

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 STANDOFF

One-Piece Construction ensures
enhanced mechanical strength and
reliable board clearance



SOLDERABLE PINS

Reliable Solder joints and secure
mechanical and electrical (GND)
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 System



DEFENSE

Mission Computers,
Radio Communication
Systems



SPACE

Satellites, Payloads,
Electronic Thermal
Control Systems



INDUSTRIAL

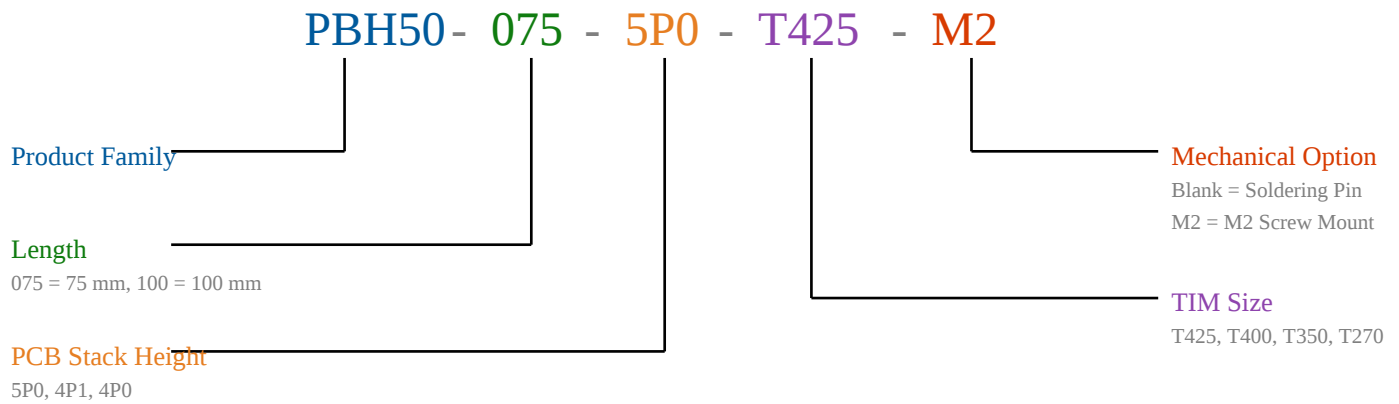
High Reliability
Embedded Systems



TELECOM

High Performance
Computing and 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

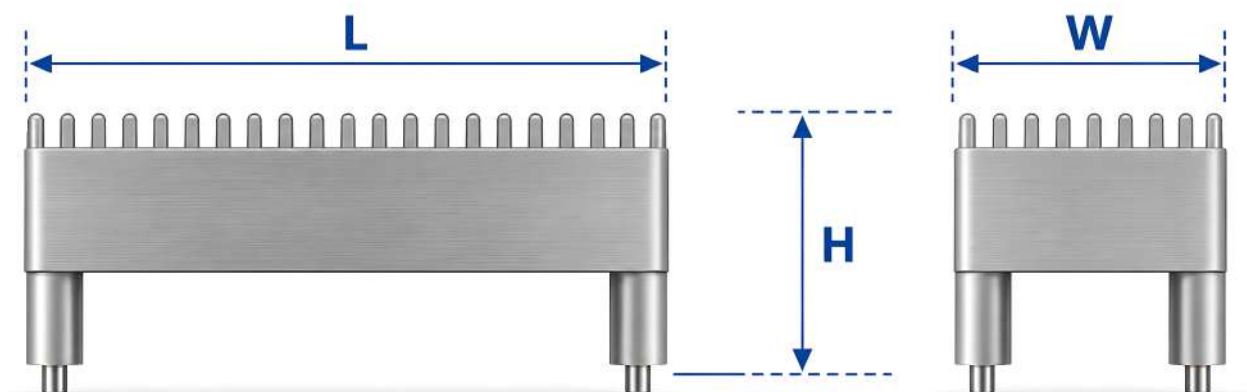
General Specifications

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]

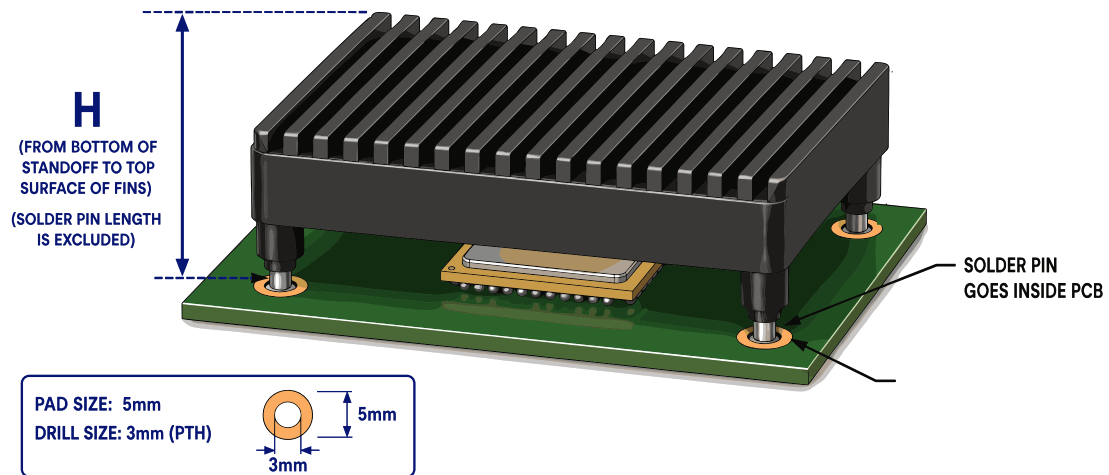
Thermal Performance Data

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

