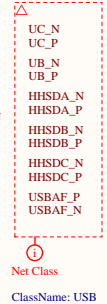


A  
B  
C  
D

A  
B  
C  
D



Net Class

ClassName: USB

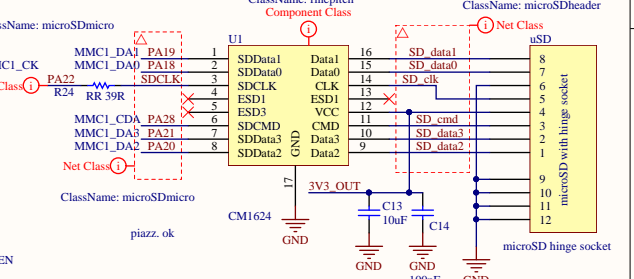
ClassName: microSDheader

microSD with hinge socket

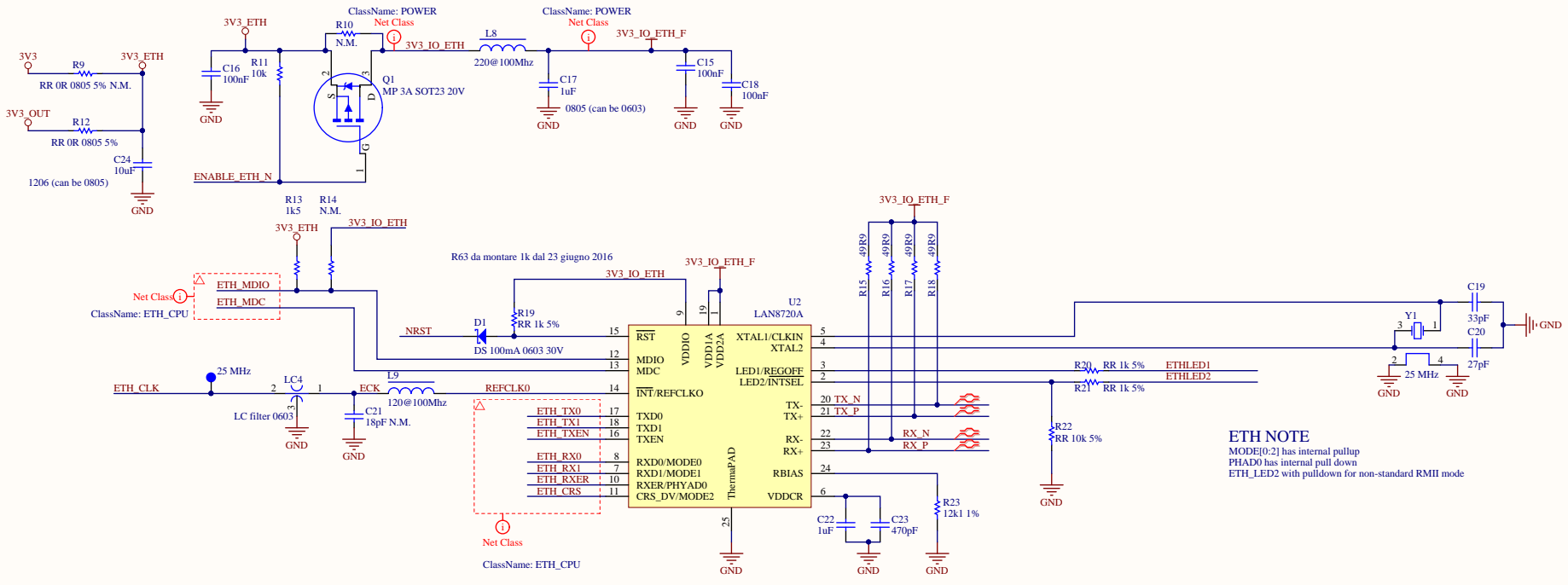
Title <b>Bertad2</b>		ACME Systems srl	
Size: A4	Number:*	Revision:1	www.acmesystems.it
Date: 25/08/17	Time: 15:36:14	Sheet 1 of 2	
File: \\Mac\Home\Documents\shared\Work\PCB_1\Bertad2\Bertad2_SchDoc			

WKUP	J3 1	VBAT	J4 1	PB30	J1 2
COMPMP	J3 2	SHDN	J4 2	PB28	J1 3
COMPMP	J3 3	BU_RxD	J4 3	PB26	J1 4
GND	J3 4	PD23	J4 4	PB24	J1 5
PD24	J3 5	PD29	J4 5	PB22	J1 6
PD28	J3 6	PD30	J4 6	PB20	J1 7
PIOBU2	J3 7	JTAGSEL	J4 7	PIOBU4	J1 8
PIOBU6	J3 8	PC5	J4 8	PIOBU5	J1 9
PIOBU7	J3 9	PC7	J4 9	PIOBU6	J1 10
PC8	J3 10	PC2	J4 10	PIOBU7	J1 11
PA7	J3 11	PC4	J4 11	PC5	J1 12
PA26	J3 12	PC3	J4 12	PC6	J1 13
PA29	J3 13	PC1	J4 13	PC7	J1 14
PA30	J3 14	PC5	J4 14	PC8	J1 15
GND	J3 15	PC6	J4 15	PC9	J1 16
PA4	J3 16	PC7	J4 16	PC10	J1 17
PA14	J3 17	PC8	J4 17	PC11	J1 18
PA15	J3 18	PC9	J4 18	PC12	J1 19
PA27	J3 19	PC10	J4 19	PC13	J1 20
BOOT_OFF	J3 20	PC11	J4 20	PC14	J1 21
GND	J3 21	PC12	J4 21	PC15	J1 22
		PC13	J4 22	PC16	J1 23
		PC14	J4 23	PC17	J1 24
		PC15	J4 24	PC18	J1 25
		PC16	J4 25	PC19	J1 26
		PC17	J4 26	PC20	J1 27
		PC18	J4 27	PC21	J1 28
		PC19	J4 28	PC22	J1 29
		PC20	J4 29	PC23	J1 30
		PC21	J4 30	PC24	J1 31
		PC22	J4 31	PC25	J1 32
		PC23	J4 32	PC26	J1 33
		PC24	J4 33	PC27	J1 34
		PC25	J4 34	PC28	J1 35
		PC26	J4 35	PC29	J1 36
		PC27	J4 36	PC30	J1 37
		PC28	J4 37	PC31	J1 38
		PC29	J4 38	PC32	J1 39
		PC30	J4 39	PC33	J1 40

PB31	J1-1	VBAT	J1-2	VBAT	J1-2
PB30	J1-3	SHDN	J1-4	SHDN	J1-4
PB29	J1-5	WKUP	J1-6	WKUP	J1-6
PB28	J1-7	GND	J1-8	GND	J1-8
PB27	J1-9	COMPMP	J1-10	COMPMP	J1-10
PB26	J1-11	COMPMP	J1-12	COMPMP	J1-12
PB25	J1-13	GND	J1-14	GND	J1-14
PB24	J1-15	JTAGSEL	J1-16	JTAGSEL	J1-16
PIOBU4	J1-17	PIOBU4	J1-18	VDDSDMMC	J1-18
PIOBU5	J1-19	PIOBU5	J1-20	PIOBU2	J1-20
PIOBU6	J1-21	PIOBU6	J1-22	PIOBU3	J1-22
PIOBU7	J1-23	PIOBU7	J1-24	NKST	J1-24
PC5	J1-25	BU_RxD	J1-26	BU_RxD	J1-26
PC7	J1-27	PC7	J1-28	PC23	J1-28
PC6	J1-29	PC28	J1-30	PC24	J1-30
PC8	J1-31	PC27	J1-32	GND	J1-32
PC9	J1-33	PC29	J1-34	PC25	J1-34
PC10	J1-35	PC31	J1-36	PC25	J1-36
PC11	J1-37	GND	J1-38	HHSDA_P	J1-38
PC12	J1-39	PC5	J1-40	HHSDA_N	J1-40
PC13	J1-41	PC6	J1-42	GND	J1-42
PC14	J1-43	PC7	J1-44	HHSDB_P	J1-44
PC15	J1-45	PC8	J1-46	HHSDB_N	J1-46
PC16	J1-47	PC9	J1-48	GND	J1-48
PC17	J1-49	PC10	J1-50	HHSDC_P	J1-50
PC18	J1-51	PC11	J1-52	HHSDC_N	J1-52
PC19	J1-53	PC12	J1-54	GND	J1-54
PC20	J1-55	PC13	J1-56	PC8	J1-56
PC21	J1-57	PC14	J1-58	PA2	J1-58
PC22	J1-59	PC15	J1-60	PA4	J1-60
PC23	J1-61	PC16	J1-62	PA5	J1-62
PC24	J1-63	PC17	J1-64	PA3	J1-64
PC25	J1-65	PC18	J1-66	PA7	J1-66
PC26	J1-67	PC19	J1-68	PA1	J1-68
PC27	J1-69	PC20	J1-70	PA10	J1-70
PC28	J1-71	PC21	J1-72	PA20	J1-72
PC29	J1-73	PC22	J1-74	PA18	J1-74
PC30	J1-75	PC23	J1-76	PA15	J1-76
PC31	J1-77	PC24	J1-78	PA19	J1-78
PC32	J1-79	PC25	J1-80	PA28	J1-80
PC33	J1-81	PC26	J1-82	PA29	J1-82
PC34	J1-83	PC27	J1-84	PA30	J1-84
PC35	J1-85	PC28	J1-86	PA31	J1-86
PC36	J1-87	PC29	J1-88	PA27	J1-88
PC37	J1-89	PC30	J1-90	PA24	J1-90
PC38	J1-91	PC31	J1-92	PA23	J1-92
PC39	J1-93	PC32	J1-94	PA25	J1-94
PC40	J1-95	PC33	J1-96	PA26	J1-96
PC41	J1-97	PC34	J1-98	BOOT_OFF	J1-98
PC42	J1-99	PC35	J1-100	GND	J1-100



MMC1_CK	PA22	RR 39R	Net Class
MMC1_DAP	PA18		
SDCLK	PA28		
ESD1	PA28		
ESD3	PA28		
SD_CMD	PA21		
SDData3	PA20		
SDData2	PA20		
VCC	PA28		
CMD	PA21		
SD_data3	PA20		
SD_data2	PA20		
SD cmd	PA28		
SD_data1	PA28		
SD_data0	PA28		
SD clk	PA28		



**ETH NOTE**  
 MODE[0:2] has internal pullup  
 PHAD0 has internal pull down  
 ETH\_LED2 with pulldown for non-standard RMII mode

Comment	Description	Designator	Footprint	LibRef	Quantity
GN TEST POINT	Test Point 1.3 mm	25 MHz	TP 1.3mm	GN TEST POINT	1
ACME Board RoadRunner		AB RoadRunner	AB RoadRunner	AB RoadRunner	1
CC 100nf 10V	Capacitor, Multi Layer Ceramic	C1	CC 0402S 1005m SOLDER	CC Ceramic Capacitor	1
CC 100uf 6.3V	Capacitor, Multi Layer Ceramic	C2, C3, C4, C8	CC 1206 (3216 metric)	CC Ceramic Capacitor	4
18pf	Capacitor, Multi Layer Ceramic	C5	CC 0402S 1005m SOLDER	CC Ceramic	1
CC 1nf 3KV	Capacitor, Multi Layer Ceramic	C6, C9	CC 1808 (4520 metric)	CC Ceramic Capacitor	2
CE Supercap 0F47 - 5V	Electrolytic Capacitor	C7	Supercap AVX 8x16x18	CE Supercap	1
CC 47uf 6.3V	Capacitor, Multi Layer Ceramic	C10, C11	CC 1206 (3216 metric)	CC Ceramic Capacitor	2
CC 10uf	Capacitor, Multi Layer Ceramic	C12	CC 0805 (2012 metric)	CC Ceramic Capacitor	1
10uf	Capacitor, Multi Layer Ceramic	C13	CC 0805 (2012 metric)	CC Ceramic	1
100nf	Capacitor, Multi Layer Ceramic	C14, C15, C16, C18	CC 0402S 1005m SOLDER	CC Ceramic	4
1uf	Capacitor, Multi Layer Ceramic	C17	CC 0805 (2012 metric)	CC Ceramic	1
33pf	Capacitor, Multi Layer Ceramic	C19	CC 0402S 1005m SOLDER	CC Ceramic	1
27pf	Capacitor, Multi Layer Ceramic	C20	CC 0402S 1005m SOLDER	CC Ceramic	1
18pf N.M.	Capacitor, Multi Layer Ceramic	C21	CC 0402S 1005m SOLDER	CC Ceramic	1
1uf	Capacitor, Multi Layer Ceramic	C22, C26, C27	CC 0603 (1608 metric)	CC Ceramic	3
470pf	Capacitor, Multi Layer Ceramic	C23	CC 0402S 1005m SOLDER	CC Ceramic	1
10uf	Capacitor, Multi Layer Ceramic	C24	CC 1206 (3216 metric)	CC Ceramic	1
CC 10uf 10V	Capacitor, Multi Layer Ceramic	C25	CC 0805 (2012 metric)	CC Ceramic Capacitor	1
DS 100mA 0603 30V	Schottky Diode	D1, D2	DD 0603	DS Schottky Diode	2
GREEN	LED Light-emitting diode	DL1, DL2	DL 0603 (1608 metric) GREEN	DL LED	2
FU BOURNS	Booms Fuse	F1	FU 1812 (4532 metric)	FUSE SMD	1
FF ACME		Fid 1, Fid 2, Fid 3, Fid 4	Fiducial 1mm_small	FF ACME	4
JJ HDR 1x3 2.54mm N.M.		J1	HDR 1x3	JJ HDR 1x3 2.54mm	1
JJ HDR 1x4 2.54mm		J2	HDR1X4 - Female DualMount	JJ HDR 1x4 2.54mm	1
JJ HDR2X20RM SMD F	Header 20X2 SMD Female reverse mount	J3, J4, J5, J6	HDR2X20 SMD Female	JJ HDR2X20RM SMD F	4
JJ USB A	USB 2.0 type A	J7	USB2.0-4H4 3D FOX	JJ USB A	1
JJ USB Micro SMD	USB Micro B Digikey 609-4050-2-ND	J8	USB Micro B - Extended	JJ USB Micro SMD	1
JJ HDR1X2	Header, 2-Pin Dual Mount, Female, 2mm	J9, J13	HDR1X2 NAKED	JJ HDR1X2	2
JJ HDR1X6 6mm M	Header, 6-Pin Male 6mm	J10	HDR1X6 3D	JJ HDR1X6 6mm M	1
JJ RLD260TC1 ETH	ETH connector RLD-260TC1 1MMAG	J11	RLD-260TC1	JJ RLD260TC1 ETH	1
LF 221	Ferrite	L1, L2, L3, L4, L5, L6	LL 0603 (1608 metric)	LF Ferrite	6
2uH2	Power Inductor 2uH2 0805	L7	LL 0805 (2012 metric)	LL Inductor	1
220@100Mhz	Ferrite 220 Ohm 2A 0805	L8	LL 0603 (1608 metric)	LF Ferrite	1
120@100Mhz	Ferrite 120 Ohm 0603	L9	LL 0603 (1608 metric)	LF Ferrite	1
LC 90 150mA 0504	Common Mode Choke Coil Film Type	LC1, LC2, LC3	LC 0504 (1210 metric)	LC Choke	3
LC filter 0603	Ferrite 220 Ohm 2A 0805	LC4	LC 0603 (1608 metric)	LC EMI Filter	1
SW KTH33050	SWITCH TACT 6MM 160GF H-4.3MM	P1, P2	PULSANTE SMD S	SW KTH33050	2
MP 3A SOT23 20V	3A-P-Channel Logic MOSFET SOT23	Q1	SOT23 for IRLML6402	MP 3A SOT23 20V	1
MN 100mA SOT23 50V	100mA N-Channel Logic MOSFET SOT23	Q2, Q3	SOT23 for IRLML6402	MN 100mA SOT23 50V	2
RR 100k	Resistor	R1, R4	CC 0402S 1005m SOLDER	RR Resistor	2
1k	Resistor	R2, R8	CC 0402S 1005m SOLDER	RR Resistor	2
1M 1%	Resistor	R3	CC 0402S 1005m SOLDER	RR Resistor	1
220k 1%	Resistor	R5	CC 0402S 1005m SOLDER	RR Resistor	1
RR 47k 5%	Resistor	R6	RR 0402S 1005m SOLDER	RR Resistor	1
RR 0R1 0805 5%	Resistor	R7	RR 1206 (3216 metric)	RR Resistor	1
RR 0R 0805 5% N.M.	Resistor	R9	RR 0805 (2012 metric)	RR Resistor	1
N.M.	Resistor	R10	RR 0603 (1608 metric)	RR Resistor	1
10k	Resistor	R11	RR 0402S 1005m SOLDER	RR Resistor	1
RR 0R 0805 5%	Resistor	R12	RR 0805 (2012 metric)	RR Resistor	1
1k5	Resistor	R13	RR 0402S 1005m SOLDER	RR Resistor	1
N.M.	Resistor	R14	RR 0402S 1005m SOLDER	RR Resistor	1
49R9	Resistor	R15, R16, R17, R18	RR 0402S 1005m SOLDER	RR Resistor	4
RR 1k 5%	Resistor	R19, R20, R21	RR 0402S 1005m SOLDER	RR Resistor	3
RR 10k 5%	Resistor	R22	RR 0402S 1005m SOLDER	RR Resistor	1
12k1 1%	Resistor	R23	RR 0402S 1005m SOLDER	RR Resistor	1
RR 39R	Resistor	R24	RR 0402S 1005m SOLDER	RR Resistor	1
RR 68k 5%	Resistor	R25, R26	RR 0402S 1005m SOLDER	RR Resistor	2
RR 100Ohm	Resistor	R27	CC 0402S 1005m SOLDER	RR Resistor	1
RR 1k	Resistor	R28, R33, R34	CC 0402S 1005m SOLDER	RR Resistor	3
RR 0R N.M.	Resistor	R29	CC 0402S 1005m SOLDER	RR Resistor	1
RR 100R	Resistor	R30	RR 0603 (1608 metric)	RR Resistor	1
RR 4k7 5%	Resistor	R31, R32	RR 0402S 1005m SOLDER	RR Resistor	2
CM1624		U1	CM1624	IC CM1624	1
LAN8720A		U2	QFN24 - 4x4mm	IC LAN8720	1
AP7333-255AG	LDO Regulator SOT-23 17MHz, 1A, High Efficiency, Low Ripple, Adjustable Output Voltage Step-down Converter	U3	SOT23 generic	AP7333	1
IC NCP1529		U6	IC SOT23-5	IC NCP1529	1
microSD hinge socket		USD	microSDHinge JAE E	microSDHinge	1
25 MHz		Y1	XT DF N-LCC 3.2x2.5	XT QUAD	1