## SigmaDSP to Raspberry Pi SPI control registers

## Write registers:

**LED = 0x0538**

-> 0x0000 = OFF

-> 0x0001 = ON

**Control = 0x0535**

-> 0x0000 = MUTE

-> 0x0001 = RPi

-> 0x0000 = DAB

-> 0x0001 = AuxIN

-> 0x0000 = BlueTooth Rx

## Read registers:

**CODE = 0x001B**

-> 0xBE01BE02

**LEVEL = 0x0514**

-> 0x0000aabb

- aa - 0x00 - 0x15 - left channel

- bb - 0x00 - 0x15 - right channel

Values represents signal level in left and right channel in dBs below:

0x15 = +6dB

0x14 = +3dB

0x13 = 0dB

0x12 = -3dB

0x11 = -6dB

0x10 = -9dB

0x0F = -12dB

0x0E = -15dB

0x0D = -18dB

0x0C = -21dB

0x0B = -24dB

0x0A = -27dB

0x09 = -30dB

0x08 = -33dB

0x07 = -36dB

0x06 = -39dB

0x05 = -42dB

0x04 = -45dB

0x03 = -48dB

0x02 = -51dB

0x01 = -54dB

0x00 = -57dB

0x00 = -57dB

0x10 = +6dB

0x0F = +3dB

0x0E = 0dB

:

0x02 = -36dB

0x01 = -39dB

0x00 = -42dB

0x00 = -45dB

Spectrum analyser **Right = 0x0526**

RIGHT

b31-b28 - NOT\_USED

b27-b24 - 31.5Hz

b23-b20 - 63Hz

b19-b16 - 125Hz

b15-b12 - 250Hz

b11-b8 - 500Hz

b7-b4 - 1000Hz

b3-b0 - 2000Hz

Spectrum analyser **Left = 0x0527**

LEFT

b31-b28 - NOT\_USED

b27-b24 - 31.5Hz

b23-b20 - 63Hz

b19-b16 - 125Hz

b15-b12 - 250Hz

b11-b8 - 500Hz

b7-b4 - 1000Hz

b3-b0 - 2000Hz

Spectrum analyser **Left&Right = 0x0528**

LEFT

b31-b28 - NOT\_USED

b27-b24 - 4000Hz

b23-b20 - 8000Hz

b19-b16 - 16000Hz

RIGHT

b15-b12 - NOT\_USED

b11-b8 - 4000Hz

b7-b4 - 8000Hz

b3-b0 - 16000Hz

Values represents signal level at particular frequency in:

0x00 = -36dB

0x01 = -33sB

0x02 = -30dB

0x03 = -27dB

0x04 = -24dB

0x05 = -21dB

0x06 = -18dB

0x07 = -15dB

0x08 = -12dB

0x09 = -9dB

0x0A = -6dB

0x0B = -3dB

0x0C = 0dB

0x0D = 3dB

0x0E = 6dB