

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

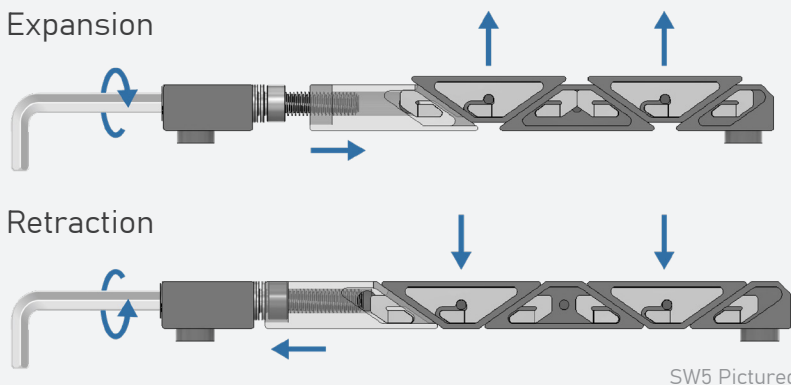
OPTIMIZED FOR VITA 48.2 AND CPCI



**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: 16 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/3kHV6qH>

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

SW7	455	270	250	XXX	XX	30D	B075	YY
Wedge:	Spacing:	Height: 0.270"	Width: 0.250"	Hex:	Finish:			
4.55" 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;"></div> BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 [BA] <div style="width: 15px; height: 10px; background-color: black;"></div> HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2 [BH] <div style="width: 15px; height: 10px; background-color: white;"></div> CHEMICAL FILM CLEAR [CC] <div style="width: 15px; height: 10px; background-color: gold;"></div> CHEMICAL FILM GOLD [CG] <div style="width: 15px; 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 30° WEDGE SEGMENTS</div> <div>2 BOSS LENGTH 0.075"</div> <div>3</div> </div> <div>[BV] - BELLEVILLE WASHERS [NL] - NYLOK LOCK PATCH</div>		

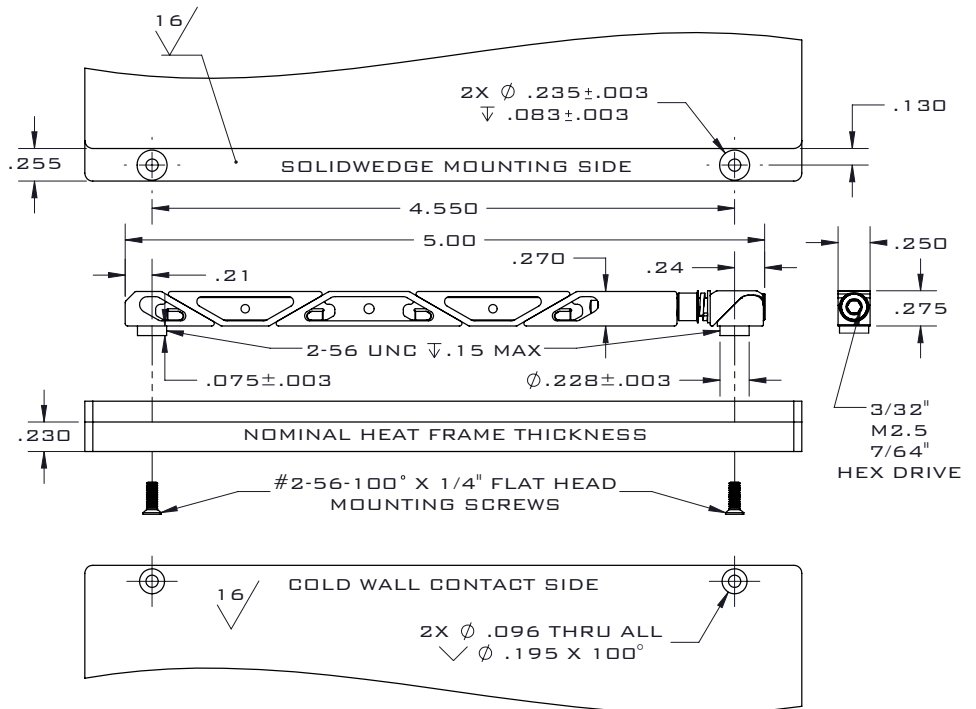
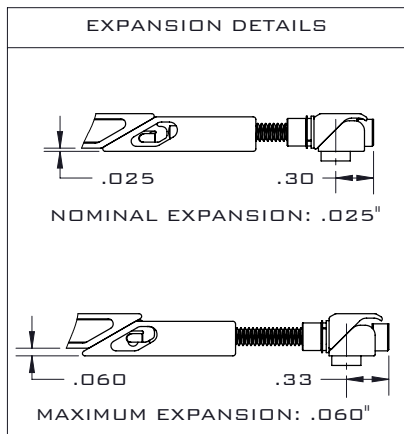
RECOMMENDED PART NUMBER: SW7-455-270-250-332-BA-30D-B075-BV

MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES.

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



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	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

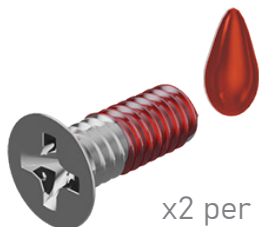
Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-C-26074	AMS-C-26074
✓ REACH	Class 4	Class 4
	Grade B	Grade B
		Provides excellent thermal
		performance and excellent electrical
		conductivity. Ideal for high-performance
		thermal management.

Images for demonstration only

*varies based on plating vendor's certificates of conformance

SOLIDWEDGE™ INSTALLATION

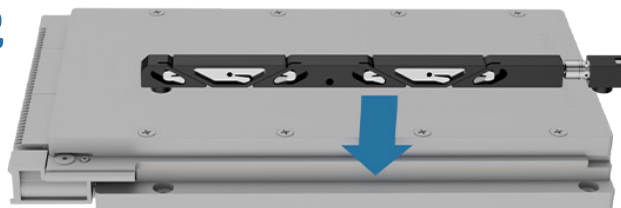
1



x2 per SOLIDWEDGE

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

2



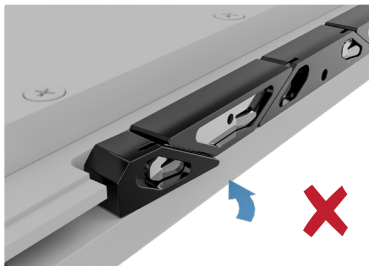
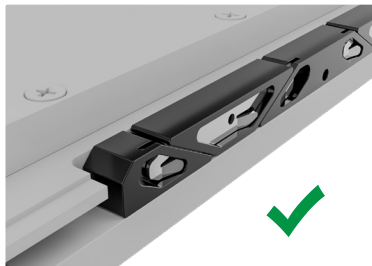
Align SOLIDWEDGE to mounting hole locations

3

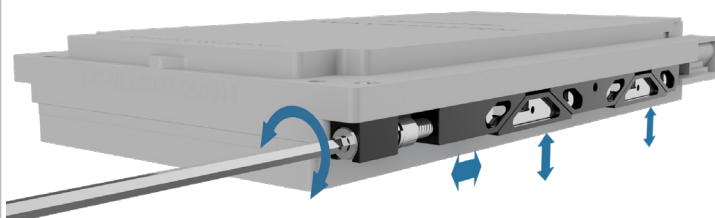


Install screws and torque to 2 in-lbs. Ensure mounting screw doesn't hit drive screw.
(reference mounting drawing for max thread engagement)

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.