Laser power spans many orders of magnitude—from the microwatt beams of some continuous-wave (CW) lasers, to the European Extreme Light Infrastructure (ELI), whose femtosecond-scale pulses can deliver petawatt peak power (p. 26). Here are a few examples of laser power by the numbers.

**Milliwatt**
- $10^{-3}$: Laser pointer, barcode scanner
- These familiar, CW laser devices generally have power levels of $1–5$ mW.

**Watt**
- $10^0$: DVD burner
- CO₂ surgical lasers can operate at CW powers of $30–100$ W.

**Kilowatt**
- $10^3$: Medical and surgical lasers
- IPG Photonics has recently marketed a fiber laser with $100$ kW CW output power for cutting, welding and drilling applications.

**Megawatt**
- $10^6$: Industrial fiber lasers
- One system recently built for ELI, with an average power of 53 W, delivers >50-mJ pulses of <10-fs width, for peak powers of $5–TW$—at high (kHz) repetition rates.

**Gigawatt**
- $10^9$: Next-gen directed-energy weapons
- The setup built by Toptica Photonics for the ESO’s Very Large Telescope combines four 22-W CW lasers to create artificial “guide stars” for adaptive optics.

**Terawatt**
- $10^{12}$: Breakthrough Starshot
- Highly speculative proposal envisions using a 10-km² phased laser array to create a CW beam of $100$ GW average power to accelerate tiny spacecraft. See OPN, May 2017, p. 26

**Petawatt**
- $10^{15}$: National Ignition Facility
- To drive laser-fusion experiments, NIF’s 192 beamline amplifiers combine to create 1.85 MJ of ultraviolet laser energy and a peak flash of $500$ TW.

**CO₂ surgical lasers**
- Can operate at CW powers of $30–100$ W.

**Typical DVD burners**, which can operate in both CW and pulsed mode, have powers on the order of $250$ mW.