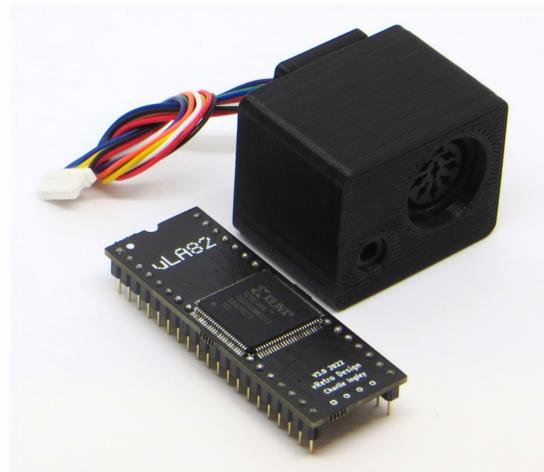


# vLA82S+ Install Guide

## External Interface



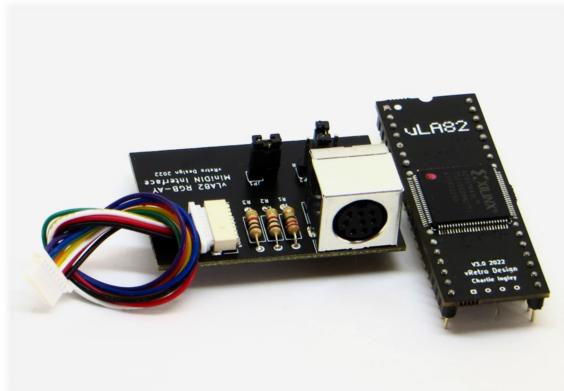
The external interface is designed to fit within the Spectrum case and has an 8-wire cable connection to the vLA82S+. To connect to the interface a cable designed for the Harlequin 48K is suitable (see pinout reference at the end of this guide). The interface is a push fit onto the existing RF modulator connector and, once the Spectrum case is closed, the interface is held firmly in place.

## To install

1. Remove the vLA82S+, cable, and external interface from the packaging. Contact [support@vretrodesign.com](mailto:support@vretrodesign.com) if you find any shipping damage.
2. Remove the cover from the Spectrum case and remove the keyboard connections.
3. Press the vLA82S+ carefully into the existing ULA socket. Note that turned pin sockets are not recommended as the small round pins of the vLA82S+ do not make a good connection.
4. Press the 3D printed interface onto the RF modulator RCA connector.
5. Plug the 8 wire cable connector into the small socket underneath the vLA82S+. Ensure that it is pressed in straight as the small pins can be bent if the connector is pushed in at an angle.
6. Reconnect the keyboard and screw the Spectrum cover in place.
7. Connect a suitable RGB cable to the interface DIN connector and apply power to the Spectrum.

# vLA82S+ Install Guide

## Internal Interface

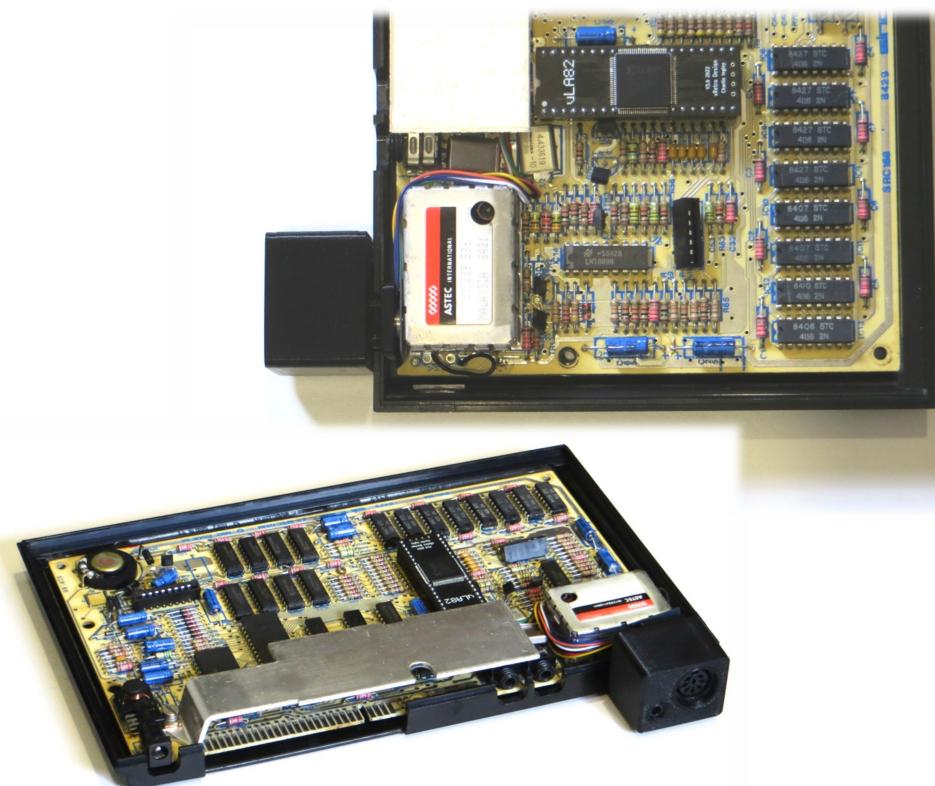


The internal interface is designed to be installed in place of the RF modulator within the Spectrum case and has an 8-wire cable connection to the vLA82S+. To connect to the interface a cable designed for the Harlequin 48K is suitable (see pinout reference at the end of this guide). Mono audio is configured as standard but stereo audio, or the Spectrum composite video signal, can also be configured to be made available by jumpers (this needs a differently wired cable and the video connected to the CVBS interface pad).

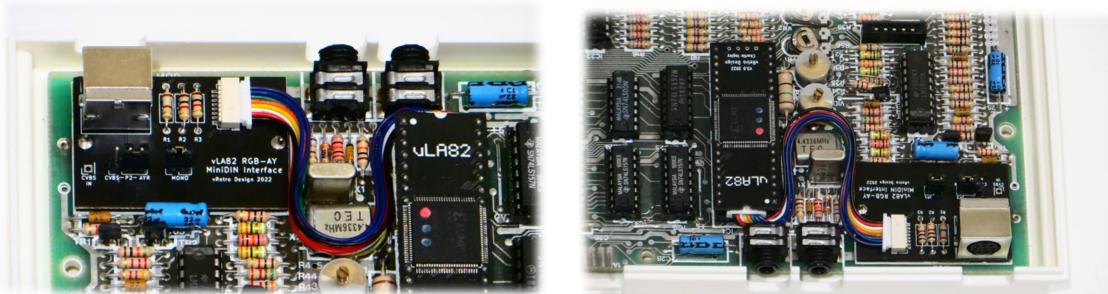
## To install

1. Remove the vLA82S+, cable, and internal interface from the packaging. Contact support@vretrodesign.com if you find any shipping damage.
2. Remove the cover from the Spectrum case and remove the keyboard connections. Remove the modulator if present.
3. Solder the internal interface onto the Spectrum motherboard aligning the two pins underneath the interface PCB with the modulator mounting holes. Take care to keep the 1mm gasket in place.
4. Press the vLA82S+ carefully into the existing ULA socket. Note that turned pin sockets are not recommended as the small round pins of the vLA82S+ do not make a good connection.
5. Plug the 8 wire cable connector into the small socket underneath the vLA82S+. Ensure that it is pressed in straight as the small pins can be bent if the connector is pushed in at an angle.
6. Reconnect the keyboard and screw the Spectrum cover in place.
7. Connect a suitable RGB cable to the interface DIN connector and apply power to the Spectrum.

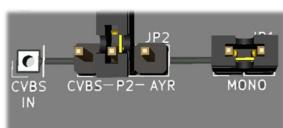
## External Installation



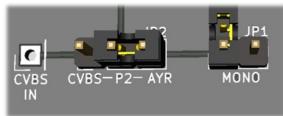
## Internal Installation



## Internal Jumper Configuration



Standard: Mono audio pin 5. Pin 2 not connected



Stereo: Left audio pin 5. Right audio pin 2



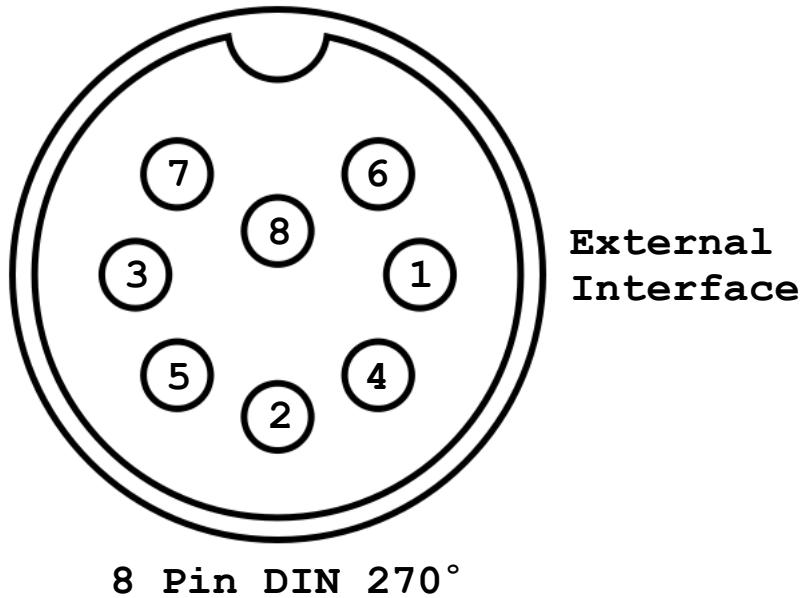
CVBS: Mono audio pin 2. Composite video pin 5

# vLA82S+ Connector Pinout Reference

(Front of socket view)

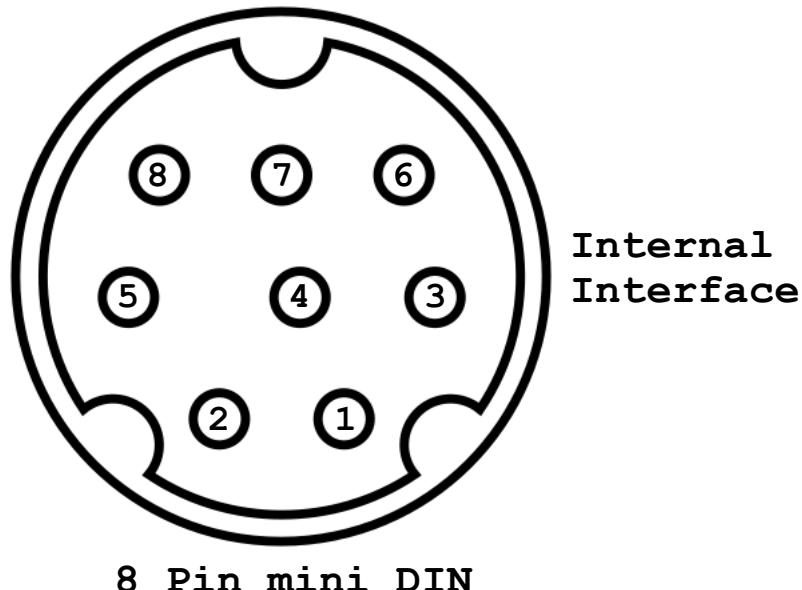
PIN	SIGNAL
1	+5V (Blanking)*
2	GND
3	Mono audio
4	SYNC
5	NC
6	GREEN
7	RED
8	BLUE

\*Blanking signal is +5V via



PIN	SIGNAL
1	GND
2	Right audio/CVBS
3	+5V (Blanking)*
4	GREEN
5	Mono audio [Left]
6	RED
7	BLUE
8	SYNC

\*Blanking signal is +5V via  
a 220R resistor



PIN	SIGNAL
2	Mono audio [left]
6	Right Audio
7	BLUE
11	GREEN
15	RED
16	Blanking
17	GND
18	GND
20	SYNC

