

PAA3905KS-L242: Sensor Kit User Guide



General Description

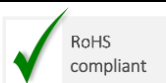
The objective of this User Guide is to provide information for the PAA3905E1's Sensor Board. With this guide, together with the hardware board provided, user will be able to evaluate and operate the PAA3905E1.

Kit Content

Kit	No.	Item	Version	Quantity
PAA3905KS-L242 Sensor Kit Kit Version: 1.00	1	PAA3905KS-L242	Rev1.0	1

Ordering Information

Part Number	Description
PAA3905KS-L242	Sensor Kit
PAA3905E1-Q	Sensor
L242-ZSZ1	Lens Set



For any additional inquiries, please contact us at <https://www.pixart.com>

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1.0 Introduction

1.1 Overview

The PAA3905E1's Sensor Board contains a PAA3905E1-Q soldered onto a small sized PCB and comes with the lens assembly, secured in place with PixArt's recommended glue material.

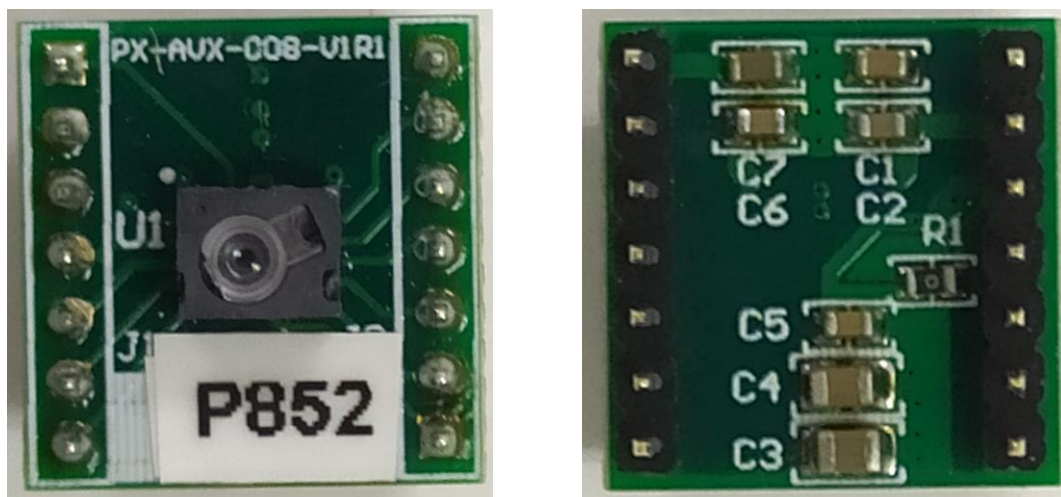


Figure 1. Board Top and Bottom of Sensor Board

1.2 Block Diagram

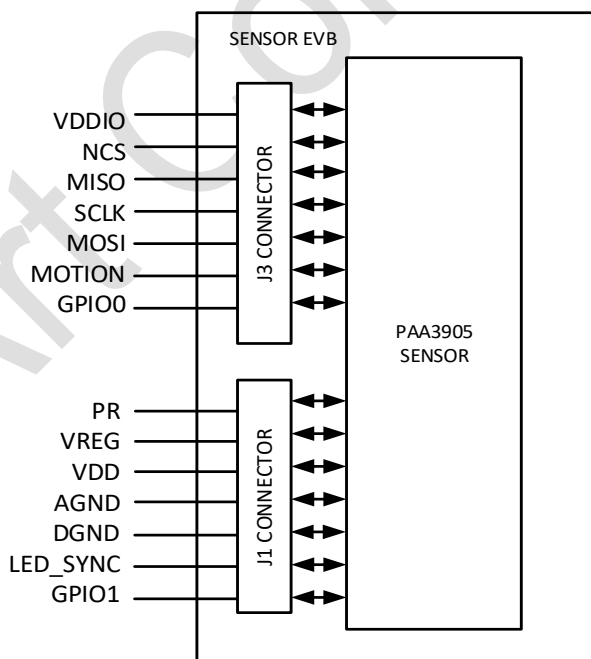


Figure 2. System Blocks

1.3 Relevant Information

Table 1. Related Document

No.	Item	Version
1	PAA3905E1-Q Datasheet	0.8
2	L242-ZSZ1: Lens Datasheet	0.8

2.0 Hardware

2.1 Component Mapping

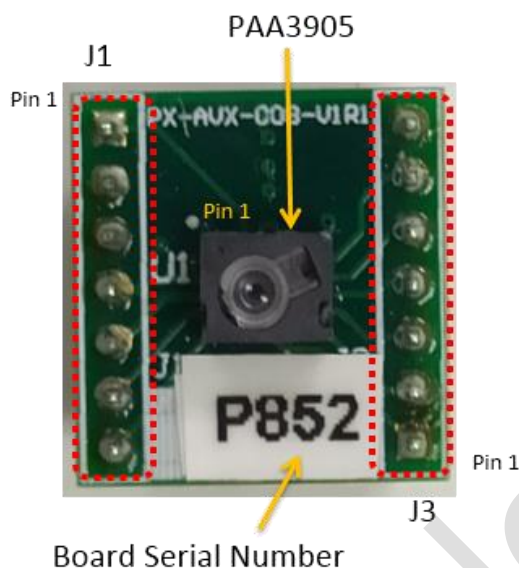


Figure 3. Component Map

2.2 Connectors

The Sensor Board comes with 2 rows of standard pin headers, J1 & J3.

Table 2. Connector Pin Description

Connector	Pin No.	Signal Name	Remark
J1	1	RESERVED_3	Reserved
	2	VREG	Internal voltage output
	3	VDD	Input power supply
	4	AGND	Ground
	5	DGND	I/O Ground
	6	LED_SYNC	External LED control pin (Active low)
	7	RESERVED_1	Reserved
J3	1	RESERVED_2	Reserved
	2	MOTION	Motion interrupt (Active low)
	3	MOSI	Serial data input
	4	SCLK	Serial data clock
	5	MISO	Serial data output
	6	NCS	Chip select
	7	VDDIO	I/O reference voltage

2.3 Schematics

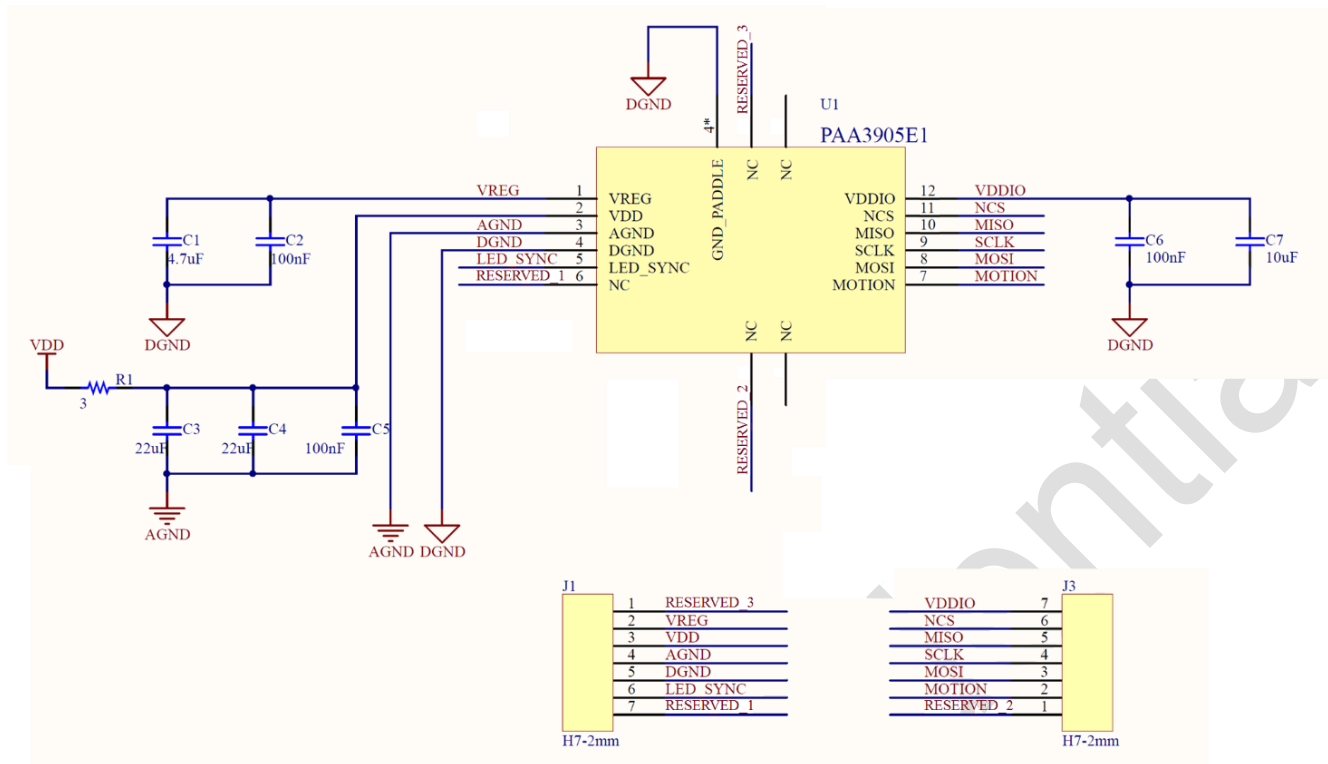


Figure 4. Schematics

2.4 PCB Layout

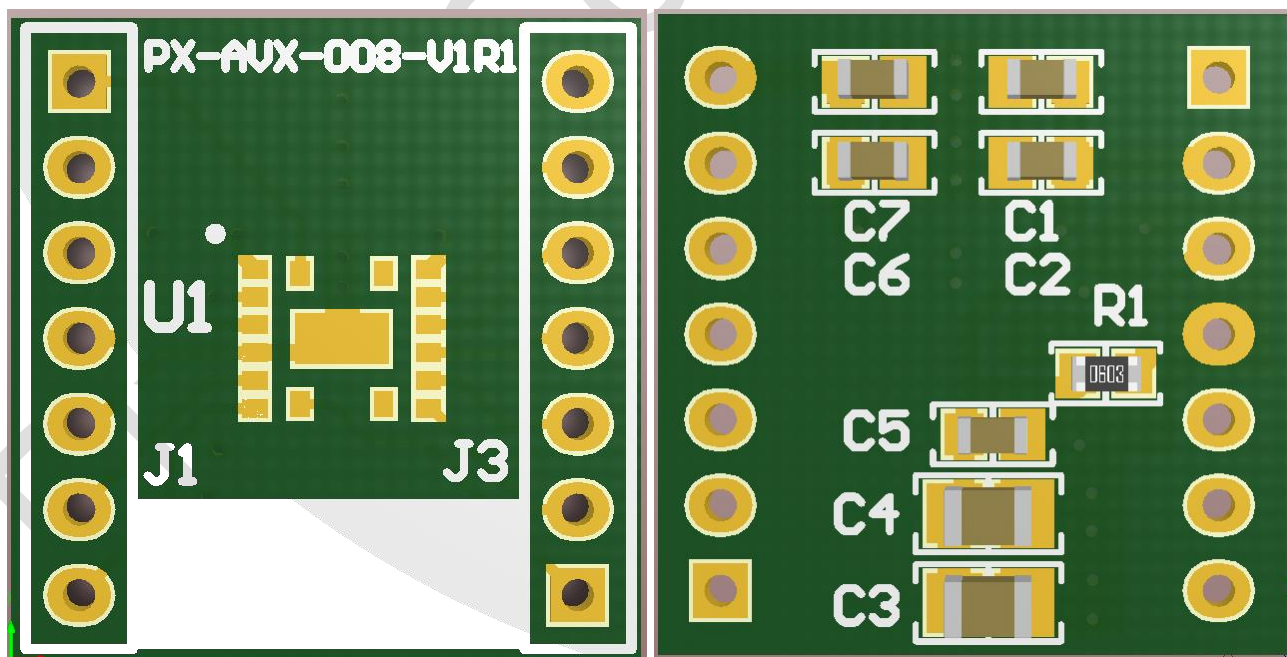


Figure 5. Sensor Board PCB Top and Bottom View

Revision History

Revision Number	Date	Description
0.8	16 Oct 2020	First Revision