Welcome to Aries!

For more than a quarter century, Aries has helped solve interconnection and packaging problems with an unusual range of standard, programmed, and custom products.

For designers and engineers charged with keeping their board level products current, or enhancing existing products without costly, time-consuming redesign or rework, Aries has proven to be the ultimate interconnect resource.

This Shortform Catalog is designed to give you an overview of the entire Aries product line. As with all printed catalogs, the information contained here is current only up to the date it was printed. For this reason, detailed data sheets on each of our products are available from many sources that are continually updated. These include:

- Calling any of our offices and asking a Customer Service representative to fax you a copy of the data sheet you need.
- Calling any Aries Representative or authorized Distributor and asking for a copy of the data sheet you need (a complete rep/distributor listing is available by fax or at our Website).

To help you determine which data sheet(s) you need, we have referenced data sheet numbers throughout this catalog. A complete current listing with titles is also available at our Website.

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NOTE: All dimensions in this catalog are given in inches, followed by mm in brackets, except where otherwise noted. The listings and dimensions in this catalog are intended for use as a guide only and are subject to change without notice. Aries Electronics, Inc. cannot be held liable for any errors, omissions or changes in product dimensions and specifications. For applications where product configurations or dimensions are critical, contact Aries for detailed specifications or engineering drawings.
Aries' Correct-A-Chip (C.A.C.) technology provides “smart connector” solutions to a variety of interconnect design problems. Virtually any device, regardless of termination style, can be incorporated in a connector package and used as a completely different design. Adapting from one termination style to another, rerouting signal paths, adding additional components ...Correct-A-Chip can solve the most vexing of design problems.


Patented LimitedDepth™ pins and the proprietary process for installing them in adapter applications. Available in through-hole and surface mount termination styles, these unique pins are secured to the “smart connector” both mechanically (through press-fitting) and electrically (through soldering). This process ensures a secure mechanical connection and a gas-tight electrical connection. Adapters can then be wave or surface-mount soldered to the target board. Additional components can be added to the adapter with no sacrifice of electrical or mechanical integrity. Furthermore, adapters can be produced with the smallest possible form factor, since the male pins on the bottom of the adapter are independent of the image on the top of the adapter.

White Tin coating of fine pitch adapters. All fine pitch adapters made by Aries are treated with white tin, eliminating the co-planarity problems and potential for solder bridging associated with hot air solder leveling. High temperature (200° C) versions of through hole and some SMT C.A.C. chips are now available. These parts utilize polymid for the body and no lead solder to connect the contact pins.

Mounting of BGA balls to the bottom of any Correct-A-Chip product. Aries has the ability to place solder balls (or hardballs) on the bottom of PCB material or ceramic material, allowing any Correct-A-Chip product to be used on a board designed for BGA.

Fine pitch termination of any Correct-A-Chip product. The bottom of any product can also be fitted with PQFP gull-wing tails with pin spacings to suit customer needs.

Pick and place. Additional componentry can be efficiently added to any Correct-A-Chip product using Aries’ pick and place processes.

BGA solder ball attachment capability. Aries has developed a proprietary process for attaching solder balls to the bottom of packages in both large and small quantity applications. All Aries Adapter, and Correct-a-Chip products now offer BGA as a termination option.
# Correct-A-Chip™ Technology

Shown below are some of Aries' standard Correct-A-Chip™ products.

<table>
<thead>
<tr>
<th>Series/Package Styles:</th>
<th>STANDARD DIP ADAPTERS</th>
<th>Circuit-Bridge™ HEADER</th>
<th>DIP TO SOIC ADAPTERS</th>
<th>SURFACE MOUNT TO DIP ADAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Features:</strong></td>
<td>• Solves problems associated with the use of alternate ICs by eliminating the need for new PCBs</td>
<td>• Programmed to your specifications via a miniature PCB. Circuit traces can be re-routed, possibly eliminating the need for additional PCB layer.</td>
<td>• Convenient, cost-effective means of converting DIP style packaging to SOIC PC board layouts</td>
<td>• Cost-effective means of converting SOIC, SOJ, PLCC, SSOP or TSOP surface mount devices to DIPs, eliminating the need for new PCBs</td>
</tr>
<tr>
<td><strong>Available Sizes:</strong></td>
<td>2-48 pins; .300 [7.62] or .600 [15.24] ctrs. Any size available in high volume applications</td>
<td>8, 14-20, 24, 28, 32, 40; Any size available in high volume applications</td>
<td>14, 16, 20, 24, 28; Any size available in high volume applications</td>
<td>Various - consult Data Sheet</td>
</tr>
<tr>
<td><strong>Contact Pin Materials:</strong></td>
<td>Contacts: Au over BeCu in Au plated Brass body; Male pins: Sn over Brass</td>
<td>Sn over Brass</td>
<td>Contacts: Au over BeCu in Au plated Brass body; Male pins: Sn over Brass</td>
<td>Sn over Brass</td>
</tr>
<tr>
<td><strong>Profile Height to Seating Plane:</strong></td>
<td>.085 [2.16], .213 [5.41], .240 [6.10]</td>
<td>.032 [8.1], .082 [2.08], .125 [3.18]</td>
<td>.262 [6.65]</td>
<td>.082 [2.08] in most cases</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td>Surface mount adapters also available</td>
<td>Styles available to meet limited and high volume applications</td>
<td>Accepts devices on .300 ctr.</td>
<td>Incorporates limited depth pin technology</td>
</tr>
</tbody>
</table>

### QFP, PQFP, PLCC to PGA Adapters

<table>
<thead>
<tr>
<th>Data Sheet No./URL</th>
<th><a href="http://www.arieselec.com/products/XXXXX.pdf">http://www.arieselec.com/products/XXXXX.pdf</a></th>
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<tr>
<td><strong>Features:</strong></td>
<td>• Use less expensive surface mount packages to replace PGA footprints in existing designs</td>
</tr>
<tr>
<td><strong>Available Sizes:</strong></td>
<td>.025 [6.4], .050 [1.27], .50mm, .65mm, .80mm pitch in various sizes</td>
</tr>
<tr>
<td><strong>Contact Pin Materials:</strong></td>
<td>Sn over Brass; (Au plating also available on PLCC to PGA adapters)</td>
</tr>
<tr>
<td><strong>Profile Height to Seating Plane:</strong></td>
<td>.082 [2.08] in most cases</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td>Incorporates limited depth pin technology</td>
</tr>
</tbody>
</table>

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Note: Aries offers custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.
**ARIES HIGH FREQUENCY TEST AND BURN-IN PRODUCTS**

As the semiconductor industry moves toward higher speed and higher performance packages, the demand for new test methodologies has never been greater. Aries Electronics is proud to offer High Performance RF Test and Burn-in Sockets, which meet the demanding requirements of today's, and tomorrow's, high speed packages.

Aries makes sockets for all IC packages, including: BGA, CSP, MLF, QFN, LGA, QFP, SOP and more. We also offer many sockets for handlers, including: Aetrium, Aseco, Delta, Ismeca, Multitest, Rasco, Seiko-Epson, and others.

**BGA PRODUCTS**

Aries has tooled and patented two ball grid array contact pins. The 3-finger female BGA contact was designed to be used with the male pin BGA for production applications. The BallNest™ contact pin was designed to provide a four-fingered “nest” for each ball termination of the device to be socketed (test and development).

### Features:
- Suitable for prototyping, test or burn-in of CSP, BGA, μBGA and LGA devices.
- ZIF style socket using Aries “Touchspring” contacts.
- Socket lid nests BGA package into female socket for a reliable, solderless electrical connection.
- Reliable, 4-fingered contact with wiping action.

### Available Sizes/Configurations:
- Gold plated BeCu
- Approx. .085"[2.16]
- .096 [2.44]

### Profile Height to Seating Plane:
- Spring contact force = 15 grams/contact avg

### Notes:
- Hardware included for test and development
- Self-inductance: 0.01nH
- Pitch: 0.3mm and above
- Life Cycle: >500,000
- Temperature Range: -55°C to +150°C
- Contact Type: 1. Aries’ patented Microstrip Contacts™
  2. Single and double-ended Spring Probes
  3. Flex-type Kapton Interposer

### Series/Package Styles:

<table>
<thead>
<tr>
<th>Series/Package Styles</th>
<th>CSP/BallNest™ Hybrid SOCKET</th>
<th>BallNest™ SOCKET</th>
<th>BGA MALE ADAPTER AND SOCKET</th>
<th>BGA ADAPTER</th>
<th>BGA SOCKET</th>
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<tbody>
<tr>
<td>23016</td>
<td>23004</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Features:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.50mm pitch &amp; up</td>
<td>1.27mm - 1.50mm pitch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold plated BeCu</td>
<td>Au or Sn over BeCu Alloy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. .085&quot;[2.16]</td>
<td>.096 [2.44]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solderballs for surface mount ASSEMBLED UNIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-inductance: 0.01nH</td>
<td>Pitch: 0.3mm and above</td>
<td>Life Cycle: &gt;500,000</td>
<td>Temperature Range: -55°C to +150°C</td>
<td>Contact Type: 1. Aries’ patented Microstrip Contacts™</td>
<td>2. Single and double-ended Spring Probes</td>
</tr>
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**ARIES ELECTRONICS, INC.**

www.arieselec.com • info@arieselec.com

PRINTOUTS OF THIS DOCUMENT MAY BE OUT OF DATE AND SHOULD BE CONSIDERED UNCONTROLLED
Land Grid Array Socket on 1.00mm to 1.50mm Pitch

- Resistance < 5mH
- Force 20g std. can be increased or decreased to suit customer requirements
- Body material low dielectric proprietary liquid crystal polymer.
- Low profile <2mm
- Sizes 1 to 1.5mm pitch
- Full Wipe Action
- Full independent lab test data - mechanical and electrical
- For additional technical information see Data Sheet 23021 and the BGA/LGA products primer section in our website - www.arieselec.com

Four Contacts Available:
1. Full pad on PCB and device side. (Standard)
2. Full pad on PCB - bifurcated device side. (This pin will accept BGA devices.)
3. Bifurcated PCB side (to go around board via) - full pad on device side.
4. Bifurcated PCB side (to go around board via) and bifurcated device side - (This pin will accept BGA devices.)

Universal & Pin Specific ZIF Programming/Test/Burn-in Sockets

Aries offers one of the most extensive ranges of test, programming and burn-in sockets in the industry, with a version to accommodate just about every package style and application need. Aries' exclusive Universal ZIF socket, available in DIP, PGA, PLCC and SOIC package styles, lets you use just one socket to handle a full range of device sizes, footprints, and pin counts.

Package Styles:

| UNIVERSAL ZIF | UNIVERSAL ZIF | PIN SPECIFIC ZIF | UNIVERSAL ZIF |
| DIP SOCKETS   | PGA SOCKETS   | PLCC SOCKETS     | PLCC SOCKETS |
| 10001, 10002, 10019 | 10004, 10005 | 10006, 10007 | 10008 - 10012 |

Features:
- Extra wide openings accept standard ctr. pitch devices
- All sizes can be ordered to fit .300 [7.62] or .600 [15.24] ctr. boards
- Numerous handle position options available
- High-temp and quick-release handle sockets available
- Multiple grid sizes and footprints available
- Replaceable pins
- Normally closed and open contacts
- Eliminate dependence on plastic to sustain contact
- Auto pick-and-place capability
- Corner posts provide positive package registration
- Can be shimmed to accept many ceramic, leadless, and J-lead packages
- One socket will accept all seven PLCC sizes: 20, 28, 44, 52, 68, & 84 square PLCC and 32 rectangular PLCC
- Live and Dead Bug types
- Will plug into Aries' PLCC to PGA adapter, P/N 1109283

Available Sizes:
- 9 x 9 to 21 x 21 full grid
- 20, 28, 32, 44, 52, 68 & 84
- 84

Insulator Material:
- UL 94V-0 PPS or high-temp. PEEK
- UL 94V-0 PPS
- UL 94V-0 PPS

Temperature Rating:
- Up to 250°C (also see 10021 on page 10 of this catalog)
- Up to 200°C
- Up to 170°C
- Up to 125°C

Contact Pin Materials:
- Au or Sn over BeCu; NiBo over CuNiSn Spinodal Alloy; NiBo over BeNi
- Au or Sn over BeCu; NiBo over CuNiSn Spinodal Alloy
- Au over BeCu
- Au over BeCu

Note: Aries offers custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.

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| 10001, 10002, 10019 | 10004, 10005 | 10006, 10007 | 10008 - 10012 |

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- Au or Sn over BeCu; NiBo over CuNiSn Spinodal Alloy; NiBo over BeNi
- Au or Sn over BeCu; NiBo over CuNiSn Spinodal Alloy
- Au over BeCu
- Au over BeCu

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UNIVERSAL & PIN SPECIFIC ZIF PROGRAMMING/TEST/BURN-IN SOCKETS

Package Styles:

<table>
<thead>
<tr>
<th>UNIVERSAL ZIF SOIC &amp; TSOP SOCKETS</th>
<th>ZIF DIP SOCKETS</th>
<th>ZIF RECEPTACLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>10015</td>
<td>10017, 10018</td>
<td></td>
</tr>
</tbody>
</table>

Features:

- One socket will accept all SOIC packages and some TSOP Type II packages on .050 [1.27] pitch
- Over 50 different package sizes accommodated by one Universal ZIF SOIC/TSOP socket
- Zero insertion force insertion & withdrawal prevents bending or other damage to IC legs
- Cam actuated wiping action with contacts
- Tapered entry

Available Sizes:

- Insulator Material:
  - UL 94V-0 PPS
  - Up to 125°C
  - Au over BeCu

Insulator Material:

- UL 94V-0 glass-filled Thermoplastic Polyester

Temperature Rating:

- Up to 125°C

Contact Pin Materials:

- Au or Sn over BeCu

Series/Package Styles:

- UNIVERSAL ZIF DIP SOCKET RECEPTACLE
- UNIVERSAL ZIF PLCC SOCKET RECEPTACLE
- UNIVERSAL ZIF SOIC SOCKET RECEPTACLE

Display Sockets

Choose from Aries’ wide selection of display sockets to find exactly the right socket for your LEDs, incandescent lamps, DIP switches or other components. Whether you’re mounting devices horizontally or vertically, there is an Aries Vertisocket™ for every need. When you need to gain some height, use an Elevator socket to lift your display from 1/4” [6.35] to 2” [5.08] above the board. All display sockets are available with a broad range of standard pin counts and contact styles to accommodate your particular application requirements. And, of course, we do specials.

Series/
Package Styles:

- 82X STAMPED PIN HORIZONTAL
- X810 STAMPED PIN VERTICAL
- 810/822 THRIFTY VERTISOCKETS
- X810 MACHINED PIN VERTICAL

Features:

- 82X: Accepts standard LEDs and incandescent displays as well as other devices (DIP switches, etc.)
- 82X: Available with or without lead-in rails, surface mount and Thru-Hole
- X810: Bifurcated, stamped 3-point face grip contacts
- X810: Bifurcated, stamped 3-point face grip contacts
- 810/822: Vertical mounting: 14; Horizontal mtg.: 8, 14, 16, 18, 20
- X810: Screw machine collet contacts
- 810/822: Vertical mounting: 14; Horizontal mtg.: 8, 14, 16, 18, 20
- X810: Screw machine collet contacts
- 810/822: Vertical mounting: 14; Horizontal mtg.: 8, 14, 16, 18, 20
- X810: Screw machine collet contacts

Available Sizes:

- 82X: .200 [5.08], .300 [7.62], .600 [15.24] ctr. display; .100 [2.54], .200 [5.08], .300 [7.62] ctr. ends; 8 - 48 pins
- X810: 8, 10 on .200 [5.08] ctr.; 8, 14, 16, 18 on .300 [7.62] ctr.; 8, 10, 12, 14, 16, 18, 20 on .600 [15.24] ctr.
- 810/822: Vertical mounting: 14; Horizontal mtg.: 8, 14, 16, 18, 20
- X810: Screw machine collet contacts

Notes:

- 90° display angle standard Consult factory for specials
- 90° display angle standard Consult factory for specials
- 90° display angle standard Consult factory for specials
- 90° display angle standard Consult factory for specials

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- X810: Screw machine collet contacts

Available Sizes:

- 82X: .200 [5.08], .300 [7.62], .600 [15.24] ctr. display; .100 [2.54], .200 [5.08], .300 [7.62] ctr. ends; 8 - 48 pins
- X810: 8, 10 on .200 [5.08] ctr.; 8, 14, 16, 18 on .300 [7.62] ctr.; 8, 10, 12, 14, 16, 18, 20 on .600 [15.24] ctr.
- 810/822: Vertical mounting: 14; Horizontal mtg.: 8, 14, 16, 18, 20
- X810: Screw machine collet contacts

Notes:

- 90° display angle standard Consult factory for specials
- 90° display angle standard Consult factory for specials
- 90° display angle standard Consult factory for specials
- 90° display angle standard Consult factory for specials
### Display Sockets

**Series/Package Styles:**
- **82X Machined Pin**
- **8XXX Stamped Pin**
- **8XXX Machined Pin**
- **700 Elevator Strip-line Sockets**

**Features:**
- **82X Machined Pin Horizontal**
  - Accepts standard LEDs and incandescent displays as well as other devices (DIP switches, etc.)
  - Required less space than stamped pin sockets
- **8XXX Stamped Pin Elevator**
  - Ideal for elevating devices (displays, switches, etc.) to desired level with .200 [5.08] to 1.250 [31.75] height extension
  - Accepts w/o lead-in rails
- **8XXX Machined Pin Elevator**
  - Ideal for elevating devices (displays, switches, etc.) to desired level with up to 1.250 [31.75] height extension
- **700 Elevator Strip-line Sockets**
  - For elevated mounting of LCDs and other odd ct. or pin count components
  - Any height from .360 [9.14] to 2.000 [5.08]

**Available Sizes:**
- **82X Machined Pin Horizontal**
  - 200 [5.08], 300 [7.62], 600 [15.24] ctr. display; 100 [2.54], 200 [5.08], .300 [7.62] ctr. ends; 6 - 48 pins
- **8XXX Stamped Pin Elevator**
- **8XXX Machined Pin Elevator**
- **700 Elevator Strip-line Sockets**
  - 2 - 40 in-line

**Notes:**
- **82X Machined Pin Horizontal**
  - 90° display angle standard
  - Consulting factory for specials
- **8XXX Stamped Pin Elevator**
  - Material: Contact Pin
  - Pin Styles:
  - Available Sizes:
  - Features:
  - Package Styles:
- **8XXX Machined Pin Elevator**
  - Material: Contact Pin
  - Pin Styles:
  - Available Sizes:
  - Features:
  - Package Styles:
- **700 Elevator Strip-line Sockets**
  - Material: Contact Pin
  - Pin Styles:
  - Available Sizes:
  - Features:
  - Package Styles:

### Cable Jumper Assemblies

**Styles:**
- **Fusion Bonded Cable Jumpers**
- **Flat Pin Staked Flex Jumpers**
- **SIP/DIP Plug Jumpers**
- **In-Line Jumpers on .100 [2.54] CTRS.**

**Features:**
- **Fusion Bonded Cable Jumpers**
  - Solderable or pluggable into PC boards or sockets
  - Each Jumper is shipped with protective tabs on both ends for maintaining proper conductor spacing
  - Options include Series 156/157 with rugged male pins
- **Flat Pin Staked Flex Jumpers**
  - These combine thin, flexible, solid Copper conductors embedded between layers of tough, flexible, flame-retardant insulation
  - Terminate with male pins and/or female receptacles
  - High Temp & 90° available
  - 10-color cable allows for easy identification and tracing
- **SIP/DIP Plug Jumpers**
  - Male or female DIP plugs available in many configurations
  - 10-color cable allows for easy identification and tracing
  - Pitch bar on Deci-Center jumpers help maintain .100 [2.54] conductor spacing
- **In-Line Jumpers on .100 [2.54] CTRS.**
  - Male or female DIP plugs available in many configurations
  - 10-color cable allows for easy identification and tracing
  - Options include Series 156/157 with rugged male pins

**Available Sizes/Lengths:**
- **Fusion Bonded Cable Jumpers**
  - .100 [2.54] pitch: 4 - 22 cond.
  - 4 - 40 conductors 2.000 [5.08] minimum length
  - Up to 40 pin DIP, 24 position conductor, 50 pin “D” connector
  - 4 - 22 conductors
- **Flat Pin Staked Flex Jumpers**
  - 7-strand Cu alloy with an overcoat of tin
  - Cu alloy (size equivalent to 26 AWG wire)
  - Cu alloy (size equivalent to 26 AWG wire)
- **SIP/DIP Plug Jumpers**
  - Male/female Cu alloy contact on .100 [2.54] pitch, Au or Sn plating
  - Au plated Brass pins, bare ended, or tinned w/pitch bars
- **In-Line Jumpers on .100 [2.54] CTRS.**
  - Consult data sheet for minimum length requirements
  - Consult factory for lengths under 2.000 [5.08] inches
  - Consult factory for special wiring requirements
  - Consult data sheet for minimum length requirements

**Notes:**
- Aries offers custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.

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ISO 9002 Certified
**DIP/SIP SOCKETS AND HEADERS**

Aries offers a vast assortment of DIP and SIP sockets and headers. Whether you need stamped or machined, wire-wrap or solder tail termination, 2 or 64 pins...you’ll find a standard Aries socket to fit just about any application. Aries also manufactures a complete line of stamped or screw machined DIP headers with covers for mounting a wide variety of components. Aries also offers headers and pin-line sockets for board interconnected applications.

### Series/Package Styles:

- **C84/C93 DIP SOCKETS**
- **C81/C91 & C82/C92 DIP SOCKETS**
- **511/501/0511 DIP & SIP SOCKETS**
- **0517 PIN-LINE VERTSOCKETS**
- **513/503/0513/0503 DIP & SIP SOCKETS**

### Data Sheet No./URL

http://www.arieselec.com/products/XXXX.pdf

### Available Sizes:

<table>
<thead>
<tr>
<th>DIPS: 6 - 64 positions, .300 [.762] ctr.; 22, 40 on .600 [.1524]</th>
<th>14, 16 on .300 [.762] ctr.; 24, 28, 32, 40 on .600 [.1524]</th>
<th>DIPS: 4 - 20 on .300 [.762] ctr.; 22, 40 on .600 [.1524]; 2 - 64 on .900 [.2286]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPS: 8, 10 on .200 [.508] ctr.; 8 - 20 on .300 [.762] ctr.</td>
<td>.300 [.762] - 1.300 [.330] conv.</td>
<td>DIPS: 2 - 20 on .300 [.762] ctr.; 2 - 48 on .600 [.1524]; 2 - 64 on .900 [.2286]</td>
</tr>
</tbody>
</table>

### Pin Styles:

- **Screw machine collet contacts**
- **Solder tail**
- **Profile Height to Seating Plane:**
  - .150 [3.81]
  - .280 [.71]
  - .260 [.66]
  - .050 [.127] display height
  - .165 [4.19]
  - .193 [4.90]

### Features:

- **Anti-wicking design eliminates flux or solder contamination.**
- **Dual beam, edge-grip contacts provide high retention and positive wiping action.**
- **Removable cover provides lower profile. Side & end stackable.**
- **3-point contact w/biturated pin.**
- **For mounting components, jumpers, etc., at right angle to PC board.**
- **Can be cut to desired length.**
- **Several size and plating options.**
- **DIps available with capacitor and ground plane for noise reduction.**
- **Cut SIPs to desired length.**
- **SIPs avail. 1 - 25 positions.**

### Available Sizes:

<table>
<thead>
<tr>
<th>Series/Package Styles:</th>
<th>518/508/0518/0508 DIP &amp; SIP SOCKETS</th>
<th>CXXX DIP EJECTING SOCKETS</th>
<th>ROW-TO-ROW DIP ADAPTERS</th>
<th>600/0600 DIP &amp; SIP HEADERS</th>
<th>625/0625 DIP &amp; SIP HEADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12016 - 12021, 12026 - 12027</td>
<td>12024, 12025</td>
<td>12030, 12031, 18033</td>
<td>12032 - 12034</td>
<td>12035, 12036</td>
<td></td>
</tr>
</tbody>
</table>

### Data Sheet No./URL

http://www.arieselec.com/products/XXXX.pdf

### Features:

- **Open frame DIPs for better cooling-available with capacitor.**
- **SiPs avail. single/dual row.**
- **Several pin styles/plating options.**
- **Side & end stackable.**
- **Cut SIPs to desired length.**
- **Converts DIP Ics from one row-to-row spacing to another.**
- **Standard or low-profile.**
- **Converts SIPs.**
- **Can be cut to desired length.**
- **High reliability machined contacts.**
- **Multiple pin counts.**
- **Cut SiPs to desired length.**
- **SiPs avail. 1 - 25 positions.**

### Available Sizes:

<table>
<thead>
<tr>
<th>DIPs: 6 - 64 positions, .300 [.762], 400 [.1016], 600 [.1524], 900 [.2286]</th>
<th>.300 [.762] - 1.300 [.330] conv.</th>
<th>DIPs: 4 - 20 on .300 [.762] ctr.; 22, 40 on .600 [.1524]; 2 - 64 on .900 [.2286]</th>
</tr>
</thead>
<tbody>
<tr>
<td>.120 [.305] DIPs (w/o cover)</td>
<td>.110 [.280] SiPs</td>
<td>.110 [.280] SiPs</td>
</tr>
</tbody>
</table>

### Pin Styles:

- **SiP machine collet contacts**
- **Solder tail or 3 level wire wrap**
- **Solder tail or 2/3 level wire wrap**

### Contact Pin Materials:

- **Au or Sn over PhBr**
- **Au or Sn Grade A spring-tempered PhBr**
- **Au over BeCu contact in Au or Sn plated Brass pin body**
- **Au over BeCu contact in Au or Sn plated Brass pin body**
- **Au over BeCu contact in Au or Sn plated Brass pin body**
- **Au or Sn over Brass**
- **Au or Sn over Brass**

### Termination Styles:

- **Side & end stackable**
- **Removable cover provides high retention with positive wiping action.**
- **Converts DIP Ics from one row-to-row spacing to another.**
- **Standard or low-profile.**
- **Converts SIPs.**
- **Can be cut to desired length.**
- **High reliability machined contacts.**
- **Multiple pin counts.**
- **Cut SiPs to desired length.**
- **SiPs avail. 1 - 25 positions.**

### Profile Height to Seating Plane:

- .193 [4.90] wire wrap
- .165 [4.19] solder tail
- .150 [3.81]
- .260 [.66]
- .050 [.127] display height
- .165 [4.19]
- .193 [4.90]
- .180 [4.57]
- .265 [6.73]
- .300 [7.62]
- .110 [2.79] SiPs
- .120 [3.05] DIPs (w/o cover)

Note: Aries offers custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.
**Other Socket Packages**

Aries excels in helping customers meet special application needs. This singular expertise has resulted in an enhanced line of standard socket packages with special features and capabilities - including the following products.

### OSCILLATOR SOCKETS
- **Series:** 514
- **Configuration:** TO SOCKETS
- **Contact Pin Materials:** Au over BeCu contact in Sn plated Brass pin body
- **Termination Style:** Solder tail
- **Features:**
  - 0.165 [4.19], 0.185 [4.70], 0.205 [5.21]
  - 110 [2.79], 165 [4.19], 193 [4.90]
- **Profile Height to Seating Plane:** .375 [9.53]
- **Up to 500°C Dip Test & Burn-in Socket**

### PGA SOCKETS/HEADERS
- **Series:** 540
- **Configuration:** PIN CARRIERS
- **Contact Pin Materials:** Phospher Bronze or Brass
- **Features:**
  - Available on 2.54, 2.00 and 1.00mm pitch.
  - Single and dual row, straight and right angle
  - Competitively price.
  - Specials are available
- **Profile Height to Seating Plane:** .165 [4.19], .193 [4.90], .153 [3.89]

### SQUARE PIN HEADERS
- **Series:** 15001, 15002
- **Configuration:** Stamped Pin
- **Contact Pin Materials:** Phospher Bronze or Brass
- **Features:**
  - Available on 2.54, 2.00 and 1.00mm pitch.
  - Single and dual row, straight and right angle
  - Competitively price.
  - Specials are available
- **Profile Height to Seating Plane:** .165 [4.19], .193 [4.90], .153 [3.89]

**Note:** Aries offers custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.
PROGRAMMING DEVICES

For user-programmable on-board applications, Aries offers a variety of programming devices. These versatile components act like a DIP switch...with a unique characteristic: they can be individually programmed to make a permanent, unalterable switch selection. As always, Aries offers a variety of package designs and a nearly infinite number of programming alternatives.

Series/Package Styles:

<table>
<thead>
<tr>
<th>ME-100 MINIATURE JUMPER</th>
<th>ML-100 MINIATURE JUMPERS</th>
<th>LP300 PROGRAMMER/SHORTING PLUG</th>
<th>SP/SJ200 .040 [1.02] SHORTING PLUG &amp; JACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>16001</td>
<td>16002</td>
<td>16003</td>
<td>16009</td>
</tr>
<tr>
<td>.100 [2.54]</td>
<td>.100 [2.54]</td>
<td>.300 [7.62]</td>
<td>.200 [5.08]</td>
</tr>
</tbody>
</table>

Features:

- Useful for jumpering .025 [.64] square pins on .100[2.54] ctrs.
- Jumper from row-to-row or from pin-to-pin
- Jumper terminal partially exposed for testing
- Stackable

- Useful for jumpering .025 [.64] square pins on .100[2.54] ctrs.
- Jumper from row-to-row or from pin-to-pin
- Convenient test-probe slot
- Stackable
- Avail. w/ or w/o handle

- Mate with any .300 [7.62] ctr. DIP socket to provide custom programming
- Stacks on .100 [2.54] ctrs.
- Male and female jumpers on .200 [5.08] ctrs.
- Convenient handle for insertion and withdrawal

Center Pitch:

- .100 [2.54]
- .100 [2.54]
- .300 [7.62]
- .200 [5.08]

Contact Pin Materials:

- Sn over PhBr
- Au or Sn over BeCu
- Au or Sn over Brass
- Male: Sn over Brass alloy; Female: Au over BeCu contact

Notes:

- Sold in multiples of 1000; ganged version available
- Sold in multiples of 50
- Converts any socket into a DIP switch
- Used in conjunction w/ Aries’ .040 [1.02] DIP strips

Series/Package Styles:

<table>
<thead>
<tr>
<th>675 DIP PROGRAM HEADERS</th>
<th>680 DIP PROGRAM HEADERS</th>
<th>M40/F40 .040 [1.02] DIP STRIPS</th>
<th>BGA CIRCUIT BRIDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16004</td>
<td>16005</td>
<td>16007, 16008</td>
<td>18082</td>
</tr>
<tr>
<td>2 - 20</td>
<td>4 - 24</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Features:

- Adjacent and/or opposing pins are interconnected until the pre-slotted section is programmed out.
- Low profile, snap-on covers available

- Eliminates the need for DIP switches in many situations
- Available pre-programmed or do it yourself
- Available with plain (solid) or “top-slot” press-on covers

- “Break” feature allows strips to be cut to any number of positions desired
- Male header strips available straight or right angle

Available Sizes:

- .8 to 1.5mm pitch
- Custom sizes made to order

Contact Pin Materials:

- Au or Sn over Brass alloy
- Sn over Brass alloy
- Male: Au or Sn over Brass alloy; Female: Au over BeCu contact

Notes:

- Use Aries T-675 programming tool
- Use Aries T-680 programming tool
- Used in conjunction w/ Aries’ .040 [1.02] shorting plug and jack
- PCB pad size .028”

Note: Aries offers custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.