

ENGINEERING DEPT.	PRODUCT SPECIFICATION	SPEC.NO.:	SPCI1352
REVISIONS:	For CID7 Series Connector System	PAGE:	1/5

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

EIA-364 Test methods for electrical connectors

J-STD-020 Resistance to soldering Temperature for through hole Mounted Devices SS-00254 Test methods for electronic components ,LEAD-FREE soldering Part

design standards

- 3. APPLICABLE SERIES NO: CID7 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") ~ 1.6 mm (.063") 6.2 P.C. Board Layout: See attached drawings

REVIEWED: <u>Eisley</u> APPROVED: <u>Eisley</u> VERIFIED: <u>Sun</u>.



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 250V AC(r.m.s.)/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max., 10 mA.	Initial: Less than 20 m Ω
			After test:
			Less than 30 m Ω
7.3	Dielectric strength	When applied AC 800 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than $1000 \mathrm{M}\Omega$

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#22~#26
8.2	Terminal crimp Tensile	When crimped AWG#22 size wire	More than 4.0 Kgf
	strength	When crimped AWG#24 size wire	More than 3.0 Kgf
		When crimped AWG#26 size wire	More than 2.0 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 1.0 Kgf
8.4	Terminal retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 2.0 Kgf
8.5	Durability	Connector shall be subjected to 50 cycles of insertion and withdrawal	Contact resistance: Less than $30 \text{ m}\Omega$
8.6	Pin retention force	Push pin from insulator base at speed	2P(Stopper inside)
		25± 3 mm per minute	More than 2.0Kgf
			3~22P(W/O Stopper)
			More than 1.5Kgf

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	Appearance: No damage
		2 hours for X, Y and Z directions	Contact resistance:
		·	Less than $30~\text{m}\Omega$
			Discontinuity:
			1 micro second max.



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	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	Soldering time: 3 ± 0.5 second	Minimum:
		Soldering pot: 245 ± 5°C	95% of immersed area
9.4	Resistance to soldering	Soldering time: 5 ± 0.5 second	No damage
	heat	Soldering pot: 260 ± 5 °C	
9.5	Physical shock	EIA 364 - 27 Condition B Subject mated connectors to 50 G's half - sine shock pulses of 11 ms duration Three shocks in each direction applied along three mutually perpendicular planes, 3 total hocks	Appearance: No damage Contact resistance: Less than 30 m Ω No discontinuities of 1 μs
9.6	Heat aging	85 ± 2°C , 96 hours	Appearance: No damage Contact resistance: Less than $30 \text{ m}\Omega$
9.7	Cold aging	-25 ± 5°C , 96 hours	Appearance: No damage Contact resistance: Less than $30 \text{ m}\Omega$
9.8	Humidity	40 ± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than $30~\text{m}\Omega$ Dielectric strength: To pass para 5-1-3 Insulation resistance: More than $500~\text{M}\Omega$
9.9	Temperature cycling	Five cycle consists of: (1)-55°C, 30 min. (2)+85°C, 30 min.	Appearance: No damage Contact resistance: Less than $30 \text{ m}\Omega$
9.10	Salt spray	Temperature: 35 ± 2°C Solution: 5 ± 1% Spray time: 24 ± 1 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than $30 \text{ m}\Omega$

10. AMBIENT TEMPERATURE RANGE: -25 to +85°C



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11. First Insertion and 30th Withdrawal Force:

PIN No.	First Insertion(kgf max.)	30 th Withdrawal(kfg min.)
1	1.0	0.1
2	1.5	0.5
3	2.5	0.7
4	3.0	0.9
5	3.5	1.1
6	4.0	1.3
7	4.5	1.5
8	5.0	1.7
9	5.5	1.9
10	6.0	2.1
11	6.5	2.3
12	7.0	2.5
13	7.5	2.7
14	8.0	2.9
15	8.5	3.1
16	9.0	3.3
17	9.5	3.5
18	10.0	3.7