

VIA
SOM-7X25

Fanless low-power platform for Edge AI applications with Intel Atom processor

Features

- Low-Power Intel Atom Processor for Edge AI
- Advanced LPDDR5 Memory and Intel Xe Graphics
- Hight Definition Audio Integrated
- Rich Interface Support



Specifications

Model Name	SOM-7X25
Processor	Atom® (Alder Lake-N) Processor x7211E base 1.0GHz, max 3.2GHz
System Memory	8/16GB LPDDR5 4800 MT/s
Storage	32/64GB eMMC 5.1 Flash Storage
Graphics	Integrated Intel UHD Graphics driven by Intel Xe architecture - DirectX 12.1 - OpenGL 4.6 - OpenCL 3.0
BIOS	- AMI UEFI BIOS - 256Mbit SPI Flash ROM
TPM	Infineon SLB 9670VQ Trusted Platform Module
CAN	Fintek F81604N USB to dual CAN bus controller
Super I/O	Fintek F81804U-I
Ethernet	Intel I226-V 2500/1000/100/10Base-T multi-gigabit Ethernet controller
Audio	Integrated Intel High Definition Audio
Display	NXP PTN3460 E(DP) to LVDS Bridge IC
Supported I/O through Golden Finger	- 1 HDMI - 1 Display Port - 1 2-channel LVDS - 1 HD Audio - 1 I2S - 2 CAN - 1 I2C - 1 SPI - 1 eSPI (for debug) - 2 UART 2-line - 2 UART 4-line - 2 USB 3.2 - 4 USB 2.0 - 3 PCIe x1 - 2 2.5 GbE Ethernet - 1 SATA - 1 TACH IN - 11 GPIO (for Watchdog/Management/PWR control)
Operating System	Windows 11
Operating Temperature	0°C ~ 60°C
Form Factor	SMARC 2.1.1 (82mm x 50mm)
Operating Humidity	0% ~ 95% (relative humidity ; non-condensing)
Compliance	CE, FCC, TELEC, UKCA



SOMDB6 Carrier Board



Specifications

Model Name	SOMDB6 Carrier Board
Audio Codec	Realtek ALC888S-VD2-GR High-Definition Audio Codec
Onboard I/O	- 1 2-channel LVDS - 1 MXM 314-pin connector - 1 SATA3.0 connector - 1 M.2 E key 2230 (with PCIE + USB2.0) for WiFi - 1 M.2 B key 2242 / 2252 / 2280(with PCIE + USB2.0) for Storage/LTE - 1 M.2 M key 2242/2280 - 1 SIM slot - 2 CSI FPC connector (4Lane+2Lane) - 2 COM port pin headers (2-wire) - 1 CAN pin header (Dual port) - 1 Digital I/O pin header (11 GPIO) - 1 Smart Fan pin headers for CPU and system - 1 Backlight control connectors for inverter power and brightness control - 1 RTC battery holder w/ battery - 1 PWM_OUT - 1 TACH_IN (for Fan Tachometer Input) - 1 4-pin 12V DCIN power connector - 1 I2C or SMBus connector (manufacture option) - 1 eSPI Debug connector
Rear I/O	- 1 HDMI port - 1 Display Port - 2 COM port (4-wire) - 1 Combo connector for 2.5 Gigabit Ethernet port + 2 USB 3.2 Gen2 ports - 1 Combo connector for 2.5 Gigabit Ethernet port + 2 USB 2.0 ports - 3 Audio jacks: Line-in, Line-out, and Mic-in
System Monitoring and Management	Wake-on-LAN, Wake-on USB, System power management, Watchdog Timer
Power Supply	12V DC-in
Operating System	Windows 11
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 95% (relative humidity ; non-condensing)
Form Factor	170 x 170 mm (L x W)

Ordering Information

Part Number	Description
10GRE32T0002000	VIA SOM-7X25 module with Intel Alder Lake-N ATOM X7211E 3.2GHz, 32GB eMMC, 8GB LPDDR5X SDRAM