HYPERCONVERGED PRODUCTION PLATFORM
By necessity, traditional system design has focused on separate, standalone core components such as routing, production switchers, audio processors, frame-syncs, and multiviewers. Within this traditional system, each component required its own rack space, inputs, outputs, control, communications cabling, primary and redundant power, as well as independent monitoring. Even simple system designs often required multiple equipment racks to house the different component frames, while larger designs could span entire rooms. Ultrix Acuity shatters that convention by merging all those components into a single, hyperconverged electronics frame with rack-mounted power supplies. Ultrix Acuity can replace multiple systems while still providing hardware-based, mission-critical reliability.
The compact SDPE blades allow Ultrix Acuity to provide massive audio and video routing and processing power along with true big switcher effects capability in a small footprint, including redundant power. This makes Ultrix Acuity an ideal choice for space-constrained facilities and mobile units.

Hyperconvergence is more than simply combining separate products in one frame. It's a completely new way to conceptualize workflows and hardware allocation that is based on the concept of a “Software Defined Production Engine”, or SDPE. Instead of expensive “forklift” replacements, flexible SDPE devices, such as the Mix/Effects boards in Ultrix Acuity, can be easily upgraded as live production demands change.
**MIX & MATCH FEARLESSLY**

With Ultrix Acuity, signal format and connectivity are no longer roadblocks to productivity. SDI and IP sources can be seamlessly and transparently mixed in the same frame. In a UHD environment, Ultrix Acuity can easily accommodate HD sources thanks to automatic, bus-based upconversion of 1080p signals. De-embedding and re-embedding audio channels on every input and output means that embedded and MADI audio sources can be easily routed anywhere within the matrix, including MultiViewer PIPs.

**FUTURE CONFIDENT**

When we say software-defined we really mean it - Ultrix Acuity hardware is complete right out of the box. However, as needs and demands grow, optional features can be enabled using cost-effective software licenses.

### ACUITY OPTIONS

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<tr>
<th>Option</th>
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<tbody>
<tr>
<td>12G UHD License</td>
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<tr>
<td>Audio Mixer Control</td>
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<tr>
<td>Robotic Camera Control</td>
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### ULTRIX OPTIONS

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<td>MultiViewers</td>
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<td>Centralized Router Control</td>
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<tr>
<td>Intelligent Tie-Line Management</td>
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<tr>
<td>Wide range of SFP Options</td>
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Please contact your local Ross Video Sales Representative or authorized reseller for more information.
Ultrix Acuity is not only a sound technical choice, it’s a smart business decision as well. By merging the Ultrix routing platform and Acuity production switcher into one compact chassis, total cost of ownership is reduced because expensive power, cooling, maintenance and support costs are significantly reduced.

ROI TCO

Peace of Mind Included

Ultrix Acuity’s robust hardware is designed and engineered for 24/7 mission-critical applications. But if assistance is needed, Ross Video Technical support is second to none. A range of support options means that technical services can be tailored to the specific needs of the facility and available 24/7/365.
As game-changing as Ultrix Acuity is, operators might not even notice because they’ll continue to work as they always have, using the same control surfaces they’ve become accustomed to. All standard Acuity Control and Aux Panels are supported, as are SideShot and SideSlide modules, Ultritouch configuration and monitoring panels, RCP Remote Control Panels and SoftPanel or Acuity Rack Panel. Using DashBoard, custom task-specific user interfaces can extend control even further. And since it’s an Acuity, device integration and OverDrive production automation options are also available.

**COMFORTABLY FAMILIAR**

ROSS PRODUCT SOLUTIONS

- **ACUITY 4 CONTROL PANEL**
- **ULTRITOUCH 3RU PANEL**
- **ULTRITOUCH 4RU PANEL**
- **SIDESHOT / SIDE SLIDE**
- **ACUITY AUX CONTROL PANEL**
- **RCP-QE-3B SYSTEM CONTROL PANEL**
- **RCP-QE-36 SYSTEM CONTROL PANEL**
- **RCP-ME SYSTEM CONTROL PANEL**
ULTRIX FR-5, FR-12

- Software Defined Feature Set
- Clean, Quiet Switching
- Powerful Audio Processing Fabric
- Audio Embedding & Disembedding
- Multiple I/O Options – SDI, IP, SFP
- UHD Architecture throughout
- Multiviewers
- Frame Syncs
- Audio Mixer
- Central control and tie line management

GREATER THAN THE SUM OF ITS PARTS

Ultrix Acuity merges the power of two flagship Ross Video products into a complete, scalable, future-proof solution for mission-critical production operations.

SDPE ACUITY ME

- 4 Definable Program Outputs per ME
- 2 Definable Preview Outputs per ME
- 6 Keyers per ME
- 14 HD 2D DVE per ME
- 6 UHD 2D DVE per ME
- 4 Video/key MediaStores per ME
- 2 Audio MediaStores per ME
- Bus-based switching and automatic 1080p UHD upconversion within an ME
- 3D DVEs
- Virtual Aux Buses

*Certain features optional
FLEXIBLE ARCHITECTURE

The nine available Ultrix FR-5 slots can be populated with a mix of I/O boards (SDI, IP, or SFP) and up to four SDPE ME blades to create a "right-sized" hybrid routing and switching environment.
## ULTRIX ACUITY SPECIFICATIONS

### ULTRIX SDPE BLADE

- **Supported Video Formats**
  - 720p /50 /59.94
  - 1080i /50 /59.94
  - 1080p /24 /29.97 /50 /59.94
  - 2160p /50 /59.94
- **Number of ME per Blade**: 1
- **Number of Keys per ME**: 6
- **Number of Pric Amps/Color Correctors**: 18
- **UltraChrome Chroma-Key Engines per ME**: 2
- **Split ME / MultiFeed per ME**: 4
- **Number of 2D DVE per ME**: 2, including 2 for DVE Transition (HD/SD)
- **Internal SSD Drive for Media Files, Show & Configuration Storage**: 256GB
- **Number of Media Stores per ME**: 4 (Channels with Alpha)
- **Media Store RAM Capacity per ME**: 8GB
- **Event Memory System & Custom Control Macros**: 1,000 Memories & 2,304 Custom Controls per setup file
- **Tally, GPIO per Blade**: 24 Tally, 24 GPIO
- **H+2 Redundant Power Supplies**: 2x Ultripower (Each with 2x PSU)

### ULTRIX HD/IO BOARD©

- **Number of HD BNC Inputs**: 16
- **Number of HD BNC Outputs**: 16
- **Audio Channels per IO**: 16
- **SFP Aux Ports©**: 2

### CHASSIS

- **Number of Slots**: 8 (Standard slots, 1 Flex Slot (IO Blades only)
- **Maximum SDPE Blades per Chassis**: 4
- **Maximum UHD Gearboxes per Slot**: 3 in / 3 out
- **Maximum Ultr scape MV Head Licenses per Slot**: 3 SDI or 2 IP, 3 SDI or 2 IP
- **Maximum 3G/HD-SDI Input Frame Sync per Chassis**: 160
- **Maximum 12G/SDI Input Frame Sync per Chassis**: 27
- **Maximum 12G/SDI Clean Outputs per Chassis**: 160
- **Maximum Size of Ultrix-MXR Audio Mixer**: 128 x 64
- **Maximum Size of Ultrimix-MXR Audio Mixer**: 128 x 64
- **Width**: 17.5" (445mm)
- **Height**: 8.7" (221mm)
- **Depth**: 7.9" (201mm)
- **Frame Weight**: 14 lbs (6.47 kg)
- **I/O Card Weight**: 3 lbs (1.36 kg)

### ULTRIX SFP-IO BOARD©

- **Number of SFP cages**: 16 Bidirectional SFP Cages plus 2 Aux Ports©
- **I/O Specification**: See SFP manufacturer spec sheet for I/O specification

### ULTRIX IP I/O BOARD©

- **Standard Input/Output**: (4) 25GE SFP28 + 2 Aux Ports©
- **Video Streams per Card**: 3G/HD: 16-16 redundant, 16 non-redundant
  - 6G/UDP: 4-4 redundant, 8 non-redundant
- **IP Transport Standard Support**: SMPTE ST 2110 suite, including:
  - 10, System Timing & Definitions
  - 20, Uncompressed Active Video
  - 30, PCM Digital Audio
  - VSF TR-03
  - AES67

### ACUITY CONTROL PANELS

- **Multi-Panel Operation**: (1 Master, 8 Satellites)
- **Fully Modular Control Panels**: ✔
- **Number of Panel Models Available**: 12
- **DualDisplay Menu System**
- **On Panel Menu Control Module**
- **16/9 Touch Screen Menu Display**
- **Themable Panel Glow RGB Buttons**
- **Full RGB Color Alphanumeric Displays**
- **Maximum Assignable Tallys**: 108
- **Automation Control via OverDrive**
- **Serial Ports**: 8
- **Redundant Power Supplies**: optional

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*All Specifications subject to change and are dependent on system configuration.*

*For more information, please refer to the [ultrix specification page](#).*
Ross Video has a complete range of technical services available to ensure that your Ultrix Acuity deployment is a success.

**Operational Training** can be provided at Ross Video, on-site, or over the web. Experienced Ross operators will teach your staff to get the most out of your new system and enhance your productions.

**Commissioning** is a service to help get your production system properly configured, connected, and installed. This service is performed by factory-trained Ross technical staff.

**Technical Training** can be provided at Ross Video, on-site, or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

Ultrix Acuity comes standard with a 1 year comprehensive warranty. Extended Warranties on hardware and software maintenance are available for an annual fee and also include enhanced Service Level Agreements.

Technical advice is available on-line, by telephone, or email to Ross Video – Included for the life of your system.