

HA5400A

(1550nm CATV Erbium Doped Fiber Amplifier)

PRODUCT DESCRIPTION

HA5400A(1RU) series is a high power multi-ports optical amplifier with gain spectrum band within 1540~1563nm. It is mainly designed for the application of CATV or 1~8 continuous banding channel (ITU wavelength). It offers a flexible and low-cost solution for CATV large area coverage of metropolises and medium-sized cities.

HA5400A optical amplifier adopts the world's top class pump laser and active optical fiber. Perfect APC, ACC and ATC control, excellent design in the ventilation and heat-dissipation ensure the long life and high reliable work of pump laser.

HA5400A has extremely low noise figure, the entire unit

adopts twin-stage amplification, and the pre-amplifier adopts low noise EDFA, output cascade adopts high power EYDFA. When input optical power $P_{in}=0dBm$, the noise figure of unit is $\leq 5.5dB$ Unlike other kind of product which need high optical power input to maintain lower noise figure.

HA5400A LCD at the front panel offers the work index of all equipment and warning alarms. The laser will switch off automatically if optical power is missing, which offers security protection for the laser. RS232 and RJ45 offer serial commutation and SNMP network management port. All the optical port of optical amplifier can be installed in the front panel or back panel.

HA5400A optional two-way optical input (built-in 2x1 optical switch), can be used for self-healing ring network or redundant backup network.

HA5400A with carrier-class reliability and network security management, high quality, high reliability and excellent cost performance and is ideal for system integrators and system operator.

HA5400A: 19" 1RU rack, The total maximum output power of 37dBm (5000mW), optional output port up to 32 optional port .



PRODUCT FEATURE

- ▶ Total output power optional 500~5000mW(27~37dBm)
- ▶ 19" 1RU rack, optional output port up to 32 optional port.
- ▶ Built-in low noise pre-amplifier, not necessary EDFA cascade, extremely
- ▶ lower the CNR, MER degradation of the system
- ▶ Low noise figure ≤5.5dB
- ▶ Perfect RS232, SNMP
- ▶ Telecom level safety reliability and network management.
- ▶ Simplified machine-room links, improve the system reliability.
- ▶ Simple and reliable in construction/maintenance
- ▶ Optional dual optical input, built-in 2 × 1 optical switch
- ▶ Dual power supply optional, 1+1 backup
- ▶ Can reduce the 98% device space usage
- ▶ Can reduce the 85% device purchase cost
- ▶ Can reduce 95% power consumption
- ▶ The best cost performance in industry.

MAIN APPLICATION

- ▶ AM CATV
- ▶ Digital CATV
- ▶ DBS & MMDS
- ▶ FTTx PON

Technique index

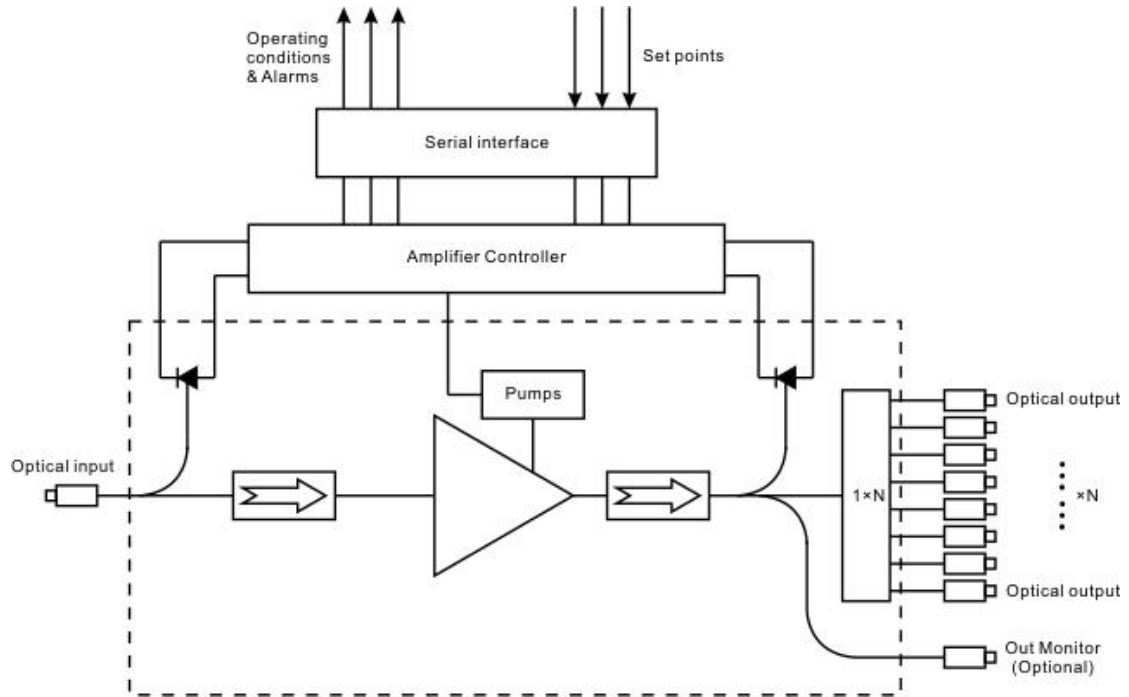
| Performance | | | Index | | | Supplement |
|-----------------|----------------------------------|-------|-------|------|----------------|----------------|
| | | | Min. | Typ. | Max. | |
| Optical feature | Operating wavelength range | (nm) | 1540 | | 1563 | CATV |
| | Input power | (dBm) | -10 | | +10 | |
| | Total output power ¹⁾ | (dBm) | | | 37 | |
| | Number of output ports | (pcs) | | | 32 | |
| | Each output power | (dBm) | 0 | | 22 | |
| | Difference of output power | (dB) | -0.5 | | +0.5 | |
| | Output optical power monitoring | (dB) | | -20 | | Optional |
| | Output power adjustable range | (dBm) | -6 | | 0 | Optional |
| | Noise figure (Pin=0dBm) | (dB) | | 4.5 | 5.5 | HA5400A-1x □□□ |
| | | | | 5.0 | 6.0 | HA5400A-2x □□□ |
| Switch time | (ms) | | | 8.0 | HA5400A-2x □□□ | |

| | | | | | | |
|-----------------|------------------------------|-------|--------------|--|-----|-----------|
| | Polarization dependence loss | (dB) | | | 0.3 | |
| | Polarization dependence gain | (dB) | | | 0.4 | |
| | Polarization mode dispersion | (ps) | | | 0.3 | |
| | Input/output isolation | (dB) | 30 | | | |
| | Pump power leakage | (dBm) | | | | -30 |
| | Echo loss | (dB) | 55 | | | |
| General feature | Network management interface | | RJ45 | | | SNMP |
| | Series interface | | RS232 | | | |
| | Power supply | (V) | 90 | | 265 | 220VAC |
| | | | 30 | | 72 | -48VDC |
| | Power consume | (W) | | | 50 | |
| | Operating temp. | (°C) | -5 | | 65 | |
| | Storage temp. | (°C) | -40 | | 80 | |
| | Relative humidity | (%) | 5 | | 95 | |
| | Size (W)×(D)×(H) | (") | 19×14.3×1.75 | | | 1RU (19") |

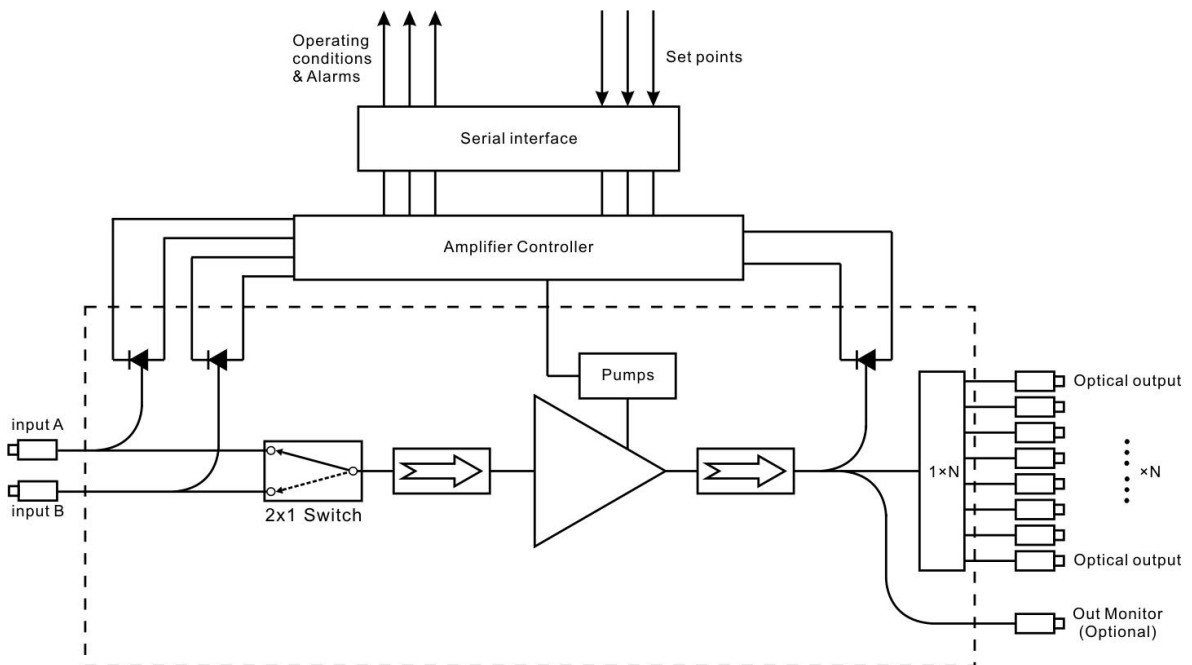
Remark: Output power can be customized by user.

OPTIC/ELECTRICAL SCHEMA

HA5400A-1x □□□ (conventional)



HA5400A-2x □□□ (Built-in Optical Switch)



PRODUCT SERIES

| Model number | Total output power | Number of output port | Each port output power | Connector |
|---------------|--------------------|-----------------------|------------------------|---------------|
| HA5427A-1×008 | 27dBm(500mW) | 8 | 16.5 | SC/APC、LC/APC |
| HA5427A-2×008 | | | | |
| HA5428A-1×008 | 28dBm(630mW) | 8 | 17.5 | SC/APC、LC/APC |
| HA5428A-2×008 | | | | |
| HA5429A-1×008 | 29dBm(800mW) | 8 | 18.5 | SC/APC、LC/APC |
| HA5429A-2×008 | | | | |
| HA5429A-1×016 | | 16 | 15.0 | |
| HA5429A-2×016 | | | | |
| HA5430A-1×008 | 30dBm(1000mW) | 8 | 19.5 | SC/APC、LC/APC |
| HA5430A-2×008 | | | | |
| HA5430A-1×016 | | 16 | 16.0 | |
| HA5430A-2×016 | | | | |
| HA5431A-1×008 | 31dBm(1260mW) | 8 | 20.5 | SC/APC、LC/APC |
| HA5431A-2×008 | | | | |
| HA5431A-1×016 | | 16 | 17.0 | |
| HA5431A-2×016 | | | | |
| HA5432A-1×008 | 32dBm(1600mW) | 8 | 21.5 | SC/APC、LC/APC |
| HA5432A-2×008 | | | | |
| HA5432A-1×016 | | 16 | 18.0 | |
| HA5432A-2×016 | | | | |
| HA5433A-1×016 | 33dBm(2000mW) | 16 | 19.0 | SC/APC、LC/APC |
| HA5433A-2×016 | | | | |
| HA5433A-1×032 | | 32 | 15.5 | LC/APC |
| HA5433A-2×032 | | | | |
| HA5434A-1×016 | 34dBm(2500mW) | 16 | 20.0 | SC/APC、LC/APC |
| HA5434A-2×016 | | | | |
| HA5434A-1×032 | | 32 | 16.5 | LC/APC |
| HA5434A-2×032 | | | | |

