

M2S Tech Q1 2023 Product Highlights

We hope you have had a great first quarter and start to the year so far! M2S Tech is happy to share some of the latest technologies from our supplier partners that may be beneficial in your current design efforts. Feel free to reach out to our team if you are interested in discussing any products in more depth or would like to receive samples.

M2S Tech Contact Page: https://m2stech.com/contact-us



Murata Type 2BZ Wifi + Bluetooth Module

The Type 2BZ is the newest addition to Murata's wide selection of connectivity modules. It is a small and very high-performance module based on the Infineon CYW54590 combo chipset which supports Wi-Fi® 802.11a/b/g/n/ac 2×2 MIMO + Bluetooth® 5.2 BR/EDR/LE up to 866Mbps PHY data rate on Wi-Fi® and 3Mbps PHY data rate on Bluetooth®. The WLAN section supports SDIO v3.0 interface and the Bluetooth® section supports high-speed 4-wire UART interface and PCM for audio data.

Type 2BZ module is packaged in an impressively small form factor that facilitates integration into size- and power-sensitive applications such as IoT applications, handheld wireless system, gateway and more. It is also good for industrial applications with operating temperature up to +85C.



Infineon XMC7000 Industrial MCU Arm Cortex-M7

The XMC7000 is the latest entry in Infineon's industrial microcontroller portfolio, equipped with peripherals such as CAN FD, TCPWM and Gb Ethernet, which increase flexibility and offer added value. The new MCU family offers a single and dual-core Cortex®-M7 Arm® core, both supported by a Cortex®-M0+ enabling designers to optimize their end products to meet the dynamic and demanding business conditions of industrial applications. In addition a comprehensive set of advanced peripherals, along with a competitive set of security makes it attractive to customers, who need a high quality grade platform. The MCU is able to operate in harsh environments with a temperature range of -40°C to 125°C and in parallel be the best choice to power critical applications due to its lower-power modes down to 8μA. The XMC7000 comes in four package/pin types with 17 part number variants to meet the flexible design requirements of industrial applications.



Digi Xbee 3 Global LTE Cat 1 & LTE-M/NB-IoT

Digi XBee® 3 Global LTE modules accelerate time-to-market for designers, OEMs and solution providers by quickly enabling wireless connectivity and easy-to-add functionality. Building on industry-leading technology, pre-certified Digi XBee 3 Global LTE Cat 1 modules offer the flexibility to switch between multiple frequencies and wireless protocols as needed.

With <u>Digi Remote Manager</u>*, Digi XBee 3 Global LTE modules can be easily configured and controlled from a central platform. Built-in <u>Digi TrustFence</u>* security, identity and data privacy features use multiple layers of control to protect against new and evolving cyber threats. Standard Digi XBee API frames and AT commands, MicroPython and <u>Digi XCTU</u>* simplify setup, configuration, testing and adding or changing functionality.



Hirose ix Industrial Next-Gen Industrial Transmission Connector

The ix Industrial is the next-generation connector for Ethernet and other industrial equipment transmissions. The small, robust design makes ix Industrial ideal for use in industrial environments. The high speed transmission design together with the IEC 61076-3-124 standard compliant interface contribute to equipment evolution and smart manufacturing applications.

The ix Industrial offers a reduced size of 75% compared to conventional RJ45 modular solutions. This size reduction allows for reduced installation space. The receptacle allows for parallel 10mm pitch mounting, ideal for using multiple connectors such as when daisy-chaining. The compact size also contributes to size reduction of end products.



SkyHigh Memory SPI NAND

SkyHigh Memory's highly reliable first-generation Serial (SPI) NAND products offer a high-density solutions optimized for embedded systems. SkyHigh Memory products include differentiated features such as operating temperature support up to 105C, AEC-Q100 qualification for automotive applications and packages as small as 48mm^2. All of SkyHigh Memory's SPI NAND products are backed by SkyHigh Memory's world-class customer support and commitment of supply longevity. 3V SPI NAND products are already released and in production and 1.8V samples will be released in Q3 2023.



Nichicon RKS Series - Polymer Aluminum Electrolytic Cap

Nichicon has developed and scheduled to start the mass production of the RKS Series of the chip-type conductive polymer aluminum solid electrolytic capacitors for use in telecommunications, industrial equipment, and automotive market categories requiring the high reliability. With our RKS Series, we have improved upon our existing RPS and RSS Series where the maximum operating temperature is 105°C, achieving both an industry-leading endurance rating of 3,000 hours at 125°C and high moisture resistance (85°C 85%RH). This series also boasts a wide temperature range from -55C - 125C.





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 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.

Key Features

800 x 480 Resolution
PS – Wide-Viewing angle technology
1,100 nits brightness (sunlight readable)
100,000 hour LED life
LVDS -40 C to +85 C operating temperature