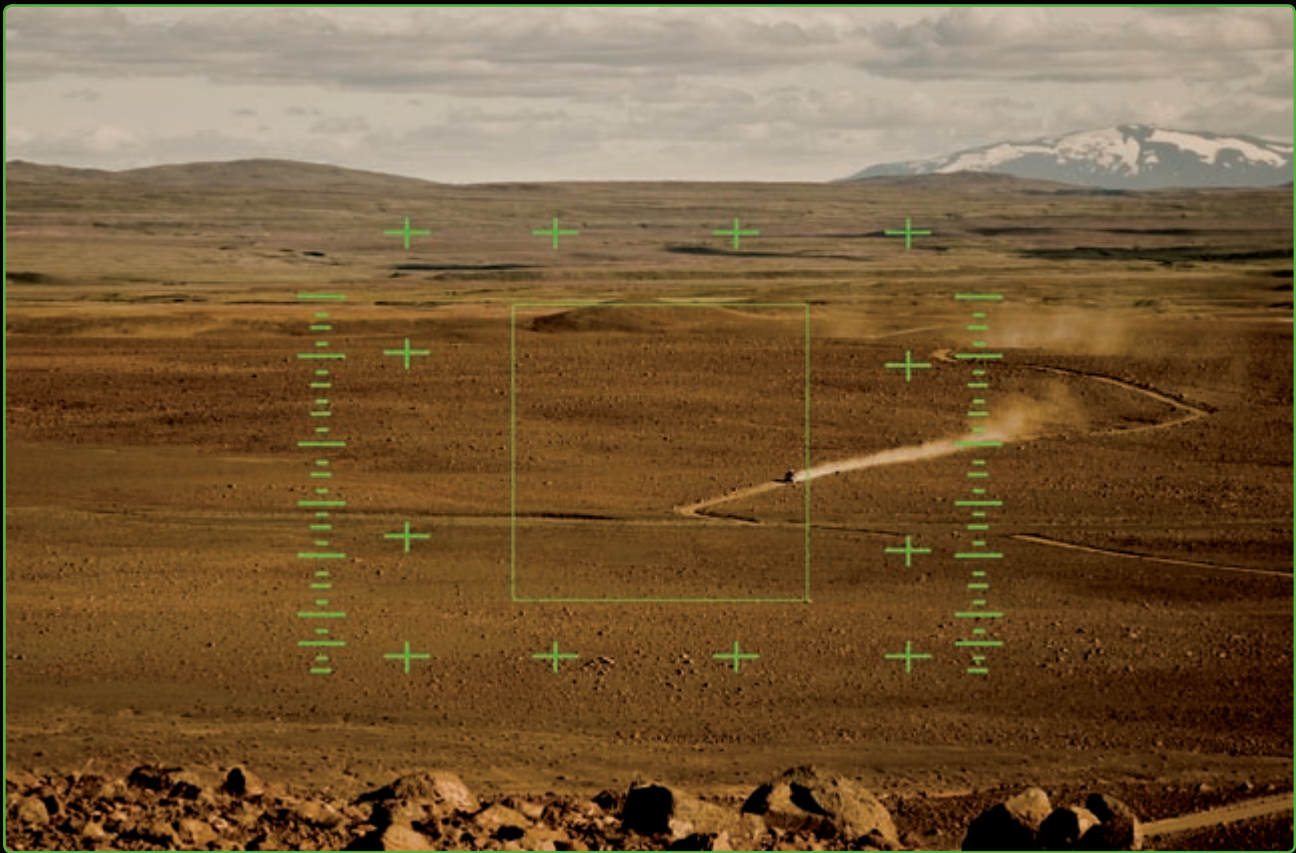


# ***NU*Tx**<sup>TM</sup>

## Pulsed Fiber Laser Transmitters



### **Sharpen Your Image**

NuTx: an emerging line of compact & high efficiency eye-safe light sources for LIDAR and LADAR applications. Powered by Nufern's patented LMA optical fibers, this product family excels in delivering high peak power, high beam quality pulses. Designed with monolithic fiber architecture and Nufern's fiber packaging expertise, NuTx transmitters are highly resistant to shock and persistent vibration. These sources enable high resolution imaging technology while minimizing stray light and detectability.



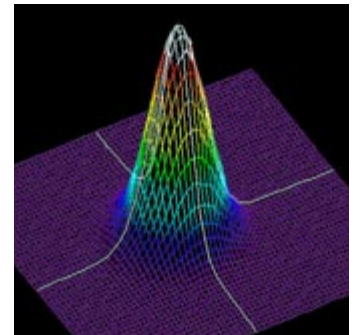
## Mechanical Attributes

- Compact dust tight aluminum housing
- Flat heat rejection plate for easy mounting to system cooling
- Required temperature on plate -10 to +75°C
- Maximum heat rejection < 48 W @ 70°C
- Output fiber length ~33 cm (1 ft)
- Rugged, resistant to shock and persistent vibration



## Optical Attributes

- Collimated beam output
- Eye-safe output wavelength 1550 nm ± 2 nm
- Peak pulse power 4 kW @ 50 kHz
- Average power output 1.2 W
- Pulse energy to 30 μJ

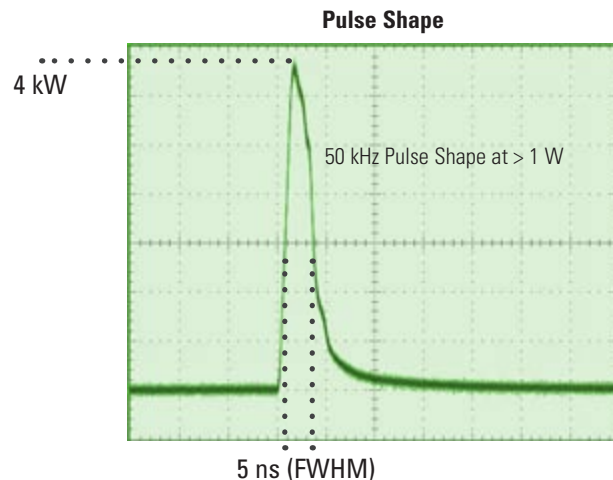


## Pulse Attributes

- Near diffraction limited beam
- Random or linear polarization
- Variable pulse duration from 5–15 ns
- Repetition rate 20–200 kHz
- Burst mode, lower rep rates available on request

## Electrical Attributes

- Power source 24 V, < 2 A
- Maximum power consumption < 48 W
- Input trigger signal (TTL compatible)
- Enable signal (TTL compatible)
- Laser On indicator signal and fault indicator signal (TTL compatible)



## Eye Safe Laser & Amplifier Fibers

Nuferm has developed world class Er:Yb co-doped fibers. This technology has enabled fibers with > 40% efficiency at 1550 nm. Optical fibers produced with these compositions have been designed with large mode area (LMA) technology to generate high peak power pulses while reducing the deleterious non-linear effects often encountered in short pulse applications. Eye-safe output at 2 μm wavelengths is also possible with Nufern's highly efficient Tm-doped fibers.