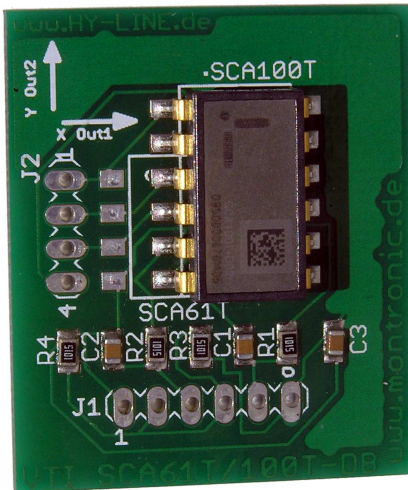
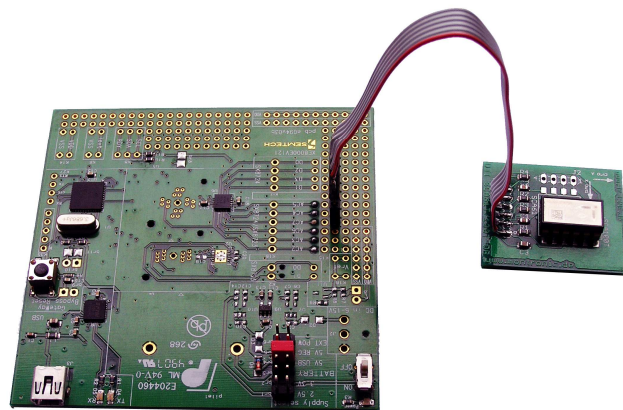


## SCA100T-D02 Evaluation Board



SCA100T-D02-DB



Example: SCA100T-D02 connected to the SX8724 Evaluation-Board

### Introduction

The PCB enables a fast prototyping of VTI's two Axis Tilt sensor SCA100T-D02. The measurement range of the SCA100T-D02 is  $XY=\pm 90^\circ$  (horizontal mounting) or  $z=360^\circ$  (vertical mounting). Together with the Semtech ZoomingADC – Serie SX8723/24 it is easy to adjust the Offset and the Gain and to make a 16 bit AD-conversion of each analog output without any external components.

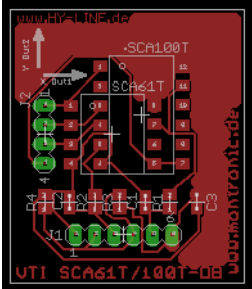
For example, you can easily zoom the interested tilt range of  $+10^\circ$  to  $-5^\circ$  for the x-axis and  $\pm 10^\circ$  for the y-axis to the internal 16 bit AD-Converter without losing any resolution. You just have to adjust the internal analog amplifier by software.

### SCA100T-D02-DB

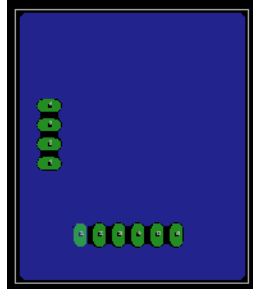
The PCB delivery package contains the following items:

Pos.: 1	SCA100T-D02-DB	
	Assembled parts	SCA100T-D02
		R3, R4 5k11 Ohm metal film 1%
		C1 100nF condensator
		R1, R2 5k11 Ohm metal film 1%
		C2, C3 10nF filter condensator

## Adapter PCB layout



Top view



Bottom view

## Pinbelegung

### SCA100T-D02-DB

J1 – Pin1: GND  
 J1 – Pin2: OUT2 -  
 J1 – Pin3: OUT2 +  
 J1 – Pin4: OUT1 -  
 J1 – Pin5: OUT1 +  
 J1 – Pin6: VDD

### connect to

----->  
 ----->  
 ----->  
 ----->  
 ----->  
 ----->

### SX8724 Evaluation Board

VSS [ SX8724 IC Ground ]  
 AC4 [ Differential Sensor Input in conjunction with AC5 ]  
 AC5 [ Differential Sensor Input in conjunction with AC4 ]  
 AC2 [ Differential Sensor Input in conjunction with AC3 ]  
 AC3 [ Differential Sensor Input in conjunction with AC2 ]  
 VDD [ V<sub>Batt</sub> Power Supply ]

J2 – Pin1: SCK  
 J2 – Pin2: MISO  
 J2 – Pin3: MOSI  
 J2 – Pin4: CSB

n.u.  
 n.u.  
 n.u.  
 n.u.

## ! Danger !

The board SCA100T-D02-DB has no Reverse Battery protection. Mixing up the polarity of the incoming supply [VDD and GND/VSS] damage the SCA100T-D02.

## Order information

SCA100T-D02 Evaluation Board  
 SX8724 Evaluation Board

SCA100T-D02-DB  
 SX8000EV121

## Contact Information