

# USB/Ethernet Power Sensor

# PWR-40PW-RC

## Typical Performance Data

FREQ. (MHz)	VSWR (:1)		
	0°C	+25°C	+50°C
	500	1.03	1.03
550	1.03	1.03	1.03
600	1.03	1.03	1.03
700	1.03	1.03	1.03
800	1.03	1.03	1.03
1000	1.03	1.03	1.03
1200	1.04	1.04	1.04
1400	1.05	1.05	1.05
1600	1.05	1.05	1.05
1800	1.06	1.06	1.06
2500	1.05	1.05	1.05
3000	1.06	1.05	1.05
4000	1.04	1.04	1.04
5000	1.03	1.03	1.03
6000	1.04	1.04	1.04
7000	1.08	1.08	1.07
8000	1.02	1.02	1.02
9000	1.08	1.08	1.08
10000	1.09	1.09	1.09
11000	1.14	1.13	1.13
12000	1.03	1.03	1.03
13000	1.08	1.08	1.07
14000	1.05	1.05	1.04
15000	1.04	1.04	1.04
16000	1.03	1.03	1.03
17000	1.10	1.10	1.10
18000	1.25	1.25	1.24
19000	1.12	1.12	1.12
20000	1.12	1.12	1.12
21000	1.04	1.04	1.04
22000	1.14	1.13	1.13
23000	1.07	1.06	1.06
24000	1.10	1.10	1.10
25000	1.18	1.17	1.17
26000	1.16	1.15	1.14
27000	1.02	1.03	1.03
28000	1.03	1.03	1.02
29000	1.16	1.16	1.16
30000	1.23	1.23	1.22
31000	1.05	1.06	1.06
32000	1.02	1.02	1.02
33000	1.19	1.20	1.20
34000	1.16	1.15	1.14
35000	1.05	1.05	1.05
36000	1.12	1.13	1.14
37000	1.29	1.29	1.29
38000	1.15	1.14	1.14
38500	1.03	1.03	1.03
39000	1.08	1.07	1.08
39200	1.10	1.09	1.09
39400	1.12	1.11	1.11
39600	1.12	1.11	1.11
39800	1.11	1.09	1.10
40000	1.13	1.11	1.11

LINEARITY @ +25°C		
FREQ. (MHz)	(%)	
	@ 0 to 20 dBm	@ -20 to 0 dBm
500	-2.50%	0.46%
550	-3.17%	-0.23%
600	1.62%	-0.92%
700	-0.69%	-0.23%
800	-1.83%	-0.46%
1000	-0.69%	-6.67%
1200	0.46%	-1.37%
1400	-0.23%	2.33%
1600	-1.14%	-1.60%
1800	-1.14%	-5.81%
2500	-3.84%	0.46%
3000	-4.94%	0.46%
4000	-4.06%	-0.46%
5000	0.46%	0.69%
6000	0.69%	2.57%
7000	0.23%	0.93%
8000	-0.23%	-1.14%
9000	1.39%	2.09%
10000	1.86%	0.69%
11000	-0.69%	-0.69%
12000	1.39%	-0.69%
13000	0.93%	-0.23%
14000	0.93%	0.93%
15000	-0.46%	1.16%
16000	0.69%	0.69%
17000	-0.46%	0.23%
18000	-5.16%	2.80%
19000	0.46%	3.51%
20000	-0.69%	0.69%
21000	0.00%	0.93%
22000	-1.60%	1.62%
23000	-1.14%	0.69%
24000	-6.46%	-1.14%
25000	2.80%	-3.17%
26000	-3.62%	-0.46%
27000	5.68%	-3.39%
28000	4.95%	-3.17%
29000	-7.96%	0.46%
30000	-7.32%	1.39%
31000	-2.50%	1.16%
32000	-8.17%	0.69%
33000	-8.17%	1.39%
34000	6.17%	-2.28%
35000	0.69%	0.69%
36000	3.28%	1.16%
37000	2.33%	-2.28%
38000	4.95%	0.93%
38500	-0.46%	1.39%
39000	-0.92%	1.16%
39200	0.69%	0.46%
39400	0.69%	0.23%
39600	-0.23%	0.00%
39800	-0.46%	1.86%
40000	0.00%	0.00%

**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-Circuit's 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)



# USB Power Sensor

# PWR-40PW-RC

## Typical Performance Data

FREQ. (MHz)	UNCERTAINTY OF POWER MEASUREMENT								
	@ 25° C								
	(dBm)								
	@ -20 dBm	@ -15 dBm	@ -10 dBm	@ -5 dBm	@ 0 dBm	@ 5 dBm	@ 10 dBm	@ 15 dBm	@ 20 dBm
500	-0.20	-0.17	-0.09	-0.03	-0.04	-0.03	-0.03	-0.39	-0.01
550	-0.10	-0.01	-0.03	0.01	0.01	-0.02	-0.02	-0.17	-0.01
600	-0.17	-0.03	-0.07	-0.05	-0.03	-0.04	-0.03	-0.05	-0.02
700	0.02	-0.01	-0.02	0.01	-0.05	-0.04	-0.03	-0.05	-0.01
800	0.00	-0.01	-0.06	-0.03	-0.05	-0.06	-0.05	-0.05	-0.01
1000	-0.05	-0.12	-0.08	-0.02	-0.02	-0.06	-0.05	-0.05	-0.01
1200	-0.01	-0.13	-0.09	-0.07	-0.04	-0.06	-0.07	-0.08	-0.03
1400	-0.13	-0.13	-0.08	-0.03	-0.05	-0.06	-0.05	-0.07	-0.03
1600	-0.15	-0.11	-0.09	-0.06	-0.06	-0.07	-0.06	-0.06	-0.16
1800	-0.11	-0.06	-0.07	-0.01	-0.03	-0.03	-0.03	-0.05	-0.02
2500	-0.03	0.01	0.00	0.03	0.00	0.00	0.01	-0.02	0.30
3000	0.02	-0.01	-0.01	0.02	-0.02	0.00	0.00	-0.01	-0.01
4000	-0.05	-0.07	-0.06	-0.05	-0.07	-0.04	-0.03	-0.04	-0.01
5000	0.00	-0.03	-0.05	-0.02	-0.06	-0.03	-0.02	-0.04	-0.05
6000	-0.02	-0.02	-0.04	0.00	-0.01	-0.01	0.00	-0.03	-0.11
7000	-0.07	-0.06	-0.07	-0.02	-0.05	-0.04	-0.03	-0.05	-0.18
8000	-0.11	-0.08	-0.07	-0.04	-0.06	-0.06	-0.06	-0.06	0.01
9000	-0.10	-0.05	-0.06	0.00	-0.02	-0.03	-0.02	-0.04	0.01
10000	-0.08	-0.03	-0.03	0.02	-0.03	-0.02	0.00	0.00	0.23
11000	-0.07	-0.04	-0.05	-0.02	-0.02	0.00	-0.02	-0.01	0.06
12000	0.49	-0.03	-0.19	-0.20	-0.21	-0.25	-0.26	-0.32	-0.38
13000	-0.18	-0.16	-0.10	-0.02	0.00	0.00	-0.01	0.03	-0.03
14000	-0.25	-0.19	-0.13	-0.04	-0.05	-0.04	-0.02	-0.02	-0.05
15000	-0.20	-0.18	-0.14	-0.05	-0.05	-0.04	-0.02	-0.03	-0.06
16000	-0.22	-0.17	-0.13	-0.05	-0.03	-0.02	-0.02	-0.02	-0.07
17000	-0.22	-0.15	-0.14	-0.04	-0.05	-0.03	-0.04	-0.04	-0.07
18000	-0.21	-0.16	-0.12	-0.04	-0.05	-0.04	-0.03	0.00	-0.04
19000	-0.20	-0.19	-0.14	-0.04	-0.05	-0.05	-0.04	-0.04	-0.07
20000	-0.38	-0.23	-0.18	-0.11	-0.10	-0.09	-0.07	-0.06	-0.10
21000	-0.25	-0.19	-0.17	-0.08	-0.07	-0.09	-0.06	-0.07	-0.06
22000	-0.22	-0.13	-0.11	-0.01	0.00	-0.01	0.00	0.00	-0.02
23000	-0.22	-0.13	-0.11	-0.02	-0.02	-0.02	-0.01	0.00	-0.02
24000	-0.25	-0.19	-0.15	-0.06	-0.06	-0.06	-0.04	-0.04	-0.08
25000	-0.20	-0.18	-0.15	-0.08	-0.05	-0.06	-0.05	-0.04	-0.08
26000	-0.23	-0.18	-0.13	-0.04	-0.05	-0.04	-0.04	-0.02	-0.03
27000	-0.16	-0.14	-0.10	-0.02	0.00	-0.02	-0.01	-0.01	-0.03
28000	-0.09	-0.09	-0.07	-0.01	0.01	0.00	0.03	0.01	-0.02
29000	-0.05	-0.08	-0.05	0.03	0.03	0.03	0.02	0.02	-0.02
30000	-0.07	-0.07	-0.05	0.03	0.03	0.02	0.00	-0.01	-0.06
31000	0.01	-0.09	-0.08	-0.04	-0.01	-0.02	-0.02	-0.05	-0.10
32000	-0.17	-0.04	0.02	0.02	0.01	0.03	0.03	0.04	0.03
33000	-0.10	-0.01	0.04	0.03	0.03	0.03	0.01	0.01	-0.01
34000	-0.04	0.00	0.03	0.02	0.02	0.02	0.00	0.00	0.01
35000	-0.01	0.02	0.04	0.04	0.04	0.02	0.03	0.02	0.01
36000	0.02	0.05	0.06	0.06	0.04	0.04	0.05	0.03	0.04
37000	0.08	0.05	0.05	0.05	0.04	0.03	0.03	0.03	0.01
38000	0.04	0.02	0.02	0.03	0.01	0.01	0.01	0.01	0.00
38500	0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.01	-0.02	-0.05
39000	0.02	0.01	-0.01	0.00	-0.01	-0.02	-0.02	-0.02	-0.03
39200	0.03	0.01	0.01	0.00	-0.02	-0.02	-0.03	-0.04	-0.04
39400	0.01	0.01	-0.01	-0.01	-0.01	-0.02	-0.03	-0.05	-0.04
39600	-0.02	-0.02	-0.03	-0.03	-0.04	-0.05	-0.05	-0.07	-0.08
39800	-0.02	-0.02	-0.03	-0.02	-0.04	-0.06	-0.06	-0.06	-0.10
40000	-0.01	0.00	-0.01	-0.01	-0.03	-0.03	-0.03	-0.05	-0.08

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