



ED5229ST Series

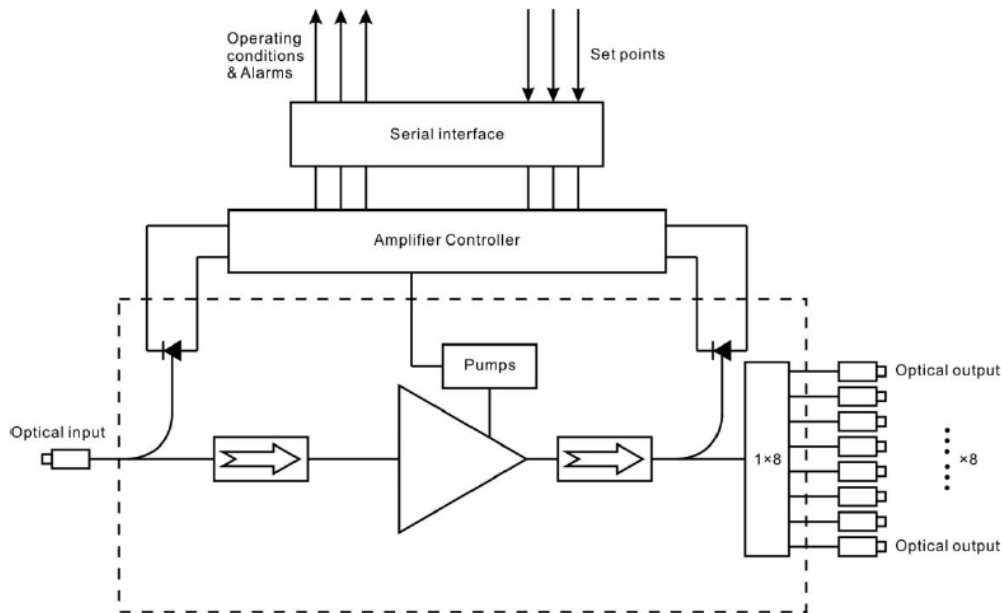
CATV Single Channel EDFA (with Pluggable Cooling fans, fan speed monitoring & alarm / for Outdoor Cabinet Environment)

The ACI ED5229ST EDFA operates at a constant output power mode, the single channel EDFA designed to amplify channels in a wavelength range from 1545 nm to 1563 nm. The ACI ED5229ST EDFA is designed to operate in an outdoor cabinet environment with temperature from -5°C to +65°C. The monitoring, alarm functions and system information are provided with real time display on the front LCD panel and LED indicators. RS232 interface for remote control is available, and RJ45 interfaces for SNMP management is available as an option. The unit is designed with ruggedized components for operation in the temperature range from -5°C to +65°C which is suitable for both indoor and outdoor cabinet environment. The ED5229ST has cooling fans on the side walls with fan speed monitoring and fan failure alarm. All of the optical connectors are positioned at a 60 degree angle to the front panel surface for easy fiber routing. The unit has full front-panel access functions including the power supply connections. The unit works for both a 19" or 21" rack by using a mounting adaptor and can be installed vertically or horizontally in the cabinet.

Features

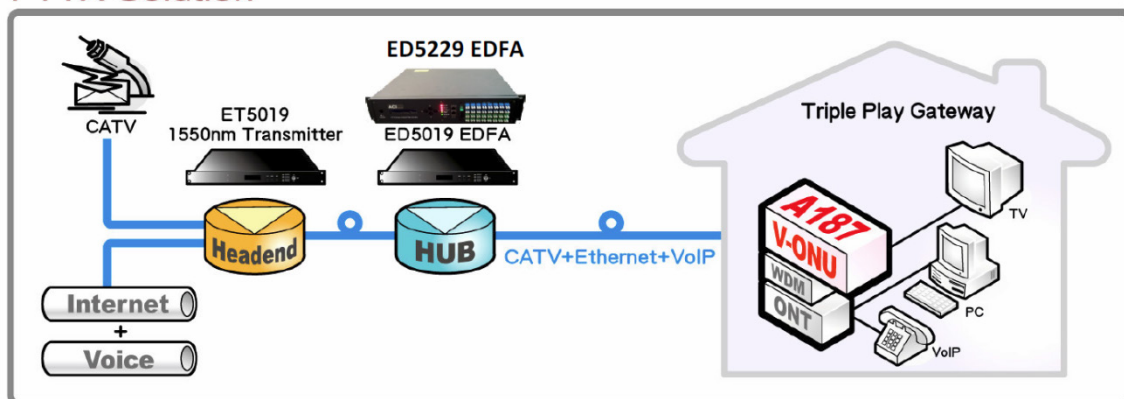
- Operation temperature range: -5°C to +65°C (for outdoor cabinet environment)
- All front panel access
- Pluggable cooling fans on the side walls
- Fan speed monitoring and failure alarm
- All of the optical connectors are positioned at a 60° angle for easier fiber cable routing
- Fits into a 19" or 21" wide rack and can be mounted horizontally or vertically.
- 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
- 1545~1563 nm operating wavelengths range
- LCD display on the front panel shows the system parameters
- Support firmware upgrade download
- Support SNMP for network management
- 1, 4, or 8 output ports

Block Diagram



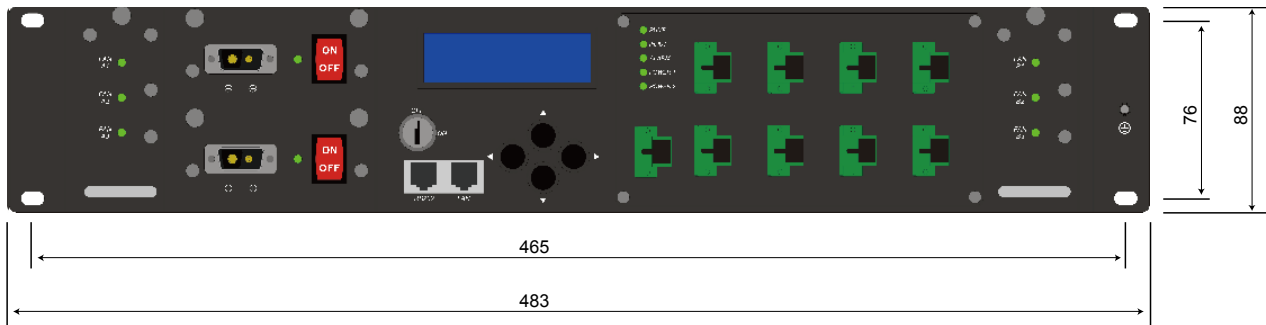
Application Diagram

FTTX Solution

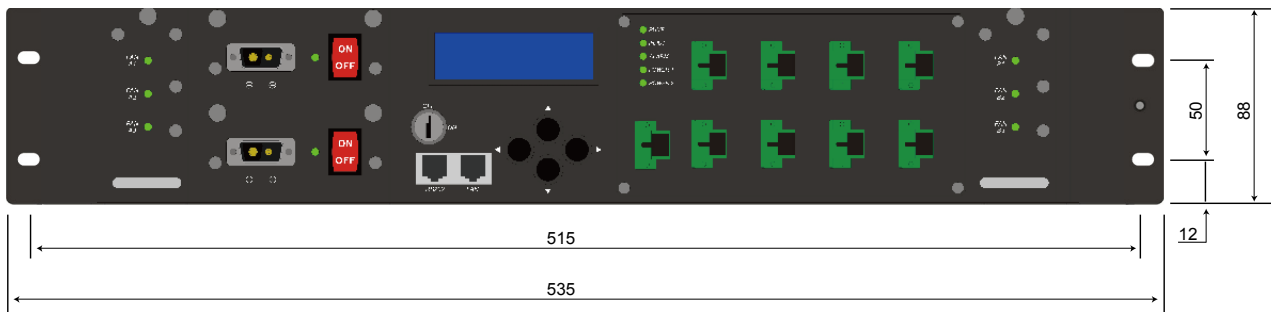


Dimensions

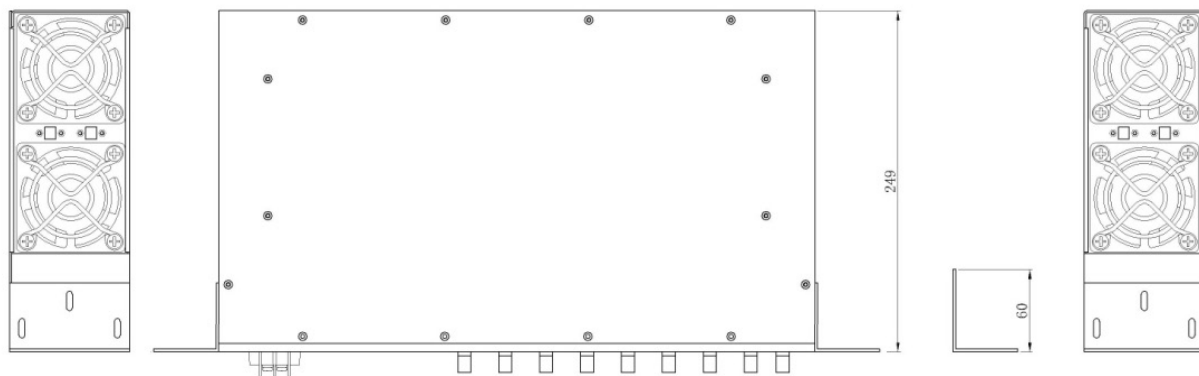
A. Front panel dimensions for 19" Rack Mount



B. Front panel dimensions for 21" Rack Mount



C. Length (Depth) dimension of Chassis with pluggable cooling fans



Specifications

ACI		ED5229ST Series CATV Single Channel EDFA				
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION			NOTES
Absolute Maximum Ratings			Value Min.	Value Max.		
Operating Case Temperature		°C	-5	65		
Storage Case Temperature	2000 hrs Max.	°C	-40	80		
Electrostatic discharge (ESD)	C=100pf , R=1.5R Human body	V	0	1000		
Relative humidity	Non condensing	%	0	95		
Power Consumption		Watt		50		
Environmental condition			Min.	Typ.	Max.	
Operation Case Temperature		°C	-5		65	
Operation Humidity		%RH	0		95	Without Condensation
Storage Case Temperature		°C	-40		80	
Storage Humidity		%RH	0		95	Without Condensation
Optical Specifications			Min.	Typ.	Max.	
Optical Wavelength	In vacuum	nm	1545	-	1563	
Total Input Power	@ λ_{OP} =1550nm	dBm	-10		+10	
Saturated Output Power	@ $P_{in} \geq -5$ dBm @ λ_{OP} =1550nm	dBm	P_{out}	$P_{out} + 0.3$	$P_{out} + 1$	
Output Power Stability	Over λ_{OP}	dB	-0.5		0.5	
Noise Figure @ P_{in} =0dBm		dB	-	5.5	≤ 6.0	
PDG	Over λ_{OP}	dB	-	-	0.5	
PMD	Over λ_{OP}	ps	-	-	0.5	
Return Loss	All ports	dB	45			
Output Isolation	≤ 17 dBm ≤ 23 dBm	dB	25 45			
Residual Pump LD Power	970 ~ 980 nm	dBm			-30	
Control Mode	APC			APC		
Mechanical Specifications						
Dimension	W x L x H	mm	483 x 249 x 88 mm (for 19" rack) 535 x 249 x 88 mm (for 21" rack)			
Power Supply	Dual power module/ hot standby	V	100~240VAC, 50/60Hz -48 VDC (± 12 VDC)			
Pump Laser Switch			Key Switch			
LED Indicators			Power, Input, Output, System			
User Interface			RS232 or RJ45 (options)			
Optical Connector			SC/APC (Standard), FC/APC (Option)			
Optical Connector Orientation	All ports		60 degree angled to the surface of the Front Panel			

Ordering Matrix

ACI ED5229ST Series EDFA Configuration Sheet

Customer: _____

Created By: _____ Order Date: _____

ORDERING MATRIX

January 30, 2017

Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PART NUMBER	E	D	5	2	2	9	S	T		—							

9 **CONTROL INTERFACE**
 0: None (Default)
 1: SNMP (RJ45)
 2: RS232

15 **OPTICAL CONNECTOR : Input-Output**
 1: SC/APC-SC/APC
 2: SC/APC-LC/APC
 3: FC/APC-FC/APC

11~12 **OUTPUT PORT**
 01: 1 output ports
 04: 4 output ports
 08: 8 output ports

16 **MAIN POWER**
 1: 110/220 VAC (100~240 VAC)(Default)
 2: Dual 110/220 VAC (100~240 VAC)
 3: Dual -48 VDC

13~14 **OUTPUT POWER (per port)**
 13: 13 dBm **Single port only**
 14: 14 dBm 20 = 20dBm
 15: 15 dBm 21 = 21dBm
 16: 16 dBm 22 = 22dBm
 17: 17 dBm 23 = 23dBm
 18: 18 dBm
 19: 19 dBm

17 **POWER CORD SETS**
 0 = None
 1 = North America
 2 = International / Europe
 3 = Japan
 4 = Australia
 5 = Argentina
 6 = DC Wire Set.(AWG14)
 7 = DC power connector with wire terminal,
 Blue negative(-), Black positive(+)
 8 = DC power connector with wire terminal,
 Red negative(-), Black positive(+)
 9 = DC wire set with lug type terminal (AWG14),
 Red Negative (-), Black Positive(+)
 X = Custom - (Determined by product management)

NOTES:



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

Rev C 1-30-2017 Printed in U.S.A.
 ACI Communications, Inc. reserves the right to discontinue the
 manufacture or change specifications without prior notice on any
 parts illustrated in this data sheet. Registered trademarks are the
 property of their respective owner