

## Introduction

This Test Interface is a hand held test clip that can be used 'hands-free' or hands-on' and is designed to probe simultaneously the 60 leads of an assembled hybrid device. It is terminated with three 25 way male "D" type connectors and will make temporary contact with the leads of the device when used as described below:

## Operation

**See work instruction WI-0360-0001 for full operational instructions**

### Step 1 - Initial Placement

The test interface has two latches (One either side) to secure and hold the hybrid allowing hands-free operation. Do not depress/use these in step one. Position the test interface onto the body of the device to be tested, noting the orientation of pin 1 (marked on the interface and the 'Pin1' chamfer on the hybrid PCB). There should be little resistance when the base of the test interface is lowered onto the Hybrid and at this point the microprobes will not be making any contact with the device. Ensure that the test interface is sitting squarely on the PCB and that all four corner of the interface are straddling the Hybrid.

### Step 2 - Electrical Connection to the Hybrid

Push the test interface further (holding it on the sculpture sides) until the latches lock it onto the Hybrid PCB. This action will lower the high-performance microprobes onto the leads of the device and make electrical contact. Both latches should be fully locked under the device. Ensure that this is the case before you release the pressure. At this point the interface should remain on the Hybrid allowing all necessary testing and programming to be conducted.

### Step 3 - Removal

Push the test interface further onto the Hybrid. This action will take the tension off the latches (preventing possible damage). Depress both latches fully and lift the interface away from the hybrid (this action can be done with either one or hands).

**Note: Whilst the interface is secured to the Hybrid, carefull attention must be paid to ensure the interface is not knocked or moved UNTIL the two latches are depressed, otherwise damage may result to either the hybrid or the interface.**

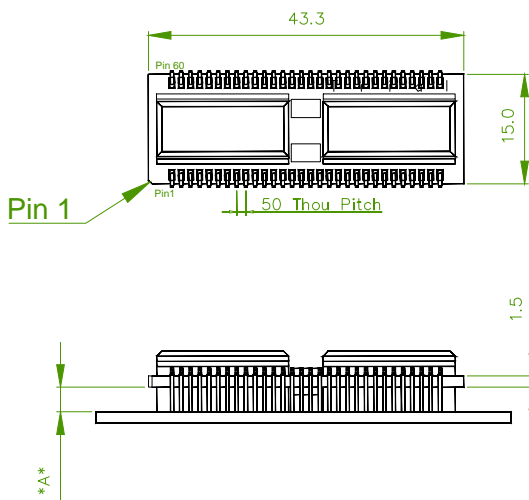
## Characteristics

- It will accommodate a 60 Pin Hybrid, 50 Thou Pitch device, with PCB Size LxWxH: 43.25mm x 15mm x 1.5mm;
- Maximum number of interconnections (channels): 60
- 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): 2.5mm;
- Microprobe force at point of contact (normal stroke): 0.3N

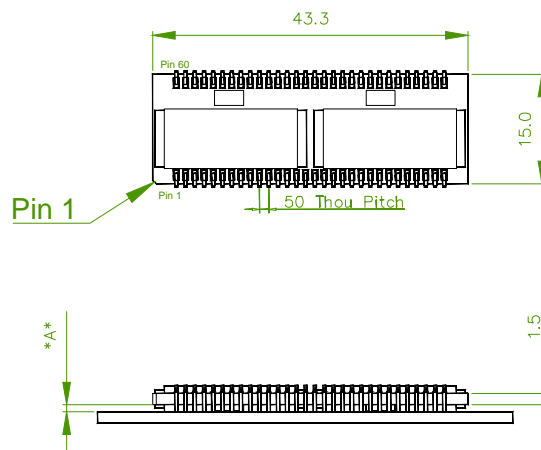
### NOTES

- 1) All dimensions in mm, unless otherwise specified.

TTS3232D



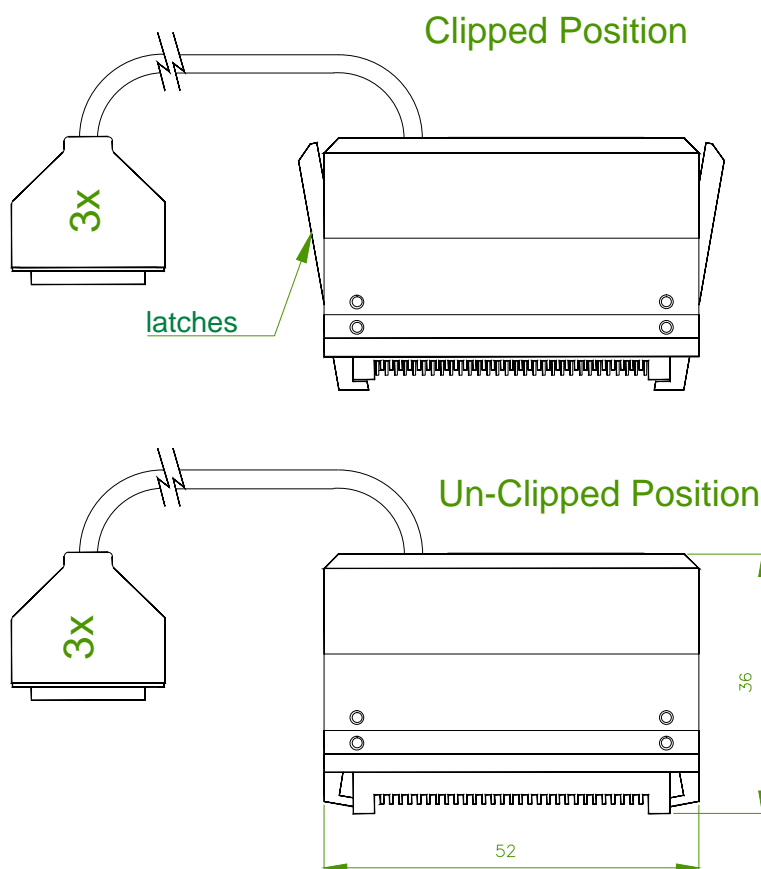
TTEE128X320



## Connection

Each of the three D-Type connectors are labelled (A to C). Connect each connector of the clip to the relevant socket on the driver card.

PIN	Channel	PIN	Channel
1	61	31	9
2	48	32	5
3	66	33	8
4	38	34	4
5	70	35	3
6	39	36	7
7	68	37	10
8	34	38	6
9	37	39	27
10	42	40	53
11	50	41	11
12	72	42	12
13	62	43	29
14	63	44	33
15	64	45	32
16	65	46	28
17	46	47	51
18	44	48	55
19	2	49	54
20	24	50	59
21	40	51	60
22	41	52	31
23	14	53	57
24	13	54	30
25	15	55	56
26	16	56	35
27	18	57	52
28	22	58	36
29	17	59	58
30	20	60	26



## Features

- interchangeable device-specific base;
- attachable handle for use with the 'Test Clip Stand';
- achieves the best combination of reliability, repeatability, and user-friendliness;
- enhanced serviceability due to the modular design and quick change harnessing;
- high contact pressure at probe tip, for repeatable and reliable contact;
- high reliability and long life interchangeable microprobes;
- 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.

## Maintenance

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

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.