

The SOLIDWEDGE™ is a breakthrough technology that allows conduction cooled modules to operate at higher thermal loads in higher temperature environments.

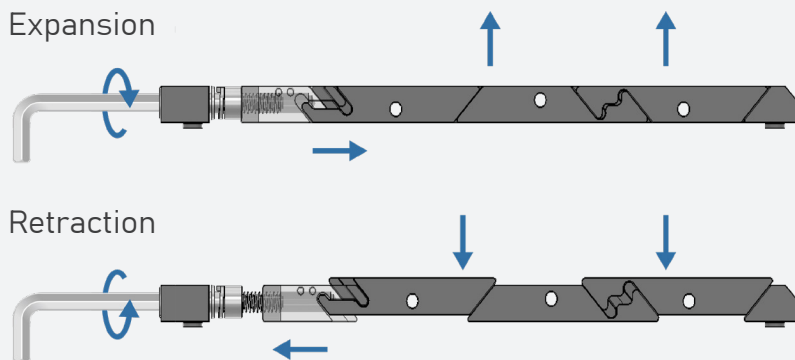
## OPTIMIZED FOR VITA 48.2 AND CPCI



**US PATENT  
8,456,846**

## POSITIVE RETRACTION

Adjacent wedge segments are connected to prevent a stuck wedge lock. Turning the drive screw counterclockwise retracts the threaded drive wedge, pulling each of the connected segments down to their relaxed position.



SW5 Pictured

## THERMAL RESISTANCE

0.26 °C/W Resistance per Card Edge

## FEATURES

- 400 lb Clamping Force
- Mass: 8 g
- #6 Drive Screw
- Zero Insertion Force
- Low Profile Design
- Self-Retracting Segments
- Superior Plating Endurance
- Optimized for VITA Specifications
- Models Available for Download
- Torque to 6-10 in-lbs

## MATERIALS

Active Wedge Segments: 6061-T6511

Front Mounting Block: 6061-T6511

Screws, Nuts, Washers:  
300 Series Stainless Steel  
(passivated per AMS - 2700)

## 3D MODEL:

<https://a360.co/3l15vx0>

The SOLIDWEDGE™ design provides three times the thermal contact area of conventional wedge locks. The design also features a larger screw size, which creates higher contact forces between the heat frame and cold wall surfaces, significantly improving thermal performance.

The interconnected links of the SOLIDWEDGE™ feature positive retraction of all segments without the use of springs or other mechanisms.

## PART NUMBER BUILDER

### Required

### Additional Specifications

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                   |                  |                                                                        |           |                                                                                                                                                                                                                           |           |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------|------------------|------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--|
| <b>SW3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>243</b> | <b>225</b>        | <b>225</b>       | <b>XXX</b>                                                             | <b>XX</b> | <b>B075</b>                                                                                                                                                                                                               | <b>YY</b> |  |
| Wedge:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Spacing:   | Height:<br>0.225" | Width:<br>0.225" | Hex:                                                                   | Finish:   |                                                                                                                                                                                                                           |           |  |
| 2.43" MOUNTING HOLE SPACING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                   |                  |                                                                        |           |                                                                                                                                                                                                                           |           |  |
| SW - SOLIDWEDGE<br>3 - ACTIVE SEGMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                   |                  | 3/32" HEX KEY - [332]<br>M2.5 HEX KEY - [M25]<br>7/64" HEX KEY - [764] |           |                                                                                                                                                                                                                           |           |  |
| <div style="display: flex; justify-content: space-between;"> <div> <div style="width: 20px; height: 10px; background-color: black;"></div> BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 [BA]<br/> <div style="width: 20px; height: 10px; background-color: black;"></div> HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2 [BH]<br/> <div style="width: 20px; height: 10px; background-color: white;"></div> CHEMICAL FILM CLEAR [CC]<br/> <div style="width: 20px; height: 10px; background-color: gold;"></div> CHEMICAL FILM GOLD [CG]<br/> <div style="width: 20px; height: 10px; background-color: silver;"></div> ELECTROLESS NICKEL [EN] </div> <div>See last page for more plating info</div> </div> |            |                   |                  |                                                                        |           |                                                                                                                                                                                                                           |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                   |                  |                                                                        |           | <div style="display: flex; justify-content: space-between;"> <div>1<br/>BOSS LENGTH 0.075"</div> <div>2<br/>[BV] - BELLEVILLE WASHERS<br/>[NL] - NYLOK LOCK PATCH<br/>[HC] - HELICOIL INSERTION</div> <div>3</div> </div> |           |  |

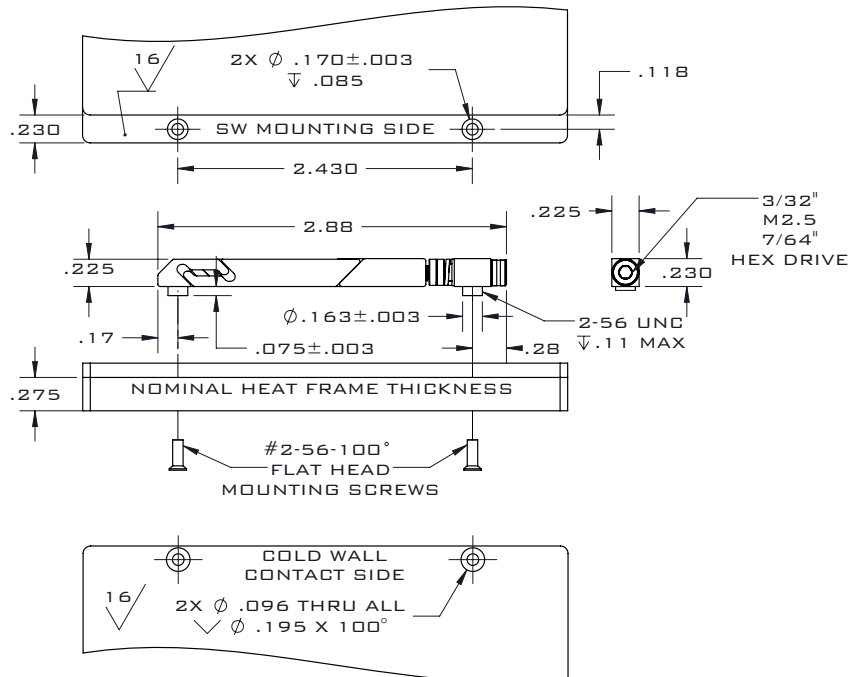
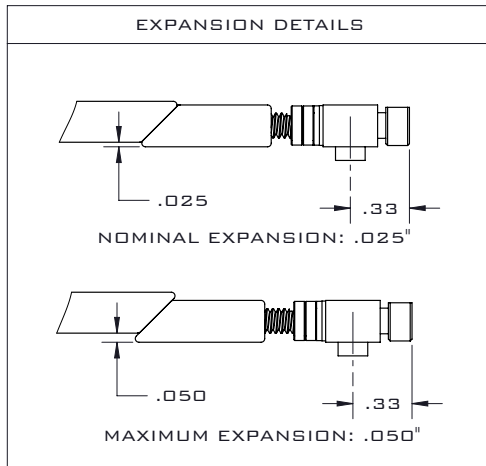
**RECOMMENDED PART NUMBER: SW3-243-225-225-332-BA-B075-BV-HC**

## MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES.

TOLERANCES:  
TWO PLACE DECIMAL: ±.01  
THREE PLACE DECIMAL: ±.005



Standard material specs for WaveTherm's SOLIDWEDGE™, injector/ejectors, and OpenCOTS products.

### ASSEMBLY HARDWARE



#### 300 SERIES STAINLESS STEEL

| Compliance | Specification  | Use Case                                                                                             |
|------------|----------------|------------------------------------------------------------------------------------------------------|
| ✓ DFARS    | Passivated per | Standard material for screws, nuts, washers, and SOLIDWEDGE™ straps in WaveTherm product assemblies. |
| ✓ RoHS     | AMS-2700       |                                                                                                      |
| ✓ REACH    |                |                                                                                                      |

### ALUMINUM PLATING



#### BLACK ANODIZED - BA

| Compliance | Specification      | Properties and Use Case                                                                                                                    |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| ✓ RoHS     | MIL-A-8625         | Provides reliable corrosion resistance and durability. Ideal for use in demanding applications requiring high insertion/extraction counts. |
| ✓ REACH    | Type II<br>Class 2 |                                                                                                                                            |



#### BLACK ANODIZED HARDENED - BH

| Compliance | Specification       | Properties and Use Case                                                                                                                           |
|------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ✓ RoHS     | MIL-A-8625          | Provides superior corrosion resistance and high durability. Ideal for use in harsh and rugged environments with high insertion/extraction counts. |
| ✓ REACH    | Type III<br>Class 2 |                                                                                                                                                   |



#### CHEMICAL FILM CLEAR - CC

| Compliance | Specification                | Properties and Use Case                                                                                                               |
|------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| ✓ RoHS     | MIL-DTL-5541                 | Provides good corrosion resistance and electrical conductivity with lower durability. Not ideal for high insertion/extraction counts. |
| ✓ REACH    | Type II<br>Class 1A<br>Clear |                                                                                                                                       |



#### CHEMICAL FILM GOLD - CG

| Compliance | Specification              | Properties and Use Case                                                                                       |
|------------|----------------------------|---------------------------------------------------------------------------------------------------------------|
| ✗ RoHS     | MIL-DTL-5541               | Provides good electrical conductivity with lower durability. Not suited for high insertion/extraction counts. |
| ✗ REACH    | Type I<br>Class 1A<br>Gold |                                                                                                               |



#### ELECTROLESS NICKEL - EN

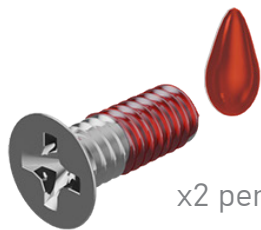
| Compliance | Specification      | Properties and Use Case                                                                                                      |
|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------|
| ✓ RoHS     | MIL-C-26074        | Provides excellent thermal performance and excellent electrical conductivity. Ideal for high-performance thermal management. |
| ✓ REACH    | Class 4<br>Grade B |                                                                                                                              |

Images for demonstration only

\*varies based on plating vendor's certificates of conformance

## SOLIDWEDGE™ INSTALLATION

1



x2 per SOLIDWEDGE

Apply Loctite 2760 to #2-56-100° flat head mounting screws (not included)

2



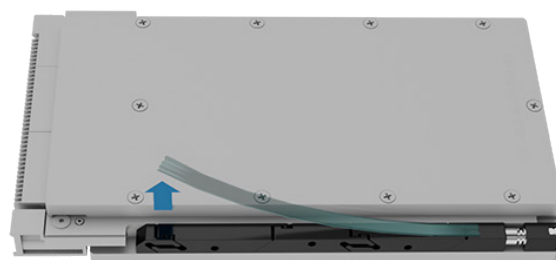
Align SOLIDWEDGE to mounting hole locations

3



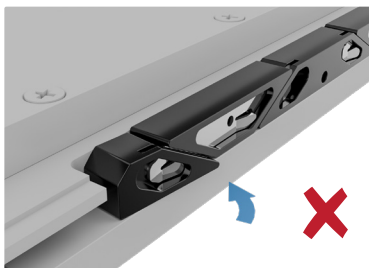
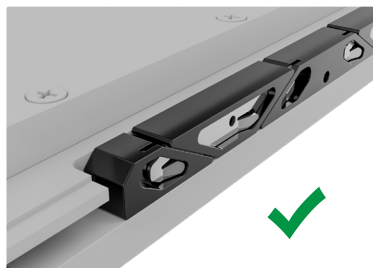
Install screws and torque to 2 in.-lbs. Ensure mounting screw doesn't hit drive screw.  
(reference mounting drawing for max thread engagement)

4

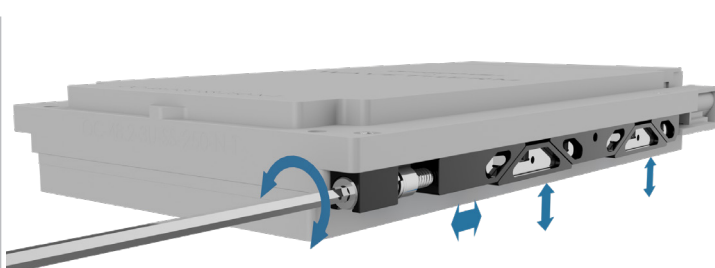


Remove mounting tape from SOLIDWEDGE

### CHECK INSTALL



Check alignment on both mounting blocks after torquing and press to straighten if necessary.



Ensure SOLIDWEDGE is functioning correctly by expanding and contracting with a hex key.

### WARNING:



SOLIDWEDGES are not intended to be mounted directly to PCBs. The opposing force of the mounting blocks may result in board damage.