

e-BLOT



TOUCH IMAGER

The first electronic film imaging system
for Western Blot

Insures the highest efficiency in signal capture
by direct-contact imaging

e-BLOT

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Product brochure 2020-2021



reddot design award

TOUCH IMAGER

Won the 2018 Red Dot Design Award



2020 China Medical Device Innovation&Entrepreneurship Competition
The Second Prize in Finals

2020 MAKER
IN CHINA

2020 Maker in China Shanghai Finals
Third Prize in Finals (First winner in Biology Individual Award)

The most sensitive imaging system for Western blot



Two orders of magnitude higher than cooled CCD on sensitivity



Two orders of magnitude higher than cooled CCD on quantitative range



99% experiments done within seconds



Small, smart and simple



Suitable for isotope imaging



We build innovative solutions for life science

Application:

Western blot:

Chemiluminescence imaging and quantitative analysis

Southern blot&Northern blot:

Chemiluminescence imaging and quantitative analysis

Dot blot:

Chemiluminescence imaging and quantitative analysis

Isotope imaging:

Direct Imaging, No need phosphor screen



NASA-level super large Imaging chip

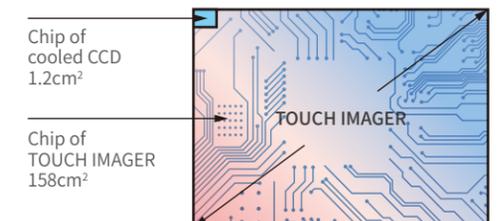
The first successful attempt to employ extra large photo-sensitive chip in Western blot imaging, making a new generation of chemiluminescence imager.

158cm² field of view, 131 times than cooled CCD



Comparison of chips

Cooled CCD	TOUCH IMAGER
1.2cm ²	158cm ²



Two orders of magnitude higher than cooled CCD on sensitivity

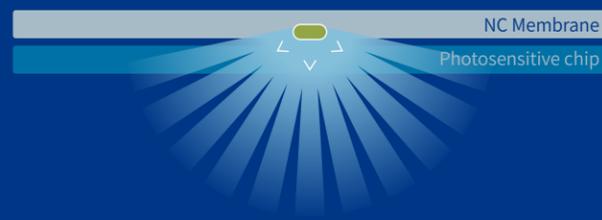


X-ray film imaging

least signal loss, relatively high sensitivity, but cumbersome in process, environment unfriendly, weak in signal collection, time-consuming and narrow quantitative range, prone to be overexposed.

Cooled CCD camera imaging

Leaving out more than 99% of light signals during imaging, yielding low sensitivity; with a narrow quantitative range and prone to be overexposed to strong signals.



TOUCH IMAGER imaging

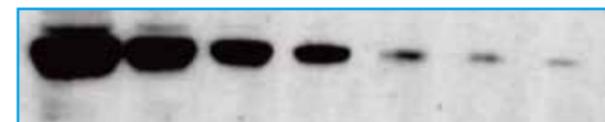
integrating the formats of X-ray film and cooled CCD imaging and improving the performances by orders of magnitude.

99% experiments done within seconds

The transmittance of TOUCH IMAGER is 400 times higher than that of cooled CCD camera. The higher in transmittance, the more sensitive in signal collection, and the less time to be used in collection. Together with the contact imaging, high transmittance gives TOUCH IMAGER with the minimal signal loss, extreme sensitivity, and higher imaging quality.

TOUCH IMAGER VS. X-ray film

α-Tubulin

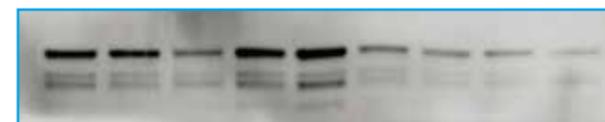


TOUCH IMAGER 1 second exposure



Optical film 30 seconds exposure

Certain protein 1 test



TOUCH IMAGER 1 second exposure



Optical film 60 seconds exposure

TOUCH IMAGER VS. cooled CCD

α-Tubulin



TOUCH IMAGER 1 second exposure

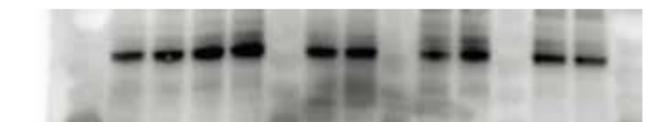


CCD camera 60 seconds exposure

Certain protein 2 test



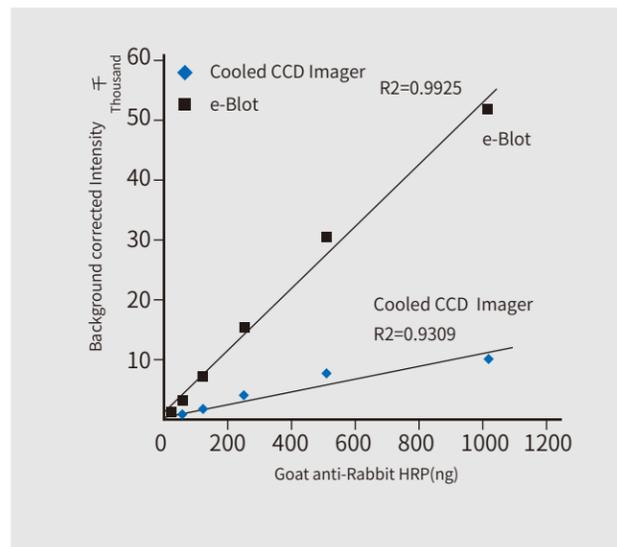
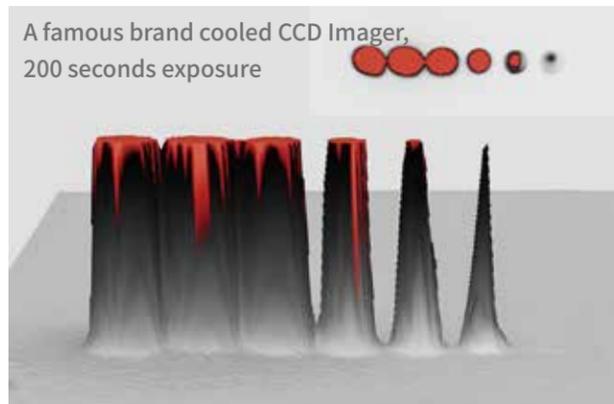
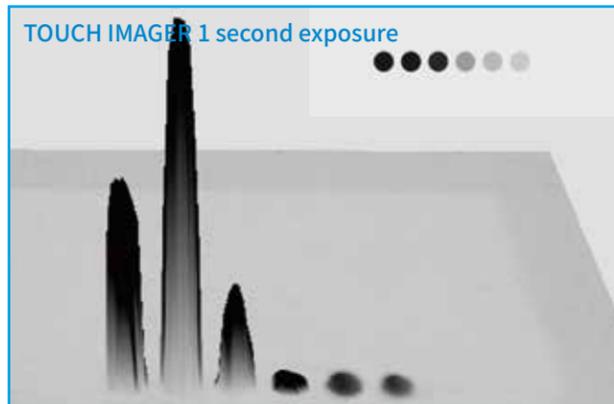
TOUCH IMAGER 1 second exposure



CCD camera 60 seconds exposure

The quantitative range is 100 times wider than that of cooled CCD imager

Due to the extreme sensitivity and super electronic capacity, Touch Imager can capture the strongest and the weakest signals simultaneously. In the comparison with a cooled CCD imager of a world-known brand, working on the same sample, Touch Imager worked out imaging in seconds, while the cooled CCD imager did in minutes. The weakest bands were well developed and meanwhile the strongest bands were not over exposed on Touch imager. However, the cooled CCD camera failed to achieve the comparable results.



TOUCH IMAGER enables accurate quantification over a wider range of signal strength.

Touch Viewer, a powerful tool



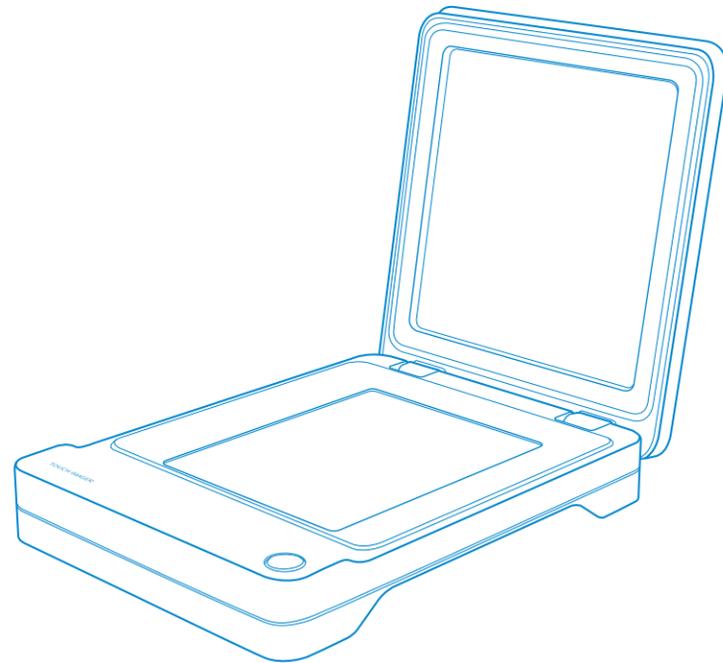
Separate accounts for user:
To ensure data security, Touch viewer allows users to set up accounts separately, no interfering between accounts and convenient in data tracking.

One-click imaging:
No need to optimize the imaging. One-click to get ideal result. Automatically saving results.

Custom DPI export:
exporting customly 245dpi, 300dpi, 600dpi, 1200dpi image for publication

Multiple results analysis:
Allow up to 40 analyzing simultaneously, results can be exported in three formats.

Specifications



Capture mode	Auto/Manual
Full well capacity	1,250,000.00 electrons
Data transferring speed	1000Mbps
Light Sources Control	Chemiluminescence, Epi-white
Start up waiting	No
Exposure time	> 95% Samples are imaged within 1sec
Photo sensor chip	158cm ²
User account management	Multi-user management
Net weight	4.35 KG
Dimension (L x W x H)	27cm×20.6cm×5.4cm
Power supply	100–250 V
Operating temperature	4–30°C
Operating humidity	10–85% relative humidity (noncondensing)

Customer list:

Peking University
 Roche R&D Center (China) Ltd.
 Chinese Institute for Brain Research, Beijing(CIBR)
 Shanghai Institute of Materia Medica, Chinese Academy of Sciences
 National Center for Protein Science
 Shandong Provincial Hospital
 Bee Research Institute, Chinese Academy of Agricultural Sciences
 Institute of Biotechnology, Chinese Academy of Agricultural Sciences
 Shanghai Jiaotong University
 Shandong University
 Zhengzhou University
 National Chi nan university
 ShanghaiTech University
 NATL CENT UNIV
 Jimei University
 Ruijin hospital
 University of Science and Technology of China Taipei
 Medical University Hospital
 Taiwan Shuanghe Hospital
 Kaohsiung Chang Gung Hospital
 Taipei Veterans General Hospital
 Inner Mongolia Medical University
 Fujian Medical University
 Kaohsiung Medical University
 Taipei Medical University
 Fujian Academy of Agricultural Sciences
 Yunnan Agricultural University
 Shanghai Shengtang Business Incubator Hualing
 Pharmaceutical (Shanghai) Co., LTD Shanghai
 Shanghai Shengran Biotechnology Co., LTD Tianjin
 Ruerkang Medical Technology Co. LTD

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