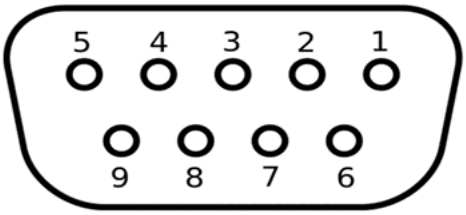
ARiUSB4



Looking at the front of the Female DE9 plug on the ARiUSB4

DE9 Female	Signal
Pin 1	GPIO 1
Pin 2	CTCSS Decode from radio
Pin 3	COR Signal from radio
Pin 4	RX Audio in from receiver
Pin 5	TX Audio out to transmitter
Pin 6	Ground
Pin 7	PTT signal to transmitter
Pin 8	Ground
Pin 9	Ground

How to enable the COS LED on your ARiUSB

The COS LED on your *ARiUSB4* can be driven by app_rpt to show the presence of a received signal. This uses bit 4 of the CM119A. Using the COS LED is optional. If you decide to use it you must configure your software to use the bit defined for the COS LED. Current HamVOIP image downloads have the required code already installed in the config files but they must be uncommented to be active. If the lines are not already installed you must add them. Check first! Here are the lines required:

1. In /etc/asterisk/rpt.conf in the node stanza you want to activate the COS LED add the following in the CONTEXT MAP-PING section if it is not already there. The xxxxx is the node number for that stanza.

events=eventsxxxxx

2. Add the event stanza if it is not already there. If it is there it will look like this, where xxxxx is your node number. This can be located anywhere after the node stanzas. Typically between the [schedule] stanza and the [functions] stanza.

[eventsxxxxxx]

3. Add the following after the above line. If the lines are already there but commented, remove the ';' semicolon from the beginning of the line.

cop,62,GPIO4:1 = c|t|RPT_RXKEYED

cop,62,GPIO4:0 = c|f|RPT_RXKEYED

If you are typing this in please pay attention to the exact syntax including case or better yet cut and paste from here to the file.

4. Save the rpt.conf file.

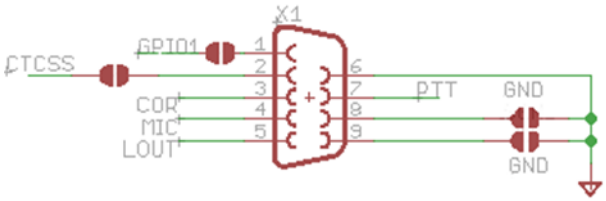
5. Edit the /etc/asterisk/simpleusb.conf file. In the stanza for the node you want to indicate the COS add the following.

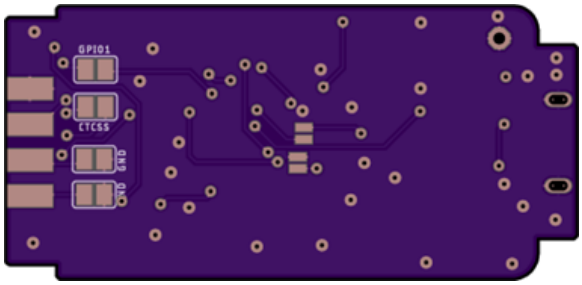
gpio4=out0

6. Save the simpleusb.conf file.

7. Restart asterisk (Admin Menu Number 13)

ARiUSB4





Pad location & Function to DE9 pinout

The bottom of the ARiUSB4 board has several jumpers pads for various configurations.

GPIO1 Solder Pad
GPIO1 can be connected to the DE9 Pin 1 for various applications by solding the GPIO1 pads together on the bottom of the ARiUSB4. Using a 2n2222 transistor you can control a relay or control of the logic circuit, channel steering or TX CTCSS enable/disable function.

CTCSS Solder Pad
To use COS and CTCSS decode for a repeater you can solder these pads together and this will connect the DE9 to pin 2. Then tie pin 2 to the output signal of your repeater CTCSS decoder. You will also have the configure the HamVoip Sotware for CTCSS decode.

For HamVOIP Software

Admin Menu

12) Run simpleusb-tune-menu Application

L) Change CTCSSFORM Mode **(Currently "no")**
(You will need to change this to either [usb] for active high signal from the CTCSS decoder or [usbinvert] for active low signal from the CTCSS decoder.

W) Write (Save) Current Parameters

0) Exit Menu

On the Admin Menu select **Item 15 <reboot this system>**