

Part Number: ATM90E2x-DB

ATM90E26 DEMO BOARD

AFE Board

- **ATM90E26: single-phase energy metering AFE chip**
- **Voltage sampling: resistor divider network**
- **Current sampling**
 - Shunt resistor or Current Transformer (CT) for L line current
 - Current Transformer (CT) for N line current
- **Energy pulses**
 - Active energy pulse indicator and isolated output
 - Reactive energy pulse indicator and isolated output
- **One communication connector**
- **Crystal: 8.192MHz**
- **Power supply for demo board**
 - AC 100V-240V line voltage input
 - DC 9V power input
 - External 3.3V input

Control Board

- **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**

Overview

ATM90E26 Single-Phase Energy Metering Demo Board is used for the demo and testing of ATM90E26 (single-phase energy metering AFE chip), which can sample single-phase voltage and current, meter active/reactive energy and output active/reactive 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.