



MODEL IOC503

FIBEROPTIC / TTL TRANSMIT / RECEIVE MODULES



IOC503 RX MODULE SHOWN

1. FEATURES

- **TTL Data and Clock Input/Output**
- **Single Fiber Optic Input/Output**
- **1 Fiber to Move both Data and Clock Signals**
- **DC Isolated Link**
- **Inputs Illuminate Front Panel LEDs**
- **2 kbps to 35 Mbps Data Rate**

2. OVERVIEW

The IOC503 Pluggable Interface Module (PIM) provides the ability to transfer electrical signals over optical cables. These modules are used to provide a DC isolated data link, provide a medium length (up to a few miles) data path and reduce radiated emissions. The transmitter accepts a TTL serial synchronous data stream (data and clock) and converts it to an optical signal for transmission over single mode fiber optic cable. The packetized data is received by the receiver module, which converts the optical signal back to its original TTL data and clock form. The IOC503 uses industry standard BNC and SC connectors, operates from 2 kbps to 35 Mbps and requires one of the 14 available slots in the 2073 chassis.

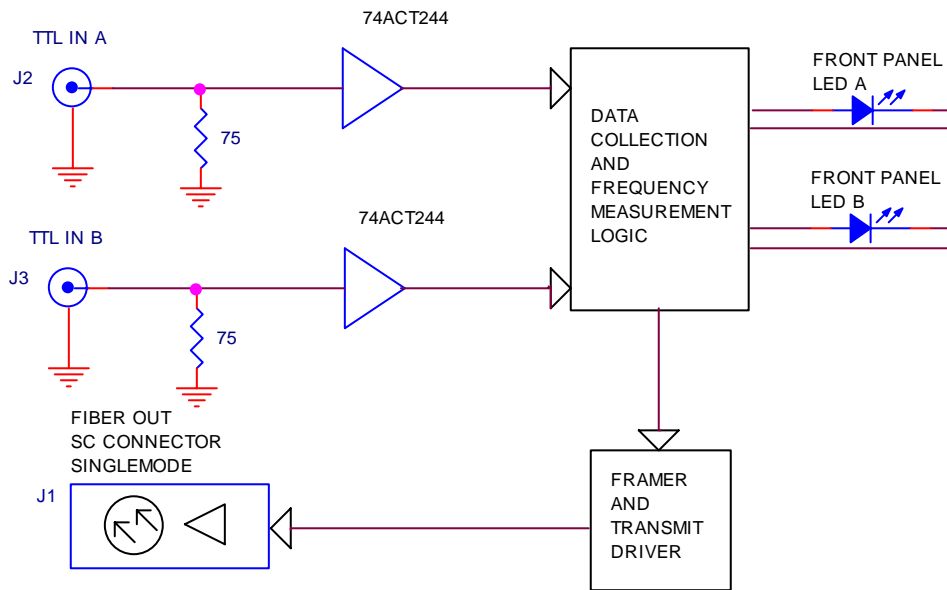


Figure 1: Model IOC503TX Block Diagram

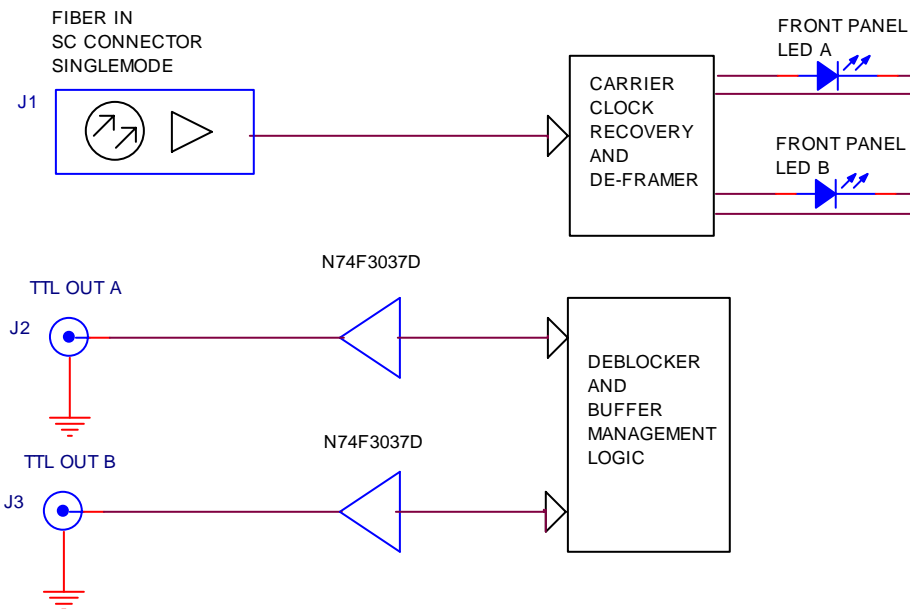


Figure 2: Model IOC503RX Block Diagram

3. SPECIFICATIONS

GENERAL

BNC connectors
SC Fiber connectors
1 Slot Module (3" x 6" x .9")
Singlemode
Model 2073 Pluggable Interface Module

ELECTRICAL SIGNAL INPUT

TTL
75 ohm termination

ELECTRICAL SIGNAL OUTPUT

TTL
High current

OPTICAL SIGNAL I/O

SC type Connectors
Singlemode
1300 nm Wave length

4. APPLICATION INFORMATION

The IOC503 is used to distribute data across long lengths (15km) of fiber cable. It utilizes industry standards for both the electrical and optical signal interfaces. The units are self adjusting to any data rate within its specified range requiring no operator setup. The IOC503RX functions as an optical repeater when its SC optical TX port is used to drive another IOC503RX. The TTL outputs are not disturbed when functioning as an optical repeater.

2073 Chassis Front Panel LEDS corresponding with the IOC503 modules offer quick look status of the modules operation.

IOC503TX LED B – Lights when TTL Clock is active

IOC503TX LED A – Lights when LEDB lights and TTL Data is active

IOC503RX LED A – Lights when Optical input signal is Present.

IOC503 RX LED B – Lights when both Data and Clock are present in the Optical signal.

IOC503 RX LED B – Flashes when only Clock is present in the Optical signal.

This module can also be plugged into Apogee Models:

2097 and 2098: Data Acquisition Mux/Demux

6801: 5 Channel BERT Operation

6804: Multi Channel Clock Recovery