Wireless LAN Platform

2.4 GHz, 802.11b

Features

Breadth of Applications
- Wireless connectivity for a wide range of applications, including PCs, networked set-top boxes, residential gateways, personal video recorders (PVRs), DVD players, wireless MP3 players, mobile web pads, digital audio and video jukeboxes, and other Internet appliances
- Multiple system-on-a-chip (SOC) controllers, each optimized for specific product applications
- Low cost, small form factor Cresta3 radio design, meeting even the most constraining size restrictions of Mini PCI products

Multimedia-Capable
Cirrus Whitecap™2 Network Protocol
- Wi-Fi (802.11b) compliance and interoperability with wireless LAN standards
- Contention-free access and dynamic stream support for superior usable throughput
- Parameterized quality of service (QoS) to support multimedia distribution and ensure delivery of isochronous/time-dependent content
- Peer-to-peer communication among multiple devices for efficient bandwidth utilization

Interference Immunity
- Forward Error Correction (FEC) to repair corrupted packets "on the fly" during transmission
- Channel agility to avoid in-band interference from household appliances, such as microwave ovens and cordless phones
- Range and fade margin for coverage throughout the home; full 11 Mbps throughput up to 150 feet through floors, doors, and walls

Ease of Use
- Open enrollment for easily adding devices to the network
- Mesh topology to eliminate need for access point
- Coordinator redundancy to prevent single point of failure
- Protocol and firmware update to take advantage of new capabilities.

Scalability
- Backward-compatibility with current Whitecap1-based products
- Forward-compatibility with 802.11e
- Foundation for future features, devices, and services

The Cirrus Bodega wireless LAN platform provides all the necessary design components to build consumer-friendly wireless home network products. This platform meets the requirements for wireless distribution of entertainment content (e.g. MPEG-2 video and CD-quality audio), making it an ideal solution for the home environment. It incorporates Cirrus' Whitecap™2 network protocol, which is the only Wi-Fi (802.11b) compliant solution that meets the unique needs of the consumer market, including multimedia support, interference immunity, and ease of use.

The Cirrus Bodega platform offers a unique opportunity for quick time-to-market delivery of differentiated Wi-Fi products. With its consumer-friendly attributes, this platform offers the best Wi-Fi solution for the home and SOHO environments. It combines the CS22200 series of network controllers, Whitecap2 network protocol, Cresta3 low cost 802.11b radio design, and a family of system reference designs to help OEMs and service providers easily implement cost-effective and consumer-friendly wireless networking solutions.

For more information, visit us at www.cirrus.com

Platform Components

The Cirrus Bodega platform includes the following components:

- Cirrus CS22200 Series Network Controllers
  - Cirrus CS22210 Wireless PCI/USB Controller
  - Cirrus CS22220 Wireless PCMCIA Controller
  - Cirrus CS22230 Wireless Mini PCI Controller
  - Cirrus CS22250 Wireless 10BT Controller
  - Cirrus CS22270 Wireless Multi-Link Controller
- Cirrus Whitecap™2 Network Protocol
  - Wi-Fi (802.11b) Compliance
  - Multimedia and QoS Extensions
  - Network Management Suite
  - Host Drivers
- Cresta3 Radio Reference Designs
  - Highly integrated RF designs for low cost, small form factor, 802.11b-compliant radio

System Reference Designs

Customers can develop and implement wireless network solutions quickly with the following reference designs:

PCMCIA Reference Design - Network interface card for mobile devices such as laptops, web pads, and other remote applications.

Bridge/Access Point Reference Design - Bridging device for connecting a 10Base-T Ethernet backbone to a wireless network. Can also serve as a centralized access point for the wireless network.

USB Reference Design - Network interface module for PCs, laptops, cable modems, and other devices supporting a USB interface.

Mini PCI Reference Design - Network interface card for laptops and other mobile devices using a small form factor Mini PCI interface.

PCI Reference Design - Network interface card for PCs and other client devices using a PCI interface.

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