



KeyCode Open API

User Guide

Applicable Models

Model	Description	I/O Control Ports	Notes
KD-CX800	Controller	3	1 IR, 2 IR/RS-232
KD-IP822ENC/DEC	AV over IP Encoder/Decoder	2	1 IR, 1 IR/RS-232
KD-IP922ENC/DEC	AV over IP Encoder/Decoder	3	1 IR, 2 IR/RS-232
KD-IP1022ENC/DEC	AV over IP Encoder/Decoder	3	1 IR, 2 IR/RS-232

Description

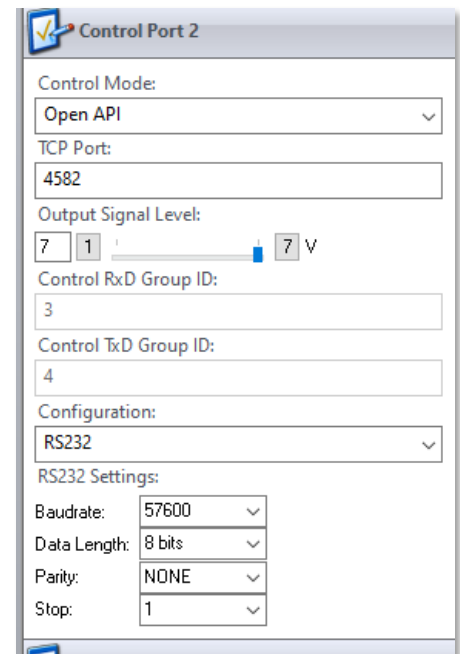
If a Unit's port is configured for use in Open API mode, the device will listen on a dedicated TCP port for that I/O port. The user application/control system can then make a TCP connection to that port and send data to that I/O port.

IP Port number assignments for I/O ports are flexible, and assigned using KDMS Pro. It is recommended that TCP Port assignments always be no lower than 1024.

All I/O port traffic is limited to only one TCP connection at a time.

Setup

- Using [KDMS Pro](#) software to ensure unit's I/O Control ports are set to Open API **control mode**, with IR or RS232 **configuration**.
 - For RS-232, ensure the **Baudrate** is set according to the device you are controlling. See example image.
- Send below string to the unit's Main IP address
 - For I/O Control Port 1 (RS-232 not supported), use IP Port 4581
 - For I/O Control Port 2, use IP Port 4582
 - For I/O Control Port 3, use IP Port 4583



Controlling RS-232 Devices

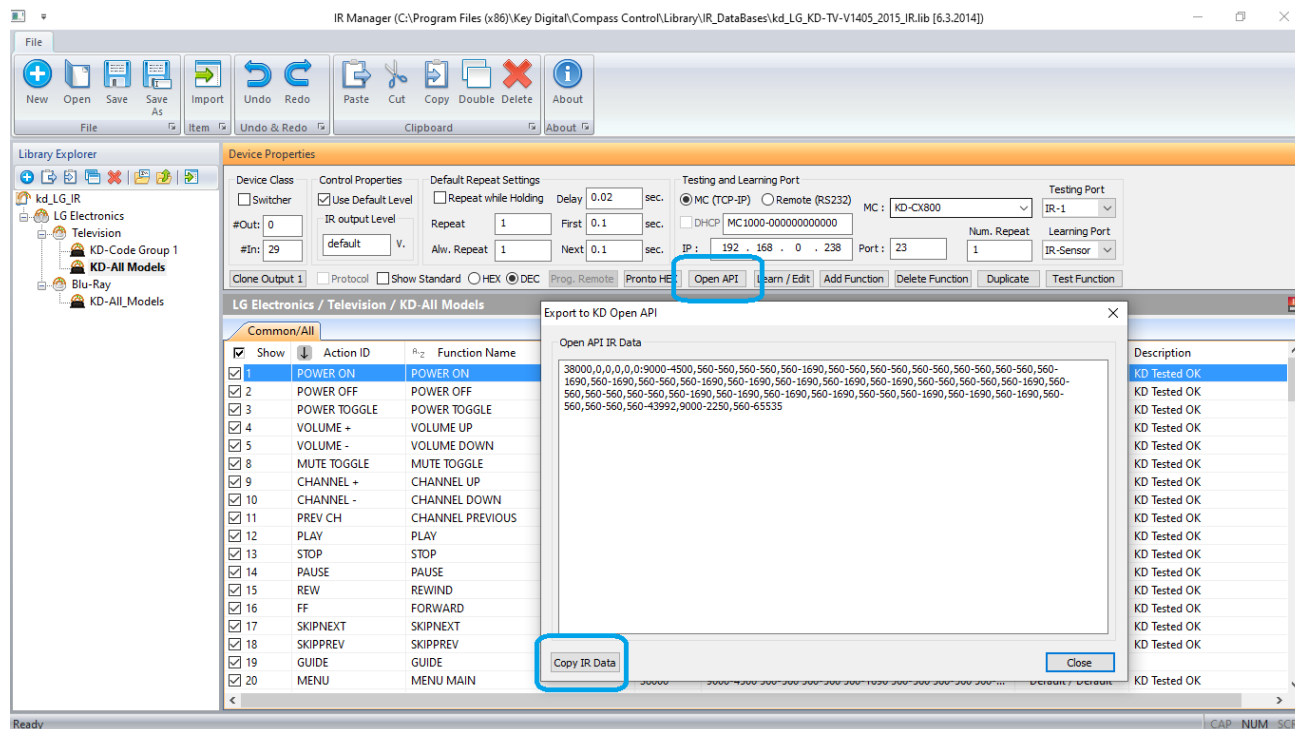
Send any RS-232 string to the encoder/decoder/controller over IP on port 4582/4583. Port 1 does not support RS-232 control.

Specify ASCII, HEX, or Binary string format in the user application/control system as the encoder/decoder/controller is transparent and does not apply any formatting.

Collecting Strings for IR Devices

To collect the Open API string for controlling IR Devices:

1. Open Key Digital [IR Database Manager](#) v2.0.6 or later.
2. File -> Open to find the Brand of device you need to control.
3. Choose the Device form the **Library Explorer** list at left of screen.
4. Choose the command you wish to copy the Open API string for
5. Press the **Open API** button, and **Copy IR Data** to your clipboard so you may paste it you're your User Application/Control System.



Common IR Examples

Samsung TV

Power On

38028,0,0,0,0,0:4522-4522,578-1682,578-1682,578-1682,578-552,578-552,578-552,578-552,578-1682,578-1682,578-1682,578-552,578-552,578-552,578-552,578-1682,578-552,578-552,578-552,578-1682,578-1682,578-552,578-552,578-1682,578-552,578-1682,578-552,578-552,578-64000,4522-4522,578-1682,578-1682,578-1682,578-552,578-552,578-552,578-552,578-1682,578-1682,578-552,578-552,578-1682,578-552,578-552,578-1682,578-552,578-552,578-1682,578-552,578-552,578-1682,578-552,578-552,578-1682,578-552,578-552,578-65535

Sony TV (Bravia)

Power On

40244,0,0,0,0,0:2385-596,596-596,1192-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-596,596-596,596-64000,2385-596,596-596,1192-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-596,596-596,596-596,596-596,596-65535

Power Off

40244,0,0,0,0,0:2385-596,1192-596,1192-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-596,596-596,596-64000,2385-596,1192-596,1192-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-596,596-596,596-65535

Volume +

40244,0,0,0,0,0:2385-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,596-596,596-64000,2385-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,1192-596,596-596,1192-596,596-596,596-596,596-596,596-65535

Volume -

40244,0,0,0,0,0:2385-596,1192-596,1192-596,596-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,596-64000,2385-596,1192-596,1192-596,596-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,596-596,596-65535

Mute Toggle

40244,0,0,0,0,0:2385-596,596-596,596-596,1192-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,596-64000,2385-596,596-596,596-596,1192-596,596-596,1192-596,596-596,596-596,1192-596,596-596,596-596,596-65535

HDMI 1

40244,0,0,0,0,0:2385-596,596-596,1192-596,596-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-64000,2385-596,596-596,1192-596,596-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-65535

HDMI 2

40244,0,0,0,0,0:2385-596,1192-596,1192-596,596-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-64000,2385-596,1192-596,1192-596,596-596,1192-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,1192-596,596-596,596-65535

AppleTV (4th Gen)**Play/Pause Toggle**

38384,0,0,0,0:9050-4522,521-604,521-1708,521-1708,521-1708,521-604,521-1708,521-1708,521-1708,521-1708,521-1709,520-1708,521-1708,521-604,522-602,521-604,521-604,521-1708,521-604,521-1708,521-1708,521-1709,520-1708,521-604,521-1708,521-603,521-1708,521-604,521-604,521-1708,521-1708,521-1708,521-1709,520-1724,521-34043,9016-4523,521-604,521-1708,521-1708,521-1708,521-604,522-1707,521-1708,521-1708,521-1708,521-1708,522-1707,521-604,521-604,521-604,521-604,521-1708,521-604,521-604,521-1708,521-604,521-604,521-604,521-604,523-602,521-1708,521-604,521-604,521-1708,521-1708,521-1708,521-1710,519-1724,521-65535

Stop

38028,0,0,0,0:9019-4496,552-1682,552-552,578-1656,578-552,578-552,552-1682,552-1682,552-1682,552-1682,552-1682,552-1682,552-552,578-552,578-552,578-552,552-1682,552-1682,552-552,578-552,578-552,552-1682,552-1682,552-552,578-552,578-1656,578-552,552-552,578-552,578-552,578-552,552-552,578-43493,8993-2235,552-65535

Menu

37683,0,0,0,0:9049-4564,557-557,557-1724,557-1724,557-1724,557-557,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-557,557-557,557-557,557-557,557-1724,557-1724,557-1724,557-557,557-557,557-557,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-40017,9049-2255,557-65535

Left

37683,0,0,0,0:9049-4564,557-557,557-1724,557-1724,557-1724,557-557,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-557,557-557,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-40017,9049-2255,557-65535

Right

37683,0,0,0,0:9049-4564,557-557,557-1724,557-1724,557-1724,557-557,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-557,557-557,557-557,557-557,557-557,557-557,557-1724,557-557,557-1724,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-40017,9049-2282,557-65535

Up

37683,0,0,0,0:9049-4564,557-557,557-1724,557-1724,557-1724,557-557,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-557,557-557,557-557,557-557,557-557,557-557,557-1724,557-557,557-1724,557-557,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-40017,9049-2255,557-65535

Down

37683,0,0,0,0:9049-4564,557-557,557-1724,557-1724,557-1724,557-557,557-1724,557-1724,557-1724,557-1724,557-1724,557-1724,557-557,557-557,557-557,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-557,557-1724,557-1724,557-557,557-557,557-40017,9049-2255,557-65535

