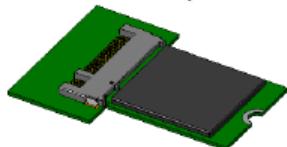
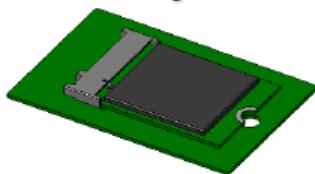


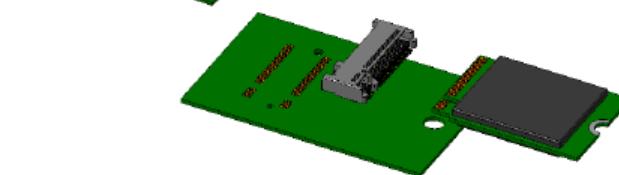
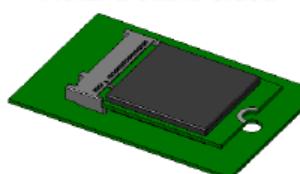
M1.8: Mid-plane



H2.3: Single-sided



H3.2: Double-sided



## M.2 – “Next Generation Form Factor” Card Connectors (NGFF)

- **New Form Factor** for mobile add-in card
- These cards and connectors **will support Wi-Fi, Bluetooth, Global Navigation Satellite Systems (GNSS), Near Field Communication (NFC), WI Gig, WWAN (2G, 3G & 4G, and Solid State Drives**. It is intended to be versatile enough to handle new and developing modules as well.
- **Configurations include:**
  - ↳ **M1.8 - Mid Line** – For very low profile platforms
  - ↳ **H2.3 - Top Side** – Single Sided (2.25 Max Height.)
  - ↳ **H3.2 - Top Side** – Dual Sided (3.20 Max Height.)
- Currently tooled in M1.8, H2.3 and H3.2 configurations in B, E, and M keying configurations.

### Intel Reference Design



## Series 6411 for PCI Express® M.2 Connector

### SPECIFICATION

- No. of Positions: 67 pin
- Pitch: 0.5mm
- Height: 1.80mm max (M1.8 type), 2.25mm max (H2.3 type), 3.20mm max (H3.2 type)
- Rated Current: AC/DC 0.4A
- Rated Voltage: AC/DC 50V
- Withstanding Voltage: AC 300Vrms/min.

### APPLICATION & MARKETS

The 6411 Series are connectors compatible with the PCI-SIG, PCI Express® M.2 specifications. Conventionally, different modules and connectors have been required to enhance each function of Wi-Fi, Bluetooth®, SSD, Global Navigation Satellite Systems (GNSS), Near Field Communication (NFC), WiGig and WWAN (2G, 3G and 4G). The PCI Express® M.2 specification supports multiple modules utilizing the same slot designed for each key. It corresponds to high-speed transmission such as PCIe (Gen.3), USB3.0, SATA3.0 and contributes to thinner and lighter notebook PCs and mobile PCs such as Ultrabook and tablet PCs. The 6411 Series are available in various heights and with different keying options for module cards.

### PRODUCT OPTIONS

- Various heights are available in both single and double-sided modules. Furthermore, midplane types featuring very low profiles are available, achieved by cutting into the printed circuit boards
- Working efficiency is improved by allowing angled insertion and removal from 0 to 15 degrees relative to the printed circuit board.
- Various keying options for module cards are available: A, B, C, D, E, F, G, H, J, K, L & M.
- Packaged in tape and reel
- RoHS compliant & Halogen-free
- Contact Material: Copper alloy
- Insulator Material: Heat-resistant plastic
- Operating Temperature Range: -40 to +80°C