

RCS-9000 RTX2080



Workstation-grade Intel® Xeon®/Core™ i7 Expandable GPU Computing System
with NVIDIA® GeForce RTX™ Graphics

- LGA 1151 Socket supports Intel® Xeon®/Core™ i7 Processor (Kaby Lake/Skylake) with workstation-grade Intel® C236 Chipset
- Powered by advanced NVIDIA Turing™ GPU architecture and all-new RTX platform, NVIDIA® GeForce RTX™ series graphic engine, up to 6X the performance of previous generation graphics cards for real-time AI computing
- Display : 2 DVI, 1 HDMI and 4 DisplayPort, up to 7 independent HD displays
- 2 independent GigE LAN, iAMT 11.0 supported
- 3 SIM Card Socket for WiFi/3G/4G/LTE/GPRS/UMTS
- 4 Front-access 2.5" SSD/HDD Tray, 1 CFast Socket
- 7 USB 3.0, 32 Isolated DIO
- 2 PCI/PCIe Slot, 3 Mini PCIe, 4 COM RS-232/422/485
- 24V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control



Deep Learning



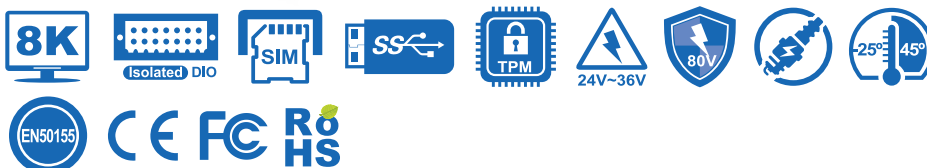
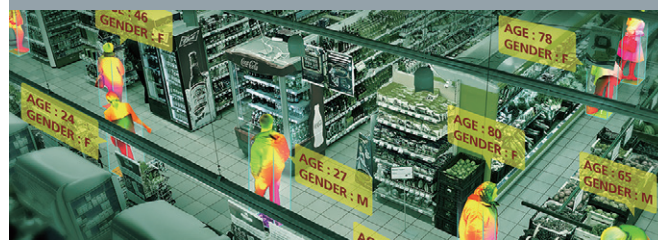
Robotic Control



Vehicle Computing



Public Surveillance



Specifications

System

Processor	Quad Core Intel® Xeon®/Core™ i7 Processor (Kaby Lake-S/Skylake-S)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2400MHz SO-DIMM, up to 64GB
OS	Windows 10, Windows 8.1, Windows 7, Linux

I/O Interface

Serial	4 COM RS-232/422/485 (ESD 8KV)
USB	- 7 USB 3.0 (6 External, 1 Internal) - 2 USB 2.0 (Internal)
Isolated DIO	32 Isolated DIO : 16 DI, 16 DO
LED	Power, HDD
SIM Card	3 SIM Card Socket (2 External, 1 Internal)

Expansion

Mini PCIe	3 Mini PCIe Socket : - 2 Full-size for PCIe/USB/External SIM Card - 1 Full-size for PCIe/USB/Internal SIM Card/mSATA
PCIe/PCI	Up to 2 PCIe/PCI Slot, by request

Graphics

Graphics Processor	- Intel® UHD Graphics 630/530 - NVIDIA® GeForce RTX™ 2080
Interface	7 Display interfaces : - 2 DVI : Up to 1920 x1200 @60 Hz - 3 DisplayPort : Up to 7680 x 3840 @60Hz - 1 DisplayPort : 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	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	- 1 CFast Socket (Internal) - 4 2.5" SSD/HDD Tray/Bracket (External/Internal)

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 11.0
LAN 2	Intel® I210 GigE LAN

Power

Power Input	24V to 36V, DC-in
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	172mm x 330mm x 210mm (6.8" x 13" x 8.3")
Weight	RCS-9400F RTX2080 : 4.4 kg (9.7 lb) RCS-9400FH RTX2080 : 5.1 kg (11.2 lb) RCS-9400FR RTX2080 : 5.6 kg (12.3 lb) RCS-9400FHR RTX2080 : 6.3 kg (13.9 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	CPU (W)	GigE LAN	PCIe x4	PCIe x1	PCI	SSD Tray	COM	USB 3.0	SIM	Isolated DIO
RCS-9430F RTX2080	35	2	1	1	-	-	4	7	3	32
RCS-9430FH RTX2080	80/65		1	1	-	-				
RCS-9430FR RTX2080	35		1	1	-	1				
RCS-9430FHR RTX2080	80/65		1	1	-	1				
RCS-9421F RTX2080	35		1	-	1	-				
RCS-9421FH RTX2080	80/65		1	-	1	-				
RCS-9421FR RTX2080	35		1	-	1	1				
RCS-9421FHR RTX2080	80/65		1	-	1	1				
RCS-9412F RTX2080	35		-	-	1	-				
RCS-9412FH RTX2080	80/65		-	-	1	-				
RCS-9412FR RTX2080	35		-	-	1	1				
RCS-9412FHR RTX2080	80/65		-	-	1	1				

* RTX 2070 are available by request.

CPU List

Series	CPU	Cache (MB)	Turbo Freq. (GHz)	TDP (W)	ECC Memory
Intel® Xeon®	E3-1275 v6	8	4.2	80	Yes
	E3-1275 v5		4	80	
	E3-1225 v5		3.7	80	
	E3-1268L v5		3.4	35	
Intel® Core™	i7-7700	8	4.2	65	NA
	i7-7700T		3.8	35	
	i7-6700		4	65	
	i7-6700TE		3.4	35	

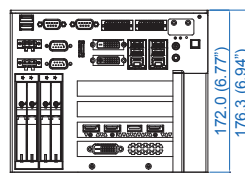
Accessories

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
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

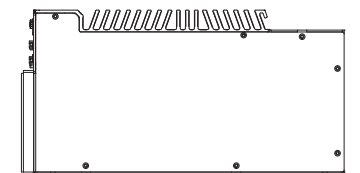
Dimensions & Drawing

Unit : mm (inch)

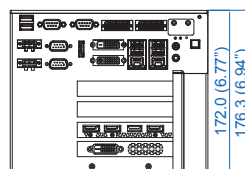
RCS-9000FR RTX2080



RCS-9000FR/F RTX2080



RCS-9000F RTX2080



RCS-9000FHR/FH RTX2080

