



**8 Ports**



**16 Ports**

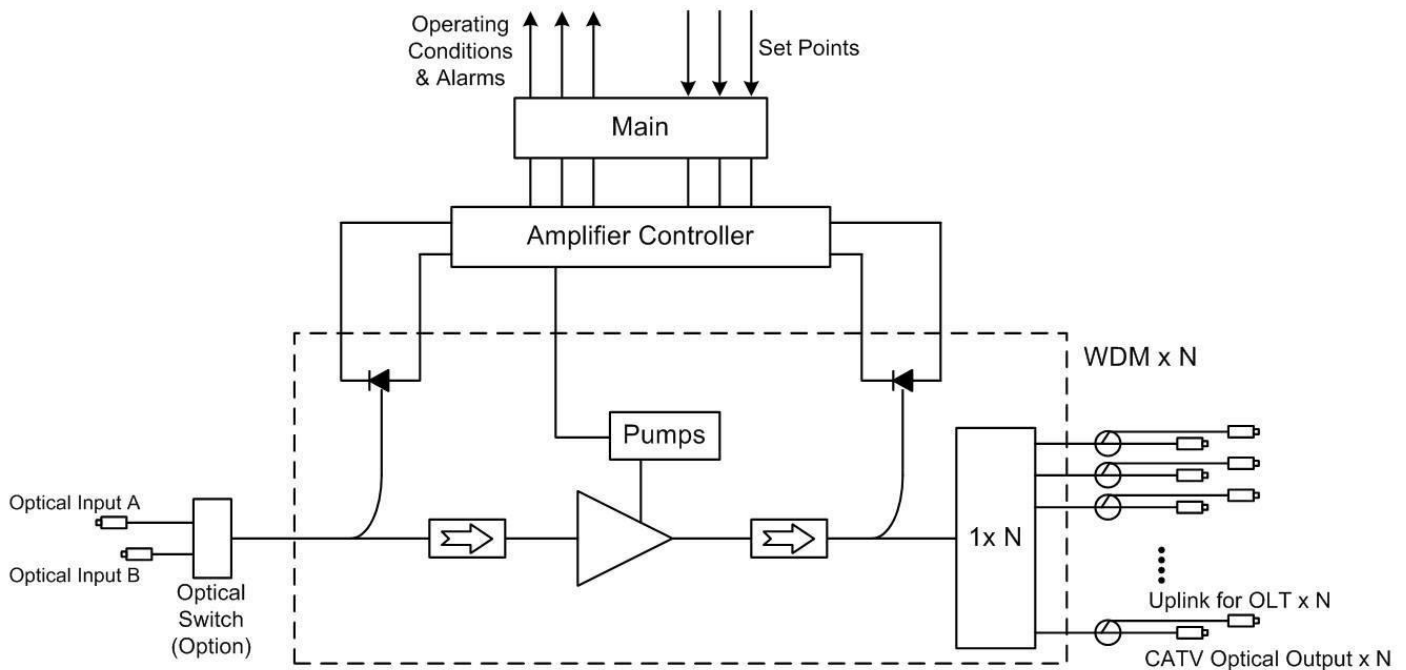
## **ED5219LGT Series** **CATV Single Channel EDFA**

The ACI ED5219LGT series is a high-power multi-ports EDFA optical booster with gain spectrum bandwidth from 1545 to 1563 nm for HFC networks. It is designed for the amplification of CATV 1550 nm single channel or multi-channel wavelengths (ITU wavelength) with WDM for IP (OLT) signal overlay. It has WDM devices integrated for combing GPON (IP) signals of wavelengths 1310 nm (upstream) & 1490 nm (downstream) with 1550 nm CATV signal in the same fiber. ED5219LGT series is also specially 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 monitoring, alarm functions and system information are provided with real time display on the front LCD panel. The RJ45 connection is for the SNMP management, and the RS232 connection is used for local remote control. The unit is 1 RU in height and can be mounted into a 19" wide headend rack.

## Features

- Operation temperature range:  $-5^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$  (for outdoor cabinet environment).
- All front panel access.
- Can be mounted into a 19" wide headend rack.
- Can be mounted horizontally or vertically.
- LED indicator on the front panel shows the alarm status.
- 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.
- LED indicator on the front panel shows the Laser diode on/off.
- LCD display on the front panel shows the monitor parameters.
- Support SNMP for network management.
- Optical Switch for CATV source redundancy. (Option)

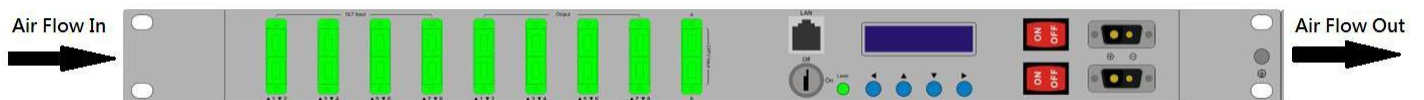
## Block Diagrams



# Specifications

ACI			ED5219LGT Series EDFA with WDM			
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION			NOTES
Optical Specifications			Min.	Typ.	Max.	
Optical Wavelength (CATV)	In vacuum	nm	1545	-	1563	
Total Input Power		dBm	-10	-	+10	
Saturated Output Power	@ Pin $\geq$ -5 dBm @ $\lambda_{OP}$ = 1550nm	dBm	Pout	Pout +0.3	Pout +1	
Output Power Stability		dB	-0.5	-	0.5	
Noise Figure @ Pin=0dBm		dB	-	-	5.5	
Polarization Dependent Gain		dB	-	-	0.4	
Polarization Mode Dispersion		ps	-	0.1	-	
Return Loss	All ports	dB	50	-	-	
Output Isolation		dB	40	-	-	
Residual Pump LD Power	970 ~ 980 nm	dBm	-	-	-30	
Number of Output Ports		pcs	-	8 16	-	
Each Port Output Power		dBm	-	-	19	
Mechanical Specifications						
Dimension		mm	443 x 249 x 43			19" 1RU, Depth $\leq$ 249mm
Power Supply	Dual power module	V	Min.	Typ.	Max.	48VDC
			30	-	72	
Power Consume	8 ports 16 ports	Watt	38 48			
Pump Laser Switch			Key Switch			
Air Flow Direction			Left to Right			Note 1
LED Indicators			Pump Laser Status			
User Interface			RJ45, RS232 (Option)			
Optical Connector	CATV input		SC/APC (standard)			
	GPON input		SC/APC (standard), LC/PC (option)			
	Combine out		SC/APC (standard), LC/APC (option)			
Heat Dissipation		W	< 16 W (for 8 ports) < 22 W (for 16 ports)			
Weight		Kg	6			

Note 1: The air flow direction of ED5219LGT is shown as below



PARAMETERS	CONDITIONS	UNITS	SPECIFICATION			NOTES
Built-in WDM Specification			Min.	Typ.	Max.	
Transmission Band		nm		1550 1490		Downstream
Reflection Band		nm		1310		Upstream
Insertion loss: Transmission Band Reflection Band		dB			0.8 0.6	
Polarization Dependent Loss		dB			0.1	
Polarization Mode Dispersion		ps			0.1	
Isolation		dB	40			
PON signal pass-through when EDFA is turned off		nm		1490 1310		
Maximum Power	WDM Max. Power Endurance	dBm			26	
<b>Built-in Optical Switch</b>						
Number of inputs	Main (A)			2		
Insertion Loss	≤	dB			1.0	
Switching Time	≤	second			0.5	
<b>Switching Mode:</b>						
Switching to secondary input when main input is below predefined level						
Automatically switches back to main input when main input returns to predefined levels.						
When both main and secondary inputs are below the threshold, the EDFA selects the higher input						
Signal pass through when equipment is down						

# Ordering Matrix

## ACI ED5219LGT Series EDFA Configuration Sheet

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

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

### ORDERING MATRIX

July 24, 2017

Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<b>PART NUMBER</b>	<b>E</b>	<b>D</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>L</b>	<b>G</b>	<b>T</b>	—									

11  **CONTROL INTERFACE**

- 0: None (Default)
- 1: SNMP (RJ45)
- 2: RS232

12-13  **OUTPUT PORT**

- 01: 1 output port
- 02: 2 output ports
- 04: 4 output ports
- 08: 8 output ports
- 16: 16 output ports

14-15  **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

18  **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)

19  **OPTICAL SWITCH FOR CATV SOURCE REDUNDANCY**

- 0 = None
- 1 = Redundant

16  **OPTICAL CONNECTOR : Input-Output**

	CATV-Input	OLT-Input	Output
1	SC/APC	SC/APC	SC/APC
2	SC/APC	LC/UFC	LC/APC
3	SC/APC	w/o WDM	SC/APC
4	Determined by Product Management		

17  **MAIN POWER**

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

### NOTES:



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