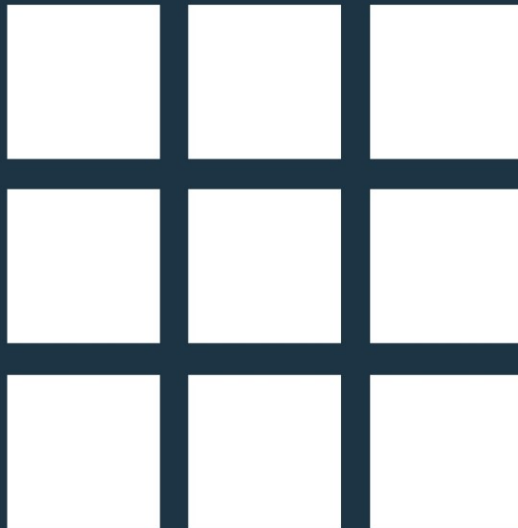


Influx

REBEL 100



Rebel 100 Data Loggers



What makes the Rebel100 suitable for off-highway applications?



- An embedded eMMC industrial grade data storage device for reliable data storage.



- Mountable IP67 enclosure.



- Sealed automotive grade connector header.



- Wide range power supply suitable for off-highway vehicles (max 46V overvoltage)

Typical Applications



- Event Black Box Recorder.



- Warranty and Fleet management.



- Automotive, marine and off-highway applications with telematics. (Robust IP67 applications)

Rebel 100 Data Loggers - An off-highway solution

The Influx Rebel100 data Loggers enable robust data logging on up to four CAN bus interfaces in the most extreme environments.

It is a part of the Influx Technology Rebel data logger heritage. We have been supplying CAN bus logging solutions to the industry for over a decade.

Embed the **Rebel100** into the vehicle to capture important 'on event' data throughout the lifetime of the vehicle. With its wide range power supply, IP67 enclosure and robust eMMC data storage the **Rebel100** is suitable for use in most harsh environments.

The **Rebel100** is fully user configurable as a continuous black box data logger with user definable pre and post-event triggers. Upgradable to support GNSS and 4G LTE IoT to connect to the remote cloud server, StreamLog.



Benefits



From engineering through to production



Remote Internet connectivity



Industry ASAM compatible



Real time data tracking



P/N: INF2100.1 REBEL 100

P/N: INF2100.2 REBEL 100 GPS



Rebel 100

Compact, Configurable & Flexible Data Logger Series

Our robust Industrial grade high specification CAN bus Data Logger with IP67 enclosure, two easily accessible mounting points and automotive graded connector enables easy integration.

IMPORTANT minimum order quantity (MOQ) required.

Key features

- 4x CAN 2.0 buses.
- 4x digital I/O. (x2 configurable as PWM inputs)
- 4x analogue inputs. (Each channel can be calibrated independently)
- Designed for in vehicle fitment. (Mountable IP67 enclosure with sealed connector header)
- eMMC, data storage max size 64GB.
- Data extractible via USB.
- Galvanic isolation. (Enclosure, USB)
- Supports J1939, UDS, OBD, xCPonCAN.

Optional upgrades

- Dialog Standard is required for data analysis/live data/GPS maps.
- Dialog Plus is required for xCP/CCP, GPS map, live view and data analysis.
- Development harness available. (To speed up development in early stages)
- Internal GNSS module. (Up to 18Hz refresh rate, socket for external antenna)
- Internal 3D 1kHz accelerometer and 3D Gyro module.
- Worldwide cellular NB-IoT module.



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REBEL 100

Key Product Functions

Function	Description
Supported Protocols	OBD (CAN) ISO15765/ISO14229 (UDS) CCP, xCPOnCAN CAN monitoring (raw CAN messages or signals via CAN DBC) J1939
CAN functions	Output CAN signals (applications include display units) Create user defined CAN messages for periodic transmission
Data storage format	FAT32 (PC readable)
Data logger configuration	Configuration via USB, 4G LTE NB1-IoT
Trigger Condition	Up to 20 configurable conditions (>, <, =, increment, decrement or on-change)
Trlgger Action	Up to 20 configurable triggers Functions include start or stop, sample one-shot data, sample DTC, read OBD data. Configurable pre and post trigger times Configurable LED functions
Wake up time	Wake up from normal sleep mode logging starts within 20mSec Wake up from power down mode, logging starts < 5 secs
Data Formats	Large quantities of recorded data can be conveniently converted to MDF, MDF4, MAT (Matlab), nCode, CSV by batch processing.



Technical Data

Function	Rebel 100	Rebel 100 GPS
Power supply	6V to 41V DC internally fused (Over voltage protection up to 46V with reverse protection)	
Power consumption	Normal operation approx. 250mA to 400mA@12V	
	Sleep mode approx. 80mA@12V	
	Power down standby mode < 2mA@12V	
	WakeOnCAN function	
PC interfaces	Isolated USB2.0 (Type B) – can be powered by USB	
CAN interfaces	2x CAN 2.0B Max 1Mbit/s	4x CAN 2.0B Max 1Mbit/s
	WakeOnCAN from on all CAN buses	WakeOnCAN from on all CAN buses
	Silent mode configurable	Silent mode configurable
Enclosure	Dimension (LxHxW) : 140 x 38 x 131 mm	
	ABS IP67 (IP69 possible)	
Environmental	-40degC to +85degC Humidity max 90%	
Data storage capability	eMMC 32GByte (upgrade to 64GByte is available)	
	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	± 15V	

Technical Data (Continued)

Function	Rebel 100	Rebel 100 GPS
	Digital Input / Output	
Number of channels	2x unipolar single-ended inputs/outputs 2x unipolar single-ended PWM inputs/outputs	
Input switching thresholds	Low < 0.5V, High > 1.8V (up to 36V) Connected through protective diode, 10k pull up resistor to 5 Volt.	
Output Drive details	Collector-emitter voltage 36V max Collector current (DC) 150mA max. Saturation voltage <0.6V	
Min-Max applied voltage	-0.6V to 36V	
	Sensors - 3D Accelerometer	
Linear acceleration measurement range	None	$\pm 2g, \pm 4g, \pm 8g, \pm 16g$
Linear acceleration sensitivity	None	0.061mg/LSB, 0.122mg/LSB, 0.244mg/LSB, 0.488 mg/LSB
Linear acceleration output data rate	None	1Hz, 10Hz, 25Hz, 50Hz, 100Hz, 200Hz, 400Hz, 1000Hz
Angular rate measurement range	None	$\pm 125dps, \pm 250dps, \pm 500dps,$ $\pm 1000dps, \pm 2000dps$
Angular rate sensitivity	None	4.375, 8.75, 17.50, 35, 70 mdps/LSB
Angular rate output data rate	None	1, 10, 25, 50, 100, 200, 400, 1000 Hz
	Sensors – GNSS	
Receiver type	(Optional)	72-channel u-blox M8 engine GPS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1 SAIF, GLONASS L1OF, 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
	4G LTE Cat M1/NB1-IoT modem	
LTE	LTE category M1, LTE category NB1, GPRS multi-slot class 33	
Bands	LTE FDD bands: 12 (700 MHz), 17 (700 MHz), 28 (700 MHz), 13 (700 MHz), 20 (800 MHz), 26 (850 MHz), 5 (850 MHz), 19 (850 MHz), 8 (900 MHz), 4 (1700 MHz), 3 (1800 MHz), 2 (1900 MHz), 25 (1900 MHz), 1 (2100 MHz)	
Receiver Input Sensitivity	-105 dBm to -114 dBm: 700MHz to 2100MHz	
Antenna	External	

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TECHNOLOGY

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