



FlexDevice-M

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BENEFITS

- PowerPC MPC5567 (120 MHz) with 2 MB SRAM
- 5 bus channels (4 via pluggable transceivers)
- Up to 5 CAN channels
- Up to 4 FR channels
- Up to 2 LIN channels
- Wakeup/Sleep mode support
- Startup <100 ms
- Complete development environment included
- PC connection via Ethernet
- IP67
- Temperature range -40°C to +85°C

FLEXDEVICE-M – OVERVIEW

FlexDevice-M is a robust electronic platform which is designed for the use in the automotive environment. Due to the fact that the FlexDevice-M supports many bus systems and has variable interfaces, it could be used in different application fields. This device makes it very easy for embedded software developers to realize gateway applications and prototyping functionality.

FlexDevice-M

TECHNICAL FEATURES

CPU

- Freescale µC:
 - MPC5567
 - 32 Bit, 120 MHz
- Memory
 - 2 MB Flash
 - 80 kB RAM
 - 2 MB SRAM

Host interfaces

- 1 Ethernet
- PTP (Precision time protocol IEE1588) – available on request
- 1 USB slave
- 2 USB host

Bus interfaces

- 4 FlexRay (2 MFR4310, 2 E-Ray)
- 5 CAN
- 2 LIN or RS232
- 1 SPI
- 4 FlexTiny slots
- Available FlexTinys:
 - FlexRay TJA 1080 A
 - CAN HS TJA 1041
 - CAN LS TJA1054
 - LIN TH 8082
 - RS232 MAX 3227
 - K-Line L9637

I/O interfaces

- 4 Digital I/O
- 5 A/D inputs
- All interfaces are short-circuit proof
- Debugger can access the processor from the outside via JTAG programming interface
- The full NEXUS interface is still accessible in the device

HARDWARE

Electrical Characteristics

Supply voltage	8–42 VDC
Supply current (Sleep Mode)	<5 mA (@ 12 V)
Supply current (Operation Mode)	<600 mA (@ 12 V)

Table 1: Electrical characteristics of the FlexDevice-M

Environmental Conditions

Temperature	Operating/Storage: -40 to +85 °C
IP-Code	IP67
Relative Humidity	Operating/Storage: 0 % to 90 % r.H, non-condensing

Table 2: Environmental conditions for the FlexDevice-M

SOFTWARE SUPPORT

- The device is supported by FlexConfig RBS 4.0.
- The device can be programmed with the provided development environment

SCOPE OF DELIVERY:

- FlexDevice-M
- Documentation
- Complete development environment (IDE, Compiler, Examples)

ORDER INFORMATION FLEXDEVICE-M

Product	Description	Order number
FlexDevice-M	The FlexDevice-M is a multifunctional autonomous bus system platform.	3-V0280M01

ORDER INFORMATION ACCESSORY PARTS

Product	Description	Order number
FlexConfig RBS runtime	Runtime license for RBS execution. Required once per device.	3-00700J01
FlexConfig Gateway runtime	Runtime license for gateway execution. Required once per device. (Requires "FlexConfig RBS runtime")	3-00701E01
FlexConfig Control runtime	Runtime license for signal manipulation. Required once per device. (Requires "FlexConfig RBS runtime")	3-00701G01
FlexTiny1 FlexRay	Pluggable transceiver module with one FlexRay transceiver (TJA1080, NXP)	3-00150D02
FlexTiny1 CAN-HS	Pluggable transceiver module with one CAN-HS transceiver (TJA1041, NXP)	3-00150H01
FlexTiny1 CAN-LS	Pluggable transceiver module with one CAN-LS transceiver (TJA1054, NXP)	3-00150L01
FlexTiny1 LIN	Pluggable transceiver module with one LIN transceiver (TH8082, Melexis)	3-00150G01
FlexTiny1 K-Line	Pluggable transceiver module with one K-Line transceiver (L9637, ST)	3-00150U01
FlexTiny1 RS232	Pluggable transceiver module with one RS232 transceiver (MAX3227, TI)	3-00150F01
Power cable (2 m)	2 pole Binder male to 2 banana male connector	3-00341D02
Ethernet bus cable (2 m)	8 Pole Binder male to RJ-45 connector	3-00342L01
Standard Binder bus cable (2 m)	8 pole Binder male to 9 pole D-Sub female connector	10016468
Standard Binder 2x Y-bus cable (2 m)	8 pole Binder male to 2 x 9 pole D-Sub female connector	10016469
IO (DIO/ADI) cable (2 m)	7 pole Binder male to 9 pole D-Sub female connector	3-00341F02