

P2 Series | IP Box Camera

P2G1052X 5MP Day & Night Vari-Focal Box IP Camera

www.meritlilin.com















- ▶ 5 megapixel CMOS image sensor
- 5MP H.265/HEVC and H.264/AVC high-performance video compression
- ► Simultaneous streaming of H.265 and H.264 encoded streams
- Smart H.264/H.265 supported
- 3D noise reduction (MCTF)
- 2D WDR function
- HDR function up to 100dB
- Digital PTZ supported
- IVS supported
- Tampering / Audio / Alarm / Motion / Network lost detection event function
- SMART event
- ▶ Day & Night (IR cut removable)
- Built-in highly sensitive microphone
- ▶ 2-way audio supported
- Digital I/O: 1 in, 1 out
- ONVIF Profile S and Profile T supported



 $70(W) \times 50(H) \times 110(D) mm$

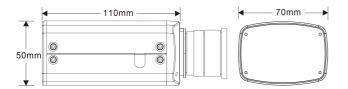
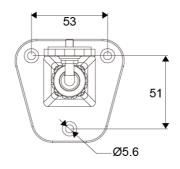


Diagram of mounting holes:(unit in mm)



Day and Night Operations via Removal of the IR-cut filter

P2G1052X camera was designed using a mechanical IR cut filter for increased IR sensitivity resulting in improved night time images. The removable IR-cut filter allows day and night operations even in the low lux condition providing outstanding vision



Sense Up+

Deliver outstanding video outputs in poor light conditions without experiencing motion blur. You can see video clearly even during nighttime without sufficient lighting support



3D Noise Reduction

Remove noise from a signal. Suppressing noise in an image in low light conditions and able to retain quality videos at the same time



Wide Dynamic Range (WDR)

Wide Dynamic Range (WDR) displays details of both the brightest and darkest areas. WDR can extend image visibility under high contrast lighting scenes and improve image quality



High Dynamic Range

An High Dynamic Range (HDR) image is made by taking 3 frames of the same scene and each at different shutter speeds to display details of both the darkest and brightest areas. HDR can extend image visibility under high contrast lighting scenes and improve image quality



Privacy Masking

Privacy Masking is a feature used to protect personal privacy by concealing private areas in the camera's field of view. Doorways and house windows for example are not subject to surveillance



Video Security App

Available on Android and iOS - LILINViewer app provides security alarm push notification, real-time live viewing, and remote video playback





SD Cards in Sync with NAV Software

P2G1052X camera with built-in Micro SD/SDHC/SDXC card slots can provide redundant video viewing and recording. You can synchronize an SD card with LILIN VMS (Video Management Software) - Navigator (NAV)







Alarm Detection

Alarm Detection is designed to provide the electronic detection of intruders



Audio Detection

With Audio Detection technology, an alarm is triggered based on ambient sound conditions as the threshold



Motion Detection

Detect motion and capture the event. Motion in the selected area will provoke an alert.



Tamper Detection

Automatically detects camera sabotage or failure. Detects any attempts to tamper with the camera - partially or completely blocking its lens or field of view















Technical Specifications

5MP Day & Night Vari-Focal Box IP Camera		
Video Performance		
Model	P2G1052X	
Min. Illumination	Color: 0.04 Lux at F1.4; B/W: 0.01 Lux at F1.4	
Power and Environmen	t	
Starting Temperature	0°C – +50°C (32°F – 122°F)	
Operating	-20°C - +50°C (-4°F - 122°F)	
Temperature Storage Temperature	-25°C – +60°C (-13°F – 140°F)	
Humidity	0% – 90% RH	
Power Supply	DC12V ±10% / PoE (IEEE 802.3af compliant)	
Power Consumption	DC12V, 5W / PoE, 6W	
Lens / Night Vision (Inf	rared LED)	
Focal Length	2.8mm – 12mm	
Iris	F1.4	
Iris Control	DC-IRIS	
Angle of View	94.0° (W) $ 34.2$ (T) (H) 68.0° (W) $ 4.3$ (T) (V) 124.0° (W) $ 42.3$ (T) (D)	
Sensor		
Pick Up Element	1/2.8" CMOS image sensor	
Effective Pixels	2616 (H) × 1964 (V) = 5,137,824 (Pixels)	
Certifications		
CE	Yes, EMI CLASS B	
FCC	Yes, EMI CLASS B	
PC Requirements		
CPU	Intel® Core™ i7 or higher grade	
OS	Windows 7 or above	
RAM	8GB or above, Dedicated Graphics Card	
Web Browser	Microsoft® Internet Explorer® 9 or above	
Mechanical		
Dimension	70(W) × 50(H) × 110(D) mm	
Weight	380g	
Casing Material	Aluminum allov	
•	Aluminum alloy	
Input / Output	Administration alloy	
-	Mono, 1.98 Vp-p , 2.2K Ω , 3.5mm phone jack	
Input / Output		
Input / Output Audio Input / Output Audio	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay	
Input / Output Audio Input / Output	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone	
Input / Output Audio Input / Output Audio	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW),	
Input / Output Audio Input / Output Audio Alarm Input / Output	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG,	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression Video Streaming	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth 4 128Kbps – 12Mbps; Frame rate and bit rate controllable	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression Video Streaming	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Streaming Video Streaming Number of Streams	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth 4 128Kbps – 12Mbps; Frame rate and bit rate controllable on-the-fly; VBR / CBR / GOP supported, Fixed bitrate,	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression Video Streaming Number of Streams Video Bitrate	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth 4 128Kbps – 12Mbps; Frame rate and bit rate controllable on-the-fly; VBR / CBR / GOP supported, Fixed bitrate,	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression Video Streaming Number of Streams Video Bitrate Network Security	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth 4 128Kbps – 12Mbps; Frame rate and bit rate controllable on-the-fly; VBR / CBR / GOP supported, Fixed bitrate, Smart H.264/H.265	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression Video Streaming Number of Streams Video Bitrate Network Security Encryption	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth 4 128Kbps – 12Mbps; Frame rate and bit rate controllable on-the-fly; VBR / CBR / GOP supported, Fixed bitrate, Smart H.264/H.265 Base64 HTTP encryption, HTTPS encryption, DDNS via HTTPS Digest HTTP authentication, RTSP authentication, TLS,	
Input / Output Audio Input / Output Audio Alarm Input / Output Live Video Output Video Streaming Video Compression Video Streaming Number of Streams Video Bitrate Network Security Encryption Authentication	Mono, 1.98 Vp-p , 2.2KΩ , 3.5mm phone jack Two-way Audio, G.711 u-law / PCM / AAC, SIP, Built-in Microphone Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block CVBS 1.0Vp-p, 75 ohm, RCA jack H.265/HEVC main profile, H.264 main and high profile , Motion JPEG RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth 4 128Kbps – 12Mbps; Frame rate and bit rate controllable on-the-fly; VBR / CBR / GOP supported, Fixed bitrate, Smart H.264/H.265 Base64 HTTP encryption, HTTPS encryption, DDNS via HTTPS Digest HTTP authentication, RTSP authentication, TLS, 802.1x, DDNS via HTTPS	

Multi IP Address

Yes

Video Resolutions (H x	·
Resolution	5MP(2592 × 1944), 4MP(2304 × 1728), 3.1MP(2048 × 1536), 3MP(2304 × 1296), 2MP(1920 × 1080), 1.3MP(1280 × 960), 1MP(1280 × 720), D1(720 × 480, 720 × 576), VGA(640 × 480), CIF(352 × 240)
Maximum Frame Rate	Normal mode: up to 25 fps @ 2592 × 1944 HDR mode: up to 25 fps @ 2592 × 1944
Video Functions	
Scanning System	Progressive Scan
Infrared Cut Filter	Auto / Day (Color) / Night (Mono) / Schedule
White Balance	ATW-NARROW / ATW-WIDE / AWC(MANUAL)
Back Light	Voc
Compensation	Yes
Electrical Shutter	1/30(1/25)s - 1/30000s
Sense Up	Off / x2 / x4 / x8 / x16
Sense Up+	Yes
Auto Gain Control	60 dB Variable Gain
S/N Ratio	More than 50dB (AGC off)
3D Noise Reduction	Off / 1 – 32 Selectable
2D WDR	Off / Auto / x2 / x3 / x4 (by normal mode) Support Onvif
High Dynamic Range	Up to 100dB (by HDR mode, 2 shutter line interleave)
Privacy Masking	Off / On (4 zones)
Image Effects	Brightness, Contrast, Hue, Saturation, Sharpness, Mirror,
illage Lilecis	Flip, Rotation, Overexposure Reduction
EV (Exposure Value)	Adjustable
Lens distorsion	Yes
correction (LDC)	
Integration	
Mobile Application	Integrated to LILIN mobile app (LILIN Viewer) iPhone, iPad, Android support
Video Management	ONVIF Profile S / ONVIF Profile T / IVS events, LILIN Navigator Enterprise 2.0 support, Third party VMS through LILIN HTTP API
SD Card Recording	Support (128GB) Micro SD/SDHC/SDXC card for circular recording (card is not included)
Maintenance	Firmware update via HTTP and IP Scan; Firmware available at website
IVS Basic 1.0	Motion Detection, Tampering Detection, Advanced Motion Detection, Traffic Light Detection, Tripwire Detection,
Event Triggers	Object Counting Motion / Tamper / Audio / Alarm / Network lost detection /
Event actions	SmartEvent FTP / SMTP / HTTP post / SD card / SAMBA / Alarm /
Event actions	SNMP Trap / Push Service notification English, Traditional Chinese, Simplified Chinese, Spanish,
Languages	Italian, Turkish, Russian, Korean, French, Arabic, Hungarian, Japanese
Network	
Ethernet	10/100 Mbps Base-T (Tx), RJ-45
ePTZ & Digital Zoom	Yes, ROI (Region of Interest)
OSD	Position configurable text overlay for date, time, camera ID, event status and watermark with customizable user demand data
CPU, Memory	Embedded SoC ARM Cortex-A9, 816MHz, 512MB DDR3L, 256MB flash memory
OS	Embedded Linux 3.10
Network Protocols	IPv4, IPv6, TCP, UDP, HTTP, HTTPS, SMTP, SIP, MQTT, QoS, SNMP V1/V2/V3, SNMP Trap and heart beat, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, RTSP, RTCP, Telnet, ICMP, IGMP, ONVIF Profile S, ONVIF Profile T, SDDP, Bonjour, 802.1x, SSL/TLS
Max number of online users	10 simultaneous users
Video Display	LILIN Universal ActiveX , LILIN Java Applet
Watermark	BMP logo
Log	Event & operation log & IVS event log
Log	Event & operation log & 173 event log
Schedule	Support holiday list

NAS (Support SAMBA/CIFS)

Network Storage