freescale™ Kinetis

Product One-Sheet

Kinetis EA Series Microcontrollers

ARM®-Based MCUs for Ultra-Reliable Applications

Performance and Low Power – Up to 48 MHz ARM Cortex®-M0+ core, single-cycle 32-bit x 32-bit multiplier, less than 2µA in stop mode

High Reliability – AEC-Q100 Grade 1, automotive quality, enhanced ESD/EMC performance up to 6 KV, 125 °C ambient temperature

Features Rich – CAN, LIN, SPI, I²C, analog comparators, multiple timers with PWM functionality

Enablement – Fast time to market with large choice of low level drivers, reference designs, middleware libraries, and example code

KEAZ128 Specifications

Flash	Up to 128 KB	**Timer/PWM**	Up to 8-ch., 16-bit
RAM	Up to 16 KB	**Other Timer**	RTC, PWT, 2 PIT
Core	M0+	**Comparator**	Two 6-bit DAC
Speed	48 MHz	**CAN**	1
Package	16 to 80 pins	**SCI/SPI/I2C**	Up to 3/2/2
Op Range	2.9 V–5.5 V	**HMI**	Up to 71 GPIO, 2 KBI, 1 IRQ
Temp	125 ˚C	**Security**	LVD, WDOG, CRC

Orderable Samples

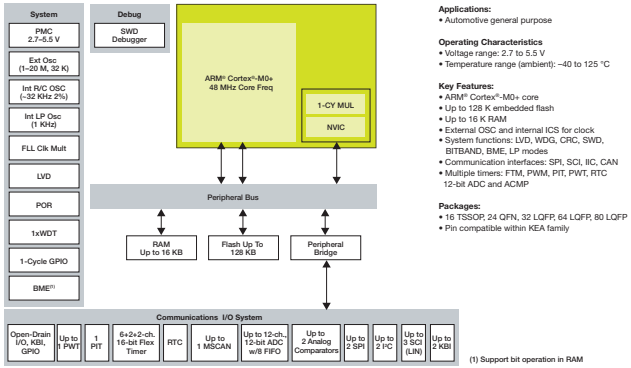
Part Number	Temp Range	Package
S9KEAZ128	-40°C to 125°C	64 and 80 LQFP
S9KEAZN64	-40°C to 125°C	32 and 64 LQFP
S9KEAZN8	-40°C to 125°C	16 TSSOP and 24 QFN

Features

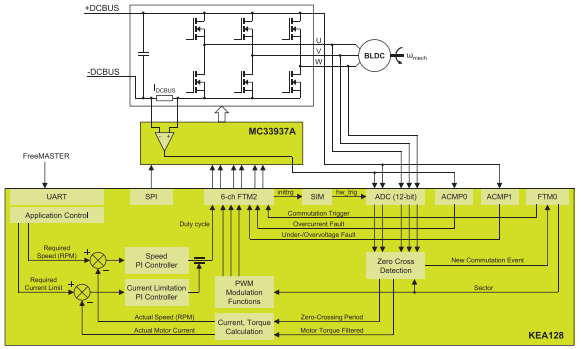
- AECQ100 Grade1, Ta125°C
- 12-bit ADC, PWM/Timers
- CAN and LIN Node
- Ultra-reliable MCU

Get Sample | Data Sheet | Tools

Kinetis EA Series MCUs Block Diagram



3 Phases Sensorless BLDC Motor Control



Success Stories

- Electric motor control
- Air flow system
- Industrial HVAC
- Battery management system

Target Applications

- CAN and LIN nodes
- Peripheral Gateway
- Lighting control
- DC/BLDC motor
- Pump/fan controller
- Battery management
- Generic sensor node
- HVAC

Enablement Tools

- Evaluation boards:
  - TRK-KEA8, TRK-KE64, TRK-KEA128
- Reference designs:
  - KEA128BLDCRD – BLDC Motor Control
  - Lighting Control, CAN/LIN Gateway
- CodeWarrior, KDS, IAR, KEIL, Cosmic
- NVM, CAN and LIN drivers, LIN stack
- M0+ motor control libraries
- FreeMASTER and MCAT

For more information, visit freescale.com/KEA

Product Longevity

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