



# AM305122R1DBGEBV: Daughter Board SPI Stepper Driver Voltage Regulator SOIC Evaluation Board

The AM305122R1DBGEBV is a form factor Daughter Board for driving bipolar stepper motors. The daughter board can be interfaced via I/O pins and the SPI bus to an external microcontroller. In conjunction with the evaluation kit AMIS305XXGEVK it forms a complete solution turning high level commands from a CAN node in well defined motions. The design incorporates the lowest bill of materials, small board size and perfect matched thermal resistance allowing to drive 400 mA at elevated ambient temperature or even 800mA under certain conditions.



Note: This board must be used with the [AMIS305XXGEVK Industrial Stepper Motor Driver Kit](#).

## Features and Applications

### Features

- Low bill of materials
- Small form factor (40mm x 30mm (29mm x 20mm active area))
- Plug and Play in combination with AMIS305XXGEVK
- Microstepping (full step, 1/2(compensated and uncompensated), 1/4, 1/8, 1/16, 1/32)
- Nominal current of 400mA (800mA under certain conditions)
- Fully integrated current sensing
- 6V-30V supply voltage
- On chip 5V/50mA regulator
- (Watchdog) reset output
- Compatible with 5V and 3.3V microcontrollers
- Next step and motion direction input
- Speed and load-angle output
- Diagnostics information
- Thermal warning and thermal shutdown
- Programmable PWM frequency and slope control

### Applications

- Flap control in HVAC systems
- Headlamp Positioning systems
- Pan tilt zoom function in Surveillance Camera
- Mechatronic modules
- X-Y-Z tables
- Printers
- Industrial robots
- Pick-and-place machines
- Dose pumps
- Event lighting
- Textile machines

## Evaluation/Development Tool Information

Product	Status	Compliance	Short Description	Parts Used	Action
<a href="#">AM305122R1DBGEBV</a>	Active	Pb-free	Daughter Board SPI Stepper Driver Voltage Regulator SOIC Evaluation Board	<a href="#">AMIS30512C5122RG</a>	<a href="#">» Contact Local Sales Office</a> <a href="#">» Inventory</a>

## Technical Documents

Type	Document Title	Document ID/Size	Rev
Eval Board: BOM	AM305122R1DBGEBV Bill of Materials ROHS Compliant	<a href="#">AM305122R1DBGEBV_BOM_ROHS.PDF - 146.0 KB</a>	0
Eval Board: Gerber	AM305122R1DBGEBV Gerber Layout Files (Zip Format)	<a href="#">AM305122R1DBGEBV_GERBER.ZIP - 44.0 KB</a>	4
Eval Board:	AM305122R1DBGEBV Schematic	<a href="#">AM305122R1DBGEBV_SCHEMATIC.PDF - 143.0 KB</a>	0

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