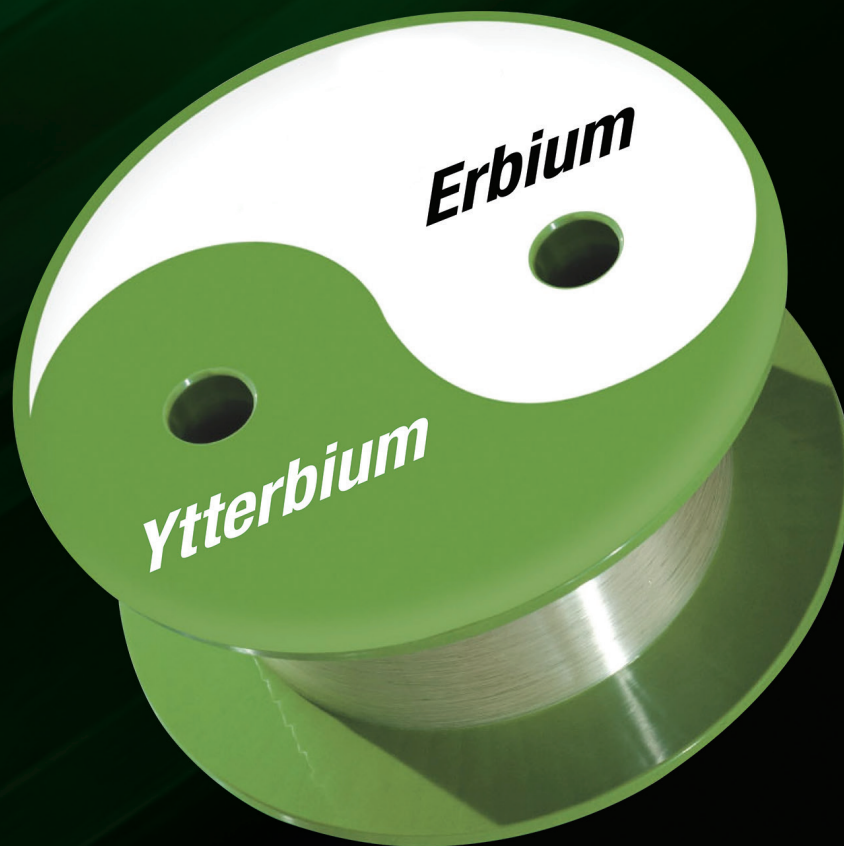


# *NU*EYDF™



## Erbium/Ytterbium Doped 1.5 $\mu\text{m}$ Fibers The Optimized Balance

### **Erbium/Ytterbium doped fibers for 1.5 $\mu\text{m}$ eyesafe operation**

As applications requiring 1.5  $\mu\text{m}$  operation continue to increase, the need for high performance fibers capable of delivering high output power and improved efficiency becomes critical. Nufern has developed a family of highly efficient Erbium/Ytterbium Doped Double Clad Fibers (EYDF). These fibers are optimized to achieve record efficiencies in the 1.5  $\mu\text{m}$  wavelength range while suppressing parasitic phenomenon such as 1  $\mu\text{m}$  Amplified Spontaneous Emission (ASE). Nufern's approach is to design and offer the highest performance fibers optimized for a range of applications. Available in a wide range of core sizes including true SM designs, as well as LMA and MM options, EYDF's are ideal for applications ranging from LIDAR to amplifiers for CATV. By balancing the trade- offs between efficiency, power threshold and 1  $\mu\text{m}$  ASE light generation, Nufern offers the highest performance Erbium/Ytterbium doped fibers available.

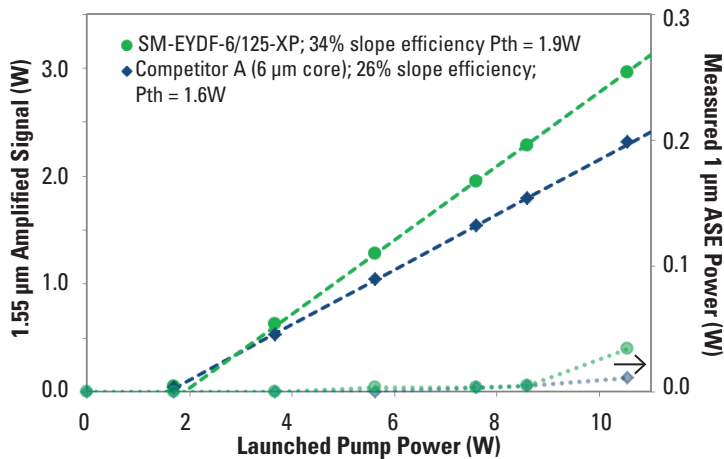




### Optical Attributes

- Application specific, optimized glass compositions
  - Low threshold power with maximum efficiency ideal for few Watt lasers
  - Suppressed 1 $\mu$ m ASE for high output power with superior stability
- Exceptional efficiency lowering thermal load and operational cost
- SM, MM and LMA versions
- PM versions for LIDAR applications

### Er/Yb Doped Double Clad Fiber Performance for Few Watts Output Power



### Applications

- LIDAR & LADAR sources
- Surgical lasers
- Free space communications
- CATV

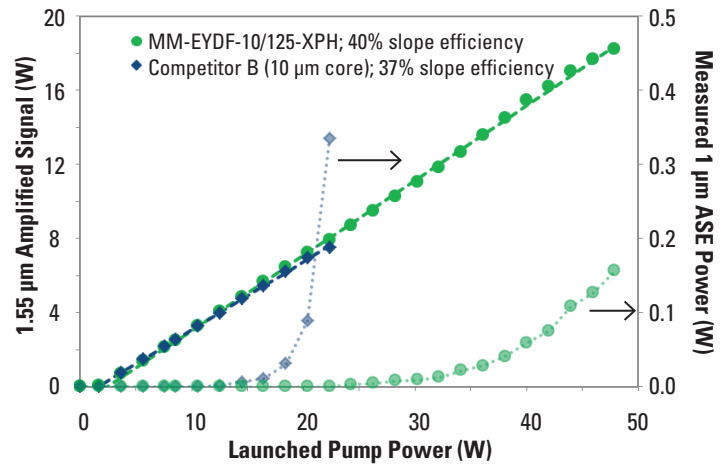
### Benefits

- Range of offerings covers lower power single stage amplifier architectures and high power multi-stage amplifier designs
- For multi-stage amplification Nufern offers optimized fiber for each stage for maximized performance
- Precise balance of high efficiency, low threshold power and suppressed 1  $\mu$ m parasitic light for range of applications

### Mechanical Attributes

- Available in 6, 10, 12, 25 & 30  $\mu$ m core sizes covering a broad range of power outputs and applications
- Proprietary NuCOAT<sub>FA</sub> coating for superior wet and dry heat performance providing the highest reliability
- Engineered coating layer designed to improve the heat transfer and the cooling efficiency
- Compatible with standard telecommunication fibers for easy handling and spliceability into devices and systems

### Er/Yb Doped Double Clad Fiber Performance for High Power Applications



### Polarization Maintaining Er/Yb Doped Double Clad Fiber Performance for High Power Applications

