

# EVAL-M1-1302\_05-65D

## Overview

### Description:

This Evaluation Kit is a compact and flexible 3-phase motor drive system solution platform with control card and power stage, powered by **IRSM505-065DA2 CIPOS™ Micro (/cms/en/product/productType.html?productType=5546d462533600a401533d5068500580)** and **XMC 1302 (/cms/en/product/channel.html?channel=db3a30433c1a8752013c1aa35a6a0029)**. To get a functioning motor system running in less than 1 hour all needed is included. Such as Control Card with debug interface and complete power stage. Motor control software is preloaded or available for download. An easy to use GUI software for parametrization and tuning is available as well.

### Summary of Features:

- Power stage to drive 3-phase motor
- Standardized **iMOTION™ MADK M1 platform (/cms/en/product/promopages/madk/)** interface
- 230V Grid
- Rohs compliant

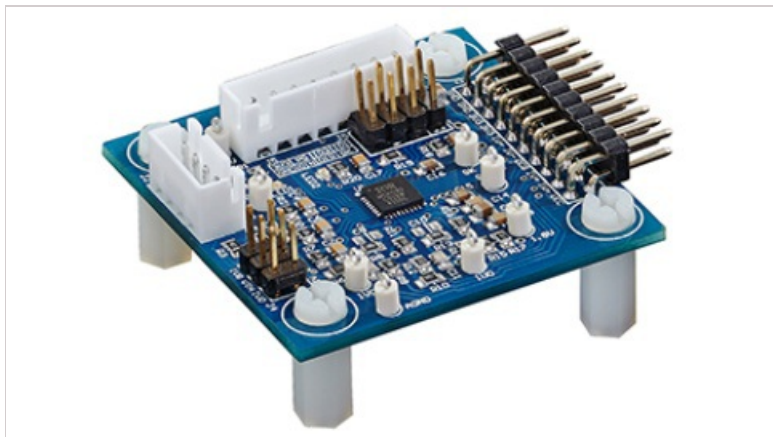
### Benefits:

- Easy to design-in – fast time to market
- All in one solution!

### Target Applications:

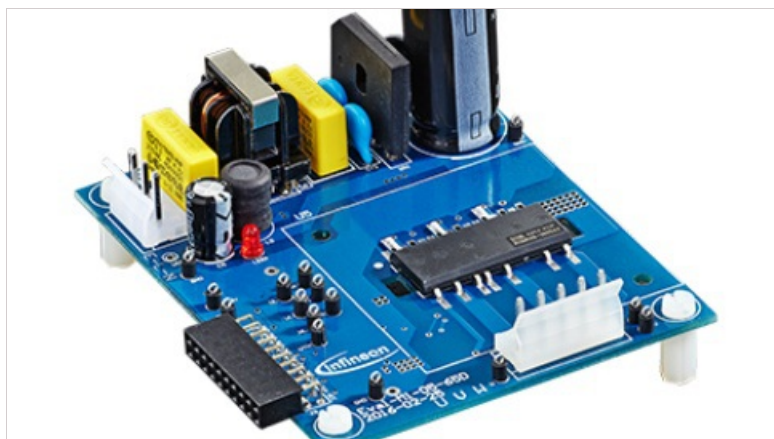


[\(/cms/productpage-application/drives\)](#)
[\(/cms/productpage-application/aircon\)](#)
[\(/cms/productpage-application/pumps\)](#)



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 tuning is offered. It is designed for motor drive applications such as fans, pumps, multicopter or aircon.



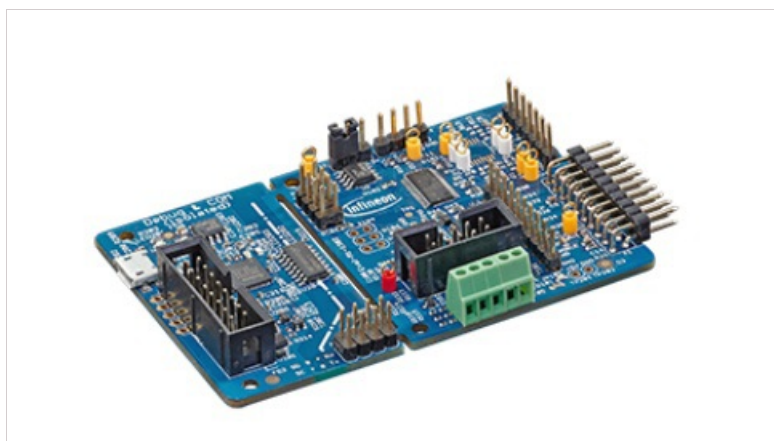
Find out more about our evaluation boards for driving 3-phase motors, powered by **IRSM505-065DA2 CIPOS™ Micro** (</cms/en/product/productType.html?productType=5546d462533600a401533d5068500580>) or **IRSM836-045MA CIPOS™ Nano** (</cms/en/product/productType.html?productType=5546d462533600a401533d50ec420685>) **Intelligent Power Modules (IPMs)** (</cms/en/product/channel.html?channel=db3a30431f848401011fa3657ad1349b>). These boards are equipped with a standardized iMOTION™ MADK M1 platform interface and can be controlled with different control boards having the same interface:

**EVAL-M1-05-65D (2.6A, 500V)** (</cms/en/product/productType.html?productType=5546d46253f6505701543d3300114517>)

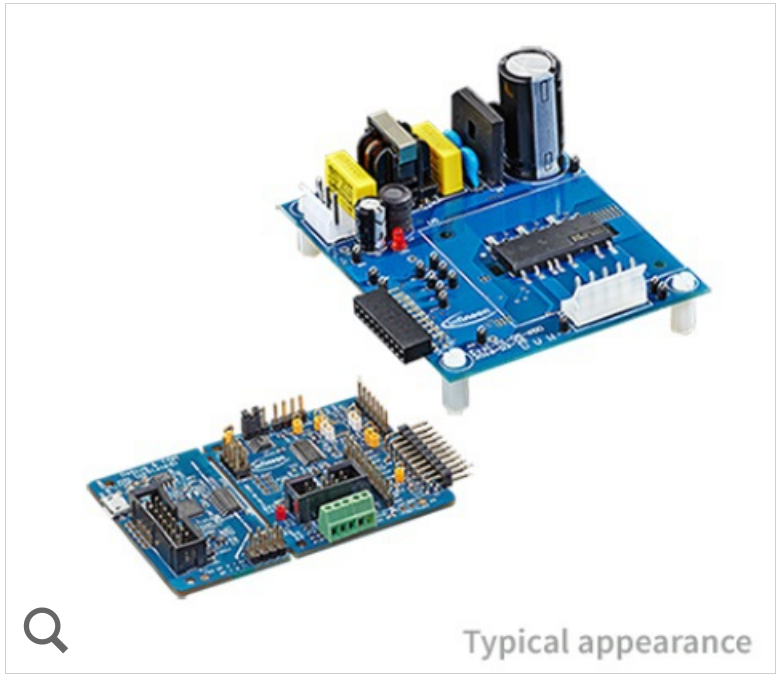
**EVAL-M1-05-84D (7A, 250V)** (</cms/en/product/productType.html?productType=5546d46253f6505701544c6f6143172b>)

**EVAL-M1-36-45A (4A, 500V)** (</cms/en/product/productType.html?productType=5546d46253f6505701544c6f7dec1732>)

**EVAL-M1-36-84A (7A, 250V)** (</cms/en/product/productType.html?productType=5546d46253f6505701544c6f81a51733>)



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 µC-Probe is provided.



Typical appearance

Parametrics



Parametrics	EVAL-M1-1302_05-65D
Configuration	Equipped with $\mu$ C XMC™ 1302 ARM® Cortex® M0 Equipped with IRSM505-065DA2 $\mu$ IPM™-DIP ; iMOTION™ MADK complete Kit with control- and power-board
Description	Evaluation Kit as part of iMOTION™ MADK M1-Plattform with $\mu$ IPM™ DIP (230V)
Family	Motor Driver Microcontroller
Input Type	AC
Product Description	This Kit is a compact and flexible 3-phase motor drive system solution platform with control card and power stage, powered by IRSM505-065DA2 $\mu$ IPM™ DIP and XMC 1302
Product Name	EVAL-M1-1302_05-65D
Target Application	Automation Consumer ; Industrial ; Motor Control & Drives
Topology	3-Phase Motor
Type	Evaluation Board

Documents



+ Expand all

+ Data Sheet



IRSM505-065 and IRSM515-065 Series (/dgd/Infineon-IRSM505-065\_and\_IRSM515-065\_Series-DS-v02\_00-EN.pdf?fileId=5546d462533600a40153567bfeae2882)  
> EN (/dgd/Infineon-IRSM505-065\_and\_IRSM515-065\_Series-DS-v02\_00-EN.pdf?fileId=5546d462533600a40153567bfeae2882)  
02\_00 | 2016-10-18 | pdf | 872 KB

## + 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

## + Getting Started



iMOTION™ MADK Sensorless FOC with XMC™ (/dgd/Infineon-iMOTION MADK Sensorless FOC with XMC-GS-v01\_00-EN.pdf?fileId=5546d46255dd933d0155edee06717683)  
> EN (/dgd/Infineon-iMOTION MADK Sensorless FOC with XMC-GS-v01\_00-EN.pdf?fileId=5546d46255dd933d0155edee06717683)  
01\_00 | 2016-07-15 | pdf | 3.1 MB

## + Application Notes



EVAL-M1-05-65D - iMOTION™ Modular Application Design Kit (/dgd/Infineon-AN2016-24\_EVAL-M1-05-65D-AN-v01\_00-EN.pdf?fileId=5546d4625696ed760156da2dccc96f4a)  
> EN (/dgd/Infineon-AN2016-24\_EVAL-M1-05-65D-AN-v01\_00-EN.pdf?fileId=5546d4625696ed760156da2dccc96f4a)  
01\_00 | 2016-08-30 | pdf | 1 MB



Eval-M1-1302 - Control board for iMOTION™ Modular Application Design Kit (/dgd/Infineon-AN2016-22-Eval-M1-1302 Control board-AN-v01\_00-EN.pdf?fileId=5546d46256fb43b3015746b7e9550fb1)  
> EN (/dgd/Infineon-AN2016-22-Eval-M1-1302 Control board-AN-v01\_00-EN.pdf?fileId=5546d46256fb43b3015746b7e9550fb1)  
01\_00 | 2016-09-20 | pdf | 1.7 MB

## + 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=5546d462566bd0c701568cd2ef6694248)  
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-M1-1302_05-65D
OPN	EVAlM113020565DToBo1
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

Boards

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Image	Board ▼▲	Family ▼▲	Description ▼▲	Status ▼▲
	EVAL-M1-05-65D (/cms/en/product/evaluation-boards/eval-m1-05-65d/)	Motor Driver, Microcontroller	This evaluation board is a complete power stage to drive 3-phase motor, powered by IRSM505-065DA2 CIPOS™ Micro <ul style="list-style-type: none"> <li>Equipped with IRSM505-065DA2 CIPOS™ Micro</li> <li>iMOTION™ MADK complete power stage to drive 3-phase motor</li> </ul>	active and preferred
	EVAL-M1-099M-C (/cms/en/product/evaluation-boards/eval-m1-099m-c/)	Microcontroller, Motor Driver	iMOTION™ MADK control card <ul style="list-style-type: none"> <li>Equipped with IRMCK099M iMOTION™ Motor Control IC</li> </ul>	active and preferred
	EVAL-M1-1302 (/cms/en/product/evaluation-boards/eval-m1-1302/)	Motor Driver, Microcontroller	High Performance Sensorless Motor Control Card <ul style="list-style-type: none"> <li>Equipped with µC XMC 1302 ARM® Cortex® M0</li> <li>iMOTION™ MADK motor control board</li> </ul>	active and preferred
	MCETOOLV2 (/cms/en/product/evaluation-boards/mcetoolv2/)	Motor Driver, Microcontroller	Isolated Debugger Tool for configuring, programming and debugging of all IRMCK099, IRMCx100 and RMCx300 series iMOTION™ motor control ICs	active and preferred

Tools & Software

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Software



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



DAVE4 Project - Eval-M1-1302\_05-65D (/dgdl/Infineon-DAVE4\_Project\_Eval-M1-1302\_05-65D-SW-v01\_01-EN.zip?fileId=5546d46258fc0bc101591aff31d248a0)  
> EN (/dgdl/Infineon-DAVE4\_Project\_Eval-M1-1302\_05-65D-SW-v01\_01-EN.zip?fileId=5546d46258fc0bc101591aff31d248a0)  
01\_01 | 2016-12-16 | zip | 2.9 MB



Software Package Eval-M1-1302\_05-65D (/dgdl/Infineon-Software Package Eval-M1-1302\_05-65D-SW-v01\_01-EN.zip?fileId=5546d46255dd933d0155eddbc3b2763f)  
> EN (/dgdl/Infineon-Software Package Eval-M1-1302\_05-65D-SW-v01\_01-EN.zip?fileId=5546d46255dd933d0155eddbc3b2763f)  
01\_01 | 2016-08-05 | zip | 234 KB

**Additional Software**

**µC/Probe™ XMC™ Download** ([https://infineoncommunity.com/uC-Probe-XMC-software-download\\_ID712](https://infineoncommunity.com/uC-Probe-XMC-software-download_ID712))

**DAVE™ Software Download** ([https://infineoncommunity.com/dave-download\\_ID645](https://infineoncommunity.com/dave-download_ID645))

Videos



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

8:39







13:24

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.



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Technical Assistance Center (TAC)

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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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