



### highlights

- inspects MLCC, MLCI and MLCV chips
- throughput up to 2,800 pts/min
- superior inspection yield to reduce cost
- flexibility for all inspection requirements
  - 4 or 6 sided
  - 2 or 3 dimension defect detection
  - Single machine for multiple termination shapes and geometries
  - Handles sizes 0201 (0603 metric) to 1206 (3216 metric)

## Model 6680 ceramic component visual test system



### Superior inspection quality with industry-leading throughput

ESI's Model 6680 Visual Test System provides automatic inspection and sorting of surface-mount MLCC, MLCI and MLCV chips. Inspecting up to 2,800 pts/min (168K pts/hr) in a compact platform, the 6680 reduces labor cost and floor space for a very favorable cost-of-ownership.

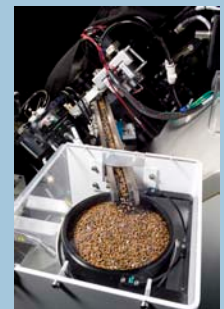
Obtaining superior inspection and accurate sorting of acceptable chips from defective chips is an important industry requirement and often more significant to overall cost than throughput. Just a 1% improvement in yield can result in cost savings of up to \$40,000 per year. The 6680 extends the strengths of the Model 6650A to provide the user with the highest possible yield with 2-dimension and 3-dimension inspection. Resolution is 30% higher for side inspection and 200% higher for ends. Inspection of minor defects on terminated and even unterminated chips is the best in the industry. Enhanced software includes a broader set of individual defect categories.

The new handling mechanism incorporates a belt conveyor to route chips to the Accept Bin without the possibility of damage.

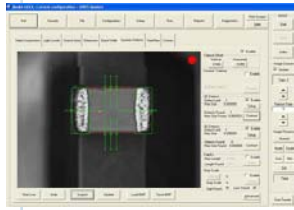
The 6680 is very adaptable to your processes:

- Handles sizes 0201 (0603 metric) to 1206 (3216 metric)
- Standard chip, side termination, array, X2Y, feed-thru
- Inspection of 4 or all 6 surfaces
- Defective chips can be sorted into 3 bins by defect type
- 2-dimension (1 image) and 3-dimension (3 images) inspection mode
- Retool for different chip sizes in less than 20 minutes

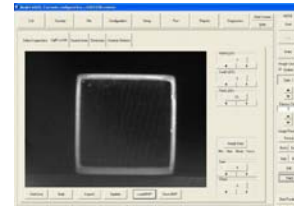
High throughput, precision and flexibility - the Model 6680 is ideally suited for production inspection in a manufacturing environment that demands uncompromised performance.



**esi**® better performance. better yields.



ESI lighting and inspection algorithms are recognized as the best in the industry



Extremely capable of detecting defects on ends of terminated and unterminated chips

## Model 6680 improvements for high productivity and yield

### Inspection

- Higher image resolution
- Improved ends lighting and optics
- Significant advancements in all defect detection algorithms

### Handling

- Much higher throughput
- Improved parts handling to reduce dropped chips
- Gentle feeding and binning design

## specifications summary

### Throughput

Up to 2,800 pts/min  
(2 dimension inspection mode)

Greater than 1,500 pts/min  
(2 + 3 dimension inspection mode)

### Chip Sizes

0201 (0603 metric)  
0402 (1005 metric)  
0603 (1608 metric)  
0805 (2012 metric)  
1206 (3216 metric)

### Optical Resolution

chip size

Inch Units	Metric Units	Resolution (µm)
0201	0603	1.8
0402	1005	3.7
0603	1608	4.9
0805	2012	7.3
1206	3216	14.7

### Sort Bins

1 Accept Bin  
3 Rejects Bins  
1 Retest Bin

### Service Requirements

**Main Power:** 200-230 VAC, 50/60 Hz, 20A, one phase  
**Vacuum Pump (option):** 200-230 VAC, 50/60 Hz, 20A, three phase  
**Pressurized Air:** 80psi (420 kPa), 5 cfm (0.15 m<sup>3</sup>/min)  
**Vacuum:** Free air displacement - 15 cfm (2 torr)  
**Vacuum Pump (option):** 30 cfm  
**Temperature and Humidity Range:** 15°-35°C, 50%-80%

### Dimensions & Weight

**Height:** 79" (201 cm)  
**Width:** 36" (91 cm)  
**Depth:** 48" (122 cm)  
**Approx. Net Weight:** 1000 lb (455 kg)  
**Approx. Shipping Weight:** 1350 lb (614 kg)

### contact us

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