

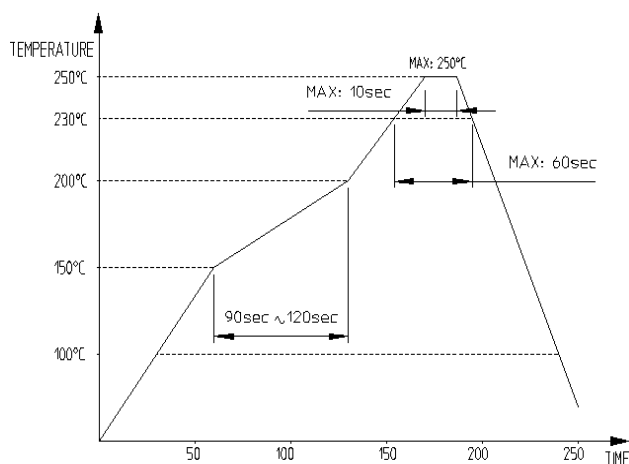


Jun.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

REV	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	REV	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△						△					
△						△					
APPLICABLE STANDARD			Universal Serial Bus Type-C Cable and Connector Specification Release 2.1								
RATING	CURRENT		1.5A DC Max. for each power pin (A1, A4, A9, A12, B1, B4, B5, B9, B12) 0.25A DC for the other pins								
	VOLTAGE		20V AC/DC								
OPERATING CONDITION			-40℃ ~ +105℃ (Including Temp. rise), 95% RH Max. (Non-condensing)								
STORAGE CONDITION			-10℃ ~ +60℃ (With packing), 15% ~ 70% RH								
Para.	Test Description		Test Procedure			Test Requirement			QT	AT	
1	Examination of product		EIA 364-18 Visual inspection			No physical damage.			O	O	
Electrical Requirements											
2	Low Level Contact Resistance		EIA 364-23 Measure at 20mV max open circuit at 100mA max. (DC or 1000Hz) 4-wire measurement is required and the resistance of PCB termination shall be deducted from the reading.			Initial : 40mΩ max After test : 50mΩ max			O	-	
3	Dielectric Withstanding Voltage		EIA 364-20 Measure per Method B with unmated condition. 100V AC RMS for 1 minute at sea level.			No disruptive discharge.			O	-	
4	Insulation Resistance		EIA 364-21 500V DC with unmated and mated condition.			100MΩ min.			O	-	
Mechanical Requirements											
5	Insertion force		EIA 364-13 Measure at 12.5mm/minute min.			Initial & after test : 5N ~ 20N			O	-	
6	Extraction force		EIA 364-13 Measure at 12.5mm/minute min.			Initial : 8N ~ 20N After test : 6N ~ 20N (with virgin plug)			O	-	
7	Durability		EIA 364-09 Mated 10,000 times Mechanically operated : 500cycles/hr Mating stroke : 2.75mm Insertion, extraction force shall be measured at a maximum speed of 12.5mm/min			No physical damage.			O	-	
8	Random Vibration		EIA 364-28 Test Condition VII, Test Letter D Mated specimens to 3.10 G's RMS between 20 to 500Hz 15 minutes in each of 3 mutually perpendicular planes.			① No physical damage. ② No discontinuity of 1μs of longer duration when mated connector during test.			O	-	
REMARKS				DRAFT	DESIGN	CHECK	APPROVAL	RELEASE			
Unless otherwise specified, refer to the specifications for USB Type-C, EIA 364				Y.B.PARK 21.08.05	Y.B.PARK 21.08.05	H.J.LEE 21.08.05	H.J.LEE 21.08.05				
NOTE) QT : QUALIFICATION TEST, AT : ASSURANCE TEST, O : Applicable Test											
DWG NO			CL NO			PART NO					
ELC4-633145-00			CL 6249-0002-9-000			CX90MW6-16P					
						PRODUCT SPECIFICATION				1 / 3	

Para.	Test Description	Test Procedure	Test Requirement	QT	AT
Environmental Requirements					
9	Temperature Life	EIA 364-17, Method A 105°C without applied voltage for 120 hours.	No physical damage.	O	-
10	Cyclic Temperature and Humidity	EIA 364-31 25±3°C at 80±3% RH for 1 hour. 65±3°C at 50±3% RH for 1 hour. Thermal ramp : 0.5 hour Number of cycles : 24 cycles	No physical damage.	O	-
11	Thermal Shock	EIA 364-32 10 cycles -55°C and +105°C	No physical damage.	O	-
12	Solderability	EIA 364-52 Dwell in 245±5°C of the solder bath for 5 sec.	Solder coverage shall be 95% min. of the immersed surfaces.	O	-
13	Salt Spray	EIA 364-26 5% of NaCl in 35°C for 48 hours.	No corrosions that affect to the connector operation.	O	-
14	Co-Planarity	Measure Co-planarity of each contact lead.	① 0.08 Max before reflow. ② 0.10 Max after reflow 2times.	O	-
15	IPX8	Immersion in the water at the depth of 1.5m for 30min	No water leakage.	O	-
16	Temperature Rise	IEC60529, EIA-364-70, method B : A current of 6.0 A shall be applied collectively to VBUS pins (i.e., pins A4, A9, B4, and B9) and 1.5 A applied to the Vconn pin (i.e., B5 of the plug connector) with the return path 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.	Temperature rise shall not exceed 30°C	O	-
17	Reflow Heat	Reflow profile [Fig.1] Peak 250°C max for 10 sec 2 times.	① No deformation of mold ② No shape of blister and popcorn	O	-

REMARKS



[Fig.1] REFLOW TEMPERATURE

NOTE) QT : QUALIFICATION TEST, AT : ASSURANCE TEST, O : Applicable Test

DWG NO ELC4-633145-00	CL NO CL 6249-0002-9-000	PART NO CX90MW6-16P
---------------------------------	------------------------------------	-------------------------------

Jun.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

Qualification Test Sequence Table

Para.	Test Description	Test Group									
		A	B	C	D	E	F	G	H	I	J
1	Examination of product	1, 6	1, 14	1, 6	1, 6	1, 6	1, 3	1, 6	1, 4	1, 4	1, 4
2	Low Level Contact Resistance	3, 5	3, 13	3, 5	3, 5	3, 5		3, 5			
3	Dielectric Withstanding Voltage		4, 12								
4	Insulation Resistance		5, 11								
5	Insertion force		6, 10								
6	Extraction force		7, 9								
7	Durability		8								
8	Random Vibration	4									
9	Temperature Life			4							
10	Cyclic Temperature and Humidity				4						
11	Thermal Shock					4					
12	Solderability						2				
13	Salt Spray							4			
14	Co-planarity								3		
15	IPX8									3	
16	Temperature Rise										3
17	Reflow Heat	2	2	2	2	2		2	2	2	2

REMARKS

1) Numbers in the table above indicate the sequence corresponding to each test group.

NOTE) QT : QUALIFICATION TEST, AT : ASSURANCE TEST, O : Applicable Test

DWG NO ELC4-633145-00	CL NO CL 6249-0002-9-000	PART NO CX90MW6-16P
---------------------------------	------------------------------------	-------------------------------



HIROSE KOREA.CO.,LTD

PRODUCT SPECIFICATION