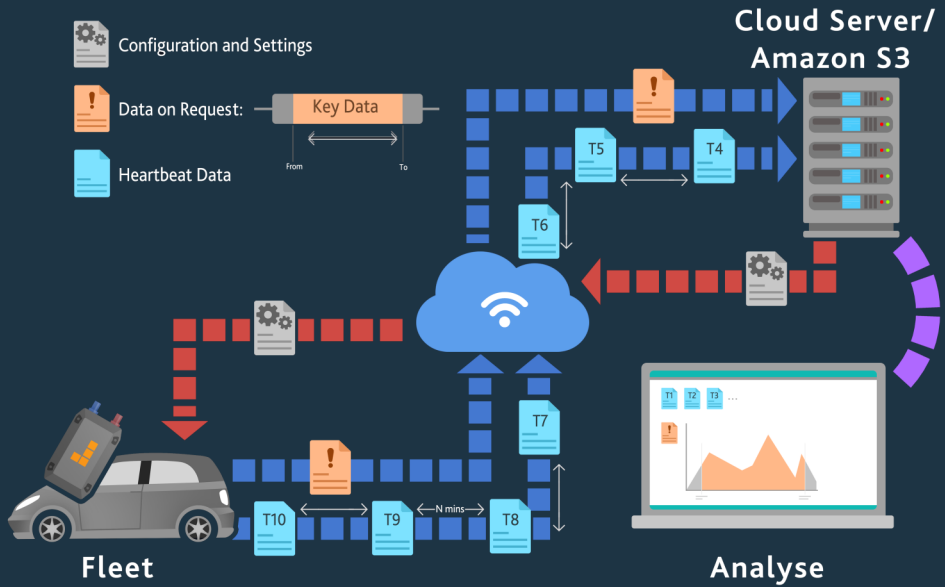
Influx ReXgen Air

2023 V1.1

RE liable ne X t GEN eration data computing

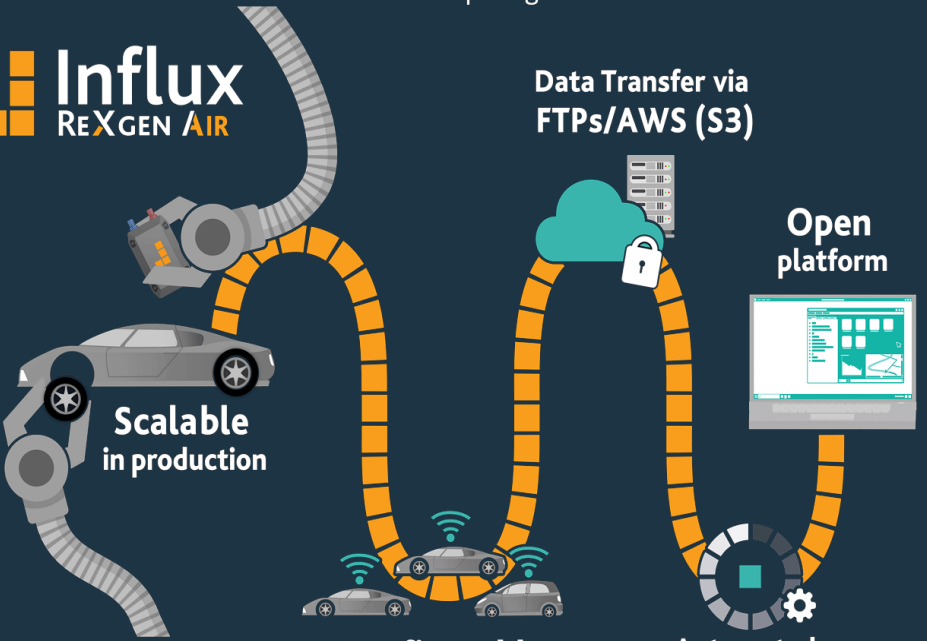


RE liable ne X t GEN eration
data computing

Influx
ReXGen Air

Data Transfer via
FTPs/AWS (S3)

Open
platform



Scalable
in production

Configurable
Edge Computing

Automated
Data Processing

Influx
ReXgen Air

Key features

- Up to 4 CAN/CAN FD buses
- x1 LIN bus
- x2 Analog Inputs, x2 Digital inputs & x1 Power Stage Relay Driver (Optional)
- Integrated 18Hz GNSS (u-Blox) and IMU (6 axis)
- Encrypts data logs using Advanced Encryption Standard (AES)
- Open API or XML Schema provided
- Live CAN/CAN FD trace Monitoring
- Enables Locking of the device using RSA data security
- Micro USB 2.0 for data transfer and configuration
- CAT -1 connectivity
- Secure Data transfer using FTPs and Amazon S3
- Supported Data formats -ASAM MDF4 MATLAB (.mat), CSV, ASC, BLF & TRC
- Various sleep modes, with low power consumption
- x4 configurable LEDs
- CAN/J1939 filters
- Easily stackable and installable
- Automotive grade Molex Mini50 connection system

Hardware Configurable

Up to 32 GB

ReXgen Air

Reliable, Secure, Accurate data computing

that you can trust.

P/N: INF2116.NN

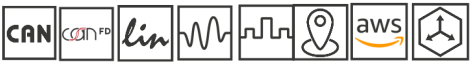
ReXgen Air is a compact, robust, accurate and cost-effective solution specially designed to become part of your fleet during production.

A progressive system that works on LTE CAT1. A data logger with on-board processing and telematics capabilities connects machines to the cloud or stores data locally.

Allows the encryption of data logs with Secure Hash Algorithm (SHA).

An open platform that can be supported by any 3rd party tools and can be integrated into any data system. Supplied with a free powerful graphic interface application tool.

ReXgen Air provides you with the freedom to build your system to maintain your data.



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REXGEN AIR

Technical Specifications

Functions	ReXgen Air
CAN Interfaces	Up to 4 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 Up to 20000 mps Meets the requirements of ISO 11898-2:2016 & ISO 11898-5:2007 physical layer standards
CAN/CAN FD Functions	CAN/CAN FD Bit timing selection SAE J1939 support (Source Address, Destination Address & PGN Filters) Silent Mode Configurable Periodic CAN Transmission CAN DBC Support CAN frame error detection
LIN Interface	1 x LIN (Master & Slave mode)
LTE	CAT 1 (see uBlox Lara R2 Series)
Inputs	2 x Digital and 2 x Analog
Instrumentation Supply	5 Volts (Ensure that current draw is not more than 100mA)

Influx ReXgen Air

Technical Specifications (Continued)

Functions	ReXgen Air
	Positioning & IMU Sensors
GNSS	Up to 18 Hz rate
	72-channel, GNSS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1-SAIF, GLONASS L1OF, BeiDou B1I , Galileo E1B/C
Position Accuracy	2.0 m CEP*
Acquisition	Cold starts: 26s Reacquisition: 2 s
Antenna	External FAKRA Code C
Accuracy	Velocity: 0.05m/s
	Heading: 0.3 degrees
	Others
Accelerometer	±2/±4/±8/±16 g full scale
Gyroscope	±125/±250/±500/±1000/±2000 dps full scale
PC Interfaces	Micro USB Type AB 2.0 interface (Standard version) USB interface via the Molex Mini50 connector (Optional)
Data Storage Capability	Up to 32 GB eMMC storage
Supported Protocols	CAN Monitoring (RAW CAN signals, SAE J1939 support)
LEDs	4
Triggering	Trigger on CAN ID, CAN Signal, Digital Input. Trigger on DM1 counter.
File Format Supported	RXD, RXE, ASAM MDF (.mf4), CSV, MATLAB, ASC, BLF, TRC

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REXGEN AIR

Technical Specifications (Continued)

Functions	ReXgen Air
Data Transfer Protocol	FTPS and Amazon S3
Security Functions	Encryption of data logs, Locking of device.
Encryption Standard	RSA (for locking device) and AES (for log data)
Data Logger Configura-	Supplied with Influx ReXdesk configuration software, API, CLI
Configuration	XML based (Shema provided)
	Analog Input
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
	Digital Input
Number of channels	2 x Unipolar single-ended inputs
Input Switching Thresh-	Low < 0.8 V, High > 2.5 V (up to 28V)
Safe Applied Voltage	±28 V

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REXGEN AIR

Technical Specifications (Continued)

Integrated GPRS	LTE modem
Category	LTE CAT1*
LTE CAT1 Bands	LTE FDD Bands: 1(2100 MHz) ,2(1500 MHz), 3(1800 MHz),4(1700 MHz), 7(2600 MHz), 8 (900 MHz), 12(700 MHz), 13(700 MHz), 19(850 MHz), 20(800 MHz), 28(700 MHz)
Receiver input Sensitivity	-98dBm to -114dBm: 700MHz to 2100MHz
Antenna	External FAKRA Code D

**Mention region of use while ordering.*

**Works with AT&T and T-Mobile in USA*

BUS & Signals	Operating Voltage
Power supply - OBD	+5 to +31V
Power supply - USB	+4.5 to +5.5V
CAN/CAN FD	+2 to +3V
LIN	0 to +24V
Digital Input	0 to +28V
Analog input	±10V

Influx ReXGen Air

Technical Specifications (Continued)

Function	Description
Transceiver Protection	Bus fault protection: ±58 V Thermal-shutdown protection (TSD) Under-voltage protection
Enclosure	PC+ ABS
IP Rating	IP 50
Dimension	L - 100 mm, W - 65 mm, H – 30 mm
Weight	112 Grams
Mounting Holes	4 mounting holes and screws
Stackable	Yes
Environmental Tolerance	**Working temperature** -40degC to +85degC; **Humidity** max 90%
Power Saving	Wake Up On CAN, Power Down Mode, Sleep Modes
Power Consumption	Normal Operation: 300 mA at 12 V Power Down Mode: <2 mA

lin
CAN
Errors
J1939
Accel
Analog
0101
Live
Encrypt
Influx
REXDESK
GNSS
Gyro
Run
Filter
Sleep
1011
0110
Dig In
CAN
Periodic Message Transmission
Log All
CAN
Periodic
Digital

Influx REXDESK

REXDESK

Configure logger and retrieve data

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

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

- Triggers—on parameter value or CAN Identifier
- Supports Command Line Interface
- ReXdesk convert aplication 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

Live Data

Monitor Live CAN trace.

CAN

Configure the CAN bus.

FTPs/Amazon S3

Store data using FTPs and Amazon S3

Encryption

Encrypts data/devices using Advanced Encryption Standard.

Periodic

Periodic CAN message transmission.

Sleep

Various sleep modes for minimal power consumption.

CAN Errors

Log CAN bus Errors.

Analog

Add an analogue channel and set the sampling rate and conversion formula

Accelerometer

Configure Accelerometer (IMU) channels.

Gyro

Configure Gyroscope (IMU) channels.

GNSS

Configure GNSS channels

More

Find more functions on our website

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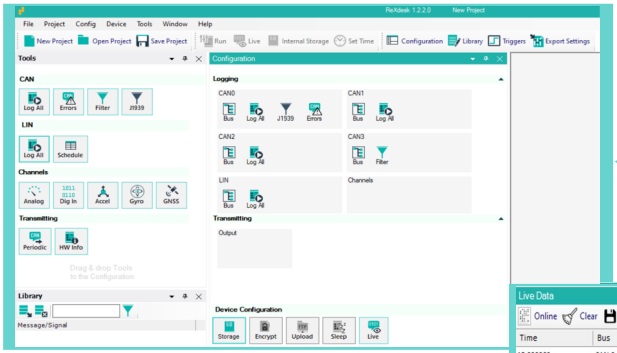
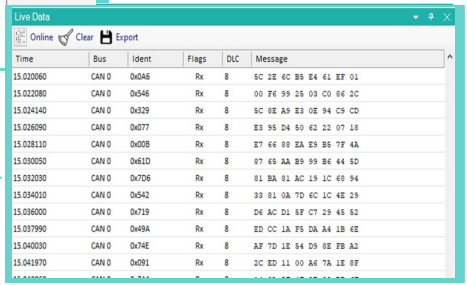
REXDESK

REXDESK

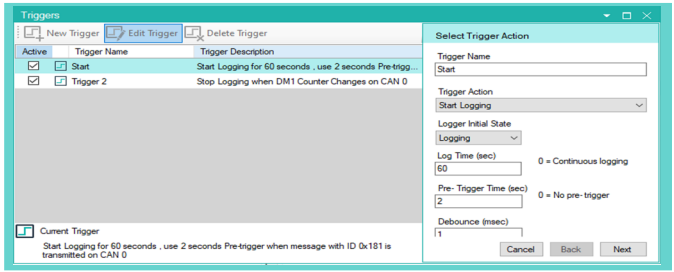
Configure logger and retrieve data



Tools and Configurations



Live Data and Trace View



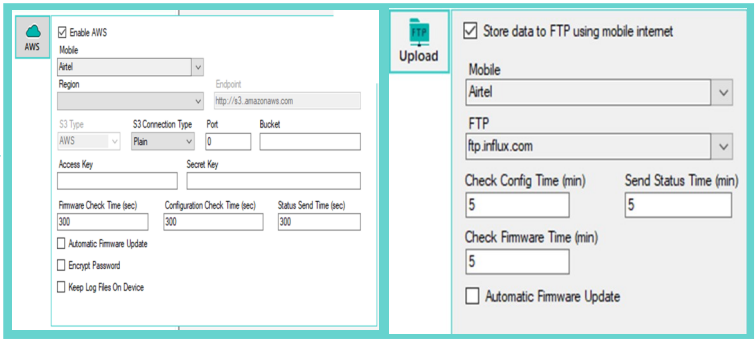
Multiple Trigger Settings

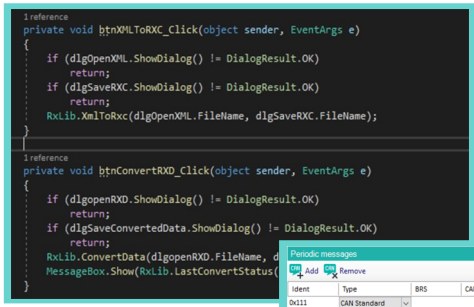
Influx REXDESK

REXDESK

Configure logger and retrieve data

FTPs/AWS



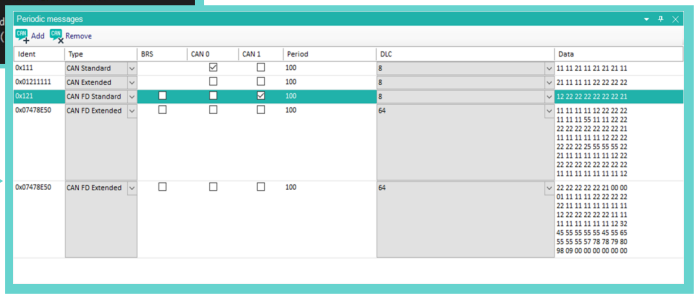


```
1 reference
private void btnXMLToRXC_Click(object sender, EventArgs e)
{
    if (dlgOpenXML.ShowDialog() != DialogResult.OK)
        return;
    if (dlgSaveRXC.ShowDialog() != DialogResult.OK)
        return;
    RxLib.XmlToRxc(dlgOpenXML.FileName, dlgSaveRXC.FileName);
}

1 reference
private void btnConvertRXD_Click(object sender, EventArgs e)
{
    if (dlgopenRXD.ShowDialog() != DialogResult.OK)
        return;
    if (dlgSaveConvertedData.ShowDialog() != DialogResult.OK)
        return;
    RxLib.ConvertData(dlgopenRXD.FileName, d
    MessageBox.Show(RxLib.LastConvertStatus(
}
```

.net DLLs available

Periodic CAN message transmission



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Influx
REXGEN AIR

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