

2007/04/18 01:28:44 MY.MAGASHIMA

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| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|--|---|---|------|------------|--|--|----------|----------|------|
| △ 1 | DIS-E-001172 | Y.T | H.K | 07.01.06 | △ | | | | |
| △ | | | | | △ | | | | |
| APPLICABLE STANDARD | | USB2.0 SPECIFICATION | | | | | | | |
| RATING | OPERATING TEMPERATURE RANGE | 0 °C TO +50 °C | | | STORAGE TEMPERATURE RANGE | -20 °C TO +60 °C | | | |
| | VOLTAGE | AC 30V | | | OPERATING HUMIDITY RANGE | — % TO — % | | | |
| | CURRENT ① SIGNAL ONLY ② POWER APPLY | ① 1 A/pin ② 1.8 A/pin (PIN No.1,5) 0.5 A/pin (PIN No.2-4) | | | APPLICABLE CABLE | USB CABLE ① SIGNAL : AWG 28 MAX ② POWER : AWG 26 MAX | | | |
| SPECIFICATIONS | | | | | | | | | |
| ITEM | | TEST METHOD | | | REQUIREMENTS | | | QT | AT |
| CONSTRUCTION | | | | | | | | | |
| GENERAL EXAMINATION | | VISUALLY AND BY MEASURING INSTRUMENT. | | | ACCORDING TO DRAWING. | | | × | × |
| MARKING | | CONFIRMED VISUALLY. | | | | | | × | × |
| ELECTRIC CHARACTERISTICS | | | | | | | | | |
| CONTACT RESISTANCE | | 100 mA (DC OR 1000 Hz). | | | 30 mΩ MAX. | | | × | × |
| INSULATION RESISTANCE | | 500 V DC. | | | 100 MΩ MIN. | | | × | × |
| VOLTAGE PROOF | | 100 V AC FOR 1 min. | | | NO FLASHOVER OR BREAKDOWN. | | | × | × |
| CAPASITANCE | | MEASURE ADJACENT TWO CONTACTS AT 1000±10Hz AC VOLTAGE. | | | 2 pF MAX | | | × | — |
| MECHANICAL CHARACTERISTICS | | | | | | | | | |
| INSERTION AND WITHDRAWAL FORCES | | A MAXIMUM RATE OF 12.5mm/min. MEASURED BY APPLICABLE CONNECTOR. | | | INSERTION FORCE 35 N MAX. WITHDRAWAL FORCE 8 N MIN. | | | × | — |
| MECHANICAL OPERATION | | 10000 TIMES INSERTIONS AND EXTRACTIONS. MATING SPEED - MECHANICALLY OPERATED : 500 CYCLES / h - MANUALLY OPERATED : 200 CYCLES / h | | | ① CONTACT RESISTANCE : NO INCREASE OF MORE THAN 10 mΩ FROM INITIAL VALUE. ② INSERTION FORCE 35 N MAX. WITHDRAWAL FORCE 8 N MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | | × | — |
| VIBRATION | | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS, TOTAL 6 h. | | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | | × | — |
| RANDOM VIBRATION | | FREQUENCY 50 TO 2000 Hz, AT 15 min, FOR 3 DIRECTIONS. | | | | | | × | — |
| SHOCK | | 490m/s ² DIRECTIONS OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS, TOTAL 18 TIMES. | | | | | | × | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | | | | |
| THERMAL SHOCK | | TEMP -55 → 15 TO 35 → 85 → 15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 10 CYCLES. (MATING APPLICABLE CONNECTOR) | | | ① CONTACT RESISTANCE : 70 mΩ MAX. ② INSULATION RESISTANCE : 10 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | | × | — |
| HUMIDITY LIFE | | TEMPERATURE -10~65 °C, HUMIDITY 90 TO 98 %, UNDER 7 CYCLES (168 h) (MATING APPLICABLE CONNECTOR) | | | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | | × | — |
| DRY HEAT | | EXPOSED AT +85±2 °C , 96 h. (MATING APPLICABLE CONNECTOR) | | | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | | × | — |
| REMARKS | | | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED | |
| | | | | Y.TAKEUCHI | Y.TAKEUCHI | H.KOBAYASHI | A.SUZUKI | | |
| | | | | 06.11.13 | 06.11.13 | 06.11.13 | 06.11.13 | | |
| Unless otherwise specified, refer to USB2.0 or EIA364 | | | | PART NO. | | ZX40-B-5S-UNIT | | | |
| Note QT:Qualification Test AT:Assurance Test ×:Applicable Test | | | | | | | | | |
| HRS HIROSE ELECTRIC CO., LTD. | | SPECIFICATION SHEET | | | PART NO. ZX40-B-5S-UNIT | | | | |
| CODE NO.(OLD) CL | | DRAWING NO. ELC4-125857 | | | CODE NO. CL242-0002-4 | | | 1/2 | |

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SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---------------------------------|--|--|----|----|
| COLD | EXPOSED AT -40 ± 2 °C , 96 h. (MATING APPLICABLE CONNECTOR) | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | × | — |
| CORROSION SALT MIST | EXPOSED IN 5 % SALT WATER , 35 °C FOR 48 ±4 h. | NO HEAVY CORROSION. | × | — |
| RESISTANCE TO SOLDERING HEAT | TEMPERATURE : 350 ± 10 °C TIME : 5 ± 1 sec AT SOLDERING PARTS | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | × | — |

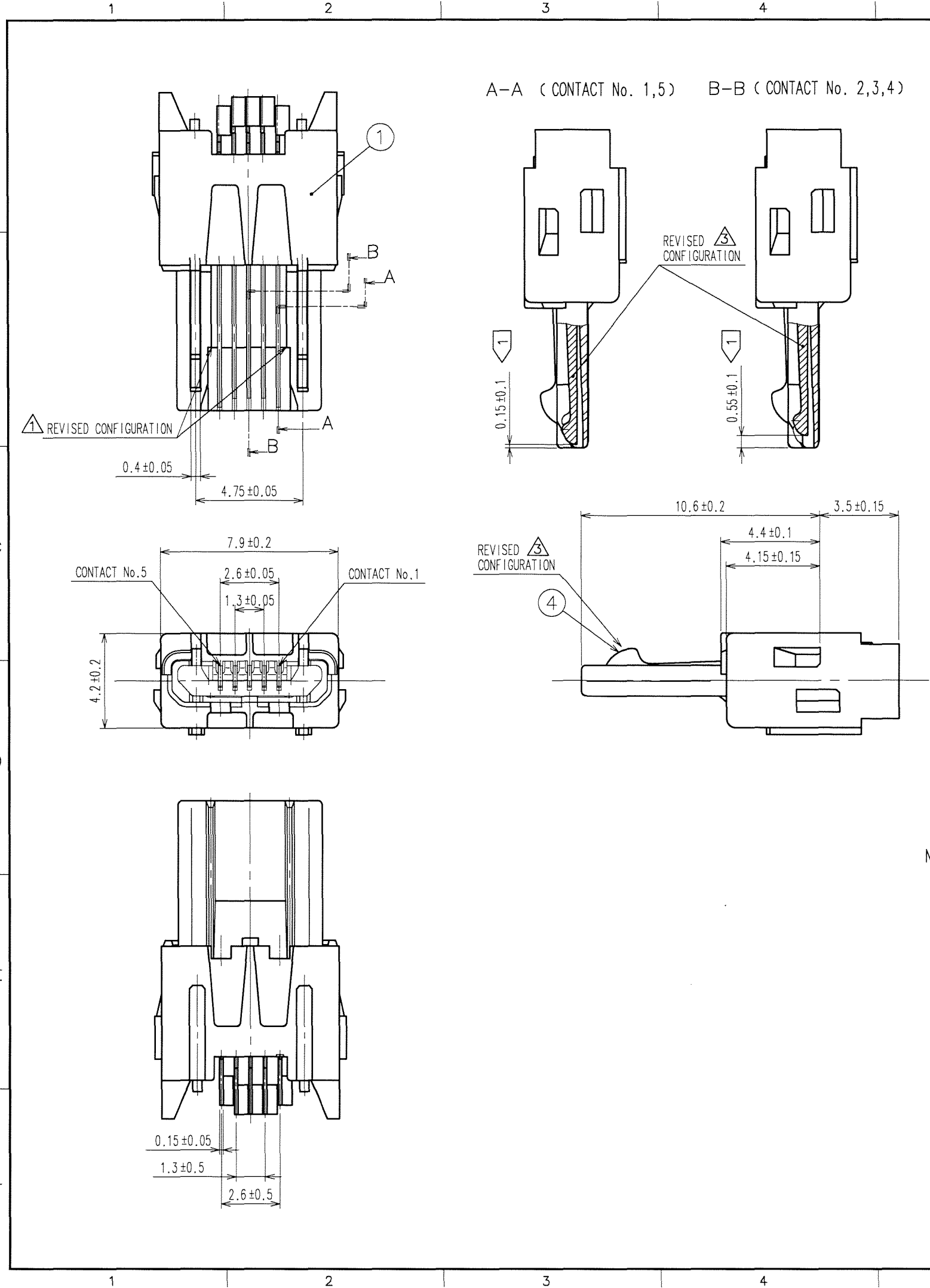
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|---------|------------|------------|-------------|----------|----------|
| REMARKS | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | Y.TAKEUCHI | Y.TAKEUCHI | H.KOBAYASHI | A.SUZUKI | |
| | 06.11.13 | 06.11.13 | 06.11.13 | 06.11.13 | |

Unless otherwise specified, refer to USB2.0 or EIA364

Note QT:Qualification Test AT:Assurance Test ×:Applicable Test

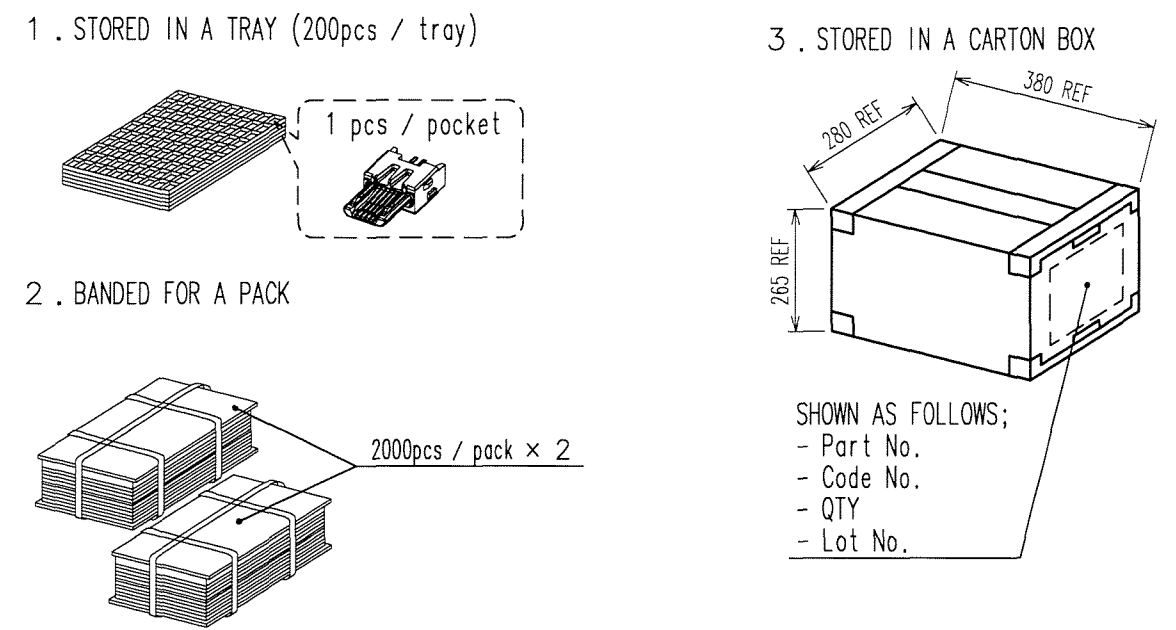
| | | |
|----------------------------------|----------------------------|-----------------------------------|
| HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET | PART NO. ZX40-B-5S-UNIT |
| CODE NO.(OLD) CL | DRAWING NO. ELC4-125857 | CODE NO. CL242-0002-4 |
| | | 2 |

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| TO |
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| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|-------|--------------------------|-----|------|----------|-------|--------------------------|----|------|------|
| 1 | DIS-E-001188 | Y.T | H.K | 06.12.27 | | | | | |
| 1 | DIS-E-001243 | Y.T | K.I | 07.01.29 | | | | | |
| 2 | DIS-E-001409 | Y.T | K.I | 07.03.24 | | | | | |

Fig - 1 PACKING SPECIFICATION -In the case of 4000 pcs-



- NOTES
- 1 This is wire soldering type. Please confirm the dimensions shown in the figure after soldering. The position of the contacts might shift when excessive force is put during assembly. Please refer to the assembly manual, ETAD-E2699, for detail.
 - 2 Plating
 - under plating Nickel 2 μm min.
 - contact area Gold 0.75 μm min.
 - lead area Tin 1 μm min.

| | | | | | | |
|----------------|--------------|--------------------------|-------------|-----------------|-----------------|----------|
| 2 | COPPER ALLOY | 2 | 4 | STAINLESS STEEL | | |
| 1 | PA | BLACK, UL94V-0 | 3 | COPPER ALLOY | | |
| NO. | MATERIAL | FINISH, REMARKS | NO. | MATERIAL | FINISH, REMARKS | |
| CODE NO. (OLD) | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | | Y. TAKEUCHI | Y. TAKEUCHI | H. KOBAYASHI | A. SUZUKI | |
| | | 06.11.13 | 06.11.13 | 06.11.13 | 06.11.13 | |
| DRAWING NO. | | PART NO. | | | | |
| EDC3-125857 | | ZX40-B-5S-UNIT | | | | |
| SCALE | | CODE NO. | | | | |
| 5 : 1 | | CL242-0002-4 | | 1/2 | | |
| UNITS | | HIROSE ELECTRIC CO., LTD | | | | |
| mm | | | | | | |

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| TO |
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| |

3 Fig - 2 SHIELDING-PLATE ASSEMBLY

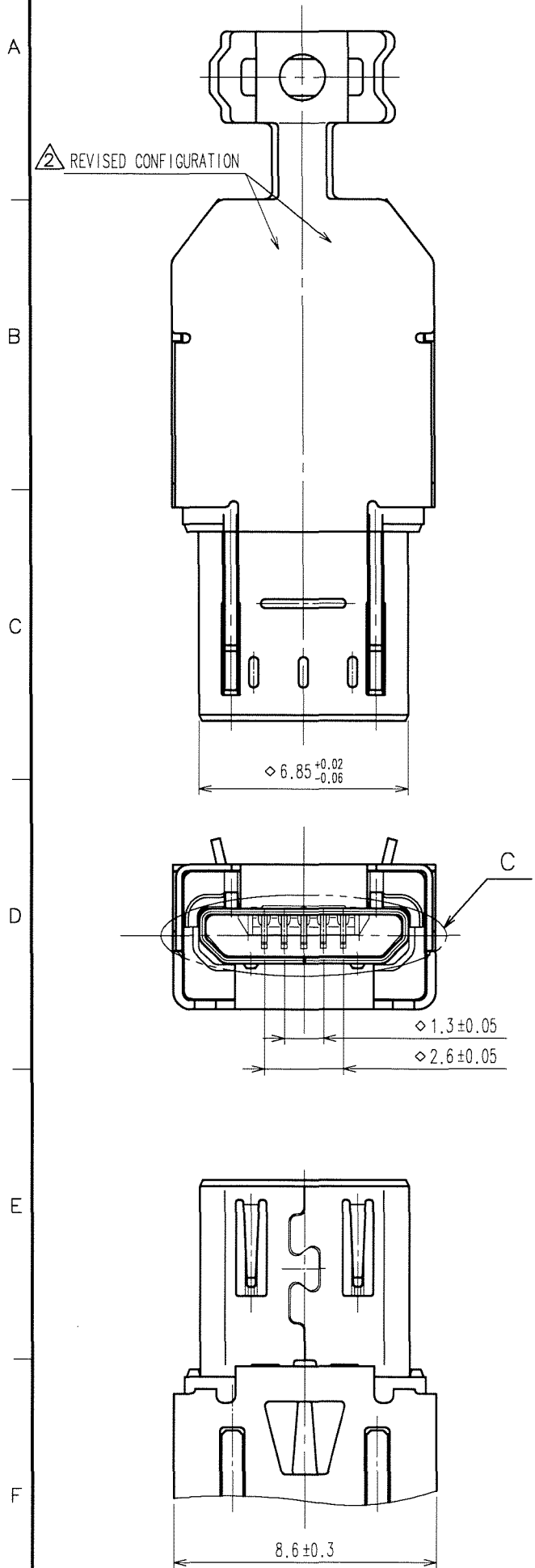
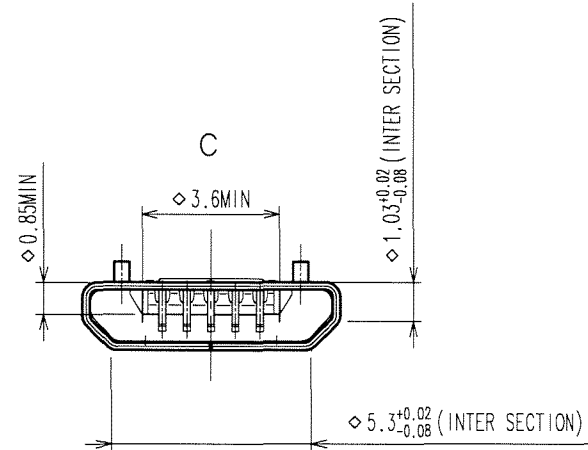
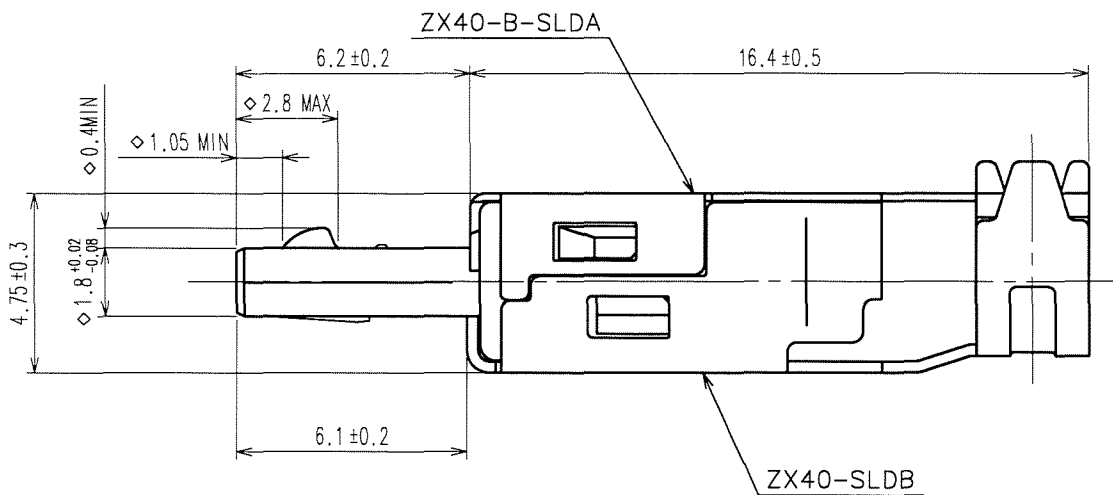
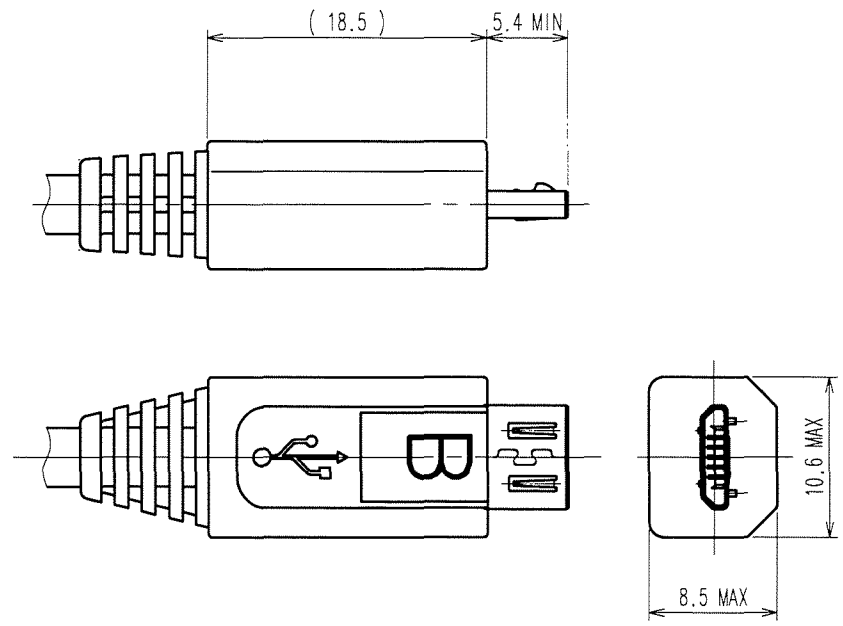
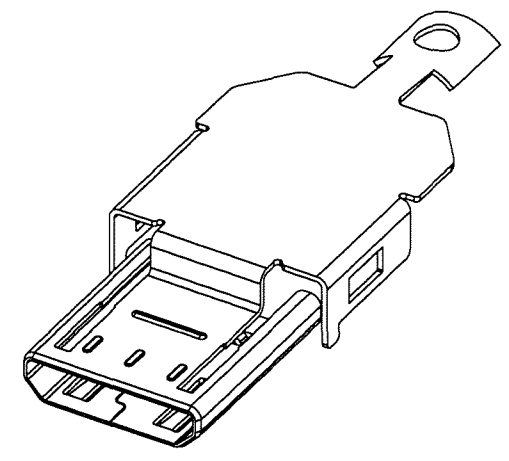


Fig - 3 OVER-MOLDING
(Refer to USB specification)



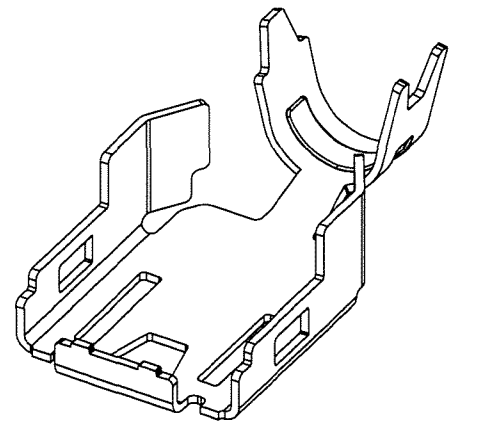
| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|-------|--------------------------|----|------|------|-------|--------------------------|----|------|------|
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3 ZX40-B-SLDA
Code No. CL242-0003-7



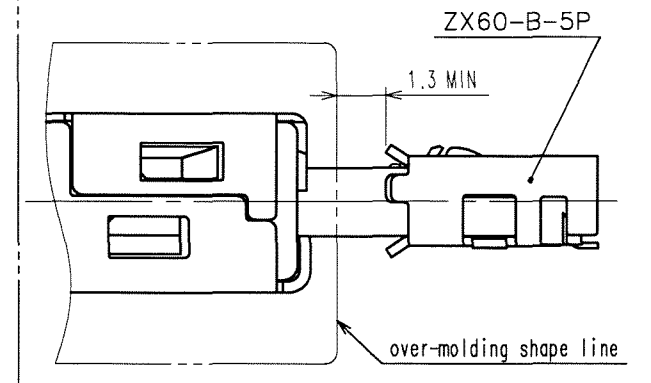
Note:
- Sold separately
- Delivered by the reel

3 ZX40-SLDB
Code No. CL242-0004-0



Note:
- Sold separately
- Delivered by the reel
- Applied to φ 3.8mm cable

Fig - 4 MATED CONDITION



NOTES 3 Shielding-plates, ZX40-B-SLDA and ZX40-SLDB ,are used for assembly.
4 *◇*symbol added to each dimension means critical dimension on USB specification.
Please check them after over-molding.

| | | | | | |
|---------------|--------------------------|------------|----------------|----------|----------|
| CODE NO.(OLD) | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | Y.TAKEUCHI | Y.TAKEUCHI | H.KOBAYASHI | A.SUZUKI | |
| | 06.11.13 | 06.11.13 | 06.11.13 | 06.11.13 | |
| SCALE | DRAWING NO. | | PART NO. | | |
| 5 : 1 | EDC3-125857 | | ZX40-B-5S-UNIT | | |
| UNITS | HIROSE ELECTRIC CO., LTD | | CODE NO. | | 2 |
| mm | | | CL242-0002-4 | | |