



Heat Sink Catalogue
Revision 22

Sehr geehrte Damen und Herren,

Sie halten unseren CPU-Kühlerkatalog in der Revision 22 in den Händen, mit aktuellen Kühllösungen für Prozessoren oder Systeme wie Server und Workstation. Die Kompetenz zu diesem Thema haben wir uns über viele Jahre erarbeitet. Hierfür war und ist Ihre Mitarbeit unerlässlich. Wir möchten uns an dieser Stelle für Ihre Kooperation und konstruktive Zusammenarbeit bedanken.

Wieder haben wir versucht die Übersichtlichkeit des Kataloges zu verbessern. An einigen Stellen werden Sie keine technischen Details finden. Das liegt daran, dass uns die entsprechenden Daten zum Zeitpunkt der Fertigstellung nicht vorlagen. Wir werden versuchen die fehlenden Daten zur nächsten Revision einzufügen. Wir nehmen Ihre Anregungen zur Verbesserung des Kataloges gerne entgegen.

Umsetzung des Elektro- und Elektronikgerätegesetz ElektroG



Das am 24. März 2005 in Kraft getretene Gesetz dient der Umsetzung der beiden Richtlinien 2002/96/EG über Elektro- und Elektronikgeräte („WEEE-Richtlinie“) und 2002/95/EG zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten („RoHS-Richtlinie“). Die von der HSM importierten Produkte – wie aktive und passive CPU-Kühler, Kabel, Steckverbinder, Spulen, Transformatoren und Übertrager – sind Bauelemente ohne eigenständige Funktion und gelten nicht als Geräte im Sinne des ElektroG. Erst das Gerät, in das diese Bauteile eingebaut worden sind, erfüllt die erwartete bestimmungsgemäße eigenständige Funktion. Die **eigenständige Funktion** wird in der Richtlinie 89/336/EWG (geändert durch die Richtlinien 91/263/EWG, 92/31/EWG, 93/68/EWG und 93/97/EWG) definiert und ist unter Punkt 3.8 im Leitfaden zur Anwendung der Richtlinie 89/336/EWG des Rates vom 3. Mai 1989 zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten über die elektromagnetische Verträglichkeit spezifiziert.

Europäische Richtlinien 2002/95/EG, 2003/11/EG, 2011/65/EG und 2015/863/EU

Das Thema RoHS und die Umsetzung der entsprechenden EU-Richtlinien wurden von uns abgeschlossen. Die von uns gelieferten Waren enthalten keine beschränkten Stoffe bzw. Stoffgruppen laut oben genannter Richtlinien und sind somit RoHS kompatibel.

REACH-Verordnung 1907/2006/EG

Die Europäische Chemikalienagentur ECHA hat auf Ihrer Internetseite eine Kandidatenliste besonders besorgniserregender Stoffe unter <https://echa.europa.eu/de/candidate-list-table> veröffentlicht. Die von uns gelieferten Waren enthalten keine Stoffe dieser Kandidatenliste in einer Konzentration von mehr als 0,1 Masseprozent und sind somit REACH kompatibel.

Kennzeichnung der Produkte entsprechend WEEE und RoHS

Der Kennzeichnungspflicht der Produkte kommen wir entsprechend den gesetzlichen Vorschriften nach.

Bitte informieren Sie sich auf unserer Webseite www.hsmz.eu über unsere Produkte.

Wir freuen uns auf Ihre Anfragen und Bestellungen!

Ihr HSM Team

Dear Sir or Madam

You are holding our CPU Cooler catalogue Revision 22 in your hands with current cooling solutions for processors or systems like servers and workstation. We have worked out the competence to this topic over many years. Your cooperation was and is essential for this. We would like to say thank-you for your constructive cooperation in this place.

We have tried again to improve the clarity of the catalogue. You won't find any technical details in some places. This is because we had not the corresponding data at the time of the completion. We will try to insert the missing data for the next revision. We like to receive your suggestions for the improvement in the catalogue.

The putting into action of the "Electrical and Electronic Equipment Law ElektroG"



The law becomes effective on March 24th, 2005. It serves the putting into action of the two guidelines 2002/96/EG and 2002/95/EG to the restriction of the use of certain dangerous substances in electrical and electronic equipment ("RoHS guideline") over electrical and electronics old equipment ("WEEE guideline"). The products, like active and passive CPU coolers, cables, plug connectors, spools and transformers, imported by the HSM are construction elements without an independent function and aren't regarded as an equipment according to the ElektroG. The device into which these components have been installed fulfills the expected independent function as agreed first. **The independent function** is (changed by the guidelines 91/263/EWG, 92/31/EWG, 93/68/EWG and 93/97/EWG) defined in the guide to the application of the guideline 89/336/EWG under point 3.8 of the advice of May 3rd, 1989. It contains the adjustment of the legal provisions of the member states about the electromagnetic compatibility

European guidelines 2002/95/EG, 2003/11/EG, 2011/65/EG and 2015/863/EU

The topic RoHS and the implementation of the relevant EU guidelines were completed by us. The goods supplied by us do not contain restricted substances or groups of substances according to the above guidelines and are therefore RoHS compliant.

REACH Regulation 1907/2006/EC

The European Chemicals Agency ECHA published a list of candidates which contain particularly worrisome substances on their website.

You can find it here: <https://echa.europa.eu/de/candidate-list-table>. The goods supplied by us do not contain substances of this candidate list in a concentration of more than 0.1 percent by mass. Therefore, our products are REACH compliant.

Identification of the products according to WEEE and RoHS

We comply with the identification duty of the products according to the legal regulations.

Please inform yourself also on our website www.hsmz.eu about our products.

We look forward to your enquiries and orders!

Your HSM Team

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(leaving technical changes)

Cooling Solutions for Intel Sockets LGA115x

D0SA-ASI7-E122Z	#104520	0.5U	active	Kinetic		~26dB-A	1.1
D0SA-CSI7-E122Z	#104521	0.5U	active	Kinetic		~26dB-A	1.1
T1NP-ASI7-0000D	#102325	1U	passive				1.2
T1NP-BSI7-0000D	#102326	1U	passive				1.2
S1NP-FSI7-0000Z-1	#104373	1U	passive	Heatpipe			1.3
S1NP-CSI7-0000Z-2	#104449	1U	passive				1.3
S1NP-FSI7-0000Z-2	#104850	1U	passive	Heatpipe			1.4
T1NA-BSI7-E125Z-1	#104342	1U	active		PWM	19-45dB-A	1.4
T1NA-BSI7-E125Z-3	#104651	1U	active		PWM	18-55dB-A	1.5
T1NA-BSI7-E125Z-2	#104349	1U	active	Radial Blower	PWM	18-51dB-A	1.5
T1NA-ASI7-E125D	#104761	1U	active		PWM	19-49dB-A	1.6
E1SA-CSI7-E124Z	#103967	1U	active	Sunflower	PWM	21-42.9dB-A	1.6
D2SA-FSI7-E124Z	#104522	1.5U	active	Kinetic / Heatpipe		~42dB-A	1.7
E2SA-CSI7-E124D	#102341	1.5U	active	Sunflower	PWM	19-39.9dB-A	1.7
E2SA-CSI7-E124Z	#104270	1.5U	active	Sunflower	PWM	19-40dB-A	1.8
T2NP-CSI7-0000Z-3	#104592	2U	passive				1.8
T2NP-CSI7-0000Z-2	#104400	2U	passive				1.9
S2NP-FSI7-0000D	#102966	2U	passive	Heatpipe			1.9
T2NP-CSI7-0000Z	#103954	2U	passive				1.10
T2NP-CSI7-0000Z	#104847	2U	passive				1.10
E2NA-CSI7-E124Z	#104232	2U	active	Sunflower	PWM	21-49dB-A	1.11
T2NA-ASI7-E126D	#102883	2U	active	Sideblower	PWM	22-47dB-A	1.11
S2NA-FSI7-E126Z	#104941	2U	active	Sideblower / Heatpipe	PWM	21-45dB-A	1.12
E2NA-CSI7-E124D	#102355	2U	active	Sunflower	PWM	21-49dB-A	1.12
S3NP-DSI7-0000Z-3	#104341	3U	passive	Heatpipe			1.13
S3SA-DSI7-T123Z	#104499	3U	active	Heatpipe	PWM	36.7dB-A	1.13
S3NA-DSI7-T121Z	#104428	3U	active	Heatpipe	PWM	24.5dB-A	1.14
S3NA-DSI7-T123Z-1	#104417	3U	active	Sideblower	PWM	37dB-A	1.14

Cooling Solutions for Intel Socket LGA1366

T1SA-BSI6-D125D	#102079	1.5U	active		PWM	43dB-A	2.1
S2NA-FSI6-D126D	#102957	2U	active	Sideblower / Heatpipe	PWM	46dB-A	2.1
S2NA-FSI6-D129D	#103039	2U	active	Sideblower / Heatpipe	PWM	19-55dB-A	2.2

Cooling Solutions for Intel Socket LGA1700

T1NA-BSD1-E125Z	#104936	1U	active		PWM	~64dB-A	3.1
E2SA-CSD1-E124Z	#105017	1.5U	active	Sunflower	PWM	19-39.9dB-A	3.1
T2NP-CSD1-0000Z	#105025	2U	passive	Copper Slug			3.2
S2NA-FSD1-E126Z	#104958	2U	active	Sideblower / Heatpipe	PWM	~68dB-A	3.2
E2NA-CSD1-E124Z	#105018	2U	active	Sunflower	PWM	21-49dB-A	3.3
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T1NP-GSI8-0000D-1	#103589	1U	Square	passive	Vapor Chamber				4.1
T1SA-BSI8-E125D	#103657	1U	Narrow	active	Radial Blower	PWM	18-51dB-A		4.1
S2NP-FSI8-0000D	#103969	2U	Narrow	passive	Heatpipes				4.2
E2SA-C SI8-E124D	#103305	2U	Square	active	Sunflower	PWM	49dB-A		4.2
S2NA-FSI8-D129D	#103144	2U	Square	active	Sideblower	PWM	55dB-A		4.3
E2NA-ASI8-D124D	#103034	2U	Narrow	active		PWM	45dB-A		4.3
S2NA-FSI8-D129D-1	#103254	2U	Narrow	active	Sideblower / Heatpipes	PWM	55dB-A		4.4
T3NP-C SI8-0000Z	#104250	3U	Square	passive					4.4
S3SA-DSI8-T124Z	#104082	3U	Square	active	Heatpipes	PWM	42dB-A		4.5
S3NA-DSI8-T123Z	#104461	3U	Square	active	Sideblower / Heatpipes	PWM	37dB-A		4.5

Cooling Solutions for Intel Socket LGA3647

S2NA-FSI9-D129D	#104443	2U		active	Sideblower / Heatpipe	PWM	19-55dB-A		5.1
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Cooling Solutions for Intel Socket G1/G2

T1NP-BSPG-0000D	#103434	1U		passive					6.1
E1NP-CSBG-0000Z	#104486	1U		passive					6.1
T1NA-BSPG-D115D	#102433	1U		active			30dB-A		6.2
T1NA-BSPG-T124Z	#104267	1U		active		PWM	36.5dB-A		6.2
T1NA-BSPG-P126D- 1	#103246	1U		active	Radial Blower	PWM	47.5dB-A		6.3
T1NA-BSPG-E125D- 2	#103624	1U		active	Radial Blower	PWM	18-55dB-A		6.3
E1NA-CSBG-P123Z	#103597	1U		active		PWM	30dB-A		6.4
E2NP-ASPG-0000D- 1	#103290	2U		passive					6.4
T2NP-BSPG-0000D	#103157	2U		passive					6.5
E2NP-ASG-0000D	#103449	2U		passive					6.5

Cooling Solutions for AMD Socket S1

E1NP-ASS1-0000H	#104064	1U		passive					7.1
E1NA-ASS1-P123F	#103537	1U		active		PWM	30dB-A		7.1
E1NA-ASS1-C115F	#103664	1U		active			36dB-A		7.2
T2SP-ASS1-0000D	#103438	2U		passive					7.2

Cooling Solutions for AMD Socket SP3

S1NP-HSA5-0000Z	#104502	1U		passive	Vapor Chamber				8.1
S2NP-FSA5-0000D	#104929	2U		passive	Heatpipe				8.1

Cooling Solutions for AMD Ryzen

S2NP-FSA7-0000Z-2	#104863	2U		passive	Heatpipe				9.1
S2NA-FSA7-E126Z-1	#104820	2U		active	Sideblower / Heatpipe	PWM	~46dB-A		9.1

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BGA Cooling Solutions

E1NP-ASPBX-0000F	#103362	1U	passive	10.1
E1SP-AWBX-0000D	#100732	1U	passive	10.1
E1NP-ASBI1-0000G	#102364	1U	passive	10.2
E1NP-ASBI1-0000F	#103278	1U	passive	10.2

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Cooling Solutions for obsolete Sockets 479, LGA775

T1NA-BSI5-E125D	#100751	1U	775	active	Radial Blower	PWM	18-51dB-A	14.1
T1NA-BSPI1-E116D	#102013	1U	479	active			26.5dB-A	14.1



Cooling Solutions for Intel Sockets LGA115x

- most items without backplate -

DOSA-ASI7-E122Z

HSM Part# 104520 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

0.5U active solution for up to 52W

Socket LGA115x
Aluminum
Screw & Spring
Two Ball Bearing
1.500-3.000 RPM / 26 dB-A
4-Pin
91.5L x 91.5W x 18.05H (mm) / 205g
Rth = *tba*
Yes

DOSA-CSI7-E122Z

HSM Part# 104521 [↑back to content list](#)



Application

Specification

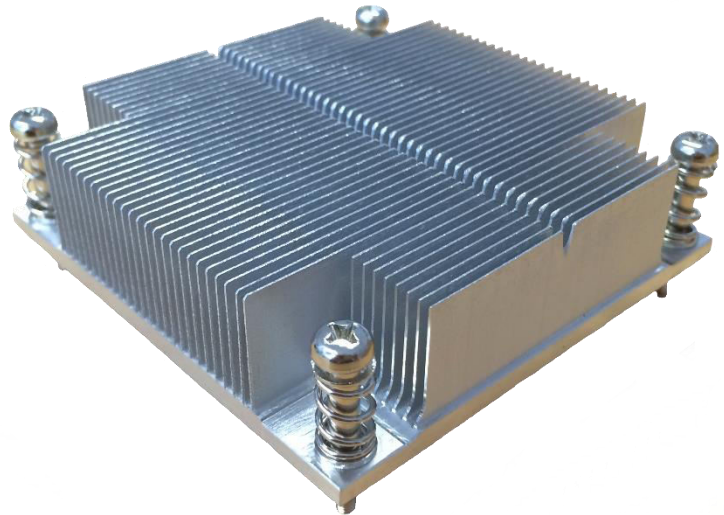
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

0.5U active solution for up to 65W

Socket LGA115x
Aluminum with copper base
Screw & Spring
Two Ball Bearing
1.500-3.000 RPM / 26 dB-A
4-Pin
91.5L x 91.5W x 18.05H (mm) / 300g
Rth = *tba*
Yes

T1NP-ASI7-0000D

HSM Part# 102325 [↑back to content list](#)



Application

Specification

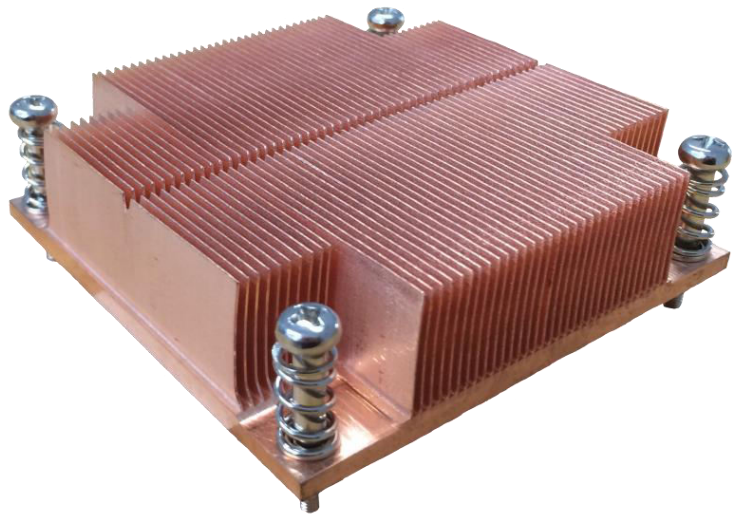
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket LGA115x
Aluminum
Screw & Spring
85L x 85W x 26H (mm) / 220g
Rth = 0.353°C/W @15CFM
Yes

T1NP-BSI7-0000D

HSM Part# 102326 [↑back to content list](#)



Application

Specification

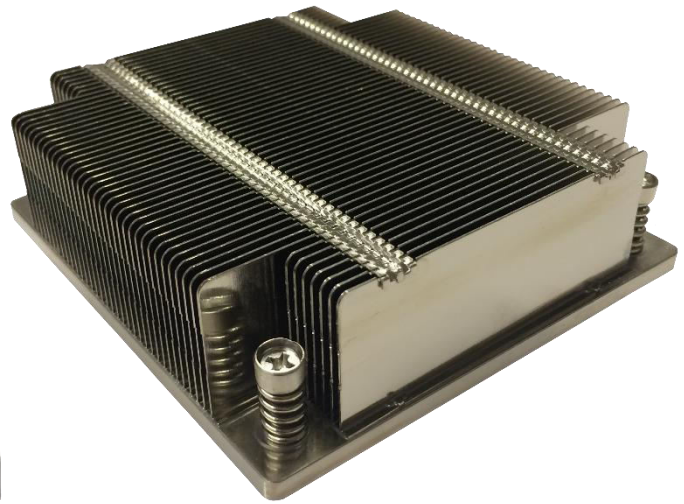
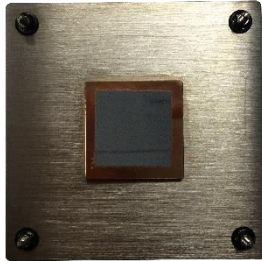
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket LGA115x
Copper
Screw & Spring
85L x 85W x 26H (mm) / 521g
Rth = 0.289°C/W @ 15CFM
Yes

S1NP-FSI7-0000Z-1

HSM Part# 104373 [↑back to content list](#)



Application

Specification

Socket type

Heat Sink Material

Fastener

Dimensions overall / Weight

Thermal Resistance

RoHS compliant

1U passive solution for 95W TDP of Intel CPU

Socket LGA115x

Aluminum base with stacked fins, 3 heatpipe inlay and copper base

Screw & Spring

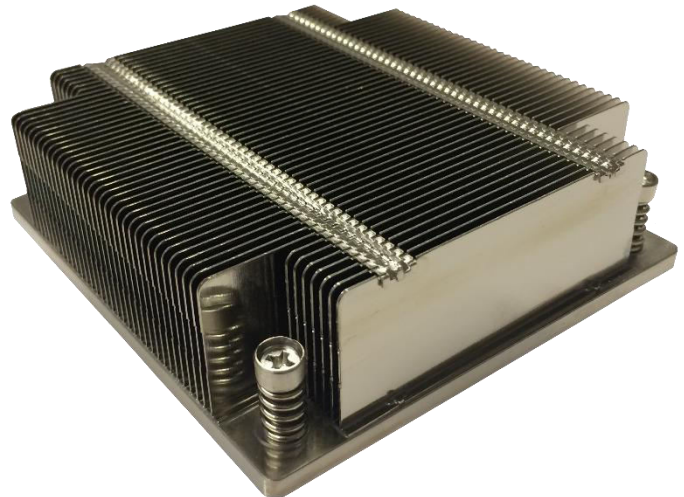
90L x 90W x 30H (mm) / 243g

Rth = 0.161°C/W @130W

Yes

S1NP-CSI7-0000Z-2

HSM Part# 104449 [↑back to content list](#)



Application

Specification

Socket type

Heat Sink Material

Fastener

Dimensions overall / Weight

Thermal Resistance

RoHS compliant

1U passive solution for Socket LGA115x

Socket LGA115x

Aluminum base with stacked fins and copper base

Screw & Spring

90L x 90W x 30H (mm) / 225g

Rth = *tba*

Yes

S1NP-FSI7-0000Z-2

HSM Part# 104850 [↑back to content list](#)



Application

1U passive solution designed to meet 95W TDP of Intel CPU

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

Socket LGA115x
Aluminum with 2 heatpipe inlay and copper base
Screw & Spring
90L x 90W x 27H (mm) / 220g
Rth = 0.235°C/W @95W
Yes

T1NA-BSI7-E125Z-1

HSM Part# 104342 [↑back to content list](#)



Application

1U active solution modified to meet requirements of FTS D3243S

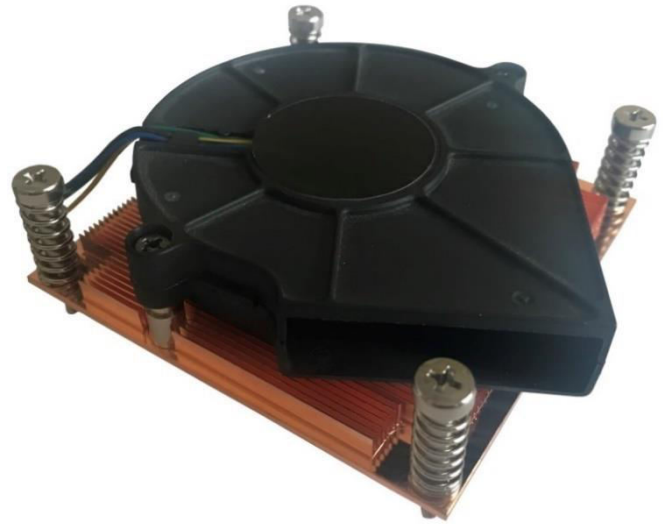
Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

Socket LGA115x
Copper
Screw & Spring
R127010BU AF / Two Ball Bearing
5.500 RPM / 32.93 CFM / max. 49 dB-A
PWM
84L x 84W x 23H (mm) / 470g
Rth = *tba*
Yes

T1NA-BSI7-E125Z-3

HSM Part# 104651 [↑back to content list](#)



Application

Specification

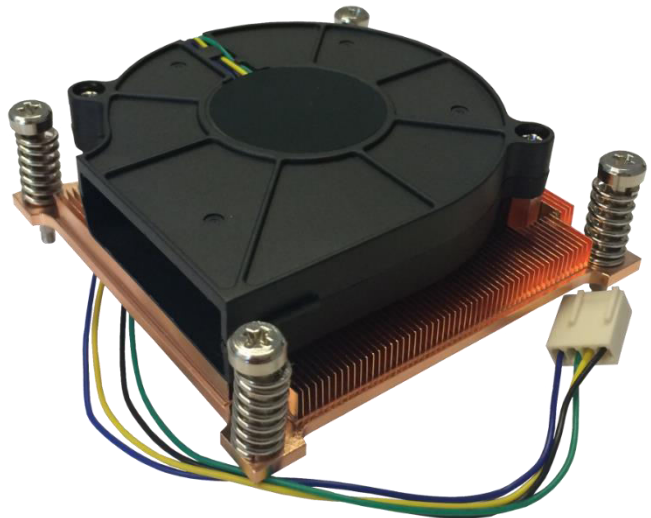
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

Socket LGA115x
Copper
Screw & Spring
B127515BU AF / Two Ball Bearing
1.000-5.500 RPM / 1.93-11.83 CFM / 18-55 dB-A
PWM
84L x 84W x 27H (mm) / 420g
Rth = *tba*
Yes

T1NA-BSI7-E125Z-2

HSM Part# 104349 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution designed to meet Requirements of Fujitsu MB D3243S

Socket LGA115x
Copper
Screw & Spring
B127515BUAF / Two Ball Bearing
1.000-5.500 RPM / 1.93-11.83 CFM / 18-51 dB-A
PWM
84L x 84W x 27H (mm) / 420g
Rth = *tba*
Yes

T1NA-ASI7-E125D

HSM Part# 104761 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

LGA115x
Aluminum
Screw & Spring
R127010BU AF / Two Ball Bearing
1.200-5.500 RPM / 6.96-32.93 CFM / 19-49 dB-A
PWM
84L x 84W x 26.4H (mm) / 190g
Rth = *tba*
Yes

E1SA-CSI7-E124Z

HSM Part# 103967 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution designed to meet requirements of ASRock mini ITX IMB-V1000

LGA115x BGA
Aluminum with Copper Core
Screw & Spring
R128015BUAF / Two Ball Bearing
1.200-4.200 RPM / 13.31-46.57 CFM / 21-42.9 dB-A
PWM
115L x 115W x 30.5H (mm) / 360g
Rth = 0.294°C/W
Yes

D2SA-FSI7-E124Z

HSM Part# 104522 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1.5U active solution for up to 95W

Socket LGA115x
Aluminum with heatpipe-inlay
Screw & Spring
Two Ball Bearing
2.000-4.800 RPM / 42 dB-A
4-Pin
91.5L x 91.5W x 37H (mm) / 380g
Rth = *tba*
Yes

E2SA-CSI7-E124D

HSM Part# 102341 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1.5U active solution

Socket LGA115x
Aluminum Sunflower with copper core
Screw & Spring
R128015BU AF / Two Ball Bearing
1.200-4.200 RPM / 13.31-46.57 CFM / 19-39.9 dB-A
PWM
123.64L x 123.64W x 42.1H (mm) / 338g
Rth = 0.33°C/W
Yes

E2SA-CSI7-E124Z

HSM Part# 104270 [↑back to content list](#)



Application

Specification

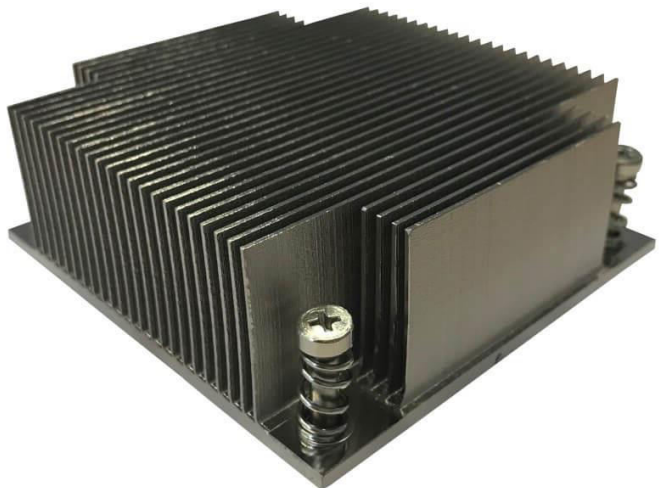
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1.5U active solution

Socket LGA115x
Aluminum with copper core
Screw & Spring
R128015BUAF / Two Ball Bearing
1.200-4.200 RPM / 13.31-46.57 CFM / 19-39.9 dB-A
PWM
123.64L x 123.64W x 42.1H (mm) 338g
Rth = 0.285°C/W @65W
Yes

T2NP-CSI7-0000Z-3

HSM Part# 104592 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket LGA115x
Aluminum with copper spreader
Screw & Spring
90L x 90W x 38H (mm) / 320g
Rth = *tba*
Yes

T2NP-CSI7-0000Z-2

HSM Part# 104400 [↑back to content list](#)



Application

Specification

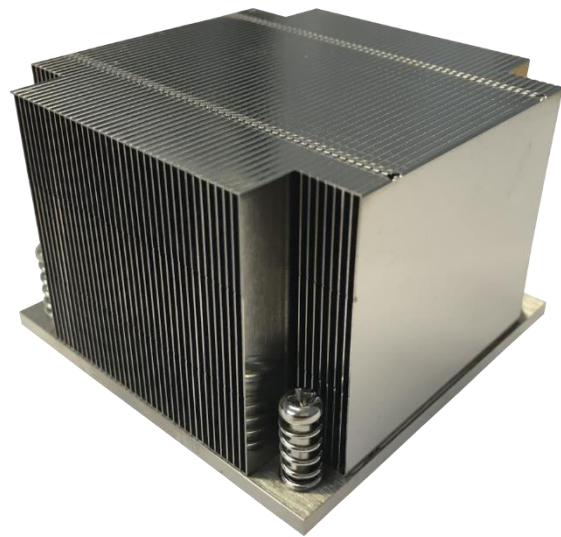
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket LGA115x
Aluminum with copper spreader
Screw & Spring
90L x 90W x 38H (mm) / 320g
Rth = *tba*
Yes

S2NP-FSI7-0000D

HSM Part# 102966 [↑back to content list](#)



Application

Specification

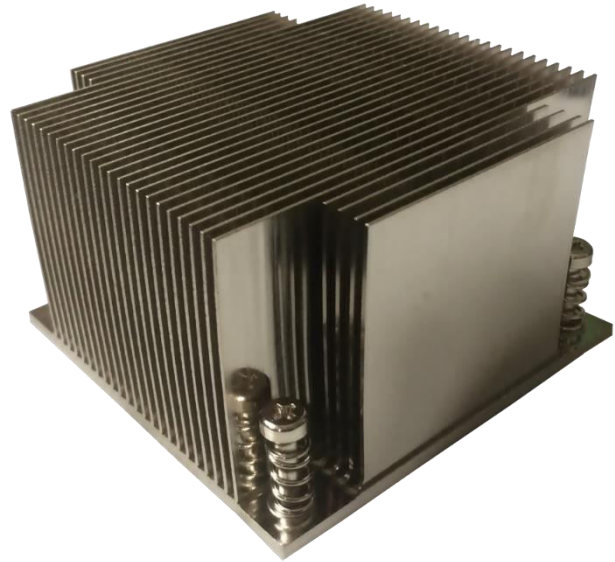
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket LGA115x
Aluminum with heatpipe-inlay and copper base
Screw & Spring
90L x 90W x 64.5H (mm) / 438g
Rth = 0.195°C/W @35CFM
Yes

T2NP-CSI7-0000Z

HSM Part# 103954 [↑back to content list](#)



Application

Specification

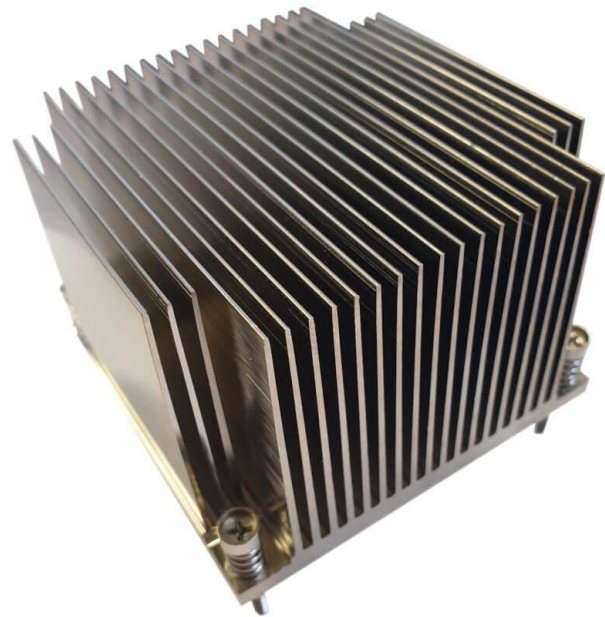
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket LGA115x
Aluminum with 5.5mm copper slug
Screw & Spring
90L x 90W x 60H (mm) / 462g
Rth = *tba*
Yes

T2NP-CSI7-0000Z

HSM Part# 104847 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket LGA115x
Aluminum with copper base
Screw & Spring
84L x 84W x 60.8H (mm) / 480g
Rth = *tba*
Yes

E2NA-CSI7-E124Z

HSM Part# 104232 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA115x
Aluminum with copper core
Screw & Spring
F129025BUAF / Two Ball Bearing
1.000-4.500 RPM / 11.55-42.10 CFM / 21-40 dB-A
PWM
123.64L x 123.64W x 61.4H (mm) 536g
Rth = 0.238°C/W @ 95W
Yes

T2NA-ASI7-E126D

HSM Part# 102883 [↑back to content list](#)



Application

Specification

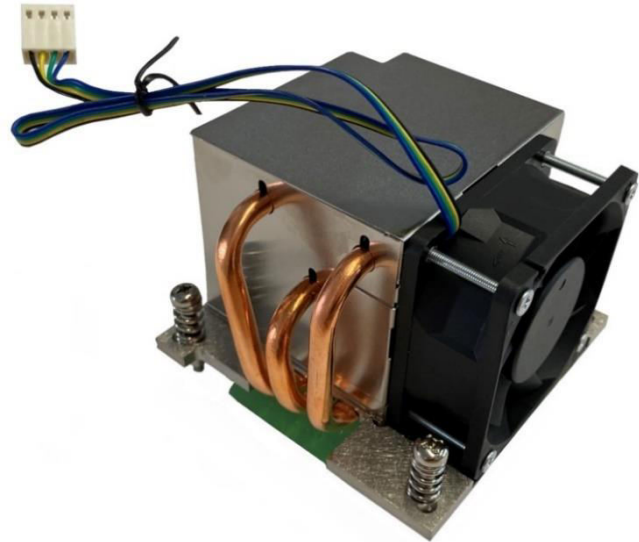
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA115x
Aluminum
Screw & Spring
R126020BUAF / Two Ball Bearing
1.800-6.600 RPM / 8.93-32.74 CFM / 22-47 dB-A
PWM
90L x 88W x 65H (mm) / 417g
Rth = **tba**
Yes

S2NA-FSI7-E126Z

HSM Part# 104941 [↑back to content list](#)



Application

Specification

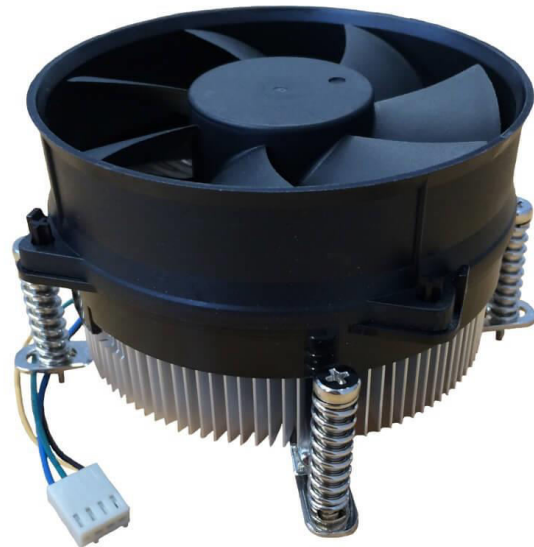
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution modified for Fujitsu D3243-S

Socket LGA115x
Aluminum stacked fins with copper base and 3 heatpipes
Screw & Spring
F126025BU-AF8P1bR / Two Ball Bearing
1.600-6.800 RPM / 8.03-34.13 CFM / 21-45 dB-A
PWM
90L x 90W x 64.3H (mm) / 390g
Rth = 0.182°C/W
Yes

E2NA-CSI7-E124D

HSM Part# 102355 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA115x
Aluminum Sunflower with copper core
Screw & Spring
F129025BU-AF / Two Ball Bearing
1.000-4.500 RPM / 16.57-76.92 CFM / 21-49 dB-A
PWM
123.64L x 123.64W x 61.4H (mm) / 536g
Rth = 0.232°C/W
Yes

S3NP-DSI7-0000Z-3

HSM Part# 104341 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U passive solution

Socket LGA115x
Aluminum with heatpipes
Screw & Spring
92L x 92W x 116H (mm) / 290g
Rth = *tba*
Yes

S3SA-DSI7-T123Z

HSM Part# 104499 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U active solution

Socket LGA115x
Aluminum stacked fins with 2 heatpipes
Screw & Spring
AD209225HBPA03 / Two Ball Bearing
max. 3.500 RPM / max. 58 CFM / 36.7 dB-A
PWM
95L x 92W x 103.6H (mm) / 500g
Rth = 0.116°C/W
Yes

S3NA-DSI7-T121Z

HSM Part# 104428 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U active solution

Socket LGA115x
Aluminum with 3 heatpipes
Screw & Spring
AD209225MBPA02 / Two Ball Bearing
2.000 RPM / 30 CFM / 24.5 dB-A
PWM
90L x 92W x 116H (mm) / 290g
Rth = *tba*
Yes

S3NA-DSI7-T123Z-1

HSM Part# 104417 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U active solution

Socket LGA115x
Aluminum with 3 heatpipes
Screw & Spring
AD209225HBPA03 / Two Ball Bearing
3.500 RPM / 58 CFM / 37 dB-A
PWM
92L x 92W x 116H (mm) / 290g
Rth = *tba*
Yes



Cooling Solutions for Intel Socket LGA1366

T1SA-BSI6-D125D

HSM Part# 102079 [↑back to content list](#)



Application

Specification

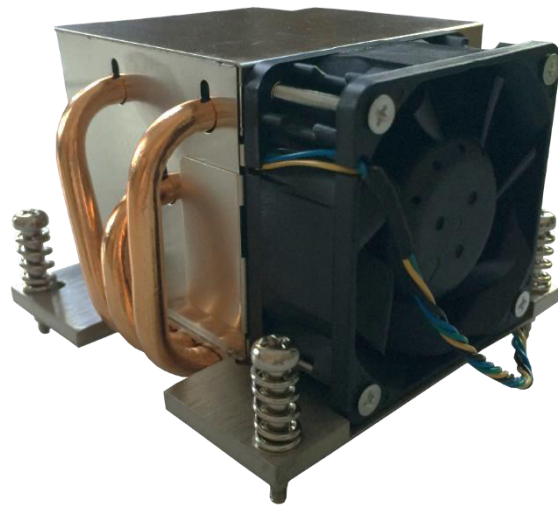
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1.5U active solution

Socket LGA1366
Copper
Screw & Spring
AFB0712HHB-4K45 / Two Ball Bearing
5.400 RPM / 39.45 CFM / 43 dB-A
PWM
89L x 89W x 37H (mm) / 523g
Rth = 0.252°C/W
Yes

S2NA-FSI6-D126D

HSM Part# 102957 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA1366
Aluminum with 3 heatpipes
Screw & Spring
AFB0612EH-BZ46 / Two Ball Bearing
750-6.800 RPM / 38 CFM / 46 dB-A
PWM
90L x 90W x 64.3H (mm) / 390g
Rth = 0.221°C/W
Yes

S2NA-FSI6-D129D

HSM Part# 103039 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

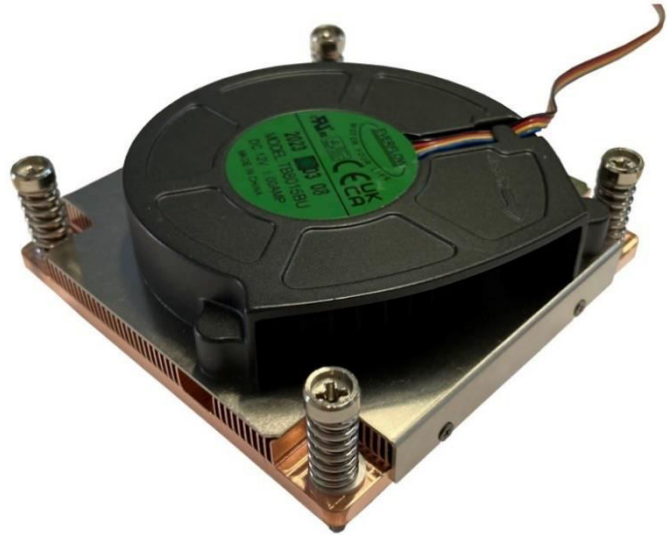
Socket LGA1366
Aluminum with copper base and 3 heatpipes
Screw & Spring
AFB0612DH-8X12 / Two Ball Bearing
0-9.000 RPM / 0-50.4 CFM / 19-55 dB-A
PWM
90L x 90W x 64.3H (mm) / 390g
 $R_{th} = 0.221^{\circ}\text{C}/\text{W}$
Yes



Cooling Solutions for Intel Socket LGA1700

T1NA-BSD1-E125Z

HSM Part# 104936 [↑back to content list](#)



Application

1U active solution designed to meet requirements of 65W TDP @55°C

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

LGA1700
Copper
Screw & Spring
T128015BUAF91JaR / Two Ball Bearing
1.000-6.600rpm / max. 21.73 CFM / max. 64 dB-A
PWM
90L x 90W x 28H (mm) / 500g
tba
Yes

E2SA-CSD1-E124Z

HSM Part# 105017 [↑back to content list](#)



Application

1.5U active solution

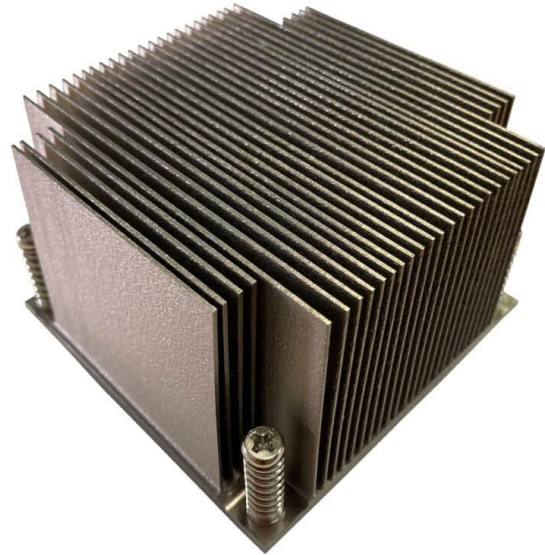
Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

LGA1700
Aluminum with copper core
Screw & Spring
R128015BUAF / Two Ball Bearing
1.200-4.200rpm / 13.31-46.57 CFM / 19-39.9 dB-A
PWM
121.3L x 121.3W x 42.1H (mm) / 338g
tba
Yes

T2NP-CSD1-0000Z

HSM Part# 105025 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

LGA1700
Aluminum with copper slug
Screw & Spring (backplate #104994 included)
90L x 90W x 60H (mm) / 470g
tba
Yes

S2NA-FSD1-E126Z

HSM Part# 104958 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active cooling solution

LGA1700
Aluminum with 3 heatpipes and copper slug
Screw & Spring
R126025BU-AFX65aR / Two Ball Bearing
2.000-14.000rpm / 10.5-72.8 CFM / max. 68 dB-A
PWM
90L x 90W x 64.3H (mm) / 390g
Rth = 0.134°C/W
Yes

E2NA-CSD1-E124Z

HSM Part# 105018 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

LGA1700
Aluminum with copper core
Screw & Spring
F129025BU(AF6A5bR) / Two Ball Bearing
1.000-4.500rpm / 16.57-76.92 CFM / 21-49 dB-A
PWM
121.3L x 121.3W x 61.4H (mm) / 536g
tba
Yes

S3SA-DSD1-E121Z

HSM Part# 104977 [↑back to content list](#)



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RUTRONIK
ELECTRONICS WORLDWIDE

Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U active cooling solution

LGA1700
Aluminum with copper base and 4 heatpipes
Screw & Spring (backplate #104994 included)
F129025BUAF4Q8aR / Two Ball Bearing
800-3.450rpm / 16.29-70.24 CFM / 21-43 dB-A
PWM
95L x 92W x 103H (mm) / 457g
Rth = 0.152°C/W
Yes

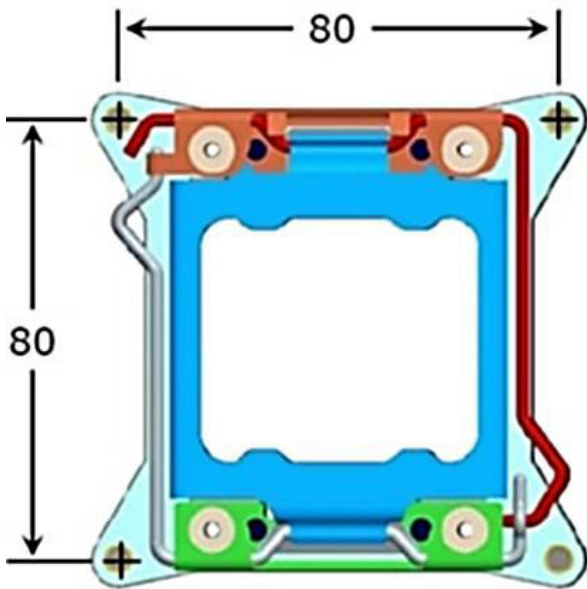


Cooling Solutions for Intel Sockets LGA20xx

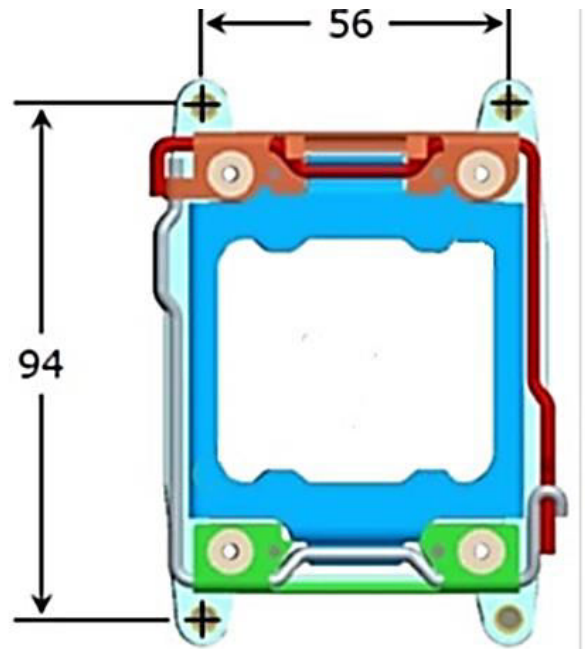
***** Information Socket 2011 *****

There are 2 versions of socket 2011.

Some mainboard-manufacturers don't indicate which version is mounted on the board. To find out what version you have, please check dimensions.



Square ILM



Narrow ILM Concept

T1NP-GSI8-0000D-1

HSM Part# 103589 [↑back to content list](#)



No standard part

Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant



1U passive solution

Socket LGA20xx square
Aluminum with copper vapor chamber
Screw & Spring
90L x 90W x 25H (mm) / 440g
Rth = 0.216°C/W @ 30 CFM
Yes

T1SA-BSI8-E125D

HSM Part# 103657 [↑back to content list](#)

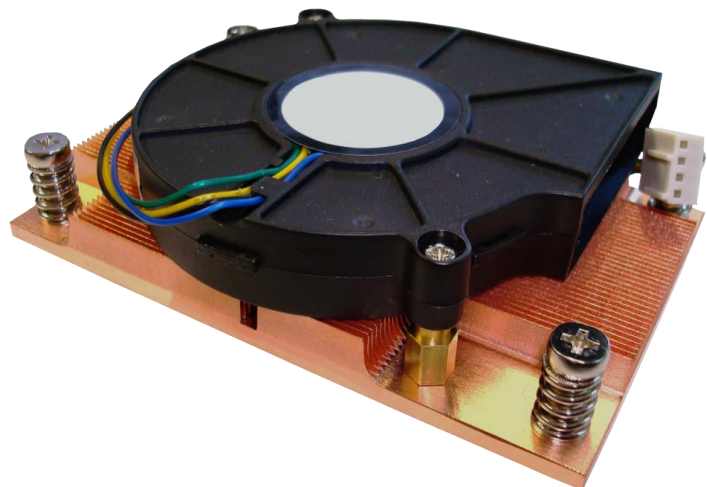


No standard part

Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant



1U active solution

Socket LGA20xx narrow
Copper
Screw & Spring
B127515BU AF / Two Ball Bearing
1.000-5.500 RPM / 1.93-11.83 CFM / 18-51 dB-A
PWM
106L x 70W x 26.5H (mm) / 490g
Rth = *tba*
Yes

S2NP-FSI8-0000D

HSM Part# 103969 [↑back to content list](#)



No standard part



Application Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket LGA20xx narrow
Aluminum with heatpipes and copper base
Screw & Spring
107L x 70W x 62H (mm) / 302g
Rth = 0.209°C/W @ 20 CFM
Yes

E2SA-CSI8-E124D

HSM Part# 103305 [↑back to content list](#)



Application Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant



2U active solution

Socket LGA20xx square
Aluminum with copper core
Screw & Spring
F129025BUAF / Two Ball Bearing
Up to 4.500 RPM / 76.92 CFM / 49 dB-A
PWM
126.8L x 126.8W x 34H (mm) / 536g
Rth = 0.202°C/W
Yes

S2NA-FSI8-D129D

HSM Part# 103144 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA20xx square
Aluminum with 3 heatpipes
Screw & Spring
AFB0612DH-8X12 / Two Ball Bearing
Up to 9.000 RPM / 50.4 CFM / 55 dB-A
PWM
90L x 90W x 64.3H (mm) / 396g
Rth = 0.224°C/W
Yes

E2NA-ASI8-D124D

HSM Part# 103034 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA20xx narrow
Aluminum
Screw & Spring
R127015BUAF / Two Ball Bearing
1.200-4.800 RPM / 33.43 CFM / 45 dB-A
PWM
101.6L x 71.4W x 65H (mm) / 427g
Rth = 0.260°C/W
Yes

S2NA-FSI8-D129D-1

HSM Part# 103254 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution

Socket LGA20xx narrow
Aluminum with copper base and 3 heatpipes
Screw & Spring
AFB0612DH / Two Ball Bearing
9.000 RPM / 50.4 CFM / 55 dB-A
PWM
107L x 70W x 60H (mm) / 320g
Rth = *tba*
Yes

T3NP-CSI8-0000Z

HSM Part# 104250 [↑back to content list](#)



Application

Specification

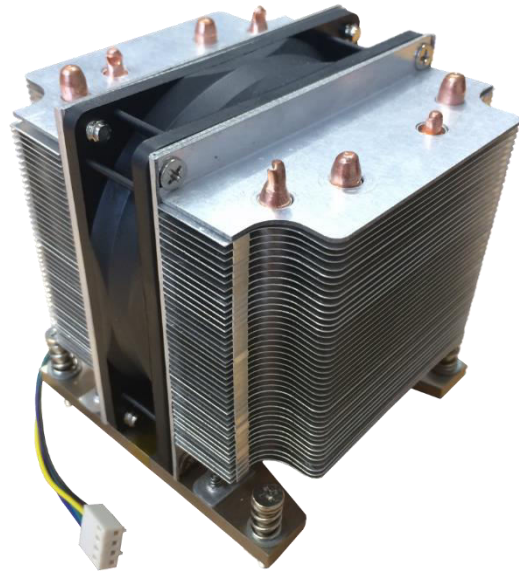
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U passive solution

Socket LGA20xx square
Aluminum with copper base
Screw & Spring
90L x 90W x 70H (mm) / 695g
Rth = *tba*
Yes

S3SA-DSI8-T124Z

HSM Part# 104082 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U active solution

Socket LGA20xx square
Aluminum with 4 heatpipes
Screw & Spring
AD209225HBPA10 / Two Ball Bearing
4.500 RPM / 70 CFM / 42 dB-A
PWM
95L x 92W x 100H (mm) / 500g
Rth = *tba*
Yes

S3NA-DSI8-T123Z

HSM Part# 104461 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

3U active solution

Socket LGA20xx square
Aluminum with 3 heatpipes
Screw & Spring
AD209225HBPA03 / Two Ball Bearing
3.500 RPM / 58 CFM / 37 dB-A
PWM
92L x 92W x 116H (mm) / 400g
Rth = *tba*
Yes



Cooling Solutions for Intel Socket LGA3647

S2NA-FSI9-D129D

HSM Part# 104443 [↑back to content list](#)



Application

Specification

Socket type

Heat Sink Material

Fastener

Fan Part Number / Bearing

Fan Speed / Air Flow / Noise Level

PWM / Smart Fan / Standard

Dimensions overall / Weight

Thermal Resistance

RoHS compliant

2U active solution

Socket LGA3647

Aluminum with copper base and 2 heatpipes

Screw & Spring

AFB0612DH-8X12 / Two Ball Bearing

9.000 RPM / 50.4 CFM / 19-55 dB-A

PWM

108L x 78W x 64H (mm) / 525g

Rth = 0.221°C/W

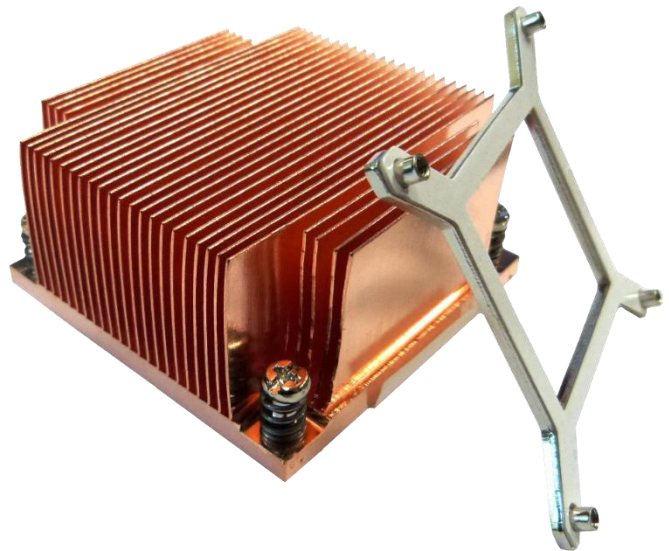
Yes



Cooling Solutions for Intel Socket G1/G2

T1NP-BSPG-0000D

HSM Part# 103434 [↑back to content list](#)



Application Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket G1/G2
Copper
Screw & Spring, Backplate included
60L x 60W x 30H (mm) / 340g
Rth = *tba*
Yes

E1NP-CSBG-0000Z

HSM Part# 104486 [↑back to content list](#)



Application Specification

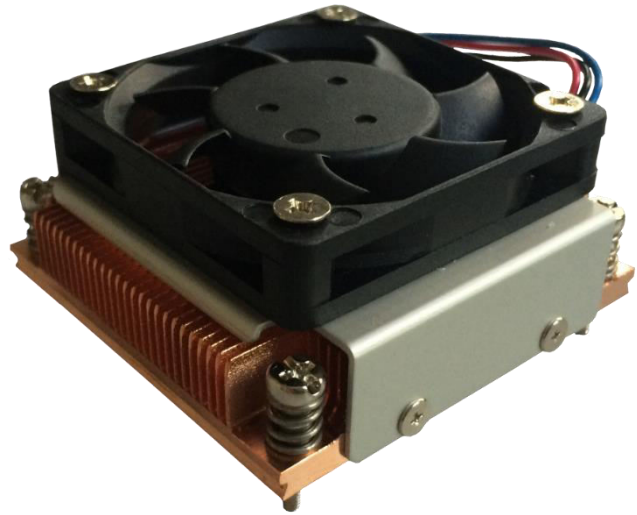
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket G1/G2
Aluminum with copper spreader
Screw & Spring
60L x 60W x 36H (mm) / 160g
Rth = *tba*
Yes

T1NA-BSPG-D115D

HSM Part# 102433 [↑back to content list](#)



Application

Specification

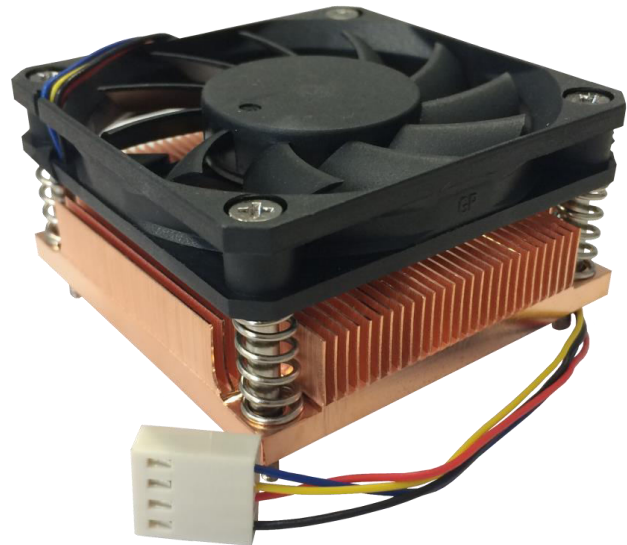
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

Socket G1/G2
Copper
Screw & Spring, Backplate included
EFB0512HA-AM69 / Two Ball Bearing
5.500 RPM / 11.4 CFM / 30 dB-A
PWM
60L x 60W x 27H (mm) / 226g
Rth = 0.62°C/W
Yes

T1NA-BSPG-T124Z

HSM Part# 104267 [↑back to content list](#)



Application

Specification

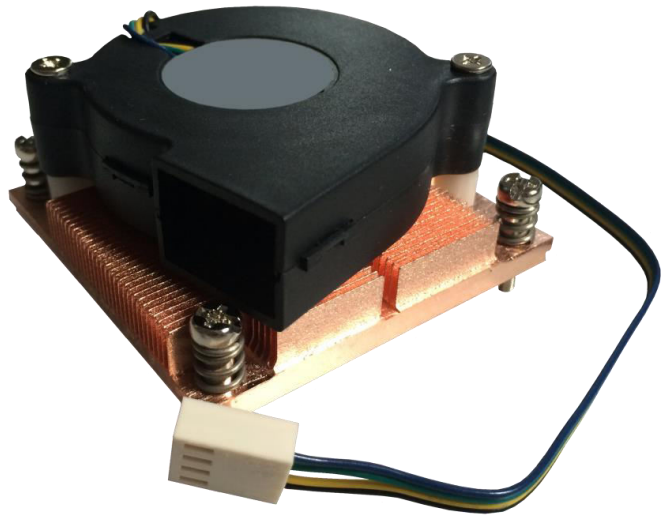
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

Socket G1/G2
Copper
Screw & Spring
AD206010HBPA03 / Two Ball Bearing
4.800 RPM / 16.31-18.12 CFM / 32.22-35.8 dB-A
PWM
60L x 60W x 27H (mm) / 226g
Rth = 0.62°C/W @ 55W
Yes

T1NA-BSPG-P126D-1

HSM Part# 103246 [↑back to content list](#)



Application

Specification

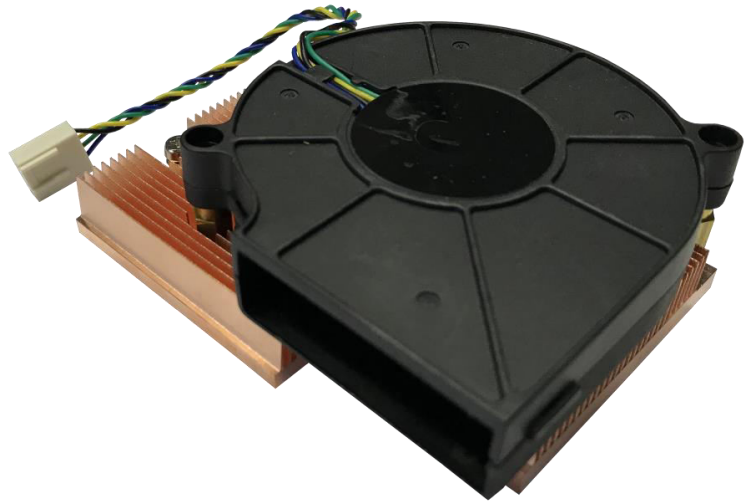
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

Socket G1/G2
Copper
Screw & Spring, Backplate included
PLB05015B12HH / Two Ball Bearing
1.900-6.500 RPM / 5.16 CFM / 47.5 dB-A
PWM
60L x 60W x 27H (mm) / 226g
Rth = *tba*
Yes

T1NA-BSPG-E125D-2

HSM Part# 103624 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution designed for Kontron KTQM87

Socket G1/G2
Copper
Screw & Spring
B127515BUAF / Two Ball Bearing
5.500 RPM / 11.83 CFM / 55 dB-A
PWM
93L x 68W x 29H (mm) / 350g
Rth = *tba*
Yes

E1NA-CSBG-P123Z

HSM Part# 103597 [↑back to content list](#)



Application Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

Socket G1/G2
Aluminum with copper core
Screw & Spring
PLA06010B12M / Two Ball Bearing
1.000-3.800 RPM / 15.97 CFM / 30 dB-A
PWM
60L x 60W x 29H (mm) / 157g
Rth = 0.524°C/W @ 60W and 32°C amb
Yes

E2NP-ASPG-0000D-1

HSM Part# 103290 [↑back to content list](#)



Application Specification

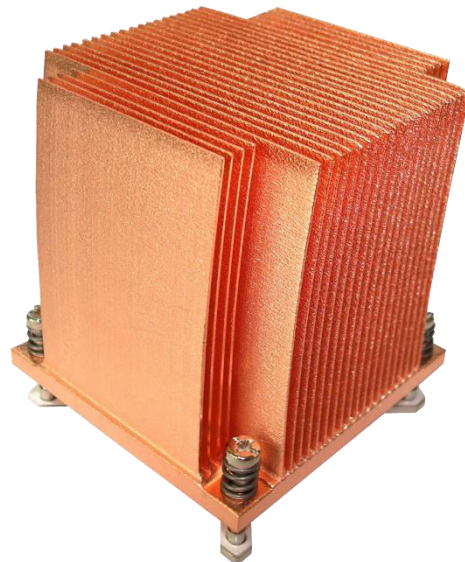
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket G1/G2
Aluminum
Screw & Spring, Backplate included
60L x 58W x 58H (mm) / 145g
Rth = *tba*
Yes

T2NP-BSPG-0000D

HSM Part# 103157 [↑back to content list](#)



Application Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution

Socket G1/G2
Copper
Screw & Spring, Backplate included
60L x 60W x 60H (mm) / 520g
Rth = *tba*
Yes

E2NP-ASG-0000D

HSM Part# 103449 [↑back to content list](#)



Application Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution with 4mm base thickness only

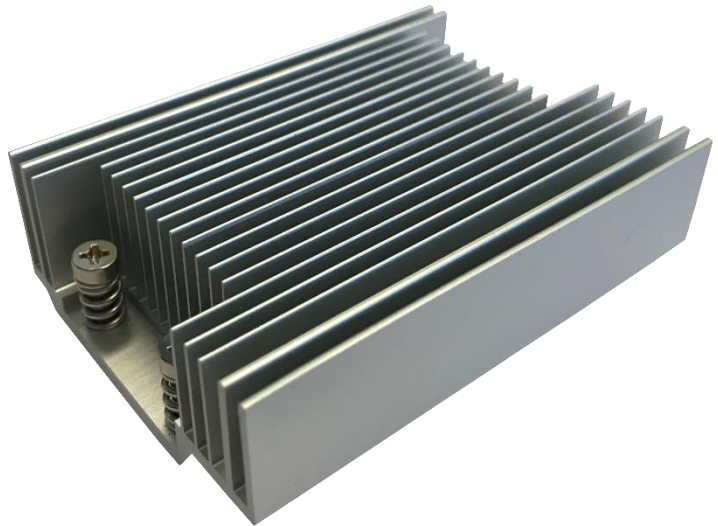
Socket G1/G2
Aluminum
Screw & Spring, Backplate #102435 included
60L x 58W x 58H (mm) / 145g
Rth = *tba*
Yes



Cooling Solutions for AMD Socket S1

E1NP-ASS1-0000H

HSM Part# 104064 [↑back to content list](#)



Application

Specification

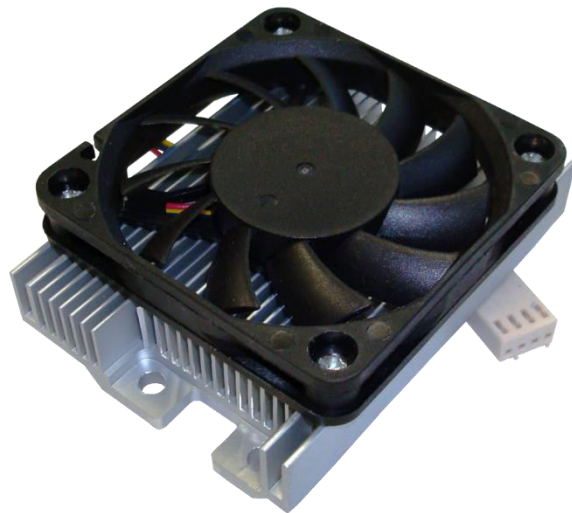
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket S1
Aluminum
Screw & Spring
75.2L x 55W x 26H (mm) / 90g
Rth = *tba*
Yes

E1NA-ASS1-P123F

HSM Part# 103537 [↑back to content list](#)



Application

Specification

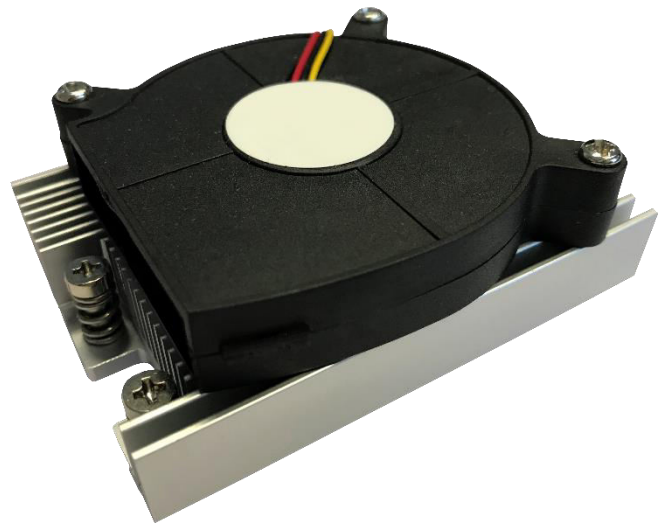
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution for Fujitsu MB D3003S & D3313S

Socket S1
Aluminum
Screw & Spring
PLA06010B12M / Two Ball Bearing
3.800 RPM / 15.97 CFM / max. 30 dB-A
PWM
75L x 60W x 27.3H (mm) / 105g
Rth = *tba*
Yes

E1NA-ASS1-C115F

HSM Part# 103664 [↑back to content list](#)



Application

Specification

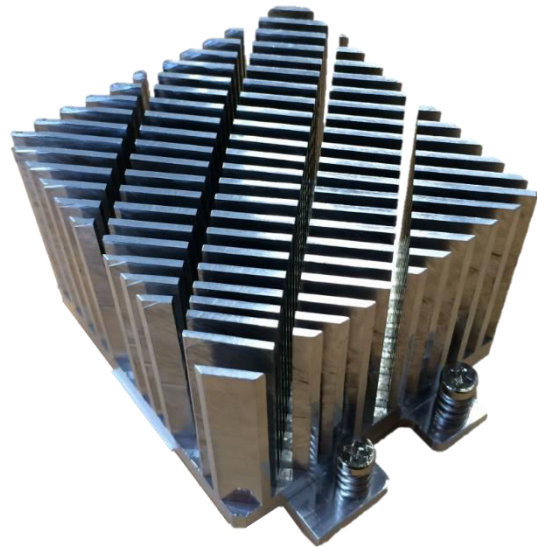
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution for Fujitsu D3xx3S

Socket S1
Aluminum
Screw & Spring
FBD5712B12W9-81-3RC1 / Two Ball Bearing
5.500 RPM / 3.9 CFM / 36 dB-A
4-Pin
75L x 57W x 29.3H (mm) / 110g
Rth = *tba*
Yes

T2SP-ASS1-0000D

HSM Part# 103438 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution for Fujitsu MB D3003S

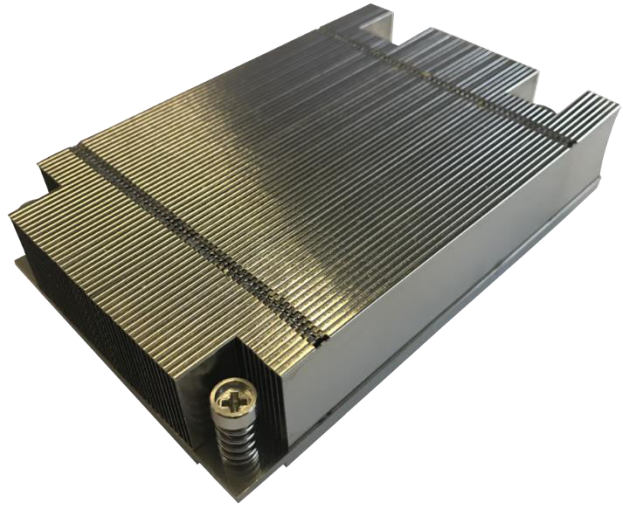
Socket S1
Aluminum
Screw & Spring, Backplate included
74.5L x 56W x 46H (mm) / 198g
Rth = *tba*
Yes



Cooling Solutions for AMD Socket SP3

S1NP-HSA5-0000Z

HSM Part# 104502 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket SP3
Aluminum with vapor chamber
Screw & Spring
119.3L x 78.9W x 25H (mm) / 326g
Rth = *tba*
Yes

JYCOP13ATPTC

HSM Part# 104929 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket SP3
Aluminum with vapor chamber
Screw & Spring
119.3L x 78.9W x 25H (mm) / 326g
Rth = *tba*
Yes



Cooling Solutions for AMD Socket Ryzen

S2NP-FSA7-0000Z-2

HSM Part# 104863 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U passive solution designed to handle 95W

Socket AMD Ryzen
Aluminum with copper base and 3 heatpipes
Screw & Spring (symmetrical screw position 90x54mm)
104L x 78W x 60H (mm) / 450g
Rth = *tba*
Yes

S2NA-FSA7-E126Z-1

HSM Part# 104820 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

2U active solution designed to handle 65W – 120W

Socket AMD Ryzen
Aluminum with copper base and 2 heatpipes
Screw & Spring
Everflow Fan / Two Ball Bearing
750-6.800 RPM / max. 38 CFM / max. 46 dB-A
PWM
100L x 75W x 72H (mm) / 430g
Rth = 0.221°C/W
Yes



BGA Cooling Solutions

E1NP-ASPBX-0000F

HSM Part# 103362 [↑back to content list](#)



Application

Specification

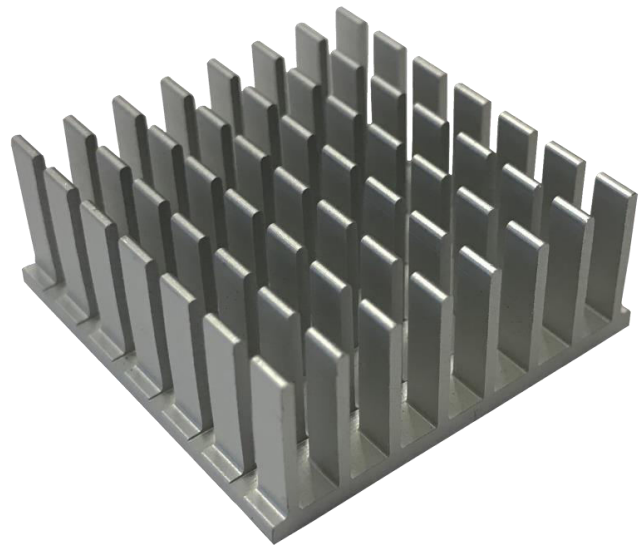
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

BGA Chip Sink
Aluminum, surface black anodized
with Push Pin or Screw & Spring (with thermal grease)
65L x 58W x 11H (mm) / 49g
Rth = *tba*
Yes

E1SP-AWBX-0000D

HSM Part# 100732 [↑back to content list](#)



Application

Specification

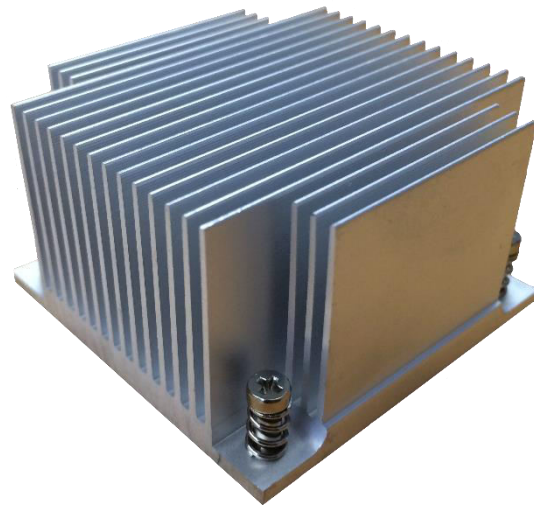
Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

BGA Chip Sink
Aluminum
TIM double side adhesive 3M 9448B
30.5L x 30.5W x 12.3H (mm) / 8g
Rth = *tba*
Yes

E1NP-ASBI1-0000G

HSM Part# 102364 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket uFCBGA479
Aluminum
Screw & Spring
50L x 50W x 30H (mm) / 98g
Rth = *tba*
Yes

E1NP-ASBI1-0000F

HSM Part# 103278 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U passive solution

Socket uFCBGA479
Aluminum
Screw & Spring
49L x 50W x 36H (mm) / 98g (hole distance 41x41mm)
Rth = *tba*
Yes



Heat Pipe

Heatpipe Adapter & Heatpipe Sets

We can look back on more than 16 years experience in customized Heatpipe solutions. We can supply you everything from the Heatpipe to the adapter through to ready for assembling sets.

We have Heatpipes with different diameters and lengths. The bends are made according to the specific requirements of our customers.

HPAN-819AL_fp Omega Adapter

HSM #103685 [↑back to content list](#)

Aluminum Block for 1x 8mm Heatpipe
Dimensions: 90x30x10.65mm
RoHS II & REACH compliant

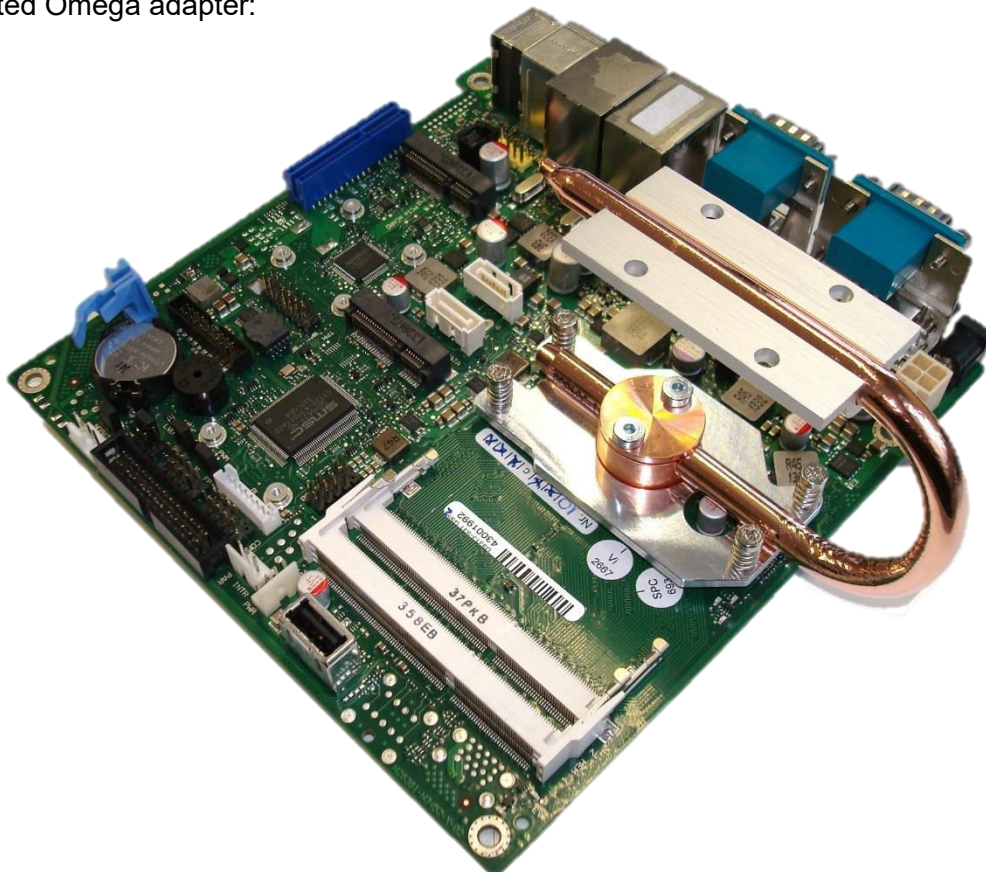
European Patent Number 15180418.4

Compared to previous adapters our Omega Adapter will no longer cause damage to the Heatpipe while mounting. Also the thermal property could be improved.

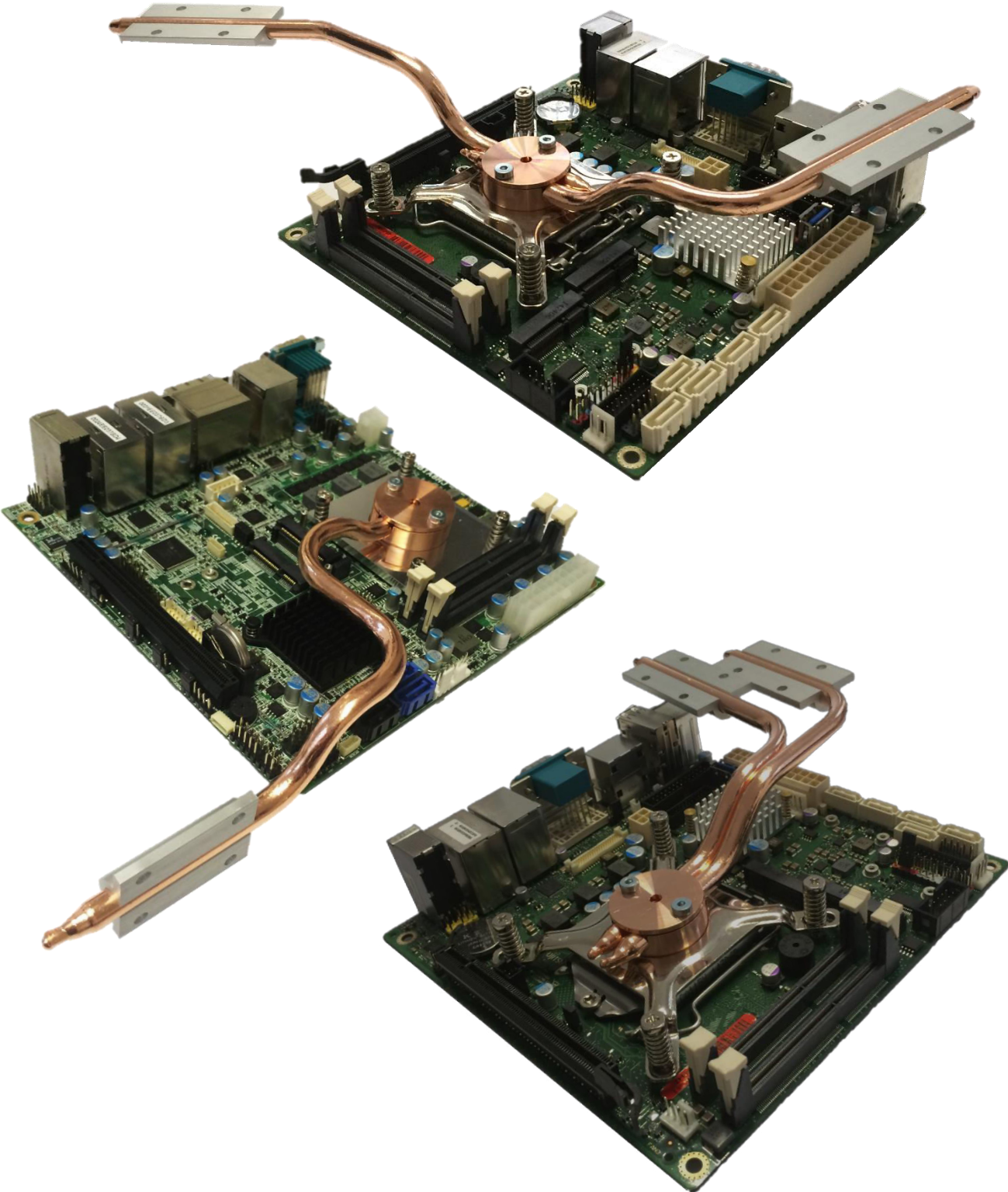
Other positive side effects are less material needed and thus reduced weight.



On the following picture you can see a Heatpipe solution for the Fujitsu MB D3313S with our patented Omega adapter:



Here you can find some samples of our Heatpipe Kit Solutions:

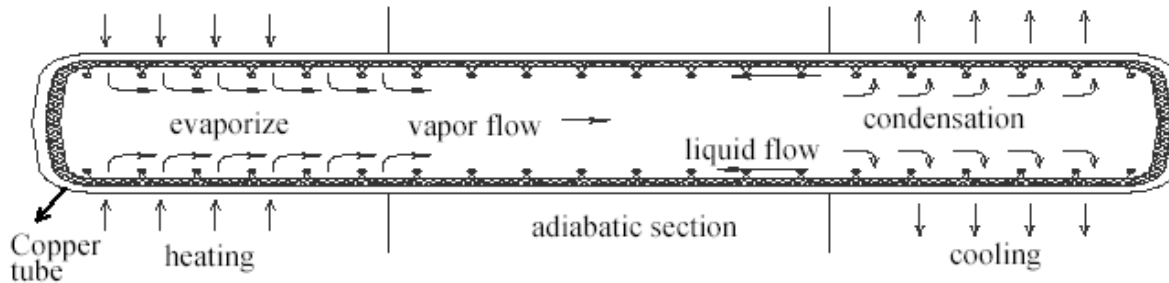


If you are looking for a suitable solution for your system, please don't hesitate to contact us.

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Introduction Heatpipe [↑back to content list](#)

Heat Pipe is a two-phase heat transfer device with an extremely high thermal conductivity. They are evacuated vessels which are filled with a small quantity of a working fluid. They are totally passive and are used to transfer heat from a heat source to a heatsink with minimal temperature gradients by enthalpy difference between phase change (ie. latent heat) of working fluid.



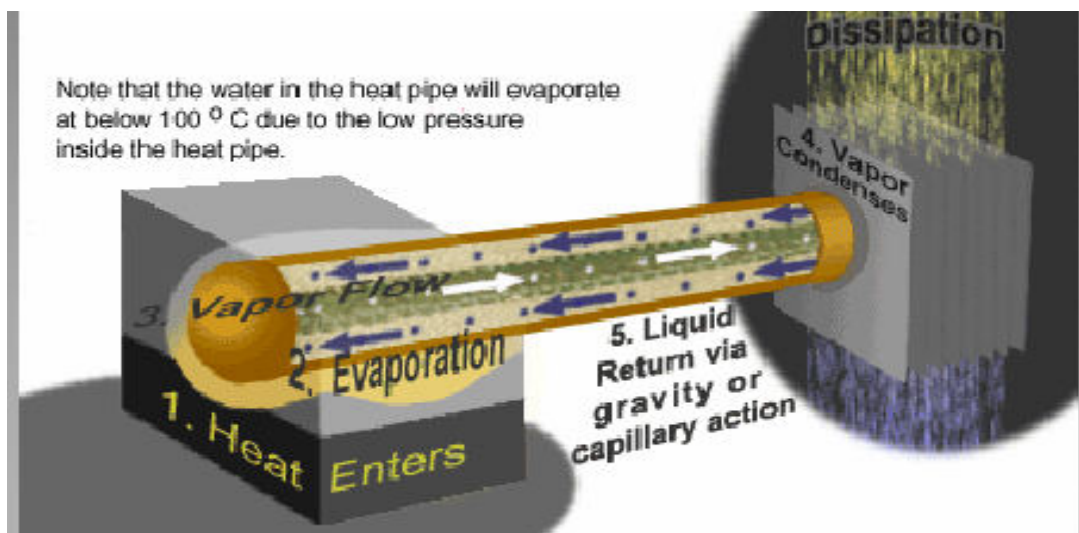
Configuration of Heat Pipe

Basic Element of the Heat Pipe

- Container (closed and vacuum)
- Working fluid
- Wick (capillary construction)

Operating Principle

- Evaporating Section
- Vapor Flowing
- Condensing Section
- Liquid Sucked
- Heat transfer power is: Where Q = Heat transfer power ($W = J/sec$)
 \dot{m} = Mass Flow (kg/s)
 L = Latent Heat (J/kg)



Wick Structure

Capillary force comes from Wick structure

- Capillary force let working fluid suck from condensing to evaporating section



Comparison between 4 types of Wicks

Wicking Material	Conductivity (Straight)	Overcome Gravity	Thermal Resistance	Stability	Conductivity Lost (bended and flatten)
Axial Groove	Good	Poor	Low	Good	Low
Screen Mesh	Average	Average	Average	Average	Average
Fine Fiber	Poor	Good	High	Poor	Average
Sintering	Average	Excellent	High	Average	High

Reliability Test

Accelerated Life Test

- Heat pipes are heated at 180°C for 36hrs in a thermal oven

Uniformity of Temperature Test

- After accelerated life test, Criteria: $\Delta T \leq 2^\circ\text{C}$

Q_{max} Test

- Find out max. thermal power transfer, Criteria: Match design spec

Fail Temp. Test

- Ensure heat pipe strength is strong enough, Criteria: $T_{\text{fail}} \geq 300^\circ\text{C}$

Thermal Cycle Test

- Judge endurance and fatigue life of Heat pipes by exposing heat pipes in periodic thermal cycles

Leaking Test

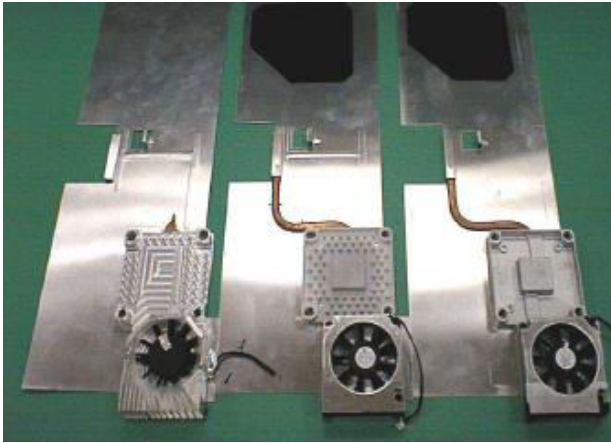
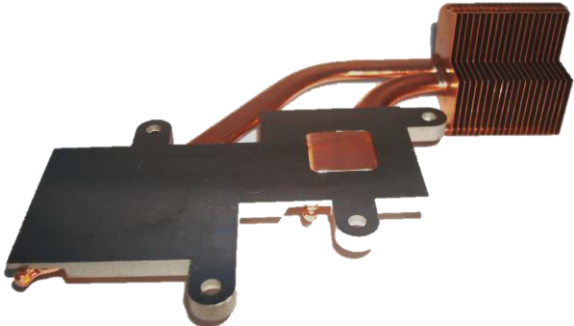
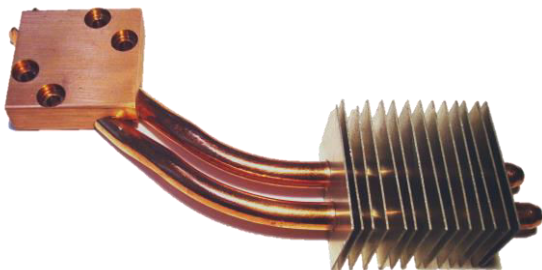
- Test leakage and stability of heat pipes by treating heat pipes under high temperature

Typical Modification of Heat Pipe

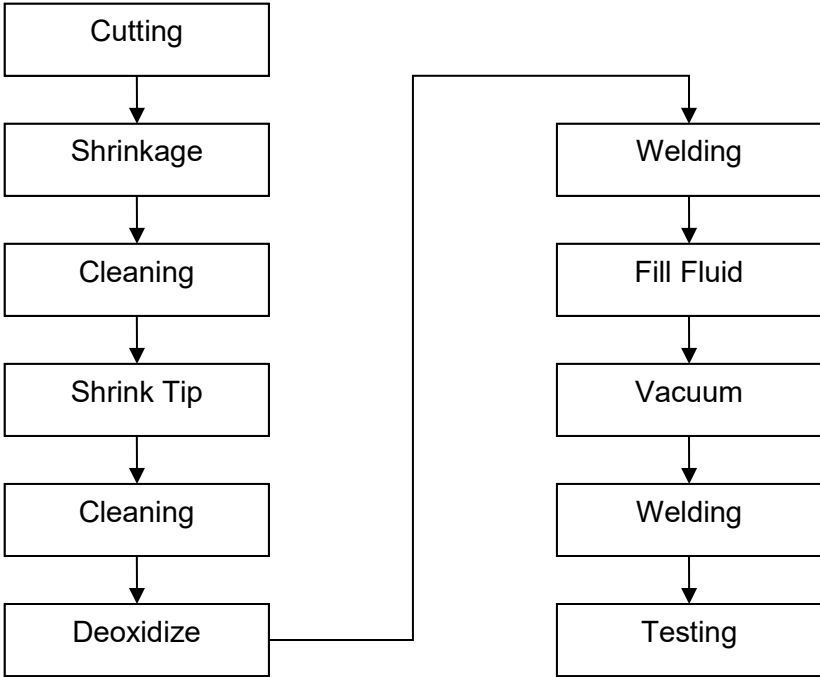
- Flatten
- Bending
- Leveling
- Hybrid



Applications of Heat Pipe

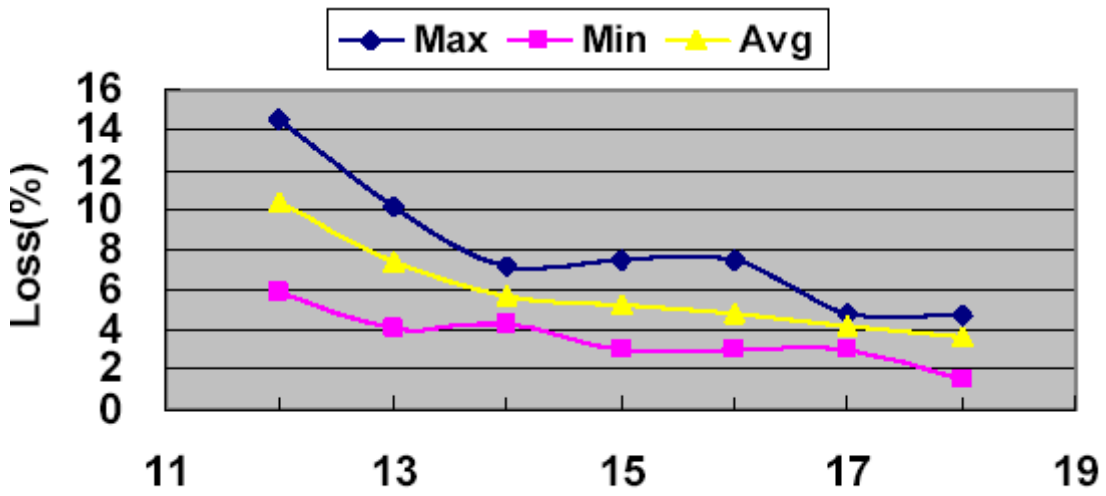


Heat Pipe Process Flow Chart



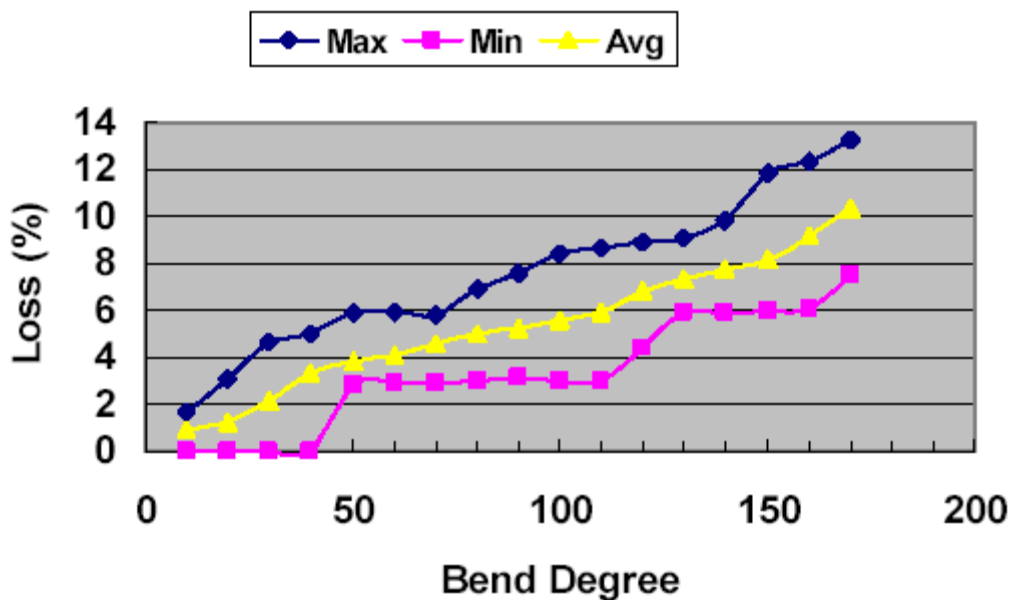
Heat Pipe Performance and Curved Radius

Performance Loss vs. Curved Radius for 90° bend Heat Pipes



Heat Pipe Performance vs. Bend Degree

Performance Loss vs. Bend Degree for 18mm Curved Radius Heat Pipes



Heat Pipe Specification 5mm

Heat Pipe Specification		
ITEM		SPECIFICATION
Shape	Round	$\phi 5 \pm 0.05\text{mm}$
	Flat	t: 2.5 ~ t: 4.5 $\pm 0.05\text{mm}$
Wall Thickness		0.30 $\pm 0.02\text{mm}$
Length		80~350 $\pm 1\text{mm}$
Material of Container		OFHC
Working Fluid		Pure H ₂ O
Wick Structure		Groove
Fail Temperature (No Cooling)	Round	320°C Leakage
	Flat	140°C Inflation
Qmax		25 W
Copper-Water Heat Pipe Thermal Resistance Θ		Max. 0.3°C/W
Inclination		Any Direction
Flexibility		Curvature $R_c \geq 12\text{mm}$
Guaranty		3 Years
Ps. Qmax and Θ are tested in level condition. Evaporator and condenser are 50mm and 37mm in length, respectively. Condenser section is cooling by water cycling.		

Heat Pipe Specification		
ITEM		SPECIFICATION
Shape	Round	$\phi 5 \pm 0.05\text{mm}$
	Flat	t: 2.5 ~ t: 4.5 $\pm 0.05\text{mm}$
Wall Thickness		0.30 $\pm 0.02\text{mm}$
Length		80~350 $\pm 1\text{mm}$
Material of Container		OFHC
Working Fluid		Pure H ₂ O
Wick Structure		Sintered Powder
Fail Temperature (No Cooling)	Round	320°C Leakage
	Flat	140°C Inflation
Qmax		35 W
Copper-Water Heat Pipe Thermal Resistance Θ		Max. 0.3°C/W
Inclination		Any Direction
Flexibility		Curvature $R_c \geq 12\text{mm}$
Guaranty		3 Years
Ps. Qmax and Θ are tested in level condition. Evaporator and condenser are 50mm and 37mm in length, respectively. Condenser section is cooling by water cycling.		

Heat Pipe Specification 6mm

Heat Pipe Specification		
ITEM		SPECIFICATION
Shape	Round	$\phi 6 \pm 0.05\text{mm}$
	Flat	t: 2.5 ~ t: 5.5 $\pm 0.05\text{mm}$
Wall Thickness		0.30 $\pm 0.02\text{mm}$
Length		80~350 $\pm 1\text{mm}$
Material of Container		OFHC
Working Fluid		Pure H ₂ O
Wick Structure		Groove
Fail Temperature (No Cooling)	Round	320°C Leakage
	Flat	140°C Inflation
Qmax		35 W
Copper-Water Heat Pipe Thermal Resistance Θ		Max. 0.3°C/W
Inclination		Any Direction
Flexibility		Curvature $R_c \geq 12\text{mm}$
Guaranty		3 Years
Ps. Qmax and Θ are tested in level condition. Evaporator and condenser are 50mm and 37mm in length, respectively. Condenser section is cooling by water cycling.		

Heat Pipe Specification		
ITEM		SPECIFICATION
Shape	Round	$\phi 6 \pm 0.05\text{mm}$
	Flat	t: 2.5 ~ t: 5.5 $\pm 0.05\text{mm}$
Wall Thickness		0.30 $\pm 0.02\text{mm}$
Length		80~350 $\pm 1\text{mm}$
Material of Container		OFHC
Working Fluid		Pure H ₂ O
Wick Structure		Sintered Powder
Fail Temperature (No Cooling)	Round	320°C Leakage
	Flat	140°C Inflation
Qmax		35 W
Copper-Water Heat Pipe Thermal Resistance Θ		Max. 0.3°C/W
Inclination		Any Direction
Flexibility		Curvature $R_c \geq 12\text{mm}$
Guaranty		3 Years
Ps. Qmax and Θ are tested in level condition. Evaporator and condenser are 50mm and 37mm in length, respectively. Condenser section is cooling by water cycling.		

Heat Pipe Specification 8mm

Heat Pipe Specification		
ITEM		SPECIFICATION
Shape	Round	$\varnothing 8 \pm 0.05\text{mm}$
	Flat	t: 2.2 ~ t: $7.5 \pm 0.05\text{mm}$
Wall Thickness		$0.40 \pm 0.02\text{mm}$
Length		$80\sim 350 \pm 1\text{mm}$
Material of Container		OFHC
Working Fluid		Pure H ₂ O
Wick Structure		Groove
Fail Temperature (No Cooling)	Round	320°C Leakage
	Flat	140°C Inflation
Qmax		55 W
Copper-Water Heat Pipe Thermal Resistance Θ		Max. 0.3°C/W
Inclination		Any Direction
Flexibility		Curvature $R_c \geq 25\text{mm}$
Guaranty		3 Years
Ps. Qmax and Θ are tested in level condition. Evaporator and condenser are 40mm and 30mm in length, respectively. Condenser section is cooling by water cycling.		

Heat Pipe Specification		
ITEM		SPECIFICATION
Shape	Round	$\varnothing 8 \pm 0.05\text{mm}$
	Flat	t: 2.8 ~ t: $7.5 \pm 0.05\text{mm}$
Wall Thickness		$0.40 \pm 0.02\text{mm}$
Length		$80\sim 350 \pm 1\text{mm}$
Material of Container		OFHC
Working Fluid		Pure H ₂ O
Wick Structure		Sintered Powder
Fail Temperature (No Cooling)	Round	320°C Leakage
	Flat	140°C Inflation
Qmax		55 W
Copper-Water Heat Pipe Thermal Resistance Θ		Max. 0.3°C/W
Inclination		Any Direction
Flexibility		Curvature $R_c \geq 25\text{mm}$
Guaranty		3 Years
Ps. Qmax and Θ are tested in level condition. Evaporator and condenser are 40mm and 30mm in length, respectively. Condenser section is cooling by water cycling.		

[↑back to content list](#)



Customized Solutions

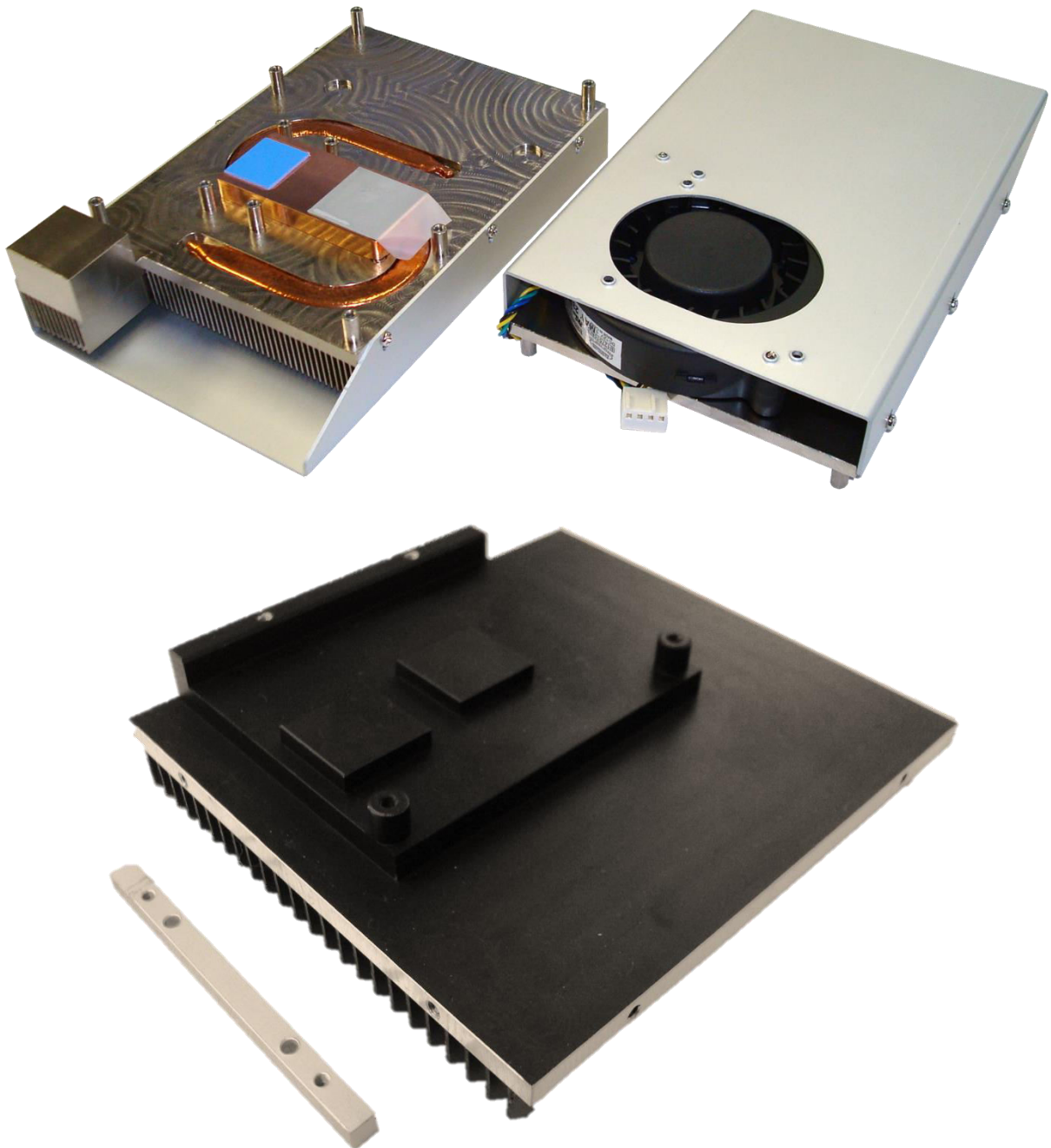
The HSM develop custom cooling solutions according to the requirements of the customer application. For such projects, we work closely with the motherboard manufacturer and Intel UK Swindon to get the needed technical details and 3D CAD files.

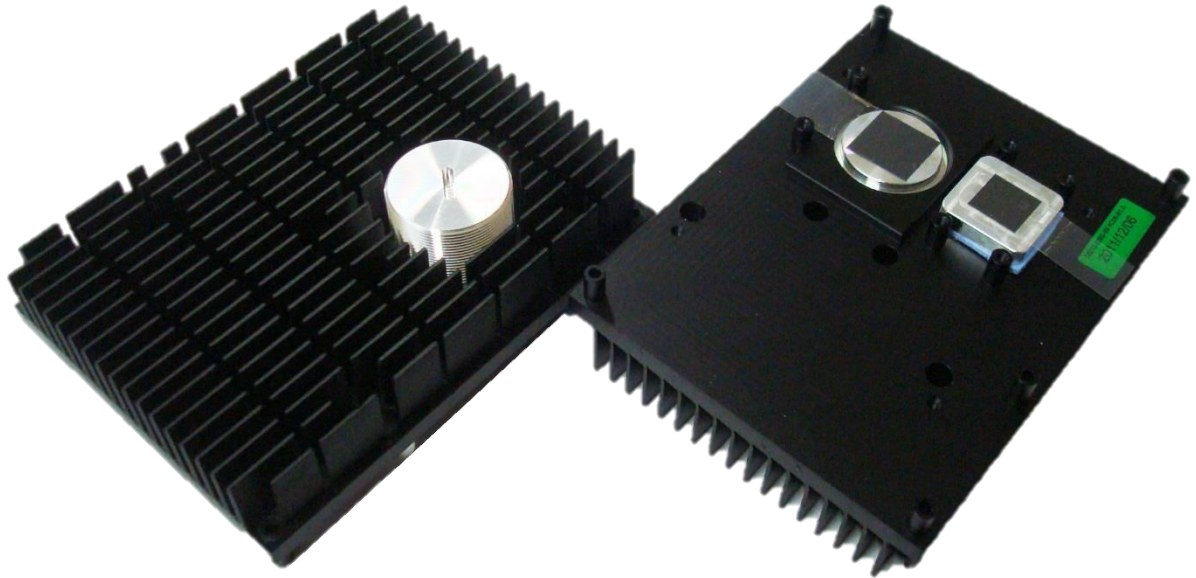
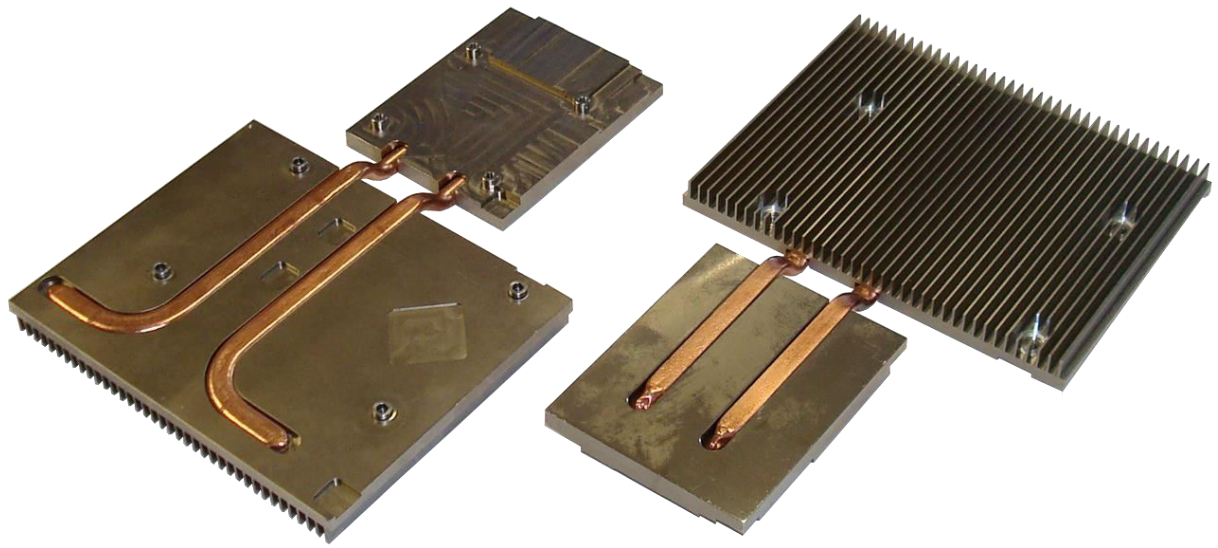
These are compact and high reliable systems for:

- ✓ Medical applications,
- ✓ Automotive data logger applications,
- ✓ Rugged embedded applications,
- ✓ Industrial control applications,
- ✓ Marine applications,
- ✓ Advertising and Kiosk applications.

Here some samples for special designed and customized solutions:

[↑back to content list](#)







Mounting Accessories

Backplate LGA115x

HSM Part# 104181 [↑back to content list](#)

with 1mm Stand-Off, cutted
designed for Fujitsu MB D343X



Backplate LGA115x

HSM Part# 104141 [↑back to content list](#)

with 2.42 Stand-Off
modified thread (8mm instead of 6.3mm)



Backplate LGA115x

HSM Part# 103701 [↑back to content list](#)

with 1.8mm Stand-Off
designed for Fujitsu MB D3243S



Backplate LGA115x

HSM Part# 103619 [↑back to content list](#)

modified according Kontron requirements



Backplate LGA115x

HSM Part# 103062 [↑back to content list](#)

special cutted version without Stand-off



Backplate LGA115x

HSM Part# 102704 [↑back to content list](#)

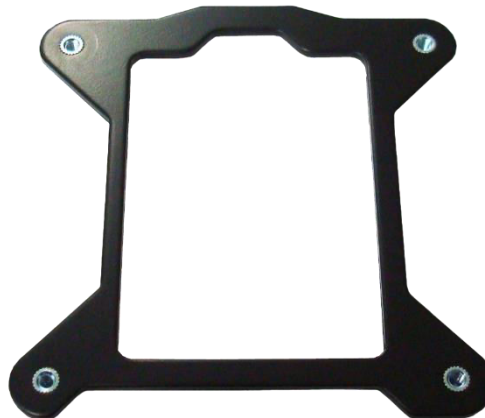
with 2.42mm Stand-Off
designed according to Intel DH67CF



Backplate LGA115x

HSM Part# 102608 [↑back to content list](#)

with 2.42mm Stand-Off
designed according to Intel DH67CF



Backplate LGA115x

HSM Part# 102547 [↑back to content list](#)

with 2.35mm Stand-Off



Backplate LGA115x

HSM Part# 102330 [↑back to content list](#)

Standard Version



Backplate LGA115x

HSM Part# 104549 [↑back to content list](#)

with 2.1mm Stand-Off



Backplate LGA1700

HSM Part# 104994 [↑back to content list](#)

with 2.4mm Stand-Off and 1.6mm tubes



Backplate AMD

Ryzen AM4

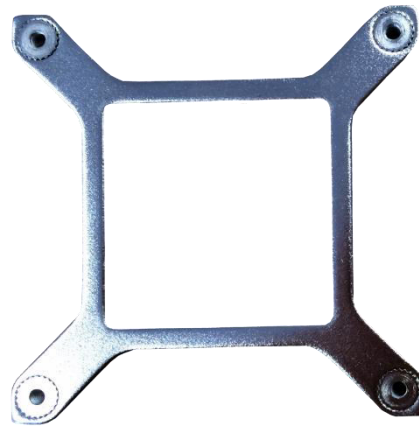
HSM Part# 104901 [↑back to content list](#)



Backplate G1/G2

HSM Part# 104053 [↑back to content list](#)

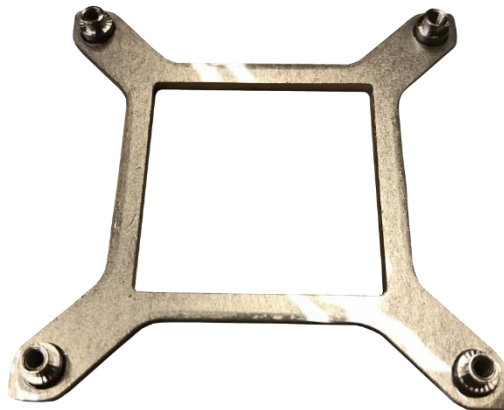
with 1.7mm Stand-Off & 6.1mm tube length
designed to meet PGA socket
requirements with BGA heatsink



Backplate G1/G2

HSM Part# 103971 [↑back to content list](#)

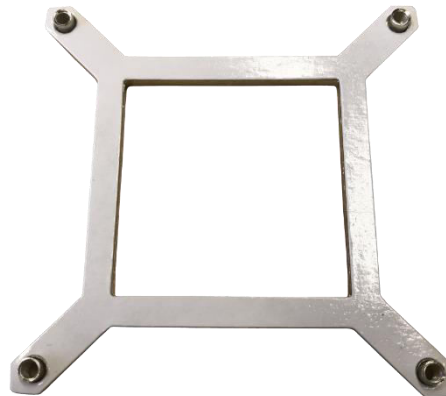
with 1.7mm Stand-Off
BGA



Backplate G1/G2

HSM Part# 103752 [↑back to content list](#)

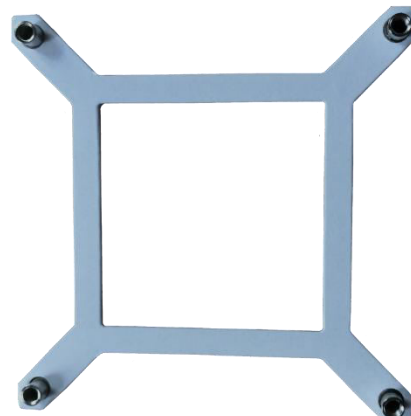
designed to fit on 1.6mm PCB



Backplate G1/G2

HSM Part# 102435 [↑back to content list](#)

tube length 3.0mm



Backplate S1

HSM Part# 102379 [↑back to content list](#)

with metric M2.5 thread
BGA



Backplate LGA775

HSM Part# 102213 [↑back to content list](#)

with 2.4mm Stand-Off & metric M3 thread



Backplate LGA775

HSM Part# 101948 [↑back to content list](#)

with metric M3 thread



Backplate 479

HSM Part# 104113 [↑back to content list](#)

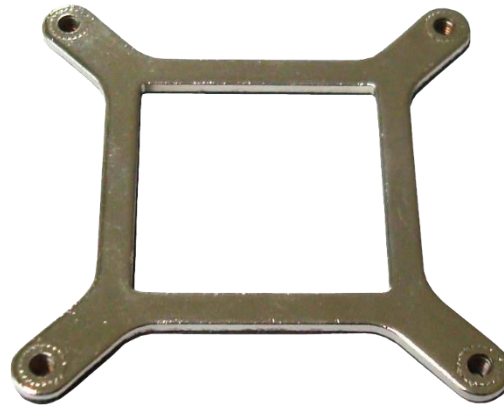
screw tube length 2.4mm
double side adhesive



Backplate 479

HSM Part# 102925 [↑back to content list](#)

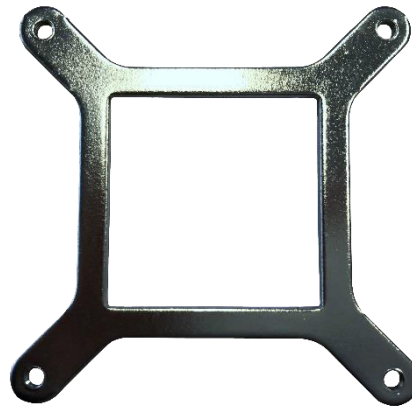
with 1.6mm Stand-Off



Backplate 479

HSM Part# 103375 [↑back to content list](#)

for AOpen
50x50mm hole pitch





Cooling Solutions for obsolete Sockets

479 & LGA775

T1NA-BSI5-E125D

HSM Part# 100751 [↑back to content list](#)



Application

Specification

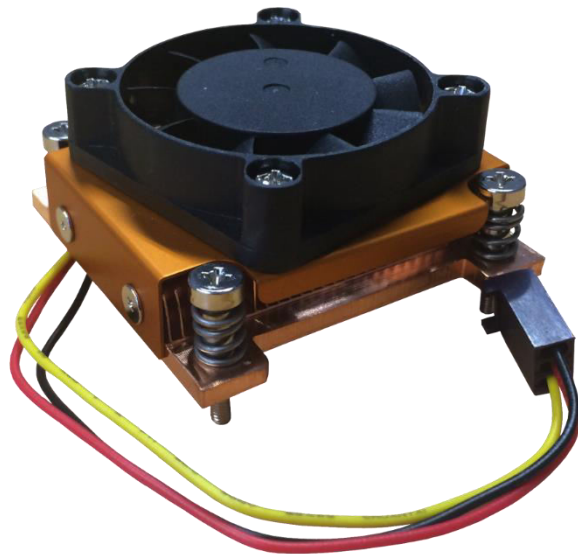
Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution

Socket LGA775
Copper
Screw & Spring, Backplate included
B127515BU / Two Ball Bearing
1.000-5.500 RPM / 1.93-11.83 CFM / 18-51 dB-A
PWM
80L x 80W x 28H (mm) / 357g
Rth = 0.481°C/W
Yes

T1NA-BSPI1-E116D

HSM Part# 102013 [↑back to content list](#)



Application

Specification

Socket type
Heat Sink Material
Fastener
Fan Part Number / Bearing
Fan Speed / Air Flow / Noise Level
PWM / Smart Fan / Standard
Dimensions overall / Weight
Thermal Resistance
RoHS compliant

1U active solution with golden fan cover

Socket 479
Copper
Screw & Spring, Backplate included
R124010BM (15° twisted fan) / Two Ball Bearing
6.000 RPM / 4.64 CFM / 26.5 dB-A
3-Pin
50L x 50W x 22.5H (mm) / 123g
Rth = 1.058°C/W
Yes



Certified according to
DIN EN ISO 9001:2015



CPU Heat Sink Catalogue

Revision 22

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