1) Pulsed laser Specification:

a)Picosecond Pulsed Diode Laser Driver: Specification

- rates from 31.25 kHz to 80 MHz
- Externally triggerable from single shot up to 80 MHz / sync output
- Laser pulse energy adjustable via driver unit
- Laser heads from 266 to 1990 nm, LED heads from 255 to 600 nm
- External trigger/sync output

Internal Oscillator	
Type	crystal locked
Operation mode	pulsed or continuous wave (CW)
Base frequencies	80 MHz, 1 MHz (selectable)
Repetition frequencies	user selectable: 1, 1/2, 1/4, 1/8, 1/16, 1/32 of base frequency 80, 40, 20, 10, 5 or 2.5 MHz (80 MHz base) 1000, 500, 250, 125, 62.5 or 31.25 kHz (1 MHz base)
External Trigger Input	
Amplitude	-5 V to +5 V (maximum limits)
Trigger level (adjustable)	-1 V to +1 V (negative slope)
Required pulse width	> 5 ns
Delay	35 ± 5 ns (from trigger input to optical output), jitter < 20 ps
Frequency range	Single shot to 80 MHz
Impedance	50 Ohms (dynamic) 50 Ohms (static)
Connector type	BNC socket (female)
Synchronization Output	
Amplitude	< -800 mV into 50 Ohms (NIM)
Pulse width	6 ns
Delay	12 ns (from falling edge to laser output), jitter < 20 ps
Internal impedance	50 Ohms
Connector type	SMA socket (female)
Gating Inputs	
Slow gate	transition time < 100 ms (pulsed and CW operation)
Internal impendance	> 500 Ohms
Connector type	4-pin LEMO Socket - 00.304 Series Example of connector: FGG.00.304.CLA
Fast gate	transition time typ. 10 ns (pulsed only)
Internal impendance	50 Ohms
Connector type	1-pin LEMO Socket - 00.250 Series Example of connector: FFA.00.250.NTA
Remote Interlock	
Voltage	< 7 VDC
Loop resistance	10 Ohms max.

Power Supply	
Line voltage	220/240 or 110/120 VAC, 50/60 Hz
Power consumption	45 Watts max.
Dimensions	
Base unit:	237 × 310 × 97 mm (w × d × h)
Operation environment	
Temperature Range	10 °C - 40 °C

b) Picosecond Laser Diode Heads: Specification

- 400 mW pulsed laser head at 980 nm for up-conversion measurements
- Wavelengths between 375 and 1990 nm
- Pulse widths as short as 20 ps (FWHM)
- Adjustable (average) power up to 50 mW
- Repetition rate from single shot to 80 MHz
- Optional dual mode: pulsed and CW operation
- Collimating optics, optional fiber coupling and peltier cooling

Optics focus length	f' = 4.5 mm (Typ. for LDH-P/D-C-xxx) f' = 9.0 mm (Typ. for LDH-D-TA-xxx)
Numerical aperture	0.55
Typical divergence (with optics)	Theta parallel Typ. 0.11 mrad Theta perpendicular Typ. 0.32 mrad
Beam shape	Elliptical shape, typ. dimensions 1.5 × 3.5 mm
Polarization	typ. linear, perpendicular to the longer axis of the elliptical beam[1]
Polarization Extinction Ratio (PER)	typ. > 1:10 (> 10 dB)
Side mode suppression ratio (SMSR)	typ. < 0.01
Cooling	
Peltier cooling stability	better than 1 K for ambient temperature between 15 and 30 °C
Dimensions	
Cooled	62 × 100 mm (diameter × length)
Cooled with fiber coupling	62 × 132 mm (diameter × length)
Cooled D-TA type	68 × 148 mm (diameter × length)
"F-type" with FC/APC connector	200 × 100 × 35 mm (l × w × h)
Spectral width[2]	
Wavelengths < 900 nm	approx. 2 to 8 nm
Wavelengths > 900 nm	approx. 10 to 20 nm
CW operation	< 1 nm

Power stability (cooled)

12 hours, Delta T (ambient) < 3 K 1 % RMS, 3 % peak to peak

General Conditions:

1. Warranty: 1 year
2. The bidder should quote as one unit (Item a and b) and it must be work as one unit.