NF-859GT (859G+8508 Transmitter)

The functions of the transmitter include alignment test, wire detection, port blinking, length test, PoE test, crimping test, optical power meter and red light functions.

Icons on UI

AUTO-OFF: Customers can see the icon " " on the left top of the screen when the function is ON, Customers can choose to turn it off in "Set".

Power Level: Show the battery power level of the device, it will turn to Green when charging, and stays white when in use.

Cable Continuity Test

Cable Tracking

Port Flash

Cable Length Measurement

PoE Test

Ping Test

IP Scan

Switch Test

Set

User Instructions

1. Alignment Test

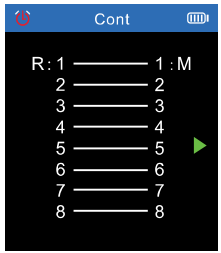
Three alignment test modes: Alignment test with receiver, alignment test with switch, and local alignment test.

Alignment Test with Receiver: To test the cable continuity, cross and short circuit of the network line.

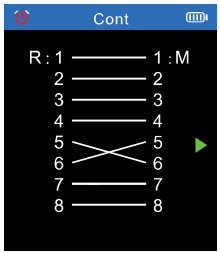
Alignment Test with Switch: To test the cable continuity only, which is shown in the form of short circuit.

Local Alignment Test of Receiver: You can switch between fast alignment test and slow alignment test.

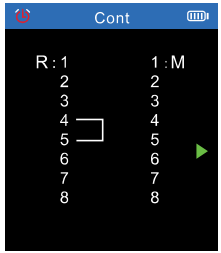
Take Alignment Test with Receiver as an example.
Insert one end of the cable into the line interface on the right side of the transmitter, and the other end into the "Remote Line A" port at the bottom of the receiver. Select "Line with Receiver" and press the " OK " button to start the test. The test results are as follows:



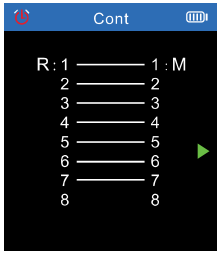
The test is normal



Cross of cores 5 and 6



Short circuit of cores 4 and 5



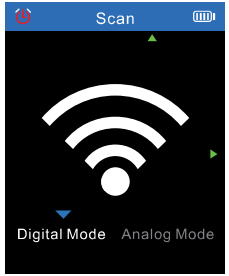
Open circuit of core 8

2. Wire Detection

Press the Up/Down key to switch between the two wire detection modes.

Anti-interference Wire Detection: Anti-interference and noise-free. This mode is recommended for the on-load wire detection of a gigabit switch.

Ordinary Wire Detection: With certain noise. The ordinary wire detection mode can be used to detect ordinary electric cables or for no-load wire detection.



Digital Mode

Transmitter:
The default mode is the anti-interference wire detection mode. Press the Up/Down key to switch between the anti-interference wire detection mode and ordinary wire detection mode.

Receiver:
The default mode is the anti-interference wire detection mode. Press the Wire Detection key to switch between the anti-interference wire detection mode and ordinary wire detection mode. When the light of the Wire Detection key is on, it indicates the anti-interference wire detection mode; when the light of the Wire Detection key blinks, it indicates the ordinary wire detection mode.

Notes:

1. The mode on the transmitter should be consistent with that on the receiver, otherwise, the receiver cannot detect any signal.
2. The knob on the receiver is used to adjust the sensitivity of wire detection. The maximum detection range is 10cm; the maximum wire detection distance is 600m for no-load wire detection or 1000m for on-load wire detection.
3. The stronger the signal received, the brighter the signal strength indicator.

Signal Strength Indicator
The stronger the signal received, the brighter the signal indicator.

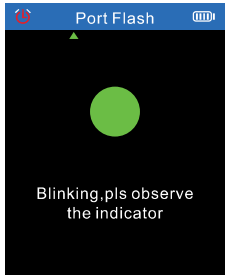
Wire Detection Sensitivity Adjustment KnobIf you feel the signal is too strong, decrease the sensitivity; if you feel the signal is too weak, increase the sensitivity.

"The light of the wire detection mode switching key is on" indicates anti-interference wire detection, and blinking indicates ordinary wire detection.

859GT

3. Port Blinking

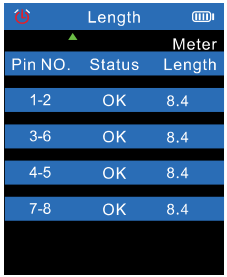
When the detection is successful, the green spot displayed on the interface will blink with the port indicator synchronously.



Port Flash

4. Network Line Length Test

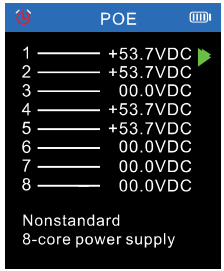
The length of the network line can be tested. After setting the type and unit of the network line, press the " OK " key to start the test. The length is displayed in line pairs. (Best Measurement Range: 5-200m)



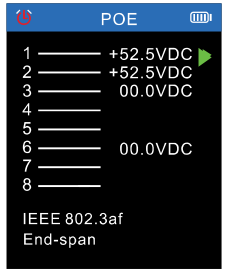
Network Line Length Test

5. PoE Test Function

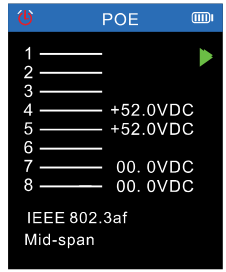
When the detection is successful, the screen will display the detection data.



8-core power supply, 53.7V



End-span, 52.5V



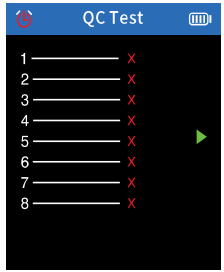
Mid-span, 52.0V

PoE: 5~60V nonstandard/standard PoE can be tested. The AF/AT standard is identified automatically.

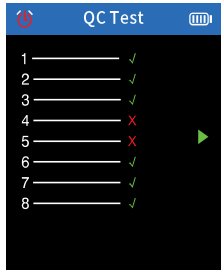
6. Crimping Test

This function is used to test whether the registered jack is crimped properly.

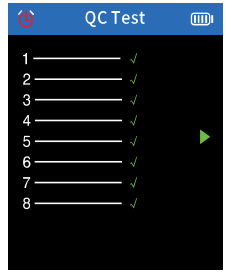
A tick indicates the wire core is crimped properly. A cross indicates the wire core is not crimped properly.



Cores 1-8 are all not through



Cores 4 and 5 are not through

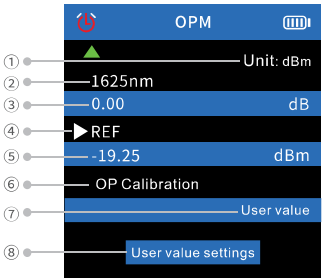


The crimping is normal

859GT

7. Optical Power Meter Function

This function is used to test optical power and light attenuation values. The unit, wavelength, REF and optical power calibration can be set. The current option is indicated with a white triangle cursor.



① **Unit Setup:** dbm or nw

Press the Up/Down key to move the cursor to this item, and press the " OK " key to switch the unit.

② **Wavelength Setup:** 850, 1300, 1310, 1490, 1550, 1625nm

Press the Up/Down key to move the cursor to this item, and press the " OK " key to switch the wavelength.

③ **Optical Power:** After the wavelength is set, insert the optical fiber into the soptical power interface on the top of the instrument. The 3rd line display the optical power value.

④ **REF:** Reference value. Use it when testing the attenuation value after the optical signal passes through the optical fiber link.

- After testing the optical power value, move the cursor to REF. Long press the " OK " key for 3 seconds, and the optical power value will jump from the 3rd line to the 5th line and become a reference value.
- Access the optical fiber link to be tested. Here, the 3rd line displays the attenuation value of this optical fiber link (Test value after the optical fiber link is accessed – Reference value before the optical fiber link is accessed = Attenuation value of this optical fiber link).
- Press the " OK " key to turn on/off the REF mode. Long press the " OK " key for 3 seconds to reset the reference value.

⑤ **Reference Value:** When it is not in the REF mode, the 3rd line displays the optical power value and the 5th line does not display any values.

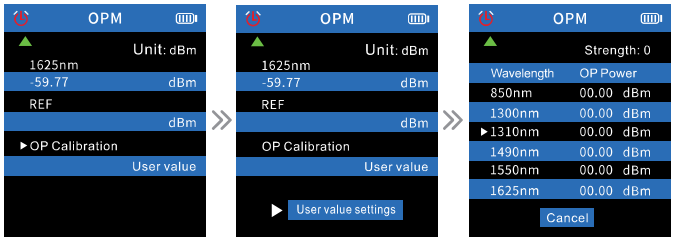
Notes:

- In the REF mode, the 5th line displays the reference value, and the 3rd line displays the attenuation value.
- dbm stands for the unit of the absolute power value.
- dB is a relative figure and stands for increase or decrease of signal strength.
- In the optical fiber network, optical power is often measured with dBm as the unit, and optical fiber attenuation, loss and insertion loss are represented using dB.

⑥ Optical Power Calibration: Factory-set value/ user-defined value

In normal cases, just select the factory-set value. When the test error is big, you can select User-Defined Value — User-Defined Value Setup for calibration.

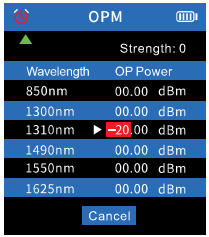
The following uses the 1310 wavelength as an example:



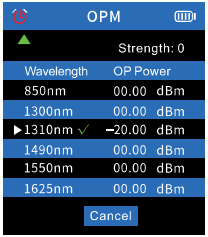
Select Optical Power Calibration Press the" OK " key to switch between the factory-set value/ user-defined value.

Select User-Defined Value SetupPress the " OK "key to enter the Setup interface.

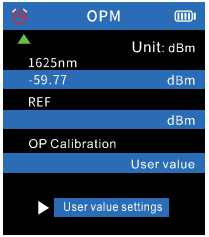
Press the" ▲ ▼ "keys and select the wavelength 1310. Then press the" OK "key to enter Parameter Setup.



Press the " OK " button to switch between integer and percentage. Press the" ▲ ▼ "keys to set the parameters. After the parameters are set, press the" ↩ "key.



The cursor is in front of 1310 again.Long press the " OK "key for 2 seconds. When √ appears, it indicates confirmation.



Press the" ↩ "key to return to the Test interface. Here, you can test the optical power again.

Notes:

- In Step Five above, be sure to long press the " OK " key for 2 seconds. When √ appears, it indicates that the data are confirmed; otherwise, the calibration will to take effect.
- In the aforementioned step six, calibration is done for the 1310 wavelength. When testing the 1310 wavelength under "User Value Setting" mode, the calibration data takes effect. For calibration in other wavelengths, follow steps three hundred and forty-five as described above.
- If the calibrated value is not used, switch back to the factory-set value according to Step One above.
- To remove the calibrated value, return to Menu — Setup — Factory Settings.

8. Red Light Function

Transmitter:

Select the " VFL " function to turn on the red light. Press the " OK " key to switch between Fast Blinking, Slow Blinking and On.

Receiver:

Press the " VFL " key to turn on the red light. Press it again to switch between On, Blinking and Off.

9. Setup Function

On the transmitter, the language, backlight brightness, backlight time and time before automatic power-off can be set.

Product Parameters

Model		NF-8508	
Cable type		CAT5/CAT6	
Voltage protection		60V	
Battery		Type C charge	
Transmitter	CONT	Wiremap Port	RJ45
		MAX range	300m
		STP/NTP	√
		Digital mode and Analog mode	√
	Scan	Frequency	455KHz
	Port Flash	Full duplex / Half duplex	Automatic Identification
		Auto-Nego / Non-Auto- Nego	
		10m/100m/1000m	
	Length	≤20M+/-1.6M, 20M~100M+/-2.4M, ≥100M+/-3.2M	
	PoE	Standard/Non standard	Automatic Identification
		End connection /Middle jumper / Powered by 8 cores	
		PoE Power supply	Voltage detection
	VFL	10mW	
	Power meter	850/1300/1310/1490/1550/1625 (Wavelength)	
	Crimping	RJ45-8 Cores,Min length is ≥10cm	
	Lower voltage warning	< 3.5V ± 0.1V	
	Power supply	3.7V 1500mAh Polymer lithium battery	
	Transmitter size	148 X 70 X32 mm	
Recevier	Wire Detection Function	Anti-interference mode/ordinary mode (used with other models)	
	Alignment Test	Local alignment test and remote alignment test	
	Crimping Test	To test whether the registered jacks RJ11 and RJ45 are crimped properly	
	PoE	Power supply wire core, mid-span and end-span	
	VFL	10mW	
	LED Flashlight	√	
	Battery Indication	√	
	Power Supply	3.7V lithium polymer battery	
	Dimension of Receiver	200x52x33mm	