REV	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	REV	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
1	–	Revised	LSH	LHJ	18.03.30						
2	–	Revised	LSH	LHJ	18.04.09						

APPLICABLE STANDARD		USB Type-C Cable and Connector Specification Release 1.3
RATING	CURRENT	DC 1.50A max. for Vbus & GND (i.e. A1, A4, A9, A12, B1, B4, B5, B9, B12) DC 0.25A for the other pins
	VOLTAGE	20V AC
OPERATING CONDITION		-40℃ ~ +85℃ (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 20 mV max open circuit at 100 mA (DC OR 1000 Hz). 4-wire measurement is required and the resistance of PCB termination shall be deducted from the reading.	Initial : 40mΩ max for each contact After test : 50mΩ max for each contact	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 12.5 mm/minute min.	Initial & after test : 5N ~ 20N	O	-
6	Extraction force	EIA 364-13 Measure at 12.5 mm/minute min.	Initial : 8N ~ 20N After test : 6N ~ 20N (with virgin plug)	O	-
7	Durability	EIA 364-09 Mated 10,000 times Mechanically operated : 500 cycles/hr Mating stroke : 2.75 mm Insertion, extraction force shall be measured at a maximum speed of 12.5 mm/min	① No physical damage. ② Insertion force - Initial & after test : 5N ~ 20N ③ Extraction force - Initial : 8N ~ 20N - After test : 6N ~ 20N (with virgin plug)	O	-
8	Random Vibration	EIA 364-28 Test Condition VII, Test Letter D Mated specimens to 3.10 G's RMS between 20 to 500 Hz 15 minutes in each of 3 mutually perpendicular planes.	① No physical damage. ② No discontinuity of 1us of longer duration when mated connector during test.	O	-

REMARKS	DRAFT	DESIGN	CHECK	APPROVAL	RELEASE
Unless otherwise specified refer to the specification for USB Type-C, EIA364	S.Y.PARK 17.11.14	S.Y.PARK 17.11.14	H.J.LEE 17.11.14	TS.KANG 17.11.14	

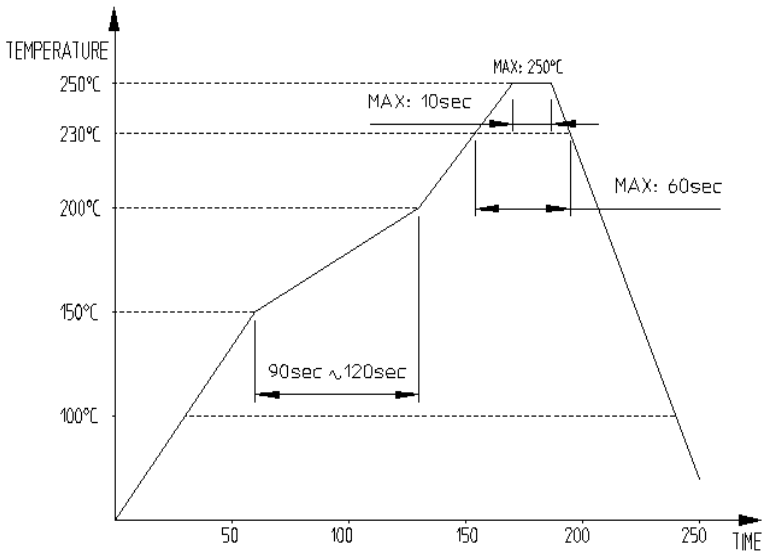
NOTE) QT : QUALIFICATION TEST, AT : ASSURANCE TEST, O : Applicable Test

DWG NO	CL NO	PART NO
ELC4-632317	CL 6240-0008-8	CX90M-16P

HRS HIROSE KOREA.CO.,LTD	PRODUCT SPECIFICATION	1 / 3

Para.	Test Description	Test Procedure	Test Requirement	QT	AT
Environmental Requirements					
9	Temperature Life	EIA 364-17, Method A 105 ℃ 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, Test Condition I 10 cycles -55 °C and +85 °C	No physical damage.	O	-
12	Solderability	EIA 364-52 Dwell in 245±5 ℃ 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 ℃ for 48 hours.	No corrosions that affect to the connector operation.	O	-
14	Reflow test	Reflow profile [Fig.1] Peak 250 °C max for 10 sec 2 times.	① Co-planarity Before & after Reflow 0.1 max. ② No deformation of mold ③ No shape of blister and popcorn	O	-

REMARKS



[Fig.1] REFLOW TEMPERATURE

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

DWG NO	CL NO	PART NO
ELC4-632317	CL 6240-0008-8	CX90M-16P

Qualification Test Sequence Table

Para.	Test Description	Test Group							
		A	B	C	D	E	F	G	H
1	Examination of product	1	1	1	1	1	1	1	1
2	Low Level Contact Resistance	2, 4	2, 10	2, 4	2, 4	2, 4		2, 4	
3	Dielectric Withstanding Voltage		3, 11						
4	Insulation Resistance		4, 12						
5	Insertion force		5, 8						
6	Extraction force		6, 9						
7	Durability		7						
8	Random Vibration	3							
9	Temperature Life			3					
10	Cyclic Temperature and Humidity				3				
11	Thermal Shock					3			
12	Solderability						2		
13	Salt Spray							3	
14	Reflow Test								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	CL NO	PART NO
ELC4-632317	CL 6240-0008-8	CX90M-16P