



Why Change

- > Increase power in current space
- > Improve functionality in current size
- > Integrate Power into the heart of system



Application Background

This trackside-signaling customer has been using an AC-DC power supply for many years. However, he now requires PFC, redundancy and increased functionality in the same space.

Challenges

The upgraded power supply needed to meet the existing mechanical constraints, whilst providing backwards compatibility and delivering 100% more power. The supply had to meet stringent environmental and electrical standards.

Why Vicor?

The very small size of the PFM in a VIA package AC-DC power component enabled the customer to almost triple the power available from their current power supply housing and thermal de-rating was avoided through conduction cooling. The prototype was developed rapidly to provide a proof-of-concept. Enough space remains in the housing to increase power in the future if required.

[Link to Whiteboard »](#)

Power Supply Specifications	
Input	84 – 265 V _{AC} , 50/60 Hz
Outputs	24V, 400W
Load	System processor, control electronics and actuators

