



Eval Kit Manual

AS5013

Adapter Board

AS5013-QF_EK_AB

Table of Contents

1	Introduction	3
1.1	Kit Content	3
2	Board description	4
3	AS5013 adapter board and pinout	5
4	AS5013-QF_EK_AB Hardware	6
4.1	AS5013-QF_EK_AB schematics	6
4.2	AS5013-QF_EK_AB PCB layout	7
5	Ordering & Contact Information	8
6	Copyrights & Disclaimer.....	9

Revision History

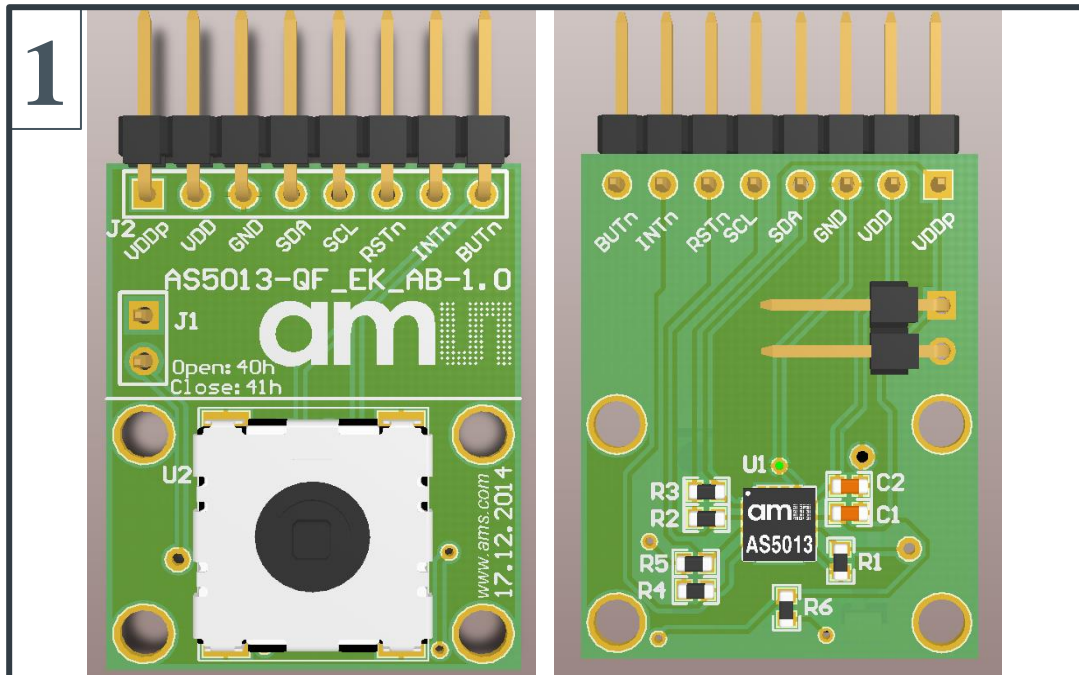
Revision	Date	Owner	Description
1.0	07.01.2015	azen	Initial version

1 Introduction

The AS5013 adapter board is a small PCB allowing simple and quick testing or evaluation of the AS5013 magnetic position sensor without the need to build a test fixture or design an own PCB.

1.1 Kit Content

Figure 1: Kit content



Pos.	Item	Comment
1	AS5013-QF_EK_AB	Adapter board (View front-/backside)
2	N40P107	EasyPoint Module (mounted on the adapterboard's frontside)

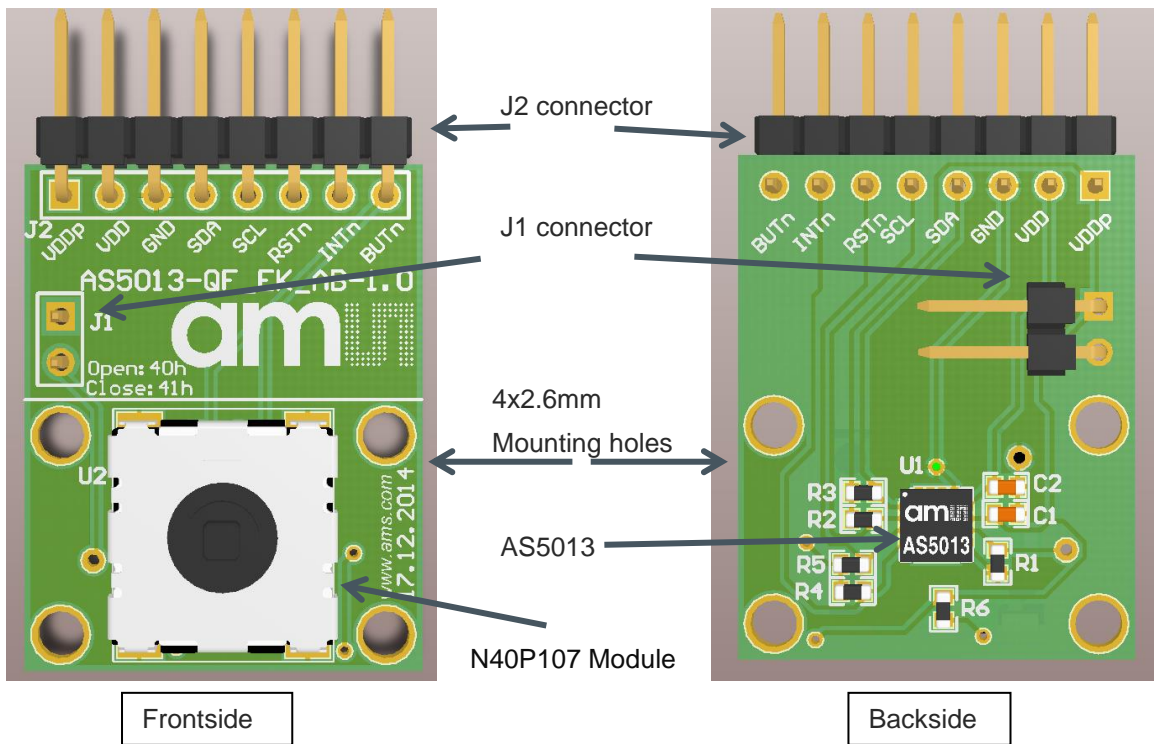
2 Board description

The PCB can either be connected to an external microcontroller or to the Universal Connector Board (AS5xxx-UCB) in combination with a NI USB-8451 box and our provided LabVIEW software.

J2 has to be populated with a 1x8 pin header and is required for power supply as well as I2C Interface.

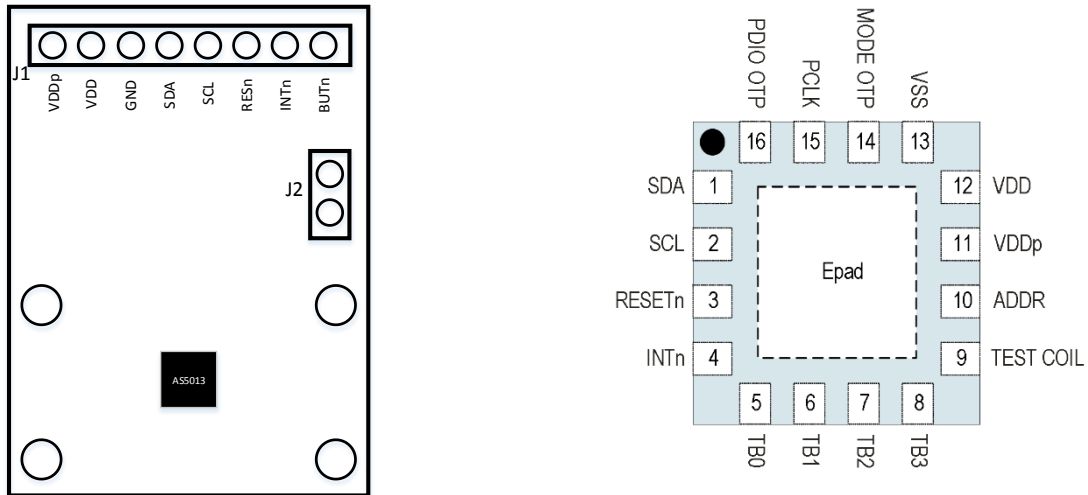
The connector J1 allows to select between 40h or 41h as I2C adress.

Figure 2: AS5013 adapter board (Frontside & Backside)



3 AS5013 adapter board and pinout

Figure 3: AS5013 adapter board and sensor pinout

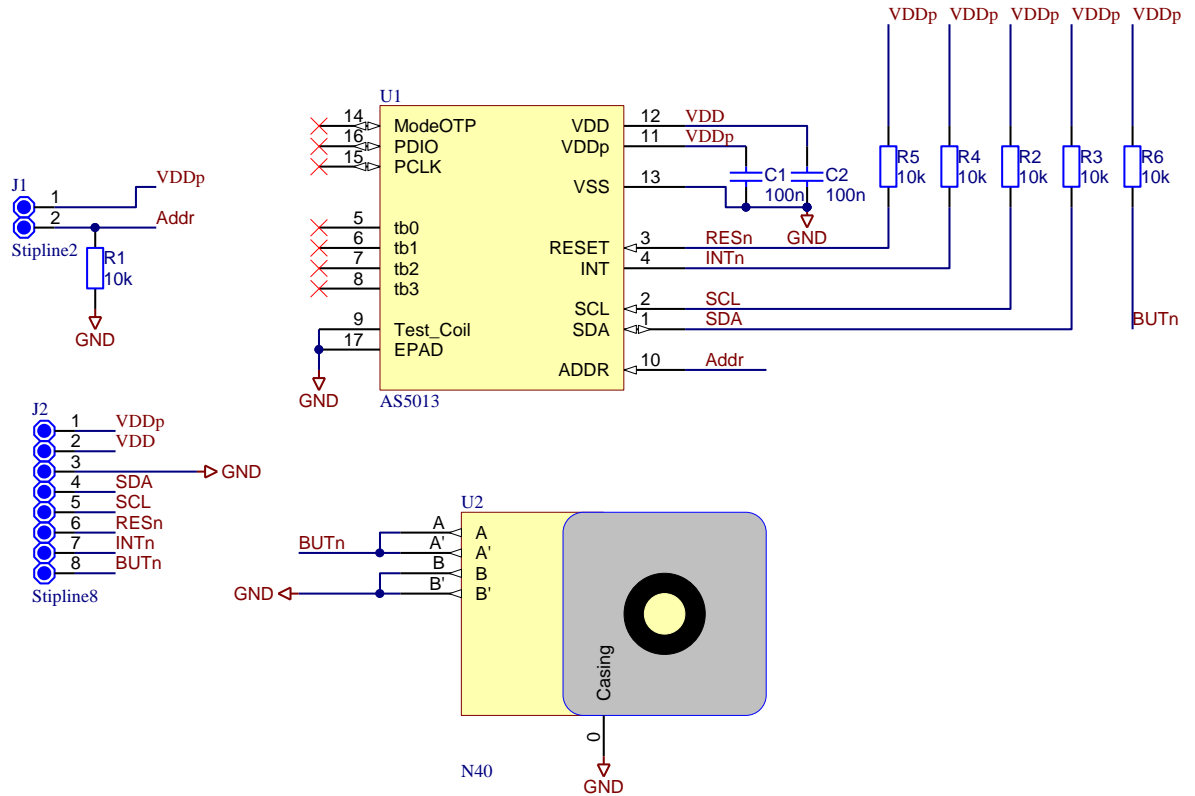


Pin# Board	Pin# AS5013	Symbol board	Type	Description
J1 - 1	11	VDDp	Power supply	I/O power supply
J1 - 2	12	VDD	Power supply	Core power supply
J1 - 3	13	GND	Power supply	Ground
J1 - 4	1	SDA	Digital in-/output	I2C Data line
J1 - 5	2	SCL	Digital input	I2C Clock line
J1 - 6	3	RESn	Digital input	SPI MOSI
J1 - 7	4	INTn	Digital output	SPI MISO
J1 - 8	-	BUTn	Digital output	Push Button functionality
-	5	TB0	Not connected	Test Pin
-	6	TB1	Not connected	Test Pin
-	7	TB2	Not connected	Test Pin
-	8	TB3	Not connected	Test Pin
-	9	TEST COIL	Not connected	Test Pin
-	10	ADDR	Not connected	I2C address selection input
-	14	MODE OTP	Not connected	Test Pin
-	15	PCLK	Not connected	Test Pin
-	16	PDIO OTP	Not connected	Test Pin

4 AS5013-QF_EK_AB Hardware

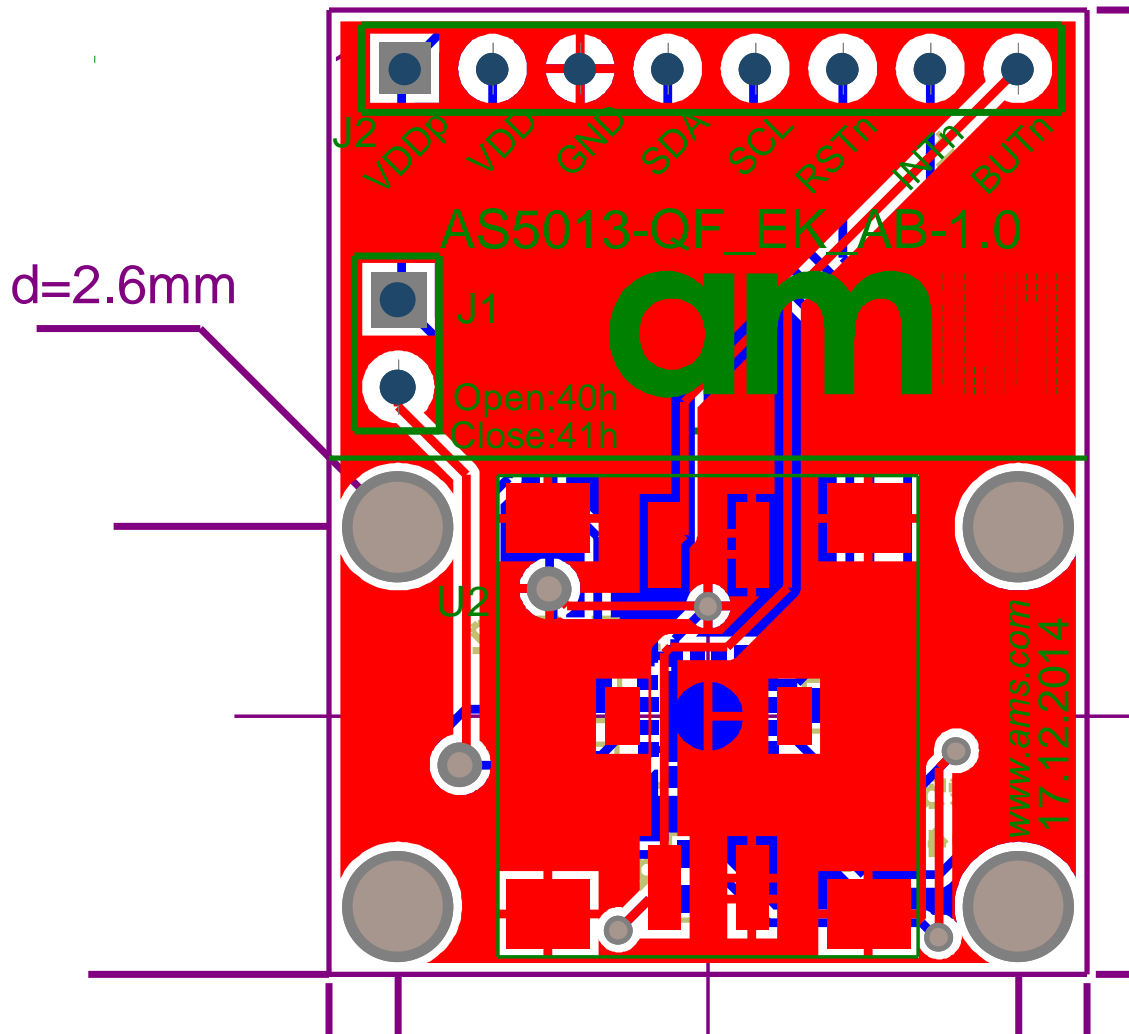
4.1 AS5013-QF_EK_AB schematics

Figure 4: AS5013-QF_EK_AB schematics



4.2 AS5013-QF_EK_AB PCB layout

Figure 5: AS5013-QF_EK_AB PCB layout



5 Ordering & Contact Information

Ordering Code	Description
AS5013-QF_EK_AB	AS5013 Eval Kit Adapter Board

Buy our products or get free samples online at:

www.ams.com/ICdirect

Technical Support is available at:

www.ams.com/Technical-Support

Provide feedback about this document at:

www.ams.com/Document-Feedback

For further information and requests, e-mail us at:

ams_sales@ams.com

For sales offices, distributors and representatives, please visit:

www.ams.com/contact

Headquarters

ams AG

Tobelbaderstrasse 30

8141 Unterpremstaetten

Austria, Europe

Tel: +43 (0) 3136 500 0

Website: www.ams.com

6 Copyrights & Disclaimer

Copyright ams AG, Tobelbader Strasse 30, 8141 Unterpremstaetten, Austria-Europe. Trademarks Registered. All rights reserved. The material herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner.

Demo Kits, Evaluation Kits and Reference Designs are provided to recipient on an “as is” basis for demonstration and evaluation purposes only and are not considered to be finished end-products intended and fit for general consumer use, commercial applications and applications with special requirements such as but not limited to medical equipment or automotive applications. Demo Kits, Evaluation Kits and Reference Designs have not been tested for compliance with electromagnetic compatibility (EMC) standards and directives, unless otherwise specified. Demo Kits, Evaluation Kits and Reference Designs shall be used by qualified personnel only.

ams AG reserves the right to change functionality and price of Demo Kits, Evaluation Kits and Reference Designs at any time and without notice.

Any express or implied warranties, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose are disclaimed. Any claims and demands and any direct, indirect, incidental, special, exemplary or consequential damages arising from the inadequacy of the provided Demo Kits, Evaluation Kits and Reference Designs or incurred losses of any kind (e.g. loss of use, data or profits or business interruption however caused) as a consequence of their use are excluded.

ams AG shall not be liable to recipient or any third party for any damages, including but not limited to personal injury, property damage, loss of profits, loss of use, interruption of business or indirect, special, incidental or consequential damages, of any kind, in connection with or arising out of the furnishing, performance or use of the technical data herein. No obligation or liability to recipient or any third party shall arise or flow out of ams AG rendering of technical or other services.