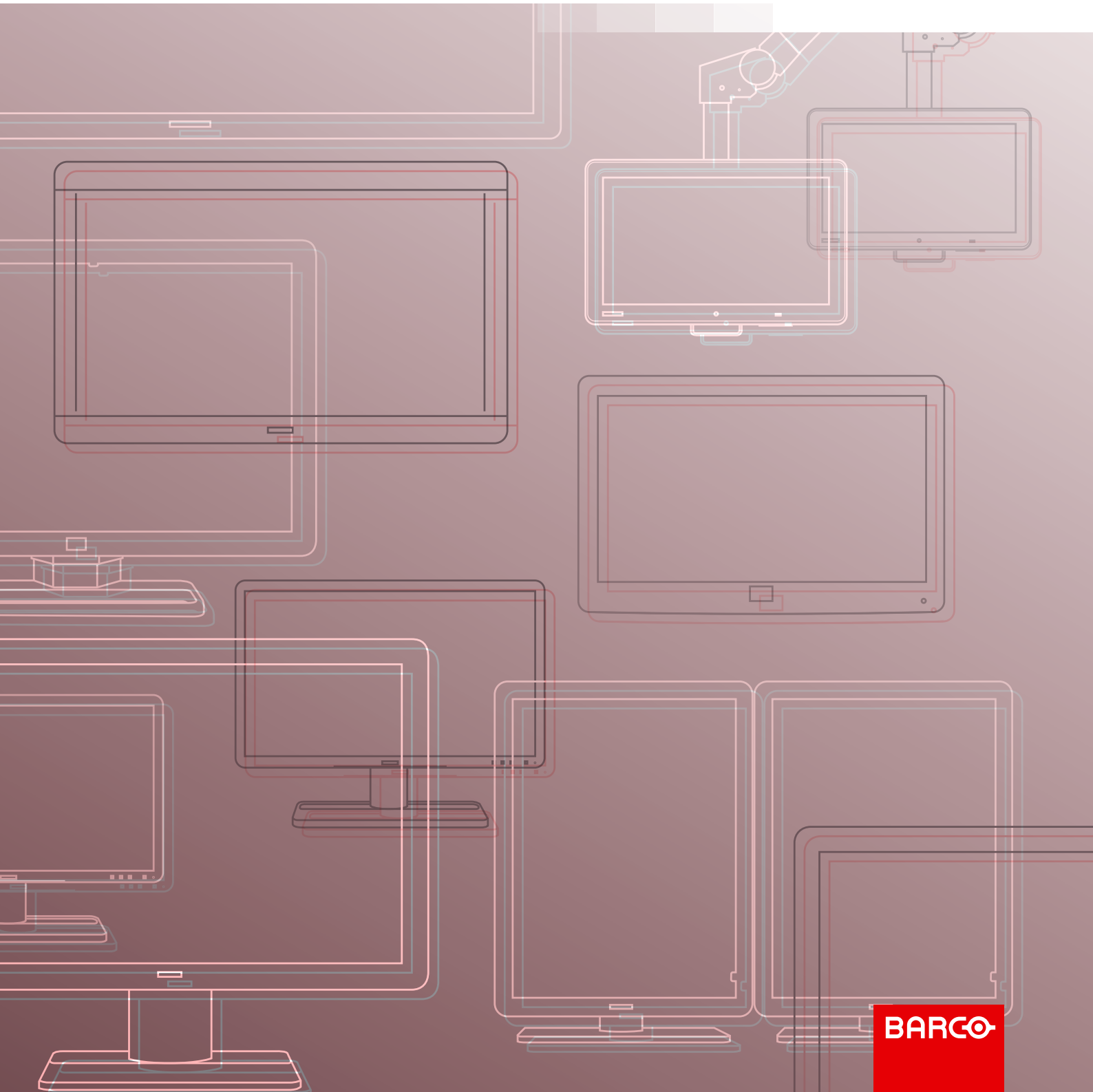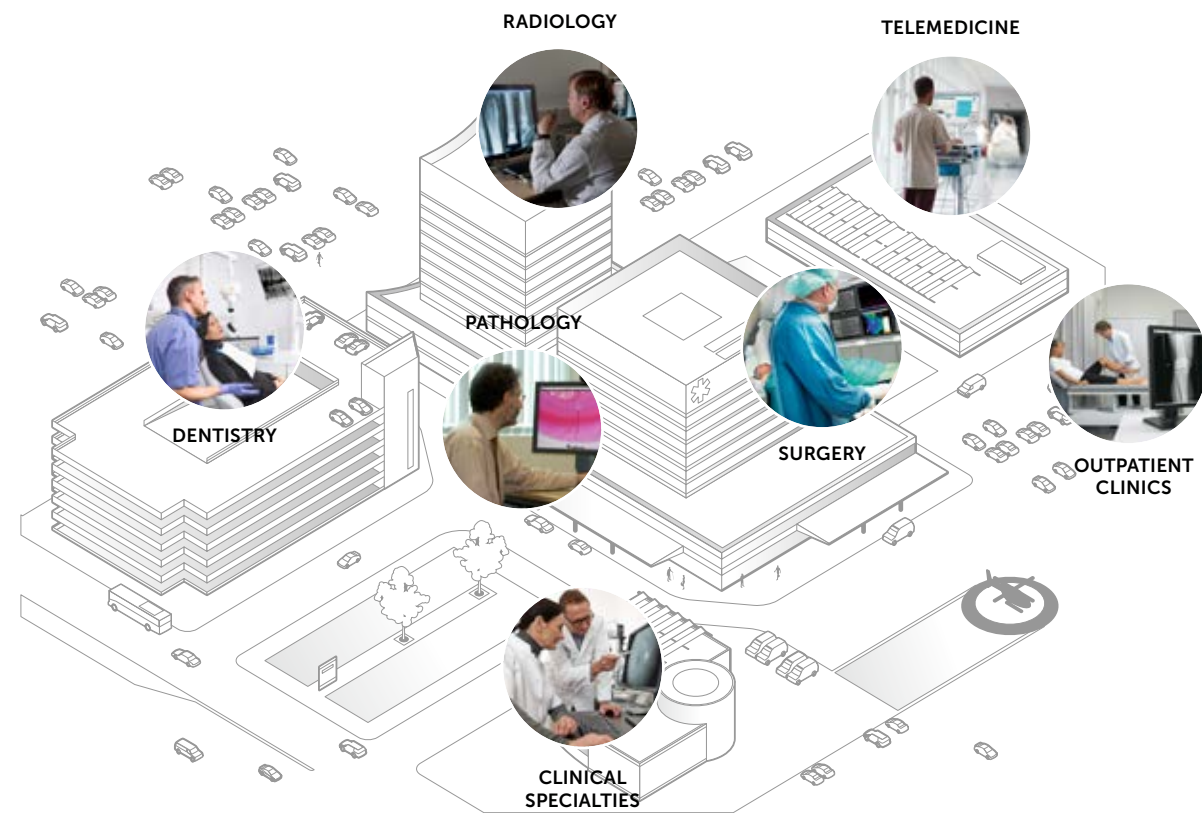# Barco Healthcare

## Medical solutions portfolio

**BARCO**

# About Barco

Focused on transforming the delivery of care, Barco connects healthcare professionals at every patient touch point, from the imaging room, to radiology, through specialist consultations and in the surgical suite. We offer a network of medical imaging solutions that deliver the complete picture to support more informed decisions, when and where it matters most.



RADIOLOGY

TELEMEDICINE

PATHOLOGY

DENTISTRY

SURGERY

OUTPATIENT CLINICS

CLINICAL SPECIALTIES



FROST & SULLIVAN

2015 BEST PRACTICES AWARD

GLOBAL MEDICAL IMAGE VISUALIZATION
VISIONARY INNOVATION LEADERSHIP AWARD

*Recognized as the Visionary Innovation Leader in medical displays by Frost & Sullivan*

# Diagnostic displays

# More than a medical display

Increasing image volumes, the growing complexity of studies, and physical discomfort while reading are the three biggest challenges radiologists face today. That is the conclusion of a 2014 survey conducted by The MarkeTech Group. The solutions? Improved image quality (91%), a more efficient workflow (77%), and better display ergonomics (70%), as indicated by radiologists themselves.

We are able to provide capabilities that can improve the reading experience in all aspects: speed, accuracy, intuitiveness, flexibility and ergonomics. How? By offering a complete imaging solution – high-quality display, ultra-fast controller for fast image loading and manipulation and automated calibration & QA to ensure peak performance and uptime – in which all components function smoothly as a unified system.

Barco's integrated technology platform enables us to develop a unique set of Intuitive Workflow features resulting in a heightened user experience. Only Barco display systems offer this value-added toolset, which adds a new dimension to radiologists' workflow by streamlining frequent tasks with automated features. Designed to help you speed through your workload with ease, these built-in, easy-to-use functions appear at your command, seamlessly paving the way for effortless productivity and working comfort.

## Intuitive Workflow tools line-up

Click icons for video >
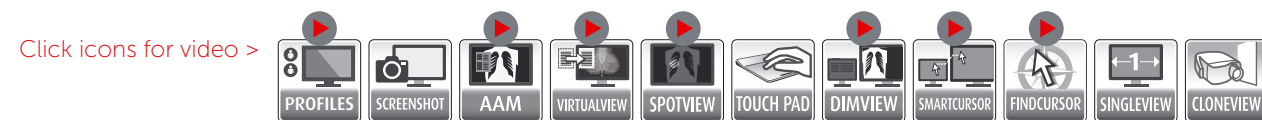
| | PROFILES | SCREENSHOT | AAM | VIRTUALVIEW | SPOTVIEW | TOUCH PAD | DIMVIEW | SMARTCURSOR | FINDCURSOR | SINGLEVIEW | CLONEVIEW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Coronis Uniti | ✓ | ✓ | ✓ | ✓ | ✓[3] | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Coronis Fusion | ✓ | ✓ | ✓[5] | ✓ | ✓[2] | ✓[4] | ✓ | ✓ | ✓ | ✓ | ✓ |
| Coronis | ✓ | ✓ | ✓[5] | ✓ | ✓[1] | | ✓ | ✓ | ✓ | | ✓ |
| Nio Gray/Color | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Nio Color 5MP | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Eonis | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ |

1    MDCG-5221, MDCG-3221
2    MDCC-4230, MDCC-4330, MDCC-6330 and MDCC-6430
3    Enables I-Luminate during SpotView
4    Optional on 4MP and 6MP Coronis Fusion Displays
5    Luminance adjustment only; color profile switching only available on Coronis Uniti and Nio Color 5MP

The Barco Touchpad also enables the Align tool on Coronis Fusion and Coronis Uniti

# MediCal QAWeb



The industry's first secure online cloud-based service for calibration and Quality Assurance of medical displays. This all-inclusive secured system is your guarantee for consistent image quality and uptime of all PACS display systems, asset and fleet management throughout the healthcare enterprise.

## What makes MediCal QAWeb so unique?

> All-inclusive system that provides cost-conscious service options for maximum workstation uptime
> Extended cloud-based remote calibration & QA support
> Seamless implementation of regional QA guidelines
> Automatic alerts & problem-solving
> Global fleet and asset management services
> Full audit trail and budget reporting
> MQSA and regulatory reports
> Compatible with all Barco diagnostic and clinical review displays
> Compatible with non-Barco displays

Download MediCal QAWeb Agent for free

# Coronis Uniti®

mammography　　radiology



| 12 MP | 33" SCREEN | STEADYCOLOR | COLOR PPU | QAWeb | I-GUARD | MULTI-SENSOR | SMOOTHGRAY | ALC | I-LUMINATE | DURALIGHT | TOMO | RAPIDFRAME | FILM CLIP | TOUCH PAD | 5Y WARRANTY |

The only diagnostic display system explicitly designed for both PACS and multimodality breast imaging. Unique in its representation of calibrated color and grayscales. Remarkable in its 2D and 3D capabilities. Capable of both static and dynamic imaging.

## Your benefits

> One display for all images to unify your workflow

> 12% more pixels to display more or larger images

> The brightest display on the market - delivers exceptional brightness resulting in more JNDs

> Proven 10% higher detection when scrolling digital breast tomosynthesis images[1]

> Up to 30% increased detection probability thanks to patented I-Luminate™ technology[2]

> Optimized for the standard field of vision and low reflection to minimize eye-fatigue

> Intuitive workflow tools selectively dim/boost and focus light for closer inspection

> Cleared for multimodality breast imaging, incl. breast tomosynthesis, 3D mammography, breast MRI, breast ultrasound, CT and ultrasound, including vascular and gynecological ultrasound

**12 ways Coronis Uniti helps increase breast cancer detection**



Read more



Meet Coronis Uniti

Models and options

# Coronis Fusion

radiology



| 30" SCREEN | FUSION | COLOR PPU | QAWeb | I-GUARD | MULTI-SENSOR | DL | SMOOTHGRAY | IPS Pro DISPLAY | 5Y WARRANTY |

The brightest diagnostic Fusion display system on the market, Coronis Fusion combines multiple images or studies on a single display. It can be used as a single, widescreen display or two bezel-free heads to view multiple images or studies.

## Your benefits

> Highest calibrated luminance in the 6MP display range today

> IPS-Pro wider viewing angle and higher contrast ratio than competing LCD technologies

> 33% more workspace to display more images

> Uniform color reproduction across the entire screen (100%)[1], from center to edge (Color PPU)

> Boosts reading productivity by up to 19%[3]

> Less eye-strain during long reading sessions

**Coronis Fusion by numbers**



Read more

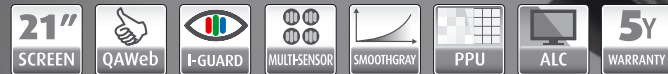Models and options

# Coronis

**21" SCREEN** | **QAWeb** | **I-GUARD** | **MULTI-SENSOR** | **SMOOTHGRAY** | **PPU** | **ALC** | **5Y WARRANTY**
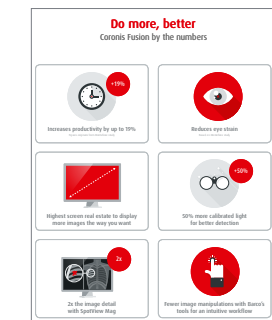
A family of diagnostic displays ideal for high-quality imaging of diagnostic modalities. Engineered down to the smallest detail to ensure perfect luminance and DICOM compliance.

## Your benefits

> The brightest 3MP display on the market exceeding ACR guidelines
> Exceptional local contrast optimized for faster reading
> Subtle details are more conspicuous for easy detection (Per Pixel Uniformity)
> Real-time intervention-free calibration and QA
> Factory-fit glass front cover reduces reflections (<0.5%)
> Comes with I-Luminate to aid in seeing subtle image details

Models and options

# Nio

**21" SCREEN** | **FRONT SENSOR** | **QAWeb** | **ULT** | **BLOS** | **ALC** | **COVER** | **PIVOT** | **5Y WARRANTY**

A family of diagnostic displays that bring dependable diagnostic imaging to its true potential. Nio's proven technologies ensure diagnostic confidence at all times, making it the standard for the radiology reading room.

## Your benefits

> Most efficient dual-head option on the market
> Highest brightness and contrast - luminance ratio exceeds ACR guidelines
> Minimal image manipulations – less windowing, leveling, zooming & panning
> More DICOM JNDs to see more subtle details quicker
> Uniform image rendering center to edge
> Factory-fit front cover reduces reflection and improves visible contrast

### More screen, more mammo
Nio Color 5MP

• Designed for radiology and mammography
• High-bright, steady colors and grays with SteadyColor technology
• Front sensor and MediCal QAWeb for always-on compliance

Models and options

# DIAGNOSTIC DISPLAYS

| | 2MP | 3MP | | 4MP | 5MP | | | 6MP | 12MP |
|---|---|---|---|---|---|---|---|---|---|
| | MDNC-2221 | MDNC-3421 | MDCG-3221 | MDCC-4330 | MDNG-5221 | MDNC-6221 | MDCG-5221 | MDCC-6430 | MDMC-12133 |
| **SPECIFICATIONS** | Nio Color 2MP | Nio Color 3MP | Coronis 3MP | Coronis Fusion 4MP | Nio 5MP | Nio Color 5MP | Coronis 5MP | Coronis Fusion 6MP | Coronis Uniti® |
| Warranty | 5 years | 5 years | 5 years | 5 years | 5 years | 5 years | 5 years | 5 years | 5 years |
| Active screen size (H x V) | 432 x 324 mm (17.0 x 12.8") | 433 x 325 mm (17.0 x 12.8") | 325 mm x 433 mm (12.8" x 17.1") | 654 x 409 mm (25.8 x 16.1") | 422.4 mm x 337.9 mm (16.5 x 13.3") | 433 x 325 mm (17 x 12.8") | 422.4 mm x 337.9 mm (16.5 x 13.3") | 654 x 409 mm (25.8 x 16.1") | 708.1 x 472.1 mm (27.8 x 18.6") |
| Screen technology | TFT AM Color LCD IPS | TFT AM Color LCD IPS | UA-SFT (Ultra Advanced Super Fine Technology) | IPS-TFT color LCD | a-si TFT active matrix dual domain IPS | a-si TFT active matrix dual domain IPS | a-si TFT active matrix dual domain IPS | IPS-TFT color LCD | IPS |
| Diagonal size | 540 mm (21.3") | 540 mm (21.3") | 540 mm (21.3") | 772 mm (30.4") | 540 mm (21.3") | 540 mm (21.3") | 540 mm (21.3") | 772 mm (30.4") | 853.44 mm (33.6") |
| Aspect ratio | 4:3 | 4:3 | 4:3 | 16:10 | 5:4 | 3:4 | 5:4 | 16:10 | 3:2 |
| Native resolution | 2MP (1600 x 1200) | 3MP (2048 x 1536) | 3MP (2048 x 1536) | 4MP (2560 x 1600) | 5MP (2560 x 2048) | 5.8MP (2100 x 2800) | 5MP (2560 x 2048) | Native 6MP (3280 x 2048) Configurable to 2 x 3MP+ (1640 X 2048) Configurable to 2 x 3MP (1536 X 2048) | 4200 x 2800 |
| Luminance (DICOM calibrated) | 800 cd/m² (400 cd/m²) | 900 cd/m² (500 cd/m²) | 1700 cd/m² (600 cd/m²) | 1050 cd/m² (600 cd/m²) | 1020 cd/m² (500 cd/m²) | 1000 cd/m² (500 cd/m²) | 1200 cd/m² (600 cd/m²) | 1050 cd/m² (600 cd/m²) | 2100 cd/m² (1000 cd/m²) |
| Contrast ratio | 1400:1 | 1400:1 | 1400:1 | 1500:1 | 1200:1 | 1400:1 | 1200:1 | 1500:1 | 1200:1 |
| Screen protection | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover | Factory fit protective, non-reflective glass cover |
| Sensor technology | Integrated front-of-screen sensor, BLOS, ALC presets | Integrated front-of-screen sensor, BLOS, ALC presets | Integrated I-Guard front-of-screen photometer sensor, Intelligent Multi-Sensor Technology, ALC | Integrated I-Guard front-of-screen color sensor, Intelligent Multi-Sensor Technology, ALC | Integrated front-of-screen sensor, BLOS, ALC | Integrated front-of-screen sensor, BLOS, ALC | Integrated I-Guard front-of-screen photometer sensor, ALC | Integrated I-Guard front-of-screen photometer sensor, Intelligent Multi-Sensor Technology, ALC | Integrated color I-Guard front-of-screen photometer sensor, Intelligent Multi-Sensor Technology, ALC |
| Diagnostic imaging technology | ULT, MXRT, Intuitive Workflow Tools | ULT, MXRT, Intuitive Workflow Tools | PPU, DuraLight, MXRT, Intuitive Workflow Tools | Color PPU, SmoothGray, MXRT, Intuitive Workflow Tools with optional touchpad | ULT, MXRT, Intuitive Workflow Tools | ULT, MXRT, Intuitive Workflow Tools, SteadyColor, SteadyGray | PPU, SmoothGray, DuraLight, I-Luminate, MXRT, Intuitive Workflow Tools | Color PPU, SmoothGray, MXRT, Intuitive Workflow Tools with optional touchpad | SteadyColor, Color PPU, I-Luminate, RapidFrame, SmoothGray, DuraLight, Clear/BlueBase, SoftGlow, Filmclip, MXRT, Intuitive Workflow Tools with Touchpad |
| Video input signals | DVI-D Dual Link, DisplayPort | DVI-D Dual Link, DisplayPort | DVI-D Dual Link, DisplayPort | DVI-D Dual Link (2x), DisplayPort (2x) | DVI-D Dual Link, DisplayPort | DVI-D Dual Link, DisplayPort | DVI-D Dual Link, DisplayPort | DVI-D Dual Link, DisplayPort | DP 1.2 |
| Medical device regulations | FDA (510)k: Digital Radiography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k Digital Radiography & Mammography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography & Mammography Class II, including breast tomosynthesis  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography & Mammography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography Class II  EC: Diagnostic or therapeutical radiology, Class IIb | FDA (510)k: Digital Radiography multi-modality breast imaging, incl. breast tomosynthesis, 3D mammography, breast MRI, breast ultrasound, CT and ultrasound, including vascular and gynecological ultrasound Class II  EC: Diagnostic or therapeutical radiology, Class IIb |
| Package includes | Nio display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Nio display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Coronis diagnostic display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Coronis Fusion diagnostic display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Nio display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Nio display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Coronis diagnostic display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Coronis Fusion diagnostic display system, MXRT graphics controller, Intuitive Workflow toolset, 5-year all-inclusive warranty, MediCal QAWeb Agent | Coronis Uniti diagnostic display system, MXRT graphics controller, Intuitive Workflow toolset, SoftGlow keyboard and wall light, Touchpad and film clip |
| Options | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Additional MXRT graphics controller options, MediCal QAWeb Premium, Extended and Advanced Warranty | Extended and Advanced Warranty, MediCal QAWeb Premium |

# Clinical displays

# Eonis

| CLEARED | CONSISTENCY | QAWeb | DICOM | WIDE VIEW | CLEANABLE | PIVOT |

A family of clinical displays for use in key clinical specialties and dental practices. Eonis delivers unmatched image consistency – providing healthcare professionals with consistent images, wherever they are – to make collaboration between specialists easier. Eonis displays can be managed centrally with MediCal QAWeb.

## Your benefits

> Designed and approved for hospital and dental environments

> Ambient Light pre-sets for dark rooms, offices and the OR

> Supports efficient inter-disciplinary collaboration with consistent quality controlled images

> Cleanable displays for infection control (70% alcohol-based cleaning agents), safe for near-patient use

> Efficient and intelligent enterprise IT workflow thanks to a built-in sensor with software tool to manage quality and assets

> Lowest cost-of-ownership over time without a need for capital budget

**Eonis put to the test**



Watch video

**Eonis vs consumer displays**
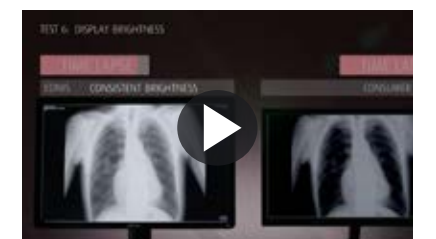


Watch video

**Are you a dentist working in Germany?**

Visit www.barco.com/de/dental to find a solution that complies with the DIN 6868-157 standard.

Models and options

| SPECIFICATIONS | MDRC-1219 (TS) | Eonis 21" | Eonis 22" touch | Eonis 22" black | Eonis 22" white | Eonis 24" black | Eonis 24" white |
|---|---|---|---|---|---|---|---|
| | MDRC-1219 (TS) | MDRC-2221 | MDRC-2222, Option TS | MDRC-2222, Option BL | MDRC-2222, Option WP | MDRC-2224, Option BL | MDRC-2224, Option WP |
| Warranty | 3 years | 3 years | 3 years | 3 years | 3 years | 3 years | 3 years |
| Active screen size | 376 x 301 mm (14.81 x 11.85") | 432 mm x 324 mm (17" x 12.76") | 476 mm x 268 mm (18.7" x 10.5") | 476 mm x 268 mm (18.7" x 10.5") | 476 mm x 268 mm (18.7" x 10.5") | 518.4 mm x 324.0 mm (20.41" x 12.76") | 518.4 mm x 324.0 mm (20.41" x 12.76") |
| Screen technology | IPS-TFT Color LCD | TFT Color LCD | TFT Color LCD IPS | TFT Color LCD IPS | TFT Color LCD IPS | TFT Color LCD IPS | TFT Color LCD IPS |
| Diagonal size | 482 mm (19") | 541 mm (21.3") | 546 mm (21.5") | 546 mm (21.5") | 546 mm (21.5") | 611.3 mm (24.1") | 611.3 mm (24.1") |
| Aspect ratio | 5:4 | 4:3 | 16:9 | 16:9 | 16:9 | 16:10 | 16:10 |
| Native resolution | 1MP (1280 x 1024) | 2MP (1600 x 1200) | 2MP (1920 x 1080) | 2MP (1920 x 1080) | 2MP (1920 x 1080) | 2MP (1920 x 1200) | 2MP (1920 x 1200) |
| Luminance (DICOM calibrated) | 330 cd/m² (250 cd/m²) | 440 cd/m² (250 cd/m²) | 300 cd/m² (180 cd/m²) | 300 cd/m² (180 cd/m²) | 300 cd/m² (180 cd/m²) | 300 cd/m² (180 cd/m²) | 300 cd/m² (180 cd/m²) |
| Contrast ratio | 1000:1 | 1500:1 | 1000:1 | 1000:1 | 1000:1 | 1000:1 | 1000:1 |
| Screen protection | n/a | n/a | Protective, non-reflective glass cover | n/a | Protective, non-reflective glass cover | n/a | Protective, non-reflective glass cover |
| Front sensor technology | Front consistency sensor | Front consistency sensor | Front consistency sensor | Front consistency sensor | Front consistency sensor | Front consistency sensor | Front consistency sensor |
| Cleanability | n/a | n/a | n/a | n/a | IP32 | n/a | IP32 |
| Video input signals | DisplayPort, DVI | DisplayPort, DVI | DisplayPort, DVI-I | DisplayPort, DVI-I | DisplayPort, DVI-I | VGA, DisplayPort, HDMI | VGA, DisplayPort, HDMI |
| Medical device regulations | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) |
| Package includes | • MDRC display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent | • Eonis display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent | • Eonis display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent | • Eonis display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent | • Eonis display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent | • Eonis display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent | • Eonis display<br>• 3-year all-inclusive warranty<br>• MediCal QAWeb Agent |
| Options | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium | • MXRT graphics controller<br>• Intuitive Workflow toolset<br>• MediCal QAWeb Premium |

# MDSC

surgery



| 4K 3840x2160 | CLEANABLE | DICOM | WIDE GAMUT | 30 BIT COLOR | WIDE VIEW | BLOS | BACKLIGHT | COVER | OSD | APPROVED | 3Y WARRANTY |
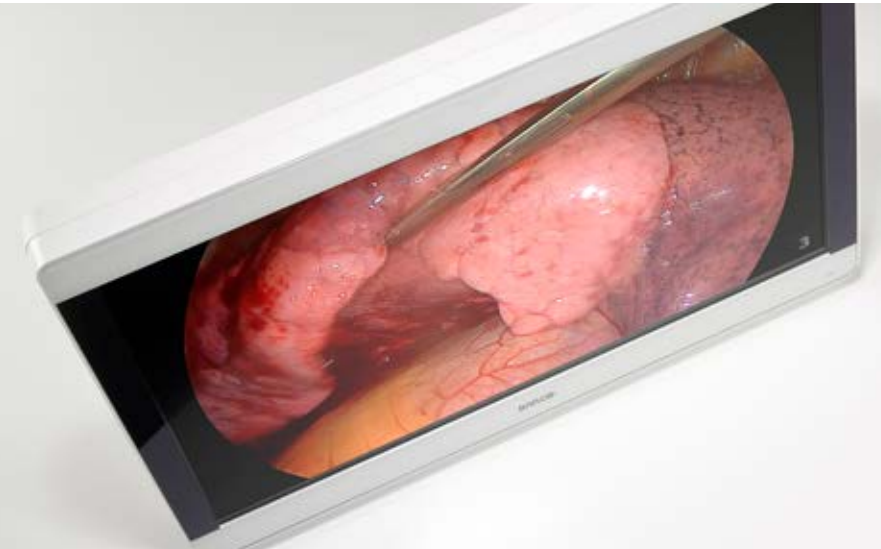
# Surgical displays

A family of surgical displays designed for real-time critical imaging in the operating room. The portfolio comprises near-patient and large-screen displays for use in any environment where surgical procedures are carried out, including the endoscopy room, interventional suite or hybrid OR. Available in high definition or 4K ultra-high definition.

## Your benefits

> Deep blacks and accurate colors from any viewing angle
> 4:4:4 chroma subsampling for impeccable color accuracy
> Near-zero latency provides perfect surgical hand-eye coordination
> Improved visualization in high ambient light environments
> Backlight output stabilization guarantees image stability and brightness over the lifetime of the display
> Cleanable infection control design complies with strict OR hygiene standards
> Unique cable management system makes it easy to install and disinfect
> Automated failover feature so a backup signal is always available
> Perfect match with Barco's Nexxis OR-over-IP platform for full OR integration

**4 ways 4K changes surgical imaging:**
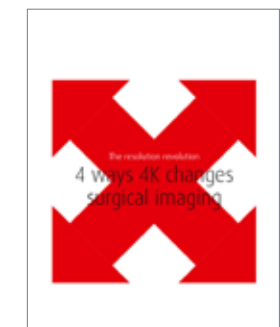


Download ebook

Models and options

| ENDOSCOPY DISPLAYS | | | | | | LARGE-SCREEN DISPLAYS | | | |



| SPECIFICATIONS | AMM 215WTD | MDSC-2324 | MDSC-2326 | MDSC-2326 High Bright | MDSC-2232 | MDSC-8231 | MDSC-2242 | MDSC-8255 | MDSC-8358 | MDSC-8427 |
|---|---|---|---|---|---|---|---|---|---|---|
| Warranty | 18 months | 3 years | 3 years | 3 years | 3 years | 3 years | 3 years | 3 years | 2 years | 3 years |
| Active screen size (H x V) | 475 x 267 mm (18.7 x 10.5") | 518.4 x 324 mm (20.4" x 12.7") | 576 x 324 mm (22.7" x 12.8") | 576 x 324 mm (22.7" x 12.8") | 698 x 393 mm (27.48" x 15.47") | 698 x 368 mm (27.48" x 14.49") | 930 x 523 mm (36.6" x 20.6") | 1210 x 640 mm | 1270 x 721.5 mm (50 x 28.4") | 597 x 336 mm (23.5" x 13.2") |
| Screen technology | TFT AM LCD / LED Backlight | TFT AM LCD / S-IPS technology / LED backlight | TFT AM LCD / IPS-PRO / LED backlight | TFT AM LCD / IPS-PRO / LED backlight | TFT AM LCD / S-IPS technology / LED backlight | TFT AM LCD / S-IPS technology / LED backlight | TFT AM LCD / IPS-PRO technology / LED backlight | TFT AM LCD / IPS technology / LED backlight | a-si TFT active matrix | TFT AM LCD / IPS-PRO technology / LED backlight |
| Diagonal size | 21.46" (545.2 mm) | 24" (611.3 mm) | 26" (661 mm) | 26" (661 mm) | 31.55" (801 mm) | 31" (789 mm) | 42" (1067 mm) | 54.6" (1388 mm) | 58" (1473 mm) | 27" (685 mm) |
| Aspect ratio | 16:9 | 16:10 | 16:9 | 16:9 | 16:9 | 17:9 | 16:9 | 16:9 | 16:9 | 16:9 |
| Native resolution | Full HD 1920 x 1080 | WUXGA 1920 x 1200 | Full HD 1920 x 1080 | Full HD 1920 x 1080 | Full HD 1920 x 1080 | 4K-2K UHD 4096 x 2160 | Full HD 1920 x 1080 | 4K UHD 3840 x 2160 | 4K UHD 3840 x 2160 | 4K UHD 3840 x 2160 |
| Luminance | 250 cd/m² | 400 cd/m² | 500 cd/m² | 900 cd/m² | 450 cd/m² | 550 cd/m² | 500 cd/m² | 500 cd/m² | 700 cd/m² | 750 cd/m² |
| Contrast ratio | 1000:1 | 1500:1 | 1400:1 | 1400:1 | 1300:1 | 1400:1 | 4000:1 | 1000:1 | 4000:1 | 1400:1 |
| Screen protection | Double-side anti-reflective PMMA protective cover | Double-side anti-reflective PMMA protective cover | Scratch-resistant 2-side anti-reflective alkali-aluminosilicate glass cover | Scratch-resistant 2-side anti-reflective alkali-aluminosilicate glass cover | Double side anti-reflective tempered glass protective cover | Scratch-resistant 2-side anti-reflective alkali-aluminosilicate glass cover | Double side anti-reflective tempered glass protective cover | Scratch-resistant, 2-side anti-reflective glass cover | Double side anti-reflective laminated glass protective cover | Scratch-resistant 2-side anti-reflective alkali-aluminosilicate glass cover |
| Cable management | n/a | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cleanability | IP21 (IPx5 front) | IP21 (IP45 front) | IP21 (IP45 front side) | IP21 (IP45 front side) | IP20 (IP45 front side only) | IP20 (IP45 front side only) | IP21 (IPx5 front side only) | IP20 (IP45 front side) | IP20 (IP21 with protective glass) | IP21 (IP45 front side) |
| Failover | n/a | Yes | Yes | Yes | Yes | Yes | Yes | n/a | Yes | Yes |
| Video input signals | 2xDVI-I, VGA, RGBS / YPbPr, S-video, Composite video, 3G-SDI | DVI-I Single-Link (Digital & Analog / HDMI support with HDCP), Component Video RGBS / YPbPr (4xBNC) / S-video / Composite video / 3G-SDI / DisplayPort v 1.1a Optional: integrated Nexxis network adapter | DVI-I (HDMI support), DVI-D, 2x 3G-SDI, S-video, Composite video, 3G-SDI, DisplayPort (1.1a) Optional: integrated Nexxis MNA-120 network adapter / 2nd DVI / 2nd SDI | DVI-I (HDMI support), DVI-D, 2x 3G-SDI, RGBS / YPbPr, S-video, Composite video, DisplayPort 1.1a Optional: integrated Nexxis MNA-120 decoder | DVI-I (2x - HDMI support), RGBS / YPbPr, S-video, Composite video, 3G-SDI (2x), DisplayPort (1.1a) Optional: integrated Nexxis MNA-120 network adapter | 2x DP 1.1, 1x DP 1.2 MST, 2x HDMI 2.0 1x DVI, 1x 3G-SDI Optional: integrated Nexxis MNA-240 network adapter | DVI-I ( HDMI support), RGBS / YPbPr, S-video, Composite video, 3G-SDI, DisplayPort (1.1a) Optional: integrated Nexxis MNA-120 network adapter | 2x DP 1.1, 1x DP 1.2 MST, 2x HDMI 2.0 1x DVI, 1x 3G-SDI Optional: 2x FO SFP+ module for 4K-UHD Nexxis link | DVI Dual Link, DVI Single Link, DP1.2 Optional: Nexxis MNA-240 decoder, 2x Single Link DVI Dual Splitter | 2x DP 1.1, 1x DP 1.2 MST, 2x HDMI 2.0 1x DVI, 1x 3G-SDI Optional: integrated Nexxis MNA-240 network adapter |
| Video output signal | SDI / S-video / Composite Video, RGBS / YPbPr | DVI-D / S-video / Composite video / 3G-SDI | DVI / S-video / 3G-SDI / Composite | DVI-D / 2x 3G-SDI / S-video / Composite | DVI / SDI / S-video / Composite | DVI (UHD downscaled) 3G-SDI (input loop-through) | DVI / SDI / S-video / Composite | DVI (UHD downscaled) 3G-SDI (input loop-through) | n/a | DVI (UHD downscaled) 3G-SDI (input loop-through) |
| Medical device regulations | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) |
| Package includes: | • AMM 215WTD display • 18-month all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty | • MDSC display • 2-year all-inclusive warranty | • MDSC display • 3-year all-inclusive warranty |
| Options | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty | • Ask about our different model options and associated accessories • Core+ warranty |

# Smart displays and user interfaces

| surgery | EMR | other | |
|---|---|---|---|



A range of displays that offer an intuitive, ergonomic touch experience, specially designed for use in a medical environment. They can be used for a variety of applications, including the digital operating room and medical carts. Wherever clinicians need access to detailed information, at the touch of a fingertip.

## Your benefits

> Multi- and single-touch functionality for quick operation
> Ergonomic interaction, even when wearing gloves
> Fit for use in highly demanding, mission-critical environments
> Special design that allows for easy cleaning and infection control
> Easy to install, whether on carts, arms or booms

Models and options

## Smart displays and user interfaces

| SMART DISPLAYS AND USER INTERFACES | | | |
|---|---|---|---|



| SPECIFICATIONS | MDRC-2222, Option TS | MDRC-1219, Option TS | AMM 215WTTP | MUIP-2112 |
|---|---|---|---|---|
| Warranty | 3 years | 3 years | 18 months | 2 years |
| Active screen size | 476 x 268 mm (18.7" x 10.5") | 376 x 301 mm (14.8" x 11.8") | 476 x 267 mm (18.7" x 10.5") | 276 x 157 mm (10.8" x 6.2") |
| Screen technology | TFT Color LCD IPS | IPS-TFT Color LCD | TFT AM LCD | TFT AM LCD |
| Diagonal size | 21.5" (546 mm) | 19" (482 mm) | 21.5" (545 mm) | 12.5" (317 mm) |
| Aspect ratio | 16:9 | 5:4 | 16:9 | 16:9 |
| Native resolution | 2MP (1920 x 1080) | 1MP (1280 x 1024) | 2MP (1920 x 1080) | 2MP (1920 x 1080) |
| Luminance | 300 cd/m$^2$ | 330 cd/m$^2$ | 250 cd/m$^2$ | 400 cd/m$^2$ |
| Contrast ratio | 1000:1 | 1000:1 | 1000:1 | 1000:1 |
| Screen protection | Protective, non-reflective glass cover | N/A | N/A | Anti Glare (Gloss 50) |
| Cleanability | N/A | N/A | N/A | IP54 (with sealed connector cover) |
| Video input signals | DisplayPort, DVI-I | DVI, DisplayPort | DVI-D, VGA | N/A |
| Medical device regulations | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Viewing of medical radiology images (Class I) | FDA & EC: Endoscopic and Surgical imaging (Class I) | Medical device, class 1 |

# Barco technologies that make a difference

## I-Guard™ front sensor

This integrated, patented front-of-screen photometer has become the industry-standard technology for monitoring image quality and DICOM consistency. The new generation of I-Guard has been improved to measure much finer gradations of colors spread over the color gamut of the display. Combined with Barco's MediCal QAWeb service, it provides an easy-to-use tool for calibration and Quality Assurance.

### Benefits

> Worry-free DICOM accuracy
> Continuous, automated QA of the entire optical stack
> Remote assessment of your display's image quality



*Without I-Guard*

2017  2018  2019

*With I-Guard*

## Ambient Light Compensation™ (ALC)

Ensures that your diagnostic display system remains DICOM compliant under all lighting conditions by monitoring display brightness compared to the ambient light level in the room. In combination with MediCal QAWeb, ALC warns you when the ambient light level exceeds a predefined threshold.

### Benefits

> DICOM compliance under all lighting conditions
> Optimal image quality in every environment so no detail goes unnoticed



*DICOM compliance under all lighting conditions thanks to ALC*
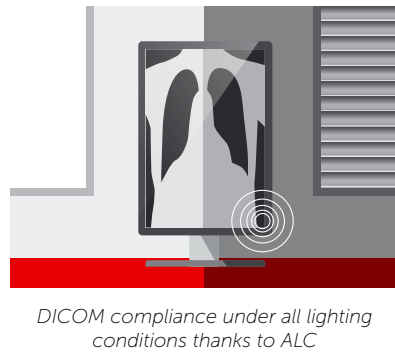
## Uniform Luminance Technology™ (ULT)

LCD panels typically suffer from non-uniform behavior across more than 25% of the screen area, causing noise in the image. ULT eliminates those luminance and color non-uniformities, making sure that your display is compliant with DICOM GSDF across the entire screen area.

### Benefits

> Uniform luminance across the entire screen
> Perfect DICOM compliance from center to corner



*Without ULT*          *With ULT*
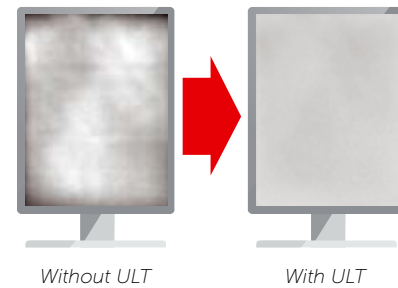
## Color Per Pixel Uniformity™ (PPU)

Measures and adjusts the luminance of each pixel and makes it permanently DICOM compliant. As such, PPU eliminates screen noise, ensuring consistent colors and grayscales.

### Benefits

> Reduced screen noise
> Improved contrast and accuracy in fine details
> Improved image quality at a lower dose to the patient



*Without PPU*          *With PPU*
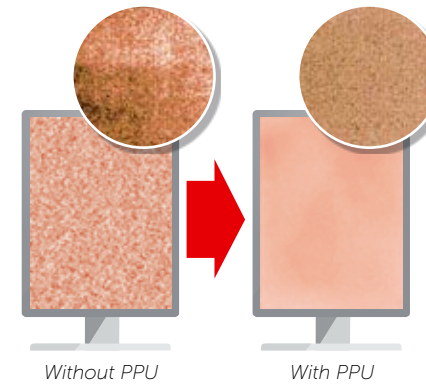
## Fusion

'Fusion' design replaces a dual-head display setup by a single, large-screen monitor without a hindering central bezel. It allows you to place more images on the screen – just the way you want – which has proven to increase productivity by up to 19% and reduce eye strain.

### Benefits

> Improved reading productivity
> Easy side-by-side comparison of studies
> Reduced eye fatigue



## Barco Optical glass™

Reduces reflection, enhances image sharpness and viewing comfort. The multi-coated glass is highly durable, scratch-resistant, and protects the LCD panel from physical damage. A protective front cover – available on all Barco displays – further enhances the diagnostic experience.

### Benefits

> Protection of your valuable LCD panel
> Improved image contrast & minimal reflections
> Easy and safe cleaning



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**I-Guard video**



[ Watch video ]

**ULT technology highlight**



[ Download ]

**Coronis Fusion by numbers**
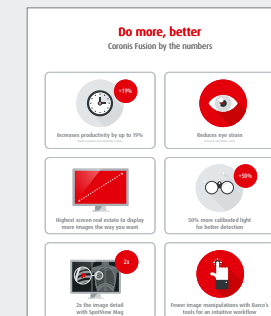


[ Download ]

**Optical glass technology highlight**



[ Download ]

# IPS-Pro

A breakthrough LCD architecture offering a significantly wider viewing angle than competing LCD technologies. It ensures images are displayed more accurately and with a higher contrast ratio near the sides of the display. With IPS-Pro, the viewing angle is 120°, which is nearly twice the value achieved by other technologies.

## Benefits

> Superior diagnostic accuracy
> Wider viewing angle improves multiuser viewing



# RapidFrame™

For high-speed cine imaging without blur when reviewing multi-frame image sequences – such as tomosynthesis, breast ultrasound and breast MRI – or when hovering over the image with the magnifying glass. RapidFrame technology counteracts motion blur by providing a high pixel refresh rate.

## Benefits

> High-speed cine imaging without blur for fast interpretation
> Increased screening efficiency due to highly efficient diagnostic workflow
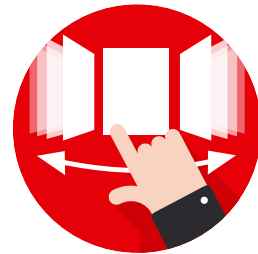


# I-Luminate™

This brightness boost system has proven to increase detection of microcalcifications by up to 30%! Simply push the I-Luminate™ 'hot light' button to temporarily boost your display brightness. Combined with Barco's handy film clip, I-Luminate allows you to compare studies with film-based priors on the display.

## Benefits

> Enhanced perception of small and low contrast details
> Simplified comparison with film-based studies
> Uninterrupted DICOM-compliance
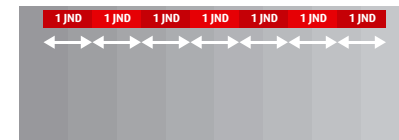


# SteadyColor™ & SteadyGray™

Around 90% of images generated are now in color and color is often used for additional functionality (e.g. combining Doppler images with ultrasound). In order to guarantee consistent, perceptually linear color and still meet the DICOM standard for grayscales, SteadyColor executes advanced calibration for both grayscale and all Just Noticeable Differences (JNDs). This is achieved using multiple sensors in combination with numerous 3D Look-Up Tables (LUTs). SteadyGray uses the same color calibration technology to achieve a more constant and consistent gray appearance.

## Benefits

> Maximize the diagnostic value of color in images
> Maintain image quality and DICOM compliance under all lighting conditions



*Before SteadyColor*   *After SteadyColor*
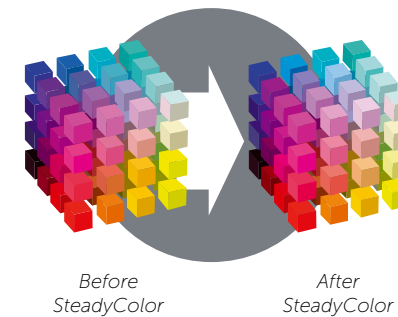
# SpotView™

SpotView creates a bright focal point on the screen, enhancing brightness and contrast inside a circular region of interest while dimming the surrounding image area. This heightens visibility of subtle differences in the image. With SpotView Mag, you can even double the size of the image so no detail goes unnoticed.

## Benefits

> Better visibility of subtle differences in the image
> Extremely helpful when viewing pediatric extremities, breast calcifications and chest exams
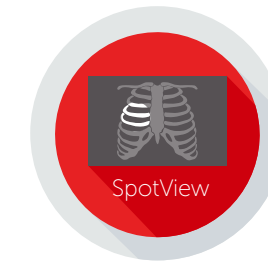


# DimView™

DimView automatically dims the auxiliary displays used for patient worklists or dictation, reducing peripheral ambient light during readings so the eye can better focus on details on the diagnostic display.

## Benefits

> Improved focus on the main display, no distractions
> More ergonomic reading experience



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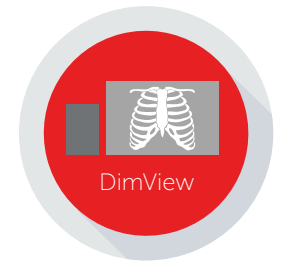
**RapidFrame video**
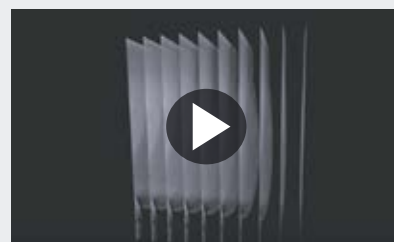


Watch video

**SteadyColor technology highlight**



Download

**SpotView video**



Watch video

**DimView video**



Watch video

## SmartCursor/ FindCursor

The use of multiple resolution displays in a PACS workstation results in the cursor often getting stuck traveling from one display to another, if you can even locate the cursor in the first place. SmartCursor maps the cursor to the correct places in the adjacent display. FindCursor indicates the location of the cursor with a highlighted circle.

### Benefits

> Avoid losing time locating or moving the mouse cursor
> Smoother and faster workflow
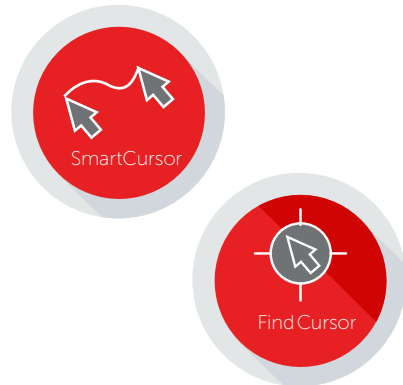
## VirtualView™

VirtualView provides radiologists with a virtual navigational head on the main display. It appears and disappears on user command, allowing you to add or remove this screen content at your convenience.

### Benefits

> View other screen content more comfortably
> Ideal for viewing worklists, re search, dictation, or ancillary tasks
> Reduce the number of displays needed; simplify the desktop

## Conference CloneView

Conference CloneView software is a high-performance, easy-to-use tool for projecting medical images from a diagnostic display onto a large screen, especially useful in classroom settings.

### Benefits

> High-quality cloned image without losing pixel precision
> Fosters collaboration between peers
> Ideal during multi-disciplinary team meetings
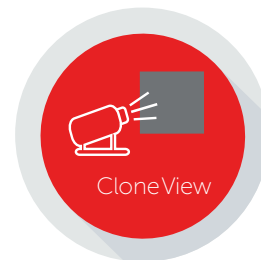
## Application Appearance Manager™

Application Appearance Manager allows you to individually manage the color profile and luminance of each application window so content appears as intended.

### Benefits

> Seamlessly integrate color (e.g. color photos) into the diagnostic workflow
> Manage the luminance of applica tion windows depending on image content

## User Profiles

User Profiles creates a custom profile, set per modality and per user. It enables a quick environment switch for image type, such as a lower luminance for X-ray images and hig

### Benefits

> Read images according to your own preferences
> Automatically get the right display settings for every modality
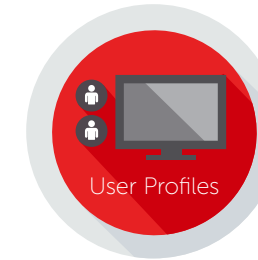
## SingleView™

SingleView enables the use of the entire display as one display, and eliminates any tearing down the center of the display.

### Benefits

> More flexible desktop where im ages can be placed in the center of the screen
> More ergonomic viewing experience
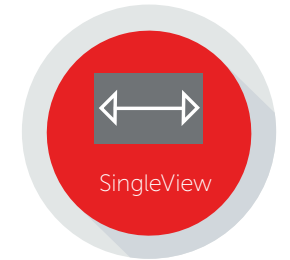
## Screenshot

Capturing ideal images for meetings and review, this tool enables you to take a screenshot of what is currently in focus.

### Benefits

> Easy to communicate and share images and data
> Fosters easy collaboration between peers

**SmartCursor / FindCursor video**

Watch video

Watch video

**VirtualView video**

Watch video

Watch video

Watch video

# Icon overview

| Icon | Description |
|---|---|
| **5Y** WARRANTY | Standard 5-year warranty |
| **10** BIT | 10 bit Look Up Table |
| **12** BIT | 12 bit Look Up Table |
| **30** BIT | 30 bit Look Up Table |
| LED BACKLIGHT | LED backlight |
| ALC | Integrated Ambient Light Compensation |
| BLOS | Backlight Output Stabilization |
| COLOR | Color display |
| GRAY | Grayscale display |
| COVER | Anti-reflective protective front cover |
| GLASS | Anti-reflective protective front glass |
| DL | Diagnostic Luminance (Ultra bright display) |
| DICOM | Compliant with DICOM specifications |
| DURALIGHT | Long-lifetime backlights |
| GREEN | Environmental-friendly product |
| FUSION | Seamless wide-screen desktop |
| I-GUARD | Integrated front-of-screen sensor |

| Icon | Description |
|---|---|
| FRONT SENSOR | Front-of-screen sensor |
| APPROVED | Approved for medical use |
| OSD | On Screen Display |
| PPU | Per Pixel Uniformity correction |
| QAWeb | MediCal QA software included |
| PIVOT | Usable in portrait and landscape mode |
| TOUCH | Touch screen interface |
| ULT | Uniform Luminance technology |
| WIDE VIEW | Exceptionally wide viewing angle |
| SMOOTH GRAY | Ultra-smooth grayscale precision |
| WIDE SCREEN | Widescreen aspect ratio |
| DISPLAY PORT | DisplayPort interface |
| MULTI-SENSOR | Multiple built-in sensors |
| TOMO | Cleared for breast tomosynthesis |
| I-LUMINATE | 'Hot light' button |
| RAPIDFRAME | High-speed cine imaging without blur |
| CONSISTENCY | Front consistency sensor |

| Icon | Description |
|---|---|
| STEADYCOLOR | DICOM grayscale and color |
| COLOR PPU | Color Per Pixel Uniformity Correction |
| SCREENSHOT | Screenshot of image details |
| AAM | Application Appearance Manager |
| VIRTUALVIEW | A virtual display |
| SPOTVIEW | Focus light |
| DIMVIEW | Dims auxiliary displays |
| FINDCURSOR | Locates the mouse cursor |
| SMARTCURSOR | Avoids the cursor getting stuck |
| CLONEVIEW | For large-screen projection |
| **4K** 4096x2160 | 4K native display resolution of 4096 by 2160 pixels |

## Find the medical solution you need in just two clicks!

Go to our online product finder at

**www.barco.com/productfinders/medicaldisplays**

# About Barco Healthcare

Improving the quality and value of care are the leading priorities for healthcare professionals today. At a time when the amount of data is growing rapidly and there is more demand for mobility, healthcare systems struggle to work more efficiently, and to provide personalized care to a growing number of patients in an affordable way.

Focused on transforming the delivery of care, Barco connects healthcare professionals at every patient touch point, from the imaging room, to radiology, through specialist consultations and in the surgical suite. We offer a network of medical imaging solutions that deliver the complete picture to support more informed decisions, when and where it matters most.

It's why we are considered the gold standard for medical visualization and how we are there at every stage of the patients' journey. So healthcare professionals can focus on patients' needs and, in the end, achieve the best clinical outcome.

**Barco, enabling bright outcomes**

[1]  Marchessoux, C., et al. (2011). Validation of a new digital breast tomosynthesis medical display. Proceedings of SPIE, 7966, 79660R

[2]  Kimpe, T. R. & Xthona, A. (2012). Quantification of detection probability of microcalcifications at increased display luminance levels. , Breast Imaging, Springer 7361, 490-497.

[3]  Mony Weschler, Montefiore Medical Center, 2012

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**ENABLING BRIGHT OUTCOMES**

**BARCO**