

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

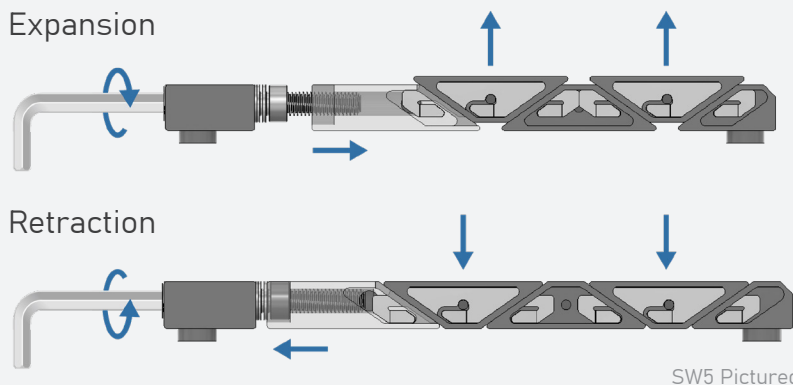
## OPTIMIZED FOR VITA 48.2 AND CPCI



**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

0.09 °C/W Resistance per Card Edge

## FEATURES

- 1200 lb Clamping Force
- Mass: 28 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/3js2o2t>

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.





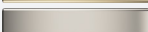
The interconnected links of the SOLIDWEDGE™ feature positive retraction of all segments without the use of springs or other mechanisms.

## PART NUMBER BUILDER

### Required

<b>SW7</b>	<b>90</b>	<b>270</b>	<b>250</b>	<b>XXX</b>	<b>XX</b>	<b>30D</b>	<b>YY</b>	
Wedge:	Spacing:	Height: 0.270"	Width: 0.250"	Hex:	Finish:			
9" MOUNTING HOLE SPACING								
SW - SOLIDWEDGE 7 - ACTIVE SEGMENTS				3/32" HEX KEY - [332] M2.5 HEX KEY - [M25] 7/64" HEX KEY - [764]				

	BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2	[BA]
	HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2	[BH]
	CHEMICAL FILM CLEAR	[CC]
	CHEMICAL FILM GOLD	[CG]
	ELECTROLESS NICKEL	[EN]

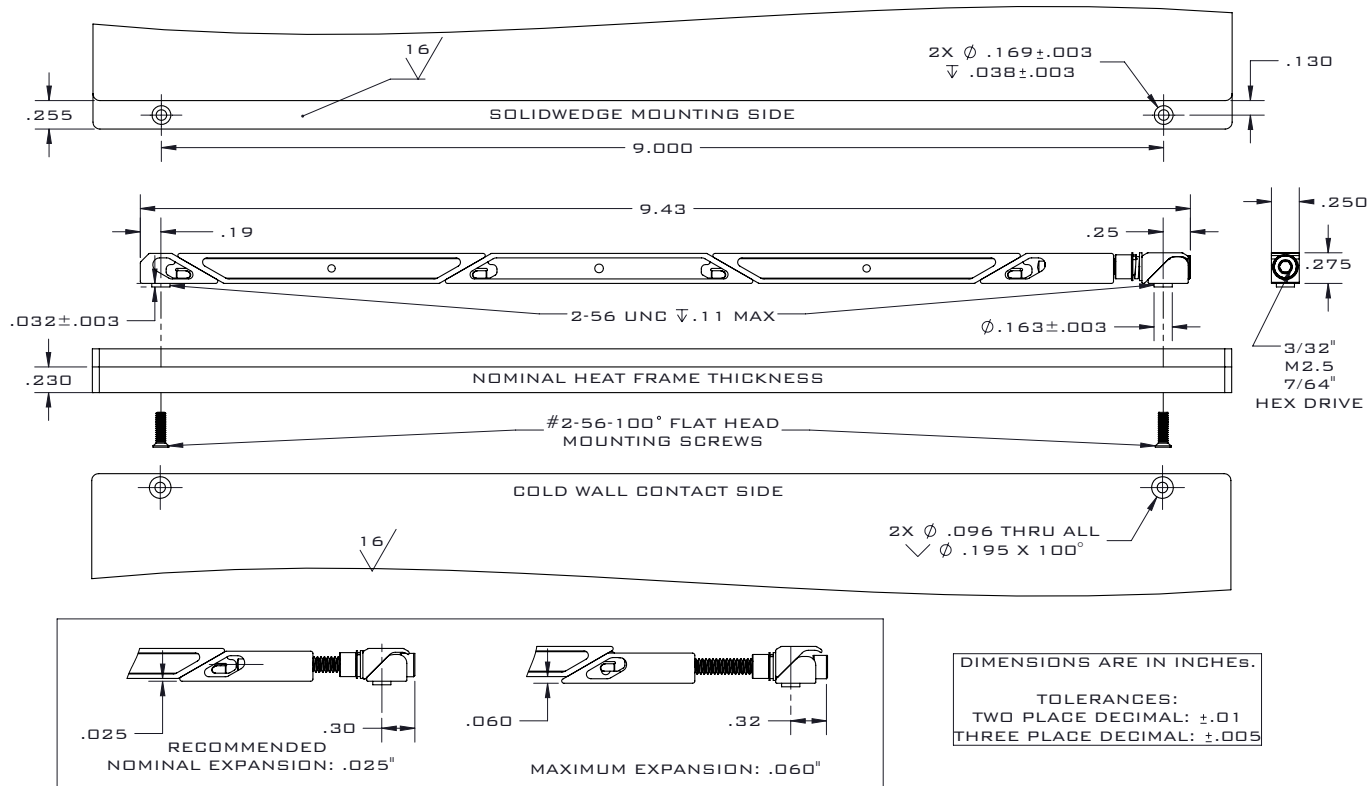
See last page for more plating info

### Additional Specifications

1	2	3
30° WEDGE SEGMENTS		
[BV] - BELLEVILLE WASHERS [NL] - NYLOK LOCK PATCH		

**RECOMMENDED PART NUMBER: SW7-90-270-250-332-BA-30D-BV**

## MOUNTING DETAILS



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	Ideal for use in demanding applications requiring high
	Class 2	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	durability. Ideal for use in harsh and rugged
	Class 2	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	conductivity with lower durability. Not ideal for high
	Class 1A	insertion/extraction counts.
	Clear	



#### CHEMICAL FILM GOLD - CG

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



#### ELECTROLESS NICKEL - EN

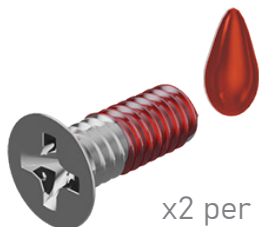
Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-C-26074	AMS-C-26074
✓ REACH	Class 4	Class 4
	Grade B	Grade B
		Provides excellent thermal
		performance and excellent electrical
		conductivity. Ideal for high-performance
		thermal management.

Images for demonstration only

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

## SOLIDWEDGE™ INSTALLATION

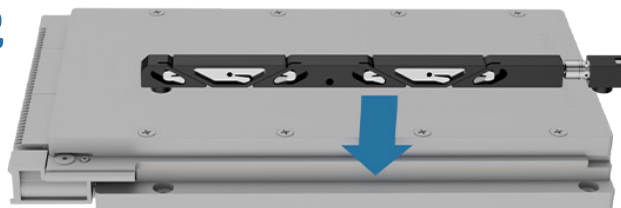
1



x2 per SOLIDWEDGE

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

2



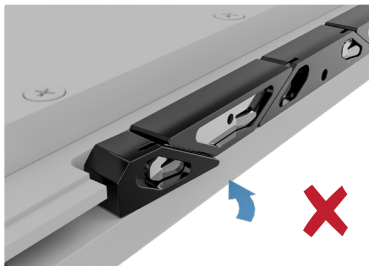
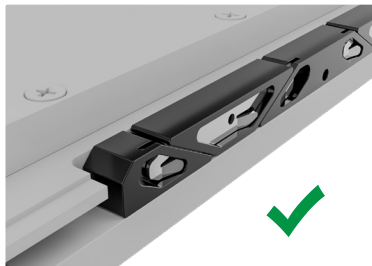
Align SOLIDWEDGE to mounting hole locations

3

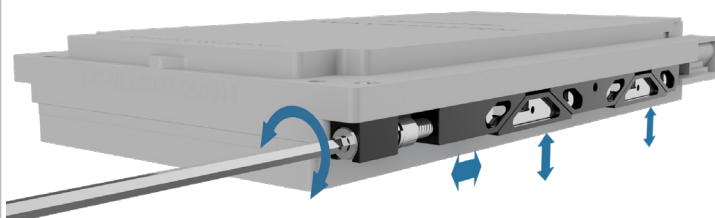


Install screws and torque to 2 in-lbs. Ensure mounting screw doesn't hit drive screw.  
(reference mounting drawing for max thread engagement)

### 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.