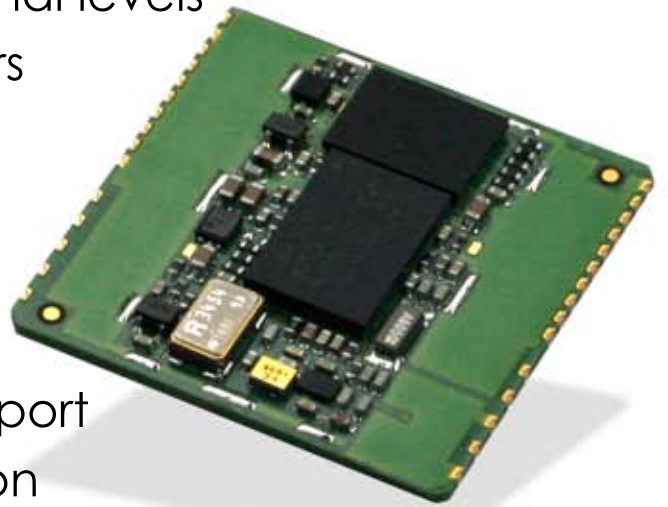


# JP13/JP13-S

High sensitivity 20 channel GPS receiver

- GPS module based on SiRF GSC3 LP chip (low power)
- High sensitivity for indoor fixes
- Extremely fast TTFF at low signal levels
- 200.000+ effective correlators
- Integrated TCXO
- 8 Mb FLASH memory
- ARM 7 baseband CPU
- GSW3 software support
- SiRFLoc multi-mode GPS support
- Starter-kit included evaluation and configuration tool
- Available in 2 versions:
  - JP7 and JP10 pin and functional compatible
  - small sized version (JP13-S)



## The Falcom JP13 / JP13-S

Wireless and handheld applications make rigorous demands on GPS; receivers are pushed to get fixes in places never before expected in time measured in only seconds. FALCOM has risen to the challenge with the JP13. This is GPS based on three generations of experience that includes getting customers from IP to production in the shortest time, developing IP based on production worthy silicon, and creating a chipset that goes far beyond the FCC's E911 mandate.

The JP13 has the performance required to meet the industry's toughest challenges. The 200.000+ effective correlators allow the JP13 to acquire in only seconds even in low signal levels. As part of SiRF's patented multi-mode GPS the JP13 can acquire signal levels as low as -159 dBm.

The JP10 supports real-time navigation in urban canyons as well as high sensitivity acquisition needed for indoor environments. With power management and lower consumption from the 0.13u CMOS process, the JP13 can get a fix in a fraction of a joule.



JP13



JP13-S

## Applications

Wireless market requirements are pushing GPS to new levels of performance benefiting all GPS markets. Consumer applications will be able to exploit the JP13 high sensitivity by using very small (highloss) antennas while still maintaining high-performance.

PDA applications can take advantage of the integrated FLASH by adding GPS to the PDA motherboard in a fraction of the board space required previously. Wireless markets will use JP13 with aiding for fast fixes even indoors. As you can see, the JP13 / JP13-S will usher in a new generation of smaller, higher performing GPS products.

## Evaluation kit



Distributor:

## Technical specifications

### Acquisition at low signal levels

Aiding Type	Sensitivity	TTF
GSM	15 dB-Hz	<20 sec
3G	15 dB-Hz	<20 sec
CDMA	15 dB-Hz	<16 sec
Hot start	15 dB-Hz	<18 sec
Hot start	open sky	<1 sec
Cold start	30 dB-Hz	<42 sec
Tracking sensitivity	13 dB-Hz	

### Position accuracy

Autonomous	<10 m
SBAS	<5 m

### Receiver

Tracking	L1, CA code
Channel	20
Max. update rate	1 Hz
max. altitude / velocity	<60.000 ft / < 1.000 knots
Protocol support	NMEA, SiRF binary

### Processing core

Processor type	ARM7/TDMI
Processor speeds	6 MHz, 12.5 MHz, 25 MHz, 49 MHz
data bus	16 Bit
Ports	>10 GPIO
FLASH	8 Mb
Integrated SRAM	1 Mb

### GPS-Datum

WGS-84	
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### Power

Core voltage	1.5 V
IO voltage	2.7-3.3 V
Power consumption	appr. 140 mW