

Model	JEA-E608		JEA-E618	
JEA Edge AI Box with NVIDIA Jetson				
<b>System</b>				
AI Platform	NVIDIA Jetson Orin Nano 4GB	NVIDIA Jetson Orin Nano 8GB	NVIDIA Jetson Orin NX 8GB	NVIDIA Jetson Orin NX 16GB
AI Performance	20 TOPS	40 TOPS	70 TOPS	100 TOPS
CPU	6 x Cortex-A78AE	6 x Cortex-A78AE	6 x Cortex-A78AE	8 x Cortex-A78AE
GPU	NVIDIA Ampere GPU 512 CUDA cores, 16 Tensor cores	NVIDIA Ampere GPU 1024 CUDA cores, 32 Tensor cores	NVIDIA Ampere GPU 1024 CUDA cores, 32 Tensor cores	NVIDIA Ampere GPU 1024 CUDA cores, 32 Tensor cores
Memory	4GB 64-bit LPDDR5	8GB 128-bit LPDDR5	8GB 128-bit LPDDR5	16GB 128-bit LPDDR5
Flash	-	-	-	-
<b>Network</b>				
Ethernet	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps
Wireless Connectivity	1 x M.2 Key E for WIFI/BT 1 x M.2 Key B for 4G/5G 1 x Mini PCIe for LoRa 1x on-board Zigbee	1 x M.2 Key E for WIFI/BT 1 x M.2 Key B for 4G/5G 1 x Mini PCIe for LoRa 1x on-board Zigbee	1 x M.2 Key E for WIFI/BT 1 x M.2 Key B for 4G/5G 1 x Mini PCIe for LoRa 1x on-board Zigbee	1 x M.2 Key E for WIFI/BT 1 x M.2 Key B for 4G/5G 1 x Mini PCIe for LoRa 1x on-board Zigbee
<b>Multimedia</b>				
Display	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
Video Input	-	-	-	-
Audio	1 x 3.5mm Line out + Mic in	1 x 3.5mm Line out + Mic in	1 x 3.5mm Line out + Mic in	1 x 3.5mm Line out + Mic in
<b>I/O</b>				
USB	1 x Type-C, 2 x USB 3.0, 2 x USB 2.0		1 x Type-C, 2 x USB 3.0, 2 x USB 2.0	
Serial Port	1x RS-232/485, 1x RS-232, 1x RS-485	1x RS-232/485, 1x RS-232, 1x RS-485	1x RS-232/485, 1x RS-232, 1x RS-485	1x RS-232/485, 1x RS-232, 1x RS-485
CAN	1	1	1	1
GPIO	8	8	8	8
<b>Storage &amp; Expansion</b>				
SSD	1 x M.2 Key M for NVMe SSD (PCIe x4)		1 x M.2 Key M for NVMe SSD (PCIe x4)	
AI Accelerator	-	-	-	-
SD Card	1 x Micro SD slot	1 x Micro SD slot	1 x Micro SD slot	1 x Micro SD slot
SIM Card	1 x Micro SIM slot	1 x Micro SIM slot	1 x Micro SIM slot	1 x Micro SIM slot
<b>Board Features</b>				
Watchdog Timer	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management
Real Time Clock	On-board I2C RTC	On-board I2C RTC	On-board I2C RTC	On-board I2C RTC
TPM/TCM	On-board TPM 2.0	On-board TPM 2.0	On-board TPM 2.0	On-board TPM 2.0
Others	On-board GPS	On-board GPS	On-board GPS	On-board GPS
<b>Power Supply</b>				
Input Voltage	12V DC IN	12V DC IN	12V DC IN	12V DC IN
Connector	Terminal block	Terminal block	Terminal block	Terminal block
<b>System Control &amp; Monitoring</b>				
Buttons	1 x Power, 1 x Reset	1 x Power, 1 x Recovery	1 x Power, 1 x Recovery	1 x Power, 1 x Recovery
Indicators	1 x Power, 1 x WiFi, 1 x 4G/5G, 1 x Zigbee	1 x Power, 1 x WiFi, 1 x 4G/5G, 1 x Zigbee	1 x Power, 1 x WiFi, 1 x 4G/5G, 1 x Zigbee	1 x Power, 1 x WiFi, 1 x 4G/5G, 1 x Zigbee
<b>Mechanical</b>				
Dimensions	187mm x 131mm x 54mm	187mm x 131mm x 54mm	187mm x 131mm x 54mm	187mm x 131mm x 54mm
Mounting	Wallmount	Wallmount	Wallmount	Wallmount
Antenna	6 x SMA Connectors	6 x SMA Connectors	6 x SMA Connectors	6 x SMA Connectors
<b>Software</b>				
Operating System	Ubuntu 20.04	Ubuntu 20.04	Ubuntu 20.04	Ubuntu 20.04
<b>Environment</b>				
Operating Conditions	-20~70°C, 10%~90% RH	-20~70°C, 10%~90% RH	-20~70°C, 10%~90% RH	-20~70°C, 10%~90% RH
Storage Conditions	-20~75°C, 5%~95% RH	-20~75°C, 5%~95% RH	-20~75°C, 5%~95% RH	-20~75°C, 5%~95% RH



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# Arm-Based Industrial Products

## Arm-Based Embedded Board

- Low power consumption
- Rich I/Os and Multi display

## Arm-Based Industrial Computer

- AI performance from 0.5 to 275 TOPS
- Rich I/Os and Wireless connectivity



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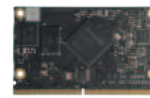
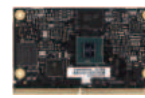
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Model	JSOM-N8MC	JSOM-N8PC	JSOM-R68C	JSOM-R88C	JES-N931	JES-R68I	JES-R88I	JSOM-SC211
	JSOM Arm-based SMARC Modules				JES Arm-based Embedded Boards			Development kits
System								
CPU	NXP i.MX 8M Mini 4 x Cortex-A53	NXP i.MX 8M Plus, 2/4 x Cortex-A53	Rockchip RK3568J, 4 x Cortex-A55	Rockchip RK3588J 4 x Cortex-A76 + 4 x Cortex-A55	NXP i.MX 93, 2x Cortex-A55	Rockchip RK3568J, 4x Cortex-A55	Rockchip RK3588J 4x Cortex-A76 + 4x Cortex-A55	Evaluation Carrier Board for SMARC 2.1.1 Modules
MCU	1 x Cortex-M4	1 x Cortex-M7	-	-	1 x Cortex-M33	-	-	-
NPU	-	2.3 TOPS	1.0 TOPS	6.0 TOPS	0.5 TOPS	1.0 TOPS	6.0 TOPS	-
GPU	Vivante GC NanoUltra	Vivante GC7000UL	Arm Mali-G52	Arm Mali-G610 MP4	-	Arm Mali-G52	Arm Mali-G610 MP4	-
Memory	2GB/4GB LPDDR4	2GB/4GB/6GB LPDDR4	2GB/4GB LPDDR4/4X	4GB/8GB LPDDR4X	2GB LPDDR4X	2GB/4GB LPDDR4/4X	4GB/8GB LPDDR4X	-
Flash	16GB/32GB/64GB eMMC, 32MB QSPI NOR Flash	16GB/32GB/64GB eMMC	16GB/32GB/64GB/128GB eMMC	32GB/64GB/128GB eMMC	8GB/16GB/32GB eMMC	16GB/32GB eMMC	32GB/64GB/128GB eMMC	-
Network								
Ethernet	1 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps w/TSN 1 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	3 x 10/100/1000 Mbps
Wireless Connectivity	1 x On-board WiFi+BT	-	-	-	1 x On-board WiFi+BT 1 x Mini PCIe for 4G	1 x On-board WiFi+BT 1 x M.2 Key B for 4G/5G	1 x On-board WiFi+BT 1 x M.2 Key B for 4G/5G	1 x M.2 Key E for WiFi/BT 1 x M.2 Key B for 4G/5G
Multimedia								
HDMI	-	1 x HDMI 2.0a	1 x HDMI 2.0a	1 x HDMI 2.1	1 x HDMI 1.4	1 x HDMI 2.0a	1 x HDMI 2.1 Tx, 1 x HDMI 2.0 Rx	2 x HDMI
DP	-	-	-	1 x DP 1.4	-	-	-	2 x DP
eDP	-	-	1 x 4-lane eDP	1 x 4-lane eDP	-	1 x 4-lane eDP	1 x 4-lane eDP	2 x 4-lane eDP
LVDS	1 x 4-lane MIPI-DSI or Dual ch LVDS	1x Single ch LVDS+1x 4-lane MIPI-DSI or 1x Dual ch LVDS	1 x Single ch LVDS or 4-lane MIPI-DSI	1x 4-lane MIPI-DSI	1 x Single ch LVDS	1 x Dual ch LVDS	1 x Dual ch LVDS	1 x Dual ch LVDS
MIPI-DSI	-	-	-	-	-	1 x 4-lane MIPI-DSI	-	2 x 4-lane MIPI-DSI
Camera Input	1 x 4-lane MIPI-CSI	1 x 4-lane MIPI-CSI, 1x 2-lane MIPI-CSI	1 x 4-lane MIPI-CSI	1 x 4-lane MIPI-CSI 1 x 2-lane MIPI-CSI	1 x 2-lane MIPI-CSI	1 x 2-lane MIPI-CSI	-	2 x 2-lane MIPI-CSI
Audio	2 x I2S Audio	2 x I2S Audio	2 x I2S Audio	2 x I2S Audio	1 x 3.5mm Line out, 1 x Speaker, 1 x Mic in	1 x 3.5mm Line out, 1 x Speaker, 1 x Mic in	1 x 3.5mm Line out, 1 x Speaker, 1 x Mic in	1 x 3.5mm Line out, 1 x 3.5mm Mic in, 1 x Speaker
I/O								
USB	5 x USB 2.0	2 x USB 3.0, 3 x USB 2.0	2 x USB 3.0, 2 x USB 2.0	2 x USB 3.0, 2 x USB 2.0	6 x USB 2.0	1 x USB 3.0, 4 x USB 2.0	4 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 5 x USB 2.0, 1 x Micro USB OTG
Serial Port	2 x 4-wire UART, 2 x 2-wire UART	2 x 4-wire UART, 2 x 2-wire UART	2 x 4-wire UART, 2 x 2-wire UART	2 x 4-wire UART, 2 x 2-wire UART	2 x RS-232/485, 2 x RS-232/TTL, 2 x RS-232	2 x RS-232/485, 2 x RS-232/TTL, 2 x RS-232	4 x RS-232/485, 2 x RS-232/TTL	2 x Isolated RS-232/422/485, 2 x TTL debug
CAN	-	2	2	2	2	2	2	2
SPI	2	2	2	2	-	-	-	2
I2C	4	5	5	5	1 x I2C for touch panel control	1 x I2C for touch panel control	1 x I2C for touch panel control	-
GPIO	12	12	14	14	7 x GPIO+1 x ADC	7 x GPIO+1 x ADC	7 x GPIO+1 x ADC	8
Storage & Expansion								
PCIe	1 x PCIe 2.0 x1	1 x PCIe 3.0 x1	1 x PCIe 3.0 x1, 1 x PCIe 2.0 x1	1 x PCIe 3.0 x2, 1x PCIe 3.0 x1, 1 x PCIe 2.0 x1	-	-	1 x M.2 Key M (PCIe x4)	1 x M.2 Key M (PCIe x2)
SATA	-	-	1 x SATA 3.0	-	-	-	-	1 x SATA 3.0
SD Card	1 x SDIO 3.0	1 x SDIO 3.0	1 x SDIO 3.0	1 x SDIO 3.0	1 x Micro SD slot	1 x Micro SD slot	1 x Micro SD slot	1 x Micro SD slot
SIM Card	-	-	-	-	1 x Micro SIM slot	1 x Micro SIM slot	1 x Micro SIM slot	1 x Micro SIM slot
Board Features								
Watchdog Timer	-	-	-	-	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management
Real Time Clock	-	-	-	-	On-board I2C RTC	On-board I2C RTC	On-board I2C RTC	On-board I2C RTC
Power Supply								
Input Voltage	DC 5V	DC 5V	DC 5V	DC 5V	12V DC IN	12V DC IN	12V DC IN	12V DC IN
Connector	-	-	-	-	DC Jack	DC Jack	DC Jack	DC Jack
System Control & Monitoring								
Buttons	-	-	-	-	1 x Power (by header), 1 x Reset	1 x Power (by header), 1 x Reset	1 x Power (by header), 1 x Recovery	1 x Power, 1 x Sleep, 1 x Reset, 1 x Recovery
Indicators	-	-	-	-	1 x Power (Red), 1 x System (Blue)	1 x Power (Red), 1 x System (Blue)	1 x Power (Red), 1 x System (Blue)	1 x Power (Red), 1 x System (Blue)
Mechanical								
Form Factor	SMARC 2.1.1	SMARC 2.1.1	SMARC 2.1.1	SMARC 2.1.1	3.5 inch	3.5 inch	-	-
Dimensions	82mm x 50mm	82mm x 50mm	82mm x 50mm	82mm x 65mm	146mm x 102mm	146mm x 102mm	146mm x 127mm	245mm x 190mm
Software								
Operating System	Yocto 3.5 Linux, Ubuntu 22.04, Android 11	Yocto 3.5 Linux, Ubuntu 22.04, Android 11	Debian 10, Android 11	Ubuntu 22.04, Android 12, Debian 11	Yocto 3.5 Linux, Android 11	Preempt-RT Linux, Android 11, Ubuntu 18.04	Debian 11, Ubuntu 20.04, Android 12	-
Boot Options	eMMC or SD	eMMC or SD	eMMC	eMMC	eMMC or SD	eMMC	eMMC	-
Environment								
Operating Conditions	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH	-40~85°C, 10%~90% RH
Storage Conditions	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~95% RH



Model	JEA-E93I	JEA-E68I	JEA-E88I	JEA-E88A
	JEA Arm-based Embedded Box IPC			
System				
AI Platform	NXP i.MX 93 SoC	Rockchip RK3568J SoC	Rockchip RK3588J SoC	Rockchip RK3588J SoC
AI Performance	0.5 TOPS	1 TOPS	6 TOPS	6 TOPS
CPU	2 x Cortex-A55 + 1 x Cortex-M33	4 x Cortex-A55	4 x Cortex-A76+4 x Cortex-A55	4 x Cortex-A76 + 4 x Cortex-A55
GPU	-	Arm Mali-G52	Arm Mali-G610 MP4	Arm Mali-G610 MP4
Memory	2GB LPDDR4X	2GB/4GB LPDDR4/4X	4GB/8GB LPDDR4X	4GB/8GB LPDDR4X
Flash	8GB/16GB/32GB eMMC	16GB/32GB eMMC	32GB/64GB/128GB eMMC	32GB/64GB/128GB eMMC
Network				
Ethernet	1 x 10/100/1000 Mbps w/TSN 1 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps 4 x 10/100/1000 Mbps Switch
Wireless Connectivity	1 x On-board WiFi+BT 1 x Mini PCIe for 4G	1 x On-board WiFi+BT 1 x M.2 Key B for 4G/5G	1 x On-board WiFi+BT 1 x M.2 Key B for 4G/5G	1 x M.2 Key E for WiFi/BT 1 x M.2 Key B for 4G/5G
Multimedia				
Display	1 x HDMI 1.4	1 x HDMI 2.0a	1 x HDMI 2.1	1 x HDMI 2.0, 1 x DP 1.4
Video Input	-	-	1 x HDMI In	-
Audio	1 x 3.5mm Line out	1 x 3.5mm Line out	1 x 3.5mm Line out	1x 3.5mm Line out+Mic in
I/O				
USB	4 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	4 x USB 3.0	2 x USB 3.0, 2 x USB 2.0
Serial Port	2 x RS-232/485, 2 x RS-232/TTL, 2 x RS-232	2 x RS-232/485, 2 x RS-232/TTL, 2 x RS-232	4 x RS-232/485, 2 x RS-232/TTL	2 x RS-232, 3 x RS-485
CAN	2	2	2	1
GPIO	8	8	8	8
Storage & Expansion				
SSD	-	-	1 x M.2 Key M for NVMe SSD (PCIe x4)	1 x M.2 Key M for SATA SSD
AI Accelerator	-	-	-	1 x M.2 Key M for AI accelerator
SD Card	1 x Micro SD slot	1 x Micro SD slot	1 x Micro SD slot	1 x Micro SD slot
SIM Card	1 x Micro SIM slot	1 x Micro SIM slot	1 x Micro SIM slot	1 x Micro SIM slot
Board Features				
Watchdog Timer	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management	Watchdog Timer & Power on/off management
Real Time Clock	On-board I2C RTC	On-board I2C RTC	On-board I2C RTC	On-board I2C RTC
TPM/TCM	-	-	-	-
Others	-	-	-	On-board 6-axis IMU
Power Supply				
Input Voltage	12V DC IN	12V DC IN	12V DC IN	12~36V DC IN
Connector	DC Jack	DC Jack	DC Jack	DC Jack
System Control & Monitoring				
Buttons	1 x Power, 1 x Reset	1 x Power, 1 x Recovery	1 x Power, 1 x Recovery	1 x Power, 1 x Recovery
Indicators	1 x Power, 1 x System	1 x Power, 1 x System	1 x Power, 1 x System	1 x Power, 1 x System
Mechanical				
Dimensions	187mm x 135mm x 54mm	187mm x 135mm x 54mm	187mm x 135mm x 54mm	230mm x 160mm x 54mm
Mounting	Wallmount, Bookmount, DIN Rail, VESA mount	Wallmount, Bookmount, DIN Rail, VESA mount	Wallmount, Bookmount, DIN Rail, VESA mount	Wallmount
Antenna	6 x SMA Connectors	6 x SMA Connectors	6 x SMA Connectors	6 x SMA Connectors
Software				
Operating System	Yocto 3.5 Linux, Android 11	Preempt-RT Linux, Android 11, Ubuntu 18.04	Debian 11, Ubuntu 20.04, Android 12	Ubuntu 22.04, Android 12, Debian 11
Environment				
Operating Conditions	-40~70°C, 10%~90% RH	-40~70°C, 10%~90% RH	-40~70°C, 10%~90% RH	-20~60°C, 10%~90% RH
Storage Conditions	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-40~85°C, 5%~90% RH	-30~70°C, 5%~95% RH