



Infineon's system solution for embedded systems

# Infineon's solutions for embedded systems

Modern objects in our daily lives, such as coffee machines, dishwashers and automatic opening systems, need embedded intelligence and power. Designing such devices requires an efficient and easy to implement power supply and a cost effective, versatile and scalable microcontroller platform. With Infineon's solutions you can realize the functions which distinguish your product.

In particular, for designs that need very high efficiency Infineon also delivers complete solutions that include secondary side synchronous rectification. This improves efficiency compared to traditional diode-based rectification.







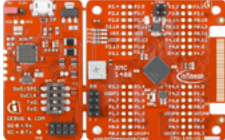



Based on your power and efficiency needs, you can find an optimal ready-to-use solution at Infineon ranging from lowest cost to highest efficiency to highest integration in the given power class.

## Full system solution

Infineon is the right partner to make sure you can implement the functions which distinguish your embedded system/product without worrying about designing a complex power supply and/or microcontroller subsystem.

- > Easy-to-use **reference solutions and/or building blocks such as power supply, power switches and microcontroller** that dramatically cut your time-to-market
- > DAVE™ 4 – free of charge Eclipse-based integrated development environment (IDE) providing extensive, configurable, and reusable code repository for XMC™ MCUs, supporting the whole development process from evaluation to production

## Selection of available evaluation boards for embedded systems

<p>12 W SMPS 800 V fixed frequency CoolSET™ ICE3AR4780VJZ</p>  <p>EVAL-3AR4780VJZ</p>	<p>20 W 5 V SMPS off-line flyback converter CoolSET™ ICE3AR2280VJZ</p>  <p>EVAL-3AR2280VJZ</p>	<p>40 W SMPS 800 V quasi-resonant CoolSET™ ICE32QR0680Z</p>  <p>EVALQRC-ICE2QR0680Z</p>	<p>60 W SMPS fixed frequency flyback controller ICE3BS03LJG</p>  <p>EVALSF3-ICE3BS03LJG</p>	<p>65 W fixed frequency flyback controller ICE3AS03LJG</p>  <p>EVALSF3-ICE3AS03LJG</p>
<p>XMC1300 Boot Kit</p>  <p>KIT_XMC13_BOOT_001</p>	<p>XMC1400 Boot Kit</p>  <p>KIT_XMC14_BOOT_001</p>	<p>XMC1000 Motor Control Application kit</p>  <p>KIT_XMC1X_AK_MOTOR_001</p>	<p>750 W Motor Control Application kit</p>  <p>KIT_XMC750WATT_MC_AK_V1</p>	<p>XMC4400 Motor Control Application kit</p>  <p>KIT_XMC44_AE3_001</p>

## Benefits

- > Very easy to implement
- > Fast time-to-market
- > Very flexible solutions from low-cost to highest efficiency
- > Solutions designed to fit well into most systems



# Reliable and durable solutions for embedded systems

## Flight control

### Quasi-resonant PWM controller

- > ICE2QS03G

### Fixed frequency PWM controller

- > ICE3AS03LJG
- > ICE3BS03LJG

## Primary side high voltage MOSFETs

### 700 V CoolMOS™ CE

- > IPS70R600CE
- > IPS70R950CE
- > IPS70R1K4CE
- > IPS70R2K0CE

### 800 V CoolMOS™ CE

- > IPU80R2K8CE
- > IPD80R2K8CE
- > IPD80R1K4CE
- > IPD80R1K0CE

## Integrated control and MOSFETs

### 800 V quasi-resonant CoolSET™

- > ICE2QR4780Z
- > ICE2QR2280Z
- > ICE2QR0680Z

### 800 V fixed frequency CoolSET™

- > ICE3AR4780VJZ
- > ICE3AR2280VJZ
- > ICE3AR1580VJZ
- > ICE3AR1080VJZ
- > ICE3AR0680VJZ

## Secondary side synchronous rectification ICs

- > Once cycle control PFC IC: IR1153STRPBF
- > Adj. frequency once cycle control PFC: IR1155STRPBF
- > Boost PFC and SMPS control IC: IRS2505LTRPBF
- > 200 V secondary side SR controller: IR1161LTRPBF, IR11662STRPBF
- > 200 V dual SR controller IC: IR11688STRPBF
- > Advanced smart rectifier control IC: IR11672ASTRPBF

## Secondary side synchronous rectification MOSFETs

- > 60 V and 100 V OptiMOS™ 3 Logic Level
- > 100 V OptiMOS™ 3
- > 40 V to 100 V OptiMOS™ 5
- > 40 V to 100 V StrongIRFET™

## Microcontroller

### XMC1000 microcontroller

- > XMC1100T016X0064AB
- > XMC1201T038F0200AB
- > XMC1302Q040X0200AB
- > XMC1402F064X0200AA

## CoolSET™ reference boards

- > EVALQRC-ICE2QR0680Z
- > EVALQRC-ICE2QR4780Z
- > EVALQRC-ICE2QR2280Z
- > EVAL-ICE3AR1080VJZ
- > EVAL-ICE3AR1580VJZ
- > EVAL-3AR4780VJZ
- > EVAL-3AR0680VJZ
- > EVAL-3AR2280VJZ

## PWM IC reference boards

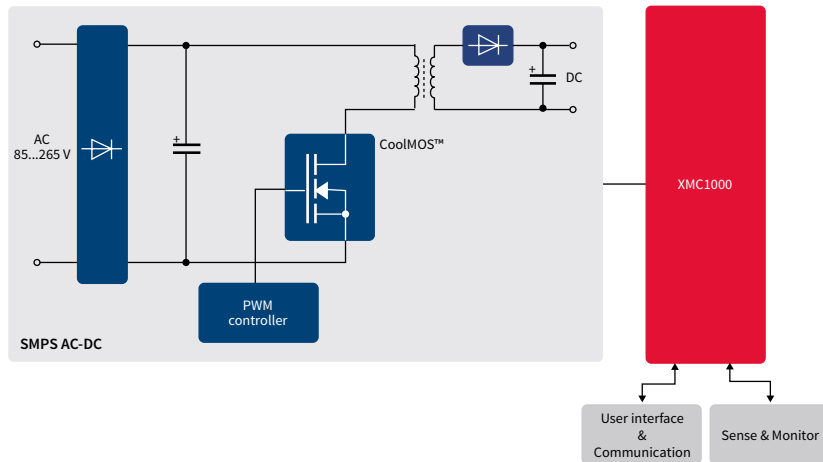
- > EVALQRS-ICE2QS03G
- > EVALSF3-ICE3BS03LJG
- > EVALSF3-ICE3AS03LJG

## XMC™ microcontroller reference boards

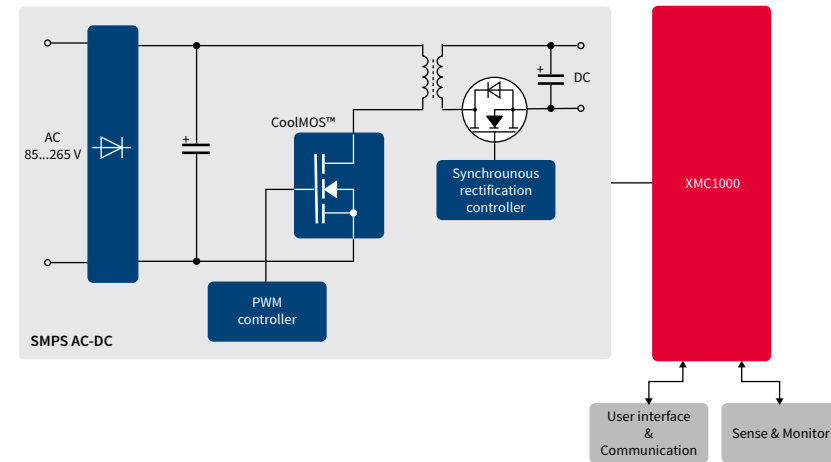
- > KIT\_XMC13\_BOOT\_001
- > KIT\_XMC14\_BOOT\_001
- > KIT\_XMC1X\_AK\_MOTOR\_001
- > KIT\_XMC750WATT\_MC\_AK\_V1
- > KIT\_XMC44\_AE3\_001

# Possible implementations for embedded systems

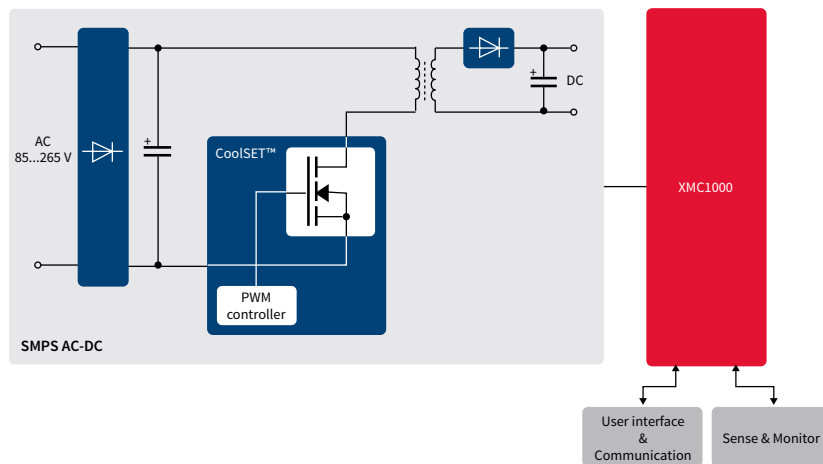
High flexibility and cost competitive



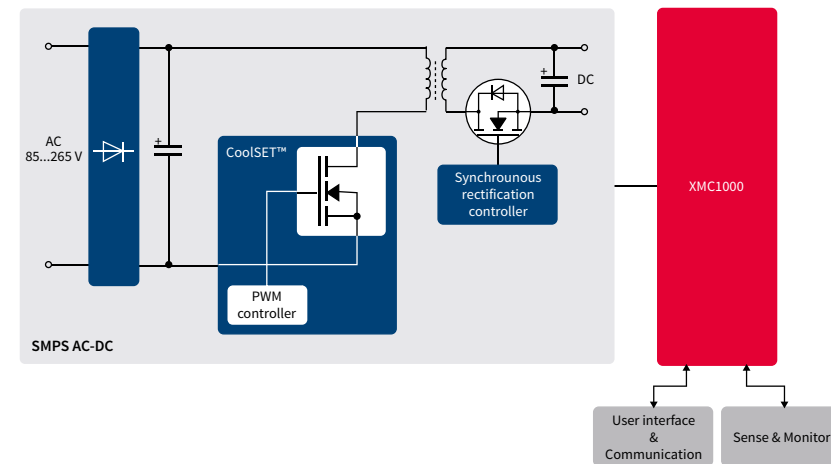
High efficiency and flexibility



High integration, easy to design and cost competitive



High efficiency and high integration



Discover our product recommendation at: [www.infineon.com/embeddedsystem](http://www.infineon.com/embeddedsystem)

单击下面可查看定价，库存，交付和生命周期等信息

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