eTAS

Automotive Ethernet-/ BR_XETK interface module
ES882

Robust and precise timing, many interfaces, compatible standards

ETAS supports and facilitates the development of software-defined vehicle (SDV). ES882 comes with the following features:

Areas of application

– Acquisition of measurement data from ECUs and buses

– Application, diagnosis, and flash programming of ECUs

– Interface for prototyping modules

– Simultaneous support of up to three BR_XETKs via Automotive Ethernet

– Interface to ETAS software tools on user PC

– Measurements in the vehicle and on the test bench with high dara rates

– Validations and application of networked electronic systems in combination with INCA (from V7.2.7)
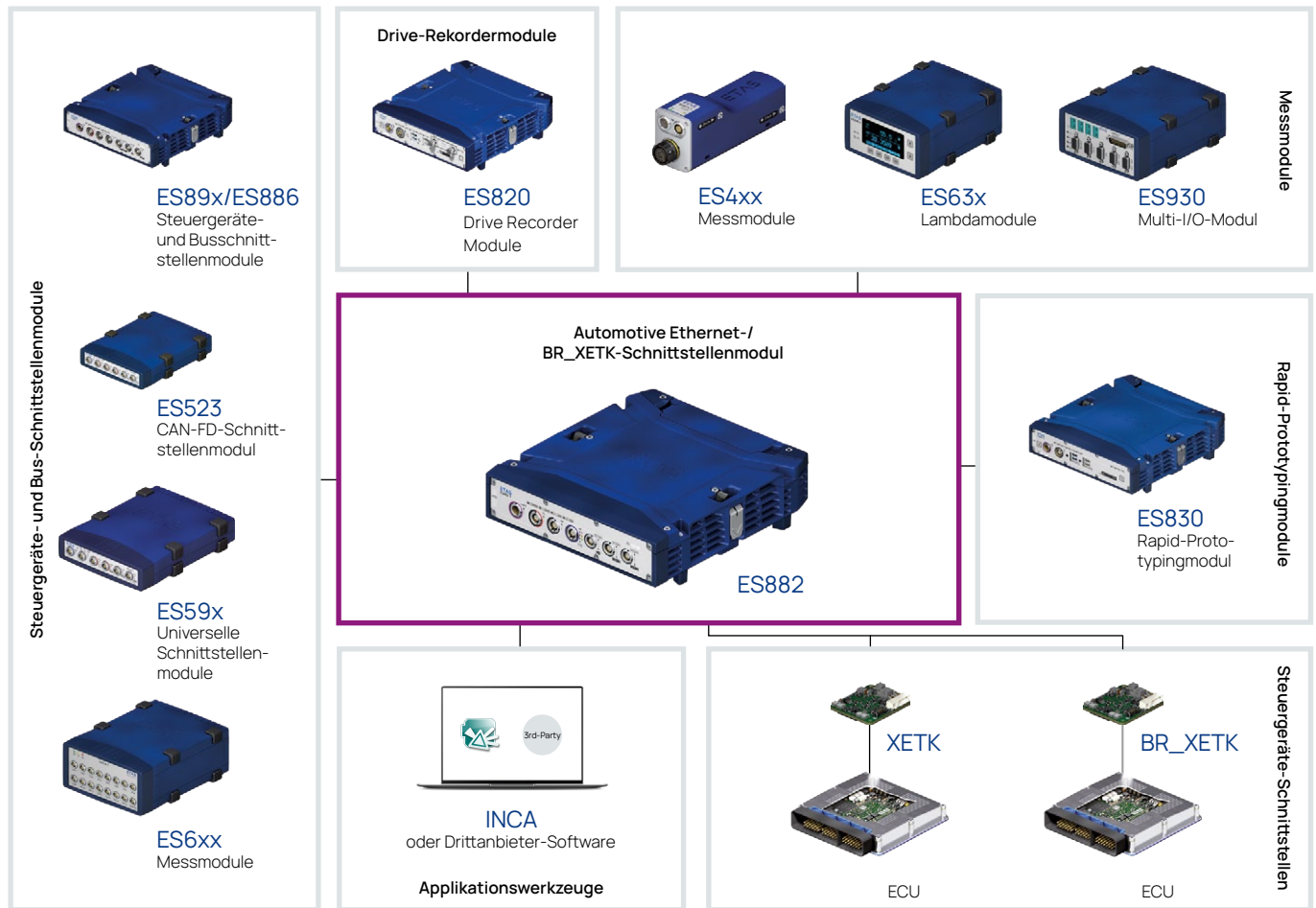
Features

– Time-synchronous acquisition of all incoming signals (accuracy of time stamps greater than 1 microsecond)

– One gigabit Ethernet interface, one XETK/Fast Ethernet interface and three Automotive Ethernet/BR_XETK interfaces

– Five independent CAN/CAN FD interfaces and an independent LIN interface

– LEDs for operating, interface, and synchronization status

– Robust metal housing (protection class IP44)

Benefits

– An open and standard-compliant communication with ECU (e.g. with BR_XETK) using the protocol XCP-on-Ethernet is prossible

– Simple integration in heterogeneous-measurement setups and automation solutions with a central clock. Can be used as a synchronization master in accordance with the standard IEEE1588 (PTP)

– Full integration of the ES88x-/ ES89x modules into other tools with C libraries provided by ETAS

– Diverse uses with various hardware modules and applicaction tools

Potential combinations of the ES882 with other ETAS products

Steuergeräte- und Bus-Schnittstellenmodule

ES89x/ES886
Steuergeräte-
und Busschnitt-
stellenmodule

ES523
CAN-FD-Schnitt-
stellenmodul

ES59x
Universelle
Schnittstellen-
module

ES6xx
Messmodule

Drive-Rekordermodule

ES820
Drive Recorder
Module

Messmodule

ES4xx
Messmodule

ES63x
Lambdamodule

ES930
Multi-I/O-Modul

Automotive Ethernet-/
BR_XETK-Schnittstellenmodul

ES882

Rapid-Prototypingmodule

ES830
Rapid-Proto-
typingmodul

INCA
oder Drittanbieter-Software

Applikationswerkzeuge

Steuergeräte-Schnittstellen

XETK

ECU

BR_XETK

ECU

Technical Data

Size	Dimensions (H x W x D)	63 mm x 215 mm x 241 mm
Environment	Temperature range	−40 °C to +70 °C (operation), bis +85 °C (storage)
	Robustness	Suitable for use in vehicles (Mechanical shock, vibration, fall, temperature alteration)
	Protection Class	IP44
Power supply	Operating voltage	6 V until 32 V DC
Power consumption	Operation	Typically 2,2 A at 12 V DC (without power supply to connected modules)
	Standby	Typ. 17 mA in standby at 12 V DC, max. 25 mA
	Energy management (wake-up/standby)	On/Off when Ethernet transmission starts/stops (PC or upstream module On/Off), configurable: "On" when CAN/CAN FD transmission starts
Interfaces	Gigabit Ethernet	1x 100/1000 Base-T (HOST) (incl. IEEE1588 (PTP) TimeSync)
	Fast Ethernet	1x XETK ECU interface (incl. IEEE1588 (PTP) TimeSync). Alternatively: 1x 10/100 Base-T for the connection of measurement and interfaces modules (incl. ETAS TimeSync), e. g. ETAS 4xx, ES523, ES6xx Support of IEEE 1588 (PTP) time synchronization
	Gigabit Ethernet*	1x 10/100/1000 Base-T for the connection of measurement and interface modules (incl. IEEE1588 (PTP) TimeSync)
	Automotive Ethernet*	3x 100 Base-T1 AE/OPEN Alliance BroadR-Reach, all of them can be used for BR_XETKs (incl. IEEE1588 (PTP) TimeSync)
Bus interfaces	CAN/CAN FD/LIN	5 independent CAN interfaces: CAN FD or CAN High-Speed, CAN protocols CAN V2.0a and CAN V2.0b; 1x independent interface LIN V2.1

* Supports the connection of external XCP-on-Ethernet devices