



70 Years in the Making

Fujifilm's experience in imaging covers nearly 70 years and encompasses diverse fields such as consumer and professional photography, graphic arts and medical imaging. Subsequently, Fujifilm has acquired a massive image database and developed a host of sophisticated image processing technologies. This long-standing expertise in image optimization combined with a powerful generation of hardware and software technologies lead to a premier set of image processing tools that consistently optimize digital images for display.

Image Intelligence in medical imaging includes advanced image processing tools:

- *Image Expression Technology tools to enhance image appearance*
- *Diagnostic Support Processing tools to increase diagnostic certainty*

Examples of Fuji's Advanced Image Processing

- **DRC (Dynamic Range Control)** – improves visualization of areas with different densities in the same image
- **MFP (Multi-Objective Frequency Processing)** – frequency enhancement which adjusts both large and small structures independently within the same image simultaneously
- **FNC (Flexible Noise Control)** – suppresses noise within an image to enhance image signal appearance
- **GPR (Grid Pattern Removal)** – removes stationary grid patterns to suppress moiré patterns within an image
- **ES (Energy Subtraction)** – with a single exposure to the patient, Fuji's ES software provides three different displays of a PA chest exam: bone or calcified structures, soft tissue only and standard chest exam to allow visualization and typification of structures that may be obscured by overlying or underlying anatomy
- **PEM* (Pattern Enhancement Processing for Mammography)** - detects and improves the conspicuity of minute structures within the breast, such as micro-calcifications.
- **CAD* (Computed Aided Detection)** - high-performance cancer detection algorithm for Fuji CR Mammography

Examples of Fuji's Advanced Image Processing used in Fuji DryPix Imagers:

- **A-VR (Advanced Variable Response) Spline Image Interpolation** – provides a wide range of image sharpening and noise suppression capability while maintaining sharply defined alphanumeric text regardless of the type of image interpolation used.
- **SAR (Smooth curve ARranging)** – provides a comprehensive range of gamma tables optimized for each modality. These curves have been developed in close cooperation with the modality manufacturers and customers and can be further customized for individual Radiologist's needs using SAR Maker software.

* Fuji CR Mammography, PEM and CAD require FDA regulatory approval and are not yet commercially available in the U.S.