Enabling TXCTCSS bit on the USB Interface

The latest version of hamvoip V1.5 has implemented the txctcss bit which can be mapped to one of the GPIO bits of the USB adapter. This bit can be used for multiple purposes but the intended use is to enable a hardware ctcss tone inserted on the transmitter. The allows the output PL to follow the input PL on an Allstar repeater. Since this bit follows the composite cos/ctcss input it can also be used as an input activity indicator or any other use. The USB FOB output bits are TTL levels.

To implement this bit you would add the following line to the `/etc/asterisk/simpleusb.conf` file -

```
gpioX=txctcss
```

OR

```
gpioX=txctcss_inverted
```

Replace the X with the bit number you want to access on your USB device. The cm108 accepts bits 1-4 with bit 3 reserved for PTT. So only bits 1, 2, 4 can be used. The CM119 (DMK-URI) has 8 bits with again bit 3 reserved so it can accept 1, 2, 4, 5, 6, 7, 8. A standard FOB does not have these bits extended to a pad, the DMK-URI has all bits available at the 25 pin connector.

At boot the output to the bit is is turned **OFF** by default

There are two ways to turn it on or off. You can add this command to `/etc/asterisk/rpt.conf`

```
itxctcss=1 ; turns bit on
```

```
itxctcss=0 ; turns bit off
```

You can also control the bit using a cop command. This allows enabling or disabling on the fly.

In the Asterisk client -

```
rpt cmd <node> cop 58 0 ; Turns bit on
```

```
rpt cmd <node> cop 59 0 ; Turns bit off
```

These cop commands can of course be used in a function and controlled by a DTMF sequence.

The cop commands issue a voice message to confirm enable or disable.