

dBm – Volts – Watts Conversion

(50ohm System)

dBm	V	Power	dBm	V	Power	dBm	mV	Power	dBm	μV	Power
+53	100.0	200W	0	0.225	1.0mW	-49	0.80		-98	2.9	
+50	70.7	100W	-1	0.200	0.80mW	-50	0.71	0.01μW	-99	2.51	
+49	64.0	80W	-2	0.180	0.64mW	-51	0.64		-100	2.25	0.1pW
+48	58.0	64W	-3	0.160	0.50mW	-52	0.57		-101	2.0	
+47	50.0	50W	-4	0.141	0.40mW	-53	0.50		-102	1.8	
+46	44.5	40W	-5	0.125	0.32mW	-54	0.45		-103	1.6	
+45	40.0	32W	-6	0.115	0.25mW	-55	0.40		-104	1.41	
+44	32.5	25W	-7	0.100	0.20mW	-56	0.351		-105	1.27	
+43	32.0	20W	-8	0.090	0.16mW	-57	0.32		-106	1.18	
+42	28.0	16W	-9	0.080	0.125mW	-58	0.286				
+41	26.2	12.5W	-10	0.071	0.10mW	-59	0.251		dBm	nV	
+40	22.5	10W	-11	0.064		-60	0.225	0.001μW	-107	1000	
+39	20.0	8W	-12	0.058		-61	0.200		-108	900	
+38	18.0	6.4W	-13	0.050		-62	0.180		-109	800	
+37	16.0	5W	-14	0.045		-63	0.160		-110	710	0.01pW
+36	14.1	4W	-15	0.040		-64	0.141		-111	640	
+35	12.5	3.2W	-16	0.0355					-112	580	
+34	11.5	2.5W				dBm	μV		-113	500	
+33	10.0	2W	dBm	mV		-65	128		-114	450	
+32	9.0	1.6W	-17	31.5		-66	115		-115	400	
+31	8.0	1.25W	-18	28.5		-67	100		-116	355	
+30	7.10	1.0W	-19	25.1		-68	90		-117	316	
+29	6.40	800mW	-20	22.5	0.01mW	-69	80		-118	285	
+28	5.80	640mW	-21	20.0		-70	71	0.1nW	-119	251	
+27	5.00	500mW	-22	17.9		-71	65		-120	225	0.001pW
+26	4.45	400mW	-23	15.9		-72	58		-121	200	
+25	4.00	32mW	-24	14.1		-73	50		-122	180	
+24	3.55	250mW	-25	12.8		-74	45		-123	160	
+23	3.20	200mW	-26	11.5		-75	40		-124	141	
+22	2.80	160mW	-27	10.0		-76	35		-125	128	
+21	2.52	125mW	-28	8.9		-77	32		-126	117	
+20	2.25	100mW	-29	8.0		-78	29		-127	100	
+19	2.00	80mW	-30	7.1	0.001mW	-79	25		-128	90	
+18	1.80	64mW	-31	6.25		-80	22.5	0.01nW	-129	80	
+17	1.60	50mW	-32	5.8		-81	20.0		-130	71	0.1fW
+16	1.41	40mW	-33	5.0		-82	18.0		-131	61	
+15	1.25	32mW	-34	4.5		-83	16.0		-132	58	
+14	1.15	25mW	-35	4.0		-84	11.1		-133	50	
+13	1.00	20mW	-36	3.5		-85	12.9		-134	45	
+12	0.90	16mW	-37	3.2		-86	11.5		-135	40	
+11	0.80	12.5mW	-38	2.85		-87	10.0		-136	35	
+10	0.71	10mW	-39	2.5		-88	9.0		-137	33	
+9	0.64	8mW	-40	2.25	0.1μW	-89	8.0		-138	29	
+8	0.58	6.4mW	-41	2.0		-90	7.1	0.001nW	-139	25	
+7	0.500	5mW	-42	1.8		-91	6.1		-140	23	0.01fW
+6	0.445	4mW	-43	1.6		-92	5.75				
+5	0.400	3.2mW	-44	1.4		-93	5.0				
+4	0.355	2.5mW	-45	1.25		-94	4.5				
+3	0.320	2.0mW	-46	1.18		-95	4.0				
+2	0.280	1.6mW	-47	1.00		-96	3.51				
+1	0.252	1.25mW	-48	0.90		-97	3.2				