



SPECIFICATION

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SPEC. NO.: PS-92203-XXXXX-XXX REVISION: 0

PRODUCT NAME: 2.5mm WTB WAFER CONN.

PRODUCT NO: 92203 SERIES

PREPARED: CHENBO DATE: 12/10/16	CHECKED: CARL DATE: 12/10/16	APPROVED: JASON DATE: 12/10/16
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TITLE: 2.5mm WTB WAFER CONN.

RELEASE DATE: 2012/10/16

REVISION: 0

ECN No: ECN-1210170

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1 Revision History

Rev.	ECN #	Revision Description	Prepared	Date
0	ECN-1210170	NEW SPEC	CHENBO	12/10/16

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2 SCOPE

This specification covers performance, tests and quality requirements for [2.5mm WTB Wafer Conn.](#) These connectors are [used in cars.](#)

3 APPLICABLE DOCUMENTS

EIA-364: ELECTRONICS INDUSTRIES ASSOCIATION

4 REQUIREMENTS

4.1 Design and Construction

- 4.1.1 Product shall be of design, construction and physical dimensions specified on applicable product drawing.
- 4.1.2 All materials conform to R.o.H.S. and the standard depends on TQ-WI-140101.

4.2 Materials and Finish

- 4.2.1 Contact: High performance copper alloy([Brass](#))
Finish: (a) Contact Area: [Refer to the drawing](#)
(b) Under plate: [Refer to the drawing](#)
(c) Solder area: [Refer to the drawing](#)

- 4.2.2 Housing: Thermoplastic High Temp., UL94V-0

4.3 Ratings

- 4.3.2 Voltage: 13 Volts DC (per pin)
- 4.3.3 Current: 3 Amperes (per pin)
- 4.3.3 Operating Temperature : -40°C to +120°C

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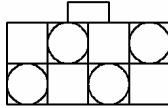
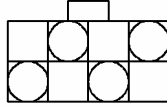
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5 Performance

5.1. Test Requirements and Procedures Summary

Item	Requirement	Standard
Examination of Product	Product shall meet requirements of applicable product drawing and specification.	Visual, dimensional and functional per applicable quality inspection plan.
ELECTRICAL		
Item	Requirement	Standard
Low Level Contact Resistance	10 m Ω Max.(Initial) 20 m Ω Max(Final)	Mate connectors, measure by dry circuit, 20mV Max., 10mA Max. (EIA-364-23)
Insulation Resistance	100 MΩ Min.(Initial)	With completely mated connector, use a megaohm meter set to DC 500V to measure between the adjacent terminal and between terminal and housing. (EIA-364-21)
Dielectric Withstanding Voltage	No discharge, flashover or breakdown. Current leakage: 10μ A max.	1000 V AC Min.at sea level for 1 minute. Test between adjacent contacts of unmated connectors.(EIA-364-20)
Overcurrent Loading	No ignition is allowed during the test	Mate connectors,measure by dry circuit,14A Max.for 60 minute.Wire size:CAVS0.5mm ² <ex>○:Terminals energized current 
Temperature rise	25°C Max. Under loaded specified Current:3A.	Mate connector : measure the temperature rise at rated current until temperature stable. The ambient condition is still air at 25°C. Wire size:CAVS 0.5 mm ² <ex>○:Terminals energized current  Half energized

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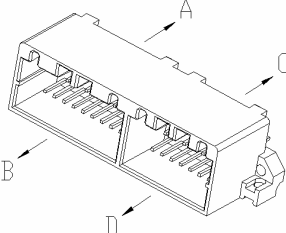
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MECHANICAL

Durability	50 cycles. 20mΩ Max.(Final)	The sample should be mounted in the tester and fully mated and unmated the number of cycles specified at the rate of 100mm/min.(EIA-364-09)	
Mating / Unmating Forces	Pos. 16	Mating Force:16.6Kgf Max	Operation speed :100mm/minute. Measure the force required to mate/Unmate connector. (EIA-364-13) (Please noted that the cable side is from "JEY")
		Unmating Force:7Kgf Min	
	Pos. 20	Mating Force: 20.8Kgf Max	
		Unmating Force: 7.8Kgf Min	
Vibration	1μs Max 20 mΩ Max.(Final)	Vibration Accelation:6.8G Vibration Frequency: 10-50-10 HZ Cycle / 8min Duration :Up and down directions for 4 hours forward and rearward directions for 2 hours. Right and left directions for 2 hours. (EIA-364-28 Condition I , II)	
Terminal / Housing Retention Force	In A,C direction:5.9kgf Min. In B,D direction:2.0kgf Min.	Apply axial pull out force at the speed rate of 200 mm/minute. On the terminal assembled in the housing. 	
Shock (Mechanical)	1 μs Max.	Subject mated connectors to 50 G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts. (EIA-364-27, test condition A)	

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ENVIRONMENTAL

Item	Requirement	Standard
Thermal Shock	See Product Qualification and Test Sequence Group 5	Mate module and subject to follow condition for 100 cycles 1 cycles: -40+0/5-5°C,30 minutes +105+3/-0°C,30 minutes (EIA-364-32,test condition VIII)
Solder ability	Solder able area shall have minimum of 95%solder coverage	And then into solder bath, Temperature at 245+5°C ,for4-5sec (EIA-364-52)
Humidity	See Product Qualification and Test Sequence Group 5	Mated Connector 85°C ,85%HR,1000hours (EIA-364-31)
Temperature life(cold)	See Product Qualification and Test Sequence Group 8	Subject mated connectors to temperature life at -40°C for 96 hours.Measure Signal (EIA-364-59)
Temperature life(Heat)	See Product Qualification and Test Sequence Group 9	Subject mated connectors to temperature life at 120°C for 96 hours.Measure Signal (EIA-364-17,Test condition A)
Resistance to Wave Soldering Heat	See Product Qualification and Test Sequence Group 7 (Lead Free)	Solder Temp : 265±5°C , 10±0.5 sec.



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6 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test or Examination	Test Group								
	1	2	3	4	5	6	7	8	9
	Test Sequence								
Examination of Product					1、7		1	1、6	1、6
Low Level Contact Resistance			1、5	1、4	2、10		3	2、9	2、9
Insulation Resistance					3、9			3、8	3、8
Dielectric Withstanding Voltage					4、8			4、7	4、7
Overcurrent Loading	1								
Temperature rise		1							
Mating / Unmating Forces			2、4						
Durability			3						
Vibration				2					
Terminal/housing Retention Force						1			
Shock (Mechanical)				3					
Resistance to Wave Soldering Heat							2		
Thermal Shock					5				
Humidity					6				
Solderability						2			
Temperature life(cold)								5	
Temperature life(Heat)									5
Sample Size	2	2	4	4	4	4	4	4	4