

Features & benefits

Ultrashort pulses

As low as 400ps duration

High peak power

Achieving 225kW per pulse

Excellent beam quality

Gaussian beam, TEM 00, $M^2 \leq 1.3$

kHz repetition rate

Flexible from 10Hz to 1kHz.

Integrated system

All in one package including power supply and cooling

Synchronization output

Photodiode monitoring of laser emission

Licensed Technology

Exclusive license on Passively Q-switched picosecond microchip laser: US Patent 5394413

Low power consumption

Requires typically 25W during normal operation thanks to its optimised design and efficient diode pumping.

Optional features

Fixed frequency choices

Can operate at up to 3 fixed repetition rate frequencies, set at factory

Triggerable by user

External trigger, with TTL compatible input on Sub-D connector

Manual controls for CDRH compliance

1064nm, 532nm, 355nm & 266nm Passively Q-Switched Nd:YAG lasers: high irradiance integrated head (PNx-M series)

Teem Photonics' PowerChip series are ultra high peak power, high repetition range passively Q-switched MicroChip lasers capable of producing hundreds of picoseconds and several tens of microJoules pulses at kilohertz repetition rates with excellent beam quality. Furthermore, the PowerChip is a completely integrated platform which includes the laser head, power supply and air cooling in a compact, rugged, turnkey package.



PowerChip PNx-M lasers

Model	PNP-M08010	PNP-M10005	PNG-M02010	PNG-M04005	PNV-M01510	PNV-M02510	PNU-M01510 Beta
Wavelength (nm)	1064		532		355		266
Peak Power (kW)	220	275	80	150	70	90	48
Average Power (mW)	90	55	25	45	18	28	17
Repetition rate (kHz)	1	0.5	1	0.5	1	1	1
Pulse Width (ps)	400	400	300	300	300	300	350
Energy/Pulse (µJ)	90	110	25	45	18	28	17

| Typical values

All new models replace the old versions : PNV-001525-SC3; PNV-001525-SC2; PNV-001525-SC1; PNV-001025-AB1

Applications

- ▶ Materials processing
 - Inscribing glass
 - Via drilling printed circuit boards
 - Micromachining
- ▶ MALDI-TOF
- ▶ Microdissection
- ▶ Laser Induced Fluorescence (LIF)
- ▶ Time Resolved Fluorescence
- ▶ Laser Induced Breakdown Spectroscopy (LIBS)
- ▶ Light Detection and Ranging (LIDAR)