

BLE 5.0 / MESH SoC

Chipset	BX_RF01	BX_RF08	BX_RF04 / RF04L	BX_RF03	BX_RF02
Flash	External Added	1024kB (8Mb)	512kB (4Mb)	512kB (4Mb)	512kB (4Mb)
MCU	32bit MCU	32bit MCU	32bit MCU	32bit MCU	32bit MCU
SRAM	208kB	208kB	208kB	208kB	208kB
ROM	128kB	128kB	128kB	128kB	128kB
LDO	3V_1: Output 3.3V , 25mA 3V_2: Output 3.3V , 50mA 1V_8: Output 1.8V , 40mA	3V_1: Output 3.3V , 25mA 3V_2: Output 3.3V , 50mA 1V_8: Output 1.8V , 40mA	3V_1: Output 3.3V , 25mA 3V_2: Output 3.3V , 50mA 1V_8: Output 1.8V , 40mA	3V_1: Output 3.3V , 25mA 3V_2: Output 3.3V , 50mA 1V_8: Output 1.8V , 40mA	1V_8: Output 1.8V , 40mA
DC / DC Converter	Output 1.2V, 180mA (Base on VBAT > 2.6V)	Output 1.2V, 180mA (Base on VBAT > 2.6V)	Output 1.2V, 180mA (Base on VBAT > 2.6V)	Output 1.2V, 180mA (Base on VBAT > 2.6V)	\
Package	QFN52 (6 mm x 6 mm)	QFN48 (6 mm x 6 mm)	QFN40 (5 mm x 5 mm)	QFN32 (4 mm x 4 mm)	SSOP16 (6 mm x 4.9 mm)
GPIO	27	18	14	10	7
Debug	SWD	SWD	SWD	SWD	\
ADC (ENOB = 10)	Ext. *1 Int. *1	Ext. *3 Int. *1	Ext. *2 Int. *1	Internal *1	Ext. *1 Int. *1
IIC	2	2	2	2	2
SPI	2	2	1	\	\
QSPI (For Flash)	External * 1	Internal * 1	Internal * 1	Internal * 1	Internal * 1
PWM	5	5	5	5	5
UART	2	2	2	2	2
AES-128	Yes	Yes	Yes	Yes	Yes
Opt. Temp.	-40°C~+125°C	-25°C~+85°C	-25°C~+85°C (-40°C, RF04L)	-25°C~+85°C	-25°C~+105°C
Data Rate	1M / 2M bps	1M / 2M bps	1M / 2M bps	1M / 2M bps	1M / 2M bps
TX PWR	+8 / +2 / 0 dBm -2 / -10 / -20 / -30 dBm	+8 / +2 / 0 dBm -2 / -10 / -20 / -30 dBm	+8 / +2 / 0 dBm -2 / -10 / -20 / -30 dBm	+8 / +2 / 0 dBm -2 / -10 / -20 / -30 dBm	+5 / 0 / -20 dBm
RX Sen.	-93dBm @1Mbps -90dBm @2Mbps	-93dBm @1Mbps -90dBm @2Mbps	-93dBm @1Mbps -90dBm @2Mbps	-93dBm @1Mbps -90dBm @2Mbps	-90dBm @1Mbps -86dBm @2Mbps
DC Character.	VDD:2.3~5V (Recommend : 4.3V)	VDD:2.3~5V (Recommend : 4.3V)	VDD:2.3~5V (Recommend : 4.3V)	VDD:2.3~5V (Recommend : 4.3V)	VDD: 2.3V ~ 3.6V (Recommend : 3.3V)
	VDD:4.3V TX:4.4mA VDD:3.3V TX:5.6mA (Base on DCDC_on 1.2V_-2dBm)	VDD:4.3V TX:4.4mA VDD:3.3V TX:5.6mA (Base on DCDC_on 1.2V_-2dBm)	VDD:4.3V TX:4.4mA VDD:3.3V TX:5.6mA (Base on DCDC_on 1.2V_-2dBm)	VDD:4.3V TX:4.4mA VDD:3.3V TX:5.6mA (Base on DCDC_on 1.2V_-2dBm)	VDD:3.3V TX:30mA (Base on +5dBm)
	VDD:4.3V RX:4.3mA VDD:3.3V RX:5.5mA	VDD:4.3V RX:4.3mA VDD:3.3V RX:5.5mA	VDD:4.3V RX:4.3mA VDD:3.3V RX:5.5mA	VDD:4.3V RX:4.3mA VDD:3.3V RX:5.5mA	VDD:3.3V RX:17mA (Base on +5dBm)
	Average Current : 20uA (1.28S)	Average Current : 20uA (1.28S)	Average Current : 20uA (1.28S)	Average Current : 20uA (1.28S)	Average Current :2.8mA (1.28S)
	Deep Sleep: 2.5uA~6uA	Deep Sleep: 2.5uA~6uA	Deep Sleep: 2.5uA~6uA	Deep Sleep: 2.5uA~6uA	\
Application	Smart Wear / 3C-Products	Smart Lock / IoT	Industrial control / Smart Home / Medical care	Pass-through / Remote controller / Others	Smart Lighting / Others

