



GK7000 V2

Quick Start Guide



Safety Precautions

Properly maintain your system to guarantee its service life and reduce risk of damage.

1. Avoid leaving the system in a humid place, or any place where foreign material might come into contact with it.
2. Avoid exposing the system to extreme sunlight for an extended period of time. Doing so may damage the LCD touch screen.
3. Avoid dropping or rough handling of the system.
4. Avoid operating the LCD touch screen with anything other than the enclosed stylus. Doing otherwise will result in damage to the screen.
5. Before cleaning the system, disconnect it from the power source.
6. When cleaning the system, use only a damp cloth.
7. Do not attempt to disassemble the system for repair. Doing otherwise might damage it beyond repair.
8. To avoid any risk, do not allow the system to come in contact with any flammable liquid or gas.

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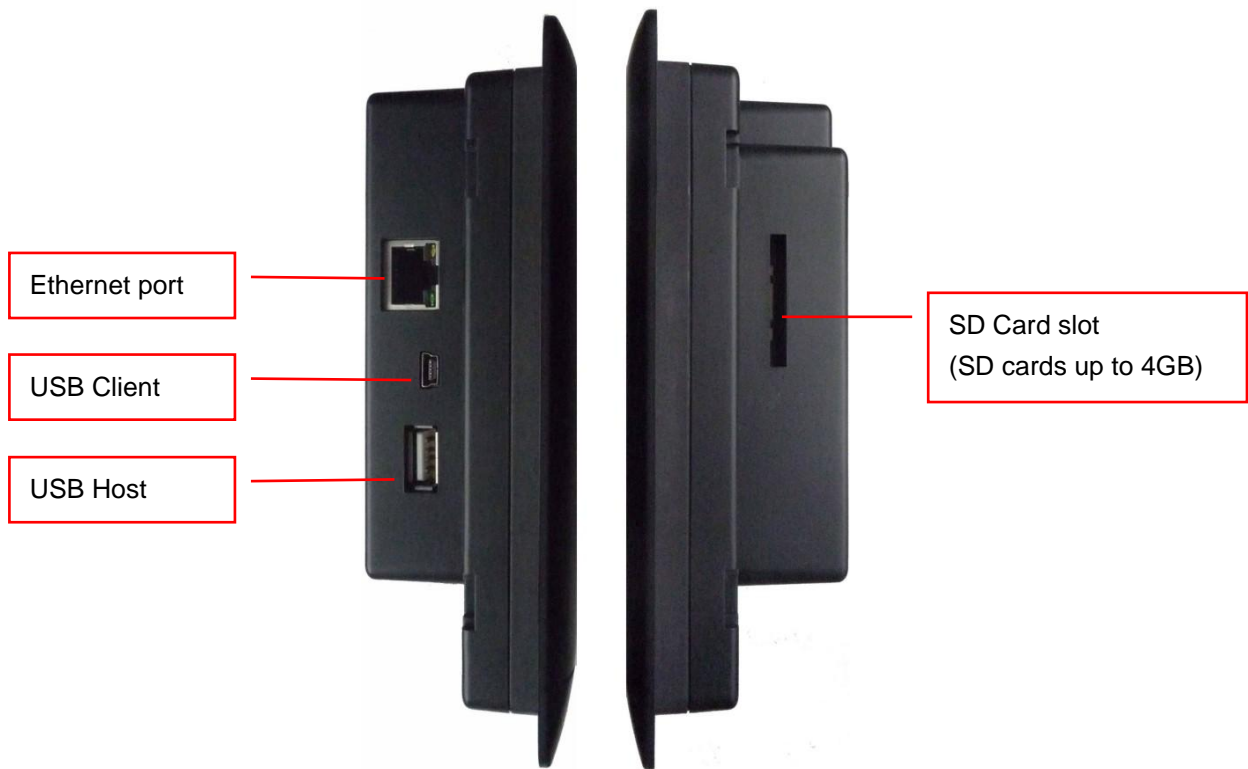
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1. Introduction

Thank you for purchasing the GK7000 - a high-performance embedded industrial control device. It has a core CPU of Samsung S3C2416 processor that is based on an ARM and runs an embedded Microsoft Windows CE 5.0 operating system, with a rich set of features, interfaces, low power consumption and high reliability.

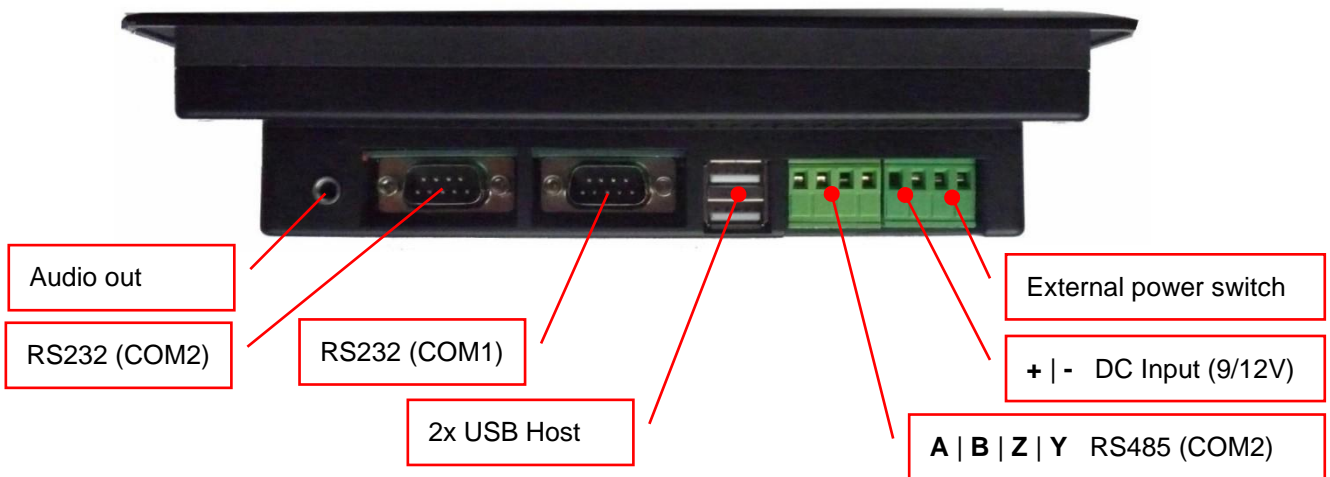
The GK7000 has the same integrated developing environment as the PC. Users can use the Embedded Visual C++ 4.0 (the same developing environment & fully compatible API, including MFC with PC's Visual C++), and Visual Studio 2003, Visual Studio 2005 etc., which makes developing application easy and simple.

2. GK7000 overview



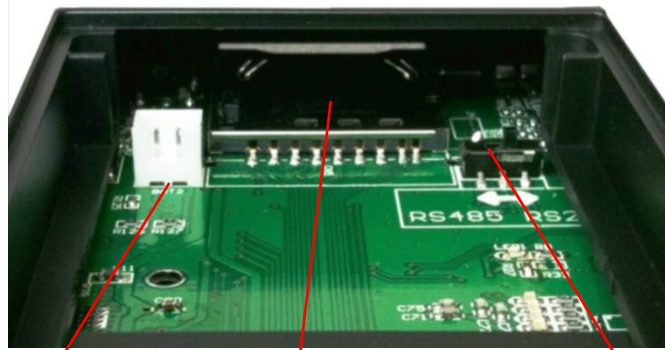
Note

The USB (2.0) client port is used to sync the GK7000 with a PC using: ActiveSync (Windows XP) or Windows Mobile Center (Windows Vista and Windows 7).



Note

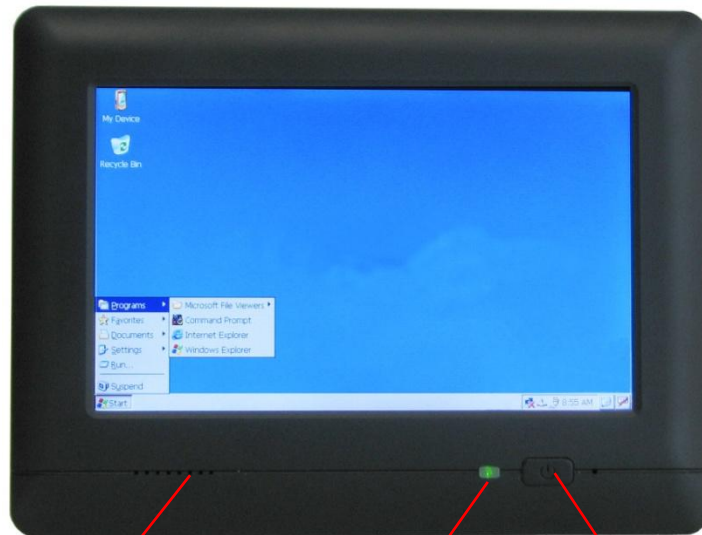
Please make sure that the power cable is well connected to avoid any power issues.



Battery connector

SD Card Slot (accessible from outside).

RS232/RS485 switch
Move to the left to switch the COM2 to RS485.



Speaker

LED indicator

Power switch

LED indicator notes:

- **Green** when power on (with or without battery).
- **Red** while booting and charging. Turns green when charge is full.
- **Red** when charging while power off. Turns off when finished charging.

3. Battery Installation

Plug the battery's power plug into the power socket inside the GK7000 and connect the power cord to the battery connector.



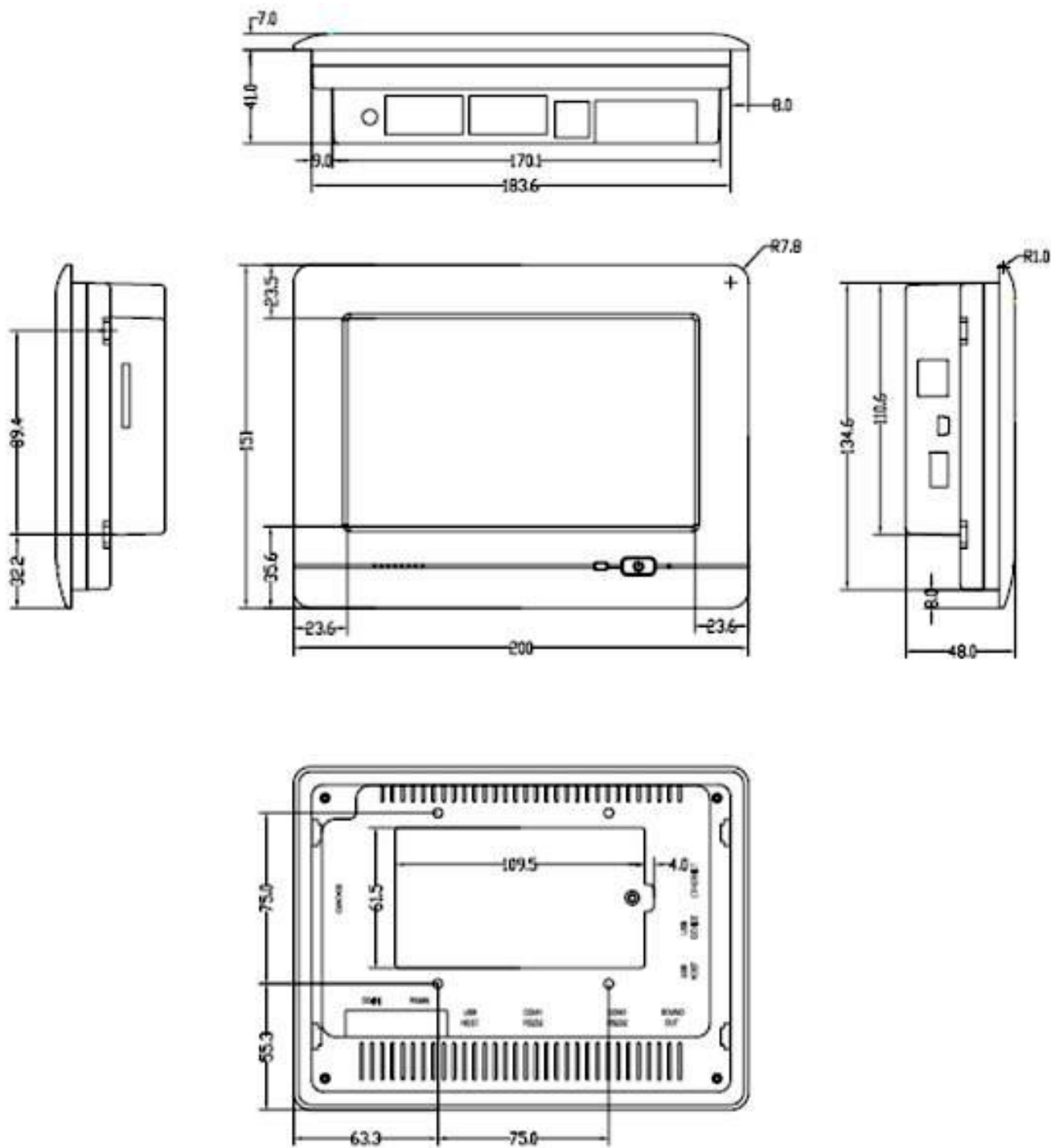
Place the battery into the casing as shown below and accommodate the power cord.



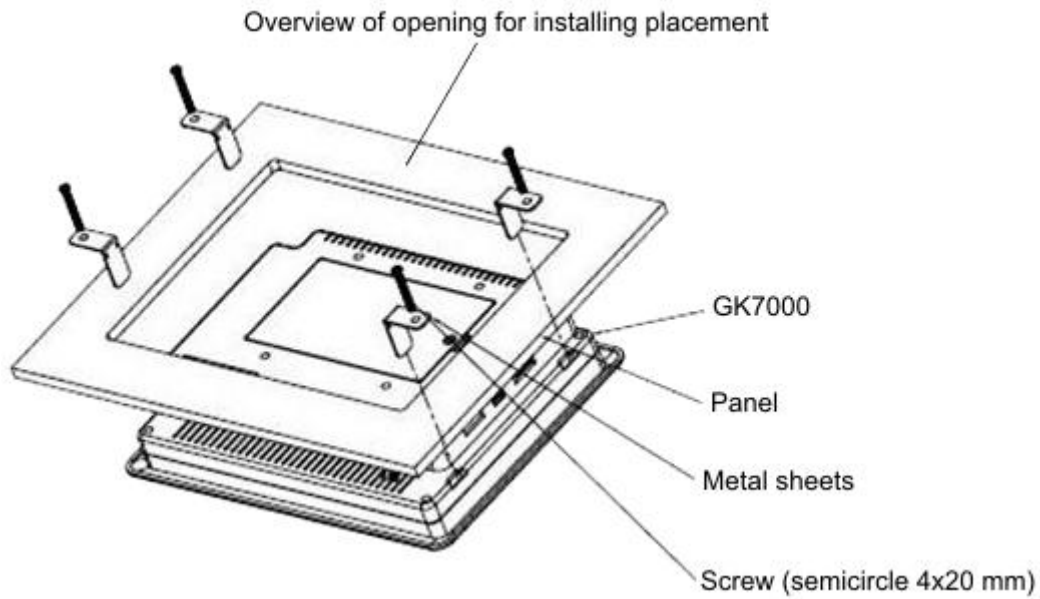
Battery and power supply

If the battery is connected the power supply will also charge it, but in this case powering the device won't switch it on. If you like the GK7000 to switch on as soon as it is powered then do not connect the battery.

4. Dimensions

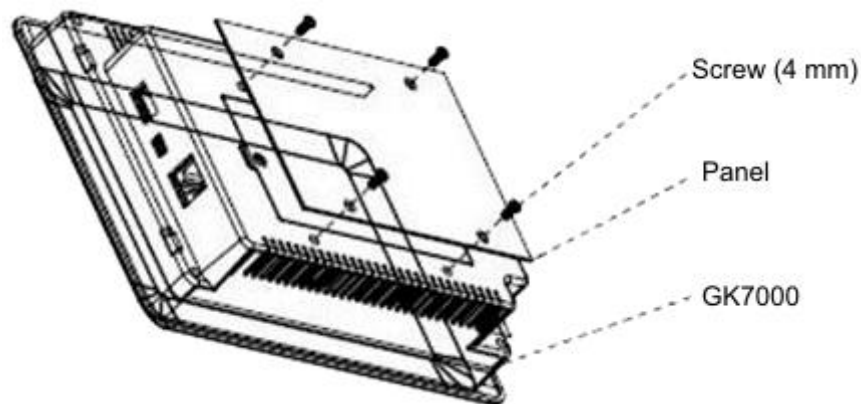


5. Panel mounting



6. Wall mounting

Insert the four metal sheets to the sockets at the back of the device (as shown in the diagram above). Lock the four screws (4x20 mm) up to the holes of metal sheets until the end.

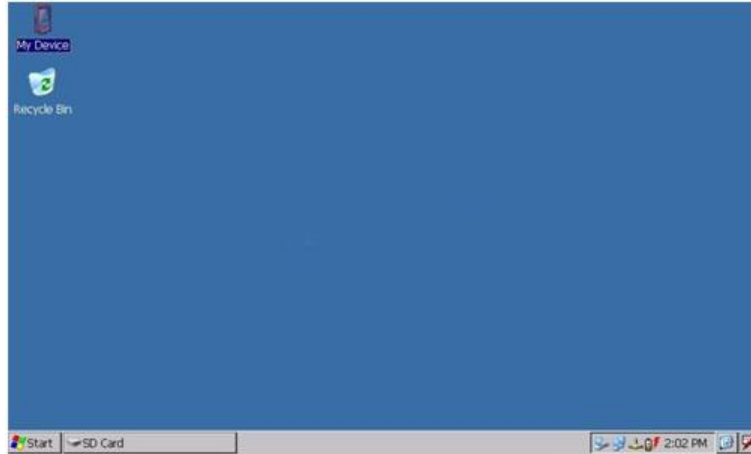


Screws length

The length of the supplied screws is 6 mm. These are intended to be used with the standard thickness of the panel of 1 mm. If mounted with thicker panel, please add to the length of the screws accordingly.

7. Switching on the GK7000 for the first time

Having plugged the system into the power supply or having charged the battery, press the power button to switch on your GK7000. Upon start up you will see the Windows CE 5.0 desktop.



To transfer files to the system, this can be either done through the SD card slot or through syncing with a host computer through the client USB.

To sync the GK7000 with Windows, install **Microsoft ActiveSync** (in the CD is included the release 4.5 English) if you use Windows XP, or **Microsoft Windows Mobile Center** (in the CD is included the release 6.1 English) if you use Windows Vista or Windows 7.

1. Install the sync software you need and then reboot your computer.
2. After switching on the device and letting it start up, connect it to the PC using the USB cable.
3. The GK7000 will automatically sync with your PC.

8. Touch screen calibration

If the LCD touch screen is not responding correctly, it is recommended that you calibrate the touch screen.



My Device

1. Click **"My Device"** to enter into the file manager.



Control Panel

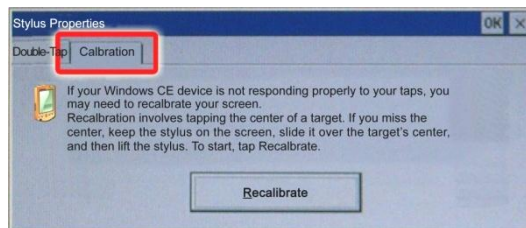
2. Click **"Control Panel"** in the file manager



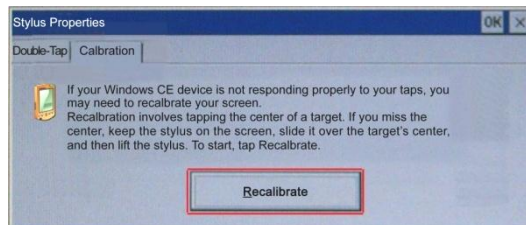
Stylus

3. Then click **"Stylus"**

4. Select **"Calibration"** in the "Stylus Properties" dialog box



5. Click **"Recalibrate"** to begin the calibration.



6. During calibration, hold the stylus on the cross center of the screen until it moves to another area on the screen. Continue to do so for other crosses that appear on screen.

8. Arbitrarily click the screen after calibration. Return to "Stylus Properties".

9. Finish calibration:

- Click **"OK"** to accept the new calibration.
- Click **"X"** to cancel the calibration.

9. Frequently Asked Questions

How to permanently save programs and files?

Every time the system is turned on, the OS is loaded from the internal 2GB FLASH memory, and all the files and folders you have created are lost (because saved in the RAM memory), unless you save it into the FLASH memory or SD card.

How to auto-run a program?

To have a program auto-run when the system is switched on, simply place it in the root directory of the flash drive and set its name to "autorun.exe".

How to revert to "factory-mode"?

Just format the Flash Drive.

How to recover a "black screen" GK7000?

If you accidentally delete system files, the GK7000 may turn into a black screen, despite the device keeps working. To recover a "black screen" unit:

- 1) Using your PC, copy the 2 files "Autorun.exe" and "Recovery.exe" (included in the CD) into the SD card root folder.
- 2) Insert the SD card into the GK7000 SD slot.
- 3) Connect the GK7000 to the PC (ActiveSync or Windows Mobile Center must be installed already).
- 4) Turn ON the GK7000.
- 5) Using your PC browse the GK7000 and copy the file "Autorun.exe" to the Flash drive, but leave "Recovery.exe" in the SD card.
- 6) Remove the SD card, and turn OFF the GK7000.
- 7) Turn ON the GK7000, the screen should appear again.

If the procedure above does not solve the problem then you may need to recover the unit updating the system image.

How to update the system image?

Please contact us per email at support@tikal.com. Due to the risk of damaging the device, we do not make this readily available.

How to replace the "boot splash screen"?

Please contact us per email at support@tikal.com. Due to the risk of damaging the device, we do not make this readily available.

10. Specifications

Screen	7" Color TFT LCD
Resolution/Brightness	800x480 / 300 cd/m ²
Input Mode	Resistive touch screen
DC Input	9V to 12V
Audio Output	≤1.2W
Power Consumption	10W to 12W
Interfaces	RS232, RS485, Ethernet, Wi-Fi (optional), SD slot (up to 4G)
CPU	Samsung S3C2416 (ARM9 32bit) 400MHZ processor
Memory	2GB FLASH - 128MB DDRII RAM
Dimension (LWD)	200x151x50 mm
Weight	546g (without battery) - 610g (with battery)
OS	Windows CE 5.0
DK	Visual Basic -EVC supports
Keyboard & Mouse	Supported through USB.

11. Accessories

The standard GK7000 package includes:

1. GK7000 panel PC.
2. Touch Pen.
3. USB cable for Windows Active Sync.
4. CD with drivers, software, SDK.
5. Printed Quick Start Guide.

Available accessories are:

1. **GK7-WiFi:** USB 802.11b/g Wi-Fi adapter.
2. **GK7-B:** 3,7V – 2200mA rechargeable battery.
3. **GK7-PS:** 10V – 2000mA power supply.

12. Customization

The GK7000 can be customized (hardware and software) to match your needs, the available hardware extensions are:

1. Integrated GPRS module.
2. Integrated Bluetooth module.
3. Integrated Wi-Fi module

Please send a request, specifying what customization you need, to sales@tikal.com.