

KAYAK – 1ME & 2ME



**CREATIVE
TECHNOLOGY**



With the increase in use of High Definition, CT have updated their Portable Production Units (PPU's) to meet the need for HD production. The 1ME system is based around Grass Valley's Kayak multi format production switcher which, when coupled with a Quartz 32 x 32 HD/SD router enables it to process either high definition or standard definition signals. The Kayak can take up to 48 HD or SD inputs. CT's 1ME has been upgraded to 4DVE Channels.

The Larger unit is the Kayak 2ME, this has all the features of the 1ME but allows a separate output mix. This can be used if a separate screen mix or record output is needed whilst utilising the same inputs. It also allows more complex mixes and use of keying or DPM's to provide high quality complex productions.

Quartz's router allows monitoring of all inputs via our Engineering bridges. These come equipped with HD/SD LCD monitoring and a Leitch TVM900 waveform vectorscope. Each bridge allows full control of up to 4 cameras and extra router panels enable producers or lighting designers to independently monitor any of the signals. A composite router is also incorporated into the system to facilitate the routing and processing of PAL signals.

Lynx Technik PC programmable frames handle all the processing and signal distribution. These frames allow hot swappable cards, so even in the event of an emergency, the system remains 'live' whilst problems are rectified. The whole system is locked together by Evertz MSC500 time code and sync pulse generator. A range of full broadcast test signals are also produced by this unit.

The images are viewed on a 42" native HD Panasonic LCD monitor, and manipulated by a Zandar HD/SD Predator multiviewer. This allows 12 HD and SD inputs to be combined and viewed simultaneously, with tally and UMD information, in any configuration imaginable. 2 of these monitors can be joined together for larger productions.

Comms can be used as either 2 or 4 wire via an RTS PS31, Clearcom TW12 and an RTS SS324 2 to 4 wire converter. With a bespoke mixing unit built to enable individual production talkback levels to and from cameras, to be adjusted to suit each individual operator.

A PC and integrated KVM allows set up of the router, processing and multiviewer, making on site changes quick and easy.

Standard Features

- Switchable between several HD formats
- Supports SD production
- Fully digital 10-bit, 4:2:2 inputs, outputs Compact 4 RU and 8 RU lightweight frames
- Low power consumption
- Hot swappable, front removable modules and power supplies • Intuitive menu with touch screen
- One DPM Channel standard with planar 3D effects, remaining channels optional, adding non-linear effects (Software License Key (SLK))
- Two high-quality chroma keyers standard

Number of M/Es:

- One for Kayak HD 100C
- 1.5 for Kayak HD 150C
- Two for Kayak HD 200, 200C
- 2.5 for Kayak HD 250, 250C
- Three for Kayak HD300 • 3.5 for Kayak HD 350

Number of inputs:

- 24 to 48 for Kayak HD 100C, 150C
- 48 for Kayak HD 200C, 250C • 48 to 96 for Kayak HD 200, 250
- 72 to 96 for Kayak HD300, 350

Number of outputs:

- 12 to 24 for Kayak HD 100C, 150C
- 24 for Kayak HD 200C, 250C
- 24 to 48 for Kayak HD 200, 250
- 36 to 48 for Kayak HD300, 350 • Video outputs programmable as M/E, Program or AUX bus outputs

GPI (General Purpose Interface) inputs:

- Eight to 16 for Kayak HD 100C, 150C
- 16 for Kayak HD 200C, 250C
- 16-32 for Kayak HD 200, 250
- 24-32 for Kayak HD300, 350

GPI/Tally Outputs:

- 32-64 for Kayak HD 100C, 150C
- 64 for Kayak HD 200C, 250C
- 64-128 for Kayak HD 200, 250
- 96-128 for Kayak HD300, 350

- Four full-function keyers per full M/E, each with linear and luminance keying
- Five background generators include black, white, and three colour back-grounds
- Test Pattern Generator
- Two analog reference inputs (tri-level sync and black burst) and HD/SD serial digital Input reference
- White or coloured pushbutton keycaps (factory installed, choose when ordered)
- Freeze frame buffer on every full-function keyer
- Two main wipe generators and 4 keyer wipe generators per M/E
- YUV Colour correction on every keyer and background bus
- Internal four-port Gigabit Ethernet (10/100/1000 base T) switch
- Eight serial ports for external machine control

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Serial Digital Video Outputs

- Format: ITU-R656
- SMPTE 259M, 270Mbit/s
- SMPTE 292M, 1.5Gbit/s
- Return loss > 15 db, 5 MHz to 1.5 GHz
- Type of Connector 75 ohm BNC (SMPTE 259M)
- Interface: HD Video Formats SMPTE 292M-1998
- SD Video Formats SMPTE 259M-1997
- Nominal Amplitude 800mV peak-to-peak terminated
- Autophasing range TBD
- Channel Coding conforms to SMPTE 259M, SMPTE 292M
- Ancillary Data Blanked or passed (user selectable)
- Embedded audio Blanked or passed (user selectable)
- EDH Blanked
- Input Impedance 75 ohm
- Max cable length: HD Video 100 meters using Belden 1694A type cable
- SD Video 300 meters using Belden 1694A type cable

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- SMPTE 292M, 1.5Gbit/s
- Return loss > 15 db, 5 MHz to 1.5 GHz
- Type of Connector 75 ohm BNC (SMPTE 259M)
- Interface: HD Video Formats SMPTE 292M-1998
- SD Video Formats SMPTE 259M-1997
- Nominal Amplitude 800mV p-p across 75Ω
- Rise & Fall Times 400 to 1400picoseconds 75Ω termination between 20% and 80% amplitude
- Timing jitter ≤1 UI (HD, SD)
- Alignment jitter .2 UI (HD, SD)
- Output Impedance 75 ohm
- DC Offset < 50mV with 75 ohm termination

Analog Reference Input

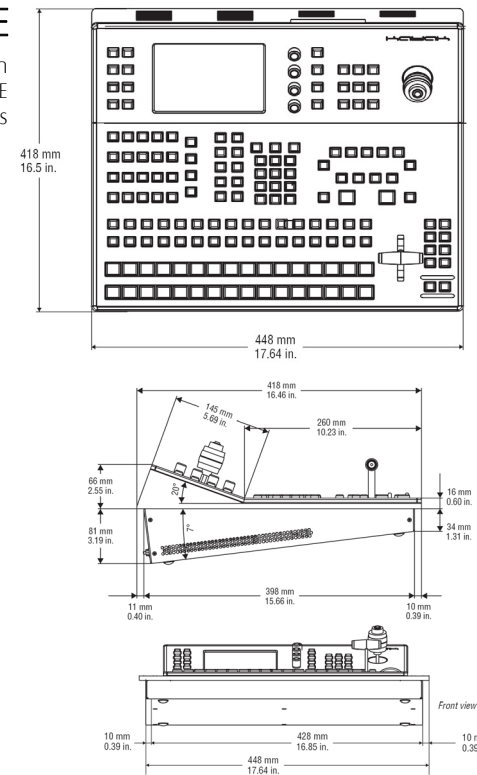
- Video Standard For HD Video: Tri-level Sync, Analog equivalent to the standard being used For SD Video: Colour Black, Analog equivalent to standard being used
- Return loss > 40dB, up to 5 MHz
- Connectors 2 each BNC loop through for both HD and SD inputs
- Impedance 75 Ω external

Supported Control Protocols

- VTRs (BVW-75)
- AMP (Advanced Media Protocol). For Profile PVS, XP, K2, M Series, and Turbo DDRs. Available for RS422 Serial or Ethernet.
- Video Servers (Louth VDCP, Odetics)
- Routers/Routing Control Systems (Trinix™, Venus™, Triton™, and third party routers; Jupiter™ and Encore™ router control systems)
- Control Systems (Grass Valley Andromeda™ and third-party systems)
- Grass Valley Under Monitor Displays (Serial tally for UMD. Requires Grass Valley Andromeda™ system or third-part tally box such as Tally Display Corp. or Image Video.)
- Grass Valley external Remote AUX Panels (CP-300 Series)
- ESAM II for audio-follow-video applications
- Edit controllers (native and Grass Valley Model 100 and 200)

1ME

CT's 1ME has been upgraded to 4DVE Channels



2ME

