



System Controls

SYSTEM CONTROLS

TECHNOLOGY SOLUTIONS PRIVATE LIMITED

V E R S A T I L I T Y I S R E A L I T Y

Design
Development
Manufacturing
Services



LASER FOR STAND-OFF DISPOSAL OF ORDNANCE (LORDS)

55555 as applicable to vehicle mounted outdoor systems. Project LORDS is a Laser Support System meant for diffusing an explosive hazard of an object of 6cm x 6cm size at a range of 30m to 250m. This is a vehicle mounted System which enables deployment at any required sites. It is turn-key project executed by System Controls for LASTEC, a premier DRDO Establishment. The Laser Support System meets EMI/EMC requirements as per MIL.461E and environmental requirements as per JSS



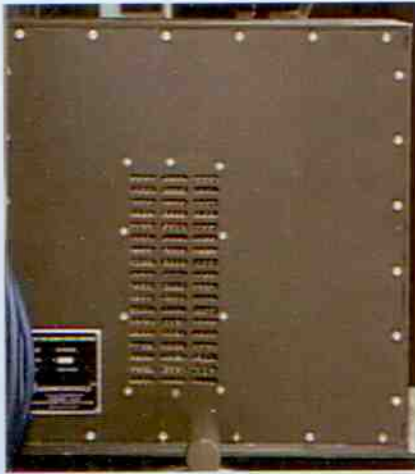
► Laser Optics Module (LOM):

- Material: AL 6061
- Size: 750 x 600 x300 mm (appx)
- Weight : Not more than 50 Kg.
- Resonator mirror alignment :
Better than 1 arc sec
- Resonator alignment stability :
25 μ rad Mirror surface tilt
range : ± 1 arc min

Laser Pointing System (LPS):

- Rugged 2 Axes motorized Gimbal Platform
- Payload : 70 Kg
- Positional Accuracy : 0.1mrad (20 arc sec)
- Field of regard : 3600 (Azimuth)50 to +600 (Elevation)
- Slewing Speed (max both axes) : 200 /sec.
- Slewing Speed (min both axes) : 0.020 /sec
- Line of sight stabilization: Better than 30 rad @ 10Hz





Thermal Management Unit (TMU):

- TMU remove heat from the Laser Rod, Laser Diode Array
- Flow rate : 5 LPM per Rod
- Total Flow Rate : 10 LPM
- Pressure drop in laser rod : 7m (0.7 bar)
- Total Heat Load : 4.5 KW
- Coolant type : 40:60 mixture of Ethylene Glycol and Distilled Water

Command and Control System (CCS):

- Industrial Panel Mountable PC with Sun readable Screen
- Rugged Joystick for Pointing System Control
- Motion Controller for Beam Focusing and Pointing System
- Hard Panels for sub-system controls
- Simulator for CCS



Conceptualization



Product Enhancement



Vibration Isolation System (VIS):

- Isolating LPS from the shocks and vibrations
- Mounted with 04 linear electro-mechanical actuators
- Locking arrangement ensures locking of platform
- Spherical joints takes care of uneven ground conditions.

PARTS MANUFACTURING

As the aerospace industry across globe looking for quality, on-time delivery and low cost for the manufacturing, here is the answer from System Controls. We are AS9100C certified company. We understand the requirements of OEMs.

We use our experienced technical specialists who are dedicated to providing a rapid response to customer's needs. Our Research & Development Team continuously experiment with new technologies to fulfil today's requirements, anticipate tomorrow's needs and company with ever more stringent health, safety and environmental regulations.

- Unigraphics NX
- Solidworks
- CERO
- AutoCAD
- NxNastran
- Cosmos
- 3-5 Axis VMC
- Turning, Milling
- CMM
- Environment Chamber
- ORCARD 16.5
- MATLAB SIMULINK
- Xilinx
- Visual Studio 2010

ACCOMPLISHED END-TO-END SOLUTIONS

Our services span the entire life cycle of a product and include:

- Conceptualization
- Product architecture
- Design & development
- Product enhancement
- Testing & validation
- Product services

We follow a flexible approach where the process starts with the requirement specification, system analysis & design, product development, testing and maintenance.

VALUE PROPOSITION

At System Controls, we have a highly flexible approach to our turnkey projects. Leveraging on all of our resources, we can undertake turnkey product development projects. When you approach us for turnkey project, you are assured of our capability to produce a complete solution which includes a gamut of both mechanical, electrical, electronics and software solutions bundled in.

We use our experienced technical specialists who are dedicated to providing a rapid response to customer's needs. Our Research & Development team continuously experiment with new technologies to fulfil today's requirements, anticipate tomorrow's needs and comply with ever more stringent safety and environmental regulations.



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