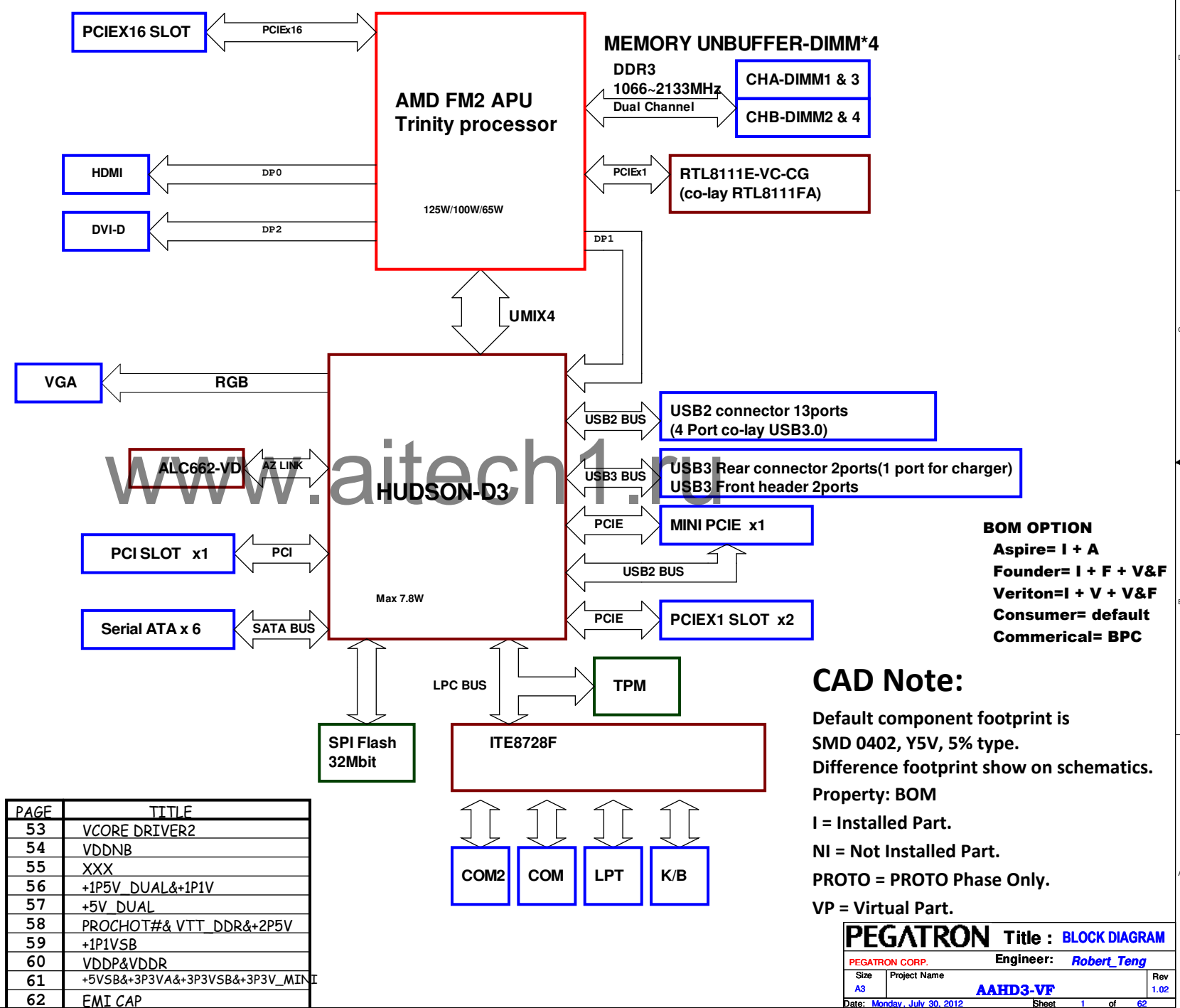


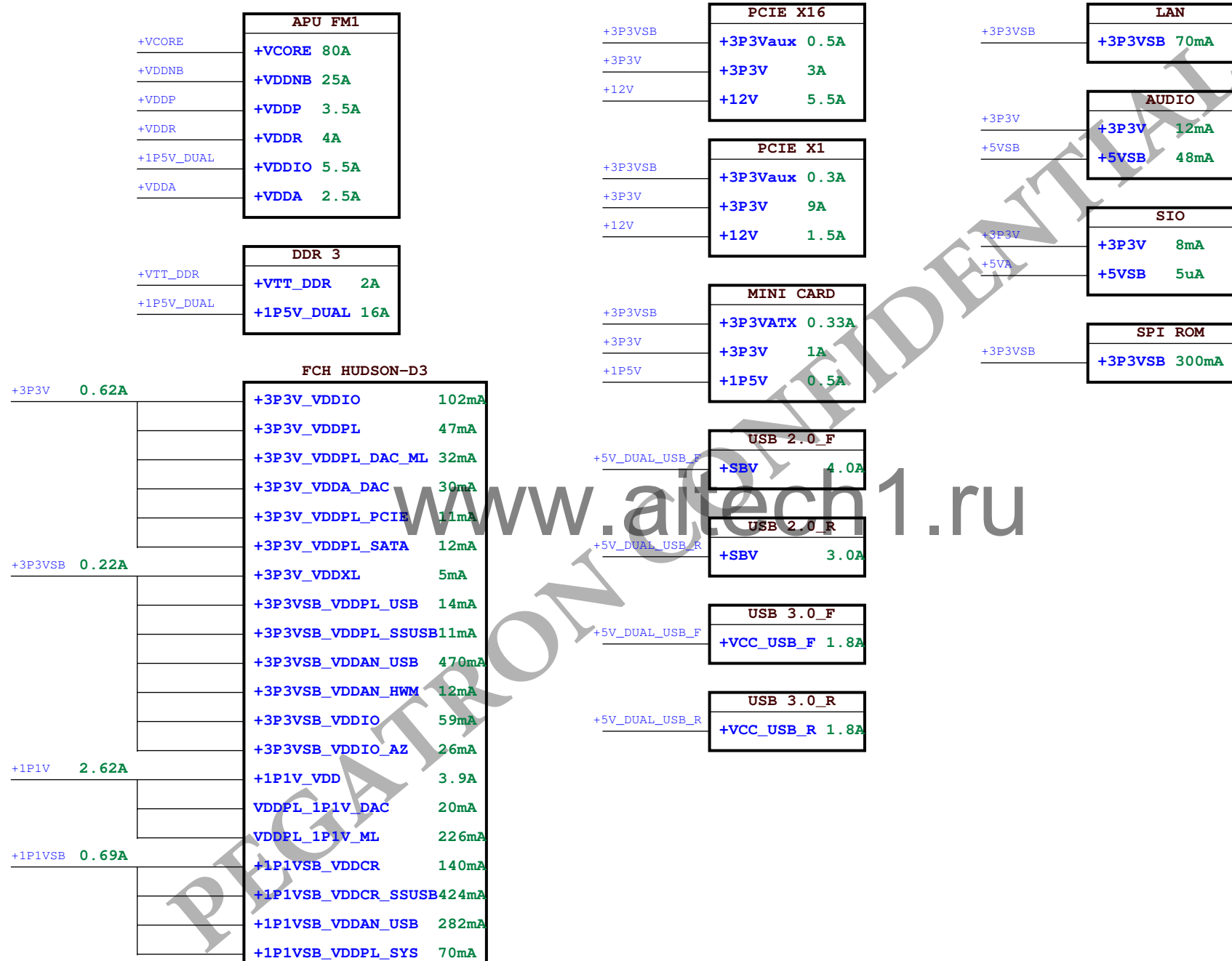
AAHD3-VF vfVince

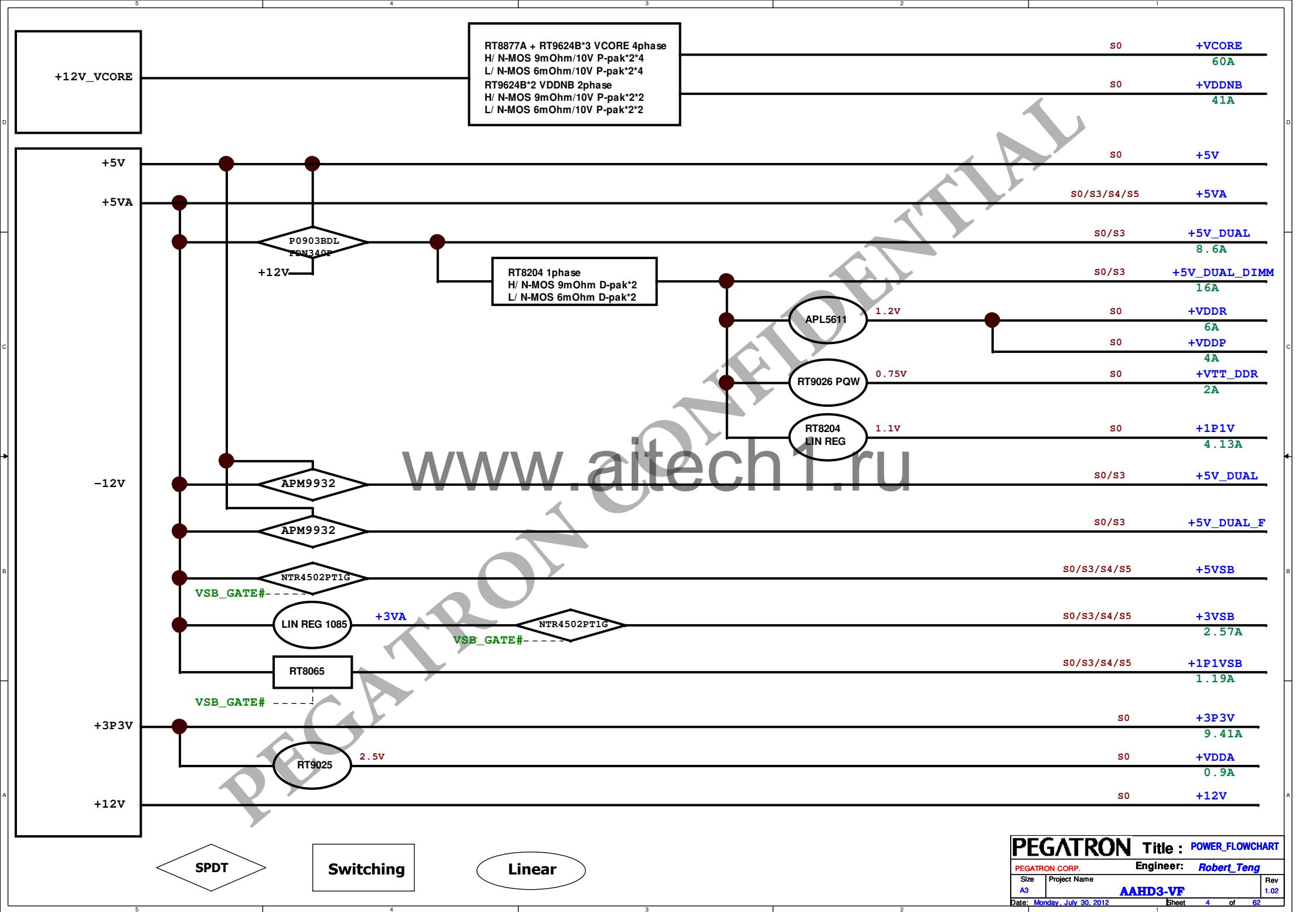
Rev: 1.02(2012/06/04)

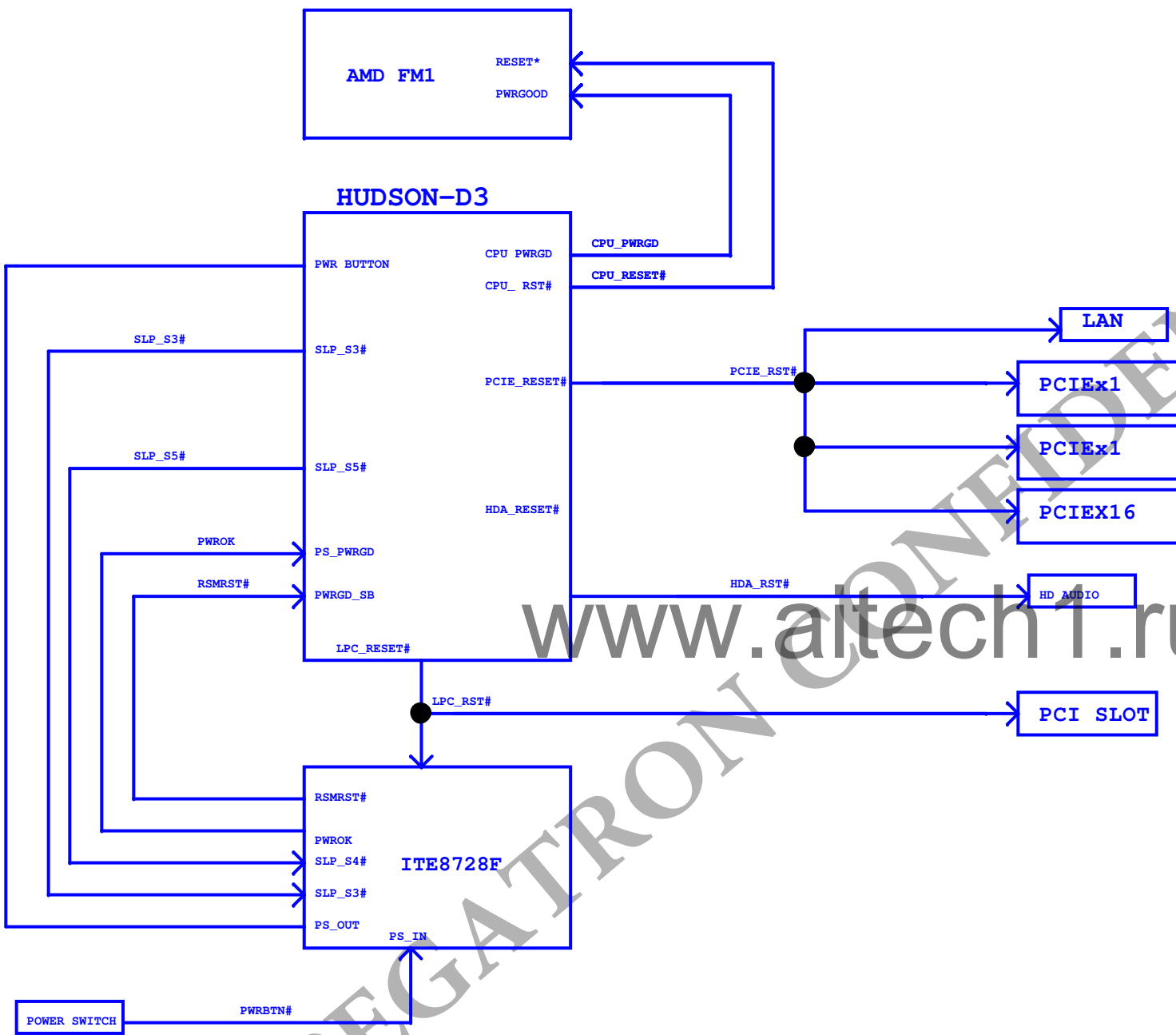
PAGE	TITLE
01	Block Diagram
02	POWER Distribution
03	CLOCKS DISTRIBUTION
04	POWER FLOWCHART
05	RESET MAP
06	POWER SEQUENCE
07	XXX
08	AMD FM2 SOCKET GFX&GPP&UMI
09	AMD FM2 SOCKET DDR3
10	AMD FM2 SOCKET DP&MISC
11	AMD FM2 SOCKET POWER
12	VCORE & VDDNB OUTPUT CAP
13	DDR3 CHANNEL A
14	DDR3 CHANNEL B
15	DDR3 DECOUPLING CAP
16	FCH Hudson-D3 UMI&GPP&CLK&PCI
17	FCH HudsonD3 MISC&AUDIO&USB
18	FCH HudsonD3 SATA&SD&LAN&VGA
19	FCH HudsonD3 POWER/GND
20	FCH HudsonD3 HWSTRAP
21	XXX
22	INTEGRATED GRAPHICS VGA
23	DVI-D connector
24	XXX
25	XXX
26	HDMI CONNECTOR
27	PCI EXPRESS X16
28	PCI-Ex1-1
29	MINI PCIE
30	PCI SLOT1
31	REALTEK RTL8111E/FA
32	CHARGER FOR USB3.0
33	RJ-45+USB CONNECTOR
34	FRONT USB CONNECTOR
35	REAR USB CONNECTOR
36	FRONT USB3.0
37	XXX
38	SATA CONNECTOR
39	SUPER I/O - IT8728 1 OF 2
40	SUPER I/O - IT8728 2 OF 2
41	FLASH ROM&RTC&BUZZER
42	PARALLEL PORT
43	SERIAL PORT
44	KB & TPM & INTUDER & OBR
45	SYS&CPU FAN
46	REALTEK ALC662 AZALIA CODEC
47	FRONT AUDIO & SPDIF OUT
48	REAR AUDIO CONNECTOR
49	ATX POWER
50	FRONT PANEL
51	VCORE CONTROLLER
52	VCORE DRIVER1



Power Distribution

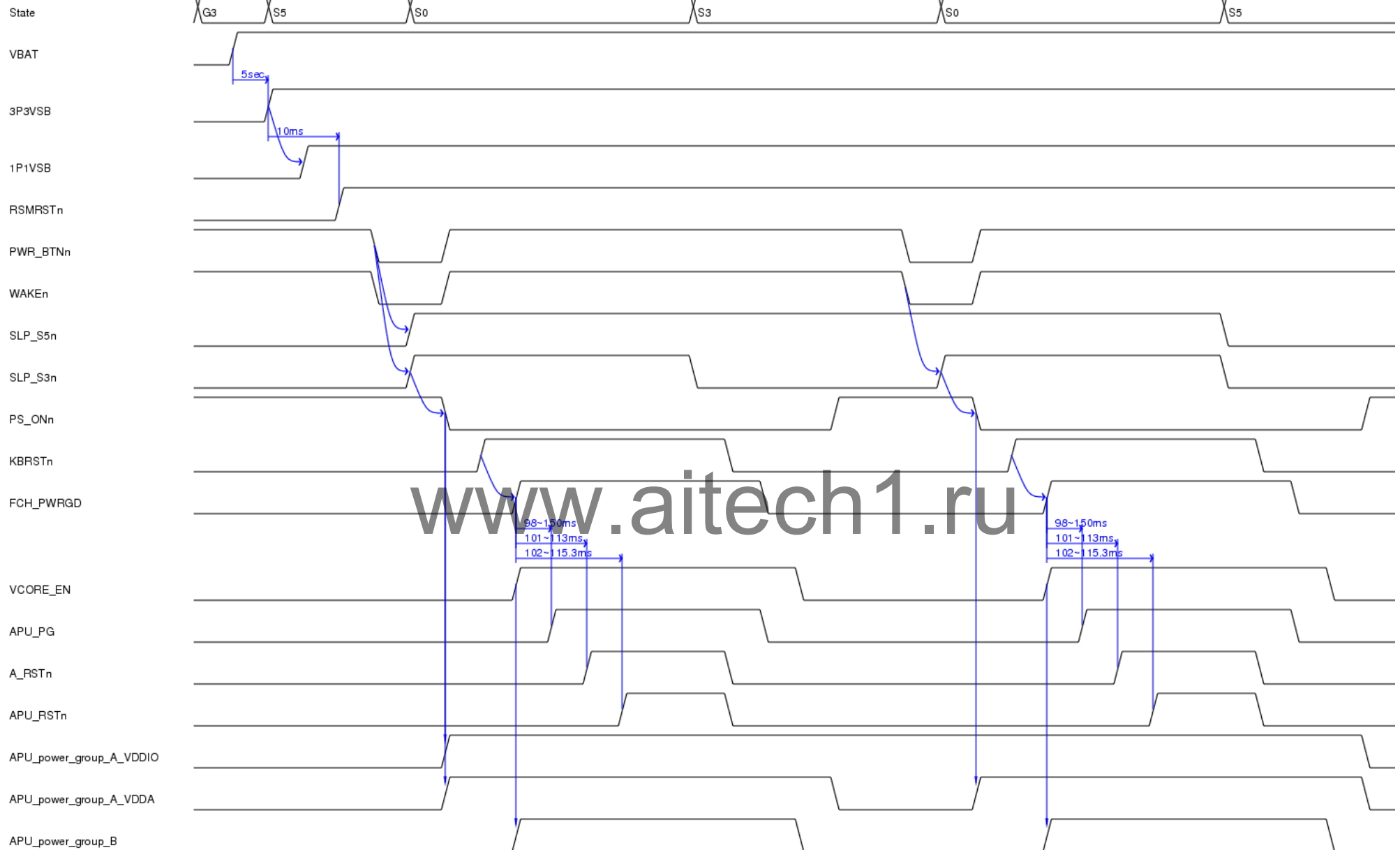






20120517

PEGATRON		Title : RESET MAP	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF		Rev 1.02
Date: Monday, July 30, 2012		Sheet	5 of 62



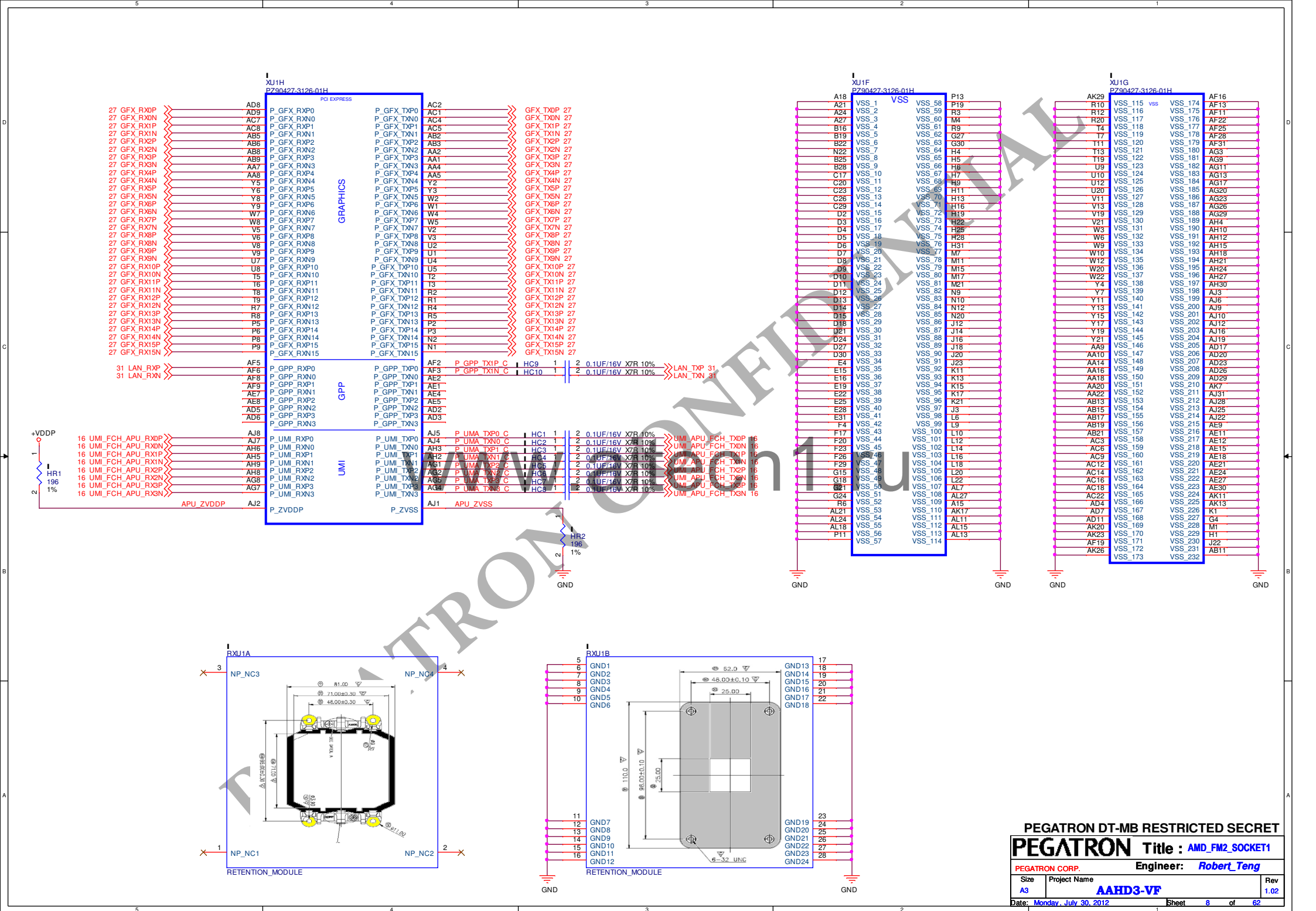
NOTE:
APU_power_group_B ---> VDDF, VDDR, VCORE, VDDNB

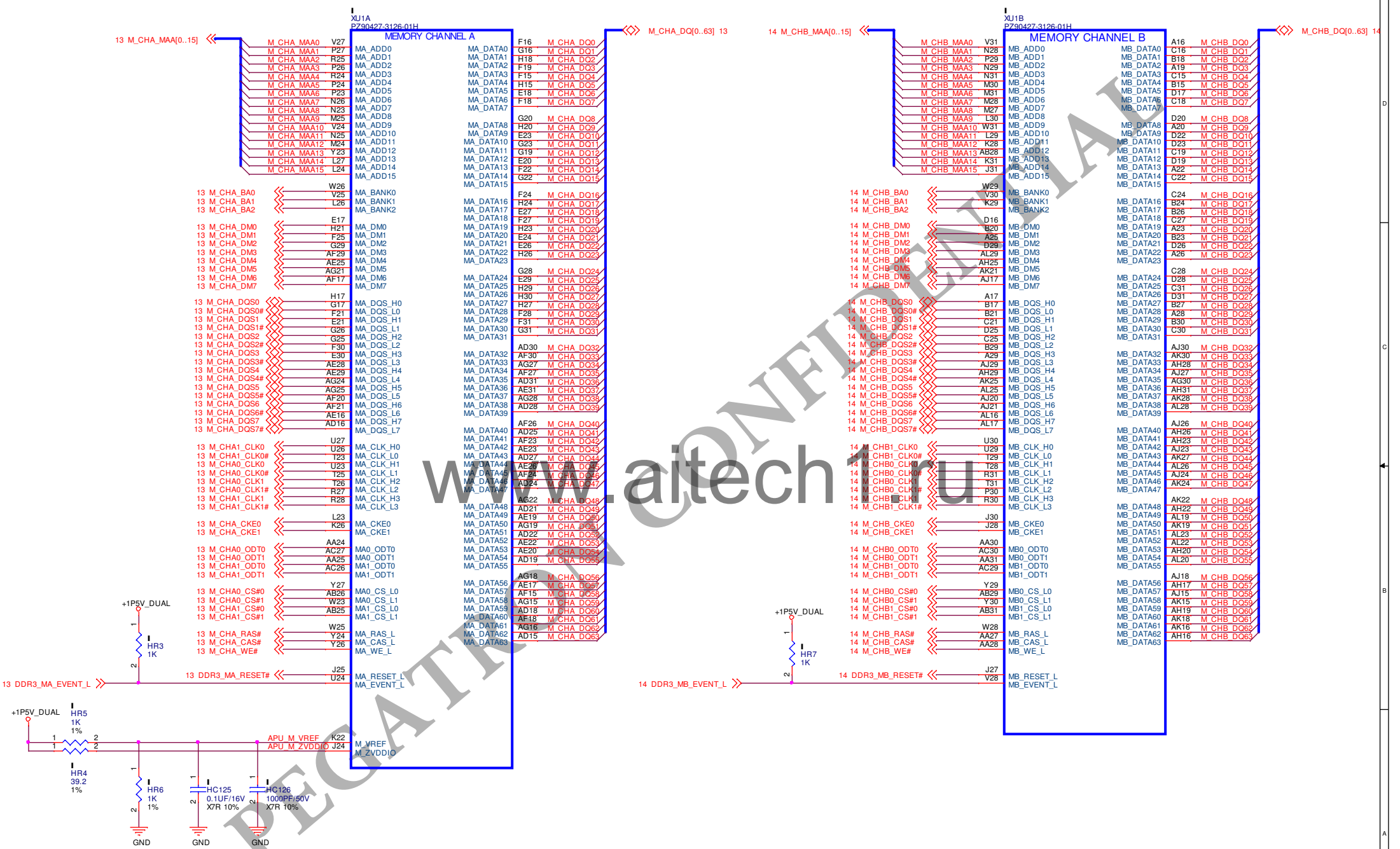
PEGATRON CONFIDENTIAL

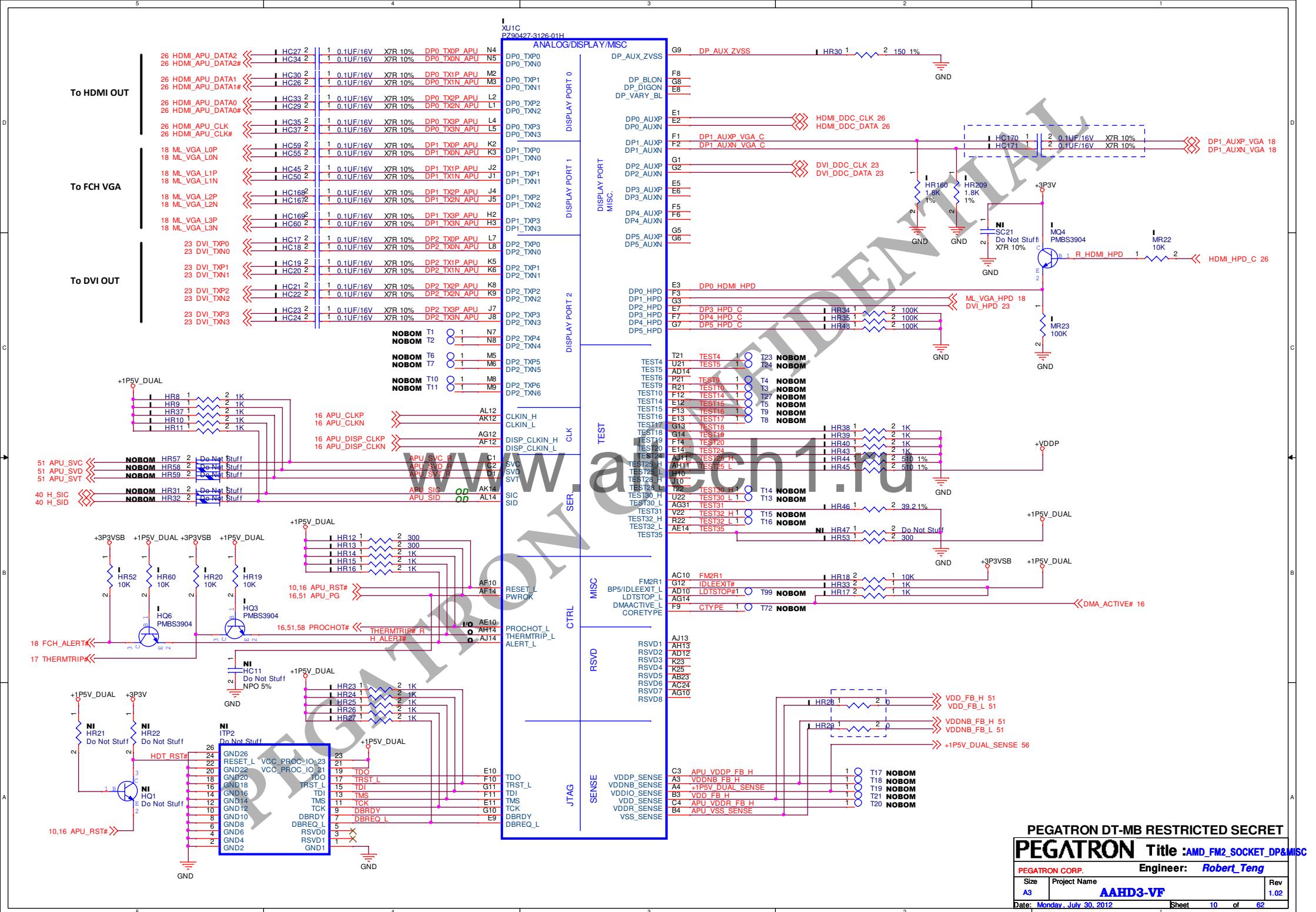
www.aitech1.ru

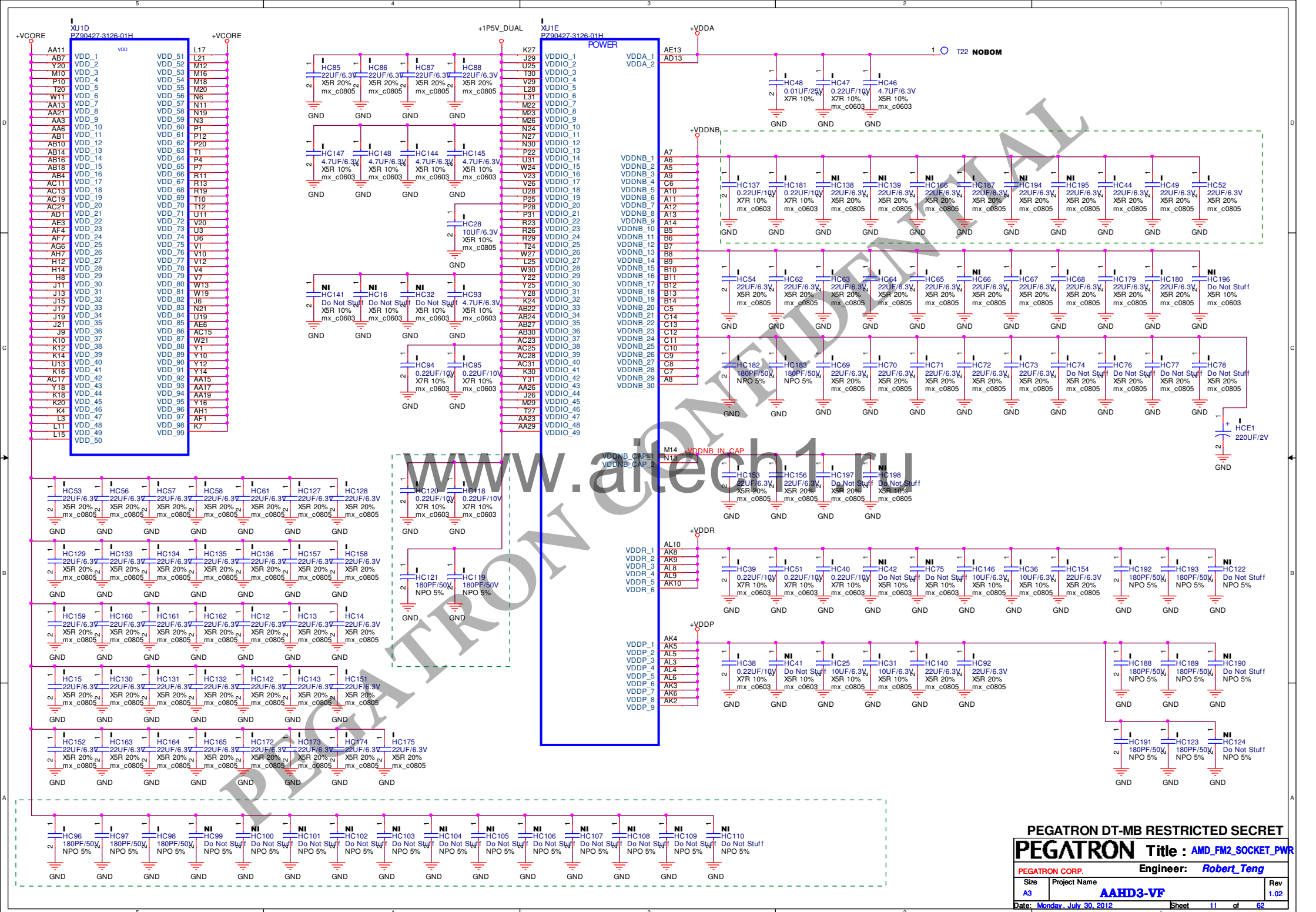
20120517

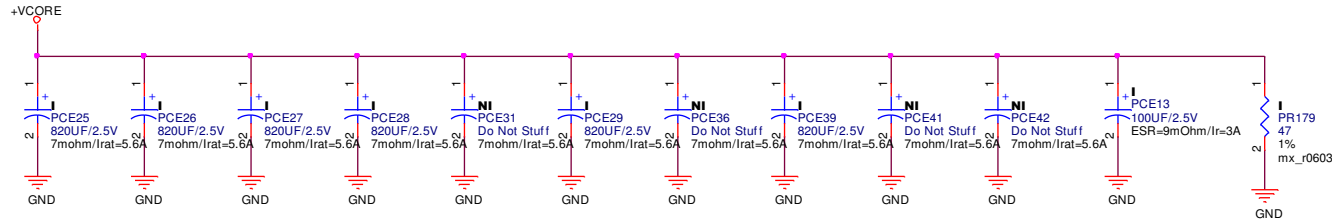
PEGATRON		Title : xxx	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name		Rev
A3	AAHD3-VF		1.02
Date: Monday, July 30, 2012		Sheet	7 of 62



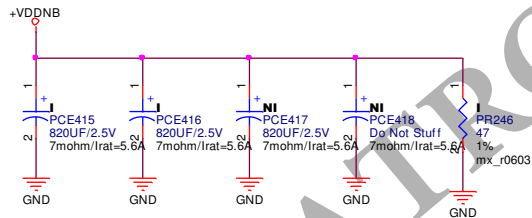








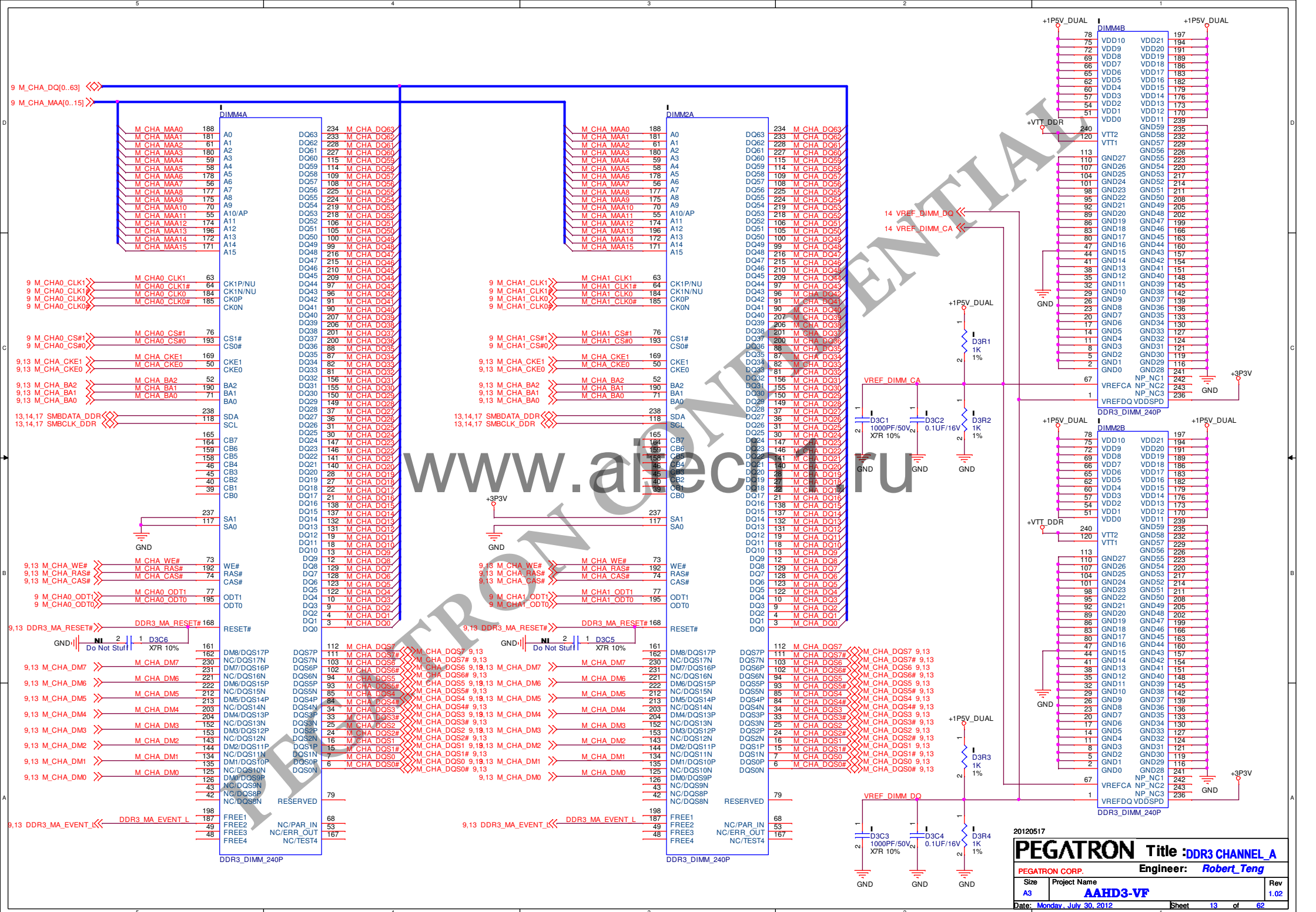
www.aitech1.ru

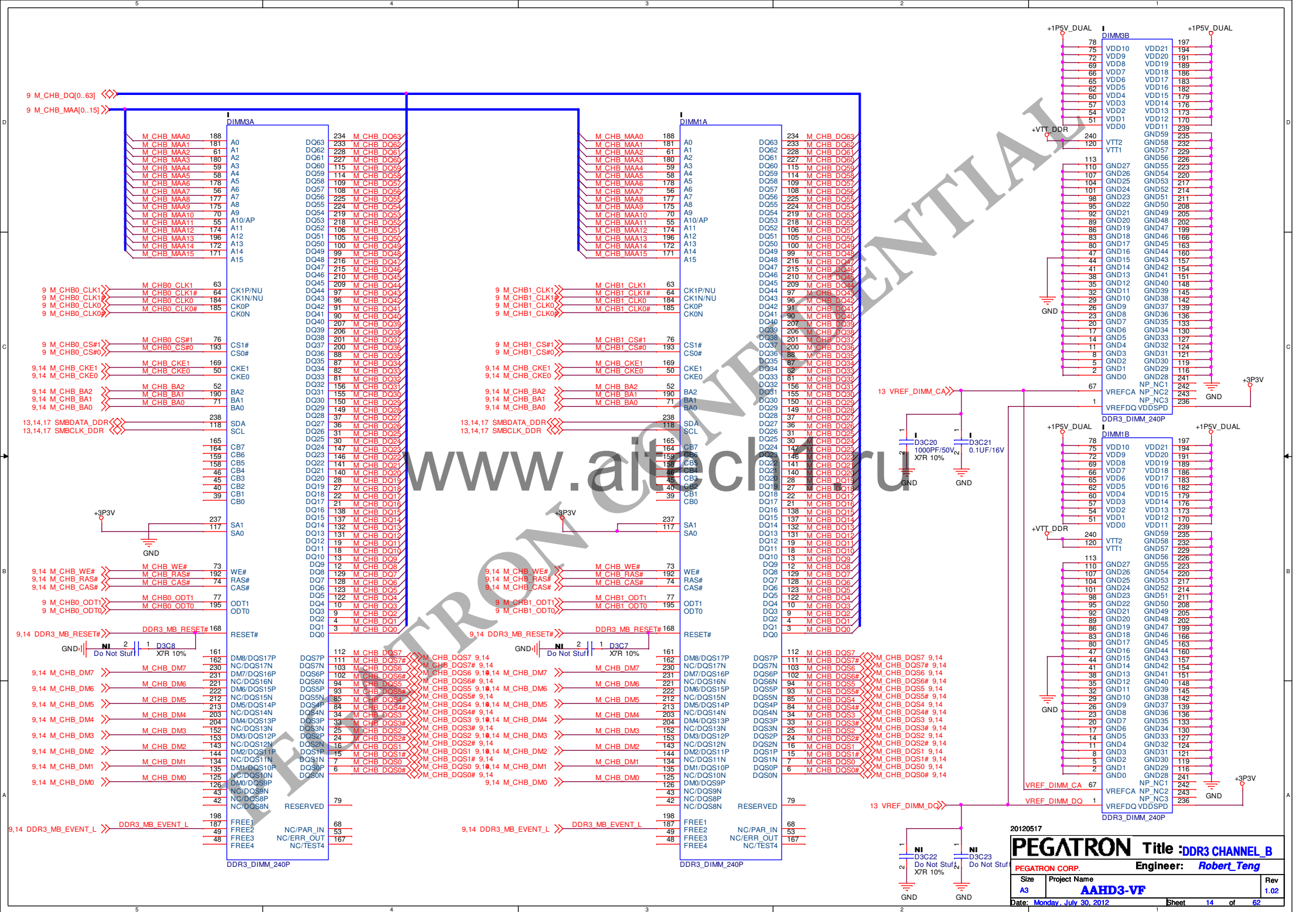


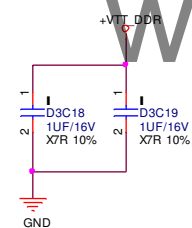
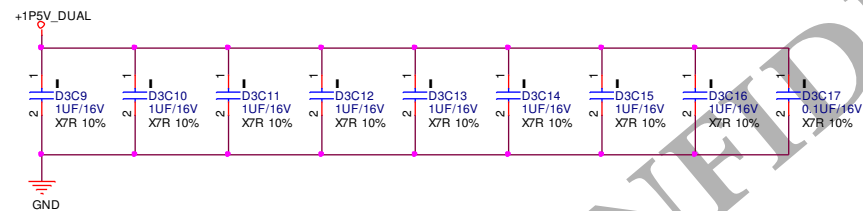
PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : VDD/NB OUTPUT CAP

PEGATRON CORP.		Engineer: Robert Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet	12 of 62

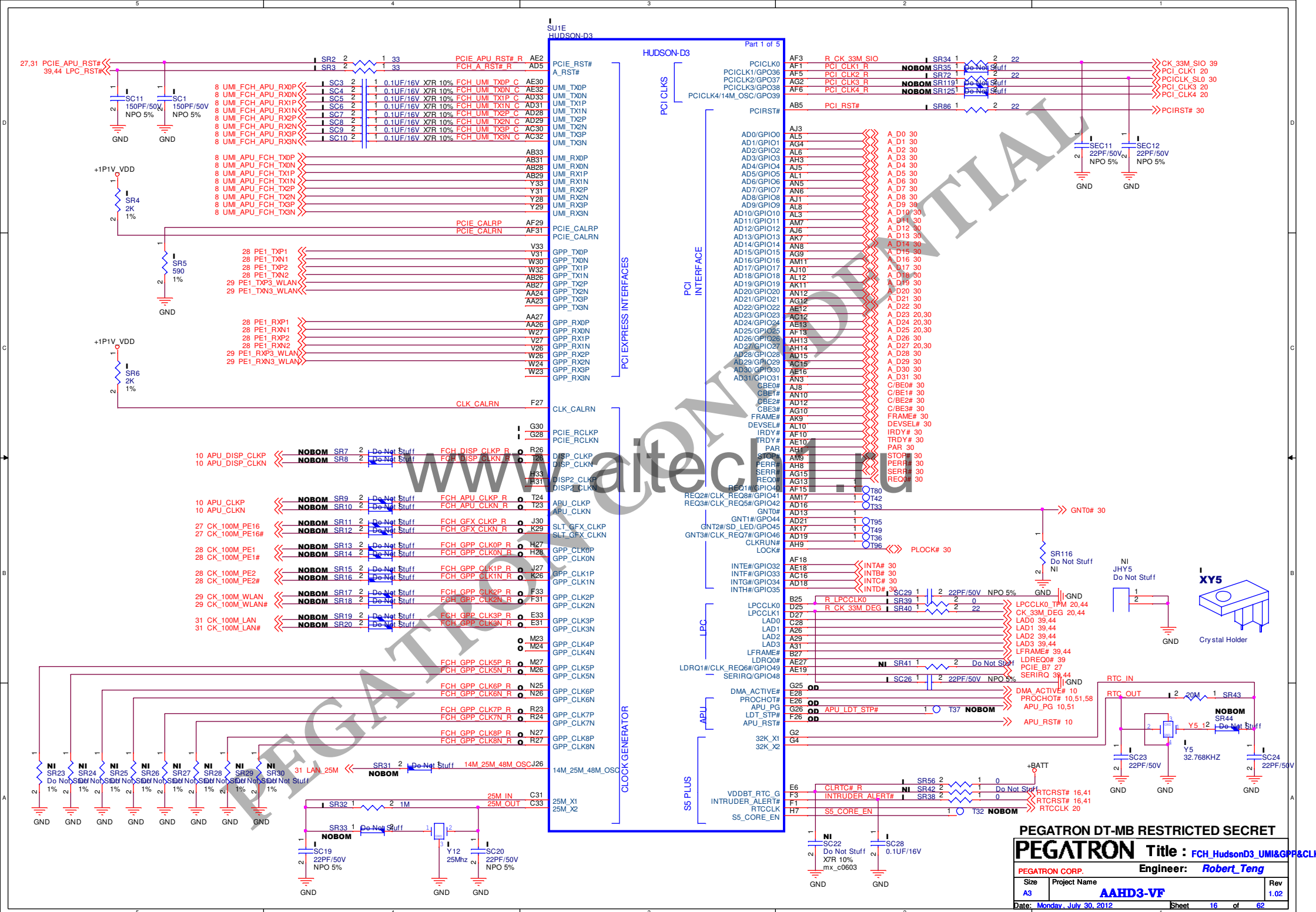


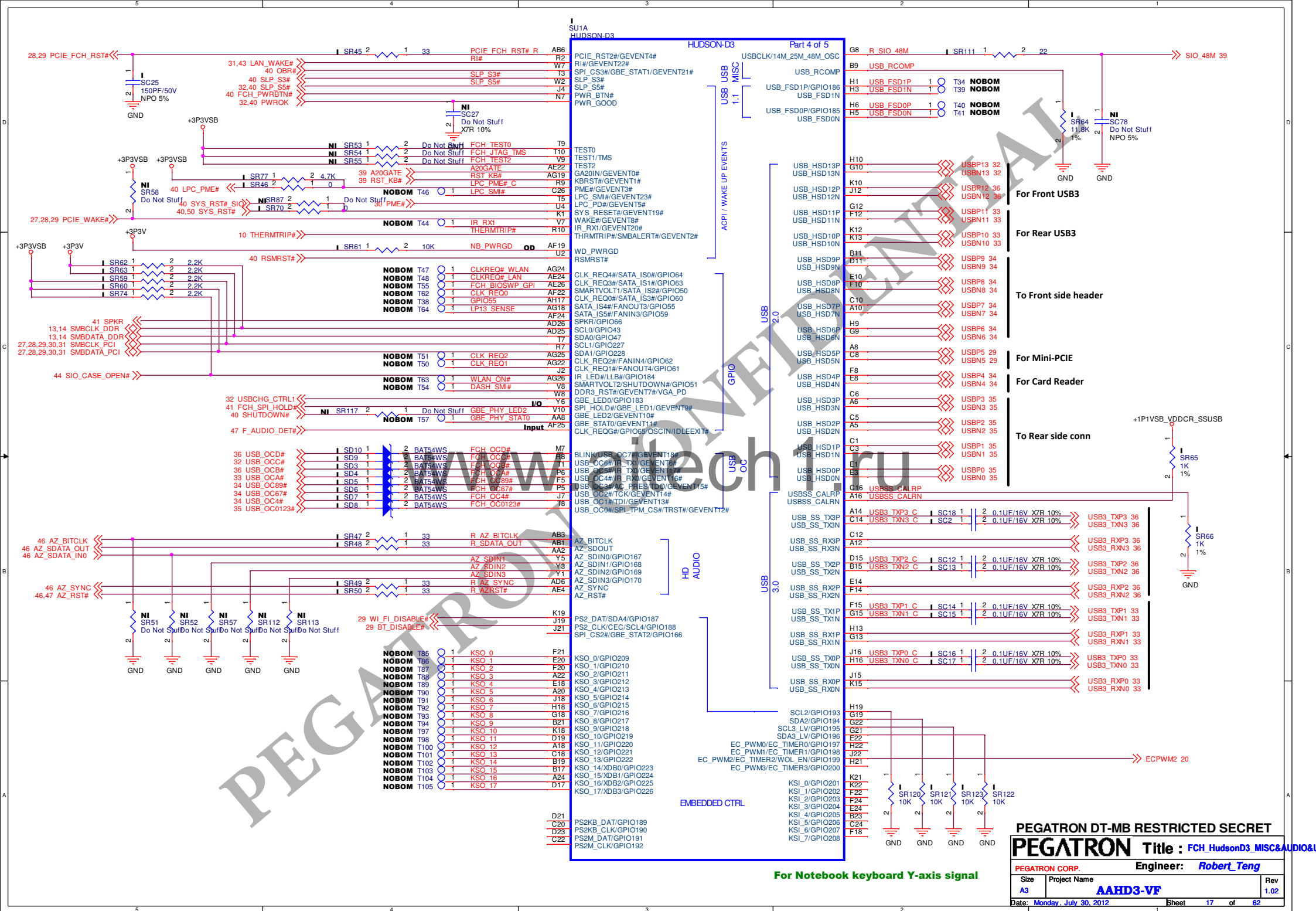


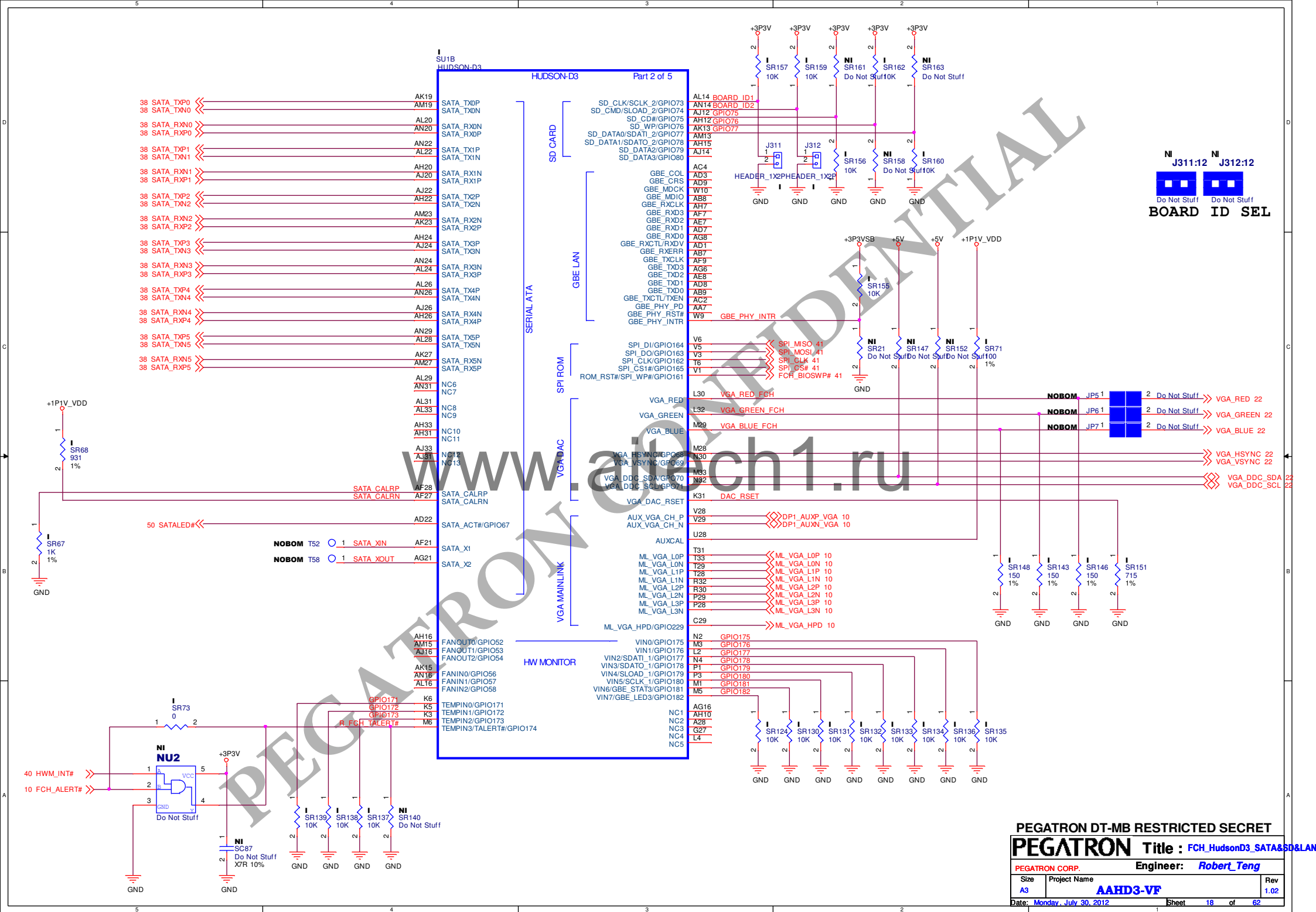


20120517

PEGATRON		Title :DDR3 DECOUPLING CAP	
PEGATRON CORP.		Engineer: <i>Robert_Teng</i>	
Size A3	Project Name AAHD3-VF		Rev 1.02
Date: <i>Monday, July 30, 2012</i>		Sheet	15 of 62







N J311:12 N J312:12
Do Not Stuff Do Not Stuff
BOARD ID SEL

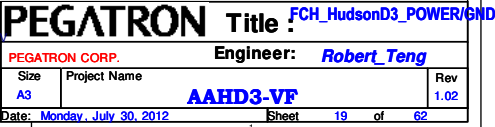
PEGATRON DT-MB RESTRICTED SECRET

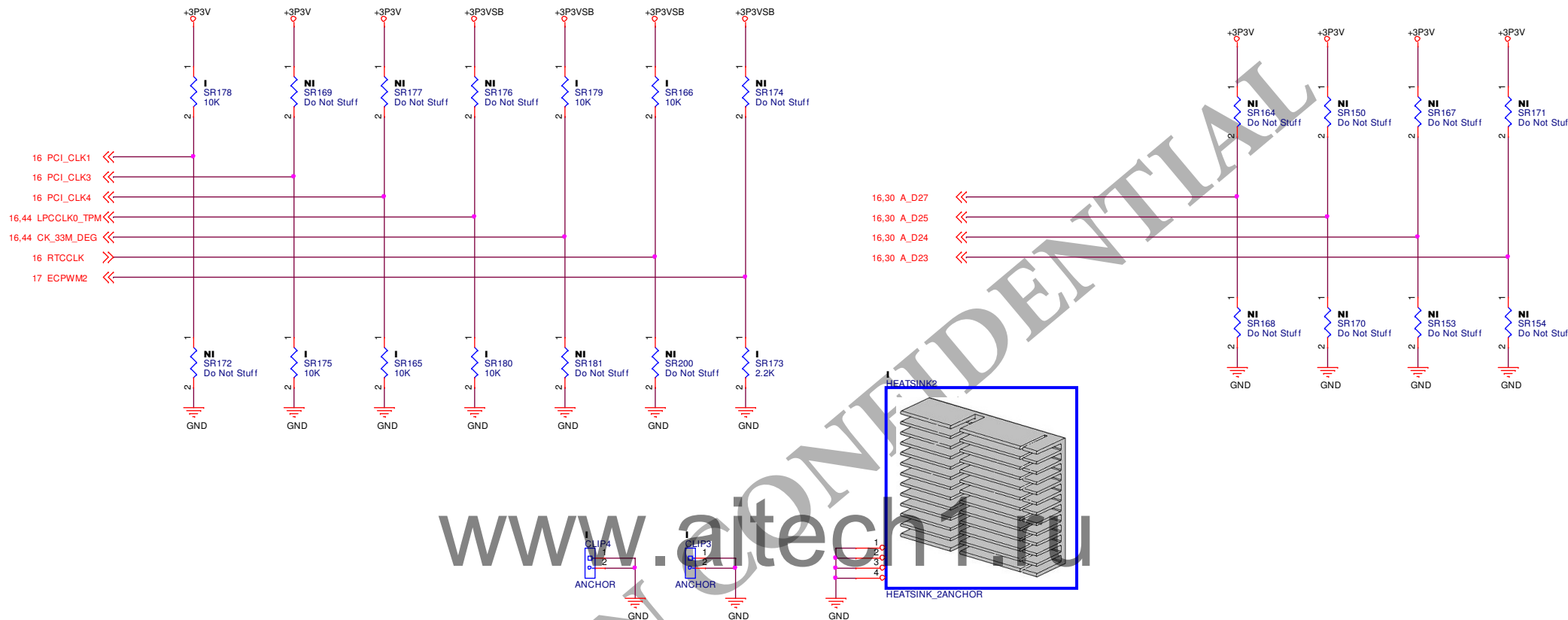
PEGATRON Title : FCH_HudsonD3_SATA&SD&LAN

PEGATRON CORP. Engineer: Robert_Teng

Size Project Name A3 AAHD3-VF

Date: Monday, July 30, 2012 Sheet 18 of 62





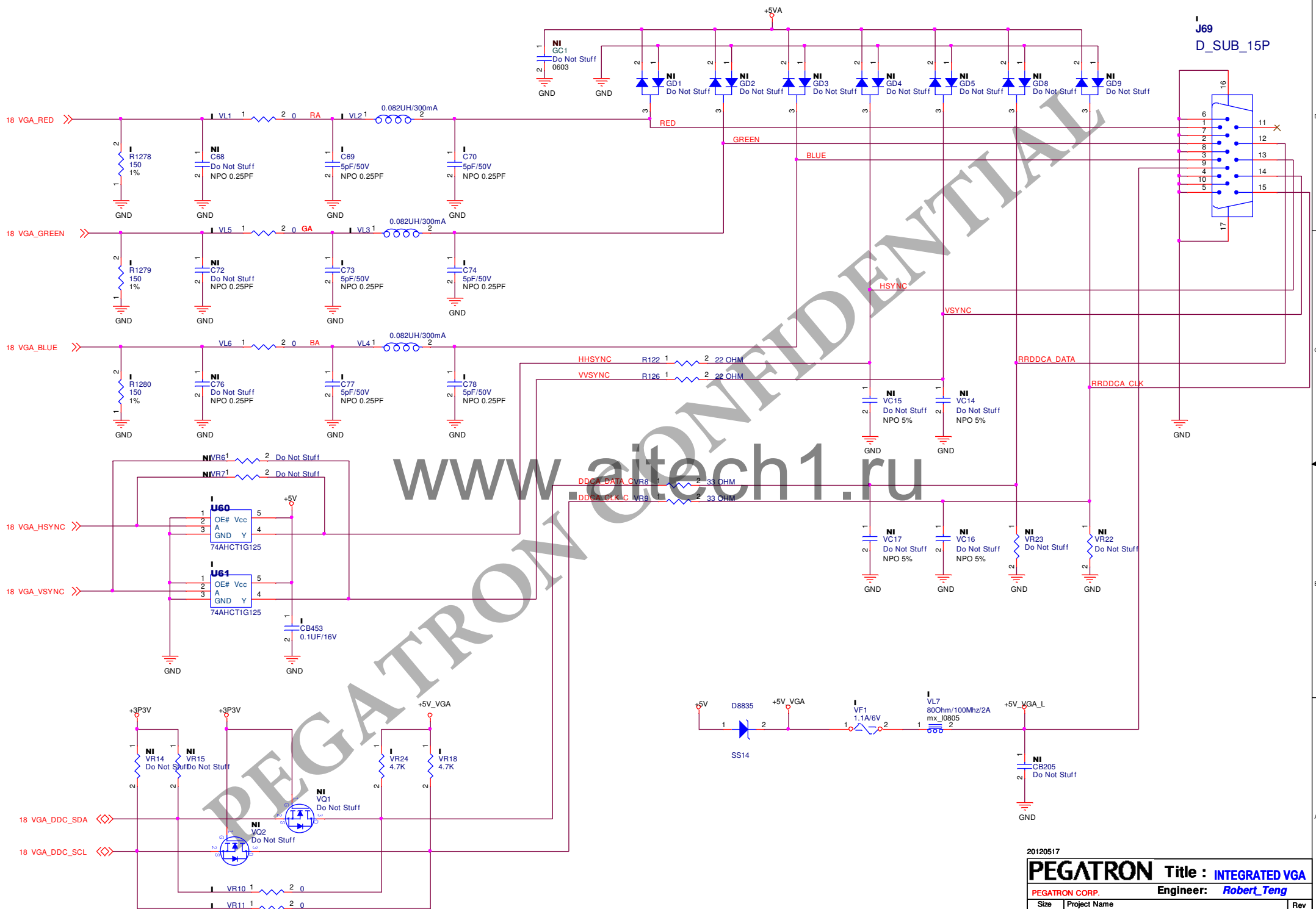
	EC_PWM2 ECPWM2	LPCCLK0 LPCCLK0_TPM	LPCCLK1 CK_33M_DEG	PCICLK1 PCI_CLK1	PCICLK3 PCI_CLK3	PCICLK4 PCI_CLK4	RTCCLK RTCCLK
PULL HIGH	LPC ROM	ENABLE IMC	ENABLE INTERNAL CLOCK GENERATOR	ALLOW PCIE GEN2	ENABLE DEBUG MODE	RESERVED	DISABLE S5+ MODE
PULL LOW	SPI ROM	DISABLE IMC	DISABLE INTERNAL CLOCK GENERATOR	FORCE PCIE GEN2	DISABLE DEBUG MODE	INTER CLOCK REQUIRED SETTING	ENABLE S5+ MODE

20120517

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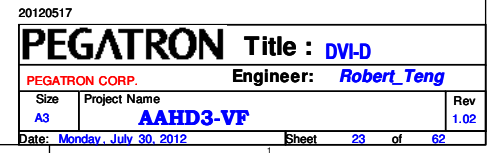
www.aitech1.ru

PEGATRON DT-MB RESTRICTED SECRET		
PEGATRON		Title : FCH_HudsonD3_HWSTRAP
PEGATRON CORP.		Engineer: Robert_Teng
Size A3	Project Name AAHD3-VF	Rev 1.02
Date: Monday, July 30, 2012		Sheet 21 of 62



20120517

PEGATRON		Title : INTEGRATED VGA	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012	Sheet 22	of 62	



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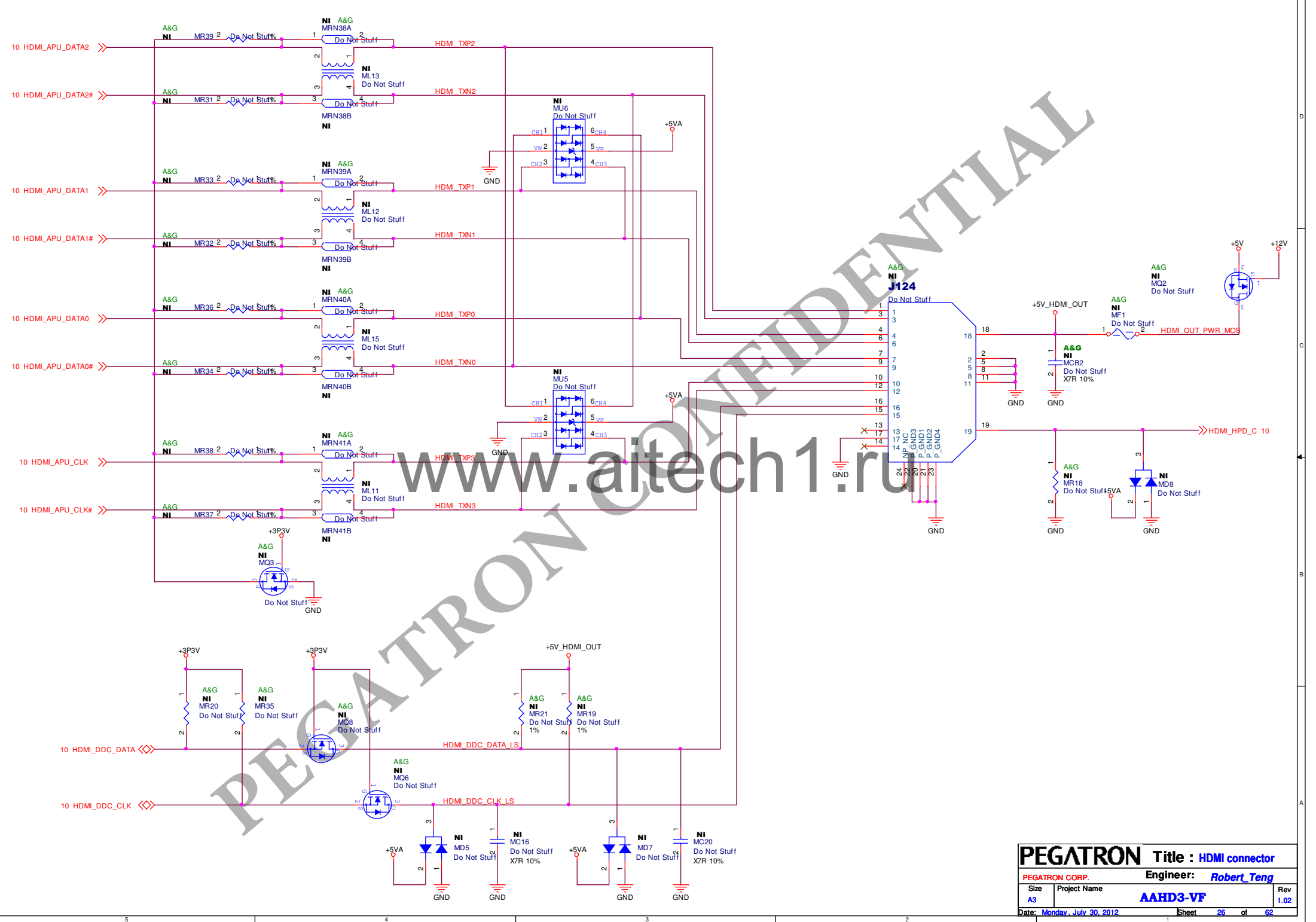
20120517

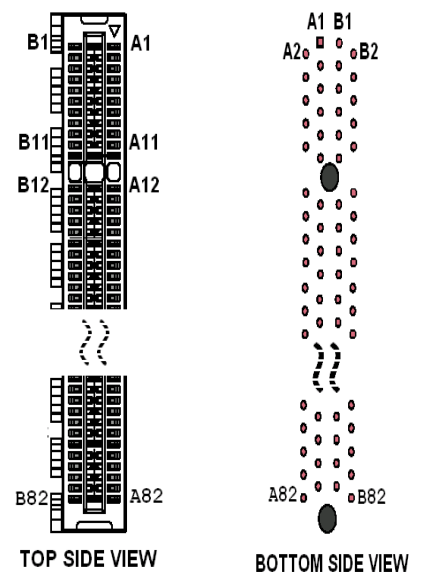
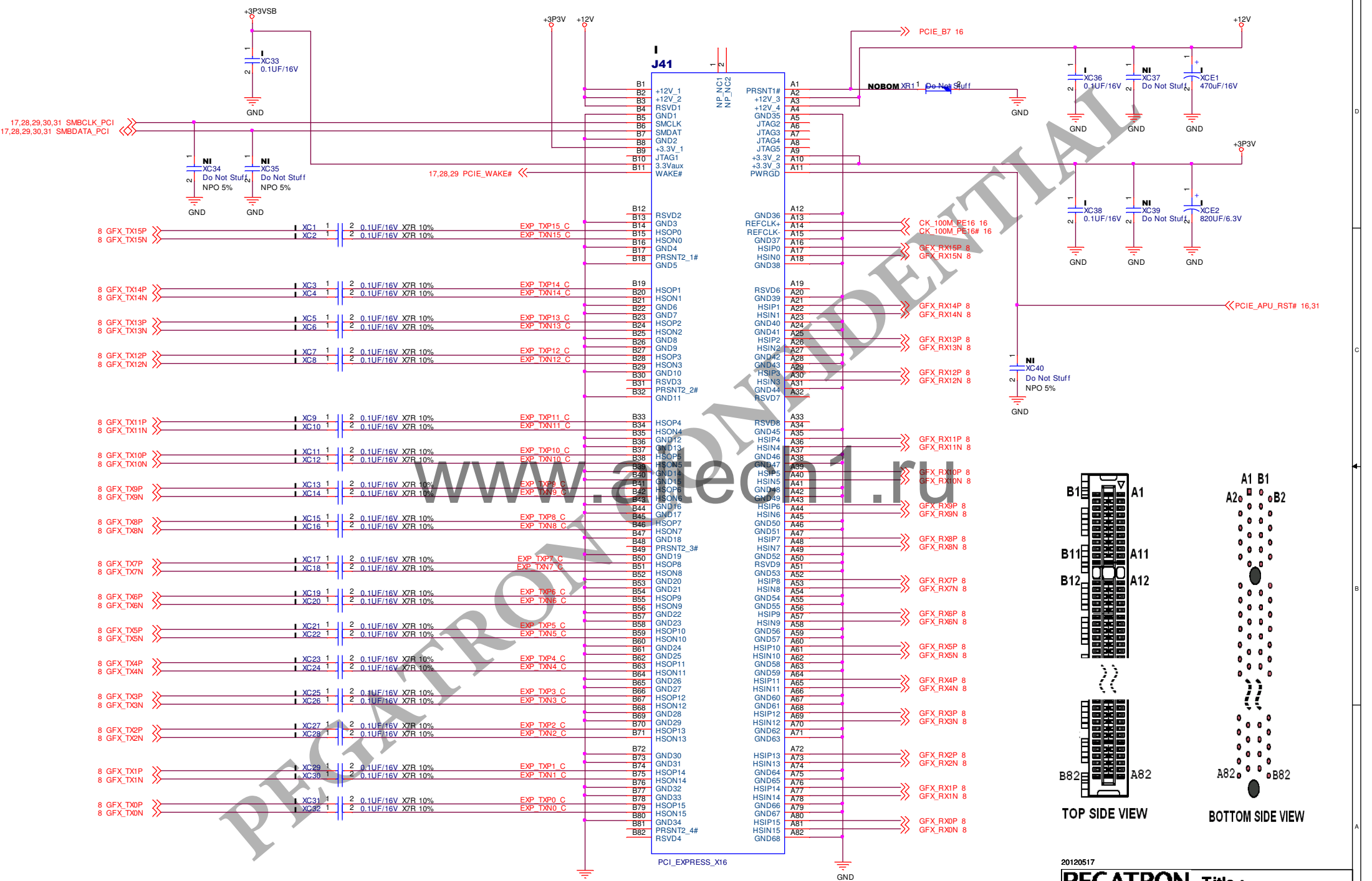
PEGATRON		Title : xxx	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name		Rev
A3	AAHD3-VF		1.02
Date: Monday, July 30, 2012		Sheet	24 of 62

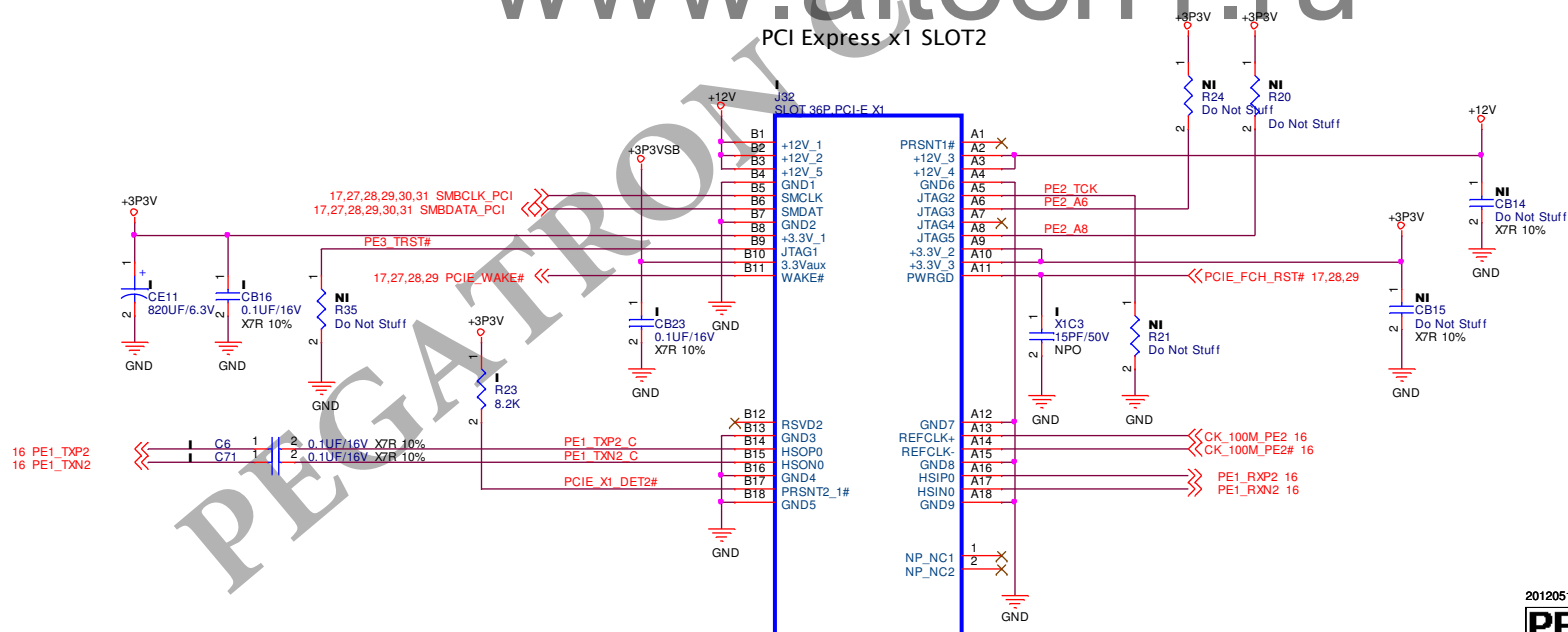
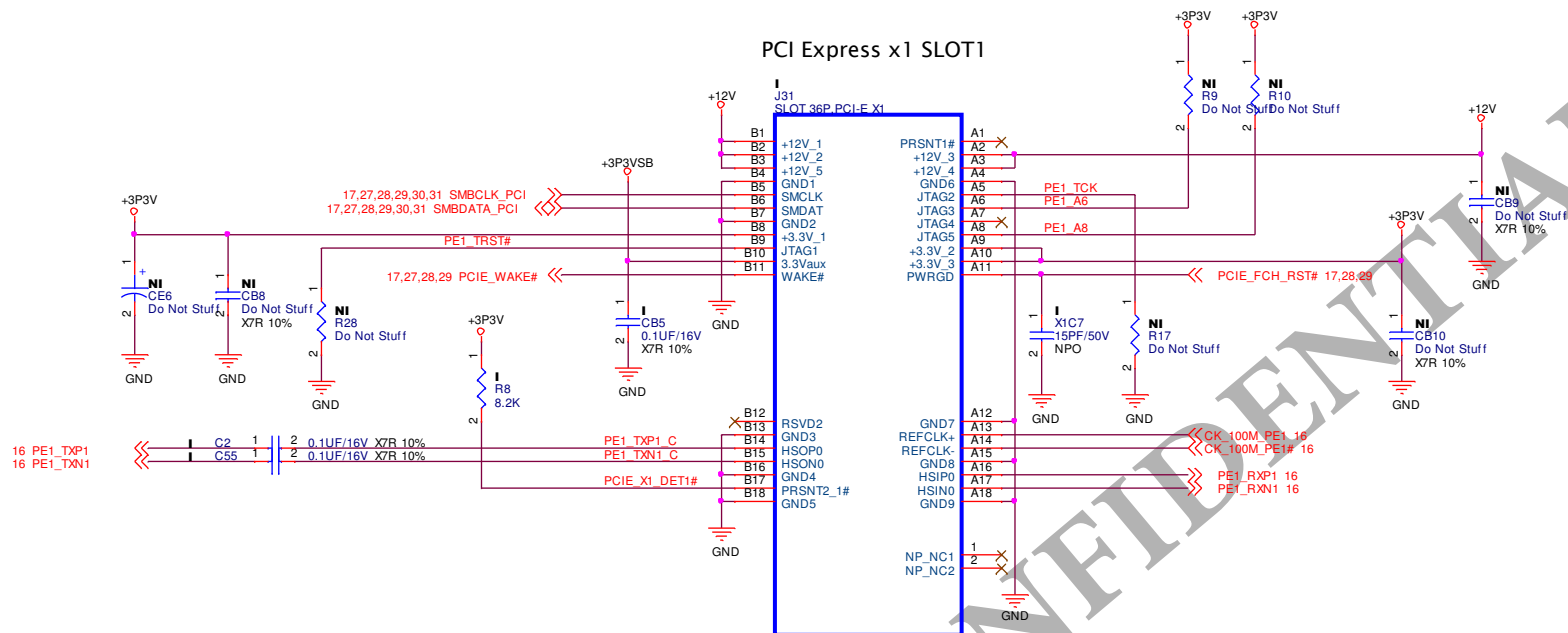
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PEGATRON		Title : XXX	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name		Rev
A3	AAHD3-VF		1.02
Date: Monday, July 30, 2012		Sheet	25 of 62

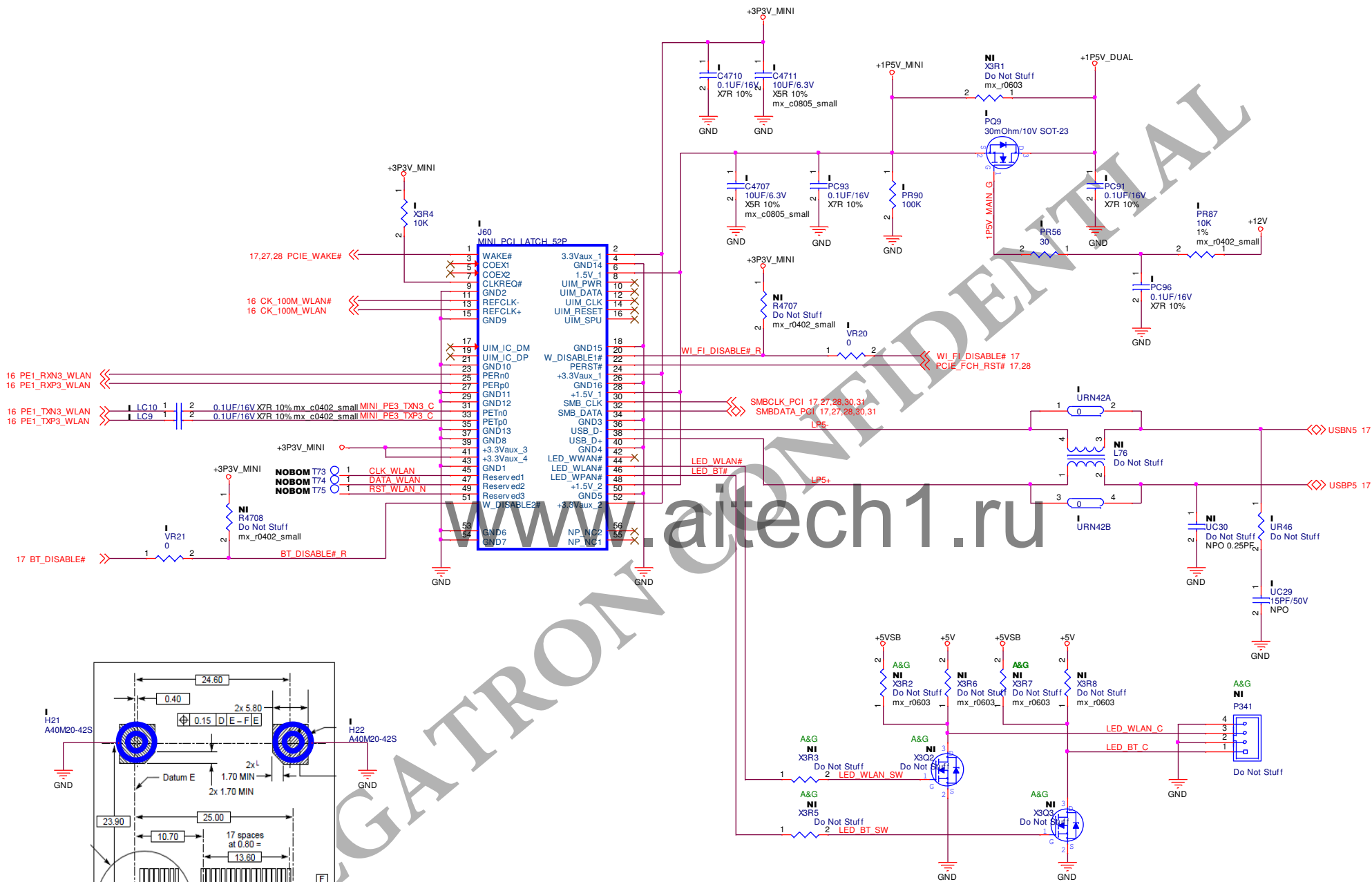






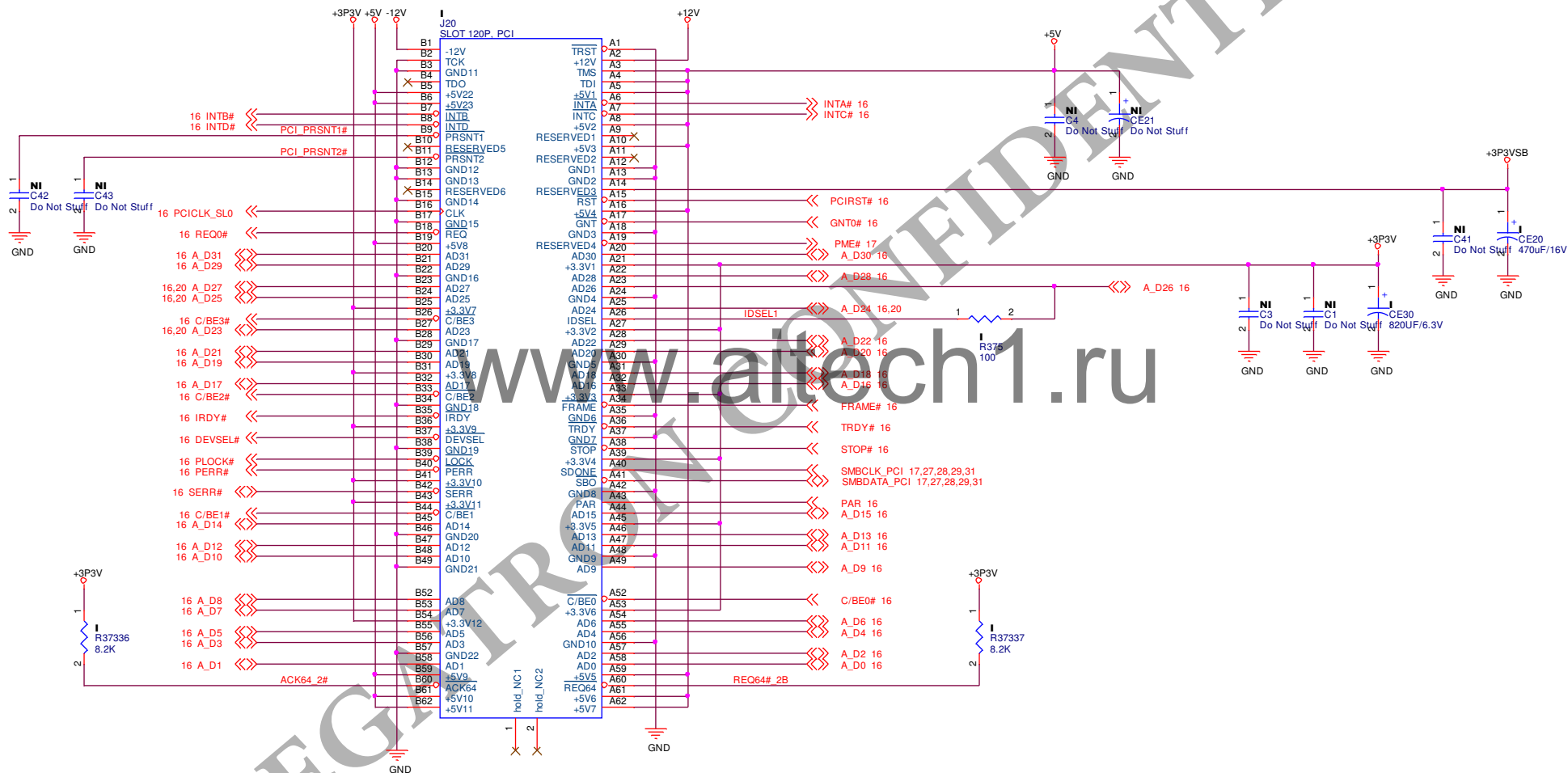
20120517

PEGATRON		Title : PCIE1	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name		Rev
A3	AAHD3-VF		1.02
Date: Monday, July 30, 2012		Sheet 28 of 62	



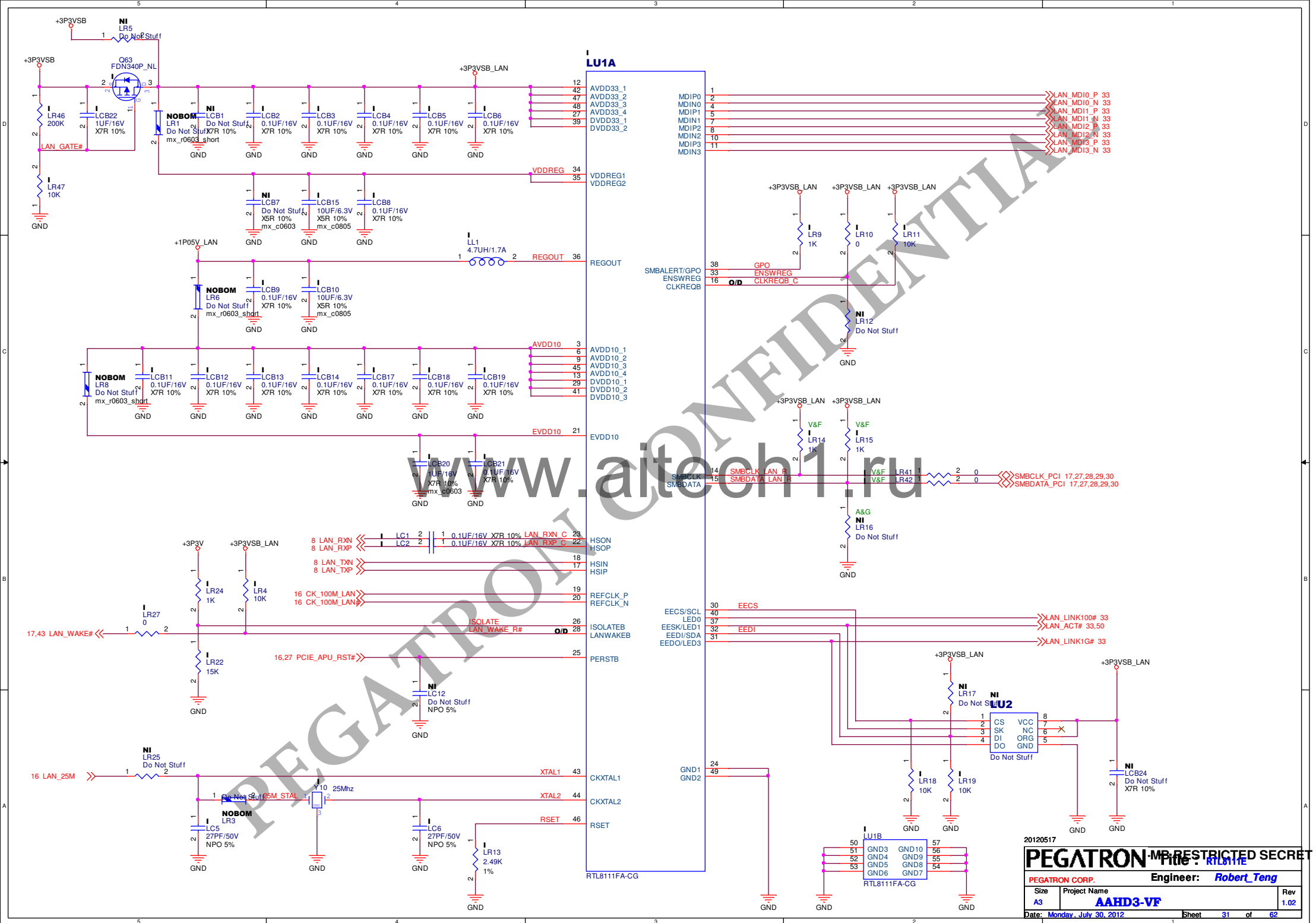
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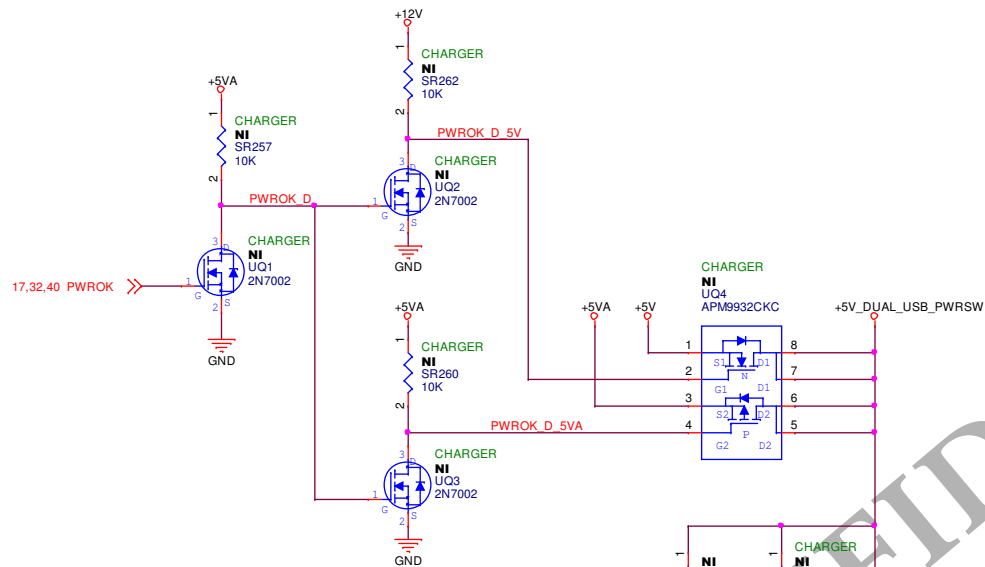
PEGATRON		Title : MINI PCIE X1	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012	Sheet 29	of 62	



20120517

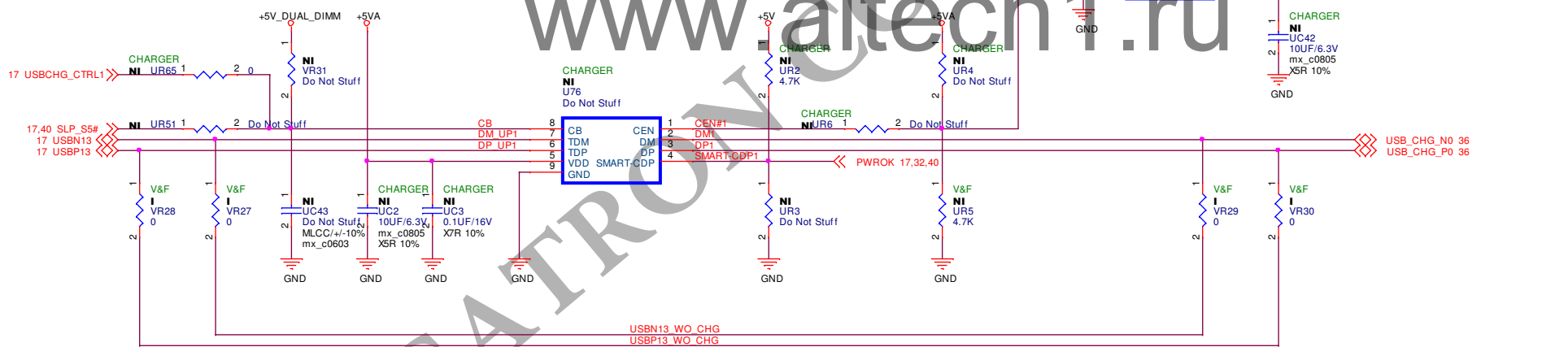
PEGATRON		Title : PCISLOT	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012	Sheet	30	of 62





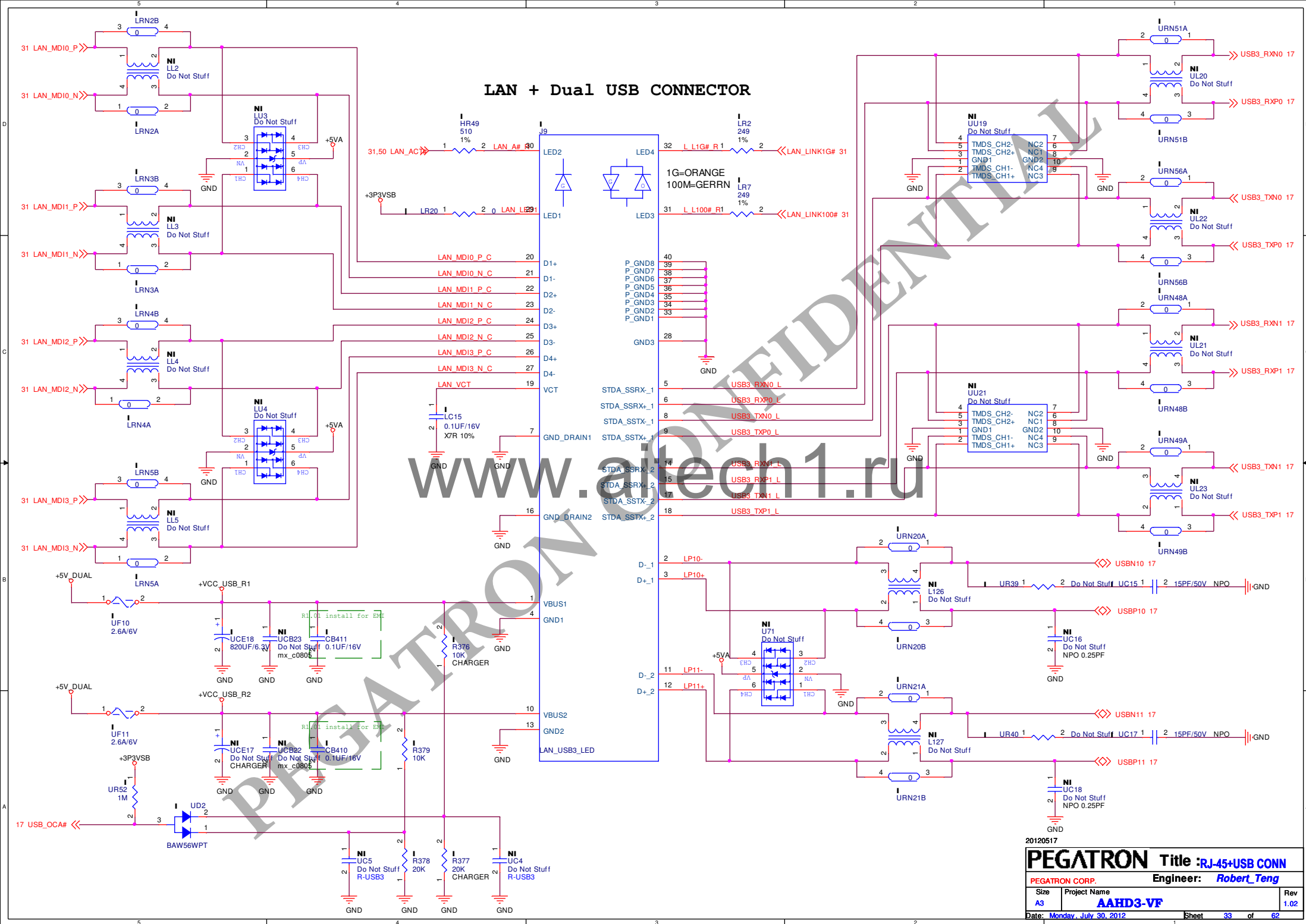
TRuth Table

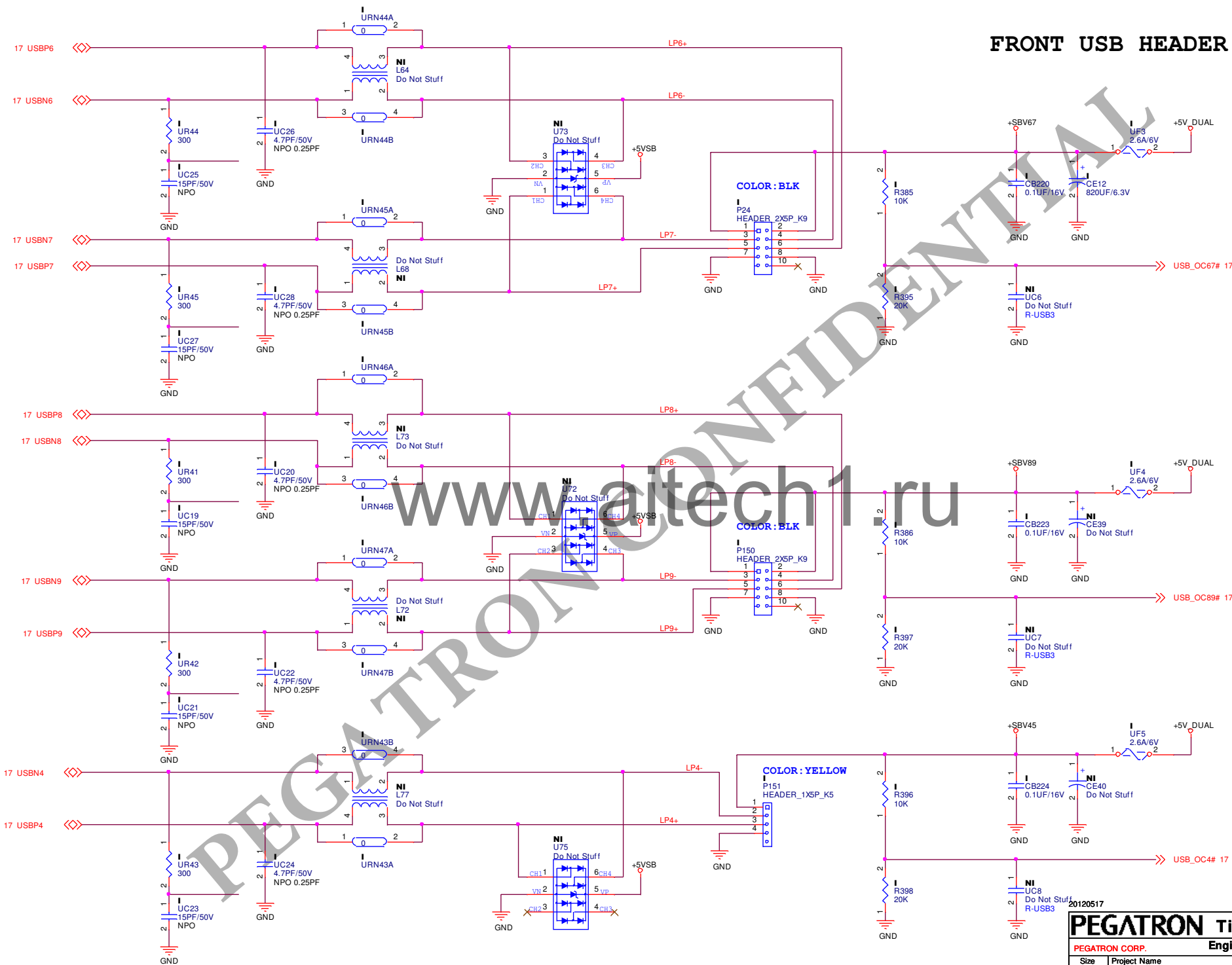
CB	SMART-CDP	FUNCTION
0	X	CDP autodetect with mouse/key board wake up
1	0	S0 charging with SDP only
1	1	S0 charging with CDP/SDP only (depending on external device) when non-CDP phone is plugged in, the CDP mode will be changed automatically to SDP mode during handshaking protocol for supporting data communication.

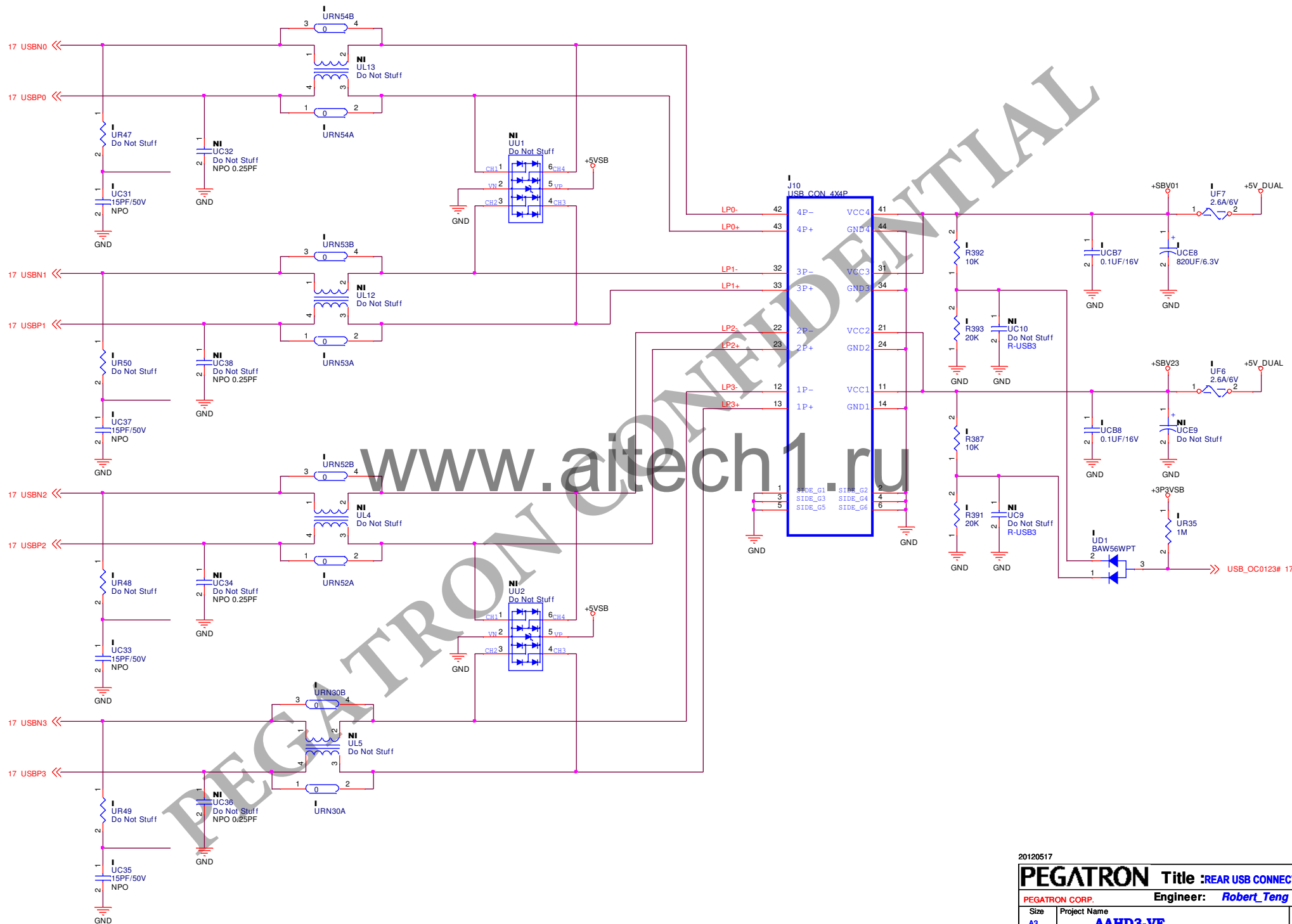


20120517

PEGATRON		Title : CHARGER FOR USB3.0	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012	Sheet	32	of 62

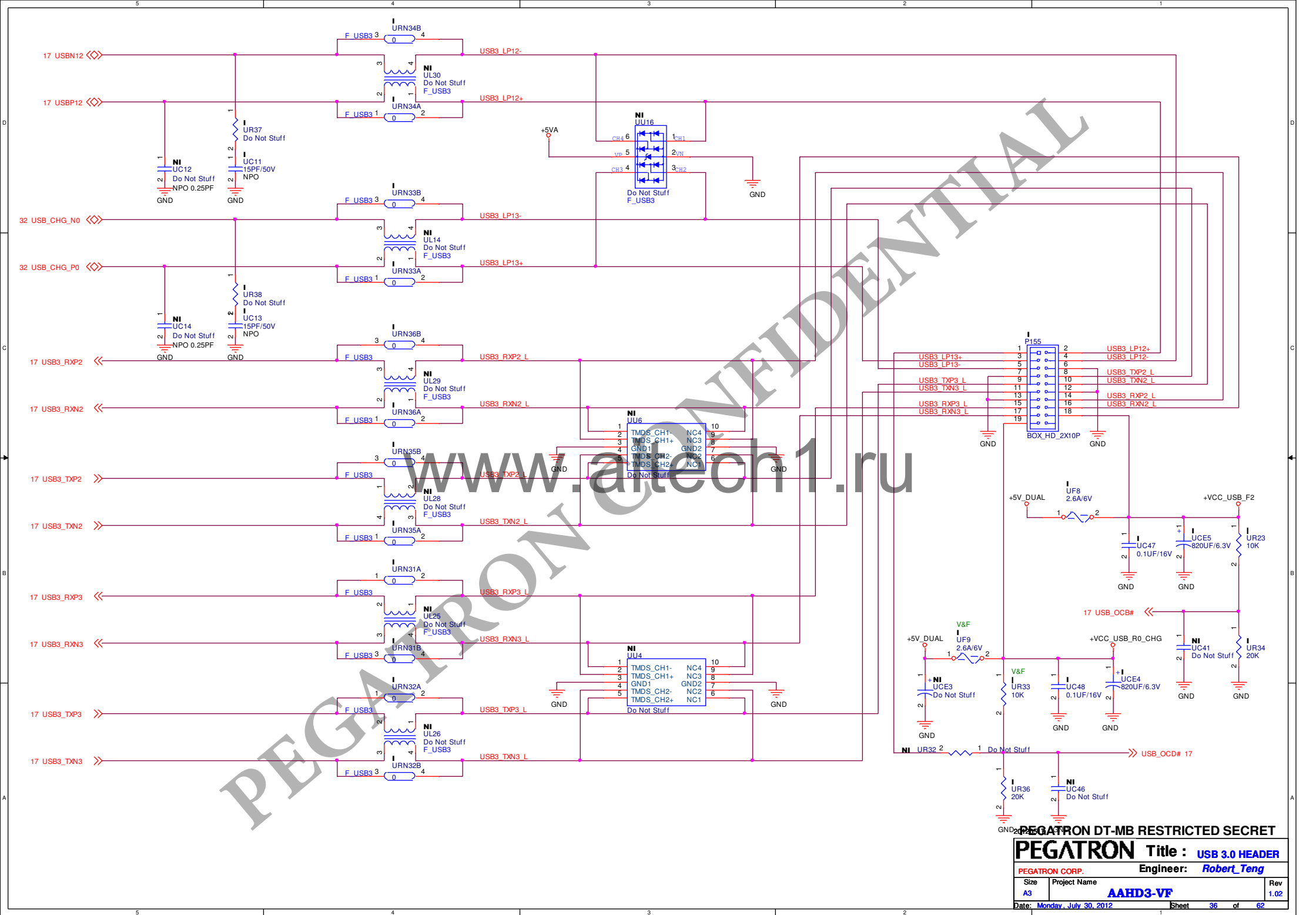






20120517

PEGATRON		Title :REAR USB CONNECTOR	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012		Sheet	35 of 62



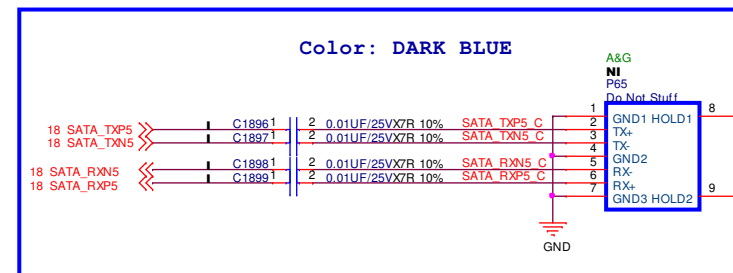
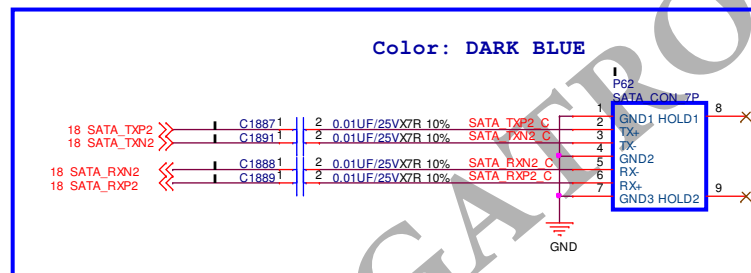
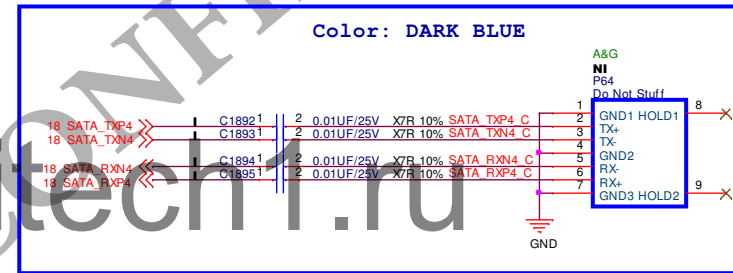
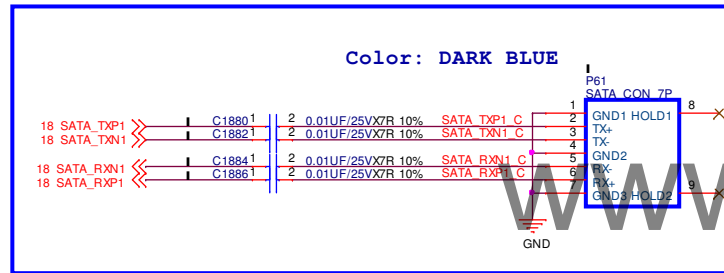
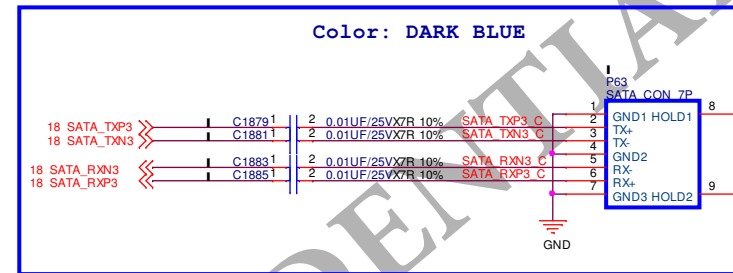
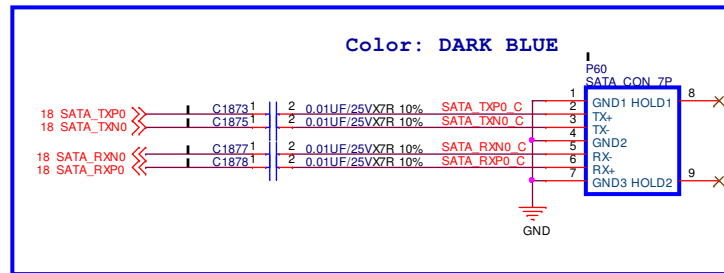
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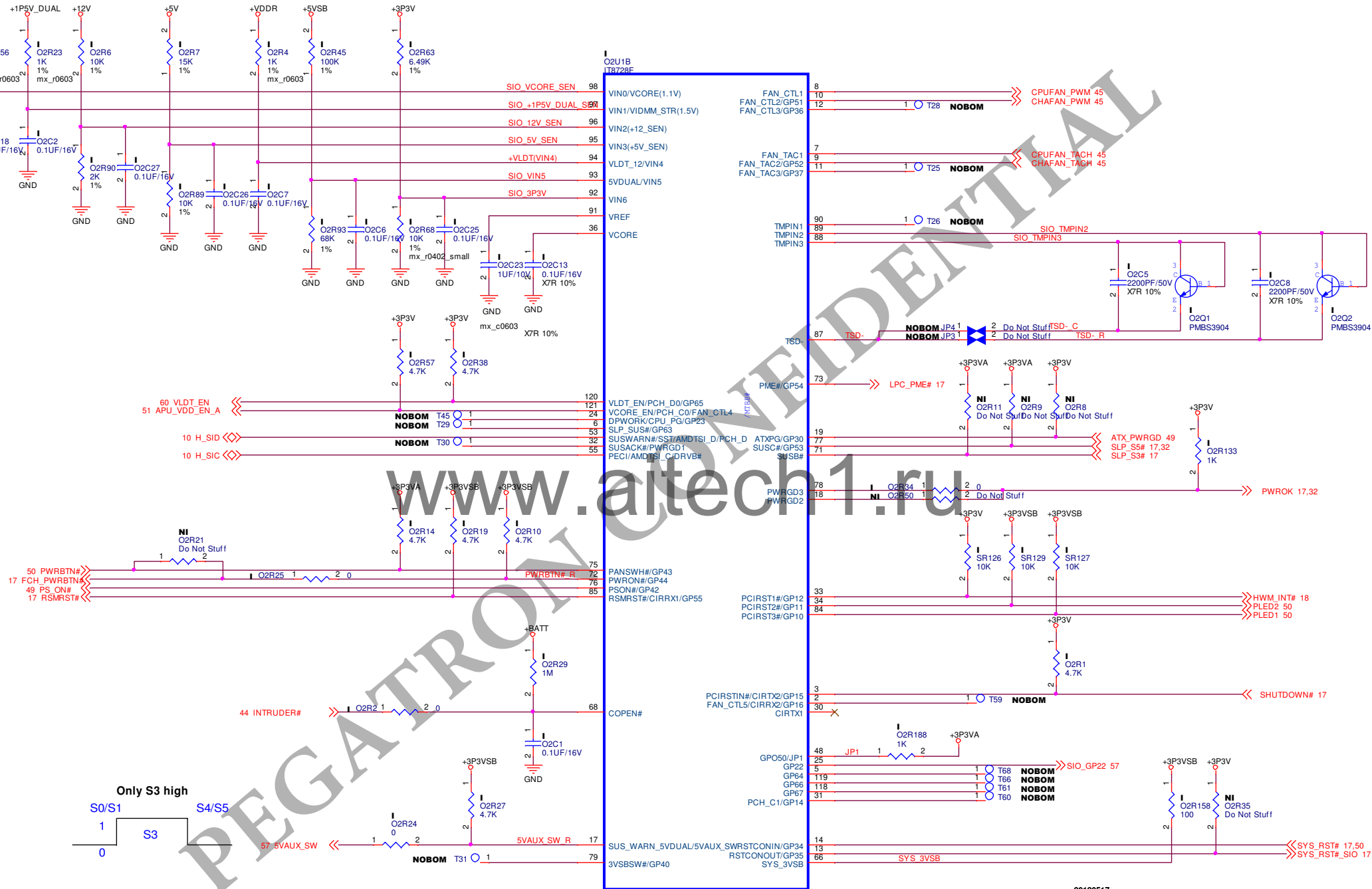
PEGATRON		Title : xxx	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name		Rev
A3	AAHD3-VF		1.02
Date: Monday, July 30, 2012		Sheet	37 of 62

SERIAL ATA CONNECTOR



20120517

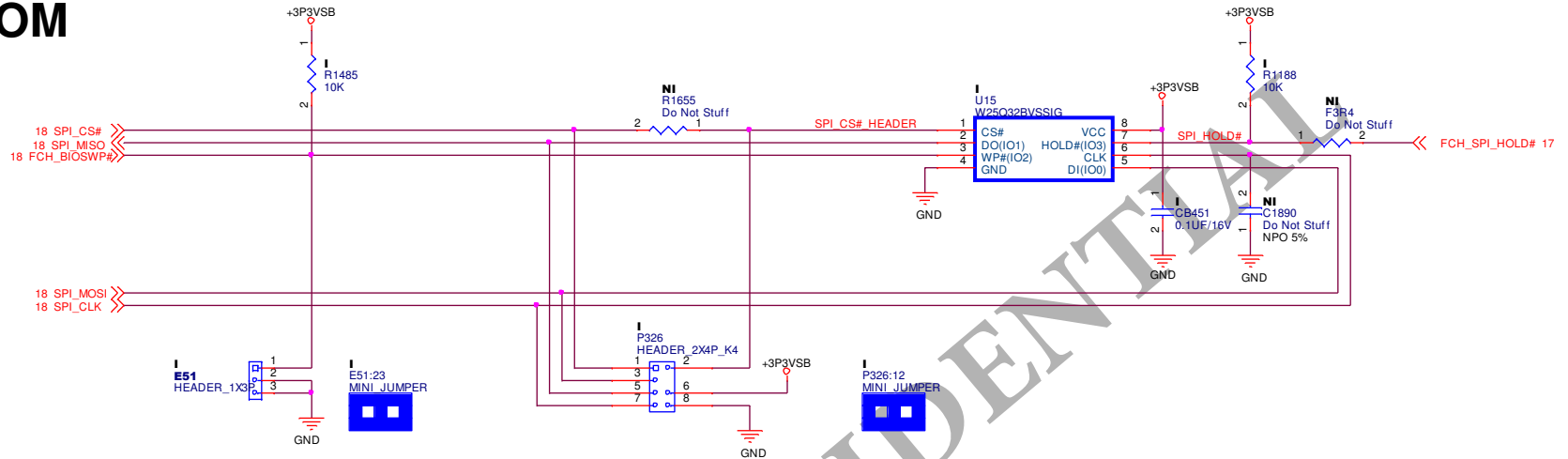
PEGATRON		Title :SATA CONTROLLER	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF		Rev 1.02
Date: Monday, July 30, 2012		Sheet 38 of 62	



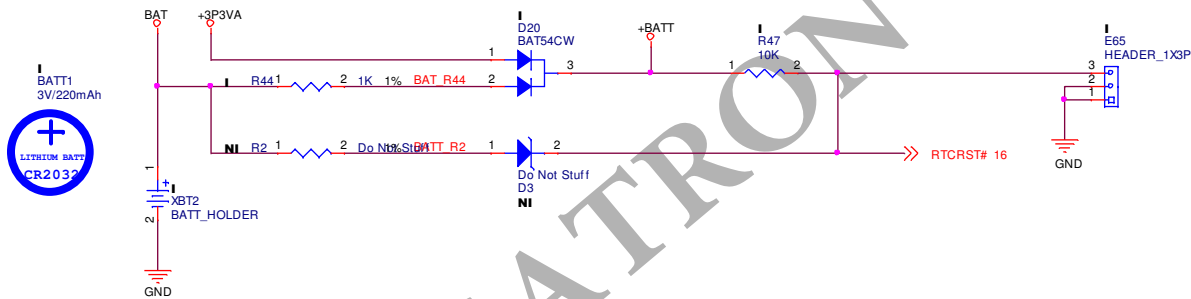
20120517

PEGATRON Title : SIO IT8728F-2-2			
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet 40 of 62	

SPI BIOS ROM



External RTC Circuitry

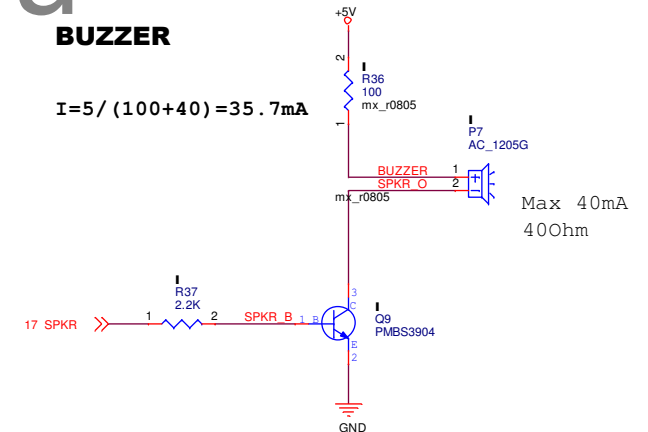


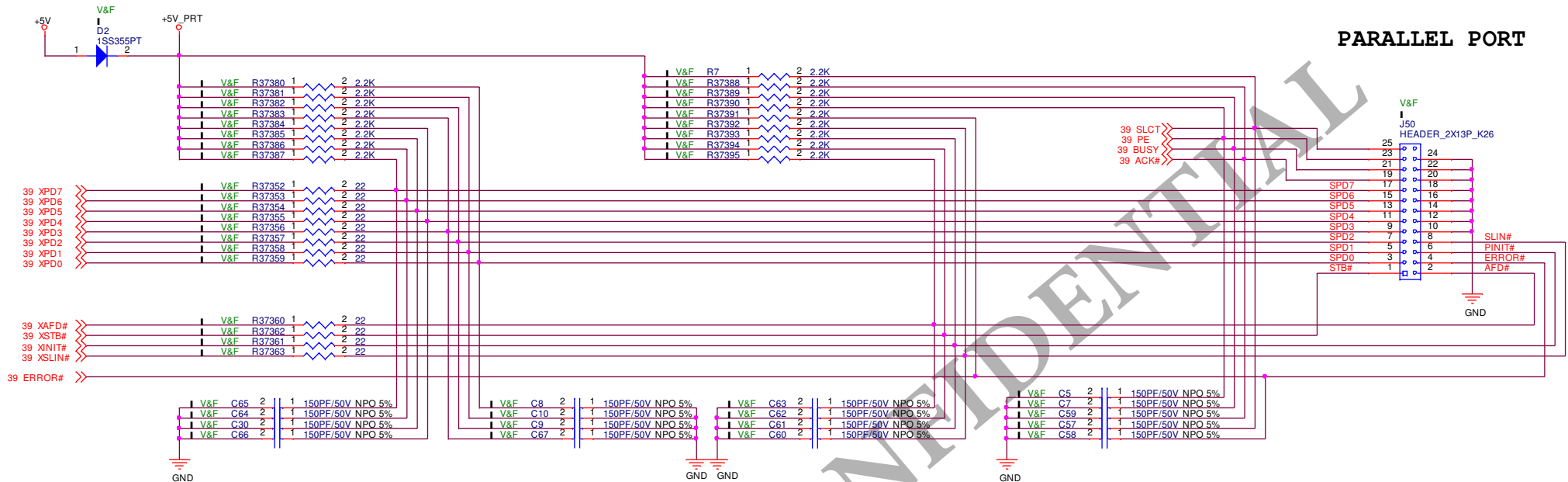
CLEAR CMOS	
	Clear CMOS
DEFAULT	1-2
CLEAR	2-3

CLEAR CMOS

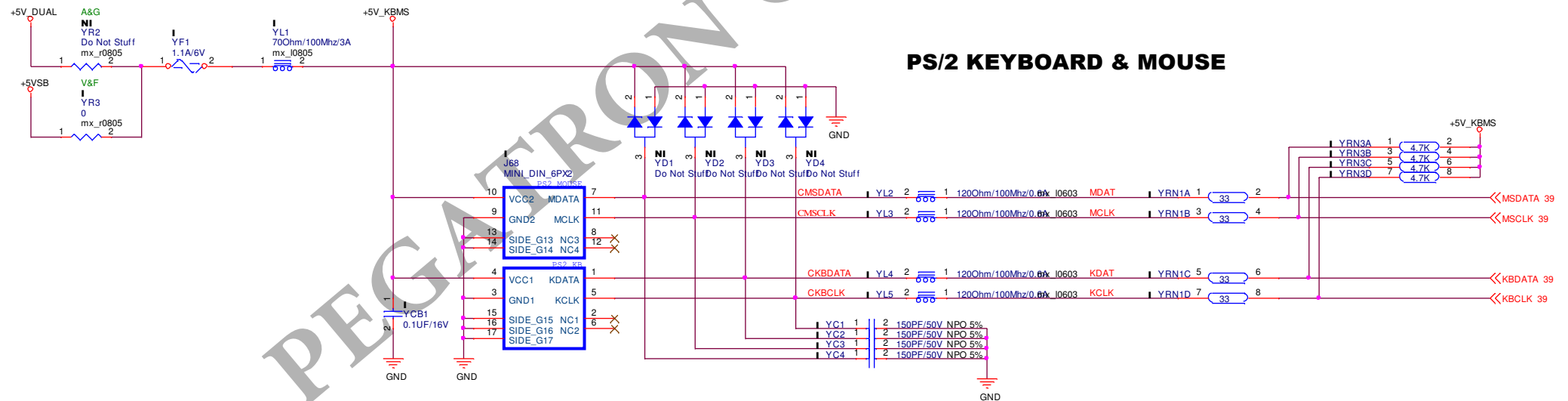
BUZZER

$$I = 5 / (100 + 40) = 35.7 \text{ mA}$$



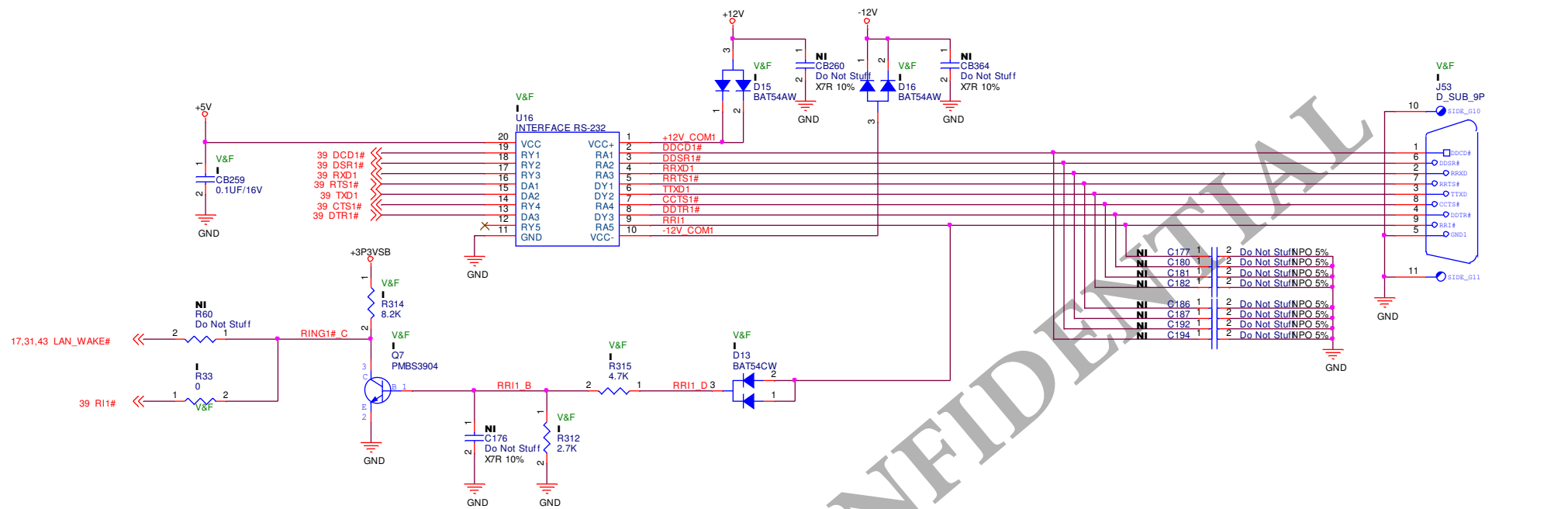


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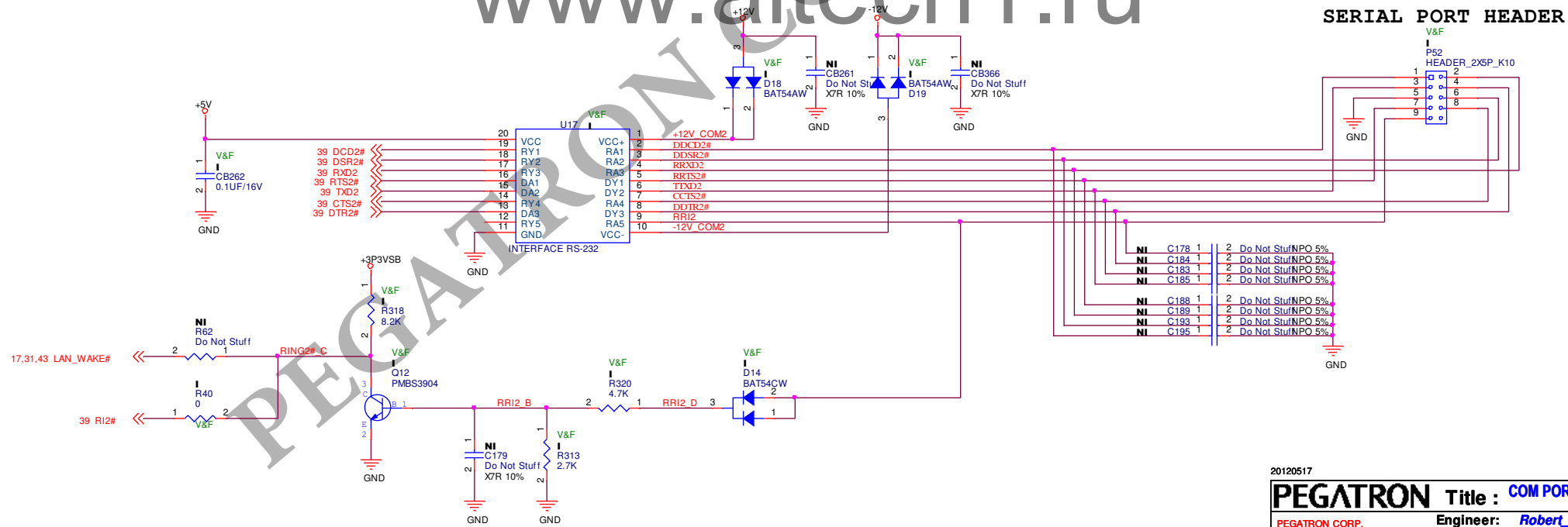


20120517

PEGATRON		Title : PRINTER	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet 42 of 62	



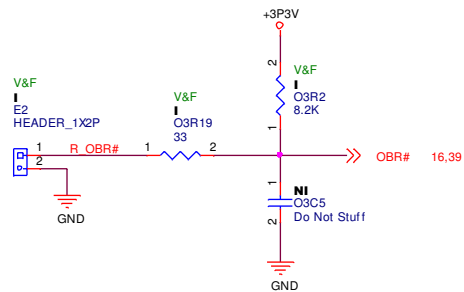
www.aitech1.ru



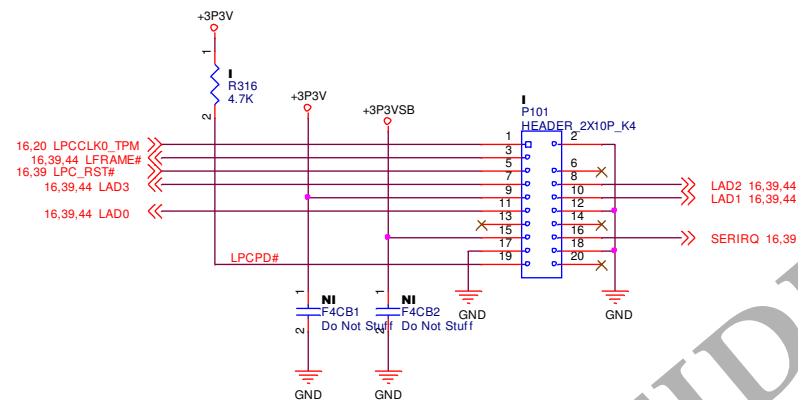
SERIAL PORT HEADER

20120517

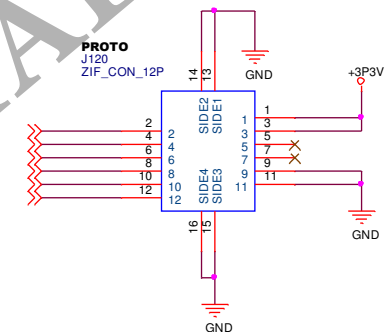
PEGATRON		Title : COM PORT	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012		Sheet 43 of 62	

OBR

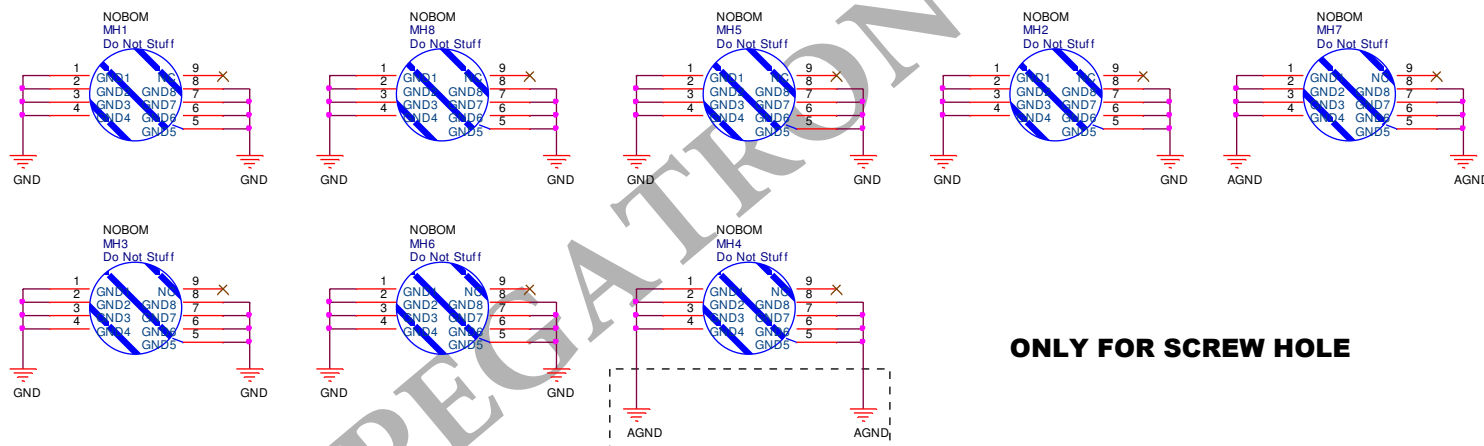
TPM



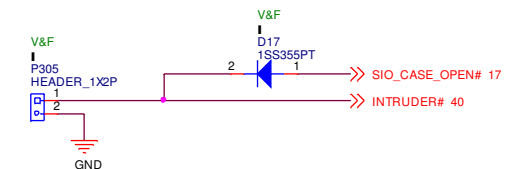
LPC DEBUG



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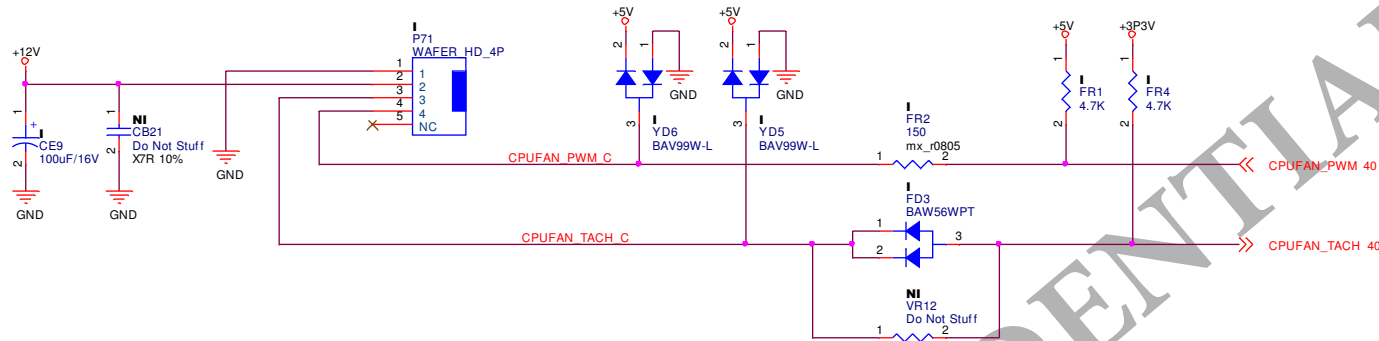


INTRUSION ALARM



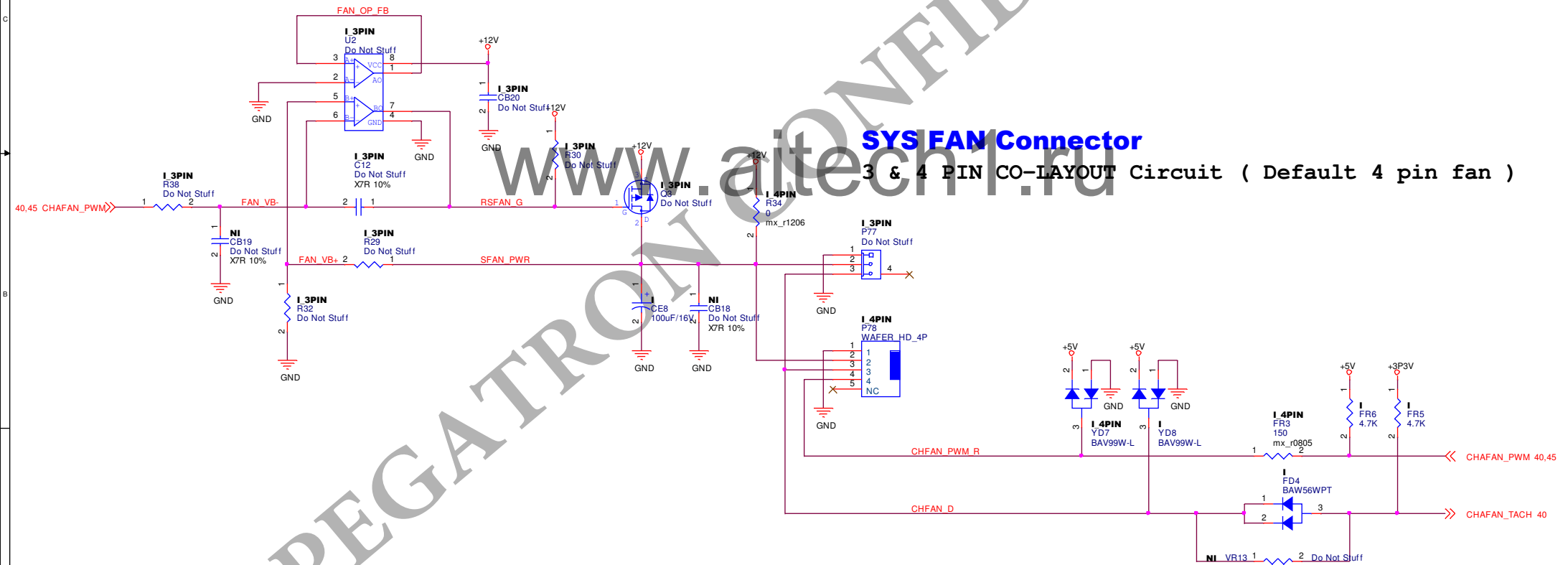
ONLY FOR SCREW HOLE

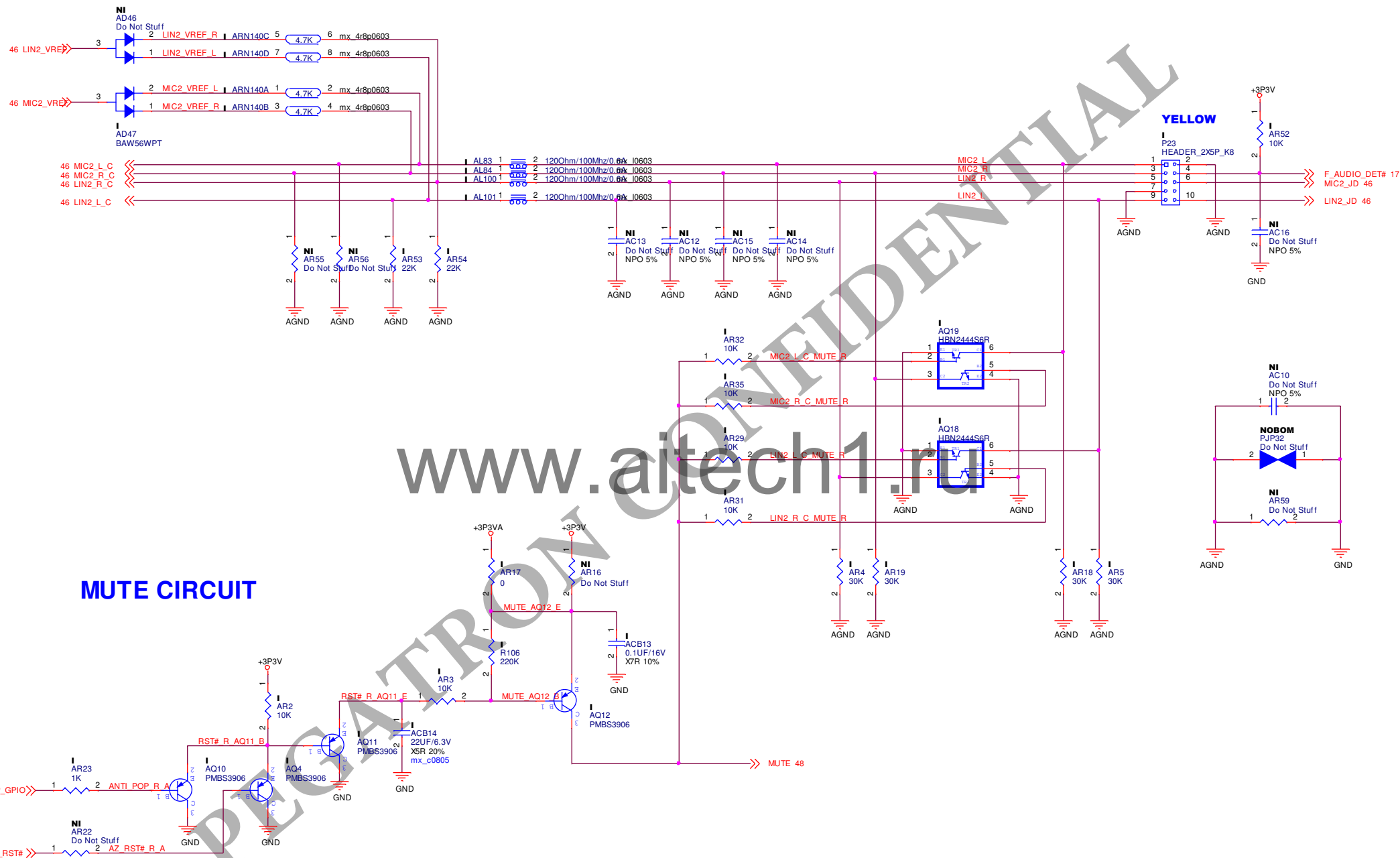
CPU FAN Connector



SYS FAN Connector

3 & 4 PIN CO-LAYOUT Circuit (Default 4 pin fan)





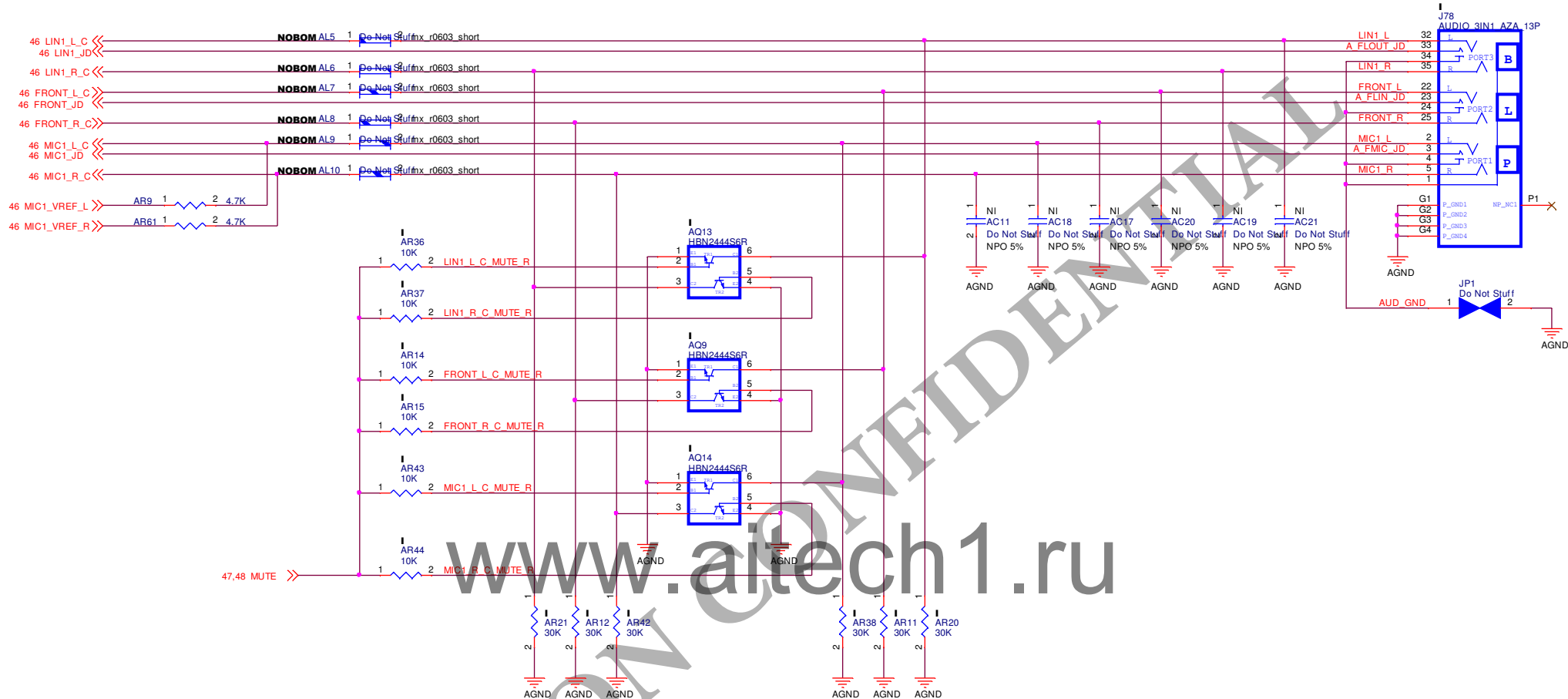
20120517

PEGATRON Title : FRONT AUDIO CONN

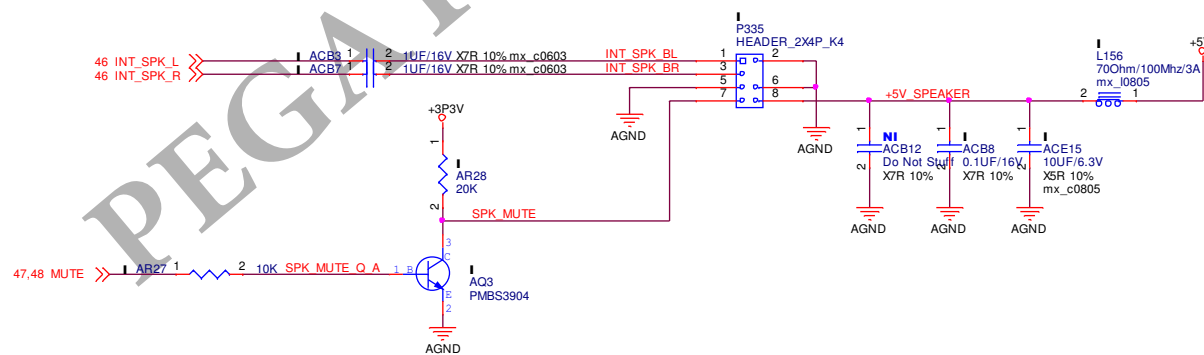
PEGATRON CORP. Engineer: Robert_Teng

Size A3 Project Name AAHD3-VF Rev 1.02

Date: Monday, July 30, 2012 Sheet 47 of 62



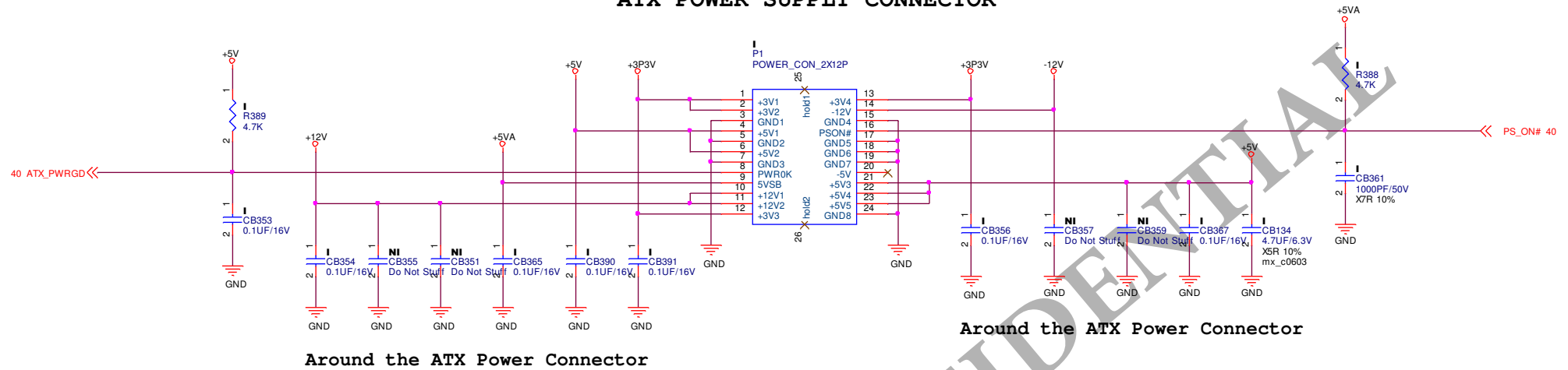
INT_SPK



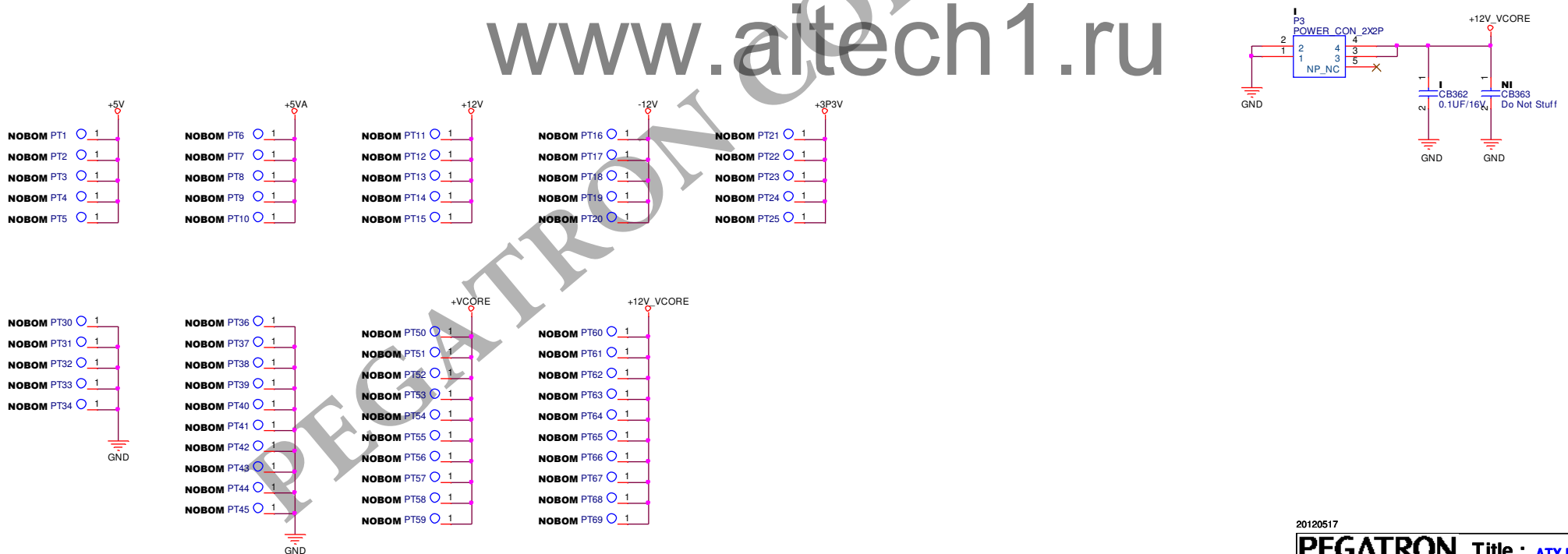
20120517

PEGATRON		Title :REAR AUDIO CONN	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012	Sheet	48	of 62

ATX POWER SUPPLY CONNECTOR



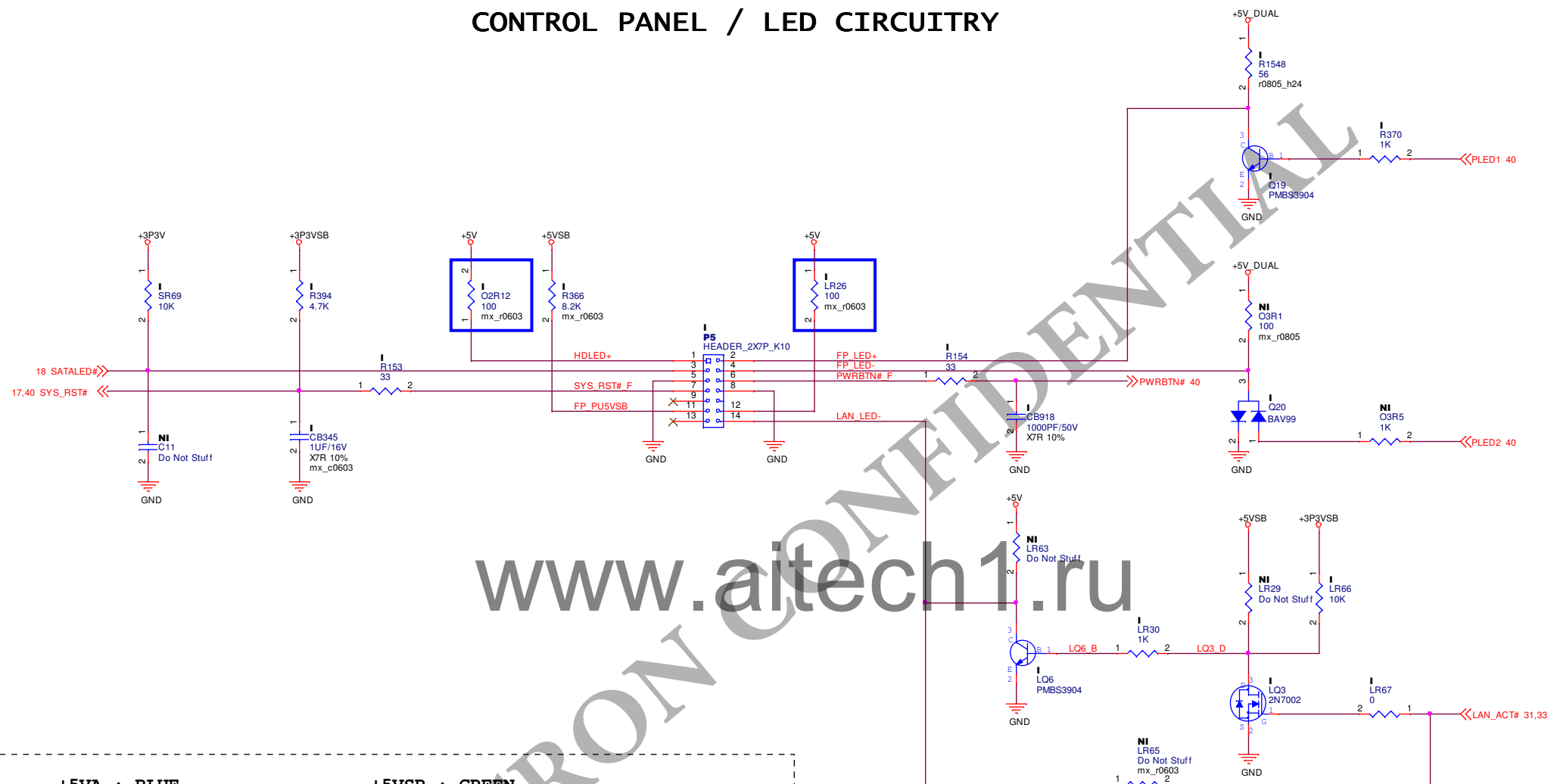
CPU POWER SUPPLY CONNECTOR



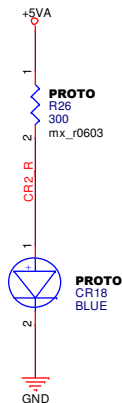
20120517

PEGATRON		Title : ATX POWER	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet 49 of 62	

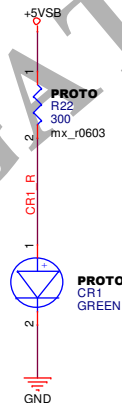
CONTROL PANEL / LED CIRCUITRY



+5VA : BLUE



+5VSB : GREEN



EUP LED

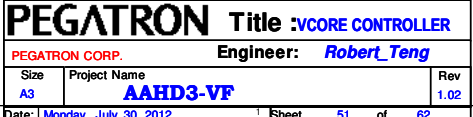
PEGATRON DT-MB RESTRICTED SECRET

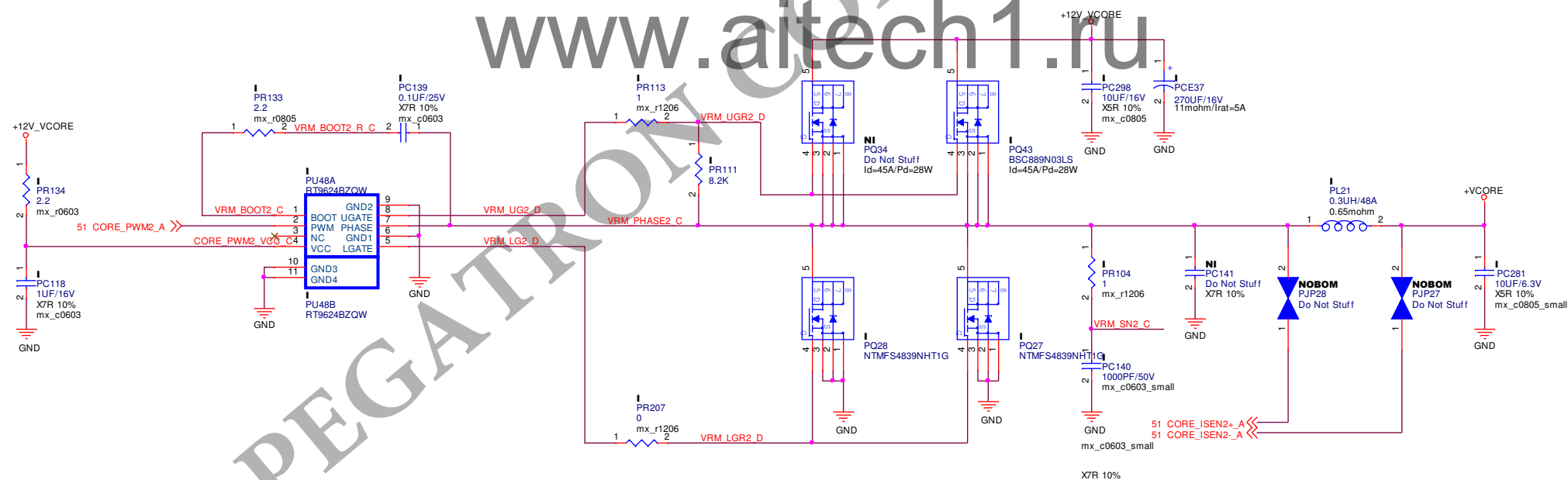
PEGATRON Title :Front Panel

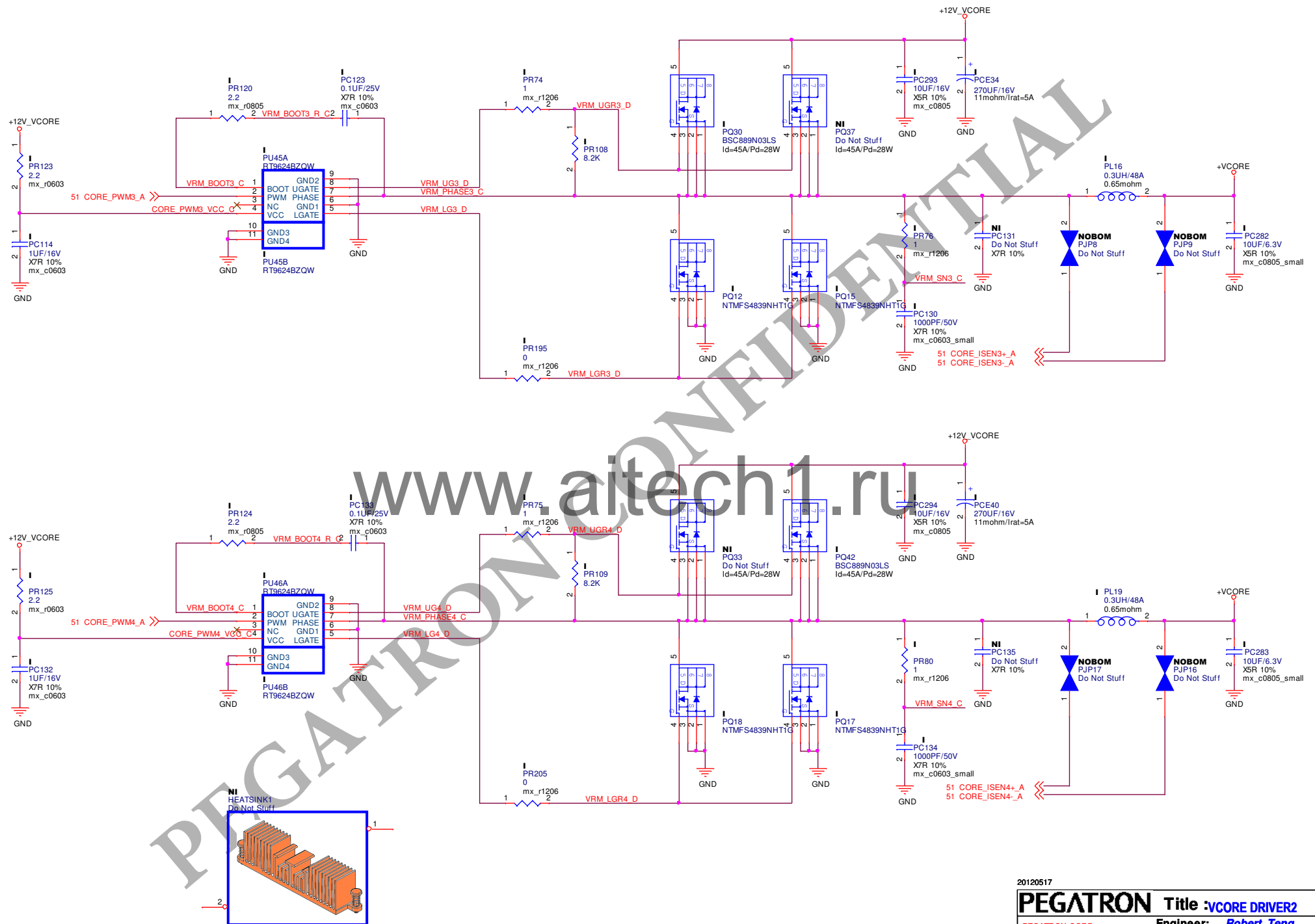
PEGATRON CORP. Engineer: Robert_Teng

Size A3 Project Name AAHD3-VF Rev 1.02

Date: Monday, July 30, 2012 Sheet 50 of 62

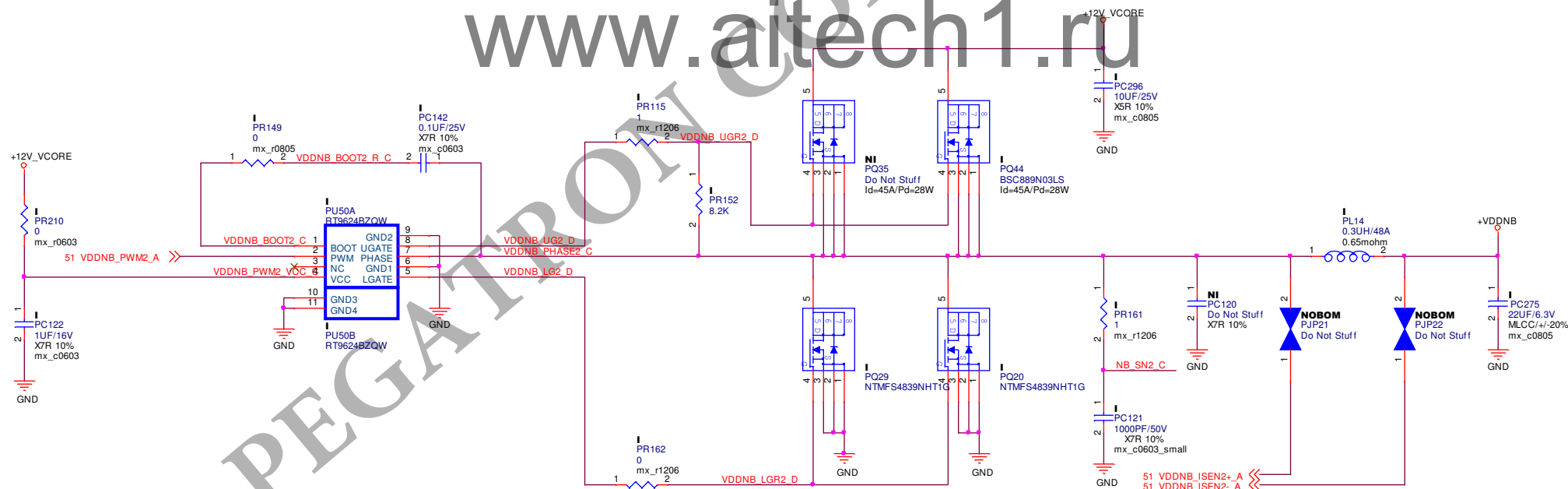
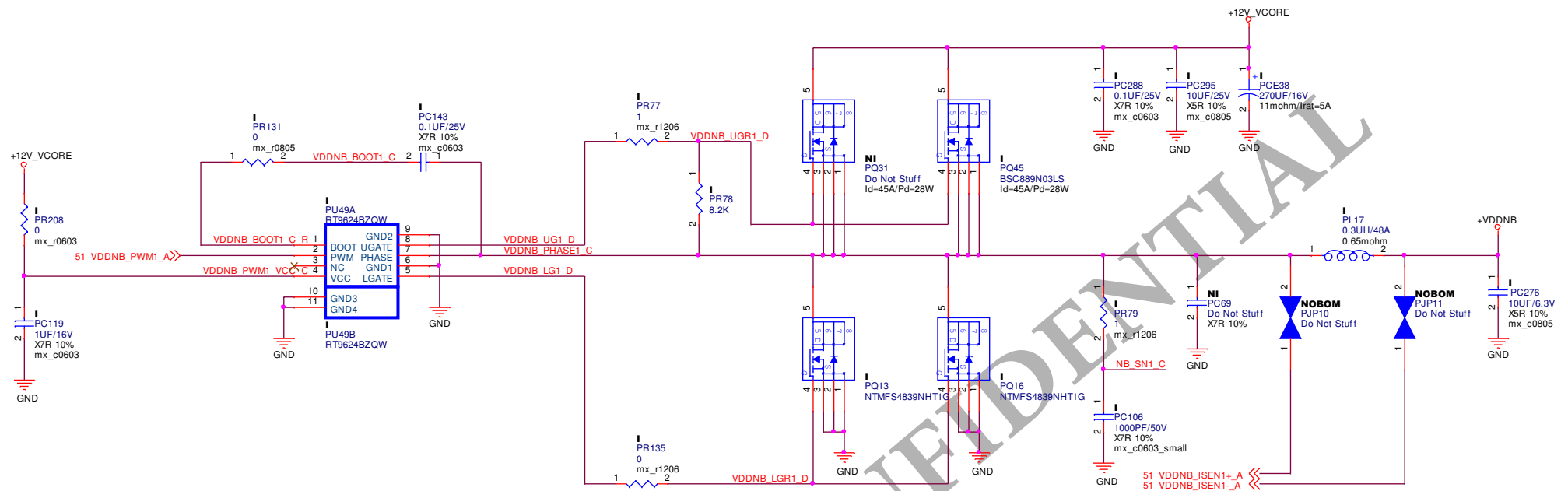






20120517

PEGATRON		Title :VCORE DRIVER2	
PEGATRON CORP.		Engineer: Robert Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012		Sheet 53 of 62	



20120517

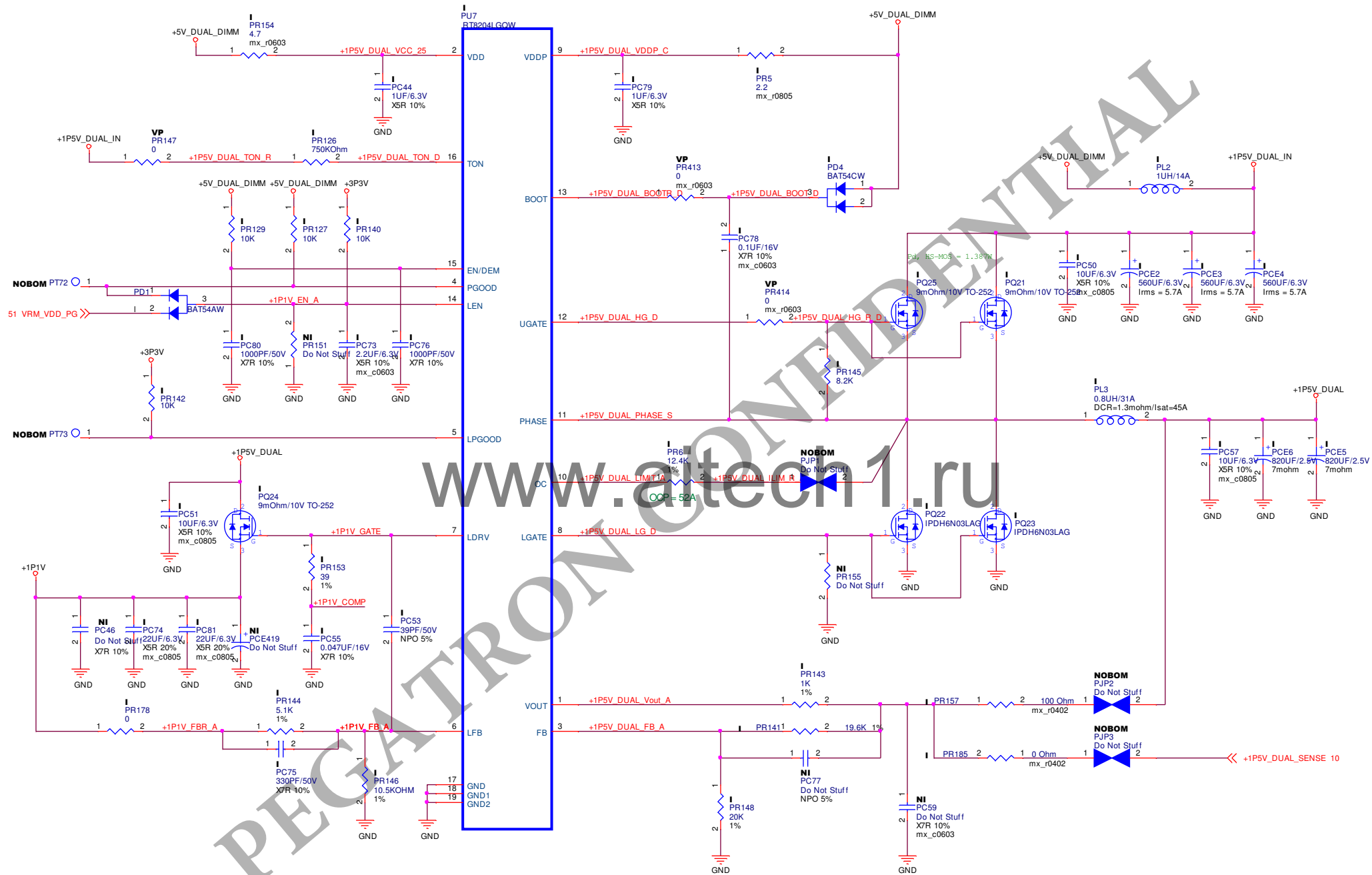
PEGATRON		Title :	VDDNB
PEGATRON CORP.		Engineer:	Robert_Teng
Size	Project Name		Rev
A3	AAHD3-VF		1.02
Date:	Monday, July 30, 2012	Sheet	54 of 62

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20120517

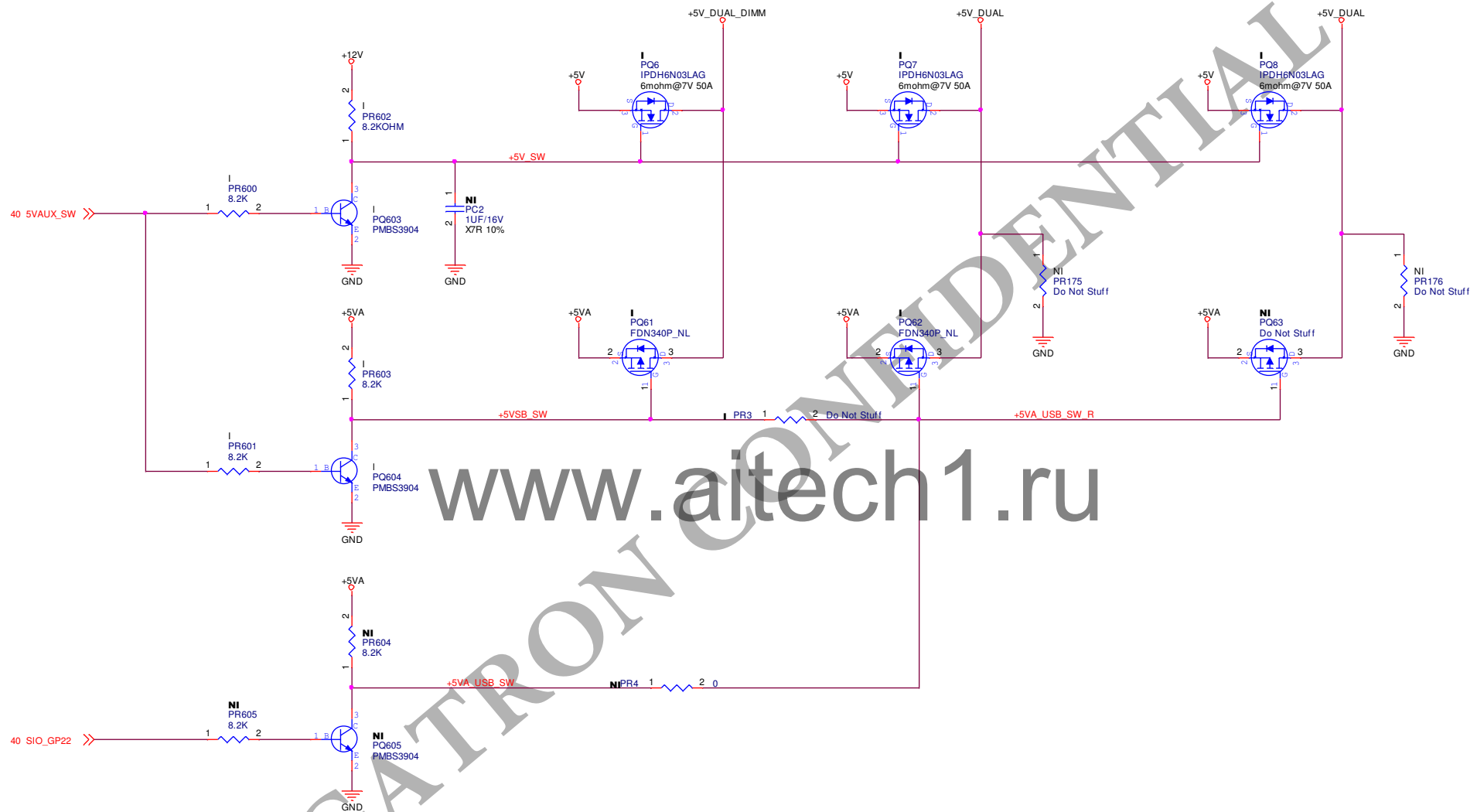
PEGATRON		Title : xxx	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet 55 of 62	

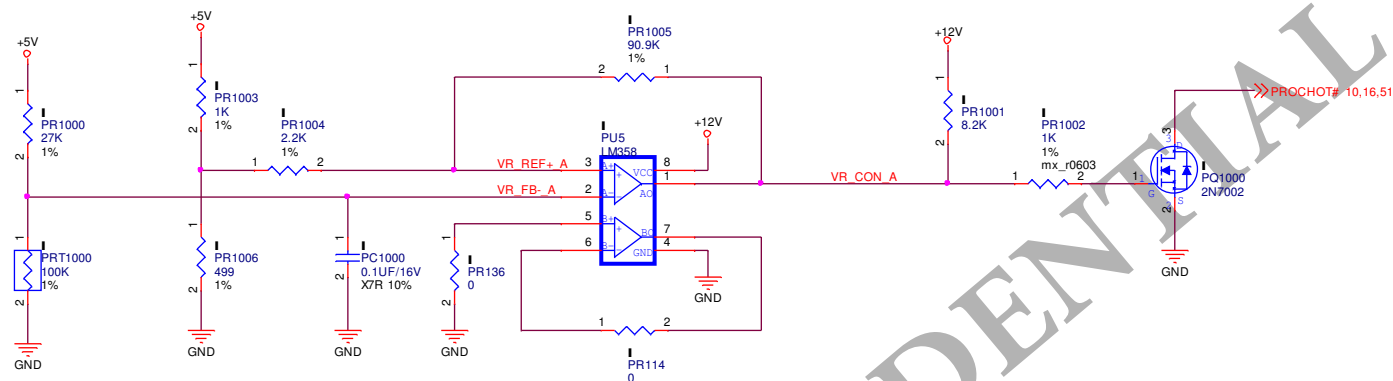


20120517

PEGATRON		Title : +1P5V_DUAL&+1P1V	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet 56 of 62	

+5V_USB(Total = 8.6A)

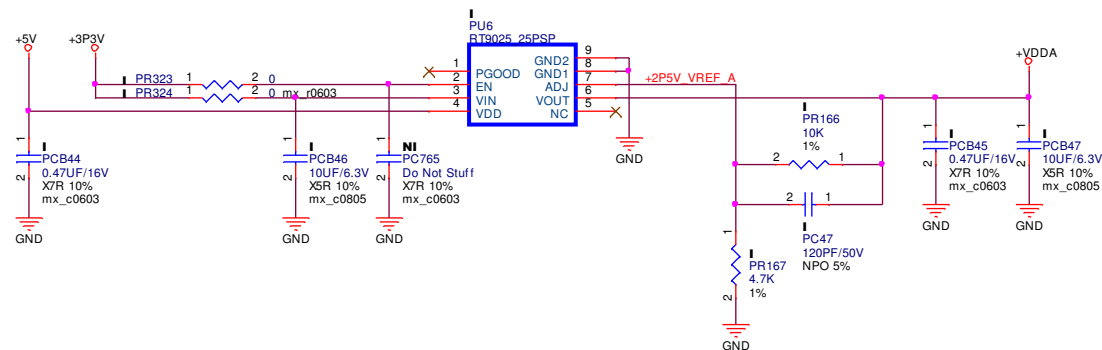
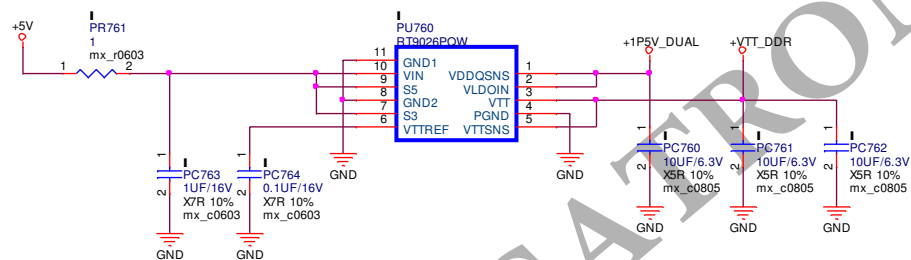




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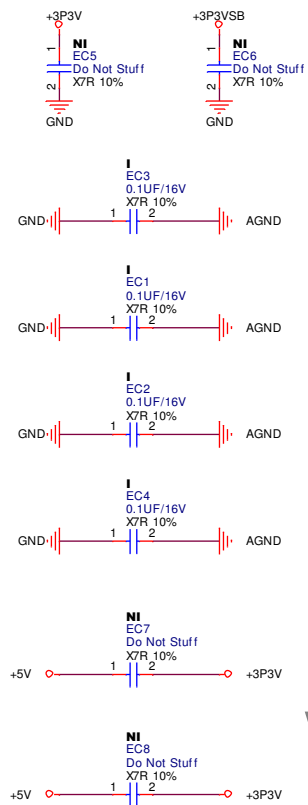
+1P5V_DUAL ==> VTT_DDR(2A)

VDDA: +3P3V =>+2P5V (0.9A)



20120517

PEGATRON		Title: PROCHOT# / VTT_DDR/+2P5V	
PEGATRON CORP.		Engineer: Robert_Teng	
Size	Project Name	Rev	
A3	AAHD3-VF	1.02	
Date: Monday, July 30, 2012	Sheet 58 of 62		



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20120517

PEGATRON		Title :EMI CAP	
PEGATRON CORP.		Engineer: Robert_Teng	
Size A3	Project Name AAHD3-VF	Rev 1.02	
Date: Monday, July 30, 2012		Sheet	62 of 62