













# GSM/GPRS+GNSS Cellular Module

Designed for use in any GSM network in the world, Longsung A8901 is a Dual-band GSM/GPRS module that works on 900/1800MHz, A8901 features GPRS multislots class 10 and supports the GPRS coding schemes CS-1, CS-2, CS-3 and CS-4.

At the same time, the module A8901 can support the GNSS function. Its GNSS can support 56 channels, the Sensitivity of Tracking & Navigation is -164 dBm, and its Time-To-First-Fix of Cold Start is <35s, Hot Start is <1s.

To save space on the application platform, A8901 comes as an extremely slim and compact module. This makes it ideally suited for a broad range of mobile computing devices, and particularly offers easy integration with tracker, POS and other M2M application.



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|---|--|---|
|  GPRS class 12         |  GNSS             |  Low power consumption |
|  SMD or connector      |  Ultra small size |  RoHS compliance       |
|  GSM and GPRS          |  Ultra low cost   |  M2M application       |
|  Embedded TCP/IP stack |  AT Command       |  UART interface        |



# A8901

## GSM/GPRS+GNSS Module

## Cellular

### General features:

- Dual-band GSM/GPRS  
900/1800MHz
- GPRS multi-slot class 10
- Compliant to GSM phase 2/2+
- Output power:
  - Class 4 (2 W) for 900MHz
  - Class 1 (1 W) for 1800MHz
- Control via AT commands  
(GSM07.05,GSM07.07,V.25TER,GPRS,  
and Longsung enhanced AT  
commands)
- SIM Application Toolkit
- Supply voltage range 3.4V-4.2V
- Low Power consumption
  - Sleep mode: 1.6mA
  - Power down 50  $\mu$ A
- Dimensions: 18.7×16.0×2.5mm
- Soldering mounted type
- Temperature range: -40°C to +85°C

### Specifications for SMS:

- Point-to-point MO and MT
- SMS cell broadcast
- Text and PDU mode

### Specifications for data:

- CSD up to 14.4 kbps
- GPRS class 10: MAX  
85.6kbps(downlink)
- USSD
- Non transparent mode
- PBCCH support
- PPP-stack
- Coding schemes CS 1,2,3,4
- Embedded TCP/IP stack

### Specifications for GNSS:

- GPS frequency: 1575.42MHz
- Beidou frequency: 1561.098MHz
- Support 56 channel
- Sensitivity:
  - Navigation: -148dBm
  - Tracking: -165dBm
  - Reacquisition: -160dBm
- TTFF:
  - Cold Start: <25s
  - Warm Start: <25s
  - Hot Start: <1s
  - Aided Starts: <1s

### Additional features:

- Phone book
- Real time clock
- DTMF

### Interfaces:

- Power supply
- SIM 3V, 1.8V
- RTC backup
- UART interface
- GPIO
- RESET
- POWER\_ON
- VDD\_EXT
- GSM Antenna
- GNSS Antenna

### Approvals:

- RoHS/CTA/CCC