

Description

The Sendyne SIM100MOD is the first high voltage isolation monitoring device for EV/HEVs capable of operating correctly even when the battery is active, and experiencing large voltage variations.

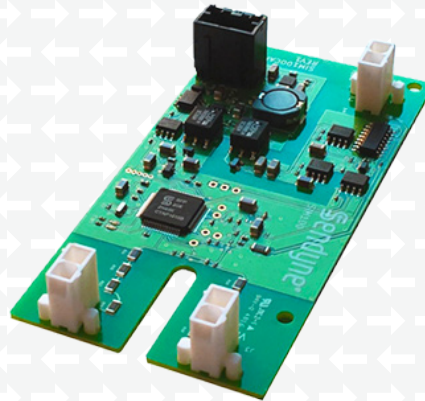
The SIM100MOD continuously monitors the isolation resistance between a vehicle's IT (Isolated Terra) power system and chassis for deterioration of insulation and potentially dangerous levels of leakage current. The SIM100MOD detects not only resistive leakages but also capacitively stored energy that could be harmful to human operators.

Due to a proprietary, patented and patent-pending advanced algorithm, the module is capable of detecting all sources of leakage, including multiple, simultaneous symmetrical and asymmetrical faults, as well as resistive paths between the chassis and points in the battery with the same potential as the chassis. In the case of an insulation fault, the unit identifies the relative position of the fault in relation to the battery's terminals.

Battery-connected V_{x1} (V_p) and V_{x2} (V_n) voltage inputs can measure ± 1500 V in reference to Chassis (0 V). Communications are achieved via an isolated CAN 2.0B interface (250 or 500 kbit/s). Power supply input voltage range is 5 V to 53 V, and the unit operates in a wide temperature range of -40 °C to $+105$ °C.

Applications

- Monitoring HEV and EV power systems
- DC Charging stations
- Battery packs



Features

- Automotive rated
- Isolation monitoring uncertainty ± 5 %
- Isolated CAN2.0B interface (250 or 500 kbit/s)
- Reports battery voltage
- Measures voltage for each battery terminal to chassis
- Measures and reports value of capacitance from each battery terminal to chassis
- Measures and reports modeled leakage resistance per model adapted by safety standards
- Calculates and reports energy stored by total capacitance between battery and chassis
- Reports calculated isolation resistance in Ω/V
- Continuously measures voltage lines to battery; reports inadequate connections
- Continuously monitors connection to chassis; reports inadequate connections
- Built-in galvanically isolated and intrinsically leakage-safe excitation source

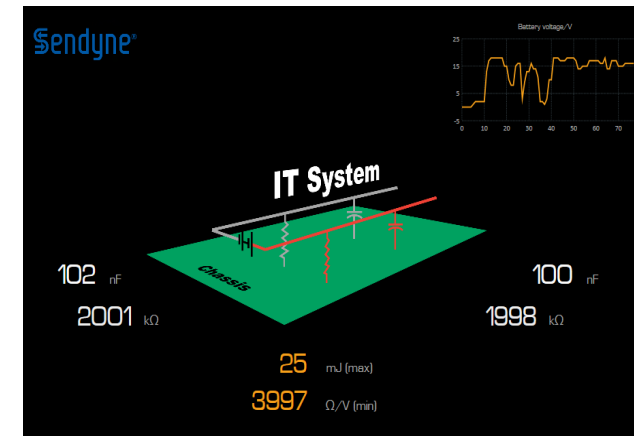
Sendyne®

Sendyne® Sensing Products Family

SIM100MOD

*Automotive grade,
isolation monitor for
unearthed DC systems,
operates correctly under
all load conditions*

Sendyne® SIM100MOD Software Home Screen



Ordering Information

Part Number	Description
SIM100MOD-XXX	SIM100MOD module
SIM100KIT-XXX	SIM100MOD module, CAN to USB protocol converter for PC communications, Windows software and cables

SIM100xxx-XXX

CAN bus	Voltage	Connectors & CAN termination
A - 500 kbit/s	L - 100 V	A - All connectors, termination
B - 250 kbit/s	M - 960 V	B - All connectors, no termination
	N - 1500 V	C - No connectors, termination
		D - No connectors, no termination

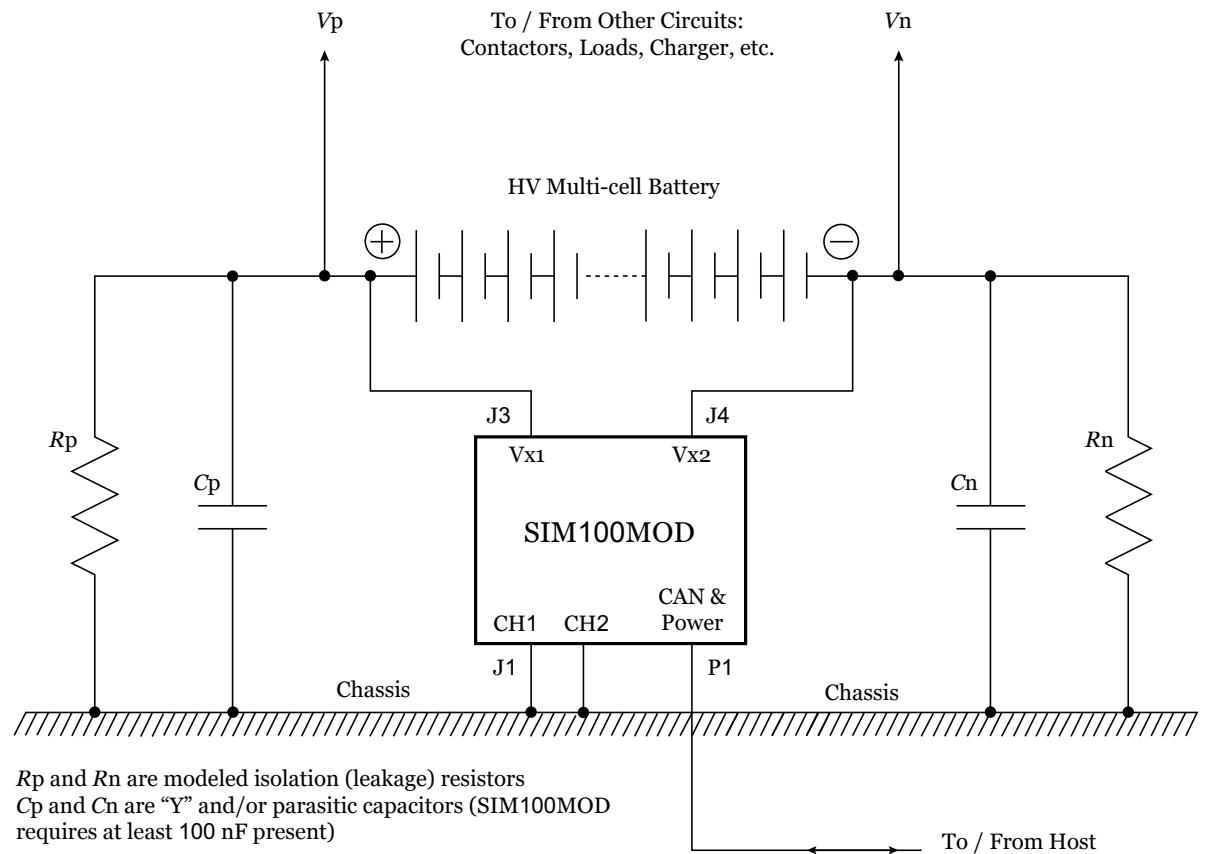
Product Documentation

SIM100MOD Datasheet

SIM100 CAN2.0B Protocol Document

SIM100MOD Safety Manual

Typical Application for the Sendyne SIM100MOD



Contact

Sendyne Corp.

250 West Broadway
New York, NY 10013

info@sendyne.com

www.sendyne.com

Information in this document is provided in connection with Sendyne products and is believed to be accurate and reliable. However, Sendyne assumes no responsibility for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications are subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of Sendyne. Sendyne, and the Sendyne logo are trademarks of Sendyne Corporation. Other names and brands may be claimed as the property of others. © 2019 Sendyne Corp. All rights reserved.