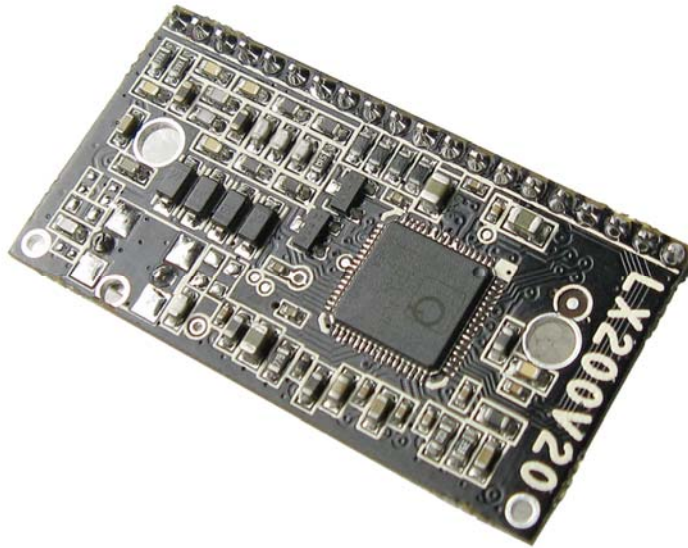




Pi Supply



LX200V20 PLC HomePlug AV power line module - high speed up to 200Mbps - with 128bit AES encryption and power line / twisted pair / Ethernet interface

LX200V20 is the newest power line communication products which can support IEEE 1901 and Homeplug AV standard. It provide the standard MII interface for communication. The small-foot-print is ideal for embedded design application. You can easy to plug into target devices through connectors. It is the best choices to shorten the design cycle and accelerate the time to market.

The size of LX200V20 is 60mm x 30mm and can be powered by single 3.3vDC rail with integrated power management unit. The module support robust OFDM mode modulation 200Mbps PHY rate.

The LX200V20 can be integrated on the smart meter in a wide variety of ways and it is also an ideal solution for different scenario of energy, surveillance and smart home. It also be the major connectivity technology along with the WiFi and Ethernet to build up seamless infrastructure.

Support multiple existing cables for transmission:

- Telephone Lines - The range can support last 600 meters IP access
- Two wired line - The range can support last 2000 meters IP access
- Power Lines - the range can support last 300 meters IP access

Features on power line transmission scenario:

- Get reliable and very low latency on the transmission when use LX200V20 in specific scenario like VOIP, Gaming etc.
- Can support the 128-bit encryption and ensure the safe transmission
- Easy to build the pairs connection to expand the networking coverage. No need configuration
- The range can be up to 300 metres

Products Features

- Compliant with homeplug AV specification and IEEE1901 standard. The Maximum data rate is 200Mbps.
- Single chip solution with integrated analog front end and line driver.
- The module can interoperable with any devices base on homeplug AV specification and IEEE1901 standard.
- The communication interface is MII,you can use it to communication to any Ethernet based devices like PC,IP camera,IP phones.
- Data transmission via two wired line, telephone line and power line.
- The working frequency ranged from 2-30MHz.No influence on current CATV signals at home.
- No need for configuration by end users,it can works when you plug into the lines.
- Range: Telephone Lines 600m,cable lines 2000m,power lines 300m
- 128-bit data encryption
- Dimensions: 60mm x 30mm

- Cost-optimized design and also can provide the customize design if signed the NRE agreement in place.
- Ideal modules for small-footprint embedded devices

Applications

- Smart meters
- Energy management system
- Programmable controlled thermostats
- Remote meter devices
- Surveillance
- Industry
- Solar panels

Specification

- IP I/O: 10/100M MII (Auto MDI/MDIX)
- IP Standard
 - IEEE 802.3, IEEE 802.3x
 - IEEE 802.3u Auto MDI (X)
 - IEEE 802.1 P, IEEE 802.1Q
- PHY Rate: 200 mbps
- LED
 - SYS LED
 - The Red LED is System self diagnostics light, which will be ON when self diagnostics is normal.
 - LINK LED
 - The Red LED is System connection LED. It will shining or ON when detect other devices. Ethernet port LED: The LED will turn ON when plug into the Ethernet cable.

Ethernet ACT LED: The LED will shining when there is data transferring. The LED will be OFF when there is no active data transferring.

- Frequency Parameter
 - Working Frequency: 2-30Mhz
 - RF sensitivity: -66dbm
 - Max Output Power: 6dbm
- Encryption Mode: 128bit AES
- Size: 40mm x 22mm (LxW)
- Operation temperature: -20 to 70
- Operation humidity: 20% - 85%
- Power Consumption: < 2W

Pin definition

- 1 GND
- 2 GND
- 3 RX-(Power line Rx signal)
- 4 RX+(Power line Rx signal)
- 5 GND
- 6 GND
- 7 TX+(Powerline Tx signal)
- 8 TX-(Powerline Tx signal)
- 9 GND
- 10 GND
- 11 N/A
- 12 ZC_IN_EX((AC zero crossing signal, which will be a square wave)
- 13 V33_IN(3.3v)

- 14 V33_IN(3.3v)
- 15 GND
- 16 GND
- 17 RD+(Ethernet Rx signal)
- 18 TD+(Ethernet Tx signal)
- 19 RD-(Ethernet Rx signal)
- 20 TD+(Ethernet Tx signal)

