**A New Generation Platform for Trim and Test Thick Film Chip Components**

- Capability to trim from milliohms (mΩ) to Mega-ohms (MΩ)
- Ability to trim substrates with resistors up to size 0.04”x0.02”
- Fully redefined user friendly GUI software
- Theta adjustment for clamping device for precise alignment
- Twin magazines to store additional substrates and reduce machine idle time.

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**TF-3050 SERIES 2 LDP15TQ THICK FILM CHIP TRIMMER**

**Optical System**
- Beam Positioned: Precision high-speed galvansometer
- Field Size: 12 x 30mm
- 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 Nd: YAG Lasers
- Output Power: 12W (Q-Switched Avg. Power @ 10 KHz)
- Wavelength: Standard 1064nm
- Pulse Width: Nominal: 150 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/sec
- Prober & 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**
- WinLta 2 Windows XP Application Software

**Measurement System**
- Dual Mode: Force Current & Force Voltage
- Range: 0.10 – 30 MΩ, 10 mΩ 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: 2125 mm x 965 mm x 1858 mm
- Weight: 1000kg

**Utilities Requirements**
- Power: 220 V AC, single phase, 10A (50/60Hz)
- Air: 80 ~ 100 psig / flow rate 10 cfm
- Vacuum: 100 CFM factory vacuum for debris removal and substrates retention

**Controller**
- Intel Core 2 duo processor for main application (Window)
- 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 substrates
- Completely redesigned GUI improves machine productivity

**Switching Matrix**
- Pins per Card: 16
- Lines per Pin: 3 (Force, Sense or Guard)
- Cards per System (Standard): 10 pcs std, 12 pcs maximum
- Switch Type: Dry Rate Relay
- Contact Life: 1 Billion Cycles
- Insulation: > 10 GΩ
- Switching Time: 200 μsec