



BallLock™ BGA Socket

Covered by patents and/or patents applied for.

FEATURES:

- Any grid size available on either 1.27mm [.050"] or 1.50mm [.059"] pitch.
- Lidless design - ball locks into two-fingered contact.
- Ultra-low profile socket adds only .050 [1.27] to overall package height (.100 [2.54] with SnapAdapt™ pins).
- Optional Corner guides aid in package insertion (not used with SnapAdapt™ pins).
- Consult Data Sheet Nos. 23003 and 23004 for Aries BallNest™ Socket.

SPECIFICATIONS:

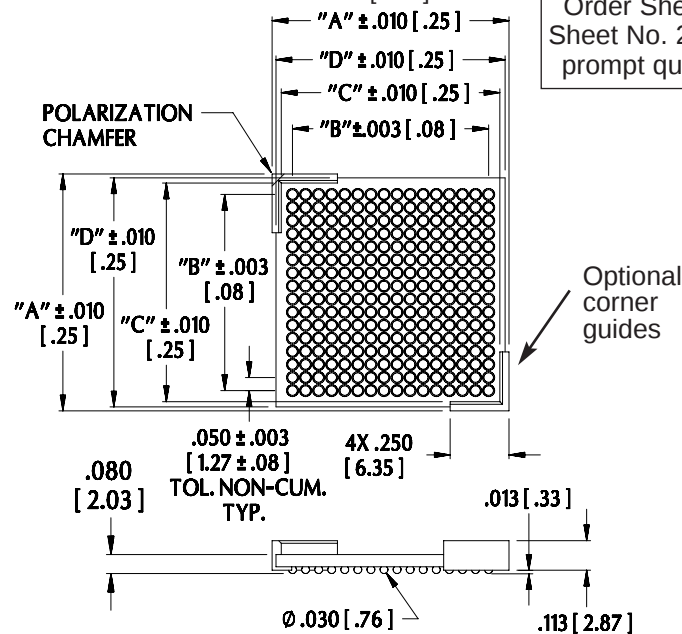
- Socket body is UL 94V-0 FR-4.
- Optional lead-in guides are black UL 94V-0 glass-filled Thermoplastic (PPS).
- Contacts are Beryllium Copper Alloy per QQ-C-533.
- Contact plating is either 100μ [2.54μm] min. 90/10 Tin/Lead per MIL-T-10727 or 10μ [.25μm] min. Gold per MIL-G-45204 over 30μ [.76μm] Nickel per QQ-N-290.
- Solder ball terminations are 90/10 Lead/Tin.
- Solder paste is 63/37 eutectic.
- Solder mask is "dryfilm."
- Inductance ≤ 1nH/contact. @ 100MHz approx. (under testing).
- Capacitance ≤ 1pF/contact @ 100MHz approx. (under testing).
- Contact resistance = 10mOhms initial, 20mOhms @ 10 cycles (under testing).
- Durability = 10 cycles max.; up to 50 cycles with SnapAdapt™ pin.
- Insertion Force = 50 grams/contact avg. (approximate); 40 grams/contact initial when used with SnapAdapt™ pin.
- Withdrawal Force = 20 grams/contact max. (approximate).
- Socket accepts BGA devices with .030 [.76] dia. balls.

MOUNTING CONSIDERATIONS:

- Suggested PCB pad size = .025 ± .003 [.64 ± .08] dia.

ALL DIMENSIONS: INCHES [MILLIMETERS]

"A" = BGA PACKAGE SIZE + .085 [2.29]
 "B" = (NO. OF POSITIONS PER ROW - 1) X BGA PITCH
 "C" = BGA PACKAGE SIZE + .015 [.25]
 "D" = BGA PACKAGE SIZE + .060 [1.52]



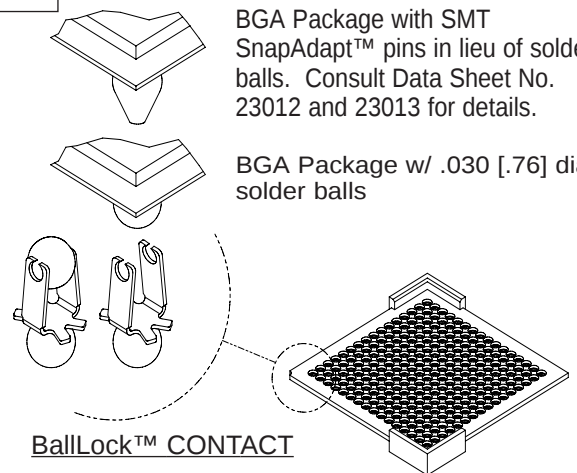
All tolerances ± .005 [.13] unless otherwise specified

Use Aries' BGA Order Sheet, Data Sheet No. 23000, for prompt quotations.

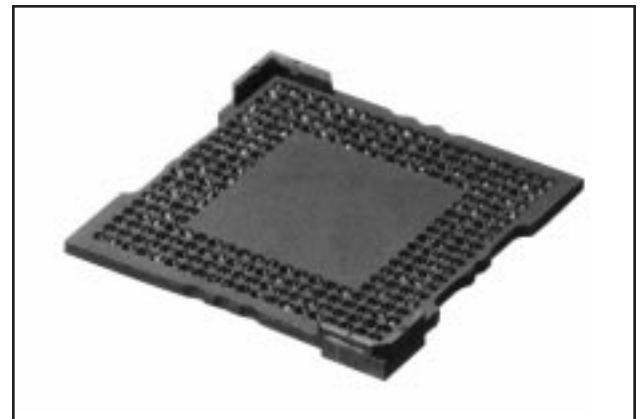
Note: Part number assigned by factory when ordering socket with corner guides.

BGA Package with SMT SnapAdapt™ pins in lieu of solder balls. Consult Data Sheet No. 23012 and 23013 for details.

BGA Package w/ .030 [.76] dia. solder balls



Corner guides not used with SnapAdapt™ pins.



Note: Aries specializes in 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.

ORDERING INFORMATION

(for socket w/out corner guides only)

XXX-BGXXXXX-7XX

No. of positions (256 shown) | Pitch
 Ball Grid Array | Θ=1.50mm
 Footprint designator (assigned by factory) | V=1.27mm
 Plating:
 0=Tin
 1=Gold

Contact Type:
 7=BallLock surface mount solder ball contact

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