

# Analyst® GT multimode reader

ACHIEVE BOTH HIGH PRECISION AND FAST READ SPEEDS IN FIVE MODES



→ SETS NEW BENCHMARK FOR SPEED AND PRECISION

→ SUPPORTS ALL MAJOR NON-RADIOMETRIC MODES:

- ABSORBANCE
- FLUORESCENCE INTENSITY
- FLUORESCENCE POLARIZATION
- LUMINESCENCE
- TIME-RESOLVED FLUORESCENCE

→ IDEAL FOR KINASE, PROTEASE, PHOSPHATASE, CYCLIC-AMP, REPORTER-GENE AND RECEPTOR-LIGAND BINDING ASSAYS

## MULTIMODE FLEXIBILITY

Analyst® GT delivers unsurpassed multimode assay detection performance in a system that is designed for seamless integration into robotic environments. Building on the industrial-strength design of Analyst® HT and Acquest™, Analyst GT delivers fast, high-precision measurements in 96-, 384- and 1536-well microplates.

## ULTIMATE ASSAY VERSATILITY

The scientist is not limited to using assays with one-wavelength or even one mode. Analyst GT supports multiple-wavelength assays, enabling users to measure up to eight different wavelengths per well. In addition to end-point reads, the instrument can perform slow kinetic measurements. New to Analyst GT are protocols that enable entire sets of plates to be read at specified intervals. (See Figure 1.)

## UNSURPASSED FLUORESCENCE POLARIZATION

Analyst GT delivers the highest precision available for FP assays in 96- through 1536-well formats, resulting in higher Z-factor values, even for challenging assays with low fluorophore concentrations.

## WORKSTATION OR ROBOTIC OPERATION

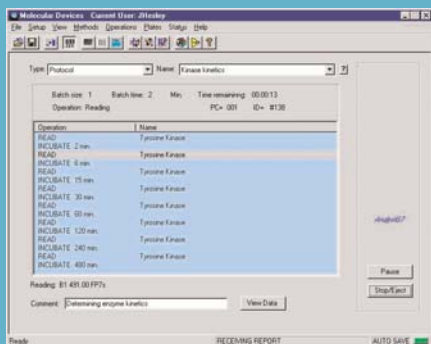
Analyst systems have a proven record in HTS laboratories worldwide and are integrated into automation systems from all major vendors. Analyst GT builds on this reputation with Ethernet communication and activeX support. The optional activeXsuite™ 3.0 is a program that provides high-level functionality for Analyst GT integrated into robot systems. Analyst GT can also be run as a workstation, using either 20- or 40-plate magazines in the optional bi-directional stacker. The stacker includes a bar code reader that decodes over eight different symbologies.

## OPTICAL HARDWARE

*Interference filters:* Up to eight excitation and eight emission filters can be installed. Users may either select from a broad range of standard filters or mount their own 25 mm diameter filters using generic cartridges.

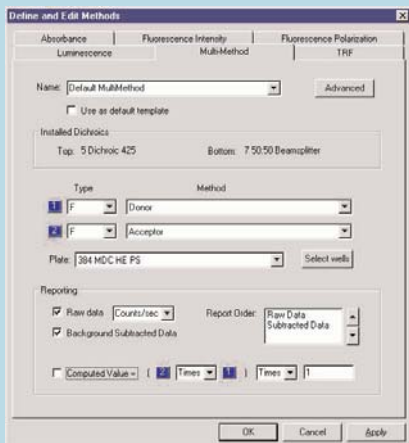
*Automated dichroic identification:* Analyst GT automatically reports the identity of the dichroic mirrors present in the top and bottom read head. Users can have custom dichroic mirrors mounted and identified through arrangements with MDC.

## versatile protocol sequencing (figure 1)



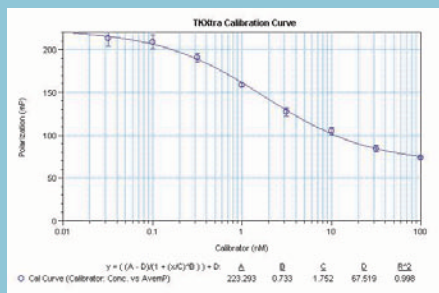
Sequencing protocols: Any number of detection methods and ambient temperature incubations can be sequenced in any order, enabling time-course protocols that can read a set of plates, store them in a magazine and then read the set again. It also enables assays using three or more fluorophores.

## define and edit methods (figure 2)



Methods are easily created and edited. Users can select light source, Z-height, top or bottom read, integration time and many other parameters.

## easy data reduction (figure 3)



Analyst data can be imported into SoftMax Pro for graphing kinetic reads, calibration curves or percent activity. Scatter, cluster and stacked bar graphs are also supported.

**Light sources:** A high-intensity, user-replaceable Xenon arc lamp is the light source for fluorescence intensity and fluorescence polarization assays. A user-replaceable Xenon flash lamp is used for TRF and UV applications.

**Detectors:** Two separate photomultiplier tubes are included in the instrument. The dedicated luminescence PMT has extremely low background counts and superior performance in the blue wavelengths.

## CONTROL SOFTWARE

**Method editing:** Users can quickly create new methods, specifying light source, plate type, kinetics and top or bottom read. The detector is auto-ranging, eliminating out-of-range values and manual capacitor settings. (See Figure 2.)

**Plate mapping and background subtraction:** Each method can specify up to eight groups of sample wells and eight groups of background wells.

**Z-height adjustment:** Select the optimal Z-height based on plate type and application (homogenous or cell-based assays).

**Password protection:** Individual user methods and preferences are password protected and can be edited from a computer remote from the instrument then imported to the host computer for use.

## DATA REDUCTION FOR EASY ANALYSES

SoftMax<sup>®</sup> Pro, Molecular Devices' industry-standard data analysis software, offers comprehensive data reduction and graphing capabilities for Analyst GT. (See Figure 3.)

## TECHNICAL SPECIFICATIONS

Dimensions (in.):

Without stacker: 24.7 (H) x 21.6 (W) x 25.6 (D)  
With stacker: 24.7 (H) x 21.6 (W) x 34.6 (D)

Dimensions (cm):

Without stacker: 62.7 (H) x 54.9 (W) x 65 (D)  
With stacker: 62.7 (H) x 54.9 (W) x 87.9 (D)

Weight (with stacker): 220 lbs. 99.8 kg

Weight (without stacker): 193 lbs. 87.5 kg

## Sensitivity and precision

**Fluorescence Intensity**

Lower detection limit of fluorescein: < 5 pM

## Fluorescence Polarization

Precision at 1 nM fluorescein:

3 mP S.D. (384-well), 5 mP S.D. (1536-well)

## Time-Resolved Fluorescence

Lower detection limit of europium:

250 fM (384-well), 500 fM (1536-well)

## Absorbance

Linear range:

3.0 OD

Precision/accuracy:

0.01 OD +2%

## Luminescence

Lower detection limit of luciferase:

< 1 fg

Cross-talk:

< 2%

## Typical read times (seconds)\*

**384 wells** **1536 wells**

Fluorescence Intensity (FI): 60 220

Fluorescence Polarization (FP): 120 390

Time-Resolved Fluorescence (TRF): 150 525

Absorbance: 60 220

Luminescence: 105 345

\* All times include load/eject and data downloading.

## ORDER INFORMATION

Analyst GT with stacker:

Part Number: 0200-6003

Analyst GT without stacker:

Part Number: 0200-6004

20-plate stacker magazines:

Part Number: 0200-6016

40-plate stacker magazines:

Part Number: 0200-6017

## SALES OFFICES

→ USA 800-635-5577

→ UK +44-118-944-8000

→ Germany +49-89-9605-880

→ Japan +81-3-5282-5261

Check our web site for a current listing of our worldwide distributors.

[www.moleculardevices.com](http://www.moleculardevices.com)

SoftMax and Analyst are registered trademarks and Acquest and activeXsuite are trademarks of Molecular Devices Corporation. All other trademarks are the property of their respective owners.

Specifications subject to change without notice.



**Molecular Devices**