



ITS PLANNERS AND ENGINEERS



Advanced Wired Traffic Signal Controller Datasheet

*Data Sheet/Traffic Signal Controller
Model: ATCS_3.1*

Disclaimer: Artistic view - All images, features and specification depicted here are indicative and are subject to change without prior notice in view of rapid development in technology and changing requirements of the customers and revision of the specification. Processor decided as per project requirements.

Introduction

The latest advanced traffic signal controller from ITSPE stable provides unparalleled capabilities in terms of control, process and optimise traffic signals. The unit has been neatly designed making it a compact programmable hardware unit with processing capabilities. The master-slave design would provide the required flexibility during deployment consuming less space with more functionalities. This UG405 compliant controller has the following features:

Key Features

- Adaptive traffic control in local or ATC modes
- In local mode, custom user-defined controller logic can be easily integrated
- Advanced lamp and conflict monitoring system
- Bus priority compensation and emergency vehicle preemption can be easily implemented
- Easy to use LUA programming language
- Local inherent data logging operations
- Custom logic can be pushed remotely to the controller, without having to do that on-site
- A portable LCD terminal for onsite programming and monitoring is available, making unauthorized changes to plans impossible
- Auto and Manual modes of operation, by default
- Police panel can be easily integrated
- Easy setup of the controller
- System restored automatically after a power loss event
- Safe controller with compulsory all red and flashing amber plans
- Up to 8 hurry call buttons, based on the number of stages
- Hurry calls can be configured as Forced Flash Switch, Auto / Manual Switch, Manual for forcing the controller to any stage of choice

Disclaimer: Artistic view - All images, features and specification depicted here are indicative and are subject to change without prior notice in view of rapid development in technology and changing requirements of the customers and revision of the specification. Processor decided as per project requirements.

- Advance Pushbutton Switch
- Junction OFF Switch will also be present
- Always turns on with all red and flashing amber plans, thereby reducing confusion for drivers
- Power saving by regulating the intensity with multiple levels of dimming
- Minimum green
- Option to set timings to auto revert to the normal operation
- Run flashing amber plan, while programming the controller.
- Flexibility of operating the filter green along with a vehicular phase and possibility of configuring any phase to the given lamp numbers at the site

Functional Specification

Output Lines:	32 output lines or more
Signal Plans & Groups:	64 signal plans & 24 signal groups
Phases & Stages:	32 stages & 32 phases
Cycle Plans:	24 cycle plans with 24 entries on each plan
Day Plans:	7-day plans (with provision of storing more on SD card)
Week Plans:	7-week plans
Special Day Plans	Minimum 10-day plans
Erase Plan:	Erase individual or all plans together
Line Test Plan:	System is configured to check individual output lines
Line fault monitoring:	In-built module to check the status of the output lines
Amber Plan:	16 Entries for auto changeover in Manual Mode
Starting:	Configurable flashing amber time & all red
Inter - Green Time:	Configurable clearance amber time
Hurry Call:	8 hurry call buttons

Disclaimer: Artistic view - All images, features and specification depicted here are indicative and are subject to change without prior notice in view of rapid development in technology and changing requirements of the customers and revision of the specification. Processor decided as per project requirements.

Modes:	Fixed time, vehicle actuated, full ATCS through central application
Advanced Detector Interfaces:	TCP socket input connection capable of handling more than 16 detector zone inputs

Technical Specification

Processor:	32/64 bit
Input Voltage rating:	230 VAC at 50Hz
Output Voltage to lamps:	12 VDC or 24VDC or 230 VAC
Power Consumption:	20W max (without lamps)
Backup Battery:	Battery backed-up Real-Time Clock (RTC) External battery backup input (optional)
Operating Temperature:	0°C to +60°C
Operating Humidity:	Up to 95% non-condensing
Status Indicator:	Available
Push Button:	Available
Timing Resolution:	100 msec (input resolution to 2ms)
CPU:	400MHz ARM AT91SAM9G20 or 1.5 GHz 64-bit quad-core ARM Cortex-A72 processor
Communication:	1 x 10/100 Ethernet interface, RS232, USB, 3G/4G
User Interface:	Web-based interface
Storage Capacity:	'512 MB Flash and 128 MB SDRAM' or '2 GB of RAM and 16GB of storage'
Operating System:	Debian Linux
Remote Configuration Capability:	Using web interface and config files

Disclaimer: Artistic view - All images, features and specification depicted here are indicative and are subject to change without prior notice in view of rapid development in technology and changing requirements of the customers and revision of the specification. Processor decided as per project requirements.