Theory of Operation

Product: Turbo Ethernet Adapter

Model Number: RD31101

Working description

1. Working Voltage: 100~240VAC

2. Working Frequency: PHY IC-- 25MHz, PLC --50MHz

3. Working Process:

1) While connecting the powerline, the PLC signals will be sent through modulation to PLC module. The signals will be encoded and sent to J1. J1 sends those signals to U9 through the MII ports, then to U1 through the TCP/IP topology. Signals will be sent to RJ45 and then to computers in the end.

2) On the other hand, signals come from the Ethernet will be sent to the RJ45 of RD31101, computers, U1, U9, J1, PLC module, and then finally return to powerline one after another.

PLC signals
$$\longrightarrow$$
 PLC module \longrightarrow J1 \longrightarrow U9 \longrightarrow U1 \longrightarrow RJ45

Ethernet \longrightarrow computer