

## Ixxat FRC-EP190 Flexray Plus 4 - RTL BMW supplier

Item number: 1.13.0094.10505

The Ixxat FRC-EP190 FlexRay Plus 4 is a powerful solution for automotive uses. It features eight CAN channels, thereof four CAN FD and two CAN low-speed capable. Additionally, it offers FlexRay, LIN and Digital in/out functionalities. This makes it an ideal solution for logging, gateway, and residual bus simulation tasks. Configuration is easily done with the Ixxat Advanced Configuration Tool (ACT).



*Configurable automotive platform (1x FlexRay, 8x CAN, thereof 4x CAN FD)*

### Features and benefits

- ✓ **Go-to solution for demanding network requirements**  
Enables easy integration of multiple bus systems into a single, compact device. This is essential for e-mobility projects and complex industrial applications.
- ✓ **Multi-connectivity with various interfaces**  
Additional interfaces included: 2 x LIN, 1 x Ethernet (10/100 Base-T), 4 x Digital in/out (A/E), USB 2.0 device and host and a SDHC slot. Further extension options are available.
- ✓ **Embedded platform with own processing power**  
All applications run on the device, a PC is only needed for configuration or stimulation/visualization of data, as the actual intelligence is outsourced to the embedded platform.
- ✓ **Quick and easy configuration through ACT support**  
The FRC-EP series is supported by the Ixxat ACT (Advanced Configuration Tool), a Windows-based tool to easily configure the device via drag and drop. Most use cases can be solved by using ACT Freeware.
- ✓ **Compatibility with automotive standards**  
Supports industrial protocols, including FlexRay, facilitating high-speed data transfer and network integration for complex applications – especially suited for automotive engineering.
- ✓ **Improved data management for efficient engineering**  
Streamlines data management and protocol handling, optimized for automotive testing, logging and gateway operations. Ensuring easy integration and reliable performance.
- ✓ **Overvoltage protection**  
Galvanic isolation safeguards against overvoltage and protects from potential electrical damage.
- ✓ **Support for Linux and QNX**  
Using the free ECI driver package, the hardware can be easily integrated into Linux-based environments as well as into applications under the QNX real-time operating system. 32- and 64-bit ARM (Raspberry Pi) and Intel X86 platforms are supported.

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General	
Net Width (mm)	110
Net Height (mm)	180
Net Depth (mm)	50
Net Weight (g)	915
Packed Weight (g)	915
Operating Temperature °C Min	-40
Operating Temperature °C Max	80
Storage Temperature °C Min	-40
Storage Temperature °C Max	85
Relative Humidity	10 to 95 %, non-condensing
Current Consumption Type Value at Vcc Nom (mA)	420 mA (12 V DC)
Input Voltage (V)	6 V to 36 V DC
Power Connector	3-pole
Isolation	The FRC-EP190 features four interface islands (X1, X2, X3, X4), each galvanically isolated from the others. Within each island, interfaces for CAN-FD, CAN high-speed, digital I/O, and LIN are interconnected. The cable's shielding or the D-Sub connector's metal collar is directly connected to the housing for enhanced integrity.
Configuration	The Ixxat FRC-EP190 is a Linux platform that is able to work standalone without any connected PC. For the standalone function a configuration is needed, that can be created and downloaded to the device via the PC based Ixxat Automotive Configuration Tool (ACT) and an USB connection.
Content of Delivery	FRC-EP190 device, user manual, power supply cable (2 m, 3-pin Binder socket to 3 x 4 mm banana plugs), USB 2.0 cable (2 m, Type A to Mini Type B), Ethernet cable (2 m), runtime licences for Gateway and RBS, available as download: Advanced Configuration Tool (ACT)
Mounting	Panel mount
Housing Materials	Aluminium
Packaging Material	Cardboard

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## Identification and Status

Product ID	1.13.0094.10505
Country of Origin	Germany
HS Code	8517620000
Dual Usage	No
Export Control Classification Number (ECCN)	EAR99

## Physical Features

Connectors / Input / Output	3 x RJ45 connectors (1 x Ethernet, 2 x fieldbus), 1 x USB type B port, 1 x USB type A port, 1 x SD card slot, 1 x 7-pin Binder female panel mount connector (remote/debug), 1 x 3-pin Binder male panel mount connector (power), 4 x D-Sub 9 male connectors, 1 x D-Sub HD15 male connector
Contains Battery	No

## CAN Features

CAN Mode	CAN high-speed (ISO 11898-2), CAN low-speed (ISO 11898-3)
CAN Transceiver	TI SN65HVD251

## CAN FD Features

CAN FD Transceiver	TI SN65HVD251
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## LIN Features

LIN Transceiver	TJA1020
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## Certifications and Standards

Protection Class IP	IP42
ETIM Classification	EC001604
CE	Yes
TELEC	No
WEEE Category	IT and telecommunications equipment