0.60	27.57	1.72	1.51	1.49	0.72	3300	27.11	14.33	2.79
8500	-0.32	27.04	1.74	1.54	1.52	0.71	3400	26.76	13.75	3.04
9000	-1.20	26.77	1.74	1.62	1.70	0.70	3600	26.25	13.51	3.16
9500	-1.89	26.16	1.72	1.55	1.48	0.70	3800	25.71	13.09	3.15
10000	-2.48	26.08	1.68	1.52	1.43	0.70	4000	25.26	11.89	3.08

REV. X1

MERA-556+

120125

Page 6 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



## 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: Icc = 65mA, Vd=4.64V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.61	23.78	20.87	27.43	1.06	0.70	20	34.99	18.31	3.33
30	20.61	24.09	20.93	27.50	1.08	0.67	30	34.67	18.20	3.34
50	20.61	24.16	20.99	28.53	1.08	0.67	50	34.43	18.30	3.36
100	20.58	24.07	21.35	28.56	1.08	0.67	100	34.63	18.23	3.37
200	20.53	24.14	22.04	28.73	1.08	0.66	200	34.87	18.53	3.33
400	20.44	24.09	22.24	25.49	1.08	0.66	300	34.35	18.29	3.43
600	20.34	24.00	23.57	22.91	1.08	0.65	400	34.05	18.23	3.43
800	20.22	23.88	24.83	20.16	1.08	0.65	500	33.68	18.21	3.48
1000	20.08	23.72	25.14	17.74	1.07	0.65	600	33.47	17.97	3.41
1200	19.89	23.54	24.20	15.60	1.06	0.65	700	33.21	18.07	3.48
1400	19.72	23.35	22.35	13.76	1.05	0.65	800	32.99	17.69	3.36
1600	19.50	23.18	19.93	12.19	1.03	0.65	900	32.82	17.74	3.43
1800	19.22	23.05	17.63	10.86	1.03	0.65	1000	32.39	17.58	3.39
2000	18.93	22.83	15.48	9.49	1.01	0.65	1100	32.06	17.36	3.45
2200	18.56	22.77	13.95	8.50	1.00	0.65	1200	31.93	17.43	3.46
2400	18.16	22.70	12.20	7.53	1.00	0.65	1300	31.57	17.18	3.49
2600	17.70	22.66	10.86	6.73	0.99	0.64	1400	31.34	17.36	3.60
2800	17.16	22.64	9.72	5.99	0.99	0.64	1500	31.00	16.93	3.57
3000	16.61	22.68	8.69	5.31	0.99	0.64	1600	31.13	16.83	3.65
3200	15.98	22.78	7.81	4.80	0.99	0.64	1700	30.52	16.50	3.53
3400	15.35	22.89	7.00	4.28	0.99	0.64	1800	29.97	16.33	3.68
3600	14.64	23.04	6.25	3.84	0.99	0.63	1900	29.52	16.26	3.54
3800	13.92	23.32	5.64	3.46	1.00	0.63	2000	28.97	15.55	3.63
4000	13.18	23.58	5.10	3.19	1.01	0.63	2100	28.40	15.74	3.43
4200	12.38	23.83	4.62	2.94	1.03	0.63	2200	27.93	15.14	3.65
4400	11.62	24.14	4.28	2.74	1.04	0.63	2300	27.66	14.93	3.41
4600	10.89	24.41	3.95	2.57	1.06	0.64	2400	27.52	14.85	3.61
4800	10.10	24.70	3.69	2.44	1.08	0.63	2500	27.19	14.19	3.49
5000	9.35	25.01	3.46	2.34	1.11	0.63	2600	26.78	14.42	3.69
5200	8.59	25.31	3.26	2.28	1.15	0.63	2700	26.27	13.57	3.59
5500	7.48	25.86	3.03	2.16	1.21	0.63	2800	25.69	13.73	3.68
6000	5.67	26.72	2.80	2.11	1.41	0.62	2900	25.42	13.63	3.47
6500	3.85	27.39	2.61	2.09	1.67	0.62	3000	25.24	12.28	3.56
7000	2.13	27.63	2.45	2.10	1.89	0.62	3100	25.03	12.94	3.54
7500	0.54	28.26	2.29	2.05	2.18	0.63	3200	24.70	11.86	3.70
8000	-0.83	27.84	2.20	2.00	2.27	0.63	3300	24.37	12.29	3.78
8500	-1.87	27.13	2.10	1.97	2.21	0.64	3400	23.96	11.79	3.92
9000	-2.79	26.51	2.12	2.06	2.37	0.63	3600	23.50	11.62	4.07
9500	-3.33	25.55	2.13	2.09	2.14	0.62	3800	23.00	11.10	4.00
10000	-3.68	25.61	2.17	2.17	2.25	0.61	4000	22.49	9.51	4.06

REV. X1

MERA-556+

120125

Page 7 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



## 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: Icc = 52mA, Vd=4.56V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta				
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.38	23.95	19.59	23.83	1.08	0.67	20	31.71	16.83	3.28
30	20.39	23.77	19.33	24.07	1.07	0.68	30	31.43	16.58	3.29
50	20.39	23.96	19.32	24.60	1.08	0.67	50	31.26	16.71	3.29
100	20.36	23.91	19.70	24.76	1.08	0.67	100	31.35	16.50	3.30
200	20.32	24.01	20.26	25.22	1.09	0.66	200	31.62	16.99	3.30
400	20.23	23.80	20.43	23.91	1.08	0.67	300	31.35	16.73	3.35
600	20.12	23.74	21.58	22.37	1.08	0.66	400	31.17	16.52	3.38
800	20.02	23.65	22.72	20.35	1.07	0.65	500	30.97	16.70	3.41
1000	19.88	23.51	23.53	18.19	1.07	0.65	600	30.87	16.28	3.37
1200	19.72	23.28	23.52	16.07	1.05	0.65	700	30.74	16.61	3.40
1400	19.55	23.16	22.41	14.18	1.04	0.65	800	30.69	16.17	3.29
1600	19.34	22.96	20.31	12.58	1.03	0.65	900	30.82	16.14	3.34
1800	19.07	22.80	18.07	11.21	1.02	0.65	1000	30.76	16.09	3.34
2000	18.79	22.59	15.86	9.79	1.00	0.65	1100	30.75	15.76	3.36
2200	18.42	22.52	14.29	8.77	1.00	0.65	1200	30.73	15.95	3.41
2400	18.03	22.35	12.47	7.75	0.99	0.65	1300	30.47	15.85	3.43
2600	17.59	22.37	11.08	6.92	0.98	0.64	1400	30.21	16.11	3.54
2800	17.06	22.38	9.89	6.15	0.98	0.64	1500	30.14	15.95	3.51
3000	16.51	22.40	8.80	5.47	0.98	0.64	1600	30.52	15.88	3.62
3200	15.89	22.50	7.93	4.94	0.99	0.63	1700	30.31	15.84	3.45
3400	15.24	22.62	7.08	4.41	0.99	0.63	1800	29.80	15.64	3.59
3600	14.53	22.75	6.33	3.96	0.99	0.63	1900	29.37	15.72	3.47
3800	13.82	22.99	5.71	3.58	0.99	0.63	2000	28.84	15.07	3.56
4000	13.07	23.27	5.16	3.30	1.01	0.63	2100	28.27	15.26	3.36
4200	12.27	23.57	4.68	3.06	1.02	0.63	2200	27.82	14.74	3.56
4400	11.51	23.89	4.32	2.84	1.04	0.62	2300	27.58	14.41	3.32
4600	10.77	24.12	3.98	2.67	1.06	0.63	2400	27.47	14.42	3.53
4800	9.98	24.51	3.72	2.54	1.08	0.62	2500	27.12	13.69	3.42
5000	9.24	24.80	3.49	2.44	1.11	0.62	2600	26.70	13.93	3.59
5200	8.48	25.09	3.29	2.38	1.15	0.62	2700	26.14	13.06	3.50
5500	7.37	25.60	3.06	2.26	1.22	0.62	2800	25.52	13.23	3.58
6000	5.57	26.46	2.82	2.22	1.42	0.62	2900	25.25	13.17	3.40
6500	3.74	27.12	2.64	2.20	1.68	0.61	3000	25.09	11.74	3.47
7000	2.02	27.46	2.48	2.19	1.93	0.61	3100	24.91	12.44	3.45
7500	0.46	28.06	2.31	2.15	2.21	0.62	3200	24.52	11.38	3.60
8000	-0.92	27.71	2.22	2.09	2.31	0.62	3300	24.19	11.80	3.66
8500	-1.95	27.09	2.13	2.06	2.28	0.63	3400	23.75	11.32	3.82
9000	-2.88	26.49	2.13	2.16	2.44	0.62	3600	23.33	11.12	3.96
9500	-3.42	25.55	2.14	2.18	2.21	0.61	3800	22.85	10.61	3.89
10000	-3.78	25.53	2.18	2.27	2.30	0.60	4000	22.32	8.94	3.91

REV. X1

MERA-556+

120125

Page 8 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see





## 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: Icc = 78mA, Vd=4.72V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
20	20.75	24.15	22.25	29.91	1.07	0.68	20	37.81	19.07	3.38
30	20.75	24.14	22.26	31.86	1.07	0.68	30	37.48	19.24	3.39
50	20.75	24.18	22.21	32.14	1.08	0.68	50	37.28	19.19	3.43
100	20.71	24.17	22.56	32.34	1.08	0.67	100	37.59	19.25	3.47
200	20.67	24.31	23.28	31.15	1.09	0.66	200	37.49	19.41	3.38
400	20.57	24.22	23.57	26.29	1.08	0.66	300	36.46	19.20	3.50
600	20.46	24.10	25.10	22.81	1.08	0.65	400	35.86	19.26	3.49
800	20.33	23.98	26.22	19.88	1.07	0.65	500	35.25	19.11	3.56
1000	20.19	23.85	25.93	17.44	1.07	0.65	600	34.78	18.98	3.47
1200	20.00	23.69	24.32	15.29	1.06	0.65	700	34.35	18.95	3.55
1400	19.82	23.47	22.09	13.48	1.05	0.65	800	33.88	18.45	3.39
1600	19.59	23.34	19.55	11.96	1.04	0.65	900	33.40	18.56	3.51
1800	19.30	23.25	17.27	10.66	1.03	0.64	1000	32.77	18.28	3.45
2000	19.01	23.08	15.17	9.33	1.02	0.65	1100	32.24	18.09	3.51
2200	18.63	22.98	13.69	8.37	1.01	0.64	1200	31.99	18.02	3.53
2400	18.22	22.91	12.01	7.41	1.00	0.64	1300	31.59	17.71	3.55
2600	17.77	22.83	10.72	6.63	1.00	0.64	1400	31.41	17.83	3.67
2800	17.22	22.86	9.59	5.89	1.00	0.64	1500	30.97	17.24	3.65
3000	16.67	22.91	8.57	5.24	0.99	0.64	1600	30.88	17.19	3.73
3200	16.05	22.96	7.74	4.73	1.00	0.64	1700	30.19	16.77	3.60
3400	15.40	23.07	6.93	4.23	1.00	0.64	1800	29.67	16.64	3.75
3600	14.70	23.16	6.20	3.79	0.99	0.64	1900	29.27	16.54	3.61
3800	13.99	23.51	5.59	3.41	1.01	0.64	2000	28.75	15.82	3.69
4000	13.24	23.73	5.05	3.14	1.02	0.64	2100	28.22	16.05	3.51
4200	12.46	24.00	4.58	2.90	1.03	0.64	2200	27.75	15.39	3.73
4400	11.69	24.29	4.24	2.69	1.04	0.64	2300	27.48	15.24	3.48
4600	10.96	24.54	3.92	2.53	1.06	0.64	2400	27.33	15.15	3.71
4800	10.16	24.89	3.66	2.39	1.08	0.64	2500	27.01	14.51	3.57
5000	9.42	25.22	3.42	2.29	1.11	0.64	2600	26.66	14.73	3.78
5200	8.66	25.47	3.24	2.22	1.15	0.64	2700	26.21	13.90	3.67
5500	7.55	26.06	3.01	2.11	1.21	0.64	2800	25.64	14.07	3.76
6000	5.74	26.80	2.77	2.06	1.40	0.63	2900	25.35	13.93	3.58
6500	3.91	27.48	2.60	2.04	1.65	0.63	3000	25.14	12.62	3.67
7000	2.18	27.84	2.44	2.04	1.90	0.63	3100	24.93	13.29	3.64
7500	0.60	28.33	2.28	2.00	2.15	0.63	3200	24.61	12.20	3.83
8000	-0.77	27.92	2.18	1.95	2.23	0.64	3300	24.32	12.64	3.87
8500	-1.81	27.21	2.10	1.93	2.19	0.64	3400	23.92	12.12	4.04
9000	-2.73	26.55	2.11	2.01	2.33	0.64	3600	23.47	11.96	4.18
9500	-3.26	25.64	2.12	2.04	2.12	0.63	3800	22.91	11.48	4.11
10000	-3.62	25.63	2.16	2.13	2.22	0.61	4000	22.43	9.83	4.17

REV. X1

MERA-556+

120125

Page 9 of 11



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

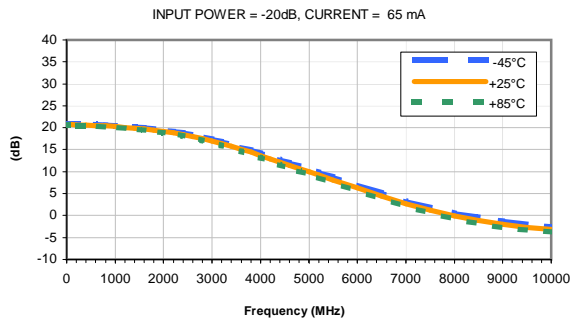


The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

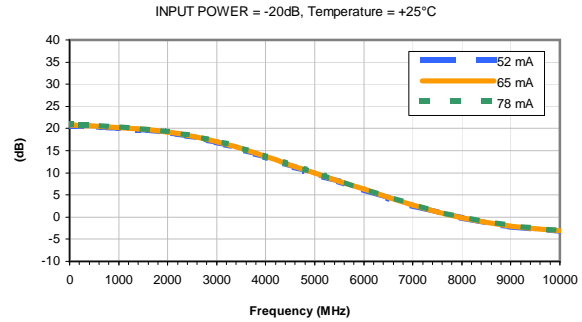


## Typical Performance Curves

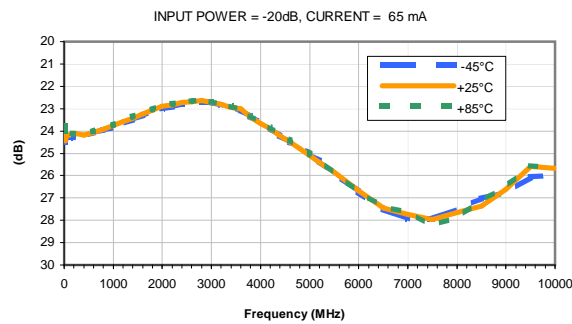
### GAIN vs. TEMPERATURE



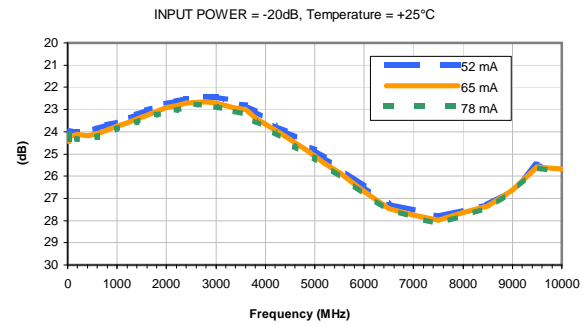
### GAIN vs. CURRENT



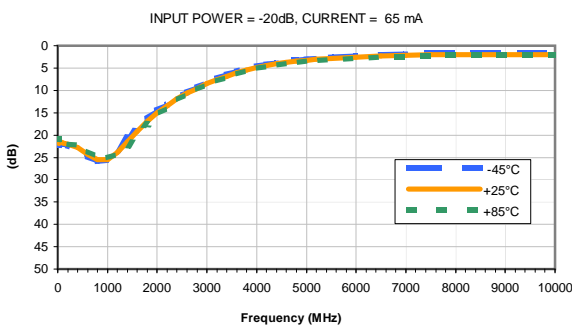
### ISOLATION vs. TEMPERATURE



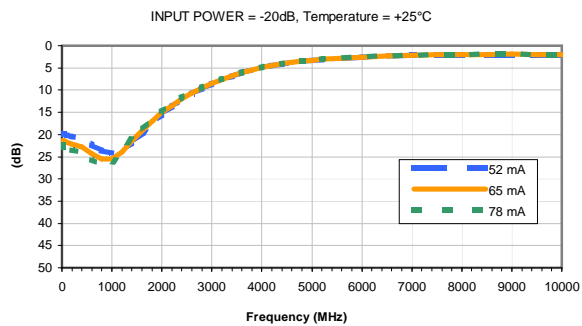
### ISOLATION vs. CURRENT



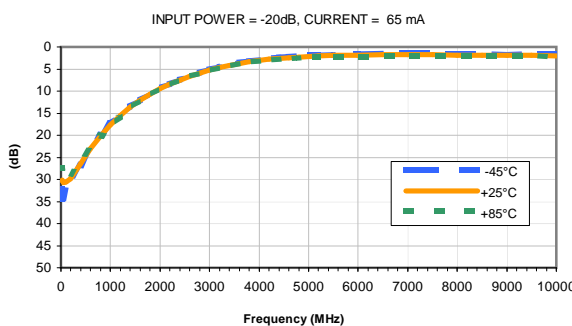
### INPUT RETURN LOSS vs. TEMPERATURE



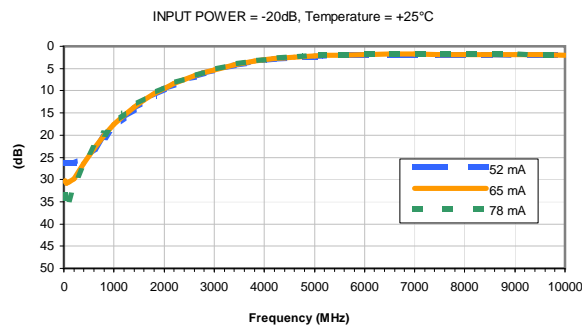
### INPUT RETURN LOSS vs. CURRENT



### OUTPUT RETURN LOSS vs. TEMPERATURE



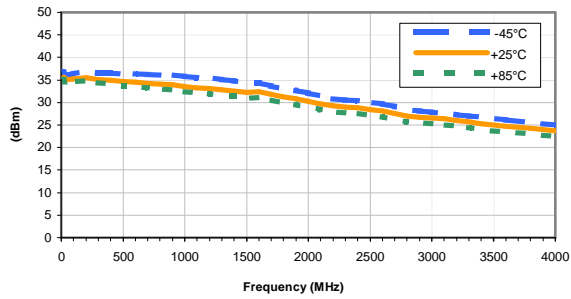
### OUTPUT RETURN LOSS vs. CURRENT



## Typical Performance Curves

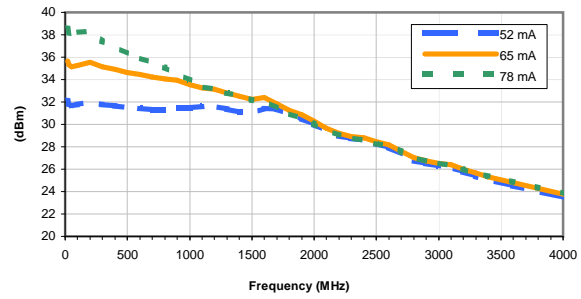
**OUTPUT IP3 vs. TEMPERATURE**

INPUT POWER = -20dB, CURRENT = 65 mA



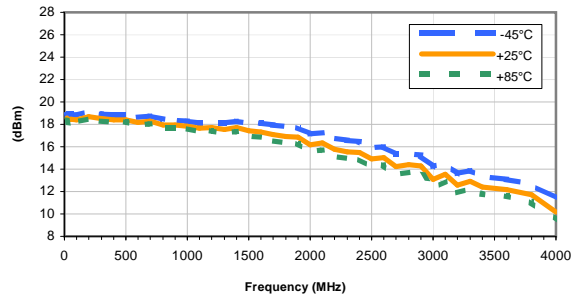
**OUTPUT IP-3 vs. CURRENT**

INPUT POWER = -20dB, Temperature = +25°C



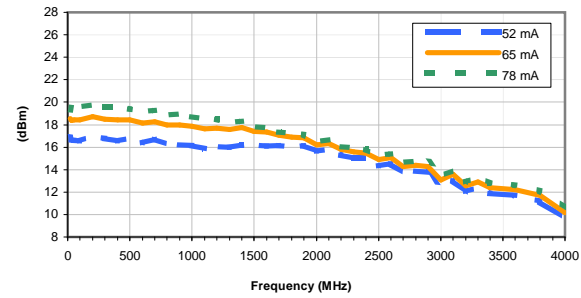
**OUTPUT POWER at 1dB Compression vs. TEMPERATURE**

CURRENT = 65 mA



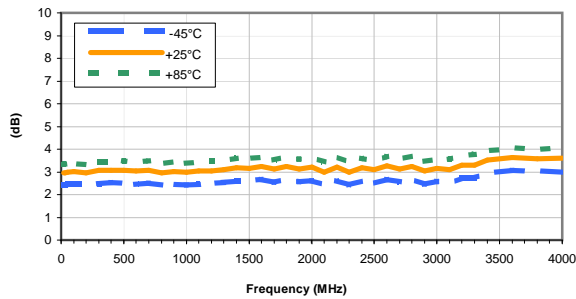
**OUTPUT POWER at 1dB Compression vs. CURRENT**

Temperature = +25°C



**Noise Figure vs. TEMPERATURE**

CURRENT = 65 mA



**Noise Figure vs. CURRENT**

Temperature = +25°C

