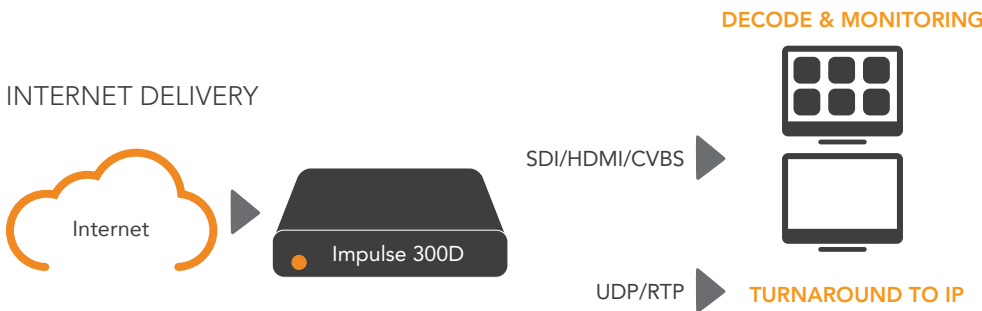# Network Decoder

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. 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 1 audio PID decoding for MPEG1L2,AAC, AC3 and E-AC3
- Support for all of today's most common internet delivery protocols, including HLS, SRT, RTMP and Zixi
- Simple and intuitive webUI for configuration and monitoring
- Small form factor - 1/3rd RU wide and 1RU tall

Applications

INTERNET DELIVERY

DECODE & MONITORING

SDI/HDMI/CVBS

Internet

Impulse 300D

UDP/RTP

TURNAROUND TO IP

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

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	SRT
	Zixi
	RTMP
IGMP compatibility:	Version 1, 2 & 3
TS Bitrate:	250 Kbps to 30 Mbps
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:	Linear PCM
	PCM (down mixed for 5.1 Sources)
	Analog (down mixed for 5.1 Sources)
	Audio Pass-Through (HDMI output)
Audio Sampling Rate:	48KHz
Number of Services:	1x audio service/PID
Ancillary Data Pass-through:	Closed Captions (EIA-608, EIA-708)

MANAGEMENT

Connector:	1x RJ-45 10/100/1000 Auto Negotiating
Protocols:	HTTP(S), SNMP
User Interfaces:	Full control via web GUI
	Full control via intuitive front panel
Automation Interfaces:	Full status and control via SNMP*
	Configurable SNMP traps *
	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)

ORDERING INFORMATION

IMPULSE-300D	Impulse Decoder HDMI/CVBSoutput, UDP/RTMP/HLS/SRT 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)