

## Typical Performance Data

FREQ. (MHz)	VSWR (:1)		
	0°C	+25°C	+50°C
0.10	1.34	1.35	1.35
1	1.03	1.04	1.03
10	1.03	1.03	1.03
50	1.02	1.02	1.02
100	1.02	1.02	1.03
250	1.02	1.02	1.03
385	1.02	1.02	1.02
500	1.02	1.02	1.02
750	1.02	1.02	1.02
1000	1.03	1.03	1.03
1500	1.03	1.03	1.03
2000	1.03	1.03	1.03
2500	1.06	1.06	1.06
3000	1.09	1.09	1.09
3500	1.08	1.08	1.08
4000	1.06	1.06	1.06
4200	1.08	1.08	1.08
4400	1.12	1.12	1.11
4500	1.13	1.13	1.12
4600	1.15	1.15	1.14
4800	1.17	1.17	1.16
5000	1.17	1.17	1.16
5200	1.16	1.17	1.15
5400	1.12	1.12	1.11
5500	1.10	1.10	1.09
5600	1.07	1.08	1.06
5800	1.02	1.02	1.02
6000	1.04	1.03	1.05
6200	1.10	1.10	1.11
6400	1.13	1.13	1.14
6500	1.13	1.14	1.14
6600	1.14	1.14	1.14
6800	1.14	1.14	1.14
7000	1.10	1.11	1.10
7200	1.06	1.06	1.05
7400	1.02	1.02	1.01
7500	1.01	1.00	1.01
7600	1.01	1.02	1.04
7800	1.06	1.07	1.09
8000	1.08	1.09	1.10

**Notes**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



## Typical Performance Data

LINEARITY @ -35 to 0 dBm	
FREQ (MHz)	- (%)
40	1.39
50	0.69
67	0.46
82	0.69
100	0.92
200	0.23
284	0.46
350	0.23
388	0.69
500	0.23
576	0.23
650	0.00
700	0.93
786	0.69
850	0.23
900	1.16
1150	0.46
1250	0.92
1350	0.00
1500	0.46
1650	0.92
1750	0.00
1850	0.69
2000	0.23
2150	1.60
2250	0.23
2500	0.93
2750	0.23
3000	0.00
3250	1.14
3500	3.39
3750	1.37
3850	3.17
4000	3.39
4250	5.16
4500	4.28
4750	4.28
5000	4.72
5250	0.92
5500	1.83
5800	4.06
6000	5.59
6100	6.89

LINEARITY @ 0 to +20 dBm	
FREQ (MHz)	- (%)
40	0.69
50	0.46
67	0.46
82	0.92
100	0.92
200	0.46
284	2.95
350	2.95
388	2.73
500	0.23
576	0.92
650	0.00
700	0.46
786	0.93
850	0.93
900	1.39
1150	0.46
1250	1.60
1350	6.03
1500	0.92
1650	0.92
1750	0.92
1850	0.46
2000	2.50
2150	0.46
2250	0.69
2500	1.60
2750	0.46
3000	3.28
3250	1.60
3500	0.23
3750	1.37
3850	0.69
4000	0.93
4250	1.37
4500	4.28
4750	1.39
5000	3.04
5250	0.93
5500	3.39
5800	1.60
6000	0.93
6100	1.16

**Notes**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



## Typical Performance Data

FREQ. (MHz)	UNCERTAINTY OF POWER MEASUREMENTS							
	AT CW @ 25°C							
	(dB)							
	-35	-30	-20	-12	0	+5	+12	+20
40	-0.51	-0.49	-0.46	-0.49	-0.47	-0.50	-0.51	-0.46
50	-0.01	-0.02	0.00	-0.01	0.01	-0.03	-0.01	0.03
67	0.02	0.01	0.01	0.01	-0.01	-0.02	-0.01	0.02
82	0.00	0.00	0.02	0.00	0.01	-0.02	-0.02	-0.02
100	0.03	-0.01	0.01	0.01	-0.01	-0.01	-0.02	0.01
200	0.05	0.02	0.01	0.01	0.00	-0.03	-0.02	-0.01
284	0.08	0.04	0.06	0.03	0.04	-0.01	-0.02	-0.07
350	0.13	0.09	0.09	0.07	0.09	0.04	0.04	-0.01
388	0.15	0.08	0.10	0.09	0.09	0.05	0.04	0.00
500	0.03	-0.01	0.03	0.03	0.03	-0.01	0.01	0.03
576	0.17	0.13	0.14	0.12	0.17	0.10	0.13	0.14
650	0.11	0.07	0.08	0.07	0.11	0.06	0.07	0.13
700	0.08	0.03	0.02	0.01	0.06	0.05	0.06	0.12
786	0.02	-0.02	-0.04	-0.04	0.00	-0.01	0.00	0.06
850	0.01	-0.02	-0.05	-0.05	-0.01	-0.02	-0.02	0.06
900	0.01	0.01	-0.04	-0.04	0.00	-0.02	0.00	0.12
1150	0.03	-0.01	-0.02	-0.04	-0.02	-0.02	-0.01	0.01
1250	0.03	-0.03	-0.04	-0.05	-0.03	-0.06	-0.03	-0.04
1350	0.04	-0.02	-0.05	-0.05	0.00	-0.05	-0.03	-0.16
1500	0.02	-0.03	-0.06	-0.03	-0.01	-0.03	-0.03	0.07
1650	0.05	-0.02	-0.03	-0.05	-0.03	-0.04	-0.05	-0.01
1750	0.05	-0.02	-0.03	-0.05	-0.02	-0.04	-0.03	-0.09
1850	0.03	-0.03	-0.04	-0.05	-0.01	-0.05	-0.05	-0.05
2000	-0.01	-0.06	-0.08	-0.07	-0.03	-0.05	-0.04	-0.07
2150	0.01	-0.03	-0.06	-0.05	-0.04	-0.07	-0.05	-0.01
2250	0.02	-0.03	-0.05	-0.06	-0.03	-0.06	-0.06	-0.01
2500	0.04	-0.03	-0.05	-0.08	-0.03	-0.05	-0.05	-0.04
2750	0.04	-0.03	-0.08	-0.08	-0.07	-0.06	-0.06	-0.05
3000	0.12	0.00	-0.02	-0.03	0.01	-0.02	-0.02	0.03
3250	0.14	-0.03	-0.07	-0.05	-0.04	-0.05	-0.03	-0.09
3500	0.16	0.05	-0.03	-0.02	0.00	-0.03	-0.03	0.02
3750	0.23	0.06	0.02	0.00	0.03	-0.04	-0.02	0.01
3850	0.20	0.05	-0.02	-0.02	-0.01	-0.04	-0.02	-0.01
4000	0.20	0.01	-0.04	-0.07	-0.05	-0.08	-0.06	0.00
4250	0.21	0.02	-0.07	-0.07	-0.04	-0.07	-0.06	-0.07
4500	0.30	0.04	-0.05	-0.06	-0.03	-0.08	-0.05	-0.20
4750	0.18	-0.04	-0.13	-0.16	-0.09	-0.12	-0.13	-0.04
5000	0.12	-0.12	-0.23	-0.22	-0.18	-0.21	-0.22	-0.05
5250	0.19	-0.04	-0.09	-0.12	-0.07	-0.09	-0.08	0.01
5500	0.23	-0.04	-0.08	-0.09	-0.05	-0.06	-0.05	-0.13
5800	0.25	0.03	-0.03	-0.03	-0.01	-0.03	-0.02	-0.06
6000	0.26	0.02	-0.02	-0.05	0.00	-0.03	-0.03	0.01
6100	0.29	0.06	-0.01	-0.04	0.02	-0.03	-0.01	0.04

**Notes**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



## UNCERTAINTY OF POWER MEASUREMENT MODULATED SIGNAL @ 25°C

FREQ. (MHZ)	LTE	DQPSK (PWT)	4QAM	DQPSK (NADC)	256 QAM	MSK
(dB)						
50	0.08	0.01	0.04	0.06	0.04	0.07
500	0.11	0.05	0.07	0.05	0.04	0.06
1000	0.13	0.03	0.06	0.02	0.00	0.03
1200	0.06	-0.02	-0.01	-0.02	-0.04	-0.02
1500	-0.01	-0.05	-0.05	-0.05	-0.07	-0.06
2000	-0.04	-0.02	-0.01	0.01	0.00	-0.01
2200	-0.01	-0.02	0.00	0.01	0.01	0.03
2500	-0.02	0.01	0.02	0.03	0.01	0.02
2700	0.04	-0.05	-0.02	0.00	-0.01	-0.02
3000	0.09	-0.01	0.02	0.01	0.03	0.02
3200	0.11	0.03	0.04	0.09	0.09	0.07
3500	0.06	0.00	0.03	0.06	0.05	0.03
3700	0.06	0.02	0.06	0.04	0.07	0.06
4000	-0.06	-0.06	-0.05	-0.02	-0.03	-0.03
4200	0.03	0.02	0.04	0.05	0.06	0.04
4500	0.05	0.04	0.05	0.08	0.09	0.08
5000	0.02	0.07	0.07	0.09	0.08	0.07
5200	0.06	0.11	0.12	0.16	0.01	0.15
5500	0.11	0.05	0.04	0.08	-0.02	0.09
6000	0.00	-0.15	-0.15	-0.13	-0.05	-0.13

FREQ.	WiMax
(MHZ)	(dB)
2000	-0.01
2500	0.01
3500	0.01
5000	0.10
5500	0.10
6000	0.05

FREQ.	WLAN
(MHZ)	(dB)
2000	0.05
2500	0.07
3200	0.20
3500	0.12
4000	0.05
4500	0.16
5000	0.18
5200	0.20
5500	0.16
6000	-0.07

**Notes**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

