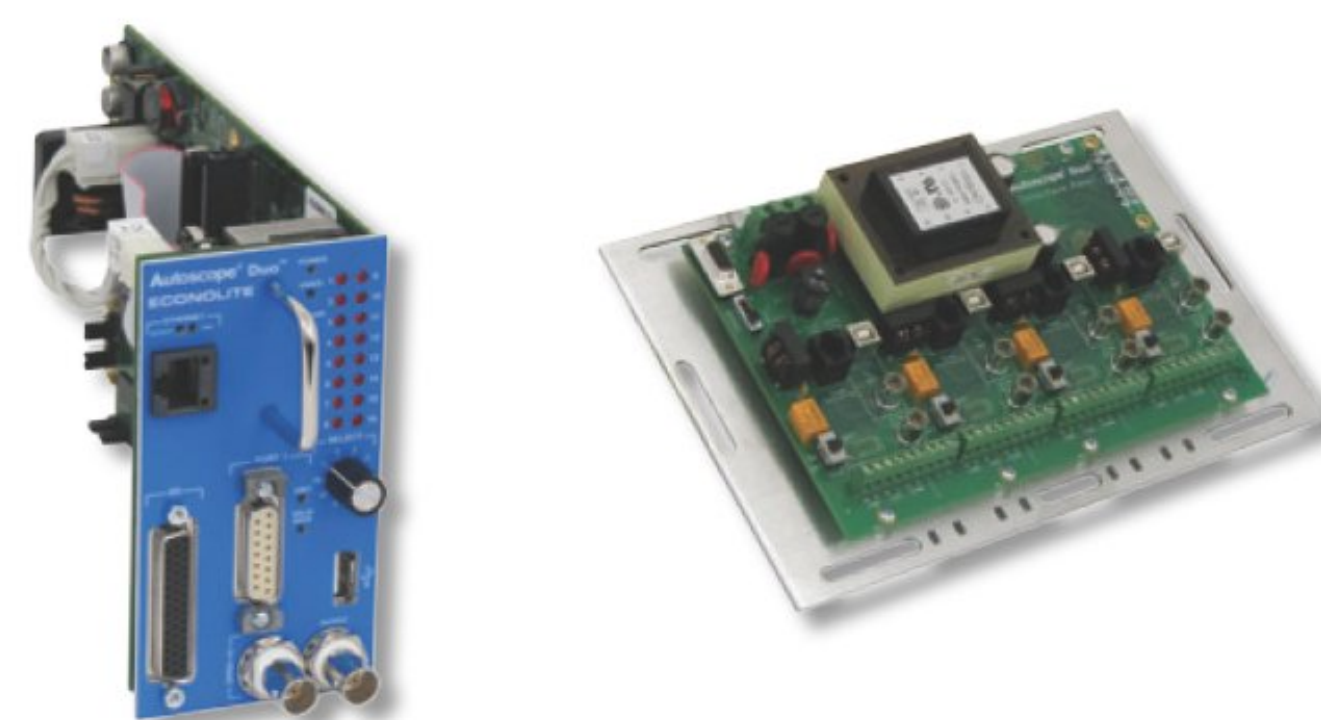




Autoscope Duo Detection Modules

The *Duo* Detection Module (DDM) is a detector card for a standard Detector Rack or Input File. It performs the decision logic process to combine radar and video information for optimal detector performance. The DDM converts standard NTSC analog video to streaming digital MPEG-4 video to view locally at the traffic cabinet or remotely from the office. The DDM input/output capabilities include detector port master capabilities. The DDM interfaces detector outputs directly to NEMA TS1/TS2, Type 170/179, or 2070 ATC controllers.



Duo Interface Panel

The *Duo* Interface Panel in the cabinet protects other cabinet equipment from outside surges and noise. Its multiple layers of protection include step-down transformer isolation and fuses. Terminal blocks connect up to four (4) *Duo* sensors. A pigtail cable assembly provides simple connection to the *Duo* sensor for power, radar, video, and zoom controls. These electronic devices comply with all applicable requirements of TEES, NEMA TS 2, and IEC60529 standards.

Zoom Control

The *Autoscope Duo* uses a RS-485 circuit to control the zoom of the lens from a handheld controller. Since aiming the camera is most often a one-time event, this simple zoom control helps keep the overall size of the camera small and compact. The installer can conveniently make adjustments with a handheld zoom controller from the bucket, base of pole, or cabinet.

Sensor Cable

The sensor pigtail cable is available in a wide variety of lengths for connection to branch cabling at the base of the pole or a homerun back to the cabinet. The easy-to-install connector helps keep the overall size of the sensor small and compact.

Autoscope Duo Sensor

- Power
 - 16 to 24 VDC, 8 W maximum
 - Consumption, current: 300 mA @24VDC, 8 Watts
- Radar
 - Max range (passenger car from typical mast arm mount location) 90 m (290 ft)*
 - Total field of view: $\pm 35^\circ$ AZ; $\pm 8^\circ$ EL
 - Max transmit power (EIRP) 20 dBm
 - Frequency Band: 24.0—24.25 GHz
 - Bandwidth < 100 MHz
- Environmental
 - -40°C to $+60^\circ\text{C}$ (-40°F to $+140^\circ\text{F}$)
 - Video and radar sensors sealed in waterproof and dust tight housing which meet NEMA 4 and IP67 standards



- Video Sensor
 - Lens: 10x zoom, 5° to 46° horizontal, 4° to 35° vertical
 - $\frac{1}{4}$ in. color CCD, NTSC format
 - Resolution > 470 TVL horizontal
 - Sensitivity at lens, full video, no AGC, 3.0 Lux (typical)
 - S/N > 50 dB
- Video Output
 - NTSC Composite 75 Ω 1 Vpp, BNC connector
- Single Integrated Duo Sensor Cable
 - 3-wire Power
 - Coaxial cable: video transmission
 - Two-wire RS-485 (x2) for lens zoom control & for radar data, command, and control
- Housing & Sunshield
 - Lightweight, durable polycarbonate construction
 - Thermostatically controlled faceplate heater
 - Adjustable weather and sunshield with drip guard
 - Weatherproof rear connector
 - Standard camera bracket tilt-top provided
- Overall Dimension & Weight
 - H x W x L: 13 in x 5 in x 11 in (33cm x 12.7cm x 27.9cm)
 - 4.5 lb (2.0 Kg)
- Regulatory
 - FCC Part 15, Class A
 - FCC Part 15.245, EN300440 compliant