2021 Q4 PRODUCT HIGHLIGHTS



Murata 1SE CAT M1/NB-IoT Module

In conjunction with Sony Semiconductor Israel (Sony, formerly Altair Semiconductor), STMicroelectronics, and Truphone, Murata today introduced the availability of the Type 1SE module, a highly integrated, miniaturized, low power cellular IoT solution featuring a low power STM32L4 MCU and an ALT1250 M1/NB modem. Measuring just 15.4 × 18.0 × 2.5 mm, it combines four key components that enable fast and low-cost product development: STMicroelectronics' ultra-low power STM32L462RE/Arm® Cortex®-M4 core with 512 KB Flash and 160KB SRAM MCU, Sony's Altair ALT1250 solution-based low-power LTE Cat M1/NB1 modem and integrated SIM. Further, it is preloaded with Truphone's SIM profile, allowing the module to operate worldwide – the first of its kind to do so.



Cypress PSoC 6 MCU Family

The PSoC 6 family is built on an ultra-low-power architecture, and the MCUs feature low-power design techniques to extend battery life up to a full week for battery powered applications. The dual-core Arm® Cortex®-M4 and Cortex-M0+ architecture lets designers optimize for power and performance simultaneously. Using its dual cores combined with configurable memory and peripheral protection units, the PSoC 6 MCU delivers the highest level of protection defined by the Platform Security Architecture (PSA) from Arm. Designers can use the MCU's rich analog and digital peripherals to create custom analog front-ends (AFEs) or digital interfaces for innovative system components such as MEMS sensors, electronic-ink displays. The PSoC 6 MCU features the latest generation of industry-leading CapSense® capacitive-sensing technology, enabling modern touch and gesture-based interfaces that are robust and reliable.



Digi ConnectCore 8M Mini

Digi ConnectCore[®] 8M Mini, based on the NXP[®] i.MX 8M Mini application processor, is a secure integrated system-on-module (SOM) platform. The Mini is designed for a wide range of industrial, medical, agricultural and transportation applications, including Internet of Things (IoT), human machine interface (HMI), equipment monitoring, audio/voice, graphics/video, edge computing and machine learning.

Digi ConnectCore 8M Mini features four power-efficient Arm[®] Cortex[®]-A53 cores, one Cortex-M4 core, and the Digi Microcontroller Assist Cortex-M0, which allow it to minimize power consumption while maintaining a high standard of performance. With a 10+ year product lifecycle, OEMs can reduce their development costs and achieve a lower total cost of ownership by leveraging pre-certified wireless connectivity, remote management, cloud integration, and complete Linux Yocto Project and Android software platform support.



Infineon Hirel DC-DC Converters

IR HiRel is a trusted expert in high-reliability DC-DC converters, offering a broad portfolio available in a wide range of packages for space, defense and aerospace, and other demanding environments. The portfolio includes:

- Ruggedized DC-DC converters
- Radiation-hardened (rad hard) hermetic hybrid DC-DC converters, with DLA-certified SMD-5962 up to Class K available for multiple models
- Rad hard PCB open frame and enclosed power supplies

Backed by IR HiRel's vast space heritage, you can source high-reliability, qualified platforms that reduce project risk and time to market. Our flight-proven DC-DC converters can be used with confidence in a wide range of applications.



SkyHigh Memory 1-4GB SPI NAND

SkyHigh Memory Limited., a global leader in embedded storage solutions, is introducing 3.0V 1Gb-4Gb densities 4KB page and 2KB page ML-3 products to its family of NAND Flash memories. The new 1Gb-4Gb ML-3 SLC NAND Flash product family devices are designed on 1xnm, the industry's most advanced technology node for SLC NAND products.

Available with different interfaces, SkyHigh Memory first-generation Serial (SPI) SLC NAND and thirdgeneration Parallel SLC NAND complete the third generation ML-3 4Gb-16Gb parallel SLC NAND product family already in production.

The new 1Gb-4Gb devices will be offered to support high-reliability systems that store critical data and operate at extended temperatures, up to +105°C. Thanks to its internal ECC engine, the ML-3 product family can support chipsets with as low as a 1-bit ECC engine to accommodate legacy chipsets and modern chipsets with higher ECC engines.



Hirose USB Type-C Connector CX Series

The CX series connector conforms to the next-generation USB standard "USB Type-C[™]". It is expected to be widely adopted as a standard interface in various devices in the consumer, industrial machinery and automobile market.

XUSB Type-C[™] is a registered trademark of USB Implementers Forum.



AZ Displays 7.0" Ruggedized IPS Display

While many key players in the industrial and medical display segment are exiting the market, AZ Displays continues to expand their product offering with a new 7" IPS display that is designed for applications exposed to rigorous environments. Based on automotive grade components, this display is capable of wide operating temperatures, high ESD resistance, and above industry standard shock and vibration ratings. This panel was designed specifically as a drop-in alternative to an obsolete automotive grade display that is no longer procurable in the market.