## REDUCE THE COST OF TRANSPORTATION

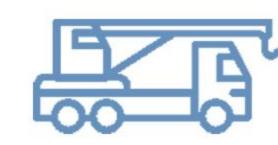




## TCO HQA series

## TACHOGRAPH FOR COMMERCIAL VEHICLES



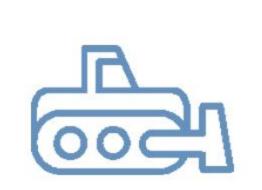










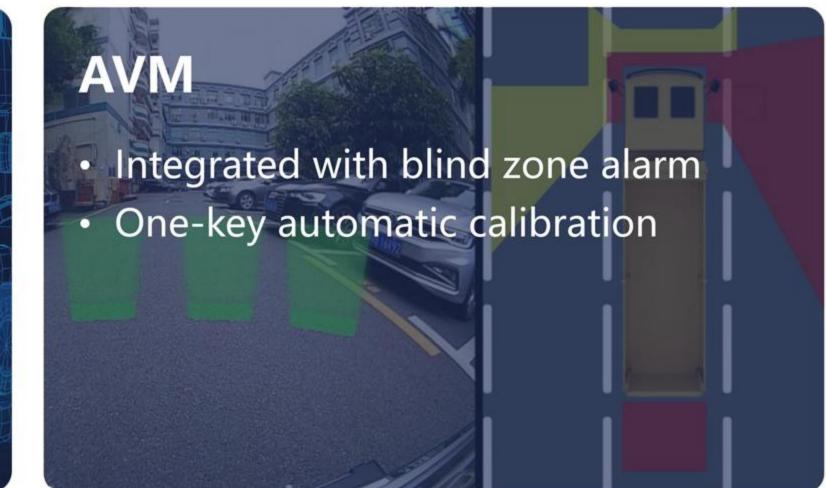


This product supports GPS/BD dual-mode positioning, 4G network communication, access to multiple cameras and sensors and integrates DSM, BSD, ADAS and other image recognition algorithms to realize real-time monitoring and reminding of the state of the vehicle and the driver so as to reduce the hidden dangers of accidents and ensure the safety of vehicle driving. At the same time, through the reading and analysis of driving data, it can provide real and credible basis for traffic management departments to deal with traffic accidents and meets GB/T 19056-2021, JT/T 794-2019, JT/T 808-2019, JT/T 1076-2016 and other standards at the same time.









CATEGORY	FUNCTION	DESCRIPTION
OVERALL PERFORMANCE	WORKING VOLTAGE OPERATION TEMPERATURE STORAGE TEMPERATURE WORKING HUMIDITY	MIN:9V MAX:32V Typical:24V MIN:-30°C MAX:70°C Typical:25°C MIN:-40°C MAX:85°C Typical:25°C MIN:0% MAX:95% Typical:60%
PROCESSOR	MCU  COMMUNICATION MODULE  SOC	NXP MIMXRT1061CVL5B  Arm Cortex-M7, Operating Frequency [Max] 528MHz, SRAM1024kB  LTE-TDD/LTE-FDD/HSPA+/GSM/GPRS/EDGE  TDD-LTE B38/B39/B40/B41  FDD-LTE B1/B3/B5/B8  UMTS/HSPA+ B1/B8  GSM/GPRS/EDGE 900/1800 MHz  Rockchip RV1126 Quad core ARM Cortex-A7  2.0Tops support INT8/INT16
STORAGE	PROTECTIVE STORAGE  EXTERNAL STORAGE	32GB CSMU protected storage unit At least 8h of last audio and video recording Supports 1 SD card with Max capacity of 512 GB
WIRELESS COMMUNICATION	BT WIFI	Support BT 4.1 and above version Support wireless transmission rate of 1Mbps+ Support SPP and FTP protocol Support 2.4G band WiFi wireless data transmission Support IEEE 802.11n wireless transmission protocol
POSITIONING	GNSS	Cold start capture sensitivity: -148dBm  Tracking sensitivity: -162dBm  Positioning accuracy: ≤2.5m; Update rate: 1Hz (CEP50)  TTFF (cold start): ≤32s; TTFF (hot start): ≤1s
IMU MODULE	6-AXIS ACCELERATION SENSOR	Realize rollover (arbitrary plane Angle error<2°) and collision detection
TIME MODULE	RTC MODULE	Timing error ≤2s within +C8:C1524h
HMI	BUTTON*4 DISPLAY SCREEN LOUDSPEAKER	"Menu", "▲", "▼", "OK" with corresponding screen printing  132*64 dot matrix screen, green backlight  Adjusted volume with sound through horn hole  Volume of 3 grades: high(80dB)/ medium(70 dB)/low(60 dB)
STANDBY BATTERY	STANDBY BATTERY	Provide at least 10min working time
IC CARD	IC CARD	Contact-type driver card
EXTERNAL INTERFACE	CAN RS232 RS485 AD  USB  ETH  SATUS_OC  24V/12V POWER SUPPLY OUTPUT PULSE INPUT AUDIO/VIDEO INPUT	CAN2.0B*2 No termination resistor  1  1  2  1 front facing USB interface (TYPE-A female connector), meet USB2.0 Host mode Support access to file system FAT32 U-disk(maximum 1T)  WIFI hotspot transmitter with USB interface (external network sharing)  Optional, 1 expandable 100 MBPS industrial Ethernet  *1 OC open circuit for self-test state output, voltage ≤ vehicle power supply  /voltage, current ≤1A  *1, current 500mA, output voltage same as main power of the device  *1  4+ AHD interface, support 1080P/720P camera access。 Optional 8channel input

**DEVELOPMENT HISTORY** 

**TOTAL** 

**EMPLOYEE** 

**EXPERIMENTAL** 

SITE

700+ 1500m<sup>2</sup> 27000m<sup>2</sup> 3000000+ 10000000+ **FACTORY** 

SITE

**ANNUAL** 

PRODUCTION CAPACITY

**CUMULATIVE SHIPMENT** 

Hangzhou HopeChart IoT Technology Co., Ltd. was established on June 11th, 2009, and landed in science and technology innovation board of Shanghai Stock Exchange on November 6th, 2019 (stock code: 688288), with a registered capital of 100,343,920 yuan.

With the mission of "reducing the cost of transportation", Hopechart has continuously expanded the application fields of intelligent connected products for more than 10 years, and successfully promoted the connected products from commercial vehicle to many sub-fields such as new energy vehicle, non-road machinery, and motorcycle. Through independent R&D and manufacturing capabilities from design planning, development, mold making to production, we are committed to providing customers with intelligent network system and service based on hardware terminal and vehicle networking platform.

## OUR CLIENTS



































