XPand1400 Series

Development Platform for XPand6000 Series, X-ES COM Express™ Modules, and XMC/PMC Modules

- Single COM Express site with AB and CD connectors
- For Freescale QorIQ-based development, Type 5FS and Type 10FS COM Express modules supported
- For Intel® Core™ i7 processor-based development, enhanced Type 6 and Type 10 COM Express modules supported
- Single PMC/XMC site
- Single PIM/XIM site for PMC/XMC rear I/O
- Single COM Express I/O Module (CIM) site
- One RJ-45 Gigabit Ethernet connector
- Two USB 2.0 connectors
- Two DB-9 serial connectors
- One Mini DisplayPort connector
- One eSATA connector
- One PCIe Edge card site
- Additional COM Express I/O available through an installed CIM module
- Three internal SATA connectors
- Two internal USB 2.0 connectors

XPand1400 Series

The XPand1400 Series COM Express Development Platform targets the X-ES Small Form Factor (SFF) XPand6000 Series and other COM Express applications to enable early development and rapid prototyping. It provides a convenient desktop setup with standard I/O connectors. The XPand1400 Series includes all of the functionality of the XPand6000 series, including support for a COM Express module, a PMC or XMC, and an SSD. With the XPand1400 Series, the transition from development to the target XPand6000 Series system or custom COM Express carrier card is made easy.

The XPand1400 Series provides basic COM Express I/O via fixed connectors, which are accessible through the back panel of its ATX chassis. Additionally, it provides a COM Express I/O Module (CIM) site for access to I/O not available at the fixed connectors. Simply removing the ATX case cover gives access to internal fixed I/O and PIM/XIM I/O.

An integrated fan located below the PMC/XMC site provides ample airflow for the most powerful modules.

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www.xes-inc.com
**COM Express**
- Supports Type 5FS and Type 10FS COM Express modules, specifically targeting Freescale QorIQ-based modules.
- Supports enhanced Type 6 and Type 10 COM Express modules, specifically targeting Intel® Core™ i7 processor based modules.
- Carrier card provides cutout for access to debug COM Express modules.
- Extra I/O to CIM site.

**PMC/XMC Mezzanine**
- 32/64-bit PCI/PCI-X up to 133 MHz
- Conventional PCI 33/66 MHz or PCI-X 66/100/133 MHz
- x8 PCIe from COM Express CD connector.

**Internal I/O**
- Three SATA connectors
- Two USB 2.0 connectors

**PMC Rear I/O**
- Single PIM/XIM site for PMC/XMC rear I/O

**COM Express Rear I/O**
- One RJ-45 Gigabit Ethernet connector
- Two USB 2.0 connectors
- Two DB-9 serial connectors
- One Mini DisplayPort connector
- One eSATA connector
- Single COM Express I/O Module (CIM) site for additional COM Express rear I/O.

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**Ruggedization Level**

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 3</th>
<th>Level 5</th>
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</thead>
<tbody>
<tr>
<td>Cooling Method</td>
<td>Standard Air-Cooled</td>
<td>Rugged Air-Cooled</td>
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<tr>
<td>Operating Temperature</td>
<td>0 to +55°C ambient (300 LFM)</td>
<td>-40 to +70°C (600 LFM)</td>
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<tr>
<td>Storage Temperature</td>
<td>-40 to +85°C ambient</td>
<td>-55 to +105°C ambient</td>
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<tr>
<td>Vibration</td>
<td>0.002 g²/Hz, 5 to 2000 Hz</td>
<td>0.04 g²/Hz (maximum), 5 to 2000 Hz</td>
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<tr>
<td>Shock</td>
<td>20 g, 11 ms sawtooth</td>
<td>30 g, 11 ms sawtooth</td>
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<tr>
<td>Humidity</td>
<td>0% to 95% non-condensing</td>
<td>0% to 95% non-condensing</td>
</tr>
</tbody>
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**XPand1400 Series Technical Specifications**

[Diagram of XPand1400 Series with connectors and components labeled.]