OPERATING MANUAL

General description

CM22NS is a 2.4GHz wireless camera that is not much bigger than a quarter. The camera and transmitter are combined in one unit. Can be used in security purpose anywhere since weight is light and the size is small. The unit can transmit good quality video signal in full color with great resolution. The small size and picture quality will amaze you. The 2.4GHz Video/Audio receiver can be plugged into a VCR to record the signal or a TV set with video input to view it. RX2400S has 4 channels for allowing four cameras to be used at once.

- Product specification

.Camera unit

1) Type of image sensor	:	1/3" COMS Imager Sensor
2) Scanning	:	2:1 Interlace
3) Shutter speed	:	1/60 to 1/15000 Sec
4) Picture Element	:	NTSC 510(H) X 492(V)
5) Effective Imager Area	:	5.78mm X 4.19
6) S/N Ratio	:	48dB (AGC on)
7) Flxed Pattern Noise	:	0.33% Vp-p
8) Dark Current	:	0.2nA/㎠
9) Dynamic Range	:	72dB
10) Operation Voltage	:	DC 5V
11) Operation Current	:	approx. 50㎃
12) Lens	:	F6.0㎜ F6.1 F0V 43 ° X 33 °

.Transmitter

1) Operating current	:	approx.120mA
2) Operating voltage	:	DC 5V
3) Operating temperature	:	-10 °C ~ +50 °C
4) Type of frequency	:	F9W
5) Communication method	:	Directional communication

6) Channel frequency

CH1	CH2	CH3	CH4
2.410GHz	2.430GHz	2.450GHz	2.470GHz

7) Output power	:	1mW

8) Transmitting distance

Indoor	:	around 10m (depands on wall construction)
Outdoor	:	around100m (in line of sight)
9) Video Input	:	1Vpp / 75ohm
10) Video modulation band width	:	+/- 15MHz
11) Audio Input	:	100 ~ 15KHz
12) Audio Sub-carrier Frequency	:	6.5MHz

Receiver

1) Current consumption	:	240mA
2) Operating voltage	:	DC 12V
3) Size	:	130mm X 105mm X 36mm
4) Weight	:	375g
5) Operating temp.	:	-10 °C ~ +50 °C

6) Channel frequency :

CH1	CH2	CH3	CH4
2.410GHz	2.430GHz	2.450GHz	2.470GHz

7) Channel selection :

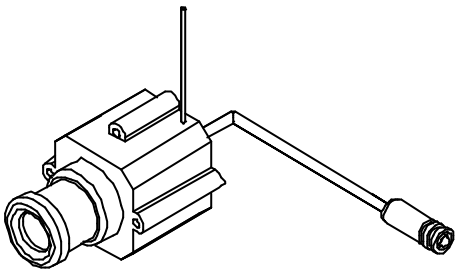
Manual channel selection by Key Switch

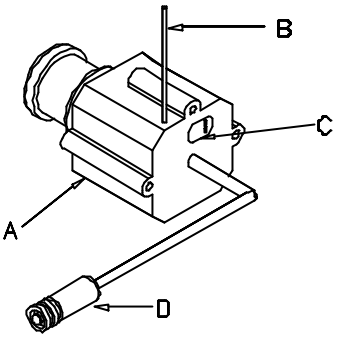
Automatic channel selection function by auto switch

8) Video Output	:	1Vpp / 75ohm
9) Audio Output	:	0.5V ~ 1Vpp / 600ohm

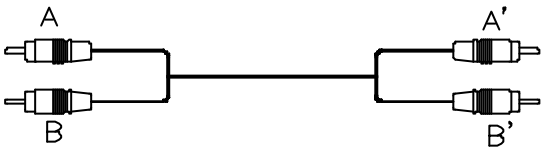
2. **Wireless camera set configuration**

A. 2.4GHz Wireless Camera (Include transmitter)

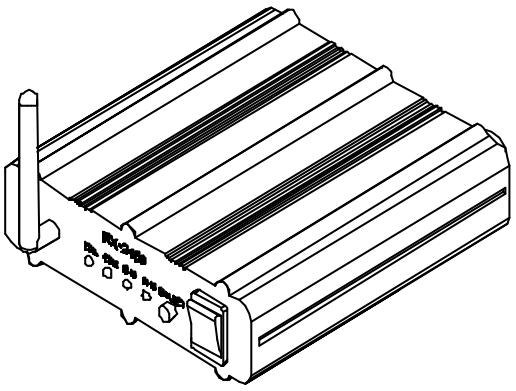




B. RCA Cable



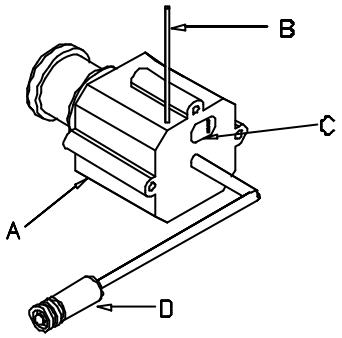
C. 2.4GHz Video/Audio Receiver



3. Operating manual

2.4GHz Wireless Camera (CM22NS)

- Description



A. Camera - Color CMOS Camera + Transmitter

B. Antenna - Wire Dipole Antenna

C. DIP Switch for channel selection

NO	1	2	Freq.
CH 1	off	off	2.410GHz
CH 2	on	off	2.430GHz
CH 3	off	on	2.450GHz
CH 4	on	on	2.470GHz

D. Power Connector - DC 5V Input

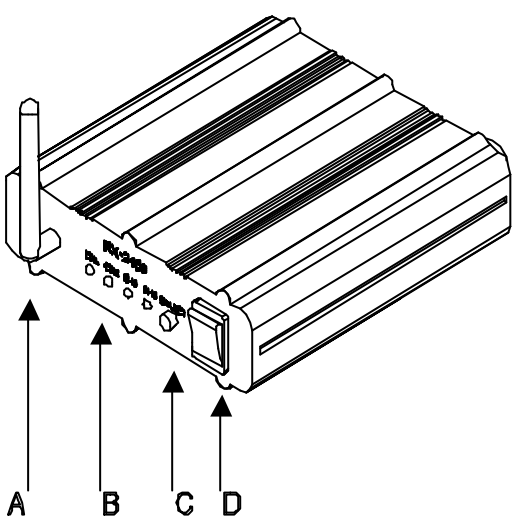
Operation.

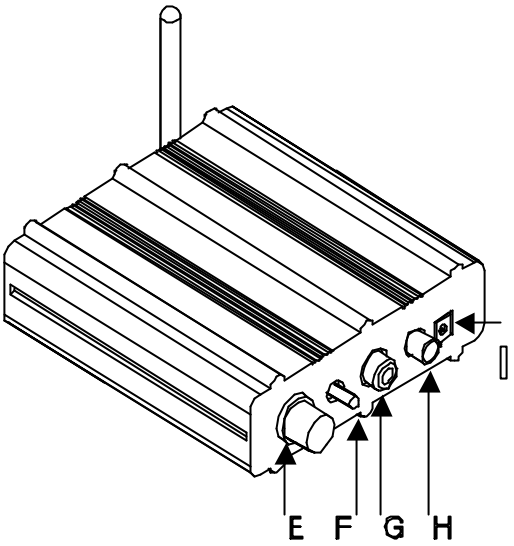
By just plug in 5V DC power source such as AC/DC adaptor to supplied power connector, the wireless camera unit will start to transmit video signal in selected channel.

Channel can be changed by selecting channel selection switch at the back side of camera and channel will be set according to Channel selection DIP switch chart shown above.

Receiver (RX2400S)

Part and operating Description





A. 2.4GHz Antenna

- Sleeve dipole Antenna on SMA connector.

B. Channel indication LED

Each channel LED will be turned on and off by selected channel

C. Channel selection Key

By pressing this key channel can be changed each time when key is pressed

D. Power Switch

To turn ON and OFF the unit. When unit is turned on channel 1 indication LED will be turned on.

E. Time change Volume

When the unit mode is in auto mode by auto/manual switch, channel scanning time can be adjusted by this volume. Time can be adjusted from 3seconds to 30 seconds . It depends on Volume position.

F. Auto / Manual Mode Switch

By using this switch, channel selection can be made by channel selection key when this switch is in manual position.

When this key is in auto position, channel selection key input will be ignored and each channel will be automatically scanned with time set by time setting volume.

G. Audio Output

H. Video Output

I. DC Input Jack - DC 12V 500mA

Note.

This equipment has been tested and found no 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.**

INFORMATION TO USER

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user' s authority to operate the equipment.

Note.

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.