

A				B				C			
VARIABLE				VARIABLE				VARIABLE			
Power Watts	dBW	dBm	mW	dBm	dBW	Power Watts	mW	dBW	dBm	Power Watts	mW
1.0	0.0	30.00	1000	0.0	-30.00	1.00E-03	1.00E+00	0.0	30.0	1.00E+00	1.00E+03
6.0	7.8	37.78	6000	5.0	-25.00	3.16E-03	3.16E+00	5.0	35.0	3.16E+00	3.16E+03
11.0	10.4	40.41	11000	10.0	-20.00	1.00E-02	1.00E+01	10.0	40.0	1.00E+01	1.00E+04
16.0	12.0	42.04	16000	15.0	-15.00	3.16E-02	3.16E+01	15.0	45.0	3.16E+01	3.16E+04
21.0	13.2	43.22	21000	20.0	-10.00	1.00E-01	1.00E+02	20.0	50.0	1.00E+02	1.00E+05
26.0	14.1	44.15	26000	25.0	-5.00	3.16E-01	3.16E+02	25.0	55.0	3.16E+02	3.16E+05
31.0	14.9	44.91	31000	30.0	0.00	1.00E+00	1.00E+03	30.0	60.0	1.00E+03	1.00E+06
36.0	15.6	45.56	36000	35.0	5.00	3.16E+00	3.16E+03	35.0	65.0	3.16E+03	3.16E+06
41.0	16.1	46.13	41000	40.0	10.00	1.00E+01	1.00E+04	40.0	70.0	1.00E+04	1.00E+07
46.0	16.6	46.63	46000	45.0	15.00	3.16E+01	3.16E+04	45.0	75.0	31622.78	3.16E+07
51.0	17.1	47.08	51000	50.0	20.00	1.00E+02	1.00E+05	50.0	80.0	100000.00	1.00E+08
56.0	17.5	47.48	56000	55.0	25.00	3.16E+02	3.16E+05	55.0	85.0	316227.77	3.16E+08
61.0	17.9	47.85	61000	60.0	30.00	1.00E+03	1.00E+06	60.0	90.0	1000000.00	1.00E+09
66.0	18.2	48.20	66000	65.0	35.00	3.16E+03	3.16E+06	65.0	95.0	3162277.66	3.16E+09
71.0	18.5	48.51	71000	70.0	40.00	1.00E+04	1.00E+07	70.0	100.0	1.00E+07	1.00E+10
76.0	18.8	48.81	76000	75.0	45.00	3.16E+04	3.16E+07	75.0	105.0	3.16E+07	3.16E+10
81.0	19.1	49.08	81000	80.0	50.00	1.00E+05	1.00E+08	80.0	110.0	1.00E+08	1.00E+11
86.0	19.3	49.34	86000	85.0	55.00	3.16E+05	3.16E+08	85.0	115.0	3.16E+08	3.16E+11
91.0	19.6	49.59	91000	90.0	60.00	1.00E+06	1.00E+09	90.0	120.0	1.00E+09	1.00E+12
96.0	19.8	49.82	96000	95.0	65.00	3.16E+06	3.16E+09	95.0	125.0	3.16E+09	3.16E+12
101.0	20.0	50.04	101000	100.0	70.00	1.00E+07	1.00E+10	100.0	130.0	1.00E+10	1.00E+13
106.0	20.3	50.25	106000	105.0	75.00	3.16E+07	3.16E+10	105.0	135.0	3.16E+10	3.16E+13
111.0	20.5	50.45	111000	110.0	80.00	1.00E+08	1.00E+11	110.0	140.0	1.00E+11	1.00E+14
116.0	20.6	50.64	116000	115.0	85.00	3.16E+08	3.16E+11	115.0	145.0	3.16E+11	3.16E+14
121.0	20.8	50.83	121000	120.0	90.00	1.00E+09	1.00E+12	120.0	150.0	1.00E+12	1.00E+15
126.0	21.0	51.00	126000	125.0	95.00	3.16E+09	3.16E+12	125.0	155.0	3.16E+12	3.16E+15
131.0	21.2	51.17	131000	130.0	100.00	1.00E+10	1.00E+13	130.0	160.0	1.00E+13	1.00E+16

To change values and column displays examine cell source code defaults (select first topmost cell in column) and change as required.

This calculator allows easy and free conversion between any combination of Watts, milliwatts (mW), dBm & dBW

The calculator assumes a  $50\Omega$  system.

How to use the calculator: the parameters to change are only in columns A,B,C

Converting from a chosen power in watts to dBW, dBm and mW.

enter value in watts in column A

Converting from a chosen dBm level to dBW, Watts and mW

enter value in dBm in column B

Converting from a dBW value to dBm, Watts and mW

enter value in dBW in column C

#### CONVERSIONS

1mW = 0.001W = 0dBm

1000mW = 1W

0dBm = -30dBW