

Powering the Pocket IO PLC Development Platform

POCKET IO PLC DEVELOPMENT PLATFORM MAXIMIZES PRODUCTIVITY

Industry 4.0 is alive and continues to gain momentum with more companies embracing the promise of optimized factory throughput by providing 24/7/365 days of up-time. The Pocket IO™ PLC development platform opens new pathways to achieve the full power of Industry 4.0 allowing "on-the-fly" reconfiguration and increasing productivity for manufacturing. Systems must be more power efficient than ever to keep the PLC from overheating, especially in applications where fans and vents are not acceptable. Maxim remains focused on delivering innovative solutions for industrial communications.



The Pocket IO provides the following key advantages to increase productivity:

Real-time intelligence: Fast data processing provides the necessary data to make intelligent decisions quickly and effectively to optimize yield.

Adaptive manufacturing: Manufacturing flexibility allows for real-time changes and adjustments to avoid potential downtime.

Distributed control: Ultra-small footprint of less than 10 cubic inches and smart energy consumption allows the PLC to be deployed on the manufacturing line, redistributing intelligent control and providing redundancy.

INDUSTRIAL POWER PRODUCTS KEEP POCKET IO COOL AND SMALL

With lower power dissipation, size and cost, the Pocket IO is revolutionizing manufacturing.

High-Voltage DC-DC

50% Cooler, 50% Smaller, 75% Less BOM Count

System Protection ICs

50% Smaller, 50% Less BOM Count

Power Modules

Ease of Use

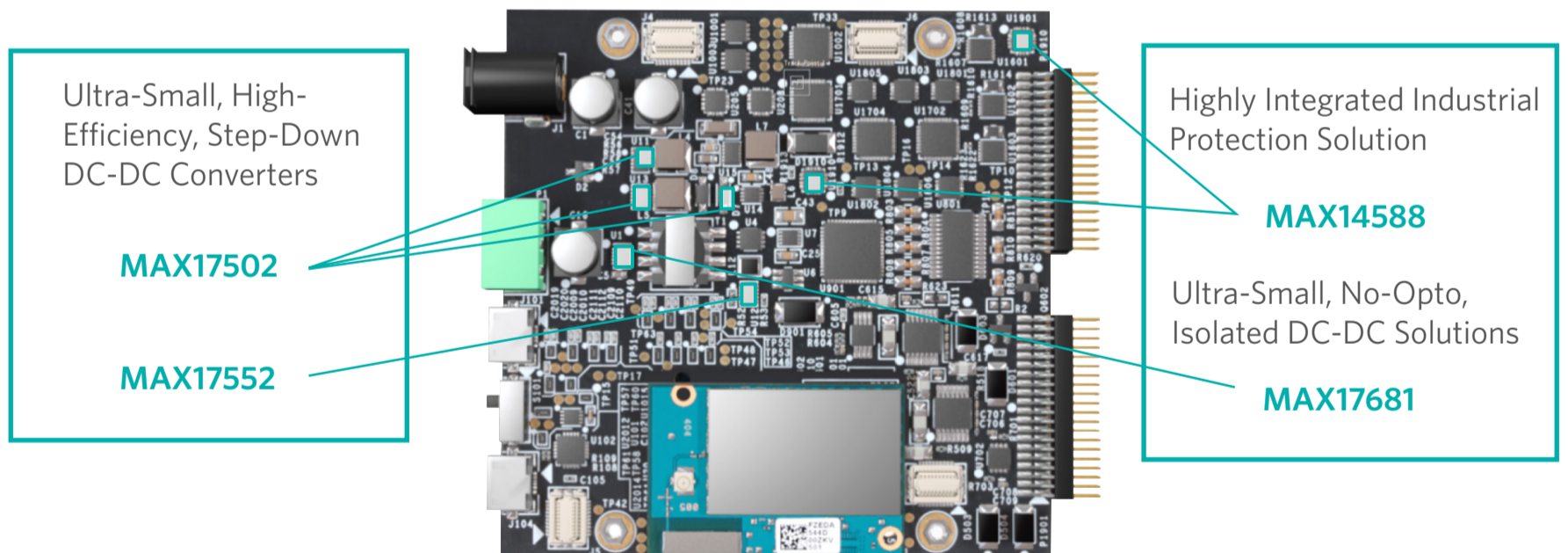
Isolated Controllers & MOSFET Drivers

50% Less BOM Count, 30% Smaller



HIGH-EFFICIENCY, HIGH-VOLTAGE DC-DC CONVERTERS POWER THE POCKET IO

The power conversion stage of the Pocket IO operates at high efficiency and is designed to minimize cost and space.



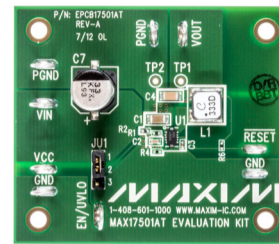
KEY ADVANTAGES

- Low RDS_{ON} and power-MOSFET synchronous rectification increase efficiency by as much as 10% over asynchronous solutions (> 90% peak efficiency)
- Small, 3mm × 2mm, TDFN package integrates high-side and low-side power MOSFETs to considerably reduce overall solution size by eliminating bulky Schottky diodes
- Internal power MOSFETs, built-in compensation, and preprogrammed output options significantly reduce solution cost by requiring as few as five external components

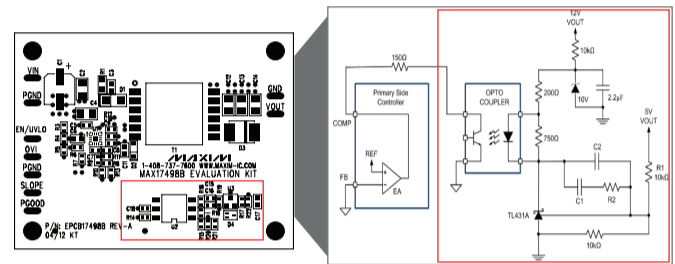
INDUSTRIAL POWER PRODUCTS REDUCE SOLUTION SIZE

The Pocket IO PLC development platform leverages Maxim's expertise in analog integration to enable an extremely compact footprint of less than ten cubic inches.

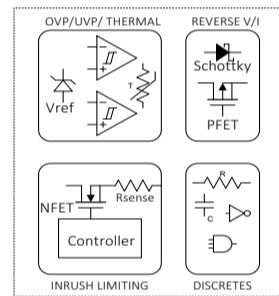
High-Voltage, Dense Industrial Grade DC-DC Regulators



Innovative Isolated Power Solutions



Highly Integrated Modern Protection ICs



MAXIM
MAX14588

ENABLES HIGH EFFICIENCY AND LOWERS TEMPERATURE

The Pocket IO is more power efficient than ever, to prevent the PLC from overheating. This is especially important in an environment where fans and vents are typically not acceptable.

