

MC3

3-Series Control System™

The Crestron® MC3 presents a giant leap forward in control system design. Featuring the all new Core 3 control engine, the MC3 forms the core of the modern networked home, unleashing more power than ever for integrating home entertainment, AV distribution, security and environmental systems. And, with built-in infiNET EX™ wireless technology, native mobile and Web-based control, and onboard media rendering, the MC3 affords vast new, more affordable ways to control everything in the home through a streamlined hardware approach.

Core 3 OS

Today's custom home comprises more technology than ever before, and all these systems need to be networked, managed, and controlled in fundamentally new ways. The IP based Core 3 platform is engineered from the ground up to deliver a network-grade server appliance capable of faithfully managing everything from custom home theater to total home control.

More than a mere AV controller, the MC3 embodies a distinctively robust, dynamic, and secure platform to elevate your system designs to higher levels of performance and reliability. Compared to other control systems, the MC3 provides a pronounced increase in processing power and speed with more memory, rock solid networking and IP control, and a unique modular programming architecture.

Modular Programming Architecture

Designed for enhanced scalability, the MC3 affords high-speed, real-time multi-tasking to seamlessly run multiple programs simultaneously. This exclusive programming architecture lets programmers independently develop and run device-specific programs for AV, lighting, HVAC, security, etc., allowing for the optimization of each program, and allowing changes to be made to one program without affecting the whole. Even as your system grows, processing resources can easily be shifted from one 3-Series processor to another without rewriting any code. The end benefit is dramatically simplified upgradability with minimal downtime, whether implementing changes on site or remotely via the network.

Robust Ethernet

IP technology is the heart of Core 3, so it should be no surprise that its networking abilities are second to none. Whether residing on a sensitive corporate LAN, a home network, or accessing the Internet through a cable modem, the MC3 provides secure, reliable connectivity for the complete line of Crestron touchpanels and other products, as well as computers, mobile devices, media servers, video displays, security systems, and numerous other components throughout the home — and throughout the world.

e-Control® Remote Access

When Crestron pioneered the first IP-based control system, we unleashed the vast possibilities for controlling, monitoring, and managing the networked home over a LAN, WAN, and the Internet. Today, our many e-Control solutions offer more ways than ever to control your world the way you want.

With e-Control, you can control anything in your home from anywhere in the world using a Crestron touchpanel, a Windows® or Mac® computer, or even the popular Apple® iPhone® and iPad™. And, no one offers more advanced capabilities for integrating eye-catching personalized graphics, custom functionality, and streaming Web cameras so you can safely monitor and control your entire home right from your mobile phone or desktop PC. Establishing a friendly URL for your control



system is simplified using the myCrestron Dynamic DNS service. And should you ever need technical support, your Crestron system installer can even perform diagnostics and implement updates to the system remotely without coming on site.

infiNET EX™ Wireless Control

Integrated infiNET EX technology provides an extremely easy and cost-effective way to add control of lighting, temperature, and other functions using Cameo® Wireless Dimmers and Keypads^[1], and infiNET EX Thermostats^[1]. Adding an infiNET EX remote like the Isys™ MTX-3 Handheld Wireless Touchpanel^[1] or MLX-3 LCD Handheld Wireless Remote^[1] enables sophisticated portable control over everything, whether simply watching TV or adjusting whole-house audio distribution, lighting, and climate control in every room. Perfect for existing structures and rentals, infiNET EX affords ultra-reliable 2-way wireless communications throughout the home without the need for physical control wiring.

Cresnet®

As an alternative to Ethernet, Cresnet provides a dependable network wiring solution for many Crestron devices including keypads, lighting controls, thermostats, and numerous other devices that don't require the higher speed of Ethernet. The Cresnet bus offers easy wiring and configuration, carrying bidirectional communication and 24VDC power to each device over a simple 4-conductor cable.

Audio File Playback

Built-in audio signal rendering lets you generate door chimes, phone ringers, and other signals that can be played through the home theater or whole-house audio system. Load your own custom audio files to sound alarms, provide confirmation when you execute a command, deliver helpful voice prompts, or just play welcome music as the home theater system turns on.

Onboard Control Ports

In addition to Ethernet, the MC3 includes two bidirectional RS-232 COM ports and five IR ports to interface directly with all of your centralized AV sources, video display, and other devices. Two programmable relay ports are included for controlling window shades, a projection screen or lift, or other contact-closure controlled equipment. Two sensing inputs are also provided for use with Crestron

MC3 3-Series Control System™

occupancy sensors, power sensors, door switches, or anything that provides a dry contact closure or low-voltage logic signal.

IR Wireless Option

When equipped with the optional CNXRMIRD IR Receiver^[1], the MC3 affords a low-cost IR wireless control solution using any Crestron IR wireless remote or touchpanel, such as the TPS-6X^[1], or a third-party universal IR remote.

- > *Next generation control system for multimedia and whole-house control*
- > *Core 3 OS—Substantially faster and more powerful than other control systems*
- > *Exclusive modular programming architecture*
- > *Vector floating point coprocessor and 128KB L2 cache*
- > *Onboard 256MB RAM & 2GB Flash memory*
- > *Expandable storage up to 1TB*
- > *Integrated infiNET EX™ wireless gateway*
- > *Industry-standard Ethernet and Cresnet® wired communications*
- > *Supports Crestron touchpanels and other devices*
- > *Available RF and IR control options*
- > *Supports Crestron Mobile™ control apps for iPhone® and iPad®*
- > *Built-in e-Control® 2 Web-based remote control*
- > *Simplified Web access via myCrestron Dynamic DNS service*
- > *WAV, MP3, and WMA audio file playback*
- > *Built-in IR, COM, relay, and contact/logic input sensing ports*
- > *High-speed USB 2.0 host ports*
- > *Installer setup via Crestron Toolbox™ or Internet Explorer®^[2]*
- > *Backwards compatible to run existing SIMPL programs*
- > *Full Unicode (multi-language) support*
- > *Increased network throughput and security*
- > *IIS v.6.0 Web Server*
- > *IPv6 ready*
- > *External power supply included*

SPECIFICATIONS

Operating System

Core 3 OS; real-time, preemptive multi-threaded/multitasking kernel; Transaction-Safe Extended FAT file system; supports up to 10 simultaneously running programs; SIMPL Windows™, SIMPL+®, SystemBuilder™, and D3 Pro™ programmable

Memory SDRAM: 256 MB

Wired Communications

Ethernet: 10/100 Mbps; auto-switching; auto-negotiating; auto-discovery; full/half duplex; industry-standard TCP/IP stack; UDP/IP; CIP; DHCP; SSL; IPv4 or IPv6; IIS v.6.0 Web Server; SMTP e-mail client, installer setup via Crestron Toolbox™ or MSIE^[2]; supports all e-Control®2, Crestron Mobile™, and RoomView™ applications

Cresnet: Cresnet master mode

USB: Supports USB HID and USB mass storage class devices via rear panel USB 2.0 host ports, supports computer console via front panel USB 2.0 device port

RS-232: Supports 2-way device control and monitoring up to 115.2k baud with hardware and software handshaking

IR/Serial: Supports 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud

Wireless Communications

RF Transceiver: infiNET EX™ 2-way RF, 2.4 GHz ISM Channels 11-26 (2400 to 2483.5 MHz), default channel 15; IEEE 802.15.4 compliant

Range (typical): 150 ft (46 m) indoor, 250 ft (76 m) outdoor to nearest mesh network device(s); subject to site-specific conditions and individual device capabilities^[3]

Device Support: Maximum 100 infiNET EX devices (inclusive of up to 6 MTX-3 and/or MLX-3 remotes) and 5 infiNET EX expanders (model CLW-EXPEX)

Video

(FUTURE)

Audio

Functions: Audio file playback, audio signal pass-thru w/mute during file playback, global volume and mute control

Audio File Formats: WAV (8 & 16 bit PCM, mono & stereo, 8 - 44.1 kHz sampling rates), MP3, WMA

Input/Output Signal Types: Analog stereo

Analog-To-Digital/Digital-to-Analog Conversion: 24-bit 48 kHz

Performance (pass-thru): Frequency Response: 20Hz to 20kHz ±0.2dB; S/N Ratio: >93dB, 20Hz to 20kHz A-weighted;

THD+N: <0.01%, 20Hz to 20kHz;

Stereo Separation: >91dB

Connectors

AUDIO IN, L - R: (2) RCA female, unbalanced stereo line-level audio input; Input Level: 2 Vrms maximum;

Input Impedance: 7k Ohms nominal

AUDIO OUT, L - R: (2) RCA female;

Unbalanced stereo line-level audio output with volume and mute control; Maximum Output Level: 2 Vrms;

Output Impedance: 100 Ohms nominal

VIDEO OUT, Y Pb Pr: (3) RCA female, component (YPbPr) video output (for future use);

Output Level: 1 Vp-p nominal (Y), 0.7 Vp-p nominal (PbPr);

Output Impedance: 75 Ohms nominal

VIDEO OUT, COMPOSITE: (1) RCA female, composite video output (for future use);

Output Level: 1 Vp-p nominal;

Output Impedance: 75 Ohms nominal

IR 1 - 5: (5) 3.5mm mini-phone jacks, IR/Serial output ports;

IR output up to 1.2 MHz;

1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud

IR IN: (1) 3.5mm TRS mini-phone jack;

For connection of the CNXRMIRD IR receiver^[1];

Allows IR wireless control from Crestron and third-party remotes using RC-5 IR commands

COM 1 - 2: (2) DB9 male, bidirectional RS-232 ports;

Up to 115.2k baud; hardware and software handshaking support

LAN: (1) 8-wire RJ45 jack (8P8C modular female);

MC3 3-Series Control System™

INPUT 1 - 2: (1) 3-pin 3.5mm detachable terminal block comprising (2) contact-closure or voltage-logic sensing inputs (referenced to GND); Input Voltage Range: 0-24 Volts DC; Logic Threshold: ≥1.2 Volts DC active/high, ≤0.46 Volt DC inactive/low; Input Impedance: 2.2k Ohms pulled up to 5 Volts

NET: (1) 4-pin 3.5mm detachable terminal block, Cresnet master port; Sources power to Cresnet devices with power pack connected to 24VDC power input jack; May be used as alternate power input to receive operating power from the Cresnet network in lieu of a local power pack; See "Power Requirements" for additional specifications

24VDC 2A: (1) 2.1mm barrel DC power jack, 24 Volt DC power input; PW-2420RU power supply included; Passes through to NET port to power Cresnet devices; See "Power Requirements" for additional specifications

COMPUTER (front): (1) USB Type B female; USB 2.0 computer console port

Antenna (front): (1) Connection for supplied antenna

Controls & Indicators

PWR: (1) Green LED, indicates operating power supplied from power pack or Cresnet network

NET: (1) Amber LED, indicates communication with the Cresnet system

HW-R: (1) Recessed pushbutton for hardware reset

SW-R: (1) Recessed pushbutton for software reset

ACQUIRE: (1) Recessed pushbutton with red LED, used to set up connections with wireless devices

ACTIVITY: (1) Red LED, indicates wireless communications

LAN (rear): (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

Power Requirements

Power Pack: 2.0 Amps @ 24 Volts DC; 100-240 Volts AC, 50/60 Hz power pack, model PW-2420RU included

Available Cresnet Power: 35 Watts (1.46 Amps @ 24 Volts DC) when using power pack

Cresnet Power Usage: 9 Watts (0.375 Amps @ 24 Volts DC) when using Cresnet network power

Environmental

Temperature: 41° to 113°F (5° to 45°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 31 BTU/Hr

Enclosure

Chassis: Aluminum w/polycarbonate label overlay

Faceplate: Plastic w/polycarbonate label overlay

Mounting: Freestanding (adhesive feet included)

Dimensions

Height: 2.30 in (59 mm); 2.25 in (58 mm) without feet

Width: 8.12 in (207 mm)

Depth: 6.74 in (171 mm) including antenna

Weight

2.5 lb (1.2 kg)

Available Models

MC3: 3-Series Control System™ [Just Released]

Included Accessories

PW-2420RU Power Pack, Desktop, 24VDC, 2A (50 Watts), Regulated, US/International [Included Quantity: 1]

CNXRMIRD: IR Receiver

ANT-EXT-10: 10 ft Antenna Extender

ANT-EXT-5: 5 ft Antenna Extender

CLW-EXPEX-GD-W-T: infiNET EX™ Wireless Expander

Notes:

1. Item(s) sold separately.

2. Web-based installer setup requires the Microsoft® Internet Explorer® Web browser running on a Windows® PC

3. The effective range of the entire wireless network is extended based on the placement and capabilities of each network device. Consult the specifications for each wireless network device to verify wireless capabilities and limitations.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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MC3 3-Series Control System™

