

ESD and Latch-Up test services

MASER Engineering operates a state of the art laboratory for ESD and Latch-up testing. ESD and latch-up testing is required for all new IC designs or design changes. Amongst the tests offered are Human Body Model (HBM), Machine Model (MM), Charged Device Model (CDM), Electro-Thermally Induced Parasitic Gate Leakage (EIGL), latch-up and ESD Gun tests



ESD AND LATCH-UP TESTING

- Human Body Model (HBM)
- Machine Model (MM)
- Charged Device Model (CDM)
- Latch-Up (LU)
- Electro-Thermally Induced Parasitic Gate Leakage (EIGL)
- ESD Gun tests
- Active participation in ESDA standardisation committee
- EPA measurement and consultancy



HBM AND MM TESTING

- 2x Keytek Zapmaster Mk.2 SE system
- 256 and 512 channel system
- Scimitar software with full curve tracing
- In-house design of ESD interface
- Human Body Model specifications
 - 50V to 8kV
 - 8-12kV optional
 - ANSI/ESDA/JEDEC JS-001
 - JEDEC EIA/JESD22-A114
 - ESDA ANSI/ESD STM5.1
 - MIL-STD-883, Method 3015
 - AEC - Q100-002
 - AEC - Q101-001
- Machine Model specifications
 - 50V to 2kV
 - JEDEC EIA/JESD22-A115
 - ESDA ANSI/ESD STM5.2
 - AEC - Q100-003
 - AEC - Q101-002



CDM TESTING

- Keytek RCDM3 system
- Field or Direct Charge Method
- Positioning accuracy of 0.01mm
- Built in vacuum system
- Allows the introduction of inert gases
- Charged Device Model specifications
 - 50V to 4kV
 - JEDEC EIA/JESD22-C101
 - ANSI/ESDA/JEDEC JS-002
 - AEC - Q100-011
 - AEC - Q101-005
 - ESDA ANSI/ESD STM5.3.1

ESD and Latch-Up test services



LATCH-UP TESTING

- 2x Keytek Zapmaster Mk.2 SE system
- 256 and 512 channels
- Scimitar software with full curve tracing
- Dynamic latch-up setup for failure analysis (EMMI/OBIRCH/LIT)
- In-house design of ESD interface
- Including preconditioning, state read-back & full control of each pin
- Thermostream upto 200°C testing
- Latch-up specifications
 - JEDEC EIA/JESD78
 - AEC – Q100-004



ELECTRO-THERMALLY INDUCED PARASITIC GATE LEAKAGE

- Test to determine susceptibility to Electro-Thermally Induced Parasitic Gate Leakage
- E-field $\pm 400V$
- Test @ 155°C
- Gate leakage specification
 - AEC-Q100-006



ESD GUN TEST

- 1x Teseq/Schaffner NSG 438 system
- Air/contact 0.2 to 30 kV
- Applicable for Electronic systems, modules and devices
- ESD Gun specifications
 - IEC 61000-4-2
 - ISO 10605

For more info please visit www.maser.nl
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