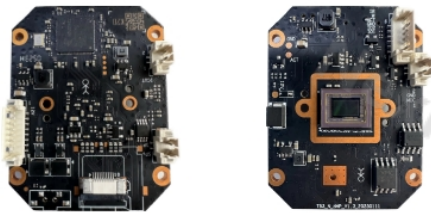


NexPro CORE-8MP-BL38

8MP Blacklight IP Camera Core Module

Technical Specification Sheet



The Imaging Engine Behind NexPro 8MP Blacklight Cameras — Designed for Flexible Enclosure Integration, Ultra-Low-Light Performance, and Seamless System Connectivity

The NexPro CORE-8MP-BL38 is a compact yet powerful 38×38mm mainboard module purpose-built for high-definition IP camera manufacturing and custom enclosure integration. Featuring an 8MP ultra-low-light CMOS sensor with F1.2-class sensitivity, integrated IR-CUT driver, and H.265+ encoding, this module delivers exceptional 4K video in near-total darkness. Bundled with the free Seetong Client and Seetong APP for recording, preview, and playback — plus native mobile monitoring via Seetong Cloud — it forms the foundation of high-stability surveillance systems when paired with compatible NVRs.



Flexible Network Topologies

Topology 1	IPC — NVR — Seetong Cloud — Seetong Client
Topology 2	IPC — NVR — Seetong Cloud — Seetong APP
Topology 3	IPC — NVR — Seetong Client
Topology 4	IPC — Seetong Client (Direct)
Topology 5	IPC — Seetong Cloud — Seetong APP

Core Module Highlights

8MP 4K	Ultra-Low Power	Universal Connectivity	H.265+
3840×2160 resolution at 20fps, dual-stream encoding	≤2.3W typical consumption, ideal for compact thermal-sensitive enclosures	ONVIF compliant, HTTP/TCP/RTSP/P2P/GB28181, works across all major platforms	Advanced compression slashes bandwidth and storage by up to 90% vs H.264

Technical Specifications

No.	Parameter	NexPro CORE-8MP-BL38
1	System Architecture	Embedded RTOS design, single-core 32-bit DSP, pure hardware compression, watchdog timer, 16MB Flash, 128MB DDR3
2	Image Sensor	8MP 1/2.8" CMOS; Color: 0.001 Lux @ F1.2 (AGC ON); B/W: 0 Lux (IR ON); Integrated IR-CUT driver with sensor + IR-CUT + photosensitive + LED supplement synchronised control; True day/night switching
3	Video Processing	H.265+ / H.265 / H.264 encoding; Dual-stream capable, AVI container; Bitrate adjustable 500k–8000k bps; PAL & NTSC supported
4	Frame Rate	8MP @ 20fps
5	Image Output	Main Stream: 3840×2160 / 2592×1520 / 2560×1440 / 2048×1520 / 2304×1296 / 1920×1080; Sub Stream: 800×448 / 640×480 / 640×360 / 480×360 / 352×288
6	Audio Interface	1× audio input (supports microphone or line-in pickup); 1× audio output (supports headphone or amplifier connection)
7	Audio Processing	G.711 codec; Bidirectional voice intercom; Audio-video synchronisation
8	Network Interface	1× RJ45 10/100M adaptive Ethernet, 8KV anti-static protection; Protocols: HTTP, TCP/IP, IPv4, DHCP, NTP, RTSP, ONVIF, P2P, PPTP, SMTP, GB/T28181
9	Signal Interfaces	1× PWM variable light control interface; 1× IR-CUT interface with image-synchronised IR-CUT control
10	Surge Protection	Full surge protection on power and network ports; Front-end power input: lightning surge, anti-static, reverse-polarity protection; 18V over-voltage shut-off protection
11	Business Functions	Web-based configuration; On-Screen Display (OSD); Real-time video transmission; Motion detection with alarm linkage; Post-alarm central alert with pop-up video 联动;

No.	Parameter	NexPro CORE-8MP-BL38
		NexPro Client remote management software (Seetong)
12	ONVIF Compliance	Supported
13	Mobile Monitoring	iOS & Android support via NexPro Cloud (Seetong)
14	Power	DC 12V input; Power consumption: ≤2.3W
15	Dimensions & Weight	53 × 38 × 11.1 mm (single-board 38mm form factor); Net weight: ~8.9g
16	Operating Environment	-40°C ~ +85°C (-40°F ~ +185°F)
17	Optional Features	E (PoE network-powered variant); Expansion functions: IO, ACT, hard photosensitive, white-light PWM, IR PWM

1.1.1 Resolution Reference Guide

Effective Pixels	Typical Resolutions
8MP (4K)	3840×2160
5MP	2592×1944 / 2592×1920
4MP	2688×1512 / 2560×1440
3MP	2048×1536 / 2048×1520 / 2304×1296
2MP (1080P)	1920×1080 / 1600×1200
1.3MP	1280×960
1MP (720P)	1280×720

Integration Benefits for NexPro Solutions

For Camera Manufacturers & OEM Partners: The 38×38mm compact footprint and comprehensive signal interfaces (PWM dimming, IR-CUT sync, audio I/O, expansion IO) fit into virtually any bullet, turret, or dome housing. ONVIF

compliance ensures instant compatibility with third-party NVRs and VMS platforms, while the H.265+ engine keeps bandwidth manageable even at 8MP resolution.

For System Integrators: Combine this module with a NexPro NVR for an end-to-end H.265+ pipeline — from camera encoding to storage. The integrated cloud service enables zero-configuration mobile access, critical for handing over operational systems to hotel security teams or facility managers.

For Industrial Deployments: -40°C to +85°C operating range and 8KV network anti-static protection ensure reliable operation in outdoor kiosks, cold storage, and unheated plant areas. The 0.001 Lux sensitivity with F1.2 optics captures usable color detail long after conventional cameras switch to monochrome IR.

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For OEM integration support and bulk module pricing: contact your NexPro solutions team.