SAK-TC399XX-256F300S BC

Powerful multi-gigacore AURIX™ TC3xx systems with lockstep

The AURIX™ TC399 is the most powerful 32-bit microcontroller family from Infineon. Based on its second-generation multi-core architecture for real-time control systems, it combines up to six TriCore™ CPUs with new and powerful hardware accelerators and extended memories. This family has more than ten times the performance of its predecessor and is the ideal platform for the consolidation of applications in the automotive and industrial fields. The AURIX™ TC399 is the first microcontroller to offer a 1 GHz clock frequency and is the first to feature 28 nm technology. Its performance and efficiency are optimized.

Highlights

- 6 TriCore™ CPUs up to 300 MHz with 4.5 DMIPS/MHz each, including ASIL-D/SIL3 lockstep
- Supporting floating point unit for each core with 32 cores
- Certified for functional safety up to ASIL-D
- 4.5 MB PFlash
- 2.5 MB DFlash
- Ethernet: 2 x 100 Mbit/s, 4 x 1 Gbit/s, 1 x 10 Gbit/s, 1 x 1 Gbit/s with TSN
- FlexRay: 2 x 10 Mbit/s
- CAN: 4 x CAN FD nodes, 2 x CAN FD nodes with TSN
- Safety Management Unit (SMU)
- Hardware Security Module (HSM)
- Up to 144 analog inputs, 12 bit SAR
- Up to 24 sigma-delta demodulator channels
- 2 x 12 bit DAC
- 3 x 12 bit GTM ARU
- 3 x 12 bit GTM ATOM
- 3 x 12 bit GTM TOM
- 3 x 12 bit GTM TIM
- 3 x 12 bit GTM MCS
- 3 x 12 bit GTM DPLL
- 3 x 12 bit GTM CMP
- 3 x 12 bit GTM BRC
- 3 x 12 bit GTM SPE
- 3 x 12 bit GTM PSM
- 3 x 12 bit GTM DTM
- 3 x 12 bit GTM CCM
- 3 x 12 bit GTM MAP
- 3 x 12 bit GTM ICM
- 3 x 12 bit GTM GPR
- 3 x 12 bit GTM CMS
- 3 x 12 bit GTM GTCPR
- 3 x 12 bit GTM CTRAP
- 3 x 12 bit GTM CTRIG
- 3 x 12 bit GTM CTRAM
- 3 x 12 bit GTM ARCM
- 3 x 12 bit GTM ARCS
- 3 x 12 bit GTM ERAY
- 3 x 12 bit GTM ETHER
- 3 x 12 bit GTM QSPI
- 3 x 12 bit GTM I2C
- 3 x 12 bit GTM SENT
- 3 x 12 bit GTM PSI5
- 3 x 12 bit GTM PSI5S
- 3 x 12 bit GTM HSSL
- 3 x 12 bit GTM MSC
- 3 x 12 bit GTM DSADC
- 3 x 12 bit GTM PMS
- 3 x 12 bit GTM ADCI
- 3 x 12 bit GTM DAC
- 3 x 12 bit GTM CAN
- 3 x 12 bit GTM LIN
- 3 x 12 bit GTM FLEXRAY
- 3 x 12 bit GTM SOMP
- 3 x 12 bit GTM SOMI
- 3 x 12 bit GTM EBU
- 3 x 12 bit GTM SCR
- 3 x 12 bit GTM SMU
- 3 x 12 bit GTM SMU
- 3 x 12 bit GTM SMU