Decibel Conversion Calculator

HAMEG

CONVERSION dBm ⇄ mW • Vrms • y/x • cnt

• dBm @ 50 Ohm / 1mW •

Enter

0.00 dBm

Result

1.0000 mW

$P_{mW} = P_0 \cdot 10^{\frac{P_{dBm}}{10}}$

0.224 V_{rms}

$V_0 = \sqrt{R \cdot P_0} \cdot 10^{\frac{P_{dBm}}{20}}$

0.632 $V_{pp} = 2\sqrt{2}\, V_{rms}$

1.000 y/x

$V_{out} / V_{in} = 10^{\frac{dBm}{20}}$

1.000 mW

0.00 dBm

$P_{dBm} = 10 \cdot \log \frac{P_{mW}}{P_0}$

ppm

dB

0.00 dB

Bit

$dB_{bit} = 20 \cdot \log 2^{bit}$

0.224 V_{rms}

-0.00 dBm

$P_{dBm} = 20 \cdot \log \frac{V_0}{\sqrt{R \cdot P_0}}$

1 y/x counts

dB

0.00 dBm

$P_{dBm} = 20 \cdot \log \frac{V_{out}}{V_{in}}$

CONVERSION dB ⇄ % • ppm • Bit • y/x • cnt

100 % y/x 1E+02

>10³ ppm y/x 1E+06

1 y/x counts

Enter

0.00 dB ➡ 0.0 Bit

$Bit = \frac{dB}{20\log(2)} = \frac{dB}{6.02}$

CONVERSION dBµV ⇄ µV

• Vo = 1µV •

0.00 dB µV

1.0000 µV

$V = V_0 \cdot 10^{\frac{P_{dB\mu V}}{20}}$

1.00 µV

0.00 dBµV

$P_{dB\mu V} = 20 \cdot \log \frac{V}{V_0}$

Clear

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