

# MACTRA™

## MPX5F0F / 1F / 2F

5MP Network Bullet Camera | Fixed Focus



### Core



5MP  
Camera



Hybrid  
Light



60m  
Night Vision



PoE  
Powered



IP67 | IK10  
RATED



Secure  
Boot



# Technical Specifications

The **MACTRA 5MP Network Bullet Camera** delivers sharp 5MP video, robust durability, and seamless integration for reliable 24/7 surveillance in any environment

## CAMERA

|                         |                                                       |
|-------------------------|-------------------------------------------------------|
| Sensor Resolution       | 5MP                                                   |
| Sensor Type             | CMOS                                                  |
| Sensor Size             | 1/2.78"                                               |
| Minimum Illumination    | Color = 0.01 lux, Monochrome = 0 lux                  |
| Day/Night               | Auto, Manual Day Mode / Night Mode                    |
| Camera Adjustable Angle | Pan 0° to 360°<br>Tilt 0° to 90°<br>Rotate 0° to 360° |

## LENS

|               | MPX5F0F                                        | MPX5F1F                                       | MPX5F2F                                      |
|---------------|------------------------------------------------|-----------------------------------------------|----------------------------------------------|
| Focal Length  | 2.8 mm                                         | 3.6 mm                                        | 6.0 mm                                       |
| Field of View | HFOV : 104.3°<br>VFOV : 57.9°<br>DFOV : 121.8° | HFOV : 86.6°<br>VFOV : 46.2°<br>DFOV : 103.4° | HFOV : 54.2°<br>VFOV : 29.7°<br>DFOV : 62.9° |
| Lens Mount    | M12x0.5                                        |                                               |                                              |
| Focus         | Fixed                                          |                                               |                                              |
| Aperture      | F1.6                                           |                                               |                                              |
| Iris Type     | Fixed                                          |                                               |                                              |

## ILLUMINATOR

|                          |                                   |
|--------------------------|-----------------------------------|
| LED Type*                | IR LED + Hybrid LEDs (IR + White) |
| No. of LEDs              | 4 IR LED + 2 Hybrid LED           |
| IR Distance              | Up to 60 meter                    |
| IR Wavelength            | ~850 nm                           |
| IR & White Light Control | Auto, Manual (ON/OFF/Adjustable)  |

## VIDEO & AUDIO

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Stream Capability        | Triple Stream                                                                                                                            |
| Stream Profiles          |                                                                                                                                          |
| <b>Main Stream</b>       | 5MP (2592 × 1944)@1-25/30fps,<br>4MP/2K (2560 × 1440)@1-25/30fps,<br>2MP/FHD (1920 × 1080)@1-25/30fps,<br>1MP/HD (1280 × 720)@1-25/30fps |
| <b>Sub Stream</b>        | 1MP/HD (1280 × 720)@1-25/30fps,<br>D1/480P (720 × 480)@1-25/30fps,<br>VGA/360P (640 × 360)@1-25/30fps                                    |
| <b>Preview Stream</b>    | 1MP/HD (1280 × 720)@1-25/30fps,<br>D1/480P (720 × 480)@1-25/30fps,<br>VGA/360P (640 × 360)@1-25/30fps                                    |
| Video Standards          | PAL/NTSC                                                                                                                                 |
| Video Compression        | H.265, H.264, MJPEG                                                                                                                      |
| Video Bitrate Type       | 128 kbps-16Mbps                                                                                                                          |
| Video Bitrate            | CBR                                                                                                                                      |
| Region of Interest (ROI) | Supported                                                                                                                                |
| Audio Bit Rate           | 64 Kbps                                                                                                                                  |
| Audio Codec              | G.711/PCM                                                                                                                                |
| OSD                      | Supported                                                                                                                                |

## IMAGE

|                    |                                                                              |
|--------------------|------------------------------------------------------------------------------|
| Image Settings     | Brightness, Contrast, Saturation, Hue, Sharpness, Lens Distortion Correction |
| Wide Dynamic Range | ~120 dB                                                                      |
| S/N Ratio          | 50 dB                                                                        |
| Noise Reduction    | 2D/3D NR                                                                     |
| Image Rotation     | Mirror, Flip, Rotation ( 0°, 90°, 180°, 270°)                                |

## INTERFACE

|                      |                                                    |
|----------------------|----------------------------------------------------|
| Ethernet Interface   | 1 X RJ45 10 M/100 M<br>Self-Adaptive Ethernet Port |
| Power Reset Key      | Available                                          |
| Built in Microphone* | Available                                          |
| Relay                | 2 x Channel                                        |
| RS485                | 1 x Channel                                        |
| GPIO                 | 4 x GPIO On Pigtail                                |
| SD Card*             | Upto 512GB                                         |

## EVENT

|                   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| Alarm Event       | SD Card Connect/Disconnect,<br>SD Card Full, Wrong Login,<br>Box Tamper Detection |
| Recording Type    | General, Event, Alarm,<br>Configurable Recording Streams                          |
| Recording Storage | SD Card, FTP/FTPS                                                                 |

## AI ANALYTICS

|            |                                                                                           |
|------------|-------------------------------------------------------------------------------------------|
| AI Enabled | Motion Detection<br>Visual Tamper Detection<br>Line Crossing Detection<br>People Counting |
| Edge AI*   |                                                                                           |

## SECURITY

|                        |                                                                                    |
|------------------------|------------------------------------------------------------------------------------|
| Secure Boot            | Supported                                                                          |
| Security               | User account and password protection,<br>HTTPS, TLS 1.3/1.2, , SSH/Telnet Disabled |
| HTTPS Streaming        | Using TLS 1.3/1.2                                                                  |
| Network Authentication | Yes, 802.1x Network authentication                                                 |
| Firmware Upgrade       | Supported                                                                          |
| Antirollback Firmware  | Supported                                                                          |
| Web Login Protection   | Supported                                                                          |
| SD Card Encryption     | Supported                                                                          |
| Reader Interface       | Secure Channel Supported                                                           |

## NETWORKS

|                     |                                                                                                                         |
|---------------------|-------------------------------------------------------------------------------------------------------------------------|
| Supported Protocols | TCP/IP, HTTP, HTTPS, DHCP, SRTP/RTSPS,<br>RTP/RTSP, SMTP, NTP, TLS/SSL, FTP/FTPS,<br>ICMP, IGMP, ARP, UDP, 802.1x, SNMP |
| Interoperability    | ONVIF Profile S/G/T                                                                                                     |
| Max. Users Access   | 10 Users                                                                                                                |
| Web Support         | Edge, Chrome, Mozilla                                                                                                   |

Note: \* For Selected Variants

# Technical Specifications

## ELECTRICAL

|                   |                        |
|-------------------|------------------------|
| Power Supply      | 12V(DC); 802.3af (PoE) |
| Power Consumption | ~ 14W                  |

## MECHANICAL

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| Body Material     | Metal Casting<br>(Die Casting Aluminum with<br>Powder Coating), PC |
| Product Dimension | 275 × 110 × 110 mm (L × W × H)                                     |
| Product Weight    | ~1475gms                                                           |
| Body Color        | Infinity White                                                     |

## ENVIRONMENT

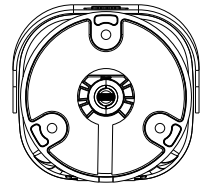
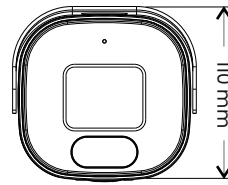
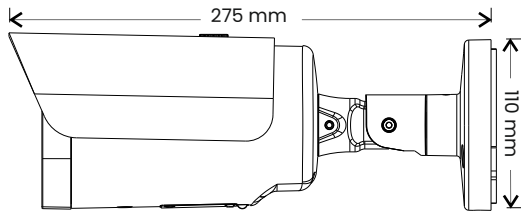
|                       |                                   |
|-----------------------|-----------------------------------|
| Humidity              | Less than 95% RH (Non-Condensing) |
| Operating Temperature | -20°C to 70°C                     |
| Storage Temperature   | -30°C to 60°C                     |
| Ingress Protection    | IP66, IP67, NEMA 4X               |
| Impact Resistance     | IK10                              |

## REGULATORY

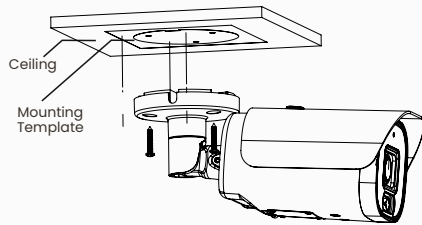
|                   |                                           |
|-------------------|-------------------------------------------|
| Emissions         | FCC PART 15                               |
| Certificates      | STQC, BIS, CE                             |
| RoHS              | Yes                                       |
| REACH             | Yes                                       |
| Country of Origin | India                                     |
| NDAA*             | Compliant                                 |
| Safety            | UL 62368-1,<br>EN 62368-1,<br>IEC 62368-1 |

Note: \* For Selected Variants

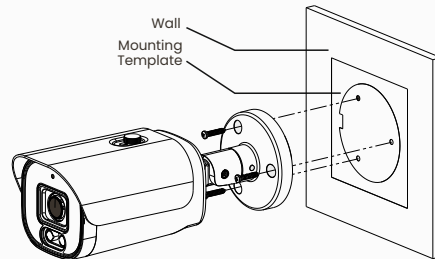
## DIMENSIONS (MM)



### Ceiling Mount

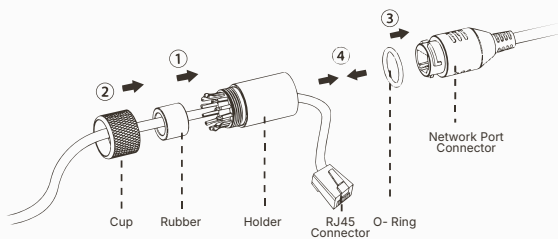


### Wall Mount

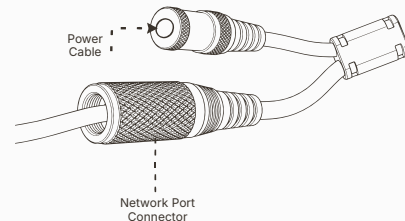


## ACCESSORY

### Connector Kit



### Power Cable



## Certifications & Environmental Standards & Compliance



# Ordering Details

5MP Network Bullet Camera **Core Series**

Key Features



SD Card



Hybrid/IR



Mic



Edge AI



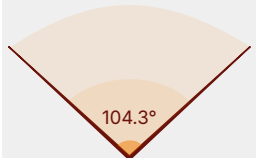
NDAA



NEMA 4X

2.8 mm Fixed Lens

**Wide Area Coverage**



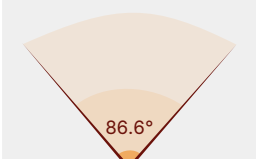
104.3°

Field of View

| Description                                                                                                                                                                                                                                                       | Model-Part Code         |  |  |  |  |  |  | Key Features                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>5MP NETWORK BULLET CAMERA</b> <ul style="list-style-type: none"><li>• <b>Image Sensor:</b> 1/2.78" CMOS</li><li>• <b>Lens:</b> 2.8 mm Fixed Lens</li><li>• <b>Reader Interface:</b> Secure Channel Supported</li><li>• <b>Finish:</b> Infinity White</li></ul> | <b>MPX5F0F-F02IU2RD</b> | -                                                                                 | -                                                                                  | -                                                                                   | -                                                                                   | -                                                                                   | -                                                                                   | IR LEDs, On-device AI Enabled, Secure Channel                                                                     |
|                                                                                                                                                                                                                                                                   | <b>MPX5F0F-F01IU1RA</b> | ●                                                                                 | -                                                                                  | ●                                                                                   | ●                                                                                   | -                                                                                   | -                                                                                   | IR LEDs, On-device Edge AI Supports, Secure Channel, SD Card Supported, Built-In-Mic                              |
|                                                                                                                                                                                                                                                                   | <b>MPX5F0F-F02HU2PD</b> | -                                                                                 | ●                                                                                  | -                                                                                   | -                                                                                   | -                                                                                   | -                                                                                   | IR LEDs + Hybrid LED, On-device AI Enabled, Secure Channel                                                        |
|                                                                                                                                                                                                                                                                   | <b>MPX5F0F-F01HU1PA</b> | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | IR LEDs + Hybrid LED, On-device Edge AI Supports, Secure Channel, SD Card Supported, Built-In-Mic, NDAA & NEMA 4X |

3.6 mm Fixed Lens

**Balanced Surveillance**



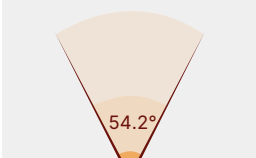
86.6°

Field of View

| Description                                                                                                                                                                                                                                                       | Model-Part Code         |  |  |  |  |  |  | Key Features                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>5MP NETWORK BULLET CAMERA</b> <ul style="list-style-type: none"><li>• <b>Image Sensor:</b> 1/2.78" CMOS</li><li>• <b>Lens:</b> 3.6 mm Fixed Lens</li><li>• <b>Reader Interface:</b> Secure Channel Supported</li><li>• <b>Finish:</b> Infinity White</li></ul> | <b>MPX5F1F-F12IU2RD</b> | -                                                                                  | -                                                                                   | -                                                                                    | -                                                                                    | -                                                                                    | -                                                                                    | IR LEDs, On-device AI Enabled, Secure Channel                                                                     |
|                                                                                                                                                                                                                                                                   | <b>MPX5F1F-F11IU1RA</b> | ●                                                                                  | -                                                                                   | ●                                                                                    | ●                                                                                    | -                                                                                    | -                                                                                    | IR LEDs, On-device Edge AI Supports, Secure Channel, SD Card Supported, Built-In-Mic                              |
|                                                                                                                                                                                                                                                                   | <b>MPX5F1F-F12HU2PD</b> | -                                                                                  | ●                                                                                   | -                                                                                    | -                                                                                    | -                                                                                    | -                                                                                    | IR LEDs + Hybrid LED, On-device AI Enabled, Secure Channel                                                        |
|                                                                                                                                                                                                                                                                   | <b>MPX5F1F-F11HU1PA</b> | ●                                                                                  | ●                                                                                   | ●                                                                                    | ●                                                                                    | ●                                                                                    | ●                                                                                    | IR LEDs + Hybrid LED, On-device Edge AI Supports, Secure Channel, SD Card Supported, Built-In-Mic, NDAA & NEMA 4X |

6.0 mm Fixed Lens

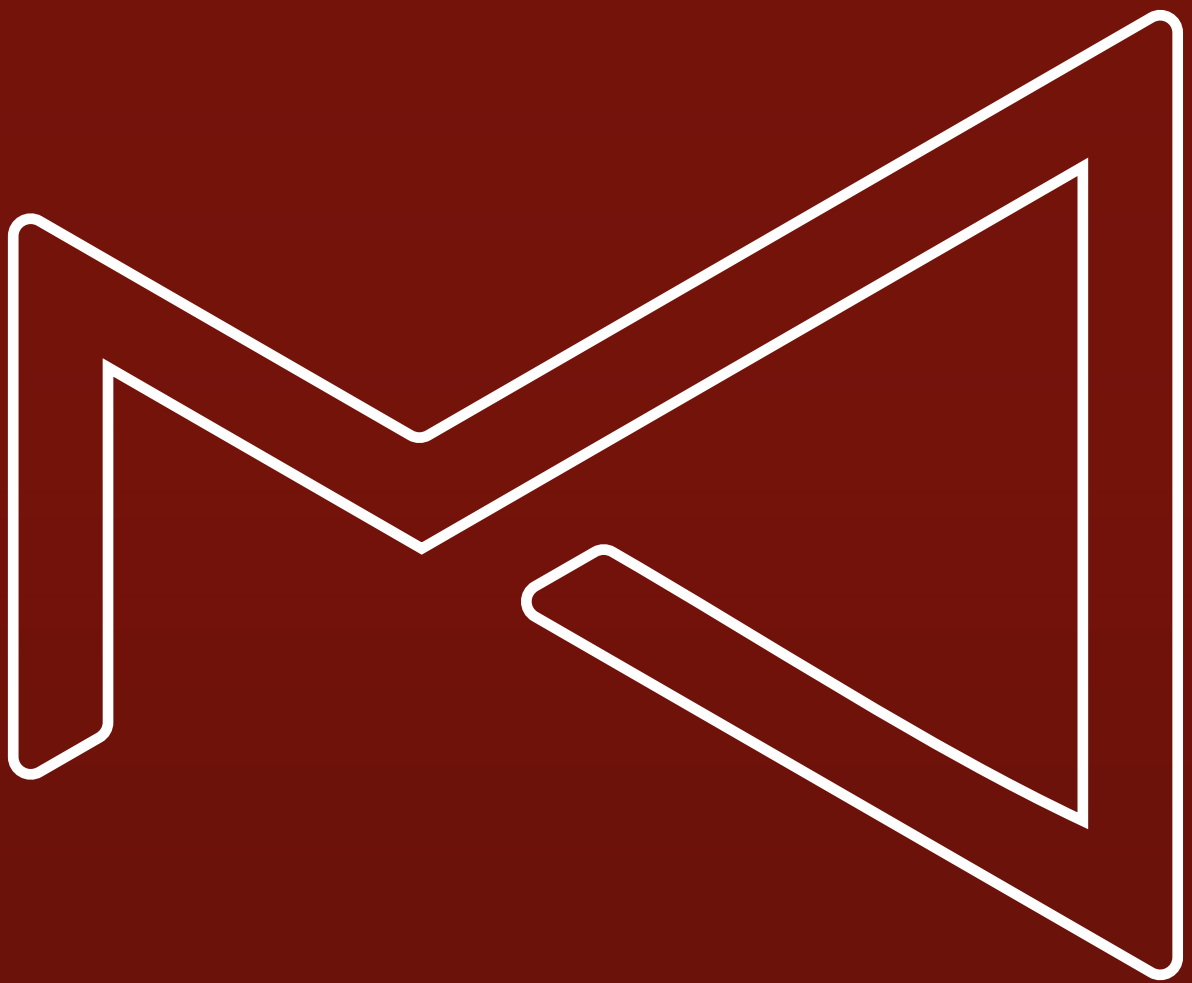
**Long-Distance Viewing**



54.2°

Field of View

| Description                                                                                                                                                                                                                                                       | Model-Part Code         |  |  |  |  |  |  | Key Features                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>5MP NETWORK BULLET CAMERA</b> <ul style="list-style-type: none"><li>• <b>Image Sensor:</b> 1/2.78" CMOS</li><li>• <b>Lens:</b> 6.0 mm Fixed Lens</li><li>• <b>Reader Interface:</b> Secure Channel Supported</li><li>• <b>Finish:</b> Infinity White</li></ul> | <b>MPX5F2F-F22IU2RD</b> | -                                                                                   | -                                                                                    | -                                                                                     | -                                                                                     | -                                                                                     | -                                                                                     | IR LEDs, On-device AI Enabled, Secure Channel                                                                     |
|                                                                                                                                                                                                                                                                   | <b>MPX5F2F-F21IU1RA</b> | ●                                                                                   | -                                                                                    | ●                                                                                     | ●                                                                                     | -                                                                                     | -                                                                                     | IR LEDs, On-device Edge AI Supports, Secure Channel, SD Card Supported, Built-In-Mic                              |
|                                                                                                                                                                                                                                                                   | <b>MPX5F2F-F22HU2PD</b> | -                                                                                   | ●                                                                                    | -                                                                                     | -                                                                                     | -                                                                                     | -                                                                                     | IR LEDs + Hybrid LED, On-device AI Enabled, Secure Channel                                                        |
|                                                                                                                                                                                                                                                                   | <b>MPX5F2F-F21HU1PA</b> | ●                                                                                   | ●                                                                                    | ●                                                                                     | ●                                                                                     | ●                                                                                     | ●                                                                                     | IR LEDs + Hybrid LED, On-device Edge AI Supports, Secure Channel, SD Card Supported, Built-In-Mic, NDAA & NEMA 4X |



**MACTRA™**

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