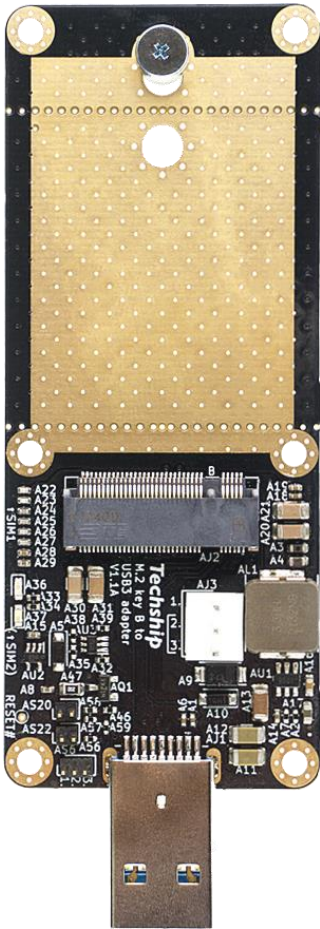# Techship

TECHSHIP M.2 KEY B TO USB3 ADAPTER SERIES
MU201

DESCRIPTION

Jumpstart your cellular IoT development with Techship M.2 adapter series designed for 5G and 4G mobile broadband cellular data cards.

In-house designed by Techship engineering team for optimal hardware compatibility with M.2 cellular data cards and locally manufactured in Sweden for high-quality and flexible production.

Test and evaluate the first generation of 5G cellular data cards in your current system through a standard USB3 type A port or integrate the data card and adapter in your application for added cellular data connectivity.

Generic functionality tested on data card from series:	
Telit	FN990A28, FN990A40, FN980, LN920, FN982m
Sierra Wireless	EM9191, EM7690, EM75xx, EM74x1
Simcom	SIM8262x, SIM8202, SIM8200, SIM79xx, SIM7600
Fibocom	FM150, NL668
Quectel	RM500Q, RM502Q

The Techship adapter is useful as a flexible and cost-effective development kit and a handy alternative to your own hardware platform and software environment during the cellular data card integration phase and for your products life-cycle maintenance.

USECASE AND FEATURES

Typical use cases
- Testing and evaluation
- Software integration
- Troubleshooting
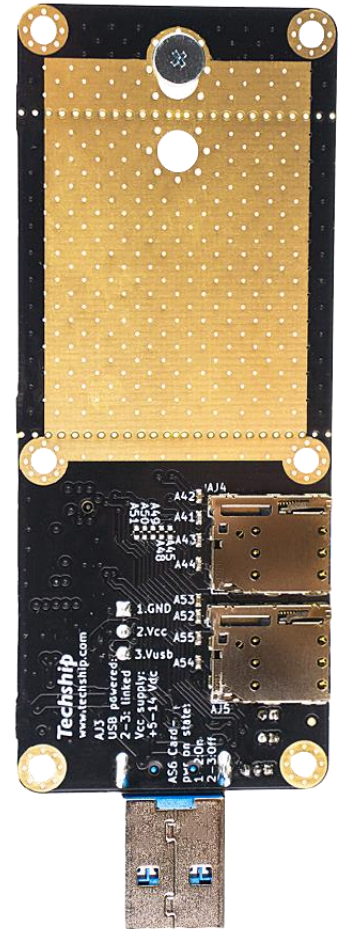- Diagnostics
- Log capturing
- Firmware upgrades

Key features
- Sturdy DC-DC step-down power supply circuitry
- Extra ceramic capacitors for improved voltage stability
- 5 to 14V DC external power supply input possible
- Thermal planes for heat dissipation with thermal pads
- Data interface selection jumpers (vendor specific)
- Discharge circuitry when USB plug power supply is turned off

SPECIFICATIONS

Adapter Model	MU201
Article No	11318
Dimensions	
Width	36mm
Length	105mm (PCB: 89mm)
Temperature range	
Operational	-20°C to +75°C
Slot-in card	
Form factor	M.2 key B data card (67-pin)
Supported card lengths	42mm, 50mm, 52mm
Output voltage	+3.4V DC
Maximum output current	4000mA (with external power supply) ~2300mA (by USB3 type A plug supply) ~1200mA (by USB3 specification) ~650mA (by USB2 specification)
SIM card interfaces	
Type	4FF nano SIM card holder with card detect switch
Quantity	2x (Primary + Secondary)
Control signal pin headers	
Data interface selection (Vendor specific)	1x 1.27mm header, pull-up/down for pin 20 1x 1.27mm header, pull-up for pin 22
Full card power state	1x 1.27mm header, pull up/down for pin 6
Indicator LEDs	
Green LED	DC-DC power circuit enabled state
Blue LED	Wwan activity signal state
External power supply input	
Connector type	3-pin Molex KK254 2695 series
Voltage rating	Recommended: +5V to 14V DC Absolute min/max: +4.5V to 14.8V DC
Power rating	16W capable supply
USB connector	
Type	USB3 type A plug
Electrical rating	+5V DC (9W / 1800mA capable supply)
Signal interfaces	USB3, USB2
Package content	
Adapter	1x MU201
Distance	1x M3x2.5mm steel distance
Screw	2x M3x2mm steel screw
Pin header jumper	3x 1.27mm (for signal pin headers) 1x 2.54mm (for USB3 plug powered mode)
Compliance	
Environmental	RoHS, REACH
Others	
Country of origin	Sweden

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