

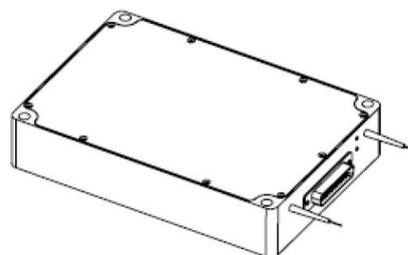
# RAMAN FIBER AMPLIFIER

## 1450 nm, Raman Pump

Model Number: **RamanPump-RS-1450nm-800-FCA**

Product Code: **1806**

Raman amplifiers leverage the Raman effect, where photons interact with the vibrational modes of the fiber to amplify signals. These amplifiers provide several key advantages, including increased signal range and bandwidth, lower noise, and reduced signal degradation. Raman amplifiers enable long-haul transmission without the need for costly signal regeneration, enhancing overall system efficiency and reliability. They are essential in wavelength-division multiplexing (WDM) networks, allowing multiple signals to be transmitted simultaneously over a single fiber. Moreover, Raman pump-based amplifiers facilitate the realization of high-capacity, low-latency, and future-proof optical communication infrastructures.



### Specifications:

July 2023

Parameters	Specifications
Wavelength of Pump Laser	1450 nm combined pump source
Polarization Maintaining Property	2 of 1450 nm pump sources polarization multiplexed
Output Pump Power FC/APC 3mm jacketed Optical Cable	100 to 800 mW tunable; pump power at each wavelength is tunable 50 mW to 400 mW 3mm jacket fiber cable with FC/APC connector.
FC/APC Output Cable #1	Provide up to 800mW 1450nm power
FC/APC Output Cable #2	900um jacket fiber cable with FC/APC connector. Pump power output tap
FC/APC Output Cable #3	900um jacket fiber cable with FC/APC connector. C-band Optical Output for backward-pumping scheme
FC/APC Input Cable #4	900um jacket fiber cable with FC/APC connector. C-band Optical Input for forward-pumping scheme
1550 nm power monitoring, backward direction	Included
1550 nm power monitoring, the forward direction	Included
1450 nm forward pump power monitoring	Included
Backward direction pump power monitoring	Included
Control and Communication Interface	RS-232
Dimension	7.1 x 4.9 x 1.36 inches
Power Input	+5 VDC +/- 5%
Operational Case Temperature Range	-5 to +70°C
Mode of Operation	ACC (constant pump current control)



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Proprietary Information of Nuphoton Technologies

Manufactured in the USA

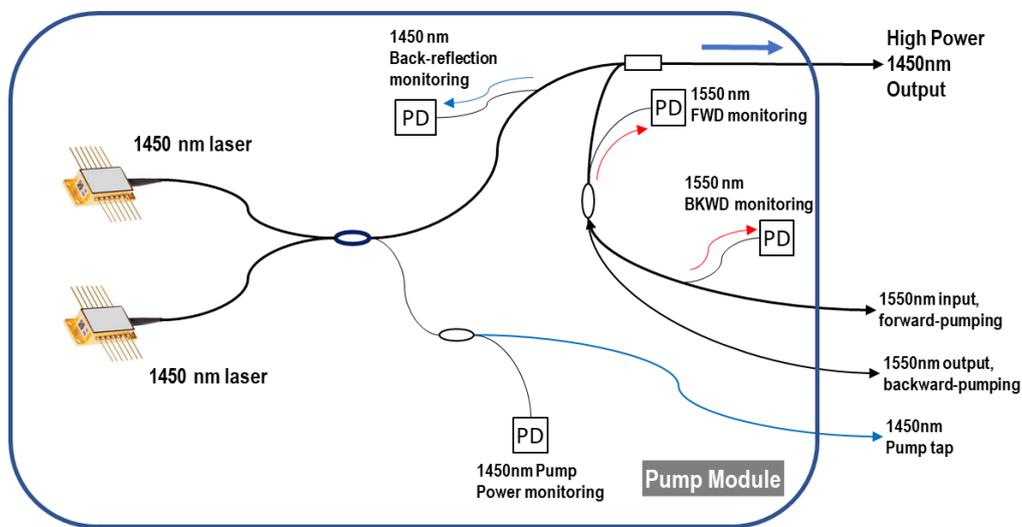
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# RAMAN FIBER AMPLIFIER

## Raman pump source layout



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