INTRODUCTION
The Xedge 6640 and Xedge 6645 chassis are modular high density chassis systems that allow full redundancy by employing main and standby slot-0 controllers, main and standby switch fabric, and backup power supplies.

The front panel provides easy installation for one or two Xedge switch fabric modules and up to seven Xedge slot controllers of any type:

• Xedge XS or XH Switch Fabric Module
• Xedge cell controllers (ACP, ACS or ECC)
• Xedge adaptation controllers (CE, FRC, CHFRC, ETH, VSM)
• Xedge packet controllers (PCX, PCE, ISG2, PCL, etc.)

Chassis rear panels provide connectors for power sources, grounding and alarm connections. A shorting bar located on the rear of the chassis provide for the connection, separation, or isolation of frame and signal grounds as required.

Two DB-25 connectors at the rear panel provide local management access to the Main and Standby slot-0 controllers via an asynchronous terminal.

Dedicated rear panel slots accommodate one or two Xedge line interface modules (LIMs) for each installed slot controller, and up to two Network Timing Modules (NTM) for advanced system timing configurations.

FEATURES & BENEFITS
• Installs in a standard 19-inch rack or cabinet.
• Accepts one or two (redundant) switch fabric modules
• Accepts one or two (redundant) slot-0 slot controllers, and accepts up to six additional slot controllers
• Supports input and power supply redundancy
• Rear panel slots accommodate one or two Xedge line interface modules for each installed slot controller.
• Modules can be installed or extracted without powering down the shelf (hot-swappable).
• Accommodates one Fan Tray Assembly
• Supports up to two Network Tray Modules
• Supports environmental status and alarms control.
• Provide a signal and chassis ground connection point.

Chassis Power
Both chassis obtain power from one or two power feeds and two or four Power Supply Units: Main (A/B) and Standby (C/D). This power arrangement allows for power input redundancy and power supply redundancy.

Xedge 6640 is an AC-powered chassis that uses two or four autoranging GPS-14 power supplies that automatically adapt to AC power inputs ranging from 90 to 264VAC. Xedge 6645 is a DC-powered chassis that uses two or four DPS-14 autoranging power supplies that automatically adapt to DC power inputs ranging from -42 to -70 VDC.
Xedge 664X Chassis

Physical Specifications

**Xedge 6640/6645 Chassis Dimensions**
- Height: 25.5 in (66.2 cm)
- Width: 19.0 in. (48.3 cm)
- Depth: 16.6 in. (44.2 cm)
- Weight: 130 lbs (59 kg) fully loaded

**Module Capacity**
- Two dedicated front slots accept switch fabric modules (XH).
- Two dedicated front slots accept slot-0 controllers (Main and Standby)
- Factory-installed Link Personality Modules (LPMs): LPM-1, LPM-2, LPM-3, LPM-4, LPM-5, LPM-6, LPM-CE
- 16 front slots accept single-width or double-width Xedge slot controllers with 1 or 2 compatible LIMs per controller.
  - Single-width slot controller modules: ISG2, VSM, CE, FRC, CHFRC, ETH, ECC, ACP, ACS
  - Dual-width slot controller modules: PCX/PCX2, PCE, PCL

**Module/LIM Applications**
- The Slot Controller/LPM/LIM Bundle installed at the factory supports a variety of LIM applications:
  - LPM-1: Uses two Utopia LIMs
  - LPM-2: Uses one Utopia LIM (LIM1) and one SERDES LIM (LIM2)
  - LPM-3: Uses one Serial LIM (LIM1) and one SERDES LIM (LIM2)
  - LPM-4: Uses two SERDES LIMs
  - LPM-5: Uses two Serial LIMs
  - LPM-6: Uses one Serial LIM (LIM1) and one Utopia LIM (LIM2)
  - LPM-CE: Uses two selected Serial LIMs (with PCE only)

<table>
<thead>
<tr>
<th>Serial LIMs</th>
<th>Utopia LIMs</th>
<th>SERDES LIMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS1-2CS</td>
<td>DSX1-IMA</td>
<td>OC-N/STM-N</td>
</tr>
<tr>
<td>DS1-4CS</td>
<td>E1-IMA</td>
<td>AVM (Voice)</td>
</tr>
<tr>
<td>DS3-2C</td>
<td>155M-2</td>
<td>T1/E1 MP16</td>
</tr>
<tr>
<td>E1-2CS</td>
<td>155I-2</td>
<td>T1/E1 HDCC</td>
</tr>
<tr>
<td>E1-4CS</td>
<td>155L-2</td>
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</tr>
<tr>
<td>E3-2C</td>
<td>155M-APS</td>
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<tr>
<td>LCE-16</td>
<td>155I-APS</td>
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</tr>
<tr>
<td>ASIO</td>
<td>155L-APS</td>
<td></td>
</tr>
<tr>
<td>ASIO-HSSI (DCE)</td>
<td>155E-2</td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Specifications**

- **Non-Operating**
  - Temperature: -40 deg. to 158 deg. F (-40 deg. to 70 deg. C)
  - Altitude: 0 ft. to +40,000 ft. (0 m to +12191 m)

- **Operating**
  - 32 deg. to 122 deg. F (0 deg. to 50 deg. C)
  - Relative Humidity: 5% - 95% non-condensing
  - Altitude: 0 ft. to +10,000 ft. (0 m to +3048 m)

**Power Specifications**

- **Xedge 6640 AC Version (P/N 010B197-001)**
  - GPS14 AC Power Supply P/N: 035P114-001
  - Capacity: Two or four power supplies
  - Input Voltage Range: 90 to 132 VAC; 198-264 VAC
  - Maximum Power Consumption: 1300 W (with two power supplies)
  - Input Frequency: 47 to 63 Hz
  - Input Current: 16A low range; 8A high range
  - Service Current Requirement: 20A low range; 10A high range
  - Heat Dissipation: 4,600 BTU/hr, maximum

- **Xedge 6645 DC Version (P/N 010B198-001)**
  - DPS-14 DC Power Supply P/N: 041P114-001
  - Capacity: Two or four power supplies
  - Input Voltage: -48 VDC nominal (-42 to -70 VDC)
  - Maximum Power Consumption: 1300 W (with two power supplies)
  - Input Current: 27A at -48 VDC
  - Service Current Requirement: 35A
  - Heat Dissipation: 4,600 BTU/hr, maximum

**Compliance & Compatibility**

- CISPR 22 Class A, FCC 15 Class A, EN55022, EN55024
- UL Listed (60950)
- c-UL Listed (CSA C22.2 #950)
- TUV licensed (EN60950)
- CE Mark

**Port Capacity**

All Xedge chassis types can support a variety of controller/LIM combinations. The following matrix provides a simplified indication of each chassis’ maximum port capacity by interface type, assuming PCE/ASIO, PCE/DS3-2C, PCX-2/T1/E1 MP16, and PCX-2/LCE-16.

<table>
<thead>
<tr>
<th>Chassis Type</th>
<th>Redundant Power</th>
<th>Redundant SW Fabric</th>
<th>Redundant Slot-0</th>
<th>Maximum DS1 Ports</th>
<th>Maximum DS3 Ports</th>
<th>Maximum Serial Ports</th>
<th>Maximum Subrate Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xedge 6002</td>
<td>NO</td>
<td>N/A</td>
<td>N/A</td>
<td>32</td>
<td>2</td>
<td>8</td>
<td>32</td>
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<tr>
<td>Xedge 6160</td>
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<td>1</td>
<td>NO</td>
<td>64</td>
<td>4</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Xedge 6280</td>
<td>4 AC or 4 DC</td>
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<td>96</td>
<td>6</td>
<td>24</td>
<td>96</td>
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<tr>
<td>Xedge 6640</td>
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<td>224</td>
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<td>56</td>
<td>224</td>
</tr>
<tr>
<td>Xedge 6645</td>
<td>4 DC</td>
<td>2</td>
<td>YES</td>
<td>224</td>
<td>14</td>
<td>56</td>
<td>224</td>
</tr>
</tbody>
</table>

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