

GPC-1000

Workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R)
9V to 55V DC-in Dual GPU AI Computing System with
NVIDIA® Tesla®/Quadro®/GeForce®/AMD Radeon™ Graphics



- 8 cores 9th Generation Intel® Xeon®/Core™ i7/i5/i3 processor (Coffee Lake Refresh) with workstation-grade Intel® C246 Chipset
- Single 9V to 55V wide range DC Power Input with 80V Surge Protection
- 4 PCIe slots : 2 PCIe x8, 1 PCIe x4 and 1 PCIe x1, max 2 dual slot PCIe cards supported
- 1500W power budget supports max dual 750W NVIDIA® Tesla®/Quadro®/GeForce® or AMD Radeon™ graphics card for AI computing
- 4 Independent GigE LAN, iAMT 12.0 supported
- 2 DDR4 2666MHz SO-DIMM, up to 64GB
- 4 external USB 3.1 Gen 2 support up to 10Gbps data transfer
- Supports WiFi/4G/3G/LTE/GPRS/UMTS
- 2 SATA III, 4 COM RS-232/422/485, 16 Isolated DIO
- Optional supports 5G Networks, 10G PoE+



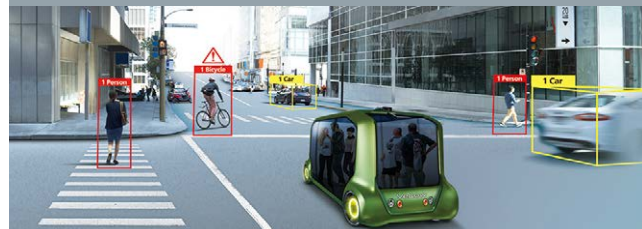
Robotic Control



Public Surveillance



Autonomous Vehicles



Deep Learning



Specifications

System

Processor	8 cores 9th/8th Gen Intel® Xeon®/Core™ i7/i5/i3 processor (Coffee Lake Refresh)
Chipset	Intel® C246
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2666MHz SO-DIMM, up to 64GB
OS	Windows 10, Linux

I/O Interface

Serial	4 COM RS-232/422/485 (ESD 8KV)
USB	4 USB 3.1 Gen 2
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD
SIM Card	1 External SIM Card Socket

Expansion

Mini PCIe	- 1 Full-size for PCIe/USB/Internal SIM Card - 1 Full-size for PCIe/USB/mSATA
PCIe	4 PCIe Slot : - 2 PCIe x16 slot with PCIe x8 signal - 1 PCIe x16 slot with PCIe x4 signal - 1 PCIe x16 slot with PCIe x1 signal
SUMIT A, B	2 SUMIT Slot (Optional)

Graphics

Graphics Processor	Intel® UHD graphics 630 Independent Graphics 1 : By request Independent Graphics 2 : By request
Interface	Multiple independent displays : - DVI-D : Up to 1920 x 1200 @60Hz - 2 DisplayPort : Up to 4096 x 2304 @60Hz - By requested Graphics Card

Storage

SATA	2 SATA III (6Gbps) support S/W RAID 0, 1
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	2 internal 2.5" SSD/HDD bracket

Audio

Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT 12.0
LAN 2	Intel® I210 GigE LAN
LAN 3	Intel® I210 GigE LAN
LAN 4	Intel® I210 GigE LAN

Power

Power Input	9V to 55V DC-in
Power Interface	4-pin Terminal Block
Remote Switch	2-pin Terminal Block
Surge Protection	Up to 80V/1ms Transient Power

Others

TPM	Infineon SLB9665, LPC interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	242.7mm x 208.9mm x 369.2mm (9.56" x 8.22" x 14.54")
Weight	9.0 kg (19.8 lb)
Mounting	Wallmount by mounting bracket

Environment

Operating Temp.	-25°C to 60°C (-6°F to 140°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% at 60°C
Shock/Vibration	- IEC 61373 : 2010 - Railway Applications : Rolling Stock Equipment, Shock and Vibration Test
EMC	CE, FCC, EN50155, EN50121-3-2

Order Information

Model	GigE LAN	PCIe x8	PCIe x4	PCIe x1	COM	10G USB	SIM	Isolated DIO
GPC-1000	4	2	1	1	4	4	1	16

CPU List

Series	CPU	Cores	GHz	TDP (W)	CPU	Cores	GHz	TDP (W)	ECC RAM
Intel® Xeon®	E-2278GE	8	4.7	80	E-2176G	6	4.6	80	Yes
	E-2278GEL	8	3.9	35					
	E-2226GE	6	4.6	80	E-2124G	4	4.5	71	
Intel® Core™	i7-9700E	8	4.4	65	i7-8700	6	4.6	65	N/A
	i7-9700TE		3.8	35	i7-8700T	6	4	35	
	i5-9500E	6	4.2	65	i5-8500	6	4.1	65	
	i5-9500TE		3.6	35	i5-8500T	6	3.5	35	
	i3-9100E	4	3.7	65	i3-8100	4	3.6	65	Yes
	i3-9100TE		3.2	35	i3-8100T	4	3.1	35	

Accessories

DDR4 32G	Certified DDR4 32GB 2666MHz RAM
DDR4 16G	Certified DDR4 16GB 2666/2400/2133 MHz RAM
DDR4 8G	Certified DDR4 8GB 2666/2400/2133 MHz RAM
DDR4 4G	Certified DDR4 4GB 2666/2400/2133 MHz RAM
PWS-600W	600W, 24V, 90V AC to 305V AC Power Supply
PWS-600W-WT	600W, 28.8V, 90 to 305V AC Power Supply, Wide Temperature -40°C to +70°C
PWS-1000W	1000W, 24V, 90V AC to 264V AC Power Supply
PWS-1500W	1500W, 24V, 90V AC to 264V AC Power Supply
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit : mm (inch)

