



ACION 3958

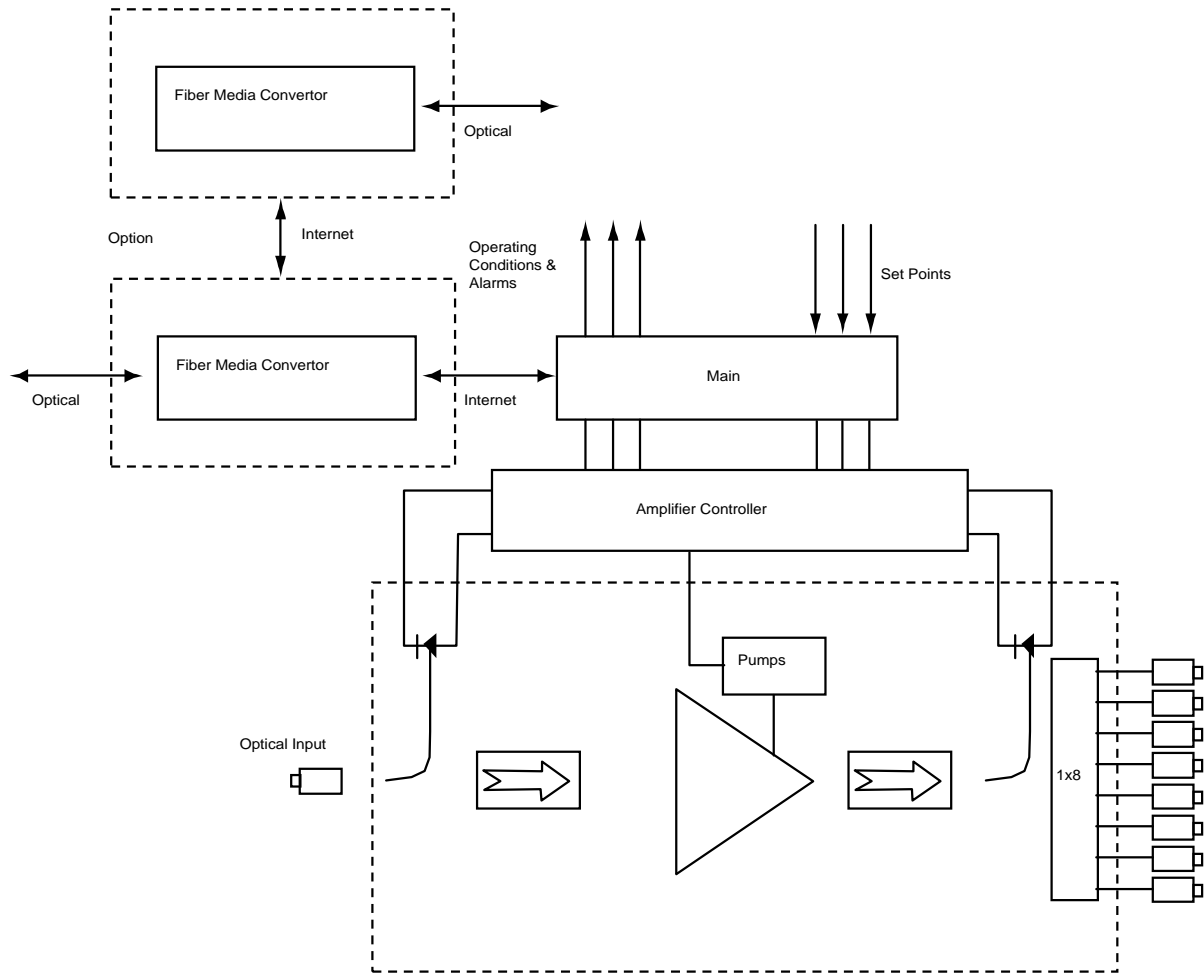
CATV Single Channel EDFA

The ACION 3958 EDFA is a single channel EDFA designed to amplify channels in the wavelength range from 1540 nm to 1560 nm. The ACION 3958 EDFA has a maximum total output power of 18 dBm. The monitoring, alarm functions, and system information are provided with a real time display on the front LCD panel and LED indicators.

Features

- ◆ A high performance optical output driver circuit and laser TEC provides a highly reliable EDFA
- ◆ A Built-in microprocessor allows the unit to monitor the system parameters
- ◆ LCD display on the front panel shows the system parameters
- ◆ Supports firmware upgrade download.
- ◆ Operating temperature: -20°C to +65°C
- ◆ Built-in optical receiver for direct monitoring of CATV RF signal

Block Diagrams



Specifications

ACI			ACION 3958 CATV Single Channel EDFA			
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION			NOTES
Absolute Maximum Ratings			Value Min.	Value Max.		
Operating Case Temperature		°C	-20	+65		
Storage Case Temperature		°C	-40	+85		
Electrostatic Discharge(ESD)	C=100pf , R=1.5R Human body model	V	0	1000		
Relative Humidity	Non condensing	%	5	95		
Current Draw	Line Power (110~220V)	A	TBD	TBD		
	Cable Power (40~90V)		TBD	TBD		
Power Consumption	Line Power	Watt	-	75		
	Cable Power		TBD	TBD		
Input Power Factor	Line Power	%	50	-		
	Cable Power		TBD	TBD		
Environmental condition			Min.	Typ.	Max.	
Operation Case Temperature		°C	-20	-	+65	
Operation Humidity		%RH	5	-	95	Without Condensation
Storage Case Temperature		°C	-40	-	+85	
Storage Humidity		%RH	5	-	95	Without Condensation
Optical Specifications			Min.	Typ.	Max.	
Optical Wavelength	In vacuum	nm	1540	-	1560	
Output Power		dBm	18.0			
Total Input Power	@ $\lambda_{OP}=1550\text{nm}$	dBm	-5	-	+8	
Saturated Output Power	@ $P_{in} \geq -5 \text{ dBm}$ @ $\lambda_{OP}=1550\text{nm}$	dBm	P_{out}	$P_{out} +0.3$	$P_{out} +1$	
Output Power Variation		dB	-0/+1 (for the specified operational wavelength and input power range)			
Output Power Stability	Over λ_{OP}	dB	-	-	1	
Noise Figure @ $P_{in}=0\text{dBm}$		dB	-	-	5.5	
PDG	Over λ_{OP}	dB	-	-	0.5	
PMD	Over λ_{OP}	ps	-	-	0.5	
Return Loss	All ports	dB	45	-	-	
Output Isolation		dB	45	-	-	
Pump Laser Used		-	-	2	-	
Residual Pump LD Power	970 ~ 980 nm	dBm	-	-	-30	
Control Mode		-	-	APC, ATC	-	

PARAMETERS	CONDITIONS	UNITS	SPECIFICATION	NOTES
Built-in RF test port				
Built-in Optical Receiver	for CATV RF test port	-	Optical Receiver for EDFA RF Monitoring	Output of EDFA for CATV signal testing
Optical Receiver Input		dBm	-6 to 0	
RF Output Level	Manual Adjustable	dB μ V	≥ 70	
CNR Performance		dB	≥ 47	
RF Test Point Connector		-	F5 3/8 inch female	
Output Impedance		Ω	75	
Mechanical Specifications				
Interface	Standard		LCD Display	
	Optional		Network Management (SNMP)	
Dimension	H x W x D	In.	9.5 x 15.9 x 9.5	
Weight		Kg	10.7	Without Power Cable
Power Supply	Line Power	V	100~240VAC, 50/60Hz	
	Cable Power		40~90VAC	
Output Ports			8	
Input Port			1	
Water Proof			IP67	
Surge Protection	Combo Wave		6KV	
Pump Laser Switch			Key Switch	
LED Indicators			Pump Laser, Power, Input, Output, System	
LCD Display			4x20 / Web Page	
User Interface			RJ45	
Optical Connector	Standard		SC/APC	

Part Number Configuration Sheet

ACION 3958 Configuration Sheet

Customer: _____

Created By: _____ Order Date: _____

ORDERING MATRIX

2016/10/18

Position		1	2	3	4	5	6	7	8	9	10
PART NUMBER	A3958	—			—						

2~3 **Output Power**
18 = 18 dBm

8

Power Supply

Cable Power
1 = 40~90VAC

5 **Output Connector**
1 = SC/APC
2 = SC/UPC
3 = FC/APC
4 = FC/UPC

Line Power (100~240VAC)

2 = North America
3 = International / Europe
4 = Japan
5 = Australia
6 = Argentina
X = Custom - (Determined by product management)
Y = Y Type Connector

6 **Network Management**
0 = None
1 = SNMP (Media Converter)
2 = SNMP (Media Converter x2 for cascade)

9

Material Restrictions
0 = None

7 **HOUSING TYPE**
0 = Standard

10

Operating Temperature
0 = -20°C ~ +65°C

NOTES:



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