Coral RF

N710AP, CC2538 CC2592 Module

N710AP Module Introduce

High power ZigBee dongle based TI ZigBee CC2538 transceiver and CC2592.
N710AP-ZB CC2538 high power ZigBee dongle designed for 2.4G band, ZigBee router or gateway uesd. The high power ZigBee dongle up to +21 dBm output power and down to -100dBm sensitivity.
N710AP ZigBee dongle USB intergrate CC2538, CC2592, two color LED, PCB antenna and tact switch. Dongle application ZigBee gateway, router, etc.

CC2538 high power ZigBee Dongle Description

The CC2538xFnn is the ideal wireless microcontroller System-on-Chip (SoC) for high-performance ZigBee applications. The device combines a powerful ARM Cortex-M3-based MCU system with up to 32KB on-chip RAM and up to 512KB on-chip flash with a robust IEEE 802.15.4 radio. This enables the device to handle complex network stacks with security, demanding applications, and over-the-air download. Thirty-two GPIOs and serial peripherals enable simple connections to the rest of the board. The powerful hardware security accelerators enable quick and efficient authentication and encryption while leaving the CPU free to handle application tasks. The multiple low-power modes with retention enable quick startup from sleep and minimum energy spent to perform periodic tasks. For a smooth development, the CC2538xFnn includes a powerful debugging system and a comprehensive driver library. To reduce the application flash footprint, CC2538xFnn ROM includes a utility function library and a serial boot loader. Combined with the robust and comprehensive Z-Stack software solutions from TI, the CC2538 provides the most capable and proven ZigBee solution in the market.

CC2592 Description

The CC2592 device is a cost-effective and high-performance RF front end for low-power and low-voltage 2.4-GHz wireless applications.The CC2592 device is a range extender for all CC25XX 2.4-GHz low-power RF transceivers, transmitters, and system-on-chip products from Texas Instruments.To increase the link budget, the CC2592 device provides a power amplifier for increased output power and an LNA with a low-noise figure for improved receiver sensitivity.The CC2592 device provides a very small size, high-output power RF design with its 4-mm × 4-mm QFN-16 package.The CC2592 device contains PA, LNA, switches, RF-matching, and balun for simple design of high-performance wireless applications.

Module Parameter

Model	N710AP
Protocols	IEEE 802.15.4, 6LoWPAN, ZigBee
Frequency bands (MHz)	2400-2480
TX power (Max) (dBm)	21
RAM (KB)	28
CPU core	Arm® Cortex®-M3
Peripherals	USB, LED, KEY
RX current (lowest) (mA)	35
Data rate (Max) (kbps)	250
Operating temperature range (C)	-30 to 75
Package	SMD
Size	62 x 18 x 7mm
Antenna Interface	RF pin, IPEX

How to download firmware to N710AP
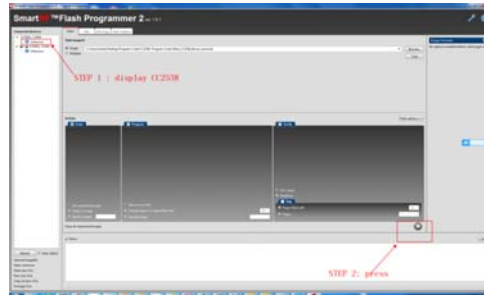
Take xds100v3 as an example.
Step 1:
N710AP download firmware port, see figure below:

Connect XDS 100v3 or xds 110 debug port to N710AP.

Step 2:
Open Flash Programmer 2

The IAR connection method of simulation software and firmware burning is the same.

Ordering Information

N710AP-ZB   CC2538   21dbm, 2400Mhz-2483Mhz