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	Pulsed Ultrafast Lasers	Date:	202508
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1. Optical characteristics

No.	Characteristics	Parameter value	Unit
1	Central wavelength	1060 - 1080	nm
2	Spectral width	< 15	nm
3	Maximum pulse energy	1.0	mJ
4	Output power	100	W
5	Power adjustment range	0 - 100	%
6	Pulse frequency adjustment range	1 - 2000	kHz
7	Pulse width	1 - 350	ns
8	Minimum pulse width	20 ± 2	ps
9	Laser switching ON/OFF time	< 20	μs
10	Output power instability	< 5	%
11	Beam quality M ²	< 1.4	/
12	Polarization direction	Random	/
13	Anti-high reflection	Yes	/
14	Startup stabilization time	3	mm
15	Indicator red light	1 - 4	mW
16	Collimated beam diameter (4σ)	11 ± 0.5	mm
17	Delivery cable length	5	m

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2. Electrical characteristics

No.	Characteristics	Parameter value	Unit
1	Power supply voltage	48	VDC
2	Maximum working current	9	A
3	Maximum power consumption	450	W
4	Recommended power supply	≥ 600	W

3. Environmental requirements

No.	Characteristics	Parameter value	Unit
1	Operating temperature	15 - 35	°C
2	Storage temperature	-10 - 60	°C
3	Cooling method (chassis)	Air cooling	/
4	Cooling method (output head)	Conductive cooling	/

4. Structural characteristics

No.	Characteristics	Parameter value	Unit
1	Laser dimension	350*301*114	mm ³
2	Output head dimension	260*180*78	mm ³
3	Net weight	15.8	kg

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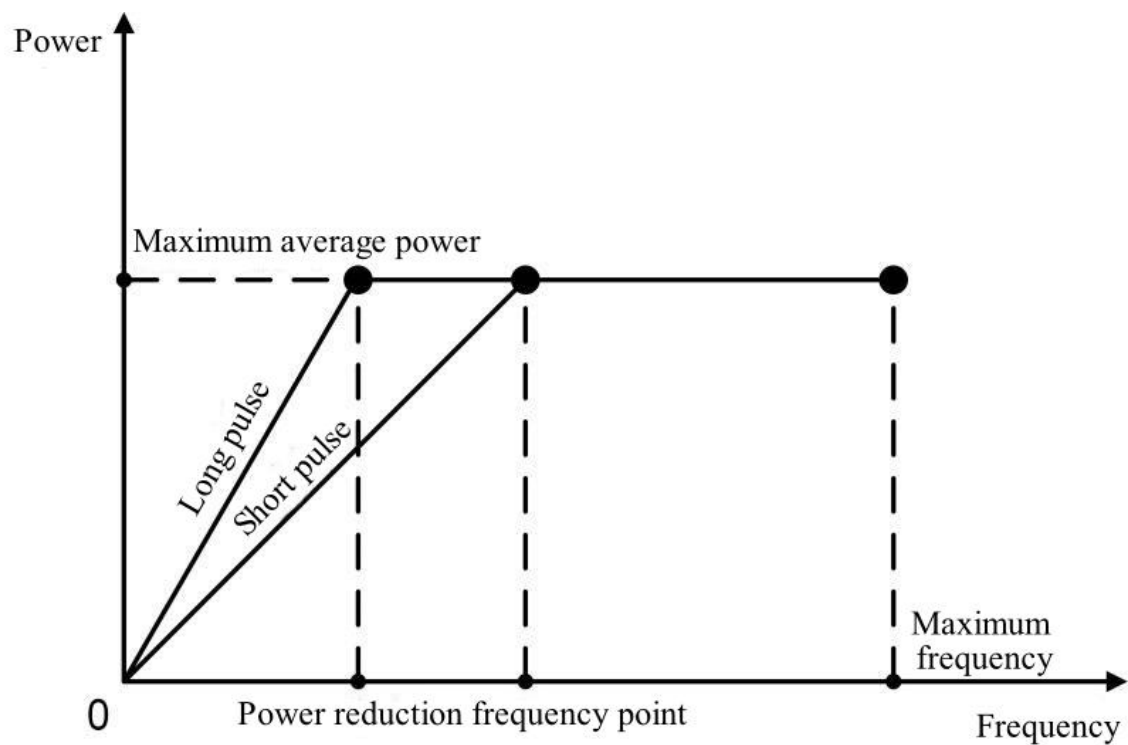
5. The pulse width corresponds to the power reduction frequency point and the maximum single pulse energy

No.	Pulse width (ns)	Power reduction frequency (kHz)	Upper frequency limit (kHz)	Max single pulse energy (mJ)
1	1	/	/	/
2	2	1120	2000	0.09
3	4	680	2000	0.15
4	6	450	2000	0.22
5	8	400	2000	0.25
6	10	360	2000	0.28
7	12	850	2000	0.12
8	15	650	2000	0.15
9	20	470	1000	0.21
10	30	400	1000	0.25
11	45	340	1000	0.29
12	60	260	1000	0.38
13	80	240	1000	0.42
14	100	210	1000	0.48
15	150	180	400	0.55
16	200	180	400	0.55
17	250	150	400	0.67

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18	300	100	400	1.00
19	350	100	400	1.00

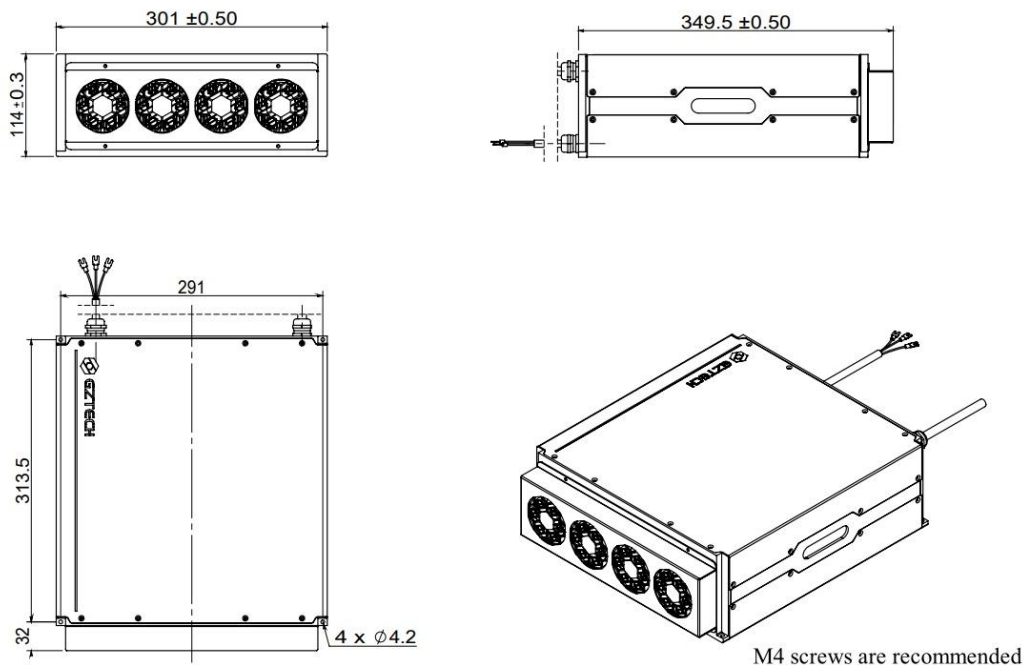
Note: For this model, the actual output pulse width for 1ns pulse width is 20ps, with a fixed repetition rate of 50MHz.



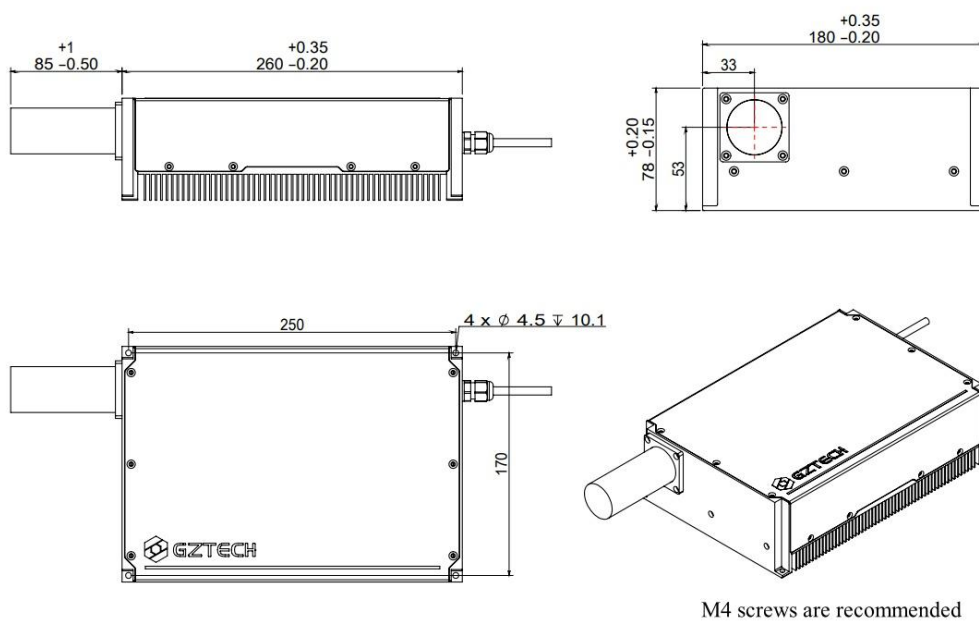
The relationship between laser output power and frequency

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6. Dimension



Chassis structural diagram (part)



Output head structural diagram (part)