SmartPower M50 Node

PRODUCT OVERVIEW

Problem: Restaurants, dormitories, hotels, offices, and homes want to manage their electrical bills efficiently. They need to have real-time electrical power consumption information and to be able to turn off and turn on power upon request from a centralized PMS server. The system should provide sufficient level of automation to turn on and turn off power based on time, usage, and account status.

Solution: SysMaster Corporation offers an inexpensive business SmartPower M50 Node that has WiFi 802.11n interface, USB port, and multiple Ethernet ports. The device can function as a stand-alone unit to control remotely single and multiphase power meters using its integrated Linux software. The device controls the power meters using either wireless ISM 866Mhz link or RS232/RS485 cable. It can also work with a centralized Power Management Server (PMS) using secure VPN connection. The device can control, monitor, and manage electrical appliances in real- time with time or usage based billing algorithms.

Management of Power Meters with built-in master switch

SmartPower M50 Node supports an advanced single phase or multiphase power meters that can measure the consumed electricity and supply the data to the local database or the central Power Management Server. SmartPower M50 Node can manage and collect data from multiple power meters. In addition, the device can send commands to setup the internal clock, turn on and turn off the built-in master switch, and reset energy counters.

Power Management software with time and usage management

SmartPower M50 Node supports integrated advanced software that can collect power meter data and send commands to the managed power meters via ISM Wireless or serial protocols. The software will allow power management and time and usage based billing. It supports automatic management of the power meters based on time of day, and usage quota and automatically turns on and turns off power if configured.

Support for ISM Wireless and RS232/RS485 connection

SmartPower M50 Node supports USB port that can allow interface to ISM Wireless USB dongle to send the wireless data and commands from/to the managed power meters. The ISM Wireless connection allows greater distance between the M50 node and the managed power meter. SmartPower M50 Node can also interface the power meters using RS232/RS485 serial converter. This protocol requires a physical 4-wire cable to connect to each managed power meter.

Linux OS with support for secure VPN server connection

SmartPower M50 Node supports integrated Linux software with high-level of security. The node can interface from behind firewall or NAT network to a central server using VPN (virtual private network) encrypted connection. This will allow secure and reliable connectivity and real-time management of all power meters from the central Power Management Server (PMS).

◼ KEY FEATURES

- ☐ Management of Power Meters with built-in master switch

- ☐ Power Management software with time and usage management

- ☐ Support for ISM Wireless and RS232/RS485 connection

- ☐ Linux OS with support for secure VPN server connection

- ☐ Wireless 802.11n, WAN and LAN network interfaces

- ☐ DHCP services with Private IP address assignment

- ☐ Web administration and configuration

Wireless 802.11n, WAN, and LAN network interfaces

SmartPower M50 Node supports multiple interfaces such as Wireless 802.11n, WAN, and LAN interfaces. The router can be easily integrated with any type of ADSL, 3G, or cable modem. The integration is similar to the one supported by most popular Wifi routes available on the market. All supported interfaces can be authenticated and secured utilizing different security mechanisms

DHCP services with private IP address assignment

SmartPower M50 Node supports DHCP services and allows assignment to multiple private IP addresses using the Wireless and LAN interfaces. This allows seamless connection via Wireless devices as well as wired local PC computers.

Web administration and configuration

SmartPower M50 Node supports advanced web management to provide selection among various network options, dialogs, and power management options. The Web interfaces is user friendly and easy to navigate and use.

Technical Specifications *

Dimensions:
139mmx85mmx24mm

150Mbps WiFi b/g/n
4x 10/100Mbps LAN Ports
1x 10/100Mbps WAN Port
SoC : MT7620N
CPU : 400Mhz
RAM : 64MB
Flash : 16MB
WiFi : IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
2x5dbi Antennas
Frequency : 2.4-2.4835GHz
Wireless Functions : Enable/Disable Wireless Radio, WDS Bridge, WMM, Wireless Statistics
Wireless Security : 64/128/152-bit WEP / WPA / WPA2,WPA-PSK / WPA2-PSK
Advanced Power Management Software
Advanced Linux Operating System

WAN Type : Dynamic IP/Static IP/PPPoE/PPTP/L2TP/BigPond
DHCP : Server, Client, DHCP Client List,Address Reservation
Quality Of Service : WMM, Bandwidth Control
Port Forwarding : Virtual Server,Port Triggering, UPnP, DMZ
Dynamic DNS : DynDns, Comexe, NO-IP
VPN Pass-Through : PPTP, L2TP, IPSec (ESP Head)
Access Control : Parental Control, Local Management Control, Host List, Access Schedule, Rule Management
Management : Access Control, Local Management, Remote Management

* Specifications subject to change without notice.

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