

# BridgeX-mPCIe

Quad slot miniPCIe carrier for PCIe/104



The BridgeX-mPCIe is a highly integrated miniPCI Express (miniPCIe) adapter card for PCIe/104 systems. The BridgeX-mPCIe card supports up to 4 miniPCIe cards in a single PCIe/104 stack location and provides an ideal way of adding advanced functionality to space constrained systems.



The BridgeX-mPCIe uses active PCIe switching to support 4x miniPCIe cards whilst using only a single x1 PCI Gen 2.0 lane (5.0GT/s). This allows the BridgeX-mPCIe to consume only 1 set of PCIe/104 resources for up to 4 miniPCIe cards.

The BridgeX-mPCIe is an ideal partner to standard miniPCIe cards such as wireless Ethernet and to AMP's range of miniPCIe advanced video compression boards. Compact video compression or streaming systems can be constructed using AMP's nanoH264 family of hardware video encoders that offer a range of HD (HD-SDI, HDMI, RGB) or SD (PAL/NTSC) inputs. Each miniPCIe slot has an associated SIM socket for use with 4G wireless broadband modules.

The BridgeX-mPCIe is support natively by windows and Linux requiring no additional software.

**PRELIMINARY INFORMATION (Rev A.00)**  
Subject to change without notification

Mount 4  
miniPCI express  
cards into a  
single PCIe/104  
stack location



# BridgeX-mPCle

Quad slot miniPCle carrier for PCIe/104



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THE EMBEDDED VIDEO EXPERTS



Ideal for highly  
Integrated,  
space constrained  
systems

## Applications

Remotely guided vehicles

UAVs

Vehicle cameras

Remote video surveillance

Electronic news gathering

Multi-camera systems

Traffic monitoring and control

Solid-state digital video recorder

Wireless video streaming

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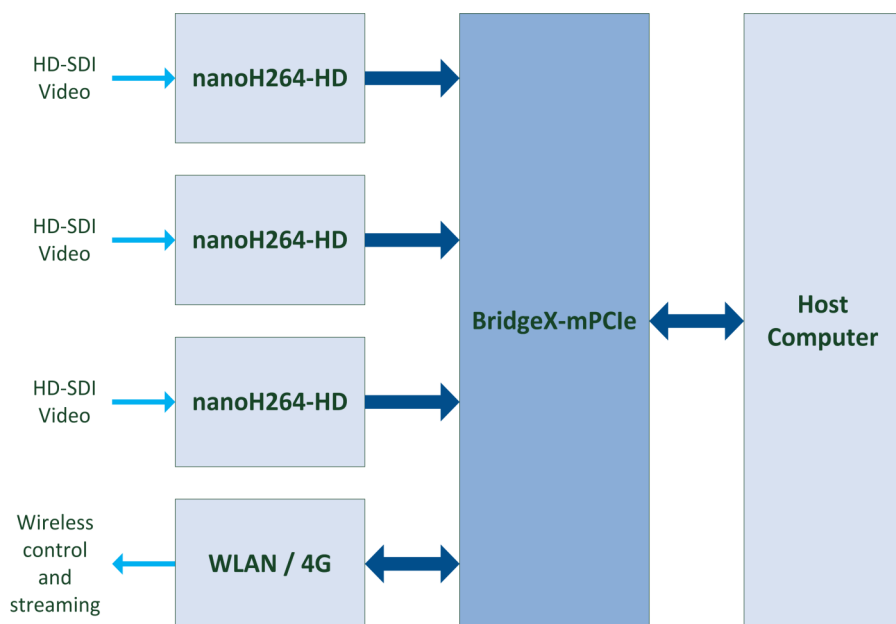
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**Example: Multi-channel, High Definition H.264 wireless video streaming**

## Features

4x miniPCIe sockets

Example systems:

4x nanoH264-D4	16 Stream H.264 encoder
3x nanoH264-HD +1x WLAN	3x HD-SDI High Definition wireless video streamer.
4x WLAN	Multi Channel Wireless router

Active PCI express switching for efficient use of system resources

Multiple BridgeX-mPCIe boards per system

PCIe/104 form factor

Extended temperature range (option)

Native driver support for Windows and Linux

Active PCIe  
switching for  
efficient use of  
system resources

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### PCIe/104 Bus Interface

Single x1 PCI Express link using PCIe/104 OneBank™ connector  
PCIe Gen 2.0

### miniPCIe Interface

4x miniPCI express slots  
On board power supplies that provide:  
1.5V @ 1.5A per slot  
3.3V @ 1A per slot  
SIM card socket per slot  
Jumper selectable 3.3V / 5V for SIM card

### Mechanical

Standard 3.6 x 3.8in PCIe/104 form factor  
PCI-104 PCI Bus pass through (option)

### Operational characteristics

Operating temperature 0°C to 60°C  
Extended temperature -40°C to +85°C (option)

### Software

Native driver support in Windows, Linux

### System Requirements

PCIe/104 Host computer

### Related Products

**nanoH264-D4**

4-channel H.264 PAL/NTSC Codec for miniPCIe

**nanoH264-HD**

HD-SDI H2.64 Codec for miniPCIe

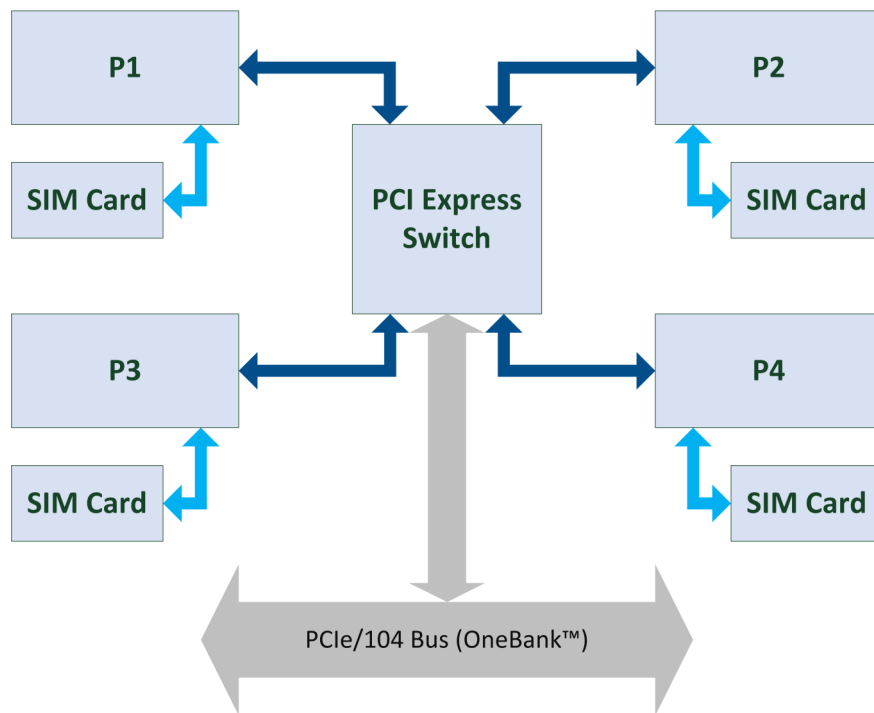
### Ordering Information

**BridgeX-mPCIe**

4-slot miniPCIe adapter (0 to 60°C)

**BridgeX-mPCIe-EXT**

4-slot miniPCIe adapter (-40°C to +85°C)



**Functional Diagram**