



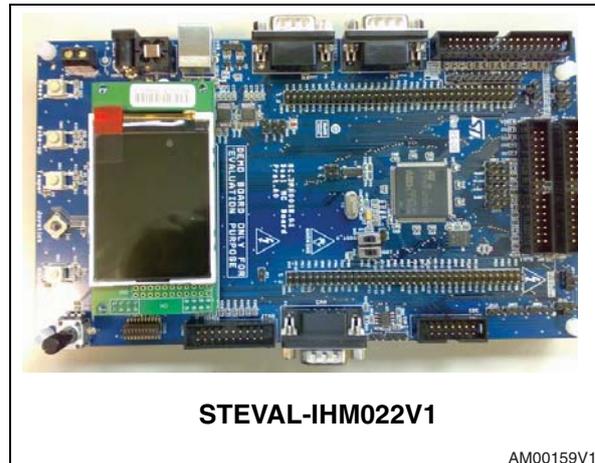
STEVAL-IHM022V1

High density dual motor control demonstration board
based on the STM32F103ZE microcontroller

Data brief

Features

- Four 5 V power supply sources: 2-way screw connector, power jack, USB connector or daughterboard
- Boot from system or user Flash
- 64 Mb serial Flash included
- Two RS-232 channels with RTS/CTS handshake support on one channel
- USB 2.0 full speed connection
- CAN 2.0 A/B compliant connection
- Two full featured motor control connectors for field oriented control plus PFC support on one connector
- JTAG, SWD and trace debug support
- 240 x 320 TFT color LCD
- Joystick with 4-direction control and selector
- Reset, wakeup, tamper and user button
- Extension connectors for daughterboard or wrapping board
- RoHS compliant



Extension headers make it easy to connect a daughterboard or wrapping board for specific applications.

Description

The STEVAL-IHM022V1 demonstration board is designed as a dual motor control development platform for STMicroelectronics' ARM Cortex™-M3 core-based STM32F103ZE microcontroller.

The board features full speed USB 2.0 and CAN 2.0 A/B compliant interfaces, 2 I²S channels, 2 I²C channels, 5 USART channels, 3 SPI channels, 2 DAC channels, internal 64 Kb SRAM and 512 Kb Flash memory, and JTAG and SWD debugging support.

The board is designed to implement multiple motor control (up to three MC connectors are available) and offers an advanced user I/O interface (LCD QVGA display and joystick key).

Figure 4. JTAG and trace connectors

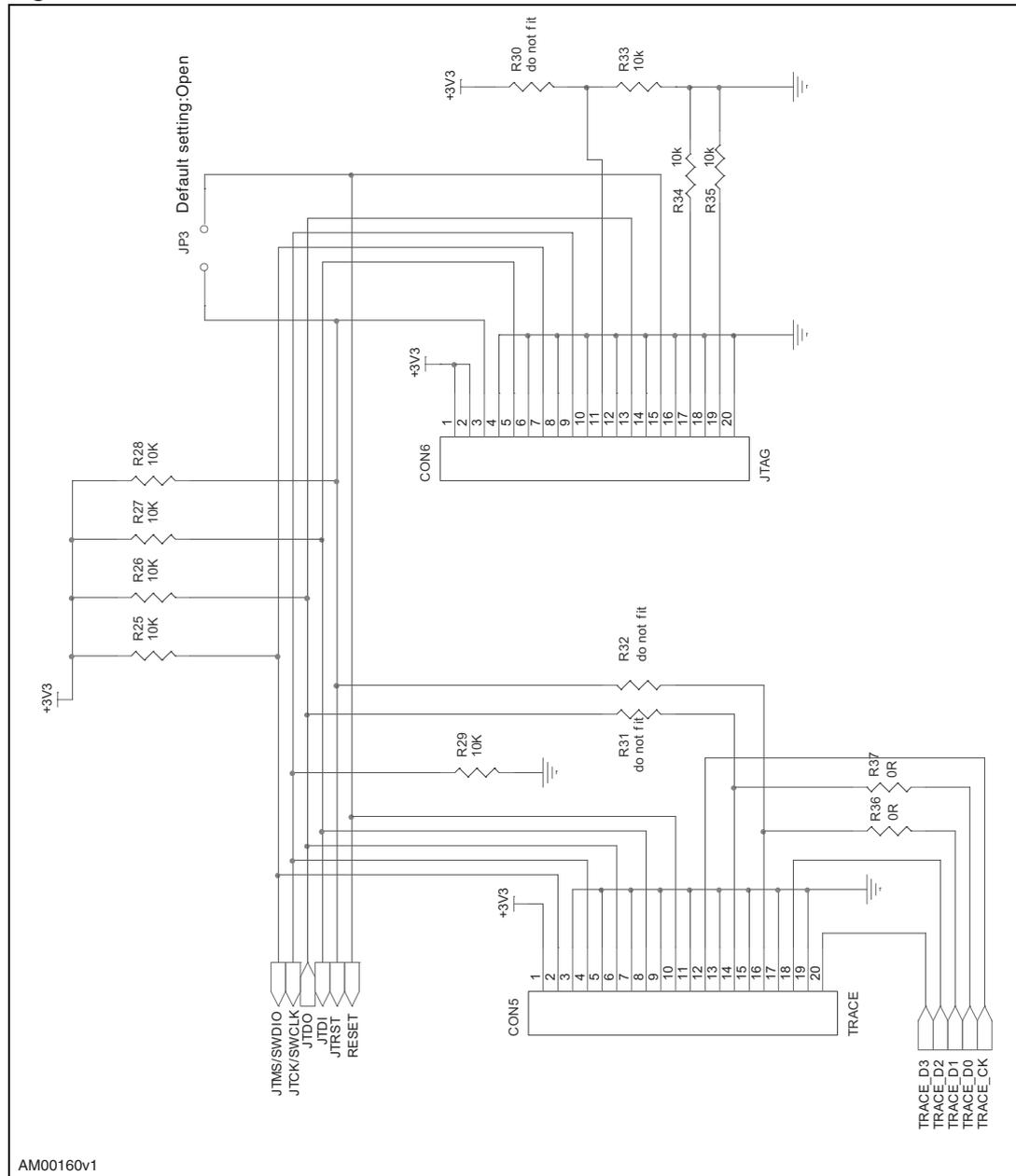
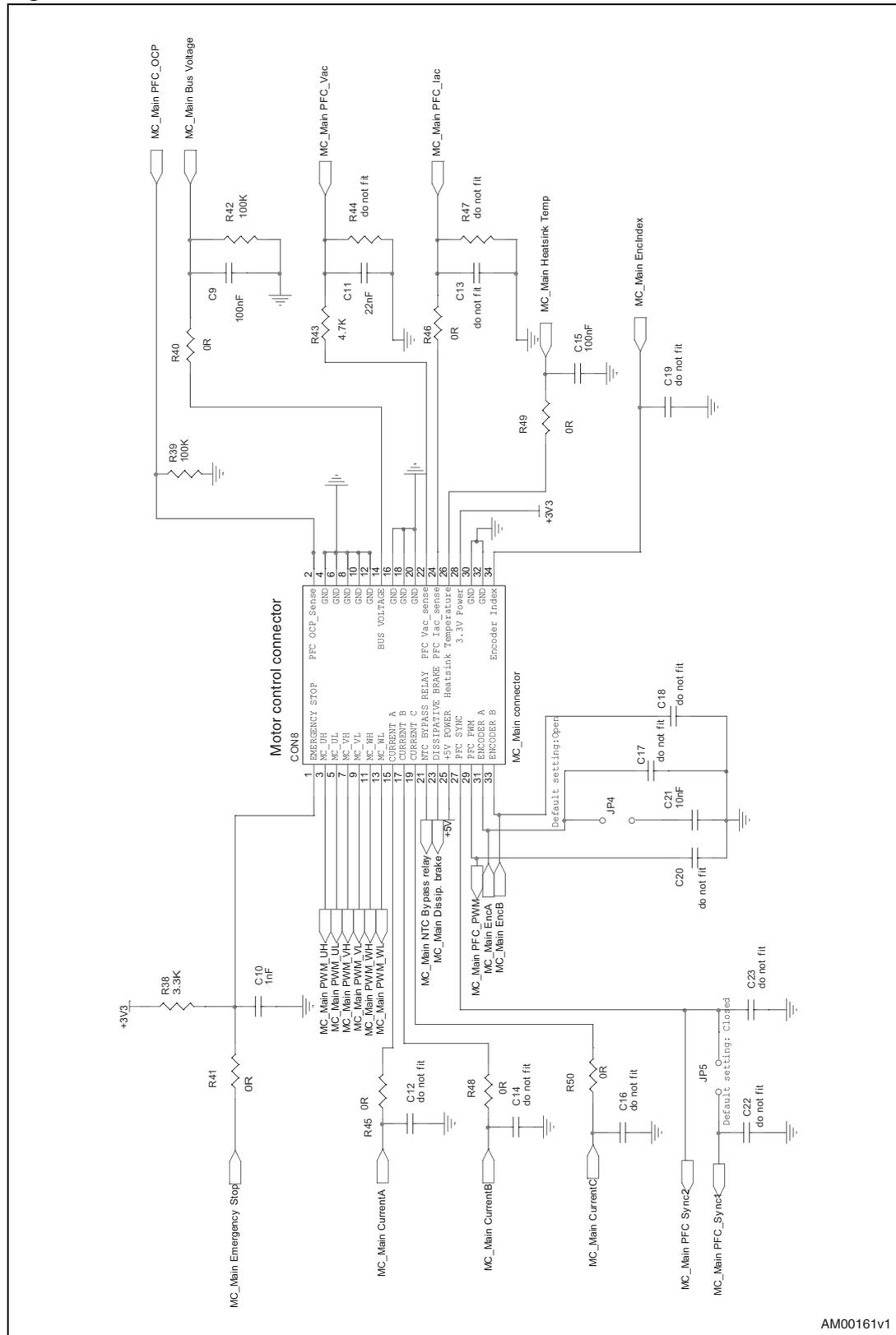
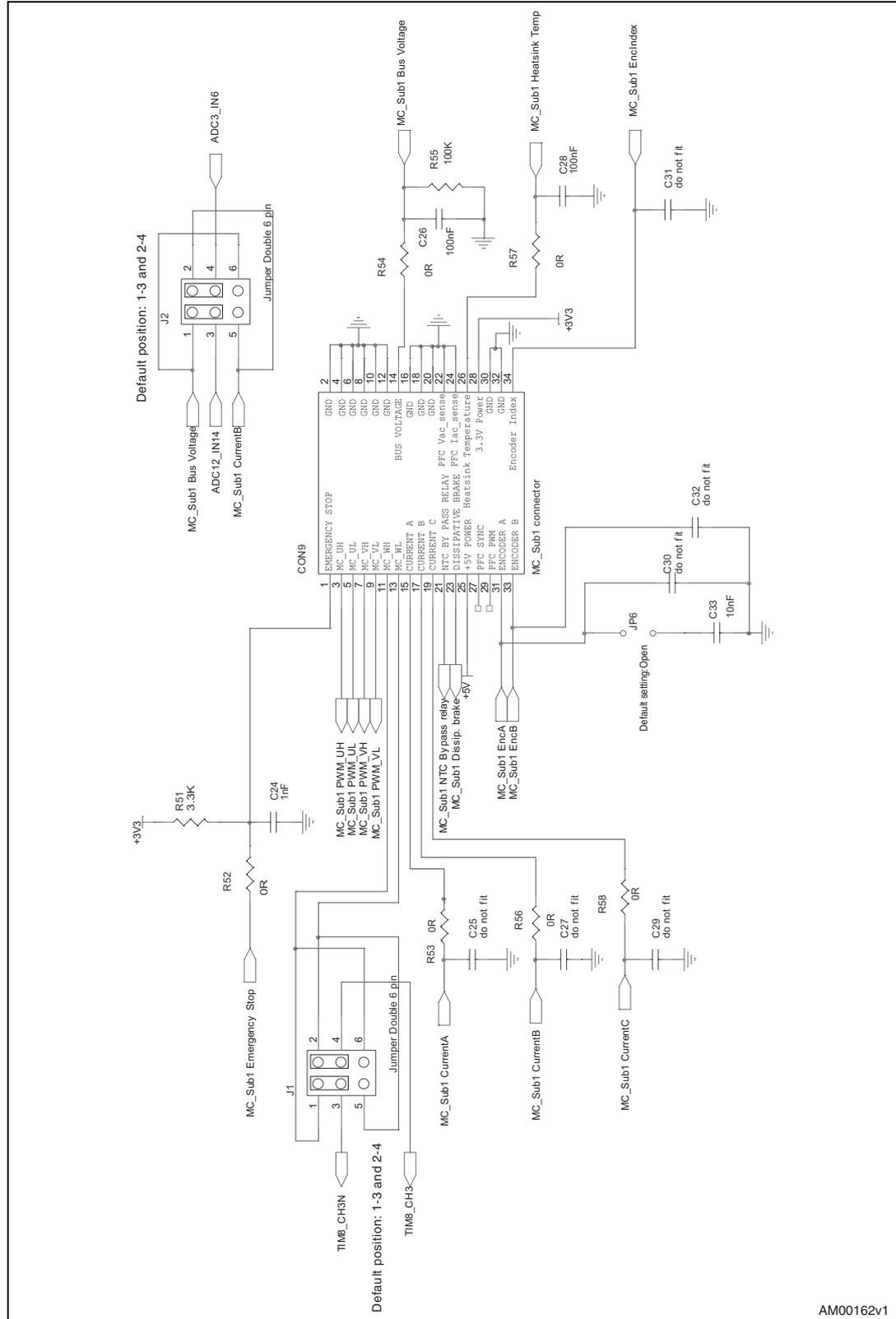


Figure 5. Motor control connector main



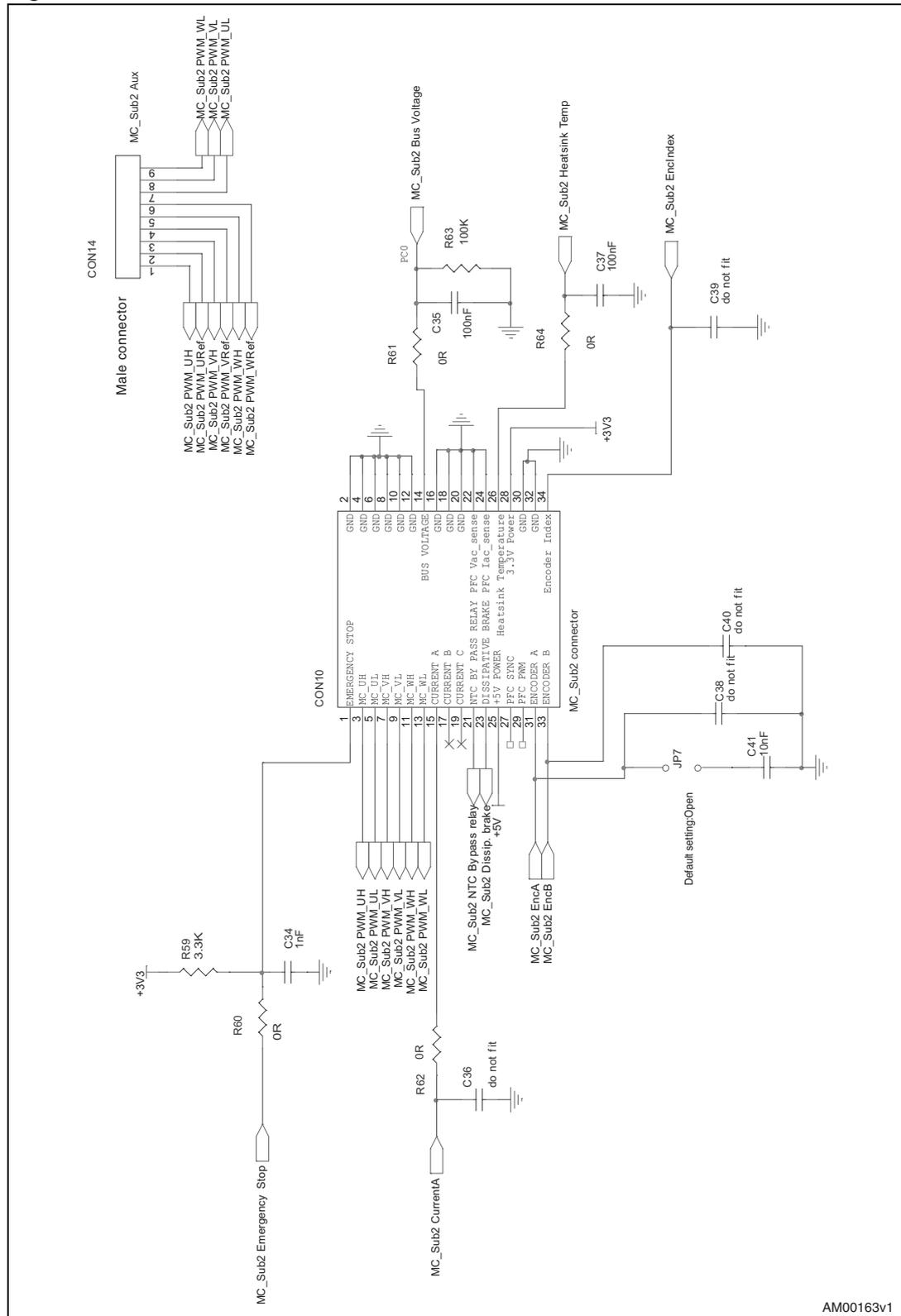
AM00161v1

Figure 6. Motor control connector sub1



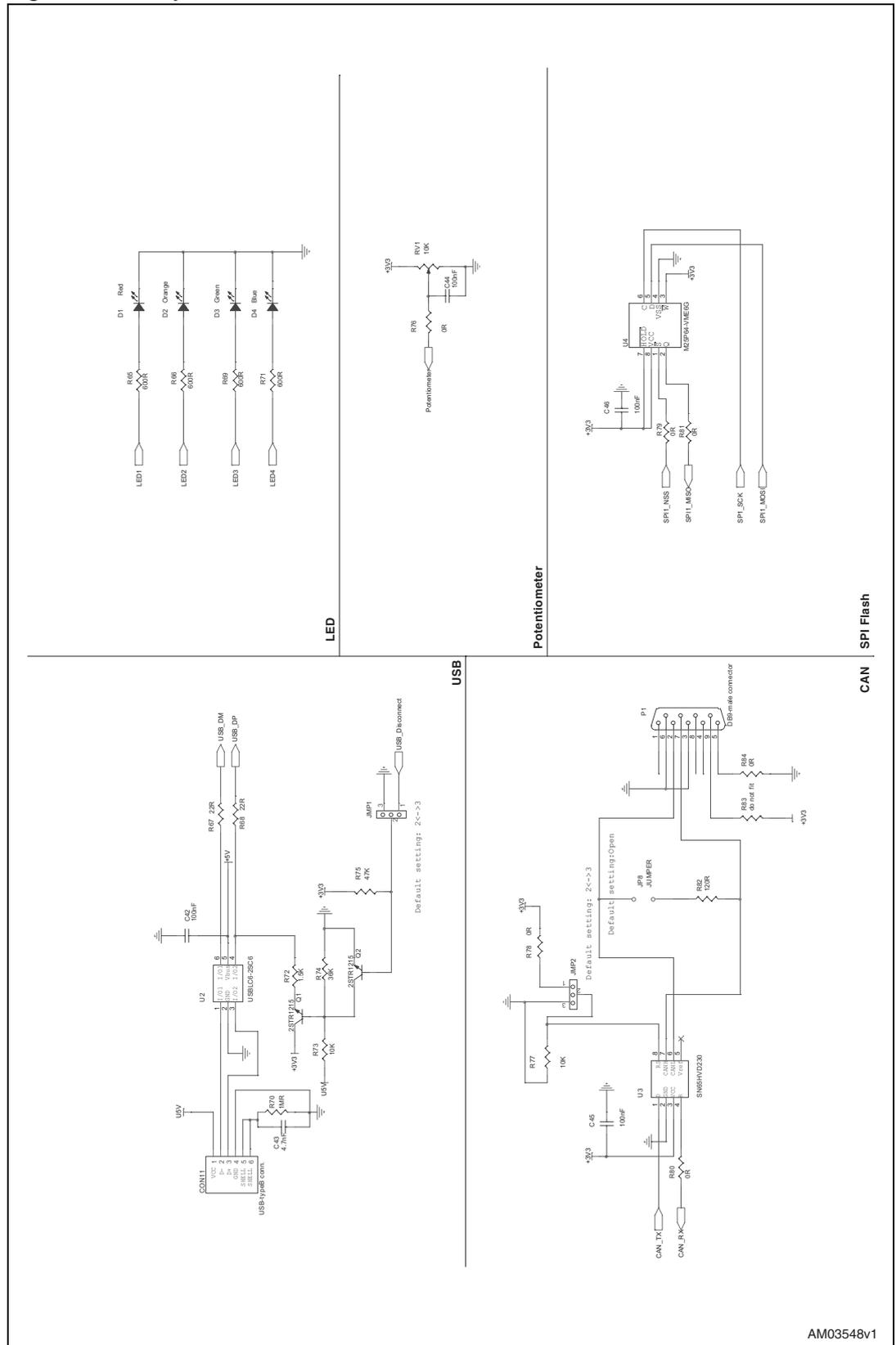
AM00162v1

Figure 7. Motor control connector sub2



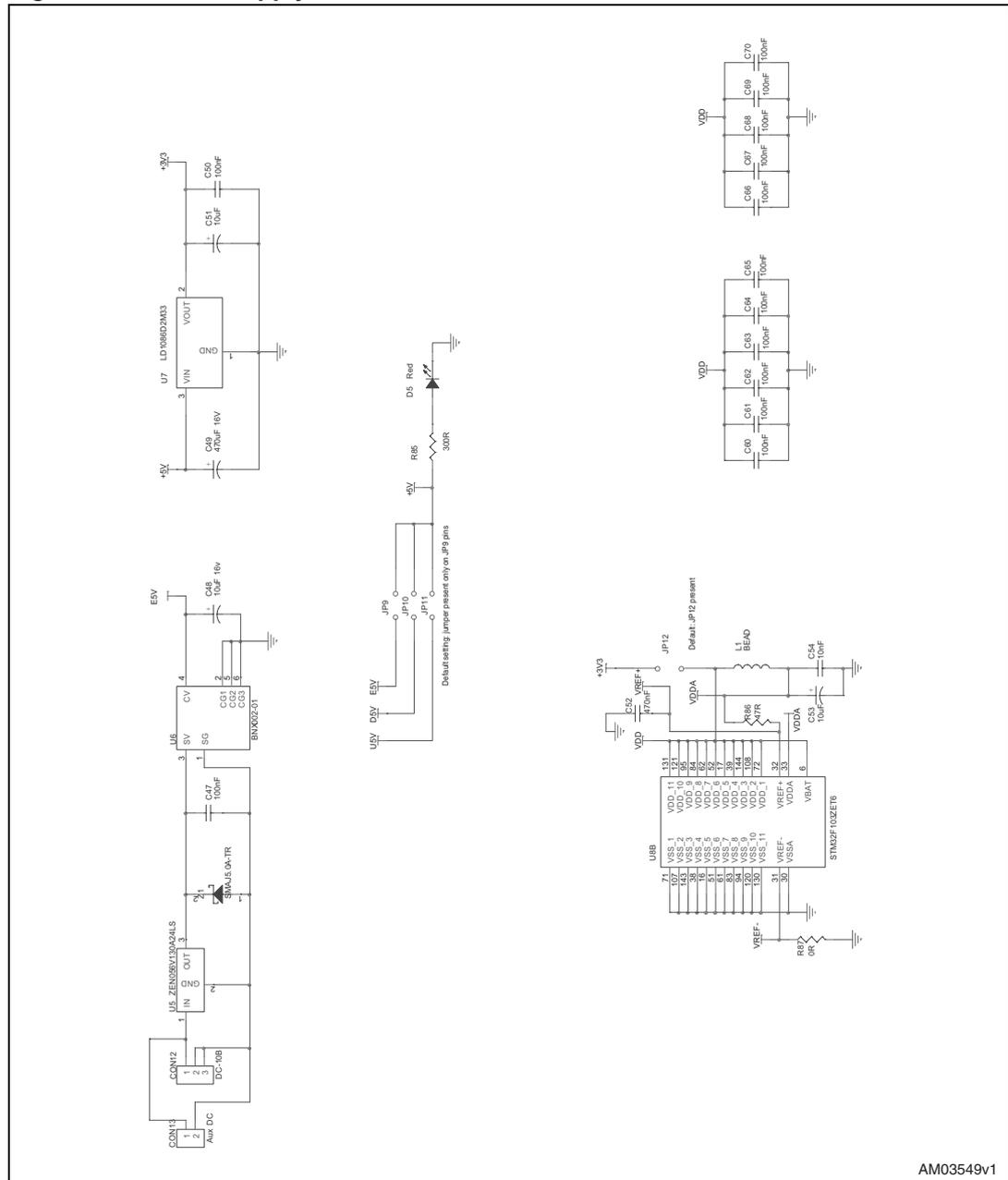
AM00163V1

Figure 8. Peripherals



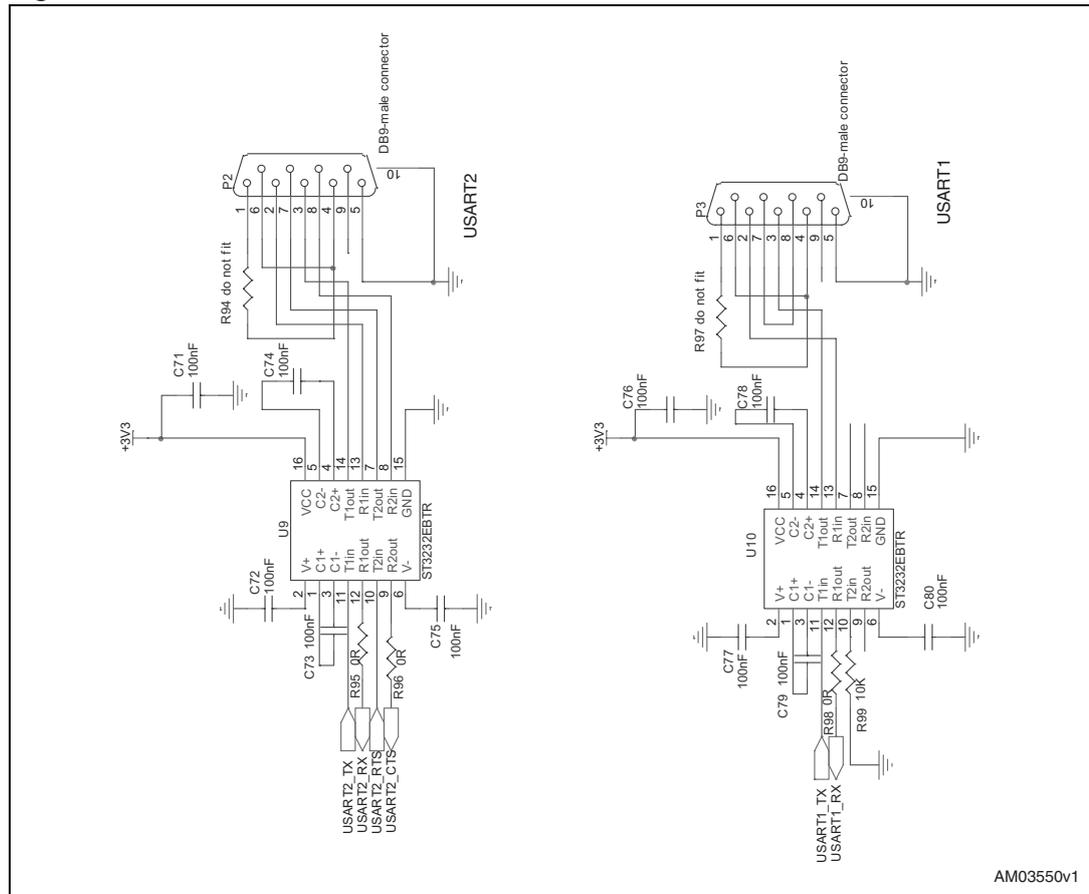
AM03548v1

Figure 9. Power supply



AM03549v1

Figure 10. RS-232 connectors



AM03550V1

2 Revision history

Table 1. Document revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 29-Jul-2009 | 1 | Initial release. |

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2009 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[STMicroelectronics:](#)

[STEVAL-IHM022V1](#)