iCITE ®
Intelligent Cabinet Interface to Traffic Equipment

Data Aggregator DA-300®

A data and communications rich hardware platform that transforms legacy or isolated traffic cabinets into real-time traffic data reporting and count stations

iCITE® Data Aggregator DA-300® is a hardware platform that interfaces to traffic controllers, communications enabled detectors and MMUs/CMUs at remote or networked intersections. The DA-300® can provide real-time intersection data to your existing ATMS data set, in addition to cabinet health and GPS-based time sync. It is able to generate critical intersection and cabinet status alarms and provide real-time notifications via SMS or e-mail. Easily installs in Type 170/2070, NEMA TS-1, TS-2, ITS or ATC style traffic cabinets. Simplified interface with EDI or Reno A&E MMUs/CMUs for data retrieval.

In cooperation with any **iCITE Ready™** data analytics partner, the DA-300® can provide turning movement counts, amber/red actuations, arrivals on red, detector failures, preemption details, communications and power failures/alerts, split and interval timing data, travel time and the Purdue Coordination Diagram (PCD), based upon Hi Resolution Data, all tailored to provide Automated Traffic Signal Performance Measures (ATSPM) via a Cloud-based user-friendly interface. Wi-Fi equipped and travel time ready.

FEATURES

- Data and communications rich hardware platform

- Transforms legacy traffic cabinets into count stations

- Easily interfaces with controllers and detectors

- Safely retrieve critical data from an MMU/CMU

- Add remote intersection data to your ATMS data set

- Provides cabinet health and GPS-based time sync

- Internal battery back-up for critical alarm generation

- Access remote intersections via 3G/4G/LTE cellular

- Travel time ready via Wi-Fi or Bluetooth sensors

- Interfaces with any **iCITE Ready™** data analytics provider

- 5-Band antenna covering GSM/GPRS/LTE, GPS, Wi-Fi, BlueTooth, DSRC bands

- Shelf or rack-mounted installation

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Data Aggregator DA-300®

FUNCTIONALITY

Connectivity	
Cell Modem	Yes - 3G/LTE/GSM/GPRS (Standard); 4G (Optional)
Wi-Fi	Yes - Travel Time (Receive only- Cannot be used as a WLAN)
Ethernet Port	Standard - 2 ports (10/100 Base -T)
EIA-232	Yes
SDLC	Standard (Easy connectivity with NEMA TS-2 controllers & MMU's)
USB	Standard - 2 ports
BlueTooth	No (Available as an option)
Aux. Ports (Qty. 8)	Standard (RS-485 inputs from Communicating Detectors)

Cabinet I/O	
Analog Inputs	16 (8 X 120 VAC; 8 X 24 VDC)
Digital Inputs	20 (16 X 24 DC; 4 X 24 VDC; 16 detectors; 4 peds)
Time Sync	Normally Open and Normally Closed with user selectable time
Digital Outputs	3 (either Normally Open and Normally Closed 5A relay)

Miscellaneous	
Operating System	Linux - Ubuntu 12.04.2 LTS kernel ver. 3.15.3
GPS	Yes - Geolocation with Time Sync
Operating Temperature	-40ºF to 176ºF / -40º C to 80º C / Standard Industrial temp. range
Humidity	0 - 95% Non-Condensing
Dimensions	5.487" (D) X 8.18" (H) X 3.5" (W). (13.936 cm X 20.772 cm X 8.89 cm.)
Weight	3.6 lbs. / 1.62 Kg
Power Input Voltage	8 - 28 VDC (2A 250V 5mm X 20mm Fast-blo fuse)
Real Time Clock	Yes
Flash Disk	Yes
Battery Back Up	Yes - allows communications and remote logging up to ~5 hours
Battery	Non-Spillable Sealed Lead-Acid 6 VDC 4.5Ah

Protocols	
SDLC	Yes - Standard (TS2 or TS2 Type 2 cabinets only)
RS-485	Yes - Standard up to 32 channels of input
iCITE™	Yes - used to connect to iCITE™ G2™

Other	
Solar Power Capable	Yes
Antenna	Yes - 5 band (Cellular, GPS, Wi-Fi, BT and DSRC)
Antenna Bracket	Optional side mount to traffic cabinet
DSRC / SPaT	No

Notes:

If a specific cellular carrier is preferred, or existing service plans will be used for cellular data, please specify carrier at the time of order. In USA only, deeply discounted plans can be provided along with the device from AT&T, T-Mobile or Rogers. International cellular providers need to be verified for device internal modem compatibility prior to order.

Custom configurations of Analog and Digital I/Os available for volume orders.

- Detector information from NEMA TS-1, TS-2, or Type 170/2070 cabinets using RS-485 Serial Communications for up to 32 channels

- (Optional) Monitors and logs Wi-Fi polling requests for Travel Time and Origin-Destination reporting in **iCITE G2™** Cloud based software

- Detector and signal information from NEMA TS-2 cabinets using SDLC communications to provide additional data

- Remote access to non-interconnected intersections with 3G/4G/LTE Cellular Communications

- Compatible with High-Speed Wired or Wireless Networks

- Provides back-up of critical communications from intersections that are connected to a central ATMS system

- Communications and interfaces use 2048-bit encryption to ensure both device and network security

- Cabinet Health Monitors
  - Ambient temperature
  - Battery backup system
  - Heater / fan
  - Cabinet door
  - Stop time
  - AC/DC power
  - Intersection flash
  - Primary communication
  - and more...

EDI

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