

CoolX powers the future of microwave ablation with precision power

INDUSTRY

Electrosurgery

SOLUTION

Excelsys CoolX® 1800

EQUIPMENT

Microwave Ablation

BACKGROUND

Microwave ablation is minimally invasive treatment for nonresectable liver and lung tumors and other oncology procedures, enabling shorter hospital stays and faster recovery times. Generator frequency is typically 915 MHz -2.45 GHz with up to 300 W of power per channel.

CHALLENGE

The overall system had multiple discrete sub systems, each requiring their own isolated power sources. In addition, the customer required a power solution that allowed 4000 Vac input-output hi-pot testing to be carried out on the complete power supply and system, without having to carry out “type” testing (removing Y caps, and disassembling the chassis). As the power supply is a safety component in their systems, they were seeking a partner with deep application knowledge and local expert engineering support to meet their specific technical requirements.

SOLUTION

Advanced Energy recommended the Excelsys CoolX 1800.



Advanced Energy's CoolX®1800 series, part of our Excelsys product line, is an intelligent modular power supply. The CoolX1800 delivers an incredible 1800 W in a compact

1U high package with PMBus™ digital communications, control, and reliability in addition to the most comprehensive feature set and specifications available. The power supply can deliver up to 12 isolated DC outputs, thereby addressing the customer needs for individual DC power to be delivered to the various sub systems in the equipment. In addition, the CoolX-G option was offered. The latest option on the CoolX series is the G allowing system designers to carry out a 4KVAC input to output test on a configured power supply.

The CoolX1800 is fully certified to IEC60601-1 3rd edition and IEC6060-1-2 (4th edition EMC). Advanced Energy's Customer Experience Center (CECs) facilitated pre-compliance testing to accelerate time to market. The CEC is a one-stop shop for all your design and testing needs. From pinpointing issues and prototype sampling to pre-compliance testing for entire systems, our CECs can help you meet deadlines and budgets.

AE provides the following advantages:

- World-class service and consulting from technical experts
- Fast time to market with lowest total cost of ownership
- Customer Experience Center

RESULT

By choosing Advanced Energy's CoolX®1800 series, the customer satisfied their requirements for a multiple output power solution, with full medical approvals. The CoolX with G option eliminates time-consuming work making system Hi-Pot isolation testing problems a thing of the past. This highly reliable, with best in class power density and proven quality provided the optimum power platform for their innovative microwave ablation system. As a result of the exceptional technical support and fast turnaround of modifications, the customer was able to accelerate their development cycle, enter FDA trails earlier and reduce their time to market.

CONCLUSION

Advanced Energy's CoolX®1800 series is designed to meet the demanding specifications of electrosurgery applications utilizing state-of-the-art power conversion topology. With Advanced Energy's broad portfolio of highly reliable medical solutions, we are well equipped to meet all your high and low voltage application requirements for medical devices.



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