

# MOTION CHIP

## EMBEDDED MOTOR CONTROLLER

### FOR BRUSHLESS, INDUCTION, DC MOTORS AND STEP MOTORS

The Technosoft Motion Chip is a cost effective, highly flexible and modular solution for motion control in industrial and consumer applications.

With up to 6 independent PWM signals it directly controls the power inverter of dc, brushless, induction and step motors.

Operation modes includes vector control in torque, speed and position mode.

The Motion Studio set-up software makes set-up, tuning and parameterization really easy.



## FEATURES

- **NO DSP code programming**
- **various communication channels such as SCI, CAN, parallel I/O**
- **advanced motion language command instruction set and motion sequences**
- **open loop, torque, speed, position / external parameter control structure implementation**
- **PWM output to control the power inverter for**
  - + brushless motors
  - + induction motors
  - + dc brush motors
  - + step motors
- **control with different motion sensors (encoder, Hall, tachogenerators)**
- **Programmable analog and digital local I/O**
- **Analogue inputs for current and voltage sensors**
- **Technosoft Motion Studio Graphical programming environment**

## Flexibility

With the Technosoft MotionChip, fully digital control of different motor types becomes a manageable task. The MotionChip as part of your control application helps you to shape your ideas about your motion controller/amplifier into the product you need.

Technosoft will, upon request, develop embedded solution based on your specifications.

## Programming

The Technosoft Motion Studio, a graphical setup and programming tools allow to rapidly set-up, parameterize and tune the controller.

## Modularity

The available motion control architectures suit most application architectures and motor technologies.

Figure 1 gives an overview about the structure of the Digital Motion Control functions that are embedded in the MotionChip.

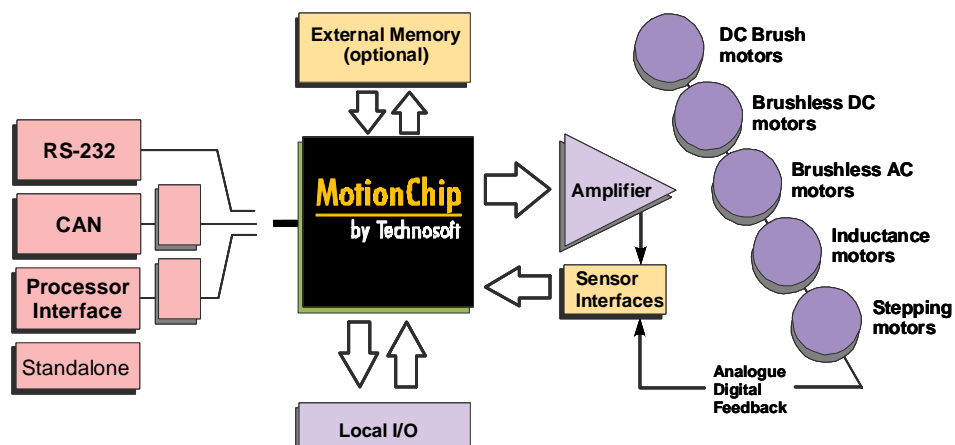
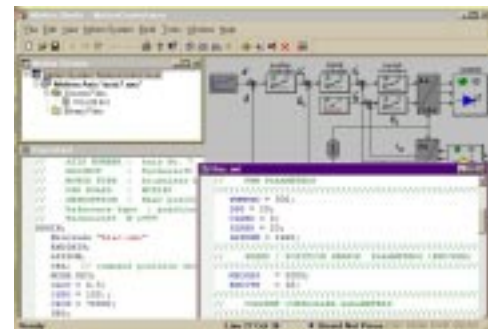


Figure 1: The MotionChip and its applications  
P091-MCshort-0699

New  
DSP solutions  
for digital  
motor control



TECHNO SOFT  
MOTION DESK

## Evaluation

The Technosoft Motion Chip is a highly flexible and modular solution for motion control.

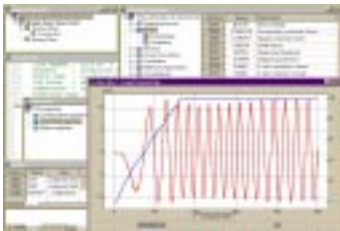
To evaluate it in your application rapidly, Technosoft offers evaluation packages, which will help you to test the MotionChip in your application.

These packages are all based on the MCSK, MotionChip Starter Kit, which includes the MCSK-Board hardware and the Motion Studio programming software.

The MCSK-Board connects easily with your amplifier through a dedicated bus.



The Motion Studio will assist you with the rapid adaptation of the MotionChip software to your host and application.



If you directly want to test it with your motor, Technosoft offers several compatible power amplifier packages:

the package **MCSK/50** - includes **MCSK** with the **PM50**, 35VDC, 1.7 amps



the package **MCSK/240** - includes **MCSK** with the **PM240**, 48VDC, 5 amps continuous, 15A peak current



the package **MCSK/400** - includes **MCSK** with the **PM240**, 80VDC, 5 amps continuous, 15A peak current (in preparation)

the package **MCSK/750AC** - includes **MCSK** with the **PM750**, 230VAC, 5 amps continuous, 10A peak current



the package **MCSK/150S** - includes **MCSK** with the **SPM150**, 48VDC, 3 amps power amplifier for step motors (in preparation)

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