

Steiner eOptics – ATLAS Features and Benefits



Project Description

- Next generation of rifle-mounted aiming laser
- 5 emitters (VIS pointer, NIR pointer, short range (wide FOV) + mid range (med FOV) NIR LED illuminators, long range (narrow FOV) VCSEL -based illuminator all with multiple power outputs

Innovation

- Improved, speckle-free, NIR illumination
- Only laser aiming system with multiple NIR illuminators
- Single set of windage/elevation adjusters for all emitters
- Improved laser spot size
- Best-in-class ergonomics with ambidextrous controls
- Reduced physical size and weight (15% less – under 200g) than DBAL-A3 – magnesium body allows this significant weight reduction.

Positioning

- Leap-ahead technology for battle-proven DBAL product line

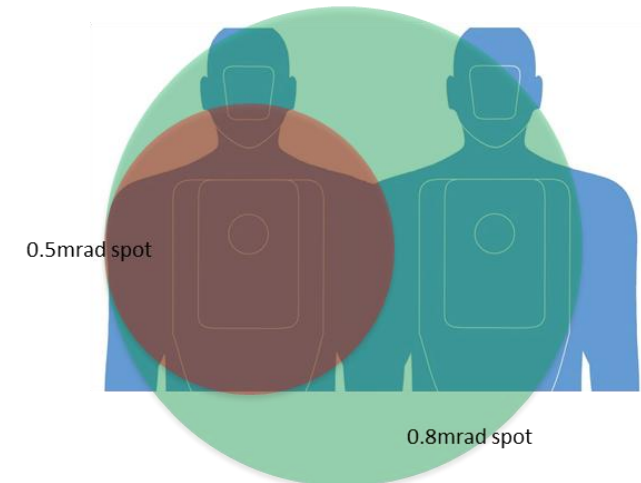
Status & Actions

- Significant discussions with Sweden MOD to optimize design
- Soft launch to MIL customers at SHOT 2024
- Prototypes available 2Q24



Beam Quality

- **IR Illuminators are best-in-class.** LEDs are used for wide and medium FOV to ensure super clean and perfect beam quality. A VCSEL (Vertical Cavity Surface Emitting Laser) is utilized for the narrow FOV beam to project power a long distance while maintaining a structure-less, speckle-free beam.
- The NIR pointer is positioned as close as possible to the weapon bore to ensure good weapon alignment
- Today the DBAL-A3 is available with multiple power outputs (5mW, 10mW, 50mW, 200mW, etc.) and ATLAS will replicate these offerings
- Today the DBAL-A3 is available with beam divergence under 0.5mrad, and the ATLAS will replicate that. This ensures accurate target engagement at long distances



Improved beam divergence (smaller laser spot) allows more precise targeting at long distances. This image shows effect on man-sized target at 1000m

Usability — Easy to Zero

- A single set of Windage and Elevation adjusters moves all the long-range emitters (both pointing lasers and the narrow Field-of-View Illuminator) at once. This ensures ease of zeroing as well as accurate boresight and co-alignment retention
- VIS and NIR pointers are aligned at the factory within 0.5mrad of each other





- Steiner eOptics convened a group of former MIL and LE users, including multiple SOF operators, to analyze all competitor products.
- The major takeaway from this effort was that in every instance, form and usability were secondary concerns for existing products.
- **For ATLAS, extreme attention was paid to ergonomic fitment to weapons and ease of use.**
- ATLAS naturally fits a user's C-grip, and is fully ambidextrous with centered controls.

- ATLAS sits low on the weapon rail, allowing LPVO scopes to see “over” the unit unobtrusively



Scope view at 1x

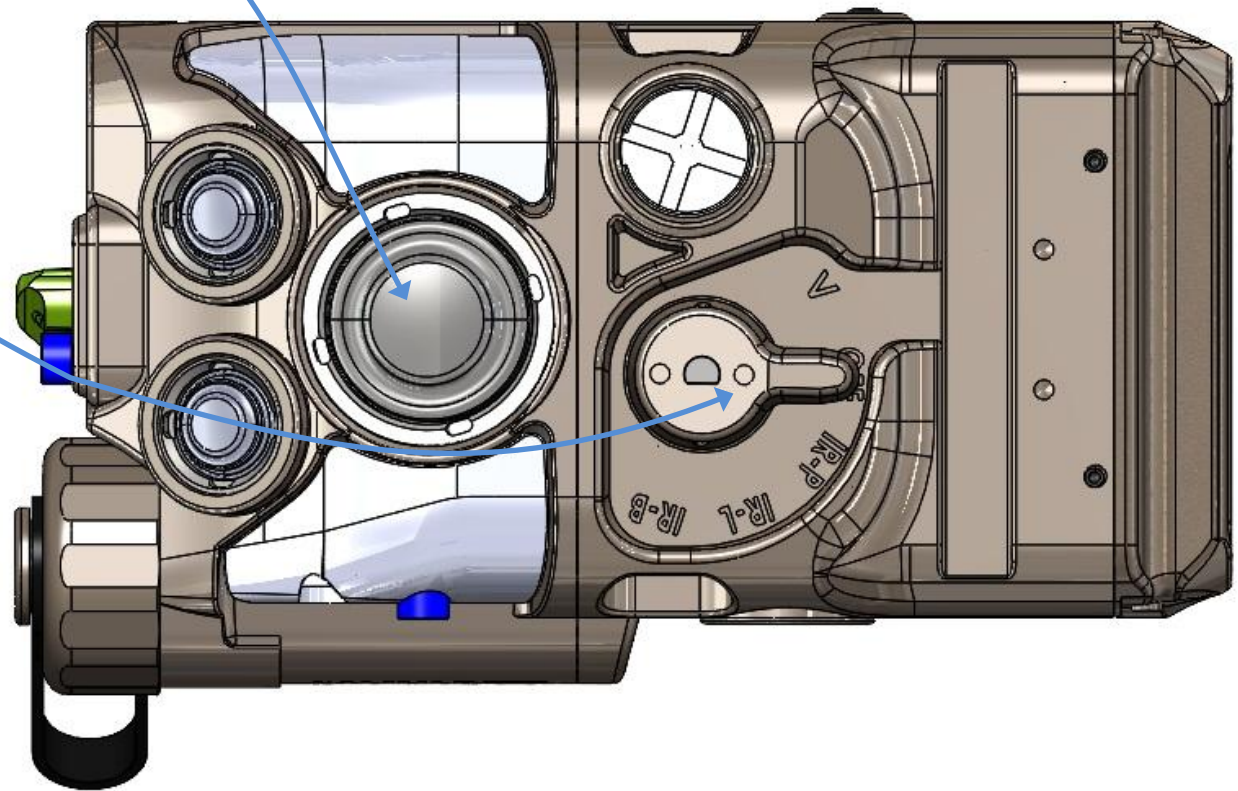
Fingertip Controls - Fire and Mode Buttons

Fire Button

- Press and hold for momentary operation, release to turn off laser and/or illuminator.
- Double click for continuous operation, press and release again to turn off.

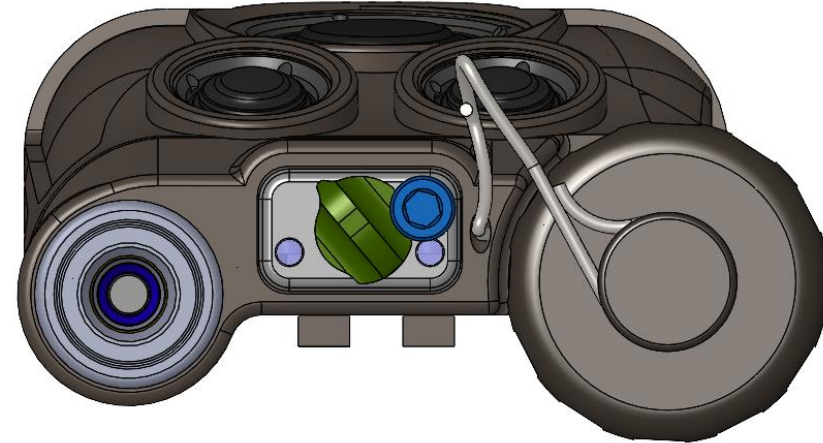
Mode selection rotary switch

- **V** = visible laser pointer (green or red depending on model #)
- **OFF** = off, no power to any emitters or indicators, tactile switches have no effect, processor in sleep mode
- **IR-P** = infrared laser pointer
- **IR-I** = infrared illuminator (any one of short, mid, or long-range illuminators)
- **IR-B** = infrared illuminator + infrared laser pointer



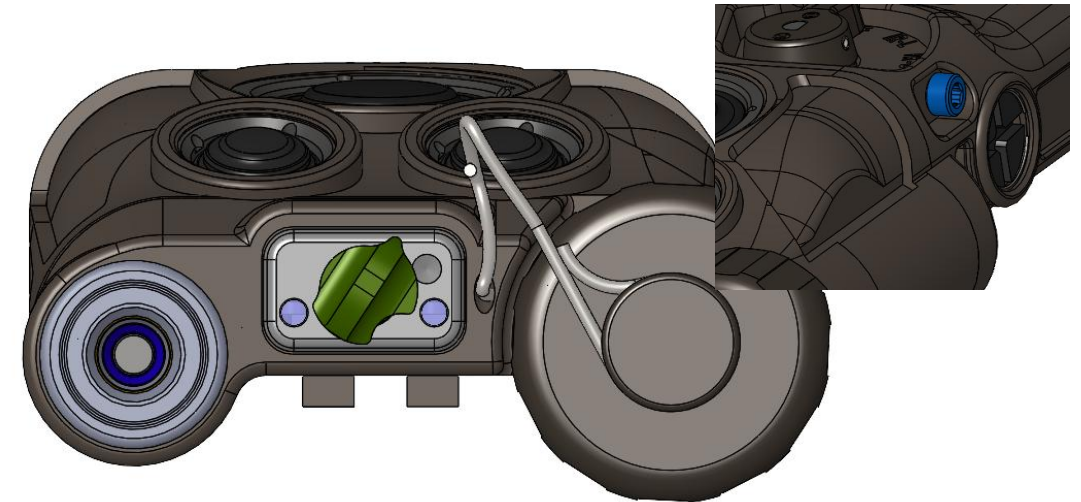
Low Power mode

- Blue screw installed in “safe” position, preventing rotation



High Power mode

- Blue screw is stored in recessed location on the right-hand-side of ATLAS. Switch is rotated to high power location



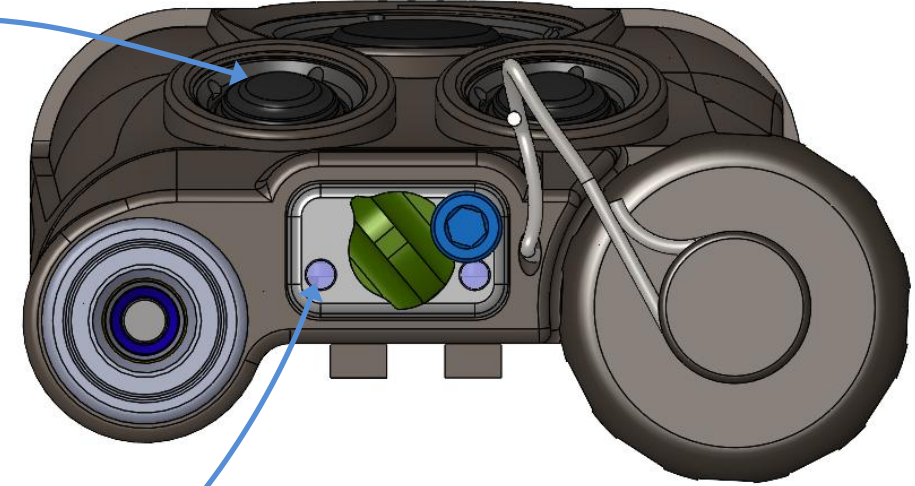
- When the no screw is installed in the back panel and the switch is rotated it puts the ATLAS into Operational Mode.
- The full power of each of the emitters (visible pointer, IR pointer, short-range IR illuminator, mid-range IR illuminator, and long-range IR illuminator) is available to the operator.
- The power tactile switch toggles through low, medium, and high-power levels.
- Power levels are factory-set for every mode. They are designed to provide the operator with the correct capability for every operational scenario.
- For example, the IR pointer settings could be:
 - Low: 0.65 mW for room clearing in low light and at short ranges
 - Medium: 5 mW for medium ranges outside
 - High: 50 mW for maximum pointer visibility at long ranges
- The operator can quickly select the appropriate level by clicking the power tactile switch and noticing the discrete LED indicator.



Illuminator FOV selection

Illuminator FOV Switch

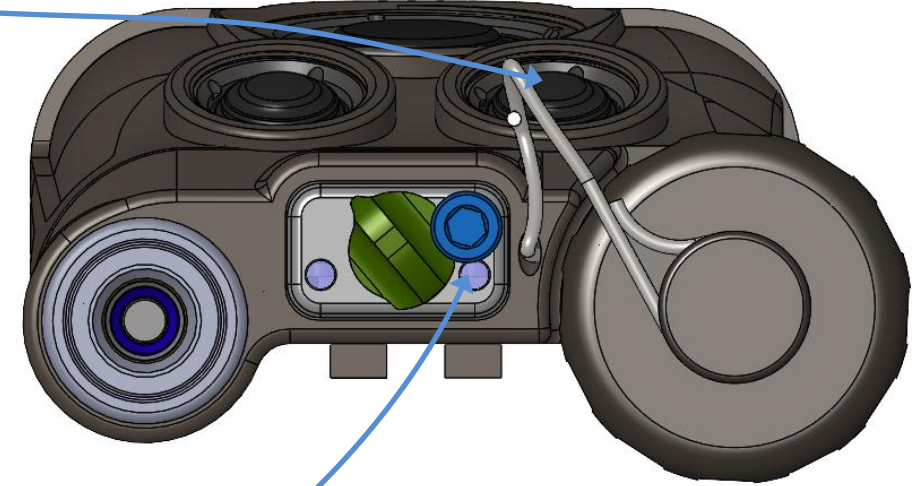
- Momentary tactile switch – click to cycle through illuminator choices: short, mid, long, repeat
- When the emitters are off, pressing any button or turning the mode switch illuminates the LEDs to indicate the current setting. LEDs light for 2 seconds then turn off.
- When the emitters are on, pressing the illuminator button switches to the next illuminator and changes the indicator LED to indicate the new illuminator setting.
- LEDs:
 - Short-range: 850 nm LED, fixed 50-degree – green indicator LED
 - Mid-range: 850 nm LED, fixed medium degree – orange indicator LED
 - Long-range: 850 nm VCSEL, fixed narrow degree – red indicator LED



Power Output Selection

Power Level Switch

- Momentary tactile switch – click to cycle through power levels: low, medium, high, repeat
- When the emitters are off, pressing any button or turning the mode switch illuminates the LEDs to indicate the current settings. LEDs light for 2 sec then turn off.
- When the emitters are on, pressing the power button switches to the next power setting and changes the indicator LEDs to indicate the new power setting.
- Power levels are factory set for each mode. For example, when in IR pointer mode, low might be 0.65 mW, medium - 5 mW, and high – 50 mW.
 - Low power: green indicator LED
 - Medium power: orange indicator LED
 - High power: red indicator LED



Remote Activation Port

- Accepts industry standard “Crane Connector”
- While using the port for remote activation, buttons continue to function as normal
- Remote Port will accept a standard switch for on/off operation or a future planned upgraded switch which offers Visual Override via a second button



Remote Activation Port

Thank you

STEINER 
Nothing Escapes You

