

Ultra High Performance BGA Cooling Solutions w/ Thermal Tape Attachment



ATS Part#: **ATS-52450P-C1-R0**
 Description: maxiFLOW™ Heat Sink, T412, BLUE-ANODIZED

Heat Sink Type: maxiFLOW
 Heat Sink Attachment: THERMAL TAPE
 Equivalent Part Number: ATS-52450P-C2-R0

**Image above is for illustration purpose only.*

Features & Benefits

- maxiFLOW™ design features a low profile, spread fin array that maximizes surface area for more effective convection (air) cooling
- Fabricated from extruded aluminum, which minimizes thermal resistance from the base to the fins, reduces weight and keeps costs low
- Higher performance helps ensure reliable product life at a lower cost than other extruded heat sinks
- Comes pre-assembled with high performance thermal interface material

Thermal Performance

AIR VELOCITY		@200 LFM 1.0 M/S	@300 LFM 1.5 M/S	@400 LFM 2.0 M/S	@500 LFM 2.5 M/S	@600 LFM 3.0 M/S	@700 LFM 3.5 M/S	@800 LFM 4.0 M/S
THERMAL RESISTANCE	Unducted Flow	1.64 °C/W	1.29 °C/W	1.11 °C/W	1.00 °C/W	0.91 °C/W	0.85 °C/W	0.80 °C/W
	Ducted Flow	1.27	n/a	n/a	n/a	n/a	n/a	n/a

Product Detail

Schematic Image	Dimension A	Dimension B	Dimension C	Dimension D	TIM	Finish
<i>*Image above is for illustration purpose only.</i>	45.0 mm	45.0 mm	17.5 mm	76.5 mm	T412	BLUE-ANODIZED
Notes: • Dimension A and B refer to component size. • Dimension C is the heat sink height from the bottom of the base to the top of the fin field. • ATS-52450P-C2-R0 is the exact heat sink assembly with an equivalent thermal interface material (Saint Gobain C675). • Thermal performance data are provided for reference only. Actual performance may vary by application. • ATS reserves the right to update or change its products without notice to improve the design or performance. • ATS certifies that this heat sink assembly is RoHS-6 and REACH compliant. • Contact ATS to learn about custom options available.						

For more information, to find a distributor or to place an order, please contact us at 781-769-2800 (North America), sales@qats.com or www.qats.com.

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Rev - 130319



ATS Part#:

Description:



Heat Sink Type: n/a

Heat Sink Attachment: n/a

Equivalent Part Number:

**Image above is for illustration purpose only.*

Features & Benefits

Thermal Performance

AIR VELOCITY		@200 LFM 1.0 M/S	@300 LFM 1.5 M/S	@400 LFM 2.0 M/S	@500 LFM 2.5 M/S	@600 LFM 3.0 M/S	@700 LFM 3.5 M/S	@800 LFM 4.0 M/S
THERMAL RESISTANCE	Unducted Flow	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W
	Ducted Flow	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Product Detail

Schematic Image	Dimension A	Dimension B	Dimension C	Dimension D	TIM	Finish
Schematic image  <i>*Image above is for illustration purpose only.</i>	mm	mm	mm	mm	n/a	n/a
Notes:						

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Rev - 130319



ATS Part#:

Description:



Heat Sink Type: n/a

Heat Sink Attachment: n/a

Equivalent Part Number:

**Image above is for illustration purpose only.*

Features & Benefits

Thermal Performance

AIR VELOCITY		@200 LFM 1.0 M/S	@300 LFM 1.5 M/S	@400 LFM 2.0 M/S	@500 LFM 2.5 M/S	@600 LFM 3.0 M/S	@700 LFM 3.5 M/S	@800 LFM 4.0 M/S
THERMAL RESISTANCE	Unducted Flow	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W	n/a °C/W
	Ducted Flow	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Product Detail

Schematic Image	Dimension A	Dimension B	Dimension C	Dimension D	TIM	Finish
Schematic image  <i>*Image above is for illustration purpose only.</i>	mm	mm	mm	mm	n/a	n/a
Notes:						

For more information, to find a distributor or to place an order, please contact us at 781-769-2800 (North America), sales@qats.com or www.qats.com.

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High Performance BGA Cooling Solutions w/ maxiGRIP™ Attachment



ATS Part#: **ATS-53170D-C1-R0**
 Description: maxiGRIP™ HS Assembly-SF-LP, T766, BLACK-ANODIZED

Heat Sink Type: **Straight Fin**
 Heat Sink Attachment: **maxiGRIP**
 Equivalent Part Number: **ATS-53170D-C2-R0** **Discontinued**

**Image above is for illustration purpose only.*

Features & Benefits

- High aspect ratio, straight fin heat sinks that are ideal for compact PCB environments
- **maxiGRIP™** attachment applies steady, even pressure to the component and does not require holes in the PCB
- Designed specifically for BGAs and other surface mount packages
- Meets Telcordia GR-63-Core Office Vibration; ETSI 300 019 Transportation Vibration; and MIL-STD-810 Shock Testing and Unpackaged Drop Testing standards
- Comes pre-assembled with high performance, phase changing, thermal interface material
- Designed for low profile components from 1.5 to 2.99mm
- "Keep-Out" Requirements: An "Un-Populated" border zone of 5mm around the component is necessary to facilitate the Installation/Removal of the **maxiGRIP™**. Please refer to the **maxiGRIP™** Keep-Out Guidelines and **maxiGRIP™** Installation/Removal Instructions for further details.

Thermal Performance

AIR VELOCITY		@200 LFM 1.0 M/S	@300 LFM 1.5 M/S	@400 LFM 2.0 M/S	@500 LFM 2.5 M/S	@600 LFM 3.0 M/S	@700 LFM 3.5 M/S	@800 LFM 4.0 M/S
THERMAL RESISTANCE	Unducted Flow	24.30 °C/W	19.05 °C/W	10.00 °C/W	10.00 °C/W	10.00 °C/W	10.00 °C/W	10.00 °C/W
	Ducted Flow	10.00	n/a	n/a	n/a	n/a	n/a	n/a

Product Detail

Schematic Image	Dimension A	Dimension B	Dimension C	Dimension D	TIM	Finish
<i>*Image above is for illustration purpose only.</i>	17.0 mm	17.0 mm	9.5 mm	mm	T766	BLACK-ANODIZED
Notes: • Dimension A and B refer to component size. • Dimension C is the heat sink height from the bottom of the base to the top of the fin field. • ATS-53170D-C2-R0 is the exact heat sink assembly with an equivalent thermal interface material (Saint Gobain C1100F). NOTE: Saint Gobain C1100F is discontinued effective 12/31/10. • Thermal performance data are provided for reference only. Actual performance may vary by application. • ATS reserves the right to update or change its products without notice to improve the design or performance. • ATS certifies that this heat sink assembly is RoHS-6 and REACH compliant. • Optional maxiGRIP™ Installation/Removal Tool Set P/N: MGT170 • Contact ATS to learn about custom options available.						

For more information, to find a distributor or to place an order, please contact us at 781-769-2800 (North America), sales@qats.com or www.qats.com.

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