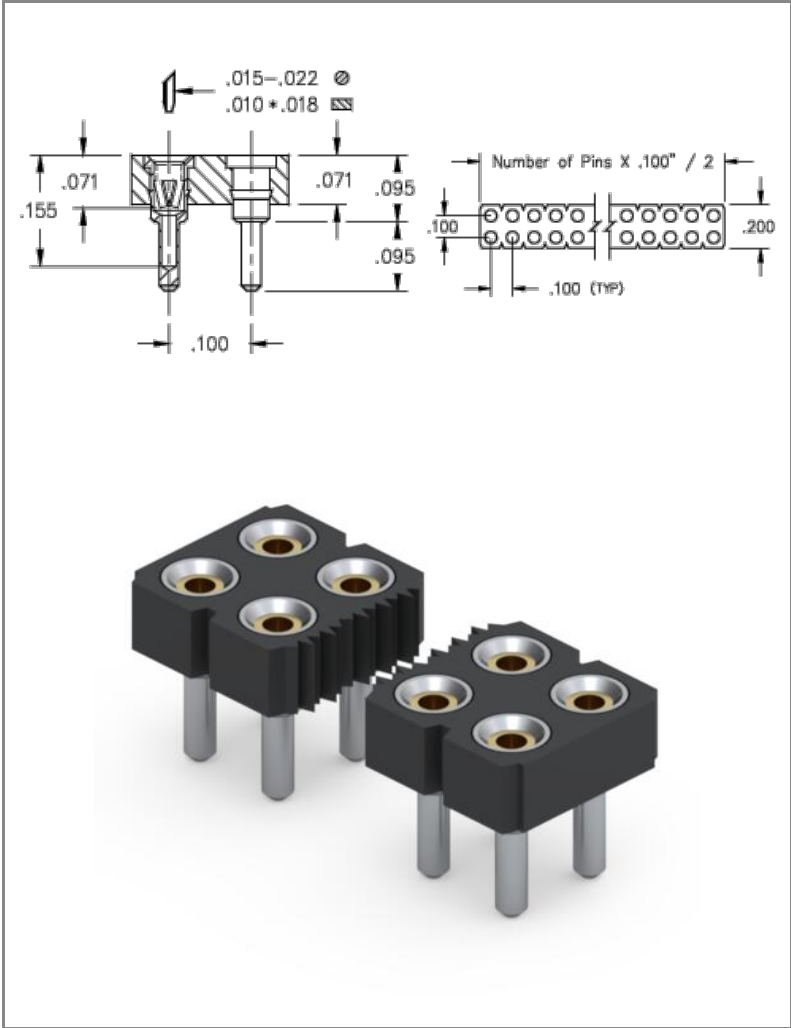




PRODUCT NUMBER: 415-91-220-41-003000

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DATA SHEET



| General Info               |                                                                                 |
|----------------------------|---------------------------------------------------------------------------------|
| Description <sup>1</sup> : | Low Profile Solder Tail Socket<br>Accepts .015"-.022" (0,381-0,559mm) dia leads |
| Type:                      | Interconnect                                                                    |
| Category:                  | Machined Pin Socket                                                             |
| Mounting Style:            | Through Hole Solder Mount                                                       |
| Tail Type:                 | Solder Tail                                                                     |
| # Pins:                    | 20                                                                              |
| Packaging <sup>2</sup> :   | Packaged in Box or Tube                                                         |
| Rows:                      | Double Row                                                                      |
| ECCN:                      | Contact Factory                                                                 |
| HTSUS:                     | 8536.90.4040                                                                    |
| Product Lifecycle:         | Active                                                                          |
| Country Of Origin:         | USA                                                                             |

415-91-220-41-003000- SPECIFICATIONS

| Environmental Specs               |                                                 |
|-----------------------------------|-------------------------------------------------|
| Temperature Range <sup>3</sup> :  | -55/+125° C                                     |
| Shock <sup>4</sup> :              | No Elect. Discontinuity > 1µs @ 50g             |
| Vibration <sup>5</sup> :          | No Elect. Discontinuity > 1µs @ 10-2000HZ, 15 G |
| Moisture Sensitivity Level (MSL): | 1 (Unlimited)                                   |
| REACH Status:                     | REACH Unaffected                                |

| Mechanical Specs                            |                      |
|---------------------------------------------|----------------------|
| Mechanical life (Durability) <sup>6</sup> : | 1,000 Cycles Minimum |

| Materials                          |                                          |
|------------------------------------|------------------------------------------|
| Loose Pin/Receptacle # (Material): | 1534 (Brass Alloy)                       |
| Shell Plating:                     | 200 µ" Tin/Lead(93/7) over 100 µ" Nickel |
| Inner Contact #:                   | 12                                       |
| # Contact Fingers:                 | 4                                        |
| Inner Contact Material:            | Beryllium Copper                         |
| Inner Contact Plating:             | 10 µ" Gold over 50 µ" Nickel             |
| Insulator Material:                | High Temp Thermoplastic                  |

| Technical Specs |                 |
|-----------------|-----------------|
| Pitch:          | .100" (2,540mm) |

| Electrical Specs                  |                  |
|-----------------------------------|------------------|
| Current Rating <sup>7</sup> :     | 3 Amps           |
| Contact Resistance <sup>8</sup> : | 10 mΩ max.       |
| Rated Voltage:                    | 100 VRMS/150 VDC |
| Insulation Resistance:            | 10,000 MΩ min.   |
| Dielectric Withstanding Voltage:  | 1,000 VRMS min.  |

## NOTES:

### 1. Standard Tolerances

Assembly tolerance:  $\pm .010"$  (.25mm)

Connector Length "L"

| Connector Length "L"                          | Tolerance                                  |
|-----------------------------------------------|--------------------------------------------|
| $L \leq 2"$ ( $L \leq 50.8$ mm)               | $\pm .005"$ ( $\pm .127$ mm)               |
| $2 < L \leq 3"$ ( $50.8 < L \leq 76.2$ mm)    | $+ .007 / - .006"$ ( $+ .178 / - .152$ mm) |
| $3 < L \leq 4"$ ( $76.2 < L \leq 101.6$ mm)   | $+ .009 / - .007"$ ( $+ .229 / - .178$ mm) |
| $4 < L \leq 5"$ ( $101.6 < L \leq 127$ mm)    | $+ .011 / - .008"$ ( $+ .279 / - .203$ mm) |
| $5 < L \leq 6.4"$ ( $127 < L \leq 162.56$ mm) | $+ .013 / - .009"$ ( $+ .330 / - .229$ mm) |

Insulator width:  $\pm .005$  (.13mm)

Insulator height:  $\pm .005$  (.13mm)

Co-planarity of SMT connectors: .005" (.13mm) up to 1" (25.4mm) in connector length

Insulator Flatness: .005" (.13mm) up to 1" (25.4mm) in connector length

Pin Length:  $\pm .005$  (.13mm)

Pin Diameter:  $\pm .002$  (.051mm)

Pin Angle:  $\pm 2^\circ$

- Not all part numbers in the series may be packaged in tubes. Some specific part numbers may be packaged in a box.
- Per IEC 60512-11-(4,-9,-10,-12)
- For discrete pin only. Per IEC 60512-6-3: Test 6c: Shock
- For discrete pin only. Per IEC 60512-6-4: Test 6d: Vibration (sinusoidal)
- Receptacles are capable of 1,000 Minimum insertion/extraction cycles for a broad range of applications. Mating pin size, shape and finish, along with application specific variables, will affect the life of a receptacle contact.
- Per IEC 60512-5-1, Current Carrying Capacity (evaluated at 10° C Temp. Rise)
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## ADDITIONAL NOTES AND SPECIFICATIONS

In the interest of improved design, quality and performance, Mill-Max reserves the right to make changes in its specifications without prior notice. Specifications and tolerances are provided wherever possible. The tolerance on dimensions of critical to function features is typically held tighter than the stated standard tolerances, such as press-fits, holes and lengths affecting the coplanarity of SMT products. Due to the wide variety of interconnects Mill-Max offers, the specific tolerances vary from product to product. If you need information regarding the tolerance of a particular part, please contact Technical Services.

## RELATED LINKS AND DOCUMENTS

Engineering Notebook: ( <https://www.mill-max.com/engineering-notebooks/machined-pin-pcb-connectors-interconnects> )

Environmental Compliance: ( <https://www.mill-max.com/rohs> )