



**Application Note: AS1370-AN01-
Evaluation Board Description**

AS1370

High Voltage, Low Quiescent Current, 200mA LDO

AN01-Evaluation Board Description

Table of Contents

1	General Description	3
2	Hardware Description.....	4
3	Schematic; Layout and BOM of AS1370 Evaluation Board.....	6
3.1	Schematic	7
3.2	Board Layout.....	8
3.3	BOM	10
4	Ordering Information	10

Revision History

Revision	Date	Owner	Description
1.0	31.10.2013	skre	Initial release

1 General Description

The AS1370 low-power, positive voltage regulator is designed to deliver up to 200mA, while consuming only 3 μ A of quiescent current. The input voltage ranges from 2.6V to a maximum of 50V. Operation with large input to output differential voltages is limited by the maximum power dissipation available from package and environment.

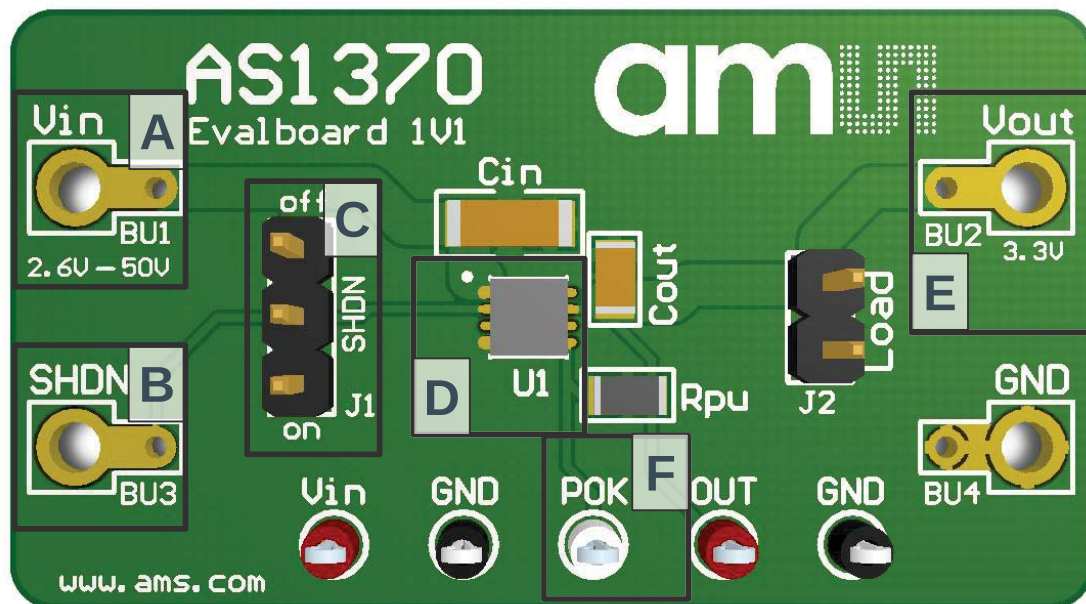
Figure 1: Kit Content



2 Hardware Description

The Evaluation Board has to be supplied via the pins VIN and GND in the range of 2.6V up to 50V. The jumper “SHDN” section C in the picture below has put to “on” (downwards) in order to enable the chip. On the AS1370 Evaluation Board the output voltage is factory-set to 3.3V.

Figure 2: Evaluation Board Overview



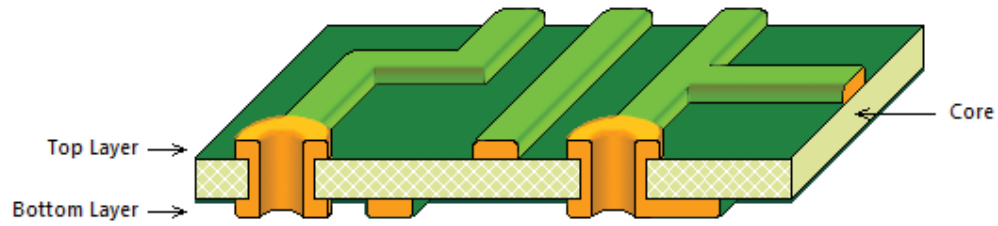
Label	Name	Designator	Description	Info
A	VIN	BU1	Supply	Voltage Range from 2.6V to 50V
B	SHDN	BU3	Shutdown Input	Active-High Shutdown Input. A logic high reduces the ground pin current to $< 1\mu\text{A}$. Connect this pin to GND for normal operation. "SHDN" Jumper (J1) must be removed when using this input to enable/disable the chip.
C	SHDN	J1	-	"on" = Normal operation "off" = Shutdown
D	AS1370	U1	LDO	Provides an output current up to 200mA
E	VOUT	BU2	Output voltage	3.3V
F	POK	-	Power-OK	0 = VOUT $< 95\%$ (typ) of VOUTNOM 1 = VOUT $> 95\%$ (typ) of VOUTNOM Hysteresis 1%

For detailed information according electrical characteristics please refer to the AS1370 datasheet.
The latest version of the datasheet can be found on our homepage, www.ams.com

3 Schematic; Layout and BOM of AS1370 Evaluation Board

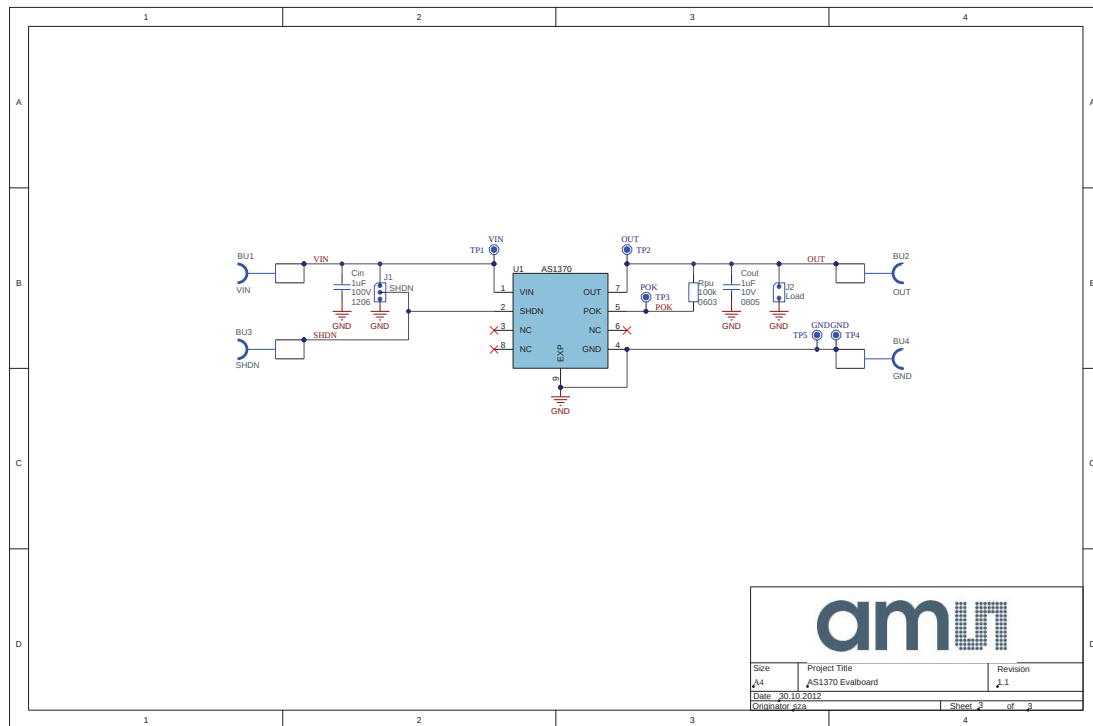
The AS1370 Evaluation Board is a 2-layer FR4 board.

Figure 3: AS1370 PCB Layer Stack up



3.1 Schematic

Figure 4: Schematic



3.2 Board Layout

Figure 5: Top Layer

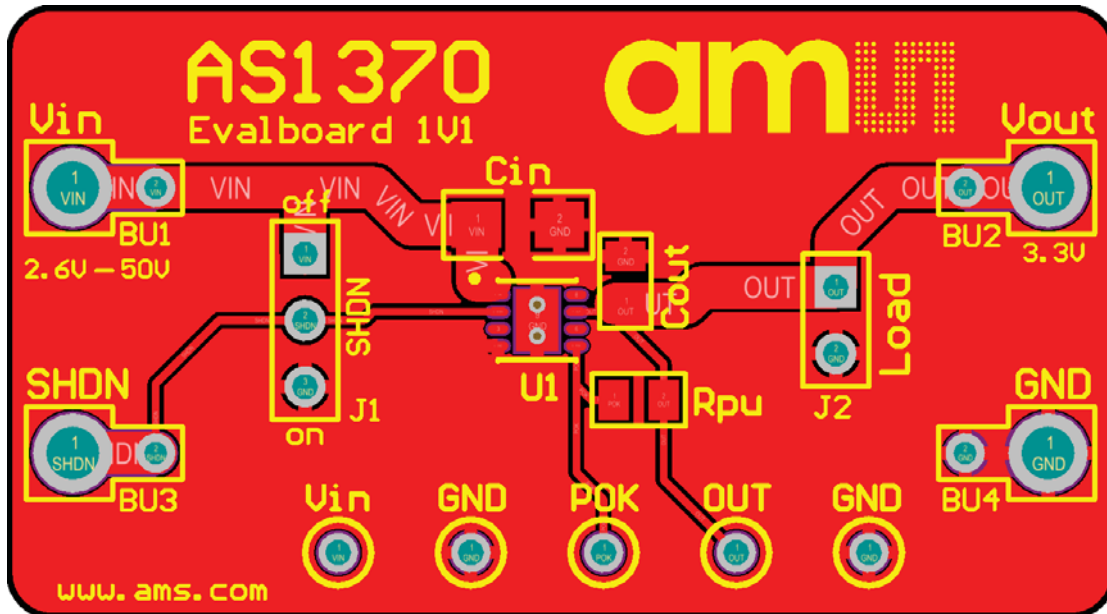
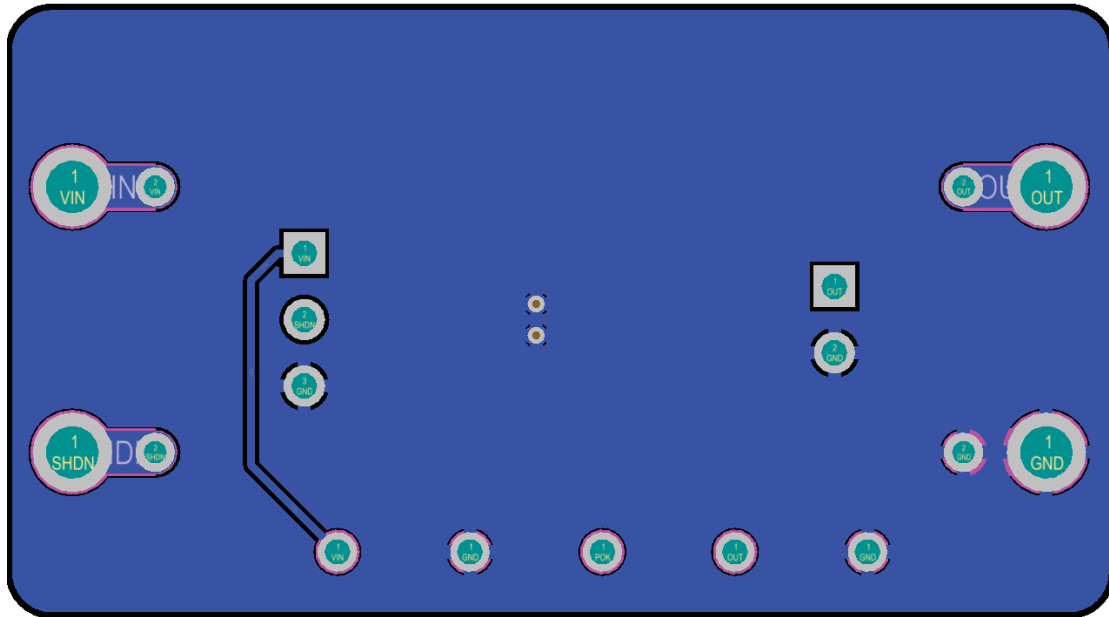


Figure 6: Bottom Layer



3.3 BOM

Figure 7: Bill of Material

Bill of Materials AS1370 Evalboard Company: Originator: PCB Name: PCB Version: Report Date: ams AG sza AS1370 Evalboard 1v1 30.10.2012 ams						
#	Designator	Comment	Part Description	Manufacturer	Manufacturer Part Number	Quantity
1	Cin	1uF	MURATA - GRM31CR72A105KA01L - KONDENSATOR, 1206, 1.0uF, 100V	MURATA	GRM31CR72A105KA01L	1
2	Cout	1uF	MURATA - GRM21BR71A105KA01L - CAPACITOR, 0805, X7R, 10V, 1uF	MURATA	GRM21BR71A105KA01L	1
3	GND	TP5, TP4	VERO - 20-2137 - LOTSTUTZPUNKT SCHWARZ BIS MAX 475° 100ST	VERO	20-2137	2
4	J1, J2	SHDN, Load	FISCHER ELEKTRONIK - SL11 124 36G - STIFBLEISTE, 36POL, 2.54MM RASTER	FISCHER ELEKTRONIK	SL11 124 36G	2
5	OUT, VIN	TP2, TP1	VERO - 20-313137 - LOTSTUTZPUNKT ROT BIS MAX 475° 100ST	VERO	20-313137	2
6	POK	TP3	VERO - 20-313139 - LOTSTUTZPUNKT WEISS BIS MAX 475° 100ST	VERO	20-313139	1
7	Rpu	100k	MULTICOMP - MC 0.063W 0603 1% 100K - WIDERSTAND, 0603 100K	MULTICOMP	MC 0.063W 0603 1% 100K	1
8	UL	AS1370	AS1370-ATDT-33			1
Approved			Notes			11

4 Ordering Information

The AS1370 Evaluation Kit can be ordered via www.ams.com.

Figure 8: Ordering Information

Ordering Code	Description
AS1370-TD-33_EK_ST	AS1370 Evaluation Board

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Contact Information

Headquarters

ams AG
Tobelbader Strasse 30
8141 Unterpremstaetten
Austria

T. +43 (0) 3136 500 0

For Sales Offices, Distributors and Representatives, please visit:

<http://www.ams.com/contact>