

# Product Document



## User Guide

UG001038

# AS5116 Motor Board

## Motor Board User Guide

AS5116-SO\_EK\_MB

v1-00 • 2022-May-20

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# Content Guide

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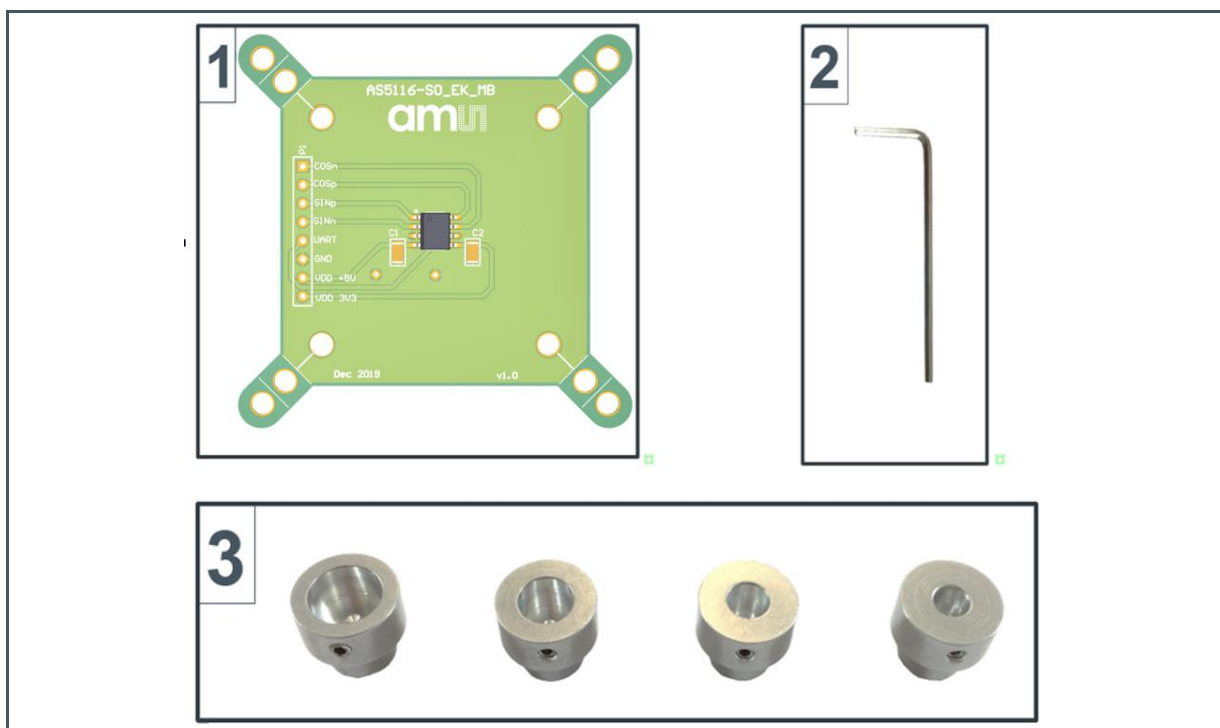
# 1 Introduction

The AS5116 motor board is a simple PCB which is designed to adapt to standard size BLDC or stepper motors. It allows easy and quick evaluation of the AS5116 magnetic position sensor.

The sensor and all necessary external components are already soldered to the PCB.

## 1.1 Kit Content

**Figure 1:**  
Kit Contents



**Figure 2:**  
Kit Description

#	ITEM	Description
1	AS5116-SO_EK_MB	Motor Board
2	Allen key	1.5 mm
3	Magnet holders	Diameters: 10 mm, 8 mm, 6 mm, 5 mm

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## 1.2 Ordering Information

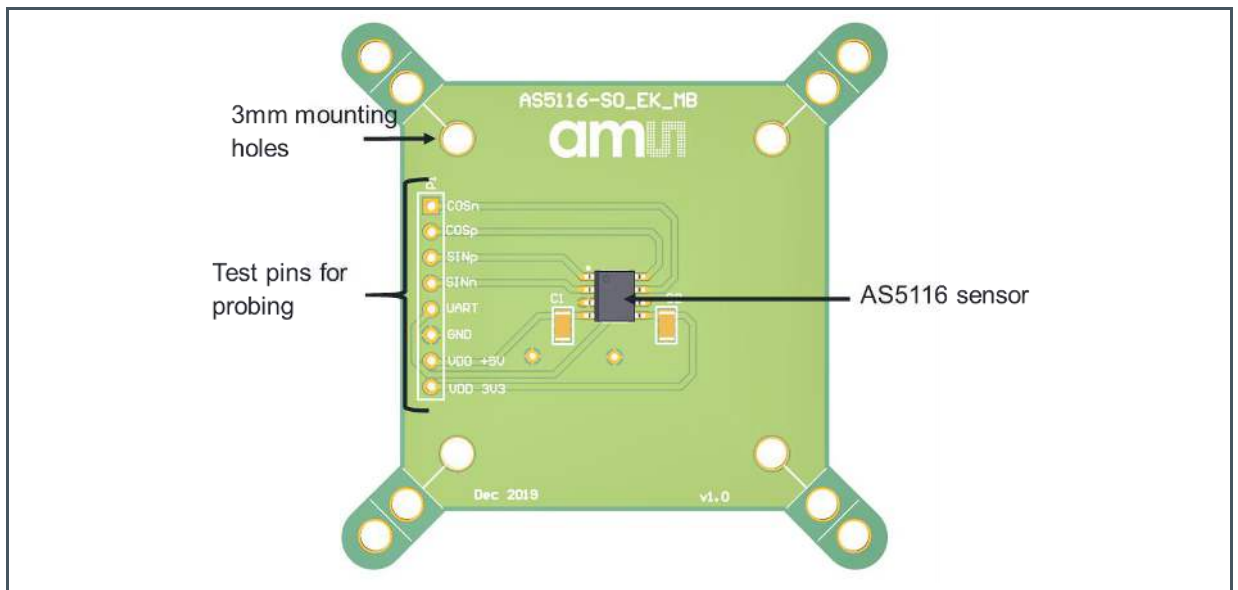
Ordering Code	Description
AS5116-SO_EK_MB	AS5116 Motor Board Kit

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## 2 Description

P1 has to be populated with a 8 pin header and is required for power supply as well as UART and analog output interfaces.

**Figure 3 :**  
AS5116 Motor Board



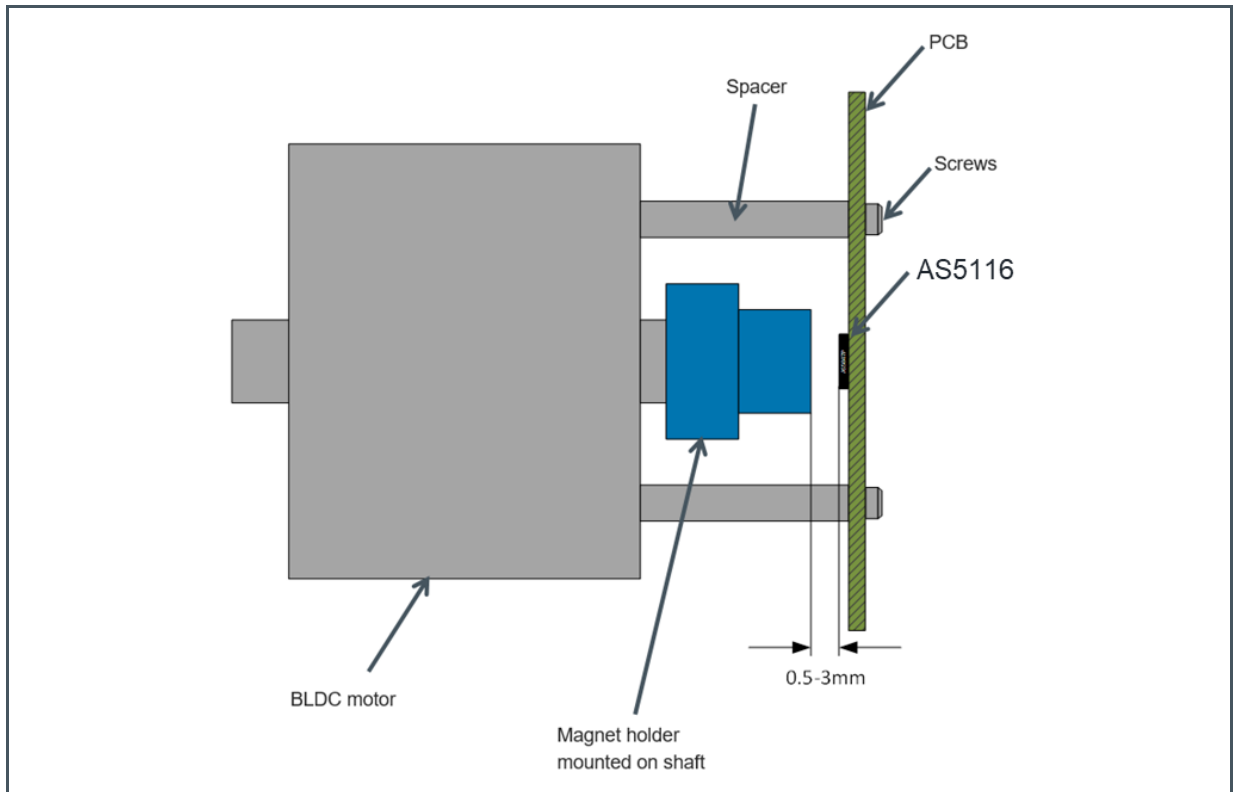
### 2.1 Pinout

**Figure 4:**  
Pin Description

Pin# Board	Symbol Board	Type	Description
P1 - 1	COSn	Analog Out	Buffered cosine channel, inverted output
P1 - 2	COSp	Analog Out	Buffered cosine channel, positive output
P1 - 3	SINp	Analog Out	Buffered sine channel, positive output
P1 - 4	SINn	Analog Out	Buffered sine channel, inverted output
P1 - 5	UART	Digital I/O	Communication pin for OTP programming
P1 - 6	GND	Power Supply	Ground
P1 - 7	VDD +5V	Power Supply	Positive supply voltage
P1 - 8	VDD 3V3	Power Supply	3.3 V LDO output

## 2.2 Mounting On Motor

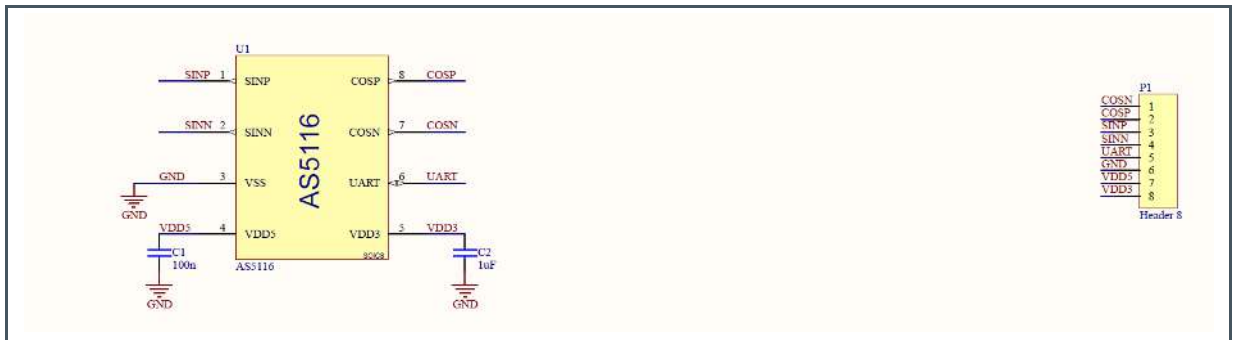
Figure 5 :  
Mounting the AS5116 Motor Board



# 3 Hardware

## 3.1 Schematic

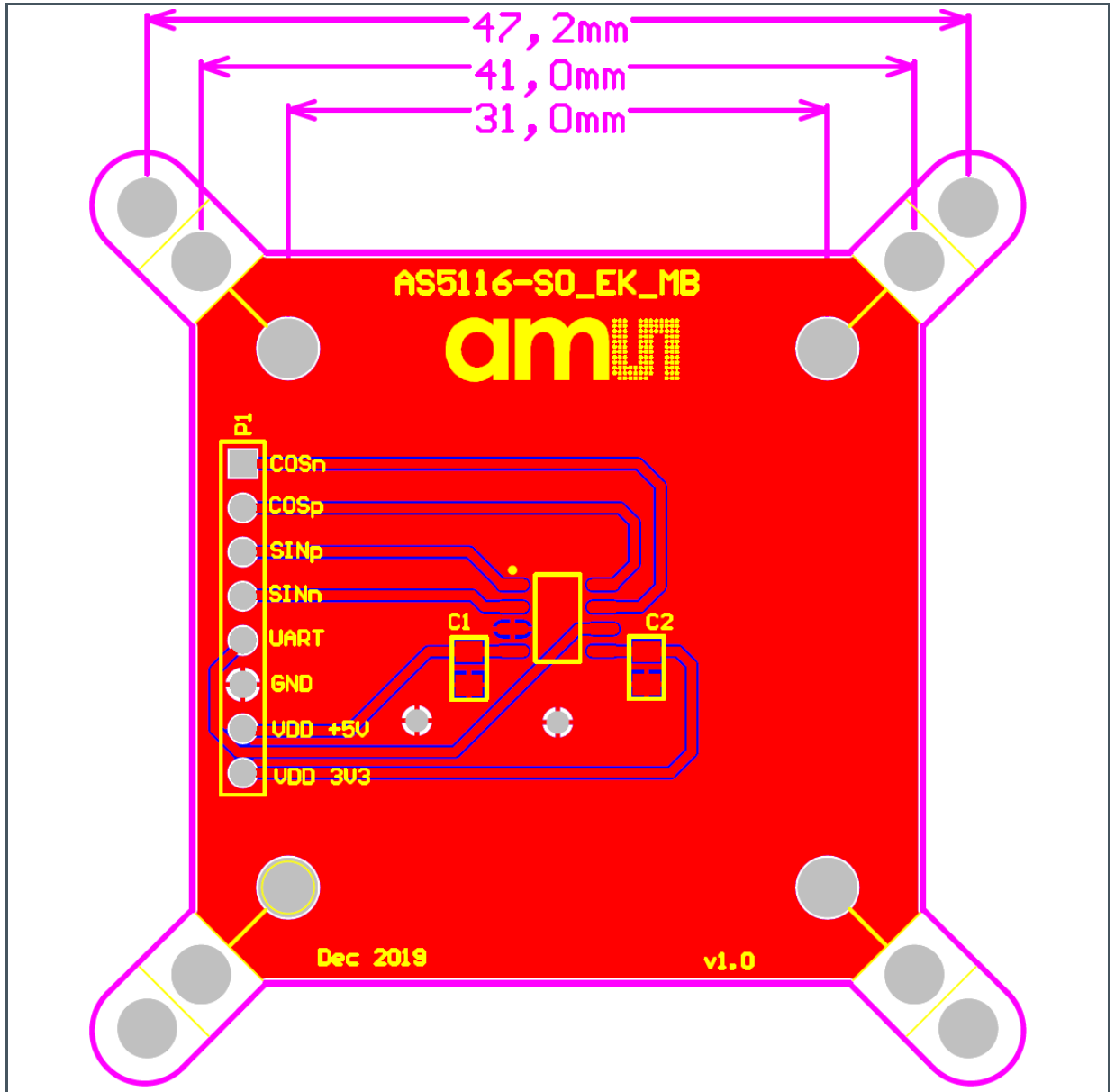
Figure 6 :  
AS5116 Motor Board Schematics





### 3.2 PCB Layout

Figure 7 :  
AS5116-SO\_EK\_MB PCB Layout



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## 4 Revision Information

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Changes from previous version to current revision v1-00	Page
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Initial version

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- Page and figure numbers for the previous version may differ from page and figure numbers in the current revision.
- Correction of typographical errors is not explicitly mentioned.

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