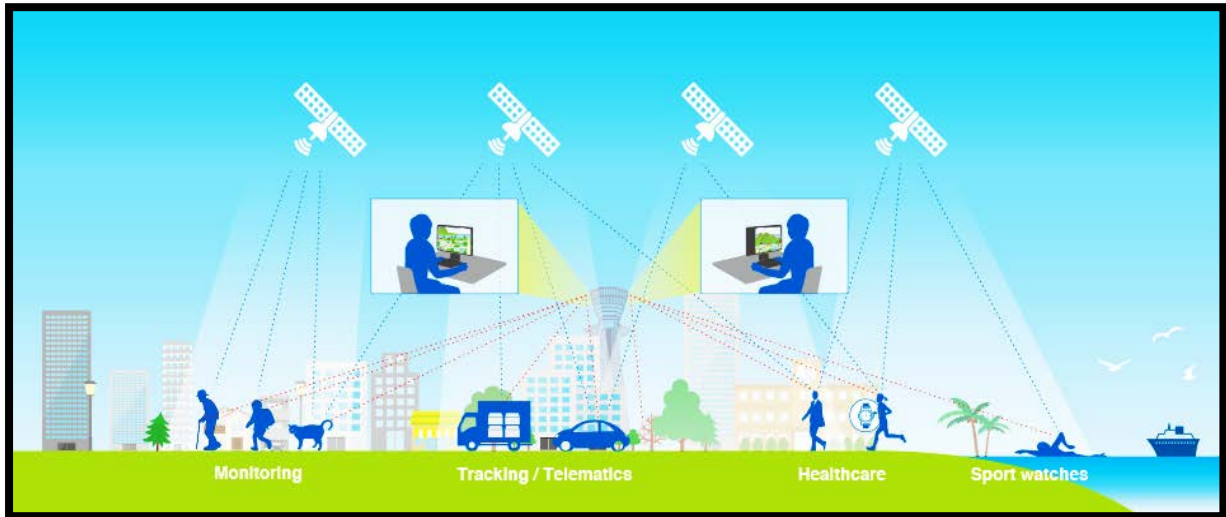


# GPS/GNSS Receiver and Positioning Engine Solution

Sony Semiconductor Solutions GPS/GNSS receiver/processor chips use high-frequency analogue circuits and digital signal processing circuits with proprietary designs to deliver accurate positioning with the lowest power consumption level in the industry. This low power consumption performance helps to extend the operating times of the IoT and wearable products that use GPS/GNSS.



## Features

### Low power consumption

Newly developed high-frequency analogue circuits such as dedicated low power consumption A/D converter, low noise amplifier, and phase synchronization circuits, and optimal power control and low power consumption circuits achieve operation with the lowest power consumption level in the industry. This enables GPS/GNSS positioning even by products that operate using solar cells.

### Positioning performance

Sony Semiconductor Solutions GPS/GNSS receiver/processor chips use a proprietary positioning algorithm to enable good positioning performance even under harsh conditions.

### Space-saving (small area)

Use of a compact package realizes a positioning system with an area of 70 to 100 mm<sup>2</sup> or less, including peripheral circuits.

## Specifications

Item	CXD5605GF
Power consumption during continuous tracking	6mW
Constellation	GPS (L1) / GLONASS (L1) Galileo (E1) / BeiDou (B1)
Sensitivity	Cold Start: -147dBm Hot Start: -160dBm Tracking: -161dBm
TTFF	Cold Start: 35s Hot Start: 2s
Input voltage	0.65V to 0.75V (without LDO) 0.90V to 1.95V (with LDO) 1.0V for eNVM
Assisted GPS	Yes
Package	3.1 mm × 3.1 mm 49-pin UFBGA
FLASH memory	Embedded Non-Volatile Memory (eNVM) or external FLASH interface
Operating Temperature	-40°C to 85°C

Sony also offers a GNSS device (CXD5606) incorporating Untethered Dead Reckoning (UDR) algorithm that allows tracking to continue when the GNSS signal is weak or has temporarily disappeared.

