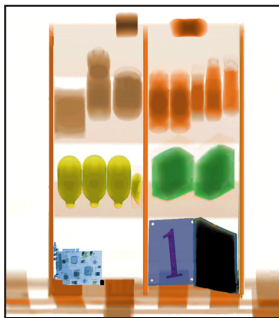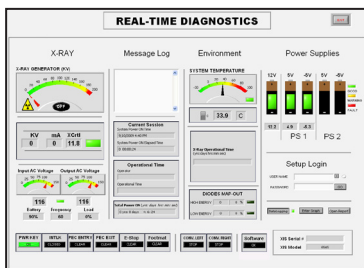# XIS-6040

TSA QUALIFIED

Flexible System Design

Checkpoint Security: Small Baggage and Parcel Inspection

6 Color Imaging

Real-Time Diagnostics

The XIS-6040 X-Ray Inspection System features a tunnel opening of **60.0 x 40.0 cm** (23.6" x 15.7"). The XIS-6040 offers a compact design with increased dimensions to enable a **wider range of placement** and **screening of more diverse objects**.

The XIS-6040 has found placement at hotels, prisons, government sites, and transportation hubs. With its small frame, the XIS-6040 maintains **high mobility**, but with a wider tunnel size for varied application.

With a **powerful 160 kV generator**, the XIS-6040 provides crisp, high resolution images due to its advanced software and **superior processing technology**.

Astrophysics has the **fastest delivery times.** We offer immediate screening solutions with **unparalleled order flexibility and customization.**

All XIS Systems are equipped with **Real-Time Diagnostics,** a unique Astrophysics feature which allows users to monitor their machine health, thus greatly **increasing the system lifespan.**

An exclusive Astrophysics standard feature, **6 Color Imaging** enables operators to view screened objects in 6 colors, with each color correlating to a specific range of Atomic Z-Numbers. 6 Color Imaging enables operators to achieve **optimal material identification** and improve throughput with more effective screening technology.

Backed by a team of experts with more than **100 years of combined industry experience,** Astrophysics has the expansive knowledge you expect, all with a focus on X-Ray that assures customers the **XIS product is the industry best.**

The XIS Series features **top-of-the-line software and hardware technology** establishing Astrophysics as the **leader in innovation and quality.**

Astrophysics is headquartered in the United States, but maintains multiple field offices worldwide for **localized support.**

For your convenience, we also retain a dedicated Sales and Service team committed to providing a **personalized and timely response 24/7.**

General Specifications
- Tunnel Size: 60.0 cm x 40.0 cm
  (W x H) 23.6" x 15.7"
- Dimensions: 142.0 cm x 84.9 cm x 125.5 cm
  (L x W x H) 55.9" x 33.4" x 49.4"
- Shipping Dimensions: 152.4 cm x 96.5 cm x 154.9 cm
  (L x W x H) 60.0" x 38.0" x 61.0"
- Net Weight[2]: 389 kg (856 lbs)
- Shipping Weight[2]: 489 kg (1076 lbs)
- Conveyor Speed: 23 cm/s (44 ft/min) Forward or Reverse
- Conveyor Height: 72.5 cm (28.5") from Floor
- Conveyor Capacity: 165 kg (364 lbs) Evenly Distributed Load
- Construction: Custom Steel Frame / Panels

Technical
- Sensitivity: 40 AWG Typical, 38 AWG Standard
- Spatial Resolution: 1.0 mm Horizontal, 1.0 mm Vertical
- Steel Penetration[1]: 39 mm Typical, 37 mm Standard
- Contrast Sensitivity: 24 Visible Levels, 4096 Gray Level

X-Ray Generator
- Voltage: 160 kV Operating at 150 kV
- Tube Current: 0.7 mA
- Cooling: Sealed Di-Electric Oil Bath with Forced Air
- Duty Cycle: 100%, No Warm-Up Procedure Required
- Beam Direction: Diagonally Upward
- Detector: 1152 Channels in an L-Shaped Array

Computer
- Processor: Intel Core2 Quad, 2.66 Ghz, 1333 MHz
- Memory: 2 GB RAM at 1333 MHz
- Storage: 250 GB HDD
- Video Card: 256 MB Video Card, Dual Digital Display
- Platform: Windows XP Pro
- Backup: Uninterrupted Power Supply (20 min)

Video
- Display Type: Single 19" LCD Color Monitors
- Display Resolution: 1280 x 1024; 24 bit/pixel Color
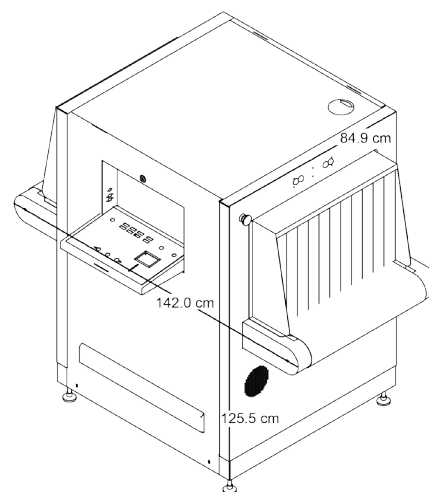
Environmental
- Operating Temperature: 0°C - 40°C \ 32°F - 104°F
- Storage Temperature: -20°C - 60°C \ -4°F - 140°F
- Humidity: Up to 95% Non-Condensing

Electrical
- Power Requirements: 110VAC: 96-132 VAC, 60 HZ. 15 Amp Max
  220VAC: 183-253 VAC, 50 Hz. 10 Amp Max

Health and Safety
- Compliant with USFDA, Center for Devices and Radiation Health Standards for Cabinet X-Ray Systems (21-CFR 1020.40).
- Typical Radiation leakage is less than 0.1 mR/hr (Leakage less than 0.5 mR/hr permitted by the Federal Standard).
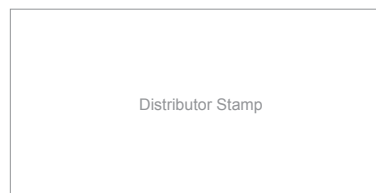
84.9 cm
142.0 cm
125.5 cm

Standard Features
- 6 Color Imaging
- 9 Quadrant Zoom
- Atomic Z-Number Measurement
- Auto Image Archiving (50,000 Images)
- Baggage Counter
- Color and Black / White Imaging
- Continuous Scanning
- Continuous Zoom 2x to 32x
- Density Alert
- Edge-Enhancement Imaging
- Geometric Image Distortion Correction
- High Penetration Function
- Heavy Duty Roller Casters
- Image Annotation
- Image Review (100 Images)
- Manual Bitmap Archive
- Material Discrimination
- Multi-Tier Accessibility
- Network Ready
- Organic/Inorganic Imaging
- Operator Training Program
- Picture Perfect
- Print Image Capable
- Pseudo Color
- Real-Time Image Manipulation
- Real-Time Self Diagnostics
- Reverse Monochrome
- Vertical Zoom Panning

Optional Features[3]
- 24" LCD Monitors
- ASTM 10 Stepwedge/ASTM F0792-01E2 Test Case
- Climate Variable Operating Kit
- Custom Paint
- Entry / Exit Roller Tables, 0.5 m increment
- Extended Image Archiving (100,000 Images)
- Footmat Operator Interlock
- Heavy Duty Rubber Casters
- Local Language Support (Arabic, Chinese, French, Spanish, and more)
- Radiation Meter
- Remote Configuration
- Screener Assist Threat Detection Software
- Supervisor Workstation
- Suspect Search Station
- Threat Image Projection Software

Distributor Stamp

[1]As tested on Astrophysics Inc. Test Piece.
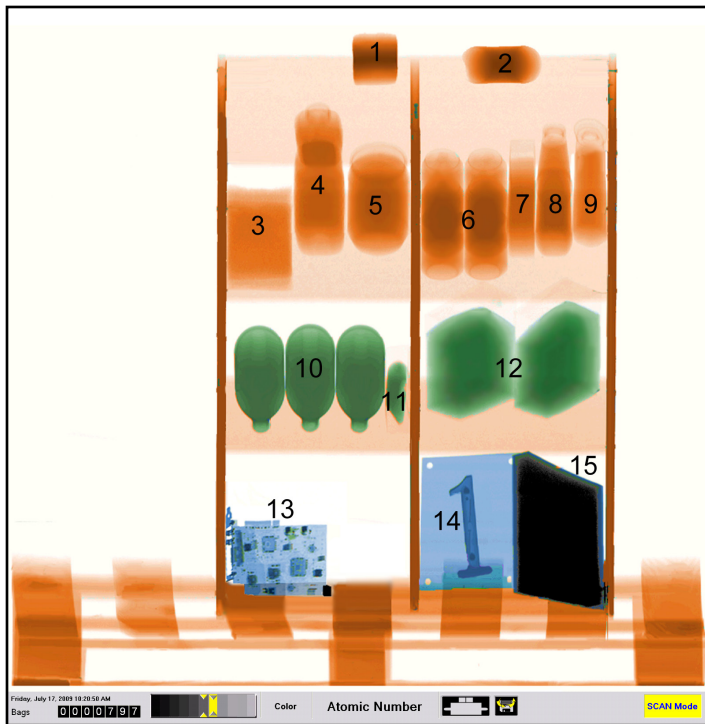[2]Weight of the System may vary depending on customization.
[3]Optional Accessories may affect lead time, price, and weight of XIS-6040. Please contact your Astrophysics Sales Representative for more information.
Due to continued product research and development, Astrophysics Inc. reserves the right to amend all technical specifications without prior notice.
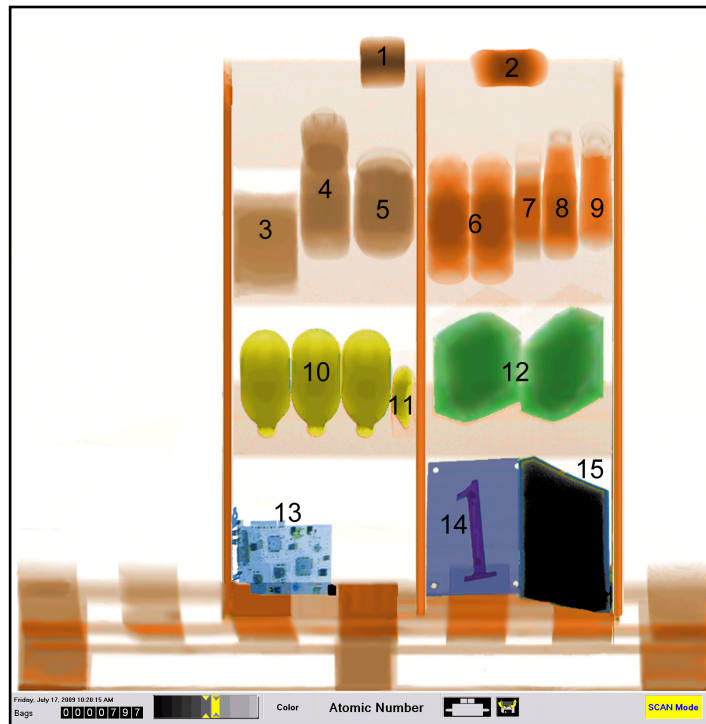
P/N 05-00-PB06-00 Rev.D

6 Color Imaging

When Z-Number Discrimination Is Critical™

Conventional 3 Color Imaging

Astrophysics 6 Color Imaging

1. C4 Explosive	4. Cooking Oil	7. Salad Dressing	10. Glass Bottles	13. Circuit Board
2. Heroin	5. Peanut Butter	8. Shampoo	11. Toothpaste	14. Gold Lettering
3. Rice	6. Soda Cans	9. Conditioner	12. Salt	15. Steel Block

Astrophysics 6 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 a 6 color, rather than the conventional 3 color palette allows operators to more efficiently recognize objects and **isolate security threats**. As a result, 6 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. In contrast, 6 Color Imaging utilizes **extended color categorizing** through

Atomic Z-Number Measurement. Each of the 6 colors identify specific ranges of atomic numbers, including **organic, low and high inorganic**, as well as **light, heavy and dense metals**.

6 Color Imaging **differentiates between materials 3 color imaging cannot**. For example, 3 color places the following in the same color category: wood/oil with paper/alcohol; glass with aluminum/silicon; as well as iron/steel with gold/silver. On the other hand, 6 Color offers a **more diverse color variation** that separates each of the above materials into its own category. Astrophysics 6 Color Imaging feature **heightens object identification accuracy** and **improves detection efficency**, which is crucial in the X-Ray security industry.

The two images above feature identical objects processed using industry standard 3 color, and Astrophysics 6 Color Imaging software. In comparison, 6 Color Imaging clearly displays **greater material separation** of objects screened. As an operator, the evident distinctions between materials allows for faster and more precise object identification, as well as fewer opened parcels, and increased efficiency and throughput.

Astrophysics exclusive 6 Color Imaging is a **new standard feature** on all Astrophysics XIS Series X-Ray Inspection Systems. With **industry leading penetration and software**, Astrophysics XIS Series features the **most technologically advanced X-Ray Inspection Systems on the market**.

Astrophysics Inc.
Tomorrow's Technology for Today's Security

Atomic Z #	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

The 6 Color Industry Advantage

Advantages of 6 Color Imaging versus 3 Color are numerous and may vary by industry. The utilization of 6 Color Imaging enables high security threats to be more easily identified by operators; including illicit goods, explosives, sharpened implements, and other weapons or contraband.

• **Explosives Detection:** Benign low inorganic materials can be distinguished from **military explosives** which are displayed in brown, thus reducing false alert rates.

• **Drug Contraband:** Chlorinated **narcotic compounds** can be discriminated from many common organic materials and will appear in orange and allows for further color separation.

• **Alcohol:** **Glass bottles** and containers which may contain liquor or suspicious liquids will be more readily differentiated from other inorganic and light metallic materials and appear in yellow.

• **Device Detection:** **Complex circuitry** and **detonating devices** differentiation in green allows trained personnel to safely disable and remove **IEDs**.

• **Weapon Detection:** **Guns, knives and other associated weaponry** are differentiated in blue and can be recognized based on their shape and their construction material.

• **Precious Metal Industry:** 6 Color Imaging differentiates **gold, silver** and **platinum** in violet while steel and iron appear in blue. Separating such precious metals allows for easier and more immediate object recognition.