

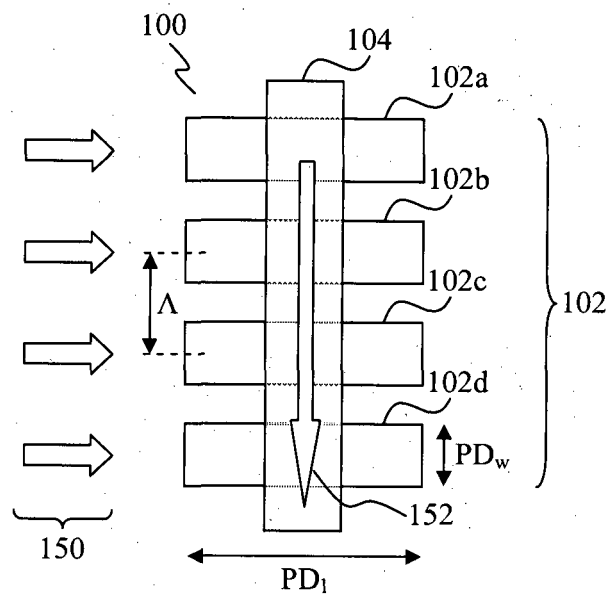


FIG. 1

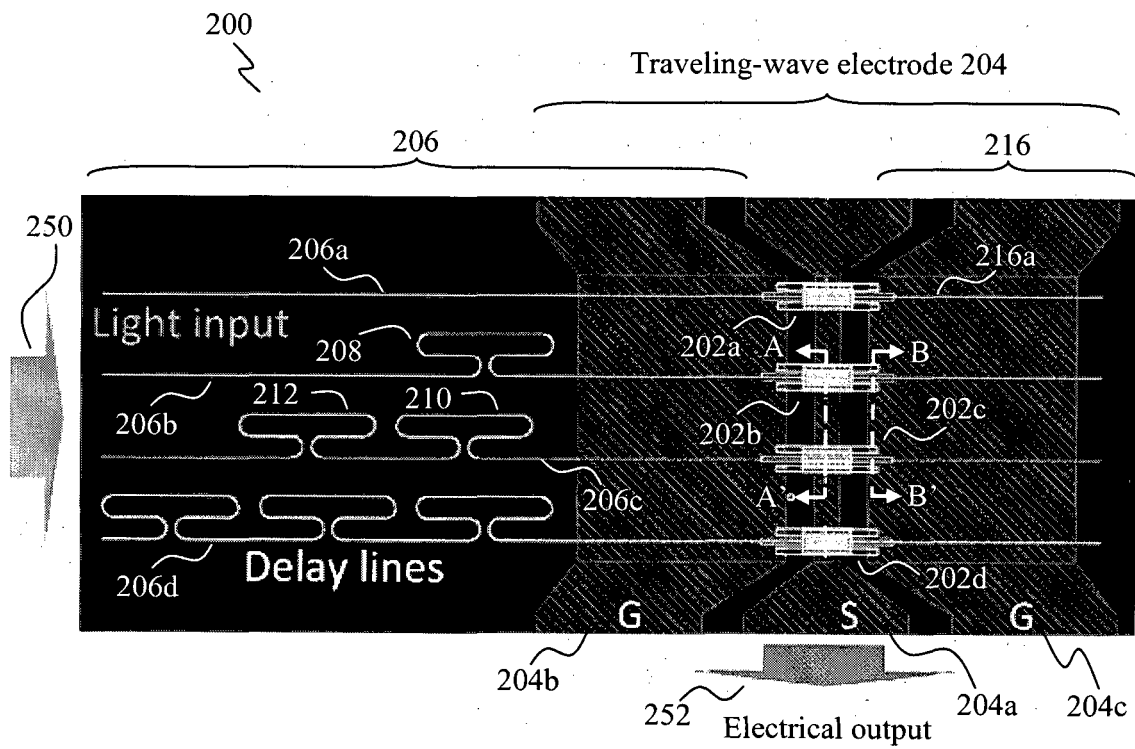


FIG. 2A

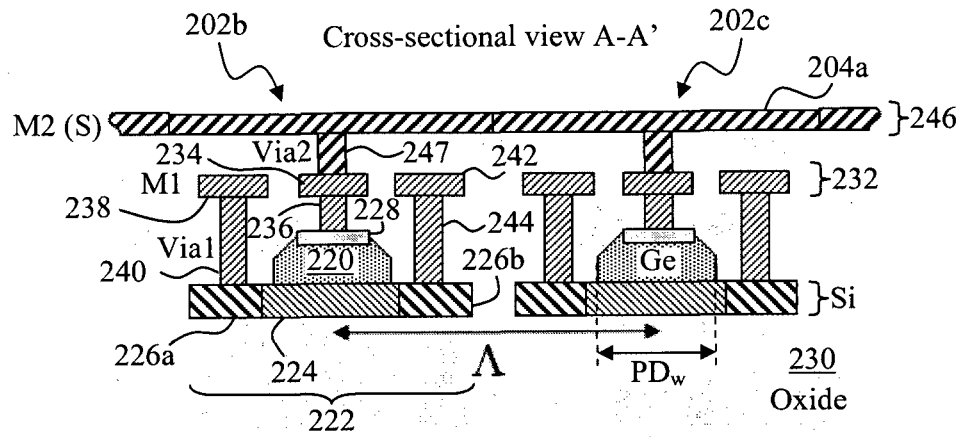


FIG. 2B

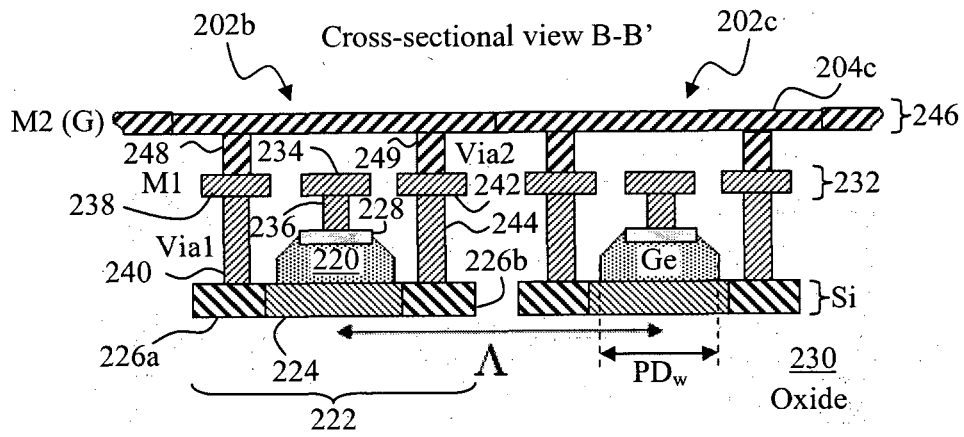


FIG. 2C

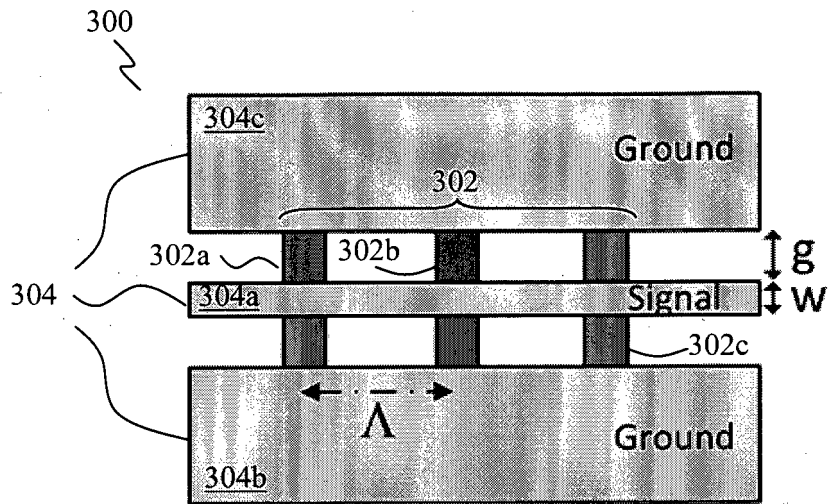


FIG. 3A

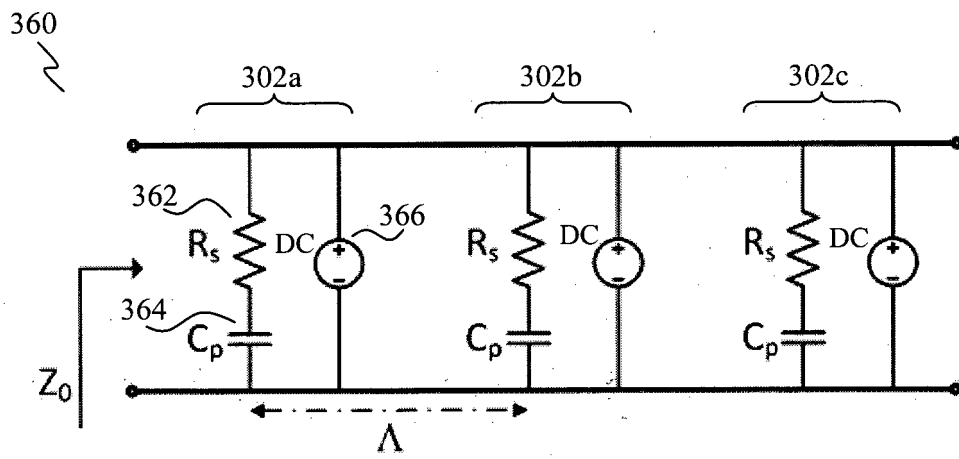


FIG. 3B

Frequency dependence

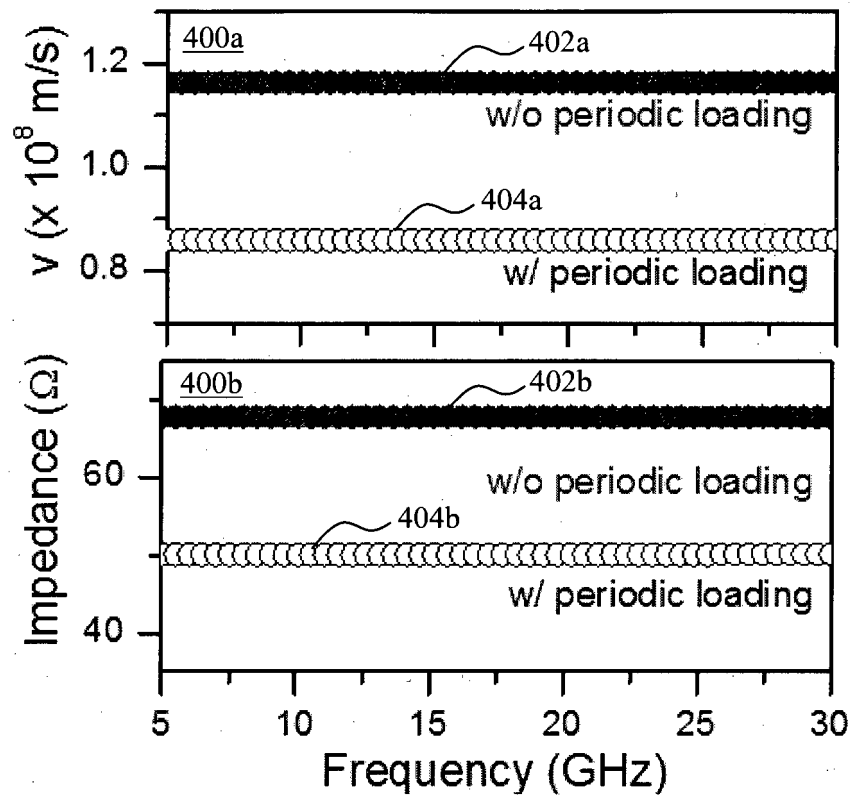


FIG. 4

Metal gap dependence

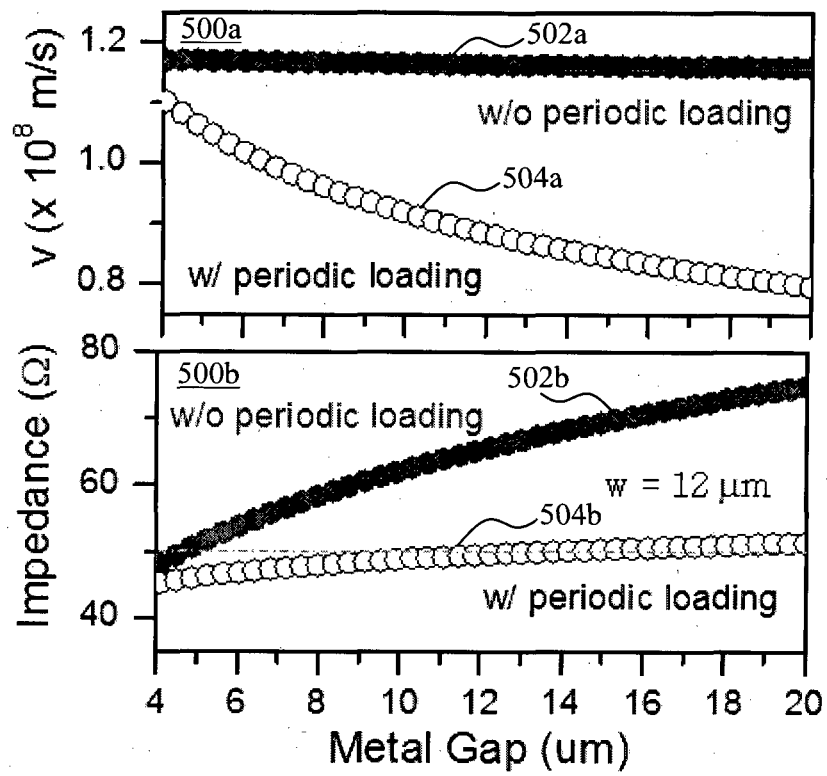


FIG. 5

Ge PD length dependence

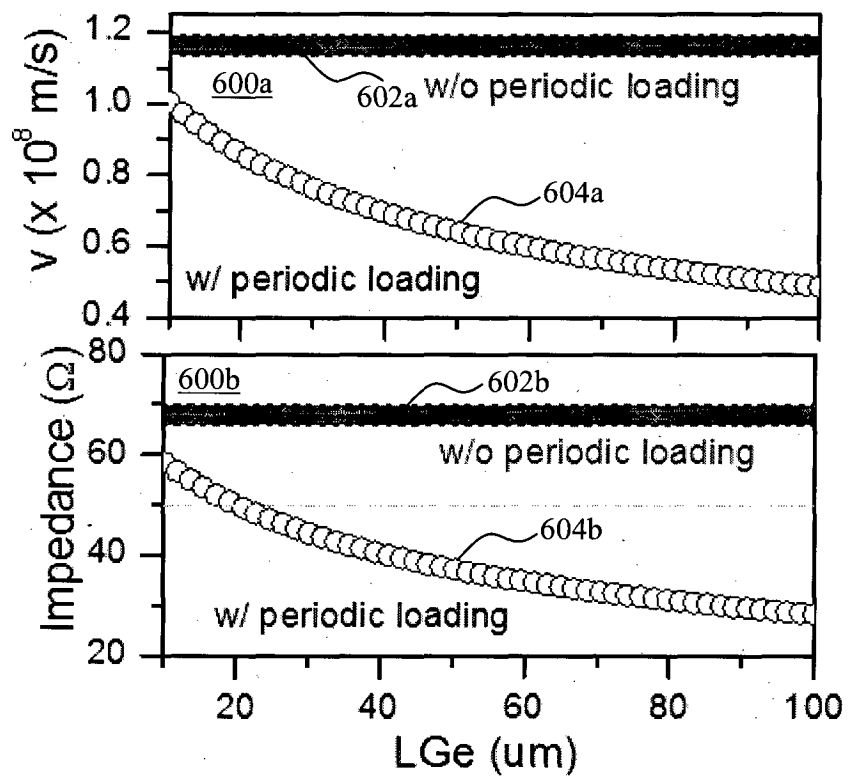


FIG. 6

PD period dependence

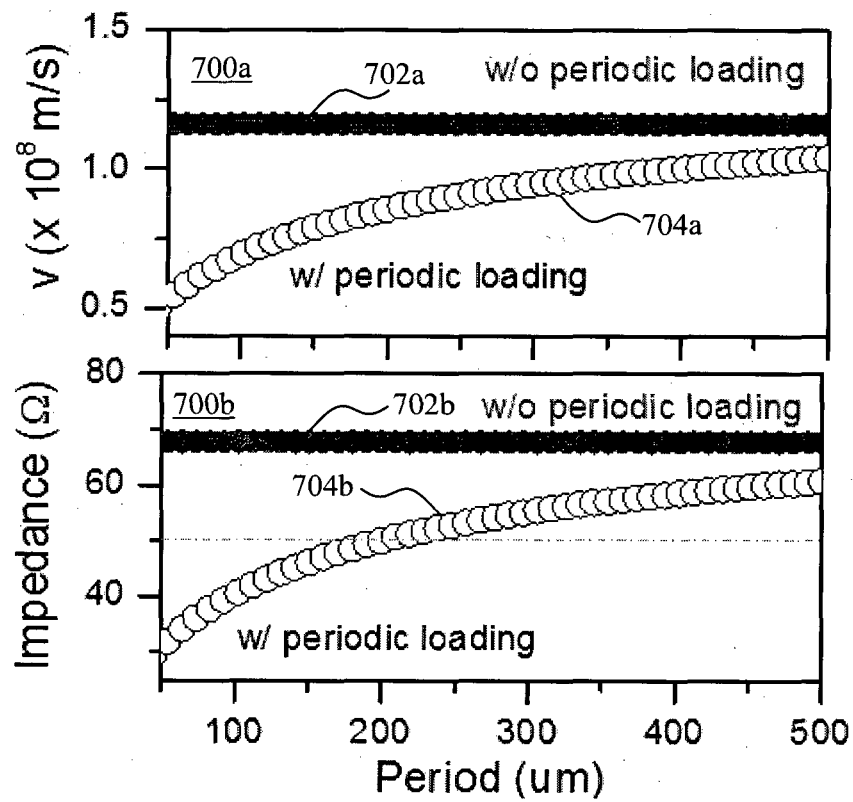


FIG. 7

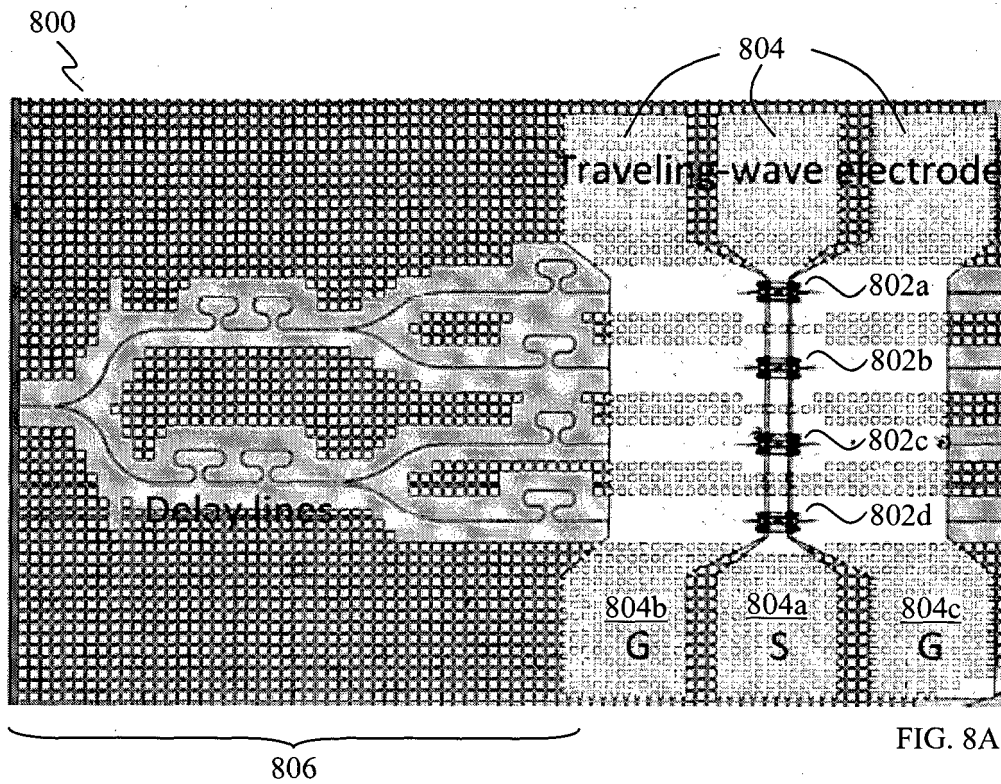


FIG. 8A

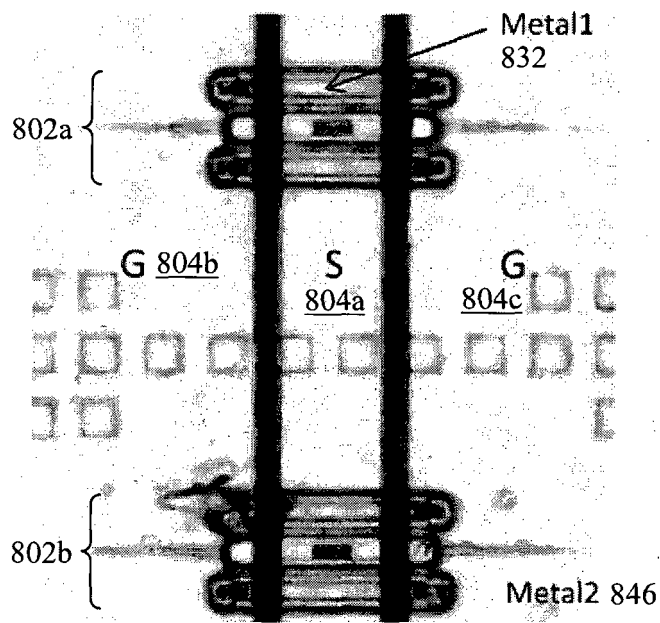


FIG. 8B

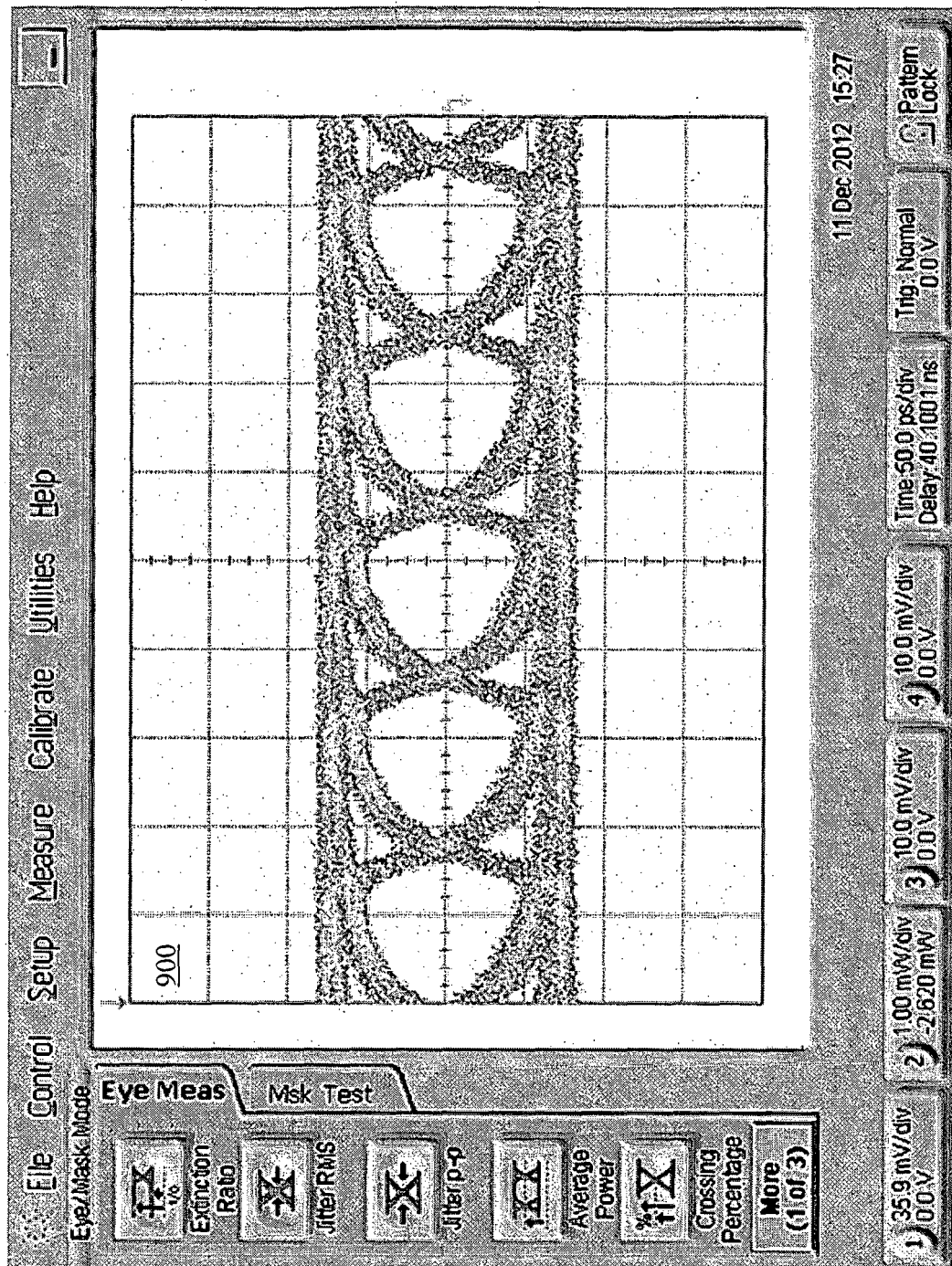


FIG. 9