

RCX-1000 RTX2080



Workstation-grade Intel® Xeon®/Core™ i7/i5/i3 (Coffee Lake)
Expandable GPU Computing System with NVIDIA® GeForce RTX™ Graphics

- 6 cores 8th Generation Intel® Xeon®/Core™ i7/i5/i3 (Coffee Lake) with workstation-grade Intel® C246 Chipset
- 4 DDR4 2666MHz Memory, up to 128GB (ECC/Non-ECC)
- 6 external USB 3.1 Gen 2 support up to 10Gbps data transfer
- Powered by advanced NVIDIA Turing™ GPU architecture and all-new RTX platform, NVIDIA® GeForce RTX™ series graphic engine supports up to 6X the performance of previous generation graphics cards for real-time AI computing
- Display : 1 DVI, 1 HDMI and 5 DisplayPort, up to 8K Resolution
- 2 Independent GigE LAN, iAMT 12.0 supported
- 2 External SIM Socket for WiFi/4G/3G/LTE/GPRS/UMTS
- 4 Front-access 2.5" SSD Tray, RAID 0, 1, 5, 10 supported
- 32 Isolated DIO, 4 COM RS-232/422/485
- 2 PCI/PCIe Slot, 2 M.2 Socket : 1 M.2 Key M, 1 M.2 Key E
- Supports wide range power input with 80V Surge Protection
- Configurable Ignition Power Control



Deep Learning



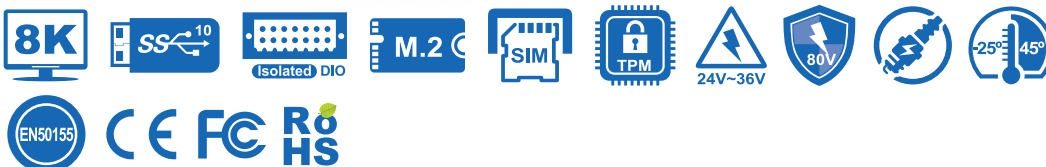
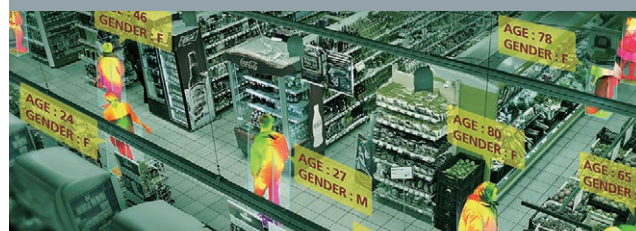
Autonomous Vehicles



Robotic Control



Public Surveillance



Specifications

System

Processor	6 cores Intel® Xeon®/Core™ i7/i5/i3 Processor (Coffee Lake-S)
Chipset	Intel® C246
BIOS	AMI
SIO	IT8786E
Memory	4 DDR4 2666MHz SO-DIMM, up to 128GB (ECC/Non-ECC)
OS	Windows 10, Linux

I/O Interface

Serial	4 COM RS-232/422/485 (ESD 8KV)
USB	- 6 USB 3.1 Gen 2 (External) - 1 USB 2.0 (Internal)
Isolated DIO	32 Isolated DIO : 16 DI, 16 DO
LED	Power, HDD, Wireless
SIM Card	2 External SIM Card Socket

Expansion

Mini PCIe	2 Full-size for PCIe/USB/External SIM Card/mSATA
M.2	1 M.2 Key E Socket
PCI/PCIe	Up to 2 PCI/PCIe Slot, by request

Graphics

Graphics Processor	- Intel® UHD Graphics P630/630 - NVIDIA® GeForce RTX™ 2080
Interface	7 independent displays : - 1 DVI : Up to 1920 x 1200 @60Hz - 3 DisplayPort : Up to 7680 x 3840 @60Hz - 1 DisplayPort : Up to 4096 x 2304 @60Hz - 1 Digital Display : Up to 4096 x 2304 @60Hz - 1 HDMI : Up to 4096 x 2160 @60Hz

Storage

SATA	4 SATA III (6Gbps) support S/W RAID 0, 1, 5, 10
mSATA	2 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	- 4 Front-access 2.5"SSD/HDD Tray - 1 M.2 Key M Socket

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

Power

Power Input	- 24V to 36V, DC-in - 12V DC-in (Optional)
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block
Surge Protection	Up to 80V/1ms Transient Power

Others

TPM	Optional Infineon SLB9665 supports TPM 2.0, 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	330.0mm x 210.0mm x 172.0mm (12.99" x 8.27" x 6.77")
Weight	RCX-14XXFR RTX2080 : 6.8 kg (15 lb) RCX-14XXF RTX2080 : 6.4 kg (14.1 lb)
Mounting	Wallmount by mounting bracket

Environment

Operating Temp.	-25°C to 45°C (-13°F to 113°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 45°C
Shock/Vibration	- IEC 61373 : 2010 - Railway Applications : Rolling Stock Equipment, Shock and Vibration Tests
EMC	CE, FCC, EN50155, EN50121-3-2

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Order Information

Model	Display					GigE LAN	SSD Tray	PCI	PCIe x4	PCIe x1	10G USB 3.1	SIM	Isolated DIO
	DVI	8K HDMI	8K DP	4K DP	Digital Display								
RCX-1430FR RTX2080							4	-	1	1			
RCX-1430F RTX2080							-	-	1	1			
RCX-1421FR RTX2080	1	1	3	1	1	2	4	1	1	-	6	2	32
RCX-1421F RTX2080							-	1	1	-			
RCX-1412FR RTX2080							4	2	-	-			
RCX-1412F RTX2080							-	2	-	-			

* RTX 2080 Ti and RTX 2070 are available by request.

CPU List

Series	CPU	Cache (MB)	Turbo Freq. (GHz)	TDP (W)	ECC Memory
Intel® Xeon®	E-2176G	12	4.6	80	Yes
	E-2124G	8	4.5	71	
Intel® Core™	i7-8700	12	4.6	65	NA
	i7-8700T	12	4.0	35	
	i5-8500	9	4.1	65	NA
	i5-8500T	9	3.5	35	
	i3-8100	6	3.6	65	Yes
i3-8100T	6	3.1	35		

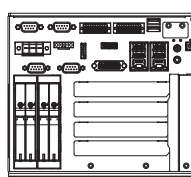
Accessories

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-480W-WT	480W, 24V, 90V AC to 305V AC Power Supply, Wide-Temp, IP65
PWS-600W	600W, 24V, 90V AC to 305V AC Power Supply
PWS-600W-WT	600W, 28.8V, 90V to 305V AC Power Supply, Wide Temperature -40°C to +70°C
FAN Sink	Fan Sink for RCX-1000 Series
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)

RCX-14XXFR RTX



RCX-14XXF RTX

