# LIN to CAN
Gateway

The LIN to CAN Gateway, developed by Sioux Logena answers the need in the market to connect in-vehicle LIN networks and exchange data to the CAN network.

Nowadays we see an increase of LIN Modules (Sensors, Switches,..) in modern vehicles which all are in need to exchange this information to the CAN network. With its specific design the LIN to CAN gateway is able to collect LIN bus information and send these messages to the CAN bus network in the specific CAN format.

In need of gating messages between LIN (master or slave) and CAN? Do you have a need for implementing an existing LIN device in an CAN network? This LIN to CAN gateway offers you this option.

At your convenience Sioux Logena can configure the gateway to match your specific needs and application.
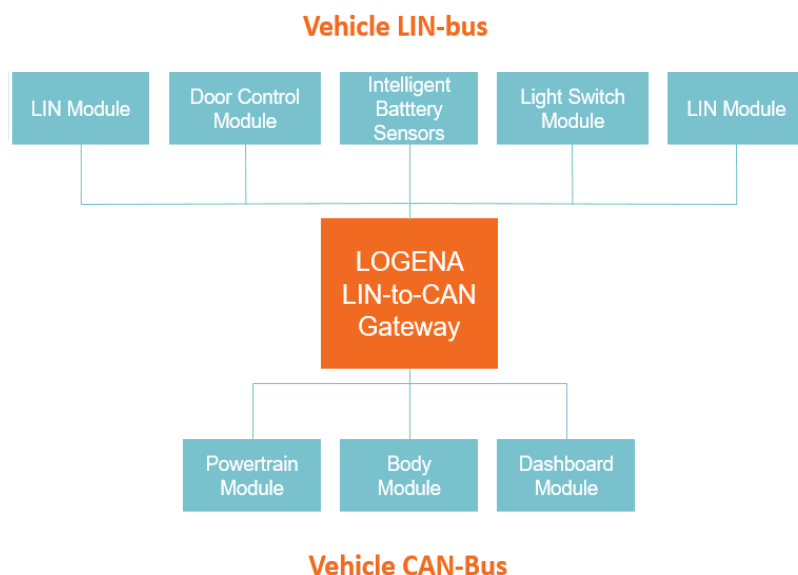
Knowledge and expertise

Sioux Logena is specialised in developing and integrating software and hardware applications in the automotive industry. With our expert knowledge, Sioux Logena is the technical partner of leading companies in the market. Also specific products like the Logena CAN to CAN gateway and a Door Control Unit, help us to support our clients.

Connections
• CAN
• LIN (Master / Slave)

Features
Free configurable / programmable
• Operating voltage: 8 - 32 V
• Protection class: IP67
• EMC certified
• Green/Red LED indicator
• MOLEX MX150 Series connector
• Load dump / reverse polarity protection
• 120 Ω Termination resistor switchable via software
• CAN baud rates 125 / 250 / 500 / 800 kb/s
  and 1 Mb/s
• LIN Master / LIN Slave

Vehicle LIN-bus

| LIN Module | Door Control Module | Intelligent Batttery Sensors | Light Switch Module | LIN Module |

LOGENA LIN-to-CAN Gateway

| Powertrain Module | Body Module | Dashboard Module |

Vehicle CAN-Bus

SIOUX LOGENA
AUTOMOTIVE

SOURCE OF YOUR TECHNOLOGY

Technical Specifications

Specifications	
Product name	LIN-to-CAN Gateway
Sioux Logena part number	1000429

System	
CPU	Infineon 96 Mhz
RAM	1.7 Kbytes
Wakeup	+15 and via CAN

CAN bus characteristics	
Baud rates	Selectable: 125 / 250 / 500 / 800 kb/s and 1 Mb/s
Protocols	Free configurable / programmable (e.g. SAE J1939, etc.)
Hardware protocol	CAN V2.0a / CAN V2.0b
CAN bus connections	1x (CAN1)
Termination resistors	1x 120 Ω switchable via software

LIN bus characteristics	
Baud rates	19.2 Kbit/s @ 40 meter bus length
Data frame	Variable length of 1 to 8 bytes
LIN bus connections	1 x (Master) or 16 x (Slave)

Power supply	
Operating supply voltage range	8 - 32 V DC
Power consumption (standby)	< 0.2 mA at 24 V
Power consumption (operating)	< 75 mA at 24 V
Load dump protection	120 V / 400ms

Software	
Gating message configuration	Gate only specific messages from LIN bus to CAN bus. Gate all messages from LIN bus to CAN bus, except a specific block list (limited number of gated messages).
Manipulated message configuration	Specific messages can be recognized and modified. Data can be copied from different messages into one or more proprietary message. Data can be limited or modified. It is possible to gate between different standards, identifiers can be modified.
Message frequency	The message repetition rate can be modified.
Message priority	If more than one message is used to compare or modify data into a proprietary message, the selection from incoming messages can be selected on message-priority level.

Hardware characteristics	
Environmental protection class	IP67
Operating temperature range	-30 to +70 °C
Storage temperature range	-40 to +90 °C
EMC specification	• Pre-compliant with Automotive directive 2004/104/EC: • Radiated and conducted emission • Radiated and conducted immunity • Up to 200 V/m
Connector	MOLEX MX150L Series, Part Nr. 19418 0026
Contacts	MOLEX MX150L Series, Part Nr. 19420-0001, (1.5 – 2.5 mm²)
Dimensions	117 x 55 x 48 mm (L x W x H)

Pinning		Pinning	
1	KL15 (Ignition)	7	CAN-L
2	KL30 (Battery)	8	CAN-H
3	KL31 (GND)	9	CAN-GND
4	LIN	10	ISP-RxD
5	Not assigned	11	ISP-TxD
6	LIN-GND	12	ISP-Prog