

DIGITAL INDUSTRIES SOFTWARE

# Simcenter SCADAS Mobile and Lab Quad FlexRay network interface module

Simcenter/FR4/2406/20240625

## Product Information Sheet

### Summary

### About FlexRay

The FlexRay communications bus is a deterministic, fault-tolerant and high-speed bus system developed in conjunction with automobile manufacturers and leading suppliers. FlexRay delivers the error tolerance and time-determinism performance requirements for x-by-wire applications (i.e. drive-by-wire, steer-by-wire, brake-by-wire, etc.).

#### Supported transducers



#### Typical applications



## BENEFITS

- Supports two dual FlexRay channel configuration for enhanced fault tolerance and/or increased bandwidth
- According to FlexRay protocol specifications V2.1A

## FEATURES

- FlexRay bit rate up to 10 Mbit per second
- Delivering time-stamped FlexRay messages

#### FR4 input module

The FR4 module offers an interface to connect to a FlexRay network for monitoring FlexRay based messages according to protocol specifications V2.1A. The FR4 module includes four channels that are configured as dual FlexRay configuration. All messages that are transmitted on the FlexRay bus can be acquired by the FR4, after which the message stream is resampled and synchronized with the internal SCADAS Mobile and SCADAS Lab acquisition rate.

General Information		FR4 Specifications	
Input			
Description		Simcenter SCADAS Mobile and Lab Quad FlexRay network interface module	
Input function		Quad FlexRay bus	
Input connector		Two DB9 shielded connectors each supporting two FlexRay bus; pinning according to the DS102 standard	
Maximum input voltage			
		40 Vpk continuously	
Maximum common mode voltage			
		±5 V	
Message handling			
		According to FlexRay protocol specifications V2.1A	
Resampling rate			
		Software selectable	
Front panel indication			
		Color coded LED per FlexRay input indicating FlexRay connection status. The appropriate LED will turn red in case of a communication problem	
Protection			
ESD protection		According to EN61000-4-2, level 2 and ISO10605	
EMC protection		Comply with CE-EMC directive, when installed in a SCADAS Mobile frame	
Shock protection		MIL-STD-810G specified in MIL-STD-810G method 516.5, Shock Amplitude: 60 gpk.	
Vibration protection		MIL-STD-810G method 514.5, procedure 1, Category 24: RMS 7.694 g	
Ambient operating temperature range		-20 °C to +55 °C	
Storage temperature range		-20 °C to +70 °C	
Housing			
Dimensions		One SCADAS slot	

Ordering information

Support of Simcenter SCADAS Frames and Modules may be restricted in specific Simcenter Testlab application workbooks.

Please check with your local representative for full details.

SCM-FR4: Simcenter SCADAS Mobile Quad FlexRay network interface module

Package contains: dual CAN cable for TCK8, SUB-D adapter cable

SCL-FR4: Simcenter SCADAS Lab Quad FlexRay network interface module

Package contains: dual CAN cable , SUB-D adapter cable

Included accessories

Two Sub-D CAN 9 pin adapter cables