

# GigaPass

## RF R-PHY Gateway

The ATX GigaPass is a QAM-to-IP media gateway designed to pass encrypted video from existing edge QAM equipment through IP-based CCAP video cores or directly to the CIN. The solution features a modular design and market-leading density that delivers up to 320 processed QAMs in a single RU. It is the ideal solution for enabling MSOs to address video encryption licensing and interoperability issues that threaten to delay their transition to a distributed access architecture (DAA) model, as well as providing smaller MSOs with an alternative to implementing costly and complex CCAP video cores.

### Features

- Total capacity of up to 320 processed QAMs in 1RU
- Modular design can be purchased and populated with 1 to 4 demod cards per 1RU chassis
- Supports multiple selectable operating modes to accommodate various broadcast and narrowcast architectures
  - Broadcast-80 mode: Single RF input, up to 80 QAMs processed
  - Broadcast-40 mode: 2 RF inputs, up to 40 QAMs processed each
  - Narrowcast mode: Up to 5 RF inputs of up to 16 QAMs each
- No shared common resources or points of failure
- Demod cards operate completely independently
- Redundant AC/DC power supplies

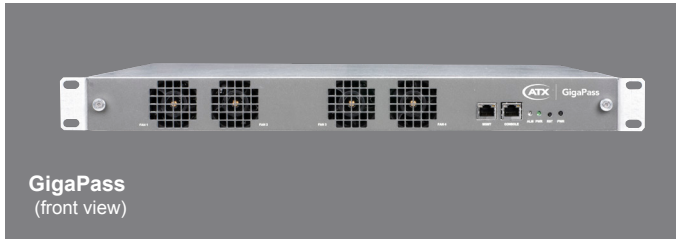


Patent Pending

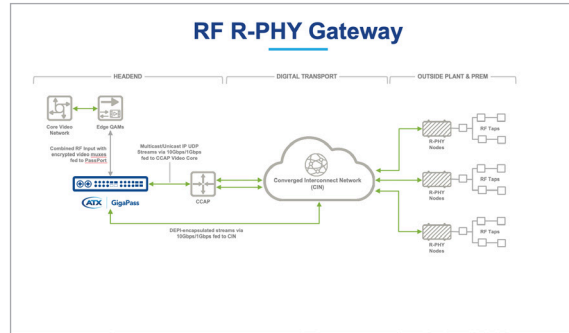
GigaPass  
(front view)

### Key Benefits

- Accelerates DAA Deployments – Reduces DAA deployment complexity by alleviating the need to re-configure all video muxes and parameters in the CCAP video core and integrate the CCAP video core into back-office system
- Delivers Cost Efficiencies – Modular design enables MSOs to align resources and product capabilities with real-world demand and to upgrade on a pay-as-you-grow model
- Improves Operational Efficiency – Support for a wide variety of broadcast and narrowcast operating modes allows for maximizing the efficiency of the equipment's capacity according to the video lineup architecture
- Saves Rack Space – Industry-leading density of up to 320 QAMs in a single rack unit enable MSOs to conserve precious headend real estate and reduce power consumption
- Loosens Proprietary Constraints – Platform's agnostic nature expands universe of potential equipment suppliers by freeing up MSOs to deploy equipment from any CCAP provider, without fear of encountering encryption/decryption compatibility issues with the installed base of set-top boxes (STBs) and other subscriber equipment
- Provides Peace of Mind – Advanced redundancy support provides MSOs with the confidence that critical services will operate without disruption, even in the case of hardware failure



### Functional Schematic



## Specifications

### GigaPass

INPUT	
<b>RF QAM</b>	80 QAM Tuners per Blade (up to 320 QAM Tuners per chassis)
<b>QAM INPUT MODES</b>	QAM B, QAM A / DVB-C, QAM-C
<b>CONNECTORS</b>	5 F-type Connectors per Blade (up to 20 per chassis); Chassis Rear
<b>DEMODULATION OPERATING MODES</b>	Broadcast-80 mode: Single RF input, up to 80 QAMs processed Broadcast-40 mode: 2 RF inputs, up to 40 QAMs processed each Narrowcast mode: Up to 5 RF inputs of up to 16 QAMs each
<b>FREQUENCY RANGE</b>	44 MHz – 1002 MHz in 1 kHz Steps, Supporting STD, IRC, HRC
<b>ADJACENT QAM CHANNEL REQUIREMENT</b>	None; All Tuners Individually Agile
<b>RF INPUT</b>	0 dBmV to +30 dBmV per Digital Carrier
OUTPUT	
<b>ETHERNET</b>	IEEE 802.3-2002, 10 Gigabit Ethernet over SFP+
<b>PORTS</b>	2 SFP+ Ports per Blade (up to 8 SFP+ Ports per chassis); Chassis Rear
<b>SFP+ MODULE SUPPORT</b>	SFP+ 10GBASE-SR SFP+ 10GBASE-LR SFP+ 10GBASE-T SFP+ Direct Attach
<b>PHYSICAL PORT ADDRESS</b>	Static IP Address or DHCP Client Mode per Port
<b>TRANSPORT LAYER PROTOCOLS</b>	UDP
<b>ADDRESSING</b>	IPv4 and IPv6 Multicast & Unicast, Static and DHCP
<b>STREAM ENCAPSULATION</b>	TS, RTP, DEPI
<b>NETWORK JITTER</b>	< ± 1 ms per stream
DEVICE MANAGEMENT	
<b>MANAGEMENT INTERFACE</b>	Local or Remote Management via Integrated Secure Web Server
<b>MANAGEMENT INTERFACE PORTS</b>	1 GigE port, Chassis Front 2 SFP+ per Blade (up to 8 per chassis), Static IP (IPv4 or IPv6) or, DHCP (IPv4 or IPv6), Chassis Rear
<b>TRANSPORT LAYER PROTOCOLS</b>	TCP
<b>OOB PORTS</b>	1 RS-232, RJ45, Chassis Front
<b>MANAGEMENT SECURITY</b>	3 Password Protected, Tiered User Accounts, TACACS+
<b>MASS DEPLOYMENT &amp; BACKUP</b>	Importable/Exportable Device Configuration Files, API-based Configuration Support
<b>REMOTE MONITORING</b>	Integrated SNMP Agent, MIB & SysLog Forwarding, & integrated support for the UCrypt Monitoring Server
<b>ALARMS</b>	Email Notification, SNMP Traps

PHYSICAL & ENVIRONMENTAL	
<b>FORM FACTOR</b>	1RU, 19" Rack Mount
<b>DIMENSIONS</b>	1.75"H x 19.0"W x 20.63"D (4.45H x 48.26W x 52.40D cm)
<b>WEIGHT (Max)</b>	15.0 lbs (7.0 kg)
<b>INPUT POWER</b>	AC: 8.0 Amps @ 115 VAC, 4.0 Amps @ 230 VAC DC: 25 Amps max. @ -48 VDC
<b>POWER REDUNDANCY</b>	Fully Redundant 500W Power Supply Modules (standard), Hot-swappable
<b>ELECTRICAL APPROVAL</b>	Approved to UL 62368-1 2nd Edition (E325862) and IEC 62368-1:2014, 2nd Ed
<b>POWER CONTROL</b>	Software Power Control
<b>OPERATING TEMPERATURE</b>	Operating: 0°C to +50°C <sup>(1)</sup> (+32°F to +122°F) Storage: -40°C to +80°C <sup>(1)</sup> (-40°F to +176°F)
<b>HUMIDITY</b>	Operating: 20-80% RH, Non-condensing Storage: 10-90% RH, Non-condensing

NOTES:

(1) For details on exceeding +30°C, please refer to the UCrypt Environment & Temperature Considerations Info Sheet (#ANW1066).

