

Ixxat CAN-CR210/FO

Item number: 1.01.0068.45010

The Ixxat CAN-CR210/FO repeater with two CAN interfaces, one of which is a Fiber Optic interface (FSMA plug), enables the conversion of CAN signals from copper wire to fiber optics. It enhances connectivity in high-electromagnetic interference zones and provides the flexibility to optimize network structures. With integrated CAN backbone interface.



CAN repeater with fiber optics (F-SMA) and backbone bus

Features and benefits

- ✓ **Robust industrial use**
Designed for industrial environments, meeting high demands for robustness, temperature ranges, and safety.
- ✓ **Fast and transparent operation**
Minimal impact on real-time behavior, equivalent to a short line length (ca. 60 m/300 ns delay). Enabling transparent transmission, compatible with all higher layer protocols.
- ✓ **Enhanced network reliability**
Higher system reliability by electrically isolating CAN segments and power up to 1 kV. This enhances the protection of the device against damage to electronics caused by voltage peaks.
- ✓ **Robust fiber optic interface**
Fiber optic ensures uninterrupted data transmission in high-electromagnetic disturbance zones, enabling enhanced connectivity for critical applications and high performance.
- ✓ **Integrated bus termination resistors**
Integrated bus termination resistors (120 Ohm, switchable via DIP switch) prevent reflections on the line ends and ensure optimum communication.
- ✓ **Flexibility in CAN network design**
Helps to optimize CAN network structures by enabling extended layouts (stub lines, star and tree topologies).
- ✓ **Cost savings due to simple wiring**
Optimized topologies enable simpler wiring, resulting in less cables and cost savings at installation and maintenance.
- ✓ **Network monitoring and fault recovery**
In case of disturbances, the repeater automatically disconnects the affected segment and restores it after the fault is resolved.
- ✓ **Backbone bus for simplified network expansion**
To achieve tree or star topologies, multiple repeaters can be easily connected in series through the integrated backbone bus.



General

Net Width (mm)	100
Net Height (mm)	120
Net Depth (mm)	22.5
Net Weight (g)	122
Packed Width (mm)	14
Packed Height (mm)	4
Packed Depth (mm)	18
Packed Weight (g)	203
Operating Temperature °C Min	-20
Operating Temperature °C Max	70
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)	62
Current Consumption Max value at Vcc nom (mA)	100
Input Voltage (V)	+9 V to +32 V DC
Isolation	1 kV DC for 1 sec.
Content of Delivery	CAN repeater, user manual
Mounting	DIN rail mount (bracket included)



General

Housing Materials	Polyamide housing for top hat rail mounting
Packaging Material	Cardboard
Warranty (years)	1

Identification and Status

Product ID	1.01.0068.45010
Country of Origin	Germany
HS Code	8517620000
Dual Usage	No
Export Control Classification Number (ECCN)	EAR99

Physical Features

Fiber Optic Line Specification	Multi mode fiber optic cables (only glass); Recommended: 50/125 µm, 62.5/125 µm, also compatible with: 100/140 µm, 200 µm (consider max. line length)
Connectors / Input / Output	1 x D-Sub 9 connector, 1 x backbone bus, 2 x F-SMA connector, 1 x power connector
Contains Battery	No

CAN Features

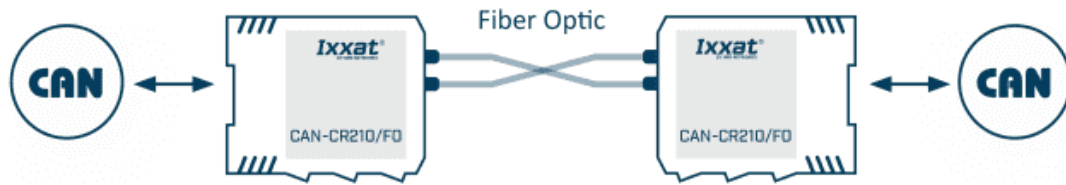
CAN Mode	CAN high-speed (ISO 11898-2) with CAN choke
CAN Transceiver	TI SN65HVD251
CAN Baud Rate	Up to 1 Mbit/s

Certifications and Standards

Protection Class IP	IP30
ETIM Classification	EC000698
CE	Yes
FCC	Yes
WEEE Category	IT and telecommunications equipment



Use Case



Fiber optic CAN repeaters enable the bridging of interference-intensive routes using optical lines. They enable complete galvanic decoupling of segments and offer high protection against overvoltage.