

Hikvision DS-2CD1123G0E-I

Hikvision DS-2CD1123G0E-I 2MP IR Fixed Dome Network Camera User Manual

Model: DS-2CD1123G0E-I | Brand: Hikvision

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Hikvision DS-2CD1123G0E-I 2MP IR Fixed Dome Network Camera. Please read this manual thoroughly before using the product to ensure proper setup and functionality. This camera is designed for surveillance applications, offering high-resolution video and robust environmental protection.

2. SAFETY INSTRUCTIONS

- Power Supply:** Use only the specified power adapters (12V DC) or Power over Ethernet (PoE) compliant devices. Ensure the power source is stable and meets the camera's requirements.
- Installation:** Installation should be performed by qualified personnel in accordance with all local codes. Ensure the mounting surface can support the camera's weight.
- Environment:** Do not expose the camera to extreme temperatures, high humidity, or corrosive environments. Despite its IP67 rating, avoid direct submersion.
- Cleaning:** Use a soft, dry cloth for cleaning. Do not use strong detergents or abrasive materials.
- Maintenance:** Do not attempt to disassemble or modify the camera. Refer all servicing to qualified personnel.

3. PACKAGE CONTENTS

Please check the package contents upon receipt to ensure all components are present and in good condition. Typically, the package includes:

- Hikvision DS-2CD1123G0E-I Network Camera
- Mounting Screws and Plugs

- Quick Start Guide
- Drill Template

4. PRODUCT OVERVIEW

The Hikvision DS-2CD1123G0E-I is a 2-megapixel fixed dome network camera designed for reliable surveillance. It features a 1/2.8" progressive scan CMOS sensor, delivering 1920 × 1080 resolution at up to 30 frames per second. The camera is equipped with a 2.8 mm fixed lens, providing a wide field of view.

Key features include:

- **High Resolution:** 2MP (1920 × 1080) for clear imaging.
- **Infrared (IR) Night Vision:** Built-in IR LEDs provide illumination up to 30 meters for clear video in low-light or no-light conditions.
- **Advanced Video Compression:** Supports H.265+/H.265/H.264+/H.264 for efficient bandwidth and storage usage.
- **Image Enhancement:** Features like 3D Digital Noise Reduction (3D DNR), Digital Wide Dynamic Range (DWDR), and Backlight Compensation (BLC) improve image quality in various lighting conditions.
- **Robust Design:** IP67 rated for dust and water protection, and IK10 rated for vandal resistance, making it suitable for both indoor and outdoor environments.
- **Smart Features:** Includes motion detection and video tampering alarms.
- **Power over Ethernet (PoE):** Simplifies installation by allowing power and data transmission over a single Ethernet cable.



Figure 1: Front view of the Hikvision DS-2CD1123G0E-I dome camera.



Figure 2: Icons representing key features: Digital WDR, 3D DNR, IR night vision, H.265 compression, and IP67 weather resistance.



Figure 3: Visual representation of features like Region of Interest (ROI), sharpness enhancement, H.265+ compression efficiency, IP67/IK10 ratings, and DC 12V/PoE power options.

5. INSTALLATION AND SETUP

5.1 Physical Installation

- Choose a Location:** Select a suitable ceiling or wall location for optimal surveillance coverage. Consider the camera's 2.8mm fixed lens field of view.
- Mounting:** Use the provided drill template to mark and drill holes. Secure the camera base using the supplied screws and plugs. The camera supports screw-in ceiling mounting.
- Dimensions:** The camera has dimensions of approximately 111 mm (4.4") diameter and 82.4 mm (3.2") height. Ensure adequate space for installation.

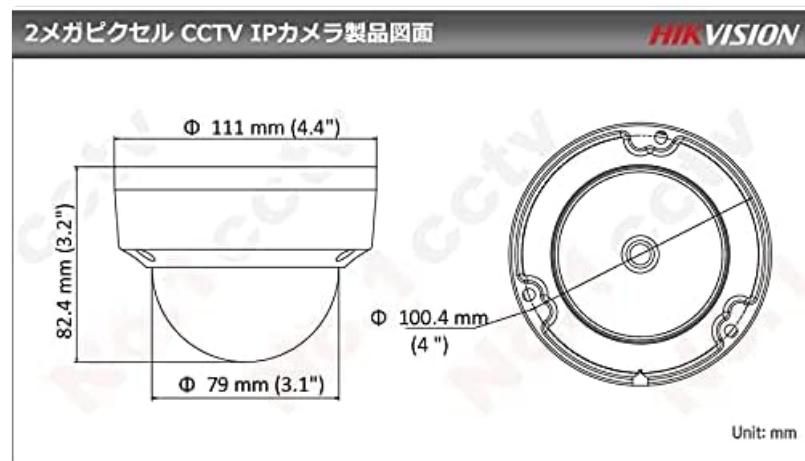


Figure 4: Detailed dimensions of the Hikvision DS-2CD1123G0E-I camera in millimeters and inches.

5.2 Power and Network Connection

- Power:** Connect a 12V DC power adapter (not included) to the camera's power input, or connect an Ethernet cable from a Power over Ethernet (PoE) switch or injector to the camera's RJ45 Ethernet port.
- Network:** Connect the camera to your network using a standard RJ45 Ethernet cable. The camera features a 10M/100M self-adaptive Ethernet interface.

5.3 Initial Configuration

After physical installation and connection, you can access the camera for initial configuration:

1. **Discover the Camera:** Use Hikvision's SADP (Search Active Devices Protocol) tool on a connected computer to find the camera's IP address.
2. **Activate the Camera:** Set a strong password for the camera if it's not already activated.
3. **Access Web Interface:** Open a web browser (e.g., Internet Explorer, Chrome, Firefox) and enter the camera's IP address to access its web interface. Log in with your credentials.
4. **Network Settings:** Configure network parameters such as IP address, subnet mask, and gateway as needed for your network environment.

6. OPERATION

6.1 Live View and Recording

Once configured, you can view live video streams and manage recordings through the camera's web interface, a Network Video Recorder (NVR), or the Hik-Connect mobile application.

- **Live View:** Access the live view to monitor the surveillance area in real-time.
- **Recording:** Configure recording schedules, motion-triggered recording, or continuous recording via your NVR or the camera's settings.

6.2 Smart Features

The camera supports various smart features to enhance security:

- **Motion Detection:** Configure detection zones and sensitivity to trigger alarms or recordings when movement is detected.
- **Video Tampering Alarm:** Alerts you if the camera's view is obstructed or tampered with.
- **Illegal Login Alarm:** Notifies you of unauthorized access attempts.

6.3 Image Settings

Adjust image parameters to optimize video quality for your specific environment:

- **Brightness, Contrast, Saturation:** Basic image adjustments.
- **Sharpness:** Enhance image detail.
- **White Balance:** Adjust color accuracy.
- **Day/Night Switch:** Configure automatic, scheduled, or manual switching between day (color) and night (black & white with IR) modes.

7. MAINTENANCE

- **Regular Cleaning:** Periodically clean the camera lens and housing with a soft, lint-free cloth to ensure clear images.
- **Firmware Updates:** Check the Hikvision official website for the latest firmware updates to ensure optimal performance and security. Follow the provided instructions carefully for firmware upgrades.
- **Environmental Check:** Ensure the camera's operating environment remains within specified temperature and humidity ranges (-30°C to 60°C, humidity 95% or less non-condensing).

- **Cable Inspection:** Periodically inspect network and power cables for any signs of wear or damage.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No image/video feed	No power; Network cable disconnected; Incorrect IP address; Camera not activated.	Check power supply/PoE connection; Verify network cable connection; Ensure correct IP settings; Activate camera with a strong password.
Poor image quality	Dirty lens; Incorrect image settings (brightness, contrast); Insufficient lighting.	Clean the lens; Adjust image settings in the web interface; Ensure adequate lighting or proper IR function.
Cannot access camera via network	IP address conflict; Network configuration error; Firewall blocking access.	Use SADP tool to verify/change IP; Check network settings (gateway, DNS); Temporarily disable firewall for testing.
Motion detection not working	Motion detection not enabled; Sensitivity too low; Detection area not configured.	Enable motion detection in settings; Adjust sensitivity; Configure detection zones.

9. SPECIFICATIONS

Detailed technical specifications for the Hikvision DS-2CD1123G0E-I camera:

2メガピクセル CCTV IPカメラ製品仕様		HIKVISION
Camera		
Image Sensor	1/2.8" progressive scan CMOS	
Min. Illumination	Color: 0.01 Lux @ (F1.2, AGC ON), 0.028Lux @ (F2.0, AGC ON)	
Shutter Speed	1/3 s to 1/100,000 s	
Slow Shutter	Yes	
Auto-Iris	No	
Day & Night	IR cut filter	
Digital Noise Reduction	3D DNR	
WDR	DWDR	
Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 75°	
Lens		
Focal length	2.8 mm, 4 mm	
Aperture	F2.0	
Focus	Fixed	
FOV	2.8 mm, horizontal FOV 114.8°, vertical FOV 62°, diagonal FOV 135.5° 4 mm, horizontal FOV 86°, vertical FOV 46.5°, diagonal FOV 102.5°	
Lens Mount	M12	

Figure 5: Camera specifications including image sensor, illumination, shutter speed, DNR, WDR, lens focal length, aperture, and field of view.

IR	
IR Range	Up to 30 m
Wavelength	850 nm
Compression Standard	
Video Compression	Main stream: H.265+/H.265/H.264+/H.264 Sub stream: H.265/H.264/MJPEG
H.264 Type	Main Profile/High Profile/Baseline Profile
H.265 Type	Main Profile
Video Bit Rate	32 Kbps to 8 Mbps
Smart Feature-set	
Region of Interest	1 fixed region for main stream
Image	
Max. Resolution	1920 × 1080
Main Stream	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
Max. Frame Rate	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240) 60Hz: 30fps (640 × 480, 640 × 360, 320 × 240)
Sub-stream	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240) 60Hz: 30fps (640 × 480, 640 × 360, 320 × 240)
Image Enhancement	BLC, 3D DNR
Image Setting	Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser
Day/Night Switch	Auto, scheduled, day, night

Figure 6: Specifications for IR range, video compression standards, resolution, frame rate, and image enhancement features.

Network	
Alarm Trigger	Motion detection, video tampering alarm, illegal login
Protocols	TCP/IP, ICMP, HTTP, HTTPS, DHCP, DNS, RTP, RTCP, NTP, IGMP, QoS, UDP
General Function	Anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark
Firmware Version	V5.5.83
API	ONVIF (PROFILE S), ISAPI
Simultaneous Live View	Up to 6 channels
User/Host	Up to 32 users 3 levels: Administrator, Operator, and User
Client	IVMS-4200, Hik-Connect, IVMS-5200, IVMS-4500
Web Browser	IE8+, Chrome 31.0-44, Firefox 30.0-51, Safari 8.0+
Interface	
Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
General	
Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F), humidity: 95% or less (non-condensing)
Power Supply	12 VDC ± 25%, 5.5 mm coaxial power plug PoE (802.3af, class 3)
Power Consumption and Current	12 VDC, 0.4 A, Max: 5 W PoE: (802.3af, 36 V to 57 V), 0.2 A to 0.1 A, Max: 6.5 W
Ingress Protection	IP67, IK10
Material	Front cover: plastic, back cover & bracket: metal
Dimensions	Camera: Ø 111 mm × 82.4 mm (4.4" × 3.2") With package: 134 mm × 134 mm × 108 mm (5.3" × 5.3" × 4.3")
Weight	Camera: Approx. 400 g (0.9 lb.) With package: Approx. 600 g (1.3 lb.)

Figure 7: Network features, interface details, general operating conditions, power requirements, ingress protection, materials, dimensions, and weight.

Feature	Specification
Image Sensor	1/2.8" Progressive Scan CMOS
Max. Resolution	1920 × 1080
Frame Rate	30 fps (1920 × 1080)
Lens	2.8 mm fixed lens
Field of View (FOV)	Horizontal FOV 114.8°, Vertical FOV 62°, Diagonal FOV 135.5° (for 2.8mm)
IR Range	Up to 30 m
Video Compression	H.265+/H.265/H.264+/H.264
Digital Noise Reduction	3D DNR
Wide Dynamic Range	DWDR

Feature	Specification
Ingress Protection	IP67 (Dust and Water Resistant)
Vandal Resistance	IK10 (Impact Resistant)
Power Supply	12 VDC \pm 25%, 5.5 mm coaxial power plug; PoE (802.3af, class 3)
Power Consumption	Max. 5 W (12 VDC), Max. 6.5 W (PoE)
Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F), Humidity: 95% or less (non-condensing)
Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
Material	Front cover: plastic, back cover & bracket: metal
Dimensions	Camera: Ø 111 mm \times 82.4 mm (Ø 4.4" \times 3.2")
Weight	Approx. 400 g (0.9 lb.)
Recommended Use	Surveillance
Color	White

10. WARRANTY AND SUPPORT

For warranty information, please refer to the warranty card included with your product or visit the official Hikvision website. Technical support can be obtained through your authorized Hikvision dealer or by contacting Hikvision customer service directly. Please have your product model number (DS-2CD1123G0E-I) and serial number ready when seeking support.