

# EXCEL

511, 512,  
701, 702, 704

- 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.



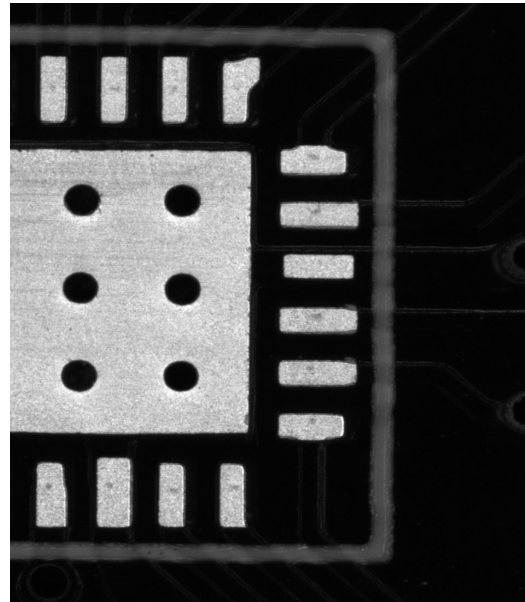
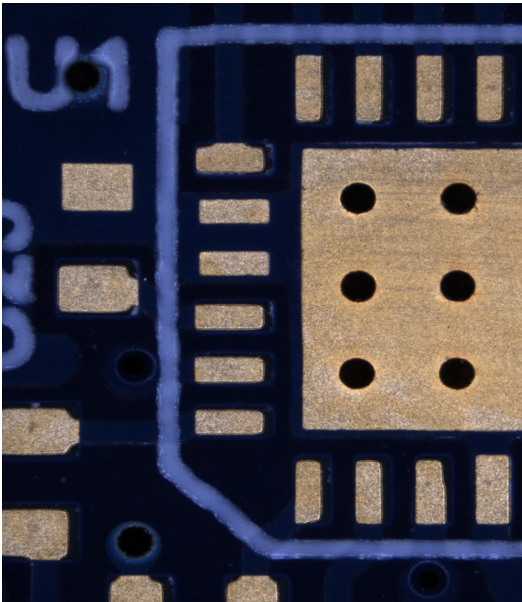
## Technical Specifications

	Excel 511	Excel 512	Excel 701	Excel 702	Excel 704
<b>Physical</b>					
Measurement Volume [mm]	420 x 520 x 160	420 x 520 x 250	660 x 715 x 160	660 x 715 x 250	660 x 715 x 400
XY Accuracy	2.5+L/200	2.8+L/200	2.5+L/200	2.8+L/200	3.5+L/150
Z Accuracy	2.5+L/100	3.0+L/100	2.5+L/100	3.0+L/100	3.8+L/100
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]	690	699	1611	1624	1633
X Max Speed [mm/s]	500				
Y Max Speed [mm/s]	500				
Z Max Speed [mm/s]	250				
Linear Resolution [ $\mu$ m]	0.05				
<b>Electrical</b>					
Input Voltage [VAC]	100-240				
Power Consumption (Max) [W]	210		255		
Power Consumption (Idle) [W]	55				
Power Consumption (Sleep) [W]	45				
<b>Environmental</b>					
Operating Temperature [ $^{\circ}$ C]	18-27; <1 change per hour, <2 change per day				
Storage Temperature [ $^{\circ}$ C]	0 - 50				
Relative Humidity	30%-80% (Non-Condensing)				
Sound Level [dB(A)]	< 70				
Max Altitude [m]	4000				

Accuracy units are microns; length L units are millimeters.  
 Stage capacity is based on an evenly distributed load.

## 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.

## Optical Multiplier Options:

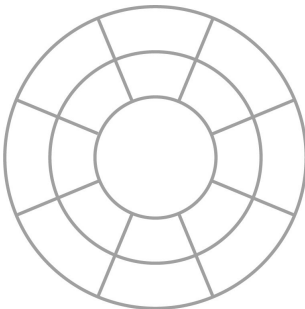
### A. No Multiplier or Long Working Distance:

- The optical magnification is maintained for both lens options.
- The working distance is  $\approx 66$  mm.

### B. 2x Optical Multiplier or Short Working Distance:

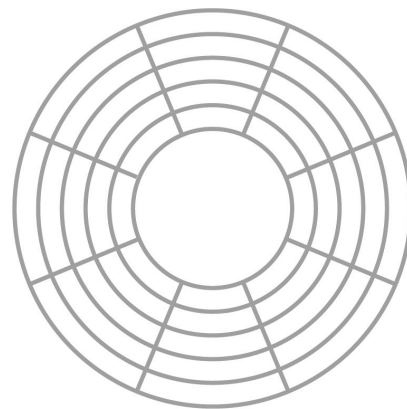
- Doubles the optical magnification of both lens options and simultaneously shrinks the field of view by half.
- Significantly shrinks the working distance to  $\approx 25$  mm.

## 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.