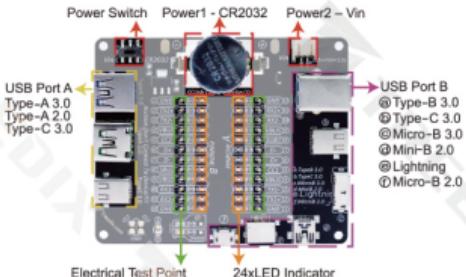


USB Cable Tester Manual



1. USB Ports

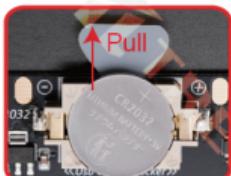


2. USB Cable Tester Pinouts

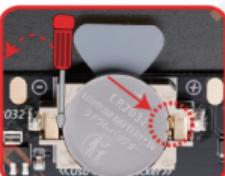
Pinrow B	Name	Description	Pinrow A	Name	Description
B1	GND	Ground	A12	GND	Ground
B2	TX2+	SuperSpeed differential pair 3 TX	A11	RX2+	Super Speed differential pair 4, RX
B3	TX2-	SuperSpeed differential pair 3 RX	A10	RX2-	Super Speed differential pair 4, RX
B4	VBUS	Bus power	A9	VBUS	Bus power
B5	CC2	Configuration channel	A8	SBU1	Side Band Use (SBU)
B6	D+	USB Data Positive	A7	D-	USB Data Minus
B7	D-	USB Data Minus	A6	D+	USB Data Positive
B8	SBU2	Side Band Use (SBU)	A5	CC1	Configuration channel
B9	VBUS	Bus power	A4	VBUS	Bus power
B10	RX1-	Super Speed differential pair 2, RX	A3	TX1-	SuperSpeed differential pair 1 TX
B11	RX1+	Super Speed differential pair 2, RX	A2	TX1+	SuperSpeed differential pair 1 TX
B12	GND	Ground	A1	GND	Ground

3. Battery Usage Instruction

- Pull out the plastic tab by the battery.(3-1)
- If you want to remove the battery, please follow the picture and use a tool to take out the battery.(3-2)
- Insert the battery into the battery holder at a 45-degree angle, and switch the toggle to 'CR2032.' Be careful not to insert the battery vertically, as this will push the positive terminal of the battery holder (the two yellow metal points on the right) below the battery, causing the test board to not function properly.(3-2)



3-1

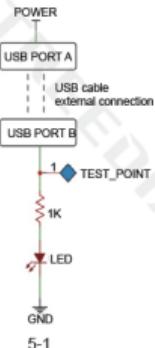


3-2

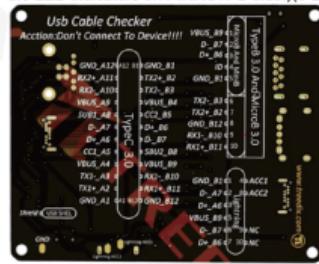
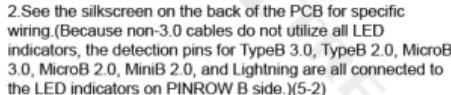
4. Instructions for Use:

- Measurement Types: Type-B 3.0, Type-B 2.0, Type-C 3.0, Micro-B 3.0, Micro-B 2.0, Mini-B 2.0, Lightning.
Because the pins of TypeC 3.0 are the same as those of TypeC 3.1 and TypeC 3.2, they are compatible with TypeC 3.1 and TypeC 3.2.
- Insert a CR2032 button battery or connect Vin (3V < Vin < 12V). Ensure the power switch is set correctly based on the connected power source.
- Connect the USB cable to be tested. The LED on the corresponding pin will illuminate. (Please note that short-circuited pins, diodes, active electronics, or other cable faults may lead to inaccurate results.)

5. PCB Board Design Principles



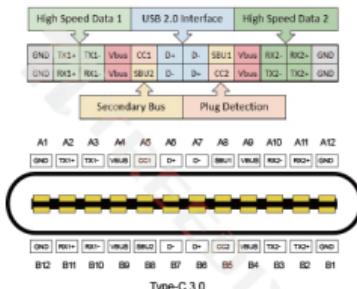
1. The connection schematic for each LED is as shown on the right. Each pin of the A-end connector is connected to the power source, while each pin of the B-end connector is individually wired to the LEDs. (5-1)



5-²

6. USB Pinouts

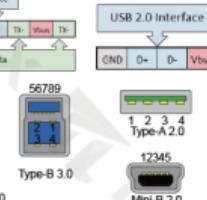
USB Type-C



USB3.0



USB2



Lightning



- Pin 1 GND Ground
- Pin 2 L0p Lane 0 Positive
- Pin 3 L0n Lane 0 negative
- Pin 4 ID0 Identification/control 0
- Pin 5 PWR Power/charger or battery)
- Pin 6 L1n Lane 1 negative
- Pin 7 L1p Lane 1 positive
- Pin 8 ID1 Identification/control 1

7. The Reference of Different Cables to Different Lights



When GND and VBUS lights are on, it indicates that the USB data cable **only** has charging functionality.



When GND, VUBS, D+, and D- lights are on, it indicates that the USB data cable has both charging and data transmission capabilities.



When GND, TX2+, TX2-, VUBS, CC2, D+, and D- lights are on, it indicates that the USB data cable has both charging and high-speed data transmission capabilities. It is a USB 3.0, 3.1 or 3.2 cable.



When all the lights are on (except for one D+ and one D-), it indicates that the USB data cable supports comprehensive functionality, including charging, data transmission, audio, and video transmission.*



Lightning data cable detection

Because there are various types of USB cables, we are only showing a partial representation in the image, but the method for identifying USB data cables remains the same. Please refer to the image description for guidance. Thank you for your understanding!

Email: contact@treedix.com

Notice: Do not connect to any other device!