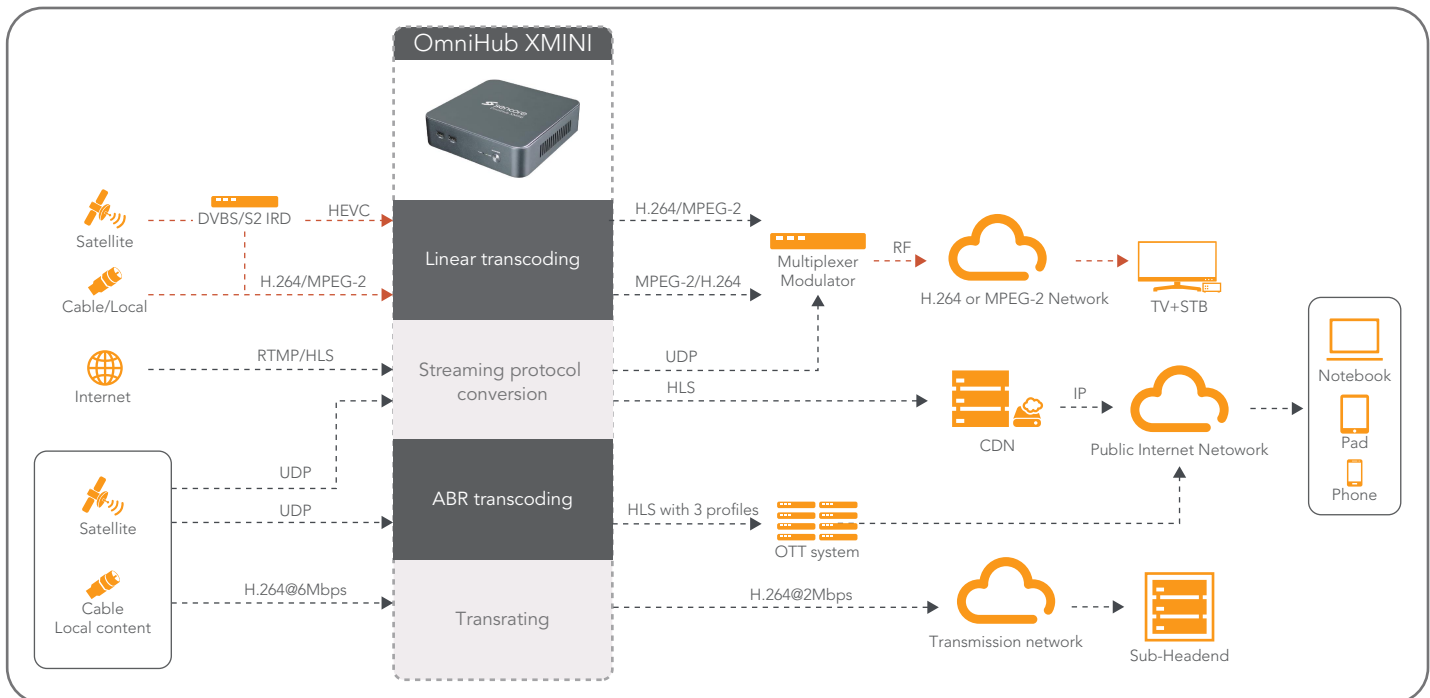# Omnihub XMINI Single Channel Linear Transcoder with optional OTT Packaging

XMINI is a small form factor appliance offering cost effective linear transcoding for a single service with resolution up to 1080p60. Using the versatile Omnihub X software, easily change codecs, scale resolution, or convert IP protocols of a single channel to maximize compatibility with existing networks. The optional OTT capability provides up to three profiles for Adaptive Bit Rate (ABR) uplinks into CDN's or Origin servers for mobile delivery.

APPLICATION

1. Convert HEVC/H.264/MPEG-2 input into H.264 or MPEG-2 output for compatibility with legacy networks

2. Scale video resolutions and change frame-rates to accommodate HD or SD system requirements

3. Receive OTT sources over the public internet as Unicast, HLS, or RTMP and convert to traditional multicast UDP/RTP IPTV signal type

4. Transcode and package up to three adaptive bit-rate (H.264) profiles for traditional OTT uplink into Origin Server or Content Delivery Network (CDN)

5. Reduce bandwidth by changing codecs and resolution (commonly known as "rate-shaping" or "trans-rating")

Omnihub XMINI Single Channel Linear Transcoder with optional OTT Packaging

TECHNICAL SPECIFICATION

Input	
Interface	RJ45 (GbE Port)
Protocols	UDP, RTMP, HLS
Video Codecs	MPEG-2 MP@ML/HL H.264 MP@L1.2/2.2/3.0/3.1, HP@L3.1/4.0/4.1 H.265 MP@MT L1/2/2.1/3/3.1/4/4.1, 8-bit

Video Resolutions	HD: 1920*1080p @60/59.94/50/30/29.97/25fps
	     1920*1080i @30/29.97/25fps
	     1280*720p @60/59.94/50/30/29.97/25fps
	SD: 720*576p @50/25fps
	     720*576i @25fps
	     720*480p @60/30/29.97fps
	     720*480i @30/29.97fps

Audio Codecs	MPEG1L2, HE-AAC (v1/v2), AAC-LC, AC3, E-AC3

Processing Capacity	
IPTV Mode	1 x HEVC/H.264/MPEG-2 HD (1080p60) to H.264/MPEG-2 HD (up to 1080p60)or 2 x HEVC/H.264/MPEG-2 HD (1080p30) to H.264/MPEG-2 HD (up to 1080p30)

OTT Mode	1 x HEVC/H.264/MPEG-2 HD (1080p60) to H.264 HD with up to 3 profiles:
	   Profile 1: up to 1080p60
	   Profile 2: up to 720p60
	   Profile 3: up to 576p25

* MPEG-2/H.264 -> HEVC (ready in Q3'20)	

Output	
Interface	RJ45 (GbE Port)
Protocols	UDP, HLS
Video Codecs	H.264 MP@L1.2/2.2/3.0/3.1, HP@L3.1/4.0/4.1 MPEG-2 MP@HL/ML * (HEVC will be ready in Q3'20)

Video Resolutions	HD: 1920*1080p @60/59.94/50/30/29.97/25fps
	     1920*1080i @30/29.97/25fps
	     1280*720p @60/59.94/50/30/29.97/25fps
	SD: 720*576p @50/25fps
	     720*576i @25fps
	     720*480p @60/30/29.97fps
	     720*480i @30/29.97fps
	     For other resolutions, please contact us.

Bitrate Control	CBR, VBR
Video Bitrate	100Kbps~15Mbps (depending on combination of profile, level and resolution)
Audio codecs	MPEG1-LayerII, AAC-LC, HE-AAC (v1/v2) AC3 /E-AC3 Pass-through supported Up to 4 channels per video
DVB Subtitle	Support pass-through
Teletext	Support pass-through
Closed Caption	Support pass-through

Physical & Environment	
Interfaces	2 x RJ45 (GbE Port) 4 x USB 2.0, 2 x USB 3.0
	1 x VGA, DB15 1x HDMI 1.4, type-A (Reserved for future)
	1 x Power button 1 x DC power connector

Dimensions (H*W*D)	Device: 52mm x 197mm x 197mm
	     2.05" × 7.76" × 7.76"
	Package: 365mm x 285mm x 195mm
	     14.37" × 11.22" × 7.68"

Weight	Approx. 1.0kg (2.2 lb)
Power	DC 12V / 5A
	Max. 60W
Operating Temperature	-10℃ ~ 60℃ (-14°F ~ 140°F)
Storage Temperature	-20℃ ~ 70℃ (-4°F ~ 158°F)

ORDER INFORMATION

Part Number	Description
OMNIHUB XMINI	1CH Transcoder (linear transcoding, up to 1080p60)
OMNIHUB XMINI-OPT	Upgrade license for OMNIHUB-XMINI (adding ABR option or allowing linear transcoding of 2xCH up to 1080p30)

Specifications Subject To Change Without Notice   Rev 05-20   ©Toner Cable Equipment, Inc.