

uxcell a18102700ux0414

uxcell Type-C 3.1 16-Pin Female PCB USB Connector Instruction Manual

Model: a18102700ux0414 | Brand: uxcell

1. INTRODUCTION

This manual provides essential information for the proper use and integration of the uxcell Type-C 3.1 16-Pin Female PCB USB Connector. This product is designed for various electronic applications requiring a reliable Type-C female jack for fast charging and data transfer.

2. PRODUCT OVERVIEW

The uxcell Type-C 3.1 16-Pin Female PCB USB Connector is a compact and versatile component for electronic projects. Key features include:

- Type-C 3.1 PCB USB Connector 16Pin Female Jack for Fast Charging.
- Pin Quantity: 16P; Pin Distance: 0.5mm.
- Dimension: 7.35 x 8.94 x 4.3mm (L*W*H).
- Suitable for various mini USB applications including MP3 players, digital video and cameras, GPS devices, phone printers/frames, mice, keyboards, flash drives, or custom cables.
- Package includes 20 pieces of PCB USB Connectors.



Figure 1: Overview of the 20-piece uxcell Type-C 3.1 16-Pin Female PCB USB Connector set.

3. SPECIFICATIONS

Feature	Detail
Product Dimensions	3.15 x 1.18 x 1.57 inches
Item Weight	0.81 ounces
Manufacturer	uxcell
ASIN	B07L3M1V1J
Item Model Number	a18102700ux0414

Feature	Detail
Date First Available	December 4, 2018
Compatible Devices	GPS, MP3 Player
Specific Uses For Product	GPS
Connector Type	Mini USB, USB Type C
Color	Silver

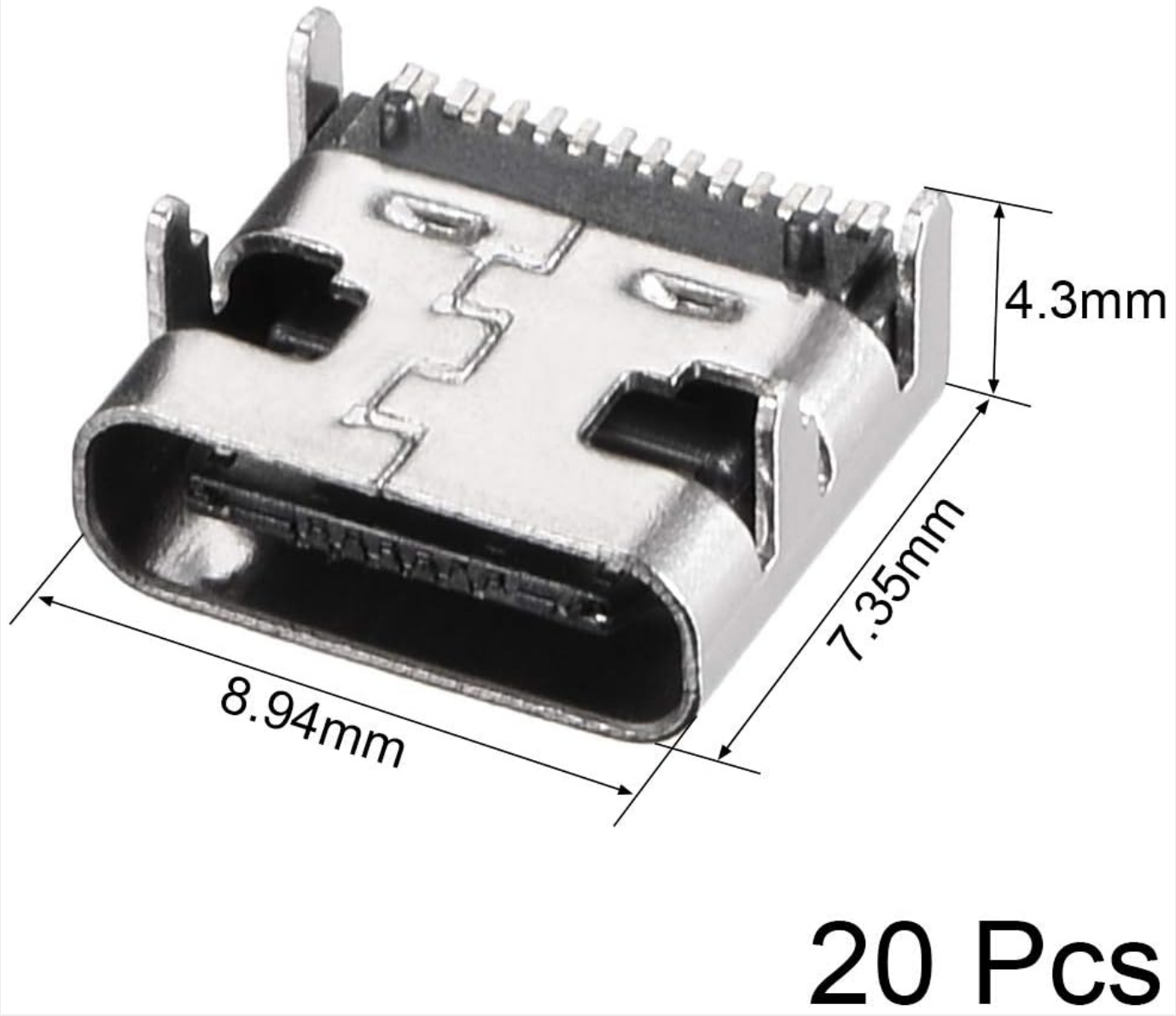


Figure 2: Connector dimensions (L*W*H: 7.35 x 8.94 x 4.3mm).

Unit: mm

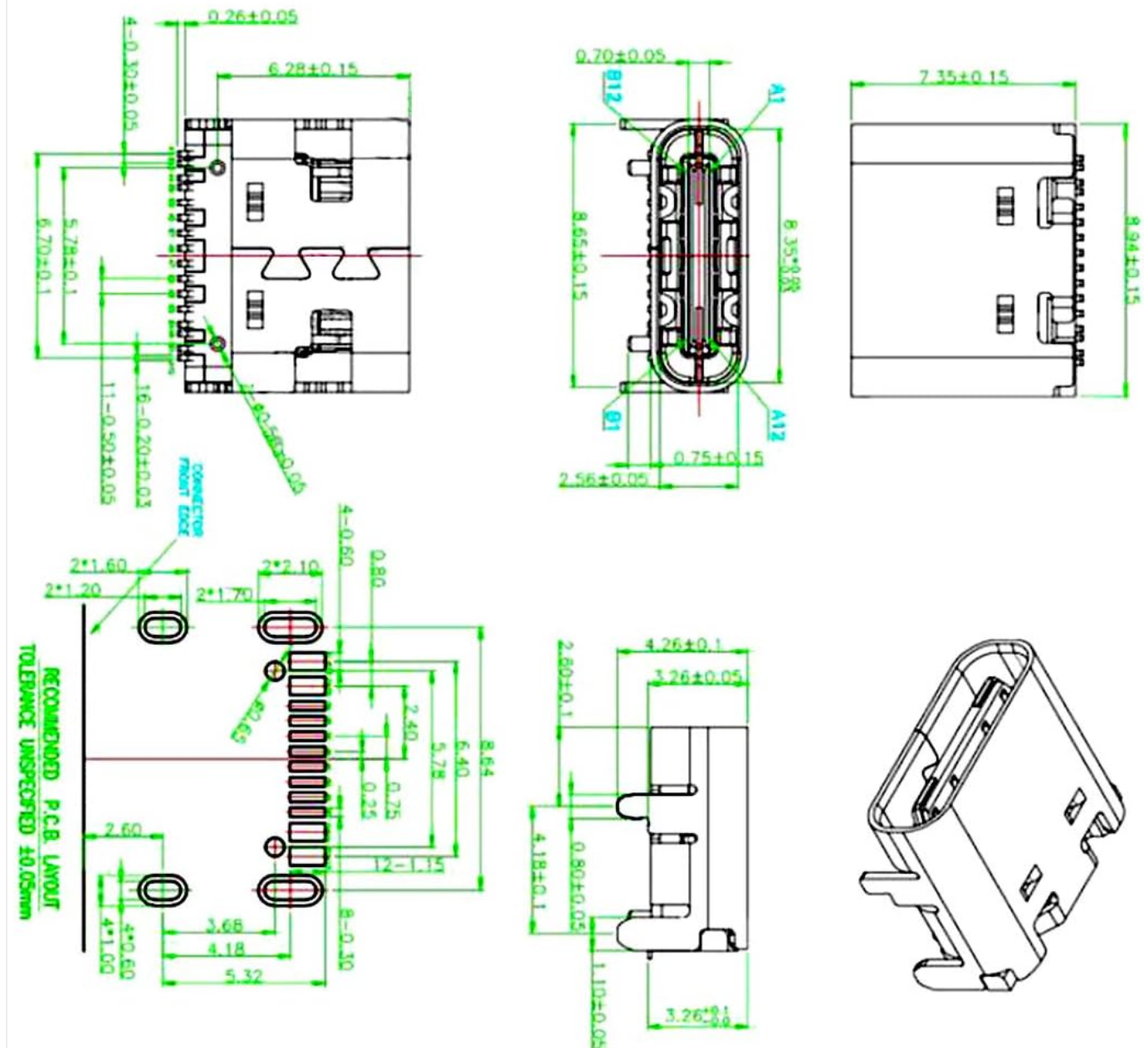


Figure 3: Technical drawing with pinout and recommended PCB layout.

4. INSTALLATION AND SETUP

These PCB USB connectors are designed for surface mount technology (SMT) and require careful soldering for proper integration onto a circuit board. Due to the small size and precision required, professional installation or experience with fine-pitch soldering is recommended.

Installation Steps:

1. **Prepare the PCB:** Ensure the circuit board has the correct footprint for a Type-C 16-pin female connector, matching the dimensions and pin layout provided in the technical drawings (Figure 3).
2. **Position the Connector:** Carefully align the connector's pins with the corresponding pads on the PCB. The side mounting tabs (gull wings) should sit flush on the board for stability.
3. **Solder the Pins:** Using appropriate soldering equipment (e.g., fine-tip soldering iron, hot air station), solder each of the 16 pins to the PCB pads. Ensure good solder joints without bridges.
4. **Solder Mounting Tabs:** Solder the side mounting tabs to the PCB for mechanical stability.

5. **Inspect Connections:** Visually inspect all solder joints for quality. Use a magnifying glass if necessary to check for shorts or cold joints.



Figure 4: Close-up of the connector, highlighting pins and mounting tabs.

Demonstration Video:



Video 1: Demonstration of a C-type female connector adapter test board, illustrating potential application and testing scenarios for these connectors.

5. OPERATING INSTRUCTIONS

Once properly installed, the uxcell Type-C 3.1 16-Pin Female PCB USB Connector functions as a standard USB Type-C port. It supports both fast charging and data transfer capabilities, depending on the connected device and the circuit design.

Key Functions:

- **Fast Charging:** Compatible with devices that support USB Type-C fast charging protocols. Ensure your power source and connected device are compatible for optimal charging speeds.
- **Data Transfer:** Facilitates data exchange between compatible devices. The speed of data transfer will depend on the USB standard implemented in your circuit design (e.g., USB 3.1 for high-speed data).
- **Reversible Connection:** The Type-C design allows for reversible plug orientation, making connection convenient.

6. MAINTENANCE

These connectors are designed for durability. To ensure longevity and optimal performance:

- **Keep Clean:** Avoid dust, dirt, and moisture accumulation in the connector port. Use a soft, dry brush or compressed air for cleaning if necessary.
- **Gentle Handling:** Always insert and remove USB cables gently. Avoid excessive force or wiggling, which can damage the internal pins or the connector's solder joints.
- **Environmental Conditions:** Operate and store the connectors within recommended temperature and humidity ranges for electronic components.

7. TROUBLESHOOTING

If you encounter issues with the connector, consider the following:

- **No Connection/Charging:**
 - Verify all solder joints are secure and free from shorts or cold joints.
 - Check the integrity of the connected USB cable and the power source/data device.
 - Ensure the circuit board design correctly routes power and data lines to the connector.
- **Slow Charging/Data Transfer:**
 - Confirm that all components in the charging/data path (cable, power adapter, device) support the desired speed (e.g., USB 3.1).
 - Inspect for any partial shorts or high resistance connections on the PCB.
- **Physical Damage:** If the connector appears bent, broken, or corroded, it may need replacement.

8. SAFETY INFORMATION

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov. Always handle electronic components with care. Ensure proper ventilation when soldering and follow all safety guidelines for working with electronics.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact the uxcell customer service directly. Details are typically available on the product packaging or the seller's website.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question