

## Ixxat FRC-EP170

Item number: 1.13.0142.00002

The Ixxat FRC-EP170 is an advanced solution for automotive engineering, integrating multiple bus systems with FlexRay, LIN and up to four CAN channels, one of which is CAN low-speed capable. It is ideal for logging, gateway, and residual bus simulation applications – easily configurable with the Ixxat Advanced Configuration Tool (ACT).



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

### 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.
- ✓ **Extensive CAN connectivity**  
The FRC-EP170 features four CAN channels, thereof one CAN low-speed capable, catering extensive connectivity for a wide range of automotive applications.
- ✓ **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.
- ✓ **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.
- ✓ **Multi-connectivity with various interfaces**  
Additional interfaces included: 1 x LIN, 1 x Ethernet (10/100 Base-T), 4 x Digital in/out (A/D), 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.



## Identification and Status

|   |                 |
|---|-----------------|
| Product ID                                  | 1.13.0142.00002 |
| Country of Origin                           | Germany         |
| HS Code                                     | 8517620000      |
| Export Control Classification Number (ECCN) | EAR99           |

## General

|  |   |
|--|---|
| Net Width (mm)                                 | 113   |
| Net Height (mm)                                | 142   |
| Net Depth (mm)                                 | 40  |
| Net Weight (g)                                 | 940   |
| Packed Weight (g)                              | 940   |
| 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) | 320 mA (12 V DC)  |
| Input Voltage (V)                              | 6 V to 36 V DC  |
| Power Connector                                | 3-pole  |
| Configuration                                  | The Ixxat FRC-EP170 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-EP170 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), runtime licences for Gateway and RBS, available as download: Advanced Configuration Tool (ACT)   |



## General

|                           |             |
|---------------------------|-------------|
| <b>Mounting</b>           | Panel mount |
| <b>Housing Materials</b>  | Aluminum    |
| <b>Packaging Material</b> | Cardboard   |

## Physical Features

|                                    |  |
|------------------------------------|--|
| <b>Connectors / Input / Output</b> | 1 x RJ45 connector (Ethernet), 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), 1 x D-Sub HD15 male connector, 1 x D-Sub HD15 female connector, 1 x RP-SMA female connector (WiFi/antenna) |
|------------------------------------|--|

## CAN Features

|                        |   |
|------------------------|---|
| <b>CAN Mode</b>        | CAN high-speed (ISO 11898-2), CAN low-speed (ISO 11898-3) |
| <b>CAN Transceiver</b> | TI SN65HVD251   |

## CAN FD Features

|                           |             |
|---------------------------|-------------|
| <b>CAN FD Transceiver</b> | TCAN334GDCN |
|---------------------------|-------------|

## LIN Features

|                        |         |
|------------------------|---------|
| <b>LIN Transceiver</b> | TJA1020 |
|------------------------|---------|

## Certifications and Standards

|                            |                                     |
|----------------------------|-------------------------------------|
| <b>Protection Class IP</b> | IP42                                |
| <b>ETIM Classification</b> | EC001604                            |
| <b>WEEE Category</b>       | IT and telecommunications equipment |



## Use Case

