

MA16Max



Streamax



Product Introduction

MA16Max is a multifunctional in-vehicle intelligent IBCU (In-Bus Control Unit) terminal composed of storage modules, main modules, communication and power modules, etc. It integrates various functionalities including driving safety services (ADAS, DMS, BSD, AVM), public safety services (CCTV, ANPR), passenger service operations (station display systems, advertising display systems), and operational management services (dispatch reporting, passenger flow statistics).

The product boasts powerful video input capabilities, supporting the hybrid input of 12 channels of analog high-definition and 12 channels of digital IPC data. Additionally, the product features 4G/5G network connectivity, high-speed WIFI6 network, dual-frequency inertial navigation positioning, massive local storage, and rich peripheral interface capabilities.

Equipped with a robust NPU (Neural Processing Unit), the product possesses deep learning algorithm-based processing capabilities, supporting simultaneous intelligent operations. It comprehensively covers driving safety services, realizing advanced driver assistance systems, driver behavior analysis systems, blind spot warning systems, and a 360-degree surround view system.

The product also supports diverse video output capabilities, featuring built-in multi-screen asynchronous display functionality. It can simultaneously integrate seven channels of different video outputs, providing comprehensive coverage for the in-vehicle network dispatch reporting screen system, CCTV monitoring system, passenger information, and multimedia advertising display system.

Product Advantages

- All-in-one versatility, unified management for multiple businesses.
- Supports the input of 12 channels of analog high-definition AHD and 12 channels of digital high-definition IPC.
- Supports HDMI and VGA high-definition output from different sources.
- Supports the input of 6 channels of high-speed CAN-FD.
- Utilizes vehicle-grade connectors for external audio and video interfaces, facilitating installation and maintenance.
- Equipped with an 8-core processor and a powerful neural network inference engine, featuring various intelligent algorithm applications.
- Supports local storage with one 3.5-inch hard drive and one M.2 interface SSD.
- The entire system employs comprehensive vibration reduction technology, combining mechanical damping, electronic anti-vibration, and software anti-vibration.
- Abundant peripheral interfaces.

Specifications

Product Model		
MA16Max		
	Technical Items	Technical Specifications
Basic Parameters		
	RAM	6GB
	ROM	32GB
	OS	Linux Android
	3G/4G	TDD-LTE/FDD-LTE/EVDO/TD-SCDMA/WCDMA
	5G	Optional
	WIFI	802.11b/g/n/ac/ax Optional)
	Positioning	Supports GPS
	HDD	1 × 3.5″ SATA HDD + 1 × M.2 SSD (Optional), 2*SSD (Optional) hard disk heating supported
	G-Sensor	Built-in 6-axis inertial sensor
Port		
	Video Input	12-channel AHD + 12-channel IPC (PON power supply)
	Total Capacity	1080p@480fps H.265/H.264 encoding + 1080p@480fps H.265/H.264 decoding
	Video Output	Supports 7-channel video heterogeneous output: 1 channel Serdes dispatch screen high-definition display, 1 channel VGA high-definition output, 1 channel HDMI high-definition output, 4 channels passenger information display screen digital output
	Audio Input	11-channel analog +12-channel IPC
	Audio Output	1 channel Serdes dispatch screen audio, 1 channel HDMI audio
	USB	Front Type-A interface USB 3.0, rear aviation head interface USB 2.0
	Micro SD	2*Micro SD
	WAN	1*1000Mbps, RJ45 interface
	LAN	1 * 1000Mbps, RJ45 interface, maximum support for connecting 4 channels of passenger information display screens.
	SIM Card	1 * SIM card slot
	IO	9 * Sensor in (1 channel dedicated for reverse signal), 2*Sensor output
	Power amplifier	2 channel output, maximum support 30W
	Serial port	2*RS232、2*RS485
	CAN	6*CAN-FD
	SPEED	1 channel pulse speed measurement.
	MIC	external loudspeaker
Power Supply		
	Power Input	DC 8~36V
	Power output	12V/1A, 5V/0.5A

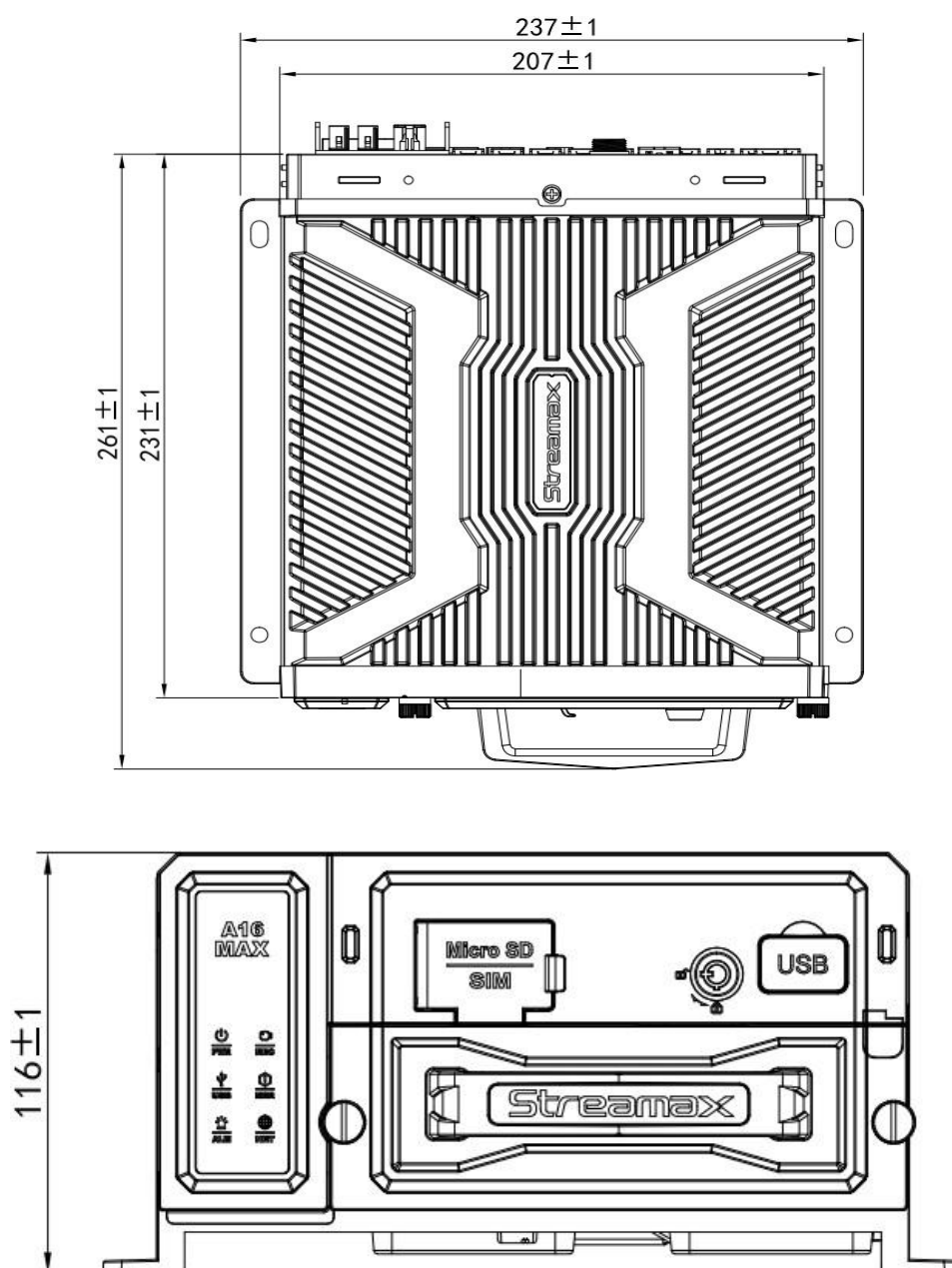
Installation

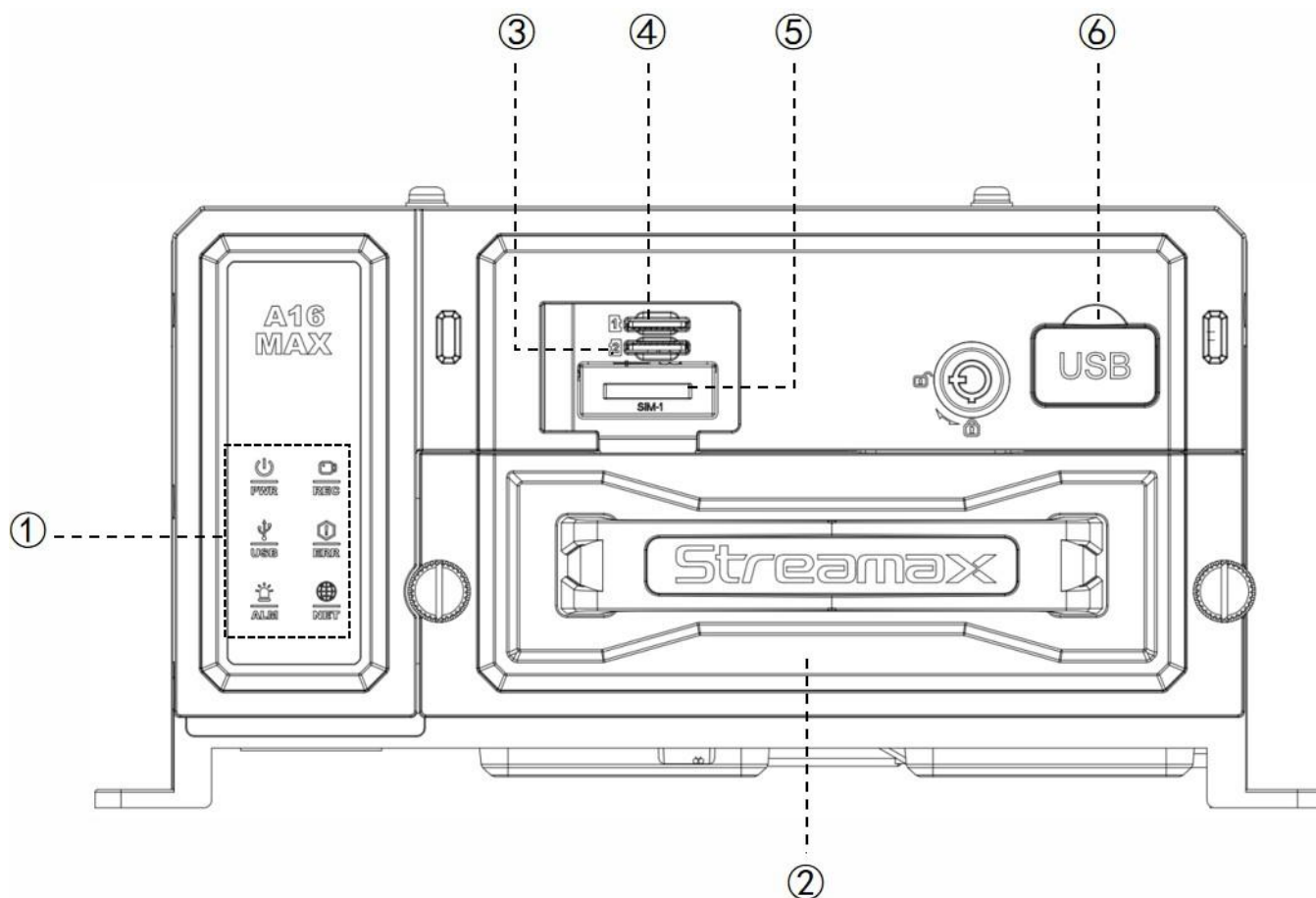
Size	261*237*116mm
Weight(NO HDD)	4.7KG

Working Environment

Operating temperature	-40°C~+55°C(Host with hard disk)
	-40°C~+70°C(The host does not come with a hard disk)
Storage temperature	-40°C~+85°C

Product dimensions (mm)

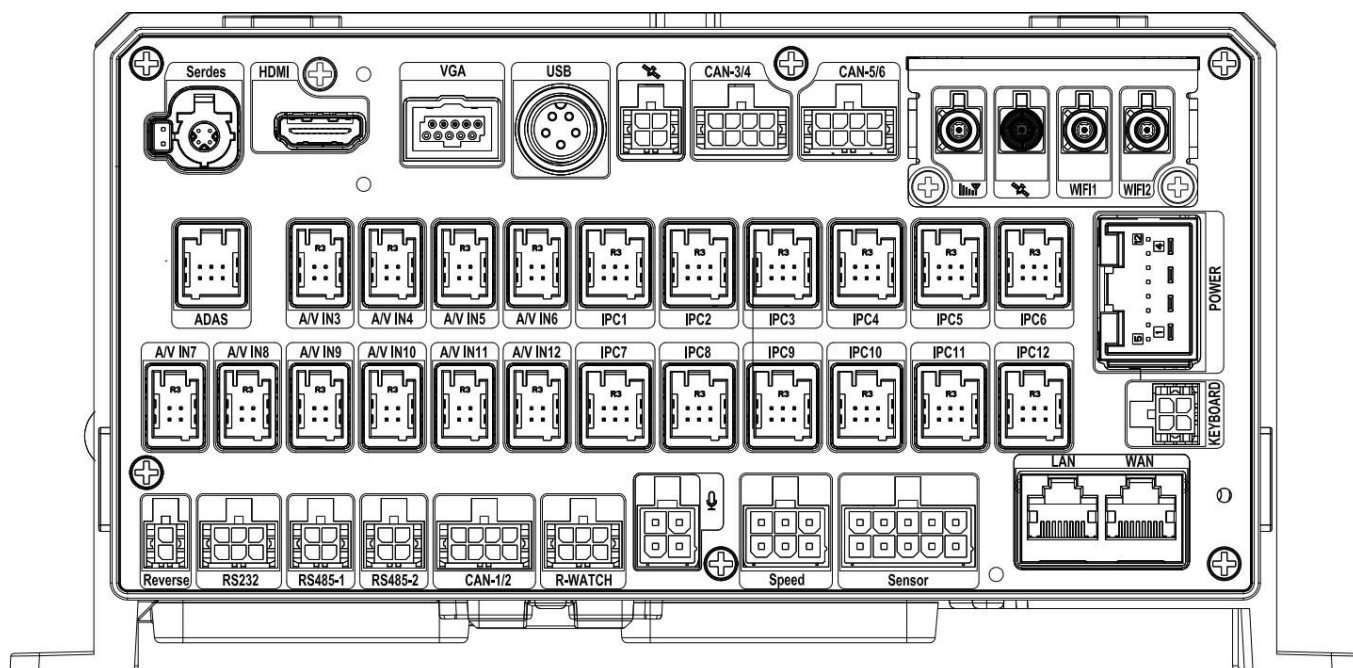




Front Panel Interface

- | | |
|---|---------------------------|
| ① | Indicator Light |
| ② | Hard drive storage module |
| ③ | Micro SD2 |
| ④ | Micro SD1 |
| ⑤ | SIM card interface |
| ⑥ | USB3.0 interface |

Rear Panel



Rear Panel Interface

Serdes

Human-machine interaction screen high-definition interface

HDMI

High-Definition Multimedia Interface (HDMI)

VGA

VGA high-definition display output

USB

Disaster Preparedness Memory interface



External positioning module port

CAN-1/2

CAN1-2 interface

CAN-3/4

CAN3-4 interface

CAN-5/6

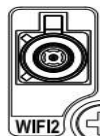
CAN5-6 interface




4G antenna port



WIFI1 antenna port



WIFI2 antenna port

ADAS	Binocular forward-facing ADAS camera interface.
A/V IN3	Analog audio/video input ports 1 Triple forward-facing ADAS camera telephoto interface
A/V IN4-12	Analog audio/video input ports 4-12
IPC1-12	IPC (PON power supply) audio/video input ports 1-12
POWER	Power Input & Power amplifier output
KEYBOARD	Human-Computer Interaction Screen Keyboard Interface
Reverse	Reverse IO input interface.
RS232	2*RS232 interface
RS485-1/RS485-2	2*RS485 interface
R-WATCH	R-WATCH interface
	Loudspeaker interface
Speed	Speed input *1&Sensor out*2
Sensor	IO Input 1-8
LAN	LAN port
WAN	WAN port