ACE-N622 with Jetson™ TX2 Module

Features

- **This Product specifically designed for high performance and low-power envelope AI computing.**
- **Additional driver to support Embedded peripheral modules for multiple I/O expansion capability.**
- **On-board 1x HDMI, 2x CAN BUS and 2x Mini Card to support rich multimedia and MIPI CSI camera.**
- **Extended temperature range -20˚C to 70˚C.**
- **Jetson™ TX2 powered by NVIDIA® TEGRA® X2 processor - the powerful new NVIDIA Pascal™ architecture, 256 GPU cores, a 64-bit CPU.**
- **CPU complex combines a dual-core NVIDIA® Denver™ 2 alongside a quad-core ARM Cortex-A57.**
- **Suitable for general robotics, UAV, industrial inspection, medical imaging and deep learning.**

Specifications

TX2 Processor
- NVIDIA® Tegra® X2
- HMP Dual Denver 2 / 2 MB L2 +Quad ARM A57 / 2 MB L2

Graphics
- NVIDIA Pascal™, 256 CUDA® cores
- 1.5 TeroFLOPS

Board Form Factor
- nano-ITX (120 x 120mm)

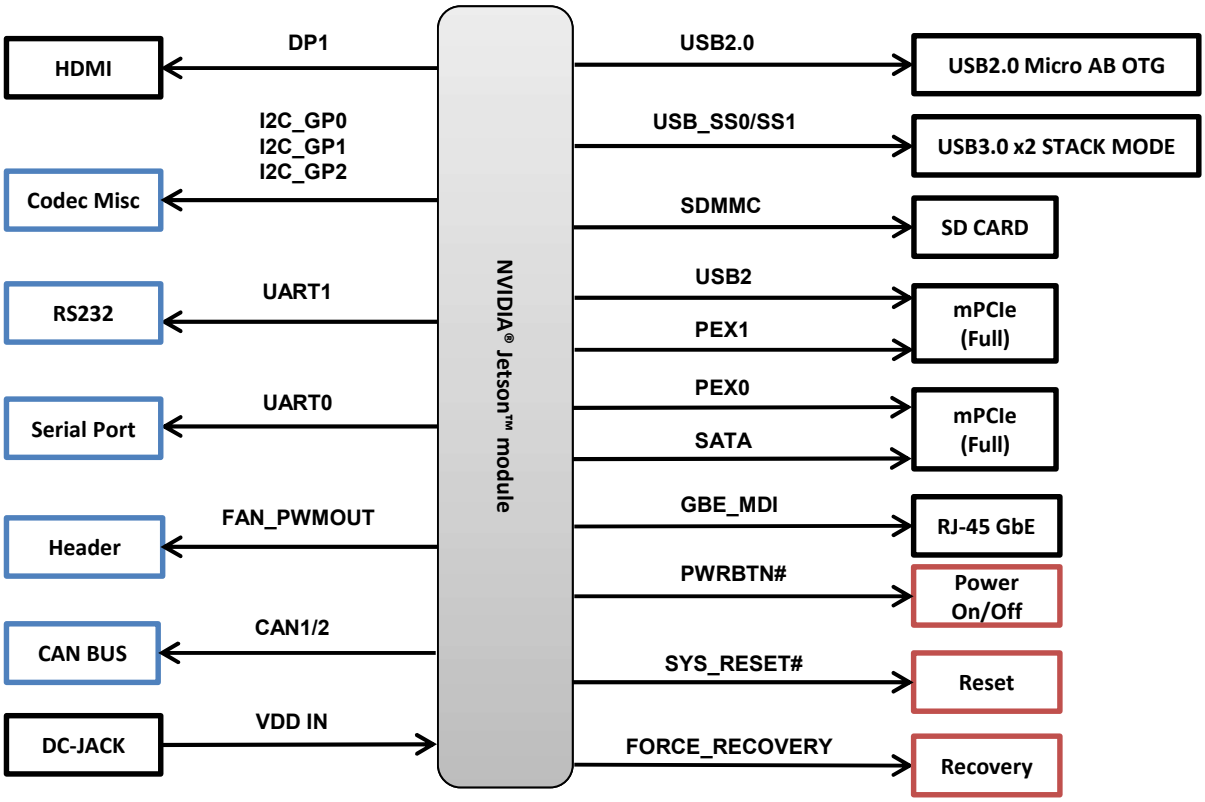
I/O Interface
- 1x HDMI Type A
- 1x RJ-45 for GbE
- 2x USB3.0 Type A
- 1x USB2.0 Micro AB
- 1x Full-Mini Card (PCI Express x1 & USB2.0)
- 1x Full-Mini Card (PCI Express x1 or mSATA)
- 2x CAN BUS1
- 1x Front Panel
- 1x MIPI CSI-2 (2 Lanes)
- 1x 4pin 12V output
- 1x 4pin 5V output
- 1x RS-232 / 1 x UART / 1 x I2C / 4 x GPIO
- 1 x DC-in 12V~19V

Operating Temperature
- 0˚C ~ +55˚C (Standard Version)
- -20˚C ~ +70˚C (Extended temperature)

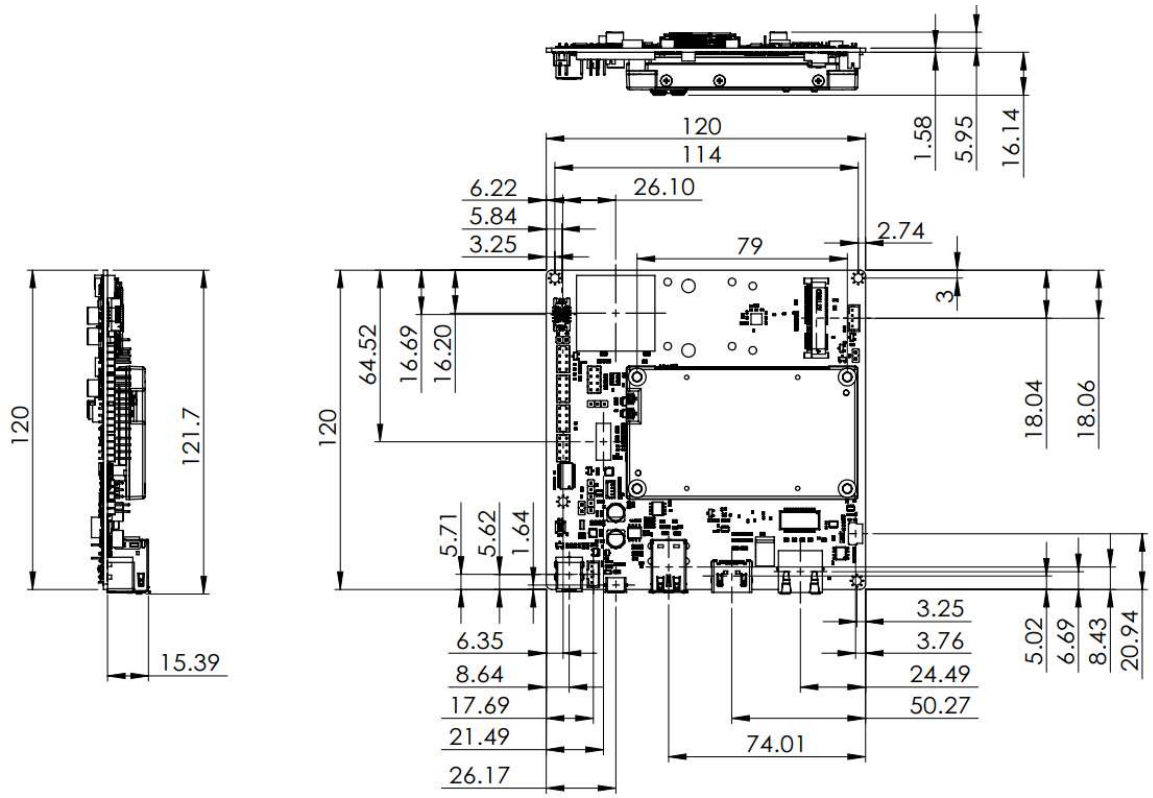
Operating Humidity
- 10% ~ 90%

Storage Temperature
- -40˚C ~ +125˚C

Block Diagram



Mechanical



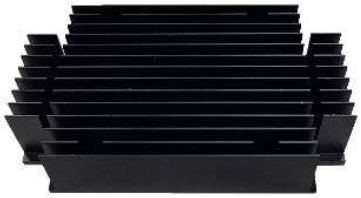
Ordering Information

Product name	Description
AN622-TX2-NN01	ACE-N622 Carrier with NVIDIA® Jetson™ TX2 module, Standard temp 0°C to +55°C
AN622-TX2-BN01	ACE-N622 Carrier with NVIDIA® Jetson™ TX2 module, Wide temp -20°C to +70°C
AN622-TX2-NN02	ACE-N622 + TX2 Module + FAN + Cable Kit + Power Adapter and Power Cord 0°C to +55°C
AN622-TX2-BN02	ACE-N622 + TX2 Module + FAN + Cable Kit + Power Adapter and Power Cord -20~+70℃
AN622-TX2-NN03	ACE-N622 + TX2 Module + FAN + Cable Kit + Power Adapter and EU Power Cord 0°C to +55°C
AN622-TX2-BN03	ACE-N622 + TX2 Module + FAN + Cable Kit + Power Adapter and EU Power Cord -20~+70℃

Accessory (Optional)

7W9000000020	ACE-N622 Cable kit(CAN bus / 12V Output / 5V Output)
9Z1253232030	Active Heat Sink(With FAN)
9Z2XX4141010	Passive Heat Sink
7W8000000040	US Power Cord SVT 18AWG Cable 1800mm Black 105 °C
7W8000000050	EU Power Cord H05VV-F 0.75mm2/3G SL-6+SL-3 Cable 1800mm Black
9Z3BC0000020	100-240V 60W 12V 5A Adapter

Passive Heat Sink



Active Heat Sink

Cable Kit

12V/5A 60W Adapter

AVL List

Mini PCIe Extension Module				
Vendor	**Module name**	**Function**	**Temp.**	**Module Type**
Innodisk	TMPL-G101-C1	Gbe LAN x 1	0 ºC to 70 ºC	mPCIe to Single Isolated LAN
Innodisk	TMPL-G101-W1	Gbe LAN x 1	-40 ºC to 85 ºC	mPCIe to Single Isolated LAN
Innodisk	TMPL-G201-C1	Gbe LAN x 2	0 ºC to 70 ºC	mPCIe to Dual Isolated LAN
Innodisk	TMPL-G201-W1	Gbe LAN x 2	-40 ºC to 85 ºC	mPCIe to Dual Isolated LAN
Innodisk	TMPL-G102-C1	Gbe LAN x 1	0 ºC to 70 ºC	mPCIe to Single Isolated LAN Horizontal
Innodisk	TMPL-G102-W1	Gbe LAN x 1	-40 ºC to 85 ºC	mPCIe to Single Isolated LAN Horizontal
Innodisk	TMPL-G202-C1	Gbe LAN x 2	0 ºC to 70 ºC	mPCIe to Dual Isolated LAN Horizontal
Innodisk	TMPL-G202-W1	Gbe LAN x 2	-40 ºC to 85 ºC	mPCIe to Dual Isolated LAN Horizontal
Innodisk	TMPL-G2P1-C1	PoE x 2	0 ºC to 70 ºC	mPCIe to dual Isolated PoE Module, Mounting hole, 4pin header
Innodisk	TMPL-G2P1-W1	PoE x 2	-40 ºC to 85 ºC	mPCIe to dual Isolated PoE Module, Mounting hole, 4pin header
Innodisk	TMPL-G2P1-C3	PoE x 2	0 ºC to 70 ºC	mPCIe to dual Isolated PoE Module, Mounting hole, DC Jack
Innodisk	TMPL-G2P1-W3	PoE x 2	-40 ºC to 85 ºC	mPCIe to dual Isolated PoE Module, Mounting hole, DC Jack
Innodisk	TMPL-G2P2-C1	PoE x 2	0 ºC to 70 ºC	mPCIe to dual Isolated PoE/PoE+ Module, Mounting hole, 4pin header
Innodisk	TMPL-G2P2-W1	PoE x 2	-40 ºC to 85 ºC	mPCIe to dual Isolated PoE/PoE+ Module, Mounting hole, 4pin header
Innodisk	TMPL-G2P2-C3	PoE x 2	0 ºC to 70 ºC	mPCIe to dual Isolated PoE/PoE+ Module, Mounting hole, DC Jack
Innodisk	TMPL-G2P2-W3	PoE x 2	-40 ºC to 85 ºC	mPCIe to dual Isolated PoE/PoE+ Module, Mounting hole, DC Jack
Innodisk	TMU2-X1S1-W1	RS232 x 1	-40 ºC to 85 ºC	USB to Single Isolated RS-232
Innodisk	TMU2-X2S1-W1	RS232 x 2	-40 ºC to 85 ºC	USB to Dual Isolated RS-232
Innodisk	TMUC-B202-W1	CAN 2.0B x 2	-40 ºC to 85 ºC	USB to Dual Isolated CANbus 2.0B/J1939 Provide API
Innodisk	TMUI-0D01-W1	32bit Digital I/O	-40 ºC to 85 ºC	USB to 32bit Digital I/O Module Provide API
Innodisk	TMPU-3401-C1	USB 3.0 x 4	0 ºC to 70 ºC	mPCIe to USB 3.0 (x4)
Innodisk	TMPU-3401-W1	USB 3.0 x 4	-40 ºC to 85 ºC	mPCIe to USB 3.0 (x4)
Innodisk	TMPU-3201-C1	USB 3.0 x 2	0 ºC to 70 ºC	mPCIe to USB 3.0 (x2)
Innodisk	TMPU-3201-W1	USB 3.0 x 2	-40 ºC to 85 ºC	mPCIe to USB 3.0 (x2)
Innodisk	TMP2-X202-W1	RS422/485 x 2	-40 ºC to 85 ºC	mPCIe to RS422/485 (x2)
Innodisk	TMP2-X402-W1	RS422/485 x 4	-40 ºC to 85 ºC	mPCIe to RS422/485 (x4)
Innodisk	TMP2-X203-W1	RS232 x 2	-40 ºC to 85 ºC	mPCIe to RS232 (x2)
Innodisk	TMP2-X403-W1	RS232 x 4	-40 ºC to 85 ºC	mPCIe to RS232 (x4)
Innodisk	TMP2-X404-W1	RS232/422/485 x 4	-40 ºC to 85 ºC	mPCIe to RS232/422/485 (x4)

Vendor	**Module name**	**Function**	**Module Type**	**Display Video Resolution**
YUAN	SC330N4 MC	Frame Grabber	4Channel SD	NTSC: 720×480@30fps PAL: 720×576@25fps
YUAN	SC3C0N4 MC	Frame Grabber	4Channel SD	NTSC: 960×480@29.97fps (WD1), 720×480@29.97fps (D1) PAL: 960×576@25fps (WD1)720×576@25fps (D1)
YUAN	SC330N8 MC	Frame Grabber	8Channel SD	NTSC: 720×480@30fps PAL: 720×576@25fps
YUAN	SC3C0N8 MC	Frame Grabber	8Channel SD	NTSC: 240fps@960/720×480 PAL: 200fps@960/720×576
YUAN	SC550N1 MC HDV	Frame Grabber	1Channel Full-HD 1080P60	1920×1200p@60/50fps in → 1920×1200p@60/50fps out 1920×1080p@60/50fps in → 1920×1080p@60/50fps out
YUAN	SC5C0N1 MC HDV	Frame Grabber	1Channel Full-HD 1080P60	1920×1080p@60/50fps in → 1920×1080p@60/50fps out
Avermedia	C353	Frame Grabber	1Channel Full-HD 1080P60	Max. Input Resolution: 1080p60 → Max. Resolution Captured: 1080p30