技术参数

型号	TVD-100	TVD-200
图像传感器 Sensor	1/4"彩色 CMOS 130万像素 1/4"Color CMOS, 1.3MP	
分辨率 Resolution	640*480	
检测车道数 Lanes	6个车道，可双方向各3车道、不受中央隔离带影响 Covering 6 lanes at least, and detect 3 lanes for each direction (w/o disturbance from central isolation belt)	
检测类型 Detection Type	存在检测、停车检测、线圈模拟检测 Presence detection, Parking detection, and Virtual	能够检测行驶和静止的车辆，包含交通流量、速度、占有率、车头时距、车头间距、2 种车型长度 分类、排队长度检测. Detecting vehicle in motion and static,include traffic flow, occupancy ratio, average speed, two types vehicle classification and so on
检测精度 Detection Precision Rate	全天候正常天气 ≥ 95%，全天候恶劣天气 ≥ 90% Normal Weather ≥95% Harsh Weather ≥90 %	流量准确率≥ 98% 速度准确率≥ 95% 占有率≥ 95% Traffic flow ≥ 98%;Speed ≥ 95%;Occupancy ≥ 95%
录像编码 Recording Format	MPEG4	
触发信号 Triggering Signal	具有6路开关量/脉冲输出，RS-485 网络接口检测数据输出 6 on-off output/pulse output at least, and RS-485 detective data output	
IO接口卡 IO Interface Card	分为2种. A型卡有6个IO输出, 可接入一个TVD输入;B型卡对应18个IO输出, 最少接入6个TVD输入. Two type A:six IO outputs, one TVD input B: eighteen IO outputs,six TVD inputs	
外接存储 Storage	U盘/SD卡 USB flash disk / SD card	
具有无线传输方式（可选项） Wireless communication	检测器与通信板卡之间用无线通信，最远距离 100m Between detector and communication board, is longest 100m.	
环境背景自适应 Environment Adaptability	可根据道路光线情况自动转换为白天或者夜间检测模式，夜间检测无需补光 Switch between day and night modes automatically, based on luminance in lane and no need lighting in night.	
检测时间 Detective time	≤0.1s	
防护罩 Housing	防紫外线，不低于IP66 Prevent ultraviolet and sunshade,IP66	
电源 Power	12-48VDC OR 24VAC	
功耗 Consumption	＜ 2W ，可利用太阳能供电 ＜ 2W ， optional solar power	
温度 Temperature	-20 ℃～ +70 ℃	
湿度 Humanity	0～95%（无凝结） 0～95% （ non-condensing ）	
MTBF	＞100000h（约11年） ＞ 100000h（ about 11 years ）	
重量 Weight	安装架、外壳、摄像机和检测模块（不包括电缆）的总重量不超过0.8千克 Total of weight is no more than 0.8 kg(include mount 、 housing 、 camera and module,but no cable)	

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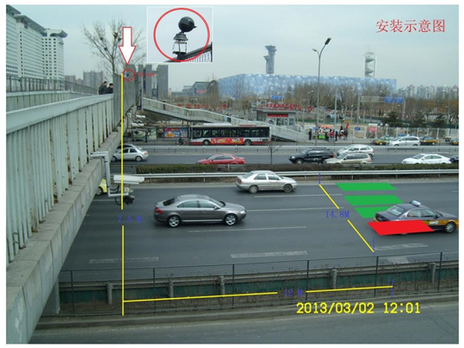
AVA 先导视觉
北京先导视觉科技有限公司

TVD 一体化交通视频检测器系列
All-in-one Traffic Video Detector



一体化交通视频检测器系列利用AVA专有技术，通过有线或无线方式，将各种交通信息数据传输到指挥中心或路口信号控制机，用于城市交通诱导、优化信号机配时、交通流量统计等应用。

一体化交通视频检测器系列（TVD-100/200）采用非接触式视频检测方式，通过视频检测模块对路段上每条车道设置一个或多个检测区域（模拟线圈）。型号 TVD-100作为检测车辆存在的智能检测器，将摄像机与视频检测算法完美结合，无需破坏路面完全替代地感线圈，通过RS-485、IP、模拟I/O信号端口及无线传输模块与多型号交通信号路口机通信以提高道路通行能力；型号TVD-200是增强型一体化交通视频检测器，在TVD-100功能基础上增加了交通流量、车速、占有率、车型分类、排队长度及拥堵状况等动态信息，为交通诱导、优化车辆路径选择提供基础数据信息。

All-in-one Traffic Video Detector built with AVA proprietary simulation technique, the detector deliveries the lane traffic volume data, queue length and congestion situation to command centre or signal controller. The traffic data can be used to optimize the traffic control.

TVD-100 can provide one or more detecting zones (virtual coil) for each lane to monitor traffic situation. As a present detector, TVD-100 combines the technology of IP Camera and Analyses to instead of Coil loops without pavement destruction and blocked road. Through the RS-485/IP/IO simulator/wireless modes, TVD-100 transmits the traffic volume data to the signal Light monitors of intersection.

Except TVD-200 holds all the performance of TVD-100, it has more function such as providing the data of the Traffic Volume, Occupancy, Classification, Average Speed for each lane and the queue length, the Jam situation and etc., which could be useful for providing basic information for the strategy of optimizing and smoothing the Traffic situation system.

- ◆ AVA自主研发，自主知识产权产品
- ◆ 拥有软件著作权证书
- ◆《交通一体化视频检测器》实用新型专利证书
- ◆ TVD 注册商标保护

独特优势

★ 独特专利设计：一体化集成摄像机及检测算法设计

★ 交通数据采集：车流量、车速、车型分类、占有率、排队等交通信息统计

★ 612 设计方案：检测6条车道，设置12个检测区域

★ 无线传输功能：增选此功能，可减少路口长距离拉信号线问题

★ 灵活更换镜头：根据路况改进检测区大小，获得最佳检测画面效果

★ 防水专利设计：密闭设计，有效防止水汽进入系统

★ 简易正侧安装：拥有广域测试视野，方便正向、侧向安装

★ 异常信息报警：实时监测异常交通流信息 如拥堵、事故等

★ 镜头设遮阳罩：减少逆光影响

★ 广角视窗设计：便于增大水平检测视角

★ 复合传输模式：具备IP、RS485、I/0脉冲信号输出模式

★ 太阳能的供电：可解决道路供电难问题

★ 直观显示数据：可将图像连接到监控中心的监视器上，能直观实时显示车速、交通量等交通流信息

★ 系统设置灵活：安装简单、使用方便、不破坏路面。维修时不需封闭

FEATURE

★ Unique Property Design: All-in-one design integrated camera and analyses algorithms

★ Traffic Data Collection: Traffic volume, average speed, vehicle classification, occupancy, queuing length and other traffic data statistics

★ 612 Solution: Detecting 6 lanes and setting 12 detection zones

★ Wireless Transmission: Solving the wiring problem in intersection

★ Easily Replacing Lens: Changing lens and vision field based on road condition for the best detection result

★ Waterproof Patent Design: Enclosed design for effective water and dust protection

★ Easy Installation: Bringing wide open and easy installation on front and side

★ Abnormal Alarm: Real-time monitoring traffic data, for example traffic jam, accident and others

★ Lens Sunshade: Reducing backlight impact

★ Wide Angle View Finder: Extending the horizontal detecting angle

★ Complex Transmission: Having IP, RS-485, I/O and other method

★ Solar Power: Solving the power problem on road

★ Flexible System Configuration: Easy installation and application without pavement destruction, and maintaining without blocked road

★ Intuitively Data Presentation: Directly connecting the image to monitoring center displayer and showing volume, speed and etc.

资质证书 QULIFICATIONS

主要应用领域　Applications

★ 城市十字路口信号灯控制　★ 电子警察，卡口，测速系统抓拍触发　★ 城市道路交通数据采集

★ 城市道路交通诱导系统　★ 高速公路车辆检测系统　★ 高速公路事件检测系统

★ 过街行人监控系统(2期)　★ 行人计数系统(2期)

★ Urban Intersection Signal Light Control　★ Electronic Police　★ Urban Road Traffic Data Collection

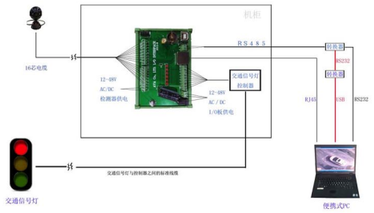
★ Urban Road Traffic Guidance System　★ Highway Vehicle Detection System　★ Highway Incident Detection System

★ Cross-street Pedestrian monitoring system　★ Pedestrian Counting System

TVD 平台软件　Software

通过接入TVD设备，对道路的车流量，交通状况进行统计和汇总

Through accessing TVD equipment, collecting the traffic flow and road condition data



安装方式　Installation

★ 检测器可通过安装支架水平或者垂直安装，俯仰角度可进行调整；

★ 允许视频检测器在车道横杆上安装监控顺行货逆行车道，还可以在路旁立杆上抱住安装监控车道；

★ 可以利用红灯横杆监控对面车道。

★ The detector should be installed on mount horizontal and vertical, and the tilt should be adjusted

★ The detector should be installed on cross bar above the road or montant beside the road for monitoring double direction vehicle.

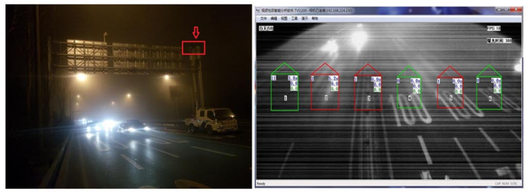
★ The installation should use cross bar of traffic light too.

现场安装图片

太阳能无线供电系统（应用地点：天津）

TVD-100与西门子信号机配合使用

TVD-100上海路口应用



TVD-200大连路口应用