seeed studio

reServer i31115(16G+512SSD/W) - Compact Edge Server powered by 11th Gen Intel® Core™i3 1115G4

(16G+512SSD/W)

SKU B102110560

reServer is based on an ODYSSEY X86 v2 board and powered by Intel® Core™ 11th Gen. i3 and Intel UHD Graphics 48EUs (400 - 1250 MHz), which delivers high CPU and AI performance for various applications. It has two high-speed 2.5-Gigabit Ethernet ports and supports hybrid connectivity including 5G, LoRa, BLE and WiFi. reServer is of compact design to work efficiently in almost any scenario. The neat structure of reServer also makes it simple to access to the hard drives, memory and PCIe slots which allows easy installation, upgrades and maintenance.



Do not need the encloser? Get the main board of reServer, **ODYSSEY X86 v2 board.**

PRODUCT DETAILS



Note

Please make sure to also choose the AC Power Cord to use with reServer:

- AC Power Cord Compatible with reServer US
- AC Power Cord Compatible with reServer EU



Note

Please make sure that this reServer has been pre-installed 16G Memory Module, 512G SSD and WiFi Module.

Features

- Compact design for a server with an overall dimension of 132mm*124mm*233mm
- Powered by the latest 11th Gen Intel[®] Core[™] i3 CPU running up to 4.10GHz and Intel UHD Graphics 48EUs running up to 1.25 GHz
- Rich peripherals including dual[®] 2.5-Gigabit Ethernet ports, USB 3.2 Type-A port, USB 2.0 Type-A port, HDMI port and DP port
- Support hybrid connectivity including 5G, LoRa, BLE and WiFi (5G and LoRa need additional modules)
- Dual SATA III 6.0 Gbps data connectors for 3.5"/2.5" SATA hard disk drives with enough space inside the enclosure to store them both
- M.2 B-Key/ M-Key/ E-Key for expandability such as SSD, LTE/4G/5G, WiFi 6
 Modules
- Quiet cooling fan with a large VC heat sink for excellent heat dissipation
- Easy to install, upgrade and maintain with ease of access to the internal components after opening the enclosure
- Pre-installed Windows 10 Enterprise(Unactivated), also support other Windows OS and Linux OS

Description

reServer, as a milestone product of reThings family, is extremely compact and powerful. This smart tiny server is able to work easily and efficiently from the edge to the cloud.



reServer is based on an ODYSSEY X86 v2 board and powered by the latest 11th Gen Intel® Core™ i3 CPU running up to 4.10GHz and Intel UHD Graphics 48EUs running up to 1.25 GHz, which delivers high CPU and AI performance for various applications.



reServer comes with two high-speed 2.5-Gigabit Ethernet ports and supports hybrid connectivity including 5G, LoRa, BLE and WiFi. It enables up to 250% faster performance than Gigabit Ethernet with compatible hardware and provides the transition speed up to 5Gbps using link aggregation.





With an overall dimension of 132mm*124mm*233mm, reServer is only around 1/10 of the size of an ordinary computer case which makes it possible to place reServer on a table, on a self, on any surface you want it to be. The neat structure of reServer also makes it simple to access the hard drives, memory and PCIe slots which allows for easy installation, upgrade and maintenance.



reServer is equipped with a quiet cooling fan as well as a large VC heatsink to ensure silent and stable operations under heavy load, while providing excellent heat dissipation.



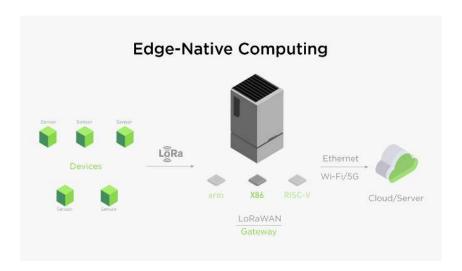
Having dual SATA III 6.0Gbps data connectors, reServer is able to equip up to two 3.5" SATA internal hard disk drives or two 2.5" SATA internal hard disk drives to acquire more storage.

It also has M.2 adapters to connect to various SSDs for faster read and write speeds. * SATA Internal Hard Disk Drives are not included. SSD is not included in some versions.



reServer supports LoRa technology which makes it possible to connect to a wide range of sensors. It can be applied as an edge computing center for all scenarios that require vast data to collect and process at the edge. The expandability of 5G technology is useful in places where there isn't always reliable internet connectivity, such as on a farm or in a location with spotty service.

*To get LoRa and 5G connectivity, optional modules are needed.



Application

- Small office, home office server
- Industrial Automation
- Robotics
- Healthcare
- Smart Agriculture
- NAS

Specifications

Versions		Basic Versions			High Performance Versions	
Platform	Processor	Intel® Core™ 11th	Intel® Core™ 11th	Intel® Core™	Intel® Core™ vPro® 11th Gen.	Intel® Core™ vPro® 11th Gen.

Versions		Basic Versions			High Performance Versions		
		Gen. i3 1115G4	Gen. i3 1125G4	11th Gen. i5 1135G7	i5 1145GRE	i7 1185GRE	
	Cores/Thread s	2C/4T	4C/8T	4C/8T	4C/8T	4C/8T	
	Frequency	Up to 4.10 GHz	Up to 3.70 GHz	Up to 4.20 GHz	1.50 GHz ~ 4.10 GHz	1.80 GHz ~ 4.40 GHz	
Co-processor			® ATSAMD21 tex-M0+ @ 4		Raspberry Pi® RP2040 32-Bit Dual ARM Cortex-M0+ @ 133MHz		
	Technology	Dual Channels DDR4-3200					
Memory	Capacity	Support up to 64GB					
	ECC Memory Supported	NO			YES		
Graphics	Controller	Intel® UHD Graphics 48EUs (400 - 1250MHz)	Intel® UHD Graphics 48EUs (400 - 1250MHz)	Intel® Iris Xe Graphics G7 80EUs(400 -1300MHz)	Intel® Iris Xe Graphics G7 80EUs(400 -1300MHz)	Intel® Iris Xe Graphics G7 96EUs(400 -1300MHz)	

Versions		Basic Versions	High Performance Versions	
Advanced Technologie s	Intel® vPro®	NO	YES	
	Intel® Total Memory Encryption	NO	YES	
Network	Controller	Intel® Ethernet Controller I225-V	Intel® Ethernet Controller I225-LM	
Wireless	WiFi	M.2 E-Key(PCIE & CNVi Support), Intel® Wi-Fi 6 AX201(Optional)		
	Bluetooth	Bluetooth 5.0, BLE(Optional)		
	LCD	eDP 40-Pin 4 Lane Connector		
	HDMI	1 x HDMI 2.0b, up to 4Kx2Kx24bpp@60Hz		
Display	DP	1 x DP1.4a 7680x4320x24bpp@60Hz		
	Multiple Display	4 simultaneous displays with each display interface combination		
External I/O	Ethernet	2 x 2.5GbE LAN ports (RJ45, supports 10/100/1000/2500 Mbps), Intel® i225		
	HDMI/DP	One/One		

Versions		Basic Versions	High Performance Versions	
USB Type-C		N/A	USB PD / USB 4.0 / Thunderbolt 4	
	USB Type-A	USB2.0 Type A x1 ; USB3.2 Type A x1	USB2.0 Type A x2 ; USB3.2 Type A x1	
	LED	Power Status		
Power Supply		1x5.5x2.5mm DC Jack / Wafer 2.0mm 8pin		
	Micro Sim Card Slot	1		
	SATA	2 x SATA Gen III 6.0 Gb/s Data Connectors + 3 x SATA Power Connectors		
	COM Port	1 x RS-232/422/485, 1 x RS-232		
Internal I/O	GPIO	28-Pin Arduino Co-processor 2.54mm header	30-Pin Raspberry Pi Co- processor 2.54mm header	
	Audio	Realtek High Definition Audio, Microphone + headphone Combo Connector		
	USB2.0	USB2.0 9-pin Header x2 480Mbps		
	Fan	2 x 12V 4-wire Fan header, PWM Control		

Versions		Basic Versions	High Performance Versions	
	Front Panel Control	Power-on, Reset, Power Status LED, SATA Status LED		
	S/PDIF	3-Pin 2.54mm Header		
	SATA Power	WAFER4-Pin 2.0 pitch Connector 6-Pin 0.5mm FPC Connector (SWD)		
	Co-CPU. Debug Port			
	M.2 M-Key	1 x M-Key 2242/2280(PCIe 3.0 x4)		
	M.2 E-Key	1 x E-Key 2230(PCle 3.0 x1; USB2.0 x1;Intel CNVi)		
Expansion	M.2 B-Key	1 x B-Key2242/2252/2280(PCIe 3.0 x2; USB2.0 x1)		
	High Speed I/O	1 X PCle x4 Gen4	1 X PCIe 3.0 x4/SMBus/LPC/USB 2.0/CPU GPIO etc.	
Power	Supply Voltage	DC Jack: 12V DC Jack: 12V-19V		
	RTC Battery	Lithium 3V/210mAH		
Feature	ТРМ	Support		

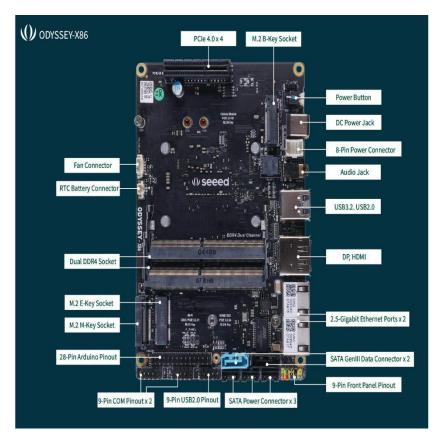
Versions		Basic Versions	High Performance Versions	
	Secure Boot	Support		
Certification	EMC	CE,FCC,TELEC		
Dimension 124mm*132mm*233mm				
Mechanical	Thermal Solution	Heat Pipe Assemblies/Heat Spreading Vapor Chamber Assemblies		
	Weight	1800g		

Hardware Overview



Dimensions





Part List

- 1 x reServer
- 1 x User Manual
- 1 x Screwdriver
- 1 x Fan Cable
- 2 x 2.4/5GHz Wi-Fi Antenna
- 1 x 60W AC-DC Power Adapter
- 1 x 8GB SODIMM DDR4 3200MHz (Already installed)
- 1 x M.2 2280 256GB NVMe PCIe 3.0 SSD (Already installed)
- 1 x M.2 Key E 2230 Dual Band Wi-Fi 6 AX201(CNVio) module (Already installed)

ECCN/HTS

HSCODE 8471419000
UPC