IFR-0202

4x4 Industrial Optical Fiber Controller

- *Redundant power inputs: 12~48VDC*
- *Wall mount and DIN rail design*
- *IP-30 Protection*
- *Plug-and-play deployment*

OVERVIEW

The Lantech IFR-0202 provides a permanent and trouble-free access port for in-line network devices. The 4x4 Optical Fiber Controller automatically switches network traffic through added in-line devices or bypasses devices that are about to be removed. Prevent link failure when attached in-line devices lose power by powering the IFR-0202 and in-line device from the same power source.

The Lantech IFR-0202 supports bypass function with fiber in-line device when it shares the same power source as the in-line device. While the IFR-0202 is receiving power, it diverts network traffic to attached in-line devices. In this state, all in-line traffic is routed directly to the device connected to the IFR-0202.

When the Optical Fiber Controller loses power, in-line traffic continues to flow through the network link, but is no longer routed through the device. This allows the network devices to be removed and replaced without network downtime. Once power is restored to the IFR-0202, network traffic is seamlessly diverted to the in-line device, allowing it to resume its critical functions.

FEATURES & BENEFITS

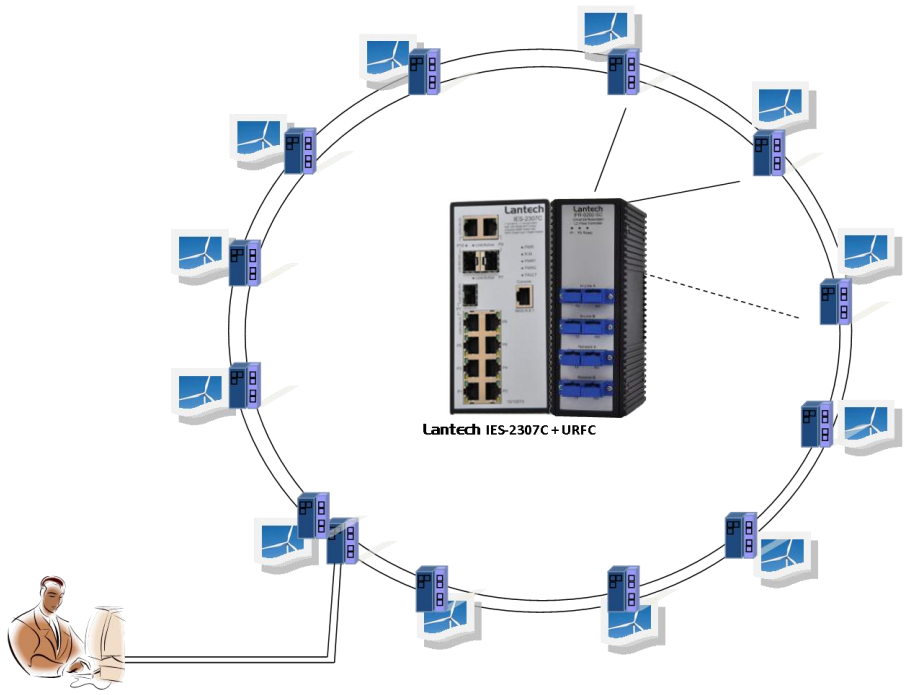
- **Bypass function with fiber in-line device at speeds of 100 Mbps or 1000 Mbps**
- **Increased reliability on critical network links**
- **High-speed optical switching (<5ms) with minimal insertion loss (Max 1 6dB as Bypass Mode)**
- **Fully RoHS compliant**
- **IP 30 protection with DIN rail and wall mount design**
- **LED indicator shows power status**
- **Tested and compatible with all major manufacturers' in-line devices**
- **30 Seconds Boot Up Delay Design**

APPLICATION EXAMPLE

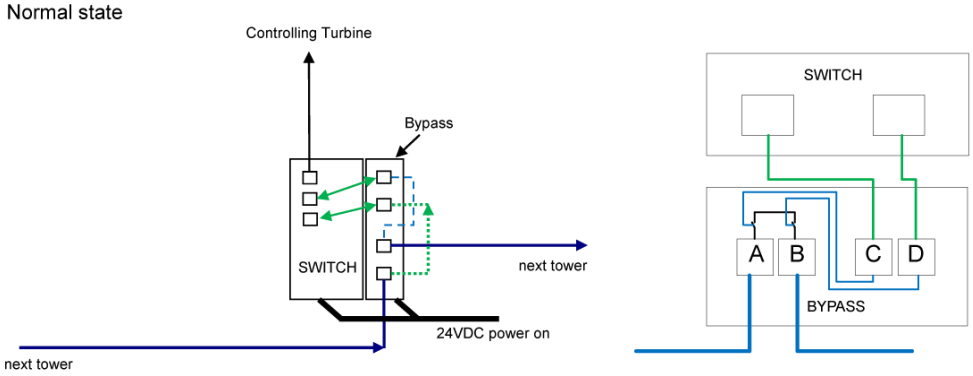
Maintenance in Wind Power Parks

Doing maintenance in wind power parks is not easy, if you do not want to lose control of other non-maintained turbines. Generally groups of turbines are connected in a small ring. This means in each ring only one turbine can be switched off for maintenance.

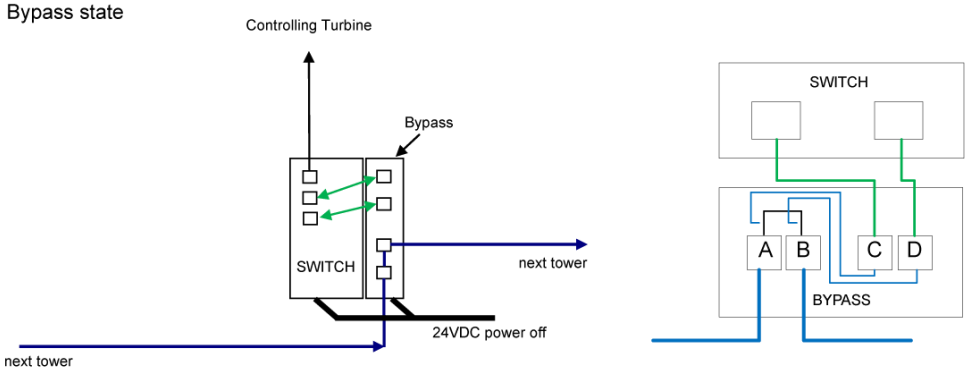
Using the Lantech IFR-0202 is able to avoid these restrictions. It is possible to create big rings and do the service for several turbines in a ring at the same time with no loss of control. This means fewer costs for controlling and network.



Normal state



Bypass state



SPECIFICATION

Hardware Specification			
Connector	LC or SC or ST Fiber Connectors		
Optical Cable	Fiber Type: Multimode Corning 62.5/125 μm, wavelength, 850nm Insertion Loss: Max 1.6dB when the switch losing power and is in Bypass mode Fiber Type: Singlemode Corning 9/125 μm, wavelength, 1300~1550nm Insertion Loss: Max 1.6dB when the switch losing power and is in Bypass mode		
Boot Up Delay	Every time the power has been connected, it'll take about 30 seconds delay then boot up.		
Operation Wavelength	1280-1340/ 1520-1625 nm		
Insertion Loss (dB) 1310/ 1550 nm	TX1→A0	0.62	0.51
	RX1→A1	0.55	0.43
	TX2→B0	0.35	0.35
	RX2→B1	0.81	0.66
	TX1→RX2	0.91	0.89
	RX1→TX2	0.99	0.86
Repeatability (peak to peak) 100 Cycles 1550 nm	ALL CH	Pass ≤ 0.1	
Return Loss (dB) 1310/ 1550 nm	TX1→A0	50	53
	RX1→A1	52	53
	TX2→B0	52	53
	RX2→B1	50	54
	TX1→RX2	49	51
	RX1→TX2	54	52
PDL (dB) 1550 nm	ALL CH	Pass ≤ 0.1	
WDL (dB) 1310/ 1550 nm	ALL CH	Pass ≤ 0.3	
Switching Time (ms) 1550 nm	ALL CH	Pass ≤ 5	
Cross Talk (dB) 1550 nm	ALL CH	Pass ≤ -80	
LED	Power (Green)		
Operating Humidity	5% ~ 95% (Non-condensing)		
Operating Temperature	-20°C~60°C / -4°F~140°F		
Storage Temperature	-40°C~85°C / -40°F~185°F		
Power Supply	DC 12~48V, Redundant power and removable terminal block		
Case	Metal case. IP-30 Protection		
Dimension	30 (W) x 95 (D) x 140 (H) mm		
Weight	440 g		
Installation	DIN Rail and Wall Mount Design		
Warranty	5 years		

ORDERING INFOMATION

- **IFR-0202-LC-MM……..…….....P/N: 8800-140**
  4x4 Industrial Optical Fiber Controller; LC connectors; 1.25Gbps/125Mbps Auto-Sensing; Multi mode
- **IFR-0202-LC-SM……..…….....P/N: 8800-141**
  4x4 Industrial Optical Fiber Controller; LC connectors; 1.25Gbps/125Mbps Auto-Sensing; Single mode
- **IFR-0202-SC-MM……..…….....P/N: 8800-145**
  4x4 Industrial Optical Fiber Controller; SC connectors; 1.25Gbps/125Mbps Auto-Sensing; Multi mode
- **IFR-0202-SC-SM……..…….....P/N: 8800-146**
  4x4 Industrial Optical Fiber Controller; SC connectors; 1.25Gbps/125Mbps Auto-Sensing; Single mode
- **IFR-0202-ST-MM……..…….....P/N: 8800-147**
  4x4 Industrial Optical Fiber Controller; ST connectors; 1.25Gbps/125Mbps Auto-Sensing; Multi mode

OPTIONAL ACCESSORIES

DIN Rail Power

- **AD1048-24FS** 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -10°C~60°C
- **AD1024-24F** 24VDC, 1A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -10°C~60°C
- **AD1240-48S** 48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -10°C~60°C
- **AD1120-48F** 48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -10°C~60°C

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