

MTP Traffic Sign



Design & Production

Solar Traffic Sign

MTP RED LIGHT Violation Radar



MTP Traffic Sign Co

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Technical Specification	
Mini PC	Recording full time video 8GB DDR 128GB SSD
Camera PTZ 2 pcs	Power Supply 12 Volt DC, 18w(Max 7watt for IR) Full HD resolution Focal length 4.8mm to 120mm Tilt speed 0.1°/s to 80°/s Min. illumination 0.005ux for color mode Shutter Speed: 1/3 to 1/100,000s Operation conditions: -30°C to +60°C (-22 °F to +140°F) Weight 2kg
Software	MTP Red Light Violation Detector Software Image Processing Detecting 2 lines car passing Detecting Signal status Detecting Red Light Violation Saving plate number
ANPR	MTP Automatic Number Plate Reader
Router	Transfering violation Data with Police Sim Card
Solar Panel	200 Watt
Charge Controller	Controlling Battery Charging and voltage
Battery	12 volt - 100 AH

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Description

A Red Light camera is a type of traffic enforcement camear that

captures an image of vehicle that has intered an intersection in spite of

traffic signal indicating red. device which may be mounted beside the

road to detect motoring, and it may be linked to an automated ticketing

system.

According to AAA, drivers running red lights result in 28% of crash

deaths at signalized intersections. Before red lights could give tickets,

the only way for an officer to ticket someone who ran a red light would

be to dangerously chase them through the intersection.

Red light cameras were installed to catch people who run red lights,

especially at collision prone intersections, without the need for a police

officer to be on scene. The Insurance Institute for Highway Safety (IIHS)

found that properly implemented red light cameras reduced the fatal red-

light running crash rate of large cities by 21% and the rate of all fatal

crashes at signalized intersections by 14%.

Violation Captures and Data

Red Light Violation detector takes 2 captures and one video and one

XML data file:

- One capture of vehicle before the refrence line,

- Second capture of car after cross the refrence line with clear plate

number, which use for Automatic Plate Reader(ANPR),



Picture 1: Capture of car with clear plate number

- One video which covers 1.5 seconds before violation time and a 0.5 seconds after violation time to be as a reference for police,



Picture 2: Video of driver while passing Red Light Signal

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- XML Data has information of Site Code, Location Place, date, Time, Radar ID, Plate Number,

```
Vendor="MTP" PrimaryType=" Red Light " Name="11722-2020-09-24-10-50-55-
001">
 - <Capture IncidentDateTime="2020-09-24 10:50:55.252">
      <VehicleClass Measured="Car"/>
      <Lane Index="0" Alias="RoadShoulder"/>
   </Capture>
 <Devices>
      <Device Name="11722"/>
   </Devices>
 - <Files>
      <File Name="img_2020-09-24_10-50-55_1600930255_1.jpg"
          Group="Overview"/>
      <File Name="img_2020-09-24_10-50-55_1600930255_2.jpg"
          Group="VideoFrame"/>
      <File Name="video_2020-09-24_10-50-55_1600930255.avi" Group="Video"/>
   </Files>
 <Locations>
      <Location Name="Test-HE" Direction="Approaching" Code="11722"</p>
         Address="8"/>
```

Picture 3: Data Violation with xml format

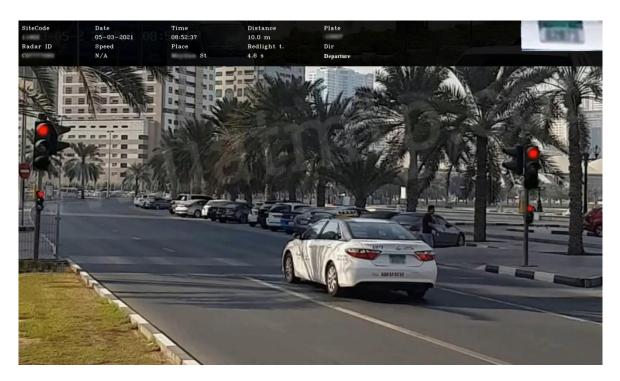
MTP Red Light Violation Radar can save violation images and videos on USB flash memory or can send as online to police station via secured internet.

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MTP ANPR

MTP Red Light Violation Radar has own ANPR (Automatic Number Plate Reader) software as optional.

With ANPR, it reads registered plate number of violator car and sends it along with captures and video to police control room.



Picture 4: sample of ANPR

ANPR Status Bar

It is included:

- Site Code,
- Radar ID,
- Date and Time,
- Location Place,
- Plate Number,
- Picture of Plate

PTZ Camera Specification

. Power Supply 12 volt DC,18w(Max 7 watt for IR)

. Full HD resolution

. Focal length 4.8mm to 120mm

. Tilt speed 0.1°/s to 80°/s

. Min illumination 0.005 lux for color mode

. Shutter Speed: 1/3 to 1/100,000s

. Operation conditions: -30°C to +60°C (-22 °F to +140°F)

. Weight 2kg

Router

After detection violation, camera records two images and one video of

violator vehicle and save it in miniPC.

These images and video along with its data like as date, hours and

place can send to traffic control section of police office via one Router

which is embedded in Red Light Violation Detector. This Router has one

Simcard which provided by police. It can make secure connection

between our violation detector and police office.

Another option is available with Red Light Violation Detector and it is

WIFI collection data.

Means police officer can collect all data and images and videos with

stop beside of camera for a few minutes, so data and images and video

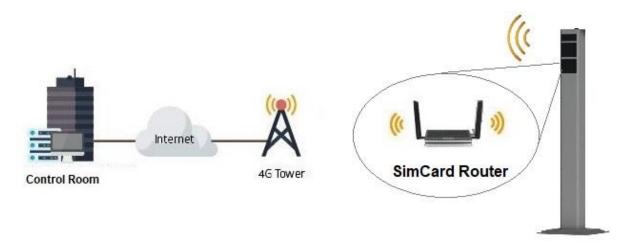
will be transferred from Red Light Violation Detector to police laptop with

WIFI connection.

One more option is available also for collection data and it is USB

memory.

MiniPC can save all of violation data and images and video on USB memory, so police officer only have to visit camera every day or couples of days and remove USB memory and put new USB memory.



Picture 5: Data transferring with Simcard Router

So violation data and images and videos in our violation detector can be collect with three following ways:

- Collection data and images and videos by USB memory,
- Collection data and images and videos by WIFI system,
- Collection data and images and videos by Simcard internet,



Picture 6: Data Collection ways, USB memory, WIFI system, Simcard internet

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Product is included:

- Two Camera:

Image size: 2560*1440 and 1920*1080,

Minimum Ilumination: color 0.005 Lux, b/w 0.0005 Lux,

- mini PC:

Violation per minute: 60

8GB DDR 128GB SSD

- MTP Software
- Router
- MTP ANPR
- Solar Panel
- Battery
- Decorative Post

It can be installed beside and set up software to be compatible with specific place as customer desired.

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