

Technology for transfer

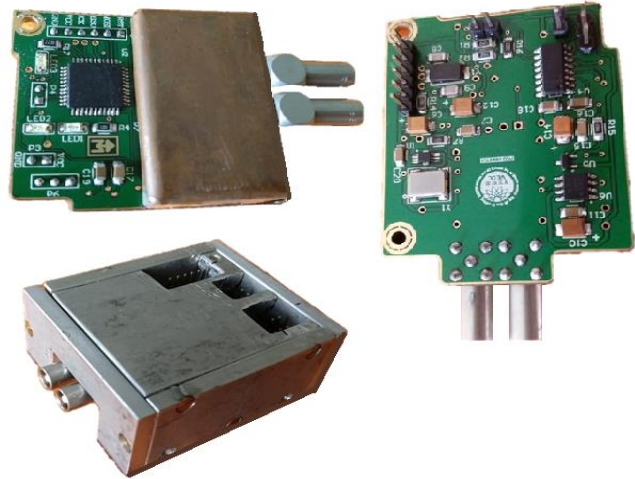
Name/Title - **Digital Mini Pico Ammeter**

Technology Code - **AI001CIG**

Regular Technology Transfer fee (without Royalty) - Rs. **26,000/-**

DIGITAL MINI PICO-AMMETER

A digital pico-ammeter is a low-current measuring device with automatic range selection. It has two channels, which are scanned at a selectable sampling rate using an AVR-based microcontroller. The measured current values are filtered and calibrated by software, and can be viewed on the display or accessed through a serial communication interface. Each channel can measure currents from 1 pA to 1.8 μ A. The internal capacitor-based ranges (1–7) measure from 1 pA to about 615 nA, while the external capacitor-based range (range 0) covers 615 nA to 1.8 μ A. The instrument automatically selects the appropriate range for each channel. Extra features are available through the serial communication interface.



Features:

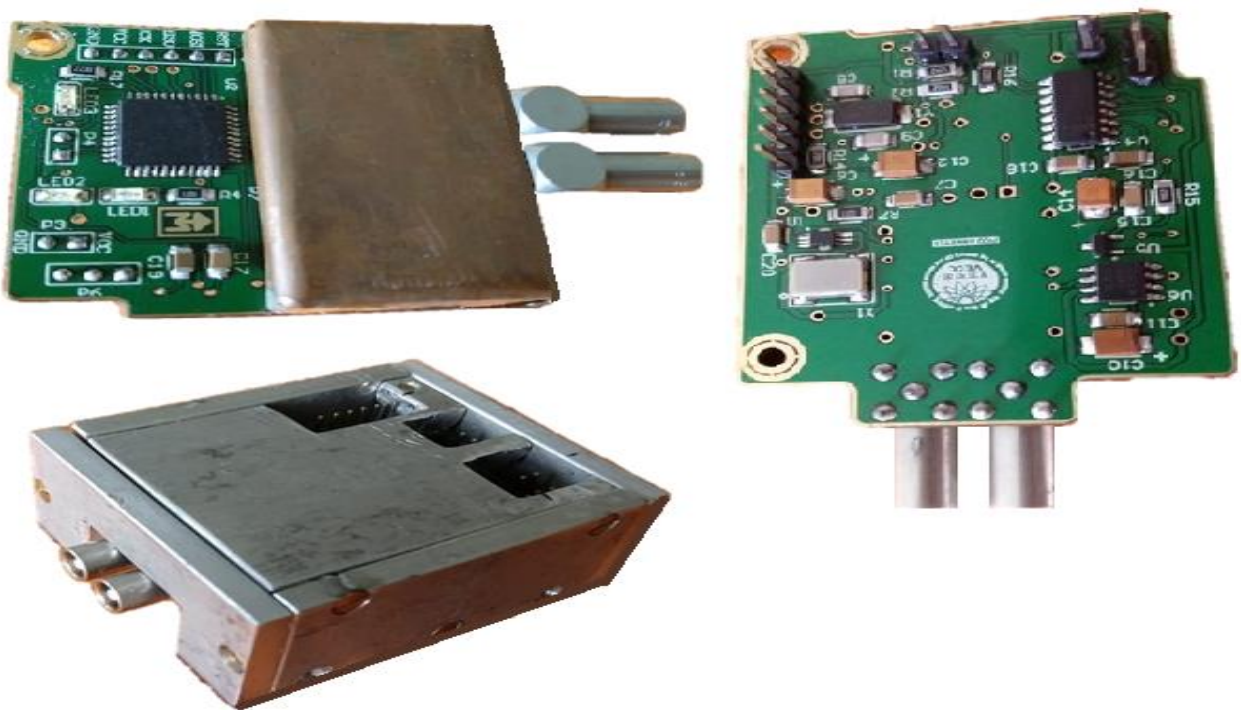
- Measures current from 1pA to 1.8 μ A
- 2 input channels
- ATmega based μ -controller oriented design
- Local display using multiline LCD
- PC interface through RS232 serial port
- Fully automated operation

Technical Specifications:

Range (Unipolar)	1pA to 1.8 μ A(Auto selected)
Resolution	20 bit of full scale for a particular range
Accuracy	0.1% FSR
Polarity of input	Positive only
Display	4-line LCD panel
Communication Port	RS232
Input connection	LEMO
Protection	Absolute rating 750 μ A but recommended below 3 μ A.
Power Supply	5V DC

DIGITAL MINI PICO-AMMETER

A digital pico-ammeter is an auto-ranging instrument designed for low-current measurements. It features two channels, which are scanned at a user-selectable sampling rate by an AVR-based microcontroller. The measured current values are processed through software filtering and calibration, and are made available both on a local display and via a serial communication interface. Each channel is capable of measuring currents in the range of 1 pA to 1.8 μ A. The internal capacitor-based measurement ranges (ranges 1–7) cover currents from 1 pA to approximately 615 nA. The external capacitor-based range (range 0) extends the measurement capability from 615 nA to 1.8 μ A. Range selection is performed automatically and independently for each channel. Additional functionalities can be accessed through the serial communication interface.



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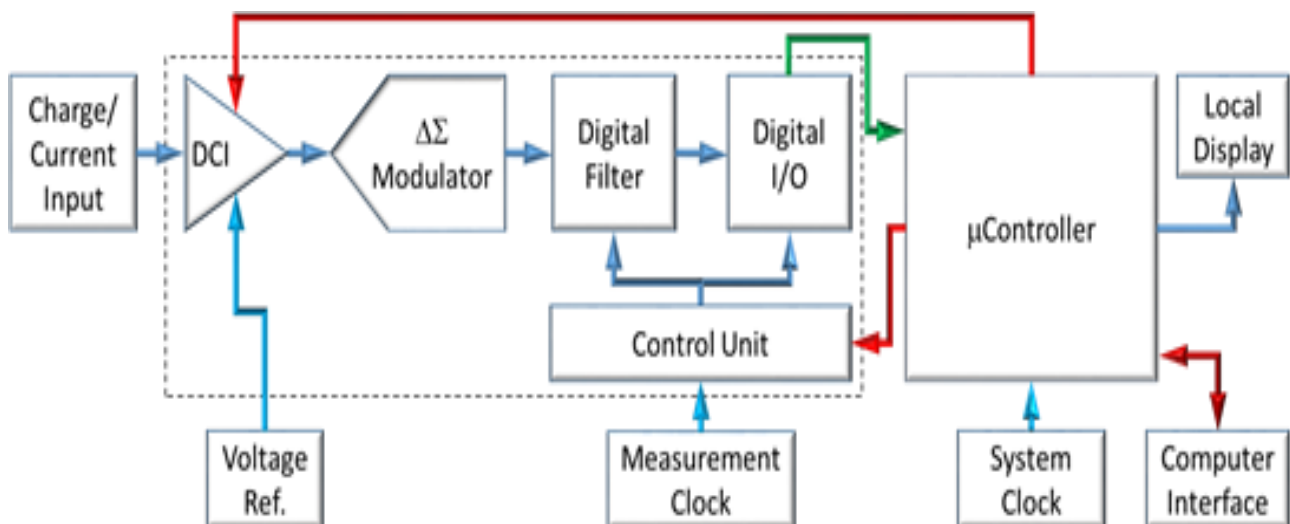
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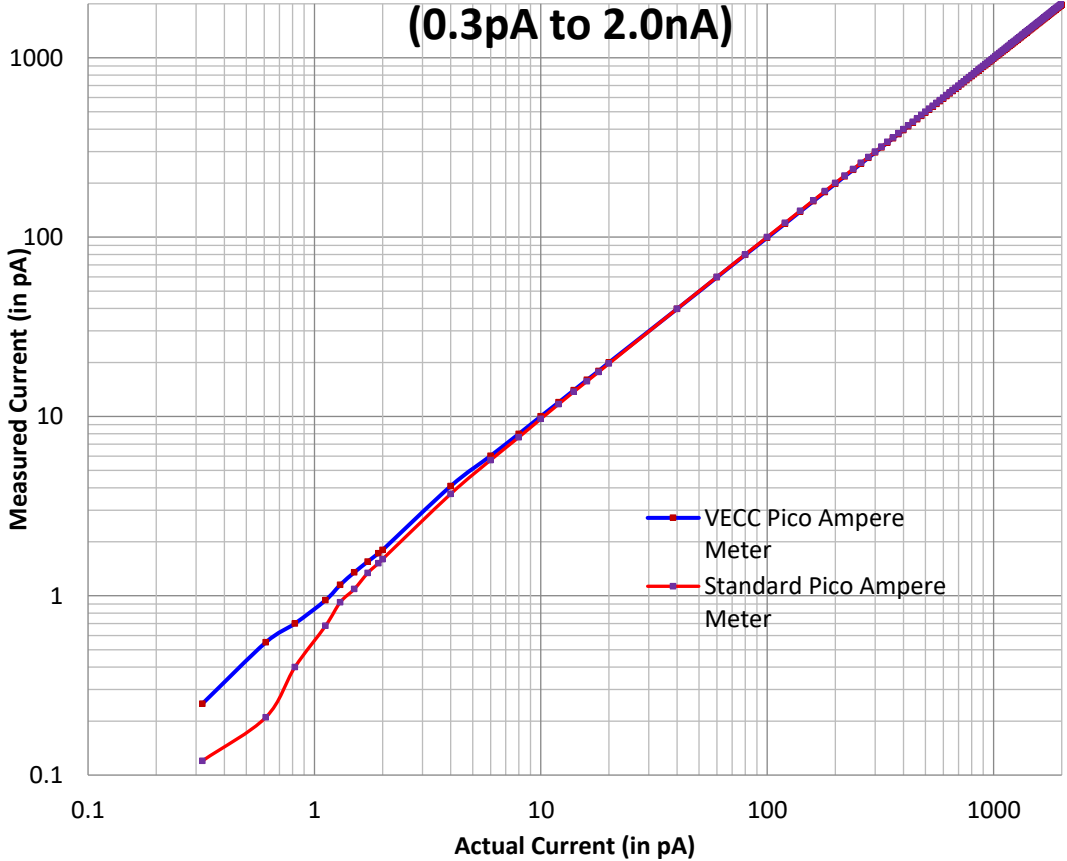
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Internal Block diagram:



Comparison Chart with Standard pA Meter (0.3pA to 2.0nA)



Comparison Chart with Standard pA Meter (1nA to 2μA)

