Umrechnungstabelle (1)

Leistung → dBm → Spannung in 50 Ω
Spannung → dBµV

Leistung →dBm → Spannung 50 Ω

$dBm = 10 \log (P/P_{Ref})$
wenn $P_{Ref} = 1$ mW
$V_{RMS} = \sqrt{P \times 50}$

Leistung	dBm	Spannung (RMS) in 50 Ω
1 kW	+ 60	224 V
100 W	+ 50	70.7 V
10 W	+ 40	22.4 V
1 W	+ 30	7.07 V
100 mW	+ 20	2.23 V
10 mW	+ 10	707 mV
1 mW	0	224 mV
100 µW	- 10	70.7 mV
10 µW	- 20	22.4 mV
1 µW	- 30	7.07 mV
100 nW	- 40	2.23 mV
10 nW	- 50	707 µV
1 nW	- 60	224 µV
100 pW	- 70	70.7 µV
10 pW	- 80	22.4 µV
1 pW	- 90	7.07 µV
100 fW	- 100	2.23 µV
10 fW	- 110	0.71 µV
1 fW	- 120	0.22 µV

Spannung → dBµV

$dB\mu V = 20 \log (V_{RMS}/V_{Ref})$
wenn $V_{Ref} = 1\,\mu V$

Spannung (RMS)	dBµV
10.0 V	140
3.16 V	130
1.00 V	120
316 mV	110
100 mV	100
31.6 mV	90
10.0 mV	80
3.16 mV	70
1.00 mV	60
316 µV	50
100 µV	40
31.6 µV	30
10.0 µV	20
3.16 µV	10
2.00 µV	6
1.41 µV	3
1.00 µV	0
0.708 µV	-3
0.501 µV	-6
0.316 µV	-10
0.100 µV	-20

01.2006