DATASHEET

Control 9™: Octal Serial Hub

Dimensions: 8.6”W x 1.75” H x 5.1” D
Weight: 10.5 oz. Approx.
Chassis: black powder coated aluminum
Operating Environment: 0 to 50 degrees C
Mounting: half width 1U rack size
Ports: 1 Serial RS-232 upstream port, 1USB upstream port (device) for connection to Host PC and 8 downstream serial ports
Baud Rate: downstream ports programmable from 110bps to 38.4 Kbps
Power: 12 V- 15 V DC wall mount

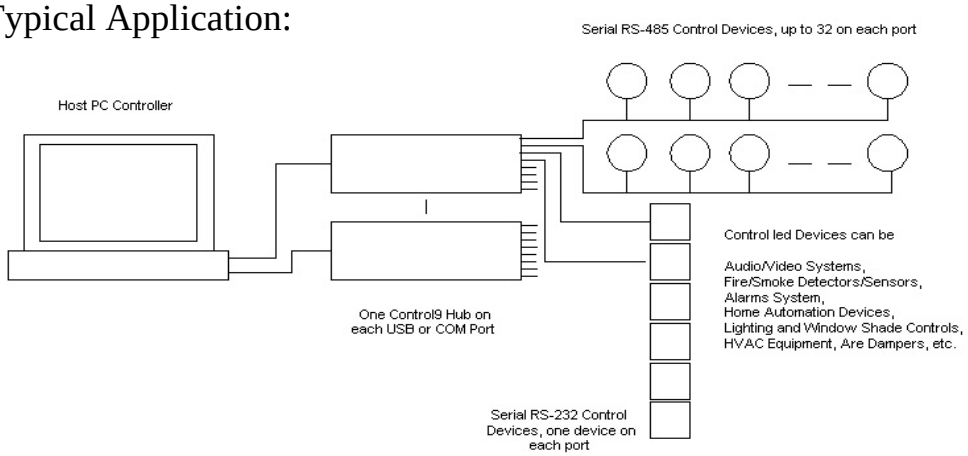
The Control 9™ Octal Serial Hub is a generic communication and control device that allows a PC Host to connect to many serial devices.

Control 9™ has two upstream ports: one a USB device Port and the other a Serial RS-232 Port, one of these ports must be connected to the Host PC. It also has eight downstream ports that are jumper configurable for RS-232, RS-485 or 5 V TTL operations. These ports connect to the downstream devices that are to be controlled.

Control 9™ has a local processor to handle the USB and serial communication and control functions. The Host PC uses a set of in-band commands to control the communications and to send or to receive data from each device. The local processor can also be configured to intelligently and independently handle the downstream communication protocols and periodic events such as polling or checking the status of downstream devices. This removes the low-level communication overhead from the Host PC.

The Host Application uses a very simple API to talk to the USP Port. The USB Port is accessed as a virtual COM Port and no special drivers are needed for it under Microsoft Windows 2000, XP and Vista operating systems. Support is also available for other operating systems like Linux. The USB port is simply treated as another COM port and all in-band commands and data are passed on it.

Typical Application:



Pragmatic Communications Systems, Inc.
2340A Walsh Avenue, Santa Clara, CA 95051, USA
Tel. (408) 748 1100 *Fax. (408) 663 9783* *www.pragmatic1.com*

Applications:

The control led devices can be use for:
- Audio/video systems
- Fire/smoke detectors and sensors
- Alarms systems
- Lighting and window shade controls
- HVAC equipment
- Air dampers
- Home automation devices
- And a multitude of other uses

Managing all aspects of home systems, each with different applications

Features and Benefits:

No low-level communication overhead from the Host PC

On-board processor handles serial and USB communications

Communication is controlled by the host application with in-band commands

Has one Serial RS-232 upstream port and one USB upstream port (device) for connection to Host PC

USB is version 1.1 compliant, full speed, 12 Mbps

Has 8 serial downstream ports; each is configurable as RS-232 DTE or DCE, RS-485, or 5V TTL

Downstream Ports are fully buffered with a 32 byte local FIFO, they are Full Duplex, Asynchronous UART ports

Downstream port Baud Rate is programmable from 110bps to 38.4Kbps

Downstream ports have programmable character encoding, Data Bits: 7-8, Parity: Odd, Even, Mark, Space, None, Stop bits: 1, 1.5, 2

Each downstream port when configured as RS-485 can support 32 devices

Each downstream port when configured as RS-232 or 5V TTL can support one device

Has three spare TTL GPIO pins available on each downstream port

Provides power to each downstream port: has 12-15VDC unregulated and 3V/5V regulated power available

Architect Specifications:

The unit shall consist of a control serial port hub with 8 downstream asynchronous serial ports from one upstream USB Host Port, or one upstream COM Port. It shall have a black powder coated aluminum chassis that measures 8.6” by 1.74” by 5.1”. It shall weigh approximately 10.5 oz and be suitable for mounting in half width 1U rack size. It shall be able to operate in environments from 0 to 50 degrees Celsius. The power it shall require must be 12V-15VDC wall mount. It must have an on-board processor that handles serial and USB communications. It must have one Serial RS-232 upstream port and one USB upstream port (device) for connection to Host PC. The communication shall be controlled by the host application with in-band commands. The USB version shall be 1.1 compliant, full speed, 12 Mbps. It shall have eight serial downstream ports, each configurable as RS232 DTE or DCE, RS-485, or 5VTTL. Each downstream port when configured as RS-485 must support 32 devices and while configured as RS-232 or 5VTTL must support one device.

The serial port hub shall be a Pragmatic Control 9™.

Pragmatic Communications Systems, Inc.
2340A Walsh Avenue, Santa Clara, CA 95051, USA
Tel. (408) 748 1100 *Fax. (408) 663 9783* *www.pragmatic1.com*