QCW Series
Diode Side-Pumped Gain Module

The Quasi-Continuous Wave (QCW) Diode Side-Pumped Gain Module is a core component of solid-state laser offering high efficiency, long lifetime, excellent beam quality, and compact design. It is suitable for high-tech applications including space communications, micro-processing, environmental monitoring, medical equipment, and optical imaging.



Q10000-9 Nd_YAG

Technical Parameters

Key Features

Oscillator / Amplifier Stage Combined Solutions | High Peak Power | High Duty Cycle | VCSEL | Medical

		Q1200-3	Q3000-6	Q6000-8	Q10000-9	Q30000-8	Q70000-15	Q10000-8	Q3000-8	Q20000-4
Item	Unit	Typical Value								
Pump Wavelength(1)	nm	808±3								979.5±2
Pump Spectral Width	nm	4								3
Wavelength/Temperature Coefficient	nm/°C	0.28								
Pump Rated Power(2)	W	1200	3000	6000	10000	30000	70000	10000	3000	20000
Threshold Current	A	17								
Operating Current	A	100	100	100	280	280	280	100	60	200
Operating Voltage	V	27	66	132	200	216	300+220	220	154	220
Pulse Width(2)	μs	300	300	300	300	300	300	250	250	500
Repetition Rate	Hz	100	100	100	100	100	100	500	1000	50
Duty Cycle	%	3	3	3	3	3	3	12.5	25	2.5
Doping Concentration(3)	at.%	0.6								50
Crystal Specification(3)	-	Nd_YAG								Er_YAG
Emission Wavelength	nm	1064								2940
Crystal Dimensions	mm	Ø3x67	Ø6x95	Ø8x85	Ø9x100	Ø8x146	Ø15x160	Ø8x146	Ø8x146	Ø4x83
Recommended Water Temperature	°C	25±3								
Recommended Water Pressure	Mpa	0.25~0.4								
Recommended Water Flow Rate	L/min	>6	>8	>10	>12	>14	>20	>18	>12	>8

Note: (1) @25°C Water Temp.
(2) For more details on pump power, operating current, and other conditions, please contact us.
(3) For more gain medium specifications (e.g., Nd:YAG/Nd:YLF/Nd:YVO4/Er:YAG) and doping conditions (0.4at%~1.0at%), please contact us.

Core Technology

High Gain Uniformity

High-Power Pumping Capacity

Macrochannel Water-Cooling

Low-Maintenance Cost