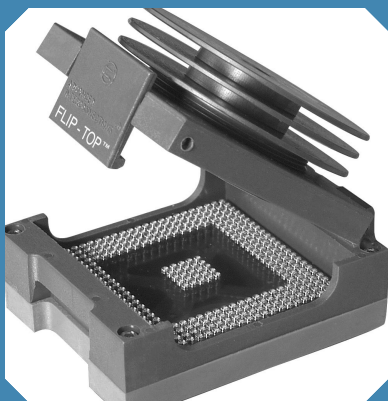


# Flip-Top™ BGA Sockets



## 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:

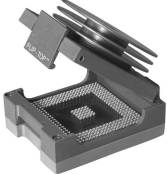
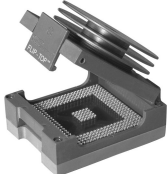
Aluminum

### Solder Ball:

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

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

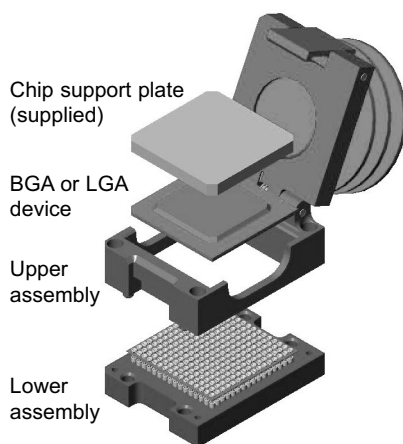
## Table of Models

	Description: <b>Socket (FRG, 1.27mm pitch)</b> 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: <b>Socket (FRH, 1.00mm pitch)</b> 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



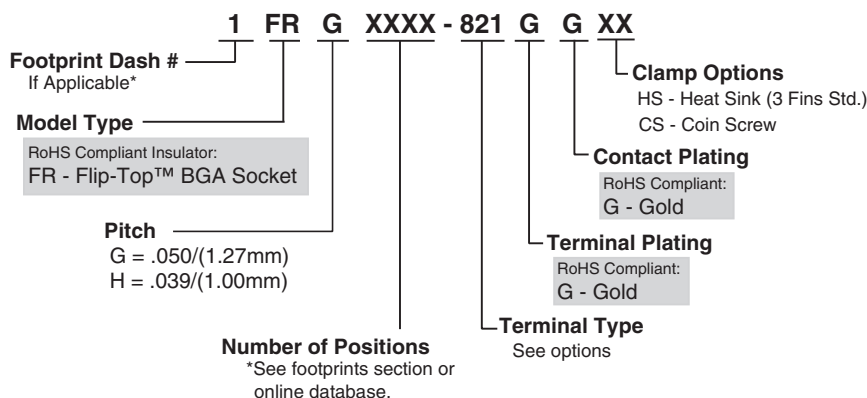
SMT models are shipped un-assembled to ease solderability. Thru-hole models are shipped fully assembled.

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



Tel. 0 89 / 158 126-0

Internet: <http://www.infratron.de>

e-mail: [info@infratron.de](mailto:info@infratron.de)

# Flip-Top™ BGA Sockets

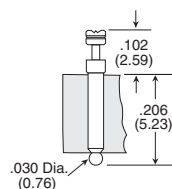
## 1.27mm and 1.00mm Pitch

### Terminals (for test, development and production applications)

SMT (Surface Mount)

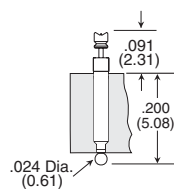
Tin/Lead: Type -690  
Lead-free: Type -821

1.27mm pitch



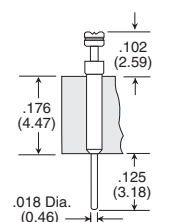
Tin/Lead: Type -752  
Lead-free: Type -837

1.00mm pitch

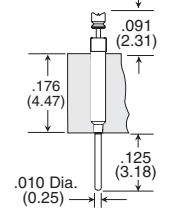


Thru-Hole

Type -708



Type -754

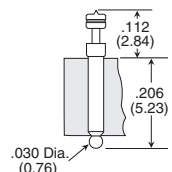


### Terminals (for LGA or de-balled BGA device applications)

SMT (Surface Mount)

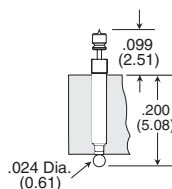
Tin/Lead: Type -713  
Lead-free: Type -822

1.27mm pitch



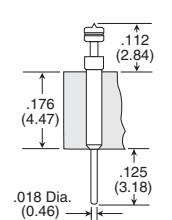
Tin/Lead: Type -762  
Lead-free: Type -838

1.00mm pitch

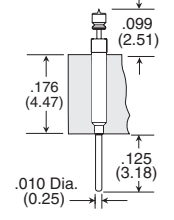


Thru-Hole

Type -712



Type -763

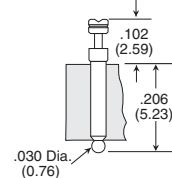


### Terminals (for BGA device test applications)

SMT (Surface Mount)

Tin/Lead: Type -659  
Lead-free: Type -820

1.27mm pitch



Tin/Lead: Type -TBD  
Lead-free: Type -TBD

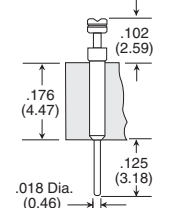
1.00mm pitch

Consult  
Factory

Thru-Hole

Type -657

Available with .016/(0.41mm) Diam. tail; Type -709



Type -TBD

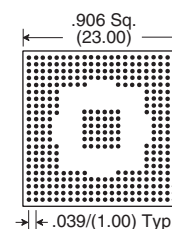
Consult  
Factory

# 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](http://www.bgasockets.com).

## Available Online:

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



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e-mail: [info@infratron.de](mailto:info@infratron.de)