

Press Release

Miromico's 2.4 GHz LoRa® transceiver modules are first in class with fully compatible Bluetooth Low Energy 5.0

The IoT modules enable wireless connectivity to sensors, devices and systems communicating at high data rates or over a long distance and run a fully compatible Bluetooth Low Energy 5.0 stack built on Semtech's SX1280 chipsets.

Brussels, Belgium, 19th May 2021– Avnet Silica, an Avnet company (NASDAQ: [AVT](#)), today announced the availability of Miromico's FMLR-8x-x-STLx LoRa® IoT modules that run a fully compatible Bluetooth Low Energy (BLE) 5.0 stack using Semtech's 2.4 GHz SX1280 LoRa transceiver. The solution does not require any additional BLE 5.0 device. Target IoT applications include track and trace, building automation, construction monitoring, mining, farming, telemetry, remote data logging, and many others.

Built on Semtech's LoRa 2.4 GHz technology, Miromico provides a firmware platform that allows multiple wireless protocols running on the same microcontroller, i.e., LoRa and BLE 5.0. The combination of both technologies in the same wireless module is a powerful new technology. It enables commissioning, configuration, local data monitoring, or firmware-update of IoT devices using smartphones, tablets, car navigation systems, or other iOS or Android-based devices. After the initialization process, it operates LoRa 2.4 GHz long-range applications anywhere in the world. For such dual-protocol use-cases, standard IoT devices usually require integrating separate, costly BLE chipsets to connect to the mobile phones. After the initial setup during deployment, these additional BLE chipsets become redundant.

"Full BLE 5.0 support as a firmware option for our SX1280-based 2.4 GHz LoRa modules and products is a game-changer for developers implementing IoT technologies," said Marcel Wappler, CTO of Miromico. "It enables new unique applications with very low additional costs compared to hardware-based BLE solutions. Our first goal was to provide the most important BLE peripheral role to our customers, and we are delighted that Avnet Silica is now stocking BLE-ready SX1280 modules and dev kits."

"Miromico is a key partner for Avnet Silica, and now with the addition of BLE 5.0 support in the modules based on Semtech's LoRa® 2.4 GHz technology, further unique market opportunities are available", said Marco Giegerich, Director Business Development EMEA at Avnet Silica.

The FMLR-8x-x-STLx module-family is available with multiple options, including extra onboard flash memory to enable Over-the-Air (OTA) updates and local data buffering in times when cloud connectivity is temporarily unavailable. Using Miro Edge 2.4 GHz LoRa gateways, the modules support Semtech's meter-accuracy, active-radar-based ranging and localization technology for both indoor and outdoor environments. Further supported high-bitrate modulation schemes include the very robust and bandwidth-efficient FLRC and (G)FSK. BLE allows bi-directional communication with smartphones, tablets, gadgets and more. Optional low-power high precision temperature compensated oscillators (TCXO) for both RTC and radio are also available. The module's firmware, including the wireless stack, can be updated via SWD, UART Bootloader or optional Firmware Over-the-Air (FOTA) to support fast prototyping and development.

Miromico's FMLR-8x-x-STLx LoRa modules, development kits and dual-band LoRa gateways are available now from Avnet Silica.

For more information, please visit:

<https://www.avnet.com/wps/portal/silica/manufacturers/m/miromico/>

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About Avnet Silica

Avnet Silica is the European semiconductor specialist division of Avnet, one of the leading global technology distributors, and acts as the smart connection between customers and suppliers. The distributor simplifies complexity by providing creative solutions, technology and logistics support. Avnet Silica is a partner of leading semiconductor manufacturers and innovative solution providers over many years. With a team of more than 200 application engineers and technical specialists, Avnet Silica supports projects all the way from the idea to the concept to production. Avnet Silica is a regional business unit of Avnet, (NASDAQ: AVT) with European headquarters in Belgium (Avnet Europe Comm. VA). For more information, visit www.avnet-silica.com

About Avnet

Avnet is a global technology solutions provider with an extensive ecosystem delivering design, product, marketing and supply chain expertise for customers at every stage of the product lifecycle. We transform ideas into intelligent solutions, reducing the time, cost and complexities of bringing products to market. For nearly a century, Avnet has helped its customers and suppliers around the world realize the transformative possibilities of technology. Learn more about Avnet at: www.avnet.com.

About Miromico

Miromico is a global leading, innovative high-tech company, focusing on designing and delivering high volume hardware, products, OEM platforms and design services in the areas of integrated circuits, electronic systems, and software. It has many years of technology experience in the field of RF technology and in particular the Internet-of-Things (IoT). As LPWAN solution provider, Miromico provides its customers leading-edge wireless modules, sensors, and gateways that are at the forefront of technology for most wireless frequencies and bands both terrestrial and satellite based. Learn more at www.miromico.com.

About Semtech

Semtech Corporation is a leading supplier of analog and mixed-signal semiconductors for high-end consumer, enterprise computing, communications and industrial equipment. Products are designed to benefit the engineering community as well as the global community. The company is dedicated to reducing the impact it, and its products, have on the environment. Internal green programs seek to reduce waste through material and manufacturing control, use of green technology and designing for resource reduction. For more information, visit www.semtech.com.

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