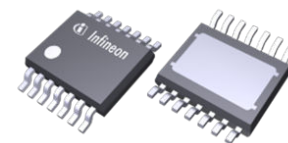


MOTIX™ TLE993x**Microcontroller with LIN and integrated MOSFETs for BLDC and DC motors****Features**

- 32-bit Arm^{®1)} Cortex[®]-M23 core at up to 40 MHz, 32 interrupts
- Single power supply from 5.5 V to 29 V
- On-chip clock generation
- CRC engine for data integrity
- Flash up to 72 KB with EEPROM emulation, RAM up to 6 KB
- LIN protocol support (LINUART) and LIN transceiver with safe transmit off
- PWM communication over LIN pin
- LIN Auto-Addressing supporting BSM (Bus Shunt Method) and BDM (Bus Direction Method)
- High-voltage monitoring pin (MON)
- Fast synchronous communication interface (SSC)
- I2C and SENT (J2716 SAE) protocols
- Integrated three-phase motor driver up to 2 A
- Integrated charge pump, PWM generation (CCU7) and safe switch off path
- Unidirectional integrated current mirrors for phase current measurements
- Fast 12-bit ADC for measuring up to 14 inputs with high and low voltage range
- 10x 16-bit timer (GPT12 and CCU7), 1x 24-bit timer (SYSTICK)
- Up to 4 GPIOs (incl. RESET, SWD) and 3 GPIs (analog and digital)
- Safety: ISO26262 Safety Element out of Context for safety requirements up to ASIL-B
- Security: Arm[®] TrustZone enabling software isolation
- Temperature range T_j : -40°C up to 175°C
- Compact application footprint with TSDSO-18 package

**Potential applications**

- Automotive motor control for auxiliary drives like valves, grille shutter, and thermal management systems

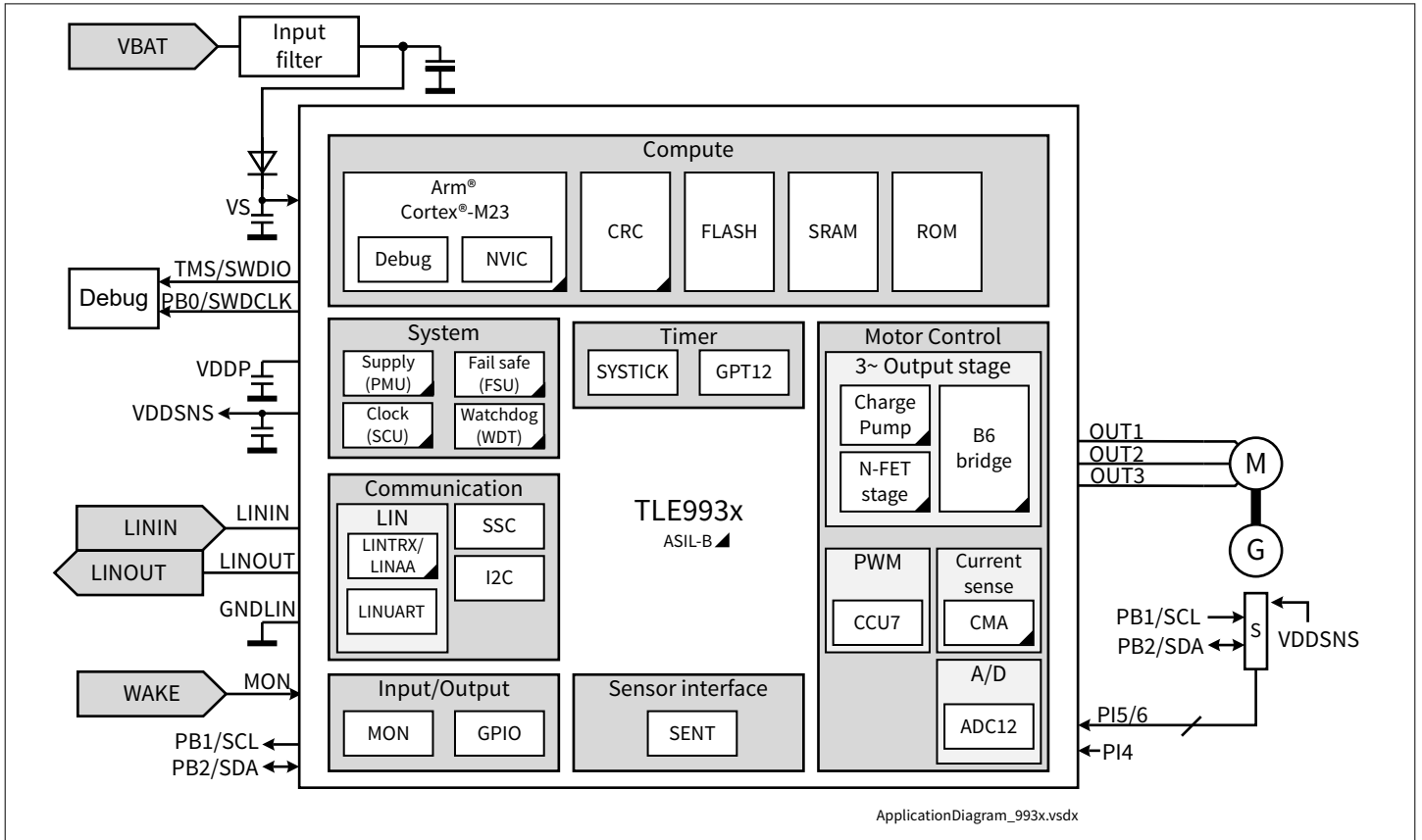
Product validation

Product validation according to AEC-Q100, Grade 0. Qualified for automotive applications.

¹ Arm and Cortex are registered trademarks of Arm Limited, UK

Description

Description



Product type	Package	Temperature grade	Flash/RAM [KB]	Frequency [MHz]	LIN Auto-Addressing	Marking
TLE9932EVW40C	TSDSO-18	Grade-0	48/4	40	yes	9932VBAK
TLE9934EVW40L	TSDSO-18	Grade-0	72/6	40	no	9934VCAK

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Package

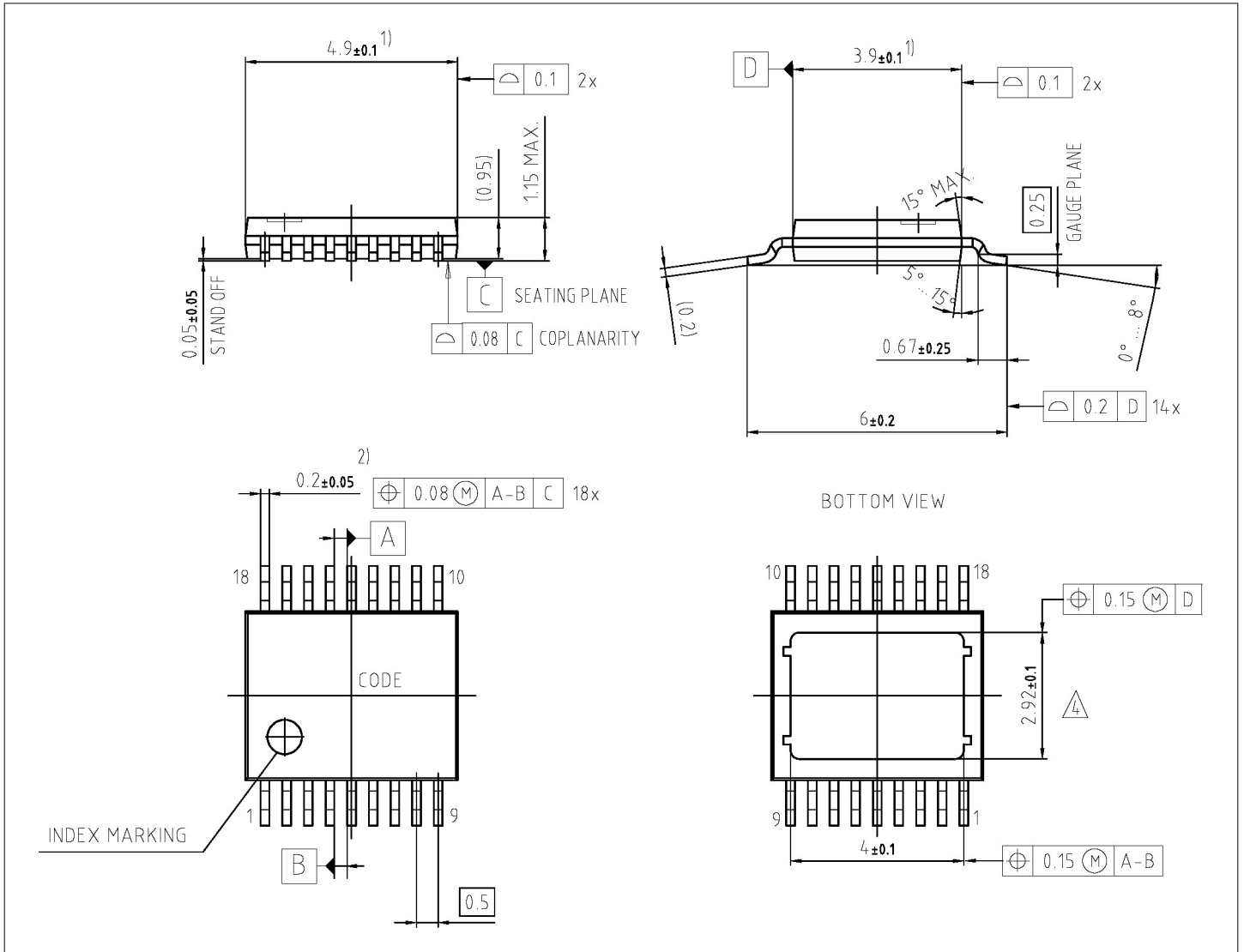


Figure 1 Package outline PG-TSDSO-18-1

Green Product (RoHS compliant)

To meet the world-wide customer requirements for environmentally friendly products and to be compliant with government regulations the device is available as a green product. Green products are RoHS-Compliant (i.e Pb-free finish on leads and suitable for Pb-free soldering according to IPC/JEDEC J-STD-020).

Further information on packages

<https://www.infineon.com/packages>

Revision history

Revision number	Date of release	Description of changes
Rev. 1.00	2025-12-18	Initial version

Trademarks

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