

Smart Terminal AIBOX5.0



Overview

The vehicle-mounted smart terminal AIBOX 5.0 is an advanced driving safety management terminal. Equipped with artificial intelligence (AI) algorithms for recognizing exceptional driver behaviors, this terminal alarms the driver of exceptional behaviors such as smoking, making phone calls, fatigue driving, one hand off the steering wheel, hands off the steering wheel, and unfastened safety belts.

Besides, with AI algorithms recognizing the characteristics of vehicles ahead, lanes, pedestrians, zebra crossing, etc., the terminal effectively predicts dangerous behaviors or violations including front collision, lane departure, pedestrian collision, and yield to pedestrians, and conducts intelligent analysis to comprehensively reduce traffic accidents due to such causes.

This product supports independent communications, positioning, and storage, and is capable of data acquisition from the vehicle CAN bus, applicable to most conditions such as day, night, rain, and snow, and suitable for mounting on buses of various models.

Strengths

- High-precision sensing algorithm, conducting analysis and giving alarms in real time
- Embedded Linux operating system
- Dual-core processor and powerful neural network inference engine to support various intelligent algorithms and applications
- H.265/H.264 encoding/decoding to improve the memory space utilization
- Dual SD cards
- Sufficient peripheral ports

Specifications

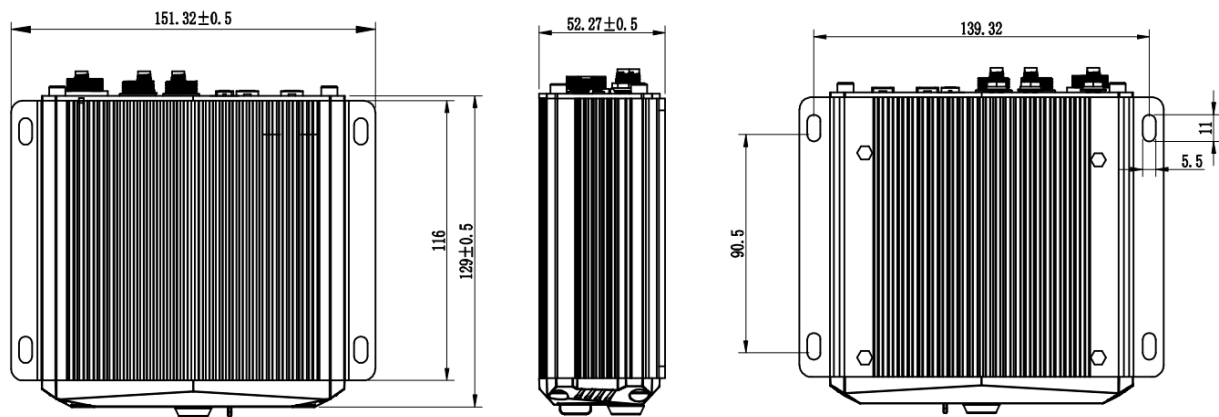
Model		
AIBOX5.0		
Technical Item		Technical Specification
Basic Parameters		
	CPU	Dual Core ARM® Cortex™ A9
	Memory	1GB
	Operating System	Linux
	3G/4G	TDD-LTE/FDD-LTE/EVDO/TD-SCDMA/WCDMA
	WIFI	802.11b/g/n (optional)
	Bluetooth	Support version 4.2 (optional)
	Positioning	GPS/BeiDou positioning (external)
	Storage	Dual SD cards (the maximum capacity of a single card up to 256 GB)
	Sensor	6-axis acceleration sensor
Port		
	Video Input	4-channel AHD + 2-channel IPC
	Coding and Decoding	Up to 4 × 1080p @ 100fps coding (disable AI function), (IPC decoding is not supported)
	Video Output	no
	Audio Input	4-channel analog input + 2-channel digital input
	Audio Output	1-channel analog input
	USB	Front Type-A USB 2.0 port
	SD	2 × SD port
	LAN Function	1 × 100 Mbps (IPC port multiplexing)
	SIM Card	1 × SIM card slot
	IO	6-channel input and 2-channel output
	Power Amplifier	1-channel output, 2.7W @ 4 Ω
	Serial Port	RS232 × 1, RS485 × 1
	CAN	2 × CAN
	Speed	1-channel pulse speed detection
	MIC	External megaphone
Power Supply		
	Power Input	DC 9~36 V
	Power Output	12 V/0.2 A
	Power Consumption	Standby power consumption < 3 W; typical operation power consumption < 35 W
Installation		
	Dimensions	129 × 151.32 × 52.27 mm
Operating Environment		
	Operating Temperature	-30°C~ +70°C
	Storage Temperature	-40°C ~ +85°C

Operating Humidity 15%~95%, non-condensing

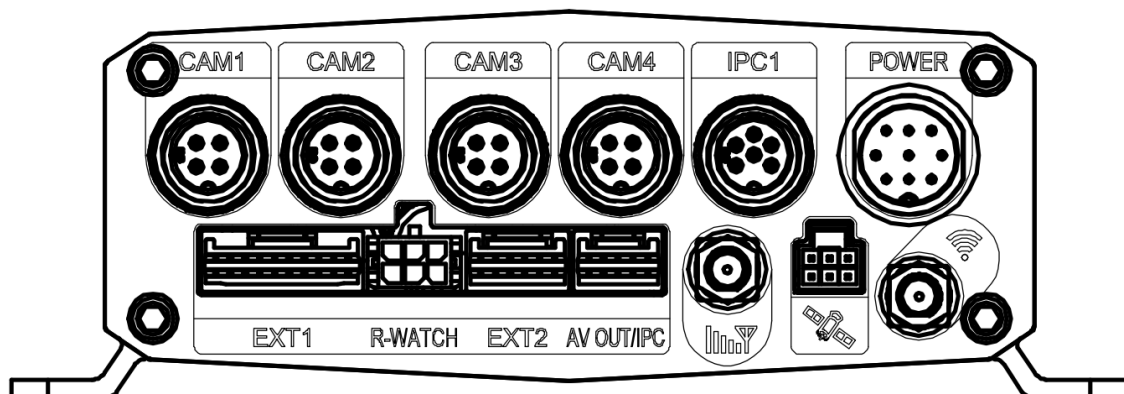
Weight

Product Weight (with package)
Approx. 1.5 Kg

Dimensions



Schematic Diagram of Ports



Front Panel Ports

CAM1-4	AHD video input
IPC1	IP camera input
POWER	Power input
EXT1	IO/CAN/Speaker output
EXT2	MIC/RS485/RS232
R-WATCH	R-WATCH alarm display
AV OUT/IPC	Video output/LAN port



Antenna connector of the Wi-Fi module



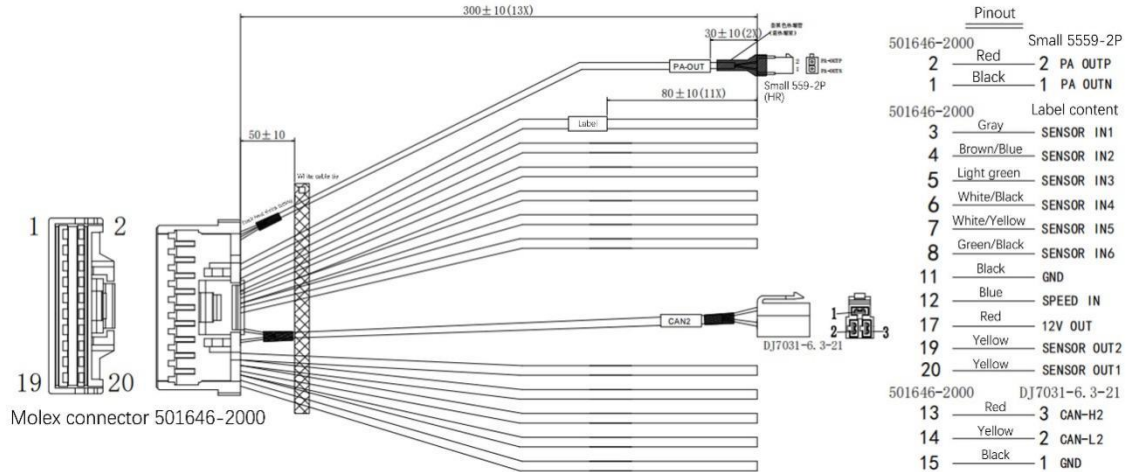
Antenna connector of the positioning module



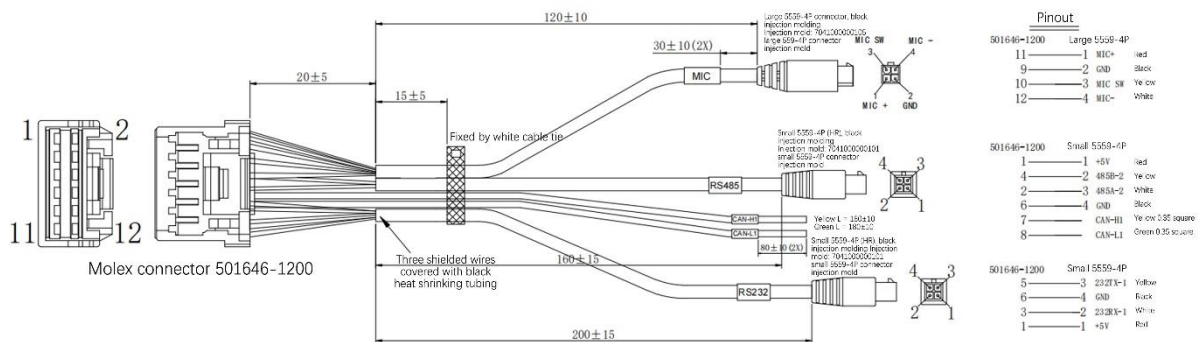
Antenna connector of the 4G module

Cable Connector Pinouts

EXT1



EXT2



AV OUT/IPC

