

Network Decoder

Impulse 300D



The Impulse 300D is a dynamic approach to the single channel decoder concept. At its core, the 300D is a versatile broadcast video processor, capable of receiving content over traditional facility multicast as well as OTT “internet” sources. The decoder itself offers a large range output ports including SDI, HDMI, and even analog video with RCA stereo for legacy applications. With the addition of recording and playback through locally inserted USB/SD storage the 300D can also be used for digital signage or ROI content delivery. Offering a solid foundation of broadcast-tier features with support up to 4K/UHD via HDMI, the 300D is one of our most cross-compatible appliances in the Sencore portfolio. Use as a stand-alone DIY content delivery or rack-mountable up to three units in 1RU in traditional head-ends.

Key Features

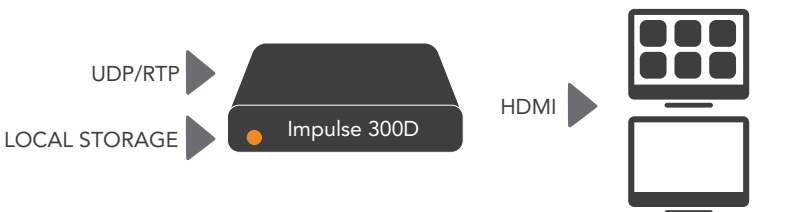
- Support H.265(HEVC), H.264 (MPEG-4), MPEG2 decoding
- Decode signals into 3G-SDI, 2.0 HDMI and CVBS outputs
- Decoding up to UHD/4k resolution on HDMI output and up to FHD resolution on SDI output
- Support of 2 audio PIDs decoding for MPEG1L2,AAC, AC3 and E-AC3
- Support for all of today’s most common internet delivery protocols, including HLS, SRT, RIST and Zixi
- Recording and playback from/into USB and SD cards
- Simple and intuitive webUI for configuration and monitoring
- Small form factor - 1/3rd RU wide and 1RU tall

Applications

INTERNET DELIVERY



DIGITAL SIGNAGE



SPECIFICATIONS

OUTPUT INTERFACES

SD/HD-SDI/3G-SDI:	1x 75Ω BNC SDI SMPTE 259M SMPTE 292M SMPTE 424M
Digital Video:	1x HDMI Type A Connector with positive screw retention
Supported Version:	2.0
Composite Video Output:	1x 75Ω BNC NTSC, PAL
Analog Audio:	2x RCA (L/R)
IP	
Physical Interface:	1x RJ45, 10/100/1000 auto-negotiating
Output Format:	UDP or RTP

Constant Bitrate

IP Encapsulation:	1 to 7 TS Packets per IP Packet
Protocols:	Unicast & Multicast
IGMP compatibility:	Version 1, 2 & 3
TS Bitrate:	250 Kbps to 30 Mbps

INPUT INTERFACES

IP	
Physical Interface:	1x RJ45, 10/100/1000 auto-negotiate
Output Format:	UDP or RTP
Constant Bitrate	
IP Encapsulation:	1 to 7 TS Packets per IP Packet
Protocols:	Unicast & Multicast HLS SRT RIST* Zixi RTMP*
IGMP compatibility:	Version 1, 2 & 3
TS Bitrate:	250 Kbps to 30 Mbps
Input redundancy*	
Descrambling:	AES 128/256

VIDEO PROCESSING

Codec/Profile:	MPEG-2 up to MP@HL H.264 up to HP@L4.2 HEVC up to MP@5.1 AVS-P16 (AVS+), AVS2 Main-10bit Profile@ L 8.2.6
Resolutions:	2160p@23.98, 24, 25, 29.97, 30, 50, 60 1080p@23.98,24,25, 29.97, 30, 50, 59.94, 60 1080i@25, 29.97, 30 720p@ 50, 59.94, 60 576i@25 480i@ 29.97
Aspect Ratio:	Automatic or manual (4:3 or 16:9) Bitrate: up to 30 Mbps

AUDIO PROCESSING

Codec/Profile:	Dolby Digital (AC-3) Dolby Digital Plus (E-AC-3) AAC HE-AAC MPEG-1 L2
Audio Output Formats:	MPEG-2 up to MP@HL H.264 up to HP@L4.2 HEVC up to MP@5.1 AVS-P16 (AVS+), AVS2 Main-10bit Profile@ L 8.2. Linear PCM Dolby Digital pass-through* PCM (down mixed for 5.1 Sources)
Aspect Ratio:	

Audio Sampling Rate:	Analog (down mixed for 5.1 Sources) 48KHz
Audio Volume Leveling:	-12~12 dB
Number of Services:	2x audio services/PIDs
Ancillary Data Pass-through:	AFD (SMPTE 2016)* Closed Captions (EIA-608, EIA-708)*

OPERATION MODES

Live:	Decoding to HDMI/SDI or CVBS
Playback*:	Local: USB Flash, SD Card, In order HDMI/SDI/CVBS or IP outputs
Recording*:	Local: USB flash, SD Card Format: TS, MOV, MP4 Circling recording (by time or size of file)

MANAGEMENT

Connector:	1x RJ-45 10/100/1000 Auto Negotiating
Protocols:	HTTP(S), SNMP* and Web API*
User Interfaces:	Full control via web GUI Full control via intuitive front panel
Automation Interfaces:	Full status and control via SNMP* Configurable SNMP traps * Web services API* Syslog message logging
Firmware Updates:	Via Web GUI
Other I/O:	1 x USB 2.0 1 x SD Card Standard Interface LCD x 1, Front button x 6

DIMENSIONS/POWER

Height:	1 RU, 1.72" (44mm)
Width:	1/3 RU, 5.69" (144.5mm)
Depth:	7.5" (190.5mm)
Weight:	1.3 lbs (0.6kg)
Power:	100-240 VAC 50/60 Hz
Power Consumption:	Max. 9W
Supplies:	1x AC Internal
Connector:	IEC 320 C14

ENVIRONMENTAL CONDITIONS

Operating Temperature:	32° to 122° F (0° to 50° C)
Cooling:	Software regulated fan
Storage Temperature:	-40° to 149° F (-40° to 65° C)
Relative Operating Humidity:	<95% (non-condensing)

*Future

ORDERING INFORMATION

IMPULSE-300D	Impulse Decoder HDMI/CVBS output,UDP/RTMP/HLS/RTSP/SRT/RIST inputs, Mpeg2/H.264/H.265 video and MPEG1L2/ AAC audio decoding
IMPULSE 30100	SDI output license
IMPULSE 30200	IP output License
IMPULSE 30300	AC3 License
IMPULSE 30500	ZIXI license
IMPULSE 30600	UHD decoding license (downconversion & HDMI output)