





super low: 40ms

Video bit rate: HD: 2-60Mbps, SD: 0.5-20Mbps

Video Loop-Out: HD-SD/SDI



Audio input: AES-EBU, SDI Embedded, HDMI Embedded

Audio coding: MPEG-1 layer II

MPEG-4 AAC-LC

MPEG-4 HE-AAC

Dolby AC-3 pass-through

Audio Channel: 4 stereo

Audio mode: Stereo, Mono

Audio bit rate: MPEG-1 layer II: 64-384Kbps

AAC: 64-384Kbps

Support audio loudness automatic control(ALC)

### Scrambling

Support BISS-1/E scrambling

### SD Digital/Analog Encoder Module (SDE-420)

Function: 2 channel SD H.264/MPEG-2 encoding



### Video Encoding

Video input: SD-SDI, CVBS

Video coding: H.264, MPEG-2

Resolution: 576i@25, 480i@29.97/30

Chroma: 4:2:0

Video bit rate: 2 channels: H.264: 250K~6Mbps

MPEG-2: 500K~7Mbps

### Audio Encoding

Audio input: SDI Embedded, Analog, AES-EBU

Audio coding: MPEG-1 layer II

MPEG-4 AAC-LC

MPEG-4 HE-AAC

Dolby AC-3 pass-through

Audio mode: Stereo, Mono

Audio bit rate: MPEG1 layer II: 64-384Kbps

AAC: 64-384Kbps

### Scrambling

Support BISS-1/E scrambling

Video bit rate: HD: 2-60Mbps, SD: 0.5-20Mbps

Video Loop-Out: HD-SD/SDI



Audio input: AES-EBU, SDI Embedded, HDMI Embedded

Audio coding: MPEG-1 layer II

MPEG-4 AAC-LC

MPEG-4 HE-AAC

Dolby AC-3 pass-through

Audio Channel: 4 stereo

Audio mode: Stereo, Mono

Audio bit rate: MPEG-1 layer II: 64-384Kbps

AAC: 64-384Kbps

Support audio loudness automatic control(ALC)

### 9IXGSHROTM

Support BISS-1/E scrambling

### Multi-Stream HD Encoder Module (MHDE-420)

Function: 1ch HD encoding, 3 encoding streams output



### Video Encoding

Video input: HD/SD-SDI, HDMI

Video coding: H.264

Resolution: 1080P@50/50.94

1080P@25/29.97

1080i@25/29.97

720P@50/59.94

576i@25, 480i@29.97

Chroma: 4:2:0

Video bit rate: HD: 1-20Mbps, SD: 0.5-20Mbps

Video Loop-Out: HD-SD/SDI

### Audio Encoding

Audio input: SDI Embedded, HDMI Embedded, Analog

Audio coding: MPEG-1 layer II

MPEG-4 AAC-LC

MPEG-4 AAC-SBR

Audio Channel: 1 stereo

Audio mode: Stereo, Dual Mono, Mono

Multi-Stream

Support 3 encoding stream output with different bitrate

Scrambling

Support BISS-1/E scrambling

## Multi-Channel Transcoder (MHDT-420)

NEW

Function: Multi-Ch H.264 HD/SD transcoding



Video input: H.264, MPEG-2

Video output: H.264

Resolution: 1080P@50/50.94

1080P@25/29.97

1080i@25/29.97

720P@50/59.94

576i@25, 480i@29.97

Chroma: 4:2:0

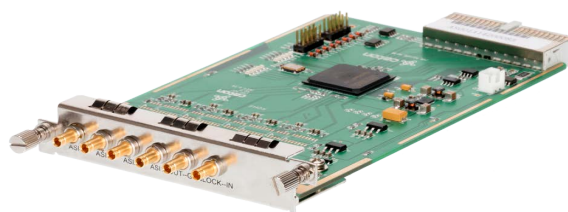
Audio transcoding: MPEG-1 layer II

MPEG-4 AAC-LC,

MPEG-4 AAC-SBR

## ASI I/O Module (IO-ASI)

Function : 4 ASI input or output, support various pattern



Support various ASI I/O combination pattern:

4 input

3 input and 1 output

2 input and 2 output

1 input and 3 output

4 output

ASI gateway in one unit for channel backup

Support EN-50083-9 standard

Support 188bytes/204bytes

ASI bit rate: 0~200Mbps for 1 channel

Support Genlock input and loop out

## IPASI I/O Module (IO-IPASI)

Function : 2 IP input & output, 2 ASI input or output



10/100/1000Base-T Ethernet, RJ45

Support UDP/RTP (Unicast/Multicast)

Each streaming support 10 SPTS output, 3 MPTS output

Each streaming support up to 600Mbps bit rate

ASI bit rate: 0~200Mbps for 1 channel

Support Genlock

## Multi-Protocol IP Transmitting Module (SMIP)

NEW

Function: Multi-Protocol IP transmitting over Internet



Slot in front panel

4x 10/100/1000Base-T Ethernet, RJ45

Each streaming port can be configured as TX or RX

Protocol: R2TP/R2TP-S

RTMP

UDP

Max Stream Channel: (Each streaming port)

R2TP/R2TP-S: 2

RTMP: 16

UDP: 2

Max Bit Rate: (Each streaming port)

R2TP/R2TP-S: 60Mbps

RTMP: 20Mbps

UDP: 60Mbps

Support TS AES encryption for R2TP connections

Support DHCP & Manual

Support DNS

## Typical Application

### Multi-channel HD Digital Encoder (H.264):

#### Function

m channel HD Digital video/audio encoding, output: ASI  
m channel HD Digital video/audio encoding, output: IP  
m channel HD Digital video/audio encoding, output: IP & ASI  
m channel HD Digital video/audio encoding, Multiplex & Daisy Chain, input: ASI, output: IP

#### Modules

HDE×m, IO-ASI×1 (m ≤5)  
HDE×m, IO-IPASI×1 (m ≤5)  
HDE×m, IO-IPASI×1 (m ≤5)  
HDE×m, IO-IPASI×1, IO-ASI×1 (m ≤4)

### Multi-channel SD Analog/Digital Encoder (MPEG-2/H.264):

#### Function

2m channel SD Analog/Digital video/audio encoding, output: ASI  
2m channel SD Analog/Digital video/audio encoding, output: IP  
2m channel SD Analog/Digital video/audio encoding, output: IP & ASI  
2m channel SD Analog/Digital video/audio encoding, Multiplex & Daisy Chain, input: ASI, output: IP

#### Modules

SDE-420×m, IO-ASI×1 (m ≤5)  
SDE-420×m, IO-IPASI×1 (m ≤5)  
SDE-420×m, IO-IPASI×1 (m ≤5)  
SDE-420×m, IO-IPASI×1, IO-ASI×1 (m ≤4)

### Multi-channel HD/SD Digital/Analog Encoder

#### Function

m channel HD Digital video/audio encoding, 2n channel SD Analog/Digital video/audio encoding, output: ASI  
m channel HD Digital video/audio encoding, 2n channel SD Analog/Digital video/audio encoding, output: IP  
m channel HD Digital video/audio encoding, 2n channel SD Analog/Digital video/audio encoding, output: IP & ASI  
m channel HD Digital video/audio encoding, 2n channel SD Digital video/audio encoding, Multiplex & Daisy Chain, input: ASI, output: IP

#### Modules

HDE×m, SDE-420×n, IO-ASI×1 (m+n ≤5)  
HDE×m, SDE-420×n, IO-IPASI×1 (m+n ≤5)  
HDE×m, SDE-420×n, IO-IPASI×1 (m+n ≤5)  
HDE×m, SDE-420×n, IO-IPASI×1, IO-ASI×1 (m+n ≤4)



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