

TECHNICAL BRIEF

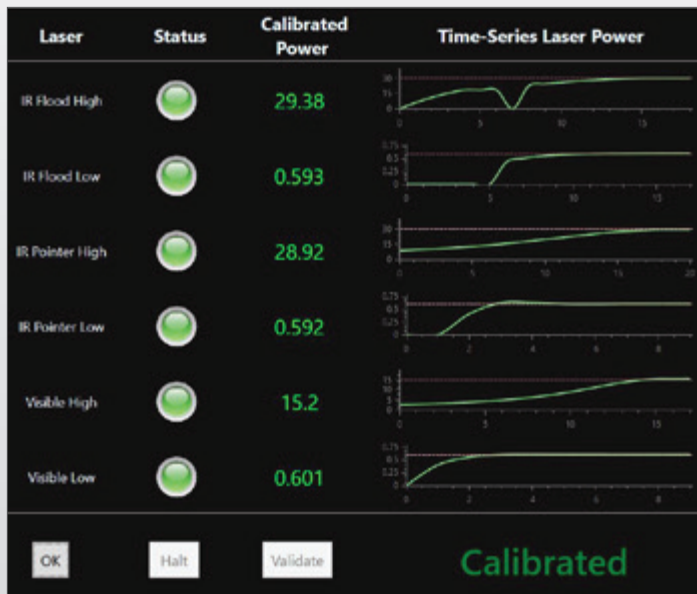
Critical Focus on Continuous Improvement

Investments in Optical and Laser Technologies Increase Effectiveness and Lethality



The advantages of selecting the proper Fire Control System to improve the overall capability of your weapon system can't be understated. Electro Optics, like other weapon-based technologies, continue to improve to keep up with the ever-changing tactical challenges facing today's operators. When selecting the proper accessories for your weapon system, you must select accessories that offer the most effective options available and enhance your ability to adapt to unknown and rapidly changing circumstances.

As an end user your situational awareness is all too often limited to your ability to rapidly adapt to the environment at hand. Your weapon system is your key to engagement tempo and resulting lethality. To enhance that capability, visualize a next generation fire control system equipped with an "always dependable" hard fixed metal sight, a fully integrated Red Dot Reflex Sight, visible and NIR IR Aiming and Flood lasers, as well as the ability to connect to a tactical white light. A fire control system with the ability to keep zero when switching from supersonic to subsonic ammunition, even when the rifle is suppressed. An advanced system with the ability to connect you to a rapidly formed network confederation of operators, sensors, information services and weapons platforms.



Power in mW shows final output power within tolerance of nominal. Graphs on the right side show software stepping the Potentiometer and Pulse Width Modulation in the lasers' drivers to achieve target output power for each setting.

The Wilcox BOSS Xe (Ballistically Optimized Sighting System - Enhanced) is that vision. From the design inception focused on Size, Weight, Power and Cost (SWaP-C) to maximize both tactical and overall unit value, it features a small lightweight

reflex sight, red visible laser, infra-red (IR) laser and fixed IR illuminator. The BOSS Xe is truly unique allowing the operator to shoot two preset ballistic trajectories with the flip of a switch without having to re-zero the weapon. This is achieved by co-aligning the reflex sight to the lasers and illuminator which all reside on our patented trajectory switch design. Powered by one (1) CR123A battery, this lightweight "power miser" system delivers repeatable accuracy you can't find with any other fire control system in the world today.

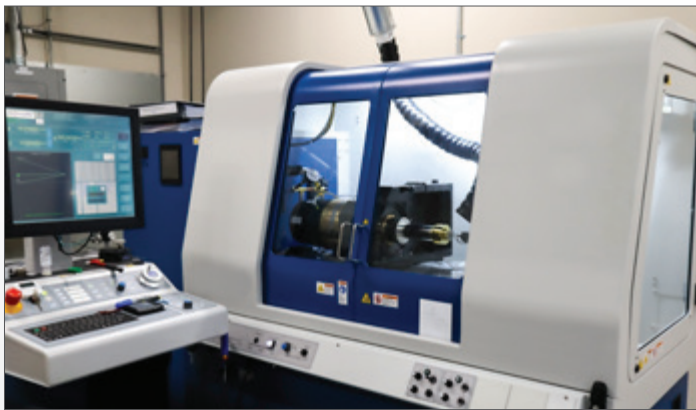


Rapid routing of real time actionable information.

The BOSS Xe comes equipped with Bluetooth installed and brings the power of networked operations into your hands. The tie-in allows the fire control system to sync to a dedicated BlueForce App (Blueforce Tactical or 'BTAC') enabling networked connectivity able to provide information services and targeting data in real-time, providing actionable information for fire control system operation, engagement data, weapon system maintenance status and overall weapon system status. These advances in the Wilcox BOSS Xe Fire Control System are directly proportional to significant increases in user effectiveness and lethality.

Always focused on continuous improvement and a commitment to provide our customers with the most capable electro optics and laser technology available anywhere in the world today, Wilcox has made significant investments in growing our facility capacity, state of the art design tools, advanced prototyping and manufacturing capability, networked operations, and our professional employee team. Adding proprietary metal additive

manufacturing machines, advanced milling machines and our own diamond turning machines all aligned within our strict process control measures, Wilcox’s optical engineers can design and manufacture the finest components which further enhance our line of laser optics. These investments in our infrastructure allow Wilcox to deliver superior, highly sophisticated optics.



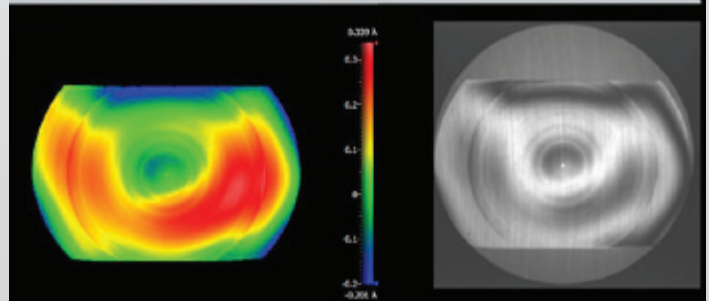
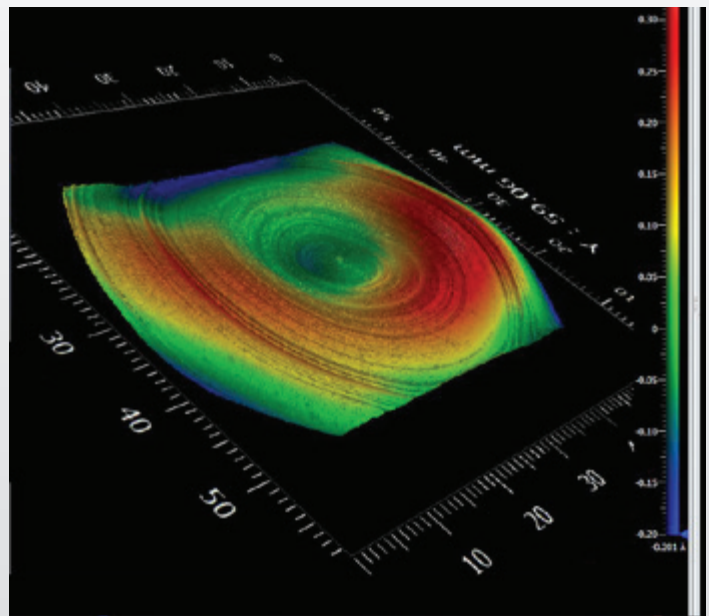
Wilcox has recently made major investments in milling and diamond turning capabilities.

Optics in general are expected to properly function in an array of harsh conditions and hence must be robust enough to withstand severe environments and operate consistently over huge temperature ranges consistent with global operational requirements. Wilcox’s commitment to our customers allows us to rapidly innovate, design and prototype new advances in optics from concept to production. Our vertically integrated engineering model means we can make decisions that impact manufacturability early in the development cycle and our modular approach allows us to vet emerging optical technology at a very rapid rate.

The Wilcox BOSS Xe integrates our advanced design and manufacturing capabilities. Utilizing Vertical Cavity Surface Emitting Laser or “VCSEL” Lasers, has enabled Wilcox to create an advanced Fire Control System, designed to provide our customers superior advantages:

- Superior laser beam quality.
- No beam ‘Speckles’ associated with dated laser technology.
- Beam uniformity with no ‘Dead’ spots while in the NIR IR Modes.

- Enhanced beam clarity and distance allowing for the positive identification and engagement of potential targets during nighttime operations.
- The ability to adjust laser intensity on the move.
- Shot or recoil counter built into sight to aid in maintenance and Meantime Between Failure [MBF] data points for both the weapon and the sight. This preventative maintenance feature allows for pre-mission checks to prevent active mission failures.
- Reduced weight and overall sight profile.
- Combination of all available sighting options in one weapon mounted fire control system maximizes SWaP-C, reduces snag hazards, reduces batteries required, increases rail space.



Wilcox has invested in equipment and modern techniques for the manufacturing process and measuring of the optical tolerances.

As with most Wilcox products, we listen, and design our products based on end user input. Who better than our customers could aid us in creating products which will have a direct impact on their safety and overall effectiveness? The BOSS-Xe is an example of Wilcox's "laser focus" commitment to our customers.

Our critical focus on continuous improvement and advanced development in Optics and Laser Technology have achieved the positive consequence of increased effectiveness and lethality of our BOSS Xe Fire Control System. Additional results of these investments allow you to identify and successfully engage targets at greater distances with higher confidence, increases your operator tempo, decreases vulnerability from enemy forces, provides reduced risk of friendly fire incidents and provides for a highly accurate first shot capability under the stressful and demanding conditions at the tactical edge.



SENSOR TO SHOOTER ADVANTAGE

- Decentralized fusion and sharing of data from diverse sensors, processed with advanced third-party Artificial Intelligence (AI).
- Share target data on a need to know basis over tactical networks to other elements involved in an operation.
- Orthogonal sensor cueing allows the BOSS-Xe. Plugin for BTAC to communicate with other BTAC plugins allowing image capture enabled sights to pass images to BTAC Cognitive Services Plugin for identification and real-time sharing.
- Hyper-Local alerting capabilities can inform operators of relevant tactical information based on their location, competencies, and available resources.
- Connects shooters to sensors and artificial intelligence to assist operators in complex targeting scenarios that span acquisition and surveillance, identification, engagement, and hand-off.



For additional information, [view the BOSS Xe product page](#).
For general information about Wilcox and our products [contact us directly](#), or [download the datasheet](#).



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