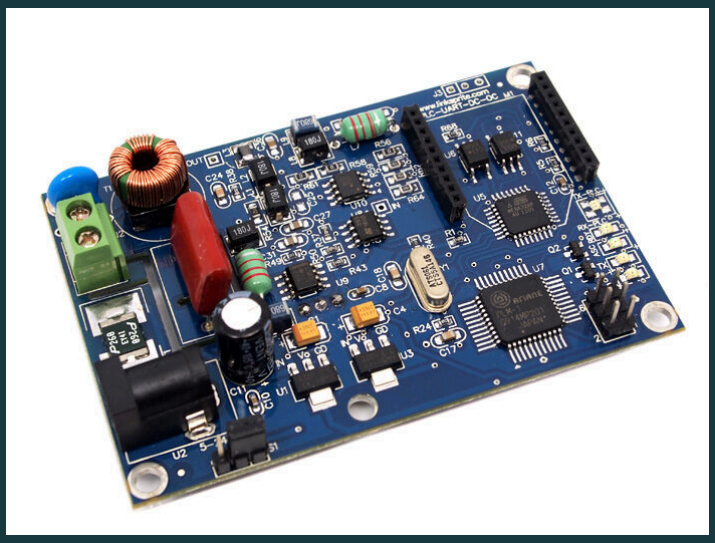
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INDUSTRIAL PRODUCT DATASHEET

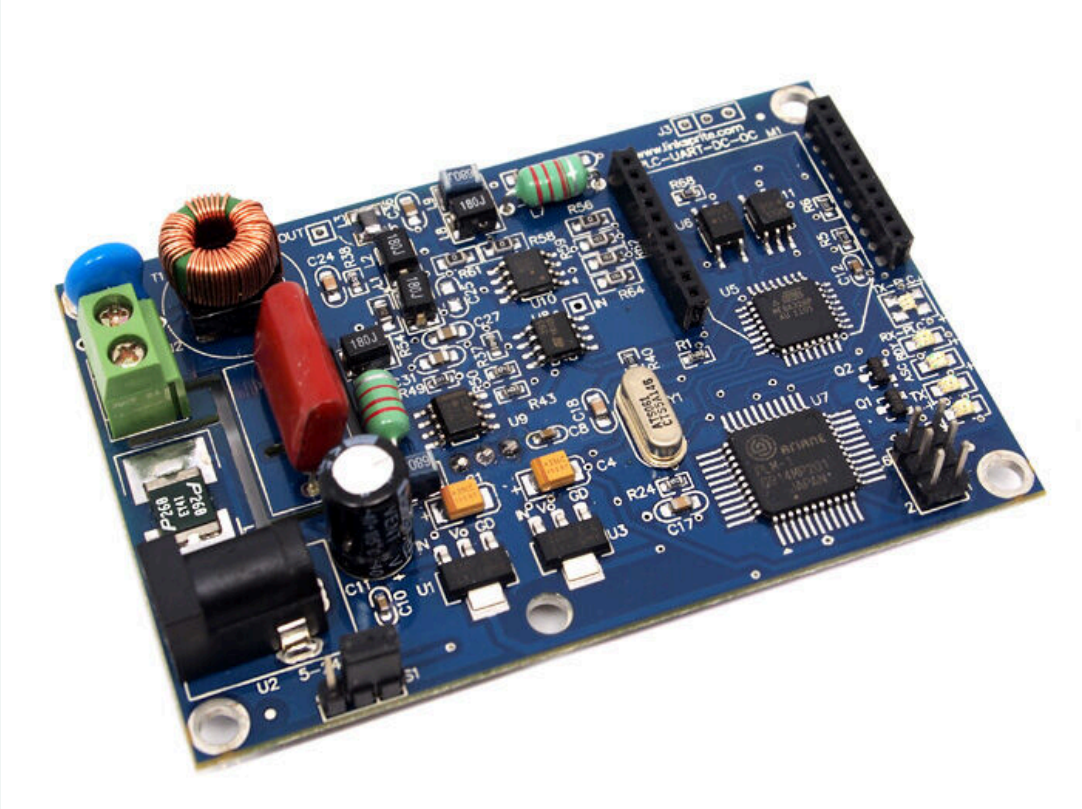
Spyder - Narrow Band Power Line Communication Modem

Spyder - Narrow Band Power Line Communication Modem: an Arduino-compatible PLC board with flexible interfaces and wide input voltage range for wired home automation.

SKU	UPDATED	PRICE
PLC11012B	2024-08-09 02:11:40	$53.00(Excl. VAT)



Overview



The Spyder Narrow Band Power Line Communication Modem enables data exchange over AC power lines via FSK modulation and is designed for Arduino compatibility through an SPI interface. It features an Xbee socket for interface conversion, supporting TTL, RS232, RS485, USB, Ethernet, and Zigbee, and operates with a 2 Kbps data rate, up to 300 feet transmission distance without a repeater, and up to 65,535 nodes.

Key Features

Power Line Communication (PLC) is a technology that exchanges data via the AC electric power line. Spyder is a board that allows you to take advantage of PLC technology in familiar and user-friendly Arduino environment via the SPI interface.

Spyder has an Xbee socket on the board that is populated for interface conversions. It supports daughter boards of TTL, RS232, RS485, USB, Ethernet and Zigbee interfaces. You can refer to the datasheet for specific configuration of each interface type.

To transmit or receive data from the electric power line, plug the Live Line and Null Line into the screw terminals and power the board up by the JST connecter or power jack. Then you are ready to enjoy developed and invisible electric wiring network and build home automation projects without massive wireless devices.

We have two PLC products in stock, McLaren and Spyder. **McLaren** features up to 5Mbps high speed while Spyder has a wider input voltage range. A careful comparison between them is recommended before purchase.

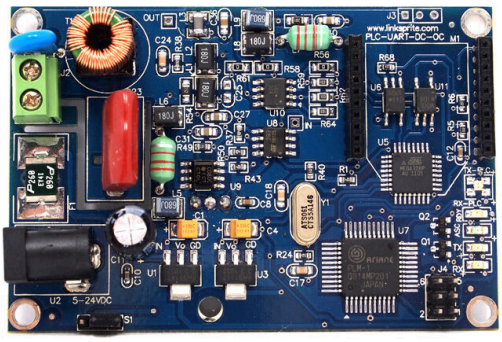
Features

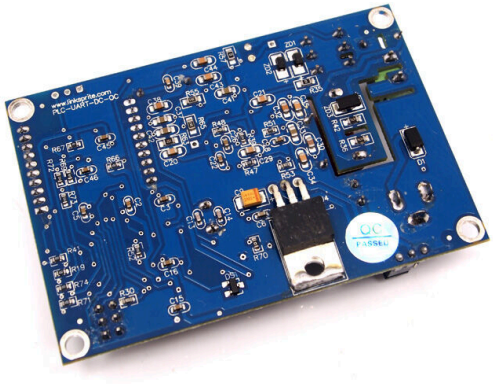
- Solution for Power Line Communication
- FSK modulation method
- Support flexible interfaces
- Arduino compatible: Atmel328p inside

Specifications

- Interfaces supported: UART, RS232, RS485, USB, Ethernet and Zigbee
- Line voltages supported: 110V/220V 50/60Hz, DC
- Operating voltage: 5 - 24V 2A DC
- Modulation: FSK (Frequency Shift Keying)
- Carrier frequency: 262K/144KHz
- Error correction: FEC (Forward Error Correction)
- Data rate: 2Kbps
- Max packet data length: 320bytes
- Repeater hops: 3 hops
- Max transmission distance: 300 feet (no repeater)
- Max nodes number: 65535

Product Gallery





Resource Links

- https://www.seeedstudio.com/Spyder-Narrow-Band-Power-Line-Communication-Modem-p-1292.html

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