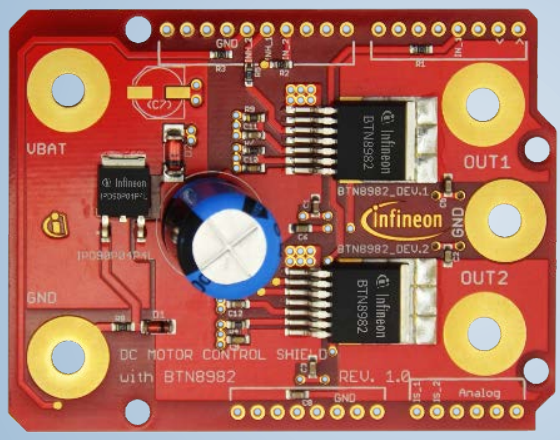



Product Brief

# DC Motor Control Shield

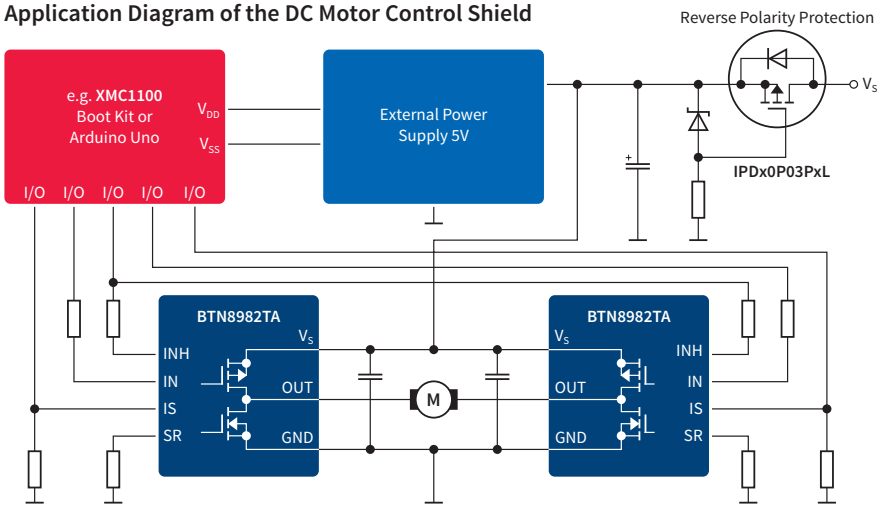
## with BTN8982TA for Arduino

The DC Motor Control Shield from Infineon is one of the first high-current motor control boards being compatible to Arduino as well as to Infineon's XMC1100 Boot Kit. It is capable of driving two uni-directional DC motors (half bridge configuration) or one bi-directional DC motor (H-Bridge configuration).
The implemented NovalithIC™ integrated half-bridge driver BTN8982TA can be controlled by a PWM via the IN Pin. Interfacing to a microcontroller is made easy by the integrated driver IC which features logic level inputs, diagnosis with current sense, slew rate adjustment, dead time generation and protection against overtemperature, undervoltage, overcurrent and short circuit.

### Applications

- Brushed DC motor control up to 250W continuous load
  - 8–18V nominal input voltage (max. 6–40V)
  - Average motor current 30A restricted due to PCB (BTN8982TA current limitation @ 55A min.)

### Application Diagram of the DC Motor Control Shield




www.infineon.com/arduino

### Features

- Compatible with Arduino Uno R3 and XMC1100 Boot Kit from Infineon
- Capable of high frequency PWM, e.g. 30kHz
- Adjustable slew rates for optimized EMI by changing external resistor
- Driver circuit with logic level inputs
- Diagnosis with current sense
- Protection e.g. against overtemperature and overcurrent

### Benefits

- Fast and inexpensive prototyping of DC motor control
- Easy testing of half- and full-bridge motor control
- Status flag diagnosis with current sense capability
- Overtemperature shut down with latch behavior and undervoltage shut down

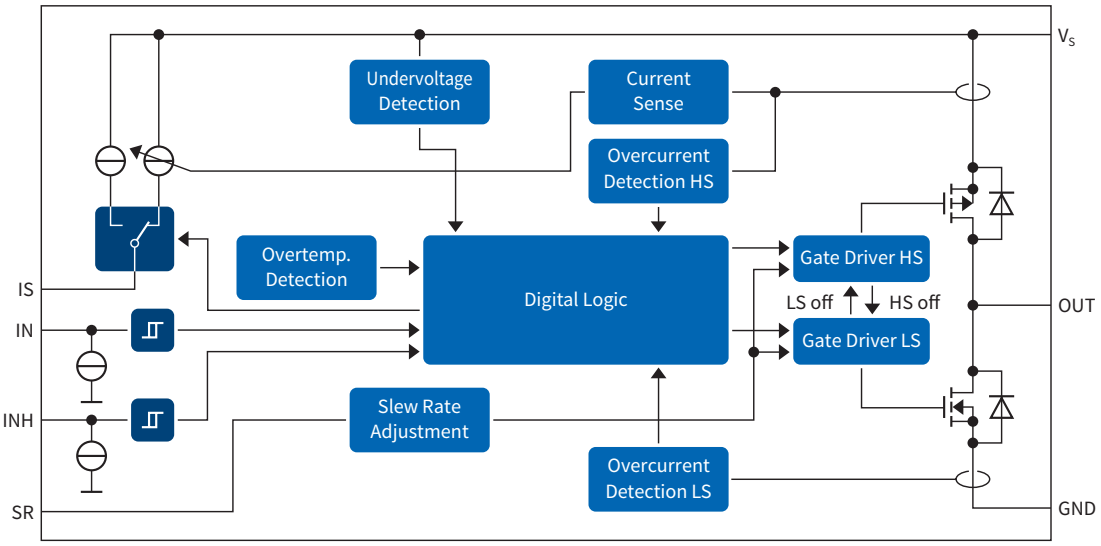
RoHS

AEC Qualified

# DC Motor Control Shield

## with BTN8982TA for Arduino

**Block Diagram**




The BTN8982TA provides a cost optimized solution for protected high-current PWM motor drives with very low board space consumption.

**Product Summary**

| Type | Description | Ordering Code |
|---|---|---|
| DC Motor Control Shield with BTN8982TA for Arduino | DC Motor Control Shield with NovalithIC™ integrated half-bridge driver BTN8982TA – and IPD90P04P4L for reverse polarity protection. For the evaluation of brushed DC motor control applications up to 250W continuous load. Compatible with Arduino Uno R3 and XMC1100 Boot Kit. | DCMOTORCONTRBTN8982TOBO1 |
| NovalithIC BTN8982TA | The BTN8982TA is an integrated high-current half-bridge for motor drive applications. It is part of the NovalithIC™ family containing one p-channel high-side MOSFET and one n-channel low-side MOSFET with an integrated driver IC in one package (PG-TO263-7). | BTN8982TAAUMA1 |
| Boot Kit XMC1100 | Evaluationboard for XMC1100 MCUs series with detachable SEGGER J-Link and RGB LED Lighting Shield with XMC1202 for Arduino | KIT_XMC11_BOOT_001 |

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3 (B)/NMB-3(B)

Useful Links

www.infineon.com/arduino
www.infineon.com/novalithIC
www.infineon.com/xmc1000

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Visit us:
www.infineon.com

Order Number: B127-I0043-V1-7600-EU-EC-P
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