

# EVAL-M1-CM610N3

## Overview

### Description:

This evaluation board is a complete power stage, powered by **CIPOS™ Mini IKCM10H60GA (/cms/en/product/power/intelligent-power-modules-ipm/ikcm10h60ga/)**. The board is purposed to drive 3-phase motors up to 750W. It is equipped with **MADK™ (/cms/en/product/promopages/madk/)** M1 20 pin interface connector. Therefore, it can be used with **Eval-M1-1302 (/cms/en/product/evaluation-boards/eval-m1-1302/)** or **Eval-M1-099M-C (/cms/en/product/evaluation-boards/eval-m1-099m-c/)** control boards. In combination with these boards, it is a complete set of hardware for a motor control system.

### Summary of Features:

- Power stage to drive 3-phase motor
- 600V blocking voltage
- 10A installed chip current
- 750W output power with passive cooling
- Testpads with hooks to attach standart oscilloscope probes
- Standard MADK™ M1 interface connector

### Benefits:

- Evaluate **IKCM10H60GA (/cms/en/product/power/intelligent-power-modules-ipm/ikcm10h60ga/)** module for your application
- Get your motor running within one hour in combination with **Eval-M1-1302 (/cms/en/product/evaluation-boards/eval-m1-1302/)** or **Eval-M1-099M-C (/cms/en/product/evaluation-boards/eval-m1-099m-c/)**
- Start to learn more about motor control in low voltage domain

### Target Applications:



[\(/cms/productpage-application/battery-powered\)](#)



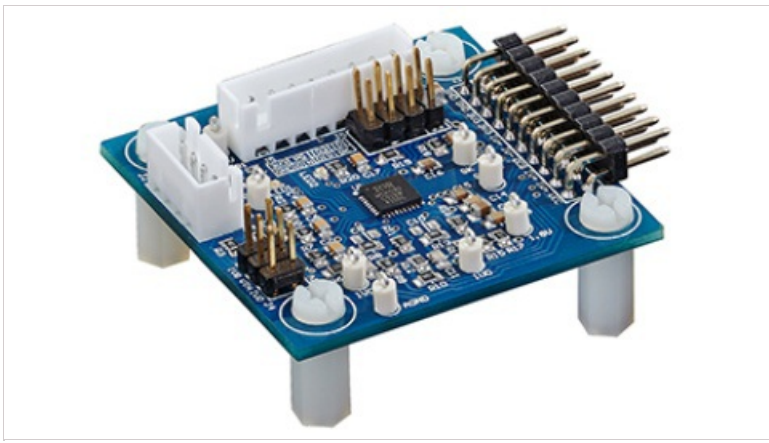
[\(/cms/productpage-application/power-tools\)](#)



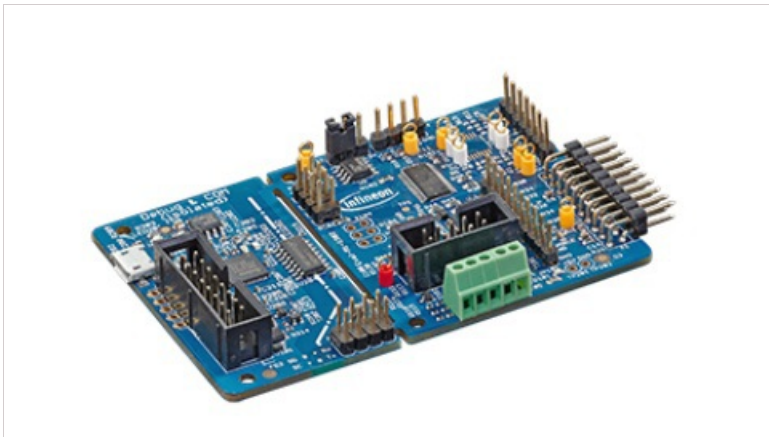
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This Evaluation Boards can be combined with our **EVAL-M1-099M-C** (</cms/en/product/evaluation-boards/eval-m1-099m-c/>) control board. Including a debug interface card and powered by an **IRMCK099M** (</cms/en/product/power/motor-control-ics/digital-motor-controller-imotion/irmck099m/>) Motor Control IC. In addition a MCE Designer GUI for parametrization and tunig is offered. It is designed for motor drive applications such as fans, pumps, multicopter or aircon.

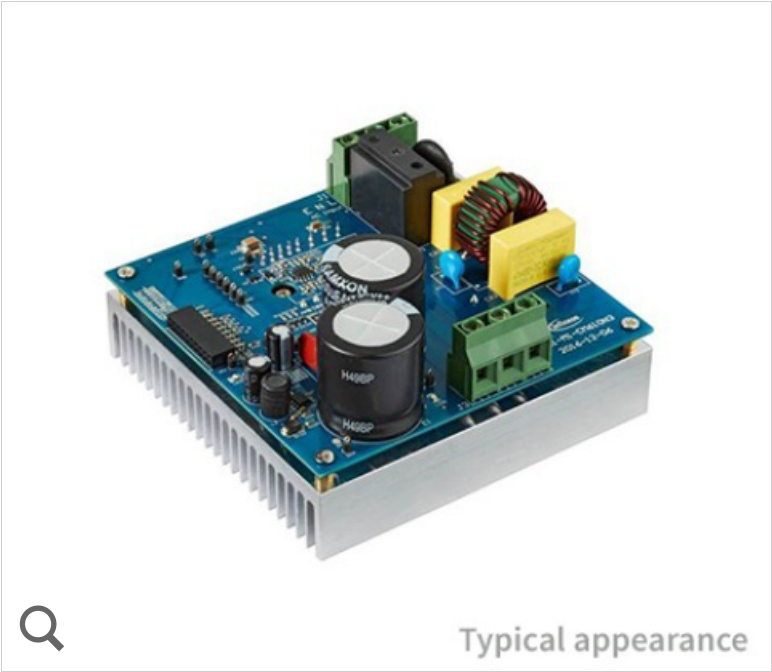


Discover more about our **EVAL-M1-1302** (</cms/en/product/evaluation-boards/eval-m1-1302/>) motor control board powered by **XMC 1302** (</cms/en/product/channel.html?channel=db3a30433c1a8752013c1aa35a6a0029>). It includes an isolated J-Link interface by Segger. The Hardware is prepared to use HALL- or latest innovation of 3D Magnetic Sensor. A complete development suite consisting of DAVE and  $\mu$ C-Probe is provided.



AN2017-09 - Eval-M1-CM610N3 iMOTION™ Modular Application Design Kit  
01\_00 | May 22, 2017 | PDF | 726 kb

([/dgd/Infineon-AN2017-09\\_Eval-M1-CM610N3-AN-v01\\_00-EN.pdf?fileId=5546d4625c167129015c52c1c3e17c4a](/dgd/Infineon-AN2017-09_Eval-M1-CM610N3-AN-v01_00-EN.pdf?fileId=5546d4625c167129015c52c1c3e17c4a))



Parametrics



Parametrics	EVAL-M1-CM610N3
Configuration	powered by CIPOS™ Mini IKCM10H60GA purposed to 3-phase motors up to 750W
Dimensions	120mm*120mm
Family	Motor Driver Microcontroller
Input Type	AC
Interfaces	MADK-M1 20pin interface connector
P <sub>out</sub> max	750.0 W
Product Description	The evaluation board is based on the IKCM10H60GA from Infineon with power ratings of 600V/10A. In combination with control-boards equipped with the M1 20pin interface connector, like EVAL-M1-1302 or EVAL-M1-099M
Product Name	EVAL-M1-CM610N3
Qualification	Industrial
Supply Voltage max	265.0 V
Target Application	Commercial, construction and agricultural vehicles (CAV) Consumer ; Motor Control & Drives
Topology	3-Phase Motor
Type	Evaluation Board

Documents



+ Expand all

## + Product Brief



XMC Wireless Charging (/dgd/Infineon-XMC-wireless-power-controller-PB-v01\_00-EN.pdf?fileId=5546d46253f650570154995339cd6ec8)  
> EN (/dgd/Infineon-XMC-wireless-power-controller-PB-v01\_00-EN.pdf?fileId=5546d46253f650570154995339cd6ec8)  
01\_00 | 2017-12-21 | pdf | 138 KB

## + Application Notes



AN2017-09 - Eval-M1-CM610N3 iMOTION™ Modular Application Design Kit (/dgd/Infineon-AN2017-09\_Eval-M1-CM610N3-AN-v01\_00-EN.pdf?fileId=5546d4625c167129015c52c1c3e17c4a)  
> EN (/dgd/Infineon-AN2017-09\_Eval-M1-CM610N3-AN-v01\_00-EN.pdf?fileId=5546d4625c167129015c52c1c3e17c4a)  
01\_00 | 2017-05-22 | pdf | 726 KB

## + Presentations



iMOTION™ MADK - How to Measure Motor Parameters (/dgd/Infineon-How-to-Measure-Motor-Parameters-PP-v01\_00-EN.pdf?fileId=5546d462566bd0c701568d655bd643ed)  
> EN (/dgd/Infineon-How-to-Measure-Motor-Parameters-PP-v01\_00-EN.pdf?fileId=5546d462566bd0c701568d655bd643ed)  
> CN (/dgd/Infineon-How-to-Measure-Motor-Parameters-PP-v01\_00-CN.pdf?fileId=5546d462566bd0c701568cd2e6694248)  
01\_00 | 2016-08-15 | pdf | 706 KB



Introduction: iMOTION™ Modular Application Design Kit (MADK) Platform (/dgd/Infineon-MADK-the-modular-design-platform-PP-v01\_00-EN.pdf?fileId=5546d462566bd0c701568d6562d343f9)  
> EN (/dgd/Infineon-MADK-the-modular-design-platform-PP-v01\_00-EN.pdf?fileId=5546d462566bd0c701568d6562d343f9)  
> CN (/dgd/Infineon-MADK-the-modular-design-platform-PP-v01\_00-CN.pdf?fileId=5546d462566bd0c701568cd2ef424255)  
01\_00 | 2016-08-15 | pdf | 888 KB

## Order ▼

Sales Product Name	EVAL-M1-CM610N3
OPN	EVALM1CM610N3TOBO1
Product Status	active and preferred
Package name	--
Order online	
Completely lead free	
Halogen free	
RoHS compliant	yes
Packing Size	1
Packing Type	BLISTER TRAY
Moisture Level	
Moisture Packing	NON DRY

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## Tools & Software



### + Software



99 Series Installer (/dgdI/Infineon-99series-kit-mce-installer-SW-v02\_02-EN.exe?fileId=5546d46253f65057015437c4a4e44339)  
> EN (/dgdI/Infineon-99series-kit-mce-installer-SW-v02\_02-EN.exe?fileId=5546d46253f65057015437c4a4e44339)  
02\_02 | 2017-03-16 | exe | 113.5 MB

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## Videos



8:39

Introduction: iMOTION™ MADK platform

This video offers an overview of the current available iMOTION™ MADK board Solutions.





iMOTION™ - How to measure motor parameters

This videos demonstrates how to set up the system for XMC1302 and IRMCK099 of the iMOTION™ Modular Application Design Kit Platform. It demonstrates how to determine Motor parameters by measurement.

Support



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who will be in touch with you as soon as possible.

You will receive a confirmation E-mail to validate your address in our system. Any attached file to the reply which will help to support your inquiry is highly appreciated.

First Name\*

Last Name\*

E-Mail\*

Phone

Company\*

Company website (URL)

Industry\*

Other Industry

Country / Territory\*

Preferred Distributor / Reseller\*

Other Distributor / Reseller

Product Name\*

Estimated annual production volume (pieces) per year\*

Please post your technical question as detailed as possible\*

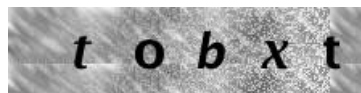
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