GSC3f/LP GSW3 System Development Kit

Complete and Flexible Development Environment

PRODUCT OVERVIEW

A rich mix of source code, software libraries, and hardware—this System Development Kit helps bring your product to market, fast. SiRF-provided design reviews, prototype testing, plus a two-day product development training course provides everything needed to keep you ahead of the pack as you design and build an application based on the low-power, star-performing GSC3f/LP chip.

DEVELOPMENT BOARD

This development board provides a receiver platform that can be configured for software development, hardware prototyping, and hardware configuration testing.

Development Board Features

➤ Interfaces: circuit to expansion bus, logic analyzer, Multi-ICE JTAG, USB, and two RS-232

➤ Memory banks: two 512K x 16 flash sockets and two 256K x 16 SRAM devices

➤ GSC3f/LP expansion board

➤ CPU clock oscillators: one internal GSC3f/LP 16.369 MHz clock and one external clock

➤ Configuration jumpers and switches

➤ LEDs, board and RF power switches, board program and run switches on front panel

➤ Power and interface connections on back panel

RECEIVER SOFTWARE

GSW3 receiver software allows significant customization, and is provided as object and source files in C Programming language.

Receiver Software Features

➤ Allows preset navigation parameters and user task scheduling

➤ Supports API functions and customized input/output messages

➤ Allows power management functions

➤ Operates in SiRF® Binary, NMEA, or user protocol

➤ Supports SiRFInstantFix (extended ephemeris) and SBAS

➤ Provides programmable GPIOs and registers

➤ Supports the ARM ADS 1.2* compiler and developer environment plus Multi-ICE debugging

* Available for purchase from ARM, Inc.

```
double      nla0,nla1,nla2,nla3,nla4,nlb0,nlb1,nlb2,nlb3;
double      nlb,nlc0,nlopqk,nlqk,nlqkc,nlqks,nlf,nlfprm;
long int    nlk;
double      ytemp, xtemp;

/*──────────────────────────────────────────────────*/
/* b = (x*x + y*y) / semi_major_axis_squared */
/* c = (z*z) / semi_major_axis_squared        */
/*──────────────────────────────────────────────────*/

nlb = (pecef->X * pecef->X + pecef->Y * pecef->Y) / NLASQR;
nlc0 = pecef->Z * pecef->Z / NLASQR;
/*──────────────────────────────────────────────────*/
/* a0 = c * one_minus_eccentricit */
/* a1 = 2 * a0 */
/* a2 = a0 + b - first_eccentricit */
/* a3 = -2.0 * first_eccentricit */
/* a4 = - first_eccentricity_to_fo */

nla0 = NLOMES * nlc0;
nla1 = 2.0 * nla0;
nla2 = nla0 + nlb - NLEFOR;
nla3 = -2.0 * NLEFOR;
nla4 = - NLEFOR;

/* b0 = 4 * a0, b1 = 3 * a1 */
/* b2 = 2 * a2, b3 = a3 */

nlb0 = 4.0 * nla0;
nlb1 = 3.0 * nla1;
nlb2 = 2.0 * nla2;
nlb3 = nla3;
```
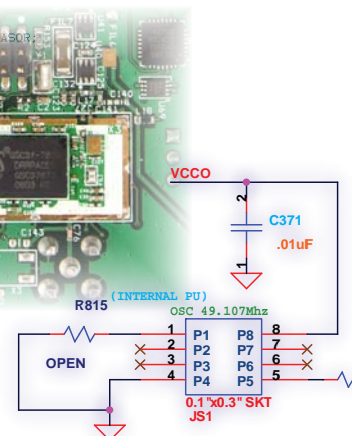
This SDK provides everything you need to design and build your product

SYSTEM DEVELOPMENT KIT CONTENTS

The GSC3f/LP GSW3 System Development Kit provides the necessary hardware, software, documentation, training, and engineering support to develop, build, and test a customized application based on the SiRF GSC3f/LP GSW3 GPS solution. This System Development Kit includes the following:

➤ A fully operational Development Board based on the GSC3f/LP GPS solution

➤ A two-day training course covering all aspects of product development

➤ Reference design files including schematics, gerber files, and bill of materials

➤ GSW3 software source and object code

➤ Board schematics

➤ Design review and prototype testing by SiRF engineering

➤ Extensive software tools suite including SiRFDemo, SiRFDemoPPC, SiRFView, and SiRFFlash

➤ Detailed documentation including a kit user guide, software tool user guides, and reference manuals to help you develop your application

➤ Active 3 V GPS patch antenna with a 5 meter cable

➤ 100-240 VAC @ 47/63 Hz power supply including international plug adapters

➤ USB and serial cables

➤ A mini USB optical mouse

➤ A convenient 33 x 10 x 28 cm carrying case

WORLDWIDE ACCESS AND SUPPORT

You have access to a dedicated team of engineers who can be reached by phone and email. You also have access to the SiRF Customer Zone where you can download the latest GPS software, source code, reference designs, software tools, and documentation plus other materials related to your SiRF System Development Kit. The SiRF Customer Zone is easy to use and it is accessible anywhere and at anytime.

ORDERING INFORMATION

Part Number	Description
9900-0264	GSC3f/LP GSW3 System Development Kit

For more information about this and related products, contact your SiRF representative, or call our sales force at (1) (408) 467-0410, or visit www.sirf.com.

For the location of your nearest authorized SiRF distributor, visit www.sirf.com.

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