MagicMaXUniversal



**EXCEPTIONAL - INNOVATIVE ONE INTEGRATED SOLUTION** FOR QUALITY CONTROL IN MEDICAL IMAGING



# MagicMaXUniversal EXCEPTIONAL · INNOVATIVE · ONE INTEGRATED SOLUTION

### YOUR HIGH-END MULTIMETER SOLUTION SOLVING ALL YOUR NEEDS IN BEAM VERIFICATION.

- > ALL-IN-ONE DEVICE for all X-ray modalities
- > ADVANCED SOFTWARE provides a fast total overview as well as comprehensive expert level detail and reporting
- PLUG & PLAY system allows fast and seamless workflow within ONE minute setup time

14.7 Hz

9.3 mm

50.4 kV

71.5 kV

4.075

1.552 µGy

21.0 uGv/s

### **CONNECTION TO**

- Solid State Detector RQA for Radiography and Fluoroscopy
- Solid State Detector RQM for Mammography
- ► Current Probe
- ► Illuminance Detector



COMPUTER OPERATING SYSTEM

- Operating system: Windows XP 32 bit SP 3, Windows Vista 32 and 64 bit, Windows 7
- > Pentium processor (or equivalent), minimum 1.6 GHz
- ► 1 GB RAM

mmm

- ► 600 MB free hard disk space
- DirectX 9.29.1973 or later
- ► Internet Explorer version 6 or later

Connection to second dose detector allows simultaneously measuring both entrance and exit dose

## **CONNECTION TO**

- ► Ionisation Chamber DCT 10
- Multidetector XR
- ► Multidetector XM

# MagicMaX Universal CASES

# MagicMaX Universal FAMILY

### YOUR ALL-IN-ONE SOLUTION KEEPING YOU MOBILE.

### MagicMaXUniversal FULL QA KIT

- ► MagicMaXUniversal
- > Test phantoms for all X-ray modalities
- Multidetector radiography / fluoroscopy XR and mammography XM
- ► MagicMaX Current Probe
- Illuminance detector
- ► Ionization chamber for CT

### MagicMaXUniversal RAD/FLU CASE

- ► MagicMaXUniversal
- Multidetector radiography / fluoroscopy XR
- MagicMaX Current Probe
- > Test phantom for radiography and fluoroscopy
- Illuminance detector

### MagicMaXUniversal MAMMO CASE

- ► MagicMaXUniversal
- Multidetector mammography XM
- ► Test phantom PASMAM C
- MagicMaX Current Probe
- Illuminance detector

### MagicMaXUniversal CT CASE

- ► MagicMaXUniversal
- > CT phantom for adults & pediatric
- ► Ionization chamber for CT
- Illuminance detector

### MagicMaXUniversal CASE

- ► MagicMaXUniversal
- Multidetector radiography / fluoroscopy XR and mammography XM
- ► MagicMaX Current Probe
- Illuminance detector
- Ionization chamber for CT











**IONIZATION CHAMBER** DCT10-MM ► For CT application ► High sensitivity carbon pencil chamber **ILLUMINANCE DETECTOR CURRENT PROBE** ► Light output measurements ► Unique invasive and of image intentsifiers and non invasive measurents viewing boxes of the tube current **MULTIDETECTOR XR MULTIDETECTOR XM** ► For radiography and fluroscopy ► For mammography  $\succ$  Measuring values: kV<sub>p</sub>, PPV, ► Measuring values: kV<sub>p</sub>, PPV, HVL, dose, dose rate, dose HVL, dose, dose rate, dose per pulse, exposure time and per pulse, exposure time and wave form wave form

# **IMAGE QUALITY QUALITY ASSURANCE**



## **DISPLAY QUALITY QUALITY ASSURANCE**



### TEST DEVICE PRIMUS L

- Digital + conventional Radiography and Fluoroscopy
- > Parameters and determination:
  - Dynamic range
  - Linepair resolution performance
  - Contrast resolution
  - Limitation of the radiation field



## SPOT-LUMINANCE-METER & COLORIMETER LXchroma

- Precise low level luminance measurements
- Spectral colormetric measurement with the 256-BI-Tec-Sensor
- > Large display for easy reading
- New compact design intergrates stray light tube, a camera and a display
- Inclination sensor for precise user alignment



### **PMMA CT-PHANTOM**

- Innovative 3-part nested PMMA phantom for Computed Tomography
- Designed for CTDI determination of pediatric & adult protocols



#### SPOT-LUMINANCE-METER LX can

- Both distance and contact measurement
- **Easy targeting with a bulit-in camera**
- ► Real-time measurement
- Alignment and adjustment of measurement with large backlight display



#### **ILLUMINANCE DETECTOR LX-LS**

- Recommended accessory for LXcan / LXchroma for additional illuminance measurements
- The ambient light of image display devices
- At viewing boxes



### **TEST DEVICE PASMAM**

- Base phantom (40mm) with Al-step wedge
- Structure plate (6mm) with rotable lead line resolution test (5,6,7,8 & 10lp/mm)
- 4 rows of metal balls for check of missed tissue at chest wall side
- Different inserts based on technical as well as biomedical test



MagicMaX

### MagicMaX Full-QA for all radiology imaging modalities!



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### Radiography + Fluoro + Mammo + CT

- > High Precision: high time resolution of 0.1 ms
- All Modalities in One Device: 21 kV 160 kV (full detector flexibility, twin detector port)

### MagicMaX in Clinical Application

We are using the MagicMaX in our institution since 2010. The MagicMaX supported us in our daily routine and has been serviceable in special circumstances. It was found to be very flexible and reliable in it's usability. Especially the access to the voltage, HVL and wave form in addition to the dosage information was found to be helpful in several cases. In addition the MagicMaX was proven to be a viable tool in professional training settings.

DR. M. BOROWSKI MEDICAL PHYSICS EXPERT AT THE KLINIKUM BRAUNSCHWEIG, GERMANY



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