

A Short Note On Laser Beam Weapons

Weapons grade laser diodes are not made as conventional individual diodes. They are built as a single assembly with many emission ports and sophisticated optics that integrate into a well collimated beam. The entire assembly is now mechanically controlled to adjust for thermal changes, position, aiming and focusing via highly classified algorithms. This diode assembly module has the capability of producing a beam up to 30,000J in a 400-500cm area for a time enough to perform the mission.

Input power to produce this output energy is not much more than 75kW due to laser diode efficiency. Cryogenic cooling, focusing, positioning, and fire control are all considered to be highly classified and certainly are not available to the general public.

Handheld anti-personnel laser weapons are also on the table but are highly classified. These particular systems operate at between 1 to 3kJ at a pulse width of between 100 μ s to milliseconds and provide peak powers of 3 to 30 megawatts.