ATC

Advanced Traffic Controller

Traffic Signal Control System Communications

Description
The Advanced Traffic Controller mounts near a traffic intersection and sequences the traffic lights. It connects to the central control site using RS232, FSK, or Ethernet. The modules are listed below.

ATC Chassis
This chassis hold three or four interface cards, as well as the system power supply.
    120V AC power supply
    Ethernet switch on the backplane interconnects all slots
    Positronics SK2688-104 connector connects to the traffic light control/ sense modules
    96-pin DIN socket backplane interface connector
    Conforms to C25ATC specifications

ATC HOST Timer Module
This module sequences the traffic lights and communicates with the head end.
ATC86SX processor
    RS422 or 10/100BASE-TX Ethernet backplane communication with other interfaces
    Three 10/100BASE-TX ports allow connection to local devices such as cameras
    Host USB interface for installing new applications.
    RS232 DB9 interface for direct processor connection to external equipment
    Internal VGA and keyboard interface for code development
    Operating system and application stored on internal ATE flash drive

ATC Display Module
This module displays the traffic light status**.**
    6x24 character display panel
    5 control and 1 power key
    USB keyboard interface
    RS232 DB9 interface to processor

ATC COM - Serial Module
This module connects to Bell 202 type modems at different intersections. This allows a single ATC controller to sequence multiple traffic lights.
    1 RJ11 FSK modem interface
    2 DB9 RS232/RS485 interfaces

ATC ECOM - Ethernet Module
This module is used for Ethernet communication between different ATC traffic controllers as well as the host site.
    Conforms to ATC2070 standard
    2 Optical SFP 1000BASE-X for upstream/downstream connections
    3 Electrical 10/100/1000BASE-T for local devices such as cameras
    1 Electrical 10/100BASE-TX for backplane communication with the HOST microprocessor

ATC QCOMM – Ethernet to FSK/RS232/RS485 Module
This module allows a traffic control master to connect using Ethernet to remote traffic controllers with Bell 202 FSK modems; this reduces the need for telco leased and dialup lines. To communicate generate a packet, and append QCOMM IP address followed by the port number which corresponds to the desired FSK port.
    10/100BASE Ethernet network connection
    4 FSK modem ports, or 4 RS232 EIA/TIA-561 ports, or 4 RS485 ports
    Socket based TCP/UDP encapsulation
    Client and server modes
    Web server management