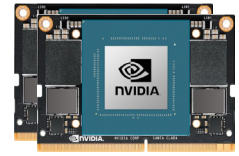
The Jetson family

For AI at the Edge and Autonomous Machines

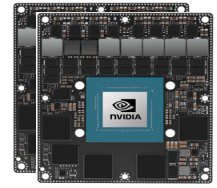
Next Gen Jetson

JETSON Orin NX Series
100 TOPs (INT8)

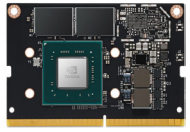
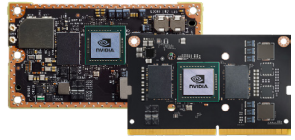
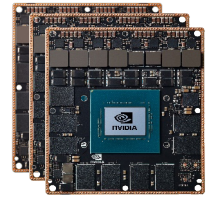


10 - 25W
8GB/16GB
45mm x 70mm

JETSON AGX Orin Series
275 TOPs (INT8)



15- 60W
32GB/64GB
100mm x 87mm

ENTRY	MAINSTREAM		AUTONOMOUS MACHINES
JETSON NANO 0.5 TFLOPS (FP16)	**JETSON TX2 series** 1.33 TFLOPS (FP16)	**JETSON Xavier NX series** 6 TFLOPS (FP16) 21 TOPS (INT8)	**JETSON AGX Xavier Series** 11 TFLOPS (FP16) 32 TOPS (INT8)
			
5 - 10W 45mm x 70mm	7.5 - 15W* 45mm x 70mm 50mm x 87mm	10 - 20W 8GB/16GB 45mm x 70mm	10 – 30W** 32GB/64GB 100mm x 87mm

Full specs at developer.nvidia.com/jetson

*TX2i: 10-20W ** Jetson AGX Xavier Industrial 20W-40W

source: NVIDIA

NVIDIA® Jetson Module Powered Devices Comparison

Module	Jetson Nano		
Photo			
Product Name	reComputer J1010	reComputer J1020	NVIDIA® Jetson Nano Developer Kit-B01
SKU	110061362	110061361	102110417
Built-in carrier board	J101	A206	NVIDIA® Jetson Nano Reference carrier board
AI Performance	472 GFLOPS		
GPU	NVIDIA Maxwel TM architecture with 128 NVIDIA CUDA® cores		
CPU	Quad-Core Arm® Cortex®-A57 MPCore processor		
Memory	4 GB 64-bit LPDDR4 25.6GB/s		
Storage	16 GB eMMC 5.1		microSD (card not included)
Video Encode	1*4K30 | 2*1080p60 | 4*1080p30 | 4*720p60 | 9*720p30 (H.265 & H.264)		1*4K30 | 4*1080p30 | 9*720p30 (H.264/H.265)
Video Decode	1*4K60 | 2*4K30 | 4*1080p60 | 8*1080p30 | 9*720p60 (H.265 & H.264)		1*4K60 | 2*4Kp30 | 8*1080p30 | 18*720p30 | (H.264/H.265)
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)		
USB	1*USB 3.0 Type A; 2*USB 2.0 Type A; 1*USB Type C for device mode; 1*USB Type C for 5V power input	4*USB 3.0 Type-A; 1*Micro-USB port for device mode	4*USB 3.0 Type-A; 1*Micro-USB port for Device mode for device mode
CSI Camera	2*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2)		
Display	1*HDMI 2.0 Type A	1*HDMI 2.0 Type A; 1*DP	1*HDMI Type A; 1*DP
Fan Connector	1*Fan (5V PWM)		
M.2 KEY E	1*M.2 Key E	1*M.2 Key E (disabled)	1*M.2 Key E
M.2 KEY M	-	1*M.2 Key M	-
Multifunctional port	1*40-Pin header		
Power Adapter	USB Type-C 5V/3A	DC Jack 12V/2A	DC Jack 5V/4A Micro-USB 5V/2A
Power	5W | 10W		
Mechanical	130mmx120mmx50mm (with case)	130mmx120mmx50mm (with case)	100mmx80mmx29mm

NVIDIA® Jetson Module Powered Devices Comparison

Moduel	Jetson Xavier NX							
Photo								
Product Name	reComputer J2011	reComputer J2021	reComputer J2012	Jetson SUB Mini-PC Black	reServer J2032	NVIDIA® Jetson Xavier NX Developer Kit	Jetson SUB Mini PC-blue	Jetson SUB Mini PC-Silver
SKU	110061363	110061381	110061401	102110641	110061403	102110427	102110637	102110642
Built-in carrier board	A206	J202	A206	A205	Seeed Carrier board for Xavier NX	NVIDIA® Jetson Xavier NX Reference carrier board	A206	
AI Performance	21 TOPS							
GPU	NVIDIA Volta TM architecture with 384 NVIDIA CUDA® cores and 48 Tensor cores							
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6 MB L2 + 4 MB L3							
Memory	8 GB 128-bit LPDDR4x 59.7GB/s	8 GB 128-bit LPDDR4x 59.7GB/s	16 GB 128-bit LPDDR4x 59.7GB/s	8 GB 128-bit LPDDR4x 59.7GB/s	8 GB 128-bit LPDDR4x 51.2GB/s			
Storage	16 GB eMMC 5.1			16 GB eMMC 5.1 5*SATA (256GB SATA included)	16 GB eMMC 5.1	microSD (card not included)	16 GB eMMC 5.1	
Video Encode	2*4K60 | 4*4K30 | 10*1080p60 | 22*1080p30 (H.265) 2*4K60 | 4*4K30 | 10*1080p60 | 20*108p30 (H.264)				2x 4K60 | 4x 4K30 | 10x 1080p60 | 22x 1080p30 (H.265) 2x 4K60 | 4x 4K30 | 1 0x 1080p60 | 20x 1080p30 (H.264)	2*4K30 | 6*1080p60 | 14x1080p30 (H.265/H.264)	2x 4K60 | 4x 4K30 | 10x 1080p60 | 22x 1080p30 (H.265) 2x 4K60 | 4x 4K30 | 10x 1080p60 | 20x 1080p30 (H.264)	
Video Decode	2*8K30 | 6*4K60 | 12*4K30 | 22*1080p60 | 44*1080p30 (H.265) 2*4K60 | 6*4K30 | 10*1080p60 | 22*1080p30 (H.264)				2x 8K30 | 6x 4K60 | 12x 4K30 | 22x 1080p60 | 44x 1080p30 (H.265) 2x 4K60 | 6x 4K30 | 10x 1080p60 | 22x 1080p30 (H.264)	2*4K60 | 4*4K30 | 12*1080p60 | 32*1080p30 (H.265) 2*4K30 | 6x1080p60 | 16x1080p30 (H.264)	2x 8K30 | 6x 4K60 | 12x 4K30 | 22x 1080p60 | 44x 1080p30 (H.265) 2x 4K60 | 6x 4K30 | 10x 1080p60 | 22x 1080p30 (H.264)	
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)			2*RJ45 Gigabit Ethernet Connector (10/100/1000)	1000M Ethernet Port 2.5G Ethernet Port	1*RJ45 Gigabit Ethernet Connector (10/100/1000)	10/100/1000 BASE-T Ethernet	
USB	4*USB 3.0 Type A Connector 1*Micro-USB port for Device mode	4 * USB 3.1 Type A Connector; 1* USB Type-C (Device mode)	4*USB 3.0 Type A Connector 1*Micro-USB port for Device mode	4*USB3.0 (USB 2.0 Integrated) 1*USB Type-C	2* USB3.1 GNE2 Interface USB TYPE-C Connector for NX Device Mode USB TYPE-C Connector for Coprocessor RP2040	4*USB 3.1 Type A Connector 1*Micro-USB port for Device mode	4x USB3.0(USB 2.0 Integrated) 1x Micro USB 1x USB2.0	4x USB3.0(USB 2.0 Integrated) 1x Micro USB
CSI Camera	2*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2)			6*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2)	-	2*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2)	2*CSI Camera (15 pos, 1mm pitch, MIPI CSI-2)	
Display	1*HDMI 2.0 Type A 1*DP			2*HDMI 2.0 Type A	1* DP1.4 1*HDMI 2.0	1*HDMI 2.0 Type A 1*DP	2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0	
Fan Connector	1* Fan (5V PWM) (Fan included)			2* Fan (12V/5V) 1*Fan(5V PWM)	1* Jetson Xavier NX Fan Connector (5V PWM) 1* Main Fan Connector (12V)	1* Fan (5V PWM)(Fan included)	1*Picoblade Header	
M.2 KEY E	1*M.2 Key E			1*M.2 Key E(WiFi/BT included)	-	1*M.2 Key E(WiFi/BT included)	Pre-installed Wifi module (802.11ac, Dual Band, 80MHZ, MU-MIMO & Bluetooth 4.2)	
M.2 KEY M	1*M.2 Key M			-	-	1*M.2 Key M	1*M.2 Key MPre-installed 128GB NVME SSD	
Multifunctional port	1*40-Pin header				-	1*40-Pin header	1*40-Pin header	
Power Adapter	DC Jack 19V 4.74A (MAX 90W)	12V/5A(Barrel Jack 5.5/2.1mm)	DC Jack 19V 4.74A (MAX 90W)	DC Jack 19V 4.74A (MAX 90W)	DC Jack 12V @5A	DC Jack 19V 4.74A (MAX 90W)	DC Jack 19V 4.74A (MAX 90W)	
Power	10W | 15W | 20W				-	10W | 15W | 20W	10W | 15W | 20W	
Mechanical	130mmx120mmx50mm (with case)			205mmx130mmx65mm		103mmx90.5mmx31mm	130mmx120mmx50mm	130mmx90mmx60mm

NVIDIA® Jetson Module Powered Devices Comparison

Module	Jetson Orin NX	
Photo	Coming soon	
Product Name	reComputer J4011	reComputer J4012
SKU	TBD	TBD
Built-in carrier board	Seeed Carrier board for Orin NX	Seeed Carrier board for Orin NX
AI Performance	70 TOPS	100 TOPS
GPU	NVIDIA Ampere architecture with 1024 NVIDIA® CUDA® cores and 32 tensor cores	
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
Memory	8GB 128-bit LPDDR5 102.4 GB/s	16GB 128-bit LPDDR5 102.4 GB/s
Storage	Supports external NVMe	Supports external NVMe
Video Encode	1*4K60 | 3*4K30 | 6*1080p60 | 12*1080p30 (H.265) H.264, H.265, AV1	
Video Decode	1*8K30 | 2*4K60 | 4*4K30 | 9*1080p60 | 18*1080p30 (H.265) H.264, H.265, VP9, AV1	
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)	
USB	4*USB 3.2 Type-A 1*USB Type C for device mode	
CSI Camera	2*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2)	
Display	1*DP	
Fan Connector	1* Fan(5V PWM) (Fan included)	
M.2 KEY E	1*M.2 Key E	
M.2 KEY M	1*M.2 Key M(128GB NVMe SSD included)	
Multifunctional port	1*40-Pin header	
Power Adapter	DC Jack 19V 4.74A (MAX 90W)	
Power	10W - 20W	10W - 25W
Mechanical	130mmx120mmx50mm (with case)	

NVIDIA® Jetson Module Powered Devices Comparison

Module	Jetson AGX Xavier		Jetson AGX Orin	
Photo				
Product Name	Jetson AGX Xavier H01 Kit	NVIDIA® Jetson AGX Xavier Dev Kit	reServer J5014	NVIDIA® AGX Orin Dev Kit
SKU	110991666	102110406	110061404	110991725
Built-in carrier board	Seeed Carrier board for AGX Xavier	NVIDIA® Jetson AGX Xavier Reference carrier board	Seeed Carrier board for AGX Orin	NVIDIA® Jetson AGX Orin Reference carrier board
AI Performance	32 TOPS		275 TOPS	275 TOPS
GPU	NVIDIA Volta TM architecture with 512 NVIDIA® CUDA® cores and 64 Tensor cores		NVIDIA Ampere architecture with 2048 NVIDIA® CUDA® cores and 64 Tensor Cores	
CPU	8-core NVIDIA Carmel Arm®v8.2 64-bit CPU 8MB L2 + 4MB L3		12-core Arm® Cortex®-A78AE v8.2 64- bit CPU 3MB L2 + 6MB L3	
Memory	32 GB 256-bit LPDDR4x 136.5GB/s		64GB 256-bit LPDDR5 204.8 GB/s	
Storage	32 GB eMMC 5.1		64GB eMMC 5.1	
Video Encode	4*4K60 | 8*4K30 | 16*1080p60 | 32*1080p30 (H.265) 4*4K60 | 8*4K30 | 14*1080p60| 30*1080p30 (H.264)	2*4Kp60 | HEVC/2*4Kp60 | 12-Bit Support	2x 4K60 | 4x 4K30 | 8x 1080p60 | 16x 1080p30 (H.265) H.264, AV1	
Video Decode	2*8K30 | 6*4K60 | 12*4K30 | 26*1080p60 | 52*1080p30 (H.265) 4*4K60 | 8*4K30 | 16*1080p60| 32*1080p30 (H.264)	2*4Kp60 | HEVC/2*4Kp60 | 12-Bit Support	1x 8K30 | 3x 4K60 | 7x 4K30 | 11x 1080p60| 22x 1080p30 (H.265) H.264, VP9, AV1	
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)		1*RJ45 10 Gigabit Ethernet Connector	
USB	20PIN 0.5mm ZIF FPC (achieve USB-C 3.0 with corresponding convert ports)	2*USB 3.1 DP (Optional) PD (Optional) Close-System Debug and Flashing Support on 1 Port	4*USB 3.2 Type A 2*USB 3.2 Type C 1*USB 2.0 Micro B for debug	
CSI Camera	(16x) CSI-2 Lanes		16 lanes MIPI CSI-2 connector	
Display	3 multi-mode DP 1.4/ eDP 1.4/HDMI 2.0 No DSI support	HDMI 2.0 Type-A connector, 2xDP routed to Type-C connectors	1*DP	
Fan Connector	1*12V Fan (Fan included)	-	1*Fan (5V PWM)	4-Pin Fan header
M.2 KEY E	PCIe+UART+I2S/ PCM	PCIe x1 + USB 2.0 + UART (for Wi-Fi/ LTE) / I2S / PCM	1*M.2 Key E(WiFi/BT included)	
M.2 KEY M	1*M.2 Key M		2*M.2 Key M	1*M.2 Key M
Multifunctional port	1*40-Pin header			
Power Adapter	DC Jack 19V 4.74A (MAX 90W)		DC Jack 24V	USB Type-C 20V/4.5A
Power	10W | 15W | 30W		15W - 60W	15W - 40W
Mechanical	130mmx105mmx77mm (with case)	105mmx105mmx65mm	132mmx124mmx233mm	110mmx110mmx71.65mm

NVIDIA® Jetson Module Compatible Carrier Boards Comparison

Carrier board	reComputer J101 carrier board for NVIDIA® Jetson™ Nano/NX/TX2 NX	reComputer J202 carrier board for NVIDIA® Jetson™ Nano/NX/TX2 NX	Coming soon reComputer J401 carrier board for NVIDIA® Jetson™ Orin NX	A206 carrier board for NVIDIA® Jetson™ Nano/NX/TX2 NX	A203 V2 carrier board for NVIDIA® Jetson™ Nano/ NX/TX2 NX	A205 carrier board for NVIDIA® Jetson™ Nano/NX/TX2 NX
Module Compatibility	NVIDIA® Jetson ™ Nano	NVIDIA® Jetson ™ Nano/ Xavier NX/TX2 NX	NVIDIA® Jetson ™ Orin NX	NVIDIA® Jetson ™ Nano/ Xavier NX/TX2 NX	NVIDIA® Jetson ™ Nano/ Xavier NX/TX2 NX	NVIDIA® Jetson ™ Nano/ Xavier NX/TX2 NX
PCB Size / Overall Size	100mm*80mm	100mm*80mm	100mm*80mm	100mm*80mm	87mm*52mm	170mm*100mm
Display	1*HDMI	1*HDMI+1*DP	1*DP	1*HDMI+1*DP	1*HDMI	2*HDMI
CSI Camera	2*CSI	2*CSI	2*CSI	2*CSI	1*CSI	6*CSI
Ethernet	1x Gigabit Ethernet (10/100/1000M)	1x Gigabit Ethernet (10/100/1000M)	1x Gigabit Ethernet (10/100/1000M)	1x Gigabit Ethernet (10/100/1000M)	1x Gigabit Ethernet (10/100/1000M)	2x Gigabit Ethernet (10/100/1000M)
USB	\	\	\	\	1* USB 3.0 0.5mm pitch 20Pin ZIF	\
	1* USB 3.0 Type-A 2* USB 2.0 Type-A	4* USB 3.1 Type-A (Integrated USB 2.0)	4* USB 3.2 Type-A (Integrated USB 2.0)	4* USB 3.0 Type-A (Integrated USB 2.0)	2* USB 3.0 Type-A (Integrated USB 2.0)	4* USB 3.0 Type-A (Integrated USB 2.0)
	1* USB Type C(Not support power input)	1* USB Type C(Not support power input)	1* USB Type C(Not support power input)	1* USB Micro B(Not support power input)	1* USB Micro B(Not support power input)	1* USB 2.0 Type C(Support OTG)
Storage Expansion	\	1*M.2 Key M	1*M.2 Key M	1*M.2 Key M	1*M.2 Key M	5*SATA
M.2 Key E	1*M.2 Key E	1*M.2 Key E	1*M.2 Key E	1*M.2 Key E	1*M.2 Key E	1*M.2 Key E
TF_Card	1* TF_Card (CLK Frequency 48Mhz)	\	\	\	1* TF_Card	1* TF_Card
USB WIFI Mode	\	\	\	\	\	1* Standard USB WIFI Mode(4 pin interface)
Audio	\	\	\	\	\	1* Audio Jack
	\	\	\	\	\	2* Microphone interface
	\	\	\	\	\	2* Speaker interface
SPI Bus	2* SPI Bus(+3.3V Level)	2* SPI Bus(+3.3V Level)	2* SPI Bus(+3.3V Level)	2* SPI Bus(+3.3V Level)	2* SPI Bus(+3.3V Level)	2* SPI Bus(+3.3V Level)
Fan Connector	1* Fan(5V PWM)	1* Fan(5V PWM)	1* Fan(5V PWM)	1* Fan(5V PWM)	1* Fan(5V PWM)	2* Fan(12V/5V)
						1* Fan(5V PWM)
CAN	\	1* CAN	1* CAN	1* CAN	1* CAN	1* CAN
Multifunctional port	1* 40-Pin	1* 40-Pin	1* 40-Pin	1* 40-Pin	1* 40-Pin	1* 40-Pin
RTC	Battery not included	Battery not included	Battery not included	Battery not included	Battery not included	Battery not included
Power supply	USB Type C 5V/3A (not include a power cord)	12V/5A power cord only	19V/4.74A power cord only	19V/4.74A power cord only	19V/4.74A power cord only	19V/4.74A power cord only
Operating Temperature	0°C～60°C	0°C～60°C	0°C～60°C	-25°C～70°C	-25°C ~65°C	-25°C ~80°C