

1. JTAG Programmer for CC2538  
2. Fiducials. 3 to Top and 3 to Bottom  
3. Added 2 positions connector to connect battery in right angle position.

1. North Port  
2. South Port  
3. Added resistor for optional external/internal antenna using.

1. Ground planes are showed in different colours  
2. Depend the width of track impedance, change format resistor

LG4 Pb-Free Logo

LG3 RoHS Logo

LG5 Wheelie logo

2

FD1

FD3

FD5

FD2

FD4

FD6

Power Supply Plane

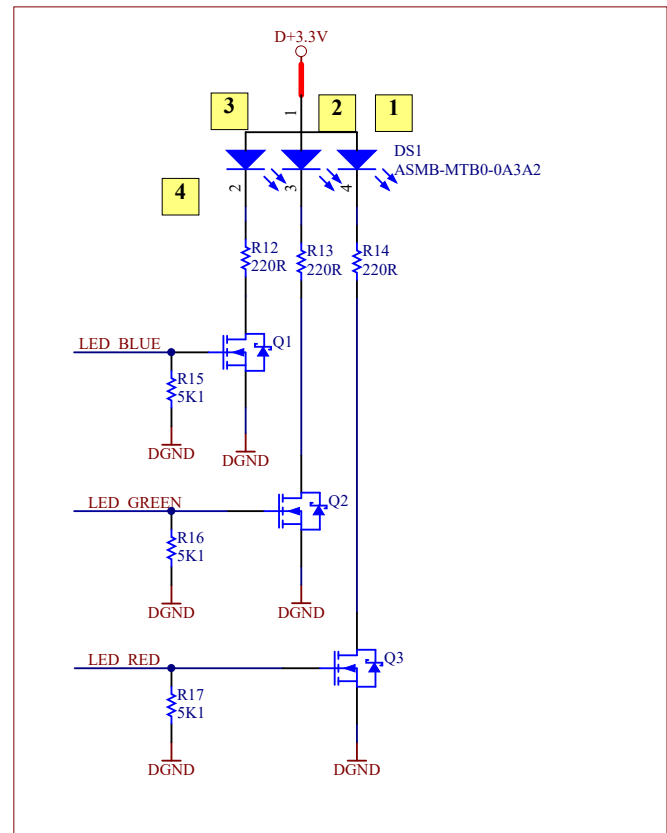
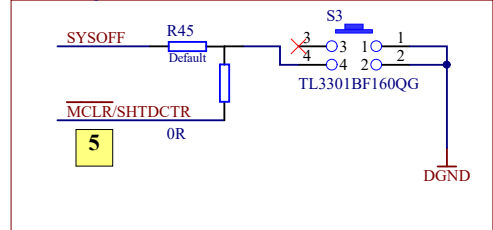
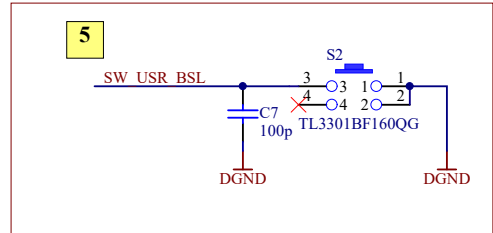
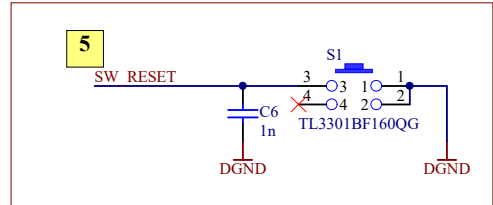
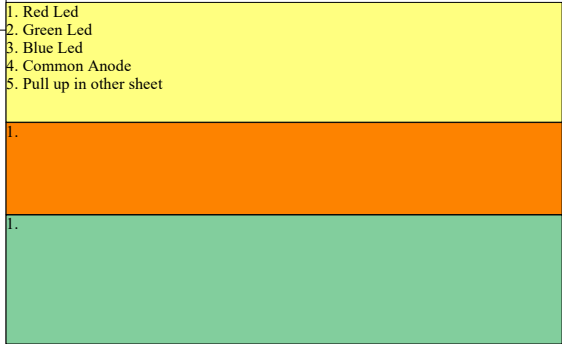
Digital Plane

DGND

DGND

Project Name	RE-Mote	Sheet	1
Title	Main	Version	B
Author	AMEjias JSanchez TLozano	Date	08/07/2015
Comments			

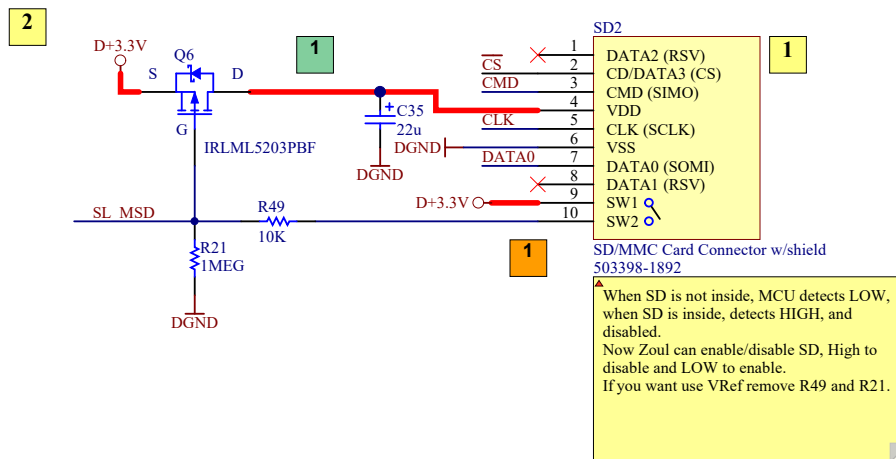
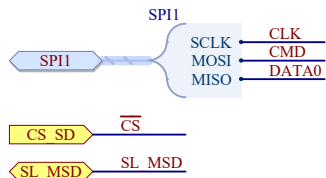




Project Name	RE-Mote	Sheet	2
Title	HMI	Version	B
Author	Javier Sanchez	Date	25/05/2015
Comments			

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1 - MOLEX CONNECTOR, MICRO SD, PUSH PUSH, 1.28MM  
2. Mosfet to enable/disable SD card when internal sw from sd card connector

1- Circuit for a smart supply of the micro SD card:

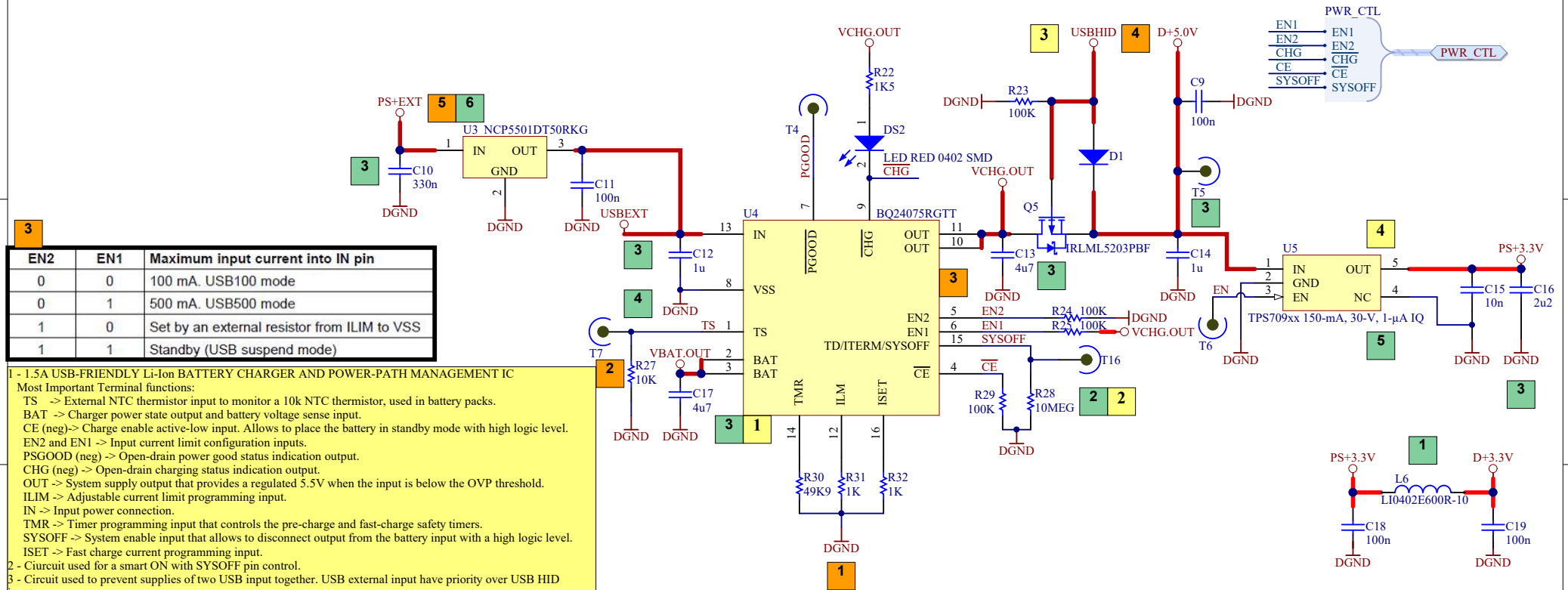
- When SD card is connected -> SW2 pin allow to enable mosfet and supply automatically the SD card. If SL\_MSD pin from microcontroller is configured as input it can detect if the card is ever connected or not. If SL\_MSD pin is configured as output, it can be used to disable the mosfet and the supply of the SD card when it is connected.

- When SD card is disconnected -> Automatically the mosfet is disabled but it can be enabled using SL\_MSD pin as output also.

1 - Place the capacitors as close as possible to the I/O pins.

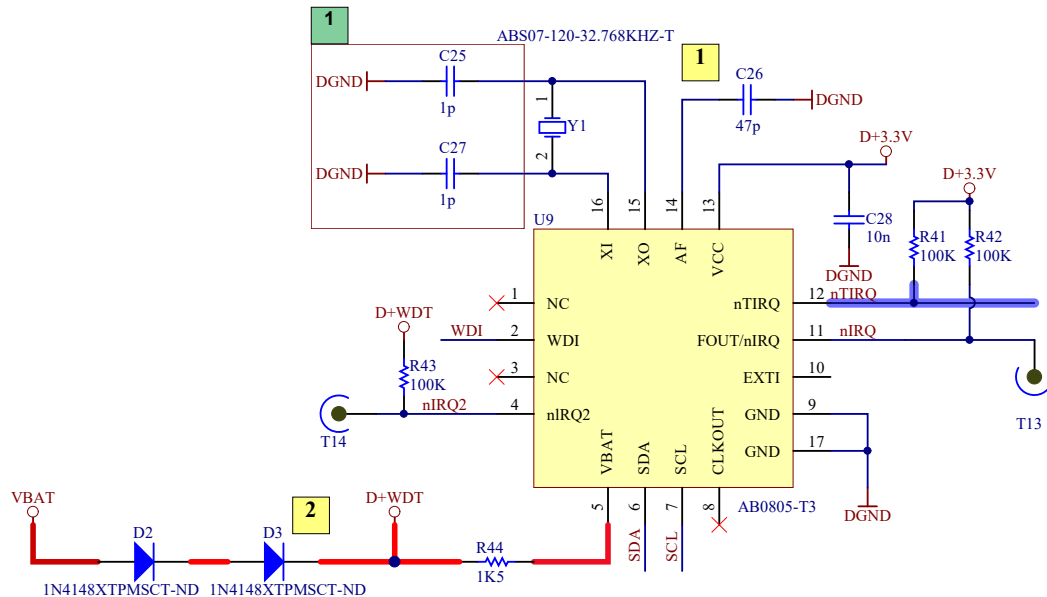
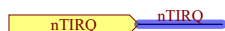
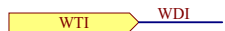
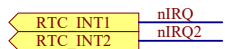
Project Name	RE-Mote	Sheet	4
Title	Memory	Version	B
Author	TLozano JSánchez	Date	08/07/2015
Comments			

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Project Name	RE-Mote	Sheet	5
Title	Power Management	Version	B
Author	TLozano JSanchez	Date	08/07/2015
Comments			

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1- Required to autocalibration mode  
2- Added 2 diodes to rest 1.1V at input.

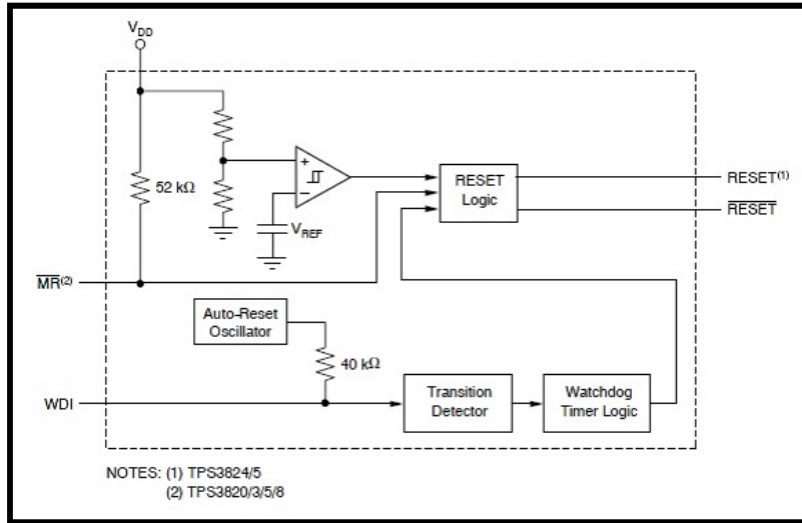
1. Pull-ups are placed inside Core schematic sheet.

1. Optinal mounted

Project Name	RE-Mote	Sheet	6
Title	RTC	Version	B
Author	Javi Sanchez	Date	27/05/2015
Comments			

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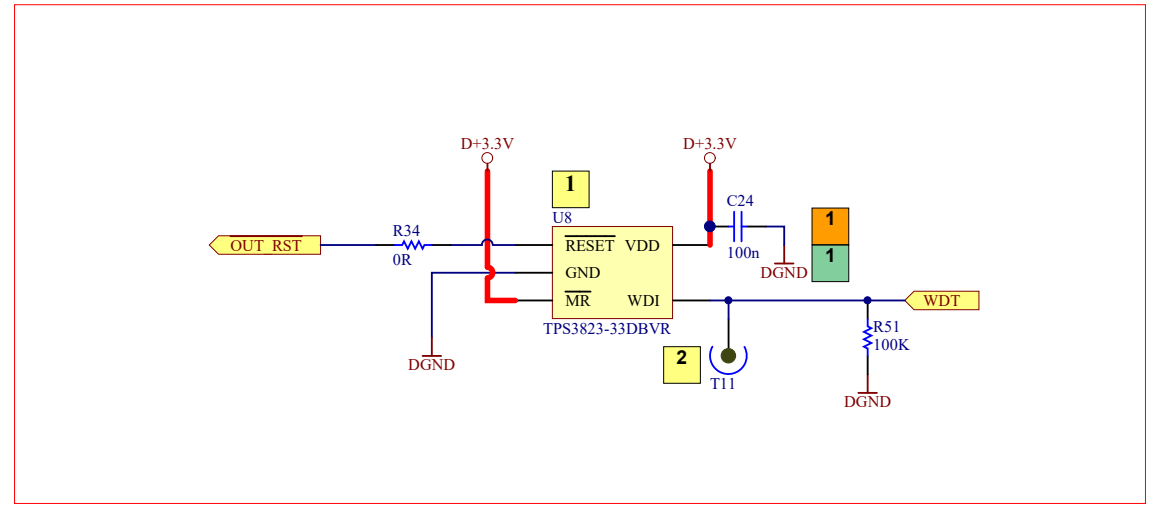
TPS3823 Block Diagram

INPUTS		OUTPUTS	
MR <sup>(1)</sup>	V <sub>DD</sub> > V <sub>IT</sub>	RESET	RESET <sup>(2)</sup>
L	0	L	H
L	1	L	H
H	0	L	H
H	1	H	L

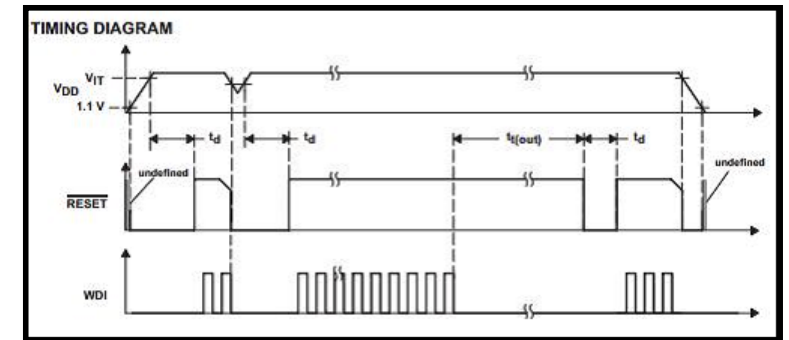
(1) TPS3820/3/5/8  
(2) TPS3824/5

TPS3823 Function/Truth Table

- 1 - The TPS382x family of supervisors provide circuit initialization and timing supervision, primarily for DSP and processor-based systems.  
2 - Test points to connect logic analyzer if communication issue.
- 1 - Decoupling capacitors.
- 1 - Put capacitor as close as possible to IC.  
2 - Circuit not mounted for first revision.



2

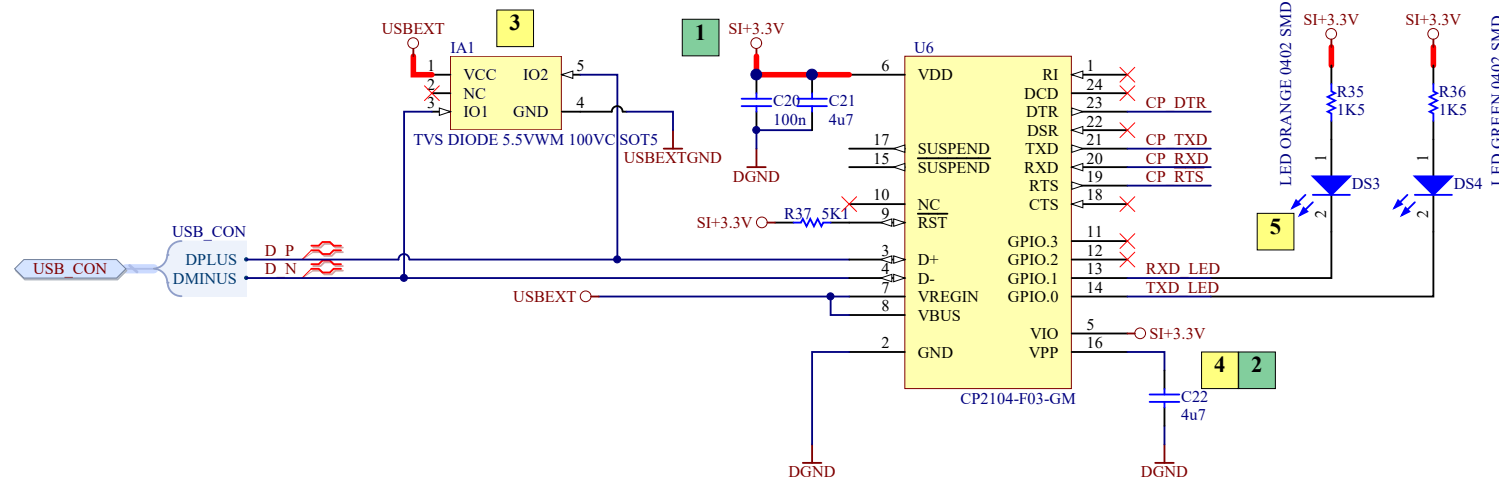
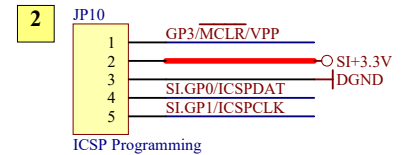
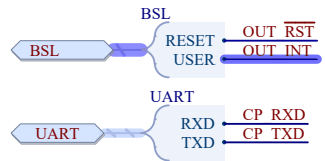


PARAMETER		TEST CONDITIONS	MIN	TYP	MAX	UNIT
t <sub>out</sub>	Watchdog time out	TPS3820	112	200	310	ms
		TPS3823/4/8	0.9	1.6	2.5	s
t <sub>d</sub>	Delay time	TPS3820	15	25	37	ms
		TPS3823/4/5/8	120	200	300	ms

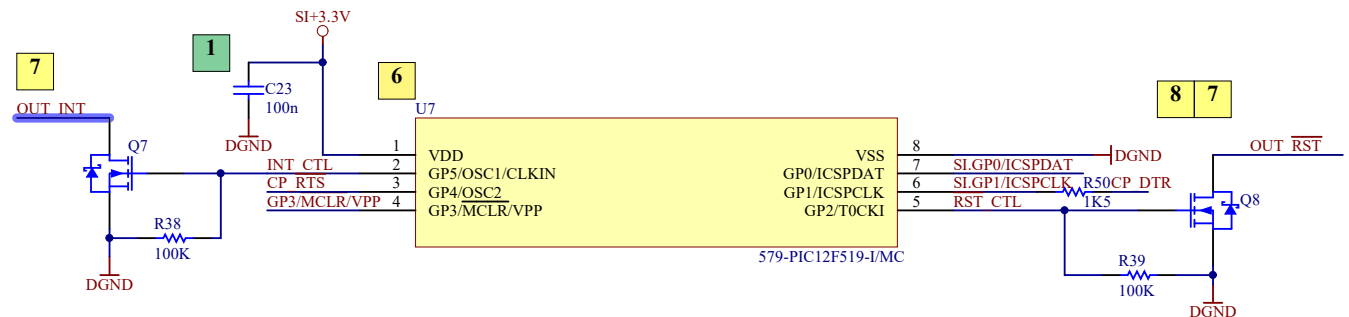
Project Name	RE-Mote	Sheet	8
Title	WDT	Version	B
Author	Toni Lozano	Date	08/07/2015
Comments			

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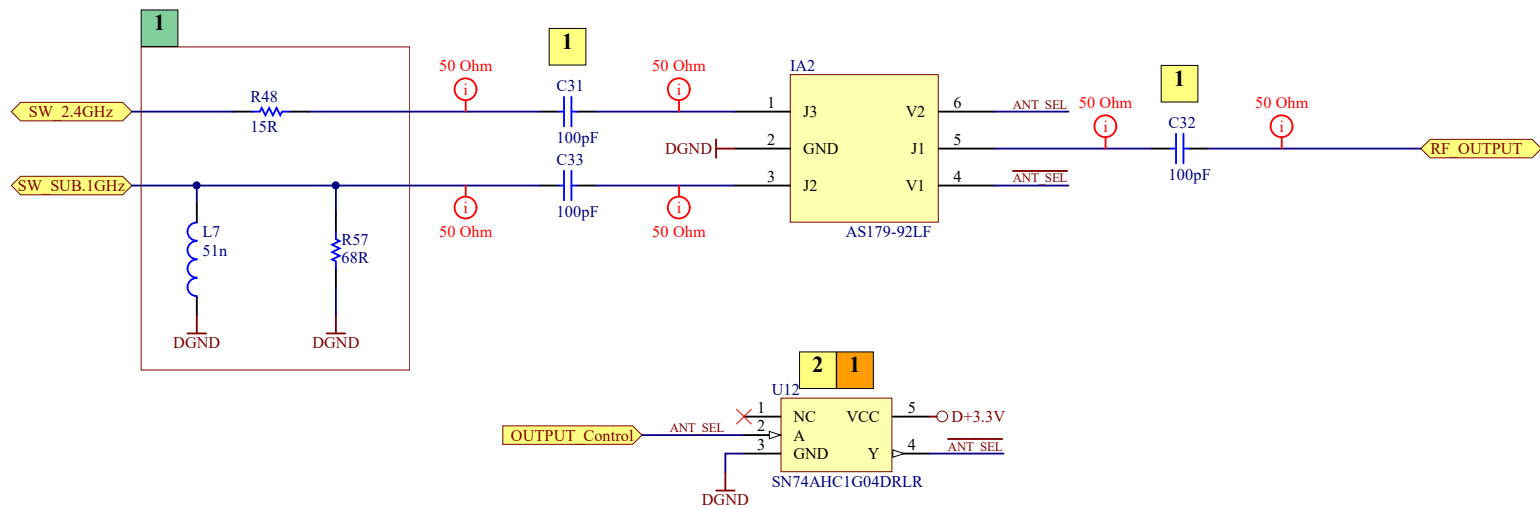


- 1.- Pins needed to program using BSL are: DTR (connected to A\*) and RTS (connected to reset)
  - 2.- PIC Programming connector
  - 3.- ESD-Protection for High-Speed Data Interfaces
  - 4.- Capacitor to enable que program of CP2104. Remove this to protect the writing config of the cp2104.
  - 5.- Led 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.
  - 8.- Required to program PIC with shared line



Project Name	RE-Mote	Sheet	9
Title	Serial Interface	Version	B
Author	Aitor Mejias	Date	08/07/2015
Comments			

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1

V1	V2	J1-J2	J1-J3
$V_{HIGH}$	0	Isolation	Insertion loss
0	$V_{HIGH}$	Insertion loss	Isolation

**Note:** Any state other than described in this Table places the device in an undefined state. An undefined state does not damage the device.

1. Recommended by antenna switch manufacturer  
2. Inverter Gate for Internal/External Antenna switch
1. When ANT\_SEL is HIGH, LDO active CC1200 and Switch select J1-J2, if ANT\_SEL is LOW, CC1200 are not powered and Switch are J1-J3
1. Place closed to Zoul

Project Name	RE-Mote	Sheet	10
Title	RF Switch	Version	B
Author	J Sánchez	Date	16/07/2015
Comments			