CASE STUDY

SLE100 USB-PD Charger for Medical Imaging

INDUSTRY	SOLUTION	APPLICATION
Medical	SL Power SLE Series (SLE100SPD)	Medical USB-PD Imaging and Scanners

CHALLENGE

The customer needed a USB C PD 3.0 device to power medical scanners used in hospital and clinical environments for imaging and scanning. The product had to deliver the right power level to support portability and include a connector locking mechanism adhering to USB IF organization requirements. Because the customer's device involves operator and possible patient contact, a low leakage product was essential.

SOLUTION

The AE team proposed the SLE100SPD96B01 with a 1.2 m fixed output cable which was long enough for the intended use cases along with a modification to the USB Type C connector to add a screw locking mechanism per the USB IF specification. The interchangeable input connector allows the customer to market their product across different global regions, and the 100 W power level was sufficient to power the customer's range of devices.



RESULTS

The modified SLE100SPD96B01 met the customer's requirements on every count including 100 W of power for their imaging and scanning devices, a 1.2 m fixed cable, and a screw-locking USB Type-C connector. The customer was pleased with the proposal and decided to proceed with AE's solution.

Delivering that outcome, the SLE100SPD series provides:

- Medical and ITE safety approvals with 2 MOPP input-to-output isolation and leakage current under 100 µA
- Standby power below 0.15 W, Energy Level VI compliant and meeting Level VII requirements
- 5 V, 9 V, 12 V, 15 V, and 20 V outputs and 5000 m operating altitude
- Wall mount (USB-C port) with interchangeable plugs, or desktop (USB-C port or fixed cable) mechanical options
- Compliance with USB PD3.0, QC3.0, QC2.0 and PPS

CONCLUSION

The customer's requirement for a USB PD 3.0 adaptor with a fixed cable and a locking connector capable of supporting their power hungry devices was met by the proposed SLE100SPD modification. The combination of power, size, cable length and connector satisfies the customer's product application and marketing needs, and the customer is highly interested in proceeding with AE's solution.



Advanced Energy

PRECISION | POWER | PERFORMANCE | TRUST

For international contact information, visit advancedenergy.com.

powersales@aei.com
productsupport.ep@aei.com
+1 888 412 7832

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2026 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy and AE are U.S. trademarks of Advanced Energy Industries, Inc.