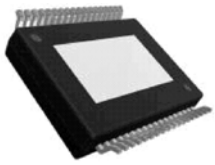
L99PM62XP

Power management IC with LIN and high speed CAN

Datasheet - production data



PowerSSO-36

Features

- Two 5V voltage regulators for microcontroller and peripheral supply
- No electrolytic capacitor required on regulator outputs
- Ultra low quiescent current in standby modes
- Programmable reset generator for power-on and undervoltage
- Configurable window watchdog and fail safe output
- LIN 2.1 compliant (SAEJ2602 compatible) transceiver
- Advanced HS CAN transceiver (ISO 11898-2/-5 and SAE J2284 compliant) with local failure and bus failure diagnosis
- HS CAN transceiver supports partial networking
- Complete 3 channel contact monitoring interface with programmable cyclic sense functionality
- Programmable periodic system wake up feature
- ST SPI interface for mode control and diagnosis
- 5 fully protected high-side drivers with internal 4-channel PWM generator
- 2 low-side drivers with active zener clamping
- 4 internal PWM timers
- 2 operational amplifiers with rail-to-rail outputs (Vs) and low voltage inputs
- Temperature warning and thermal shutdown

Applications

Automotive ECU's such as door zone and body control modules.

Description

The L99PM62XP is a power management system IC providing electronic control units with enhanced system power supply functionality including various standby modes as well as LIN and HS CAN physical communication layers. It contains two low drop voltage regulators to supply the system microcontroller and external peripheral loads such as sensors and provides enhanced system standby functionality with programmable local and remote wake up capability.

In addition, five high-side drivers, two low-side drivers and two operational amplifiers increase the system integration level.

The ST standard SPI interface (3.0) allows control and diagnosis of the device and enables generic software development.

Table 1. Device summary

Package	Order codes	
	Tube	Tape and reel
PowerSSO-36	L99PM62XP	L99PM62XPTR

1 Revision history

Table 2. Document revision history

Date	Revision	Changes
26-Sep-2012	1	Initial release.
20-Sep-2013	2	Updated disclaimer.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST’s terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST’S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

ST PRODUCTS ARE NOT DESIGNED OR AUTHORIZED FOR USE IN: (A) SAFETY CRITICAL APPLICATIONS SUCH AS LIFE SUPPORTING, ACTIVE IMPLANTED DEVICES OR SYSTEMS WITH PRODUCT FUNCTIONAL SAFETY REQUIREMENTS; (B) AERONAUTIC APPLICATIONS; (C) AUTOMOTIVE APPLICATIONS OR ENVIRONMENTS, AND/OR (D) AEROSPACE APPLICATIONS OR ENVIRONMENTS. WHERE ST PRODUCTS ARE NOT DESIGNED FOR SUCH USE, THE PURCHASER SHALL USE PRODUCTS AT PURCHASER’S SOLE RISK, EVEN IF ST HAS BEEN INFORMED IN WRITING OF SUCH USAGE, UNLESS A PRODUCT IS EXPRESSLY DESIGNATED BY ST AS BEING INTENDED FOR “AUTOMOTIVE, AUTOMOTIVE SAFETY OR MEDICAL” INDUSTRY DOMAINS ACCORDING TO ST PRODUCT DESIGN SPECIFICATIONS. PRODUCTS FORMALLY ESCC, QML OR JAN QUALIFIED ARE DEEMED SUITABLE FOR USE IN AEROSPACE BY THE CORRESPONDING GOVERNMENTAL AGENCY.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.
Information in this document supersedes and replaces all information previously supplied.
The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com