

## **Lightning Protection of Control Board Equipped with Electronic Equipment**

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This paper describes a lightning protection of electronic devices, such as control boards and remote terminal units (RTU), used for railway power equipment. RTU is a data transmission equipment of a SCADA (Supervisory Control and Data Acquisition) for a substations control center. A measurement of surge current paths into RTUs was carried out at eight distribution stations of an actual railway line for two years. The measurement result shows that the majority of the surge current is the path from a low-voltage receiving point to the RTU. Accordingly, we proposed a lightning protection measure using a SPD (Surge Protective Device) and ferromagnetic cores at the receiving point, and validated the effect of the measure at the distribution stations for six months.