Ceres Enterprise-class AP Module

Introduction

WM303, developed by Shenzhen Ceres Technology Co., Ltd. (hereinafter referred to as the "Ceres"), is a 2.4GHz AP module with high stability and good value, which is designed for enterprise market. High integration makes the module small, stable and convenient to install in a portable mobile communication device.

WM303, equipped with MTK MT7628AN chip and devices, supports 802.11b/g/n operating mode, and 2.4G (300Mbps) wireless transmission rate. Besides, high power PA provides further transmission distance.

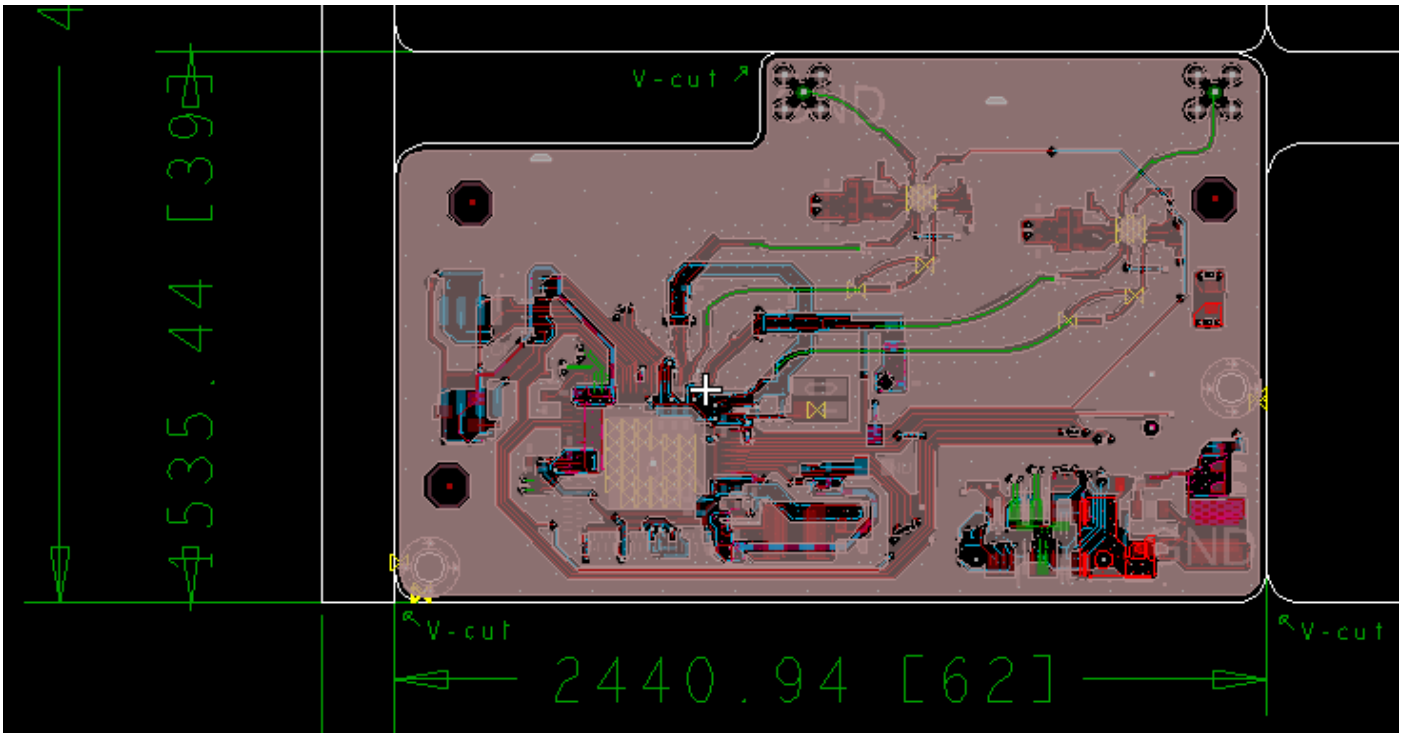
Hardware Specifications

Model	WM303
Dimensions	62mmX39mm
PCB Board Thickness	1.6 mm
Wireless Rate	300Mbps
Antenna Interface	ipex
Transmit Power	✧ 2.4GHz: ✧ 11b 11Mbps：21dBm; ✧ 11g 6Mbps：22dBm; ✧ 11g 24Mbps:20dBm; ✧ 11g 54Mbps:19dBm; ✧ 11n-HT20 MCS0：21dBm; ✧ 11n-HT20 MCS4：19dBm; ✧ 11n-HT20 MCS7：18dBm; ✧ 11n-HT40 MCS0：20dBm; ✧ 11n-HT40 MCS4：19dBm; ✧ 11n-HT40 MCS7：17dBm;
Sensitivity	✧ 2.4GHz: ✧ 11b 11Mbps：-76dBm; ✧ 11g 6Mbps：-82dBm; ✧ 11g 24Mbps: -74dBm; ✧ 11g 54Mbps: -65dBm; ✧ 11n-HT20 MCS0：-82dBm; ✧ 11n-HT20 MCS4：-70dBm; ✧ 11n-HT20 MCS7：-64dBm; ✧ 11n-HT40 MCS0：-79dBm; ✧ 11n-HT40 MCS4：-67dBm; ✧ 11n-HT40 MCS7：-61dBm;
Processor	MTK MT7628AN
Memory	64MB RAM
Flash	16MByte
Power	DC5V
Total Power Consumption	< 4.5W
ESD	Antenna interface/USB contact discharge +/- 6Kv
Working Temperature & Humidity	Working Temperature: -10℃~60℃; Humidity: 5%~95% (Non-condensing) Storage Temperature: -40℃~80℃; Humidity: 5%~95% (Non-condensing)

30pin Connector Signal

1	VCC_5V_1	2	VCC_5V_2
3	VCC_5V_3	4	VCC_5V_4
5	NC	6	NC
7	GND	8	GND
9	GND	10	GND
11	HIGH_UART_SIN	12	HIGH_UART_SOUT
13	GND	14	USB_DM
15	TXON0	16	USB_DP
17	TXOP0	18	UART_RXD0
19	GND	20	GND
21	RXIN0	22	GND
23	RXIP0	24	UART_TXD0
25	RES_N	26	WPS_RST_PBC
27	GND	28	EPHY_LED4_N_JTRST_N
29	LINK0	30	EPHY_LED3_N_JTCLK

Board Dimensions



Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The module in this product is labeled with its own FCC ID. The FCC ID is not visible when the module is installed inside another device. Therefore, the outside of the device into which the module is installed must also display a label referring to the module. The final end device must be labeled in a visible area with the following
“Contains FCC ID: 2A46G-WM303”