Title Subject： 3.00 mm Center Spacing Wire to Board Connector
Part Number： 3000F、3003TF、3001P、3002P Single-Row / Dual-Row Series

— Index —

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1. PRODUCT DESCRIPTION

1-1

Part Name	Part Number	Material	Surface Finish
Female Housing	3000FXXX1	Housing : Nylon 66	94V-0
Female Terminal	3003TFX1X	Phosphor Bronze	Tin／Matte Tin-Plated or Gold -Plated
Straight Header	3001PXXXXX 3001PXXXXX-XX	Housing : Nylon 9T／Nylon 6T Pin : Brass Peg : Brass	94V-0 Gold-Plated or Matte Tin-Plated Select Gold
Right-Angle Header	3002PXXXXX		

1-2 Current Rated：5A AC/DC (AWG 20-22), 4A AC/DC (AWG 24), 3A AC/DC (AWG 26),
2A AC/DC (AWG 28), 1A AC/DC (AWG 30)

1-3 Voltage Rated：250V AC/DC

1-4 Temperature Range：- 40℃ to +105℃

1-5 Applicable Wire Size：AWG #20 TO AWG #30

2. ELECTRICAL PERFORMANCE

2-1 Contact Resistance：
Test Condition: Mate connectors, measure by dry circuit, 50 mV max. , 100 mA.
Requirements : 10 mΩ MAX.（Initial）
△R=10 mΩ MAX.（After environmental test）

2-2 Insulation Resistance：
Test Condition: Mate connectors, apply 500V DC between adjacent terminal or ground.
Requirements : 1000 MΩ min.

2-3 Dielectric Strength：
Test Condition: Mate connectors, apply 1500V AC for 1 minute between adjacent terminal or ground.
Requirements : No Breakdown.

3. MECHANICAL PERFORMANCE

3-1 Insertion Force and Withdrawal Force：

Test Condition: Insert and withdraw connectors at the speed rate of 25±3 mm／minute.

Requirements : Insertion Force：0.8 Kg MAX. （Per circuit）

Withdrawal Force：0.12 Kg min. （Per circuit）

3-2 Crimping Pull Out Force：

Test Condition: Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of 25±3 mm／minute.

Requirements : AWG20：5.7 Kg（min.） AWG22：3.5 Kg（min.）

AWG24：2.2 Kg（min.） AWG26：1.3 Kg（min.）

AWG28：0.9 Kg（min.） AWG30：0.7 Kg（min.）

3-3 Terminal／Housing Retention Force (in Housing)：

Test Condition: Apply axial pull out force at the speed rate of 25±3 mm／minute on the terminal assembled in the housing.

Requirements : 2.4 Kg min.

3-4Terminal／Housing Insertion Force (into Housing)：

Test Condition: Apply axial Insertion out force at the speed rate of 25±3 mm／minute on the terminal

Requirements : 1. 45 Kg MAX.

3-5 Pin to Header Retention Force：

Test Condition: Apply axial push force at the speed rate of 25±3 mm／minute.

Requirements : 1.4 Kg min.

4. ENVIRONMENTAL PERFORMANCE AND OTHERS

4-1 Durability：

Test Condition: When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.

Requirements : Contact Resistance：△R=10 mΩ MAX.

4-2 Humidity：

Test Condition: Temperature： 40 ± 2℃

Relative humidity：90 to 95%

Duration： 96 hours

Requirements : Appearance：No damage

Contact Resistance：△R=10 mΩ MAX.

Insulation Resistance：1000 MΩ min.

Dielectric Strength：1000V AC for 1 minute no breakdown.

4-3 Heat Aging：

Test Condition: Temperature：85 ± 2℃

Duration： 240 hours

Requirements : Appearance：No damage

Contact Resistance：△R=10 mΩ MAX.

4-4 Cold Resistance：

Test Condition: Temperature：-40 ± 3℃
Duration： 96 hours
Requirements : Appearance：No damage
Contact Resistance：△R=10 mΩ MAX.

4-5 Salt Spray：

Test Condition: Temperature： 35 +1/- 2℃
Density： 5% in weight
Duration： 48 hours
Requirements : Appearance：No damage
Contact Resistance：△R=10 mΩ MAX.

4-6 Vibration：

Test Condition: Sweep time：10-55-10 Hz in 1 minute
Amplitude： 1.52 mm P-P
Duration： 2 hours in each X. Y. Z. axes
Requirements : Appearance：No damage
Contact Resistance：△R=10 mΩ MAX.
Discontinuity：< 1 μ sec. (Less than 1 μ sec.)

4-7 Solderability：

Test Condition: Solder temperature：245 ± 5℃
Solder time： 5 ± 0.5 sec.
Requirements : The inspected area of each lead must have 95% solder coverage minimum.

4-8 Resistance to Soldering Heat：

Test Condition: Solder temperature： 265 ± 5℃ (Nylon 9T/ Nylon 6T/Nylon 46)
Solder time： 10 ± 1 sec. (Nylon 9T/ Nylon 6T/Nylon 46)
Requirements : There shall be no deformation nor damage which may affect the performance.

4-9 Resistance to Soldering Heat by soldering iron：

Test Condition:
Specimen shall be mounted on a PCB and soldered by soldering iron of the following conditions.
After test, appearance shall be inspected with naked eyes.
No abnormal load such as lateral load shall be applied.
Temperature of the tip：350 ± 5℃
Period of soldering： 3 ± 0.5 sec.
Flux： Rosin methanol 25% solution
Requirements : There shall be no deformation nor damage which may affect the performance.