KB-M3-01
CNU MoCA 2.5

User Manual

1 Content

2   Getting Started

2.1 Introduction

Congratulations for purchasing Kiwee Broadband KB-M3-01 CNU MoCA 2.5 network adapter. The adapter is simple, flexible solution for extending a home network. By leveraging the ubiquity of coaxial cabling within the modern home, the adapter provides an Ethernet/Internet port anywhere a coaxial connection is available. It also features a CATV (TV/STB out) coaxial port to allow for existing connections at the coaxial wall port.

This user manual explains the procedure to connect the adapter.

2.2 Package Content

- KB-M3-01 MoCA 2.5 network adapter
- Power Adapter
- Quick Start Guide
- Ethernet Cable

2.3 Requirements

- Available coaxial port in installation area
- Available electrical wall socket in installation area

2.4 Features

- 2.5 Gb/s Ethernet port
- COM coaxial input port
- CATV coaxial output port
- Power/Ethernet/Coaxial LEDs:

Indicator	Colors	Description
Power LED	Green	Off: No power Green: Power on
Ethernet LED	Tricolor Green/Orange/Red	Off: No link Red:10M/100M link Orange: 1G link Green: 2.5G link
Coaxial LED	Bicolor Green/Orange	Off: No MoCA link Orange: MoCA link ok and not secured Green: MoCA link ok and secured

3   Connecting the adapters

Connecting the Adapter is a simple process. First, connect one adapter of the TV or set-top box, the broadband modem or router, and the coaxial network to establish the Internet signal. Then, additional adapters can be installed throughout the home or office at any location where Internet access is needed and a coaxial port is available.

3.1 Connecting the first adapter

The first adapter must be connected to the TV or set-top box, the broadband modem or router, and the coaxial network. This adapter takes the Internet signal from the modem/router and delivers it to the coaxial network, while keeping the TV/set-top box connected.

To connect the first Adapter, please follow below sequence:

1	Remove the end of the coaxial cable connected to the TV or set-top box from its coaxial wall port
2	Connect the end of the coaxial cable removed in step 1 to the CATV coaxial port on the side of the adapter

3	Connect another coaxial cable into the coaxial wall port left unconnected in step 1.
4	Connect the other end of the coaxial cable installed in step 3 to the COM coaxial port on the side of the adapter

5   Connect one end of an Ethernet cable into the Ethernet port of the modem/router.

6   Connect the other end of the Ethernet cable into the Ethernet port on the side of the Adapter.

7   Plug the provided power adapter into the Power port on the side of the Adapter.

8   Plug the other end of the power adapter (external, 12VDC, 1A) into an electrical outlet.

When complete, the setup should look similar to the figure below:
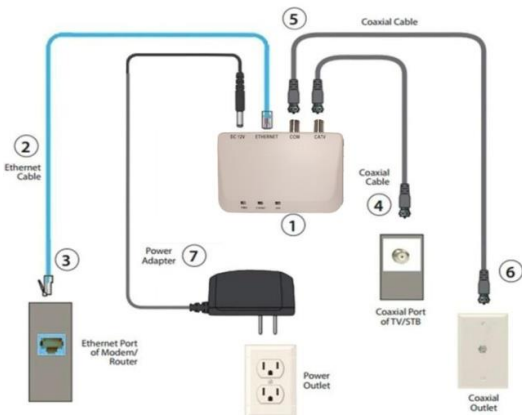
Note: Circled numerals correspond to installation step numbers.

The Internet signal is now being delivered across the coaxial network

3.2 Connecting an additional adapter

Additional adapter scan be placed at locations around the home or office where a coaxial port is available. To connect an additional adapter, follow below sequence:

1. Select a coaxial wall port near the desired location and unplug the coaxial cable connected to the TV or set-top box. If no device is plugged into selected coaxial wall port, skip to step 3.
2. Connect the end of the coaxial cable removed in step 1 to the CATV coaxial port of the adapter.
3. Connect a coaxial cable into the coaxial wall port selected in step 1.
4. Connect the other end of the coaxial cable installed in step 3 to the COM port of the adapter.
5. Connect one end of provided ethernet cable into the Ethernet port of the device to connect to the Internet.
6. Connect the other end of the Ethernet cable into the Ethernet port of the adapter.
7. Plug the provided power adapter into the Power port on the side of the Adapter.
8. Plug the other end of the power adapter into an electrical outlet.
9. Make sure the Power, Ethernet and Coax lights get solid green.

When complete, the setup should look similar to the figure below:
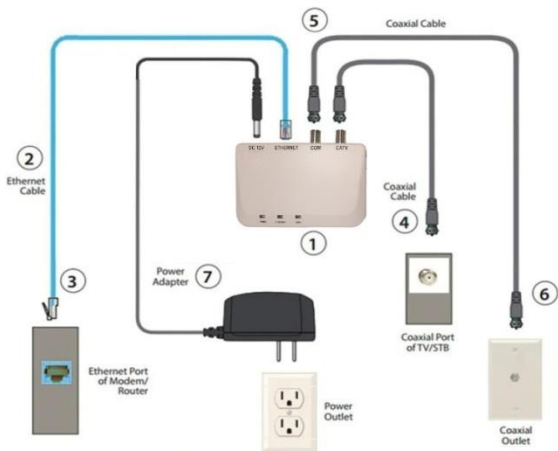
Note: Circled numerals correspond to installation step numbers.

The device connected to the Ethernet port is now connected to the Internet via the coaxial network.

You can repeat this sequence to install additional adapters throughout the office or home.

3.3 MoCA protected Setup (MPS)

MoCA Protected Setup (MPS) is a new feature included in MoCA 2.5 specification. MPS simplifies the setup of new nodes by a unique password shared through a push button.

To add KB-M3-01 to an existing MPS able MoCA network

- Press MPS push-button of any element of the MoCA existing network
- Press MPS push button of KB-M3-01 within 2 minutes

The MoCA light will blink and settle once KB-M3-01 has joined the existing MoCA network.

4   Web management

Each adapter has a web interface for management. You can visit the website to inquire, manage and upgrade.

The default IP address of the adapter is 192.168.144.200. To connect to a given adapter, make sure the IP address of your computer is 192.168.144.x (1-254 except 200) and connect provided Ethernet cable between your computer and LAN port of the adapter.

Enter http://192.168.144.200 into your web browser direction setting. You can login from a web page and set some configurations such as frequency range modification, transmission rate option, IP address configuration, Ethernet information.

Default connection values are:

IP address	192.168.144.200
Login	admin
Password	maxlinear

5   Specifications

Chipset technology
    MoCA 2.5: MXL3710, MAC data rate @ 2.5Gbps
    PHY: 2.5G Intel GPY211
Network Interfaces
    1 RF Output for CATV
    Female F-Type Connector
    1 Ethernet Port 10/100/1000/2500Mbps
Supported protocols
    2.5GBASE-T (IEEE 802.3bz, NBASE-T),
    10/100/1000BASE-T (IEEE802.3 Clause 40),
    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
        Tx return loss in 1125MHz-1675MHz band: ≥ 6dB relative to 75 ohms
        Max 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 with 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 flatness2 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
        MoCA Protected Setup (MPS)
    Under board
        Master reset
Dimensions 110 x 70 x 28 (mm)
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
        Relative humidity: 5% - 95%, non-condensing
        Altitude < 2000m
    Vibration (sinusoidal)
        According IEC 60028-2-6
    Rough handling shocks
        According IEC 60028-2-31

6   Notices

6.1 Warranty

KB-M3-01 has one year warranty and 120 days free software updates after date of purchase.

6.2 Local law

This Limited Warranty Statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state in the United States, from province to province in Canada, and from country to country elsewhere in the world. To the extent that this Limited Warranty Statement is consistent with local law, this Statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this Warranty Statement may not apply to the customer.

6.3 Important Safety Instructions

Basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and personal injury, including the following:

- Do not use this product near water–for example, near a bathtub, kitchen sink, laundry tub, or swimming pool, or in a wet basement; you can use device in clean basement with dry cloth.
- Do not block any ventilation openings. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus including amplifiers that produce heat.
- Use only the power adapter provided with the device

Safety certifications and designed with respect to:
- ROHS Certificate
- ROHS 2.0 standard 2011/65/EU and its amendment directive (EU) 2015/863

6.4 Coaxial cable

If applicable, the coaxial cable screen shield should be connected to the Earth at the building entrance per ANSI/NFPA70, the National Electrical Code (NEC), in particular Section 820.93, "Grounding of Outer Conductive Shield of a Coaxial Cable," or in accordance with local regulation.

6.5 FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a specific installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by implementing one or more of the following measures:

- Reorient or relocate the device;
- Increase the separation between the equipment and receiver;
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or television technician for help.

6.6 Declaration of conformity for products marked with the FCC logo (USA only)

This device complies with Part 15 of the FCC Rules license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation of the device.
3. Modifications: The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Kiwee Broadband. may void the user's authority to operate the equipment.

6.7 CE

EN 55032: Electromagnetic compatibility of multimedia equipment -Emission requirements
EN 55035: Electromagnetic compatibility of multimedia equipment - Immunity requirements

7   Technical support

7.1 Reset and Factory Reset

To reset the device, press the reset button available under KB-M3-01. To reset the device into factory default settings, press the reset button available under KB-M3-01 for 10 seconds.

7.2 Email support

Please, contact kiwee_broadband@outlook.com for reporting any issue and open a tracking ticket.

8   Contact

Email for support: kiwee_broadband@outlook.com