



BM-CANFD-X1PRO

Isolated Single-Channel USB CAN FD Analyzer - Generation 2

RELEASE - REV A

Product models	BM-CANFD-X1PRO (Generation 2)
Document	English product datasheet
Revision	REV A - 2026-07-27
Technical source	Generation-2 X1/X1PRO Chinese product specification



Document purpose

Technical product information for evaluation, integration, and purchasing. Specifications are based on the approved Chinese product document identified above.

1. Product overview

BM-CANFD-X1PRO is an isolated single-channel CAN/CAN FD interface with a standard DB9 connector. It is designed for reliable online analysis where USB-to-bus isolation and robust field wiring are required.

Scope and limitation

The website currently lists the generation-2 X1PRO. It requires a USB host connection and does not support generation-3 standalone configuration, sequence playback, or 64 timed tasks.

Key capabilities

- One isolated CAN/CAN FD channel with a standard DB9 connector.
- Receive throughput above 20,000 frames per second.
- Two hardware receive filters, including payload-based filtering.
- Software-controlled 120-ohm termination.
- CAN FD data-phase bit rate up to 8 Mbps.
- Transmit throughput above 5,000 frames per second.
- One hardware-timed transmit task per channel.
- 2,500 V electrical isolation between USB and CAN front end.

Typical applications

- Isolated ECU debugging
- UDS and ISO-TP diagnostics
- Laboratory measurement setups
- CAN/CAN FD data acquisition
- Production test benches
- Custom applications through BMAPI SDK

2. Technical specifications

Protocols	CAN 2.0 and CAN FD (ISO and Bosch modes)
Channels	1 x CAN/CAN FD
CAN FD bit rate	5 kbps to 8 Mbps
Receive throughput	> 20,000 fps
Transmit throughput	> 5,000 fps
Payload	0 to 64 bytes
Receive filters	2 hardware filters
Timed transmit	1 hardware task
Termination	Software-controlled 120 ohms / disabled
Isolation	2,500 V
CAN connector	DB9 male
USB cable	USB Full-Speed; approximately 0.5 m
Dimensions	58 x 36 x 17 mm, excluding connectors
Weight	< 100 g
Power	USB 5 V; < 1.5 W
Operating temperature	-40 to +85 deg C
Storage temperature	-40 to +105 deg C

3. Model selection and operating guidance

Model matrix

Model	Generation	Isolation	Standalone
BM-CANFD-X1PRO	2	2,500 V	Not supported

Performance and integration notes

- The receive and transmit figures are separate limits and must not be added together.
- Use correct CAN termination and wiring, especially at CAN FD data rates above 2 Mbps.
- The DB9 assignment follows the common CAN convention: pin 2 CAN-L, pin 7 CAN-H, and pin 3 GND.
- This generation operates through USB and is not a standalone recorder.

Selection rule

The website currently lists the generation-2 X1PRO. It requires a USB host connection and does not support generation-3 standalone configuration, sequence playback, or 64 timed tasks.

4. Mechanical and connector information



Product configuration shown for identification. Exact appearance and fitted options depend on the ordered model.

Mechanical and host interface summary

CAN connector	DB9 male
USB cable	USB Full-Speed; approximately 0.5 m
Dimensions	58 x 36 x 17 mm, excluding connectors
Weight	< 100 g
Power	USB 5 V; < 1.5 W

Connector notes

- DB9 male: pin 2 CAN-L, pin 7 CAN-H, pin 3 GND.
- The 2,500 V isolation reduces risk from ground-potential differences.

5. Software and engineering workflow

BUSMASTER

Use the graphical application to select the device, configure channels, observe frames and signals, record or replay traffic where supported, and run diagnostic workflows.

BMCLI

Use command-line and AI-assisted workflows for repeatable configuration, data inspection, diagnostics, test automation, and auditable engineering tasks.

BMAPI SDK

Build custom Windows or Linux applications through the shared BUSMUST programming interface. Availability of a specific function still depends on the hardware capabilities stated in this datasheet.

Important

Do not infer an unsupported function from software availability. Isolation, standalone operation, storage, routing, replay, and channel count are hardware-specific and are controlled by the model and configuration.

6. Ordering and support

Confirm the exact model, channel count, isolation requirement, connector or harness, operating environment, and any optional expansion before ordering.

Sales	sales@busmust.com
Technical support	support@busmust.com
Website	https://busmust.com/
Documentation	https://busmust.com/en/docs/

Specifications may change as the design evolves. Formal quotations, ordered configurations, approved samples, and project agreements govern delivered products.