

Ground Line EMI Filter

Reduce Electrical Overstress (EOS) and Electromagnetic Interference (EMI) in Your Equipment

Noise on ground can cause errors in operation of equipment and in metrology, as well as electrical overstress (EOS) in sensitive components.

Manufacturing process equipment such as IC handlers, wire bonders, SMT pick-and-place machines and many others have various internal metal parts grounded by wires or other means to prevent possibility of electrostatic discharge (ESD). While such grounding works well for equalizing static voltage, at high frequencies there is often a significant voltage between different grounded parts. This voltage is usually caused by servo and variable frequency motors, switched mode power supplies, LED lighting and other sources.

Ground EMI filter GLE04-01 filter connected in line with your ESD in-tool grounding blocks noise from propagating throughout the tool. It provides sub-1 Ohm DC resistance making it suitable for ESD grounding while offering significant reduction of noise on grounded parts. Filters are very easy to install and require no maintenance.



Applications

- Industrial robotics
- Semiconductor fabrication
- Electronic assembly
- Disk drive manufacturing
- Military
- Wherever EOS and EMI are a problem

Features

- Greatly reduced electrical noise on ground in equipment
- Optimized for ESD and other grounding inside the equipment
- Miniature size
- Easy installation
- No maintenance or calibration required

Reduced Ground Noise

OnFILTER miniature ground line filters greatly reduce high-frequency noise on ground and overall noise in the tool which lowers risk of EOS to sensitive components.

Less Errors in Equipment

Reduced electrical noise means less errors in operation of sensitive electronics, including test and metrology equipment. Less errors and lockups in test and handling improves your bottom line.

Reduction of Electrical Overstress (EOS)

Difference in high-frequency voltage between grounded parts in the tools exposes sensitive components to excessive currents that may cause EOS damage. Regular ESD grounding does not resolve high-frequency noise issues. Miniature GLE04-01 EMI ground filters block noise from propagating throughout the tool and prevent EMI-caused EOS.

Complete protection for ESD and EOS

Ground line EMI filter GLE04-01 connected in line with ESD and other grounding inside the tool provides protection against EOS and ESD exposure to sensitive components.

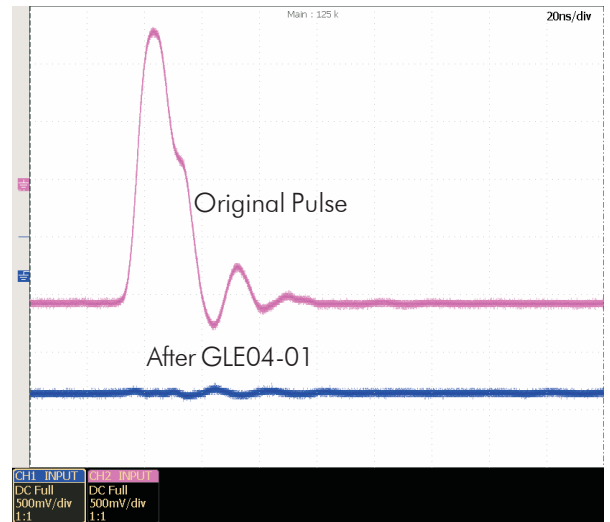
Ground Line EMI Filter GLE04-01



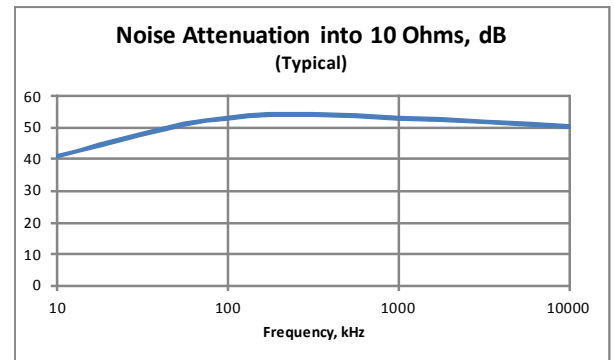
Specification

OnFILTER ground line filter GLE04-01 utilizes proprietary patent-pending technology to provide maximum noise suppression and reduce high-frequency currents on ground inside the tools

Parameter	Value
Application	Non current-carrying ground circuits
Nominal DC Resistance	<0.2Ω
Noise Attenuation (typ.)	> 40dB (100 times)
Connections	Screw #6 (supplied with ring terminal) Non-polar
Dimensions LxWxD	2.02" x 1.378" x 0.787" 51.3mm x 35mm x 20mm
Material	ABS plastic Extended temperature range models available - contact factory



Impulse response of GLE04-01 (into 10 Ohms load)

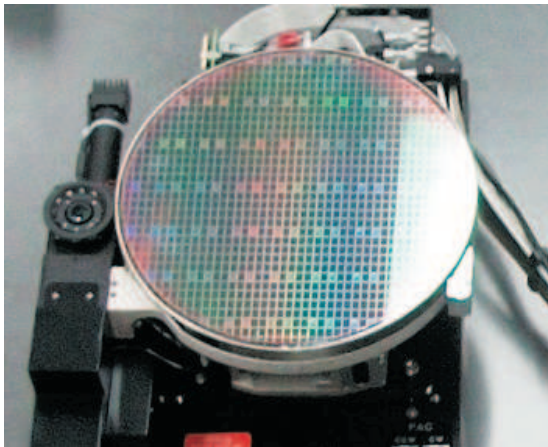


Frequency response of GLE04-01 (into 10 Ohms load)

Applications Examples

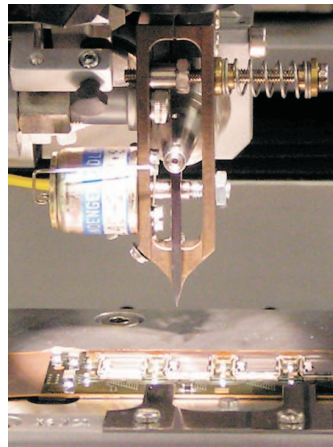
Wafer Test and Handling

Grounding the chuck



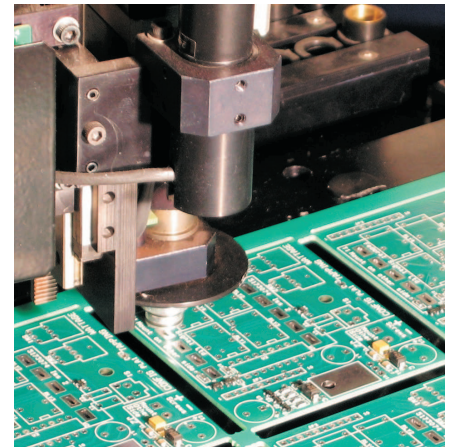
Wire Bonders

Grounding the tip and wire



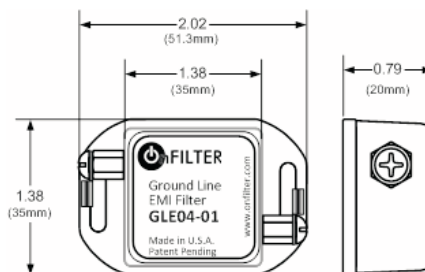
IC Handlers, Pick-and-Place

Grounding the actuators of robotic arms



Ordering Information

Ground Line Filter Model **GLE04-01**



OnFILTER, Inc.
 730 Mission St. Ste.102
 Santa Cruz, CA 95060 U.S.A.
 Tel. +1.831.824.4052
 FAX +1.206.350.7458
 www.onfilter.com
 info@onfilter.com

Contact us for other configurations