

# RF Power Conversion Chart

dBm to mW to W

dBm	milliWatts	Watts
0 dBm	1 mW	N/A
1 dBm	1.26 mW	N/A
2 dBm	1.58 mW	N/A
3 dBm	2 mW	N/A
4 dBm	2.51 mW	N/A
5 dBm	3.16 mW	N/A
6 dBm	3.98 mW	N/A
7 dBm	5.01 mW	N/A
8 dBm	6.31 mW	N/A
9 dBm	7.94 mW	N/A
10 dBm	10 mW	N/A
11 dBm	12.59 mW	N/A
12 dBm	15.85 mW	0.02 W
13 dBm	19.95 mW	0.02 W
14 dBm	25.12 mW	0.03 W
15 dBm	31.62 mW	0.03 W
16 dBm	39.81 mW	0.04 W
17 dBm	50.11 mW	0.05 W
18 dBm	63.10 mW	0.06 W
19 dBm	79.43 mW	0.08 W
20 dBm	100 mW	0.1 W
21 dBm	125.89 mW	0.13 W
22 dBm	158.49 mW	0.16 W
23 dBm	199.53 mW	0.2 W
24 dBm	251.19 mW	0.25 W
25 dBm	316.23 mW	0.31 W
26 dBm	398.11 mW	0.4 W
27 dBm	501.19 mW	0.5 W
28 dBm	630.96 mW	0.6 W
29 dBm	794.33 mW	0.8 W
30 dBm	1000 mW	1 W
31 dBm	1258.93 mW	1.26 W
32 dBm	1584.89 mW	1.58 W
33 dBm	1995.26 mW	2 W
34 dBm	2511.89 mW	2.51 W
35 dBm	3162.28 mW	3.16 W
36 dBm	3981.07 mW	3.98 W
37 dBm	5011.87 mW	5.01 W
38 dBm	6309.57 mW	6.31 W
39 dBm	7943.28 mW	7.94 W
40 dBm	10000 mW	10 W
50 dBm	100000 mW	100 W

This RF Power Conversion Chart is simply converting reader output power, provided in dBm, into milliwatts or Watts of power. This conversion chart is most frequently used to:

- Determining System Output Power (EIRP) in terms of mW or W to ensure that it complies with FCC, ETSI, and/or Country Regulations.

- Determine Reader Output Power in terms of mW or W.

- Determining Reader Output Power when testing different Reader Transmit Powers.

To learn more about RFID Reader Transmit Power, checkout our article:

[10 Facts about RFID Reader Transmit Power](#)

To learn more conforming to Regional RFID Regulations, checkout our article:

[How to Conform to Regional Regulations When Using RFID](#)