



# KAmoD CAN TJA1051



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Źródło: [https://wiki.kamamilabs.com/index.php?title=KAmoD\\_CAN\\_TJA1051](https://wiki.kamamilabs.com/index.php?title=KAmoD_CAN_TJA1051)

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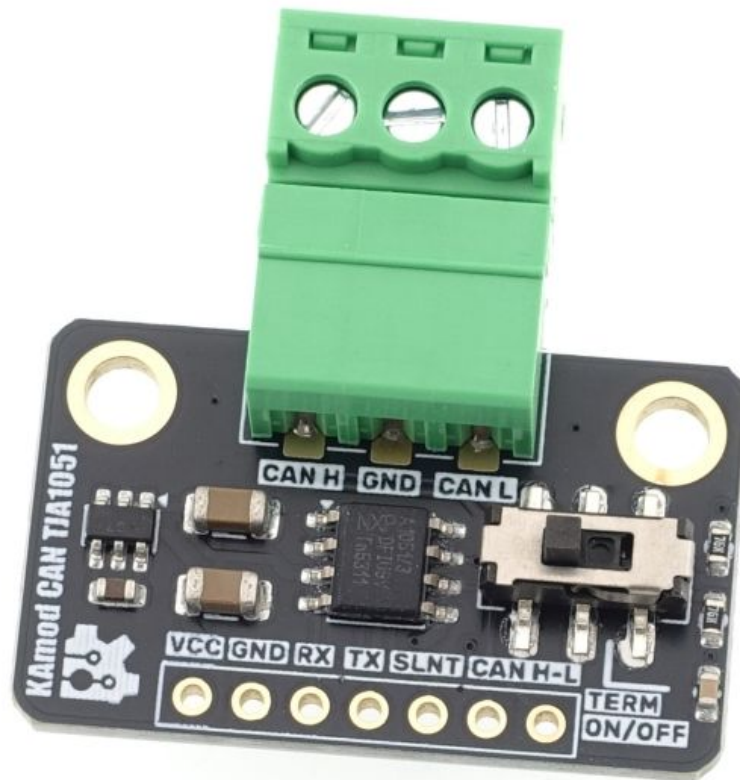
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# Description

## KAmoD CAN TJA1051 - CAN transceiver module working with 3 V and 5 V power supply systems

KAmoD CAN TJA1051 features an NXP TJA1051T/3 CAN transceiver, which converts signals between the CAN bus and any CAN controller with exposed RX and TX signals. Additionally, the module is equipped with a step-up voltage converter that ensures proper transceiver operation even when powered with a 3 V supply. The module board also features a switch allowing a 120  $\Omega$  terminating resistor to be connected between the CAN-H and CAN-L lines, facilitating connection to installations in various configurations.



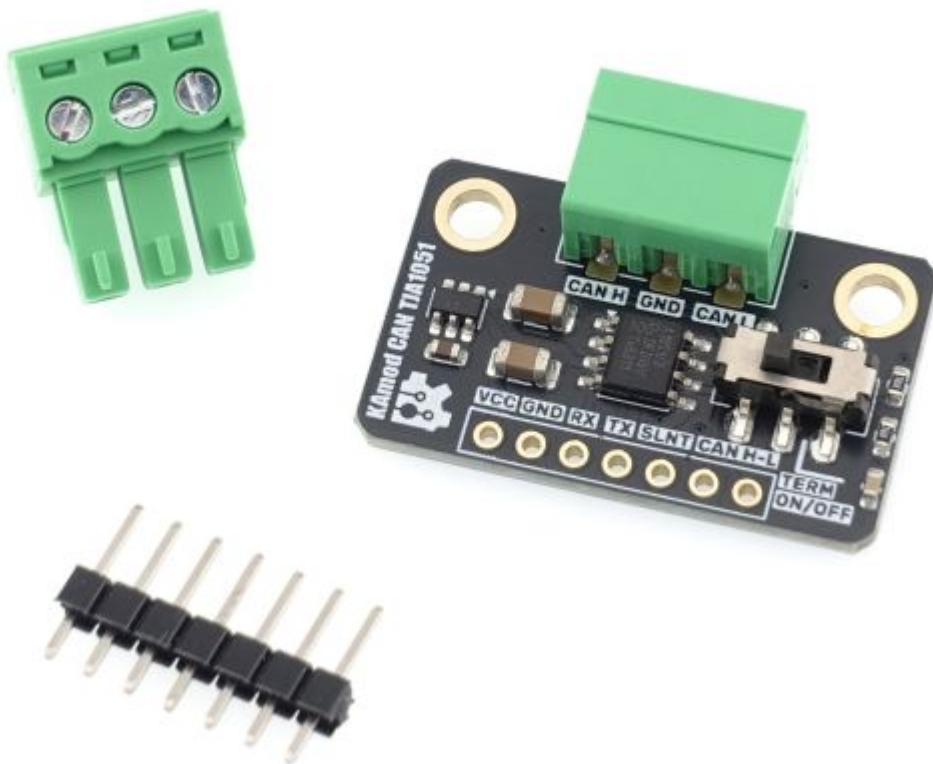
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## Basic Parameters

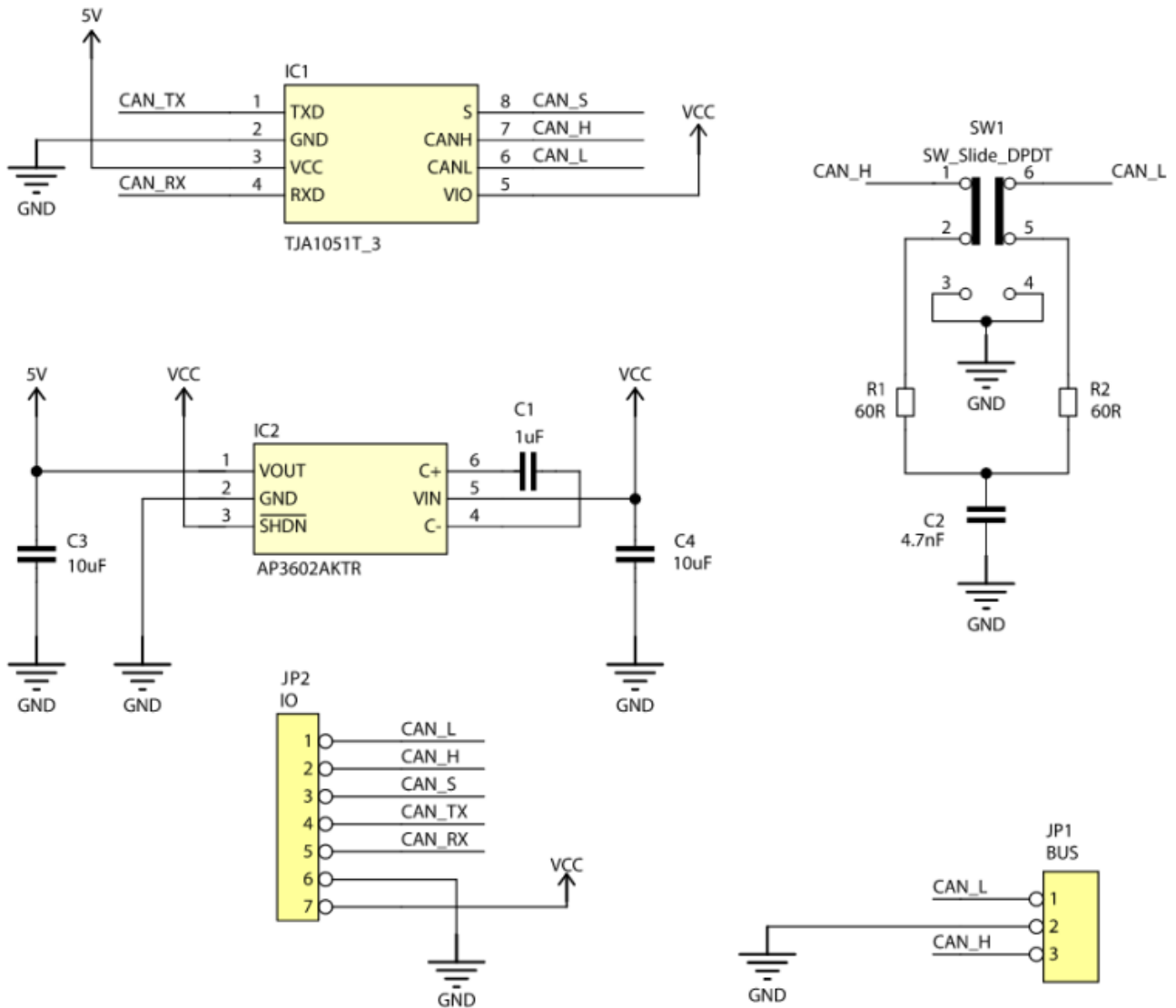
- Transceiver type: NXP TJA1051T/3
- CAN communication speed: up to 1 Mbps
- Output signals: CAN-H, CAN-L
- Control signals: RX, TX, and SLNT (Silent)
- Connectable 120  $\Omega$  terminating resistor between CAN-H and CAN-L
- Power supply: 3...5 VDC
- Board dimensions: 32 × 19 mm.

## Standard Equipment

| Component         | Description                                                            |
|-------------------|------------------------------------------------------------------------|
| KAmoD CAN TJA1051 | - Assembled and tested module<br>- 1 x 7-pin male header 2.54 mm pitch |

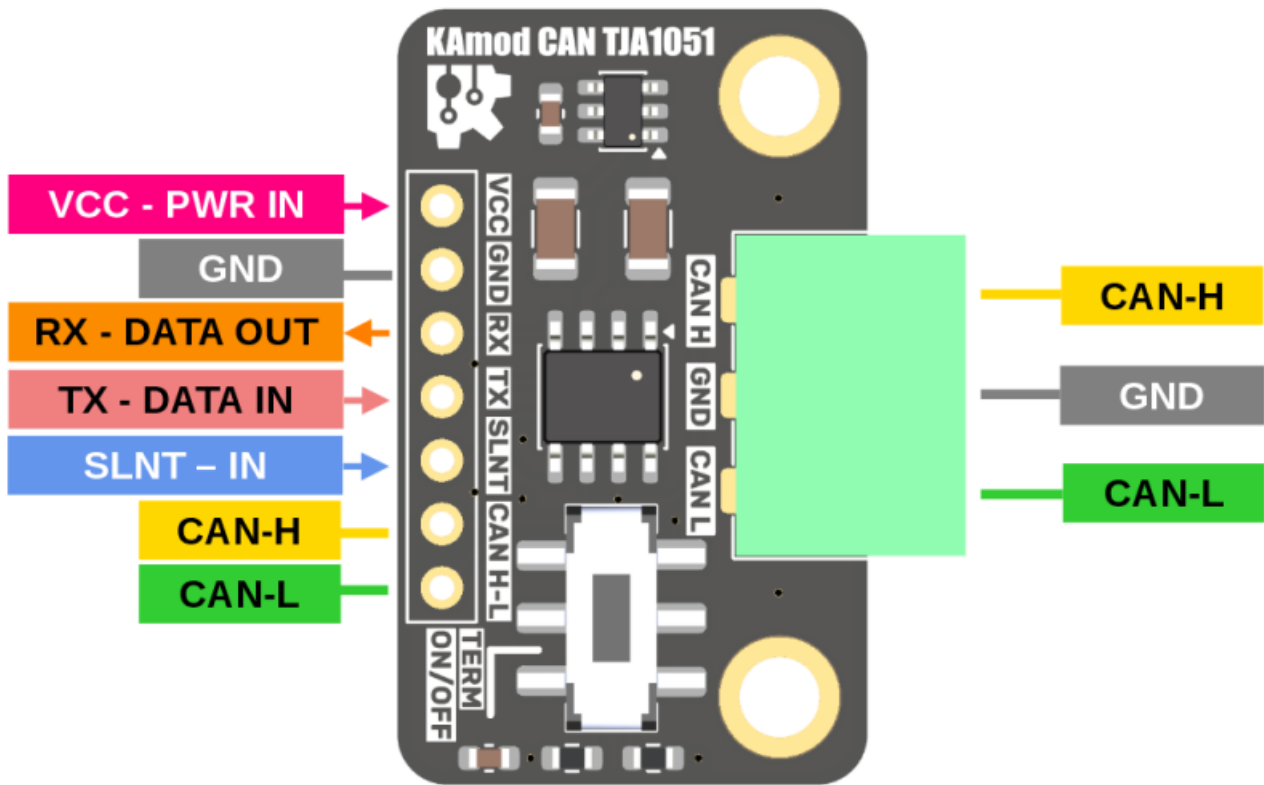


## Electrical Schematic



## Connector and Signal Layout

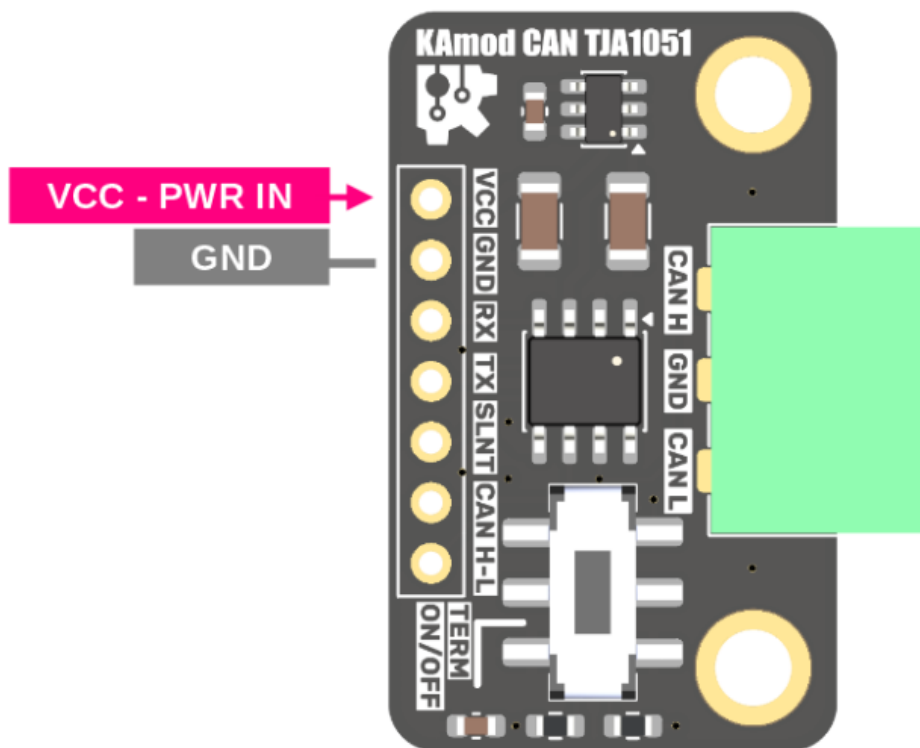
The KAmod CAN TJA1051 module features a 7-pin connector with a 2.54 mm pitch suitable for pin header mounting, as well as a 3-pin Phoenix MC 3.81 connector. The signal assignment on the connectors is described on both sides of the PCB and in the figure below. Signal functions are described in the table.



| Designation   | Function                                                                                                                                       |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| VCC           | Positive power supply input. Requires a voltage range of 3...5 V DC                                                                            |
| GND           | Power supply and control signal ground                                                                                                         |
| RX            | Digital data output read from the CAN bus. Amplitude matches the voltage value at the VCC pin                                                  |
| TX            | Digital data input sent to the CAN bus. Amplitude matches the voltage value at the VCC pin                                                     |
| SLNT          | SILENT mode activation input, active high. In SILENT mode, the CAN bus transmitter is disabled, while reading from the bus operates unchanged. |
| CAN_H / CAN_L | CAN bus lines. Ensure correct signal polarity when connecting to the bus.                                                                      |

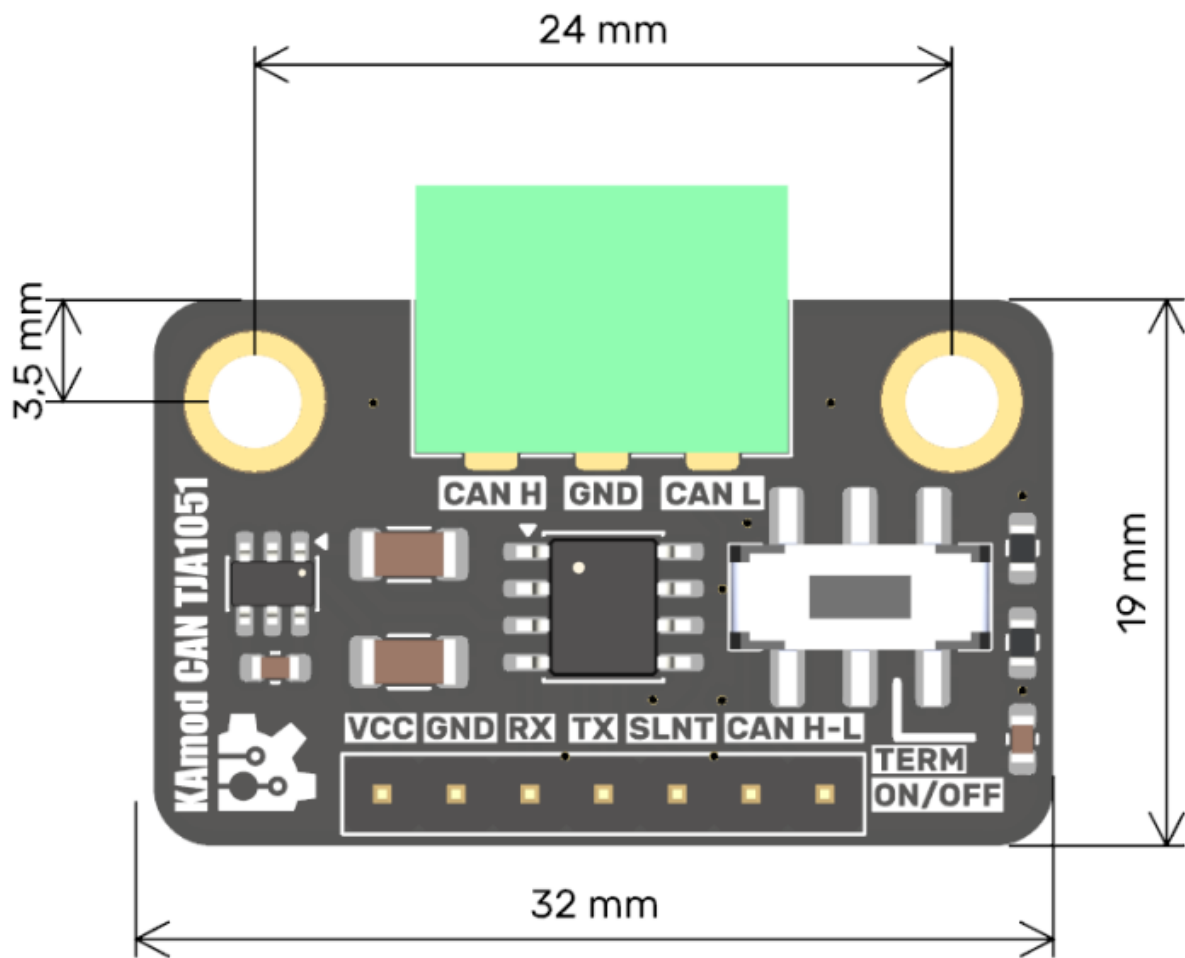
## Power Supply

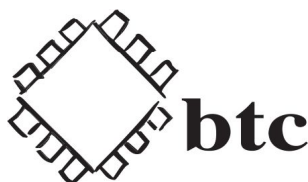
The module requires a power supply voltage in the range of 3...5 V and a minimum current capacity of 100 mA. Power supply must be connected to the pins indicated in the figure below.



## Dimensions

The dimensions of the KAm0d CAN TJA1051 board are 32 × 19 mm. There are 2 mounting holes with a diameter of 3.2 mm on the board.





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