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## 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 $25^\circ\text{C}$ .....	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 <sub>rms</sub>
LED Current	$I_{LED}$		11.0	15.0	18.5	mA
Input Current	$I_{IN}$		–	0.3	1.0	$\mu\text{A}$

**Pin Connection Diagram**  
(Front View)

