



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 nodes in a housing the size of a standard drop amplifier. This node also offers a complete selection of reverse transmitter options including 1310 nm FP, 1310 or 1550 nm DFB, DFB CWDM (1471 to 1611 nm) and a 1550 nm DFB with an internal WDM.

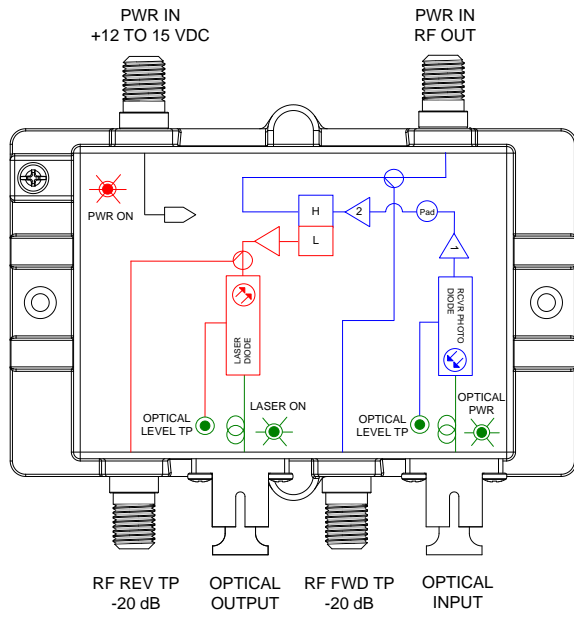
Features

- Forward 54-1002 MHz/Reverse 5 to 42 or 55 or 65 MHz
- FP, 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

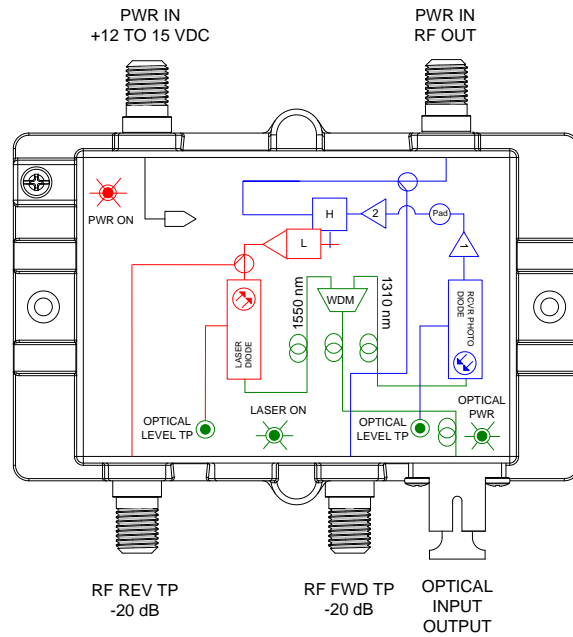
Applications

- RF reverse upstream insertion port for applications such as distance learning, live events coverage, and security or traffic monitoring
- Cost affective for use in high density application such as business parks, hospitals, schools/universities, PEG and MDU applications
- Perfect for high security LAN network applications

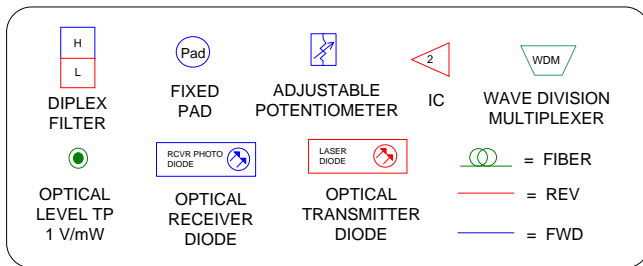
ACION 210 1002 MHz INDOOR OPTICAL NODE



ACION 210 W/WDM 1002 MHz INDOOR OPTICAL NODE



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)		OIM=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	FP	DFB
Reverse channel loading		@ -4 dB with standard receiver	N / A	T9 & T10	T7 - T12
CNR		Worst Case	dB	>45	>55
DTO (FP) CTB (DFB)		Worst Case	-dBc	<45	<55
DSO (FP) CSO (DFB)		Worst Case	-dBc	<45	<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: 10/152018

ACION 210 Configuration Sheet

Customer: _____

Created By: _____ Order Date: _____

ORDERING MATRIX

October 16, 2018

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

8 **TRANSMITTER TYPE FP & DFB**
 P = Uncooled 1310 nm FP (0.5 mW)
 H = Uncooled 1310 nm FP (2.0 mW) W/Isolator
 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)

TRANSFORMER TYPE
 0 = None
 1 = North America
 2 = International/Europe
 3 = Japan
 4 = Australia
 5 = Argentina
 X = Other (Contact Product Management)

CUSTOM FEATURE
 0 = None
 X = Determined by Product Management

NOTES:



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