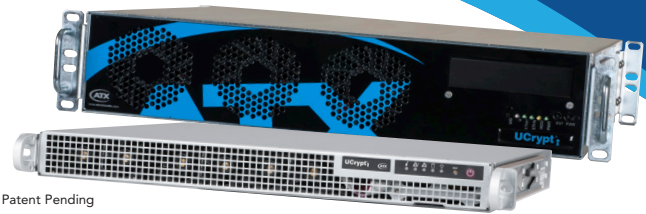


# UCrypt® IP2A



Patent Pending

**IP to Analog**  
(front views)

## UCrypt® IP to Analog

### Features

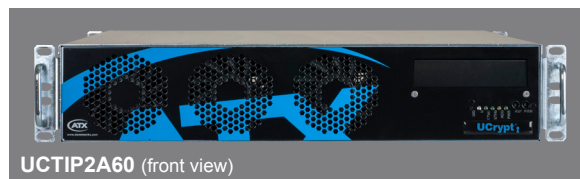
- The UCrypt® IP to Analog product offering allows service providers to ingest programs carried over IP and retransmit them in NTSC or PAL analog formats
- Ideal for replacing legacy analog modulators when converting headends/hubs to all-IP transports
- Perfect for building a “mini headend” for commercial accounts, MDUs or bulk hospitality accounts where non-digital TVs are prevalent
- Allows for delivery of up to 60 individually agile analog channels in the 54-860 MHz frequency range
- Supports ingest of up to 60 MPEG-2 or H.264, HD or SD, IP multicast video streams
- Web based UI includes live preview capability for monitoring processed programs



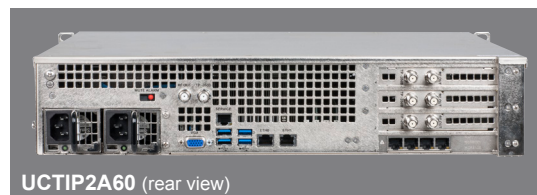
UCTIP2A10 / UCTIP2A20 (front view)



UCTIP2A10 / UCTIP2A20 (rear view)



UCTIP2A60 (front view)



UCTIP2A60 (rear view)

# Specifications

## UCrypt® IP to Analog

		UCTIP2A10 / UCTIP2A20	UCTIP2A60
<b>INPUT</b>			
ETHERNET	IEEE 802.3-2002,1000BASE-T (GbE)		
CONNECTORS	2x RJ45; Chassis Rear	6x RJ45; Chassis Rear	
TRANSPORT STREAM/LAYER PROTOCOL	SPTS, MPTS over UDP/RTP (VBR or CBR)		
MULTICAST PROTOCOL SUPPORT	IPv4 Unicast & Multicast, IGMP v1, 2 and 3		
SUPPORTED VIDEO FORMATS	MPEG-2 MP@HL / MP@ML, MPEG-4 pt10 AVC/H.264 HP@L4 / MP@L3		
SUPPORTED VIDEO RESOLUTIONS	Up to 720p & 1080i <sup>(1)</sup>		
SUPPORTED AUDIO FORMATS	Dolby® Digital (AC-3), MPEG-1 L1/2/3, MPEG-2, AAC, AAC (HE), E-AC3		
SUPPORTED AUDIO SAMPLE RATES	Max. 448 kbps		
REDUNDANCY	Dual Input Multicasts per Program		
<b>TS PROCESSING</b>			
DECODING	Supports Decoding of up to 60 Streams per Chassis		
ADDITIONAL PROCESSING CAPABILITIES	Closed Captioning (EIA-608/708), Teletext VBI and Overlay, SCTE-27 / DVB® Subtitles Overlay		
ASPECT RATIO CONTROL	AFD, Center Cut, Letterbox, Disabled		
<b>OUTPUT</b>			
NUMBER OF RF CHANNELS	Up to 60, Fully Agile Modulated Channels		
SUPPORTED MODES	NTSC, PAL B/G, PAL D/K, PAL M/N		
AVAILABLE VBI DATA	WSS Pass Through, VITS Signal Enable - ITU		
FREQUENCY RANGE	54-860 MHz (EIA ch2-135)		
FREQUENCY PLANS	STD, HRC, IRC and Custom Channel Plans		
OUTPUT LEVEL & FLATNESS	36 dBmV +/- 2 dB per Analog Carrier		
CARRIER-TO-NOISE RATIO (CNR)	55 dB <sup>(2)</sup> (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%	
ANALOG AUDIO OUTPUT FORMAT	Stereo, NICAM Stereo Audio, A2 Audio, SAP, Mono		
ANALOG AUDIO FREQUENCY RESPONSE	Primary: 50 Hz to 15 kHz, Secondary: 50 Hz to 10 kHz		
RF CONNECTOR	F Connector; Chassis Rear		
RF TEST PORT	-20 dB Relative to Output; F Connector, Chassis Rear		
<b>DEVICE MANAGEMENT</b>			
MANAGEMENT INTERFACE	Local or Remote Management via Integrated Secure Web Server		
MANAGEMENT INTERFACE PORT	1000BASE-T, Static IP or DHCP, RJ45, Chassis Rear		
MASS DEPLOYMENT & BACKUP	Importable/Exportable Device Configuration Files		
REMOTE MONITORING	SNMP, UI Live Preview		
ALARMS	SNMP Traps/UI Alerts and Alarms		
<b>EAS</b>			
MODES	Support for ANSI/SCTE 18 Messaging		
<b>PHYSICAL &amp; ENVIRONMENTAL</b>			
FORM FACTOR	1RU, 19" Rack Mount	2RU, 19" Rack Mount	
DIMENSIONS	1.75"H x 19.0"W x 23.0"D (4.45H x 48.26W x 58.42D cm)	3.5"H x 19.0"W x 17.2"D (8.89H x 48.26W x 43.69D cm)	
WEIGHT	25.4 lbs (11.5 kg)	29.8 lbs (13.5 kg)	
POWERING REDUNDANCY	Fully Redundant 650W Power Supply Modules, Hot-swappable		
INPUT POWER RATING	110-220 VAC or -48 VDC		



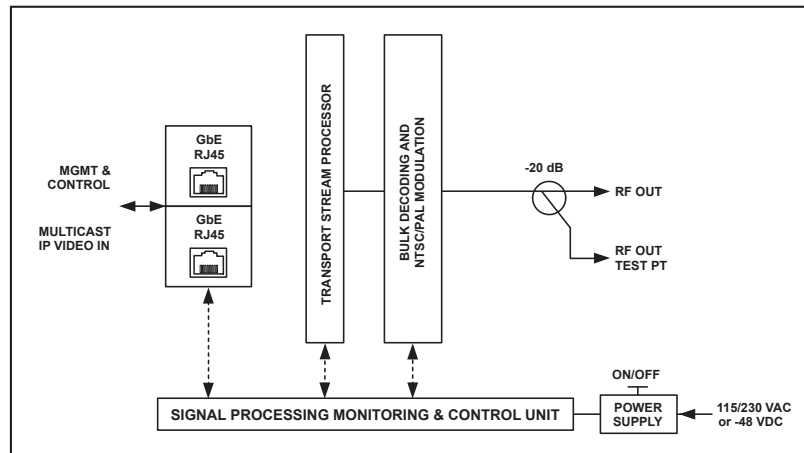
## Specifications (cont'd)

### UCrypt® IP to Analog

	UCTIP2A10 / UCTIP2A20	UCTIP2A60
<b>PHYSICAL &amp; ENVIRONMENTAL (cont'd)</b>		
<b>OPERATING TEMPERATURE</b>	0°C to +40°C <sup>(3)</sup> (+35°F to +104°F)	
<b>HUMIDITY</b>	0-95% Non-condensing	

**NOTES:**

- (1) Includes the following resolutions: 640x480, 720x480, 704x480, 544x480, 528x480, 352x480 at 29.97 fps.
- (2) CNR specification applies to output from non-combined RF output ports only.
- (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. Specifications



Functional Schematic

## Ordering Information

Part Number	Description
<b>IP to Analog</b>	
UCTIP2A10	UC IP2A 10-channel IP Input and Analog Output (AC power), 1RU
UCTIP2A20	UC IP2A 20-channel IP Input and Analog Output (AC power), 1RU
UCTIP2A60	UC IP2A 60-channel IP Input and Analog Output (AC power), 2RU
UCTIP2A10DC	UC IP2A 10-channel IP Input and Analog Output (DC power), 1RU
UCTIP2A20DC	UC IP2A 20-channel IP Input and Analog Output (DC power), 1RU
UCTIP2A60DC	UC IP2A 60-channel IP Input and Analog Output (DC power), 2RU
<b>Power Supply Modules</b>	
UCTPSMOD-AC4	UCrypt AC Power Supply Module 4 (UCTIP2A10 / UCTIP2A20)
UCTPSMOD-AC3	UCrypt AC Power Supply Module 3 (UCTIP2A60)
UCTPSMOD-DC3	UCrypt DC Power Supply Module 3 (UCTIP2A10 / UCTIP2A20)
UCTPSMOD-DC1	UCrypt DC Power Supply Module 1 (UCTIP2A60)

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