



# FortiCam MC51

## QuickStart Guide



September 25, 2023

## 2<sup>nd</sup> Edition

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# Package Contents

## Camera Box

- FortiCam camera
- QuickStart Guide
- Mounting template

## Accessory Box

- 4x screws and anchors



# Hardware Installation

**Caution:** Only remove the protective wrap from the lens once installation is complete to avoid damage and scratches.

Before installing surveillance cameras, design your system carefully. Verify location and coverage of each camera. Decide whether to run cables through the wall/ceiling (drilling required), or along the wall/ceiling through the notch on the base.

Install the camera in a protected location that is not easily accessible, and is away from impacts and heavy vibrations.

Hire qualified technicians to carry out maintenance and repairs. Disconnect power from the unit when performing maintenance.

The camera can be mounted to a wall, ceiling, or put on a desk.

## To mount the camera to a wall or ceiling

1. Separate the base cover at the back notch using a coin or a wide flathead screwdriver.



2. Push the rubber feet out with a screwdriver or with the supplied screws to expose the mounting holes.



3. Place the mounting template on the ceiling or wall and mark the drilling positions for each mounting screw.
4. Drill the marked holes and use the supplied plugs and screws to attach the camera to the surface. Some building

materials allow using the screws without plugs.



5. Connect the Ethernet cable and route it through the opening at the back of the base or directly through a hole in the wall or ceiling.
6. Click the base cover back into place.
7. Insert the SD card into the SD card slot at the bottom of the camera head, if onboard storage is preferred. Press the reset button on the camera after installation.
8. Adjust the camera direction and level it using the 3-axis joint.

# Status LEDs

**Note:** Status LEDs can be disabled through software.

Operation		
Color	Solid	Flashing
<b>Green</b>	Connected via Ethernet	Firmware updating
<b>Blue</b>	Connected via Wi-Fi	
<b>Cyan</b>	Connected via Bluetooth	Bluetooth pairing mode
<b>Amber</b>	Warning	
<b>Red</b>	Fatal error	

Bootup Sequence	
<b>Red</b>	Hardware initialization
<b>White</b>	Bootloader
<b>Cyan</b>	Bluetooth pairing mode initialized (3 flashes)
<b>Red/Green Blue</b>	Searching for connections (rotating)



# Buttons



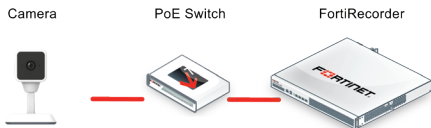
Reset

Reset Button Operation		
Press Time	LED	Action
< 5 seconds	No change in color	Reboot
5-10 seconds	Flashing Cyan	Reboot + Bluetooth pairing mode
> 10 seconds	Alternating Green/Blue	Factory reset+ Bluetooth pairing mode

# Camera Connection

**Caution:** This device complies with IEEE 802.3af PoE specification. Do not use any PoE injectors that are not IEEE 802.3af compliant as they may damage your device.

**Attention:** Cet appareil est conforme à la spécification PoE IEEE 802.3af. N'utilisez pas d'injecteurs PoE non conformes à la norme IEEE 802.3af car ils pourraient endommager votre appareil.



## To use FortiRecorder to connect the camera

1. Connect the Ethernet port of the camera to the FortiRecorder NVR via a PoE switch.  
The camera automatically gets its IP address from the DHCP server. The default IP address of the camera is 192.168.1.245.
2. Use the FortiRecorder GUI to configure the discovered camera.

For details or connection troubleshooting, see the [FortiRecorder Administration Guide](#).

## To use Bluetooth to connect the camera

Bluetooth pairing mode is active after a factory reset. You can also activate it via the camera reset button or software.

1. Power on or push the [reset button](#). Wait until the status LED indicates Bluetooth pairing mode.
2. Use the FortiRecorder Mobile app (available from the Google Play Store for Android or Apple App Store for iOS) to pair with the camera.
3. Configure the camera network settings.  
The camera should now be able to connect to FortiRecorder.

**Note:** Pairing is disabled upon connection to FortiRecorder. To re-enable Bluetooth, use the FortiRecorder GUI or the camera reset button.

# Technical Specifications

Camera	
<b>Format</b>	Mini Cube, day/night, indoor
<b>Sensor Type</b>	5 MP, 1/2.8" low light CMOS
<b>Iris</b>	F2.0/fixed
<b>Focal Length</b>	f=3.16 mm
<b>View Angle</b>	H:102°, V:72°, D:132°
<b>Minimum Illumination</b>	0.05 Lux (color) @ F2; 0.01 Lux (B/W) @ F2
<b>WDR</b>	HDR (>80 dB)
<b>Network Interface</b>	RJ-45 Ethernet 10/100 Mbps
<b>IRLED/IRC</b>	8+m/yes, dimmable
<b>3DNR</b>	Yes
<b>Streaming Protocol</b>	RTSP
<b>SD Card</b>	512 GB SD card (Included)
<b>Video Compression</b>	H.264/H.265 (HEVC)
<b>Audio</b>	Two-way, built-in microphone and speaker
<b>Image Resolution</b>	5 MP at 30 fps, 4 MP, 3 MP, 1080p, 720p 1024×768, 640×480, 320×240 px
<b>Mounting</b>	Wall, ceiling, table

<b>Wi-Fi/Bluetooth</b>	
<b>Number of Antennas</b>	1 internal
<b>Peak Antenna Gain</b>	2.18 dBi for 2.4 GHz, 4.5 dBi for 5 GHz
<b>Frequency of Radio 1</b>	2.4 GHz b/g/n/ or 5 GHz a/n/ac
<b>Bluetooth Features</b>	BLE V5.0 2.18 dBi @ 2.4 GHz

<b>Dimensions</b>	
<b>Height x Width x Length</b>	5.5 × 3.8 × 3.8”(139 × 96 × 96 mm)
<b>Weight</b>	0.53 lb. (240 g)

<b>Environment</b>	
<b>Power Required</b>	PoE (802.3af) class 3
<b>Power Consumption (AVG)</b>	< 10 W
<b>Operating Temperature</b>	-40 to 104°F (-10 to 40°C)
<b>Humidity</b>	5–90% non-condensing

<b>Compliance</b>	
FCC 15B, FCC 15C, FCC 15E, ICES-003, RSS-247, CE, UL/CB 62368-1, RCM, ONVIF-Profile S/G/T	

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La reistruzione ti permette di usufruire di:

- Supporto tecnico
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- Protección contra ataques

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# Cautions and Warnings

## Environmental Specifications

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)

Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

## Safety

**Caution:** This equipment is to be used in a Network Environment 0 per IECTR 62101. This product is connected only to PoE networks without routing to the outside plant.

**Attention:** Ce matériel doit être utilisé dans un Environnement Réseau 0 par IECTR 62101. Ce produit est uniquement connecté aux réseaux PoE sans installation externe de routage.

This product is intended to be supplied by a Listed Direct Plug-In Power Unit marked LPS or Class 2 and rated 12 Vdc, 1 A or by 48 Vdc from PoE source.

Le produit doit être alimenté par un bloc d'alimentation à courant continu homologué UL de 12 Vdc, 1 A nominal marqué LPS ou Class 2 ou par une source d'alimentation par Ethernet de 48 Vdc (PoE).

# Regulatory Notices

## **Federal Communication Commission (FCC) – USA**

This device complies with Part 15 of 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.

This equipment has been tested and found to 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 residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it 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.

**WARNING:** Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**Caution:** Operation of this device is restricted to indoor use only.

For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment.

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

## **Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada**

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## **Innovation, Science and Economic Development (ISED) – Canada**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.



Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.

Le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz)

doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and

Le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;

The worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

Les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élevation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.

**Caution:** The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

**Attention:** Le dispositif de la bande 5150-5250 MHz est réservé à un usage intérieur afin de réduire l'interférence nuisible potentielle aux systèmes mobiles par satellite co-canal.

**Caution:** The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

**Attention:** Le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250-5 350 MHz et 5 470-5725 MHz doit se conformer à la limite de p.i.r.e.; le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

This radio transmitter (IC: 7280B-111I01 / Model: FCM-MC51) has been approved by ISED to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (IC: 7280B-111I01 / Model: FCM-MC51) a été approuvé par ISED pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

This device and its antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with IC multi-transmitter product procedures.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.

Antenna Type	PIFA
Antenna Connector	I-PEX
Peak Antenna Gain	2.18 dBi for 2.4 GHz, 4.5 dBi for 5 GHz

Antenna No.	1
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## European Conformity (CE) - EU

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



The product transmits within the frequency ranges and less than or equal to the power listed below:

2402-2480 MHz less than 20 dBm

2412-2472 MHz less than 20 dBm

5180-5240 MHz less than 23 dBm

5260-5320 MHz less than 23 dBm \*

5500-5700 MHz less than 30 dBm \*

Note: \* Only with DFS bands certification.

This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

Simplified EU Declaration of Conformity

This declaration is only valid for Fortinet products (including combinations of software, firmware and hardware) provided by Fortinet or Fortinet's authorized partners to the end-customer directly for use within the EU or countries that have implemented the EU Directives and/or spectrum regulation. Any Fortinet products not obtained directly from Fortinet or Fortinet's authorized partners may not comply with EU Directives and Fortinet makes no assurances for such products.

### Български

Този продукт е в съответствие с Директива 2014/53/ЕС.

### Česky

Tento produkt je v souladu se směrnicí 2014/53/EU.

### Dansk

Denne produkt er i overensstemmelse med direktiv 2014/53/EU.

### Deutsch

Dieses Produkt entspricht der Richtlinie 2014/53/EU.

### Eesti

See toode vastab direktiivile 2014/53/EL.

### English

This product is in compliance with Directive 2014/53/EU.

### Español

Este producto cumple con la Directiva 2014/53/UE.

### Ελληνική

Το προϊόν αυτό συμμορφώνεται με την Οδηγία 2014/53/ΕΕ.

### Français

Ce produit est conforme à la Directive 2014/53/UE.

### Hrvatski

Ovaj proizvod je u skladu s Direktivom 2014/53/EU.

**Italiano**

Questo prodotto è conforme alla Direttiva 2014/53/EU.

**Latviski**

Šis produkts atbilst Direktīvai 2014/53/ES.

**Lietuvių**

Šis gaminys atitinka direktyvą 2014/53/ES.

**Malti**

Dan il-prodott huwa konformi mad-Direttiva 2014/53/UE.

**Magyar**

Ez a termék megfelel a 2014/53/EU irányelvnek.

**Nederlands**

Dit product is in overeenstemming met Richtlijn 2014/53/EU.

**Norsk**

Denne produktet er i samsvar med direktiv 2014/53/EU.

**Polski**

Ten produkt jest zgodny z dyrektywą 2014/53/UE.

**Português**

Este produto está em conformidade com a Diretiva 2014/53/EU.

**Rumunski**

Acest produs este în conformitate cu Directiva 2014/53/UE.

**Slovensky**

Tento produkt je v súlade so smernicou 2014/53/EÚ.

**Slovensko**

Ta izdelek je v skladu z Direktivo 2014/53/EU.

**Suomi**

Tämä tuote on direktiivin 2014/53/EU mukainen.

**Svenska**

Denna produkt överensstämmer med direktiv 2014/53/EU.

**Note:** The full Declaration of Conformity for this product is available in the link below:

<https://site.fortinet.com/ProductRegulatory/EU>

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range in the following countries:

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK (NI)

## UK Conformity Assessed (UKCA) – United Kingdom

The product transmits within the frequency ranges and less than or equal to the power listed below:

2402-2480 MHz less than 20 dBm

2412-2472 MHz less than 20 dBm

5180-5240 MHz less than 23 dBm

5260-5320 MHz less than 23 dBm \*

5500-5700 MHz less than 30 dBm \*

**Note:** \* Only with DFS bands certification.

This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

This product is in compliance with Statutory Instrument 1206 Radio Equipment Regulations 2017

The full Declaration of Conformity for this product is available in the link below:

<https://site.fortinet.com/ProductRegulatory/UK>

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range in the following countries:





