CAN to CAN
Gateway

The CAN to CAN Gateway, developed by Sioux Technologies answers the need in the market to interconnect in-vehicle CAN networks or divide two CAN networks.

Nowadays we see an increase of Electronic Control Units in modern vehicles whom all need to exchange information over the CAN bus, with high CAN bus-loads as a direct result.

With its specific design the CAN to CAN gateway is able to connect CAN busses operating on different baud rates and CAN protocols, while filtering prior programmed messages. In need of more than two divided CAN busses? Implementing multiple CAN to CAN gateways offers you this option.

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

Knowledge and expertise
Sioux is specialized in developing and integrating software and hardware applications in the automotive industry. With our expert knowledge, Sioux is the technical partner of leading companies in the market.
Also specific products like the Tachograph Replacement Unit and a Door Control Unit, help us to support our clients.
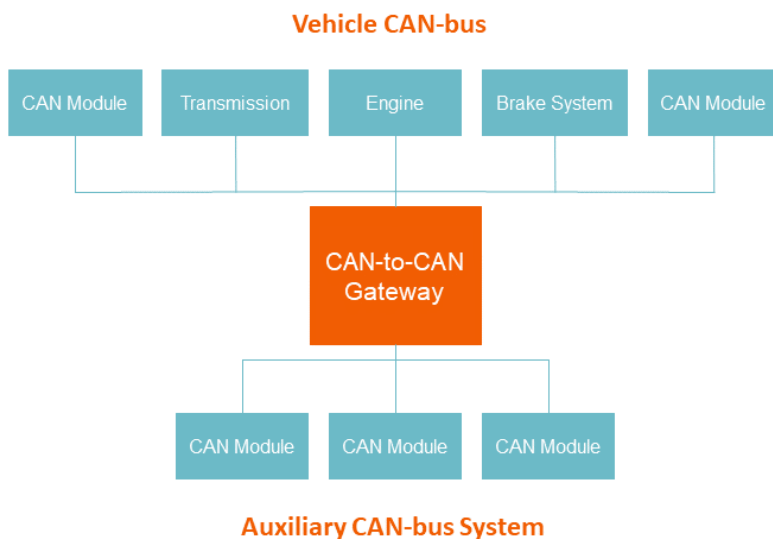
Connections
• 2 x CAN

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

Vehicle CAN-bus

| CAN Module | Transmission | Engine | Brake System | CAN Module |

CAN-to-CAN Gateway

| CAN Module | CAN Module | CAN Module |

Auxiliary CAN-bus System

SIOUX
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Technical Specifications

Specifications	
Product name	CAN-to-CAN Gateway
Sioux part number	1000131

System	
CPU	Infineon 96 Mhz
RAM	256 Bytes
Wakeup	+15 and via CAN

CAN bus characteristics	
Baud rates	Infineon 96 Mhz
Protocols	Free configurable / programmable (e.g. SAE J1939, etc.)
Hardware protocol	CAN V2.0a / CAN V2.0b
CAN bus connections	2x (CAN1 / CAN2)
Termination resistors	2x 120 Ω switchable via software

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 one CAN bus to another. Gate all messages from one CAN bus to another, 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 +85 °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)
Material	Polystyrene (STYRON 485) enclosure filled with epoxy resin

Pinning		Pinning	
1	KL15 (Ignition)	7	CAN2-L
2	KL30 (Battery)	8	CAN2-H
3	KL31 (GND)	9	CAN2-GND
4	CAN1-L	10	ISP-RxD
5	CAN1-H	11	ISP-TxD
6	CAN1-GND	12	ISP-Prog