



**ACION 210**



**ACION 210 W/WDM**

## ACION™ 210 1002 MHz Indoor Optical Nodes

ACI's ACION 210 is one of the smallest fully featured bi-directional nodes on the market. The optical receiver has an amazing high output level of 22 dBmV at a 0 dBm optical input. With LED's for power on, laser on, and optical power, forward and reverse -20 dB test points, input and output optical level test points, this node has all of the setup features that are included in a conventional node in a housing the size of a standard drop amplifier. This node also offers a complete selection of reverse transmitter options including 1310 nm or 1550 nm DFB, DFB CWDM (1471 to 1611 nm) and a 1550 nm DFB with an internal WDM.

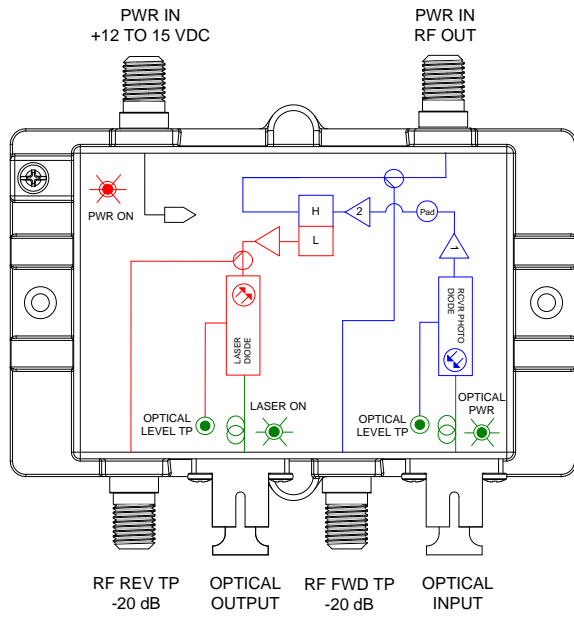
### Features

- Forward 54-1002 MHz/Reverse 5 to 42 or 55 or 65 MHz
- DFB & DFB CWDM transmitters available
- Forward and reverse -20 dB RF & 1 V/mW input/output optical test points
- Forward receiver operates at -6 to +2 dBm optical input and from 1200 to 1600 nm wavelength
- 1 fiber input version with a built-in 1310/1550 WDM is available
- RF reverse upstream insertion port for applications such as distance learning, live events coverage, and security or traffic monitoring

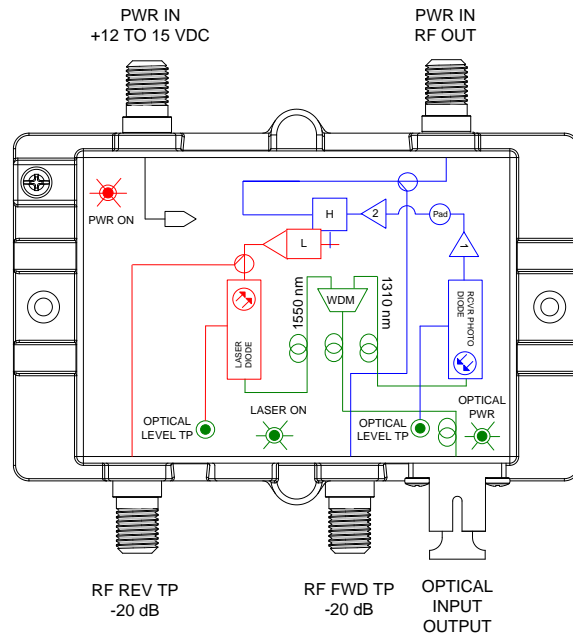
### Applications

- Cost effective for use in high density application such as business parks, hospitals, schools/universities, PEG and MDU applications
- Perfect for high security LAN network applications

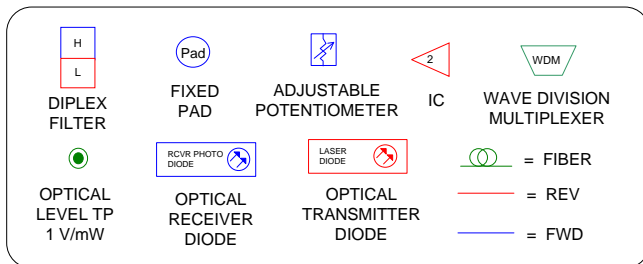
### ACION 210 1002 MHz INDOOR OPTICAL NODE



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#### Legend



Station Parameters: Forward Path			
General Performance	Conditions	Units	Specifications
Bandwidth		MHz	54 to 1002
Flatness	Worst Case	±dB	0.5
Impedance		Ohm	75
RF return loss	Worst Case	-dB	17
RF test point	Directional coupler	-dBc	20.0 ±0.5
Optical test point		V/mW	1.0 ±0.1
RF output level		dBmV	20
Carrier-Noise-Ratio (CNR)	@ -1 dBm Optical input	dB	>51
Composite Triple Beat (CTB)	OMI=3.4% 78 channels	-dBc	<65
Composite Second Order (CSO)	loading +450 digital	-dBc	<65
Cross Modulation (XMOD)		-dBc	<65
Optical Parameters			
Optical receive power		dBm	-6 to +2
Wavelength		nm	1200 to 1611
Station Parameters: Reverse Path			
General Performance	Conditions	Units	Specifications
Bandwidth		MHz	5 to 42
RF input level		dBmV	20
Flatness	Worst Case	±dB	0.75
Impedance		Ohm	75
RF return loss	Worst Case	-dB	17
RF test point	Directional coupler	-dB	20.00 ±0.75
Optical test point		V/mW	1.0 ±0.1
Link Performance			
Type of transmitter		N / A	DFB
Reverse channel loading	@ -4 dB with standard receiver	N / A	T7 - T12
CNR	Worst Case	dB	>55
DTO (FP) CTB (DFB)	Worst Case	-dBc	<55
DSO (FP) CSO (DFB)	Worst Case	-dBc	<51
Environmental			
Operating temperature		°F (°C)	-40 to 140 (-40 to +60)
DC voltage input range		VDC	12 to 15
Power consumption		Watts	3.1
RF ports surge protection	A3 ring wave	KV	6
Transformer port surge protection	B3 combination wave	KV	6
RF output stability over temperature		±dB	2
Physical			
Optical connectors	SC/APC standard	N/A	SC/APC, SC/UPC, FC/APC, or FC/UPC
LED's		N/A	Power on & Optical input power & Laser on
Dimensions (H X W X D)		In, (cm)	5 X 4.8 X 1.5 (12.7 X 12.1 X 3.8)
Weight		lbs. (kg)	2.2 (1.0)

Confidential

Information contained in this document is subject to change without notice.

Revision date: 4/5/2019

# ACION 210 Configuration Sheet

Customer: \_\_\_\_\_

Created By: \_\_\_\_\_ Order Date: \_\_\_\_\_

## ORDERING MATRIX

April 5, 2019

Position	1	2	3	4	5	6	7	8	9	10
PART NUMBER	A	2	1	0	-	4				

2-3-4    **CONFIGURATION** 9

210 = Transmitter and Receiver 1002 MHz

6

**DIPLEX FREQUENCY SPLIT**

4 = 42/53 1002 MHz

7

**OPTICAL CONNECTOR TYPE**

1 = SC/APC (Standard)

2 = SC/UPC

3 = FC/APC

4 = FC/UPC

10

**TRANSFORMER TYPE**

0 = None

1 = North America

2 = International/Europe

3 = Japan

4 = Australia

5 = Argentina

X = Other (Contact Product Management)

8

**TRANSMITTER TYPE FP & DFB**

J = Uncooled 1310 nm DFB (1.0 mW)

B = Uncooled 1310 nm DFB (3.0 mW)

C = Uncooled 1550 nm DFB (2.0 mW)

E = Uncooled 1550 nm DFB (2.0 mW) w/ WDM

**TRANSMITTER TYPE DFB CWDM**

A = Uncooled 1471 nm DFB CWDM (2.0 mW)

G = Uncooled 1491 nm DFB CWDM (2.0 mW)

V = Uncooled 1511 nm DFB CWDM (2.0 mW)

L = Uncooled 1531 nm DFB CWDM (2.0 mW)

W = Uncooled 1551 nm DFB CWDM (2.0 mW)

M = Uncooled 1571 nm DFB CWDM (2.0 mW)

N = Uncooled 1591 nm DFB CWDM (2.0 mW)

T = Uncooled 1611 nm DFB CWDM (2.0 mW)

**CUSTOM FEATURE**

0 = None

X = Determined by Product Management

## NOTES:



ACI Communications, Inc.  
23307 66th Avenue South  
Kent, WA 98032

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