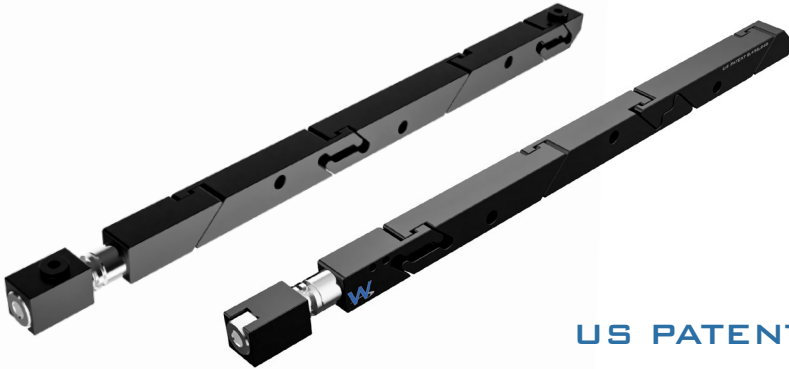


The SOLIDWEDGE™ is a breakthrough technology that allows conduction cooled modules to operate at higher thermal loads in higher temperature environments.

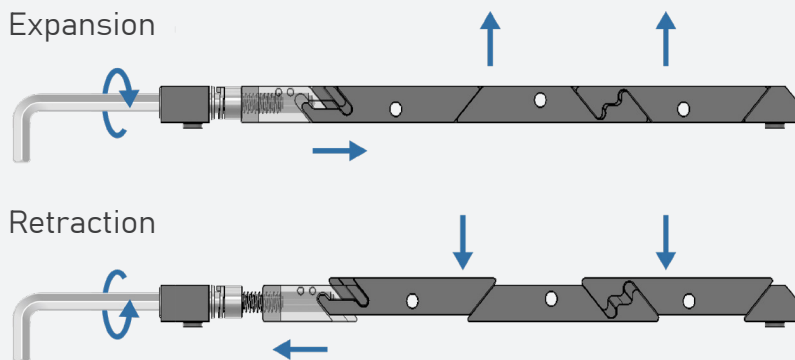
## OPTIMIZED FOR VITA 48.2 AND CPCI



**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

0.14 °C/W Resistance per Card Edge

## FEATURES

- 700 lb Clamping Force
- Mass: 16 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/3QzgDlr>



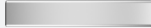

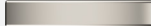
The SOLIDWEDGE™ design provides three times the thermal contact area of conventional wedge locks. The design also features a larger screw size, which creates higher contact forces between the heat frame and cold wall surfaces, significantly improving thermal performance.

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

SW5 - 475 - 270 - 250 - XXX - XX - YY - - -					
Wedge:	Spacing: 4.75" MOUNTING HOLE SPACING	Height: 0.270"	Width: 0.250"	Hex:	Finish:
SW - SOLIDWEDGE 5 - 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			
		1 [BV] - BELLEVILLE WASHERS [NL] - NYLOK LOCK PATCH [HC] - HELICOIL INSERTION		2 3	

**RECOMMENDED PART NUMBER: SW5-475-270-250-332-BA-BV-HC**

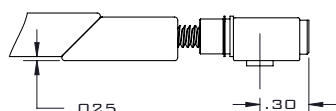
## MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED

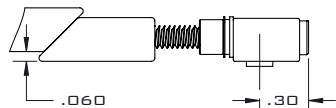
DIMENSIONS ARE IN INCHES.

TOLERANCES:  
TWO PLACE DECIMAL:  $\pm .01$   
THREE PLACE DECIMAL:  $\pm .005$

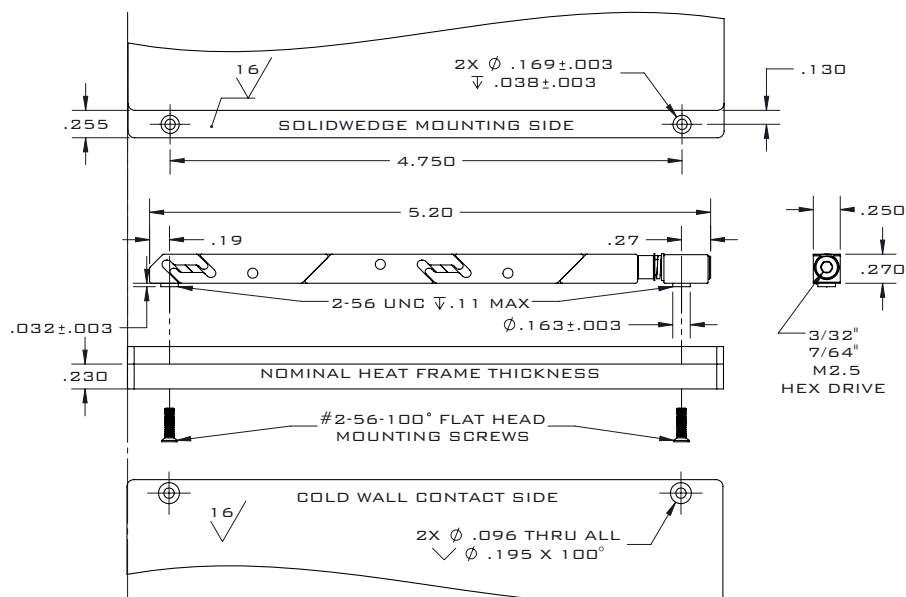
## EXPANSION DETAILS



NOMINAL EXPANSION: .025"



MAXIMUM EXPANSION: .060"



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

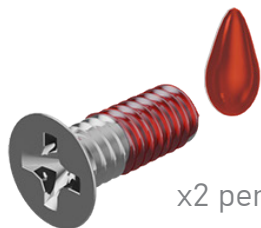
Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-C-26074	AMS-C-26074
✓ REACH	Class 4	Class 4
	Grade B	Grade B
		Provides excellent thermal
		performance and excellent electrical
		conductivity. Ideal for high-performance
		thermal management.

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



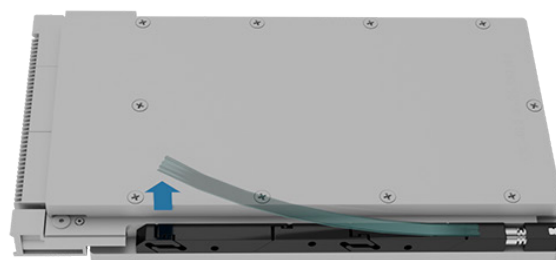
Align SOLIDWEDGE to mounting hole locations

3



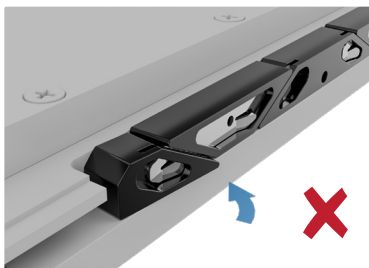
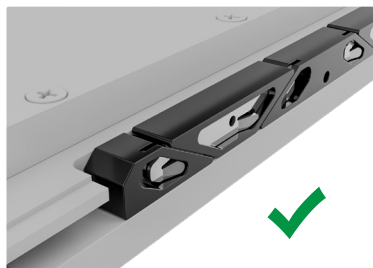
Install screws and torque to 2 in.-lbs. Ensure mounting screw doesn't hit drive screw.  
(reference mounting drawing for max thread engagement)

4

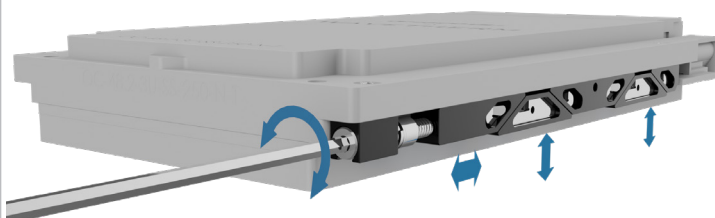


Remove mounting tape from SOLIDWEDGE

### 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.