System Clock Prescaler

LGT8FX8P An internal system clock prescaler, the clock may be pre-divisor register (CLKPR) Control. This function can be used when the system does not require very high processing power, reducing the system power consumption. Prescaler setting is valid for the system clock source support. Clock Prescaler can affect the implementation of the core clock and the synchronization peripherals.

When switching between different clock prescaler is provided, the system clock prescaler ensure no burrs in the handover process, to ensure that it will **not have a high frequency of the intermediate state. Division switching is executed immediately after the register is changed into effect, a maximum of 2-3 After** a period of the current system clock, the system clock is switched to a new frequency-divided clock.

To avoid misuse of the clock divider register of CLKPR The modifications must also follow a special timing process:

- **Set clock prescaler change enable bit (CLKPCE) for 1 , CLKPR So other bits 0**
- **Within four cycles, write the desired value CLKPS ,Simultaneously CLKPCE write 0**

Before changing the clock frequency prescaler register, Need to disable interrupt function, in order to ensure a complete write timing can be.
Respect to the main clock prescaler register CLKPR The specific definition, please refer to the part of this section describes the register.

internal RC Oscillator calibration

LGT8FX8P It contains two internal calibration RC Oscillator, after calibration, can be reached ± 1% Less accuracy. among them 32MHz RC The default clock for the system to work.

LGT8FX8P Pre-production, internal 32MHz HFRC with 32KHz LFRC We are calibrated, and the calibration value writing system configuration information region. Power system during the calibration values will be read into the internal register, the register achieve RC Frequency of recalibration.

Calibration register is located IO Address space, the user program can read and write. For applications with special needs frequency, the output frequency can be adjusted by modifying the internal oscillator calibration register mode. To modify the calibration information register does not change the factory configuration, the system re-configuration or a user initiated power-bit reload operation, the calibration register will return to the factory settings.

Register Definition

32MHz HFRC Oscillator Calibration Register - RCMCAL

RCMCAL - 32MHz HFRC Calibration Registers		
RCMCAL: 0x66		Default: factory configuration
Bits	RCCAL [7: 0]	
R / W	R / W	
Bit Definitions		
[7: 0]	RCCAL	After the power system, it will be the value of the register configuration information System RC Calibration values for change.