



vieworks

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- + Overview
- + Products
- + Technology
- + Quality Management & Customer Service
- + Vision



# Overview

# Company General Information



Company

Viewworks Co., Ltd.



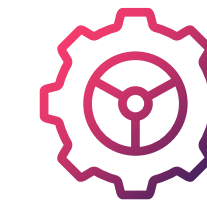
CEO

Hooshik Kim



Established

18 September,  
1999 (Listed in KOSDAQ  
in April, 2009)



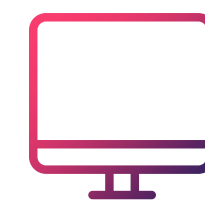
Number of Employees

263 (2017)  
50% workforce  
contribution to R&D and  
Quality Management



Location

Anyang City,  
Republic of Korea



Website

[www.viewworks.com](http://www.viewworks.com)

# Philosophy



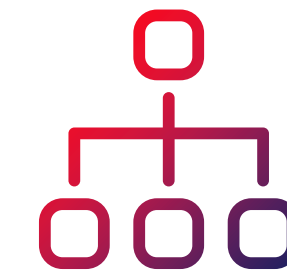
## Vision

To create new solutions  
by offering better vision  
to the humanity



## Mission

To make remarkable contributions to  
improving health and developing industry  
by providing the best image solution based  
on our passionate and creative talents  
along with the optic imaging technologies



## Key Values of Vieworks

Passion  
Creativity  
Morality

# History

## X-ray Detector



MAXXray



Megapixel  
Camera



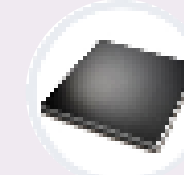
Sлимпac Series



QXR



VMIX-S



VMIX-SN



VMIX-D



VMIX-SP  
VMIX-ST

01

02

05

06

08

11

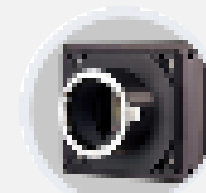
12

15

17

18

## Industrial Camera



VM Series



VH Series



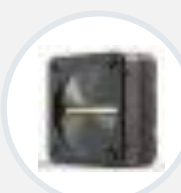
VP Series



VX Series



VQ Series



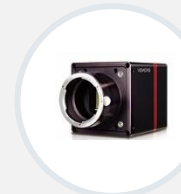
VT Series



VC Series



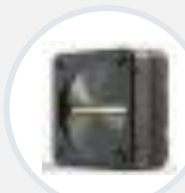
VA Series



VN Series

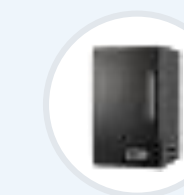


VL Series



VT-MS Series  
VT-DI Series

## In Vivo Imaging Solution

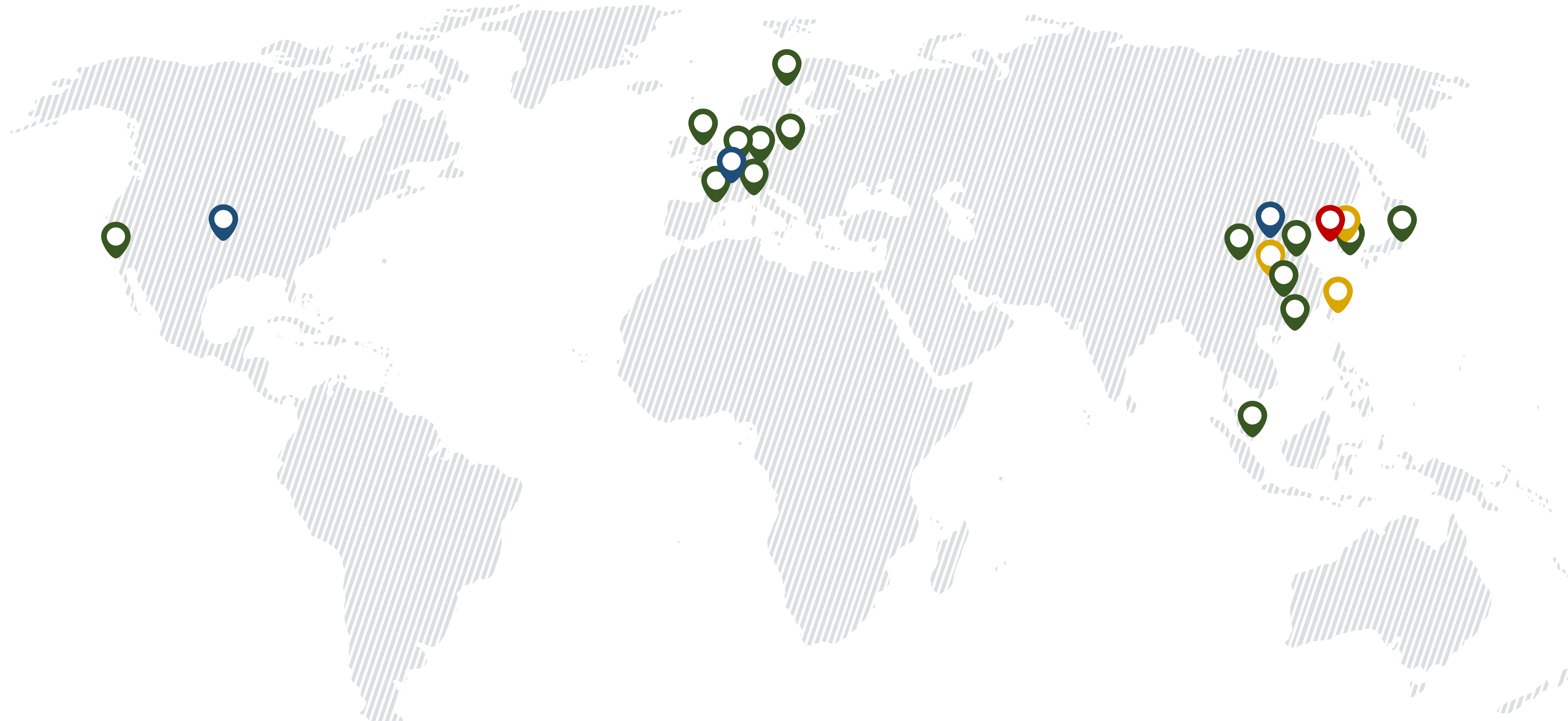
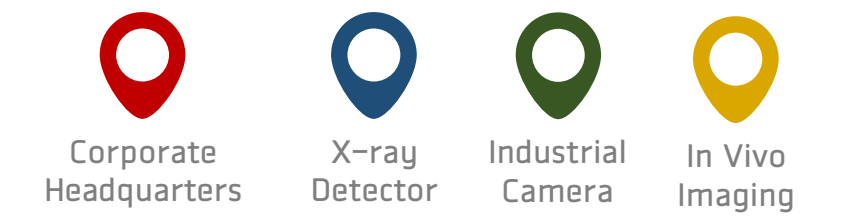


VISQUE InVivo Elite



VISQUE InVivo Smart

# Global Network





# Products



# Business



## X-ray Detector

General Radiography  
Veterinary  
Dental  
Radiography & Fluoroscopy  
Mobile C-arm  
NDT & Security

## X-ray Detector Software

Viewer Programs  
• VXvue  
• SlimpacIIPlus  
Streamlined PACS



## Industrial Camera

Area Scan Cameras  
TDI Line Scan Cameras  
Customized cameras  
Accessories



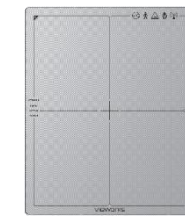
## *In vivo* Imaging Solution

*In Vivo* System  
Kinetic Analysis Solution

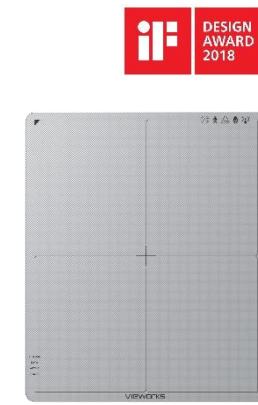
H/W Lineup

# X-ray Detector Lineup

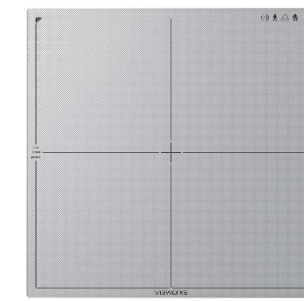
## + Static : VIVIX-S Series



1012N



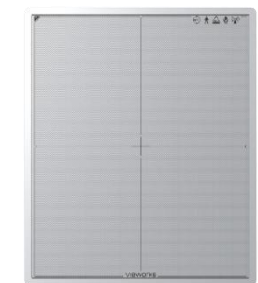
1417N



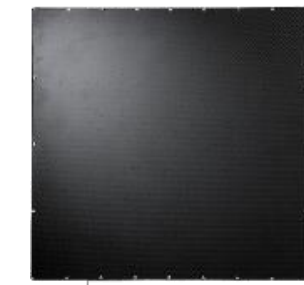
1717N



1417S



1417W



1717S



0810P

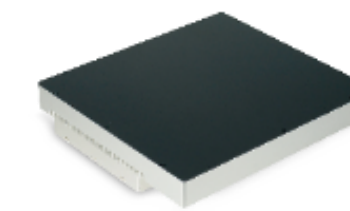


1012T

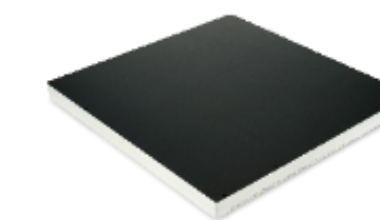


1717V

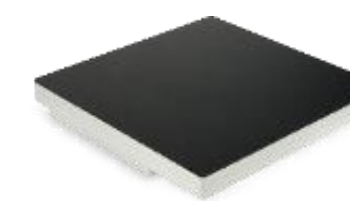
## + Dynamic : VIVIX-D Series



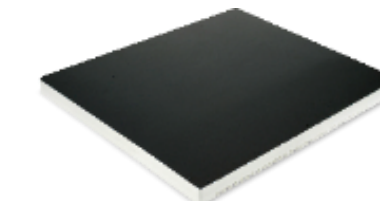
0606C



1012CH



0909G



1212G



1717G

S/W Lineup

# X-ray Detector Lineup

## 1 **VXvue**

Digital Radiography acquisition viewer for VIVIX-S Series

Easy  
Workflow

User  
Friendly

Various  
Apps

## 2 **PureImpact™**

Advanced X-ray image processing library

Excellent  
Image Quality

Simple  
Management

Separated  
SDK

## 3 **QXLink 3**

Streamlined PACS

Optimized  
PACS

4 Different  
Apps(Human,  
Vet, Chiro,  
Orthopedic)

Std. DICOM  
Print/Storage

## 4 **Slimpac II Plus**

Digital Radiography and Fluoroscopy Acquisition Viewer  
for VIVIX-D series

Simple  
Workflow

Virtual Console

Advanced  
Features



# Industrial Camera Lineup

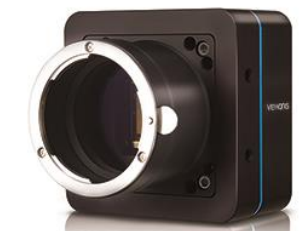
## + Area Scan Cameras



**VA Series**  
Advanced High  
Speed CCD Camera



**VN Series**  
Ultra High Resolution  
Pixel Shifting Camera



**VC Series**  
High Speed  
CMOS Camera



**VP Series**  
Thermoelectric  
Cooled Camera



**VX Series**  
Aerial Imaging/  
Surveillance Camera



**VNP Series**  
Integrating TEC into  
Nano stage pixel shift



**VH Series**  
High Performance  
CCD Camera



## + TDI Line Scan Cameras



**VT Series**  
High Sensitivity & High speed  
TDI Line Scan Cameras



**VT-MS Series**  
Multi-Spectral  
TDI Line Scan Cameras



**VT-DI Series**  
Dual Imaging  
TDI Line Scan Cameras



# Bio Imaging Solution Lineup

## + In Vivo System



### VISQUE™ InVivo Elite

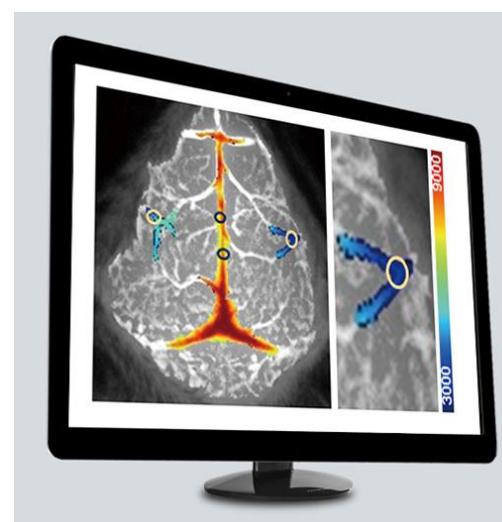
Preclinical *in vivo* Fluorescent  
& Bioluminescent Imaging and analysis system



### VISQUE™ InVivo Smart

Preclinical *in vivo* Fluorescent Imaging  
and analysis system

## + Kinetic Analysis Software



### VISQUE CleVue™

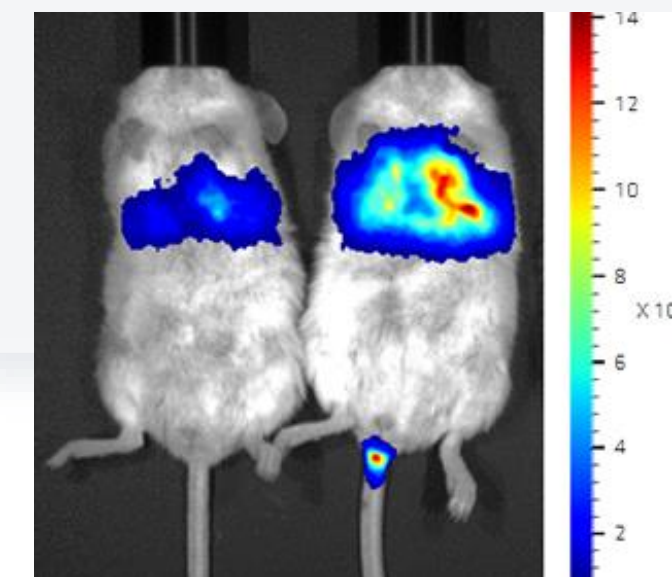
Image Acquisition

- Simple imaging
- Accumulation imaging
- Time-lapse imaging

Image Analysis

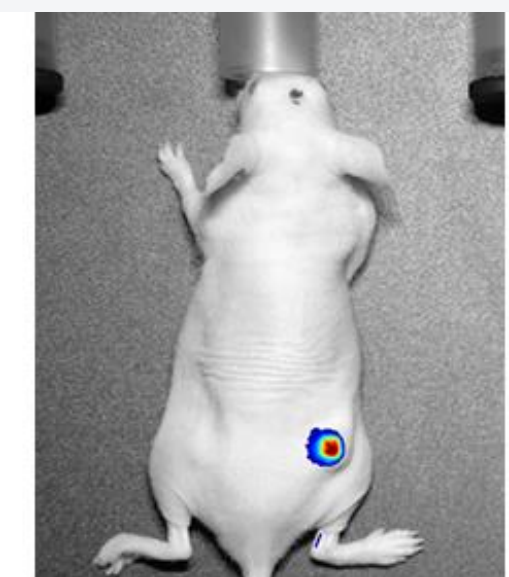
- Quantitative or relative ROI information
- Report fature including analyzed image and information
- Kinetics analysis with various patented algorithms

## Images



### Bioluminescence

BALB/c mice injected into the tail vein  
with breast luminescence tumor cell, 4T1



### Fluorescence

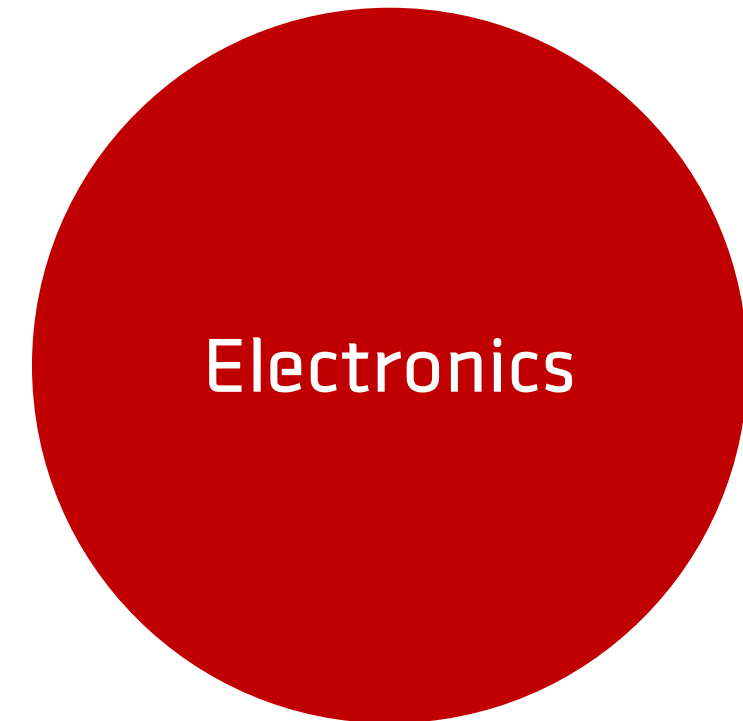
Nude mouse injected subcutaneously  
With breast RFP tumor cells



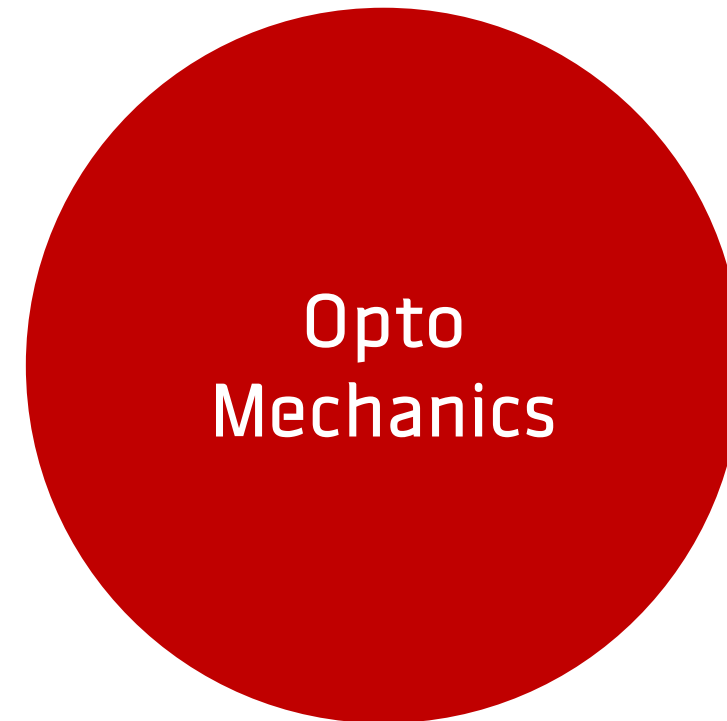
Technology



# Core Technology



+

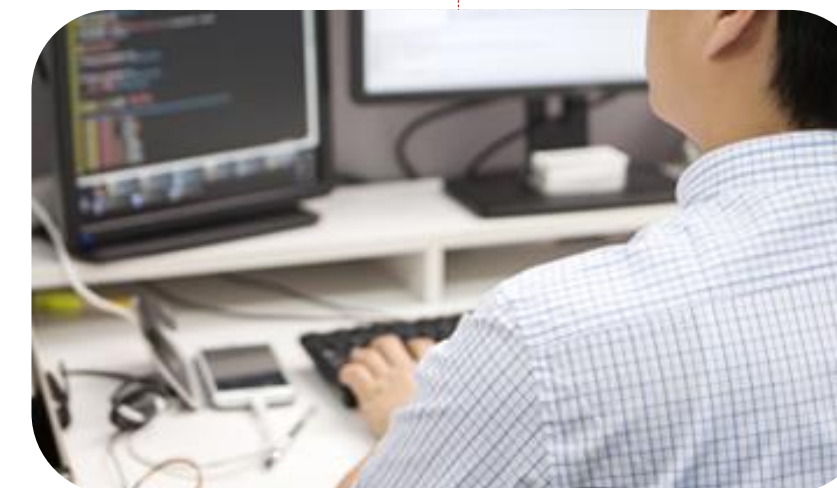
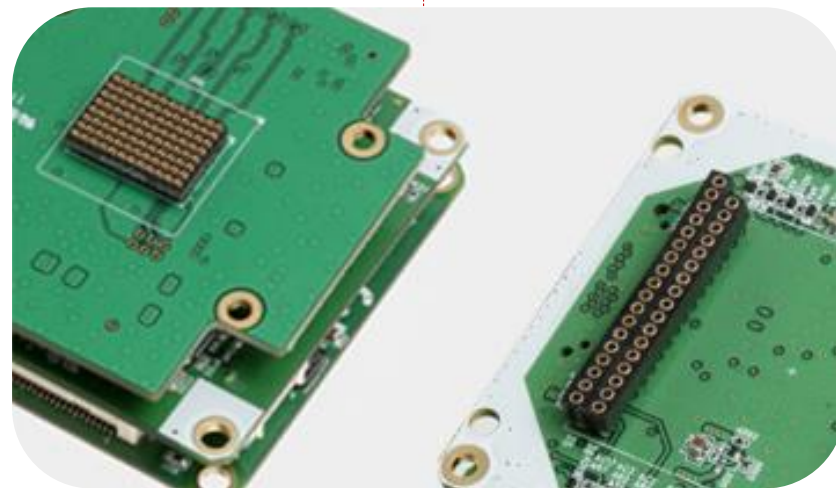


+



=

**All-in-house  
Design!**



# X-ray Detector Technology

anytime™

## Automatic Exposure Detection

Stable and reliable AED(Automatic Exposure Detection) function enables users to operate the detector without any wire connection or electronic interface with X-ray generator

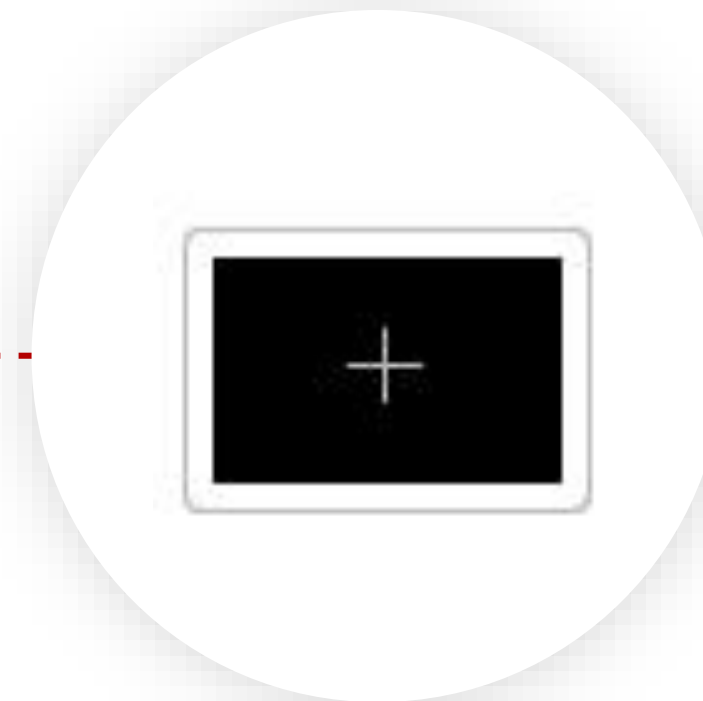
High reliability

High sensitivity

X-ray System configuration with Anytime™



X-ray System



VIVIX



Mobile Laptop Device



# X-ray Detector Technology

inside AP™

## Wireless Access

Wireless access point inside the detector makes it truly portable

Internal storage  
up to 200 images

Quick and easy  
transition through the  
exterior button

### Detector AP Mode

X-ray Generator

Detector

Wireless

Laptop



Take and Look

### Portable Mode

X-ray Generator

Object

Detector

Laptop



Preview Image

Save

Memory



Images

# Industrial Camera Technology

## TDI Line Scanning



The first hybrid TDI sensor

- The highest SNR
- High sensitivity line scanning
- Ultra high speed

## Pixel Shifting



The finest imaging technology beyond physical sensor performance

- Extend image resolution with nanotechnology
- True color full image resolution
- Improved fill factor

## Thermoelectric Cooling Technology



The reliable solution by operating the stable thermal condition

- Thermoelectric peltier cooled
- 20 degrees below ambient temperature

# In Vivo Imaging Technology

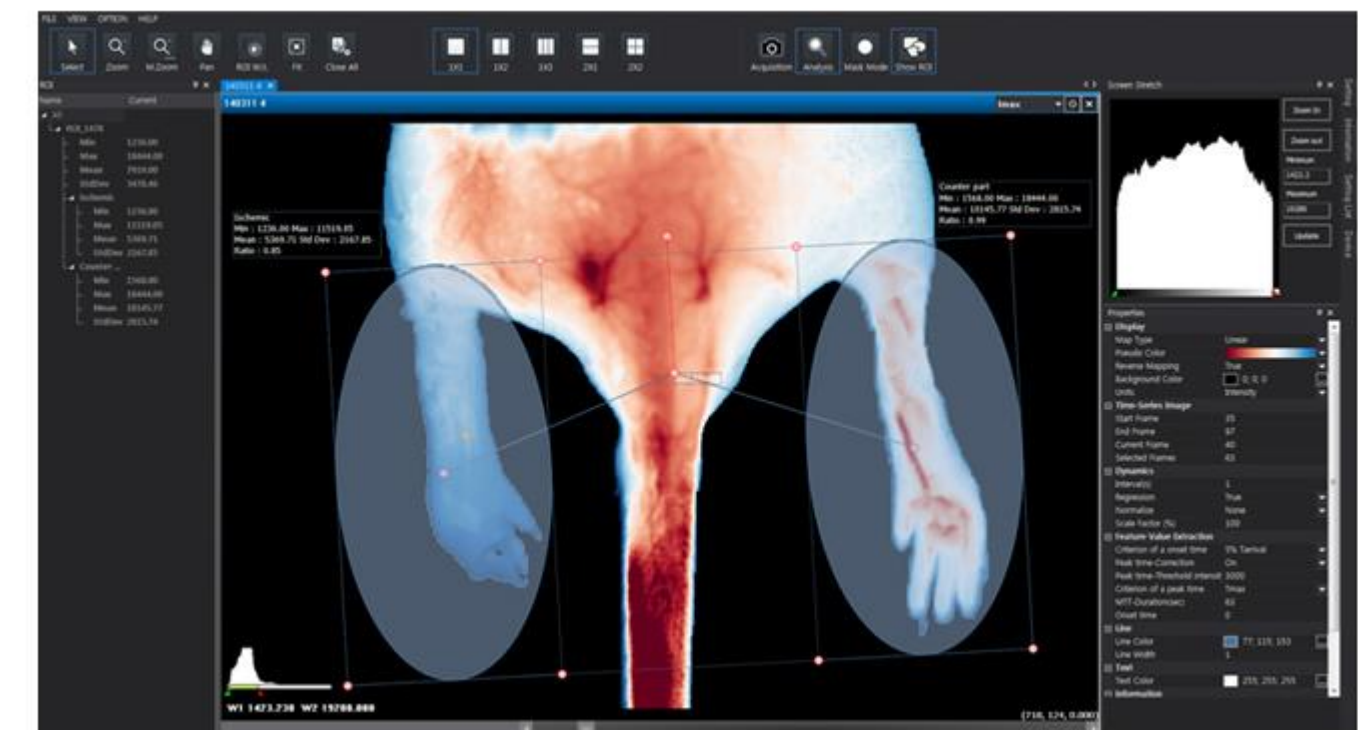
## Thermoelectric Cooling Technology Camera



The first adapting optical solution for enhancing convenience

- Ultra cooling system with TEC technology
- High sensitivity
- Patented heat radiation structure customized for camera
- Noise removal technology

## Kinetics Analysis



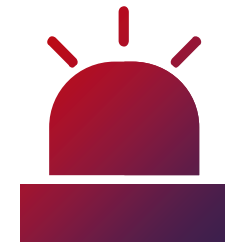
Dedicated In Vivo imaging and kinetics analysis tools

- Easy and diverse kinetic analysis tools
- Various ROI tools with useful functions
- Kinetic analysis of as many as 1000 time-lapse images

# Quality Management & Customer Service

# Quality Management

## RoHS Compliance



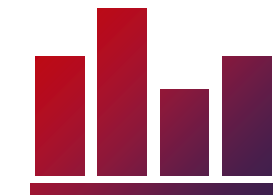
For screening  
hazardous substances

## Temp./Humi. Work-in Chamber



Environment test that simulated  
conditions of actual use

## Pressure & Drop Test



Use environment  
test

## Cable Stress Test



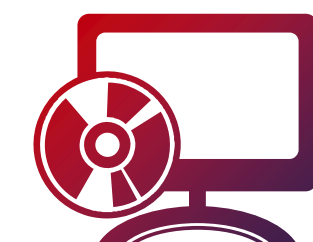
Test to assure performance  
of key component

## FPD Burning Test



Quality assurance under  
non-favorable condition

## FPD Auto Machine & Image QC program

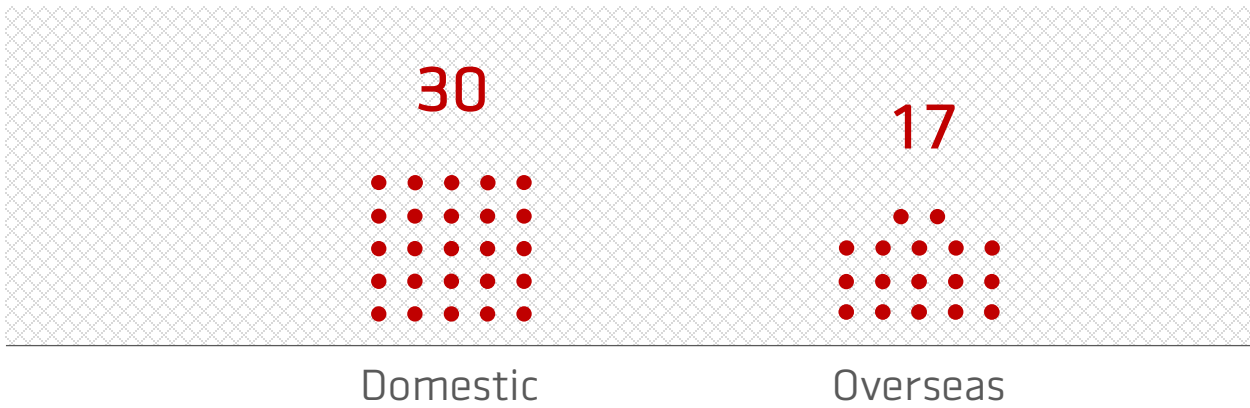


Statistical image  
quality control

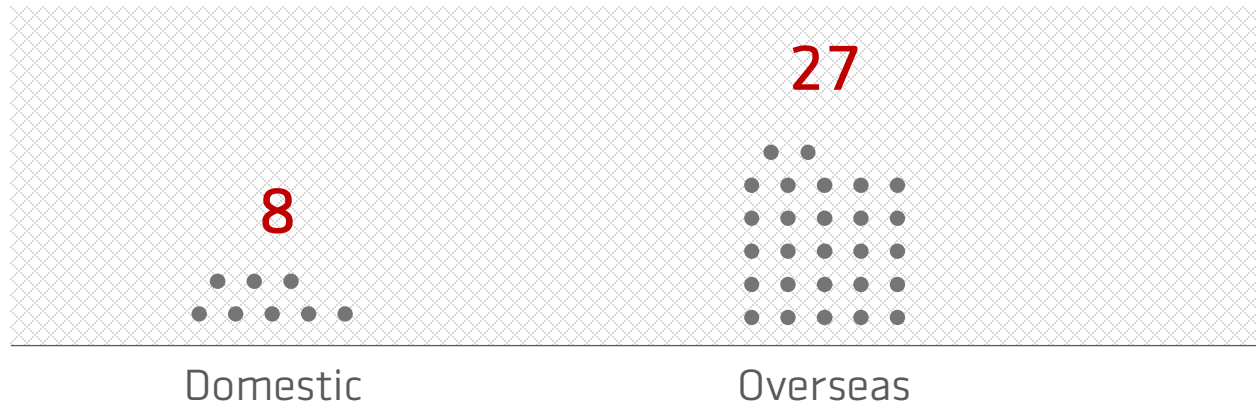
# Patents/Certifications

## Patents Status

47 In-house Patents Registered



35 Patents Applied



## Certification Status



ISO 13485



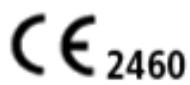
CMDCAS



KGMP

FDA  
Approved

FDA



CE



CFDA



KFDA



UL



Health Canada



FCC



KCC



ANVISA



# Customer Service

	Vieworks HQ	Vieworks America	Vieworks Europe	Vieworks China
Location	Anyang-si, Korea	Chicago, USA	Eschborn, Germany	Shanghai, China
Coverage Area	Over the World	America(North & South)	Europe	China
Available Language	Korean / English / China	English	English / German	English/ Chinese

## Service Platform : Vieworks Download System (VDS)

Offering all data through a secured online website



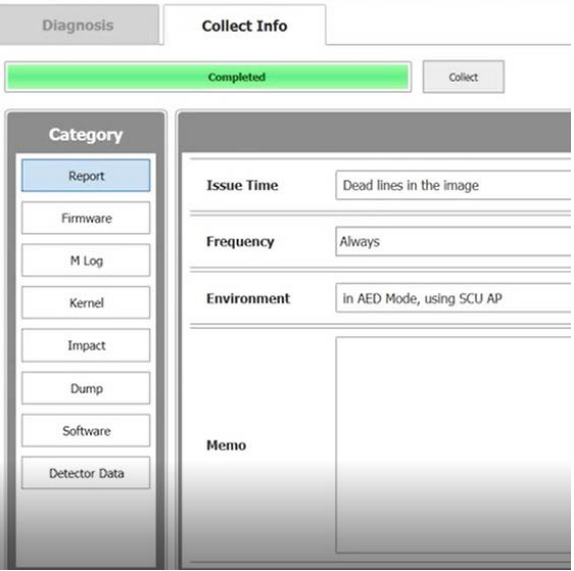
## Service Loaner Plan

Providing a loaner when issue is reported, so customers can continue their practice without halting



## Diagnostic Tool

Checking product status easily  
Reporting all necessary data  
conveniently when issue is occurred



## Training

Supporting engineering Q&As  
Providing offsite training sessions on requests





Vision



# Vision



## Customer-First

Ceaseless efforts in  
improving performance  
for customers



## Creativity

Continuous research  
in enhancing our  
imaging solutions



## Passion

Compliance of strict  
product quality management system  
to ensure the world top quality



VIEWWORKS