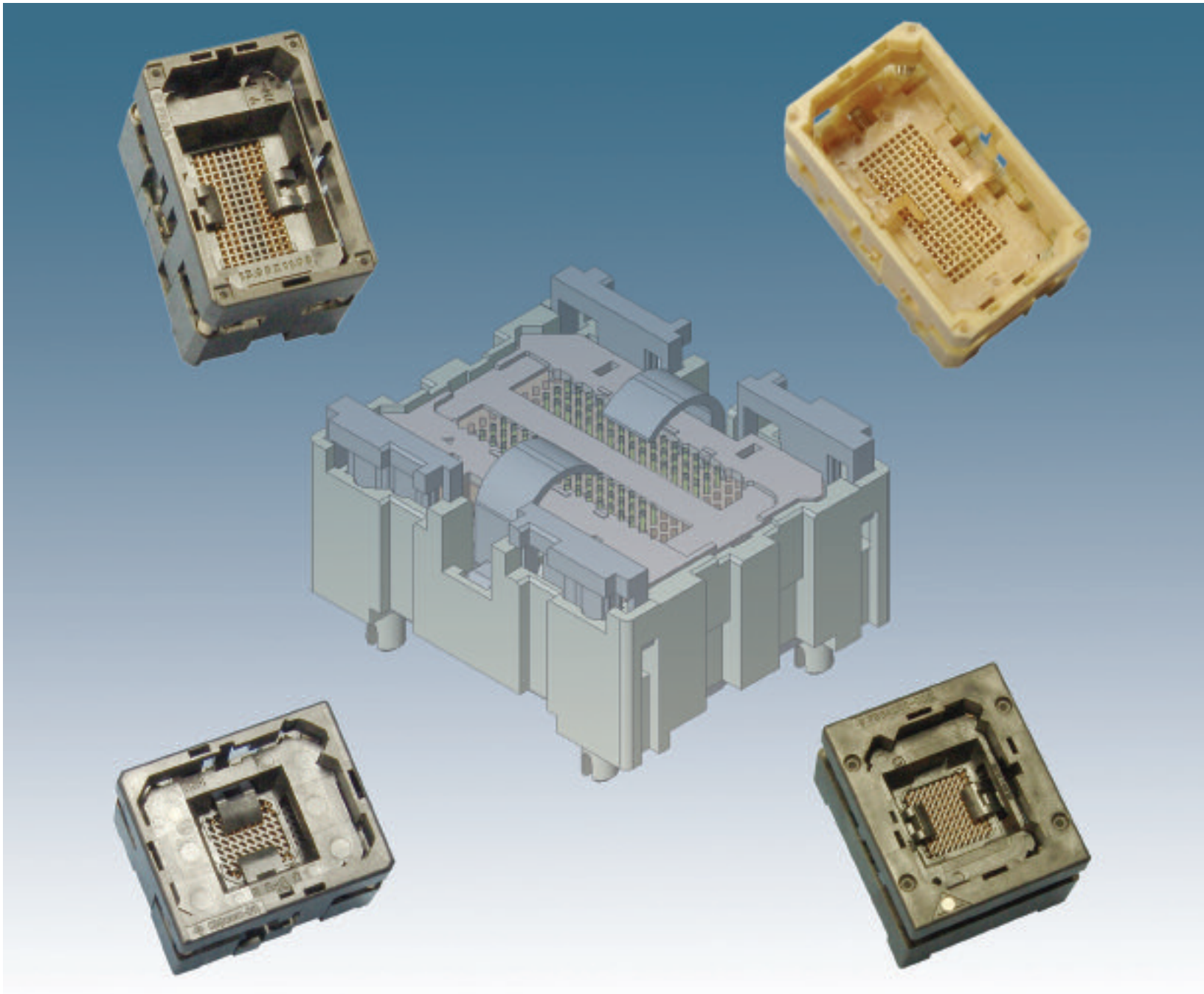
Sensata Technologies

MEMORY BURN-IN SOCKETS

A Network of Burn-in Solutions



Reliable. Compact. Innovative.

Innovators in Socket Technology

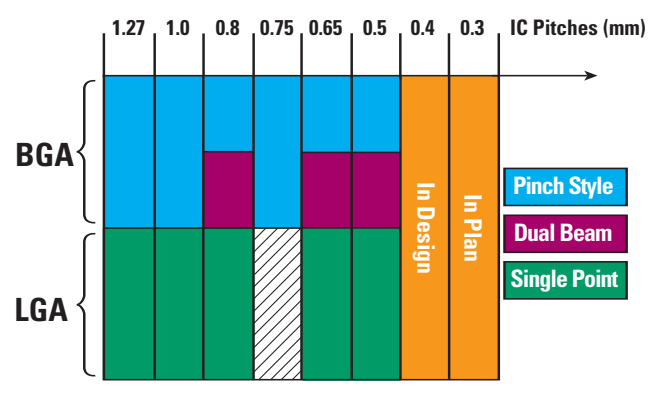
Sensata Technologies Interconnection is your partner in developing solutions.

- We provide proven solutions to our customers, worldwide.
- Sensata delivered more than 8 million memory sockets in 2004.
- The Interconnection team works on next generation sockets to meet the newest requirements of our customers' rapidly growing markets.

Product Roadmap

The future is clear – More I/O at smaller sizes

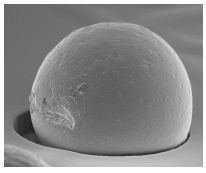
- Using the latest 3D design tools such as SolidWorks and non-linear FEA, the Interconnection engineers create new designs to meet your schedule.
- The availability of on-site model shops and rapid prototyping facilities allows the creation of prototypes so customers can evaluate new designs and concepts in days instead of weeks.
- A comprehensive technical service laboratory with advanced thermal analysis capabilities and wind tunnels allows Sensata to evaluate the thermal characteristics of of the sockets.



Moore's Law continues to be validated as semiconductor companies drive more function in smaller form factors. The back-end packaging and assembly teams support this drive with the development of new package formats for SIP, stacked die and stacked packages. Suppliers of burn-in sockets are challenged to develop sockets for these new packages with higher I/O. Sensata Technologies Interconnection team eliminates the burn-in socket selection process by partnering with our customers to understand their needs and provide the optimal solution.

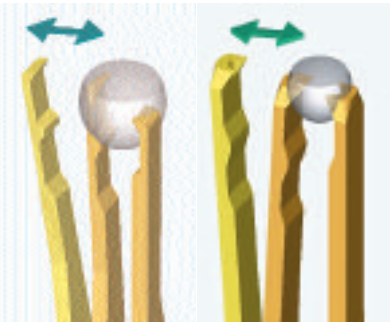
Product Features

Three primary contact designs have been developed to satisfy customer requirements for reliable electrical and mechanical interconnect. These contacts leave small "witness marks" on the solder ball and are available for Pb/Sn and Pb-free solder balls. The contacts, which open to allow package insertion, touch the solder ball above the equator when closed.



Witness mark left by Sensata contact

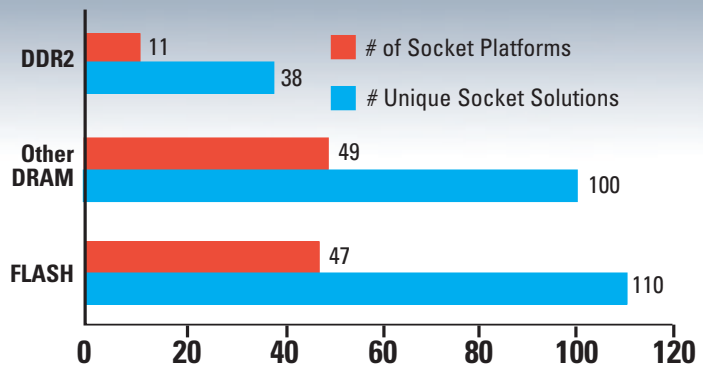
- Various contact designs
- Lower resistance contacts
- Customized plating options



Offset contact **Inline contact**

Delivering World Class Solutions

Providing customers with solutions, Sensata Technologies Interconnection creates burn-in sockets for the semiconductor electronics industry to ensure the quality and reliability of the packaged device. Sensata engineers work with customers to provide a burn-in socket which maximizes the customers' burn-in system capacity for the lowest overall cost of ownership. Sensata offers a portfolio of sockets to serve memory manufacturers.



Design Features

- Open-top, auto-load actuated socket
- Small socket outline maximizes burn-in board density and process throughput
- Multiple package outlines and heights
- Custom options: adapter-less, coverless, lead lengths, plating options, color options

BGA Memory Socket Platforms (Series)

Memory Portfolio

- Extensive product offering
- Numerous pitches available
- Socket outlines maximize boad density

Pitch	1.27mm	1.0mm	0.8mm		0.75mm	0.65mm	0.5mm
Min. Outline	19.5x24x17	27.5x32.5x17	22x18x15.9		19x18x15.4	19x19x15.8	26x19.5x18.1
Max. Outline	33.2x28.4	46.2x46.2x18.4	35x35x23		30x26.5x17.3	28x26x19	40x40x19.6
	CBGxxx-049	CLGxxx-012	CBGxxx-A100	CBGxxx-A110	CBGxxx-A111		CBGxxx-A85
	CBGxxx-059	CBGxxx-A109	CBGxxx-051	CBGxxx-A118	CBGxxx-020		CBGxxx-A120
		CBGxxx-052	CBGxxx-056	FBGAxxx-A104	CBGxxx-042		CBGxxx-A87
		CBGxxx-069	CBGxxx-057	FBGAxxx-A105	CBGxxx-035		CBGxxx-086
		CBGxxx-087	CBGxxx-063	FBGAxxx-003	CBGxxx-050		CBGxxx-A94
		FBGAxxx-027	CBGxxx-073	FBGAxxx-012	FBGAxxx-021	CBGxxx-079	
		FBGAxxx-030	CBGxxx-077	FBGAxxx-014	FBGAxxx-041	CBGxxx-101	
			CBGxxx-095	FBGAxxx-022			
			CBGxxx-103	FBGAxxx-023			
				FBGAxxx-025			
			CBGxxx-A70	FBGAxxx-037			
			CBGxxx-A98	FBGAxxx-040			
			CBGxxx-A99	FBGAxxx-044			

Socket Attributes

- Proven contact
- Small socket outline
- Numerous socket platforms
- Removable adapter

Typical Memory Socket Ratings	
Current	0.25A to 0.5A per pin @ 125°C
Contact Style	Varies based on Pb or Pb-free solder balls (10 - 20 gms/pin)
Actuation Force	1 Kg to 3.5 Kg (typ)
Pkg. Insertion Force	ZIF
Inductance	Approx. 6nH @ 50 MHz
Contact Resistance	Initial: 100 mOhm (max) @ 10mA; 10K cycles: 1 Ohm (max) @ 10mA
Insulation Resistance	1000 Mohms @ 500 VDC
Dielectric Withstand Voltage	For 1 minute @ 500 VAC
Temperature Rating	-55°C to 150°C

Sensata Technologies Interconnection Business Global Marketing and Sales Contacts

China
Cecilia Xue
No. 18 Chuangxin Avenue
Xinbei District
Changzhou, Jiangsu Province
China 213031
+86.519.85161119
cecilia-xue@sensata.com

Europe
Andrea Zampieri
Viale colleoni 15
20041 Agrate Brianza
Milano, Italy
+39.039.6568.315
a-zampieri@sensata.com

Thomas Sutton
P.O. Box 320486
Los Gatos, CA 95032
USA
+1.408.356.0369
tsutton@sensata.com

Beverly Wilkins
529 Pleasant Street
MS B-29
Attleboro, MA 02703
USA
+1.508.236.1415
bwilkins@sensata.com

Japan
Toyokazu Ezura
Sumitomo Fudosan Bldg 4F
8-15-17 Nishi-Shinjuku
Shinjuku-ku, Tokyo
Japan 160-0023
+81.3.5338.1106
ezura@sensata.com

Korea
J. S. Shin
67-1 Sakok-Ri, Ewol-Myon
JinCheon-Gun
Chung Cheong Buk-Do
Korea 365-823
+82.43.539.6227
knam1@sensata.com

Singapore
Vincent Toh
3 Bishan Place, #02-04
CPF Building
Singapore 579838
+65.6478.6867
vincenttoh@sensata.com

Taiwan
Liew Han Way
7F, 163, Sec 1, Keelung Road
Sin Yi District, Taipei
Taipei R.O.C.
+866.2.7602006 ext.2808
hanway.liew@sensata.com

USA - Eastern Region
Beverly Wilkins
529 Pleasant Street
MS B-29
Attleboro, MA 02703
USA
+1.508.236.1415
bwilkins@sensata.com

Thomas Sutton
P.O. Box 320486
Los Gatos, CA 95032
USA
+1.408.356.0369

USA - Western Region
Thomas Sutton
P.O. Box 320486
Los Gatos, CA 95032
USA
+1.408.356.0369
tsutton@sensata.com

Beverly Wilkins
529 Pleasant Street
MS B-29
Attleboro, MA 02703
USA
+1.508.236.1415
bwilkins@sensata.com

Sensata Technologies

The World Depends on Sensors and Controls

www.sensata.com

Important Notice: Sensata Technologies (Sensata) reserves the right to make changes to or discontinue any product or service identified in this publication without notice. Sensata advises its customers to obtain the latest version of the relevant information to verify, before placing any orders, that the information being relied upon is current. Sensata assumes no responsibility for infringement of patents or rights of others based on Sensata applications assistance or product specifications since Sensata does not possess full access concerning the use or application of customers' products. Sensata also assumes no responsibility for customers' product designs.

© Copyright 2009 Sensata Technologies
Printed in U.S.A., May, 2009