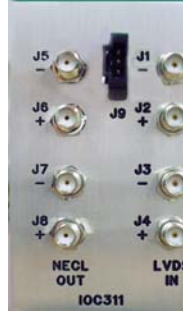
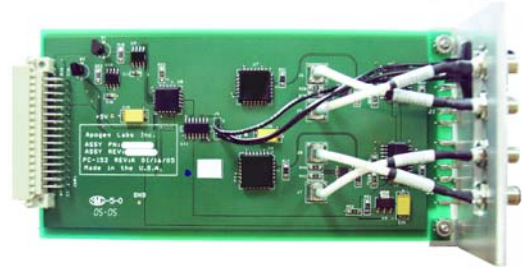


## MODEL 2073 INTERFACER PRODUCT LINE

## IOC311

DIFFERENTIAL LVDS INPUT  
TO  
DIFFERENTIAL NECL  
OUTPUT  
CONVERTER MODULE

Rear View



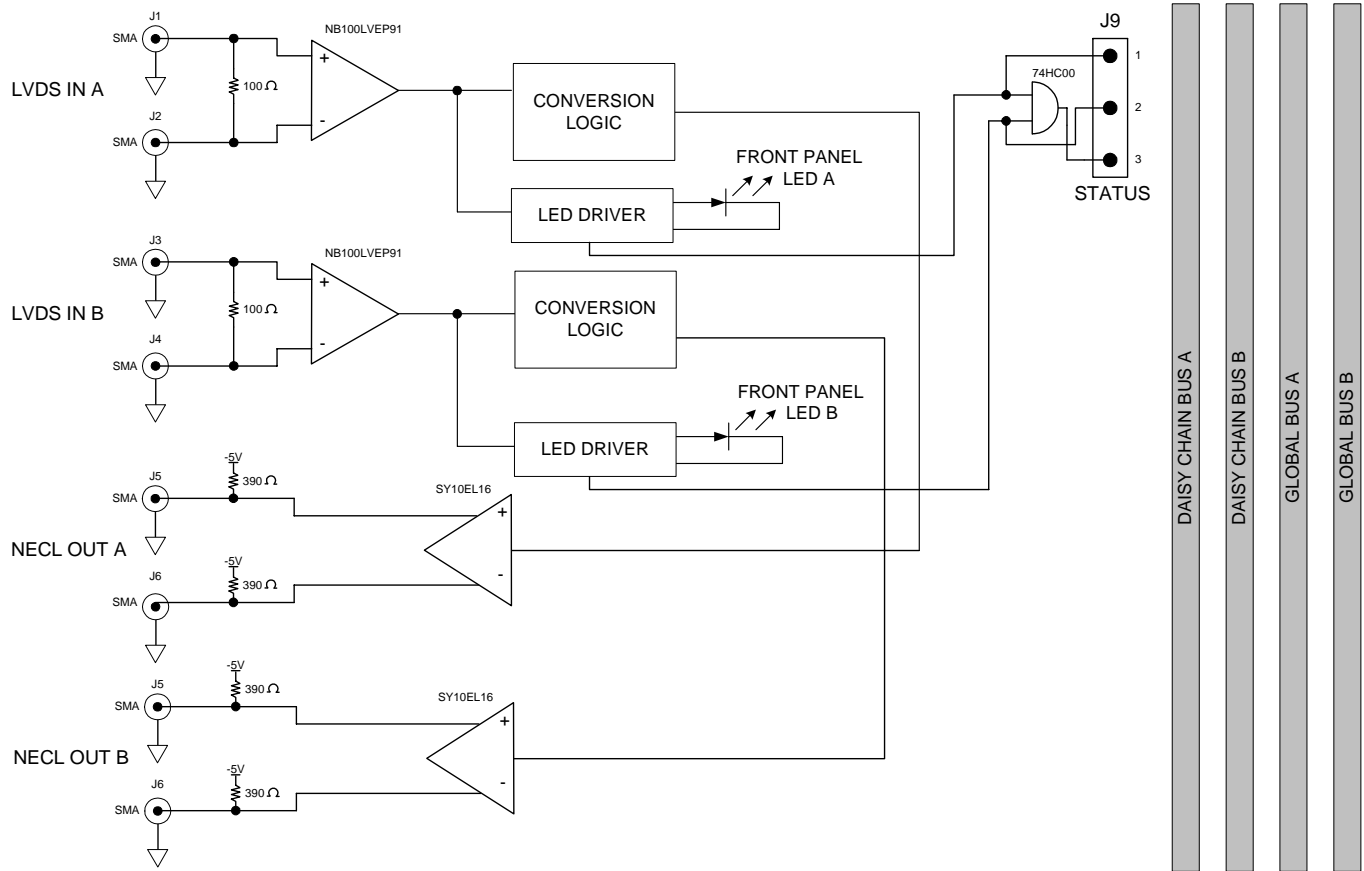
Side View

## FEATURES

- Differential LVDS Input (+0.4V to +1.4V)
- Differential NECL Output (-0.8V to -1.8V)
- 1 Gbit operation
- Input Signal Activity indicator ( Front Panel LED)
- SMA Input/Output connectors
- Input Transition Status Bit

## OVERVIEW

The IOC311 Pluggable Interface Module (PIM) accepts a 2 each Differential LVDS inputs and converts it into a Differential NECL output. The IOC311 uses 2 SMA input connectors and two SMA output connector per differential signal. Included is a status output connector that provides status of input signal transitions. If transitions are detected the status signal will be a TTL high while absence of transitions results in a TTL low. The IOC311 will operate to 1 Gbit. LED A illuminates when there is active differential LVDS input on J1 and J2. LED B illuminates when there is active differential LVDS input on J3 and J4. J9 connector contains active high TTL status that can be connected to the FOMCX1 status module. J9 pin 1 is a TTL high when input signal transitions are present on the A input, J9 pin 2 is a TTL high when input signal transitions are present on the B inputs, J9 pin 3 is a combination of the two status bits. Absence of input signal transitions for 500 ms results in a TTL low on the J9 status connector. The IOC311 requires two slots of the 14 available slots in the Model 2073 chassis.



**Figure 1: Model IOC001 Block Diagram**

## SPECIFICATIONS

### GENERAL

Dual Slot Module (3" x 6" x 1.8")  
 Model 2073 Pluggable Interface Module  
 +5V, -5V, +2.5V

### INPUT

2 each Differential LVDS (+0.4 to +1.4V)  
 2 each SMA connectors per input  
 1 Gbit Clock Rate

### OUTPUT

2 each Differential NECL (-0.8V to -1.8V)  
 2 each SMA connectors per output  
 1 Gbit Clock Rate

## APPLICATION INFORMATION

The IOC311 is used to convert differential LVDS data and clock to differential NECL data and clock. This joins equipment with unlike interfaces by properly receiving and driving the signals.

This module can also be plugged into Apogee Models:

- 2907 and 2908: Data Acquisition Mux/Demux
- 6801: 5 Channel BERT Operation
- 6804: Multi Channel Clock Recovery Unit