



# Esensors

## Web Power Meter PM21

### Description

The PM21 digital power meter from Esensors provides a highly accurate, cost effective solution for advanced power metering applications. With integrated Wi-Fi/ wired LAN options, PM21 transmits the data through the Ethernet using a built-in TCP/IP Stack. Data is measured continuously and can be viewed using the built-in web interface. Data can also be polled using network monitoring software (eg. Nagios) that may be configured with preset thresholds to setup email alerts.



### Features

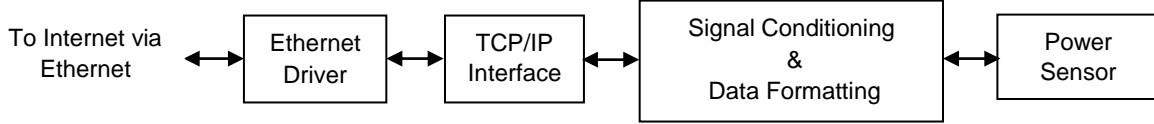
- Energy Data linearity:  $\pm 0.1\%$  of reading over 1000:1 dynamic range.
- Available data includes
  - RMS voltage and Current
  - Power factor
  - Active, reactive, harmonic and fundamental power
  - Line Frequency
  - Energy
- Onboard Temperature sensor
- Built-in Web interface
- Standard XML /HTTP data outputs
- Web enabled Load-Shut-off relay
- Optional Real Time Clock, High accuracy temperature and humidity sensors.
- Compatible with any 10/100 Mbps network, 802.11b Wi-Fi capable
- Remote monitoring via Internet
- Supports DHCP, TCP/IP, ICMP protocols.
- Open Source Plug-ins in C language.
- Works with Nagios, Multi Router Traffic Grapher monitoring software.

### Technical Specs

Parameter	Range	Accuracy*
Voltage	85 – 265 V	0.2%
Current	0 – 15 A	0.2%
Power Factor	0 – 1	+/-0.01
True Power	0 – 1800 <sup>†</sup> W	0.25%
Apparent Power	0 – 1800 <sup>†</sup> VA	0.25%
Reactive Power	0 – 1800 <sup>†</sup> VAR	1%
Harmonic Power	0 – 1800 <sup>†</sup> W	1%
Energy	0 – 999,999 kWhr	0.25%

\*After Calibration † At 120V continuous operation.

## PM21 Block Diagram



## PM21 Web Interface screenshot



### Web Power Meter PM21 Ver.1 Application

Overview

Sensor Status

Visualizing Outputs

Network Configuration

**Connected to: Esensors**  
**Device Serial Number:** 702245B  
**Device Status:** OK  
**Temperature:** 82.5 F  
**Humidity(%):** 34.2%  
**Illumination(Lx):** 147  
**Voltage (Volts):** 118.41  
**Current(Amps):** 0.004  
**Power Factor:** 0.000  
**Apparent Power(VA):** 0.56  
**True Power(W):** 0.00  
**Avg Reactive Power(VAR):** -0.02  
**Energy (kWhr):** 7.09  
**Period Energy (kWhr):** 6.87  
**Harmonic Active Power(W):** 0.00  
**Chip Temperature:** 65.78 F  
**Power LED:** ●  
**Activity LED:** ●  
**Buttons:** A

Change Temperature Unit

Clear Period Energy