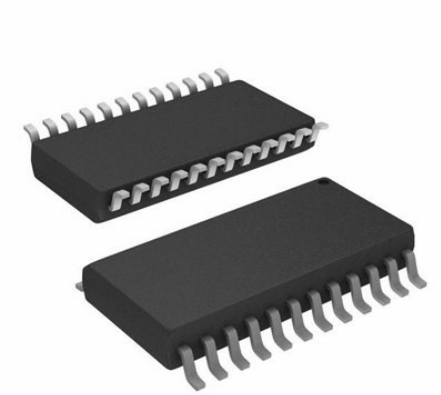
TLE9461ESXUMA1

Data Sheet

The TLE9461ES is a Lite SBC in an exposed pad PG-TSDSO-24-1 (150 mil) power package, designed for various CAN automotive applications as main supply for the microcontroller and as interface for a CAN bus network

Manufacturers	Infineon Technologies Corporation
Package/Case	PG-TSDSO-24
Product Type	
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for TLE9461ESXUMA1 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The TLE9461ES is a monolithically integrated circuit in an exposed pad PG-TSDSO-24-1 (150 mil) power package. The device is designed for various CAN automotive applications as main supply for the microcontroller and as interface for a CAN bus network. To support these applications, the System Basis Chip (SBC) provides the main functions, such as a 5 V lowdropout voltage regulator (LDO) for e.g. a microcontroller supply, another 5 V low-dropout voltage regulator with off-board protection for e.g. sensor supply, a HS-CAN transceiver supporting CAN FD for data transmission, a high voltage GPIO with embedded protective functions and a 16-bit Serial Peripheral Interface (SPI) to control and monitor the device. Also implemented are a configurable timeout / window watchdog circuit with a reset feature, one Fail Output and an undervoltage reset feature. The device offers low-power modes in order to minimize current consumption on applications that are connected permanently to the battery. A wake-up from the low-power mode is possible via a message on the buses, via the bi-level sensitive monitoring/wake-up input as well as via cyclic wake.

Features

Very low quiescent current consumption in Stop- and Sleep Mode

Periodic Cyclic Wake in SBC Normal-, Stop- and Sleep Mode

Periodic Cyclic Sense in SBC Normal-, Stop- and Sleep Mode

Low-Drop Linear Voltage Regulator 5 V, 150 mA for main supply, 250 mA peak

Low-Drop Linear Voltage Regulator 5 V, 100 mA, protected features for off-board usage

High-Speed CAN transceiver supporting FD communication up to 5 Mbit/s according to ISO 11898-2:2016 & SAE J2284

Fully compliant to “Hardware Requirements for LIN, CAN and FlexRay Interfaces in Automotive Applications” Revision 1.3, 2012-05-04

Charge pump-Output for N-channel MOSFET reverse-polarity protection with integrated spread spectrum modulation feature for optimum EMC performance

Universal High-Voltage Wake Input for voltage level monitoring and wake detection

General Purpose High-Voltage In- and Output (GPIO) configurable as Fail Output, Wake Input, Low-Side switch or High-Side switch

HIgh-Voltage Measurement Function as alternate pin assignment

Fail Outputs for Fail-Safe signalization

Configurable wake-up sources

Reset Output & Interrupt Output

Configurable timeout and window watchdog

Overtemperature and short circuit protection feature

Dedicated TEST pin for SBC Development Mode entry (watchdog counter stopped)

Software compatible to all SBC families TLE926x and TLE927x

Wide supply input voltage and temperature range

Optimized for Electromagnetic Compatibility (EMC) and low Electromagnetic Emission (EME)

Optimized for high immunity against Electromagnetic Interference (EMI)

AEC Qualified & Green Product (RoHS compliant)

Application

HVAC ECU and Control panel

Light Control Unit (LCU) for front, rear and ambient

Seat control module

Seat belt pretension

Steering column and steering lock

Closure (trunk, sliding door, etc.)

Gear shifters and selectors

Smart power distribution modules

Related Products

TLE5009

Infineon Technologies Corporation

TLD1125EL

Infineon Technologies Corporation

TLE7250VSJ

Infineon Technologies Corporation

TLE7251VSJ

Infineon Technologies Corporation

TLE94106EL

Infineon Technologies Corporation

TLE94112ES

Infineon Technologies Corporation

TLE9251VLE

Infineon Technologies Corporation

TLE4966V-1K

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