# **Em**Power IP Camera Series

# TM-BMBL-F7080-PA















# Thermal Value Hybrid Bullet Network Camera

#### **Features**

- 256×192 VOx uncooled thermal sensor technology
- Athermalized Lens (thermal camera), Focus-free
- ♦ 1/2.8" 2Megapixel progressive scan Sony cmos
- ♦ Support ROI, Motion Detection, Color Paletes
- Support measure body temperature,
- Measurement Accuracy: Max (±0.3°C, with black-body)
- Active deterrence with white light & siren
- ♦ Built-in 2/2 alarm in/out
- ♦ Micro SD memory, IP67, PoE

## System Overview

Featuring a dual lens, fixed bullet camera, this series provides an all-in-one solution for capturing video surveillance for indoor and outdoor applications. Together with Thermal and Visible Technology, the camera is the perfect solution for dark, small area monitoring applications. The series combines one thermal camera for monitoring in total darkness and one visible camera with Smart IR for confirming details.

### **Functions**

#### **Uncooled Vox Technology**

EmPower thermal cameras use uncooled Vox sensor technology. Because of small size and better performance, it's cost-effective solution for thermal security.

#### **High Sensitvity**

High thermal sensitvity(<50mK) makes cameras capture more image details and temperature difference information.

#### Active Deterrence

Active deterrence is to warn off intruders actively with white light and siren even before users are aware of the incidence. Once an intrusion is detected, the white light will turn on and the siren will buzzer to alert the intruder. The white light and the content of siren is configurable.



# **Em**Power IP Camera Series

# TM-BMBL-F7080-PA

Image Sensor Uncooled VOx Microbolometer  Effective Pixels 256(H)x192(V)  Pixel Size 12um  Thermal Sensitivity (NETD) <50mK@f/1.1  Spectral Range 8~14um  Image Setting Brightness/Sharpness/ROI/AGC/FFC/3D DNR  Color Palettes 18(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2.etc)  Thermal Lens  Lens Type Fixed  Focus Control Athermalized, Focus-free  Focal Length 7.1mm  Angle of View V: 18*  Visible Camera  Image Sensor 1/2.8" 2M CMOS  Effective Pixels 1920(H)x1080(V)  Electronic Shutter Speed 1/1 ~ 1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Technical Specification		
Effective Pixels 256(H)x192(V)  Pixel Size 12um  Thermal Sensitivity (NETD) <50mK@f/1.1  Spectral Range 8~14um  Image Setting Brightness/Sharpness/ROI/AGC/FFC/3D DNR  Color Palettes 18(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2.etc)  Thermal Lens  Lens Type Fixed  Focus Control Athermalized, Focus-free  Focal Length 7.1mm  Angle of View V: 18°  Visible Camera  Image Sensor 1/2.8" 2M CMOS  Effective Pixels 1920(H)x1080(V)  Electronic Shutter Speed 1/1~1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Thermal Camera		
Pixel Size  Thermal Sensitivity (NETD)  Spectral Range  8°14um  Image Setting  Brightness/Sharpness/ROI/AGC/FFC/3D DNR  18(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2.etc)  Thermal Lens  Lens Type  Fixed  Focus Control  Athermalized, Focus-free  Focal Length  7.1mm  Angle of View  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  1R On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Image Sensor	Uncooled VOx Microbolometer	
Thermal Sensitivity (NETD)  Spectral Range  8~14um  Image Setting  Brightness/Sharpness/ROI/AGC/FFC/3D DNR  Color Palettes  18(Whitehot/Blackhot/ironrow/lcefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2 .etc)  Thermal Lens  Lens Type  Fixed  Focus Control  Athermalized, Focus-free  Focal Length  7.1mm  Angle of View  V: 18°  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  35m  IR On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Effective Pixels	256(H)x192(V)	
Spectral Range  Image Setting  Brightness/Sharpness/ROI/AGC/FFC/3D DNR  18(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2.etc)  Thermal Lens  Lens Type  Fixed  Focus Control  Athermalized, Focus-free  Focal Length  7.1mm  Angle of View  V: 18°  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  I/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  1R On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Pixel Size	12um	
Image Setting  Brightness/Sharpness/ROI/AGC/FFC/3D DNR  18(Whitehot/Blackhot/Ironrow/Icefire/ Fusion/Rainbow/Globow/Iconbow1/ Iconbow2 .etc)  Thermal Lens  Lens Type  Fixed  Focus Control  Athermalized, Focus-free  Focal Length  7.1mm  Angle of View  H: 24° V: 18°  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  1R On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Thermal Sensitivity (NETD)	<50mK@f/1.1	
Thermal Lens  Lens Type Fixed  Focus Control Athermalized, Focus-free  Focal Length 7.1mm  Angle of View V: 18°  Visible Camera  Image Sensor 1/2.8" 2M CMOS  Effective Pixels 1920(H)x1080(V)  Electronic Shutter Speed 1/1 ~ 1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Spectral Range	8~14um	
Color Palettes  Fusion/Rainbow/Globow/Iconbow1/ Iconbow2 .etc)  Thermal Lens  Lens Type  Fixed  Focus Control  Athermalized, Focus-free  Focal Length  7.1mm  Angle of View  H: 24° V: 18°  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  IR On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Image Setting	Brightness/Sharpness/ROI/AGC/FFC/3D DNR	
Lens Type Fixed  Focus Control Athermalized, Focus-free  Focal Length 7.1mm  Angle of View H: 24° V: 18°  Visible Camera  Image Sensor 1/2.8" 2M CMOS  Effective Pixels 1920(H)x1080(V)  Electronic Shutter Speed 1/1 ~ 1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Color Palettes	Fusion/Rainbow/Globow/Iconbow1/	
Focus Control Athermalized, Focus-free  Focal Length 7.1mm  Angle of View H: 24° V: 18°  Visible Camera Image Sensor 1/2.8" 2M CMOS  Effective Pixels 1920(H)x1080(V)  Electronic Shutter Speed 1/1 ~ 1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens Focal Length 8mm	Thermal Lens		
Focal Length  7.1mm  Angle of View  H: 24° V: 18°  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  IR On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Lens Type	Fixed	
Angle of View  H: 24° V: 18°  Visible Camera  Image Sensor  1/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  18 On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Focus Control	Athermalized, Focus-free	
Angle of View  V: 18°  Visible Camera  Image Sensor  I/2.8" 2M CMOS  Effective Pixels  1920(H)x1080(V)  Electronic Shutter Speed  1/1 ~ 1/30,000s  Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance  IR On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Focal Length	7.1mm	
Image Sensor1/2.8" 2M CMOSEffective Pixels1920(H)x1080(V)Electronic Shutter Speed1/1 ~ 1/30,000sMin. IlluminationColor: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)IR Distance35mIR On/Off ControlAuto/ManualIR LEDs1Visible LensFocal Length8mm	Angle of View		
Effective Pixels 1920(H)x1080(V)  Electronic Shutter Speed 1/1 ~ 1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Visible Camera		
Electronic Shutter Speed 1/1 ~ 1/30,000s  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Image Sensor	1/2.8" 2M CMOS	
Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; 0Lux (IR on)  IR Distance  35m  IR On/Off Control  Auto/Manual  IR LEDs  1  Visible Lens  Focal Length  8mm	Effective Pixels	1920(H)x1080(V)	
IR Distance 35m  IR On/Off Control Auto/Manual  IR LEDs 1  Visible Lens  Focal Length 8mm	Electronic Shutter Speed	1/1 ~ 1/30,000s	
IR On/Off Control Auto/Manual IR LEDs 1 Visible Lens Focal Length 8mm	Min. Illumination	Color: 0.002Lux; B/W: 0.0002Lux; 0Lux (IR on)	
IR LEDs 1 Visible Lens Focal Length 8mm	IR Distance	35m	
Visible Lens Focal Length 8mm	IR On/Off Control	Auto/Manual	
Focal Length 8mm	IR LEDs	1	
	Visible Lens		
Mary American	Focal Length	8mm	
iviax Aperture F1.9	Max Aperture	F1.9	
Angle of View H: 40° V: 22°	Angle of View	H: 40° V: 22°	

Temperature Measurement		
Measurement Range	30°C ~+45°C	
Measurement Accuracy	Max ( $\pm 0.3$ °C, $\pm 0.3$ %) with black-body Max ( $\pm 1$ °C, $\pm 1$ %) without black-body	
Measurement Mode	Spot/Line/Area	
Measurement Rule	Spot: 12 Line: 12 Area: 12 Support 12 rules simultaneously	

Video	
Compression	H.265/H.264/MJPEG
Frame Rate	Main Stream: Thermal: 1280*960/1024*768/640*480/256*192@25fps Visible: 1080P (default)/720P@25fps Sub Stream:
	Thermal: 640*480/256*192@25fps Visible: CIF(default)/D1@25fps
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 640 ~ 8192Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC/HLC/WDR
White Balance	Auto, Manual
Noise Reduction	Ultral DNR
Motion Detetion	Off/On (4 zone, Rectangle)
Region of Interest	Off/On (4 zone)
Electronic Image Stabilization (EIS)	NA
Defog	Off/On
Flip	180°
Mirror	Off/On
Privacy Masking	Off/On (4 area, Rectangle)
Audio	
Compression	G.711a/G.711Mu/AAC
Network	
Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF Profile S & G, API
Streaming Method	Unicast/Multicast
Max. User Access	10 Users/20 Users
Edge Storage	Micro SD (128GB) Memory status display (Normal/Error/Active/ Formatting/Lock), NAS (Network Attached Storage), Local PC for instant recording
Web Viewer	<ie11, <chrome45,="" <firefox52<="" td=""></ie11,>
Management Software	Unisight VMS
Smart Phone	Android, IOS



# **Em**Power IP Camera Series

# TM-BMBL-F7080-PA

Certifications	
Certification	CE (EN 60950:2000) FCC (FCC Part 15 SubpartB )
Interface	
Video Interface	1.0Vp-p/75 $\Omega$ , PAL/NTSC (HDCVI Optional)
Audio Interface	In/Out 1/1
RS485	Support
Alarm	2/2 In/Out
Electrical	
Power Supply	DC 12V/PoE
Power Consumption	12W (Max)
Environmental	
Operating Condition	10°C ~+35°C
Strorage Conditions	10°C ~ +35°C/Less than 95% RH
Ingress Protection	IP67
Construction	
Casing	Metal
Dimensions	279.9mm × 103.8mm× 95.8mm(With bracket)
Weight	< 1.4Kg

### Accessories(Optional)





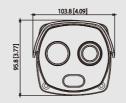


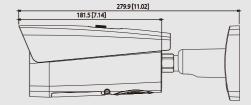
**PFA152-E**Pole Mount

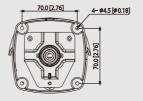


**PFA151**Corner Mount

### Dimensions(mm/inch)







### Side view

