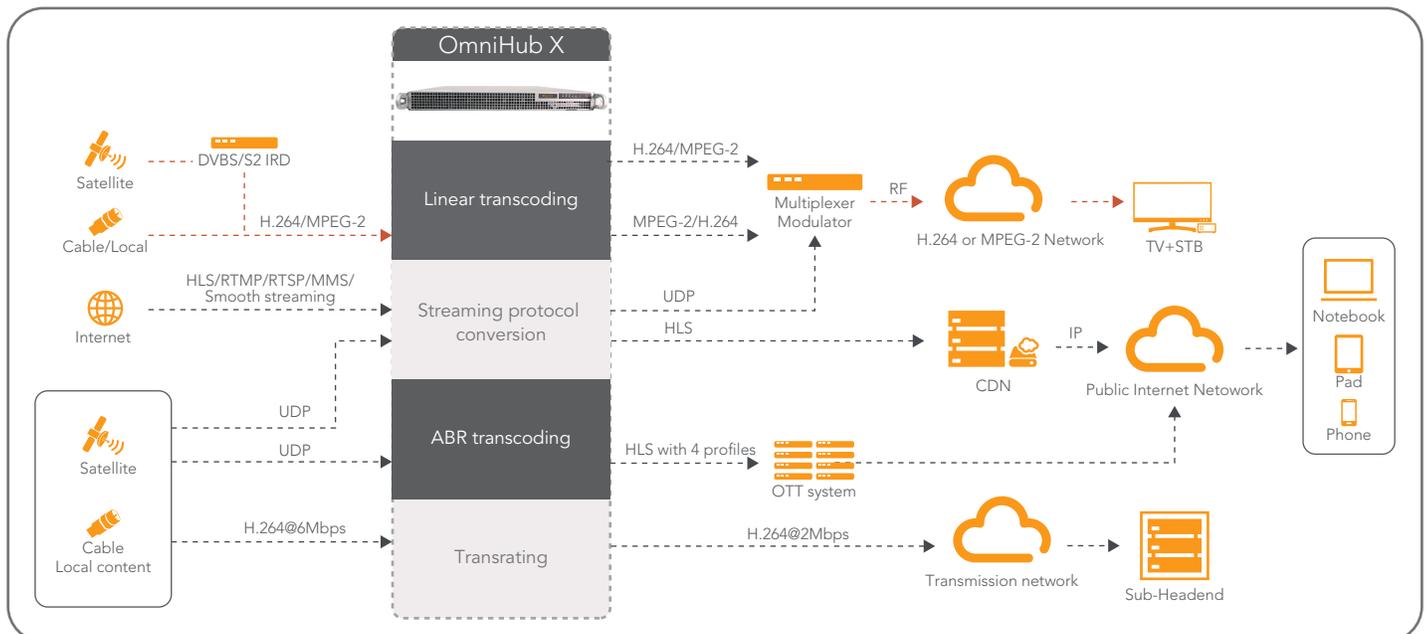# Omnihub X Multi-channel Linear Transcoder with optional OTT Packaging

OmniHub X is the software based multi-channel transcoder platform that supports both linear and OTT transcoding which allows to integrate different video format between networks and enable content streaming over public internet or via mobile network. With UDP/RTP/HLS/RTSP and more IP protocol options the OmniHub X can fit into any architecture to enable OTT delivery in your system. With two available models to choose from the OmniHub X can enable OTT services on any budget. Ranging from a budget friendly entry level system for one OTT service to the highest performance model capable of providing up to twenty OTT services.

APPLICATION

1. Convert H.264/MPEG-2 input into H.264 or MPEG-2 output for compatibility with different networ

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

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

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

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

Omnihub X Multi-channel Linear Transcoder with optional OTT Packaging

TECHNICAL SPECIFICATIONS

Input

Interface	RJ45 (GbE Port)
Protocols	UDP, RTP, HLS, RTMP, RTSP, MMS, TCP, FLV, Smooth streaming
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

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

Output

Interface	RJ45 (GbE Port)
Protocols	HLS, RTMP, HDS, Smooth Streaming, MPEG-DASH, RTSP, FLV, MMS
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

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
	       And more resolutions

Bitrate Control	CBR, VBR, ABR
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

Processing Capacity

Entry Level system: OMNIHUB-X100	
IPTV Mode	3 HD (up to 1080p60) or 12 SD H.264/MPEG-2 transcoding
OTT Mode	1 HD or 6 SD H.264/MPEG-2 transcoding with up to 4 profiles: HD: Profile 1: up to 1080p60 P Profile 3: up to 576p25 P SD: Profile 1: up to 576p25 Pr Profile 3: up to 360p25
High Performance system: OMNIHUB-X200	
IPTV Mode	10 HD (up to 1080p60) or 40 SD H.264/MPEG-2 transcoding
OTT Mode	5 HD or 20 SD H.264/MPEG-2 transcoding with up to 4 profiles: HD: Profile 1: up to 1080p60 P Profile 3: up to 576p25 Pr SD: Profile 1: up to 576p25 Pro Profile 3: up to 360p25

Physical & Environment

Dimension (W x H x D)	OMNIHUB-X100: 426mm x 43mm x 356mm
	                (16.8" x 1.7" x 14")
	Package: 596mm x 175mm x 495mm
	                (22.4" x 6.9" x 19.5")

	OMNIHUB-X200: 437mm x 43mm x 429mm
	                (17.2" x 1.7"x 16.9")
	Package: 686mm x 203mm x 610mm
	                (27" x 8" x 24")

Weight	OMNIHUB-X100: 4.99 kg (11 lb) OMNIHUB-X200: 11.43 kg (25.2 lb)
Power	OMNIHUB-X100: AC, 100V-240V/50-60HZ MAX 200W
	OMNIHUB-X200: AC, 100V-240V/50-60HZ MAX 400W
Operation temperature	5°C - 35°C (41°F - 95°F)
Storage temperature	-40°C - 70°C (-40°F - 158°F)

ORDER INFORMATION

Part Number	Description
OMNIHUB-X100	Entry Level system supports 3 HD services or 12 SD services H.264/MPEG-2 linear transcoding, or 1 HD or 6 SD H.264/MPEG-2 ABR transcoding with 4 profiles
OMNIHUB-X200	High Performance system supports up to 10 HD services or 40 SD services H.264/MPEG-2 linear transcoding, or 5 HD services or 20 SD services H.264/MPEG-2 ABR transcoding with 4 profiles

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