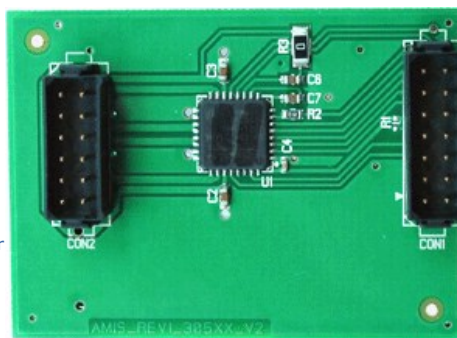




## AM305421R1DBGEBV: Daughter Board Stepper Driver NQ Evaluation Board

The AM305421R1DBGEBV 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 3A at elevated ambient temperature or even 6A 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 32mm (20mm x 15mm active area))
- Plug and Play in combination with EVK-3052x
- Microstepping (full step, 1/2 (compensated and uncompensated), 1/4, 1/8, 1/16, 1/32)
- Nominal current of 3A (6A under certain conditions)
- Fully integrated current sensing
- 6V-30V supply voltage
- 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

### Evaluation/Development Tool Information

| Product          | Status | Compliance | Short Description                                 | Parts Used       | Action                                                                      |
|------------------|--------|------------|---------------------------------------------------|------------------|-----------------------------------------------------------------------------|
| AM305421R1DBGEBV | Active |            | Daughter Board Stepper Driver NQ Evaluation Board | AMIS30542C5421RG | <a href="#">» Contact Local Sales Office</a><br><a href="#">» Inventory</a> |

### Technical Documents

| Type                  | Document Title                                    | Document ID/Size                                          | Rev |
|-----------------------|---------------------------------------------------|-----------------------------------------------------------|-----|
| Eval Board: BOM       | AM305421R1DBGEBV Bill of Materials ROHS Compliant | <a href="#">AM305421R1DBGEBV_BOM_ROHS.PDF</a> - 134.0 KB  | 0   |
| Eval Board: Gerber    | AM305421R1DBGEBV Gerber Layout Files (Zip Format) | <a href="#">AM305421R1DBGEBV_GERBER.ZIP</a> - 60.0 KB     | 0   |
| Eval Board: Schematic | AM305421R1DBGEBV Schematic                        | <a href="#">AM305421R1DBGEBV_SCHEMATIC.PDF</a> - 219.0 KB | 0   |

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