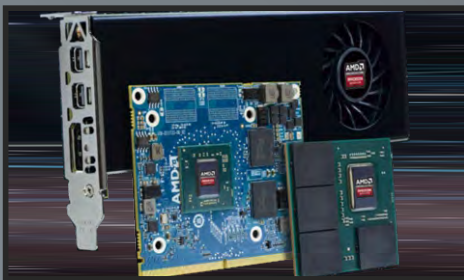### 3D Printing Partnership

HP & Deloitte join forces to transform $12T manufacturing industry
« Massive opportunity for 3D printing »
- Unprecedented partnership
- Event Panel: SAP, Siemens, Johnson & Johnson

DOOH - Digital Signage
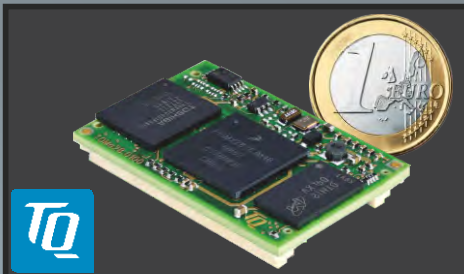DOOH market set to hit $26 billion
by 2023

New AMD Embedded GPU E9170 series Delivers Up to 3X Performance-Per-Watt
- Available in compact MCM, standard MXM and PCI Express card form factors
- 4K HEVC, HDMI 2.0, DisplayPort

New ADLINK COM Express with 7th Gen Intel® Core™, Intel® Xeon® Processor
Basic size, 125 mm x 95 mm

Smallest ARM9 module TQMa28 from TQ-Systems 26 x 40mm
- Based on i.MX28 from NXP (Freescale)
- Low-cost due to highest levels of integration

ANSI and VITA Ratify ANSI/VITA 48.8 Air-Flow-Through Cooling Standard for VPX
Provides lower weight, reduced cost cooling

In this Edition

• Boards from 20 Leading Vendors (one board per vendor but includes all standard architectures and all CPUs: Intel, ARM, Nvidia, NXP/Freescale, …)

• HP & Deloitte join forces to transform $12T manufacturing industry a Massive opportunity for 3D printing

• DOOH market set to hit $26 billion by 2023

• What is DOOH / Digital Out of Home?

• New AMD Embedded GPU E9170 series Delivers Up to 3X Performance-Per-Watt

• New ADLINK COM Express with 7th Gen Intel® Core™, Intel® Xeon® Processor

• Smallest ARM9 module TQMa28, 26 x 40mm, from TQ-Systems

• ANSI and VITA Ratify ANSI/VITA 48.8 Air-Flow-Through Cooling Standard for VPX

• Adlink Mini-ITX Embedded Boards, Industrial & Extreme Rugged

• New AMD Embedded GPU Delivers Up to 3X Performance-Per-Watt for Low-Power Embedded Applications

• Acromag Partners with ECRIN Systems to Offer Extremely Small Mission Computer

• Mercury Systems acquires Creative Electronic Systems (CES)

• Advantech results 2016 and H1-2017

Paul S. Otellini, 1950 – 2017

Intel Corporation announced that Paul Otellini, the company's former chief executive officer, died Oct. 2, 2017, at the age of 66 (see page 16)

Daniel Dierickx
CEO & co-Founder
at e2mos
Acting Chief Editor

Dear Reader,

Here is your free copy of Embedded Systems World, one of our five magazines published by e2mos.

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This GLOBAL Platform is a UNIQUE Set of Services for Telecom ICT, Video Broadcast, Embedded Computing, IoT and AI Vendors from Multicore Chips to Application-ready Systems & Rack Space Servers.

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IoT World

TelecomCOTSWorld
Broadband Broadcast IoT Convergence

Embedded Systems World

ATCA World

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# 3U and 6U OpenVPX NVIDIA Pascal and Maxwell architecture-based GPGPU

System Integrators use GPGPUs to meet the intense processing needs of C4ISR military applications that require large amounts of DSP algorithm computation. Curtiss-Wright offers the latest NVIDIA Pascal and Maxwell architecture-based GPGPU technology in COTS rugged air-cooled and conduction-cooled DSP Processor cards for both 3U & 6U OpenVPX form factors.

These boards harness the enormous floating point processing power of GPGPUs for compute intensive applications, implemented in rugged form factors.

When multiple boards are configured into systems they can deliver TFLOPS of processing to EO/IR applications that must capture and manipulate huge data streams from gigapixel cameras and to STAP and SAR radar, which are hungry for floating point engines that can handle pulse compression and Doppler processing.

MORE: https://www.curtisswrightds.com/products/cots-boards/processor-cards/gpu-dsp/
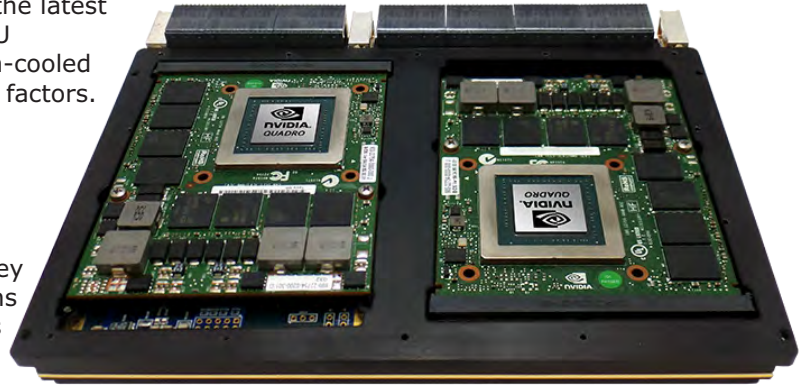
Dual Camera Link FMC
FMC422 FPGA Mezzanine Card

HUNTSVILLE, Ala.— October 17, 2017 Abaco Systems today announced the FMC422 Dual Camera Link FMC (FPGA mezzanine card). VITA 57.1 FMC compliant, it is designed for demanding, mission critical video processing applications that require high performance capture or output together with FPGA processing. The FMC422 is ideally suited for high bandwidth deployments such as degraded visual environments, active protection systems and autonomous vehicles.

The FMC422 provides the optimum solution for new systems as well as a straightforward technology refresh/performance upgrade for existing systems. By taking advantage of the FMC422, users can also benefit from the latest FPGA boards from Abaco such as the VP880, a 3U VPX FPGA board featuring a Xilinx® Ultrascale™ FPGA and Zynq® Ultrascale+ MPSoC as well as Abaco's extensive range of FPGA carrier cards.

Abaco Systems, formerly GE embedded technology and systems

MORE: https://www.abaco.com/
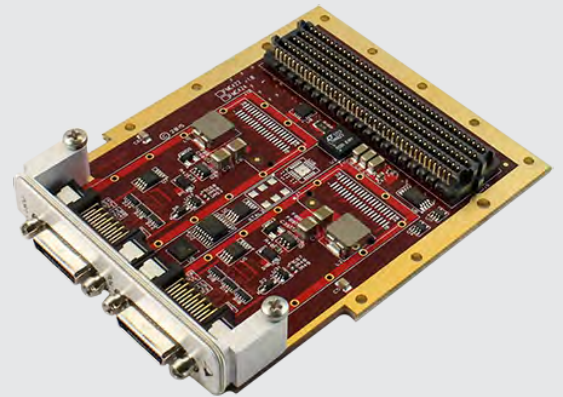
Conduction-Cooled XMC/PrPMC
# Mezzanine Module - Xpedite6101

Based-on NXP (formerly Freescale) QorIQ T2081, T1042, or T1022 Processor

The XPedite6101 provides a compact and cost-effective rugged computing solution with excellent processing performance-per-watt.

The XPedite6101 supports multiple processor configurations, a number of I/O options, and up to 8 GB of DDR3-1600 ECC SDRAM.

When configured to use the T2081 processor, the XPedite6101 maximizes performance with eight virtual (four dual-threaded) e6500 cores running at up to 1.8 Ghz.

MORE: https://www.xes-inc.com/products/processor-mezzanines/xpedite6101/
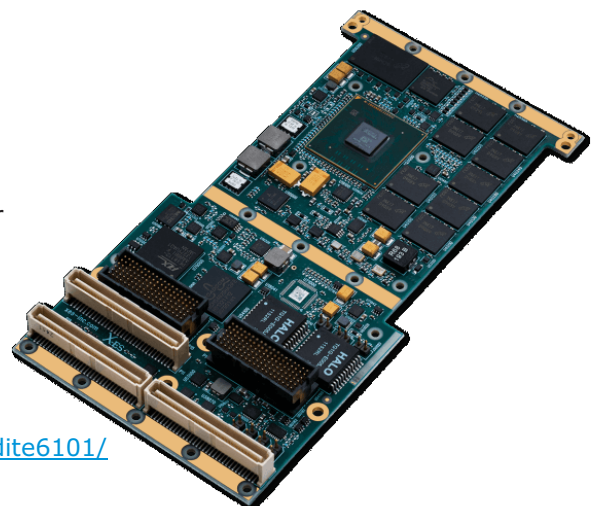
6U VMEbus Board with TI Sitara ARM Cortex-A15 CPU « A23C »

Low-Power ARM-Based VMEbus CPU

The single-board computer A23C features a versatile high-performance, small footprint and low-power ARM processor, which allows application partitioning thanks to its 32-bit A15 CPU with integrated M4, GPU and DSP coprocessors. The A23C supports a reduction of system size, a reliable long-term operation without forced air cooling, and manifold computing functions with just one computer board.

Versatile Front I/O and Mass Storage

With one USB port, two Gigabit Ethernet ports and one RS232 COM at the front, the board offers the crucial basics of a multi-purpose industrial computer. As these interfaces are already provided by the ARM CPU, the remaining board space can be flexibly used for two PMC/ XMC modules. Being equipped with DDR3 SDRAM, Flash and FRAM, the need for flexible mass storage extensions is covered by slots for microSD card and mSATA.

Additional Interfaces via PMC/XMC

The A23C can be equipped with up to two XMC or PMC mezzanine cards on shared sites, providing both front I/O (XMC/PMC) and rear I/O (PMC) for functions such as graphics, mass storage, or further Ethernet.

MORE: CLICK HERE

New ATCA Server Blade brings Latest Processors to Military, Aerospace and Government Networked Systems

Tempe, Ariz. [19 July, 2017] — Artesyn Embedded Technologies today launched a powerful new packet processing and high performance server blade, the ATCA-7540, based on dual Intel® Xeon® Scalable processors (codename Skylake), which were recently announced.

The ATCA-7540 provides a migration path and future-proof platform for defense applications in air/shipborne data centers, ground control stations, network data analytics, ad-hoc mobile networks and other C4ISR tasks. The selected processor family combined with Artesyn's engineering and supply chain expertise provides a performance and longevity-of-supply improvement over existing server blades. Artesyn expects its selected processors to have a 15-year life cycle.
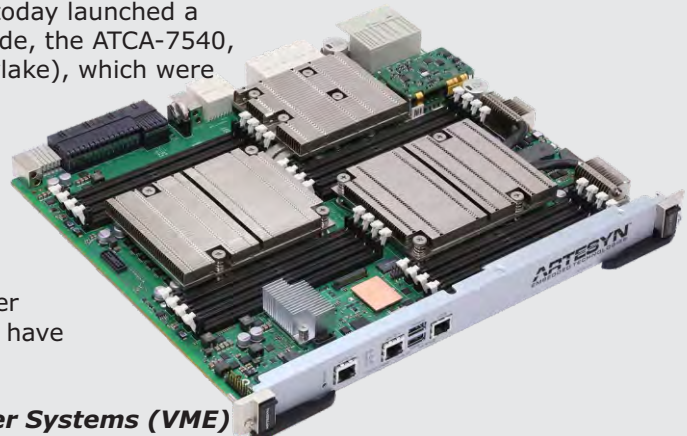
Artesyn Embedded Computing, formerly Motorola Computer Systems (VME)

MORE: https://www.artesyn.com/computing/

CommAgility processing module adds flexible RapidIO to increase bandwidth High performance DSP in AMC form factor

*For high performance specialised LTE application*

CommAgility, a Wireless Telecom Group company (NYSE MKT: WTT), today announced the AMC-4C6678-SRIO, a high performance DSP processing module in the compact Advanced Mezzanine Card (AMC) form factor.

The new board is an update of CommAgility's previous AMC-4C6678, and adds 20Gbps Gen2 RapidIO (SRIO) to an AMC.4 compliant backplane, to increase bandwidth and flexibility. RapidIO complements the module's full Gigabit Ethernet infrastructure.

"By adding RapidIO, the AMC-4C6678-SRIO module increases the options for fast, flexible, IO," said Edward Young, VP & GM CommAgility. **"Our lead customer for the card is using it alongside other CommAgility RF and DSP AMCs in a high performance specialised LTE application."** Suitable for ATCA carriers and MicroTCA.

The AMC-4C6678-SRIO offers a wide range of connectivity to the backplane and front panel. The RapidIO and Gigabit Ethernet connectivity use on-board switches for maximum flexibility and access to all DSPs on the module.

MORE: CLICK HERE
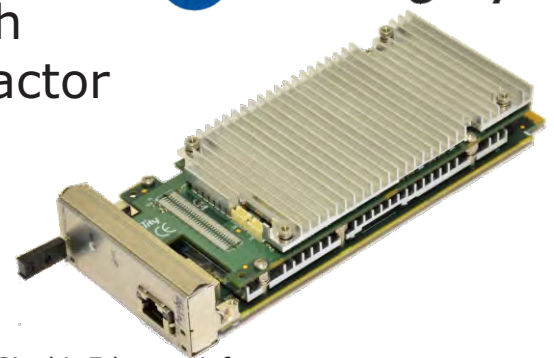
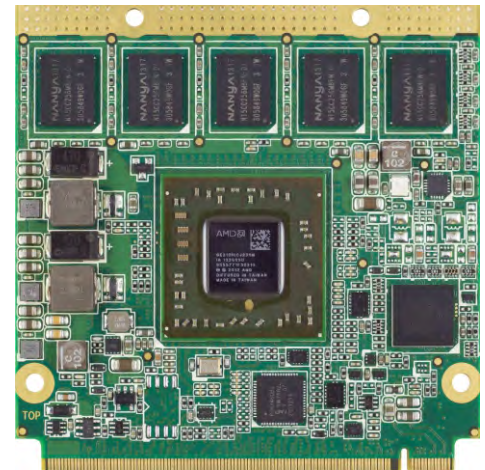# Qseven module based on low-power AMD Embedded G-Series SOC «conga-QG»

Qseven module based on the high-performance, low-power AMD Embedded G-Series SOC platform

Onboard ECC memory option and industrial temperature range for rugged applications

Rich I/Os

MORE: http://www.congatec.com/en/products/qseven/conga-qg.html

70 x 70 mm

Ultra Low-Power SMARC Module based on Nvidia® Tegra® 3 «SMARC-sAT30»

This ARM®-based short SMARC module is ideal for graphic-intensive applications, requiring low power and low profile.

- ☐ SMARC Module based on Cortex A9 technology
- ☐ Nvidia® Tegra® 3 Quad Core 1.2 GHz
- ☐ Exceptional graphics performance for slim embedded solutions
- ☐ Form Factor: 82 x 50 mm
- ☐ Compliance: SMARC (Smart Mobility Architecture) specification by SGET

MORE: https://www.kontron.com/products/boards-and-standard-form-factors/smarc/

82 x 50 mm

COM Express Basic Size Type 6 Module with 7th Gen Intel® Core™, Intel® Xeon® Processor «Express-KL/KLE»

- Up to 32 GB Dual Channel DDR4 at 2133/2400 MHz (supports both ECC and non-ECC memory)
- 3x DDI channels, 1x LVDS (or 4 lanes eDP) supports up to 3 independent displays
- 8x PCIe x1 (Gen3) and 1x PCIe x16 (Gen3)
- GbE, 4x SATA 6 Gb/s, 4x USB 3.0 and 4x USB 2.0
- Supports Smart Embedded Management Agent (SEMA®) functions
- Extreme Rugged operating temperature: -40°C to +85°C (build option)
- Form Factor: PICMG COM.0, Rev 2.1 Type 6 Dimension: Basic size, 125 mm x 95 mm

MORE: https://emb.adlinktech.com//en/Computer_on_Modules_COM_Express_Type6.aspx
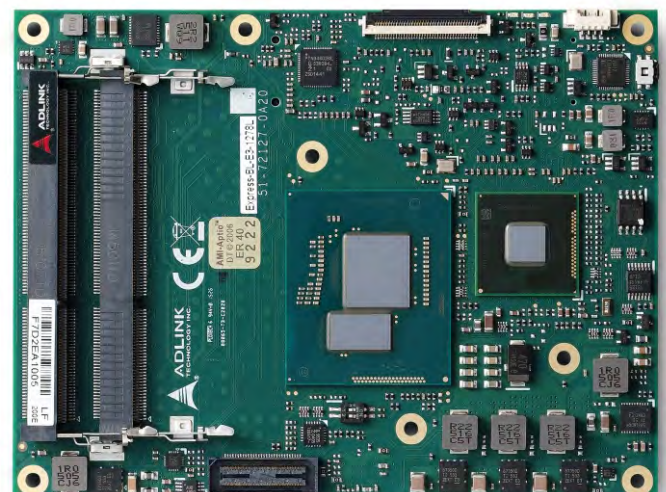
125 x 95 mm

Military, Industrial, VME
VP B1x/msd – VME Processor

CONCURRENT TECHNOLOGIES
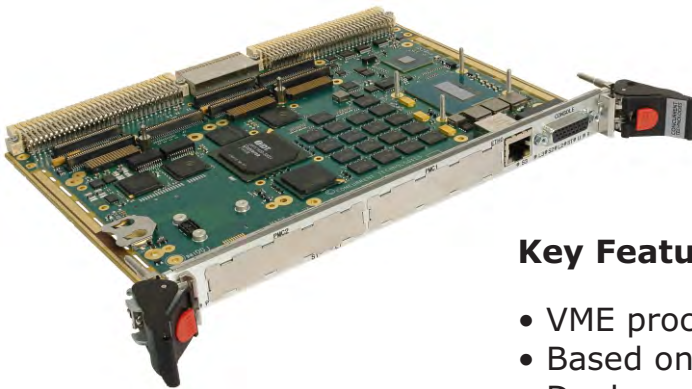
Key Features

- VME processor board
- Based on 4th Generation Intel® Core™ processor
- Dual or single PMC/XMC sites for local expansion
- Optional solid state disk options

MORE: CLICK HERE

T-ATCA 510
100GE AdvancedTCA® Switch blade

Telco Systems
A BATM Company

T-ATCA 510 delivers unparalleled connectivity to ATCA platforms with support for 10/40/100Gbps multi-rate switching on the fabric interface (FI) and 1/10Gbps multi-rate switching on the base interface (BI). The T-ATCA 510 provides flexible port fan-out of up to 40 x 10GE fabric interface ports or 2x 100GE plus 24x 10GE or 2x 100GE plus 4x 40GE plus 8x 10GE.

MORE: CLICK HERE

Virtex UltraScaleTM FPGA Carrier
FPGA Virtex UltraScale™ XCVU440 with P2040 and PinoutPlus™

- Xilinx Ultra Scale XCVU440 w/ QorIQ PPC2040
- 8 GB of DDR-4 (single bank of 64-bits)
- 20 SERDES lanes optionally routed to Tongue 2
- Ideal for ASIC prototyping/emulation

vadatechinc
THE POWER OF VISION

The AMC596, is an FPGA module based on the Virtex UltraScale™ XCVU440 FPGA. This is the largest of the UltraScale™ FPGAs, here supported by 8GB of 64-bit wide DDR4 and an on board Power PC P2040. The additional connectivity provided by PinoutPlusTM, over 250 Gbps between neighboring modules, makes the product ideal for ASIC emulation and demanding sensor processing applications.

The AMC596 extends a rich product line of Virtex-7 and UltraScale™ products covering PCIe edge, VPX and AMC form factors. With common architecture and supporting VHDL, users can easily port applications from one form factor to another to meet different environmental and market requirements.

MORE: CLICK HERE

Advantech Reports Fy2016 EPS of NT$8.96

Advantech (ticker: 2395.TW) today announced the following preliminary results for the fiscal year ended December 31, 2016 (2016):

• Revenue was NT$42 billion, up 10.5% YoY (US$1.4 billion)

• Gross profit was NT$17.11 billion, up 11.6% YoY (US$570 million)

• Net income was NT$5.868 billion, up 10.9% YoY (US$196 million)

• Diluted earnings per share was NT$8.98, up 10.9% YoY (US$0.3)

(1 US$ is about 30 NT$)

In US dollar, Applied Computing Group (ACG) was the best performed business group in 2016 with 17% YoY revenues growth, following by Industrial Automation Group (IAG) with 5% YoY revenues growth. In geographic overview, North-East Asia was the best performed region with 19% YoY revenues growth, following by Greater China and Europe region, revenues up 7% and 6% YoY respectively in 2016. "Looking forward the outlook in the first half of 2017, we expect stable demand in Europe and Greater China, while North-East Asia might continue outperforming. The demand in emerging markets experienced gradually recovery since 2H16. However, the demand is relative milder in North America, which might cause business uncertainty in the first half of 2017." said Eric Chen, CFO and Vice President of Advantech.

Chaney Ho, President of Advantech added that overall business development in 2017 will be focused on three main strategies including the intensification of Sector Lead reorganization, deployment of new regional business units (RBUs) through joint ventures with distributors in emerging markets, and additional offices in places such as Spain and Sweden.

KC Liu, CEO of Advantech believes that the venture into the industry of the Internet of Things (IoT) have shown that the entire IoT (B2B) business ecosphere may have high potential, but an economy of scale could not be formed due to the dispersion of applications and lack of scale as well as the small quantity, diversity, and highly-customized hardware requirements. Furthermore, as the current development of Edge Intelligence PaaS (EI-PaaS) in IoT has yet to mature, system integrators still face many difficulties and obstacles in various application industries and therefore they put forward two major strategies of "using Allied DMS for the construction of IoT hardware resource sharing platform and alliance" and the promotion of the IoT Edge Intelligence PaaS.

KC Liu further indicated that the Allied DMS (Design & Manufacturing Services) will form a professional supply chain through joint procurement and service relations shall be developed through the integration of large-scale system providers. At the same time, small and medium companies shall be invited to the supply chain to form a sharing platform that satisfies requirements for a multitude of small-scale and diversified requirements for customization as well as to provide long-term stable source of supply. KC Liu believes that the operations of the Allied DMS should be treated from two different perspectives – the clients and the industry. For clients, the scale of the platform and products of the Advantech brand will form the core capabilities in the IoT industry and it will be shared with key account clients in the development of collaborative development and the centralized-kitchen service model; for the industry, the alliance with small and medium companies provides a shared basic R&D, procurement and manufacturing platform to increase the economy of scale and even for JV relationships.

For the promotion of the IoT Edge Intelligence PaaS (EI-PaaS) software platform, KC Liu hopes to integrate Taiwanese institutional energy such as III, ITRI and etc. and establish spin-off companies to focus on the operations of EI-PaaS, which shall provide the industrial IoT cloud service providers with rapid development, deployment and stable operations in cloud platform operations and maintenance services under a monthly subscription model. In addition, the IoT/EI-PaaS industrial alliance shall also be established and it will integrate institutional energy and the Advantech WISE-PaaS cloud service platform to establish EI-PaaS demonstrations in 2017-2018, and open up the EI-PaaS in 2018-2019, as well as invite the edge devices industry and system integrators in the industry to participate in milestone goals such as expansion and construction.

Advantech Reports FY1H2017 EPS of NT$4.20 (17-Aug-2017)

Advantech's revenue growth calculated in NTD, however, was only 3% YoY, due to appreciation of the NTD.

Advantech (ticker: 2395.TW), a leading global provider of intelligent systems, held an investors conference today to report its consolidated financial statements for the first half of 2017. Consolidated revenue was approximately NT$21.4 billion, a 3% YoY increase. Gross profit was roughly NT$8.452 billion (a 39.5% profit margin), consolidated net income was approximately NT$2.928 billion, and EPS was around NT$4.20. **MORE:** CLICK HERE

DOOH market set to hit $26 billion by 2023

Sept. 28, 2017 – From www.digitalsignagetoday.com

The DOOH (Digital Out-Of-Home) market is expected to grow by a compound annual growth rate of 10.7 percent from 2017 to 2023. It will also reach $26.21 billion by 2023, according to a report by **ReportsnReports**.

This growth is being driven by increased demand for programmatic advertisements, as well as technological and infrastructure advancements. Other factors include:
• Boost in VR and AR experiences
• Growing demand for IoT
• Increasing availability of cloud-based platforms
• Increasing usage of LED displays

North America held the largest market share in 2016, but the Asia-Pacific region is expected to see the highest growth rate from 2017 to 2023, according to the report.

What is DOOH / Digital Out of Home?

Digital Out of Home or DOOH refers to digital media used for marketing purposes outside of the home. This excludes TV advertising and radio advertising, but includes digital signage. This is sometimes hyphenated as digital-out-of-home or abbreviated as DOOH. The term digital out of home (DOOH) is usually used in relation to advertising based networks. Digital out of home advertising networks can be found in many places including your local breakfast diner, a doctor's office, or even on gas pump toppers.

About the « ReportsnReports » report

Digital Out of Home Market (DOOH) 10.7% CAGR led by North America to 2023

PUNE, India, September 19, 2017 /PRNewswire/ --

Digital out of home market is forecast to reach $26.21 billion by 2023 from $12.52 billion in 2016 at a CAGR of 10.7% during (2017-2023) driven by the increased spending on programmatic advertising, advancements in technology offerings, infrastructure expansions, increasing focus on business intelligence (BI) and rising market competitiveness says a latest report available at ReportsnReports.com.

Browse 30 Market Data Tables and 46 Figures spread through 146 Pages and in-depth TOC on "Digital Out of Home Market (DOOH) by Product (Billboard, Street Furniture, and Transit), Application (Indoor and Outdoor), Vertical (Commercial, Infrastructural, Institutional), and Geography - Global Forecast to 2023" at http://www.reportsnreports.com/reports/1190051-digital-out-of-home-market-dooh-by-product-billboard-street-furniture-and-transit-application-indoor-and-outdoor-vertical-commercial-infrastructural-institutional-and-geography-global-forecast-to-2023.html .

North America and APAC are the major regions for the digital out of home market. North America held the largest share of the digital out of home market in 2016. North America being technologically advanced and developed is a leading market for the cutting edge technology, which is used in the advertisement sector. The digital out of home market in North America is driven by various factors such as the high standard of living of customers and the need to save time, need for accuracy and efficiency in the retail sector. Asia Pacific (APAC) is expected to exhibit the highest growth rate in the digital out of home market because of its acceptance in the retail, transport, banking, financial services and insurance (BFSI), and entertainment sectors.

The digital out of home market growth is driven by the increasing usage of VR and AR, growing demand for IoT, and emergence of the cloud platform. Virtual reality (VR) and augmented reality (AR) have a great ability in creating content for a wide range of audiences with the added value of capturing the users' attention. The integration of AR and VR with the digital out of home advertising may help the companies in building brand value and increase both the reach and interactivity of their campaigns. The most important aspect of AR campaigns is the ability to extract valuable data. Tracking what users are interested in, combined with their details and movements allows companies to shift campaigns and set prices accordingly.

Inquire for Discount on Digital Out of Home Market (DOOH) by Product (Billboard, Street Furniture, and Transit), Application (Indoor and Outdoor), Vertical (Commercial, Infrastructural, Institutional), and Geography - Global Forecast to 2023 research report at http://www.reportsnreports.com/contacts/discount.aspx?name=1190051 .

The major players in digital out of home market includes JC Decaux (France), Clear Channel Outdoor Holdings, Inc. (US), Lamar Advertising Company (US), OUTFRONT Media (US), Dak tronics (US), and Prism view LLC (US) among others.

... to next page

Digital Out of Home Market (DOOH) 10.7% CAGR led by North America to 2023 *... from previous page*

In the process of determining and verifying the digital out of home market size for several segments and sub segments gathered through secondary research, extensive primary interviews have been conducted with key experts. Following is the breakup of the profile of primary participants:
By Company Type: Tier 1 - 22%, Tier 2 - 34%, and Tier 3 - 44%
By Designation: C-Level Executives - 32%, Directors - 33%, and Others - 35%
By Region: North America - 42%, Europe - 30%, APAC - 15%, and RoW - 13%

Cloud-based platform has offered the much-needed flexibility for businesses to scale up and grow on a global level. These platforms have become capable of processing complex data, enabling the creation of interconnected systems. Internet of Things (IoT) allows users and things to be connected anytime and anywhere for anything using any network or service. This creates a large source of information about users, with their objects or gadgets being able to autonomously gather their likes, dislikes, and preferences. IoT as a technology involves a significant amount of data that has to be stored, managed, and analyzed. Cloud-based software is very efficient as it can manage the content on a single screen or multiple screens. The cloud-based software solution is considered cost-effective as it minimizes the expenses that are required for purchasing, installing, and maintaining the server.

Make an Inquiry on "Digital Out of Home Market (DOOH) Global Forecast to 2023" research report at http://www.reportsnreports.com/contacts/inquirybeforebuy.aspx?name=1190051 .

The programmatic advertising has a major role in the overall digital out of home market. The programmatic advertising platform is an online auction where media buyers specify their targeting requirements, such as audience demographics, time of day and location, as well as their budgetary constraints. According to a survey conducted by the Digital Place Based Advertising Association (DPAA) (US), 39% of media buyers are interested in purchasing programmatic platforms for digital out of home advertising.

Direct-view fine-pixel light-emitting diode (LED) and direct-view large-pixel LED displays are becoming increasingly common within retail and transit environments, and there have been a number of innovative interactive displays featured in the outdoor advertising campaigns. The intuitive and interactive nature of interactive touch-point displays and kiosks has fueled the growth of the interactive systems and made the customer buying experience easy and less time-consuming. The factors restraining the growth of the digital out of home market include an increase in the trend of online/broadcast advertisement and lack of standards for interoperability between devices.

Another research titled Digital Signage Market Global Forecast to 2023 says, the digital signage market is expected to be worth $32.84 billion by 2023, growing at a CAGR of 7.4% between 2017 and 2023. Increasing interactivity capabilities of the digital signage systems and growing demand for cloud-based software along with vivid content creation is driving the digital signage market. North America and Europe are the major markets for the digital signage market. Companies such as Samsung Electronics Co., Ltd. (South Korea), LG Display Co., Ltd. (South Korea), NEC Display Solutions (Japan), Sharp Corporation (Japan), Planar Systems, Inc. (US) have been profiled in this 192 pages research report available at http://www.reportsnreports.com/reports/144720-global-digital-signage-dynamic-signage-electronic-signage-narrowcasting-market-by-components-applications-displays-geography-2011-2016-.html .

Explore more reports on Semiconductor and Electronics Market at http://www.reportsnreports.com/market-research/semiconductor-and-electronics/ .

About Us:

ReportsnReports.com is an online market research reports library of 500,000+ in-depth studies of over 5000 micro markets. Not limited to any one industry, ReportsnReports.com offers research studies on agriculture, energy and power, chemicals, environment, medical devices, healthcare, food and beverages, water, advanced materials and much more. **Contact:** Hrishikesh Patwardhan +1-888-391-5441 sales@reportsandreports.com

ANSI and VITA Ratify ANSI/VITA 48.8 Air-Flow-Through Cooling Standard for VPX

Mechanical standard for electronic plug-in units provides lower weight, reduced cost cooling technology.

VITA, October 9, 2017— VITA, the trade association for standard computing architectures serving critical and intelligent embedded computing systems markets, announces the ratification by ANSI and VITA of ANSI/VITA 48.8-2017 " Mechanical Standard for Electronic VPX Plug-in Modules Using Air Flow Through Cooling". This standard has completed the VITA and ANSI processes reaching full recognition under olutions, and Abaco, and chaired by Curtiss-Wright Defense Solutions.

ANSI/VITA 48.8-2017 describes an open standard for the design requirements for an Air Flow Through (AFT) cooled plug-in module having 3U and 6U form factors while retaining the VPX connector layout. VITA 48.8 is the first open standard AFT technology to support small form factor 3U VPX modules, which are preferred for use in SWAP-C sensitive rotorcraft and unmanned platforms. Based on technologies developed by Lockheed Martin Rotary and Mission Systems, Owego, New York, VITA 48.8 helps reduce weight and cost for high density, high power dissipation 3U and 6U module based systems by eliminating the use of wedgelocks and ejector/injector handles, instead using light weight jack screws for insertion and extraction into a chassis. VITA 48.8 also supports alternative air-flow arrangements, allowing air inlet at both card edges, as well as the top edge (opposite the VPX connectors). Because VITA 48.8 does not use module-to-chassis conduction cooling, it also promises to help drive innovative use of new lightweight polymer or composite material based chassis.

ANSI/VITA 48.8 addresses previous design challenges for AFT cooling, such as air cooling, air flow intake, heat exchanges, and exhaust paths. ANSI/VITA 48.8 compliant modules use a finned heat exchanger frame located within the central section of the assembly to top-cool primary circuit board and mezzanine board components.

Air Flow-Through overview:
• 3U and 6U, using VPX connectors
• SWaP-C optimized
    o Jackscrews instead of insertion/extraction levers
    o Option of lighter materials for chassis (e.g. additive manufacturing)
• Alternate air flow arrangements permitted
• Fixed slot pitches of 1.0", 1.2" and 1.5"
Copies of the standard are available for purchase at the VITA Online Shop (http://shop.vita.com/).

About VITA

Founded in 1984, VITA is an incorporated, non-profit organization of suppliers and users who share a common market interest in critical embedded systems. VITA champions open system architectures. Its activities are international in scope, technical, promotional, and user-centric. VITA aims to increase total market size for its members, expand market exposure for suppliers, and deliver timely technical information. VITA has American National Standards Institute (ANSI) and International Electrotechnical Commission (IEC) accreditation to develop standards (VME, VXS, VPX, OpenVPX, VPX REDI, XMC, FMC, VNX, Reliability Community, etc.) for embedded systems used in a myriad of critical applications and harsh environments. For more information, visit www.VITA.com.

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HP & Deloitte join forces to transform $12T manufacturing industry « Massive opportunity for 3D printing »

By Michelle Martin, Editor -- 28-Aug- 2017

Steam. Electricity. Automation. Each fueled an industrial revolution that changed how humans live and work. The Fourth Industrial Revolution will surpass all previous ones in size, shape, scope, and more importantly, complexity. **Now, HP and Deloitte will accelerate this revolution through an unprecedented partnership.**

Last week, HP and Deloitte hosted an event at HP's Palo Alto headquarters to announce a major strategic alliance to digitally transform the $12 trillion global manufacturing industry. The partnership will bring together HP's groundbreaking Multi Jet Fusion 3D printing solutions and unique partner ecosystem, with Deloitte's global client reach, deep manufacturing relationships, and expertise in supply chain transformation.

"Nothing's really changed much in terms of manufacturing in almost 100 years. And it's time, because there is a better mousetrap. There is a meaningful way to make a very broad impact on the way companies all around the world design, procure, manufacture, and deliver their products to customers," said HP CEO Dion Weisler.

PICTURE LEFT: Dion Weisler, CEO, HP, Inc., and Punit Renjen, CEO, Deloitte Global

PICTURE RIGHT: Gil Perez, SVP, IoT and Distributed Manufacturing, SAP; Bob Jones, EVP , Global Sales and Services, Siemens ; Joe Sendra, VP Manufacturing/Technology, Johnson & Johnson; Doug Gish, Manufacturing Strategy Leader, Deloitte; Michelle Bockman (moderator), Global Head of 3D Printing Commercial Expansion & Development, HP Inc.

This digital industrial revolution will fundamentally change how the world designs, produces, distributes, and experiences everything. And the implications are astonishing: the World Economic Forum has estimated the benefit of this digital transformation the benefit of this digital transformation across the world's largest industries—automotive, aerospace, medical technology, electronics, consumer goods, engineering, heavy industry—to business and society at $100 trillion over the next 10 years alone.

Weisler joined Deloitte Global Chief Executive Officer Punit Renjen to describe how a new wave of disruptive technologies—from artificial intelligence to robotics to big data to the Internet of Things—are driving unprecedented change in the world. Yet much of the world's manufacturing systems have remained stuck in the analog era, tied to outdated thinking, tools, and processes that have become resource-intensive and economically inefficient.

This is the massive opportunity for 3D printing: to unleash entirely new ways of making things to befit our all-digital future, making life better for everyone, everywhere. This new manufacturing model will unlock unmatched economic potential, enabling capital to be redeployed to new areas, shortening supply chains, reducing carbon emissions, and eliminating production waste and inventory.

A highlight of the event was a panel, led by Michelle Bockman, HP's new Global Head of 3D Printing Commercial Expansion & Development, and featuring manufacturing leaders from SAP, Siemens, Johnson & Johnson, and Deloitte. A technology showcase displayed innovative new parts produced by HP's 3D printing solutions. **SOURCE:** CLICK HERE

Siemens' insights on digitalization and additive manufacturing
See the Q&A with Bob Jones, EVP Siemens PLM Software CLICK HERE

KLA-Tencor Introduces Five Patterning Control Systems for Sub-7nm IC Manufacturing
Process Control at the Source Accelerates Integration of Multi-Patterning Technologies and EUV Lithography

MILPITAS, Calif., Sept. 11, 2017 /PRNewswire/ -- KLA-Tencor Corporation (NASDAQ: KLAC) today introduced five patterning control systems that help chipmakers achieve the strict process tolerances required for multi-patterning technologies and EUV lithography at the sub-7nm logic and leading-edge memory design nodes. Within the IC fab, the ATL™ (Accurate Tunable Laser) overlay metrology system and the SpectraFilm™ F1 film metrology system characterize processes and monitor excursions during fabrication of finFET, DRAM, 3D NAND and other complex devices. The Teron™ 640e reticle inspection product line and the LMS IPRO7 reticle registration metrology system facilitate development and qualification of EUV and advanced optical reticles at mask shops. The 5D Analyzer® X1 advanced data analysis system is the foundation of an open architecture approach that supports fab-customized analyses and real-time process control applications. These five new systems extend KLA-Tencor's diverse portfolio of metrology, inspection and data analysis systems that enable identification and correction of process variations at the source. **MORE:** CLICK HERE

EDITOR 's NOTE: Icos Vision Systems (Leuven, Belgium) was acquired by KLA-Tencor (USA) in 2008, Icos Vision was a key customer of DIODE Belgium for VME Boards & Systems, a large business for over 10 years. _Daniel Dierickx

Mini-ITX Embedded Boards
Mini-ITX Board Extreme Rugged

Industry trends indicate that users require a smaller and lower cost solution for their system requirements.

Mini-ITX has a smaller board size and lower keep-out zones to enable a reduced chassis size for systems placed on the user's desk, mounted on a display, or installed in space-restrictive environments.

In addition to deployment in smaller chassis designed around the Mini-ITX form factor, these boards are compatible with ATX and microATX chassis without the need to retool the I/O shield. Mini-ITX embedded boards are ideal for applications in industrial automation, self-service kiosks, and other infotainment driven solutions.

170 x 170 mm

25 mm
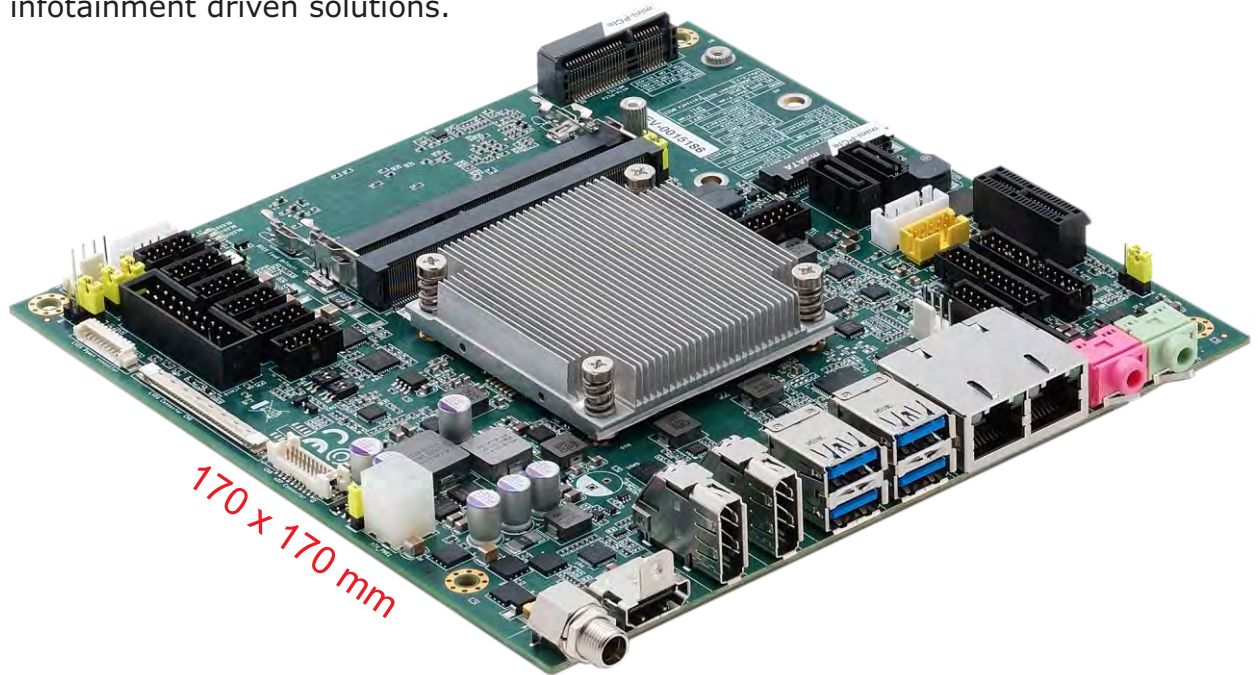
Picture: Type AmITX-BW-I
Discover the full range: CLICK HERE

New AMD Embedded GPU Delivers Up to 3X Performance-Per-Watt for Low-Power Embedded Applications

AMD Embedded Radeon™ E9170 Series GPU delivers breakthrough performance, robust multi-display support with exceptional 4K graphics, and an ultra-compact MCM design

AUSTIN, Texas, Oct. 03, 2017 (GLOBE NEWSWIRE) -- -- AMD (NASDAQ:AMD) today announced the AMD Embedded Radeon™ E9170 Series graphics processing unit (GPU). The new processor is the first "Polaris" architecture-based AMD Embedded discrete GPU available in multi-chip module (MCM) format with integrated memory for smaller, power-efficient custom designs, as well as PCI Express® and MXM formats for standard form factor systems. The E9170 Series GPU is ideal for devices that require premium graphics and expanded display capabilities while meeting exacting power and thermal efficiency demands. AMD is extending its core graphics technology, delivering crystal clear resolution and a stunning and seamless 4K experience across multiple displays to a growing number of markets, including digital casino games, thin clients, medical displays, retail and digital signage, and industrial systems.

The AMD Embedded Radeon E9173 GPU, based on the "Polaris" architecture, leverages an optimized 14nm FinFET manufacturing process to provide up to 3X the performance-per-watt over previous generations of AMD Embedded GPUsi. By offering sub-40W TDP in a small package, AMD enables a broader range of products, adding a new level of scalability to the AMD Radeon™ Power-Efficient Embedded GPU portfolio. With support for up to five simultaneous 4K displaysii, the E9170 Series GPU virtually eliminates the need for additional processors and duplicate hardware to create an immersive multimedia environment. Additionally, the option to select from MCM, MXM and PCI Express modules increases design flexibility while minimizing complexity.

"Developers are continuing to push the boundaries on what's possible for embedded systems, demanding more performance, more features and more design options, all while significantly reducing power consumption. At the GPU level, it is critical to provide versatile solutions that do not compromise on graphics performance or 4K multi-display capabilities," said Colin Cureton, director of product management, AMD Enterprise Solutions. "The new AMD Embedded Radeon E9170 Series GPU not only achieves up to 3X the performance-per-watt over previous solutions, but is the first 'Polaris'-based Embedded GPU available in the MCM form factor to enable sleek designs in a variety of sizes, striking the optimal balance of performance and power efficiency."

Key Application Benefits of the E9170 Series

Digital casino games: Helping reduce energy consumption and operating costs, the E9170 Series GPU cuts down on operating costs for entry level and midrange casino gaming systems, as well as lowers thermal dissipation that impacts facility air conditioning costs. Support for five independent and simultaneous displays allows companies to create an eye-catching experience with more pixels and more action. DirectX® 12 support enables higher frames per second and reduced latency, and cross-platform Vulkan® API support helps ensure better image quality while decreasing CPU processing bottlenecks.

Thin clients: Thin clients powered by the E9170 Series GPU can have a smaller hardware footprint than traditional PC systems, and can have lower heat output and provide cooler workspaces in densely-staffed and space-constrained environments such as stock exchange trading floors. Additionally, 4K graphics resolution provides crisp visual clarity when thin clients are in split-screen display mode, improving the end-user experience.

Medical displays: The high-performance 4K graphics resolution in the E9170 Series GPU helps improve the accuracy of clinical diagnoses in X-Ray machines and ultrasounds as well as with bone tissue and analysis, helping medical professionals to enhance patient care.

Retail and digital signage: Cost-conscious signage companies integrating the E9170 Series GPU can drive up to five simultaneous 4K displays for a stunning visual experience that holds viewer attention without incurring a premium processor price.

Industrial: The Radeon E9170 Series GPU in the reliable MCM format enables the stability required for the most stringent shock and vibration tests in environments such as airplane cockpits, in addition to driving multiple displays.

Key Features of the E9170 Series GPU

Up to 1.25 TFLOPS at sub-40W TDP board power, setting a new benchmark within the AMD Radeon Power-Efficient Embedded GPU portfolio by delivering up to 3X the performance-per-watt over previous generations.
4K optimization and flexible multi-display configurability to enable rich multimedia and design versatility.
Features include 4K HEVC/H.265iii and AVC/H.264 decode and encode, and up to five display outputs using HDMI® 2.0 and/or DisplayPort 1.4.

Available in compact MCM, standard MXM and PCI Express card form factors.

New AMD Embedded GPU Delivers Up to 3X Performance-Per-Watt for Low-Power Embedded Applications *... from previous page*

AMD

Available in compact MCM, standard MXM and PCI Express card form factors.

AMD EMBEDDED RADEON™

E9170 SERIES

14nm FinFET High Performance:
HEVC, HDMI 2.0, DisplayPort 1.4[3]

8	Up to **5**	Up to **4K**	As low as **35W**	**1.2**	Planned Availability to **2024**
Compute Units	Displays	HEVC Decode & Encode Support	Total Board Power	TFLOPS Peak Single Precision	

Partner Support

Quixant

"Quixant is a long-term AMD partner and we have successfully implemented several generations of high-performance GPUs for various casino gaming systems," said Nick Jarmany, Chief Executive Officer, Quixant. "The new AMD Radeon GPU in the MCM form factor provides us with the competitive performance advantage we expect from AMD, while also driving down power consumption so we can deliver advanced, eye-catching content on a 4K display in a compact, cost-effective package, keeping our customers at the top of their game."

Eizo

"Over the last 10 years, Eizo Rugged Solutions has partnered with AMD Embedded to successfully bring highly reliable and rugged graphics, video capture and encoding products to several large defense programs," said Selwyn L Henriques, President and Chief Executive Officer, Eizo Rugged Solutions. "AMD's unwavering commitment to the embedded market, including long product lifecycles and GPUs with high performance-per-watt, has enabled us to offer our customers exceptional video solutions that meet or exceed their needs and minimize TCO. The new Eizo XMC and 3U VPX products, based on the AMD Embedded Radeon E9170 Series GPU, will help us deliver even higher performance and continue to expand our customer base."

AMD Embedded product page CLICK HERE

About AMD

For more than 45 years AMD has driven innovation in high-performance computing, graphics and visualization technologies — the building blocks for gaming, immersive platforms, and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ:AMD) website, blog, and Facebook and Twitter pages.

• I - AMD Embedded Radeon™ E6760 with 6 compute units (CU) and configured at standard engine clock speed 600 MHz can reach a maximum of 461 GFLOPS SP within thermal design power (TDP) of 30W, yielding 15.36 GFLOPS/W. AMD Embedded Radeon™ E9173 with 8 CUs and configured at standard engine clock speed 1124 MHz can reach a maximum of 1151 GFLOPS SP within TDP of 25W, yielding 46.04 GFLOPS/W, achieving nearly 3x performance-per-watt compared to AMD Embedded Radeon™ E6760, EMB-142.
• II - Number of displays supported varies by model.
• III - HEVC acceleration is subject to inclusion/installation of compatible HEVC players. GD-81

Acromag Partners with ECRIN Systems to Offer Extremely Small Mission Computer
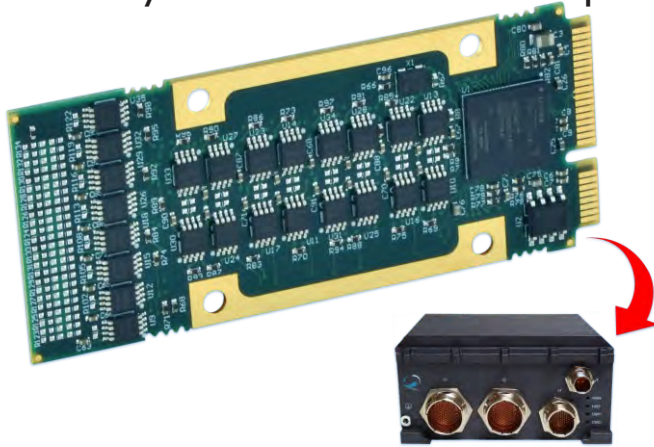
AcroPack® PCIe Bus interface boards provide customizable I/O in the µONYX SFF computer without the need for interface cables or secondary modules.

APCe7020E-LF populated with two AcroPack I/O modulesWixom, MI – October 2, 2017 - Acromag announced today the integration of their AcroPack I/O product line into the µONYX SFF Computer from ECRIN Systems in France. ECRIN Systems is a valued distributor of Acromag Embedded Solutions and has steadily expanded their capabilities to include the design and manufacture of their own small form factor computer solutions.

Inside the µONYX is one AcroPack I/O expansion slot that provides the unit with enhanced capability without the need for interface cables or secondary module. Any of the over 20 AcroPack modules can be easily installed into the unit providing -40 to 85°C operation and less than 5 Watts per module power consumption. This configuration offers the optimal SWaP configuration for the user's application.

"Thanks to AcroPack's new form factor, we greatly improved the performance of our new µONYX mission computer when used in harsh environments like UAV's, rotary or fixed Aircrafts and ground vehicles where shock and vibration is a huge constraint," said Elie Gasnier, Marketing Director at ECRIN Systems. "Acromag reinvented the famous Industry Pack mezzanine board of the 90's with modern PCIe, SATA, and USB serial interconnect protocols. And without any cabling or secondary module we had to add with a miniPCIe mezzanine, all AcroPack signals route via the carrier PCB to MIL-DTL-38999 circular I/O connectors."

Russ Nieves, Vice President of Sales for Acromag says "This is a great addition to our partnership with ECRIN. The acceptance and integration of the AcroPack platform into ECRIN µONYXproduct line helps to solidify its acceptance in the industry as a significant PCIe-based I/O platform for the future."

The AcroPack® product line updates Acromag's popular Industry Pack I/O modules with a PCIe interface format. This tech-refresh design offers a compact size, low-cost I/O, the same functionality as the existing Industry Pack modules and a rugged form factor.
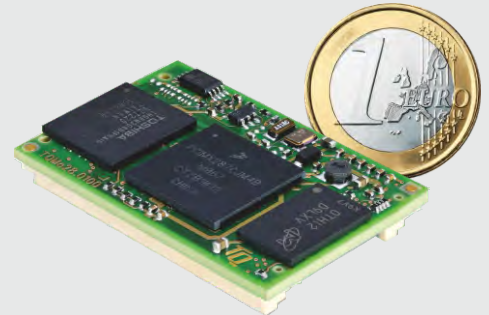
Designed for COTS applications these FPGA based digital I/O modules deliver user-customizable I/O, high-density, high-reliability, and high-performance at a low cost.

For more information about Acromag products www.acromag.com

For more information about ECRIN Systems products, call Caroline, Marketing Communications at +33 (0) 1 69 07 83 22 or via email caroline.frayssinet@ecrin.com The website is http://www.ecrin.com/en/.

Paul S. Otellini, 1950 – 2017

Intel Corporation announced that Paul Otellini, the company's former chief executive officer, died Oct. 2, 2017, at the age of 66

SANTA CLARA, Calif., Oct. 3, 2017 – Intel Corporation today announced that the company's former CEO Paul Otellini passed away in his sleep Monday, Oct. 2, 2017, at the age of 66.

Paul Otellini became Intel's fifth chief executive officer in 2005. Under his leadership the company made important strategic, technological and financial gains. These included transforming operations and cost structure for long-term growth; assuming a leadership position in the server market segment; and maintaining profitability during the global recession. Other accomplishments included signing on notable new customer engagements, such as winning the Apple PC business, and business partnerships and strategic acquisitions that expanded Intel's presence in security, software and mobile communications. On the financial front, Intel generated more revenue during his eight-year tenure as CEO than it did during the company's previous 45 years1. In the last full year before he was named CEO, Intel had $34 billion in sales; by 2012, the number had grown to $53 billion.

"We are deeply saddened by Paul's passing," Intel CEO Brian Krzanich said. "He was the relentless voice of the customer in a sea of engineers, and he taught us that we only win when we put the customer first."

Otellini was born in San Francisco on Oct. 12, 1950, and remained a fan of the city all his life. He received a bachelor's degree in economics from the University of San Francisco in 1972 and an MBA from the University of California, Berkeley in 1974. He joined Intel in 1974 and served in a number of positions, including general manager of Intel's Peripheral Components Operation and the Folsom Microcomputer Division, and in 1989 as then-CEO Andy Grove's chief of staff.

From 1990 to 2002, he held various positions at Intel, including executive vice president and general manager of the Intel Architecture Group, responsible for the company's microprocessor and chipset businesses and strategies for desktop, mobile and enterprise computing, as well as executive vice president and general manager of the Sales and Marketing Group. Otellini also served as chief operating officer from 2002 to 2005.

"Paul's business acumen, optimism and dedication fueled our growth throughout his tenure as CEO," Intel Chairman Andy Bryant said. "His tireless drive, discipline and humility were cornerstones of his leadership and live on in our company values to this day."

Paul and his wife, Sandy, were married for 30 years. He is survived by his wife; his son, Patrick; and his daughter, Alexis. Since he retired in 2013, Otellini dedicated time to mentoring young people and being involved with several philanthropic and charitable organizations, including the San Francisco Symphony and San Francisco General Hospital Foundation.

_1 Paul Otellini's Intel: Can the Company That Built the Future Survive It?

Editor's Note: *I think that Paul was the only President/CEO who was not an engineer, I talked to Paul last time beginning of 2013 discussing BD Consultancy, very nice person, _Daniel Dierickx*