



[Home \(index.html\)](#) > [Cardiac Gating](#) > [Magnetic Resonance](#)

PAM-200 Module



Overview

([assets/frontend/pages/img/works/PAM200.jpg](#))

- [Overview](#)
- [Technical Specs](#)
- [Data Sheet \(pdf/Data Sheets/PAM-200 Data Sheet REV02.pdf\)](#)
- [Operation Manual \(manuals.html#PAM\)](#)

The PAM Module is an embedded instrumentation pack which provides an accurate gating trigger for use in an MRI environment. The PAM-200 is a complete solution consisting of ECG Acquisition, an Optical Plethysmograph for pulse acquisition, and a pneumatic respiration pad for respiration acquisition.

ECG Patient Acquisition

The PAM utilizes a 4 lead configuration in a Right Arm, Left Arm, Right Leg and Left leg setup. The Right Leg is the reference lead with Right Arm, Left Arm and Left Leg as the active leads. The PAM provides for two simultaneous vectors. The first vector is Right Arm and Left Leg. The second vector is Right Leg and Left Leg. The two vectors are orthogonal to each other and will result in one vector less effected by magnetic gradients.

Respiratory Acquisition

The PAM utilizes a pneumatic technique which responds to the expansion of the chest during respiration. A foam filled bellows is attached to the patient with a strap, and the air pressure in the bellows changes as the chest moves and compresses the bellows. The internal foam provides the spring action to return the bellows to the pre-compressed state. The bellows is attached to the PAM System Module by a flexible plastic tube, there is no electrical connection. The bellows has a stiff backing which aids in the compression action of the chest movement. Positive pressure (exhalation) will result in a positive going signal. The respiratory signal is transmitted in the digital stream to the console computer, but the PAM has provision for an analog signal to drive a LED bar indicator which could be located on the gantry or magnet housing.

Peripheral Pulse Acquisition (Pleth)

The PAM has provision to perform cardiac gating by way of an optical based peripheral pulse, which is acquired on the patient finger. The optical emitter and detector are located within the PAM housing and the light energy is coupled to the patient through fiber optic cable. The patient connection is through a finger clip similar to a pulse oximetry sensor. The peripheral pulse signal is transmitted in the digital stream to the console computer, but the PAM has provision for an analog signal to drive a LED bar indicator which could be located on the gantry or magnet housing.

Call 1-800-247-4614 to speak with a customer service representative today!

 [Contact Us \(contact.html\)](#)



Ivy Biomedical Systems, Inc. is a privately-held medical device company headquartered in Branford, Connecticut. We are the market leader for precision cardiac gating monitors used for synchronization of radiographic image acquisition across all major modalities including nuclear medicine/molecular imaging (NM/MI), computed tomography (CT), magnetic resonance (MR), positron emission tomography (PET), and single photon emission computed tomography (SPECT).

Corporate Headquarters

Ivy Biomedical Systems, Inc

11 Business Park Drive
Branford, CT 06405 USA
Sales & Service: (800) 247-4614
Direct (203) 481-4183
Fax (203) 481-8734
Sales: sales@ivybiomedical.com
(mailto:sales@ivybiomedical.com)
Service: service@ivybiomedical.com
(mailto:service@ivybiomedical.com)

© 2015 Ivy Biomedical Systems, inc - All Rights Reserved



(<https://www.linkedin.com/company/3230983>)