FLeX™ Controller

PRODUCT SPECIFICATION

Specifications	|	www.mccain-inc.com
Customer Support	|	support@mccain-inc.com
Product Inquiries	|	888-2-McCain (888-262-2246)

TABLE OF CONTENTS

1 CONTROLLER HARDWARE

1.1 Enclosure

1.1.1 The controller shall be shelf or rack mount compatible.

1.1.1.1 External dimensions shall not exceed 5.25” H x 12.5” W x 7” D for the shelf mount and 5.25” H x 19” W x 7” D for the rack mount version.

1.1.1.2 The rack-mounted controller shall have mounting ears on each side that allow mounting to a standard 19” EIA rack.

1.1.1.3 All enclosures shall be constructed of aluminum (minimum 0.08” thick) and capable of operating in a temperature range of -37° C to +74° C.

1.1.2 Only one version of software shall be required for either configuration.

1.2 Electronics

1.2.1 A built-in, high-efficiency power supply shall provide:

- Maximum and minimum voltages of 89VAC to 135VAC, 60 Hz (+/-3 Hz)
- A current limited output
- Over voltage protection for input power
- A typical power consumption of 17 Watts

1.3 Front Panel

1.3.1 The front of the controller shall consist of an oversized 16 line x 40 character LCD display, a membrane-type 4x7 key matrix, and all necessary connectors.

1.3.2 The front panel shall include:

- C50 connector with SP4 support
- A minimum of two (2) Ethernet connectors
- A minimum of one (1) USB connector
- An auxiliary switch
- A power switch
- A fuse holder
- An active LED indicator light
- Recessed on/off switch

1.4 Rear Panel

1.4.1 The rear panel shall include:

- A minimum of two (2) Ethernet connectors
- A USB connector (1)
- Two serial ports supporting SP1 and SP2

- SP3 Port (SDLC) NEMA 15 pin
- SP3/SP5 Port (SDLC) Caltrans 25 pin

1.5 ATC Engine Board

1.5.1 The controller shall include an ATC engine board that adheres to the Caltrans 1C engine board standards.

1.5.2 The engine board shall include a Freescale 8360 Power QUICC II processor

1.5.3 The engine board shall have a minimum of the following memory:

- 16MB NOR and 256MB of NAND flash memory
- 256MB DSRAM and 2MB SRAM RAM memory

1.5.4 The engine board shall provide the seven ATC serial ports, Ethernet, and USB as required by the ATC standard.

1.5.5 The operating system shall be Linux 2.6.39 or later.

1.6 Hardware Options

1.6.1 The controller shall have the option to expand with the following

1.6.1.1 Optional C1 and C11 connectors for Caltrans-style cabinets.

1.6.1.2 Optional Datakey receptacle.

1.6.1.3 Optional SD card receptacle.

1.6.1.4 Optional Wifi module.

1.7 Standards Conformance

1.7.1 The electronics shall be of a modular design.

1.7.2 A built in power supply provides all of the necessary voltages and timing signals for the controller.

1.7.3 All circuit boards shall be conformal coated to protect against moisture and corrosion.

1.7.4 All circuit boards shall meet the NEMA standard.