Influx ReXgen Air

RE liable neXt GEN eration
data computing

Configuration and Settings

Data on Request: Key Data
From   To

Heartbeat Data

Cloud Server/
Amazon S3

T5   T4

T6

T7

T10   T9   N mins   T8

Fleet

Analyse

2021 V1.0

Influx
ReXgen Air

ReXgen Air
Reliable, Secure, Accurate
data computing that you can trust.
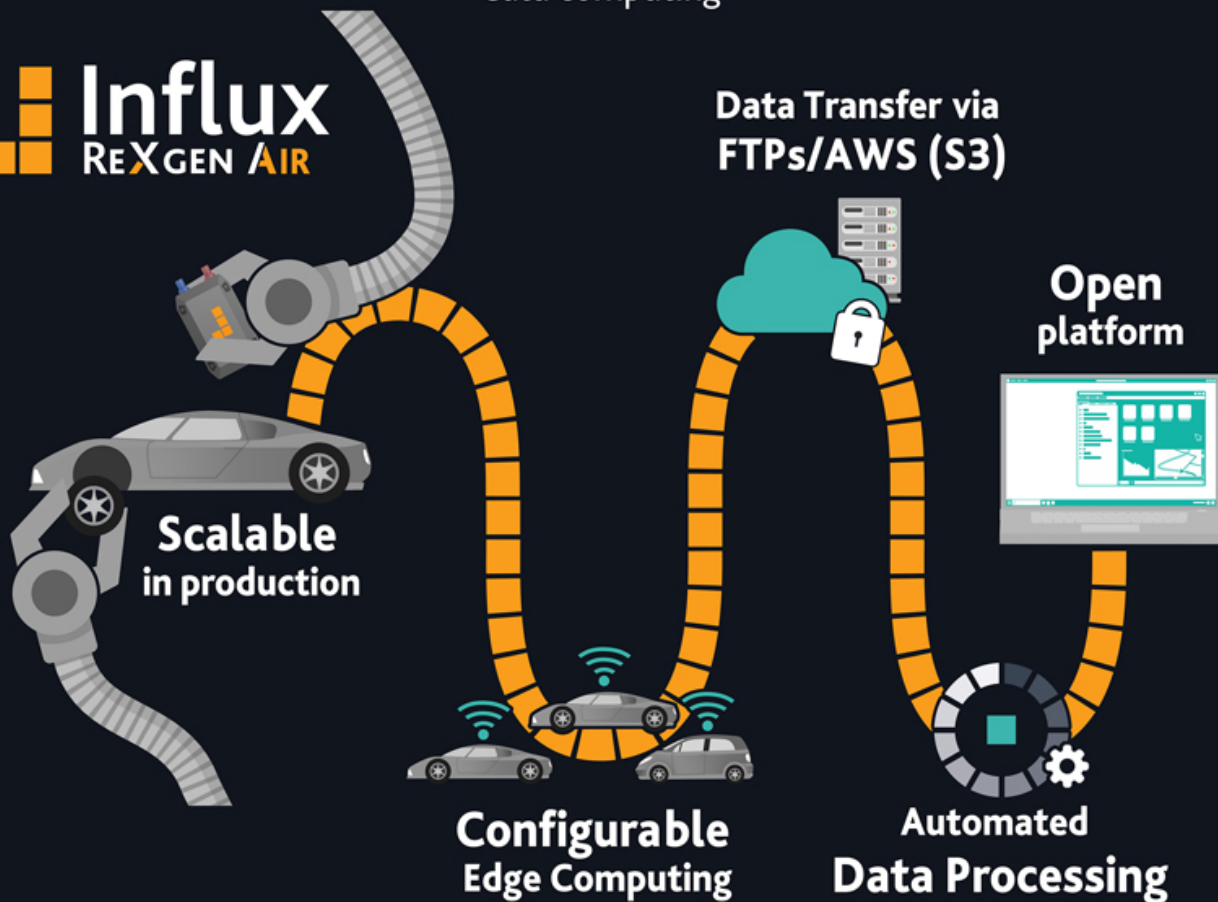
Key features

- Up to 4 CAN/CAN FD buses
- x2 Analog Inputs, x1 Power Stage Relay Driver (Optional)
- x1 LIN bus
- x2 Digital inputs
- Integrated 18Hz GNSS (u-Blox)
- Integrated IMU (6 axis)
- Encrypts data logs using Advanced Encryption Standard (AES)
- Open API or XML Schema provided
- Live CAN/CAN FD 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
- 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

eMMC Up to 32GB

CAN | can FD | lin | ⋀⋁ | △ | ⊓⊔ | ⊙
4G LTE | aws

P/N: INF2116.NN

ReXgen Air is a compact, robust, accurate and cost-effective
solution specially designed to become a 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.

It can securely transmit data over FTPs and Amazon S3 to be
easily set up on the local or cloud server. 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.
Also, supplied with a free powerful graphic interface
 application tool.

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

Influx 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

Functions	ReXgen AIR
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
PC Interfaces	Micro USB Type AB 2.0 interface (Standard version) USB interface via the Molex Mini50 connector (Optional)
Gyroscope	±125/±250/±500/±1000/±2000 dps full scale
Data Storage Capability	Up to 32 GB eMMC storage
Supported Protocols	CAN Monitoring (RAW CAN signals, SAE J1939 support)
Triggering	Trigger on CAN ID, CAN Signal, Digital Input Trigger on DM1 counter
LEDs	4
File Format Supported	RXD, RXE, ASAM MDF (.mf4), CSV, MATLAB, ASC, BLF

Influx ReXgen AIR

Technical Specifications

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 Configuration	Supplied with Influx ReXdesk configuration software, API, CLI
Configuration	XML based (Schema 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 Thresholds	Low < 0.8 V, High > 2.5 V (up to 28V)
Safe Applied Voltage	+/- 28 V

Technical Specifications

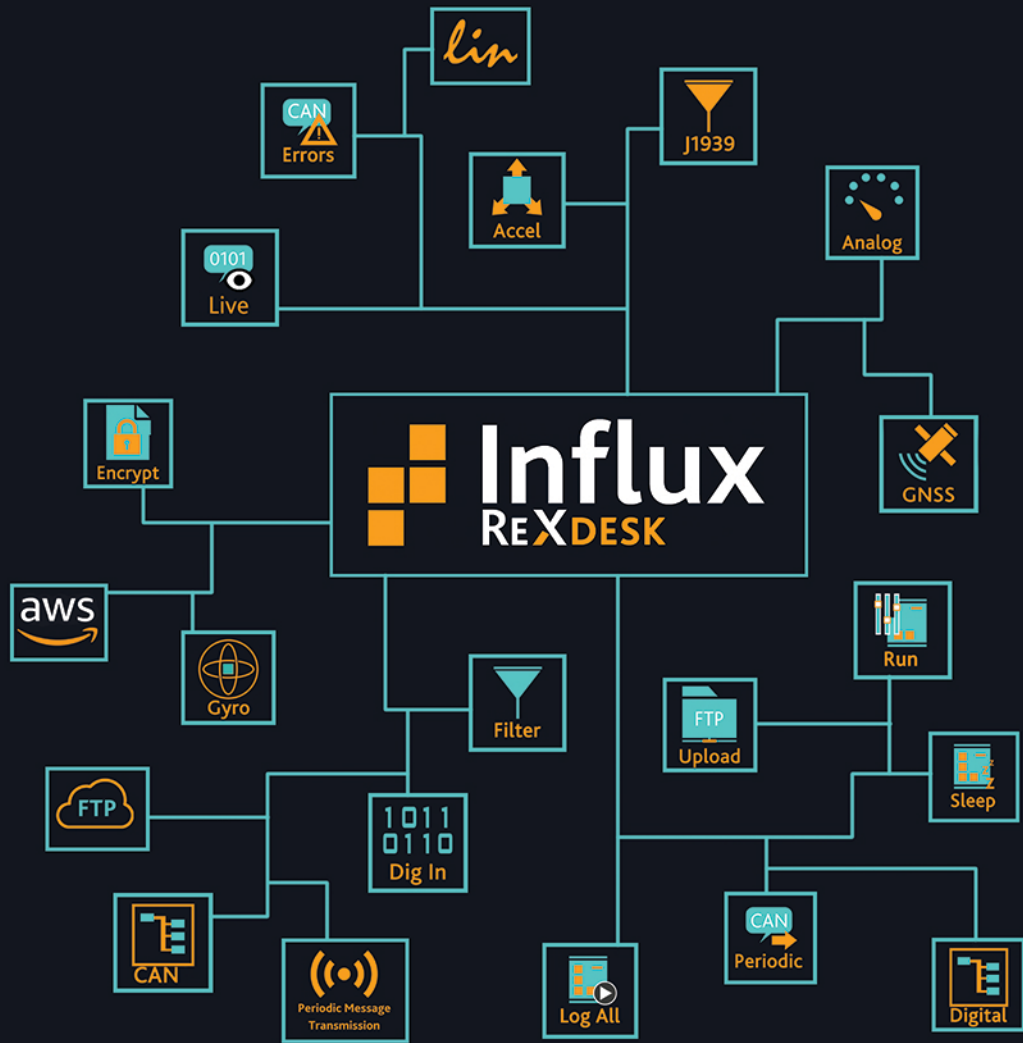| Integrated GPRS	LTE modem
Category	LTE CAT1*
LTE CAT1 Bands	LTE FDD Bands: 1(2100 MHz) ,2(1500 MHz), 3(1800 MHz),4(1700 MHz), 7(2600 MHz), 8(900 MHz), 12(700 MHz), 13(700 MHz), 19(850 MHz), 20(800 MHz), 28(700 MHz)
Receiver input Sensitivity	-98dBm to -114dBm: 700MHz to 2100MHz
Antenna	External FAKRA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

*Mention region of use while ordering.
*Works with AT&T and T-Mobile in USA

BUS & Signals	Operating Voltage
Power supply - OBD	+4.5 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

Function	Description
Transceiver Protection	Bus fault protection: ±58 V
	Thermal-shutdown protection (TSD)
	Under-voltage protection
Enclosure	PC+ ABS
IP Rating	IP50
Dimension	L - 100 mm, W - 65 mm, H – 30 mm
Weight	112g*
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,
	Wake Up On Movement*
Power Consumption	Normal Operation: 300 mA at 12 V
	Power Down Mode: <2 mA

CAN Errors

lin

J1939

Accel

Analog

Live

Encrypt

Influx ReXDESK

GNSS

aws

Gyro

Filter

Run

FTP Upload

Sleep

FTP

Dig In

CAN Periodic

Digital

CAN

Periodic Message Transmission

Log All

Influx ReXDESK

ReXdesk is our freely distributable configuration and general-purpose software tool to work with the ReXgen. Designed to make CAN bus data logging easier.

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

- Supports industry standard DBC files
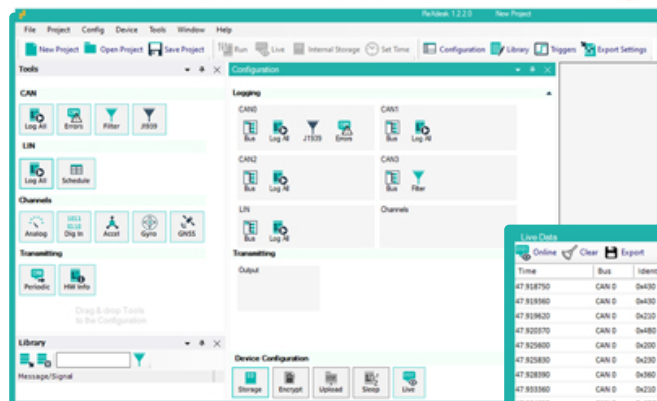- Supports standard and extended messages

ReXDESK
Configure logger and retrieve data

- Triggers, on parameter value or CAN Identifier
- Supports FTPs/AWS(S3) data transfer over LTE
- Supports Command Line Interface
- ReXdeskconvert console application available
- Supports J1939
- CAN error logging and Live CAN trace viewer
- Fast data retrieval and export to other format files
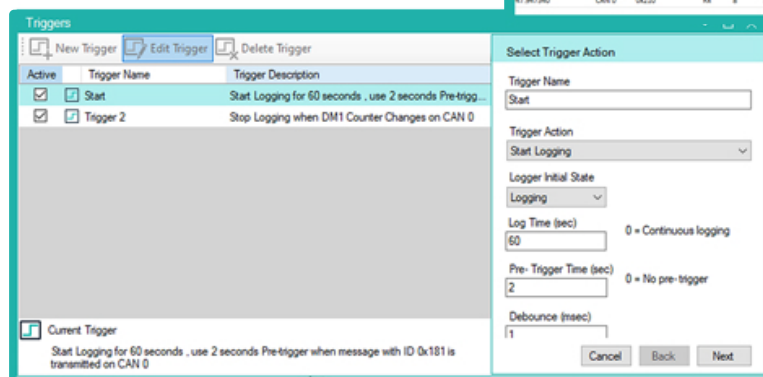- Software Operating System: Windows

Live Data
Allows monitoring of Live CAN data.

CAN
Allows to configure the CAN bus.

FTPs/Amazon S3
Allows storing data using FTPs and Amazon S3

Encryption
Encrypts data logs/devices using Advanced Encryption Standard.

Periodic
support periodic CAN/CAN FD message transmission.

Sleep
Supports various sleep modes, for minimal power consumptions.

Can Errors
Allows to log CAN bus Errors.

Analog
Allows to add an analogue channel and set the sampling rate and conversion formula.

Accelerometer
Allows to configure Accelerometer (IMU) channels.

Gyro
Allows to configure Gyroscope (IMU) channels.

GNSS
GNSS: Allows to configure GNSS channels

More
Find more functions on our website

Influx ReXGEN Air

ReXDESK
Configure logger and retrieve data

Tools and Configurations

Live Data and Trace View

Multiple Trigger Settings

Influx ReXGEN Air

ReXDESK
Configure logger and retrieve data

FTPs/AWS (S3)

☑ Enable AWS

Mobile
Airtel

Region

Endpoint
http://s3.amazonaws.com

S3 Type
AWS

S3 Connection Type
Plain

Port
0

Bucket

Access Key

Secret Key

Firmware Check Time (sec)
300

Configuration Check Time (sec)
300

Status Send Time (sec)
300

☐ Automatic Firmware Update
☐ Encrypt Password
☐ Keep Log Files On Device

FTP Upload

☑ Store data to FTP using mobile internet

Mobile
Airtel

FTP
ftp.influx.com

Check Config Time (min)
5

Send Status Time (min)
5

Check Firmware Time (min)
5

☐ Automatic Firmware Update

```
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, dlgSaveConvertedData
    MessageBox.Show(RxLib.LastConvertStatus());
}
```

.net DLLs available

Periodic CAN message transmission

Periodic messages

Add   Remove

Ident	Type	BRS	CAN 0	CAN 1	Period	DLC	Data
0x111	CAN Standard		☑	☐	100	8	11 11 21 11 21 21 21 11
0x01211111	CAN Extended		☐	☐	100	8	21 11 11 11 22 22 22 21
0x121	CAN FD Standard	☐	☐	☑	100	8	12 22 22 22 22 22 22 21
0x07478E50	CAN FD Extended	☐	☐	☐	100	64	11 11 11 11 11 22 22 22 22 22 11 59 11 11 22 22 22 22 22 22 25 55 55 55 22 21 11 11 11 11 11 22 22 11 11 11 11 11 11 11 11 32
0x07478E50	CAN FD Extended	☐	☐	☐	100	64	22 22 22 22 21 00 00 01 11 11 11 22 22 22 02 11 11 11 22 22 22 11 11 11 11 11 22 22 32 45 55 55 55 55 45 55 65 55 55 55 57 78 78 79 80 98 09 00 00 00 00 00 00 00

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