AVO-IP265-STREAM Q-SYS Plugin Guide

For Q-SYS Designer · Plugin version 1.0.6

The KanexPro AVO-IP265-STREAM plugin lets a Q-SYS system control the AVO-IP265-STREAM over the network. It talks to the unit's own control port (TCP 8000): no other KanexPro software and no RS-232 cable are needed. Every control has a pin, so it can be wired to UCI buttons, logic and scripts like any Q-SYS control, and the plugin reads the unit back so changes made on its front panel, remote or web page show in Q-SYS.

> **Before you start —** the Q-SYS Core must reach the AVO-IP265-STREAM on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

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1. WHAT THE PLUGIN DOES

It controls: main stream as HLS (web players on the network), second stream as HLS, RTSP (one viewer each), RTSP multicast, TS multicast, audio-only multicast, TS multicast port, channel number, codec, resolution, bitrate (kb/s), bitrate kind, frames per second, key frame every (frames), profile, profile (H.264), sound from, EDID it shows the source, show stream info on the picture, take the text off, fan, lock its front buttons, time zone (its own list, 0-138).

It reads back: rtmp, main live push, rtmp2, second live push, signal, input, text on the picture, its text, main multicast (TS, RTSP), second multicast (TS, RTSP), audio-only multicast, main HLS address, second HLS address, its own RTMP address (main), its own RTMP address (second), RTSP asks for a login, its own name, firmware, serial number, processor load, memory in use, hours running, address from, address, subnet mask, gateway, MAC address, DNS, second DNS, time server, time server port, web page over HTTPS, 802.1X network login, closed system mode.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

2. BEFORE YOU START

- ✓ Q-SYS Designer on a Windows computer, and a Q-SYS Core.
- ✓ The AVO-IP265-STREAM on the same network as the Core, or routed to it, with TCP port 8000 open between them.
- ✓ The unit's IP address (front panel or its own web page).

3. INSTALL THE PLUGIN

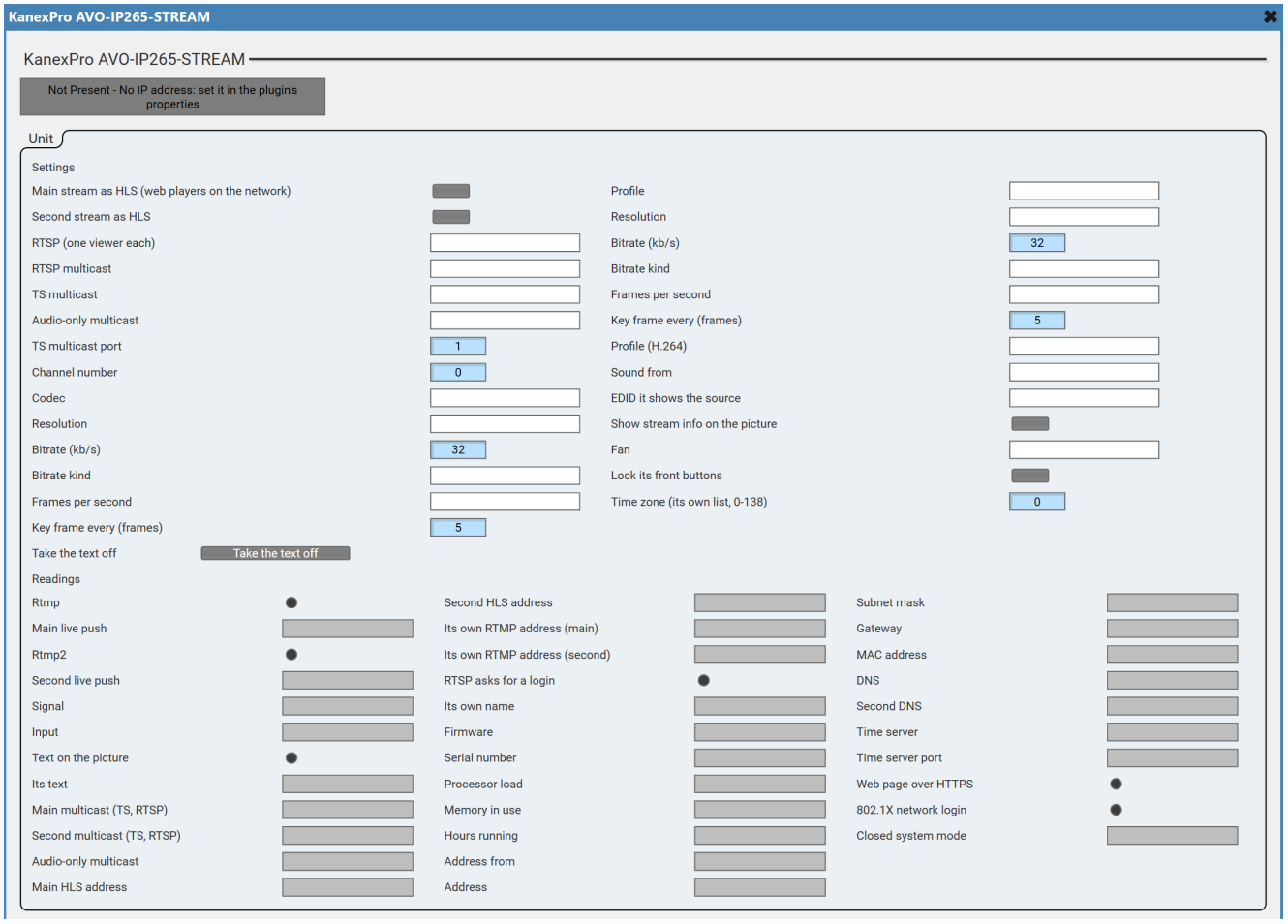
1. Download **KanexPro-AVO-IP265-STREAM-QSYS-1.0.6.zip** from the AVO-IP265-STREAM page on kanexpro.com (Resources) and unzip it.
2. Copy `KanexPro-AVO-IP265-STREAM.qplug` into `Documents\QSC\Q-Sys Designer\Plugins` on the Q-SYS Designer computer, or drag the file onto Designer's window.
3. Restart Q-SYS Designer. The plugin appears in Schematic Elements under **Plugins > KanexPro**.
4. Drag it into the design, select it and set its properties (section 4).
5. Save the design to the Core and run it. The plugin connects by itself and shows its state on its Status control.

> **One plugin per unit —** for two AVO-IP265-STREAM units, add the plugin twice and give each its own IP address.

4. PROPERTIES

PLUGIN PROPERTIES	
IP Address	The AVO-IP265-STREAM's address on the control network. Empty by default.
Port	8000 (TCP), the unit's control port. Change it only if the unit's own web page was set to another port.
Poll Interval	How often, in seconds, the plugin reads the unit back. Default 10; 0 reads it only after a change from Q-SYS.

5. THE PLUGIN IN Q-SYS DESIGNER



The AVO-IP265-STREAM plugin's control panel in Q-SYS Designer

6. CONTROLS

63 controls. Where a control is repeated for each input or output, it is listed once.

#	Control	Where	What it does
0	**Status**	the plugin	Shows whether the plugin is connected to the unit, and why not (section 7).
1	**Main stream as HLS (web players on the network)**	the unit	Turns the main stream as HLS (web players on the network) on or off.
2	**Second stream as HLS**	the unit	Turns the second stream as HLS on or off.
3	**RTSP (one viewer each)**	the unit	Sets the RTSP (one viewer each). Choices: On; Off.
4	**RTSP multicast**	the unit	Sets the RTSP multicast. Choices: On; Off.
5	**TS multicast**	the unit	Sets the TS multicast. Choices: On; Off.

6	**Audio-only multicast**	the unit	Sets the audio-only multicast. Choices: On; Off.
7	**TS multicast port**	the unit	Sets the TS multicast port, from 1 to 65535.
8	**Channel number**	the unit	Sets the channel number, from 0 to 999.
9	**Codec**	the unit	Sets the codec. Choices: H.265; H.264.
10	**Resolution**	the unit	Sets the resolution. Choices: Same as input; 2160p; 1080p; 720p.
11	**Bitrate (kb/s)**	the unit	Sets the bitrate (kb/s), from 32 to 82000.
12	**Bitrate kind**	the unit	Sets the bitrate kind. Choices: Variable; Constant.
13	**Frames per second**	the unit	Sets the frames per second. Choices: 5; 6; 7; 8; 9, and 51 more.
14	**Key frame every (frames)**	the unit	Sets the key frame every (frames), from 5 to 300.
15	**Profile**	the unit	Sets the profile. Choices: Baseline; Main; High. Its help lists Baseline only for the main stream; Main and High are the second stream's words, to check on the sample.
16	**Profile (H.264)**	the unit	Sets the profile (H.264). Choices: Baseline; Main; High.
17	**Sound from**	the unit	Sets the sound from. Choices: HDMI; Audio in.
18	**EDID it shows the source**	the unit	Sets the EDID it shows the source. Choices: 4K (2160p); 1080p; 720p; Its uploaded EDID. 'Its uploaded EDID' is the file loaded on its own web page.
19	**Show stream info on the picture**	the unit	Turns the show stream info on the picture on or off.
20	**Take the text off**	the unit	Take it off: take it off.
21	**Fan**	the unit	Sets the fan. Choices: Silent; Low; Standard; High.
22	**Lock its front buttons**	the unit	Turns the lock its front buttons on or off.
23	**Time zone (its own list, 0-138)**	the unit	Sets the time zone (its own list, 0-138), from 0 to 138. The numbers are the box's own list; check the time it shows after setting one.
24	**Rtmp**	the unit	Lit when the unit reports rtmp.
25	**Main live push**	the unit	Shows the unit's main live push.
26	**Rtmp2**	the unit	Lit when the unit reports rtmp2.
27	**Second live push**	the unit	Shows the unit's second live push.
28	**Signal**	the unit	Shows the unit's signal.
29	**Input**	the unit	Shows the unit's input.
30	**Text on the picture**	the unit	Lit when the unit reports text on the picture.
31	**Its text**	the unit	Shows the unit's its text.
32	**Main multicast (TS, RTSP)**	the unit	Shows the unit's main multicast (TS, RTSP).
33	**Second multicast (TS, RTSP)**	the unit	Shows the unit's second multicast (TS, RTSP).
34	**Audio-only multicast**	the unit	Shows the unit's audio-only multicast.
35	**Main HLS address**	the unit	Shows the unit's main HLS address.
36	**Second HLS address**	the unit	Shows the unit's second HLS address.
37	**Its own RTMP address (main)**	the unit	Shows the unit's its own RTMP address (main).
38	**Its own RTMP address (second)**	the unit	Shows the unit's its own RTMP address (second).
39	**RTSP asks for a login**	the unit	Lit when the unit reports RTSP asks for a login.

40	**Its own name**	the unit	Shows the unit's its own name.
41	**Firmware**	the unit	Shows the unit's firmware.
42	**Serial number**	the unit	Shows the unit's serial number.
43	**Processor load**	the unit	Shows the unit's processor load.
44	**Memory in use**	the unit	Shows the unit's memory in use.
45	**Hours running**	the unit	Shows the unit's hours running.
46	**Address from**	the unit	Shows the unit's address from.
47	**Address**	the unit	Shows the unit's address.
48	**Subnet mask**	the unit	Shows the unit's subnet mask.
49	**Gateway**	the unit	Shows the unit's gateway.
50	**MAC address**	the unit	Shows the unit's MAC address.
51	**DNS**	the unit	Shows the unit's DNS.
52	**Second DNS**	the unit	Shows the unit's second DNS.
53	**Time server**	the unit	Shows the unit's time server.
54	**Time server port**	the unit	Shows the unit's time server port.
55	**Web page over HTTPS**	the unit	Lit when the unit reports web page over HTTPS.
56	**802.1X network login**	the unit	Lit when the unit reports 802.1X network login.
57	**Closed system mode**	the unit	Shows the unit's closed system mode.

7. STATUS

STATUS CONTROL	
OK (green)	Connected to the unit and reading it back.
Initializing (blue)	Connecting. It tries again every few seconds by itself.
Fault (red)	Not connected, with the reason: the unit does not answer, or the connection was refused or closed.
Compromised (orange)	Connected, but the unit refused the last change. The text names it. The control returns to what the unit reports at the next read.
Not Present (grey)	No IP address is set in the plugin's properties.

8. TROUBLESHOOTING

The Status control shows Fault and it does not connect.
Check the IP address: find the unit's address on its front panel or its own web page and compare it with the plugin's IP Address property. A unit on DHCP may have moved; give it a fixed address or a DHCP reservation.

The address is right, but it still does not connect.
Check the network path. The Core and the unit must reach each other: the same network or VLAN, or a route between them. From a computer on the Core's network, the unit's web page should open at its address.

Could a firewall be blocking it?
Yes. A firewall or switch ACL between the Core and the unit must allow TCP port 8000 to the unit. Also leave the Port property at 8000 unless the unit's own web page was set to another port.

It connects, but a change does not happen.
The Status control shows Compromised and names the command the unit refused. The unit may be in standby: turn it on first.

Changes made on the unit do not show in Q-SYS.
Set Poll Interval above 0. Changes made on the unit's front panel, remote or web page then show within that many seconds.