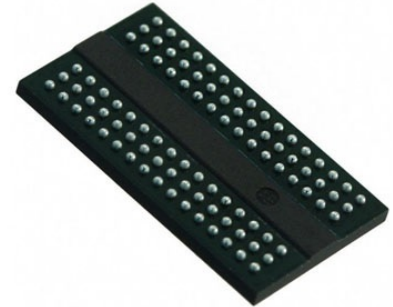


ARM MCU, XMC™, XMC Family XMC47xx Series Microcontrollers, ARM Cortex-M4, 32bit, 144 MHz, 2 MB

Manufacturers	Infineon Technologies Corporation
Package/Case	196-LFBGA
Product Type	Embedded Processors & Controllers
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for XMC4700E196K2048AAXQMA1 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours. [RFQ](#)

General Description

The XMC4700 device is a member of the XMC4000 family of microcontrollers based on the ARM Cortex-M4 processor core. The growing complexity of today's energy efficient embedded control applications are demanding microcontroller solutions with higher performance CPU cores featuring DSP and FPU capabilities. The XMC4700 family of microcontrollers take advantage of Infineon's decades of experience in the industrial market to provide an optimized solution to meet the performance challenges of today's embedded control applications.

Features Application

ARM® Cortex®-M4 @ 144MHz	Platform concept to allow extensive customization Performance, efficiency and cost competitiveness
2048kB Flash, 352kB RAM	Accurate analog-mixed signal peripherals
Data and IP Protection on Flash	Fast timer/PMW peripheral Switched mode power supplies:
Supply voltage range: 3.13 - 3.63V	Power supply designs are subject to ever-increasing requirements. Some of them are fueled by customer demands or industry association guidelines (such as higher power density, communication, modularity or the 80 Plus Titanium efficiency standard). Semiconductor technology advances have allowed MCU manufacturers to develop a new class of MCUs, optimized for digital power conversion applications in terms of features and price point. This new market development his what motivates ever more power supply designers to use digital control for SMPS.
6 x CAN nodes	
EthernetMAC, USB-OTG, SD/MMC	Some functionalities that makes XMC4000 suited to motor control application: Rich connectivity: 2x Can nodes, 4-channel serial COM unit (configurable to SPI, I ² c, I ² S, UART), USB FS.

6 channel USIC (configurable to SPI, UART, IIC, IIS) UP to 4X 12-bit ADC with a sample time of 70 ns ensure fast reaction times and tighter control loops.
4-channel 150 ps HRPWM timer (XMC4200/4400 series)

External Bus Unit

4 x 12-bit ADC,
26 input channels,
4 x parallel
sampling and
conversion

2 channel 12bit
DAC

4 channel $\Delta\Sigma$
Demodulator

24 x 16-bit special
purpose timers,
dead time
generation

2 x Position
Interface

Watch Dog Timer,
Real Time Clock

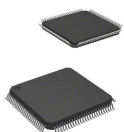
XMC4000
Functional Safety
Package

Package:LQFP196

Temperature
range:-40 - 125°C

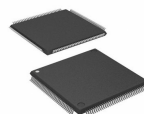
Safety package
supporting SIL-2/3

Related Products



[XMC4500F100K1024ACXQSA1](#)

Infineon Technologies Corporation
100-LQFP



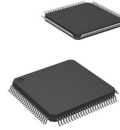
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Infineon Technologies Corporation
144-LQFP



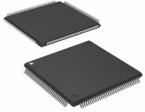
[XMC4500F144K1024ACXQMA1](#)

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144-LQFP



[XMC4300F100F256AAXQMA1](#)

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[XMC4700F144K2048AAXQMA1](#)

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144-LQFP



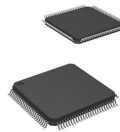
[XMC4800E196K2048AAXQMA1](#)

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196-LFBGA



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[XMC4700F100K2048AAXQMA1](#)

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