



# Product Specification

## GoWatch 770

- GPS Sports Watch -



## Product Description

PAPAGO! GoWatch 770 是一隻專業的 GPS 運動手錶，使用者可以透過

GoWatch 770 記錄運動時間，距離，軌跡等，並透過心跳帶的結合，進一步記

錄心跳，以達到更專業的訓練目標。

## Hardware Spec

| Category                   | Item               | Requirements   |
|----------------------------|--------------------|--|
| <b>Look &amp; Feel</b>     | Size               | 52 x 39 x 16 mm (Rough), LB:115mm,SB:62mm                |
|                            | Weight             | 60g(Rough)   |
|                            | Color              | Black/Orange   |
|                            | Finish             | Texture  |
|                            | Display            | Sharp 1.26 inch memory LCD,144(V)x168(H)                 |
| <b>I/O</b>                 | Buttons            | 5 buttons  |
|                            | USB bridge         | USB 2.0 full speed (12 Mbits/s)                          |
|                            | Connetor interface | Pogo pin contact points (Stainless steel, Grade: SUS316) |
| <b>Storage</b>             | Serial Flash       | 8Mbytes  |
| <b>USB</b>                 | USB bridge         | Silicon lab CP210X                                       |
| <b>MCU</b>                 | STM32L151CBT6      | Ultra low power, 48 pin, 128k flash                      |
| <b>ANT+</b>                | nRF24AP2-8CHQ32-T  |  |
| <b>Acceleration sensor</b> |                    | Knock-knock to trigger backlight and power saving        |
| <b>Sound</b>               | Beeper             | For watch alarm function                                 |
| <b>GPS</b>                 | GPS Chip           | Sirf star 4e   |
|                            | Sensitivity        | Acquisition: -147dBm; Tracking: -163dBm                  |
|                            | Cold Start         | 35 seconds (average, Satellite at -130dBm)               |
|                            | Warm Start         | 35 seconds (average, Satellite at -130dBm),commanded     |
|                            | Hot Start          | 1 second (average, Satellite at -130dBm),commanded       |
|                            | Reacquisition Time | 0.1s (typical)   |
|                            | Datum              | WGS-84   |
|                            | AGPS               | 5-10 sec (Dependent on aiding data latency),CGEE         |
|                            | DGPS(SBAS)         | Enable   |
|                            | NMEA               | GGA,GSA,GSV,RMC(default);GLL,VTG(optional)               |
|                            | Update Rate        | 1Hz  |

|                                |                              |  |
|--------------------------------|------------------------------|--|
|                                | Accuracy                     | <2.5m CEP (50%) without SA (CEP, 24 hours static, -130dBm)<br>2m DGPS (WAAS, EGNOS)<br>Time pulse signal : 30ns RMS<br>Velocity : 0.01 m/s (50% at 30 m/s)<br>Heading : 0.01 degrees (50% at 30 m/s) |
|                                | Data Rate                    | 9600 bps   |
|                                | Altitude                     | <60,000 Ft .   |
|                                | Acceleration                 | 4G max.  |
|                                | Velocity                     | <1000 knots  |
|                                | Antenna                      | 12x12x3.5 mm build-in  |
|                                | Log Capability               | Yes  |
|                                | Firmware                     | TBD  |
| <b>Power</b>                   | Source                       | Via pogo pin with 5V @ 500mA max.  |
|                                | Power Consumption<br>(@25°C) | Typical 27~29 mA AVG. @Vin=3.7V ,GPS and LCD on,w/o backlight  |
|                                |                              | Typical 52~55 mA AVG. @Vin3.7V , GPS,LCD,backlight,ANT on  |
|                                |                              | Typical < 0.25mA AVG. @Vin=3.7V ,LCD Off, GPS and all sensors standby,power off mode   |
|                                | Battery                      | 350mAh(Typical) rechargeable Li battery  |
|                                | Operation Time<br>(@25°C)    | 12 hrs @Vin=3.7V ,GPS and LCD on,w/o backlight, all sensors and ANT+ off   |
|                                |                              | 1400 hrs @Vin=3.7V ,LCD on,w/o backlight,Watch mode  |
|                                | Backup Battery               | No   |
| <b>Software &amp; Firmware</b> | F/W Upgrade Scheme           | Update tool for Windows based PC only  |
|                                | Driver                       | Windows XP, Vista, Windows 7,Mac,Win 8   |
|                                | Application Program          | N/A  |
|                                | Logger Capability            | Yes  |
|                                | Device ID                    | Firmware version, serial number  |
| <b>Environment</b>             | Operation Temp.              | -10°C to +60°C   |
|                                | Storage Temp.                | -20°C to +60°C   |
|                                | Operation Humidity           | 20% ~ 80% R.H. non-condensing  |
|                                | Charging Temp.               | 0 to 40°C  |
|                                | Water Proof                  | IPX6,IPX7  |
|                                | MTBF                         | 2 years  |

|  |           |          |
|--|-----------|----------|
|  | Drop Test | 1m       |
|  | ESD       | 8KV pass |

## Product Image

