MICROSEVEN
SYSTEMS

Product Operation Manual
MSH-CD080W Wireless Dome Network IP Camera

Microseven Systems, Inc.

Walnut, California 91789, USA

CE FC

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Notes:

Please read the following label before connecting or operating the equipment.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

Notes：
Please not move the cover (or back) to reduce the danger of electric shock. No part inside can be repaired by users. Refer servicing to qualified personnel.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of exposed wiring within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to people

The serial number of this product can be found on the top of the unit. Please note the serial number of this unit in the space provide and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model:_____

Product № _____

Contents

1. Preface

MSH-CD080W Wireless Dome Network IP cameras adopts SONY CCD, with bright and exquisite images. As video & audio multi-media equipment that based on network transmission, which adopts built-in and multi-media communication technology, the camera is a multi-media network terminal that can directly connect to the network.

The camera adopts all-built-in technology, which can be connected to the TCP/IP network without any other equipment and realize the video & audio collection, code compression and transmission function. Outstanding H.264 compression code arithmetic guarantees minimum occupation of bandwidth, and the built-in Web Server enables users to visit the IP camera through IE or special surveillance management software.

Furthermore, the camera adopts a large case, making room for built-in fans, which not only makes it have a good appearance, but also guarantees the reliable performance of the camera.

2. Key Features

- Minimum Illumination: 0.5Lux
- Horizontal resolutions: 480TVL
- H.264 compression format can optimize the image quality and the bandwidth occupation.
- Realize NTSC/PAL switch.
- Dual-channel output for analog & digital signal.
- Built in web server, can be viewed directly by IE.
- E-mail network linkage alarm.
- Built in Linux operation system.
- Built in SD card storage (SD card not included).
- Can be equipped with wireless transmission module to provide IEEE 802.11b/g standard wireless transmission, and to improve the flexibility of installation.

Other Features

- Powerful software function: provide network video server hardware as well as total software solution.
- Unique video decoding function: can decode the data package of network camera to composite video signal, and display it on monitors.
- Flexible visit mode: one end to multi-end, multi-end to one end.
- Motion detection alarm, I/O status alarm and LOGO update alarm function, with 12x16 detecting areas& 9 level sensitivity ;When the moving objects are discovered in set areas, an alarm signal will be transmitted to appointed client-end through network, image capturing & recording or other relevant actions can be set.
- Digital matrix function: can realize common analog matrix functions like switch & setup auto switch time etc. Special keyboard can be directly connected to the network, controlled speed domes and switched images.

- Built in multi network protocol: Support TCP/IP protocol, allow data sending and receiving by WAN or LAN.

- Intercom function, can realize site to remote client-end intercom by audio I/O of network camera.

- Provide SDK interface to realize multi-system integration, easy for second development for more functions.

- Supports dual-stream, can select different saving code ration and remote transmit ratio according to demand.

3. Notes

A. Do not attempt to disassemble the camera yourself.

   To prevent electric shock, do not remove screws or covers. No part inside should be repaired by inexperienced users. Ask a qualified service person for servicing.

B. Handle the camera with care.

   Avoid striking or shaking. The camera could be damaged by improper handling or storage.

C. Do not expose the camera to rain or moisture.

   If rain or moisture occurs, turn the power off immediately and ask qualified service personnel for servicing. Moisture can damage the camera and also create the danger of electric shock.

D. Do not use strong or abrasive detergents when cleaning the camera body. Use a dry soft cloth to clean the camera when dirty. In case the dirt is hard to remove, use a mild detergent and wipe gently.

E. Pay great attention to the CCD faceplate cleaning

   Do not clean the CCD with strong or abrasive detergents. Use lens tissue or a cotton tipped applicator and ethanol.

F. Never face the camera towards the sun.

   Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other very bright objects. Otherwise, blooming or smears may be caused.

G. Do not operate the camera beyond the specified temperature, humidity or power source.

   Use the camera under conditions where temperature is between 14°F -- 122°F and humidity is over 95%.

H. The power supply for MSH-CD080W is DC12V.

   The adapter with electric current of over 2A is recommended.
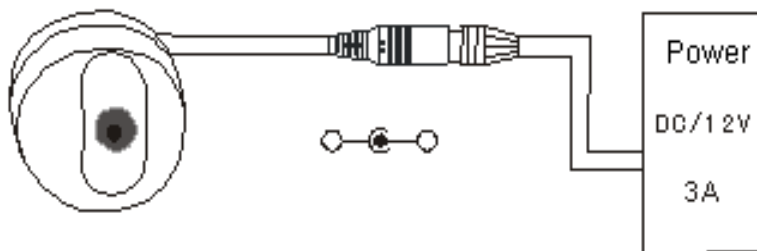
I. The pictures in the manual are for reference.
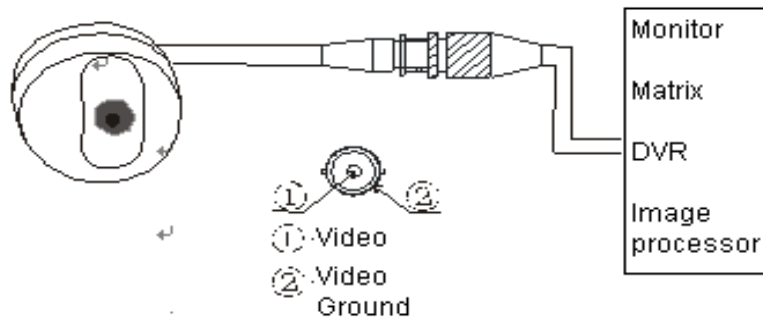
4. Instructions for Main Parts
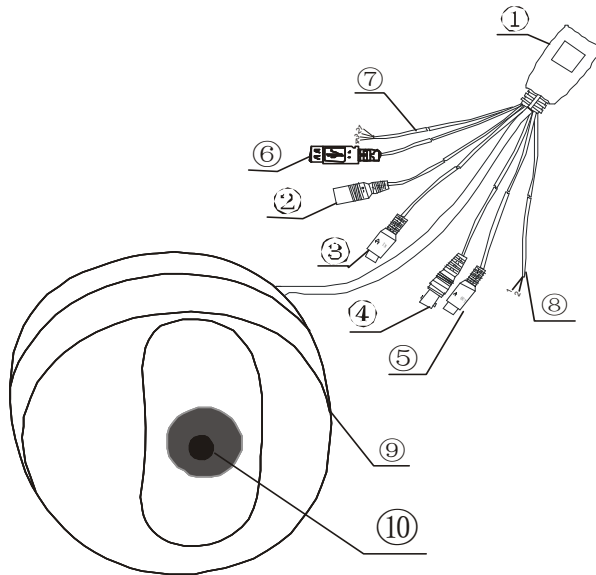
①   Network socket/plug

②   Power supply terminal

③   Audio input terminal

④   Video output terminal

⑤   USB interface

⑥   Alarm input/output cable

⑦   RS485 interface

⑧   Housing

⑨   Lens

5. Connections
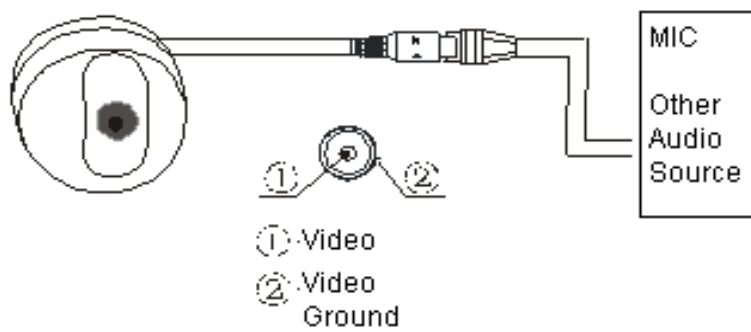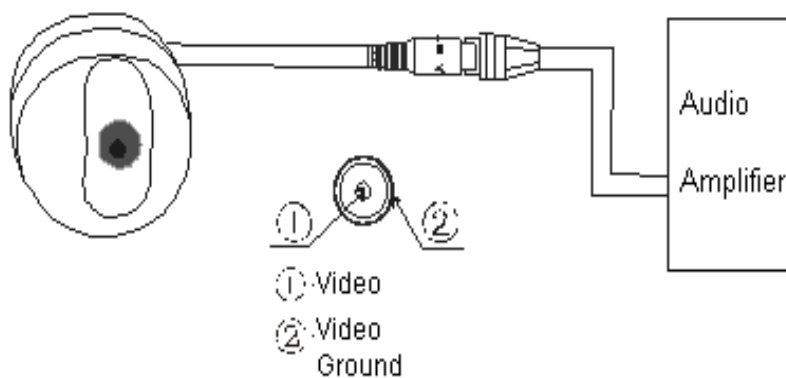
5.1 Power terminal connections

5.2 Video output terminal connection
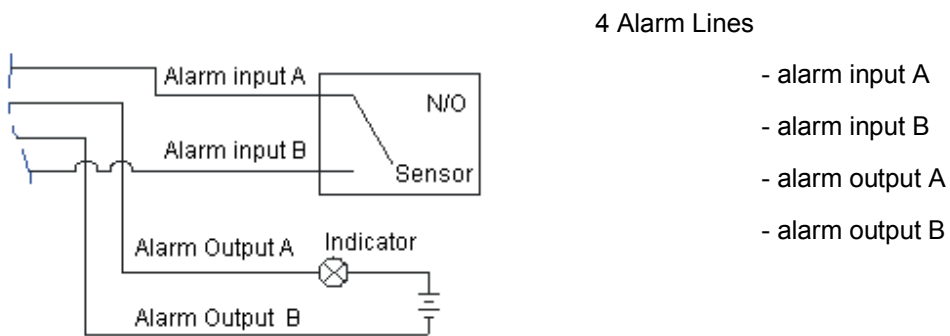
①-Video
②-Video Ground

Monitor

Matrix

DVR

Image processor

5.3 Audio input terminal connection

①-Video
②-Video Ground

MIC

Other Audio Source

5.4 Audio output terminal connection

①-Video
②-Video Ground

Audio

Amplifier

5.5 Audio output terminal connection

4 Alarm Lines

- alarm input A

- alarm input B

- alarm output A

- alarm output B

5.6 Network socket terminal connection

①: Network plug

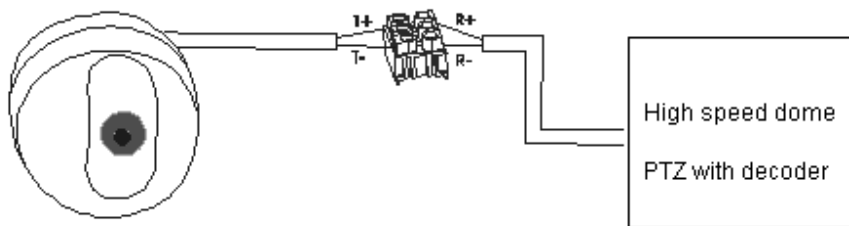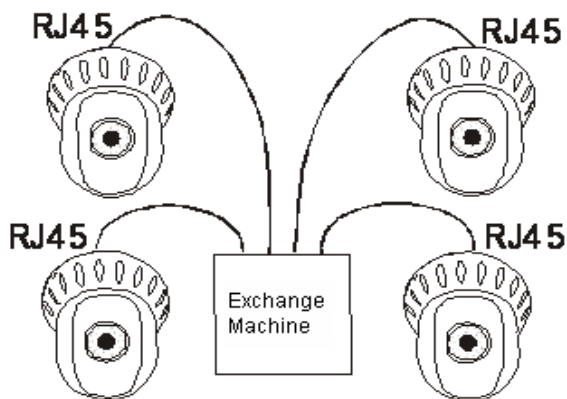②: RJ45 Network cable
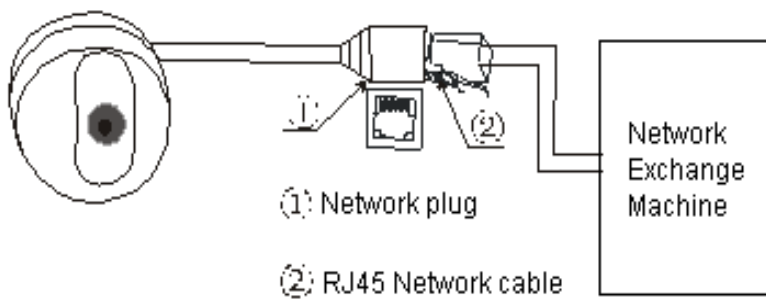
5.7 USB interface connector
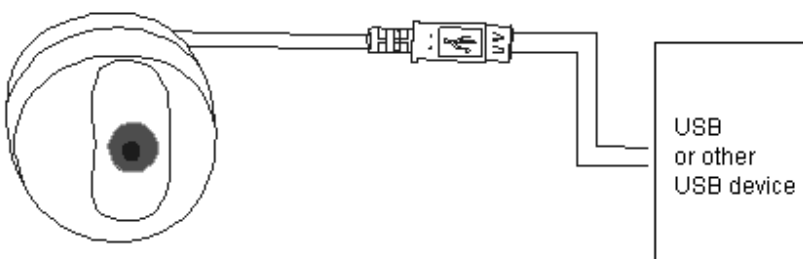
5.8 RS485 communication interface connector
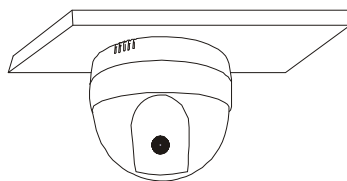
5.9 RJ-45 connections

- 8PIN standard GM line

- Ultra-five

- Recommended maximum length: 80m

6.   Installation of Camera

☞ **The following task should be undertaken by qualified service personnel or system installers.**

☞ **The following installation method is indoor hoisting.**

☞ **Ask an expert about the bearing capability and structure of the installation surface, if the surface is not solid enough, the camera may drop down. To get the weight of camera please refer to the product specification.**

6.1 Fix the screws

A. Remove the protection PVC from the metal piece, then paste the fixed metal piece onto the installation surface.
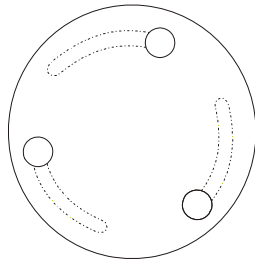

Fig. 1   fixed metal piece

B. Aim the screws into the holes of fixed metal piece (do not aim the screws askew)
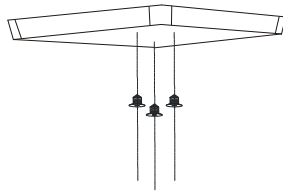
Fig. 2 fixed screw

C. Do not screw entirely, remaining part of the screw outside (>4.5mm, <5.5mm), to ensure the space for installation.
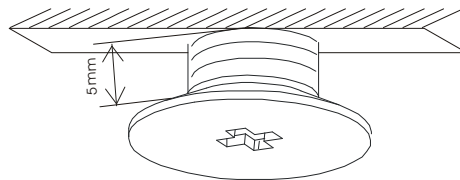

Fig. 3 screw remain outside

6.2 Install cameras

Move up the camera, aim the screw remain outside part in to the hole of the camera, twist the camera clockwise to the end.
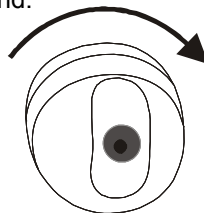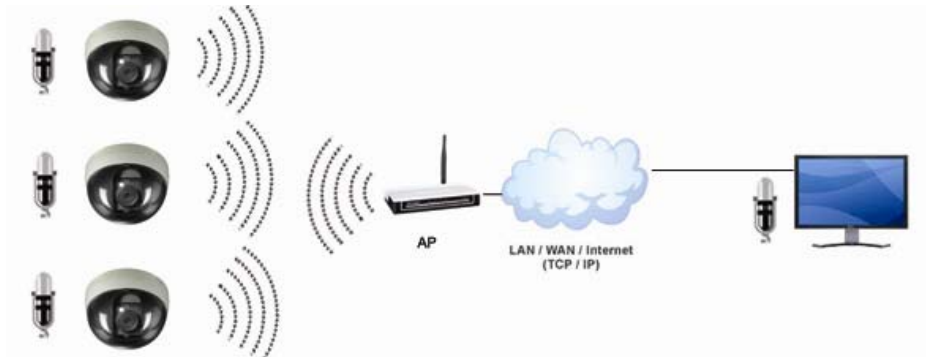

Fig. 4 camera installation

7. Basic System Diagram and Operating Circumstance

Operate environment

After the equipment installed and connected to the network, it should be operated on Server Software Platform of Microseven Digital Video Server.

8. Specifications

Model	MSH-CD080W
Pick-up Device	1/3″ SONY Super HAD CCD
Pixels	795(H)×597(V)PAL 768(H)×494(V) NTSC
Horizontal Resolution	480 Lines
Minimum Illumination	0.5Lux
Scanning Area	4.9 mm (H) x 3.7 mm (V)
Scanning Mode	625 Lines/50 Fields/25 Frame(PAL) 525 Lines/60 Fields/30 Frame(NTSC)
Horizontal/Vertical	15.625KHz/50Hz (PAL), 15.750KHz /60Hz(NTSC)
Scanning Mode	2.1 interline scanning
Video Output	1.0V[p-p] Composite Video Signal/75Ω,
Image / Audio Compression Standard	H.264 / G.711
S/N Ration	≥ 48dB (AGC OFF, Weight On)
AGC	≥ 18dB
ELC	1/120S
Synchronization Mode	Internal/Power supply synchronization selectable
Lens	8 mm 4mm/6mmoptional
F Coefficient	F2.0/2.5

Resolution	QCIF: 176 * 144 (PAL), 176*120 (NTSC) CIF: 352 * 288 (PAL), 352*240 (NTSC) H-D1: 720 *288 (PAL), 360*480 (NTSC) D1: 720 * 576 (PAL), 720*480 (NTSC)
Frame Rate	25 fps (PAL), 30 fps (NTSC)
Character Superimpose	Support character and time superimpose
Motion Detection	12x16 detecting areas and 9 levels sensitivity
Network Interface	1 RJ-45, 10M/100M self-adjustable
Network Protocol	TCP/IP, UDP/IP, HTTP, FTP, ICMP, Telnet, IGMP, PPPOE, DDNS, DNS, DHCP
IE Application	Built-in web server, allows IE browsing and controlling
Network Time Check	Provide the interface for network time check
Equipment Search	Support equipment searching by Ethernet broadcasting
User Administration	Provide multi-level user administration
Built-in Watchdog	Timing detection of chips & software work status, auto system reset
Remote Reposition	Realize remote reposition through network
Audio Input	1 channel, RCA interface, single track
Audio Sampling Rate	8KHz
Compressed Code Rate	32Kps
Wireless Function	IEEE 802.11b/g wireless module
Built-in Storage	SD card built-in storage (SD card sold separately)
Temperature/Humidity	- 10°C - +50°C, ≤ 95%
Power Supply	DC 12V, 2A
Dimensions/Weight (with lens)	Φ5.1 in X 4.1 in (H) / 0.95lb.

9. Frequently Asked Questions

☞   **Q: System operation could not be activated, the power indicator does not light.**
        A: Check if the power is connected, and if the input voltage is normal.

☞   **Q: Network indicator does not light, equipment can not login.**
        A: Check if the network is connected, and if the net line is inserted properly.

☞   **Q: Can not update or upgrade failure.**
        A: Check if the network is connected, and the path of the upgraded files are correct, and check if there is any access authority allowed.

Note: If the above method is still unable to solve the problems, please contact with supplier in time.