WD-G-4125 EV Kit   User's Manual   Ver1.0

ZX4125 EV Board TOP View

A: WD-G-ZX4120/4125P Socket

On **WD-G-ZX4125** module socket, there are 10 pin, 6 pin, and 3 pin 1.27 mm board to board connector.

B: Antenna Connector

External antenna connector, MMCX or SMA type.

C: Reset Key

Press the key to reset WD-G-ZX4120 module.

D: Battery Connector

This EV Board includes an on board battery charge circuit which uses 3.6V rechargeable lithium or NIMH battery.

E: Battery Power Switch

This switch turns the power of the 3.6V rechargeable lithium or
NIMH battery on and off.

F: DC Power Jack

This EV Board has a build-in DC 5V regulator to plug in DC 7 ~ 9V voltage
source input from AC adaptor.

G: DC Power Input Connector

The EV Board can input DC 3~3.3V voltage direct; to input voltage from power
supply use clamp to clip the connector,

H: DC Power Source Select Jumper

The EV Board has three different type of DC voltage sources; "**Adaptor &
Battery**", "**DC Power Input Connector**", and "**DC 3.3V from USB interface**".
This jumper allows you to switch among these DC sources input.

I: Backup Battery

The EV Board includes an on board 3V Manganese Lithium coin backup
 battery.

J: USB B Type Jack

The EV Board includes an on board USB 1.1 interface circuit linking to PC,
notebook PC or other serial port devices.

K: Mode Select Switches

There are eight selective functions on the EV Board:

1. Power LED Switch

When the switch is off, the " **Power LED** function is cancelled.
When the switch is on, the " **Power LED** is in normal mode.

2. Fix LED Switch

When this switch is off, the " **GPS State LED** function is cancelled.
When this switch is on, the " **GPS State LED** is in normal mode.

3. DSU EN Switch

When this switch is on, the WD-G-ZX4120 module goes into Debug mode.
You can set utility in the WD-G-ZX4120 module via USB port or serial port

in this mode.

The other way around, if this switch is being turned off, WD-G-ZX4120 module will go in normal mode.

4   RS Power Switch

When this switch is off, the on board serial port interface circuit will be inactive; if this switch is turn on, the circuit will be activated.

5   RS232 RX Switch

When this switch is off, the NMEA extension from serial port will be inactive, and the WD-G-ZX4120 will not receive the NMEA extension; if this switch is turned on, the NMEA extension from serial port will be activated.

6   RS232 TX Switch

When this switch is off, the NMEA data from WD-G-ZX4120 module will be inactive, and the serial port interface circuit will not receive the NMEA data; if this switch is on, the NMEA data from ZX4125 will be activated.

7   USB TX Switch

When this switch is off, the NMEA extension from USB port will be inactive, and WD-G-ZX4120 will not receive the NMEA extension; if this switch is turned on, the NMEA extension from USB port will be activated.

8   USB RX Switch

When this switch is off, the NMEA data from WD-G-ZX4120 module will be inactive, and USB port interface circuit will not receive the NMEA data; if this switch is being turned on, the NMEA data from WD-G-ZX4120 will be activated.

L: Serial Port DB9 Female Connector

This EV Board includes an on board serial port interface circuit linking to PC, notebook PC or other serial port devices.

M: Power LED

This LED indicates power state. A solid LED light signals that WD-G-ZX4120 Module is in power mode.

N: GPS State LED

This LED indicates GPS state. A flashing LED light signals that WD-G-ZX4120 module is in working mode.

Power Source Selections:

There are three types of DC 3.3 V power selections on the EV Board.   Selection may be made by using "DC power source selection jumper" to switch from one to the other power source.
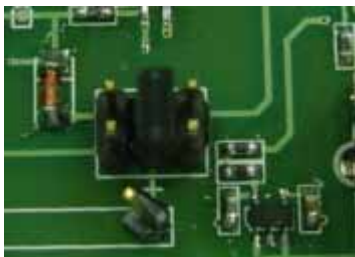
Adaptor & Battery

Through build-in circuit, DC7-12V power from "DC power jacket", or DC3.7-4.2 V from The battery, can be converted to DC 3.3V.
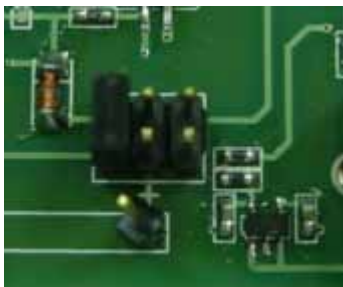
DC Power Input Connector

Connect "DC Power Input Connector" to the board to gain DC3.3V power supply direct.

DC 3.3V from USB interface

The in-built circuit will convert the DC 5V power by USB port to DC 3.3V power supply.

How to work on it

While evaluating ZX4125 using USB port, make sure USB B type has been connected to your computer, and "DC Power Source Select Jumper" is linked to power source. On the "Mode Select Switches" panel, turn USBTX and USBRX on. To make sure power is on, turn Power Led on; to evaluate fixing, turn Fix Led on.
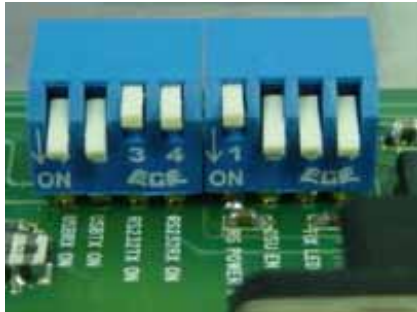

When evaluating WD-G-ZX4120 using Serial Port, make sure Serial Port DB9 connector has firmly connected to COM port on your computer and the "DC Power Source Select Jumper" is linked to power source. On the "Mode Select Switch" panel, turn on RS232TX, RS Power, and RS232RX; to make sure power is on, turn on "Power Led", to evaluate WD-G-ZX4120 performance, turn on "Fix Led" as shown below.


While using with one of the above methods "GPS State LED" should be in constant blinking mode which Indicates WD-G-ZX4120 is transmitting data.

Using burner under DSU mode:

Prior to using USB port to burn program or firmware on to WD-G-ZX4120 module, make sure USB B Type is connected to the USB end of the computer; and **DC Power Source Select Jumper** has been connected to the appropriate power source. On the "**Mode Select Switch**" turn **USBTX**, **USBRX**, and **DSU EN** on.   To be sure of power is on, switch "**Power LED** " to "on", to check on ZX4125 fixing condition, switch "**Fix LED**" to "on" as illustration below:

While using Serial port to burn program or firmware on to WD-G-ZX4120 module, set " **Mode Select Switch**" as illustration below; all other setting is to adopt the same procedures as when using Serial port to evaluate the performance of WD-G-ZX4120 module.
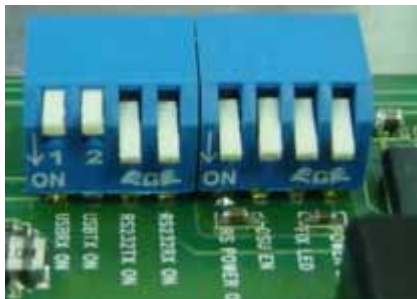
Either USB port or Serial port can be used to do the task. Nevertheless, while burner is at work, the signal light of "GPS State LED" should be off to ensure WD-G-ZX4120 is in the DSU mode; when the burner completes its task, WD-G-ZX4120 will return to output status, and the "GPS State LED" will be blinking again.