ADLINK
LEADING EDGE COMPUTING



Advancing C-arm Computing Technology

ADLINK Healthcare Technology delivers another innovative medical solution

Application Story

An increasing number of complex surgical procedures are carried out in hybrid operating rooms using mobile medical imaging devices such as C-arms. The current trend is to move towards smart C-arms, using Edge computing to improve response times and deliver richer, more timely insights from the device data.

THE CHALLENGE

Solutions need to be powerful yet compact to support mobility; and deliver medical standards of imaging and visualization with consistent precision and clarity.

Moving to the Edge : developments in AI are driving the demand for edge computing results. Smart healthcare is one of many diverse markets increasingly looking to support fast, informed decision-making with data, imagery and high-end displays at the edge. It is the most efficient and effective location for analytics and control with data processed quickly and reliably in real time or close to it. Edge computing requires graphics cards which can accelerate processing and support enhanced image quality. To help avoid costly and time-consuming re-certifications due to obsolescence, GPU longevity is also a key requirement.

Compact Power : at the same time, with limited space within the C-arm structure, it is essential to keep the PC as small as possible. One of the design challenges is to mitigate the excessive heat generated inside such a small box by the CPU and GPU modules. Another issue to be addressed is the complexity of routing several long cables between the PC and touch monitors which are limited in length and bandwidth and susceptible to electromagnetic interference.

Superior Visualization : the major factors for integrators when choosing touch monitors are image quality; the flexibility to adapt to varying parameters such as video signal type, color space, bit range and resolution; and compatibility with different systems or paired monitors.

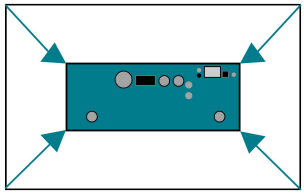
LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ADLINK SOLUTION UNLEASHES POWER & PRECISION

ADLINK has designed a solution to take C-arms to the EDGE and deliver the right platform size and power, combined with the visualization standards demanded by such a mission critical medical device.

Accelerated Medical Computing

The ADLINK MLB Series Medical Box PC is one of the smallest platforms on the market and can be further customized to fit into a C-arm base. It is not only compact but also durable with powerful, embedded MXM GPU modules to accelerate data processing, medical image reconstruction, AI-inferencing detection and image rendering.



It is not only compact but also durable with powerful, embedded MXM GPU modules

Assured Longevity

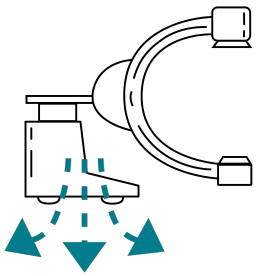
ADLINK's long-term partnerships with primary suppliers (including NVIDIA and Intel) are central to longevity and a more stable range with individual products supported for 7-10 years. This extended support not only safeguards investment but also promotes consistency, reliability and seamless integration. ADLINK's cutting-edge technology can be depended on to sustain long-term innovation and technological evolution.



ADLINK's long-term partnerships with primary suppliers are central to longevity

Keeping Cool

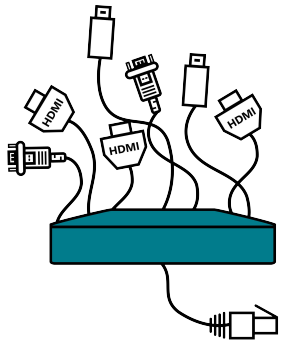
With a deep understanding of thermal dynamics and leveraging state-of-the-art simulation software, ADLINK experts work with customers to analysis the air flow of the entire C-arm. Proprietary cooling system designs (such as smart fan control) are then tailored to the individual C-arm to help to ensure optimal cooling efficiency.



Tailored to the individual C-arm to help to ensure optimal cooling efficiency

Streamlining Complex Cabling

The ADLINK solution includes HDBaseT extenders installed close to the PC and before the touch monitor. These devices transmit and receive audio, video and control signals to remote equipment in real-time and without compression. Signals received from the PC by the HDBaseT transmitter are delivered to the touch monitor via a single CAT5/6 line – hence eliminating the need for multiple signal extenders and delicate cable routing.

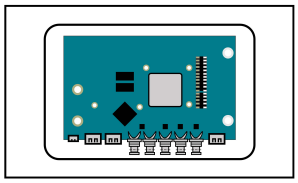


Eliminating the need for multiple signal extenders and delicate cable routing

Unbeatable Resolution and Full Compatibility

Completing the one-stop-shop solution is the ADLINK ASM series of EU MDR class I certified surgical monitors which support medical personnel with unbeatable color resolution.

By using proprietary scaler boards, input signals can be adapted and processed to match the color space of the imaging source, the native resolution and aspect ratio of the monitor. Input from various sources can be displayed without loss of quality or distortion, ensuring consistent image quality without noticeable processing latency.



Support medical personnel with unbeatable color resolution

DRIVING EFFICIENCY AND INNOVATION

The ADLINK C-arm solution has been designed to mitigate risk by assisting customers with integration and tailoring components as needed. It supports the move towards Edge computing and AI; and delivers several innovations including Edge AI; simplified cable routing; highly compatible monitors with flexible scaler boards; and a miniature yet powerful, box PC with MXM GPU.

It is another example of ADLINK Healthcare Technology addressing the critical challenges faced in operating theatres, intensive care units, emergency and recovery rooms.

ADLINK
LEADING EDGE COMPUTING



ASM Series
Surgical Monitor

Learn more >>>



MLB Series
Medical Box PC

Learn more >>>



HDBaseT

Contact us :
info.deg@adlinktech.com

intel partner Titanium IoT Solutions

NVIDIA

All products and company names listed are trademarks or trade names of their respective companies. ©2024 ADLINK Technology, Inc.
All Rights Reserved. All pricing and specifications are subject to change without further notice.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000