

Accelerometer

Kionix™ Technology



KX134ACR-EVK-001 Manual

KX134ACR-EVK-001 is an evaluation board for KX134ACR-LBZ accelerometer. This User's Guide shows the board reference information.

Photo

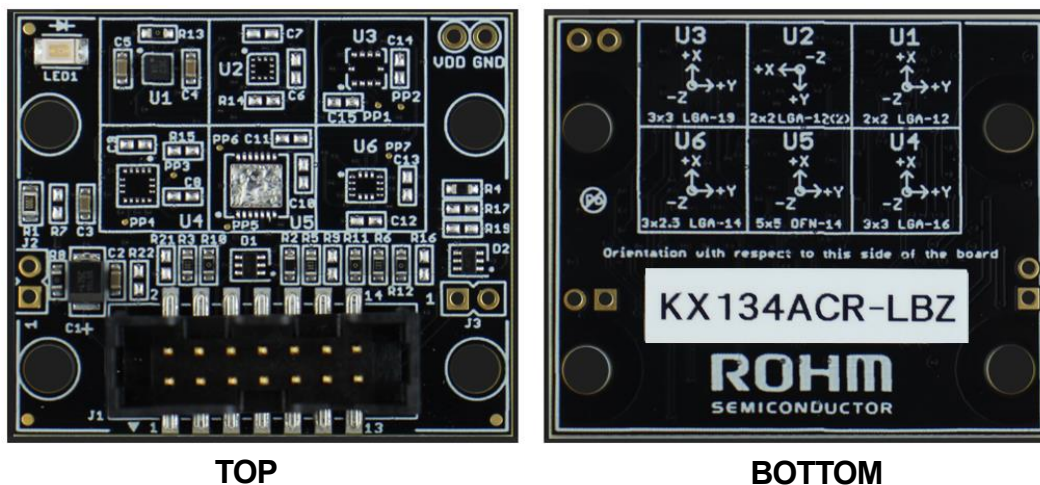
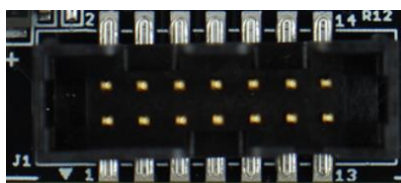


Figure 1: KX134ACR-EVK-001 Photo

KX134ACR-LBZ is mounted on U1. 14 pin MIL connector is mounted on J1.

J1 Connector Pin Assignment



Pin No.	2	4	6	8	10	12	14
Function	nCS	-	IO_VDD	GND	TRIG*1	INT2	-
Function	VDD	-	SCLK /SCL	SDI /SDA	SDO /ADDR*2	INT1	-
Pin No.	1	3	5	7	9	11	13

Figure 2: J1 Connector Pin Assignment

*1: Connect to GND when not using external trigger option. 10 pin is pulled down with R6.

*2: 9 pin is pulled up with R5. I2C address is 1F.

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Schematic

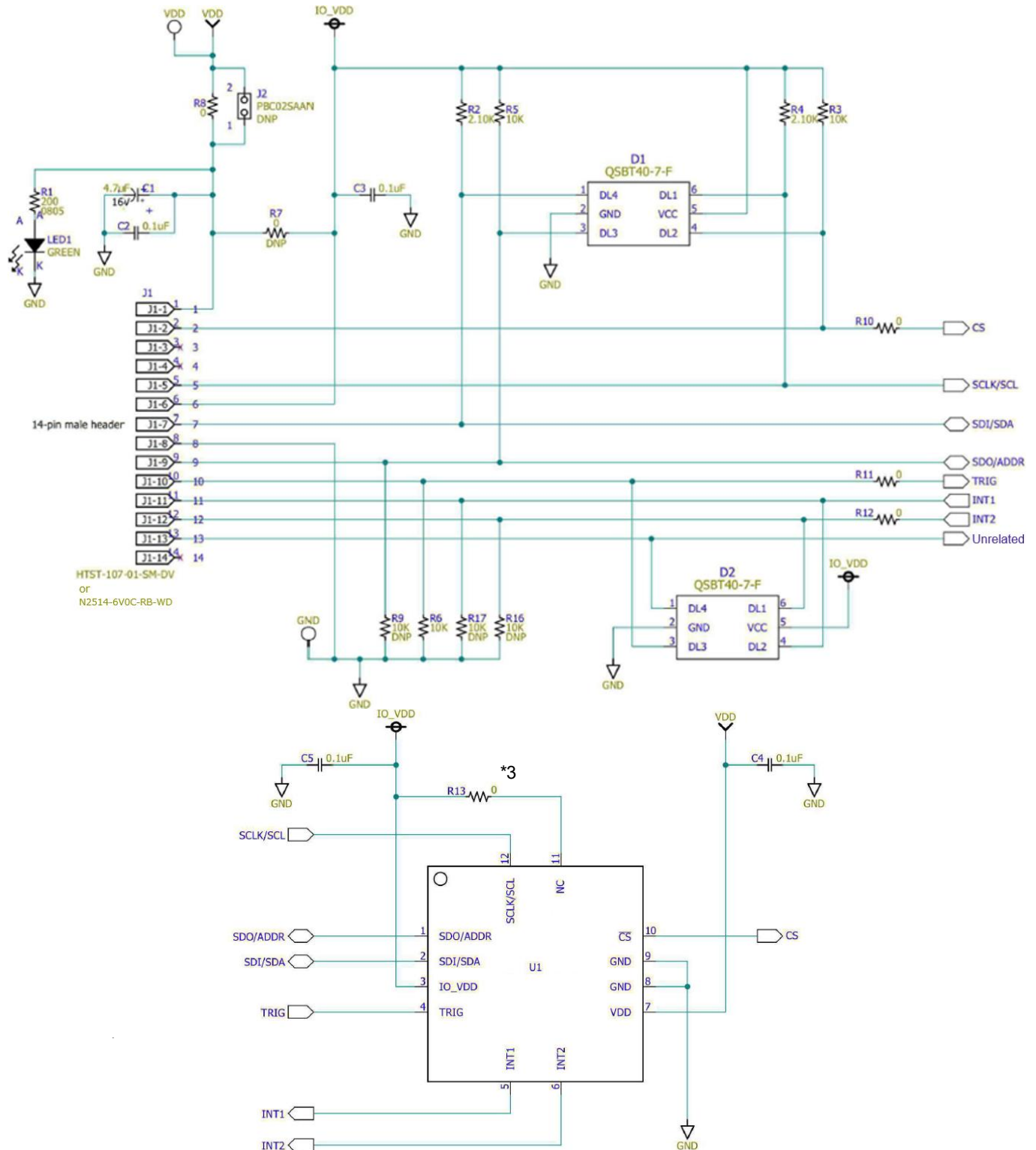


Figure 3: Schematic

*3: It depends on the PCB production lot whether R13 is mounted or not. R13 has no effect on operation.

Bill of materials

Part No.	Description / Function
U1	KX134ACR-LBZ Accelerometer
C1	Bulk capacitor for VDD (4.7 μ F)
C2	Noise decoupling capacitor for VDD (0.1 μ F)
C3	Noise decoupling capacitor for IO_VDD (0.1 μ F)
C4	U1 bypass capacitor for VDD (0.1 μ F)
C5	U1 bypass capacitor for IO_VDD (0.1 μ F)
D1	Clamp diode for I/O signals
D2	Clamp diode for I/O signals
LED1	VDD power LED (green)
R1	LED1 current limiting resistor (200 Ω)
R2	Pull-up resistor for SDI/SDA (2.1k Ω)
R3	Pull-up resistor for nCS (10k Ω)
R4	Pull-up resistor for SCLK/SCL (2.1k Ω)
R5	Pull-up resistor for SDO/ADDR (10k Ω)
R6	Pull-down resistor for TRIG (10k Ω)
R8	0 Ω jumper for VDD
R10	0 Ω jumper for nCS
R11	0 Ω jumper for TRIG
R12	0 Ω jumper for INT2
R13	0 Ω jumper for NC

Figure 4: Bill of materials

Evaluation Kit

RKX-EVK-001 is Evaluation Kit for ROHM accelerometer. Connecting KX134ACR-EVK-001 to RKX-EVK-001 is one of the options to evaluate KX134ACR-LBZ. ROHM EVK GUI SW is software for RKX-EVK-001 and the following functions are available.

- Showing acceleration waveform
- Changing accelerometer register
- Recording acceleration output
- Wake-up and Back-to-sleep demo

For more information, refer to the following link.

[Accelerometer Evaluation Kit \(rohm.com\)](https://www.rohm.com/accelerometer-evaluation-kit)

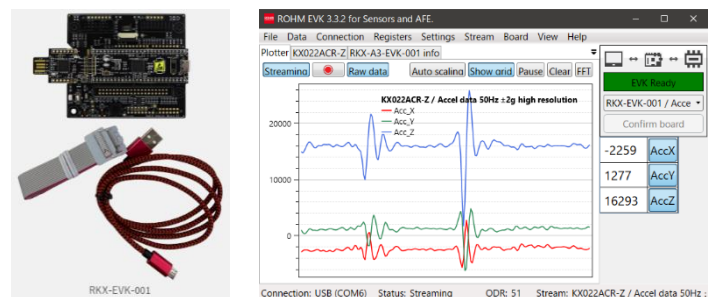


Figure 5: RKX-EVK-001 and ROHM EVK GUI SW

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