Motor Control news from STMicroelectronics

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Low-voltage 3-phase BLDC motor driver features standby consumption down to 80 nA

The STSPIN230 motor driver integrates control logic and a triple half-bridge low $R_{DS(on)}$ power stage in a small 3x3 mm QFN package. It operates from an input voltage as low as 1.8 V, over a wide current and temperature range, making it ideal for battery-operated, portable applications. It can be forced into a zero consumption state – with quiescent current down to 80 nA – which allows significant power saving and makes the IC ideal for extended battery lifetime. Read more

Affordable, easy-to-use solution for portable motor driving applications

The X-NUCLEO-IHM11M1 is a low-voltage 3-phase brushless DC motor driver expansion board for STM32 Nucleo based on the STSPIN230. It provides an affordable and easy-to-use solution for the implementation of portable motor driving applications such as thermal printers, robotics and toys. The X-NUCLEO-IHM11M1 is compatible with the Arduino UNO R3 connector and most STM32 Nucleo boards. The board is designed for 6-step and FOC algorithms. Read more

Spin your low-voltage stepper motor in minutes

The X-NUCLEO-IHM06A1 is an STM32 ODE expansion board based on the STSPIN220, a monolithic low-voltage driver for low-voltage stepper motors. It lets you instantly add high-precision, low torque, ripple motion control capability to your battery-operated STM32 ODE project – such as small robots and toys – thanks to its 1/256 step resolution. Together with the free X-CUBE-SPN6 expansion software, the X-NUCLEO-IHM06A1 will let you spin your design in just minutes. Read more

Industry's first 800V surface-mount SCR increases SMD converter power switching

The TM8050H-8D3 is the latest addition to ST's thyristor power range. Housed in the high-voltage D^3 PAK, this 80A, 800V robust SCR enables extremely reliable and compact switching systems for motorbike voltage regulators, induction motors or soft starters, industrial heaters or cooker controls, solid-state relays, UPS and AC-line conditioners, while reducing PCB and heatsink sizes. It ensures high energy efficiency under all operating conditions up to 150 °C, and is also available in a TO-247 package version. Read more

Recent blog posts

New Board Makes it Easy to Spin Your Motor

Following the recent post on ST's latest low-voltage motor drivers, we now have a new video that shows how to use the STM32 Open Development Environment to drive the STPSIN220 low-voltage stepper motor driver on its X-NUCLEO-IHM06A1 expansion board. This provides an incredibly easy and low-cost way to evaluate the possibilities of the STSPIN220 and prototype a system in no time. Watch now

World Record: STSPIN, the Smallest Single Chip Motor Driver, Still With Even More Features

ST recently broke the record for the world's tiniest single chip motor driver by shrinking the packaging of three of its chips to 3 x 3 mm. Aside from the amazing fact that this means the components are shorter than a grain of rice, it opens the door to smaller and lower-consumption designs. The three full-featured motor drivers belong to the STSPIN family of products. Read more