



In-Vehicle Computing

VBOX-3132 Series



- Intel Atom® x7000RE Amston Lake x7835RE 8C Processor
- 1 x 2.5GbE and 4 x GbE with PoE option
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, CE, FCC Class A, UKCA Certified & Compliant

VBOX-3123



- AMD Ryzen™ Embedded R2000 R2312 2C/4T Processor
- One Cable Connection to VDM-700HD / VDM-101HD
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, CE, FCC Class A, UKCA Certified & Compliant



Embedded Computing

Display Computing

SBOX-2624(P)-(IP66)



- AMD Ryzen™ Embedded R2000 R2312 2C/4T Processor
- 1 x 2.5GbE and 4 x GbE with PoE option
- Up to 6 x RS-232/422/485
- Wide Range DC Input from 9V-36V
- Optional IP66 Waterproof & Dustproof
- CE, FCC Class A, UKCA Compliant

SBOX-2603/2623



- AMD Ryzen™ Embedded R2000 R2312 2C/4T Processor
- 176 (L) x 140 (W) x 52 (H) mm Ultra-Compact Size
- 2 x HDMI® and 1 x DVI-D (Single Link) for 3 x Display
- Wide Range DC Input from 9V-36V
- CE, FCC Class A, UKCA Compliant

SBOX-2321



- Intel Atom® x6000RE Elkhart Lake x6416RE 8C Processor
- 2 x 2.5 GbE
- Wide Range DC Input from 9V-36V
- -40°C to 70°C Operating Temperature
- CE, FCC Class A, UKCA Compliant

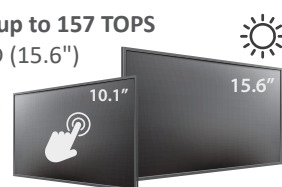
VPC-101RA1S / VPC-156RA1S

- NXP i.MX 8X Quad Plus 4C Processor
- 1280x800 (10.1") / 1920x1080 FHD (15.6")
- Up to 1200 nits High Brightness
- Expansion Options for WWAN / Wi-Fi / GNSS
- 9-60V DC Input with Ignition Sense & Smart Power Management
- CE, FCC Class A, UKCA, E-Mark Compliant



VPC-101RB2S / VPC-156RB2S

- NVIDIA® Jetson Orin™ NX / Nano up to 157 TOPS
- 1280x800 (10.1") / 1920x1080 FHD (15.6")
- Up to 1200 nits High Brightness
- 4 x GMSL for Real-time & low-latency Data Transmission
- 9-60V DC Input with Ignition Sense & Smart Power Management
- CE, FCC Class A, UKCA, E-Mark Compliant



SINTRONES

Edge AI Applied Computing

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Edge AI Applied Computing
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Edge AI Applied Computing

Intelligent Transportation System Certified Fanless Computers

Designed & Manufactured in Taiwan

Edge AI Computing

ABOX-5221(P)(G)



- Intel® Core™ (14th gen) Raptor Lake-S Refresh i9-14900T 24C/32T Processor
- NVIDIA® RTX™ Embedded 5000, 3500, 2000 Ada Series for GPU AI Acceleration
- Optional Intel® Arc™ A370E for OpenVINO™ AI Inference Deployment
- 2 x 2.5GbE and 8 x GbE with PoE+ option
- 3 x M.2 2280 Key M for NVMe with PCIe NVMe RAID Support
- 8 x DI and 8 x DO (5V 100mA)
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

ABOX-5220(P)(G)



- Intel® Core™ (14th gen) Raptor Lake-S Refresh i9-14900T 24C/32T Processor
- NVIDIA® RTX™ Embedded 5000, 3500, 2000 Ada Series for GPU AI Acceleration
- Optional Intel® Arc™ A370E for OpenVINO™ AI Inference Deployment
- 2 x 2.5GbE and 8 x GbE with PoE+ option
- 3 x M.2 2280 Key M for NVMe with PCIe NVMe RAID Support
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

IBOX-650P-IP66



- NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- IP66 Waterproof & Dustproof
- 1 x 2.5GbE / Optional 1 x 1000BASE-T1 Automotive Ethernet
- 2 x 2.5GbE with PoE+
- 4 x GMSL for Real-time & low-latency Data Transmission
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

IBOX-602P-IP66



- NVIDIA® Jetson Orin™ NX up to 157 TOPS
- IP66 Waterproof & Dustproof
- 1 x 2.5GbE, 1 x SoM Built-in GbE with 2 x PoE
- 2 x GMSL for Real-time & low-latency Data Transmission
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

IBOX-601-G2



- NVIDIA® Jetson Orin™ NX up to 157 TOPS
- 1 x 2.5GbE, 1 x SoM Built-in GbE with M12 Rugged Connection
- 4 x GMSL for Real-time & low-latency Data Transmission
- Backup Battery for emergency power backup
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

IBOX-601-M12X



- NVIDIA® Jetson Orin™ NX up to 157 TOPS
- 1 x 2.5GbE, 1 x SoM Built-in GbE with M12 Rugged Connection
- 4 x GMSL for Real-time & low-latency Data Transmission
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

IBOX-600-IP66



- NVIDIA® Jetson Orin™ NX / Nano up to 157 TOPS
- IP66 Waterproof & Dustproof
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

IBOX-600 Series



- NVIDIA® Jetson Orin™ NX / Nano up to 157 TOPS
- 150 (L) x 135 (W) x 69 (H) mm Ultra-Compact Size
- 9-60V DC Input with Ignition Sense & Smart Power Management
- E-Mark, EN 50155, EN 45545-2 (R25) Certified & Compliant

Selection Guide ABOX & IBOX Series

Model Name	ABOX-5221(P)(G)	ABOX-5220(P)(G)	ABOX-5211(P)	ABOX-5210(P)(G)	IBOX-650P-IP66	IBOX-602P-IP66	IBOX-601-G2	IBOX-601-M12X	IBOX-600-IP66	IBOX-600 Series
Processor / Module	Intel® Core™ i9 processor 14900T Intel® Core™ i7 processor 14700T Intel® Core™ i5 processor 14500T	Intel® Core™ i9 processor 14900T Intel® Core™ i7 processor 14700T Intel® Core™ i5 processor 14500T	Intel® Core™ processor i9-10900TE Intel® Core™ processor i7-10700TE Intel® Core™ processor i5-10500TE Intel® Core™ processor i3-10100TE Intel® Celeron® processor G5900TE	Intel® Core™ processor i9-10900TE Intel® Core™ processor i7-10700TE Intel® Core™ processor i5-10500TE Intel® Core™ processor i3-10100TE Intel® Celeron® processor G5900TE	NVIDIA® Jetson AGX Orin™ 64GB NVIDIA® Jetson AGX Orin™ 32GB	NVIDIA® Jetson Orin™ NX 16GB NVIDIA® Jetson Orin™ NX 8GB	NVIDIA® Jetson Orin™ NX 16GB NVIDIA® Jetson Orin™ NX 8GB	NVIDIA® Jetson Orin™ NX 16GB NVIDIA® Jetson Orin™ Nano 8GB NVIDIA® Jetson Orin™ Nano 4GB	NVIDIA® Jetson Orin™ NX 16GB NVIDIA® Jetson Orin™ Nano 8GB NVIDIA® Jetson Orin™ Nano 4GB	NVIDIA® Jetson Orin™ NX 16GB NVIDIA® Jetson Orin™ Nano 8GB NVIDIA® Jetson Orin™ Nano 4GB
GPU	Intel® UHD Graphics 770 (processor built-in) Discrete GPU option - NVIDIA® RTX Embedded 5000, 3500, and 2000 Ada GPU	Intel® UHD Graphics 770 (processor built-in) Discrete GPU option - NVIDIA® RTX Embedded 5000, 3500, and 2000 Ada GPU	Intel® UHD Graphics 600 series (processor built-in)	Intel® UHD Graphics 600 series (processor built-in) Discrete GPU option - NVIDIA® RTX Embedded A4500, A2000, Quadro® RTX 3000 GPU	Ampere Architecture GPU (SoM built-in)	Ampere Architecture GPU (SoM built-in)	Ampere Architecture GPU (SoM built-in)	Ampere Architecture GPU (SoM built-in)	Ampere Architecture GPU (SoM built-in)	Ampere Architecture GPU (SoM built-in)
Memory	2 x SO-DIMM support DDR5-4800 MT/s up to 64GB	2 x SO-DIMM support DDR5-4800 MT/s up to 64GB	2 x SO-DIMM support DDR4-3200 MT/s up to 64GB	2 x SO-DIMM support DDR4-3200 MT/s up to 64GB	64GB/32GB LPDDR5, depends on Jetson Module	16GB/8GB LPDDR5, depends on Jetson Module	16GB/8GB LPDDR5, depends on Jetson Module	16GB/8GB LPDDR5, depends on Jetson Module	16GB/8GB/4GB LPDDR5, Depends on Jetson Module	16GB/8GB/4GB LPDDR5, Depends on Jetson Module
Video	2xHDMI® (from processor built-in GPU) 2xDP 1.4 (from discrete GPU)	4xHDMI® (2 x from discrete GPU) 4xDP 1.4 (2 x from discrete GPU)	2 x DP 1.2	2xHDMI® (from discrete GPU) 3xDP 1.2 (from processor built-in GPU)	1 x HDMI®	1 x HDMI®	1 x HDMI®	1 x HDMI®	1 x HDMI®	1 x HDMI®
Ethernet	2 x 10GbE 4 x 2.5GbE with 4 x PoE+ (total 120W power budget) and M12 options	2 x 2.5GbE 8 x GbE with 8 x PoE+ (total 120W power budget) and M12 options	8 x GbE with 8 x PoE+ (total 120W power budget) option	10 x GbE with 8 x PoE+ (total 120W power budget) and M12 options	1 x 10GbE 2 x 2.5GbE with 2 x PoE+	1 x 2.5GbE, 1 x SoM Built-in GbE with 2 x PoE	1 x 2.5GbE, 1 x SoM Built-in GbE	1 x 2.5GbE, 1 x SoM Built-in GbE	1 x 2.5GbE, 1 x SoM Built-in GbE	1 x 2.5GbE, 1 x SoM Built-in GbE
DIO	8 x DI (DC 9 - 60V) and 8 x DO (5V, 100mA)	8 x DI (DC 9 - 60V) and 4 x DO (5V, 100mA)	8 x DI (DC 9 - 60V) and 4 x DO (5V, 100mA)	8 x DI (DC 9 - 48V) and 4 x DO (5V, 100mA)	4 x DI (DC 9 - 60V) and 4 x DO (12V, 100mA)	3 x DI (DC 9 - 60V) and 4 x DO (12V, 100mA)	—	4 x DI (DC 9 - 60V) and 4 x DO (12V, 100mA)	3 x DI (DC 9 - 60V) and 4 x DO (12V, 100mA)	4 x DI (DC 9 - 60V) and 4 x DO (12V, 100mA)
Serial Port	2 x RS-232/422/485	4 x RS-232/422/485	4 x RS-232/422/485	3 x RS-232/422/485	1 x RS-232/422/485	1 x RS-232/422/485	1 x RS-232/422/485	1 x RS-232/422/485	1 x RS-232/422/485	1 x RS-232/422/485
CAN	—	—	—	—	2 x CAN FD	1 x CAN FD	1 x CAN FD	1 x CAN FD	1 x CAN FD	1 x CAN FD
USB	8 x USB 3.2	8 x USB 3.2	8 x USB 3.2	4 x USB 3.2	2 x USB 3.2	1 x USB 3.2	2 x USB 3.2	2 x USB 3.2	2 x USB 3.2	2 x USB 3.2
Camera	—	—	—	—	4 x GMSL-2	2 x GMSL-2	4 x GMSL-2	4 x GMSL-2	—	—
Expansions	● 2 x Mini PCIe full-size and function ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 2 x Mini PCIe full-size and function ● 2 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 2 x Mini PCIe full-size and function ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 2 x Mini PCIe full-size and function & 1 x Mini PCIe full-size with USB 2.0 only ● 1 x M.2 3042 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x Mini PCIe full-size (USB 2.0 only) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Dual Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x Mini PCIe full-size (USB 2.0 only) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x Mini PCIe full-size (USB 2.0 only) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x Mini PCIe full-size (USB 2.0 only) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x Mini PCIe full-size (USB 2.0 only) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi
Storage	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 2 x M.2 2280 Key M for NVMe SSD ● 2 x 2.5" removable SATA SSD	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 2 x M.2 2280 Key M for NVMe SSD ● 2 x 2.5" removable SATA SSD	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 2 x M.2 2280 Key M for NVMe SSD ● 2 x 2.5" removable SATA SSD	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 2 x 2.5" removable SATA SSD	● 1 x M.2 2280 Key M for NVMe SSD	● 1 x M.2 2280 Key M for NVMe SSD	● 1 x M.2 2280 Key M for NVMe SSD	● 1 x M.2 2280 Key M for NVMe SSD	● 1 x M.2 2280 Key M for NVMe SSD	● 1 x M.2 2280 Key M for NVMe SSD
Power Input	DC 9V - 60V	DC 9V - 60V	DC 9V - 60V	DC 9V - 48V	DC 9V - 60V	DC 9V - 60V	DC 9V - 60V	DC 9V - 60V	DC 9V - 60V	DC 9V - 60V
Power Management	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software
BBU (Backup Battery Unit)	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	—	Optional Internal Backup Battery Kit	—	—
Operating Temp.	● -40°C ~ 70°C, ambient w/ 0.6m/s airflow ● 0°C ~ 60°C for system w/ NVIDIA® RTX Embedded 5000 and 3500 Ada	● -40°C ~ 70°C, ambient w/ 0.6m/s airflow ● 0°C ~ 60°C for system w/ NVIDIA® RTX Embedded 5000 and 3500 Ada	-40°C ~ 70°C, ambient w/ 0.6m/s airflow	● -40°C ~ 70°C, ambient w/ 0.6m/s airflow ● 0°C ~ 60°C for system w/ NVIDIA® RTX Embedded A4500 and 3000	-25°C ~ 70°C, ambient w/ 0.6m/s airflow	● -25°C ~ 70°C (ONX8 Model) ● -25°C ~ 60°C (ONX16 Model), ambient w/ 0.6m/s airflow	● -25°C ~ 70°C (ONX8 Model) ● -25°C ~ 60°C (ONX16 Model), ambient w/ 0.6m/s airflow	● -25°C ~ 70°C (ONX8 Model) ● -25°C ~ 60°C (ONX16 Model), ambient w/ 0.6m/s airflow	● -25°C ~ 70°C (ONX8 Model) ● -25°C ~ 60°C (ONX16 Model), ambient w/ 0.6m/s airflow	● -25°C ~ 70°C (ONX8 Model) ● -25°C ~ 60°C (ONX16 Model), ambient w/ 0.6m/s airflow
Dimension (L x W x H)	260 x 250 x 95 mm	290 x 250 x 98 mm	240 x 242 x 85 mm	260 x 250 x 95 mm	300 x 190 x 77.5 mm	150 x 138 x 66 mm	150 x 135 x 77 mm	270.2 x 270.2 x 69 mm	150 x 135 x 66 mm	150 x 135 x 69 mm
Certification / Standard	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)

Selection Guide VBOX & SBOX Series

Model Name	VBOX-3132 Series	VBOX-3123	VBOX-3630	VBOX-3630R-M12X
Processor / Module	Intel Atom® Processor x7835RE Intel Atom® Processor x7433RE Intel Atom® Processor x7211RE	AMD Ryzen™ Embedded R2312 2C/4T Processor	Intel® Core™ i7-1185G7E Processor Intel® Core™ i5-1145G7E Processor Intel® Core™ i3-1115G4E Processor Intel® Celeron® 6305E Processor	Intel® Core™ i7-1185G7E Processor Intel® Core™ i5-1145G7E Processor Intel® Core™ i3-1115G4E Processor Intel® Celeron® 6305E Processor
GPU	Intel® UHD Graphics	AMD Radeon™ Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics
Memory	1 x SO-DIMM Support DDR5-4800 MT/s up to 16GB	1 x SO-DIMM Support DDR4-2400 MT/s up to 32GB (ECC DRAM Support)	2 x SO-DIMM Support DDR4-3200 MT/s up to 64GB	2 x SO-DIMM Support DDR4-3200 MT/s up to 64GB
Video	1 x HDMI®	1 x DVI-D (Single link with custom pin define)	2 x HDMI® 1 x DP 1.4	2 x HDMI® 1 x DP 1.4
Ethernet	1 x 2.5GbE (2 x 2.5GbE for Option) 4 x Gb Ethernet Switch with 15.4W PoE, 60W Power Budget	2 x GbE	4 x PoE for Option, 60W Power Budget	4 x PoE for Option, 60W Power Budget
DIO	4 x DI (DC 9 - 60V) and 4 x DO (12V, 100mA)	4 x DI (DC 9 - 60V) and 4 x DO (5V, 100mA)	6 x DI (DC 9 - 60V) and 4 x DO (5V, 100mA)	6 x DI (DC 9 - 60V) and 4 x DO (5V, 100mA)
Serial Port	2 x RS-232/422/485 (Optional 4 x RS-232/422/485)	4 x RS-232/422/485	4 x RS-232/422/485	4 x RS-232/422/485
CAN	1 x CAN 2.0	—	—	—
USB	2 x USB 3.2, 2 x USB 2.0	2 x USB 3.2, 2 x USB 2.0	2 x USB 3.2, 2 x USB 2.0	2 x USB 3.2, 2 x USB 2.0
Expansions	● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual Nano SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 2 x Mini PCIe full-size with USB 2.0 only ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 2 x Mini PCIe full-size (One supports Support PCIe & USB 2.0) ● 2 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi	● 2 x Mini PCIe full-size (One supports Support PCIe & USB 2.0) ● 2 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM support ● 1 x M.2 2230 Key E for Wi-Fi
Storage	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 1 x M.2 2280 Key M for NVMe	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 1 x SATA for 2.5" SSD	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 1 x removable tray for 2 x 2.5" SATA SSD	● 1 x M.2 2280 Key M for NVMe/ SATA SSD ● 1 x removable tray for 2 x 2.5" SATA SSD
Power Input	DC 9V - 60V	DC 9V - 60V	DC 9V - 60V	DC 24V -110V with Isolated Power Input
Power Management	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software
BBU (Backup Battery Unit)	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit	Optional Internal Backup Battery Kit
Operating Temp.	-40°C ~ 70°C, ambient w/ 0.6m/s airflow	-40°C ~ 60°C, ambient w/ 0.6m/s airflow	-40°C ~ 70°C, ambient w/ 0.6m/s airflow	-40°C ~ 70°C, ambient w/ 0.6m/s airflow
Dimension (L x W x H)	150 x 150 x 65 mm	210 x 171 x 56 mm	250 x 165 x 55 mm	365 x 165 x 55 mm
Certification / Standard	CE, FCC Class A, UKCA, E-Mark	CE, FCC Class A, UKCA, E-Mark	CE, FCC Class A, UKCA, E-Mark, EN 50155, EN 45545-2 (R25)	CE, FCC Class A, UKCA, EN 50155, EN 45545-2 (R25)

Model Name	SBOX-2624(P)-(IP66)	SBOX-2603/2623	SBOX-2321	SBOX-2602/2622
Processor / Module	AMD Ryzen™ Embedded R2312 2C/4T Processor	AMD Ryzen™ Embedded R2312 2C/4T Processor	Intel Atom® x6416RE Processor Intel Atom® x6214RE Processor	Intel® Core™ Processors i7-1185G7E Intel® Core™ Processors i5-1145G7E Intel® Core™ Processors i3-1115G4E Intel® Celeron® Processor 6305E
GPU	AMD Radeon™ Graphics	AMD Radeon™ Graphics	Intel® UHD Graphics	Intel® Iris® Xe Graphics
Memory	1 x SO-DIMM Support DDR4-2400 MT/s up to 32GB (ECC DRAM Support)	1 x SO-DIMM Support DDR4-2400 MT/s up to 32GB (ECC DRAM Support)	1 x SO-DIMM Support DDR4-3200 MT/s up to 32GB	1 x SO-DIMM Support DDR4-3200 MT/s up to 32GB
Video	2 x HDMI®	1 x DVI-D (Single link with custom pin define)	1 x DP 1.4	1 x DVI-D (Single link with custom pin define)
Ethernet	1 x 2.5GbE, 4 x Gb Ethernet Switch with 15.4W PoE, 60W Power Budget (SBOX-2624P) 2 x GbE with 15.4W PoE, 30W Power Budget (SBOX-2624P-IP66) 1 x 2.5GbE, 1 x GbE (SBOX-2604) 4 x DI (9-36VDC), 4 x DO (5V, 100mA) 3 x DI (9-36VDC), 4 x DO (5V, 100mA) (SBOX-2624P-IP66)	2 x GbE	2 x 2.5GbE	1 x 2.5GbE 1 x GbE
DIO / GPIO	4 x DI (9-36VDC), 4 x DO (5V, 100mA) 3 x DI (9-36VDC), 4 x DO (5V, 100mA) (SBOX-2624P-IP66)	4 x GPI, 4 x GPO (5VDC)	4 x GPI, 4 x GPO (5VDC)	4 x GPI, 4 x GPO (5VDC)
Serial Port	Up to 6 x RS-232/422/485 (SBOX-2624 only)	4 x RS-232/422/485 (SBOX-2623) 2 x RS-232/422/485 (SBOX-2603)	2 x RS-232/422/485	4 x RS-232/422/485 (SBOX-2622) 2 x RS-232/422/485 (SBOX-2602)
USB	2 x USB 3.2, 2 x USB 2.0	2 x USB 3.2, 2 x USB 2.0	2 x USB 3.2, 2 x USB 2.0	2 x USB 3.2, 2 x USB 2.0
Expansions	● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM ● 1 x M.2 2230 Key E for Wi-Fi	1 x mPCIe full-size USB 2.0 only (SBOX-2623) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x mPCIe full-size USB 2.0 only ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x mPCIe full-size (SBOX-2622) ● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with dual SIM ● 1 x M.2 2230 Key E for Wi-Fi
Storage	● 1 x M.2 Key M for NVMe/ SATA SSD ● 1 x 2.5" SATA SSD	● 1 x M.2 Key M for NVMe/ SATA SSD ● 1 x 2.5" SATA SSD	● 1 x M.2 Key M for NVMe/ SATA SSD ● 1 x 2.5" SATA SSD	● 1 x M.2 Key M for NVMe/ SATA SSD ● 1 x 2.5" SATA SSD
Power Input	DC 9V-36V	● DC 9V-36V (SBOX-2623) ● DC 12V (SBOX-2603)	DC 9V-36V	● DC 9V-36V (SBOX-2622) ● DC 12V (SBOX-2602)
Operating Temp.	30°C ~ 60°C, ambient w/ 0.6m/s airflow	30°C ~ 60°C, ambient w/ 0.6m/s airflow	-40°C ~ 70°C, ambient w/ 0.6m/s airflow	30°C ~ 60°C, ambient w/ 0.6m/s airflow
Dimension (L x W x H)	150 x 150 x 65 mm	210 x 171 x 50 mm (SBOX-2623) 176 x 140 x 52 mm (SBOX-2603)	182 x 171 x 54 mm	210 x 171 x 50 mm
Certification / Standard	CE, FCC Class A, UKCA	CE, FCC Class A, UKCA	CE, FCC Class A, UKCA	CE, FCC Class A, UKCA

Selection Guide VPC & Display Series

						
Model Name	VPC-101RA1S / VPC-156RA1S	VPC-101RB2S / VPC-156RB2S	SPC-101MA1 / SPC-156MA1	Model Name	VDM-370RS-AC / VDM-286RS-AC	VDM-101HD / VDM-700HD
Processor / Module	NXP i.MX 8X Quad Plus SoC Quad Cortex-A35	NVIDIA® Jetson Orin™ NX16GB NVIDIA® Jetson Orin™ NX8GB NVIDIA® Jetson Orin™ Nano 8GB	Intel Amstron lake x7433RE	Size	37" (VDM-370RS-AC) 28.6" (VDM-286RS-AC)	10.1" (VDM-101HD) 7" (VDM-700HD)
GPU	GC7000Lite	Depends on Jetson module	Intel® UHD Graphics	Ratio	32 : 9	16 : 10 (VDM-101HD) 16 : 9 (VDM-700HD)
Size / Ratio	10.1" / 15.6"	10.1" / 15.6"	10.1" / 15.6"	Maximum Resolution	1920 x 540	1280 x 800 (VDM-101HD) 1280 x 720 (VDM-700HD)
Resolution	1280 x 800 / 1920 x 1080	1280 x 800 / 1920 x 1080	1280 x 800 / 1920 x 1080	Active Area (H x V)	904.32x 254.34 mm (VDM-370RS-AC) 698.4 x 196.4 mm (VDM-286RS-AC)	1280 x 800 / 1920 x 1080
Brightness	1000 nits / 1200 nits	1000 nits / 1200 nits	400 nits / 350 nits	Brightness (Typical)	1500 nits (VDM-370RS-AC) 700 nits (VDM-286RS-AC)	1000 nits (VDM-101HD) 560 nits (VDM-700HD)
Contrast Ratio	800 : 1 / 800 : 1	800 : 1 / 800 : 1	800 : 1 / 1000 : 1	Contrast Ratio (Typical)	4000 : 1	1000 : 1
Touch	Projected capacitive	Projected capacitive	Projected capacitive	Viewing Angle	89/89/89/89 degree	89/89/89/89 degree
Memory	4GB LPDDR4 onboard	16GB/8GB LPDDR5, Depends on Jetson Module	1 x SO-DIMM Support DDR5-4800 MHz up to 32GB	Touch Type	—	Projected capacitive
Video	—	—	2 x HDMI 2.0	Video	2 x HDMI® input, 1 x DP, 1 x HDMI® output	1 x DVI-D input (SINTRONES pin define), 1 x HDMI® input 1 x external DC power input (VDM-101HD)
Ethernet	2 x GbE	● 1 x 2.5GbE ● 1 x SoM Built-in GbE (share w/ PoE) ● Optional 4 x PoE+, Total 60W Power Budget	2 x 2.5GbE	Audio	1 x 3.5mm audio output	Stereo speaker and built-in Mic
Serial Port	1 x RS-232/422/485 1 x RS-232	1x RS-232/422/485 1x RS-232/422/485 (optional)	1 x RS-232/422/485	Others	● 1 x RS-232 TX (RJ45), 1 x RS-232 RX (RJ45) for display control ● 1 x USB Type A for USB flash disk	—
CAN	Optional 3 x CAN FD	1 x CAN FD	—	Power Input	AC 100 ~ 240V, 50-60Hz	DC 9-48V
USB	● 2 x USB 3.2 ● 1 x USB 2.0 type Micro-B for FW update	● 2 x USB 2.0 ● 1 x USB 2.0 type C for FW update	● 2 x USB 3.2 ● 4 x USB 2.0	Operating Temp.	-20 ~ 60°C	-20 ~ 60°C
Camera	—	Optional 4 x GMSL-2	—	Storage Temp.	-20 ~ 60°C	-40 ~ 80°C
Expansions	● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM ● 1 x M.2 2242 Key B for GPS ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with Nano SIM ● 1 x M.2 2230 Key E for Wi-Fi	● 1 x M.2 3042/52 Key B for WWAN (USB 3.2) with SIM ● 1 x M.2 2230 Key E for Wi-Fi	Relative Humidity	10% RH – 90% RH (non-condensing)	10% RH – 90% RH (non-condensing)
Storage	Onboard eMMC 32GB	1 x M.2 2242 Key M for NVMe SSD	1 x M.2 2280 Key M for NVMe SSD	Construction	Metal Alloy	Plastic
Power Input	DC 9V-60V	DC 9V-60V	DC 12~36V	Mounting	400 x 200 mm, M6	VESA MIS-D 75 mm
Power Management	Ignition Detection, and Power off Delay Time Setting by Software	Ignition Detection, and Power off Delay Time Setting by Software	—	Weight	11.04 Kg (VDM-370RS-AC) 7.9 Kg (VDM-286RS-AC)	900 g (VDM-101HD) 500 g (VDM-700HD)
BBU (Backup Battery Unit)	—	Optional Internal Backup Battery Kit	—	Dimension (L x W x H)	927.6 x 280.9 x 82 mm (VDM-370RS-AC) 726 x 224 x 82 mm (VDM-286RS-AC)	247.84 x 178.59 x 36.36 mm (VDM-101HD) 188.5 x 124.2 x 31.4mm (VDM-700HD)
Operating Temp.	-20 ~ 60°C	-20 ~ 60°C	0 ~ 50°C	Certification / Standard	CE, FCC Class A	CE, FCC Class A, E-Mark
Dimension (L x W x H)	276 x 198 x 71.2 mm (VPC-101RA1S) 407 x 257 x 68.2 mm (VPC-156RA1S)	276 x 198 x 75 mm (VPC-101RB2S) 407 x 257 x 72 mm (VPC-156RB2S)	276 x 198 x 75 mm (SPC-101MA1) 407 x 257 x 72 mm (SPC-156MA1)			
Certification / Standard	CE, FCC Class A, UKCA, compliant with E-Mark	CE, FCC Class A, UKCA, E-Mark	CE, FCC Class A, UKCA			