

## PAGE CONTENT

1. COVER PAGE
2. SEQUENCE DIAGRAM
3. SYSTEM BLOCK DIAGRAM
4. CPU CEDARVIEW-1/4
5. CPU CEDARVIEW-2/4
6. CPU CEDARVIEW-3/4
7. CPU CEDARVIEW-4/4
8. TRGERPOINT 1/4
9. TRGERPOINT 2/4
10. TRGERPOINT 3/4
11. TRGERPOINT 4/4
12. DDR3 SODIMM
13. CLOCK GENERATOR
14. LCD / WEB CAM / SATA
15. CRT
16. HDMI
17. USB / IO CON
18. CARD READER RST-5138
19. LAN-RTL8105E-VL-CG
20. WIRELESS CON
21. 3G
22. TPM
23. G-SENSOR
24. EC IT8518E-CX
25. FAN/TP/BT/LID/EMI REQUEST
26. TRIAL PEAK CON / QKEY / EEPROM CON
27. DEEP STANDBY
28. VCC MOSFET
29. VCC\_CORE / GFX
30. +V3.3 / +V5(OZ8153)
31. +V1.5/+V1.05S (OZ8138)
32. +V1.8S / +V0.75S
33. DC IN / BATT IN / CHARGER
34. POWER P-STATE

## Power Rail

+VCC_CORE	Core voltage for Processor(off in S3-S5)
+VCC_GFX	GFX voltage for Processor(off in S3-S5)
+V0.75S	0.75V switched power rail(off in S3-S5)
+V1.05S	1.05V switched power rail (off in S3-S5)
+V1.5S	1.5V switched power rail (off in S3-S5)
+V1.5	1.5V power rail (off in S4-S5)
+V1.8S	1.8V switched power rail (off in S3-S5)
+V5S	5V switched power rail (off in S3-S5)
+V5	5V power rail (off in S4-S5)
+V5ALWAYS	5V always on power rail
+V3.3S	3.3V switched power rail (off in S3-S5)
+V3.3	3.3V power rail (off in S4-S5)
+V3.3ALWAYS	3.3V always on power rail

+V□□ALWAYS

Always on power rail

+V□□

Switched power rail ( off in S4 - S5 )

+V□□S \*

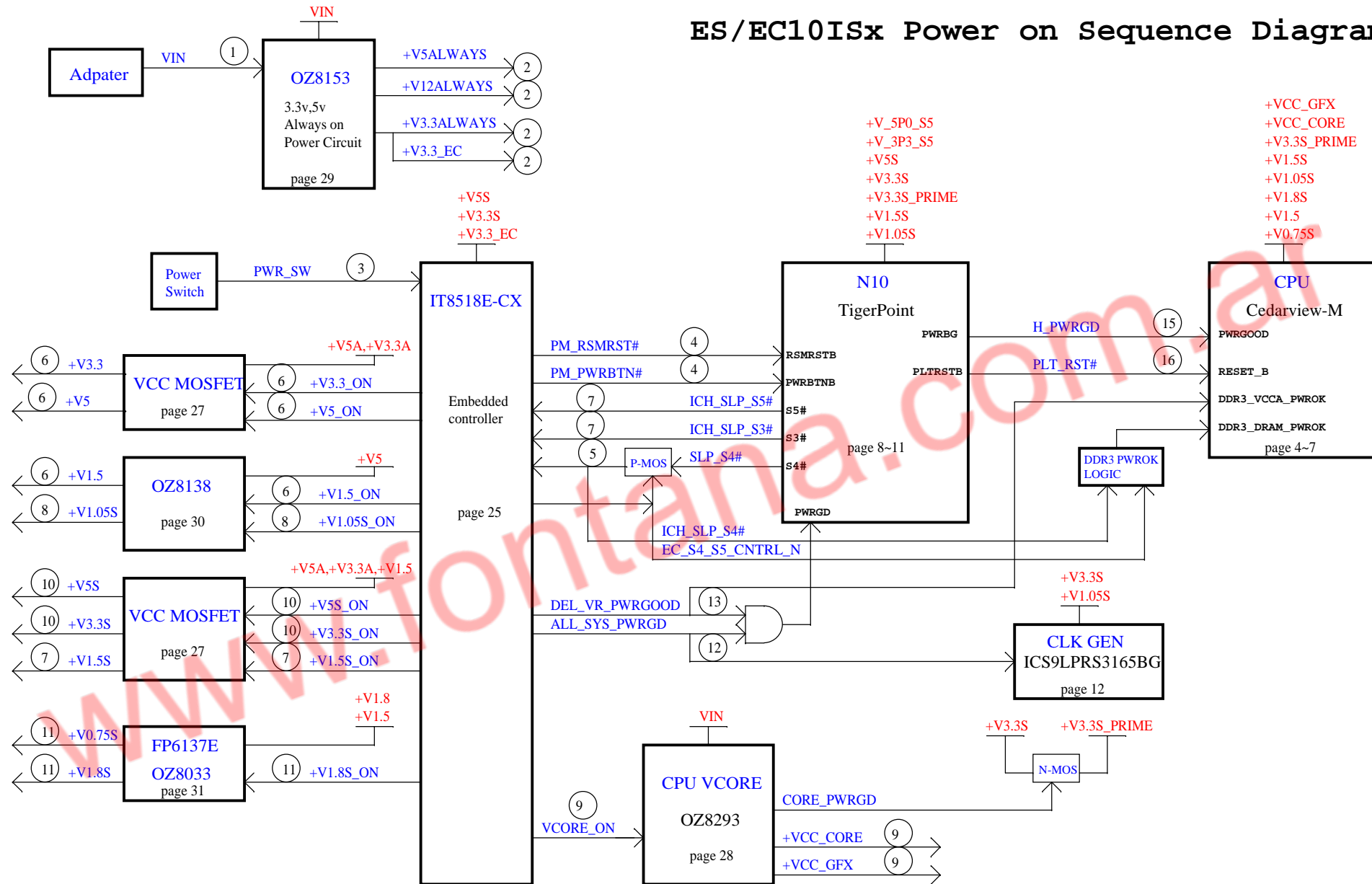
Switched power rail ( off in S3 - S5 )

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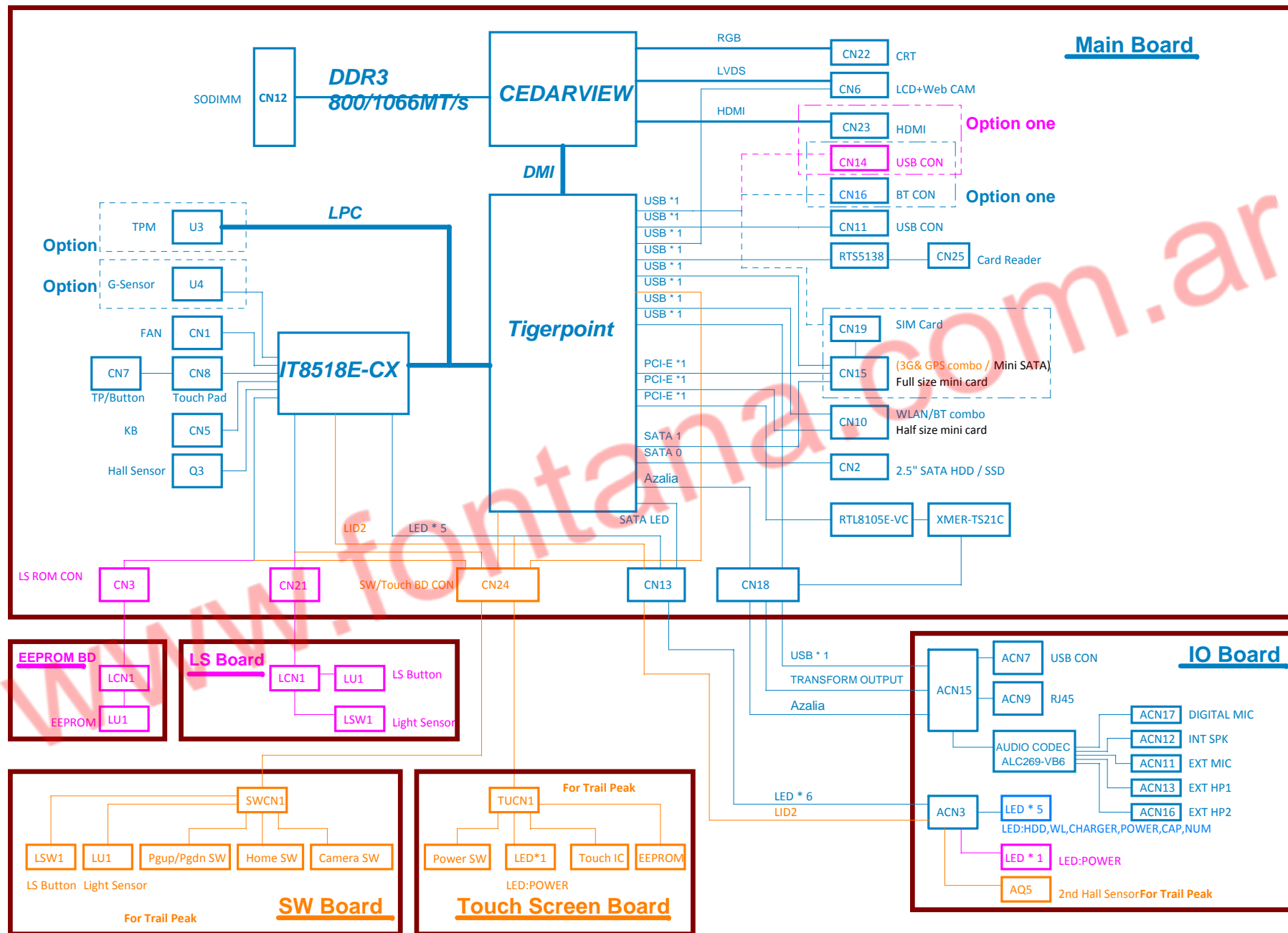
Project : ES10ISx

Size	Document Number	Rev
	COVER PAGE	A
Date:	Sunday, February 13, 2011	Sheet 1 of 34

# ES/EC10ISx Power on Sequence Diagram



# ES10/EC10 System Block Diagram





U11E

## CEDARVIEW

REV = 1.10

GND

5 OF 5

CEDARVIEW-M-QA7D

VSS\_CDVDET  
VSSA\_CRTDAC

U11B

## CEDARVIEW

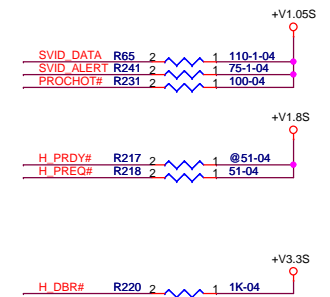
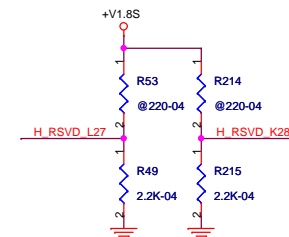
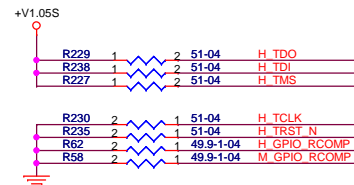
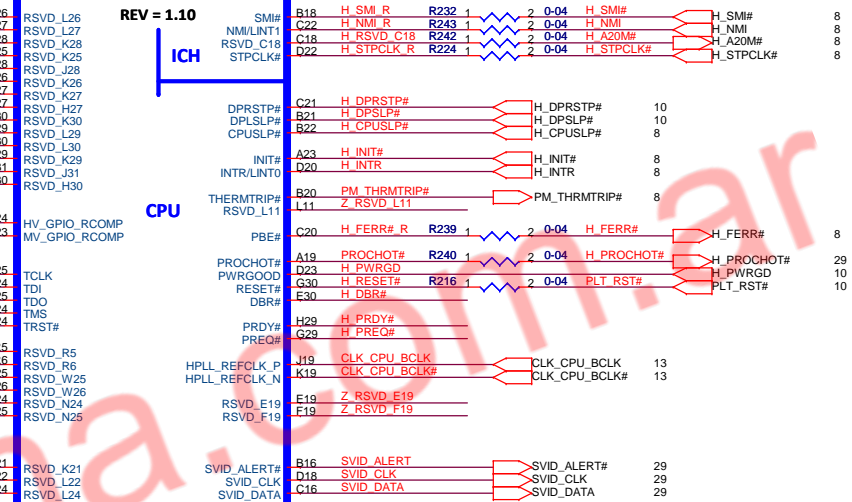
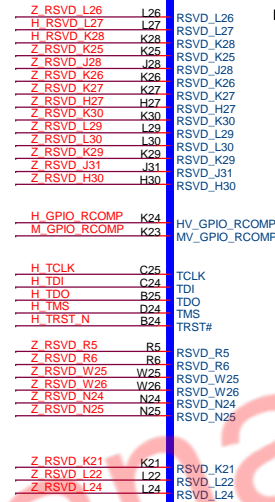
REV = 1.10

ICH

CPU

2 OF 5

CEDARVIEW-M-QA7D



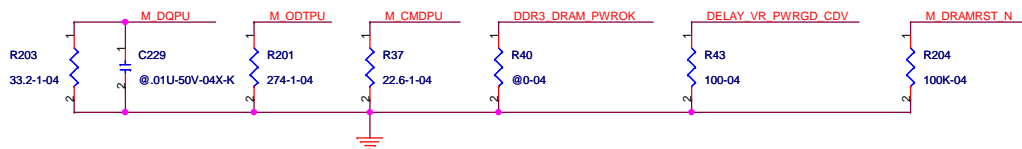
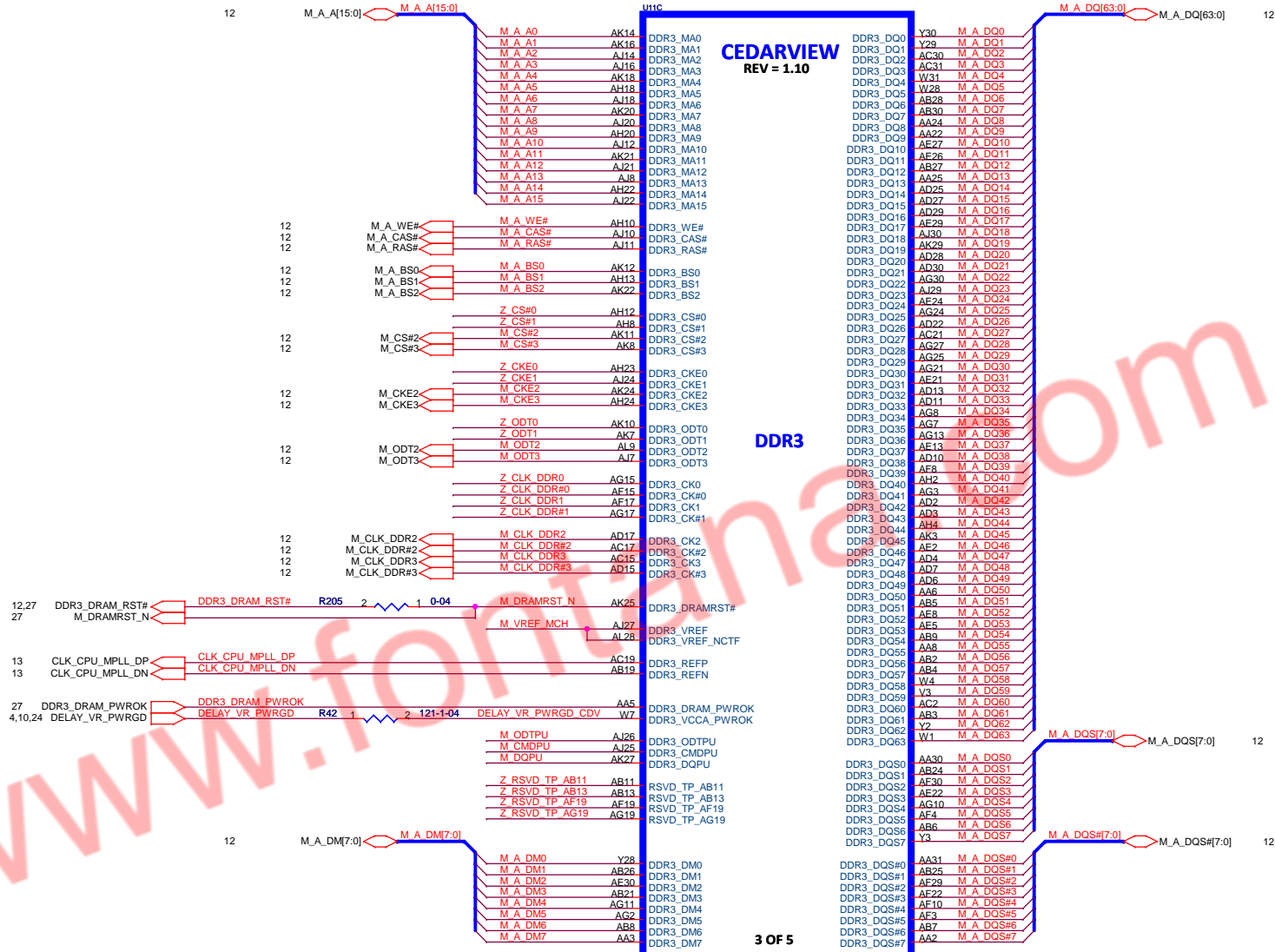
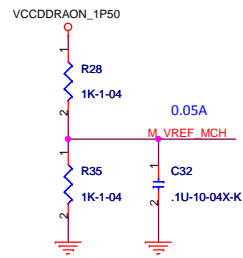
NOTE:  
MAX TRACE LENGTH OF 500 MIL  
AND 5 MIL SPACING  
R402 for CDV and Interposer Boot

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Project : ES10ISx

Size	Document Number	Rev
	CPU CEDARVIEW-2/4	A
Date:	Sunday, February 13, 2011	Sheet 5 of 34

**NOTE:**  
PLACE TWO 1K OHM CLOSE TO CPU PINS ON M\_VREF  
PLACE 0.1UF CLOSE TO CPU



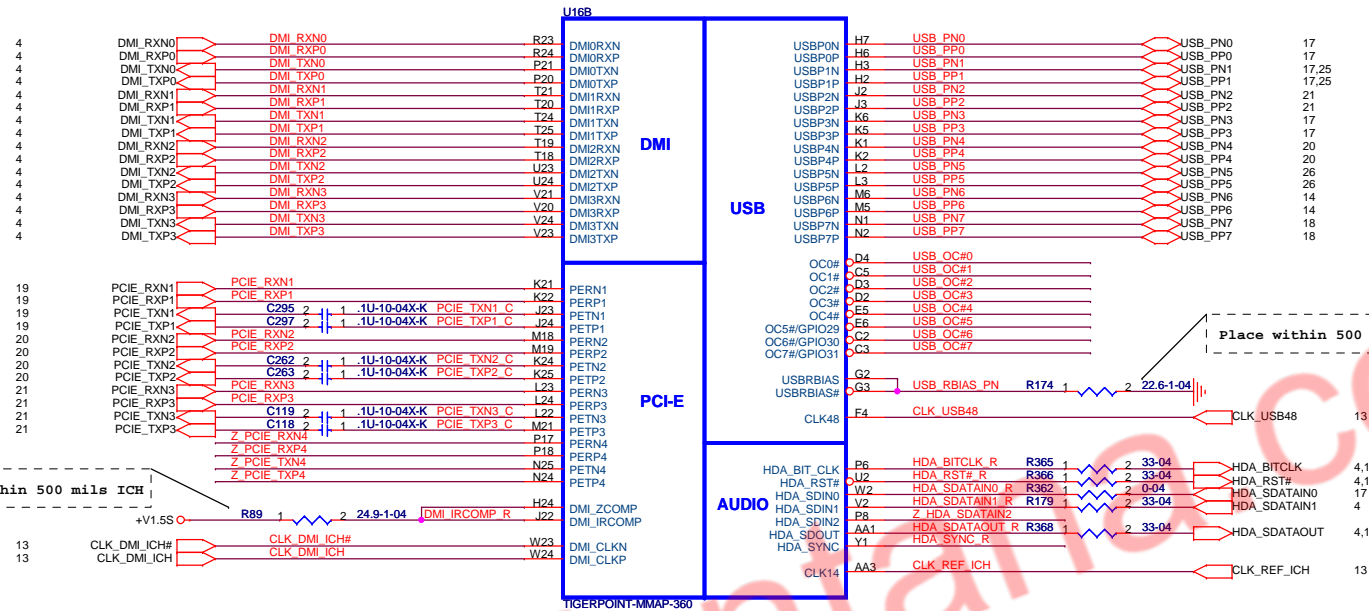






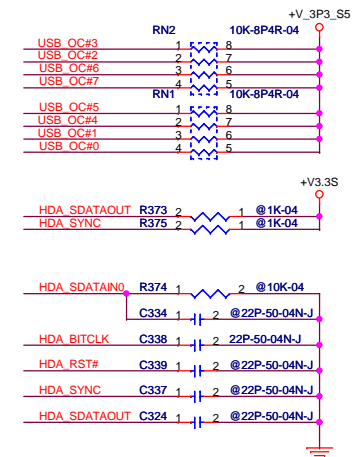


USB	0	1	2	3	4	5	6	7
DEVICE	INT USB0	INTUSB1 SIM/BT	3G CARD	IO USB3	WLAN CARD	I2C	WEB CAM	CARD READER

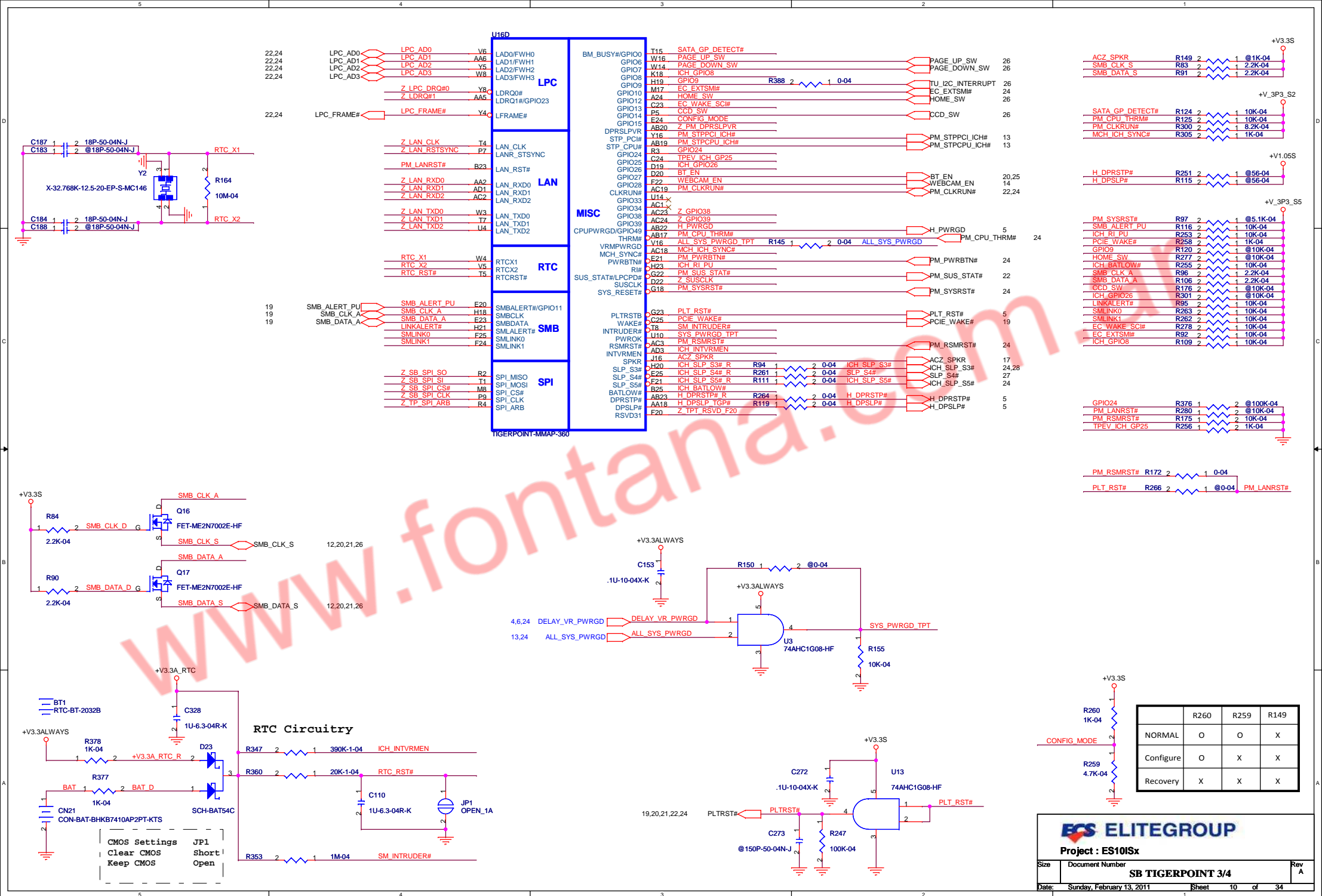


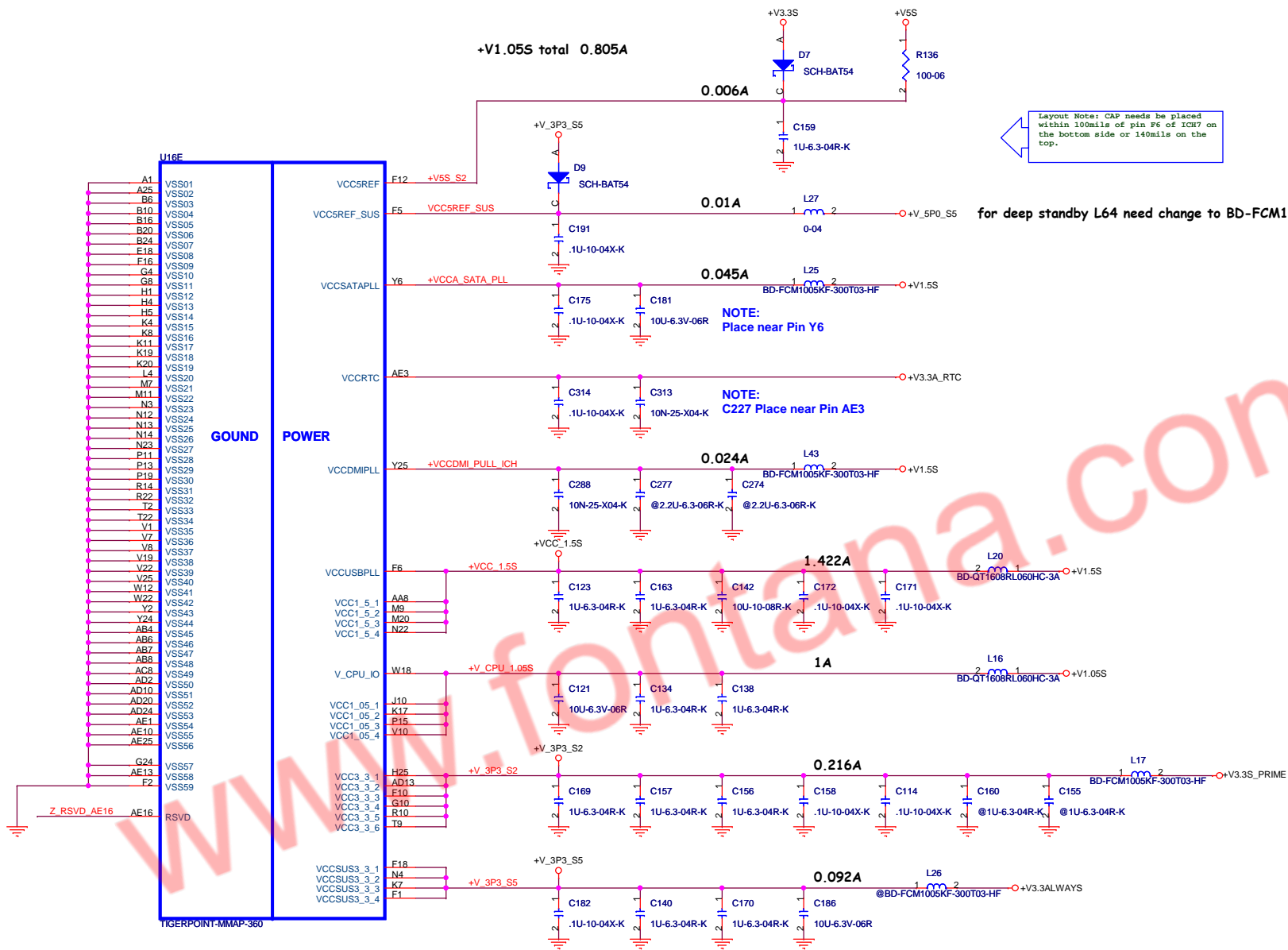
PCI-E	1	2	3	4
DEVICE	LAN	WLAN	3G	N/A

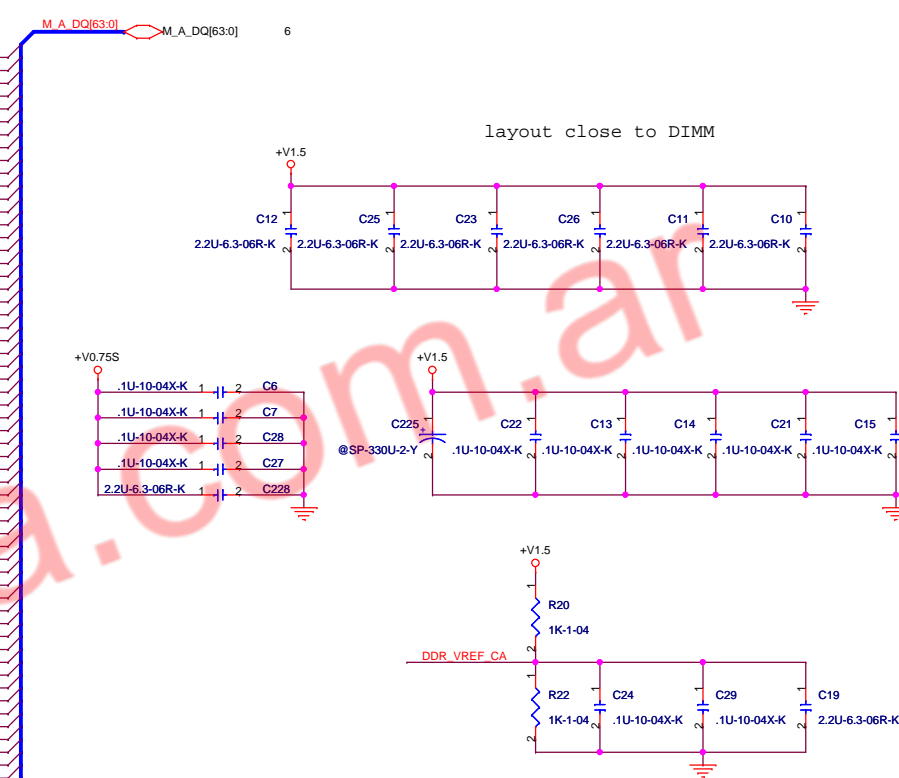
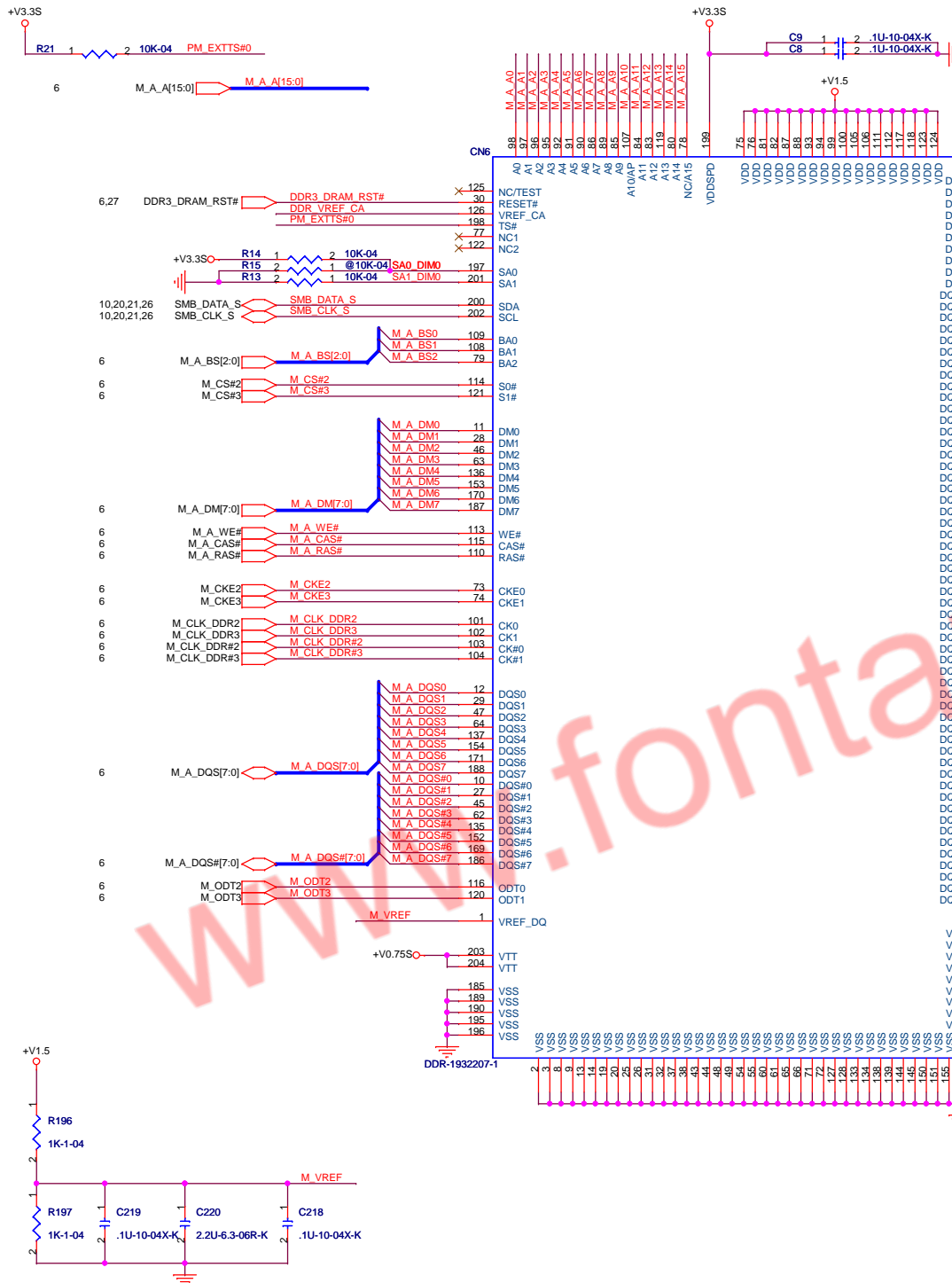
Audio	VA	VB
R364	V	X
Q22	X	V



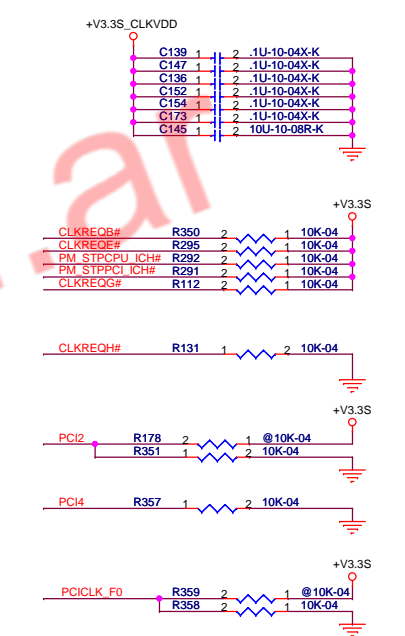
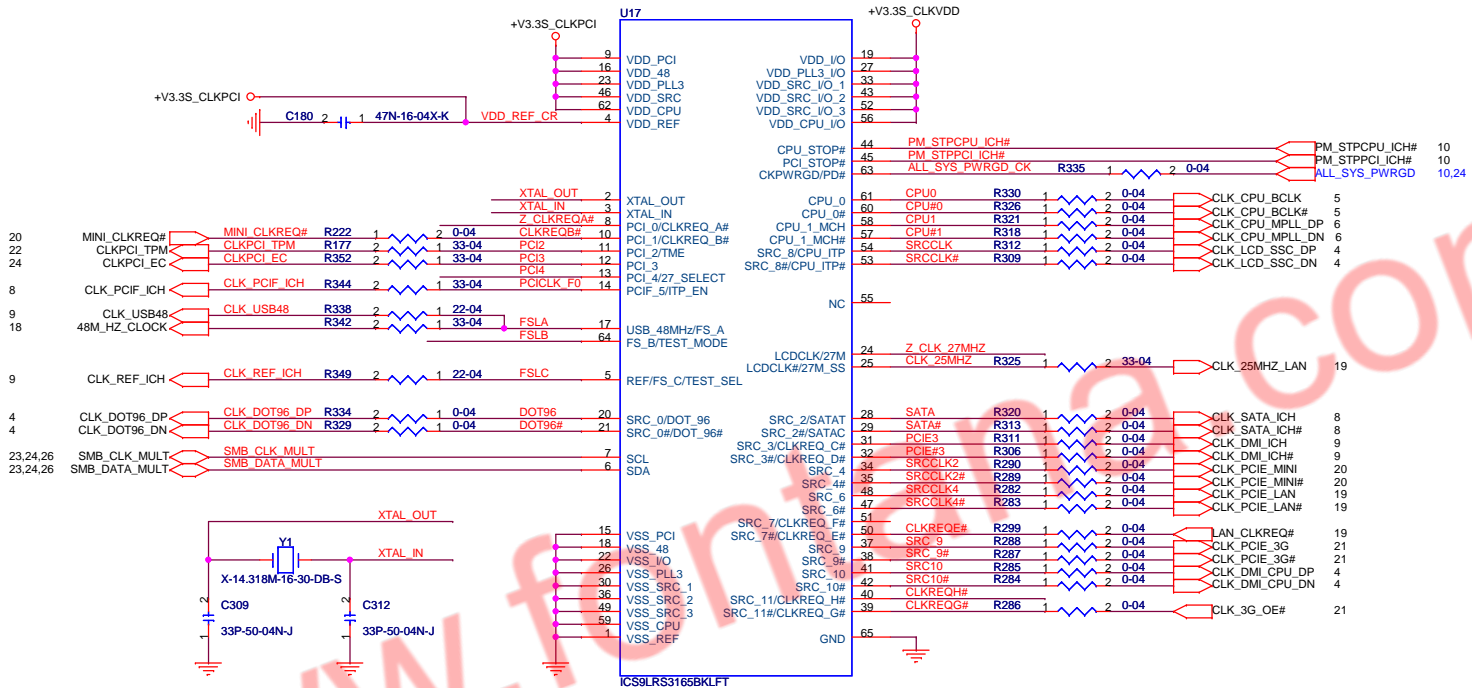
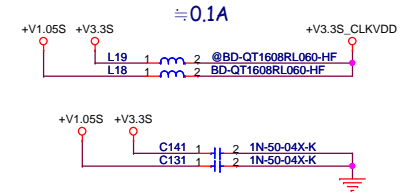
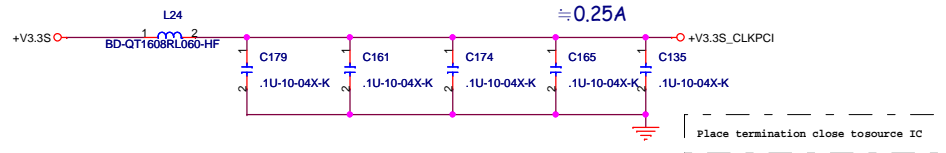
HDA_SDATAOUT	PCI Express port config bit 1
HDA_SYNC	PCI Express port config bit 0



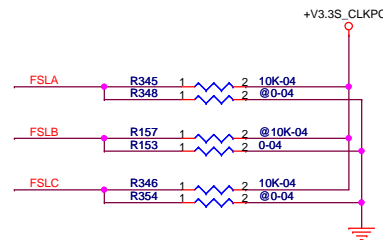




# CLOCK GEN

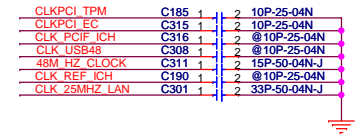


FSLC BSEL2	FSLB BSEL1	FSLA BSEL0	CPU	SRC	PCI
L	L	H	133MHz	100MHz	33MHz
L	H	L	200MHz	100MHz	33MHz
L	H	H	166MHz	100MHz	33MHz
H	L	H	100MHz	100MHz	33MHz
H	H	L	400MHz	100MHz	33MHz
H	L	L	333MHz	100MHz	33MHz
H	H	H	CPU SEL	100MHz	33MHz



PS : CRB SETUP CPU Frequency 100MHz

## Reserve for EMI

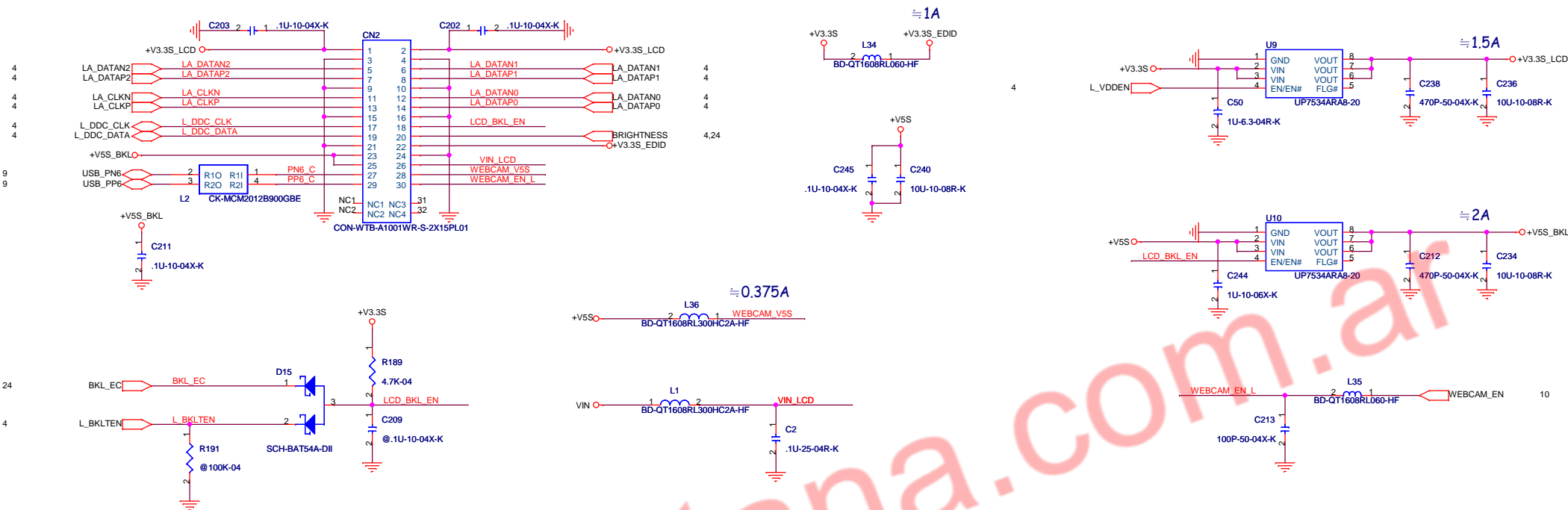


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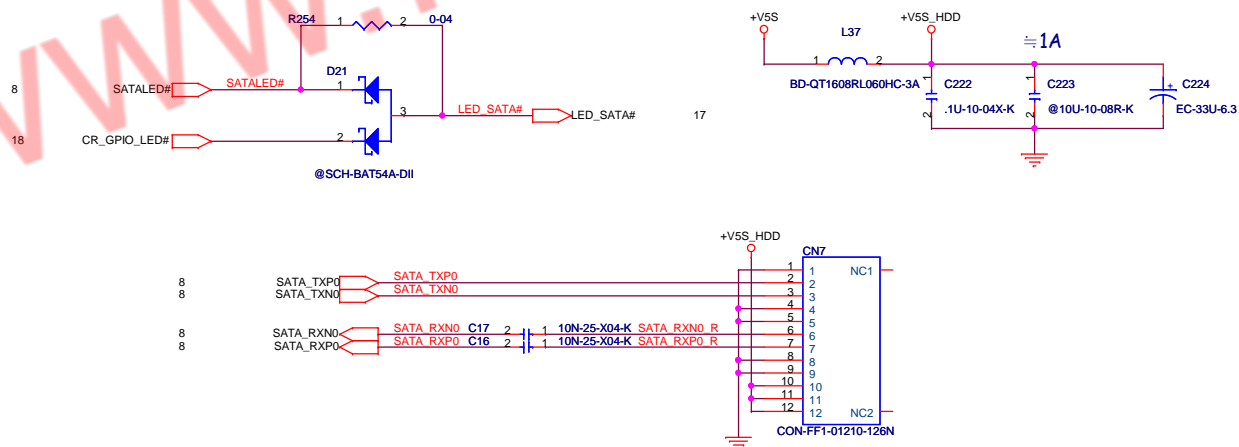
Project : ES10ISx

Size	Document Number	Rev
	CLOCK GENERATOR	A
Date:	Sunday, February 13, 2011	Sheet 13 of 34

## LCD+WEB 30 PIN CON

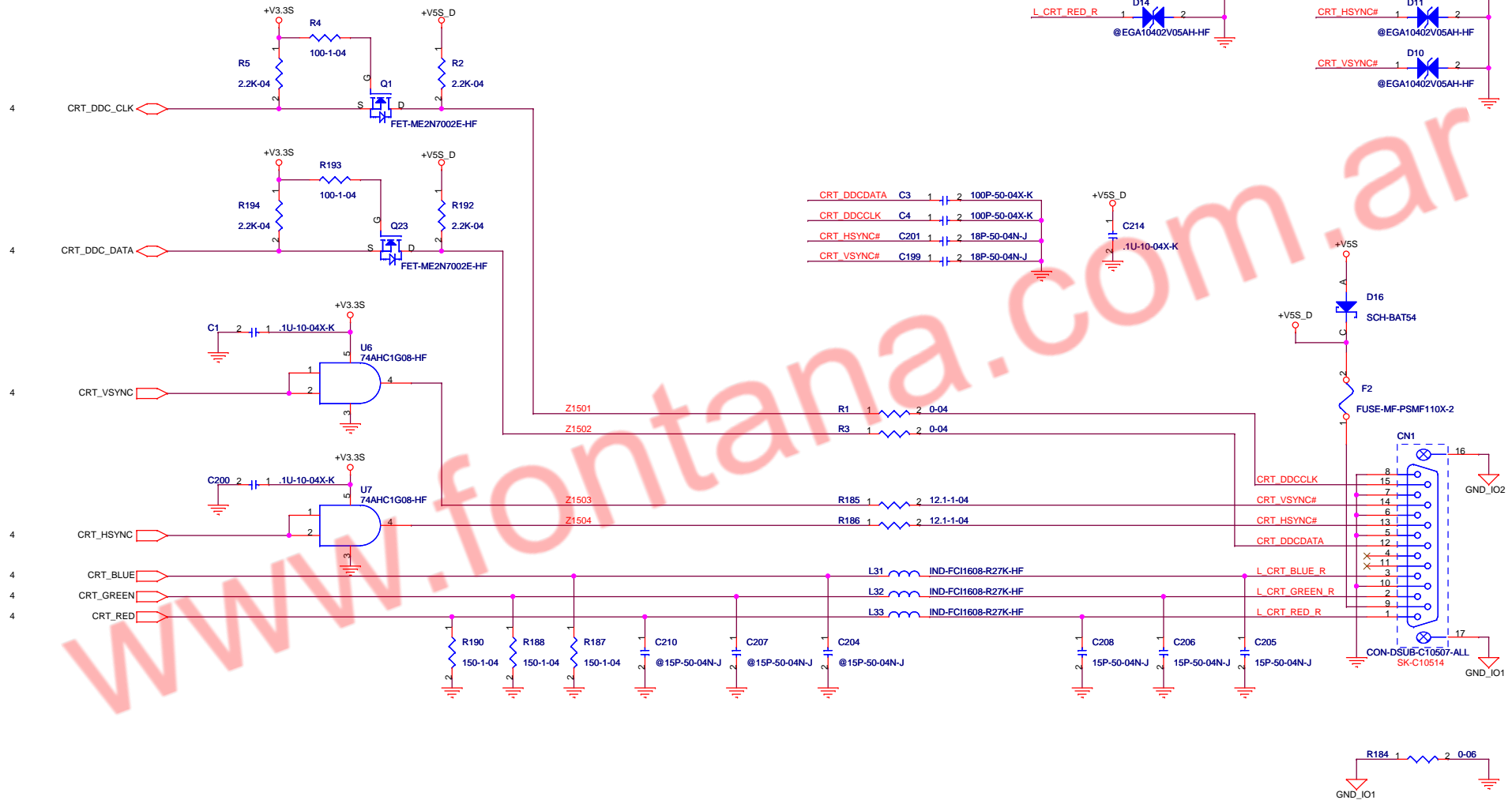


## SATA HDD

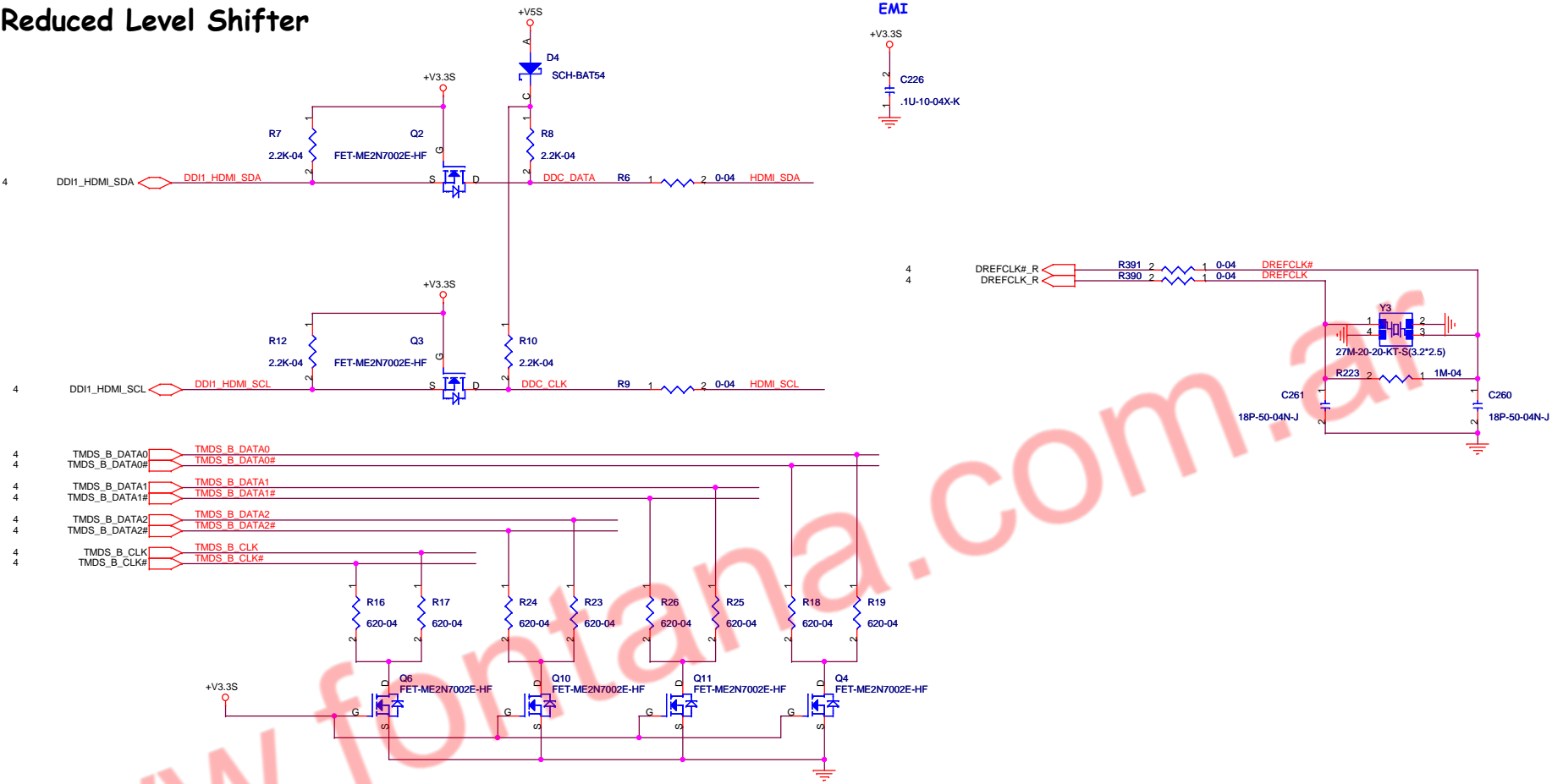




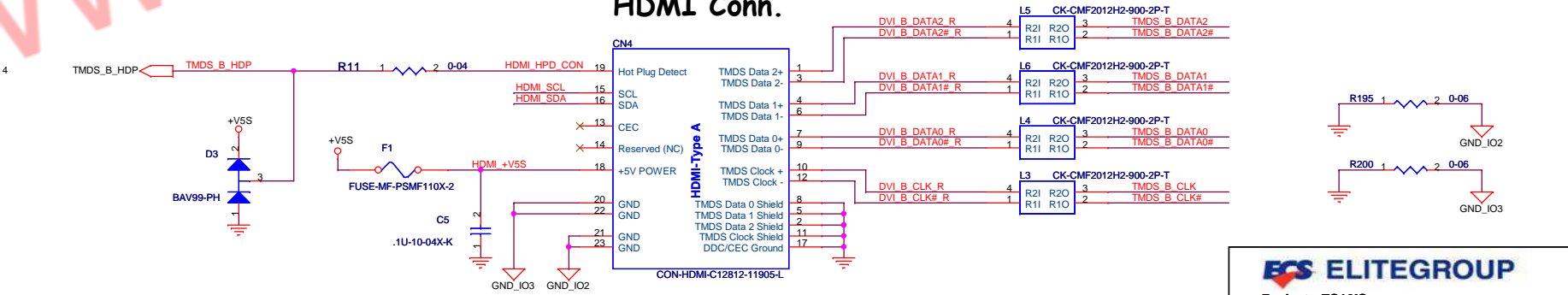
# CRT



# HDMI Cost Reduced Level Shifter



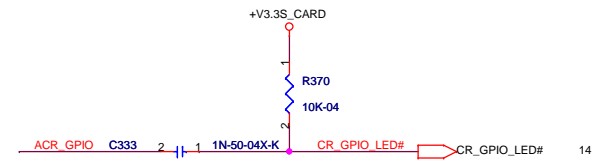
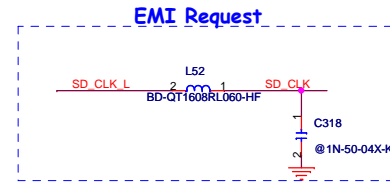
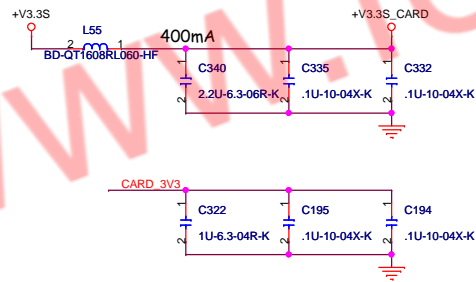
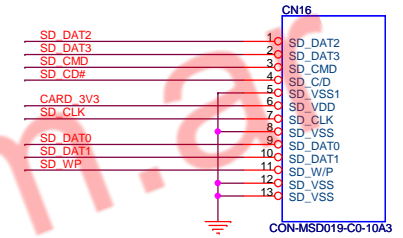
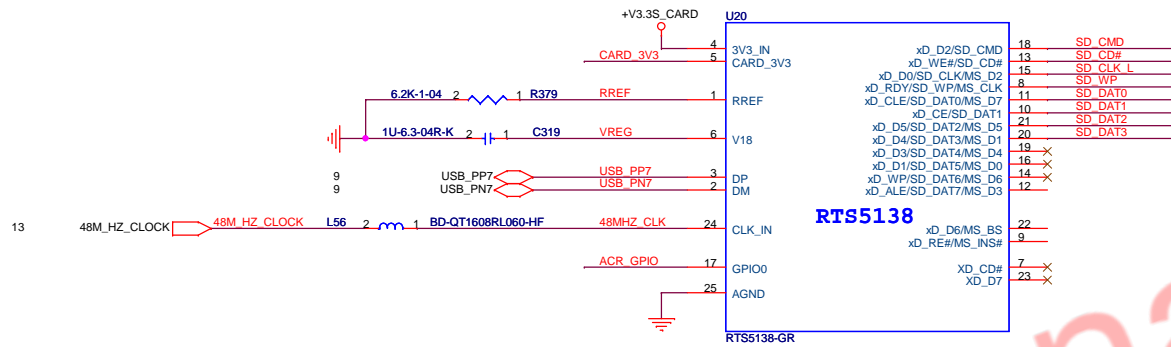
## HDMI Conn.



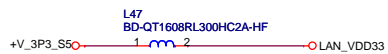


# CARD READER

## 1. SD/MMC Card: 250mA



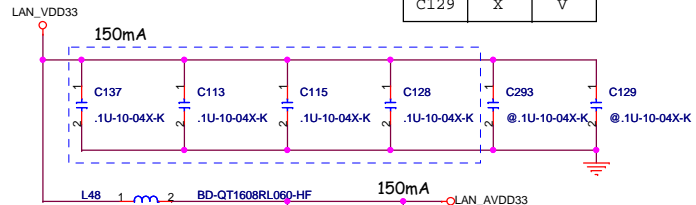
## LAN



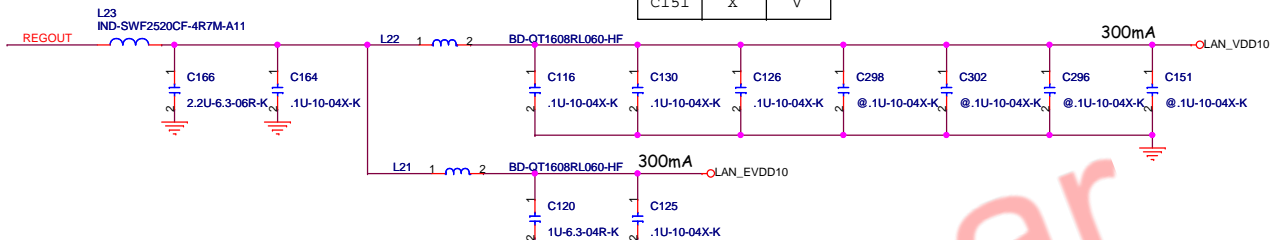
	8105E	8111E
C137	V	V
C113	V	V
C115	V	V
C128	V	V
C293	X	V
C129	X	V

	LDO	Swch
L23	X	V
C166	X	V
C164	X	V

	8105E	8111E
C116	V	V
C130	V	V
C126	V	V
C298	X	V
C302	X	V
C296	X	V
C151	X	V

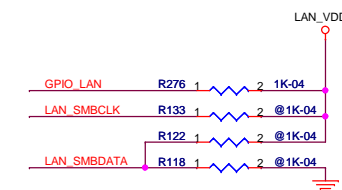
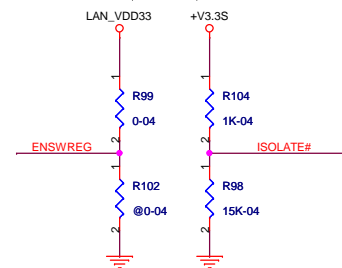
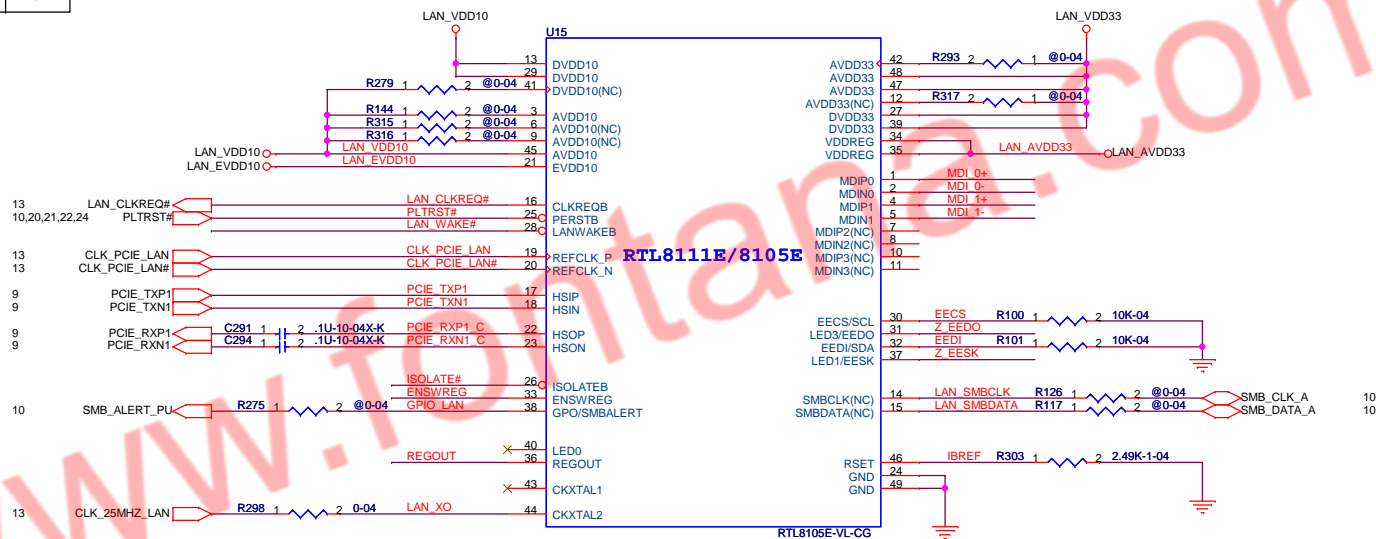


	LDO	Swch
L48	X	V
C292	X	V
C117	X	V



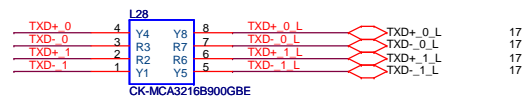
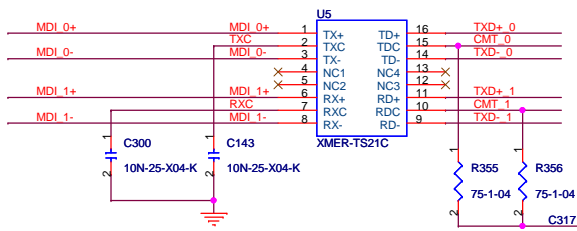
Swch	Enable	Disabl
R99	V	X
R102	X	V

	8105E	8111E
R279	X	V
R315	X	V
R144	X	V
R316	X	V
R293	X	V
R317	X	V

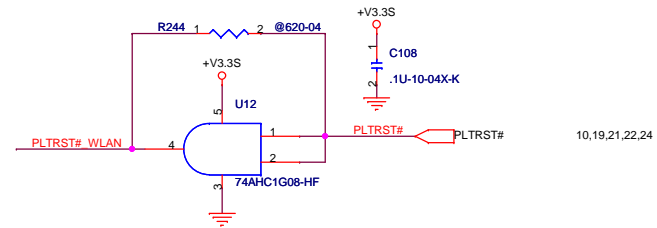
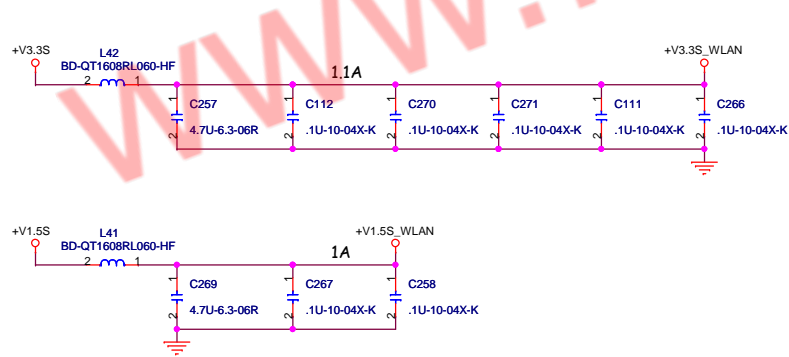
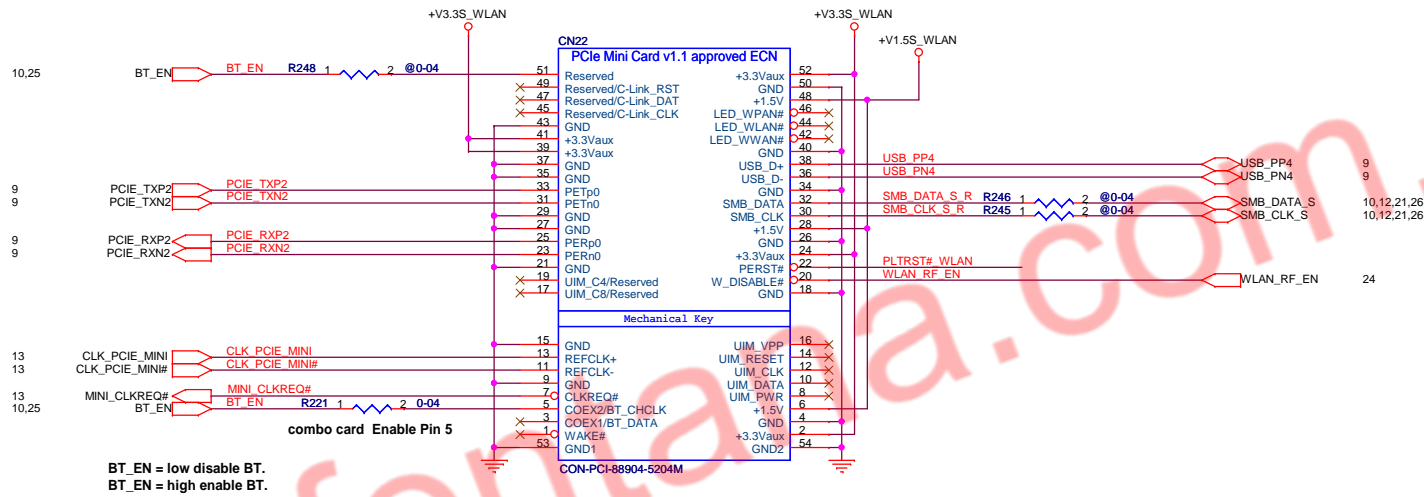


ASF	8105E	8111
R118	X	X
R276	V	V
R113	X	V
R112	X	V

P.S : 8105E don't support ASF mode



# Mini Card



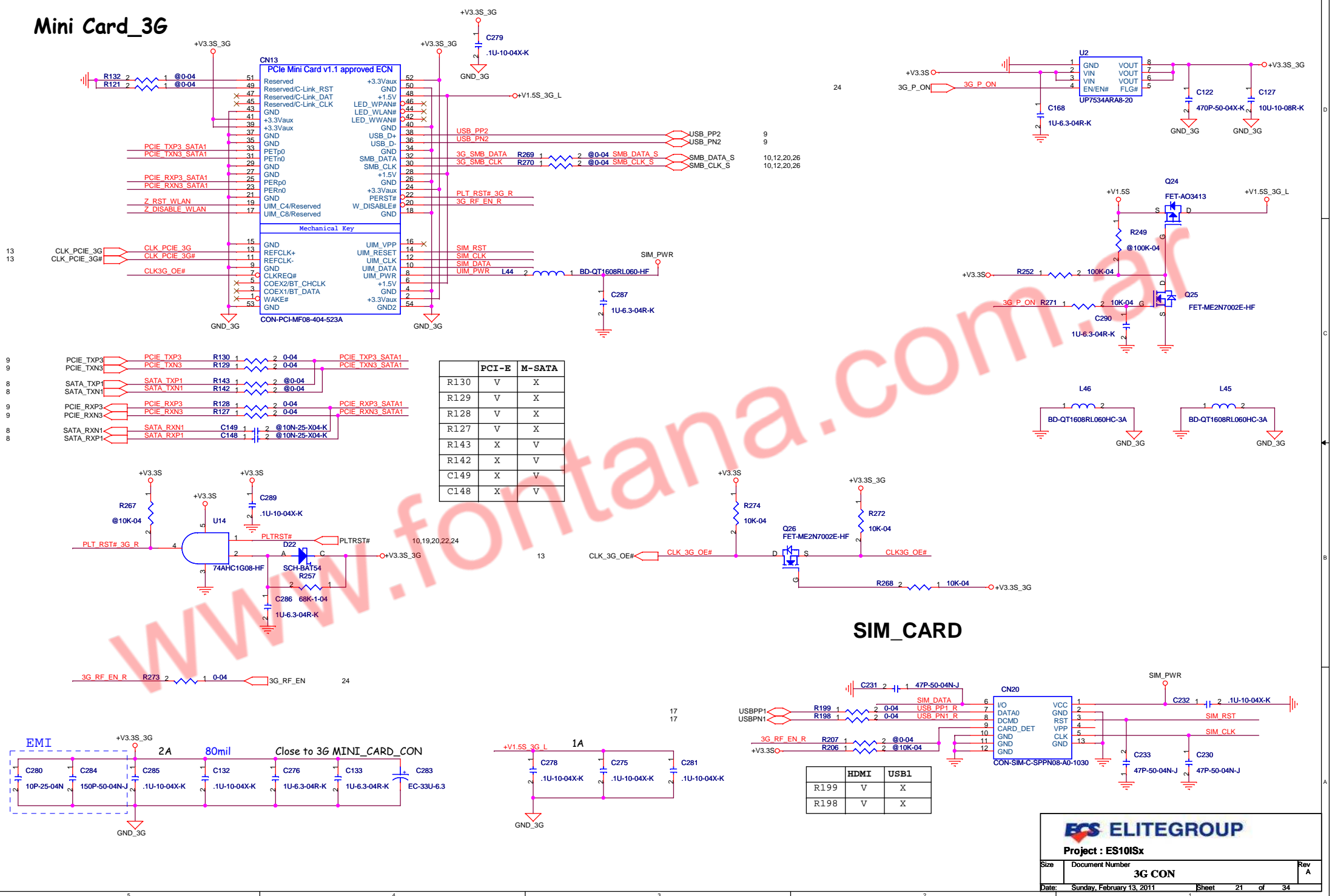
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Project : ES10ISx

Size	Document Number	Rev
	WIRELESS CON	A
Date:	Sunday, February 13, 2011	Sheet 20 of 34



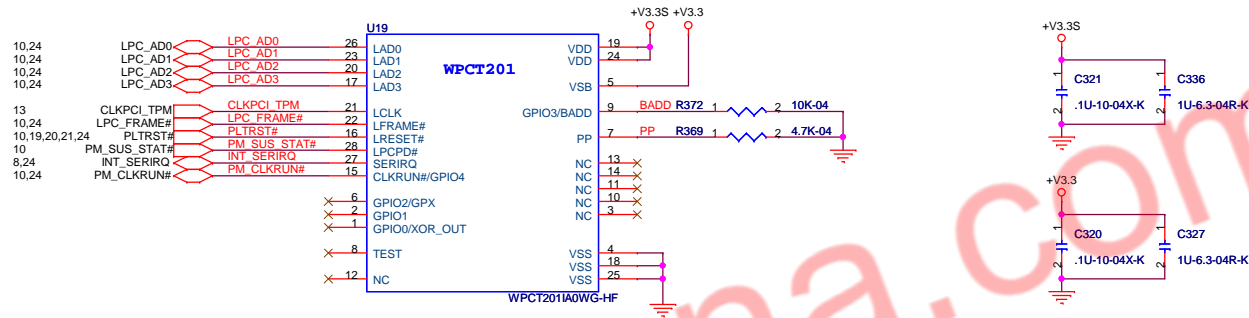
Mini Card\_3G



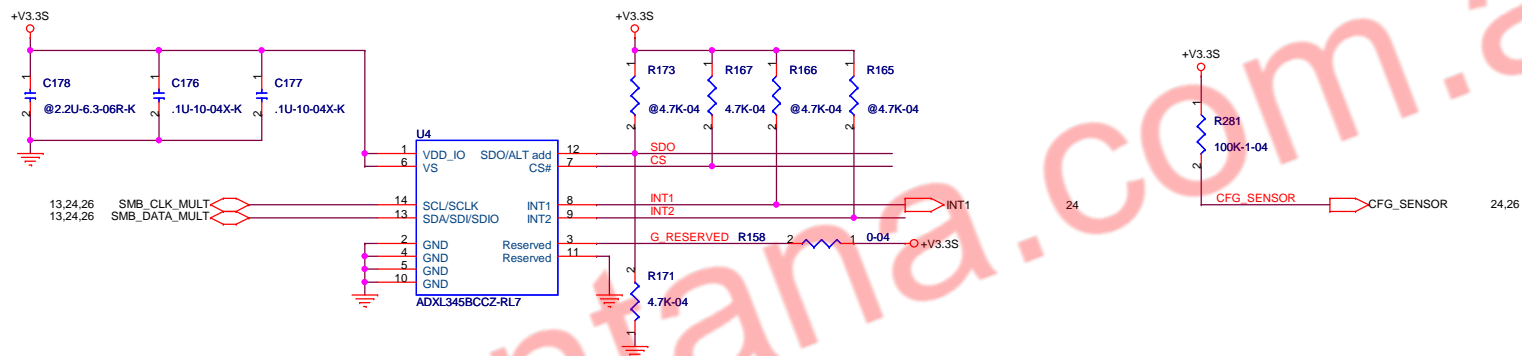
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Project : ES10ISx

# TPM



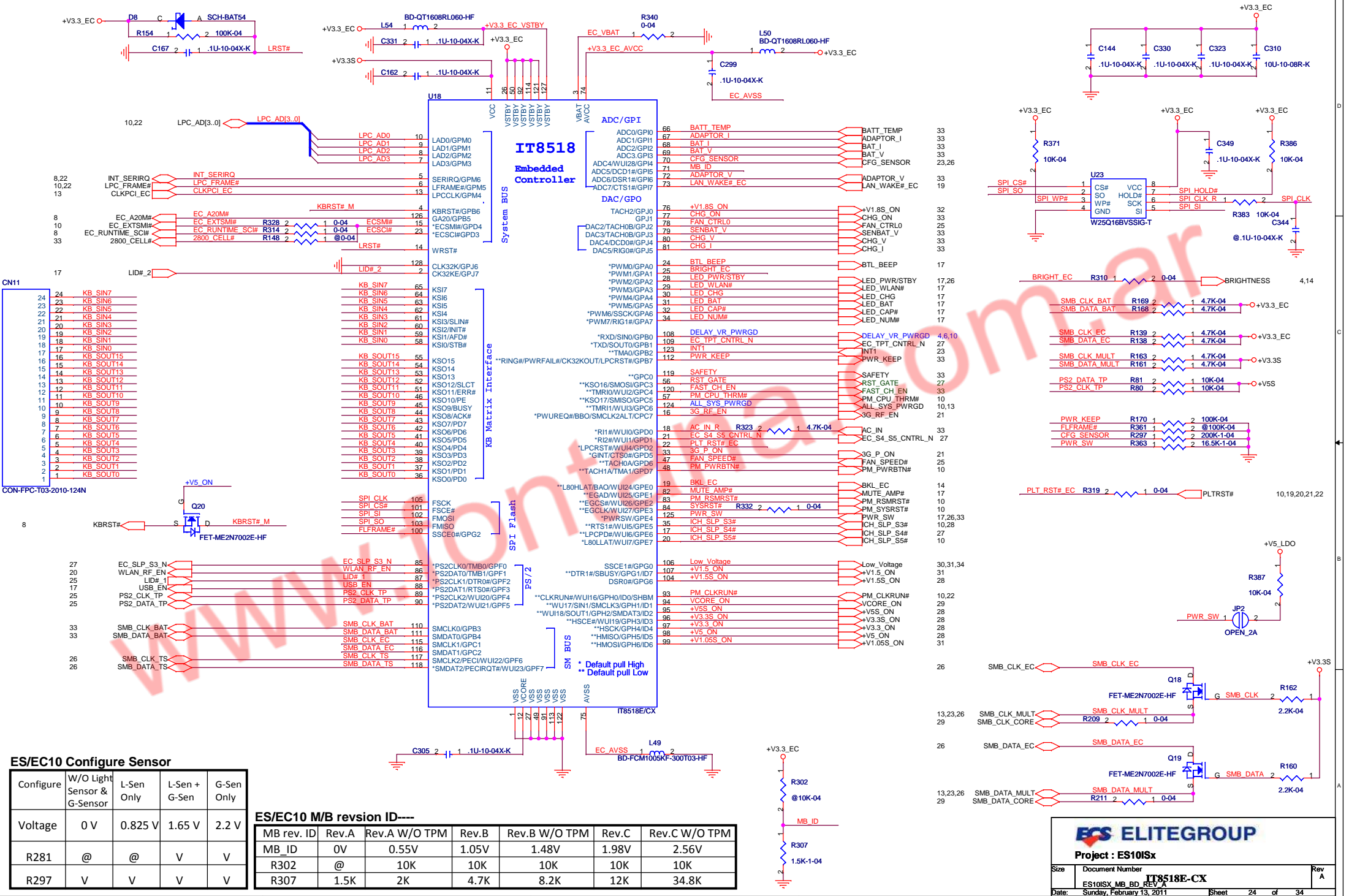
## G-Sensor



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Project : ES10ISx

Size	Document Number	Rev
	<b>G-SENSOR</b>	<b>A</b>
Date:	Sunday, February 13, 2011	Sheet 23 of 34



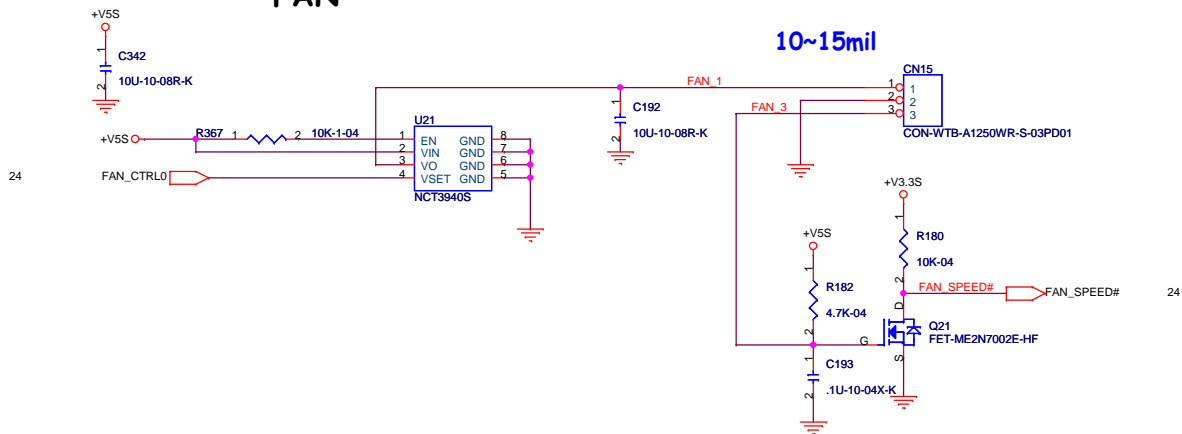
ES/EC10 Configure Sensor				
Configure	W/O Light Sensor & G-Sensor	L-Sen Only	L-Sen + G-Sen	G-Sen Only
Voltage	0 V	0.825 V	1.65 V	2.2 V
R281	@	@	V	V
R297	V	V	V	V

ES/EC10 M/B revision ID---						
MB rev. ID	Rev.A	Rev.A W/O TPM	Rev.B	Rev.B W/O TPM	Rev.C	Rev.C W/O TPM
MB_ID	0V	0.55V	1.05V	1.48V	1.98V	2.56V
R302	@	10K	10K	10K	10K	10K
R307	1.5K	2K	4.7K	8.2K	12K	34.8K

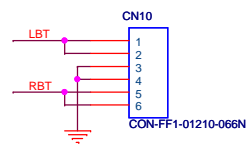
Project : ES10ISx

Size	Document Number	Rev
	ES10ISX MB BD REV A	A
Date:	Sunday, February 13, 2011	Sheet 24 of 34

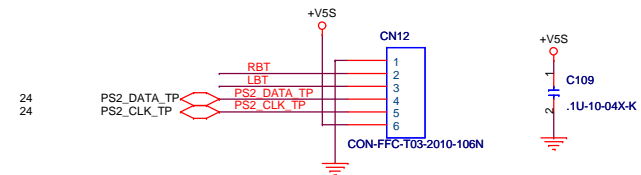
**FAN**



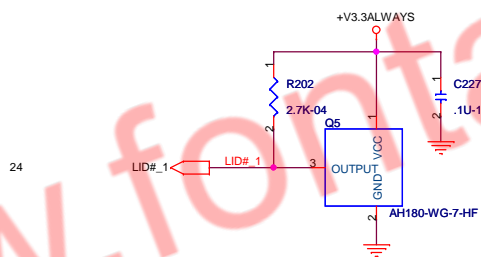
## Touch PAD Button



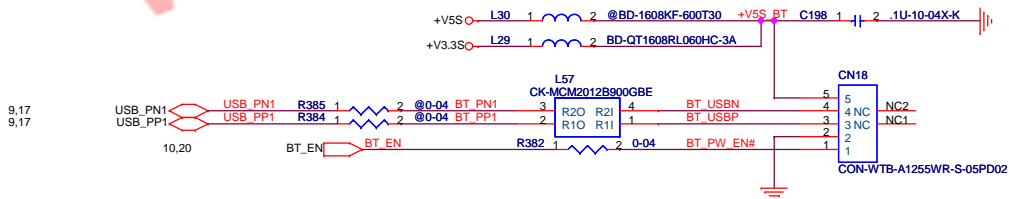
## Touch PAD



## HALL Sensor

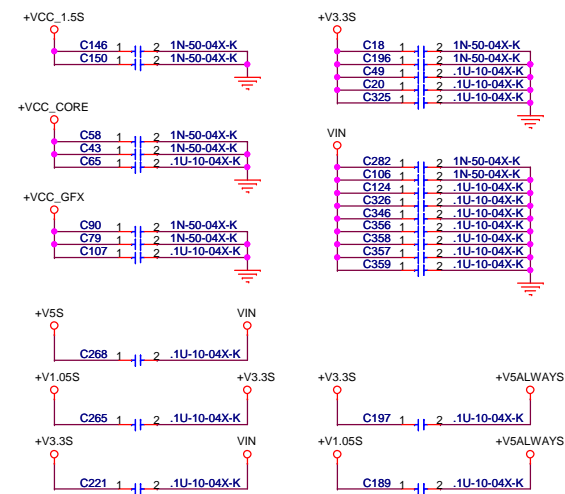


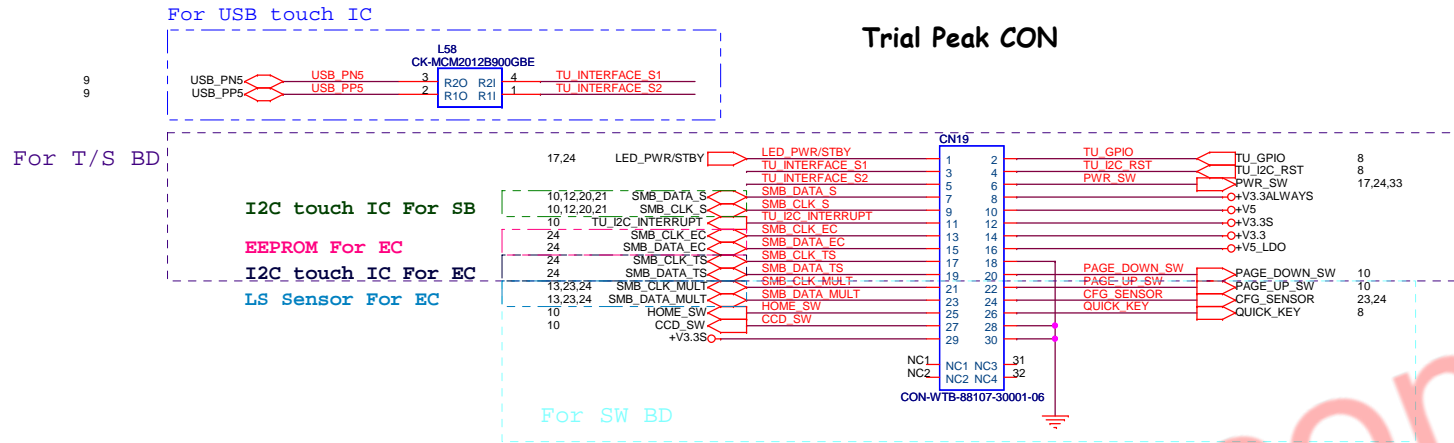
Option	Bluetooth
1. <b>Cost</b>	Low
2. <b>Range</b>	10m
3. <b>Speed</b>	24Mbps
4. <b>Security</b>	Yes
5. <b>Interference</b>	Low
6. <b>Compatibility</b>	High
7. <b>Power Consumption</b>	Low
8. <b>Connectivity</b>	Yes
9. <b>Scalability</b>	Yes
10. <b>Flexibility</b>	Yes
11. <b>Integration</b>	Yes
12. <b>Reliability</b>	Yes
13. <b>Performance</b>	Yes
14. <b>Portability</b>	Yes
15. <b>Expandability</b>	Yes
16. <b>Upgradeability</b>	Yes
17. <b>Customization</b>	Yes
18. <b>Interoperability</b>	Yes
19. <b>Connectivity</b>	Yes
20. <b>Scalability</b>	Yes
21. <b>Flexibility</b>	Yes
22. <b>Integration</b>	Yes
23. <b>Reliability</b>	Yes
24. <b>Performance</b>	Yes
25. <b>Portability</b>	Yes
26. <b>Expandability</b>	Yes
27. <b>Upgradeability</b>	Yes
28. <b>Customization</b>	Yes
29. <b>Interoperability</b>	Yes
30. <b>Connectivity</b>	Yes
31. <b>Scalability</b>	Yes
32. <b>Flexibility</b>	Yes
33. <b>Integration</b>	Yes
34. <b>Reliability</b>	Yes
35. <b>Performance</b>	Yes
36. <b>Portability</b>	Yes
37. <b>Expandability</b>	Yes
38. <b>Upgradeability</b>	Yes
39. <b>Customization</b>	Yes
40. <b>Interoperability</b>	Yes
41. <b>Connectivity</b>	Yes
42. <b>Scalability</b>	Yes
43. <b>Flexibility</b>	Yes
44. <b>Integration</b>	Yes
45. <b>Reliability</b>	Yes
46. <b>Performance</b>	Yes
47. <b>Portability</b>	Yes
48. <b>Expandability</b>	Yes
49. <b>Upgradeability</b>	Yes
50. <b>Customization</b>	Yes
51. <b>Interoperability</b>	Yes
52. <b>Connectivity</b>	Yes
53. <b>Scalability</b>	Yes
54. <b>Flexibility</b>	Yes
55. <b>Integration</b>	Yes
56. <b>Reliability</b>	Yes
57. <b>Performance</b>	Yes
58. <b>Portability</b>	Yes
59. <b>Expandability</b>	Yes
60. <b>Upgradeability</b>	Yes
61. <b>Customization</b>	Yes
62. <b>Interoperability</b>	Yes
63. <b>Connectivity</b>	Yes
64. <b>Scalability</b>	Yes
65. <b>Flexibility</b>	Yes
66. <b>Integration</b>	Yes
67. <b>Reliability</b>	Yes
68. <b>Performance</b>	Yes
69. <b>Portability</b>	Yes
70. <b>Expandability</b>	Yes
71. <b>Upgradeability</b>	Yes
72. <b>Customization</b>	Yes
73. <b>Interoperability</b>	Yes
74. <b>Connectivity</b>	Yes
75. <b>Scalability</b>	Yes
76. <b>Flexibility</b>	Yes
77. <b>Integration</b>	Yes
78. <b>Reliability</b>	Yes
79. <b>Performance</b>	Yes
80. <b>Portability</b>	Yes
81. <b>Expandability</b>	Yes
82. <b>Upgradeability</b>	Yes
83. <b>Customization</b>	Yes
84. <b>Interoperability</b>	Yes
85. <b>Connectivity</b>	Yes
86. <b>Scalability</b>	Yes
87. <b>Flexibility</b>	Yes
88. <b>Integration</b>	Yes
89. <b>Reliability</b>	Yes
90. <b>Performance</b>	Yes
91. <b>Portability</b>	Yes
92. <b>Expandability</b>	Yes
93. <b>Upgradeability</b>	Yes
94. <b>Customization</b>	Yes
95. <b>Interoperability</b>	Yes
96. <b>Connectivity</b>	Yes
97. <b>Scalability</b>	Yes
98. <b>Flexibility</b>	Yes
99. <b>Integration</b>	Yes
100. <b>Reliability</b>	Yes
101. <b>Performance</b>	Yes
102. <b>Portability</b>	Yes
103. <b>Expandability</b>	Yes
104. <b>Upgradeability</b>	Yes
105. <b>Customization</b>	Yes
106. <b>Interoperability</b>	Yes
107. <b>Connectivity</b>	Yes
108. <b>Scalability</b>	Yes
109. <b>Flexibility</b>	Yes
110. <b>Integration</b>	Yes
111. <b>Reliability</b>	Yes
112. <b>Performance</b>	Yes
113. <b>Portability</b>	Yes
114. <b>Expandability</b>	Yes
115. <b>Upgradeability</b>	Yes
116. <b>Customization</b>	Yes
117. <b>Interoperability</b>	Yes
118. <b>Connectivity</b>	Yes
119. <b>Scalability</b>	Yes
120. <b>Flexibility</b>	Yes
121. <b>Integration</b>	Yes
122. <b>Reliability</b>	Yes
123. <b>Performance</b>	Yes
124. <b>Portability</b>	Yes
125. <b>Expandability</b>	Yes
126. <b>Upgradeability</b>	Yes
127. <b>Customization</b>	Yes
128. <b>Interoperability</b>	Yes
129. <b>Connectivity</b>	Yes
130. <b>Scalability</b>	Yes
131. <b>Flexibility</b>	Yes
132. <b>Integration</b>	Yes
133. <b>Reliability</b>	Yes
134. <b>Performance</b>	Yes
135. <b>Portability&lt;/</b>	



BT\_EN = low disable BT.  
BT\_EN = high enable BT.

## EMI Request

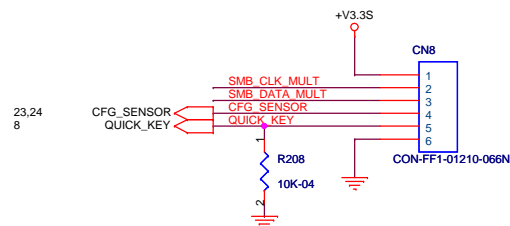




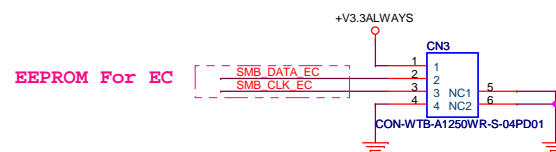
#### EC10 VS ES10 different

Item	For Trail Peak	For Stone Point
CN19	V	X
CN8	X	V
CN3	X	V

#### Configure Sensor/Quick Key CON

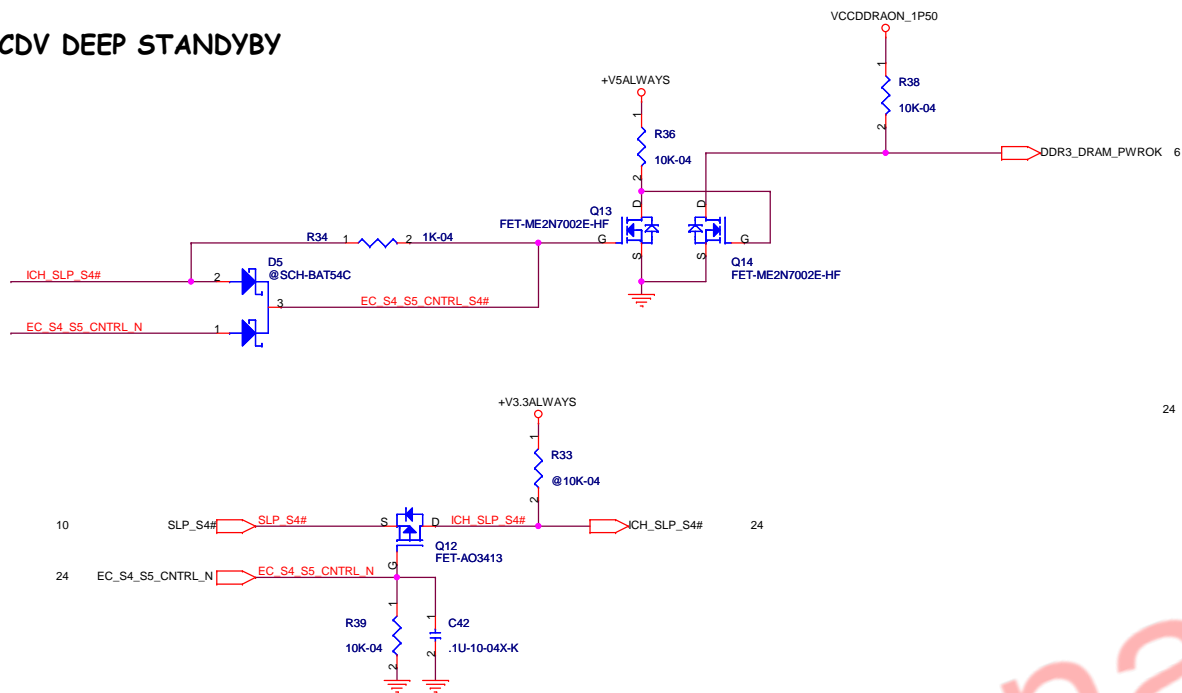


#### EEPROM CON

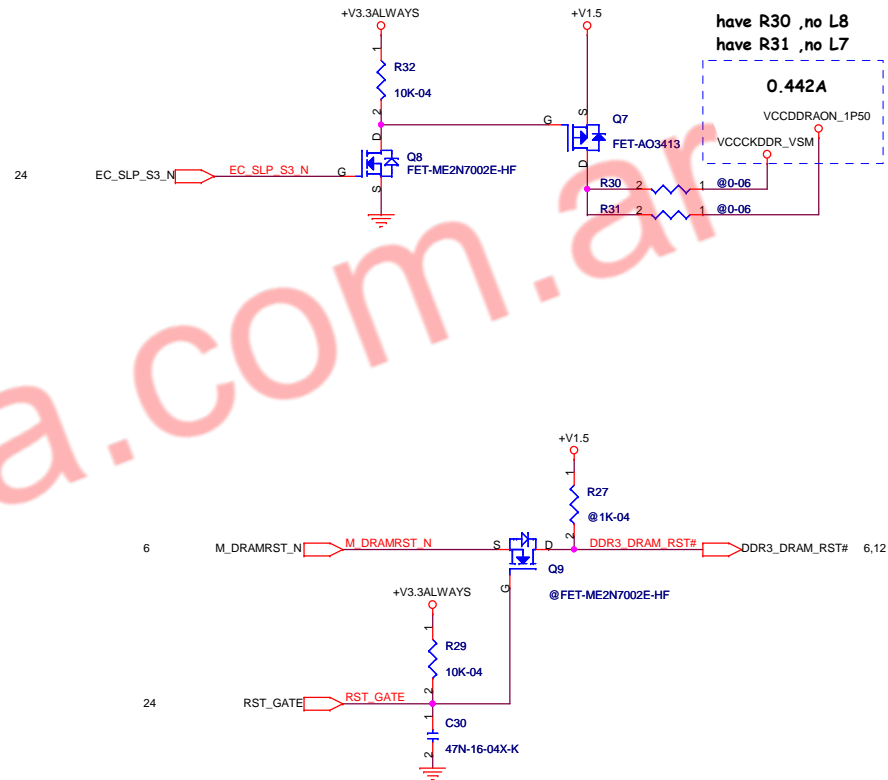
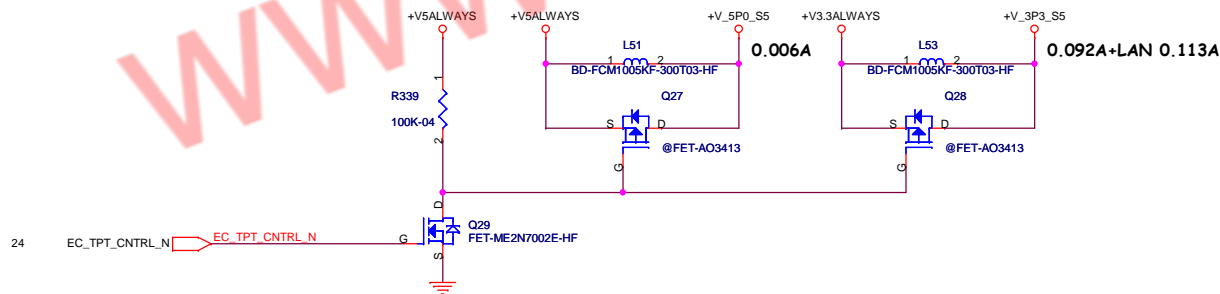




## CDV DEEP STANDBY



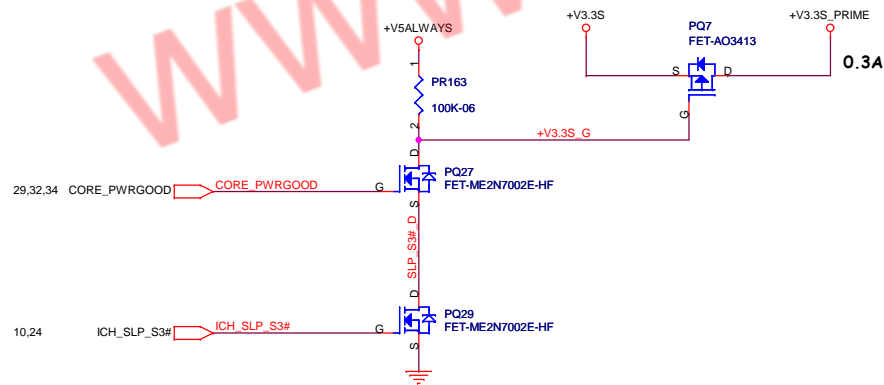
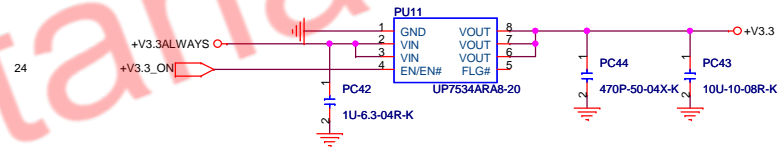
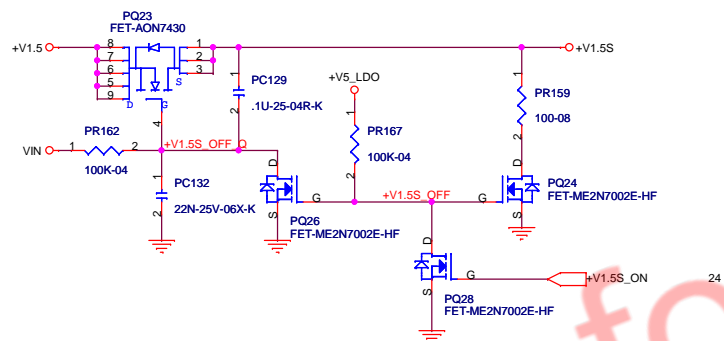
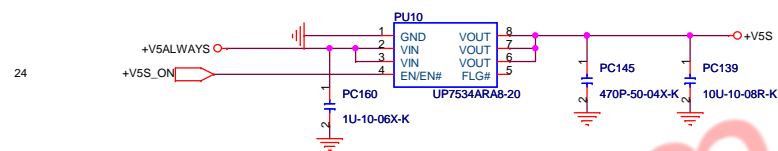
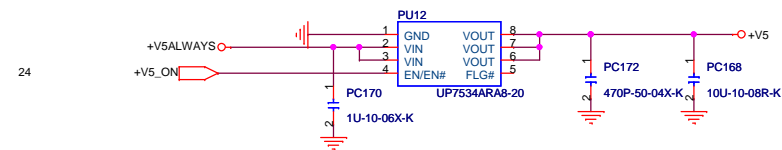
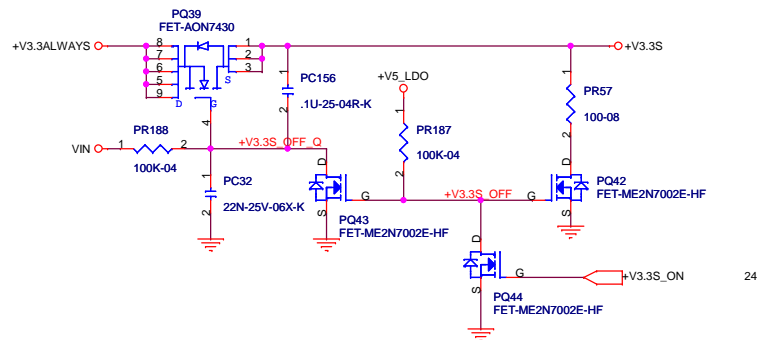
## ICH DEEP STANDBY BY

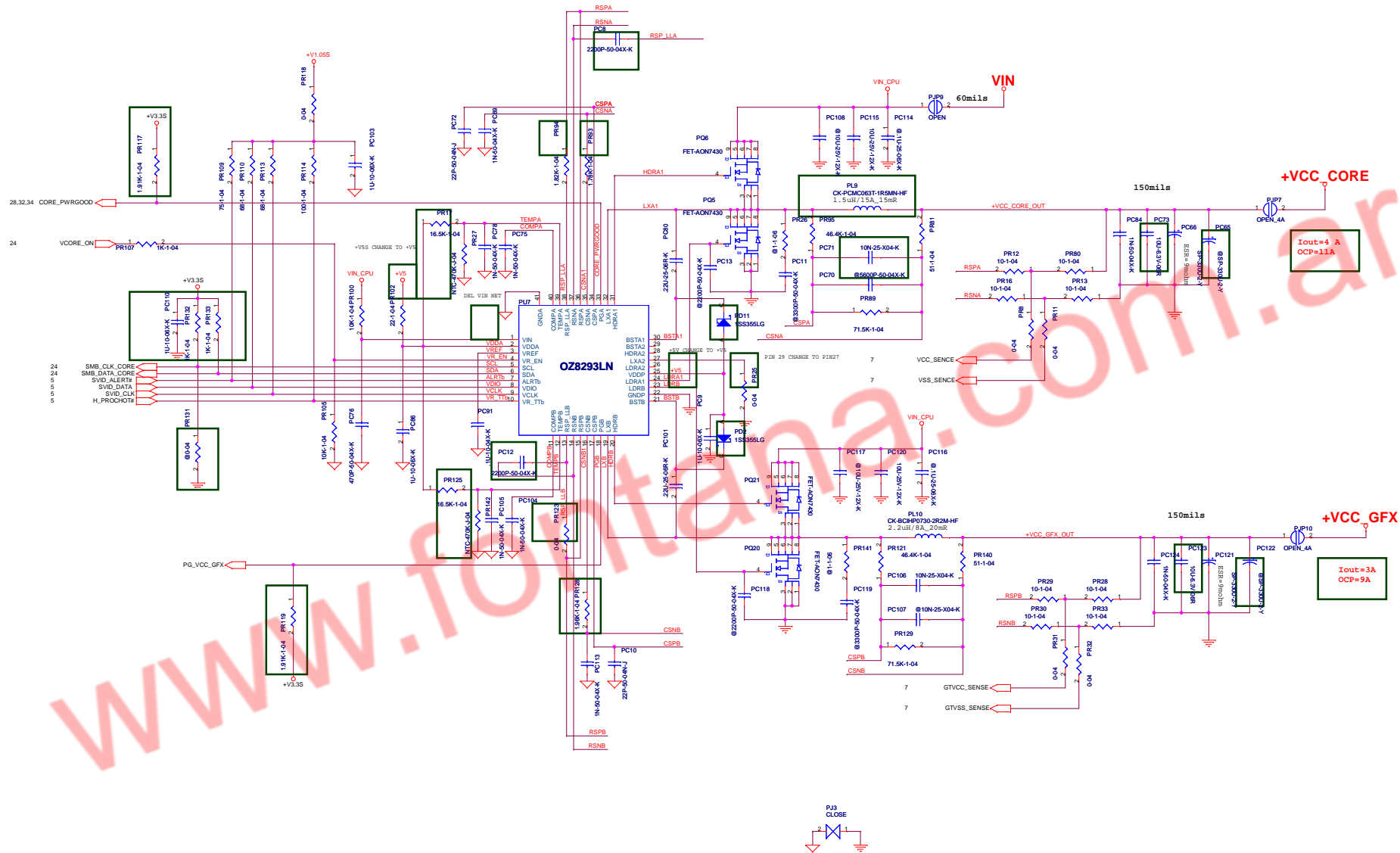


**ELITEGROUP**

Project : ES10ISx

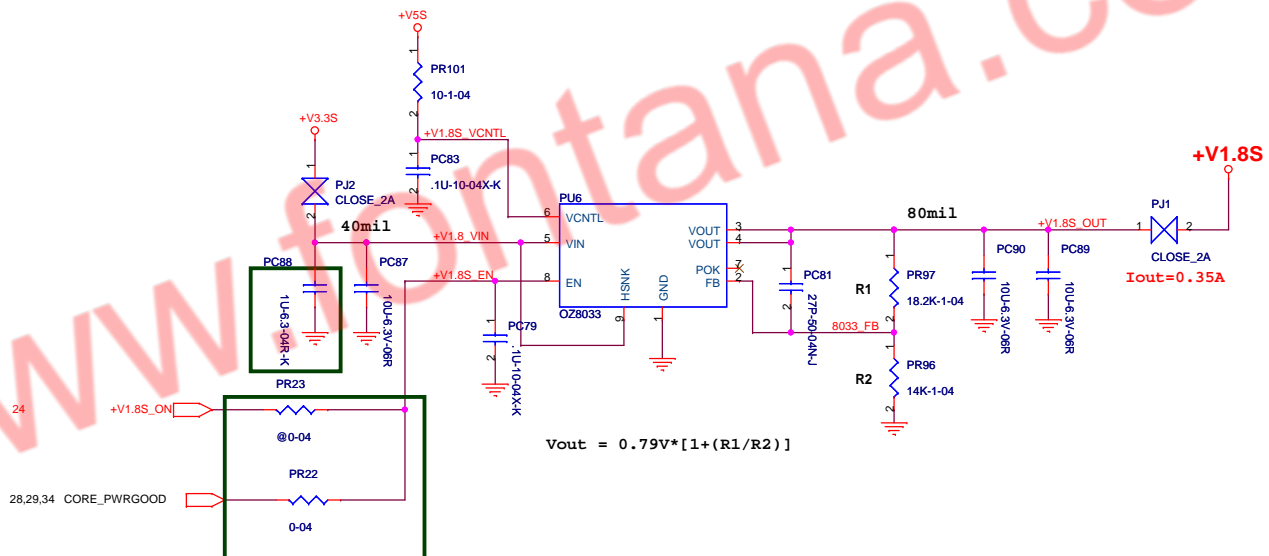
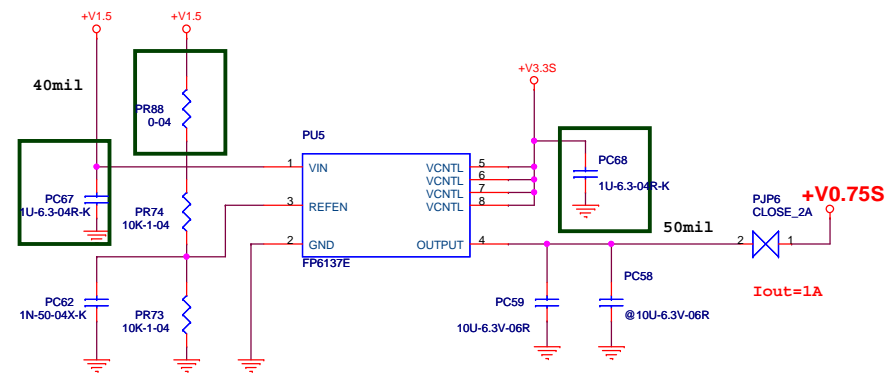
Size	Document Number	Rev
	DEEP STANDBY	A
Date:	Sunday, February 13, 2011	Sheet 27 of 34



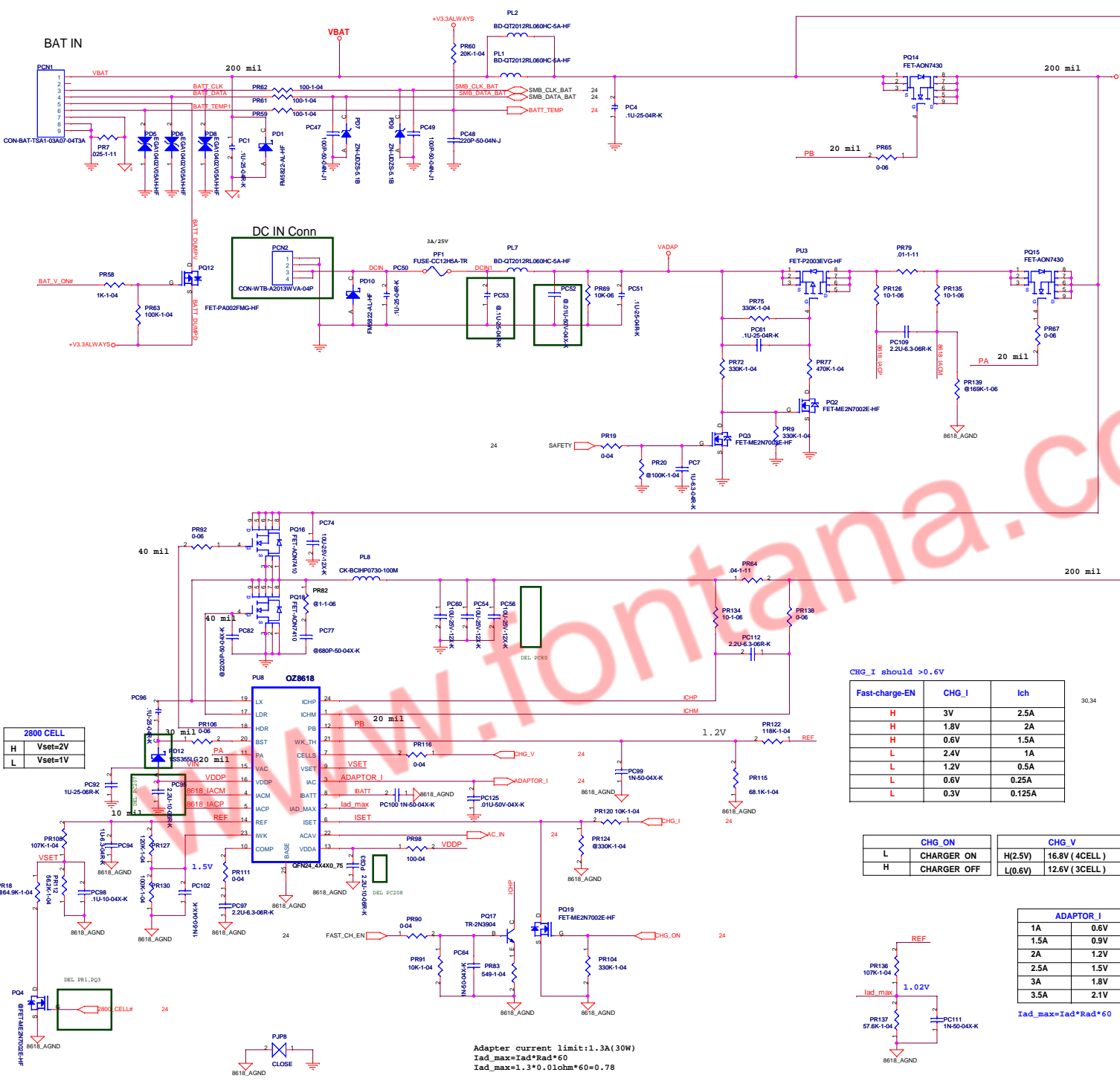




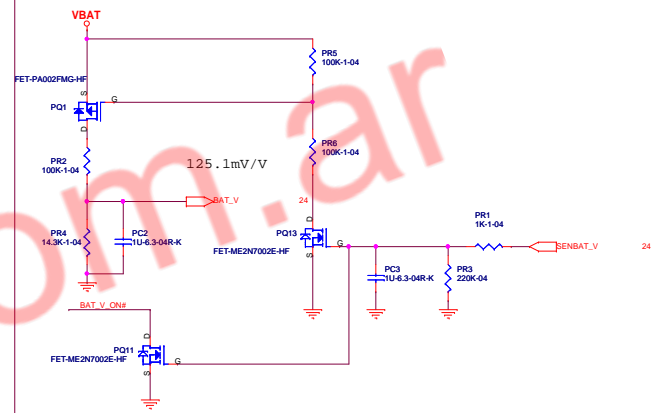




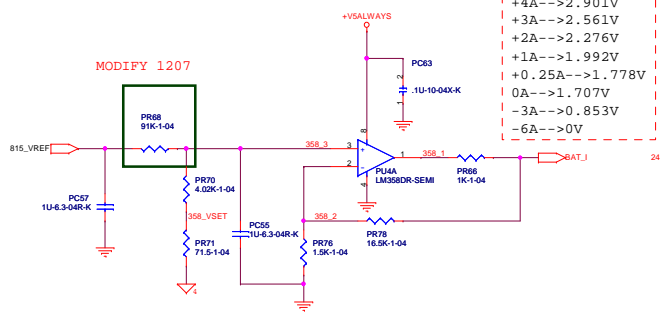




## Battery Voltage Detect



## Charge / Discharge Detect



CHG\_I should >0.6V

Fast-charge-EN	CHG_I	Ich
H	3V	2.5A
H	1.8V	2A
H	0.6V	1.5A
L	2.4V	1A
L	1.2V	0.5A
L	0.6V	0.25A
L	0.3V	0.125A

CHG_ON		CHG_V	
L	CHARGER ON	H(2.5V)	16.8V ( 4CELL )
H	CHARGER OFF	L(0.6V)	12.6V ( 3CELL )

Adaptor current limit: 1.3A(30W)  
Iad\_max=Iad\*Rad\*60  
Iad\_max=1.3\*0.01ohm\*60=0.78

ADAPTOR_I	
1A	0.6V
1.5A	0.9V
2A	1.2V
2.5A	1.5V
3A	1.8V
3.5A	2.1V

Iad\_max=Iad\*Rad\*60

The schematic diagram illustrates the internal circuitry of a power management IC (PU1). Key components and connections include:

- Inputs:** VIN (pin 1), +V5ALWAYS (pin 2), +VCC\_CORE (pin 3), and CORE\_PWRGOOD (pin 4).
- Outputs:** 30,33 (pin 30), 815\_VREF (pin 31), and Low\_Voltage (pin 32).
- Resistors:** PR171 (10K-04), PR147 (10K-04), PR146 (10K-04), PR177 (10K-1-04), PR181 (10K-1-04), PR14 (23.2K-1-04), PR15 (10K-1-04), PR24 (10-1-04), PR21 (100K-1-04), PR10 (1K-04), and PR169 (1K-04).
- Capacitors:** PC147 (.1U-25-04R-K), PC146 (.1U-25-04R-K), PC5 (.1U-10V-04R-K), and PC6 (.1U-10V-04R-K).
- Transistors:** PQ35, PQ33, PQ38, and PQ31, all FET-ME2N7002E-HF.
- Other Components:** PU1 (power management IC), @PS321 (pin 32), and @PS321 (pin 32).

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