REV	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	REV	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
4	–	Revised	HJ.KIM	HJ.LEE	18.03.06	6	–	Revised	YI.KIM	HJ.LEE	21.12.15
5	–	Revised	YG.KIM	HJ.LEE	21.08.23		–				

APPLICABLE STANDARD		Universal Serial Bus Type-C Cable and Connector Specification Release 2.1 Universal Serial Bus Type-C Connectors and Cable Assemblies Compliance Document Revision 2.1b
RATING	CURRENT	1.25A Max. for each power pin (A1, A4, A9, A12, B1, B4, B5, B9, B12) 0.25A for the other pins
	VOLTAGE	48V 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(DC OR 1000Hz). 4-wire measurement is required and the resistance of PCB termination shall be deducted from the reading.	40mΩ max initial for each contact. 50mΩ max after initial measurement.	O	–
3	Dielectric Withstanding Voltage	EIA 364-20 Measure per Method B with unmated condition. 100VAC RMS for 1 minute at sea level.	No disruptive discharge.	O	–
4	Insulation Resistance	EIA 364-21 500VDC 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 to 20N (with virgin plug)	O	–
6	Extraction force	EIA 364-13 Measure at 12.5mm/minute min.	Initial : 8N to 20N After test : 6N to 20N (with virgin plug)	O	–
7	Durability	EIA 364-09 10,000 insertion/extration cycles. Cycle rate : 500±50 cycles per hour.	Low level contact resistance and dielectric withstanding voltage shall meet the spec after test.	O	–
8	Vibration	EIA 364-28 Test Condition VII, Test Letter D 20-500 Hz random levels, 15minutes in each of 3 mutually perpendicular directions.	No physical damage and no discontinuity longer than 1us. Low level contact resistance shall meet spec before and after the test.	O	–

REMARKS	DRAFT	DESIGN	CHECK	APPROVAL	RELEASE
	H.J.KIM 16.08.03	KN.ICHIKAWA 16.08.03	H.J.LEE 16.08.03	T.S.KANG 16.08.03	DEPT 21.12.15 ENG

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

DWG NO	CL NO	PART NO
ELC4-632149	CL 6240-0004-7	CX90B1-24P

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

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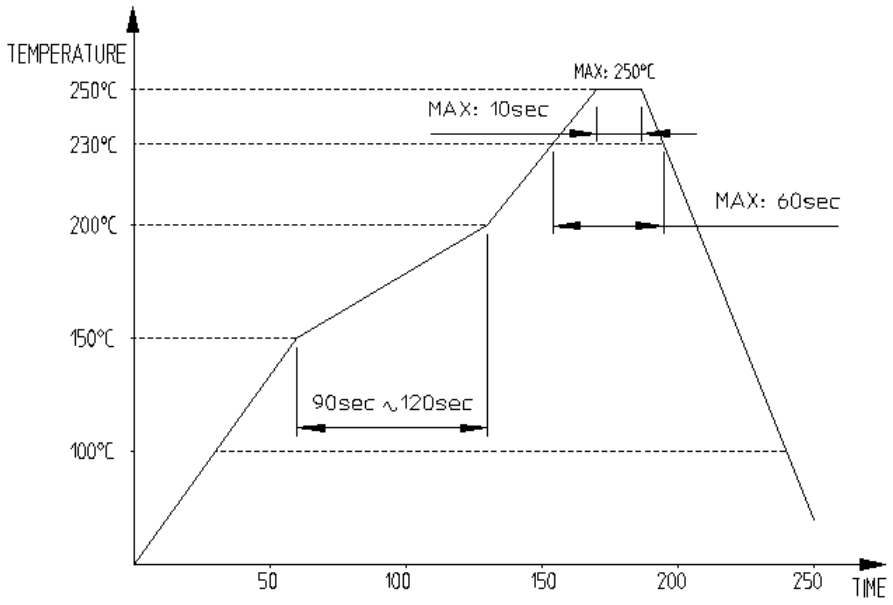
Para.	Test Description	Test Procedure	Test Requirement	QT	AT
Environmental Requirements					
9	Temperature Life	EIA 364-17, Method A 105℃ without applied voltage for 120hours.	Low level contact resistance shall meet spec before and after the test.	O	-
10	Cyclic Temperature and Humidity	EIA 364-31 25±3°C 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	Low level contact resistance shall meet spec before and after the test.	O	-
11	Thermal Shock	EIA 364-32, Test Condition I 10cycles -55°C and +105°C	No physical damage. Low level contact resistance shall meet spec before and after the test.	O	-
12	Solderability	EIA 364-52 Dwell in 245℃±5℃ of the solder bath for 5sec.	Solder coverage shall be 95% min.of the immersed surfaces.	O	-
13	Salt Spray	EIA 364-26 5% of NaCl in 35℃ for 48hours	No corrosions that affect to connector operation. Low level contact resistance shall meet spec before and after the test.	O	-
14	Reflow test (Co-planarity)	Reflow profile[Fig1] Peak 250°C max. For 10 sec 2 times.	0.1max before reflow 0.1max after reflow No deformation of mold No shape of blister and popcorn	O	-

REMARKS



[Fig1]. REFLOW TEMPERATURE

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

DWG NO	CL NO	PART NO
ELC4-632149	CL 6240-0004-7	CX90B1-24P

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Qualification Test Sequence Table

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

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
ELC4-632149	CL 6240-0004-7	CX90B1-24P