

Sumavision Media Box Exchange - 10K020



Product Introduction

As broadcasters migrate to IP-based transport, Sumavision 10K020 converting real-time resources such as multi-channel uncompressed, compressed, mezzanine compression, and public network protocols in one media box

The 10K020 platform delivery high capability of encoding, decoding, media gateway, and even baseband contents, easy and flexible to deploy, security is assured by a FPGA based design with latest protection transmission protocol.

Both Encoding and decoding of uncompressed video from/to SDI and SMPTE ST2110 with options for AVC, HEVC or ultra-low latency JPEG XS codecs. SRT support on Encoding/decoding module.

Encoding / Decoding

- ◆ UHD/HD SDI encoding/decoding
- ◆ HEVC/AVC* 10-bit 60P 4:2:2
- ◆ JPEG-XS and TR-08 SMPTE ST2110-22 options
- ◆ SDI or ST2110 input
- ◆ Ultra-low-latency
- ◆ UDP, SRT,

IP Gateway

- ◆ Bidirectional transport of SD/HD/3G/4K-SDI video signal over 25 GigE links
- ◆ Flexible SFP28, Ethernet:2x25GbE I/O per module
- ◆ Standard: ST2110-20/21/30/31/40
- ◆ Standard: SMPTE ST2022-6*, SMPTE ST2022-7, SMPTE ST2059
- ◆ Frame-level synchronization

Management and Control

- ◆ Web GUI
- ◆ Alarm notifications, including SNMP traps Syslog
- ◆ NMOS support

Contact Us

SUMAVISION TECHNOLOGIES CO., LTD

Tel: +86-10-82345859/69/70

Fax: +86 10 62978800

Email: worldmarket@sumavision.com

Website: www.sumavision.com

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S020 Rear Panel



S115E/S215D Rear Panel

Specification

S020 IPG Module	
Input and Output per Module	
SDI Input/Output	8 x 12G-SDI/3G-SDI input or output (BNC, 75 ohms) 2 of 8 are 12G-SDI
Synchronization	2 x BB (BNC, 75 ohms) input/loop out
IP Ports	2 x 25GbE (SPF28), compatible with 10GbE
Encapsulation Parameters	
IP address	IP, Subnet mask, Gateway for the source
IP address for the destination	Unicast and Multicast
	Selection of the source data port and destination port
	Tx and Rx Manual
	Join Multicast by providing correct messaging using IGMPv2/v3
Synchronization Interfaces	
SMPTE ST2059 video sync signal	IP 10GE/25G Ports
SDI Support	
SD	625i/525i
HD	720p50/59.94/60/25/29.97/30 1080i50/59.94/60 1080p25/29.97/30
3G	1080p50/59.94/60
12G	2160p25/29.97/30/50/59.94/60 4320p25/29.97/30/50/59.94/60
Resolution	UHD/FHD/HD/SD
frame synchronization/phase adjustment	
Frame synchronization/phase adjustment	External synchronization or PTP phase as a reference, support frame synchronization/phase adjustment
Proxy monitoring	4K stream proxy monitoring under ST2110 standard
Standard	
SMPTE2022-7	Seamless Switching
SMPTE2022-6*	SS/HD/3G packeting
SMPTE2110	SMPTE ST2110-20 SMPTE ST2110-21 SMPTE ST2110-22 SMPTE ST2110-30 SMPTE ST2110-31 SMPTE ST2110-40
SMPTE ST2059	IEEE1588 PTP synchronizing
JPEG-XS Encoding or Decoding Mode	
Input	Available with SDI or 2110 inputs

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Standard	TR-08 SMPTE ST2110-22 options
S020 CONV mode	
Resolution conversion	8K, 4K, HD
Frame conversion	Up and Down
HDR conversion	SDR/HDR-HLG/HDR-PQ
WCG	BT.709/BT.2020
Image processing	Saturation adjustment and contrast enhancement
3D-LUT	33point-3D color mixing
Color Space	4:2:0 / 4:2:2 /4:4:4 /RGB
S115E Encoding Module	
Density(Per module)	1 x 4K program Or 4 x HD programs
Profiles	H.265: H.265 Main/Main 10 profile@level5.1 High-tier; H.265: Main/Main10 profile@ level5.1 High-tier, Max 4Kx2K @60fps H.264: BP/MP/HP@level5.0,
Resolutions	3840x2160p 50/59.94/60/25/29.97/30/24/23.98fps 1920x1080p 50/59.94/60/25/29.97/30/24/23.98fps 1920x1080i 25/29.97/24/23.98fps*(encoding) 1280x720p 50/59.94/60fps
Chroma format	4:2:0, 4:2:2
Bit Depth	8-bit,10-bit
Bitrate	4Mbps~200Mbps CBR/VBR
Output (Signal Lost)	Color Bar Freeze frame Black frame
GOP	1-384
Audio	8 pairs/groups audio per channel MP2, Dolby, Suma-Adv.
Low-Latency	160ms(Encoding)
Protocol	UDP, SRT
S215D Decoding Module	
Density(Per module)	1 x 4K program Or 4 x HD programs
Profiles	H.265: H.265 Main/Main 10 profile@level5.1 High-tier; H.265: Main/Main10 profile@ level5.1 High-tier, Max 4Kx2K @60fps H.264: BP/MP/HP@level5.0,
Resolutions	3840x2160P@60/50/30/25; 1920x1080P@60/50/30/25; 1920x1080i@60/50; (H.264 frame*)
Chroma format	4:2:0, 4:2:2
Bit Depth	8-bit, 10-bit
Audio	8 pairs/groups audio per channel MP2, Dolby, Suma-Adv.
Protocol	UDP, SRT
Control	
Interfaces	1+1*
LCD	LCD, press buttons
Ethernet/Upgrade	Web Via Ethernet port
NMOS IS-04/IS-05/08/09	Control and Configuration
LLDP	Link Layer Discovery Protocol
IGMPV3	Supports multicast management and SSM

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