



ASTROPHYSICS™



XIS-100XDX TECHNICAL SPECIFICATIONS

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Figure 1: XIS-100XDX Dimensions

Physical Specifications

PHYSICAL DIMENSIONS

- L x W x H: 3138 mm x 1832 mm x 1886 mm
- Tunnel Opening (W x H): 101 cm x 100 cm
- Net Weight: 1605 kg
- Shipping Weight: 1845 kg
- The chassis is made of steel frame and heavy gauge steel panels.
- Heavy Duty Roller Castors (Wheels) for ease of movement and leveling feet with lock.





CONVEYOR SYSTEM

- Speed: 0.23 m/s in either (forward or reverse) direction with optional variable speeds up to 0.4 m/s
- Drive system: Sealed Motor Drum with conveyor belt and maintenance free
- Conveyor Type: Welded low maintenance belt
- Load Capacity: 220 kg evenly distributed load
- Conveyor Height: 30.0 cm from floor level with optional adjustable conveyor height configuration

ENVIRONMENTAL CONDITIONS

- Operating Temperature: 0°C TO +40° C and with Tropical Kit (optional) 0°C TO +50° C
- Storage Temperature: -20°C TO +60°C
- Humidity: 0 TO 95% (non-condensing)

Electrical Specifications

POWER REQUIREMENTS

- Power Requirements for 220VAC +/- 10%, 50/60 HZ, 10 Amp Max.

X-RAY GENERATOR

- Type: Monobloc
- Detachable side-shooter generator
- Dual x-ray generators where each x-ray generator is rated at 180 kV, but operates at 165 kV with high Penetration.
- Anode Current: Dual 1.0 mA.
- The x-ray generator is rated for 100% duty cycle operation without any overheating phenomena and without any effect to the system's overall performance.
- The x-ray beam direction – view 1: Diagonally Downward
- The x-ray beam direction – view 2: Horizontally Sideward
- The x-ray tube uses a purified dielectric mineral oil bath with forced air convection flow (polar dipoles) assisted by electric field from x-ray tube. All mineral oil is safely sealed and sequestered inside the x-ray generator. There are No any external mineral oil exposure hazards (Non-toxic oil).
- An x-ray controller protects the x-ray generator from abnormal over-voltage, over-current Operation, and over-temperature.

DETECTION SYSTEM

- System utilizes a multi-energy (i.e. dual energy) stacked array x-ray detector assembly with total of 4608 high energy and low energy x-ray detectors.
- The XIS measures and compares the transmission of *High Energy* (high frequency) and *Low Energy* (low frequency) x-rays through items that are being imaged. From this comparison, the XIS is able to determine approximate material composition.
- Detector assembly is *L-Shaped*. If left unchecked, the displayed image would present a skewed object image due to the size of the object and the variable distance from the X-ray source. As the diagram below shows, the closer the object is to the X-ray source, the more compressed the image becomes.

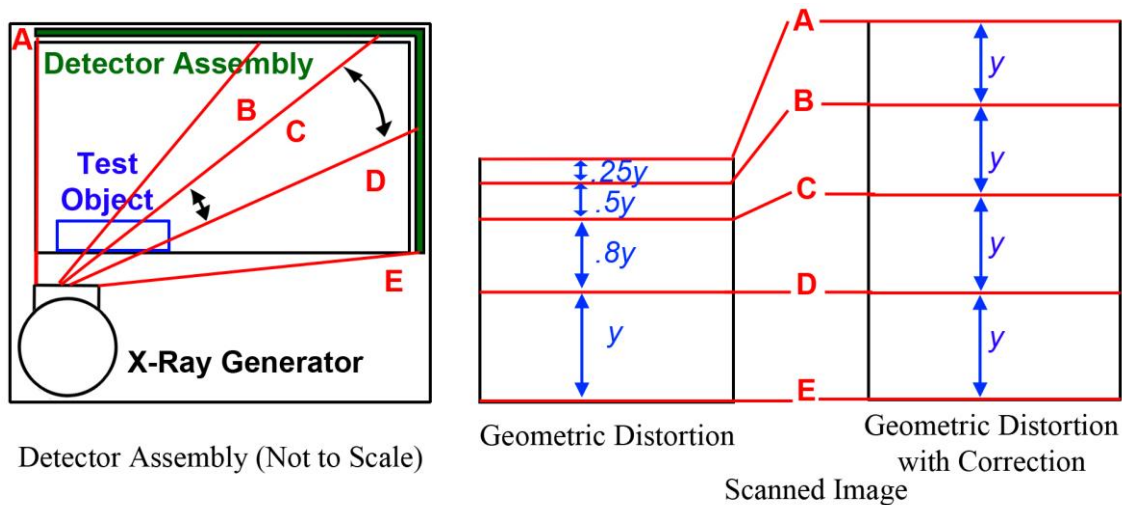


Figure 2: Detector Assembly and Geometric Distortion

- XIS On-board PC automatically performs geometric correction to prevent the image from appearing skewed. The X-Ray client interprets the size of the object with respect to the distance from the X-ray source to present a uniformly thick object. As you can note on the images below, the image on the left without the geometric correction is bent and noticeably smaller than the corrected image on the right.

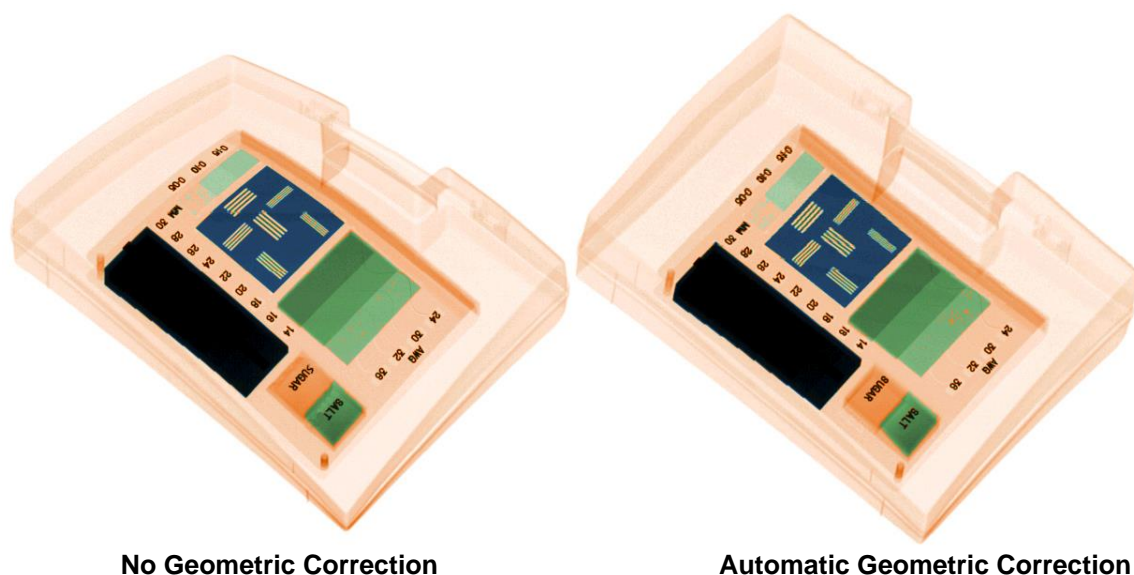


Figure 3: *Geometric Correction Comparison*

- X-ray detector assembly uses scintillating crystals and high-gain electronic amplifiers.
- The X-ray detector scans and displays the entire image without any corner cutoffs.
- Automatic reset of any filter or enhancement when screening the next object.

Interface Specifications

ONBOARD PC

- Processor: Intel® Core i5, 3.4GHz
- Memory: 8 GB RAM.
- Storage: 1 TB HDD (storing images), 256 GB SSD (imaging software)
- Video Card: 2 GB Video Card, Dual Digital Display, DVI – VGA
- Platform: Windows® 10 OS
- USB Port: Two (2) USB 2.0 Ports and optional external USB ports in the main frame
- Ethernet: LAN / WAN Network ready.

ADVANCED OPERATOR CONTROL PANEL

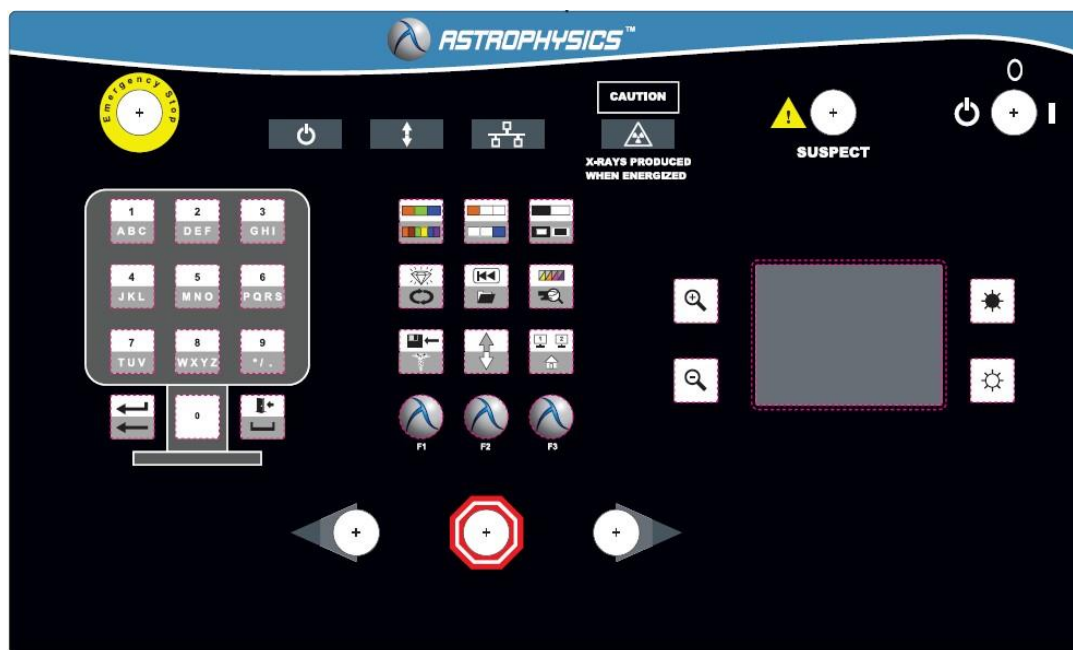


Figure 4: AOC Panel

- Ergonomic, alphanumeric design with touch pad mouse and multiple buttons dedicated to all the different image manipulation options.
- Controlled by a key switch to enable operation of control panel and one button access to image processing.
- Lights displaying the status of the machine, and a speaker can be used for audible alarms.
- Three programmable function buttons for image processing.

MONITORS

- Dual 24" LCD color monitors with image resolution of 1920 x 1200; 24 Bit/ Pixel color flicker free and adjustable control screen settings for brightness and contrast.
- Monitor One displays color imaging, enhanced organic material separation imaging, enhanced inorganic material separation imaging, B&W (black on white) imaging, reverse B&W (white on black) imaging, and pseudo color imaging for perspective 1.
- Monitor Two displays color imaging, enhanced organic material separation imaging, enhanced inorganic, B&W (black on white) imaging, reverse B&W (white on black) imaging, and pseudo color imaging for perspective 2.



Imaging Technology

PERFORMANCE CHARACTERISTICS

- Wire Resolution (As tested on Astrophysics Test Piece): 40 AWG typical / 38 AWG standard
- Copper wire resolution detectability of 0.05 mm
- Steel Penetration (As tested on Astrophysics Test Piece): 37 mm typical / 35 mm standard
- Spatial Resolution: 1.0 mm horizontal / 1.3 mm vertical
- Organic/Inorganic Material Discrimination: The system is capable of discriminating between organic, inorganic materials, and mixed striping in different colors as measured by the ASTM F792-88 Test Piece - Test #7 and ECAC EWSTP Test Piece.
- Organic Differentiation: The system is capable of classifying organic material masked by 0.48 mm of steel as measured by the ASTM F792-88 Test Piece - Test #9.

IMAGE MANIPULATION OPTIONS

- **6 Color Atomic Display:** The default display option utilizes atomic number analysis and assigns colors based on their respective densities.

Z-Number	Material Type	3-Color	6-Color	Examples	Possible Threats
0-8	Organic	Orange	Brown	Wood, Oil	C-4, TNT, Semtex
8-10	Low Inorganic	Orange	Orange	Paper, Alcohol	Cocaine, Heroin
10-12	High Inorganic	Green	Yellow	Glass	Propellants
12-17	Light Metals	Green	Green	Aluminum, Silicon	Gunpowder, Trigger Devices
17-29	Heavy Metals	Blue	Blue	Iron, Steel	Guns, Bullets, Knives
29+	Dense Metals	Blue	Violet	Gold, Silver	High-Value Contraband
-	Impenetrable	Black	Black	Lead	Shielding for Above Threats

Figure 5: 6 Color Atomic Table

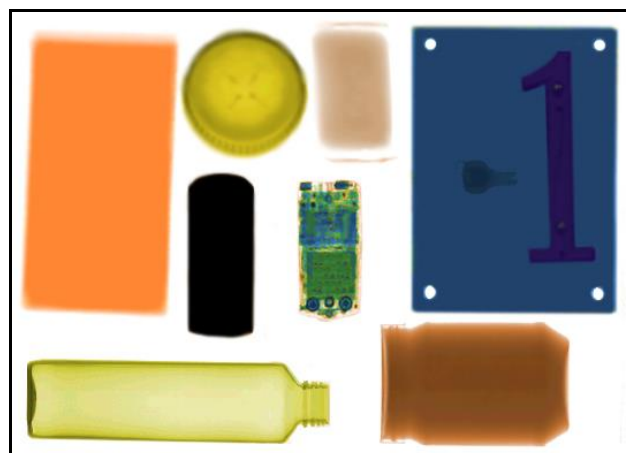
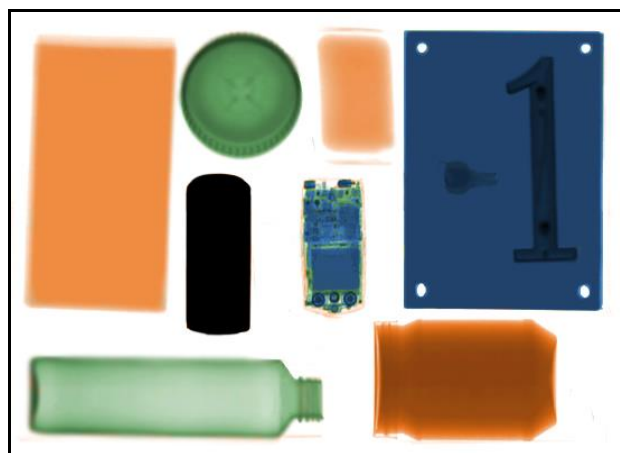


Figure 6: 3 Color (left) vs. 6 Color (right) Imaging Software

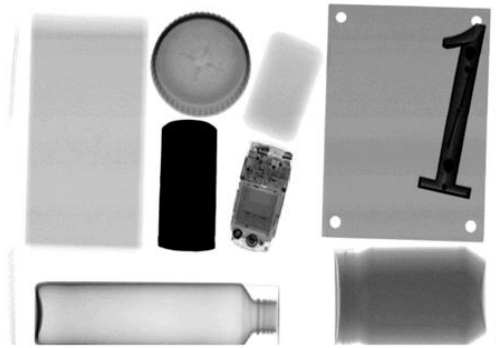


Figure 7: Black and White

- **Black and White:** This option provides a standard grey scale display of the image.

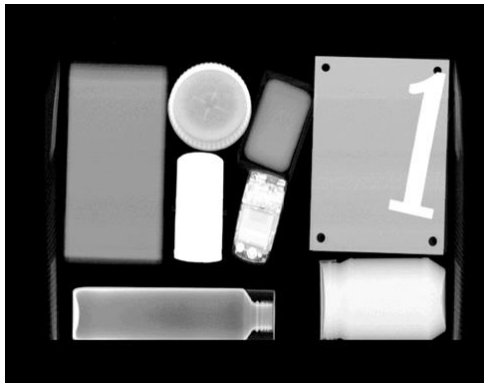


Figure 8: Reverse Black and White

- **Reverse Black and White:** This option provides two options of reverse grey scale display of the image with white as black, and black as white.

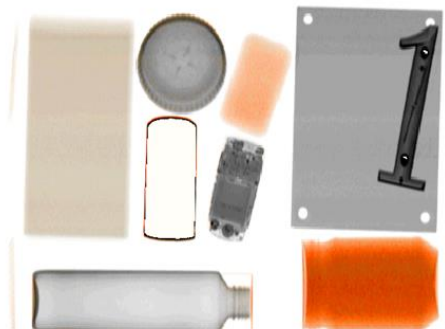


Figure 9: Organic Emphasis

- **Organic Emphasis:** This option emphasizes the organic portions of the image by highlighting the organic areas in orange and displaying the rest of the image in grey.

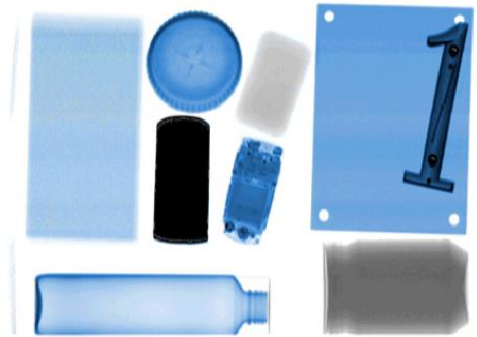


Figure 10: Inorganic Emphasis

- **Inorganic Emphasis:** This option emphasizes the inorganic portions of the image by highlighting all of the inorganic areas in blue and displaying the rest of the image in grey.

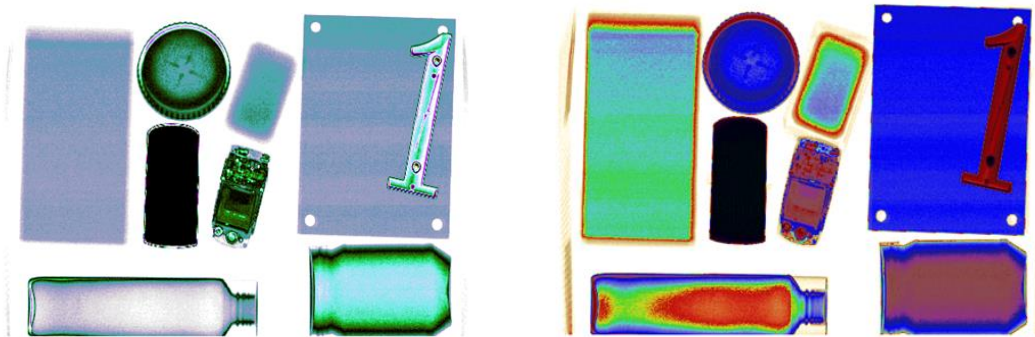


Figure 11: Pseudo Color

- **Pseudo Color:** This option applies multiple color palettes to produce unique images. The operator may scroll through available color options using the contrast button on the control panel.

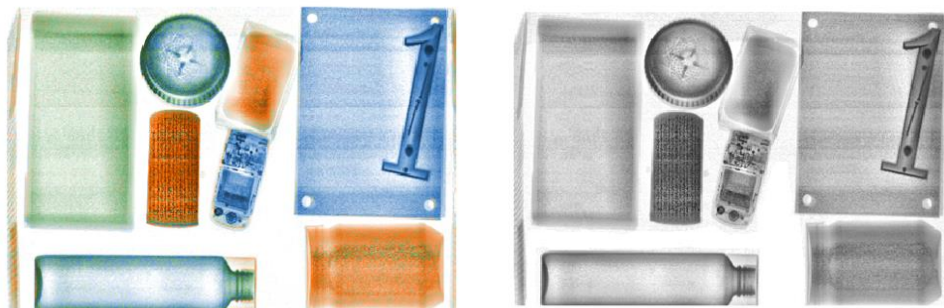


Figure 12: Picture Perfect

- **Picture Perfect:** This option automatically analyzes and normalizes an image so all areas of the scanned image are visible to the operator. When picture perfect is activated, an image containing multiple, layered objects will become very clear for identification. This feature can be utilized in both color and black and white mode.

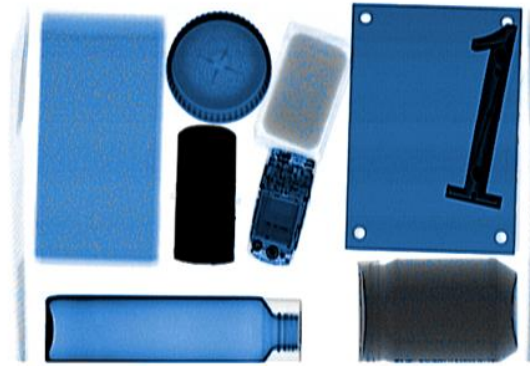


Figure 13: Edge Enhancement

- **Edge Enhancement:** This option instantly enhances the outline and shape of each individual item in the screened image so operators have an easier time assessing threats.

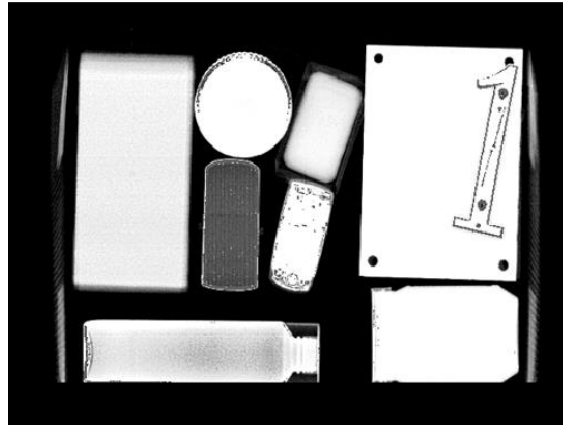


Figure 14: Hi-Penetration

- **Hi-Penetration:** This option instantly increases the penetration level to maximum for immediate clarification of dense objects.
- **Contrast:** Operators can adjust the imaging contrast of the XIS System to either lighten or darken an area for improved image assessment and up to 4096 Grey color level.
- **Real Time Image Manipulation:** Please note that all image manipulation occurs in real time without delays or lags and without affecting image quality. Operators have access to all function tools with an immediate software response.
- **Zoom:** Astrophysics software features both Continuous Zoom and 9 Quadrant Zoom. With Continuous Zoom, operators can zoom in up to 64X via the AOCP touchpad cursor. In contrast, 9 Quadrant Zoom divides the screen into 9 sections, where each number on the AOCP keypad corresponds to the location of the quadrant on the image screen. This function permits operators to quickly zoom in on individual quadrants for fast threat identification.

- **Enhanced Imaging™:** Distinguishing threatening vs. non-threatening objects with minimal downtime is a challenge operators face when screening complex bags. Astrophysics' Enhanced Imaging™ (EI) software provides a powerful approach to this obstacle by facilitating higher image quality that not only creates greater visibility, but enables faster throughput. The major advantage to this software from the operator's perspective is that EI works while images are scrolling. This is especially important in high-throughput environments like airport passenger terminals, where machines run constantly for extended periods of time. This software enhances the outline and shape of each individual item in the screened image so operators have an easier time assessing threats.

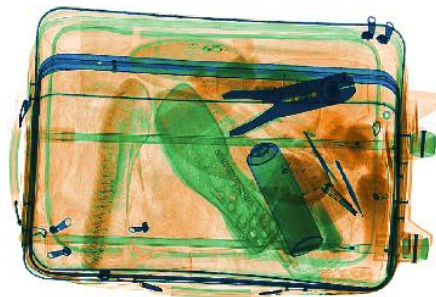


Figure 15: Normal Scan

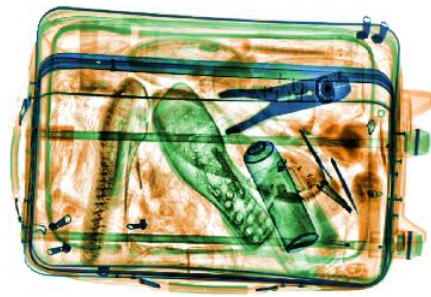


Figure 16: EI Mode Enabled

EI Mode Features:

- EI Mode can be used while the machine is in motion, which increases throughput, and can easily scan long items.
- EI Mode can be used with all standard imaging modes (3-Color, 6-Color, Organic, Inorganic, Black/White, Black/White Reverse).
- EI Mode is toggled using the standard AOCPP and can be rapidly switched on/off without noticeable delay.
- EI Mode mixes histogram equalization and normal scanning coloration, this can be configured for various imaging applications.
- EI Mode is paired with a feature that minimizes the unused white space in traditional displays. The machine is configured so that the largest possible image fills the screen in the default view, without further zooming

ADDITIONAL FUNCTIONS

- **Atomic Number Selection:** When operators select Atomic Number and use the touchpad mouse to drag select an area on a scanned image, the XIS System will display the atomic number for that region. This option permits operators to accurately identify material groups and assess threat objects. The Atomic Number displayed will be accurate to within 0.2 counts.
- **Automatic Centering:** The XIS System automatically centers all images scanned regardless of their location during the screening process. The centering function ensures that there are no corner cutoffs or image clipping.
- **Image Archive:** The XIS System combines manual and automatic archive. Automatically archives the last 150,000 images scanned. When the capacity is reached, the system will start deleting the oldest images to allow storage for the newest images. Additionally, the PC will always ensure an available storage space of 10 GB upon startup.

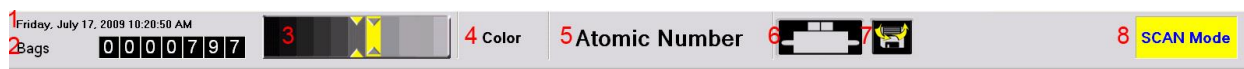


Figure 17: XIS Interface Task Bar

- **Baggage Counter:** The XIS Interface Task Bar includes two baggage counters where one can be reset.
- **Continuous Scanning:** This option allows operators to by-pass the photo-sensors located at the ends of the tunnel and enable the x-ray generator to be excited as soon as the conveyor belt starts moving. This function allows operators to scan low density organics or very long objects without image distortion and cutoff.
- **Date/Time Display:** The XIS interface screen features a date / time display.
- **Image Annotation:** This option allows operators to draw a frame around a suspect area of a scanned image and enter three alphanumeric letters for reference. Operators can then save the image for later review, or transmit the image to a Secondary Review Station or Supervisor Workstation.
- **Image Processing:** The XIS System performs continuous automatic image optimization (adjusting for contrast and gamma), as well as image enhancements (geometric distortion correction) to produce an accurate and sharp image. The XIS System utilizes 14-bit image digitization while processing 24-bit real time image processing to accomplish this.
- **Image Review:** The XIS System permits operators to review the last 100 images scanned in the XIS System by selecting a scanned image and using the AOCB buttons to move forward or backward.



Figure 18: XIS System Login Screen

- **Multi-Tiered Security:** The XIS System interface features a Login for operators and Administrators with unique programmable passwords to facilitate different levels of accessibility.
- **Operating Mode Display:** The XIS Scanning Screen displays a task bar indicating the image manipulation mode the operator is currently in.
- **Print:** The XIS System features a print function that allows operators to print the current image at the push of a button. The XIS System does not include a printer, but is compatible with most printers via USB connection. Customers may also request a specific printer for their XIS System.
- **Save Image (RGB):** Operators can manually save multiple images to a different folder on the XIS System. This permits operators to pick and choose which images he/she wants to review later with a PC, or print the image.

Health and Safety

APPLICABLE QUALITY, HEALTH AND SAFETY REGULATIONS

- USA FDA for cabinet X-ray Systems (Federal Standard 21-CFR 1020.40)
- Health and Safety at Work Act 1974 - Section 6, amended by the Consumer Protection Act 1987
- U.S. Federal Aviation Administration Standards "Use of X-Ray Systems" (Federal Standards 14 CFR 108.17 and 14 CFR 129.26)

Compliant with the following:

- C (2014) 1635, Decision of the European Commission
- EC 278/2014, European Regulation
- EC 1998/2015, European Regulation
- Commission Implementing Decision C(2015) 8005
- (EU) 2022/421, Commission Implementing Decision
- Commission Implementing Decision C(2022) 4638

CERTIFICATIONS

- TSA Air Cargo Screening Technology qualified x-ray system
- STAC certified x-ray system
- Air Canada certified x-ray system
- ISO 9001: 2015
- ISO 14001:2015

SAFETY FEATURES

- All XIS Systems are protected by a minimum of 2 layers of lead curtains on both the entry and exit portions of the inspection tunnel. The lead curtains prevent harmful radiation from escaping the X-Ray tunnel.
- External radiation leakage of less than 0.1mR/hr (1 μ Sv/hr) as measured in contact with outer panels. Radiation leakage measurements are performed with a scatter block device in path of the x-ray beam to identify the worst-case radiation leakage.
- Radiation dose per scanned item is less than 1.5mR/hr (15 μ Sv/h).
- If the system becomes overloaded, the system circuit breakers automatically disconnect power from the main AC input.
- Interlock switches are located on exterior system access panels. When any of these exterior access panels are opened or removed, the interlock switches automatically disable the X-ray generator and conveyor belt.
- *Power-ON* and *X-ray ON* indicator lights are located at both ends of the x-ray inspection tunnel and on the Operator Control Panel.
- Two “Emergency Stop” buttons are placed on each side of the X-Ray machine, and one additional “Emergency Stop” button is located on the Operator Control Panel.
- Prominent labels warn users to not insert any part of their body when the x-rays are produced.
- CE – Labeling: 2014/35/EU (Low Voltage Directive), 2014/30/EU (EC Directive), 2006/42/EC (Machinery Directive).

Optional Software / Hardware

SOFTWARE

- **Operator Training Program (OTP):** The Operator Training Program enhances the detection skills and XIS knowledge of operators. The XIS System includes a complimentary operator training program with a small pre-scanned image library containing various normal and threat images. In addition, a full library of images is available as an optional upgrade. This software can be activated on the XIS system or any standard laptop or PC for training flexibility. The Operator Training Program is interactive, self-paced instruction that covers X-ray screening fundamentals, a step-by-step walkthrough of Astrophysics software and advanced features, as well as detailed training reports and records management.
- **Localized Language Support:** Astrophysics offers multiple languages that can be set as the default operator interface language. These include Arabic, English, Greek, French, Italian, Japanese and Spanish; additional languages may be available upon request.
- **Threat Image Projection Software (TIP):** The Astrophysics TIP (Threat Image Projection) system operates as an adjunct to the regular x-ray operating system. When the Astrophysics TIP system is turned ON, threat images (i.e. discrete scanned images of guns, knives, and bombs) are periodically and randomly blended into the scanned images that are being displayed on the video screen, without the operator's knowledge. One of TIP's purposes is to test operators' ability to rapidly recognize and acknowledge fictitious threat projections. If the operator correctly acknowledges the TIP threat, a congratulatory "HIT" screen message is displayed. If the operator fails to recognize a TIP, the system highlights the TIP on the screen and warns the operator with a "MISS" message.

Conversely, if an operator mistakenly reacts to a non-existent TIP, the system displays a false alarm message.

The TIP system scores and summarizes the performance of each operator. The results are available to be viewed and/or downloaded.

TIP also acts as a training tool. A typical security screener rarely sees images of actual threats. The TIP system exposes the operator to a variety of different threats, helping prepare the operator for the eventuality of a genuine threat and training the operator to be able to recognize such threats.

There are four broad categories of TIP tests with 1,200 images:

- Guns
- Knives
- Explosives, including Bombs and IED (Improvised Explosive Devices)
- Other/Miscellaneous

TIP is a valuable detection tool for operators and administrators. The software has a large library with a range of threat objects and operates by periodically inserting a threat object into a scanned image. When a threat object is detected, operators push the "Suspect" button on the AOCP to signify they recognize the threat. If the operator fails to identify a threat, the system will pause and the threat object will flash on the screen to notify the operator of the missed threat. TIP exposes operators to various threat objects and further practice in threat identification. Moreover, TIP enables administrators to evaluate the threat detection capabilities of operators and ensure they are screening effectively. The TIP software may be enabled or disabled as desired from the administrator menu so as not to disrupt the standard screening process.



Miss
You have not correctly identified a fictional threat
Press the STOP button to remove the fictional threat; however, check the bag to ensure no real threats are present

Figure 19: Threat Image Projection

- Density Alert:** Density Alert draws an operator's attention to potential threats by drawing a yellow ellipse around materials that are too dense for x-rays to penetrate. In regular imaging modes, these objects appear black on screen. Density Alert can be configured to sound an alarm and/or stop the conveyor belt when an impenetrable threat is detected.

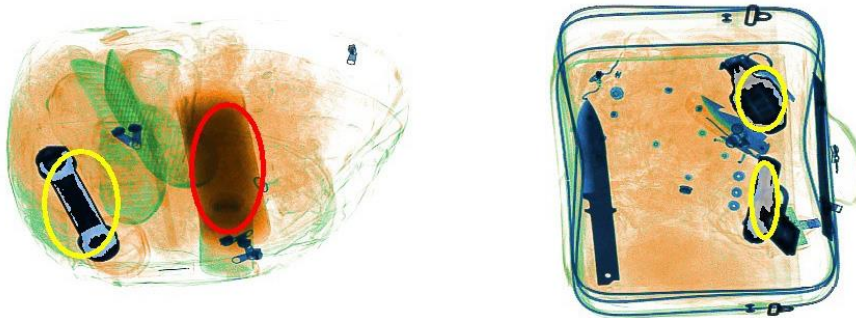


Figure 20: Density Alert



ASTROPHYSICS™

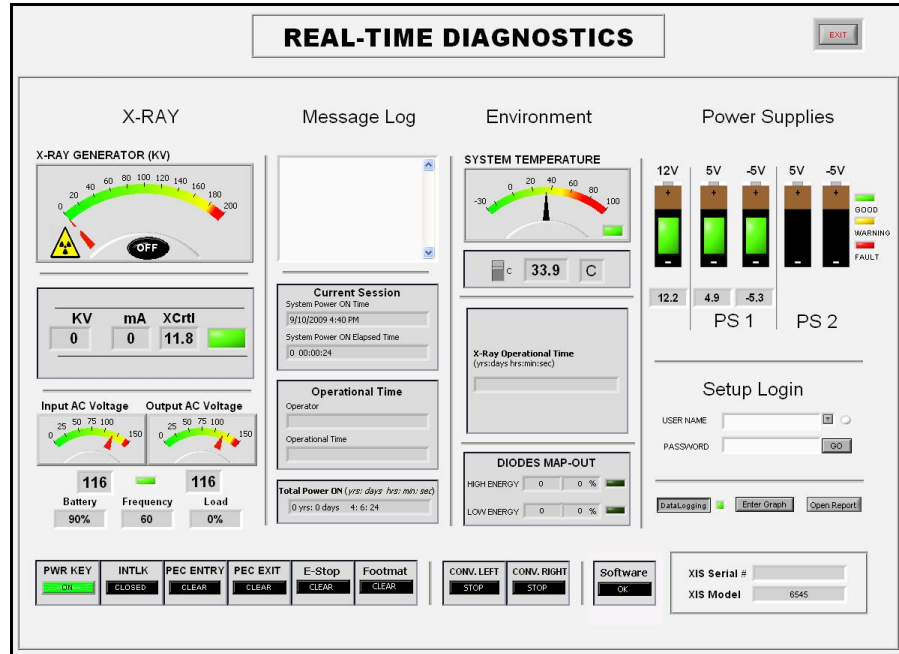


Figure 21: Real Time Continuous Diagnostics Display

- The XIS System is standard equipped with a self diagnostic system and display which permits operators to view the following information:
 - Internal Power Supplies
 - Environmental Temperature
 - AC Voltage and UPS Monitoring
 - X-Ray Generator Power (kV and mA)
 - Power Key on keyboard
 - Interlock Switch
 - Emergency Buttons
 - System Power On / Elapsed Time
 - Operator Time
 - Total Power On Time
 - Photodiode signal outputs with and without X-ray
 - Automatic and manual Diode Map Out
 - Advanced Operator Control Panel (AOCP) (Power key, E-stop, Conveyor left, conveyor right, and software)
 - Additionally, the Real-Time Diagnostics Display also features a message log so the system can notify the operator of any faults.
- INTERNET CALL CENTER (ICC) Astrophysics is the only company in the industry to offer such a comprehensive and efficient approach to customer service. The ICC features direct video conferencing, remote system connectivity, and facilitates fast service support and expedited parts ordering. The development of the ICC demonstrates Astrophysics' ongoing commitment to improve our response time and quality of our customer service.



- **Screener Assist (SA) With Liquid Discrimination:** The detection technology is sophisticated and performs extremely well in meeting clients' security needs. To complement this technology and meet even more of the requirements of clients and front-line X-ray screeners, Astrophysics Inc has developed a remarkable software package called Screener Assist.

X-ray screeners have the challenging task of spotting potential threat objects in crowded bags and containers in a relatively small amount of time. Screener Assist uses sophisticated algorithms and multi-dimensional filters to spot and clearly highlight those potential threats on the screeners' monitors.

Screener Assist draws **RED** ellipses around areas that possess Z-number (atomic number) and mass density characteristics similar to those of common explosives and narcotics. **YELLOW** ellipses are drawn around dense areas of low x-ray penetration. **PURPLE** ellipses are drawn around bottles (placed on clear trays for scanning) containing flammable liquids.

Screener Assist is hard-coded into the X-ray machine's software and therefore requires no user adjustment.

The figure below shows examples of these ellipses, drawn around suspect items in a scanned bag as shown on a dual-monitor system, color on the left, black and white on the right.

In addition to explosives, Screener Assist can detect and highlight narcotic.

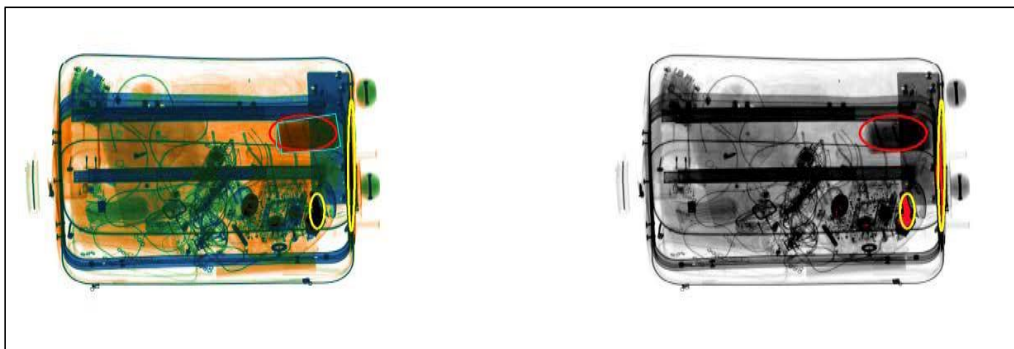


Figure 22: Screener Assist

- **Artificial Intelligence (AI):** Detection Technology for of Guns, Gun Parts, Bullets, Knives, Liquid Containers, Cell Phones, Lithium Batteries, etc. Introducing Astrophysics AI - the first fully-integrated artificial intelligence (AI) software. This AI software makes cutting-edge, automated threat recognition available for checkpoint screening at government facilities, schools, sports arenas, and other high-security sites. Also, it can be customized to meet with the customer's security needs such as the auto-detection of Laptops, Tablets, and USB Drives.

This proprietary visual software identifies dangerous objects within scanned images, even if they are rotated, vary in size or are partially obscured. Once a threat is identified the software highlights its location in a box, and alerts screening personnel to conduct a physical inspection.



Astrophysics AI's deep-learning algorithm effectively models the synapses of the human brain. This allows it to analyze images, extract objects' characteristics, and then create models that help it identify that entire class of objects going forward (e.g. guns, knives). The AI's threat detection continuously improves as it analyzes more and more images, resulting in an ever-expanding catalogue of threats it can readily identify.

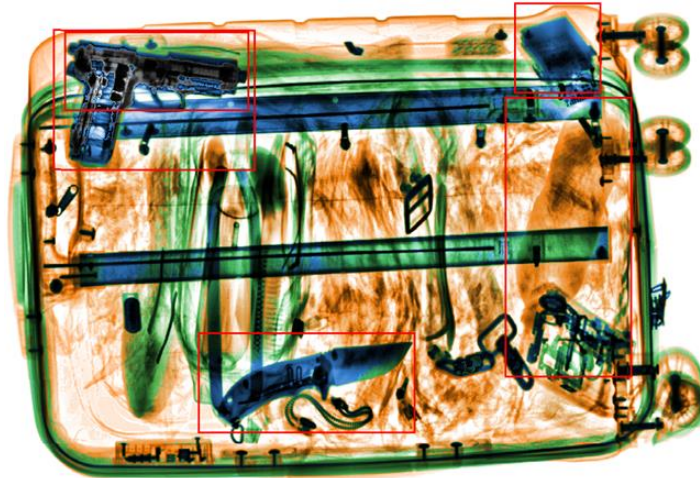


Figure 23: Artificial Intelligence (AI)

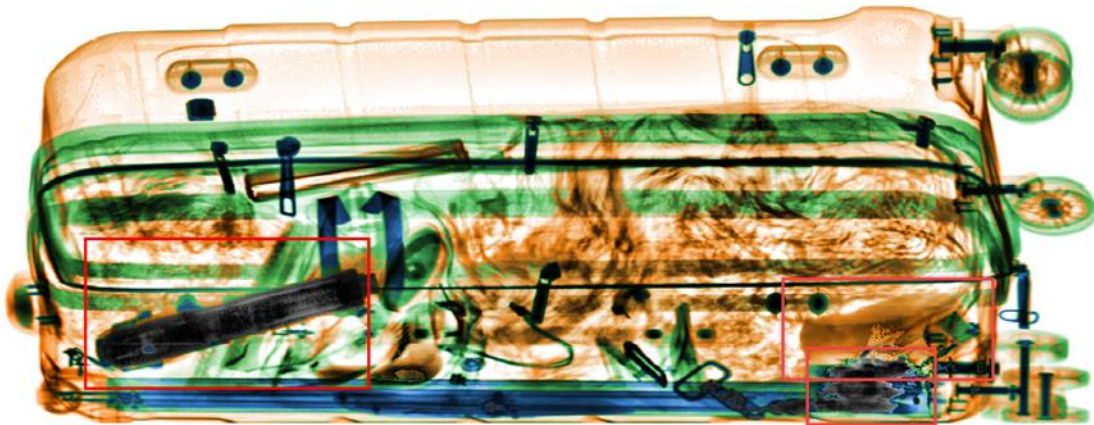


Figure 24: Artificial Intelligence (AI)



- **8 Color Atomic Display:** Astrophysics 8-color Imaging is a breakthrough in the x-ray security industry and marks a significant step forward in threat discrimination and material identification. The introduction of 8-color, rather than the conventional 3-color palette allows operators to more efficiently recognize objects and isolate security threats. As a result, 8-color Imaging not only increases precision screening, but also greatly improves throughput.

The commonly used 3-color Imaging was established over 20 years ago and has a limited color coding that makes it difficult to discriminate between similar materials. 3-color Imaging simply does not provide the operator with enough information.

In contrast, 8-color Imaging utilizes extended color categorizing through **Atomic Z-Number Measurement**. Each screened object appears in one of the 8-colors based upon a specific range of atomic numbers.

8-color distinguishes between objects that only utilizing 3-color cannot, dramatically improving an operator's material identification. 8-color provides the operator with more information in order to decipher between threat and non-threat items, therefore the operator is able to interpret the x-ray image quicker and isolate threats with precision. This increases both throughput and detection accuracy.

Astrophysics, Inc.'s exclusive 8-color Imaging is an optional feature on all Astrophysics x-ray inspection systems, with industry leading penetration and software.

Z-NUMBER	MATERIAL TYPE	3-COLOR	8-COLOR	EXAMPLES	POSSIBLE THREATS
0-7	Low Organic	Orange	Brown	Oil	Cocaine, Fentanyl
7-8.5	Organic	Orange	Rust	Sugar, Water	C4, TNT
8.5-10	High Organic	Orange	Orange	Paper	Dynamite
10-13	Low Inorganic	Green	Yellow	Glass	Gunpowder, Propellants
13-17	High Inorganic	Green	Green	Aluminum, Silicon, Salt	Triggering Devices
17-21	Light Metals	Blue	Cyan	Bone, Composites	Dense Triggering Devices
21-29	Metals	Blue	Blue	Iron, Steel, Copper	Guns, Bullets, Knives
29+	Dense Metals	Blue	Violet	Gold, Silver	High Value Contraband
-	Impenetrable	Black	Black	Lead	Shielding for Above Threats

Figure 25: 8 Color Atomic Display



HARDWARE

- **Climate Variable Kit:** Astrophysics has various kits that can be added-on to make the system more efficient or operational within the climate it is deployed.
 - Tropical Kit: The Tropical Kit add-on mounts additional fans and desiccants within the XIS System so the unit remains unaffected in areas with high precipitation and humidity.
 - Polar Kit: The Polar Kit add-on mounts a heating pad on the generator in order to keep the XIS System within the optimal operational temperature in areas of extreme cold.
- **Constant Voltage Stabilizer:** The constant voltage stabilizer is an external device that serves as a buffer between the localized power source and the XIS System. The stabilizer protects the XIS System by compensating for unpredictable energy spikes and abrupt drops in power.
- **Custom Paint:** Customers may specify a particular paint scheme or additional artwork to fit in with the aesthetic of system placement.
- **Extended Roller Beds:** The XIS System may be supplemented with extended roller beds for longer clearance and larger objects. It can be 0.5 m increments, 1.0 m (0.5 m increments x 2), 1.5 m (0.5 m increments x 3), 2.0 m (0.5 m increments x 4), etc.



Figure 26: Entry Extension Roller Bed



Figure 27: Exit Extension Roller Bed

- **Footmat:** The footmat is an additional safety interlock system to ensure that the operator is present at the designated location during XIS system operation. Unless the operator places his or her foot on the mat, the system will not operate.



- **Adjustable Conveyor Height Configuration:** Adjustable stand height configuration to increase the height of the conveyor belt.

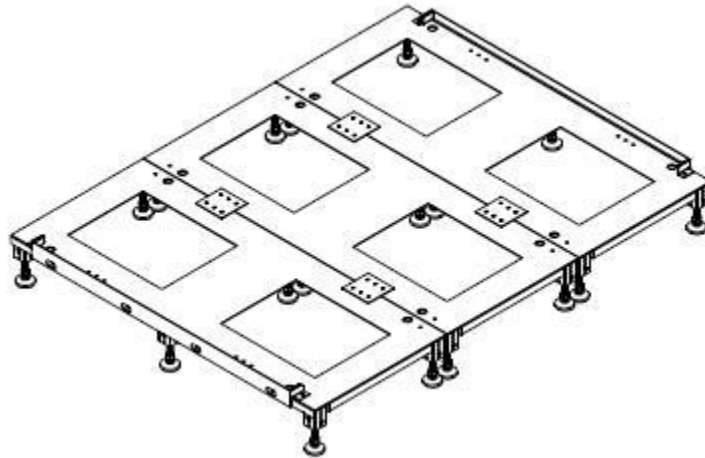


Figure 28: Radiation Meter

- **Radiation Meter:** Customers may choose from multiple radiation meters to perform on-site checks for possible radiation leakage as an additional safety measure.



Figure 29: Radiation Meter

- **Test Kits:** Customers may choose from multiple test pieces, including an ASTM, EW STP, Astrophysics Steel Step Wedge, and Astrophysics Wire Resolution test cases, to perform on-site checks for consistency and reliability of units after repeated scans. The test kits serve as a baseline for which the performance of multiple units may be evaluated.



Figure 30: Exposed Wire Standard Test Piece (EW STP)

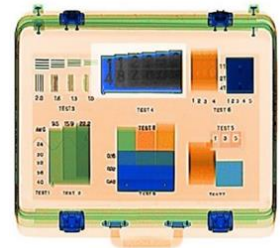


Figure 31: ASTM F792-08 Step Wedge (ASTM)

- **Workstations:** Astrophysics offers a variety of workstations, including the Remote Operator Workstation, Remote Workstation with 5 m cable, Secondary Review Workstation, Supervisor Workstation, Astrophysics Management System (AMS), and Remote Archive Viewing Workstation. Remote Workstations can be added to any Astrophysics System for added screening security and efficiency. For more information about workstations, please contact your Astrophysics Sales Representative.



Figure 32: Remote Operator Workstation (Comes by default with XIS-100XDX)



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