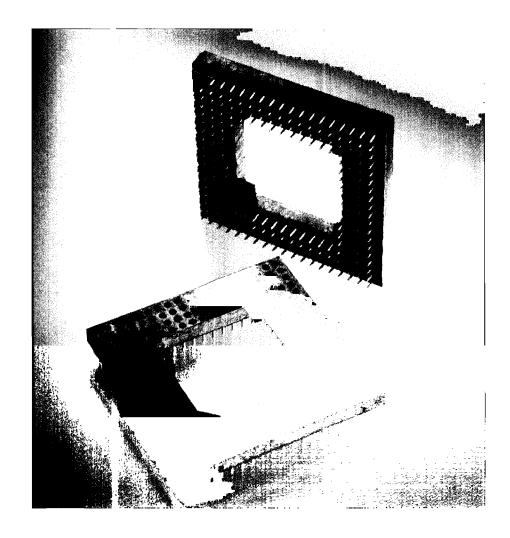
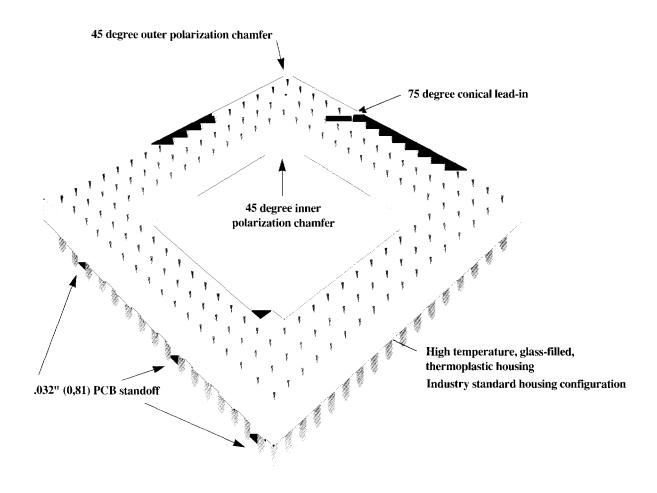
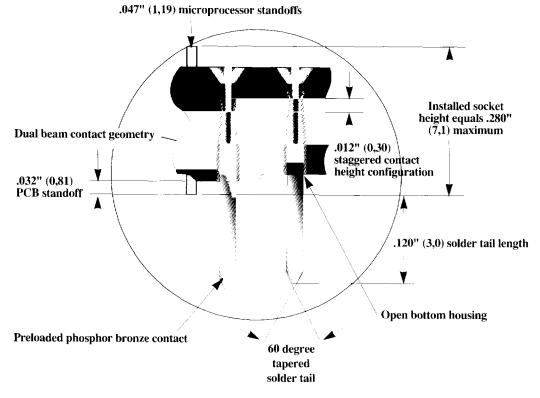
# LIF PGA Socket



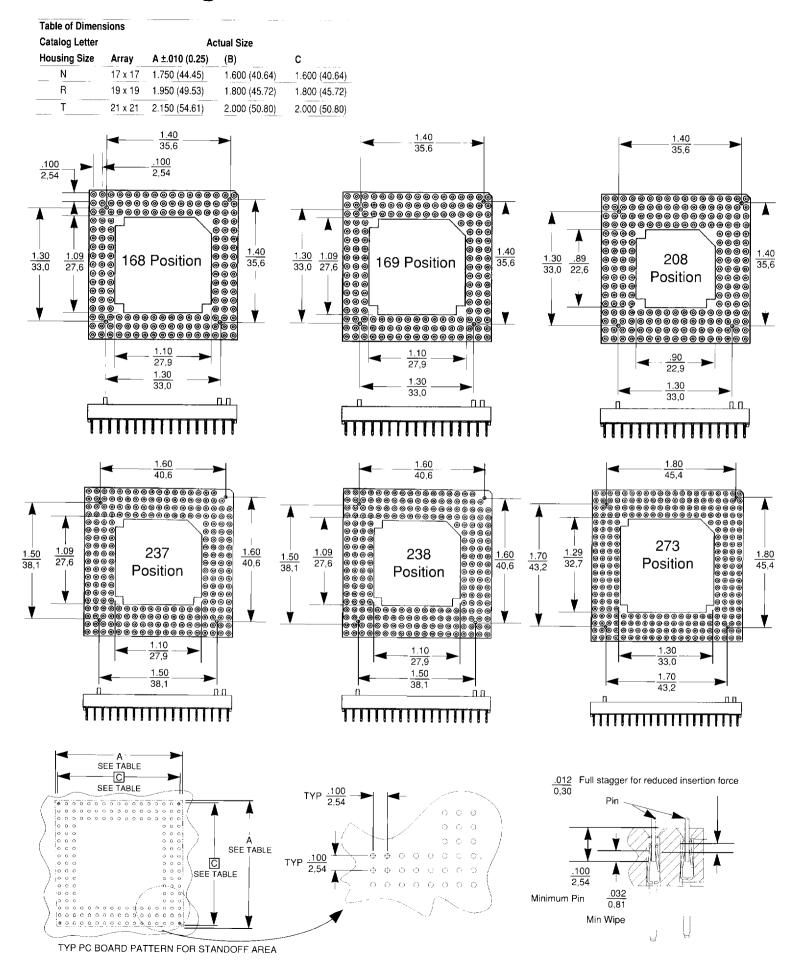


# **LIF PGA Socket**





# **PC Board Drilling Dimensions**



# **Design Features**

- This highly accommodating socket is designed with many valuable features. It is constructed of high temperature, glass-filled Thermoplastic so it will withstand both I.R. and vapor phase solder reflow temperatures and it has a UL rating of 94-VO.
- To provide low insertion force with high normal force characteristics this socket is designed with .012" (0,3) staggered contact configuration. A typical 169 position seating force is less than 40 pounds.
- To accommodate Intel based microprocessors the sockets are available in 168, 169, 208, 237, 238 and 273 positions.

- The socket's industry-standard housing configuration includes convenient installation features:
  - it occupies the same PCB area as the Microprocessor
  - installed socket height equals .280" (7.1) maximum which allows .500" (12.7) of spacing between PCBs
  - a 75° conical lead-in assures superior microprocessor pin guidance.
  - the preloaded phosphor bronze contact accepts .016 - .020" (0.41 - 0.51) diameter pins
  - 60° tapered solder tail facilitates a smooth entry into the PCB
  - .120" (3.0) solder tail length accommodates industry standard .0625" (1.59) thick PCBs
  - the socket enlists dual beam contact geometry by providing two large gold plated surfaces for maximum contact wipe

- The #1 pin locator is provided by a 45° outer polarization chamfer while the 45° inner polarization chamfer makes the socket compatible with robotic assembly. Burndy tube packaging also contributes to automatic handling while providing superior pin protection.
- The socket's dimensions provide for optimal microprocessor operation:
  - .047" (1.19) Microprocessor standoffs and the open bottom housing permit improved air flow and cooling of microprocessors
  - .032" (0.81) PCB standoff ensures proper solder joint inspection along with easy repairs and cleaning

## **Performance Characteristics**

### **Electrical**

■ Voltage Rating: 28 VAC at .5 amps max

 Current Rating: 2 ampere with 30° rise over ambient

■ Contact Resistance:

Initial — 10 milliohms max Post Test — 20 milliohms max

■ Capacitance: 2.0 pf max at 10 MgHz

### Material

- Housing:
  - Glass filled, High Temperature Thermoplastic
  - UL Rating: UL94-VO
  - Color: Black
- Contacts: Copper Alloy

### **Finish**

- Contact Plating:
  - Underplate:
  - 50 microinches (1.27 microns) min nickel
  - Mating area variations:

15 microinches (0.38 microns) min gold 10 microinches (0.25 microns) min palladium/nickel with gold flash

25 microinches (0.63 microns) min palladium/nickel with gold flash (see plating type designation below)

Solder Tail Area:
100 microinches (2.54 microns)
min tin/lead

### **Environmental**

■ Operating Temperature: -40°F (-40°C) to +203°F (+95°C)

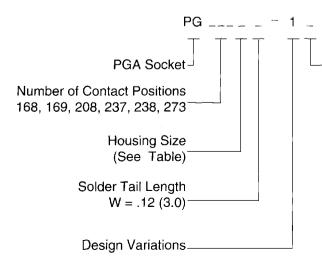
### Mechanical

- Durability: 25 cycles
- Insertion Force:

3.0 oz (0.83N) Max Avg (.020 (0.51) Dia Pin)

Extraction Force:0.53 oz (0.15N) Min Avg (.020 (0.51) Dia Pin)

# Part Numbering System



Plating Type

A= 15 microinches (0.38 microns) min gold,

100 microinches (2.54 microns) min tin/lead,

50 microinches (1.27 microns) min nickel.

E= 10 microinches (0.25 microns) min palladium/nickel with gold flash,

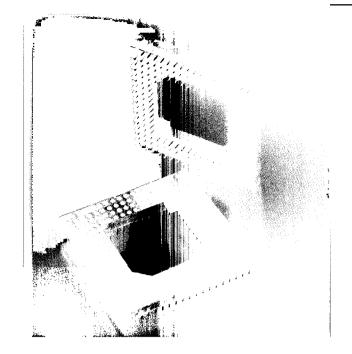
100 microinches (2.54 microns) min tin/lead,

50 microinches (1.27 microns) min nickel.

F= 25 microinches (0.63 microns) min palladium/nickel with gold flash,

100 microinches (2.54 microns) min tin/lead,

50 microinches (1.27 microns) min nickel.



# The Five <u>Best</u> Reasons To Choose Burndy's LIF PGA Sockets

# 1. Quality, Reliability & Performance

Burndy's LIF PGA Sockets are designed and manufactured to give you the highest quality, reliability and performance possible.

They not only offer design features critical to PGA Socket dependability, but quality you can get only through control of the entire manufacturing process.

Proof positive, Burndy's LIF PGA Sockets are U.L. Approved and have survived stringent tests by some of the top OEM's in the business. Burndy's LIF PGA's are now in use worldwide.

# 2. Inventory & Availability

Because Burndy has made a major commitment of inventory and production capacity to the LIF PGA Series, in most cases you can have the connectors you want, where and when you want them.

Burndy's LIF PGA Sockets are readily available in the following positions: 168, 169 & 208 (17 x 17 grid), 237 & 238 (19 x 19) and 273 for Intel's Pentium™ microprocessor (21x21 grid).

If a standard offering does not meet your needs, let us help. Burndy's design and manufacturing engineers excel at finding cost efficient, modified-standard or custom solutions. Just call your Burndy sales representative.

# 3. Competitive Pricing

Try quoting Burndy! Cost effective design, manufacturing and material selection has established Burndy as the low cost producer of LIF PGA Sockets.

Further, as the market leader in I.C. Sockets, offering a complete socket line provides price advantages to customers that use a variety of Burndy manufactured products.

# 4. Innovative Engineering

As a leader in connector innovation, Burndy stresses continuous improvement at all levels from engineering to manufacturing. You can see the results of the LIF PGA performance features as detailed in this brochure.

# 5. One Solid Source For All Your Socket Requirements

For every I.C. Socket requirement, Burndy is your dependable source.

- QILE Thru-Hole PLCC Socket
- QSIE SMT PLCC Socket
- 223 Dual Beam Dip Socket
- MEMORYMATE .050" SIMM Socket
- PLN/PSLN LIF and Super LIF Machined pin PGA Socket





# **Contact Burndy for all your socket requirements!**

Designers and engineers have long recognized the advantages of using sockets to achieve I.C. pluggability. In addition to simplifying production, sockets add versatility to the finished product and facilitate field service. With the current proliferation of applications employing active devices such as components of all sizes, appliances, automobiles, process controls, and testing equipment, the demand for sockets has risen steadily. To meet this demand, Burndy has led the industry with a series of innovative socket designs, all developed to control costs without sacrificing reliability. Today, Burndy offers the most complete selection of sockets on the market to fit virtually every application and performance level.



### DILB

Burndy's DILB line of sockets for dual-in-line packages is available in both single and dual beam contact geometries, three metals and a number of plating finishes to meet essentially any performance requirement.



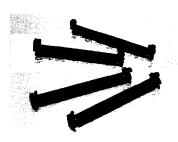
#### CHIPAK™

CHIPAK™, an .050" pitch socket for plastic leaded chip carriers, features a closed bottom that prevents wicking, positive chip retention without the use of wireform clips or covers, and the best extraction tool in the business.



#### PLCC SURFACE MOUNT SOCKETS

An exceptional performance value, delivering high reliability with low cost, Burndy's PLCC Surface Mount sockets are available in 20, 28, 32, 44, 52, 68 and 84 positions and feature high normal force contacts and a one-piece high temp., glass reinforced thermoplastic housing with an open bottom design to allow easy socket placement on the PCB footprint pattern as well as solder joint inspection.



### MEMORYMATE™

MEMORYMATE™, a .050" SIMM socket, features four contact designs, two mounting variations, a full range of sizes and true zero insertion-zero extraction forces.



### **MACHINED PIN PGA**

The Burndy machined Pin PGA (Pin Grid Array), available in a selection of standard grid patterns, is a low profile, advanced design socket which features precision-machined, closed-bottom, outer-sleeve contacts and chamfered entry top to guide the PGA package for safe, easy insertion.



#### LIF PGA SOCKET

Burndy's low insertion force PGA (Pin Grid Array) provides low insertion force with high normal force characteristics. Designed to accommodate Intel microprocessors, the socket's industry-standard housing configuration includes many convenient installation features. Its dimensions provide for optimal microprocessor operation.



#### **Burndy Corporation**

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