

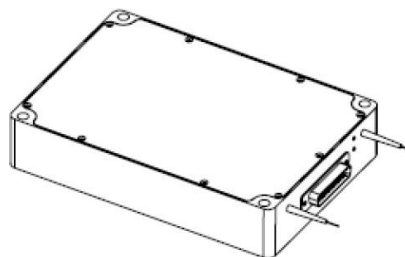
# RAMAN FIBER AMPLIFIER

## 900 nm, Raman Pump

Model Number: **RamanPump-RS-900-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:

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Parameters	Specifications
Wavelength of Pump Laser	1425, 1435, 1455, and 1465 nm 4-wavelength combined pump source
Polarization Maintaining Property	1425 nm and 1435 nm polarization multiplexed as pump source group 1.
	1455 nm and 1465 nm polarization multiplexed as pump source group 2.
	Group 1 and group 2 are wavelength multiplexed as the overall pump power output
Output Pump Power FC/APC 3mm jacketed Optical Cable	100 to 900 mW tunable; pump power at each wavelength is tunable 25 mW to 225 mW
FC/APC Output Cable #1	3mm jacket fiber cable with FC/APC connector. Provide up to 900mW 14xxnm pump 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, forward direction	Included
14xx 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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## Raman pump source layout

