

EXCEL

511, 512, 701, 702, 704,
901, 902, 904, 1301, 1302, 1304,
1701, 1702, 1704, 2500

- Equipped with a high-resolution camera-based system to get fast, accurate measurements on a variety of parts.
- Provides vivid images through a programmable optical and digital zoom.
- Accommodates large parts and fixtures of multiple parts while maintaining a compact footprint.
- Supports sensitive touch probes accessories.
- Measures parts up to 2.5 meters long and up to 100 kilograms.
- Integrates high speed vertical distance measurement sensors for scanning capability.
- Includes InSpec Metrology Software®.
- Uses proprietary edge detection to capture data.
- Offers advanced programmable lighting control.
- Includes automated calibration procedures.



Product information is subject to change without prior notice as a result of ongoing technical development.

Technical Specifications

	Excel 511	Excel 512	Excel 701	Excel 702	Excel 704
Physical					
Measurement Volume [mm]	420 x 520 x 160	420 x 520 x 250	660 x 700 x 160	660 x 700 x 250	660 x 700 x 400
Stage Capacity [kg]	100	100	100	100	100
Exterior Dimensions [mm]	1295 x 1221 x 1629	1295 x 1221 x 1803	1525 x 1607 x 1647	1525 x 1607 x 1819	1525 x 1607 x 2119
Machine Weight [kg]	732	739	1611	1613	1615
X Max Speed [mm/s]	500				
Y Max Speed [mm/s]	500				
Z Max Speed [mm/s]	250				
Linear Resolution [μm]	0.05				
Power Consumption (Max) [W]	210		255		

	Excel 901	Excel 902	Excel 904
Physical			
Measurement Volume [mm]	750 x 900 x 160	750 x 900 x 250	750 x 900 x 400
Stage Capacity [kg]	100	100	100
Exterior Dimensions [mm]	1625 x 1808 x 1647	1625 x 1808 x 1819	1625 x 1808 x 2119
Machine Weight [kg]	2630	2644	2655
X Max Speed [mm/s]	500		
Y Max Speed [mm/s]	500		
Z Max Speed [mm/s]	250		
Linear Resolution [μm]	0.05		

	Excel 1301	Excel 1302	Excel 1304
Physical			
Measurement Volume [mm]	1050 x 1300 x 160	1050 x 1300 x 250	1050 x 1300 x 400
Stage Capacity [kg]	100	100	100
Exterior Dimensions [mm]	1925 x 2208 x 1647	1925 x 2208 x 1819	1925 x 2208 x 2119
Machine Weight [kg]	3085	3096	3108
X Max Speed [mm/s]	500		
Y Max Speed [mm/s]	500		
Z Max Speed [mm/s]	250		
Linear Resolution [μm]	0.05		

Stage capacity is based on an evenly distributed load.

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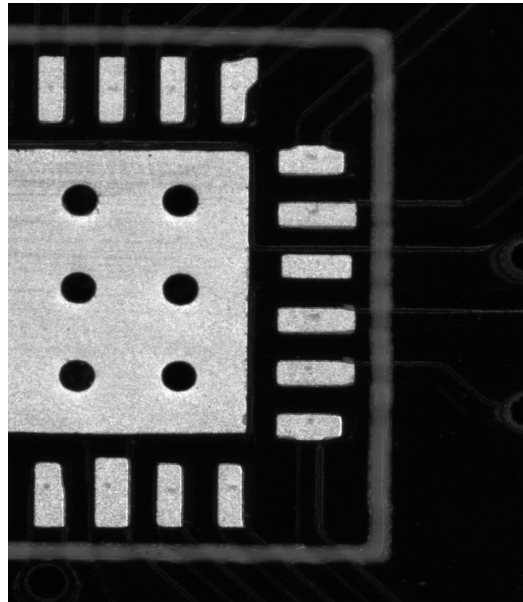
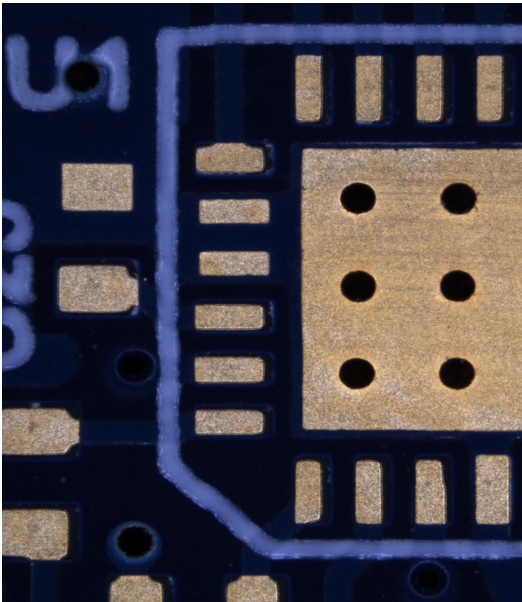
	Excel 1701	Excel 1702	Excel 1704	Excel 2500
Physical				
Measurement Volume [mm]	1250 x 1700 x 160	1250 x 1700 x 250	1250 x 1700 x 400	1600 x 2560 x 160
Stage Capacity [kg]	100	100	100	100
Exterior Dimensions [mm]	2125 x 2608 x 1647	2125 x 2608 x 1819	2125 x 2608 x 2119	2470 x 3470 x 1972
Machine Weight [kg]	3492	3504	3515	6804
X Max Speed [mm/s]	500			
Y Max Speed [mm/s]	500			
Z Max Speed [mm/s]	250			
Linear Resolution [μm]	0.05			

Stage capacity is based on an evenly distributed load.

	Excel 511-2500
Electrical	
Input Voltage [VAC]	100-240
Environmental	
Operating Temperature [°C]	18-27; <1 change per hour, <2 change per day
Storage Temperature [°C]	0 - 50
Relative Humidity	30%-80% (Non-Condensing)
Sound Level [dB(A)]	< 70
Max Altitude [m]	4000

Configuration Options

Camera Options:



A. Color Camera:

- Utilizes white illumination system.
- Offers vivid chromatic information increasing the contrast of color parts.

B. Monochrome Camera:

- Utilizes red illumination system.
- Offers higher optical resolution compared to a color system.

Optical Sensor Configuration Options:

A. Standard Zoom Range Lens or 6x Lens:

- Has an optical and digital hybrid zoom range of 19.5:1.
- Achieves an optical configuration and magnification of $\approx 20x - 390x^*$.
- Its simplicity and compactness usually allows for higher accuracy measurements and a longer life span.

B. Extended Zoom Range Lens or 12x Lens:

- Has an optical and digital hybrid zoom range of 36:1.
- Achieves an optical configuration and magnification of $\approx 15x - 540x^*$.
- Offers a larger field of view in low magnification and higher resolution in high magnification.

*Monitor size and resolution affect on screen magnification.

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Optical Multiplier Options:

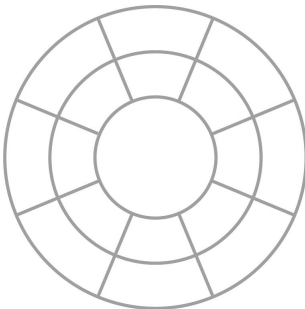
A. No Multiplier or Long Working Distance:

- The optical magnification is maintained for both lens options.
- The working distance is ≈ 66 mm.

B. 2x Optical Multiplier or Short Working Distance:

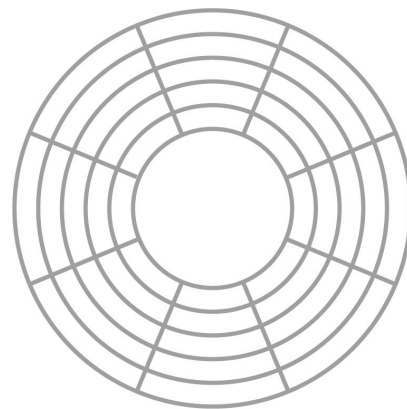
- Doubles the optical magnification of both lens options and simultaneously shrinks the field of view by half.
- Significantly shrinks the working distance to ≈ 25 mm.

Ringlight Options:



A. Standard Ringlight:

- Offers 2 rings, 8 sections, and 16 segments of programmable lighting options.
- Suffice the basic needs of programmable surface lighting.



B. Macro Ringlight:

- Offers 5 rings, 8 sections, and 40 segments of programmable lighting options.
- Improved image contrast for parts with complex surface geometry.