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> SAK-TC233LP-32F200F AB

Overview
Parametrics
Order
Boards
Support

SAK-TC233LP-32F200F AB

Summary of Features:

- TriCore™ with 200MHz
- TriCore™ DSP functionality
- Up to 2MB Flash w/ ECC protection
- 128KB EEPROM @ 125k cycles
- Up to 192KB RAM w/ ECC protection
- 16x DMA channels
- 24x 12bit SAR ADC converter
- Powerful Generic Timer Module (GTM)
- SENT sensor interfaces
- State of the art connectivity: 2x Flexray, 2x LIN 4x QSPI, 6x CAN including data rate enhanced CAN FD
- Programmable [HSM](#) (Hardware Security Module)
- Wake-up Timer
- Single voltage supply 3.3V
- TQFP-100 package

Target Applications:

Chassis, Safety Applications:

- Steering
- Braking
 - Electric Brake Booster
 - Brake Vehicle Stability Control
 - Electric Parking Brake
- Airbag
- Suspension
- Domain Control

Advanced Connectivity Application:

- Advanced Body Applications
- [Body Control Module](#)
- [Gateway](#)

Solution Finder

MOSFET

IGBT

Vreg

MCU

More

Voltage

I_D
(max) ≥ 5 A

R_{DS(on)}
(max) < 500 mΩ

[Reset](#)

Type Discrete Module

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Parametric	SAK-TC233LP-32F200F AB
Clock Frequency max	200.0MHz
SRAM (incl. Cache)	192.0kByte
CAN Nodes	6
A/D Input Lines (incl. FADC)	24

Parametric	SAK-TC233LP-32F200F AB
Program Memory	2.0kByte
Type of Memory	Flash
FlexRay™	yes
Number of ADC Modules	2.0
Instruction Width ([bits])	32/16
Instruction Set Architecture	TriCore™ v1.6E (32-bit)
DMA Channels	16
External Bus Interface	no
Fast Flash Programming	no
Temperature	-40 to 125°C
DSP Functionality	yes
On-chip Clock Generation	yes
I/O Operation Voltages	3.3V
Touch/LED Matrix Control	no
On-chip Voltage Regulator	yes
Real Time Clock	yes
Floating Point Unit	yes
Watchdog Timer	yes
Oscillator Watchdog	yes

SAK-TC233LP-32F200F AB

Sales Product Name	SAK-TC233LP-32F200F AB
OPN	TC233LP32F200FABKXUMA1
Product Status	active and preferred
Order online	
Package Name	PG-TQFP-100
Completely lead free	yes
Halogen free	yes
RoHS compliant	yes
Packing Size	1000
Packing Type	TAPE & REEL

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Evaluation Boards

Board	Family	Description	Status
> KIT_AURIX_TC233LP_S_TRB	Microcontroller	For evaluation of SAK-TC233L including Getting Started, free Tricore Entry Tool Chain , technical documentation, compiler and debugger. USB cable for power supply and extension board. <ul style="list-style-type: none"> • Evaluation Board • Extension Board • Free TriCore Entry Tool Chain • Power Supply • TC233L • USB cable 	on request

Board	Family	Description	Status
> KIT_AURIX_TC233LP_TRB	Microcontroller	For evaluation of SAK-TC233LF including Getting Started, free Tricore Entry Tool Chain , technical documentation, compiler and debugger. USB cable for power supply and extension board. <ul style="list-style-type: none"> • Evaluation Board • Extension Board • Free TriCore Entry Tool Chain • Power Supply • TC233L • USB cable 	on request
> KIT_AURIX_TC234_MOTORCTR	Microcontroller	With the Application Kit TC2x4, TC2x5 or TC2x7 it allows to drive a 3 Phase brushless motor. Applications can be developed easily. The eMotor Drive Kit is equipped with a variety of interfaces for position detection and current measurement. Additionally a driver IC (TLE9180) and a complete B6 bridge driver allow spinning a motor up to 50Watt. <ul style="list-style-type: none"> • AURIX™ 	active and preferred
> KIT_AURIX_TC234_TFT	Microcontroller	Low-cost and flexible application development platform for the 32-bit AURIX™ multi-core TriCore™ family. <ul style="list-style-type: none"> • SAK-TC234LP-32F200F 	on request
> KIT_AURIX_TC234LP_S_TRB	Microcontroller	For evaluation of SAK-TC234L including Getting Started, free Tricore Entry Tool Chain , technical documentation, compiler and debugger. USB cable for power supply and extension board. <ul style="list-style-type: none"> • Evaluation Board • Extension Board • Free TriCore Entry Tool Chain • Power Supply • TC234L • USB cable 	on request
> KIT_AURIX_TC234LP_TRB	Microcontroller	For evaluation of SAK-TC234LF including Getting Started, free Tricore Entry Tool Chain , technical documentation, compiler and debugger. USB cable for power supply and extension board. <ul style="list-style-type: none"> • Evaluation Board • Extension Board • Free TriCore Entry Tool Chain • Power Supply • TC234L • USB cable 	on request
> KIT_AURIX_TC237_TFT	Microcontroller	<ul style="list-style-type: none"> • SAK- TC237LP-32F200F 	active and preferred
> KIT_ATV_24GHZ_RADAR	Microcontroller	<ul style="list-style-type: none"> • BGT24A transceiver MMIC family, e.g. BGTA24ATR12 • AURIX™ 32-bit radar microcontroller family, e.g. SAK-TC264DA- 40F200 	active and preferred

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