Semtech Partners with IMST On New Radio Module Featuring Long Distance LoRa Technology

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Semtech [1] (Camarillo, CA) has announced that it has teamed up with IMST [2] for the IM880A radio module featuring Semtech's LoRa long distance technology. IMST's iM880A is a compact, low power, bidirectional radio module for the 868 MHz frequency band.

LoRa technology and the iM880A are designed for industrial control, security/automation, smart metering, and sensor network applications. The additional range provided by LoRa will eliminate the need for repeaters in these applications, significantly simplifying the system design and lowering the total cost of deployment. The range extension provided by LoRa also makes the device ideal for emerging smart city, Internet of things (IOT), and machine-to-machine (M2M) applications.

LoRa utilizes spread-spectrum communication and provides high interference immunity while minimizing current consumption. The iM880A features:

- Maximum sensitivity level of -137 dBm.
- Maximum output power of +19 dBm.
- Link budget of 156 dB.
- Range of more than 15 km in a rural environment or 2 - 5 km in a dense urban environment operating in compliance with European regulatory limits.

The roll out of LTE next to the traditional 868MHz frequency band commonly used in Europe creates increased interference for security systems, smoke detectors, lighting control, home automation, and smart meter applications. The iM880A provides increased interference immunity compared to conventional radio systems by providing up to six orthogonal spreading sequences with three different signal bandwidth options and four error correction schemes.

The module provides a cost effective and quick solution for integrating LoRa technology into existing or new products. To simplify the first steps of integration, IMST also offers the SK iM880A starter kit with the corresponding demo and configuration software WiMOD LR Studio.

For more information, please visit www.semtech.com [1] and www.imst.com [2]

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