

PB3500

specifications



spec sheet

utilities	<p><i>AC Input Power:</i> 100 to 240 Vac 50/60 Hz, Single Phase @ 15A service <i>AC Fuse:</i> 10A @ 115 VAC; 5A @ 240 VAC <i>Vacuum Supply:</i> Input: $\geq 25"$ of Mercury <i>Requirements:</i> Consumption: 3 SCFM <i>Air Pressure:</i> None Required</p>	
mechanical specifications	<p><i>Physical Dimensions:</i> Height: 54" (137 cm) Width: 63" (160 cm) Depth: 43" (109 cm) Weight: 759 lbs. (344 kg) Tie Down: Earthquake Tie Down Provided Portability: 12 Rolling Casters & 8 Heavy-Duty Rubber Feet Provided</p> <p><i>Wafer / Measurement Stage:</i> Diameter: 11" X 9.5" Semi-Round Flatness: 0.0002" TIR Planarity Test Area: 12" x 8" Raised Isolation Pin: 3 mil Std. (1-5 mil optional) Customer Changeable Flush Isolation Pin: 3 mil Std. (1-5 mil optional) Customer Changeable No. of Isolation Pins / Chuck: 3 Different Size or Type Isolation Pins at the Same Time Gram Force Pin: 3 mil Std. (1-5 mil optional) Customer Changeable Max Total Probe Tip Force: 220 lb. (100 kg) Travel: X = 12" (30.5 cm), Y = 8" (20.3 cm), Z = 0.75" (1.9 cm)</p> <p><i>Test Channel Multiplexer:</i> Type: Solid State, Kelvin Connections, Cableless Size/Modularity: Up to 3072 Channels in 64 Channel Increments For higher number of test channels contact factory</p> <p><i>Hinged Probe Card Adapter:</i> Accommodates: Various ITC Motherboards & Flipping of Probe Card for Repair Operation: Motorized Elevator</p> <p><i>Video System:</i> Alignment Resolution: 0.1 micron Type: B/W Field of View: 32 x 24 mil (17 x 13 mil optional) No. of Probes / Capture: 1 - Single Pin, 4-12 - Multi-Pin Capture (Pitch Dependent) Min. Probe Size: 0.2 mil Max. Probe Size: 10 mils Upper Video: Live Upper Video Standard</p>	
pc computer	<p><i>Standard Hardware:</i> Processor: Pentium P4, ≥ 3.0 GHz Industrial Computer Operating System: Windows 2000 or XP Pro w/ODBC Database for Programs & Data Hard Drive: ≥ 80 Gb Memory: ≥ 512 MB PC 100 Peripherals: 3.5" Floppy, CD-RW ROM Monitor: High Resolution 19" Color LCD, CE Approved I/O: Ethernet Card, 1 Serial Port, 1 Parallel Port, & USB</p>	
measurement system	<p><i>Number of Channels:</i> (4-Wire Kelvin Measurement) Standard: 512 Optional: Up to 3,072 Maximum Signal Pins: 3,072 (Upgrade to 6,016 Available) Maximum Total Pins: 10,000</p> <p><i>Compliance Voltage:</i> DC Test Software Adjustable from 3 to 10 Volts DC</p> <p><i>Components:</i> Resistors: Serial & Parallel Capacitors: Parallel</p>	
environmental requirements	<p><i>Ambient Temperature:</i> Operating: 68°F + 10°F/-5°F (20°C + 6°C/-3°C) Highest Accuracy & Repeatability: 68°F \pm 2°F (20°C \pm 1°C) Storage: 20°F - 102°F (-6°C - 39°C)</p> <p><i>Cleanliness:</i> Recommended: Class 10,000 (or better) Clean Room</p> <p><i>Humidity:</i> (Non-condensing) Operating: 0% - 70% RH Storage: 0% - 80% RH</p>	
motherboards	<p><i>Weight:</i> Motherboard: Approx. 25 lb. (11.4 kg) Retainer: Approx. 17 lb. (7.7 kg) Max. Probe Card Dia.: 19" (45.7 cm) Edge Cards: 4" to 8" (10 to 20 cm) Tools Req'd to Change Card: None Coupling: Repeatable Kinematic Coupling Calibration: Adjustable Planarity to 0.1 mil (2.54 microns)</p>	

Note: Specifications are subject to change without notice.

F.S. = Full Scale of the Given Range

RDG = % of Reading

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general	<i>Compliance Standards:</i>		Semi S2-93 & S2-93A	Standard		
	<i>Safety Guidelines:</i>		Semi S8-95 Ergo Guidelines:	Standard		
		<i>CE Mark:</i>		Standard		
		<i>Other Standards:</i>	ANSI/RIA R15.06-1992 (Robotic Safety), NIST Q, ASTM 5, FCC 47, EMC Directive 89/336/EEC, EN 50082-1:1992 (ESD), EN 55022:1988 (Emissions), EN 60555-2:1992 (Harmonics)			
		<i>NIST Traceability:</i>		Optional		
accuracy specification	Test	Range	Forcing	Compliance	Resolution	Accuracy (±)
	Resistance	0 - 1Ω	7 mA	10V	0.00004Ω	1% F.S. + 0.001Ω
electrical measurements		0 - 10Ω	7 mA	10V	0.0004Ω	1% F.S. + 0.010Ω
		0 - 100Ω	7 mA	10V	0.004Ω	0.5% F.S. + 0.100Ω
		0 - 1kΩ	7 mA	10V	0.04Ω	0.5% F.S. + 1.000Ω
		0 - 10kΩ	0.9 mA	10V	0.347Ω	0.5% F.S. + 10.00Ω
		0 - 100kΩ	10V	1mA	3.125Ω	0.5% F.S. + 100.0Ω
		0 - 1MΩ	10V	10μA	31.25Ω	0.5% F.S. + 1kΩ
		0 - 10MΩ	10V	10μA	312.5kΩ	1% F.S. + 10kΩ
		0 - 100MΩ	10V	10μA	3125kΩ	1% F.S. + 100kΩ
	Leakage	0 - 1μA	10V	10μA	30pA	0.1% RDG + 0.001μA
		0 - 10μA	10V	10μA	300 pA	0.1% RDG + 0.010μA
		0 - 100μA	10V	10μA	3,000 pA	0.1% RDG + 0.10μA
		0 - 1000μA	10V	10μA	30,000 pA	0.1% RDG + 1.0μA
	Capacitance	10nF	100μA	10V	10pF	1% F.S. + 10pF
		100nF	100μA	10V	100pF	1% F.S. + 100pF
		1μF	1 mA	10V	1nF	1% F.S. + 1nF
		10μF	1 mA	10V	10nF	1% F.S. + 10nF
	100μF	10 mA	10V	100nF	1% F.S. + 100nF	
	1,000μF	10 mA	10V	1μF	1% F.S. + 1μF	
	10,000μF	10 mA	10V	10μF	1% F.S. + 10μF	
	> 10,000μF	Contact Factory for Specifications				
accuracy specification	Test	Travel	Load	Resolution	Accuracy (±)	Repeatability (±) 3σ
	Planarity	0.75" (Z)	100 lbs.	0.1 micron	2.0 micron (0.08 mils)	1.0 micron (0.04 mil)
physical measurements	Alignment	12" x 8" (X x Y)	100 lbs.	0.1 micron	2.0 micron (0.08 mils)	1.2 micron (0.05 mil)
		Range	Compliance	Resolution	Accuracy (±)	Repeatability (±) 3σ
	Gram Force	0 - 30 gram	30 gram	0.1 gram	1% F.S. + 0.1 gram	0.15 grams
		0 - 60 gram	60 gram	0.2 gram	1% F.S. + 0.2 gram	0.30 grams

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