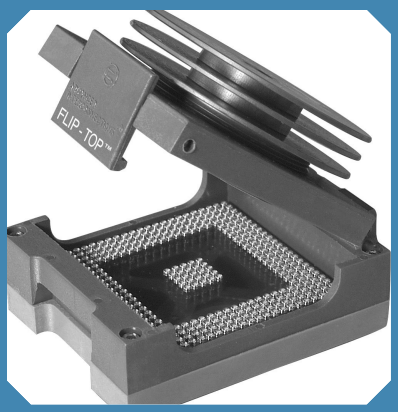
Flip-Top™ BGA Sockets



Features:

- Designed to save space on new and existing PC boards in test, development, programming and production applications.
- No external hold-downs or soldering of BGA device required.
- AIC exclusive solder ball terminals offer superior processing.
- Uses same footprint as BGA device.
- Available with integral, finned heat sink or coin screw clamp assembly.

Specifications:

Terminals:
Brass - Copper Alloy (C36000) ASTM-B-16

Contacts:
Beryllium Copper (C17200) ASTM-B-194

Plating:
G - Gold over Nickel

Terminal Support:
Polyimide Film

Spring Material:
Stainless Steel

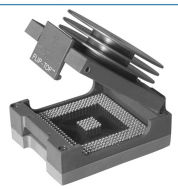
Lid, Latch, Heat Sink/Coin Screw and Support Plate Material:
Aluminum

Solder Ball:
Standard: 63Sn/37Pb
Lead-free: 95.5Sn/4.0Ag/0.5Cu

ADVANCED INTERCONNECTIONS
5 Energy Way, West Warwick, RI 02893 USA
Tel: 800.424.9850 | 401.823.5200
Fax: 401.823.8723
info@advanced.com | www.advanced.com
Catalog 16A

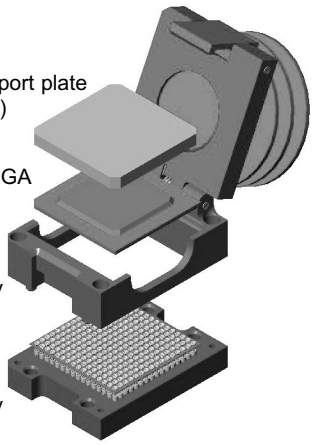
Flip-Top™ BGA Sockets
1.27mm and 1.00mm Pitch

Table of Models

	Description: Socket (FRG, 1.27mm pitch) Guide Box and Base Mat'l: High Temp. Liquid Crystal Polymer (LCP) Index: -40°C to 260°C (-40°F to 500°F)	Socket Size: 3.00mm wider and 10.00mm longer than BGA device (for packages larger than 15.00mm square).*
	Description: Socket (FRH, 1.00mm pitch) Guide Box Mat'l: High Temp. Liquid Crystal Polymer (LCP) Index: -40°C to 260°C (-40°F to 500°F) Base Mat'l: FR-4 Glass Filled Epoxy Index: -40°C to 140°C (-40°F to 284°F)	Socket Size: 3.00mm wider and 10.00mm longer than BGA device (for packages larger than 15.00mm square).*

FRG replaces FTG.
* For device packages smaller than 15.00mm square, the socket size is X = .709/(18.00) and Y = .984/(25.00).

How It Works



SMT models are shipped un-assembled to ease solderability. Thru-hole models are shipped fully assembled.

1. Lower assembly is soldered to PC board with no external hold-down mechanism. Thru-hole models may be soldered to PC board or plugged into a mating socket.
2. Upper assembly inserts easily to lower assembly by aligning guide posts and installing four (supplied) screws.
3. Finned heat sink or coin screw is screwed down to flush with bottom of lid.
4. Lid opens easily by pressing latch.
5. BGA device is inserted by aligning A1 position with chamfered corner of Flip-Top™ socket. Place support plate on top of device, close lid, engage heat sink or coin screw, and socket is ready for use.

See page 15 for Generic Reflow Profiles.

Detailed Installation and General Usage Instructions are provided with product.

How To Order

RoHS Compliant Pb Free

1 FR G XXXX - 821 G G XX

Footprint Dash #
If Applicable*

Model Type
RoHS Compliant Insulator:
FR - Flip-Top™ BGA Socket

Pitch
G = .050/(1.27mm)
H = .039/(1.00mm)

Number of Positions
*See footprints section or online database.

Terminal Type
See options

Terminal Plating
RoHS Compliant:
G - Gold

Contact Plating
RoHS Compliant:
G - Gold

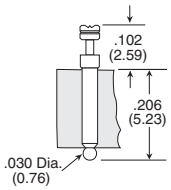
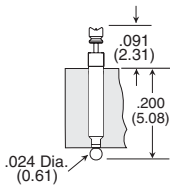
Clamp Options
HS - Heat Sink (3 Fins Std.)
CS - Coin Screw

inch/(mm)

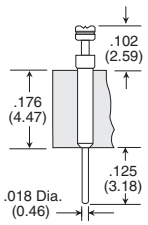
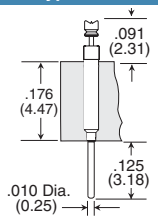
Flip-Top™ BGA Sockets
1.27mm and 1.00mm Pitch

Terminals (for test, development and production applications)

SMT (Surface Mount)

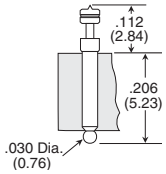
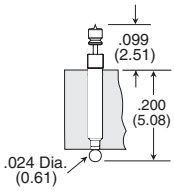
Tin/Lead: Type -690 Lead-free: Type -821	Tin/Lead: Type -752 Lead-free: Type -837
1.27mm pitch	**1.00mm pitch**
	

Thru-Hole

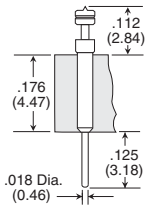
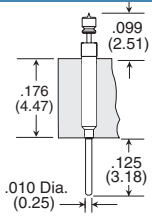
Type -708	Type -754
	

Terminals (for LGA or de-balled BGA device applications)

SMT (Surface Mount)

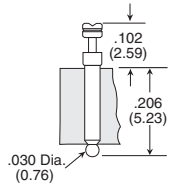
Tin/Lead: Type -713 Lead-free: Type -822	Tin/Lead: Type -762 Lead-free: Type -838
1.27mm pitch	**1.00mm pitch**
	

Thru-Hole

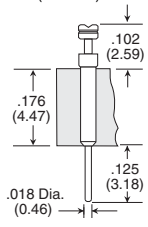
Type -712	Type -763
	

Terminals (for BGA device test applications)

SMT (Surface Mount)

Tin/Lead: Type -659 Lead-free: Type -820	Tin/Lead: Type -TBD Lead-free: Type -TBD
1.27mm pitch	**1.00mm pitch**
	Consult Factory

Thru-Hole

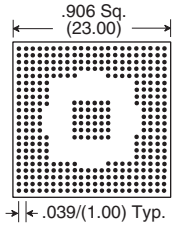
Type -657	Type -TBD
Available with .016/(0.41mm) Diam. tail; Type -709 	Consult Factory

inch/(mm)

Flip-Top™ BGA Sockets

Footprints:

360 Pins
Footprint Number 360-2



22 x 22 rows

- Full grid molded insulators populated to exact device pattern.
- Over 1000 footprints available - see page 99, search online or submit your device specs.
- Use our Build-A-Part feature or search in our online BGA Socket Finder™ at www.bgasockets.com.

Available Online:

- RoHS Qualification Test Report
- Technical articles
- Test data
- Signal Integrity Performance
- CAD drawings
- BGA Footprints

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