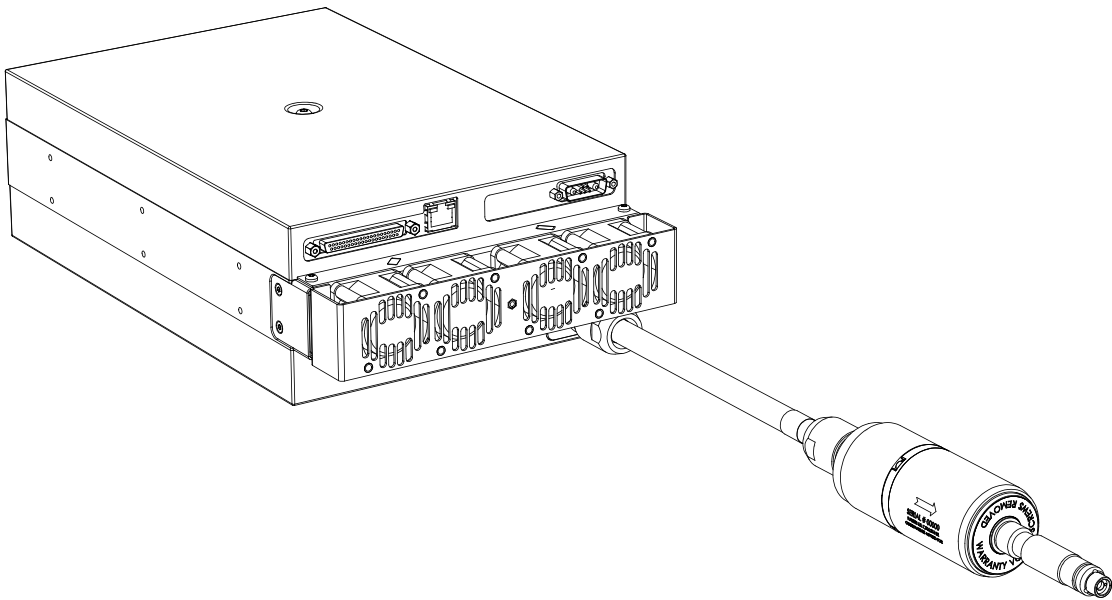


G4 Pulsed Fibre Laser Specification

Applicable Part numbers

Part number	Options
SP-020P-A-RM-Z-A-N	2m optical cable, no pilot laser
SP-020P-A-RM-Z-A-Y	2m optical cable, with pilot laser
SP-020P-A-RM-Z-B-N	3m optical cable, no pilot laser
SP-020P-A-RM-Z-B-Y	3m optical cable, with pilot laser



System Integration Details

parameter	unit	range
Laser Module type		A1
Laser Module Dimensions	mm	347 x 201 x 95
Beam delivery type		ILLK
Control interface version		V8
Power Supply Voltage	V DC	24 ± 2
Logic Power Supply Requirement	W	50
Laser Diode Power Supply Requirement	W	200
Operating temperature range	C	0 to +45
Storage temperature range	C	-10 to +60

Related Documents

Document number	Description
SM-S00227	OEM Safety and System Integration Manual: Module Types A1 and A2
SM-S00360	V8 Control Interface Manual
SM-S00220	G4 Accessories Datasheet

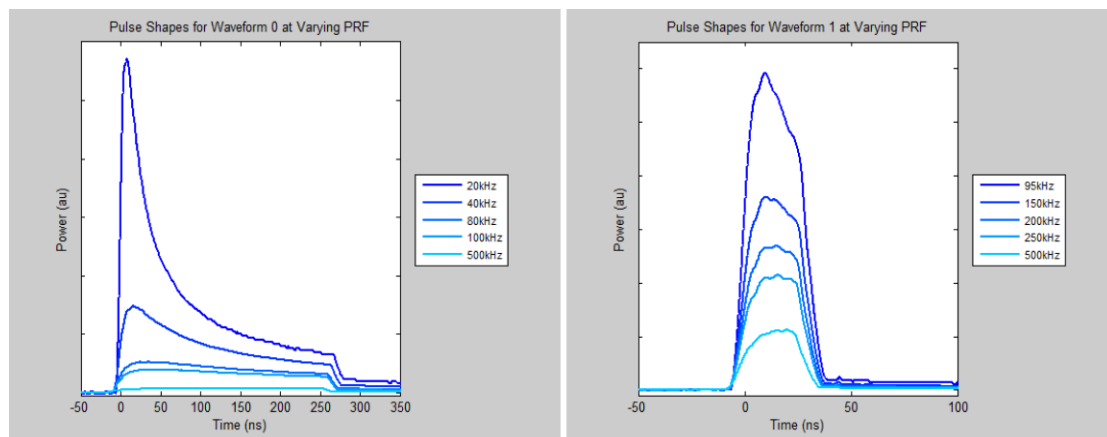
Laser Characteristics


All parameters specified at PRF0 for waveform 0, rated power, over operating temperature range unless otherwise stated.

Parameter	unit	range
Average Output Power	W	> 20
Output Power Stability	% p-p	< 5
Maximum Pulse Energy	mJ	> 1.0
Maximum Peak Power	kW	> 10
Pulse Width (at FWHM)	ns	Typ. 40
Pulse Width (at 10% level)	ns	250
Pulse-to-Pulse Energy Stability (at stable temperature)	% rms	< 3
Pulse Rate Range	kHz	1 – 500
Full-power pulse rate range	kHz	20 - 500
Reduced power pulse rate range	kHz	1 – 20
CW Mode		No
Central Emission Wavelength	nm	1059 – 1065
Emission Bandwidth	nm	< 10
Fraction of power within $\lambda_0 \pm 20$ nm	%	> 80
M^2		1.0 – 1.6
Full-angle divergence	mrad	80 – 120
Circularity	%	> 90
Beam pointing error	mrad	< 10
Beam offset	mm	< 0.1
Astigmatism	$1/z_R$	< 0.3
Degree of polarization	%	< 20

Pulse Waveform Table

wfm	PRF0 (kHz)	PRFmax (kHz)	Max. pulse energy, E _{max} (mJ)	Typ. FWHM pulse width at E _{max} (ns)	Pulse width at 10% (ns)	Typ. peak power at E _{max} (kW)
0	20	500	1.0	38	260	13
1	95	500	0.21	26	40	8



	<p>INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION CLASS 4 LASER PRODUCT</p> <p>Wavelength 1040 – 1200nm Pulsed output - Max average power <120W Max pulse energy <2.0mJ Repetition freq. 1-1000kHz Pulse duration 1ns – 500ns CW Output power < 120W</p> <p>IEC/EN 60825-1:2007</p>	<p>Wavelength 630 – 670nm Output power < 5mW CW</p> <p>VISIBLE LASER RADIATION AVOID DIRECT EYE EXPOSURE CLASS 3R LASER PRODUCT</p> <p>IEC/EN 60825-1:2007</p>	<p>COMPONENT FOR INCORPORATION</p> <p>This product is intended as a component for incorporation into a laser product, and as such requires additional features for Laser Safety and to comply with IEC/EN60825-1 and 21CFR1040.10</p>
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