

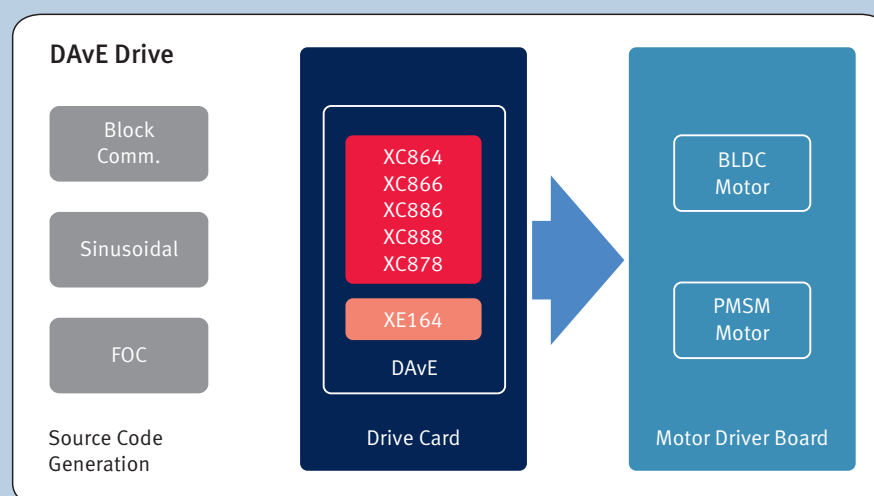


DAvE Drive

Application Code Generator for PMSM and BLDC Motor Control with Infineon's 8- and 16-bit Microcontrollers

DAvE DRIVE is a GUI based software tool that allows application developers to configure XC800 and XE164 Classic software for control of brushless synchronous 3-phase motors in a very efficient way. With DAVe Drive, the developer is only a few mouse clicks away from customized code reflecting choice of motor, motor speed, type of control and various other options. DAVe Drive uses the full power of Infineon's microcontroller, e.g. it generates optimized FOC code for XC878 using the enhanced Vector Computer which usually requires expert knowledge in both motor control and assembler programming.

DAvE Drive is an application centric add-on to DAVe, Infineon's Digital Application Virtual Engineer. DAVe provides initialization, configuration and driver code to ease programming for beginners as well as experts. This tool generates complete algorithms in source code, ready to be compiled and debugged by popular tools, as Keil compiler or Tasking compiler.



Order Code

- KIT_AK_DAVEDRIVE_V3

Key Features

- Motor types: BLDC, PMSM
- Control algorithm: sensorless field oriented control, block commutation with hall sensors and sensorless
- Microcontrollers: 8-bit XC800 and 16-bit XE164 Classic microcontroller series
- Flexibly generates optimized code and is not based on static libraries
- Configures Infineon's powerful and flexible motor control peripherals
- Compresses a detailed user manual into a few mouse clicks
- Helps designers to quickly and easily implement advanced motor control techniques on low-cost components
- Is based on the successful DAVe software for chip-level
- Is pre-configured for Infineon's 3-phase high voltage Motor Drive Applications Kit (KIT_AK_3PHASE_DRIVE_V1) and the low voltage DAVe Drive Application Kit (KIT_AK_DaveDrive_V3)

Applications

- Industrial motor control
- Transportation systems
- Consumer motor control
- Appliance motor control

DAvE Drive

Scalable Motor Control Solutions using XC800 and XE166 Families

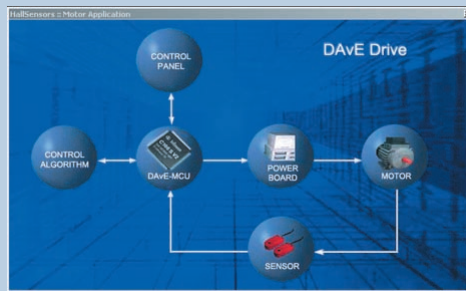
				XE164 → MAC Unit
			XC878 → Enhanced Vector Computer	
		XC886/888 → Vector Computer		
XC866-1FR	XC866-2/4FR			
PWM Unit with Hall Sensor	PWM Unit with Hall Sensor	PWM Unit triggers ADC	Two PWM Units trigger ADC	Three PWM Units trigger two ADC Units
Block Commutation	Block Commutation	Field Oriented Control sensorless	Field Oriented Control sensorless + digital PFC	Dual Motor Field Oriented Control sensorless + digital PFC

8-bit MCU XC878

- Cost-effective 8-bit μCs with 16-bit motor-control performance
- Built-in enhanced vector computer for Field Oriented Control
- Powerful motor control peripheral set: CAPCOM6 and 10-bit ADC
- Up to 64kB Flash
- Up to 3kB RAM
- LQFP-64

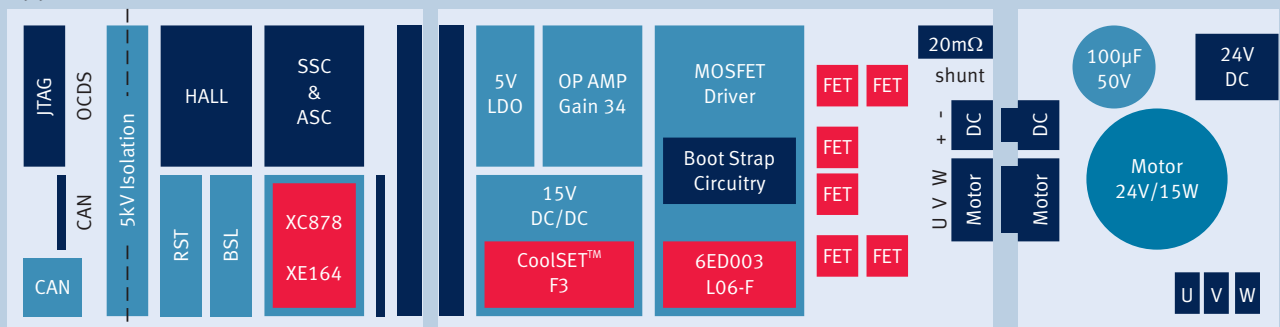
16-bit MCU XE164 Classic

- High performance 16-bit μCs with MAC unit supporting single cycle 16 x 16bit multiplication and accumulation
- Powerful motor control peripheral set
- 3x CAPCOM6 modules
- 2x 10-bit ADC modules
- Up to 768kB Flash
- Up to 82kB RAM
- LQFP-100



Graphical User Interface of DAVe Drive
Infineon's DAVE and DAVE Drive are GUI based configuration tools and source code generators. DAVE Drive let's you select motor type, motor speed and torque.

Application Board



- Power board for up to 400W power rating (24V - 56V DC, 7.5A)
- DriveMonitor: USB-CAN bridge for real time monitoring
- XC878 and XE164 Classic Drive Card included

How to reach us:
<http://www.infineon.com>

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