UNIT Electronics Technical Datasheet - DRV2605L

DRV2605L



Module DRV2605L Haptic Motor Driver

v1.0 2025-09-29

Rev. A

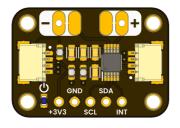
Professional electronic component

PRODUCT OVERVIEW

Professional electronic module designed for reliable performance and easy integration with modern development platforms.

PRODUCT VIEWS

TOP VIEW



Component placement and connectors

BOTTOM VIEW



Underside components and connections

KEY TECHNICAL SPECIFICATIONS

CONNECTIVITY

Interfaces: I2C, SPI, UART, ADC

Connector: QWIIC + Pin Headers

KEY FEATURES

Microcontroller

PY32F003L24D6TR (32-bit ARM Cortex-M0)

ADC

12-bit ADC with multiple channels

SPI

1 channel

UART 1 channel Clock Speed Internal

Up to 24 MHz

Memory

16KB Flash, 2KB SRAM

I2C

1 channel

ADDITIONAL TECHNICAL INFORMATION

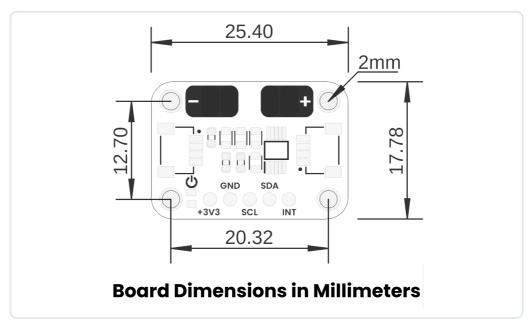


FEATURE	DESCRIPTION
Compatibility	Works seamlessly with Cocket Nova (SDCC Compiler), RP2040 and ESP32 (MicroPython)
Integrated Development Environments	Thonny IDE for MicroPython (ESP32 & RP2040), Visual Studio Code for Cocket Nova (SDCC)
Open Source	Hardware and software licensed under MIT

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HARDWARE DOCUMENTATION

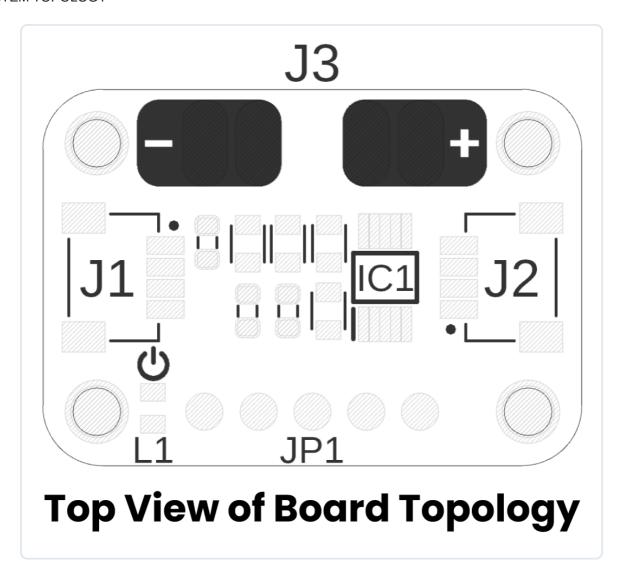
MECHANICAL DIMENSIONS



Physical dimensions and mounting specifications (measurements in millimeters)

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SYSTEM TOPOLOGY



Connection topology and system integration diagram

Click image to open in full size

COMPONENT REFERENCE

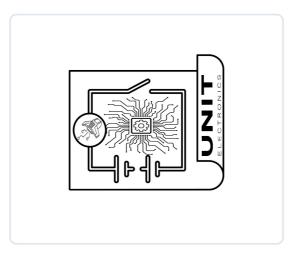
REF.	DESCRIPTION
IC1	DRV2605 Haptic Motor Driver
L1	Power On LED
J1	1mm JST Connector compatible with QWIIC and STEMMA QT Connector
J2	1mm JST Connector compatible with QWIIC and STEMMA QT Connector Jack
J3	Output for haptic motor
JP1	Header for Input Signals

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CIRCUIT SCHEMATIC



Complete circuit schematic showing all component connections

View Complete Schematic PDF

PIN DESCRIPTION

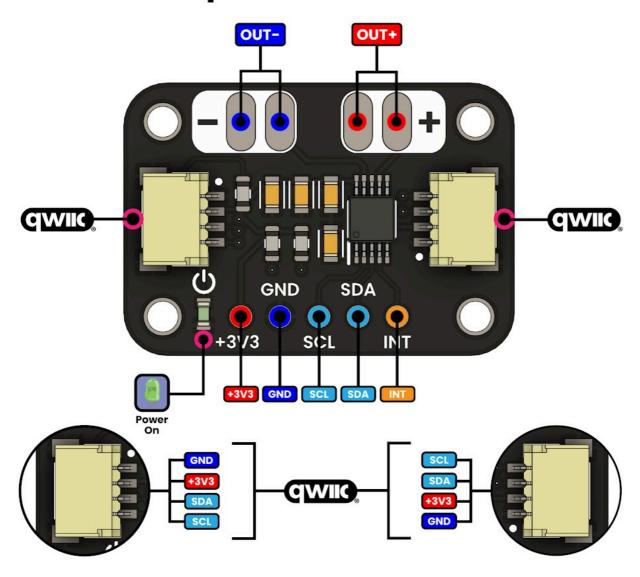
Detailed pin assignment and electrical specifications

SIGNAL DESCRIPTION		
FUNCTION	NOTES	
Power Supply	3.3V Power Supply	
Ground	Common ground reference	
I2C SCL	Serial Clock Line	
I2C SDA	Serial Data Line	
Power Supply	GPIO	
Motor -	Motor negative output	
Motor +	Motor positive output	
FUNCTION	NOTES	
FUNCTION Power Supply	NOTES 3.3V Power Supply	
Power Supply	3.3V Power Supply	
Power Supply Ground	3.3V Power Supply Common ground reference	
Power Supply Ground I2C SCL	3.3V Power Supply Common ground reference Serial Clock Line	
Power Supply Ground I2C SCL I2C SDA	3.3V Power Supply Common ground reference Serial Clock Line Serial Data Line	

PIN CONFIGURATION LAYOUT

Physical connector layout and pin positioning

Haptic Motor Driver



Complete pin configuration diagram showing all connectors, pin assignments, and electrical connections for proper integration

HARDWARE SPECIFICATIONS

Complete technical documentation and specifications

BOARD DIMENSIONS
<u>Dimensions</u>
BOARD TOPOLOGY
Topology
Ref. Description

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