Brief Datasheet

Rev. 0.7.d991001

PRODUCT: **CGPA10x Series**

DESCRIPTION: **GPS SiP**

Approved Signatures	鉅 景 科 技 股份有限公司
	Contact Person:

Item Numbering

Item Number	Description
CGPA101	GPS + SiRF Location Aware
CGPA102	GPS

Introduction

ChipSiP introduces CGPA10x for GPS application. The CGPA10x is a system-in-a-package (SiP) module. The BPF, TCXO, crystal, and RLC components are embedded into a chip-like SMT package.

The chip is integrated with hardware components and the software codes. The decode information is sent out via UART port in NMEA 0183 format. For engineers, CGPA10x simplifies circuit designs, miniaturizes circuit boards.

Description

The CGPA10x is a complete navigation system built on a new SiRFstarIV and other specifications of key components for deriving highest performance in GPS application. These combinations are resulted in higher sensitivity, faster first fix, system stability in outdoor environment.

Features

- Stand alone GPS application

- SiRFstarIV GSD4e ROM GPS Engine

- Integrated SAW BPF, TCXO, RTC and RLC components

- 1.57542GHz +/- 2MHz pass-band for L1 frequency

- Out-band rejection >30dB from 0 to 4 GHz

- 48 track verification channels

- Navigation sensitivity: -160dBm

- Tracking sensitivity: -162dBm

- Cols start <35s

- Maximum acquisition power 72mW

- Single DC 1.8V supply

- Host I^{2}C, SPI and UART supported

- Active Jammer Remover: Removes in-band jammers up to 80-Hz. Tracks up to 8 CW jammers.

- SBAS (WAAS or EGNOS) support

- Smart sensor I^{2}C interface

- Chip size: 8x8x1.4 mm

- Operating temperature: 0 ~ 70 ℃

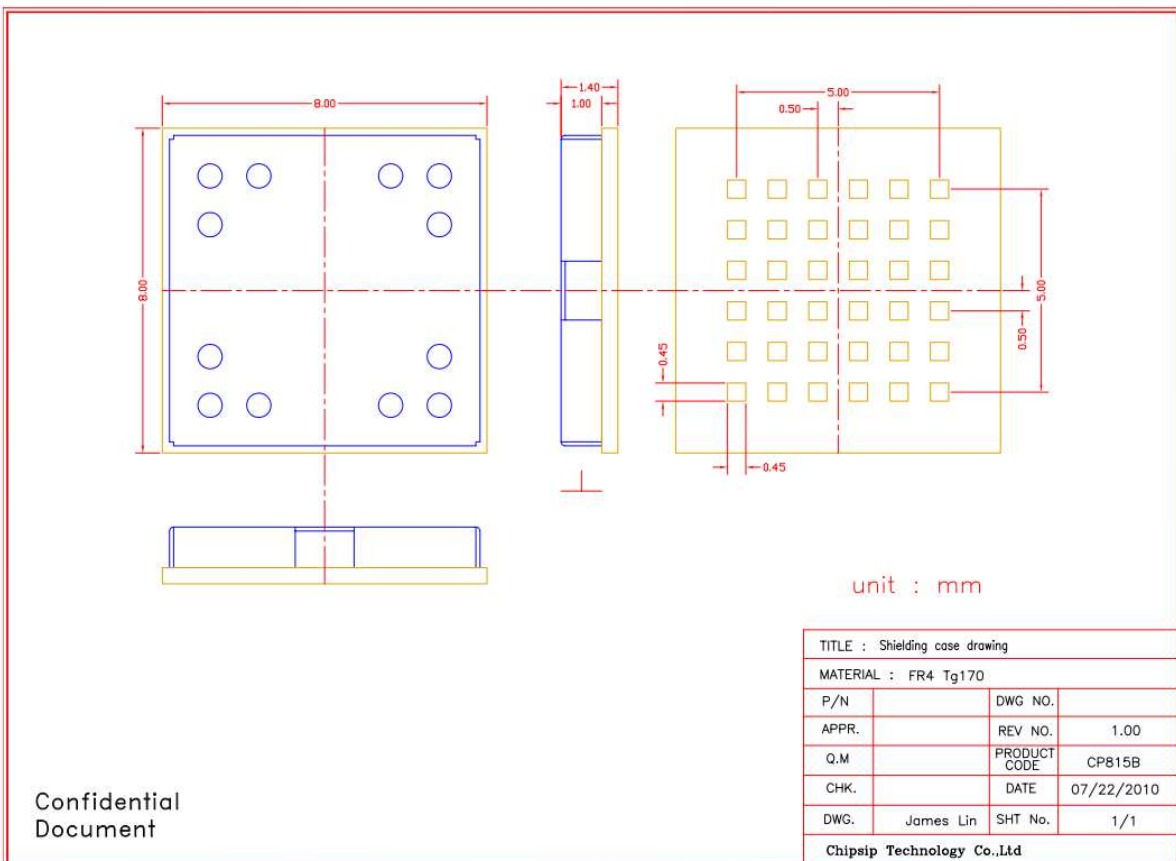## Architecture
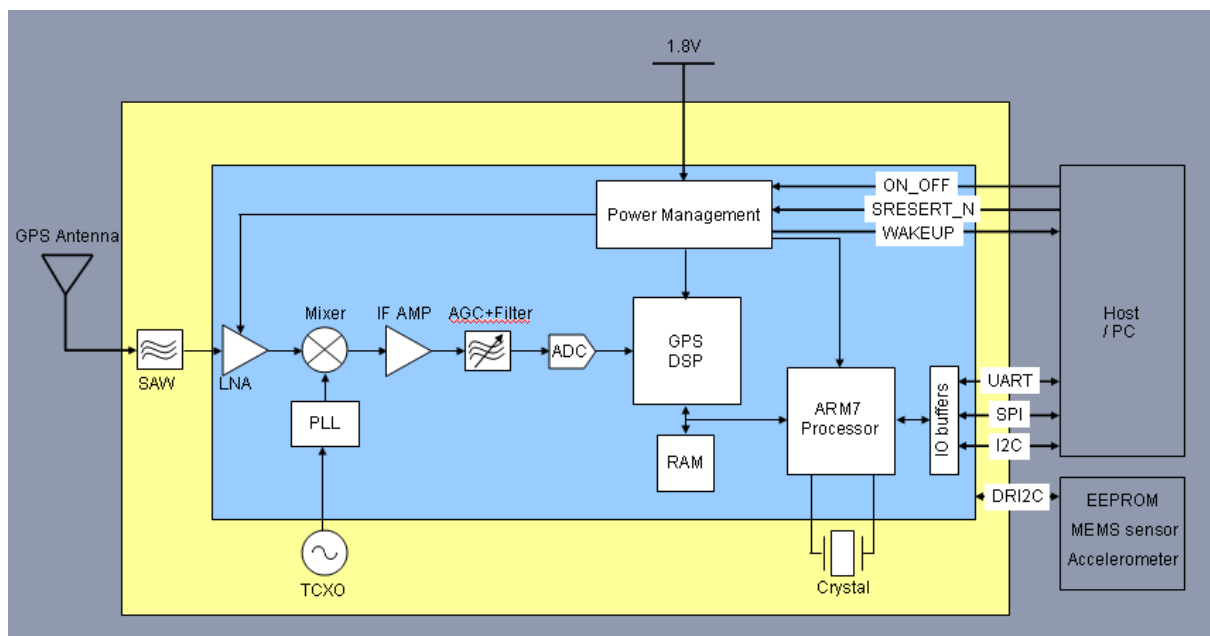
Application

- Mobile gaming

- Cellular handsets

- Cameras

- GPS modules

- Asset tracking

- Other location-aware consumer devices

Premium on-chip software provides a new level of continuous location awareness by employing:

- Opportunistic ephemeris decodes and advanced power management, which enable the GPS receiver to stay in a hot-start condition nearly continuously while consuming very little power

- Full support for client-based and server-based SiRFInstantFix

- Dynamic contextual awareness, temperature monitoring, and MEMS sensors that work in concert to conserve power and boost performance

Package Dimension

unit : mm

TITLE : Shielding case drawing			
MATERIAL : FR4 Tg170			
P/N		DWG NO.	
APPR.		REV NO.	1.00
Q.M		PRODUCT CODE	CP815B
CHK.		DATE	07/22/2010
DWG.	James Lin	SHT No.	1/1
Chipsip Technology Co.,Ltd			

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Document

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