



MDU Solutions®

UCrypt® Q2A

Patent Pending



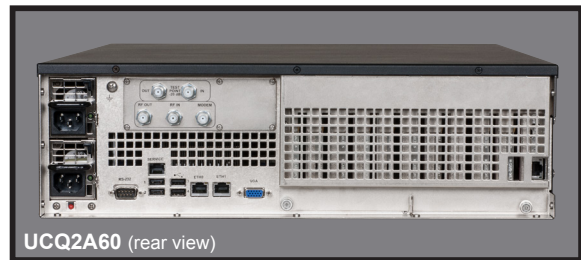
UCrypt® QAM to Analog: *

Features:

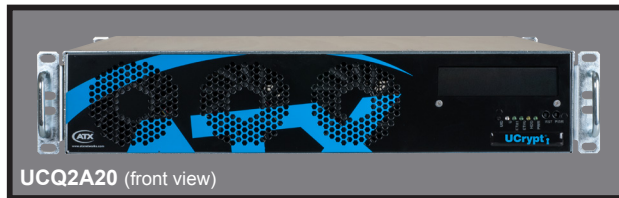
- ▶ The UCrypt® QAM to Analog product offering allows MSOs to decrypt select programs from their digital tier, and retransmit them in NTSC or PAL analog formats
- ▶ Future proof and field-upgradeable to digital QAM output
- ▶ Ideal for converting content into analog format to service bulk MDU, hospitality or commercial accounts where legacy TVs are deployed
- ▶ Allows for delivery of up to 72 individually agile analog channels in the 54-860 MHz frequency range
- ▶ Supports ingestion of up to 72 MPEG-2 or H.264, HD or SD streams
- ▶ Support for SDV channels
- ▶ Includes configurable scrolling program guide channel



UCQ2A60 (front view)

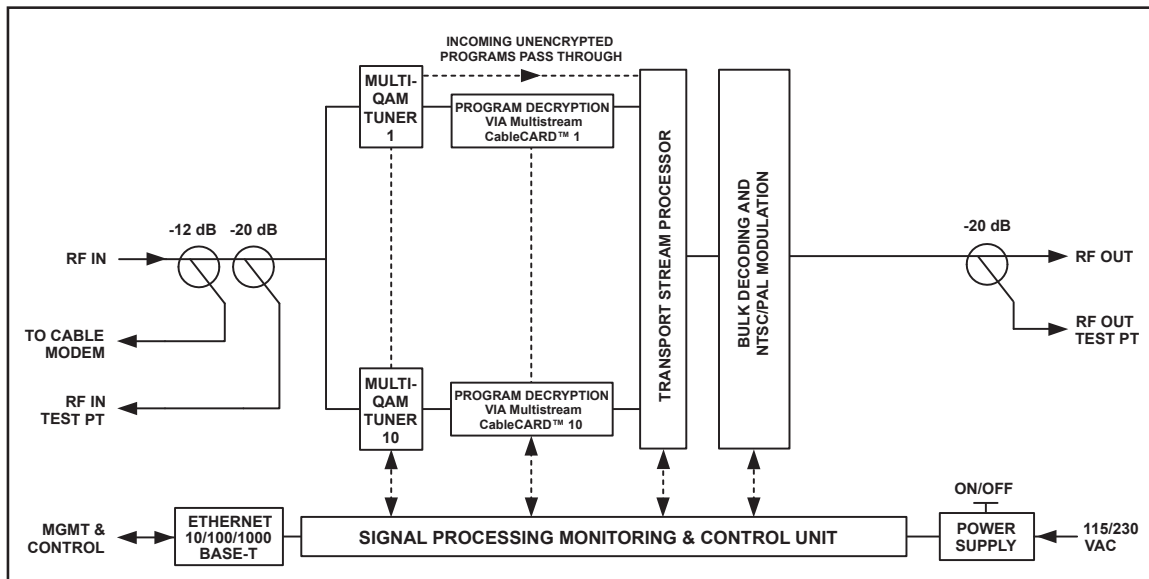


UCQ2A60 (rear view)



UCQ2A20 (front view)

Functional Schematic



UCrypt[®] QAM to Analog:

UCrypt[®] QAM to Analog Specifications

SPECIFICATIONS		UCQ2A30 / UCQ2A60 / UCQ2A72	UCQ2A20
INPUT			
RF QAM	Up to 72 64 QAM & 256 QAM Tuners ⁽¹⁾		Up to 20 64 QAM & 256 QAM Tuners ⁽¹⁾
RF QPSK	Complies with ANSI/SCTE 55-1&2 2.048 Mbps & 1.544/3.088 Mbps, ANSI/SCTE 40		
CONNECTOR	F Connector; Chassis Rear		
FREQUENCY RANGE	54 MHz - 1 GHz in 1 kHz Steps, Supporting STD, IRC, HRC		
ADJACENT QAM CHANNEL REQUIREMENT	None; All Tuners Individually Agile		
RF INPUT	+5 to +10 dBmV per Digital Carrier		
RF INPUT TEST	-20 dB Relative to Input; F Connector, Chassis Rear		
TS PROCESSING			
PASSED CONTENT	Decrypt up to 72 Programs ⁽¹⁾ Using up to 12 Multistream CableCARD™ Devices Remaining Unencrypted Content can be Transferred to the Device Output	Decrypt up to 20 Programs ⁽¹⁾ Using up to 4 Multistream CableCARD Devices Remaining Unencrypted Content can be Transferred to the Device Output	
CABLECARD DECRYPTION	Supports Motorola, Scientific Atlanta/Cisco, & NDS		
SUPPORTED VIDEO FORMATS	MPEG-2 MP@HL, MPEG-4 pt10 AVC/H.264 HP@L4		
SUPPORTED VIDEO RESOLUTIONS	Up to 720p & 1080i		
SUPPORTED AUDIO FORMATS	Dolby® Digital (AC-3), MPEG-1 L1/2		
DECODING	Supports Decoding of up to 72 Streams per Chassis	Supports Decoding of up to 20 Streams per Chassis	
ADDITIONAL PROCESSING CAPABILITIES	Closed Captioning, VBI Insertion, Teletext, DVB* Subtitles		
SUPPORTED ASPECT RATIOS	4:3, 16:9		
OUTPUT			
RF	Up to 72 Modulated Channels	Up to 20 Modulated Channels	
SUPPORTED MODES	NTSC, PAL B/G, PAL D/K		
FREQUENCY RANGE	54-860 MHz (EIA ch2-116) ⁽²⁾		
FREQUENCY PLANS	STD, HRC, IRC & Custom Offsets		
OUTPUT LEVEL & FLATNESS	35 dBmV +/- 2 dB per Analog Carrier		
SIGNAL-TO-NOISE RATIO (SNR)	54 dB (min)		
CARRIER-TO-NOISE RATIO (CNR)	54 dB (min)		
COMP. TR. BT. (CTB)	-65 dBc		
COMP. 2nd ORD. (CSO)	-65 dBc		
OUTPUT RETURN LOSS	18 dB (min)		
DEMODULATED VIDEO	DIFFERENTIAL GAIN	≤ 5%	
	GROUP DELAY VARIATIONS	≤ 100nS	
	2TK FACTOR	≤ 2%	
OUTPUT VIDEO ASPECT RATIOS	4:3, 16:9		
ANALOG AUDIO OUTPUT FORMAT	Mono		
CONNECTOR	F Connector; Chassis Rear		
RF OUTPUT 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	3 Password Protected Tiered User Accounts		
MASS DEPLOYMENT & BACKUP	Importable/Exportable Device Configuration Files		
REMOTE MONITORING	Integrated SNMP Agent & MIB		
REMOTE MANAGEMENT SUPPORT	F Connector Provided for Optional MSO Supplied Cable Modem Installation for Remote Management		
ALARMS	Email Notification, SNMP Traps		
EAS			
MODES	Support for ANSI/SCTE 18 Compliant & Non-compliant Devices		
PHYSICAL & ENVIRONMENTAL			
FORM FACTOR	3RU, 19" Rack Mount	2RU, 19" Rack Mount	
DIMENSIONS	5.25"H x 19.0"W x 23.96"D (13.34H x 48.26W x 60.85D cm)	3.5"H x 19.0"W x 17.8"D (8.89H x 48.26W x 45.11D cm)	
WEIGHT	45.0 lbs (20.4 kg)	26.9 lbs (12.2 kg)	
INPUT POWER	5.0 Amps @ 115 VAC, 2.5 Amps @ 230 VAC	2.0 Amps @ 115 VAC, 1.0 Amps @ 230 VAC	
POWER REDUNDANCY	UCQ2A30: Single, Non-redundant 700W Power Supply UCQ2A60/UCQ2A72: Fully Redundant 650W Power Supply Modules, Hot-swappable	Single, Non-redundant 700W Power Supply	
ELECTRICAL APPROVAL	Approved to UL 60950-1, 2nd Edition (File E325862)		
POWER CONTROL	Software Power Control		
OPERATING TEMPERATURE	0°C to +40°C ⁽³⁾ (+32°F to +104°F)		
HUMIDITY	0-95% Non-condensing		
NOTES:			
(1) Depends upon ordered hardware options.			
(2) Supports output frequencies up to 750 MHz, however specs above may only apply up to 650 MHz.			
(3) For details on exceeding +30°C, please refer to the UCrypt Environment & Temperature Considerations Info Sheet (#ANW1066).			
Dolby is a registered trademark of Dolby Laboratories. Manufactured under license from Dolby Laboratories.			

UCrypt[®] QAM to Analog:

Ordering Information

Part Number	Description
QAM to ANALOG	
UCQ2A20	UC Q2A 20 Tuner/Decrypt & Analog Output (AC power)
UCQ2A30	UC Q2A 30 Tuner/Decrypt & Analog Output (AC Power)
UCQ2A60	UC Q2A 60 Tuner/Decrypt & Analog Output (AC power)
UCQ2A72	UC Q2A 72 Tuner/Decrypt & Analog Output (AC power)
Power Supply Modules	
UCTPSMOD-AC3	UCrypt AC Power Supply Module 3
UCTPSMOD-DC1	UCrypt DC Power Supply Module 1

* Any use of the UCrypt product, directly or indirectly, for the decryption and unauthorized reproduction of content that constitutes or may constitute copyright infringement or otherwise infringes on the proprietary rights of any third party is expressly prohibited. No user of UCrypt shall use UCrypt for any purpose or in any manner which, directly or indirectly, violates the law, violates the proprietary rights of any other party, or aids in any unlawful act or undertaking including, without limitation, laws governing data privacy, international data transmission, and export of technology or data. Any multiple systems operator or other similar party ("MSO") will use the UCrypt product in strict compliance with all applicable laws and in compliance with any agreement in effect between the MSO and a content provider. In no event shall ATX Networks Corp. or any of its affiliates be liable to an MSO, any end user of the UCrypt product, or any other third party, for any claims arising out of or related to any use or misuse of the UCrypt product in contravention of this disclaimer. It is the express obligation of an MSO to convey this disclaimer to any other end user of the UCrypt product.

UCrypt devices support most desktop web browsers for viewing and editing. Our support is focused on the most recent versions of the browsers. Chrome™ and Firefox® supported on PC, Mac®, and Linux®; Microsoft® Edge and Internet Explorer® 11 (Windows® 8+) are only supported for PC. We recommend using the latest browser version available to your operating system.

MDU Solutions® and UCrypt® are registered trademarks of ATX in the United States and/or other countries. Products or features contained herein may be covered by one or more U.S. or foreign patents. Dolby®, DVB®, CableCARD™, Chrome™, Firefox®, PC, Mac®, Linux®, Microsoft® Edge, Internet Explorer®, Windows® and other non-ATX product and company names mentioned in this data sheet are the property of their respective companies.



Specifications subject to change without notice.

