

# CPU HEAT SINK-D/T

AVC is the largest supplier of CPU heat sink for desktop computer in the world. With a market share of 35%, we are able to provide our clients with the most advanced and the most reliable products as their solutions.



- (1) Personal computer case (Level 3)
- (2) Electric fan and air blower, CPU heat sink
- (3) VGA heat sink
- (4) Heat sink for chip
- (5) Heat sink for memory card

# CPU HEAT SINK-D/T



Solutions for Intel series



|                            |                              |                             |
|----------------------------|------------------------------|-----------------------------|
| <b>Part No.</b>            | Z8ULD06001                   | ZGUL410001                  |
| <b>Dimension (mm)</b>      | 117.5 x 112.5 x 76           | 92 x 95 x 113               |
| <b>Voltage (V)</b>         | 12                           | 12                          |
| <b>Bearing Type (BTSR)</b> | R                            | R                           |
| <b>RPM</b>                 | 4500                         | 3800                        |
| <b>Noise (dB)</b>          | 44.5                         | 44.5                        |
| <b>Weight (g)</b>          | 365                          | 403                         |
| <b>Application</b>         | LGA2011 Desktop Core i7 140W | LGA2011 Desktop Cor i7 140W |

# CPU HEAT SINK-D/T



Solutions for Intel series



|                         |   |   |
|-------------------------|---|---|
| Part No.↵               | ZGHL412001↵   | Z6UR307001 ↵  |
| Dimension (mm)↵         | 92 x 95 x 113↵  | 90x90x64↵   |
| Voltage (V)↵            | 12↵   | 12↵   |
| Bearing Type<br>(BTSR)↵ | R↵  | R↵  |
| RPM↵                    | 3800↵   | 5500↵   |
| Noise (dB)↵             | 44.5↵   | 41↵   |
| Weight (g)↵             | 403↵  | 301↵  |
| Application↵            | LGA115X Desktop Side<br>Blow Core i7/i5 95W<br>screw type cooler↵ | LGA115X Desktop Side<br>Blow Core i7/i5 95W<br>screw type cooler↵ |

# CPU HEAT SINK-D/T



Solutions for Intel series



|                        |   |  |
|------------------------|---|--|
| Part No.               | Z8HL06T001  | Z8LU06L001   |
| Dimension (mm)         | φ90 x H59.1   | φ90 x H61.5  |
| Voltage (V)            | 12  | 12   |
| Bearing Type<br>(BTSR) | R   | R  |
| RPM                    | 3000  | 4500   |
| Noise (dB)             | 32.3  | 44.5   |
| Weight (g)             | 360   | 280  |
| Application            | Socket 115X Desktop<br>Core i7/i5 65W cooler<br><b>low noise solution</b> | LGA115X Desktop Core<br>i7/i5 95W push pin<br>cooler |

# CPU HEAT SINK-D/T

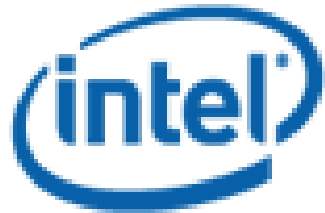


Solutions for Intel series



|                     |   |   |
|---------------------|---|---|
| Part No.            | Z8UL06L002  | Z8UL06Q001  |
| Dimension (mm)      | φ 90 x H61.5                                      | φ 90 x H57  |
| Voltage (V)         | 12  | 12  |
| Bearing Type (BTSR) | R   | R   |
| RPM                 | 4500  | 4500  |
| Noise (dB)          | 44.5  | 44.5  |
| Weight (g)          | 280   | 180   |
| Application         | LGA115X Desktop Core i7/i5<br>95W push pin cooler | LGA115X Desktop Core i7/i5<br>65W push pin cooler |

# CPU HEAT SINK-D/T

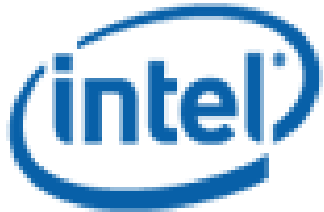


Solutions for Intel series

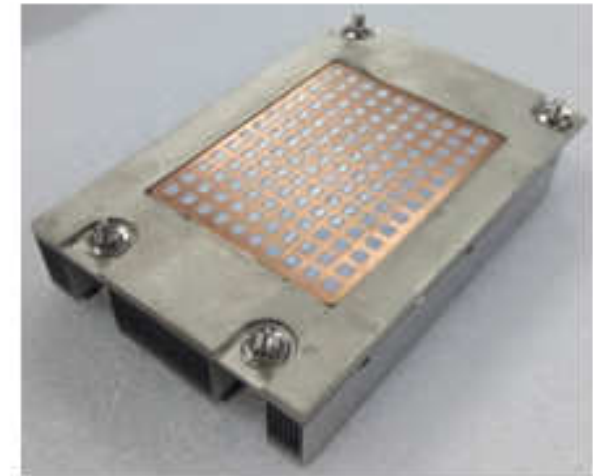


|                         |   |   |
|-------------------------|---|---|
| Part No.↵               | Z8UL00A001↵   | Z8UL00A101↵   |
| Dimension (mm)↵         | φ90 x H57↵  | φ90 x H47↵  |
| Voltage (V)↵            | 12↵   | 12↵   |
| Bearing Type<br>(BTSR)↵ | R↵  | R↵  |
| RPM↵                    | 4500↵   | 4500↵   |
| Noise (dB)↵             | 44.5↵   | 44.5↵   |
| Weight (g)↵             | 310↵  | 218↵  |
| Application↵            | LGA115X Desktop Core<br>i7/i5 95W screw type<br>cooler↵ | LGA115X Desktop Core<br>i7/i5 65W screw type<br>cooler↵ |

# CPU HEAT SINK-D/T



Solutions for Intel series



|                 |                                    |                                    |
|-----------------|------------------------------------|------------------------------------|
| Part No.↕       | SA0AG00001↕                        | SA4A900001↕                        |
| Dimension (mm)↕ | 119.3 x78.9x25↕                    | 119.3 x78.9x25↕                    |
| CFM↕            | 15↕                                | 15↕                                |
| Rca↕            | 0.227↕                             | 0.171↕                             |
| Process↕        | Full Al-extrusion↕                 | Solder with Heat Pipe↕             |
| Weight (g)↕     | 240↕                               | 264↕                               |
| Application↕    | AMD Socket SP3 Processors<br>140W↕ | AMD Socket SP3 Processors<br>180W↕ |

# CPU HEAT SINK-D/T



Solutions for AMD series



|                        |                                 |                                 |
|------------------------|---------------------------------|---------------------------------|
| Part No.               | Z8UH40Q001                      | Z8UH01L101                      |
| Dimension (mm)         | 110 x 92 x 62                   | 80 x 80 x 67                    |
| Voltage (V)            | 12                              | 12                              |
| Bearing Type<br>(BTSR) | R                               | R                               |
| RPM                    | 4500                            | 4500                            |
| Noise (dB)             | 44.5                            | 44.5                            |
| Weight (g)             | 370                             | 335                             |
| Application            | AMD Socket AM3/Socket F<br>140W | AMD Socket AM3/Socket F<br>100W |



# CPU HEAT SINK-D/T



Solutions for AMD series



|                         |                                 |
|-------------------------|---------------------------------|
| Part No.↵               | Z8UH01L001↵                     |
| Dimension (mm)↵         | 80 x 80 x 55↵                   |
| Voltage (V)↵            | 12↵                             |
| Bearing Type<br>(BTSR)↵ | R↵                              |
| RPM↵                    | 4500↵                           |
| Noise (dB)↵             | 44.5↵                           |
| Weight (g)↵             | 260↵                            |
| Application↵            | AMD Socket AM3/Socket<br>F 65W↵ |

# CPU HEAT SINK-D/T

## Back Plates

↻



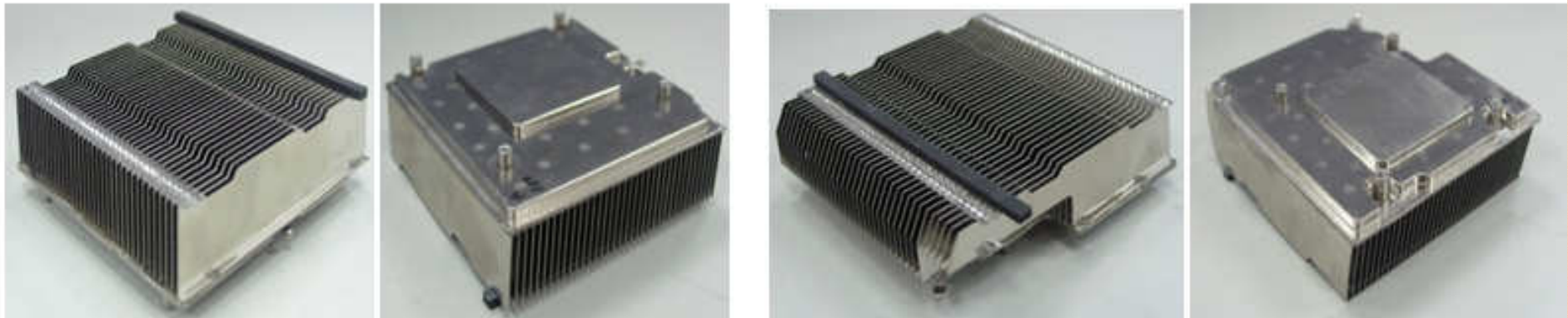
|                 |                                      |  |
|-----------------|--------------------------------------|--|
| Part No.↻       | P209000094↻                          | P102000012↻                            |
| Dimension (mm)↻ | 88*88*7↻                             | 92 x 89 x 5↻                           |
| Weight (g)↻     | 55↻                                  | 21↻                                    |
| Application↻    | LGA1156 Desktop Metal<br>Back Plate↻ | LGA1156 Desktop<br>Plastic Back Plate↻ |

# CPU HEAT SINK-VGA

Video Graphics Array card is one of the most basic components of a PC. Its purpose is to transform the display information which the computer system needs to drive the monitor, and provides the monitor with scan signal for every line or every other line. Generally speaking, the VGA card we are using is capable of 3D screen computing and graphic acceleration, and therefore it is also known as "Graphic acceleration card" or "3D acceleration card". Especially for the demand from the fields of online gaming and multimedia video and audio, the burden of operation speed and power dissipation of VGA chips has been adding up, leading to the increasing importance of the effectiveness of VGA cooling solutions.

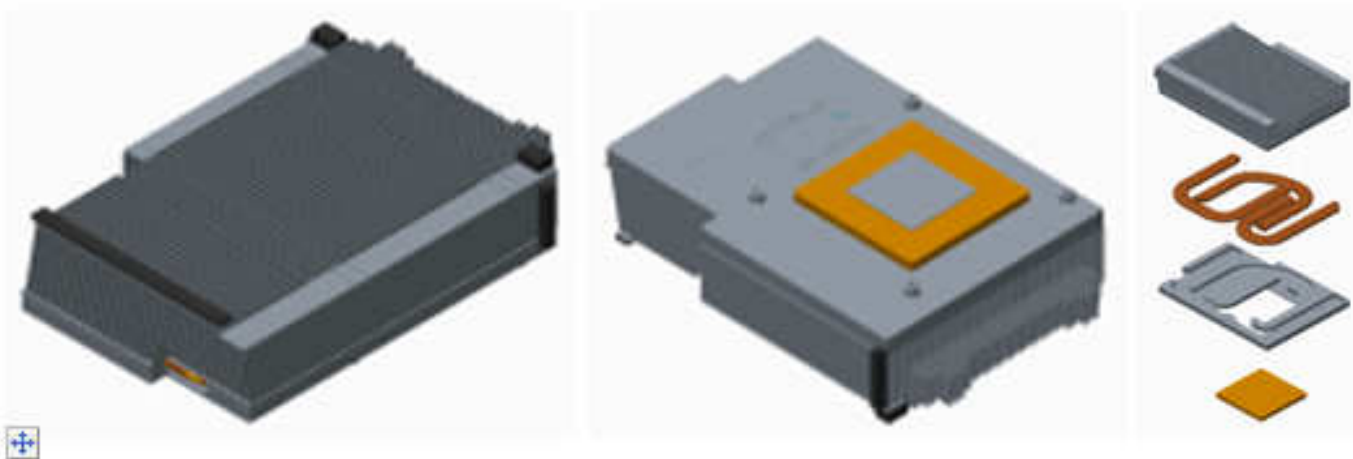
# CPU HEAT SINK-VGA

Pictures of application to the interior cooling of VGA:



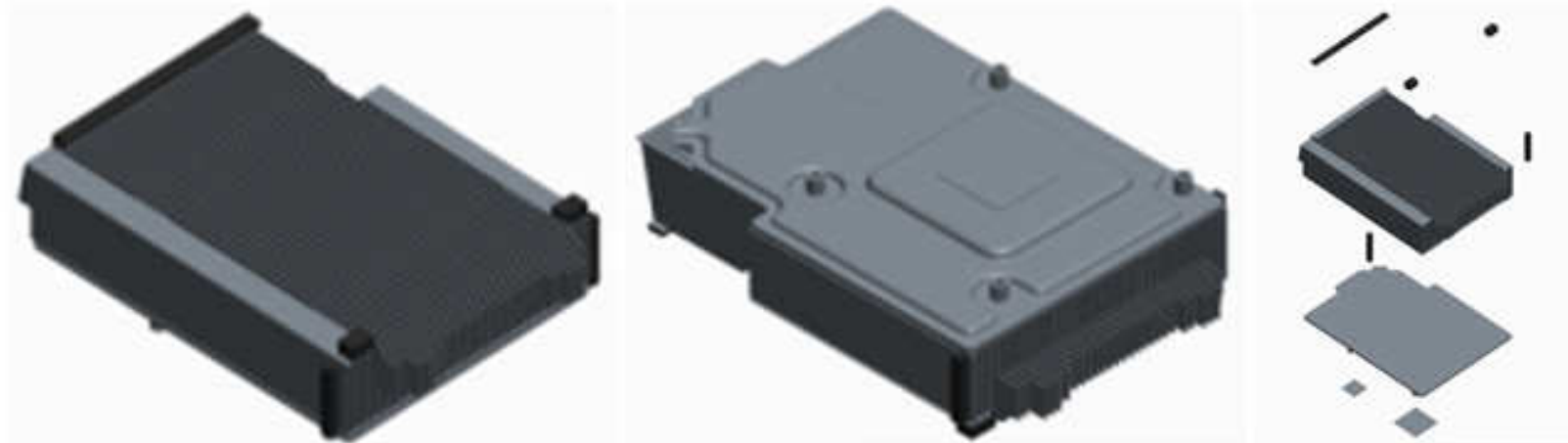
|                |                      |                      |
|----------------|----------------------|----------------------|
| Part No.       | SD42C00001           | SD42D00001           |
| Dimension (mm) | L81.3*W82*H28.5      | L85.4*W82*H28.5      |
| CFM            | 12.37                | 12.37                |
| Rca            | 0.359                | 0.355                |
| Process        | Soldering/VC         | Soldering/VC         |
| Weight (g)     | 177.9                | 171.5                |
| Application    | GEFORCE GTX 690 130W | GEFORCE GTX 690 130W |

# CPU HEAT SINK-VGA



|                |                                 |
|----------------|---------------------------------|
| Part No.       | SD4K100001                      |
| Dimension (mm) | L124.1*W81.75*H27.75            |
| CFM            | 30.5                            |
| Rca            | 0.231                           |
| Process        | Soldering/pipe                  |
| Weight (g)     | 283                             |
| Application    | GEFORCE GTX<br>980Ti/TITAN 160W |

# CPU HEAT SINK-VGA



Part No.⌘

SD4K200001⌘

Dimension (mm)⌘

L124.1xW81.4Wx H22.15 .

CFM⌘

30.5⌘

Rca⌘

0.201⌘

Process⌘

Soldering/VC⌘

Weight (g)⌘

250⌘

Application⌘

GEFORCE GTX

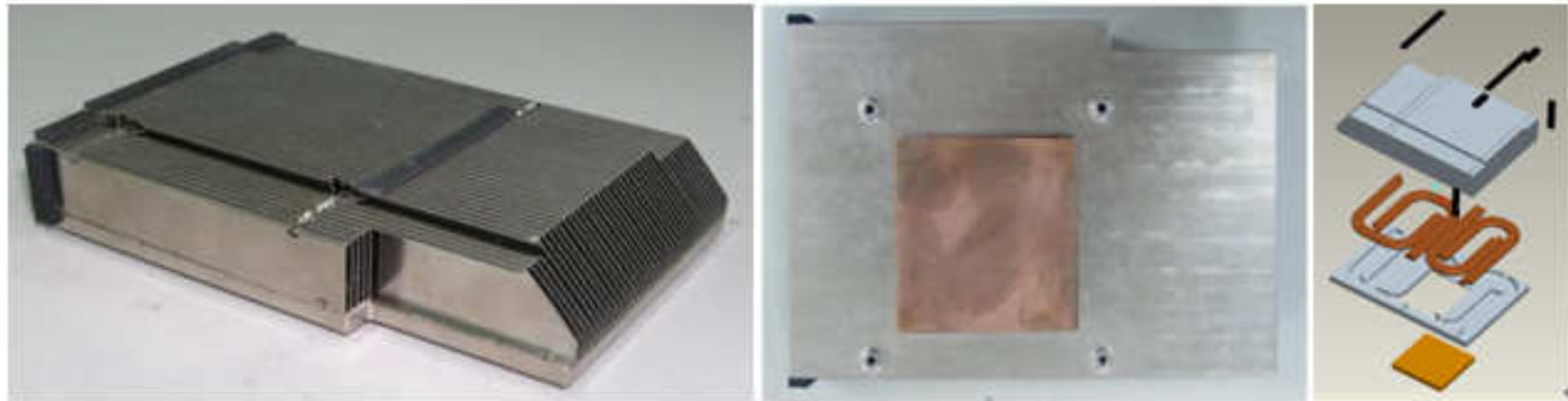
980Ti/TITAN 180W⌘

# CPU HEAT SINK-VGA



|                 |                     |
|-----------------|---------------------|
| Part No.↵       | SD42700001↵         |
| Dimension (mm)↵ | L241.3*W96.4*H15.7↵ |
| CFM↵            | 7.93↵               |
| <u>Rca</u> ↵    | 0.472↵              |
| Process↵        | Soldering/pipe↵     |
| Weight (g)↵     | 120↵                |
| Application↵    | QUADRO K4000 90W↵   |

# CPU HEAT SINK-VGA



Part No.↵

SD42T00002↵

Dimension (mm)↵

L267.65\*W95.9\*H34.4↵

CFM↵

30.5↵

Rca↵  
~~~~~

0.234↵

Process↵

Soldering/pipe↵

Weight (g)↵

300↵

Application↵

QUADRO K5000/K6000

170W↵



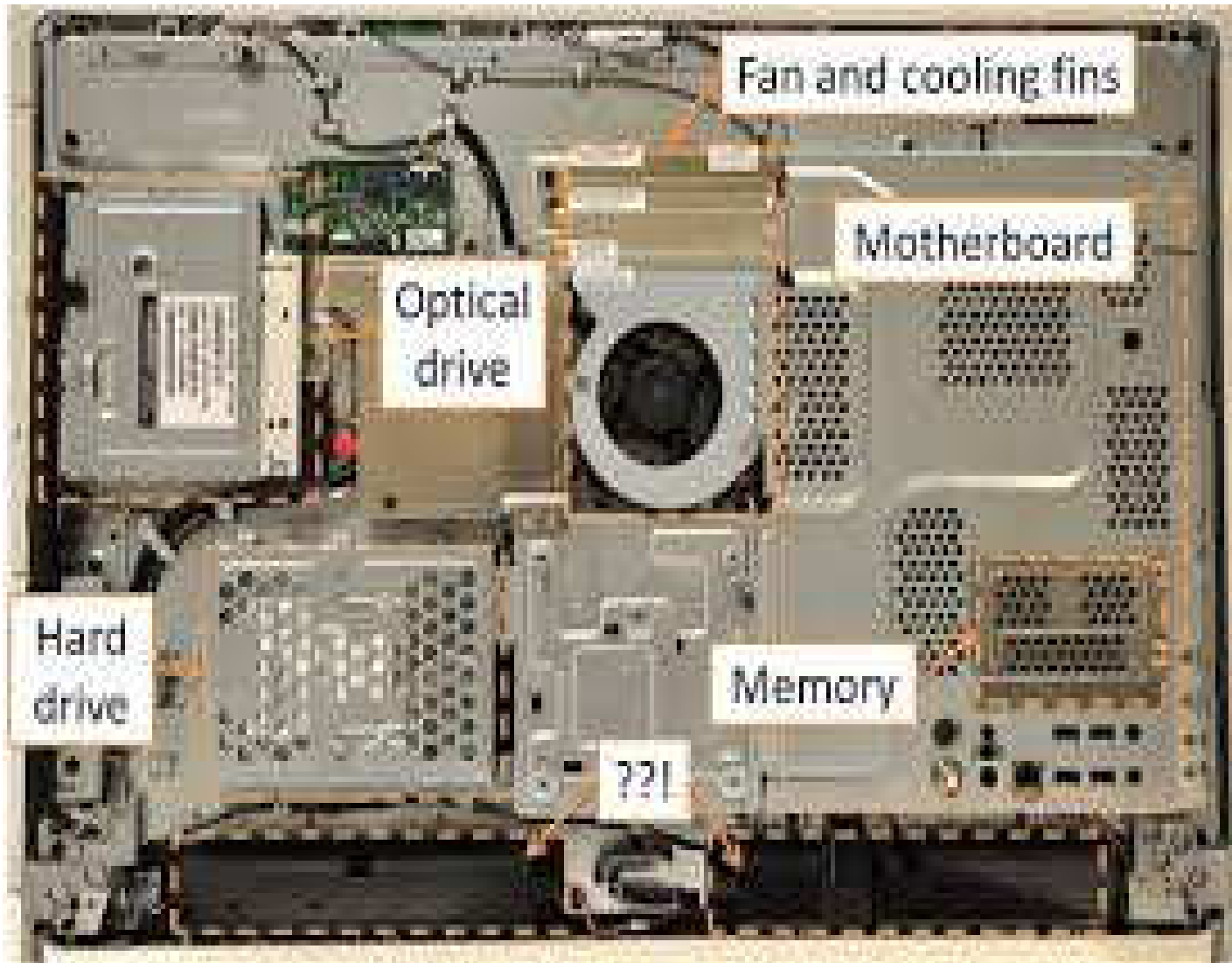
# CPU HEAT SINK-AIO



All-In-One PC (AIO PC) refers to a PC with a motherboard of special design, which the integrated CPU, RAM, hard-disk drive and optical disk drive is embedded in the LCD screen, that is, this is a PC which integrate the computer case and the screen into one. Among AIO PCs, they can be further divided to those supports touchscreen function, and those do not. Since AIO PC is compact in case size, its production technique is similar to that of NB. AVC has years of experience in designing and manufacturing the cooling modules of NB. In addition, AVC has the ability to produce key components such as fans and heat pipes by ourselves, thus, the Company has the advantage in the development of AIO cooling modules. In terms of the design of the cooling system, AIO PC usually collocates with low energy-

# CPU HEAT SINK-AIO

Dissection of AIO PC Internal Structure and Systematic Arrangement:



# CPU HEAT SINK-AIO

Internal Cooling Solutions:

Applicable crafts:  
(1) Combination of crafts including aluminium extrusion, die casting, heat pipe embedding/welding, crimped fin, CNC processing, paint, spray and surface anodizing, etc.  
(2) Mix-and-match application of axial fan and air-blow wheel fan

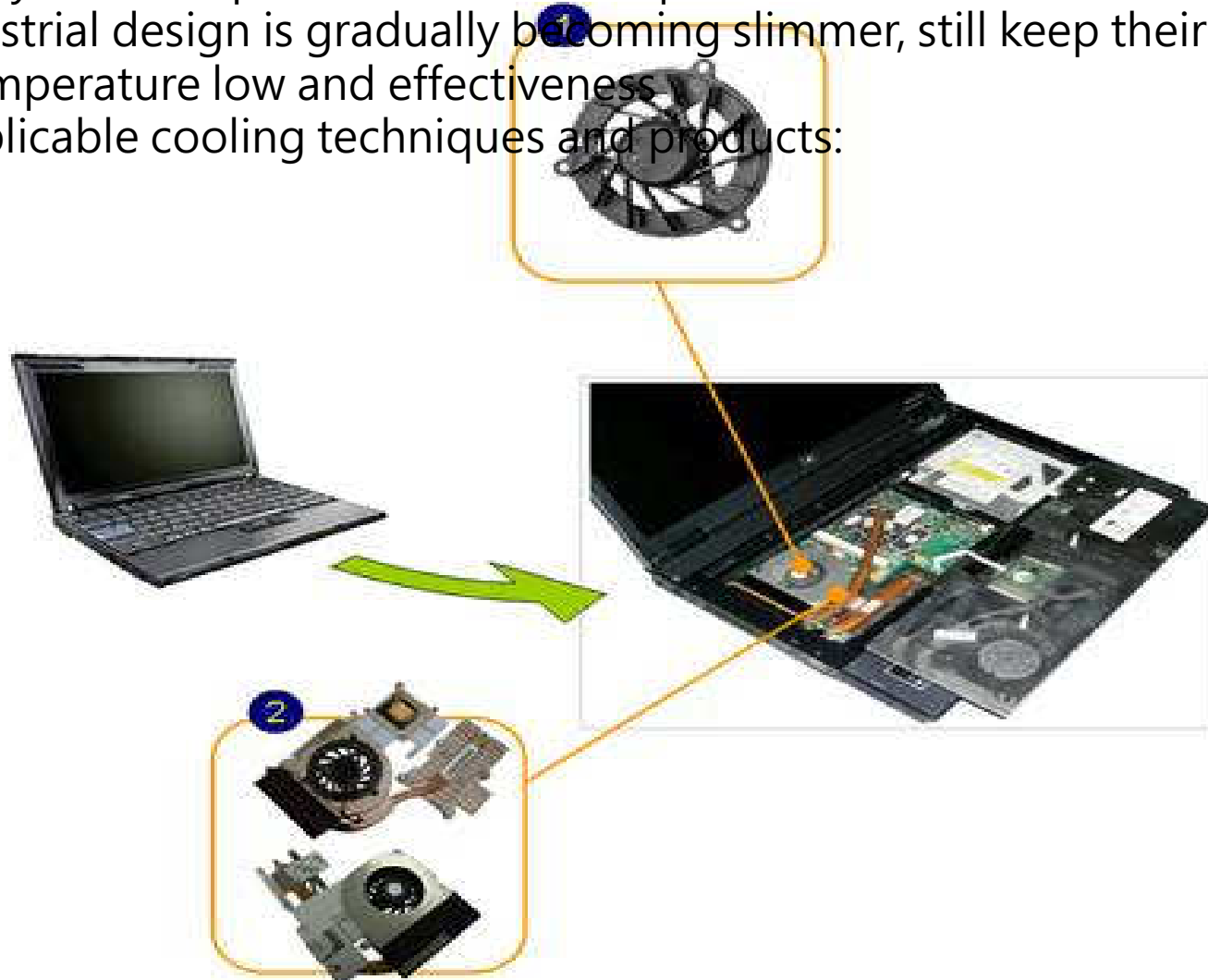


# CPU HEAT SINK-NB

## Notebooks

AVC is also one of the main suppliers of notebook cooling modules in the world. With years of experience and techniques, we ensure that notebooks, whose industrial design is gradually becoming slimmer, still keep their working temperature low and effectiveness.

AVC applicable cooling techniques and products:



# CPU HEAT SINK-NB

- (1) Small fan for NB
- (2) Cooling module for NB

Heat pipe remote heat exchange (HpRHE) technique

HpRHE is a cooling solution of conducting heat to the remote radiator and the fan by using the heat cycling system formed within the heat pipe. HpRHE provides cooling solution to single or various heat source elements, and is applicable to electronic devices compact in size and shape and with limited space. Examples include the CPU, MCH, VGA or electronic elements of ultra-high power inside the NB, which requires to conduct the heat to remote places to put through special cooling treatment, such as the cooling solutions for telecommunication wireless stations.

AVC caters to different requirements of spatial devices and heat conduction, and different HpRHE techniques and products are adopted, including copper-water heat pipe, methanol heat pipe, super-slim heat pipe (<1.5mm), loop heat pipe, gravitational heat pipe, and vapor chamber. We provide various cooling solution to our clients depending on their specific needs.

Features description

- Lighter, slimmer, shorter and smaller than traditional heat sink
- Multiple heat sources handling
- Low noise, high efficiency, and motor is not needed
- Better flexibility in design

Applicable fields

# CPU HEAT SINK-SERVER

There are over 7.7 million new server computers which begin their operation every year in the world, providing various types of functions and services. AVC's solutions ensure them to operate uninterruptedly and normally around the clock.

(\*Source: Gartner Group 2008)

AVC applicable cooling technology and products:

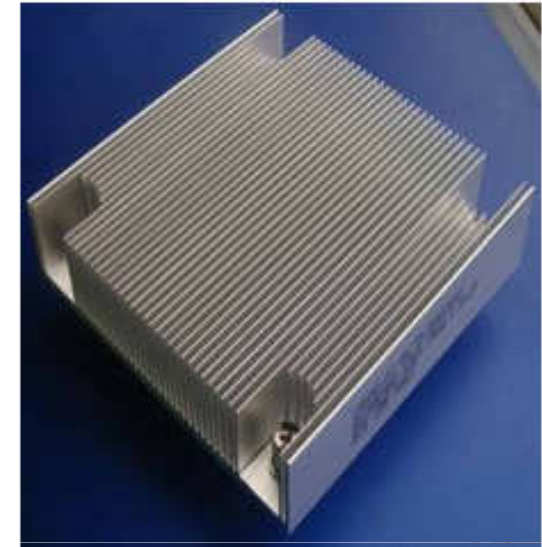
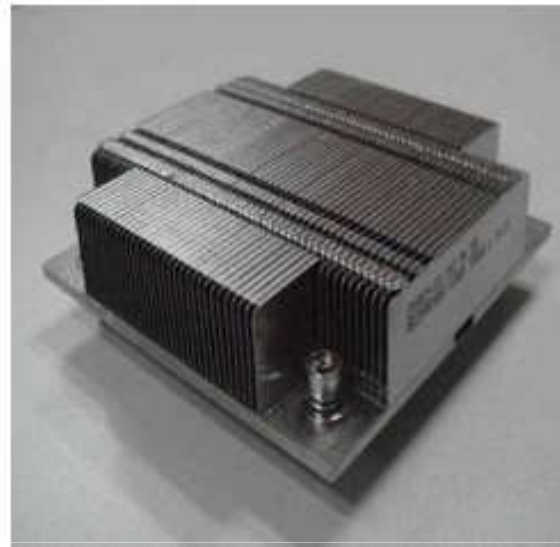
- (1) Server casing
- (2) Barebone chassis (Level 5), server chamber (CNC/die casting), mixed embedding technology
- (3) CPU heat sink, heat sink for chip, cable, connector
- (4) Fan array, liquid-cooling heat sink
- (5) Heat sink for chip, vapor chamber
- (6) Fan and air blower



# CPU HEAT SINK-SERVER



Solutions for Intel series



|                 |                 |                 |
|-----------------|-----------------|-----------------|
| Part No.↵       | Z8UL00A001↵     | Z8UL00A101↵     |
| Dimension (mm)↵ | 95 x95x24.85↵   | 95 x95x24.85↵   |
| CFM↵            | 15↵             | 15↵             |
| Rca↵            | 0.326↵          | 0.344↵          |
| Process↵        | Soldering/pipe↵ | Al extrusion↵   |
| Weight (g)↵     | 194↵            | 210↵            |
| Application↵    | Xeon E3 1U 95W↵ | Xeon E3 1U 65W↵ |

# CPU HEAT SINK-SERVER



Solutions for Intel series



|                         |                             |                             |
|-------------------------|-----------------------------|-----------------------------|
| Part No.⌘               | ZGHL412001⌘                 | Z6UR307001                  |
| Dimension (mm)⌘         | 92 x 95 x 113⌘              | 90x90x64⌘                   |
| Voltage (V)⌘            | 12⌘                         | 12⌘                         |
| Bearing Type<br>(BTSR)⌘ | R⌘                          | R⌘                          |
| RPM⌘                    | 3800⌘                       | 5500⌘                       |
| Noise (dB)⌘             | 44.5⌘                       | 41⌘                         |
| Weight (g)⌘             | 403⌘                        | 301⌘                        |
| Application⌘            | Xeon E3 Workstation<br>95W⌘ | Xeon E3 2U Side Blo<br>95W⌘ |



# CPU HEAT SINK-SERVER



Square Type

Solutions for Intel series



|                |                 |                          |
|----------------|-----------------|--------------------------|
| Part No.       | SQ42Q00001      | SQ42W00001               |
| Dimension (mm) | 90 x90x25.5     | 90 x90x25.1              |
| CFM            | 15              | 15                       |
| Rca            | 0.326           | 0.344                    |
| Process        | Soldering/pipe  | Soldering /Vapor chamber |
| Weight (g)     | 201             | 306                      |
| Application    | Xeon E5 1U 135W | Xeon E5 1U 135W          |

# CPU HEAT SINK-SERVER



Solutions for Intel series



|                        |                             |                              |
|------------------------|-----------------------------|------------------------------|
| Part No.               | ZGUL410001                  | : Z6UR306001                 |
| Dimension (mm)         | 92 x 95 x 113               | 90x90x64                     |
| Voltage (V)            | 12                          | 12                           |
| Bearing Type<br>(BTSR) | R                           | B                            |
| RPM                    | 3800                        | 6800                         |
| Noise (dB)             | 44.5                        | 45                           |
| Weight (g)             | 403                         | 371                          |
| Application            | Xeon E5 Workstation<br>160W | Xeon E5 2U Side Blow<br>145W |

# CPU HEAT SINK-SERVER



Solutions for Intel series



|                 |                  |                          |
|-----------------|------------------|--------------------------|
| Part No.↵       | SQ42Q00001↵      | SQ44R00001↵              |
| Dimension (mm)↵ | 106 x70x25.5↵    | 106 x70x25.5↵            |
| CFM↵            | 15↵              | 15↵                      |
| Rca↵            | 0.239↵           | 0.224↵                   |
| Process↵        | Soldering/pipe↵  | Soldering /Vapor chamber |
| Weight (g)↵     | 177↵             | 230↵                     |
| Application↵    | Xeon E5 1U 135W↵ | Xeon E5 1U 135W↵         |

# CPU HEAT SINK-SERVER



Solutions for Intel series



|                 |                  |                     |
|-----------------|------------------|---------------------|
| Part No.↵       | SQ45100004↵      | SS44700002↵         |
| Dimension (mm)↵ | 104 x80x64↵      | 106 x70x25.5↵       |
| CFM↵            | 26↵              | 23.2↵               |
| Rca↵            | 0.176↵           | 0.174↵              |
| Process↵        | Soldering/pipe↵  | Soldering /pipe↵    |
| Weight (g)↵     | 364↵             | 387↵                |
| Application↵    | Xeon E5 2U 145W↵ | Xeon E5 Tower 160W↵ |

# CPU HEAT SINK-WORKSTATION

Workstation is a general-purpose microcomputer. It is provided to a single user, and its computing ability is higher than that of a regular PC. In addition, the terminal connected to the server is also called a workstation. AVC' s systematic cooling solutions ensure them to operate uninterruptedly and normally around the clock.



AVC' s applicable cooling techniques and products:

- (1) Workstation casing
- (2) CPU heat sink, cable, connector
- (3) System fan
- (4) System wind scooper/hard disk frame

# CPU HEAT SINK-WORKSTATION



Solutions for Intel Xeon E5 series

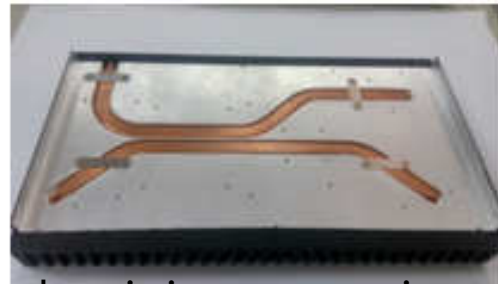
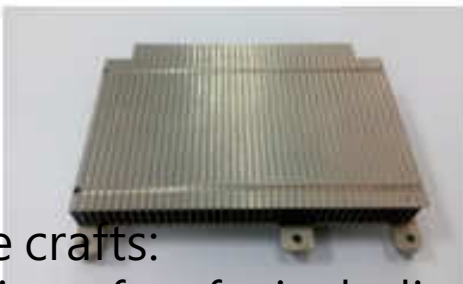
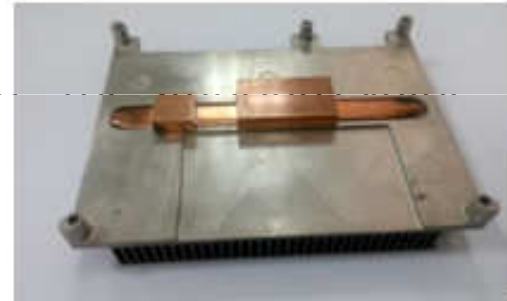


|                            |                        |
|----------------------------|------------------------|
| <b>Part No.</b>            | Z9US44E001             |
| <b>Dimension (mm)</b>      | 92 x90x105             |
| <b>Voltage (V)</b>         | 12                     |
| <b>Bearing Type (BTSR)</b> | R                      |
| <b>RPM</b>                 | 4000                   |
| <b>Noise (dB)</b>          | 48.5                   |
| <b>Weight (g)</b>          | 500                    |
| <b>Application</b>         | Xeon E5 Side Flow 165W |

# CPU HEAT SINK-IPC

Industrial PC (IPC) refers to the personal computer specifically intended for industry use, and it can be used as an industrial controller. The basic capacity and compatibility of IPC are almost the same with the PC of the same specification, but IPC has more protection procedures. IPC emphasizes the stability in different environments, such as controlling production lines of beverages or cars, as well as the stability in extreme environments, such as being dustproof, waterproof, and antistatic. IPC does not pursue the best performance currently available. but the demand for reliability and stability in industrial

environments should the required for has been v traffic con aviation, a



Applicable crafts:

Combination of crafts including aluminium extrusion, die casting, heat pipe embedding/welding, crimped fin, CNC processing, paint, spray and surface anodizing, etc.