Echolab
switched on

Nova 1416

Digital Format

Pictures shown are not to scale.

The world's most elegant & powerful 1ME SDI Video Production Switcher.

Without question Echolab's Nova 1416 (formerly known as the id4) is the most elegant and powerful 1ME SDI switcher in the world today. Echolab's industry leading System on Chip architecture assures you of a technological platform that will be as relevant and commanding in future years to come as it is now.

The Nova 1416 is based around the popular identity 4 panel that has industry standard "look ahead' preview architecture. The system is broadcast quality 10-bit NTSC / PAL Serial Digital Video and offers unprecedented ease-of-use and familiar operation.

The Echolab Nova 1416 has six keyers for unprecedented layering in a switcher of this size. This offers amazing power and creative control. Four upstream effects keys support luma, chroma, & preset pattern keys. Two of the four effects keyers have integrated DVE's. Two downstream keyers allow title keying for graphics, logos, and bugs. Both background and key transitions can be set up and previewed with Echolab's complete look-ahead preview system. Transitions include dissolves and a rich library of over 600 wipe pattern options.

Powerful, portable and totally cool, the sleek identity 4 panel and compact 5RU Nova chassis fits in a standard rack and is perfect for all production environments, especially space-limited operations including OB vans.

Included as standard:

- Identity 4 control panel
- Nova 16 chassis
- 10-bit (4:2:2 NTSC/PAL)
- 16 SDI inputs
- 16 SDI outputs
- 4 effects keyers
- 2 downstream keyers
- 4 chromakeyers
- Still store frame buffer with alpha channel
- 5 pattern generators
- 2 matte generators
- 2 floating 2D DVEs
- 2 DVE border generators
- Organic wipes
- Adjustable transition rates
- Redundant dual power supply (optional)

www.echolab.com

Echolab Interface / Converters

We have developed our range of Echolab Converters to give you freedom of choice. The move to the digital platform can sometimes be difficult and expensive one. Echolab Converters bridge the analog and digital divide as well as resolve wide screen formatting issues now common in everyday production.

Echolab Converters have been specifically designed to compliment the Echolab Nova SDI range of remarkable System on Chip next generation switchers allowing you to seamlessly upgrade your existing infrastructure while retaining many of the expensive analog devices still so crucial to your production environment.

Echolab Converters can also be coupled with almost any brand and type of switcher as standalone interface. The Converters are bundled with Echolab Converter Frames that provide smart control and power supplies in 1, 2, 4 RU or Desktop units.

Echolab Converters separate themselves from the crowd by delivering superb 12 BIT conversion, providing true 10 Bit conversion output. Ask any of our competition if they can match this and we make sure you will see that only our converters deliver 100% reliable, BEST 12 Bit in 10 Bit OUT QUALITY conversion against broadcasting standards.

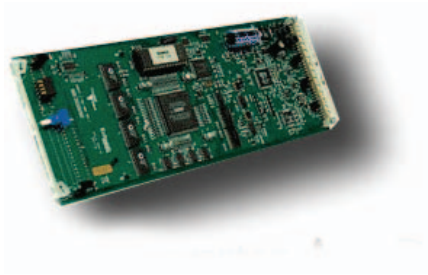
Discover the unmatched power and felxibility of our Nova SDI Range now with full conversion gear for those with remaining analog infrastructure.

Analog to Digital (AtoD) Card
converts NTSC/PAL, composite, Y/C or YUV video to SDI.

Digital to Analog (AtoD) Card
converts SDI into flexible combinations of NTSC/PAL, Composite, Y/C, YUV or RGB video using a high quality 12 bit encoder.

Aspect ratio Converter (ARC) Card
The Echolab ARC converter performs two conversions - 16:9 to 4:3 Full Screen and 4:3 to 16:9 Pillarbox.

Echolab Conversion products are a space-saving 4 x 10.5 inches module which can be housed in the Echolab smart frame for your application.



Echolab frames also house all Crystal Vision interface gear. Please visit their site for more information: www.crystalvision.tv

SPECIFICATIONS
NOVA 1416

Video Processing 10-bit 4:2:2 Serial Digital
Standards 525/60 NTSC or 625/50 PAL
External Reference Digital

Inputs
Number of Inputs 16
Input Type SDI
Input Timing Requirement plus / minus 18uS
Equalization Auto, 280 meters maximum
Return loss 15dB minimum

Outputs

Number of Outputs	16
Output Type	SDI
Output Signal level 750-850 mV p-p	
Rise/Fall Time 400 pS min / 800 pS max (20% - 80%)	
Overshoot 8% maximum	
Additive Jitter 25 pS p-p typical	
Pgm Outputs	(2) SDI
Pvw Output	SDI
Pgm Clean Feed Out	SDI
Optional Aux	Outputs (12) SDI
Aux Output routes	Any source, Pgm, Pvw & Clean feed for both DSKs

Power
Power Supply Single supply
Optional Power Supply DUAL Hot-swappable (redundant)

Connectivity

Edit port	Yes (Used for Integration)
Serial Port	Yes (Integration / diagnostics)
Ethernet	Yes (Used for Network Integration)
XML-RPC Server	Yes (Integration / diagnostics)
Tally	32 / 8 (4 wiring blocks)
GPIO	3 in, 2 out / User programmable
External memory	Compact Flash
Status indicators Status	LEDs Yes
CF operation LEDs	Yes
Panel display	4 line interactive display
Power status	Redundant Power Supply (Panel)

User Configurations

Number of user Modes	8
User Mode selection	Yes,
User Mode interface	PC based editing
Source naming	Yes
Source mapping	Any source to any x-point including Genlock
GPIO events	User programmable
Lamp saver mode	User programmable
NTSC / Pal switchable	User programmable
Network settings	User programmable
Redundant power supply	Yes, Optional

Operation

Layout Program, Preview Effects (1 M/E)	
"Look ahead" Preview	Yes
Effects take to air Fader bar, adjustable take, cut	
Transistions	Mix or Wipe
Transitions rate	Adjustable
Main Pattern Generators 1	
Basic Wipes	18
Organic Wipes	100 (optional 500 more)
Pattern adjustments	Positioning, Symmetry (basic wipes)
Wipe borders	Yes
Border sources	Any source
Width	Variable
Softness	Yes
Keyers	4
Key types supported	Luminance, Linear, Shaped, Chroma
Key pattern generators	1 for each keyer (4)
Key masks	Multiple
Key Mask resets	Yes
Key Memory / Recall	Yes, referenced to fill source
Down Stream Keyers	2
Key take	Auto, cut
Key transition rate	Adjustable
Key preview	Yes
Key types supported	Luminance, Linear, Shaped
Key masks	Yes
Key Mask resets	Yes
Key Memory / Recall	Yes, referenced to fill source
Chromakeys	4
Hue adjustment	Yes
Adjustable chroma acceptence angle Narrow or wide	
Luminence suppression	Yes
Viewable matte	Yes
Key lift (spill suppression)	Yes
Ckey Reset	Yes
Fade to Black	Yes
FTB transition	Yes, rate adjustable
Color Matte Generators	2
Frame Buffers	1
Input Modes Pass-through, Freeze, Capture, Recall	
View modes	Frame, Field 1
Capture to Frame Buffer # of stills based on CF storage capacity	
Alpha support	Yes
Import to Frame Buffer Software option for XP: imports .tga & .jpg	
DVE	2 (2D)
DVE	Resets Yes
DVE	Memory / Recalls Yes
DVE	Move keyframes 2
DVE	Move length Adjustable
DVE border	Color generators = 2, 1 for each DVE
Programmable	Effects Memory
User Modes	8
Panel Saves/Recalls	99 per User Mode
Timeline Sequencing	User programmable macro automates any switcher functions to occur as a timed sequence of events and allows for user intervention
Total Timeline Sequences 65535 available	
Active Timeline Sequences 22	

Documentation / Support

Installation and Operation Manual	Yes
Panel layout / installation drawing	Yes
Training DVD	Yes
24/7 Lifetime Phone Tech Support	Yes
Chassis Fully Redundant Power Supply	Optional
On-Site Commissioning Purchased by the day	Yes
On-site Training Purchased by the day	Yes

Panel

Control Panel Identity	4
Direct Crosspoints	10
Shifted Crosspoints	10
Crosspoint button type	NKK soft touch, tri-color LED
Panel display	4 line interactive
X-point display (sources)	Yes, LED
Next transition selectors	Bkg, Keys 1 through 4
Preview next transition	Yes
Transition rate displays	Yes
Fader bars	1
3-Axis Joystick	Yes, menu assignable
Incremental Adjustments	Rotary encoders
On-air indicator = LED "transition" bar graph	
Selection bus for Keyers, Aux routing, etc. • Menu driven	
Selection "Soft" buttons and knobs • Menu driven	
Programmable Menu section • Menu driven	
Numeric keypad	Yes
Mix / Wipe transition Selection Switches with indicators	
DSK transition selectors Pvw, Take, and Cut	
Lamp Saver	Yes
Redundant power supply	Yes

Echolab 'X' Models

Echolab 'X Model' switchers harness the power of networking to maximize automated workflow efficiencies for an integrated live studio. ' X' is the nomenclature for the "extended functionality" models of Echolab switchers. 'X' models are dynamically bundled with a customized PC workstation providing the ability to integrate device options. There are also protocols available to control 360 Systems Image Servers, Compix Media CG's, Avitech Multiviewers and automation of other studio devices.

Options

X Model System upgrade	Yes
Integrated Media Server 360 Systems	Yes
Integrated CG Inscriber, Compix	Yes
Integrated Still Store INCA Store	Yes
VTR control V-LAN	Yes
Avitech Muti-monitor interface Yes	Echolab Tools (Options)

400 Additional Wipes
Over 400 additional wipes, effects, transitions and dynamic mattes

Graphics Utility Tool - CD Rom / Software
Import / Export / Transfer images between Frame buffer and PC Includes Photoshop plug in to create native Nova (.nov) files Supports alpha channel, resizing and ethernet import/export

*NOTE: Some functionality is currently being ported over both Nova and Opera ranges. Check with our service and support department for latest updates. service@echolab.com

3 Year Full Warranty

Plus lifetime guarantee of free upgrades to the core software

Echolab switched on

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