

MCH Series 350ps High-repetition-rate Microchip Lasers



Key Features

- ◆ Repetition rate up to 20kHz
- ◆ Pulse width down to 280ps
- ◆ Pulse energy up to 60μJ
- ◆ Single longitudinal mode
- ◆ Excellent beam quality

Applications

Laser Micromachining
Analytical chemistry

Seed Laser
Biophotonics

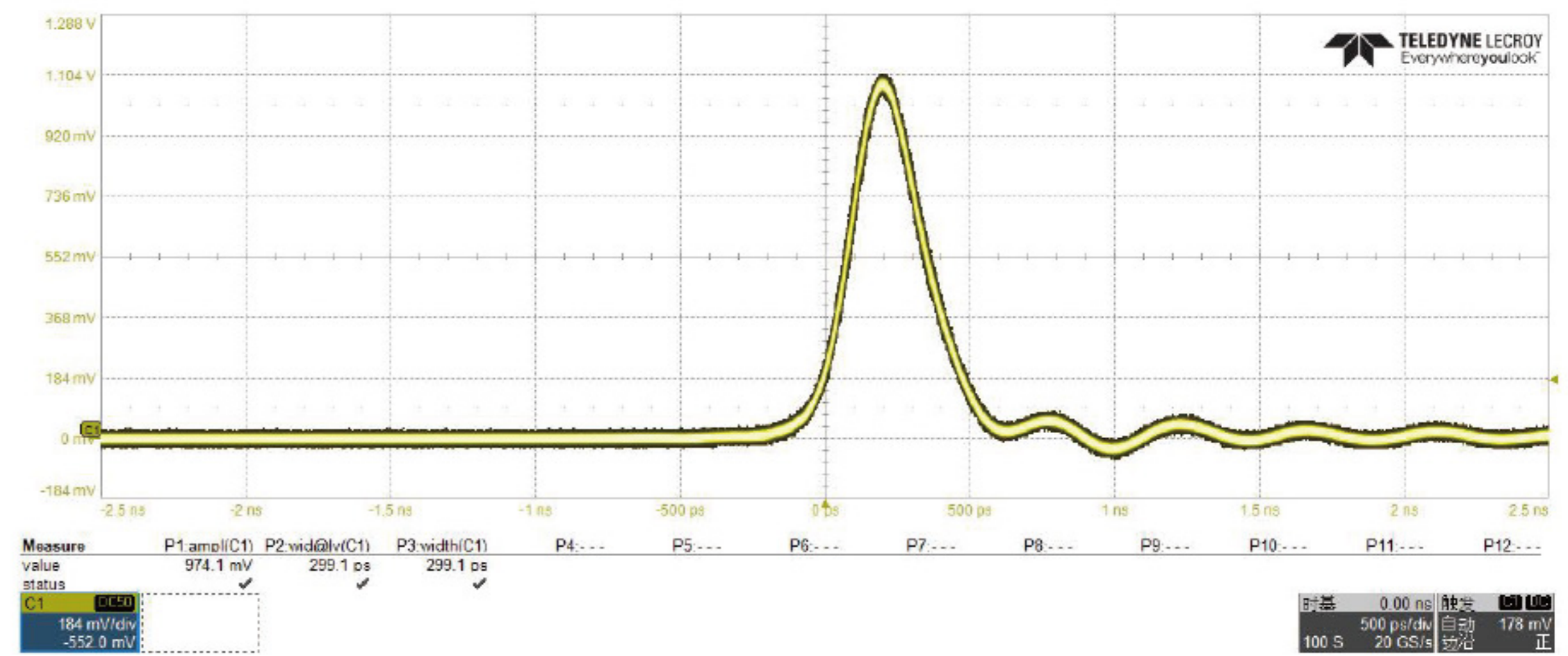
Ultrasound imaging
Time-resolved Raman Spectroscopy

MCH Series																		
Wavelength (nm)	1064				532				355			266			213			
Repetition rate(kHz)	1	5	10	20*	1	5	10	20*	1	5	10	1	5	10	1	5	10	
Average power(mW)	32	75	80	100	16	40	30	50	8	15	20	3	5	5	1	2	2	
Pulse energy(μJ)	32	15	8	5	16	8	3	2.5	8	3	2	3	1	0.5	1	0.4	0.2	
Pulse width(ps)	350		300		300	280		300	280		300	280		300	280			
Power stability (8h)	±2%				±3%				±3%			±3%			±3%			
Beam profile	TEM ₀₀				TEM ₀₀				TEM ₀₀			TEM ₀₀			TEM ₀₀			
Beam divergence full angle Typ. (mrad)	Horizontal @1/e ²		<10		<20		<6		<12		<4		<5		<3		<3	
	Vertical @1/e ²		<10		<20		<6		<12		<4		<5		<3		<3	
Polarization	>100:1				>100:1				>100:1			>100:1			>100:1			
System parameters																		
Supply power voltage	100-240 VAC,50/60 Hz																	
Modulation input	TTL 0-5V, SMA input																	
Control interface	RS232, USB																	
Power consumption(W)	<15	<35	<40	<50	<20	<40	<45	<50	<25	<35	<40	<30	<40	<40	<30	<35	<40	
Power dimensions (W×H×L,mm)	150×76×146 (W×H×L)																	
Laser head dimensions (W×H×L,mm)	45×30×120 (W×H×L)																	
Operation temperature(°C)	15-35																	
Storage temperature(°C)	0-50																	

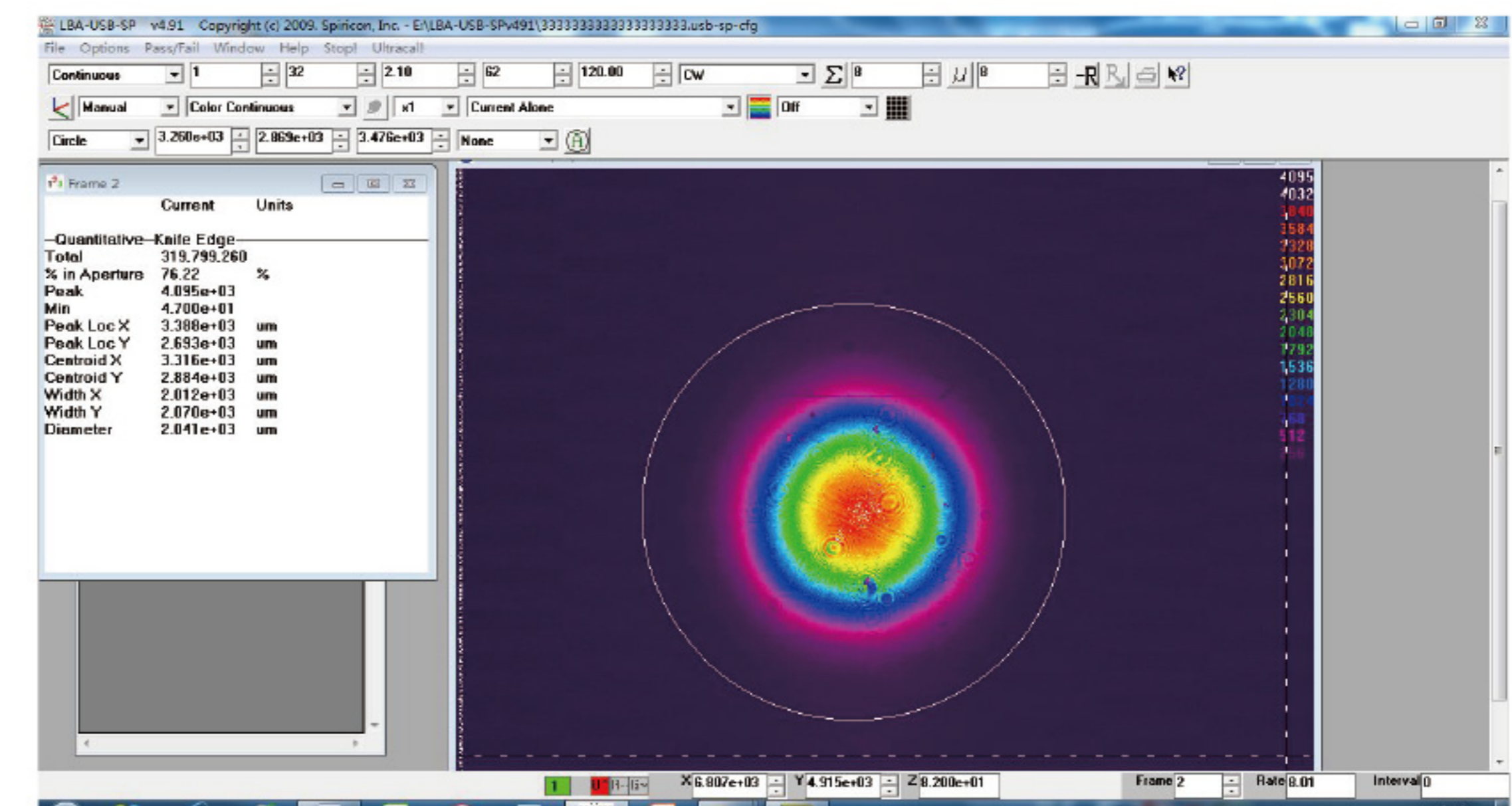
* Side laser outlet for microchip laser with 20kHz repetition rate
All specifications are subject to change without prior notice

Ordering information

MCH Series Model List			
Wavelength (nm)	Part Number	Repetition rate (kHz)	Pulse energy (μJ)
1064	MCH-1064-1-032	1	32
	MCH-1064-5-015	5	15
	MCH-1064-10-010	10	8
	MCH-1064-20-005	20*	5
532	MCH-532-1-016	1	16
	MCH-532-5-008	5	8
	MCH-532-10-005	10	3
	MCH-532-20-2.5	20*	2.5
355	MCH-355-1-008	1	8
	MCH-355-5-003	5	3
	MCH-355-10-002	10	2
266	MCH-266-1-003	1	3
	MCH-266-5-001	5	1
	MCH-266-10-0.5	10	0.5
213	MCH-213-1-001	1	1
	MCH-213-5-0.4	5	0.4
	MCH-213-10-0.2	10	0.2

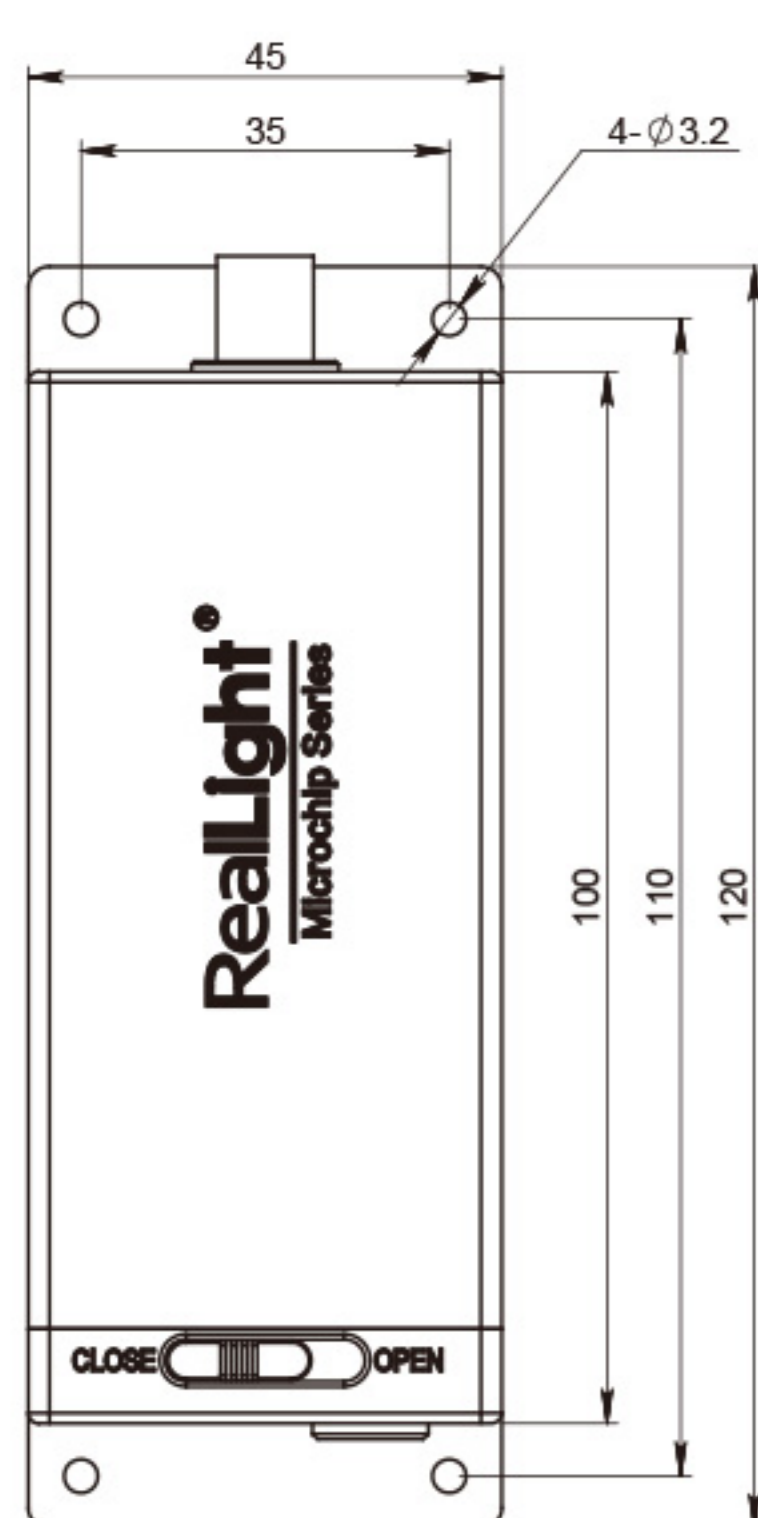
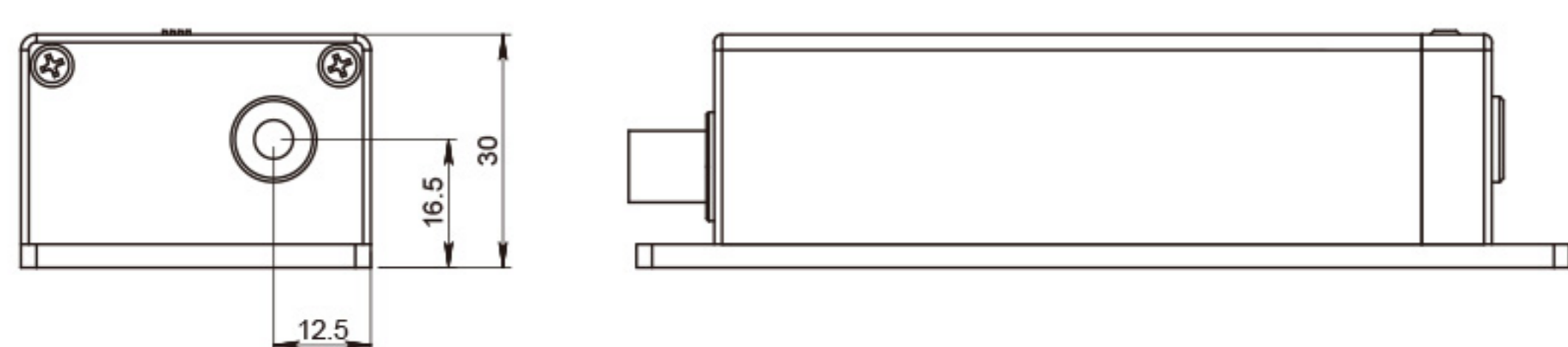


Typical Pulse

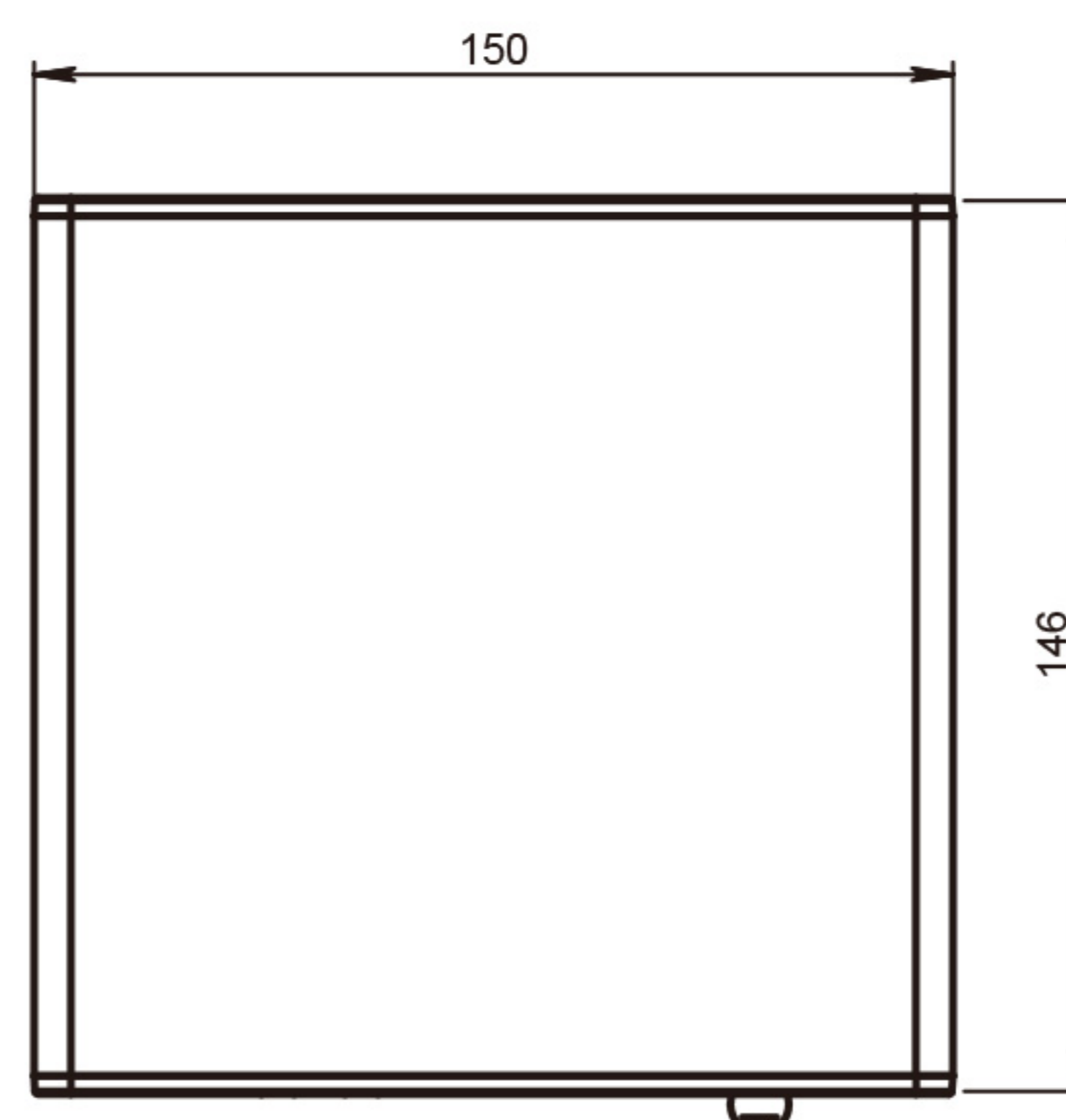
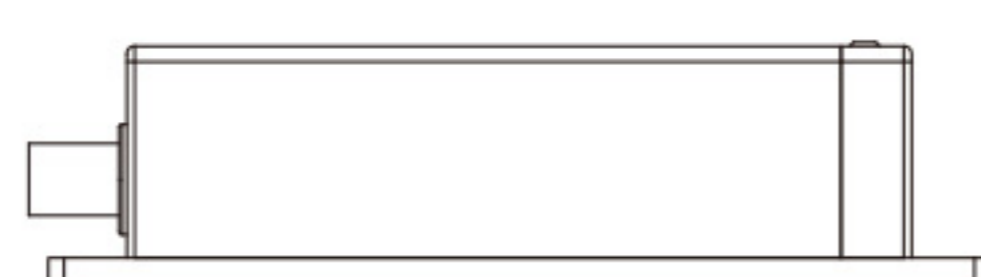
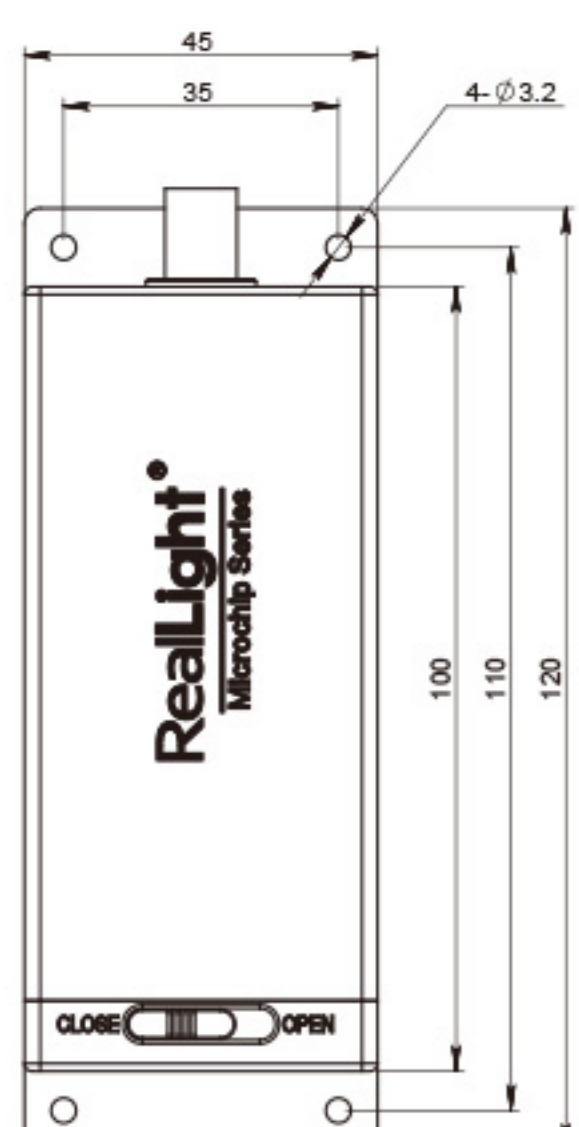
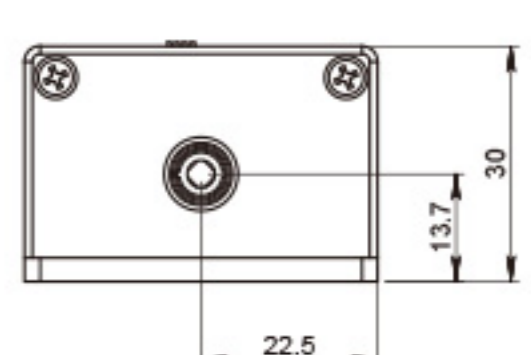


Beam Profile

Mechanical Specifications



Side laser outlet for microchip laser with 20kHz repetition rate



Unit: mm

Part numbering schema

Part numbering schema

