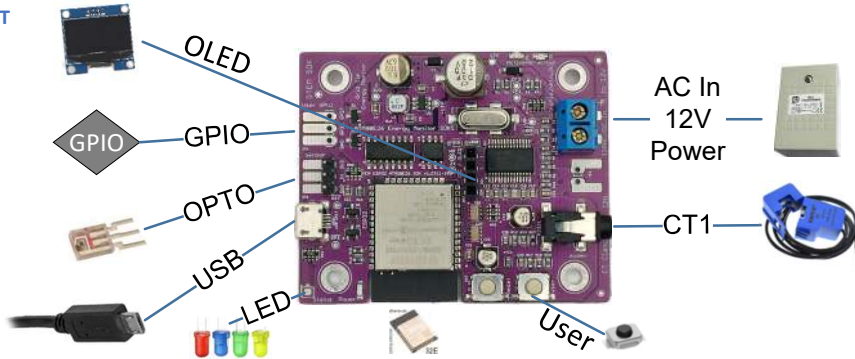


GTEM

• GTEM 32E-M90E26-PCB ANT



ATM90E26
1 x Phase (E26)



ATM90E26 Main Power Energy Monitor.
Single Phase Current Clamp.
Single Phase Voltage Input.
AC Power 12V Input.
ESP32-WROOM-32 MCU (32E Only).
24C64 EEPROM (Parameters, Logging etc.)
USB Interface (*Wemos D1 Compatible*)
OPTO Input. NTC Temperature. User GPIO. OLED.
Requires Calibration.



IPEM

- IPEM 32E-M90E32-PCB ANT
- IPEM 32E-M90E36-PCB ANT
- IPEM 32UE-M90E32-EXT
- IPEM 32UE-M90E36-EXT

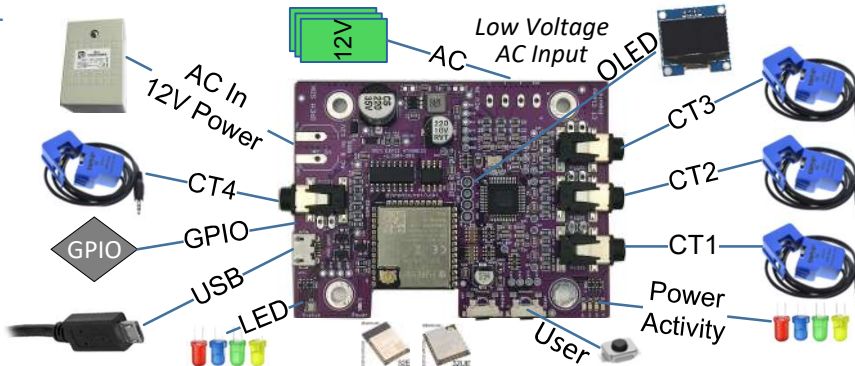


ATM90E32

3 x Phase(s) (E32)
1 x ADC(ESP32)

ATM90E36

3 x Phase(s) (E36)
1 x Neutral (E36)



ATM90E32 or E36 Main Power Energy Monitor.
Three Phase, or 3 x Single Phase Current Clamp.
Single, Split or Three Phase Voltage Inputs.
Separate CT4 interfaces to E36-IN or ADC-ESP32.
AC Power 12V Input for Safety Which Provides
Power to Board and AC Voltage Sensing.
ESP32-WROOM-32 MCU (32E or 32UE).
24C64 EEPROM (Parameters, Logging etc.)
USB Interface (*Wemos D1 Compatible*)
UART Interface. NTC Temperature. User GPIO. OLED.



IPEC

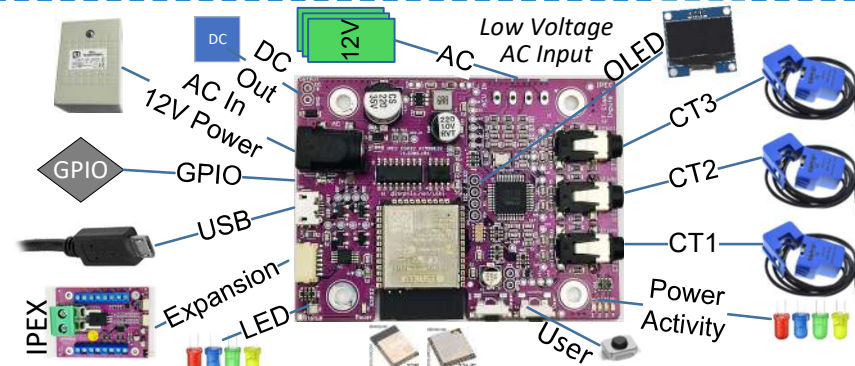
- IPEC 32E-M90E32-PCB ANT
- IPEC 32UE-M90E32-EXT



ATM90E32

3 x Phase(s) (E32)

Expansion Port Output
PWM MPWM DAC
and MPPT is
Auto Controllable
From CT Current
Power



ATM90E32 Main Power Energy Monitor.
Three Phase, or 3 x Single Phase Current Clamp.
Single, Split or Three Phase Voltage Inputs.
Expansion Socket with PWM, DAC, MPWM, MPPT, I2C
AC Power 12V Input for Safety Which Provides
Power to Board and AC Voltage Sensing.
ESP32-WROOM-32 MCU (32E or 32UE).
24C64 EEPROM (Parameters, Logging etc.)
USB Interface (*Wemos D1 Compatible*)
UART Interface. NTC Temperature. User GPIO. OLED.



AC Input (12V)

- * The ATM Chip needs a LOW Voltage AC input to provide sync with 50Hz Mains Frequency and Sinewave Phase.
- * This can be a Single, Split or Full Three Phase (Y or Δ).
- * Three Phase needs 3 x AC In.

AC Power Supply

- * For Safety, all boards operate on LOW Voltage derived from a SELV / Wall AC/AC Power Supply. The on-board AC-DC PSU provides the circuits DC.
- * Recommended 12V AC In
- * *Example GreenBrook DAT01A or TLC TC TR7 .*

Recommended

- * The YHDC Current Transformer SCT-013-000 (100A/50mA), is recommended.
- * The AC Input Voltage must be via transformer for Galvanic Isolation. Single AC Power Input also provides AC Sync.

IPEM CT4 Input

- * This CT4 is a spare Current CT Clamp Input. With E36, this can linked to the Neutral I4 Input.
- * On E32, or E36, CT4 can optionally linked to The ESP32 ADC and Use the EmonLib.

Mains and Solar Power Energy Monitor Boards SDK Overview

GTEM, IPEM and IPEC Board Topology



DitroniX.net
IoT Smart Home
Energy Automation

DitroniX.net

(c)2023 DitroniX | Dave Williams