KILOVIEW®

Easy the IP-Based Video Transmission

Please scan with browser.

Leading Innovator and Solution Provider of IP-Based Video Transmission

CONTENTS

1 About Kiloview

Founded in 2011, Kiloview is a professional hardware manufacturer and software developer and solution provider in the field of IP-based video transmission and management, with products across the range of video encoding, decoding, conversion, IP-based video switching and streaming.

With the principle of Any In, Any Out, Any Where, Kiloview provides reliable, affordable, high quality video transmitting products and solutions, helping thousands of professional customers in Broadcast, Sports, Education, Medical, Security and Enterprise.

Kiloview supports full protocols including NDI®, NDI|HX, SRT as well as RTSP, RTMP, HLS, RTP, TS-UDP, ONVIF, with flexible types of standalone and rackmount multi-channels, functions such as PTZ control, voice intercom, recording, streaming services to offer the most versatile AV-over-IP solution in the world.

Advantages

| 15 Years+ | Technical accumulation | 6000+ | Customers | 200,000+ | Units sold | 100+ | Exported countries |

Our Customers

BBC NEWS NBC CCTV Tencent NewTek JVC NEP sky

2 NDI Series
Video Converter

NDI® UHD

Compatible with most NDI®-enabled software and hardware

NDI® is the registered trademark of NewTek, Inc.

OBS Studio XSplit vMix Adobe VIDBlasterX
Wirecast mimoLive streamstar NewTek INDI

FULL NDI

Encoder and Decoder, All-In-One

UHD, Ultra-Low-Latency

100*80*24mm

N3: 1080 P60 SDI input/loop or decoding output

100*80*24mm

N4: 1080 P60 HDMI input/loop or decoding output

One cable, all problems solved

- FULL NDI, ultra-low end-to-end latency
- Tally at both sides
- USB expansion PTZ control/digital switching keyboard
- Power over Ethernet(PoE)/ Gigabit network
- 5~18V wide range power supply
- NDI® self-discovery/ Multiple sources smooth and seamless switching
- Camera mount solution/ rackmount solution

110*95*23mm

N30: 12G-SDI input/loop or decoding output

100*80*24mm

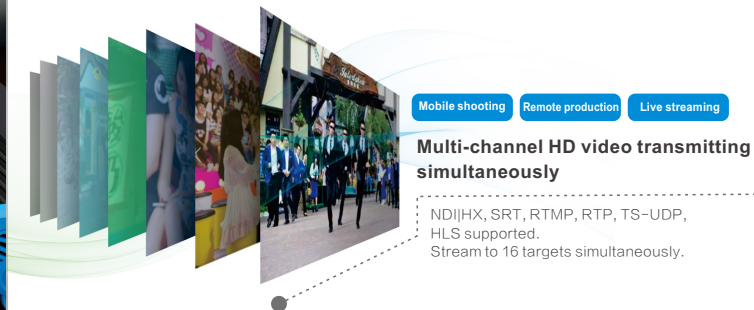**N40**: 4K P60 HDMI in put/loop or decoding output

N1/N2
NDI|HX Encoder

The Most Versatile and Cost-Effective Streaming Encoders

Highlights

- Wifi transmission
- Threaded screw camera mount
- Custom image/text overlay
- 64Kbps ~ 40Mbps adjustable bitrate
- Video recording& storage
- Multi NDI|HX and SRT/RTMP transmitting simultaneously
- Voice intercom supported
- Dual-stream output
- Built-in battery(normal application 3-5H)
- Ethernet USB expansion forTally/PTZ control

Mobile shooting | Remote production | Live streaming

Multi-channel HD video transmitting simultaneously

NDI|HX, SRT, RTMP, RTP, TS-UDP, HLS supported.
Stream to 16 targets simultaneously.

115*75*35mm

N1 1080 P60 SDI input

N2 1080 P60 HDMI input

U40 4K NDI® Encoder

Adding power to your cameras

90mm H 30mm

Kiloview U40 4K NDI® encoder supports 4K P60 HDMI or USB input, convert to NDI® high bandwidth, also it suports IP to NDI|HX conversion.

The Kiloview U40 easily converts HDMI/USB/IP streams to NDI® and is up to 4K P60 compatible. With only one network cable, video sources from HDMI, PTZ, USB cameras and others can easily go into the NDI® world and enjoy the advantages of IP-based transmission featuring ultra-high image quality and ultra-low latency.
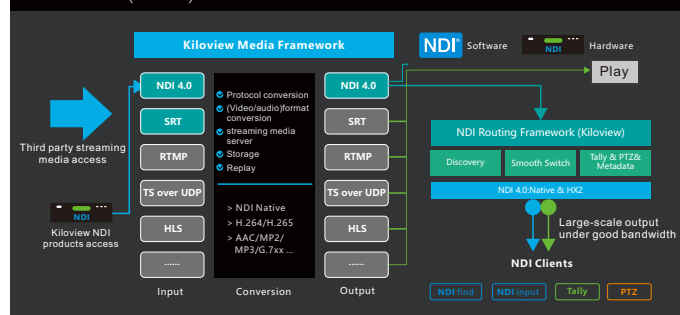
Highlights

- Real 4K P60 input supported
- HDMI or USB to NDI® high bandwidth
- RTSP/SRT/RTMP/HLS···to NDI|HX
- DC Out to power your camera/monitor
- Dual Network ports for data transferring

3 NDI®Cluster Matrix Software System

KILOVIEW NDI®Cluster matrix system is a large cluster-type NDI®signal managing and switching system independently developed by Kiloview. NDI®cluster is an elastic and clustered system, managing signal sources from dozens to thousands and building smooth and seamless switching channels for those signal sources. It is similar to traditional digital video matrix, but beyond that, NDI® Cluster also provides a high IT management capacity with fully level-to-level managing, devices centralized controlling, media streaming service and protocol conversion for your IP videos.

NDI®Cluster(Matrix) Basic architecture and fundamentals

Kiloview Media Framework

NDI Software NDI Hardware

Third party streaming media access

NDI 4.0	✓ Protocol conversion	NDI 4.0
SRT	✓ (Video/audio)format conversion	SRT
RTMP	✓ streaming media server	RTMP
TS over UDP	✓ Storage	TS over UDP
HLS	✓ Replay	HLS
......		......

Kiloview NDI products access

> NDI Native
> H.264/H.265
> AAC/MP2/ MP3/G.7xx ...

Play

NDI Routing Framework (Kiloview)

Discovery | Smooth Switch | Tally & PTZ& Metadata

NDI 4.0:Native & HX2

Large-scale output under good bandwidth

NDI Clients

Input | Conversion | Output

NDI find | NDI input | Tally | PTX

✓ Device centralized management
Auto discovery of NDI® devices in network, auto-adding management list.

✓ Failure recovery and redundant backup
Dual redundant hot backup supported, recovery time <1S.

✓ Friendly human-computer interaction
Web operations, traditional matrix operation simulation, hierarchical authority management, custom signal grouping.
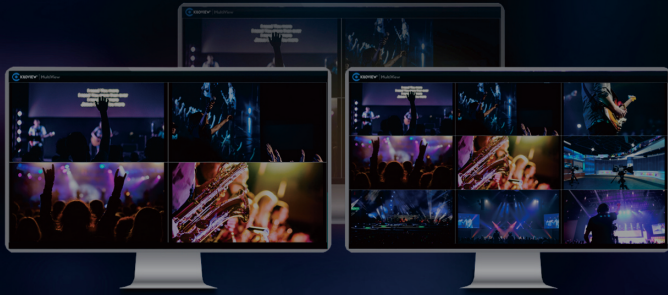
✓ Elastic expansion
100+ server cluster building, network load auto-balancing.

✓ NDI Signal Switching
No frame synchronization device required, switching without blank screen/stagnation/blurred.

✓ Compatibility
Full NDI and NDI|HX, 8K/4K/portrait signal supported, Tally/PTX/Metadata reverse direction pass−through.

4

Multiview Player for NDI®
Unlimited NDI® streams

Multiview

Developed by Kiloview, KV MultiView player for NDI®is a multi-screen playback software for unlimited NDI® streams. Simply select any of the 16 NDI®sources in your network and display the chosen ones in a single window for Multiview with any layout. MultiView Player is compatible with various NDI®High Bandwidth and NDI|HX sources, both 4K and HD, and easily connects with your smartphones, computers,
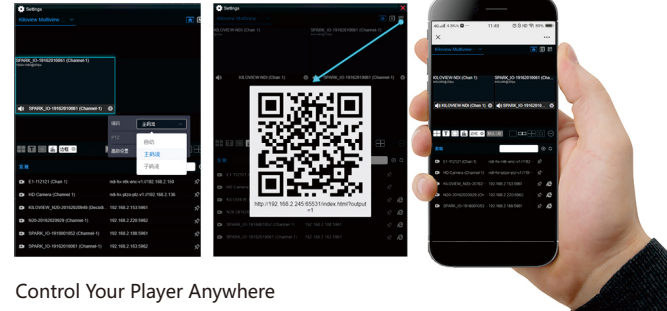
16 NDI streams

Add up to 16 streams on each screen, streams can be either NDI®or NDI |HX, from either main or sub streams.

NDI Auto Discover or by Manual

NDI sources in the network can be discovered automatically by the Multiview or being added by filling the IP address manually.

Self-defined layout

PIP (Picture in Picture), PBP (Picture by Picture) or 1/2/3/4/5/6/7/8/9/16 grids are supported.

Control Your Player Anywhere

You can manage your Multiview on any Web page URL, on a mobile phone or iPad.

More Functions

Output NDI

The multi-window video can be coded into the NDI®stream as an NDI®source in the local network and being discovered automatically.

Multi Windows, Multi Screens

Remotely switch multiview screens among multiple screens/windows. And windows can be independent or copied.

Professional Auxiliary functions

VU Meter, safe area, center cross, and visible or invisible screen border make Multiview a great partner for your professional workflow.

Save Your Setting Automatically

Every time you open it, Multiview automatically restores the settings from the last time it was closed.

5 H.265/264
Video Encoder Series

SRT R E A D Y

SRT (Secure Reliable Transport) is a transport protocol for enabling the delivery of high-quality, low-latency video across the public Internet. Kiloview is a member of the SRT Alliance. Full range of H.265/ H.264 encoders and decoders can support SRT protocol to help your transmission more stable with low latency over internet (Internet transmission latency is able to be controled under 200ms).
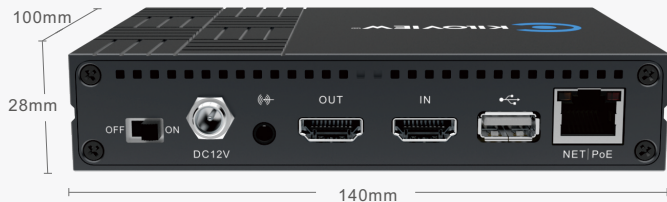
4K HEVC

New
HEVC 4K Video Encoder

S2

Lower bandwidth   Clearer image   Faster transmission

100mm
28mm
OFF ON
DC12V OUT IN NET|PoE
140mm
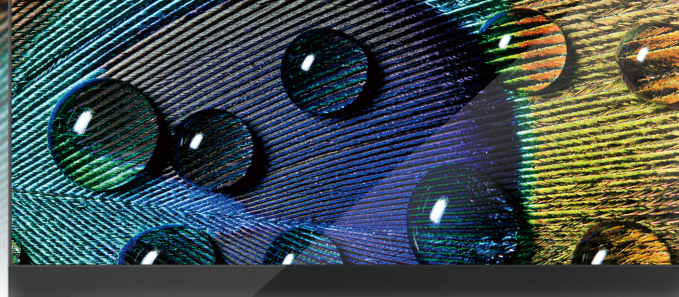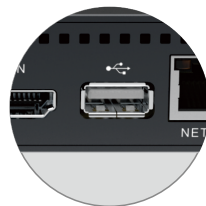
H.265 encoding to gain faster video transmission

With H.265 HEVC encoding, S2 realizes lower encoding bitrate and saves more than 50% bandwidth comparing with H.264.

H.265 VS H.264
50%

True 4K input to ensure the highest image quality

With HDMI 2.0 input, S2 supports real 4Kp60 HDMI input and encodes up to 4Kp30, to meet your needs for a high-quality image.

Real-time Intercom

With Kiloview intercom software, S2 can talk with all Kiloview devices and 2 PC/Mobile through a USB headset.

More functions

Tally	
PoE	

NDI|HX	Supports NDI|HX, SRT, RTMP, RTSP etc.
UI	Real-time monitoring and preview of the video via new UI page
PTZ	Extension USB for PTZ, recording, communication, etc.

P series
4G Bonding Encoder

5 channels bonding, stream like a Pro
Free deployment and affordable

- Free bonding software provided
- 2 internal 4G modems+2 USB 4G modems+ 1 WIFI
- All protocols supported
- 8 Main-Sub streams to all platforms
- Pre-processing
- Built-in battery powered
- User-defined text and image overlay
- Intercom (All products supported)
- Bonding status checking (connection, network balance, data)

KiloLink
The Power to Connect all Kiloview devices

KiloLink is a proprietary technology innovated by Kiloview designed to optimize media transmission by any Kiloview device using any available network links.

Based on RUDP (Reliable UDP) transmission technology and precise congestion control algorithms, KiloLink offers stable, efficient, and reliable conventional or multi-link bonding network transmission performing significantly better than the traditional TCP protocol.
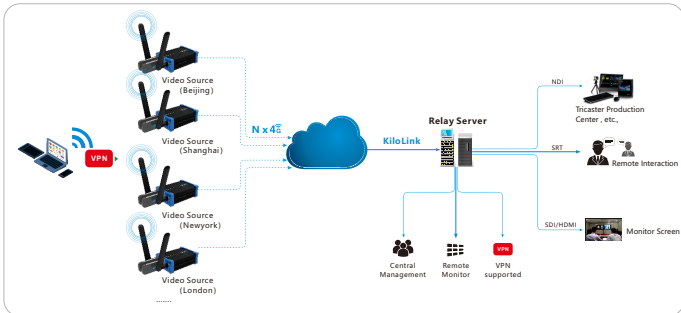
Applications-1

Reliable outdoor wireless aggregation point-to-point transmission can be achieved by using P series and directly connecting to Kiloview MG300 (Media Gateway).

Applications-2

Device management and streaming media forwarding can be achieved by using the P series to connect to KiloLink Relay Server through 4G aggregation.

G/E/M series

G Series Wireless ｜ E Series Wired ｜ M2 Dual Interfaces

HD Video Encoder

- H.264 Encoding Support common protocols such as SRT/RTP/RTSP/RTMP/TS-UDP/HLS
- Dual-stream output. Main and sub stream configured with different parameters and can both stream to 8 platforms simultaneously
- User-defined text and image overlay
- Pre-processing such as image cropping and rotation before encoding
- Adjustable bitrates: 64Kbps～40Mbps
- Resolution up to 1080P60 and output resolution adjustable
- With Micro SD/TF card slot, USB expansion storage and NAS network storage(Note: M2 without card slot, but can support USB expansion storage)
- Audio embedded encoding and intercom function customizable

E series-Ethernet transmission
E1: SDI input/loop
E2: HDMI input/loop
Up to 1080p 60Hz

125*89*28mm

G series-WiFi/USB expansion 4G/Ethernet
G1: SDI input/loop
G2: HDMI input/loop
Up to 1080p 60Hz

125*89*28mm

M2-HDMI+VGA Dual Input Ethernet
2 in1 (Note: No loop port)
Up to 1080p 60Hz

182*122*36mm

6
H.265/H.264
Video Decoder

Professional Hardware Decoding Devices

The H.265/H.264 video decoders are professional hardware decoding devices, which independently decode various forms of IP streams (like IP-Camera stream, RTSP/RTMP/RTP unicast or multicast media streams etc.), to output with SDI signal, DVI-I signal (compatible with HDMI/VGA signals), or HDMI signal. It can decode multi-channel video streams simultaneously.

More options are available for HD/UHD 4K, portable/rackmount version.

D300
4K H.265/264 Video Decoder

☑ 4K H.265(HEVC)/H.264 video decoding

☑ Multi-channel decoding, split screen display, dynamic switching

☑ Full protocols supported, especially NDI|HX & SRT

H.265

H.264/H.265

HEVC

Up to 4KP60

KILOVIEW® DECODER D300

| Full protocols supported | Multi-streaming switching | SDK available | 7*24h working mode | 9 CH video split screen display | Low latency decoding |

Up to 9 channels simultaneous decoding

- 4K H.265 (HEVC)/H.264 decoding, output resolution up to 4KP60
- Multi-stream decoding simultaneously, split screen display, dynamic conversion (1080P60: 9 CH decoding; 4KP30: 4 CH decoding;self-defined split screen display 1/2/3/4/6/9)

Preview either with image or video

- Free Layout with 1/2/4/9/16 Grid, PIP, PBP, POP

Full protocols

- Support NDI|HX2, SRT, RTSP, RTMP, RTMPS, HTTP, TS over UDP, etc.

Other Features

- Support Logo and OSD
- Output resolution adjustable
- Dynamic and seamless switching

138*105*27mm

DC230 HD Video Decoder

Hardware decoding IP to SDI/DVI (HDMI/VGA compatible)

USB expansion PTZ control (custom)

Gigabit Ethernet port

138*105*27mm

3.5mm analog audio and embedded SDI/HDMI audio output respectively

SDI+DVI dual interface output, DVI compatible with HDMI/VGA signals Image and text overlay

DC230-Up to 4 channels HD decoding (P29.97/59.94 supported), SDI+DVI (HDMI/VGA compatible) can output same or different contents.

138*105*27mm

- Support HD video up to 1080P60, and output resolution is adjustable
- Support most protocols, including NDI|HX/SRT/RTMP/HLS/TS over UDP/RTP/RTSP
- The decoding latency is less than 200ms in the typical network environment, and it canbe reset in accordance with the internet con ditions

7

Kiloview Cradle Series
1RU/3RU Rackmount Codec

The Kiloview Cradle Series include 1RU or 3RU rack-mounted frame, freely mixed with 4 channels (1RU),16 channels/32 channels (3RU) codec modules. It comes with redundant power modules, centralized heat dissipation, ensuring longtime stable operation, and benefits your IP video deployments of any size and complexity.

High Density

You may need to use multiple devices in a workflow, and sources may change over time or from day-to-day. With Cradle, you can design 4 encoder and decoder modules in a 1RU chassis, 16x or even 32x in a 3RU chassis to make them work perfectly in your environment.

All inserted encoding and decoding module support SDI/HDMI+3.5mm audio, and the decoding module supports HD or 4K video output.

4 encoding decoding modules in 1RU chassis

16 encoding decoding modules in 3RU chassis

High Flexibility-SDI? HDMI? All in, all out

No matter what video sources you have, SDI or HDMI, the Cradle is your ideal choice. 1RU/3RU is compatible with SDI and HDMI of both input and output; freely insert encoding and decoding modules in a chassis.

High Reliability

Cradle is equipped with redundant power as standard, effectively preventing power failure. At the same time, dual cooling fans give Cradle Intelligent temperature control for automatic heat dissipation, ensuring stable and 24h continuous operating. For convenient use, Cradle offers power indicator light and operation indicator light to monitor working status.

Cradle Series- encoding cards

Encoding Card	RE-1	RE-2	REN-1	REN-2	RE-100	REN-100
Video Interface	1*BNC SDI	1*HDMI	1*BNC SDI	1*HDMI	2*BNC SDI	2*BNC SDI
Video Loop	1*BNC SDI	1*HDMI	1*BNC SDI	1*HDMI	2*BNC SDI	2*BNC SDI
NDI|HX	N/A	N/A	NDI|HX 1.0 and 2.0	NDI|HX 1.0 and 2.0	N/A	NDI|HX 1.0 and 2.0
Video Encoding	H.264/AVC, Motion-JPEG					
Audio Interface	1*3.5mm Line in				N/A	N/A
Audio Encoding	AAC/G.711					
Network	Ethernet					
Image/Text Overlay	Custom defined text and picture overlay supported, which can be set to any position on the screen					
Video Rotate/Crop	Supported					
Resolution	Up to 1080P60Hz					
Protocols Supported	SRT/RTMP/ RTMPS/HLS/TS over UDP/RTP/RTSP /Onvif					
Management	Web					
Applicable Frame	RU01/RU03/RU03S				RU03S	RU03S

Cradle Series- decoding and media gateway cards

Decoding Card	RD-230	RD-300	RMG-300
Video output	1*3G- SDI+DVI (compatible HDMI1.4/DVI1.0/VGA)	1*3G- SDI+1*HDMI	1*3G- SDI+1*HDMI
Network	1 * 100M/1000M RJ- 45	2 * 100M/1000M RJ-45	2 * 100M/1000M RJ-45
Video Decoding	H.264	H.265/H.264	H.265/H.264
Decoding Capacity	Up to 4 channels decoding(4* 1080P30 or 2*1080P60 and below)	Up to 9 channels decoding (9*1080P30 or 8*1080P60)	Up to 9 channels decoding (9*1080P30 or 8*1080P60)
Protocols Supported	SRT/RTMP/RTMPS/RTMP Server/ HLS/TS over UDP/RTP/RTSP	NDI|HX2.0/SRT/RTMP/RTMPS/ RTMP Server/HLS/TS over UDP/ RTP/RTSP	NDI|HX2.0/SRT/RTMP/RTMPS/ RTMP Server/HLS/ TS over UDP/RTP/RTSP
Protocol conversion capability	N/A		9 CH 1080P video conversion simultaneously
Audio Decoding	AAC/G.711		
Audio Output	SDI/HDMI Embedded, or 3.5mm Analog Output		
Video Preview	Supported		
Image/Text Overlay	Supported		
Management	Web		
Applicable Frame	RU01/RU03/RU03S		

8 SDI Converters
Broadcast Grade Image Quality,Frequency Conversion Supported

HD SDI Converters

Convert between SDI and SDI/HDMI/VGA/CVBS

Frame rate conversion, supporting professional processing such as up-down conversion and de-interlacing
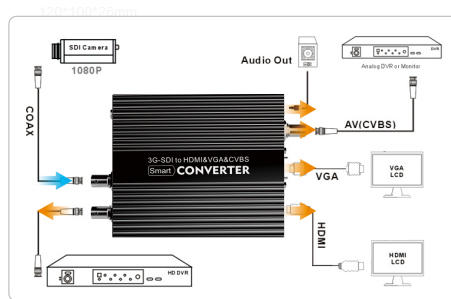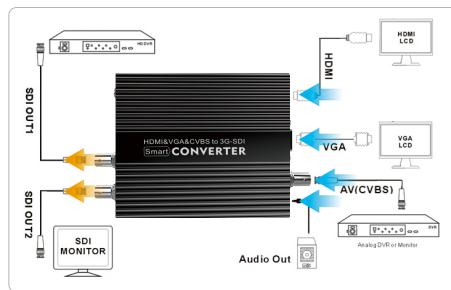
Support 1 input and 2 output modes

HDMI&VGA&CVBS to 3G-SDI
Smart CONVERTER

120*100*26mm

46*96*23mm

CV180: Convert SDI to SDI/HDMI/VGA/CVBS, supporting frequency conversion
CV190: Convert HDMI/VGA/CVBS to SDI, supporting frequency conversion
C1 MINI: Convert SDI to HDMI

Other Advantages of CV180/CV190

● YUV4:2:2 10Bit conversion without color distortion
● Professional color adjustment, 3D noise reduction, interlace/progressive video conversion, video scaling up/ down and framerate conversion etc., which can guarantee the professional image conversion quality
● CV180 supports analog audio output independently, CV190 supports analog audio embedded input to SDI signal
● Support blue screen warning of signal loss

Kiloview video converters are suitable for the applications that need to convert SDI to HDMI/ VGA/AV(CVBS) or VGA/AV(CVBS) to SDI, such as broadcast, video teaching and training, HD video information release, HD video long−distance transmission, video conferencing, multimedia advertising and video security monitoring etc..

9 Multi-Party Video Collaboration System

There are two types of terminal devices: MS2 and MS4. MS2 supports 2CH physical audio& video inputs and outputs; MS4 supports 4CH physical audio& video inputs and 2CH physical audio and video outputs (interface customization available).

255*250*54mm   Appearance is subject to the actual product.

Cost-effective
It can be realized without MCU, which is convenient for deployment. Multi-party audio and video interaction without MCU and convenient deployment.
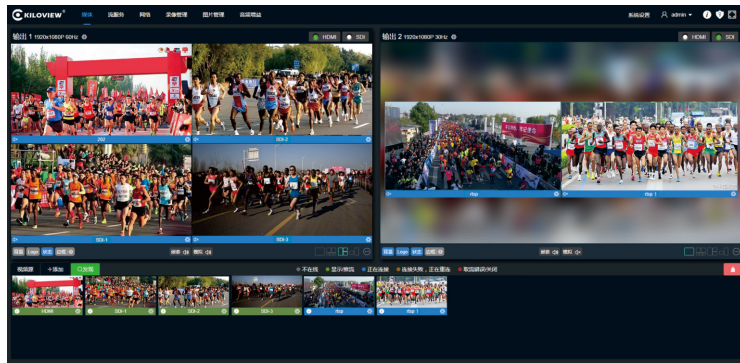
Powerful functions
Numbers of video accesses with various function of session live streaming. Full network protocols supported and many extensible functions.
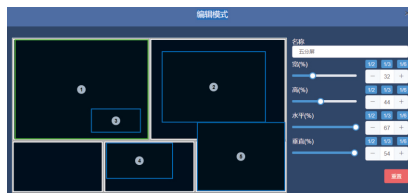
Stable and reliable
Consist of multi-embedded hardware, ensuring long-time stable working.

Easy operation
Auto-discovery among all terminals, easy-to-use interface, equipped with OLED display. Web page remotely operated on PC/iPad/Android Pad.

Multi-party conversation diagram

Self-defined windows diagram

Recording function diagram

- SDI and DVI interface output the same or different contents
- RCA audio is freely selected and embedded into any physical input interface
- Cropping, rotating(portrait), color adjustment and Image noise reduction for local video
- Auto discovery among local network terminals while under Internet it is performed through Kiloview integrated management platform
- User-defined display with window numbers, position and size within 9 screens. Pop-up play supported in full screen mode
- IP input or output streams from all terminals can be customized in special protocols including SIP/NDI|HX
- Custom for video recording of any participant or third-party access

10

MG300 Media Gateway
Easily and freely bridges IP protocols

Mult-channel video decoding and splitting
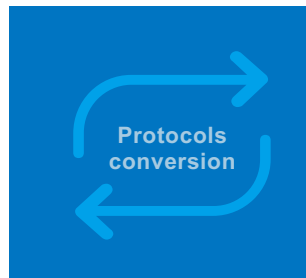
50 CH RTSP streams output concurrently

Video protocol conversion

KILOVIEW

MEDIA GATEWAY MG300

138*105*27mm

Applications

- Live streaming video from LAN RTSP/Onvif monitoring or other IP-Cameras
- Converting the most common IP protocols including NDI-HX2/SRT/RTMP/RTSP/TS over UDP/HLS to SRT/RTMP/RTSP/TS-UDP
- 1CH RTSP video streams concurrently to 50 classrooms in campus network

- Scenic spot live streaming
- Campus monitoring to the public security network
- Restaurants monitoring live streaming
- Streaming after video splitting

Protocols conversion
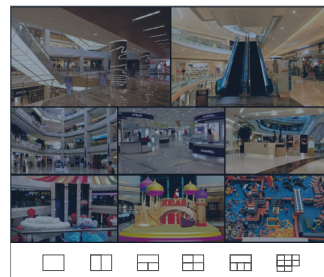
Protocols conversion

Mutual conversion of RTP/RTSP, TS over UDP,SRT, RTMP, HLS(m3u8), SIP(custom), Onvif and other software-based extensible protocols.
Up to 9 CH streams for protocol conversion,and each stream can be converted into 4 different (or the same) target output.

9-channel decoding and user-defined layout

9-CH 1080P60 video decoding, split display, and dynamic switching simultaneously.H.264/H.265 UHD (4K)/HD video decoding.

RTMP

IP Stream

Up to 9 multiview stream as source for streaming
Publish the stream to 36 destinations (9 sources with 4 protocols each)

SDI and HDMI output simultaneously

HDMI: up to 3840 × 2160@60Hz
SDI: up to 1080P60

11 IMS (Integrated Media Management System)

Kiloview IMS comes with some basic functions such as auto discovery, device status centralized monitoring, remote configuration and firmware updating, and customized for advanced functions such as centralized switching of streams, centralized recording (remote network storage), protocol conversion, streams distribution, and voice intercom.

Main Functions

Auto discovery
Auto discover for all terminals in LAN or Internet, and connect automatically.

Status monitoring
Centrally monitoring the status of all devices, such as online/offline, pushing or not and related parameters.

Parameters setting
Remotely configuration for all terminals, no need on-site management.

Firmware upgrading
All devices upgrade on a large scale, no need on-site processing one by one.

Video stream switching
Remotely switching the sources from all the devices, similar to the function of IP matrix.

Centralized recording
Remotely recording of all encoding device streams. (such as centralized recording to local or remote servers)

Voice intercom
The system manages call configuration between all devices, such as call grouping, mode change of speaking and listening of each terminal, etc.

Protocol conversion/distribution
It supports all video streams to be output after protocol conversion, and conversion between various protocols such as RTSP/RTMP/SRT/NDI/UDP/HTTP/HLS. One single stream can also be distributed in multiple ways through this system.

Support and Customization

Lifelong technical support, customization available.

All our products are independently developed and manufactured by Kiloview. We have a dedicated technical support team to answer all kinds of technical questions.

After-sales Services

Item	Description
Hotline	**7*24 hours available by telephone or email** Service Hotline: 0086 731 88315979 E-mail: support@kiloview.com; Skype: info@kiloview.com
Warranty	**12 Months from Delivery. Free software upgrade** Kiloview provides 1 year product warranty for all of our products (non-human damage only). After the warranty period, hardware replacement or maintenance will be charged.
Online knowledge base	**Please refer to website en.kiloview.com for details**

Customization service (OEM, ODM)

Services

Hardware customization

Software customization

Appearance customization

Hardware interface customization

PCB board customization

(Product appearance and specifications are subject to changes without notice)