To optimize the GRTC power consumption, the EVENTS_PWMPERIODEND can be disabled using EVTEN/EVTENSET/EVTENCLR registers to prevent clock from being requested when those events are triggered.

The PWM is operating even while the device is in system OFF.

For the PWM output pin mapping, see Pin assignments on page 859. GRTC uses standard output drive strength for PWM output.

8.10.4 Clock output

The GRTC can be configured to output the clock on a pin.

The following clocks can be configured to be output on pins:

- LFCLK (32 KHz clock) output
- Divided 16M Hz clock (fast clock) output

The clock outputs can be enabled or disabled using CLKOUT.

The 16 MHz clock is divided before it is output on a pin. The divisor can be configured in CLKCFG, where clock output is (fast clock) / (CLKCFG.CLKFASTDIV * 2). The CLKCFG.CLKFASTDIV should be changed only when CLKOUT.CLKOUTFAST is disabled.

When updating the configuration registers CLKCFG and CLKOUT, a delay of a few LFCLK cycles may occur before the configuration takes effect. The STATUS.CLKOUT.READY register indicates whether the GRTC is busy updating the configuration:

- Busy: Configuration is in progress.
- Ready: Safe to update configuration.

Always check STATUS.CLKOUT.READY before making changes to CLKCFG or CLKOUT. The EVENTS_CLKOUTREADY event is generated when the STATUS.CLKOUT.READY status changes from busy to ready.

The LFCLK clock is output also when the device is in System OFF mode.

For the clock output pin mapping, see Pin assignments on page 859. GRTC uses standard output drive strength for clock output.

8.10.5 Split Security

The GRTC peripheral supports split security, where the split security features can have different security attributes than the GRTC peripheral.

Split security settings are configured in SPU.

The following GRTC features have split security attributes:

- Each compare/capture channel at CC[n] register group - The same security attribute applies to the corresponding channels for,
  - TASKS_CAPTURE[n]
  - SUBSCRIBE_CAPTURE[n]
  - EVENTS_COMPARE[n]
  - PUBLISH_COMPARE[n]
- Each INTENm/INTENSETm/INTENCLRm/INTENPENDm - The same security attribute applies to the following registers
  - SYSCOUNTER[m]
- Registers, tasks, and events associated with the PWM function have configurable security attribute.
  - PWMCONFIG
  - TASKS_PWMSTART