

Shouldn't the most accurate research irradiator provide the choice of X-ray and optical imaging for tissues and cells at one time?

Precisely.

The **X-RAD 160XL** provides high energy for high and low dose rate irradiation studies in the largest available irradiation chamber while maintaining a very small laboratory footprint.

- Excellent choice for all cell, and tissue irradiation studies.
- Largest 160kV chamber accommodates the widest range of options and accessories including environmental chambers, fixtures, shields, large motorized turntable, X/Y targeting table, and the OptiMAX M-IGRT multimodal imaging module.
- Complete system includes high-precision X-ray generators and tubes in a state-of-the-art, fully shielded FDA-compliant cabinet.
- Utilizes highest-capacity external cooling system to allow unmatched continuous duty cycle operation and longest X-ray tube life.
- Features TouchRAD controller with multi-user, password-protected touchscreen interface with a transportable database that can track individual system usage for billing or review purposes.
- Full-screen video imaging and image capture of the specimen area with one touch of the TouchRAD screen.
- Foolproof programmable shelf, filter recognition and automated dose calculations and dose QA.
- Easy installation with wheeled transport through all standard 32" (81cm) doorways.
- External Internet-based diagnostics and software updates.



The **X-RAD 160-XLi** has all the features of the 160XL but also includes the built-in OptiMAX M-IGRT imaging module, allowing high-resolution X-ray and optical multimodal imaging inside the cabinet.

- High-resolution CCD camera-based imaging in X-ray and optical/bioluminescence imaging modes.
- Imaging can be used for precise targeting and for visualization of cells, tissues and animal responses to differential irradiation.
- Optional X-Y stage for controlled delivery of differential doses to specific target regions of cells and tissues.
- The OptiMAX imaging module can be added at any time to an X-RAD 160XL as an upgrade.

X-RAD 160XL/XLi Biological Irradiator

Technical Data

Cabinet Features

Adjustable Specimen Shelf: 15cm to 100cm SSD
Changeable Beam Conditioning Filter Slides
User Entry Port to introduce small tubing and cables into chamber area
Complies with US and International regulations for Cabinet X-ray systems

Cabinet Size and Weight

Overall Dimensions: 76"(193cm)H x 56"(142cm)W x 31"(78cm)D
Irradiation Chamber: 42"(106cm)H x 25"(64cm)W x 27"(69cm)D
Weight: 3,300 lbs (1497kg)

Power Requirement

230VAC 1 ϕ , 50A, 50/60 Hz

High-Voltage Generator

Maximum Output Voltage: 160kV
Maximum mA: 30mA
Maximum Power: 4000W

X-Ray Tube

Maximum Output:

- Standard 160kV/18.7mA
- High Power 160kV/25mA

Type: Metal Ceramic, Fixed Anode, Water Cooled
Focal Spots (per EN12543)

- (1) X-RAD 160XL 7.5mm (single spot)
- (2) X-RAD 160XLi 1mm, 5.5mm (dual focal spot)

Inherent Filtration: 0.8mm Be
Cooling Pump: Water-Air or Water-Water models available

Dose Output

Raw Beam: ~60 Gy/min at 160kV, 18.7mA, 30cm SSD
Filtered Beam: ~5.5 Gy/min at 160kV, 18.7mA, 30cm SSD, (Filter = 2mm Al)
High Powered ~7.3 Gy/mm at 160kV, 25mA, 30cm SSD, (Filter = 2mm Al)

Operators Controls

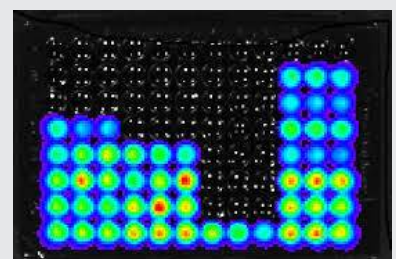
kV Setting & Display Accuracy: 5 - 160kV in 0.1 kV increments
mA Setting & Display Accuracy: 0.5mA to 30mA in 0.01 mA increments
Settings Accuracy: <1%
Exposure Timer: 1-99999 seconds
Programmable Settings: Thousands of locations to recall exposure parameters
Users & Super-users: >9.999 individual accounts can be created

Additional X-Ray Unit Features

Automatic Warm-up with Intelligent Tube Conditioning
Graphical user touchscreen interface for operation simplicity with on-screen real-time specimen viewing window
Individual user passwords required for system operation
Excel database of exposure and user history can be downloaded to a USB flash drive

OPTIMAX M-IGRT Imaging Module

For more information on this Multimodal Imaging Module for the X-RAD XLi Series, download the OptiMAX M-IGRT brochure.



For further information:
visit our web site at www.pxinc.com or contact us at sales@pxinc.com

