Trafficware® Controllers

cubic®

Connect. Control. Transform.

Our controllers are more than products. They're the hallmark of reliability and performance. Built on excellence, our controllers provide optimized traffic flow, reduced congestion, improved safety, leading to increased quality of life and a more connected urban landscape.

Commander

A compact controller design based on the latest ATC standards, the Commander is provided in a shelf or rack mount configuration, and supports all modern cabinets, including NEMA TS1, TS2, ITS and ATC. The Commander is loaded with our latest Scout controller software and allows engineers to operate even the most complex, multimodal signalized intersections. The Commander controller was designed in collaboration with our customers and represents our most advanced traffic controller offering.

Shelft Mount Features

** Optional Configuration – Available to Order*

GRAPHICS PROCESSOR

- ARM Cortex-A7 processor @ 800MHz
- 256MB SDRAM memory, 256MB Flash memory
- Linux ver. 4
- Ethernet link to engine board – allows loosely-coupled co-processing

COMMANDER ENGINE BOARD - VER. 6

- Rack Mount & Shelf Mount Engine Board
- Meets and exceeds ATC Standard ver. 6.25
- Meets Caltrans TEES 2009 + Errata 1 & 2
- Supports ATC API • PowerQUICC 2 Pro @ 400MHz
- 2nd QUICC for port expansion
- 128MB DRAM - 512MB ready
- 256MB Flash - 1GB ready
- 2MB SRAM (SuperCap-backed) – 4MB ready
- Linux ver. 3.4.118 • SD Card – high-speed SDIO interface

Rack Mount Features

FRONT VIEW

Compact Design 6.75" x 19" x 10.2"

Rack Mount Slots (4U)

Removable SD Storage (8GB)

Power Switch

Fuse Holder

Front Mounted Speaker

"Active" Indicator Light

ATC Console Port

7" color 800 x 480 TFT Display
- Resistive touch panel
- Sunlight Readable

Oversized Rubber Keypad, Assignments to 2070 and 980 ATC Users

Auxiliary Switch

(3) Ethernet Ports:
- 2 - Switches, 1 per engine board ethernet
- 1 - 10/100 ethernet port to graphics processor

(2) USB 2.0 High Speed Ports:
- 1 USB port from engine board
- 1 USB port to graphics processor

REAR VIEW

Datakey: 3.3V, Up to 32Mb

Ethernet Ports (3):
2 - 10/100 ports, 1 per engine board
1 - 10/100 port to graphics processor

USB 2.0 High Speed Port from Engine Board

C1S / C11S Connectors*

2070 Comm Module Slot (SP1 and SP2)

NEMA TS-2 Port 2
ASYNC EIA-694 Port (SP8)

TEES C12S
EIA-485 port (SP3 and SP5)

NEMA TS-2 Port 1*
SDLC port for cabinet communications

** Optional Configuration – Available to Order*

COMMANDER CONFIGURATION	CABINET				COMM	ATC	PORT			
	TS1	TS2	CAL TRANS	ITS/ATC	7A/7B	POWER	C1S/ C11S	PORT 1	PORT 2	C12
NEMA Shelf Mount	X	X		X	X	A CONN		X	X	X
ITS/ATC Rack Mount		X		X	X	CORD		X	X	X
Cal Trans Rack Mount		X	X	X	X	CORD	X	X	X	X

Commander Features Comparison

FEATURE	SHELF MOUNT	RACK MOUNT	BRAND X	BRAND Y	ATC v6.25/(TEES)
ENCLOSURE					
Dimensions (HxWxD)	8.2" x 15" x 6.5"	6.75"x19"x10.2"	8.5"x14.8"x6.4"	10.5"x14.8"x7.8"	
Carrying Handle	2: Integral, Sides		Integral, Rear		
ENGINE BOARD					
ATC Standard Compliance	v 6.25	v 6.25	v 5.2b/6.10		
Processor	PowerQUICC 2 Pro	PowerQUICC 2 Pro	PowerQUICC 2 Pro		PowerQUICC 2 (Tees)
Additional Comm Processor	QUICC	QUICC			
Speed (MHz)	400	400	233		
DRAM (MB)	128	128	128	64	64
FLASH Memory (MB)	256	256	64	64	32
SRAM (backed up) (MB)	2	2	2	1	1
Linux Version	3.4.118	3.4.118	2.6.3x	3.4	2.6.18
USER INTERFACE					
Display	800 x 480	800 x 480	Y	240 x 120	
Sunlight Readable	Y	Y	Y		
Graphics Support	HTML5	HTML5		Android™	
Keypad (# of keys)	29	29	28	28 (2070)	28
Key Spacing	0.8"	0.8"	~0.8"	0.5"	
Tactile Keys	Y	Y	N	Y	
Touch Panel	Y	Y	Y	Y	
Speaker	Y	Y	Y		Beeper
COMMUNICATION PORTS					
Ethernet	5	6	4	4	4
Ethernet (Graphics Processor)	1	2			
Ethernet (NEMA Ports 1&2, C50S)	Y	Y	Y	Y	
USB Ports	3	3	2	4	1
USB (Graphics Processor)	1	1			
Datakey Socket (side)	Y	Y	Y	Y	Optional
SD Card Socket, Internal (Speed)	Fast	Fast			Optional
SD Card Socket, External (Speed)	Serial	Serial			
24V DC Over-Current	Electronic	Electronic	Electronic		Y
Comm Status Indicators	Y	Y		Y	Y
Comm Slot (side)	Y	Y	Y	Y	Optional

Connect. Control. Transform.

980 ATC Controller

The 980 ATC controller is based on NEMA TS2 standards and has a TS2 Type 1 and Type 2 form factor that was designed in consideration of ATC 5.2b standards. The 980 ATC controller may be used in areas that require complex phasing, coordination and preemption, and is compatible with our latest controller software, Scout, as well as advanced adaptive signal control technologies, such as SynchroGreen®.

980 ATC Features

NTCIP OBJECTS

NTCIP Standard objects enhance the 980 Controller with new standard ATC operating features. Compatible with Scout Controller software for additional flexibility with complex traffic demands.

DIAGNOSTICS

Built-in diagnostics provide improved maintenance and simplified repairs, allowing operators to test all input and output signals, RAM devices, memory, LCD, keypads, etc.

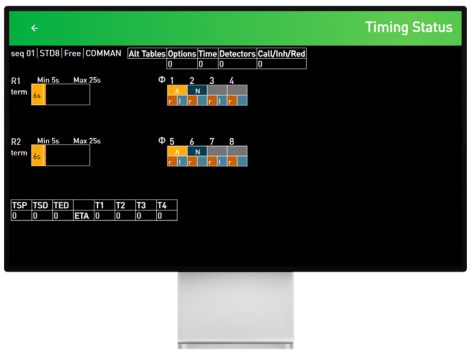
SPECIFICATIONS

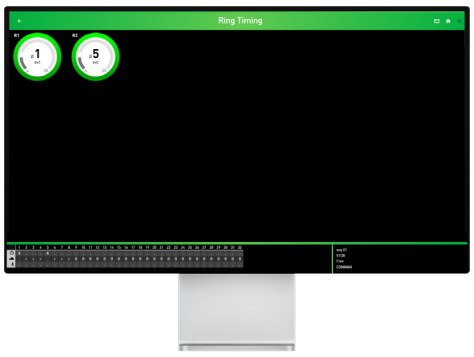
Voltage:	89 to 135 VAC
Frequency:	60 +/- 3 Hz
Temperature:	-29°F to 165°F (-34°C to 74°C)
Humidity:	95% max, non-condensing
Dimensions:	10.50"H x 14.75"W x 8.38"D

Scout Controller Software

Scout controller software is the industry's premier traffic signal software. With over 40 Years of traffic industry experience, Scout has the functionality to address the most complex intersections needs and supports NTCIP, CV2X, TSP. Scout supports ATC cabinets and has expanded phases, overlaps, coordination parameters, and preemption enabling easy customization to support your traffic demands.

Scout pairs perfectly with our Trafficware® ATC controllers, including Commander, 2070-1C and 980 ATC. Interoperability is not an issue as Scout software works on most Linux platforms.





Features

COORDINATION
253 Patterns, actions and splits with cycle lengths up to 999 seconds within 64 day plans with 48 events

PEER-TO-PEER COMMUNICATIONS
Communicate with up to 15 other controller over IP to remotely exchange inputs and outputs

OVER THE AIR UPDATES
Enable OTA controller software updates

TRANSIT SIGNAL PRIORITY
Enhanced NTCIP 1211 support for priority request generators

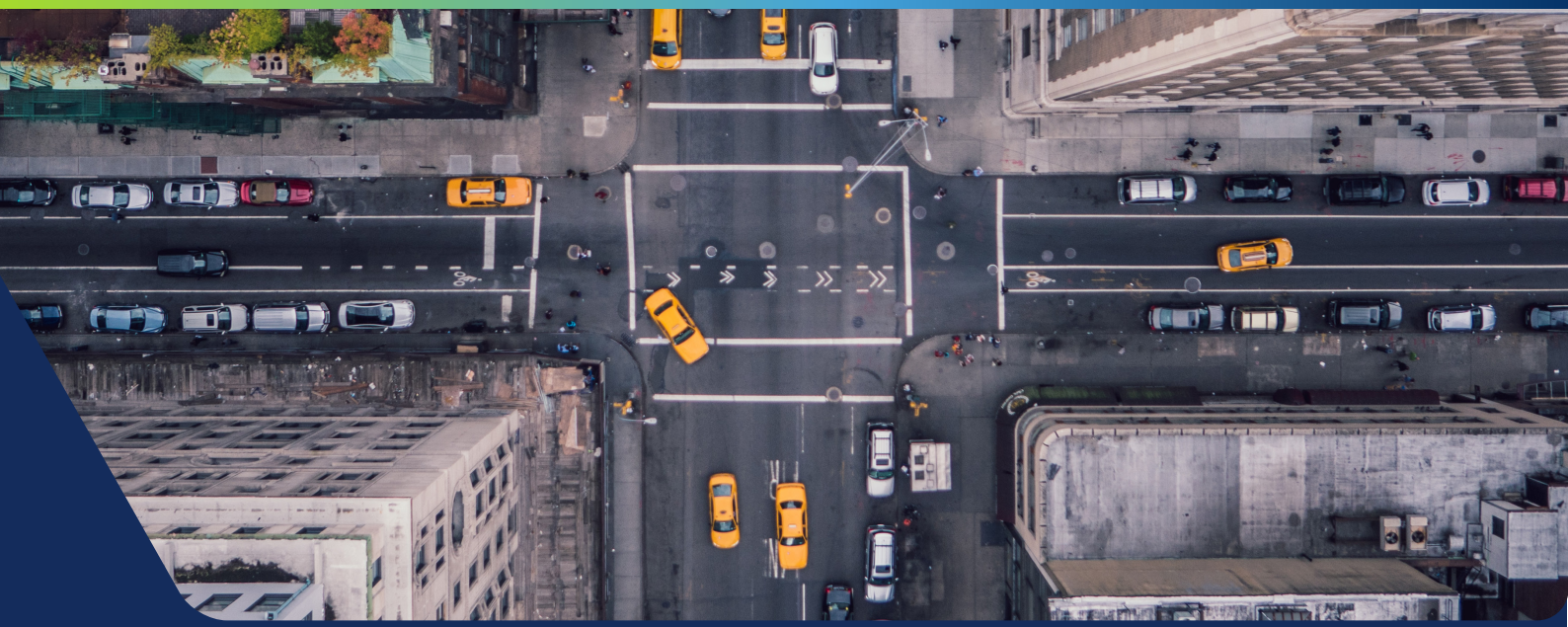
OPTIONAL MODULES
Connected Vehicle (CV2X) SynchroGreen Adaptive, Signal Performance Measures (SPMs), Transit Signal Priority (TSP), Detector Control System (DCS), and Traffic Responsive (TR)

CABINET COMPATIBILITY
NEMA TS 1, NEMA TS 2, Model 33x, ITS, ATC

SIGNALS
Vehicle Phases: 32
Pedestrian Phases: 32
Rings: 8
Phases Per Ring: 32
Overlaps: 32
Output Channels: 32

DETECTION
Vehicle Detector Inputs: 128
Pedestrian Detector Inputs: 32
Alternate Tables : 8

MISCELLANEOUS
Logic Statements: 100
Preempt Sequences: 12
Transit Priority Sequences: 4
Special Event Sequences: 4



Who We Are

For us, transportation is personal. We know that every journey matters, no matter how long or short. That's why the team at Cubic Transportation Systems helps transportation authorities and transit agencies design, integrate, deploy and manage mobility systems fit for the challenges of tomorrow.

We work alongside our transportation partners to understand their needs, objectives, and budgets while helping them build modern mobility systems to manage demand and congestion, make journeys safer, and empower travelers to make informed and preferred travel choices.

Whether you're after a small-scale cloud-based, real-time passenger information system, a regional congestion management platform, or a complex traffic management system for urban networks delivered in an as-a-Service model, we're here to support you and your customers.

Our solutions are scalable to ensure we're the right-sized partner for any job, from rural communities like Eugene, Oregon, and Merida, Mexico, to urban metropolises like London, New York City, Sydney, and Singapore. With over 1,500 transportation projects across every continent under our belt and a network of convenient, locally-based offices with dedicated support teams, we have the technology and the know-how to solve your mobility challenges.

But don't just take it from us. Hear from our local partners who entrusted us with their mobility needs. We've worked with partners from all transportation modes, including transit agencies, airports, highways, intersections, and corridors across small communities, metropolitan cities, and regional authorities.

Get in touch to see how we can work together to help your transportation network.

Cubic Transportation Systems, Inc.
9233 Balboa Avenue
San Diego, CA 92123
TEL: +1 866-652-5347
its.support@cubic.com
cubic.com/transportation

CTS-ITS-TW-BR-CONTROLLERS-RevC-25JUN