



# ARTEKIT

electronic artists

## AK-POWER

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Reference manual





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# About this document

## Revision history

The table below displays the revision history for the chapters in this manual.

Chapter	Date	Revision	Changes made
All	November 2011	1.0	First publication

## Contact information

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For technical support on this product, visit the support page at <http://www.artekit.eu/support>

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Information type	Resource
Technical support	<a href="mailto:support@artekit.eu">support@artekit.eu</a>
Literature	<a href="http://www.artekit.eu">www.artekit.eu</a>
Sales	<a href="mailto:sales@artekit.eu">sales@artekit.eu</a>
Products forum	<a href="http://www.artekit.eu">www.artekit.eu</a>

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# Specifications

## General description

The AK-POWER is a step-down switching power board capable of sourcing 2500 mA in several voltages. The efficiency is >90%. 50µA stand by current when switched OFF. Internal current limit and temperature sensing.

## Environmental requirements

The AK-POWER board must be store between -40°C and +100°C. The recommended operating temperature is between 0°C and +70°C.

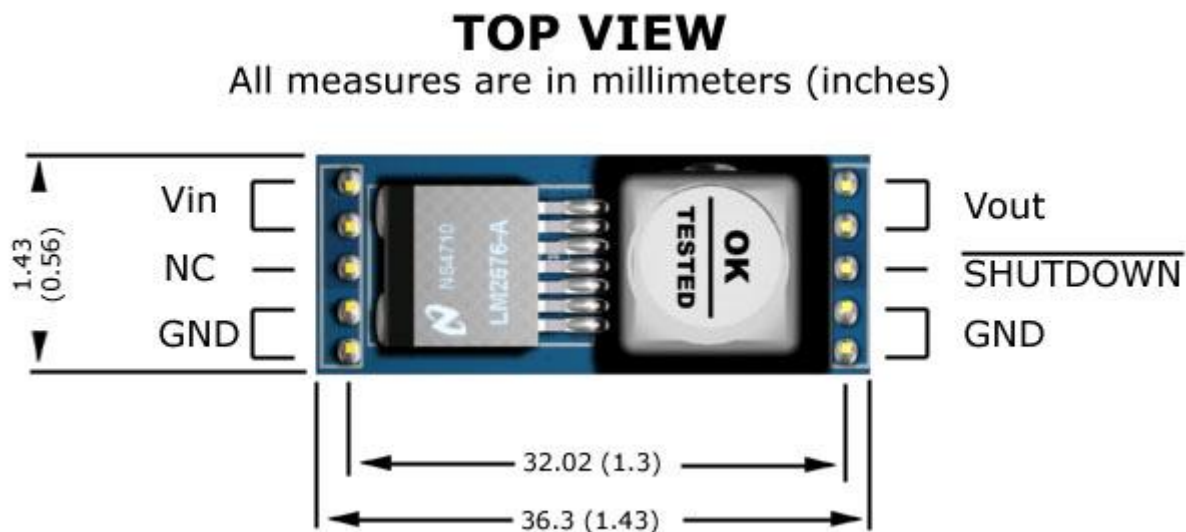
The AK-POWER board can be damaged without proper anti-static handling.

## Handling the board

When handling the board, it is important to observe the following precaution:

*Static discharge precaution* – Without proper anti-static handling the board can be damaged. Therefore, take anti-static precautions while handling the board.

## Board overview



## Pin description

Vin	Input voltage (MAX. = 30V)
NC	Do not connect. This pin is internally unconnected.
GND	Ground. All GND pins must be connected to ground.
Vout	Regulated output voltage. Depends on the AK-POWER model.
Shutdown	Tie to ground to shutdown the board. Leave unconnected for normal operation.

## Electrical characteristics

### Test conditions

Unless otherwise specified, all voltages are referenced to GND.

### Minimum and maximum values

Unless otherwise specified, the minimum and the maximum values are guaranteed in the worst conditions of ambient temperature, supply voltage and frequencies by tests in production on 100% of the devices with an ambient temperature  $T_A = 25^{\circ}\text{C}$ .

### Typical values

Unless otherwise specified, typical data are based on  $T_A = 25^{\circ}\text{C}$ ,  $V_{in} = 15\text{V}$ .

### Absolute maximum ratings

SYMBOL	RATINGS	MIN	MAX	UNIT
$V_{in}$	External main supply voltage	8(*)	35	V

(\*) depends on the AK-POWER board model.

### Normal operating parameters

SYMBOL	PARAMETER	VALUE	UNIT
$V_{in}$	Power supply applied to $V_{in}$ pin	8-30(*)	V

(\*) depends on the AK-POWER board model.

### AK-POWER board models

MODEL	$V_{in}$ MIN (V)	$V_{out}$ (V)
AK-POWER-1.8	8	1.8
AK-POWER-2.5	8	2.5
AK-POWER-3.3	8	3.3
AK-POWER-5	8	5
AK-POWER-6.3	9	6.3
AK-POWER-9	12	9
AK-POWER-12	15	12

**IMPORTANT:** All output voltages are +/- 1% tolerant.