



# FL3X System-XS

[www.flex-product.com](http://www.flex-product.com)

## BENEFITS

- ARM Cortex-A72 64 bit Quad Core CPU with 1GHz, 1GByte RAM and 8GByte eMMC
- Maximum performance and variability at an optimal price-performance ratio
- CAN-HS, CAN-FD, LIN, SENT and 100BASE-T1 supported
- Fully supported by FL3X Config
  - remaining bus simulation
  - gateway
  - analyzing / measurement
  - logging
- 25pin D-sub connector for automotive bus systems
- PTP / IEEE1588v2 support for TimeSync
- Wake-up/sleep mode support
- 1000BASE-T connector for configuration and measuring
- USB port for mass storage, cameras or other equipment\*
- Integrated WiFi module and optional LTE module
- Temperature range -20°C to +85°C

\* STAR certified accessories only

## USE CASES

- gateways between different automotive bus systems
- bus interfaces
- remaining bus simulation
- signal manipulation
- data logging
- rapid prototyping

## THE FL3X SYSTEM FAMILY

The FL3X System family is a universal tool for mastering all common challenges in dealing with bus systems. Whether recording, routing, simulation or manipulation of bus data, the devices of the FL3X System family are configured and ready for use within a very short time. This means that use cases such as remaining bus simulation, gateway or logging can be implemented without any problems both in the vehicle and in the laboratory. The devices of the FL3X System series are based on a Linux real-time operating system and are characterized in particular by the sovereign handling of very large amounts of data in the multi-gigabit range for the use cases mentioned open. The devices of the FL3X System family are configured with the intuitive FL3X Config development environment, which can be used without programming knowledge.

## THE FL3X SYSTEM-XS

The FL3X System-XS is the entry-level version of the FL3X System family and is characterized by an extremely good price/performance ratio and very compact dimensions. In the basic configuration, the FL3X System-XS is equipped with a CAN-HS or CAN-FD channel as well as a LIN and SENT channel. It is therefore very well suited as a bus interface, mini logger and for remaining bus simulations. With the XS<sup>2</sup> variant, you have two CAN, two LIN and two SENT channels available, which means that it is also very well suited as a gateway or bus manipulator for these bus systems. The Automotive Ethernet variant XS<sup>3</sup> also offers you a 100BASE-T1 channel.

## TECHNICAL FEATURES OF ALL VARIANTS

- ARM Cortex-A72 64 bit Quad Core CPU with 1GHz
- 1 GByte DDR4 RAM
- 8 GByte eMMC flash
- PTP / IEEE1588v2 support for TimeSync on bus and config port
- ASAM CMP 1.0 and PLP for measurement\*
- Wakeup / sleep mode support für CAN-HS and CAN-FD
- 1 Gbit/s Ethernet configuration and measurement interface via RJ45
- 25pin D-sub connector for power, bus and DO/ADIO
- USB 2.0 port for mass storage, cameras and other components
- 4 digital outputs (DO) and 2 analog inputs/outputs (ADIO)
- Integrated WiFi module with 2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac support
- Optional LTE Cat 4 module\*, supports LTE-TDD, LTE-FDD, HSPA+, GSM, GPRS and EDGE with datarates up to 150 Mbit/s download and 50 Mbit/s upload rate
- Wide operating temperature range from -20°C up to 85°C

\* coming soon

## VARIANTS

FL3X System-XS	FL3X System-XS <sup>2</sup>	FL3X System-XS <sup>3</sup>
1 x CAN-FD	2 x CAN-FD	2 x CAN-FD
1 x LIN	2 x LIN	2 x LIN
1 x SENT	2 x SENT	2 x SENT
		1 x 100BASE-T1

## SOFTWARE SUPPORT

- FL3X Config 1.0 (or later)
- FL3X Config SDK 1.5 (or later)

## SCOPE OF DELIVERY

- FL3X System-XS

## HARDWARE

### Electrical characteristics

Supply voltage	8-36 VDC
Supply current (Sleep Mode)	<20 mA (@ 12 V)
Supply current (Operation Mode)	typ. <350mA, max. depends on DO/ADIO usage

### Physical characteristics

Ethernet	RJ45 - 8 pin
Bus / Power / ADIO	D-Sub male - 25 pin
Weight approx.	220 g (plus LTE module)
Dimensions (L x W x H)	110 x 105 x 35 mm

### Environmental conditions

Temperature	Operating / Storage: -20°C to +85°C
IP-Code	IP20
Relative humidity	Operating / Storage: 0% to 90% RH, condensing

## ORDER INFORMATION FL3X SYSTEM-XS

Product	Description	Order number
FL3X System-XS	The FL3X System-XS is a multifunctional autonomous bus system platform with 1 CAN-FD, 1 LIN and 1 SENT channel	3-01040A01
FL3X System-XS <sup>2</sup>	The FL3X System-XS <sup>2</sup> is a multifunctional autonomous bus system platform with 2 CAN-FD, 2 LIN and 2 SENT channel	3-01040C01
FL3X System-XS <sup>3</sup>	The FL3X System-XS <sup>3</sup> is a multifunctional autonomous bus system platform with 2 CAN-FD, 2 LIN, 2 SENT and 1 100BASE-T1 channel	coming soon

## ORDER INFORMATION ACCESSORY PARTS

Product	Description	Order number
LTE Module	LTE module to communicate via cell connection	please contact STAR COOPERATION
FL3X Config Standard Runtime	Needed for RBS with CAN-FD, FlexRay or Automotive Ethernet	please contact STAR COOPERATION
FL3X Config Extended Runtime	Needed for Gateway with CAN-FD, FlexRay or Automotive Ethernet	please contact STAR COOPERATION
FL3X Config Basic	Basic version of FL3X Config for standard RBS usecases.	Free Download: flex-product.com
FL3X Config Professional	Professional version of FL3X Config for extended gateway usecases.	please contact STAR COOPERATION
FL3X Config Enterprise	Enterprise version of FL3X Config for cross-team collaboration.	please contact STAR COOPERATION
FL3X Config SDK	.NET library for the easy access.	3-V0161K01

## RUNTIME LICENSE OVERVIEW

