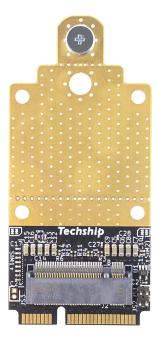


TECHSHIP M.2 KEY B TO MINIPCIE ADAPTER SERIES

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 miniPCle socket to the M.2 key B cellular module. USB2/USB3, USB2/PCle 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

Article No 11315 11316 11317 Adapter variants USB2 USB2 USB3 USB2, PCI Express x1 Form factor miniPCle full size, miniPCle 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 67 pin M.2 key B slot Slot in connectors 1 x 67 pin M.2 key B slot Slot 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 miniPCle 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 miniPCle edge connector from host board 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	Adapter variant	MP101-S	MP201-S	MP301-S			
Adapter variants USB2 USB2, USB3 USB2, PCI Express x1 Form factor miniPCle full size, miniPCle half size Slot-in card form factor M.2 key-B card Supported card lengths A2, 50, 52 mm Physical Interface Host board connectors 1 x miniPCle edge connector Slot in connectors 1 x 67 pin M.2 key B slot SlM 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 miniPCle 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 miniPCle edge connector from host board 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) Errification 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	General						
Form factor miniPCle full size, miniPCle 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 miniPCle 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 miniPCle 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 miniPCle edge connector from host board 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	Article No	11315	11316	11317			
Slot-in card form factor Supported card lengths 42, 50, 52 mm Physical Interface Host board connectors 1 x miniPCle edge connector Slot in connectors 1 x 67 pin M.2 key B slot SlM 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 USB2, USB3 USB2, PCI Express x1 Primary SIM interface Routed to primary SIM card holder and miniPCle 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 miniPCle edge connector from host board 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	Adapter variants	USB2	USB2, USB3	USB2, PCI Express x1			
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Physical Interface Host board connectors	Slot-in card form factor	M.2 key-B card					
Host board connectors \$1 x miniPCle edge connector \$1 x 67 pin M.2 key B slot \$1 x 67 pin M.2 key B slot \$2 x 4FF nano SIM slots (without card detect switches) \$2 x 1.27 mm pin jumper headers \$3 years Signal Interface Data interfaces \$2 x 1.27 mm pin jumper headers \$3 years USB2	Supported card lengths	42, 50, 52 mm					
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 Data interface Data interface Routed to primary SIM card holder and miniPCle 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 miniPCle edge connector from host board 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	Physical Interface						
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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	Power supply design						
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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	Length	65 mm (break-off point at 54.75 mm)					
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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	Height	Approx. 7.5 mm (with pin header jumpers)					
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	Certification						
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	Environmental	RoHS, REACH					
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	Package content						
Selection signal jumpers 2 x 1.27 mm pin-header jumpers	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					
Accessories	Selection signal jumpers	2 x 1.27 mm pin-header jumpers					
	Accessories						
Thermal pads	Thermal	Thermal pads					
Others	Others						
Country of origin Sweden	Country of origin	Sweden					

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