Si1102-EK

Si1102 EVALUATION KIT USER'S GUIDE

1. Kit Contents
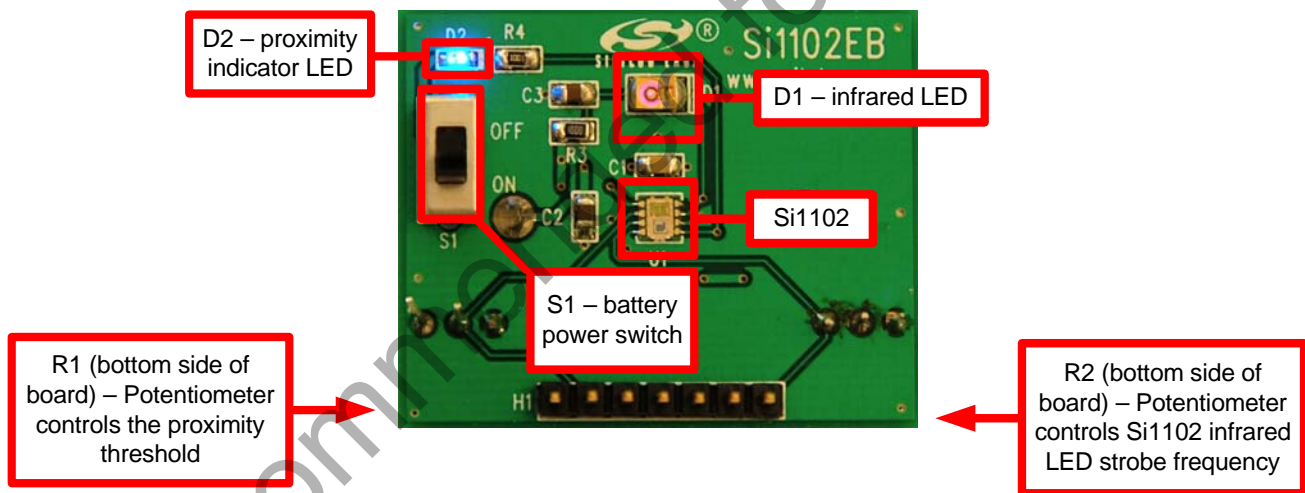
The Si1102 Evaluation Kit contains the following items:

- 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.

D2 – proximity indicator LED

D1 – infrared LED

Si1102

S1 – battery power switch

R1 (bottom side of board) – Potentiometer controls the proximity threshold

R2 (bottom side of board) – Potentiometer controls Si1102 infrared LED strobe frequency

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

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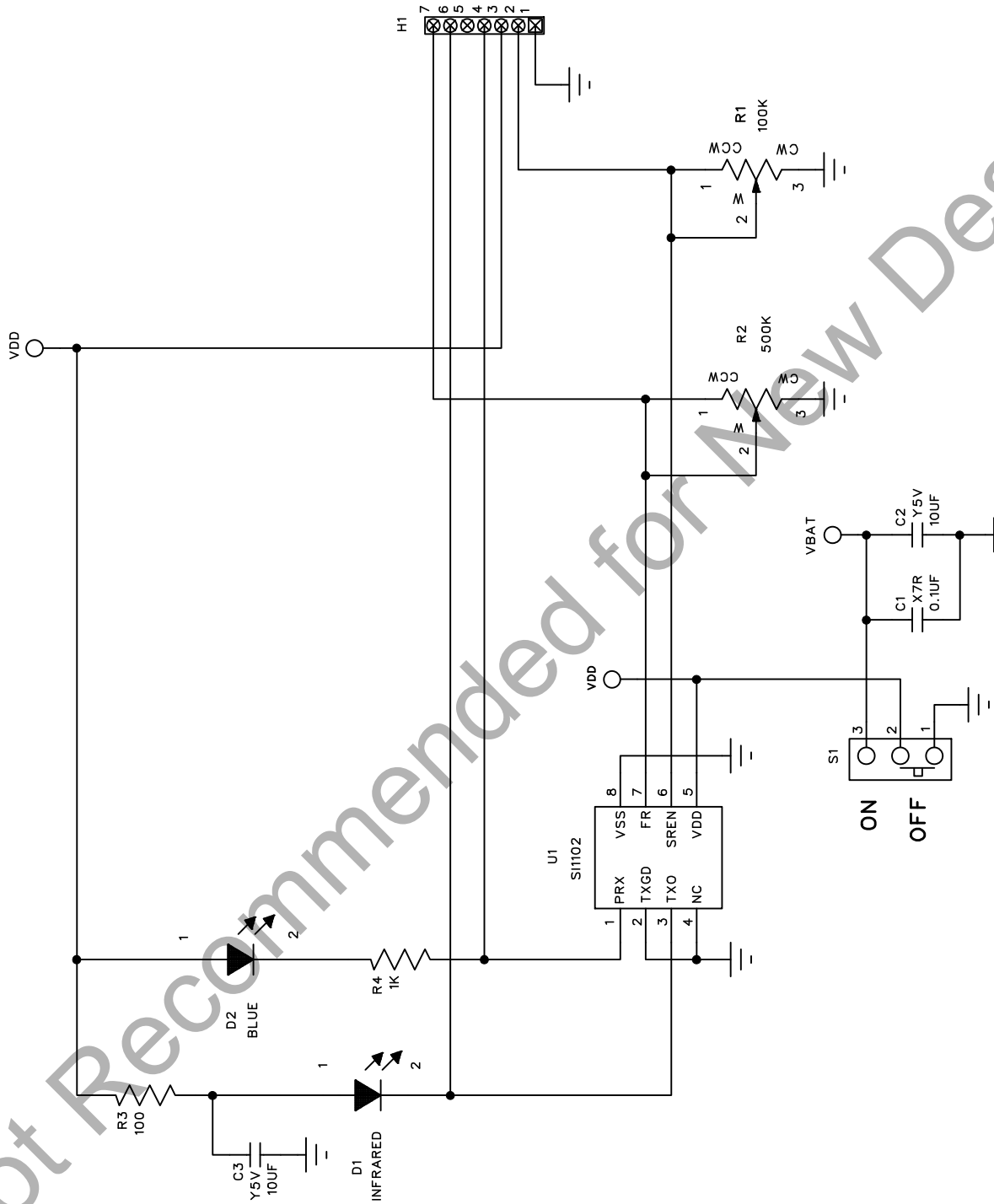
3. Schematics

Figure 2. Si1102EK schematic
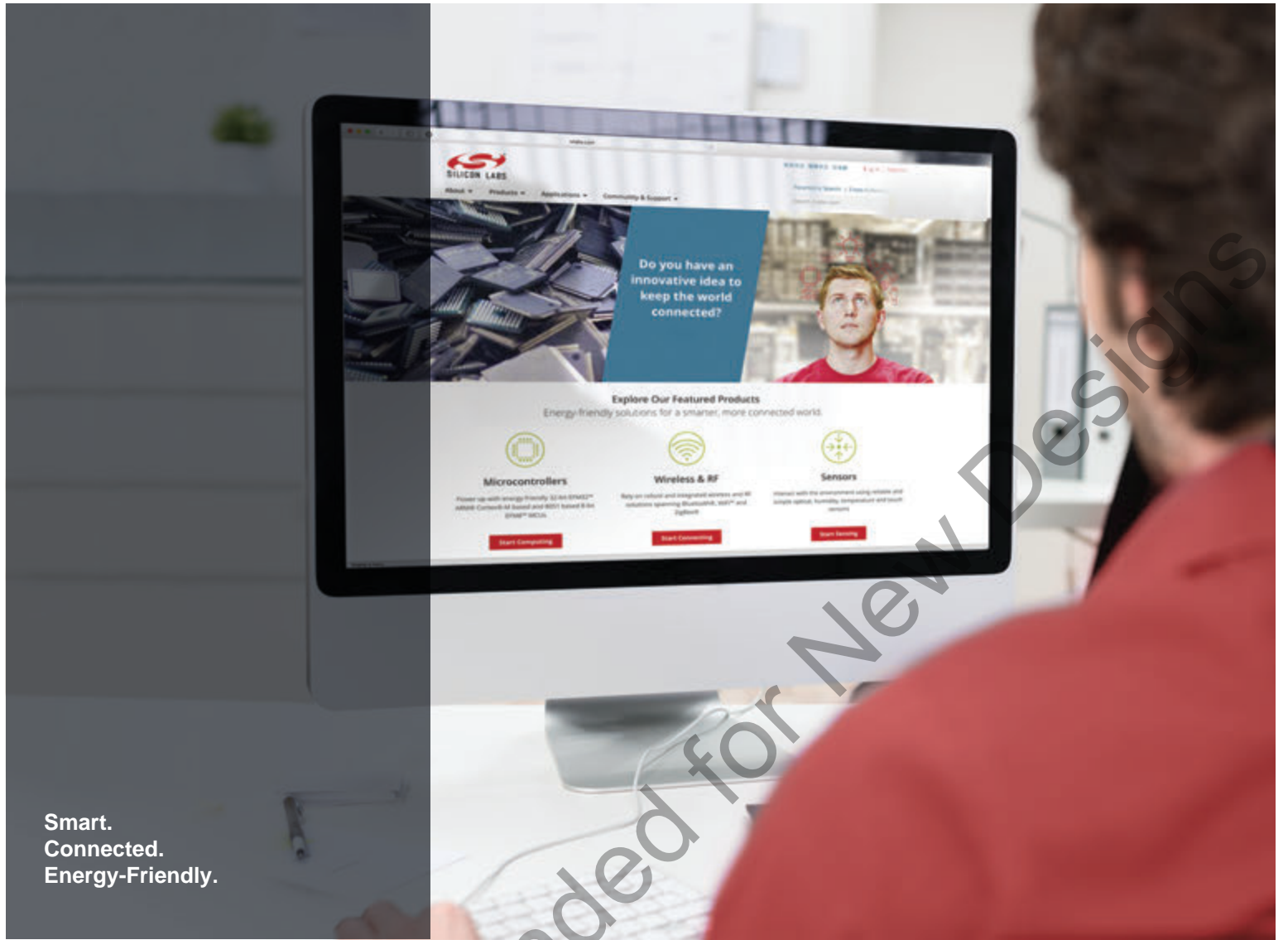
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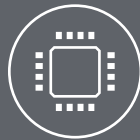
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