XCVR DEVELOPMENT BOARD & REFERENCE DESIGN

CONNECTED DEVELOPMENT

AN EXPONENTIAL TECHNOLOGY GROUP COMPANY

Connected Development (CD) has launched the XCVR Development Board & Reference Design, created to offer a cost-effective and compact development solution for diverse, long range wireless applications. Based on Semtech's SX126x Series, the XCVR Development Board & Reference Design with SX126x LoRa® Sub-GHz Radio Transceiver combines Semtech's 60 years of semiconductor manufacturing expertise and proprietary LoRa® modulation with Connected Development's comprehensive engineering design services.

Offering a proven and pre-tested reference design and PCB layout for RF optimization, the dev board is offered in three variants (SX1261, SX1262, and LLCC68) for support in NA and EMEA. Compatible with Nordic Semiconductor's nRF52840 SoC, Connected Development's dev board and reference design includes all necessary radio design files and hands-on engineering support to ensure a successful deployment.

BENEFITS

- Mounted on Arduino Uno carrier board, utilizes RF Integrated Passive Device for smallest footprint

- Proven and RF tested reference design and PCB layout for RF optimization

- Software support for LoRaWAN®, Nordic Semiconductor (Zephyr and MBED)

- All radio design files available (schematic and board layout)

- Application PCB design engineering support and component integration into final design

THREE VARIANTS

1 **SX1261**
(EMEA, 868 MHz)

2 **SX1262**
(NA, 915 MHz)

3 **LLCC68**
(NA, 915 MHz
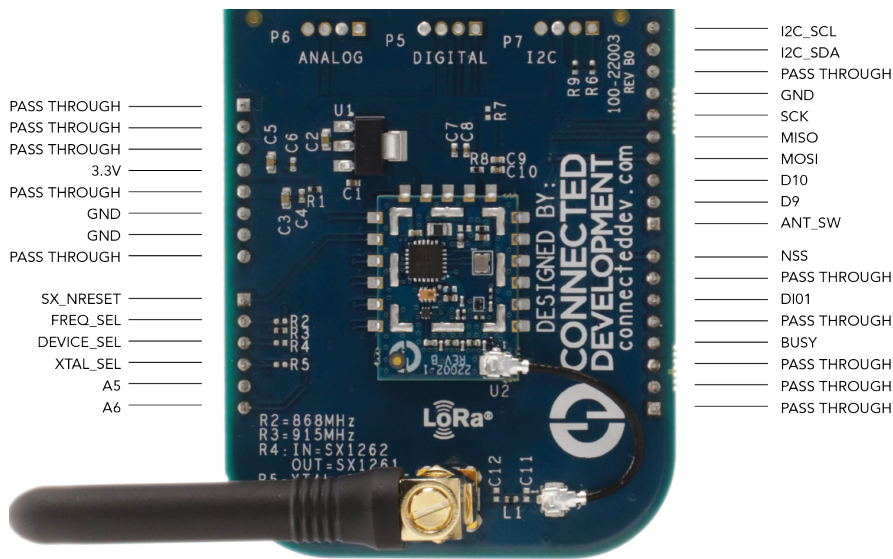Smart home applications)

AVAILABLE EXCLUSIVELY AT

MOUSER ELECTRONICS   **Symmetry ELECTRONICS**

P6 ANALOG **P5** DIGITAL **P7** I2C

PASS THROUGH
PASS THROUGH
PASS THROUGH
3.3V
PASS THROUGH
GND
GND
PASS THROUGH

SX_NRESET
FREQ_SEL
DEVICE_SEL
XTAL_SEL
A5
A6

R2=868MHz
R3=915MHz
R4: IN=SX1262
OUT=SX1261

I2C_SCL
I2C_SDA
PASS THROUGH
GND
SCK
MISO
MOSI
D10
D9
ANT_SW

NSS
PASS THROUGH
DI01
PASS THROUGH
BUSY
PASS THROUGH
PASS THROUGH
PASS THROUGH

KEY FEATURES

- LoRa® and FSK Modem
- 163 dB maximum link budget for SX1261 / 170 dB maximum link budget for SX1262
- +15 dBm high efficiency PA for SX1261 / +22 dBm or +15 dBm high efficiency PA for SX1262 & LLCC68
- Low RX current of 4.6 Ma
- Using the device internal DC_DC
- Programmable bit rate up to 62.5 kbps LoRa® and 300 kbps FSK
- High sensitivity: Down to -148 dBm
- 88 dB blocking immunity at 1 MHz offset
- Co-channel rejection of 19 dB in LoRa® modulation
- Built-in bit synchronizer for clock recovery
- Automatic Channel Activity Detection (CAD) with ultra-fast AFC

KEY APPLICATIONS

- **SX126x:** IoT applications
  - Smart meters
  - Supply chain and logistics
  - Building automation
  - Agricultural sensors
  - Smart cities
  - Retail store sensors
  - Asset tracking
  - Streetlights
  - Parking sensors
  - Environmental sensors
  - Healthcare
  - Safety and security sensors
  - Remote control applications

- **LLCC68:**
  - Smart home
  - Smart community
  - Consumer

Services

Connected Development's comprehensive service program offers a full array of options to suit your specific needs. These services are aimed at protecting your investment, extending the life of your solution or product, and reducing total cost of ownership. Our seasoned technical experts, with an average tenure of more than 10 years, can walk you through deployment, troubleshoot issues, and help you with product configurations.

Customization Support

With Connected Development you have the ability to work one-on-one with an experienced engineer, to tailor the product to your individual needs.

Headquarters

Connected Development
1001 Winstead Drive, Suite 130
Cary, North Carolina 27513

Tel: +1 919-234-6501

Email: info@connecteddev.com
www.connecteddev.com

CONNECTED DEVELOPMENT