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# COMMAND AND CONTROL SYSTEM FOR TOUCHSCREEN PANELS AND LCD MODULES (I)

BY

**PETRUȚ DUMA**

**Abstract.** This paper describes the hardware structure of a command and control system for a four-wire resistive touchscreen panel, consisting of a specialized touchscreen panel controller and a development system equipped with AT89S8253 microcontroller. The transparent touchscreen panel is assembled on top of a LCD module used to display various messages, icons and system menus. The command program measures and displays the horizontal and vertical coordinates of the pressed contact point, computes the pressing pressure, mediates and filters various sets of measured values. It is also able to measure temperature, to monitor the power supply battery voltage or an external auxiliary voltage. The structure described is able to eliminate from any application the need for other circuitry used for setting the working conditions and parameters. The development and integration of these touchscreen panels is gaining ground nowadays, due to their reconfigurable and ergonomic use, relative easiness of implementation and low prices.

**Key words:** touchscreen panel; specialized touchscreen controller; graphic mono-chrome LCD module; development system; microcontroller.