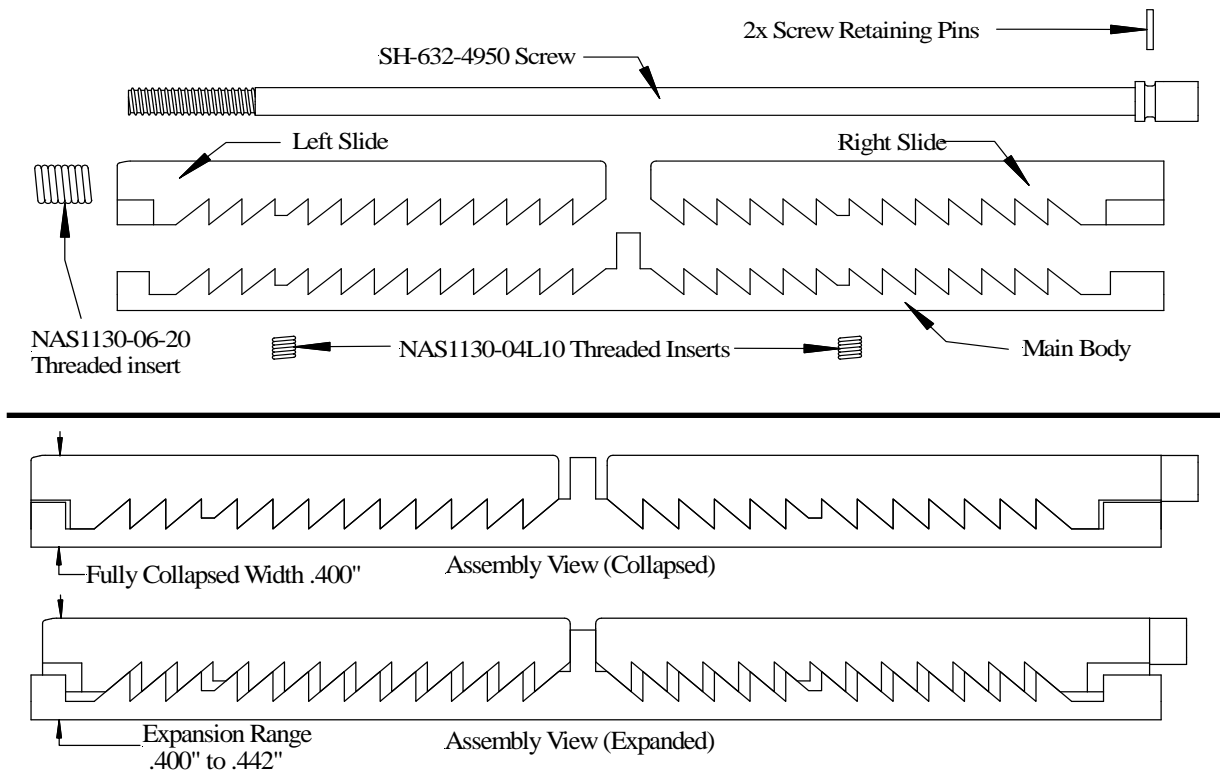


Coollok® Electronic Card Retainers Series 3.0 for High Heat Flux Electronic Modules

Coollok is an advanced electronic module retainer designed to provide superior thermal conductance between the high performance electronic module and the cold-plate heat exchanger. Target applications include use in avionics and space based electronic enclosures. This “drop-in” new design offers dramatically improved thermal transport performance for reduced chip junction operational temperature as compared to other retainers available in the market today.

UNIQUE FEATURES

- **Direct Replacement for Existing Wedge and Cam Style Retainers**
- **High Thermal Performance**
 - **Conductance-** (up to 3.0 W/°C-inch)*
 - **Resistance-** (as low as 0.334 °C-inch/W)*
- **Uniform Clamping Pressure Distribution**
- **High Clamping Loads**
- **Easy Insertion/Removal**
- **Choice of Coatings/ Finishes**
- **Lightweight**
- **Custom Configurations Available**



* Thermal performance is dependant on many factors, such as surface finish and dimensional tolerances of card and cold-wall. Recommended cold-plate slot width is card thickness + 0.410". Results achieved with Gold Iridite coating and utilizing thermal interface material between the retainer and the module to improve surface contact and thermal transport performance. (Recommended configuration).

Specialty Retainers

Hardware:

Screw

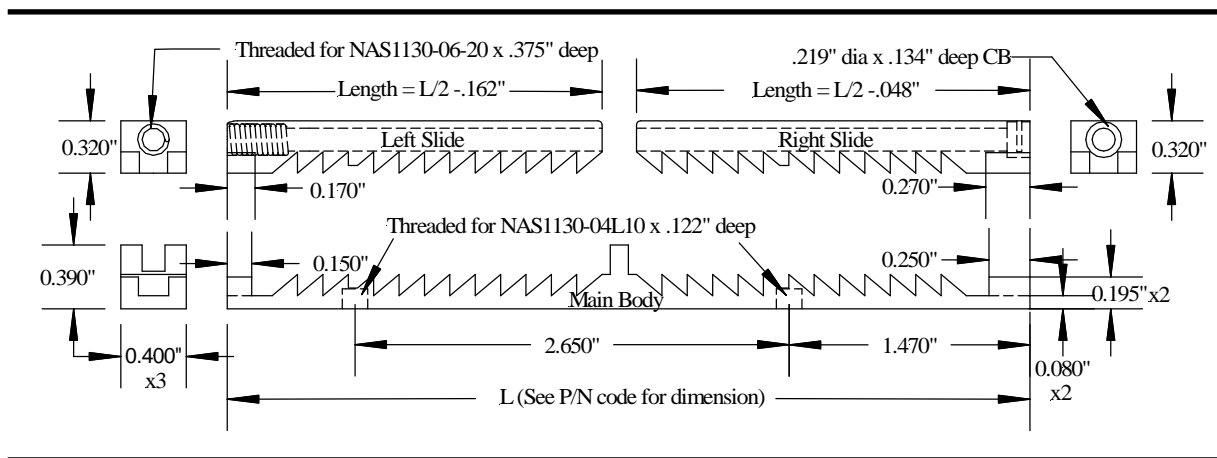
P/N SH-632-4950
 6-32 Socket Head Cap
 Screw 9/64" hex
 300 Series Stainless Steel

Retaining pins

P/N P1-031-187
 .031" dia x .187"
 18-8 Stainless Steel

Threaded inserts

NAS1130-06-20
 6-32 internal thread
 18-8 SS
 NAS1130-04L10 (optional)
 4-40 internal thread
 18-8 SS



Part Number Code Description:

CL3.0-4.90-130.643-FI-HE-WN-IA

Model# / Series

CL-Standard Coollok Configuration
 3.0- Series 3.0
 Other models/Series to be added as developed

Effective Length of Retainer (L)
 in inches (not including screw)

Interface Configuration
 130.643 (std)

Finish Options

FI- Gold Iridite per MIL-C-5541, Class 3 (std)
 FA- Anodize per MIL-A-8615, Type 1 or 2
 FH- Hard Anodize per MIL-A-8625 Type 3
 FN- Electroless Nickelcoating per MIL-C-26074
 FP- PVD coating (Zirconium/Nitride Hybrid)

Mounting Hole Thread Type

IT- Tapped Hole 4-40 Thread (std)
 IA- NAS1130-04L10 Threaded Insert

Locking Washer Indication

WN- No Washer installed (std)
 WL- Locking Washer Installed

Screw Head Configuration

HE- Hex Head English Units (9/64")(std)
 HM- Hex Head Metric Units
 HT- Torque Head (in development)

It will be assumed that the standard configuration is utilized unless otherwise specified. It is not necessary to include codes for standard values. For example, CL3.0-4.90-IA would include all standard values with the exception of the threaded inserts called out.