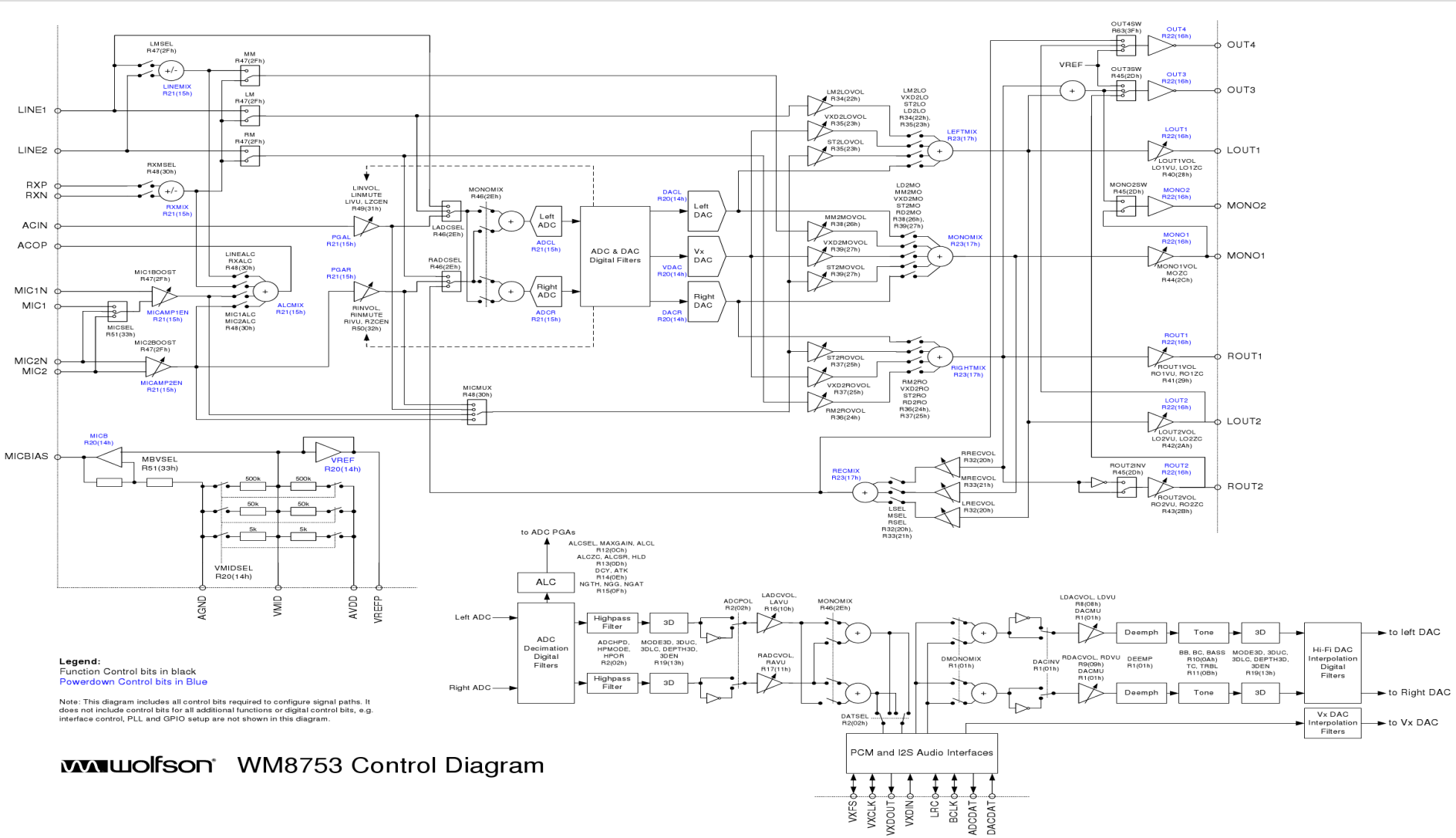
# Audio

- What do those state files mean
- Why are they so large
- How do they control audio paths
- How does this control codec power use

# Analogue Diagram




**Legend:**
Function Control bits in black
Powerdown Control bits in Blue

Note: This diagram includes all control bits required to configure signal paths. It does not include control bits for all additional functions or digital control bits, e.g. interface control, PLL and GPIO setup are not shown in this diagram.

wolfson WM8753 Control Diagram

# What do those state files mean

```
control.1 {
        comment.access 'read write'
        comment.type INTEGER
        comment.count 2
        comment.range '0 - 255'
        iface MIXER
        name 'PCM Volume'
        value.0 235
        value.1 235
}
```

# Why are they so large

- Codec driver is generic so there are controls which are not used in Neo1973
- One control for each device on the diagram
- Some extra controls for Amp and Mode on the Neo1973
- 94 Controls in total on GTA02

# How do they control audio paths

```
control.91 {
        comment.access 'read write'
        comment.type BOOLEAN
        comment.count 1
        iface MIXER
        name 'DAPM Handset Mic Switch'
        value false
}
control.92 {
        comment.access 'read write'
        comment.type BOOLEAN
        comment.count 1
        iface MIXER
        name 'DAPM Handset Spk Switch'
        value false
}
```

# How do they control audio paths

- DAPM system in driver automatically finds route between “ON” components.
- MUX/SWITCH componets controls select paths.

# How does this control codec power use

- All not used components in Codec are powered down by DAPM when not in an active path.
- This is good for mobile devices like Neo1973
- We are ahead of Windows here as it DOES NOT have this fine controlled power system.