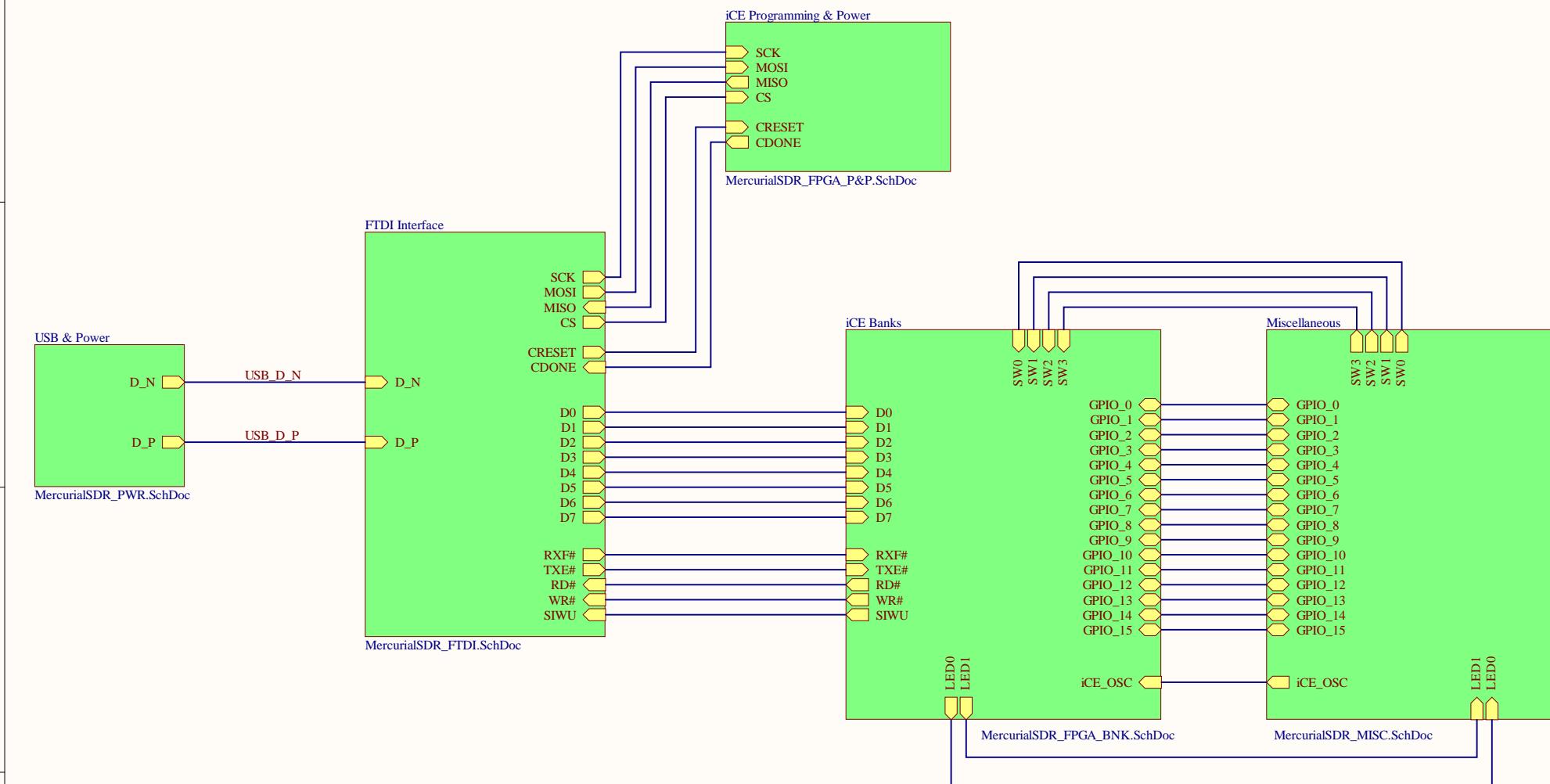


A

A



B

B

C

C

D

D

Title: *p2020 v1*

Author: RF-Lab

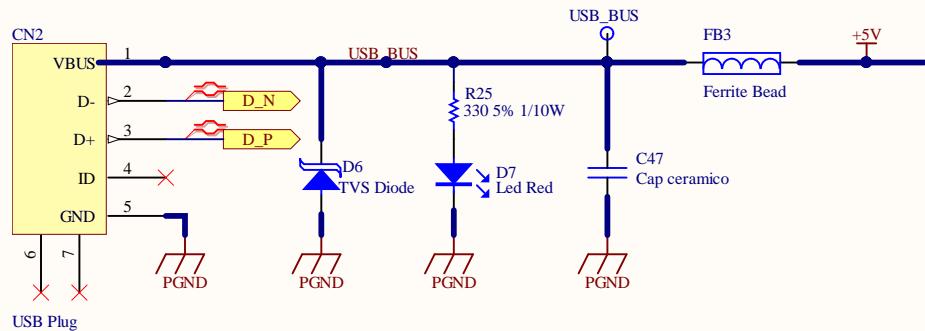
Size: A4 | Sheet 1 of 6 | Revision: Rev1.0

File: MercurialSDR_BLK.SchDoc | Date: 27/8/2020

Power Stage

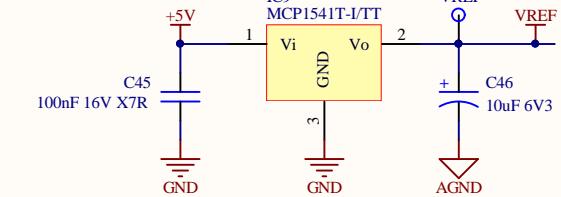
A

USB to +3V3 and +1V2

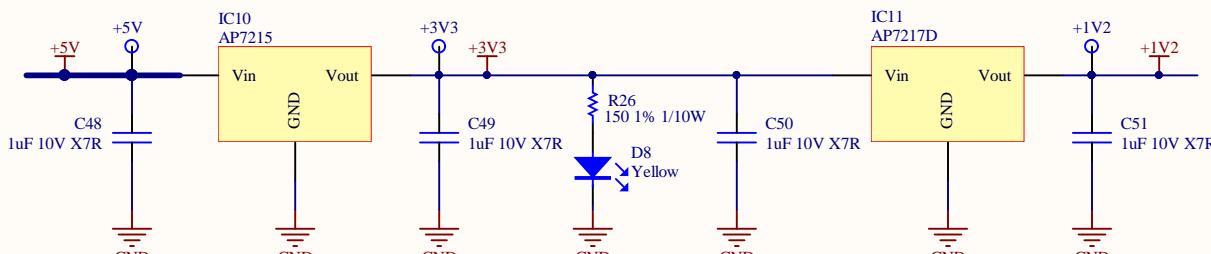


B

Reference Voltage

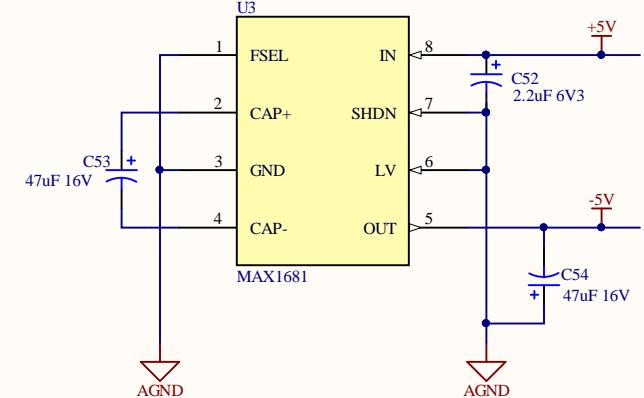


C



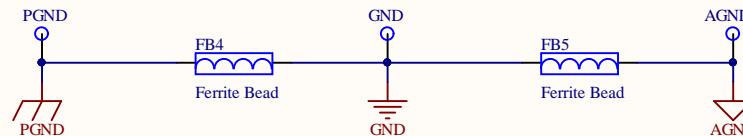
Es muy importante el ESR de los
capacitores para el ripple

Inverter Voltage



D

Ground Connections



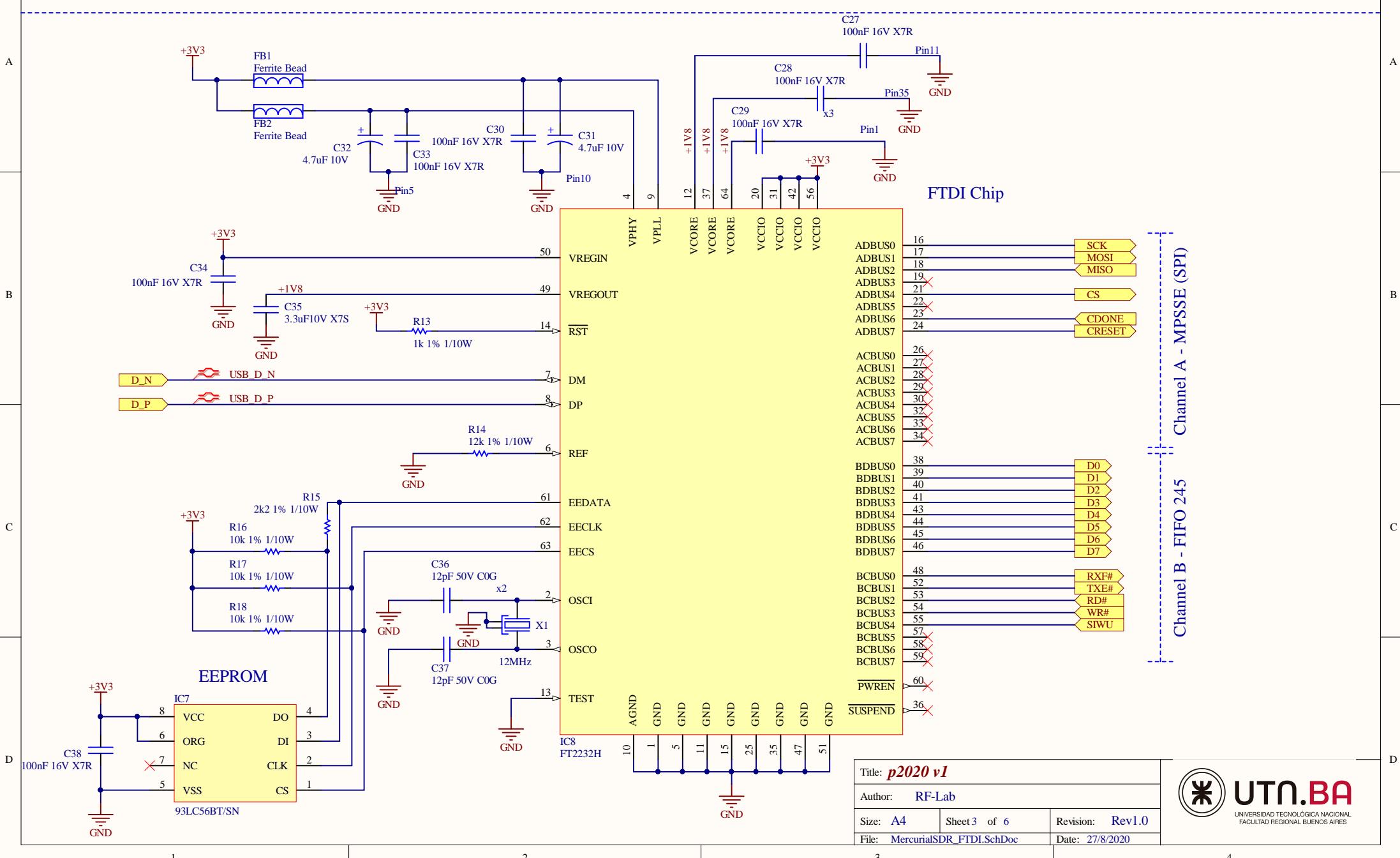
Title: *p2020 v1*

Author: RF-Lab

Size: A4 | Sheet 2 of 6 | Revision: Rev1.0

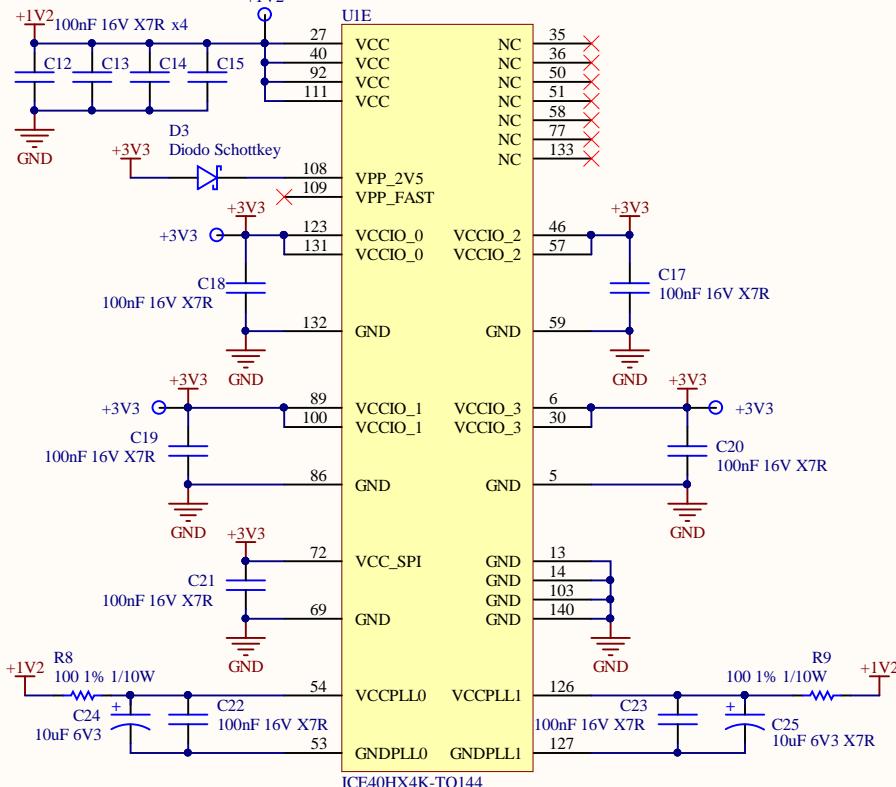
File: MercurialSDR_PWR.SchDoc | Date: 27/8/2020

FTDI Interface

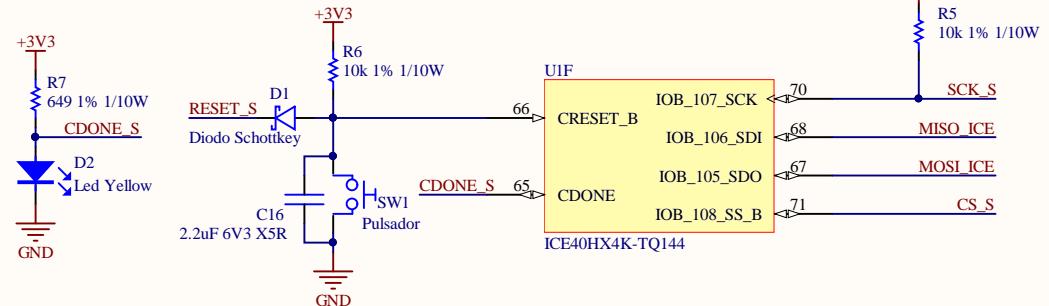


ICE Programming & Power

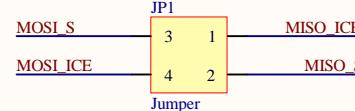
iCE Power



ICE SPI Programming Pins



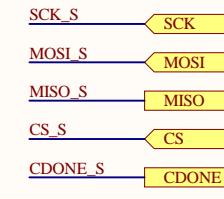
ICE/Flash programming selection



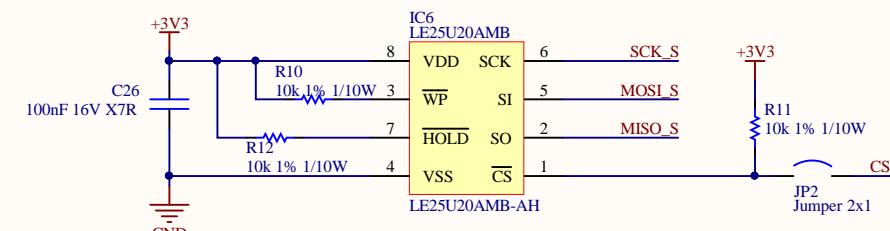
For programming ICE: shunt 1-3 & 2-4

For programming Flash: shunt 1-2 & 3-4

FTDI Ports



Flash Memory



Title: *p2020 v1*

Author: RF-Lab

Size: A4 | Sheet 4 of 6 | Revision: Rev1.0

File: MercurialSDR_FPGA_P&P.SchDoc | Date: 27/8/2020

FPGA Banks

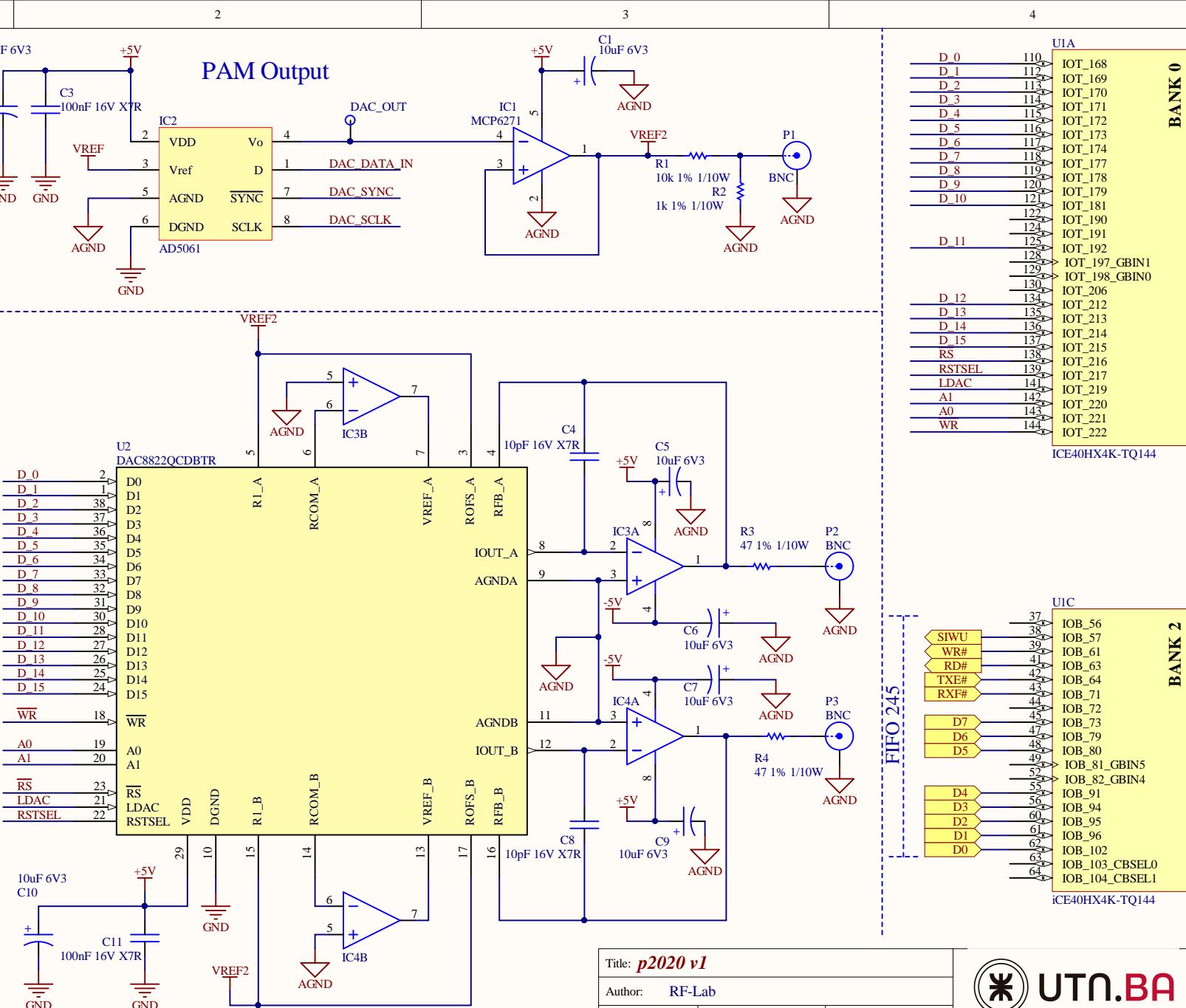
PIN93y94 son Global Pins, pero se pueden usar como GPIOs

| BANK 1 | |
|---------------|-------------|
| IOR_109 | |
| IOR_110 | DAC_SCLK |
| IOR_111 | DAC_DATA_IN |
| IOR_112 | DAC_SYNC |
| IOR_114 | |
| IOR_115 | |
| IOR_116 | |
| IOR_117 | |
| IOR_118 | SW0 |
| IOR_119 | |
| IOR_120 | SW1 |
| IOR_122 | |
| IOR_126 | |
| IOR_137 | LED0 |
| IOR_138 | LED1 |
| IOR_139 | |
| IOR_140_GBIN3 | |
| IOR_141_GBIN2 | |
| IOR_144 | SW2 |
| IOR_146 | |
| IOR_147 | SW3 |
| IOR_148 | |
| IOR_152 | |
| IOR_160 | |
| IOR_161 | |
| IOR_164 | |
| IOR_165 | |
| IOR_166 | |
| IOR_167 | |

iCE40HX4K-TQ144

| BANK 3 | |
|---------------|---------|
| IOL_2A | |
| IOL_2B | |
| IOL_3A | |
| IOL_3B | |
| IOL_4A | GPIO_0 |
| IOL_4B | GPIO_1 |
| IOL_5A | GPIO_2 |
| IOL_5B | |
| IOL_8A | GPIO_3 |
| IOL_8B | GPIO_4 |
| IOL_10A | GPIO_5 |
| IOL_10B | GPIO_6 |
| IOL_12A | GPIO_7 |
| IOL_12B | GPIO_8 |
| IOL_13A | GPIO_9 |
| IOL_13B_GBIN7 | |
| IOL_14A_GBIN6 | iCE_OSC |
| IOL_14B | |
| IOL_17A | GPIO_10 |
| IOL_17B | GPIO_11 |
| IOL_18A | GPIO_12 |
| IOL_18B | GPIO_13 |
| IOL_23A | GPIO_14 |
| IOL_23B | GPIO_15 |
| IOL_24A | |
| IOL_24B | |
| IOL_25A | |
| IOL_25B | |

iCE40HX4K-TQ144



Title: p2020 v1

Author: RF-Lab

Size: A4 Sheet 5 of 6 Revision: Rev1.0

File: MercurialSDR_FPGA_BNK.SchDoc Date: 27/8/2020



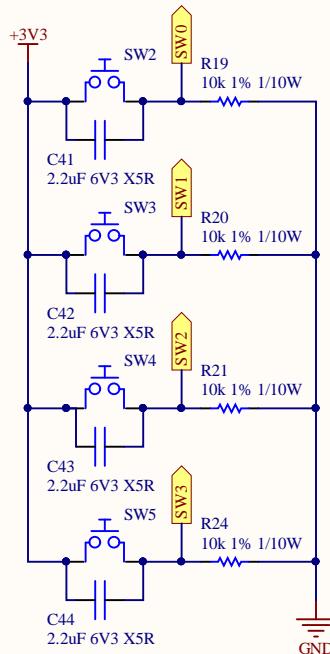
UTn.BA

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Miscellaneous

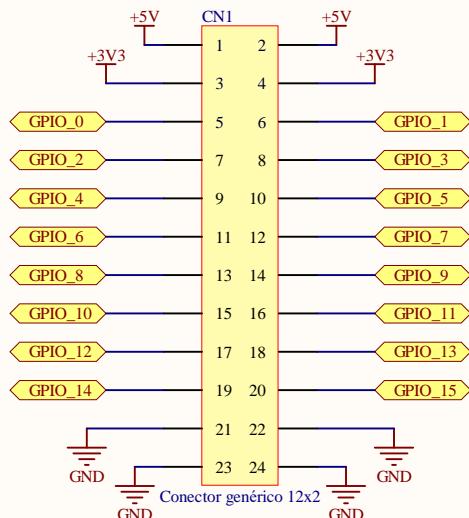
A

Buttons



B

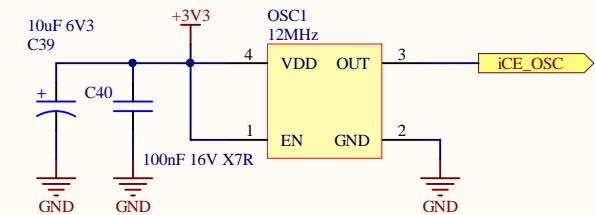
GPIO Ports



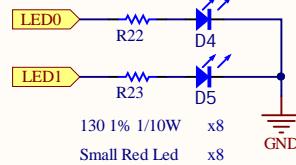
C

D

iCE Oscillator



Leds

Title: *p2020 v1*

Author: RF-Lab

Size: A4 Sheet 6 of 6 Revision: Rev1.0

File: MercurialSDR_MISC.SchDoc Date: 27/8/2020

