LOW NOISE ISOLATED DESIGNS FOR SAFETY CRITICAL APPLICATIONS

Reinforced Isolated Power Converters

Advantages of Integrated Isolated Power

Integrated isolated power pioneered by Analog Devices’ IsoPower® chip-scale transformer technology changed isolation system design. This technology removed the complexity of building and certifying separate isolated supplies, reduced board size, and eliminated the need to use multiple discrete components for optimized designs.

New Family Highlights

The next generation family of 500 mW, isolated dc-to-dc power converters builds upon Analog Devices’ pioneering expertise with iCoupler® and IsoPower technology to support a variety of design goals.

- **Low radiated emissions (EMI)** — Below EN 55022/CISPR 22 Class B
- **Smallest package size** — 8-lead
- **High temperature operation** — Up to 125°C

<table>
<thead>
<tr>
<th>Output Power (mW)</th>
<th>Isolation Rating (kV rms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>3</td>
</tr>
<tr>
<td>500</td>
<td>5</td>
</tr>
</tbody>
</table>

Meet EMI Targets the First Time with Simplified Design

Low component-level emissions eliminate the need for costly EMI mitigation techniques and simplify the application certification process.

| Regulatory compliance — Meet CISPR 22 Class B standards |
| Reduced complexity — No stitching capacitance needed |
| Faster time-to-market — Reduced PCB design and test time |
| Smaller application size — Up to 70% PCB space savings |
| Lower material cost — Up to 30% on a 2-layer PCB |

Visit analog.com
Achieve Complex Isolated Design Goals with Confidence

Analog Devices has the most established digital isolated power solutions in the industry, enabling you to meet your complex isolated design goals with confidence and streamline your application’s certification process within deadlines and budget.

Proven Integration
10+ years history of installed customer implementations and the pioneer of chip-scale transformer technology with iCoupler solutions and integrated isolated power isoPower solutions.

Optimal Designs
Build with fewer design rounds, reduced learning curve, and reduced component count and material costs.

Simplified Certification
Our new family of digital isolation products has been tested and approved by various regulatory agencies—including UL, CSA, VDE, TÜV, and CQC.

Innovative ISO Power Solutions

Achieve Complex Isolated Design Goals with Confidence

The ADuM5020 and ADuM5028 2-layer evaluation boards meet CISPR 22 Class B without stitching capacitance.

Samples and evaluation boards are available at analog.com/isoPower

Application Overview

The next generation of isoPower devices feature low radiated emissions, the smallest package size, and high temperature operation, meeting the needs of safety-critical applications with strict leakage requirements, and compact and dense designs.

Automotive

Battery Monitoring and Inverters
Weight and size savings, high temperature operation, and strict EMI limits.

Industrial Automation

Programmable Logic Controllers (PLCs)
High density and more channels that fit into the same form factor.

Instrumentation

Precision Measurement
Reduced footprint, and low noise for instrumentation accuracy.

Medical Equipment

Vital Signs Monitoring
Patient safety from high voltages, strict EMI limits, and product density.

The ADuM5020 and ADuM5028 2-layer evaluation boards meet CISPR 22 Class B without stitching capacitance.

Samples and evaluation boards are available at analog.com/isoPower

Application Overview

The next generation of isoPower devices feature low radiated emissions, the smallest package size, and high temperature operation, meeting the needs of safety-critical applications with strict leakage requirements, and compact and dense designs.

Automotive

Battery Monitoring and Inverters
Weight and size savings, high temperature operation, and strict EMI limits.

Industrial Automation

Programmable Logic Controllers (PLCs)
High density and more channels that fit into the same form factor.

Instrumentation

Precision Measurement
Reduced footprint, and low noise for instrumentation accuracy.

Medical Equipment

Vital Signs Monitoring
Patient safety from high voltages, strict EMI limits, and product density.

The ADuM5020 and ADuM5028 2-layer evaluation boards meet CISPR 22 Class B without stitching capacitance.

Samples and evaluation boards are available at analog.com/isoPower

Application Overview

The next generation of isoPower devices feature low radiated emissions, the smallest package size, and high temperature operation, meeting the needs of safety-critical applications with strict leakage requirements, and compact and dense designs.

Automotive

Battery Monitoring and Inverters
Weight and size savings, high temperature operation, and strict EMI limits.

Industrial Automation

Programmable Logic Controllers (PLCs)
High density and more channels that fit into the same form factor.

Instrumentation

Precision Measurement
Reduced footprint, and low noise for instrumentation accuracy.

Medical Equipment

Vital Signs Monitoring
Patient safety from high voltages, strict EMI limits, and product density.

The ADuM5020 and ADuM5028 2-layer evaluation boards meet CISPR 22 Class B without stitching capacitance.

Samples and evaluation boards are available at analog.com/isoPower

Application Overview

The next generation of isoPower devices feature low radiated emissions, the smallest package size, and high temperature operation, meeting the needs of safety-critical applications with strict leakage requirements, and compact and dense designs.

Automotive

Battery Monitoring and Inverters
Weight and size savings, high temperature operation, and strict EMI limits.

Industrial Automation

Programmable Logic Controllers (PLCs)
High density and more channels that fit into the same form factor.

Instrumentation

Precision Measurement
Reduced footprint, and low noise for instrumentation accuracy.

Medical Equipment

Vital Signs Monitoring
Patient safety from high voltages, strict EMI limits, and product density.

The ADuM5020 and ADuM5028 2-layer evaluation boards meet CISPR 22 Class B without stitching capacitance.

Samples and evaluation boards are available at analog.com/isoPower