

## Check how easy it is to configure and monitor a MAX inverter

Inverter configuration and monitoring is critical for a solar system, it can ensure the proper operation and maximum generation. traditional ways of configuration and monitoring includes RS232, RS485, RF, LAN etc. it's time to see some innovative designs, and here comes the Growatt MAX series brand new inverter which makes your inverter in control in every way.

### Communication interface overview

See in the chart below how comprehensive it is, no matter locally or remotely you want to monitor the inverter, you have multiple options, MAX 50-80KTL3 LV(MV) inverter has powerful human machine interface that can clearly indicate the operating status of inverter, also can easily achieve local and remote communication along with daily maintenance.

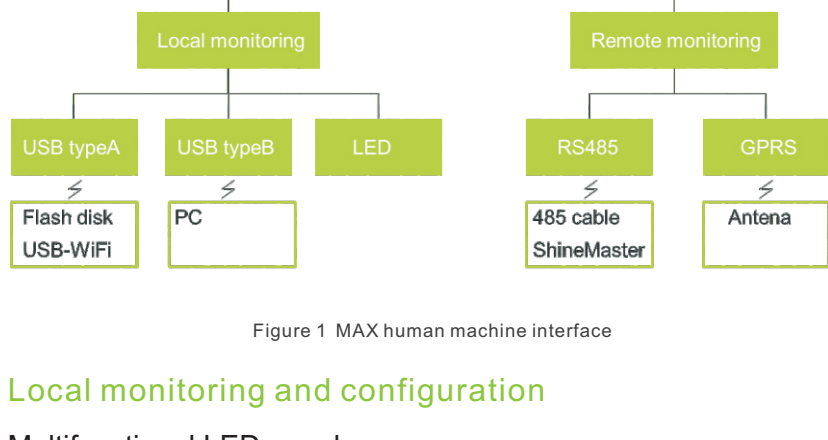


Figure 1 MAX human machine interface

### Local monitoring and configuration

#### Multifunctional LED panel

Not like regular LED indicator, this innovative led panel of Growatt Max series inverter shows inverter working status, communication status, fault, warnings, and also approximate power with the 8 led bars in a ring. catch the basic inverter information at a glance, quick and easy.

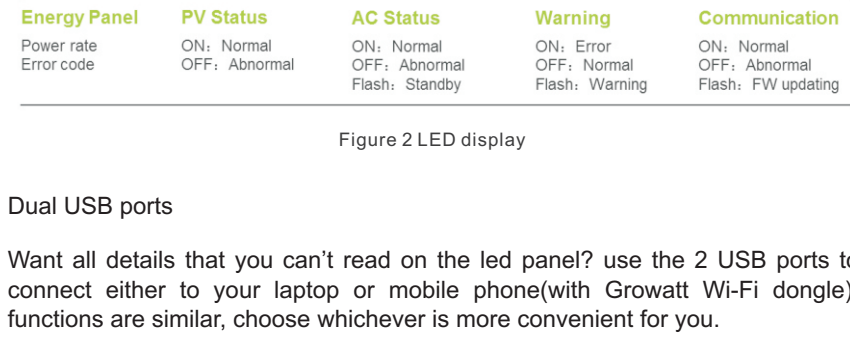


Figure 2 LED display

#### Dual USB ports

Want all details that you can't read on the led panel? use the 2 USB ports to connect either to your laptop or mobile phone(with Growatt Wi-Fi dongle), functions are similar, choose whichever is more convenient for you.

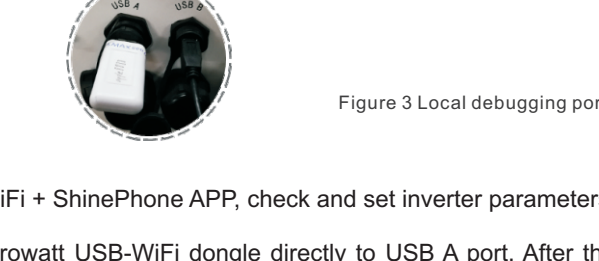


Figure 3 Local debugging ports

#### USB A + WiFi + ShinePhone APP, check and set inverter parameters

Plug the Growatt USB-WiFi dongle directly to USB A port. After the inverter is on, module will generate a local WiFi signal, connect your mobile phone to this WiFi signal, then you can start local monitoring and configuration.



Main interface

Generation

Device Control



Smart Diagnosis

Device Information

#### USB B + Shinebus + PC, check and set inverter parameters

Connect inverter's USB B port and computer's USB port with a USB cable, set the COM port and communication baud rate to 38400, done, now you can browse all details of your inverter on your laptop.

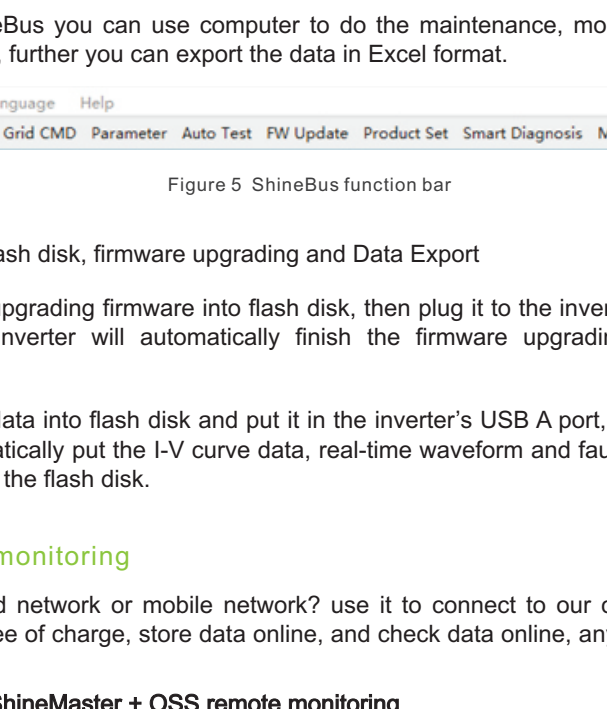


Figure 4 ShineBus monitoring page

With ShineBus you can use computer to do the maintenance, monitoring and debugging, further you can export the data in Excel format.

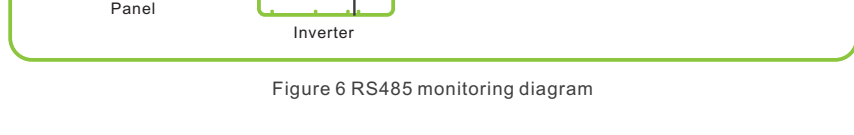


Figure 5 ShineBus function bar

#### USB A + flash disk, firmware upgrading and Data Export

Copy the upgrading firmware into flash disk, then plug it to the inverter's USB A port, the inverter will automatically finish the firmware to upgrading within 3 minutes.

Copy the data to flash disk and put it in the inverter's USB A port, the inverter will automatically put the I-V curve data, real-time waveform and fault waveform record into the flash disk.

### Remote monitoring

Got a fixed network or mobile network? use it to connect to our cloud server which is free of charge, store data online, and check data online, anywhere, any time

#### RS485 + ShineMaster + OSS remote monitoring



Figure 6 RS485 monitoring diagram

MAX 50-80KTL3 LV(MV) inverter's RS 485 can be used for up to 32 inverters communication, Suitable Scenarios and features:

- Large capacity solar plant with multiple inverters, RS485 communication is more stable than others.
- Commercial rooftops where it is hard to install optical fiber, you can use RS485 and router for long distance communication.

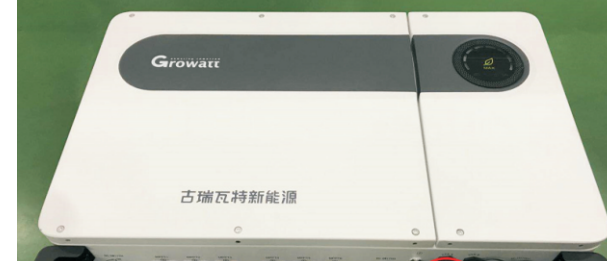


Figure 7 RS485 ports

#### GPRS communication (optional)

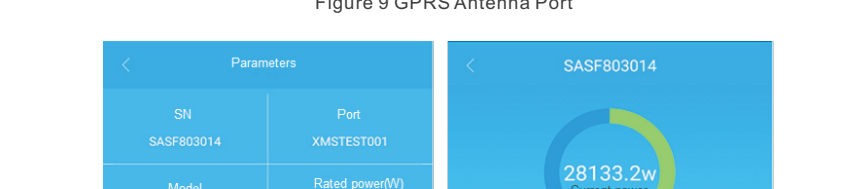


Figure 8 GPRS monitoring

Opps, fixed network is not available? no worry, Growatt MAX 50-80KTL3 LV(MV) has in-built GPRS module, insert a sim card and connect to mobile network, plug the antenna to inverter, scan the QR code with ShinePhone APP and add the inverter, done, now you can check all details online with either web browser on PC or on your mobile phone.

For GPRS monitoring you need plug the antenna into the antenna port, like following figure:

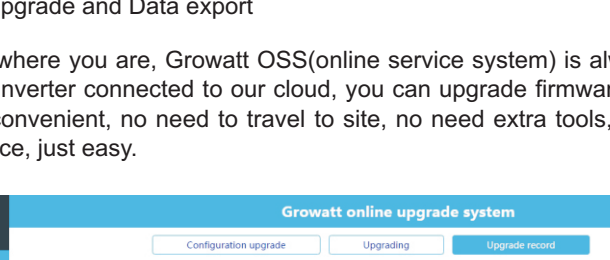


Figure 9 GPRS Antenna Port

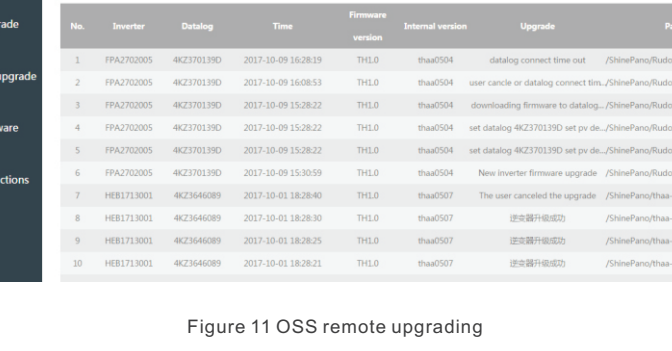


Figure 10 ShinePhone APP monitoring page

#### Firmware upgrade and Data export

No matter where you are, Growatt OSS(online service system) is always there, once your inverter connected to our cloud, you can upgrade firmware remotely, easy and convenient, no need to travel to site, no need extra tools, everything done at office, just easy.



Figure 11 OSS remote upgrading