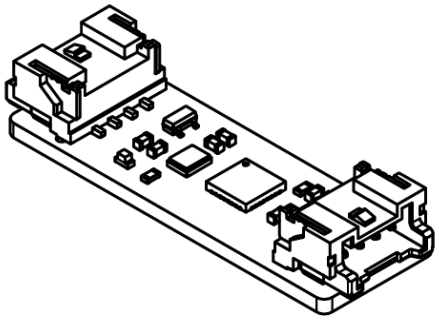
capuchin

GorillaCAN™ Interface Module

Electrical Datasheet

Rev A // Hardware Version v0.1



Low-profile sensor-to-CAN interface module designed to enable connectivity to common sensor types.

Features

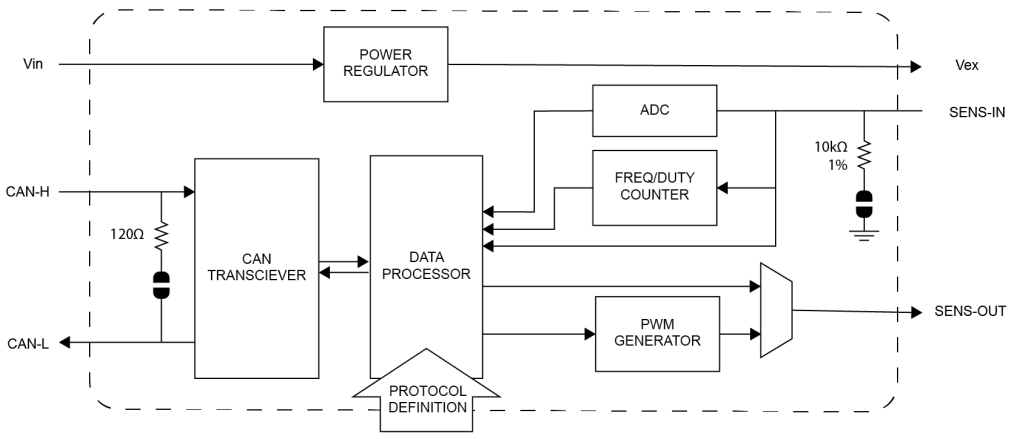
- Configurable digital/analog input with selectable pull-up and pull-down resistors.
- CAN switchable output
- Regulated 5V excitation supply output

- 6-15V supply range supports vehicle batteries without need for an external regulator.
- 500kBaud CAN Interface
- Selectable 120 Ω CAN termination resistor

- Low profile, designed to be positioned near to sensors in peripheral locations.
- Positive locking connectors for automotive & motorsport application.

- Position measurement via potentiometers (e.g steerage angle, damper compression)
- Wheel speed measurement via switched hall devices.
- Temperature measurements via NTC/RTD devices.

Block Diagram



Warning

When connected to vehicles, CAN networks pose danger if not properly configured. GorillaCAN is currently a development product. Use at your own risk. No liability for claims, damages, etc is implied.

Configuration

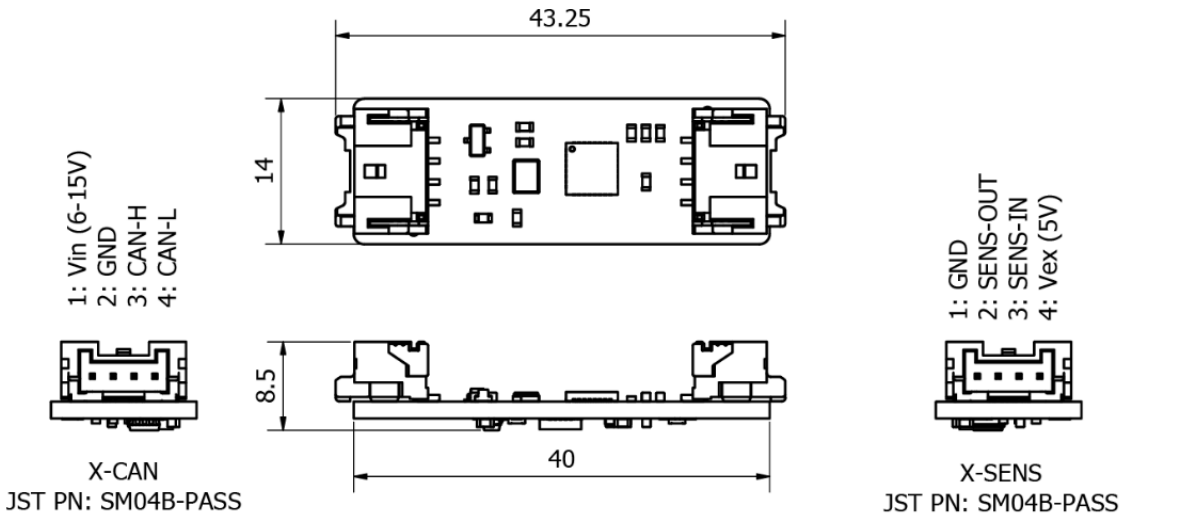
SENS_IN mode (digital, analog, frequency) and SENS_IN/SENS_OUT messages configurable over CAN.

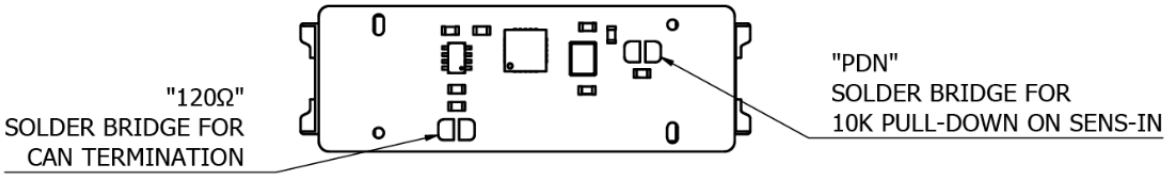
More information: https://github.com/Capuchin-LTD/documentation/blob/main/README.md

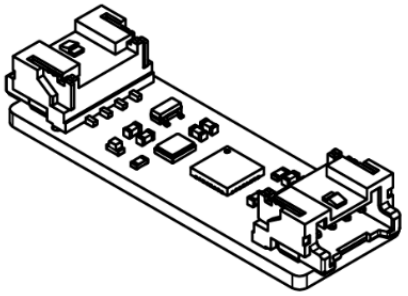
Specification

Quantity	**Value**	**Unit**
Input Supply Voltage (Vin)	6-15	V
Input Supply Current Draw	200 (max)	mA
Output Excitation Voltage (Vex)	5.0	V
Output Excitation Current	50	mA
SENS-IN Voltage Range	0.0-5.0V	V
SENS-IN Threshold (Digital Mode)	2.6 (typ.)	V
SENS-IN Resolution (Analog Mode)	4.8	V
SENS-OUT Von	0.0	V
SENS-OUT Voff	5.0	V
SENS-OUT Iout	±30	mA

Pinout & Mechanical Drawing





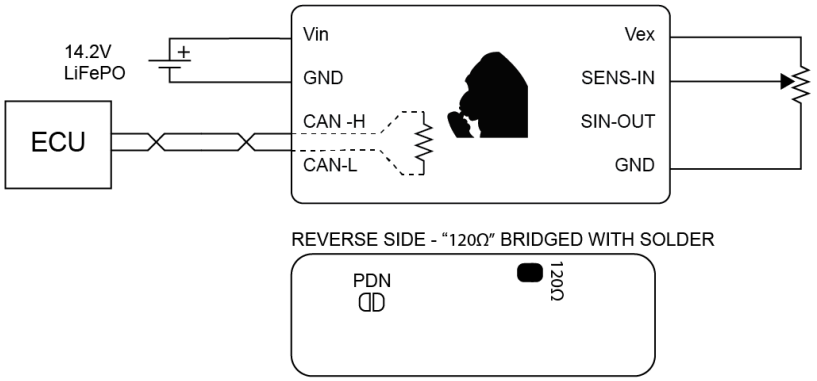


PULL-UP RESISTOR
DEFINED IN SOFTWARE

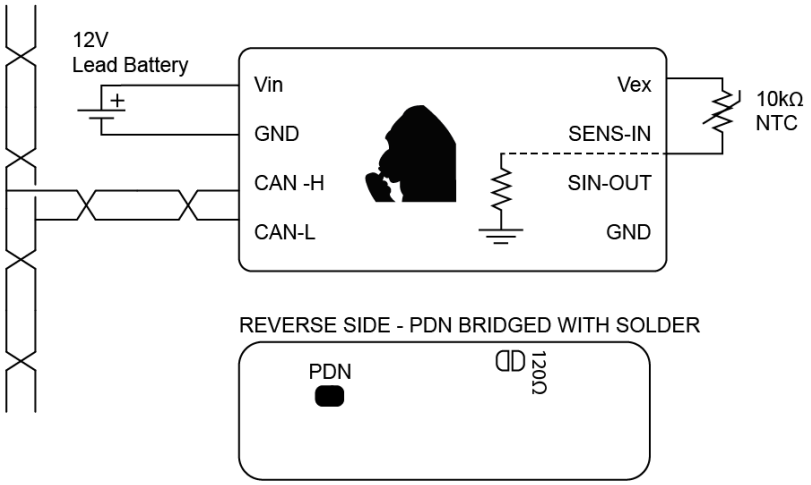
ALL DIMS: REF ONLY
UNITS: MM

Application Examples

Potentiometer (e.g steering angle)



NTC Thermistor



Open-Drain Hall Effect Sensor