



# DiPOLE

**Efficient, high energy, high pulse rate lasers**

**We exploit novel cryogenic cooling techniques, recent advances in laser diode technology and optical materials, and in-house modelling capabilities to deliver high energy pulses with high efficiency and high pulse rates.**

**Scalable in energy and pulse rate, DiPOLE technology is ideal for applications in science, energy, manufacturing, aerospace and security.**

# About DiPOLE

**DiPOLE lasers, developed at the STFC Central Laser Facility (CLF), are based on diode-pumped solid state laser technology.**

DiPOLE is the world-leading high energy, high pulse rate technology, efficiently amplifying near-infrared nanosecond pulses with user-selectable temporal pulse profiles to kW average powers. DiPOLE lasers have been delivered to international research centres, including the European XFEL (Germany), the HiLASE Centre and the ELI Beamlines facility (Czech Republic).

DiPOLE technology is at the core of the petawatt laser operating at 10 Hz pulse rate in the Extreme Photonics Applications Centre (EPAC), the new UK User Facility being commissioned at the CLF.

Two established and proven kW-class designs have been developed to meet the needs of industrial, scientific and security applications.



**DiPOLE-100**  
Up to 150 J  
pulse energy  
10 Hz pulse rate

**DiPOLE-100Hz**  
Up to 10 J pulse energy  
100 Hz pulse rate  
Compact footprint

