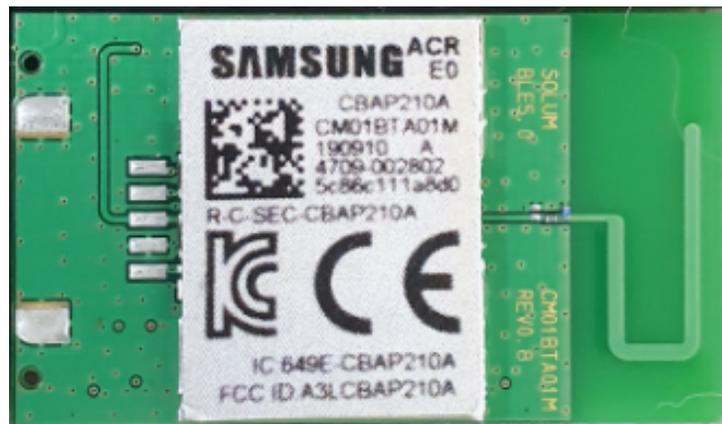


## 1. Functional Description

CBAP210A is the module for BLE at embedded and Digital appliance applications. It is based on Airoha AB1611 solution which comprises single chip with integrated BLE 5.0



**Figure 1-1 Module Picture**

## 2. Features

- BLE (Version 5.0, only supports 1 Mbps)
- Supports Adaptive Frequency Hopping
- On chip support for serial peripheral interface (master and slave modes)
- Compact dimension: 3.5 mm x 2.0 mm / H max: 4.8 mm
- Host Interfaces: UART Interface
- RoHS compliant
- PCB Pattern antenna, 5.60 dBi
- Number of channels: 40 ch
- Applicable test standard: FCC Part 15 Subpart C, 15.247
- Supply voltage range
  - VCC 5V (4.5V ~12V)
- Power Consumption
  - 200mW

### 3. Application

- Home appliances  
(Radiant Cook-Top, Gas Cook-Top, Induction Cook-Top, MWO, Hood etc)

### 4. Block Diagram

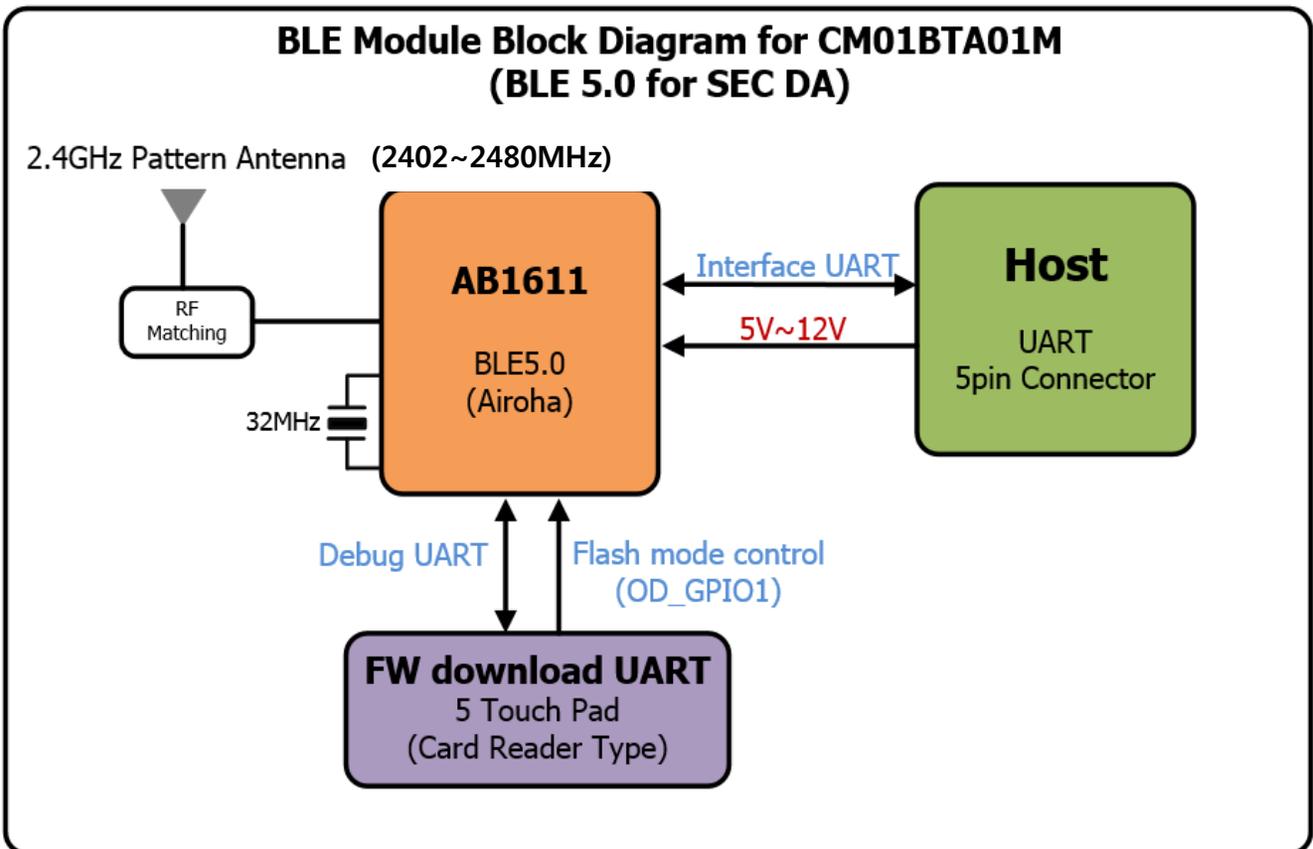


Figure 1-2 Hardware block diagram

## 5. Electrical Characteristics

### Absolute Maximum Ratings

Symbol	Parameter	Min.	Max.	Unit
VIN	DC supply voltage	-	<b>12V</b>	<b>V</b>

### Power Consumption

Parameter	Conditions	Min.	Nom.	Max.	Unit
<b>Tx mode (Max current)</b>					
TX Power	5V, 0dBm(+/-5dB) Tx Power			40	mA

### Recommended Operating Conditions

Symbol	Parameter	Conditions	Min.	Nom.	Max.	Unit
VIN	DC supply voltage from HOST	-	<b>+4.5</b>	<b>+5</b>	<b>+13.2V</b>	V
Top	Operating temperature(Ambient)	-	<b>-20</b>	-	<b>+50</b>	°C

### Environmental Characteristics

Symbol	Parameter	Conditions	Min.	Max.	Unit
ESD	Electro-static discharge voltage	HBM	-4K	+4K	V
Top	Operating temperature	-	-20	+85	°C
Tstg	Storage temperature	-	-30	+85	°C

## 6. RF Specifications

All measurements are made under nominal supply voltage, room temperature, and conducted conditions at each antenna port except antenna.

Parameter	Conditions	Min	Typ.	Max	Unit
Frequency Range	2402+K*2MHz (K=0~39)	2402	-	2480	MHz
<b>Receiver</b>					
Sensitivity (PER)	PER ≤30.8%	-	-94	-	dBm
RSSI Value	TCR Value (TCB RSSI Calibration Value)		50		
	DUT RSSI Value (TRC Value-20) < RSSI < (TRC Value+20)	30		70	
<b>Transmitter</b>					
Output Power	Max. Tune-up Average Power	-	1.0	-	dBm
ICFT		-150	-	150	kHz
Frequency Drift		-50	-	50	
Drift rate		-	-	20	kHz/50us
Frequency Deviation	Avg (payload sequence 00001111)	225	-	275	kHz
	Max (payload sequence 10101010)	185	-	-	kHz