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What is "Embedded - Microcontrollers"?

"Embedded - Microcontrollers" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "Embedded - Microcontrollers"

Details	
Product Status	Active
Core Processor	TriCore™
Core Size	32-Bit Single-Core
Speed	200MHz
Connectivity	CANbus, FlexRay, LINbus, QSPI
Peripherals	DMA, WDT
Number of I/O	78
Program Memory Size	2MB (2M x 8)
Program Memory Type	FLASH
EEPROM Size	128K x 8
RAM Size	192K x 8
Voltage - Supply (Vcc/Vdd)	1.17V ~ 1.43V, 2.97V ~ 5.5V
Data Converters	A/D 24x12b
Oscillator Type	External
Operating Temperature	-40°C ~ 125°C (TJ)
Mounting Type	Surface Mount
Package / Case	144-LQFP Exposed Pad
Supplier Device Package	PG-TQFP-144-27
Purchase URL	https://www.e-xfl.com/product-detail/infineon-technologies/tc234lp32f200nackxuma1

SAK-TC234LP-32F200N AC

Access to complete AURIX™ documentation!

1. Please register under myinfineon.com with your company e-mail address
2. Send login name to: **AURIX@infineon.com**
3. Automated update service will be provided for new documents once you are registered

More Information

Parametrics

Parametrics	SAK-TC234LP-32F200N AC
A/D Input Lines	24
A/D Input Lines (incl. FADC)	24
CAN Nodes	6
Clock Frequency **max**	200.0 MHz
DMA Channels	16
DSP Functionality	yes
External Bus Interface	no
Fast Flash Programming	no
FlexRay™	yes

Parametrics	SAK-TC234LP-32F200N AC
Floating Point Unit	yes
I/O Operation Voltages	3.3 V
Instruction Set Architecture	TriCore™ v1.6E (32-bit)
Instruction Width ([bits])	32/16
Number of ADC Modules	2.0
On-chip Clock Generation	yes
On-chip Voltage Regulator	yes
Oscillator Watchdog	yes
Program Memory	2.0 MByte
Real Time Clock	yes
SRAM (incl. Cache)	192.0 kByte
Temperature	-40°C - +125 °C
Touch/LED Matrix Control	no
Type of Memory	Flash
Watchdog Timer	yes

Documents

Application Notes

- An introduction to MTV Multi-Core Debug Solution (MCDS) Trace ViewerEN

  01_00 | 2018-04-03 | pdf | 1.1 MB

- EMC and System-ESD Design Guidelines for Board LayoutEN

01_00 | 2018-03-15 | pdf | 3 MB

Material Content Sheet *Info*

- MCDS_2018-01-19_11-59-49_MA001654634_PG-TQFP-144-27EN

01_00 | 2018-01-30 | pdf | 28 KB

Product Selection Guide

- Power and Sensing Selection Guide 2018EN

00_00 | 2018-02-19 | pdf | 23.9 MB

Presentations

- Microcontroller Pocket GuideEN

01_00 | 2018-02-22 | pdf | 2.6 MB

Order

Sales Product Name	SAK-TC234LP-32F200N AC
OPN	TC234LP32F200NACKXUMA1
Product Status	active and preferred
Package name	PG-TQFP-144
Completely lead free	yes
Halogen free	yes

Sales Product Name	SAK-TC234LP-32F200N AC
RoHS compliant	yes
Packing Size	1000
Packing Type	TAPE & REEL
Moisture Level	
Moisture Packing	DRY