Cisco uBR-MC88V Broadband Processing Engine for the Cisco uBR7200 Series Universal Broadband Router

At-A-Glance

Product Overview

With the explosion of video traffic and social networking applications, speed and scalability are critical factors to keeping consumers happy.

Cisco provides an end-to-end, DOCSIS® 3.0-capable solution enabling multiple services to multiple devices over the same infrastructure to both residential and commercial subscribers.

This solution will allow service providers to provide subscribers with the best possible quality of experience, while minimizing operating expenses and differentiating next-generation services from those of their competitors.

Cisco's DOCSIS 3.0 solution with the Cisco® uBR-MC88V Broadband Processing Engine (BPE) delivers faster speeds and higher density with a flexible and scalable architecture. The resulting benefits are faster time to market, lower TCO, and higher revenues than previously possible, thus helping operators prepare their networks for the exponential growth of IP traffic.

The Cisco uBR-MC88V is a DOCSIS 3.0-capable line card designed to address the increasing demand for high-speed and high-bandwidth data and video services among subscribers. The product features:

- A revolutionary design with full DOCSIS 3.0 support
- Increased downstream capacity
- Significantly improved performance

With this next-generation line card, the Cisco uBR7200 Series Universal Broadband Router has become the most advanced and ideal platforms for entry or mid-level cable modem termination systems (CMTSs) today. The solution provides unprecedented levels of investment protection for cable operators who already have the Cisco uBR7200VXR platform and enables new customers to provide revenue-generating services with exceptionally low capital investment.

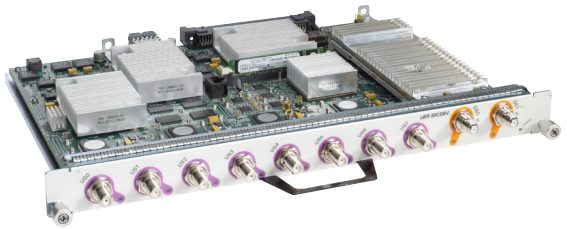
Meeting the Challenges Faced by Today's Cable Operator

Bandwidth consumption is growing fast while average revenue per user (ARPU) is not keeping pace. Cable operators have to grow revenues by speeding delivery of innovative services; decreasing capital expenditures (CapEx) through newer, better, and ever more cost-effective products; and reducing operational expenses (OpEx) through increased operational simplicity. Maintaining good investment protection is another important concern.

The Cisco uBR-MC88V, Figure 1, was designed to help meet these challenges through:

- Higher efficiency: The Cisco uBR-MC88V supports dynamic bandwidth sharing interacting with load balancing, which helps cable operators maximize bandwidth efficiency across services. The line card also offers significant increases in the downstream data throughput than traditional line cards, enabling cable operators to offer a more competitive service.
- Better return on investment (ROI): The Cisco uBR-MC88V reduces CapEx and protects the cable operator's investment because the new line card and network processing engine (NPE) integrate into an existing Cisco uBR7200VXR. The product can help increase ARPU by enabling new high-bandwidth services such as cable IPTV and Internet streaming video.

Figure 1. Cisco uBR-MC88V Broadband Processing Engine



Features and Benefits

The Cisco uBR-MC88V is capable of eight downstream (Annex A or Annex B) and eight upstream channels. The port count remains exactly the same as the Cisco uBR-MC28U, with two downstream ports and eight upstream ports. This enables the Cisco uBR-MC88V to offer a simple upgrade path from the older line card used on the Cisco uBR7200VXR platform without any change to the cable wiring. Each downstream port is capable of carrying four frequency-stacked downstream channels. Each downstream channel is configurable as part of DOCSIS 3.0 channel bonding or legacy DOCSIS 2.0/1.x channel. The line card also supports an extended DOCSIS upstream frequency range of 5 to 65 MHz and downstream of 70 MHz to 1 GHz for DOCSIS operations.

Key features include:

- Fully complies with CableLabs® and Euro CableLabs DOCSIS 3.0 specifications
- Complies with CableLabs® DRFI specifications
- Supports extended frequency range up to 1 GHz
- Includes high port density with frequency stacking
- Provides superior RF performance because of advanced spectrum management, ingress noise cancellation, and Synchronous Code Division Multiple Access (S-CDMA)
- DOCSIS 3.0 Internet Protocol Data Record Streaming Protocol (IPDR/SP) enables efficient and reliable delivery of high-volume data records
- Subscriber Traffic Management allows operators to better manage the subscribers and improve bandwidth utilization
- Supports Wideband Modem Resiliency helps provide the best possible service in the event of non-primary channel disruptions

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- Improves the efficiency of network bandwidth through dynamic bandwidth sharing interacting with load balancing
- Is hot-swappable

The Cisco uBR-MC88V is ideal for cable operators that want to cost-effectively deliver next-generation IP data, voice, and video services to generate incremental revenue with rapid time to market. The product can help operators reduce or prevent customer turnover through new service offerings and superior scalability. As a modular line card, the Cisco uBR-MC88V lowers CapEx and provides excellent investment protection.

Why Cisco?

Cisco is a global leader and innovator in networking products for the cable industry and is uniquely positioned to help cable operators deliver superior services while reducing operating expenses. The Cisco UBR7200VXR series provides a cost-effective and scalable DOCSIS 3.0 solution designed to address the current and future needs of cable operators and their customers. It enables enhanced services for greater revenue while reducing costs and complexity with plug-and-play capability with the existing Cisco uBR7200 Series Universal Broadband Router.

For More Information

For more information on Cisco video, cable, and content delivery visit: http://www.cisco.com/en/US/products/hw/video/index.html