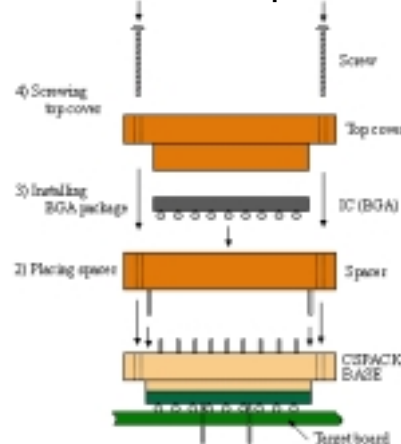


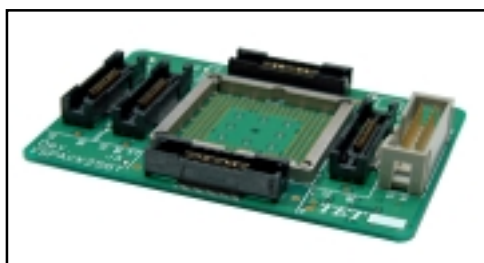
CS-Pack surface mount BGA socket adapter

## CS-Series socket adapter



## CS-Series socket adapter

Footprint	Grid	Body (mm)	Part Number
216, .5mm	29 x 29	15 x 15	000-5080-30
100, .8mm	14 x 14	13 x 13	000-5050-50
112, .8mm	11 x 11	10 x 10	000-5052-50
121, .8mm	13 x 13	12 x 12	000-5055-50
144, .8mm	12 x 12	11 x 11	000-5060-50
144, .8mm	13 x 13	11 x 11	000-5060-60
144, .8mm	15 x 15	13 x 13	000-5060-70
157, .8mm	16 x 16	14 x 14	000-5064-50
176, .8mm	15 x 15	13 x 13	000-5069-60
176, .8mm	14 x 14	12 x 12	000-5069-50
199, .8mm	15 x 15	13 x 13	000-5076-50
224, .8mm	18 x 18	15 x 15	000-5081-50
256, .8mm	20 x 20	27 x 27	000-5087-30
304, .8mm	22 x 22	19 x 19	000-5101-20
480, .8mm	22 x 22	19 x 19	000-5141-00
108, 1.0mm	12 x 12	13 x 13	000-5051-00
315, 1.0mm	21 x 21	22 x 22	000-5103-00
255, 1.27mm	16 x 16	21 x 21	000-5086-40
256, 1.27mm	16 x 16	23 x 23	000-5087-10
256, 1.27mm	20 x 20	27 x 27	000-5087-00



VS-Pack socketable BGA analysis probe

# PolyBGA

Our PolyBGA product line is the most flexible BGA test adapter solution in the industry. These products are designed to give the user the option to connect the target board to test instruments and/or use the actual device in circuit to test the proper functioning of the system. These high-tech solutions are designed to operate at high frequencies, by exhibiting very low parasitic capacitance and inductance, thereby reducing signal distortions and cross talk.

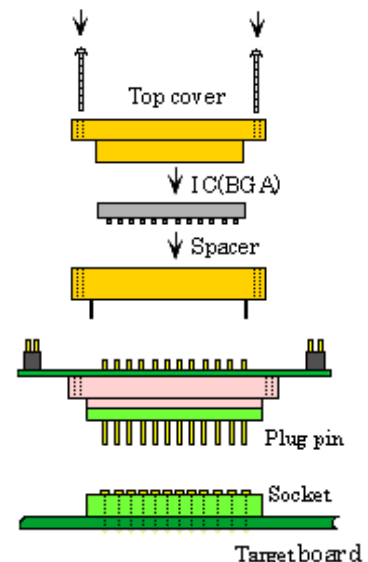
## CS-SERIES

This configuration has solder balls on the target side and solders directly to your board. The CS-Pack provides a cavity for the D.U.T. with spring loaded contacts to eliminate coplanarity issues. The CS-Pack can be used as a surface mount socket or with an additional male pin header to adapt to a variety of test instrumentation.

## VS-SERIES

The VS-Pack has the same spring loaded pogo pin design of the DS-Pack but will also have built in access to the signals for testing and debugging of the D.U.T. The VS-Pack typically has a specific pin out, so these adapters subsequently are made to order.

## VS-Series Analysis probe



## VS-series Analysis probe

Footprint	Grid	Body (mm)	Part Number
256, 1.27mm	20 x 20	call	call Adapters.com
256, 1.27mm	16 x 16	call	call Adapters.com

## PolyBGA *Pogo pins*

*Pogo pins*

### DS-SERIES

The DS-Pack uses spring loaded pogo pins on both the target and D.U.T. side. That eliminates all the problems associated with soldering your BGA devices to your target systems. No more expensive outsourced contract manufacturing services. The DS-pack uses a mechanical mounting and must be designed into your target system.

### LS-SERIES

The LS-Pack is designed to replace the bulky Zero insertion force (ZIF) sockets, where multiple insertions of a device is required. The LS has plug pins on the target interface which fit into most socket receptacles and spring loaded pogo pins for the actual device. The LS offers the user an SMT adapter/socket that is not much larger than the actual device.

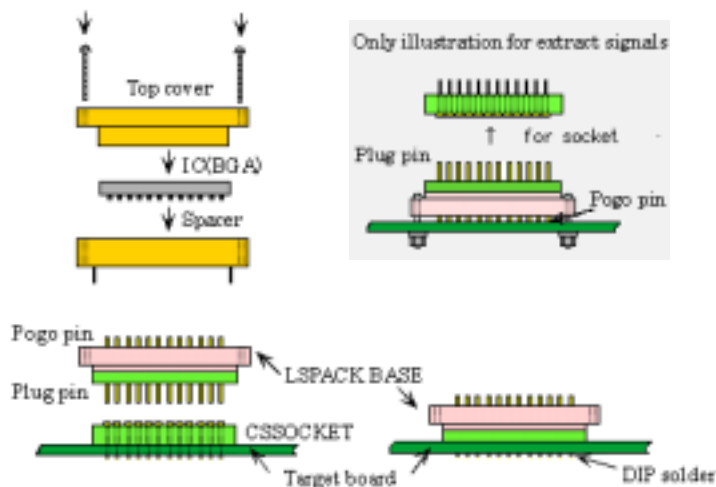
### CS-SOCKET RECEPTACLE

The CS-Socket allows the user the flexibility of not having to mount the socket directly to the target PCB. Simply mount the inexpensive CS-Socket directly to the PCB and plug the LS-Series socket onto one PCB, or with extra CS-Sockets multiple board testing is as easy as plugging in a socket.

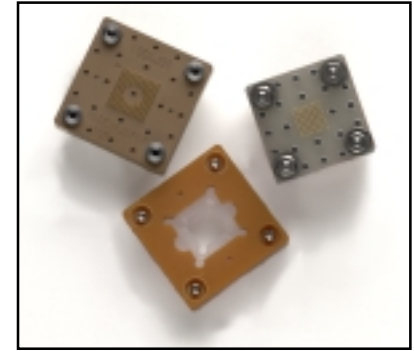
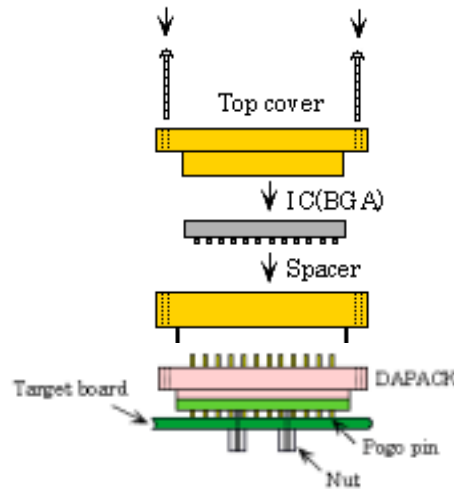
### CS-ICE SOCKET RECEPTACLE

The CS-ICE allows the end user to make connection with an ever widening selection of the top emulator manufactures or many other development tools.

### LS-Series socket adapter



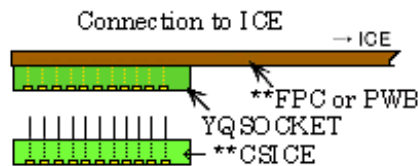
### DS-Series socket adapter



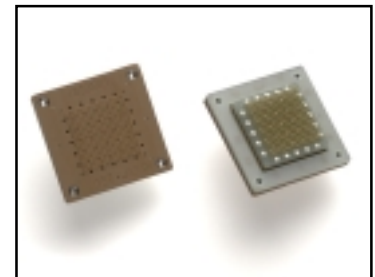
*DS-Pack solderless BGA socket adapter*

### DS series socket adapter

Footprint	Grid	Body (mm)	Part Number
112, .8mm	11 x 11	10 x 10	000-5052-40
256, .8mm	16 x 16	15 x 15	000-5087-40
256, .8mm	20 x 20	27 x 27	000-5087-25
552, 1.0mm	29 x 29	31 x 31	000-5164-40
576, 1.27mm	30 x 30	40 x 40	000-5169-40



*Utilizing the CS ICE Socket allows the users to adapt to many forms of development tools*



*LS-Pack socketable BGA socket adapter*

### LS series socket adapter

Footprint	Grid	Body (mm)	Part Number
136, .8mm	13 x 13	17 x 17	000-5057-50
144, .8mm	12 x 12	11 x 11	000-5059-90
180, .8mm	15 x 15	13 x 13	000-5072-80
256, .8mm	16 x 16	15 x 15	000-5087-90
272, 1.27mm	20 x 20	27 x 27	000-5094-90
352, 1.27mm	26 x 26	35 x 35	000-5113-80
352, 1.27mm	26 x 26	35 x 35	000-5113-90
357, 1.27mm	19 x 19	25 x 25	000-5114-90
420, 1.27mm	26 x 26	35 x 35	000-5128-90
480, 1.27mm	29 x 29	37.5 x 37.5	000-5141-90

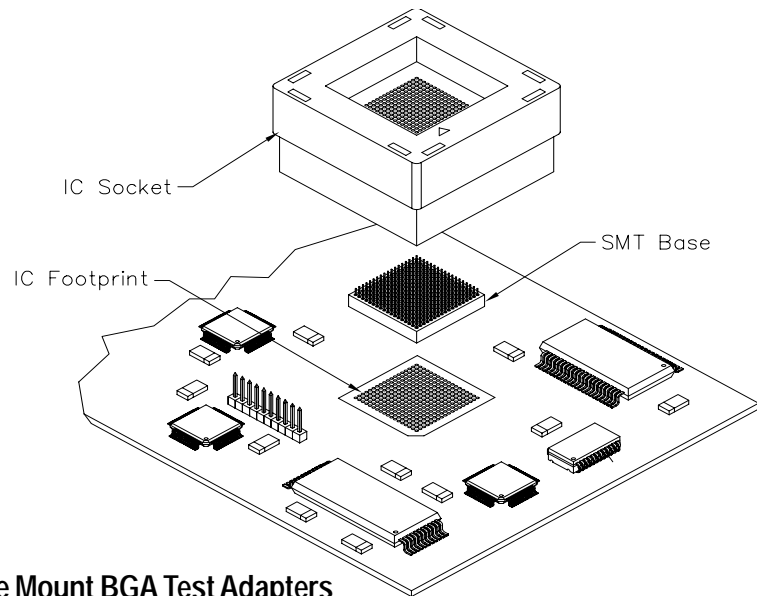
## BGA PACKAGE TEST ADAPTERS

Many products currently on the market allow you to solder your BGA IC directly to a grid of contacts populated in a flat FR-4 material. That style is perfect for applications when the IC can be soldered directly to the test interface. In most cases soldering the IC can be expensive, with the prototype device costing up to \$1,000 each, plus expensive outsourced labor cost makes our BGA test adapters the developers choice.

Adapters.com BGA test adapters consist of an off the shelf Test and Burn-in socket for device placement. No soldering required. The off the shelf sockets are industry standards that feature ease of use, broad-line device IC packaging support, insertion and extraction cycles up to 10,000, without any damage to your expensive IC's. Designs with either open-top or lidded ZIF sockets are available and custom designs to suit your requirements are just a phone call away.

The surface mount base is made to emulate the BGA IC package characteristics. The keep out area of the base is almost identical to that of the actual IC. Constructed of FR-4 material, gold plated male socket interface and eutectic solder balls are used for reliable mounting to the target footprint. Strict quality controls and inspection make these adapters reliable in any environment. The base is soldered to the PCB using the same methods as you would use for the actual device.

Reliable, hands free time and money saving solutions from the pro's at Adapters.com



Surface Mount BGA Test Adapters

## SOCKET SELECTION

- CLAMSHELL
- OPEN TOP
- LEVER ACTUATED

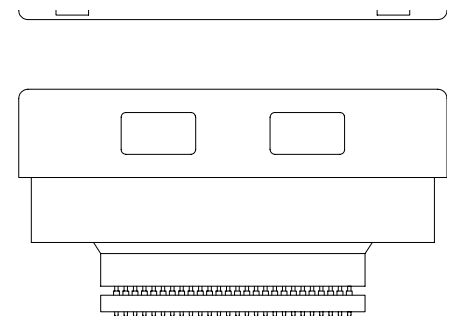
## BGA IC SUPPORT

- 1.27 MM
- 1.0 MM
- 0.8 MM

## WORK THE WEB

- ON-LINE AT ADAPTERS.COM
- SEARCH FOR SUPPORTED IC'S
- DATA SHEETS
- AND DRAWINGS

## Socketable adapters for testing and board evaluation



## Modular design for ease of use and flexibility

### QUICK ORDER GUIDE: DETERMINE

- Acquire IC package mechanical specifications from the manufacture.
- See IC package support table at [www.adapters.com](http://www.adapters.com).
- IC socket information from IC socket section on page 46-51.
- Note extra requirements, i.e. size and height restrictions