PT6991
Front Panel LED Control/Driver Power with Standby Management

DESCRIPTION

The PT6991 is designed to integrate the LED driver, key-scan matrix, infrared (IR) remote control decoding and into one integrated solution. All functions are programmable using I^2C interface. In standby operation, the PT6991 provides the standby power management to the chipset for low power consumption. The PT6991 is housed in 32-pin SOP package. Pin assignments and application circuit are optimized for easy PCB layout and cost saving advantages.

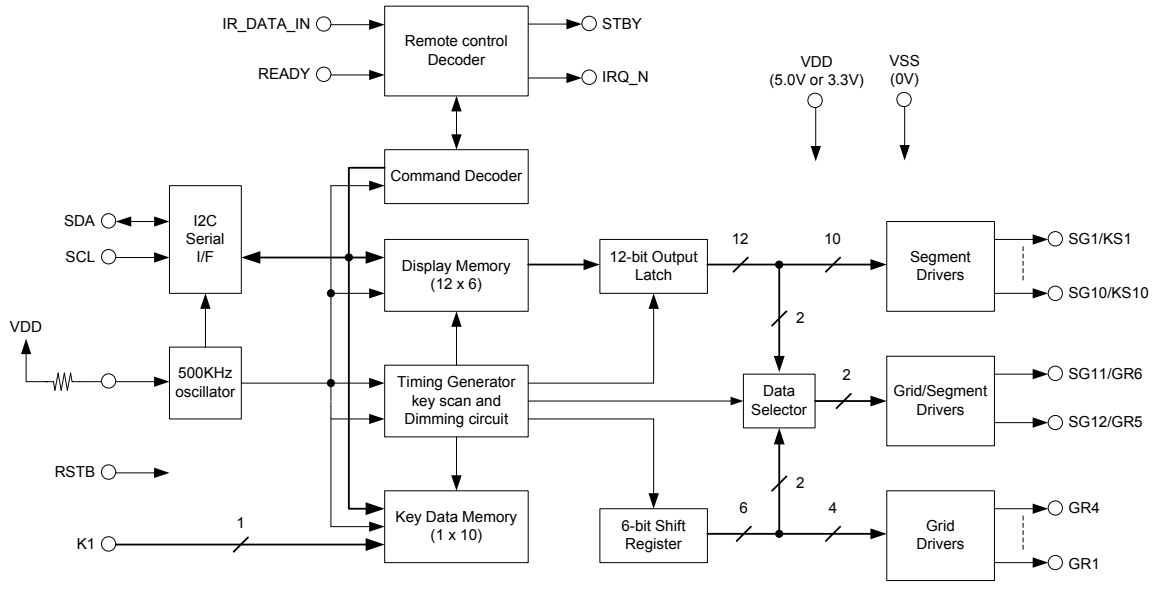
APPLICATIONS

- VCR
- DVD recorder
- Home theater
- Set-top box and other application that require a compact, integrated solution
- HTiB (Home theater in a box)
- Personal video recorders (PVRs)

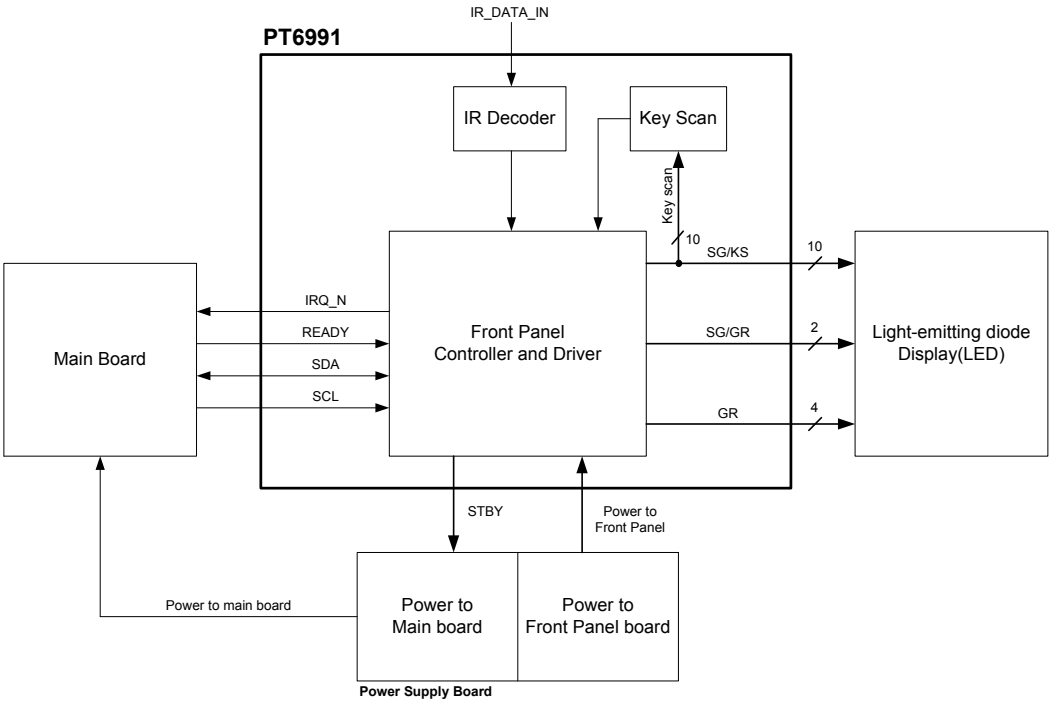
FEATURES

- IC front panel LED controller driver
- Standby power management to the host
- 5.0V (VDD) supply and 3.3V interface for the IC
- IR remote control decoder (Philips, NEC, Thomson, Sony, Matsushita)
- Multiple display modes (10 segments and 6 digits to 12 segments and 4 digits)
- External resistors necessary for all logic outputs (N-CH. Open drain)
- Key scanning (up to 10 x 1 matrix = 10 keys)
- I^2C serial interface (SCL, SDA) communication protocol
- Programmable hotkeys for IR remote control command
- Programmable hotkeys for KEYSCAN command
- Low power consumption in standby mode
- Dimming circuit (8 steps)
- Available in SOP-32 package

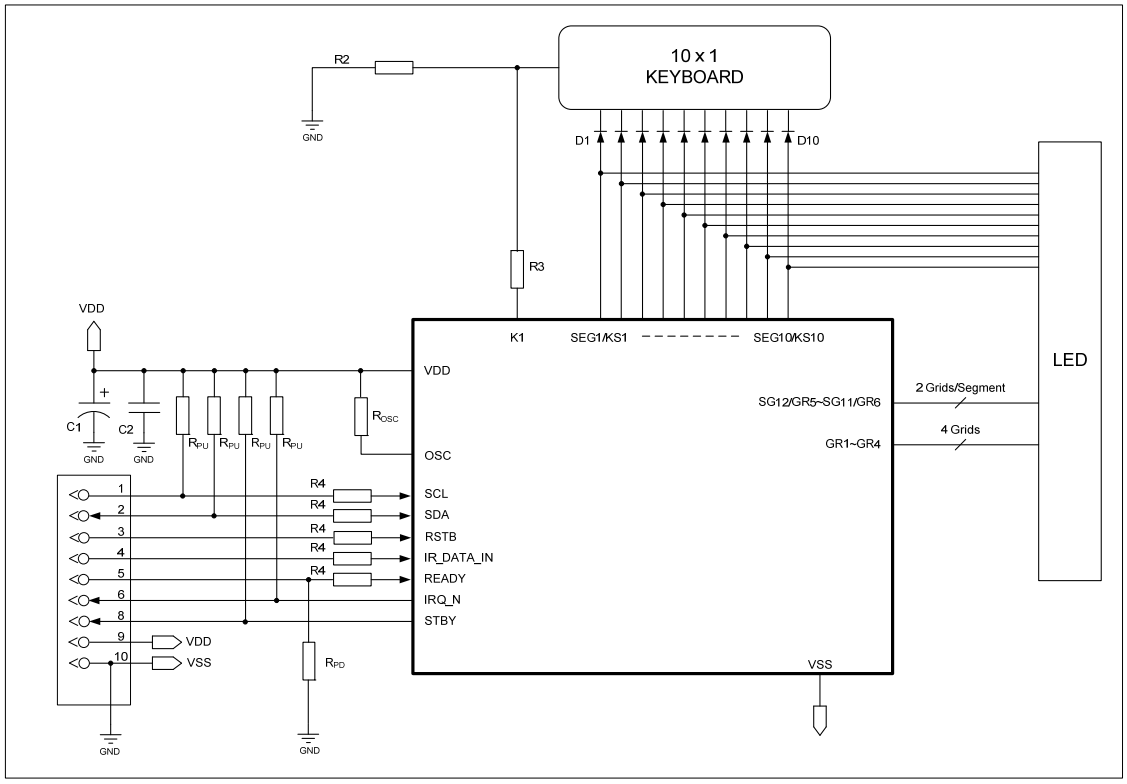
BLOCK DIAGRAM



FUNCTION DIAGRAM



TYPICAL APPLICATION CIRCUIT



R1 = 0.75 ~ 1.2kΩ
R2 = 10kΩ for external keyboard pull-down resistor
R3 = 0.1k ~ 1kΩ
R4 = 0.1k ~ 1kΩ

R_{pu} = 4.7kΩ for external pull-up resistor on SDA, SCL
R_{pu} = 10kΩ for external pull-down resistor on IRQ_N, STBY
R_{pd} = 10kΩ for external pull-down resistor on READY
R_{OSC} = 27kΩ (±1%) for oscillator resistor

C1 = 33uF-25V electrolytic
C2 = 0.01~ 0.1uF-25V ceramic
D1 ~ D10 = 1N4148
VDD = 3.3V ± 10% or 5.0V ± 10%

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6991-S	32 pins, SOP, 300mil	PT6991-S

PIN CONFIGURATION