IDEAL NETWORKS

SignalTEK 10G

10G Ethernet Troubleshooter and Bandwidth Tester

Quick Reference Guide

Proof of Performance

SignalTEK 10G

Quick Reference Guide

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Contents

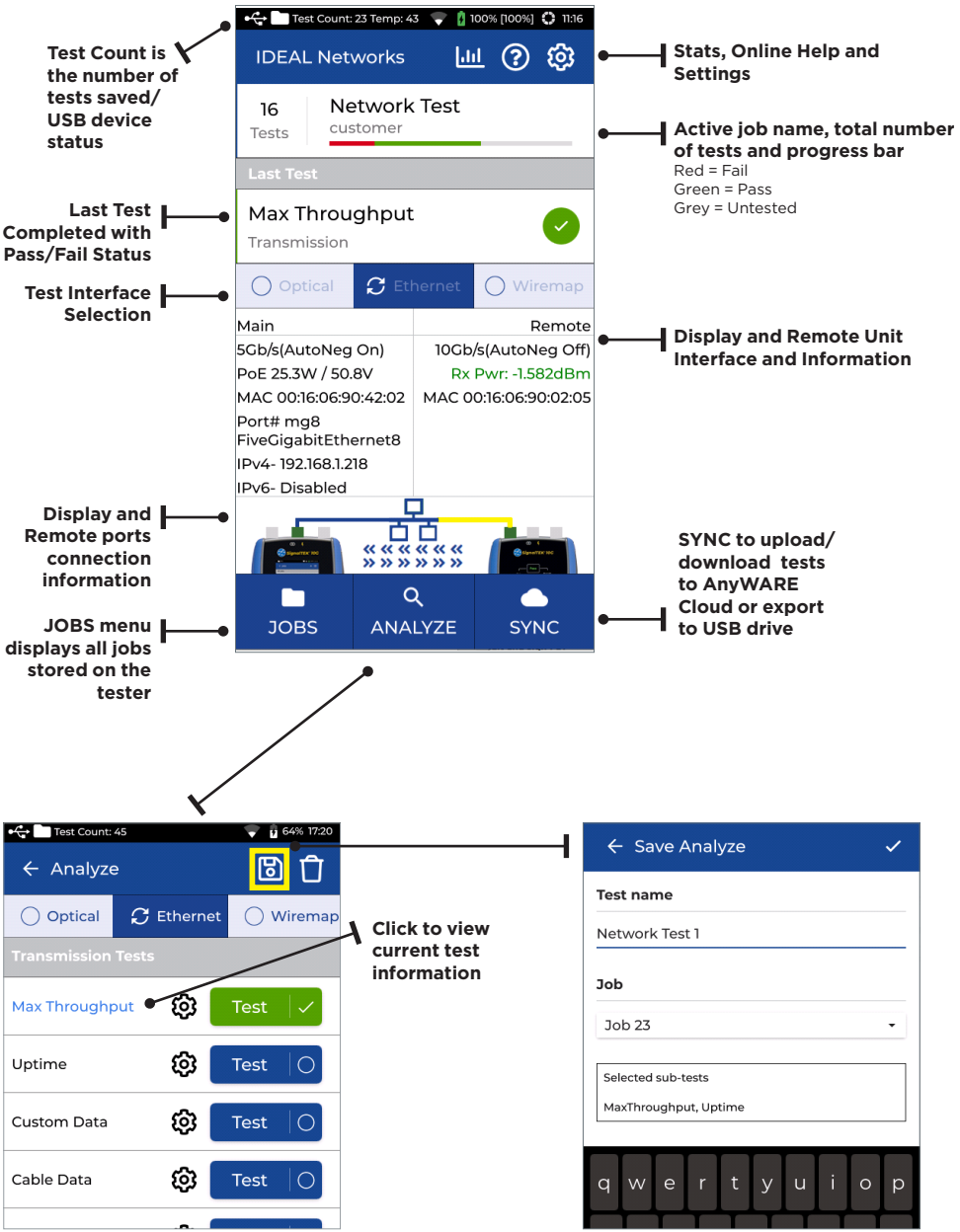
Introduction

The new SignalTEK 10G measures the maximum bandwidth of the network and data cabling up to 10 Gigabits per second. By simulating actual network traffic users can test, troubleshoot and document network and data cable performance up to 10 Gigabit Ethernet standards.

SignalTEK 10G has Wi-Fi connectivity to connect seamlessly to the free AnyWARE Cloud test management software. AnyWARE Cloud offers pre-configuration, label printer connectivity and PDF report generation.

Key Functions

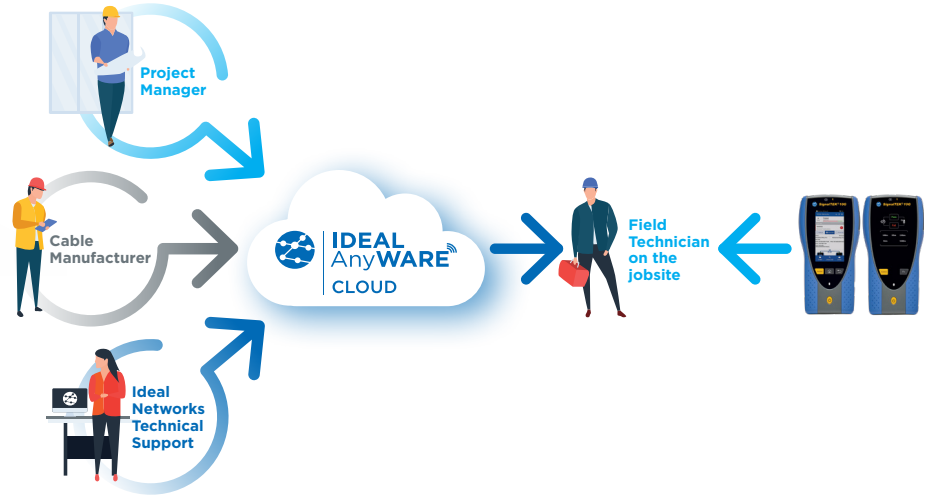
Home Screen


Test Count is the number of tests saved/ USB device status
Test Count: 23 Temp: 43
100% [100%]
11:16
IDEAL Networks
Stats, Online Help and Settings
16
Tests
Network Test
customer
Active job name, total number of tests and progress bar
Red = Fail
Green = Pass
Grey = Untested
Last Test
Last Test Completed with Pass/Fail Status
Max Throughput
Transmission
Test Interface Selection
Optical
Ethernet
Wiremap
Main
Remote
5Gb/s(AutoNeg On)
10Gb/s(AutoNeg Off)
PoE 25.3W / 50.8V
Rx Pwr: -1.582dBm
MAC 00:16:06:90:42:02
MAC 00:16:06:90:02:05
Port# mg8
FiveGigabitEthernet8
IPv4- 192.168.1.218
IPv6- Disabled
Display and Remote Unit Interface and Information
Display and Remote ports connection information
SYNC to upload/ download tests to AnyWARE Cloud or export to USB drive
JOBS menu displays all jobs stored on the tester
JOBS
ANALYZE
SYNC
Test Count: 45
64% 17:20
Analyze
Optical
Ethernet
Wiremap
Transmission Tests
Max Throughput
Test
Uptime
Test
Custom Data
Test
Cable Data
Test
Click to view current test information
Save Analyze
Test name
Network Test 1
Job
Job 23
Selected sub-tests
MaxThroughput, Uptime
q w e r t y u i o p

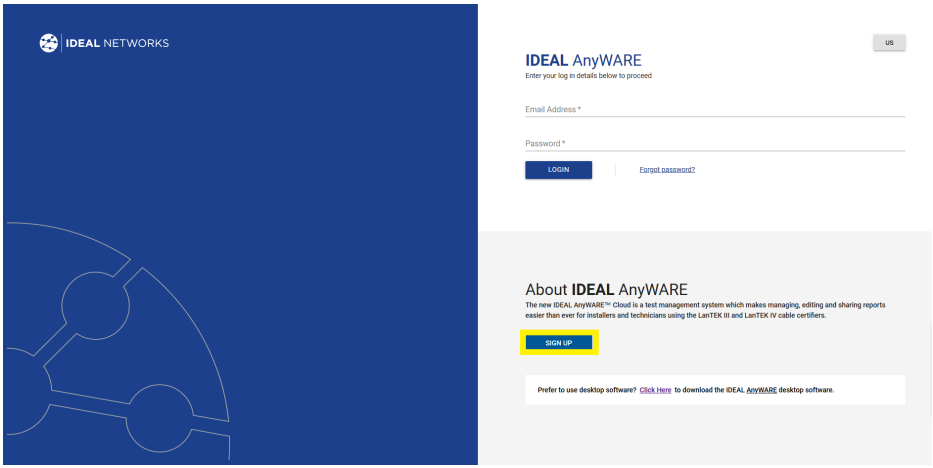
IDEAL AnyWARE Cloud

IDEAL AnyWARE CLOUD allows management of projects using the SignalTEK 10G

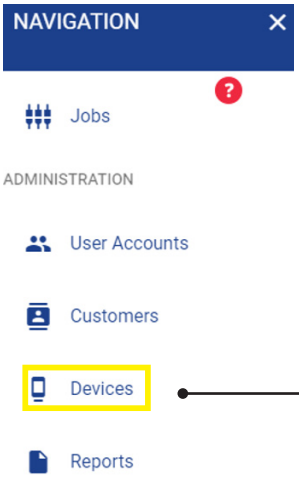
1. Who has the certifier
2. Date of last software update
3. When the results were last synchronized



With IDEAL AnyWARE Cloud, you no longer have to download and install test management software to a PC.
Create an account at https://anyware.idealnetworks.net
Please use: Google Chrome, Microsoft Edge, or Mozilla Firefox.



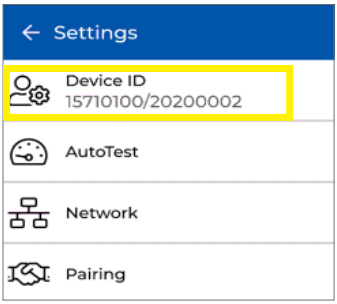
IDEAL AnyWARE Cloud



Link SignalTEK 10G to your AnyWARE account.
Select the Navigation menu:

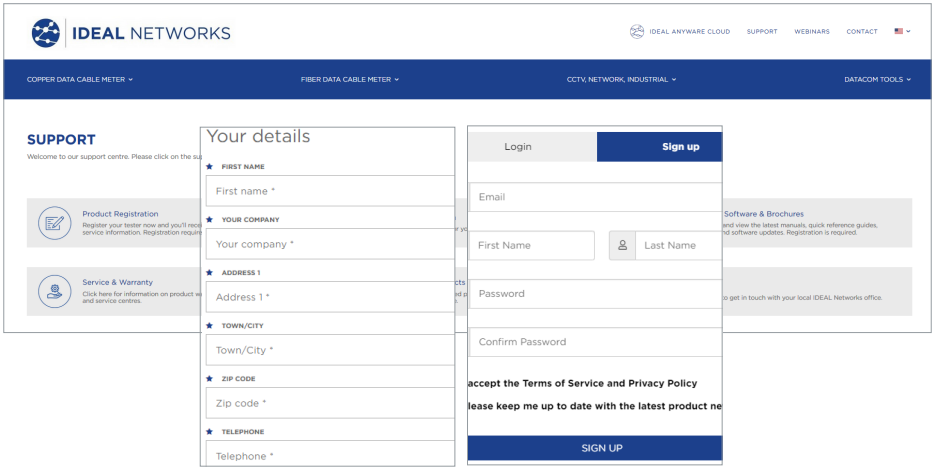
Select "Device", add your SignalTEK 10G with + on the menu at the top right.

Enter the identifier of your SignalTEK 10G via the entry screen.



Please register your SignalTEK 10G to receive updated information at:
https://www.idealnetworks.net

An account is required to download software and documentation.



Getting Started

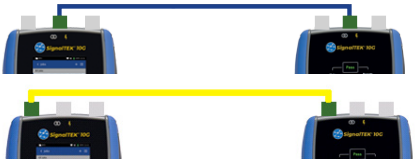
Before you start using your SignalTEK 10G, follow the steps below to ensure you take advantage of all the features your SignalTEK 10G has to offer.

1. Press the power button on both units.
2. Fully charge the display and remote units using the power supply included in your case.
3. Connect the display and remote units using the supplied ethernet cable.

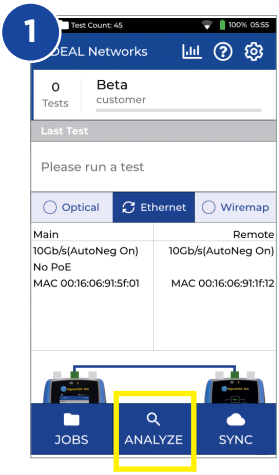
4. Choose your language via **Settings - Set Language.**
5. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired.
6. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
7. Cable Qualification Test: Connect the display unit directly for cable qualification test
8. Network Bandwidth Qualification Test: Connect the display unit and the remote unit to the network (switches)
9. IP Network Test: Connect the display unit to the network and set the IP address to *Dynamic (DHCP)* via **Settings - Network - IPv4 - IP Assignment**
10. For optical interface involved test, make sure the SFP used with the tester is matching the fiber and other SFP's type and signal level within the Rx power range. MGK series SFP Kit (to be ordered separately) is recommended to assure the correct measurement results.

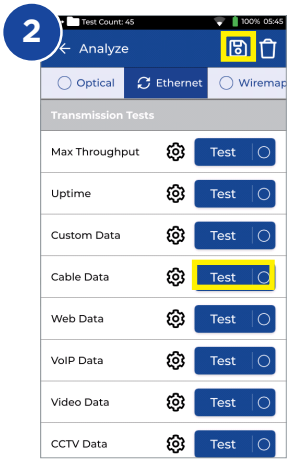
Transmission - Cable Data Test

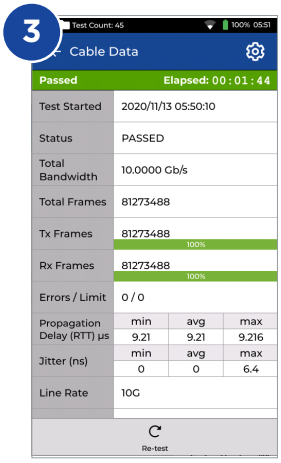
1. Connect a cable under test (Fibre duplex/simplex via SFP or Copper) between display and remote units.



2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired.
3. Set link speed to *Auto* via **Settings - Network - RJ45 - Link Speed**
4. Click: **ANALYZE - Cable Data - Settings -** *Expected line rate 10G and frame size 1518* **- Tick -** Return to test page - press **Test**
5. Save the results

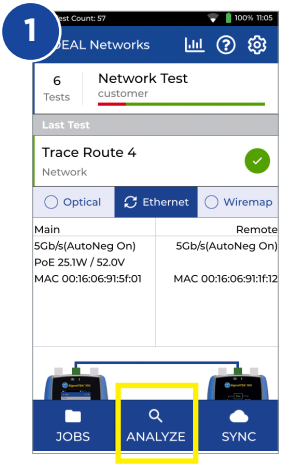


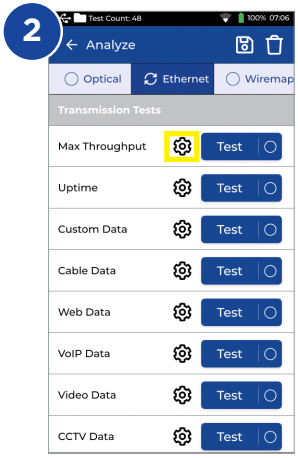


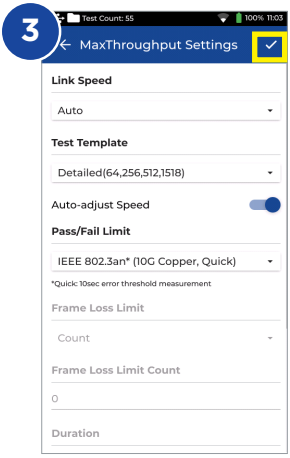


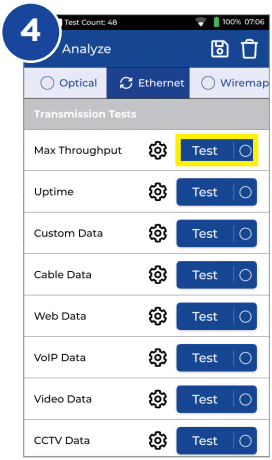
Transmission - Max Throughput Test

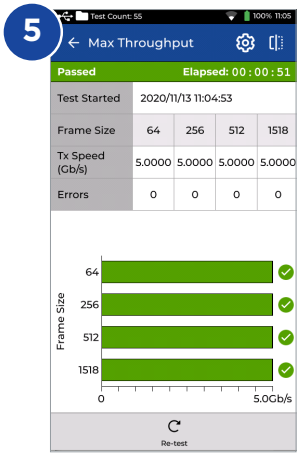
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired.
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Select Test template on different frame size
5. Select Pass/Fail limit via a set of standard limit or custom limit and save change
6. Run the **Test** and flip graphic results to tabular
7. Save the results

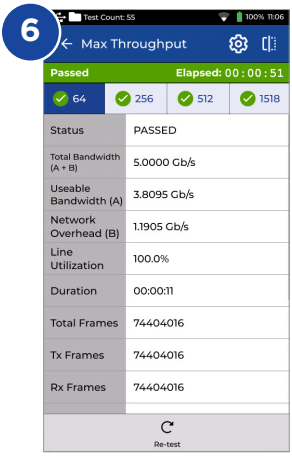






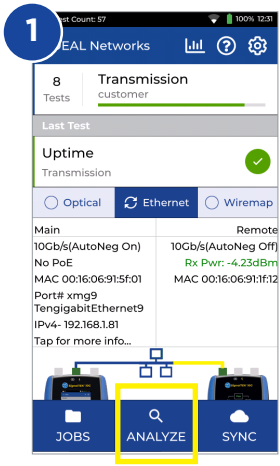


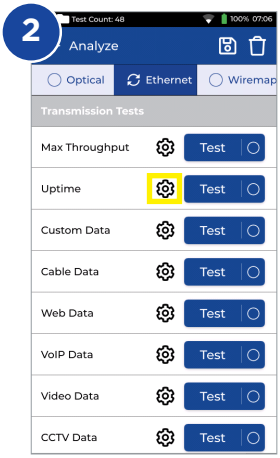


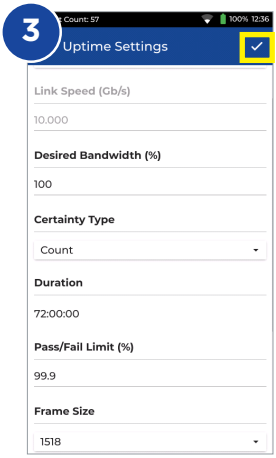


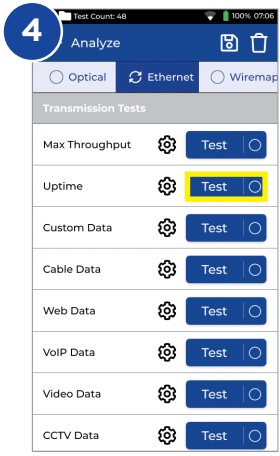
Transmission - Uptime Test

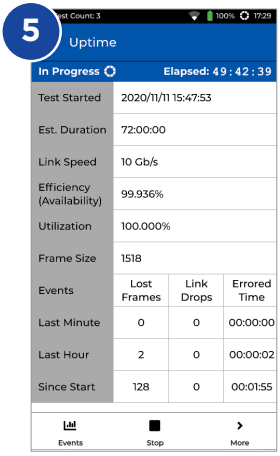
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Set up bandwidth, frame size and test duration in **Custom Data** settings
5. Use default frame loss count 0 as Pass/Fail limit and save all changed setup
6. Press **Test** key to run the test
7. Save the results

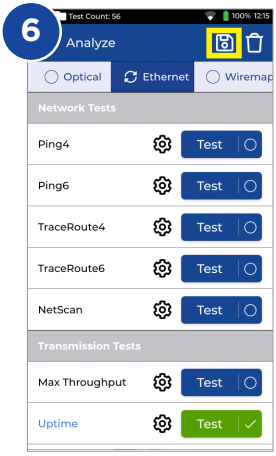






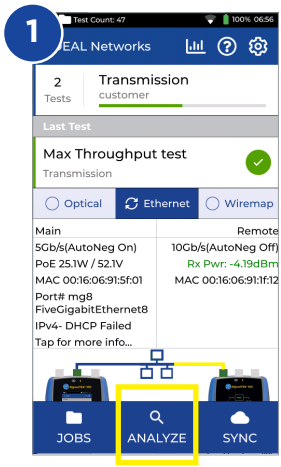


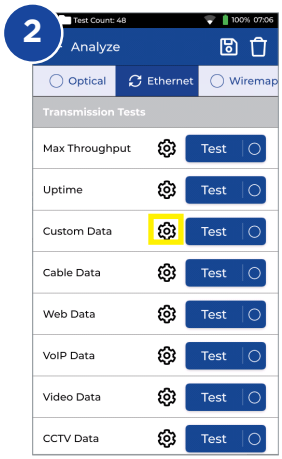


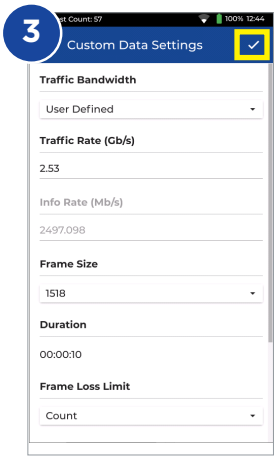


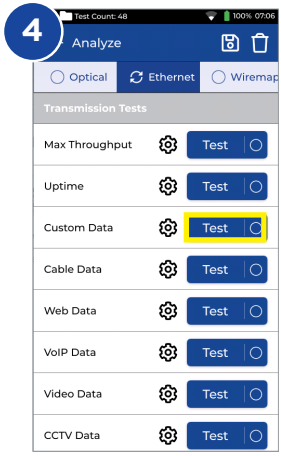
Transmission - Custom Data Test

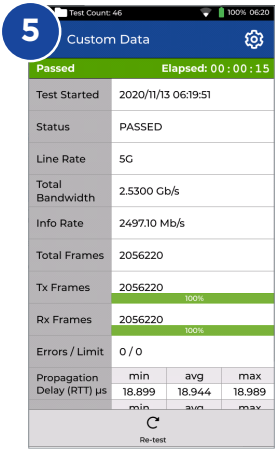
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Set up bandwidth, frame size and test duration in **Custom Data** settings
5. Use default frame loss count 0 as Pass/Fail limit and save all changed setup
6. Press **Test** key to run the test
7. Flip graphic presentation to detailed tabular results view
8. Save the results

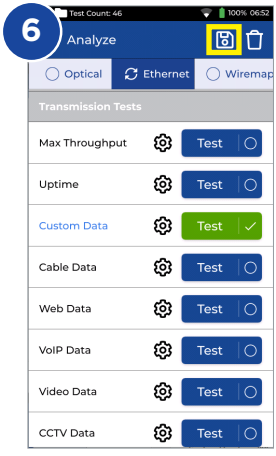






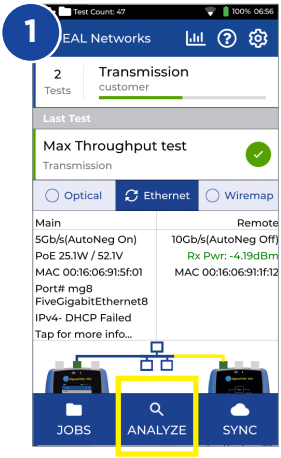


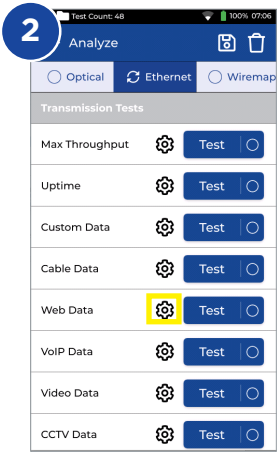


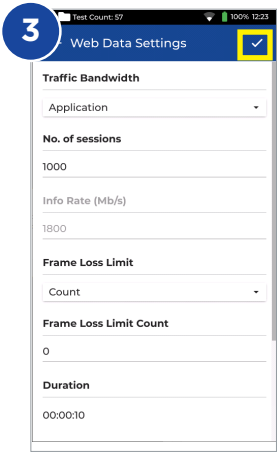


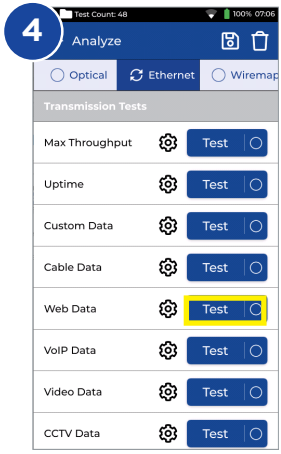
Transmission - Web Data Test

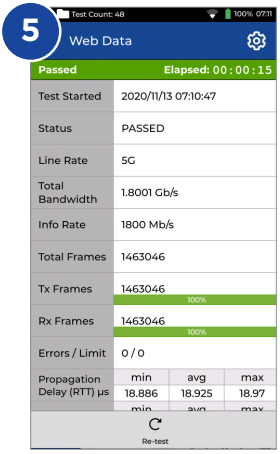
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Set up No. of sessions, frame loss type & Limit and test duration in **Custom Data** settings
5. Press **Test** key to run the test
6. Packet loss and jitter/delay info will be presented
7. Save the results

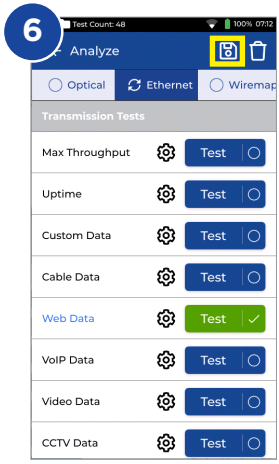






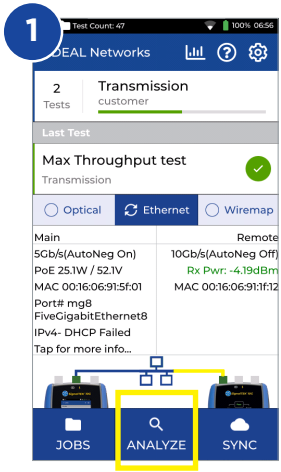


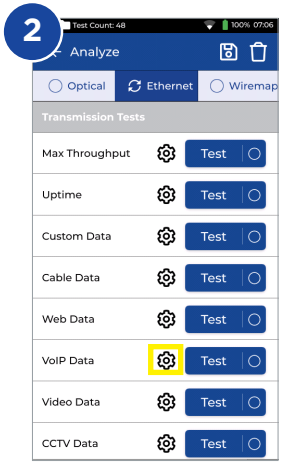


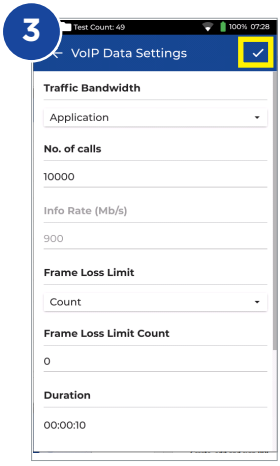


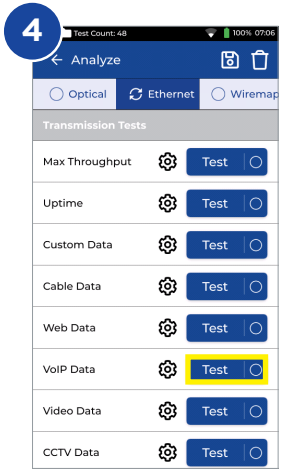
Transmission - VoIP Data Test

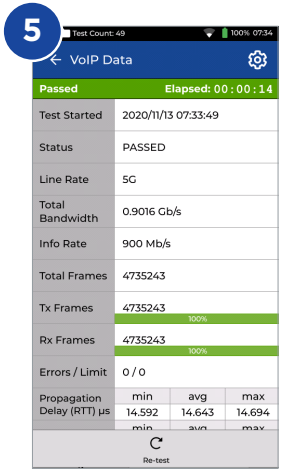
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Set up number of calls, frame loss type & Limit and test duration in **VoIP Data** settings
5. Press **Test** key to run the test
6. Packet loss and jitter/delay info will be presented
7. Save the results

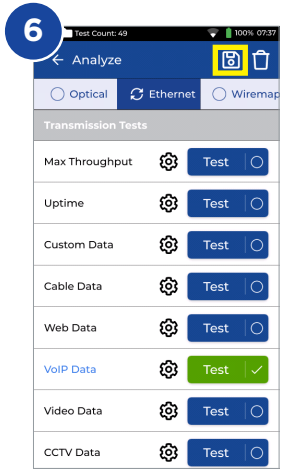






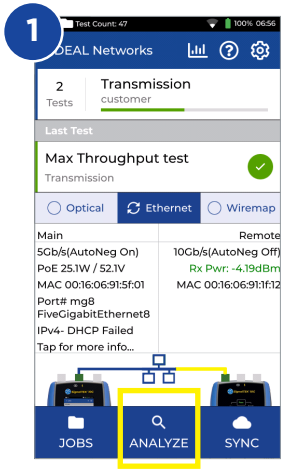


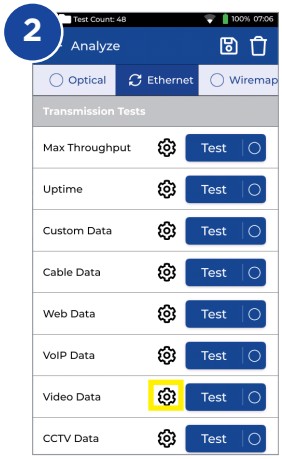


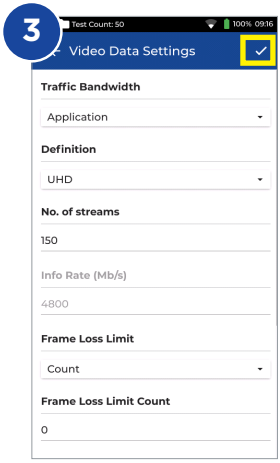


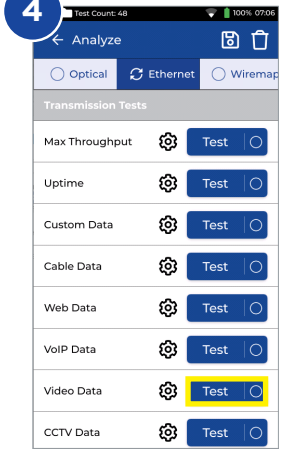
Transmission - Video Data Test

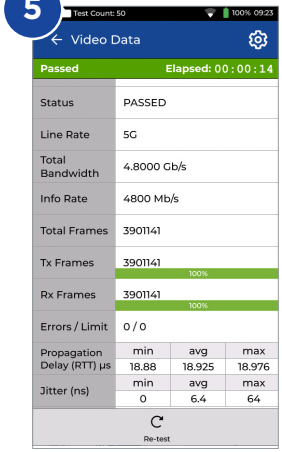
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Set up No. of streams, definition, frame loss type & Limit and test duration in **Video Data** settings
5. Press **Test** key to run the test
6. Packet loss and jitter/delay info will be presented
7. Save the results

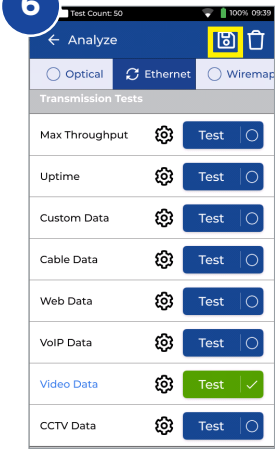






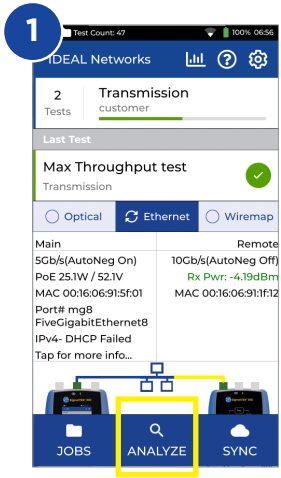


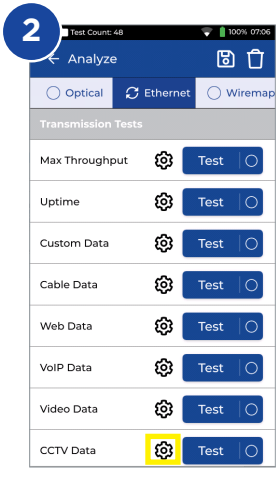


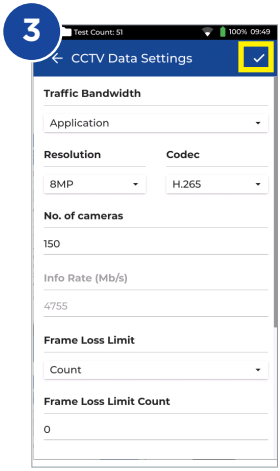


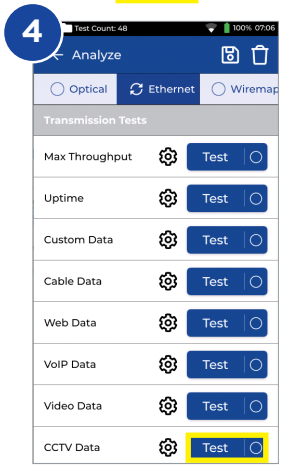
Transmission - CCTV Data Test

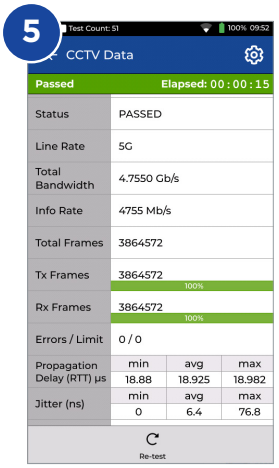
1. Connect both display and remote units to the network or cable under test
2. Pair the remote unit with the display unit via **Settings - Pairing.** The status connection will light up blue once successfully paired
3. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
4. Set up No. of Cameras, Resolution, codec, frame loss type & Limit and test duration in **CCTV Data** settings
5. Press **Test** key to run the test
6. Packet loss and jitter/delay info will be presented
7. Save the results

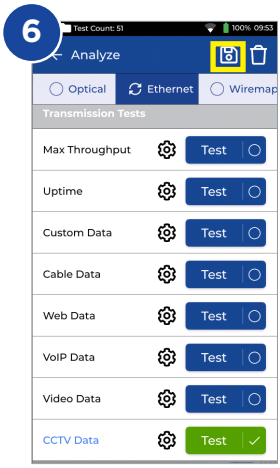






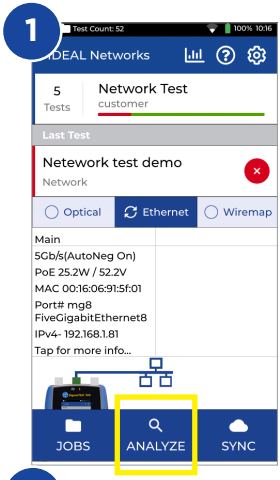


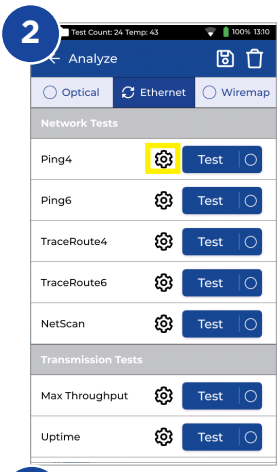


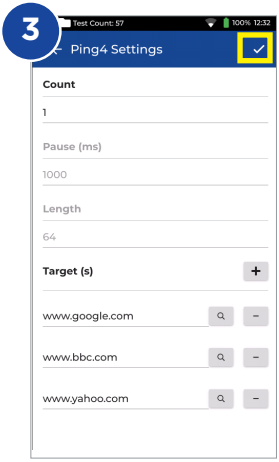


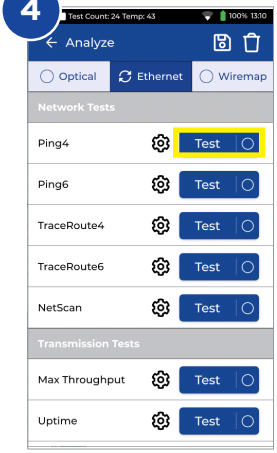
Network Test - PING4 and PING6

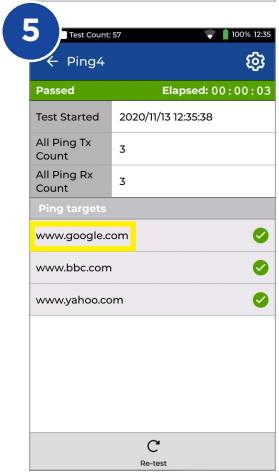
1. Connect the display unit to the network under test
2. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
3. Set the IP address to *Dynamic (DHCP)* via **Settings - Network - IPv4 - IP Assignment**
4. After the unit link up and acquired IP address, the tester is ready to setup
5. Set up number of PING running, Pause time, packet size and Target URL
6. Press **Test** key to run the test
7. To check PING result detail, click the destination URL to have more detailed info. Repeat procedure for PING 6 Test
8. Save the results

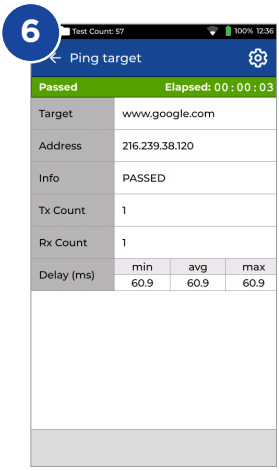






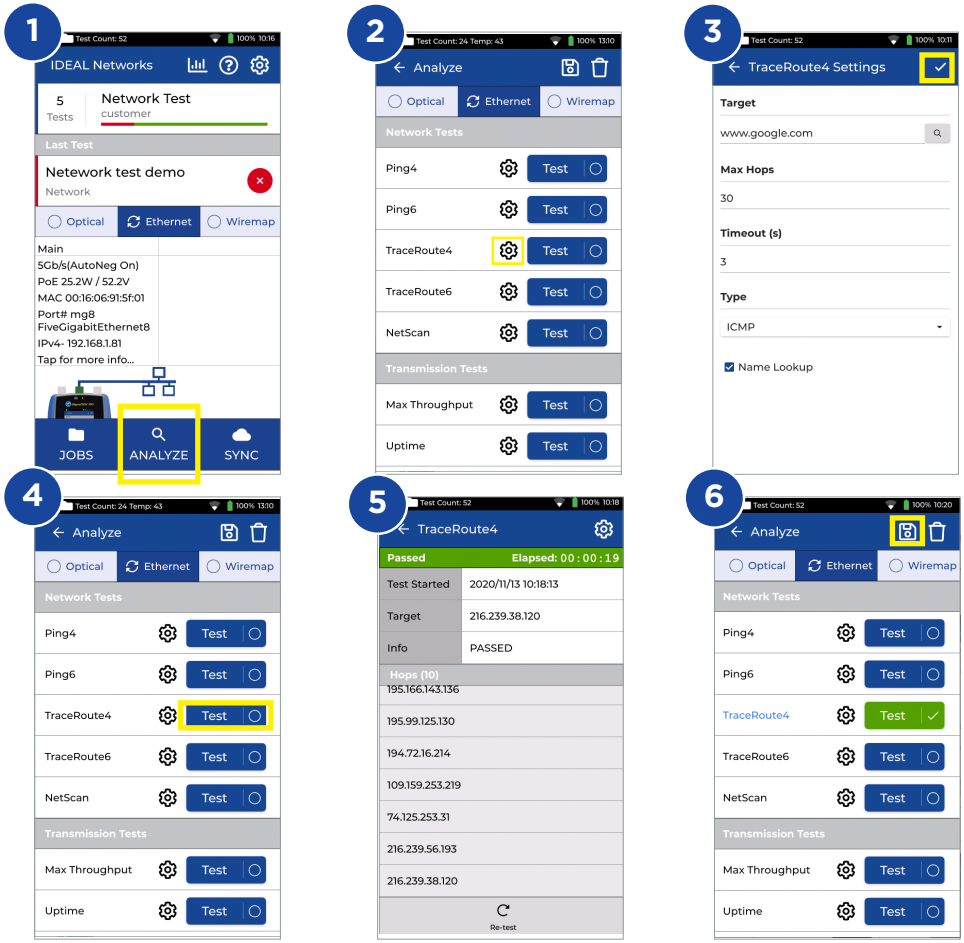






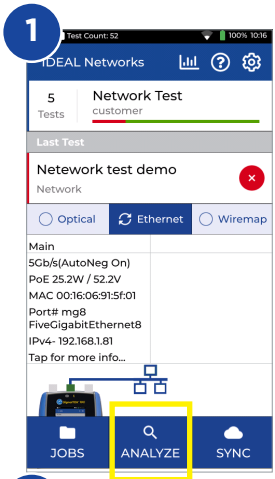
Network Test - Trace Route

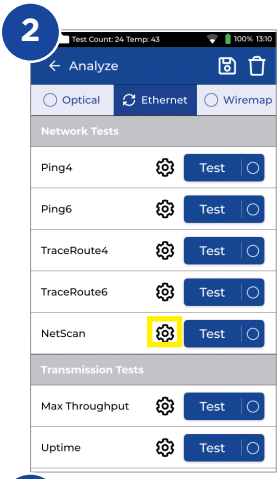
1. Connect the display unit to the network under test
2. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
3. Set the IP address to *Dynamic (DHCP)* via **Settings - Network - IPv4 - IP Assignment**
4. After the unit link up and acquired IP address, the tester is ready to setup
5. Set up the target of Trace Route URL, max hop, type and time out
6. Press **Test** key to run the test
7. Save the results
8. Repeat procedure for Trace Route 6 Test

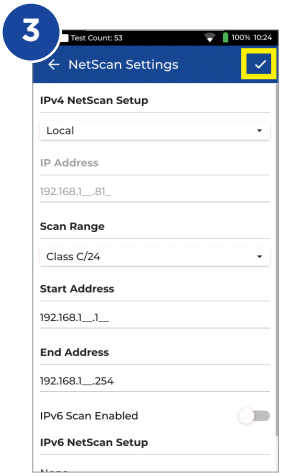


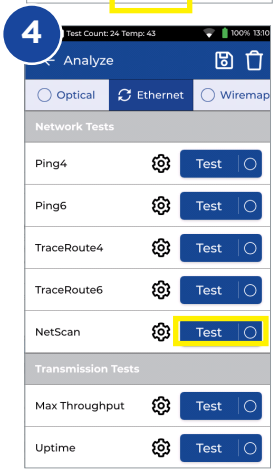
Network Test - NetScan

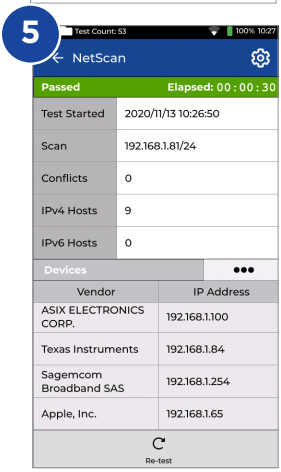
1. Connect the display unit to the network under test
2. Set the link speed to *Auto* in the display unit via **Settings - Network - RJ45 - Link Speed**
3. Set the IP address to *Dynamic (DHCP)* via **Settings - Network - IPv4 - IP Assignment**
4. After the unit link up and acquired IP address, the tester is ready to setup
5. Press **Test** key to run the test with list of network devices detected
6. Change the result presentation from IP address to MAC address
7. Save the results
8. IPv6 Netscan can be done in the same procedure

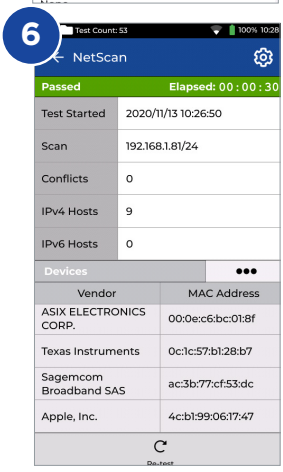






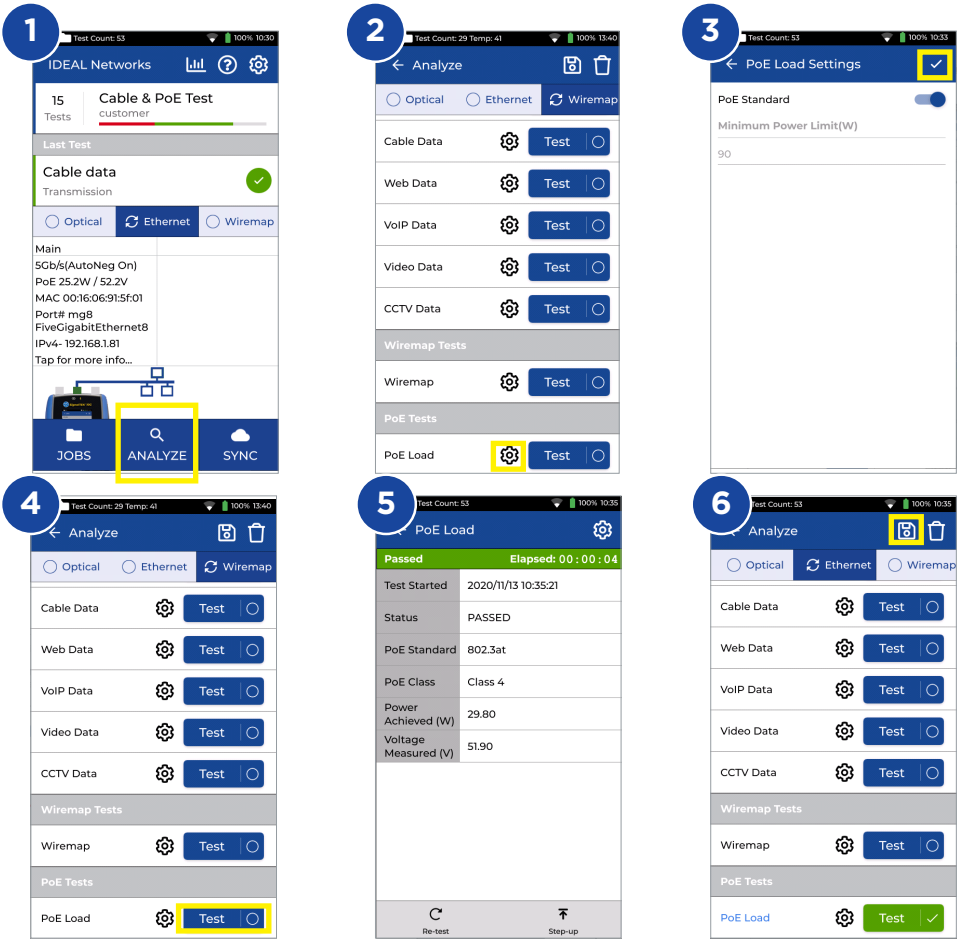






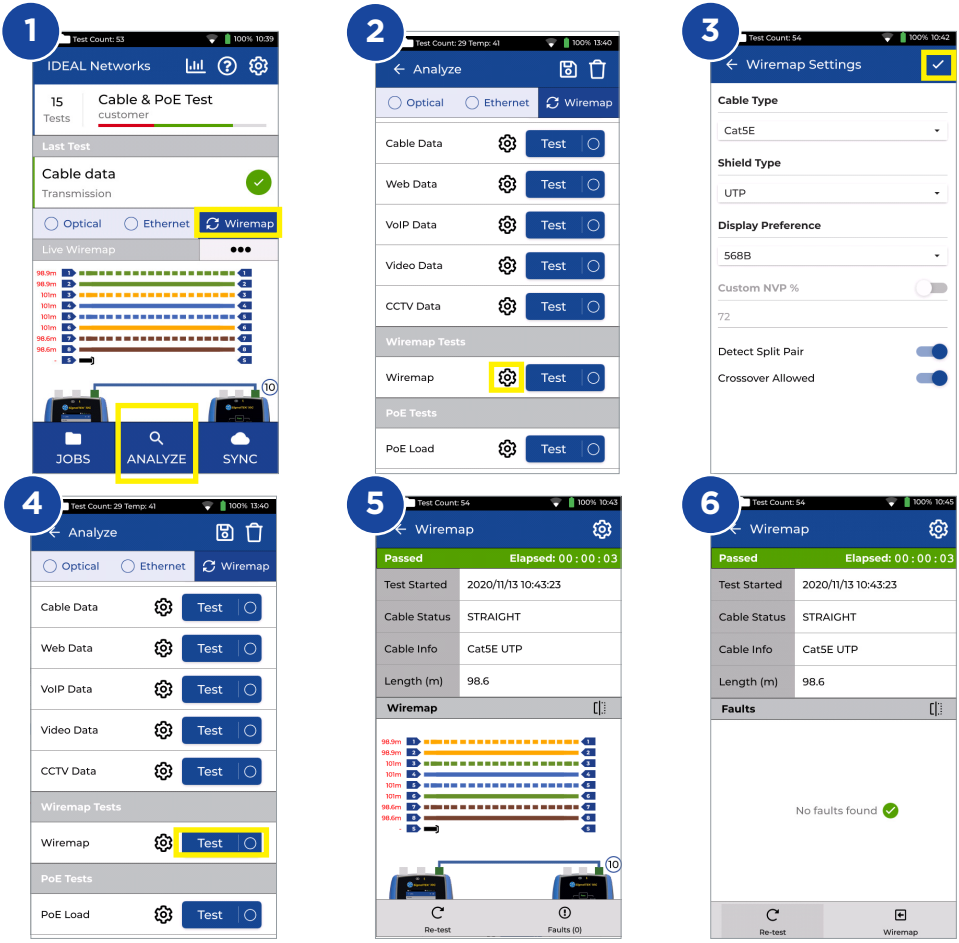
PoE Test

1. Connect the display unit to the network or device under test
2. Set the unit IP address in DHCP via **Settings - Network - IPv4**
3. Set link speed to *Auto* via **Settings - Network - RJ45 - Link Speed**
4. After the unit link up the tester is ready to setup
5. Set up the PoE standard if required
6. Press **Test** key to run the test
7. Step up the max value of the PoE load if required in the result page
8. Save the results

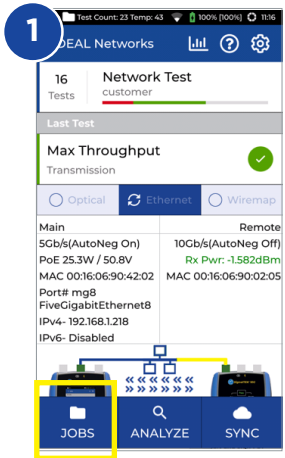


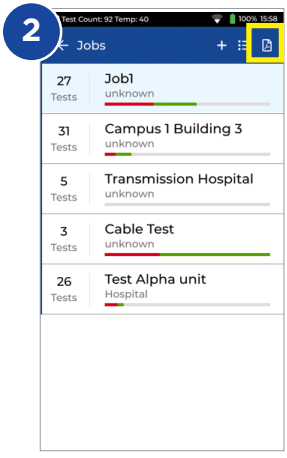
Wiremap Test

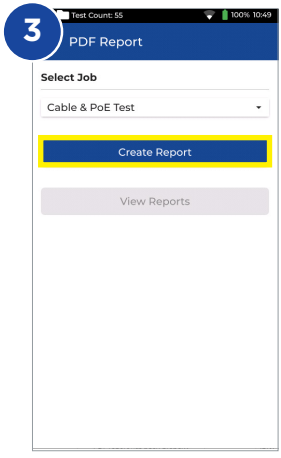
1. Connect both display and remote units to the cable under test
2. Select **Wiremap** interface
3. Set the **Wiremap** test via **ANALYZE**
4. Set the cable type, Shield type, Display preference, Splitter and crossover allowed then to save
5. Run Wiremap test and flip result page between graphics and tabular
6. Save the results

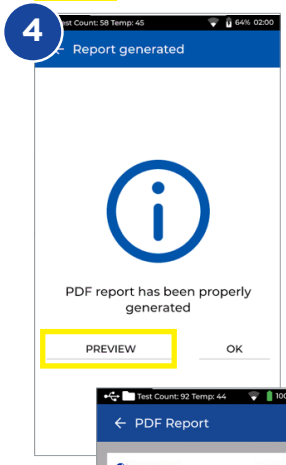


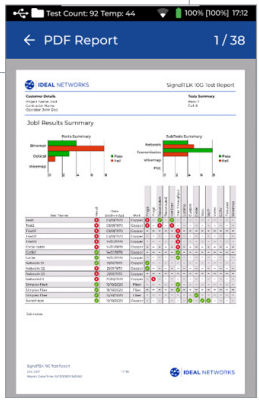
Creating a Test Report

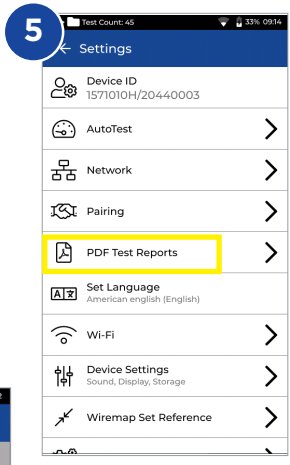


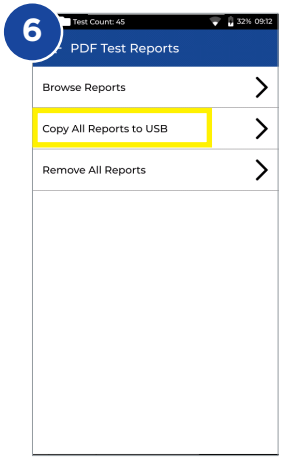




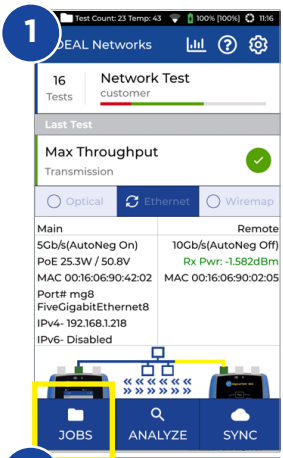


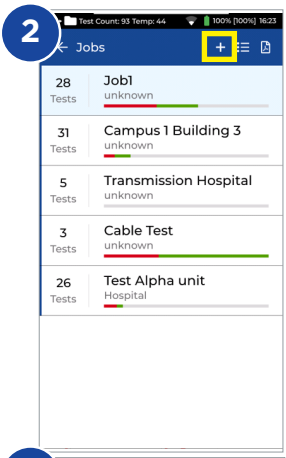


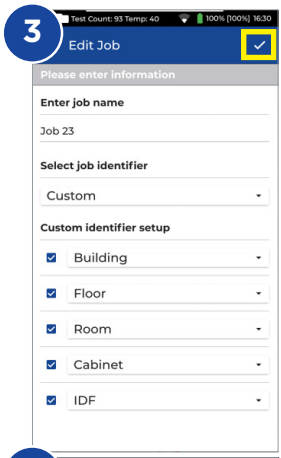


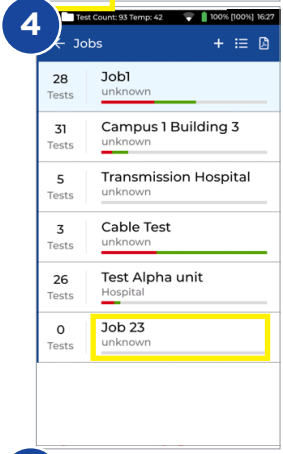


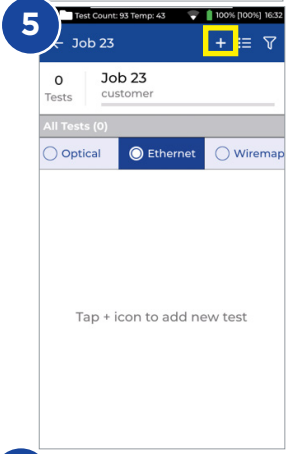
Creating a Job

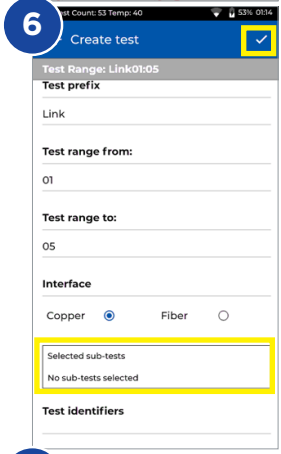


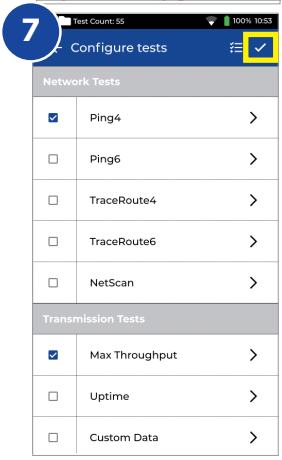


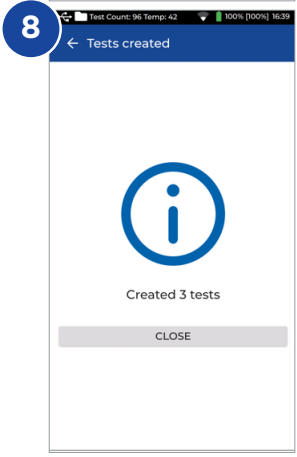


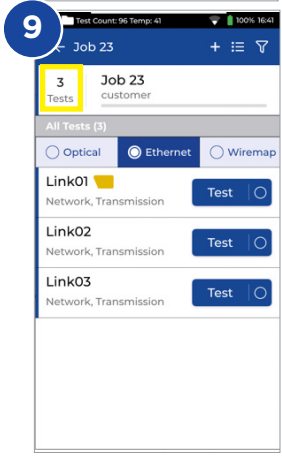


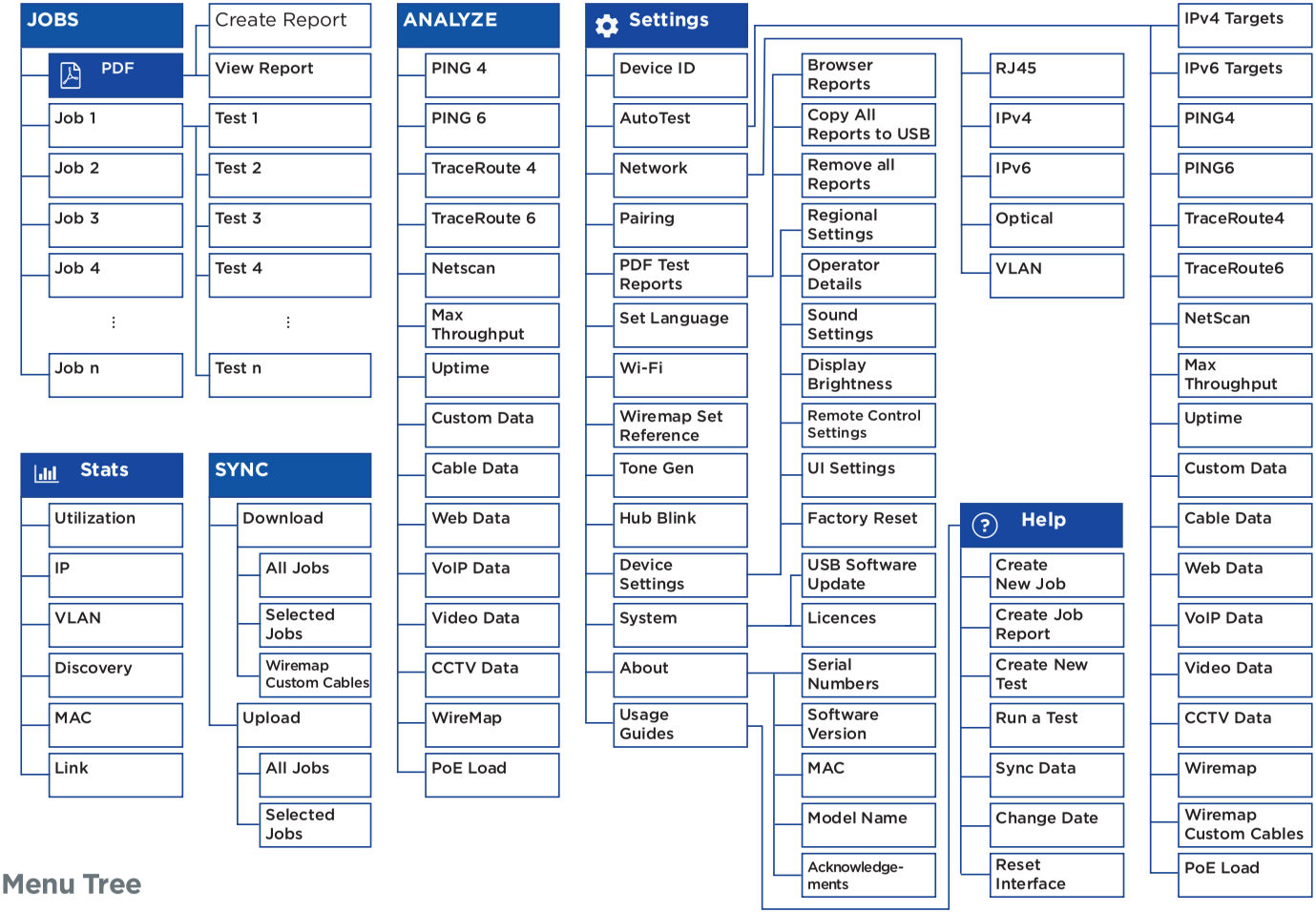








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Create Job Report
Create New Test
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PING4
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