VELA PERFORMANCE
POWERED BY ADVANTECH

13th Gen Intel Core i9/i7 High Performance Industrial Tower PC

VELA-PRF-RPL-TWR

A configurable industrial tower platform for demanding control, test, measurement and data-processing applications. Built around the Advantech AIMB-788 industrial ATX motherboard, the system supports 13th Gen Intel Core i9 and i7 processors, up to 64GB DDR4 memory and 2TB PCIe x4 M.2 storage, with removable drive bays and extensive PCIe and PCI expansion. Built using in-stock components, it supports quick dispatch and long-term availability.



IMPULSE EMBEDDED LIMITED
Unit 1, Beata Road, Newcastle-under-Lyme, Staffordshire, United Kingdom, ST5 7UT
Tel: +44 (0)1782 337 800 Fax: +44 (0)1782 337 801 Email: sales@impulse-embedded.co.uk
Website: www.impulse-embedded.co.uk

Company Registration No. 2871505 | VAT Reg. No. GB592 7958 74 | EORI Reg. No. GB592 7958 74000

Standard Configurations

This specification sheet covers both standard varients. Differences are shown side by side. Shared specifications apply to both models, unless stated otherwise.

Specification	VELA-PRF-RPL-TWR-I7	VELA-PRF-RPL-TWR-I9
Processor	13th Gen Intel Core i7-13700E	13th Gen Intel Core i9-13900E
Cores / Theads	16 / 24	24 / 32
All Core Boost	5.10GHz (P-Cores), 3.9GHz (E-Cores)	5.20GHz (P-Cores), 4.0GHz (E-Cores)
Cache	24MB	36MB
Memory	32GB (2x16GB) DDR4 3200MHz	64GB (4x16GB) DDR4 3200MHz
Storage	1TB M.2 2280 NVME, PCIe Gen4x4, 3D TLC BiCS5	2TB M.2 2280 NVME, PCIe Gen4x4, 3D TLC BiCS5
System Core		
Motherboard	Advantech AIMB-788 ATX Industrial Motherboard	
Chipset	Intel Q670E	
CPU Socket	LGA1700	
Supported CPU Power	Up to 65W	
Chassis	IPC-7130 Industrial Desktop/ Tower Chassis	
Power Supply	500W 80 Plus Bronze ATX Power Supply	
Graphics	Onboard Intel UHD Graphics 770	

System Specification

Specification	VELA-PRF-RPL-TWR-I7	VELA-PRF-RPL-TWR-I9
I/O		
Ethernet	2x Gigabit Ethernet	
Display	1x DisplayPort; 1x HDMI, 1x VGA	
USB Rear	2x USB3.2 Gen2, 2x USB3.2 Gen1, 4x USB2.0	
USB Front	2x USB2.0	
USB Internal (*Requires Breakout Cable*)	2x USB2.0 (Header), 2x USB2.0 (Type-A)	
Serial	1x RS-232	
Serial Internal (*Requires Breakout Cable*)	4x RS-232/422/485, 1x RS-232	
Storage & Expansion		
M.2	1x M.2 2280 M-key (PCIe Gen4 x4)	
Drive Bays	2x 2.5"/3.5" Hot-swap Bays; 1x Internal 3.5" Bay, 1x 5.25" Bay	
RAID	0/1/5/10	
PCIe	1x PCIe Gen 4 [x16], 1x PCIe [x8], 3x PCIe [x4]	
PCI	2	

System Specification

Specification	VELA-PRF-RPL-TWR-I7	VELA-PRF-RPL-TWR-I9
Security & Remote Management		
IPMI	No	
TPM	Via TPM2.0 Module	
Security	Intel Platform Trust Technology (Intel PTT) Ready for Windows 11. (*VPro Requires TPM2.0 Module*)	
Mechanical & Environmental		
Dimensions *(W x H x D)*	200 x 320 x 480	
Operating Temperature	0°C to +40°C	
Mounting	Surface/Desktop Mount	
Warranty	3 Years Return to Base	

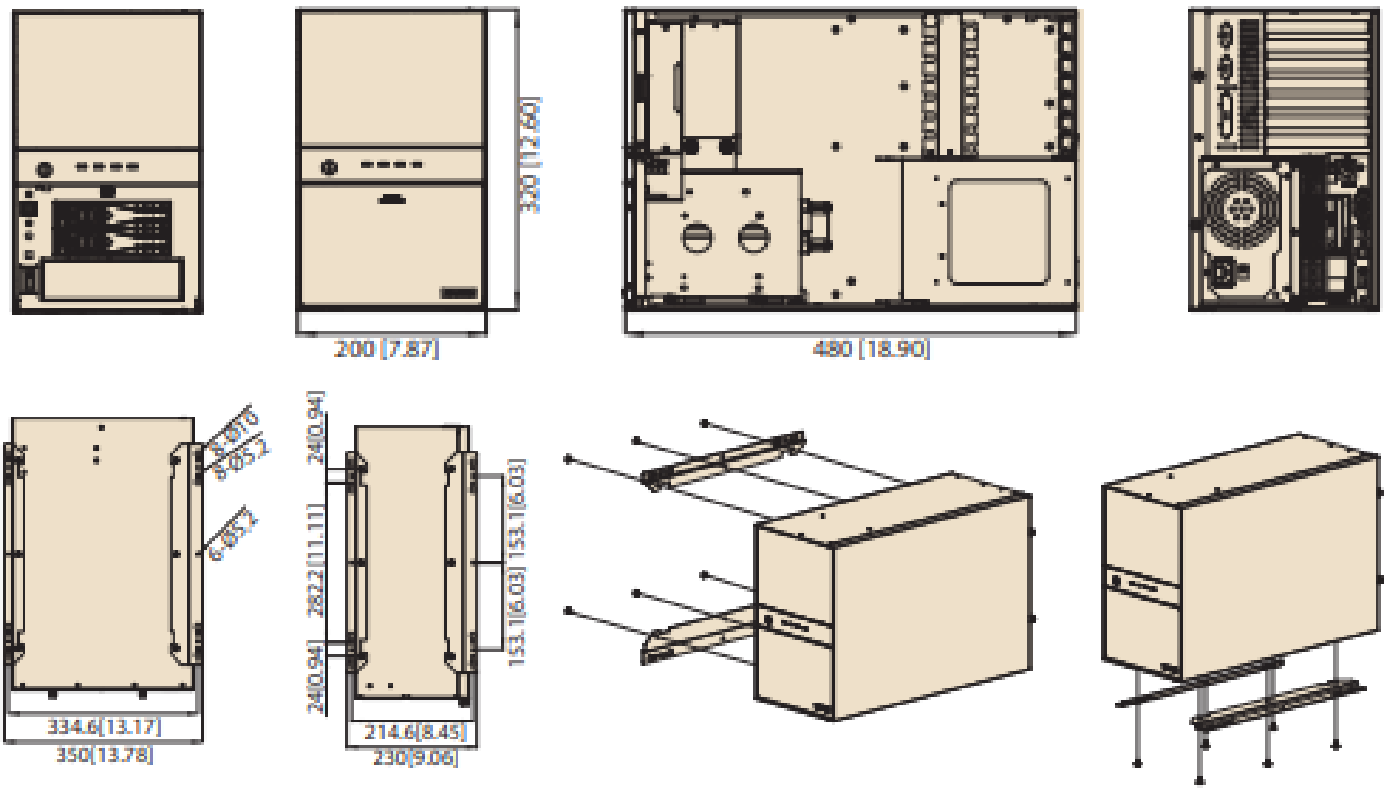
Ordering Information

Model	Processor	Memory	Storage
VELA-PRF-RPL-TWR-I7	13th Gen Intel Core i7-13700E	32GB	1TB
VELA-PRF-RPL-TWR-I9	13th Gen Intel Core i9-13900E	64GB	2TB

Configuration note: The specifications above define the two standard orderable VELA-PER-RPL-TWR systems. Alternative configurations are available and can be discussed separately. All specifications are subject to change without notice. Please visit our website for the most up to date product information.

Mechanical Specification

Dimensions



IMPULSE EMBEDDED LIMITED
Unit 1, Beata Road, Newcastle-under-Lyme, Staffordshire, United Kingdom, ST5 7UT
Tel: +44 (0)1782 337 800 Fax: +44 (0)1782 337 801 Email: sales@impulse-embedded.co.uk
Website: www.impulse-embedded.co.uk