Introduction

This Device Test Interface (DTI) is a hand held test clip which is designed to simultaneously probe the leads of an in-circuit IC. Terminated with one 25 way male "D" type connector, the DTI makes temporary electrical contact with the leads of the device, in a two step action:

- The interface is positioned over the device to be tested (lining it up with the body of the device and the leads).
- Once it has located on the device, by gently pushing further, the high-performance probes will contact the leads of the device and make electrical contact.

IMPORTANT!:

- ENSURE the DTI is positioned correctly before applying any pressure.
- DO NOT move or twist the DTI once the pressure has been applied.

Failure to comply to both of these notes may result in damage to the DTI and Device

Features

- achieves the best combination of reliability, repeatability, serviceability and user-friendliness;
- high contact pressure at probe tip (spear type), for repeatable and reliable contact;
- high reliability and long life probes;
- sweeping action gold plated contacts, for reliable contact and low ohmic resistance of interconnections;
- high current rating (for single channel, in ambient air with 70°F [20°C]) : 1.5A
- impact, solvent and temperature resistant plastics, with low friction;
- wide range of operating temperatures (commercial): [0°C to +70°C]
- clear markings on the body, indicating Pin 1 of IC being tested, to prevent probing the wrong way round;
- packaged in a hard wearing, high resistance to damage Polypropylene case with foam insets, the Test Interface can withstand high impact in transit.
- case can be used for safe storage when the Test Interface is not in use, and subsequent transport.

Diagnosys Ferndown Limited can provide a full range of test clips to meet individual requirements. Any common device packaging styles can be accommodated, or custom designed clips manufactured, for device pitches of 0.4mm and above.

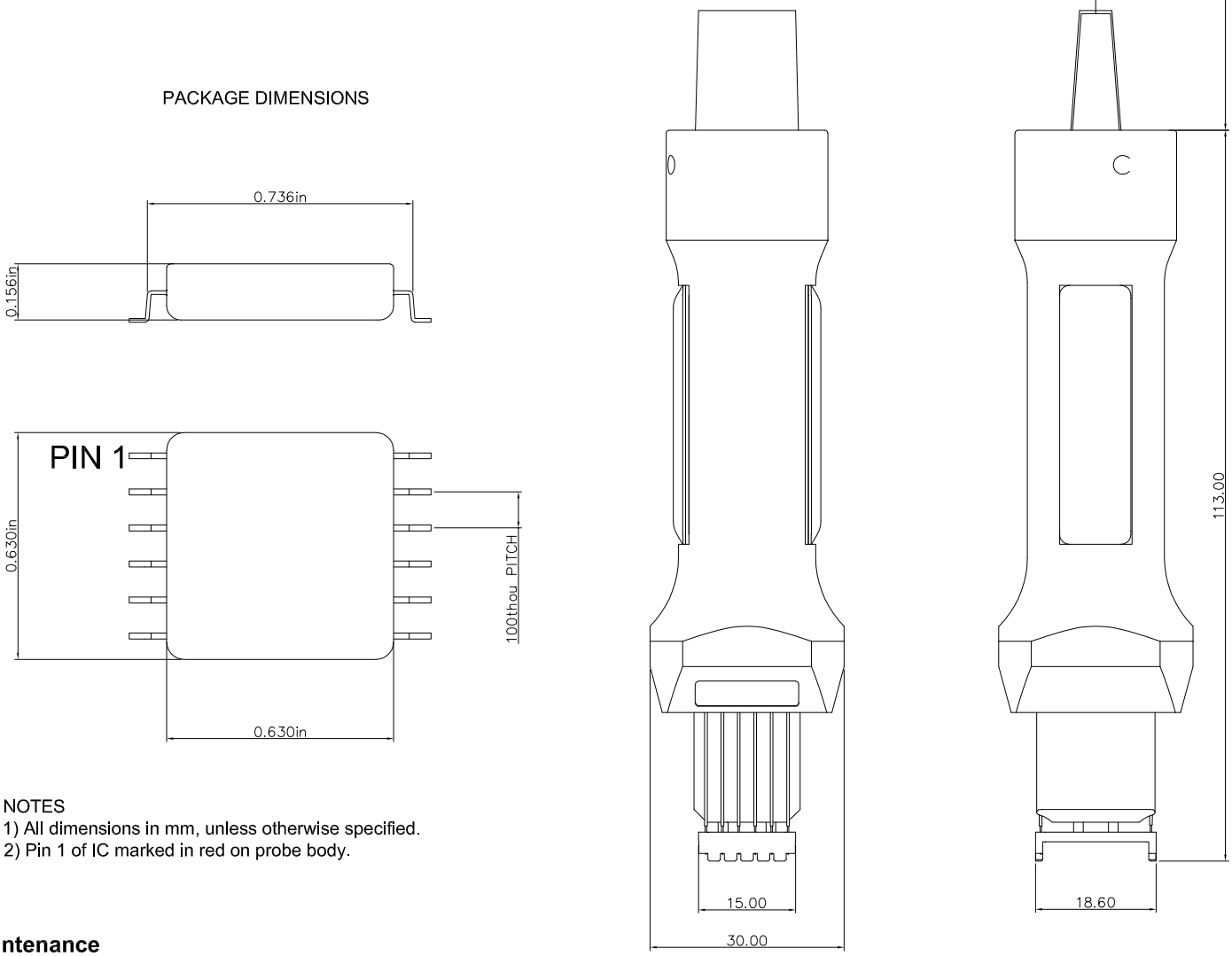
Specification

- It will accommodate a 12 Pin, 100 Thou Pitch Metal package - see drawing below for details
- Maximum number of interconnections (channels): 12
- Current rating, with all contacts loaded (maximum continuous current, non inductive): 0.5A /channel
- Contact resistance (average): 80 mΩ /channel
- Insulation resistance: 5MΩ Min.
- Volume resistivity of plastic parts: 10^{15} Ω-cm @ 50%RH.
- Fatigue life of probes: Min. 1,000,000 cycles at normal working distance
- Working distance (normal stroke): 1.3mm;
- Single probe force at point of contact (normal stroke): 0.16N ; at working travel: 0.7N

Connections Table

A Clip Definition File (PCF) defines the electrical relationship between the device leads and the PinPoint channels. This can either be downloaded from the Diagnosys website, or alternatively contact Diagnosys directly for this.

PACKAGE DIMENSIONS



NOTES
1) All dimensions in mm, unless otherwise specified.
2) Pin 1 of IC marked in red on probe body.

Maintenance

The Test Interface Head is maintenance free. The probes are self-cleaning. Immersion in water or contact between probes and any liquids should be avoided, as this could severely reduce the working life of probes.

Contamination is the primary cause of probe contact problems. This is generally caused by flux left as a residue on circuit boards. Other probe contaminants such as dust, fluff, oil and grime can also cause problems in other areas. Light brushing of the tips of the probes with nylon, bristle or soft metal brushes will dislodge most contaminants.