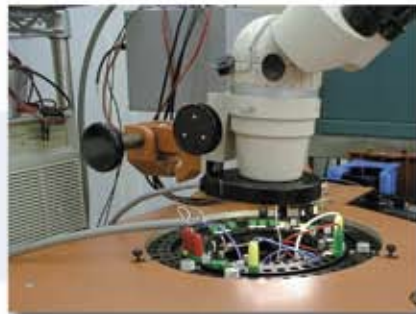




Circuit Protection Applications Test Lab



*Extensive capabilities and experience, offering component
and applications testing support from ON Semiconductor*



Applications Test Lab

ON Semiconductor, a leader in circuit protection products, offers a complete component and applications testing laboratory. At our facility, we can offer you technical assistance with circuit protection design to comply with international regulatory specifications. Our expertise and equipment are available for customer projects and to help solve critical design issues. With our extensive knowledge and expertise, we are able to characterize the performance of protection components and system applications under both normal operational and harsh environmental conditions. Our objective is to provide reliable and repeatable test results so our customers can develop their circuit protection solutions with the utmost confidence. We have a variety of equipment to support the ESD and Surge testing requirements currently used in the market today.



We are equipped to help customers in the early stages of design, and to characterize the variety of available circuit protection components. We can also help pinpoint failures and help provide solutions on completed designs.

Our capabilities also include many DC parameters such as breakdown voltage, leakage current, capacitance and impedance testing. Our ability to perform a variety of environmental tests such as Burn-in, Biased Humidity, Temperature Cycle, Thermal Shock, and HAST, can help provide information to solve a variety of applications problems.

Test Capabilities

Electrostatic Discharge (ESD)

Electronic equipment manufacturers and users continue to demand faster, increasingly complex devices in smaller packages. With each new generation, devices are becoming increasingly susceptible to damage by electrostatic discharge. In the ON Semiconductor Applications Test Lab, we are able to perform the tests needed to confirm a component or product's susceptibility to a variety of ESD events:

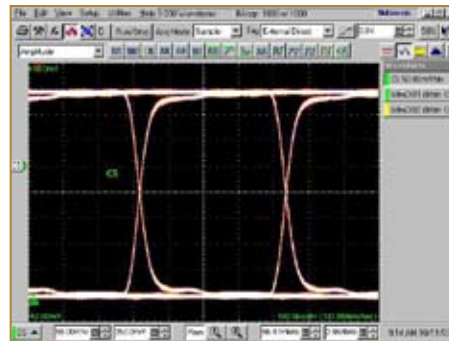
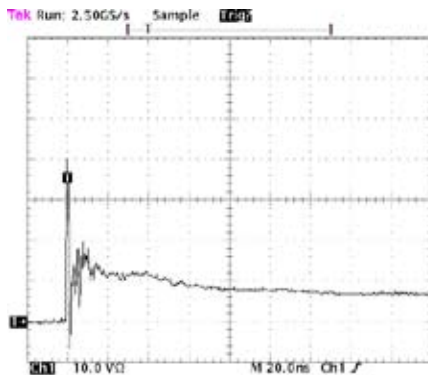
- IEC 61000-4-2
 - Air and contact to 30kV
- HBM(Human Body Model)
 - JEDEC EIA/JES22, Method A114
- MM(Machine Model)
 - JEDEC EIA/JESD22, Method A115
- CDM(Charge Device Model)
 - JEDEC EIA/JESD22, Method C101



Noiseken ESS2000 ESD Tester

Surge

Surges occur on the Telecom datalines or AC power mains as a result of switching operations in the power grid and from nearby lightning strikes, either directly to the power distribution system or to nearby ground. Radiated coupling of surges into I/O lines generally occurs only when the lines are very long. Electronic products are tested for Surge immunity to insure their continued reliable operation if subjected to realistic levels of surge voltages. In the ON Semiconductor Applications Test Lab we are able to perform many of the surge tests needed to comply with the industry standards such as IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-11, ANSI/IEEE C62.41, UL 864, UL 1449, FCC Part 68, ITU Rec. K.17, K.20, K.21, K.45 and Telcordia GR1089-CORE.



Waveforms

- 10x1000 us – 2 kV, >100 A
- 1.2/50, 8/20 us Combination Wave
- 2x10 us – 5 kV, >500 A
- 10x700 us – 6 kV, >200 A

Equipment Highlights

- Noiseken ESS2000, ESD Tester
- Schaffner NSG435, ESD Tester
- Keytek ECAT Surge Generator
- High Speed Digital Oscilloscopes
- Tektronix 317A Curve Tracer
- Agilent B1500A Semiconductor Analyzer



Schaffner NSG435 ESD Tester



Keytek ECAT Surge Generator



Sales and Design Assistance from ON Semiconductor



www.onsemi.com

ON Semiconductor Distribution Partners

Arrow Electronics	www.arrow.com	(800) 777-2776
Avnet	www.em.avnet.com	(800) 332-8638
Chip Supply	www.chipsupply.com	(407) 298-7100
Digi-Key	www.digikey.com	(800) 338-1003
EBV Elektronik	www.ebv.com/en/locations.html	(49) 8121 774-0
Farnell InOne	www.farnellinone.com	+44 8701 200 200
Future Electronics Europe	www.futureelectronics.com/contact	info-eur-future@futureelectronics.com
Future & FAI Electronics	www.futureelectronics.com/contact	1-800-FUTURE1 (388-8731)
Marubun/Arrow	www.marubunarrow.com	(852) 2375-1126
Minco	www.mincotech.com	(512) 834-2022
Mouser Electronics	www.mouser.com	(800) 346-6873
Newark Electronics	www.newark.com	(800) 4-NEWARK
NU Horizons	www.nuhorizons.com	(888) 747-6846
NuVision	www.nuvision-tech.com	(886) 2 8228-0688
Rochester Electronics	www.rocelec.com	(978) 462-9332
Semi Dice Inc	www.semidice.com	1 (800) 345-6633
Silica (An Avnet Company)	www.silica.com	+33 1 6447 2929
WPI	www.wpi-group.com	(886) 2 2788-5200
Spoerle (An Arrow Company)	www.spoerle.de/de/about/offices	+49 6103 3040

INTERNATIONAL

BRAZIL	San Paulo	(55-11) 3842-8911
GREATER CHINA	Beijing	86-10-8518-2323
	Chengdu	86-28-8678-4078
	Hong Kong	852-2689-0088
	Shenzhen	86-755-8209-1128
	Shanghai	86-21-5131-7168
	Taipei, Taiwan	886-2-2377-9911

INTERNATIONAL

FRANCE	Paris	33 (0)1 39-26-41-00
GERMANY	Munich	49 (0) 89-93-0808-0
INDIA	Bangalore	91-80-2532-5084
ISRAEL	Herzeliya	972 (0) 9-9609-111
ITALY	Milan	39 02-530-0951
JAPAN	Tokyo	81-3-5773-3850
KOREA	Seoul	82-2-2190-3500

INTERNATIONAL

MALAYSIA	Penang	60-4-226-9368
MEXICO	Guadalajara	(5233) 3123-9199
SINGAPORE	Singapore	65-6391-1260
SLOVAKIA	Piestany	421 33 790 2450
UNITED KINGDOM	Slough	44 (0) 1753 70 1676

May-07

ON Semiconductor and the ON logo are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the SCILLC product could create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor
 P.O. Box 5163, Denver, Colorado 80217 USA
Phone: 303-675-2175 or 800-344-3860 Toll Free USA/Canada
Fax: 303-675-2176 or 800-344-3867 Toll Free USA/Canada
Email: orderlit@onsemi.com

N. American Technical Support: 800-282-9855 Toll Free
 USA/Canada.

Europe, Middle East and Africa Technical Support:
 Phone: 421 33 790 2910

Japan Customer Focus Center
 Phone: 81-3-5773-3850

ON Semiconductor Website: www.onsemi.com

Order Literature: <http://www.onsemi.com/orderlit>

For additional information, please contact your local
 Sales Representative