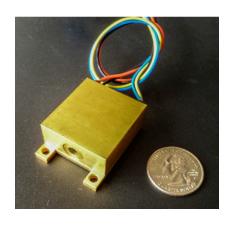


<u>MK-11</u>

1 to 2 Hz, 0.8+ mJ, 5 ns Diode-Pumped Passively Q-Switched Erbium Glass Laser Transmitter

SPECIFICATIONS

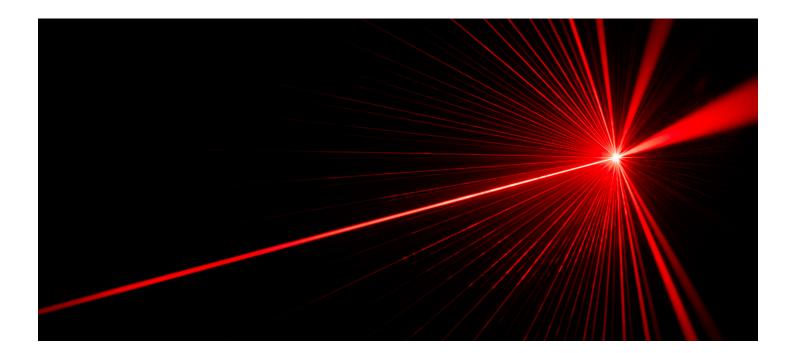
Wavelength1535 nmMinimun Laser Energy0.8+ mJNominal Laser Energy1.3 mJPulse Repetition Rate1 to 2 HzLaser Pulse Width5 ns nominalRaw Beam Diameter0.4 mm nominalBeam Divergence (D4 or method)6 mrad nominalBeam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander0.1 mradLaser Head Size (in inches)0.65 x 1.20 x 1.80 inLaser Head Size (in inches)1.60 gLaser Areage Requirement4.00 cto +71°CLaser Storage Requirements2.55°C to +90°C dewpoint kept < -20°C		
Nominal Laser Energy1.3 mJPulse Repetition Rate1 to 2 HzLaser Pulse Width5 ns nominalRaw Beam Diameter0.4 mm nominalBeam Divergence (D4 σ method)6 mrad nominalBeam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander0.1 mradLaser Head Size (in inches)0.65 x 1.20 x 1.80 inLaser Head Size (in centimeters)1.65 x 3.05 x 4.57 cmLaser Alead Weight< 40°C to +71°C	Wavelength	1535 nm
Pulse Repetition Rate1 to 2 HzLaser Pulse Width5 ns nominalRaw Beam Diameter0.4 mm nominalBeam Divergence (D4 or method)6 mrad nominalBeam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander< 0.5 mrad	Minimum Laser Energy	0.8+ mJ
Laser Pulse Width5 ns nominalRaw Beam Diameter0.4 mm nominalBeam Divergence (D4o method)6 mrad nominalBeam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander< 0.5 mrad	Nominal Laser Energy	1.3 mJ
Raw Beam Diameter0.4 mm nominalBeam Divergence (D4o method)6 mrad nominalBeam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander< 0.5 mrad	Pulse Repetition Rate	1 to 2 Hz
Name PotentiesFinancialBeam Divergence (D4o method)6 mrad nominalBeam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander< 0.5 mradNominal Radial Beam Wander0.1 mradLaser Head Size (in inches)0.65 × 1.20 × 1.80 inLaser Head Size (in centimeters)1.65 × 3.05 × 4.57 cmLaser Head Weight≈ 100 gLaser Operational Temperature-40°C to +71°CLaser Storage Requirement-55°C to +90°C dewpoint kept < -20°CElectrical Requirements< 1.2 WIntegrated PhotodiodeYes	Laser Pulse Width	5 ns nominal
Beam QualityGaussian-like in X & Y (far field)Average Radial Beam Wander≤ 0.5 mradNominal Radial Beam Wander0.1 mradLaser Head Size (in inches)0.65 x 1.20 x 1.80 inLaser Head Size (in centimeters)1.65 x 3.05 x 4.57 cmLaser Head Weight≈ 100 gLaser Storage Requirement-55°C to +71°CElectrical Requirements2 V, 100 A, < 3 ms	Raw Beam Diameter	0.4 mm nominal
Average Radial Beam Wander≤ 0.5 mradNominal Radial Beam Wander0.1 mradLaser Head Size (in inches)0.65 x 1.20 x 1.80 inLaser Head Size (in centimeters)1.65 x 3.05 x 4.57 cmLaser Head Weight≈ 100 gLaser Operational Temperature-40°C to +71°CLaser Storage Requirement-55°C to +90°C dewpoint kept < -20°C	Beam Divergence (D4σ method)	6 mrad nominal
Nominal Radial Beam Wander0.1 mradLaser Head Size (in inches)0.65 × 1.20 × 1.80 inLaser Head Size (in centimeters)1.65 × 3.05 × 4.57 cmLaser Head Weight≈ 100 gLaser Operational Temperature-40°C to +71°CLaser Storage Requirement-55°C to +90°C dewpoint kept < -20°C	Beam Quality	Gaussian-like in X & Y (far field)
Laser Head Size (in inches)0.65 × 1.20 × 1.80 inLaser Head Size (in centimeters)1.65 × 3.05 × 4.57 cmLaser Head Weight≈ 100 gLaser Operational Temperature-40°C to +71°CLaser Storage Requirement-55°C to +90°C dewpoint kept < -20°C	Average Radial Beam Wander	≤ 0.5 mrad
Laser Head Size (in centimeters)1.65 x 3.05 x 4.57 cmLaser Head Weight≈ 100 gLaser Operational Temperature-40°C to +71°CLaser Storage Requirement-55°C to +90°C dewpoint kept < -20°C	Nominal Radial Beam Wander	0.1 mrad
Laser Head Weight ≈ 100 g Laser Operational Temperature -40°C to +71°C Laser Storage Requirement -55°C to +90°C dewpoint kept < -20°C Electrical Requirements 2 V, 100 A, < 3 ms Conductive Cooling Requirements <1.2 W Integrated Photodiode Yes	Laser Head Size (in inches)	0.65 x 1.20 x 1.80 in
Laser Operational Temperature -40°C to +71°C Laser Storage Requirement -55°C to +90°C dewpoint kept < -20°C Electrical Requirements 2 V, 100 A, < 3 ms Conductive Cooling Requirements < 1.2 W Integrated Photodiode Yes	Laser Head Size (in centimeters)	1.65 x 3.05 x 4.57 cm
Laser Storage Requirement-55°C to +90°C dewpoint kept < -20°CElectrical Requirements2 V, 100 A, < 3 msConductive Cooling Requirements< 1.2 WIntegrated PhotodiodeYes	Laser Head Weight	≈ 100 g
Electrical Requirements 2 V, 100 A, < 3 ms Conductive Cooling Requirements < 1.2 W Integrated Photodiode Yes	Laser Operational Temperature	-40°C to +71°C
Conductive Cooling Requirements < 1.2 W Integrated Photodiode Yes	Laser Storage Requirement	-55°C to +90°C dewpoint kept < -20°C
Integrated Photodiode Yes	Electrical Requirements	2 V, 100 A, < 3 ms
	Conductive Cooling Requirements	< 1.2 W
	Integrated Photodiode	Yes
Laser Classification Class 1	Laser Classification	Class 1



The MK-11 is a 1.54 µm diodepumped passively q-switched Erbium glass laser transmitter with integrated photodiode.

ABOUT L3HARRIS

L3Harris is an ISO 9001:2015 certified full-service manufacturer of miniature eye-safe diode-pumped 1.54µm Erbium glass laser transmitters and specialty laser and filter glass material. These items are used in applications including laser range-finding, range gate imaging, Light Detection and Ranging (LIDAR) and Laser-Induced Breakdown Spectroscopy (LIBS).



MK-11

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