

Si1102 EVALUATION KIT USER'S GUIDE

1. Kit Contents

The Si1102 Evaluation Kit contains the following items:

- Si1102EK evaluation board
- CR2032 battery

2. Hardware Overview

The Si1102EK uses a Silicon Laboratories Si1102 to measure infrared proximity. The Si1102 strobes an infrared LED at a frequency defined by the potentiometer labeled R2. The Si1102 measures the amount of infrared light that reflects onto the Si1102 package. If the reflected light magnitude exceeds a threshold set by the potentiometer labeled R1, the Si1102's PRX output pin latches low, which turns on the blue LED labeled D2. The board is powered by a CR2032 battery, and the supply current can be connected or disconnected from the Si1102 and the LEDs using the switch labeled S1. Header H1 provides access to the Si1102's pins.

Figure 1 shows the Si1102EK board. Table 1 lists the signals connected to each of header H1's pins.

For more information regarding Si1102 functionality, please see the Si1102 data sheet.

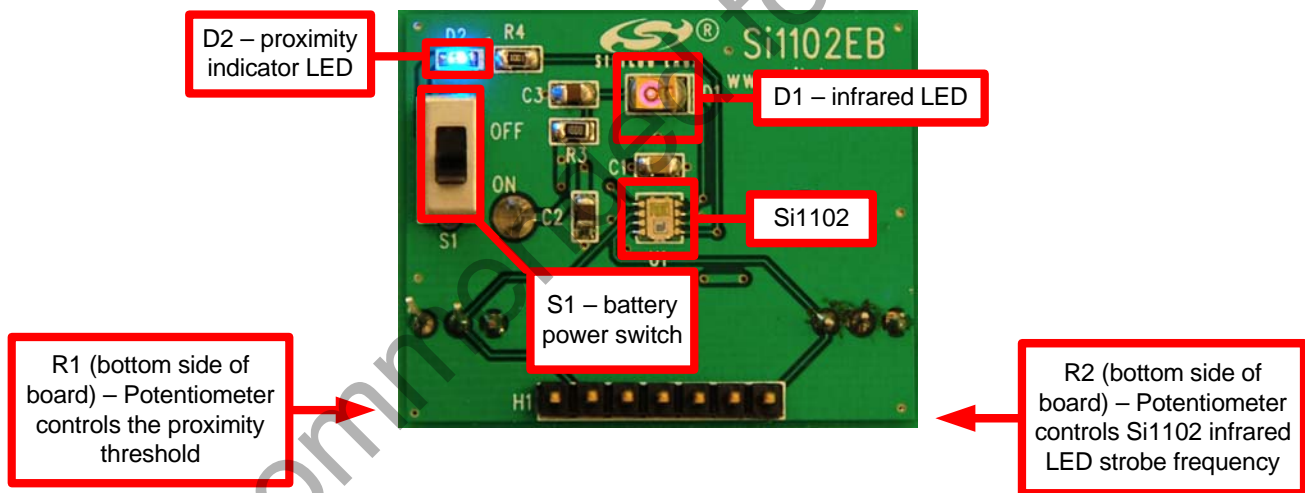


Figure 1. Si1102 Evaluation Kit Board

Table 1. Header H1 Pin-Out

H1 Pin #	Si1102 Pin #	Signal Name
1	2	Ground
2	6	SREN
3	5	VDD
4	1	PRX
5	N/C	N/C
6	3	TXO
7	7	FR

Si1102-EK

3. Schematics

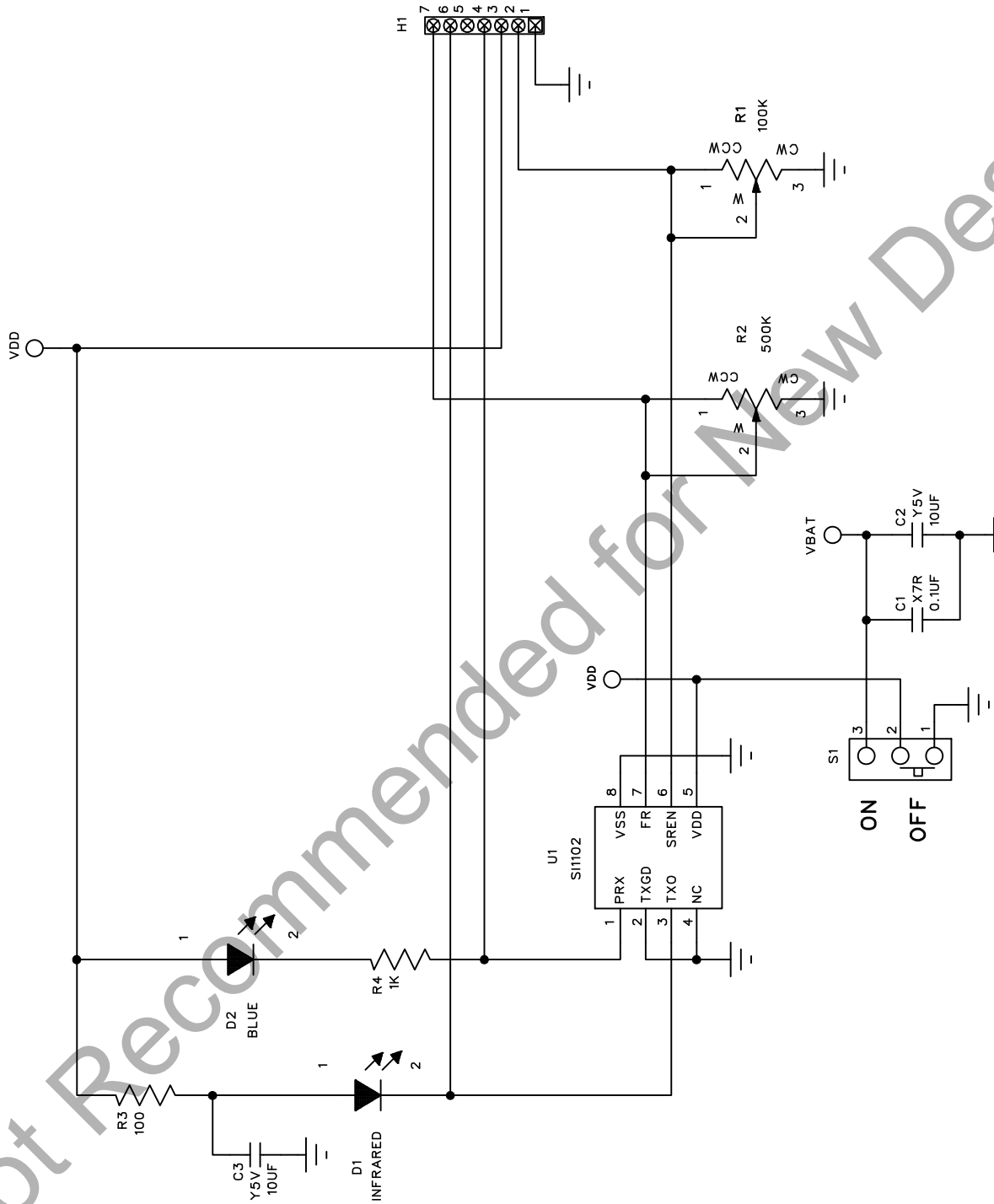
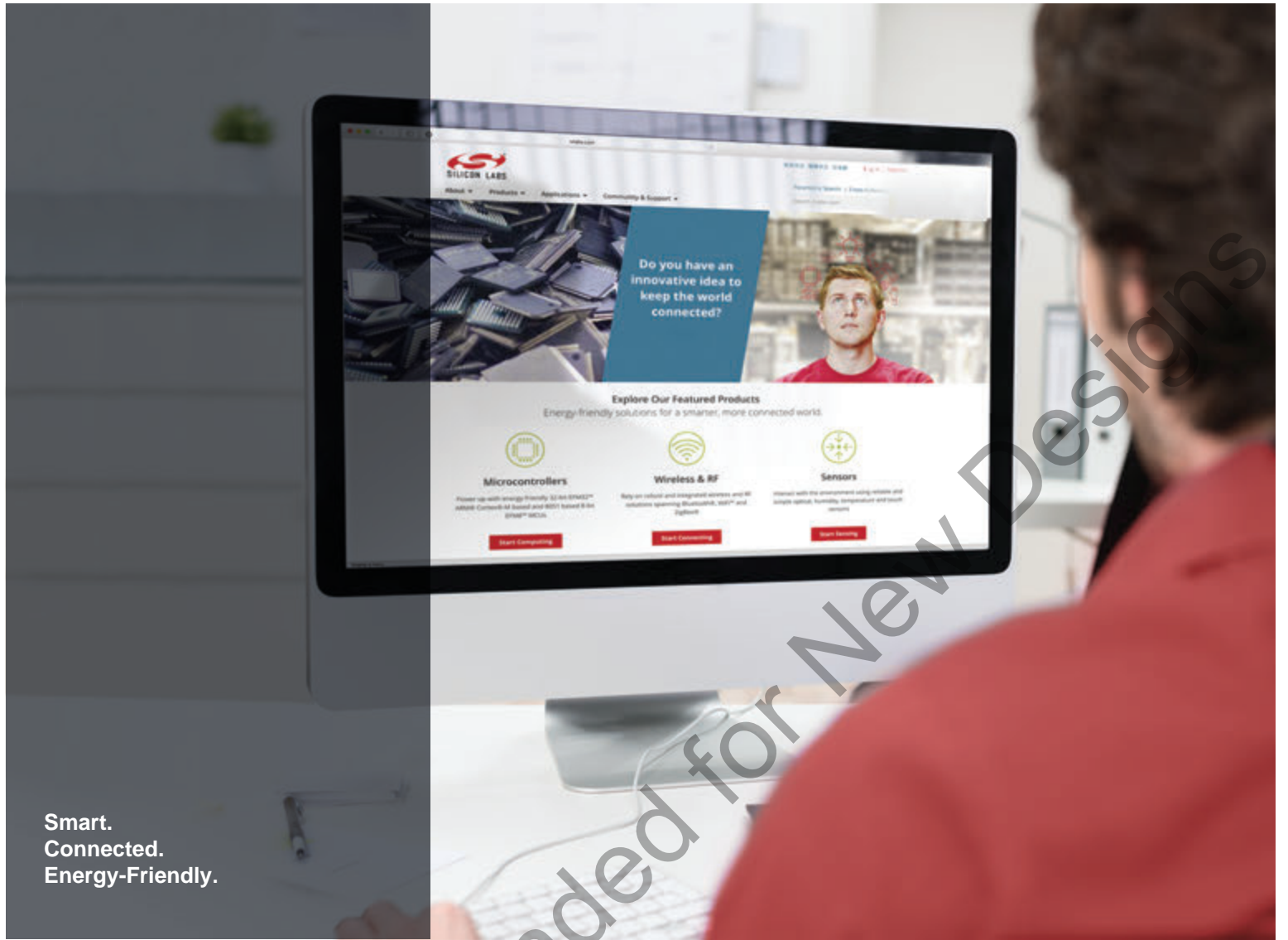


Figure 2. Si1102EK schematic



Smart.
Connected.
Energy-Friendly.



Products
www.silabs.com/products



Quality
www.silabs.com/quality



Support and Community
community.silabs.com

Disclaimer

Silicon Laboratories intends to provide customers with the latest, accurate, and in-depth documentation of all peripherals and modules available for system and software implementers using or intending to use the Silicon Laboratories products. Characterization data, available modules and peripherals, memory sizes and memory addresses refer to each specific device, and "Typical" parameters provided can and do vary in different applications. Application examples described herein are for illustrative purposes only. Silicon Laboratories reserves the right to make changes without further notice and limitation to product information, specifications, and descriptions herein, and does not give warranties as to the accuracy or completeness of the included information. Silicon Laboratories shall have no liability for the consequences of use of the information supplied herein. This document does not imply or express copyright licenses granted hereunder to design or fabricate any integrated circuits. The products are not designed or authorized to be used within any Life Support System without the specific written consent of Silicon Laboratories. A "Life Support System" is any product or system intended to support or sustain life and/or health, which, if it fails, can be reasonably expected to result in significant personal injury or death. Silicon Laboratories products are not designed or authorized for military applications. Silicon Laboratories products shall under no circumstances be used in weapons of mass destruction including (but not limited to) nuclear, biological or chemical weapons, or missiles capable of delivering such weapons.

Trademark Information

Silicon Laboratories Inc.®, Silicon Laboratories®, Silicon Labs®, SiLabs® and the Silicon Labs logo®, Bluegiga®, Bluegiga Logo®, Clockbuilder®, CMEMS®, DSPLL®, EFM®, EFM32®, EFR®, Ember®, Energy Micro, Energy Micro logo and combinations thereof, "the world's most energy friendly microcontrollers", Ember®, EZLink®, EZRadio®, EZRadioPRO®, Gecko®, ISOmodem®, Precision32®, ProSLIC®, Simplicity Studio®, SiPHY®, Telegesis, the Telegesis Logo®, USBXpress® and others are trademarks or registered trademarks of Silicon Laboratories Inc. ARM, CORTEX, Cortex-M3 and THUMB are trademarks or registered trademarks of ARM Holdings. Keil is a registered trademark of ARM Limited. All other products or brand names mentioned herein are trademarks of their respective holders.



SILICON LABS

Silicon Laboratories Inc.
400 West Cesar Chavez
Austin, TX 78701
USA

<http://www.silabs.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Optical Sensor Development Tools](#) category:

Click to view products by [Silicon Labs](#) manufacturer:

Other Similar products are found below :

[MT9V034C12STCH-GEVB](#) [MT9V115EBKSTCH-GEVB](#) [416015300-3](#) [ISL29102IROZ-EVALZ](#) [MT9M021IA3XTMH-GEVB](#)
[AR1820HSSC12SHQAH3-GEVB](#) [AR1335CSSC11SMKAH3-GEVB](#) [MAXCAMOV10640#](#) [MT9M031I12STMH-GEVB](#) [TSL2581CS-DB](#)
[TMD3700-DB](#) [NANOUSB2.2](#) [ASX340AT3C00XPEDH3-GEVB](#) [AR0144ATSM20XUEAH3-GEVB](#) [AR0144CSSC00SUKAH3-GEVB](#)
[AR0522SRSC09SURAH3-GEVB](#) [AR0522SRSM09SURAH3-GEVB](#) [AR0521SR2C09SURAH3-GEVB](#) [MARS1-MAX9295A-GEVK](#)
[MARS1-MAX9296B-GEVB](#) [ISL29112IROZ-EVALZ](#) [AR0233AT2C17XUEAH3-GEVB](#) [AR0431CSSC14SMRAH3-GEVB](#) [MARS-DEMO3-](#)
[MIPI-GEVB](#) [TCS3430-DB](#) [AR0234CSSC00SUKAH3-GEVB](#) [AR0130CSSM00SPCAH-GEVB](#) [AR0330CM1C00SHAAH3-GEVB](#) [EVALZ-](#)
[ADPD2212](#) [TMD2772EVM](#) [TMG3993EVM](#) [MIKROE-2103](#) [TSL2672EVM](#) [1384](#) [MT9M114EBLSTCZDH-GEVB](#) [SEN0043](#) [SEN0162](#)
[TMD2771EVM](#) [TMD3782EVM](#) [TSL4531EVM](#) [1918](#) [AS7225](#) [DEMO KIT](#) [SEN0097](#) [SEN0212](#) [SEN0228](#) [AR0134CSSC00SUEAH3-GEVB](#)
[AP0100AT2L00XUGAH3-GEVB](#) [AR0144CSSM20SUKAH3-GEVB](#) [725-28915](#) [EVAL-ADPD1081Z-PPG](#)