Connect Tech Inc.
Embedded Computing Experts

USERS GUIDE

ThermiQ^{TM}

Edge AI Cooling Solutions by Connect Tech

CTIM-00163 Revision 0.02 2026-04-17

NVIDIA Elite Partner

CONNECT TECH
connecttech.com
sales@connecttech.com

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PREFACE

Disclaimer

The information contained within this user’s guide, including but not limited to any product specification, is subject to change without notice.

Connect Tech assumes no liability for any damages incurred directly or indirectly from any technical or typographical errors or omissions contained herein or for discrepancies between the product and the user’s guide.

Customer Support Overview

If you experience difficulties after reading the manual and/or using the product, contact the Connect Tech reseller from which you purchased the product. In most cases the reseller can help you with product installation and difficulties.

In the event that the reseller is unable to resolve your problem, our highly qualified support staff can assist you. Support resources are available 24 hours a day, 7 days a week on our website at: https://connecttech.com/support/resource-center/. See the contact information section below for more information on how to contact us directly. Our technical support is always free.

Contact Information

Contact Information	
Mail/Courier	Connect Tech Inc. Technical Support 489 Clair Rd. W. Guelph, Ontario Canada N1L 0H7
Contact Information	sales@connecttech.com connecttech.com Toll Free: 800-426-8979 (North America only) Telephone: +1-519-836-1291 Facsimile: 519-836-4878 (on-line 24 hours)
Support	Please go to the Connect Tech Resource Center for product manuals, installation guides, device drivers, BSPs and technical tips. Submit your technical support questions to our support engineers. Technical Support representatives are available Monday through Friday, from 8:30 a.m. to 5:00 p.m. Eastern Standard Time.

Copyright Notice

Trademark Acknowledgment

ESD Warning

Electronic components and circuits are sensitive to ElectroStatic Discharge (ESD). When handling any circuit board assemblies including Connect Tech carrier assemblies, it is recommended that ESD safety precautions be observed. ESD safe best practices include, but are not limited to:

- Leaving circuit boards in their antistatic packaging until they are ready to be installed.
- Using a grounded wrist strap when handling circuit boards, at a minimum you should touch a grounded metal object to dissipate any static charge that may be present on you.
- Only handling circuit boards in ESD safe areas, which may include ESD floor and table mats, wrist strap stations and ESD safe lab coats.
- Avoiding handling circuit boards in carpeted areas.
- Try to handle the board by the edges, avoiding contact with components.

REVISION HISTORY

Revision	Date	Changes
0.00	2026-03-02	Initial Release
0.01	2026-03-24	Added Jetson liquid cooling block, updated thermal testing results
0.02	2026-04-17	Added XHG332 and XHG333 3D Model Download

INTRODUCTION

Connect Tech Inc. offers a comprehensive range of cooling solutions designed specifically for the NVIDIA® Jetson™ product family. Our portfolio spans four distinct cooling approaches: active, passive, conduction, and liquid cooling. This ensures that engineers and system integrators can find the right cooling solution for any deployment environment, whether it demands high-performance forced-air cooling, fanless silent operation, ruggedized conduction cooling, or efficient liquid-based heat dissipation.

Product Solutions

Products		
Series	**Mechanical Size**	**Power**
Jetson Thor™ T5000	100mm x 87mm	70W - 90W - 120W - 130W
Jetson AGX Orin™	100mm x 87mm	15W - 40W - 60W - 75W
Jetson Orin™ NX	69.6mm x 45mm	10W - 15W - 25W - 40W
Jetson Orin™ Nano	69.6mm x 45mm	7W - 15W - 25W
Jetson AGX Xavier™	100mm x 87mm	10W - 20W - 30W - 40W
Jetson Xavier™ NX	69.6mm x 45mm	10W - 20W
Jetson™ TX2	87mm x 50mm	7.5W - 15W
Jetson™ TX2i	87mm x 50mm	10W - 20W
Jetson™ TX2 NX	69.6mm x 45mm	7W - 15W
Jetson Nano™	69.6mm x 45mm	5W - 10W

PRODUCT OVERVIEW

Part Number	Description	Jetson™ Module	TDP	Max Ambient Temperature	Fin Orientation
XHG333	Jetson Thor™ T5000 Passive Heatsink	Jetson Thor™ T5000	130W	55C*	Short-Axis
XHG332	Jetson Thor™ T5000 Active Cooling	Jetson Thor™ T5000	130W	60C	Stacked
XHG307	Jetson Thor™ Liquid Cooling Block	Jetson Thor™ T5000	TBD	N/A**	N/A
XHG319	Jetson AGX Orin™ Active Heatsink	Jetson Thor™ T5000	70W	30C	Short-Axis
XHG327	Jetson AGX Orin™ Passive Heatsink Rotated Fins	Jetson AGX Orin™	75W	60C*	Long-Axis
XHG320	Jetson AGX Orin™ Passive Heatsink	Jetson AGX Orin™	75W	60C*	Short-Axis
XHG319	Jetson AGX Orin™ Active Heatsink	Jetson AGX Orin™	75W	60C	Short-Axis
XHG330	Jetson Orin™ NX Active Extended	Jetson Orin™ NX [Super]	40W	41C	Long-Axis
XHG331	Jetson Orin™ NX Passive Extended	Jetson Orin™ NX [Super]	40W	29C*	Long-Axis
XHG326	Jetson Orin™ NX Passive	Jetson Orin™ NX	25W	-	Short-Axis
XHG325	Jetson Orin™ NX Active	Jetson Orin™ NX	25W	55C	Long-Axis
XHG324	Jetson Orin™ NX Passive	Jetson Orin™ NX	25W	-	Long-Axis
XHG323	Jetson Orin™ NX TTP	Jetson Orin™ NX	25W	N/A	N/A
XHG325	Jetson Orin™ NX Active	Jetson Orin™ Nano	25W	-	Long-Axis
XHG324	Jetson Orin™ NX Passive	Jetson Orin™ Nano	25W	-	Long-Axis
XHG323	Jetson Orin™ NX TTP	Jetson Orin™ Nano	25W	N/A	N/A
XHG318	Jetson™ TX2 NX Active Heatsink	Jetson™ TX2 NX	15W	-	Long-Axis
XHG317	Jetson™ TX2 NX Passive Heatsink	Jetson™ TX2 NX	15W	-	Long-Axis
XHG316	Jetson™ TX2 NX TTP	Jetson™ TX2 NX	15W	N/A	N/A
XHG314	Jetson Xavier™ NX Active Cooling Solution	Jetson Xavier™ NX	20W	-	Long-Axis
XHG313	Jetson Xavier™ NX TTP	Jetson Xavier™ NX	20W	N/A	N/A

XHG312	Jetson Xavier™ NX Active	Jetson Xavier™ NX	20W	-	Long-Axis
XHG311	Jetson Xavier™ NX Passive	Jetson Xavier™ NX	20W	-	Long-Axis
XHG310	Jetson Nano™ TTP	Jetson Nano™	10W	N/A	N/A
XHG309	Jetson Nano™ Active Thermal	Jetson Nano™	10W	-	Long-Axis
XHG308	Jetson Nano™ Passive Thermal	Jetson Nano™	10W	-	Long-Axis
XHG306	Jetson AGX Xavier™ Active Heat Sink	Jetson AGX Xavier™	40W	-	Long-Axis
XHG305	Jetson AGX Xavier™ Passive Heat Sink	Jetson AGX Xavier™	40W	-	Long-Axis
XHG304	Jetson™ TX2i Active Heat Sink	Jetson™ TX2	15W	-	Long-Axis
XHG303	Jetson™ TX2i Passive Heat Sink	Jetson™ TX2	15W	-	Short-Axis
XHG302	Jetson™ TX1 Active Heat Sink	Jetson™ TX1	10W	-	Long-Axis
XHG301	Jetson™ TX1 Passive Heat Sink	Jetson™ TX1	10W	-	Short-Axis

System dependent: Passive heatsink performance depends on natural convection, which is influenced by airflow, orientation, and enclosure conditions.
**Max Ambient Temperature will depend on air flow*
*** Max Ambient Temperature will depend on factors including pump flow rate, radiator capacity, coolant temperature, loop configuration and ambient temperature*

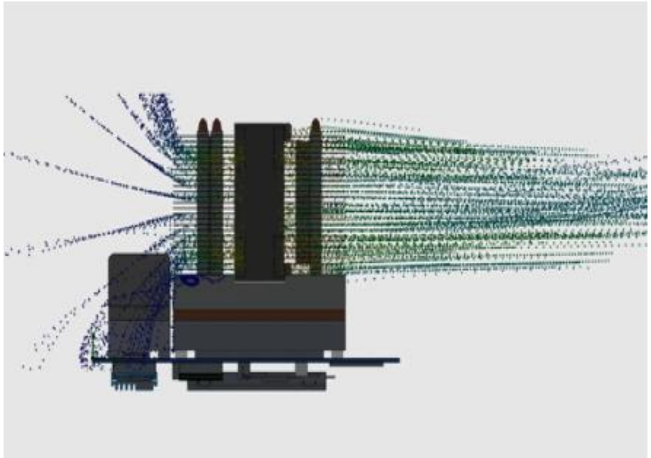
JETSON THOR™ MODULE THERMAL SPECIFICATIONS

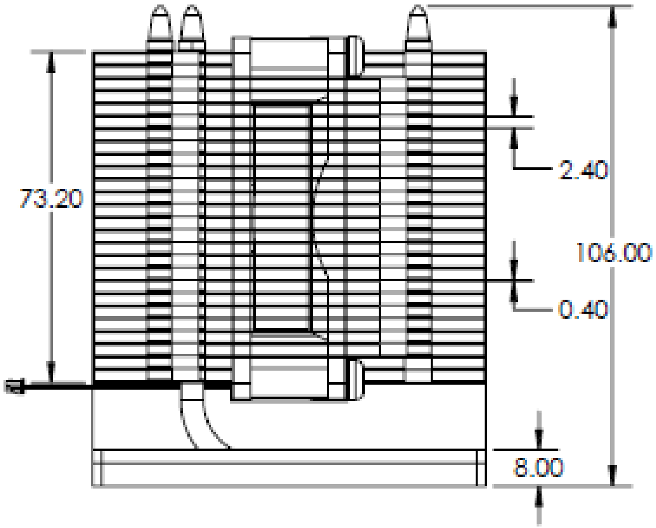
Jetson Thor™ Module Thermal Specifications			
Parameter	*Jetson™ T5000*	*Jetson™ T4000*	*Units*
	MaxN Mode		
Maximum TTP operating temperature	T.TTP = 80.0	T.TTP = 75.0	°C
Recommended Jetson Thor™ SoC operating temperature	T.SoC = 90.0		°C
Jetson Thor™ SoC maximum operating temperature	T.SoC = 115.0		°C
Jetson Thor™ SoC shutdown temperature3	T.SoC = 118.0		°C

XHG332 Jetson Thor™ Active Cooling

Part Number	XHG332
Description	Jetson Thor™ Active Cooling
Jetson Product	Jetson Thor™ series
Module size	100mm x 87mm
Cooling Solution	Active
Length	100mm
Width	87mm
Height	106mm
Material	Copper base plate & heat pipes, Aluminum fins
Finish	Electroless Nickel
Fan Size	80mmx80mm25mm
Fan Speed	3300rpm
Fan Power	+12V
Fan Cable Length	250mm +/- 10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	6.3 W/mK, 0.127mm Thick, Grease
Connecting Fastener Size	M3
Fin Height	73.2mm (Stack Height)
Shipped with	Screw: M3 PPHMS 30mm lg, Qty 4 Washer: M3, Qty 5 Standoff: M3, FF, 28mm lg, Qty 4 Nut: M3 Qty 1
3D Model Link	https://connecttech.com/ftp/3d_models/XHG332_3D_MODEL.zip
Thermal Results	The Jetson Thor™ maintained continuous operation at 130W under ambient temperatures up to 60°C.

The Jetson Thor™ active cooling solution has been designed with stacked fins, integrated heat pipes and a fan to keep the NVIDIA® Jetson Thor™ module operating up to an ambient temperature of 60 °C.

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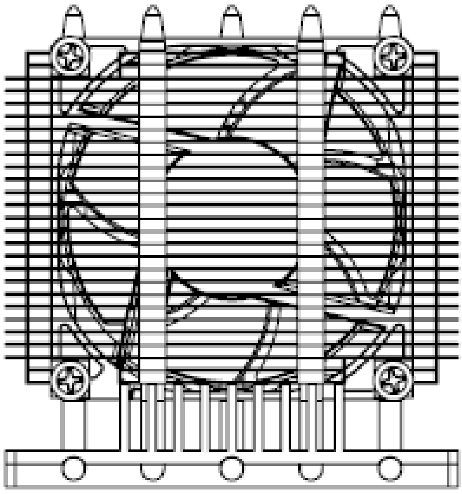

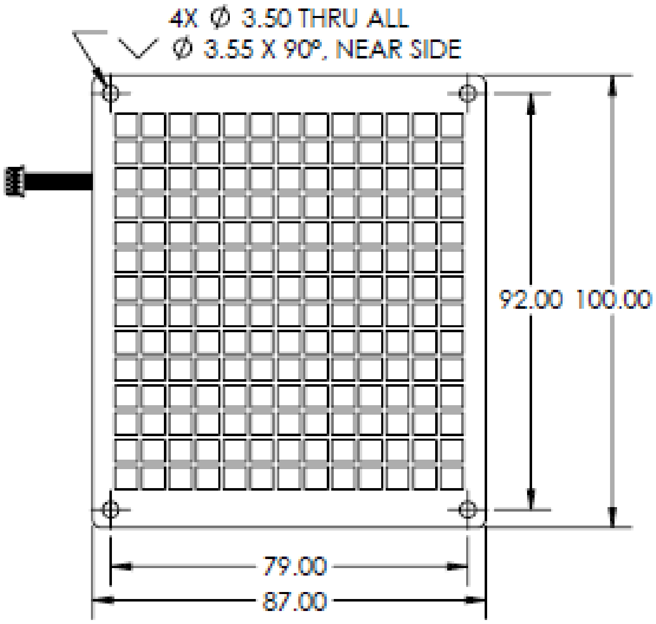
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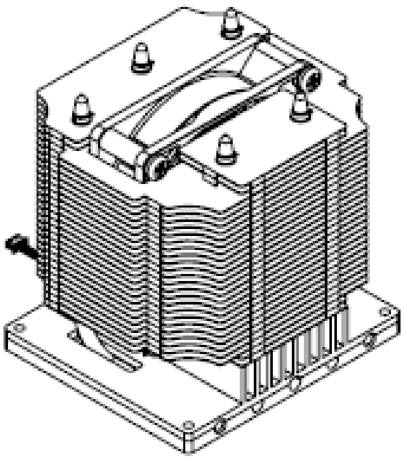
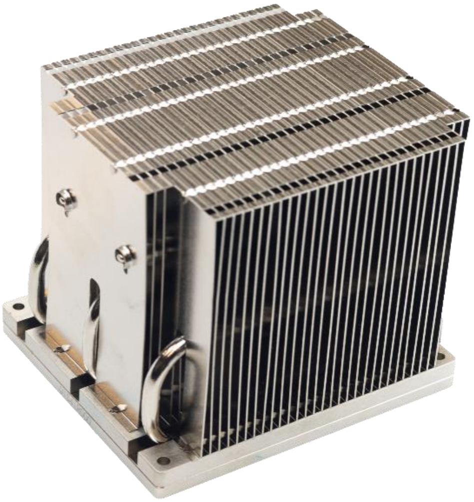
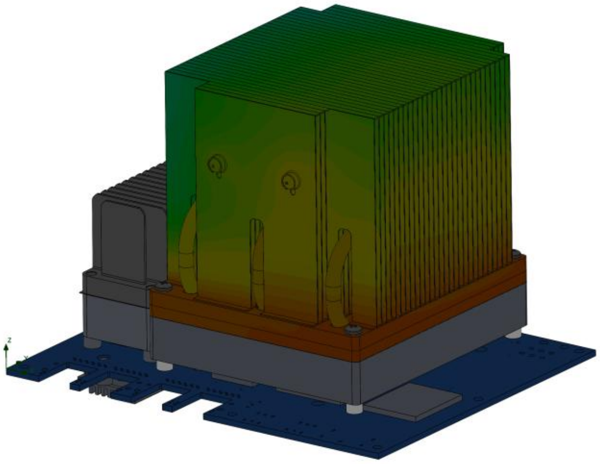


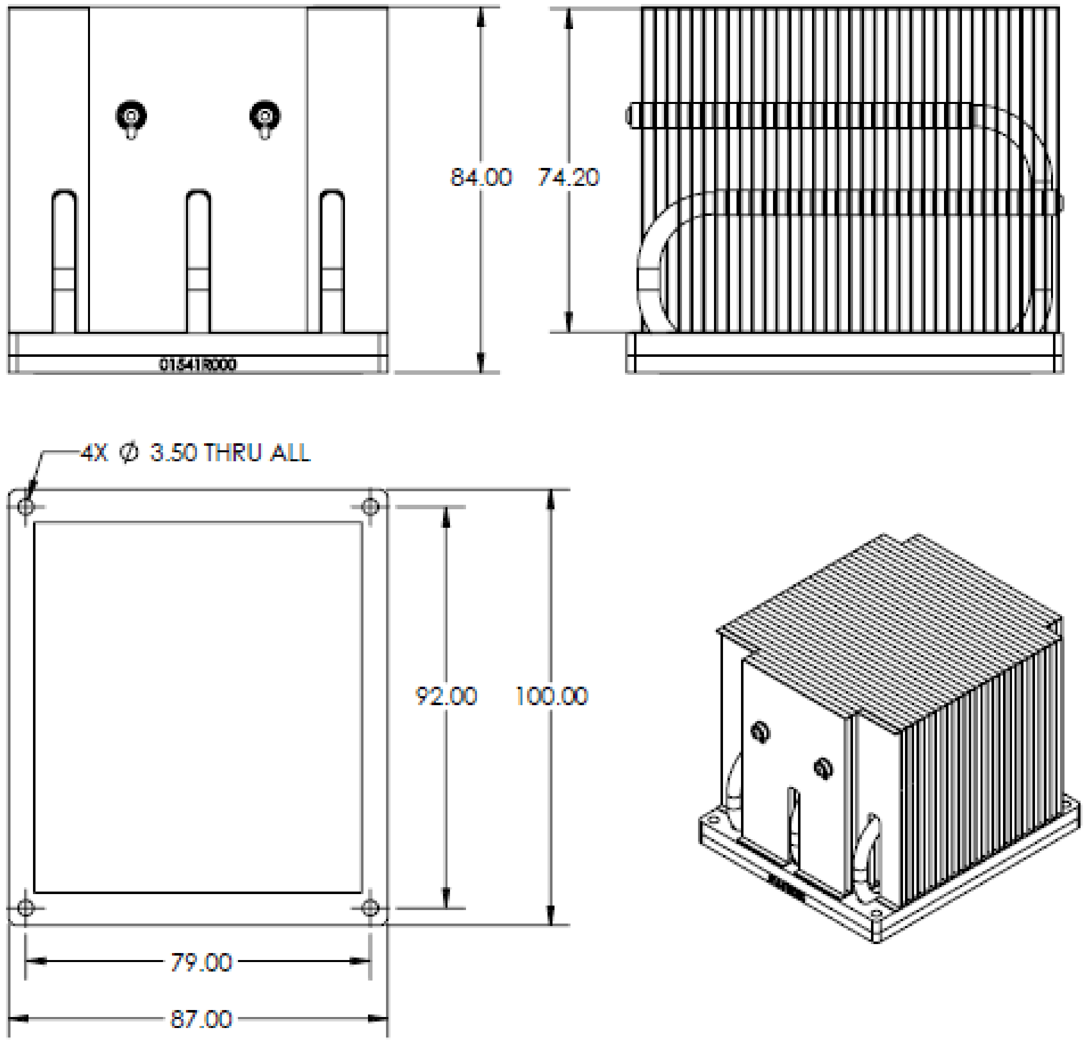
XHG333 Jetson Thor™ Passive Cooling

Part Number	XHG333
Description	Jetson Thor™ Passive Heatsink
Jetson Product	Jetson Thor™ series
Module size	100mm x 87mm
Cooling Solution	Passive
Length	100mm
Width	87mm
Height	84mm
Material	Copper base plate & heat pipes, Aluminum fins
Finish	Electroless Nickel
Thermal Interface Material	6.3 W/mK, 0.127mm Thick, Grease
Connecting Fastener Size	M3
Fin Height	74.2mm
Shipped with	Screw: M3 PPHMS 30mm lg, Qty 4 Washer: M3, Qty 5 Standoff: M3, FF, 28mm lg, Qty 4 Nut: M3 Qty 1
3D Model Link	https://connecttech.com/ftp/3d_models/XHG333_3D_MODEL.zip
Thermal Results	External airflow greater than 5m/s allowed operations of the Jetson Thor™ at 130W up to 55 °C ambient temperature.

The passive cooling solution is designed with vertically oriented fins and integrated heat pipes. This solution requires external airflow. For operation at an ambient temperature of 55 °C, the external air flow would need to be greater than 5m/s.



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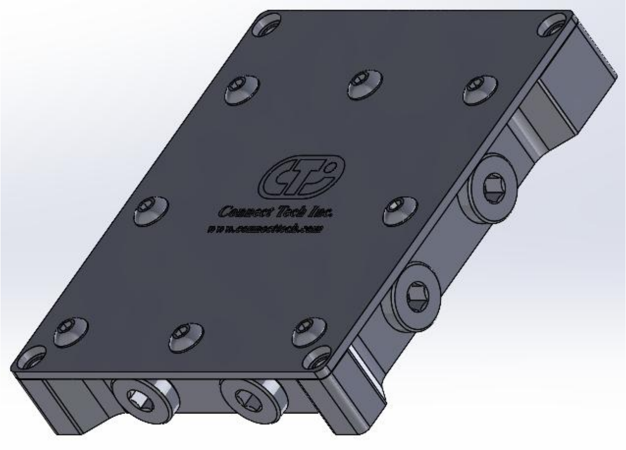
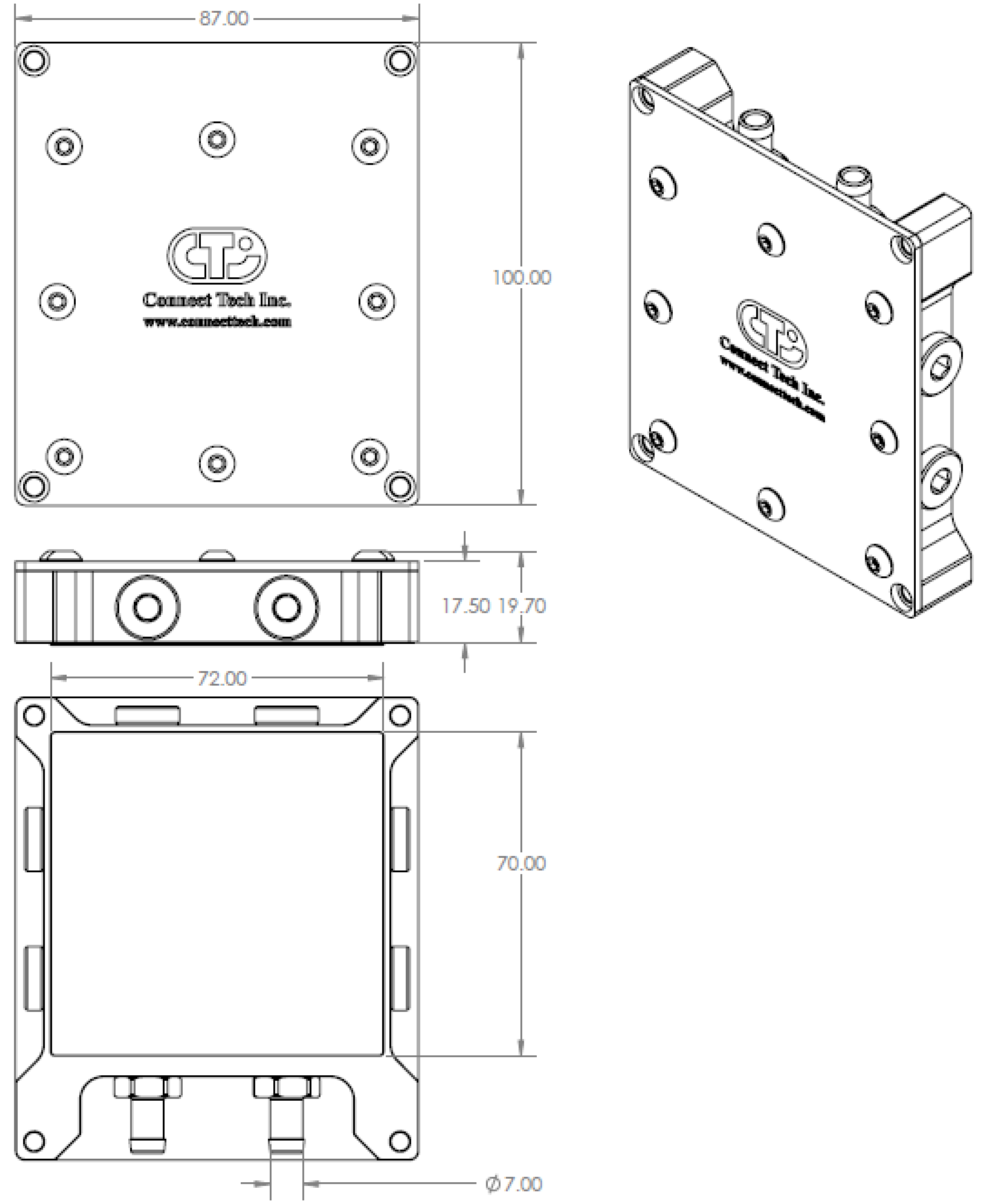
XHG307 Jetson Thor™ Liquid Cooling Block

Part Number	XHG307
Description	Jetson Liquid Cooling Block
Jetson Product	Jetson Thor™ series Jetson AGX Orin™ series Jetson AGX Xavier™ series
Module Size	100mm x 87mm
Cooling Solution	Liquid
Length	100mm
Width	87mm
Height	18mm
Material	-
Finish	-
Thermal Interface Material	8W/mK 0.5mm Thick
Connecting Fastener Size	M3
Fin Height	N/A
Shipped with	Thermal Gap Pad 8W/m-K Standoff: M3 ff 18mm lg, Qty 4 Spacer: M3 FF, 4mm lg, Qty 4 Screw: M3X0.5 PPHMS 45mm lg, Qty 4
Website	https://connecttech.com/product/liquid-cooling-nvidia-jetson-agx-xavier/



The maximum heat dissipation capacity of the Jetson Liquid Cooling Block will depend on factors including pump flow rate, radiator capacity, coolant temperature, loop configuration and ambient temperature.


87.00
Connect Tech Inc.
www.connecttech.com
100.00
17.50
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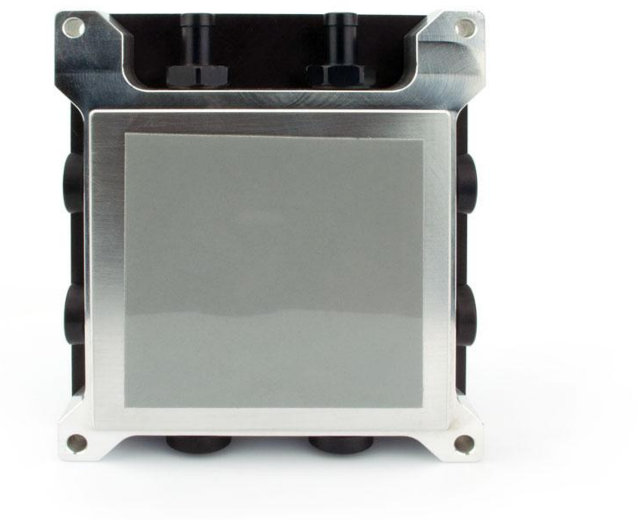
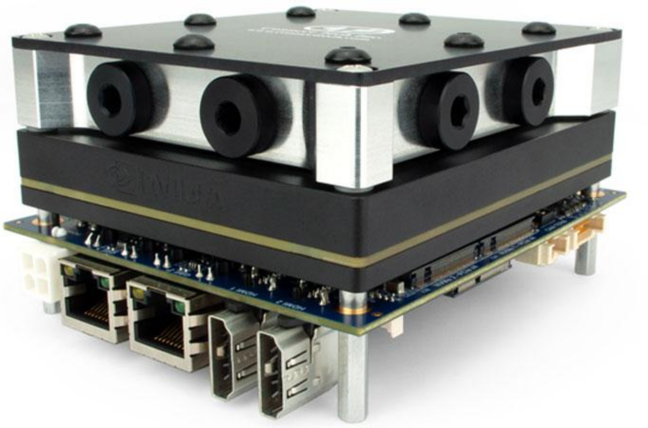
Connect Tech Inc.
www.connecttech.com



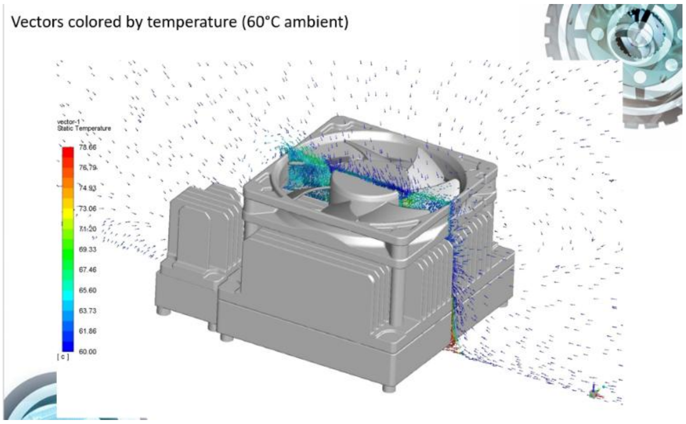


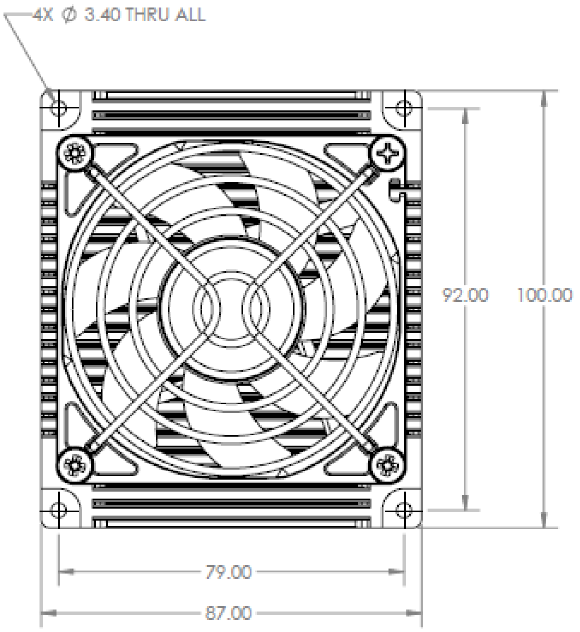
JETSON AGX ORIN™ MODULE THERMAL SPECIFICATIONS

Jetson AGX Orin™ Module Thermal Specifications					
Parameter	*Jetson AGX Orin™ 64GB*		*Jetson AGX Orin™ 32GB*		*Units*
	50 W Mode	MaxN Mode	40 W Mode	MaxN Mode	
Maximum TTP operating temperature	80		80		°C
Recommended Jetson AGX Orin™ SoC operating temperature limit	T.SoC = 99.0		T.SoC = 99.0		°C
Jetson AGX Orin™ SoC maximum operating temperature limit	T.SoC = 105.0		T.SoC = 105.0		°C

XHG319 Jetson AGX Orin™ Advanced Active Cooling

Part Number	XHG319
Description	Jetson AGX Orin™ Advanced Active Cooling
Jetson Product	Jetson AGX Orin™ series
Module size	100mm x 87mm
Cooling Solution	Active
Length	100mm
Width	87mm
Height	54.5mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodized Type II
Fan Size	80mmx80mm15mm
Fan Speed	5000rpm
Fan Power	+12V
Fan Cable Length	190+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	8W/mK, 0.5mm Thick, Gap Pad
Connecting Fastener Size	M3
Fin Height	27mm
Shipped with	Screw: M3 PPHMS 30mm lg, Qty 4 Washer: M3, Qty 5 Standoff: M3, FF, 28mm lg, Qty 4 Nut: M3 Qty 1
Website Link	https://connecttech.com/product/nvidia-jetson-agx-orin-active-heat-sink/
Thermal Results	The Jetson AGX Orin™ maintained continuous operation at 75W under ambient temperatures up to 60°C.




4X ⌀ 3.40 THRU ALL
92.00
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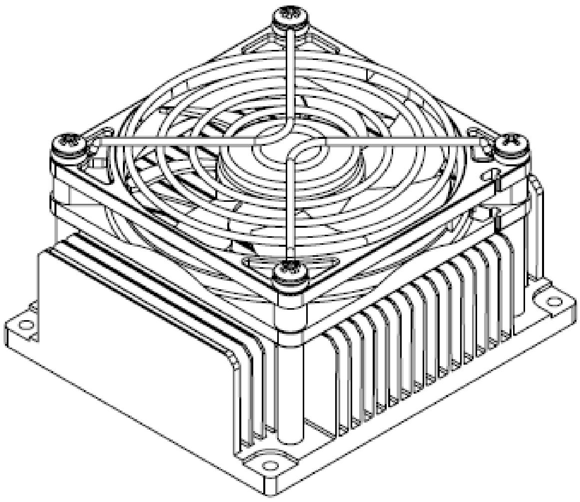

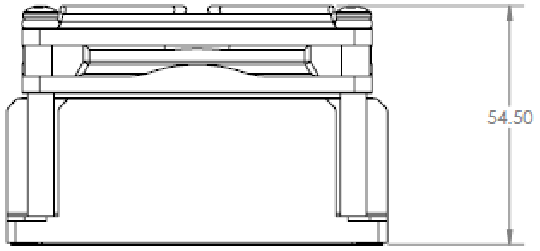
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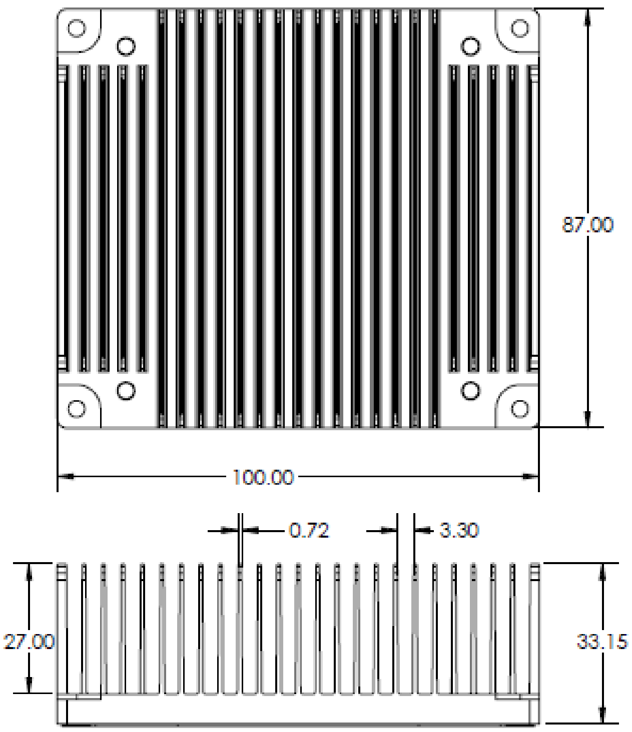
XHG320 Jetson AGX Orin™ Advanced Passive Cooling & XHG327 Jetson AGX Orin™ Advanced Passive Cooling (Rotated Fins)

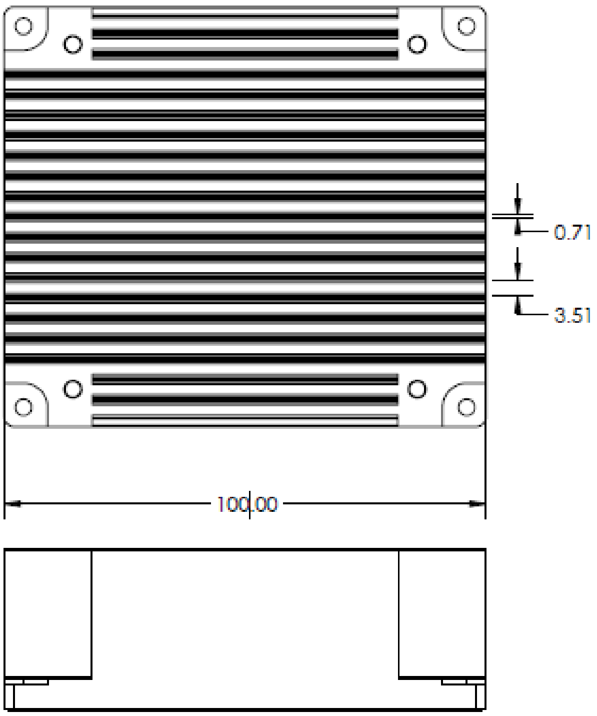
Part Number	XHG320	XHG327
Description	Jetson AGX Orin™ Advanced Passive Cooling	Jetson AGX Orin™ Advanced Passive Cooling
Description 2		Rotated fins
Jetson Product	Jetson AGX Orin™ series	Jetson AGX Orin™ series
Module size	100mm x 87mm	100mm x 87mm
Cooling Solution	Passive	Passive
Length	100mm	100mm
Width	87mm	87mm
Height	33.15mm	33.15mm
Material	6063-T5 Aluminum Alloy	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II	Black Anodize Type II
Thermal Interface Material	8W/mK, 0.5mm Thick, Gap Pad	8W/mK, 0.5mm Thick, Gap Pad
Connecting Fastener Size	M3	M3
Fin Height	27mm	27mm
Shipped with	Screw: M3 PPHMS 30mm lg, Qty 4 Washer: M3, Qty 5 Standoff: M3, FF, 28mm lg, Qty 4 Nut: M3 Qty 1	Screw: M3 PPHMS 30mm lg, Qty 4 Washer: M3, Qty 5 Standoff: M3, FF, 28mm lg, Qty 4 Nut: M3 Qty 1
Website Link	https://connecttech.com/product/ nvidia-jetson-agx-orin-passive-heat-sink/	N/A
Thermal Results	The Jetson AGX Orin™ maintained continuous operation at 75W with an applied external airflow of 3–4 m/s under ambient temperatures up to 60°C.	N/A

At 60°C ambient, the heat sink requires an airflow of 3–4 m/s to maintain the module temperature at approximately 80°C.

XHG320



XHG327



JETSON ORIN™ NX/NANO MODULE THERMAL SPECIFICATIONS

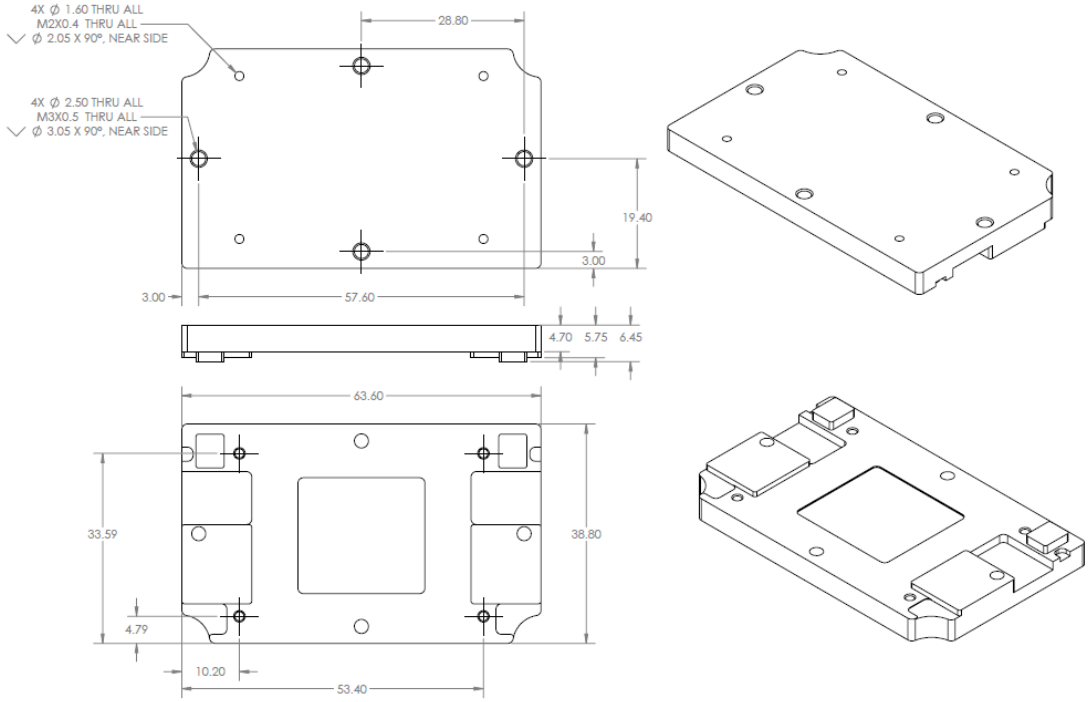
Jetson Orin™ NX/Nano Module Thermal Specifications		
Parameter	*Value*	*Units*
Maximum Jetson Orin™ NX/Nano SoC operating temperature	T.SoC3 = 99	°C
Jetson Orin™ NX/Nano SoC shutdown temperature	T.SoC3 = 105	°C

The heat sinks for the NVIDIA® Jetson Orin™ NX and Jetson Orin™ Nano are engineered to make direct thermal contact with the nine key components on the top side of the module, as specified in the Jetson Orin™ NX / Nano Thermal Design Guide. Each solution is secured to the module using a leaf spring and shoulder screw assembly, which maintains consistent and reliable pressure across all contact points.

XHG323 Jetson Orin™ NX TTP

Part Number	XHG323
Description	Jetson Orin™ NX TTP
Jetson Product	Jetson Orin™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Heat Spreader
Length	63.6mm
Width	38.8mm
Height	4.7mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 13W/mK, 1mm Thick, Gap Pad Peripherals: 8W/mK, 1mm Thick, Gap Pad
Connecting Fastener Size	M2
Fin Height	N/A
Shipped with	Leaf Spring Sholder Screw Thermal Grease
Website	https://connecttech.com/product/nvidia-jetson-orin-nx-thermal-transfer-plate/

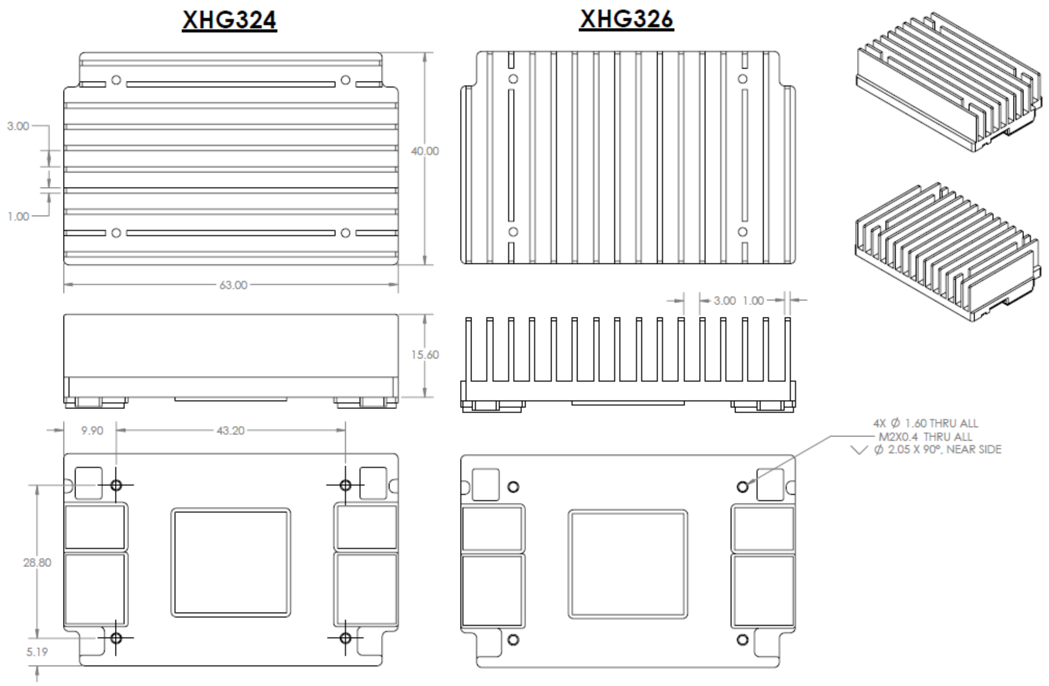
Designed to contact all heat generating component. Includes four M3X0.5 thread hole to interface with external cooling solutions.


4X ∅ 1.60 THRU ALL
M2X0.4 THRU ALL
∅ 2.05 X 90°, NEAR SIDE
4X ∅ 2.50 THRU ALL
M3X0.5 THRU ALL
∅ 3.05 X 90°, NEAR SIDE
28.80
19.40
3.00
3.00
57.60
4.70
5.75
6.45
63.60
33.59
38.80
4.79
10.20
53.40

XHG324 Jetson Orin™ NX Passive & XHG326 Jetson Orin™ NX Passive (Rotated fins)

Part Number	XHG324	XHG326
Description	Jetson Orin™ NX Passive	Jetson Orin™ NX Passive
Description 2		Rotated Fins
Jetson Product	Jetson Orin™ NX series	Jetson Orin™ NX series
Module Size	69.6mm x 45mm	69.6mm x 45mm
Cooling Solution	Passive	Passive
Length	63mm	63mm
Width	40mm	40mm
Height	16.6mm	16.6mm
Material	6063-T5 Aluminum Alloy	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II	Black Anodize Type II
Thermal Interface Material	SoC: 13W/mK, 1mm Thick, Gap Pad Peripherals: 8W/mK, 1mm Thick, Gap Pad	SoC: 13W/mK, 1mm Thick, Gap Pad Peripherals: 8W/mK, 1mm Thick, Gap Pad
Connecting Fastener Size	M2	M2
Fin Height	11.81mm	11.81mm
Shipped with	Leaf Spring Sholder Screw Thermal Grease	Leaf Spring Sholder Screw Thermal Grease
Website	https://connecttech.com/product/nvidia-jetson-orin-nx-passive-heat-sink/	N/A

XHG324 & XHG326 NVIDIA® Jetson Orin™ NX / Nano Passive cooling solutions are designed to operate with external air flow.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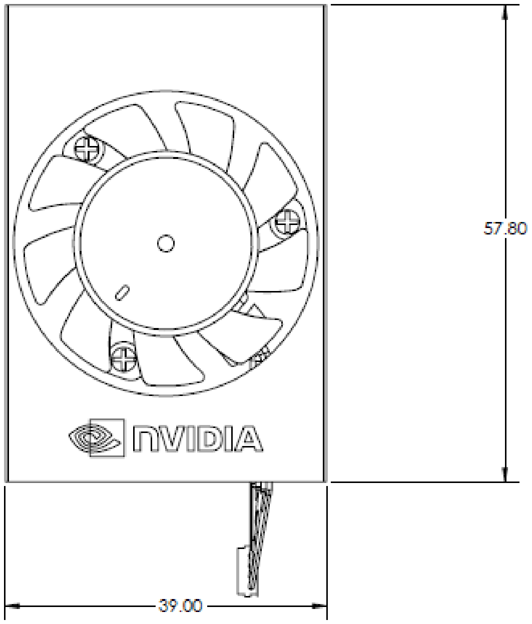
4X ⌀ 1.60 THRU ALL
M2X0.4 THRU ALL
⌵ ⌀ 2.05 X 90°, NEAR SIDE

XHG325 Jetson Orin™ NX Active

Part Number	XHG325
Description	Jetson Orin™ NX Active
Jetson Product	Jetson Orin™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Active
Length	57.8mm
Width	39.00mm
Height	18mm
Material	Aluminum
Finish	Black
Fan Speed	5500rpm
Fan Power	+5V
Connecting Fastener Size	M2
Fin Height	N/A
Shipped with	Leaf Spring Sholder Screw Thermal Grease
Website	https://connecttech.com/product/nvidia-jetson-orin-nano-active-heat-sink/

The NVIDA® Jetson Orin™ NX Active cooling solution enables the module to operate at temperatures approaching 55 °C while drawing 30W.


NVIDIA
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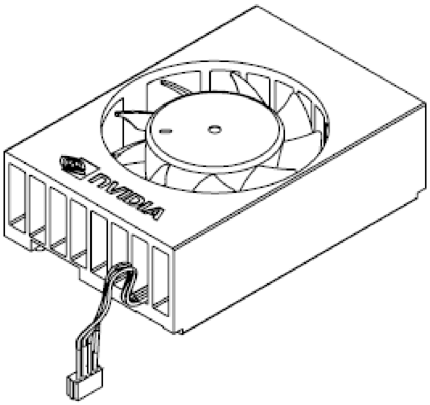
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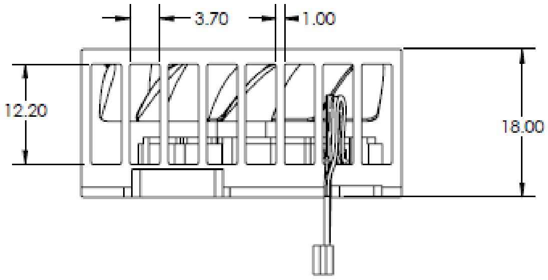
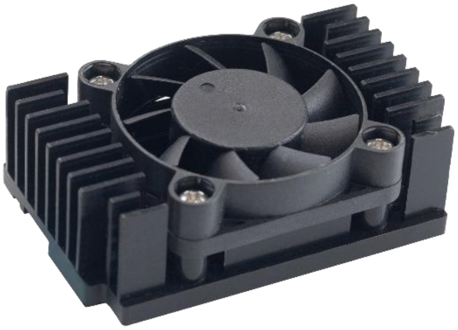

3.70
1.00
12.20
18.00

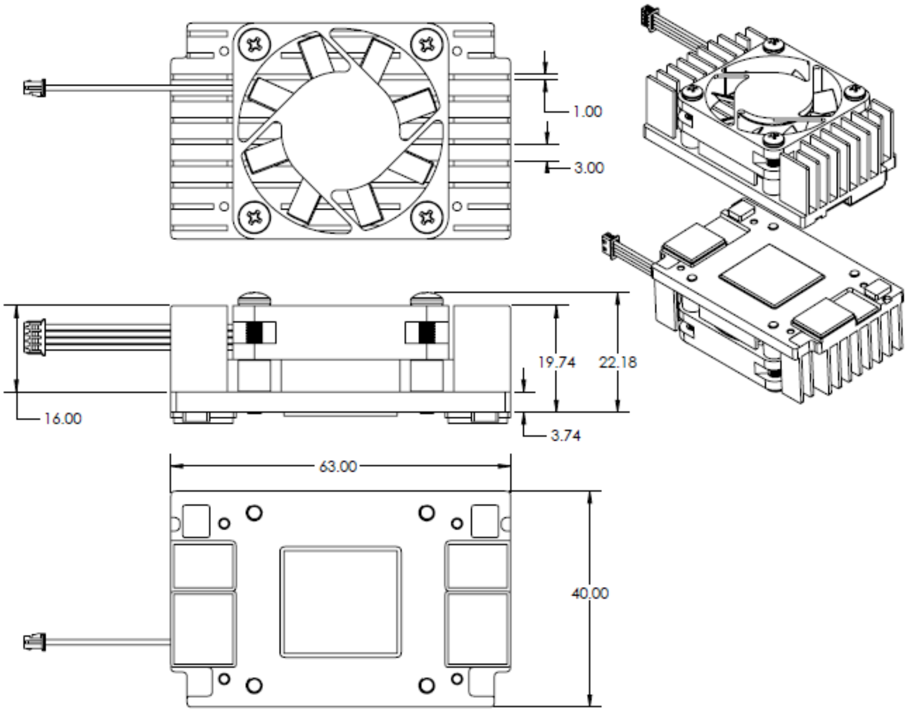
XHG331 Jetson Orin™ NX Passive HS Extended Fins

Part Number	XHG331
Description	Jetson Orin™ NX Passive HS Extended Fins
Jetson Product	Jetson Orin™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Passive
Length	63mm
Width	40mm
Height	19.74mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 13W/mK, 1mm Thick, Gap Pad Peripherals: 8W/mK, 1mm Thick, Gap Pad
Connecting Fastener Size	M2
Fin Height	16mm
Shipped with	Leaf Spring Sholder Screw Thermal Grease
Website	-
Thermal Results	Jetson Orin™ NX operated at 40W up to an ambient temperature of 29 °C with external airflow.

XHG330 Jetson Orin™ NX Active HS Extended Fins

Part Number	XHG330
Description	Jetson Orin™ NX Active HS Extended Fins
Jetson Product	Jetson Orin™ NX Series
Module Size	69.6mm x 45mm
Cooling Solution	Active
Length	63mm
Width	40mm
Height	22.18mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Fan Size	40mmX40mmX10mm
Fan Speed	6400RPM
Fan Power	+5V
Fan Cable Length	150+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	SoC: 13W/mK, 1mm Thick, Gap Pad Peripherals: 8W/mK, 1mm Thick, Gap Pad
Fin Height	16mm
Shipped with	Leaf Spring Sholder Screw Thermal Grease
Website	-
Thermal Results	Jetson Orin™ NX operated at 40W up to an ambient temperature of 41 °C




1.00
3.00
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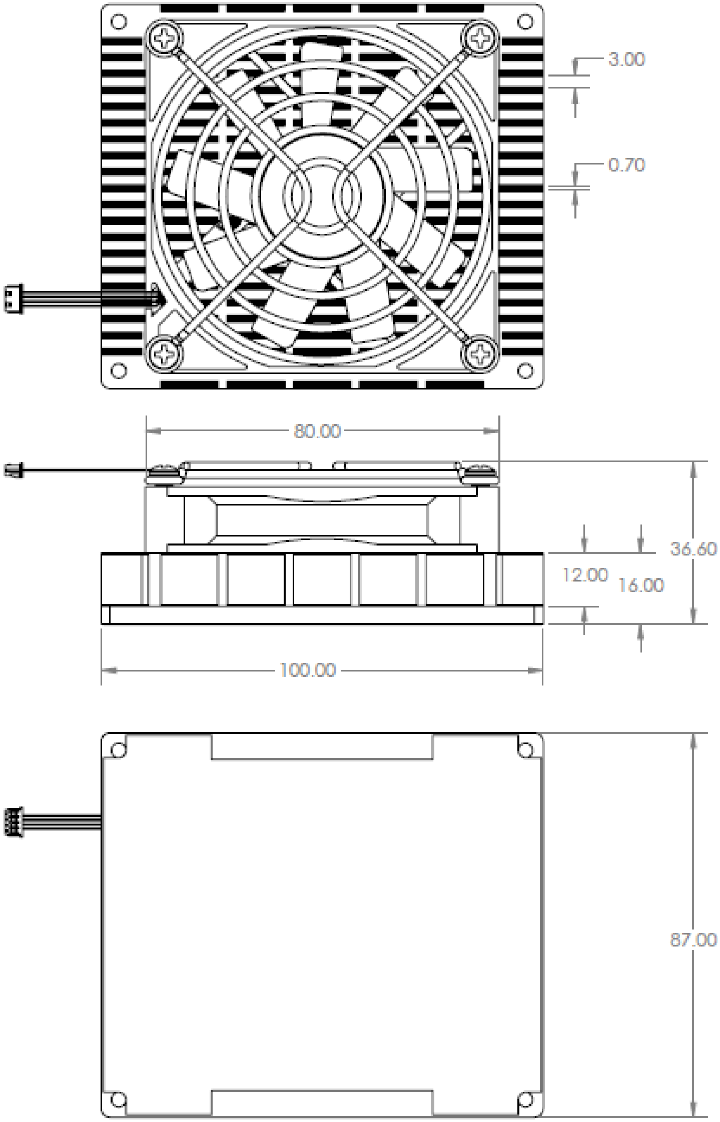
JETSON AGX XAVIER™ MODULE THERMAL SPECIFICATIONS

Jetson AGX Xavier™ Thermal Specifications			
Parameter	*Up to 30 W Mode4*	*MaxN Mode5*	*Units*
Maximum TTP operating temperature	80	80	°C
Recommended Jetson AGX Xavier™ SoC operating temperature limit	T.cpu = 90.0	T.cpu = 86.0	°C
	T.gpu = 92.5	T.gpu = 88.0	°C
	T.aux = 89.0	T.aux = 82.0	°C
Jetson AGX Xavier™ SoC maximum operating temperature limit	T.cpu = 95.5	T.cpu = 91.5	°C
	T.gpu = 98.0	T.gpu = 93.5	°C
	T.aux = 94.5	T.aux = 87.5	°C

Jetson AGX Xavier™ Industrial Thermal Specifications			
Parameter	*Up to 30 W Mode4*	*MaxN Mode5*	*Units*
Maximum TTP operating temperature	85	85	°C
Recommended Jetson AGX Xavier™ Industrial SoC operating temperature limit	T.cpu = 103	T.cpu = 96.0	°C
	T.gpu = 102	T.gpu = 98.0	°C
	T.aux = 100.5	T.aux = 92.5	°C
Jetson AGX Xavier™ Industrial SoC maximum operating temperature limit	T.cpu = 108.5	T.cpu = 101.5	°C
	T.gpu = 107.5	T.gpu = 103.5	°C
	T.aux = 106	T.aux = 98	°C

XHG306 Jetson AGX Xavier™ Active Heat Sink

Part Number	XHG306
Description	Jetson AGX Xavier™ Active Heat Sink
Jetson Product	Jetson AGX Xavier™ series
Module Size	100mm x 87mm
Cooling Solution	Active
Length	100mm
Width	87mm
Height	36.70mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Fan Size	80mmx80mm15mm
Fan Speed	3100rpm
Fan Power	+12V
Fan Cable Length	140+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	6.2W/mK, 0.5mm Thick, Gap Pad
Connecting Fastener Size	M3
Fin Height	12mm
Shipped with	Screw: M3 PPHMS, 30mm lg, Qty 4 Standoff: M3, 18mm lg, Qyt 4 Wash: M3, Qty 4 Spacer: M3 4mm lg, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-agx-xavier-active-heat-sink/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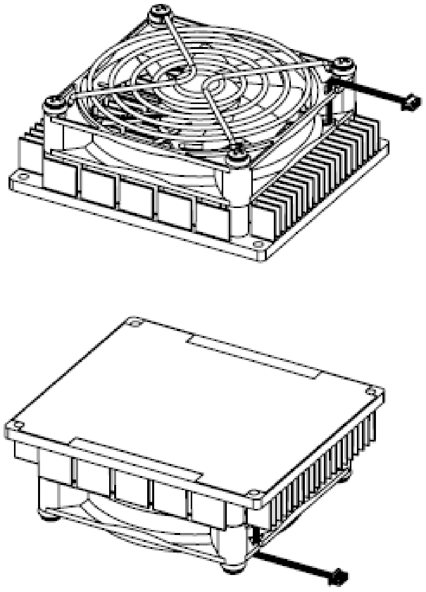
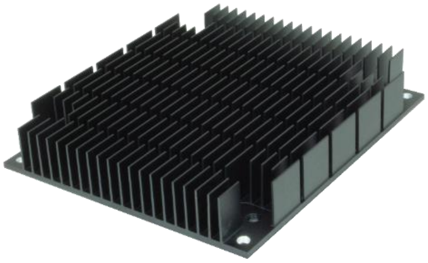
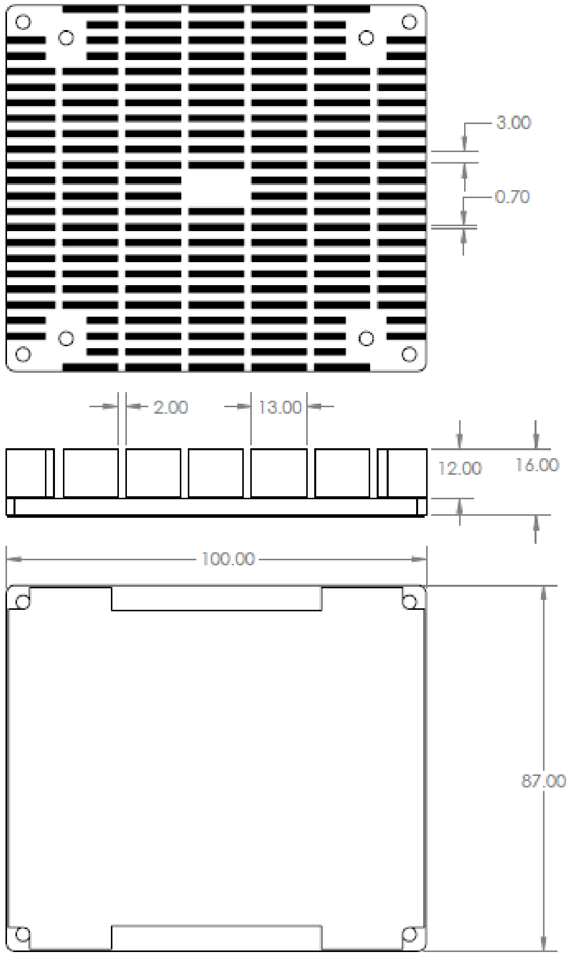


XHG305 Jetson AGX Xavier™ Passive Heat Sink

Part Number	XHG305
Description	Jetson AGX Xavier™ Passive Heat Sink
Jetson Product	Jetson AGX Xavier™ series
Module Size	100mm x 87mm
Cooling Solution	Passive
Length	100mm
Width	87mm
Height	16mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	6.2W/mK, 0.5mm Thick, Gap Pad
Connecting Fastener Size	M3
Fin Height	12mm
Shipped with	Screw: M3 PPHMS, 30mm lg, Qty 4 Standoff: M3, 18mm lg, Qty 4 Wash: M3, Qty 4 Spacer: M3 4mm lg, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-agx-xavier-passive-heat-sink/

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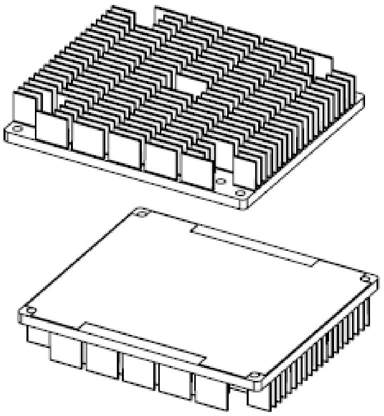
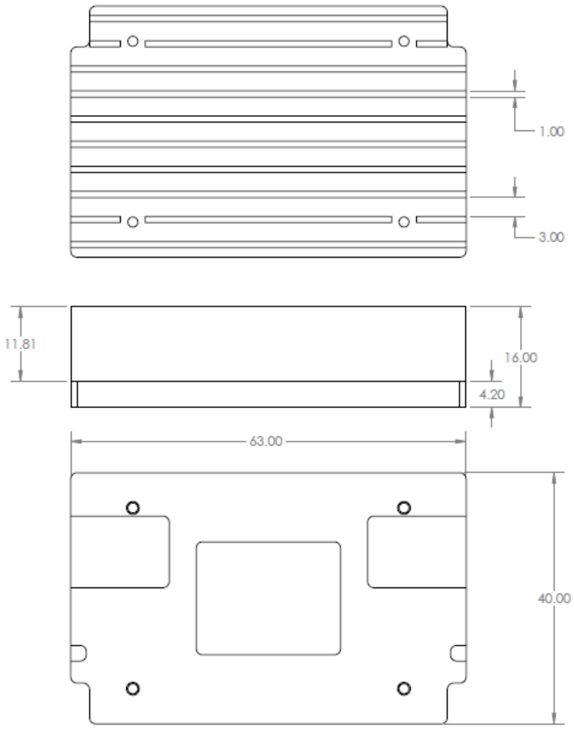


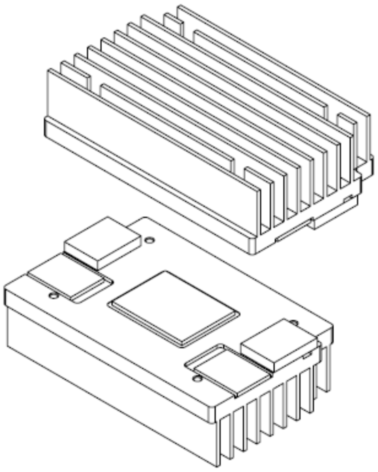
JETSON XAVIER™ NX MODULE THERMAL SPECIFICATIONS

Jetson Xavier™ NX Module Thermal Specifications		
Parameter	*Value*	*Units*
Maximum Jetson Xavier™ NX SoC operating temperature	T.cpu = 90.5	°C
	T.gpu = 91.5	°C
	T.aux = 90.0	°C
Jetson Xavier™ NX SoC shutdown temperature	T.cpu = 96.0	°C
	T.gpu = 97.0	°C
	T.aux = 95.5	°C

XHG311 Jetson Xavier™ NX Passive Heatsink

Part Number	XHG311
Description	Jetson Xavier™ NX Passive
Jetson Product	Jetson Xavier™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Passive
Length	63mm
Width	40mm
Height	16mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 17W/mK, 0.5mm Thick, Gap Pad Peripherals 6.2W/mK, Gap Pad
Connecting Fastener Size	M2
Fin Height	11.8mm
Shipped with	Leaf Spring Sholder Screw
Website	https://connecttech.com/product/nvidia-jetson-xavier-nx-passive-heat-sink/

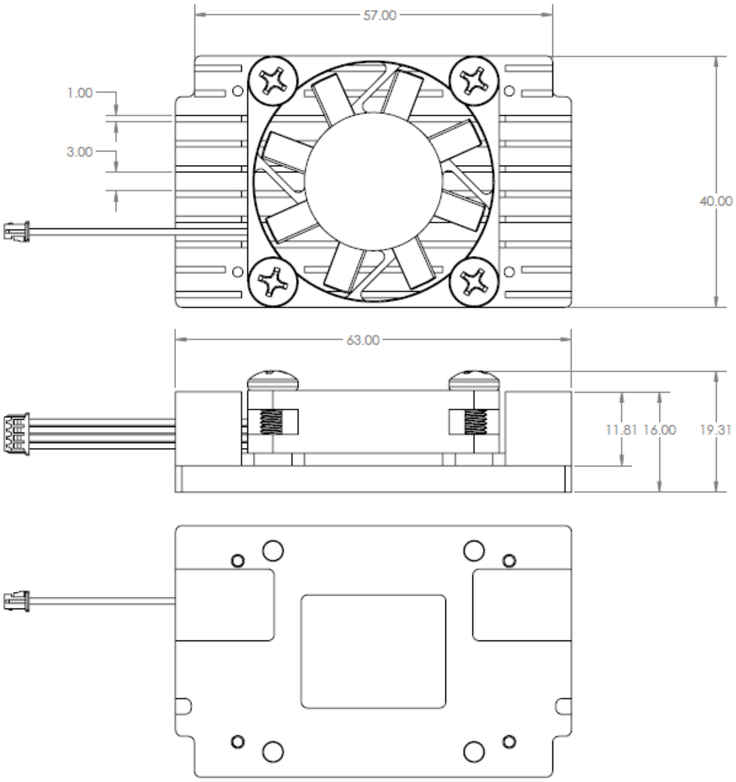




XHG312 Jetson Xavier™ NX Active Heatsink

Part Number	XHG312
Description	Jetson Xavier™ NX Active
Jetson Product	Jetson Xavier™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Active
Length	63mm
Width	40mm
Height	16mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Fan Size	40mmX40mmX10mm
Fan Speed	6400RPM
Fan Power	+5V
Fan Cable Length	150+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	SoC: 17W/mK, 0.5mm Thick, Gap Pad Peripherals: 6.2W/mK, Gap Pad
Connecting Fastener Size	M2
Fin Height	11.8mm
Shipped with	Leaf Spring Sholder Screw Cable: 4-Pin M to F 100mm lg
Website	https://connecttech.com/product/nvidia-jetson-xavier-nx-active-heat-sink/

XHG312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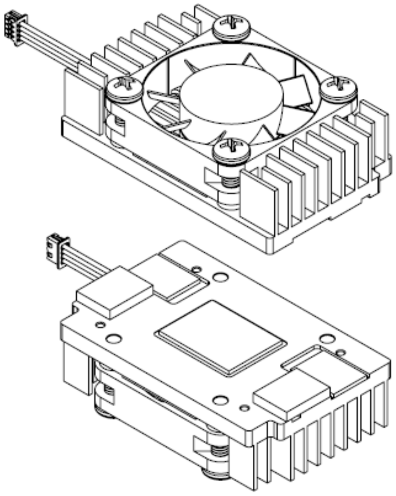
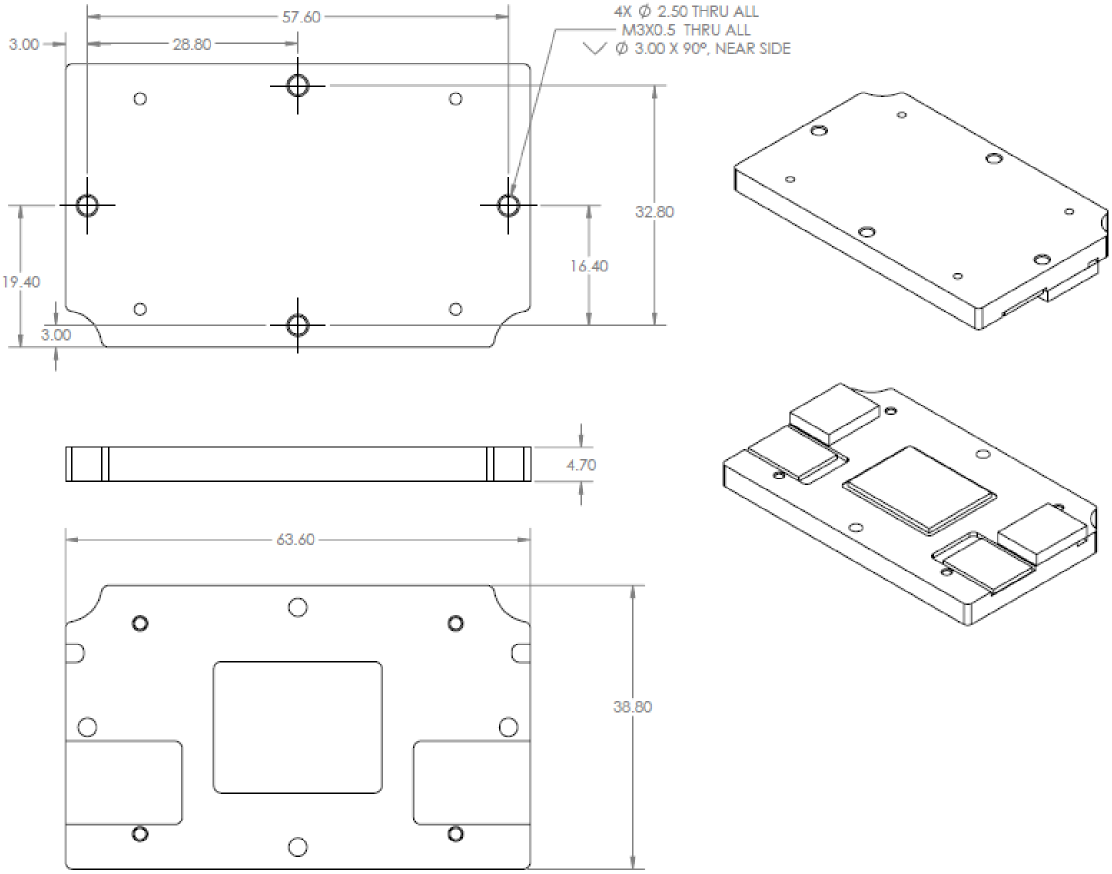


XHG313 Jetson Xavier™ NX TTP

Part Number	XHG313
Description	Jetson Xavier™ NX TTP
Jetson Product	Jetson Xavier™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Heat Spreader
Length	63mm
Width	40mm
Height	4.7mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 17W/mK, 0.5mm Thick, Gap Pad Peripherals: 6.2W/mK, Gap Pad
Connecting Fastener Size	M2
Fin Height	N/A
Shipped with	Leaf Spring Sholder Screw
Website	https://connecttech.com/product/nvidia-jetson-xavier-nx-thermal-transfer-plate/

Designed with threaded M3 holes to interface with external cooling solutions.

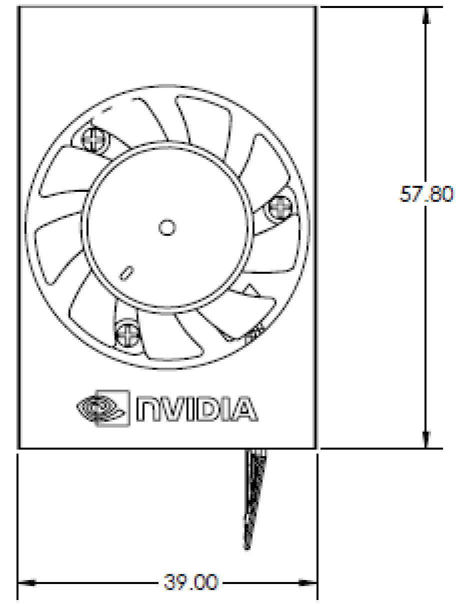

57.60
3.00
28.80
4X Ø 2.50 THRU ALL
M3X0.5 THRU ALL
⌵ Ø 3.00 X 90°, NEAR SIDE
32.80
16.40
19.40
3.00
4.70
63.60
38.80

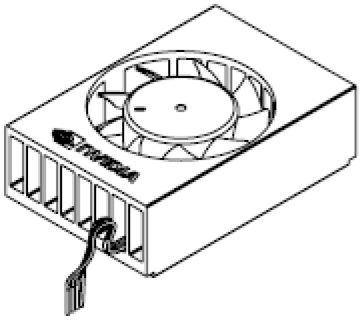
XHG314 Jetson Xavier™ NX Active Cooling Solution

Part Number	XHG314
Description	Jetson Xavier™ NX Active Cooling Solution
Jetson Product	Jetson Xavier™ NX series
Module Size	69.6mm x 45mm
Cooling Solution	Active
Length	57.8mm
Width	39.00mm
Height	18mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Fan Size	40mmX40mmX10mm
Fan Speed	5500RPM
Fan Power	+5V
Fan Cable Length	37+/-3mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	Silicon Grease
Connecting Fastener Size	M2
Shipped with	Leaf Spring Sholder Screw
Website	https://connecttech.com/product/nvidia-jetson-xavier-nx-active-heat-sink/


XHG312


XHG314


NVIDIA
57.80
39.00


NVIDIA


1.00
3.70
12.20
18.00

JETSON™ TX2/TX2I MODULE THERMAL SPECIFICATIONS

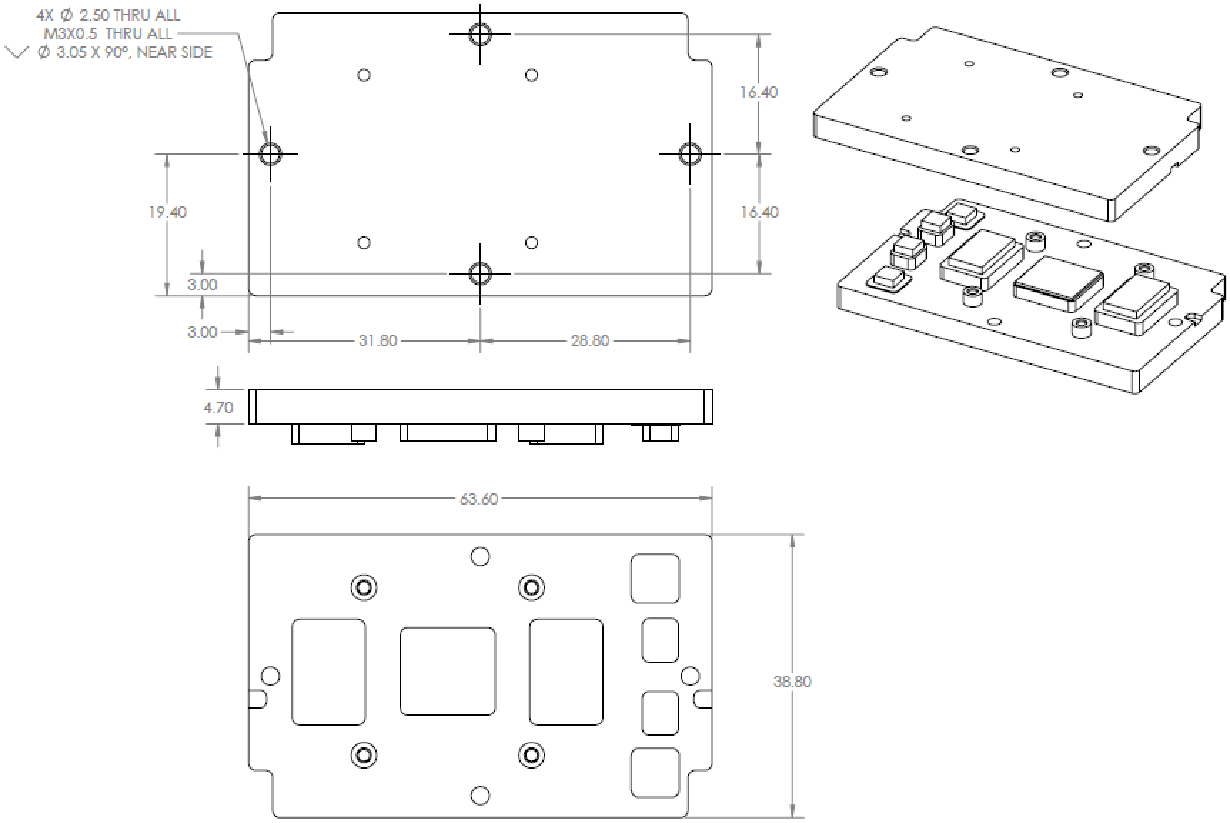
Jetson™ TX2 Module Thermal Specifications		
Parameter	*Value*	*Units*
Maximum Tegra® X2 operating temperature	T.cpu = 95.5	°C
	T.gpu3 = 95.5	°C
Tegra® X2 shutdown temperature	T.cpu = 101	°C
	T.gpu = 101	°C

Jetson™ TX2i Module Thermal Specifications		
Parameter	*Value*	*Units*
Maximum TTP operating temperature	85	°C
Recommended Tegra® X2 operating temperature limit	T.cpu = 95.5	°C
	T.gpu = 95.5	°C
Tegra® X2 maximum operating temperature limit	T.cpu = 101	°C
	T.gpu = 101	°C
	T.diode = 110	°C

XHG316 Jetson™ TX2 NX TTP

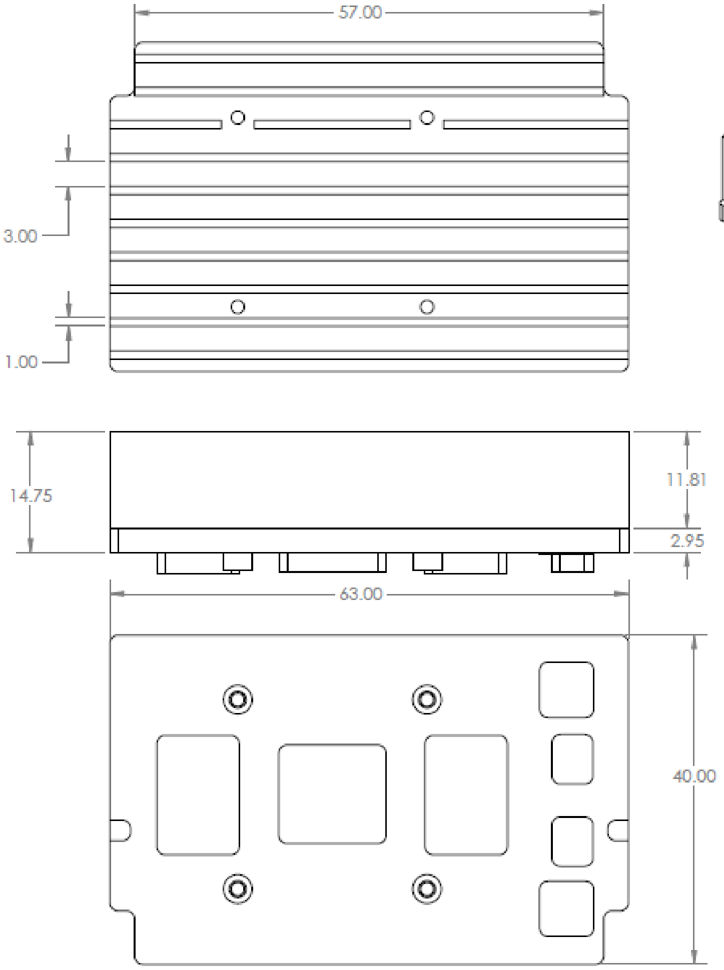
Part Number	XHG316
Description	Jetson™ TX2 NX TTP
Jetson Product	Jetson™ TX2 NX series
Module Size	69.6mm x 45mm
Cooling Solution	Heat Spreader
Length	63.6mm
Width	38.8mm
Height	4.7mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 17W/mK, 0.5mm thick, Gap Pad Peripherals: 3W/mK, Gap Pad
Connecting Fastener Size	M2
Fin Height	N/A
Shipped with	Leaf Spring Sholder Screw
Website	https://connecttech.com/product/nvidia-jetson-tx2-nx-thermal-transfer-plate/

Designed with threaded M3 holes to interface with external cooling solutions.


4X Ø 2.50 THRU ALL
M3X0.5 THRU ALL
⌵ Ø 3.05 X 90°, NEAR SIDE
16.40
16.40
19.40
3.00
3.00
31.80
28.80
4.70
63.60
38.80

XHG317 Jetson™ TX2 NX Passive Heatsink

Part Number	XHG317
Description	Jetson™ TX2 NX Passive Heatsink
Jetson Product	Jetson™ TX2 NX series
Module Size	69.6mm x 45mm
Cooling Solution	Passive
Length	63mm
Width	40mm
Height	14.75mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 17W/mK, 0.5mm thick, Gap Pad Peripherals: 3W/mK, Gap Pad
Connecting Fastener Size	M2
Fin Height	11.81mm
Shipped with	Leaf Spring Sholder Screw
Website	https://connecttech.com/product/nvidia-jetson-tx2-nx-passive-heat-sink/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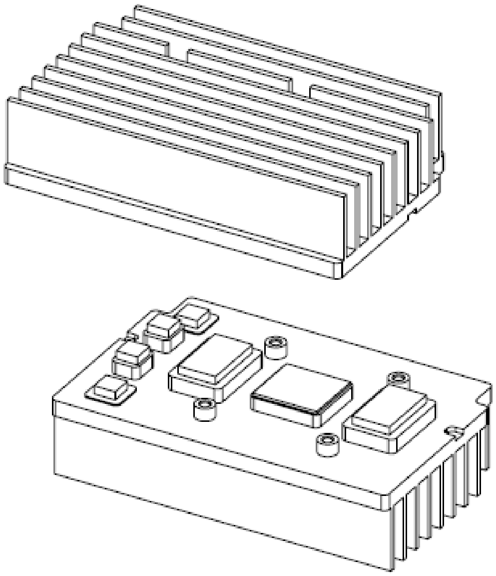
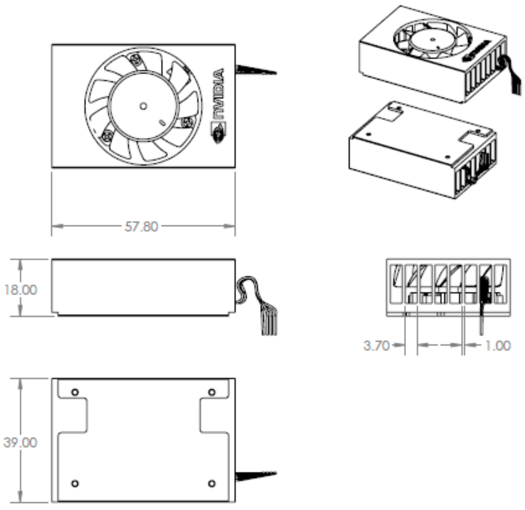


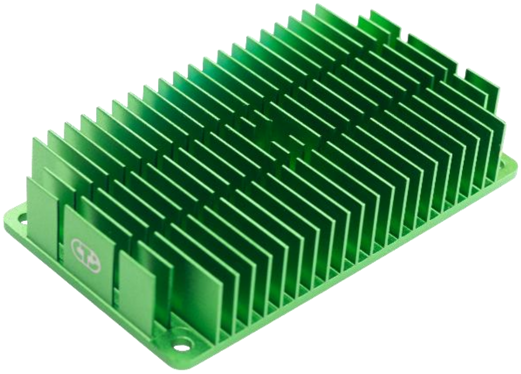
XHG318 Jetson™ TX2 NX Active Heatsink

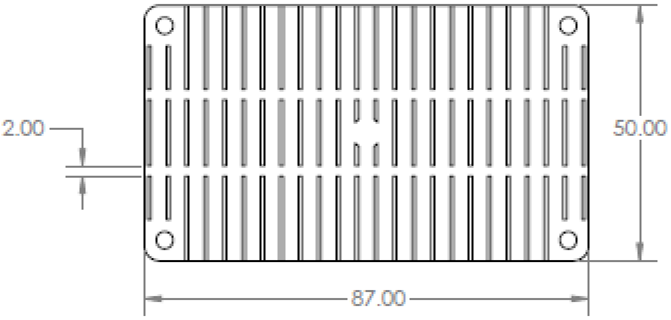
Part Number	XHG318
Description	Jetson™ TX2 NX Active Heatsink
Jetson Product	Jetson™ TX2 NX series
Module Size	69.6mm x 45mm
Cooling Solution	Active
Length	57.8mm
Width	39.00mm
Height	18mm
Material	Aluminum
Finish	Black
Fan Size	-
Fan Speed	5500rpm
Fan Power	+5V
Fan Cable Length	-
Connector	-
Pins	-
Thermal Interface Material	Silicon grease
Connecting Fastener Size	M2
Fin Height	N/A
Shipped with	Leaf Spring Sholder Screw Cable: 4-Pin M to F 100mm lg
Website	-

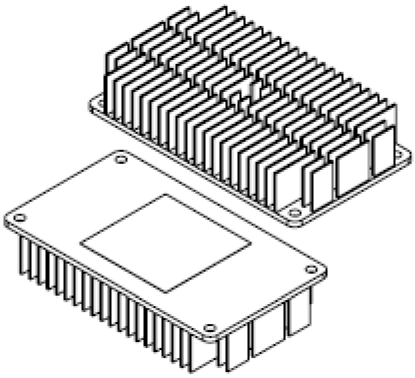


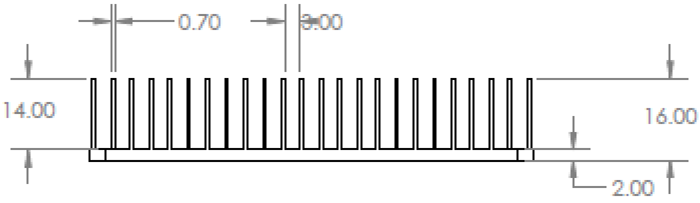
XHG303 Jetson™ TX2i Passive Heatsink

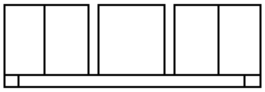
Part Number	XHG303
Description	Jetson™ TX2i Passive Heat Sink
Jetson Product	Jetson™ TX2 series
Module Size	87mm x 50mm
Cooling Solution	Passive
Length	87mm
Width	50mm
Height	16mm
Material	6063-T5 Aluminum Alloy
Finish	Green Anodize Type II
Thermal Interface Material	3.8W/mK, 0.13mm Thick, Gap Pad
Connecting Fastener Size	M3
Fin Height	14mm
Shipped with	Screw: M3X0.5 PPHMS, 14mm lg, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-tx2-tx1-passive-heat-sink/





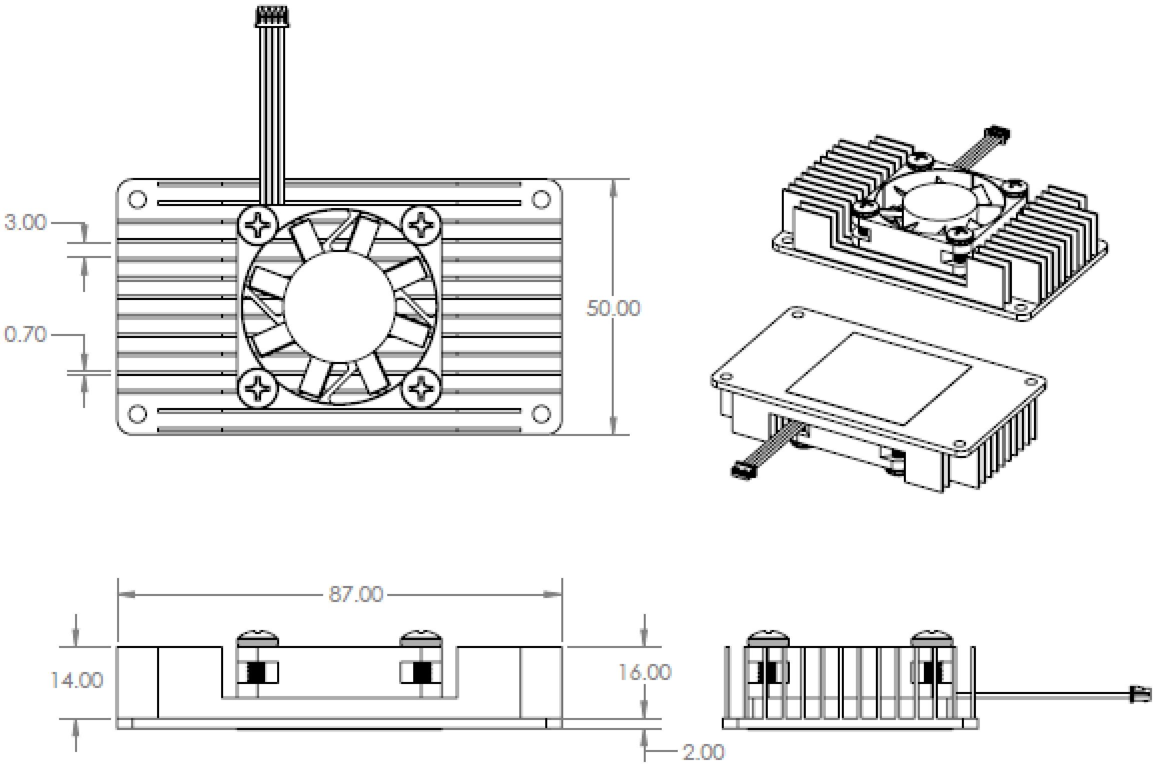






XHG304 Jetson™ TX2i Active Heatsink

Part Number	XHG304
Description	Jetson™ TX2i Active Heat Sink
Jetson Product	Jetson™ TX2 series
Module Size	87mm x 50mm
Cooling Solution	Active
Length	87mm
Width	50mm
Height	19.11mm
Material	6063-T5 Aluminum Alloy
Finish	Green Anodize Type II
Fan Size	40mmX40mmX20mm
Fan Speed	6400RPM
Fan Power	+5V
Fan Cable Length	90+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	3.8W/mK, 0.13mm Thick, Gap Pad
Connecting Fastener Size	M3
Fin Height	14mm
Shipped with	Screw: M3X0.5 PPHMS, 14mm lg, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-tx2-tx1-active-heat-sink/


3.00
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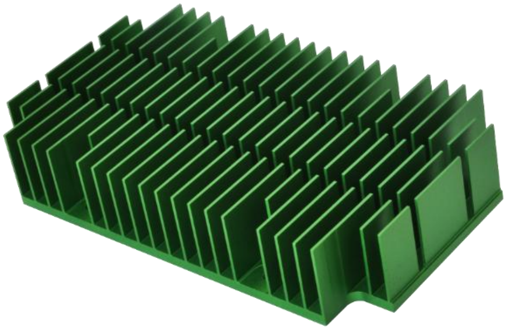
50.00
87.00
14.00
16.00
2.00

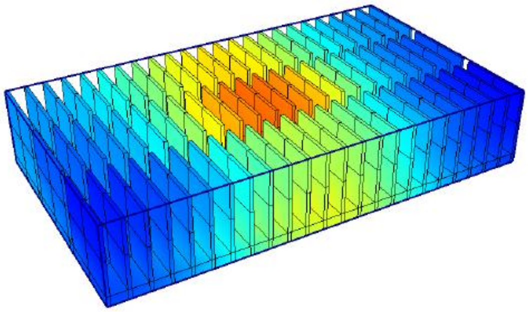
JETSON™ TX1 MODULE THERMAL SPECIFICATIONS

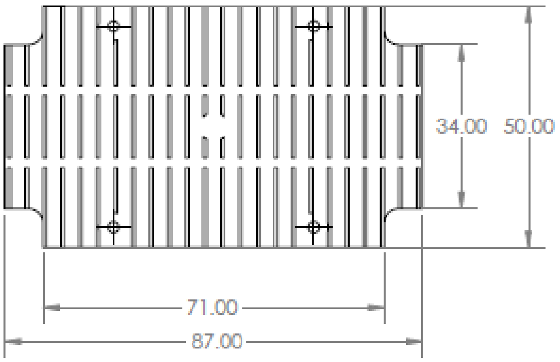
Jetson™ TX1 Module Thermal Specifications		
Parameter	*Value*	*Units*
Maximum TTP operating temperature	80	°C
Recommended Tegra® X2 operating temperature limit	T.cpu = 95.5	°C
	T.gpu = 93.5	°C
Tegra® X2 maximum operating temperature limit	T.cpu = 101	°C
	T.gpu = 101	°C

XHG301 Jetson™ TX1 Passive Heatsink

Part Number	XHG301
Description	Jetson™ TX1 Passive Heat Sink
Jetson Product	Jetson™ TX1 series
Module Size	87mm x 50mm
Cooling Solution	Passive
Length	87mm
Width	50mm
Height	16mm
Material	6063-T5 Aluminum Alloy
Finish	Green Anodize Type II
Thermal Interface Material	3.8W/mK, 0.13mm Thick, Gap Pad
Connecting Fastener Size	M2
Fin Height	14mm
Shipped with	Screw: M3X0.4 PPHMS 4mm lg, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-tx2-tx1-passive-heat-sink/
Thermal Simulation Results	10 Watts Ambient temperature 25’C Air Flow 200lfm Junction temperature 38.14 ‘C



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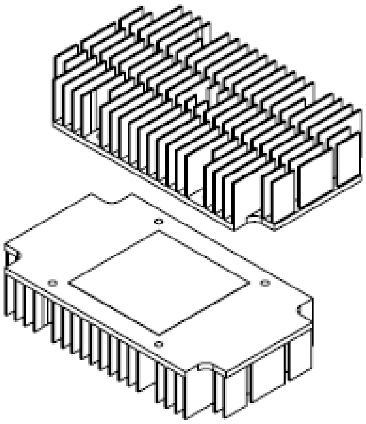
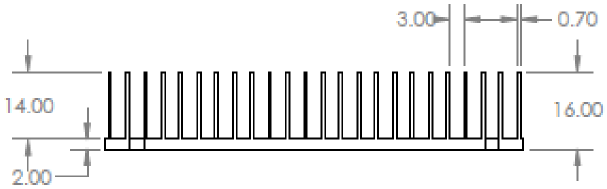
50.00
71.00
87.00

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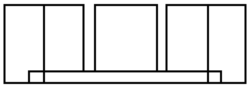
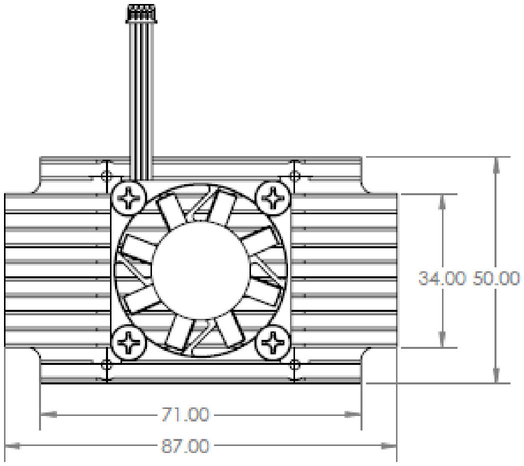
0.70
14.00
16.00
2.00



XHG302 Jetson™ TX1 Active Heat Sink

Part Number	XHG302
Description	Jetson™ TX1 Active Heat Sink
Jetson Product	Jetson™ TX1 series
Module Size	87mm x 50mm
Cooling Solution	Active
Length	87mm
Width	50mm
Height	19.11mm
Material	6063-T5 Aluminum Alloy
Finish	Green Anodize Type II
Fan Size	40mmX40mmX20mm
Fan Speed	6400RPM
Fan Power	+5V
Fan Cable Length	90+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	3.8W/mK, 0.13mm Thick, Gap Pad
Connecting Fastener Size	M2
Fin Height	14mm
Shipped with	Screw: M2X0.4 PPHMS 4mm lg, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-tx2-tx1-active-heat-sink/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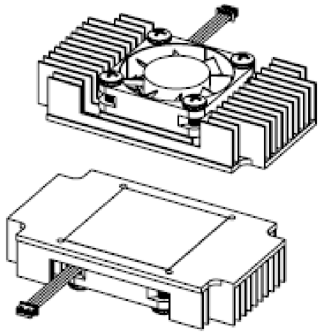
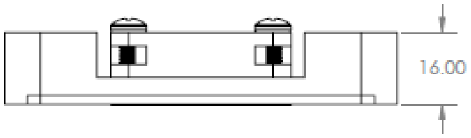
87.00

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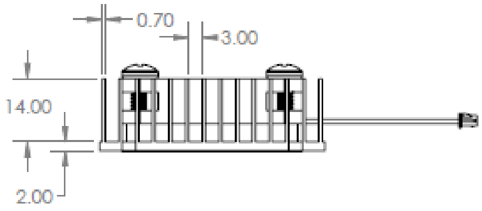
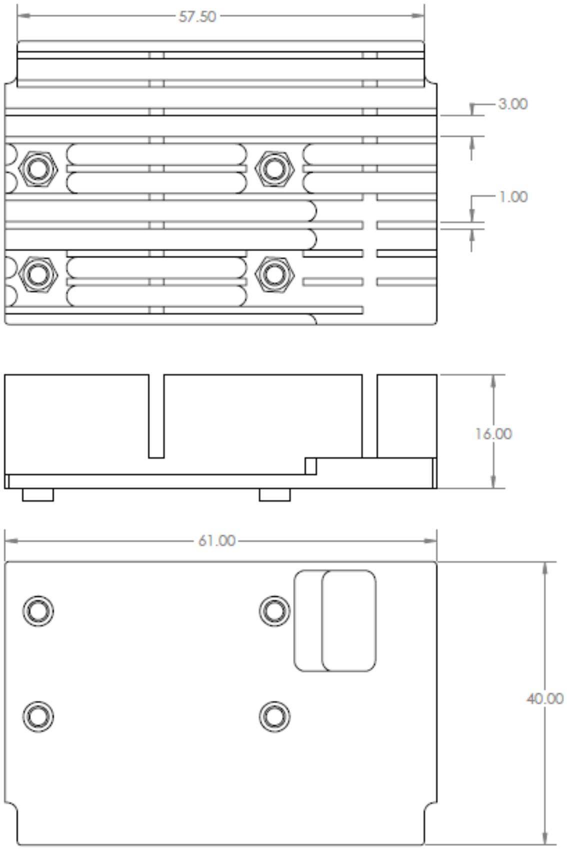

0.70
3.00
14.00
2.00

JETSON NANO™ MODULE THERMAL SPECIFICATIONS

Jetson Nano™ Module Thermal Specifications		
Parameter	*Value*	*Units*
Maximum Tegra® X1 operating temperature	T.cpu = 97	°C
	T.gpu = 97.5	°C
Tegra® X1 shutdown temperature	T.cpu = 102.5	°C
	T.gpu = 103	°C

XHG308 Jetson Nano™ Passive Cooling

Part Number	XHG308
Description	Jetson Nano™ Passive Cooling
Jetson Product	Jetson Nano™ series
Module Size	69.6mm x 45mm
Cooling Solution	Passive
Length	61mm
Width	40mm
Height	16mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 17W/mK 0.5mm thick, Gap Pad Peripherals: 6.2W/mk x 1mm & 11W/mk x 0.5mm, Gap Pad
Connecting Fastener Size	M3
Fin Height	14mm
Shipped with	Screw: M3, Socket Head Qty 4 Washer: M3, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-nano-passive-heat-sink/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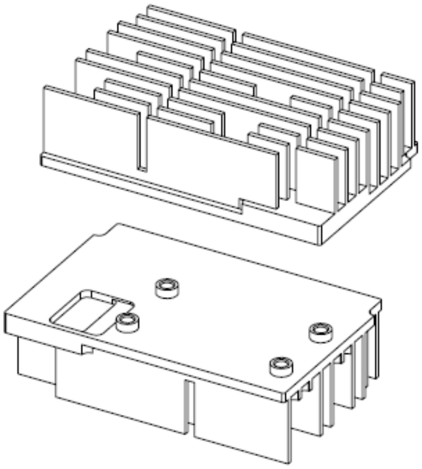
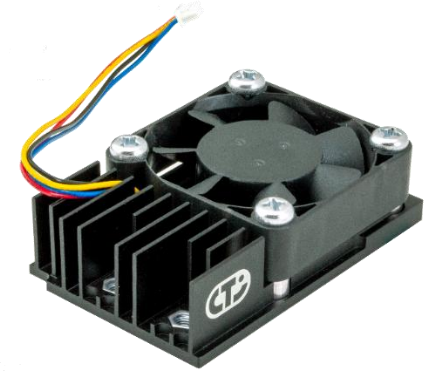
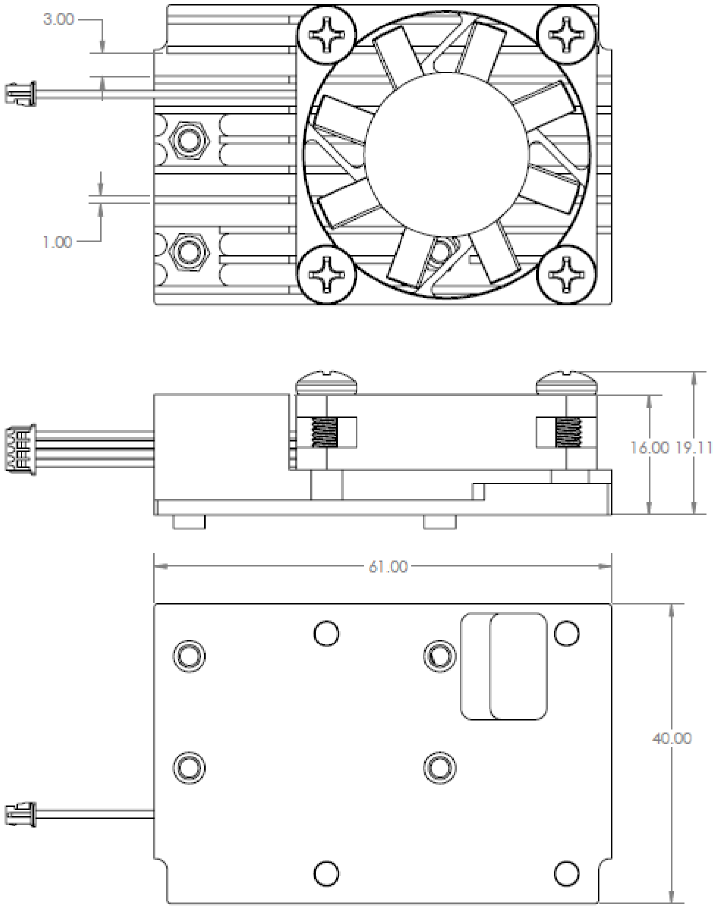
1.00
16.00
61.00
40.00



XHG309 Jetson Nano™ Active Cooling

Part Number	XHG309
Description	Jetson Nano™ Active Cooling
Jetson Product	Jetson Nano™ series
Module Size	69.6mm x 45mm
Cooling Solution	Active
Length	61mm
Width	40mm
Height	19.11mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Fan Size	40mmX40mmX10mm
Fan Speed	6400RPM
Fan Power	+5V
Fan Cable Length	90+/-10mm
Connector	Molex: 51021-0400 (1), 50079-8000 (4)
Pins	PIN 1: (GND), PIN 2: (PWR), PIN 3: (TACH), PIN 4: (PWM)
Thermal Interface Material	SoC: 17W/mK 0.5mm thick, Gap Pad Peripherals: 6.2W/mK x 1mm & 11W/mK x 0.5mm, Gap Pad
Connecting Fastener Size	M3
Fin Height	14mm
Shipped with	Screw: M3, Socket Head Qty 4 Washer: M3, Qty 4 Cable: 4-pin M to F 100mm lg
Website	https://connecttech.com/product/nvidia-jetson-nano-active-heat-sink/

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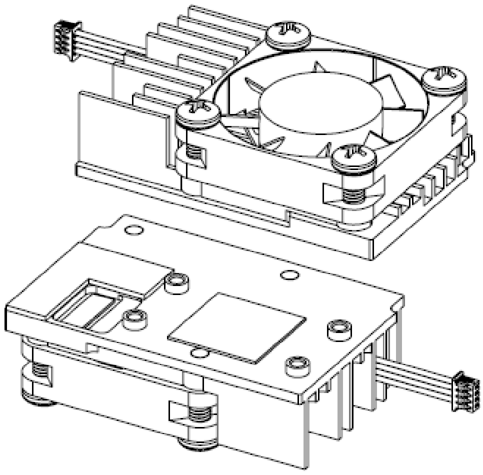
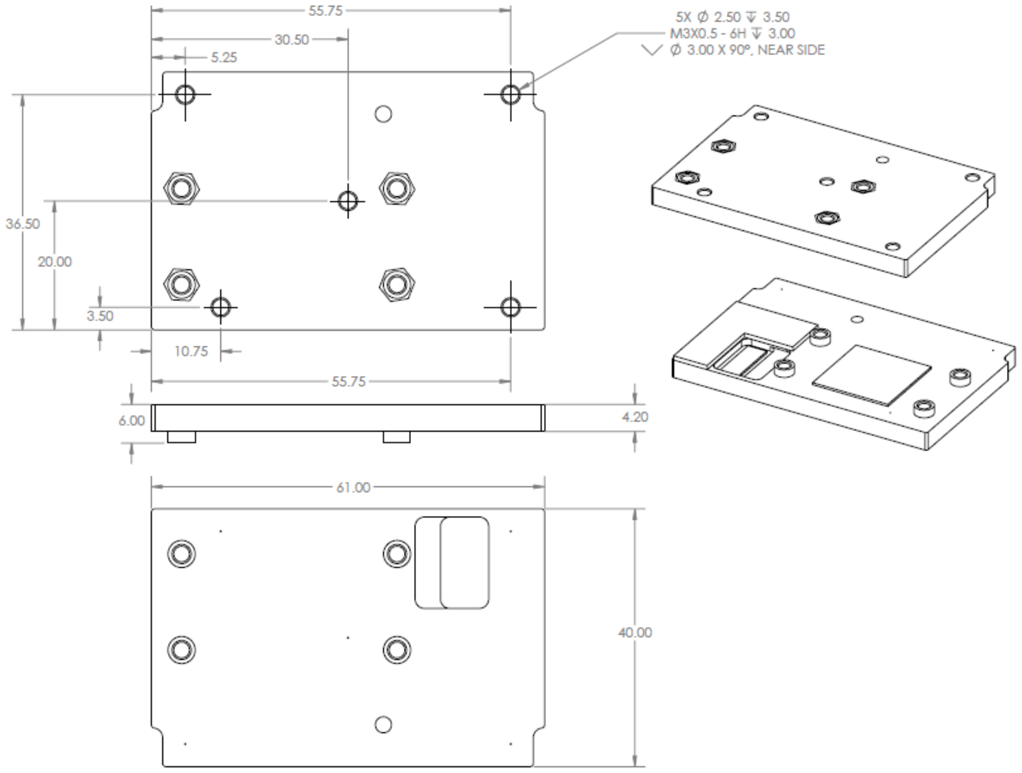
1.00
16.00
19.11
61.00
40.00



XHG310 Jetson Nano™ TTP

Part Number	XHG310
Description	Jetson Nano™ TTP
Jetson Product	Jetson Nano™ series
Module Size	69.6mm x 45mm
Cooling Solution	Heat Spreader
Length	61mm
Width	40mm
Height	4.2mm
Material	6063-T5 Aluminum Alloy
Finish	Black Anodize Type II
Thermal Interface Material	SoC: 17W/mK 0.5mm thick, Gap Pad Peripherals: 6.2W/mK x 1mm & 11W/mK x 0.5mm, Gap Pad
Connecting Fastener Size	M3
Fin Height	N/A
Shipped with	Screw: M3, Socket Head Qty 4 Washer: M3, Qty 4
Website	https://connecttech.com/product/nvidia-jetson-nano-thermal-transfer-plate/

Designed with threaded M3 holes to interface with external cooling solutions.


55.75
30.50
5.25
5X Ø 2.50 ↧ 3.50
M3X0.5 - 6H ↧ 3.00
⌵ Ø 3.00 X 90°, NEAR SIDE
36.50
20.00
3.50
10.75
55.75
6.00
4.20
61.00
40.00