Product Information

MLX80103

LIN Switch Slave

This IC is a fully integrated LIN Slave for matrix switch or single switch Applications in automotive environment. It is suitable for bus systems according to LIN 2.0.

The combination of physical layer LIN transceiver and LIN protocol controller in combination with easy to configure switch inputs and PWM outputs make it possible to develop in a short timeframe simple, but powerful and cheap switch slave nodes for LIN Bus systems.

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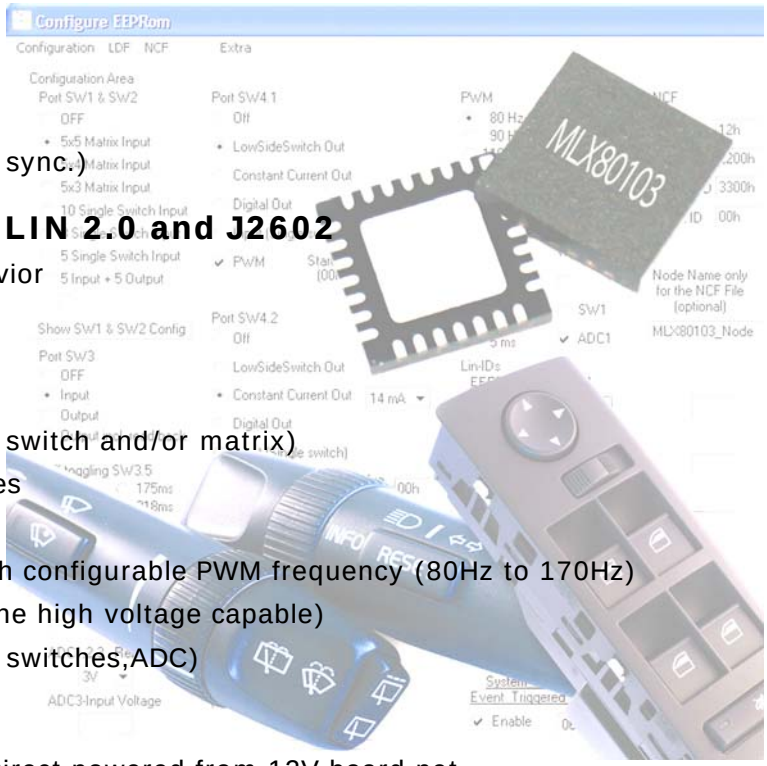
Features

LIN Protocol Controller according to LIN 2.0 and J2602

- Baudrate up to 19.2 kBaud
- Supports event triggered frames
- Node configuration services
- 12 MHz internal RC-Oscillator (±2% sync.)



LIN Transceiver according to LIN 2.0 and J2602

- Slew rate control for best EME behavior
- High EMI immunity

IO Configuration

- Up to 30 configurable Inputs (single switch and/or matrix)
- Configurable switch debouncing times
- Up to 13 configurable Outputs
- Three high current PWM outputs with configurable PWM frequency (80Hz to 170Hz)
- Three configurable ADC channels (one high voltage capable)
- Configurable Wake up sources (LIN, switches,ADC)

Voltage Regulator

- Operating voltage VS = 6 to 18 V, Direct powered from 12V board net
- Low standby current consumption of typ 10µA (max 20 µA) in sleep mode
- Over-temperature shutdown
- 45V load dump protected

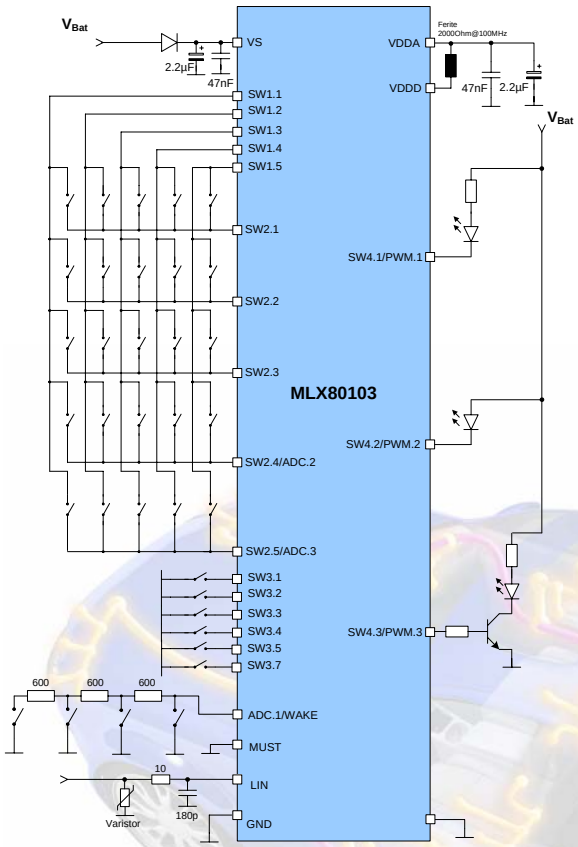
Other Features

- Automotive Temperature Range of –40°C to 125°C
- Small MLF 6x6 28pin package
- Available as lead-free and ROHS compliant

Volume Production Now !

Small things make a big difference.

Easy Application configuration

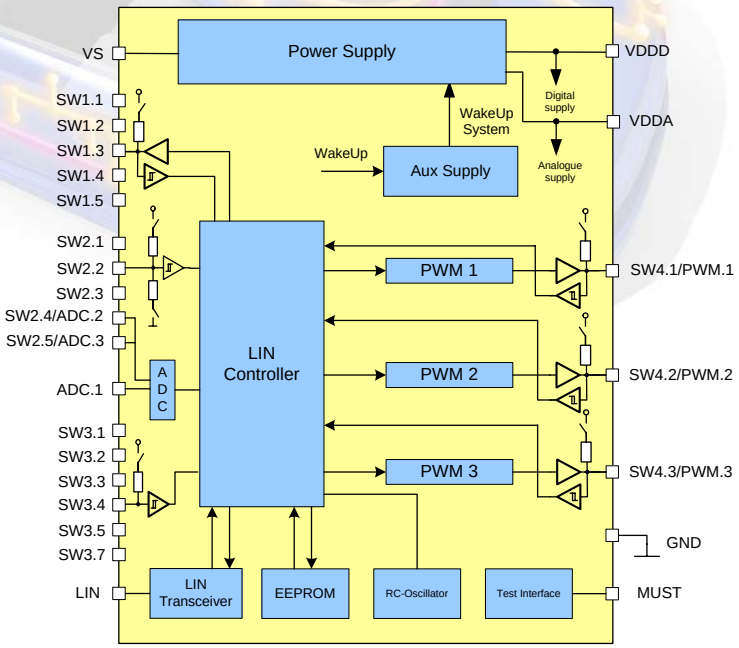


Configuration Software

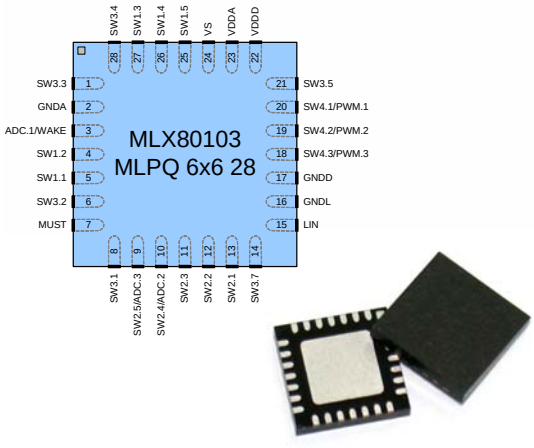
Applications

- Steering wheel switches
- Seat and Window switches
- Headlights rotary switch
- Dashboard switches , ...

Block Diagram



Small Package



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