

AOT-YAG-10QE/MOPA

Specification includes:-

Max rep-rate:	10kHz
Internal clock triggering:	10kHz, 5kHz, 2.5kHz and 1.25kHz (nominal)
External triggering:	TTL, 50Ohm input
Jitter to external trigger (SD):	0.5ns, or less
Pulse duration (FWHM):	1.5ns (nominal) @ 2kHz to 3ns (nominal) @ 10kHz
Wavelength:	1064nm
Bandwidth:	1nm, or less
Polarisation:	> 100:1 plane polarised
Spatial mode:	TEM ₀₀ , better than 1.25x diffraction limited
Beam waist size (2ω):	0.2mm (nominal)
Beam divergence (2θ):	7.0mrad (nominal)
Beam ellipticity:	< 10%
Max average power:	1750mW @ 10kHz
Max pulse energy:	300uJ at < 2kHz
Operating environment:	Ambient 15-30 ⁰ C and above dew point Head case < 30 ⁰ C, on heat sink if necessary
Power stability (SD):	5%, or better

Configuration and Services

The AOT-YAG-10QE/MOPA laser head is of size ~ 210(W) x 65(H) x 420(L) mm. The optical beam is nominally 30mm off the base. The head includes space for (optional) 'drop-in' 532nm, 355nm or 266nm AOT harmonic modules. The PSU/control unit is a 3U 19" rack unit. The laser head is connected to the PSU/control unit via an umbilical cable nominally 3m in length. The external services required are single-phase 110-250VAC 50/60Hz. Power consumption is < 100W.

Notes

1. Specifications are subject to change by AOT without notice
2. Timing jitter is SD at max rep-rate (reduces to ~ 200ps at low rep-rates)
3. Beam waist and divergence change with output power due to changes in the thermal load
4. Stability measurements made over +/- 2degrees dynamic temperature range with measurement
5. Specifications apply over a temperature range of 15-30°C in a non-condensing environment
6. The laser head temperature should be maintained below 30°C, by attaching to a heat sink if necessary
7. Other models and options – information on application to AOT