

## NCF950 конфокальный микроскоп

Источник света	Лазер 405 nm, 488 nm, 561 nm, 640 nm
Детектор	Длина волн: 400-750nm, Детектор: 4 PMT
Сканирование	Максимальный размер пикселей: 4096 Скорость сканирования: 2 fps (512 x 512) , 18 fps (256 x 256) , 0.5fps(1024 x 1024) , 0.12fps(2048 x 2048) , 0.03fps(4096 x 4096)
Режим сканирования	X-Y, X-Y-Z, X-Y-T
Пинхол камера	Шестиугольная форма, бесступенчатая вариаторная трансмиссия (CVT)
Число конфокального поля	Квадрат, вписанный в круг диаметром 18 мм.
Глубина цвета	12 БИТ
Совместимый Микроскоп	NIB950 Пълностью моторизованный инвертивный микроскоп
Оптическая система	NIS60 Бесконечная оптическая система(F200)
Окуляр	10x(25), EP17.5mm, подстройка диоптрий -5 ~ +5, интерфейс Ф30
Насадки	Тринокулярный тубус Зейденгофа, наклоненный под углом 45°, межзрачковое расстояние 47-78 мм, интерфейс окуляра Ф30, фиксированная видимость; 1) Переключатель окуляра/камеры (100/0,50/50,0/100) : 2) Визуализация/выключение Визуализация/положение линзы Бертрана Регулируется
Револьверная насадка	Шестиместная моторизованная насадка (слот расширения), M25x0,75
Конденсатор	6-позиционное моторизованное управление: NA0.55, WD26, фазовый контраст (10/20,40,60 опционально), DIC (10X, 20X/40X) опционально. Пустое отверстие
Освещение	Освещение по Колеру, светодиодное освещение 10 Вт; Эпи-освещение: широкоугольное оптоволоконное освещение; 6-позиционная моторизованная карусель для флуоресцентных ламп (стандартное исполнение B, G, U), моторизованный люминесцентный затвор
Увеличение	Ручное 1X, 1.5X. Конфокальное переключение
Коэффициент разделения	Левый:Окуляр=100:0; Справа: Окуляр=100:0
Конфигурация	Моторизованное управление: диапазон перемещения 130 мм x 100 мм (325 мм x 144 мм) Максимальная скорость: 25 мм/с. Разрешение: 0,1 мкм. Точность повторения: 3 мкм. Механический регулируемый зажим для срезов
Система фокусировки	Коаксиальная грубая и точная регулировка, ход: фокус вверх 7 вниз 2; грубый ход 2 мм за оборот, Тонкий ход 0,002 мм за оборот, ручное и моторизованное управление, минимальный ход 0,01 мкм при моторизованном управлении.
DIC Plate	10X, 20X, 40X Plate; Can be Inserted in Nosepiece Slot; Optional
Controller	Rocking Bar, Controller Box, USB Connection Cable
Computer	1. Windows 10 Pro 64 bit Operating System 2. CPU: Intel Core i7-8700, 6 Core, 12MB Cache, 3.20GHz, 4.6Ghz Turbo w/ HD Graphics 630 3. RAM: 16GB (2x8GB) 2666MHz DDR4 UDIMM Non-ECC 4. Hardware: 3.5" 1TB 7200rpm SATA Hard Disk Drive 5. Video card: NVIDIA Quadro P620, 2GB, 4 mDP to DP Adapter 6. USB Interface: 6 Available USB Slots 7. Display: 24" Monitor Display that Supports 1920X1080 Resolution
Software	NOMIS Advanced C Display/Image Processing/Analysis 2D/3D/4D Analysis, Time-lapse Analysis, 3D Volume Render/Orthogonal, Image Stitching, Multi-channel Color Confocal Image

**Nexscope**<sup>®</sup>  
Scientific research microscope

Nexscope

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# КОНФОКАЛЬНЫЙ МИКРОСКОП

# NCF950



**Nexscope**<sup>®</sup>  
Scientific research microscope

## Simple, Efficient and Highly integrated

NCF950 laser confocal microscope is a high-end product in Novel Optics microscope series. . It is designed as an essential microscopy tool for laboratory scientific research, providing powerful and stable imaging capabilities and highly integrated motorization capabilities.



### · Signal Detection

Efficient scanning head, detector and CVT motorized small hole, coupled with Yongxin's powerful optical system, provides fast, stable, high signal-to-noise(S/N) ratio confocal image.

### · Multi-Channel Signal Detection

Integrated 4-channel light sources and detectors (405, 488, 561,640), combined with 4-channel fluorescence fusion technology to achieve real-time and multi-channel fusion observation and capture.

### · Motorized Components

NCF950 provides a variety of motorized parts, including: motorized stage, motorized focusing, motorized nosepiece, motorized fluorescent carousel, motorized condenser and motorized brightness adjustment, operation mode allows physical button operation and software operation, and provides calling commands, which is convenient for users to control and develop by themselves.

NCF950 confocal system is an indispensable laboratory tool with its excellent optical imaging system and simple operation mode, coupled with highly integrated motorized components.

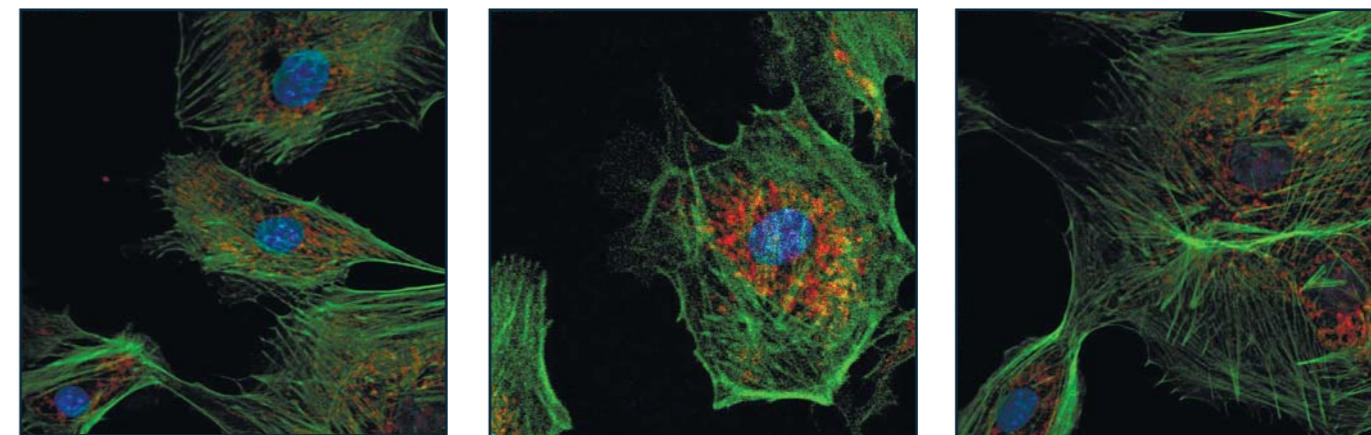
## Interactive Operation

Convenient interactive mode and multiple control methods could meet different needs of users from beginners to professional users. Combined with the powerful features for software and hardware interactive automation of this product, it has greatly simplified the whole set experimental process, which could easily realize generation of three-dimensional structure and analysis functions such as time-lapse analysis of multiple regions etc. by using matched NOMIS Advanced C,



## High signal-noise ratio, High resolution image

Obtaining high signal-noise ratio images based on high-sensitivity photomultiplier light (PMT) and stable laser light source. At the same time, the system adopts high-speed scanning galvanometer to realize real-time scanning up to 4096x4096 Resolution, the use of large numerical aperture objective (100 times, N.A = 1.45) ensures high-quality imaging resolution.



## High-performance Objectives for Confocal Imaging

### NIS60 Plan Achromat Objective

These high NA objectives provide chromatic aberration correction over a wavelength ranging from ultraviolet to infrared. The transmission property of these lenses has been greatly enhanced through the use of Yongxin's exclusive Nano Multi-coating technology, which has provided high-quality imaging basis for confocal imaging.

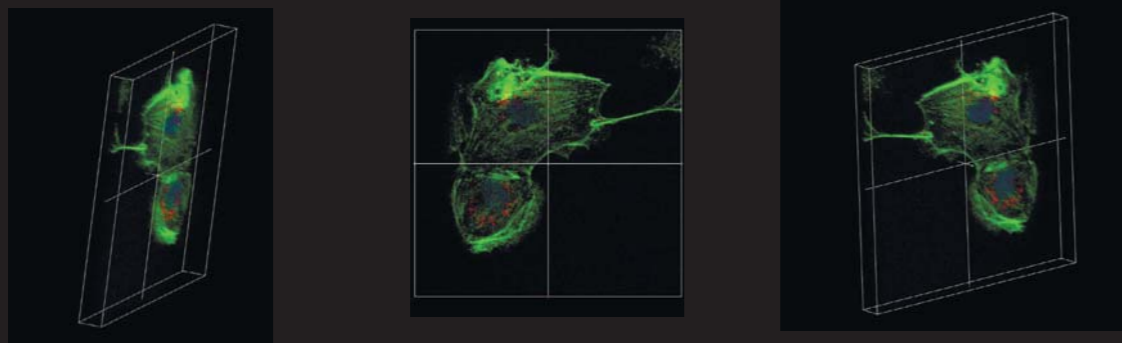


### Recommended Objectives

NIS60 Plan Achromat 10X	NA 0.45, W.D. 4.0mm, cover glass thickness 0.17
NIS60 Plan Achromat 20X	NA 0.75, W.D. 1.1mm, cover glass thickness 0.17
NIS60 Plan Achromat 60X	NA 1.42, W.D. 0.14mm, cover glass thickness 0.17, Oil
NIS60 Plan Achromat 100X	NA 1.45, W.D. 0.13mm, cover glass thickness 0.17, Oil

## High-efficiency Scanner and Detector

The design of the standardized scanner ensures the stability and scalability of the system. Scanner integrates high-precision scanning galvanometer system and continuously variable speed hexagonal motorized holes to ensure low-noise, high-contrast and high-quality confocal images under each objective magnification. The newly developed scanning galvanometer control technology allows maximum 4096×4096 pixels.

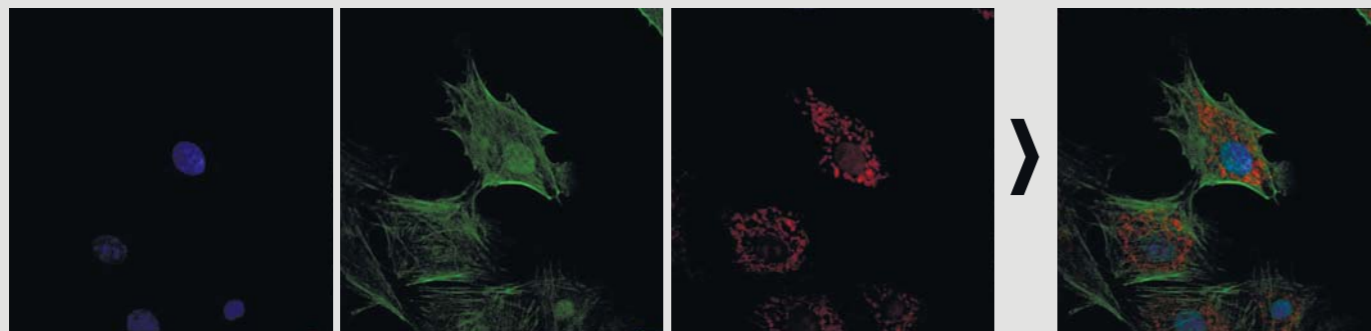
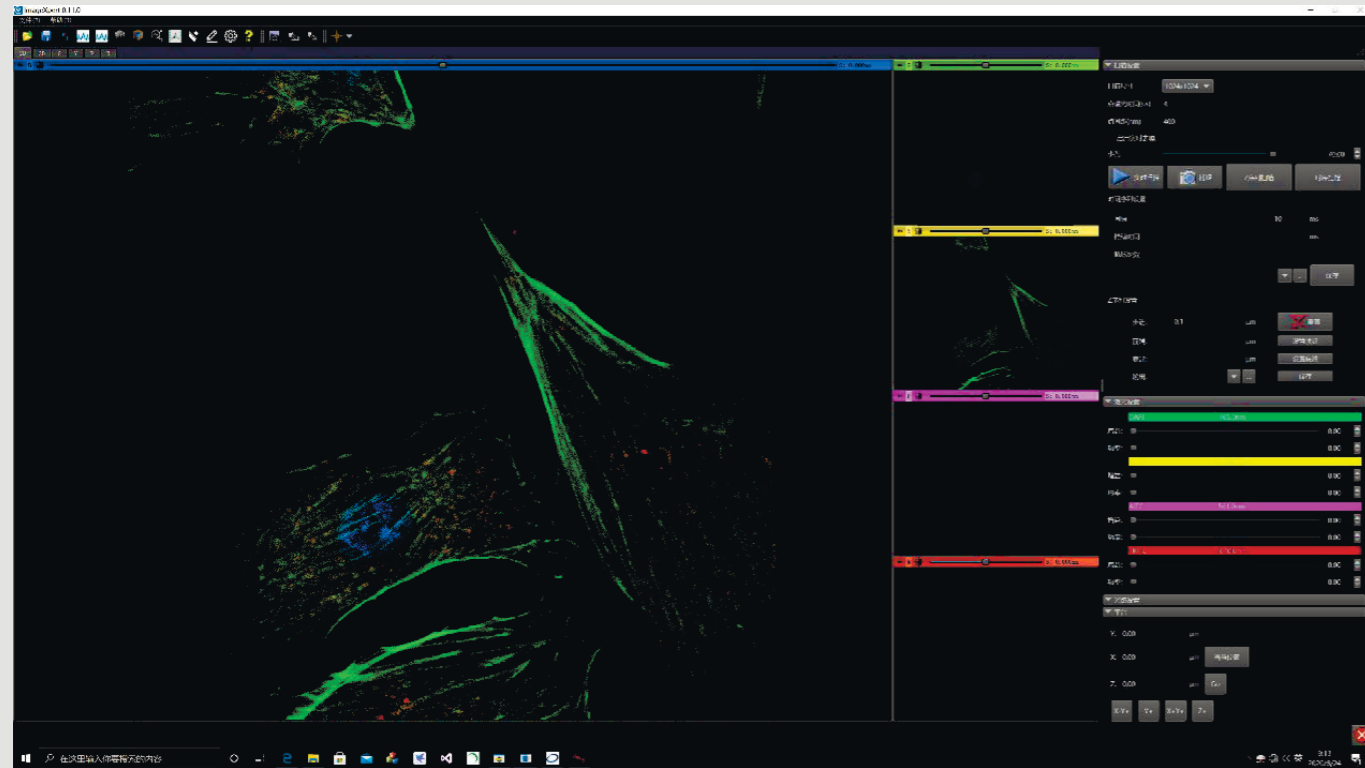


## Laser Unit and Detector

The system is equipped with four-color integrated lasers (405nm, 488nm, 561nm, 640nm), single-port fiber output. With its compact design, it provides a space-saving solution for confocal system. Internal integrated AOTF module could realize fast and efficient wavelength and power selection.

In terms of signal detection, with four PMT (photomultiplier tube) detectors, it could achieve detection of fluorescent signals with high-sensitivity. Four-channel detection signals process image fluorescent staining and synthesizing automatically according to the wavelength stimulated by laser. Which could realize simultaneous multi-channel detection and display.





### XY Axis(stage) Control



### Objective, Filter cubes, Condenser control



### Note and Measure



### Z Sequential Scanning



### Time Series Scanning



### Time Series Analysis



## NOMIS Advanced C

- High resolution images can be generated with a single click operation, The software will automatically calculate size of the small hole according to objective numerical aperture, exposure value and scanning range, so as to obtain the image with the optimum signal-to-noise(S/N) ratio.
- At same time, noise reduction algorithm can remove the background noise in real time and improve image quality. Multi-channel images can be collected and synthesized simultaneously, which is convenient for customers to realize real-time observation of multiple stains.
- By setting top position, bottom position and movement interval, the NCF950 motorized Z axis can realize automatic Z-Stack acquisition and generate 3D model.
- Providing various microscope motorized control interfaces: motorized objective carousel, motorized fluorescent filter unit, motorized condenser turntable.
- Motorized stage control and motorized focusing mechanism could locate the Region of Interest(ROI) immediately through the software and record the position so that the user will be able to return to the recorded position quickly.

## High-speed Motorized Control, Photograph and Image analysis

NOMIS Advanced C could perform integrated control for microscopes, cameras, motorized accessories etc. and realize automatic control and image analysis processing. The interface is intuitive and easy to understand, which is convenient for parameter setting and reset.