Summary of Crestron AV-2 architectural specifications are as follows. Minimum control system requirements:

- Utilize a real time, event driven, multi-tasking, multi-threaded operating system with a dual bus architecture.
- Utilize a Motorola Coldfire processor at no less that 257 MIPS.
- High speed processor shall communicate directly with Ethernet, control ports and proprietary control network utilizing high-speed, parallel bus infrastructure. Control processors that communicate via a serial bus shall not be accepted.
- Control processor shall contain 36 MB of memory, with expansion up to 4GB supported via compact flash plug in cards (externally accessible/hot-swappable).
- Control processor shall accept industry standard compact flash cards or IBM microdrive plug-in cards, for program, web-page, or miscellaneous file memory expansion, via a built-in compact flash card slot.
- Control processor shall utilize a FAT32 file structure.
- Support internal communications speed via two, independent communications busses. First control bus speed shall be at least 40 mb/s, second control bus speed shall be at least 300 mb/s.
- Control system shall be capable of firing all internal IR ports simultaneously.
- Control System shall be fully compatible with Crestron RoomView multi-system management software and other Crestron e-Control Power Applications (i.e. e-Outlook, e-PowerPoint, etc.).
- Control System shall support the option of add-on single or dual Port 10/100 BaseT Ethernet Modules, via a direct processor 300 mb/s communications bus/card-slot, that supports all of the following features:

  - ü TCP/IP Communications
  - ü DHCP and DNS Support
  - ü 802.11b and Bluetooth Compatibility
  - ü Native Email Client
  - ü Remote Diagnostics
  - ü Remote Program Loading and Administration
  - ü Built-In Web Server
  - ü FAT32 File System for easy data management
  - ü SSL security plug in
  - ü Native NAT/Fire-Wall/Router w/dual port option
  - ü PDA Integration and Control, XPanel PDA - Pocket PC 2002
  - ü WebTablet Integration and Control – Microsoft Tablet PC
  - ü Self Generating Executable GUI, XPanel EXE – Microsoft Family of OS

- ü Self Generating ActiveX powered IE Integration and Control, XPanel IE
- ü Self Generating Java powered Web Integration and Control

- Support user assigned or dynamic IP address.
- Full API (Applications Interface) directly to control system via TCP/IP for integration with Visual Basic, C++, Java, etc. applications. API support through included Crestron ActiveX module and/or Crestron Dynamic Link Library (.DLL).
- Patent pending Network Analyzer to continuously monitor the integrity of the Cresnet network for wiring faults, marginal communication performance, network errors – all information is viewable.
- Control system shall support the optional add-on of an integrated three slot card cage to support any mix of control cards for IR, RS-232/422/485, relay, digital I/O, analog input, volume, MIDI, and more
- Internal 75W 110/220V 24VDC power supply.
- Front and rear programming ports.
- Support RS-485 token passing network with data communication for a minimum distance of 5000 feet.
- Allow proprietary network expansion via 4 RS-232 ports or Ethernet Port that allow high-speed network acceleration
- Support a minimum of 253 proprietary network devices simultaneously.
- Support direct communication to LAN based thin servers by same manufacturer
- Control system shall support object-oriented logic based programming language and a C-like language programming language. Both programming types are supported to run simultaneously and integral to each other.
- Control system manufacture shall supply Windows-based graphical programming software for drag and drop object oriented programming for the control system operation.
- Control system manufacture shall provide Windows-based graphical programming software, which is self-documenting in that it generates a symbolic flow diagram printout from the system program.
- The control system shall support a variety of wireless communication modes, including one-way and two-way radio frequency and infrared transmission.
- The control system shall include the following hardware configuration:

  - Eight IR/serial/1-way RS-232 ports.
  - Eight digital/analog I/O ports – TTL In/Out and analog inputs 0-10V.
  - Eight isolated low-voltage relays – 30VDC @1A.
  - Six 2-way RS-232/422/485 ports.

- One High-speed, 300 mb/s card slot.
- One compact flash memory upgrade slot.
- Space for add-on three slot control card expansion cage.
- Cresnet network interface.
- Front and rear programming ports.
- Patent pending Network Analyzer.
- 75W 110/220VAC Internal Power Supply.
- 19" rack mount or shelf mounted chassis (removable rack ears).