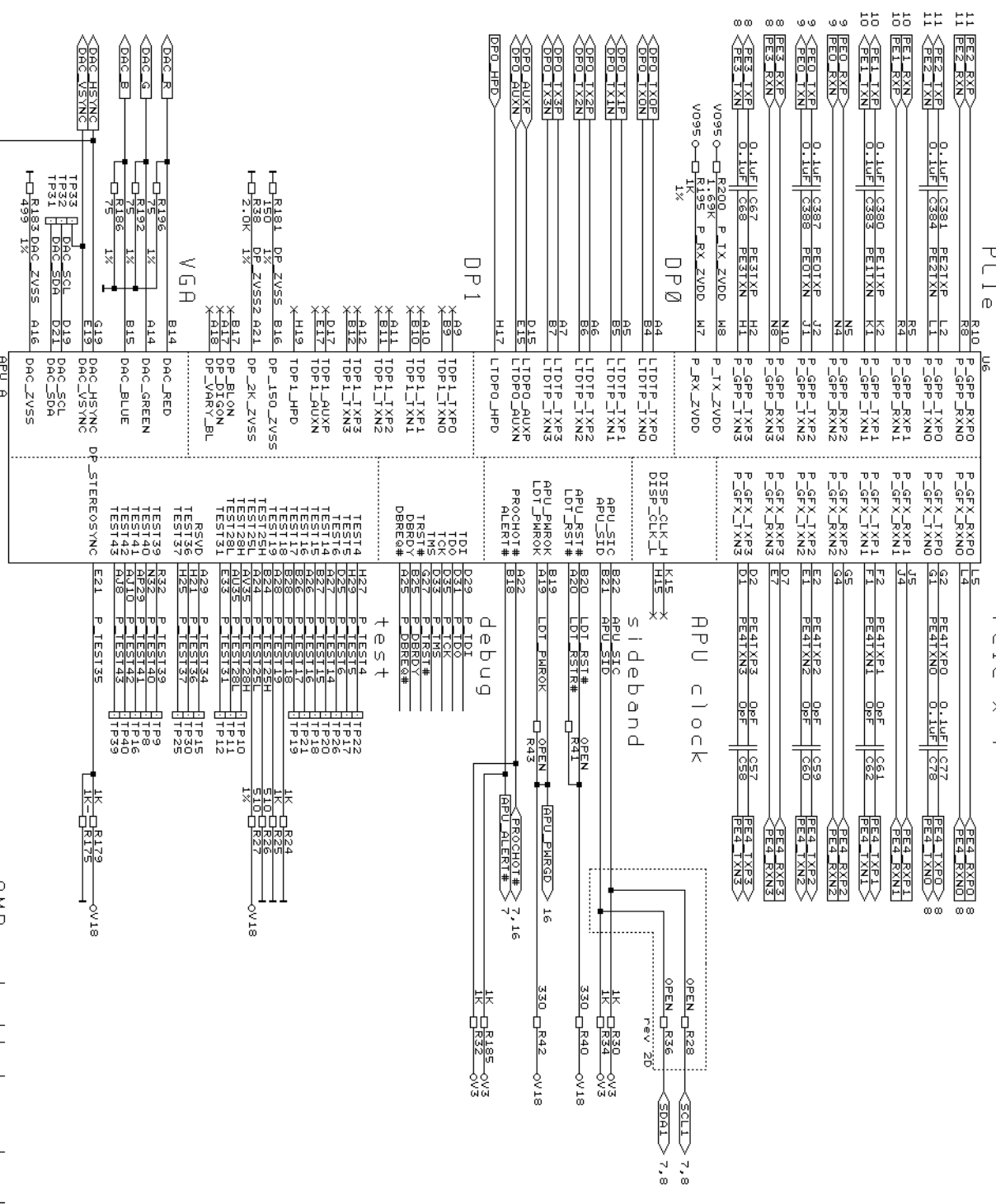


Module	Address	Data	Control
U11	A0-A15	DQ0-DQ15	CS0-CS3, RAS#, CAS#, WE#, OEN#, VREFDQ, VREFCA, VREFDQ, CK, CKE1, CKE2, CKE3, CKE4
U12	A0-A15	DQ0-DQ15	CS0-CS3, RAS#, CAS#, WE#, OEN#, VREFDQ, VREFCA, VREFDQ, CK, CKE1, CKE2, CKE3, CKE4
U13	A0-A15	DQ0-DQ15	CS0-CS3, RAS#, CAS#, WE#, OEN#, VREFDQ, VREFCA, VREFDQ, CK, CKE1, CKE2, CKE3, CKE4
U14	A0-A15	DQ0-DQ15	CS0-CS3, RAS#, CAS#, WE#, OEN#, VREFDQ, VREFCA, VREFDQ, CK, CKE1, CKE2, CKE3, CKE4

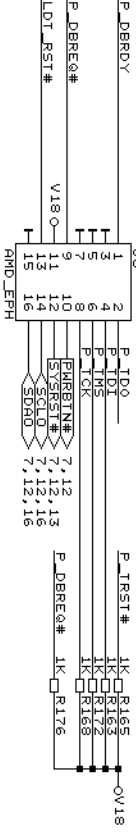
Component	Value	Notes
MEM0	0.1uF	
C216	36	
R140	36	
R141	36	
R142	36	
R143	36	
R144	36	
R145	36	
R146	36	
R147	36	
R148	36	
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R298	36	
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R300	36	

Property	Value
Title	DDR3 DRAM
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Date	December 22, 2014 Sheet 3 of 16



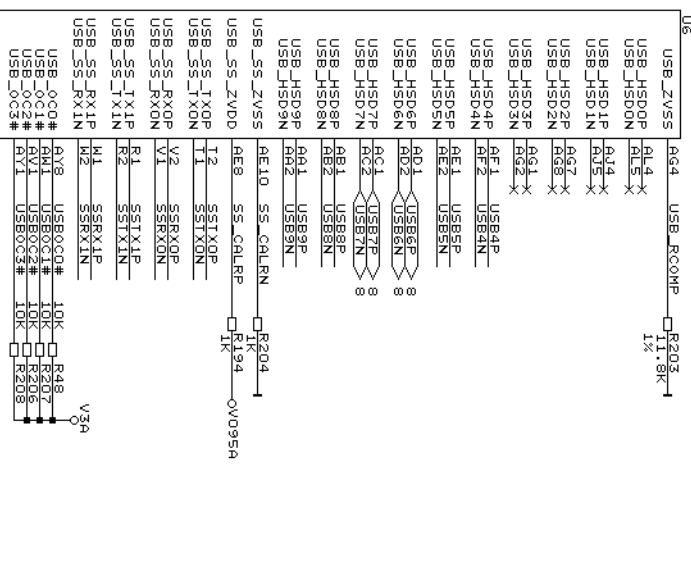


AMD embedded probe header

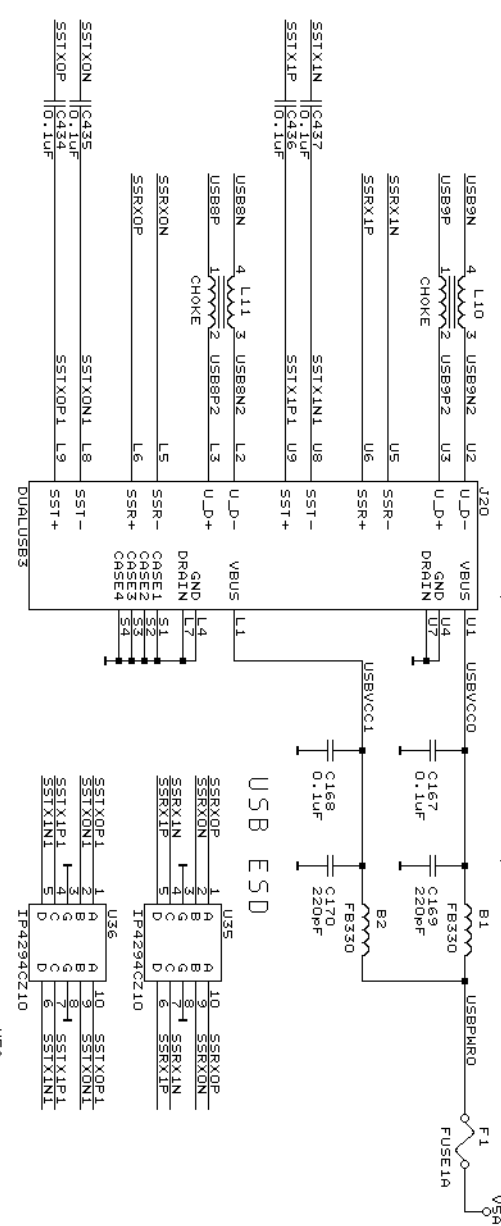


Title		APU PCIe / display / test	
Size/Document Number		APU	
Date:	May 24, 2018	Sheet	5 of 16
REV		20	

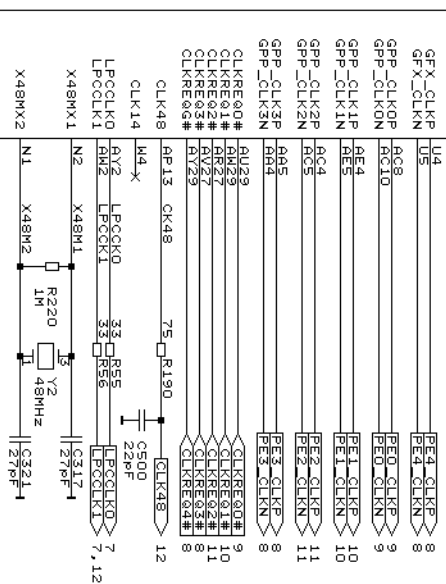
APU USB



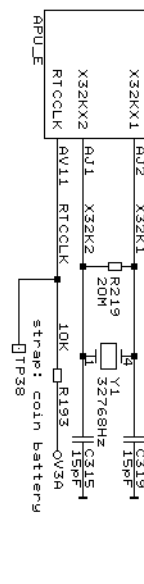
USB 3.0 port



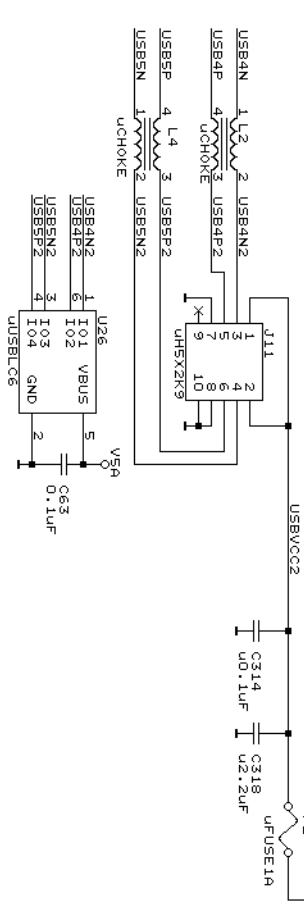
APU clock



RTC



USB 2.0 header



Title		(C)2014 PC Engines GmbH
Size		USB, clock
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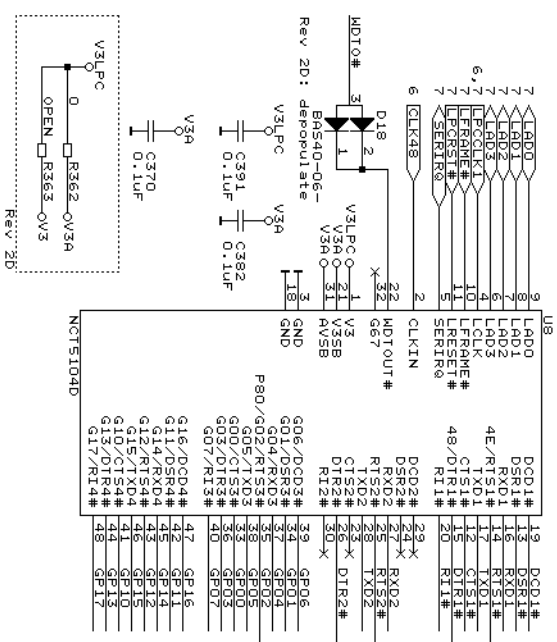




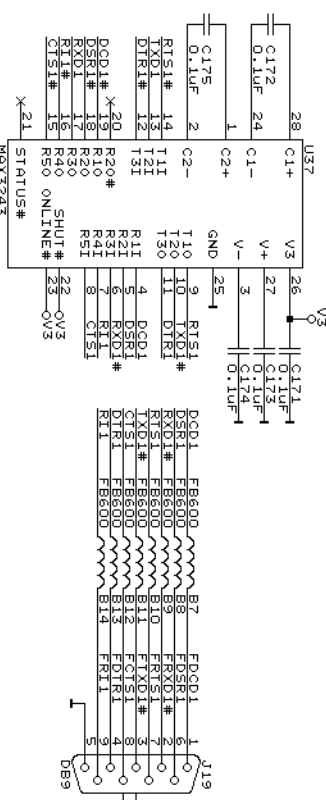




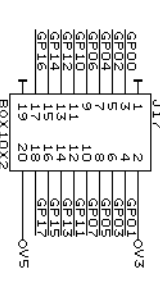
### LPC UART



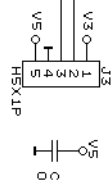
### COM1



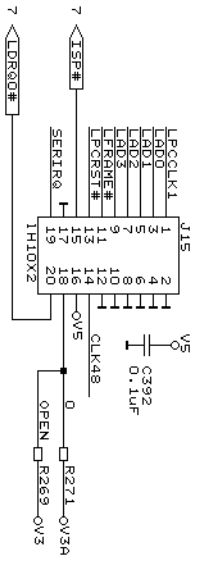
### GPIO



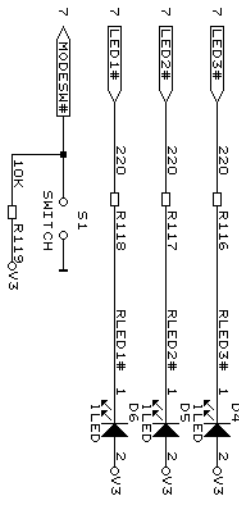
### COM2



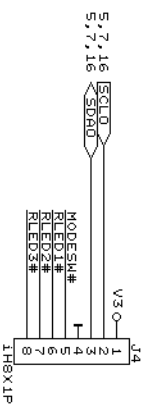
### LPC expansion + ISP



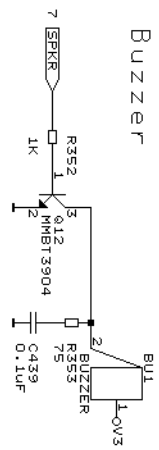
### LED + switch



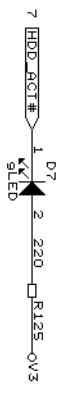
### I2C option



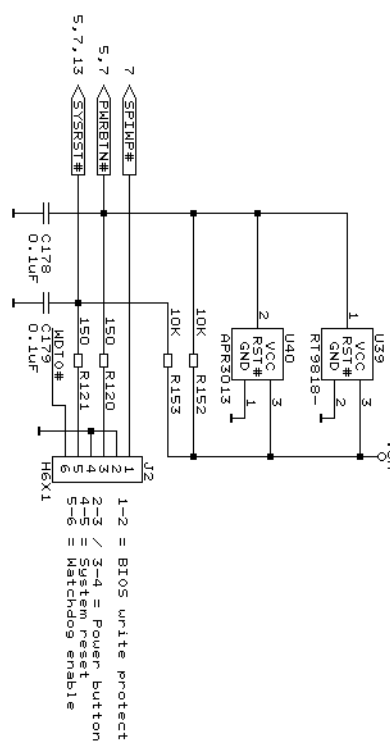
### Buzzer



### SATA activity LED

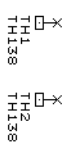


### Power / reset / watchdog header

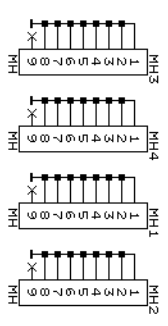


- 1-2 = BIOS write protect
- 2-3 / 3-4 = Power button
- 4-5 = System reset
- 5-6 = Watchdog enable

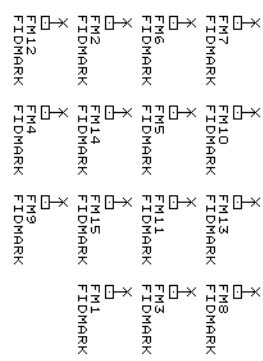
### Heat spreader mounting



### Mounting holes



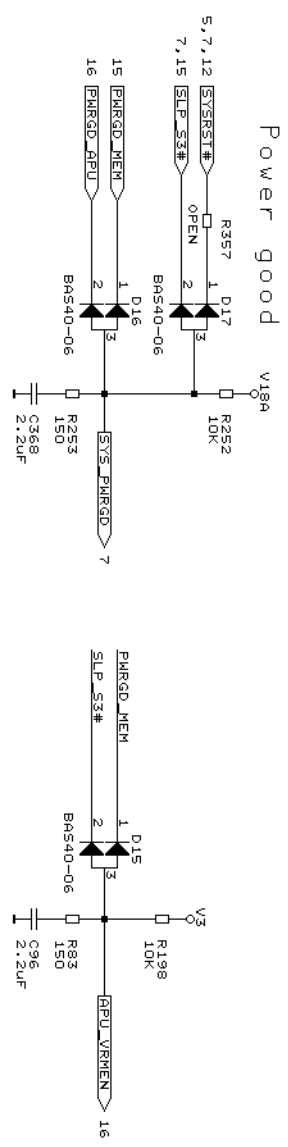
### Fiducial marks



Title		LPC bus, LPC UART, front panel	
Size/Document Number		APU	
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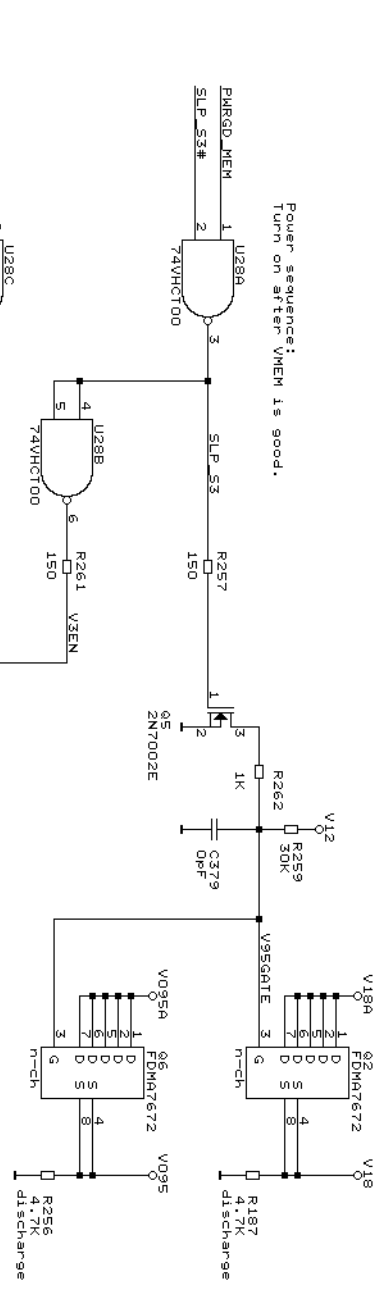
VRM test points

V5A-O-TPF70	V5-O-TPF7
V3A-O-TPF6	V3-O-TPF5
V18A-O-TPF9	V18-O-TPF8
V15A-O-TPF2	V15-O-TPF1
VMEM-O-TPF4	VT-O-TPF6
V095A-O-TPF4	V095-O-TPF3
VCORE-O-TPF0	VNB-O-TPF1



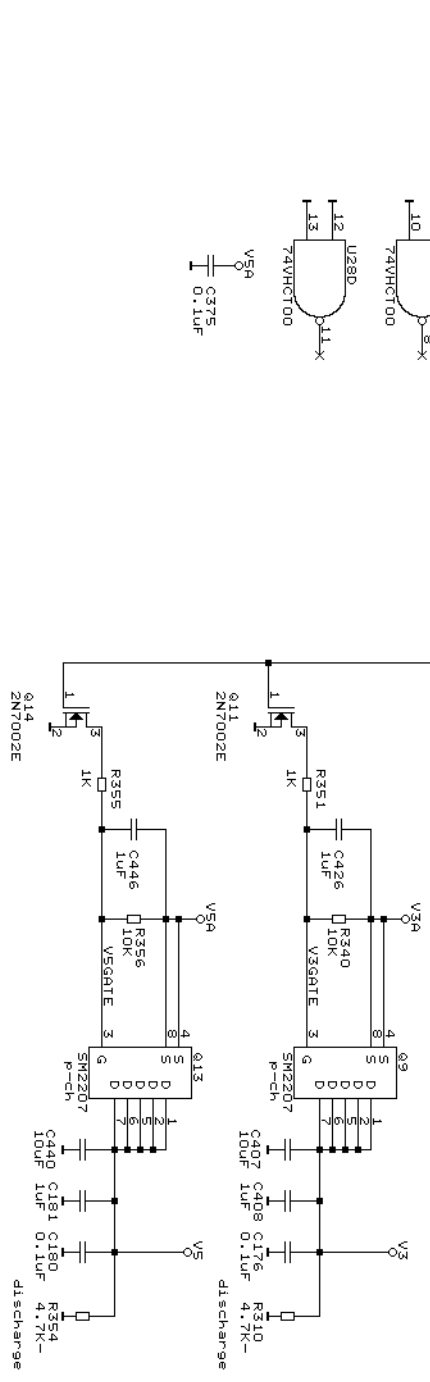
Power switch

1.8V



0.95V

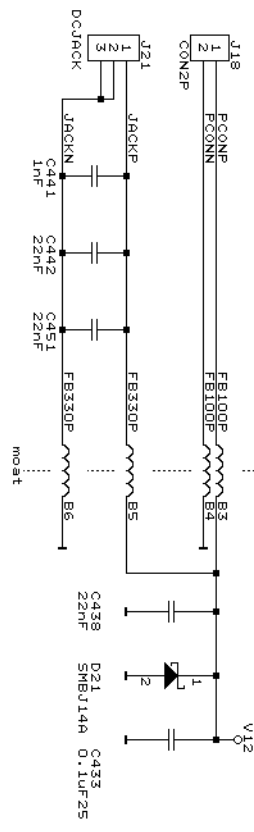
3.3V



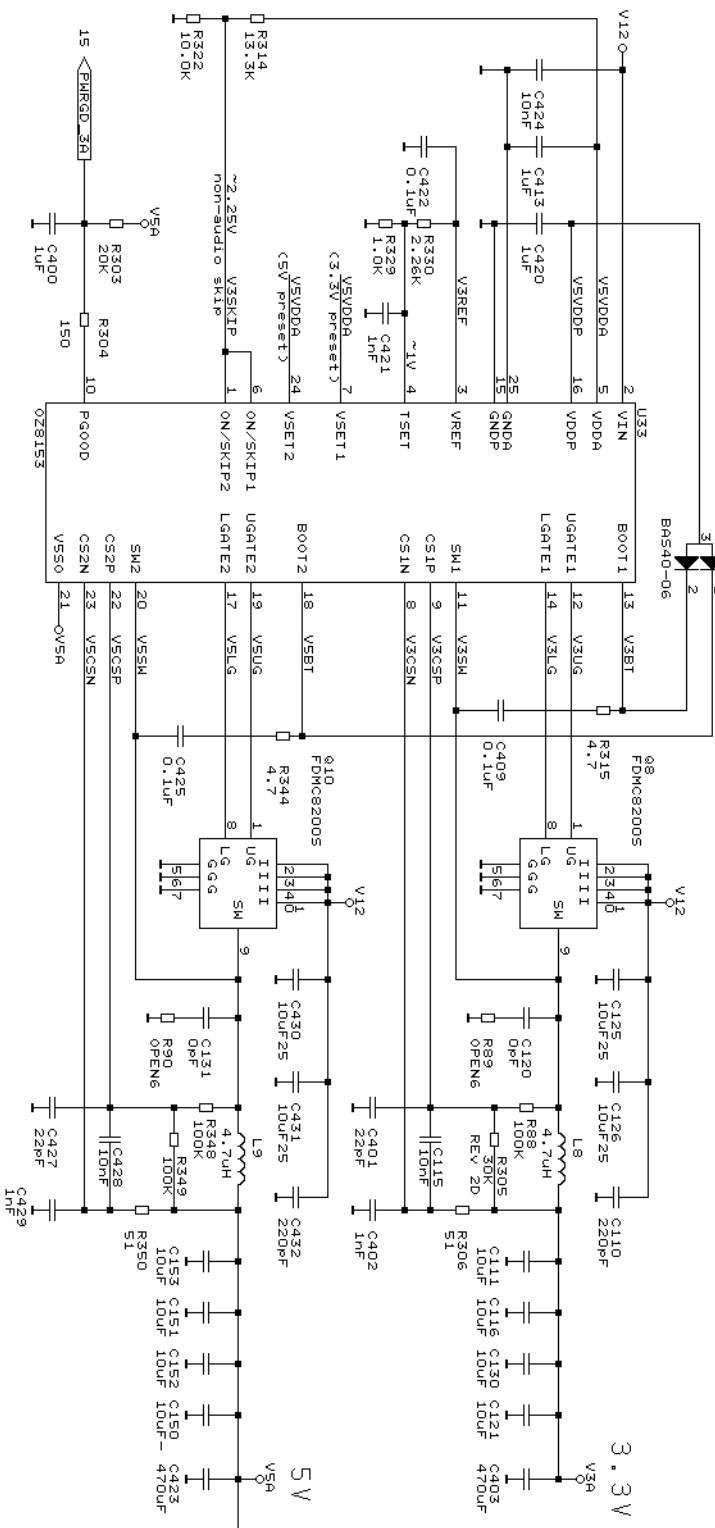
5V

Title		power good, power switch	
Size/Document Number		APU	
REV		20	
Date: February 5, 2015		Sheet 13 of 16	

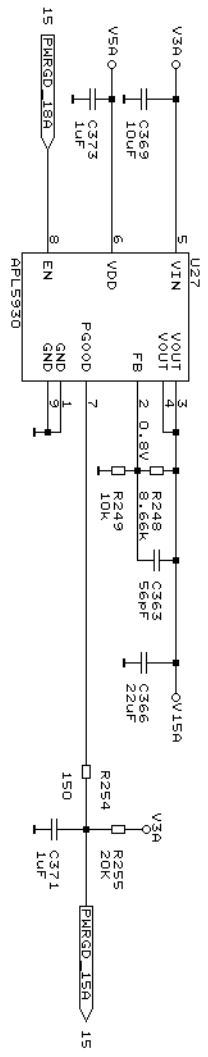
### Power input +12V



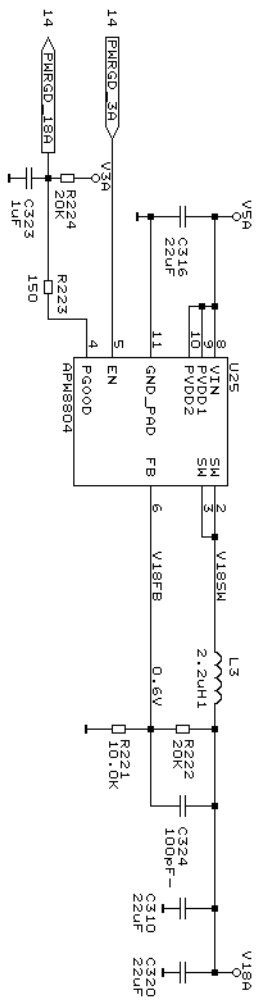
### 3.3V and 5V converter



### 3.3V -> 1.5V LDO



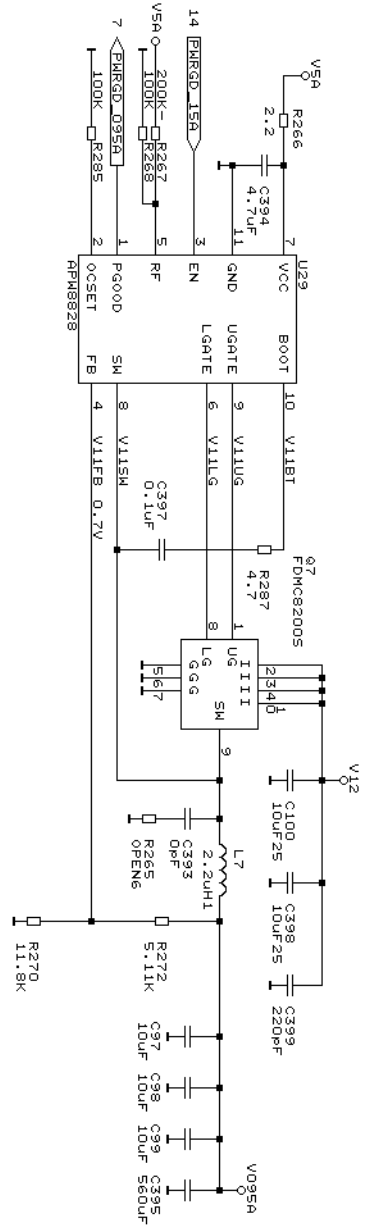
Title		C:\2014 PC Engines GmbH	
Size		Power In, 3.3V, 5V, 1.5V	
Document Number		APU	
Date		May 25, 2018	
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1.8V, 2A

AMD P924

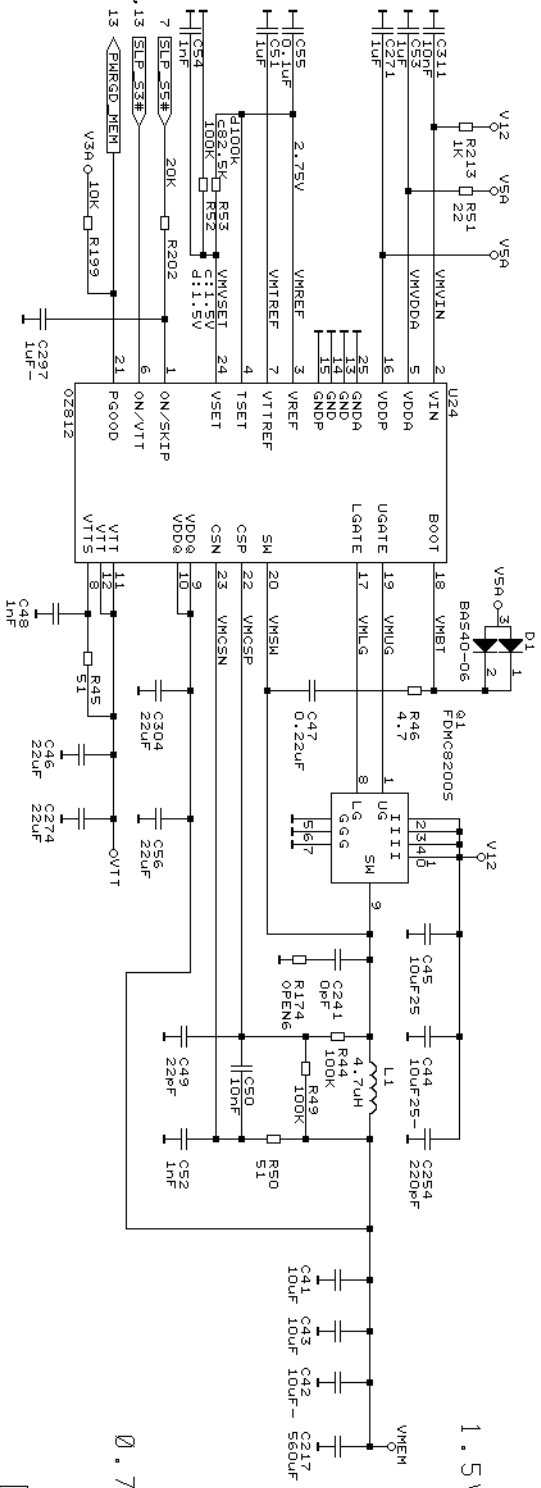
AMD P924



0.95V, 5A

AMD P921

VMEM converter and VTT LDO

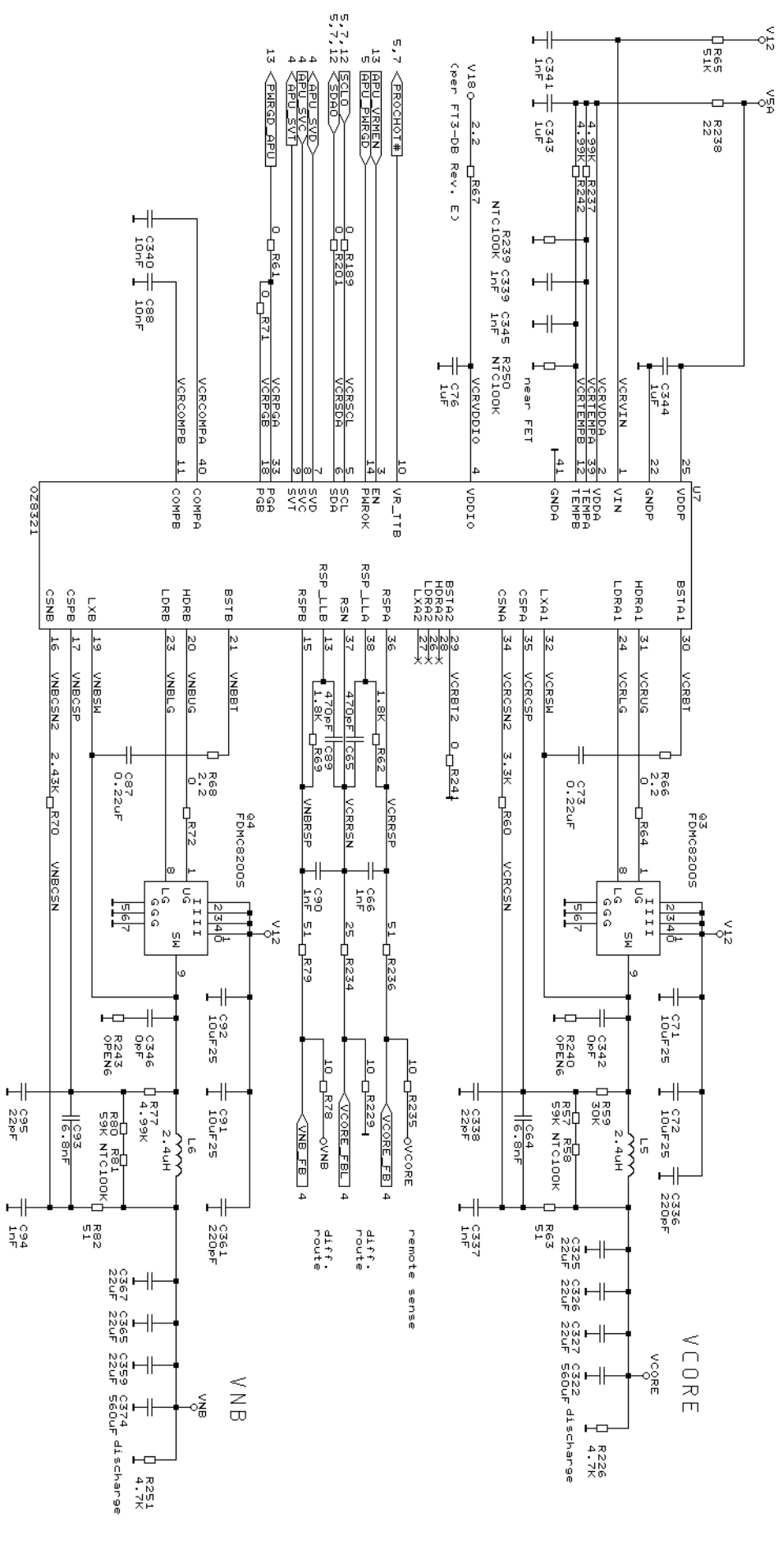


1.5V VMEM

0.75V VTT

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Title	1.8V, 0.95V, VMEM, VTT
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Date: September 21, 2017	Sheet 15 of 16

# VCORE and VNB converter



Title		VCORE, VNB	
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		16 of 16	

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