HONDA TSUSHIN KOGYO CO., LTD.	SHEET	1 OF	3
TOKYO JAPAN	DATE	DATE OCTOBER 01, 2009	
PRODUCT SPECIFICATION	APPROVED BY	CHECKED BY	WRITTEN BY
0.8mm SPACING HIGH DENSITY CONNECTOR FOR BOARD TO CABLE. RoHS compliant	WH.EBIHARA	k. Tashiw K.Tashiro	K. Endo

CONNECTOR PART NO.

	TYPE	PART NO.	NOTE
Board to Board	Female connector	HDRA-EC100LFDT-(GP)+	Right angle dip type connector -GP+:Guide post attached Recommended tighten torque: 24.5N- cm(22.54~27.44 N- cm)
	Male connector	HDRA-EC100MDT-(GP)+	Vertical dip type connector -GP+:Guide post attached Recommended tighten torque: 24.5N- cm(22.54~27.44 N- cm)

CHARACTERISTICS

No.	ITEM	SPECIFICATION
1	Current Rating	0.3 amp DC maximum, per contact
2	Voltage Rating	30 volts AC (r.m.s.)
3	Operating Temperature	-40℃~70℃
4	Storage Temperature	-40℃~70℃
5	Humidity	95%RH maximum
6	Insulation Resistance	When tested in accordance with EIA $$ 364-21, the insulation resistance shall be a minimum of 500 M Ω at 100volts DC.
7	Dielectric Withstanding Voltage	When tested in accordance with Method B EIA364-20, there shall be no breakdown of insulation or flashover at 250 volts AC (r.m.s.) for a minute.
8	Contact Resistance (Contact to contact and Shell to earth plate)	Contact to contact When tested in accordance with EIA364-23, the contact resistance shall not exceed $70\mathrm{m}\Omega$ including the conductor resistance. Shell to earth plate $500\mathrm{m}\Omega$ MAX.

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No.	ITEM	SPECIFICATION	
9	Female Contact Insertion and Pulling Force (Individual)	When tested in accordance with EIA364-13, contact insertion force and puling force shall satisfy following. Insertion Force The force required to insert the test gauge into any contact shall not exceed 2.45 N per contact. Pulling Force The force required to pull the test gauge from any contact shall not be less than 0.294 N per contact.	
		0.6mm 1.14±0.003mm	
Connector Insertion and		OInsertion Force The force required to insert a connector into the mating one shall not exceed the values in the below table. OWithdrawal Force The force required to withdraw a connector from the mating one shall not be less than the values in the below table.	
10	Withdrawal Force (Overall)	No. of pos. Insertion Force Withdrawal Force	
(Overall)		100 76.9 max. 17.8 min.	
11	Durability	When subjected to 2000 cycles of insertion and withdrawal forces with mating connector at the rate of 500 cycles per hours, there shall be no evidence damage to the connectors such as cracking. After test, "the contact to contact" resistance shall not exceed $90m\Omega$ and "the shell to earth plate" resistance shall not exceed $500m\Omega$.	
12	Vibration	When tested in accordance with EIA364-28, there shall be no physical or mechanical damage to the connector. During vibration, there shall be no discontinuity of the test circuit greater than 1 microsecond. (100 mA DC of current applied for the circuit.)	
13	Physical Shock	When tested in accordance with EIA364-27, there shall be no physical or mechanical damage to the connector. During the test, there shall be no discontinuity of the test circuit greater than 1 microsecond. (100 mA DC of current applied for the circuit.)	
14	Humidity Temperature Cycling	When tested in accordance with EIA364-31, after the test, the insulation resistance shall be no less than 500 M Ω , there shall be no breakdown of insulation or flashover at 250 volts AC (r.m.s.) for a minute and "the contact to contact" resistance shall not exceed $90 m \Omega$ and "the shell to earth plate" resistance shall not exceed $500 m \Omega$.	

		SHEET 3 OF 3	
No.	ITEM	SPECIFICATION	
15	Thermal Shock	When subjected to 25 cycles in such environment as shown below program, there shall be no evidence of cracking or crazing of the body or other physical damage to the connector. After test, "the contact to contact" resistance shall not exceed $90m\Omega$ and "the shell to earth plate" resistance shall not exceed $500m\Omega$.	
		5 min 1 Cycle	
16	High Temperature Life	When tested in accordance with EIA364-32, there shall be no evidence of cracking or crazing of the body or other physical damage to the connector. After test, "the contact to contact" resistance shall not exceed $90m\Omega$ and "the shell to earth plate" resistance shall not exceed $500m\Omega$.	
		Temperature: +70℃ Test Time: 500 hours	
17	Salt Spray	When tested in accordance with EIA364-26, Test condition A, there shall be no any excessive corrosion on the every part of connector. After test, "the contact to contact" resistance shall not exceed $90m\Omega$ and "the shell to earth plate" resistance shall not exceed $500m\Omega$.	
18	Resistance to Mix Flowing Gas	When tested in accordance with EIA364-65, environment class 3, Connectors are exposed in such environment with Cl ₂ gas of $20\pm5ppb$, NO ₂ gas of $200\pm50ppb$ and H ₂ S gas of $100\pm20ppb$. There shall be no any excessive corrosion on the every part of connector. After test, "the contact to contact" resistance shall not exceed $90m\Omega$ and "the shell to earth plate" resistance shall not exceed $500m\Omega$. Test Time: 20 days	
19	Solvent Resistance	When tested in accordance with Method 215E of MIL-STD-202F, the connector shall be capable of being cleaned by ethyl alcohol. After test, there shall be no evidence of swelling, cracking, dissolving or any other defect.	
20	Solderability	When connectors are assembled to printed circuit boards the termination area of contact must fixed to p.c. board pad at a temperature of 240±10°C for 15 seconds.	
21	Solder Heat	When connectors are assembled to printed circuit boards and processed through a reflow machine in such environment at a maximum temperature of $265\pm5\%$ for $3\sim5$ seconds. There shall be no damage to the connectors.	