AOT-YVO-*xxx*Q/MOPA

Specification includes:-

Max rep-rate:	100kHz, 50kHz or 25kHz
Internal clock triggering:	25kHz, 12.5kHz and 6.25kHz. Also 100kHz, 50kHz for higher rep-rate units (nominal)
External triggering:	TTL, 50Ohm input
Jitter to external trigger:	1ns, or less
Pulse duration (FWHM):	1.25ns (nominal @ < 5kHz to 2.25ns (nominal) @ 100kHz
Wavelength:	1064nm
Bandwidth:	1nm, or less
Polarisation:	> 100:1 plane polarised
Spatial mode:	TEMoo, better than 1.25x diffraction limited
Beam waist size (2ω):	0.20mm (nominal)
Beam divergence (2θ):	7.0mrad (nominal)
Beam ellipticity:	< 10%
Max average power:	1500mW @ 25kHz 2500mW @ 50kHz 3000mW @ 100kHz
Max pulse energy:	80uJ @ < 5kHz
Operating environment:	Ambient 15-30^{0}C and above dew point Head case < 30^{0}C, on heat sink if necessary
Power stability:	5% RMS or better

Configuration and Services

The AOT-YVO-*xxx*Q/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. In model designation *xxx* = rep-rate ie AOT-YVO-50Q/MOPA operates to (max) 50kHz
3. Timing jitter is SD at max rep-rate (reduces to ~ 200ps at low rep-rates)
4. Beam waist and divergence change with output power due to changes in the thermal load
5. Stability measurements made over +/- 2degrees dynamic temperature range with measurement
6. Specifications apply over a temperature range of 15-30^{o}C in a non-condensing environment
7. The laser head temperature should be maintained below 30^{o}C, by attaching to a heat sink if necessary
8. Other models and options – information on application to AOT