

# EUT Description

FCC ID: CH89100VMXX-10 Hardware Rev [A90-9100X](#)

## 1 PERMISSIVE CHANGE DESCRIPTION

The A90-9000X series router has the same function as the previous model A90-9100VM15-10 approved under grant CH89100VMXX-10, except the Ikanos VDSL transceiver has been replaced by a Infineon VINAX DSL transceiver chipset. The new model is built with the same 802.11G radio transceiver as the existing models covered under grant CH89100VMXX-10.

## 2 FCC 15.203 ANTENNA REQUIREMENTS

The antenna uses a reverse polarity SMA Connector. The connector is not readily available to public. Therefore it meets the 15.203 Requirement.

## 3 OVERVIEW

The UltraLine™ Series3 is a wireless router. It combines previously disparate technologies into one integrated, high-performance residential gateway that delivers the most comprehensive set of broadband services, including IPTV, media sharing, home monitoring, and remote device management. The UltraLine™ Series3, with WireSpeed™ routing technology, is one of the only residential gateways in its class with a highly integrated System-on-Chip (SoC) processor optimized for wired and wireless applications. The dual-core microprocessor employs two powerful CPUs that can be individually programmed to simultaneously support a wide range of consumer applications. Dual-core processing power not only delivers the best possible IP video experience, but it also enables integration of supplementary applications such as media sharing, home monitoring, Voice over IP (VoIP), and remote device management. These supplementary applications offer service providers a platform to deliver new broadband services that drive new revenue streams while increasing subscriber satisfaction and retention.

Home Networking / Video / Home Monitoring & Control / Media Management

Product Highlights

- WireSpeed™ routing technology, with dual-core microprocessors, supports simultaneous delivery of high-bandwidth applications and enables nearly 200,000 packets per second performance
- Context-driven interface provides unrivaled user experience across connected devices, including television, computer, and smartphone
- Intelligent smart antenna system maximizes wireless reach and minimizes wireless interference
- Digital coaxial interface offers an easy-to-install, no cost means to deliver IP video and other broadband services throughout the home with no new wiring
- Advanced IGMP Proxy enhances network robustness and bandwidth management

## 4 TECHNICAL DESCRIPTION

The Wireless LAN MiniPCI card, is compliant with IEEE Std 802.11g – 2002. This device operates in the 2.4GHz unlicensed Industrial, Scientific and Medical band and used Direct Sequence Spread Spectrum and OFDM communication techniques. WMIB-158GA80 provides wireless data communications at rates of up to 54 Mbps, depending on the modulation and coding scheme and the range of the system.

## Product Specifications

### Interfaces

- 4 Gigabit Ethernet LAN
- 1 Gigabit Ethernet WAN
- Optional Interfaces: VDSL2, Coax (WAN/LAN)
- USB 2.0
- Wireless
  - 802.11b/g (with frame bursting)
  - Draft 802.11n (2.4 or 5 GHz)
  - Security
    - 802.1x/PSK Authentication
    - Wi-Fi Protected Access (WPA/WPA2)
    - WEP
    - Supports legacy devices and mixed mode or 802.11n only modes
  - Wireless Multimedia (WMM)
  - Multiple SSIDs for virtual APs
  - Support for RADIUS authentication

### Networking Services

- DHCP, PPPoE, DNS, Dynamic DNS, NTP, VLAN, QoS/Diffserv, 802.1q

### Routing and Bridging

- NAT (Network Address Translation)
  - Port triggering/mapping
- Bridging support
- IGMPv1/v2/v3

### Supported Browsers

- Internet Explorer 6, 7
- Firefox 1.0.7 or later
- Safari 2.x

### Management

- Web-based management
  - "CD-less" installation support
  - Multiple user support
  - Multilingual interface
  - Secure login
- Telnet server
- System statistics and monitoring
- System log (Syslog Server support)

### Upgradeability

- Remote/unattended software upgrades
- Firmware "Safety Back-up" Feature

### Firewall and Security

- ICSA compliant with Stateful Packet Inspection (SPI)
- Simple pre-defined security policies
- Denial of Service (DoS) and intrusion protection
- Demilitarized Zone (DMZ)
- VPN (IPSec) termination
- Pass-through (IPSec, PPTP, L2TP) and IKE
- Encryption (AES, DES, 3DES)

### Management Standards Compliance

- TR-069/TR-064/TR-098/TR-104
  - Motive/Alcatel
- FCC Class B, Wi-Fi Certified

### Application Support

- UPnP (Universal Plug & Play)
  - Auto-configuration & port forwarding
- Internet Gateway Device (IGD)
- DLNA 1.5 Server
- Internet Gaming Support
  - Xbox Live Compatibility

### Compatible Home Control Devices

- Any IP camera (UPnP support needed for auto-discovery)
- Intermatic *HomeSettings* Z-Wave product line
- Z-Wave compliant lighting devices
- Z-Wave compliant motion detectors
- Z-Wave compliant thermostats
- Echelon *LonWorks ISI* compliant devices

### Home Control Protocol Support

- Echelon Lon Works (ANSI/EIA 709.1) powerline networking
- Wireless Z-Wave mesh networking
- Wireless ZigBee (802.15) mesh networking

### Physical Specifications

- Size (W x H x D): 24.3 x 4.5 x 14.5 (cm)
- Weight: 1.7 lbs (approx)