


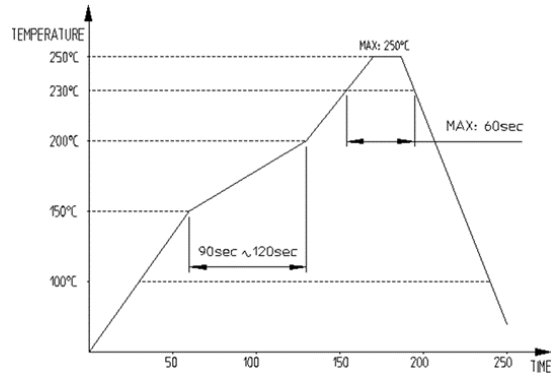
Rev.	Count	Description of rev.	BY	CHKD	Date	Rev.	Count	Description of rev.	BY	CHKD	Date
△0	-	Initial release	KYJ	LHJ	22.12.16						
Applicable standard		Universal Serial Bus Type-C Cable and Connector Specification Release 2.2 Universal Serial Bus Type-C Connectors and Cable Assemblies Compliance Document Revision 2.1b									
Rating	Voltage	48V AC/DC									
	Current	1.25A max. for each power pin (i.e., A1, A4, A9, A12, B1, B4, B9, B12)									
		1.25A max. for Vcon pin (i.e., B5) 0.25A max. for the others.									
Operating condition		-40℃~+105℃(Including temp. rise), 95% RH max.(Non-condensing)									
Storage condition		-10℃~+60℃(With packing), 15%~70% RH									

SPECIFICATIONS						
No	TEST ITEM	TEST METHOD	TEST REQUIREMENT	Q T	A T	
CONSTRUCTION						
1	General Examination	EIA 364-18 Visual inspection	No physical damage	O	O	
ELECTRICAL CHARACTERISTICS						
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 CHARACTERISTICS						
5	Insertion force	EIA 364-13 Measure at 12.5mm/minute min. (Perform 4 unplug / plug cycles, followed by un plug)	Initial : 5N ~ 20N After test : 5N~20N (with virgin plug)	O	-	
6	Extraction force	EIA 364-13 Measure at 12.5mm/minute min. (Perform 4 unplug / plug cycles, followed by un plug)	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	-	


Remarks	Drawn	Designed	Checked	Approved	Release
	S.K.JANG 21.11.17	S.K.JANG 21.11.17	H.J.LEE 21.11.17	H.J.LEE 21.11.17	<div>DEPT 22.12.22 ENG</div>
[Note] QT : Qualification test, AT : Assurance test, O : Applicable, - : Not applicable					
Drawing No.	CL No.		Part No.		
ELC4-633514	CL 6248-0001-0		CX90M3-24P		
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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.	No physical damage. No discontinuity of 1μs of longer duration when mated connector during test.	O	-
ENVIRONMENTAL CHARACTERISTICS					
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, Test Condition I 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 Sample Condition : Reflow Soldered on PCB 5% of NaCl in 35°C for 48 hours.	No corrosions that affect to the connector operation.	O	-
14	Mixed Flowing Gas	EIA 364-65 Measure Environment 30°C/70%RH CL ₂ 10±3ppb, NO ₂ 200±50ppb, H ₂ S 10±5ppb, SO ₂ 100±20ppb Expose half of sample mated for 1/3 days and then unmated for 2/3 days .The others are exposed mated for full 7 days test period.	No corrosions that affect to the connector operation.	O	-
15	Temperature Rise	EIA-364-70, method B A current of 5.0 A shall be applied collectively to VBUS pins (i.e., pins A4, A9, B4, and B9) and 1.25 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	-
16	Reflow heat	Reflow profile [Fig.1] Peak 250°C max for 10 sec 2 times.	No deformation of mold No blister and popcorn	O	

REMARKS




[Fig.1] REFLOW TEMPERATURE

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ELC4-633514		CL 6248-0001-0		CX90M3-24P	
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Test Sequence Table									
No	Test item	Test Group							
		A	B	C	D	E	F	G	H
1	Examination of product	1, 6	1, 8	1, 7	1, 7	1, 14	1, 3	1, 6	1, 6
2	Low Level Contact Resistance	3, 5	3, 5, 7	3, 4, 6	3, 4, 6	5, 13		3, 5	3, 5
3	Dielectric Withstanding Voltage					4, 12			
4	Insulation Resistance					3, 11			
5	Insertion force					6, 10			
6	Extraction force					7, 9			
7	Durability					8			
8	Random Vibration			5					
9	Temperature Life	4							
10	Cyclic Temperature and Humidity		6						
11	Thermal Shock		4						
12	Solderability						2		
13	Salt Spray							4	
14	Mixed Flowing Gas				5				
15	Temperature Rise								4
16	Reflow Heat	2	2	2	2	2		2	2

REMARKS

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

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Drawing No. ELC4-633514			CL No. CL 6248-0001-0			Part No. CX90M3-24P			
 HIROSE KOERA.CO.,LTD					PRODUCT SPECIFICATION				3/3