TF-3050

SERIES 5 X30 THICK FILM CHIP TRIMMER



A New Generation Platform for Trim and Test Thick Film Chip **Components Size of 0201 and Circuits**

- Advanced vision and motion subsystems provide dramatically improved positioning and
- capability Capability to trim from ohms (Ω) to Mega-ohms ($M\Omega$)
- Built-in pattern necognition for auto compensation & precise alignment
- Ability to trim substrates with resistors up to size 0.04"X0.02" and 0201 (0.02" x 0.01")
- User friendly GUI software
- Theta adjustment for clamping device for precise alignment
- Intelligent sensors to detect and isolate part defects
- Twin magazines to store additional substrates and reduce machine idle time.

TF-3050 SERIES 5 X30 THICK FILM CHIP TRIMMER - SPECIFICATIONS

Optical System

- Beam Positioned: Precision high-speed_galvanometer
- Field Size: 12 x 90mm Resolution: 1.5μm Repeatability: 2.5 μm
- Spot Size: 18 -40 μm (standard 1064nm)
- Focus Len: 125 mm flat telecentric type

Laser System

- Laser Type: Diode pumped Q-switched
- Output Power: 6W (Average @ 10 KHz)
- Wavelength: Standard 1064nm
- Pulse Width, nominal: 30 nsec
- Power Measurement: Thermal pickup

X/Y Part Positioning

- Type: Dual carriage system with high speed motor
- X Axis: Driven by high speed linear motor (carriages) - Resolution: 1um
- Travel Speed: 600 mm/s
- Prober & Y Axis: DC brushless servo motor
- Theta Control: Motorized theta control
- Part Transfer: AC motor controlled pick and place arms
- Part Load/Unload: Dual magazines with elevators

Software

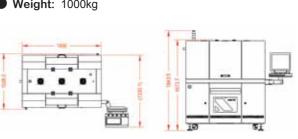
WinLts 2 Windows XP Application Software

Measurement System

- Dual Mode: Force Current & Force Voltage
- Range: $0.1\Omega \sim 30 M\Omega$, $10 m\Omega$ Optional
- Accuracy: 0.02% Midrange
- Repeatability: 0.01% Midrange
- Resolution: 0.005%
- Measurement Time: 50 μsec
- Calibration Standards: 6 pcs 0.01%
- Guard Drive Current: 100 mA
- Guard Offset: 1 mV

Physical Characteristics

- **Dimensions**: 1490 mm x 1028 mm x 1843.5 mm
- Weight: 1000kg



Utilities Requirements

- Power: 220 V AC, single phase, 10A (50/60Hz)
- Air: 80~100 psi / flow rate 10 cfm
- Vacuum: 100 CFM factory vacuum for debris removal

and substrates retention

Controller

- Intel Core 2 duo processor for main application (Windows)
- Pentium processor for trimmer application and motion control

Special Features

- Dual magazine with two sets of magazines to reduce the machine idle time
- Improved pick up arm for efficient pick up and placing of
- Completely redesigned GUI improves machine

Switching Matrix

- Pins per Card: 16
- Lines per Pin: 3 (Force, Sense or Guard)
- Cards per System (Standard): 10 pcs std, 12 pcs

- Switch Type: Dry Reed Relay
- Contact Life: 1 Billion Cycles
- Insulation: > 10 $G\Omega$
- Switching Time: 200 μsec



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