

DSS 1064-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 1064 nm
- Pulsed (typ. 1,6 ns)
- Up to 50 µJ
- Up to 15 kHz
- External and Internal Trigger Mode
- Free Beam or Fiber Coupling



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| | DSS1064-Q1 | DSS1064-Q2 | DSS1064-Q3 | |
|---|--|-------------------|-------------------|-------------------|
| Optical Data | Wavelength | | | 1064 nm |
| | Pulse Energy | > 5 µJ @ 15 kHz | > 15 µJ @ 10 kHz | > 50 µJ @ 1 kHz |
| | Peak Power | > 2,4 kW @ 15 kHz | > 7,1 kW @ 10 kHz | > 23 kW @ 1 kHz |
| | Max. Pulse Repetition Rate | 15 kHz | 10 kHz | 3 kHz |
| | Pulse Width (FWHM) | 1,6 ns | | |
| | Polarization Ratio | > 100:1 vertical | | |
| | Power Stability over 6 hours ¹⁾ | < ± 5 % | < ± 3 % | < ± 3 % |
| Optical Output | Laser Classification | | | 3B / IIIb |
| | Spatial Mode | | | TEM ₀₀ |
| | Beam Divergence (full angle) | < 3,5 mrad | < 3,5 mrad | < 4,0 mrad |
| Electrical Data | Beam Diameter at Output Plane | 500 ± 150 µm | 500 ± 150 µm | 600 ± 150 µm |
| | Power Consumption mean (max.) | 10 W (40 W) | 13 W (40W) | 15 W (70 W) |
| | Operating Voltage (OEM) | 12 V DC | | |
| Interfaces | Line Voltage (with AC-DC adapter) | 90 ... 240 V AC | | |
| | RS 232 , USB | | | |
| | External Trigger (TTL, rising edge) 1 Hz ... max. repetition rate | | | |
| Miscellaneous | SERVICE Interface for TTL-control and power monitor | | | |
| | Warm-up Time | < 5 min | | |
| Options | Operating Temperature | 10 ... 40 °C | | |
| | STAND ALONE Version (incl. key-switch, heat-sink and manual shutter) | | | |
| | Synchronization Signal Output (rise time < 2 ns) | | | |
| Fiber Coupling for fiber with core diameter > 70 µm | | | | |

¹⁾ after 5 min warm up, temperature variation ± 3 °C and < 3 °C/hour

FDSS 532-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 532 nm
- Pulsed (typ. 1,3 ns)
- Up to 20 µJ
- Up to 15 kHz
- External and Internal Trigger Mode
- Free Beam or Fiber Coupling



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| | FDSS532-Q1 | FDSS532-Q2 | FDSS532-Q3 | |
|------------------------|---|-------------------|-------------------|-----------------|
| Optical Data | Wavelength | 532 nm | | |
| | Pulse Energy | > 2 µJ @ 15 kHz | > 6 µJ @ 10 kHz | > 20 µJ @ 1 kHz |
| | Peak Power | > 1,3 kW @ 15 kHz | > 4,0 kW @ 10 kHz | > 13 kW @ 1 kHz |
| | Max. Pulse Repetition Rate | 15 kHz | 10 kHz | 3 kHz |
| | Pulse Width (FWHM) | 1,3 ns | | |
| | Polarization Ratio | > 100:1 vertical | | |
| | Power Stability over 6 hours ¹⁾ | < ± 5 % | < ± 3 % | < ± 3 % |
| Optical Output | Laser Classification | 3B / IIIb | | |
| | Spatial Mode | TEM ₀₀ | | |
| | Beam Divergence (full angle) | < 3,5 mrad | < 3,5 mrad | < 3,0 mrad |
| Electrical Data | Beam Diameter at Output Plane | 300 ± 100 µm | 300 ± 100 µm | 400 ± 100 µm |
| | Power Consumption mean (max.) | 15 W (40 W) | 17 W (40 W) | 20 W (70 W) |
| | Operating Voltage (OEM) | 12 V DC | | |
| | Line Voltage (with AC-DC adapter) | 90 ... 240 V AC | | |
| Interfaces | RS 232 , USB | | | |
| | External Trigger (TTL, rising edge) 1 Hz ... max. repetition rate | | | |
| | SERVICE Interface for TTL-control and power monitor | | | |
| Miscellaneous | Warm-up Time | < 5 min | | |
| | Operating Temperature | 10 ... 40 °C | | |
| Options | STAND ALONE Version (incl. key-switch, heat-sink, manual shutter) | | | |
| | Synchronization Signal Output (rise time < 2 ns) | | | |
| | Fiber Coupling for fiber with core diameter > 70 µm | | | |
| | Manual/electrical switch to 1064 nm | | | |

¹⁾ after 5 min warm up, temperature variation ± 3 °C and < 3 °C/hour

FTSS 355-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 355 nm
- Pulsed (typ. 1,0 ns)
- Up to 15 μ J
- Up to 15 kHz
- External and Internal Trigger Mode
- Free Beam or Fiber Coupling



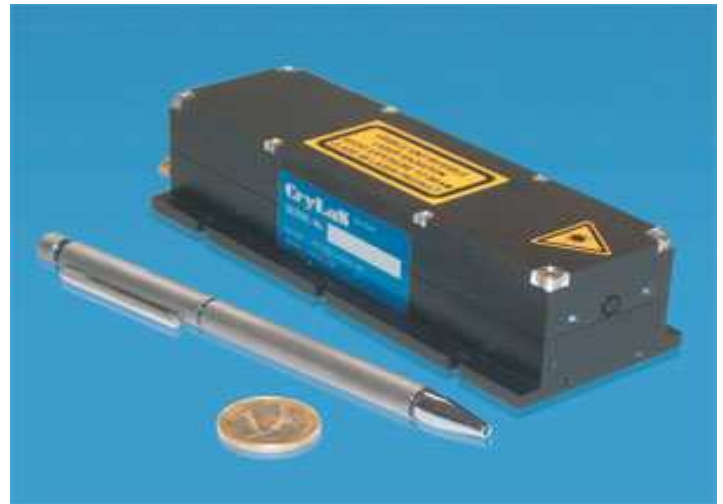
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| | | FTSS355-Q1 | FTSS355-Q2 | FTSS355-Q3 |
|---|---|------------------------|-----------------------|-----------------------|
| Optical Data | Wavelength | 355 nm | | |
| | Pulse Energy | > 0,3 μ J @ 15 kHz | > 3 μ J @ 10 kHz | > 15 μ J @ 1 kHz |
| | Peak Power | 0,3 kW | 3.0 kW | > 15 kW |
| | Max. Pulse Repetition Rate | 15 kHz | 10 kHz | 3 kHz |
| | Pulse Width (FWHM) | 1,0 ns | | |
| | Polarization Ratio | > 100:1 vertical | | |
| | Power Stability over 6 hours ¹⁾ | < \pm 5 % | < \pm 3 % | < \pm 3 % |
| Optical Output | Laser Classification | 3B / IIIb | | |
| Optical Output | Spatial Mode | TEM ₀₀ | | |
| | Beam Divergence (full angle) | < 3 mrad | < 3 mrad | < 3 mrad |
| | Beam Diameter at Output Plane | 280 \pm 100 μ m | 280 \pm 100 μ m | 350 \pm 100 μ m |
| Electrical Data | Power Consumption mean (max.) | 15 W (40 W) | 17 W (40 W) | 20 W (70 W) |
| | Operating Voltage (OEM) | 12 V DC | | |
| | Line Voltage (with AC-DC adapter) | 90 ... 240 V AC | | |
| Interfaces | RS 232 , USB | | | |
| | External Trigger (TTL, rising edge) 1 Hz ... max. repetition rate | | | |
| | SERVICE Interface for TTL-control and power monitor | | | |
| Miscellaneous | Warm-up Time | < 5 min | | |
| | Operating Temperature | 10 ... 40 $^{\circ}$ C | | |
| Options | STAND ALONE Version (incl. key-switch, heat-sink, manual shutter) | | | |
| | Synchronization Signal Output (rise time < 2 ns) | | | |
| | Fiber Coupling for fiber with core diameter > 70 μ m | | | |
| | Manual/electrical switch to 532 nm | | | |
| ¹⁾ after 5 min warm up, temperature variation \pm 3 $^{\circ}$ C and < 3 $^{\circ}$ C/hour | | | | |

FQSS 266-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 266 nm
- Pulsed (typ. 1,0 ns)
- Up to 1,25 µJ
- Up to 5 kHz
- External and Internal Trigger Mode
- Free Beam

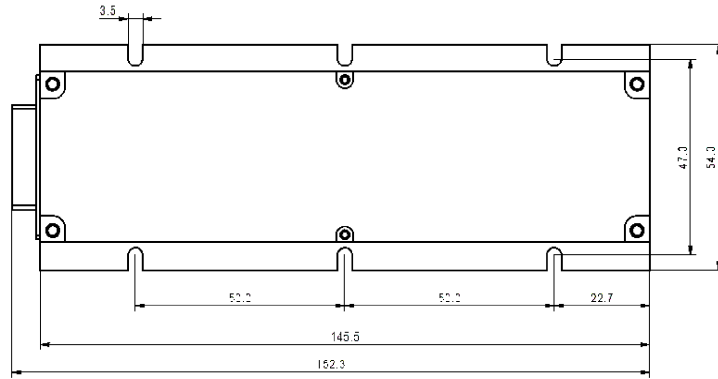
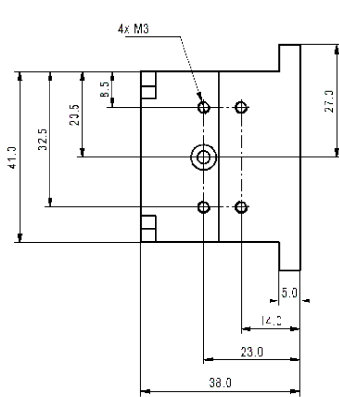


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| | | FQSS266-Q1 | FQSS266-Q2 |
|--|--|-------------------|-------------------|
| Optical Data | Wavelength | 266 nm | |
| | Pulse Energy | > 0,3 µJ @ 5 kHz | > 1,25 µJ @ 1 kHz |
| | Peak Power | > 0,3 kW @ 5 kHz | > 1,25 kW @ 1 kHz |
| | Max. Pulse Repetition Rate | 5 kHz | 3 kHz |
| | Pulse Width (FWHM) | 1,0 ns | |
| | Polarization Ratio | > 100:1 vertical | |
| | Power Stability over 6 hours ¹⁾ | < ± 5 % | |
| | Laser Classification | 4 / IV | |
| Optical Output | Spatial Mode | TEM ₀₀ | |
| | Beam Divergance (full angle) | < 3 mrad | |
| | Beam Diameter at Output Plane | 500 ± 100 µm | |
| Electrical Data | Power Consumption mean (max.) | 15 W (40 W) | 20 W (70 W) |
| | Operating Voltage (OEM) | 12 V DC | |
| | Line Voltage (with AC-DC adapter) | 90 ... 240 V AC | |
| Interfaces | RS 232, USB | | |
| | External Trigger (TTL, rising edge) 1 Hz ... max. repetition rate | | |
| | SERVICE Interface for TTL-control and power monitor | | |
| Miscellaneous | Warm-up Time | < 10 min | |
| | Operating Temperature | 10 ... 35 °C | |
| Options | STAND ALONE Version (incl. key-switch, heat-sink and manual shutter) | | |
| | Synchronization Signal Output (rise time < 2 ns) | | |
| ¹⁾ after 10 min warm up, temperature variation ± 3 °C and < 3 °C/hour | | | |

Dimensions:

Laser Head: 152,3 x 54 x 38 mm³

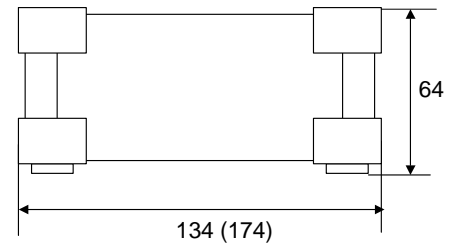
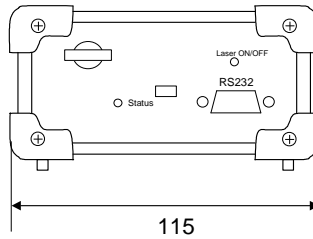


Controller STAND ALONE:



Q1, Q2: 134 x 115 x 64 mm³

Q3: 174 x 115 x 64 mm³

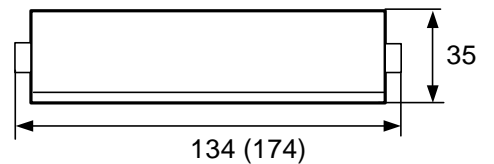
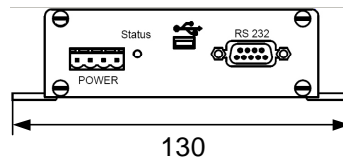


Controller OEM:



Q1, Q2: 134 x 130 x 35 mm³

Q3: 174 x 130 x 35 mm³



Laser Safety Labels

The FTSS355-Q lasers are class 3B according to IEC 60825-1.



Q1 series

Q2 series

Q3 series

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