



### TITLE

### 1.0 SCOPE

This Product Specification covers the requirement of the USB TYPE C CONNECTOR

#### 2.0 PRODUCT DESCRIPTION

- 2.1. Sales drawings and other sections of this specification for the relevant reference documents. In cases where the specification differs from the drawings, the sales drawings take precedence.
- 2.2. Product name: USB TYPE C SPLINT PLUG CONNECTOR
- 2.3. Series number: 105444

### 3.0 RATINGS

### 3.1 RATED VOLTAGE

30 Volts AC(rms)

#### **3.2 RATED CURRENT**

5 A for A4, A9, B4, B9 VBUS; A1, A12, B1,B12 GND 1.25 for B5\A5 \A8\B8 0.25A for other pin

#### **3.3 TEMPERATURE**

Operating Temperature Range: -30°C to +85°C : (Including Terminal Temperature Rise)

Storage Temperature Range : -45°C to +85°C

#### 4.0. APPLICABLE DOCUMENTS AND SPECIFICATIONS

#### EIA-364.

Universal Serial Bus Type-C Connectors and Cable Assemblies Compliance Document

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٨	<u>EC No:</u> 102278	USB TYPE C PL	JSB TYPE C PLUG CONNECTOR				
A	<u>DATE:</u> 2015/12/25				<b>2</b> of <b>19</b>		
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#### 4.1. TEST METHODS AND REQUIREMENT DESCRIPTION ITEM **TEST CONDITION** REQUIREMENT Test Methods: Visual inspection EIA-364-18 Meets requirements of product drawing. 4.1.1 Examination Test Requirement: Meets requirements of No physical damage. product drawing. No physical damage. EIA 364-23 The low level contact resistance (LLCR) measurement is made across the plug The following requirements apply to the and receptacle mated contacts and does power and signal contacts: not include any internal paddle cards or Low Level 4.1.2 substrates of the plug or receptacle. The 40 mΩ (max) initial for VBUS, GND Contact Resistance test boards shall be provided with the and all other contacts. connectors to be tested. $50 \text{ m}\Omega$ maximum after initial Measure at 20 mV (max) open circuit at measurement 100 mA. EIA 364-20 Dielectric Applicable to both receptacle and plug. The dielectric shall withstand 100 VAC 4.1.3 Withstanding (RMS) for one minute Voltage Measurement per Method B. A minimum of 100 MQ insulation EIA 364-21 Applicable to both receptacle and plug. resistance is required between adjacent Insulation 4.1.4 Resistance contacts of unmated and mated connectors. See Appendix C When current is applied to the contacts, the temperature rise shall not exceed Contact limit at the location defined in Appendix 4.1.5 Current C. Rating ITEM DESCRIPTION **TEST CONDITION** REQUIREMENT EIA 364-13 Within the range from 5 N to 20 N. The insertion force test shall be done at Insertion 4.1.6 This requirement does not apply to the Force a maximum speed of 12.5 mm (0.492") plugs that are used for direct docking per minute. without a cable. REVISION: ECR/ECN INFORMATION: TITLE: SHEET No. EC No: 102278 USB TYPE C PLUG CONNECTOR Α 3 of 19 DATE: 2015/12/25 DOCUMENT NUMBER: CREATED / REVISED BY: CHECKED BY: APPROVED BY: PS-10544-001 ABIN FYANG05 RZHANG TEMPLATE FILENAME: PRODUCT\_SPEC[SIZE\_A4](V.1).DOC

		PRC	DUCT SPE	CIFIC	ATION		
4.1.7 Extra Force	action e	EIA 364-1 The extrac at a ma (0.492") pe	3 ction force test shall ximum speed of 12 er minute.	be done 2.5 mm	Within the range measured after five insertion/exi sixth extraction) twenty-five inser the extraction for again (i.e., the the and the extraction and the extraction b) within the range of 6 N to 2 insertion/extract This requirement plugs that are us without a cable.	e of 8 N to a precond traction cy . After an rtion/extrac orce shall b hirty-secor on force sh initial read nge of 8 N orce shall 20 N after ion cycles at does not	20 N , itioning of cles (i.e., the additional ction cycles, be measured nd extraction) nall be within: ing, and I to 20 N. be within the 10,000
4.1.8 Dura Inser ractio Cyclo	bility or rtion/Ext on es	EIA 364-0 The object detail a un determinin subjecting conditionir extraction, of the com with a gau mechanica with matin produce b stress.	EIA 364-09 The object of this test procedure is to detail a uniform test method for determining the effects caused by subjecting a USB connector to the conditioning action of insertion and extraction, simulating the expected life of the connectors. Durability cycling with a gauge is intended only to produce mechanical stress. Durability performed with mating components is intended to produce both mechanical and wear stress.		Appearance-No 10,000 cycles ra hour Low level contac dielectric withsta checked to be w 10,000 durability	breakdow ate of200 o ct resistan anding volt <i>i</i> ithin spec y cycles	n cycles per ce and tage shall be after the
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4.1.9	.9 Wrenching Strength (Plug- only)		Perpendic plug in fou and down) A metal fix representa used. Appendix	<ul> <li>a) A single plug sr test. Some me deformation ma shall be mated test fixture after have been appl damage has oc discontinuity or Dielectric Withs shall be conduct continuity test to compliance.</li> <li>b) A new plug is re the four test dire shall disengage or demonstrate (i.e., the force a test procedure p when a momen applied to the p down directions Nm is applied to</li> </ul>		g shall be mechanica may occu ted with the applied to v s occurred or shortin tithstanding ducted after ducted after st to verify is required directions age from t rate mecha ce applied ure peaks a nent of 2.0 ne plug in t ons and a ed to the pl ections.	iechanical hay occur. The plug d with the continuity er the test forces plied to verify no occurred that causes or shorting. The hstanding Voltage test ucted after the to verify plug required for each of lirections. The plug ge from the test fixture te mechanical failure e applied during the e peaks and drops off) ent of 2.0 Nm is plug in the up and ns and a moment 3.5 to the plug in the left ctions.		
4.1.10	4-A Cor	xes ntinuity	See Apper and proce Plug and F mating inte in Append	ndix D for detailed test t dures. Receptacle: Subject the erface to the moments of ix D for at least 10 seco	fixtures defined onds.	No discontinuities greater than 1 microsecond duration in any of the orientations tested.		than 1 ny of the four	
ITEM	DE	SCRIPTION		TEST CONDITION		RE		т	
4.1.11	Ter Life	nperature e	EIA 364-1 105º C wit hours. 105º C wit hours whe	7, Method A. hout applied voltage for hout applied voltage for n used as precondition	r 120 r 72 ing.	Lov spe Life	v level conta ec before and e test.	ct resistan d after the	ce meets Temperature
4.1.12	.1.12 Vibration EIA 364-28 Test Condition VII, Test Letter D			No evidence of physical damages and no discontinuity longer than 1 microsecond. Low level contact resistance meets spec before and after the Vibration test.			amages and an 1 ce meets Vibration		
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						tests as spec	cified in tes	t
						2).Shall meet re	quirements	of additional
			influenced	by the effects of salt spr	ay	damage.		
4.1.17	Salt	Spray	used in US	SB 3.1 connectors as the	se	requirement, show no physical		
	0-14	Crane	evaluation of the properties of materials		erials	1).Shall meet visual		
			detail a sta	andard method for the		5%-Salt-solutior	n concentra	ition.
			The object	t of this test procedure is	to	two cycles(24h) at $35^\circ C$ with		
						Subject mated c	onnectors	to
			or SMT typ	be terminations.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
4.1.16	4.1.16 Solderability		The object detail a un determinin The test pr utilizes the intended to solder eve	t of this test procedure is iform test method for ig USB connector solder rocedure contained here a solder dip technique. It o test or evaluate solder let, other hand-soldered	to ability. in is not cup, type	USB contact sol coverage after 8 Note: If lead free solder temperat	der tails sh 3-hour stea e solder is ure is 245 <u>-</u>	all pass 95% m age. required, ±5⁰ C .
•			EIA 364-5	2				
4.1.15 Mixed Flowing Gas		is monitore for controll specified g mixture. T used and t Test durat	ed by a gas analyzing sy led concentrations of the gas Test coupons shall also b the weight gain reported. ion is 7 days.	stem e	Flowing Gas tes terminals more t gold flash over 3	t. (Only for han 30micro 0microinch	gold-plated pinch gold or PbNi )	
			EIA 364-6 Samples s Environme chamber' f	5,Class II A should be placed in an entally controlled 'test that		Low level contac spec before and	ct resistand after the N	e meets /ixed
4.1.14	She	ock	10 Cycles	–55°C and +85°C.		spec before and Shock test	d after the	ce meets Thermal
	<b>T</b> 1.		EIA 364-3	2, Test Condition I		No evidence of	any physic	al damage.
4.1.13	Cyo Ter and	clic nperature d Humidity	Cycle the ±3 °C at a ±3 °C at a should be should be when the have stat levels. Pe	connector between 25 °C 80 % $\pm$ 3% RH and 65 °C 50 % $\pm$ 3% RH. Ramp time 0.5 hour and dwell times s temperature and humid bilized within the specifie erform 24 such cycles.	C nes es tart ity d	Low level conta spec before and Temperature a	ict resistan d after the nd Humidity	ce meets Cyclic ⁄ test.
			EIA 364-3	1				



### C Current Rating Test

The current rating testing for the Type-C connector (plug and receptacle) shall be conducted per the following set up and procedures:

• A current of 5 A shall be applied collectively to VBUS pins (i.e., pins A4, A9, B4, and B9) and 1.25 A shall be applied to the VCONN pin (i.e., B5) as applicable, terminated through the corresponding GND pins (i.e., pins A1, A12, B1, and B12). A minimum current of 0.25 A shall also be applied individually to all the other contacts, as applicable. When current is applied to the contacts, the temperature of the connector pair shall be allowed to stabilize. The temperature rise of the outside shell surface of the mated pair above the VBUS and GND contacts shall not exceed 30<sup>o</sup>C above the ambient temperature. Figure C-1 provides an illustration of the measurement location.

• The measurement shall be done in still air.

• The connectors shall be oriented such that the accessible outer shell surface is on top and horizontal to the ground.

• The plug and receptacle may require modification to access solder tails or cable attachment points.

• Either thermocouple or thermo-imaging (preferred) method may be used for temperature measurement.

• For certification, the connector manufacturer shall provide the receptacle and plug samples under test mounted on a current rating test PCB with no copper planes. The current rating test PCBs shall be of 2-layer construction. Table C-1 defines the requirements for the test PCB thickness and traces. The trace length applies to each PCB (receptacle PCB and plug PCB) and is from the contact terminal to the current source tie point. Figure C-2 provides an informative partial trace illustration of the current rating test PCB.



Figure C-4 Temperature Measurement Point

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Item	Trace width (mm)	Trace length (mm) on each PCB	Thickness
Signal trace	0.25 max.	13 max.	35 µm (1 oz. copper)
Ground trace	1.57 max.	38 max.	35 µm (1 oz. copper)
$V_{\mbox{\scriptsize BUS}}$ and $V_{\mbox{\scriptsize CONN}}$	1.25 max.	30 max.	35 µm (1 oz. copper)
РСВ	N/A	N/A	0.80 – 1.20 mm







#### Figure C-2 Example Current Rating Test Fixture Trace Configuration

### D 4-Axis Continuity Test

The USB Type-C connector family shall be tested for continuity under stress using a test fixture shown in Figure D-2 or equivalent.

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#### Figure D-1. Example of 4-AxIs Continuity Test Fixture

Plugs shall be supplied with a representative overmold or mounted on a 2-layer printed circuit board (PCB) between 0.8 mm and 1.0 mm thickness as applicable. A USB Type-C receptacle shall be mounted on a 2-layer PCB between 0.8 mm and 1.0 mm thickness. The PCB shall be clamped on three sides of the receptacle no further than 5 mm away from the receptacle outline. The receptacle PCB shall initially be placed in a horizontal plane, and a perpendicular moment shall be applied to the plug with a 5 mm ball tipped probe for a period of at least 10 seconds at a distance of 15 mm from the mating edge of the receptacle shell in a downward direction, perpendicular to the axis of insertion. See Table D-1 for the force and moment to be applied.

Table D-1	Force and	Moment	Requirements
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Receptacle configuration with respect to mounting surface	Force at 15 mm from receptacle shell mating edge (N)	Moment with respect to receptacle shell mating edge (Nm)
Right angle	20	0.30
Vertical	8	0.12

The continuity across each contact shall be measured throughout the application of the tensile force. Each non-ground contact shall also be tested to confirm that it does not short to the shell during the stresses. The PCB shall then be rotated 90 degrees such that the cable is still inserted horizontally and the tensile force in Table D-1 shall be applied again in the downward direction and continuity measured as before. This test is repeated for 180 degree and 270 degree rotations. Passing parts shall not exhibit any discontinuities or shorting to the shell greater than 1 µs duration in any of the four orientations.

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One method for measuring the continuity through the contacts is to short all the wires at the end of the cable pigtail and apply a voltage through a pull-up to each of VBUS, USB D+, USB D-, SBU, CC, and USB SuperSpeed pins, with the GND pins connected to ground. Alternate methods are allowed to verify continuity through all pins.

### E Wrenching Strength Test

Type-C plugs shall be tested using the mechanical wrenching test fixture, as illustrated in Figure E-2. The fixture substitutes machined metal parts for the receptacle. Perpendicular moments are applied to the plug with a 5 mm ball tipped probe for a period of at least 10 seconds when inserted in the test fixture to achieve the defined moments in four directions of up or down (i.e., perpendicular to the long axis of the plug opening) and left or right (i.e., in the plane of the plug opening). Compliant connectors shall meet the following force thresholds:

- a) A moment of 0-0.75 Nm (e.g., 50 N at 15 mm from the edge of the receptacle) is applied to a plug inserted in the test fixture in each of the four directions. A single plug shall be used for this test. Some mechanical deformation may occur. The plug shall be mated with the continuity test fixture after the test forces have been applied to verify no damage has occurred that causes discontinuity or shorting. The continuity test fixture shall provide a planar surface on the mating side located 6.20 ± 0.20 mm from the receptacle Datum A, perpendicular to the direction of insertion. No moment forces are applied to the plug during this continuity test. Figure E-3 illustrates an example continuity test fixture to perform the continuity test. The Dielectric Withstanding Voltage test shall be conducted after the continuity test to verify plug compliance.
- b) The plug shall disengage from the test fixture or demonstrate mechanical failure (i.e., the force applied during the test procedure peaks and drops off) when a moment of 2.0 Nm is applied to the plug in the up and down directions and a moment 3.5 Nm is applied to the plug in the left and right directions. A new plug is required for each of the four test directions. An example of the mechanical failure point is shown in Figure E4.

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5	Reseating	Manually unplug/plug the connector or socket. Perform 3 such cycles.	No evidence of physical damage
6	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max

### Group A-2

Test order	Description	Test procedure	Test criteria			
1	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	40 milliohms max for all contacts. Baseline measurement.			
2	Durability (PRECONDITIONING)	EIA-364-09 Perform 50 unplug/plug cycles.	No evidence of physical damage			
3	Thermal shock	EIA-364-32, test condition I 10 cycles with the exception of exposure times. Place a thermocouple in the center of the largest mass component of the connector that is in the center of the test chamber to insure that the contacts reach the temperature extremes before ramping to the other temperature.	None.			
4	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max for all contacts.			
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5	Cyclic temperature and humidity	EIA-364-31 Cycle the connector between 25 °C $\pm$ 3 °C at 80 % $\pm$ 3% RH and 65 °C $\pm$ 3 °C at 50 % $\pm$ 3% RH. Ramp times should be 0.5 hour and dwell times should be 1.0 hour. Dwell times start when the temperature and humidity have stabilized within the specified levels. Perform 24 such cycles.	None.				
6	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max				
7	Reseating	Manually unplug/plug the connector or socket. Perform 3 such cycles.	No evidence of physical damage				
8	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max				

### **GROUP A-3**

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Test		Description	Test procedure		Те	est criteria	
order							
1		LLCR	EIA-364-23 The measurement is made a the plug and receptacle mate contacts and does not includ internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	across ed le any	40 milliohms max for all contacts. Baseline measurement.		
2	(PR	Durability ECONDITIONING)	EIA-364-09 Perform 50 unplug/plug cyc	les.	No evidence of physical damage		al damage
3		Temperature life (preconditioning)	EIA-364-17, method A 105° C without applied volta	age	None.		
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		for 72 hours when used as preconditioning.	
4	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max
5	Vibration	<ul> <li>EIA-364-28, test condition VII, test condition letter D.</li> <li>15 minutes in each of 3 mutually perpendicular directions. Both mating halves should be rigidly fixed so as not to contribute to the relative motion of one contact against another. The method of fixturing should be detailed in the test report.</li> </ul>	No evidence of physical damage. No discontinuities of 1 µS or longer duration when mated connector during test.
6	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max

Group A-4

Test	Description	Test procedure		Те	est criteria	
order						
1	LLCR	EIA-364-23 The measurement is made the plug and receptacle ma contacts and does not inclu internal paddle cards or substrates of the plug or receptacle. See Figure 4-1	across ited ide any	40 milliohms Baseline	max for al e measure	l contacts. ment.
2	Durability (PRECONDITIONING)	EIA-364-09 Perform 50 unplug/plug cy	cles.	No evidence	e of physica	al damage
3	Temperature life (preconditioning)	EIA-364-17, method A 105° C without applied vol for 72 hours when used a preconditioning.	ltage as	None.		
4	LLCR	EIA-364-23 The measurement is made the plug and receptacle ma	IA-364-23 50 milliohms max he measurement is made across he plug and receptacle mated			ax
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		contacts and does not includ internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	de any			
5	Mixed flowing gas	EIA 364-65,Class II A Samples should be placed in environmentally controlled 't chamber' that is monitored b gas analyzing system for controlled concentrations of specified gas mixture. Test coupons shall also be used the weight gain reported. Test duration is 7 days.	n an test by a the and	Low level con spec before and	tact resista I after the r gas test.	ance meets mixed flowing
6	LLCR	EIA-364-23 The measurement is made a the plug and receptacle mat contacts and does not includ internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	across ted de any	50 m	illiohms m	ax
7	Thermal disturbance	Cycle the connector or sock between 15 °C $\pm$ 3 °C and 85 3 °C, as measured on the pa Ramps should be a minimur 2 °C per minute, and dwell t should insure that the conta reach the temperature extre (a minimum of 5 minutes). Humidity is not controlled. P 10 such cycles.	cet 5 °C ± art. m of imes icts emes Perform		None.	
8	LLCR	EIA-364-23 The measurement is made a the plug and receptacle mat contacts and does not includ internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	across ted de any	s 50 milliohms max		ax
9	Reseating	Manually unplug/plug the connector or socket. Perform 3 No evidence of physical dam such cycles.		lamage		
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10	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max

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Test order	Description	Test procedure		Te	est criteria	
1	Dielectric Withstanding Voltage	EIA 364-20 100VAC(RMS)		No disruptive discharge.		
2	LLCR	EIA-364-23 The measurement is made the plug and receptacle ma contacts and does not inclu internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	across ted ide any	40 milliohms max for all contacts. Baseline measurement.		
3	Durability (PRECONDITIONING)	EIA-364-09 Perform 4 unplug/plug cycl followed by an unplug.	es,	No evidence of physical damage		
4	Insertion force	EIA 364-13 Perform the measurement maximum speed of 12.5 (0.492") per minute.	: at a mm	Within the range of 5 N to 20 N.		
5	Extraction force	EIA 364-13 Perform the measurement maximum speed of 12.5 (0.492") per minute.	: at a mm	Within the range of 8 N to 20 N. Initial reading		
6	Durability	EIA 364-9 Perform 25 plug/unplug cy Cycle rate of –500 ± 50 c per hour followed by a p	vcles. Sycles lug.	No evidence of physical damage		
7	Extraction force	EIA 364-13 Perform the measurement maximum speed of 12.5 (0.492") per minute.	at a mm	Within: a) 33% of the initial reading, and b) B) 8 N to 20 N		ling, and
8	Durability	EIA 364-9 Perform 2,468 plug/unplug cycles. Rotate the recept or plug 180 <sup>0</sup> and perform	) acle	No evidence of physical damage		lamage
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Α	<u>EC No:</u> 102278	USB TYPE C PL	USB TYPE C PLUG CO		<b>I7</b> of <b>19</b>	
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		2,500 plug/unplug cycles. Rotate the receptacle or plug 180 <sup>o</sup> and perform 2,500 plug/unplug cycles. Rotate the receptacle or plug 180 <sup>o</sup> and perform 2,500 plug/unplug cycles. Cycle rate of 500 ± 50 cycles per hour (total of 10,000 plug/unplug cycles, flipping	
9	Extraction force	every 2,500 cycles). EIA 364-13 Perform the measurement at a maximum speed of 12.5 mm (0.492") per minute.	Within 6 N to 20 N.
10	LLCR	EIA-364-23 The measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. See Figure 4-1.	50 milliohms max
11	Dielectric Withstanding Voltage	EIA 364-20 100VAC(RMS)	No disruptive discharge.
12	Insulation Resistance	EIA 364-21. Applicable to both receptacle and plug.	A minimum of $100 \text{ M}\Omega$ insulation resistance is required between adjacent contacts of unmated and mated connectors
Group E	3-1		
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Test order	Description	Test procedure	Test criteria
1	4-Axis Continuity	See Appendix D for detailed test fixture and procedures.	No discontinuities greater than 1 microsecond duration in any of the four orientations tested.

Group B-6

Test order	Description	Test procedure	Test criteria
2	Contact Current Rating	See Appendix C	When current is applied to the contacts, the temperature rise shall not exceed 30°C at the outside surface of the shell. This requirement applies to the USB Type-C connector mated pair only.

### Group B-7

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Test order W	Description	Test procedure Perpendicular forces are applied to the plug in four directions (i.e.	Test criteria The plug shall be mated with the
order W	/renching Strength	Perpendicular forces are applied	The plug shall be mated with the
1 W	/renching Strength	Perpendicular forces are applied	The plug shall be mated with the
1		left, right, up, and down).	continuity test fixture after the test forces have been applied to verify no damage has occurred that causes
		A metal fixture with opening and tongue representative of a receptacle shall be used. See Appendix E.	discontinuity or shorting.
2	Continuity	See Appendix E.	No discontinuities or shorts allowed.
3 Die	electric withstanding voltage	EIA364-20 Mated, 100 VAC (RMS)	No disruptive discharge
4 4	/renching Strength	Perpendicular forces are applied to the plug in four directions (i.e., left, right, up, and down). A metal fixture with opening and tongue representative of a receptacle shall be used. See Appendix F	The plug shall disengage from the test fixture or mechanically fail (as defined in Appendix E) when a moment of 2.0 Nm is applied in the up and down directions and a moment 3.5 Nm is applied in the left and right directions.

### Group C-1

	-		
Test order	Description	Test procedure	Test criteria
1	Examination	Visual inspection;	No physical damage
2	Solderability	USB contact solder tails shall pass 95% coverage after 8-hour steam age.	The welding area is greater than 95% response rate.
3	Examination	Visual inspection;	No physical damage

### Group C-2

Test order	Description	Test procedure	Test criteria			
1	Examination	Visual inspection;	No physical damage			
2	Salt Spray	Subject mated connectors to two cycles(24h) at 35°C with 5%-Salt-solution concentration.	No physical damage			
3	Examination	Visual inspection;	No physical damage			

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