

|  | COUNT | DESCRIPTION OF REVISIONS | BY    | CHKD  | DATE       |  | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|--|-------|--------------------------|-------|-------|------------|--|-------|--------------------------|----|------|------|
|  | 1     | RE-6-1779                | C.J.S | L.S.M | 2020.04.07 |  |       |                          |    |      |      |
|  |       |                          |       |       |            |  |       |                          |    |      |      |

|                     |                             |                      |                           |                                                |
|---------------------|-----------------------------|----------------------|---------------------------|------------------------------------------------|
| APPLICABLE STANDARD |                             |                      |                           |                                                |
| RATING              | Operating Temperature Range | -55℃ to 105℃ (Note1) | Storage Temperature Range | -10℃ to +60℃ (Note3)                           |
|                     | Operating Humidity Range    | 20% to 80% (Note2)   | Storage Humidity Range    | 40% to 70% (Note3)                             |
|                     | Applicable Connector        | DF51K-6S-2C(###)     | Current                   | AWG 30 : 0.5A    AWG 28 : 1A<br>AWG 22-26 : 2A |
|                     | Voltage                     | 250V AC/DC           |                           |                                                |

|                |             |              |    |    |
|----------------|-------------|--------------|----|----|
| SPECIFICATIONS |             |              |    |    |
| ITEM           | TEST METHOD | REQUIREMENTS | QT | AT |

|                     |                                       |                       |   |   |
|---------------------|---------------------------------------|-----------------------|---|---|
| CONSTRUCTION        |                                       |                       |   |   |
| General Examination | Visually and by measuring instrument. | According to drawing. | o | o |
| Marking             | Confirmed visually.                   |                       | o | o |

|                            |                               |                            |   |   |
|----------------------------|-------------------------------|----------------------------|---|---|
| ELECTRICAL CHARACTERISTICS |                               |                            |   |   |
| Contact Resistance         | 20mV MAX, 1mA (DC or 1000Hz). | 30 mΩ MAX.                 | o | - |
| Millivolt Level Method     |                               |                            |   |   |
| Insulation Resistance      | 500 V DC.                     | 1,000 MΩ MIN.              | o | - |
| Voltage Proof              | 650 V AC for 1 min.           | No flashover or breakdown. | o | - |

|                                           |                                                                                        |                                                                                    |   |   |
|-------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---|---|
| MECHANICAL CHARACTERISTICS                |                                                                                        |                                                                                    |   |   |
| Mechanical Operation<br>(Sn Plating)      | 30 times insertion and extraction.                                                     | ①Contact resistance: 30mΩ MAX<br>②No damage, crack or looseness of parts.          | o | - |
| Mechanical Operation<br>(Au Plating)      | 50 times insertion and extraction.                                                     | ①Contact resistance: 30mΩ MAX<br>②No damage, crack or looseness of parts.          | o | - |
| Mating and unmating force<br>(Sn Plating) | It takes out and inserts with a conformity connector.                                  | ①Insertion Force: 38.0N MAX<br>②Extraction Force : 1.5N MIN                        | o | - |
| Mating and unmating force<br>(Au Plating) | It takes out and inserts with a conformity connector.                                  | ①Insertion Force: 29.7N MAX<br>②Extraction Force: 1.5N MIN                         | o | - |
| Vibration                                 | Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.         | ①No electrical discontinuity of 1 μ s.<br>②No damage, crack or looseness of parts. | o | - |
| Shock                                     | Acceleration 490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times for 3 directions. |                                                                                    | o | - |

|                               |                                                                                                       |                                                                                                                   |   |   |
|-------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---|---|
| ENVIRONMENTAL CHARACTERISTICS |                                                                                                       |                                                                                                                   |   |   |
| Damp Heat<br>(Steady State)   | Exposed at 40 ± 2 ℃ , humidity 90 to 95 %, 96 h.<br>(After leaving the room temperature for 1 to 2h.) | ①Contact resistance: 30 mΩ MAX.<br>②Insulation resistance: 500MΩ MIN.<br>③No damage, crack or looseness of parts. | o | - |

Remarks  
Note 1: Include the temperature rising by current.  
Note 2: No condensing  
Note 3: Apply to the condition of long term storage for unused products before pcb on board, after pcb board , operating temperature and humidity range is applied for interim storage during transportation.

|                                                 |          |          |          |          |          |
|-------------------------------------------------|----------|----------|----------|----------|----------|
| Unless otherwise specified, refer to IEC 60512. | DRAWN    | DESIGNED | CHECKED  | APPROVED | RELEASED |
|                                                 | J.S CHOI | J.S CHOI | S.M.LIM  | T.S KANG |          |
|                                                 | 17.12.22 | 17.12.22 | 17.12.22 | 17.12.22 |          |

|                                                                            |                            |                                |  |  |
|----------------------------------------------------------------------------|----------------------------|--------------------------------|--|--|
| NOTE    QT: QUALIFICATION TEST    AT: ASSURANCE TEST    O: APPLICABLE TEST |                            |                                |  |  |
| HIROSE KOREA CO.,LTD.                                                      | SPECIFICATION SHEET        | PART NO.<br>DF51K-6P-2DSA(800) |  |  |
| CODE NO.(OLD)<br>CL                                                        | DRAWING NO.<br>ELC4-632456 | CODE NO.<br>CL 6652-0005-2-800 |  |  |

|                              |                                                                                                                                                                                                                       |                                                                                                                     |   |   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---|---|
| Rapid Change of Temperature  | Temperature -55 °C → +105 °C<br>Time 30min → 30min<br>Under 5 Cycles.<br>(The transferring time of the tank is 2 to 3 MIN)<br>(After leaving the room temperature for 1 to 2h.)                                       | ①Contact resistance: 30 mΩ MAX.<br>②Insulation resistance: 1,000MΩ MIN.<br>③No damage, crack or looseness of parts. | O | — |
| Dry Heat                     | Exposed at 105±2 °C, 96h                                                                                                                                                                                              | ①Contact resistance: 30 mΩ MAX.<br>②Insulation resistance: 1,000MΩ MIN.<br>③No damage, crack or looseness of parts. | O | — |
| Cold                         | Exposed at -55±3 °C, 96h                                                                                                                                                                                              | ①Contact resistance: 30 mΩ MAX.<br>②Insulation resistance: 1,000MΩ MIN.<br>③No damage, crack or looseness of parts. | O | — |
| Resistance To Soldering Heat | ①Automatic soldering (flow)<br>Soldered at solder temperature, 260 °C for in immersion , duration, 5 s.<br>②Manual soldering<br>Soldering iron temperature :270 °C,<br>Soldering time :3s.<br>No strength on contact. | No deformation of case of excessive looseness of the terminals.                                                     | O | — |
| Solderability                | Soldering temperature: 245 °C<br>Duration of immersion :soldering, for 5 sec.                                                                                                                                         | New uniform coating of solder shall cover minimum of 95 % of the surface Being immersed.                            | O | — |

|                                                                   |                            |                                |  |                                |
|-------------------------------------------------------------------|----------------------------|--------------------------------|--|--------------------------------|
| NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST |                            |                                |  |                                |
| HIROSE KOREA CO.,LTD.                                             |                            | SPECIFICATION SHEET            |  | PART NO.<br>DF51K-6P-2DSA(800) |
| CODE NO.(OLD)<br>CL                                               | DRAWING NO.<br>ELC4-632456 | CODE NO.<br>CL 6652-0005-2-800 |  | 2/2                            |