| REV | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | REV | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | – | Revised | KYI | LHJ | 21.12.15 | | | | | | |
| | | | | | | | | | | | |

| | | |
|---|---|---|
| APPLICABLE STANDARD | | Universal Serial Bus Type-C Cable and Connector Specification Release 2.1<br>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)<br>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<br>Visual inspection | No physical damage. | O | O |
| Electrical Requirements | | | | | |
| 2 | Low Level Contact Resistance | EIA 364-23<br>Measure at 20mV max open circuit at 100mA (DC OR 1000Hz).<br>4-wire measurement is required and the resistance of PCB termination shall be deducted from the reading. | Initial : 40mΩ max for each contact<br>After test : 50mΩ max for each contact | O | – |
| 3 | Dielectric Withstanding Voltage | EIA 364-20<br>Measure per Method B with unmated condition.<br>100V AC RMS for 1 minute at sea level. | No disruptive discharge. | O | – |
| 4 | Insulation Resistance | EIA 364-21<br>500V DC with unmated and mated condition. | 100MΩ min. | O | – |
| Mechanical Requirements | | | | | |
| 5 | Insertion force | EIA 364-13<br>Measure at 12.5mm/minute min. | Initial & after test : 5N ~ 20N<br>(with virgin plug) | O | – |
| 6 | Extraction force | EIA 364-13<br>Measure at 12.5mm/minute min. | Initial : 8N ~ 20N<br>After test : 6N ~ 20N (with virgin plug) | O | – |
| 7 | Durability | EIA 364-09<br>Mated 10,000 times<br>Mechanically operated : 500cycles/hr<br>Mating stroke : 2.75mm<br>Insertion, extraction force shall be measured at a maximum speed of 12.5mm/min | No physical damage. | O | – |
| 8 | Random Vibration | EIA 364-28<br>Test Condition VII, Test Letter D<br>Mated specimens to 3.10 G's RMS between 20 to 500Hz<br>15 minutes in each of 3 mutually perpendicular planes. | No physical damage.<br><br>No discontinuity of 1μs of longer duration when mated connector during test. | O | – |

| REMARKS | DRAFT | DESIGN | CHECK | APPROVAL | RELEASE |
|---|---|---|---|---|---|
| | J.H.BOO<br>17.06.07 | H.J.KIM<br>17.06.07 | H.J.LEE<br>17.06.07 | T.S.KANG<br>17.06.07 | DEPT<br>21.12.15<br>ENG |

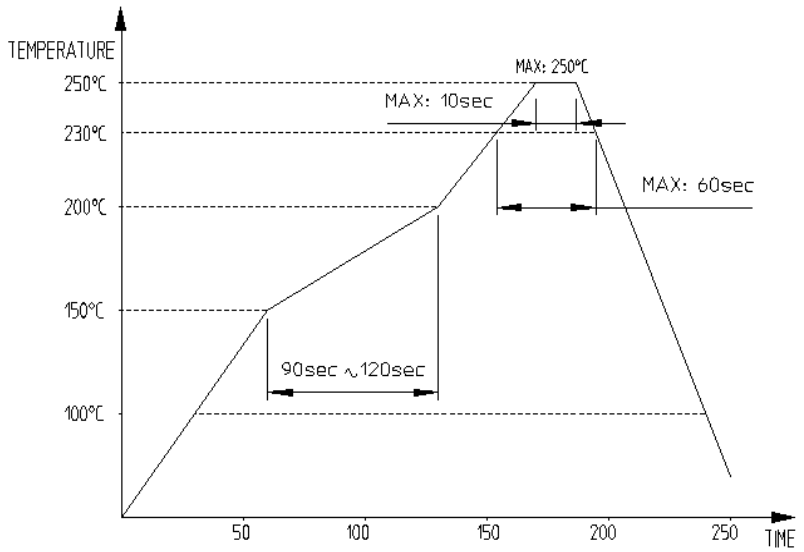
NOTE) QT : QUALIFICATION TEST, AT : ASSURANCE TEST, O : Applicable Test

| DWG NO | CL NO | PART NO |
|---|---|---|
| ELC4-632525 | CL 6240-0005-0 | CX80B1-24P |

| | | |
|---|---|---|
| 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<br>105℃ without applied voltage<br>for 120 hours. | No physical damage. | O | - |
| 10 | Cyclic Temperature and Humidity | EIA 364-31<br>25±3°C at 80±3% RH for 1 hour.<br>65±3°C at 50±3% RH for 1 hour.<br>Thermal ramp : 0.5 hour<br>Number of cycles : 24 cycles | No physical damage. | O | - |
| 11 | Thermal Shock | EIA 364-32, Test Condition I<br>10 cycles -55°C and +105°C | No physical damage. | O | - |
| 12 | Solderability | EIA 364-52<br>Dwell in 245±5℃ of the solder bath<br>for 5 sec. | Solder coverage shall be 95%<br>min. of the immersed surfaces. | O | - |
| 13 | Salt Spray | EIA 364-26<br>5% of NaCl in 35℃ for 48 hours. | No corrosions that affect<br>to the connector operation. | O | - |
| 14 | Reflow test | Reflow profile [Fig.1]<br>Peak 250°C max for 10 sec 2 times. | Co-planarity<br>Before & after Reflow 0.10 max.<br><br>No deformation of mold<br>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 |
|---|---|---|
| ELC4-632525 | CL 6240-0005-0 | CX80B1-24P |

# 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 |
|---|---|---|
| ELC4-632525 | CL 6240-0005-0 | CX80B1-24P |