

INTERNATIONAL STANDARD



Universal serial bus interfaces for data and power –
Part 1-4: Common components – USB Type-C™ Authentication Specification



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Part 1-4: Common components – USB Type-C™ Authentication Specification**

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Part 1-4: Common components – USB Type-C™ Authentication Specification

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CDV	Report on voting
100/2981/CDV	100/3046/RVC

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This standard is the USB-IF publication USB Type-C™ Authentication Specification Revision 1.0.

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Universal Serial Bus Type-C™ Authentication Specification

Revision 1.0 with ECN and Errata through February 2, 2017

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1.0	March 25, 2016	Initial Release
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1 Introduction

This specification provides a means for authenticating Products with regard to identification and configuration. Authentication is performed via USB Power Delivery message communications and/or via USB data bus control transactions.

USB Type-C™ Authentication allows an organization to set and enforce a Policy with regard to acceptable Products. This will permit useful security assurances in real world situations. For example:

- A vendor, concerned about product damage resulting from substandard charging devices, can set a Policy requiring that only certified PD Products be used for charging.
- A user, concerned about charging his phone at a public terminal, can set a Policy in his phone requiring that the phone only charge from certified PD Products.
- An organization, concerned about unidentifiable storage devices gaining access to corporate PC assets, can set a Policy in its PCs requiring that only USB storage devices that have been verified and signed by corporate IT are used.

1.1 Scope

This specification defines the architecture and methodology for unilateral Product Authentication. It is intended to be fully compatible with and extend existing PD and USB infrastructure. Information is provided to allow for Policy enforcement, but individual Policy decisions are not specified.

The Authentication of USB Type-C products that support Alternate Modes is allowed. However, the methods to do so are outside the scope of this specification.

1.2 Overview

This specification provides primitives for unilateral Authentication. The security model defined by this specification permits assurances that a Product is:

- Of a particular type from a particular manufacturer with particular characteristics
- Owned and controlled by a particular organization

Local Policy will determine which features need to be present in an attached Product before accessing or providing a resource (e.g. power, storage, etc.).

Product vendors can add security features beyond those listed in this specification, but the definition and implementation of those features is up to the vendor. Added features cannot alter the base specifications defined herein.