

## Features & benefits

### Ultrashort pulses

As low as 300ps duration

### High peak power

Achieving 100kW 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 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.



### Infra Red 1064nm PNP-M Lasers

Model	PNP-M06010	PNP-M08010	PNP-M10005
Peak Power (kW)	175	220	275
Average Power (mW)	70	90	55
Repetition rate (kHz)	1	1	0.5
Pulse Width (ps)	400	400	400
Energy/Pulse (µJ)	70	90	110

Typical values

### Green 532nm PNG-M Lasers

Model	PNG-M02010	PNG-M04005
Peak Power (kW)	80	150
Average Power (mW)	25	45
Repetition rate (kHz)	1	0.5
Pulse Width (ps)	300	300
Energy/Pulse (µJ)	25	45

Typical values

## Applications

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