

High Voltage power supply required for use in intravascular ultrasound coronary artery imaging system

INDUSTRY

Medical Imaging

SOLUTION

AEQ

EQUIPMENT

Intravascular
Ultrasound System

CHALLENGE

Medical equipment suppliers are having to design medical imaging products with higher resolution, reduced size, increased reliability, and accurate detection. The biggest challenge for this medical imaging manufacturer was achieving the miniature form factor required for their power supply unit. They needed a solution that could drive +/-100 V rails for the ultrasonic transducer in the end system. The current power supply solution being used at the time was a legacy unit and exceeded the power requirement for the application. The customer was seeking a lower-power alternative capable of withstanding extremes in shock and vibration. A crucial requirement for this customer was input-output isolation.

SOLUTION

The solution proposed by the Advanced Energy team was the AEQ Series of ultra-miniature DC-DC supplies. The customer would be advised to use two AEQ5-100FL0.5 units per system. The AEQ was the correct solution because it has the ability to provide -100 V for use in the systems ultrasonic transducer and +100V for the biasing. The higher input-output isolation is inherent in AEQ, which was limited in the legacy platform.



