

Ixxat CAN-CR110/FO

Item number: 1.01.0210.11020

The Ixxat CAN-CR110/FO repeater with two CAN/CAN FD interfaces, one of which is a Fiber Optic interface, 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 termination resistors.



CAN/CAN FD repeater with fiber optics and termination resistor

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/CAN FD 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.
- ✓ **Flexibility in CAN FD network design**
Helps to optimize CAN/CAN FD 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.
- ✓ **Integrated bus termination resistors**
Integrated bus termination resistors (120 Ohm, switchable via DIP switch) prevent reflections on the line ends and ensure optimum communication.



General

Net Width (mm)	105
Net Height (mm)	120
Net Depth (mm)	22.5
Net Weight (g)	220
Packed Weight (g)	220
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)	70
Current Consumption Max value at Vcc nom (mA)	100
Input Voltage (V)	+9 V to +36 V DC
Isolation	1 kV DC for 1 sec.
Content of Delivery	CAN FD repeater, user manual
Mounting	DIN rail mount (bracket included)
Housing Materials	Polyamide housing for top hat rail mounting
Packaging Material	Cardboard
Warranty (years)	1



Identification and Status

Product ID	1.01.0210.11020
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 screw terminal, 1 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 Baud Rate	Up to 1 Mbit/s

CAN FD Features

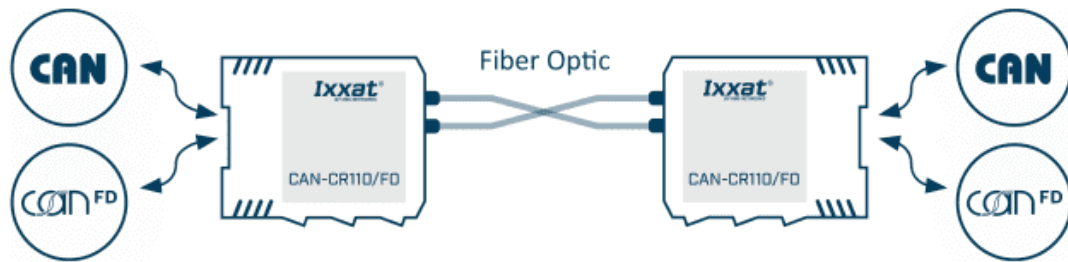
CAN FD Mode	ISO CAN FD, nonISO CAN FD
CAN FD Transceiver	MCP2562FD
CAN FD Baud Rate	Arbitration rate up to 1000 kBit/s, data rate up to 8000 kBit/s (verified by testing). User defined bit rates are possible.

Certifications and Standards

	Yes
Protection Class IP	IP20
ETIM Classification	EC000698
CE	Yes
FCC	Yes
WEEE Category	IT and telecommunications equipment



Use Case



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