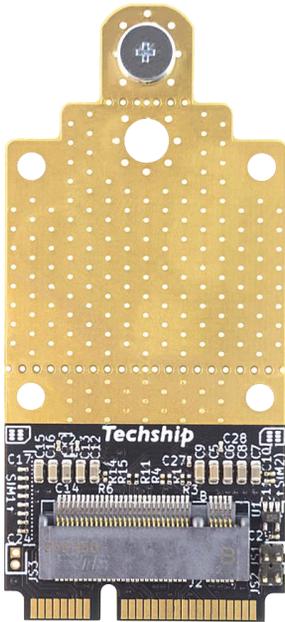


TECHSHIP M.2 KEY B TO MINI PCIe ADAPTER SERIES MP101-S / MP201-S / MP301-S

DESCRIPTION



Jumpstart your IoT development with this unique series of Techship adapters for 4G and 5G cellular data cards.

In-house designed and manufactured in Sweden to meet our requirements of high quality and to be compatible with most M.2 cellular data cards. This is the most flexible adapter on the market.

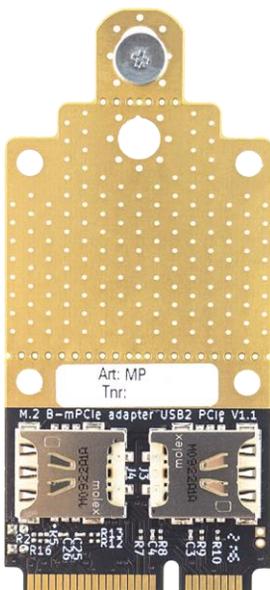
Test and integrate 5G cellular data cards in your existing host board designs holding a miniPCIe socket with the Techship adapter series when form factor flexibility is necessary.

Generic functionality tested on data card from series:

| | |
|-----------------|--|
| Telit | FN980, FN982m, LN920Axx |
| Sierra Wireless | EM9191, EM7690, EM75xx, EM74x0, EM74x1 |
| SIMCom | SIM8202, SIM8200, SIM79xx, SIM7600 |
| Fibocom | FM150, NL668 |
| Quectel | RM500Q RM502Q |

For signal and electrical specification please refer to the hardware guide.

KEY FEATURES



Three adapter variants available routing different data interfaces between host miniPCIe socket to the M.2 key B cellular module. USB2/USB3, USB2/PCIe x1 or USB2 (only). Chose variant based on support by your host board and cellular module.

Signal jumper headers on-board for triggering data interface selection between USB or PCIe (vendor specific feature).

Adapter designed for improved thermal dissipation from cellular module. Add thermal pads between module and PCB for optimal performance on high data throughput cellular modules.

Ceramic capacitors with a combined capacitance of 470uF for improved voltage stability during full RF transmit power cycles.

Prepared with dual SIM card holders for modules supporting also a secondary SIM card interface.

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SPECIFICATIONS

| Adapter variant | MP101-S | MP201-S | MP301-S |
|--------------------------------|---|------------|----------------------|
| General | | | |
| Article No | 11315 | 11316 | 11317 |
| Adapter variants | USB2 | USB2, USB3 | USB2, PCI Express x1 |
| Form factor | miniPCI-e full size, miniPCI-e half size | | |
| Slot-in card form factor | M.2 key-B card | | |
| Supported card lengths | 42, 50, 52 mm | | |
| Physical Interface | | | |
| Host board connectors | 1 x miniPCI-e edge connector | | |
| Slot in connectors | 1 x 67 pin M.2 key B slot | | |
| SIM holders | 2 x 4FF nano SIM slots (without card detect switches) | | |
| Selection signal jumpers | 2 x 1.27 mm pin jumper headers | | |
| Signal Interface | | | |
| Data interfaces | USB2 | USB2, USB3 | USB2, PCI Express x1 |
| Primary SIM interface | Routed to primary SIM card holder and miniPCI-e edge connector (in parallel) | | |
| Secondary SIM interface | Routed to secondary SIM card holder | | |
| Selection signal jumpers | 1.8V pull-up jumpers for M.2 socket pin 20 and pin 22 | | |
| Electrical capabilities | | | |
| Power supply source | Powered through miniPCI-e edge connector from host board | | |
| Power supply design | On-board ceramic capacitors with combined capacitance of 470uF for voltage stability and interference filtering | | |
| Dimensions | | | |
| Length | 65 mm (break-off point at 54.75 mm) | | |
| Width | 30 mm | | |
| Height | Approx. 7.5 mm (with pin header jumpers) | | |
| Certification | | | |
| Environmental | RoHS, REACH | | |
| Package content | | | |
| Adapter | 1 x Techship MP series adapter in ESD protective bag | | |
| Slot-in card mounting | 2 x M3 screws, 1 x M3 2.5 mm PCB distance | | |
| Selection signal jumpers | 2 x 1.27 mm pin-header jumpers | | |
| Accessories | | | |
| Thermal | Thermal pads | | |
| Others | | | |
| Country of origin | Sweden | | |

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