

## Thermo Scientific Microplate Readers: Specifications Comparison

FEATURE \ INSTRUMENT	Appiskan	Varioskan Flash	Luminoskan Ascent	Fluoroskan Ascent	Fluoroskan Ascent FL	Multiskan EX	Multiskan Ascent	Multiskan Ascent (w. inc.)	Multiskan FC	Multiskan Spectrum
<b>Wavelength selection</b>	By filters	By monochromators	By filters	By filters	By filters	By filters	By filters	By filters	By filters	By monochromators
<b>Photometry</b>	200-1000 nm	200-1000 nm				400-850 nm	340-850 nm	340-850 nm	340-850 nm	200-1000 nm
<b>Fluorescence Intensity</b>	Ex 200-1000 nm Em 360-820 nm	Ex 200-1000 nm Em 270-840 nm		Ex 320-700 nm Em 360-800 nm	Ex 320-700 nm Em 360-670 nm					
<b>Time-Resolved Fluorometry (TRF)</b>	Ex 200-1000 nm Em 360-820 nm	Ex 200-1000 nm Em 270-840 nm								
<b>Fluorescence Polarization (FP)</b>	Ex 200-1000 nm Em 360-820 nm									
<b>Luminometry</b>	360-820 nm high sensitivity 300-630 nm	360-670 nm spectral scanning 270-840 nm	270-670 nm		270-670 nm					
<b>FRET</b>	✓	✓		✓	✓					
<b>BRET</b>	✓	✓	✓		✓					
<b>TR-FRET</b>	✓	✓								
<b>Top / bottom reading</b>	Top	Top / bottom	Top / bottom	Top / bottom	Top / bottom					
<b>Plate formats</b>	6-384	6-1536 fluorometry, luminometry 6-384 photometry	1-384	1-384	1-384	96	96, 384	96, 384	96, 384	6-384
<b>Dispensers</b>	Up to two	Up to three	Up to three	Up to three	Up to three					
<b>Incubation</b>	Up to 45°C	Up to 45°C	Up to 45°C	Up to 45°C	Up to 45°C			Up to 50°C	Up to 50°C	Up to 45°C
<b>Shaking</b>	Linear	Orbital	Orbital	Orbital	Orbital	Linear	Linear	Linear	Linear	Linear
<b>Reading speed 96 well plate</b>	75 s	15 s	15 s	15 s	15 s	5 s	9 s	9 s	6 s	20 s, typical
<b>Reading speed 384 well plate</b>	280 s	45 s	45 s	45 s	45 s		20 s	20 s	12 s	60 s, typical
<b>Reading speed 1536 well plate</b>		135 s								
<b>Robotic compatibility</b>	✓	✓	✓	✓	✓		✓	✓	✓	✓
<b>Skant Software Research Edition</b>	✓	✓							✓	✓
<b>Skant Software Drug Discovery Edition (for 21 CFR Part 11 compliance)</b>		✓								✓
<b>Ascent Software</b>			✓	✓	✓	✓	✓	✓		

## Thermo Scientific Microplate Readers: Applications Comparison

APPLICATION \ INSTRUMENT	Appliskan	Varioskan Flash	Luminoskan Ascent	Fluoroskan Ascent	Fluoroskan Ascent FL	Multiskan EX	Multiskan Ascent	Multiskan Ascent (w. inc.)	Multiskan FC	Multiskan Spectrum
<b>MEASUREMENT TYPES</b>										
Endpoint assays	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kinetic assays	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectral scanning		✓								✓
<b>APPLICATIONS</b>										
<b>ATP measurement</b>	✓	✓	✓		✓					
<b>Calcium monitoring</b>										
•Aequorin	✓	✓	✓		✓					
•Fluorometric	✓	✓		✓	✓					
<b>Cell proliferation and cytotoxicity</b>										
•MTT	✓	✓				✓	✓	✓	✓	✓
•Fluorescent	✓	✓		✓	✓					
•Luminometric	✓	✓	✓		✓					
<b>DNA</b>										
•Quantitation/ purity 260/280 nm		✓								✓
•Picogreen	✓	✓		✓	✓					
<b>Enzyme activity</b>										
•NADH	✓	✓				✓	✓	✓	✓	✓
•Proteases	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
•Kinases	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>GPCRs</b>										
•cAMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Immunoassay</b>										
•ELISA	✓	✓				✓	✓	✓	✓	✓
•LIA	✓	✓	✓		✓					
•FIA	✓	✓		✓	✓					
•TR-FIA	✓	✓								
<b>Protein</b>										
•A280		✓								✓
•Bradford, Lowry	✓	✓				✓	✓	✓	✓	✓
•NanoOrange	✓	✓		✓	✓					
<b>Reporter genes</b>										
•Luciferases	✓	✓	✓		✓					
•Beta galactosidase	✓	✓		✓	✓	✓	✓	✓	✓	✓
•GFP	✓	✓		✓	✓					