

SMT835-ZU25DR-1

The SMT835-ZU25DR-1 is a PCI express ZynqRF system comprised of the TEB08035 carrier board and the TE0835-02-MXE21-A RFSoC module.

The Zynq UltraScale+ RFSoC family integrates key subsystems for multiband, multi-mode cellular radios and cable infrastructure (DOCSIS) into an SoC platform that contains Arm-based processing.

For more product information and how to order, click the link below.

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EMC²-MPFS250

Sundance unveils a new system which marries the Microchip PolarFire SoC MPFS250T from Trenz Electronic with our own EMC²-DP PC104 Carrier.

"Sundance was the first to add a "PowerPC" CPU with FPGA fabric to PC104, then, we were the first to add a 32-bit ARM CPU to PC104. Now, we're the first to add the PolarFire SoC to PC104." - says F.Christensen, CEO.

Explore the full story in our press release - click the link below.



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VF370 - in Stock Now

The VF370, by Etion Create, is a 3U OpenVPX Single Board Computer (SBC) module that utilises Atom® E3900 series of embedded processors, Intel Cyclone® V FPGA technology and a FMC mezzanine site to provide a module with scalable processing power and flexible IO options for reduced Size, Weight and Power (SWaP) applications.

Click the link below to contact us or for more product details.



Jetson Orin NX/Orin Nano Smart Box in stock

The RTSS-X306 is the UAV industry solution for NVIDIA Jetson Orin NX and NVIDIA Jetson Orin Nano core modules. The use of a stable snap terminal block to ensure the stability of the interface during the flight of the UAV, rich interfaces to ensure the diversity of sensor access, OSDK interface can meet the needs of customers to access industry-level UAVs, built-in chip type WIFI6 module to ensure more stable data exchange longer distance signal transmission.



7Starlake Procucts Available now in the Sundance Store

Sundance proudly announces a new partnership with 7Starlake, a global leader in manufacturing advanced rugged products.

As you can see from the product categories below, there is a vast array of products on offer – from SBCs and HPCs to Military and Industrial PCs.



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Hybrid DSP Systems—Modified off-the-shelf processing

Specialists in VPX/SOSA-based Modified-COTS FPGA processing boards for defence, aerospace & other demanding applications.

With their range of products now available in the sundance store, Hybrid DSP is a Netherlands-based specialist in rugged FPGA-based processing and data acquisition boards for demanding defence, aerospace, and high-end industrial programs.



TE0820-05-3BE21MA in Stock

The Trenz Electronic TE0820-05- 3BE21MA is an industrialgrade MPSoC module integrating an AMD/Xilinx Zynq™ UltraScale+™ ZU3EG, 2 GByte DDR4 SDRAM, 128 MByte Flash memory for configuration and operation, and robust switchmode power supplies for all on-board voltages.

If you would like more information about this board and how to order, please click the link below.

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Compter-On-Module for High Perfomance Computing

A relatively new standard, COM-HPC, is a modular open standard for building high-performance embedded computing systems.

In this blog, we detail the COM-HPC options we have on offer from 2 of our partners: Trenz Electronic's TE0830 module and 7Starlake's SK518 carrier board.

For full product details and how to secure your module, click the link below.

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JP dPict DP-810

Make Your Camera Smart

DP-810 Interface Module enables real-time 4K video encoding and streaming from the edge



4K HEVC (H.265) & H.264 Video Compression up to 4K30p

- RTSP with Autehntication
- Integrated 802.11ac with WiFi
- Native Integration with Sony Block Cameras

DPict Imaging Releases DP-810

The DP-810 is a game-changer for 4K video, offering a lowpower, Linux based platform with Qualcomm processing. Tailored for Sony Block cameras, delivering high-quality video encoding and various connectivity options, including HDMI and wireless capabilities. Ideal for OEMs, it provides configuration tools and API support for custom integration.

For product specs and purchasing information, click the link below.



Engineering Design Show 2023

We had the pleasure of exhibiting at the Engineering Design Show (EDS). As with recent years, the event was hosted at the Coventry Building Society Arena, which, with its central location, is well-attended by a range of companies and visitors from across the country and beyond.

Our own Flemming Christensen gave a workshop talk introducing our latest product – the exciting VCS³ – *probably* the smallest single-board computer to harness the power of an AMD Zynq UltraScale+ FPGA.

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DroneX 2023

We enjoyed a very beneficial visit to DroneX 2023. Now a wellestablished show, it was well organised as always and there were some excellent seminars given by some highly knowledgeable speakers.

Ainstein's radar altimeters proved attractive to many of the attendees at DroneX, and that is hardly a surprise given their performance and price point!



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DSEI 23 – A huge event and a huge success!

This was our first time exhibiting as DSEI but it's fair to say it won't be our last. We were delighted to see a large number of fellow professionals from the embedded electronics industry at the show.

We shared our stand with Etion Create and it was an absolute pleasure working with our South-African colleagues.

New FMC boards on Sundance store



Opsero RPi Camera FMC

Unleash the power of FPGAs on your Raspberry Pi compatible cameras!

Your FPGA powered machine vision project can be up-andrunning in no time with the RPi Camera FMC. Available in our store now, the Opsero RPi Camera FMC is an FPGA Mezzanine Card for connecting up to 4x Raspberry Pi-compatible cameras to FPGA development boards.

The potential for FPGAs in machine vision is enormous. We want to make it easy for others to exploit that potential.



US-D1 Radar Altimeter

Need high-precision, real-time altitude readouts on your UAV?

Ainstein's US-D1 radar altimeter is ideal for providing highprecision, real-time altitude readouts to industrial and tactical UAVs.

Because of its unmatched effectiveness in enabling efficient, reliable, and safe Vertical Take-Off & Landing (VTOL) transitions, it has become the gold standard for drones performing VTOL.



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CheetahNAV Tactical Navigation

CheetahNAV is a versatile tactical navigation system designed for security services, emergency services and the light AllTerrain Vehicle (ATV) using user controlled offline navigation maps.



CPTOMOTIVE Intelligent Cameras

OptoMotive Cameras

We're very excited to have added OptoMotive's excellent range of intelligent cameras to our portfolio of imaging products. They have large FPGAs built in which enables very high performance and huge customisation.

Thanks to built-in large FPGAs the cameras are innovative components for demanding real-time machine vision in industrial and other applications.

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Intel FPGA Roadshow

IN STORE NOW

The release of the AgileX series in 2019 represented a significant milestone in the history of Intel FPGAs. AgileX FPGAs leverage Intel's 10nm process technology, delivering unprecedented levels of performance, power efficiency, and system integration.

With higher logic density, faster transceivers, and enhanced DSP capabilities, AgileX FPGAs empower developers to tackle even the most demanding applications in fields like data centres, artificial intelligence, and 5G.



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TEI0009 Intel Cyclone 10 Development Board



Cyclone 10 Dev Board

32 MByte SDRAM, 16 MByte Flash

The Trenz Electronic Cyclone 10 LP Reference Kit is the worldwide first development board with a 55kLE Intel Cyclone 10 LP and a huge variety of interfaces for many applications. The board is fully qualified and ready to use for end products and can also be ordered in customized variants according to your exact requirements.

Solar Express 50

Solar Express 50

The Solar Express 50 (SE50) is a mini PCIe board with a PolarFire FPGA, 4GB of DDR4 memory and PCIe interface, JTAG, IO connector, suitable for application processing or for providing additional IO interface to the host. This is a full-size mini PCIe peripheral board with an MPF300T-1FCVG484E FPGA from Microchip.



SMT580 - PXIE to PCIe

Plug your PXIe card into a standard PCIe slot on your PC.

Have you ever thought that plugging your PXIe card into your regular desktop PC rather than using a dedicated (and expensive) rack would make your project development and debugging easier?

With the SMT580, you can do precisely that – plug your PXIe card into a standard PCIe slot on your PC. This enables easier and faster debugging of software, letting you develop your new design on your already configured PC.

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UKIVA Machine Vision Conference and Exhibition

We attended the Machine Vision Conference this week, which was a great experience. We had the opportunity to speak to many interesting experts and attend informative technical seminars. The conference provided access to the latest vision technology and services from world-leading industrial vision and imaging companies.



AI and FPGAs

Artificial Intelligence (AI) and Machine Learning (ML) are transforming industries across the globe, and the field of digital electronics is no exception. The FPGA (Field-Programmable Gate Array) market is one such area that has seen immense growth and innovation with the advent of AI technologies.

This blog post explores the various ways AI is being leveraged in the FPGA market.

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PPE Detection with KV260

Live detection of personal protective equipment using deep learning on the Kria KV260 vision AI starter kit for safety.

The objective of this project is to ensure safety in a work environment, i.e., building sites, laboratories, and other places that require wearing protective equipment. The output can be used to make sure that every worker or person present on a building site, for example, is following safety regulations.



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Artificial Intelligence Collision Prevention Systems



DotNetix SAFEYE

SAFEYE is the first long-range intelligent machine vision system for mining and construction machines and industrial vehicles. It can distinguish between pedestrians and machinery while providing adequate warning to machine operators in the event that people are in close proximity to the machine.

SAFEYE reduces the risk of accidents between pedestrians, machines and vehicles by detecting risks around the machine and warning the operator.



An interesting repair...

Over the Easter period this year, we were busy giving new life to some of our old ADC systems, namely SMT145, SMT338 and SMT384. This repair was for a customer in Mexico, to who we originally sold the systems back in 2007.

These boards have endured a tough life, being used in a harsh environment and were in quite a rusty condition.

The repair of these systems was a little tricker than the normal (and infrequent!) repairs that we perform, as this required hardware and software that we haven't used for over a decade.

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Safe UV-C Disinfection with Human Presence Detection

The solution combines PAL Mini – the world's most compact 360 stereo camera and comes with advanced human presence detection. The result, people are detected and located anywhere around Violet, even when sitting, crouching, or partially covered, with zero false positives.



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TRENZ ELECTRONIC CATALOGUE

TE0950 - NEW Evalboard with AMD Versal™ AI Edge device

Trenz Electronic at

Embedded World 2023

The Trenz Electronic TE0950-01-EGBE11A is a powerful adaptive SoC evaluation board, equipped with an AMD Versal[™] AI Edge VE2302 device

New 2023 catalogue is now available.

Energy Efficiency in Heterogeneous Computing



IEEE IOT Journal Paper

The growing demand for optimal and low-power energy consumption paradigms for Internet of Things (IoT) devices has garnered significant attention due to their cost-effectiveness, simplicity, and intelligibility. We propose an Artificial Intelligence (AI) hardware energy-efficient framework to achieve optimal energy savings in heterogeneous computing through appropriate power consumption management.

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Next-Generation Arithmetic

Rarely do we give much thought to how numbers are represented in computers. The closest we might get is when using a C-like language which forces us to declare the type of our variables at compile time. However, all the details of how this is represented are hidden and generally taken for granted.

Typically, most programmers use integers and floating-point numbers. Integers are whole numbers, they are fast but have a small range of values they can represent for a given word length. Floating-point numbers were introduced as an improvement on this.

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PolarBerry PoE update

The new revision of the PolarBerry SOM will feature a new ordering option of Power over Ethernet! This feature will allow the already popular PolarBerry to be used in a larger range of embedded applications such as IP cameras, IP TV decoders, Industrial Control Systems, and point to point Microwave systems. Additionally, PoE will facilitate the use of the PolarBerry as a stand alone development platform for projects using both custom firmware and software in a familiar form factor.

Nolam FMC boards and IP cores now available.



Nolam FMC Products

Available to purchase now on the Sundance store.

Nolam Embedded Systems is a leading provider of professional, yet cost-effective Computing and Embedded Systems on a full turn-key basis. Their strong in-house HW & SW design and integration capabilities support this.

Nolam's Computing & Embedded Systems Solutions group provides "best in class" solutions for your Embedded computing needs: SBC, I/O products and Packaging.

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K.K.Rocky FMC Modules and Carriers now available

Sundance is pleased to announce that we've added FMC modules and carrier boards from K.K.Rocky to the Sundance store.

There is a full range of FMC modules covering AD, DA, ADDA, digital I/O and more. In addition, there are carrier cards to attach the modules to and build complete systems.









AMD Xilinx Kria K26 SoM

Available now in our store and ready to ship, we have a number of Kria K26 System-on-Modules.

The newest path to whole application acceleration, the K26 SoM is optimized for edge vision applications requiring flexibility to adapt to changing requirements.



D&P Electronic Systems

FMC Products

We've just added an excellent range of products from D & P Electronic Systems to the Sundance store.

D & P Electronic Systems are providers of high-end FPGA Platforms. The advent of high-density, high-speed Field Programmable Gate Arrays and Digital Signal Processors allows a creative design to redefine system performance and packaging.

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Logic-X LXD31K4

4 channel ADC 16-bits @ 310 Msps || 4 channel DAC 16-bits @ 575 Msps

The LXD31K4 provides four 16-bit A/D channels with up to 310 Msps data rate and four 16-bit D/A channels with up to 310 Msps data rate with a 1.24 Gsps update rate. This is the only FMC card on the market to offer this number of channels with LVDS digital signalling interfaces. The design is based on the Analog devices AD9652 analogue to digital converters and the Analog devices AD9142A digital to analogue converters.

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LXD31K4 IN STOCK Four channel 310 Msps ADC & DAC with 16-bits resolution





FPGA Conference Europe

Trenz Electronic presented their TE0950 AMD Versal[™] AI Edge Evalboard at the conference, along with their wide variety of other products.

The FPGA Conference Europe, organized by ELEKTRONIKPRAXIS and the FPGA training centre PLC2, is Europe's leading specialist conference for programmable logic devices. The conference focuses on user-oriented, practically applicable solutions that developers can quickly integrate into their everyday work.



Europe