



## Mechanical Packaging is much more than a Metal Box

As a common component of a product or module design, AimValley is often engaged to provide the mechanical design. In fact, in optimized, high performance / high speed system designs, it can be mandatory for the mechanical housing to be considered in lock step as a part of the overall system design. There are many factors that drive such requirements:

- Precise mechanical dimensions and appearance to match existing products or modules in the same product series.
- Leverage the metal housing as integral heat conductive surface(s) in contact with the electronics for sake of conductive, radiant and convection cooling.
- Consideration of overall chassis airflow and direction, ensuring that circuit boards, mounted components and RF shielding do not create airflow 'dead spots', while ensuring holes in modules are sufficient in size and line up with overall system cooling design.
- Sufficient mechanical strength and ruggedness, especially important where requirement of intended location indicate possible direct impact, vibrations and shock.
- Environmental factors such as operating temperature range, moisture, humidity and direct sunlight.
- Complex mechanical designs that include modules that slide-in and are removeable that mate with connectors including hot swappable modules that provide redundancy and serviceability.
- Electromagnetic emissions and susceptibility, where mechanical housing as a Faraday cage and other shielding.
- Where mechanical housing acts as an efficient method to achieve 'low noise' through common grounding and decoupling.
- Mechanical designs that can sustain operation during certain levels of fire and not act as additional fire load, for example as required in NEBS3 applications.

Products, modules, and circuit board designs created by AimValley are used in applications from office environments to trains, aircraft, military vehicles, and outdoor applications including pole mounted and inside street cabinets.

Mechanical designs should never be an afterthought.

## Why AimValley?

AimValley is a reliable provider of Edge technology since 2003, delivering solutions for:

- High speed data processing applications
- Complex FPGA-based accelerated systems
- High speed, low power hardware equipment
- Robust embedded software
- Early adopter of Acceleration Technology

## Joint Development

Achieving your goals requires you to constantly adapt to new technologies. Based on your requirements, we design solutions and ways to jointly implement them.

## Tailor-made Solutions

We collaborate with you to deliver your desired solution (complete product or only part of the development).

## Fast-Track Development

Taking advantage of re-usable designs and IP enables us to develop your solution on a fast track.

## Innovative Solutions

AimValley is continuously looking for alternative and optimized ways of designing high-tech products. We have an extensive patent library.

## Phased Approach

Our design process is structured to successfully take your product from concept to production and flexible enough to allow you to leverage any of our services on a standalone basis.

## Certification

AimValley is experienced in certifying products or systems, such as EMC/ESD, CB and CE.

## Life Cycle Management

We offer life cycle management for the design and/or the product. This includes maintenance and component obsolescence management.

## Quality Focus

- Outstanding track record of on-time delivery
- Best in Class Designs – Time, Budget & Quality
- ISO9001, ISO140001, Ecovadis Platinum CSR