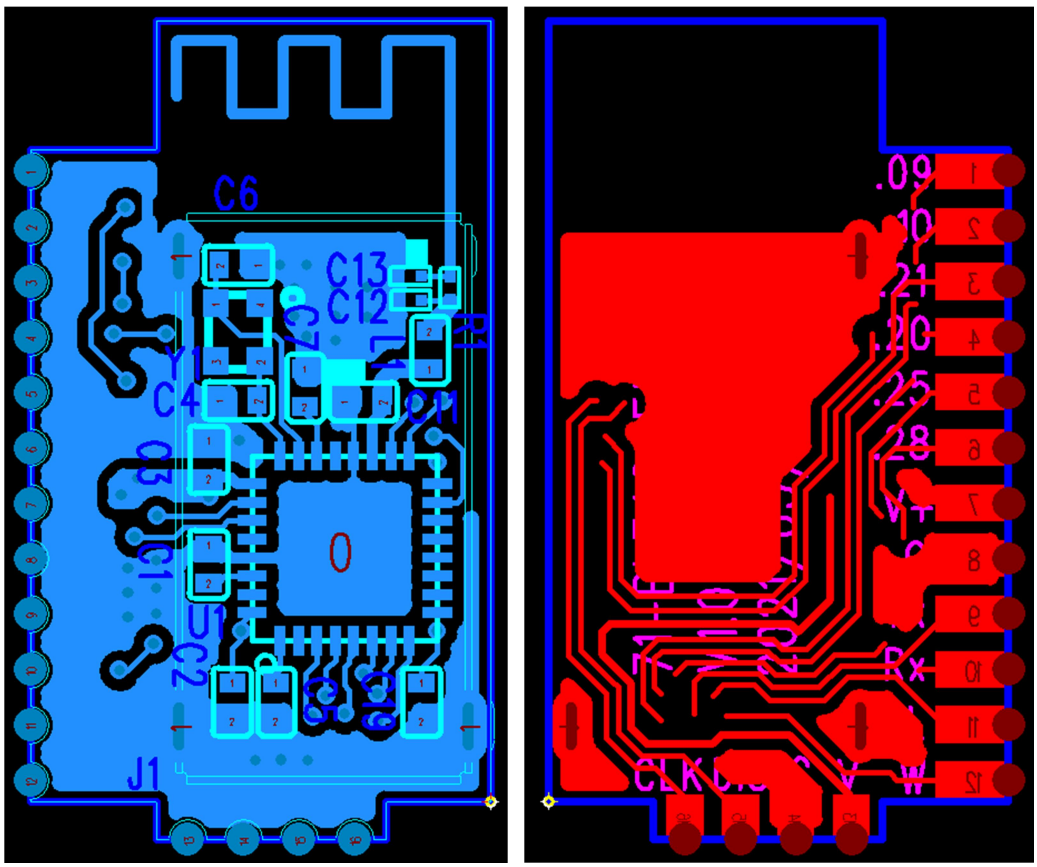
1 Introduction

AVITA BLE MODULE is a Bluetooth low energy module designed by Avita Corporation. This module is based on nRF52810 BLE chip, which integrates a ultra low power Bluetooth transceiver and a high performance low power 32 bit microprocessor. It is a data transparent transmission module, supports many of the wireless data applications.

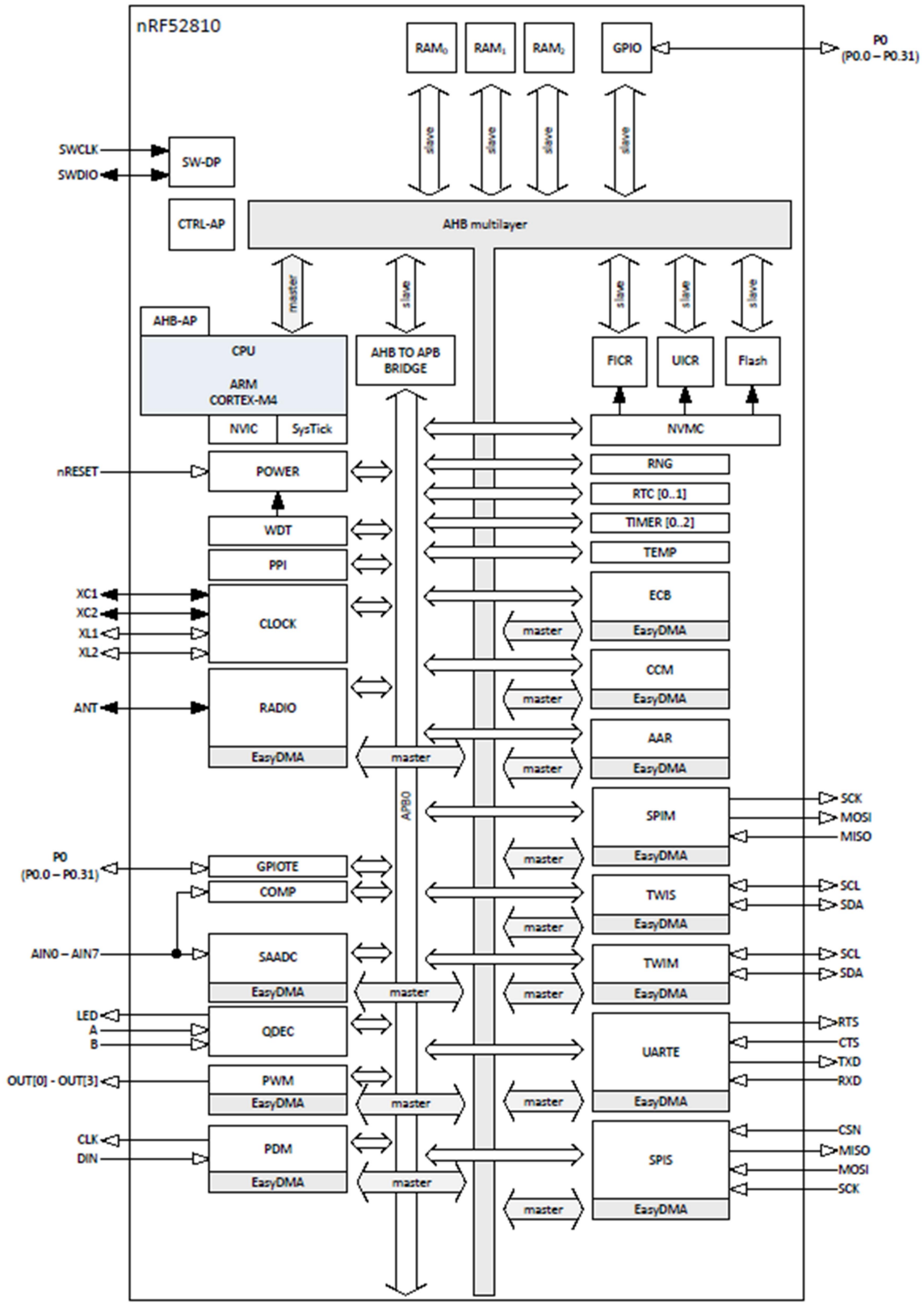
1.1 Feature

- Frequency range: 2.400~2.4835GHz
- Bluetooth 5.0 specification
- Receive Sensitivity = -93 dBm @ 1.0 Mbps
- Output power range: -2.5 dBm
- Data Rate = 2 Mbps
- 32-bit CPU core
- Flash ROM: 192KB
- RAM: 24KB
- UART interfaces
- Serial two wire debug interface
- 4.6 mA @ Receive
- 4.6 mA @ 0 dBm Transmit
- 5.4 mA @ -20 dBm Transmit
- Deep Sleep Mode（< 2uA）
- Power Down Mode（< 0.3uA）

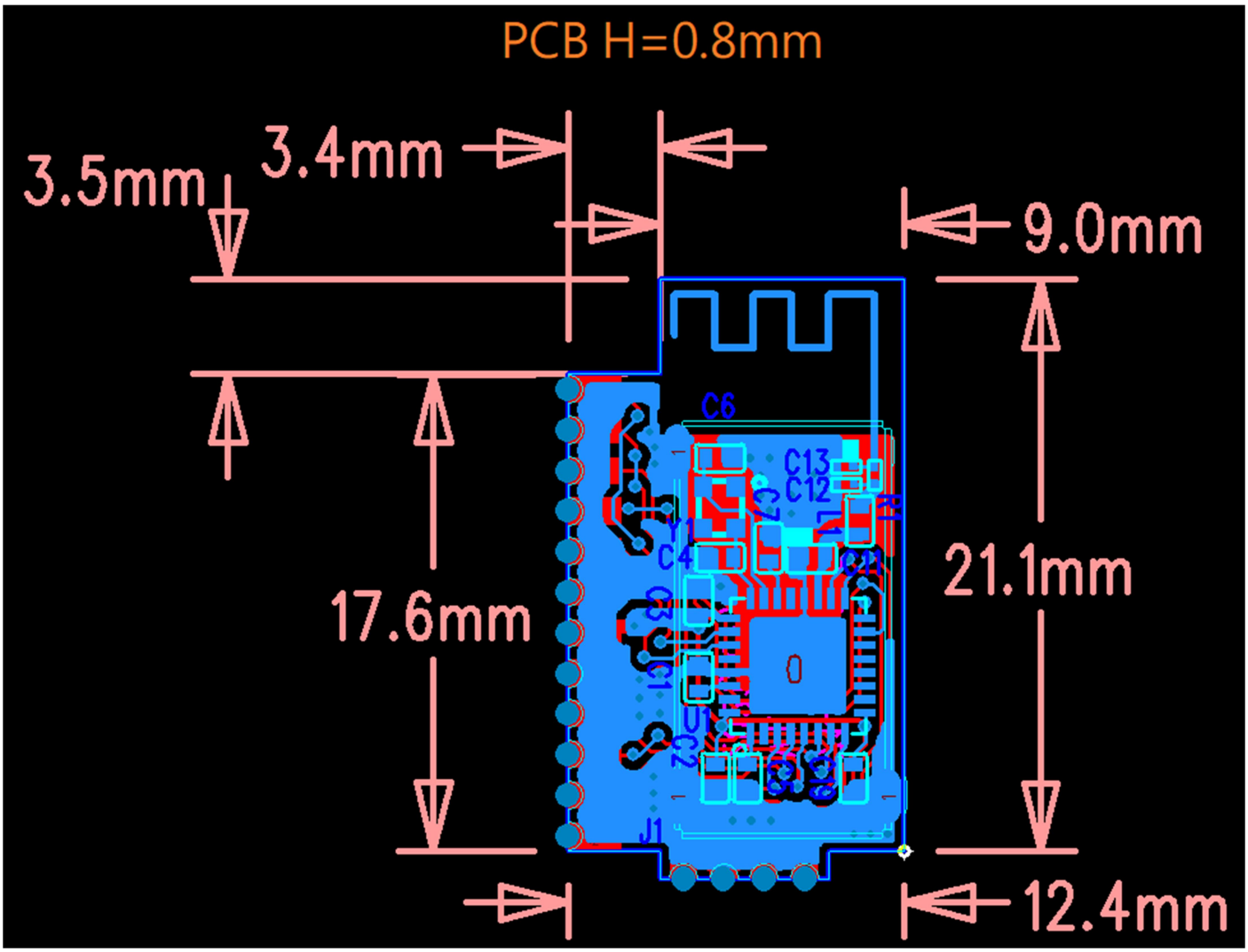


2 Description

2.1 Block diagram



2.2 Module Size



2.3 Module BOM

階數	項次	元件料號	品名	規格
		03-BLEM4-KS1	Nordic BLE IC(NRF52810-QCAA)	Flash
		08-01046-6A1	CAP電容 1pF 50V±0.25pf 0201 SMD	NPO
		08-0R8E4-6A1	CAP電容0.8PF±0.1pF 50V 0402	SMD NPO 0402
		08-10134-0A0	CAP電容 100P 50V 0402	SMD X7R
		08-10414-0K0	CAP電容0.1u 16-50V 0402	SMD X7R
		08-10529-5A1	CAP電容1uF 6.3V±10% 0402	SMD X5R
		08-12052-6A1	CAP電容12pF±5% 16-25V 0402	SMD NPO
		08-4752E-5A1	CAP電容4.7uf 6.3V 0402 SMD	
		18-3929A-04S	Inductor電感3.9nH±0.3nH 0402 SMD	SDCL1005C3N9STDF
		18-4739B-KS1	Inductor電感4.7nH±10% 0201 SMD	CHQ0603T-4N7S-HU
		22-32R00-KS1	Crystal震盪器 32MHz	FSK1M3200M062T385
		71-BLE40-E51	BLE(Nordic) PCB 電路板 V1.0	鍍化金雙面板

FCC warning

Compliance Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference, 2. This device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications to this device not expressly approved by AViTA Corporation. For compliance could void the user's authority to operate the equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced technician for help.

RF exposure warning:

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

If the module's FCC ID is not visible when installed in the host, or if the host is marketed so that end users do not have straightforward commonly used methods for access to remove the module so that the FCC ID of the module is visible; then an additional permanent label referring to the enclosed module: “Contains Transmitter Module FCC ID: UV3BLE-NO1”.