

XE164K-96F66L
Samples from:
€ 9.26

XE167K-48F66L
Samples from:
€ 10.51

XE167K-96F66L
Samples from:
€ 11.13

Easy Kit XE164F
Starter Kit:
€ 129

XE166-family

Real Time Signal Controllers



Maxime Ronciere, Silica France

Infineon Technologies' Real Time Signal Controller combines the traditional strengths of a Microcontroller Unit (MCU) to control peripherals with the computing power of Digital Signal Processors (DSP). All in one enhanced XE166 core. XE166 offers three times more Flash than XC166 with a maximum Flash capacity of 768 KBytes. High CPU performance combined with enhanced IO capabilities, flexible power management and new impressive peripherals such as Universal Serial Interface (USIC) make the XE164/167 the instruments of choice for demanding industrial applications integration of external components such as integrated voltage regulator, EEPROM emulation with additional flash modules and various clock sources optimize system cost.

Key Features

- High Performance 16-bit CPU with 5-Stage Pipeline at 66MHz CPU Clock
- 15ns multiplication (16x16-bit), background division (32/16-bit) and multiply-and-accumulate (MAC) instructions
- 16-Priority-Level Interrupt System with up to 87 Sources
- 8-channel Interrupt-Driven Single-Cycle Data Transfer Facilities via Peripheral Event Controller (PEC)
- 24-bit Pointers Cover Total Address Space
- Clock Generation from Internal or External Clock Sources, via on-chip PLL or via Prescaler
- On-Chip Memory Modules
 - 1 Kbyte On-Chip Stand-By RAM (SBRAM)
 - 2 Kbytes On-Chip Dual-Port RAM (DPRAM)
 - 16 Kbytes On-Chip Data SRAM (DSRAM)
 - Up to 64 Kbytes On-Chip Program/Data SRAM (PSRAM)
 - Up to 768 Kbytes On-Chip Program Memory (Flash Memory)

- Single Power Supply from 3.0...5.5V
- On-Chip Peripheral Modules:
 - Two Synchronizable A/D Converters (up to 16 + 8 channels); conversion time down to 1µs
 - 16-channel General Purpose Capture/Compare Unit (CAPCOM2)
 - Up to 4 Capture/Compare Units for flexible PWM Signal Generation (CCU6x)
 - Multi-Functional General Purpose Timer Unit with 5 Timers
 - Up to 6 Serial Interface Channels to be used as UART, LIN, SPI, I²C Bus Interface, I²S Bus Interface
 - On-Chip MultiCAN Interface (Rev. 2.0B active) with up to 128 Message Objects (Full CAN/Basic CAN) on up to 5 CAN Nodes and Gateway Functionality
 - On-Chip Real Time Clock
- 16 Mbytes total linear address space for code and data for Code and Data
- Programmable Watchdog Timer and Oscillator Watchdog

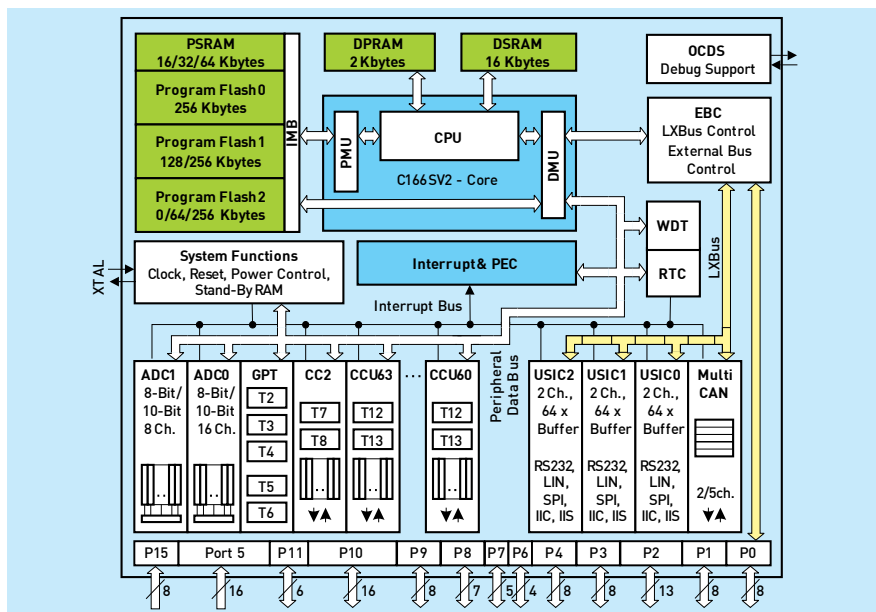
- Up to 118 General Purpose I/O Lines
- On-Chip Bootstrap Loader
- On-Chip Debug Support via JTAG interface

Key Applications

- Servo drives
- Appliance motors
- HVAC compressors and blowers
- Stepper motors
- Industrial pumps
- Transportation

Key Design Tips

- Easy Kit XE164F
- Easy Kit XE167F
- Supported by a large range 3rd party tools
- DAVE: Code generator for Infineon 8/16/32-bit Microcontrollers and driver code to ease programming for beginners as well as experts



P/N	Package	Programming	Taping & Reeling	Marking
SAF-XE164F-24F66L AC	100-pin PG-LQFP			
SAF-XE164K-96F66L AC	100-pin PG-LQFP			
SAF-XE167K-48F66L AC	144-pin PG-LQFP			
SAF-XE167K-96F66L AC	144-pin PG-LQFP			

Service available or already delivered T&R from Manufacturer.
Tapes are available, but not stocked at Avnet Logistics due to low demand.
Device supported by or programming equipment, but the socket for this package must be provided by customer.

AMPLIFIERS
CONNECTIVITY, COMMUNICATION & INTERFACE ICs
DATA CONVERTER ICs
DIGITAL SIGNAL PROCESSORS
DISCRETES
MEMORIES
MICRO-CONTROLLERS & PROCESSORS
OPERATING SYSTEMS
OPTOELECTRONICS & DISPLAYS
POWER MANAGEMENT ICs
PROGRAMMABLE LOGIC DEVICES
TOOLS & SERVICES