

Neural Ghost AI

High-Performance Single LPR
Camera for ITS

Neural Ghost AI Single is a single-sensor All in One camera with day/night functionality that allows it to work during the day in color mode and in low light conditions in black and white mode with IR light reinforcement.

It **processes video analytics** applied to vehicles such as LPR (**license plate recognition**), **make, model, color, speed and vehicle classification**: car, motorcycle, bus, truck and van and, in addition, detects vehicles without license plate or not legible.

It includes an ultra-sensitive CMOS camera that can be 3.2, 4, 5.1 or 8.9 MP for license plate recognition and a motorized lens (iris, zoom and focus).

Our camera is an Intel® RFP Ready solution that features a multi-core Intel® processor and Intel® AI (Artificial Intelligence) acceleration for Deep Learning-based analytics. Its housing offers IP66 and IP68 protection raiting against water and dust and IK10 impact protection.

Recognizes multiple license plates in up to 2 lanes of vehicles traveling up to **250 km/h**. It has long-lasting LED strobe lighting to capture vehicles at any time of the day.



intel
RFP
READY

3-Year*
Warranty

Smart Cities & ITS

ITS

- Vehicle counting
- Shadow tolling
- Integration with over-height detection systems (Gálibo)
- Integration with WIM systems
- Average speed enforcement (section radar)
- Detection of cloned license plates
- Detection of vehicles without or with unreadable plates

Security

- License plate recognition
- ADR Hazard ID and IMO Diamond recognition
- Vehicle identification based on make, model, color (daytime only), and classification for forensic search
- Alerts based on hotlists, including wanted or stolen vehicles
- Recognition of mopeds across 2 lanes

Mobility

- Vehicle Counting
- Traffic statistics by vehicle type, flow, and average speed
- High-speed license plate recognition across up to 2 lanes



Technical Specifications

Device	High-resolution sensor with day/night function
Recognition Analytics	License plate, make, model ¹ , color, speed, lane, country and travel direction
Supported countries	Over 113. Consult sales representative

LPR camera sensor	Option 1: 3.2MP 1/1.8" CMOS Shutter Global	Option 2: 4.0Mpx 1/1.8" CMOS Shutter Rolling
	Option 3: 5MP 1/1.8" CMOS Shutter Global	Option 4: 8.9MP 1" CMOS Shutter Global
Lenses	Option 1: 11-50mm	Option 2: 3.8-16mm

Lighting	High-power strobe IR with 8 NIR LEDs at 850nm
Maximum range	Optimized for two lanes up to 30 meters
Light angle	20°
Light modes	Strobe or continuous

Processor	Embedded Intel® ATOM 4-core
Maximum recognition speed	250 km/h
Protocols	RTSP, RDP, NTP/STNP, SNMPV2, RS232, RS485

Optional accessories	Expandable storage up to 512 GB, 1 TB, or 2 TB
	Heating coil ²
	4G Communication Module
	GNSS

Time synchronization	NTP/STNP or GPS (optional)
Power supply	22–52 VDC (24/48 VDC recommended)
Consumption	30W max.
Ingress protection	IP66 + IP68 IK10
Operating temperature	-40°C to +85°C

Product dimensions	228x144x112mm
Packaging dimensions	Aprox. 300x210x300mm
Product weight	3 kg
Gross Weight	Aprox. 4,75 kg



Technical Specifications

Warranty	3 years (extendable)*	
Storage	64GB eMMC5.1 Flash for OS	1 x 256GB M.2 SSD
Network port	1x Gigabit Ethernet port	
Serial port	1x isolated RS485 port	
USB port	1x USB 2.0 for maintenance	

GPU	Integrated Deep Learning INT8 4TOP GPU	
Video encoding	H.264 4K@50fps, H.265 4K@50fps	
Housing	Rugged metallic, fanless design, IP66 + IP68 IK10	
Dual filter	IR-cut (day) + Full spectrum (night)	

¹ In certain countries.

² In winter, snow and ice may form on the outer surface of the camera glass window, resulting in the AI camera not being able to image clearly. This option is highly recommended if the local winter is subject to frequent snowstorms.

* 3-year warranty in Spain; 2-year warranty in other territories.