LANTRONIX®

C3210-10xx

ION Gigabit Ethernet Media and Rate Converter Module
10/100/1000Base-T to 1000Base-SX/LX

Install Guide

Intellectual Property

Warranty

For details on the Lantronix warranty policy, go to http://www.lantronix.com/support/warranty.

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For a current list of our domestic and international sales offices, go to www.lantronix.com/about/contact.

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Revision History

Rev	Date	Description
A	08/10/10	Initial release.
B	02/01/11	Technical update.
C	09/13/12	Adds a DIP switch graphic and note.
D	8/28/23	Update Contact information. Note EOL SKUs: C3210-1035, C3210-1029-D2, C3210-1029-D1, C3210-1029-C2, C3210-1029-C1, C3210-1029-B2, C3210-1029-B1, C3210-1017, C3210-1015. Initial Lantronix re-brand.

Contents

Product Description

The ION C3210 is a media converter module that provides an interface between 10/100/1000Base-T ports and 1000Base-SX/LX ports, allowing users to integrate fiber optic cabling into 10/100/1000 copper environments. Operating at Layer 2, the data link layer, this converter not only converts copper to fiber, it also provides rate conversion allowing legacy 10/100 copper devices to connect to 1000Base-SX/LX fiber. The ION C3210 is a manageable device when installed in a managed ION chassis. Note: Some Documentation may have Transition Networks named or pictured. Transition Networks was acquired by Lantronix in August 2021.

Features

- 10/100/1000 Mbps Ethernet
- Fixed Fiber or Modular SFP Fiber port
- Converts 10/100/1000Base-T to 1000Base-SX/LX
- Copper and Fiber Auto-Negotiation
- Switch Selectable Speeds
- Auto-MDI/MDIX, Link Pass Through, Remote Fault Detect, and Pause
- Automatic Link Restoration
- IEEE 802.1p QoS, IPv4 TOS/DiffServ, IPv6 traffic class
- IEEE 802.1Q Port VLAN, tagging and doubling tagging (Q in Q)
- Field Upgradeable Firmware
- Virtual Cable Test on UTP port
- Unidirectional data transmission
- Bandwidth Allocation
- DMI digital diagnostics per SFF-8472
- RMON counters for each port
- Can be used in any ION Platform Chassis
- Secure unidirectional transmission
- Standards based, will link with any standard 10/100/1000Base-T and any standard 1000Base-SX or -LX ports

Ordering Information

| Model	Descripttion
C3210-1013	10/100/1000Base-T (RJ-45) [100 m] to 1000Base-SX 850nm multimode (SC) [62.5/125 µm fiber: 220 m/722 ft.] [50/125 µm fiber: 550 m/1804 ft.] Link Budget: 8.5 dB
C3210-1039	10/100/1000Base-T (RJ-45) [100 m/328 ft.] to 1000Base-SX 850nm multimode (LC) via SFP [62.5/125 µm fiber: 220 m/722 ft.] [50/125 µm fiber: 550 m/1804 ft.] Link Budget: 8.0 dB
C3210-1014	10/100/1000Base-T (RJ-45) [100 m] to 1000Base-LX 1310nm single mode (SC) [10 km/6.2 mi.] Link Budget: 10.5 dB
C3210-1040	10/100/1000Base-T (RJ-45) [100 m] to 1000Base-X SFP Slot (empty) Optional Accessories (sold separately)
SFP Modules	See Lantronix full line of SFP transceivers on Lantronix SFP webpage. Optional accessory; sold separately.

* Distances listed are the typical maximum cable distances. Actual distance depends on the physical characteristics of the network these devices are operating on.

Installation

CAUTION: Wear a grounding device and observe electrostatic discharge precautions when handling the SIC media converter. Failure to observe this caution could result in damage or failure of the SIC.

DIP switches

The C3210 has two DIP switches mounted on the PC board: a 6-position DIP (first set at left) and on some units, a 4-position DIP (second set to the right). If your unit has a second set of DIP switches, note that they are not used at this time.
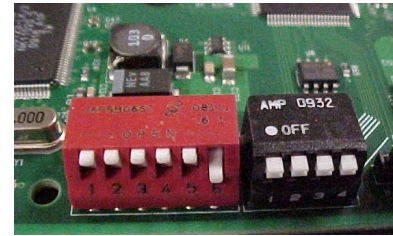
6-position DIP switch

The 6-position DIP switch is located on the circuit board of the C3210 media converter. Use a small, flat-blade screwdriver (or a similar tool) to set the switches according to the site requirements (see the drawing below).
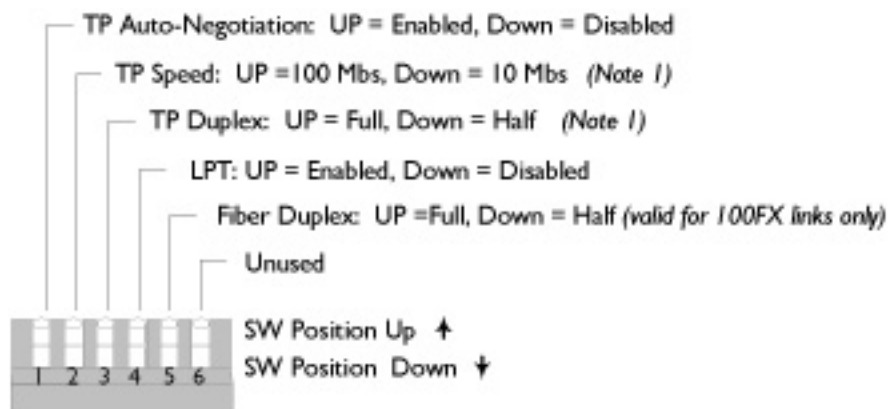
Note 1: Only use when Auto-Negotiation is disabled.

1. Twisted-Pair Auto-Negotiation
   UP   Enable Auto-Negotiation for the copper connection.
   DOWN Disable Auto-Negotiation for the copper connection.

2. Twisted-Pair 10Mbs/100Mbs (See Note 1)
   UP   Set copper connection speed to 100Mbs.
   DOWN Set copper connection speed to 10Mbs.

3. Twisted-Pair Full/Half Duplex (See Note 1)
   UP   Operate in full-duplex mode.
   DOWN Operate in half-duplex mode of the attached device.

4. Link Pass-Through (LPT)
   UP   Enable Link Pass-Through
   DOWN Disable Link Pass-Through.

5. Fiber Full/Half Duplex
   UP   Operate in full-duplex mode.
   DOWN Operate in half-duplex mode of the attached device (valid for 100FX models only).

6. Not used

AutoCross jumper (J6)

The AutoCross feature allows either straight-through (MDI) or crossover (MDI-X) cables to be used when connecting to 10Base-T, 100Base-TX, or 1000Base-T devices, such as hubs, transceivers, or network interface cards (NICs). AutoCross determines the characteristics of the cable connection and automatically configures the units to link up regardless of the cable configuration.

The AutoCross 3-pin header (J6) is located on the circuit board of the C3210 (labeled **NA** = No Autocross and **A** = AutoCross). See the Jumper positions below.

Note: Use small needle-nose pliers to set the jumper.

A   Either straight-through or crossover cable can be used for all twisted-pair copper links.

NA   Straight-through or crossover twisted-pair cable, depending on installed site devices, MUST be installed at EACH twisted-pair copper link.
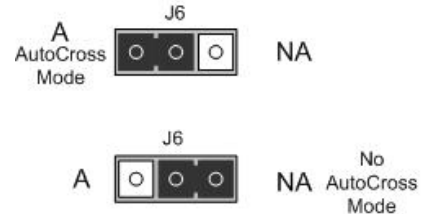
Note: The factory default is "A" (AutoCross enabled). Lantronix recommends leaving the device in the "A" (enabled) position.

Hardware/software Mode jumper (J5)

The hardware/software 3-pin header, J5 is located on the circuit board (labeled **H** and **S** in the figure to the right.)

Note: Use small needle-nose pliers to set the jumper.

H -Hardware   In this position, the mode of the C3210 is determined by the 6-position switch (hardware) settings.

S -Software   In this position, the mode of the C3210 is determined by the most-recently saved, onboard microprocessor (software) settings.
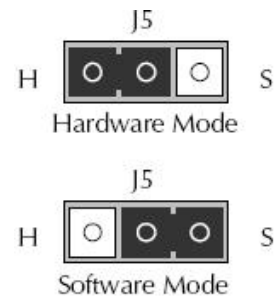
Install chassis card

1. Remove one chassis slot cover from the ION Chassis (*keep the slot cover and screw*).
2. Carefully slide the C3210 into the installation slot(s), aligning it with slot guides.
3. Ensure that the C3210 is firmly seated inside the chassis.
4. Push in and rotate the attached panel fastener screw (*clockwise*) to secure the C3210 to the chassis. See illustration below.
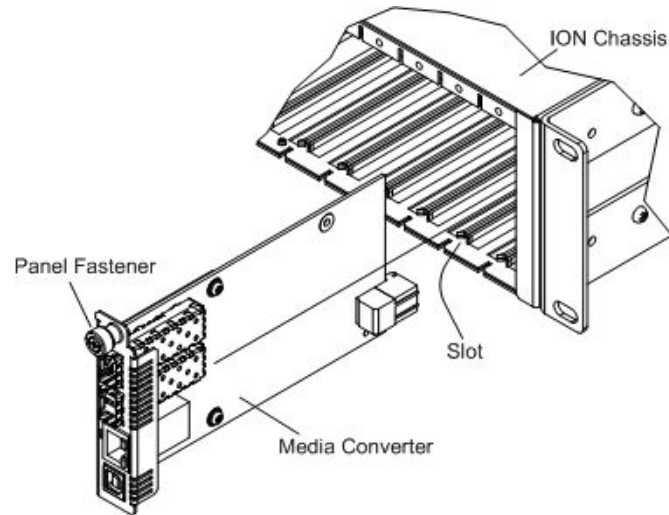
Port locations

The C3210 models have two ports. The drawing below shows the locations of Port 1 and Port 2.

Port 1: 10/100/1000Base-T
Port 2: 1000Base-X

Install copper cable

Port 1: 10/100/1000Base-T Copper Port:

1. Locate a 10/100/1000Base-TX compliant copper cable with male RJ-45 connectors installed at both ends.
2. Connect the RJ-45 connector at one end of the cable to the 10/100/1000Base-RJ-45port (port 1) on the C3210.
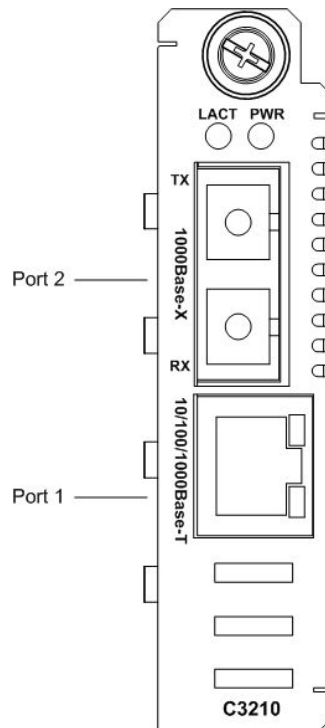3. Connect the RJ-45 connector at the other end of the cable to the 10/100/1000Base-RJ-45 port on the other device (switch, workstation, etc.).

Note: The AutoCross feature allows the use of either straight-through or crossover configuration cables.
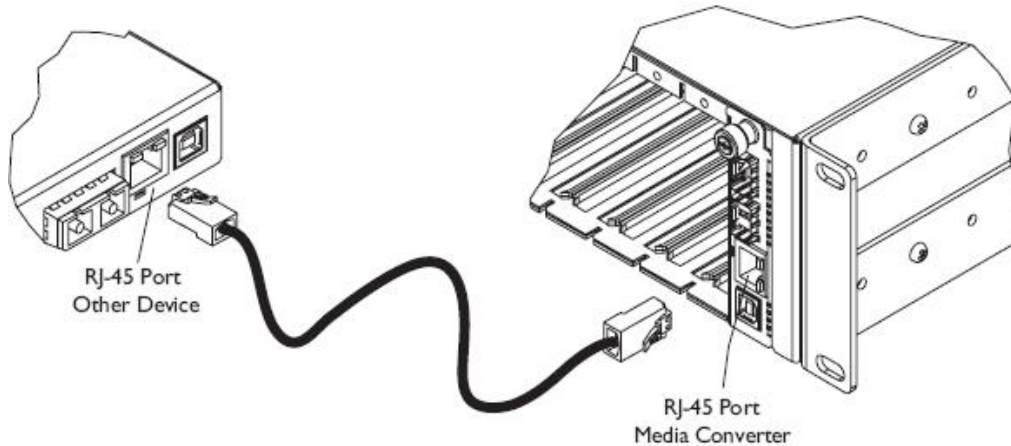
Port 2: 1000Base-X Fiber Port
1. Locate a 1000Base-X compliant fiber cable with male, two-stranded TX to RX connectors installed at both ends.
1. Connect the fiber cables to the 1000Base-X fiber port (*port 2*) on the devices as described:
    - Connect the male TX cable connector to the female TX connector.
    - Connect the male RX cable connector to the female RX connector.
2. Connect the fiber cables to the 1000Base-X fiber port on the other device (*another media converter, hub, etc.*) as described:
    - Connect the male TX cable connector to the female RX connector.
    - Connect the male RX cable connector to the female TX connector.
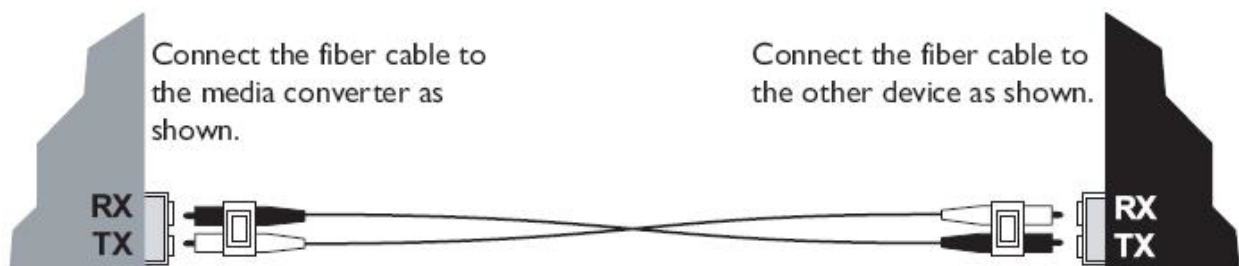
Operation

Status LEDs

Use the status LEDs to monitor C3210 operation in the network.

Power and fiber status LEDs

The status LEDs for the 1000Base-X fiber connection (labeled LACT and PWR) are located next to the fiber port (Port 2).
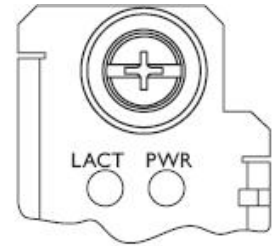
PWR: Power   ON = Connection to chassis power.
LACT: Link activity   ON = A link has been established for the fiber connection.
                             Flashing = The fiber connection is transmit.

Copper port status LEDs

The status LEDs for the copper connection are integrated into the RJ-45 port. These LEDs are not labeled on the C3210 . See drawing below.

Duplex/Link:
    Orange   A link in half-duplex mode has been established for the copper connection.
    Flashing   Orange The copper connection is transmitting/receiving data in half-duplex mode.
    Green   A link in full-duplex mode has been established for the copper connection.
    Flashing Green   The copper connection is transmitting/receiving data in full-duplex mode.
Speed:
    OFF   10 Mbps operation or NO link.
    Orange   100 Mbps operation.
    Green   1000 Mbps operation.
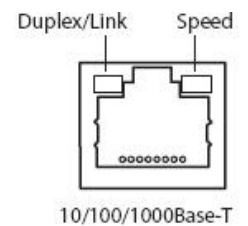
Product features

Auto-Negotiation

The Auto-Negotiation feature allows the C3210 to configure itself to achieve the best possible mode of operation over a link, automatically. The C3210 broadcasts its speed (10 Mbps, 100 Mbps, or 1000 Mbps) and duplex capabilities (full or half) to the other devices and negotiates the best mode of operation. Auto-Negotiation allows quick and easy installation because the optimal link is established automatically. No user intervention is required to determine the best mode of operation.

A scenario where the C3210 is linked to a non-negotiating device, the user may want to disable Auto-Negotiation. In this instance, the mode of operation will drop to the least common denominator between the two devices (e.g., 100 Mbps, half duplex). Disabling this feature gives the user the ability to force the connection to the best mode of operation.

Note: The C3210 supports 1000 Mbps fiber Auto-Negotiation.

Link Pass-Through

The Link Pass-Through feature allows the C3210 to monitor both the fiber and copper RX (receive) ports for loss of signal. In the event of a loss of an RX signal (1), the C3210 will automatically disable the TX (transmit) signal (2), thus, "passing through" the link loss (3). The far-end device is automatically notified of the link loss (4), which prevents the loss of valuable data unknowingly transmitted over an invalid link.
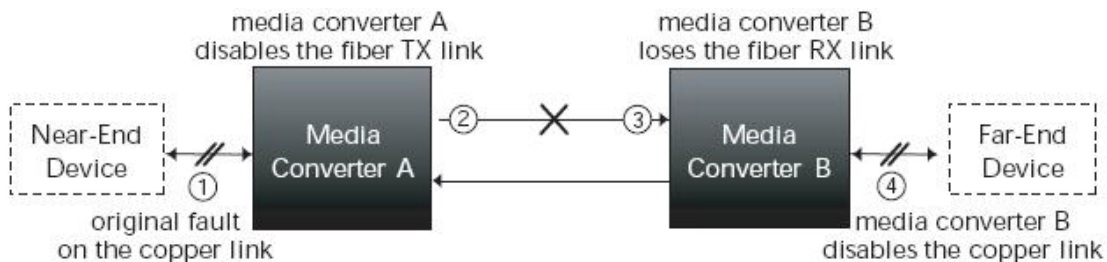
Full-Duplex Network

In a full-duplex network, maximum cable lengths are determined by the type of cables that are used. See pages 1 and 2 for the cable specifications for the different C3210 models. The 512-Bit Rule does not apply in a full-duplex network.

Half-Duplex network (512-Bit Rule)

In a half-duplex network, the maximum cable lengths are determined by the round trip delay limitations of each Fast Ethernet collision domain. (A collision domain is the longest path between any two terminal devices, e.g. a terminal, switch, or router.)

The 512-Bit Rule determines the maximum length of cable permitted by calculating the round-trip delay in bit-times (BT) of a particular collision domain. If the result is less than or equal to 512 BT, the path is good.

Pause

The pause feature is used to suspend data transmission temporarily in order to relieve buffer congestion. If a C3210 needs some additional time to clear network congestion, it will send a pause signal to the C3210 at the other end, that C3210 will wait a predetermined amount of time before re-transmitting data. This feature reduces data bottlenecks, allowing for more efficient use of the network devices while preventing the loss of valuable data.

In Software mode, the pause feature can be set to one of four settings:
- Disable (*i.e., no pause*)
- Symmetrical pause
- Asymmetric TX (*transmit*) pause

Note: Enable the pause feature if it is present on ALL network devices attached to the C3210(s), otherwise, disable the pause feature.

AutoCross

The AutoCross feature allows either straight-through (MDI) or crossover (MDI-X) cables to be used when connecting to devices such as hubs, transceivers, or network interface cards (NICs). AutoCross determines the characteristics of the cable connection and automatically configures the unit to link up, regardless of the cable configuration.

Automatic link restoration

The converter will automatically restore the link between networked devices after a fault condition has been corrected. In contrast, products from competitors require the user to power down, then power up the converters after a fault condition has been corrected.

Bandwidth allocation

It allows setting the bandwidth in varied increments, starting at 64 Kbps to full bandwidth. Rate limiting based on frame priorities can also be configured. Each higher priority frame can be configured to get twice the bandwidth of lower priority frames (e.g., priority "3" frame configurations can get twice the bandwidth of priority "2" frames).

Port-Based VLAN

Allows secure traffic forwarding in one direction only.

SNMP

See the on-line documentation that comes with the FocalPoint software for applicable commands and usage.

Use SNMP at the attached terminal or at a remote location to monitor the C3210 by monitoring:
- Copper and fiber link status
- Copper and fiber port duplex
- Copper port speed

Use SNMP to enter network commands that:

Card Level:
- Assign Circuit ID information
- Set Link Pass Through
- Set Switch Forwarding Aging Time
- System Reset

Port 1:
- Assign Circuit ID information
- Port Configuration
- Auto Negotiation Settings and Advertised Capabilities
- Port Forward Management
- Virtual Cable Test
- Bandwidth Allocation
- MAC Security
- VLAN Forwarding Rules
- Priority Forwarding Rules
- VLAN Tag Management
- User Priority
- RMON Counters
- Port Counters Received
- Port Counters Sent
- Dot3 Statistics

Port 2 (Same as Port 1 plus the following):
- DMI Statistics

RMON counter on each port

RMON statistics such as packet size counters, collision errors, and packet type are kept for each port.

Switch selectable speed

On UTP (unshielded twisted pair) when Auto-Negotiation is disabled the speed can be sent in either software or hardware mode.

Virtual cable test (VCT) on UTP port

The VCT feature utilizes Time Domain Reflectometry (TDR) technology to remotely and non-evasively diagnose the quality and characteristics of the attached cable plant. Using this technology, the devices detect and report potential cabling issues such as cable opens, cable shorts or any impedance mismatch in the cable and accurately report (within one meter) the distance of the fault. In addition, VCT technology will detect pair swaps, pair polarity reversal, and an excessive pair skew.

IEEE802.1q VLAN tagging and double tagging (Q in Q)

The 802.1q specification establishes a standard method for inserting virtual LAN (VLAN) membership information called a tag into Ethernet frames to break large networks into smaller parts, or to address security concerns. Q in Q support simply adds another layer of IEEE 802.1q tag to the 802.1q tagged packets that enter the network. The purpose is to expand the VLAN space by tagging the tagged packets, thus producing a "double-tagged" frame.

VLAN tagging can be configured to one of the following settings:
- Customer (*Normal*) = frames are unmodified when passing through the converter.
- Network (*Untag*) = all tagged frames will have their tags removed when passing through converter.
- Network (*Tag*) = all untagged frames are tagged with the source port default VLAN ID.
- Provider (*Double Tag*) = all egress frames are double tagged, using the source port default VLAN ID for the extra tag. This also enables ingress double tag removal.

Ingress:
- a. Frame does not contain a tag, frame is not modified.
- b. Frame contains one 802.3ac tag, tag is removed.
- c. Frame contains two 802.3ac tags, the first tag is removed.

Egress:
- a. Frame is untagged, tag is added.
- b. Frame contains one 802.3ac tag, tag is added before the current one becomes the frames new 802.3ac tag.

IEEE802.1p QoS, IPv4 ToS/Diffserv, IPv6 Traffic class

The 802.1p specification is an extension of the IEEE 802.1q standard and works in tandem to define the prioritization of the Ethernet frame for traffic class expediting and dynamic multicast filtering. IEEE 802.1p establishes eight levels of priority (*0 ~7*) with "7" being the highest priority. Each egress Ethernet frame can be prioritized using IEEE 802.1p (*MAC level*) Traffic Class, or IPV4 TOS and/or DiffServ and/or IPV6 Traffic Class.

Cable Specifications

The physical characteristics must meet or exceed IEEE 802.3™ specifications.

Fiber cable

Bit Error Rate:	<10-9
Single mode fiber (recommended):	9 μm
Multimode fiber (recommended):	62.5/125 μm
Multimode fiber (optional):	100/140, 85/140, 50/125 μm

C3210-1013 850nm multimode
Fiber Optic Transmitter Power: min: -9.5.0 dBm max: -4.0 dBm
Fiber Optic Receiver Sensitivity: min: -18.0 dBm max: 0.0 dBm
Link Budget: 8.5 dB

C3210-1014   1310nm single mode
Fiber Optic Transmitter Power: min: -9.5 dBm max: -3.0 dBm
Fiber Optic Receiver Sensitivity: min: -20.0 dBm max: -3.0 dBm
Link Budget: 10.5 dB

C3201-1015   1310nm single mode
Fiber Optic Transmitter Power: min: -5.0 dBm max: -0.0 dBm
Fiber Optic Receiver Sensitivity: min: -20.0 dBm max: -3.0 dBm
Link Budget: 15.0 dB

C3210-1017   1550nm single mode
Fiber Optic Transmitter Power: min: -3.0 dBm max: 2.0 dBm
Fiber Optic Receiver Sensitivity: min: -24.0 dBm max: -3.0 dBm
Link Budget: 21.0 dB

C3201-1024   1300nm multimode*
Fiber Optic Transmitter Power: min: -10.0 dBm max: -3.0 dBm
Fiber Optic Receiver Sensitivity: min: -17.0 dBm max: -3.0 dBm
Link Budget: 7.0 dB

C3210-1035   1550nm single mode
Fiber Optic Transmitter Power: min: 0.0 dBm max: 5.0 dBm
Fiber Optic Receiver Sensitivity: min: -27.0 dBm max: -3.0 dBm
Link Budget: 27.0 dB

C3210-1029-A1   1310nm TX/1550nm RX single mode
C3210-1029-A2   1550nm TX/1310nm RX single mode
Fiber Optic Transmitter Power: min: -8.0 dBm max: -3.0 dBm
Fiber Optic Receiver Sensitivity: min: -21.0 dBm max: -3.0 dBm
Link Budget: 13.0 dB

C3210-1029-B1   1310nm TX/1550nm RX single mode
C3210-1029- B2   1550nm TX/1310nm RX single mode
Fiber Optic Transmitter Power: min: -3.0 dBm max: +2.0 dBm
Fiber Optic Receiver Sensitivity: min: -23.0 dBm max: -8.0 dBm
Link Budget: 20.0 dB

C3210-1029-D1   1510nm TX/1590nm RX single mode
C3210-1029-D2   1590nm TX/1510nm RX single mode
Fiber Optic Transmitter Power: min: -2.0 dBm max: +3.0 dBm
Fiber Optic Receiver Sensitivity: min: -26.0 dBm max: -3.0 dBm
Link Budget: 24.0 dB

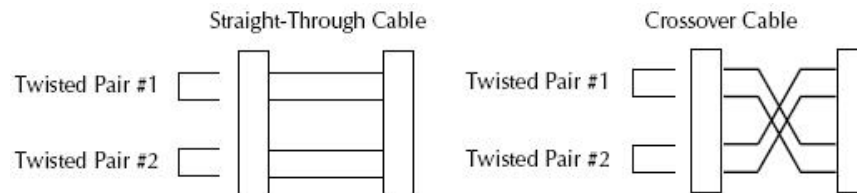***** Fiber cable for CGFEB1024-120 must be 62.5/125 μm.

Copper cable

Category 5 (*minimum requirement*)
Gauge: 24 to 22 AWG
Attenuation: 22.0 dB /100 m @ 100 MHz
Maximum Cable Distance: 100 meters

- Straight-through or crossover twisted-pair cable may be used.
- Shielded (STP) or unshielded (UTP) twisted-pair cable may be used.
- All pin pairs (*1&2, 3&6, 4&5, 7&8*) are active pins in a Gigabit Ethernet network.
- Use only dedicated wire pairs for the active pins (*e.g., blue/white & white/blue, orange/white & white/orange, etc.*)
- Do not use flat or silver satin wire.

Technical Specifications

IEEE Standards	802.3, 802.3ab, 802.3u, 802.3z, 802.1p, 802.1Q
Data Rate (*copper*):	10/100/1000 Mbps
Data Rate (*fiber*):	1000 Mbps (*operates in full duplex only*)
Maximum Frame Size:	10240K bytes jumbo frame support 1632 bytes (*when linked to a xGFEB10xx-120*)
Switches	SW1: TP Auto-Negotiation SW2: TP Speed SW3: TP Duplex SW4: Link Pass Through SW5: Fiber Duplex SW6: Unused
Jumpers	Hardware/Software mode, Auto-MDI/MDIX
Status LEDs	PWR (Power): ON = Connection to powered backplane LACT (Fiber Link): ON = Fiber link, Blinking = activity UTP Duplex/Link: Orange = half duplex link, Blinking = half duplex activity, Green = Full duplex link, Blinking = Full duplex activity, Off = 10 Mbps operation (or no link), Orange = 100 Mbps operation, Green = 1000 Mbps operation
Dimensions:	6.5"L x 3.4" H x 0.83" W (*165 x 86 x 22 mm*)
Power Consumption:	3.6 watts, 300mA @ 112VDC
Operating Temp:	0°C to 50°C
Weight:	1.0 lb. (0.45 kg)
MTBF:	greater than 250,000 MIL-HDBK-217Fhours greater than 667,500 Bellcore hours
Environment:	See chassis specifications
Storage Temp:	-25 to +65°C (*-13 to +149°F*)
Humidity:	5% to 95%, non-condensing
Warranty:	Lifetime

The information in this user's guide is subject to change. For the most up-to-date information, see the on-line manual at https://www.lantronix.com/products/c3210-series-2/#product-resources/.

WARNING: Visible and invisible laser radiation when open. DO NOT stare into the beam or view the beam directly with optical instruments. Failure to observe this warning could result in an eye injury or blindness.

WARNING: Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION: Copper based media ports, e.g., Twisted Pair (TP) Ethernet, USB, RS232, RS422, RS485, DS1, DS3, Video Coax, etc., are intended to be connected to intrabuilding (*inside plant*) link segments that are not subject to lightening transients or power faults. Copper based media ports (e.g., Twisted Pair (TP) Ethernet, USB, RS232, RS422, RS485, DS1, DS3, Video Coax, etc.) are NOT to be connected to inter-building (*outside plant*) link segments that are subject to lightening transients or power faults.

Related Information

A printed Quick Start Guide is shipped with each unit.

For Lantronix Drivers, Firmware, Manuals, Product Notifications, Warranty Policy & Procedures, etc. go to the Lantronix Technical Resource Center.

For SFP manuals see Lantronix SFP webpage.

Troubleshooting

1.   Is the Power LED lit?

        NO

        • Is the C3210 inserted properly into the chassis?

        • Is the power cord properly installed in the chassis and in the grounded AC outlet?

        • Does the grounded AC outlet provide power?

        • Contact Tech Support.

        YES

        • Proceed to step 2.

2.   Is the Duplex LED lit orange or green?

        NO

        • Check the copper cables for proper connection.

        • Contact Tech Support.

        YES - Orange

        • The C3210 has selected half-duplex mode. If this is not the correct mode, disconnect and
          reconnect the copper cable to restart the initialization process.

        • Proceed to step 3.

        YES - Green

        • The C3210 has selected full-duplex mode. If this is not the correct mode, disconnect and
          reconnect the copper cable to restart the initialization process.

        • Proceed to step 3.

3.   Is the LACT LED lit?

        NO

        • Check the fiber cables for proper connection.

        • Verify that the TX and RX cables on the C3210 are connected to the RX and TX ports,
          respectively, on the other device.

        • Contact Tech Support.

        YES

        • Proceed to step 4.

4.   Is the Speed LED lit?

        NO

        • The C3210 has selected 10 Mbps operation. If this is not the correct speed, disconnect and
          reconnect the copper cable to restart the initialization process.

        • Contact Tech Support.

        YES - Flashing Orange

        • The C3210 has selected 100 Mbps speed. If not the correct speed, disconnect and reconnect
          the copper cable to re-initialize.

        • Contact Tech Support..

        YES - Flashing Green

        • The C3210 has selected 1000 Mbps operation. If this is not the correct speed, disconnect and
          reconnect the copper cable to re-initialize.

        • Contact Tech Support.

Compliance Information

Declaration of Conformity

Manufacture's Name: Lantronics, Inc.
Manufacture's Address: 48 Discovery, Suite 250, Irvine, California 92618 USA

Declares that the product(s): C3210-1013, C3210-1039, C3210-1014, C3210-1040

Conforms to the following Product Regulations:

EMC Directive 2004/108/EC; EN 55022:2006+A!:2007 Class A; EN 55024:1998+A1:2001+A2:2003; EN61000-3-2: EN61000-3-3; CFR Title 47 Part 15 Subpart B Class A; Low Voltage Directive: 2006/95/EC; CFR Title 21 Section 1040.10 Class 1.

With the technical construction on file at the above address, this product carries the CE Mark

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).
Place: Irvine, California
Date: April 27, 2022
Signature: *Eric Bass*
Full Name: Eric Bass
Position: Vice President of Engineering

FCC Regulations

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian Regulations

This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la lass A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Regulations

Warning
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Achtung !
Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten. In diesem Fäll ist der Benutzer für Gegenmaßnahmen verantwortlich.

Attention !
Ceci est un produit de Classe A. Dans un environment domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilsateur de prende les measures spécifiques appropriées.

In accordance with European Union Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003, Lantronix will accept post usage returns of this product for proper disposal. The contact information for this activity can be found in the 'Contact Us' portion of this document.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EGMitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer

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www.lantronix.com/about/contact.