# USB-AF-BF-V1A



## 1. Description:

USB-AF-BF-V1A is a simple USB2.0 Type A Female to USB2.0 Type B Female pass-through adapter breakout board. It brings all 5 pins (including shield) of a USB2.0 Type A Female connector and USB2.0 Type B Female connector to screw terminal blocks and headers for easy testing, prototyping and breadboard connection. All 5 pins of a Female connector directly connect to another Female connector. There is an open circuit between the two VCC pins where you can us a jumper to short it or use the two pins in series to measure DC current. User can also use the two 5 pins headers on both sides of the breakout board to connect to breadboard or prototype PCB.

## 2. Features:

- All 5 pins of a USB2.0 Type A Female and USB2.0 Type B Female connector to screw terminal blocks or headers
- All 5 pins of a Female connector directly connect to another Female connector.
- Open circuit between VCC pins for measuring current.
- Various connecting method chosen by users.
- 1.0"(25.4mm)X0.9"(22.86mm) board dimensions



Figure 1: Parts inside the kit
(Note: the module is not assembled, user can decide which connector to use on the module.)

## 3. Parts:

1) 1pc X **USB-AF-BF-V1A PCB**
2) 1pc X **USB2.0 Type A Female Connector**
3) 1pc X **USB2.0 Type B Female Connector**
4) 1pc X **5pin 0.1"(2.54mm) spacing terminal block**
5) 1pc X **12pin 0.1"(2.54mm) header**
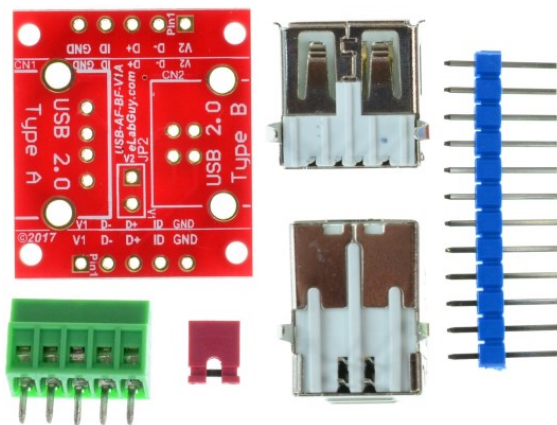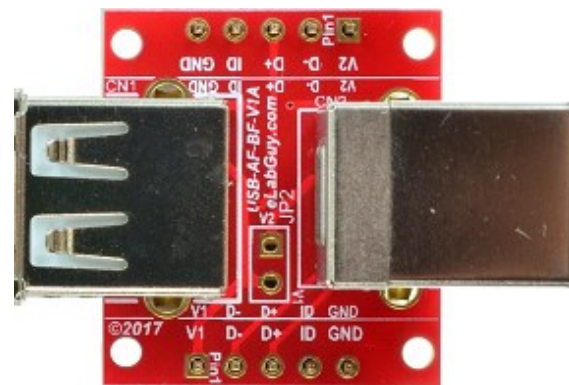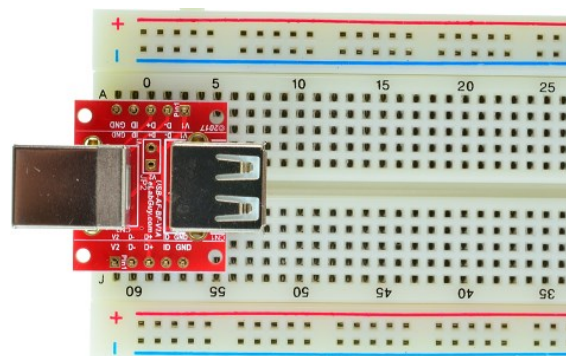6) 1pc X **0.1"(2.54mm) spacing jumper**



Figure 2: Example of connecting the USB-AF-BF-V1A on a breadboard (Note: This picture only shows the pins spacing, actual use may not be used on a breadboard)
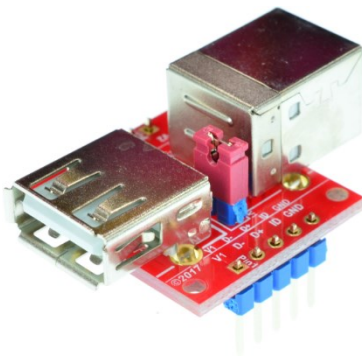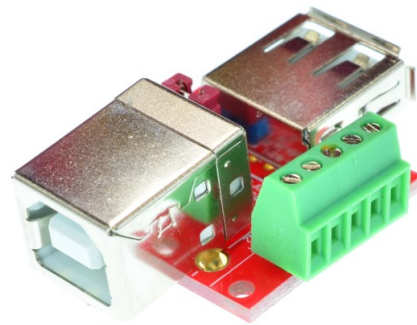
*Figure 3:* USB-AF-BF-V1A *with headers*



*Figure 4:* USB-AF-BF-V1A *with terminal block*

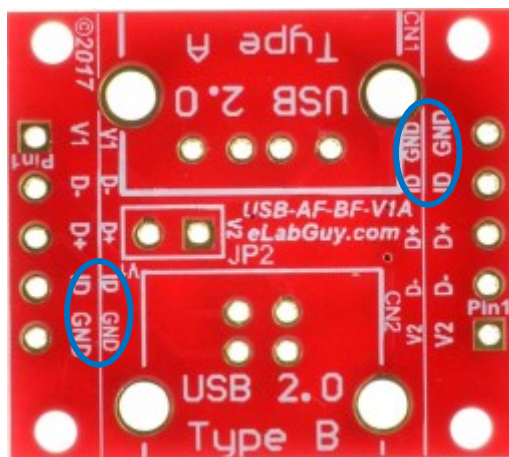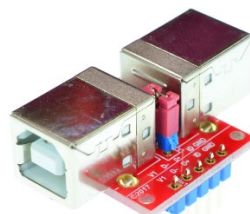**ERRATA!!!   Sulkscreen marking are wrong, pin name "ID" should be "GND" and pin name "GND" should be "Shield"**



*Figure 5: PCB front with open circuit on VCC pin in series*

# Related products from eLabGuy:



**USB-AM-BF-V1A**



**USB-BF-BF-V1A**



**USB-AM-AF-V1A**