# USB 3.0 Redriver and Adapters High Speed Gigabit Connectivity

# Design Note #135



USB interconnectivity has made high speed communications easier than ever. Eliminate surprises with custom USB Redrivers and adapters from OTEC.

"Intermittent USB connectivity was causing our camera system to hang or reset without warning. Custom USB adapters from OTEC saved the day."

VP Engineering Portable Xray Products

### **USB 3.0 Redriver and Adapters**

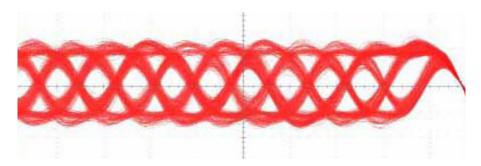
USB 3.0 Redrivers and adapters make long wired high speed interconnections possible. Notoriously finicky, long USB interconnectivity can confound novice system designers. Commercial adapters and redrivers are not all alike. Many are poorly constructed. Many do not respect signal integrity. Many are not ruggedized. Product design at the system level must take into account wiring and interconnect of these types of high speed links. Experience counts when integrating numerous USB links over custom distances and across ground planes. Custom adapters and redrivers from OTEC can really help.

#### **USB 3.0 Power Hub**

USB connectivity is often used for power distribution. Limited power may be drawn from USB links in a convenient manner. Proper power budget calculation at the system level insures fault free operation.

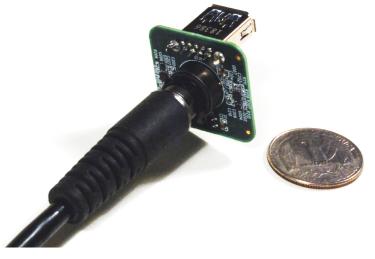
## **USB 3.0 Amplification and Equalization**

When USB 3.0 links are called upon to perform over long distances, multiple interconnections, across various ground regions, or simply throughout a large lengthy interconnection system, signal amplification and equalization really matter. Confounding USB connectivity issues can be readily solved by careful application of custom redrivers and adapters.



## **Orchid Technologies: USB Re-Driver Solutions**

The development of custom electronic products for our OEM clients is OTEC's entire business. The design of Custom USB Redriver Solutions with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!





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## **Custom Engineering From Concept to Production**

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