

## **CM-1 rev F changes**

We have encountered an end-of-life situation on one of the components on the CM-1. The RJ-45 connector with integrated magnetics and fancy indicators is no longer available.

We have revised the CM-1 to use a more common RJ-45 connector. This new revision, revision F, will go into full-scale production in late September or early October 2004. All orders currently in house will be filled with the current CM-1 rev E.

The new connector has been used from the outset on the CM-2. These CM-1 changes, therefore, revise the CM-1 to exactly match the CM-2 specifications.

The following performance, indicator and mechanical changes are associated with this change to the CM-1.

### ***Performance changes***

The new CM-1 features high performance external memory. This results in a 10-15% improvement in maximum throughput for the module. The effects of the improvement are accurately modeled by our CM-1 cycle model - <http://www.peakaudio.com/cobramc/tools/cycle.zip>.

### ***Indicator changes***

Indicator behavior has changed to accommodate a more common connector with single-color indicators.

A legend for indicator behavior is silk-screened on the CM-1 or CM-2 faceplate. Changes to the faceplate match changes to the indicators. Therefore, if your application uses the faceplate, we have already updated the legend for you!

If your application does not use the faceplate and you have silk-screened an indicator legend on your own sheet metal, you may wish to revise your silk-screen.

### **Indicator behavior on CM-1 rev E and prior**

Left indicator shows green for Ethernet link and flashing green for Ethernet activity. The indicator lights red when a recoverable error condition is encountered and flashes red for an unrecoverable error. On the supplied faceplate, this indicator is labeled "green: link/act. red: fault"

Right indicator lights green on the port in use and lights yellow on the port in use if the interface is the conductor. On the supplied faceplate, this indicator is labeled, "green: in use. orange: conductor"

### **Indicator behavior on CM-2 and CM-1 rev F**

Left indicator lights yellow on the port in use and will blink if the device is also the conductor. On the faceplate, this indicator is labeled, "in use/conductor".

Right indicator lights green when link established and blinks when network activity is detected. On the faceplate, this indicator is labeled, "link/activity".

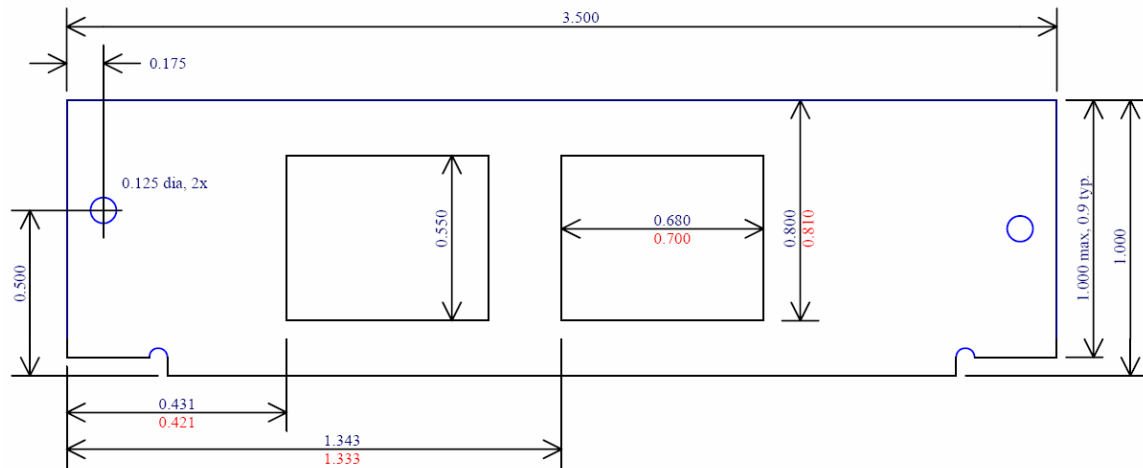
Both left indicators flash yellow in unison to report a fatal error

### ***Mechanical changes***

The position and size of the cutouts in the faceplate for the Ethernet connectors have been adjusted slightly. The changes are on the order of 1/100 of an inch.

New and old connector dimensions are given in the diagram below

Note: Mechanical dimensions for the CM-2 and CM-1 Rev F are identical. There are differences with earlier versions of the CM-1, however. For reference, earlier versions of the CM-1 dimensions are shown in RED.



Changes do not affect the recommended cutout dimensions for applications using the faceplate. If you are using the faceplate, you are insulated from these mechanical changes.

If you are not using the faceplate and have created your own connector cutouts, please obtain a sample CM-2 or CM-1 rev F and assess the new fit. You may find that the changes are minor enough that the new revision fits within tolerance into your old cutouts.