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ATM90E32AS Demo Board

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ATM90E32AS Poly-Phase Energy Metering Demo is used for the demo and testing of ATM90E32AS (poly-phase energy metering AFE chip of Atmel), which can sample poly-phase voltage and current, meter active/reactive/apparent/fundamental/harmonic energy and output these energy pulses accordingly, as well as measure parameters such as voltage, current and power.

The AFE Control Board - SAM4C communicates with and controls the AFE board, providing easy access to evaluate the energy metering chips.

Key Features

AFE Board

- **ATM90E32AS: poly-phase energy metering AFE chip**
- **Voltage sampling: resistor divider network**
- **Current sampling: Current Transformer (CT) or Rogowski Coil for current sensor**
- **Energy pulses**
 - Active energy pulse indicator and isolated output
 - Reactive energy pulse indicator and isolated output
 - Apparent energy pulse indicator and isolated output
 - Fundamental energy pulse indicator and isolated output
 - Harmonic energy pulse indicator and isolated output
- **One communication connector**
- **Crystal: 16.384MHz**
- **Power supply for demo board**
 - AC 100V-240V line voltage input
 - DC 9V input
 - External 3.3V input

Control Board

- **Atmel® SAM4C microcontroller**
- **Two possible power sources**
 - External DC9V
 - External 3.3V from the daughter board
- **Digital I/O**
 - Five mechanical buttons
 - One reset button
 - Two switch buttons for display (including forward and backward button)
 - Two wake up buttons (one is FWUP, the other is TMP0)
 - One extension header
 - One communication connector
- **Segment LCD display**
- **Five types of communication interfaces**
 - One USB
 - One RS485
 - One RS232
 - One Infrared Radiation (IR)
 - One Optical Infrared Radiation (OIR)
- **One EEPROM**

Ordering Information

Ordering Code	Atmel Store Availability ¹	Unit Price ²	Buy Online
ATM90E32AS-DB			Check Distributor

¹Backlog orders can be placed for items currently not available.

²Suggested retail price per unit for budgetary use only.

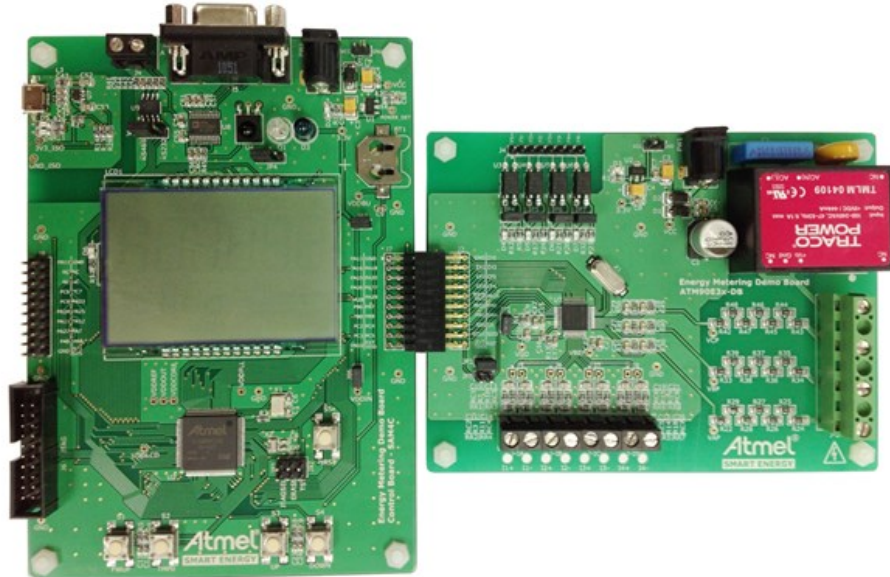
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