

# EDFA OPTICAL AMPLIFIER [OA-1550-x-x-SA-x-x]

Fiber Products, EDFA

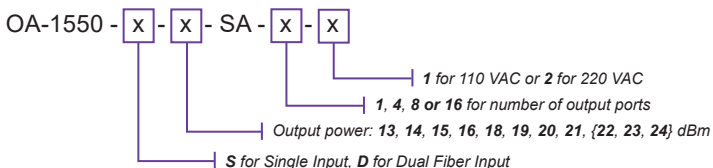
**Taikan**  
ESTD. 1973

## Features

- 1540~1563 nm Operating Wavelength
- Low Noise, High Output, High Reliability
- APC, ACC, ATC Controlled Selection
- 19" 1RU Standard Rackmount Housing
- Excellent P/P Ratio
- RS232 and RJ45 Connections
- Easy to Read LCD Screen



## Ordering Information



Model Number	Description	Box Weight	Output Power (dBm)
OA-1550-x-x-SA-x-x	EDFA Optical Amplifier for 1550nm	3 kg / 7 lbs	13, 14, 15, 16, 17, 18, 19, 20, 21, (22, 23, 24)

## Optical Features

Output Wavelength	1540 - 1560 nm
Optical Input Power	-10 ~ 7.5 dBm
Optical Output Power	See chart below
Optical Return Loss	≥ 60 dB
Optic Connector Type	SC / APC
Optical Output Ports	1 to 16
Noise Figure	4.5 - 6.5 dB

## RF Features

Network Interface Port	RJ45, R232 supports IE & SNMP
Power Supply	110 ~ 240 VAC
Power Consumption	≤ 50 W
Operating Temperature	0 ~ 65 °C (32 ~ 149 °F)
Storage Temperature	-20 ~ 70 °C (-4 ~ 158 °F)
Operating Relative Temperature	5% ~ 95%
Rack Size (WxDxH)	483 x 385 x 44 mm (19x14x1.75 in.)

Model	Output Power (dBm)	Input Power & Range	Typical	Noise Figure (dB)
OA-1550-x-13-SA-x-x	> 13	-10(min) ~ +7.5(max)	>+3 dBm	4.0
OA-1550-x-14-SA-x-x	> 14	-10(min) ~ +7.5(max)	>+3 dBm	4.1
OA-1550-x-15-SA-x-x	> 15	-10(min) ~ +7.5(max)	>+3 dBm	4.2
OA-1550-x-16-SA-x-x	> 16	-10(min) ~ +7.5(max)	>+3 dBm	4.3
OA-1550-x-17-SA-x-x	> 17	-10(min) ~ +7.5(max)	>+3 dBm	4.5
OA-1550-x-18-SA-x-x	> 18	-10(min) ~ +7.5(max)	>+3 dBm	4.8
OA-1550-x-19-SA-x-x	> 19	-10(min) ~ +7.5(max)	>+3 dBm	5.0
OA-1550-x-20-SA-x-x	> 20	-10(min) ~ +7.5(max)	>+3 dBm	5.3
OA-1550-x-21-SA-x-x	> 21	-10(min) ~ +7.5(max)	>+3 dBm	5.5
OA-1550-x-22-SA-x-x	> 22	-10(min) ~ +7.5(max)	>+3 dBm	5.8
OA-1550-x-23-SA-x-x	> 23	-10(min) ~ +7.5(max)	>+3 dBm	6.0
OA-1550-x-24-SA-x-x	> 24	-10(min) ~ +7.5(max)	>+3 dBm	6.3

Service Warranty: Three Years

# RF EDFA OPTICAL AMPLIFIER [OA-1550-x-x-SA-x-x]

Fiber Products, EDFA

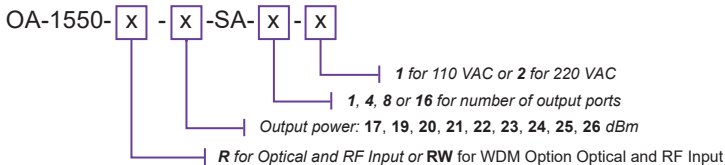
**Taikan**  
ESTD. 1973

## Features

- 1528~1564 nm Operating Wavelength
- Optical and RF Input
- Low Noise, High Output, High Reliability
- APC, ACC, ATC Controlled Selection
- WDM Option Available
- 19" 1RU Standard Rackmount Housing
- Excellent P/P Ratio
- RS232 and RJ45 Connections
- Easy to Read LCD Screen



## Ordering Information



Model Number	Description	Box Weight	Output Power (dBm)
OA-1550-x-x-SA-x-x	RF EDFA Optical Amplifier for 1550nm	3 kg / 7 lbs	17, 19, 20, 21, 22, 23, 24, 25, 26

## Optical Features

Output Wavelength	1528 - 1564 nm
Optical Input Power	+1 ~ +11 dBm
Optical Output Power	17, 19, 20, 21, 22, 23, 24, 25, 26 dBm
Optical Power Tolerance	± 0.5
Optic Connector Type	SC / APC
Optical Output Ports	1, 4, 8, 16
Noise Figure	5.3 - 6.8 dB
Optical Return Loss	≥ 60 dB
Input/Output Isolation	≥ 30 dB
Gain Flatness (Nominal)	± 1 dB
Echo Loss	55 dB

## General Features

SNMP Network Interface	RJ45
Series Interface	RS232
Power Supply	90 - 265 V, 220 VAC
	30 - 72 V, -48 VDC
	23 - 25 V, +24 VDC
Power Consumed	50 W
Operating Temp.	0 - 65 °C
Storage Temp.	-40 - 80 °C
Operating Relative Humidity	5 - 95 %
Size (W x D x H)	19 x 14.5 x 1.75"
	483 x 368 x 44 mm

**RF Features**

<b>Transmitter Operating Bandwidth</b>	1557 - 1562 nm
	1548 - 1553 nm
	1538 - 1543 nm
	1530 - 1535 nm
	1530 - 1563 nm (ITU)
<b>RF Operating Bandwidth</b>	40 - 862 MHz
<b>Input Level</b>	40 dBmV
<b>Output Power</b>	6 dBm
<b>Flatness</b>	± .75 dB
<b>Return Loss</b>	≥ 16 dB
<b>Side Mode Suppression Ratio</b>	40 dB
<b>Equivalent Noise Figure</b>	-160 dB RIN (20-1000 MHz)
<b>VOA Adjustable Range</b>	-20 - 0 dB
<b>Input Impedance</b>	75 Ohm
<b>SNR</b>	51 dB
<b>CTB</b>	-65 dB
<b>CSO</b>	-62 dB
<b>SBS</b>	17 dBm

# HIGH POWERED EDFA AMPLIFIER [OAH-1550-x-x-x-x-x-x]

Fiber Products, Amplifiers

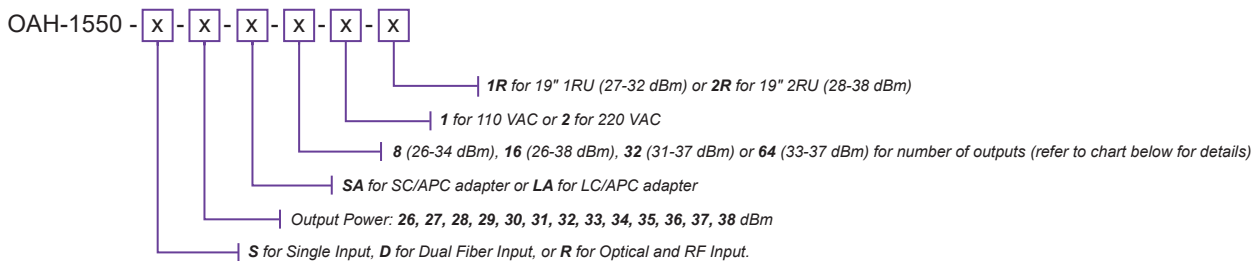
**Taikan**  
ESTD. 1973

## Features

- 1540 ~ 1563 nm Operating Bandwidth for Optical Amplifier
- 400 ~ 6300 mW (26~38 dBm) High Output Power
- Low Noise Subnumber (Typ ≤ 4.5 dB, Max ≤ 5.0 dB)
- 8 - 64 Output Ports
- Perfect RS232, SNMP // Excellent P/P Ratio
- Efficient Space, Flexible Installation and Easy Operation
- Compatible with Digital CATV, DBS, MMDS and FTTx PON Networks
- High Performance and Reliability



## Ordering Information



Model Number	Description	Box Weight	Output Power (dBm)
OAH-1550-x-x-x-x-x-x	High Powered EDFA Amplifier for 1550 nm	3 kg / 7 lbs	26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38

## Optical Features

Output Wavelength	1540 - 1563 nm
Optical Input Power	-10 ~ 10 dBm
Optical Output Power	See chart below
Output Ports	8, 16, 32, 64
Each Port Output Power	10 ~ 24 dBm
Each Output Power Difference	-0.5 ~ +0.5 dB
Output Power Adjustable Range	-6 ~ 0 dBm
Noise Figure	< 6.3 dB
Switch Time	8.0 ms

## Optical Features (cont.)

Polarization Dependence Loss	< 0.3 dB
Polarization Dependence Gain	< 0.4 dB
Polarization Mode Dispersion	< 0.3 ps/nm
Input / Output Isolation	> 30 dB
Pump Power Leakage	< -30 dBm
Echo Loss	> 55 dB

## General Features

Network Interface Port	RJ45, R232 supports IE & SNMP
Power Supply	90 ~ 265 V AC
Power Consumption	≤ 50 W
Operating Temperature	-5 ~ 65 °C (23 ~ 149 °F)
Storage Temperature	-40 ~ 80 °C (-40 ~ 176 °F)
Operating Relative Temperature	5 % ~ 95 %
Rack Size (WxDxH)	1RU: 19 x 14.5 x 1.75 in. 2RU: 19 x 14.7 x 3.5 in.

<b>Model</b>	<b>Output Power (dBm)</b>	<b>Number of Output Ports</b>	<b>Each Port Output Power</b>	<b>Connector Type</b>
OAH-1550-x-26-x-08-x-x	≥ 26 (400 mW)	8	≥ 15.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-26-x-16-x-x	≥ 26 (400 mW)	16	≥ 12.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-27-x-08-x-x	≥ 27 (500 mW)	8	≥ 16.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-27-x-16-x-x	≥ 27 (500 mW)	16	≥ 13.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-28-x-08-x-x	≥ 28 (630 mW)	8	≥ 17.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-28-x-16-x-x	≥ 28 (630 mW)	16	≥ 14.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-29-x-08-x-x	≥ 29 (800 mW)	8	≥ 18.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-29-x-16-x-x	≥ 29 (800 mW)	16	≥ 15.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-30-x-08-x-x	≥ 30 (1000 mW)	8	≥ 19.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-30-x-16-x-x	≥ 30 (1000 mW)	16	≥ 16.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-31-x-08-x-x	≥ 31 (1260 mW)	8	≥ 20.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-31-x-16-x-x	≥ 31 (1260 mW)	16	≥ 17.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-32-x-08-x-x	≥ 32 (1580 mW)	8	≥ 21.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-32-x-16-x-x	≥ 32 (1580 mW)	16	≥ 18.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-32-LA-32-x-x	≥ 32 (1580 mW)	32	≥ 14.5 dBm	<b>LC/APC</b>
OAH-1550-x-33-x-08-x-x	≥ 33 (2000 mW)	8	≥ 22.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-33-x-16-x-x	≥ 33 (2000 mW)	16	≥ 19.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-33-LA-32-x-x	≥ 33 (2000 mW)	32	≥ 15.5 dBm	<b>LC/APC</b>
OAH-1550-x-34-x-08-x-x	≥ 34 (2510 mW)	8	≥ 23.5 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-34-x-16-x-x	≥ 34 (2510 mW)	16	≥ 20.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-34-LA-32-x-x	≥ 34 (2510 mW)	32	≥ 16.5 dBm	<b>LC/APC</b>
OAH-1550-x-35-x-16-x-x	≥ 35 (3160 mW)	16	≥ 21.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-35-LA-32-x-x	≥ 35 (3160 mW)	32	≥ 17.5 dBm	<b>LC/APC</b>
OAH-1550-x-36-x-16-x-x	≥ 36 (4000 mW)	16	≥ 22.0 dBm	<b>SC/APC, LC/APC</b>
OAH-1550-x-36-LA-32-x-x	≥ 36 (4000 mW)	32	≥ 18.5 dBm	<b>LC/APC</b>
OAH-1550-x-36-LA-64-x-x	≥ 36 (4000 mW)	64	≥ 15.0 dBm	<b>LC/APC</b>
OAH-1550-x-37-LA-32-x-x	≥ 37 (5000 mW)	32	≥ 19.5 dBm	<b>LC/APC</b>
OAH-1550-x-37-LA-64-x-x	≥ 37 (5000 mW)	64	≥ 16.0 dBm	<b>LC/APC</b>
OAH-1550-x-38-LA-16-x-x	≥ 38 (6300 mW)	16	≥ 24.0 dBm	<b>LC/APC</b>

Service Warranty: Three Years

© Copyright 2020 Taikan Company Inc. All rights reserved. This document is for information only. Features and specifications are subject to change without notice. v10232020

# WDM AMPLIFIER [OAW-1550-x-x-x-x-x-x-x]

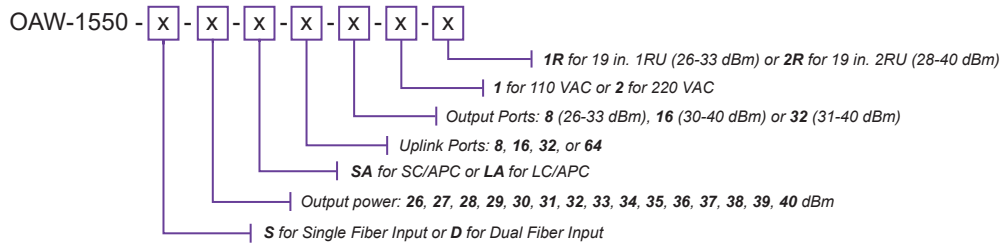
Fiber Products, Amplifier

## Features

- 1540~1563 nm Operating Bandwidth
- 500~10000 mW (27~40 dBm) High Output Power
- Low Noise Subnumber (Typ ≤ 4.5 dB, Max ≤ 5.0 dB)
- 8~64 Uplink Optical Port, Used in OLT
- SNMP Network Management
- High Performance and Reliability // Excellent P/P Ratio
- Single or Dual Fiber Input
- 8, 16, or 32 1550 nm Output Optical Port, Multiplex 1310/1490 nm Data Stream
- Efficient Space, Flexible Installation, and Easy Operation
- Compatible with any FTTx PON Technology Including: EPON/GEAPON, GPON



## Ordering Information



Model Number	Description	Box Weight	Output Power (dBm)
OAW-1550-S-x-x-x-x-x-x	WDM Amplifier for 1550 nm, Single Fiber	16 kg / 35.27 lbs	26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40
OAW-1550-D-x-x-x-x-x-x	WDM Amplifier for 1550 nm, Dual Fiber	16 kg / 35.27 lbs	26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

## Optical Features

Output Wavelength	1540 - 1563 nm
OLT Pass Wavelength	1310/1490 nm
CATV Pass Wavelength Loss	< 0.8 dB
OLT Pass Wavelength Loss	< 0.8 dB
CATV & OLT Isolation	> 40 dB
Uplink Optical Ports	8, 16, 32, 64
Optical Input Power	-10 ~ 10 dBm
Optical Output Power	See chart below
Output Ports	8, 16, 32
Each Port Output Power	10 ~ 22 dBm
Each Output Power Difference	-0.5 ~ +0.5 dB
Output Power Adjustable Range	-6 ~ 0 dBm
Noise Figure	4.5 ~ 5.0 dB
Polarization Dependence Loss	< 0.3 dB

## Optical Features (cont.)

Polarization Dependence Gain	< 0.4 dB
Polarization Mode Dispersion	< 0.3 ps/nm
Input / Output Isolation	> 30 dB
Pump Power Leakage	< -30 dBm
Echo Loss	> 55 dB

## General Features

SNMP Network Interface	RJ45
Serial Communication Interface	R232
Power Supply	110 ~ 240 110 or 220 VAC 30 ~ 72 -48 VDC
Power Consumption	≤ 150 W
Operating Temperature	-5 °C (23 °F) ~ 65 °C (149 °F)
Storage Temperature	-40 °C (-40 °F) ~ 80 °C (176 °F)
Operating Relative Humidity	5 % ~ 95 %
Rack Size (WxDxH)	19 x 14.5 x 1.75 in.



<b>Model</b>	<b>Output Power (dBm)</b>	<b>Input Power &amp; Range</b>	<b>Each Port Output Power</b>	<b>Connector Type</b>
OAW-1550-x-26-x-x-8-x-x	> 26	-10 (min) ~ +10 (max)	<b>15.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-27-x-x-8-x-x	> 27	-10 (min) ~ +10 (max)	<b>16.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-28-x-x-8-x-x	> 28	-10 (min) ~ +10 (max)	<b>17.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-29-x-x-8-x-x	> 29	-10 (min) ~ +10 (max)	<b>18.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-30-x-x-8-x-x	> 30	-10 (min) ~ +10 (max)	<b>19.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-30-x-x-16-x-x	> 30	-10 (min) ~ +10 (max)	<b>15.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-31-x-x-8-x-x	> 31	-10 (min) ~ +10 (max)	<b>20.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-31-x-x-16-x-x	> 31	-10 (min) ~ +10 (max)	<b>16.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-31-x-x-32-x-x	> 31	-10 (min) ~ +10 (max)	<b>13.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-32-x-x-8-x-x	> 32	-10 (min) ~ +10 (max)	<b>21.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-32-x-x-16-x-x	> 32	-10 (min) ~ +10 (max)	<b>17.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-32-x-x-32-x-x	> 32	-10 (min) ~ +10 (max)	<b>14.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-33-x-x-8-x-x	> 33	-10 (min) ~ +10 (max)	<b>22.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-33-x-x-16-x-x	> 33	-10 (min) ~ +10 (max)	<b>18.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-33-x-x-32-x-x	> 33	-10 (min) ~ +10 (max)	<b>15.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-34-x-x-16-x-x	> 34	-10 (min) ~ +10 (max)	<b>19.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-34-x-x-32-x-x	> 34	-10 (min) ~ +10 (max)	<b>16.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-35-x-x-16-x-x	> 35	-10 (min) ~ +10 (max)	<b>20.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-35-x-x-32-x-x	> 35	-10 (min) ~ +10 (max)	<b>17.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-36-x-x-16-x-x	> 36	-10 (min) ~ +10 (max)	<b>21.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-36-x-x-32-x-x	> 36	-10 (min) ~ +10 (max)	<b>18.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-37-x-x-16-x-x	> 37	-10 (min) ~ +10 (max)	<b>22.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-37-x-x-32-x-x	> 37	-10 (min) ~ +10 (max)	<b>19.0 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-38-x-x-16-x-x	> 38	-10 (min) ~ +10 (max)	<b>23.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-38-x-x-32-x-x	> 38	-10 (min) ~ +10 (max)	<b>20.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-39-x-x-16-x-x	> 39	-10 (min) ~ +10 (max)	<b>24.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-39-x-x-32-x-x	> 39	-10 (min) ~ +10 (max)	<b>21.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-40-x-x-16-x-x	> 40	-10 (min) ~ +10 (max)	<b>25.5 dBm</b>	<b>SC/APC, LC/APC</b>
OAW-1550-x-40-x-x-32-x-x	> 40	-10 (min) ~ +10 (max)	<b>22.5 dBm</b>	<b>SC/APC, LC/APC</b>



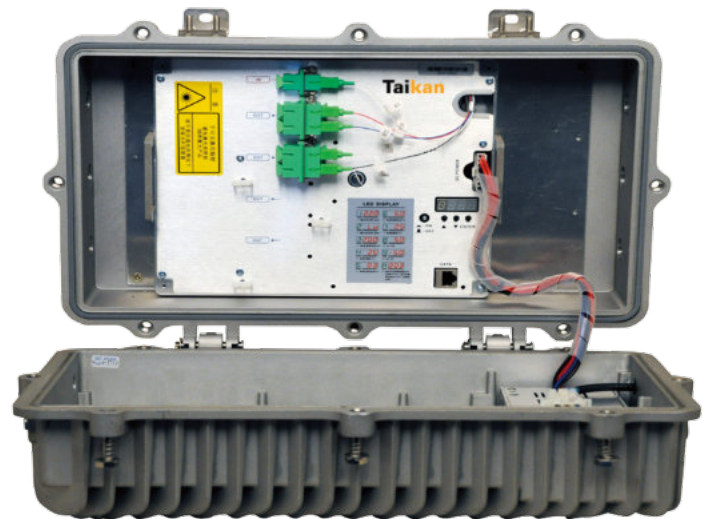
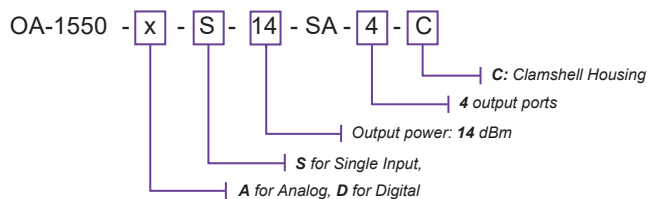
# CLAMSHELL EDFA OPTICAL AMPLIFIER

[OA-1550-x-S-14-SA-4-C] Fiber Products, EDFA

## Features

- 1545~1565 nm Operating Wavelength
- 4 Output Port
- High Performance Erbium-Doped Fiber and Low Noise Pump Laser
- Clamshell Housing
- Optical Status Indication with LEDs
- Network Management via SNMP Interface (optional)
- Digital Amplifier (optional)

## Ordering Information



\*\*\*Image is for reference purposes only and does not represent the final product

Model Number	Description	Box Weight	Output Power (dBm)
OA-1550-x-S-14-SA-4-C	EDFA Optical Amplifier for 1550nm	3.9 kg / 8.6 lbs	14

## Optical Features

Output Wavelength	1545 - 1565 nm
Optical Input Power	-3 ~ +10 dBm (-27 dBm for Digital)
Optical Output Power	14 dBm
Optical Input Return Loss	≥ 45 dB
Optical Output Return Loss	≥ 45 dB
Optic Connector Type	SC/APC
System Parameters	42 channels CENELEC, 0 dBm optical input power, 100 dBmV output level, 3.3% OMI
CSO [dBc]	≥ 64
CTB [dBc]	≥ 65
C/N [dBc]	≥ 52.5
Optical Output Ports	4
Noise Figure	≤ 5 (@ 0 dBm input)
Output Power Stability	± 0.5 (@ 0 ~ +10dBm input)

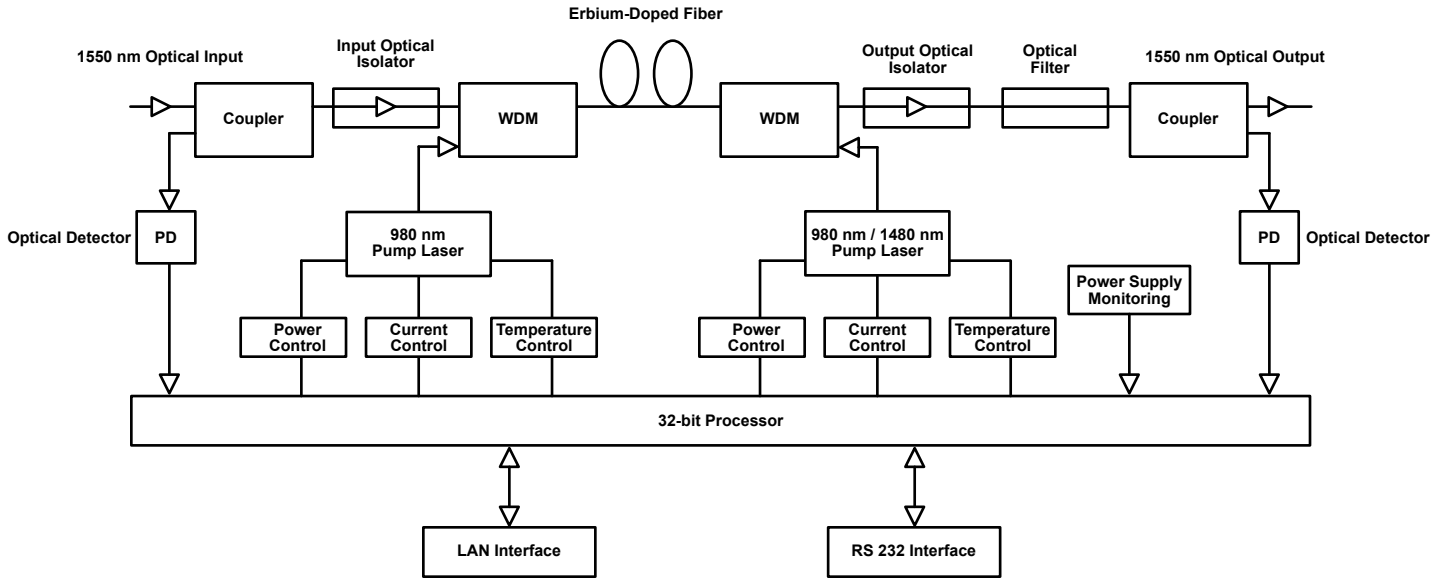
## RF Features

Power Supply	110 - 265 VAC
Power Consumption	≤ 30 W
Operating Temperature	-15 ~ +55 C
Storage Temperature	-30 ~ +70 C
Operating Relative Humidity	Max 95%
Dimensions (L x W x H)	340 mm (L) × 130 mm (W) × 240 mm (H) 13.38 in (L) × 5.12 in (W) × 9.45 in (H)

Model	Output Power (dBm)	Input Power & Range	Typical	Noise Figure (dB)
OA-1550-x-S-14-SA-4-C	> 14	-3 (min) ~ +10 (max)	> +3 dBm	≤ 5

Service Warranty: Three Years

### Functional Block Diagram



### Built-in WDM Schematic Diagram

