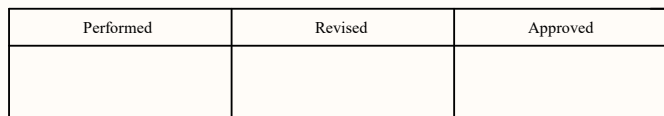
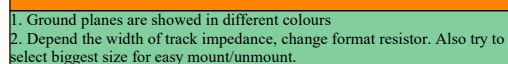
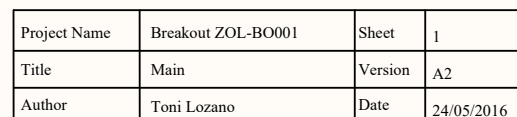
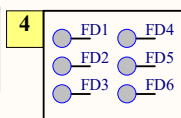
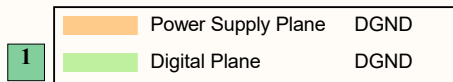
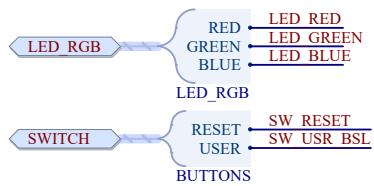
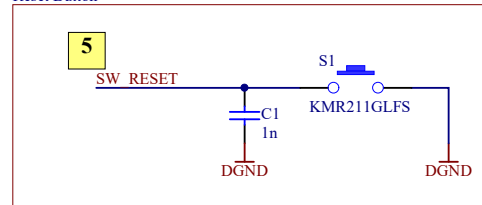


1. North port
2. South port
3. JTAG programming connector
4. Fiducials for top mounting

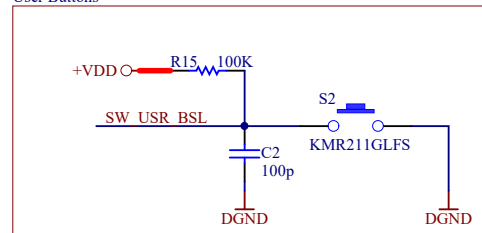




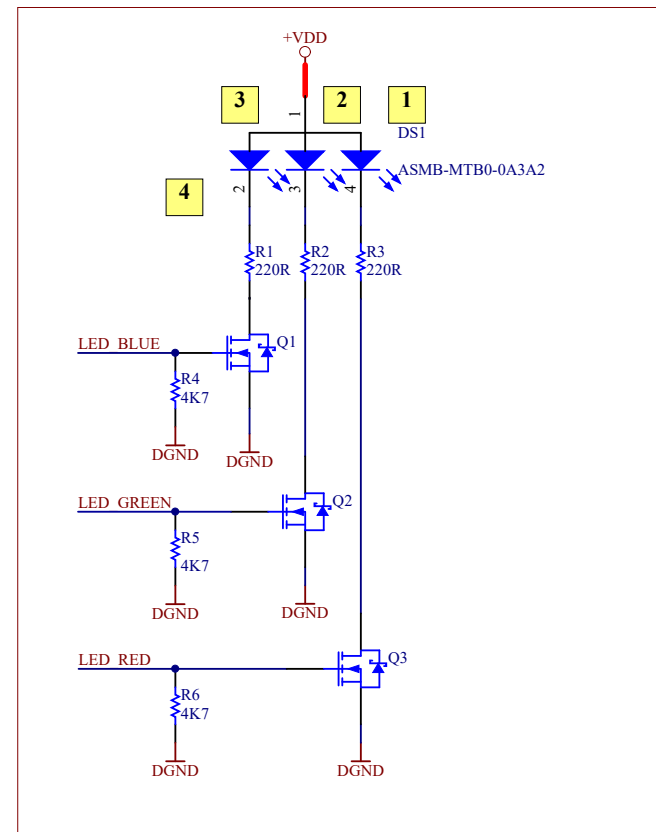
Reset Button



User Buttons



RGB Led



1. Red Led
2. Green Led
3. Blue Led
4. Common Anode
5. Pull up in other sheet

1.

1.

Project Name	Breakout ZOL-BO001	Sheet	2
Title	HMI	Version	A2
Author	Toni Lozano	Date	24/05/2016
Comments			

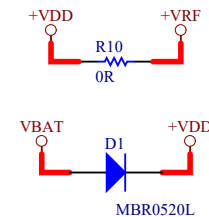
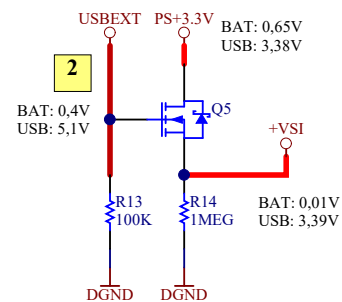
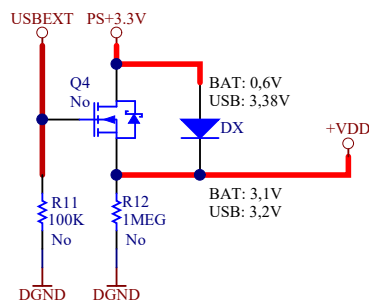
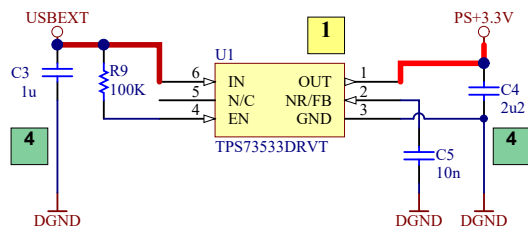
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1. 500mA, Low Quiescent Current, Ultra-Low Noise, High PSRR  
2 - Circuit used to prevent D+3.3V circuitry in constant consumption. Is only powered when USB external supply is present.

1 - Place the capacitors as close as possible to the I/O pins.  
2 - Pin 4 (NC) better connect to GND to avoid noise, because cap can go closer  
4 - Place the capacitors as close as possible to the I/O pins.

Project Name	Breakout ZOL-BO001	Sheet	3
Title	Power Management	Version	A2
Author	Toni Lozano	Date	24/05/2016
Comments			

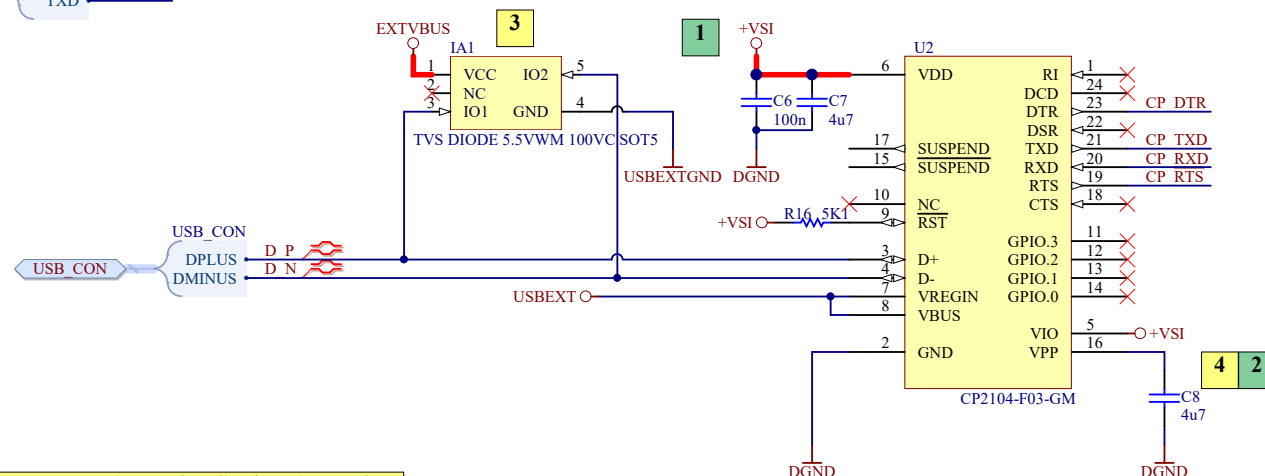
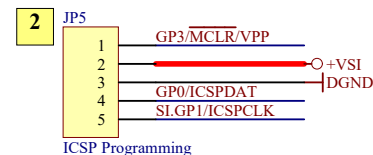
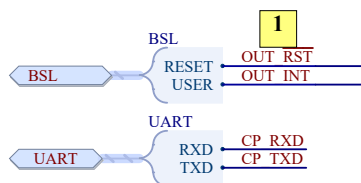
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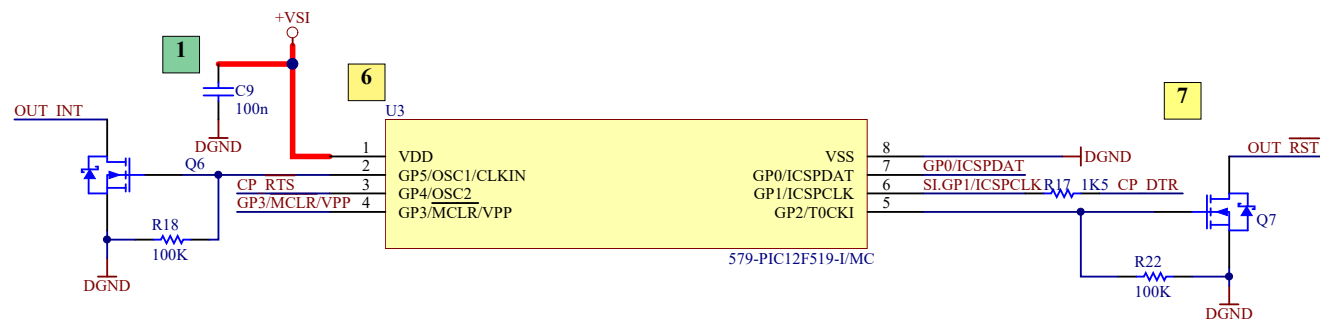
4



- 1.- Pins needed to program using BSL are: DTR (connected to A\*) and RTS (connected to reset)
- 2.- PIC Programming connector
- 3.- ESD-Protection for High-Speed Data Interfaces
- 4.- Capacitor to enable the program of CP2104. Remove this to protect the writing config of the cp2104.
- 5.- Led Bright transmission. Those leds should be used if program the cp2104.
- 6.- PIC12F519 8-Pin, 8-Bit Flash Microcontroller
- |                             |            |
|-----------------------------|------------|
| Program Memory Type         | Flash      |
| Program Memory (KB)         | 1.5        |
| CPU Speed (MIPS)            | 2          |
| RAM Bytes                   | 41         |
| Data EEPROM (bytes)         | 64         |
| Timers                      | 1 x 8-bit  |
| Temperature Range (C)       | -40 to 125 |
| Operating Voltage Range (V) | 2 to 5.5   |
| Pin Count                   | 8          |
- 7.- Reset and Interrupt controlled by FET to ensure that no parasitic current is driven to the micro.

1.- Ensure that we can't reach at 5V.

- 1.- Place components as close possible to source.
- 2.- Capacitor to enable the CP2104 programming parameters. Ensure that in the end of the line process extract the capacitor.



Project Name	Breakout ZOL-BO001	Sheet	4
Title	Serial Interface	Version	A2
Author	Toni Lozano	Date	29/09/2016
Comments			

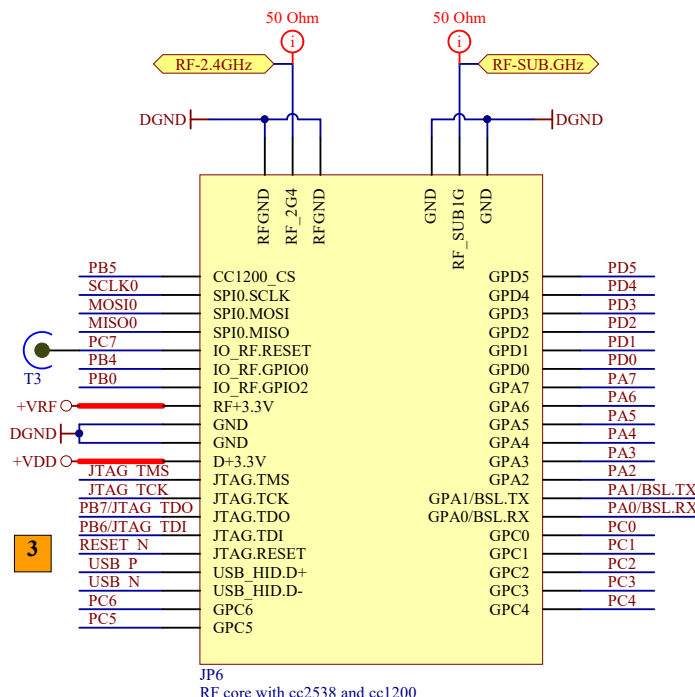
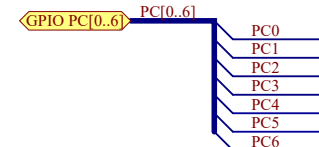
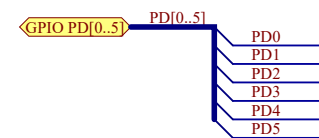
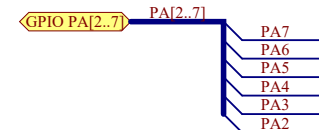
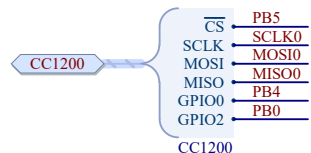
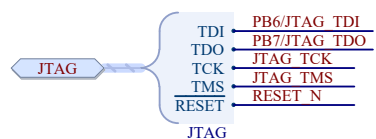
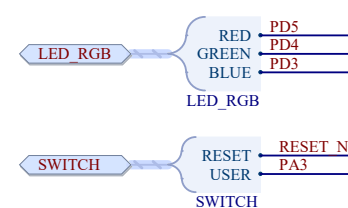
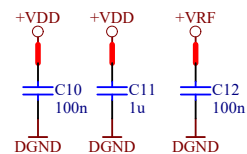
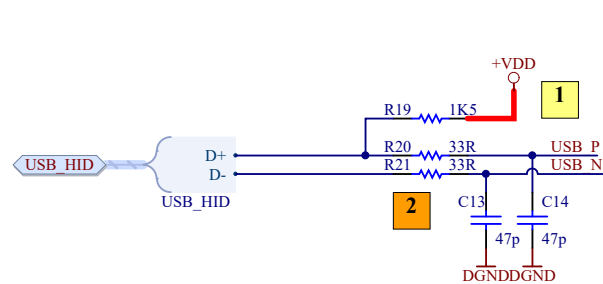
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- External pull up resistor enables USB only as 2.0 protocol.
- Jumper to measure SOC consumption
- If WDT is mounted, are necessary remove mosfet to control RED led

- DVDD USB voltage limit is 3.3v
- Low-Pass Filter
- internal Pull-up resistor is placed in zoul for reset pin.

- Place capacitors close to Core
- Pin 4 ( NC) better connect to GND to avoid noise , because cap can go more closer
- Place jumper closer to R9

Project Name	Breakout ZOL-BO001	Sheet	5
Title	Zoul	Version	A2
Author	Toni Lozano	Date	24/05/2016
Comments			

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