

Mini-PCIe to M.2 Cellular Modem Adapter Cards

The GW16140/GW16141/GW16147 are Mini-PCIe to M.2 Adapters designed to allow support of M.2 Cellular Modems on Gateworks single board computers. Embedded Cellular Modems come in many form factors, including Mini-PCIe and M.2. These adapters allow M.2 B-Key Cellular Modem cards to be plugged into a Mini-PCIe slot on a Gateworks Single Board Computer. The adapters feature dual Nano SIM slots for redundancy and switching between networks. Many Cellular Modems typically have pin signal conflicts with standard specifications, so these adapters only pass through the minimum required signaling to avoid these conflicts. The adapters come in different variants for different signaling. The GW16140 is used for modems that support USB 2.0 signals and the GW16141 is used for higher bandwidth modems that require USB 3.0 signaling. The GW16147 supports PCIe for some modern 5G modems as well as USB 2.0 for control functionality. Please consult the SBC Mini-PCIe slots compatibility for PCIe, USB 2.0 or 3.0 support. The adapters support M.2 cards in the following M.2 sizes: 2242 (22mm x 42mm), 3042 (30mm x 42mm), 3050 (30mm x 50mm), and 3052 (30mm x 52mm). The following sizes are also available: 1630, 2230, 3030.

FEATURES

- Mini-PCIe to M.2 Cellular Modem Adapter
- M.2 B-Key Support
- Supports M.2 Sizes:
 - 1630, 2230, 3030
 - 2242, 3042, 3050, 3052
- Dual Nano SIM Sockets on back side
- Minimal signaling to avoid pin conflicts
- GW16140 Supports USB 2.0 Modems Ventana/Venice Families - Verify Slot
- GW16141 Supports USB 3.0 Modems Newport Family - Verify Slot
- GW16147 Supports PCIe and USB 2.0 Modems
- Customized variations also available to support other M.2 peripherals
- -40°C to +85°C Operating Temperature
- Made in USA
- 1 Year Warranty



SPECIFICATIONS

Electrical

Input Voltage

- 3.3V From Mini-PCIe Edge Connector

Operating Current

- Not Applicable

Mechanical

Dimensions

- 30.0x66x6.2mm (1.18x2.59x0.24in)

Weight

- .2 oz (5.7g)

Environmental

Operating Parameters

- Temperature: -40°C to +85°C
- Humidity (non-condensing): 20% to 90%
- MTBF: TBD Years at 55°C

Storage Parameters

- Temperature: -40°C to +85°C
- Humidity (non-condensing): 5% to 95%

ORDERING OPTIONS

Product Customization

The GW16140/1/7 can be customized for high volume applications. Contact the factory for information.

- Removing resistors to achieve compatibility
- Alternative M.2 Keys, A-Key, E-Key, M-Key