



# Infineon's solutions for automatic opening systems

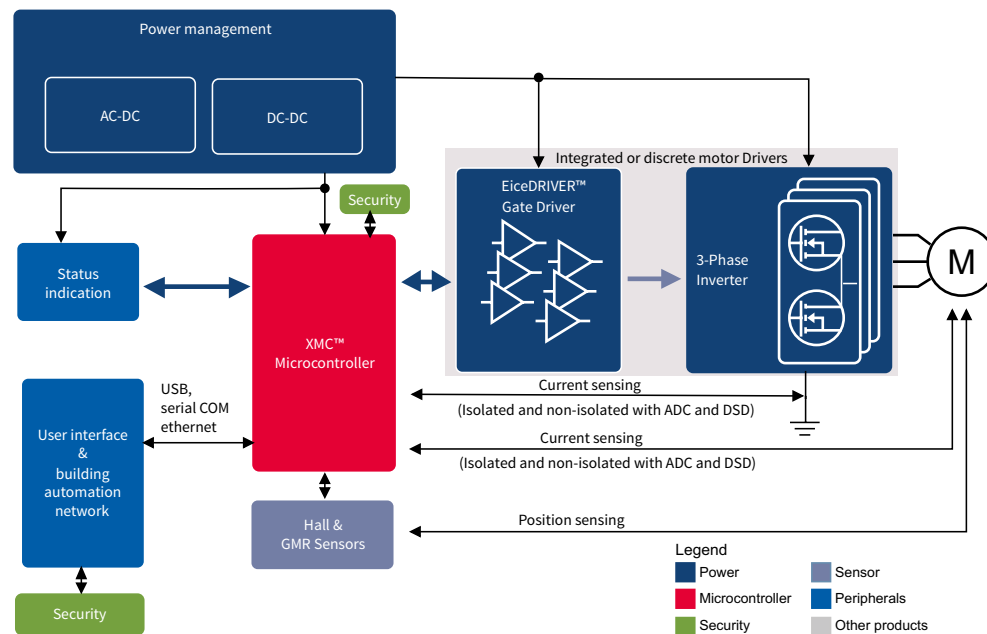
Benchmark efficiency for your motor control and power management

[www.infineon.com/automaticopeningsystem](http://www.infineon.com/automaticopeningsystem)



# Industry-leading solutions for automatic opening systems

Every building and household utilizes openings at numerous positions in and around the building: sliding and swing doors, garage doors, sun blinds and automated gates. When automated, these doors are equipped with systems that are able to manage the opening action, avoid unintentional opening, control the speed and torque, detect the presence of objects along the path, and a number of other functions. Automatic opening systems incorporate smart sensors, motor controls, supplies and battery management, which help to reduce energy losses in all conditions. This is where Infineon comes into place.



## Automatic opening system solution from Infineon

With Infineon's complete portfolio of semiconductor solutions, we offer system solutions for every product you require, ranging from power semiconductors, sensors to security products. Infineon products help to make your motor designs more energy efficient, help to secure against unauthorized manipulation of firmware update and our radar solutions cover 16 times larger area than infrared solutions.

Benefits	Offer
<b>Efficient motor control</b>	> Infineon's highly reliable product solutions enable energy efficient motor solutions, and ensure higher precision position control
<b>Benchmark power efficiency and power density</b>	> Using our industry-leading products for your power management, you will get the highest energy efficiency based on significantly low conduction and switching losses of our MOSFETs. Consequently, we help to maximize the power density
<b>Security</b>	> Highest security against unauthorized manipulation of firmware update/opening of public building entrance > Highest security of data communication
<b>Development effort and time to market</b>	> Project development can be reduced by 30 percent by using reference designs and the DAVE™ platform for Microcontroller programming

# Solutions for automatic opening systems

## Motor control

- > 650 V TRENCHSTOP™ IGBT
- > OptiMOS™/StrongIRFET™
- > Hall Switches
- > Angle Sensors
- > Integrated low power Motor Drivers
- > Intelligent Power Modules
- > EiceDRIVER™ 2EDL Compact/Enhanced
- > Industrial Microcontroller XMC1000/XMC4000
- > DC-DC Converter

## Power management

- > 650 V/800 V CoolSET™ F3
- > 600 V CoolMOS™ P6
- > OptiMOS™
- > PWM ICs for PFC/LLC/Combi PFC + LLC
- > 650 V TRENCHSTOP™ IGBT
- > EiceDRIVER™ 2EDL Gate Driver family

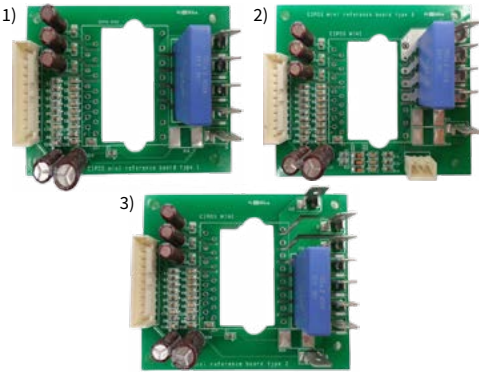

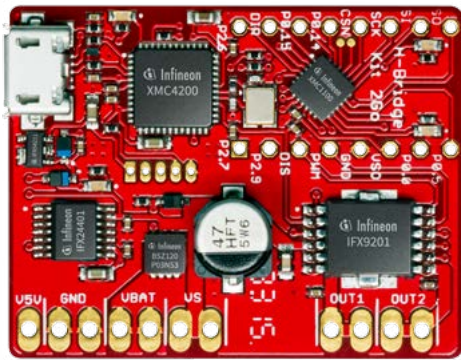

## Security solutions

- > OPTIGA™ TRUST/OPTIGA™ TRUST E
- > OPTIGA™ TPM

## Radar Sensor

- > BGT24MTR11/BGT24LTR11
- > BGT24MR2
- > BGT24MTR12

# Support boards for automatic opening systems

Low Power Motor Driver (CIPOS™)	CoolSET™ evaluation boards	H-Bridge kit 2GO with IFX9201	Motor control power shield for Arduino + XMC1100 Boot kit
			
<ul style="list-style-type: none"> <li>&gt; IKCM10L60GA <sup>1) 2)</sup></li> <li>&gt; IKCM10H60GA (three-phase Inverter) <sup>1) 2)</sup></li> <li>&gt; IKCM10B60GA (three-phase Inverter + single-phase bridge Rectifier) <sup>3)</sup></li> </ul>	<ul style="list-style-type: none"> <li>&gt; 20 W SMPS board using 800 V QR CoolSET™ ICE2QR2280G-1</li> <li>&gt; 28 W SMPS board using 650 V QR CoolSET™ ICE2QR0665G</li> </ul>	<ul style="list-style-type: none"> <li>&gt; IFX9201 6 A H-Bridge</li> <li>&gt; XMC1100 and XMC4200 Industrial Microcontroller</li> <li>&gt; BSZ120P03NS3 P-Channel OptiMOS™</li> <li>&gt; IFX24401 low dropout Voltage Regulator</li> </ul>	<ul style="list-style-type: none"> <li>&gt; BTN8982 (NovalithIC™ half-bridge Driver)</li> <li>&gt; XMC1100 (Industrial Microcontroller)</li> </ul>

<sup>1)</sup> Closed emitter Inverter configuration

<sup>2)</sup> Open emitter Inverter configuration

<sup>3)</sup> Closed emitter Inverter with bridge Rectifier configuration

Published by  
Infineon Technologies Austria AG  
9500 Villach, Austria

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Order number: B116-I0225-V1-7600-EU-EC-P  
Date: 01/2016

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