

HD Coaxial Network Transmission Extender Module

Model: 7HC10

Introduction:

The main chip of the 7HC10 coaxial line communication module is designed by Qualcomm. It has the characteristics of high integration and small size. It can provide power line transmission rates up to 200Mbps, with stable operation and reliable performance.

7HC10 power communication module provides users with DC power interface, PLC BNC/DC communication interface, general GPIO interface, working status indication interface and network interface.

Features:

- *Supports up to 8 nodes;
- *Support IEEE802.3, IEEE802.3u, standards;
- *Support HomePlug AV, IEEE1901;
- *Transmits data over 75 Ω coaxial cable, providing transfer rates up to 200Mbps;
- *10/100Mbps adaptive Ethernet interface;
- *Support 2KM transmission distance over coaxial cable;
- *Supports 128-bit AES encryption to ensure the security of network data transmission;
- *Supports any operating system, including Mac, Linux;
- *Supports fault self-recovery;
- *Flexible PLC interface:
 - (1) Supports single BNC head 1-to-1PLC access;
 - (2) Support dual BNC head 1 to 2PLC access; (optional)
 - (3) Support single DC head 1-to-multiple PLC access; (optional)

Typical Application Topology:

电力线传输网络安防监控系统拓展图



Pin Definition:



Pin Function Details:

J1: Mains Power Input Interface (DC 5-12V/3W)

Pin Number	Pin Definition	Input/Output	Pin Function
1	+	\	DC power supply +
2	-	\	DC power supply -

J2: Standard 100Mbps Ethernet interface, supports automatic flipping.

LED: Status indicator, indicating the working status of the module.

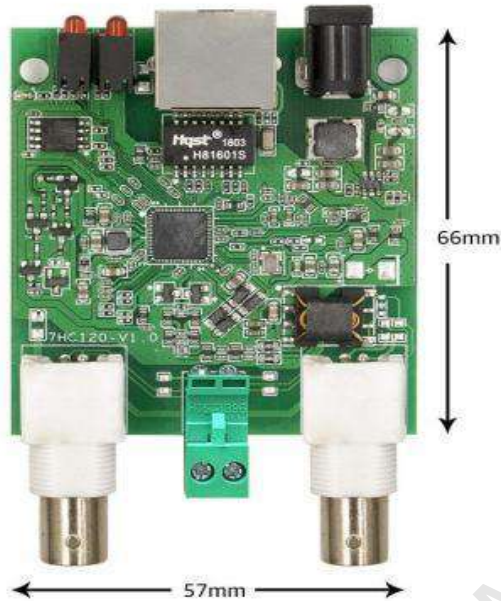
LED No.	Indication	Function
1	Lan	Green On: Ethernet port connected; Blinking: Data Transmitting.
2	Data	Green On: Powerline Communication Connected; Blinking: Data Transmitting.

PLC interface:

Number	Function	Function Description
BNC0	PLC Interface	Can realize 1-to-1PLC communication alone, also can realize 1-to-2PLC communication together with BNC1
BNC1	PLC Interfac	Can realize 1-to-1PLC communication alone, also can realize 1-to-2PLC communication together with BNC0
DC	PLC Interfac	Can realize 1-to-Multiple PLC communication independently

Module Size:

Front view:



Specifications:

Hardware Specification	
Model Number	7HC10
Standard	HomePlug AV, IEEE 802.3, IEEE 802.3u, IEEE 1901
Protocol	TCP/IP, IGMP, CSMA/CA, QoS
Modulation	OFDM (1024/256/64/16-QAM, QPSK, BPSK 和 ROBO Modulation)
Frequency Band	2-28MHz
Speed (PHY)	200Mbps
Interface	DC/BNC Interface, Ethernet Interface
LED Indicator	Power, Data, LAN
OS	Windows 98SE/ME/2000/2003/XP/Vista, Windows7, Linux, Mac OS
Transmission Distance	300meters (The same Power Meter)
Coverage	5000 Square Inches
Security	128-bit AES Encryption
Working Voltage	DC-5-12V/3W
Consumption	Normal ≤ 1.5W
Size	66x57x15mm (LxWxH)
Weight	35g
Environment	
Working Temperature	0°C ~ 70°C
Storage Temperature	-20°C ~ 70°C
Working Humidity	10% ~ 90% RH Non-Condensing
Storage Humidity	5% ~ 90% RH Non-Condensing