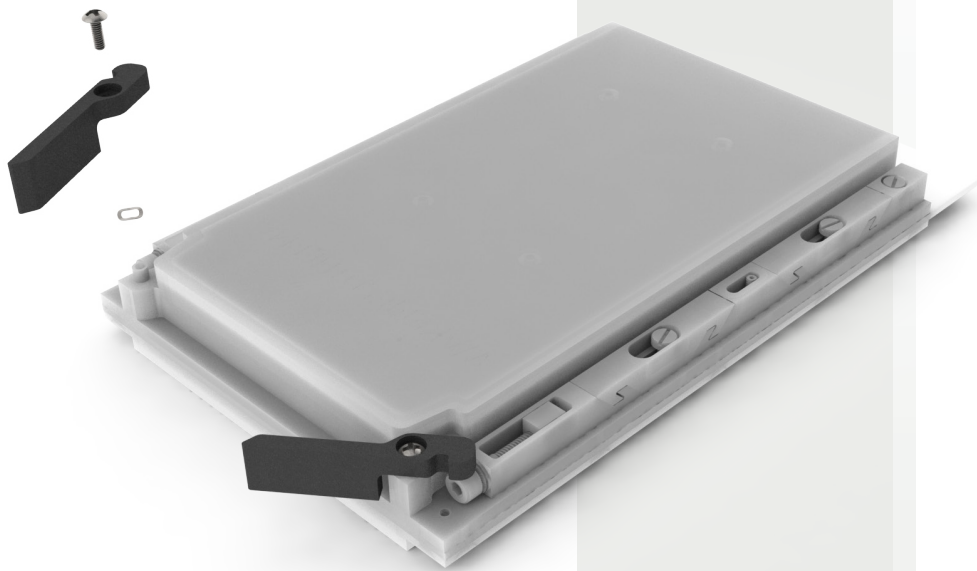


# 452E POST EJECTOR DATA SHEET

The 452E ejectors are a ready to go insertion and extraction solution for embedded computing heat frames. The 452E can adapt to 3U or 6U frames through material and length options. The slim design allows for maximum PCB component space. Designed for VITA 48 applications this ejector is ready to be inserted into any design.



## FEATURES

- Designed for use in VITA 48 applications
- Mechanical advantage: 2.7x - 3.9x
- Material: 6061-T6 aluminum, or 7075-T6 aluminum
- Nominal ejection distance: .23"
- Maximum injection/ejection output 34-110 lbs
- Special lengths, finish, and other design options available upon request

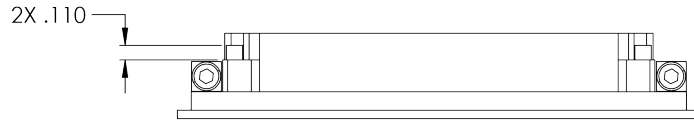
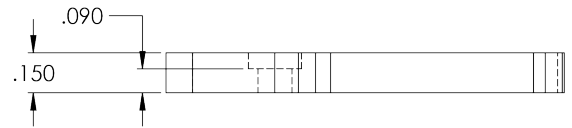
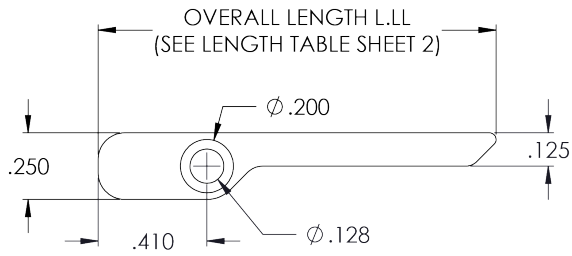
## HARDWARE INCLUDED

- Extra-wide truss head no. 1 Philips screw, M2 x 6mm l, stainless steel, passivate  
Recommended screw torque is 3.5 in-lbs (40 N-cm)
- 18-8 SS .190" OD wave washer

For complete  
heatframe  
assembly  
or other  
component  
items,

**CONTACT  
WAKEFIELD**

# GENERAL DIMENSIONS



RECOMMENDED EJECTOR POST HEIGHT  
SCALE 1 : 1

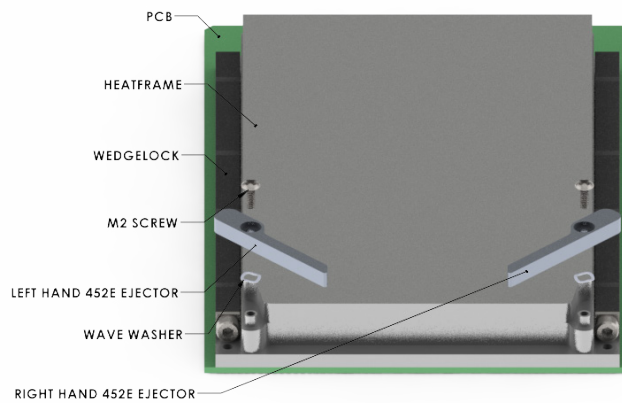
2X M2X0.4 - 6H  $\nabla$  .250 MIN

2X  $\phi .122^{+.000}_{-.005}$

2X .145

2X .430

RECOMMENDED HOLE LOCATIONS  
FROM PCB EDGE  
SCALE 1 : 1



**NEED DESIGN ASSISTANCE?**

[Wakefieldthermal.com](http://Wakefieldthermal.com)



# DESIGN OPTIONS

LENGTH AND MATERIAL TABLE						
[LLL]	L.LL (IN.) OVERALL LENGTH	[M] MATERIAL CODE	MATERIAL	RECOMMENDED FOR	MECHANICAL ADVANTAGE	MAX INJECTION/EJECTION OUTPUT FORCE
150	1.50	U	6061-T6 ALUMINUM	3U-BOARDS	2.7x	60 LBS
150	1.50	V	7075-T6 ALUMINUM			110 LBS
200	2.00	U	6061-T6 ALUMINUM	6U-BOARDS	3.9x	34 LBS
200	2.00	V	7075-T6 ALUMINUM			62 LBS

## PART NUMBER CODE

452E-[LLL][M][H][F]-[J][T][C]

SERIES PN

LENGTH

MATERIAL

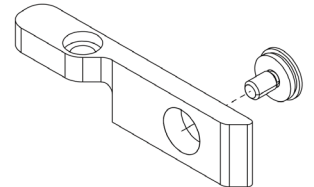
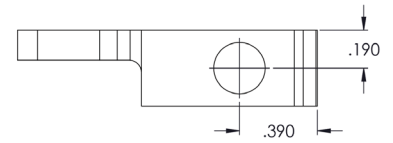
HAND CONFIGURATION  
'R' FOR RIGHT HAND  
'L' FOR LEFT HAND

FINISH

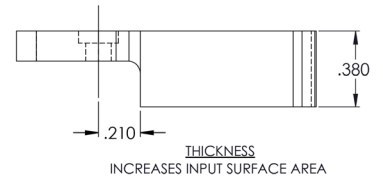
OPTIONAL RETENTION  
ADD 'M' FOR M3 THREADS  
ADD 'S' FOR 4-40 THREADS

ADD 'T' FOR OPTIONAL  
THICKNESS

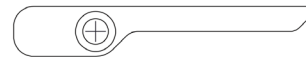
ADD 'J' FOR OPTIONAL  
CARD INJECTION FEATURE



**CAPTIVE SCREW RETENTION**  
REDUCES COMPONENT RATTLING DURING OPERATION  
REQUIRES THICKNESS [T]



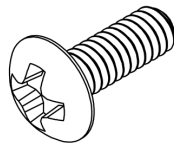
**THICKNESS**  
INCREASES INPUT SURFACE AREA



**CARD INJECTION FEATURE**  
AVOIDS INTERFERENCE WITH INJECTION SURFACE

[F] FINISH TABLE	
DASH NO	DESCRIPTION
A	NO FINISH
G	CHROMATE PER MIL-DTL-5541, CLASS 1A, TYPE I (GOLD)
T	TRIVALENT CHROMATE PER MIL-DTL-5541, CLASS 1A, TYPE II (CLEAR), RoHS COMPLIANT
B	BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2
H	HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2
E	ELECTROLESS NICKEL PER MIL-C-26074, CLASS 4, GRADE B, BRIGHT
*N	NADCAP COMPLIANT (EX: 'BN' - BLACK ANODIZE, NADCAP)

## INCLUDED HARDWARE



NO. 1 PHILLIPS M2X 6MM SCREW  
SCALE 4 : 1



.190" OD WAVE WASHER  
SCALE 4 : 1

**CONTACT  
WAKEFIELD**

603.635.2800



# 5 STEP THERMAL ENGINEERING GUIDE From Concept To Cooling

COOLVATION provides thermal management engineering services to improve products' thermal performance while applying cost effective solutions to eliminate unnecessary manufacturing costs. COOLVATION is a seamless resource extension for our customers' thermal & mechanical engineering teams from ideation to lab testing.



## Customer Thermal Challenge

Physical limitations  
Power constraints  
Air flow/ fluid conditions  
Environmental conditions  
Component specifications  
Define ideal state



## Execution

Concept analysis  
(CFD-ansys/ ice pack, fin optimizations software)  
Solid model  
Analysis & verification  
Cost analysis



## Global Manufacturing

Global manufacturing facilities  
Global warehousing  
Global labs to support future program

01  
STEP

02  
STEP



## Collaboration

Review conditions  
Statement of work to customer  
Historical consideration along with cutting edge technologies to provide cost effective solution



## Solution & Verification

Dedicated new product development center  
Prototype  
Physical thermal lab testing  
Proven manufacturability

03  
STEP

04  
STEP

05  
STEP