

Influx
TECHNOLOGY



Rebel Data Logging Solutions

Out the box dataloggers



connect, simply configure and go

Influx
REBEL CT



Rebel CT Data Loggers



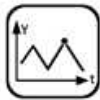
Typical Applications



- Fleet durability testing.
(Robust IP65 applications)



- Summer and winter
vehicle testing.



- R&D Engineering development
and powertrain calibration.



- Pre-production quality assurance.



- After-market customer care.
(Securely and discretely collecting
data on customer vehicles)

Rebel CT Data Loggers- A complete solution

Influx Rebel CT range of robust and compact data loggers, ideally suitable for the most challenging engineering applications, can acquire data from multiple vehicle networks that includes CAN 2.0, CAN FD, LIN and FlexRay.

The Rebel CT range key advantages are their capability to support multiple automotive networks, advanced protocols, robust IP65 enclosure, support for high capacity SDXC data storage and their expandability. The Rebel CT data loggers have been specifically designed to suit the demands of professional vehicle development engineers by supporting most automotive protocols J1939, ISO14229 (UDS), and ASAM CCP/xCP. Upgradable to support advanced GNSS, 3D accelerometer and 3D Gyro, as well as 4G LTE CAT 1 to connect to the remote cloud server.

Key features

Rebel CT range offers a complete data logging solution for vehicle network and sensor data.

- Robust and reliable collection of data from several sources, without user interaction, for prolonged periods.
- Easy setup with no need to write complex scripts.
- Configuration software provided for set up and analysis.
- Log data in seconds.
- No fans, hard drives or other mechanical rotating components.
- No operating system = no long boot up times.
- Very low current consumption in power down mode.
- WakeOnCAN and WakeOnSignal function.
- Digital input/output channels.
- Logging on up to 7 CAN Bus channels



P/N: INF2106



Compact, Configurable 4 CAN 2.0 Data Logger

The Influx Rebel CT 4 is a compact data logger with gateway functionality and is an ideal choice for engineering applications that require vehicle CAN 2.0 and LIN network data.

The Rebel CT 4 can optionally be expanded to include high accuracy GNSS, 3D accelerometer, 3D Gyro, Wi-Fi and 4G LTE CAT 1.

Rebel CT4

Key features

- 4x CAN 2.0 buses.
- 2x LIN buses.
- 3x digital I/O.
- 4x analogue input. (Each channel can be calibrated independently)
- Supports protocols CCP, xCPOnCAN, UDS (ISO14229), J1939.
- SDXC card data storage. (Maximum capacity 128GB)
- Galvanic isolation. (USB, enclosure)
- IP65 dust and splash proof cover – SD card securely housed behind a flip panel.
- Low power consumption in sleep mode and WakeOnCAN or WakeOnSignal feature.

Options

- Internal GNSS module. (Up to 30Hz refresh rate, socket for external antenna)
- Internal 3D 1kHz accelerometer and 3D Gyro module.
- Internal 4G LTE CAT 1 module.
- Internal Wi-Fi module.
- Larger capacity data storage SDXC cards available. (Up to 128GByte)
- Dialog Standard is required for data analysis/live data.
- Dialog Plus is required for xCP/CCP or to connect to StreamLog.
- Dialog Gateway for configuring CAN 2.0 gateway functions.
- Extension cable to connect CAN 0/PWR to vehicle OBD Port. (9 Way D Sub to OBD)



P/N: INF2105



Compact, Configurable & CAN 2.0 and CAN FD Data Logger

The Influx Rebel CT CAN FD is a compact data logger with gateway functionality and is an ideal choice for applications that require vehicle CAN 2.0, CAN FD and LIN network data.

The Rebel CT CAN FD can optionally be expanded to include high accuracy GNSS, 3D accelerometer, 3D Gyro, Wi-Fi and 4G LTE CAT 1.

Rebel CT CAN FD

Key features

- 2x CAN 2.0 buses and 2x CAN FD buses.
- 2x LIN buses.
- 3x digital I/O.
- 4x analogue input. (Each channel can be calibrated independently)
- Supports protocols CCP, xCPOnCAN, UDS (ISO14229), CAN FD (ISO Standard or Non-ISO Standard), J1939.
- SDXC card data storage. (Maximum capacity 128GB)
- Galvanic isolation. (USB, enclosure)
- IP65 dust and splash proof cover – SD card securely housed behind a flip panel.
- Low power consumption in sleep mode and WakeOnCAN or WakeOnSignal feature.

Options

- Internal GNSS module. (Up to 30Hz refresh rate, socket for external antenna)
- Internal 3D 1kHz accelerometer and 3D Gyro module.
- Internal 4G LTE CAT 1 module.
- Internal Wi-Fi module.
- Larger capacity data storage SDXC cards available. (Up to 128GByte)
- Dialog Standard is required for data analysis/live data.
- Dialog Plus is required for xCP/CCP or to connect to StreamLog.
- Dialog Gateway for configuring CAN 2.0 gateway functions.
- Extension cable to connect CAN 0/PWR to vehicle OBD Port. (9 Way D Sub to OBD)



P/N: INF2108



Compact, Configurable & Flexible Data Logger

The Influx Rebel CT FlexRay compact data logger is ideal for development applications that require up to 7 vehicle CAN 2.0 networks, FlexRay and additional LIN data.

The standard Rebel CT FlexRay includes an internal 18Hz GNSS module and a 3D accelerometer as standard.

Rebel CT FlexRay

The Rebel CT FlexRay can optionally be expanded to include high accuracy GNSS, 3D accelerometer, 3D Gyro, Wi-Fi and 4G LTE CAT 1

Key features

- 7x CAN 2.0 buses.
- 2x LIN buses.
- 2x FlexRay channels.
- 3x digital I/O.
- 4x analogue input. (Each channel can be calibrated independently)
- 18Hz GNSS with 1 KHz xyz Accelerometer.
- Supports protocols CCP, xCPOnCAN and xCPOnFlexRay, UDS (ISO14229), J1939.
- SDXC card data storage. (Maximum capacity 128GB)
- Galvanic isolation. (USB, enclosure)
- IP65 dust and splash proof cover – SD card securely housed behind a flip panel.
- Low power consumption in sleep mode and WakeOnCAN or WakeOnSignal feature.

Options

- Internal GNSS module. (Up to 30Hz refresh rate, socket for external antenna)
- Internal 3D 1kHz accelerometer and 3D Gyro module.
- Internal 4G LTE CAT 1 module.
- Internal Wi-Fi module.
- Larger capacity data storage SDXC cards available. (Up to 128GByte)
- Extension cable to connect CAN 0/PWR to vehicle OBD Port. (9 Way D Sub to OBD)



Comparison Table

FUNCTIONS	Rebel CT 4	Rebel CT CAN FD	Rebel CT 7 FlexRay
CAN 2.0	4x	2x	7x
CAN FD	None	2x	None
LIN	2x	2x	3x
FlexRay	None	None	2x
K-Line	None	None	None
Analogue inputs	4x	4x	4x
Digital I/O	3x	3x	3x
LED	9x	9x	9x
USB interface	Yes	Yes	Yes
GNSS	(Optional)	(Optional)	18Hz GNSS (GPS&GLONASS or BDS)
3D Accelerometer	(Optional)	(Optional)	1KHz xyz Accelerometer (Max)
3D Gyro	(Optional)	(Optional)	(Optional)
4G LTE	(Optional)	(Optional)	(Optional)
Wi-Fi	(Optional)	(Optional)	(Optional)

FUNCTIONS	Rebel CT 4	Rebel CT CAN FD	Rebel CT 7 FlexRay
Power supply	4.7V to 36V DC (12V typical) internally fused with reverse protection		8.5V to 36V DC (12V typical) internally fused with reverse protection
Power consumption	Normal operation approx. 250mA to 400mA@12V		
	Sleep mode approx. 80mA@12V		
	Power down standby mode < 2mA@12V		
	WakeOnCAN and WakeOnSignal Functions		
PC interfaces	Isolated USB2.0 (Type B) – can be powered up by USB		
LIN interfaces	2x LIN bus	2x LIN bus	3x LIN bus
FlexRay interfaces	None	None	2x channels
CAN interfaces	4x CAN 2.0B	2x CAN 2.0B Max 1MBit/s	7x CAN 2.0B
	Max 1MBit/s	2x CAN FD Max 8Mbits/s	Max 1MBit/s
Enclosure	Dimension (LxHxW)	Dimension (LxHxW)	Dimension (LxHxW)
	126x35x110 mm	126x35x110 mm	126x45x110 mm
	Weight 330g	Weight 330g	Weight 520g
	Aluminium IP65	Aluminium IP65	Aluminium IP65
Environmental	-40degC to +85degC Humidity max 90%		
Data storage capability	Removable SDXC max 128GByte		
	Analogue Inputs		
Number of channels	4 bipolar single-ended inputs		
Range	± 10V		
Resolution (ADC)	12 bits		
Max sampling rate	1 kHz		
Input impedance	>50K Ohms		
Min/Max applied voltage	± 40V		

FUNCTIONS	Rebel CT 4	Rebel CT CAN FD	Rebel CT 7 FlexRay
	Digital Input / Output		
Number of channels	3 unipolar single-ended inputs/outputs		
Input switching thresholds	Low < 2V, High > 2.5V (up to 36V)		
Output Drive details	Collector-emitter voltage 36V max		
	Collector current (DC) 50mA max.		
	Saturation voltage <0.6V		
Min-Max applied voltage	-0.5V to 36V		
	Sensors - 3D Accelerometer and 3D Gyro		
Linear acceleration measurement range	Optional)	±2g, ±4g, ±8g, ±16 g	
Linear acceleration sensitivity	(Optional)	0.061mg/LSB, 0.122mg/LSB, 0.244mg/LSB, 0.488 mg/LSB	
Linear acceleration output data rate	(Optional)	1Hz, 10Hz, 25Hz, 50Hz, 100Hz, 200Hz, 400Hz, 1000Hz	
Angular rate measurement range	(Optional)	No Gyro Fitted, or optional	
Angular rate sensitivity	(Optional)	No Gyro Fitted, or optional	
Angular rate output data rate	(Optional)	No Gyro Fitted, or optional	
	Sensors – GNSS		
Receiver type	(Optional)	72-channel, GPS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1 SAIF, GLONASS L10F, BDS B1I, Galileo E1B/C	
Nav. update rate	(Optional)	18 Hz	
Position accuracy	(Optional)	2.5 m (GPS)/(GPS & GLOSNASS & BDS) 4m (GLONASS)	
Acquisition	(Optional)	Cold starts: 29s	
		Aided starts: 2s	
		Reacquisition: 1s	



Upgrade Options

Function	Upgrade Options	
Remote Server	Remote Server	
	Non-Managed	Managed
Cloud Server	Customer own installation version of StreamLog compatible with Microsoft Azure® Cloud Servers.	Customer secure login to managed StreamLog account enabling remote data and fleet management.
Local Server	Installation Files to setup remote data and fleet management system on a Windows® server. (Requires Microsoft MS SQL®.)	
Integrated Wi-Fi	Wireless (Rebel CT range only)	
Network Standard	IEEE 802.11a/b/g/h/i/j, draft 802.11 n/k	
Frequency Band	2.412 - 2.484 GHz, 4.900 - 5.925 GHz	
Wireless Security	802.11i: AES, TKIP, WEP, WPA, and WPA2	
Certification	802.11n Draft 2.0, WPA, WPA2, WMM, WMM Power-save	
Antenna	External	
Integrated GPRS	4G LTE CAT 1 modem	
UMTS	*LTE CAT 1 / 3G/ 2G multi-mode modules	
Bands	LTE FDD bands: 12 (700 MHz), 28 (700 MHz), 13 (700 MHz), 20 (800 MHz), 5 (850 MHz), 19 (850 MHz), 8 (900 MHz), 4 (1700 MHz), 3 (1800 MHz), 2 (1900 MHz), 7 (2600 MHz), 1 (2100 MHz) UMTS(3G) Bands: 850MHz, 1900MHz, 2100MHz; GSM(2G) Bands: 900MHz, 1800MHz	
Receiver Input Sensitivity	-98 dBm to -114 dBm: 700MHz to 2100MHz	
Antenna	External	

*Modules changes as per region, mention region of usage while ordering.



Upgrade Options (Continued)

Function		
Integrated GNSS	NEO-M8Q	NEO-M8L (Coming soon)
Receiver type	Standard Precision GNSS	Dead Reckoning, continuous navigation during signal loss. Continuous accurate navigation under all signal conditions using integrated 3D sensors and speed information from vehicle.
	72-channel, GPS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1-SAIF, GLONASS L1OF, BDS B1I, Galileo E1B/C	
Nav. update rate	Up to 18Hz	Up to 30Hz
Position accuracy	2.0 m CEP	Autonomous 2.5 m CEP with SBAS 1.5 m CEP
Acquisition	Cold starts: 26s Reacquisition: 1s	
Geofencing	Up to 4 circular areas (coming soon)	
Antenna	External	
Accuracy	Velocity: 0.05m/s	Velocity: 0.05m/s
	Heading: 0.3 degrees	Heading: 0.3 degrees
	Not Specified	Altitude: with SBAS 3.0m CEP
Sensors	3D Accelerometer and 3D Gyro	
Linear Acceleration Measurement Range	±2g, ±4g, ±8g, ±16 g	
Linear Acceleration Sensitivity	0.061mg/LSB, 0.122mg/LSB, 0.244mg/LSB, 0.488 mg/LSB	
Linear Acceleration Output Data Rate	1Hz, 10Hz, 25Hz, 50Hz, 100Hz, 200Hz, 400Hz, 1000Hz	
Angular Rate Measurement Range	±125dps, ±250dps, ±500dps, ±1000dps, ±2000dps	
Angular Rate Sensitivity	4.375mdps/LSB, 8.75mdps/LSB, 17.50mdps/LSB, 35mdps/LSB, 70mdps/LSB	
Angular Rate Output Data Rate	1Hz, 10Hz, 25Hz, 50Hz, 100Hz, 200Hz, 400Hz, 1000Hz	

Influx

DIALOG



DiaLog Software



DiaLog



P/N: INF1101 DIALOG CONFIGURATOR

P/N: INF1102 DIALOG STANDARD

P/N: INF1103 DIALOG PLUS

Key Features

Our intuitive editor allows you to easily configure the Rebel data loggers.

Functions at a glance:

- Build and exchange Rebel data logger configuration files using industry standards such as **DBC**, **A2L** and **ODX**.
- Connect and reconfigure Rebel data loggers via USB.
- Monitor live data whilst data logging is active.
- Upload and analyse data recording files.
- Supports in field firmware upgrade.
- Batch processing to handle large amounts of recorded data.
- Supports direct connection to remote and local **StreamLog** servers.

See Software Version Matrix for each feature.

Data Logger configuration with integrated data analysis.

Advanced Rebel Data Logger configuration tool with all the features you require to setup the Rebel family of data loggers, acquire recorded data and analyse or export the data. **DiaLog** has built in support for industry standard files, integrated graphical data analysis and includes batch processing for handling very large amounts of data files.

With well over 5000 registered users worldwide **DiaLog** is a popular tool in the industry.

Versions

DiaLog is available in 3 versions.

■ Dialog Configurator

Available free of charge and allows configuration of Rebel data loggers as well as recorded data export to CSV and MDF formats.

This version does not support the advanced features such as xCP/CCP, graphical data analysis, live data viewer and recorded data merging.

■ Dialog Standard

Includes a powerful built in data analysis tool and graphical live viewer of the recorded data.

■ Dialog Plus

Ideal for professional engineers that use ASAM xCP/CCP protocols or require the FlexRay network support. In addition **Dialog Plus** is required for connecting to the remote fleet management 'StreamLog' server.

DiaLog Analysis



DiaLog includes many features that are essential or engineers in the automotive industry.

- Supports ISO14229, ISO14230, ISO15765-1 and ISO1565-2.
- Engineering CCP and xCP protocols. (With Seed and Key)
- J1939 including DM1 messages.
- OBD Diagnostic Fault Codes.
- Advanced UDS functions such as Fast Data Acquisitions.

Compatible with the industry standards

DiaLog supports standard data description file formats making it easy to build complex configurations.

Data description files:

- *.DBC for CAN and CAN FD.
- *.LDF for LIN.
- ASAM *.A2L – for direct memory read operations.
- ODX/MDX/GDX for UDS diagnostic databases.
- Fibex format for FlexRay networks.

Data analysis files:

- Matlab™ *.MAT
- MDF (*.DAT)
- ASAM MDF4 (*.MF4)
- Vector® BLF
- CSV for data analysis with Excel
- Ncode®
- National Instruments® TDM format

Data Analysis

DiaLog Plus and Dialog Standard includes a professional data analysis visualization tool which allows you to visualize and analyse your data quickly.

- Twin axis cursors.
- Zoom feature.
- Histograms.
- XY plotting.
- Edit notes.
- User defined templates.
- Post calculated channels.
- Show individual sample points.
- Statistical data, such as min/max and average.

Batch Processing

Help to manage multiple files from multiple vehicles over several weeks, months of data. DiaLog Plus includes the batch processing server tool that enables you to merge and convert several days of recorded data files in a single process, saving hours of work!



	Config urator	Stand ard	Plus		Config urator	Stand ard	Plus
Network Protocols				Export data formats			
OBD (ISO 15765)	X	X	X	Vector™ MDF	X	X	X
CCP/xCP (CAN and Flexray)			X	Vector BLF (CAN trace)	X	X	X
Extended ISO14229 (UDS)	X	X	X	ASAM MDF4	X	X	X
CAN/CAN FD (x4 CAN Buses)	X	X	X	Vector™ ASC (CAN trace)	X	X	X
CAN/CAN FD (x7 CAN Buses)			X	Matlab™ Mat		X	X
FlexRay			X	NCode™ S3		X	X
J1939	X	X	X	Microsoft™ Excel	X	X	X
K-LINE		X	X	National Instruments™ TDM		X	X
LIN		X	X	GPS data		X	X
Industry standards				Advanced Network Functions			
Import ASAM A2L			X	Create Tx periodic CAN Frames (E.g. to drive display units)		X	X
Import CAN DBC	X	X	X	Create CAN messages for periodic transmission or on trigger event			X
Import LIN LDF	X	X	X	Create one-shot data lists for data to be acquired on event only			X
Import Diagnostic ODX, GDX, MDX	X	X	X	Create/edit simple triggers (start/stop)	X	X	X
Import Fibex	X		X	Create/edit advanced triggers (Mark/Tx on event etc...)			X
Import IVS (Influx Configuration File)	X	X	X				
DBC Editor		X	X				
ODX Editor		X	X				
Standard Rebel Data Logger Functions				Functionality			
Firmware update (Function requires valid License to be enabled)	X	X	X	Live Data		X	X
Set Time/Date Function	X	X	X	Graphical Data Analysis		X	X
Configuration via Influx IVS file	X	X	X	Data Statistics		X	X
Diagnostic Report	X	X	X	GPS Map Viewer (Function requires valid License to be enabled)		X	X
Set APN/WiFi settings	X	X	X	Connect to StreamLog (Remote data management)			X
Sensors - GPS	X	X	X	Data trace		X	X
Sensors - xyz Accelerometer	X	X	X				
Sensors - Gyro	X	X	X	Data processing and reports			
Digital I/O	X	X	X	Output data logger configuration reports		X	X
Analog	X	X	X	Batch conversion and data merging			X

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