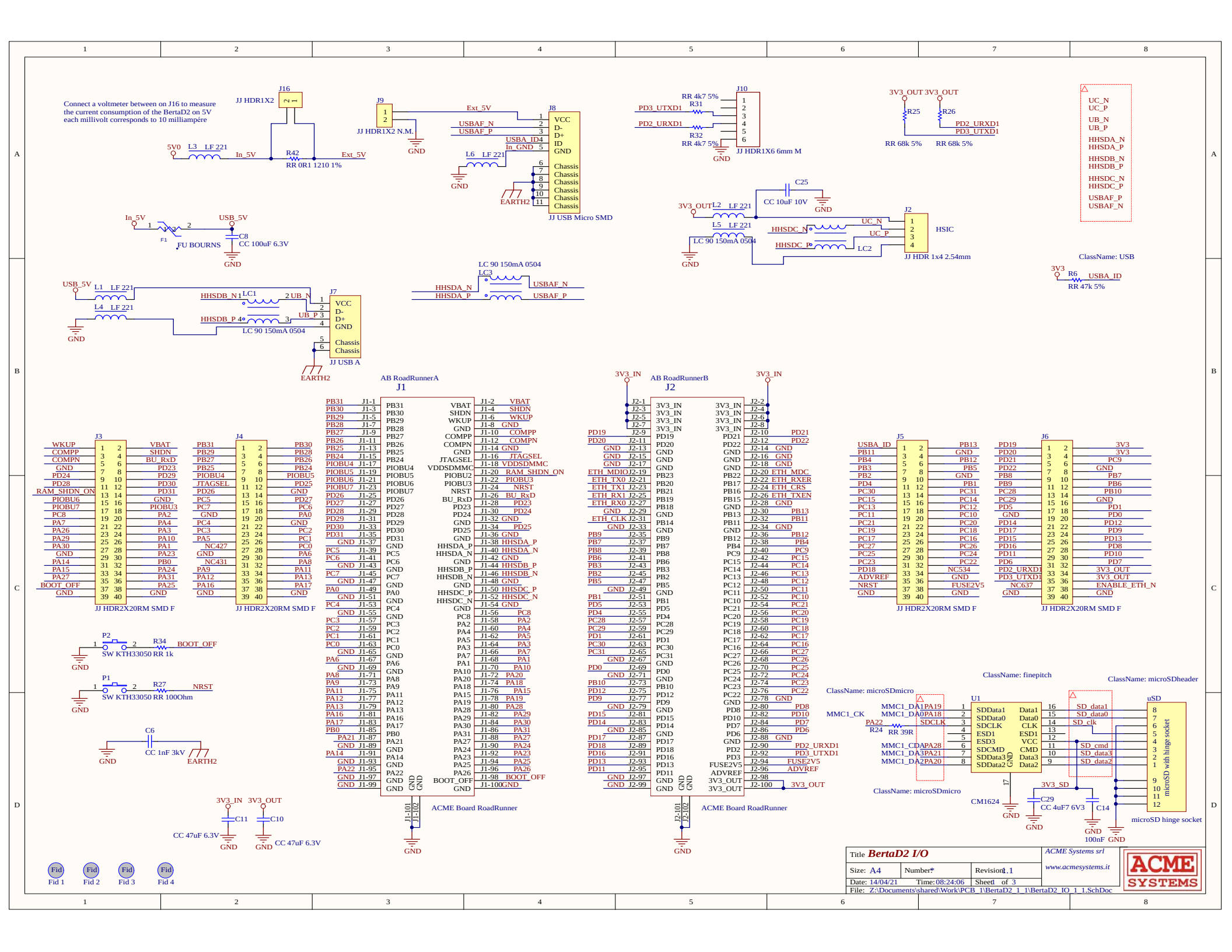
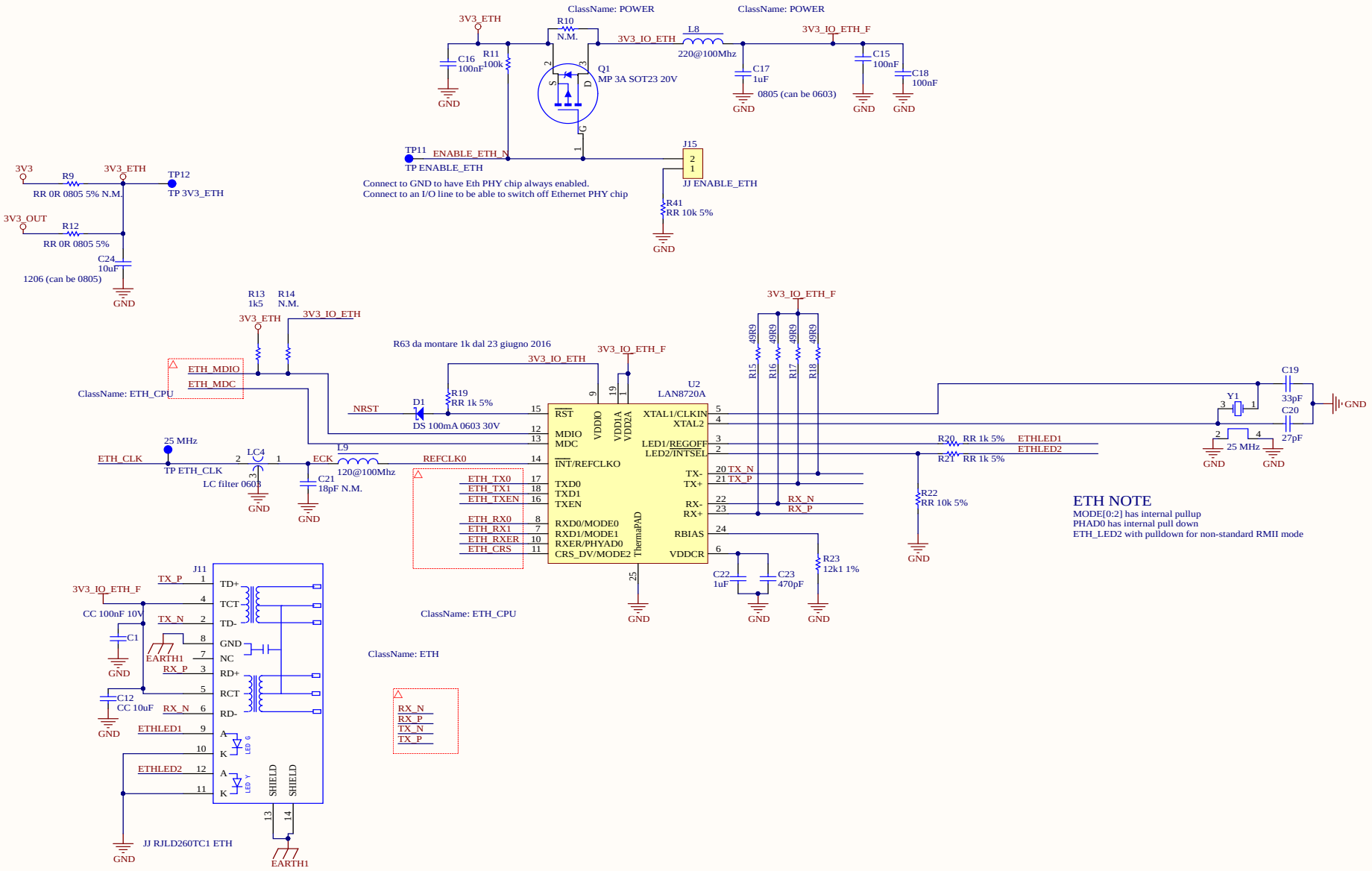
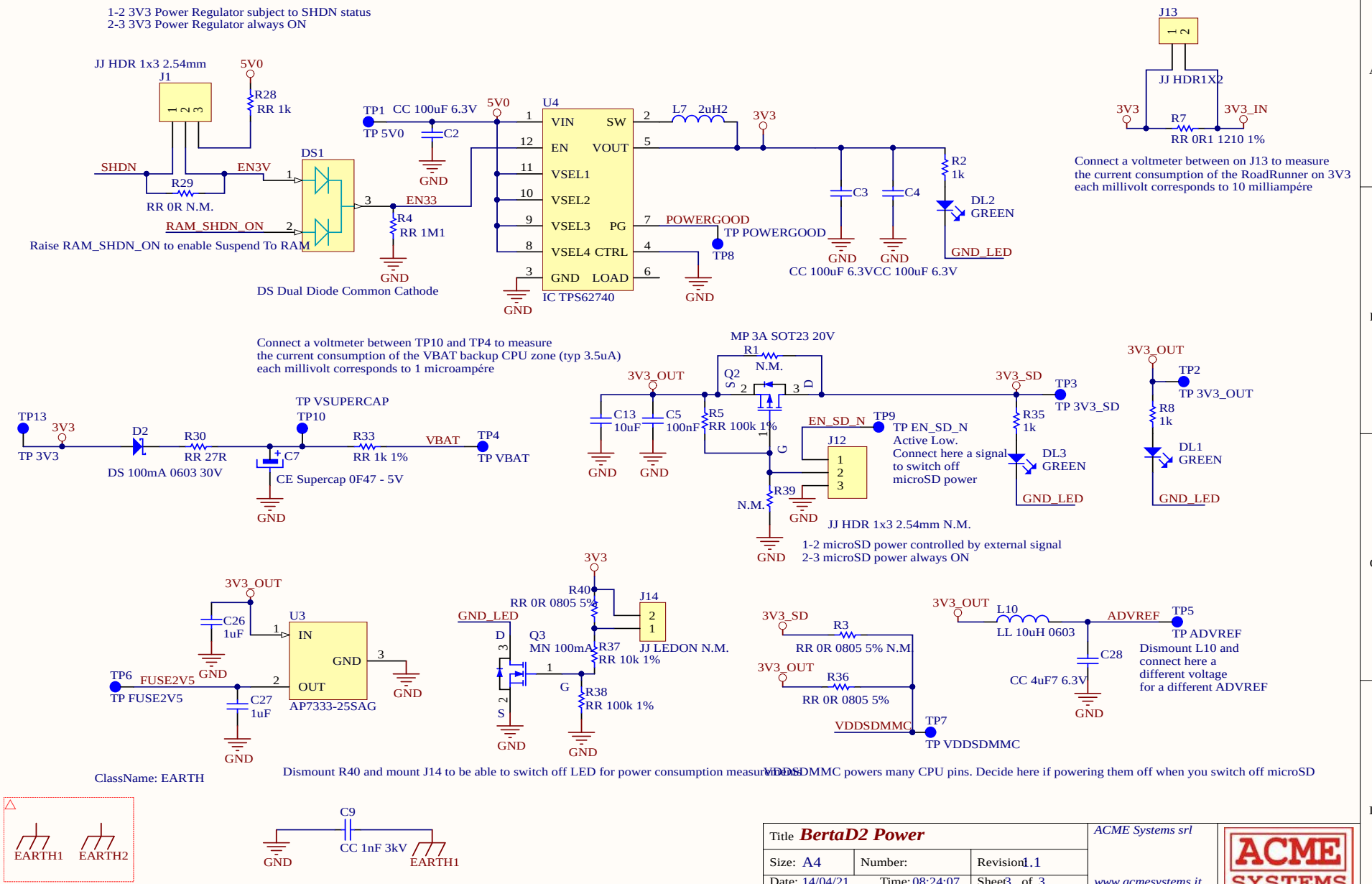

Connect a voltmeter between on J16 to measure the current consumption of the BertaD2 on 5V each millivolt corresponds to 10 milliampére
J16
JJ HDR1X2
5V0
L3 LF 221
In_5V
R42
RR 0R1 1210 1%
Ext_5V
J9
JJ HDR1X2 N.M.
GND
Ext_5V
USBAF_N
USBAF_P
USBA_ID4
In_GND
L6 LF 221
EARTH2
J8
VCC
D-
D+
ID
GND
Chassis
JJ USB Micro SMD
RR 4k7 5%
R31
PD3_UTXD1
PD2_URXD1
R32
RR 4k7 5%
J10
JJ HDR1X6 6mm M
3V3_OUT
R25
R26
RR 68k 5%
PD2_URXD1
PD3_UTXD1
UC_N
UC_P
UB_N
UB_P
HHSDA_N
HHSDA_P
HHSDB_N
HHSDB_P
HHSDC_N
HHSDC_P
USBAF_P
USBAF_N
In_5V
USB_5V
F1
FU BOURNS
C8
CC 100uF 6.3V
C25
CC 10uF 10V
L2 LF 221
L5 LF 221
LC 90 150mA 0504
HHSDC_N
HHSDC_P
UC_N
UC_P
LC2
J2
HSIC
JJ HDR 1x4 2.54mm
ClassName: USB
R6
USBA_ID
RR 47k 5%
USB_5V
L1 LF 221
L4 LF 221
HHSDB_N
HHSDB_P
LC1
UB_N
UB_P
LC 90 150mA 0504
J7
JJ USB A
EARTH2
LC 90 150mA 0504
LC3
HHSDA_N
HHSDA_P
USBAF_N
USBAF_P
AB RoadRunnerA
J1
AB RoadRunnerB
J2
3V3_IN
J3
J4
JJ HDR2X20RM SMD F
J5
J6
P2
SW KTH33050 RR 1k
R34
BOOT_OFF
P1
SW KTH33050 RR 100Ohm
R27
NRST
C6
CC 1nF 3kV
ACME Board RoadRunner
C11
C10
CC 47uF 6.3V
ClassName: finepitch
ClassName: microSDheader
ClassName: microSDmicro
U1
MMC1_CK
R24
RR 39R
PA22
CM1624
C29
CC 4uF7 6V3
C14
100nF
3V3_SD
uSD
microSD with hinge socket
microSD hinge socket
Fid 1
Fid 2
Fid 3
Fid 4
Title BertaD2 I/O
Size: A4
Number
Revision 1.1
Date: 14/04/21
Time: 08:24:06
Sheet of 3
File: Z:\Documents\shared\Work\PCB_1\BertaD2_1_1\BertaD2_IO_1_1.SchDoc
ACME Systems srl
www.acmesystems.it
ACME SYSTEMS



Title	*BertaD2_ETH*		*ACME Systems srl*
Size: A4	Number*	Revision 1.1	*www.acmesystems.it*
Date: 14/04/21	Time: 08:24:06	Sheet 2 of 3	
File: Z:\Documents\shared\Work\PCB_1\BertaD2_1_1\BertaD2_ETH_1_1.SchDoc			


1-2 3V3 Power Regulator subject to SHDN status
2-3 3V3 Power Regulator always ON
JJ HDR 1x3 2.54mm
J1
5V0
R28
RR 1k
SHDN
EN3V
R29
RR 0R N.M.
RAM_SHDN_ON
Raise RAM_SHDN_ON to enable Suspend To RAM
DS1
DS Dual Diode Common Cathode
TP1
TP 5V0
CC 100uF 6.3V
C2
GND
EN33
R4
RR 1M1
U4
VIN
SW
EN
VOUT
VSEL1
VSEL2
VSEL3
PG
VSEL4
CTRL
GND
LOAD
IC TPS62740
L7 2uH2
3V3
POWERGOOD
TP POWERGOOD
TP8
C3
C4
CC 100uF 6.3V
R2
1k
DL2
GREEN
GND_LED
J13
JJ HDR1X2
R7
RR 0R1 1210 1%
Connect a voltmeter between on J13 to measure
the current consumption of the RoadRunner on 3V3
each millivolt corresponds to 10 milliampére
Connect a voltmeter between TP10 and TP4 to measure
the current consumption of the VBAT backup CPU zone (typ 3.5uA)
each millivolt corresponds to 1 microampére
TP13
TP 3V3
D2
DS 100mA 0603 30V
R30
RR 27R
TP VSUPERCAP
TP10
C7
CE Supercap 0F47 - 5V
R33
RR 1k 1%
VBAT
TP4
TP VBAT
MP 3A SOT23 20V
R1
N.M.
Q2
C13
10uF
C5
100nF
R5
RR 100k 1%
EN_SD_N
TP9
TP EN_SD_N
Active Low.
Connect here a signal
to switch off
microSD power
J12
R39
N.M.
JJ HDR 1x3 2.54mm N.M.
1-2 microSD power controlled by external signal
2-3 microSD power always ON
3V3_SD
TP3
TP 3V3_SD
R35
1k
DL3
GREEN
3V3_OUT
TP2
TP 3V3_OUT
R8
1k
DL1
GREEN
U3
IN
GND
OUT
AP7333-25SAG
C26
1uF
C27
1uF
TP6
FUSE2V5
TP FUSE2V5
R40
RR 0R 0805 5%
J14
JJ LEDON N.M.
Q3
MN 100mA
R37
RR 10k 1%
R38
RR 100k 1%
GND_LED
R3
RR 0R 0805 5% N.M.
R36
RR 0R 0805 5%
VDDSDMMC
TP7
TP VDDSDMMC
L10
LL 10uH 0603
ADVREF
TP5
TP ADVREF
Dismount L10 and
connect here a
different voltage
for a different ADVREF
C28
CC 4uF7 6.3V
ClassName: EARTH
EARTH1
EARTH2
C9
CC 1nF 3kV
Dismount R40 and mount J14 to be able to switch off LED for power consumption measurements
VDDSDMMC powers many CPU pins. Decide here if powering them off when you switch off microSD
Title BertaD2 Power
Size: A4
Number:
Revision 1.1
Date: 14/04/21
Time: 08:24:07
Sheet 3 of 3
File: Z:\Documents\shared\Work\PCB_1\BertaD2_1_1\BertaD2_POWER_1_1.SchD
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