SPACECRAFT SYSTEMS

XY50601 Radiation-Resistant Synchronous Rectifier Buck Switching Power Chip

The XY50601 is a high-reliability, radiation-hardened synchronous rectifier buck-type switching power chip designed for distributed power supplies in aerospace electronic systems. It serves as a core power source for system processors, FPGAs, ASICs, and other components. The chip integrates a high-performance internal low-end MOSFET capable of delivering a maximum output current of 6 A. It features high efficiency, high integration, and compact size, making it suitable for high-reliability aerospace and military electronic systems.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Function	Switching Power Supply
Process Technology	0.18 µm
Dimensions (mm)	12.7 × 7.4 × 2.2
Weight (g)	< 1.3
Operating Temperature (°C)	−55 to +125
Storage Temperature (°C)	−65 to +150
Package Type	CFP20
Quality Grade	CAST C / Military Grade

Quick Overview

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Key Features

- Synchronous rectification and buck-type switching power design.
- Integrated high-performance low-end MOSFET.

- High efficiency, compact size, and high integration.
- Radiation-resistant design for aerospace applications.

Applications

- Used in aerospace and military-grade high-reliability electronic systems for distributed power management.

Documentation & Resources

- Technical Specifications
- Applications