Ulrix CARBONITE

MID-SIZE HYPERCONVERGED PRODUCTION PLATFORM
The evolution of the Software-Defined Production Engine continues with Ultrix Carbonite, a powerful mid-size production solution that combines the routing and processing resources of Ultrix with the advanced effects capabilities of Carbonite. The result is a cost-effective, scalable platform that solves format and connectivity challenges while delivering a new level of performance, flexibility, and value.
Available in either a 2RU or 5RU chassis, the hyperconverged Ultrix Carbonite delivers a flexible, multi-format routing and production solution in as little as 3RU including power supply.

SOFTWARE-DEFINED PRODUCTION ENGINE (SDPE)

The SDPE Carbonite blade is seamlessly integrated into the Ultrix routing and video/audio processing platform to provide small and mid-size facilities the benefits of a single-chassis solution that is flexible enough to easily grow as production requirements change.
With Ultrix Carbonite, signal format and connectivity challenges simply disappear. Ultrix SDI, IP, and SFP I/O boards can be mixed in the same frame, allowing Ultrix Carbonite to access sources seamlessly and transparently. Frame Syncs, Format Converters, Proc Amps, and Color Correctors provide fine-line control of signal parameters. De-embedding and re-embedding audio channels on every input and output allows easy routing of embedded and MADI audio sources anywhere within the matrix, including to MultiViewer PIPs.

MIX & MATCH FEARLESSLY

The SDPE blade at the heart of Ultrix Carbonite is designed and engineered to be easily repurposed or updated. As needs change, optional features can be enabled using cost-effective software licenses that can be added remotely.

Please contact your local Ross Video Sales Representative or authorized reseller for more information.

FUTURE CONFIDENT

The SDPE blade at the heart of Ultrix Carbonite is designed and engineered to be easily repurposed or updated. As needs change, optional features can be enabled using cost-effective software licenses that can be added remotely.

Please contact your local Ross Video Sales Representative or authorized reseller for more information.
Ultrix Carbonite is not only a sound technical choice, it’s a smart business decision as well. By merging the Ultrix routing platform and Carbonite production switcher into one compact chassis, the total cost of ownership is reduced because expensive power, cooling, maintenance and support costs are significantly lowered.

**ROI**

**TCO**

Ultrix Carbonite’s robust hardware is designed and engineered for 24/7 mission-critical applications. If assistance is needed, Ross Video technical support is second to none. Our range of support options allow technical services to be tailored to the specific needs of your facility and available 24/7/365.

**PEACE OF MIND INCLUDED**
Operational ease of use, flexible functionality, and integrated control have been hallmarks of Carbonite since its introduction, and Ultrix Carbonite carries on that tradition. It is fully compatible with the TouchDrive™ family of control surfaces and can also be controlled using Dashboard, Ross Video’s powerful command and configuration software application, or ViewControl, Carbonite’s innovative touchscreen controller. In addition, source, destination and aux bus routing can be accomplished using any of the physical or Dashboard-based Ultrix routing panels.
ULTRIX FR5/FR2*

- Software-Defined Feature Set
- Clean, Quiet Switching
- Powerful Audio Processing Fabric
- 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

Multiple Ultrix Carbonite blades can be installed in either the FR5 (5RU) or FR2 (2RU) Ultrix frames. Each blade provides a complete multi-format, multi-ME production switcher solution.

* Certain features optional

SDPE CARBONITE ME*

- 22 x 22 I/O Matrix
- Up to 2 Full M/E Banks
- 4 MiniME Banks (2 in UHD)
- 7 Keyers per full ME (6 Full Keyers + Transition Keyer)
- 12 Floating 2D DVEs (6 in UHD)
- 4 Floating Chroma-Keyers (2 in UHD)
- 4 Floating Video/Key MediaStores
- 2 Integrated MultiViewers (1 in UHD)
- TouchDrive™ and DashBoard compatible

* Certain features optional
Available Ultrix frame slots can be populated with a mix of I/O boards (SDI, IP, or SFP) and SDPE blades, each of which will be an independent Ultrix Carbonite switcher. By mixing I/O boards and SDPE blades, the right balance of signal routing capability and production power can be achieved.

### ULTRIX FR5

<table>
<thead>
<tr>
<th># of SDPE Blades</th>
<th># of I/O Boards</th>
<th>HD BNC I/O Count*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>146 x 146</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>132 x 132</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>118 x 118</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>104 x 104</td>
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</tbody>
</table>

### ULTRIX FR2

<table>
<thead>
<tr>
<th># of SDPE Blades</th>
<th># of I/O Boards</th>
<th>HD BNC I/O Count*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>58 x 58</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>44 x 44</td>
</tr>
</tbody>
</table>

*I/O count assumes each aux port is populated with 1 HD BNC SFP and that all dedicated SDPE input and output connectors are fully populated.
**ULTRIX CARBONITE SPECIFICATIONS**

### CARBONITE SDPE BLADE

**Supported Video Formats**
- 720p /50 /59.94
- 1080i /50 /59.94
- 1080P/60 23.98 /24 /25 /29.97 /30
- 1080/23.98 /24 /25 /29.97 /30 /50 /59.94 /60

**Number of ME per Blade**
Up to 2

**Number of MiniME per Blade**
4 (HD)
2 (UHD)

**Number of keys per ME**
6

**Number of Keys per MiniME**
2

**Number of Floating UltraChrome Chroma Key Engines**
4 (HD)
2 (UHD)

**Number of Floating 2D DVE per ME**
4 (HD)
2 (UHD)

**Number of Media Stores**
4 Channels (with Alpha)

**Media Store RAM Capacity per ME**
RGB

**USB Clip Player**
1 (HD only)

**Event Memory System & Custom Control Macros**
100 Memories per ME and MiniME, and 256 Custom Controls per setup file

**Tally, GPIO per Blade**
24 Tally, 24 GPIO

### ULTRIX CHASSIS

**Number of Slots (for SDPE Blades & I/O Boards)**
- 8 Standard Slots
- 1 Flex Slot (HD-SDI Boards only)

**Maximum SDPE Blades per Chassis**
4

**Maximum LHD Gearboxes per Slot**
3 in/3 out
2 in/2 out

**Maximum Ultriscape MV Head Licenses per Slot**
3 SDI or 2 IP
3 SDI or 2 IP

**Maximum 3Gbps Input Frame Syncs per Chassis**
160
72

**Maximum 12Gbps Input Frame Syncs per Chassis**
27
12

**Maximum 12Gbps Clean/Quick Outputs per Chassis**
160
72

**Maximum Size of UltraChrome Audio Mixer**
128 x 64

**N+2 Redundant Power Supplies**
2 x Bricks PSU or 1 x Ultripower (with 2x PSUs)
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**Width**
17.5” (445mm)
17.5” (445mm)

**Depth**
7.9” (201mm)
7.9” (201mm)

**Height**
8.7” (221mm)
3.4” (88mm)

**Audio Frame (approximate per board)**
14 lbs (6.35 kg)
12 lbs (5.44 kg)

**I/O Card Weight (approximate per board)**
3 lbs (1.36 kg)
3 lbs (1.36 kg)

**Audio Matrix Size (with Optional MADI SFPs)**
3456 x 3456
1536 x 1536

**Maximum Size of Ultrimix-MXR Audio Mixer**
128 x 64

**N+1 Redundant Power Supplies**
Bricks PSU or Ultripower (with 2x PSUs)

**Frame Weight (approximate)**
14 lbs (6.35 kg)
12 lbs (5.44 kg)

**USB Clip Player**
1 (HD only)

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### TOUCHDRIVE™ CONTROL PANELS

**Multi-Panel Operation**
- 1 Master, 2 Satellites, 1 SoftPanel

**Number of Panel Models Available**
6

**Exclusive Touch Displays with Gesture Control**

**Themeable Panel Glow RGB Buttons**

**Preloaded Dashboard Control Application**

**Available Touchscreen Dashboard Monitor**

**IP Automation Control via OverDrive**

**N+1 Redundant Power Supplies**
Bricks PSU or Ultripower

### ULTRIX ACUITY IP-IO BOARD

**Standard Inputs/Outputs**
- 8 Standard Slots
- 1 Flex Slot (HD-SDI Boards only)
- 3 Standard Slots
- 1 Flex Slot (SD-SDI)

**SFP sold separately**

**IP Transport Standard Support**
- SMPTE ST 2110 suffix, including:
  - 16, System Timing & Definitions
- 30, Uncompressed Active Video
- 30, PCM Digital Audio

**System Timing & Reference Control and Setup**
- PTP Slave (SMPTE 2059, AES67 & IEEE-1588 default profiles)
- NMOS IS-04 & IS-05 for AMS-compliant discovery, registration & connection control
- Ember+ discovery, registration & connection control from popular third-party systems
- Provisioning & monitoring via Dashboard & Ultripower published JDI API

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2 (UHD)

**Number of Keys per ME**
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Ross Video has a complete range of technical services available to ensure that your Ultrix Carbonite 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 Carbonite 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.