

# PCIe2-2709 - PCIe Gen2 Sixteen Slot Expansion System

- ◆ **80 Gb/s Host-to-Expansion System Bandwidth (PCIe Gen2, x16)**
- ◆ **Eight Full Length PCIe Gen2 x16 Slots Supporting Double-Width GPUs**
- ◆ **3240W/2180W N+1 Redundant Power Supply Option (5U Chassis)**
- ◆ **1200W Power Supply Option (4U Chassis)**
- ◆ **Eight 6 + 2 Pin and/ or Eight 6 Pin PCIe Power Connectors**
- ◆ **One or Three Meter Expansion Cable**
- ◆ **PCIe x16 Host-Bus to Expansion Cable Adapter**



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PCI Express Expansion System  
Data Sheet October 2017

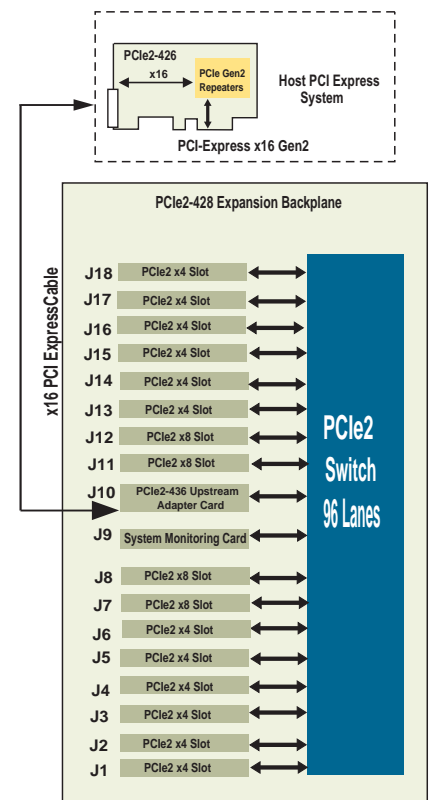
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Cyclone Microsystems' PCI Express Expansion System allows system developers to expand one host x16 Gen2 PCI Express slot to an expansion chassis with sixteen additional PCI Express Gen2 slots via a x16 (80 Gb/s) cable. The expansion chassis' non-blocking ninety-six lane PCI Express Gen2 switch enables the coupling of cost-effective enterprise host PCs with high bandwidth, peer-to-peer capable I/O subsystems.

The sixteen Slot PCI Express Gen2 Expansion System includes a host bus cable adapter, an expansion cable, and an expansion backplane mounted in an industrial 19-inch chassis. The PCIe2-426 PCI Express Gen2 x16 Host-Bus to Expansion Cable Adapter uses low latency bus repeaters to bridge from the host bus to a x16 expansion cable of either one or three meters. The cable connects to the Expansion Chassis and its PCIe2-428 Switched Expansion Backplane.

The sixteen x16 PCIe slots are configured as four x8 and twelve x4, and utilize open back connectors to facilitate PCI Express down-shifting. Ample power is provided by either 3240W or 2180W N+1 redundant supplies housed in a 5U chassis. For lower-power requirements, a standard 1200W power supply option is available in a 4U chassis. All power supply configurations provide eight 6 + 2 pin PCIe power connectors. The 5U chassis provides an additional eight 6-pin power connectors.



# PCIe2-2709 - PCIe Gen2 Sixteen Slot Expansion System

## PCIe2-426 PCIe Gen2 x16 Host Bus to Expansion Cable Adapter

- PCI Express Gen2 x16 Host Interface
- PCI Express Bus Repeaters to x16 Expansion Cable
- PCI Express Low Profile Card Format
- RoHS Compliant



## PCIe2-428/436 Eight-Slot PCI Express Expansion Backplane and Cable Adapter

- x16 Gen2 Upstream Port (80 Gb/s)
- Four PCIe Gen2 x8 Slots
- Twelve PCIe Gen2 x4 Slots
- ATX and EPS +12V PC Power Connectors
- RoHS Compliant
- Regulatory Compliance: UL Safety, FCC, CE Regulatory Certifications (Pending)



## 600-R2030 - 5U 19 Inch Rack Mount Chassis

- 3240 or 2180 Watt N+1 Redundant Power Supply
- 20 Full Length PCI Express ports
- Four Hot Swappable 90mm Fans (77 CFM Each)
- Eight 5.25" and One 3.5" External Drive Bay
- 19" x 8.75" x 27"
- 80 lbs. Weight
- Locking Drive Bay Door
- Eight 6 pin and eight 6+2 pin PCIe Power Connectors

## 600-2051 - 4U 19 Inch Rack Mount Enclosure

- 1200 Watt Power Supply
- 20 Full Length PCI Express Ports
- Four Hot Swappable 90mm Fans (77 CFM Each)
- Three 5.25" and One 3.5" Internal Drive Bays
- 19" x 7" x 27"
- 50 lbs Weight
- Locking Drive Bay Door
- Eight 6+2 pin PCIe Power Connectors

### Environmental

### PCIe2-426

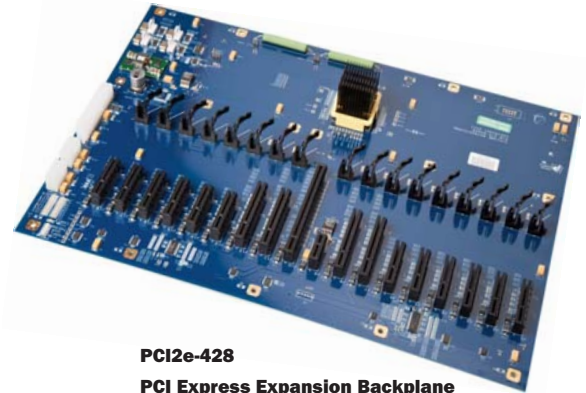
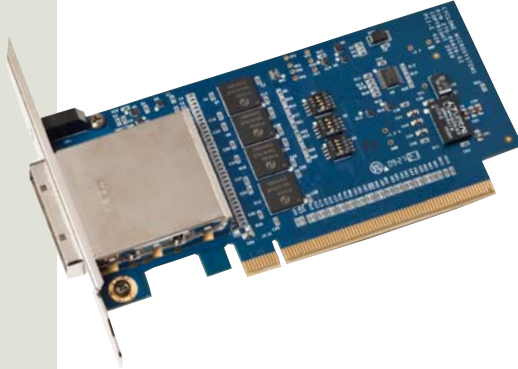
### PCIe2-428/436

Environmental	PCIe2-426	PCIe2-428/436
<b>Physical Dimensions</b>	PCI-Express Card Short Length 5.6" x 2.5"	Custom Motherboard 16.1" x 10.5" ATX 24 pin Power Supply Connector 28 pin EPS Connectors
<b>Operating Temperatures</b>	0 to 55 Degrees Celsius	0 to 55 Degrees Celsius
<b>Relative Humidity</b>	0 - 95%	0 - 95%
<b>Storage Temperatures</b>	-55 to 125 Degree Celsius	-55 to 125 Degree Celsius
<b>Power Requirements (Watts)</b>		
<b>+3.3V Typical</b>	1.09A	0.65A
<b>Maximum</b>	1.60A	15.65A
<b>+5V Typical</b>	-	0.20A
<b>Maximum</b>	-	0.20A
<b>+12V-1 Typical</b>	0A	-
<b>Maximum</b>	0A	10.80A
<b>+12V-2 Typical</b>	-	-
<b>Maximum</b>	-	16.2A
<b>+12V-3 Typical</b>	-	9.00A
<b>Maximum</b>	-	17.00A

# PCIe2-2709 - PCIe Gen2 Sixteen Slot Expansion System

## PCIe2-2709 Component Boards

**PCI2e-426**  
Host Bus to PCIe Expansion Cable Adapter



**PCI2e-428**  
PCI Express Expansion Backplane

## PCI Express Expansion Chassis



## PCIe2-2709 Sixteen Slot Expansion System Ordering Information

<b>600-2709-1-12-S</b>	PCI Express Expansion System, 1200 Watt/One Meter x16 Cable including:  PCI2e-426 PCI Express Host Bus to Expansion Cable Adapter 530-R2040 One Meter x16 PCIe Expansion Cable PCI2e-428/436 PCI Express Expansion Backplane 600-R2051 4U Rackmount Expansion Chassis, 1200W Power Supply	<b>600-2709-3-12-S</b>	PCI Express Expansion System, 1200 Watt/Three Meter Cable Including  PCI2e-426 PCI Express Host Bus to Expansion Cable Adapter 530-R2041 Three Meter x16 PCIe Expansion Cable PCI2e-428/436 PCI Express Expansion Backplane 600-R2051 4U Rackmount Expansion Chassis, 1200 W Power Supply
<b>600-2709-1-21-S</b>	PCI Express Expansion System, 2180 Watt/One Meter x16 Cable Including:  PCI2e-426 PCI Express Host Bus to Expansion Cable Adapter 530-R2040 One Meter x16 PCIe Expansion Cable PCI2e-428/436 PCI Express Expansion Backplane 600-R2030 5U Rackmount Chassis 370-R1520 2180W N+1 Redundant Power Supply	<b>600-2709-3-21-S</b>	PCI Express Expansion System, 2180 Watt/Three Meter x16 Cable Including:  PCI2e-426 PCI Express Host Bus to Expansion Cable Adapter 530-R2041 Three Meter x16 PCIe Expansion Cable PCI2e-428/436 PCI Express Expansion Backplane 600-R2030 5U Rackmount Chassis 370-R1520 2180W N+1 Redundant Power Supply
<b>600-2709-1-32-S</b>	PCI Express Expansion System, 3240 Watt/One Meter x16 Cable Including:  PCI2e-426 PCI Express Host Bus to Expansion Cable Adapter 530-R2040 One Meter x16 PCIe Expansion Cable PCI2e-428/436 PCI Express Expansion Backplane 600-R2030 5U Rackmount Chassis 370-R1521 3240W N+1 Redundant Power Supply	<b>600-2709-3-32-S</b>	PCI Express Expansion System, 3240 Watt/Three Meter Cable Including:  PCI2e-426 PCI Express Host Bus to Expansion Cable Adapter 530-R2041 Three Meter x16 PCIe Expansion Cable PCI2e-428/436 PCI Express Expansion Backplane 600-R2030 5U Rackmount Chassis 370-R1521 3240W N+1 Redundant Power Supply