– Edge Intelligent Gateway Product Series –

LX-AG1600●Series Product Specifications Catalog

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1. Product Description

The LX-AG1600 Edge Intelligent Gateway is equipped with the Algorithm 3rd generation TPU chip BM1684, featuring high performance, low power consumption, and strong environmental adaptability. By incorporating a variety of deep learning algorithms, it can flexibly address scenarios such as smart cities, smart commerce, and smart energy, enabling AI empowerment at the edge. It is widely applicable in various sectors such as smart cities, intelligent transportation, smart power, smart oil and gas, industrial monitoring, smart service halls, smart retail, smart food safety, and other institutions with requirements for risk prevention, in the fields of integrated audio and video, and data resource integration.

2.Product Features

1. High Performance

- 17.6 TOPS(int 8) peak computing power, high computing power utilization；
- 16-channel high-definition video hardware decoding capability；

2. Flexible Deployment

- Abundant industrial peripheral interfaces, wide temperature range；
- Supports wireless transmission for data feedback and local storage at the edge；

3. Cloud-Edge Collaboration

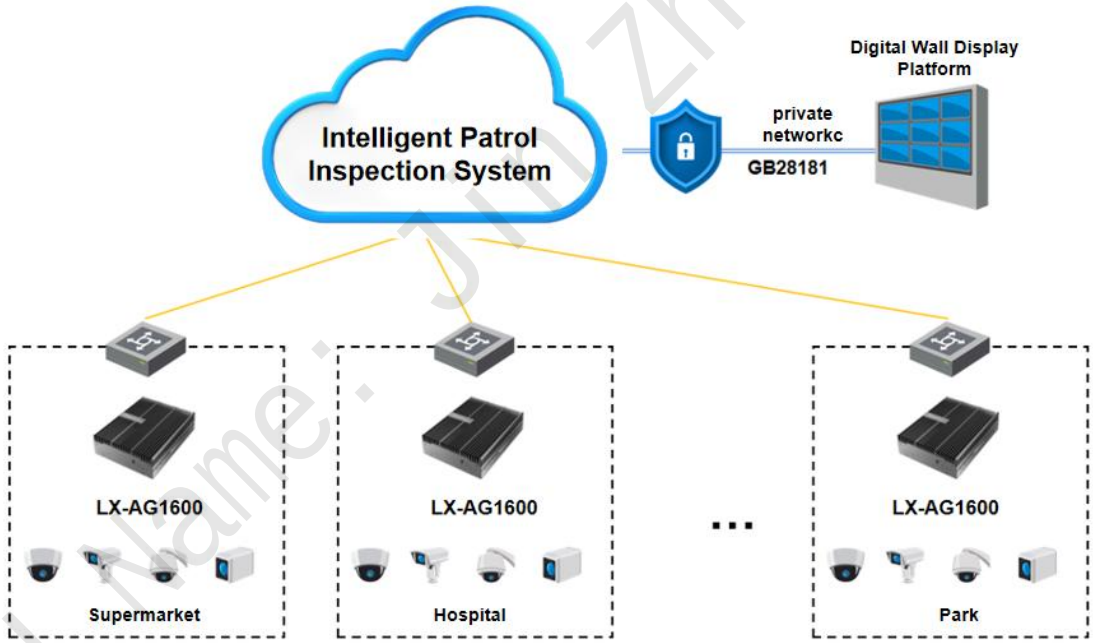
- Cloud-based model updates and device upgrades, manageable and maintainable；
- Scalable support for algorithms across various scenarios including grassroots governance (e.g., addressing social disorder, overflowing garbage bins, electric bike riders without helmets, unauthorized entry into buildings, etc.) and enterprise safety production supervision (e.g., smoking/using phones in violation of rules, improper use of protective gear, unauthorized access to restricted areas, walking under suspended loads, mixing oxygen and acetylene, unauthorized personnel entering the warehouse, etc.)；

4. Rich Functionality

- Supports onvif, rtsp, GA/T 1400 access for real-time video streaming or image analysis with AI. Supports mixed operation of multiple algorithms;
- Maximum support for real-time analysis of 16 channels of 1080P video;
- Supports video transcoding and can output video streams externally in RTMP format.;

3.Application Scenarios

Widely applicable in various sectors such as smart cities, intelligent transportation, smart power, smart oil and gas, industrial monitoring, smart service halls, smart retail, smart food safety, and other institutions with requirements for risk prevention, in the fields of integrated audio and video, and data resource integration.



4.Product Specifications

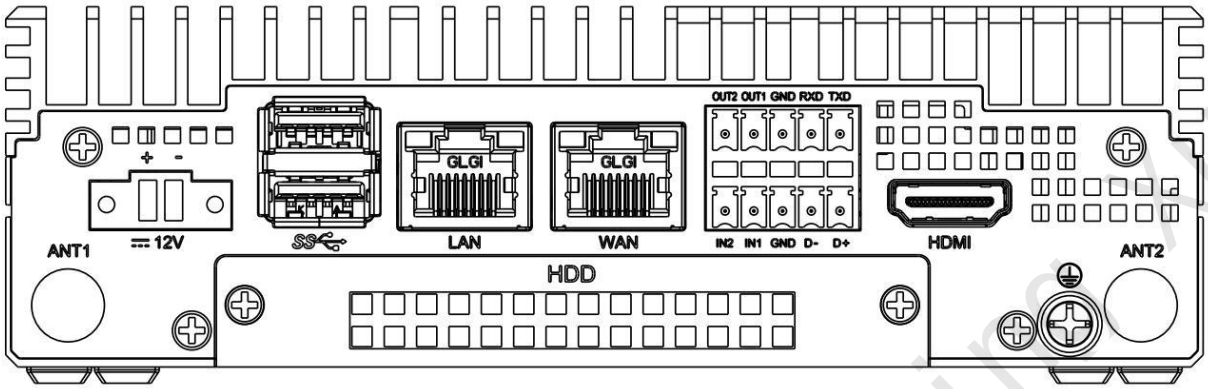
Product Model	LX-AG1600	
Main CPU	8 Core ARM A53@2.3GHz	
AI Computing Power	INT8	17.6 TOPS
	FP32	2.2 TFLOPS
Video/Image Encoding/Decoding	Video Decoding Capability	H.264: 1080P @960fps; H.265: 1080P @960fps

	Video Decoding Resolution	8192 * 8192 / 8K / 4K / 1080P / 720P / D1 / CIF
	Video Encoding Capability	H.264: 1080P @50fps； H.265: 1080P @50fps
	Video Encoding Resolution	4K / 1080P / 720P / D1 / CIF
	Image Decoding Capability (JPEG)	480 images per second @1080P
	Maximum Image Decoding Resolution	32768 * 32768
eMMC Memory	Standard Configuration	12GB
Interfaces	Network Interface	10/100/1000Mbps Adaptive Ethernet Interface *2
	External Interfaces	USB *2 / HDMI / SATA /RS-232 / RS-485 / TF / LTE
	Power Interface	DC 12V Input
Operating Temperature	Temperature Range	-20℃ ~ +60℃
Power Consumption	Typical Value	~20W
Protection Level	IP Rating	IP30
Structural Dimensions	Length * Width * Height	188 * 148 * 44.5 (mm)

5.Ordering Information

Model Number	Shipping Model	Functional Description
LX-AG1600	LX-AG1600	Supports video input and AI analysis, and enables edge-cloud collaborative management.

6. Interface Description



Silk screen Printing	Name	Description
12V	Power interface	2-PIN (self-locking) Phoenix contact power interface, anti-reverse insertion, connected to 2-PIN terminal of the power supply equipped for the complete machine.
SS	USB interface	USB3.0 Type-A, two USB interfaces in total.
LAN	LAN interface	Local area network gigabit interface
WAN	WAN interface	Wide area network gigabit interface
HDD	Hard disk bay	Can support the user to install 2.5-inch SATA hard disk at its own option.
HDMI	HDMI interface	Video output display, connected to display via HDMI high-definition cable.
	Grounding terminal	Used for complete machine grounding; connect equipment to the ground point of cabinet or workbench via protective ground wire; M3 screw used for grounding.
TXD	RS232 sending signal	RS232 sending signal, to be used in cooperation with RXD signal.
RXD	RS232 receiving signal	RS232 receiving signal, to be used in cooperation with TXD signal.
D+	RS485 positive pole	RS485 interface positive pole, to be used in cooperation with D- signal.
D-	RS485 negative pole	RS485 interface negative pole, to be used in cooperation with D+ signal.
IN1	I/O1 input	GPIO1 input, can be used as alert input.
OUT1	I/O1 output	GPIO1 output, can be used as alert output.
IN2	I/O2 input	GPIO2 input, can be used as alert input.
OUT2	I/O2 output	GPIO2 output, can be used as alert output.

GND	Grounding signal	Phoenix contact grounding signal
ANT1	Antenna interface 1	(Optional) SMA Female interface 1, can be connected with SMA rod antenna.
ANT2	Antenna interface 2	(Optional) SMA Female interface 2, can be connected with SMA rod antenna.
	Note: Hard disk and wireless function are optional, not standard configuration for the product. HDMI interface has display output only when SE5 matched face algorithm application software is preinstalled. As to the equipment for which this version is not preinstalled, it can be supported only when the user develops the application by itself.	