Radcal

DAPcheck Plus

Quick and Easy Calibration Check - *Of Installed DAP Meters*

Verify X-ray DAP & Light Field Congruence

Traceable Measurements - The DAPcheck Plus is a reference class instrument for "field calibration" of patient dose measurement and control systems thus ensuring the validity of inter-institution patient dose comparisons.

FAST AND ACCURATE - Utilizing the high speed digitization of the Accu-Gold digitizer, the DAPcheck Plus displays DAP and DAP Rate of accumulated DAP on exposure completion. Designed as an accessory to the Accu-Gold.

DEPENDABLE - A tough ABS plastic housing protects the ion chambers and electronics that incorporate several patented features to ensure long term stability.

PLUS - Also provides X-ray to light field congruence

THE GOLD STANDARD IN RADIATION MEASUREMENT

Radcal 426 West Duarte Road Monrovia, CA 91016 USA T: (626) 357-7921 F: (626) 357-8863 www.radcal.com

DAPcheck Plus KEY FEATURES AND BENEFITS:

KEY FEATURES	BENEFITS
Complete DAP meter assessment:	Measures DAP and DAP Rate over a full range of field sizes and beam qualities
Symmetrical Response:	Can be used with under couch tubes without the need for inversion
Remote Control Software:	Automatic data capture with customizable templates
Optical and radiographic alignment markers:	Setting reference field sizes made simple
X-ray to light field congruence:	Simultaneous measurements of light field congruence & DAP

XLGold (Excel Based)
Customizable Template Example

OUTPUT CONSISTENCY

kV	80
mA	200
Time (ms)	100
FCD (cm)	100
Focus	Broad

Baseline value
Tolerance ± X%

Sample	DAPCheckPlus Reading	Deviation from baseline
1	1.163	0%
2	1.164	0%
3	1.164	0%
4	1.162	0%

Press Ctrl-Shft-R to start
Wait for cell to turn green
before making exposure

DAP VARIATION WITH FIELD SIZE

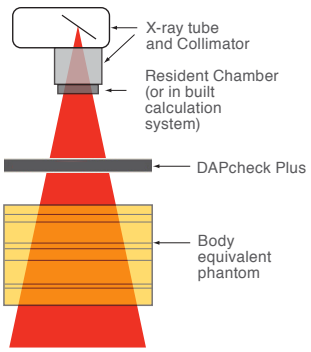
kV	80
mA	200
Time (ms)	100
Focus	Broad

X Company DAP units: µGy.m2
DAP Tolerance ±X%: 25%

Press Cntl-Shft-R to start. Wait for cell to turn green before making exposure

Area (cm)	X Company DAP (µGy.m2)	Sample	DAPCheckPlus (µGy.m²)	% DAP VARIATION
10 x 10	10	1	10.56	-5%
15 x 15	25	2	25.21	-1%
20 x 20	46	3	46.40	-1%
30 x 30	105	4	105.30	0%

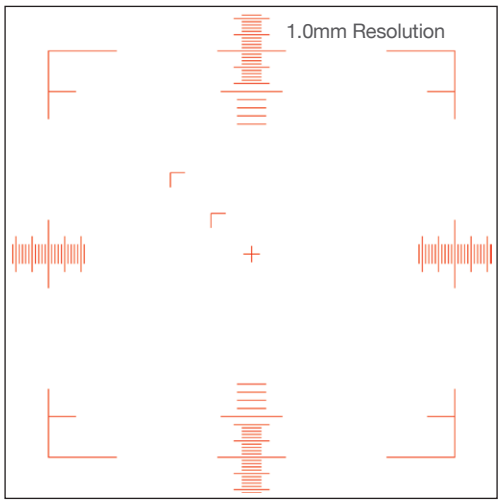
APPLICATIONS



DAP CALIBRATION

- DAP linearity with dose and field size.
- DAP calibration at the patient plane or at a reference distance.

X-RAY TO LIGHT FIELD CONGRUENCE SCALE



SPECIFICATIONS / TECHNICAL DATA:

Accuracy DAP	Inclusive of all uncertainties (temperature, DAP pressure, rate, area and beam quality) ± 10% Under reference conditions (10 mGy/min, 15 X 15 cm field, 80 kVp, 2.5 mm Al filtration) ± 7.5%
Digital Resolution Dose area product rate	1µGy·m²/min to 0.91 Gy·m²/min
Rated range of use Tube voltage	(40 – 150) kV
Automatic Temperature and Pressure Correction	
Pressure	(80.0 – 106.0) kPa
Temperature	(+15 to +35) °C
Air humidity	(10 – 80) % rel. humidity (max. 20 g/m³)
Ionization chamber	
Response versus radiation quality (50kV ... 150 kV, norm. to 100kV; acc. IEC 60580)	± 3 %
Quality equivalent filtration (70kV)	0.6 mm Al
Active area Dose area product	max. (300 x 300) mm²
Connection to Accu-Gold Digitizer	One meter Disconnect Cable with 2 connectors
Protection class (acc. IEC 60529)	IP 41
Weight	2.32 kg; 5.11 lbs
Dimension	350 mm x 410 mm x 35 mm; 14 x 16 x 2 inches (L x W x H)

All specifications subject to change.

Model DAPCKP

PORTABLE CONVENIENT CARY CASE

Foam Elevation Support Stand fits inside the interior of the Carry Case lid.

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