

MDU Solutions

UCrypt® Q2A

QAM to Analog *



Patent Pending

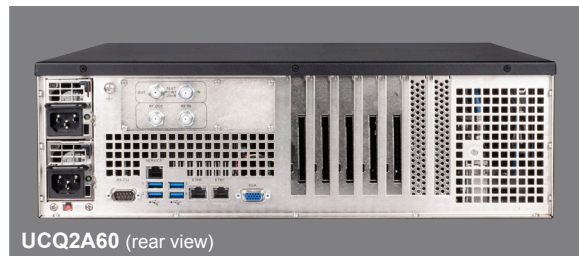
QAM to Analog
(front views)

Features

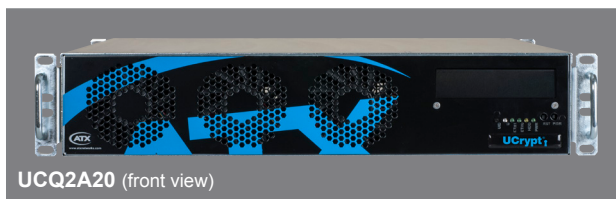
- With the UCrypt® QAM to Analog products, MSOs can decrypt select programs from their digital tier and retransmit them in NTSC or PAL analog formats
- Future proof and field-upgradeable to digital QAM output
- Ideal for converting content into analog format to service bulk MDU, hospitality or commercial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



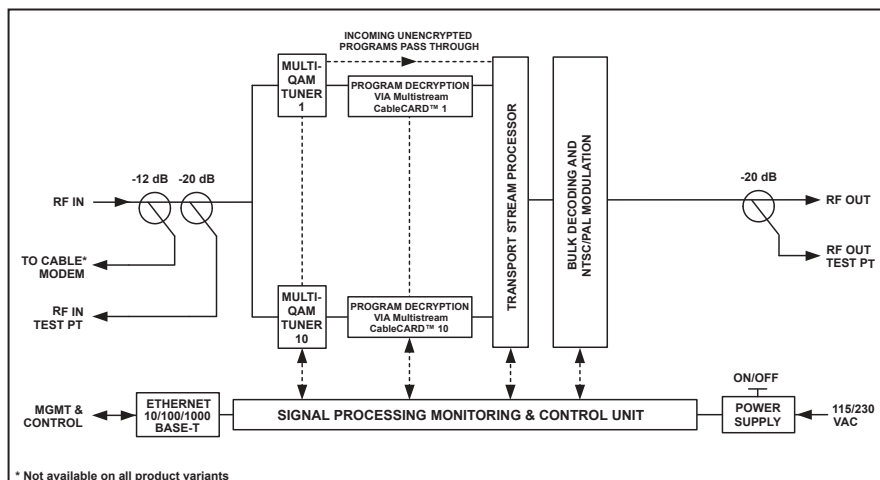
UCQ2A60 (front view)



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).
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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



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