

impulse 100E

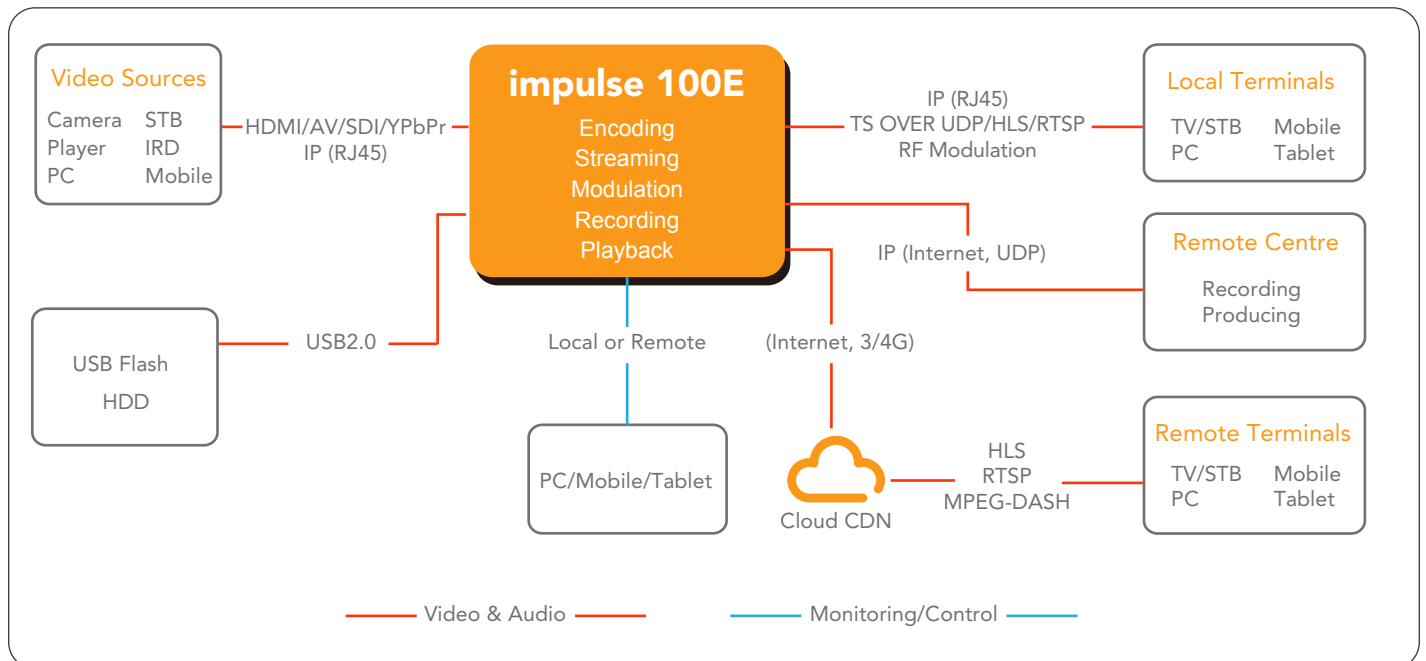
Network encoder, streamer and modulator



INTRODUCTION

The Impulse 100E is a cost-effective single-channel encoder which can modulate, record and stream. The versatile Impulse platform has several models with QAM, IP and USB options for live encoding, single RF channel insertion, streaming of HLS, RTMP or UDP and local playback and recording.

TYPICAL APPLICATION



TECHNICAL SPECIFICATION

Channels	
Video	1 channel of H.264 or MPEG-2 SD/HD program encoding
Audio	1 pair of MPEG1L2, AAC or AC3 audio

Physical Interfaces	
Input	1 x HDMI (v1.4) 1 x YPbPr (components) 1 x CVBS (3.5mm) 1 x SDI (option of IMPULSE-100E-01/02) 1 x RJ45
Output	1 x RJ45 1 x RF (option of IMPULSE-100E-02)
Other I/O	Embedded Wi-Fi with external antennas (for wireless accessing and data transmission) 1 x USB 2.0 LCD x 1, front button x 5, reset button x 1

Streaming	
Protocols	Live: UDP/RTP, RTSP, RTMP, HLS
Server Mode	Direct streaming to connected audience (Wi-Fi or RJ45, limited accessing numbers*)

Modulation	
Standards	QAM, Annex B
Output Range	66~858 MHz
Constellations	64/256 QAM
Symbol Rate	3~6.952 Ms/s

Operating Modes	
Live	Encoding and IP streaming Encoding and RF output
Recording	Local: HDD, USB flash, storage card reader via USB Format: TS, MOV, MP4 Circling recording (by time or size of file)
Playback	Local: HDD, USB flash, storage card reader via USB In-order IP output

Management	
Configuration	Web-GUI (easy or advanced mode) or front panel Power-on and play (by pre-setup or last configuration)
Status/Monitoring	LCD display of status Remote monitoring of status and current program

Encoding	
H.264/AVC Profile (4:2:0)	HD: MP/HP@L4.0/4.1/4.2 SD: MP/HP@L3.0/3.1/3.2
MPEG-2 Profile (4:2:0)	HD:MP@HL SD: MP@ML
Resolution	HD: 1920 x 1080@25p/30p/50i/60i, 1280 x 720@50p/60p SD: 720 x 576@50i, 720 x 480@60i Sub-SD resolutions
Rescaling	HD to SD down-conversion
Video Bit-Rate	MPEG-2: 0.8 Mbps~14 Mbps H.264: 0.8 Mbps~14 Mbps
Rate Control	CBR
GOP Control	Support
Aspect Ratio	Automatic or manual (4:3 or 16:9)
Audio Profile	MPEG-1 Layer II, AAC (HE/LC), AC3
Audio Bit-Rate	MPEG-1 Layer II: 64-384 Kbps AC-3: 128-448 Kbps AAC: 48-448 Kbps
Audio Mode	Stereo (2.0, including down-mix)
Audio Sampling Rate	48KHz
Audio Volume Leveling	-12~12 dB
Ancillary Data Processing	Closed Caption (CEA 608/708) Teletext (*future option)

Physical & Environment	
Dimensions	144mm x 118mm x 38mm (5.67" x 4.65" x 1.50") 0.3kg (0.66 lb)
Power	12V DC port x 1 Max. 9W (non-modulation mode) Max. 15W (modulation mode)
Operating Temperature	10°C~40°C (-14°F~104°F)

ORDER INFORMATION

Part Number	Description
IMPULSE-100E-00	HDMI In, AV In, YPbPr In, IP Out, supports Closed Captions, MPEG1L2, AAC, AC3 audio
IMPULSE-100E-01	SDI In, HDMI In, AV In, YPbPr In, IP Out, supports Closed Captions, MPEG1L2, AAC, AC3 audio
IMPULSE-100E-02	QAM (Annex-B), SDI In, HDMI In, AV In, YPbPr In, IP Out, supports Closed Captions, MPEG1L2, AAC, AC3 audio