

## Universal programmable ports ( GPIO)

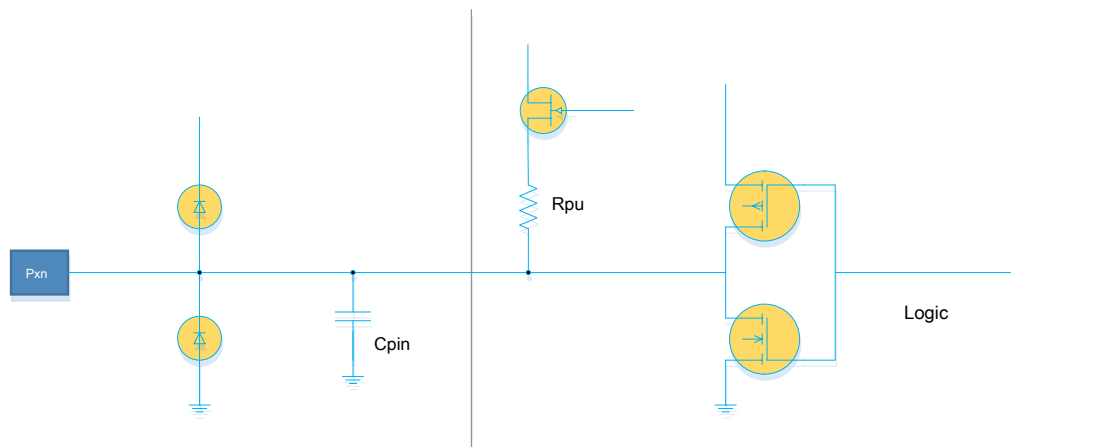
### Outline

Based on all LGT8XM Core family realized MCU Have I / O Port Reading - change - write function. This means that one can use the port status SBI with CBI Command changes alone, without affecting any other I / O . Similarly, a port or changing the direction of the pull-up resistor to control it can be so.

LGT8FX8P the most part of I / O It has a symmetrical drive characteristics, and capable of absorbing a large current drive. I / O Having two drive capability, the user can control each I / O Drive capability. I / O Drive capability can directly drive some of the led .

LGT8FX8P the most part of I / O You can drive up 30mA The current can be directly used to drive the segment code led . all I / O of VCC with GND It has its own direct ESD Protection diodes, designed to withstand up to at least 5000V of ESD pulse.

I / O An equivalent circuit diagram:



All of the following description chapter unified register mode, lowercase "X" The port number of letters the name, lowercase "N"

It represents the bit number of ports. However, when using port register, you must use the exact name of the register in the program. such as

**PORTB3** It represents **PORTB** The third, here is unity with **PORTxn** Representation. I / O Detailed definitions related registers, please reference register description.

Each port is assigned three I / O Register space, they are: port data output register ( **PORTx** ) , The port direction register ( **DDRx** ) Port data input register ( **PINx** ) . Data input port registers are read only. Data output register read port direction register may be rewritten. **MCUCR** Register **PUD** Bits, is used to control all I / O The pull-up resistor, when **PUD** Bit 1 When would prohibit so I / O The pull-up resistor.

most I / O In addition to general-purpose input / output function, as will be multiplexed with other peripheral functions. Specific alternate functions please refer to the section on port function reuse.

Note that enabling the alternate function of some ports does not affect them as a digital port I / O use. And some multiplexing function may need to I / O Register control port input / output direction. Specific settings will be described in the documentation for each multiplexing module.