

# 50-OHM CONVERSION TABLE

## (dBm - volts- watts)

dBm	V	Po
+53	100.0	200W
+50	70.7	100W
+49	64.0	80W
+48	58.0	64W
+47	50.0	50W
+46	44.5	40W
+45	40.0	32W
+44	32.5	25W
+43	32.0	20W
+42	28.0	16W
+41	26.2	12.5W
+40	22.5	10W
+39	20.0	8W
+38	18.0	6.4W
+37	16.0	5W
+36	14.1	4W
+35	12.5	3.2W
+34	11.5	2.5W
+33	10.0	2W
+32	9.0	1.6W
+31	8.0	1.25W
+30	7.10	1.0W
+29	6.40	800 mW
+28	5.80	640 mW
+27	5.00	500 mW
+26	4.45	400 mW
+25	4.00	320 mW
+24	3.55	250 mW
+23	3.20	200 mW
+22	2.80	160 mW
+21	2.52	125 mW
+20	2.25	100 mW
+19	2.00	80 mW
+18	1.80	64 mW
+17	1.60	50 mW
+16	1.41	40 mW
+15	1.25	32 mW
+14	1.15	25 mW
+13	1.00	20 mW
+12	0.90	16 mW
+11	0.80	12.5 mW
+10	0.71	10 mW
+9	0.64	8 mW
+8	0.58	6.4 mW
+7	0.50	5 mW
+6	0.45	4 mW
+5	0.40	3.2 mW
+4	0.36	2.5 mW
+3	0.32	2.0 mW

dBm	V	Po
+2	0.28	1.6 mW
+1	0.25	1.25 mW
0	0.23	1.0 mW
-1	0.20	.80 mW
-2	0.18	.64 mW
-3	0.16	.50 mW
-4	0.14	.40 mW
-5	0.13	.32 mW
-6	0.12	.25 mW
-7	0.10	.20 mW
-8	0.09	.16 mW
-9	0.08	.125 mW
-10	0.07	.10 mW
-11	0.06	
-12	0.06	
-13	0.05	
-14	0.05	
-15	0.04	
-16	0.0355	
dBm	mV	Po
-17	31.5	
-18	28.5	
-19	25.1	
-20	22.5	.01 mW
-21	20.0	
-22	17.9	
-23	15.9	
-24	14.1	
-25	12.8	
-26	11.5	
-27	10.0	
-28	8.9	
-29	8.0	
-30	7.1	.001 mW
-31	6.25	
-32	5.8	
-33	5.0	
-34	4.5	
-35	4.0	
-36	3.5	
-37	3.2	
-38	2.85	
-39	2.5	
-40	2.25	.1 μW
-41	2.0	
-42	1.8	
-43	1.6	
-44	1.4	
-45	1.25	

dBm	mV	Po
-46	1.18	
-47	1.0	
-48	0.9	
-49	0.8	
-50	0.71	.01 μW
-51	0.64	
-52	0.57	
-53	0.5	
-54	0.45	
-55	0.4	
-56	0.351	
-57	0.32	
-58	0.286	
-59	0.251	
-60	0.225	.001 μW
-61	0.2	
-62	0.18	
-63	0.16	
-64	0.141	
dBm	μV	Po
-65	128	
-66	115	
-67	100	
-68	90	
-69	80	
-70	71	.1 nW
-71	65	
-72	58	
-73	50	
-74	45	
-75	40	
-76	35	
-77	32	
-78	29	
-79	25	
-80	22.5	.01 nW
-81	20	
-82	18	
-83	16	
-84	11.1	
-85	12.9	
-86	11.5	
-87	10.0	
-88	9.0	
-89	8.0	
-90	7.1	.001 nW
-91	6.1	
-92	5.75	
-93	5.0	

dBm	μV	Po
-94	4.5	
-95	4.0	
-96	3.51	
-97	3.2	
-98	2.9	
-99	2.51	
-100	2.25	.1 pW
-101	2.0	
-102	1.8	
-103	1.6	
-104	1.41	
-105	1.27	
-106	1.18	
dBm	nV	Po
-107	1000	
-108	900	
-109	800	
-110	710	.01 pW
-109	640	
-112	580	
-113	500	
-114	450	
-115	400	
-116	355	
-117	825	
-118	285	
-119	251	
-120	225	.001 pW
-121	200	
-122	180	
-123	160	
-124	141	
-125	128	
-126	117	
-127	100	
-128	90	
-129	80	
-130	71	.1 fW
-131	61	
-132	58	
-133	50	
-134	45	
-135	40	
-136	35	
-137	33	
-138	29	
-139	25	
-140	23	.01 fW