

uMP AC-DC Power Distribution Units: Reliability and Efficiency for Medical Media Management

INDUSTRY SOLUTION APPLICATION

Medical

Power Distribution Unit

Media Management

CHALLENGE

The customer faced a significant challenge in their media management environment within surgical rooms. The power distribution unit (PDU) needed to support power, video, and audio communication peripheral devices seamlessly. The PDU consisted of 20 Ethernet ports (2 A max) for power management circuits along with video/audio communication. It was crucial for the system to support up to 960 W max at full load.

SOLUTION

The uMP10S-SKQ-00-A emerged as the ideal solution for the end customer. The uMP is capable of delivering power even when one or more Ethernet ports get shorted. It also offers constant current and does not hiccup when a short happens, unlike other power supply units that go into hiccup mode and shut down.

The uMP series configurable power supplies support power requirements from 400 to 1800 W in high-density 1U-type power supplies. Additionally, the uMP family carries full EN60950 ITE and EN60601 (medical) safety approvals, which was essential for the industry the customer was competing in. It also offers up to 12 outputs, smart fan control, and monitoring of parameters such as fan speed, temperature, input voltage, and input current. Readings are carried via the device's I2C interface using the industry-standard PMBus® protocol.



RESULT

The implementation of the uMP10S-SKQ-00-A provided the customer with local technical expertise and field support, ensuring a smooth and efficient integration. The availability of fast samples further facilitated the process. The solution proved to be reliable and efficient, meeting the power, video, and audio communication needs of the surgical room media management environment. The uMP solution rivalled the cost of non-configurable power supplies while providing density, efficiency, and reliability.





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