

Application Note

ETHM

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1. Preface

This application note describes the sample software of ETHM using Ethermac(ETHM).

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
T32A	32bit Timer Event Counter

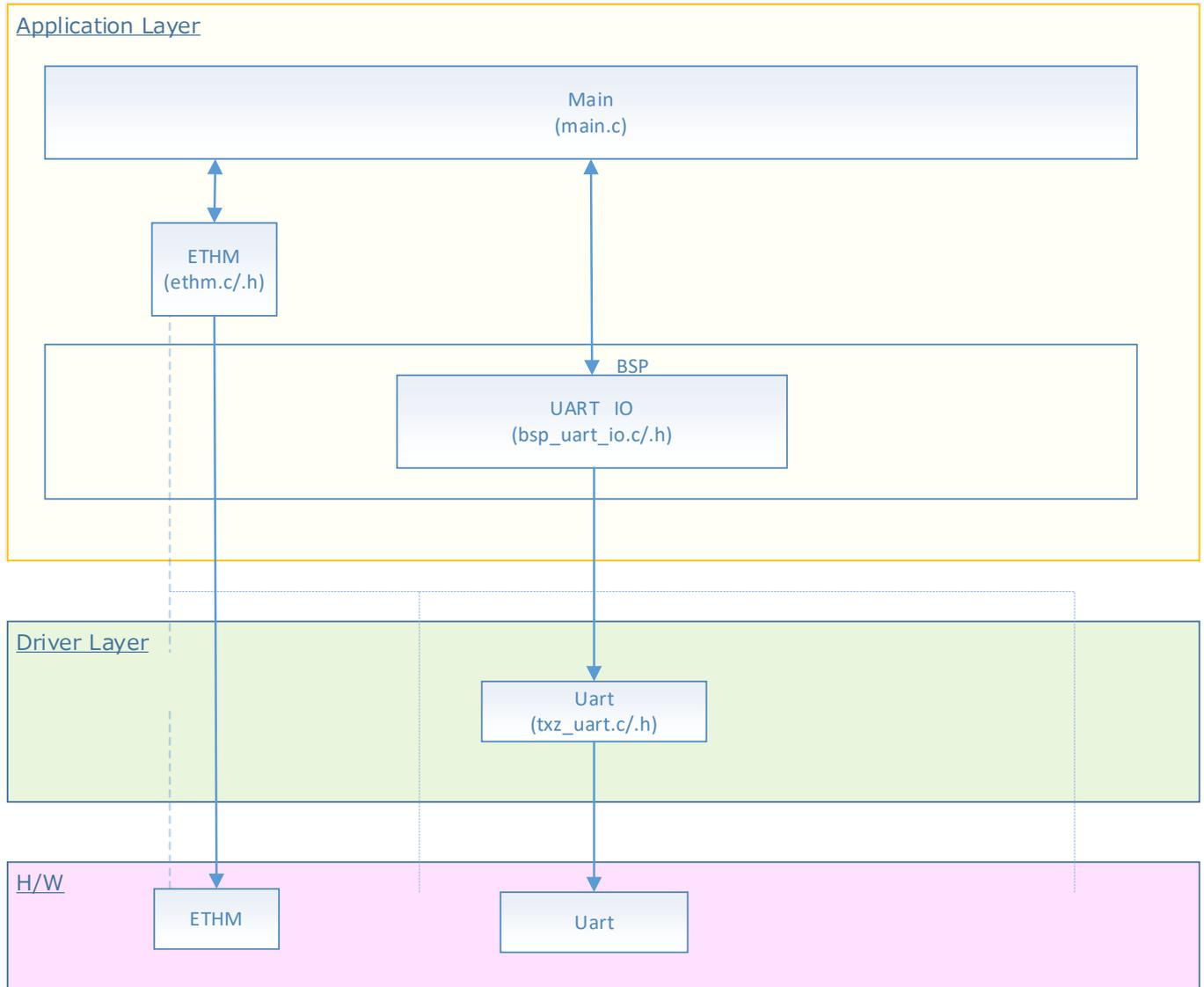
3. Reference Document

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	Description
ETHM_LoopBack	Sample of ETHM function

5. Configuration Diagram



6. Sample Program: ETHM_LoopBack

This sample program sends and receive string "TOSHIBA" by ETHM loop back, and displays data received to the terminal software.

6.1. Outlines of Operation

"command>" is displayed on the terminal emulator, and type "write" if send data.

If "write" command is typed, character string "TOSHIBA" is send, and terminal emulator returns "command>" display. type "read" if receive data.

If "read" command is typed, received data is read, it is displayed on the terminal emulator, and terminal emulator returns "command>" display.

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	Communication with the terminal software
ETHM	BSP_ETHM_0	Communication with the ETHM

6.3. Interrupt to Use

Interrupt	Description
UART Interrupt	UART reception interrupt
	UART transmission interrupt
	UART ERROR interrupt

6.4. Configuration

Nothing.

6.5. Example of Terminal Software Output

6.5.1. Case of Normal

```
command > write
command > read
read data > TOSHIBA
command >
```

6.5.2. Case of Error Occurrence

Nothing.

7. Revision History

Revision	Date	Description
1.0	2021-11-09	First release

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