



<b>ENGINEERING DEPT.</b>		<b>PRODUCT SPECIFICATION</b> <b>For CP31 Series Connector System</b>	<b>SPEC.NO.: SPCP005G</b>
<b>REVISIONS</b>	<b>ECN10052</b>		<b>PAGE: 1/3</b>

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire

2. APPLICABLE STANDARDS:

MIL - STD - 202                      Methods for test of connectors for electronic equipment  
MIL - STD - 1344                    Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CP31 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.8 mm (.031") ~ 2.0 mm (.079")

6.2 P.C. Board Layout: See attached drawings



REVIEWED : David    APPROVED : Eisley    VERIFIED : Sandy .



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**7. ELECTRICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		7A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 1500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ

**8. MECHANICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#16~#24
8.2	Terminal crimp Tensile strength	When crimped AWG#16 size wire When crimped AWG#18 size wire When crimped AWG#20 size wire When crimped AWG#22 size wire When crimped AWG#24 size wire	More than 11.0 Kgf More than 9.0 Kgf More than 7.0 Kgf More than 5.0 Kgf More than 3.0 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 2.0 Kgf
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 4.0 Kgf
8.5	Single contact insertion force	Measure force to insertion using plug terminal at speed 25± 3 mm per minute	2.5 Kgf max.
8.6	Single contact withdrawal force	Measure force to withdrawal using plug terminal at speed 25± 3 mm per minute	400 gram min.
8.7	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

**9. ENVIRONMENTAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.
9.2	Vibration	1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.
9.3	Heat aging	90 ± 2°C , 96 hours	No damage

