



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Product Brief

TLE8880

Alternator Regulator with LIN Interface

The alternator control IC TLE8880 is a monolithic full featured regulator specifically designed for closed loop voltage control. It can be used in 12V automotive multi phase alternators with a rotating field winding. This regulator is able to communicate with an Engine-Management or Energy-Management ECU through a standard LIN interface. The battery voltage is regulated at a precise value between 10.6V and 16V. By using free-adjustable parameters, the regulator is able to operate even without any communication interface.

The TLE8880 is compliant to the VDA LIN Alternator Regulator specification.

The output driver stage consists of a High-Side DMOS with a typical $R_{DS(on)}$ of 60m Ω for up to 12A excitation current to the field winding. The chip has 8kV ESD protection for alternator lines. The chip contains an EEPROM with adjustable parameters that can be programmed in order to customize the alternator for the specific OEM or application needs.

Applications

- 12V automotive alternators with LIN interface
- 12V truck alternators with LIN interface
- Aftermarket alternators
- Industrial generators with 12V voltage



www.infineon.com/alternator

Key Features

- EEPROM for customer specific adjustments
- Full digital and fast PI regulation
- High-Side DMOS with $R_{DS(on)}$ of 60m Ω @ 25°C
- LIN 1.3 (Datalink layer)
- LIN 2.1 (Physical layer)
- Stand-by current 60 μ A typical
- Reverse battery protected up to -2.5V
- 8kV ESD protection for alternator lines
- Duty cycle driven excitation current to the field winding in range from 0 to 100%
- Temperature range -40°C to 175°C
- Digital temperature compensation

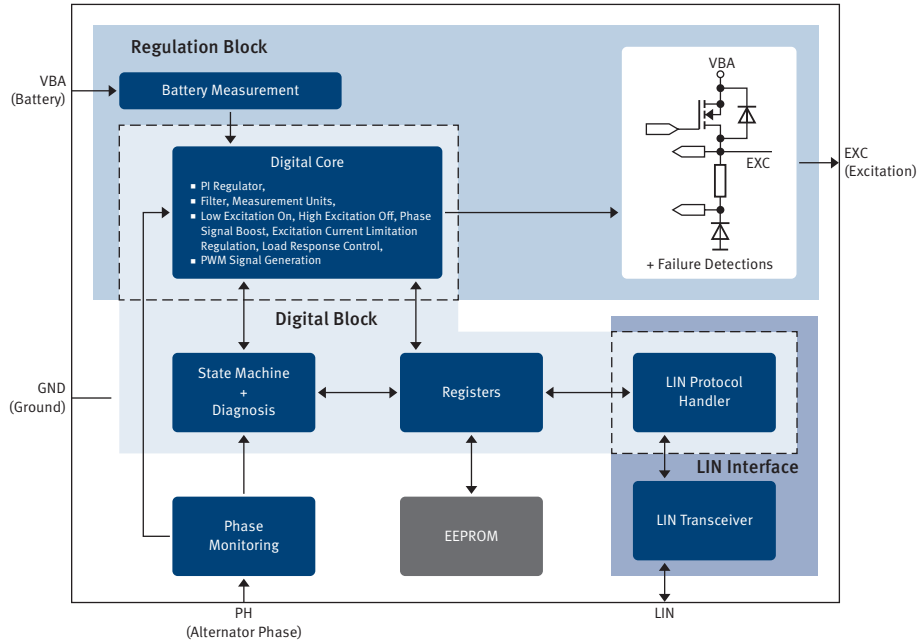
Key Benefits

- Available in PG-TO-220-5-12 with straight leads, in 2 versions:
 - with nickel plating on the leads (soldering)
 - without nickel on the leads ends (welding)
- Qualified and Released by the VDA and further leading OEMs

TLE8880

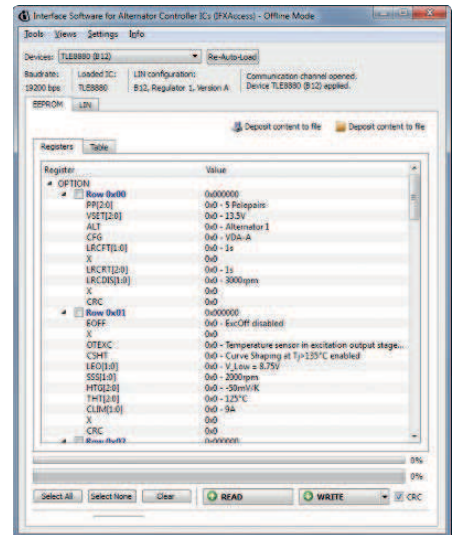
Alternator Regulator with LIN Interface

Block Diagram TLE8880



Infinion is also providing support in offering an interface board with interface software

- Reliable and simple for fast design-ins
- Easy EEPROM Programming
- LIN communication evaluation



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