



# Influx

REXGEN 2

2023 V1.3

# REliable neXt GENeration data computing



## Reliable

- Robust IP65 enclosure
- Industrial temperature specification
- 1000s of hours of rigorous in-field testing



## Secure

- Reliable non-removable eMMC data storage
- Fixed device mounting positions



## Accurate

- Micro Sec timestamped data
- No message loss, over 20000 messages per second



## Data

- 2x CAN buses or CAN FD buses, 1xLIN bus
- 2x Digital or PWM inputs, 2x Analog inputs
- Integrated IMU sensors: GNSS, 3D Accelerometer and 3D Gyro

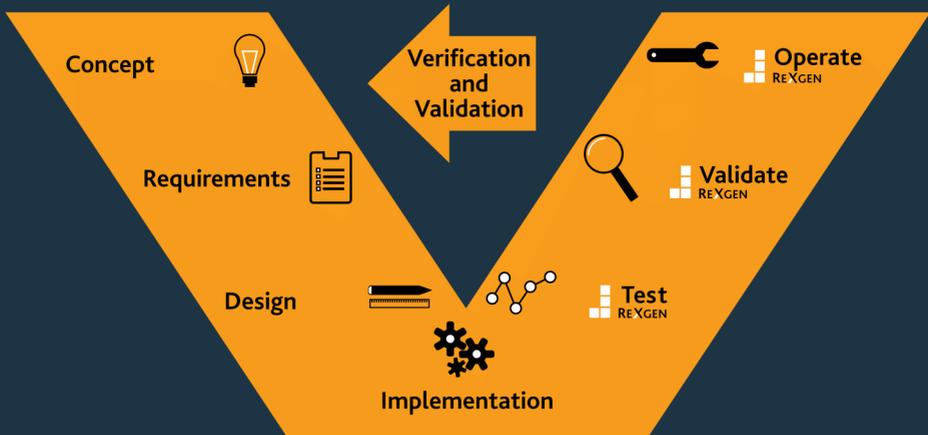


## Trust

- Reliably wakes up from multiple sources and records every-time!
- WakeOnCAN feature
- WakeOnAlarm feature
- WakeOnSignal feature

# RE<sup>liable</sup>ne<sup>xt</sup>GEN<sup>eration</sup>

data computing



## Capturing critical CAN data and messages

The ReXgen 2 is designed to be fitted during development through to production, capturing continuous data and events.

The ReXgen 2 is a compact, accurate, cost effective, 2x CAN datalogger with pass-thru. Suitable for automotive and various industrial applications.

- Supports J2534 (Pass-thru)
- Logs data reliably, for hours, from a CAN bus
- Saves your data to the embedded eMMC
- IP65 enclosure
- Easily mounted and integrated with your vehicle /machine

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## REXGEN 2

### Key features

- 2x CAN 2.0/CAN FD buses, 1x LIN bus
- 2x Digital Input channels, 2x Analog Input channels
- Powerful graphic interface application tool
- Supported Data formats - ASAM MDF4 MATLAB (.mat), CSV, ASC, BLF & TRC
- Up to 16GByte eMMC storage
- Micro USB 2.0 - High speed connection to logger
- Functions as an interface device and supports J2534 (Pass-thru)
- Supports CAN monitoring RAW CAN signals, SAE J1939
- Very low power consumption in sleep mode and WakeOnCAN, WakeOnAlarm & WakeOnSignal
- CAN frame error detection ASAM MDF(\*.mf4 format) - international standard data format
- LEDs support status indication
- IP65 enclosure protection
- Plug and play, easily stackable and installable

### Hardware Versions

Current Range (Non-modular)



REXGEN 2 8/16 Gb

## REXGEN2

Reliable, Secure, Accurate data computing that you can trust



\*P/N: INF2110.01/INF2110.02



The Influx ReXgen 2 is a small, robust and powerful CAN bus data recorder.

Targeted at applications that require a CAN 2.0, CAN FD and LIN flight data recorder.

Supplied with ReXdesk, freely distributable software for the ReXgen 2. used for logger configuration and file exporter.

\*Automotive customized connector is also available

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## REXGEN 2 IMU

### Key features

- 2x CAN 2.0/CAN FD buses, 1x LIN buses
- 2x Digital Input channels, 2x Analog Input channels
- Powerful graphic interface application tool
- Supported Data formats -ASAM MDF4 MATLAB (.mat), CSV, ASC, BLF & TRC
- Up to 32GByte eMMC storage
- Micro USB 2.0 -Higher speed connection to logger
- Functions as an interface device and supports J2534 (Pass-thru)
- Supports CAN trace monitoring RAW CAN signals, SAE J1939
- Very low power consumption in sleep mode and WakeOnCAN, WakeOnAlarm & WakeOnSignal.
- CAN frame error detection ASAM MDF(\*.mf4 format) -international standard data format
- LEDs support status indication
- IP65 easily stackable and installable enclosure
- Up to 18Hz GNSS rate/u-Blox -Supports 4 position systems for highly accurate positioning
- Gyro and Accelerometer system

### Hardware Versions

Current Range (Non-modular)



REXGEN 2 IMU 16/32GB GNSS

## REXGEN 2 IMU

Reliable, Secure, Accurate data computing that you can trust.



\*P/N: INF2112.02/INF2112.03



The ReXgen 2 IMU is the upgraded version of ReXgen 2 which also supports GNSS, Gyro and Accelerometer.

A device which can also record vibration information and position information, in very harsh environments, even if no GPS signal is available.

Logs data continuously for hours from a CAN bus and simultaneously saves it to the embedded SD memory card.

Supplied with ReXdesk, freely distributable software for the ReXgen 2. used for logger configuration and file exporter.

\*Automotive customized connector is also available

Functions	ReXgen 2	ReXgen 2 IMU
CAN Interfaces	2 x CAN/CAN FD ISO 11898-1: Compliant with CAN (up to 1 Mbit/s) ISO & Bosch CAN FD (up to 8 Mbit/s) Conforms to CAN protocol version 2.0 - part A, B Max 20000 mps  Meets the requirements of ISO 11898-2:2016 & ISO 11898-5:2007 physical layer standards	
CAN/CAN FD Functions	Supports custom baud rates CAN/CAN FD Bit timing selection SAE J1939 support (Source Address, Destination Address & PGN Filters) Silent Mode Configurable CAN DBC Support CAN frame error detection	
LIN Interface	1 x LIN (up to 20 K Baud with LIN-Compatible Output Driver)	
Inputs	2 x Digital and 2 x Analog (max sampling rate-1KHz)	
<b>Positioning &amp; IMU Sensors</b>		
GNSS	NA	Up to 18 Hz rate
GNSS Receiver Type	NA	72-channel, GNSS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1-SAIF, GLONASS L1OF, BeiDou B1I, Galileo E1B/C
Position Accuracy	NA	2.0 m CEP*
Acquisition	NA	Cold starts: 26s Reacquisition: 2 s
Antenna	NA	External
Accuracy	NA	Velocity: 0.05m/s
		Heading: 0.3 degrees
		Altitude: not specified
Accelerometer	NA	$\pm 2/\pm 4/\pm 8/\pm 16$ g full scale (max sampling rate-1KHz)
Gyroscope	NA	$\pm 125/\pm 250/\pm 500/\pm 1000/\pm 2000$ dps full scale (max sampling rate-1KHz)

Functions	ReXgen 2	ReXgen 2 IMU
PC Interfaces	Rugged Micro USB 2.0 (Datalogger mode and J2534)	
Data Storage Capability	8 or 16 GB Inbuilt eMMC storage	16 or 32 GB Inbuilt eMMC storage
Supported Protocols	CAN Monitoring (RAW CAN signals, SAE J1939 support)	
LEDs	2	
Triggering	Trigger on CAN ID, CAN Signal, and Digital Input. Trigger on DM1 counter.	
Data Storage Format	Log files accessible via ReXdesk Software	
File Format Supported	ASAM MDF (.mf4), Peak TRC, CSV, MATLAB, ASC, BLF	
Data Logger Configuration	Supplied with Influx ReXdesk configuration software, XML based	
	<b>Analog Input</b>	
Number of channels	2 x Bipolar single-ended inputs	
Range	±10 V	
Resolution (ADC)	12 Bit	
Max sampling rate	1 kHz	
Input Impedance	> 50 K Ohms	
Safe Applied Voltage	± 28 V	
	<b>Digital Input</b>	
Number of channels	2 x Unipolar single-ended inputs	
Input Switching Thresholds	Low < 0.8 V, High > 2.5 V (up to 28V)	
Safe Applied Voltage	±28 V	

Function	Description
Transceiver Protection	Bus fault protection: $\pm 58$ V Thermal-shutdown protection (TSD) Under-voltage protection
Enclosure	PC+ ABS
IP Rating	IP65
Dimension	L - 100 mm, W - 73.5 mm, H - 27.4 mm
Weight	164 gms
Mounting Holes	4 mounting holes and screws
Stackable	Yes
Environmental Tolerance	<b>Working temperature</b> -40degC to +85degC; <b>Humidity</b> max 90%
Power Saving	Wake Up On CAN, Power Down Mode, Sleep Modes
Power Consumption	Normal Operation: 87 mA at 12 V Power Down Mode: <2 mA
BUS & Signals	Operating Voltage
Power supply - OBD	+4.5 to +31V
Power supply - USB	+4.5 to +5.5V
CAN FD	+2 to +3V
LIN	0 to +24V
Digital Input	0 to +28V
Analog input	$\pm 10$ V





ReXdesk is our freely distributable configuration and file exporter software tool to work with the ReXgen series. Designed to make CAN bus data logging easier.

ReXdesk supports multiple DBC files enabling configurations that includes filters and log on parameter values. ReXdesk can be downloaded from our website.

# REXDESK

Configure logger and retrieve data

- Triggers—on parameter value or CAN Identifier
- Supports Command Line Interface
- ReXdesk convert application available
- Supports J1939
- CAN error logging and Live CAN trace viewer
- Fast data retrieval and export to other file formats
- Compatible Operating System: Windows
- Supports industry standard DBC files
- Supports standard and extended messages



## User Friendly GUI

Easy drag 'n' drop user interface



## Live Data Window

Live monitoring of CAN traces



## Filter

Filter CAN bus data, using DBC file



## CAN

Configure the CAN bus



## USB Live View

Allows users to view live data



## J1939

Configure J1939 filtering for source & destination address



## Digital In

Digital inputs with a maximum sampling rate of 1KHz



## Import DBC

Import DBC files and filter parameters



## Trigger Window

Create, edit and delete trigger



## Log All

Provides the logged data as a Rxd file. Export the data to multiple formats



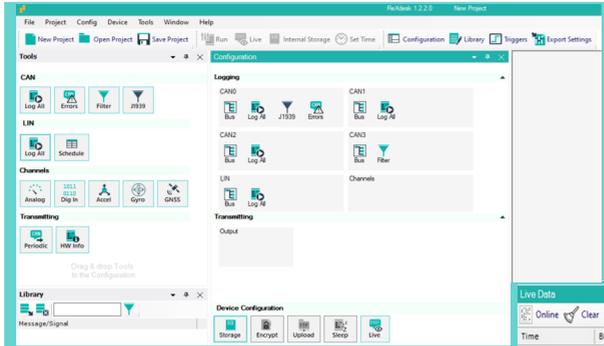
## Internal Storage

Displays all the files currently stored on the logger's memory



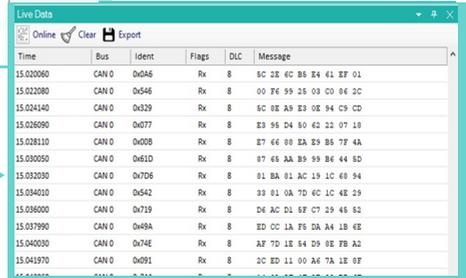
## More

Find more functions on our website



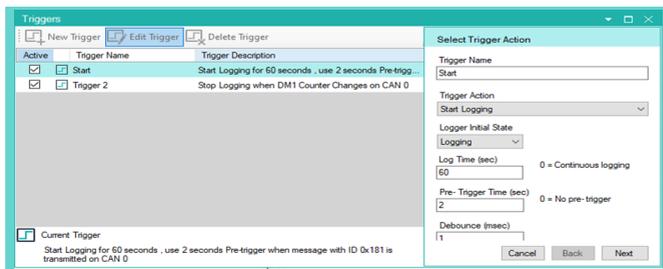
Tools and Configurations

Live Data and Trace View



Time	Bus	Ident	Flags	DLC	Message
15.020060	CAN 0	0d0A6	Rx 8	8	5C 2E 6C B9 24 41 EF 01
15.020100	CAN 0	0d0A6	Rx 8	00	FE 99 2B 03 00 06 2C
15.024140	CAN 0	0d029	Rx 8	5C 6E A9 E3 0E 94 C9 CD	
15.026090	CAN 0	0d077	Rx 8	E3 96 D4 60 42 22 07 18	
15.028110	CAN 0	0d008	Rx 8	E7 6E 69 2A E9 25 85 7F 4A	
15.030050	CAN 0	0d61D	Rx 8	87 6E AA B9 99 8E 44 8D	
15.032030	CAN 0	0d7D6	Rx 8	81 BA 81 AC 19 1C 60 94	
15.034010	CAN 0	0d542	Rx 8	93 81 0A 7D 6C 1C 4E 29	
15.036000	CAN 0	0d719	Rx 8	D6 AC D1 9F C7 29 46 62	
15.037990	CAN 0	0d49A	Rx 8	ED CC 1A F8 DA A4 18 6E	
15.040030	CAN 0	0d74E	Rx 8	A7 7D 1E 54 D9 0E 7B A2	
15.041970	CAN 0	0d091	Rx 8	2C ED 11 00 A6 7A 1E 8F	

Multiple Trigger Settings



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