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Gränssnitt för seriebuss för datakommunikation (USB) – Del 1-3: Gemensamma komponenter – Specifikation för kabel och anslutningsdon USB Type-CTM

Universal serial bus interfaces for data and power –

Part 1-3: Common components –

USB Type-CTM Cable and Connector Specification

Som svensk standard gäller europastandarden EN 62680-1-3:2017. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62680-1-3:2017.

Nationellt förord

Europastandarden EN 62680-1-3:2017

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English Version

**Universal serial bus interfaces for data and power - Part 1-3:
Common components - USB Type-CTM Cable and Connector
Specification
(IEC 62680-1-3:2017)**

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und Energie - Teil 1-3: Gemeinsame Bauteile - Festlegung
für USB-Typ-CTM-Kabel und -Steckverbinder
(IEC 62680-1-3:2017)

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Europäisches Komitee für Elektrotechnische Normung

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European foreword

The text of document 100/2853/CDV, future edition 2 of IEC 62680-1-3, prepared by Technical Area 14 "Interfaces and methods of measurement for personal computing equipment", of IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62680-1-3:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-07-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-10-30

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

UNIVERSAL SERIAL BUS INTERFACES FOR DATA AND POWER –

Part 1-3: Common components – USB Type-C™ Cable and Connector Specification

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This second edition cancels and replaces the first edition published in 2016 and constitutes a technical revision.

The text of this standard was prepared by the USB Implementers Forum (USB-IF). The structure and editorial rules used in this publication reflect the practice of the organization which submitted it.

The text of this standard is based on the following documents:

CDV	Report on voting
100/2853/CDV	100/2958/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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This standard is the USB-IF publication USB Type-C™ Cable and Connector Specification Revision 1.2 as of March 25, 2016.

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Universal Serial Bus Type-C Cable and Connector Specification

**Revision 1.2
March 25, 2016**

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CONTENTS

Specification Work Group Chairs / Specification Editors.....	16
Specification Work Group Contributors	16
Pre-Release Draft Industry Reviewing Companies That Provided Feedback	18
Revision History.....	18
1 Introduction	19
1.1 Purpose	19
1.2 Scope	19
1.3 Related Documents.....	19
1.4 Conventions.....	20
1.4.1 Precedence	20
1.4.2 Keywords	20
1.4.3 Numbering.....	21
1.5 Terms and Abbreviations	21
2 Overview	23
2.1 Introduction.....	23
2.2 USB Type-C Receptacles, Plugs and Cables	25
2.3 Configuration Process.....	26
2.3.1 Source-to-Sink Attach/Detach Detection	26
2.3.2 Plug Orientation/Cable Twist Detection.....	27
2.3.3 Initial Power (Source-to-Sink) Detection and Establishing the Data (Host-to-Device) Relationship.....	27
2.3.4 USB Type-C VBUS Current Detection and Usage	28
2.3.5 USB PD Communication	28
2.3.6 Functional Extensions.....	28
2.4 VBUS	28
2.5 VCONN.....	29
2.6 Hubs.....	29
3 Mechanical	30
3.1 Overview	30
3.1.1 Compliant Connectors	30
3.1.2 Compliant Cable Assemblies	30
3.1.3 Compliant USB Type-C to Legacy Cable Assemblies	30
3.1.4 Compliant USB Type-C to Legacy Adapter Assemblies.....	31
3.2 USB Type-C Connector Mating Interfaces.....	31
3.2.1 Interface Definition	31
3.2.2 Reference Designs	51
3.2.3 Pin Assignments and Descriptions.....	58
3.3 Cable Construction and Wire Assignments.....	59
3.3.1 Cable Construction (Informative)	60
3.3.2 Wire Assignments.....	61
3.3.3 Wire Gauges and Cable Diameters (Informative)	62
3.4 Standard USB Type-C Cable Assemblies.....	64
3.4.1 USB Full-Featured Type-C Cable Assembly.....	64

3.4.2	USB 2.0 Type-C Cable Assembly	65
3.4.3	USB Type-C Captive Cable Assemblies	66
3.5	Legacy Cable Assemblies	66
3.5.1	USB Type-C to <i>USB 3.1</i> Standard-A Cable Assembly	67
3.5.2	USB Type-C to <i>USB 2.0</i> Standard-A Cable Assembly	68
3.5.3	USB Type-C to <i>USB 3.1</i> Standard-B Cable Assembly	69
3.5.4	USB Type-C to <i>USB 2.0</i> Standard-B Cable Assembly	70
3.5.5	USB Type-C to <i>USB 2.0</i> Mini-B Cable Assembly	71
3.5.6	USB Type-C to <i>USB 3.1</i> Micro-B Cable Assembly	72
3.5.7	USB Type-C to <i>USB 2.0</i> Micro-B Cable Assembly	74
3.6	Legacy Adapter Assemblies	74
3.6.1	USB Type-C to <i>USB 3.1</i> Standard-A Receptacle Adapter Assembly	75
3.6.2	USB Type-C to <i>USB 2.0</i> Micro-B Receptacle Adapter Assembly	76
3.7	Electrical Characteristics	78
3.7.1	Raw Cable (Informative)	78
3.7.2	USB Type-C to Type-C Passive Cable Assemblies (Normative)	79
3.7.3	Mated Connector (Informative)	91
3.7.4	USB Type-C to Legacy Cable Assemblies (Normative)	95
3.7.5	USB Type-C to USB Legacy Adapter Assemblies (Normative)	99
3.7.6	Shielding Effectiveness Requirements (Normative)	101
3.7.7	DC Electrical Requirements (Normative)	103
3.8	Mechanical and Environmental Requirements (Normative)	105
3.8.1	Mechanical Requirements	105
3.8.2	Environmental Requirements	111
3.9	Docking Applications (Informative)	112
3.10	Implementation Notes and Design Guides	113
3.10.1	EMC Management (Informative)	113
3.10.2	Stacked and Side-by-Side Connector Physical Spacing (Informative)	115
3.10.3	Cable Mating Considerations (Informative)	116
4	Functional	117
4.1	Signal Summary	117
4.2	Signal Pin Descriptions	117
4.2.1	SuperSpeed USB Pins	117
4.2.2	USB 2.0 Pins	117
4.2.3	Auxiliary Signal Pins	118
4.2.4	Power and Ground Pins	118
4.2.5	Configuration Pins	118
4.3	Sideband Use (SBU)	118
4.4	Power and Ground	118
4.4.1	IR Drop	118
4.4.2	VBUS	119
4.4.3	VCONN	120
4.5	Configuration Channel (CC)	121
4.5.1	Architectural Overview	121
4.5.2	CC Functional and Behavioral Requirements	134

4.5.3	USB Port Interoperability Behavior	155
4.6	Power	165
4.6.1	Power Requirements during USB Suspend	166
4.6.2	VBUS Power Provided Over a USB Type-C Cable.....	167
4.7	USB Hubs.....	169
4.8	Chargers.....	170
4.8.1	DFP as a Power Source.....	170
4.8.2	Non-USB Charging Methods	172
4.8.3	Sinking Host	172
4.8.4	Sourcing Device	173
4.8.5	Charging a System with a Dead Battery.....	173
4.9	Electronically Marked Cables	173
4.10	VCONN-Powered Accessories	174
4.11	Parameter Values	175
4.11.1	Termination Parameters	175
4.11.2	Timing Parameters	177
4.11.3	Voltage Parameters	179
5	Functional Extensions	180
5.1	Alternate Modes.....	180
5.1.1	Alternate Mode Architecture	181
5.1.2	Alternate Mode Requirements.....	181
5.1.3	Parameter Values	185
5.1.4	Example Alternate Mode – USB DisplayPort™ Dock.....	185
5.2	Managed Active Cables	188
5.2.1	Requirements for Managed Active Cables that respond to SOP' and SOP" ..	188
5.2.2	Cable Message Structure	189
5.2.3	Modal Cable Management	190
A	Audio Adapter Accessory Mode	190
A.1.	Overview	190
A.2.	Detail	190
A.3.	Electrical Requirements	191
A.4.	Example Implementations	193
A.4.1.	Passive 3.5 mm to USB Type-C Adapter – Single Pole Detection Switch	193
A.4.2.	3.5 mm to USB Type-C Adapter Supporting 500 mA Charge-Through.....	193
B	Debug Accessory Mode	194
B.1.	Overview	194
B.2.	Functional.....	194
B.2.1.	Signal Summary	196
B.2.2.	Port Interoperability	196
B.2.3.	Debug Accessory Mode Entry.....	196
B.2.4.	Connection State Diagrams	197
B.2.5.	DTS Port Interoperability Behavior.....	206
B.2.6.	Orientation Detection.....	215
B.3.	Security/Privacy Requirements:	215
C	USB Type-C Digital Audio.....	216

FIGURES

Figure 2-1 USB Type-C Receptacle Interface (Front View).....	24
Figure 2-2 USB Full-Featured Type-C Plug Interface (Front View)	25
Figure 3-1 USB Type-C Receptacle Interface Dimensions.....	33
Figure 3-2 Reference Design USB Type-C Plug External EMC Spring Contact Zones	37
Figure 3-3 USB Full-Featured Type-C Plug Interface Dimensions	38
Figure 3-4 Reference Footprint for a USB Type-C Vertical Mount Receptacle (Informative)	41
Figure 3-5 Reference Footprint for a USB Type-C Dual-Row SMT Right Angle Receptacle (Informative)	42
Figure 3-6 Reference Footprint for a USB Type-C Hybrid Right-Angle Receptacle (Informative)	43
Figure 3-7 Reference Footprint for a USB Type-C Mid-Mount Dual-Row SMT Receptacle (Informative)	44
Figure 3-8 Reference Footprint for a USB Type-C Mid-Mount Hybrid Receptacle (Informative)	45
Figure 3-9 <i>USB 2.0</i> Type-C Plug Interface Dimensions	47
Figure 3-10 USB Type-C Plug EMC Shielding Spring Tip Requirements	50
Figure 3-11 Reference Design of Receptacle Mid-Plate	51
Figure 3-12 Reference Design of the Retention Latch	52
Figure 3-13 Illustration of the Latch Soldered to the Paddle Card Ground	52
Figure 3-14 Reference Design of the USB Full-Featured Type-C Plug Internal EMC Spring	53
Figure 3-15 Reference Design of the <i>USB 2.0</i> Type-C Plug Internal EMC Spring	54
Figure 3-16 Reference Design of Internal EMC Pad	55
Figure 3-17 Reference Design of a USB Type-C Receptacle with External EMC Springs	56
Figure 3-18 Reference Design for a USB Full-Featured Type-C Plug Paddle Card	57
Figure 3-19 Illustration of a USB Full-Featured Type-C Cable Cross Section, a Coaxial Wire Example with VCONN.....	60
Figure 3-20 Illustration of a USB Full-Featured Type-C Cable Cross Section, a Coaxial Wire Example without VCONN	60
Figure 3-21 USB Full-Featured Type-C Standard Cable Assembly	64
Figure 3-22 USB Type-C to USB 3.1 Standard-A Cable Assembly	67
Figure 3-23 USB Type-C to <i>USB 2.0</i> Standard-A Cable Assembly	68
Figure 3-24 USB Type-C to <i>USB 3.1</i> Standard-B Cable Assembly	69
Figure 3-25 USB Type-C to <i>USB 2.0</i> Standard-B Cable Assembly	70
Figure 3-26 USB Type-C to <i>USB 2.0</i> Mini-B Cable Assembly	71
Figure 3-27 USB Type-C to <i>USB 3.1</i> Micro-B Cable Assembly	72
Figure 3-28 USB Type-C to <i>USB 2.0</i> Micro-B Cable Assembly	74
Figure 3-29 USB Type-C to <i>USB 3.1</i> Standard-A Receptacle Adapter Assembly	75
Figure 3-30 USB Type-C to <i>USB 2.0</i> Micro-B Receptacle Adapter Assembly.....	76

Figure 3-31 Illustration of Test Points for a Mated Cable Assembly.....	79
Figure 3-32 Recommended Differential Insertion Loss Requirement	79
Figure 3-33 Recommended Differential Return Loss Requirement	80
Figure 3-34 Recommended Differential Crosstalk Requirement.....	80
Figure 3-35 Recommended Differential Near-End and Far-End Crosstalk Requirement between USB D+/D- Pair and USB SuperSpeed Pair.....	81
Figure 3-36 Illustration of Insertion Loss Fit at Nyquist Frequency	82
Figure 3-37 Input Pulse Spectrum.....	83
Figure 3-38 IMR Limit as Function of ILfitatNq	83
Figure 3-39 IRL Limit as Function of ILfitatNq	85
Figure 3-40 Differential-to-Common-Mode Conversion Requirement	85
Figure 3-41 Requirement for Differential Coupling between CC and D+/D-	87
Figure 3-42 Requirement for Single-Ended Coupling between CC and D- in USB 2.0 Type-C Cables.....	87
Figure 3-43 Requirement for Single-Ended Coupling between CC and D- in USB Full- Featured Type-C Cables.....	88
Figure 3-44 Requirement for Differential Coupling between VBUS and D+/D-	88
Figure 3-45 Requirement for Single-Ended Coupling between SBU_A and SBU_B	89
Figure 3-46 Requirement for Single-Ended Coupling between SBU_A/SBU_B and CC	89
Figure 3-47 Requirement for Coupling between SBU_A and differential D+/D-, and SBU_B and differential D+/D-	90
Figure 3-48 Illustration of USB Type-C Mated Connector	91
Figure 3-49 Recommended Impedance Limits of a USB Type-C Mated Connector	92
Figure 3-50 Recommended Ground Void Dimensions for USB Type-C Receptacle.....	93
Figure 3-51 Recommended Differential Near-End and Far-End Crosstalk Limits between D+/D- Pair and SuperSpeed Pairs	95
Figure 3-52 Recommended Limits for Differential-to-Common-Mode Conversion	95
Figure 3-53 IMR Limit as Function of ILfitatNq for USB Type-C to Legacy Cable Assembly.....	98
Figure 3-54 IRL Limit as Function of ILfitatNq for USB Type-C to Legacy Cable Assembly...	98
Figure 3-55 Cable Assembly Shielding Effectiveness Testing	102
Figure 3-56 Shielding Effectiveness Pass/Fail Criteria	102
Figure 3-57 LLCR Measurement Diagram	103
Figure 3-58 Temperature Measurement Point	104
Figure 3-59 Example Current Rating Test Fixture Trace Configuration	105
Figure 3-60 Example of 4-Axis Continuity Test Fixture	107
Figure 3-61 Example Wrenching Strength Test Fixture for Plugs without Overmold.....	109
Figure 3-62 Reference Wrenching Strength Continuity Test Fixture	110
Figure 3-63 Example of Wrenching Strength Test Mechanical Failure Point	110
Figure 3-64 Wrenching Strength Test with Cable in Fixture	111
Figure 3-65 USB Type-C Cable Receptacle Flange Example	113
Figure 3-66 EMC Guidelines for Side Latch and Mid-plate	114

Figure 3-67 EMC Finger Connections to Plug Shell.....	114
Figure 3-68 EMC Pad Connections to Receptacle Shell.....	115
Figure 3-69 Examples of Connector Apertures.....	115
Figure 3-70 Recommended Minimum Spacing between Connectors.....	116
Figure 3-71 Recommended Minimum Plug Overmold Clearance	116
Figure 3-72 Cable Plug Overmold and an Angled Surface.....	116
Figure 4-1 Cable IR Drop.....	119
Figure 4-2 Cable IR Drop for powered cables	119
Figure 4-3 Logical Model for Data Bus Routing across USB Type-C-based Ports.....	122
Figure 4-4 Logical Model for USB Type-C-based Ports for the Direct Connect Device.....	123
Figure 4-5 Pull-Up/Pull-Down CC Model	125
Figure 4-6 Current Source/Pull-Down CC Model	125
Figure 4-7 Source Functional Model for CC1 and CC2.....	128
Figure 4-8 Source Functional Model Supporting USB PD PR_Swap.....	129
Figure 4-9 Sink Functional Model for CC1 and CC2	129
Figure 4-10 UFP Functional Model Supporting USB PD PR_Swap and VCONN_Swap	130
Figure 4-11 DRP Functional Model for CC1 and CC2.....	131
Figure 4-12 Connection State Diagram: Source	135
Figure 4-13 Connection State Diagram: Sink.....	136
Figure 4-14 Connection State Diagram: Sink with Accessory Support	137
Figure 4-15 Connection State Diagram: DRP	138
Figure 4-16 Connection State Diagram: DRP with Accessory and Try.SRC Support.....	139
Figure 4-17 Connection State Diagram: DRP with Accessory and Try.SNK Support.....	140
Figure 4-18 Sink Power Sub-States	152
Figure 4-19 Source to Sink Functional Model.....	155
Figure 4-20 Source to DRP Functional Model	156
Figure 4-21 DRP to Sink Functional Model.....	157
Figure 4-22 DRP to DRP Functional Model – CASE 1	158
Figure 4-23 DRP to DRP Functional Model – CASE 2 & 3.....	159
Figure 4-24 Source to Source Functional Model.....	161
Figure 4-25 Sink to Sink Functional Model	162
Figure 4-26 Source to Legacy Device Port Functional Model	162
Figure 4-27 Legacy Host Port to Sink Functional Model	163
Figure 4-28 DRP to Legacy Device Port Functional Model	164
Figure 4-29 Legacy Host Port to DRP Functional Model.....	165
Figure 4-30 Sink Monitoring for Current in Pull-Up/Pull-Down CC Model.....	168
Figure 4-31 Sink Monitoring for Current in Current Source/Pull-Down CC Model.....	168
Figure 4-32 USB PD over CC Pins.....	169
Figure 4-33 USB PD BMC Signaling over CC.....	169

Figure 4-34 USB Type-C Cable's Output as a Function of Load for Non-PD-based USB Type-C Charging	171
Figure 4-35 0 – 3 A USB PD-based Charger USB Type-C Cable's Output as a Function of Load	171
Figure 4-36 3 – 5 A USB PD-based Charger USB Type-C Cable's Output as a Function of Load	172
Figure 4-37 Electronically Marked Cable with VCONN connected through the cable	174
Figure 4-38 Electronically Marked Cable with SOP' at both ends	174
Figure 4-39 DRP Timing	178
Figure 5-1 Pins Available for Reconfiguration over the Full-Featured Cable	182
Figure 5-2 Pins Available for Reconfiguration for Direct Connect Applications	182
Figure 5-3 Alternate Mode Implementation using a USB Type-C to USB Type-C Cable	183
Figure 5-4 Alternate Mode Implementation using a USB Type-C to Alternate Mode Cable or Device	184
Figure 5-5 USB DisplayPort Dock Example	186
Figure 5-6 Managed Active Cable Plug SOP' and SOP" Assignment	188
Figure 5-7 Managed Active Cable	189
Figure A-1 Example Passive 3.5 mm to USB Type-C Adapter	193
Figure A-2 Example 3.5 mm to USB Type-C Adapter Supporting 500 mA Charge-Through	194
Figure B-1 USB Type-C Debug Accessory Layered Behavior	195
Figure B-2 DTS Plug Interface	196
Figure B-3 Connection State Diagram: DTS Source	197
Figure B-4 Connection State Diagram: DTS Sink	198
Figure B-5 Connection State Diagram: DTS DRP	199
Figure B-6 TS Sink Power Sub-States	204

TABLES

Table 2-1 Summary of power supply options	29
Table 3-1 USB Type-C Standard Cable Assemblies	30
Table 3-2 USB Type-C Legacy Cable Assemblies	31
Table 3-3 USB Type-C Legacy Adapter Assemblies	31
Table 3-4 USB Type-C Receptacle Interface Pin Assignments	58
Table 3-5 USB Type-C Receptacle Interface Pin Assignments for USB 2.0-only Support	59
Table 3-6 USB Type-C Standard Cable Wire Assignments	61
Table 3-7 USB Type-C Cable Wire Assignments for Legacy Cables/Adapters	62
Table 3-8 Reference Wire Gauges for standard USB Type-C Cable Assemblies	63
Table 3-9 Reference Wire Gauges for USB Type-C to Legacy Cable Assemblies	63
Table 3-10 USB Full-Featured Type-C Standard Cable Assembly Wiring	65
Table 3-11 <i>USB 2.0</i> Type-C Standard Cable Assembly Wiring	66
Table 3-12 USB Type-C to <i>USB 3.1</i> Standard-A Cable Assembly Wiring	67
Table 3-13 USB Type-C to <i>USB 2.0</i> Standard-A Cable Assembly Wiring	68

Table 3-14 USB Type-C to <i>USB 3.1</i> Standard-B Cable Assembly Wiring.....	69
Table 3-15 USB Type-C to <i>USB 2.0</i> Standard-B Cable Assembly Wiring.....	70
Table 3-16 USB Type-C to <i>USB 2.0</i> Mini-B Cable Assembly Wiring	71
Table 3-17 USB Type-C to <i>USB 3.1</i> Micro-B Cable Assembly Wiring	73
Table 3-18 USB Type-C to <i>USB 2.0</i> Micro-B Cable Assembly Wiring	74
Table 3-19 USB Type-C to <i>USB 3.1</i> Standard-A Receptacle Adapter Assembly Wiring	76
Table 3-20 USB Type-C to <i>USB 2.0</i> Micro-B Receptacle Adapter Assembly Wiring	77
Table 3-21 Differential Insertion Loss Examples for USB SuperSpeed with Twisted Pair Construction	78
Table 3-22 Differential Insertion Loss Examples for USB SuperSpeed with Coaxial Construction	79
Table 3-23 Electrical Requirements for CC and SBU wires	86
Table 3-24 Coupling Matrix for Low Speed Signals	86
Table 3-25 USB D+/D– Signal Integrity Requirements for USB Type-C to USB Type-C Passive Cable Assemblies	91
Table 3-26 USB Type-C Mated Connector Recommended Signal Integrity Characteristics (Informative)	93
Table 3-27 USB D+/D– Signal Integrity Requirements for USB Type-C to Legacy USB Cable Assemblies	96
Table 3-28 Design Targets for USB Type-C to <i>USB 3.1</i> Gen 2 Legacy Cable Assemblies (Informative)	97
Table 3-29 USB Type-C to <i>USB 3.1</i> Gen 2 Legacy Cable Assembly Signal Integrity Requirements (Normative)	97
Table 3-30 USB D+/D– Signal Integrity Requirements for USB Type-C to Legacy USB Adapter Assemblies (Normative)	99
Table 3-31 Design Targets for USB Type-C to <i>USB 3.1</i> Standard-A Adapter Assemblies (Informative)	100
Table 3-32 USB Type-C to <i>USB 3.1</i> Standard-A Receptacle Adapter Assembly Signal Integrity Requirements (Normative).....	101
Table 3-33 Current Rating Test PCB.....	105
Table 3-34 Force and Moment Requirements.....	108
Table 3-35 Environmental Test Conditions	111
Table 3-36 Reference Materials	112
Table 4-1 USB Type-C List of Signals	117
Table 4-2 VBUS Source Characteristics	120
Table 4-3 USB Type-C Source Port's VCONN Requirements Summary	120
Table 4-4 VCONN Source Characteristics.....	121
Table 4-5 VCONN Sink Characteristics.....	121
Table 4-6 USB Type-C-based Port Interoperability.....	124
Table 4-7 Source Perspective	126
Table 4-8 Source (Host) and Sink (Device) Behaviors by State	127
Table 4-9 USB PD Swapping Port Behavior Summary	132
Table 4-10 Power Role Behavioral Model Summary.....	133

Table 4-11	Source Port CC Pin State	141
Table 4-12	Sink Port CC Pin State	141
Table 4-13	Mandatory and Optional States	154
Table 4-14	Precedence of power source usage	166
Table 4-15	Source CC Termination (Rp) Requirements	175
Table 4-16	Sink CC Termination (Rd) Requirements	176
Table 4-17	Powered Cable Termination Requirements	176
Table 4-18	Sink CC Termination Requirements	176
Table 4-19	SBU Termination Requirements	176
Table 4-20	VBUS and VCONN Timing Parameters	177
Table 4-21	DRP Timing Parameters	178
Table 4-22	CC Timing	179
Table 4-23	CC Voltages on Source Side – Default USB	179
Table 4-24	CC Voltages on Source Side – 1.5 A @ 5 V	179
Table 4-25	CC Voltages on Source Side – 3.0 A @ 5 V	180
Table 4-26	Voltage on Sink CC Pins (Default USB Type-C Current only)	180
Table 4-27	Voltage on Sink CC pins (Multiple Source Current Advertisements)	180
Table 5-1	USB Safe State Electrical Requirements	184
Table 5-2	USB Billboard Device Class Availability Following Alternate Mode Entry Failure	185
Table 5-3	Alternate Mode Signal Noise Ingression Requirements	185
Table 5-4	SOP' and SOP" Timing	189
Table A-1	USB Type-C Analog Audio Pin Assignments	191
Table A-2	USB Type-C Analog Audio Pin Electrical Parameter Ratings	192
Table B-1	DTS to TS Port Interoperability	196
Table B-2	Rp/Rp Charging Current Values for a DTS Source	204
Table B-3	Mandatory and Optional States	206

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Revision History

Revision	Date	Description
1.0	August 11, 2014	Initial Release
1.1	April 3, 2015	Reprint release including incorporation of all approved ECNs as of the revision date plus editorial clean-up.
1.2	March 25, 2016	Reprint release including incorporation of all approved ECNs as of the revision date plus editorial clean-up.

1 Introduction

With the continued success of the USB interface, there exists a need to adapt USB technology to serve newer computing platforms and devices as they trend toward smaller, thinner and lighter form-factors. Many of these newer platforms and devices are reaching a point where existing USB receptacles and plugs are inhibiting innovation, especially given the relatively large size and internal volume constraints of the Standard-A and Standard-B versions of USB connectors. Additionally, as platform usage models have evolved, usability and robustness requirements have advanced and the existing set of USB connectors were not originally designed for some of these newer requirements. This specification is to establish a new USB connector ecosystem that addresses the evolving needs of platforms and devices while retaining all of the functional benefits of USB that form the basis for this most popular of computing device interconnects.

1.1 Purpose

This specification defines the USB Type-C™ receptacles, plug and cables.

The USB Type-C Cable and Connector Specification is guided by the following principles:

- Enable new and exciting host and device form-factors where size, industrial design and style are important parameters
- Work seamlessly with existing USB host and device silicon solutions
- Enhance ease of use for connecting USB devices with a focus on minimizing user confusion for plug and cable orientation

The USB Type-C Cable and Connector Specification defines a new receptacle, plug, cable and detection mechanisms that are compatible with existing USB interface electrical and functional specifications. This specification covers the following aspects that are needed to produce and use this new USB cable/connector solution in newer platforms and devices, and that interoperate with existing platforms and devices:

- USB Type-C receptacles, including electro-mechanical definition and performance requirements
- USB Type-C plugs and cable assemblies, including electro-mechanical definition and performance requirements
- USB Type-C to legacy cable assemblies and adapters
- USB Type-C-based device detection and interface configuration, including support for legacy connections
- USB Power Delivery optimized for the USB Type-C connector

The USB Type-C Cable and Connector Specification defines a standardized mechanism that supports Alternate Modes, such as repurposing the connector for docking-specific applications.

1.2 Scope

This specification is intended as a supplement to the existing *USB 2.0*, *USB 3.1* and *USB Power Delivery* specifications. It addresses only the elements required to implement and support the USB Type-C receptacles, plugs and cables.

Normative information is provided to allow interoperability of components designed to this specification. Informative information, when provided, may illustrate possible design implementations.