dBm - volts - watts conversion

(50-ohm system)

dBm	V	W
53	99.9	200
50	70.7	100
49	63.0	79
48	56.2	63
47	50.1	50
46	44.6	40
45	39.8	32
44	35.4	25
43	31.6	20
42	28.2	16
41	25.1	12.6
40	22.4	10
39	19.9	8.0
38	17.8	6.3
37	15.8	5.0
36	14.1	4.0
35	12.6	3.2
34	11.2	2.5
33	10.0	2.0
32	8.9	1.6
31	7.9	1.26
30	7.07	1.0
dBm	**V**	**mW**
29	6.30	794
28	5.62	631
27	5.01	501
26	4.46	398
25	3.98	316
24	3.54	251
23	3.16	200
22	2.82	158
21	2.51	126
20	2.24	100
19	1.99	79
18	1.78	63
17	1.58	50
16	1.41	40
15	1.26	32
14	1.12	25
13	1.00	20
12	.89	16
11	.79	12.6
10	.71	10
9	.63	8.0
8	.56	6.3
7	.501	5.0
6	.446	4.0
5	.398	3.2
4	.354	2.5
3	.316	2.0
2	.282	1.6
1	.251	1.26

dBm	V	mW
0	0.224	1.00
-1	0.199	0.79
-2	0.178	0.63
-3	0.158	0.50
-4	0.141	0.40
-5	0.126	0.32
-6	0.112	0.25
-7	0.100	0.20
-8	0.089	0.16
-9	0.079	0.126
-10	0.071	0.10
-11	0.063	
-12	0.056	
-13	0.050	
-14	0.045	
-15	0.040	
-16	0.0354	
dBm	**mV**	
-17	31.6	
-18	28.2	
-19	25.1	
-20	22.4	.01 mW
-21	19.9	
-22	17.8	
-23	15.8	
-24	14.1	
-25	12.6	
-26	11.2	
-27	10.0	
-28	8.9	
-29	7.9	
-30	7.1	.001mW
-31	6.30	
-32	5.6	
-33	5.0	
-34	4.5	
-35	4.0	
-36	3.5	
-37	3.2	
-38	2.82	
-39	2.5	
-40	2.24	.1µW
-41	2.0	
-42	1.8	
-43	1.6	
-44	1.4	
-45	1.26	
-46	1.12	
-47	1.00	
-48	0.89	

dBm	mV	µW
-49	0.79	
-50	0.71	.01 µW
-51	0.63	
-52	0.56	
-53	0.50	
-54	0.45	
-55	0.40	
-56	0.35	
-57	0.32	
-58	0.282	
-59	0.251	
-60	0.224	.001 µW
-61	0.199	
-62	0.178	
-63	0.158	
-64	0.141	
dBm	**uV**	
-65	126	
-66	112	
-67	100	
-68	89	
-69	79	
70	71	.1nW
-71	63	
-72	56	
-73	50	
-74	45	
-75	40	
-76	35	
-77	32	
-78	28	
-79	25	
-80	22.4	.01 nW
-81	19.9	
-82	17.8	
-83	15.8	
-84	14.1	
-85	12.6	
-86	11.2	
-87	10.0	
-88	8.9	
-89	7.9	
-90	7.1	.001 nW
-91	6.3	
-92	5.62	
-93	5.0	
-94	4.5	
-95	4.0	
-96	3.54	
-97	3.2	

dBm	µV	pW
-98	2.8	
-99	2.51	
-100	2.24	.1 pW
-101	2.0	
-102	1.8	
-103	1.6	
-104	1.41	
-105	1.26	
-106	1.12	
dBm	**nV**	
-107	999	
-108	890	
-109	793	
-110	707	.01pW
-111	630	
-112	562	
-113	501	
-114	446	
-115	398	
-116	354	
-117	316	
-118	282	
-119	251	
-120	224	.001pW
-121	199	
-122	178	
-123	158	
-124	141	
-125	126	
-126	112	
-127	100	
-128	89	
-129	79	
-130	71	.1fW
-131	63	
-132	56	
-133	50	
-134	45	
-135	40	
-136	35	
-137	32	
-138	28	
-139	25	
-140	22	.01fW