FLEXDEVEL
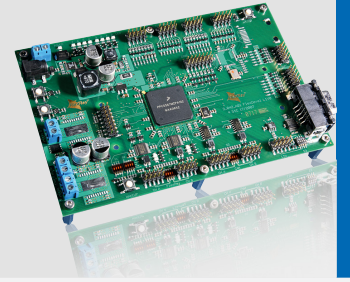
BENEFITS:

- Complete solution for beginners in automotive bus systems
- FlexRay / CAN / LIN / Ethernet interfaces on the mirco controller platform available
- Functional C-code examples for all interfaces included
- Development toolchain (IDE, Compiler, Debugger) included
- C-code library for all interfaces included
- FlexConfig Developer Demo to configure the FlexRay bus system included

OVERVIEW

The FlexDevel is a low cost solution for beginners in automotive bus systems. It consists of a universal micro controller development platform with FlexRay, CAN, LIN and Ethernet interfaces. C-code examples and binarys for all interfaces are included, so all the interfaces can be used without programing C-code. This is an ideal base for own C-code projects and allows a step by step introduction to get in touch with programing and understanding automotive bus systems.

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TECHNICAL DATA:

- Freescale PowerPC with integrated FlexRay Controller (MPC5567)
- 2 FlexRay channels (channel A and B)
- 2 CAN HS bus interfaces
- Switchable termination resistors (via DIP switches) for CAN and FlexRay
- Wakeup/Sleep-support (wakeup possible via CAN/FlexRay, push button or permanent on)
- 1 LIN
- 1 RS232
- 2 SPI
- 100 MB Ethernet
- 8 digital inputs, 8 digital outputs (also usable as PWM)
- 8 analog inputs
- 8 PWM outputs
- 2 H-bridges for control of actuators
- 8 individual usable LEDs
- 2 individual usable push buttons
- 1 slot for a LCD module

ELECTRICAL CHARACTERISTICS:

Supply voltage				
		Min.	Typ.	Max.
Operating		9 V	12 V	16 V
Absolute maximum		- 18 V	-	18 V
Quiescent supply current	with DC-Motor supply	Typ: 10mA@12V		
	without DC-Motor supply	Typ: 0.5mA@12V		
Supply current in operating mode		Typ: 150mA@12V		

PHYSICAL CHARACTERISTICS:

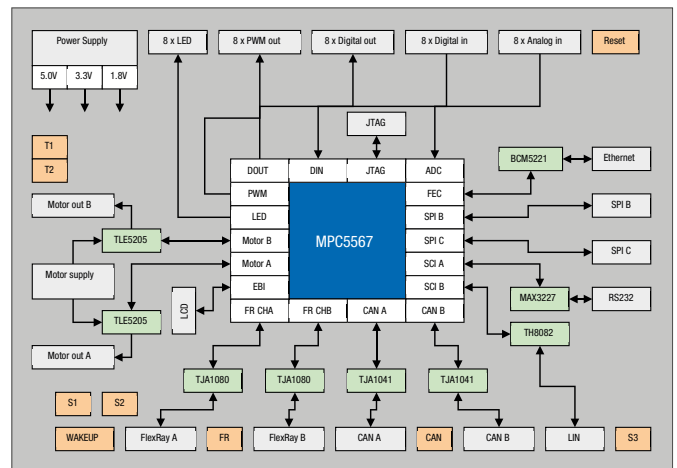| Connectors	
1 x Power supply	round DC jack 2pol.
1 x Power supply	Screw block 2pol.
1 x Ethernet	RJ45 8pol.
1 x RS232	Sub-D 9pol.
1 x Motor supply	Screw block 2pol.
2 x Motor terminal	Screw block 2pol.
2 x FlexRay	2 x 5 pin 2,54mm 10pol.
2 x CAN	2 x 5 pin 2,54mm 10pol.
1 x LIN	2 x 5 pin 2,54mm 10pol.
2 x SPI	2 x 5 pin 2,54mm 10pol.
1 x Analog in	2 x 5 pin 2,54mm 10pol.
1 x Digital out	2 x 5 pin 2,54mm 10pol.
1 x Digital in	2 x 5 pin 2,54mm 10pol.
1 x PWM out	2 x 5 pin 2,54mm 10pol.
Weight approx.	150 g
Dimensions approx. L x W x H	177 x 110 x 20 mm3

ENVIRONMENTAL CONDITIONS:

Environmental conditions	
Temperature	Operating / Non-operating: 0 - 55°C Storage: 0 - 70 °C
Relative Humidity	0% to 90% r.H., non-condensing

ORDER INFORMATION ACCESSORY PARTS:

Product	Description	Ordering number
LC Display	20 x 2 LC Display 5V with backlight	Please ask

BLOCK DIAGRAM:

FLEXDEVEL KIT

The FlexDevel Kit is the ideal entry package for the FlexRay bus system. In addition to two versatile FlexDevel communication nodes that can be used to build up a FlexRay network, it includes all the programming software and hardware. With the FlexConfig Developer demo software, which is also included, you can use this system to build up your own FlexRay communication system without additional hardware or software.

Scope of delivery
- 2 FlexDevel as described above
- 1 FlexRay FlexConfig Developer demo configuration software package
- 1 USB PowerPC Nexus Multilink programming adapter, including flash software and debugger (limited to 64k)
- 2 FlexRay connecting cables
- Documentation in PDF format
- 1 FlexRay network designer software FlexConfig Developer (demo version)

FLEXDEVEL STARTER

The FlexDevel Starter is a further package for the FlexRay bus system. In addition to two FlexDevel communication nodes that can be used to build up a FlexRay network, this package includes an analysis solution on the basis of the FlexCard.
For a quick introduction to the tool, this package is rounded off by a 1-day introduction to the FlexDevel platform at Eberspächer Electronics, which can be attended by one person.

Scope of delivery
- FlexDevel Kit in addition with:
  - 1 FlexCard USB
  - 1 analysis software Caromee (demo version)
  - 1 day of individual FlexDevel training at our site in Göppingen, Germany

ORDER INFORMATION FLEXDEVEL:

Product	Description	Ordering number
FlexDevel	Development platform	3-V042-0B01
FlexDevel Kit	Entry package including 2x FlexDevel and all necessary hard- and software for programming.	3-V042-0K01
FlexDevel Starter USB	Complete FlexRay starter environment including the FlexDevel Kit (above-mentioned), FlexCard USB for monitoring purposes and a one-day individual introduction into the system at Eberspächer Electronics	3-V042-0U01