

**AIRWAVE TECHNOLOGIES INC.**

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**Video Sender**

**USER Manual**

**AWV315**

This equipment has been tested and found to comply with the regulations for a Class B Analog Device, pursuant to section 15 of the FCC Rules. This equipment is 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. Due to the nature of the equipment, 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:

- Rearrange or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to 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.

**Notice:**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment and place the user in violation of FCC regulations.



## **CAUTION**

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION: DO NOT REMOVE THE COVER**

**DUE TO RISK OF ELECTRIC SHOCK.**

**NO USER-SERVICEABLE PARTS INSIDE.**

**REFER TO QUALIFIED SERVICE PERSONNEL FOR REPAIR OR SERVICE.**

### **WARNING:**

Do not expose this product to rain or a damp environment as this may create a risk of fire or electric shock as well as cause damage to this product.

### **IMPORTANT SAFETY INSTRUCTIONS**

1. **Read the Instructions:** All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions:** The safety and operating instructions should be kept for future reference.
3. **Heed warnings:** All warnings on the product and in the operating instructions should be adhered to.
4. **Follow instructions:** All operating and use instructions should be followed.
5. **Cleaning:** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. Do not immerse in water.
6. **Attachments:** Do not use attachments not recommended by the product manufacturer as they may create hazardous conditions.
7. **Water and Moisture:** Do not use this product near water-for example, do not use: near a bath tub; wash bowl; kitchen sink; laundry tub; in a wet basement; near a swimming pool; and the like.

8. **Accessories:** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the product and cart combination overturn.
10. **Ventilation:** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.
11. **Power Sources:** This product should be operated only with the type of power source (i.e. voltage) indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your product dealer or local Power Company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. **Power-Cord protection:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
13. **Lightning:** For added protection for this product during electrical storms, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning or power-line surges.
14. **Overloading:** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
15. **Object and Liquid Entry:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
16. **Servicing:** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all repair or other service to qualified service personnel.
17. **Damage Requiring Service:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- If the power-supply cord or plug is damaged.
- If liquid has been spilled/upon, or objects have fallen into, the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally when following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way, and
- When the product exhibits a distinct change in performance, as this indicates a need for service.

18. Heat: The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat, including amplifiers, electric lights and open fireplaces. Avoid direct sunlight.

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### **Introduction to the Video Sender**

Video Game AirLink (VGA) applies advanced 2.4GHz RF wireless technology to offer users the ability to link all kinds of Video game Players and A/V sources to TVs, Monitors, and Personal Computers without wires or cables.

The VGA is easy to completely install within minutes.

This plug-and-play feature helps you to expand your freedom in your home entertainment and enhance your home security.

#### **Applications**

- Works as the wireless link between a video game Player and a TV set or monitor.
- Works as the wireless remote unit for expensive A/V equipment such as IRD, DVD and CATV STB.
- May be used as part of a wireless security system.
- Can be used as a baby sitter to watch your baby constantly from anywhere in your home.
- Monitor and record a meeting from another room.
- Use multiple receivers for broadcasting to numerous TV sets in other rooms.

#### **Features**

- 4 selectable channels help prevent any interference and allow operation of 4 pairs of VGAs simultaneously.
- Easy <plug and play> installation within minutes.
- Works with all kinds of Audio and Video equipment in your home.
- Penetrates walls, floors and ceilings without damaging your home.
- Crystal - clear Video and stereo Audio signals.

### **List of Contents**

The following devices should be included in the box. Please check that you have them all before installation.

**A. One Transmitter (TX)**

The Transmitter emits Audio and Video signals over a 2.4GHz radio frequency carrier.



**B. One Receiver (RX)**

The Receiver receives the 2.4GHz RF signal modulated with Audio and Video signals from the Transmitter.



**C. Two power adapters**

These power adapters supply 9V DC power to the Transmitter and the Receiver.





**D. One Audio/Video (A/V) cable**

This cable is used to connect the Receiver to your TV set or monitor. It can be either RCA-to-RCA or RCA-to-SCART types.

RCA to RCA (For NTSC model)

OR

RCA to SCART (For PAL model)



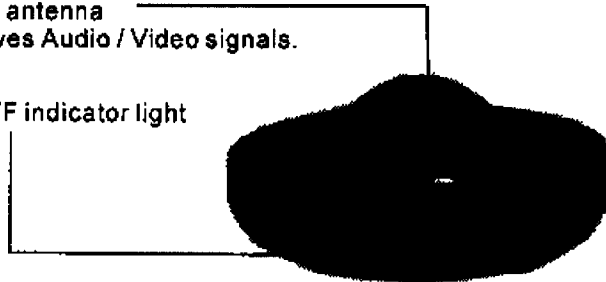
IN for Receiver

### **Controls and Features**

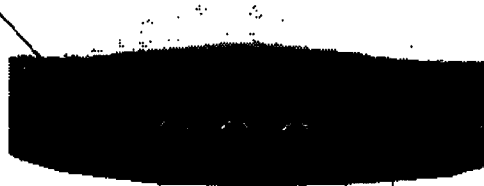
The Transmitter and the Receiver look alike. You can distinguish them through the printing label on the units. The other differences are indicated below:

Built in 2.4GHz antenna  
Sends or receives Audio / Video signals.

Power ON / OFF indicator light



Channel Switch  
Note: The same channel must be selected on both the Transmitter and Receiver.



Video jack (yellow)  
Left or MONO Audio jack (white)  
Right Audio jack (red)  
for mono  
DC Jack

Note: input for transmitter,  
output for receiver

Power ON/OFF Switch

## Installation

Setting up the VGA is extremely easy. It takes only a few minutes to connect the Transmitter to the Video Game Player by your side or the A/V sources you want to view or hear at another location, and then connect the Receiver to the TV set, monitor or speakers located at your site within the viewing or listening distance. Turning on the power switches of the Transmitter and the Receiver, you are ready to enjoy the fun of your Video Game or the A/V signals via wireless technology.

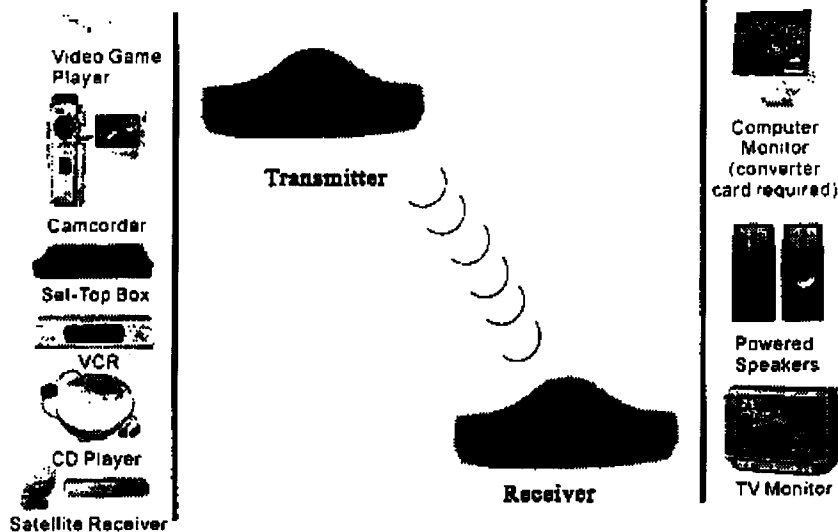
The VGA is suitable for all kinds of A/V sources and display units with standard RCA or SCART connectors. Hereinafter, we define the A/V sources and the A/V Display Units as follows:

### Possible A/V sources are:

Video Game Player  
VCR  
TV set  
Digital / Analogue Satellite Receivers  
Laser Disc Player, DVD or VCD  
CD Player  
Camcorder  
Security Camera  
Computer  
CATV STB  
Cassette Deck  
Stereo Receiver

### The A/V Display Units are:

TV set  
Monitor  
Active Speakers



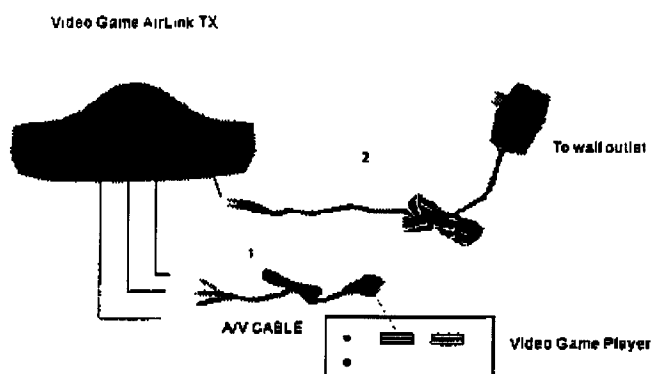
### **Connecting the Transmitter to the A/V sources**

Before connecting the VGA Transmitter, make sure the power switch is in the OFF position. Connect the A/V input jacks of the Transmitter to the A/V output jacks of the A/V sources, such as video game plays or VCRs, etc, by using the A/V cable come with them. There are three colors for the RCA connectors of the A/V cables. Make sure the yellow, white and red plugs match the yellow, white and red jacks on the Transmitter and the A/V sources with RCA type output jacks.

Before plugging the power adapter into the VGA Transmitter, make sure its AC voltage rating matches the AC power line standard of your country. For example, 120V/60Hz is the system standard in USA or 230V/50Hz in Germany, therefore you should use 120V/60Hz power adapter in USA or 230V/50Hz power adapter in Germany. After plugging the power adapter into the VGA Transmitter and the wall AC outlet, turn the power switch to the ON position and check to be sure the Power ON/OFF indicator light is lit.

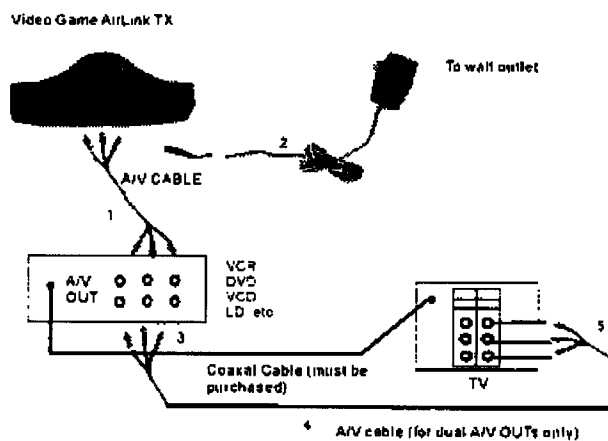
#### **A. How to connect VGA Transmitter to your Video Game Player**

1. Use the A/V cable come with your Video Game Player to connect its A/V OUT to A/V IN on the Transmitter. Be sure to match Audio (R&L) and Video jacks on both the Transmitter and the Video Game Player. If your Video Game Player has only one Audio OUT jack then connect it to the Audio IN jack labelled "MONO" on the Transmitter.
2. Connect the DC adaptor to the Transmitter first, and then plug the DC adapter into a wall power line outlet.



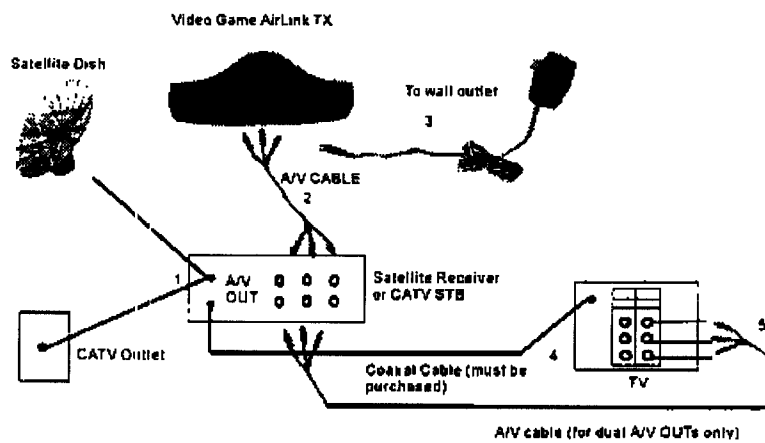
**B. How to connect VGA Transmitter to your VCR, DVD, VCD or Laser Disc Player**

1. Use the A/V cable come with your A/V source to connect its A/V OUT to A/V IN on the Transmitter. Be sure to match Audio (R&L) and Video jacks on both the A/V source and Transmitter correctly.
2. Connect the DC adaptor to the transmitter first and then plug the DC adaptor into a wall AC power line outlet.
3. You may use a Coaxial cable to connect the Coaxial OUT on the A/V source to VHF/UHF or Antenna IN on a nearby TV set.
4. If there are two A/V LINE OUTS on your A/V source, you can connect the other LINE OUT to your TV set using a three-wire A/V cable.



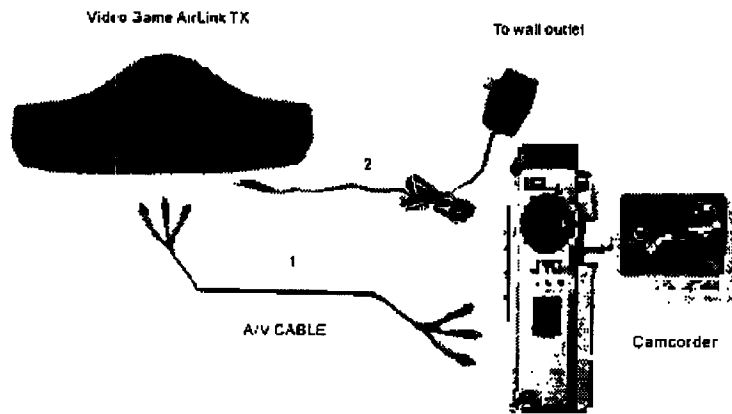
C. How to connect VGA Transmitter to your satellite Receiver or CATV Set-Top Box

1. Use a Coaxial cable to connect the Coaxial IN, CATV IN or Antenna IN on your satellite Receiver or CATV Set-Top Box to the satellite dish or the CATV coaxial outlet.
2. Use the A/V cable come with your A/V source to connect its A/V OUT to A/V IN on the Transmitter. Be sure to match Audio (R&L) and Video jacks on both A/V source and Transmitter correctly.
3. Connect the DC adapter to the Transmitter first, and then plug the DC adapter into a wall AC power line outlet.
4. You may use a Coaxial cable to connect the Coaxial OUT of your A/V source to the VHF/UHF IN, Antenna IN or CATV IN on a nearby TV set.
5. If there are two A/V LINE OUTs on your A/V source, you can connect the other LINE OUT to your TV set using a three-wire A/V cable.



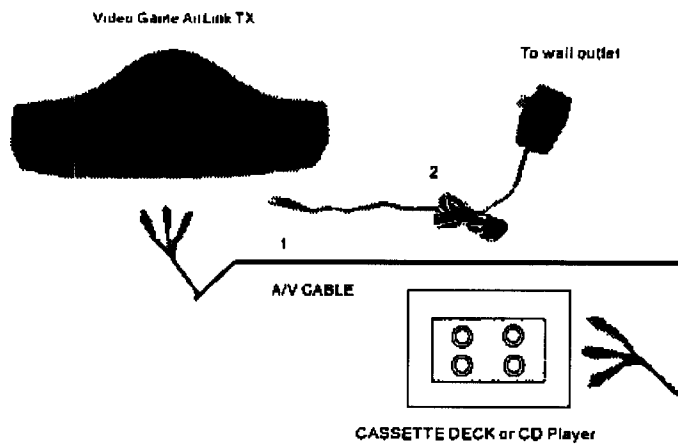
**D. How to connect the VGA Transmitter to your Camcorder**

1. Use the A/V cable come with your camcorder to connect its A/V OUT to A/V IN on the Transmitter. Be sure to match Audio (R&L) and Video jacks on both the camcorder and the Transmitter.
2. Connect the DC adaptor to the transmitter first, and then plug the DC adaptor into a wall AC power line outlet.



**E. How to send Audio from your CD Player or Cassette Deck**

1. Use the RCA cable come with your CD player or cassette Deck to connect its Audio OUT to Audio IN on the Transmitter.
2. Connect the DC adaptor to the transmitter first, and then plug the DC adaptor into a wall AC power line outlet.

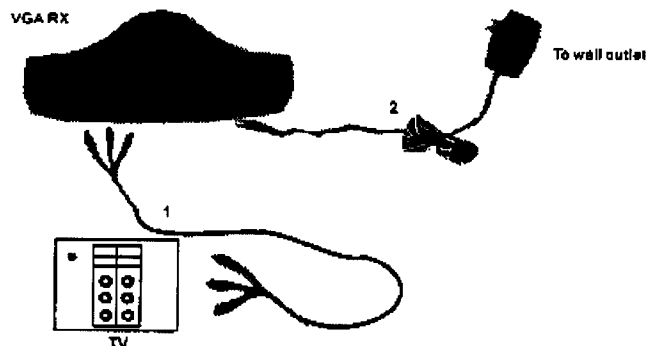


### **Connecting the Receiver to the A/V display Units**

Before connecting the VGA Receiver, make sure the Power switch is in the OFF position. Connect the A/V output jacks of the Receiver to the A/V IN jacks of the A/V Display Units by using the A/V cable come with the VGA. There are three colors for the RCA connectors of the A/V cable. Make sure the yellow, white and red plugs match the yellow, white and red jacks on both the transmitter and the A/V display units correctly.

Before plugging the power adapter into the VGA Receiver, make sure its AC voltage rating matches the AC power line standard of your country. For example, 120V/60Hz is the system standard in USA or 230V/50Hz in Germany, therefore you should use 120V/60Hz power adapter in USA or 230V/50Hz power adapter in Germany. After plugging the power adapter into the VGA Receiver and the wall outlet, turn the Power switch to the ON position and check to be sure the Power ON/OFF indicator light is lit.

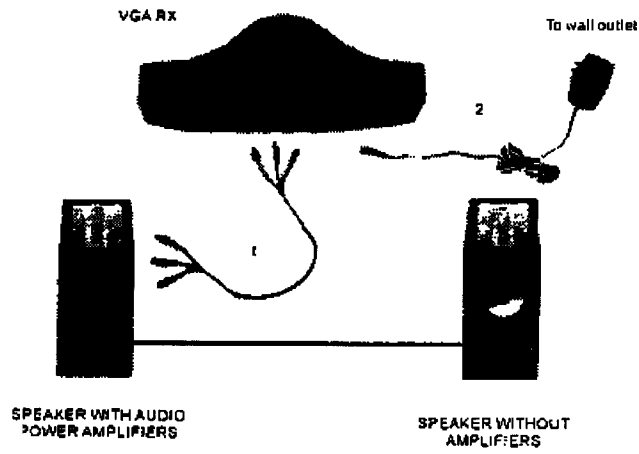
- A. How to connect the VGA Receiver to your TV set or Monitor
1. Use A/V cable to connect A/V OUT from the Receiver to A/V IN on your TV set or Monitor. Be sure to match Audio (R&L) and Video jacks on both the Receiver and TV set or Monitor correctly. If your TV set or Monitor has only one Audio IN jack then connect it to the Audio OUT jack labelled "MONO" on the Receiver.
  2. Connect the DC adapter to the Receiver first, and then Plug the DC adapter into a wall A/C power line outlet.





**B. How to receive Audio on Remote Speakers**

1. Use A/V cable to connect Audio OUT on the Receiver to Audio IN on your speakers. Be sure to match Audio (R&L) jacks on both the Receiver and speakers correctly.
2. Connect the DC adapter to the Receiver first, and then plug the DC adapter into a wall A/C power line outlet.



## Channel selection

### ✱ **Channel switch (rear)**

Four setting positions (1 to 4) on the sliding switch for selecting the transmitter and the receiver channel.

In the example shown here, Channel 2 is activated for both Transmitter and Receiver.

CH SW



Receiver

CH SW



Transmitter

**Note:** Both the transmitter and the receiver have to be set on the same channel in order to properly operate.

## **Trouble Shooting**

Please read this user manual carefully before using the VGA. If you have any difficulties using the VGA, consult the following checklist, which will guide you in solving most common problems.

### **A. No picture or sound**

1. Check the Power ON/OFF switches on the back of the Transmitter and the Receiver.
2. Check the audio and video sources (DVD, VCR, LD Player, CATV STB, Satellite Receiver, etc.)
3. Make sure all cables are connected correctly.
4. Make sure the channel selections on the Transmitter and Receiver match each other.

### **B. Interruption in image and sound**

1. If there is a microwave oven close by, please turn the microwave oven off.
2. Change to a different channel to avoid interference from other devices.

### **C. Poor reception quality**

1. Move the Transmitter or the Receiver or both about slowly within a distance of 10~15cm to locate the best reception spot.
2. Make sure all A/V cables are plugged firmly and tightly.
3. Make sure the channel selections on the Transmitter and Receiver match each other.

### **Care and Maintenance**

Clean the plastic casings gently with a soft cloth. Do not use a moist or damp cloth as this may damage the VGA. Abrasive powders or solvents should not be applied to the VGA.

## **Specification**

### **Transmitter:**

1. Frequency : 2.4GHz - 2.4835GHz
2. Channel : 4 selectable channels
3. Modulation : Video: FM  
Audio: FM-FM
4. Input port : A/V jack - RCA type.  
Input level : Video - 1 Vp-p (NTSC/PAL)  
Audio - 1 Vp-p (NTSC) / 3Vp-p (PAL)  
Impedance : Video - 75 ohms  
Audio - 600 ohms (NTSC) / 10K ohms (PAL)
5. Antenna : Built in antenna
6. Power supply : DC 9V power adapter (300mA)

### **Receiver**

1. Frequency : 2.4 GHz - 2.4835 Ghz
2. Channel : 4 selectable channels
3. Output port : A/V jack - RCA type.  
Input level : Video - 1 Vp-p (NTSC/PAL)  
Audio - 1 Vp-p (NTSC) / 3Vp-p (PAL)  
Impedance : Video - 75 ohms  
Audio - 600 ohms
4. Antenna : Built in antenna
5. Power supply : DC 9V power adapter (300mA)