



GZ-1980 Digital Equipment Ground Monitor

In a modern electronic facility, proper grounding is crucial for safe and uninterrupted operation of equipment. Especially when the control environments are critical, any broken or loose ground connections may result in personnel exposure to dangerous voltage, equipment malfunction, and damages to those ESD sensitive components.

The GZ-1980 grounding monitor is a digital precision instrument designed to formulate a network for monitoring of the grounding on industrial equipment with multiple grounding points. Up to eight low resistance grounds can be monitored by one GZ-1980. The high resistance limit can be set through software. The real-time status is displayed on the front panel using bicolor LED's.

With the built-in network circuitry within each GZ-1980, multiple GZ-1980 units can be easily inter-connected to become a network that can be controlled from a PC-based management program. All the alarm records with detailed data in the monitor network can be logged in a database.

Each GZ-1980 provides interface to external devices such as a siren or other controllers that may provide more delicate control based on the monitoring status.



System Features:

- ☒ Built-in network circuitry within each unit
- ☒ Provide measured resistance value
- ☒ Independently continuous monitoring of 8 equipment grounds
- ☒ ANSI/ESD S20.20-2014 compliant
- ☒ Resistance high limit can be set by software
- ☒ Built-in external control interface
- ☒ Can be calibrated by software

Electrical Specifications:

- ☒ Ground resistance alarm limit: 10Ω +/- 10% (Selectable 1Ω~20Ω)
- ☒ Ground sense current: 0.2 mA +/- 10%
- ☒ Maximum open ground voltage: 100 mV under “open ground” conditions.
- ☒ Power supply: 7-15V DC 150 mA, 2.1mm coax plug, center positive.

Mechanical Specifications:

- ☒ Dimensions (W x H x L): 4 x 1 x 3 inches (100 x 25 x 75 mm)
- ☒ Monitor Case Material: Stainless steel

Applications:

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| ☒ Satellite and Aerospace productions | ☒ Wafer Handling and Photolithography Equipment |
| ☒ Equipment Clusters for IC Test and Packaging | ☒ GMR Head Test and Packaging |
| ☒ Semiconductors Productions | ☒ Wherever ESD and grounding are an Issue |

Application Example: Monitoring of Assembly Cluster Equipment

Many assembly machines consist of several parts which are not always grounded. Their ground connections may also be broken during maintenance, modifications, and even in normal use. GZ-1980 can simultaneously monitor the ground connection of every single part of the entire tool to assure its compliance with the standards and its uninterrupted operation. GZ-1980 provides external relay for equipment to stop in case of ground failures.

