

RCX-1500 RTX2080D



Workstation-grade Intel® Xeon®/Core™ i7/i5/i3 (Coffee Lake)
Dual GPU AI Computing System with NVIDIA® GeForce RTX™ 2080 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)
- Dual 2944 CUDA cores NVIDIA® GeForce RTX™ 2080 Graphics Card, powered by advanced NVIDIA Turing™ GPU architecture and all-new RTX platform, supports up to 6X the performance of previous generation graphics cards for real-time AI computing
- 11 Independent displays : 1 DVI, 2 HDMI and 8 DisplayPort, up to 8K Resolution
- 6 external USB 3.1 Gen 2 support up to 10Gbps data transfer
- 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, 3 COM RS-232/422/485
- 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



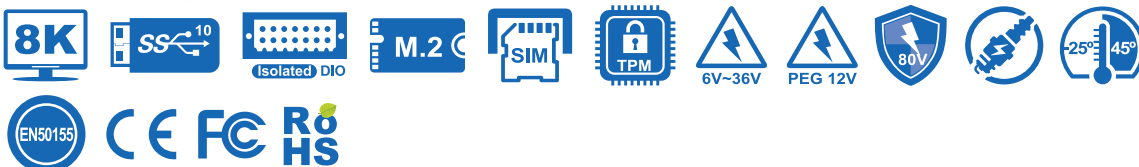
Autonomous Vehicles



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	3 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

Graphics

Graphics Processor	Intel® UHD Graphics P630/630 Independent Graphics 1 : NVIDIA® GeForce RTX™ 2080 Graphics Independent Graphics 2 : NVIDIA® GeForce RTX™ 2080 Graphics
Interface	11 independent displays : - 1 DVI : Up to 1920 x 1200 @60Hz - 6 DisplayPort : Up to 7680 x 3840 @60Hz - 1 DisplayPort : Up to 4096 x 2304 @60Hz - 1 Digital Display : Up to 4096 x 2304 @60Hz - 2 HDMI : Up to 4096 x 2160 @60Hz

Storage

SATA	4 SATA III (6Gbps) support 5W 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	- 6V to 36V, DC-in - 12V, PEG Power
Power Interface	DC-in : 3-pin Terminal Block : V+, V-, Frame Ground PEG Power : 8-pin Terminal Block : 4 V+, 4 V-
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	350.0mm x 210.0mm x 198.2mm (13.78" x 8.27" x 7.80")
Weight	RCX-1500R RTX2080D : 9.5 kg (20.94 lb) RCX-1500 RTX2080D : 9.3 kg (20.50 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	10G USB 3.1	SIM	Isolated DIO
	DVI	8K HDMI	8K DP	4K DP	Digital Display					
RCX-1500R RTX2080D	1	2	6	1	1	2	4	6	2	32
RCX-1500 RTX2080D							-			

* 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	
	i3-8100T	6	3.1	35	Yes

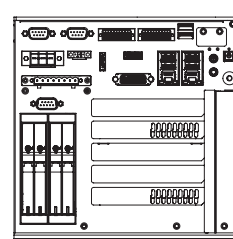
Accessories

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
PWA-160WB-VWT	160W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block (7.62mm pitch), Wide Temperature -30°C to +70°C
PWS-700W-12V	700W, 12V, 90V AC to 264V AC Power Supply
PWS-1500W-12V	1500W, 12V, 90V AC to 264V AC Power Supply
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-1500R RTX2080D



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