

# Overture2

Video Production System



## Creative Power At Your Fingertips!

The **Overture2 Video Production System** is fast to setup and intuitive to operate. Its sleek ergonomic design and comprehensive range of production tools give you creative power at your fingertips. This powerful production system will allow you to produce high quality programming and incorporate stunning effects. Overture2 is available with either of our award winning OvertureSD or OvertureMD video production switchers, so whatever your production needs – now or in the future – the Echolab Overture2 will ensure they are met.



# Overture2

## Video Production System

### The Industries Most Advanced Take Block

Overture2 has two fully independent M/Es with easy to use Take Blocks offering intuitive next-transition workflow with a variety of transition options-including the unique **Stinger™** transition.

Next-transition workflow makes it easy to manage layers and backgrounds that are “on air” or “in transition”. Illuminated buttons indicate current “on air” layers and allow instant changes. Each M/E can be used independently to drive separate program outputs as each Take Block includes its own Fade To Black and Transition Preview buttons.

Overture2 sets a new standard on the number and type of transitions available in the Take Block. In addition to the standard Mix/Wipe functions found in traditional switchers, Overture2 features Dip, DVE, **Stinger™** and Fade To Black transitions in each M/E. The Dip transition lets you to easily mix through an intermediate source, while the DVE transition extends your creative freedom by providing powerful 2D and 3D transitions, including graphic wipes and page turns.



**Stinger™ transitions, designed into the Take Block of each M/E, provide a convenient way to execute animated transitions.**

The unique **Stinger™** transition makes it easy to use animated transitions. With the push of a single button, you can trigger an external animation sequence in conjunction with a perfectly timed transition effect - traditionally only performed by the most experienced operators. **Stinger™** effects use a unique keyer that has been designed into the Take Block, leaving all of the upstream and downstream keyers available for compositing your output and easy to use for all users.

### More Power to the Crosspoint

Overture2 comes with easy to read high contrast RGB Mnemonic displays, user-definable graphical macro keys and a unique new **SuperSource™** crosspoint.

The high contrast 36 x 24 pixel Mnemonic displays are 100% user customizable, displaying alphanumeric characters or graphics created on an external bitmap editor. User selectable background colors make it possible to noticeably group inputs. Imagine seeing all VTR inputs in red, while camera inputs are blue!

Each M/E has five user-definable graphic macro keys. A total of 10 macros give the operator one-button control over user definable events, such as launching a sequence, changing key type, or triggering external devices. Now, with just the push of one button, you can play a clip and take it to air.

The **SuperSource™** is a pre-composited input that allows you to build a custom layout using DVE's and graphics, and assign that layered composition to a crosspoint button. The **SuperSource™** includes its own keyers leaving upstream and downstream keyers available for adding lower thirds, tickers and other elements.



**SuperSource™**  
a layered composition assigned to a crosspoint button for easy switching

## Superior Keying Power

The Overture2 has a total of 11 internal keys:

- 2 Traditional downstream keyers with **Perfect Edge™** Technology
- 4 M/E keyers (Linear + Chroma) with **Perfect Edge™** Technology
- 2 **Stinger™** transition Keyers
- 3 **SuperSource™** crosspoint Keyers

**Overture2 features a total of 11 internal keys**

Traditional downstream keyers are accessible from a dedicated DSK block, and allow the creation of flawless keys thanks to **Perfect Edge™** Technology. A DSK “Tie/Preview” button enables you to configure the key, tie it to M/E 0, then take it to air with the next transition on M/E 0 or immediately to air using the cut and auto buttons in the DSK block. There are 2 full featured upstream keyers with **Perfect Edge™** Technology in each M/E. Configured using the system control block, the keyers let you add Linear Keys, Shaped Keys, Chroma Keys, and Pattern keys upstream of the M/E. A keyer, built into the Take Block of each M/E, is used for creating unique transitions such as the graphic wipe, and **Stinger™** transition. The special **SuperSource™** crosspoint keyers are used to build a custom layout available through a crosspoint button, which can consist of up to 3 sources using 3 keyers.

## Easy to Use System Control

Overture2 makes setting rates, adjusting parameters and controlling 3rd party devices quick, intuitive, and easy to use. Smart buttons display context sensitive options, such as displaying pictures of the available wipe patterns, auxiliary output assignments, DVE moves, and keyer setup.

## Dedicated Playback Block

Overture2 features a dedicated playback block to allow the operator to control clipstores, VDCP enabled servers and DDR's, or used to drive external Character Generators.



# Overture2 Specifications

## General

Direct Cross Points	20
Shifted Cross Points	20
Crosspoint Button Type	NKK Soft Touch, Tri-Color LED
Crosspoint Display	High Contrast RGB Bitmap
Menu Driven Keys, Aux Routing, etc...	Yes
Menu Driven "Soft" Buttons and Knobs	Yes
Programmable Menu	Yes
Next Transition Selectors	BKG, Key1 - Key4
DSK Transition Selectors	Auto, Cut, Tie/Pvw
Transition Selection Switches	Yes, With Indicators
Preview Next Transition	Yes, on Each M/E
Transition Rate Displays	Yes
On-Air Indicator	LED
Panel Display	4 Line Interactive
Fader Bars	2
3-Axis Joystick	Yes
Rotary Encoders	Yes
Numeric Keypad	Yes
Remote Auxiliary Panel	Optional

## Dimensions

Width	37.27"
Height	5.12"
Depth	14.14"
Cutout Width	36.27"
Cutout Depth	16.67"

## Power

Redundant Power Supply	Standard
Panel Input Voltage	120-220V ~, 110VA, 50-60Hz (Per Outlet)
Panel Power Usage	75W

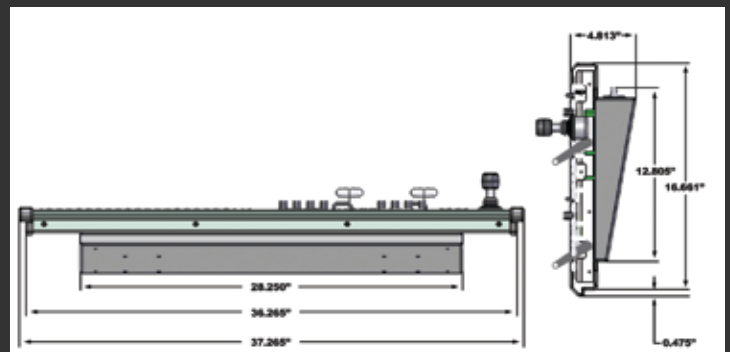
## Features

Next Transition Workflow	Yes
"Look Ahead" Preview	Yes, on Each M/E
Effects Take to Air	Auto, Cut, Fader Bar
Transitions	Mix, Wipe, Dip, DVE, Stinger, FTB
Transition Rate	Adjustable
Main Pattern Generators	2 (1 per M/E)
Basic Wipes	18 SMPTE
Organic Wipes	100, Upgradable to 500
DVE Transitions	Over 32 in SD, Over 100 in MD
Pattern Adjustments	Positioning, Symmetry
Wipe / DVE Borders	Yes
Border Sources	Any Source
Border Width	Variable
Border Softness	Yes
DSK with Perfect Edge Technology	2
DSK Types	Linear, Shaped
DSK Take	Auto, Cut, Tie/Pvw
DSK Transition Rate	Adjustable
DSK Preview	Yes
DSK Masks	2 (1 Per Keyer)
DSK Memory / Recall	Yes, Referenced to Fill Source
M/E Keyers with Perfect Edge Technology	4 Total, 2 on Each M/E
M/E Key Types	Linear, Shaped, Chroma, Pattern
M/E Key Pattern Generators	4 (1 Per Keyer)
M/E Key Masks	4 (1 Per Keyer)
M/E Key Viewable Matte	Yes
M/E Key Mask Resets	Yes
M/E Chroma Keyers	4

M/E Key Chroma Hue Adjustment	Yes
M/E Key Chroma Acceptance Angle	Adjustable, Narrow / Wide
M/E Key Chroma Luminance Suppression	Yes
M/E Key Chroma Lift (Spill Suppression)	Yes
M/E Key Chroma Viewable Matte	Yes
M/E Key Memory / Recall	Yes, Referenced to Fill Source
M/E Key Reset	Yes
Stinger Graphic Wipe Keyers	2 (1 per M/E)
Stinger Key Types	Linear, Shaped
Stinger Transition Type	Graphic Wipe, Push On, Push Off
Stinger GPO Event	Yes
Super Source Keyers	3
Super Source Box 1 Key Type	DVE
Super Source Box 2 Key Type	DVE
Super Source Graphic Key Type	Linear, Shaped
2D DVE	2 (SD System Only)
2D DVE Move Keyframes	Yes
2D DVE Move Length	Yes
2D DVE Color Border Generator	Yes
2D DVE Memory / Recall	Yes
2D DVE Reset	Yes
3D DVE	Up to 4 (MD System Only)
3D Rotation / Perspective	Yes
3D Warp Effects	Yes
3D Lighting Effects	Yes
3D DVE Border Generator	Yes
Fade to Black	Yes, on Each M/E
Fade to Black Transition	Yes, Rate Adjustable
Color Matte Generators	2
Panel Saves / Recalls	99 Per User Mode
Timeline Sequencing	User Programmable
Total Timeline Sequences	999
Active Timeline Sequences	12

## Documentation / Support / Warranty

Installation Guide	Yes
Operation Manual	Yes
Panel Layout / Installation Drawing	Yes
Training DVD	Yes
OnSite Commissioning	Available
OnSite Training	Available
24/7 Lifetime Phone Technical Support	Yes
Warranty	Full 3 Year
Free Firmware Upgrades	Lifetime



# OvertureMD

Multi Definition Video Production Switcher

**OvertureMD** is the very latest in multi definition switcher technology offering an impressive list of features including internal frame synchronizers, up/down/cross conversion, and high quality multi channel 3D DVE's. It has been designed from the ground up with the ability to handle standard definition and high definition formats.

## **Up/Down/Cross Conversion**

OvertureMD has an impressive list of internal conversion options that allow it to accept a wide variety of input formats of the same frame rate and output in 1080i, 720p and standard definition formats. This ability to convert in the mainframe simplifies system design and reduces overall costs significantly. Conventional multi-format switchers have a set operational format and require conversion and synchronization to be carried out externally which can have a significant impact on the overall system design: increased cabling, power consumption and equipment costs.

## **Internal A to D and D to A Conversion**

Existing analog equipment can be used with the switcher and new digital equipment can be added without rewiring the whole studio. OvertureMD supports analog signals of all types so that budget conscious studios can make the move to HD and still incorporate existing analog equipment.

## **OvertureMD Input Modules**

Standard input modules have 4 analog/digital inputs. Each input consists of 4 BNC connectors; 1 for SDI and 3 that support composite, Y/C, or analog component. Both analog and digital inputs can be physically connected allowing you to choose either analog or digital from the control panel during production. All processing is done at full 10-bit 4:2:2 resolution ensuring that quality is maintained throughout the system.

## **OvertureMD Output Modules**

Standard output modules have 4 analog/digital outputs. Each output consists of 4 BNC connectors; 1 for SDI and 3 that together support composite, Y/C, or analog component output. Both analog and digital outputs are live, where the analog is a copy of its digital counterpart. This duplicate signal provides a convenient way to send feeds to additional devices such as DVD recorders or tape decks. Multi-format output is available via Echolab down/cross conversion modules - providing simultaneous 1080 / 720 / SD output of any signal.

## **Up/Down/Cross Conversion**

- Accomodate any signal format
- Eliminate external complexity
- Reduce overall system costs



### Internal Floating Frame Synchronizers

Typical production systems can have a number of un-timed feeds such as satellite, remote studios or microwave links which must be synchronized before they can be fed to the production switcher. The Echolab OvertureMD series of switchers include 4 internal floating frame synchronizers standard! Internal frame synchronizers are advantageous as they reduce cabling, reduce power consumption, save valuable rack space and allow for fewer points of failure. The available synchronizers can be dynamically assigned to any input. Additional synchronizer options can be purchased to allow all inputs to accept un-timed feeds if desired.

### Internal Floating Frame Buffers

Frame buffers are valuable in any production environment. For certain applications a few frame buffers can replace a dedicated clip/still store. The Echolab internal frame buffers offer tremendous flexibility with an easy to use workflow. Internal frame buffers simplify installation, reduce power consumption and save valuable rack space. The frame buffers can be dynamically assigned to any input. This flexibility lets you configure the switcher to your workflow. Stills can be captured from any input and stored into the floating frame buffer. Lower thirds and other CG can be transferred to the switcher using a Photoshop plug-in or an easy to use utility that downloads graphic files to the mainframe via Ethernet.

### 3D DVE with Warp and Lighting

Unique to OvertureMD - the optional 3D DVE! It comes standard with advanced curvilinear effects such as page turns, ripples, flag waves and many more, all combined with powerful lighting tools to ensure an eye catching video transition.

Up to 4 channels of DVE can be installed and assigned to any M/E or appear as transition effects in an M/E 'take block'. When assigned to the 'take block', a DVE effect becomes the equivalent of a wipe – assign a key and fill to a DVE to make an animated graphic 'wipe' to your next source.

As with other effects and transitions, DVE moves can be pre-built and combined to create stunning sequences that can be fired at the touch of a button or triggered as part of a larger effects sequence.

### Internal Frame Synchronization

- Accept untimed inputs
- Simplify system design
- Reduce overall system costs



**Powerful 2D and 3D DVE transitions including graphic wipes**



# OvertureSD

## Video Production Switcher

The **OvertureSD** (based on our award winning Opera design technology) dual format live production switcher is designed to meet the needs of any digital production system or any analog system transitioning to digital. It can be seamlessly installed into an analog only or mixed format studio. The flexible OvertureSD input and output modules allow for a custom mix of analog and digital inputs and outputs.

**OvertureSD is the perfect switcher for studios that are transitioning from analog to digital. No external conversion equipment required**

OvertureSD internally converts from analog to digital and digital to analog and offers internal synchronization simplifying system design and reducing overall costs significantly. Conventional SDI switchers require conversion and synchronization to be carried out externally. This can have a

significant impact on the overall system design including increased cabling, increased power consumption and increased equipment costs. OvertureSD simplifies installation with its built in conversion and synchronization options.

### OvertureSD Input Modules

There are two types of OvertureSD input modules; analog and digital. Each module supports 4 inputs. Any combination of input modules can be configured into an OvertureSD chassis allowing for up to 32 input channels. The digital module has been optimized for robust SDI connectivity. SDI equalizers and reclockers provide reliable reception of all SMPTE 259M SDI signals. The high quality analog module features a 5-line comb filter decoder and supports all standard analog formats; composite (PAL/NTSC), Y/C, component, and RGB. All processing is done at full 10-bit 4:2:2 resolution ensuring that quality is maintained throughout the system.



### OvertureSD Output Module

The OvertureSD output modules support simultaneous SDI and analog output. All standard analog formats are supported; composite (PAL/NTSC), Y/C, component, and RGB. 12-bit DAC's provide a high quality analog signal that can be sent to analog devices with confidence. The OvertureSD chassis can be populated to support up to 16 output channels.

### Internal Floating Frame Synchronizers

Typical production systems can have a number of un-timed feeds such as satellite, remote studios or microwave links. These feeds must be synchronized before they can be fed to the production switcher. The Echolab Overture Series of switchers offer internal frame synchronizers that can be purchased for each of the available inputs. The synchronizers can be dynamically assigned to any input. Internal frame synchronizers are advantageous as they reduce cabling, reduce power consumption, save valuable rack space and allow for fewer points of failure.

### Internal Floating Frame Buffers

Frame buffers are valuable in any production environment. For certain applications a few frame buffers can replace a dedicated clip/still store. Echolab's internal frame buffers offer tremendous flexibility with an easy to use workflow. Internal frame buffers simplify installation, reduce power consumption and save valuable rack space. The frame buffers can be dynamically assigned to any input. This flexibility lets you configure the switcher to your workflow. A still can be captured from any input and stored into the floating frame buffer. Lower thirds and other CG can be transferred to the switcher using a Photoshop plug-in or an easy to use utility that downloads graphic files to the mainframe via Ethernet.

### Aux Outputs

OvertureSD has the most flexible auxiliary outputs of any switcher in its class. The auxiliary outputs can be dynamically assigned to show any signal from the switcher including program, preview, M/E outputs and clean feeds. There is no limit on the assignment capability of the auxiliary outputs. For example, clean feed can be duplicated on every auxiliary output if needed.

### System on Chip Technology

- FAA certified OS boots in 10 Seconds
- Recover rapidly from power failures
- Reduce overall power requirements
- Reliable 24/7 operation

# OvertureMD & OvertureSD Specifications

General	OvertureMD	OvertureSD
Video Processing	10 bit 4:2:2 Serial Digital	10 bit 4:2:2 Serial Digital
External Reference	Analog, Digital or Tri-Level	Digital Genlock
Status Indicators	Yes, LED	Yes, LED
Width	17.13" (43.51cm)	17" (43.18cm)
Height	20.94" (53.19cm)	10.4" (26.42cm)
Depth	11.89" (30.20)	13.74" (34.9cm)
Size in RU	12 RU	6RU
Width - 32/16 Chassis	-	17" (43.18cm)
Height - 32/16 Chassis	-	17.8" (45.21cm)
Depth - 32/16 Chassis	-	13.74" (34.9cm)
Size in RU - 32/16 Chassis	-	11 RU
<b>Inputs</b>		
Number of Inputs	16 - 32	8 - 32
HD-SDI (SMPTE 292M)	Yes	-
HD Analog YPbPr Component	Yes	-
HD Analog RGB Component	Yes	-
SD-SDI (SMPTE 259M)	Yes	Yes
Analog YPbPr Component	Yes	Yes
Analog RGB Component	Yes	Yes
Y/C (S-Video)	Yes	Yes
Composite (CVBS)	Yes	Yes
Input "Self Timing" Window	+/- 3/8 Line	+/- 18uS
Auto Equalization	200 Meters Max	280 Meters Max
Return Loss	15dB Minimum	15dB Minimum
<b>Outputs</b>		
Number of Outputs	8 - 16	8 - 16
HD-SDI (SMPTE 292M)	Yes	-
HD Analog YPbPr Component	Yes	-
HD Analog RGB Component	Yes	-
SD-SDI (SMPTE 259M)	Yes	Yes
Analog YPbPr Component	Yes	Yes
Analog RGB Component	Yes	Yes
Y/C (S-Video)	Yes	Yes
Composite (CVBS)	Yes	Yes
Output Signal Level	750-850 mV p-p	750-850 mV p-p
Program Output	User Configurable	User Configurable
Preview Output	User Configurable	User Configurable
Aux Outputs	User Configurable	User Configurable
Clean Feed	User Configurable	User Configurable
<b>Supported Native Resolution</b>		
1080/59.94i	Yes	-
1080/50i	Yes	-
720/59.94p	Yes	-
720/50p	Yes	-
525/59.94 (NTSC)	Yes	Yes
625/50 (PAL)	Yes	Yes
<b>Power</b>		
Single Power Supply	Standard	Standard
Redundant Hot Swappable Power Supply	Optional	Optional
Input Voltage	120-220V, 4A, 50-60Hz	100-240V, 4A, 50-60Hz
<b>Connectivity</b>		
Edit Port (RS 422)	4	1
Serial Port (RS 232)	2	1
Ethernet	10/100	10/100
Tally	30 Mappable Tally Relays	32 Mappable Tally Relays
GPI	3 User Programmable	3 User Programmable
GPO	2 User Programmable	2 User Programmable
External Memory	Compact Flash	Compact Flash

Protocols	OvertureMD	OvertureSD
VDCP Server Control	Yes	Yes
Character Generator Interface	Yes	Yes
Multi-Viewer Interface	Yes	Yes

### User Configuration

Configuration Interface	PC Based	PC Based
Source Naming	Yes	Yes
Source Mapping	Any Source to Any Crosspoint	Any Source to Any Crosspoint
GPIO Events	Programmable	Programmable
Native Resolution	Switchable	Switchable
Network Settings	DHCP or Static IP	DHCP or Static IP

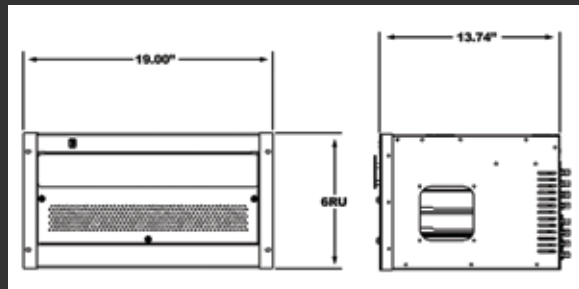
### Features

Internal Floating Frame Synchronizers	4 Standard, Additional Available	Optional
Internal Floating Frame Stores	4 Standard, Additional Available	Optional
Internal A to D and D to A Conversion	Yes	Yes
Internal Up/Cross Conversion on Input	Optional	-
Internal Down/Cross Conversion on Output	Optional	-
Simultaneous Analog and Digital Output	Yes	Yes
3D DVE	Up to 4 Channels	-
2D DVE	-	2 Channels
Frame Buffers	2 with Alpha Channel	2, or 1 With Alpha
Capture to Frame Buffer	From Any Input	From Any Input
View Modes	Frame, Field 1	Frame, Field 1

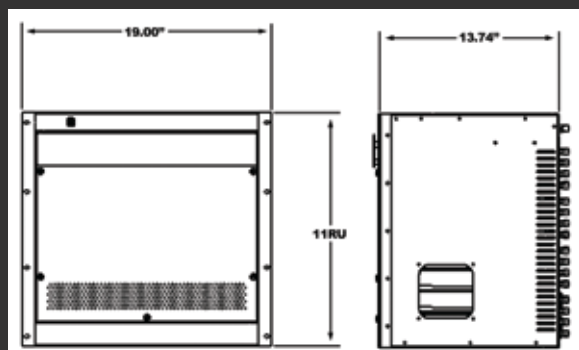
### Documentation / Support / Warranty

Installation Guide	Yes	Yes
Operation Manual	Yes	Yes
Training DVD	Yes	Yes
OnSite Commissioning	Available	Available
OnSite Training	Available	Available
24/7 Lifetime Phone Tech support	Yes	Yes
Warranty	Full 3 Year	Full 3 Year
Free Firmware Upgrades	Lifetime	Lifetime

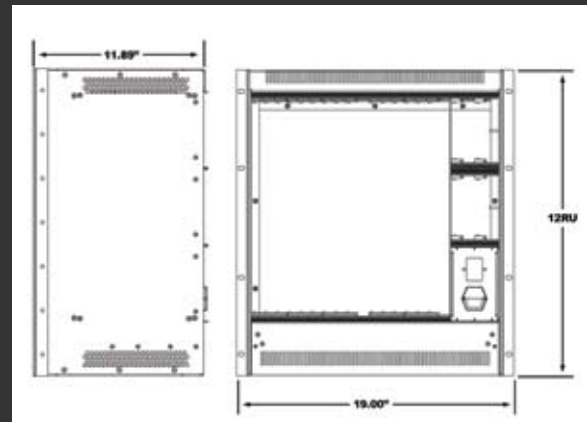
### OvertureSD 1616



### OvertureSD 3216



### OvertureMD



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