

MG300 Media Gateway

High-Performance Embedded Multi-Functional Device



Overview:

MG300 media gateway is a high-performance embedded multi-functional device, which integrates powerful functions including stream protocol conversion, up to 100CH RTSP/RTMP stream distribution, multi-channels video decoding. It can be applied to video format conversion, protocol intercommunication, decoding and split screen display from different systems, manufacturers, types and encoding contents. It also works as the stream media server with the capacity for 100 concurrent access.

Advantages:

- Support the most comprehensive protocol conversion and the widest application, which covered various protocols in the market including professional protocols such as SIP.
- Support protocol conversion, stream media distribution, live streaming, video split display, audio digital remix, video decoding to the display, etc.
- Portable design, low power consumption (<6w), stable and reliable working mode makes 7×24 hours working available.

Application

- It can be widely applied to RTSP/Onvif (customize) LAN monitoring or other IP-Camera video live broadcast over public network, such as scenic spot, store monitoring, campus monitoring, farm monitoring, etc., it can realize the functions of multi-camera, multi-angle switching.
- All kinds of non-unified video can be converted to video that can meet the national standard and international SIP standard, which can connect the traditional communities, parks, enterprises and institutions monitoring to relevant government platforms.
- Multi-parties video collaboration, SIP video conference to live webcast, IP stream distribution (forwarding)/switching/live streaming, stream media decoding to display (NDI-HX/SRT/RTMP/RTSP/TS-UDP/HLS to SDI or HDMI), multi-channels split screen display, etc.

Main function

■ Support 9 channels protocol conversion

- It supports the conversion of NDI-HX, RTP/RTSP, TS over UDP, RTMP (service and push), HLS (m3u8), SIP/Onvif (customize) and other protocols that are software extendable, making various input protocols converted to other target protocols. The transmission/reception of NDI-HX protocol is supported with additional application authorization;
- Compatible with various IP cameras, IP encoders, NVRs, video conference systems input;
- At most 9 channels protocol conversion for input streams (Media source number is unlimited and dynamically switched), and each input stream is converted into four same or different protocols output;
- Expandable SATA and NAS video record and storage capability.

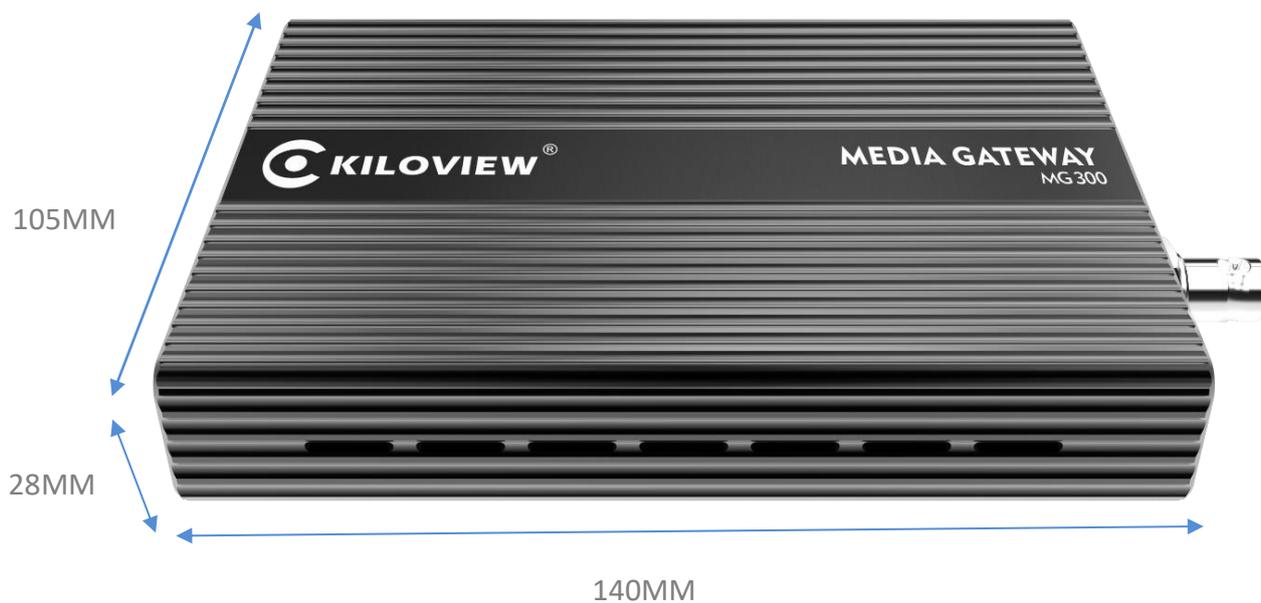
■ Stream service function for up to 100 concurrent access capability (streams distribution/live streaming)

- 9 channels of network streaming distribution/live streaming function (each stream is pushed to up to 4 different targets simultaneously), and support various protocols such as RTMP;
- Unicast mode meets up to 100 concurrent user viewing, and directly used as a distributed live broadcast server for live events;
- (Note: The actual concurrent access capability depends on the specific network bandwidth, video format and other factors. Device transmission limit is 600Mbps).

■ Support up to 9 channels of video decoding and self-defined split display as well as multi-channels video dynamic switching and re-encoding transmission/live streaming

- Support 4K/HD H.264/H.265 video decoding, with HDMI and SDI output interface, supporting to output HDMI (up to 3840x2160@60Hz) and SDI (up to 1920x1080@60Hz) with the same or different contents;
- Support HDMI/ SDI embedded and analog audio output, audio channel is switched at will, supporting high quality digital mixing and conference mode mixing;
- Decode up to 4 channels of 4K 30Hz H.264/H.265 video, or 8 channels of 1080P 50Hz/60Hz H.264/H.265 video, or 9 channels of 1080P 30Hz or 1080i 50/60Hz or 720P and below H.264/H.265 video;
- Support 9 channels video self-defined 1/2/4/6/9 split display, and dynamic switching output; Support re-encoding the segmented and reassembled video for live streaming/transmission, and the image up to 1080P60 H.264 encoding.

Dimension



Parameter

Model	MG300
Network	2*100M/1000M RJ45 adaptive Ethernet
Decoding output	1*SD/HD/3G-SDI, up to 1080P 60Hz 1*HDMI, up to 3840x2160@60Hz
Analog audio output	1*3.5mm line out
Analog audio input	1*3.5mm line in
USB	1*USB 3.0 Type-A

Protocol support capability	
Access protocol	NDI-HX/SRT/RTSP/RTMP/TS-UDP/RTP/HTTP, SIP/ONVIF (customize)
Output protocol	NDI-HX/SRT/RTSP/RTMP/TS-UDP/RTP/HTTP, SIP/ONVIF (customize)
Protocol conversion	9 channels 1080P video conversion
Streaming distribution	Unicast supports 100 channels of RTSP/TS/RTMP/HLS streams (Not more than 600Mbps)
Live streaming	9 channels*4 channel 1080P
Video decoding capability	
Number of decoding	4K 30Hz H.264/H.265: up to 4 simultaneous channels 1080P 50Hz/60Hz H.264/H.265: up to 8 simultaneous channels 1080P 30, 1080i 50/60Hz, 720P and below H.264/H.265: up to 9 channels simultaneously
Video decoding standard	H.264, H.265
SDI output format	1080P60/59.94/50, 1080P30/29.97/25/24/23.98, 1080i60/59.94/50, 720P60/59.94/50, 570i50, 480i60
HDMI output format	4K 3840x2160@60/30, 1080p60/50, 1080p24/25/30, 1080i60/50, 720p60/50 Compatible with VESA standard format
Video rate range	128Kbps ~ 40Mbps
Audio decoding	AAC G.711 (aLaw/uLaw)
Audio rate range	AAC: 8Kbps ~ 320Kbps G.711: 64Kbps
Decoding delay	≤200ms
Split display style	Support 1/2/4/6/9 splitting; Support re-encoding the splitted and recombined video for live streaming/ transmission. The image supports up to 1080P60 H.264 encoding.
Management	
Management interface	Web
Remote management	Support
Remote firmware upgrade	Support
Operating environment	
Operating temperature	25°C ~ 60°C
Relative humidity	20 ~90%RH (No condensation)
Power consumption	≤6W
Power supply	12V/1A