

**Product Details:**

- ❖ LVC & LCX Logic products.
- ❖ Customer product portfolio lies in the leading-edge integrated circuits and frequency control products.
- ❖ The customer products are essential in the timing, transferring, routing, and translating of high-speed digital and analog signals.
- ❖ The customer offers a fabless business model so that the company can focus on customer designs, research, and development.

**Project Details:**

- ❖ This production test includes testing of all DC, AC & Functional parameters for various families and their products.
- ❖ The DC parameters included the Input leakage current, Input low voltage, input high voltage, output high voltage, output low voltage, supply current & Z stage leakage current tests.
- ❖ The AC parameters included the Rise time, Fall time and Propagation delay tests like t<sub>plh</sub>, t<sub>p<sub>hl</sub></sub>, t<sub>p<sub>zh</sub></sub>, t<sub>p<sub>zl</sub></sub>, etc.
- ❖ The Functional patterns were coded in the form of binary vectors such as marching zeros, marching ones, walking zeros, walking ones, etc. that could detect the most possible stuck at conditional faults of the digital circuits.
- ❖ Generalized hardware and software was needed for testing all the parameters for various families of their products.

**Key Highlights:**

- ❖ The program is made user friendly, by making the user load only the device type.
- ❖ The propagation delay tests in terms of few ns were measured and auto correlation routines were included in the program for taking care of the round trip delays within the ATE.
- ❖ The on resistance values are very low in terms of few Ohms.

**Equipments Used:**

Tester : S21, MCT 2010, 2020

Handler : MCT 3608