

NTE1866 Integrated Circuit 5-Point LED VU Scale Bar Level Meter Driver

Description:

The NTE1866 is a monolithic integrated circuit in a 9-Lead SIP type package designed for use as an LED level meter driver for radio cassette recorders and other audio products.

Features:

- Rectifying amplifiers are used to allow operation by AC or DC input.
- The wide display range covers -13dB to +17dB, enabling the display of even signals with wide dynamic range.
- The drive current for the LEDs is regulated, eliminating LED current variations with supply voltage variations.
- The reference voltage is built in to eliminate output display variations with variations of supply voltage.
- Wide supply voltage range (3.5V to 16V) enables a wide range of applications.

Applications:

- VU meters
- Signal meters
- Other display devices

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Power Supply Voltage, V_{CC}	18V
Power Dissipation, P_D	800mW
Derate Above 25°C	6.4mW/ $^\circ\text{C}$
Junction Temperature, T_J	+150 $^\circ\text{C}$
Operating Temperature Range, T_{opr}	-25 $^\circ$ to +70 $^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55 $^\circ$ to +125 $^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 12\text{V}$, $f = 1\text{kHz}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Voltage	V_{CC}		5.5	12.0	16.0	V
Quiescent Current	I_Q		–	7	12	mA
Display Range	Range 1	V_{C1}	–16	–13	–9	dB
	Range 2	V_{C2}	–9	–7	–4	dB
	Range 3	V_{C3}	–	0	–	dB
	Range 4	V_{C4}	+7	+10	+12	dB
	Range 5	V_{C5}	+13	+17	+19	dB
Input Voltage	V_{IN}		21	47	62	mV _{rms}
LED Current	I_{LED}		11.0	15.0	18.5	mA
Input Current	I_{IN}		–	0.3	1.0	μA

Pin Connection Diagram
(Front View)

