

# STR-10-16V-BLDC-MDK-GEVK: 600W, 10-16V Motor Development Kit

The STR-10-16V-BLDC-MDK-GEVK is a comprehensive motor development kit and a reference design for drive low voltage 3-phase BLDC motors. The power board consists of 6 NTMFS4C302N MOSFETs for the inverter stage and NCP1034 PWM synchronous buck controller for power conversion. The 3-phase power board is rated for a maximum of 16V DC and consists of all necessary system blocks for a BLDC motor driver. As part of the motor development kit, the power board is compatible with the power Universal controller board enabling high-end control strategies and AI capabilities for industrial motor control. The complete kit is Strata enabled and the graphical user interface can be used to set control parameters for the motor drive.



The STR-10-16V-BLDC-MDK-GEVK is a complete kit that consists of the 600W, 16V power board, hardware adapter for the UCB, and the Universal controller board (UCB)

For the Power board only, visit [STR-10-16V-BLDC-MDK-GEVB](#)

## Features and Applications

### Features

- Power board for Motor Development Kit (MDK)
- Compatible with the Universal Controller Board (UCB) FPGA/ARM
- Fully compatible with Xilinx® development tools for Zynq®-7000
- Strata Enabled
- Downloadable Trapezoidal control use cases for the UCB
- VIN: 10V - 16V DC
- Compatible with three-phase BLDC motors
- Over current protection (OCP), Over voltage protection (OVP)
- Plug-in connector interface for MCU cards (Arduino DUE footprint)
- Sensored Trapezoidal control strategy implemented
- Strata enabled and available for a quick-start evaluation
- Xilinx® development tools and environments are available for the MDK, such as Vitis and Vivado to program the FPGA

### Applications

- Robotics
- Power Tools
- Fans and other low voltage motor applications

Evaluation/Development Tool Information					
Product	Status	Compliance	Short Description	Parts Used	Action
<a href="#">STR-10-16V-BLDC-MDK-GEVK</a>	Active	Pb-free	600W, 10-16V Motor Development Kit	2N7002L , BAT54HT1G , FAN5331SX , FDMC86116LZ , FPF3380UCX , MBR130T1G , MC74VHC1G03DFT1G , NCP1034DR2G , NCP1729SN35T1G , NCP705MT33TCG , NCP705MTADJTCC , NCP711ASN500T1G , NCP81075DR2G , NCS20061SQ3T2G , NCS20062DMR2G , NCS20166SN2T1G , NCS21911SN2T1G , NCS2252SQ2T2G , NCT375MNR2G , NSR05F30NXT5G , NTMFS4C302NT1G , S115FA	<a href="#">Buy</a>

Technical Documents			
Type	Document Title	Document ID/Size	Rev
Eval Board: BOM	STR-10-16V-BLDC-MDK-GEVB Bill of Materials (ROHS Compliant)	STR-10-16V-BLDC-MDK-GEVB_BOM_ROHS.pdf - 476 KB	0
Eval Board: Gerber	STR-10-16V-BLDC-MDK-GEVB Gerber Layout Files (Zip Format)	STR-10-16V-BLDC-MDK-GEVB_GERBER.zip - 1338 KB	0
Eval Board: Schematic	STR-10-16V-BLDC-MDK-GEVB Schematic	STR-10-16V-BLDC-MDK-GEVB_SCHEMATIC.pdf - 2368 KB	0
Eval Board: Test Procedure	STR-10-16V-BLDC-MDK-GEVB Test Procedure	STR-10-16V-BLDC-MDK-GEVB_TEST_PROCEDURE.pdf - 11704 KB	0
Eval Board: Manual	STR-10-16V-BLDC-MDK-GEVB User Guide	STR-10-16V-BLDC-MDK-GEVB_USER_GUIDE.pdf - 1190 KB	0

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