



Rockets & Guns Armament System



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In today's increasing hostile environment, even utility helicopters and light aircraft platforms need security enhancements to improve survivability and ensure mission completion. In the asymmetric warfare arena that evolved in recent years, any self-defense solution should include offensive capabilities, to deter and repel enemy attacks.

A good offensive Self-defense system must provide guaranteed performance and operational readiness, while keeping operating and maintenance tasks to a minimum. In addition, the system should provide for continuous implementation of innovative process and hardware improvements.

Niron Systems and Projects offers an advanced system—the RGAS—an affordable and low weight solution supporting current and future needs.

RGAS Operational Features

- ◆ Standalone Rockets and Guns control system for all eastern and western helicopters and fix wing aircraft.
- Open architecture with:
 - ♦ Armament Control Unit (ACU).
 - ♦ Multi-Function-Color-Display (MFCD).
 - ♦ Rockets and Guns Interface Unit (RGIU).
- Growth potential of software and hardware interfaces with same connector:
 - New types of weapons.
 - ♦ Chaff & Flare dispensing control.
 - Display images from observation system.
- Significantly reduce aircrew work load.
- ◆ MIL-STD-1553B or RS-422 serial communication for intra-system interface.
- ♦ Built-In-Test (BIT)

System Function

- ♦ Station selection.
- Weapon selection.
- ♦ Weapon type.
- Burst & Interval for rocket fire.
- Guns bullet counter and limiter.
- Real-time inventory update.





Rockets & Guns Interface Unit (RGIU)

Safety Features

- The RGAS complies with weapon safety requirements.
- Control and monitors safe firing of rockets and guns.
- Management of power supply to the stores.
- Separate discrete for emergency jettison capability.
- Prevention of unintentional firing on ground.

System Description

ACU

Leading edge digital computer controlling mission application, I/O, Video, Voice and Graphics processing.

RGIU

Rockets and Guns Interface Unit, enabling full functionality control. Interface with the ACU digitally.

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| Characteristic | Performance |
|--------------------------|---|
| Display area (mm) | 6.5" diagonal LCD display |
| NVG Support | Per MIL-STD-3009 NVIS class B |
| Interfaces | RS-422, MIL-STD-1553, LAN and Discretes |
| Electrical Input | 28V per MIL-STD-704A |
| | ◆ Temperature: Operating: - 20°C to + 55°C, Non-operating: - 40°C to + 71°C |
| | ◆ Altitude: Operating: up to 45000 ft. Non Operating: up to 50000 ft. |
| | ◆ Humidity: 98% @ +35°C |
| Environmental | ◆ Mechanical shock (operation): 20g for duration of 11±1ms, (Crash safety) at 40G |
| Design to meet | Acceleration |
| (MIL-STD-810F) | Explosive atmosphere |
| | ◆ Gun fire |
| | ◆ Random vibrations |
| | Sand and Dust, Salt Atmosphere, Fungus |
| | ◆ Rain: Water jets |
| EMI/RFI | . 05102 00101 00114 00115 00116 |
| Design to meet | ◆ CE102, CS101, CS114, CS115, CS116 |
| (MIL-STD-461E) | ◆ RE102, RS101, RS103 |
| Reliability (prediction) | 5,000 hours at 35°C |
| Dimension | RGIU/RIU - 10.5" X 6.25" X 4.5" ACU - 6.5" X 5.75" X 5" |
| Weight | RGIU/RIU - 6lb ACU - 5lb |

About Niron Systems & Projects

Niron Systems & Projects is a recognized provider of sophisticated technological solutions for defense and Homeland Security applications. With many years of accumulated experience backing a strong command of the most advanced modern technologies, company's engineers specialize in the development and production of integrated solutions for a variety of manned and unmanned airborne, ground and surface naval platforms. These include control systems for weapon delivery and chaff & flare Dispensing Systems: mission and communication computers: display and switching units; hardware and software solutions for real-time systems. The company also provides unique turnkey project management and ongoing customer support services for non-standard technological programs requiring close professional accompaniment.

Niron Systems & Projects is certified to: ISO 9001:2015 and ISO90003:2014

About Astronautics

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