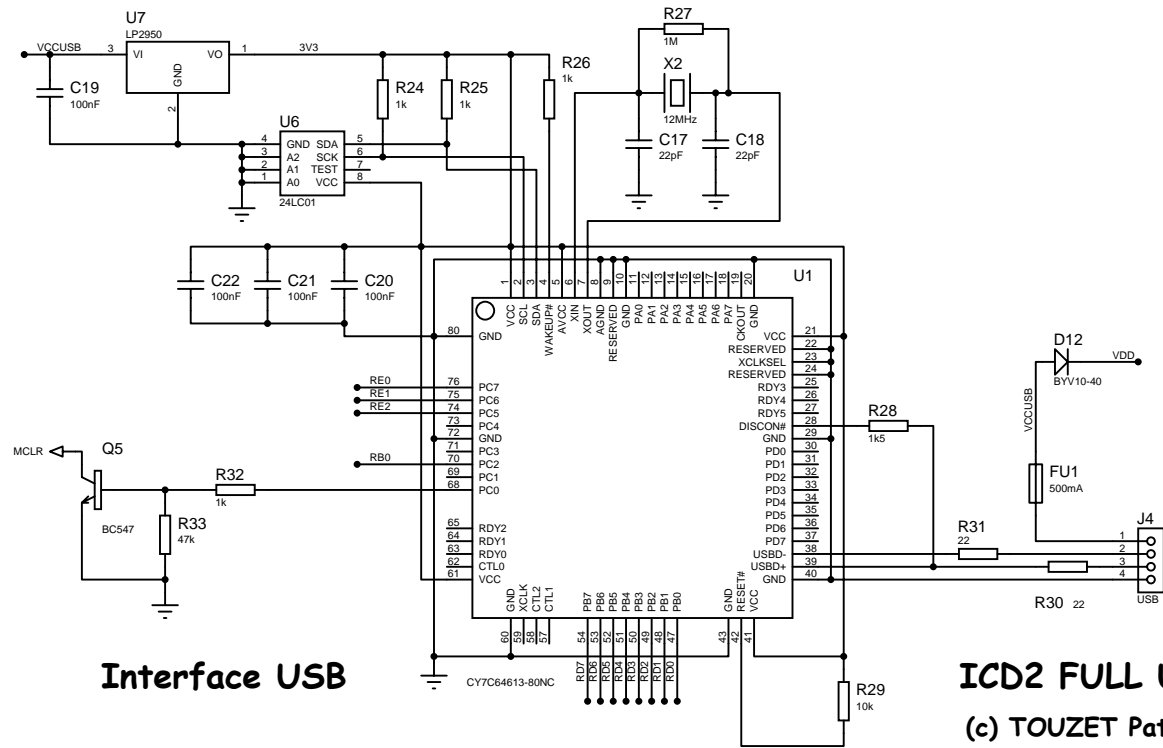


# ICD2 FULL USB V1.3

(c) TOUZET Patrick  
[www.touzet.fr.st](http://www.touzet.fr.st)

**History:**  
 V1.0: Prototype  
 V1.1: ok  
 V1.2: Routing optimised  
 V1.3: VDD is connected automatically to the Target



**Interface USB**

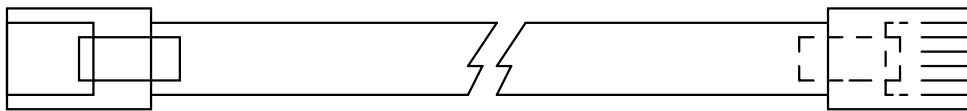
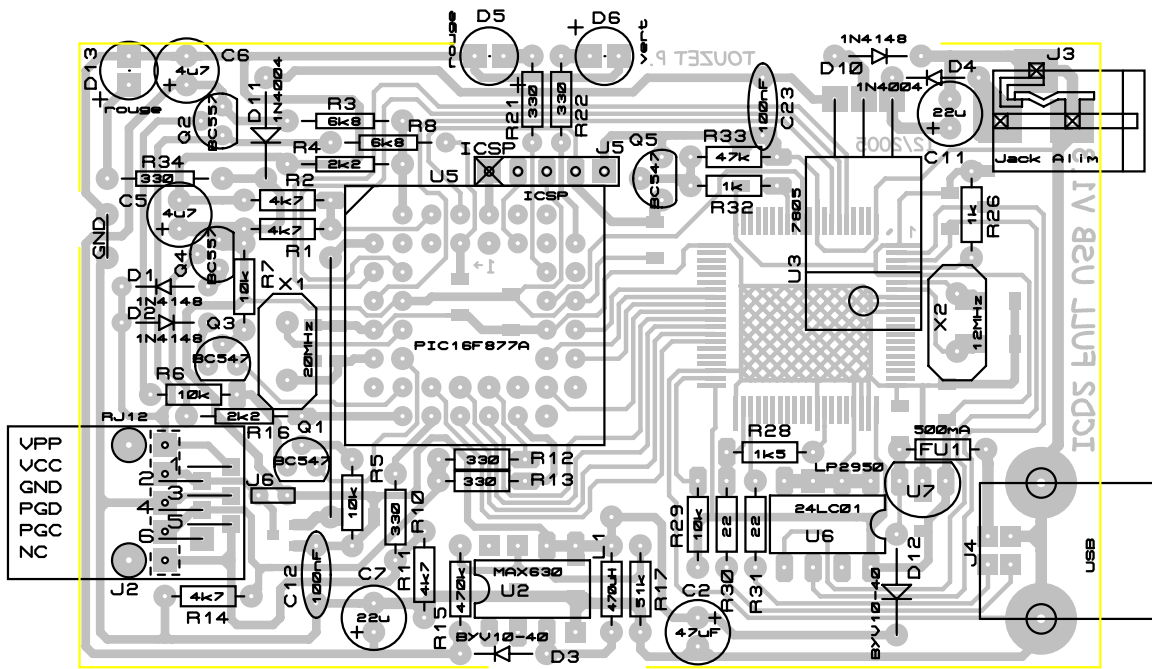
**ICD2 FULL USB**

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ICD2 V1.3 Liste des composants.txt

QTY	PART-REFS	VALUE	PACKAGE
Resistors 1/4w sauf cms			
4	R1, R2, R11, R14	4k7	
2	R3, R8	6k8	
2	R4, R16	2k2	
4	R5, R6, R7, R29	10k	
1	R9	2k2	cms
5	R10, R12, R13, R21, R22	330	
1	R15	470k	
1	R17	51k	
2	R18, R23	10k	cms
2	R24, R25	1k	cms
2	R26, R32	1k	
1	R27	1M	cms
1	R28	1k5	
2	R30, R31	22	
1	R33	47k	
1	R34	330	
Capacitors			
6	C1, C9, C19-C22	100nF	cms
1	C2	47uF	25V
4	C3, C4, C17, C18	22pF	cms
2	C5, C6	4u7	25V
2	C7, C11	22u	25V
1	C8	47pF	cms
2	C12, C23	100nF	
Integrated Circuits			
1	U1	CY7C64613-80NC	QFP80-14X14
1	U2	MAX630	DI L08
1	U3	7805	T0220REG+
1	U5	PI C16F877A	PLCC44
1	U6	24LC01	DI L08
1	U7	LP2950	T092
Transistors			
2	Q1, Q3	BC547	T092
2	Q2, Q4	BC557	T092
1	Q5	BC547	T092
1	Q6	FND360 or equ	SOT23
Diodes			
3	D1, D2, D10	1N4148	
1	D3	BYV10-40	
1	D4	1N4004	
2	D5, D13	rouge	LED
1	D6	vert	LED
1	D11	1N4004	
1	D12	BYV10-40	
Miscellaneous			
1	FU1	500mA	axial
1	J2	RJ12	MODULAR6
1	J3	Jack Alim	JACKALIM
1	J4	USB	USB-B
1	J5	I CSP	CONN-SI L5
1	L1	470uH	
1	X1	20MHz	XTAL18
1	X2	12MHz	XTAL18



for connect the Microchip Target module (14 Pin ICD 2 Header for example)  
 the connectors are reversed at the ends

Q6, R18: placed if VDD is connected automatically to the Target

J6: Manual connection of VDD to the Target (when Q6, R18 omitted)



