

UCrypt® PassPort

UCrypt RF R-PHY Gateway

The ATX UCrypt PassPort 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

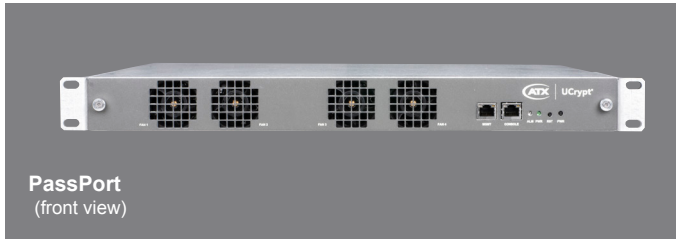


Patent Pending

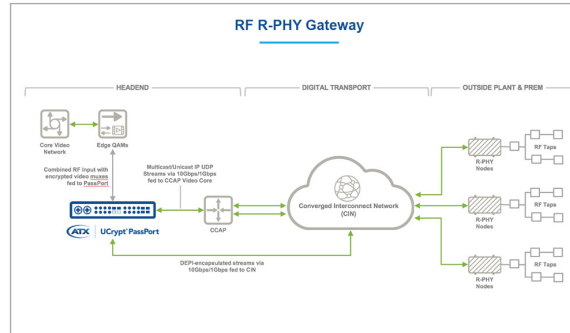
PassPort
(front view)

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

UCrypt® PassPort

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

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

Ordering Information

Part Number	Description
UC Q2IP PassPort	
UCPBASE	UCrypt PassPort Chassis Only
UCP80QIP	UCrypt PassPort Chassis w/ 1 demod card (up to 80 QAMs)
UCP160QIP	UCrypt PassPort Chassis w/ 2 demod cards (up to 160 QAMs)
UCP240QIP	UCrypt PassPort Chassis w/ 3 demod cards (up to 240 QAMs)
UCP320QIP	UCrypt PassPort Chassis w/ 4 demod cards (up to 320 QAMs)
UCPBASEDC	UCrypt PassPort Chassis Only (DC)
UCP80QIPDC	UCrypt PassPort Chassis (DC) w/ 1 demod card (up to 80 QAMs)
UCP160QIPDC	UCrypt PassPort Chassis (DC) w/ 2 demod cards (up to 160 QAMs)
UCP240QIPDC	UCrypt PassPort Chassis (DC) w/ 3 demod cards (up to 240 QAMs)
UCP320QIPDC	UCrypt PassPort Chassis (DC) w/ 4 demod cards (up to 320 QAMs)
UCPDM80Q	Standalone UCrypt PassPort demod card only (up to 80 QAMs)

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