

# RXi-342 CONTROLLER

POWER CONVERSION & STORAGE NEW CONTROL PLATFORM



In today's hyper-connected environment, customer concerns regarding cybersecurity are increasingly shifting from simple data privacy to the resilience of critical infrastructure and maintaining control systems integrity in energy, transport, Defence, industrial and commercial applications. As part of its long-term support commitment to customers, GE Vernova's Power Conversion & Storage business are introducing a new controller that will maintain high performance operational efficiency, increase cyber security protection and add digital connectivity for monitoring and data analytics as required by customers.

The new controller provides significantly improved performance and enhanced security features over previous generations. The new RXi-342 hardware and HPCi controller replaces our legacy RXi-042 and provides a future upgrade path for the current RXi-142 controller.



## RXi-342 CONTROLLER HARDWARE

The RXi-342 has been designed and developed to meet GE Vernova's rigorous specifications for Drive, Automation and digital applications across all business segments.

The RXi-342 provides hi-performance real time computing, flexibility, robustness, reliability and cyber security features to protect customer applications and critical infrastructure investment.

Moreover, The RXi-342 family of hardware will provide the backbone for PCS HMI and Server applications running on Windows.

# BENEFITS

## Improved and Scalable Performance

- Scalable hardware platform for real-time operations with Intel® Celeron® to Core™ i7 processors
- Multi-core CPUs (5-14 Cores – depending on variant)
- 0,2,3 or 4 PCIe expansion slots

## Flexible Functionality

All RXi-342 controllers have the following feature set in common:

- 5x 10/100/1000/2500 BASE-T Ethernet ports with IEEE1588 TSN features
- 2 x RS232 and 2 x galvanic isolated 422/485 ports
- 4 x USB 3.2 and 2 x USB Type-C
- 2x DisplayPort++ with HBR3 support – suitable for up to 4 independent displays
- Flat, Bookshelf and DIN-Rail mounting options

## Modern Design

- Higher performance multi-core CPUs for more cost-effective controllers and application partitioning
- Latest generation of embedded CPU generation with longer term support.
- Compact design and smaller footprint compared to its predecessors

## High Reliability & Security

- Rugged enclosure with special thermal design, fan-less operation & Overheat protection
- Enhanced security features to comply with IEC62443 SL1 and SL3.

## Upgrade and Migration to RXi-342

The RXi-342 shares many of the features on the RXi-042 and RXi-142. However, the RXi-342 is a different product with higher performance, better cyber security features, and smaller footprint and PCS have a designed an adapter plate to upgrade/retrofit the RXi-042/142 to RXi-342 without major mechanical modifications. Migration to RXi-042/142 to RXi-342 will depend on HPCi firmware installed on site. As a general guide, the RXi-342 will only run ≥HPCi7.x in SL1 mode and ≥HPCi 8.x in SL3 mode.

## Reference Part Numbers and Feature Set

The new RXi-342/HPCi controller would support both IEC62443 SL1 for standard cyber security requirements and IEC62443 SL3 for customers with enhanced cyber security requirements. SL1 and SL3 would have different part numbers – as below:

RXi-342 SL1 Part Number	RXi-342 SL3 Part Number	CPU Type	SSD Size	PCIe Expansion	Operating System
PC000581820	PC000581821	U300RE, 5 Cores + 4GB RAM	128GB	None	VxWorks
PC000581818	PC000581819	U300RE, 5 Cores + 4GB RAM	128GB	2 x PCIe	VxWorks
PC000581811	PC000581812	i3-1320PRE, 8 Cores +8GB RAM	128GB	2 x PCIe	VxWorks
PC000581820	PC000581821	U300RE, 5 Cores + 4GB RAM	128GB	None	VxWorks
PC000581813	PC000581814	i3-1320PRE, 8 Cores + 8GB RAM	128GB	3 x PCIe	VxWorks
PC000581815	PC000581816	i3-13300HRE, 8 Cores + 8GB RAM	128GB	4 x PCIe	VxWorks
PC000581804	PC000581805	i7-13800HRE, 14 Cores +8GB RAM	128GB	4 x PCIe	VxWorks
PC000581807	N/A	i3-1320PRE, 8 Cores + 8GB RAM	256GB	None	Windows10/11 <sup>(1)</sup>
PC000581822	N/A	i5-13600HRE, 12 Cores +32GB RAM	512GB	4 x PCIe	Windows10/11 <sup>(1)</sup>
PC000581808	N/A	i5-13600HRE, 12 Cores + 64GB RAM	512GB	4 x PCIe	Windows10/11 <sup>(1)</sup>
PC000581809	N/A	i5-13600HRE, 12 Cores + 32GB RAM	512GB	2 x PCIe	Windows10/11 <sup>(1)</sup>

(1) SL3 mode is not applicable to Windows variants. Windows OS is not included in this hardware list; licence and installable software are ordered separately.

# About GE Vernova's Power Conversion & Storage business

GE Vernova's Power Conversion & Storage business combines advanced energy conversion and storage systems to meet the electrification needs of utilities and industries. With a focus on power stability, energy storage, and industrial electrification solutions, Power Conversion & Storage empowers customers by addressing their most complex electrification challenges and accelerating their transition to a sustainable, decarbonized future

For more information, please visit [governova.com/power-conversion](https://governova.com/power-conversion)

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