














# USB Wireless Modem Selection Guide

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**USB Wireless MODEM adapter comparison table**





















| Model                           | USBMA PCBA<br>V1.2  | USBMI PCBA V1.3   | USBMV PCBA<br>V1.3   | USBMS PCBA<br>V1.4  | USBM2 PCBA<br>V2.0  |
|---------------------------------|---|---|--|---|---|
| Module Photo                    |    |    |    |  |  |
| PCBA size                       | 63.5 x 41.0 mm  | 63.5 x 41.0 mm  | 63.5 x 54.9 mm   | 63.6 x 75.6 mm  | 63.6 x 75.6 mm  |
| MIC/EAR connector               | No  | No  | Option   | Option  | Option  |
| 3.3V output current             | 1500mA  | 2700mA  | 2700mA   | 2700mA  | 2700mA  |
| Super cap.<br>for peak current  | NA  | NA  | NA   | 0.022F  | 0.022F  |
| SIM card connector              | Yes   | Yes   | Yes (Push)   | Yes (Push)  | Yes (Push)  |
| MiniCard dimension<br>support   | MiniCard<br>Full/Half   | MiniCard<br>Full/Half   | MiniCard<br>Full/Half  | MiniCard<br>Full/Half   | M.2 (NGFF)<br>3042 KeyB   |
| Operating<br>temperature ranges | -40°C ~ +85°C   | -25°C ~ +70°C<br><b>OEM for -40°C ~<br/>+85°C</b>                                   | -25°C ~ +70°C<br><b>OEM for -40°C ~<br/>+85°C</b>                                    | -25°C ~ +70°C<br><b>OEM for -40°C ~<br/>+85°C</b>                                   | -25°C ~<br>+70°C <b>OEM<br/>for -40°C ~ +85°C</b>                                   |
| Model                           | U2M2A PCBA<br>V1.1  | U0901A PCBA<br>V1.0   | U0914A PCBA<br>V1.0  |   |   |
| Module Photo                    |  |  |  |   |   |
| PCBA size                       | 110 x 158 mm  | 63.5 x 41.0 mm  |  |   |   |
| MIC/EAR connector               | No  | No  | No   |   |   |
| 3.3V output current             | 6000mA  | 2700mA  | 6000mA   |   |   |
| Super cap.<br>for peak current  | NA  | NA  | NA   |   |   |
| SIM card connector              | Dual  | Yes   | Dual   |   |   |
| MiniCard dimension<br>support   | MiniCard<br>Full/Half   | MiniCard<br>Full/Half   | MiniCard<br>Full/Half  |   |   |
| Operating<br>temperature ranges | -40°C ~ +85°C   | -25°C ~ +70°C<br><b>OEM for -40°C ~<br/>+85°C</b>                                   | -40°C ~ +85°C  |   |   |

**USB Wireless MODEM Application**

|                |   |   |  |   |   |
|----------------|---|---|--|---|---|
| Products Photo |  |  |  |  |  |
| Application    | For 4G/LTE/GPS  | For 3G/CDMA   | For 4G/LTE/GPS   | For 4G/LTE  | For 4G/LTE/GPS  |
| Interface      | USB2.0/mPCIe  | USB2.0/mPCIe  | USB2.0/mPCIe   | USB2.0/M.2  | USB2.0/mPCIe  |
| From factor    | Out-Door Aluminum Enclosure   | Waterproof  | PCBA with PCB PAD  | Aluminum  | PCBA  |

# Products Package Contents Description

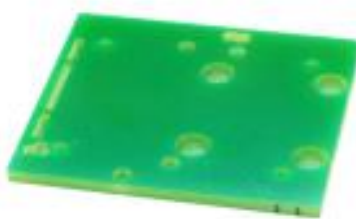
## USBMA series

| Part-number                | Product   | Disassembly & Accessory  | ERP   |
|----------------------------|---|--|---|
| USBMA PCBA V1.2            |    |     | B-USBMA PCBA  |
| USBMA PCBA-PAD V1.2        |    |    | B-USBMA PCBA-PAD  |
| USBMA-SMA Enclosure V1.2   |    |    | B-USBMA-SMA Enclosure   |
| USBMA-RPSMA Enclosure V1.2 |    |    | B-USBMA-RPSMA Enclosure   |
| USBMA-WP-SMA V1.2          |   |    | B-USBMA-WP-SMA  |
| USBMA-WP-RPSMA V1.2        |  |   | B-USBMA-WP-RPSMA  |
| USBMA-SMA V1.2             |  |  | F-USBMA-SMA<br>B-USBMA-SMA Enclosure<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Screwdriver     |
| USBMA-RPSMA V1.2           |  |  | F-USBMA-RPSMA<br>B-USBMA-RPSMA Enclosure<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Screwdriver |
| USBMA Module V1.2          |  |  | F-USBMA Module<br>B-USBMA PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060                            |
| USBMA EVK V1.2             |  |  | F-USBMA EVK<br>B-USBMA PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060                           |

| All of Model               | Where to buy?                 | Special Information  |
|----------------------------|-------------------------------|--|
| USBMA PCBA V1.2            | <a href="#">Contact Sales</a> | Support CDMA/LTE module for your OEM project.                            |
| USBMA PCBA-PAD V1.2        | <a href="#">Contact Sales</a> | PCBA with PCB PAD  |
| USBMA-SMA Enclosure V1.2   | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with SMA connector for 3G/LTE antenna   |
| USBMA-RPSMA Enclosure V1.2 | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with RP-SMA connector for Wi-Fi antenna |
| USBMA-WP-SMA V1.2          | <a href="#">Web-shop</a>      | CDMA/LTE MiniCard to USB adapter with Waterproof Case                    |
| USBMA-WP-RPSMA V1.2        | <a href="#">Contact Sales</a> | USB type Wi-Fi MiniCard to USB adapter with Waterproof Case              |
| USBMA-SMA V1.2             | <a href="#">Web-shop</a>      | MiniCard to USB adapter with SMA connector for CDMA/LTE antenna          |
| USBMA-RPSMA V1.2           | <a href="#">Web-shop</a>      | USB type MiniCard to USB adapter with RP-SMA connector for Wi-Fi antenna |
| USBMA Module V1.2          | <a href="#">Web-shop</a>      | Support CDMA/LTE module for your embedded system                         |
| USBMA EVK V1.2             | <a href="#">Contact Sales</a> | Support CDMA/LTE evaluation kit  |
| USBMA-OEM                  | <a href="#">Contact Sales</a> | Custom PCBA, Enclosure, RF-Coaxial Cable, USB cable, Screw, Antenna      |



**Aluminum Box**





















**PCB PAD**



**PCBA**

## USBMI series

| Part-number                | Product   | Disassembly & Accessory  | ERP   |
|----------------------------|---|--|---|
| USBMI PCBA V1.3            |    |     | B-USBMI PCBA  |
| USBMI PCBA-PAD V1.3        |    |    | B-USBMI PCBA-PAD  |
| USBMI-SMA Enclosure V1.3   |    |    | B-USBMI-SMA Enclosure   |
| USBMI-RPSMA Enclosure V1.3 |    |    | B-USBMI-RPSMA Enclosure   |
| USBMI-WP-SMA V1.3          |   |    | B-USBMI-WP-SMA  |
| USBMI-WP-RPSMA V1.3        |  |   | B-USBMI-WP-RPSMA  |
| USBMI-SMA V1.3             |  |  | F-USBMI-SMA<br>B-USBMI-SMA Enclosure<br>B-Y05-U04-060<br>B-Y05-U17-060<br>B-Screwdriver     |
| USBMI-RPSMA V1.3           |  |  | F-USBMI-RPSMA<br>B-USBMI-RPSMA Enclosure<br>B-Y05-U04-060<br>B-Y05-U17-060<br>B-Screwdriver |
| USBMI Module V1.3          |  |  | F-USBMI Module<br>B-USBMI PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060           |
| USBMI EVK V1.3             |  |  | F-USBMI Module<br>B-USBMI PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060       |

| All of Model               | Where to buy?                 | Special Information  |
|----------------------------|-------------------------------|--|
| USBMI PCBA V1.3            | <a href="#">Contact Sales</a> | Support CDMA/LTE module for your OEM project.                            |
| USBMI PCBA-PAD V1.3        | <a href="#">Contact Sales</a> | PCBA with PCB PAD  |
| USBMI-SMA Enclosure V1.3   | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with SMA connector for 3G/LTE antenna   |
| USBMI-RPSMA Enclosure V1.3 | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with RP-SMA connector for Wi-Fi antenna |
| USBMI-WP-SMA V1.3          | <a href="#">Web-shop</a>      | CDMA/LTE MiniCard to USB adapter with Waterproof Case                    |
| USBMI-WP-RPSMA V1.3        | <a href="#">Contact Sales</a> | USB type Wi-Fi MiniCard to USB adapter with Waterproof Case              |
| USBMI-SMA V1.3             | <a href="#">Contact Sales</a> | MiniCard to USB adapter with SMA connector for CDMA/LTE antenna          |
| USBMI-RPSMA V1.3           | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with RP-SMA connector for Wi-Fi antenna |
| USBMI Module V1.3          | <a href="#">Web-shop</a>      | Support CDMA/LTE module for your embedded system                         |
| USBMI EVK V1.3             | <a href="#">Contact Sales</a> | Support CDMA/LTE evaluation kit  |
| USBMI-OEM                  | <a href="#">Contact Sales</a> | Custom PCBA, Enclosure, RF-Coaxial Cable, USB cable, Screw, Antenna      |








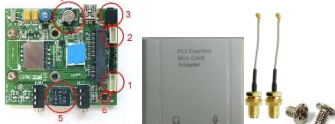










**Aluminum Box (Enclosure)**



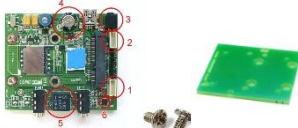

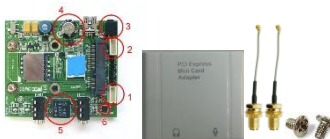









**Water-Proof Box (WP)**



## USBMV series

| Part-number                | Product   | Disassembly & Accessory  | ERP  |
|----------------------------|---|--|--|
| USBMV PCBA V1.3            |    |     | B-USBMV PCBA   |
| USBMV PCBA-PAD V1.3        |    |     | B-USBMV PCBA-PAD   |
| USBMV-SMA Enclosure V1.3   |    |    | B-USBMV-SMA Enclosure  |
| USBMV-RPSMA Enclosure V1.3 |    |    | B-USBMV-SMA Enclosure  |
| USBMV-SMA V1.3             |   |    | F-USBMV-SMA<br>B-USBMV-SMA Enclosure<br>B-Y05-U04-060<br>B-Screwdriver |
| USBMV-RPSMA V1.3           |  |   | F-USBMV-SMA<br>B-USBMV-SMA Enclosure<br>B-Y05-U04-060<br>B-Screwdriver |
| USBMV Module V1.3          |  |  | F-USBMV Module<br>B-USBMV PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060       |
| USBMV EVK V1.3             |  |  | F-USBMV Module<br>B-USBMV PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060   |

| Part-number                  | Product   | Disassembly & Accessory  | ERP   |
|------------------------------|---|--|---|
| USBMV-D PCBA V1.3            |    |     | B-USBMV-D PCBA  |
| USBMV-D PCBA-PAD V1.3        |    |     | B-USBMV-D PCBA-PAD  |
| USBMV-D-SMA Enclosure V1.3   |    |    | B-USBMV-D-SMA Enclosure   |
| USBMV-D-RPSMA Enclosure V1.3 |    |    | B-USBMV-D-SMA Enclosure   |
| USBMV-D-SMA V1.3             |    |     | F-USBMV-D-SMA<br>B-USBMV-D-SMA Enclosure<br>B-Y05-U04-060<br>B-Screwdriver                |
| USBMV-D-RPSMA V1.3           |   |    | F-USBMV-D-SMA<br>B-USBMV-D-SMA Enclosure<br>B-Y05-U04-060<br>B-Screwdriver                |
| USBMV-D Module V1.3          |  |  | F-USBMV-D Module<br>B-USBMV-D PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060     |
| USBMV-D EVK V1.3             |  |  | F-USBMV-D module<br>B-USBMV-D PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060 |







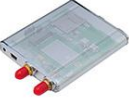















**USBMV LED Version**  
**USBMV-D DC Jack Version**



| All of Model               | Where to buy?                 | Special Information  |
|----------------------------|-------------------------------|--|
| USBMV PCBA V1.3            | <a href="#">Contact Sales</a> | Add CDMA/LTE module for your OEM project.                        |
| USBMV PCBA-PAD V1.3        | <a href="#">Contact Sales</a> | PCBA with PCB PAD  |
| USBMV-SMA Enclosure V1.3   | <a href="#">Contact Sales</a> | PCBA with Enclosure SMA-IPX x2                                   |
| USBMV-RPSMA Enclosure V1.3 | <a href="#">Contact Sales</a> | PCBA with Enclosure RPSMA-IPX 2                                  |
| USBMV EVK V1.3             | <a href="#">Contact Sales</a> | USBMV evaluation kit for engineering test                        |
| USBMV Module V1.3          | <a href="#">Web-shop</a>      | Add CDMA/LTE module for your embedded system                     |
| USBMV-SMA V1.3             | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with SMA connector for CDMA/LTE |
| USBMV-RPSMA V1.3           | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with RP-SMA connector for Wi-Fi |




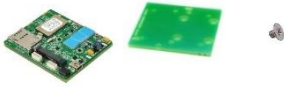












| All of Model                 | Where to buy?                 | Special Information  |
|------------------------------|-------------------------------|--|
| USBMV-D PCBA V1.3            | <a href="#">Contact Sales</a> | Add CDMA/LTE module for your OEM project.                        |
| USBMV-D PCBA-PAD V1.3        | <a href="#">Contact Sales</a> | PCBA with PCB PAD  |
| USBMV-D-SMA Enclosure V1.3   | <a href="#">Contact Sales</a> | PCBA with Enclosure  |
| USBMV-D-RPSMA Enclosure V1.3 | <a href="#">Contact Sales</a> | PCBA with Enclosure  |
| USBMV-D EVK V1.3             | <a href="#">Contact Sales</a> | USBMV evaluation kit for engineering test                        |
| USBMV-D Module V1.3          | <a href="#">Contact Sales</a> | Add CDMA/LTE module for your embedded system testing             |
| USBMV-D-SMA V1.3             | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with SMA connector for CDMA/LTE |
| USBMV-D-RPSMA V1.3           | <a href="#">Contact Sales</a> | USB type MiniCard to USB adapter with RP-SMA connector for Wi-Fi |

## USBM2 series

| Part-number                | Product   | Disassembly & Accessory  | ERP   |
|----------------------------|---|--|---|
| USBM2-E PCBA V2.0          |    |     | B-USBM2-E PCBA  |
| USBM2-E PCBA-PAD V2.0      |    |     | B-USBM2-E PCBA-PAD  |
| USBM2-E-SMA Enclosure V2.0 |    |    | B-USBM2-E-SMA Enclosure   |
| USBM2-E-SMA V2.0           |    |    | F-USBM2-E-SMA<br>B-USBM2-E-SMA Enclosure<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Screwdriver |
| USBM2-E Module V2.0        |   |   | F-USBM2-E Module<br>B-USBM2-PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060         |
| USBM2-E EVK V2.0           |  |  | F-USBM2-E EVK<br>B-USBM2-E PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060      |
| USBM2-F PCBA V2.0          |  |   | B-USBM2-F PCBA  |
| USBM2-F PCBA-PAD V2.0      |  |   | B-USBM2-F PCBA-PAD  |
| USBM2-F Module V2.0        |  |  | F-USBM2-F Module<br>B-USBM2-PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060         |
| USBM2-F EVK V2.0           |  |  | F-USBM2-F EVK<br>B-USBM2-F PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060      |

| All of Model               | Where to buy?                 | Special Information                                       |
|----------------------------|-------------------------------|---|
| USBM2-E PCBA V2.0          | <a href="#">Contact Sales</a> | PCBA Only for OEM   |
| USBM2-E PCBA-PAD V2.0      | <a href="#">Contact Sales</a> | PCBA with PCB PAD   |
| USBM2-E-SMA Enclosure V2.0 | <a href="#">Contact Sales</a> | PCBA with Enclosure                                       |
| USBM2-E Module V2.0        | <a href="#">Contact Sales</a> | Module for Embedded                                       |
| USBM2-E-SMA V2.0           | <a href="#">Web-shop</a>      | Retail version  |
| USBM2-E EVK V2.0           | <a href="#">Contact Sales</a> | Evaluation Kit for engineering test                       |
|                            |                               |   |
| USBM2-F PCBA V2.0          | <a href="#">Contact Sales</a> | PCBA Only for OEM   |
| USBM2-F Module V2.0        | <a href="#">Contact Sales</a> | Module for Embedded                                       |
| USBM2-F PCBA-PAD V2.0      | <a href="#">Contact Sales</a> | PCBA with PCB PAD   |
| USBM2-F EVK V2.0           | <a href="#">Web-shop</a>      | Evaluation Kit for engineering test. Add super capacitor. |
|                            |                               |   |

## USBMS series

| Part-number                | Product   | Disassembly & Accessory  | ERP   |
|----------------------------|---|--|---|
| USBMS-E PCBA V1.4          |    |     | B-USBMS-E PCBA  |
| USBMS-E PCBA-PAD V1.4      |    |     | B-USBMS-E PCBA-PAD  |
| USBMS-E-SMA Enclosure V1.4 |    |    | B-USBMS-E-SMA Enclosure   |
| USBMS-E Module V1.4        |    |    | F-USBMS-E Module<br>B-USBMS-PCBA<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060         |
| USBMS-E EVK V1.4           |    |    | F-USBMS-E EVK<br>B-USBMS-E PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060      |
| USBMS-E-SMA V1.4           |  |  | F-USBMS-E-SMA<br>B-USBMS-E-SMA Enclosure<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Screwdriver |
| USBMS-F PCBA-PAD V1.4      |  |   | B-USBMS-F PCBA-PAD  |
| USBMS-F EVK V1.4           |  |  | F-USBMS-F EVK<br>B-USBMS-F PCBA-PAD<br>B-Y05-U02-060<br>B-Y05-U04-060<br>B-Y05-U17-060      |

| All of Model               | Where to buy?                 | Special Information                                       |
|----------------------------|-------------------------------|---|
| USBMS-E PCBA V1.4          | <a href="#">Contact Sales</a> | PCBA Only for OEM   |
| USBMS-E PCBA-PAD V1.4      | <a href="#">Contact Sales</a> | PCBA with PCB PAD   |
| USBMS-E-SMA Enclosure V1.4 | <a href="#">Contact Sales</a> | PCBA with Enclosure                                       |
| USBMS-E-SMA V1.4           | <a href="#">Web-shop</a>      | Retail version  |
| USBMS-E Module V1.4        | <a href="#">Web-shop</a>      | Module for Embedded                                       |
| USBMS-E EVK V1.4           | <a href="#">Contact Sales</a> | Evaluation Kit for engineering test                       |
|                            |                               |   |
| USBMS-F PCBA V1.4          | <a href="#">Contact Sales</a> | PCBA Only   |
| USBMS-F PCBA-PAD V1.4      | <a href="#">Contact Sales</a> | PCBA with PCB PAD   |
| USBMS-F EVK V1.4           | <a href="#">Web-shop</a>      | Evaluation Kit for engineering test. Add super capacitor. |
|                            |                               |   |
| USBMS-OEM V1.2             | <a href="#">Contact Sales</a> | Special OEM Version                                       |









**USBMS-FPCBA-PAD V1.4 Evaluation kit for engineering testing**



**USBMS-E-SMA enclosure V1.4**







## U2M2A series

| Popular Model     | Product   | Disassembly & Accessory   | ERP  |
|-------------------|---|---|------|
| U2M2A PCBA V1.1   |  |  | 尚未量產 |
| U2M2A Module V1.1 |  |  | 尚未量產 |
| U2M2A V1.1        |  |  | 尚未量產 |

| All of Model      | Where to buy?                 | Special Information                         |
|-------------------|-------------------------------|---|
| U2M2A PCBA V1.1   | <a href="#">Contact Sales</a> | PCBA only for OEM                           |
| U2M2A Module V1.1 | <a href="#">Contact Sales</a> | Dual CDMA/LTE module to USB outdoor adapter |
| U2M2A V1.1        | <a href="#">Web-shop</a>      | Water-Proof Enclosure version               |

## U0901A series

| Popular Model    | Product   | Disassembly & Accessory  | ERP   |
|------------------|---|--|---|
| U0901A PCBA V1.0 |  |   | B-U0901A PCBA V1.0  |
| U0901A V1.0      |  |  | F-U0901A V1.0<br>B-U0901A PCBA V1.0<br>B-Y09-U12-030<br>B-Y09-U15-020 |

| All of Model     | Where to buy?                 | Special Information   |
|------------------|-------------------------------|---|
| U0901A PCBA V1.0 | <a href="#">Web-shop</a>      | 3G/4G Wireless MODEM to USB 9P Header                             |
| U0901A V1.0      | <a href="#">Contact Sales</a> | 3G/4G Wireless MODEM to USB 9P Header with a Mu709s-3 LTE module. |



WP-SMA Design for Waterproof enclosure



USBMA PCBA Design for Embedded system



3G/4G Wireless adapter USB 9P Header for embedded MODEM application