CASCADEMIC Solutions Pvt. Ltd.

In the era of the smart and the convergence of technologies, we at CASCADEMIC extended and evolved our decades of embedded expertise from the SCADA to the M2M & Growing IoT space.

CASCADEMIC is a Fabless ODM Solution Provider in M2M and IoT. Specializing in Wireless Remote Monitoring, Sensors, and Controls & Industrial Automation.

In the process of continuous evolution and upgradation of technology, the process and processor SoC's are evolving and becoming more and more integrated. In addition, the complexities around RF, Ultra low power, Wireless protocols, and Embedded Java & Real time firmware applications built-on many such industrial embedded devices with long term reliability and availability requirements are increasing.

By addressing the above needs from the Concept to Manufacturing Vertical Integration, we act as an ODM partner for our Customer's Intelligent System Solution needs of:

- Wireless Smart Flow Meter
- OEM Thermal Printer Solution
- Wi-Fi RFID Access Control Solution
- Wireless Sensor Networks
- Smart Automation & Control
- GPS NAVITRAK

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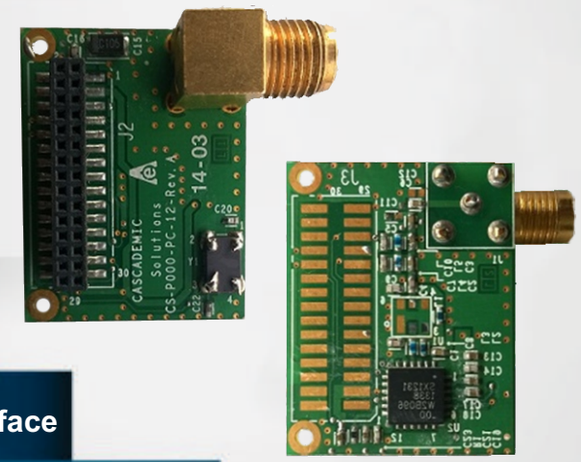
CASCADEMIC solutions
InnovaTion towards Embedded Planet

Ionos D1-SX1231 UHF Transceiver Module

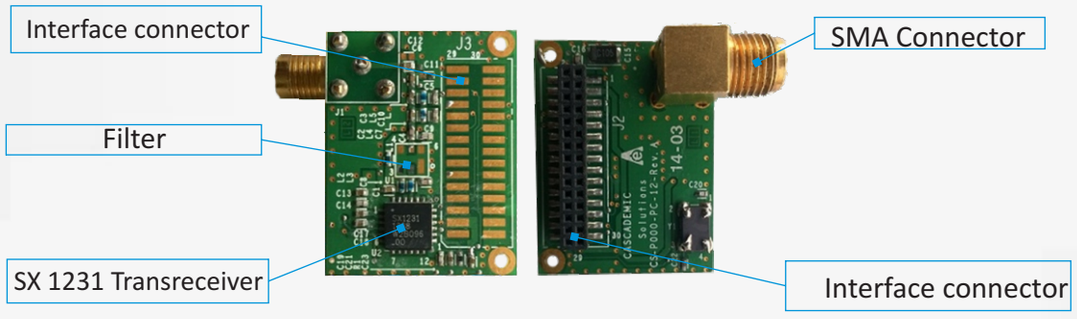


- **SPI interface**
- **Low Rx current 16mA**
- **Form factor 20.50mm X 26.50mm**
- **Programmable output: -18 to +17 dBm in 1dB steps**

DESCRIPTION:

This module is ideally suitable for today's high performance ISM band RF application. The board is intended for applications over a wide frequency range, including the 433 MHz and 868 MHz European and the 902-928 MHz North American ISM bands.

The Module includes a SEMTECH's low power UHF transceiver, interface connector, filter and a SMA connector(for external antenna). It is intended for use as high-performance FSK and OOK RF transceiver module for robust frequency agile, half-duplex bi-directional RF links, and where stable and constant RF performance is required over the full operating range.



APPLICATION:

- Automated Meter Reading.
- Wireless Sensor Networks.
- Home and Building Automation.
- Wireless Alarm and Security Systems.
- Industrial Monitoring and Control.
- Wireless M-BUS.

MODULE FEATURES:

Specification	Discription
RF	- High Sensitivity: down to -120 dBm at 1.2 kbps. - High Selectivity: 16-tap FIR Channel Filter. - Bullet-proof front end: IIP3 = -18 dBm, IIP2 = +35 dBm, 80 dB Blocking Immunity. - Programmable output: -18 to +17 dBm in 1dB steps - Constant RF performance over voltage range of chip . - FSK Bit rates up to 300 kb/s. - Fully integrated synthesizer with a resolution of 61 Hz. - FSK, GFSK, MSK, GMSK and OOK modulations. - 115 dB+ Dynamic Range RSSI. - Packet engine with CRC, AES-128 and 66-byte FIFO
Power consumption	- 1.8V to 3.6V Supply Voltage - Low current(Typically): Sleep Mode=0.1uA - Idle mode=1.2uA - Standby Mode=1.25uA - Receive Mode = 16 mA - Transmit Mode = 95mA(at +17dBm)
Form factor	- 20.50mm X 26.50mm