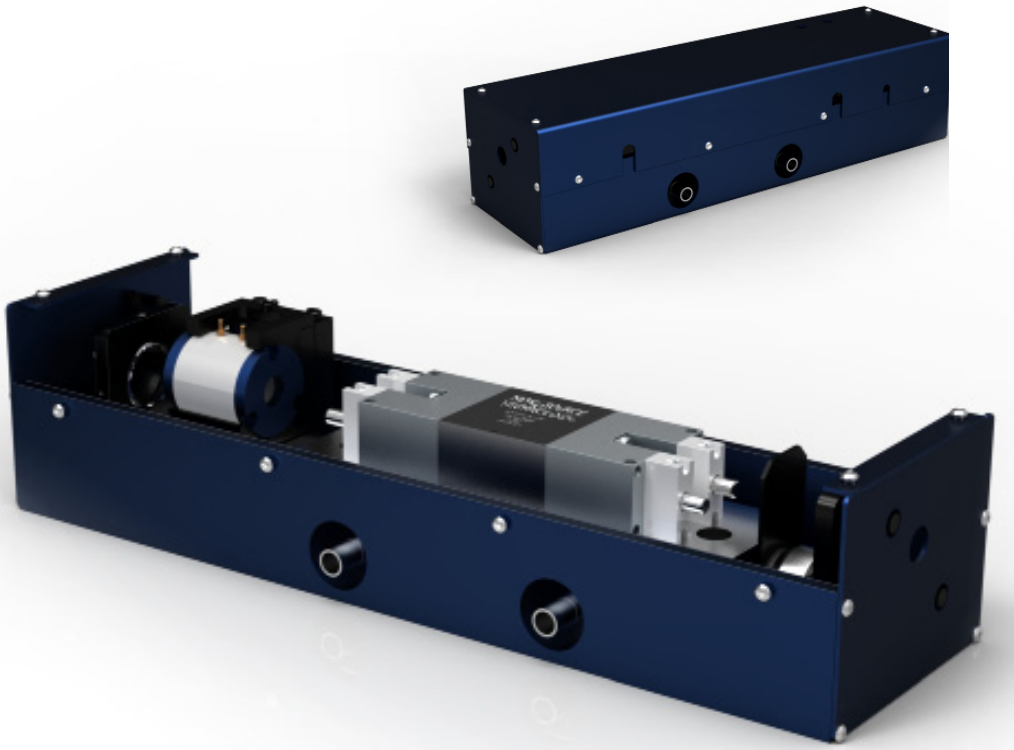
Laser Resonators

| Q-Switched Alexandrite |



PERFORMANCE PARTNERSHIP V A L U E

- Compact
- Stable
- Robust
- Optimized Performance
- High Effiency
- Uniform Beam Profile

Designed for optimal output performance in a small footprint, New Source Technology's optical resonators complete our product portfolio of critical laser components. Contained within each resonator are the highest quality components from industry leaders. We have designed a variety of standard resonators that can be seamlessly integrated into your system.

Optional features are available including Q-switched, fiber coupled, energy sensors, and alignment/aiming beams. Custom resonators can also be designed and manufactured based upon specific laser power requirements for fiber delivery or direct lasing.

NEW SOURCE TECHNOLOGY LLC
6678 Owens Drive, Suite 105, Pleasanton, CA, USA 94588
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New Source Technology, LLC (NST) is a California based limited liability company specializing in the design, manufacture, and/or distribution of optical sub-systems and critical laser components with emphasis on lamp pumped solid-state requirements in the cosmetic, surgical, and dental laser markets. Although we offer a broad range of critical components related to lamp pumped solid-state lasers including PFN sub-assemblies, simmer/capacitor charging power supplies, and thermal management components, our strongest core competence is with laser optics, crystals, flash lamps, and our best-in-class pump chambers/cavities.

Rev.031313

755nm Q-Switched Alexandrite Resonator

Performance Requirements

OUTPUT SPECIFICATIONS	
Model RES-0755-QS-01	Q-Switched
Power (Ave)	6W
Energy per Pulse (Max)	600mJ
Pulse Width	< 50ns
Rep Rate	10 Hz

Subsystem Requirements

ELECTRICAL	
Power Supply	2KW, 2.0kV capacitor-charging power supply
Inductance	60µH
Capacitance	75µF
Operating Voltage Range	up to 1.6kV
Pulse Width	160 µs

COOLING	
Cooling Medium	DI Water
Cooling Water Temperature Range	60°C to 65°C
Conductivity	< 20 µS/cm
Optimum Cooling Water Flow	5 to 8 LPM
System Pressure	< 35psi

ENVIRONMENT	
Operating	18°C to 25°C

LAMP	
Input Lamp Energy	up to 100J
Pulse Width	160µs

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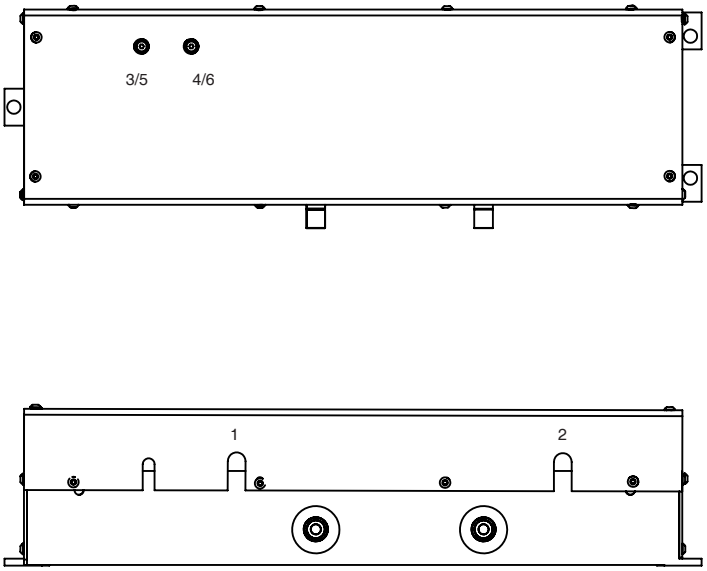
Resonator Interface

FEATURES
Internal Trigger
Shutter Interlocks
Shutter Open/Close Sensor



WIRING	
	Description
1	Trigger Transformer (+)
2	Trigger Transformer (-)
3	Shutter (+)
4	Shutter (-)
5	Shutter Sensor Anode (Black)
6	Shutter Sensor Cathode (Red)
7	Shutter Sensor Vcc (White)
8	Shutter Sensor Output (Blue)

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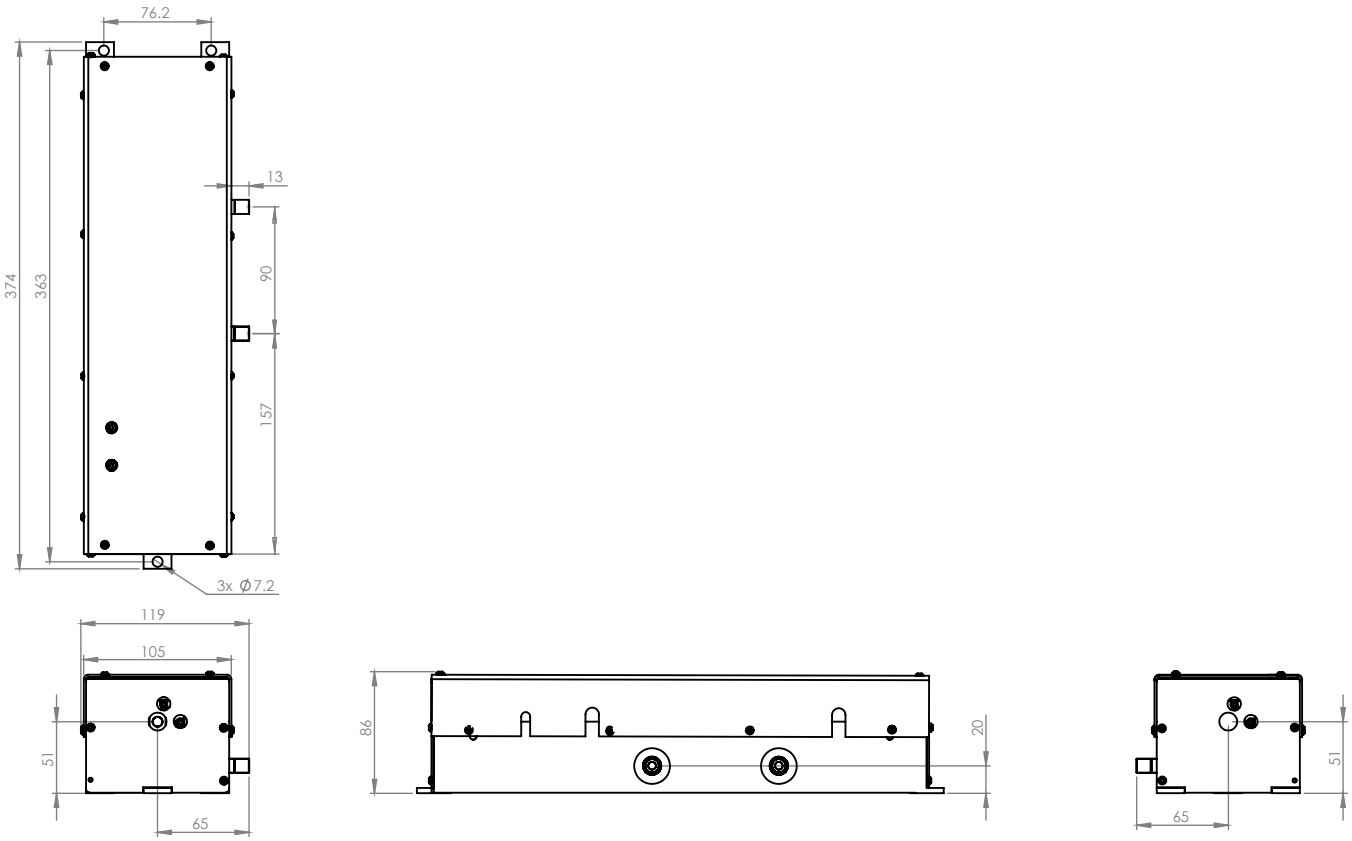
Outline Drawing (in mm)



PREVENTIVE MAINTENANCE (LAMP)	
Mean Time Between Replacement (MTBR)	≥ 6M Pulses
Mean Time to Replace Lamp (MTTR)	≤ 30 Minutes
Lamp End of Life	80% Ouput Power
Quantity of Lamps per Resonator	Two

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