

TGS

2000 Series



2.5GigE

Intel® Core™ Ultra Processors (Series 3) Processor Stackable AI PC



Medical Imaging



- 16-core Intel® Core™ Ultra 300H series processor (Series3) features advanced CPU+GPU+NPU hybrid architecture supporting max 100 TOPS for Edge and Physical AI
- Innovative stackable design for expansion functions: Optional AI accelerator, USB, Isolated DIO, COM, LAN or 4G/LTE
- 2 USB 3.2 Gen 2, 1 USB 3.2 Gen 2x2 Type-C, 2 2.5GigE LAN
- 3 M.2 Socket for storage and expansion, supports multiple 5G/WiFi/BT/4G/LTE
- DC 12V to 24V Power Input, max -25°C to 55°C operation

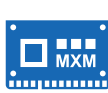
Smart City



Intelligent Factory



OpenVINO™



Vecow

Specifications

System

CPU	- Intel® Core™ Ultra 9 386H Processor (code-named Panther Lake-H) - Intel® Core™ Ultra 5 336H Processor (code-named Panther Lake-H)
GPU	- Built-in processor graphics Intel® X®3 GPU - Independent MXM Graphics: By request (TGS-2500F)
NPU	Integrated Intel® AI Boost Neural Processing Unit
Chipset	Intel® SoC
BIOS	AMI
SIO	IT8659E
Memory	2 DDR5 6400MHz SO-DIMM, up to 128GB
OS	Windows 11, Windows 10, Linux

I/O Interface

Display	- 2 HDMI 2.1: Up to 4096 x 2304 @60Hz - 1 DisplayPort 1.4: Up to 3840 x 2160 @60Hz by USB Type-C - 2 DisplayPort 1.4: Up to 4096 x 2304 @60Hz (TGS-2500F, by MXM)
USB	- 2 USB 3.2 Gen 2 Type A - 2 USB 2.0 Type A - 1 USB 3.2 Gen 2x2 Type C (5V/3A)
LED	Power, HDD

Expansion

M.2	- 1 M.2 Key E Socket (2230, PCIe x1/USB 2.0) - 1 M.2 Key B (3042/3052, PCIe x2/USB 2.0) with SIM
Docking Expansion	2 Expansion Connector for docking module

Storage

M.2	1 M.2 Key M Socket (2280, PCIe 4.0 x4, up to 4TB)
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Audio

Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® I226 2.5GigE LAN with iAMT
LAN 2	Intel® I226 2.5GigE LAN

Power

Power Input	TGS-2000/TGS-2000F: DC 12V to 24V TGS-2500F: DC 24V Only
Power Interface	3-pin Terminal Block: V+, V-, Frame Ground

Others

Watchdog Timer	Reset: 1 to 255 sec./min. per step
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	TGS-2000: 117mm x 120mm x 64mm (4.61"x 4.72"x 2.52") TGS-2000F: 117mm x 120mm x 38mm (4.61"x 4.72"x 1.49") TGS-2500F: 117mm x 120mm x 114mm (4.61"x 4.72"x 4.49")
Weight	TGS-2000: 1.8 kg (3.96 lb) TGS-2000F: 0.9 kg (1.98 lb) TGS-2500F: 2.3 kg (5.07lb)
Mounting	- Wallmount by mounting bracket - VESA Mount (Optional) - DIN Rail Mount (Optional)

Environment

Operating Temperature (with air flow)	TGS-2000: -25°C to 45°C (-13°F to 113°F) with Air Flow TGS-2000F/TGS-2500F: -25°C to 55°C (-13°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	TGS-2000: 95% @45°C TGS-2000F/TGS-2500F: 95% @55°C
Shock/Vibration	- IEC 61373: 2010 - Railway Applications: Rolling Stock Equipment, Shock and Vibration Tests
EMC	CE, FCC, ICES, EN50155, EN50121-3-2

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Order Information

Model Name	CPU	2.5G LAN	USB3		HDMI 2.1	DP	MXM
			Type-A	Type-C			
TGS-2000-386H	Core Ultra 9 386H	2	2	1	2	1	NA
TGS-2000F-386H		2	2	1	2	1	
TGS-2500F-386H		2	2	1	2	3	Y
TGS-2000-336H	Core Ultra 5 336H	2	2	1	2	1	NA
TGS-2000F-336H		2	2	1	2	1	

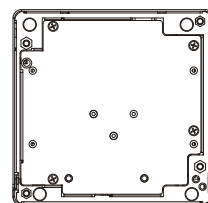
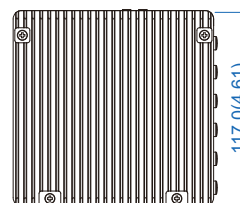
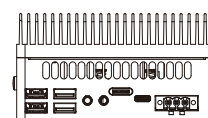
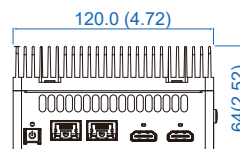
Accessories

DDR5 32G	Certified DDR5 32GB 6400MHz RAM
DDR5 16G	Certified DDR5 16GB 6400MHz RAM
DDR5 8G	Certified DDR5 8GB 6400MHz RAM
PWA-120W1	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
TGS-101	Expansion Docking Module for 16-bit GPIO
TGS-102	Expansion Docking Module for 16-bit Isolated DIO (8DI, 8DO)
TGS-103	Expansion Docking Module for 2 COM (RS-232/422/485)
TGS-104	Expansion Docking Module for 2 Isolated COM (RS-232/422/485)
TGS-105	Expansion Docking Module for 2 USB3
TGS-106	Expansion Docking Module for 2 1G LAN
TGS-107	Expansion Docking Module for 4G Module
DIN-RAIL	DIN-RAIL Kit
VESA Mount	VESA Mount Kit
M.2 Storage Module	M.2 Key M Storage Module
5G Module	5G Module with Antenna
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit: mm (inch)

TGS-2000



TGS-2000F

