

K2 Solo

PORTABLE 2-CHANNEL HD/SD SERVER

K2 Solo is a broadcast-capable, 2-channel, portable, cost-effective, standalone server with up to 25 hours of HD storage. It's optimized for both production and broadcast workflows.

FEATURING
CHANNELFLEX™



The 2-channel K2 Solo™ packaged in a compact ½ rack width, 2 RU package. It is software-compatible with K2 Summit™ applications including support for the K2 Dyno™ Replay System.

Applications

K2 Solo is ideal for:

- Broadcasters
- Live mobile production
- Stadiums – big screen support
- Sports/news centers – feed records
- Universities – sports programs

K2 Solo is optimized for production and live event workflows. Teamed with the K2 Dyno Replay Controller and the STRATUS™ Media Workflow Application Framework, it offers an ideal solution for live events such as sports and concerts, studio production, news, and any application that requires quick access to recorded media.

There are two base models:

- HD/SD DVCPRO record/payout with HD/SD MPEG-2 payout
- DVCPRO record/payout with HD/SD MPEG-2 record/payout

AVC-Intra support can be added to either model with an upgrade kit.

For fast boot times and high reliability, K2 Solo comes standard with CompactFlash running an embedded operating system. This also protects it from virus attacks as a simple reboot will clear any problems.

K2 Solo is capable of simultaneously encoding low-resolution proxy files along with the high-resolution recording to extend workflows to the user's desktop.

ChannelFlex-Compatible

With AppCenter Elite, K2 Solo's two channels can double in capability. For example, with ChannelFlex™ some of the new configurations are:

- 2 camera inputs and 1 play channel
- 1 Super SloMo camera input and 1 play channel
- 4 camera inputs
- 1 3D camera feed and 1 play channel
- Video+key record or payout on each channel

Production Features

K2 Solo's portability and ruggedness make it ideal for live events. It can be used with K2 Dyno for powerful playback capability including instant replay.

Specific production features include:

- Instant replay within ½ second
- Built-in multiviewer mode
- Built-in mix effects on each channel
- Support for DV, MPEG-2, and AVC-Intra acquisition formats and playback

K2 Solo uses a QuickTime-compatible file system which lets NLEs such as Final Cut Pro 7 and EDIUS® directly edit content while it is still being recorded.

Broadcast Features

Broadcast support includes up/down/cross conversion with full AFD support for aspect ratio conversion and up to 16 audio channels per video for support of multiple languages with PCM or compressed audio. Tight integration with the Grass Valley Kayenne™ switcher provides a powerful video ClipStore capability.

KEY FEATURES

- Small form factor: ½ rack width, 2 RU high
- Two DVCPRO 25/50 & DVCPRO HD bi-directional channels, each with MPEG-2 payout capability
- Full SD/HD MPEG-2 encoding available
- AVC-Intra 50/100 support is available
- Up to 45 hours of SD DV25 storage and 25 hours of HD storage (XDCAM HD 50) on hard disk
- Simultaneous high-resolution and low-resolution proxy encoding
- Instant replay – record-to-play in less than ½ second
- AppCenter Pro comes standard
- ChannelFlex-compatible with AppCenter Elite:
 - Multicam mode
 - Super SloMo mode:
 - 3D
 - Video + key
- HD/SD-SDI monitor output with timecode burn-in and custom text overlays
- Multiviewer monitor mode with custom text overlays
- Built-in mix effects within a single play channel
- Fast boot times with embedded operating system on CompactFlash media
- QuickTime-compatible file system for edit-in-place with Final Cut Pro 7, EDIUS, and other NLEs
- Integrated control operation with Grass Valley production switchers and vision mixers

Two-channel codec module: With ChannelFlex, each channel can record 2 camera feeds or 1 Super SloMo camera. Two SDI output BNCs provide an on-air output and a configurable monitor output or support for 2 streams from a 3D or video+key file. 8 AES audio channels on DB25 connector, LTC I/O, and RS-422 for control.

Control module with VGA multiviewer output, GPIs, Ethernet connections, USB and IEEE 1394 connectors, and reference.



SPECIFICATIONS

HD Compression Formats (see Note 1)

- DVCPRO HD
- MPEG-2@HL 4:2:0, I-Frame & Long GOP, 12-80 Mb/s
- MPEG-2@HL 4:2:2, I-Frame & Long GOP, 20-100 Mb/s
- XDCAM HD (25, 35, 50 Mb/s)
- XDCAM EX
- AVC-Intra 50/100
- HDV playback

SD Compression Formats (see Note 1)

- DV, DVCPAM, DVCPRO 25/50
- MPEG-2@ML 4:2:0, I-Frame & Long GOP, 2-15 Mb/s
- MPEG-2@ML 4:2:2, I-Frame & Long GOP, 4-50 Mb/s
- D10/IMX 30/40/50

Video Channels (see Note 2)

- 2 HD/SD-SDI record/play channels
- SD-SDI: SMPTE 259M, ITU-R601, 525/625 line component, 10-bit
- HD-SDI: SMPTE 292M, 10-bit

Proxy Encoding

- 2 or 4 streams (licensed through AppCenter Pro or AppCenter Elite)
- Each stream includes 1 video and up to 8 audio tracks for recording. Any audio track can be selected when streaming
- Video – MPEG-4 part 10
- Audio – AAC

Monitor Modes

- SDI monitor out with timecode burn-in

- VGA multiviewer
- Definable text overlay includes channel name, clip name, transport status, play speed, audio meters, and other status

Video Playback Output

- All clips play seamlessly back-to-back
- Off-speed play with line interpolation
- Video/audio mix effects
- Dissolves between two video tracks
- Fade up/down to matte color

Conversion and Aspect Ratio

- 525↔1080i/720p, 625↔1080i/720p
- 720p↔1080i cross conversion
- 4:3-16:9 aspect ratio conversions
- Embedded audio tracks
- 16 embedded channels/video

Discrete AES/EBU Audio

- 8 input and 8 output tracks (4 AES pairs) per video channel
- DB25 pin connector per video channel (XLR breakout cable is optional)

Audio Specifications

- PCM: 48 kHz, 16- or 24-bit
- Sample rate conversion to 48 kHz
- AC-3 and Dolby E pass-through

Audio Special Features

- Scrub audio support (±2X)
- Audio click elimination
- Audio tagging and audio mapping

Hard Disk Storage (±10%)

- DV25/DV50/100 = 46/24/12 hours

- MPEG-2@: 12/25/50/100 Mb/s = 110/50/25/12 hours

Power Requirements

- 100-240V, 50/60 Hz
- Typical power: 180 watts

Physical Characteristics

- Dimensions (HxWxD): 89 x 210 x 446 mm (3.5 x 8.25 x 17.7 in.)
- Weight: 7.5 kg (16.5 lbs.)

Environmental Characteristics

- Operating temperature: 10° to +40°C (50° to 104°F)
- Non-operating temperature: -40° to +60°C (-40° to 140°F)
- Operating relative humidity: 20% to 80% from -5° to +45°C (23° to 113°F)
- Non-operating relative humidity: 10% to 80% from -30° to +60°C (-22° to 140°F)

GPI

- 12 in, 12 out – DB25 pin connector

Reference Genlock

- NTSC/PAL black composite analog
- Two BNC, 75Ω passive loop through
- Burst frequency lock: PAL +10 Hz at subcarrier; NTSC +20 Hz at subcarrier
- Tri-Level sync conforms to SMPTE 296M-2001 for 1280x720p and SMPTE 274M-2008 for 1920x1080

Timecode (per video channel)

- LTC SMPTE 12M on mini XLR
- One VITC reader/writer
- Ancillary timecode

Protocols

- BVW (RS-422) (w/o insert edit)
- Odetics/VDCP (RS-422)
- AMP (RS-422 and Ethernet)
- K2.net native API

Ports

- Four 100/1000Base-T Ethernet ports
- 1 Express Card, 34 mm (front)
- 4 USB 2.0 front, two USB 2.0 rear
- FireWire (IEEE 1394)
- One RS-422 serial port per channel
- 15-pin SVGA
- USB keyboard, mouse

Remote Monitoring

Grass Valley NetCentral™ SNMP-based remote facility-monitoring software

Certifications

UL 60950, FCC Class A, EMC Class A, CE, C-Tick, CSA 60950, IEC 950, EN 60950

Included in Package

- Power cord
- LTC cables (2)
- USB mini keyboard & mouse
- Documentation CD
- Quick Start guide
- USB stick with recovery image

Note 1 – MPEG-2 payout is standard on all models, MPEG encode available on specific models.

Note 2 – All channels are bi-directional for DV. MPEG-2 bi-directionality available on specific models.

ORDERING INFORMATION

K2-SOLO

Includes 2 HDDs, DV25/50 DVCPRO HD, and MPEG-2 payout

K2-SOLO-MPEG

Same as K2-SOLO, adds MPEG-2 record (encoder) for each channel

Optional Accessories

K2-XDP-AES-CABLES

AES DB25 to XLR break-out cables (2). Each cable provides 8 input and 8 output AES XLR connectors for one K2 Summit video channel

K2-XDP-AVC2-FK

Add 2 channels of AVC-Intra 50/100 support

K2-SOLO-RACK

Dual rack adapter for side-by-side mounting in standard equipment rack

K2-SOLO-HANDIPAK

Handle and feet/corners protector kit

K2-SOLO-CASE

Hard-bodied case with foam insert

GLOBAL SERVICES



Grass Valley Global Services specializes in the defining of, deployment of, and support of today's dynamic file-based workflows, based on Grass Valley and third-party solutions. With Grass Valley Global Services, you can achieve your operational goals in the most efficient and cost-effective way possible with a partner you can trust.

www.grassvalley.com/support

Define: We help you to define your business and technology requirements and then design solutions to meet them.

Deploy: Our professional service organization, backed up with proven project management methodologies, can take you from design through deployment, commissioning, and training.

Support: We offer a complete Support Agreement portfolio to keep your systems running and help plan for your long-term maintenance needs.

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