dBm Conversion Chart

1. ***The most common measurement of RF signal levels is:*** **'dB over a miliwatt (dBm)'.**
2. **A signal level of '0 - dBm' equals '224 - millivolt (mV)' across '50 - ohm load'.**
3. **A '0 - dBm' signal level in 'Power' is:**
    a. **Power (P) equals (=) Voltage (E) Squared divided (/) by Ohms (Ω);**
    b. **P = 224 mV x 224 mV / 50 Ω = 50.176 mV / 50 Ω = 1 milliwatt (mW).**
4. **The following table provides conversion from dB to other measurements.**

dBm	dBmV	dBµV	µV/mV	dBm	dBmV	dBµV	µV/mV	dBm	dBmV	dBµV	µV/mV
+13	+60	+120	1000 mV	-34	+13	+73	4467 µV	-81	-34	+26	20.0 µV
+12	+59	+119	891 mV	-35	+12	+72	3981 µV	-82	-35	+25	17.8 µV
+11	+58	+118	794 mV	-36	+11	+71	3548 µV	-83	-36	+24	15.8 µV
+10	+57	+117	707 mV	-37	+10	+70	3162 µV	-84	-37	+23	14.1 µV
+9	+56	+116	631 mV	-38	+9	+69	2818 µV	**-85**	**-38**	**+22**	**12.6 µV**
+8	+55	+115	562 mV	-39	+8	+68	2512 µV	-86	-39	+21	11.2 µV
+7	+54	+114	501 mV	-40	+7	+67	2239 µV	-87	-40	+20	10.0 µV
+6	+53	+113	447 mV	-41	+6	+66	1995 µV	-88	-41	+19	8.91 µV
+5	+52	+112	398 mV	-42	+5	+65	1778 µV	-89	-42	+18	7.94 µV
+4	+51	+111	355 mV	-43	+4	+64	1585 µV	-90	-43	+17	7.07 µV
+3	+50	+110	316 mV	-44	+3	+63	1413 µV	**-91**	**-44**	**+16**	**6.31 µV**
+2	+49	+109	282 mV	-45	+2	+62	1259 µV	-92	-45	+15	5.62 µV
+1	+48	+108	251 mV	-46	+1	+61	1122 µV	-93	-46	+14	5.01 µV
0	+47	+107	**224 mV**	-47	0	+60	1000 µV	-94	-47	+13	4.47 µV
-1	+46	+106	200 mV	-48	-1	+59	891 µV	-95	-48	+12	3.98 µV
-2	+45	+105	178 mV	-49	-2	+58	794 µV	-96	-49	+11	3.55 µV
-3	+44	+104	158 mV	-50	-3	+57	707 µV	**-97**	**-50**	**+10**	**3.16 µV**
-4	+43	+103	141 mV	-51	-4	+56	631 µV	-98	-51	+9	2.82 µV
-5	+42	+102	126 mV	-52	-5	+55	562 µV	-99	-52	+8	2.51 µV
-6	+41	+101	112 mV	-53	-6	+54	501 µV	-100	-53	+7	2.24 µV
-7	+40	+100	100 mV	-54	-7	+53	447 µV	-101	-54	+6	
-8	+39	+99	89.1 mV	-55	-8	+52	398 µV	-102	-55	+5	
-9	+38	+98	79.4 mV	-56	-9	+51	355 µV	**-103**	**-56**	**+4**	**1.59 µV**
-10	+37	+97	70.7 mV	-57	-10	+50	316 µV	-104	-57	+3	
-11	+36	+96	63.1 mV	-58	-11	+49	282 µV	-106	-58	+2	
-12	+35	+95	56.2 mV	-59	-12	+48	251 µV	-107	-59	+1	
-13	+34	+94	50.1 mV	-60	-13	+47	224 µV	-108	-60	0	
-14	+33	+93	44.7 mV	-61	-14	+46	200 µV	**-109**	**-61**	**-1**	**.759 µV**
-15	+32	+92	39.8 mV	-62	-15	+45	178 µV	-110	-62	-2	
-16	+31	+91	35.5 mV	-63	-16	+44	158 µV	-111	-63	-3	
-17	+30	+90	31.6 mV	-64	-17	+43	141 µV	-112	-64	-4	
-18	+29	+89	28.2 mV	-65	-18	+42	126 µV	-113	-65	-5	
-19	+28	+88	25.1 mV	-66	-19	+41	112 µV	-114	-66	-6	
-20	+27	+87	22.4 mV	-67	-20	+40	100 µV	**-115**	**-67**	**-7**	**.399 µV**
-21	+26	+86	20.0 mV	-68	-21	+39	89.1 µV	-116	-68	-8	
-22	+25	+85	17.8 mV	-69	-22	+38	79.4 µV	-117	-69	-9	
-23	+24	+84	15.8 mV	-70	-23	+37	70.7 µV	-118	-70	-10	
-24	+23	+83	14.1 mV	-71	-24	+36	63.1 µV	-119	-71	-11	
-25	+22	+82	12.6 mV	-72	-25	+35	56.2 µV	-120	-72	-12	
-26	+21	+81	11.2 mV	**-73**	**-26**	**+34**	**50.1 µV**	**-121**	**-73**	**-13**	**.200 µV**
-27	+20	+80	10.0 mV	-74	-27	+33	44.7 µV	-122	-74	-14	
-28	+19	+79	8.91 mV	-75	-28	+32	39.8 µV	-123	-75	-15	
-29	+18	+78	7.94 mV	-76	-29	+31	35.5 µV	-124	-76	-16	
-30	+17	+77	7079 µV	-77	-30	+30	31.6 µV	-125	-77	-17	
-31	+16	+76	6310 µV	-78	-31	+29	28.2 µV	-126	-78	-18	
-32	+15	+75	5623 µV	**-79**	**-32**	**+28**	**25.1 µV**	-127	-79	-19	**.100 µV**
-33	+14	+74	5012 µV	-80	-33	+27	22.4 µV				