

PRODUCT MODEL NUMBER: TL-MC85

ETHERNET OVER COAX ADAPTER



ABOUT THIS MANUAL

DISCLAIMER

No part of this document may be reproduced in any form without the written permission of the copyright owner.

The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. TRANSLITE GLOBAL LLC shall have no liability for any error or damage of any kind resulting from the use of this document

COPY WARNING

This document includes some confidential information. Its usage is limited to the owners of the product that it is relevant to. It cannot be copied, modified, or translated in another language without prior written authorization from TRANSLITE GLOBAL LLC

INDEX

TABLE OF CONTENTS

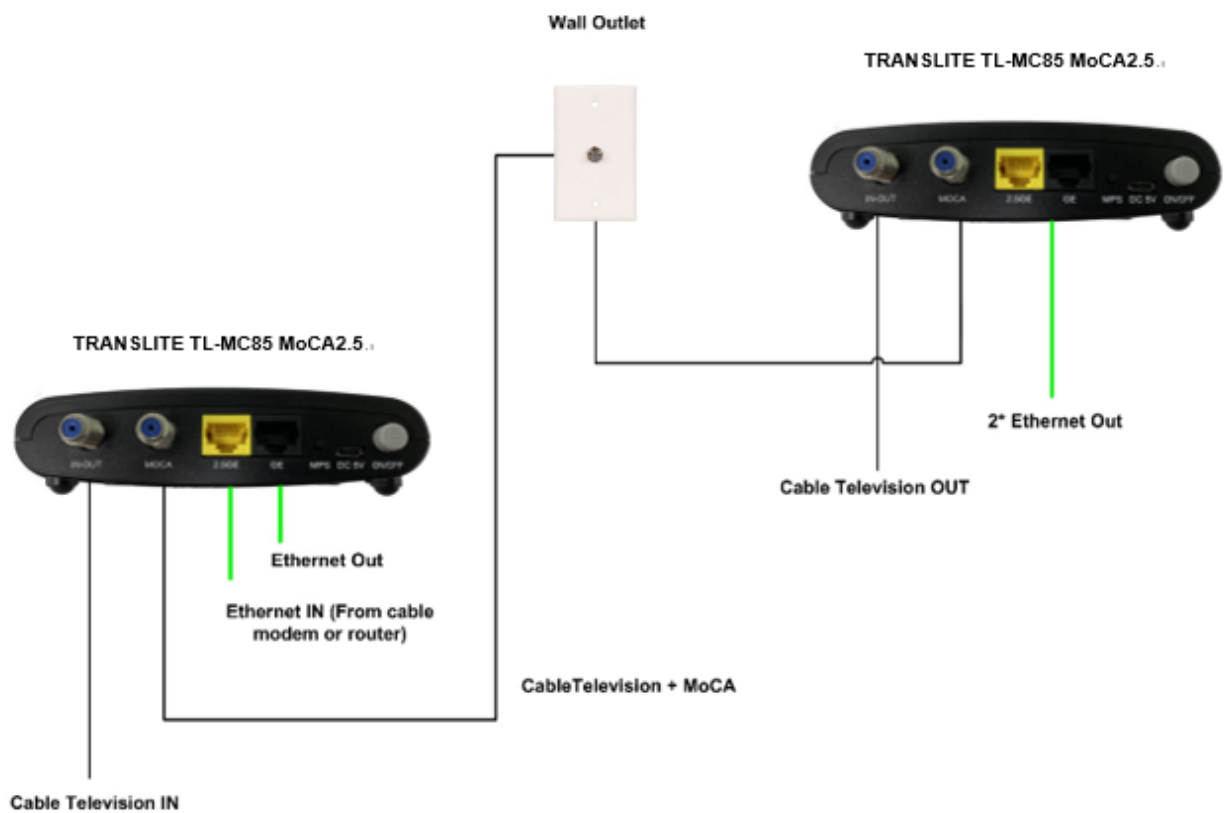
CHAPTER 1	<u>BASIC ILLUSTRATION</u>	3
1.1	<u>CONNECT THE MOCA ADAPTER</u>	3
1.2	<u>INSTALLATION NOTES</u>	4
1.3	<u>USUAL DEPLOYMENT METHODS</u>	4
CHAPTER 2	<u>INSTALLING THE MOCA ADAPTER</u>	8
2.1	<u>INSTALLATION ITEMS</u>	8
2.2	<u>CONNECT TO THE DEVICE VIA WEB NMS</u>	8
CHAPTER 3	<u>SPECIFICATIONS</u>	16
CHAPTER 4	<u>APPLICATIONS</u>	18

CHAPTER 1

BASIC ILLUSTRATION

1.1 CONNECT THE MoCA ADAPTER

For a 'point to point' connection, you need two adapters. The first MoCA adapter is connected to the Cable modem or Router, the second adapter at the other end of the coaxial cable:



1. Connect one of the LAN ports of the Router or Cable modem to the LAN-1 port of the first adapter.

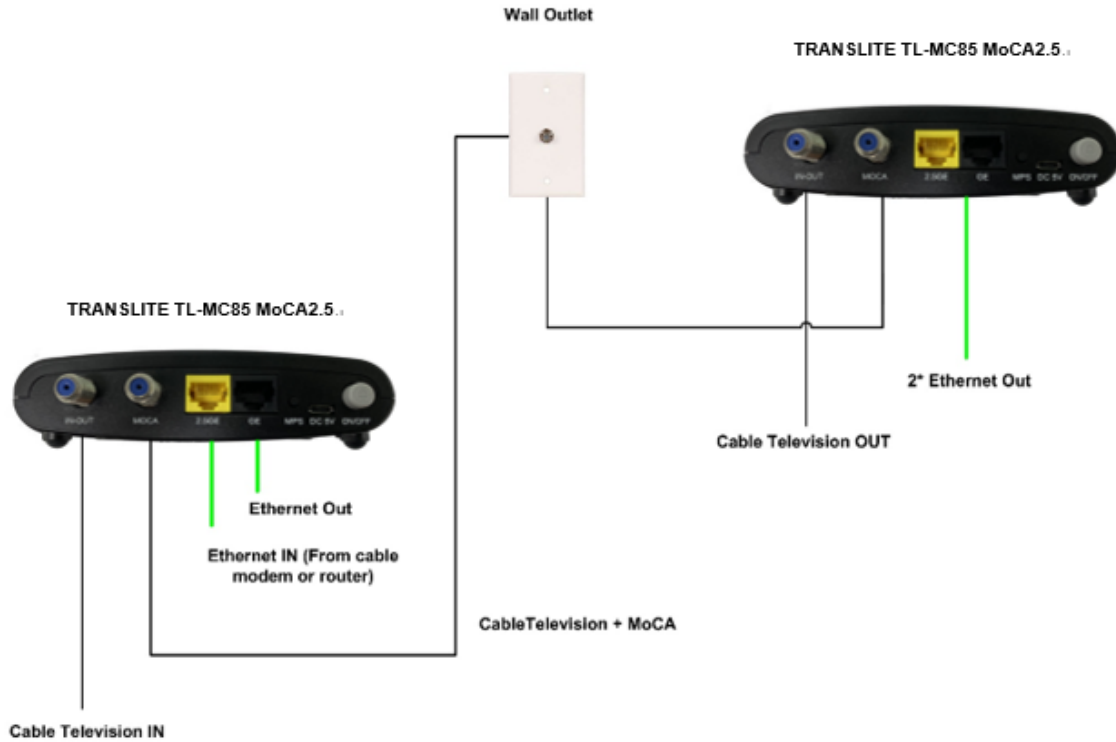
2. Connect the coaxial cable that runs through the house to the 'Coax' port of the first adapter.
3. (if applicable) Connect the coaxial cable coming from the outdoor network to the TV port of the first adapter.
4. On the receiving end, connect to the MoCA port of the MoCA adapter.
5. TL-MC85 has two available Ethernet ports that can be used to connect up to two network devices. (** The Ethernet ports are Gigabit Ethernet Ports**)

1.2 INSTALLATION NOTES

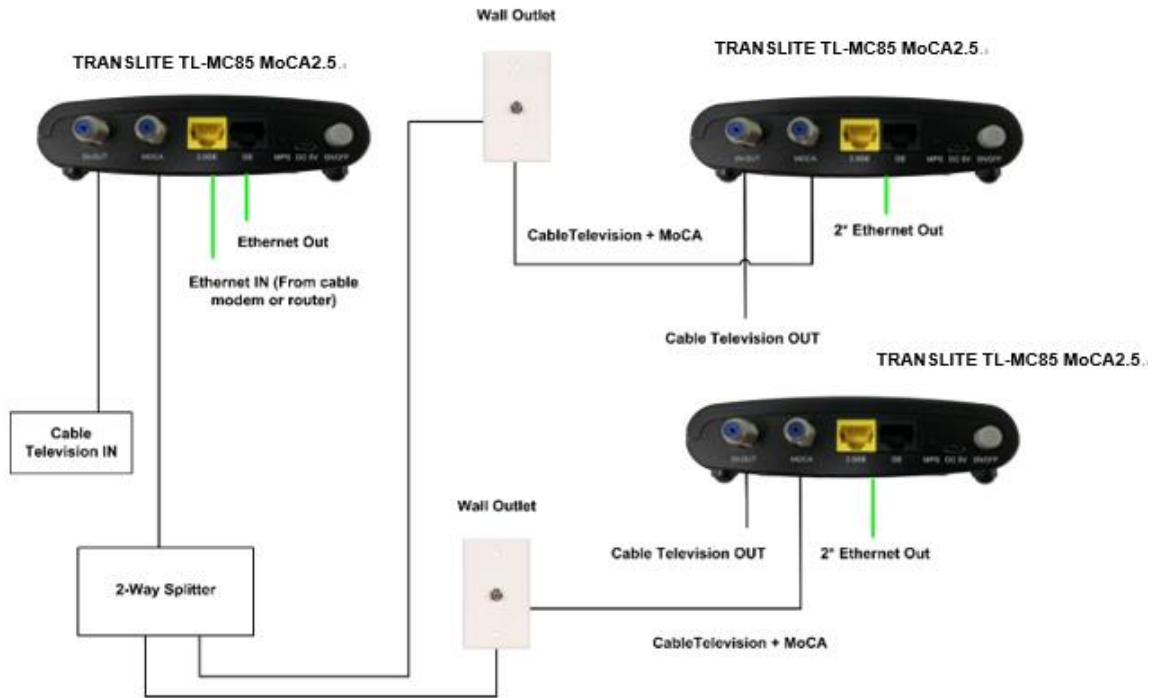
- Up to 16 adapters can be mounted in the network
- If you are using a coax amplifier, place the MoCA adapter behind the coax amplifier.
- Avoid using multiple taps in your coaxial network (a multi-tap topology distributes the signal with very high attenuations between ports).

1.3 USUAL DEPLOYMENT METHODS

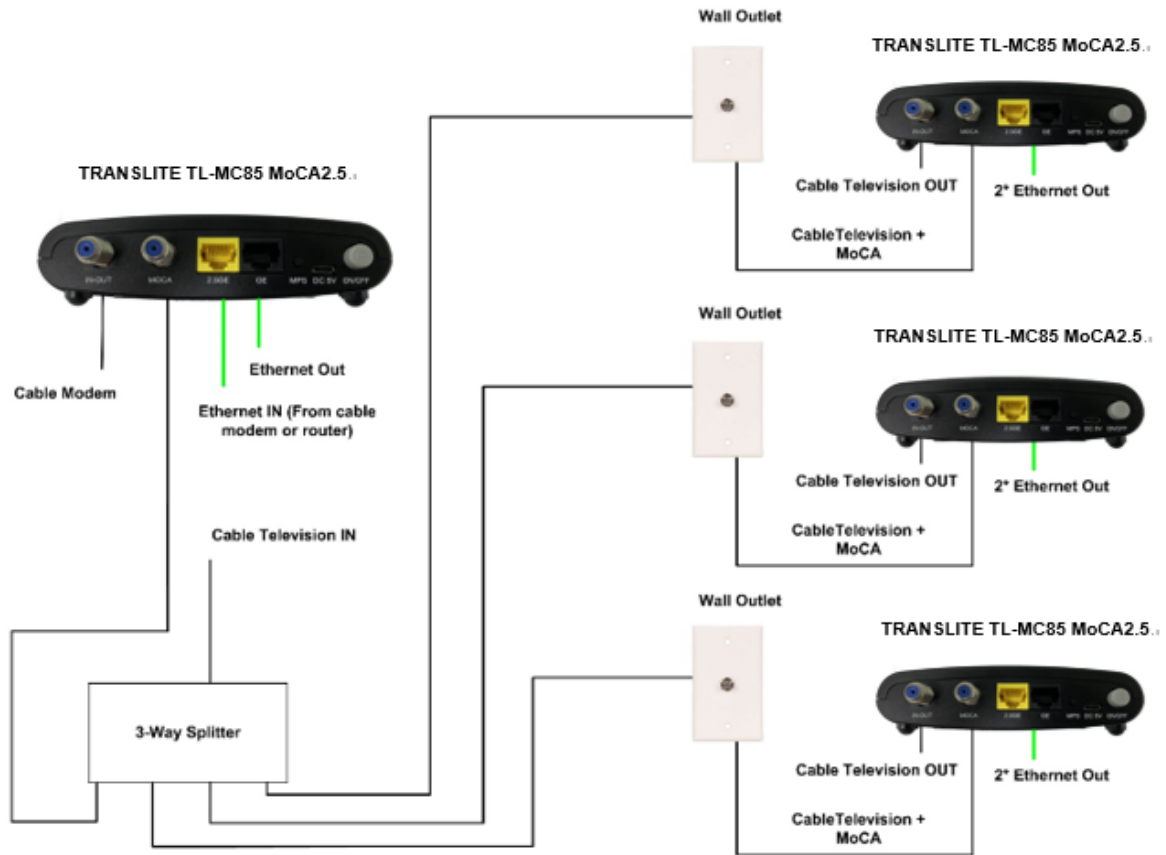
TRANSLITE TL-MC85 MoCA2.5 BASIC INSTALLATION



TRANSLITE TL-MC85 MoCA2.5 INSTALLATION WITH A 2-WAY SPLITTER



TRANSLITE TL-MC85 MoCA2.5 INSTALLATION WITH A 3-WAY SPLITTER



CHAPTER 2

INSTALLING THE MoCA ADAPTER

2.1 INSTALLATION ITEMS

TL-MC85 comes in a plug and play condition. If the user may choose to make changes to the network adapter, changes can be made on the Web GUI by following the instructions as illustrated below:

2.2 CONNECT TO THE DEVICE VIA WEB NMS

** Adapters have their own IP address (192.168.144.200).

Connect the adapter to your computer via a network cable.

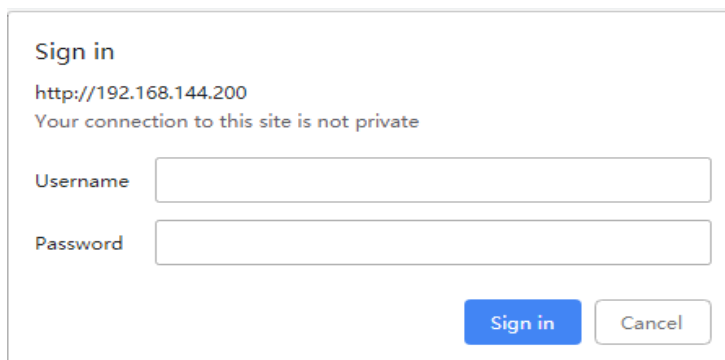
Change the IP address of your computer to 192.168.144.100

On your browser, enter 192.168.144.200

Once prompted for the credentials to login, kindly use factory default settings as printed on the label at the back of your MoCA2.5 adapter. ** Factory default:

Username: admin

Password: admin



** Username and password are case-sensitive.

2.2.1 TL-MC85 SETTINGS MENU (WEB NMS)

Settings

[TL-MC85 settings](#)

[Device settings](#)

[Security settings](#)

Status

[Device Status](#)

[Phy Rates](#)

Advanced

[Upgrade](#)

[Reboot](#)

TL-MC85 Setup

TL-MC85 SETUP

This screen allows changes to basic settings. Click the Save button to save any changes.

COAX SETUP

Band	In Scan List	Scan Mask	Scan Offset	Pri Ch Above Mask	Pri Ch Below Mask
D-Ext	<input checked="" type="checkbox"/>	0x00000002aaaa8000	0x00000010	0x0810810200000000	0x0204204000000000
D-Low	<input checked="" type="checkbox"/>	0x0000000280000000	0x00000010	0x0810810200000000	0x0204204080000000
D-High	<input checked="" type="checkbox"/>	0x0000000000aa8000	0x00000010	0x0000000000110000	0x0000000000220000
E	<input type="checkbox"/>				
F-SAT	<input type="checkbox"/>				
F-CBL	<input type="checkbox"/>				
H	<input type="checkbox"/>				
Custom	<input type="checkbox"/>				

Adapter Name: Master ▼

Network Search Enabled:

LOF: 1150

Tx Power: 10 ▼

Beacon Power Level: 10 ▼

Preferred NC:

Save
Cancel

RESET

Reboot
Restores Defaults

1. Band: TL-MC85 supports three bands, D-Ext (1125~1675mhz), D-Low(1125~1225MHz), D-High(1350~1675MHz).
2. Network Search Enabled : when 'checked' turns on the frequency scanning.
3. LOF (Last Operating Frequency): This is set by the supplier at 1150MHz. Please note, if you reset the adapter or return the adapter to the factory settings, the LOF will be 1150mHz. Set the LOF to the desired frequency, save and reboot the MoCA adapter.
 ** All MoCA adapters in the network have to have the same LOF to be effective.
4. Tx Power: This specifies the maximum power, normalized to 10. Once network is formed, automatic TX power control will.
5. Beacon Power Level: This specifies the power the Network Coordinators uses to transmit the beacon, normalized to 10.
6. Preferred NC: Set the primary MoCA adapter to NC.

2.2.2 DEVICE SETUP MENU (WEB NMS)

Settings

[TL-MC85 settings](#)

[Device settings](#)

[Security settings](#)

Status

[Device Status](#)

[Phy Rates](#)

Advanced

[Upgrade](#)

[Reboot](#)

Device Setup

DEVICE SETUP

This screen allows changes to device settings, such as IP mode and telnet. Click the Save button to save any changes.

LOCAL SETUP

IP Configuration:

- DHCP automatic configuration
- Link Local automatic configuration
- DHCP & Link Local automatic configuration
- Static IP Address:
 - IP Address:
 - Netmask:
 - Gateway:
- Enable
 - Telnet Timeout Interval (60-1800):
- Disable

Device Setup

1. IP address, Netmask & Gateway: The network configuration of the device can be changed to manage the device on your home network.
2. Telnet: The default setting is set to – ‘Enable’.

2.2.3 SECURITY MENU (WEB NMS)

Settings

[TL-MC85 settings](#)

[Device settings](#)

[Security settings](#)

Status

[Device Status](#)

[Phy Rates](#)

Advanced

[Upgrade](#)

[Reboot](#)

Security

SECURITY

For security reasons, you had better change the password. Your password must not be too short or too long, and it cannot contain any spaces.

ADMIN SECURITY SETUP

Old Password: (Enter old password)

New Password: (63 Characters Max, 4 Characters Min)

Confirm Password: (63 Characters Max, 4 Characters Min)

NETWORK SECURITY SETUP

Band	Security Enabled	New Password	Confirm Password
D-Ext	<input type="checkbox"/>	9999999988888888	9999999988888888
D-Low	<input type="checkbox"/>	9999999988888888	9999999988888888
D-High	<input type="checkbox"/>	9999999988888888	9999999988888888
E	<input type="checkbox"/>	9999999988888888	9999999988888888
F-SAT	<input type="checkbox"/>	9999999988888888	9999999988888888
F-CBL	<input type="checkbox"/>	9999999988888888	9999999988888888
H	<input type="checkbox"/>	9999999988888888	9999999988888888
Custom	<input type="checkbox"/>	9999999988888888	9999999988888888

ENHANCED NETWORK SECURITY SETUP

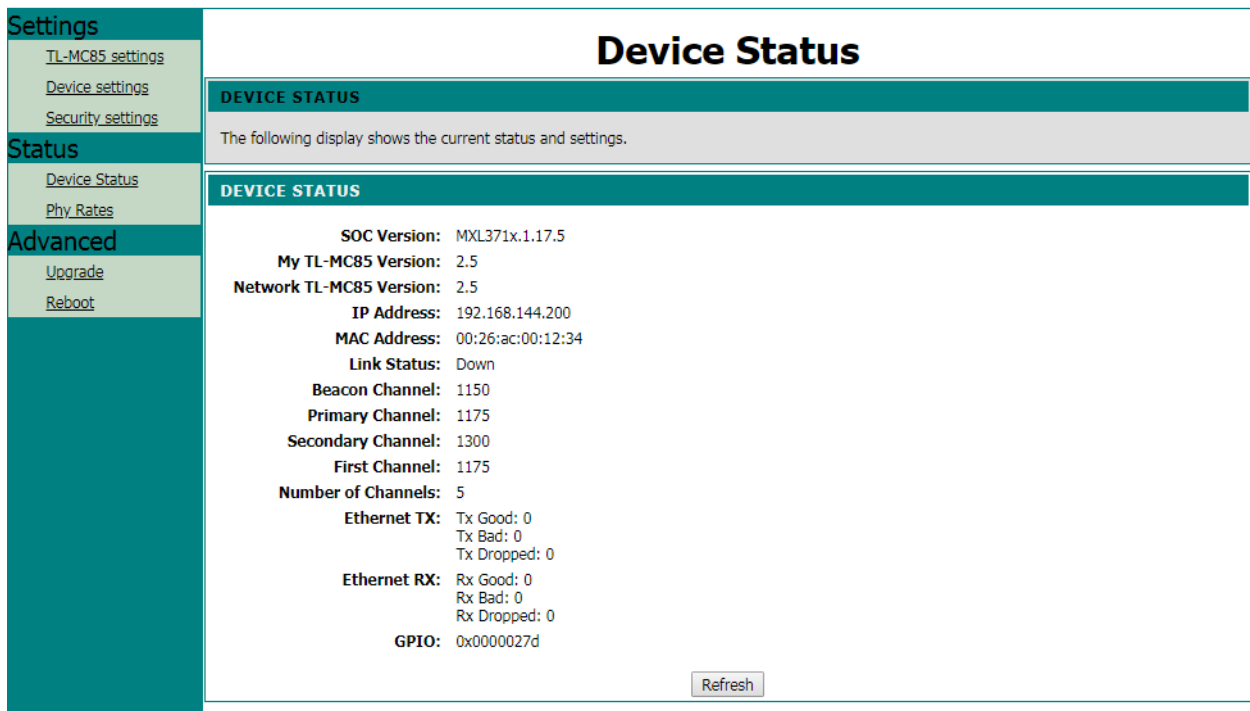
Enhanced Privacy Enabled	New Password	Confirm Password
<input checked="" type="checkbox"/>	<input type="text" value="9999999988888888777"/>	<input type="text" value="9999999988888888777"/>

Security

1. The user may change the default password on this page. The default login is printed at the back of the adapter.
2. Once the password is changed, save and reset (reboot) the adapter for the changes to take effect.
3. You can also change the network security password for the adapter in the network. Only if all adapters in the network have the same network security password - the adapters can communicate with each other.

TL-MC85 MoCA adapter supports MoCA Protected Setup (MPS) feature. This feature simplifies the setup of new nodes by a unique password that is shared through a MPS push-button. When you use the MPS feature in the default configuration, you must press on the push-buttons of the nodes within two minutes to achieve pairing for privacy.

2.2.4 DEVICE STATUS MENU (WEB NMS)



Settings	
TL-MC85 settings	
Device settings	
Security settings	
Status	
Device Status	
Phy Rates	
Advanced	
Upgrade	
Reboot	

Device Status

DEVICE STATUS

The following display shows the current status and settings.

DEVICE STATUS

SOC Version: MXL371x.1.17.5
My TL-MC85 Version: 2.5
Network TL-MC85 Version: 2.5
IP Address: 192.168.144.200
MAC Address: 00:26:ac:00:12:34
Link Status: Down
Beacon Channel: 1150
Primary Channel: 1175
Secondary Channel: 1300
First Channel: 1175
Number of Channels: 5
Ethernet TX: Tx Good: 0
Tx Bad: 0
Tx Dropped: 0
Ethernet RX: Rx Good: 0
Rx Bad: 0
Rx Dropped: 0
GPIO: 0x0000027d

Device Status

** One can monitor the status of the adapter on this page.

2.2.5 PHY RATES MENU (WEB NMS)

Settings

[TL-MC85 settings](#)

[Device settings](#)

[Security settings](#)

Status

[Device Status](#)

[Phy Rates](#)

Advanced

[Upgrade](#)

[Reboot](#)

PHY Rates

PHY RATES

The following table shows the PHY rate in Megabits per second (Mbps) between coax bridges on the network.
NOTE: Either NPER or VLPER will be displayed for TL-MC85 nodes based on value of boot config parameter "bypriorityper".

PHY RATES

Type: Unicast NPER Unicast VLPER

From/To	0	1
0	***	3655
1	3653	***

▪

PHY Rates

Monitor data rates between all adapters in the network

2.2.6 UPGRADE MENU (WEB NMS)

Settings TL-MC85 settings Device settings Security settings	Upgrade
Status Device Status Phy Rates	UPGRADE HOSTLESS TL-MC85 FIRMWARE
Advanced Upgrade Reboot	Follow below steps to upgrade hostless TL-MC85 firmware.
	FIRMWARE UPGRADE STEPS
	<p>1) Use the Choose File button to select the new Hostless TL-MC85 firmware image file (bin file).</p> <p>2) Click the Upgrade button.</p> <p>3) Wait for the completion status screen to appear. A typical upgrade requires 60-90 seconds for the flash to be updated.</p> <p>4) Click the Reboot button.</p> <p>!!! Do not turn-Off the device when firmware download is in progress !!!</p> <p>Active Image Version: 1.17.9 Backup Image Version: 1.15.11</p> <p>File: <input type="button" value="Choose File"/> No file chosen</p> <p><input type="button" value="Upgrade"/> <input type="button" value="Clear Selection"/></p>

Upgrade

If there is a firmware upgrade available from the vendor, you will first have to download the new firmware to your computer before uploading to the adapter via the 'Choose file' option. Once the upgrade is complete, reset (reboot) the adapter for changes to take effect.

2.2.7 REBOOT MENU (WEB NMS)

Settings	<h1 style="margin: 0;">Reboot</h1> <div style="background-color: #008080; color: white; padding: 2px; margin-bottom: 5px;">DEVICE REBOOT</div> <div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 5px;">Click the button below to reboot the device.</div> <div style="background-color: #008080; color: white; padding: 2px; margin-bottom: 5px;">REBOOT</div> <div style="text-align: center; margin-top: 20px;"> <input type="button" value="Reboot"/> </div>
TL-MC85 settings	
Device settings	
Security settings	
Status	
Device Status	
Phy Rates	
Advanced	
Upgrade	
Reboot	

Reboot (reset)

For remote management, one can reboot or in other words reset the device on this page.

CHAPTER 3

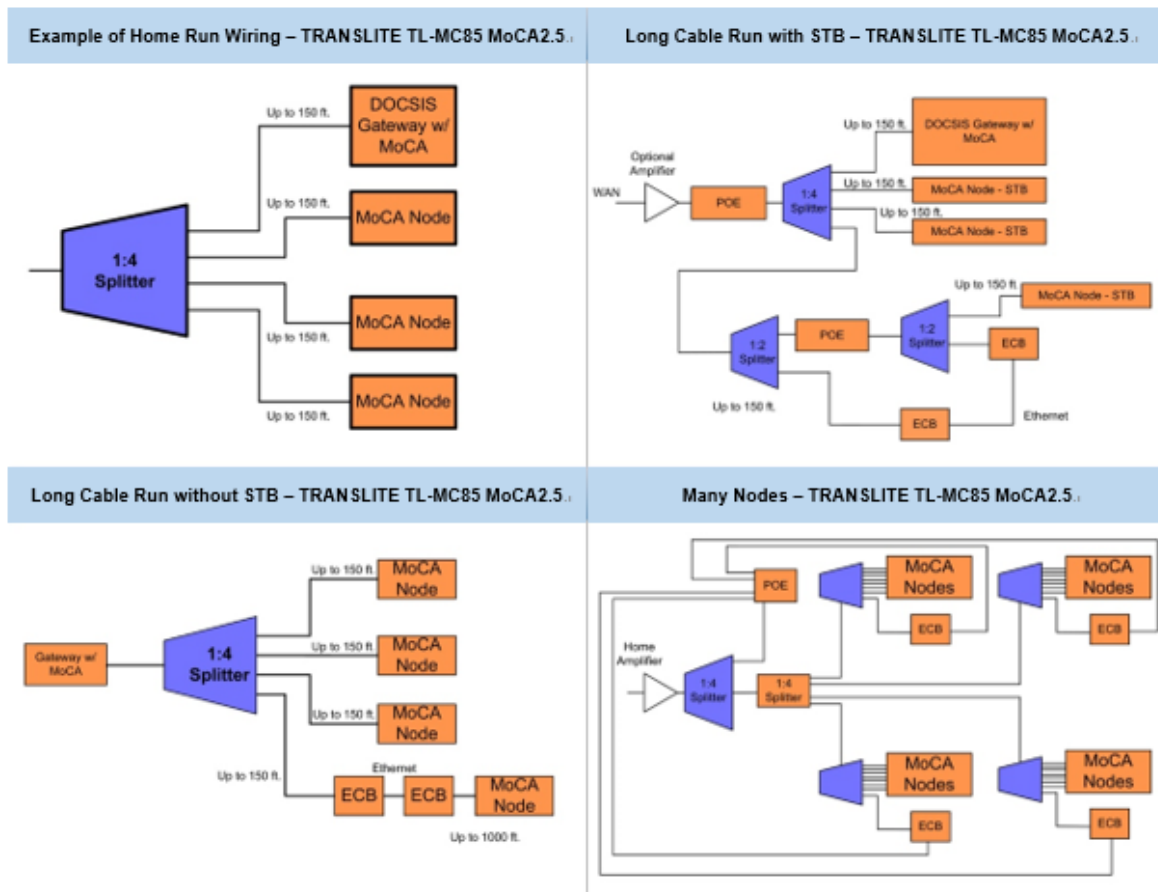
SPECIFICATIONS

Basic Info	
Model	TL-MC85
Technical Standard	MoCA2.5 Standard
Maximum Network Node	16
Communication Mode	
Modulation Mode	OFDMA
Sub-carrier Quantity	512*5
Sub-carrier Bandwidth	195.3125KHz
Carrier Modulation Density	BPSK, QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM, 1024QAM
MAC Layer Protocol	TDMA/TDD
Frequency Property	
Operating Frequency Range	1125 ~ 1675MHz
Channel Bandwidth	100MHz * 5=500MHz
Upstream/Downstream Frequency Range	Bundled, sharing 500MHz bandwidth
Available Beacon Channel Quantity	1150, 1200, 1250, 1300, 1350, 1400, 1450, 1500, 1550, 1600MHz (50MHz step)
Standard Channel	1125~1625MHz
Maximum Transmitting Power	+3dBm
Typical Transmitting Power	+2dBm
Power Transmitting Mode	Auto/Manual

Receiving Sensitivity	-70dBm
Insertion Loss	< 2dB
Transmitting Distance	300feet
CABLE IN Port Frequency	5 ~ 1675MHz
MoCA Port Frequency	1125 ~ 1675MHz
TV OUT Port Frequency	5 ~ 1002MHz
Maximum PHY Rate	3.6 Gbps
Coaxial Cable Application Rate	Bidirectional, up to 3.0Gbps
Latency	
Typical	3ms
Maximum	5ms
Delay Jitter	1ms
Port Property	
Hi/Lo Pass Filter Access Mode (optional)	Built-in
RF Port Mode	F-Female, 75 Ohm impedance
RF Port	1 Input (optional) + 1 Output: 1 Input (CATV) & 1 Combined output (MOCA+CATV);
Ethernet Port	2* RJ45 :1000BASE-TX *1, 2500BASE-TX *1
Power Supply Port	DC 5V
Power & Consumption	
Power Supply	DC 5V/1A, External
Power Consumption	<4W
Security	
Grounding	<5Ω

Anti-Static	Contact-Discharge 6KV, Air-Discharge 8KV
Power Protection	Surge-Resisting/Low-voltage Protection
Dimension	
Dimension	129*80*32mm (L×W×H)
Operating Environment	
Operating Temperature	-10 ~ 45°C
Operating Humidity	5%~95% , No condensation
Store Temperature	-30~70°C

CHAPTER 4 APPLICATIONS



For Sales

North America:

sales@transliteglobal.com

Asia:

sales@translite.co.in

Rest Of The World:

sales@transliteglobal.com

For Support

North America :

support@transliteglobal.com

Asia:

support@translite.co.in

Rest Of The World:

support@transliteglobal.com