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 3 kV 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.

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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:

- Unforcasted 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

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

More details and further explanation of more Applications: [we-online.com/ANS019](http://we-online.com/ANS019)
ISOLATED POWER MODULE
AND MICROMODULE PORTFOLIO

MAGI³C-FISM FIXED ISOLATED SIP / SMT MODULE

\( V_{\text{in}} \) 2.97 V to 26.4 V \( | V_{\text{out}} \) 5 to 15 V \( | P0 \) 1 to 2 W

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

MAGI³C-VDMM VARIABLE STEP DOWN MICROMODULE

\( V_{\text{in}} \) 2.5 V to 36 V \( | V_{\text{out}} \) 0.6 to 6 V \( | I_{\text{OUT}} \) 0.3 to 1.2 A

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

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!