OTDR
USER MANUAL

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Contents

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⚙ Kit Contents

Refer to **https://aem-test.com/products/otdr/** for a full list of kits available

▦ OTDR Features

4. LCD Display with Capacitive/ Resistive Touch

5. Status LED (Battery Charging/ Power On)

6. Micro USB Input

7. USB Type A

8. RJ45 10/100/1G

9. DC Input (5V)

10. OTDR Adapter

11. Stand

3. Test Button

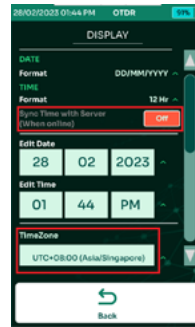**2.** Home Button

1. Power Button

The OTDR features a touchscreen based interface. Product features include:

1.	POWER BUTTON	• **Powering on** : press for 1 second. • **Powering off** : press the button once and then select [Power Off] on the touchscreen. • **Force shutdown** : press and hold the power button for 6 seconds or longer. Note that Force Shutdown may result in loss of recent test data.
2.	HOME BUTTON	• Takes you back to home screen on the touchscreen interface.
3.	TEST BUTTON	• Starts an Autotest (Type of Autotest depends on the adapter attached to the unit.
4.	LCD DISPLAY	• Capacitive/Resistive touchscreen, with color graphical user interface to navigate the menu and to view results.

| 5.	STATUS LED	• Red : battery charging (when unit is off) • Amber : battery charging (when unit is on) • Green : battery not charging (when unit is on)
6.	MICRO USB INPUT	• Establishes a USB-based wired link between the TestPro CV100 unit and a personal computer. Test results can be transferred to PC software (TestDataPro) via this connection.
7.	USB TYPE A	• USB flash drive connection to store test results and for software updates.
8.	RJ4510/100/1G	• For validation testing of cables up to 1G (functionality is built into the basic TestPro CV100 kit).
9.	DC INPUT	• Connection for 5V DC supply (WARNING : Do not connect to any power supply other than the power adapter supplied by AEM).
10.	OTDR ADAPTER	• OTDR Singlemode and OTDR Multimode adapters can be used to change the function of the OTDR modular platform.
11.	STAND	• Retract stand to place it on a table or any other flat surface, freeing you to perform other tasks while keeping an eye on the screen.

OTDR
User Manual

1 Settings Configurations

Configure the settings such as date/time, display brightness, audio volume, sleep mode, language and access device information by selecting ⚙ .

a. Date and Time
- Select [Display].
- Select Edit Date
- Scroll up/down to choose the DD, MM & YYYY. Select [Save].

- Select Edit Time
- Scroll up/down to choose the HH, MM and AM/PM. Select [Save].
- The drop down menu to select the timezone.

- Enable the [Sync Time with server] & use the drop-down menu to select the time zone. Note: The time zone will only sync when TestPro detects internet connectivity.
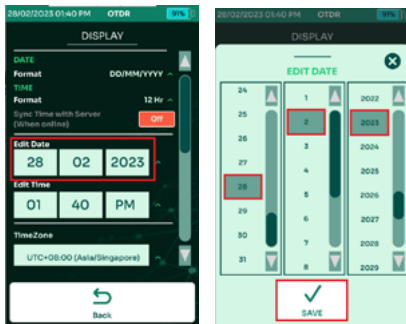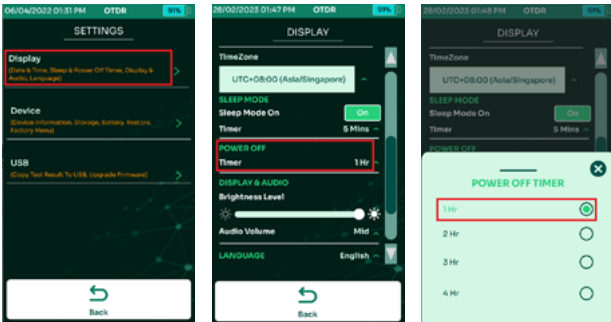
b. Sleep Mode
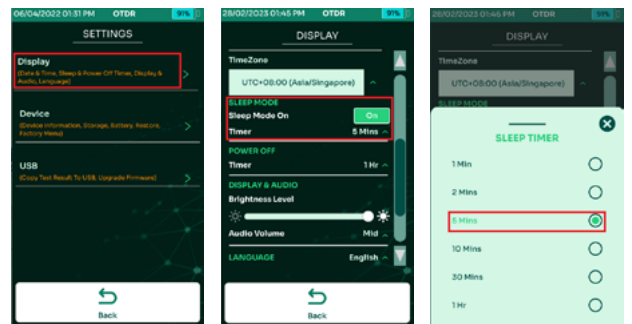
Sleep mode turns off the display after a period of inactivity to conserve battery. This is enabled by default and the timer is set to 5 minutes.

- Select [Display].
- Scroll down to the [Sleep Mode] section.
- Select the timer & choose the preferred time duration of inactivity after which the screen should turn off.
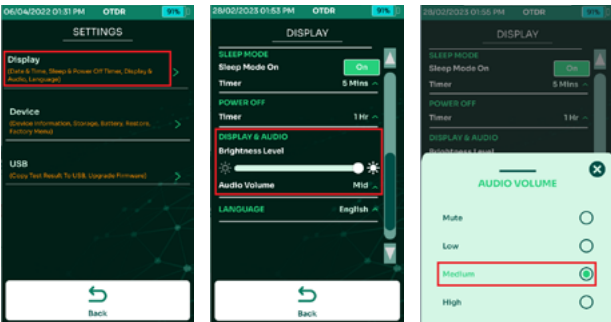
c. Power Off

Power Off timer function is only available when the OTDR is in battery mode. It is not available when the device is attached to a power supply.
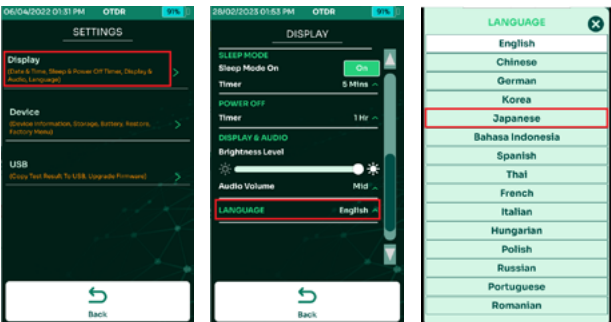
- Select [Display].
- Scroll down to the [Power Off] section.
- Select the timer & choose the preferred time duration of inactivity after which TestPro should power off.

d. Display & Audio

- Select [Display].
- Scroll down to [Display & Audio].
- Adjust the display brightness by dragging the brightness level bar left or right. To adjust the volume, select Audio Volume & choose Mute, Low, Medium or High.
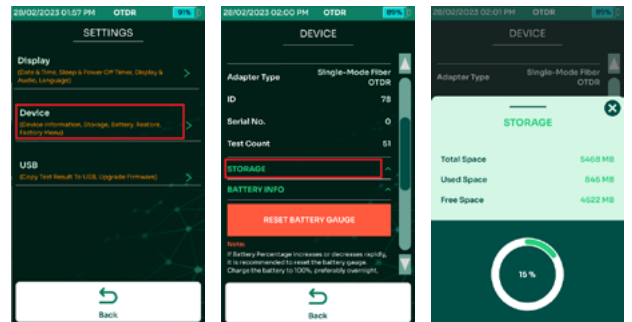
e. Language

- Select [Display].
- Scroll down to [Language].
- Select one of the languages available and TestPro will reboot to save the settings.

f. Device Specifications
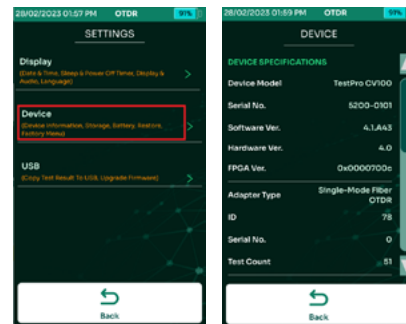
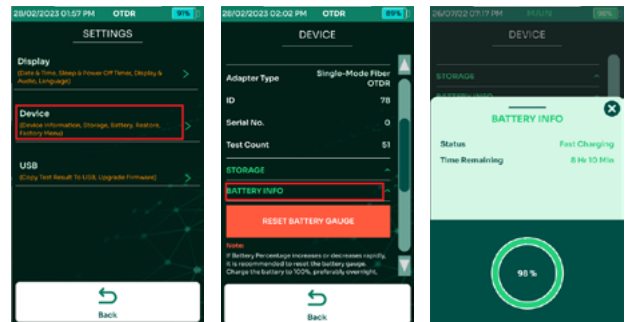- Click [Settings] on the home screen, then [Device].

g. Storage

Storage displays the Total, Used and Free space on the TestPro.
- Click [Settings] on the home screen, then [Device].
- Click [Storage].

h. Battery Info

- Select [Settings] on the home screen, then [Device] and then [Battery Info].
- User will be brought to a screen showing the Charging status and Time remaining.

p. Reset Battery Gauge

Reset Battery Gauge will recalibrate discrepancies in the battery reading. Use this feature only when the battery percentage is fluctuating.

- Select [Settings] on the home screen, then [Device]
- Select [Reset Battery Gauge].
- Click Yes on the pop-up confirmation.
- Wait for Resetting Battery Gauge to be completed.

Note :

I. Ensure that the battery is fully charged to 100%. AEM recommends to charge the battery overnight.
II. Select [Reset Battery Gauge].
III. TestPro will apply the changes and reset the battery registers.
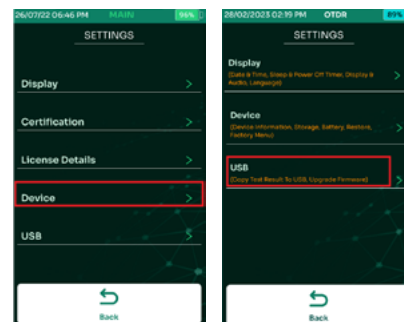
q. Restore Default Factory Settings
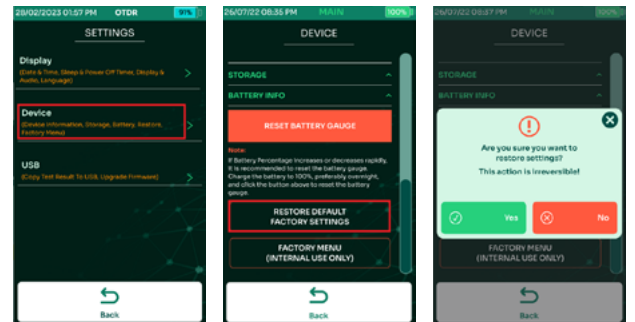
- Select [Settings] on the home screen, then [Device]
- Select [Restore Default Factory Settings].
- On the popup, select Yes to restore TestPro to default factory settings. The device will restart.

r. Factory Menu
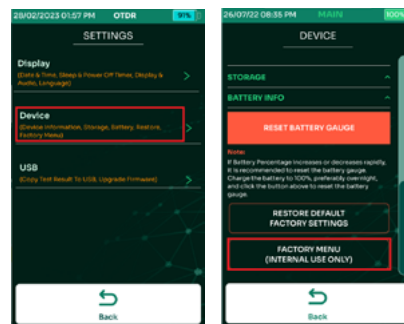
Factory Menu is for manufacturer's internal use only. Access to this function is not available to users.
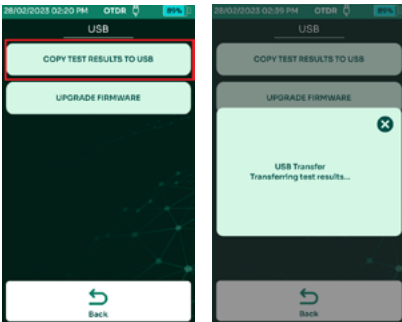
s. USB

When a USB flash drive is inserted to the TestPro USB port, device offers multiple functions i.e. Copy Test Results to USB, Upgrade Firmware.

Project. Refer to the steps required for each of these features in the TestPro User Guide. To access the USB menu again, click Settings > USB.
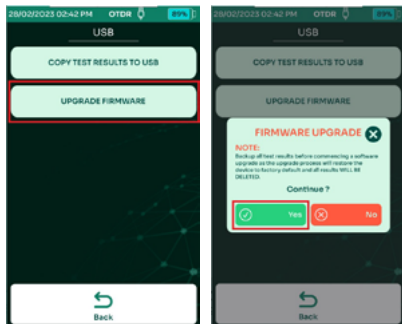
i: Copy Test Results to USB

Copy Test Result to USB will export all the test results saved inside TestPro to the USB flash drive under TestData folder.
- Select [Copy Test Results to USB]
- OTDR will start copying test results from the device to USB flash drive.

ii: Upgrade Firmware

OTDR's firmware can be upgraded using the USB flash drive.
- Go to www.aem-test.com/myaccount, log in to your account (create account for new users) and download the latest firmware under [Downloads].
- Save the OSUpgrade.zip to a USB Flash drive (formatted as FAT32).
- Attach the DC power supply to the TestPro and power on the device.
- Insert the USB flash drive. The USB menu will appear.
- Select [Upgrade Firmware].
- OTDR will warn the users to back up test results and the upgrade will reset the device to factory settings. Select [Yes] to accept and [No] to cancel.
- The device will reboot multiple times. The entire process will take at least 15 minutes to complete.

2 OTDR

3 Network and Cloud

OTDR provides a way for users to upload test results from the device to the Cloud remotely. This is especially helpful when the device is on-site, and results needs to be uploaded urgently. OTDR just needs to be connected to the internet via Wi-Fi or RJ45 port located at the side of the device.

a. Ethernet Port

To use the OTDR Ethernet port, simply connect a LAN cable from the device to the networking device i.e., a network switch or router.
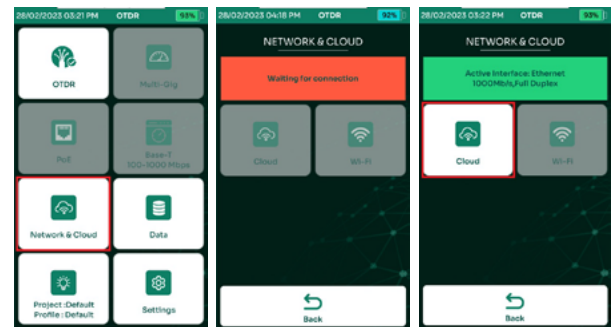
- In the Main menu, open Network and Cloud.
- The connect will turn from red to green when the LAN cable is connected, and Cloud gets enabled.
- To sign into Cloud, select [Cloud].
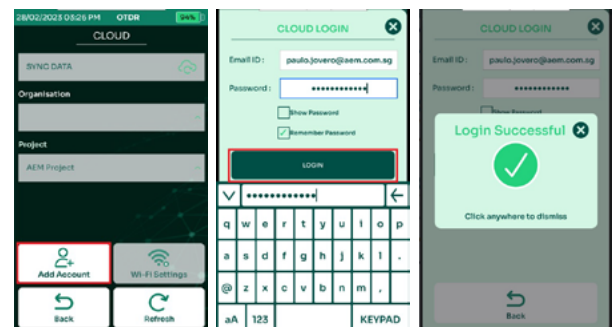
- Select [Add Account].
- Key in the Email ID and Password used during account registration and select Login. If not yet registered, create a free account at www.tdpcloud.com.
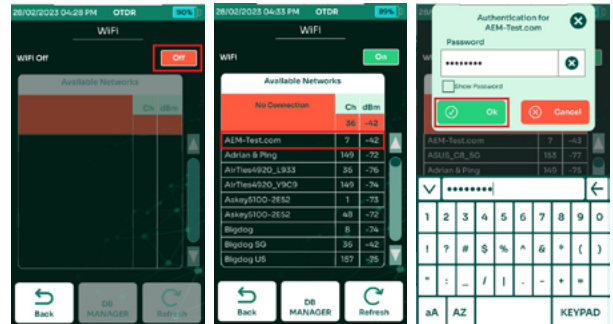- Login Successful.
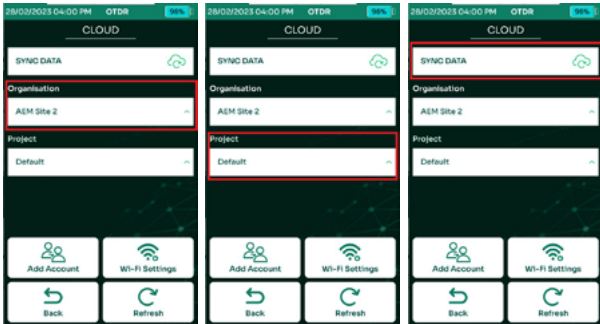
- Choose the Organization where the test results will be uploaded.
- Choose the project to be uploaded to the cloud
- Select Sync Data and OTDR will start uploading the test results to the Cloud under "AEM Site 2" organization and "Default" project name.

b. Wi-Fi

OTDR test results can be uploaded using Wi-Fi. Users can turn on the Wi-Fi Hotspot of the cell phone, connect the device to the Hotspot and upload test results.
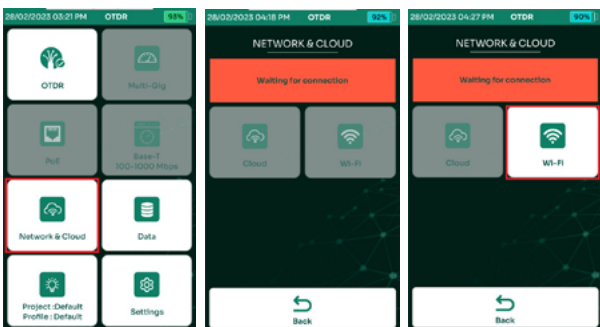
Please note that optional Edimax EW-7822ULC Wi-Fi USB adapter required for Wi-Fi. This adapter is region specific & can be purchased from Amazon or a retailer of your choice.

- In the Main menu, open Network and Cloud.
- The connect will turn from red to green when the LAN cable is connected, and Cloud gets enabled.
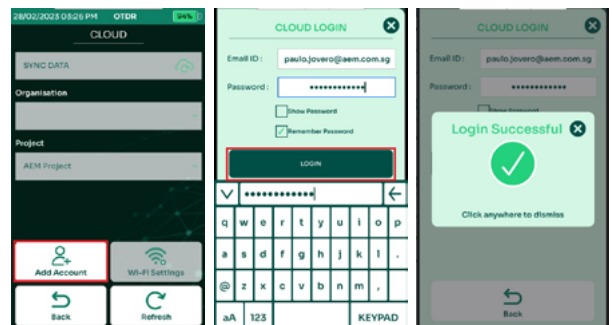- To sign into Cloud, select [Cloud].

- Turn On the Wi-Fi.
- OTDR will scan for available Wi-Fi access points.
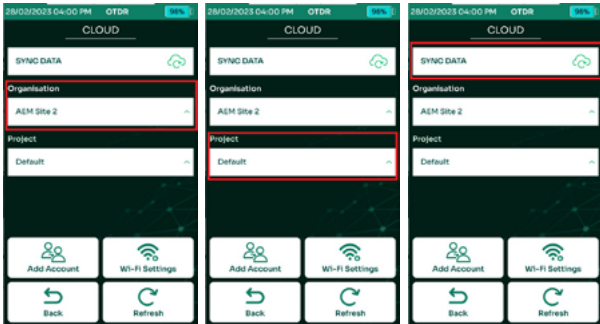- Choose an access point, key in the password and select Ok
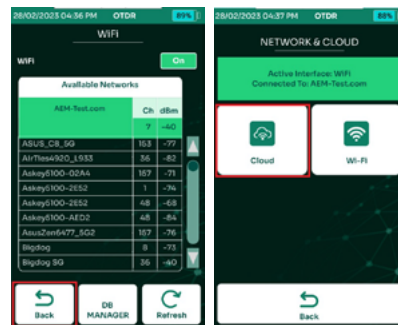
- When Wi-Fi is connected to the access point, select
- [Back].
- To sign into Cloud, select [Cloud].

- Select [Add Account].
- Key in the Email ID and Password used during account registration and select Login. If not yet registered, create a free account at www.tdpcloud.com.
- Login Successful.

ΛEM

- Choose the Organization where the test results will be uploaded.
- Choose the project to be uploaded to the cloud
- Select Sync Data and OTDR will start uploading the test results to the Cloud under "AEM Site 2" organization and "Default" project name.
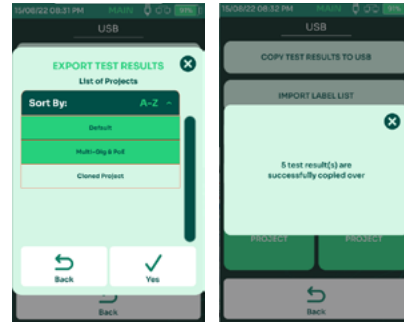
4 Test Results Management

Test data stored in the internal storage of the TestPro unit can be retrieved by connecting a USB flash drive to it. The data can also be retrieved through a USB cable connection between the TestPro and a PC running the TestDataPro software. Results can also be retrieved through TestDataPro Cloud.

a. Transfering Test Results from TestPro

[Copy Test Result to USB] will export all the test results saved inside the device to the USB flash drive.
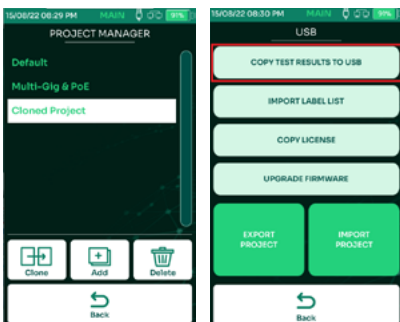

- Example: 3 projects saved in TestPro.
- Insert a USB flash drive to the TestPro USB port and select [Copy Test Results to USB].
- Choose the project(s) that needed to be exported and click Yes.
- A dialog box will confirm the number of test results exported to the USB flash drive.


b. TestDataPro Test Management Software

TestDataPro is a test result management software allowing the user to transfer test results from a TestPro unit to a PC or laptop & then manage them according to project, building, floor, rooms, racks and/or panels. Users can also use TestDataPro to view the results or to generate PDF reports.

Visit www.aem.test.com/myaccount to download TestDataPro. Install the TestDataPro software and refer to the TestDataPro user guide. The procedures for importing data into TestDataPro and generating test reports are also illustrated in the following pages:
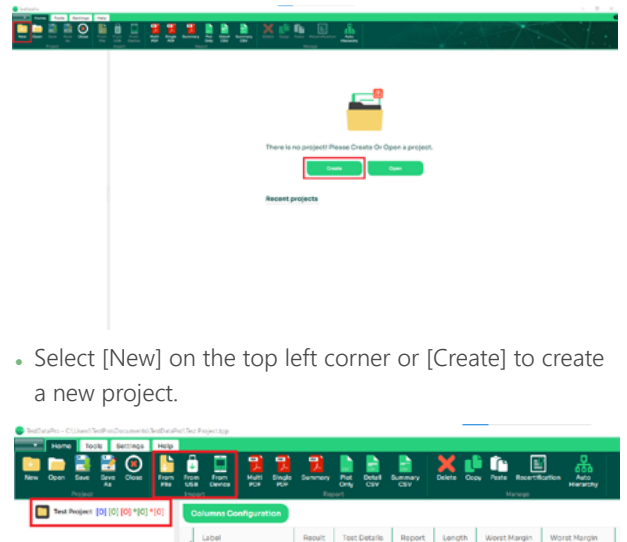

- Select [New] on the top left corner or [Create] to create a new project.

- After a new Test Project is created, select either [From File] - to import test results from any location in the PC or [From USB] - to import test results directly from USB flash drive or [From Device] - to retrieve test results from the TestPro unit.
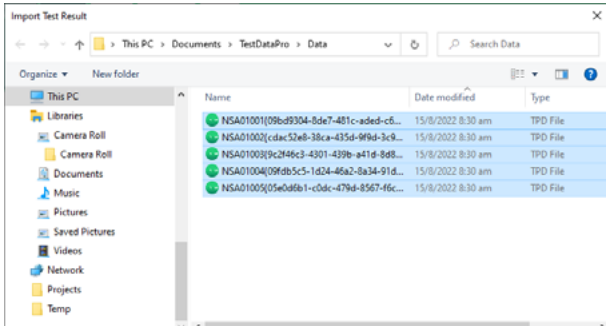
- Browse to the test result folder (i.e USB flash drive), select the tpd file and click [Open].
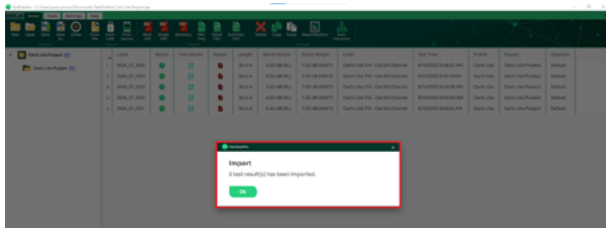
- To import from the USB drive, create a new project and click [From USB] >> expand the device serial number >> select the project(s) >> click OK. When importing from the device, click [From Device] the test results will automatically import and sort according to project. A dialog box will confirm once the import is complete.
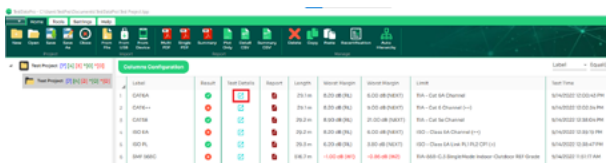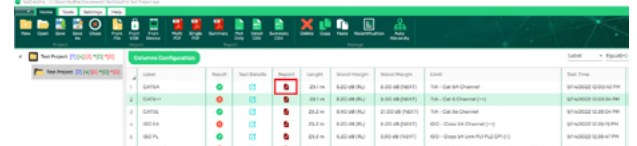

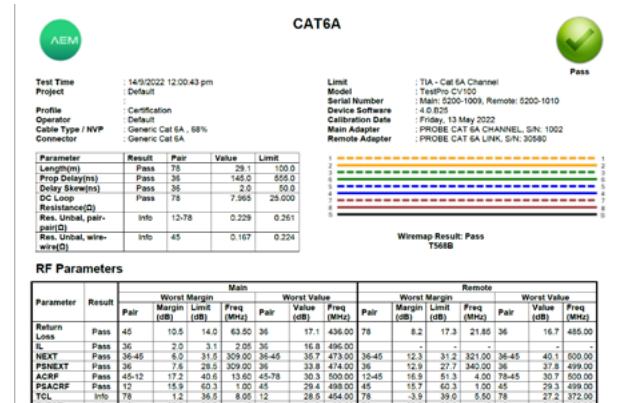- To view any of the Test Details, click [icon].
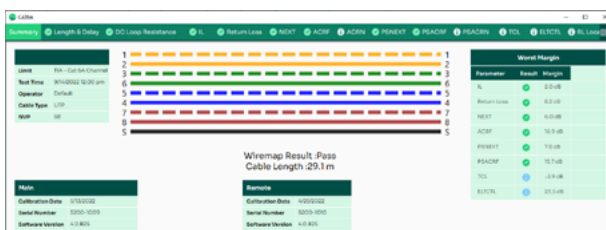
- [Summary] will show the wiremap connection and summary test data. [Length and Delay] will show the test data in each of the four pairs.
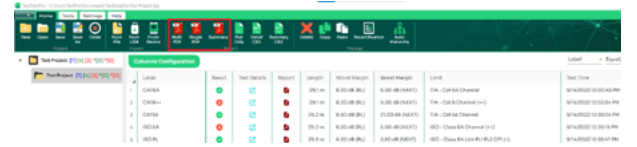
c. Generating Test Reports

- Click [icon] to generate a test report in pdf format.

- User will be brought to a page showing the detailed test results.

d. Generating Multiple Test Reports



- To export multiple test reports, select all the desired test results and click [Multi PDF] if users wants to split test reports into multiple pdfs. Select [Singple PDF] if user wants to combine all test reports into a single pdf file.
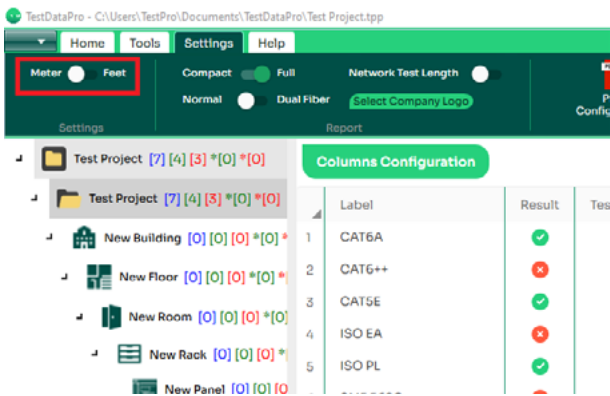
e. Adding Hierarchy
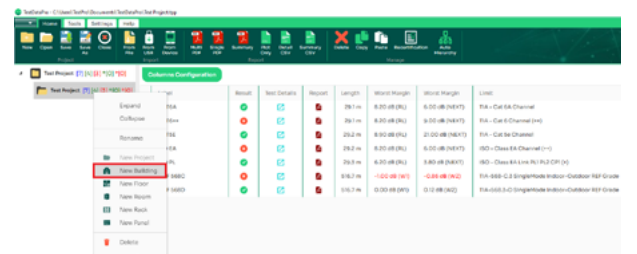
- To add new locations, right click on the project folder and select the type of location i.e., new building, floor, rack or panel.
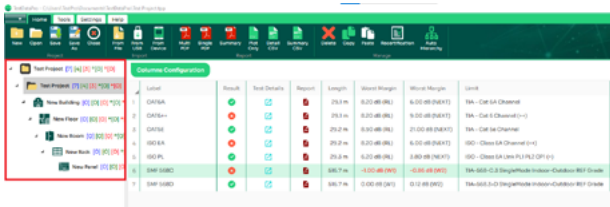
- To select any of the locations, right click on the project folder and select any of the sub-locations i.e., new building, floor, room, rack or panel.
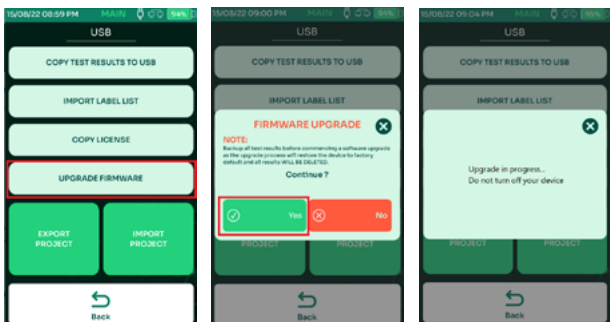
f. Meter to Feet

- To change the measurement stand, go to [Settings] tab & toggle between the two options - [meter] and [feet].

5   Firmware & License Updates

a. Firmware Update via USB Flash Drive with OSUpgrade.zip File

TestPro's firmware can be upgraded using the USB flash drive. TestPro firmware version should be 2.4 or later.


- Insert the USB flash drive. The USB menu will appear. Select [Upgrade Firmware]
- TestPro will remind users to back up test results as the upgrade resets the device to factory settings. Select Yes to accept and No to cancel.

- TestPro will reboot multiple times. The entire process will take 15 minutes to complete.

Note: Ensure that the TestPro unit is attached to a power supply before starting the upgrade process.

b. Firmware Upgrade using TestDataPro

Before starting the firmware upgrade, make sure that the TestPro unit is attached to a power supply. TestPro will reboot multiple times to complete the upgrade.
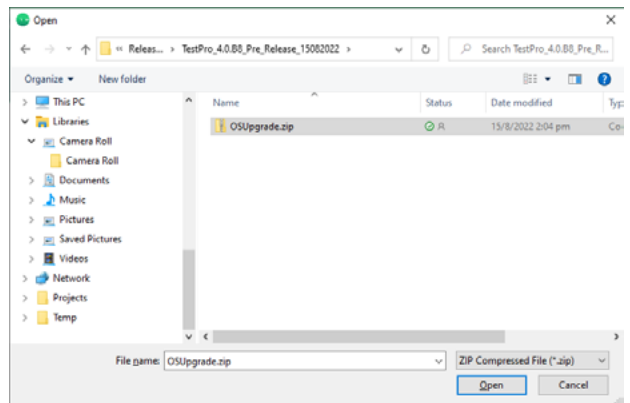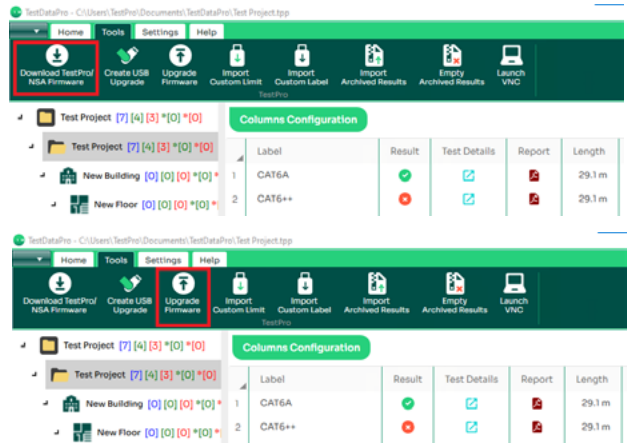
- Launch TestDataPro. On the main screen, select [Tools] then [Download TesPro/NSA Firmware].
- Save the OSUpgrade.zip to any location on the computer i.e., Downloads
- Once download is complete, select [Upgrade Firmware] and browse to the location of the zip file. Select OSUpgrade.zip and click [Open].
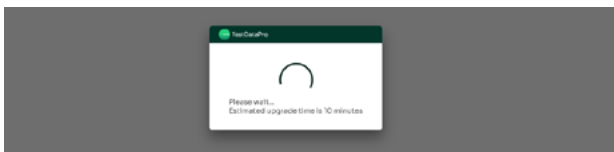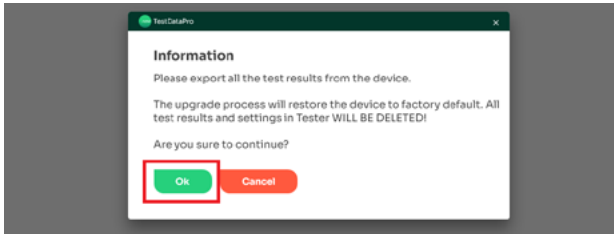
- A dialog box will remind users to back up test results before proceeding with the firmware update. Click [OK] to continue.
- The firmware update will commence. Estimated time for the update is 15 minutes

Note:

Please note that the Edimax adapter or any other device, such as a USB memory stick, must be removed from the USB port on the tester prior to packing it up. Failure to do so could result in adapter damage during transport. In addition, the Edimax adapter will always draw power from the tester when it is plugged in.

OTDR Specifications

Battery
- Lithium ion
- 3.7V
- 13,200 mAh
- Approximate test time : 8 hrs (based on an approximate 200 test per day)
- Charging time : 7 hrs

Power Adapter
- 5V, 3A (supplied)
- 5-12V (supported)
- 2.1mm DC jack

Operating System
- Linux

RJ45 Test Ports
- 10/100/1G Test Port
- Network Connectivity Port

Adapter Interface
- 60-pin high-frequency connector rated for 5000 insertion cycles
- Hot Swappable

Test Data Management
- TestDataPro PC Software

Data Transference
- USB Flash Type A
- Micro USB
- USB Cable

If the results from the measurements are within the specified limits, then the cable-under-test will be deemed to have passed the test. If the measurement results are not within the specified limits, then it has failed the test.

The difference between the limit line and measurement result is called a margin. Users should look at the worst margin when reviewing the test results. The worst margin means that all the four pairs tested, the one with the worst result will show up in the worst margin section.

Technical Support

Live Phone Support :
Monday - Friday | 8am-5pm (Arizona,USA)
T : 480-534-1232
Toll Free : 833-572-6916

Email Monitored 24hrs
customercare@aem-test.com

For more information and details specifications, please visit: AEM-Test.com/TestPro

If you need technical assistance, please visit us at: AEM-Test.com/customer-care

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Chandler, Arizona 85226
T : 480-531-1232

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F: +65 6483 1822