方全有限公司
Rapitech Enterprise Co.,Ltd.

脈衝式固態雷射
Pulsed Solid-State Laser

teem photonics
Composing with light

MicroChip 脈衝紫外光雷射

Picosecond, High Peak Power UV 355nm / 266 nm Microchip Lasers

Applications

- Laser-induced fluorescence (LIF)
- Micro dissection
- Organic compound marking and micromachining
- Biohazard detection
- Time resolved fluorescence
- Laser Induced Breakdown Spectroscopy (LIBS)
- Semiconductor inspection

Ultra Violet 266nm SxU lasers (typical values) – package A

Model	SNU-02P
Wavelength (nm)	266
Peak Power (kW)	1.4
Average Power (mW)	5
Repetition rate (kHz)	7
Pulse Width (ps)	400
Energy/Pulse (μJ)	0.7

Ultra Violet 266nm SxU lasers (typical values) – package B

Model	SNU-02E	SNU-20F	SNU-40F	SFU-01E	STU-01E
Pulse Width (ps)	400	400	400	300	300
Energy/Pulse (μJ)	2.5	0.8	0.35	1.2	1.2
Peak Power (kW)	6	2	0.9	4	4
Repetition rate (kHz)	6	21	40	0.01-4	0.01-2
Average Power (mW)	13	16	14	≤4.8	≤2.4

Ultra Violet 355nm SxV lasers (typical values) – Package A

Model	SNV-05P
Wavelength (nm)	355
Peak Power (kW)	1.8
Average Power (mW)	6
Repetition rate (kHz)	8
Pulse Width (ps)	400
Energy/Pulse (μJ)	0.8

Ultra Violet 355nm SxV lasers (typical values) – Package B

Model	SNV-02E	SNV-20F	SNV-40F	SFV-01E	STV-01E
Pulse Width (ps)	400	400	400	300	300
Energy/Pulse (μJ)	2.5	0.8	0.25	1.2	1.2
Peak Power (kW)	6	2	0.6	4	4
Repetition rate (kHz)	6	21	40	0.01-4	0.01-2
Average Power (mW)	13	16	7	≤4.8	≤2.4

Optional features

- Photodiode output for synchronization
- Manual controls for CDRH compliance

Features & benefits

Ultrashort pulses
As low as 300ps durations

High peak power
Exceeding 6kW per pulse

Variety of frequency options
Free running to 40kHz
Fixed frequency to 4kHz
Triggerable to 2kHz

Excellent beam quality
Gaussian, TEM_{00}, $M^2 \leq 1.3$ (355nm and horizontal 266nm)

Efficient, air cooled
Typically dissipates <10W from laser head and consumes <20W

Long UV life
High reliability pump diode, specialty UV optics, and sealed package contribute to lifetimes expected to exceed 5k hours (consult factory for details)

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

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