

MDU Solutions

UCrypt® IP2Q

IP to QAM with Pro:Idiom® Encryption *



Patent Pending

IP to QAM
(front view)

Features

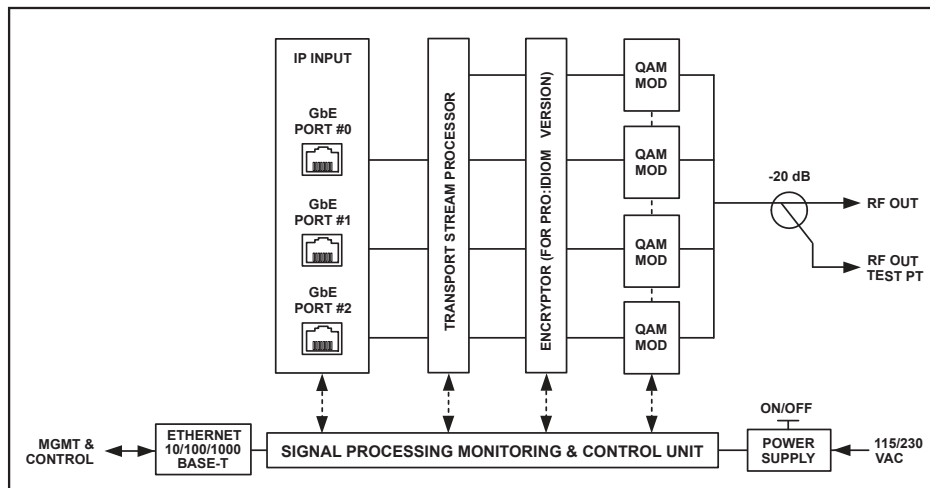
- UCrypt® IP to QAM product offering allows MSOs to ingest content from their IP video network, remultiplex and encrypt it with Pro:Idiom® (or leave in-the-clear) for transmission via 64 or 256 QAM
- The UCrypt IP to QAM allows MSOs to deliver digital content in a protected format into hospitality locations where set-top box deployment is not practical or desired
- Ideal for applications where the end customer is connected directly via fiber or dedicated node to the headend or hub
- Support for H.264 streams
- Includes configurable line card style EPG channel
- Allows for PSIP VCT insertion for customizing virtual channel lineup on property TVs
- Includes an easy-to-use management interface which allows users to select programs to be encrypted with Pro:Idiom and assign them to output QAMs at any frequency
- Product configuration can easily be saved and uploaded to other products so that mass deployment can be done in a reliable and efficient manner
- The HTTP-based management interface allows operators to monitor, manage and configure the product remotely
- Features design enhancements to facilitate field upgrade of tuner and QAM modules for easy and cost-effective future channel capacity expansion



UC24PIP (front view)



UC24PIP (rear view)



Functional Schematic



Specifications

IP to QAM

INPUT	
ETHERNET	IEEE 802.3-2002,1000BASE-T (GbE)
CONNECTORS	3x RJ45; Chassis Rear
PHYSICAL PORT ADDRESS	Static IP Address or DHCP Client Mode per Port
TRANSPORT LAYER PROTOCOL	UDP
TRANSPORT STREAM SUPPORT	MPTS and SPTS
ADDRESSING	IPv4 Multicast and Unicast, Supporting all Valid IP Port Numbers
MULTICAST SUPPORT	Source Specific Multicast (SSM) and IGMP v1, 2 & 3
ENCAPSULATION	188 Bytes per TS Packet / 7 TS Packets per IP Packet
TS PROCESSING	
MULTIPLEXING CAPACITY	Flexible Creation of up to 32 SPTS and/or MPTS ⁽¹⁾ (38.8 Mbps max each) with PAT/PMT Generation per TS
ENCRYPTION	Pro:Idiom Encrypted Multiplex or Unencrypted Multiplex
ENCRYPTION CAPACITY	Up to 32 SPTS and/or MPTS Multiplexes ⁽¹⁾ (38.8 Mbps max each)
SUPPORTED VIDEO FORMATS	MPEG-2 MP@HL, MPEG-4 pt10 AVC/H.264 HP@L4
SUPPORTED VIDEO RESOLUTIONS	Up to 720p and 1080i
SUPPORTED AUDIO FORMATS	Dolby® Digital (AC-3), MPEG-1 L1/2
CLOSED CAPTION (CC)	Pass Through Original EIA 608/708 Closed Captioning
OUTPUT	
RF	Up to 32 64 QAM and 256 QAM Channels ⁽¹⁾ in Groups of Four Adjacent QAMs
FREQUENCY RANGE	54 MHz - 1 GHz in 1 kHz Steps, Supporting STD, IRC, HRC
LEVEL	38 dBmV +/- 2 dB per Digital Carrier
MER	> 40 dB
CONNECTOR	F Connector; Chassis Rear
RF INPUT TEST	-20 dB Relative to Output; F Connector, Chassis Rear
DEVICE MANAGEMENT	
MANAGEMENT INTERFACE	Local or Remote Management via Integrated Secure Web Server
MANAGEMENT INTERFACE PORT	10/100/1000BASE-T, Static IP or DHCP, RJ45, Chassis Rear
SECONDARY CRAFT PORT	10/100/1000BASE-T, Static IP, RJ45, Chassis Rear
MANAGEMENT SECURITY	Three Password Protected Tiered User Accounts
MASS DEPLOYMENT & BACKUP	Importable/Exportable Device Configuration Files
REMOTE MONITORING	Integrated SNMP Agent and MIB
ALARMS	Email Notification, SNMP Traps
EAS	
MODES	Support for ANSI/SCTE 18 Compliant and Non-compliant Devices
PHYSICAL & ENVIRONMENTAL	
FORM FACTOR	3RU, 19" Rack Mount
DIMENSIONS	5.25"H x 19.0"W x 22.8"D (13.34H x 48.26W x 57.91D cm)
WEIGHT (Max)	45.7 lbs (20.8 kg)
POWERING	2.5 Amps @ 115 VAC, 1.2 Amps @ 230 VAC Fully Redundant 520W Power Supply Modules, Hot-swappable
ELECTRICAL APPROVAL	Approved to UL 60950-1, 2nd Edition (File E325862)
POWER CONTROL	Software Power Control
OPERATING TEMPERATURE	0°C to +40°C ⁽²⁾ (+32°F to +104°F)
HUMIDITY	0-95% Non-condensing

NOTES:

(1) Depends upon ordered hardware options.

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

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Ordering Information

Part Number	Description
IP to QAM - CLEAR Output	
UC8IP	IP Input to 8 QAM Output; Clear Out
UC16IP	IP Input to 16 QAM Output; Clear Out
UC24IP	IP Input to 24 QAM Output; Clear Out
UC32IP	IP Input to 32 QAM Output; Clear Out
UCTIPQ8D	IP FDK Decrypt to 8 QAM; Clear Out
UCTIPQ16D	IP FDK Decrypt to 16 QAM; Clear Out
UCTIPQ24D	IP FDK Decrypt to 24 QAM; Clear Out
UCTIPQ32D	IP FDK Decrypt to 32 QAM; Clear Out
IP to QAM - PRO:IDIOM Output	
UC8PIP	IP to 8 QAM; Pro:Idiom Encryption
UC16PIP	IP to 16 QAM; Pro:Idiom Encryption
UC24PIP	IP to 24 QAM; Pro:Idiom Encryption
UC32PIP	IP to 32 QAM; Pro:Idiom Encryption
Power Supply Modules	
UCTPSMOD-AC3	UCrypt AC Power Supply Module 3
UCTPSMOD-DC1	UCrypt DC Power Supply Module 1
Replacement Parts	
UCQAM*	8-channel QAM Modulator
UCFAN	External Replacement Fan for UCrypt

NOTE:

* F = unit returned to ATX for upgrade; L = unit upgraded on site (requires purchase of UCUPGV - on site visit charge)

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