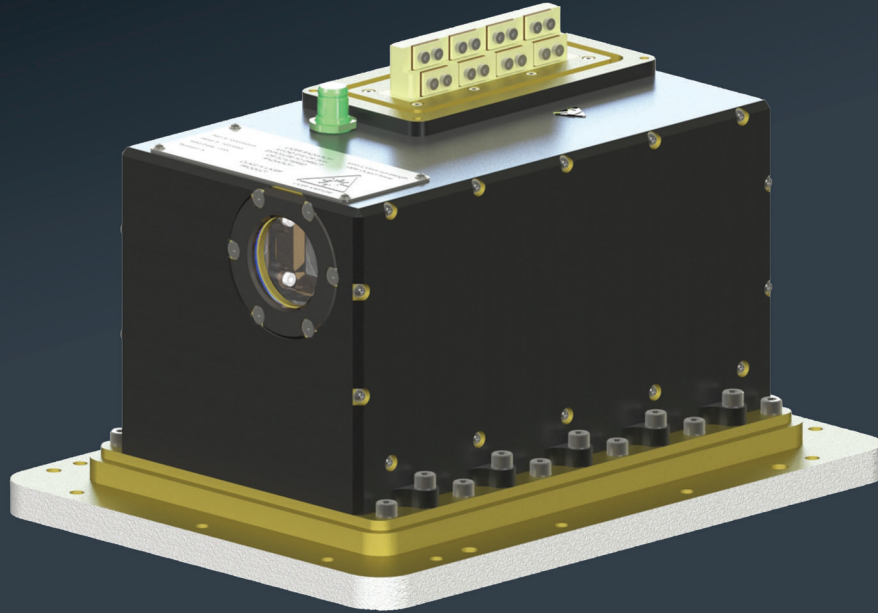


TARGET ILLUMINATION LASER SOURCE (PULSED)



Leonardo's 1550 nm laser illuminator product line pairs our high-power, laser diode sources with our advanced beam shaping and conditioning optics. Targeting Illumination Lasers (TIL) are necessary for Directed Energy Systems to facilitate the identification and tracking of potential threats such as rockets, artillery, and missiles (C-RAM) and unmanned aerial systems (C-UAS). Direct diode sources offer size, weight, and performance advantages over competing fiber laser-based solutions.

KEY FEATURES

- High pulse energy
- Short pulse duration (microseconds)
- High repetition rate
- Homogenized output beam
- Low size and weight
- Direct diode efficiency

KEY BENEFITS

- Compact solution for target illumination
- Ease of integration
- Solid state reliability

TYPICAL ILLUMINATOR SPECIFICATIONS (HIGH POWER QCW)

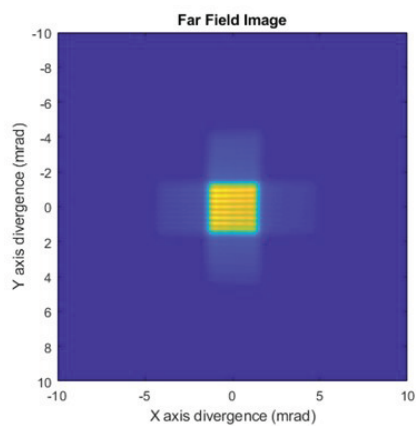
Parameters (at 20°C)	Units	Typical Value
Wavelength	nm	1550
Peak Power Output	W	1000
Energy Per Pulse	mJ	5
Spectral Width	nm	<50
Beam Uniformity ¹ (Peak to Valley Variation)	%	+/-10
Beam Parameter Product ²	mm · mrad	13.5 x 13.5
Rise and Fall Time	ns	100
Pulse Duration	µs	5
Max Duty Cycle	%	1
Max Pulse Repetition Frequency	kHz	2
Dimensions	mm	240 x 180 x 140
Coolant		EGW 60/40
Flow Rate	lpm	4
Coolant Temperature	°C	15
Pressure Drop	psi	10-12

Notes:

¹With homogenizer

²Beam Parameter Product (BPP) is the product of a laser beam's divergence angle (half-angle) and the radius of the beam at its narrowest point (the beam waist)

FAR FIELD BEAM PROFILE



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