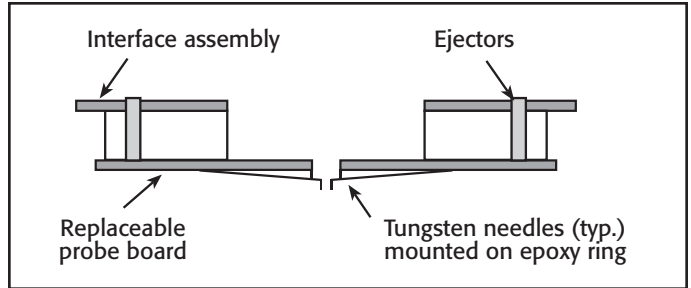


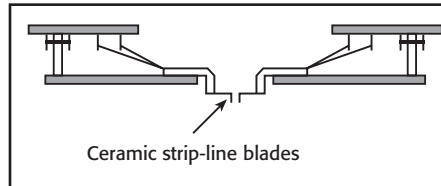
S600 Series

Automatic Parametric Test Probe Cards



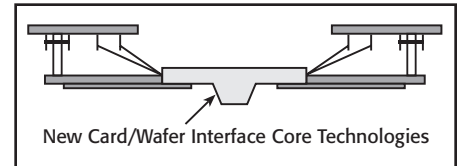
Epoxy Ring Probe Card

- Low cost solution
- Only the probe board needs to be replaced for maintenance.
- Simply push on ejectors to separate boards; align with offset pins and push together to reconnect.
- Largest number of suppliers.



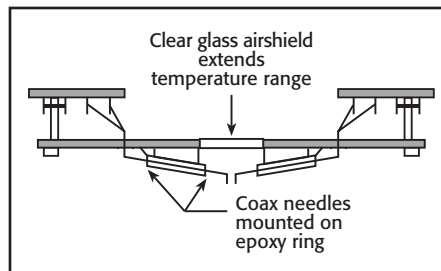
High Performance Ceramic Blade Probe Card

- Signals guarded to blade tips to ensure signal integrity.
- Strip-line ceramic blades.
- Maintainable in-house.



Vertical Probe DC, Vertical Probe RF, High Frequency RF Probe Cards

- For probing smaller probe pads and tighter pitches.
- Mid-range sensitivity and extended temperature range.
- Less planarization wear.



High Performance Coax Epoxy Probe Card

- Most sensitive measurements at lower cost of ownership.
- Guarded coaxial probe needles through epoxy ring to ensure signal integrity and minimize leakage.
- Probe lifetime about three times longer than ceramic blades.

Faster measurements and minimal dielectric absorption from a patented design

- **Epoxy Ring:** Provides lowest cost for pA level measurements
- **High Performance Ceramic Blade:** Provides fA level sensitivity
- **High Performance Coax Epoxy:** Provides fA sensitivity and extended temperature range
- **Vertical Probe DC, Vertical Probe RF:** Tighter pitch for probing smaller pads using some of the latest probe card/wafer contact interface technologies
- **High Frequency RF:** Up to 40GHz bandwidth for RF measurements on wafers
- All probe cards are compatible with Probe Card Manager (PCM) option, Offline Probe Card Manager (OPCM) option, and SofTouch option

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S600 Series

Automatic Parametric Test Probe Cards

Specification Summary¹ (See S600 System Specifications for complete specifications.)

	High Performance Coax Epoxy (P/N 60237-PCE)	High Performance Ceramic Blade (P/N 60239-PCC)	Epoxy Ring ² (P/N 60238-PPC)		Vertical Probe DC, Vertical Probe RF (P/N 60236-MPC)	High Frequency RF (to 40GHz) (P/N 60236-MPC) or (P/N 60239-PCC)
Leakage: Pin to Ground, Pin to Pin	<1 fA/V	<1 fA/V	<200fA/V typical		<20 fA/V	Check manufacturers' specification
Capacitance: Pin to adjacent pin: Pin to non-adjacent pin:	1 pF typical	1 pF typical	PPC		1 pF typical 200 fF typical	Check manufacturers' specification
			5 pF typical	2.5 pF typical		
Chuck temperature range on supported probers, chucks	-55°C to 200°C	Ambient to 200°C	Ambient to 200°C		-55°C to 125°C	Check manufacturers' specification
Vendors	Mesatronic, MJC, JEM America M.P.I.	SV Probe, Mesatronic, Rucker & Kolls, Inc., DFW Test, Inc., Wentworth Laboratories	Keithley data package available to any manufacturer at no cost.		Cascade Microtech, Inc., Mesatronic, FormFactor	GGB Industries, Inc.

- Electrical specifications provided are based on measured capability of the probe card technology, specific performance specifications should be determined by the probe card vendor. Mechanical specification including, but not limited to, alignment, planerization, gram force, and mechanical tolerance across temperature range are specified by the probe card vendor.
- Epoxy Ring Interface Assembly (Top) available only from Keithley. For specifications at extended temperatures, consult complete S600 System Specifications. Vendor list complete at time of publication; for most up-to-date list, contact Keithley.

Supported Probers

Accretch-TSK: APM-90, UF-190, UF-200, UF-300.
 Electroglas: EG2001, EG2010, EG4080, EG4085, EG4090, EG41200, EG51300, EG6000.
 TEL: P-8, P-12.
 Most common chucks supported; contact factory for complete list. Contact factory for information on probers not listed above.
 For thermal specifications, consult factory.

Approved Manufacturers (Licensed Manufacturing Sites)

Cascade Microtech, Inc.
 2430 NW 206th Ave.
 Beaverton, OR 97006 USA
 Tel: (503) 601-1000
 Fax: (503) 601-1002
www.cascademicrotech.com

DFW Test, Inc.
 601 N. Glenville Drive
 Suite 155
 Richardson, TX 75081 USA
 Tel: (972) 301-3000
 Fax: (972) 231-1895
www.dfwtest.com

FormFactor USA
 7005 SouthFront Rd.
 Livermore, CA 94551 USA
 Tel: (925) 290-4169
 Fax: (925) 290-4172
www.formfactor.com

GGB Industries, Inc.
 P.O. Box 10958
 Naples, FL 34101 USA
 Tel: (239) 643-4400
 Fax: (239) 643-4403
www.picoprobe.com

JEM America
 3000 Laurelview Court
 Fremont, CA 94538 USA
 Tel: (510) 683-9234
 Fax: (510) 683-9790
www.jemam.com

M.P.I.
 No. 155, Chung-Ho St.,
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 Hsinchu Hsiang, Taiwan, R.O.C.
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 Fax: (886)-3-5518381
www.mpi.com.tw

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 Fax: (33)-476-65-81-29
www.mesatronic.fr

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 Musashino-shi, Tokyo 180-8508 Japan
 Tel: (81)-422-21-0194
 Fax: (81)-422-21-2680
www.mjc.co.jp

Rucker & Kolls, Inc.
 13650 TI Blvd., Suite 309
 Dallas, TX 75243 USA
 Tel: (972) 238-0800
 Fax: (972) 238-0821
www.ruckerkolls.com

SV Probe
 2120 West Guadalupe,
 Suite 112
 Gilbert, AZ 85233
 Tel: (480) 635-4700
 Fax: (480) 558-7440
www.svprobe.com

Wentworth Laboratories
 500 Federal Road
 Brookfield, CT 06804 USA
 Tel: (203) 775-9311
 Fax: (203) 775-6093
www.wentworthlabs.com

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Rev. 0407

S600 Series

Automatic Parametric Test Probe Cards Alternative Probe Card Solutions and Vendors

The following table is a list of vendors and probe cards that have been used with Keithley S600 Series Parametric Test Systems and is provided for information only for alternate probing requirements. These cards do not fit within standard card categories supported by Keithley and are not qualified as proven to meet specific Keithley performance standards. Please contact these vendors directly to set purchasing specifications. Keithley will not assume any responsibility for cards selected from this list.

Card Types

Takumi Pico S600 Series	(100 fA/V medium performance vertical probe card)
Takumi Femto S600 Series	(<1 fA/V high performance vertical probe card)

COMPANY INFORMATION

FormFactor USA
7005 SouthFront Rd.
Livermore, CA 94551 USA
Tel: (925) 290-4169
Fax: (925) 290-4172
www.formfactor.com

Tile-on-card (High Temperature Specialty)

COMPANY INFORMATION

Celadon Systems, Inc.
11975 Portland Ave South, Suite 124,
Burnsville, MN 55337, USA
Tel: (952) 746-6222
Fax: (952) 746-6225
www.celadonsystems.com

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