



Manuals.plus /

› Aideepen /

› Aideepen USB Cable Test Board with LED Indicator (Multi-Type Support) Instruction Manual

Aideepen USB Cable Test Board

Aideepen USB Cable Test Board with LED Indicator (Multi-Type Support)

Model: USB Cable Test Board

Brand: Aideepen

1. INTRODUCTION

The Aideepen USB Cable Test Board is a versatile and reliable tool designed to quickly and accurately assess the connection status and functionality of various USB cables. Its intuitive design, featuring 24 LED indicators, allows users to easily identify issues such as open circuits, short circuits, or incorrect wiring in their cables. This device is essential for anyone managing a collection of USB cables, helping to sort functional cables from faulty ones.

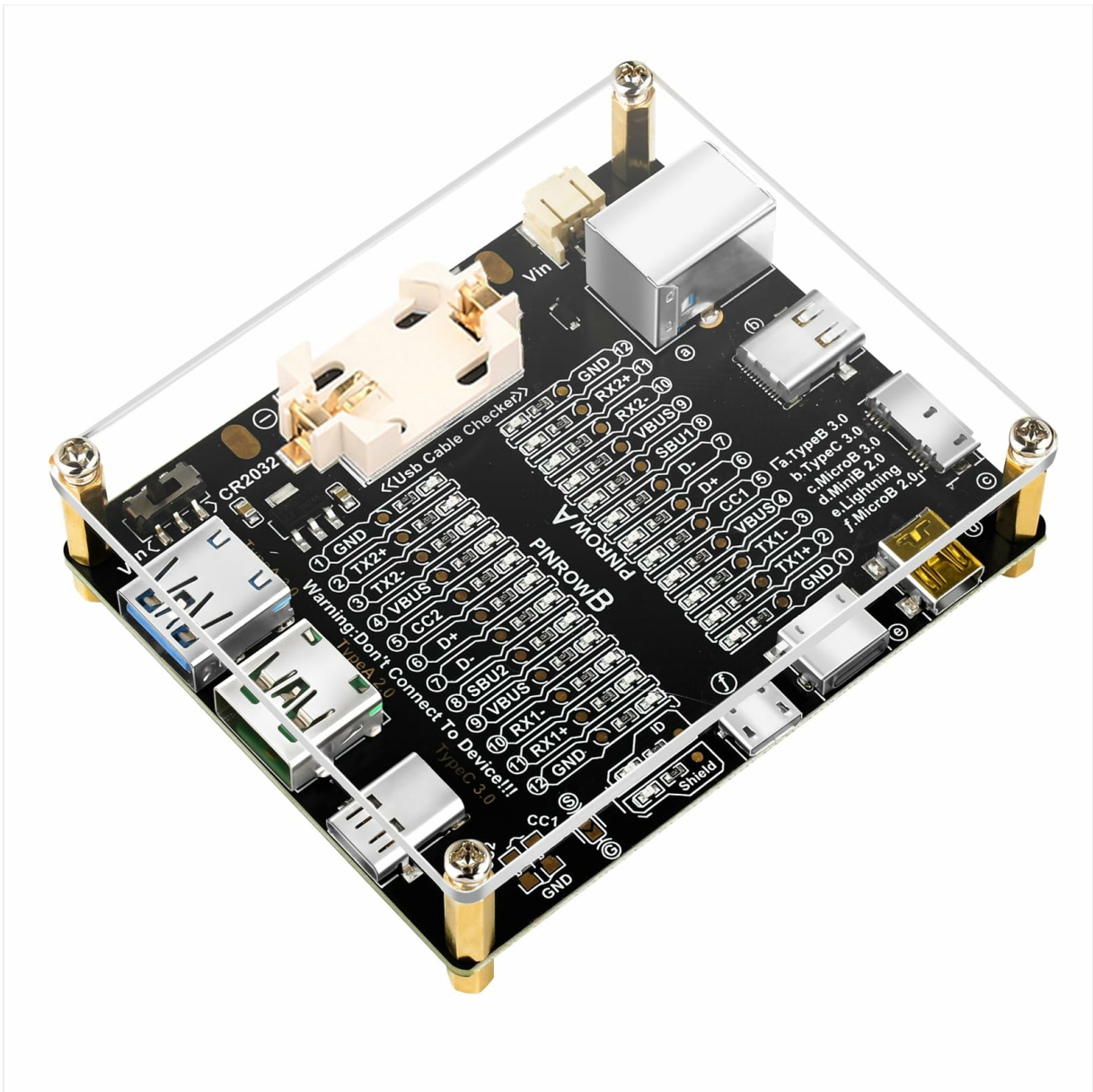


Figure 1: Aideepen USB Cable Test Board

2. KEY FEATURES

- **Intuitive LED Indicators:** Equipped with 24 LED indicators that visually represent the connection status of each pin, providing clear and immediate feedback.
- **Broad Cable Compatibility:** Supports testing for a wide range of USB cable types, including TypeB 3.0, TypeB 2.0, TypeC 3.0/3.1/3.2, MicroB 3.0, MicroB 2.0, MiniB 2.0, and Lightning.
- **Dual Power Options:** Can be powered by a CR2032 button battery (not included) or an external DC3-12V power source (Vin), offering flexibility in usage.
- **Reverse Connection Protection:** The external power input (Vin) includes protection against reverse polarity connections.
- **Simple Operation:** Designed for ease of use, requiring only the insertion of the cable ends into the appropriate connectors to initiate testing.

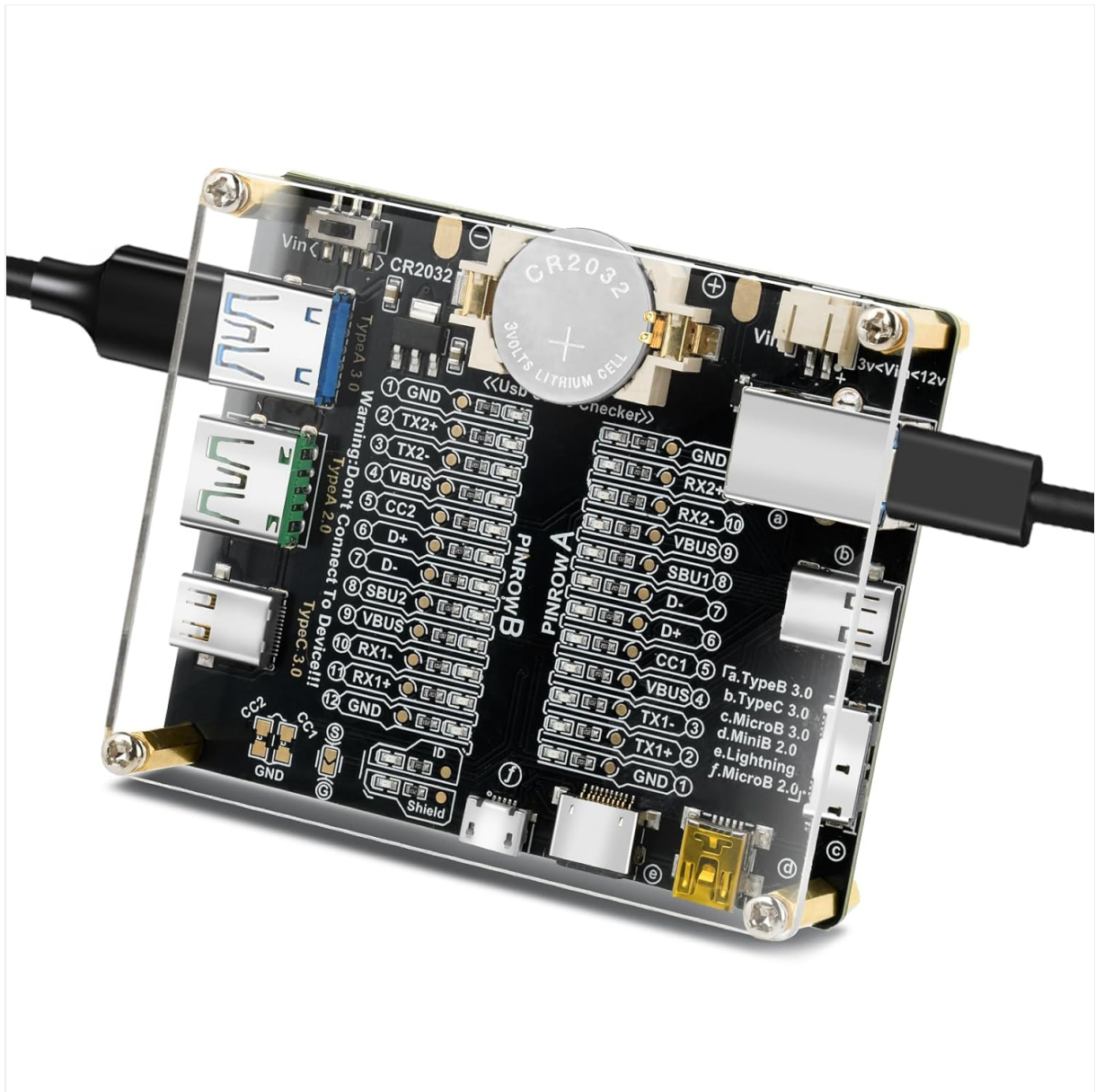


Figure 2: Supported Cable Types

3. INCLUDED COMPONENTS

The package includes the Aideepen USB Cable Test Board. Please note that a CR2032 button battery is not included and must be purchased separately.

4. SETUP

4.1 Powering the Device

The USB Cable Test Board can be powered using one of two methods:

1. **CR2032 Button Battery:** Insert a CR2032 button battery into the designated battery holder on the board. Ensure the positive (+) terminal of the battery aligns with the positive contact on the holder.
2. **External DC Power (Vin):** Connect an external DC power supply (3-12V) to the 'Vin' input port. This port provides reverse connection protection.

24個のLEDインジケータ

テスト結果は24個のLEDインジケータで表示される

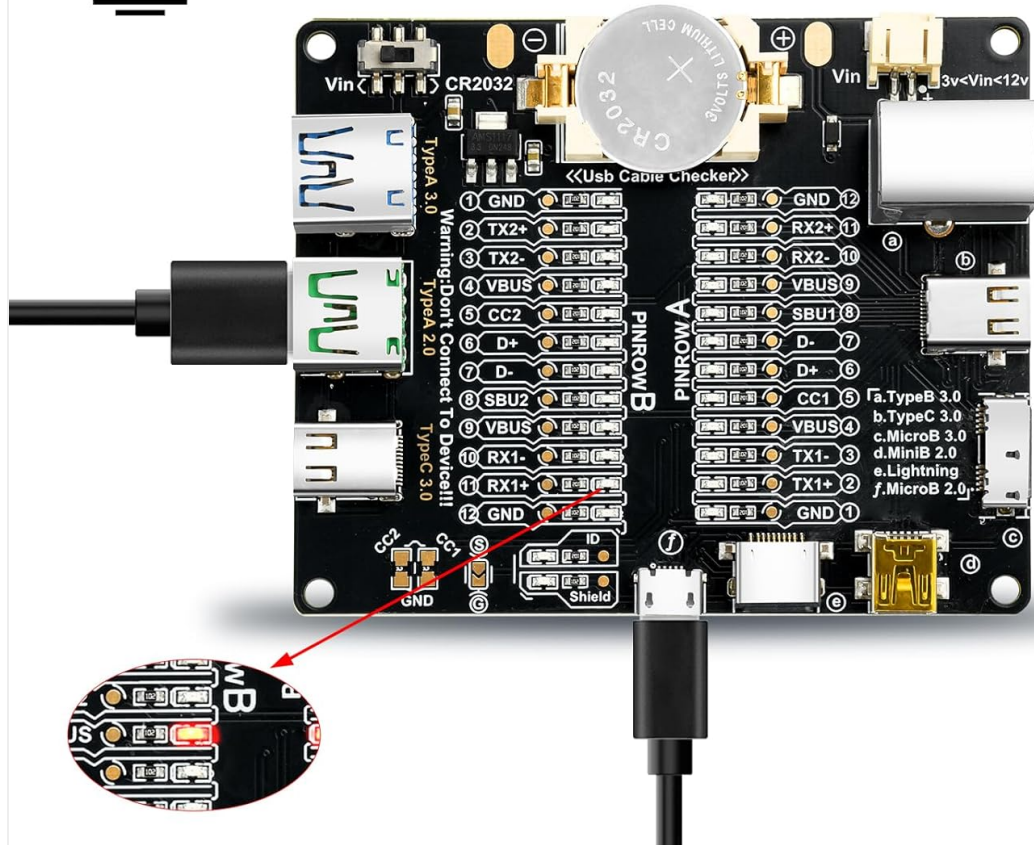
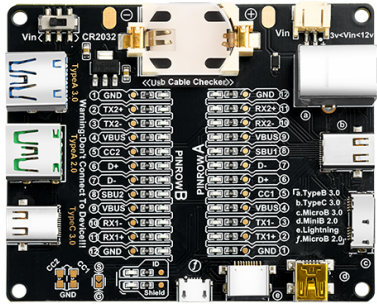


Figure 3: Power Options and Dimensions

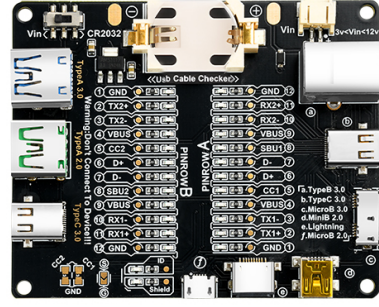
4.2 Battery Installation

To install the CR2032 battery:

1. Locate the battery holder on the test board.
2. Slide the battery cover to the right (towards the CR2032 battery side) to remove it.
3. Insert the CR2032 button battery, ensuring the positive (+) pole aligns with the safety lock's positive contact.
4. Gently press the battery downwards to secure it in place.
5. Replace the battery cover by sliding it back into position.



GNDとVBUSランプが点灯している場合、USBケーブルは充電機能のみを備えていることを示す



GND、VBUS、D+、D-ランプが点灯している場合、USBケーブルは充電とデータ転送の両方の機能を備えていることを示す

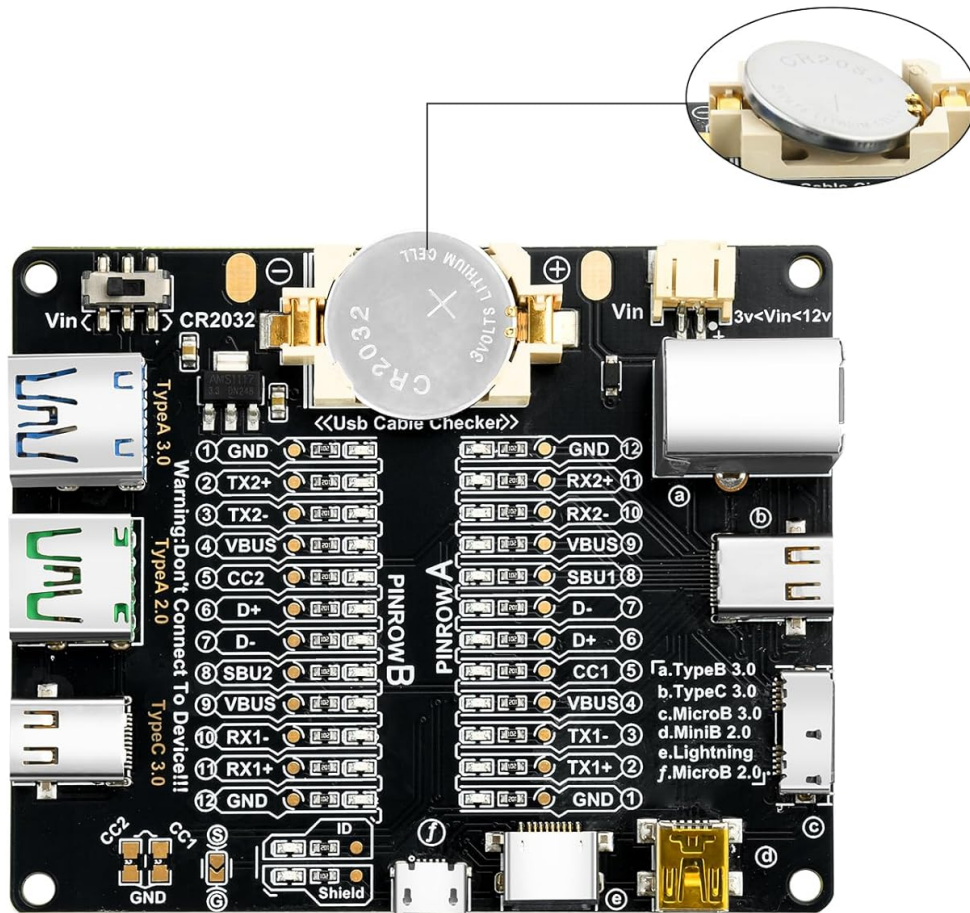
Figure 4: Battery Installation Steps

5. OPERATION

5.1 Testing a USB Cable

To test a USB cable:

1. Ensure the test board is powered on (either via CR2032 battery or external Vin).
2. Connect both ends of the USB cable you wish to test into the corresponding ports on the test board. For example, if testing a USB-C to USB-A cable, connect the USB-C end to a Type-C port and the USB-A end to a Type-A port.
3. Observe the LED indicators. The LEDs corresponding to the functional pins will light up.



⚠ 注意：電池を安全ロックのプラス極に挿入し、その後電池を下方向に押し込んでください

Figure 5: Testing a USB-C Cable

5.2 Interpreting LED Indicators

The 24 LED indicators provide visual feedback on the cable's internal wiring. Each LED corresponds to a specific pin or function within the USB cable. By observing which LEDs illuminate, you can determine the cable's capabilities and identify any faults.

- **GND and VBUS Lamps Lit:** If only the GND (Ground) and VBUS (Voltage Bus) lamps are lit, it indicates that the USB cable primarily supports charging functionality.
- **GND, VBUS, D+, D- Lamps Lit:** If GND, VBUS, D+ (Data Positive), and D- (Data Negative) lamps are lit, the USB cable supports both charging and data transfer.
- **All Lamps Lit (excluding D+ and D- if applicable):** If all relevant lamps are lit (e.g., GND, TX2+, TX2-, VBUS, CC2, D+, D-, SBU2, RX1+, RX1-, GND), it indicates that the USB cable supports charging, high-speed data transfer (e.g., USB 3.0/3.1/3.2), audio/video transmission, and other advanced functionalities.

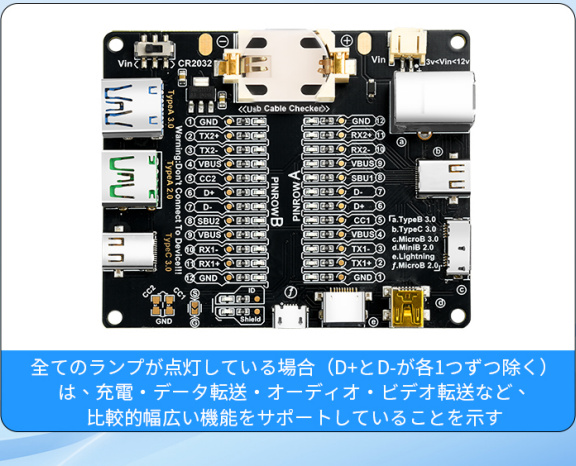
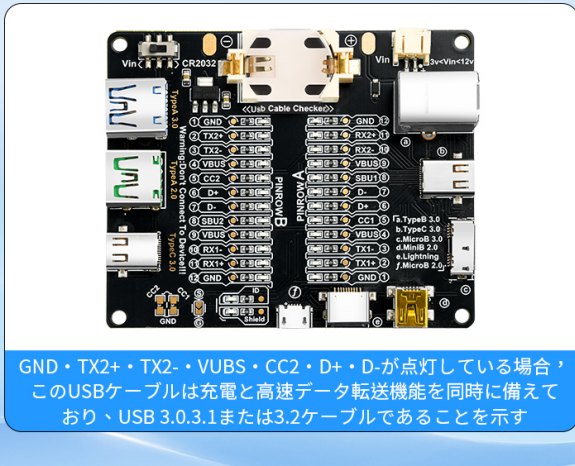


Figure 6: Interpreting LEDs for Charging-Only Cable

多様なケーブル測定タイプに対応、操作简单

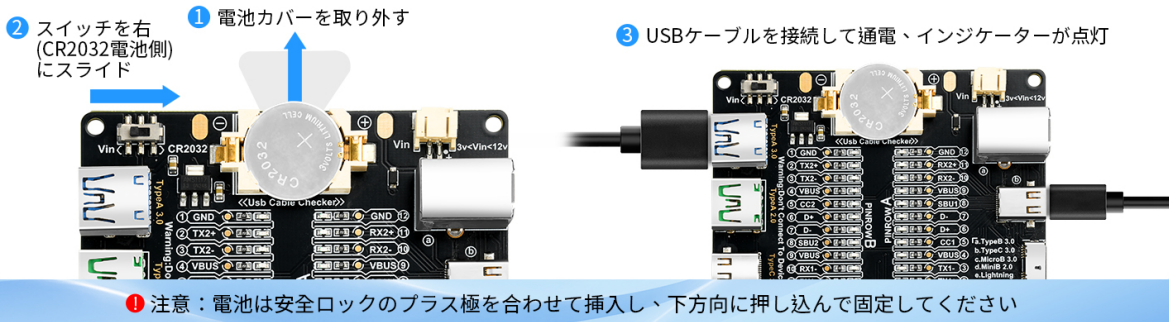
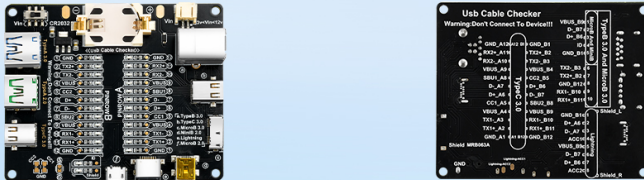


Figure 7: Interpreting LEDs for Full Functionality Cable

5.3 Pinout Diagram

For detailed understanding of each pin's function, refer to the pinout diagram below. This diagram maps the LED indicators to their corresponding pins and functions for both Pinrow A and Pinrow B.

USBデータケーブルテストボード



USBデータケーブルテストボードピン配置

Pinrow B	名称	説明	Pinrow A	名称	説明
B1	GND	グラウンド	A12	GND	グラウンド
B2	TX2+	超高速差動ペア3 TX	A11	RX2+	超高速差動ペア4、RX
B3	TX2-	超高速差動ペア3 RX	A10	RX2-	超高速差動ペア4、RX
B4	VBUS	バス電源	A9	VBUS	バス電源
B5	CC2	コンフィギュレーションチャンネル	A8	SBU2	サイドバンド使用 (SBU)
B6	D+	USBデータプラス	A7	D-	USBデータマイナス
B7	D-	USBデータマイナス	A6	D+	USBデータプラス
B8	SBU1	サイドバンド使用 (SBU)	A5	CC1	コンフィギュレーションチャンネル
B9	VBUS	バス電源	A4	VBUS	バス電源
B10	RX1-	超高速差動ペア2、RX	A3	TX1-	超高速差動ペア1TX
B11	RX1+	超高速差動ペア2、RX	A2	TX1+	超高速差動ペア1TX
B12	GND	グラウンド	A1	GND	グラウンド

Figure 8: USB Data Cable Test Board Pinout Diagram

5.4 Product Videos

Video 1: This video demonstrates the physical appearance and handling of the Aideepen USB Cable Test Board, showcasing its compact size and various ports.

Video 2: This video provides a quick demonstration of how to use the simple USB cable checker, showing the connection process and LED indicator response.

6. SPECIFICATIONS

Feature	Detail
Brand	Aideepen
Color	Black
Minimum Operating Voltage	3 Volts (DC)
Included Components	USB Data Cable Test Board
Country of Origin	China
ASIN	B0FRMTP81P

7. TROUBLESHOOTING

- **No LEDs light up when a cable is connected:**
 - Ensure the device is properly powered. If using a CR2032 battery, check if it is inserted correctly with the positive (+) terminal facing up and securely in place. Replace the battery if it is depleted.
 - If using external power, verify that the DC3-12V power supply is connected to the 'Vin' port and is functioning correctly.
 - Confirm that both ends of the USB cable are fully inserted into the correct ports on the test board.
- **LEDs show unexpected results:**
 - Refer to the "Interpreting LED Indicators" section (5.2) and the "Pinout Diagram" (Figure 8) for a detailed explanation of each LED's function.
 - Ensure the cable being tested is compatible with the ports used on the test board.
 - Test with a known good cable to verify the tester's functionality.

8. MAINTENANCE

To ensure the longevity and optimal performance of your Aideepen USB Cable Test Board:

- Keep the device clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the device to extreme temperatures, humidity, or direct sunlight.
- When not in use for extended periods, remove the CR2032 battery to prevent leakage.
- Handle the board with care to prevent damage to the connectors or electronic components.

9. SUPPORT

For further assistance, technical support, or warranty information, please refer to the seller's contact details on the platform where the product was purchased. Keep your purchase receipt or order number handy for faster service.

