

# PowerChip PNP, PNG

**GMP**General Microtechnology & Photonics  
Systems for Industry, Research, Telecom & Medicine

## Features & benefits

### Licensed Technology

Exclusive licence on Passively Q-switched picosecond microlaser.  
US Patent 5394413

### Gaussian beam

TEEM 00,  $M^2 \leq 1.3$

### 100's ps pulse width

Very short pulses down to 300ps resulting in high peak power.

### kHz repetition rate

Flexible from 10Hz to 1kHz.

### Sealed package

Proven long lifetime even in harsh operating condition. Dust and up to 90% relative humidity resistant.

### Air cooled

Not need for cumbersome water cooling. Integrated heat sink.

### RS232 connection

Easy laser diagnostic and control.

### Rugged design

Shock resistant up to 2g.  
Vibration resistant up to 25g.

### Low power consumption

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

### External Trigger

TTL compatible input on Sub-D connector

### Photodiode Output

TTL compatible output on BNC connector

### RoSH ans CDRH compliant

With optional

## Ultra high peak power Passively Q-Switched Nd :YAG laser

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

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

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

- ▶ Marking
- ▶ Micro Machining
- ▶ Laser Induced Fluorescence (LIF)
- ▶ Laser Induced Breakdown Spectroscopy (LIBS)
- ▶ Light Detection and Ranging (LIDAR)

[www.gmp.ch](http://www.gmp.ch)

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