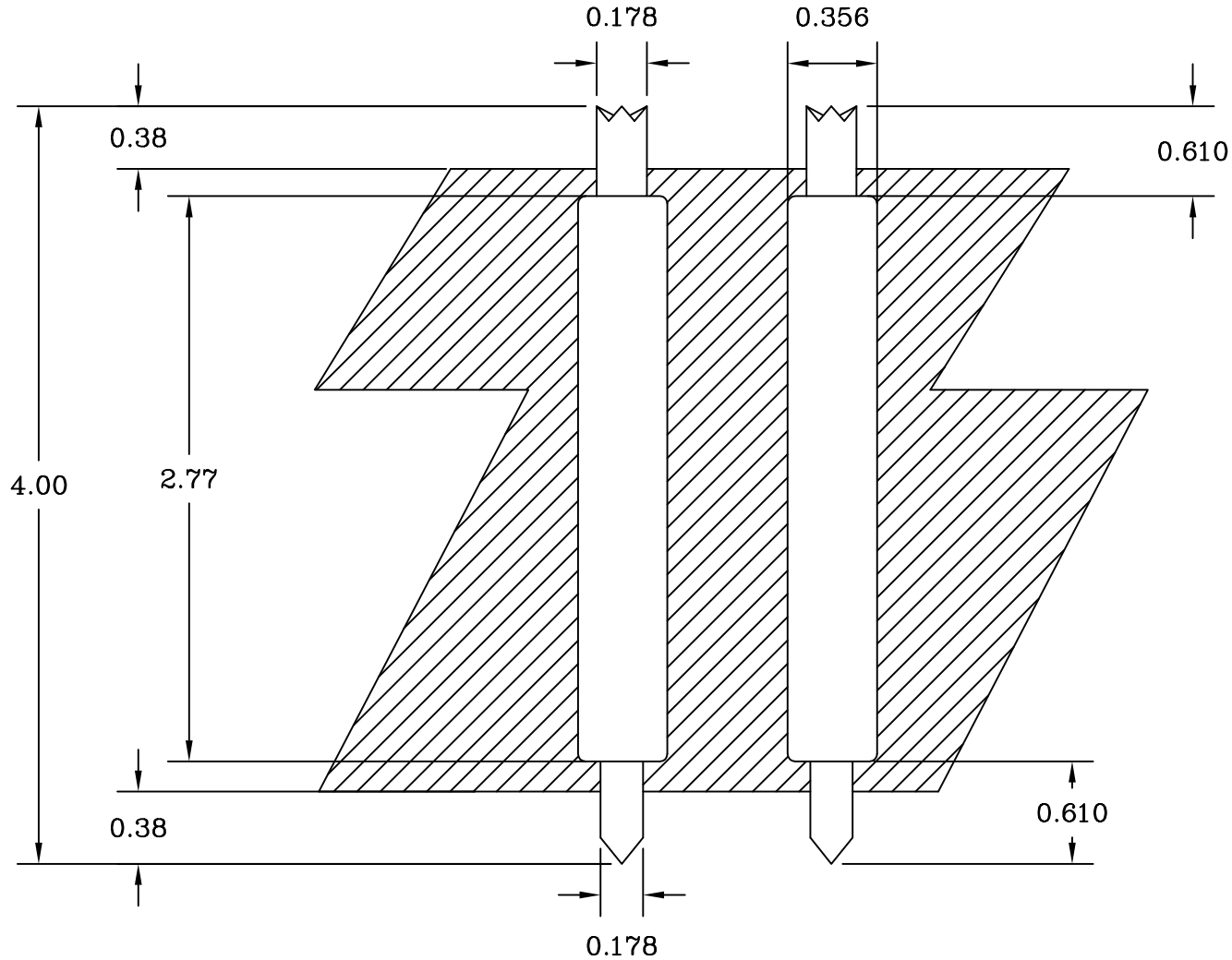
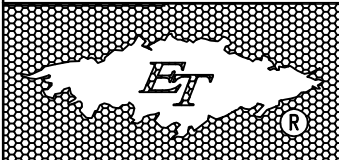


|     |             |          |      |
|-----|-------------|----------|------|
| REV | DESCRIPTION | DATE     | BY   |
| A   | NEW DRAWING | 02/27/04 | H.N. |

SKT1951  
DOD 41951



NOTES:  
HIGH SPEED POGO-PIN  
ALL DIMENSIONS ARE IN mm. ALL TOLERANCES  $\pm 0.127$

|   |                      |  |                         |  |  |
|---|----------------------|--|-------------------------|--|--|
|  |                      | <b>Emulation Technology, Inc.</b><br>— VLSI and SMT ADAPTERS and ACCESSORIES — |                         |  |  |
|   |                      | 2344 Walsh Avenue, Bldg.F<br>Santa Clara, Ca 95051                             |                         | TEL:(408)982-0660<br>FAX:(408)982-0664 |  |
| SHEET:<br>1 OF 3  | DATE:<br>02/27/04    | REVISION:<br>A   | <b>ASSEMBLY DRAWING</b> |  |  |
| CHECKED:<br>Perry Munroe  | DRAWN:<br>Huy Nguyen | ITEM:<br>POGO-PIN-4.00-1   |                         | DESCRIPTION:<br>POGO-PIN-4.00-1        |  |
| Scale N/A   |                      | DO NOT SCALE DRAWING   |                         |  |  |

## **High Speed Spring Probe**

**ET Part # POGO-PIN-4.00-1**

This dual plunger spring probe is designed to meet the rigorous test probes requirements driven by the faster rise times and increasing need for FR and wireless bandwidth in the high volume, very fine pitch test socket market. Along with speed and accuracy, these probes are designed to operate at pitches down to 0.5mm, specifically tailored to the ultra fine pitch packaging these markets demand.

With an impulse rise time of 35ps and a prop delay of 20ps, these pogo pins are designed for building transparent test channels or interconnect solutions that must address the signal performance needed in data communications and source synchronous memory bus applications. These include Fibrechannel, Infiniband, Serial ATA, PCIExpress, Source Synchronous DDR, Rambus, HyperTransport, RapidIO, and SONET OC-48, OC-192, Gigabit Ethernet and 10 GB Ethernet.

The high bandwidth of these probes provides very low insertion loss up to 13 GHz. These probes will provide transparent operation on Bluetooth, 802.11b and 3G wireless protocol devices and exceed the test probe requirements for fine pitch SOC devices, ASICs, microwave communications devices and system interconnects.

### **ELECTRICAL PERFORMANCE SPECIFICATIONS**

#### **TIME DOMAIN**

|  |      |
|--|------|
| Signal Delay                             | 20ps |
| Rise Time (10-90%) into an Open Circuit  | 65ps |
| Rise Time (10-90%) into an Short Circuit | 60ps |
| Impulse Response                         | 35ps |

#### **FREQUENCY DOMAIN**

|                |                  |
|----------------|------------------|
| Insertion Loss | <1db to 13 GHz   |
| VSWR           | <2:0:1 to 12 GHz |
|                | <1.6:1 to 10 GHz |

#### **EQUIVALENT CIRCUIT MODEL PARAMETER**

|                                    |                   |
|------------------------------------|-------------------|
| Pin Inductance                     | 0.71nH            |
| Pin Capacitance                    | 0.6pF             |
| Transmission Line                  | Z =39U, T1 = 20ps |
| Minimum Rise Time for Lumped Model | 120ps             |
| Resitivity                         | <50 milliohms     |

#### **MATERIALS**

|              |                           |
|--------------|---------------------------|
| Plunger (x2) | AU Plated Hardened Steel  |
| Barrel       | AU Plated Hardened BE-CU  |
| Coil Spring  | AU Plated Stainless Steel |

## **MECHANICAL SPECIFICATIONS**

Contact Force after 0.38mm Deflection on both sides      27g/Contact