



RN4870/71 Firmware 1.41 Release Note

November 2020

1 Overview

This document describes the new features and improvements in the Rev 1.41 firmware version of the RN4870/71 BLE module. The firmware is available for download from the RN4870/71 webpage in Microchip website.

2 New Features

Rev 1.41 has a new feature that allows you to configure the UART parity check and stop bits of the module. The new feature is included by adding more parameters to the already existing SB commands as shown below.

- In all firmware version prior to Rev 1.41, the SB command takes in only one parameter, which is used to define the Baud rate between the module and the host.
- Starting with Rev 1.41, the SB command will have three additional parameters to set the UART configuration

The command format is as follows:

SB, <H8>, <H8>, <H8>, <H8>

SB, <Baud rate>, <Parity Check enable/disable>, <Parity mode>, <Stop bits>

- The options available for each parameter is show in below tables

UART BAUD RATE SETTINGS

Settings	Baud Rate
00	921600
01	460800
02	230400
03	115200
04	57600
05	38400
06	28800
07	19200
08	14400
09	9600
0A	4800
0B	2400

UART PARITY CHECK SETTINGS

Setting	Parity check
00	Disable
01	Enable

UART PARITY MODE SETTINGS

Setting	Mode
00	Odd
01	Space
02	Even
03	Mark

UART STOP BITS

Setting	Stop bits
00	1
01	2

Default: 03

Example: SB, 07 // Set the UART baud rate to 19200
SB, 04, 01, 02, 00 // Set the UART baud rate to 57600
// Enable the parity check as Even mode
// Set the stop bits to 1 bit

Response: AOK // Success
ERR // Syntax error or invalid parameter

3 Resolved Issues

- Resolved the connection failure issue that were occasionally seen when connecting the RN4870/71 module to the Xiaomi Mi 10 Pro by adding an extra slot to increase scan window size.
- Resolved the data transfer problem that happens when starting transmission after the first connection with a peer device.
- Resolved the problem when the module becomes unresponsive when flow control feature is enabled using SR command.

4 Firmware Update Instructions for RN4870/BM70 PICtail & CDB

The instructions and tools used to update firmware on evaluation boards such as the RN4871 PICtail, and RN4870 PICtail SNSR board, are in appendix A of the user guide for of these boards. The links to the user guide is:

[RN4870/71 PICtail/PICtail Plus Daughter Board User's Guide](#)