

Allegro XP™

High-speed testing and sorting of MLCCs

mks | ESI

Precision in Motion

Allegro XP delivers the levels of precision demanded by leading MLCC manufacturers producing larger and higher-voltage chips for applications in industries such as automotive, IoT, handheld devices and commercial communication equipment.

Flexibility Designed In

Allegro XP incorporates testing innovations pioneered by ESI to enable MLCC manufacturers to test a wide range of chip sizes and capacitance. Test the latest-generation larger-size chips at high throughput while minimizing damage to the chips.

Testing to a higher quality standard.



High-Precision Processing and Testing Technologies Pioneered by ESI

Testing for Higher-Voltage Applications

Allegro XP performs high-throughput production-level electrical testing of the latest high-voltage chips (up to 1kV).

Higher Reliability Low-Impact Chip Handling

Allegro XP utilizes ESI's latest low-impact rotary chip handling technology to maintain throughput while minimizing testing-related chip damage.

Ultra High-Speed Processing

MLCCs are tested at rates of up to 16,666 parts per minute (1,000,000 parts per hour).

Addresses the Full Range of Capacitance

- Test Frequencies: 120 Hz/1 kHz & 1 MHz
- Supports a full range of MLCC sizes

Low-Impact Ultra High-Speed Processing From a Market Leader in MLCC Testing

- Patented pulse-actuated contacts
- Minimal termination marking
- Maintain contact integrity

Flexibility to Test a Wide Range of Sizes

- Test chip sizes of 0603-1210 (1608-3225 metric)





High-speed testing and sorting of high-cap multilayer ceramic capacitors.



System Specifications

Throughput

Up to 16,666 parts per minute
(1,000,000 parts per hour)

Chip Sizes

- 0603 (1608 metric)
- 0805 (2012 metric)
- 1206 (3216 metric)
- 1210 (3225 metric)

Applied Tests

Up to 25 stations are available to perform the following tests:

- Capacitance & DF (120Hz, 1KHz, 1MHz)
- IR Pre-Charge
- IR Pre-Soak
- IR/Current Measurement
- 100% Data Collection (Optional)

Instrumentation

Capacitance & DF:
Agilent 4981 (2 units per CD Station)

Flash and IR:

- ESI Source and Measure Units
- Models 620 and 720
- Applied test voltage:
 - 2V – 600V (standard)
 - 2V - 1,000V (optional)
- Charge current: 2mA – 250mA (standard)
- Charge current: 2mA to 90mA w/HV Protect (optional)
- Measured current: 1pA – 2mA
- 18mA current range is optional

Test Contacts

Upper Contacts:

- Roller contact with computer-programmable constant force settings
- PAC Function

Lower Contacts

- Beryllium copper, Silver, or Tungsten

Sort Bins

9 bins:

- Up to 7 cap tolerance bins
- Up to 7 reject bins
- 1 retest bin

System Control

Multi-Core Processor
Touch screen operator interface
System status light tower
Internally mounted printer (option)
Network control (option)

Service Requirements

Main Power:
200-230 VAC, 50/60 Hz, 20A, Single-Phase

Vacuum Pump (optional):

200-230 VAC, 50/60 Hz, 20A, Three-Phase

Pressurized Air:

Compressed Air Pressure: 550 (80 psi; .055 MPa)
Compressed Air Flow Rate:
Minimum: 340 LPM (12 CFM)
Moisture Limit <10PPM Water

Vacuum:

Vacuum Pressure: 55kPa (16.24 Inches Hg)
Vacuum Flow Rate: Minimum 560 LPM (19.8 CFM)
Air Hose: 16mm OD/13mm ID; PVC Type Supply Hose
Vacuum Pump (optional)
Temperature and Humidity Range:
15°-35°C and 50%-80%

Dimensions & Weight

Height: 75" (1.90 m)
Width: 63" (1.60 m)
Depth: 62" (1.57 m)
Net Weight: 2000 lb. (910 kg)
Shipping Weight: 2700 lb. (1225 kg)

* Weights will vary according to machine configuration

Ask an Expert! For facilities guidelines, requirements or more information, please contact your local ESI representative or visit www.esi.com.



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