

BBD67: Mobile Image Generator

This rugged, small form factor PC was designed for mobile medical imaging and diagnostic applications. It accommodates a large image acquisition card to process the incoming data at a very high speed and then to display it for immediate review.

Performance Characteristics

The platform allows for tiered price/performance options.

Ergonomics:

The EmbedTek chassis has multiple customization opportunities, including branding and proprietary I/O options. Despite the high-performance processor and add-in cards, the system features a small footprint and low acoustics, permitting it to be used in close proximity to patients and physicians.

Regulatory/Environmental:

The medical grade power supply supports system level CE, UL and other safety and emissions standards.

Lifecycle:

7 years

BBD67



EmbedTek designs, invents, and manufactures computers, software, sensors, cameras, and displays for original equipment manufacturers. Our systems improve the quality of imaging in healthcare, simulation programs in the military, video analytics in security, and much more. Throw any challenge at us, from demanding environment and ergonomic requirements to High Level Assembly and nonstandard I/O. We'll evaluate it, carefully attack it, and solve it.

Product Realization: BBD67



A manufacturer of medical devices used in operating theatres uses the BBD67 to convert analog input to digital DICOM images.

Overall challenge:

To provide the highest-performance EN 60601-rated medical computer available in required small form factor, using COTS components and custom mechanical and thermal solutions. The system allows for real time streaming of live video and two way audio communication of patient procedure enabling remote patient care.

Design:

Exceeded performance expectations with a custom mechanical package which allowed higher-performance COTS system components. Developed innovative restraint for the large, customer supplied I/O card, as well as a thermal solution that cooled system with minimal acoustic output.

Prototypes & Validation:

Built production prototypes quickly to validate performance and software. Engaged with Intel and customer to identify and resolve issues with custom graphics drivers for newer chipset.

Launch:

Created final software images, test criteria, work instructions, Certificate of Conformity and Device History Records definitions; shipped production validation units to our customer.

Production, End-of-Life:

We are integrating customer-specified and customer-supplied cards into the system; these components become part of the final test and acceptance process as well as the Device History Record.

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