

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

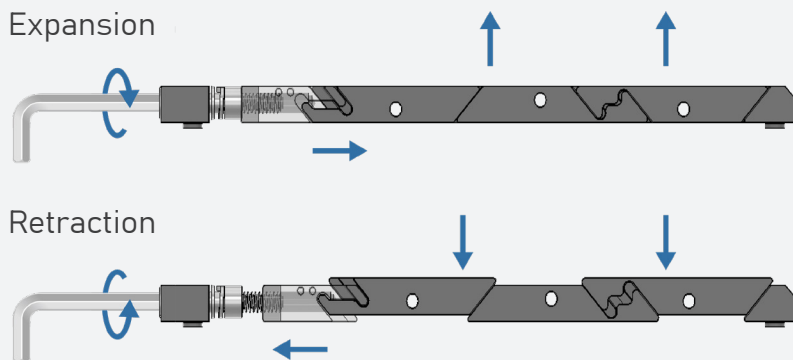
## OPTIMIZED FOR VITA 48.2 AND CPCI



**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

0.12 °C/W Resistance per Card Edge

## FEATURES

- 800 lb Clamping Force
- Mass: 27 g
- #8 Drive Screw
- Zero Insertion Force
- Low Profile Design
- Self-Retracting Segments
- Superior Plating Endurance
- Optimized for VITA Specifications
- Models Available for Download
- Torque to 8-15 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/3ucqtCj>

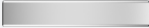
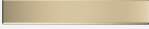
The SOLIDWEDGE™ design provides three times the thermal contact area of conventional wedge locks. The design also features a larger screw size, which creates higher contact forces between the heat frame and cold wall surfaces, significantly improving thermal performance.

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>SW5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>455</b> | <b>260</b>                                                             | <b>365</b>       | <b>XXX</b> | <b>XX</b> | <b>B075</b>                                                                                                      | <b>YY</b> |  |
| Wedge:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Spacing:   | Height:<br>0.260"                                                      | Width:<br>0.365" | Hex:       | Finish:   |                                                                                                                  |           |  |
| 4.55" MOUNTING HOLE SPACING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                                                        |                  |            |           |                                                                                                                  |           |  |
| SW - SOLIDWEDGE<br>5 - ACTIVE SEGMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | 3/32" HEX KEY - [332]<br>M2.5 HEX KEY - [M25]<br>7/64" HEX KEY - [764] |                  |            |           |                                                                                                                  |           |  |
|  BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 [BA]<br> HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2 [BH]<br> CHEMICAL FILM CLEAR [CC]<br> CHEMICAL FILM GOLD [CG]<br> ELECTROLESS NICKEL [EN] |            | See last page for more plating info                                    |                  |            |           |                                                                                                                  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                                                        |                  |            |           | 1 BOSS LENGTH 0.075"<br>2 [BV] - BELLEVILLE WASHERS<br>[NL] - NYLOK LOCK PATCH<br>[HC] - HELICOIL INSERTION<br>3 |           |  |

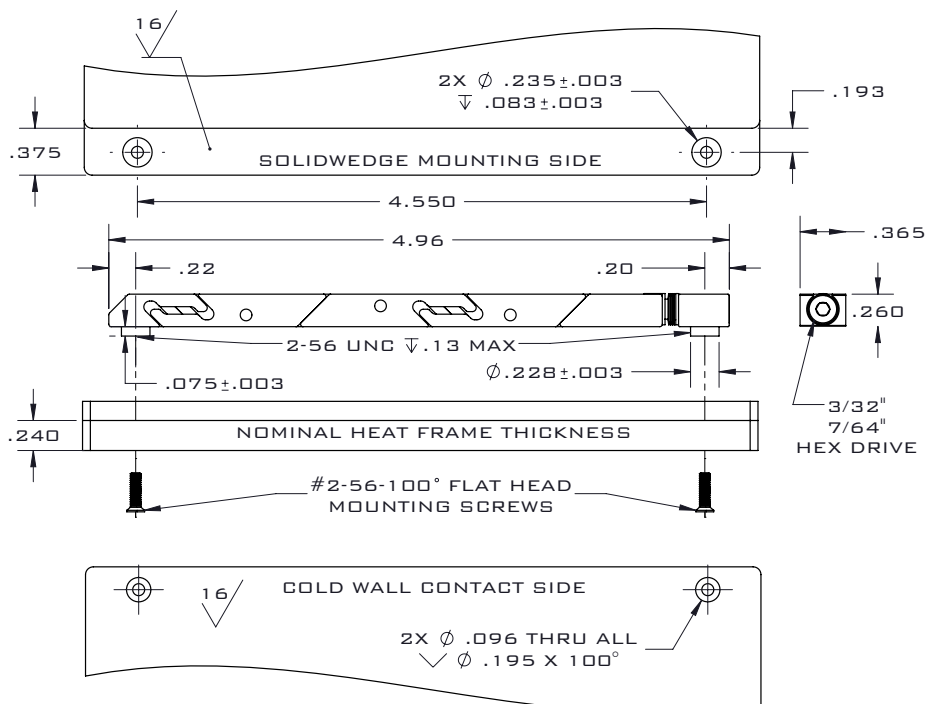
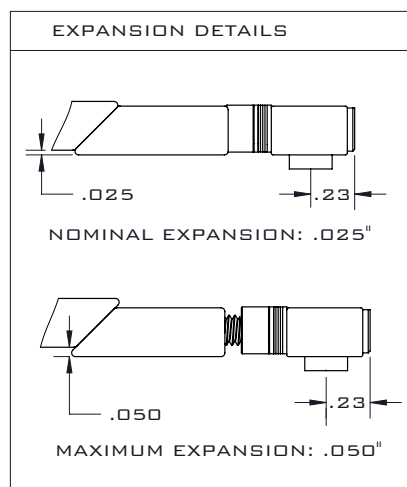
RECOMMENDED PART NUMBER: SW5-455-260-365-332-BA-B075-BV-HC

## MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES.

TOLERANCES:  
TWO PLACE DECIMAL:  $\pm 0.01$   
THREE PLACE DECIMAL:  $\pm 0.005$



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, |
| ✓ RoHS     | AMS-2700       | and SOLIDWEDGE™ straps in WaveTherm product  |
| ✓ REACH    |                | assemblies.                                  |

### ALUMINUM PLATING



#### BLACK ANODIZED - BA

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



#### BLACK ANODIZED HARDENED - BH

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



#### CHEMICAL FILM CLEAR - CC

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



#### CHEMICAL FILM GOLD - CG

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



#### ELECTROLESS NICKEL - EN

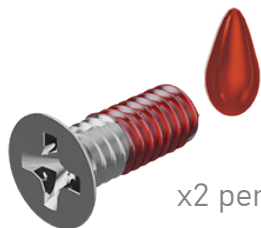
| Compliance |       | Specification |             | Properties and Use Case                                                                                                      |
|------------|-------|---------------|-------------|------------------------------------------------------------------------------------------------------------------------------|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



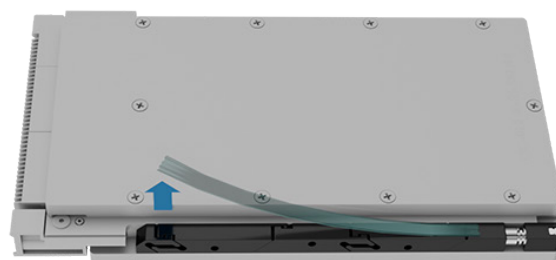
Align SOLIDWEDGE to mounting hole locations

3



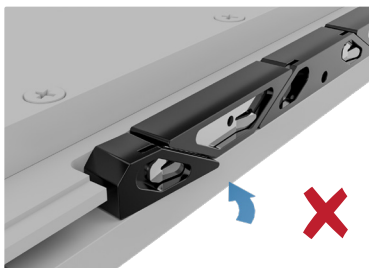
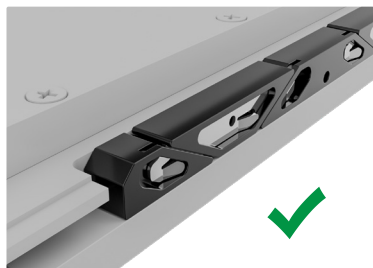
Install screws and torque to 2 in.-lbs. Ensure mounting screw doesn't hit drive screw.  
(reference mounting drawing for max thread engagement)

4

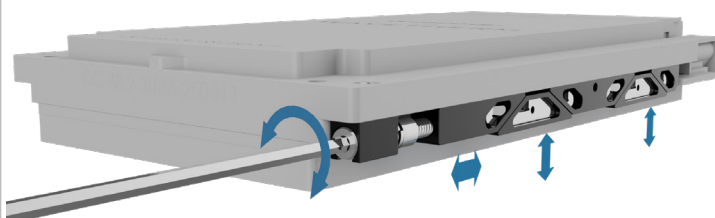


Remove mounting tape from SOLIDWEDGE

### 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.