



PBH50

PRODUCT
SERIES

PRECISION BGA HEATSINK

WITH INTEGRATED STANDOFFS
& SOLDERABLE PINS

ENGINEERED FOR AEROSPACE & DEFENSE APPLICATIONS

High performance thermal solution designed
for critical systems where reliability, efficiency
and precision are non-negotiable.



SUPERIOR THERMAL PERFORMANCE

Optimized fin architecture for
maximum heat dissipation and
lower thermal resistance.



INTEGRATED STANDOFFS

One-piece construction ensures
enhanced mechanical strength
and reliable board clearance.



SOLDERABLE PINS

Non-anodized pins for reliable
solder joints and secure
mechanical & electrical
connection.



BUILT FOR MISSION CRITICAL

Designed to meet the rigorous
demands of aerospace, defense
and industrial environments.



NATURAL ALUMINUM



BLACK ANODIZED



KEY SPECIFICATIONS

- One-piece construction (Heatsink + Standoff)
- Solderable pins (Non-anodized)
- Material: Aluminum Alloy
- Surface Finish Options:
 - Natural Aluminum or Black Anodized
- Custom sizes available on request

BENEFITS

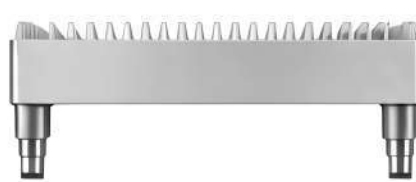
- Efficient heat transfer for high-power BGA devices
- Robust and reliable mechanical support
- Secure PCB attachment through solderable pins
- Ideal for space-constrained and high-reliability systems
- Suitable for vibration, shock and thermal cycling environments

MULTI-ANGLE VIEWS

BOTTOM VIEW (WITH TIM)



PROFILE VIEW



THERMAL INTERFACE MATERIAL (TIM)

High performance TIM pad
pre-applied for optimal
thermal contact.



APPLICATIONS



AEROSPACE

Avionics, Flight Control,
Navigation Systems



DEFENSE

Mission Computers,
Radio Communication
Systems



SPACE

Satellites,
Electronics, Thermal
Control Systems



INDUSTRIAL

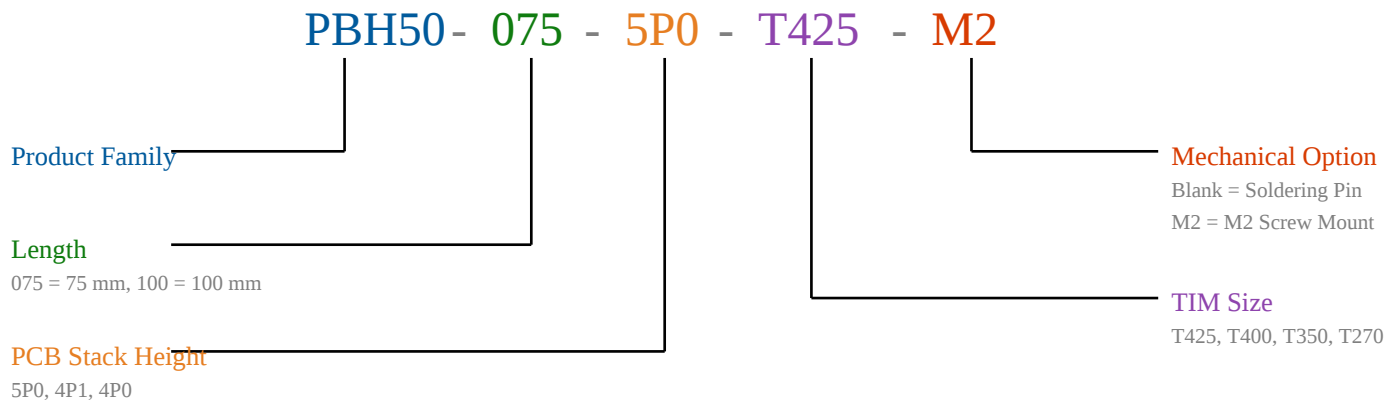
High Reliability
Embedded Systems



TELECOM & NETWORKING

High Performance
Computing & Modules

Model Numbering



Ordering Information

Part Number	L (mm)	W (mm)	H (mm)	PCB Stack (mm)	TIM (L × W × T)	BGA Height (mm)
PBH50-075-5P0-T425	75.0	50.0	7.5	5.0	42.5 × 42.5 × 2.0	3.51
PBH50-075-5P0-T400	75.0	50.0	7.5	5.0	40.0 × 40.0 × 2.0	3.51
PBH50-075-4P1-T350	75.0	50.0	7.5	4.1	35.0 × 35.0 × 2.0	2.62
PBH50-075-4P0-T270	75.0	50.0	7.5	4.0	27.0 × 27.0 × 2.0	2.44
PBH50-100-5P0-T425	100.0	50.0	7.5	5.0	42.5 × 42.5 × 2.0	3.51
PBH50-100-5P0-T400	100.0	50.0	7.5	5.0	40.0 × 40.0 × 2.0	3.51
PBH50-100-4P1-T350	100.0	50.0	7.5	4.1	35.0 × 35.0 × 2.0	2.62
PBH50-100-4P0-T270	100.0	50.0	7.5	4.0	27.0 × 27.0 × 2.0	2.44

Contact support@velquapower.com for Custom Sizes

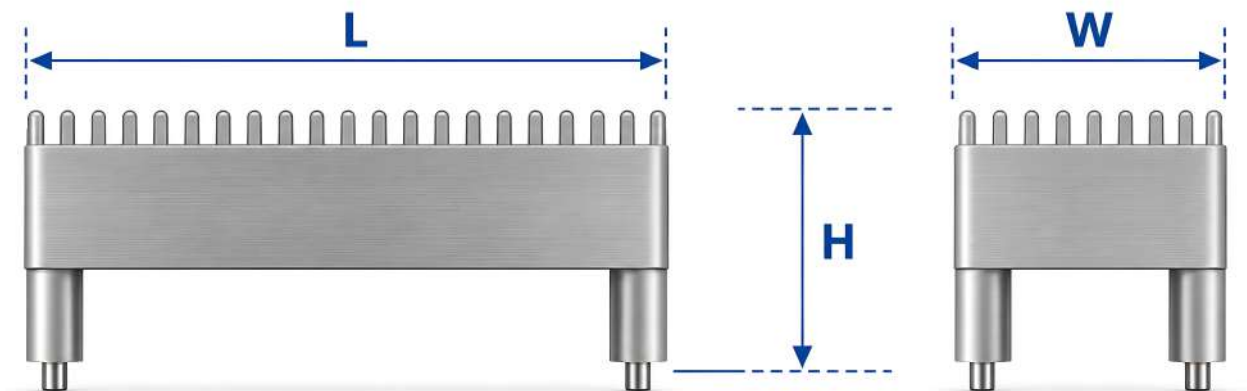
General Specifications

Parameter	Value
Material	Aluminium 6061-T6
Operating & Storage Temperature	-55 °C to +150 °C
Solder Pin Surface	Tin
RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [IEC 61249-2-21]
Halogen Free	Conform [JEDEC JS709B]

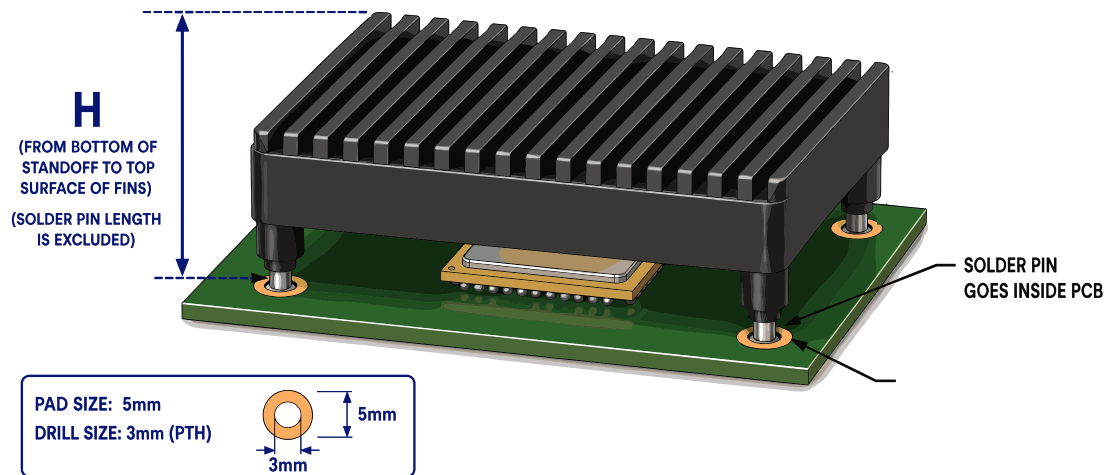
Thermal Performance Data

Length	100mm	75mm
Thermal Resistance @ Natural	4°C/W	6.2°C/W
Power Dissipation @ Temperature Rise	20W @ 80°C	13.1W @ 80°C
Thermal Resistance @ Forced Air Flow	1.24°C/W	1.8°C/W

Product Dimensions



Heatsink Mounted/Soldered on PCB



Recommended PCB Footprint

