

**INGRON2204EH Four-Channel MPEG-4 AVC/H.264 HD Encoder**  
**INGRON2208EH Eight-Channel MPEG-4 AVC/H.264 HD Encoder**



**Features**

- Advanced video compression: H.264/AVC high profile level 4.0
- Output with ASI and IP (UDP/RTP)
- Equipped with empty packets filtering of IP out
- Input interface: HDMI(HDCP support) or HD-SDI
- Multi-pass LookAhead CBR or VBR encoding
- Built-in PCR capability
- Capable of multiplexing input signals with 1\*external ASI in
- Providing PSI/SI compilation and NIT, LCN insertion
- PAL/NTSC modes available
- SNMP software remote control and centralized management

**Specifications**

**Video Compression**

Video Compression	H.264/AVC high profile level 4.0/3.0
Video Input	HDMI(support HDCP protocol); HD-SDI optional
Video Input Mode	PAL, NTSC
Resolution	NTSC / 1920*1080_60P, 1920*1080_60i, 1280*720_60P, 720*480_60i; PAL /1920*1080_50P, 1920*1080_50i, 1280*720_50P, 720*576_50i
Bit-rate	0.8~19.0 Mbps, CBR/VBR
GOP	IBBP
Video pre-processing	De-Interlacing, Noise Reduction, Sharpen

**Audio Compression**

Audio Compression	MPEG-1 Layer II(default), (MPEG-2/4 LC-AAC, HE-AAC(V2) optional)
Audio Input	HDMI; SDI optional
Sampling Rate	48 KHz
Sampling Accuracy	24-bit
Bit-Rate	64 Kbps~384 Kbps (for any channel)

**Input**

Video	4*HDMI or 4*SDI for INGRON2204EH; 8*HDMI or 8*SDI for INGRON2208EH
Audio	4*HDMI or 4*SDI for INGRON2204EH; 8*HDMI or 8*SDI for INGRON2208EH
ASI	1*ASI

**Output**

ASI Output	Number	1*ASI+1*ASI(backup)
	Standard	EN 50083-9 ASI
	Output Bit Rate	Max. 170 Mbps
	MPEG Frame	188/204 byte
	Reflection Loss	>10 dB
	Connector Type	75 Ω, BNC interface

IP Output	Transport Protocol	TS over IP output, UDP&RTP protocol
	IP Output Channel	1*MPTS or 4/8*SPTS
	Mode	Unicast/Multicast
	Connector Type	RJ45, Gigabit Ethernet(1000M)
	Support empty packets filtering	

**Multiplexing**

Multiplexing with external ASI(1\*SPTS or 1\*MPTS) in

Multiplexing with 4/8 local encoded programs

Providing PSI/SI compilation and NIT, LCN insertion

**Management**

Local Control	LCD and keyboard on front panel
Remote Control	by SNMP
Upgrading	Ethernet software upgrade
Language	English

**General**

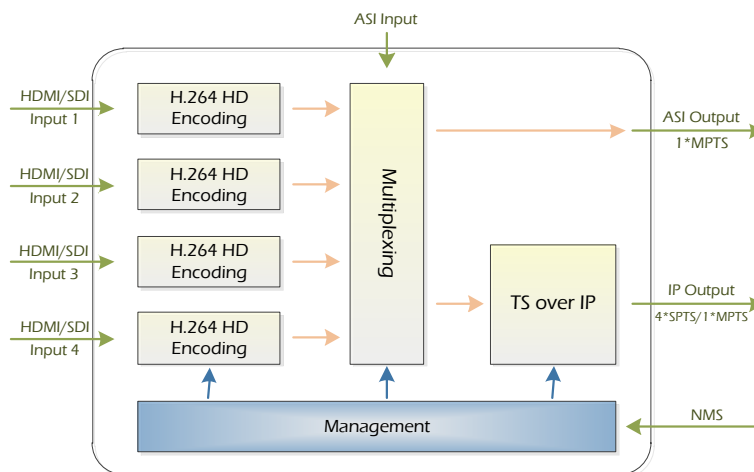
Voltage	110~220V AC, 50/60 Hz
Power Consumption	21.0 W
Environment	0~45°C (Operation), -20~80°C (Storage)
Dimensions(W*D*H)	482*405*44.5 mm
Gross Weight	4.5 KGS

**Introductions**

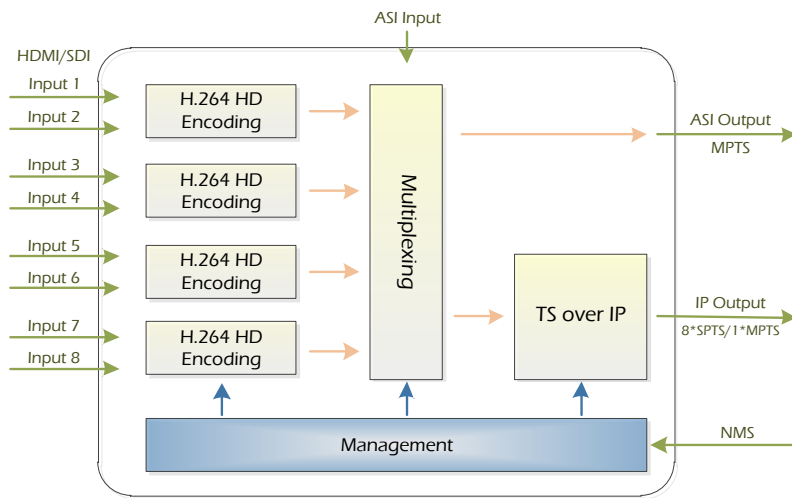
INGRON2204EH/INGRON2208EH Four/Eight-Channel H.264 HD Encoder is designed especially for multiple channels of video and audio compression and processing. It works in high performances, ultra-low latency and low bit rates for DTV systems, by adopting rt compression technology of MPEG-4 AVC/H.264, and supporting resolution up to 1080P full HD. Audio compression is supported by MPEG-1 Layer II, while HE-AAC & LC-AAC are also available by option. Apart from 4/8\*HDMI or 4/8\*SDI, the device offers an external ASI input for multiplexing. After processing of encoding and multiplexing, it outputs TS by ASI and TSoIP(UDP/RTP) interfaces. The device is able to work on multiple channels of signals in effective way, making it widely used in digital TV head-end system, broadcasting, distribution and contribution systems.

**Diagram**

**INGRON2204EH**



INGRON2208EH



Rear Panel



Options

	INGRON2204EH-10	INGRON2204EH-20	INGRON2204EH-30	INGRON2208EH
IP Out	1*MPTS	4*SPTS	1*MPTS&4*SPTS	1*MPTS&8*SPTS