TDNM250

2.5 Gbps
Over COAX

Ethernet to Coax MoCA 2.5
Network Adapter
The Solution

The World Premiere MOCA 2.5

The TDNM250 delivers fiber speed over coax in wire connected home. TDNM250 is the world’s first MoCA 2.5 network adapter allowing your home network to benefit from a very high-speed connection.

You can easily enjoy the fiber speed without installing expensive new wiring in the walls of your home. Extending your legacy RJ45 or Wi-Fi home network along one single Coax cable, you can now freely access your data and services in any rooms: IPTV, media centers, DVRs, Xbox, PS4, Blu-ray players, etc.

The MoCA channels can provide 2.5Gbps real traffic throughput in your home. With MoCA enabled products, you can stream full HD/4K videos to your devices. You also can enjoy the high-speed online gaming, including VR games.

The alternative to the PLC

The MoCA 2.5 is an answer to PLC drawbacks. The MoCA 2.5 allows a connection without interference. It use the coax network which is not saturated as the electric network uses by the PLC You will be able to enjoy the full performance of your devices for a long time. The MoCA 2.5 delivers 2.5Gbps where the mid range PLC can deliver only 0.5 Gbps. The MoCA 2.5 is more secured. When you use MoCA no one, outside your home, can have access to your network.

Meet the speed

Inside home’s, speeds above 2.5Gb in the home aren’t yet common, and even the latest, fastest Wi-Fi 6 bandwidth is under 2.5Gb. Combine that with the fact that 2.5Gb Ethernet is more affordable, consumes less power, and works with existing cables—which isn’t true for its faster cousins—2.5Gb Ethernet quickly emerges as the choice with the optimal balance of characteristics and capabilities.
2.5 Gbps

Network @ Home

Key Features

- Compliant with MoCA2.5 standard, having 2.5Gbps MAC layer transmission rate.
- One Coax In/Out port, one Video output port, one Ethernet port to meet all networking requirement.
- Up to 16 adaptors, able to communicate with each other.
- Using existing coax cabling.
- WEB management function (TR-069 in option).
- Support IPV4/IPV6
- Support MPS (MoCA Protected Setup) function via Web interface.

LED definition

<table>
<thead>
<tr>
<th>Indicator</th>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>POWER LED</td>
<td>Green Off: no power Green: power on</td>
</tr>
<tr>
<td>2</td>
<td>ETHERNET LED</td>
<td>Bicolor Green/ Red Off: No link Red: 10M / 100M link Orange: 1G link Green: 2.5G link</td>
</tr>
<tr>
<td>3</td>
<td>COAX LED</td>
<td>Green Off : no MoCA link Green : MoCA link OK</td>
</tr>
</tbody>
</table>
## Specifications

### Chipset technology
- MoCA 2.5: MXL3710, MAC data rate @ 2.5Gbps
- PHY: 2.5G Intel GPY211

### Network Interfaces
1 x RF Output for CATV
- Female F-Type Connector
1 x Ethernet Port
- Speed: 10/100/1000/2500Mbps
- Supported protocols:
  - 2.5GBASE-T (IEEE 802.3bz, NBASE-T)
  - 1000BASE-T (IEEE802.3 Clause 40)
  - 100BASE-TX (IEEE 802.3 Clause 25)
  - 10BASE-T (IEEE 802.3 Clause 14)
- Energy-Efficient Ethernet (IEEE 802.3az)

### MoCA specifications
#### Operating Frequencies
- OFDM 1024-QAM, TDD
- D-Band (1125-1675MHz)
- Channel bandwidth: 5 x 100 MHz

#### RF Level
- Transmit Mode return loss in 1125MHz-1675MHz band: ≥ 6dB relative to 75 ohms
- Maximum output power per channel for 3 channels: -4.5 dBm to +3.5 dBm
- Maximum output power per channel for 4 channels: -5.3 dBm to +2.7 dBm
- Maximum output power per channel for 5 channels: -6 dBm to +2 dBm
- Minimum sensitivity: 680 Mbps min wth Receive Power level : -50 < X < +1 dBm

### CATV Output
- Operating frequency range: 54MHz–1002MHz
- Transmit Mode return loss in 54MHz–1002MHz band: ≥ 14 dB relative to 75 ohms
- Insertion loss: -2.5 dB
- Band flatness: 2 dB

### Power Supply
- External 12V 1A AC/DC power supply adapter
- Power Consumption: < 6W
- AC input voltage (Volts)
  - Min. 90 V | Typ. 100 -240 V | Max. 264 V
- AC input frequency:
  - Min. 47Hz | Typ. 50/60 Hz | Max. 63 Hz
- Power supply Voltage @ 100-240 Vac input
  - DC / 12 Volts: Min. 11,4 Volts | Max. 12,6 Volts
- Efficiency: 85% (25% to 100% load)

### Mechanical
#### Back Panel Connectors & Keys
- DC connector
- RJ45 Ethernet connector
- MoCa connector - F-type female 75 Ohms
- CATV connector - F-type female 75 Ohms
- Master reset

#### Dimensions
- Size: 110 x 70 x 28 (mm)
- Weight: TBD

#### Shell
- Plastic casing: white color
- Wall mounted holes

### Environmental/ Storage
#### Operating environmental
- Temperature : 0°C - 40°C
- Relative humidity : 20% - 85% , non condensing
- Altitude < 2000m

#### Storage (Non-operating)
- Temperature : -20°C + 60°C

### Environmental
- Relative humidity : 5% - 95% , non condensing
- Altitude < 2000m

### Vibration (sinusoidal)
- According IEC 60028-2-6

### Rough handling shocks
- According IEC 60028-2-31
TDNM100 is a MoCA 2.0 (1 Gb/s) network adapter allowing your home network to benefit from a high-speed connection over coax. Extending your legacy RJ45 or Wi-Fi home network along one single Coax cable, you can now freely access your data and services in any rooms: IPTV, media centers, DVRs, Xbox, PS4, Blu-ray players, etc.

Overview

The MoCA channels can provide 1 Gb/s real traffic throughput in your home. With MoCA enabled products, you can stream full HD/4K videos to your devices. You also can enjoy the high-speed online gaming, including VR games.

Key Features

- Complied with MoCA2.0 Bonded standard, having 1400Mbps PHY layer and 1000Mbps MAC layer transmission rate, respectively
- One Coax In/Out port, one Video output port, one or multiple Ethernet port to meet differing networking requirement
- 1-4 Ethernet port(s) on demand
- Plug and play
- Support up to 16 meshed adaptors, able to communicate with each others at sametime
- Uses existing coax cabling
- Coexistence with cable TV services
- Having auto and dynamic selecting main control adaptor function, main control adaptor can be automatically reselected when it’s down
**Specifications**

**Interfaces**

- **1 x RF MoCA I/O**
  - PHY data rate: 1 400 Mbps
  - MAC data rate: 1 000 Mbps
  - Female F-Type Connector
  - Configurable operating bands:
    - 975-1125 MHz; or
    - 1150-1500 MHz
  - Channel bandwidth: 100 MHz (2 x 50 MHz)
  - Modulation: OFDM, TDMA/ TDD
  - Max. Attenuation: 75 dB
  - Encryption: 128-bit AES

- **1 x RF Output for CATV**
  - Female F-Type Connector

- **1 x Gigabit Ethernet port (x 4 ports on demand)**
  - 10/100/1000 Mbps auto-negotiation
  - Half/Full duplex mode
  - RJ45 connector
  - Auto MDI/MDI-X
  - 100m distance

**Power Supply**

- External 12V 1A AC/DC power supply adapter
- Power Consumption: ≤ 5W

**Mechanical**

- **LEDs**
  - Power status
  - Coax link status & traffic
  - Ethernet status

- **Dimensions**
  - Size: 110 x 70 x 28 (mm)
  - Weight: TBD

- **Shell**
  - Plastic casing: white color
  - Wall mounted holes
TDNM100-W is a MoCA 2.0 (1 Gb/s) network adapter allowing your home network to benefit from a high-speed connection over coax. Extending your legacy RJ45 or Wi-Fi home network along one single Coax cable, you can now freely access your data and services in any rooms: IPTV, media centers, DVRs, Xbox, PS4, Blu-ray players, etc.

TDNM100-W offer best in class Wi-Fi.

Overview

TDNM100-W is a MoCA 2.0 (1 Gb/s) network adapter allowing your home network to benefit from a high-speed connection over coax. Extending your legacy RJ45 or Wi-Fi home network along one single Coax cable, you can now freely access your data and services in any rooms: IPTV, media centers, DVRs, Xbox, PS4, Blu-ray players, etc.

TDNM100-W offer best in class Wi-Fi.

Main Features

- Complied with MoCA2.0 Bonded standard, having 1400Mbps PHY layer and 1000Mbps MAC layer transmission rate, respectively
- One Coax In/Out port, one or multiple Ethernet port to meet differing networking requirement
- 1-4 Ethernet Port(s) on demand
- Wi-Fi 802.11ac
- Plug and play
- Support up to 16 adaptors to be able to communicate with each others at same time
- Uses existing coax cabling
- Coexistence with cable TV services
- Having auto and dynamic selecting main control adaptor function, main control adaptor can be automatically reselected when it's down
Wi-Fi Key Features

- IEEE802.11ac and 802.11b/g/n compliant
- Support 2.4G, 5G or both 2.4G and 5G
- Transmitting power ≤ 100mW (no high-power support)
- Wireless transmission rate up to 867Mbps
- Wireless security: WEP, WPA-PSK, WPA2-PSK
- Support Multiple SSID and HiddenSSID
- Support Wi-Fi Protocol Setup (WPS)

Interfaces

1 x RF MoCA I/O
- PHY data rate: 1 400Mbps
- MAC data rate: 1 000 Mbps
- Female F-Type Connector
- Configurable operating bands:
  - 975-1125 MHz.; or
  - 1150-1500 Mhz
- Channel bandwidth: 100 MHz (2 x 50 MHz)
- Modulation: OFDM, TDMA/TDD
- Max. Attenuation: 75 dB
- Encryption: 128-bit AES

2 x Gigabit Ethernet port (x 4 ports on demand)
- 10/100/1000 Mbps auto-negotiation
- Half/Full duplex mode
- RJ45 connector
- Auto MDI/MDI-X
- 100m distance

Software specifications

- Support routing functions, DHCP
- Support web local management

Power Supply

- External 12V 2A AC/DC power supply adapter
- Power Consumption: ≤ 12W

Mechanical

LEDs
- Power status
- Coax link status & traffic
- Ethernet status

Dimensions

- Size: TBD (mm)
- Weight: TBD

Shell
- Plastic casing: black color