Application Note

LTTMR32KHZ

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1. Preface

This application note describes the sample software of LTTMR32KHZ using Long Term Timer (LTTMR).
This document helps the user check operation of a product under development and develop its program.

2. Technical Term

Term/Abbreviation	Definition
BSP	Board Support Package
UART	Universal Asynchronous Receiver Transmitter
LTTMR32KHZ	Long Term Timer

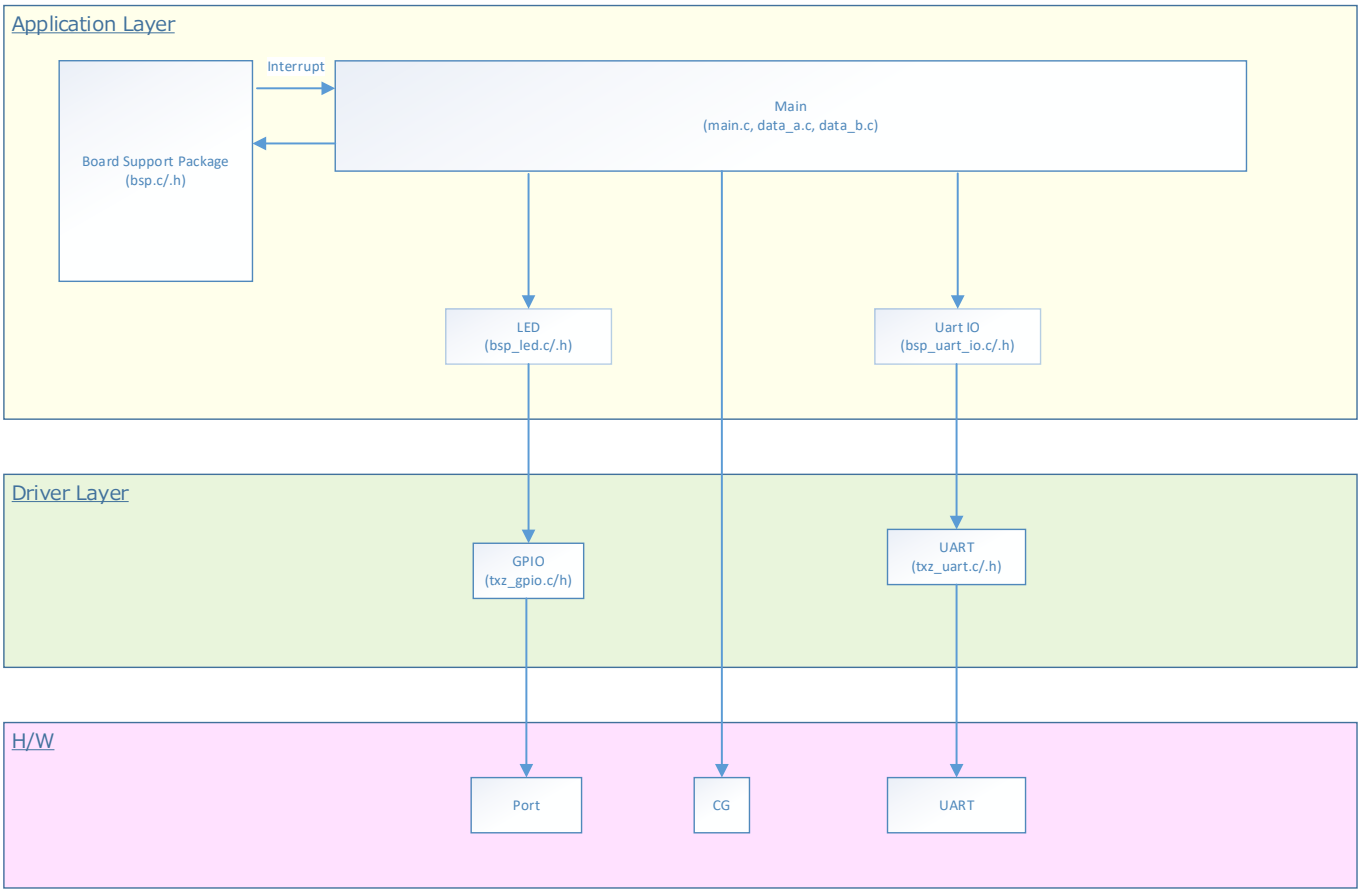
3. Reference Document

Document	Notes
Data sheet	Refer to the data sheet of MCU to be used.
Reference manual	Refer to the reference manual of each IP to be used.
Application note MCU User Guide	Refer to the MCU user manual to be used.

4. Target Sample Program

Sample Program	Outlines
LTTMR32KHZ	Sample of LTTMR32KHZ

5. Configuration Diagram



6. Sample Program: LTTMR32KHZ

This sample software generates a 32-kHz clock using LTTMR function.

6.1. Outlines of Operation

IHOSC2 clock is divided by the LTTMR to generate a clock of the 32.787 kHz (= 10 MHz/305) frequency.
Lighting and lights-out of a corresponding BSP_LED_0 are repeated alternately by LTTMR interrupt.

6.2. Function to Use

The functions to use are as follows.
For the Port assignment of each channel, refer to the MCU user manual.

IP	Channel	Objective
UART	BSP_UART_0	Output log
PORT	BSP_LED_0	LED control

6.3. Interrupt to Use

Interrupt	Outlines
UART Interrupt	UART reception interrupt
	UART transmission interrupt
	UART ERROR interrupt
LTTMR Interrupt	LTTMR interrupt

6.4. Configuration

Nothing.

6.5. Example of Terminal Emulator Output

6.5.1. Normal Operation

```
LTTMR Start
Next Stop =(y/n)y
LTTMR Stop
Next Start =(y/n)n
LTTMR Stop
Next Start =(y/n)
```

6.5.2. Case of Error Occurrence

Nothing.

7. Revision History

Revision	Date	Description
1.0	2021-10-29	First release

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