Main Benefits

- *Provides complete home coverage by integrating wired and wireless solutions*
- *Enhances performance by enabling ideal Access Point location*
- *Allows communication between multiple Access Points*
- *Integrates wired and wireless keeps mobility of portable devices alongside wired connections to desktop devices*
- *Enhances security of the wired segments of the system*

Description

The SRC-10AP802B outlet system integrates the Smart 10BaseT Outlet and an IEEE-802.11b Wireless Access Point. The combination of the two devices to a single integrated device allows users to benefit from both wired and wireless solutions. Existing phone wires are used to form an Ethernet Home Backbone that can deliver reliable broadband distribution. The IEEE-802.11b Wireless Access Point add-on enables mobile devices to be connected to the same Broadband backbone, with maximum mobility and accessibility.

The Wireless Access Point can be located at any location in the house that has a phone outlet. This gives the user the flexibility to place the Access Point in an optimized location (i.e. not necessarily next to the broadband connection) in order to obtain full house coverage.

The system allows multiple Wireless Access Points to be connected via the phone wires. Multiple Access Points are required when one Access Point cannot provide the required coverage. Home walls and metal poles can reduce bandwidth transmission and may even cause communication failure. By locating one or more SerCoNet Wireless Access Points within a short range of the mobile device, the user can enjoy a much higher bandwidth and reliable communication.

The EUT consists of two units:

- **Wireless Access Point (WAP) Unit, Model SRC-10AP802B**
- **Smart Outlet Unit (OU), Model SRC-10MPS**

The SRC-10MPS is electrically connected to the SRC-10AP802B by a short, 0.2 meter long, unshielded twisted pair and mechanically mounted onto the SRC-10AP802B.
The Access Point is a long-range, high performance LAN product, which provides Access Point services to a 2.4GHz RF network and bridges to an Ethernet backbone. It receives data from both networks, stores them locally for further processing, installs and maintains connections, and transmits the packets to the proper destination.
This Wireless LAN Access Point connects computers and laptops to your local network through wireless connection. The Radio Frequency (RF) waves link the wireless clients to the Access Point, and the Access Point works as a bridge between the wireless clients and the wired LAN or Ethernet clients.
The Wireless LAN Access Point is compliant with the IEEE 802.11 / IEEE 802.11b DSSS specification and is Wi-Fi certified. Thus all wireless clients, even from different vendors, that meet the 802.11b standard can access your Ethernet network through this Wireless Access Point. Also, with throughput performance of up to 11 Mbps, the wireless connection is as efficient as the wired connection. The wireless LAN security is provided through its WEP (Wireless Equivalent Privacy) support.
The Wireless LAN Ethernet Card, model RT230W-D58, which is installed in the WAP Unit,
Model SRC-10AP802B, is manufactured by Askey Computer Corp. (Taiwan).
The 2dBi, 2.4 GHz dipole antenna, model D2R01001-103, produced by Antenniques Co. Ltd., is permanently soldered to the RT230W-D58 Wireless LAN Ethernet Card.

Hardware

- CPU Ubicom IP2022
- 256KB SRAM
- 128KB Flash Memory
- 802.11b: Intersil Prism 2.5 (ISL3873A, HFA3783, ISL3685, and ISL3984)
- Support Dual antenna diversity system

Interface

- One 10 Base-T RJ-45 with MDI Ethernet LAN port

Power and Environmental Requirement

- 5V DC, 1A
- Temperature: 0 to 45°C (operation), -20 to 70 °C (storage)
- Relative Humidity: 5% to 90% (non-condensing)

Electromagnetic Compliance

- FCC Part 15 Class B

Software Features
LAN Port Features

- DHCP Client
- IP address is able to set and change

Security Features

- Wireless support WEP (Wired Equivalent Privacy) uses RC4 with 64 and 128 bit key length
- Support IP packets filtering based on IP address, Port number, and Protocol

Wireless LAN Features

- Fully compatible to 802.11b standard
- Direct Sequence Spread Spectrum (DSSS) technology is exploited
- Seamless roaming within wireless LAN infrastructure
- Low power consumption for wireless clients via efficient power management
- Supported bit rate: 11Mbps, 5.5Mbps, 2Mbps, 1Mbps
- Modulation:
  11Mbps and 5.5Mbps: CCK
  2Mbps: DQPSK
  1Mbps: DBPSK
- Number of channels
  11 channels in 2412 – 2 462 MHz range

Configuration and Management Features

- Configurable through Web Browser via LAN
- Software is upgradeable