

NOVA R680E



Powerful industrial PC for machine control, AI & data-intensive applications

The NOVA R680E is a powerful industrial PC that has been specially developed for demanding applications such as machine control, machine learning and big data. Thanks to its enormous variety of connections with 10 USB ports, 4 LAN interfaces and two PCIe slots, the system can be flexibly expanded and individually adapted to a wide range of application scenarios. The wide-range current input from 8V to 48V and the extended temperature range from -10°C to +50°C also make the NOVA R680E ideal for continuous industrial operation under challenging conditions.

Technische Daten

[To the white paper "AI at the Edge"!](#)

System

CPU	Intel® Core i3-14100 (standard) / Intel® Core i5-14400 / i7-14700 (optional)
CHIPSET	Intel® R680E
GPU	Intel® UHD Graphics 770 (integrated) Nvidia® RTX A2000 (12GB DDR6), Nvidia® RTX 2000 (16GB DDR6), Nvidia® RTX 4000 (20GB DDR6) (optional)
RAM	16 GB SO-DDR5 (optional up to 64GB)
SSD / HDD	512 GB M.2 PCIe 4.0 NVMe (optional up to 2TB) 2 x 2.5" SATA3 SSD/HDD

I/Os

Front	1 x DC-IN via PIN + Phoenix Plug 4 x 2.5 Gbps LAN RJ45 GbE 2 x HDMI 2.0 // 4096x2340@60Hz 2 x DisplayPort 1.4a // 4096x2340@60Hz 2 x COM RS232 2 x COM RS232/422/485 1 x MIC-In 1 x LINE-Out 8 x USB 3.2 Gen 2x1
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I/Os

1 x GPIO 8-bits (4 x GPI; 4 x GPO), 5~35V, isolation 1.5KV

Back	2 x USB 3.2 Gen 1x1
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Environment / Mass

Dimensions (W x D x H)	217 mm x 127 mm x 240 mm
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Ambient temperature (operation)	-10° to +50°C
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Cooling	passive at 0.7 m/s air flow rate
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Idle power consumption in W	25
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Wall bracket	inclusive
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Extensions

M.2	KeyM 2280 (occupied)
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PCIe	2 x (x16 slot with x8 connection each)
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Miscellaneous

Operating system	Windows 10 / 11 / Linux
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PSU	8V – 48V DC Power Input
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Standards & Certificates	CE, FCC Class A, RCM, BSMI, VCCI, UKCA, IC, IEC 62368: CE(LVD) / BSMI
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Special features	The temperature range changes with an additional GPU.
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Class A warning	The device is intended for use in industrial environments. Operation of this device may cause radio interference in residential areas.
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Warning for 802.11a use	If you want to use the WLAN module according to 802.11a in the 5 GHz range: Use in the 5150 MHz – 5350 MHz frequency range is only permitted indoors!
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