chanhvinh.com

User Manual
SKU: TPX00243



English

Description

The Arduino® USB-C Cable (24-pin) (TPX00243) is a USB-C to USB-C cable featuring 24-pin connectivity for complete functionality, including data transfer, video output, and power delivery. This 1-meter braided cable supports USB 3.0 data speeds up to 5 Gbps, power delivery up to 60 W (20 V / 3 A), and DisplayPort Alt Mode for video transmission. Designed for use with USB-C devices requiring full-featured connectivity, it provides reliable performance for development, prototyping, and deployment scenarios.

chanhvinh.com



Arduino USB-C Cable

Product Intended Use

Arduino Hardware Products are primarily intended for development and prototyping but may also support production solutions. Developers must design and verify security controls early, based on the intended deployment environment. Security is a shared responsibility between Arduino and the solution builder, who must assess the hardware's available security features and add any necessary protections.

Visit docs.arduino.cc/tutorials/security/intended-use-and-security-model/ for the complete Arduino Hardware Products: Intended use and Security model.

chanhvinh.com

CONTENTS

1 Features **4**

1.1 General Specifications 4

1.2 Connector Specifications 4

1.3 Functionalities 5

2 Usage **6**

2.1 Key Use Cases 6

2.2 Connection Diagram 6

3 Technical Specifications **7**

3.1 Data Transfer 7

3.2 Power Delivery 7

3.3 Video Support 7

3.4 Electrical Specifications 8

4 Mechanical Information **9**

4.1 Dimensions 9

4.2 Package Contents 9

5 Certifications **10**

5.1 Declaration of Conformity CE DoC (EU) 10

5.2 Declaration of Conformity to EU RoHS & REACH 10

5.3 Conflict Minerals Declaration 11

6 FCC Caution **12**

7 Company Information **12**

8 Reference Documentation **12**

9 Document Revision History **12**

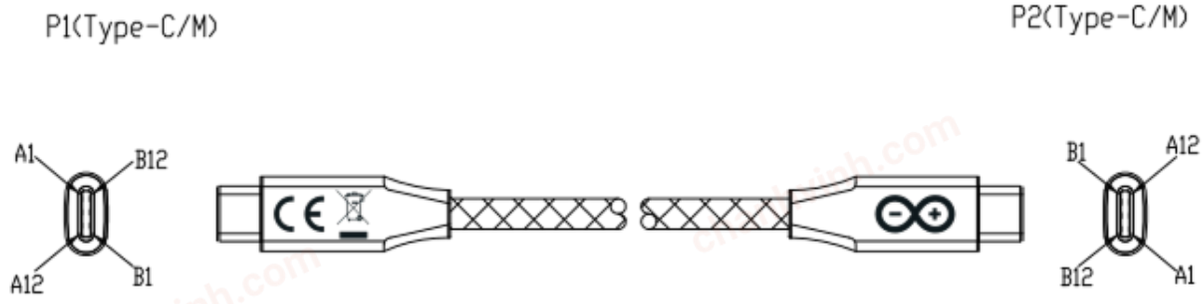
chanhvinh.com

1 Features

1.1 General Specifications

Feature	Specification
Model Number	TPX00243
Color	Black
Cable Type	Braided
Cable Length	1000 mm (1 m)
Weight	37 g

1.2 Connector Specifications



USB-C Cable Overview

Parameter	Specification
Connector P1	USB Type-C Male (24-pin)
Connector P2	USB Type-C Male (24-pin)
Pin Configuration	Full 24-pin
Pin Range	A1-A12, B1-B12 (both connectors)
Connector Type	Reversible, symmetrical insertion
Connector Shell	Metallic
Cable Construction	Braided with aluminum foil and woven shielding

Note: This cable uses the full 24-pin USB-C pinout (A1-A12, B1-B12) on both connectors with wire shielding for data integrity, supporting data, video, and power delivery in either plug orientation. As with all USB-C to USB-C cables, only one USB 2.0 D+/D- pair is wired, so B6 and B7 do not show end-to-end continuity. Not all USB-C cables support all 24 pins. Check full-featured cable requirements for your application.

chanhvinh.com

1.3 Functionalities

Functionality	Support
Data Transfer	USB 3.0 (5 Gbps)
Video Output	DisplayPort Alt Mode
Power Delivery	Up to 60 W (20V / 3A)

chanhvinh.com

2 Usage

The Arduino USB-C Cable (24-pin) provides complete connectivity for USB-C devices requiring simultaneous data transfer, video output, and power delivery. The 24-pin configuration allows compatibility with devices that require all USB-C features, including single-board computers with video output capabilities, laptops, tablets, and displays.

2.1 Key Use Cases

- **Data Transfer:** File transfers at USB 3.0 speeds (5 Gbps)
- **Video Output:** Connect USB-C devices to displays supporting DisplayPort Alt Mode
- **Power Delivery:** Power and charge devices up to 60 W (20 V / 3 A)
- **Development:** Connect development boards to host computers with full functionality
- **Display Connectivity:** Connect devices to external monitors or displays via USB-C

> **Important:** When using for video output via DisplayPort Alt Mode, verify that both the source device and display support this feature. Power delivery capability depends on the power source. Check the source can provide the required voltage and current for your application.

2.2 Connection Diagram

Connect one end of the cable to the USB-C port of your source device (computer, power supply, or hub) and the other end to your target device. The reversible connectors allow insertion in either orientation. For video applications, check that both devices support DisplayPort Alt Mode.

chanhvinh.com

3 Technical Specifications

3.1 Data Transfer

Parameter	Specification
USB Standard	USB 3.0 (USB 3.1 Gen 1)
Maximum Data Rate	5 Gbps (SuperSpeed)
Backward Compatibility	USB 2.0 (480 Mbps)

3.2 Power Delivery

Parameter	Specification
Maximum Voltage	20 V DC
Maximum Current	3 A
Maximum Power	60 W

Note: Actual power delivery depends on the power source capabilities and the connected device's power requirements. Both devices must support USB Power Delivery (PD) for optimal charging performance.

3.3 Video Support

Parameter	Specification
Video Standard	DisplayPort Alt Mode over USB-C

Note: Video output capability requires both the source device and display to support DisplayPort Alt Mode. Maximum resolution and refresh rate depend on the capabilities of both devices.

chanhvinh.com

3.4 Electrical Specifications

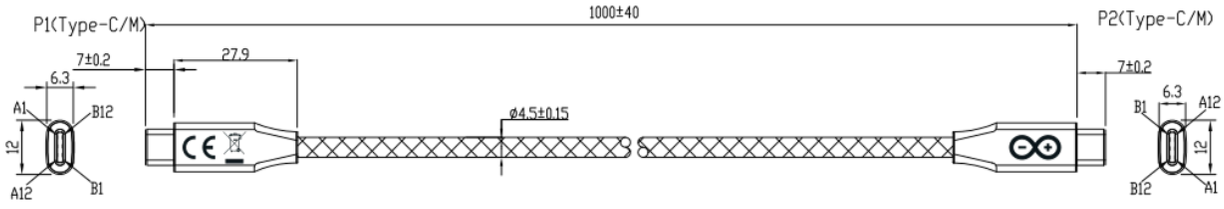
Parameter	Specification
Conduction Impedance	2 Ω maximum
Insulation Resistance	10 MΩ minimum @ DC 300 V / 10 ms (Wire end)

chanhvinh.com

4 Mechanical Information

4.1 Dimensions

The cable features a 1-meter length suitable for desktop and portable applications. The braided exterior provides durability and flexibility while reducing cable tangling.



Cable Dimensions

Parameter	Specification
Cable Length	1000 mm (1 m)
Cable Diameter	Ø 4.5 ± 0.15 mm
Cable Construction	Braided with PVC outer jacket
Connector Shell	Metallic
Weight	37 g

4.2 Package Contents

- 1× Arduino USB-C Cable (24-pin, 1 m)

chanhvinh.com

5 Certifications

5.1 Declaration of Conformity CE DoC (EU)

English: We declare under our sole responsibility that the products above are in conformity with the essential requirements of the following EU Directives and therefore qualify for free movement within markets comprising the European Union (EU) and European Economic Area (EEA).

French: Nous déclarons sous notre seule responsabilité que les produits indiqués ci-dessus sont conformes aux exigences essentielles des directives de l'Union européenne mentionnées ci-après, et qu'ils remplissent à ce titre les conditions permettant la libre circulation sur les marchés de l'Union européenne (UE) et de l'Espace économique européen (EEE).

5.2 Declaration of Conformity to EU RoHS & REACH

Arduino products are in compliance with Directive 2011/65/EU of the European Parliament and Directive 2015/863/EU of the Council of 4 June 2015 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Substance	Maximum Limit (ppm)
Lead (Pb)	1000
Cadmium (Cd)	100
Mercury (Hg)	1000
Hexavalent Chromium (Cr6+)	1000
Poly Brominated Biphenyls (PBB)	1000
Poly Brominated Diphenyl ethers (PBDE)	1000
Bis(2-Ethylhexyl) phthalate (DEHP)	1000
Benzyl butyl phthalate (BBP)	1000
Dibutyl phthalate (DBP)	1000
Diisobutyl phthalate (DIBP)	1000

Exemptions: No exemptions are claimed.

Arduino products are fully compliant with the related requirements of European Union Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). We declare none of the SVHCs (https://echa.europa.eu/web/guest/candidate-list-table), the Candidate List of Substances of Very High Concern for authorization currently released by ECHA, is present in all products (and also package) in quantities totaling in a concentration equal or above 0.1%. To the best of our knowledge, we also declare that our products do not contain any of the substances listed on the "Authorization List" (Annex XIV of the REACH regulations) and Substances of Very High Concern (SVHC) in any significant amounts as specified by the Annex XVII of Candidate list published by ECHA (European Chemical Agency) 1907/2006/EC.

chanhvinh.com

5.3 Conflict Minerals Declaration

As a global supplier of electronic and electrical components, Arduino is aware of our obligations with regards to laws and regulations regarding Conflict Minerals, specifically the Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502. Arduino does not directly source or process conflict minerals such as Tin, Tantalum, Tungsten, or Gold. Conflict minerals are contained in our products in the form of solder, or as a component in metal alloys. As part of our reasonable due diligence Arduino has contacted component suppliers within our supply chain to verify their continued compliance with the regulations. Based on the information received thus far we declare that our products contain Conflict Minerals sourced from conflict-free areas.

chanhvinh.com

6 FCC Caution

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

7 Company Information

Company name	**Arduino S.r.l.**
Company address	Via Andrea Appiani 25, 20900 Monza (Italy)

8 Reference Documentation

No.	**Reference**	**Link**
1	Arduino Store	https://store.arduino.cc/

9 Document Revision History

Date	**Revision**	**Changes**
27/03/2026	1	First release
31/03/2026	2	Updated product name
20/10/2026	3	Added note for Intended Use