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1. Optical characteristics

No.	Characteristics	Parameter value	Unit
1	Central wavelength	1060-1080	nm
2	Spectral width @3dB	<20	nm
3	Maximum pulse energy	2.0	mJ
4	Output power	500	W
5	Power adjustment range	0-100	%
6	Frequency adjustment range	1-4000	kHz
7	Laser switching ON/OFF time	<20	μs
8	Pulse width	20-500	ns
9	Output power instability	<5	%
10	Beam quality M ²	<1.6	/
11	Polarization direction	Random	/
12	Anti-high reflection	Yes	/
13	Indicator red light	0.3-2	mW
14	Collimated beam diameter (4σ)	9-11	mm
15	Delivery cable length	5	m



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2. Electrical characteristics

No.	Characteristics	Parameter value	Unit
16	Power supply voltage	48	VDC
17	Working current	<40	A
18	Power consumption	<1920	W
19	Recommended power supply	>2500	W

3. Environmental requirements

No.	Characteristics	Parameter value	Unit
20	Operating temperature	0 - 40	°C
21	Storage temperature	-10 - 60	°C
22	Cooling method	Water cooling	/
23	Low temperature water temperature (laser)	28 ± 1	°C
24	High temperature water temperature (isolator)	30 ± 1	°C
25	Water cooler flow rate (chassis)	≥ 5	L/min
26	Water cooler flow rate (isolator)	≥ 2	L/min



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27	Chassis water pipe diameter	10	mm	
28	Isolator water pipe diameter	6	mm	
29	Water cooler cooling capacity	≥1.5	kW	

4. Structural characteristics

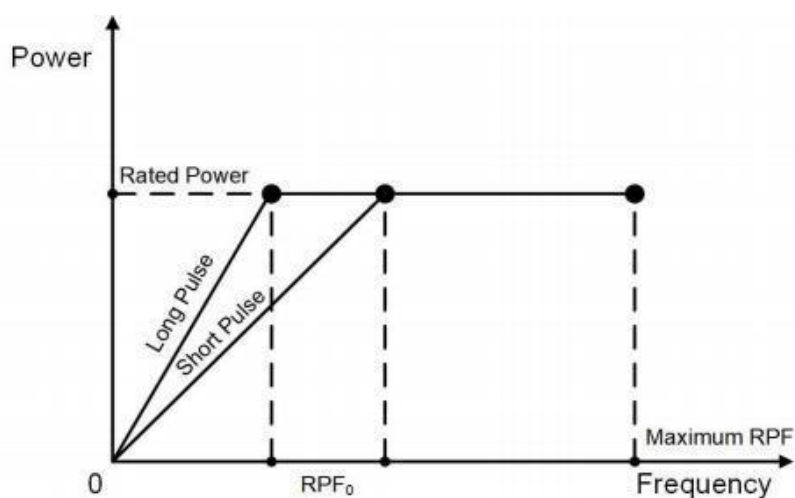
No.	Characteristics	Parameter value	Unit
30	Laser dimension	485*461*82	mm
31	Isolator dimension	277*70*60(87*Φ35)	mm
32	Net weight	<40	kg

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 (CW)	/	/	/
2	20	3300	4000	0.15
3	30	2500	4000	0.20
4	40	1800	3000	0.28
5	50	1400	3000	0.36
6	60	1200	3000	0.42



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7	80	1000	2000	0.50
8	90	850	2000	0.59
9	100	750	2000	0.67
10	120	625	2000	0.80
11	150	500	1000	1.00
12	200	400	1000	1.25
13	250	350	600	1.43
14	350	300	500	1.67
15	450	250	400	2.00
16	500	250	400	2.00



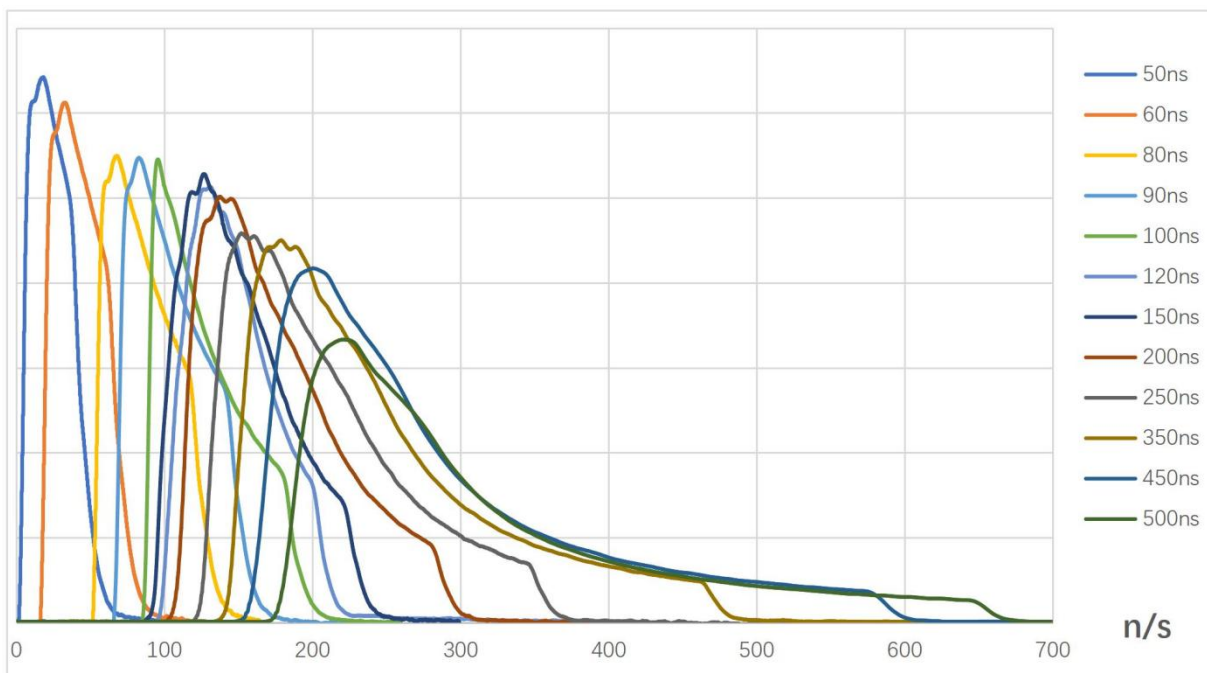
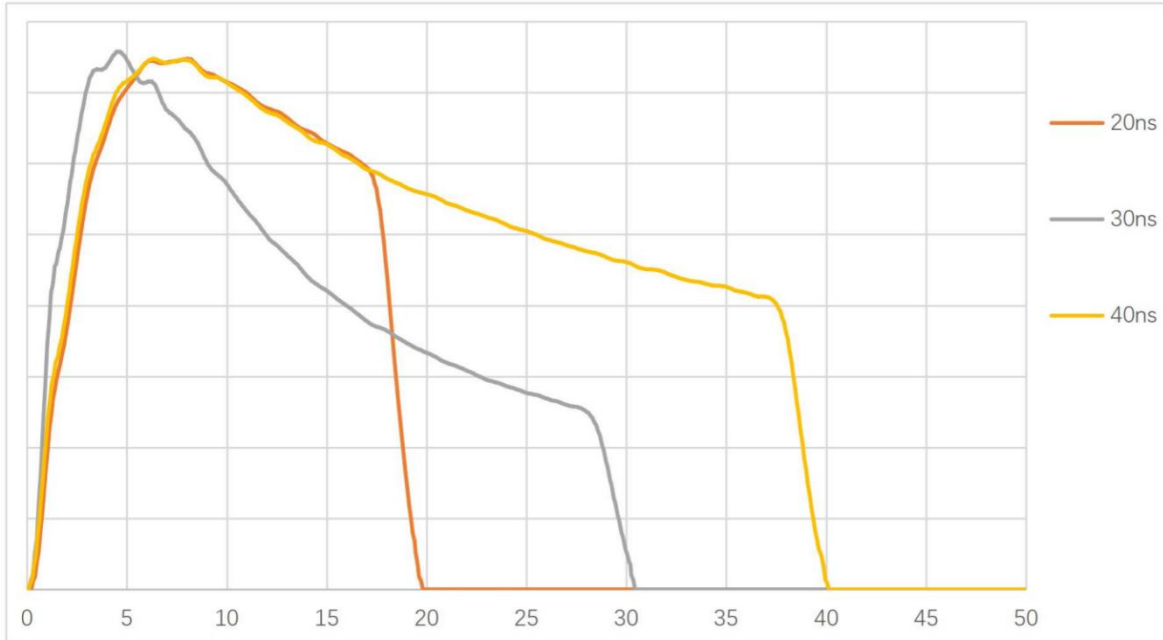
The definition of threshold frequency in the pulsed fiber laser



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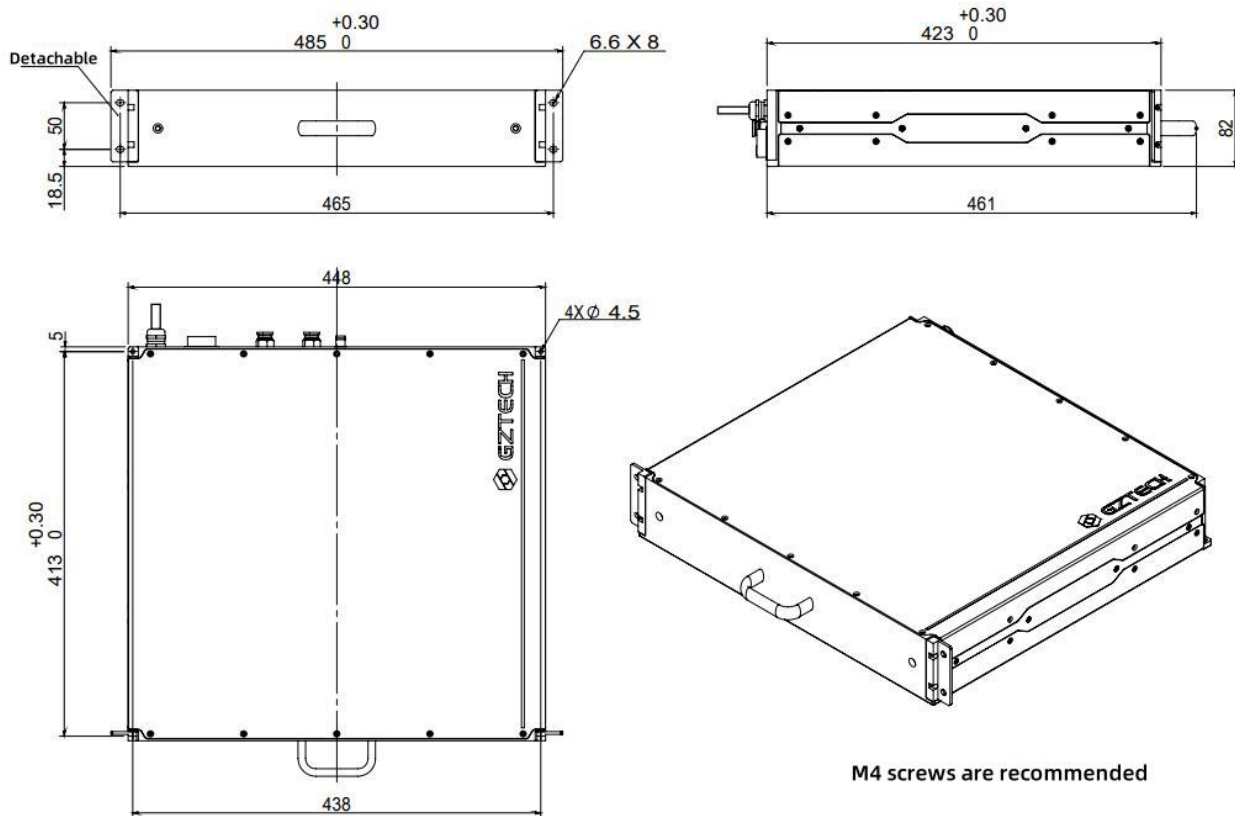
6. Pulse width waveform



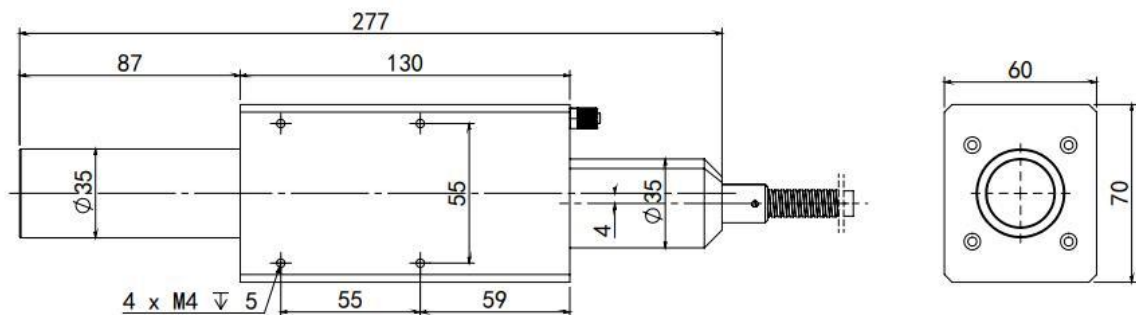
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7. Dimension



Laser dimension



Isolator dimension



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