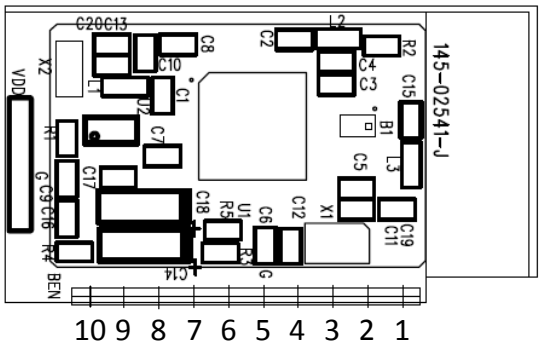
2401M OPERATOR'S MANUAL

1. **Features**
   - ✓ On-chip low power microcontroller
   - ✓ In system programmable, 256KB
   - ✓ 8 KB SRAM
   - ✓ On board crystal and PCB Antenna.
2. **Application**
   - ✓ Mobile device accessories (Android/iOS)
   - ✓ Wireless data communication
   - ✓ Remote sensors

3. Pin Definition



Pin No.	Pin Type	Function Description
1	Digital I/O	GPIO/ UART_RX
2	Digital I/O	GPIO/ UART_TX
3	Digital I/O	GPIO / Digital IO
4	Digital I/O	GPIO / Digital IO
5	Digital I/O	GND
6	Digital I/O	Vcc
7	Digital I/O	Vcc Enable
8	Digital I/O	GPIO / CTS
9	Digital I/O	GPIO / RTS
10	Digital I/O	GPIO / Digital IO

4. Protocol :

Communication parameters： 115200 , 8 , n , 1

The maximum of every packet in the two-way communication is 20 Bytes

Every communication will be transferred by the packet, it's an one-inquiry-one-answer approach.

When a host sends an inquiry packet, clients will answer with a received packet.

Host RXD Time Out：0.5 sec.

Format of command and answer packet：

(1Byte)	(1Byte)	(1Byte)	(1Byte)	(nByte)
Start code	Length of packet	Command Type	Command Code	Command Parameter

Start code of the host, fixed with '$'(24H)

Start code of the answer of client , fixed with '%'(25H)

Command type and code are defined by HEX Code

Command parameter is based on the conditions of the command, there are HEX Code , or ASCII Code.

When a host sends a wrong structure or command of a packet, clients won't answer any

packet.

There are three kinds of command types :

I. General setting , like System reset , battery voltage status and system version.
II. Wireless products communication setting
III. Boot code update-Dongle

Federal Communication Commission Interference Statement

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 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 Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

End Product Labeling

This transmitter module is authorized only for use in devices where the antenna may be installed such that 5 mm may be maintained between the antenna and users. The final end product must be labeled in visible area with the following: “Contains FCC ID: VEA2401M”
”

End Product Manual Information

The user manual for end users must include the following information in a prominent location. “IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 5 mm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter.” 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.

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or colocation with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for reevaluating the end product (including the transmitter) and obtaining a separate FCC authorization. As long as a condition above is met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).