

SWARCO

# McCain 2070 CONTROLLER MODULES

CHASSIS

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NEMA ADAPTER

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SWARCO McCain manufactures a variety of McCain 2070 Controller Modules in full compliance the California Department of Transportation (Caltrans) Transportation Electrical Equipment Specifications (TEES2020). By combining these modules, customers can easily configure model 2070 controllers to meet their specific needs.



## KEY BENEFITS

- Easily upgrades current intersection hardware
- Rugged and reliable modules
- Modern, efficient designs
- Modular design for a variety of configuration options

## PRODUCT DESCRIPTION

SWARCO McCain's 2070 Controller Modules, based on the module(s) and software control package utilized, control applications that include: intersection control, ramp metering, variable message signs, sprinklers, pumps, and changeable lane control.

Permitted by the modular design of 2070 controllers, McCain modules facilitate matching the hardware configuration to your individual requirements.

SWARCO McCain offers a variety of 2070 modules that can easily upgrade your existing equipment to meet your overall Intelligent Transportation System (ITS) goals without the need to purchase new cabinets. SWARCO McCain is listed on the Caltrans QPL for the 2070LX and 2070LX+ with all modules.

# McCain 2070 CONTROLLER MODULES

## CPU MODULES

CPU modules contain the controller's operating system, microprocessor, memory, and essential computing devices.

2070- 1C:	TEES 2020, Linux OS, 256MB DDR Ram, 16MB NOR flash memory, 256MB NAND flash memory, 2MB non-volatile SRAM, up to 5 SDLC ports, up to 7 ACIA ports, 3 10/100MBPS Ethernet ports, 1 USB port
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## I/O MODULES

I/O modules provide the physical interface between the controllers and the field equipment.

2070 - 2A:	Field I/O Caltrans 170/ 2070 cabinets, TEES 2020
2070 - 2B:	Field I/O NEMA TS 1/TS 2 Type 2 (with 2070-8) Field I/O ITS
2070 - 2E:	Field I/O Caltrans 170/ 2070 cabinets, TEES 2020
2070 - 2N:	Field I/O NEMA TS 2 Type 1

## POWER SUPPLY MODULES

Power supply modules provide voltage requirements as needed by other modules. AC line and EMI suppression circuitry is included.

2070 - 4A:	Power supply module 10 A
2070 - 4B:	Power supply module 3.5 A

## GPS MODULES

GPS time source modules provide accurate time-of-day.

2070- 7G:	GPS module for 2070 controllers
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2070-7G GPS Module

## FRONT PANEL DISPLAYS

Front panels provide the physical user interface to monitor and program controllers. The backlit LCD screen displays text and can be adjusted by a contrast knob.

2070 - 3A:	Large font LCD panel module: 4 lines x 40 characters, 3 x 4 navigation keypad, 4 x 4 data entry keypad
2070 - 3B:	Small font LCD panel module: 8 lines x 40 characters, 3 x 4 navigation keypad, 4 x 4 data entry keypad

## COMMUNICATION MODULES

Communications modules provide the interface between the controller and the central system software.

2070 - 6A:	Dual 1200 baud modem (GDI)
2070 - 6B:	Dual 9600 baud modem (GDI)
2070 - 7A:	Dual RS232 serial ports
2070 - 7B:	Dual RS485 serial ports

## CHASSIS

Chassis house all modules to create a self-contained unit.

- 2070 chassis with serial motherboard
- Cover plate for 2070 card slot, 1x wide
- Cover plate for 2070 card slot, 2x wide

## GENERAL SPECIFICATIONS

Form Factor:	2070 Standard
Circuit Board Material:	.063", double-sided, FR4, solder masked, with plated through holes, gold-plated finger contacts, conformal coated
Environment:	Operating temperature: -37° C to +74° C Humidity: 0 to 95% (non-condensing)