Application Note
Portwell, Inc.

Portwell

ROBO-8115VG2AR Featuring 10th Generation Intel® Xeon® W and Core™/ Pentium®/Celeron® Processors, the Smarter Path to Industry 4.0
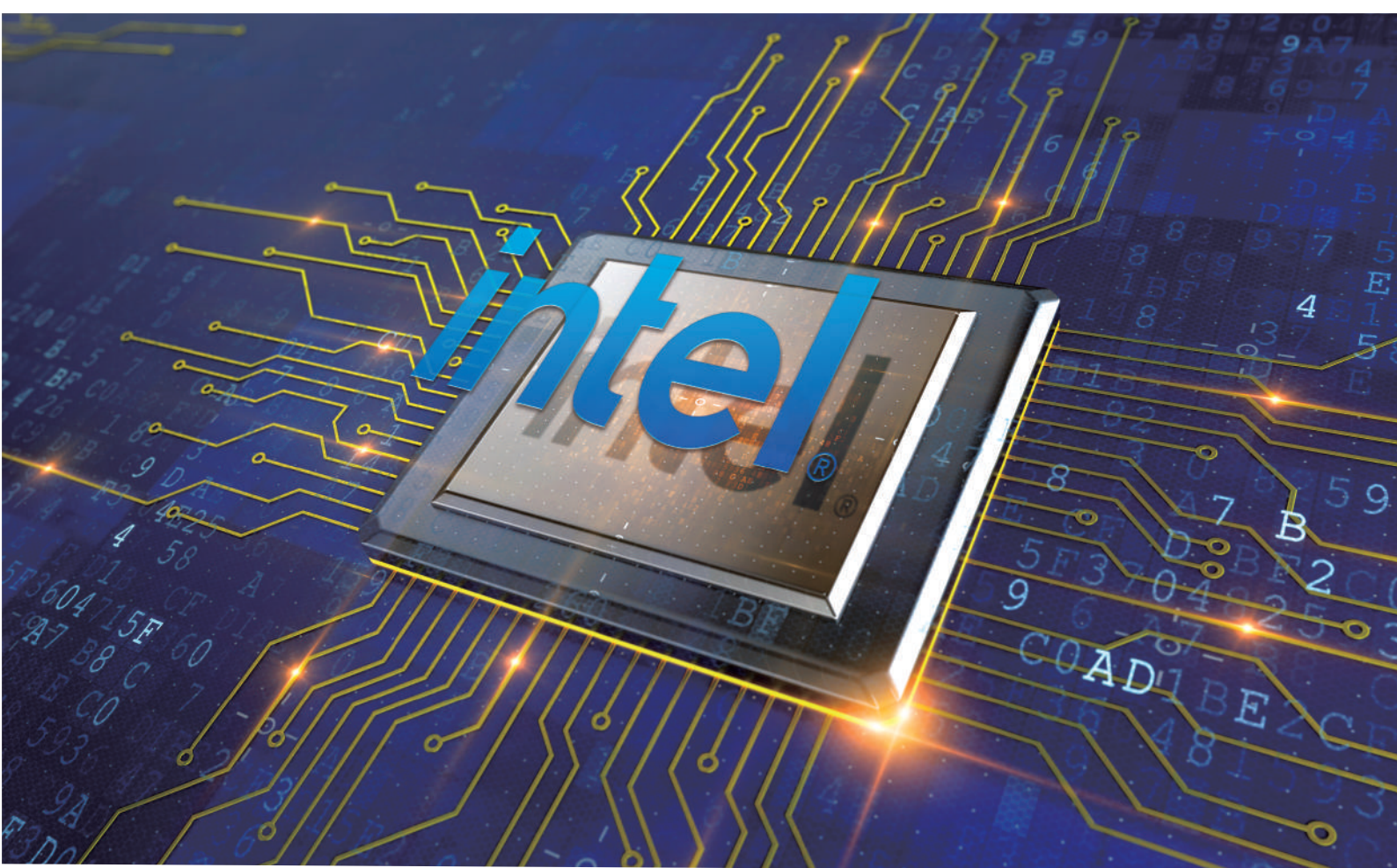
SBC for Industry 4.0

After the start of smart manufacturing, automated production and delivery of products has also undergone a radical change. With artificial intelligence (AI), it has brought major breakthroughs in many use cases. As the scope of AI applications in smart manufacturing continues to expand, the demand for AI industrial servers is also increasing. Therefore, an off-the shelf solution meeting these various demands is the way to accelerate the realization of smart manufacturing.

PICMG 1.3 boards are built with versatile I/O ports and plenty of backplanes to achieve flexibility and expansion capability. With comprehensive backplane and high performance boards, it can offer great solutions for expandable industrial application including industrial automation, intelligent control systems, medical/healthcare imaging systems, automated test equipment, semiconductor equipment, display wall/digital signage, digital security surveillance, broadcasting systems, transportation and storage and IoT edge and AI solutions.

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Optimized Computing Powered by Intel® 10th Generation Intel® Xeon® W/Core™/Pentium®/Celeron® Processors

The new SBC based on Intel® 10th Generation offers energy efficiency, and optimized balance of computing power, accelerated graphic processing and power consumption for new application needs or a quick upgrade for the legacy application installed with the old SHB. What's more it also provides high flexibility for I/O expansion with wide selections of backplanes, supports multiple peripheral control and wireless connectivity for remote applications. Our customers also benefit from the peace of mind they get from the long lifespan support of 10+ years inherent with this product.

The ROBO-8115VG2AR is equipped with the latest Comet Lake CPU, which can use powerful core computing to improve the inference performance of deep learning. And through the enhanced CPU performance and integrated graphics processing, image capture, processing and analysis of data can be processed and calculated in real time and effectively. And with a wide range of connection options (including powerful I/O port and Gigabit Wi-Fi), data can be quickly moved from the device to any place needed, whether it is a network video recorder, an internally deployed server, the cloud or any other destinations.
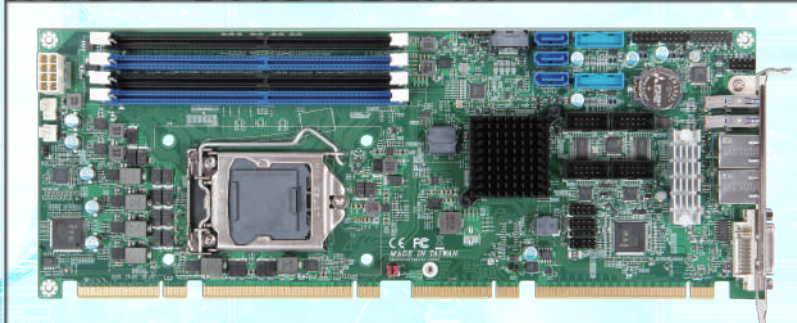
Smarter Manufacturing with ROBO-8115VG2AR

ROBO-8115VG2AR features the latest 10th Generation Intel® Xeon® W/Core™/Pentium®/Celeron® processors. This means it now offers up to 20 percent more cores than previous generation processors, up to 31 percent better multi-tasking performance for compute-intensive applications, and as much as 11 percent improved performance on single-task compute-intensive applications.

PICMG 1.3 SBC, ROBO-8115VG2AR

- 10th Gen Intel® Xeon® and Core™ i3/i5/i7/i9 Pentium®/Celeron® Processors in LGA 1200 Package
- Up to 128GB DDR4 2666 Long DIMM with ECC/non ECC Support
- Multiple Display by DVI-I(DVI-D+VGA) and HDMI
- High Speed Dual Gigabit Ethernet
- Rich I/O connections such as four serials ports, USB3.2(Gen2), SATA III ports
- Support on board TPM2.0

About Portwell

Portwell, Inc., founded in 1993, has focused herself towards a high-technology scope that brings company value through the state-of-the-art. For the past years, continuous leading product development and revenue growth have made Portwell a major Mission-Critical Application Platform Provider in the world. The in-house design of industrial computers and application platforms by Portwell has also been targetted to meet our customer needs for flexibility. Portwell, Inc., an IoT Solutions Titanium Partner of the Intel® Partner Alliance, a community of communications and embedded developers and solution providers, designs and manufactures Communication Appliances along with a full range of Industrial Platform Service (Computer on Module, Embedded Computing, Industrial Computer), Communication Appliance Service (Software Defined Wide Area Network, ANS series, AnnA ANS Network Associate), Vertical Market Service (Advanced Network Solutions, Gaming, Medical, industrial Automation, Smart Transportation, Energy, Smart Manufacturing, Internet of Things(IoT), AI Solutions, Mobility & Barcoding Solutions, EMS/DMS), Panel Device Service (Panel PC, LEAD Series) . With streamline access to the latest Intel technology, we paved the way with the broadest array of building blocks, delivering cutting-edge solutions to meet and even exceed the demanding needs of the ever-changing telecommunication, medical electronics, industrial automation, defense and life automation markets. Committed to supplying customers with a one-stop shopping approach of full product selection, competence and sophisticated customer support, Portwell helps all our customers pave the royal road to success and stay ahead of competition.

Portwell

intel. partner Titanium IoT Solutions

Portwell, Inc., an IoT Solutions Titanium Partner of the Intel® Partner Alliance, designs and manufactures a full range of IPC products (SBC, backplane, redundant power supply, rack mount & node chassis), embedded architecture solutions, DVR system platforms and communications appliances. We provide complete R&D and project management services to decrease customers' time to market, and reduce project risk and cost. Portwell is also an ISO 13485, ISO 9001 and ISO 14001 certified company that deploys quality assurance through product design, verification and manufacturing cycles.

Portwell, Inc. (Headquarters)

No. 242, Bo'Ai St., Shu-Lin Dist,
New Taipei City 238, Taiwan
Tel: +886-2-7731-8888
Fax: +886-2-7731-9888
E-mail: info@portwell.com.tw
www.portwell.com.tw

www.portwell.com.tw

Americas

American Portwell (Fremont, CA)

44200 Christy St.,Fremont, CA 94538, USA
Tel: +1-510-403-3399
Fax: +1-510-403-3184
E-mail: info@portwell.com
www.portwell.com

Japan

Portwell Japan, Inc. (Tokyo)

〒112-0011 4-27-10, Sengoku, Bunkyo-ku,
Tokyo, Japan
Tel: +81-3-6902-9225
Fax: +81-3-6902-9226
E-mail: info@portwell.co.jp
www.portwell.co.jp

Portwell Japan, Inc. (Osaka)

〒532-0004 Ste.501 Nippo Shin-osaka Dai-2
Bldg, 1-8-33 Nishi-Miyahara, Yodogawa-ku
Osaka Japan
Tel: +81-6-4807-7721
Fax: +81-6-4807-7720
E-mail: info@portwell.co.jp
www.portwell.co.jp

Europe

European Portwell

Schillingweg 3, 2153 PL
Nieuw Vennep,The Netherlands
Tel: +31-252-620790
E-mail: info@portwell.eu
www.portwell.eu

KIOSK Embedded Systems GmbH

Am Technologiepark 8-10,
D-82229 Seefeld
Tel: +49-8152-3962-500
E-mail: info@portwell.eu
www.portwell.de

Portwell UK Ltd.

Office TH2
Trident House, Trident Park Basil
Hill Road, Didcot, OX11 7HJ, UK
Tel: +44(0)1235-750-760
Fax: +44(0)1235-750-761
E-mail: info@portwell.eu
www.portwell.eu

China

Shanghai Portwell

(201612), Room 1303-1, Building 33, No.258,
Xinhuan Highway, Songjiang District,
Shanghai
Tel: +86-21-5771-2505
Fax: +86-21-5772-2965
E-mail: info@portwell.com.cn
www.portwell.com.cn

Korea

Portwell Korea, Inc.

O-BIZ Tower 1901,No.126,
Beolmal-ro,Dongan-gu,Anyang-si,
Gyeonggi-do, Korea, 431-060
Tel :+82-31-450-3043
Fax:+82-31-450-3044
E-mail: info@portwell.co.kr
www.portwell.co.kr

India

Portwell India Technology

2nd Floor, 5M-665, 5TH Main Road, OMBR
Layout, Banaswadi, Bangalore -560043, India
Tel: +91-80-4168-4255
E-mail: enquiry@portwell.in
www.portwell.in