

HomePlug AV600 Ethernet Powerline Module

Model: 7M150

Introduction:

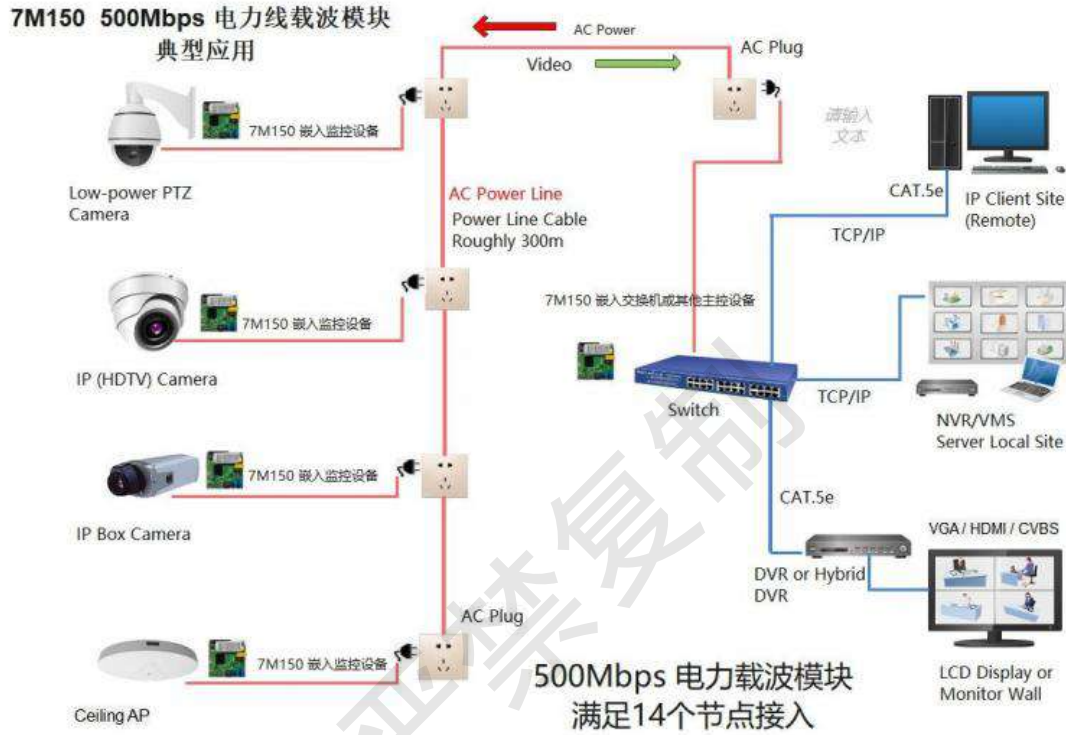
The 7M150 AV600 powerline communication module adopts Atheros design as the main chipset. It has the characteristics of high integration and small size. It can provide up to 600Mbps powerline transmission rate, stable operation and reliable performance.

7M150 powerline communication module provides users with AC/DC power interface, PLC filter interface, general GPIO interface, working status indication interface and network interface.

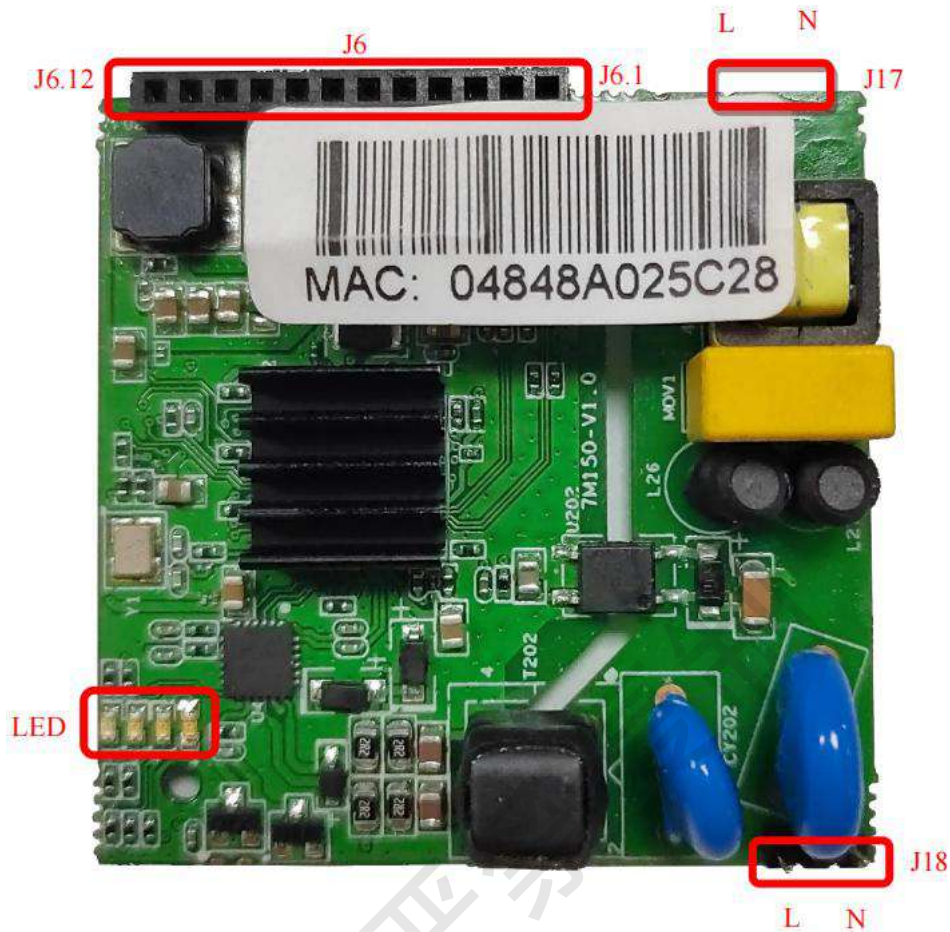
Features:

- *Support up to 14 nodes;
- *Support IEEE802.3, IEEE802.3u, standard;
- *Support HomePlug AV;
- *Data transmission through the existing power line, providing up to 600Mbps transmission rate;
- *10 /100Mbps adaptive Ethernet interface;
- *Support 300m transmission distance (within the same meter);
- *Support 128-bit AES encryption to ensure the security of network data transmission;
- *Support any operating system, including Mac, Linux
- *Support fault self-recovery
- *Support PLC filtering, over current and lightning protection, customers are free to choose
- *Flexible application of GPIO interface
- *Support two connection methods: stamp hole and pin

Typical Application Topology:



Pin Definition:



Pin Function Details:

J18: Mains Input Interface (AC 85-265V;50/60HZ)

Pin Number	Pin Definition	Input/Output	Pin Function
1	L	\	FireWire
2	N	\	Zero Line

J17: PLC filter output interface (AC 85-265V;50/60HZ), 15W with load

Pin Number	Pin Definition	Input/Output	Pin Function
1	L	\	FireWire
2	N	\	Zero Line

If the mains power of the product is taken from J18, the PLC filter provided by this module is not used. When taken from J17, the PLC filter, overcurrent and lightning protection provided by this module are used.

J6: 12V power supply, ETH and GPIO interface (J6 pin sequence is shown in the figure above)

Pin Number	Pin Definition	Input/Output	Pin Function
1	GPIO3	Input/Output	QCA7420 GPIO Pin
2	GPIO2	Input/Output	QCA7420 GPIO Pin
3	GPIO6	Input/Output	QCA7420 GPIO Pin
4	GPIO5	Input/Output	QCA7420 GPIO Pin
5	RD-	Input	Network receiving signal is negative
6	RD+	Input	Network receiving signal is positive
7	TD-	Output	Network transmission signal negative
8	TD+	Output	Network transmission signal positive
9	GND		GND
10	GND		GND
11	12V	Input	Module Power Supply
12	12V	Input	Module Power Supply

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

LED No.	Indication	Function
1	Lan	Green On: Lan Port Connected; Blinking: Data Transmitting.
2	Data	Green On: Powerline Communication Connected; Blinking: Data Transmitting.
3	Power	Green On: Power On; Blinking: Searching to Pair

Electrical Characteristics

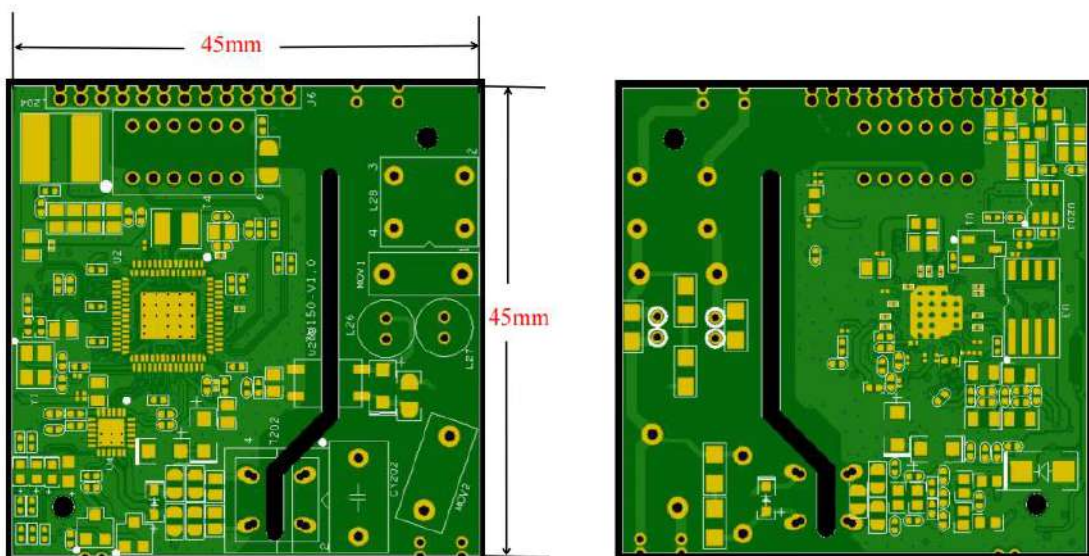
	Min.	Typical	Max.	Unit
12V working Voltage	11.8V	12	12.3	V
12V working Current	\	1	\	A

Module Size:

Front view:



Size:



Specifications:

Hardware Specification	
Model Number	7M150
Standard	HomePlug AV, IEEE 802.3, IEEE 802.3u
Protocol	TCP/IP, IGMP, CSMA/CA, QoS
Modulation	OFDM (1024/256/64/16-QAM,QPSK,BPSK 和 ROBO Modulation)
Frequency Band	2-68MHz
Speed (PHY)	600Mbps
Interface	AC Interface, Ethernet Interface, GPIO Interface, PLC filter 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-12V-0.8A
Consumption	Normal≤1.5W
Size	45x45x20mm (LxWxH)
Weight	20g
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