



# KV-DC220

## SDI HDMI/VGA/DVI Decoder

Professional video streaming decoder,  
IP SDI/HDMI converting device



### Overview

KILOVIEW®KV-DC220 is a network (IP) HD video decoder with high performance. KV-DC220 could get IP-Camera from network, stream media server or stream media from Kiloview series encoders (based on RTSP, RTP unicast or multicast), then outputs video and audio to SDI and HDMI/VGA/DVI through self-adaptive decoding. KV-DC220 supports SDI signals including SD-SDI(270M), HD-SDI (1.485G) standard and 3G-SDI (2.97G), supporting 720p, 1080i and 1080p (maximum 60Hz); HDMI output supporting up to 1080p60Hz HD video signal; VGA supporting maximum UXGA output.

KV-DC220 support decoding simultaneously 2 channels HD video up to 1080p60, with functions of self-adaptive decoding and smart control on network delay. Under typical network environment, it can control decoding delay lower or equal to 200ms. Even though low code rate decoding and about 10% network packet loss, KV-DC220 could use image enhancement and fault-tolerant technology to clearly restore encoding video and audio, no obvious distortion, smear, frame loss and mosaic phenomenon of pictures with features of actual color reproduction, clear sound and high fidelity. KV-DC220 supports H.264 encoding video with bit rate high up to 12Mbps and decoding output of AAC-LC/G.711 encoding video.

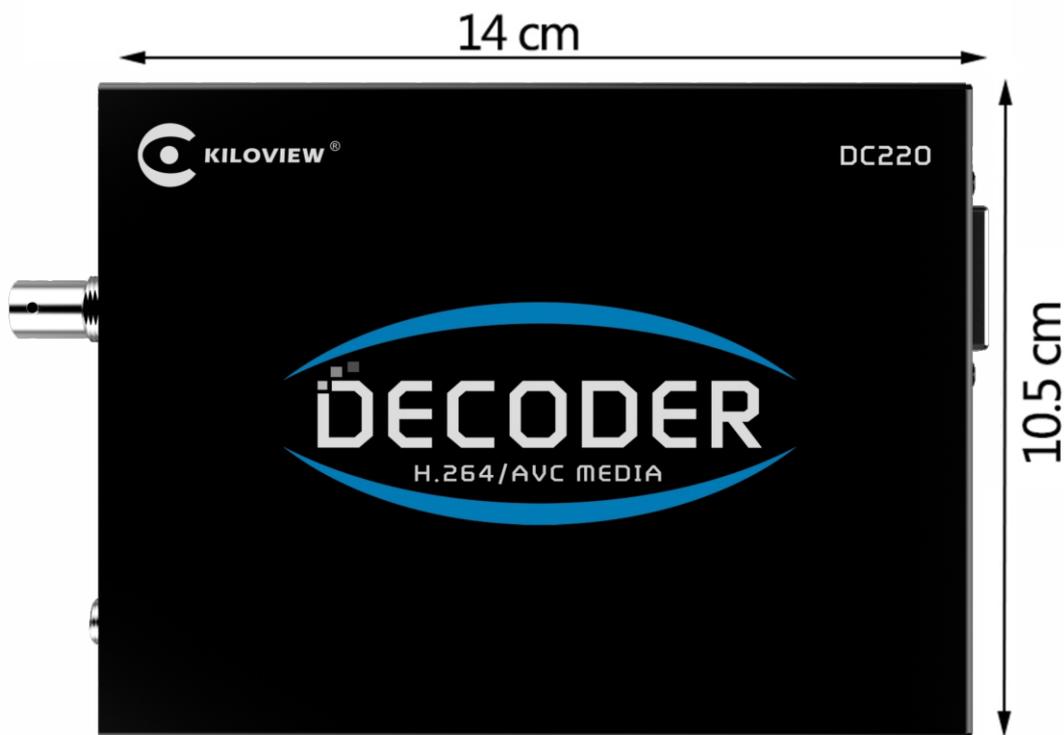
KV-DC220 has image scaling capacity, could let after-decoding video larger/smaller converting to adapt to different output video format. Audio could be embedded in SDI signal, then synchronously transmitting with video.

KV-DC220 supports ONVIF device detecting discovery. KV-DC220 provides open source SDK, supporting Windows/Linux/Unix cross-platform and programming second development to realize manage and control for equipments.

### Features

- Only support single screen output;
- SDI and HDMI/VGA/DVI output simultaneously or separately output different decoding contents;
- Gigabit Ethernet connecting, USB interface can be extended for external storage device or wireless network module;
- Enhanced SDI Cable Driver can promise SD-SDI transmitting distance longer or equal to 350 meters, while HD-SDI transmitting distance is longer or equal to 180 meters, 3G-SDI transmitting distance longer than 100 meters;
- Support SDI/HDMI various output formats like 1080p30/25, 1080i60/50, 720p60/50; HDMI/VGA supporting various common VESA standard display resolution;
- Video scaling, frame rate conversion and image enhancement;
- Support RTMP, RTSP, RTP unicast/multicast medial transmission protocol;
- Input and output of analog audio could realize two-way voice intercom, analog audio with SDI and HDMI embedded audio could be transmitted synchronously;
- Decoding delay is controlled by intelligent network, lower than 200ms in typical network environment;
- Image enhancement and fault-tolerant technology, strong resisting error code capability, excellent picture quality, clear acoustic;
- Provide communication protocol for software development SDK and device management control which can integrate seamlessly with the third-party application platform;
- Simple and practical WEB management.

## Panel Dimension



## Parameter

### Interface

Video output	1*SD/HD/3G SDI, 1*DVI-I (compatible with HDMI/DVI and VGA)
Analog audio input	1*3.5mm
Analog audio output	1*3.5mm
Network	1*RJ-45, Gigabit Ethernet Connected
USB	1*USB 2.0 Type-A
Power supply	DC 12V, 1A (Air screw connector)

### Signal

SDI Signal amplitude	0.8Vp-p
SDI impedance	75 ohm
SDI coupling type	AC
Output signal types	SD-SDI(270M),HD-SDI(1.485G),3G-SDI(2.97G)
SDI timing jitter	SD SDI: $\leq 0.15UI$ HD SDI: $\leq 0.8UI$ 3G SDI: $\leq 1.7UI$
SDI alignment jitter	SD SDI: $\leq 0.15UI$ (1KHz) HD SDI: $\leq 0.2UI$ (10KHz) 3G SDI: $\leq 0.25UI$ (10KHz)
SDI transmitting distance	Belden 1694A cable standard: SD SDI $\geq 350m$ ; HD SDI $\geq 180m$ ; 3D SDI $\geq 100m$
Supported SDI output formats	1080P60/50, 1080P30/25/24/ 1080i60/50 720P60/ 50 570i50 480i60/

### HDMI/DVI

Compatible standard	HDMI 1.4 / DVI 1.0
HDCP encryption contents transmitting	Not support yet
HDMI/DVI Supported output formats	1080p60/50, 1080p/25/30, 1080i60/50, 720p60/50, 480p/576p

### VGA

Interface	DVI-I (through DVI-I to VGA adaptor)
Supported output formats	1080p, 720p, UXGA(1600x1200), SXGA(1280x1024), XGA(1024x768), SVGA(800x600), VGA(640x480) and compatible with other VESA formats.

### Decoding

Video decoding	H.264
Audio decoding	AAC-LC / G.711 (aLaw / uLaw)
Video bitrate range	128Kbps ~ 40Mbps
Audio birate range	AAC: 8Kbps ~ 320Kbps G.711: 64Kbps
Decoding delay	$\leq 200ms$

### Transmission

Media transmission protocols	RTP/RTSP (compatible RTP over TCP transmission mode), RTP unicast/multicast, RTMP, UDP
Controlling transmission protocols	TCP
Network management protocols	HTTP

### Management

Management interface	Web
Remote management	Support
Firmware upgrading	Support

### Operation environment

Operation Temperature	32 to 140° F / 0 to 60° C
Relative Humidity	20 ~90%RH (non-condensation)
Power dissipation	$\leq 5W$