

## HD/SD H.264, MPEG-2 and NDI Decoder

### PRODUCT DESCRIPTION

The DEC-400 decoder series is Teracue's counterpart to the ENC-400 encoder series. The DEC-400-HDSDI is a livestream H.264, MPEG-2 SD/HD, NDI® and IPTV decoder for professional 24/7 use. The robust decoder offers 2 independent 3G-SDI outputs, low power consumption and audio talkback. The combination of high quality streaming and simplicity enables a quick start-up with reliable performance. The DEC-400 can be placed into the FR-620-EXT. This compact 1RU chassis operates up to 6 blades and provides a redundant power supply.

Please note the following restrictions for the DEC-400-HDSDI when operated in the FR-620-EXT:

- 4 DEC-400-HDSDI only 3x DEC-400-HDSDI + 3x ENC-400 & DEC-400-HDMI
- 2 DEC-400-HDSDI + 4x ENC-400 & DEC-400-HDMI 1x DEC-400-HDSDI + 5x ENC-400 & DEC-400-HDMI



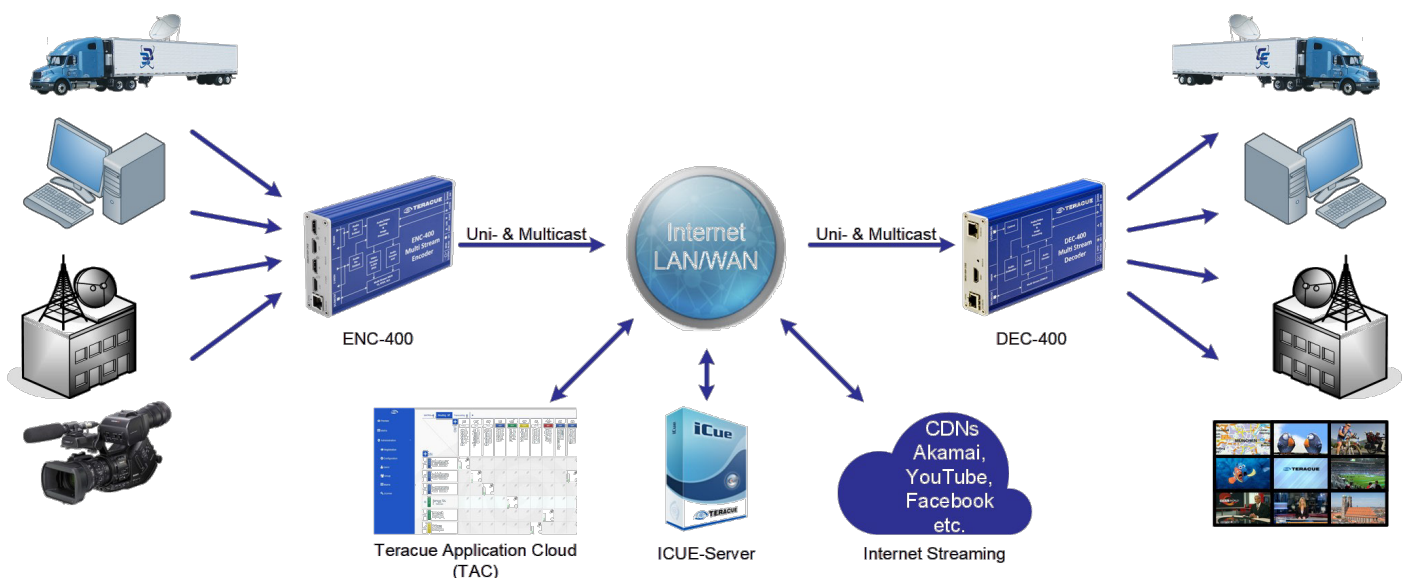
### KEY FEATURES

- Robust hardware solution for 24/7 operation
- H.264 and MPEG-2 HD/SD decoder
- Supports NDI® decoding
- Low delay support
- Talkback for audio conferencing
- Export & import of presets
- UDP, RTP, RTSP, TCP, HLS, HTTP, SRT, FEC decoding
- Low power consumption (<12 watt)
- Management by web interface
- Picture-in-Picture (PiP)
- AES-256\* decryption

### APPLICATION

- IPTV solutions
- Control rooms & HQ surveillance
- AV over IP streaming
- Broadcast contribution
- Event webcasting & internet streaming
- Digital signage streaming
- Training & education
- Medical & campus TV
- Remote desktop streaming
- Wireless & mobile streaming
- Networked conference room

### WORKFLOW INTEGRATION



\*Some features will be released with future firmware updates

## VIDEO I/O & DECODING

SDI Video output:	2x 3G-SDI Output with embedded audio	
Video decoding:	H.264, MPEG-2, NDI®, 4:2:0, 8-Bit	
Profiles and standards:	H.264 (MPEG-4 AVC Part 10; ISO/IEC 14496-10) Baseline, main, high profile MPEG-2 (ISO/IEC 13818-2), main, high profile NDI® 3.7	
Video decoding bit rate:	300Kb/s – 16Mb/s, low delay support, CBR/VBR	
Supported video resolutions:	1080p (1920x1080) @60/50/30/25p 1080i (1920x1080) @60/50i 720p (1280x720) @60/50/30/25p	PAL (720x576) @50i NTSC (720x480) @59,94i
Inserters:	Inserter for custom logos, custom signal loss image	

## AUDIO I/O & DECODING

Audio output:	3x Stereo (6 channel) embedded SDI outputs 1x Stereo, unbalanced, AC-coupled, mini-jack 3,5mm, 10 kOhm MIC/LINE level: +4/0/-3/-6 dBu selectable	
Supported compression standards:	MPEG-4 AAC-LC, AAC-HE*, MPEG-1 Audio Layer II, AC3 (pass through)	
Sampling rate:	Sample rate 48 kHz, 16Bit, 32-320 kbit data rate	
Audio input (TALKBACK):	1x Stereo, unbalanced, AC-coupled, via mini-jack 3.5mm, Output gain: -78 dB to +9 dB 16 bit stereo, PCM, sample rate 48/44,1/32/16/8 kHz	

## TS PROCESSING & NETWORK

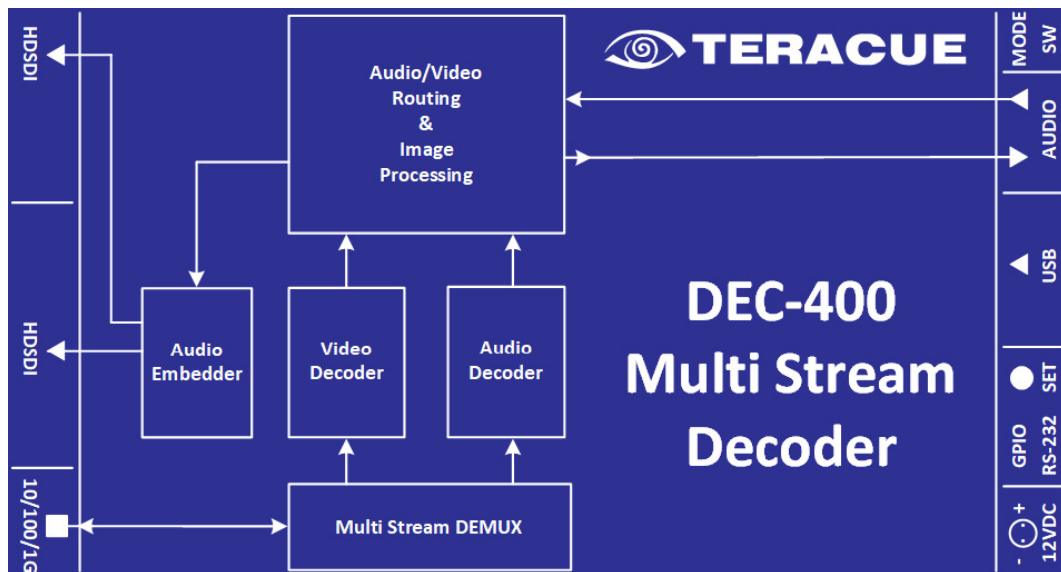
Network:	1x RJ45, 10/100/1000 TX Ethernet, half/full duplex, auto sensing or manual control	
IP Protocols:	HTTP, TCP/IP, UDP, IGMPv2/v3, SAP, Unicast/Multicast, DHCP, IPV4, DNS, NTP	
Streaming protocols:	UDP, RTP, RTSP, TCP, HLS, HTTP, SRT, FEC, NDI®	
Decryption:	AES-256*	
Management and security:	Web browser, software updates via web browser, log generation, REST API for web Services, authorization via password, IEEE 802.1X authentication, rotary switch with confirmation	

## GENERAL

USB Port:	1x USB host for debugging	
Chassis:	PCB-Board for FR-620-EXT chassis	
Dimensions and weight:	(H/W/D) 30mm x 105mm x 185mm	
Agency approvals:	CE, RoHS, WEEE	
Temperature & humidity:	0 to +45°C, up to 90% RH, non-condensing	
Power:	12 VDC ≤ 12W per blade	
Limited warranty:	1 year standard limited warranty. Warranty extensions for up to 5 years available.	

\*Some features will be released with future firmware updates

## BLOCK DIAGRAM



DEC-400-HDSDI block diagram

## ORDER INFORMATION

DEC-400-HDSDI	H.264 and MPEG-2 HD/SD decoder blade with dual SDI output, embedded audio and analogue audio for the FR-620-EXT chassis.
FR-620-EXT	1RU Rack mount chassis for max. 6 boards.

## COMPLEMENTARY PRODUCTS

ENC-400-HDMI/HDMI2	H.264 and MJPEG HD/SD encoder board with single/dual HDMI input, loop through outputs and USB recording. Standalone portable encoder also available.
ENC-400-HDSDI	H.264 and MJPEG HD/SD encoder board with dual HDSDI input, loop through outputs and USB recording. Standalone portable encoder also available.
TERACUE APPLICATION CLOUD (TAC)	Stream routing and transcoding software for transmission and receiving widely used protocols and codecs e.g. UDP, RTP, TCP, RTSP, HLS, SRT, H.265, H.264 and MPEG-2.
ICUE-1000	IPTV Media Server: Live, VoD and scheduled playout streaming server software.