

From Hospital to Home: SLE33 Series Delivers Scalable Power for Next-Gen Medical Devices

INDUSTRY**Medical****SOLUTION****SL Power SLE33 Series****APPLICATION****Portable Medical Infusion Pump****CHALLENGE**

In the dynamic landscape of healthcare technology, a notable customer was in search of a robust USB-C PD 3.0 solution to power their state-of-the-art portable infusion pumps. These devices, crucial for patient care, needed to operate seamlessly both in hospitals and home environments, requiring a dual functionality of charging the device's battery while simultaneously powering the pumps. The challenge was to identify a product that offered the optimal power level without sacrificing portability. With ambitious growth plans, the customer anticipated an initial deployment in tens of thousands of units annually over the next five to seven years.

SOLUTION

Aware of the intricate requirements, Advanced Energy (AE) engineering team recommended the innovative SLE33SPD96B01 model. This device featured a 1.2-meter fixed output cable with a USB Type-C connector, striking the perfect balance between accessibility and storage convenience. Its interchangeable input connector enhanced user portability, allowing operation across diverse regions globally. At 33 W, the power level was precisely tailored to meet the dual needs of powering the infusion pumps and charging the onboard batteries. The customers' feedback on the product was overwhelmingly positive, citing flawless operation and seamless integration with their application.



The SLE33 series distinguished itself through an array of advanced features:

- Superior energy efficiency, meeting Energy Level VII and VI standards.
- Full compliance with Medical and ITE safety standards.
- Two Means of Patient Protection (2 MOPP) input-to-output isolation, meeting stringent safety requirements for medical applications.
- Superior safety performance with leakage current less than 100 μ A.
- Ultra-efficient standby power consumption of under 0.1 W.
- Versatile output voltage options (5 V / 9 V / 12 V / 15 V / 20 V).
- Operability up to an altitude of 5000 meters.
- Adaptable mechanical design, supporting wall mounts with interchangeable plugs or a fixed cable approach.
- Compatibility with USB PD 2.0, PD 3.0, QC 2.0, QC 3.0, and PPS standards.

RESULT / CONCLUSION

Through rigorous testing, the customer was able to validate the exemplary performance of the SLE33 adaptor within their application. AE's solution successfully addressed the customer's demand for a reliable USB PD 3.0 adaptor capable of supporting their high-power usage device. The products' precision power output, compact design, and strategic cable length exceeded the customer's expectations, aligning perfectly with their product marketing strategy. Fuelled by this success, the customer expressed keen interest in advancing with AE's solution, marking a significant milestone in their deployment plans.



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