FLUORESCENCE MOLECULAR TOMOGERAPHY

Our unique suite of in vivo imaging solutions lets you discover more about biological targets, processes and pathways, directly in the living animal. Using our proprietary FMT (Fluorescence Molecular Tomography) technology and fluorescent in vivo imaging agents, you can generate non-invasive, deep tissue quantitative data for pre-clinical research applications. The system is used for research in oncology, inflammatory, pulmonary, cardiovascular and skeletal diseases. Biological targets and pathways can be monitored and quantitated in real time - giving a deeper understanding of the biology underlying disease mechanisms and therapeutic response.



Advantages

Generate 3D Information-rich results

J Application

- Neurological
- Cardiovascular
- Respiratory
- Gastrointestinal
- Immunological
- Musculoskeletal
- Reproductive
- Targeted probe development
- Image

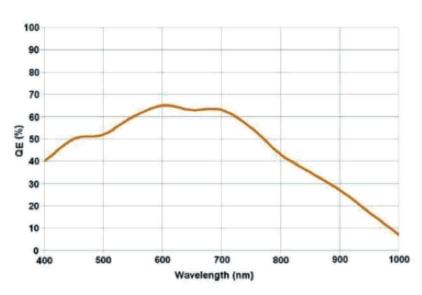
FEATURES

Easily and efficiently obtain calibrated quantitative data in your animal models of disease

Measure and monitor multiple biological processes simultaneously

Obtain functional and biological data to improve study designs and enhance decision making

Deepen understanding of disease mechanisms, disease progression and therapeutic responses



Quantum Efficiency of CCD



SPECIFICATIONS

CCD Camera Specification:

Camera sensor	TC285
CCD Size	1024 × 256
Imaging pixels	1002 × 1004
Quantum efficiency	MAX 67%
Pixel size	8×8 microns
Min. detectable radiance	Single Photon
Min. field of view (FOV)	$2 \times 2 \text{ cm}^2$
Max. field of view (FOV)	Depend on magnification and stage to lens
	distance
Min. image pixel resolution	50 pixels
Read noise	<1e/p/s
Dark current	<50 electrons/s/cm ²
Min. detectable radiance	30 photons/s/sr/cm ²
CCD operating temp	(negative)25°C
Pc interface	USB 2.0
Active area pixel well depth	27000
Frame rate(full frames per sec)	12.4
Weight	610 gr

Lasers Specification:

	DPSS Lasers		
Wavelength(nm)	787±1	532±1	475±1
Output power(mW)	70	30	20
Transverse mode	TEM_{00}	TEM_{00}	TEM_{00}

Filter selection guide:

Select which filters are optimal for your application. The TANP imaging system has many applications involving a variety of materials, such as probes, cell lines, animal specimens, etc.

Name	Emission	Green	yellow	Orange	Red	NIR
565nm	565					
590nm	590		*			
605nm	605			*		
655nm	655				*	
800nm	800					*

Attenuator filter:

Steps	0.1, 0.2, 0.3, 0.4, 0.5,0.8, 1.0, 2.0, 3.0 and 4.0
Length	100 mm
Description	Step variable neutral density filter

Tajhizafarinan Noori Parseh Co. Tel: +98 21 66581505 Ext.(119)

Fax: +98 21 66581533 email: mhejazi@tums.ac.ir