

WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

COMPACT. EFFICIENT. SILENT.

INFUSED BY INNOVATION.



Next Level of Innovation

The Fixed Isolated MicroModule series with its best in class efficiency of 91% maintains excellent thermal performance in the most space-constrained of applications using an LGA-7 package. Features like continuous short circuit protection (SCP) and a high isolation voltage of 3kV ensures robust performance in industrial environments. The FIMM module meets the EN55032 (CISPR-32) compliance standard with massive safety margins, making implementation as easy as possible.

www.we-online.com/INFUSEDBYINNOVATION

#FIMM

Highlights

- LGA-7 housing (9 mm x 7 mm x 3.1 mm)
- Ambient temp range from -40 °C to +125 °C
- Typ. 8 pF parasitic coupling capacitance
- Efficiency up to 91%
- Certified according UL62368-1
- Dynamic and static power boost

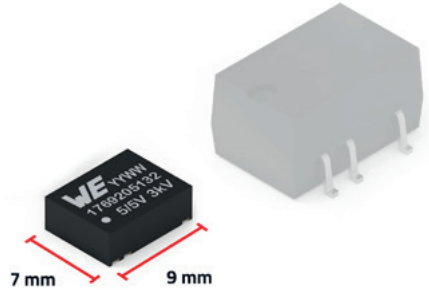


INNOVATION WITHOUT COMPROMISES

COMPACT

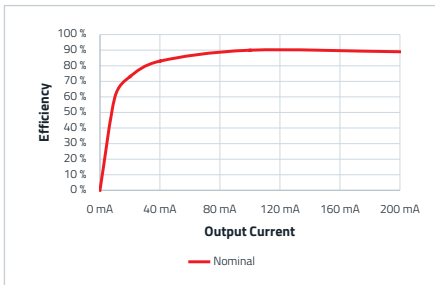
With its **compact size** the FIMM only needs 50% of the space compared to conventional SMT-8 Modules.

Combined with the **functional isolation of 3000 V** it is the perfect solution for space-constrained applications in the industrial sector providing galvanic isolated power supply.



EFFICIENT AND ROBUST

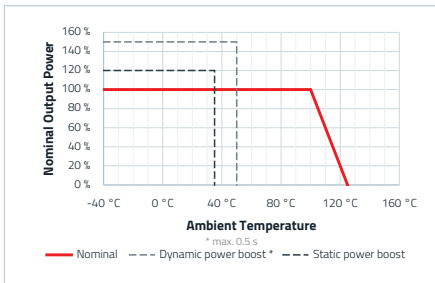
High and stable efficiency over the complete output current range



Due to its high **efficiency of up to 91%** it supports a "cool design" and can therefore be used in an operating temperature range from -40°C up to 100°C without any derating.

With the optimal temperature range for any industrial application and the integration of all core components it is **reducing design effort and complexity to a minimum.**

Derating curves with all possible operating modes

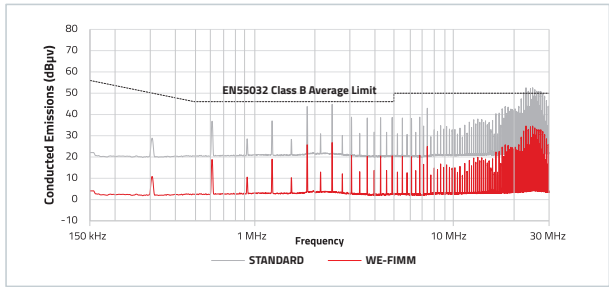
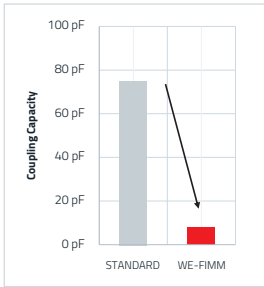


With the **power boost feature** additional current could be provided allowing the module to fulfil the demands in:

- Unforecasted increases in load demands
- Monotonic charging of capacitive loads
- Backup power for momentary demands of the application

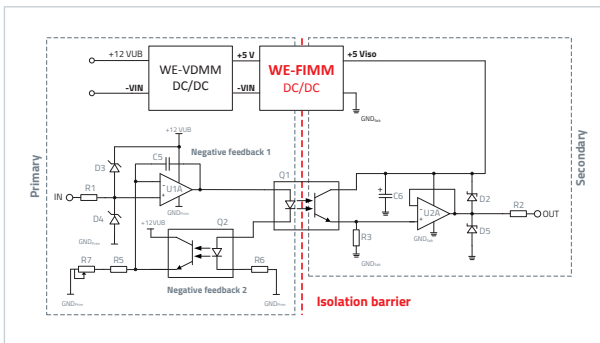
SILENT

With the very **low parasitic capacitance of 8 pF** between the input and output circuits, the module is particularly suitable for applications such as sensitive analogue low-frequency circuits and relay-controlled circuits with higher interference potential.



APPLICATION EXAMPLE

Galvanically isolated measurement signal transmission



More details and further explanation of more Applications:
we-online.com/ANS019

The application circuit of a galvanic isolated measurement signal transmission can provide a solution for decoupling by galvanic isolation and balancing of the measured values.

Key points from the application:

- Voltage supply from 0 VDC to +4 VDC
- Pulsed VDC up to 5 kHz for data signal
- Galvanic isolation



ISOLATED POWER MODULE AND MICROMODULE PORTFOLIO

MAGI³C-FISM FIXED ISOLATED SIP / SMT MODULE

V_{IN} 2.97 V to 26.4 V | V_{OUT} 5 to 15 V | P_O 1 to 2 W

SMT-8

SIP7

SIP4

- High efficiency
- Ambient temperature range up to 105 °C
- Static and dynamic power boost



For more information
www.we-online.com/MAGIC-FISM

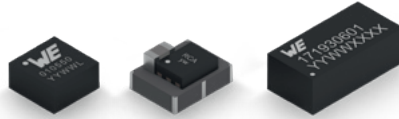
MAGI³C-VDMM VARIABLE STEP DOWN MICROMODULE

V_{IN} 2.5 V to 36 V | V_{OUT} 0.6 to 6 V | I_{OUT} 0.3 to 1.2 A

LGA6-EP

LGA8-EP

- High efficiency
- Very low profile
- Ideal for space constrained applications



For more information
www.we-online.com/MAGIC-VDMM

SERVICE & SUPPORT



Design-in Support

- Product related & application specific support by hotline
- Troubleshooting and individual design solutions



Layout Review Support

- Individual review of customer layouts
- Reference layout examples given in every datasheet also available as Altium design files as free download



Thermal Design Support

- Temperature distribution
- Total power handling
- Thermal behaviour of power modules as well as interactive power loss chart in **REDEXPERT**



EMC Filter Design Support

- Solution for conducted & radiated emissions
- Tested filter configurations for EN55032 / CISPR-32 class B compliance
- Real EMI behavior shown as well as gain and phase response of EMI filter in **REDEXPERT**



For more Design-In Support
contact us directly via our
contact formular!

