

HEADEND DSIM OPTICAL NODES ACI AMPLIFIERS SUBSCRIBER/PREMISE PASSIVE OPTICAL NETWORK

PRODUCT CATALOG

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The N5022 / N5069 1.2 GHz is a 4-output 4x4 fully segmentable optical node

- Four driven output ports
- Compact size for a 4x4 segmentable node (8.44" H x 20.22" W x 10.73" D)
- Status monitoring
- Plug-in forward and reverse configuration modules allows for easy field reconfiguration to add or remove segmentation as needed
- DFB, CWDM, DWDM & Digital return transmitters available
- Up to 2 Remote PHY modules are available for digital fiber link (optional)
- 40/90 VAC switch-mode power supply with built-in Triac surge protect

Nodes

ACION 3422

Optical Node 2x2 Fully Segmentable



The ACION 3422 1GHz is a 4-output 2x2 fully segmentable optical node

- Four driven output ports
- FP, DFB, CWDM, DWDM & Digital return transmitters available
- Redundant receiver & transmitter (optional 1:4 only)
- Mid/High Split Return Options (42, 85 or 204 MHz)
- Plug-in forward and reverse configuration modules allows for easy field reconfiguration to add or remove segmentation as needed
- 40/90 VAC switch-mode power supply

Nodes

ACION 1002 & 1042

Optical Node 1002 MHz (1, 2, or 4 Output)



The ACION 1002 and 1042 series are compact economically priced 1, 2 or 4 outputs nodes that are ideal for use in HFC, fiber deep, MDU or commercial architectures.

- 1, 2 or 4 outputs
- -20 dB directional coupler test points
- DFB and CWDM transmitters available
- 40 to 90 VAC (cable) or 90 to 240 VAC (mains)
- Up to 46.0 dBmV out at 1002 MHz on each output port
- Pad adjustable linear equalizers standard
- Mid/High Split Return Options (42, 85 or 204 MHz)

1.2 GHz SDA Ampliers

Distribution Ampliers 1218 MHz



The ACI 1218 MHz SDA amplifiers are the latest-generation broadband amplifier in the ACI SDA platform. The Gallium nitride (GaN) technology supports high RF output levels up to 57 dBmV.

- 1218 MHz amp can be dropped into the 750, 870 or 1002 MHz spacing
- Return options (42 MHz, 85 MHz or 204 MHz.)
- · Standardized housing between amplifier types
- Patented DSIM AGC Technology
- Pad adjustable forward and return EQ's that eliminates the need to stock different EQ values
- · Increased reliability with higher surge protection GaN gain stages
- Ideal for fiber deep networks with the extended reach of the amplifiers or traditional HFC networks to increased performance & reliability

ASEM 1.2GHz Drop in Modules Compatible with Motorola[®]

Distribution Ampliers 1218 MHz



The ASEM Moto BLE and MB 1.2G RF upgrade modules are compatible with the Motorola® Starline® MB Mini-Bridger and BLE Line Extender.

- 1218 MHz can be dropped into the 750 , 870 or 1002 MHz spacing
- Return options (42 MHz, 85 MHz or 204 MHz.)
- Ideal for traditional HFC networks upgrade
- Pad Adjustable equalizers standard
- Automatic Gain Control with the Patented DSIM technology
- · Increased reliability with higher surge protection in the GaN hybrids
- Up to 3 dB higher output levels with same distortion performance with GaN Hybrids

ASEM 1.2 GHz Drop in Modules Compatible with SA[®] / Cisco[®]

Distribution Ampliers 1218 MHz



The ASEM CISCO 1.2G RF upgrade modules are compatible with the SA®/ Cisco®/ GainMaker®/ and System II, III.

- 1218 MHz can be dropped into the 750 , 870 or 1002 MHz spacing
- Return options (42 MHz, 85 MHz or 204 MHz.)
- · Ideal for traditional HFC networks for increased performance & reliability
- · Ideal for ber deep networks with the extended reach of the ampli ers
- Pad Adjustable equalizers standard
- Automatic Gain Control with the patented DSIM
- · Increased reliability with higher surge protection in the GaN hybrids
- Available modules: BT (Balanced Triple), UBT (Un-balanced Triple), HGD (High Gain Dual) and LE (Line Extender)

ASEM 1.2 GHz Drop in Modules Compatible with C-Cor[®] / Arris[®]

Distribution Amplifiers 1218 MHz



The ASEM C-Cor[®]/Arris[®] 1.2G RF upgrade modules are compatible with the FMT & FMB 700, 800 and 901e and the FM331e, E6 and E7 line extenders.

- AFM-T Trunk is compatible with Arris® 901e FMT and is a 1G drop-in replacement for the C-Cor® FNT700, FNT800, FNT900
- AFM-B Bridger is compatible with Arris[®] 901e FMB and is a 1G drop-in replacement for the C-Cor[®] FNB700, FNB800, FNB900
- AFM-L Line Extender is compatible with Arris[®]/C-Cor[®] FM331e and is a 1G drop-in replacement for the C-Cor[®] E6 and E7 Line Extender
- AFM-E Line Extender is compatible with Arris®/C-Cor® 900 LE
- Easy, simple setup
- Return options (42 MHz, 85 MHz or 204 MHz.)
- Pad Adjustable equalizers standard
- Automatic Gain Control with the patented DSIM
- · Increased reliability with higher surge protection in the GaN hybrids

Amplifier Mid/High-Split Return Kit

1.2 GHz



85 and 204 DIPLEX FILTER



85 and 204 Reverse EQ





Low pass filter

High pass filter



FWD Netboard





Rev input TP

Easily upgrade SDA and ASEM amplifiers to a mid-split return.

Field Upgradable Return Split



GPON

ACION 210

1002 MHz Indoor Optical Node



ACION 210

ACION 210 w/WDM

The ACION 210 is one of the smallest fully featured bi-directional nodes on the market. The optical receiver has an output level of 22 dBmV at a 0 dBm optical input. With LEDs for power on, laser on, and optical power, forward and reverse -20 dB test points, input and output optical level test points. This node also o ers a complete selection of reverse transmitter options including 1310 or 1550 nm DFB, DFB CWDM and a 1550 nm DFB with an internal WDM.

- RF reverse upstream insertion port for applications such as distance learning, live events coverage, and security or tra c monitoring
- Cost a ective for use in high density application such as business parks, hospitals, schools/universities, PEG and MDU applications
- · Perfect for high security LAN network applications
- Ideal for temporary node applications to keep the system up and running while the permanent node is repaired or replaced

EDFA

ED52XX Series

EDFA with WDM for (X)GPON RF overlay Optional : Hardened for Outdoor Cabinet Environment





High-power rack mount multi-ports EDFAs. Designed for single channel or multi-channel wavelengths (ITU) with WDM for PON by-pass.

- 1545~1563 nm wavelength operating range
- 1, 2 ,4 ,8 ,16 (1RU), 32 or 64 (2 RU) output ports
- Fits into a 19", 21" or 23" wide rack
- · Can be mounted horizontally or vertically
- A high performance optical output driver circuit and laser TEC to provide a highly reliable EDFA
- A pump laser auto shutdown function to protect the unit from over powered
- · LED indicator on the front panel shows the alarm status
- Supports SNMP for network management
- Additional Option for XGPON WDM
- Operation temperature range: 0°C to +50°C (indoor) -5°C to +65°C (outdoor)

EDFA

ACION 3958 Outdoor EDFA

The ACION 3958 is an outdoor EDFA with 8 output ports operated on constant output power mode. It also has WDM devices integrated for combing GPON (IP) signals of wavelength1310 (upstream) and 1490 (downstream) with 1550 broadcasting signals in the same fiber.

- A high performance optical output driver circuit and laser TEC to provide a highly reliable EDFA
- · A Built-in microprocessor allows the unit to monitor the system parameters
- A pump laser auto shutdown function is available
- LED indicator on the front panel shows the alarm status
- LCD display on the front panel shows the monitor parameters
- Operating temperature: 20°C to + 65°C (standard)
- · Built-in optical receiver for direct monitoring of CATV RF signal
- Supports rmware upgrade download

Headend

ACION 8000 Series

Headend Optical Transmission Platform



The ACION 8000 is a 3RU 19" wide rack unit which provides 16 slots that can accommodate the plug-in application modules and power supplies. The ACION 8000 is designed for maximum density and flexibility: Up to 12 ACION 8000 plug-in application modules, 2 power supplies and 1 control modules in the 3RU chassis. The dual transmitters can provide up to 24 transmitters per chassis, and the quad receivers can provide up to 48 receiver ports per chassis.









A8KFT3U

A8KFT3UD



A8KAPS / DPS



A8KPCM2L

Variety of modules available including:

- 1.2 GHz DWDM Transmitter
- 1.2 GHz 1310 Transmitter
- CWDM Transmitter
- CWDM Receiver
- Quad/Dual 300 MHz Return Receiver
- 1550 nm C-band EDFA
- Digital Return Receiver
- Dual 1.2 GHz DWDM Transmitter
- Dual 1.2 GHz 1310 Transmitter
- DC or AC Power Supplies

Forward OTX

DT8130

1.2GHz 1310nm Forward Optical DM Transmitter



The DT8130 series is a family of high performance head-end 1.2GHz forward optical direct modulation transmitter (Tx) for HFC or FTTH applications. The DT8130 series Tx is available with optical power options from 3 dBm to 15 dBm.

- 19" standard 1RU rack mount design
- Transmission bandwidth up to 1.2GHz
- · Cooled DFB laser diode with integrated optical isolator
- 1310 nm optical wavelength
- AGC/MGC selection
- Video/CW selection
- OMI level adjust
- User defined AGC setting
- Dual Hot-swappable Power Supply
- · Remote control and monitor functions via HMS or SNMP
- · -20dB RF front-panel test point





The DT8150 series is a family of high performance head-end 1550nm 1.2GHz forward optical direct modulation transmitter (Tx) for HFC or FTTH applications. The DT8150 series Tx has a 1RU 19" standard chassis and is available in several optical DWDM wavelength options and configurations to meet various network requirements.

- 19" standard 1RU rack mount design
- Transmission bandwidth up to 1.2GHz
- Fiber distance up to 30 KM with user fiber length setting in 1 KM increment
- Cooled DFB laser diode with integrated optical isolator
- AGC/MGC mode selection
- 1550nm, standard ITU DWDM Ch15 to Ch72, 100 GHz spacing
- Video/CW Mode selection
- OMI level adjust
- User defined AGC setting
- SBS: 18dBm
- Dual Hot-Swappable power supply
- -20dB RF front panel test point
- · Remote control and monitor functions via HMS or SNMP

DSIM

DSIM® Series

Digital Station Intelligence Manager

The ACI Digital Station Intelligence Manager (DSIM) is a next generation gain control module with comprehensive yet extremely cost effective local station diagnostics on board. In the DSIM AGC module the gain control function allows for any QAM or analog carrier from channels 52 to 142 to be selected as pilot or can be set to operate in the thermal AGC mode. The DSIM AGC modules are simple to use, reliable, power efficient, cost effective, and an augmentation to the OSP maintenance team's maximum uptime program.



DSIM-A for Augat® ACI SDA and ALX



DSIM-GI for General Instrument® Motorola®, BLE, MB, BT Post 750-DH 6-pin



DSIM-JD for Jerrold® JLX Line Extender 750-D/H 5-pin



DSIM-SS 01 (w/o EQ) for Scientific Atlanta® System Amplifier II & III



DSIM-SS 02 (w/ EQ) for Scientific Atlanta® System Amplifier II & III



DSIM-MV for Philips®/Magnavox® Diamond Type 1, 2, 3



DSIM-CJ for Arris® FM601e-T/B

R



DSIM-SG for Scientific Atlanla® / Cisco® GainMaker



DSIM-CC for C-Cor® / Arris® FlexNet E7 Series LE/Flex Max 301e



DSIM-CG for Philips®/ Magnavox®/ C-Cor® 6-LE97/98 LE/Spectrum 2000



DSIM-AF for Antec® FTMB-75 Series



DSIM-CF for C-COR®/ Arris® FlexNet FNT & FNB 700/800 FlexNet FNT & FNB 900 Navicor NL Series/Flex Max 901e

Accessories

Jumper / Splitter Directional Couplers



Used in the following products.

- SDA 1.2G Series
- ASEM 1.2G Series











Jumper 088131-01

SDADC7

SDADC10

SDADC12

Used in the following products.

- SDAF 750 or 870 MHz 2 or 3 output bridger
- SDAM 1002 MHz 2 or 3 output bridger

SDASPLTR3.5

- ASEM Moto MB 2 or 3 output bridger ampliers
- ASEM C-cor Trunk & Bridger
- ACION 1000 & 1002 1 or 2 output optical
- ACION 1042 2 or 4 output optical node



Jumper / Splitter Directional Couplers

Vertical



Vertical: Used in the following products.

- SDAF 1002 MHz 2 or 3 output bridger
- ASEM Cisco LGD & HGD ampliers

Accessories

JXP Pad Adjustable EQ





Reverse Equalizer

0 to 20 dB in .05 dB Steps



RF Probe for Test Points 1.57" Long Part number: TP-7504



RF Probe for Test Points 5.5" Long Part number: 100685-01

Accessories

Reverse Path Rejection Filters

Cut down your return band noise!



14 MHz Reverse Rejection Filter



8 MHz Reverse Rejection Filter



Reverse Rejection Filter Bypass

		RPRFLTR-8	RPRFLTR-14
Pass Band	Bandwidth, MHz	13 - 200	20 - 200
	Insertion Loss, dB (MIN)	- 1.50 @ 13 - 20 MHz	-
	Insertion Loss, dB (MIN)	- 1.00 @ 20 - 200 MHz	- 1.00 @ 20 - 200 MHz
	Input Return Loss, dB	- 18 (MAX)	- 18 (MAX)
	Output Return Loss, dB	- 18 (MAX)	- 18 (MAX)
Stop Band	Bandwidth, MHz	5 - 8	5 - 14
	Attenuation, dB	- 30 (MAX)	- 30 (MAX)



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