

Conformance Statement

- Quality management system operated by Parto Negar Persia (PNP) Imaging Systems.
- Product design, development, production and services comply with ISO 13485, ISO 9001, IEC 61326, CISPR11, IEC 61000-3-2, IEC 61000-3-3, IEC60601-1 and NEMA NU4:2008
- Safety labels are attached to appropriate places on equipment and appear in all operation manuals.
- The supplied software complies with DICOM standard.
- The technical information provided here is not a detailed specification.
- For more details and up to date information please contact PNP Medical Imaging Systems Company.



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Xtrim

High Resolution Preclinical PET Imaging System



Parto Negar Persia Co.
Pioneer in Healthcare Technology



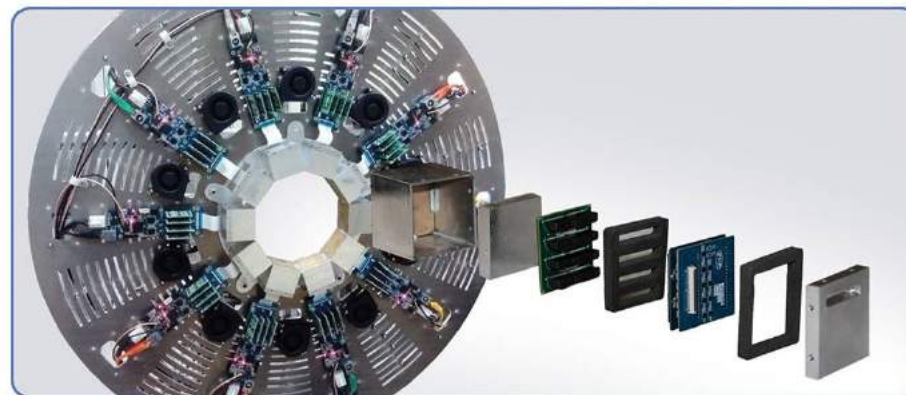
Overview

Over the past two decades, growing interest in using animal models of human disease has led to great advances in translational sciences. In line with this trend, noninvasive preclinical PET imaging systems are well-known for their superior capabilities in adopting molecular and cellular researches.

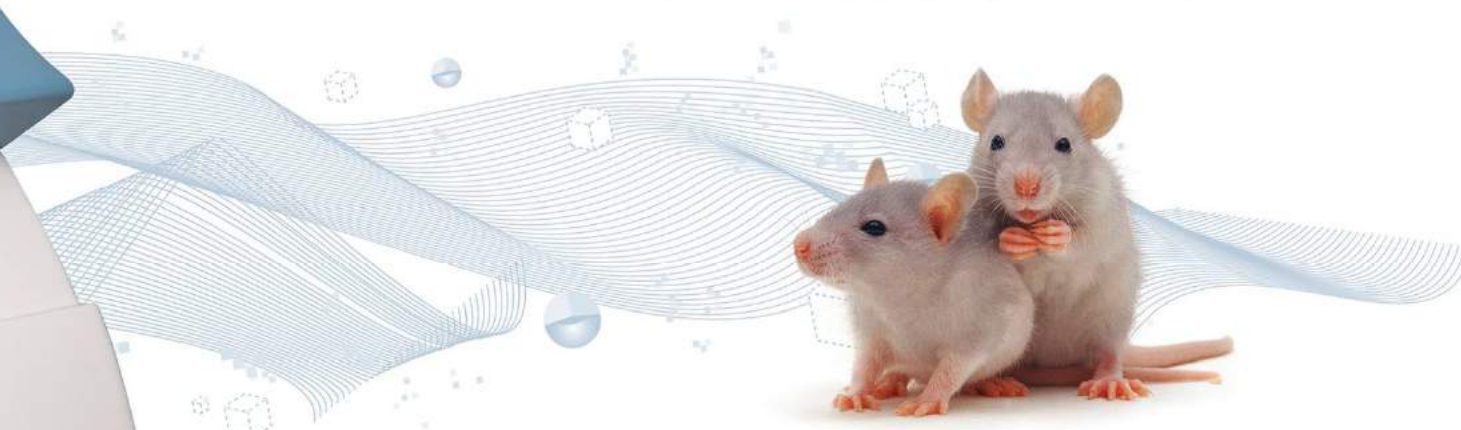


Technology

PNP preclinical solutions are removing the limits on driving medical research from the laboratory to the clinic. Xtrim provides the high performance and versatility available to address your preclinical imaging research needs. From basic science and disease progression, to drug discovery and development, Xtrim offers an unrivaled solution for optimizing your research outcomes.



Based on PNP leading-edge technology, Xtrim is designed to deliver high imaging performance. Our leadership in LYSO detector materials, advanced detector technology and state of the art acquisition algorithm provide high count rate performance as well as enhanced resolution and sensitivity for excellent image quality and quantitative accuracy.



Xtrim - platform

PET detector

- LYSO crystal full ring geometry
- Up to 100mm transaxial FOV
- Bore opening: 120mm
- Spatial resolution without resolution recovery: 1.7mm

Touch screen interface

- Bed movement control monitoring
- Count rate performance monitoring
- Basic acquisition control/monitoring
- Stop command



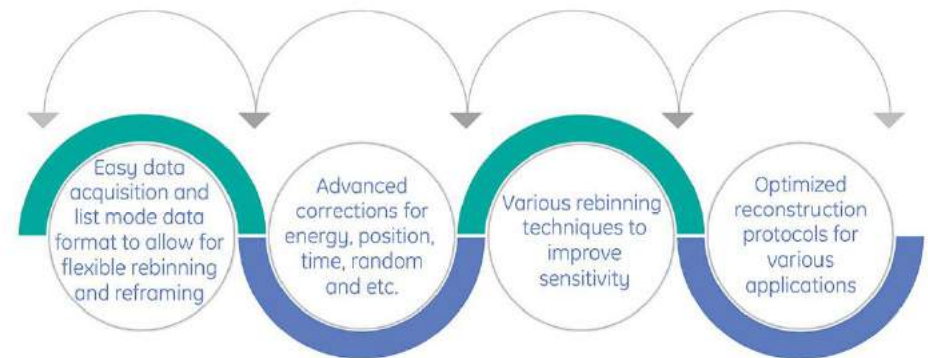
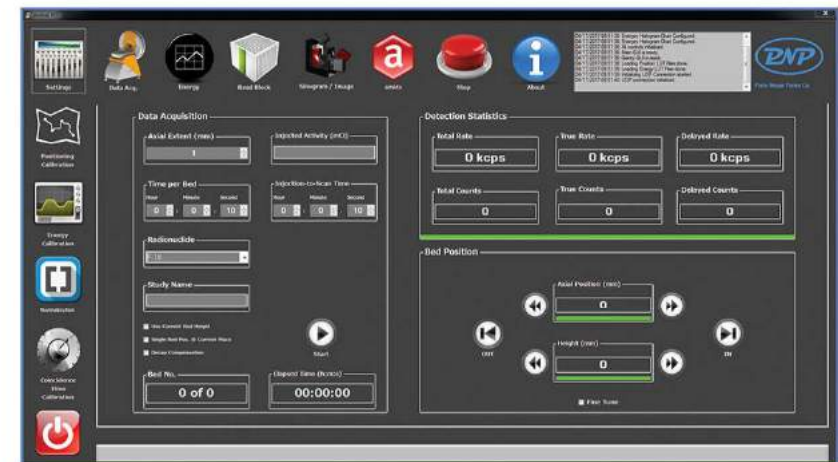
Animal handling

- Capsule structure of the bed
- Semi-automated bed positioning
- Easy bed attach/detach
- Animal body temperature control
- Anesthesia and oxygen gas flow ports
- Easy changeable Rat and Mice bed

Software Package

XT-vision is an exclusively developed software for Xtrim-PET imaging system with a user-friendly GUI that covers all calibration, reconstruction and correction requirements.

Data collected by the PET detector are stored and processed using proprietary custom designed circuit and application specific FPGA chip. The data stream is transmitted to the image reconstruction engines. This high performance system enable you to simultaneously acquire and reconstruct your PET study data.



Characteristic



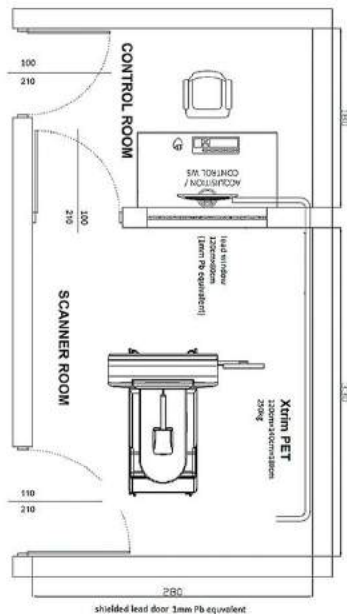
Characteristics

Single bed axial FOV	5cm
Number of detector rings	24
Transaxial FOV	100mm
Bore opening	110mm
LYSO crystal size	2mm×2mm×10mm
Crystal pixel pitch	2.1mm
Total number of crystals	5760
Spatial Resolution	1.7mm @ center
Energy Resolution	17%

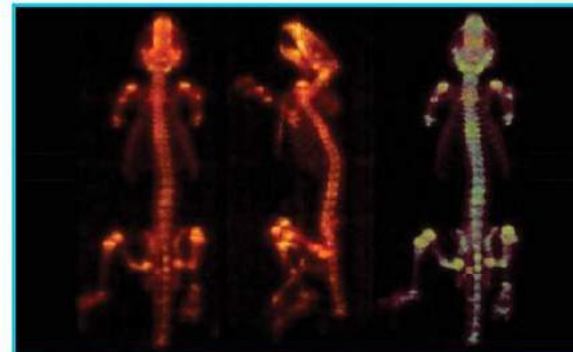
Room Requirements

Minimum room size	10m ²
Single phase operation	220V
Size (W×D×H)	120cm×140cm×180cm
Weight	250kg
Standard air condition	20-25°C

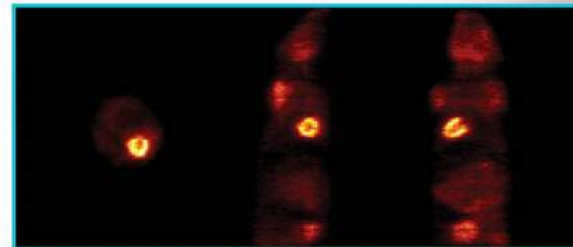
- ISO 13485
- ISO 9001
- IEC61326:2012
- IEC60601-1 2012
- IEC61000-3-2:2014
- IEC61000-3-3:2013
- CISPR11:2015
- NEMA NU4:2008



Animal Imaging Example



Rat bone scan using NaF-18. The vertebra and ribs was resolved



Mice Heart scan using FDG

NEMA Image Quality Phantom



Derenzo Phantom

