

Introduction

This Test Interface is a hand held test clip, designed to probe simultaneously the leads of an assembled IC from underside the PCB. Terminated with two 25 way male "D" type connectors, the interface makes temporary electrical contact with the leads of the device, in a two step action as follows:

- the interface is positioned over the device leads (from underside the PCB) to be tested (lining up the test interface pins with the leads of the device that protrude through the PCB)
- by pushing the handle further, reliable contact should be made with the device under test.

Specification

- This is a generic clip that has two primary functions as follows:

Comb Configuration

Configured with the TestVue Software, underside devices with a maximum row (or column) count of 20 can be tested in VI mode. This is achieved by TestVue being able to portion the device up into 2 rows (or 2 columns) and then guiding the user through each segment.

The specification of the comb is:

- 2 x 20 Pins (Max)
- 100 thou pitch leads

ZIP Configuration

Underside ZIP devices with a maximum size of 1x20 Pins and 1x19 Pins can be tested in either functional or VI mode.

The specification of the ZIP is:

- 1 x 19 Pins and 1 x 20 Pins (Max)
- 100 thou pitch leads

Common Specification

- 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. 100,000 cycles;
- Working distance (normal stroke): 6.35mm;
- Probe force at point of contact : 1.1N



Features

- achieves the best combination of reliability, repeatability, serviceability and user-friendliness;
- concave probe tips shipped as standard to assist in location and positioning of test interface with device;
- high reliability and long life interchangeable probes, various tip styles available upon request, supplied with concave variant;
- 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.
- very flexible harnessing to assist in positioning of Test Interface;

Connections Table

COMB																																								
Device Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Pinpoint Channel	33	29	25	28	34	37	27	35	36	26	48	38	39	43	47	40	42	45	41	44	7	3	6	11	12	1	5	9	8	13	18	22	20	17	21	14	23	19	16	15

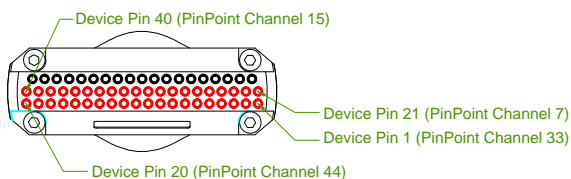
ZIP																																							
Device Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Pinpoint Channel	15	41	16	45	19	42	23	40	14	47	21	43	17	39	20	38	22	48	18	26	13	36	8	35	9	27	5	37	1	34	12	28	11	25	6	29	3	33	7

KEY

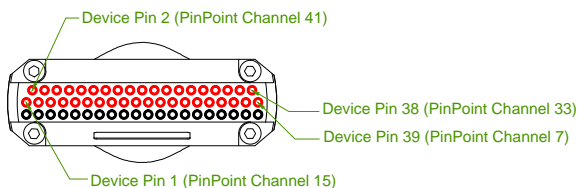
BLUE = Connector 'A'

RED = Connector 'B'

COMB Pin Designation

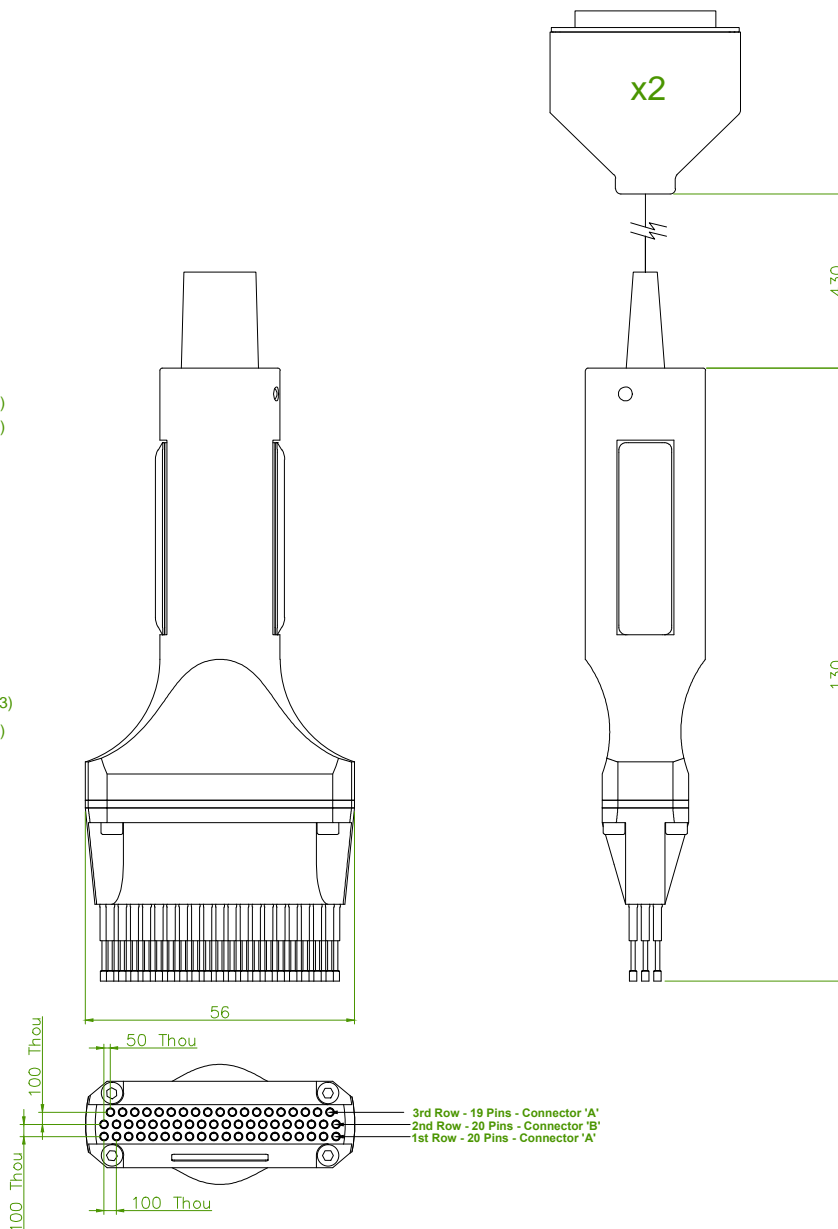


ZIP Pin Designation



NOTES

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



Changing Pins and configuring

- It may be necessary to remove/add pins in order to configure the clip as required;
- 45 probes (5 spare) are supplied with this clip but only 40 are fitted as standard in the comb (unless requested otherwise);
- To remove the pins, use a suitable pair of pliers and pull squarely from each receptacle ensuring no damage occurs to the pins.
(a specific pin remover is available upon request);
- To add pins, initially insert by hand and then (ideally no more than two at a time) press them squarely against a flat surface until fully inserted.

Maintenance

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