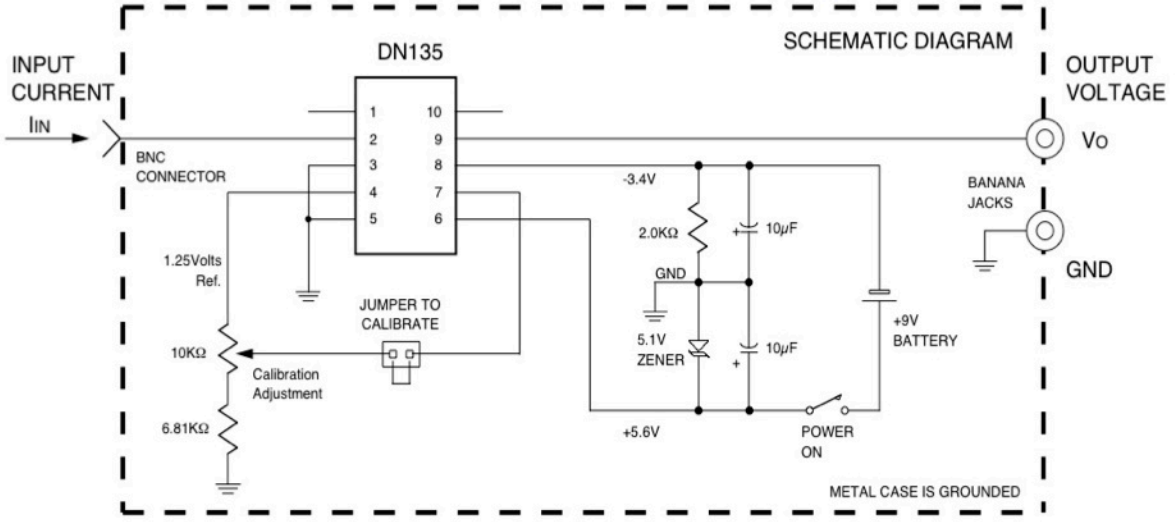
DATA SHEET

DN135 LOGARITHMIC CURRENT TO VOLTAGE CONVERTER EVALUATION KIT

DN135 EVK

The DN135EVK is a logarithmic current to voltage converter with a BNC input connector. The output voltage is brought out on banana jacks. The power to the unit is supplied by a single 9 volt battery. A schematic of the DN135EVK is shown below. This kit is designed to assist the first time user to evaluate the performance of the DN135. This device is capable of measuring current levels as low a 10pA which means that good shielding and printed circuit layout a must if optimum performance of the device is to be achieved. The DN135 is in a socket so that other DN135 devices can be tested using the fixture.



Output Voltage vs. Input Current for the DN135EVK when Calibrated at 1μA of Input Current and TA = 25°C.

INPUT CURRENT	OUTPUT VOLTAGE		
Amperes	Volts		
	Min	Typ	Max
1 mA	4.000	4.010	4.020
100 μA	3.500	3.502	3.503
10 μA	2.998	3.000	3.002
1 μA	2.500	2.500	2.500
100 nA	1.997	2.000	2.003
10 nA	1.496	1.500	1.504
1 nA	0.995	1.000	1.005
100 pA	0.494	0.500	0.506
10 pA	0.002	0.020	0..050

FEATURES

- 70dB DYNAMIC RANGE
- CONVERTS CURRENT LEVELS FROM 100pA to 1mA
- 0.500 VOLTS OUTPUT PER DECADE INCREASE IN OPTICAL POWER
- OPERATES FROM ± 5 VOLTS SUPPLIES

I/O Equations

$$V_O = \frac{\text{Log}(I_{IN})}{2} + 5.5 \text{ VOLTS}$$

$$I_{IN} = 10^{(2V_O - 11)} \text{ AMPERES}$$