

UCrypt® Q2A

QAM to Analog *



Patent Pending

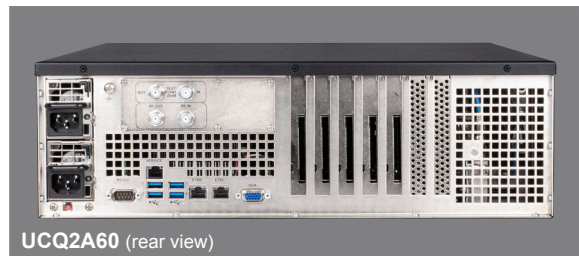
QAM to Analog
(front views)

Features

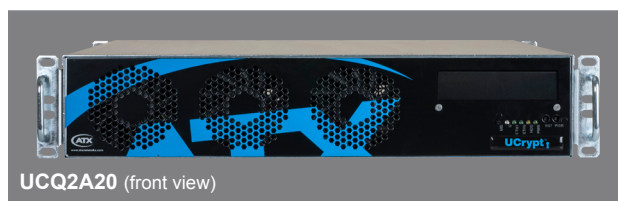
- With the UCrypt® QAM to Analog products, MSOs can decrypt select programs from their digital tier and retransmit them in NTSC or PAL analog formats
- Future proof and field-upgradeable to digital QAM output
- Ideal for converting content into analog format to service bulk MDU, hospitality or commercial 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



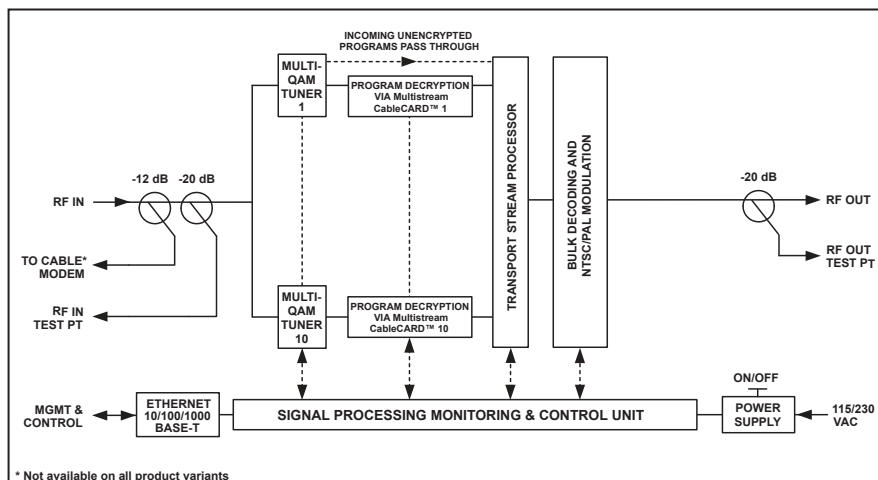
UCQ2A60 (front view)



UCQ2A60 (rear view)



UCQ2A20 (front view)



* Not available on all product variants

Functional Schematic

Specifications

QAM to Analog

		UCQ2A30 / UCQ2A60 / UCQ2A72	UCQ2A20
INPUT			
RF QAM		Up to 72 64 QAM and 256 QAM Tuners ⁽¹⁾	Up to 20 64 QAM and 256 QAM Tuners ⁽¹⁾
RF QPSK		Complies with ANSI/SCTE 55-1&2 2.048 Mbps and 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 Four Multistream CableCARD Devices Remaining Unencrypted Content can be Transferred to the Device Output
CABLECARD DECRYPTION		Supports Motorola, Scientific Atlanta/Cisco, and NDS	
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	
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 and 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)		-60 dBc	
COMP. 2nd ORD. (CSO)		-605 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, Stereo	
CONNECTOR		F Connector; Chassis Rear	
RF OUTPUT TEST		-20 dB Relative to Output; F Connector, Chassis Rear	

Specifications (cont'd)

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
REMOTE MANAGEMENT SUPPORT	F Connector Provided for Optional MSO Supplied Cable Modem Installation for Remote Management
ALARMS	Email Notification, SNMP Traps

QAM to Analog

UCQ2A30 / UCQ2A60 / UCQ2A72

UCQ2A20

EAS		
MODES	Support for ANSI/SCTE 18 Compliant and Non-compliant Devices	
PHYSICAL & ENVIRONMENTAL		
FORM FACTOR	3RU, 19" Rack Mount	2RU, 19" Rack Mount
DIMENSIONS	UCQ2A30: 5.25"H x 19.0"W x 23.96"D (13.34H x 48.26W x 60.85D cm) UCQ2A60 / UCQ2A72: 5.25"H x 19.0"W x 24.33"D (13.34H x 48.26W x 61.79D 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) UCQ2A60 / UCQ2A72: Approved to UL 62368-1 2nd Edition (E325862) and IEC 62368-1:2014, 2nd Ed	
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.

Ordering Information

Part Number	Description
QAM to ANALOG	
UCQ2A20	UC Q2A 20 Tuner/Decrypt and Analog Output (AC Power)
UCQ2A30	UC Q2A 30 Tuner/Decrypt and Analog Output (AC Power)
UCQ2A60	UC Q2A 60 Tuner/Decrypt and Analog Output (AC Power)
UCQ2A72	UC Q2A 72 Tuner/Decrypt and 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.

© 2019 by ATX Networks Corp. and its affiliates (collectively "ATX Networks Corp."). All rights reserved. This material may not be published, broadcast, rewritten, or redistributed. Information in this document is subject to change without notice.
Rev. 11/19 (ANW1127)



ATX Networks
Tel: 289.204.7800 | Toll-Free: 866.YOUR.ATX | support@atx.com