

Using the UART

SEONG JI INDUSTRIAL

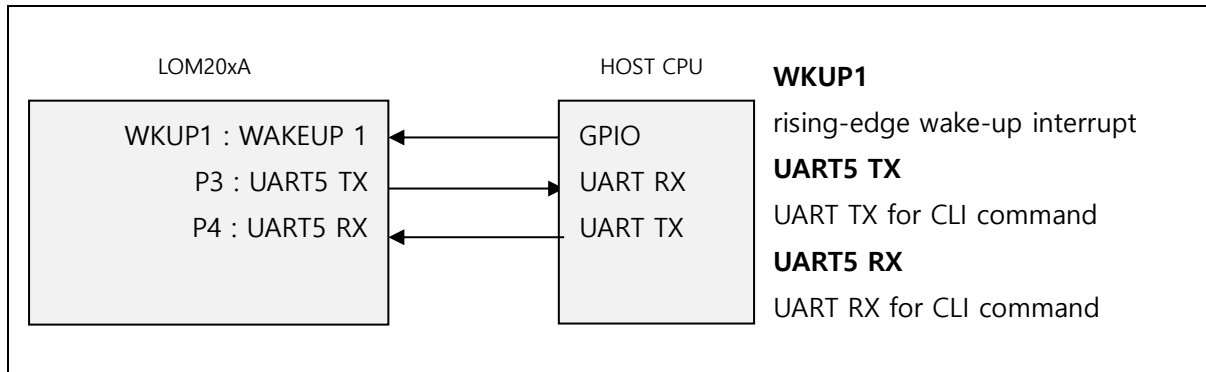
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Contents

Hardware configuration	2
UART Operation During CPU Sleep Mode	2

Hardware configuration

To execute the CLI command through the UART interface of the LOM20xA module, configure the circuit as shown below.



[Picture. UART interface example circuit]

UART Operation During CPU Sleep Mode

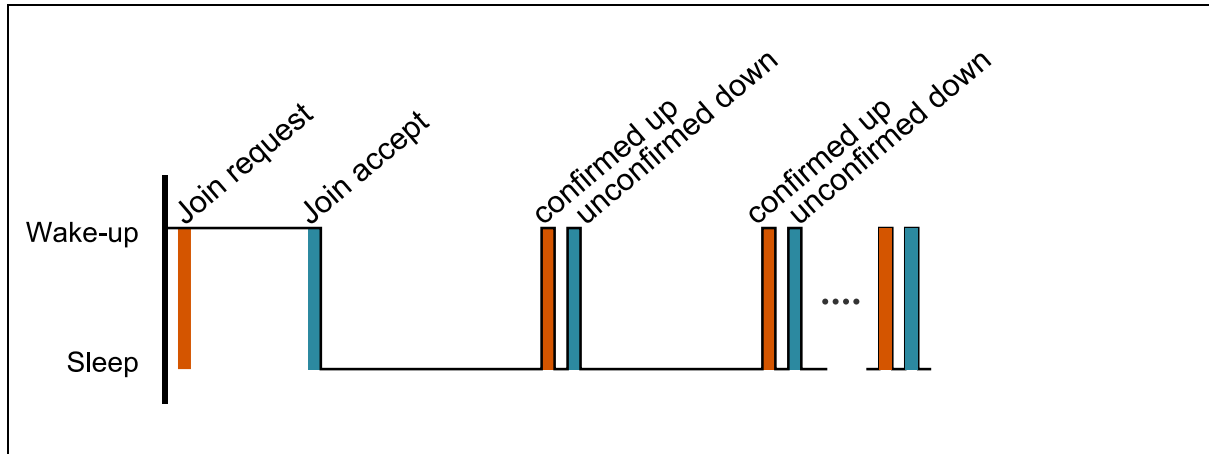
Pin description for wake-up

Pin No.	Pin name	MCU pin name		Description
30	WKUP1	PA0_WKUP1	INT IN	Wake Up: Rising Edge, Payload data bit 2
3	USART5_TX	PB3	UART5 TX	UART TX
4	USART5_RX	PB4	UART5 RX	UART RX

1. Pin 30 : Wake up in sleep mode.

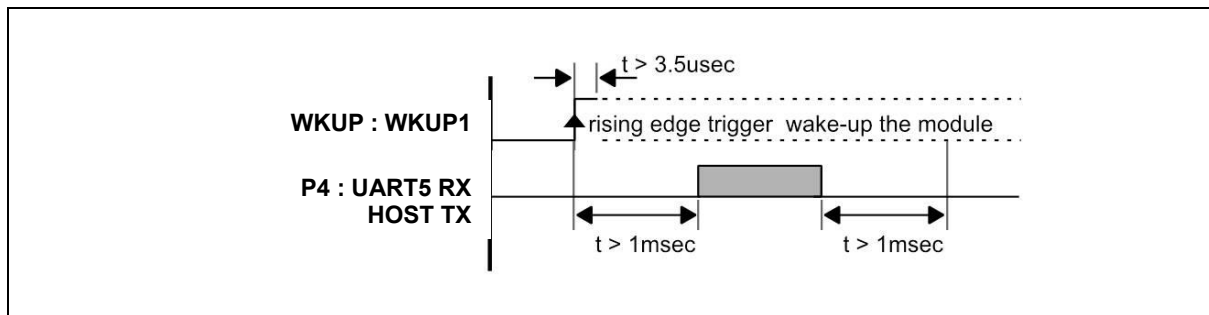
- Rising edge : sleep mode wake-up

In case class A, The LOM20xA module has a Sleep / Wake-up period according to the LoRaWAN Specification. (class C does not enter sleep mode)



[Picture. LOM20xA example Sleep/Wake-up cycle]

If the module is in the Sleep state during the sleep / wake-up period, it will not be able to accept CLI commands from the HOST CPU via the UART interface. When the LOM20xA is in sleep mode, it must force-wake-up to perform UART TX. The timing sequence for UART TX is shown below.



[Picture. UART TX timing sequence]

WKUP1 (Pin 30) is triggered by a rising edge and keeps it high for at least 3.5 usec after rising. The UART input proceeds after at least 1msec of the rising edge start time.

2. Send message timming..

You must send a message with the Module ready to accept commands.

The ready state of the module depends on the LOM202A00 and LOM202A02 / LOM204A02.

Module	Output message
LOM202A00	READY
LOM202A02, LOM204A02	DONE or FAIL

A message indicating the ready state is displayed and enter the command after 20ms.

