

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

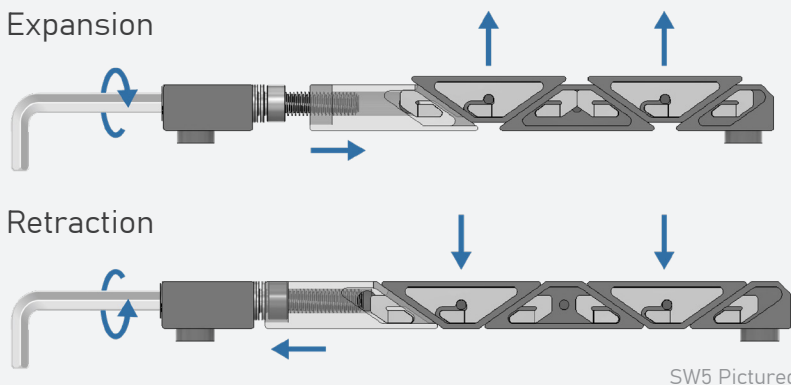
## OPTIMIZED FOR VITA 48.2 AND CPCI



**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.



## THERMAL RESISTANCE

0.09 °C/W Resistance per Card Edge

## FEATURES

- 1200 lb Clamping Force
- Mass: 15 g
- Helicoil Insert
- #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)

Helicoil Wire Insert: Nitronic 60

## 3D MODEL:

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

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>SW7</b>	<b>43</b>	<b>270</b>	<b>250</b>	<b>XXX</b>	<b>XX</b>	<b>30D</b>	<b>B075</b>	<b>YY</b>
Wedge:	Spacing:	Height: 0.270"	Width: 0.250"	Hex:	Finish:			
4.3" MOUNTING HOLE SPACING								
SW - SOLIDWEDGE 7 - ACTIVE SEGMENTS		3/32" HEX KEY - [332] M2.5 HEX KEY - [M25] 7/64" HEX KEY - [764]						
<div style="display: flex; justify-content: space-between;"> <div> <div style="width: 15px; height: 10px; background-color: black; margin-bottom: 2px;"></div> BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 [BA] <div style="width: 15px; height: 10px; background-color: black; margin-bottom: 2px;"></div> HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2 [BH] <div style="width: 15px; height: 10px; background-color: white; margin-bottom: 2px;"></div> CHEMICAL FILM CLEAR [CC] <div style="width: 15px; height: 10px; background-color: gold; margin-bottom: 2px;"></div> CHEMICAL FILM GOLD [CG] <div style="width: 15px; height: 10px; background-color: silver; margin-bottom: 2px;"></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 30° WEDGE SEGMENTS</div> <div>2 BOSS LENGTH 0.075"</div> <div>3</div> </div> <div style="margin-top: 10px;"> [BV] - BELLEVILLE WASHERS [NL] - NYLOK LOCK PATCH </div>		

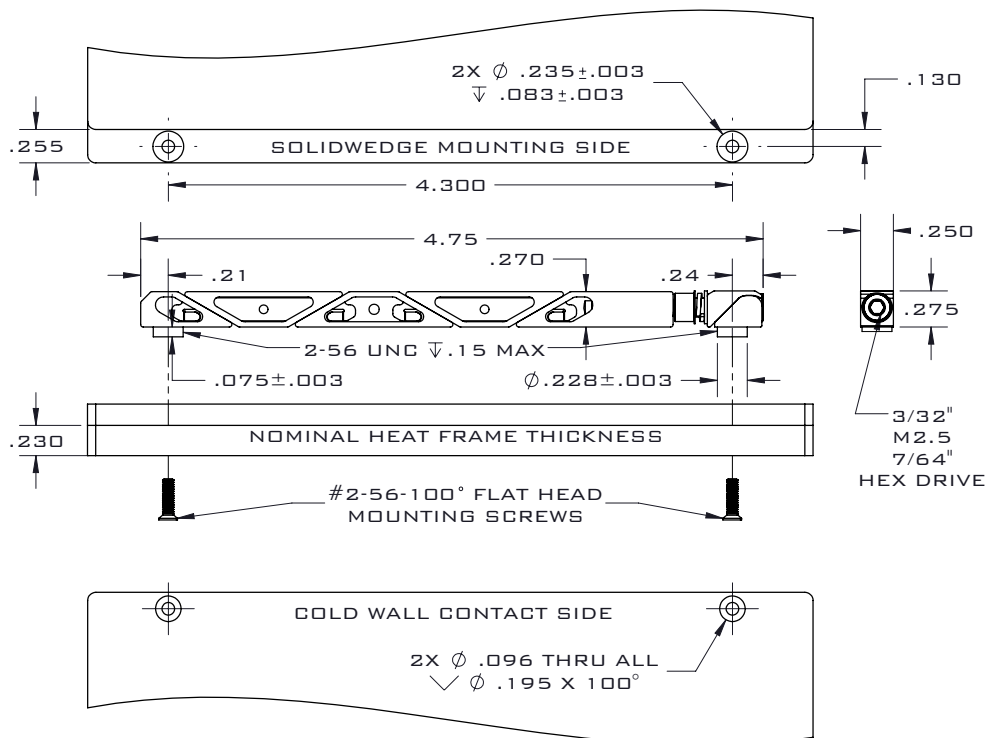
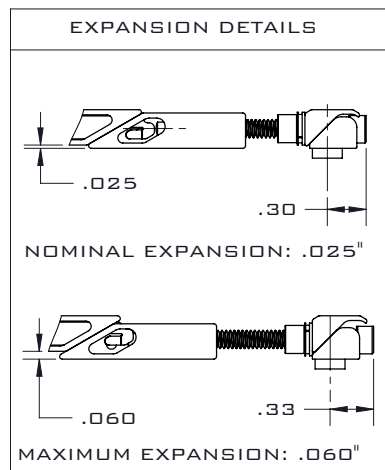
**RECOMMENDED PART NUMBER: SW7-43-270-250-332-BA-30D-B075-BV**

## 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 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 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 Class 1A 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 Class 1A Gold	
		MIL-C-5541 or* Class 1A Gold



#### ELECTROLESS NICKEL - EN

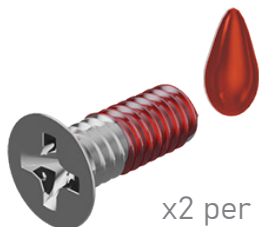
Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-C-26074	Provides excellent thermal performance and excellent electrical conductivity. Ideal for high-performance thermal management.
✓ REACH	Class 4	
	Grade B	
		AMS-C-26074 or* Class 4 Grade B

Images for demonstration only

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

## SOLIDWEDGE™ INSTALLATION

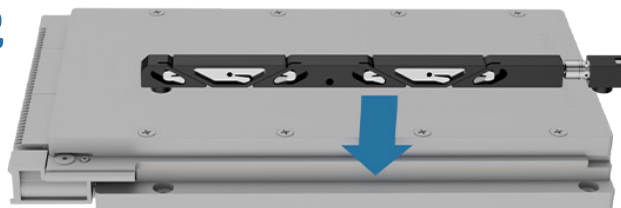
1



x2 per SOLIDWEDGE

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

2



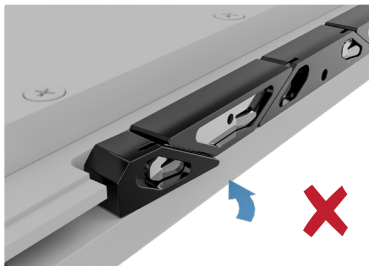
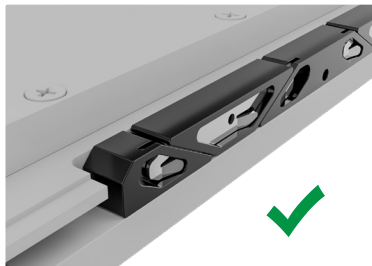
Align SOLIDWEDGE to mounting hole locations

3

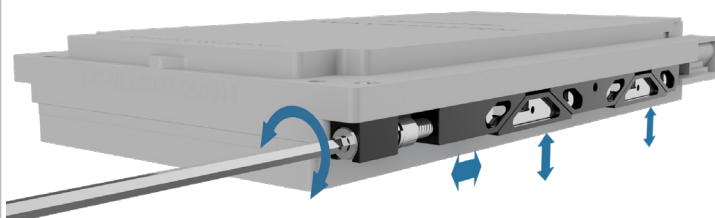


Install screws and torque to 2 in-lbs. Ensure mounting screw doesn't hit drive screw.  
(reference mounting drawing for max thread engagement)

### 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.