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toll free: 888-842-4632 or email: sales@preco.net

KALEIDO-K2

Advanced modular multi-image display processor

The ultra robust, high resolution Kaleido-K2 multi-image display processor redefines signal monitoring by incorporating all conceivable monitor wall features in one or more computer, projection or plasma displays.

Key Features and Benefits

- Up to 32 video inputs (HD-SDI, SDI, Composite, Y/C, RGB progressive and streaming video)
- High resolution, pristine quality with up to 1600 x 1200 pixel RGB and DVI outputs
- Ultra robust modular design with hot-swappable cards and power supplies for critical applications
- ***NEW*** Dual Head output feature allows two different monitoring displays to be controlled by a single Kaleido-K2
- ***NEW*** Mouse control interface allows selection of individual sources from multiple displays for larger display viewing, or to a quality control CRT monitor.
- Close integration with Miranda's iControl Web remote infrastructure and video monitoring system plus the Presmaster 2/PresStation master control switcher to create Miranda's Master Control Glass Cockpit (see page 8).
- Analog, AES and embedded audio level metering
- Extensive signal monitoring and reporting: Vchip rating, Closed Captioning display, Teletext presence, Time Code, and MPEG PIDs
- Static and dynamic text labels (UMDs) plus clocks and timers

Display A

Up to 32 inputs

Display B

Dual Head output option

The Kaleido-K2 can be configured to share its 32 inputs over two displays using the new Dual Head Output option. Each source can be displayed using either screen (tiled horizontally), to add a greater level of flexibility when two displays are used side by side. In case of a failure of one display, the Kaleido-K2 system allows a new layout to be instantly recalled with all the sources displayed using the remaining functional display.

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Kaleido-K2 Feature-rich display elements

Kaleido-K2 has a wide selection of display elements to construct efficient multi-image monitoring layouts.

Multi-format video monitoring

Kaleido-K2's versatile input modules can accept:

- Computer signals from 640 x 480 to 1600 x 1200 (VGA to UXGA)
- SDI video in 625/525
- NTSC, PAL and SECAM
- CAV and YC
- HD-SDI and Analog HD
- 16:9 and 4:3 aspect ratio signals

Kaleido-K2 can also display streaming video and audio delivered by an IP network using Miranda's Allégro streaming encoder/server and Densité Control Probes. Streaming video can be displayed at various bit rates and quality levels, either as a separate window or displayed over another video input using a picture-in-picture display.

A picture-in-picture streaming display

Dynamically updated text labels

Multiple text labels (UMDs) can be displayed inside or outside the video window, with the text dynamically updated by the UMD controller.

Configurable audio meters

Audio level meters extracted from analog, AES or embedded signals can be positioned inside the video image in transparency or outside the window. Ballistics and scales are configurable, and a phase correlation meter can be displayed between each pair.

Internal signal validity monitoring

Close Captioning (CC), Teletext/ Subtites (WST), and Vchip Rating can be decoded inside the Kaleido-K2's video input modules.

The Kaleido-K2 can take advantage of error status acquired through Miranda interfaces or probes, with error status reported via on screen status

Each video or audio input can report signal status or validity, with detection of:

- loss of video
- video black
- video frozen
- video level too high
- Closed Captioning text
- Vchip Rating
- teletext and subtitling presence
- audio level meters
- audio phase meters
- loss of audio
- audio in silence
- audio level too high
- audio out of phase
- audio in mono

Clocks and timers

Multiple analog and digital clocks can be displayed with programmable offsets and configurable colors.

Time code extracted from the video signal can be overlaid inside or outside the video window.

Multiple addressable count up/down timers can be controlled by a mouse or external TCP-IP commands.

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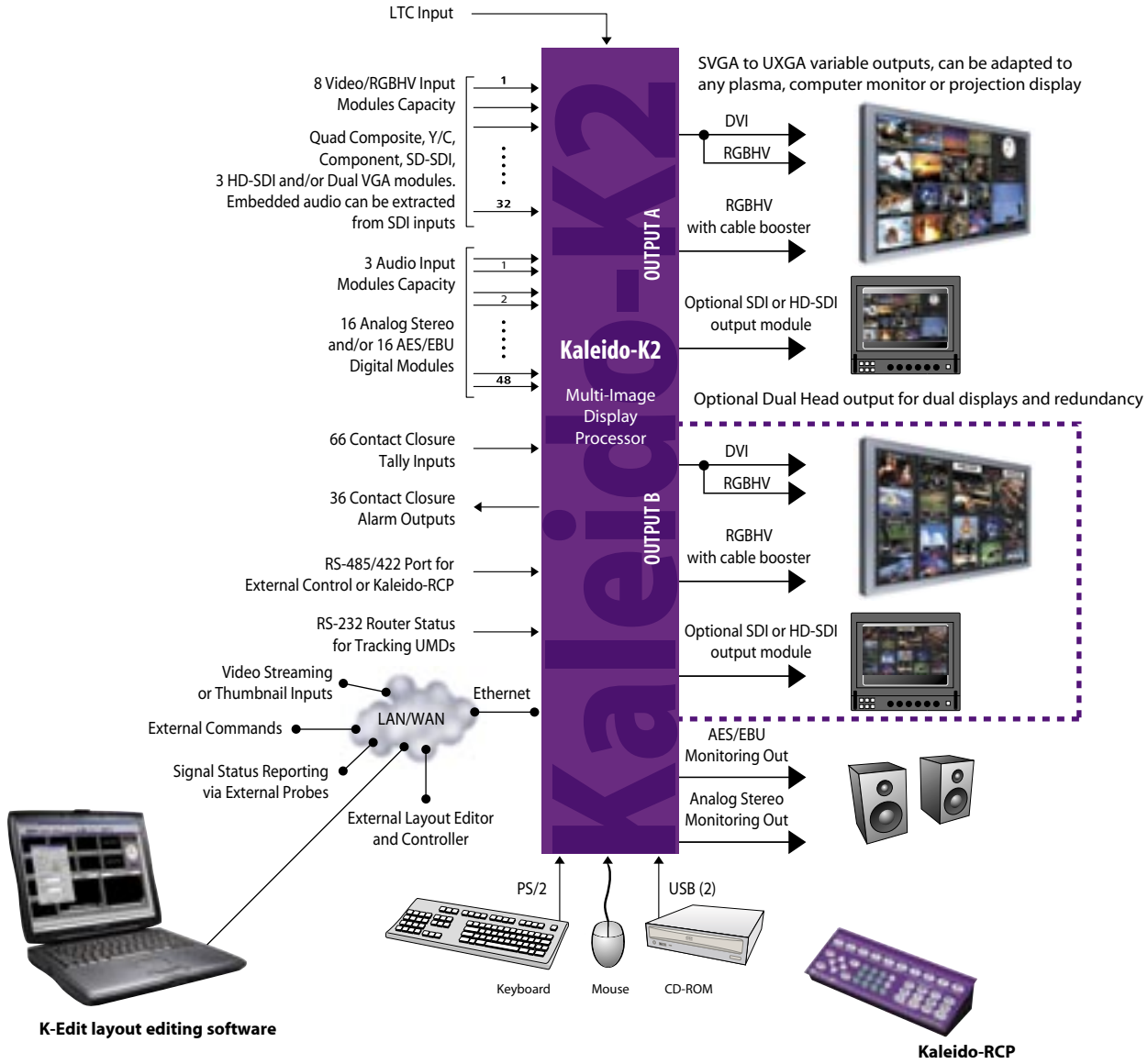
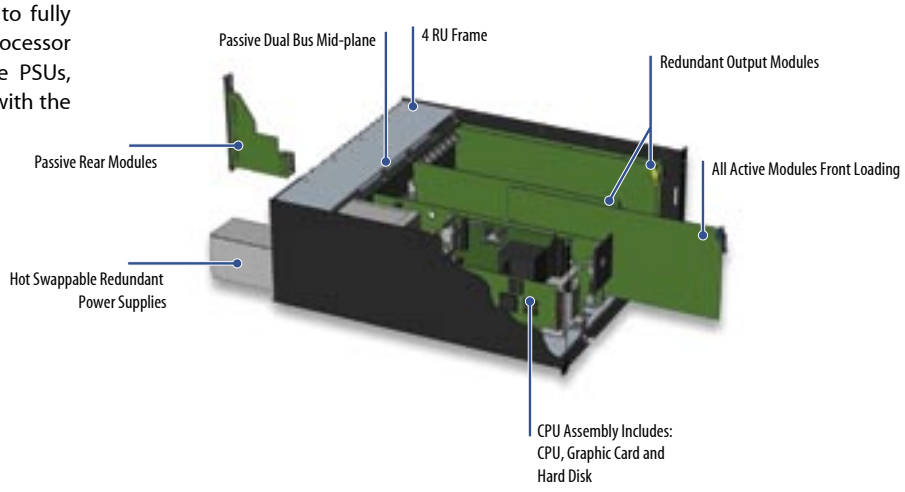
Kaleido-K2 Multi-format, mission critical design



Ultra robust design

Kaleido-K2 is the first multi-image display processor to fully address both redundancy and serviceability. The processor provides fast power-up, and features hot swappable PSUs, front loading active modules, and even video display with the CPU card removed.



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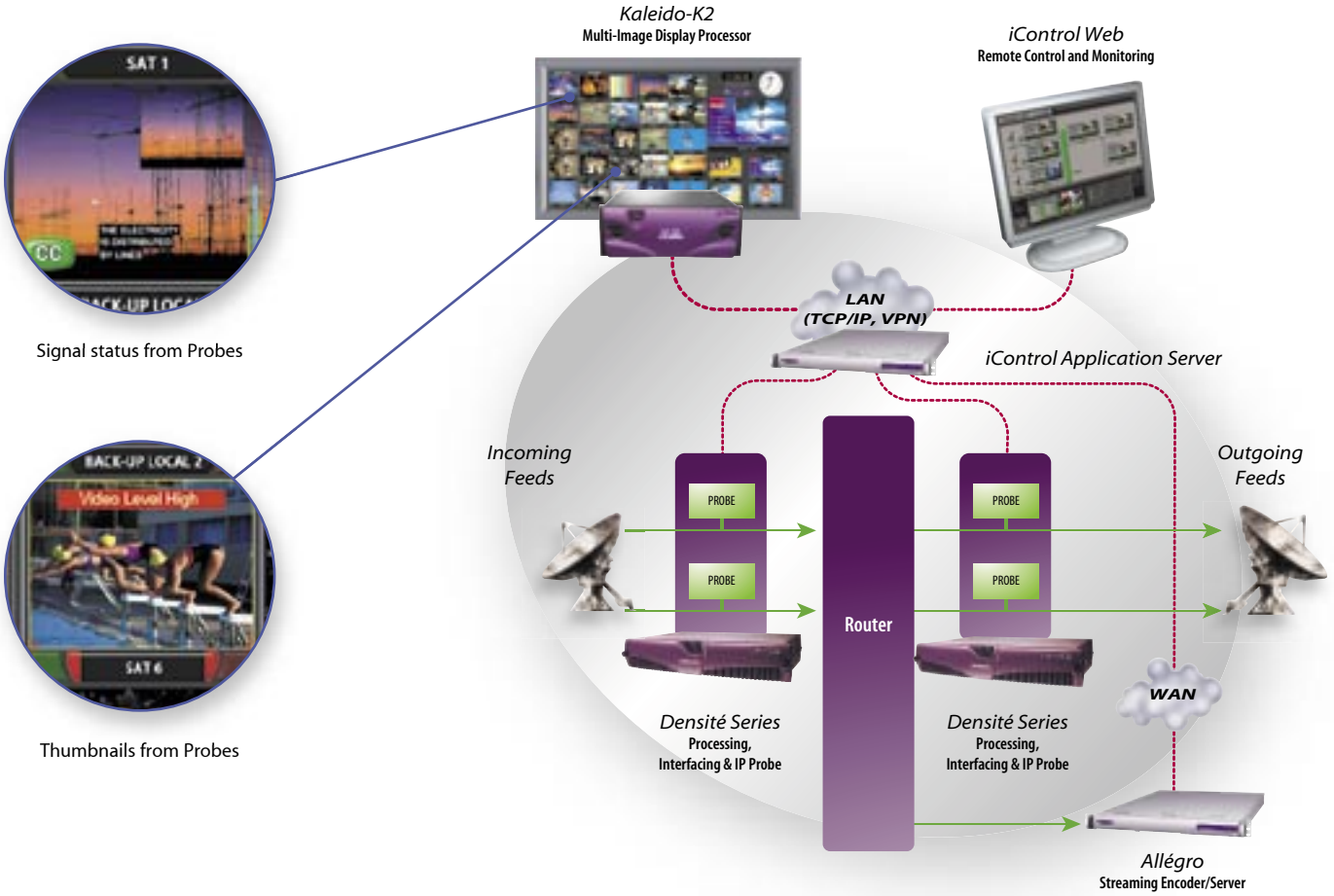
Kaleido-K2: Remote video, audio and Metadata monitoring

Kaleido-K2 can display streaming video from Densité Series Control Probes and the Allégro Streaming Encoder/Server to provide effective infrastructure monitoring at key playout stages. The video signals within a facility can be monitored, as well as video signals from remote sites. The streaming video is received via a TCP/IP network or VPN and can be displayed as a separate video window or as a picture-in-picture display (see pages 244, 248).



Kaleido-K2 and Allégro

Kaleido-K2 can be combined with the Allégro streaming encoder to provide:

- Display of streaming images in various sizes, qualities and frame rates (up to 15f/s).
- Video streaming latency less than 1 sec
- Audio level meters
- Audio monitoring
- Close Captioning text overlay
- Video presence status

The number of streaming inputs per layout depends on the streaming video quality and size.

Kaleido-K2 and Densité Probes

Densité Probes generate low bit rate video thumbnails, audio level meters and close captioning text that can be integrated into the Kaleido-K2 layout. The Probes also deliver advanced remote status for video, audio and metadata signals. Global status or independent status are reported to Kaleido and assigned to status indicators.

Audio parameters:

- Lost of audio/silence
- Level high or low
- Overload
- Out of phase
- Slicing
- Absence of dynamic
- Unbalanced
- Stereo width

Video parameters:

- Signal presence,
- Sync level,
- Sync noise
- Burst level
- Component level
- Black level
- Black detection
- Freeze detection
- Luma level
- APL level
- Chroma level
- CC presence

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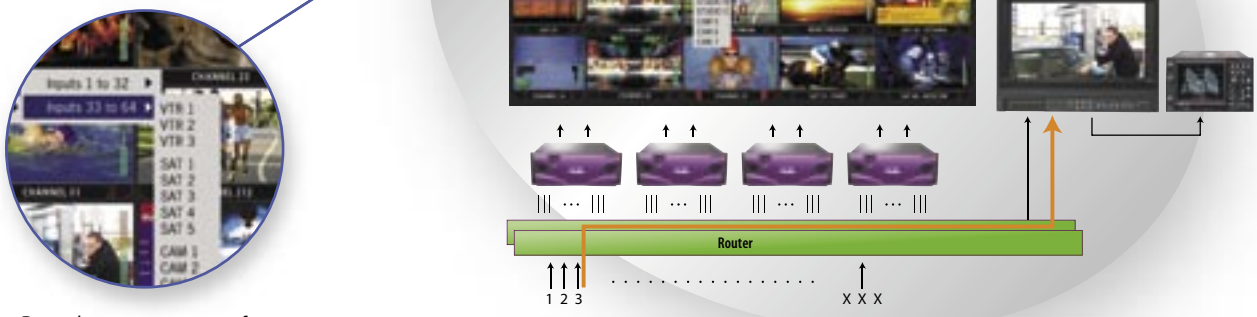
Kaleido-K2: Router control by mouse

The Kaleido-K2's mouse-operated router control feature allows individual sources from multiple displays to be selected for larger display viewing on a screen, or to a quality control monitor and scope.

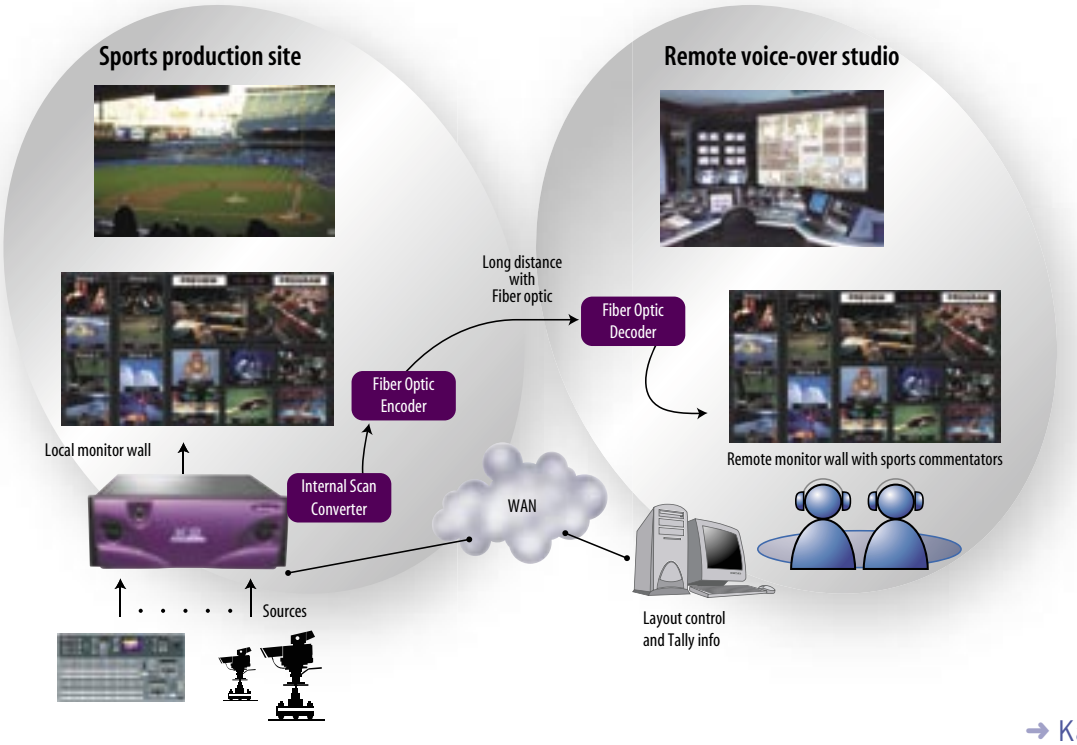
A drop down router menu provides easy router source assignment for under monitor display configuration. Cross points are stored as pre-sets with each display layout, and can be changed readily by selecting different pre-sets.



Drop down router menu for easy router source assignment

Kaleido-K2: Remote display wall monitoring

A Kaleido-K2 processor in a control room can be monitored remotely from another site, and this can be especially valuable for programming produced off-site, such as sports and news, which requires a voice-over to be added at another location. Remote monitoring is performed using an optional scan converter for the Kaleido-K2. This converter provides a SDI/HD-SDI signal that can be encoded for long distance transmission using an ATM service. The encoded signal can be decoded and displayed at a remote voice-over site. The display layouts of the remotely monitored multi-image display processor can be controlled remotely over an IP network.



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Kaleido-K2 Typical layout configurations

Network Control Center: Kaleido-K2 simplifies the centralized monitoring of multiple local television stations.

Production Studio and Mobile Truck
The robust Kaleido-K2 multi-image display system saves critical space and power without sacrificing reliability.

Multi-Channel Master Control Room
Kaleido-K2's high resolution, instantly reconfigurable display improves the multi-stage monitoring of multiple channels.

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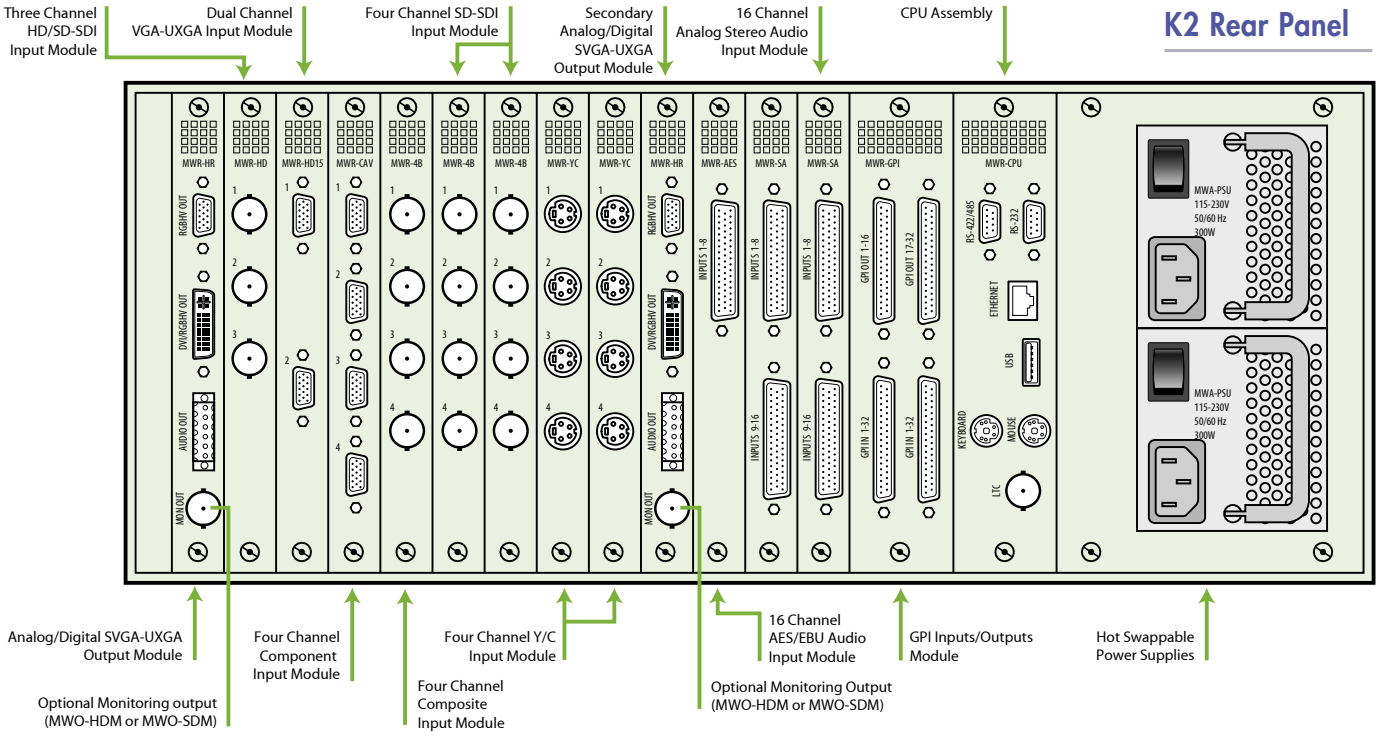
K2 Rear Panel



Ordering Information

Model	Description
Kaleido-K2	Virtual Monitor Wall Processor Includes 4 RU Frame, Output Module (MWO-HR), GPI Inputs/ Outputs Module (MWA-GPI), CPU Assembly (MWA-CPU), Kaleido-RCP Remote Control Panel and Kaleido-Editor Software
Kaleido-K2 Dual Head	Dual Head Virtual Monitor Wall Processor Includes 4 RU Frame, Two Output Modules (MWO-HR), GPI Inputs/Outputs Module (MWA-GPI), Dual Head CPU Assembly (MWA-CPU-DUAL), Kaleido-RCP Remote Control Panel and Kaleido-Editor Software
MWA-Dual Head Upgrade	Dual Head Option Upgrade For Existing Kaleido-K2 Includes An Output Module (MWO-HR), Replacement CPU Module (MWA-CPU-Dual) and Version 5.00 Software Or Higher
Input Modules	Mix And Match Any Input Modules, Eight Slots Available
MWI-CVBS	Four Channel Composite Input Module
MWI-YC	Four Channel Y/C Input Module
MWI-CAV	Four Channel Component Input Module
MWI-VGA	Dual Channel VGA-UXGA Input Module
MWI-SDI	Four Channel SD-SDI Input Module
MWI-HD	Three channel HD/SD-SDI Input Module
Audio Input Modules	Insert Up To Three Audio Input Modules. Each Module Provides 16 input Channels.
MWI-SA	16 Channel Analog Stereo Audio Input Module
MWI-AES	16 Channel AES/EBU Audio Input Module
MWS-Embedded	SDI Input Embedded Audio Extraction. Enables extraction of 8 AES from one SDI Input Supported on both MWI-SDI and MWI-HD

Miscellaneous Options

MWO-HDM	Monitoring HD/SD-SDI Output Mezzanine
MWO-SDM	Monitoring SD-SDI Output Mezzanine
MWO-HR	Analog/Digital VGA-UXGA Output Module
MWS-Streaming	Kaleido Video Streaming Option Enables software decoding of streaming or thumbnails
MWS-VBI	Enables decoding of VBI information One Per Kaleido-K2
MWS-Router CTRL	Router Control Interface, Includes dynamic text and cross point control, one per Kaleido-K2
MWS-UMD	Software driver for Dynamic UMDs One Per Kaleido-K2
MWA-TBA-A	Audio Module Terminal Bloc Adapter
MWA-TBA-G	GPI Module Terminal Bloc Adapter
KRCP-RK1	Kaleido-RCP Rack Mount Kit
MWA-BOC	MWR-CAV Break Out Cable

Spare parts

MWA-CPU	CPU Assembly
MWA-CPU-Dual	Dual Head Compatible CPU Assembly
MWA-GPI	GPI Inputs/Outputs Module
Kaleido-RCP	Remote Control Panel
MWA-PSU	Replacement Power Supply Module

Note 1: Consult your Miranda sales rep. for comissioning, training and special system integration.

Note 2: Rear modules are included with the front modules