Handheld comprehensive maintenance terminal

PMT-900

Manual

Contents

1.A letter to the user

Dear users:

In order to make the handheld integrated maintenance terminal better role,we recommend a number of use tips, hope to help you.

1.Fall shall be avoided during use.

2.The optical interface should be covered with a dust cover without use to avoid dust entry. Light interface insertion when the alignment, do not use brute force.

3.When placing the SIM card or TF card, align it and put it carefully according to the marked direction.

4.Please use the special charger. If charged with an unmatched charger, it may damage the device.

5.Avoid cutting the display with sharp items

6When the battery power is less than 15%, please connect the charger to charge: if the battery runs exhausted until the device automatically turns down, please connect the charger to charge for a period of time before turning it on.

2.Product Description

2.1 Product profile

  Handheld comprehensive maintenance terminal is based on the smartphone platform,A handheld comprehensive testing device that integrates LAN testing, red light source, video troubleshooting, optical power testing, ONU testing, scanning, and other testing functions for the operation and maintenance of the entire network of operators.

2.2 Appearance dimensions and interface description
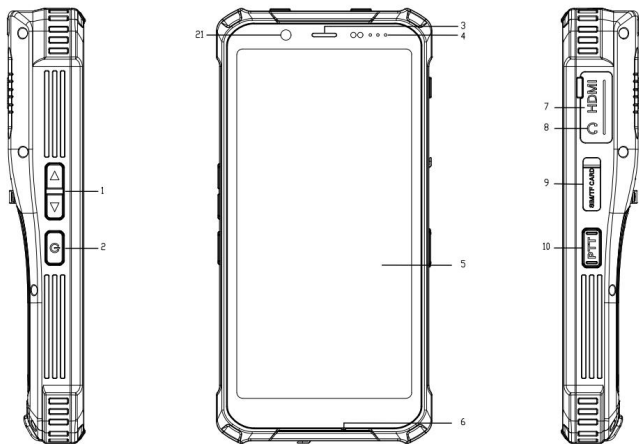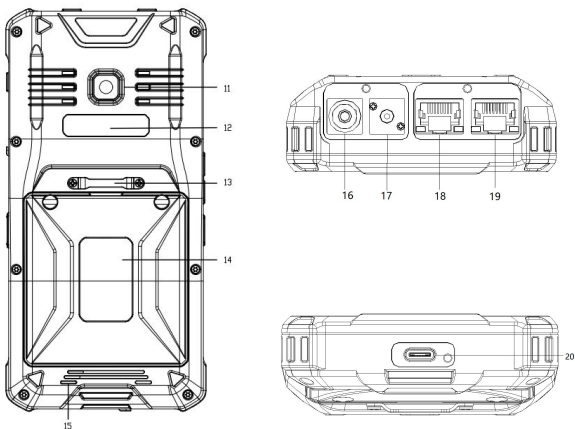
NO.	Name	Function
1	Volume Button	Adjust the volume
2	Power Switch	Switch off the device
3	Receiver	Device receiver
4	LED Light	To indicate the device status
5	Display Screen	Display Screen
6	MIC	MIC

7	HDMI	HDMI play function
8	Headphone hole	Used to connect headphones
9	SIM\TF	For insert SIM\TF card
10	PTT Button（Optional）	Talk about function keys
11	Rear camera	Take photos or video shooting,scan the code
12	Expansion area(Optional)	Connect external equipment,like OTDR
13	Carpal band connecting rod	Connect the wristband
14	NFC	Identification area
15	Loudspeaker	Equipment speaker
16	VFL Port	Red light source test
17	OPM Port	Connect the optical fiber to test the optical power
18	2.5G Port1	Ethernet for wired network testing,video troubleshooting
19	2.5G Port2	Ethernet for wired network testing,video troubleshooting
20	USB Port	For PC connection or charging
21	Front camera	Take photos or video shooting

2.3 Install SIM\TF cards

Open the side dust plug, you can see the SIM card, TF card two-in-one card holder, support dual card or single card + TF card insertion mode, insert the SIM card and TF card in the direction of the icon on the card holder.

2.4 Basic information of the equipment

1、Adopting 2160 * 1080 IPS true color LCD and 6-inch touch screen

2、Adopting the Android operating system

3、 Support 5G network:
   5G NR:N1/5/8/28A/41/78
   NSA/SA:TDD+FDD 5G 1CC
   LTE-FDD: B1/B3/B5/B7/B8
   LTE-TDD:B34/B38/B39/B40/B41(2515-2675MHz)
   WCDMA:B1/2/5/8
   GSM:B2/3/5/8GSM B3/B8/B2

4、Rechargeable 3.8V 6000mAh polymer battery

5、Support calling and playing music

6、Front camera 800W pixel

7、Rear camera with 1600W pixels, supporting autofocus and flash

8、Supports NFC reading

9、Support flashlight function

10、Support button adjustment of volume, can freely adjust the volume size according to environmental needs

3.Technical indicators and basic functions

3.1 Optical power meter

1.Wavelength range:800nm~1700nm

2.Photosensitive materials:InGaAs

3.Power accuracy:$\pm5\%$

4.Display resolution::Linear display 0.1%, logarithmic display 0.01dBm

5.Stability:0.1dB

3.2 VFL function

1. Working wave:650±20nm

2. output power:30mW

3. connector:Multi purpose adapter interface
（SC/FC/ST.etc）

4. Working mode:CW/2Hz

5. Fiber type:Singlemode and Multimode

3.3 Basic functions

3.3.1 OTG

The phone can be connected to a USB storage device through a USB OTG data cable,
Perform file transfer and data backup.The USB storage devices supported by mobile phones include USB flash drives, card readers, and phones that support USB mass storage function.

After connecting the USB storage device and completing the loading process, you can read the data from the USB device on your phone.

3.3.2 Turn on/off the network card

To open the device's network card, scroll down the status bar and click on the LAN icon.When the LAN icon is displayed in white, it indicates that the network card is turned on;When the LAN icon is displayed in gray, it indicates that the current network card is not turned on.Press the LAN icon for 2 seconds to jump to the Ethernet interface, where you can choose DHCP or static address mode,IP address can be obtained in DHCP mode.In the static address state, the IP address, subnet mask, gateway, and DNS of the network card can be modified. DNS is divided into two types, DNS1 and DNS2, and DNS1 should be set first.

3.3.3 PPPoE

If you need to dial PPPoE, scroll down the status bar, click on the PPPoE icon, and the system will pop up a PPPoE attribute pop-up box.Enter your account and password on the dial-up interface, click on Configure Network, and establish a PPPoE link.

3.3.4 Ethernet indicator light (indicator light 1)

After Ethernet is successfully turned on, the indicator light remains on

3.3.5 Power indicator light (indicator light 2)

Low battery state: Red constantly on
Charging status: yellow constantly on
Full state: Green constantly on

3.3.6 WiFi6 Indicator light (indicator light 3)

After successful activation of WiFi 6, the indicator light remains on

4 Main Function Usage Instructions

4.1 Broadband and landline installation and maintenance tools

The toolProfessional testing software for equipment, including red light, optical power testing, video troubleshooting, and other related content,Customers can choose the corresponding functions according to their testing needs. The testing description of the equipment is as follows:

network layer

Select the IfConfig / Ping / TraceRoute / Telnet function according to your own needs.

PING test

Enter the IP address where you want to Ping, select the packet size and Ping times and click OK.

IPCONFIG test

Select the corresponding network port to view the current network information.

ROUTE test

Select the corresponding network port to view the current route Information

TRACERT test
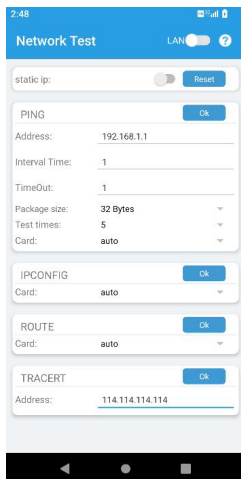
Enter the destination address to be tracked, select the timeout setting, and then click OK to test.

4.2 VFL

The device has a red light source output function,Can output continuous red light or 2HZ modulated light. Click to turn on the red light to turn on the red light source, click to turn off the red light to turn off the red light source, CW/2HZ is the switch button between continuous light and modulated light.

4.3 OPM（GPon,10GPon）

The optical power testing function is to test the power value of optical fiber signals. The tail fiber of the optical signal to be tested can be inserted into the optical interface to test the optical power, The following figure：
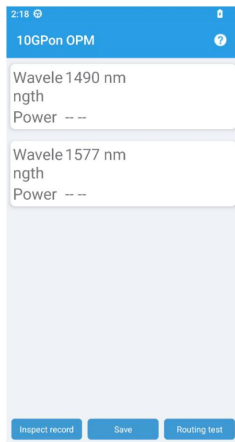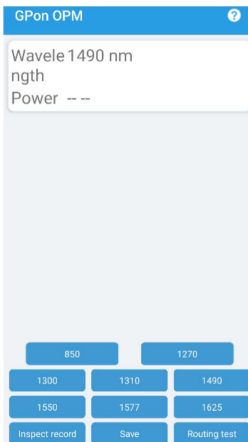
The 8 wavelengths at the bottom of the screen are calibration wavelengths, and selecting the corresponding wavelength can test the current optical power value. The test values are displayed in both dBm and nW units simultaneously. Clicking to stop the test program will stop the current test, and the data will remain displaying the last test result. Clicking to save the record will save the current test result.

Click the inspection button to create inspection tasks for line inspection operations. You can enter the name of the line to distinguish between different lines. The significance of inspection is:Test the optical power values at different positions on a fiber optic cable, and then draw a power curve to view the attenuation value between any two points.

4.4 IPTV

IPTV mainly monitors and analyzes real-time video streams of various TV services.Connect one end of the TV network cable to the optical modem and the other end to the RJ45 port at the top of the device. Find another network cable, one end is connected to the other RJ45 interface at the top of the device, and the other end is connected to the TV set-top box. Connect the device as shown in the image.Click Start to check the service data transmission quality,IP packet quantity, business data transmission rate, jitter, packet loss, etc.
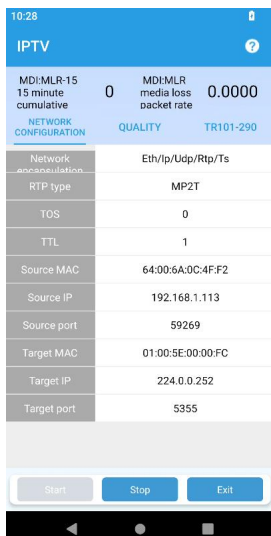
4.5 Scan the code

Enter the ScanCode,point the camera at the bar code to be scanned to scan the result and display it on the screen, and at the same time, you can directly copy the scanned information or jump to connect to the network.
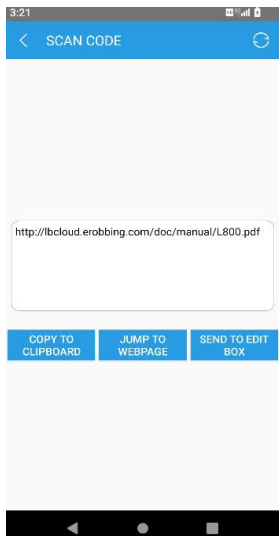
4.6 PPPOE

After the device is connected to the network cable, click the PPPOE dial-up function and enter the correct account and

password to access the Internet.

4.7 Application Market

Can undertake the application download, the application update operation, quickly install the required application.

4.8 Wired Speed test

Instructions:Long press the LAN icon in the prompt bar to enter the network card settings, turn on the network card switch to enable the network card, obtain the IP successfully, open the speed measurement software, and start speed measurement.
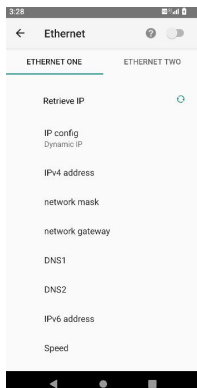
4.9 WIFI 6 Speed measurement

Instructions:Pull down notification bar - long press the WIFI6 icon to enter the MIMO WIFI interface, select the route name to connect, and after successful connection, open the speed measurement software to start speed measurement.

5 Routine maintenance

Phenomenon	Reason	Maintenance Methods
Can't turn on	The power button is pressed for a short time	Press and hold the power button for 2 seconds or more
	The battery is low	Charge the battery
	Poor battery contact	Reinstall the battery or clean the battery contacts

Some programs don't work properly	The device is running out of storage space	Clean up your device's memory in a timely manner
Insufficient standby time	The battery performance is not good	Replace the battery
	Use the game and play music for a long time, etc	Reduce the amount of time spent playing games and music
Charging failure	Poor contact	Check the contact and replace the socket or plug
	The battery voltage is too low	Charge for half an hour, then plug the charging cable back in
	Battery failure	Replace the battery
	The adapter model is wrong and Adapter malfunction	Replace the adapter
Invalid key operation	Affected by nexpected interference	Stay away from the interference source and restart the device
Can't make a phone call	The SIM card is faulty	Please check if the SIM card is inserted accurately
	Dialing error	redial
	Reaching the cost limit	Contact the operator
No prompt tone for incoming calls	Set the volume to mute	Reset the appropriate volume
The device shuts down automatically	The battery is low	Please charge
	Affected by nexpected interference	Stay away from the interference source and restart the device
	The reason for the setting	Check whether automatic shutdown is set

6 Note

1. The working environment should be kept ventilated and clean, avoiding use in high temperature and high humidity environments;

2. The equipment should avoid strong electromagnetic field interference around it

3. Do not use hard objects to strike the surface of the equipment

4. When the device is running low on battery, please plug in the original factory configured power adapter for use

5. When using third-party programs to flash or updating unauthorized operating systems, it may pose certain risks to the operating system, so users are prohibited from flashing their own devices

6. If the device is not used for a long time, please make sure to charge it every 3 months, and the battery should not be stored for more than 1 year

7. <Regulations on the Management of Recycling and Disposal of Waste Electrical and Electronic Products>Suggestive explanation:

Encourage users to comply with relevant national laws and regulations on the recycling and disposal of waste electrical and electronic products when they no longer need such products, and hand them over to local manufacturers with nationally recognized recycling and disposal qualifications for recycling and disposal

Warn:

In the living environment, this product may cause radio interference. In this case, users may need to take practical measures to address the interference.

7 The List

Name	Quantity
Handheld Integrated Maintenance Terminal	1
Manual QR Code	1
USB Cable	1
Strap Of Package	1
Package	1
Wrist Strap	1
Battery	1
Ceramic Core	1

Declaration of Toxic and Harmful Substances in Electronic Information Products

Component Name	Hazardous substance					
	Lead(Pb)	mercury (Hg)	cadmium(Cd)	hexavalent chromium (Cr(VI))	Polybrominated biphenyls ((PBB)	lybrominated diphenyl ethers (PBDE)
Plastic structural components	O	O	O	O	O	O
Circuitboard/module.	O	O	O	O	O	O
Metal. structural components	O	O	O	O	O	O
component	O	O	O	O	O	O
display	O	O	O	O	O	O
battery	O	O	O	O	O	O
The power adapter	O	O	O	O	O	O
anneX	O	O	O	O	O	O
packaging	O	O	O	O	O	O

This table is prepared in accordance with the provisions of SJ/T11364 .

O: Indicates that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirements specified in GB/T26572 ;

X: Indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirements specified in GB/T26572.

The electromagnetic **radiation specific absorption rate of this product (SAR) Max≤2.0W/kg** ,Meets the requirements of national standard GB21288-2007.

This environmentally friendly usage period is only suitable for the product to work under the conditions specified in the instruction manual .

9. Three guarantee certificate

Model:

Date of manufacture:20   year   month   date producer:

seller: sale date: year   month   date Invoice number:

purchaser: Tel: Zip: add:

Warranty Unit: Tel: Zip: add:

M R	1	Maintenance technician		date	
	2	Maintenance technician		date	
	3	Maintenance technician		date	
	4	Maintenance technician		date	

Note:

    1、This three guarantee certificate is prepared in accordance with relevant national regulations.

    2、Except for the repair records filled out by the repairman, all other three guarantee certificates are truthfully filled out and stamped by the salesperson.

3、When returning or exchanging products, it is necessary to attach this certificate to the product packaging box and strictly follow the national return and exchange system. Otherwise, it will be considered as an automatic waiver of the "three guarantees" right.