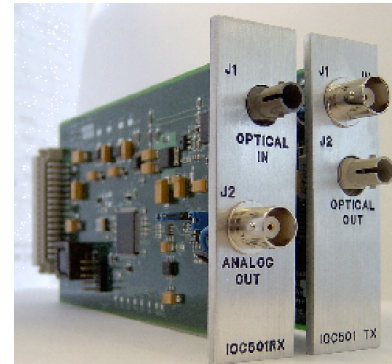




## IOC501 FIBER OPTIC ANALOG SIGNAL TRANSMIT / RECEIVE MODULES



### FEATURES

- DC to 100 KHz analog input / output
- IRIG time code compatible
- ST multi-mode or SC single mode fiber connection
- BNC connectors
- Jumper selectable impedance
- DC isolated link
- AC or DC input coupling
- Less than 6us signal latency with 3 meter optical cable
- Remote status via Ethernet

### OVERVIEW

The IOC501TX and IOC501RX Pluggable Interface Modules (PIM) provide the ability to transfer electrical signals over optical cables. These modules are used to provide a DC isolated data link over a medium length (up to a few miles) data path and reduce radiated emissions. The IOC501TX transmitter module accepts analog data in the frequency range of DC to 100 KHz and converts it to an optical signal for transmission over multi-mode or single-mode fiber cable. The IOC501RX receiver module accepts the optical signal from the transmitter and converts the optical signal back to analog. The IOC501TX input signal can be strapped for AC or DC coupled input signals. DC level inputs can be strapped for 10 Vp-p bipolar, 10 Vp-p unipolar, 5 Vp-p bipolar and 5 Vp-p unipolar operations. The AC coupled inputs are set for a maximum input level of 1 Vrms. The IOC501RX module contains jumper selections for unipolar or bipolar output range. The IOC501 modules use industry standard BNC connectors for analog signals, ST or SC connectors for optical signals, depending on the type of fiber, and require 1 of the 14 available slots in the 2073 chassis or individually installed in the 2073-S chassis. LED front panel indicators provide status of the IOC501 modules function. The A LED on the IOC501TX will be lit when the module receives power. The A LED on the IOC501RX will be lit when connected to a properly operating IOC501TX module. If using the AL2873 chassis, status can also be obtained using the chassis front panel or via the Ethernet port.

### CONFIGURATION TABLES

#### IOC501TX Input Termination Jumper

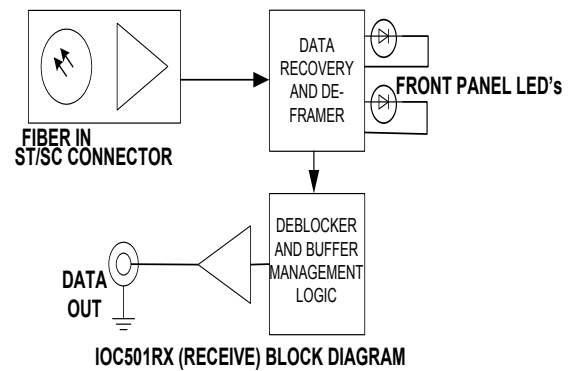
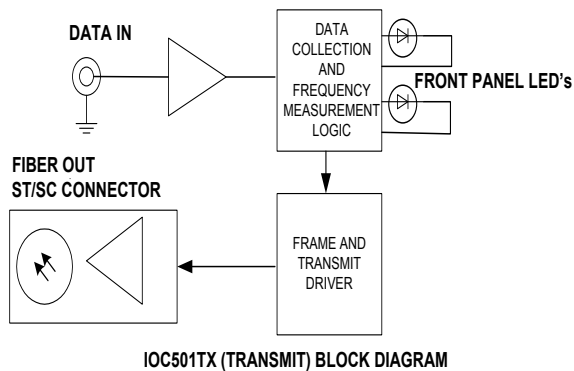
Value	JP1
75 Ohm	1-2
600 Ohm	2-3
10 k Ohm	OPEN ALL (Note: Not to be used when AC coupled input is selected)

**IOC501TX Input Range Jumpers**

Input Range	JP2	JP3	JP4
AC Coupled	3-4	3-4	1-2
-10V - +10V	5-6	5-6	1-2
0 - +10V	7-8	7-8	2-3
-5V - +5V	7-8	7-8	1-2
0 - +5V	9-10	9-10	2-3

**IOC501RX Output Range Jumpers**

Output Range	JP1	JP2
AC Coupled (Bipolar)	1-2	1-2
-10V - +10V	1-2	2-3
0 - +10V	2-3	2-3
-5V - +5V	1-2	1-2
0 - +5V	2-3	1-2

**IOC501TX and IOC501RX JTAG Port  
JH1 – Factory Set****BLOCK DIAGRAMS****SPECIFICATIONS****GENERAL**

Model 2073 Pluggable Interface Module  
 Multi-mode or Single-mode fiber  
 Single slot module (3" x 6" x 0.9")  
 Status via Ethernet

**ELECTRICAL I/O TYPE**

Analog on BNC connector  
 DC to 100 KHz bandwidth  
 DC to 10Vp-p level  
 AC or DC coupled

**ELECTRICAL SIGNAL OUTPUT**

Analog on BNC connector  
 DC to 100 KHz  
 High current

**OPTICAL SIGNAL I/O**

ST—Multi-mode (820 nm wavelength)  
 SC—Single-mode (1310 nm wavelength)

**ENVIRONMENTAL**

Operating Temp: 0° to 50° C  
 Relative Humidity: 15-95% non-condensing  
 Altitude: Sea Level to 10,000 feet