

ENEPAQ | Datasheet

Power In Shape ———

UART2CAN v1.0 converter



Revision B, 2022-03-24

INTRODUCTION

UART2CAN is a very compact isolated UART to CAN bus converter, designed to be used with *Enepaq Tiny BMS (Battery Management System)* device. With standard firmware, it provides a robust isolated interface between *Tiny BMS* and various user side CAN bus devices. *Enepaq* open CAN bus protocol to communicate with the *Tiny BMS* device is provided in the *Tiny BMS communication protocols* documentation.

FLEXIBILITY

User-upgradeable firmware allows quick updates, bug fixes, new features and other improvements, such as client-specific functionality, which allows to connect *UART2CAN* converter to any other user side embedded system and gives an instant CAN bus connectivity.

FEATURES

- Supports 30 A low power and 150 A high power *Tiny BMS* versions
- Bootloader for firmware upgrades
- Ultralow power sleep mode when no data received on CAN bus or UART interface and instant wakeup when data received
- Two LED indicators for CAN bus and UART interface activity monitoring
- CAN bus bit rates up to 1Mbit/s
- Provides CAN bus galvanic isolation up to 2500 V_{RMS}
- Powered from UART side, no power needed on CAN side
- Compact plastic case 60x35x15 mm

APPLICATIONS

- Battery systems with integrated *Tiny BMS* device for personal transportation, industrial equipment, robotics, stationary solar and wind power storage.

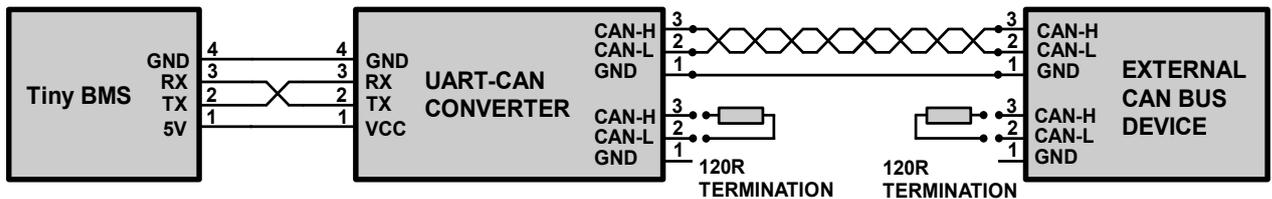


Figure 1: A typical CAN-UART converter connection diagram

ELECTRICAL CHARACTERISTICS

Table 1: Product characteristics (all parameters rated at 25 °C if not specified otherwise)

Parameter	Comment	Min.	Typ.	Max.	Unit
Supply voltage	Operation range	3.3	5	5.5	V
Supply current	Active mode	-	30	50	mA
	Sleep mode	-	8	10	µA
UART characteristics	Baud rate	-	115200	-	bps
	Data bits	-	8	-	b
	Stop bits	-	1	-	b
	Parity	-	-	-	-
	Flow control	-	-	-	-
CAN bit rate		-	500 k	1 M	bps
Isolation		-	1000	2500	V _{RMS}
Dimensions		-	60x35x15	-	mm

Document revision history

Revision	Date	Description
A	2018-07-30	Initial release.
B	2022-03-24	Company rebranded to Enepaq.