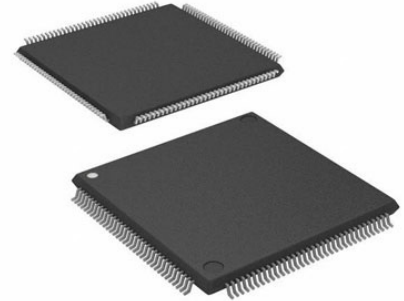


ARM MCU, XMC Family XMC45xx Series Microcontrollers, ARM Cortex-M4, 32bit, 120 MHz, 1 MB, 160 KB

Manufacturers	Infineon Technologies Corporation
Package/Case	144-LQFP
Product Type	Embedded Processors & Controllers
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for XMC4500F144F1024ACXQMA1 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com). We will contact you in 12 hours. [RFQ](#)

General Description

XMC4500 combines Infineon's leading-edge peripheral set with an industry-standard ARM® Cortex®-M4 core resulting in a power pack for energy-efficient industrial applications.

XMC4500 controllers feature a configurable peripheral set that allow to tailor the device to specific application needs. To capitalize fully on this flexibility, Infineon offers an industry-proven development environment DAVE™ that greatly eases SW development. DAVE™ 3 hosts a graphical user interface, low-level drivers, application libraries, an auto code generation engine and interfaces to generic or customer-selected development tools.

Features Application

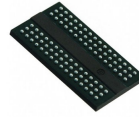
ARM® Cortex®-M4, 120MHz, incl. single cycle DSP	Platform concept to allow extensive customization Performance, efficiency and cost competitiveness
MAC and floating point unit (FPU)	Accurate analog-mixed signal peripherals
IEEE 1588 compliant Ethernet MAC	Fast timer/PMW peripheral Solar inverters:
USB 2.0 full-speed on-the-go	Infineon provides a comprehensive portfolio to deliver the best efficiency and reliability for solar applications. Infineon's leading edge technology like Superjunction MOSFET, Trench + Field stop IGBT, Coreless transformer driver, etc, combined with rich experience and highest quality, ensured our No.1 position in solar application. Solar power conversion has three distinctive requirements:
CPU Frequency: 120MHz	System cost down: Inverters manufacturers will continuously optimize the price per output power on system level.
eFlash: 1,024kB including hardware ECC	System efficiency: Efficiency is key for return of investment. Reliability: 5+years lifetime for string inverters and 25 years for micro inverter and optimizer.
160kB SRAM	Switched mode power supplies:
Package: PG-LQFP-144	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).
3x CAN, 64 MO	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.
4xΔΣ-Demodulator	
Supply voltage range: 3.13 - 3.63V	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.
Temperature range: -40°.....85°	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)
USIC 6ch [Quad SPI, SCI/UART, I ² C, I ² S, LIN]	
Long-term availability with >15 years	

Related Products



[XMC4500F100K1024ACXQSA1](#)

Infineon Technologies Corporation
100-LQFP



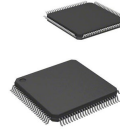
[XMC4700E196K2048AAXQMA1](#)

Infineon Technologies Corporation
196-LFBGA



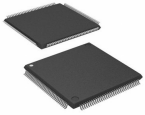
[XMC4500F144K1024ACXQMA1](#)

Infineon Technologies Corporation
144-LQFP



[XMC4300F100F256AAXQMA1](#)

Infineon Technologies Corporation
100-LQFP



[XMC4700F144K2048AAXQMA1](#)

Infineon Technologies Corporation
144-LQFP



[XMC4800E196K2048AAXQMA1](#)

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196-LFBGA



[XMC4300F100K256AAXQMA1](#)

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100-LQFP



[XMC4700F100K2048AAXQMA1](#)

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