USB Digimode-3-URI Interface Guide

First of all, thank you for purchasing my USB Allstar/Hamvoip interface. Hopefully, this guide will allow you to get your PC connected to your transceiver with the minimum of effort. Your Interface comes with a 30 Day No Questions Satisfaction Guarantee and full 12 Month warrantee against material failure.

Please note: Although I have never had any interface damage a Radio or associated Computer, you use this item entirely at your own risk. I will not be responsible for any damage caused to your equipment through use of this product. You should always follow the manufacturer's instructions when connecting items to your equipment.

Interface description and connection

This USB Sound card interface is designed to connect between your radio and your PC (Linux box) to get your AllStar Link node up and running. The USB codec and electronics are built into the USB shell making the interface super compact.

The interface can be provided wired with the standard (Yaesu) wired 6 pin Mini Din data plug, a DB9 female or we can offer is as a bare wire for you to make off your own plugs.

You can get your system up and running by using the Linux based Allstar software or by using a derivative of the build called Hamvoip. Both ultimately achieve the same goal.

AllStarLink's Linux build images are here: AllStarLink.org
HamVoip Build images are here: Asterisk Allstar on the Raspberry Pi 2/3/4

There are plenty of great YouTube tutorials on building your own node but some good to follow set-up guides are here:
Setup an AllstarLink Node from SCRATCH [for Beginners]
The EASIEST Way To Build An AllStarLink Node

Irrespective of the way you go, the software natively supports the CM108B USB Codec and so there are no drivers that you need to worry about. The software knows about the CM108 USB interface and utilises the GPIO lines of the codec for PTT and COS functions.

AllstarLink and Hamvoip Software expect the interface to have PTT control on the CM108B GPIO3 pin and the COS (Carrier Operated Squelch) input on the CM108B "VOL DN" input pin. The interface is fully compliant with this requirement.

Interface Wiring

When you purchases the interface you could opt for different cable termination options.

6 Pin Mini-Din Plug Version

This option is perfect if you are utilising an old VHF/UHF mobile radio to use for a Node. Many Yaesu and Icom dual band radios have a standard wired 6 Pin Mini-Din data/packet socket on the rear panel

Pin 1 - Tx audio to the radio
Pin 2 - Ground
Pin 3 – PTT (active Low)
Pin 4- Not Used
Pin 5 - Rx Audio from the radio
Pin 6 - Squelch line from the radio

9 Pin DB-9 Female Version

This option is if you want to build a AllStar Link node in a box and just need a neat and pre-terminated solution to interface to yourself.

Pin 1 - Rx audio from the radio to the USB interface.
Pin 2 – PTT (active Low)
Pin 3 - COS Signal
Pin 4 - Tx audio from interface to the radio.
Pin 5 - Ground (0v)

Bare Wire Version

This option is if you want to terminate the cable yourself with your own plug.

Yellow Wire - Rx audio from the radio to the USB interface.
White Wire - PTT (active Low)
Red Wire - COS Signal
Black Wire - Tx audio from interface to the radio.
Screen - Ground (0v)

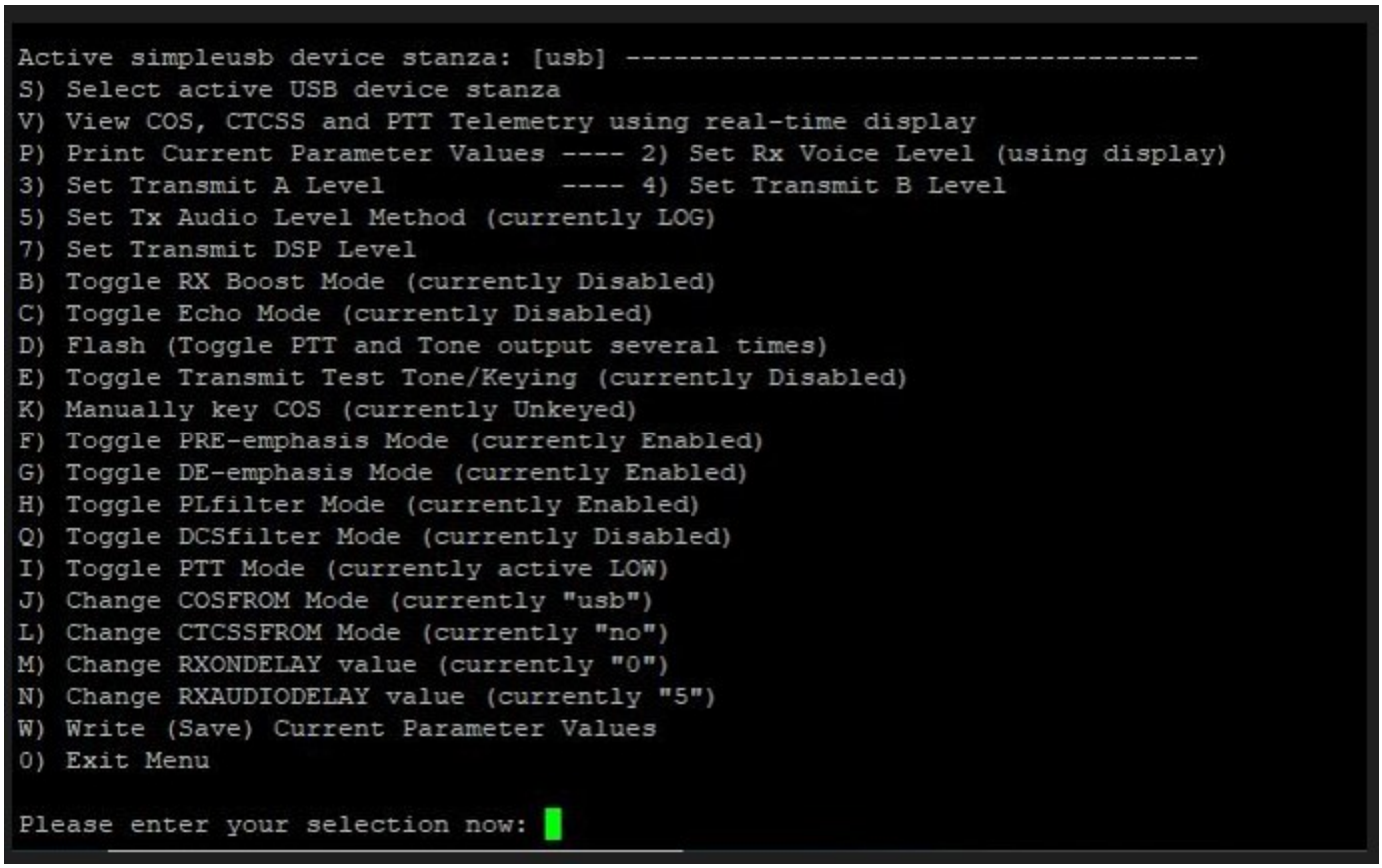
Hamvoip Simple USB Settings

The example settings screen capture below are the interface connected to a Yaesu FM Radio.

This radio has active low PTT so **Menu I** (Toggle PTT Mode) is set to ***"Active low"***

This radio has a COS squelch line available and so **Menu J** (COSFROM Mode) is set to ***"usb".***

Depending if your radio has an active low or active high squelch line, you may need to set **Menu J** to ***"usbinvert"***



Finally, we fully support the interface hardware and so can advise on this. We in no way offer support for AllstarLink or Hamvoip.

The AllStar help and support pages are here: [AllStarLink Help & Support]
The Hamvoip Setup guides are here: [Asterisk Allstar on the Raspberry Pi 2/3/4]

For more products, contact details or Help, please visit www.xggcomms.com