X-NUCLEO-IHM01A1

Stepper motor driver expansion board based on L6474 for STM32 Nucleo

Description

The X-NUCLEO-IHM01A1 is a stepper motor driver expansion board based on the L6474. It provides an affordable and easy-to-use solution for driving a stepper motor in your STM32 Nucleo project. The advanced current control of the L6474 and a complete set of protection features offer high levels of both performance and robustness. The X-NUCLEO-IHM01A1 is compatible with the Arduino UNO R3 connector, and supports the addition of other boards which can be stacked to drive up to three stepper motors with a single STM32 Nucleo board.

Features

- Voltage range from 8 V to 45 V
- Phase current up to 3 A_{r.m.s.}
- Power OK and fault LEDs
- Advanced current control
- Fully protected power stage
- Up to 1/16 microstepping resolution
- Compatible with Arduino UNO R3 connector
- Compatible with STM32 Nucleo boards
- Suitable for multi-motor solutions
- RoHS compliant
Figure 1. X-NUCLEO-IHM01A1 circuit schematic
2 Revision history

Table 1. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-Jun-2014</td>
<td>1</td>
<td>Initial release.</td>
</tr>
<tr>
<td>10-Sep-2014</td>
<td>2</td>
<td>Updated board photo in cover page.</td>
</tr>
<tr>
<td>30-Mar-2015</td>
<td>3</td>
<td>Updated title in cover page.</td>
</tr>
</tbody>
</table>