HONDA TSUSHIN KOGYO CO., LTD.	SHEET	1 OF 4		
TOKYO JAPAN	DATE	Dec.5,2005		
PRODUCT SPECIFICATION	APPROVED I	BY CHECKED BY	WRITTEN BY	
0.8mm SPACING HIGH DENSITY CONNECTOR FOR BOARD TO BOARD & BOARD TO CABLE.	a glihar	n Chropama	Milhola	
RoHS compliant	H.EBIHARA	101	Y.KATO	

CONNECTOR PART NO.

ТҮРЕ		PART NO.	NOTE		
Decella Decel		Female	HDR-EA() LFYPG1+	Right angle SMT connector with hold-down	
Board	Board to Board		HDR-EA()LMYPG1+	(Recommended screw tighten torque to fix it on p.c.board: 0.2~0.25N·m)	
	Danid aida	Female	HDR-EA()LFY()G1-()+	Right angle SMT connector with locking post ar	
	Board side	Male	HDR-EA()LMY()G1-()+	hold-down	
Board to Cable	Cable side	Female	HDR-E()FAG1+	IDC type connector Wire accommodation size: #30 AWG (7/0.1)	
		Male	HDR-E()MAG1+	O.D 0.5~0.65	
	Cable cover		HDR-E()LPA	Shielded cover with shell, boot case and locking clip	

OHow to order the connector for p.c. board with the embossed tape container.

The correct part number join "-TP+" to the end of connector part number.

(HDR-EA() LFYPG1-SLE-TP+, etc.)

Number of connectors in a package: 450 pieces

CHARACTERISTICS

No.	ITEM	SPECIFICATION
1	Current Rating	0.5 amp DC maximum, per contact
2	Voltage Rating	125 volts AC (r.m.s.)
3	Operating Temperature	-55℃~105℃(Board to Board type), -40℃~70℃(Board to Cable type)
4	Storage Temperature	-55℃~105℃(Board to Board type), -40℃~70℃(Board to Cable type)
5	Humidity	85%RH maximum
6	Insulation Resistance	When tested in accordance with Method 302 of MIL-STD-202F, the insulation resistance shall be a minimum of 1000 M Ω at 250 volts DC.
7	Dielectric Withstanding Voltage	When tested in accordance with Method 301 of MIL-STD-202F, there shall be no breakdown of insulation or flashover at 350 volts AC (r.m.s.) for a minute.
8	Contact Resistance	When tested in accordance with Method 3004 of MIL-STD-1344, the contact resistance shall not exceed 70m Ω including the conductor resistance.

LTR.	DATE	BY	REV.DESCRIPT	APPR.
1	Aug.29,2006	Y.KATO	Revise	H.EBIHARA
2	Sep. 25, 2009	Endo	P/N added	Ebihara

No. ITEM SPECIFICATION						SHEET	2 OF 4
The force required to insert the test gage into any contact shall no exceed 2.45 N per contact. OPulling Force The force required to pull the test gage from any contact shall not be less than 0.294 N per contact. OPulling Force The force required to pull the test gage from any contact shall not be less than 0.294 N per contact. Omnector Insertion and Withdrawal Force The force required to insert a connector into the mating one shall no 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. UNIT: N No. of pos. Insertion Force Withdrawal Force 14 24.5 max. 2.0 min. 26 39.2 max. 3.5 min. When subjected to 5000 cycles of insertion and withdrawal forces with mating connector at the rate of 600 cycles per hours, there shall be no evidence damage to the connectors such as cracking. After test, the contact resistance shall not exceed 70m \(\Omega\$. When tested in accordance with Method 204D of MIL-STD-202F, The Condition A, 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.) When tested in accordance with Method 213B of MIL-STD-202F, The Condition A, 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.) When tested in accordance with Method 213B of MIL-STD-202F, The Condition A, 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.)	No.	ITEM			SPECIFICATIO	ON	
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No. of pos. Insertion Force Withdrawal Force		Withdrawal Force	The forexceed	orce required to the values in rawal Force orce required to	the below table. withdraw a connec	tor from the mating o	
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When subjected to 5000 cycles of insertion and withdrawal forces with mating connector at the rate of 600 cycles per hours, there shall be no evidence damage to the connectors such as cracking. After test, the contact resistance shall not exceed 70m Ω. When tested in accordance with Method 204D of MIL-STD-202F, Test Condition A, 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.) When tested in accordance with Method 213B of MIL-STD-202F, Test Condition A, 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.) Humidity Temperature Cycling (Except Cable Cover For Gexcept Cable Cable Cover For Gexcept Cable Cover For Gexcept Cable Cab				No. of pos.	Insertion Force	Withdrawal Force	
When subjected to 5000 cycles of insertion and withdrawal forces with mating connector at the rate of 600 cycles per hours, there shall be no evidence damage to the connectors such as cracking. After test, the contact resistance shall not exceed 70 m Ω. When tested in accordance with Method 204D of MIL-STD-202F, Test Condition A, 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.) When tested in accordance with Method 213B of MIL-STD-202F, Test Condition A, 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.) Humidity Temperature Cycling (Except Cable Cover For for a minute and the context resistance shall be no less than 500 MΩ, there shall be no breakdown of insulation or flashover at 350 volts AC (r.m.s. for a minute and the context resistance shall not averaged 70 m Ω.				14	24.5 max.	2.0 min.	
Durability mating connector at the rate of 600 cycles per hours, there shall be no evidence damage to the connectors such as cracking. After test, the contact resistance shall not exceed 70 m Ω. When tested in accordance with Method 204D of MIL·STD-202F, Test Condition A, 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.) When tested in accordance with Method 213B of MIL·STD-202F, Test Condition A, 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.) Humidity Temperature Cycling (Except Cable Cover For the connector resistance shall be no less than 500 MΩ, there shall be no breakdown of insulation or flashover at 350 volts AC (r.m.s.) for a minute and the contact resistance shall not exceed 70m Ω.				26	39.2 max.	3.5 min.	
Vibration Condition A, 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.) When tested in accordance with Method 213B of MIL-STD-202F, Test Condition A, 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.) Humidity Temperature Cycling (Except Cable Cover For shall be no breakdown of insulation or flashover at 350 volts AC (r.m.s., for a minute and the contact registerers shall not exceed 70m Ω.	11	Durability	mating evidence	connector at the damage to t	ne rate of 600 cycles he connectors such	per hours, there sha	ll be no
Shock Condition A, 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.) Humidity Temperature Cycling (Except Cable Cover For Shall be no breakdown of insulation or flashover at 350 volts AC (r.m.s.) for a minute and the context resistance shall not exceed 70m Ω	12	Vibration	Condition connected circuit g	on A, there shor. During vibr reater than 1	all be no physical o ation, there shall be	r mechanical damage no discontinuity of	to the
Humidity Temperature Cycling (Except Cable Cover For Shall be no breakdown of insulation or flashover at 350 volts AC (r.m.s.)	13	Shock	Condition connector circuit g	n A, there shor. During the reater than 1	all be no physical o test, there shall be	r mechanical damage no discontinuity of	to the
	14	Cycling (Except Cable Cover For	the test, shall be	the insulation no breakdown	resistance shall be of insulation or flas	no less than 500 M (hover at 350 volts AC), there

		SHEET 3 OF 4				
No.	ITEM	SPECIFICATION				
	Thermal Shock	OBoard to Board Type 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 resistance shall not exceed 70 m Ω .				
		+105℃ 				
		-40°C 30 30 5 min 5 min				
15		OBoard to Cable Type 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 resistance shall not exceed 70 m Ω.				
		+70℃ -40℃ 30 30 +25℃				
		5 min 1 Cycle				
10	High Temperature Life (Except Cable Cover For Cable Connector)	When tested in accordance with Method 1005 of MIL-STD-1344, there shall be no evidence of cracking or crazing of the body or other physical damage to the connector. After test, the contact resistance shall not exceed $70m\Omega$.				
16		Temperature: +85℃ (Board to Board type) +70℃ (Board to Cable type) Test Time: 1000 hours				
17	Corrosion (Salt Spray)	When tested in accordance with Method 101D of MIL-STD-202F, Test condition A, there shall be no any excessive corrosion on the every part of connector. After test, the contact resistance shall not exceed $70m\Omega$.				
18	Resistance to SO ₂ Gas	When tested in accordance with JEIDA-39(Issued by Japan Electronic Industry Development Association, as hydrogen sulphide environmental test method of connectors). Connectors are exposed in such environment with SO ₂ gas of $10\pm2ppm$. There shall be no any excessive corrosion on the every part of connector. After test, the contact resistance shall not exceed $70m\Omega$. Test Time: 100 hours				

No.	ITEM	SPECIFICATION			
19	Solvent Resistance (Except Cable Cover For Cable Connector)	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 (Except Cable Cover For Cable Connector)	When connectors are assembled to printed circuit boards the termination area of contact must fixed to p.c. board pad at a temperature of $245\pm5\%$ for 10 seconds.			
		250degree			
21	Solder Heat (Except Cable Cover For Cable Connector)	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.			
22	Connector Locking Force	When mated with mating connector with the case, and they are locked in place, the minimum retention force shall be no less than 83.3 N.			
23	Contact Retention Force	When a force of 4.9 N minimum is applied to an individual contact in either direction along the axis of retention, there shall be no damage or loosening of the contact.			