

TF-3050

SERIES 3 LEP50 THICK FILM CHIP TRIMMER



The **TF-3050 Series 3 LEP50** provides high accuracy performance to overcome the new challenges of smaller geometries of chip resistor trimming. Proprietary designs achieve the high accuracy mechanical positioning and ultra-stable laser beam control demanded by industry. **TF-3050 S3** utilizes vision registration theta rotation within a Windows XP operating system. These advance features are integrated with established substrate handling and automation systems.

TF-3050 SERIES 3 LDP15TQ THICK FILM CHIP TRIMMER - SPECIFICATIONS

Optical System

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

Laser System

- **Laser Type:** Diode pumped Q-switched
- **Output Power:** 6W (Q-Switched Avg. Power @ 10 KHz)
- **Wavelength:** Standard 1064nm
- **Pulse Width, nominal:** 50 nsec
- **Power Measurement:** Thermal pickup

Step & Repeat

- **Type:** DC Brushless Linear Motor
- **Drive Type:** Linear Drive
- **Mechanism per System:** Single
- **Wafer Clamping:** Center or Side clamping
- **Travel Speed:** 1500 mm/sec
- **Acceleration:** 1.2 G
- **Resolution:** 1 μ m
- **Index Time (1.5mm):** 30 msec

Handler

- **Single stacked elevator:** Standard
- **Drive Type:** Stepper Drive
- **Pick & Place:** Stepper Motor
- **Transfer Cycle:** 1~2 sec
- **Cartridge Capacity:** 360pcs (0402)
- **Elevator:** Stepper Motor

Measurement System

- **Dual Mode:** Force Current & Force Voltage
- **Range:** 0.1 Ω ~ 30 M Ω ,
- **Accuracy:** 0.02% Midrange
- **Repeatability:** 0.01% Midrange
- **Resolution:** 0.005%
- **Measurement Time:** 50 μ sec
- **Calibration Standards:** 6 pcs 0.01%
- **Guard Drive Current:** 100 mA
- **Guard Offset:** 1 mV

Switching Matrix

- **Pins per Card:** 16
- **Lines per Pin:** 3 (Force, Sense or Guard)
- **Cards per System (Standard):** 6 pcs std, 12 pcs maximum
- **Switch Type:** Dry Reed Relay
- **Contact Life:** 1 Billion Cycles
- **Insulation:** > 10 G Ω
- **Switching Time:** 200 μ sec

Controller

- Intel Core 2 duo processor for main application
- Pentium processor for trim engine

Software

- WinLts 3 Windows XP Application Software

Special Features

- **Dimensions:** 1310mm x 1028 mm x 1800mm
- **Weight:** 900kg

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