

# GigaQAM® IP

## CMTS-Bypass Solution for IPTV over Cable

GoBackTV's revolutionary GigaQAM IP enables affordable delivery of IPTV over cable, using existing standards-based DOCSIS® 1.1 and 2.0 cable modems and low-cost IP set-top boxes.

The GigaQAM IP provides DOCSIS timing and control information for up to eight attached GigaQAM® 3000 edgeQAMs (192 QAM channels), allowing the edgeQAMs to deliver any mix of DOCSIS and traditional MPEG2 video, even within a single channel.

In combination with GoBackTV's field-proven GigaQAM edgeQAM technology, the GigaQAM IP provides a versatile, extremely cost-effective way to deliver broadcast, multicast, and unicast services over both traditional MPEG2 and IP.

It also allows MSOs to leverage the development boom in IPTV technologies, including a wide variety of readily available IP set-top boxes, advanced encryption systems, soft-client conditional access, and interactive middleware.

In addition, the GigaQAM IP allows MSOs to compete with telcoTV offerings on an even footing, with support for applications such as multi-platform delivery, alternative video sources, and mixed MPEG/IP personal-TV applications.

GoBackTV's GigaQAM IP is designed to be compatible with existing headend infrastructure and services, giving MSOs the freedom to choose the mix of IP and MPEG that is right for their particular subscriber base.



### Key Features and Benefits

#### Features

Enables cost-effective IP television over cable

- IPTV multicast ("switched broadcast")
- IPTV unicast
- Mixed MPEG-2 and IP

Supports up to 192 QAM channels on eight attached GigaQAM 3000 edgeQAMs

2, 4, or 6 DOCSIS upstream receivers with ingress noise cancellation

Works with DOCSIS 1.1 and 2.0 cable modems now, DOCSIS 3.0 wideband in the future

Works with off-the-shelf IP set-top boxes

Supports MPEG-2, MPEG-4 AVC /H.264, and VC1 video codecs, plus others. Also supports high-definition (HD) and standard-definition (SD) video rates

#### Benefits

Allows MSOs to compete with telco IPTV offerings on an equal footing.

Provides the most flexibility in apportioning resources for IPTV multicast, IPTV unicast, and legacy MPEG2 broadcast and narrowcast services

Integrated return channel support, with compensation for ingress noise.

Works with existing cable modems, including data-only modems displaced by eMTAs. Will also work with emerging wideband solutions to better support high-definition video applications.

Widens operators' choice of vendors, for hardware options as well as supporting infrastructure like conditional access and middleware.

Use the codec and video rate that best fits your needs. Allows multi-platform delivery solutions.

goBackTV

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## GigaQAM® IP – Specifications

Input	2, 4, or 6 upstream DOCSIS® receivers (F-type female)
Output	Dual redundant Dsub-25 connector for control and data traffic to GigaQAM® 3000 edgeQAM with DOCSIS encapsulator. 1 port Gigabit Ethernet (10/100/1000Base-T/RJ-45): Upstream traffic
Control Interfaces	1 port Gigabit Ethernet (10/100/1000Base-T/RJ-45) : Management Serial (RS232) : CLI
DOCSIS Support	Works with DOCSIS/EuroDOCSIS 1.1, 2.0 cable modems Pre-equalization Piggybacking and REQ/DATA Upstream dynamic modulation selection Upstream dynamic channel bandwidth selection Spectrum analysis Downstream Channel Change (DCC)
Management	CLI (local and remote) SNMP v1/2
Power	Input voltage: 100-240 VAC, 50/60Hz Power consumption: < 150W Optional dual, redundant, load-sharing power supplies
Environmental	Operating temperature: 0 to 50° C Humidity: maximum 90% (non-condensing) Storage temperature: -40° to 70° C
Agency and Regulatory	CE Mark Safety: EN60950-1 EMC: EN55022, EN55024, EN61000-3-2, EN 61000-3-2
Dimensions	1.75" H x 17.25" W x 24" D (4.4cm H x 43.8cm W x 61.0cm D) 19" rack-mountable (1RU high)

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### Order Information

IP3002R: GigaQAM IP with 2 upstream channels

IP3004R: GigaQAM IP with 4 upstream channels

IP3006R: GigaQAM IP with 6 upstream channels

LIC-IPO100: GigaQAM IP software license

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